

March 16, 2020

**Vista Work Order No. 2000411**

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 February 27, 2020 under your Project Name 'Gasco PDI 000029-02.59'.

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. 2000411**

### **Case Narrative**

#### **Sample Condition on Receipt:**

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

#### **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-5MS GC column.

##### **Holding Times**

These 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 each preparation batch. No analytes were detected in the Method Blanks above 1/2 of the quantification limits. The OPR recoveries were within the method acceptance criteria.

A duplicate analysis was performed on sample ""PDI-017SC-A-02-03-191003". The RPDs were outside of the acceptance criteria for 1,2,3,4,7,8-HxCDD, 1,2,3,6,7,8-HxCDD, 2,3,4,7,8-PeCDF, 1,2,3,4,7,8-HxCDF, 1,2,3,6,7,8-HxCDF, 2,3,4,6,7,8-HxCDF and 1,2,3,4,7,8,9-HpCDF.

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

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# Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2000411-01	PDI-017SC-A-02-03-191003	DUP03-Oct-19 12:08	27-Feb-20 08:43	Amber Glass, 120 mL
2000411-02	PDI-017SC-A-03-04-191003	03-Oct-19 12:08	27-Feb-20 08:43	Amber Glass, 120 mL
2000411-03	PDI-017SC-A-04-05-191003	03-Oct-19 12:08	27-Feb-20 08:43	Amber Glass, 120 mL
2000411-04	PDI-017SC-A-05-06-191003	03-Oct-19 12:08	27-Feb-20 08:43	Amber Glass, 120 mL
2000411-05	PDI-017SC-A-06-07-191003	03-Oct-19 12:08	27-Feb-20 08:43	Amber Glass, 120 mL
2000411-06	PDI-020SC-A-04-05-191008	08-Oct-19 10:37	27-Feb-20 08:43	Amber Glass, 120 mL
2000411-07	PDI-031SC-A-05-06-191017	17-Oct-19 09:04	27-Feb-20 08:43	Amber Glass, 120 mL
2000411-08	PDI-031SC-A-06-07-191017	17-Oct-19 09:04	27-Feb-20 08:43	Amber Glass, 120 mL
2000411-09	PDI-034SC-A-04-05-191022	22-Oct-19 08:26	27-Feb-20 08:43	Amber Glass, 120 mL
2000411-10	PDI-052SC-A-07-08-191015	15-Oct-19 08:41	27-Feb-20 08:43	Amber Glass, 120 mL
2000411-11	PDI-052SC-A-08-09-191015	15-Oct-19 08:41	27-Feb-20 08:43	Amber Glass, 120 mL
2000411-12	PDI-052SC-A-09-10-191015	15-Oct-19 08:41	27-Feb-20 08:43	Amber Glass, 120 mL
2000411-13	PDI-052SC-A-10-11-191015	15-Oct-19 08:41	27-Feb-20 08:43	Amber Glass, 120 mL
2000411-14	PDI-055SC-A-04-05-191015	15-Oct-19 10:51	27-Feb-20 08:43	Amber Glass, 120 mL
2000411-15	PDI-055SC-A-05-06-191015	15-Oct-19 10:51	27-Feb-20 08:43	Amber Glass, 120 mL
2000411-16	PDI-055SC-A-06-07-191015	15-Oct-19 10:51	27-Feb-20 08:43	Amber Glass, 120 mL

## **ANALYTICAL RESULTS**

Sample ID: Method Blank					EPA Method 1613B			
Matrix: Solid Sample Size: 10.0 g		QC Batch: B0C0076 Date Extracted: 06-Mar-2020 6:42		Lab Sample: B0C0076-BLK1 Date Analyzed: 14-Mar-20 14:27 Column: ZB-5MS				
Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0820			IS 13C-2,3,7,8-TCDD	83.8	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0647			13C-1,2,3,7,8-PeCDD	97.2	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0671			13C-1,2,3,4,7,8-HxCDD	84.8	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0697			13C-1,2,3,6,7,8-HxCDD	87.2	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0804			13C-1,2,3,7,8,9-HxCDD	86.9	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND	0.145			13C-1,2,3,4,6,7,8-HpCDD	85.4	23 - 140	
OCDD	0.309			J	13C-OCDD	81.1	17 - 157	
2,3,7,8-TCDF	ND	0.0448			13C-2,3,7,8-TCDF	75.7	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0436			13C-1,2,3,7,8-PeCDF	86.3	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0392			13C-2,3,4,7,8-PeCDF	88.7	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0499			13C-1,2,3,4,7,8-HxCDF	87.7	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0497			13C-1,2,3,6,7,8-HxCDF	85.9	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0505			13C-2,3,4,6,7,8-HxCDF	86.5	28 - 136	
1,2,3,7,8,9-HxCDF	ND		0.0710		13C-1,2,3,7,8,9-HxCDF	86.5	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0626			13C-1,2,3,4,6,7,8-HpCDF	82.0	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0835			13C-1,2,3,4,7,8,9-HpCDF	80.4	26 - 138	
OCDF	ND		0.130		13C-OCDF	79.2	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	80.4	35 - 197	
					<b>Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)</b>			
					TEQMinWHO2005Dioxin 0.000093			
<b>TOTALS</b>								
Total TCDD	ND	0.0820						
Total PeCDD	ND	0.0647						
Total HxCDD	ND	0.0804						
Total HpCDD	ND	0.145						
Total TCDF	ND	0.0448						
Total PeCDF	ND	0.0436						
Total HxCDF	ND		0.0710					
Total HpCDF	ND	0.0835						

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: B0C0076	Lab Sample: B0C0076-BS1		Date Analyzed: 14-Mar-20 12:06 Column: ZB-5MS			
Sample Size: 10.0 g	Date Extracted: 06-Mar-2020 6:42						
Analyte	Amt Found (pg/g)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL
2,3,7,8-TCDD	17.3	20.0	86.7	67 - 158	IS 13C-2,3,7,8-TCDD	79.0	20 - 175
1,2,3,7,8-PeCDD	91.0	100	91.0	70 - 142	13C-1,2,3,7,8-PeCDD	98.3	21 - 227
1,2,3,4,7,8-HxCDD	88.0	100	88.0	70 - 164	13C-1,2,3,4,7,8-HxCDD	86.4	21 - 193
1,2,3,6,7,8-HxCDD	89.4	100	89.4	76 - 134	13C-1,2,3,6,7,8-HxCDD	85.0	25 - 163
1,2,3,7,8,9-HxCDD	91.0	100	91.0	64 - 162	13C-1,2,3,7,8,9-HxCDD	85.4	21 - 193
1,2,3,4,6,7,8-HpCDD	88.0	100	88.0	70 - 140	13C-1,2,3,4,6,7,8-HpCDD	81.7	26 - 166
OCDD	172	200	86.1	78 - 144	13C-OCDD	76.8	13 - 199
2,3,7,8-TCDF	16.7	20.0	83.4	75 - 158	13C-2,3,7,8-TCDF	70.1	22 - 152
1,2,3,7,8-PeCDF	89.9	100	89.9	80 - 134	13C-1,2,3,7,8-PeCDF	86.3	21 - 192
2,3,4,7,8-PeCDF	89.2	100	89.2	68 - 160	13C-2,3,4,7,8-PeCDF	90.3	13 - 328
1,2,3,4,7,8-HxCDF	90.0	100	90.0	72 - 134	13C-1,2,3,4,7,8-HxCDF	85.9	19 - 202
1,2,3,6,7,8-HxCDF	91.9	100	91.9	84 - 130	13C-1,2,3,6,7,8-HxCDF	84.4	21 - 159
2,3,4,6,7,8-HxCDF	89.1	100	89.1	70 - 156	13C-2,3,4,6,7,8-HxCDF	86.0	22 - 176
1,2,3,7,8,9-HxCDF	87.3	100	87.3	78 - 130	13C-1,2,3,7,8,9-HxCDF	82.6	17 - 205
1,2,3,4,6,7,8-HpCDF	89.3	100	89.3	82 - 122	13C-1,2,3,4,6,7,8-HpCDF	81.9	21 - 158
1,2,3,4,7,8,9-HpCDF	91.6	100	91.6	78 - 138	13C-1,2,3,4,7,8,9-HpCDF	77.2	20 - 186
OCDF	177	200	88.3	63 - 170	13C-OCDF	78.1	13 - 199
					CRS 37Cl-2,3,7,8-TCDD	76.2	31 - 191

LCL-UCL - Lower control limit - upper control limit

Sample ID: Method Blank					EPA Method 1613B				
Matrix: Solid Sample Size: 10.0 g		QC Batch: B0C0168 Date Extracted: 13-Mar-2020 10:18		Lab Sample: B0C0168-BLK1 Date Analyzed: 14-Mar-20 15:15 Column: ZB-5MS					
Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers	
2,3,7,8-TCDD	ND	0.0965			IS 13C-2,3,7,8-TCDD	77.4	25 - 164		
1,2,3,7,8-PeCDD	ND	0.0771			13C-1,2,3,7,8-PeCDD	89.8	25 - 181		
1,2,3,4,7,8-HxCDD	ND	0.0582			13C-1,2,3,4,7,8-HxCDD	73.4	32 - 141		
1,2,3,6,7,8-HxCDD	ND	0.0582			13C-1,2,3,6,7,8-HxCDD	72.9	28 - 130		
1,2,3,7,8,9-HxCDD	ND	0.0681			13C-1,2,3,7,8,9-HxCDD	73.4	32 - 141		
1,2,3,4,6,7,8-HpCDD	ND	0.120			13C-1,2,3,4,6,7,8-HpCDD	68.4	23 - 140		
OCDD	ND	0.117			13C-OCDD	80.6	17 - 157		
2,3,7,8-TCDF	ND	0.0519			13C-2,3,7,8-TCDF	75.4	24 - 169		
1,2,3,7,8-PeCDF	ND	0.0482			13C-1,2,3,7,8-PeCDF	79.3	24 - 185		
2,3,4,7,8-PeCDF	ND	0.0442			13C-2,3,4,7,8-PeCDF	85.7	21 - 178		
1,2,3,4,7,8-HxCDF	ND	0.0397			13C-1,2,3,4,7,8-HxCDF	76.2	26 - 152		
1,2,3,6,7,8-HxCDF	ND	0.0409			13C-1,2,3,6,7,8-HxCDF	73.2	26 - 123		
2,3,4,6,7,8-HxCDF	ND	0.0419			13C-2,3,4,6,7,8-HxCDF	72.9	28 - 136		
1,2,3,7,8,9-HxCDF	ND		0.0326		13C-1,2,3,7,8,9-HxCDF	73.3	29 - 147		
1,2,3,4,6,7,8-HpCDF	ND	0.0515			13C-1,2,3,4,6,7,8-HpCDF	69.2	28 - 143		
1,2,3,4,7,8,9-HpCDF	ND	0.0689			13C-1,2,3,4,7,8,9-HpCDF	68.8	26 - 138		
OCDF	ND	0.0943			13C-OCDF	71.9	17 - 157		
					CRS 37Cl-2,3,7,8-TCDD	94.0	35 - 197		
					<b>Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)</b>				
					TEQMinWHO2005Dioxin		0.00		
<b>TOTALS</b>									
Total TCDD	ND	0.0965							
Total PeCDD	ND	0.0771							
Total HxCDD	ND	0.0681							
Total HpCDD	ND	0.120							
Total TCDF	ND	0.0519							
Total PeCDF	ND	0.0482							
Total HxCDF	ND		0.0589						
Total HpCDF	ND	0.0689							

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 Sample Size: 10.0 g		QC Batch: B0C0168 Date Extracted: 13-Mar-2020 10:18		Lab Sample: B0C0168-BS1 Date Analyzed: 14-Mar-20 12:52 Column: ZB-5MS			
Analyte	Amt Found (pg/g)	Spike Amt	%R	Limits	Labeled Standard	%R	LCL-UCL
2,3,7,8-TCDD	18.5	20.0	92.6	67 - 158	IS 13C-2,3,7,8-TCDD	103	20 - 175
1,2,3,7,8-PeCDD	94.3	100	94.3	70 - 142	13C-1,2,3,7,8-PeCDD	118	21 - 227
1,2,3,4,7,8-HxCDD	93.6	100	93.6	70 - 164	13C-1,2,3,4,7,8-HxCDD	93.5	21 - 193
1,2,3,6,7,8-HxCDD	95.8	100	95.8	76 - 134	13C-1,2,3,6,7,8-HxCDD	90.7	25 - 163
1,2,3,7,8,9-HxCDD	96.2	100	96.2	64 - 162	13C-1,2,3,7,8,9-HxCDD	89.0	21 - 193
1,2,3,4,6,7,8-HpCDD	94.8	100	94.8	70 - 140	13C-1,2,3,4,6,7,8-HpCDD	86.3	26 - 166
OCDD	185	200	92.6	78 - 144	13C-OCDD	98.7	13 - 199
2,3,7,8-TCDF	18.4	20.0	91.9	75 - 158	13C-2,3,7,8-TCDF	94.7	22 - 152
1,2,3,7,8-PeCDF	94.2	100	94.2	80 - 134	13C-1,2,3,7,8-PeCDF	106	21 - 192
2,3,4,7,8-PeCDF	94.9	100	94.9	68 - 160	13C-2,3,4,7,8-PeCDF	109	13 - 328
1,2,3,4,7,8-HxCDF	96.3	100	96.3	72 - 134	13C-1,2,3,4,7,8-HxCDF	93.3	19 - 202
1,2,3,6,7,8-HxCDF	96.6	100	96.6	84 - 130	13C-1,2,3,6,7,8-HxCDF	92.0	21 - 159
2,3,4,6,7,8-HxCDF	95.6	100	95.6	70 - 156	13C-2,3,4,6,7,8-HxCDF	90.4	22 - 176
1,2,3,7,8,9-HxCDF	94.4	100	94.4	78 - 130	13C-1,2,3,7,8,9-HxCDF	88.9	17 - 205
1,2,3,4,6,7,8-HpCDF	96.2	100	96.2	82 - 122	13C-1,2,3,4,6,7,8-HpCDF	82.3	21 - 158
1,2,3,4,7,8,9-HpCDF	95.0	100	95.0	78 - 138	13C-1,2,3,4,7,8,9-HpCDF	86.9	20 - 186
OCDF	188	200	93.9	63 - 170	13C-OCDF	94.0	13 - 199
					CRS 37Cl-2,3,7,8-TCDD	99.0	31 - 191

LCL-UCL - Lower control limit - upper control limit

**Sample ID: PDI-017SC-A-02-03-191003** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000411-01      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 11.5 g	QC Batch: B0C0076      Date Extracted: 06-Mar-2020 6:42
Date Collected: 03-Oct-2019 12:08	% Solids: 87.7	Date Analyzed : 14-Mar-20 16:50      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0851			IS 13C-2,3,7,8-TCDD	85.3	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0963			13C-1,2,3,7,8-PeCDD	85.6	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0518			13C-1,2,3,4,7,8-HxCDD	67.8	32 - 141	
1,2,3,6,7,8-HxCDD	0.179			J	13C-1,2,3,6,7,8-HxCDD	63.3	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0673			13C-1,2,3,7,8,9-HxCDD	61.0	32 - 141	
1,2,3,4,6,7,8-HpCDD	4.38				13C-1,2,3,4,6,7,8-HpCDD	52.7	23 - 140	
OCDD	65.5			B	13C-OCDD	45.5	17 - 157	
2,3,7,8-TCDF	ND	0.0773			13C-2,3,7,8-TCDF	77.1	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0949			13C-1,2,3,7,8-PeCDF	79.6	24 - 185	
2,3,4,7,8-PeCDF	0.228			J	13C-2,3,4,7,8-PeCDF	80.5	21 - 178	
1,2,3,4,7,8-HxCDF	0.120			J	13C-1,2,3,4,7,8-HxCDF	69.0	26 - 152	
1,2,3,6,7,8-HxCDF	0.218			J	13C-1,2,3,6,7,8-HxCDF	66.1	26 - 123	
2,3,4,6,7,8-HxCDF	0.186			J	13C-2,3,4,6,7,8-HxCDF	62.9	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0959			13C-1,2,3,7,8,9-HxCDF	61.7	29 - 147	
1,2,3,4,6,7,8-HpCDF	4.59				13C-1,2,3,4,6,7,8-HpCDF	53.6	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.419			13C-1,2,3,4,7,8,9-HpCDF	52.3	26 - 138	
OCDF	3.62			J	13C-OCDF	47.5	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	81.2	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.249

<b>TOTALS</b>				
Total TCDD	ND		0.0719	
Total PeCDD	0.363			
Total HxCDD	2.01			
Total HpCDD	11.3			
Total TCDF	1.43		1.54	
Total PeCDF	2.69			
Total HxCDF	4.53			
Total HpCDF	9.52			

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: Duplicate** **EPA Method 1613B**

Source Client ID: PDI-017SC-A-02-03-191003	QC Batch: B0C0076	Lab Sample: B0C0076-DUP1
Source LabNumber: 2000411-01	Date Extracted: 06-Mar-2020 6:42	Date Analyzed: 14-Mar-20 17:38 Column: ZB-5MS
Matrix: Solid		
Sample Size: 11.6 g		

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0709			IS 13C-2,3,7,8-TCDD	81.0	25 - 164	
1,2,3,7,8-PeCDD	ND		0.0785		13C-1,2,3,7,8-PeCDD	84.6	25 - 181	
1,2,3,4,7,8-HxCDD	0.192			J	13C-1,2,3,4,7,8-HxCDD	69.5	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.107			13C-1,2,3,6,7,8-HxCDD	66.7	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.130			13C-1,2,3,7,8,9-HxCDD	65.9	32 - 141	
1,2,3,4,6,7,8-HpCDD	5.17				13C-1,2,3,4,6,7,8-HpCDD	59.0	23 - 140	
OCDD	75.8			B	13C-OCDD	58.2	17 - 157	
2,3,7,8-TCDF	ND	0.0623			13C-2,3,7,8-TCDF	76.4	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0612			13C-1,2,3,7,8-PeCDF	77.7	24 - 185	
2,3,4,7,8-PeCDF	ND		0.179		13C-2,3,4,7,8-PeCDF	78.6	21 - 178	
1,2,3,4,7,8-HxCDF	ND		0.0946		13C-1,2,3,4,7,8-HxCDF	73.1	26 - 152	
1,2,3,6,7,8-HxCDF	0.130			J	13C-1,2,3,6,7,8-HxCDF	70.3	26 - 123	
2,3,4,6,7,8-HxCDF	ND		0.141		13C-2,3,4,6,7,8-HxCDF	67.4	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0845			13C-1,2,3,7,8,9-HxCDF	68.4	29 - 147	
1,2,3,4,6,7,8-HpCDF	3.08				13C-1,2,3,4,6,7,8-HpCDF	59.5	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.118			13C-1,2,3,4,7,8,9-HpCDF	62.4	26 - 138	
OCDF	4.36			J	13C-OCDF	56.6	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	73.4	35 - 197	

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

TEQMinWHO2005Dioxin 0.139

<b>TOTALS</b>								
Total TCDD	ND	0.0709						
Total PeCDD	0.188		0.429					
Total HxCDD	2.06							
Total HpCDD	13.4							
Total TCDF	1.44							
Total PeCDF	2.10		2.58					
Total HxCDF	2.87		3.11					
Total HpCDF	7.06							

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.

Sample ID: Duplicate					EPA Method 1613B				
Source Client ID: PDI-017SC-A-02-03-191003					Duplicate Lab Sample: B0C0076-DUP1				
Source LabNumber: 2000411-01									
Matrix: Solid									
Analyte	Dup Conc. (pg/g )	Source Conc.	RPD	RPD Limits	Labeled Standard	Dup %R	Source %R	LCL-UCL	
2,3,7,8-TCDD	ND	ND	NA	25	IS 13C-2,3,7,8-TCDD	81.0	85.3	25 - 164	
1,2,3,7,8-PeCDD	ND	ND	NA	25	13C-1,2,3,7,8-PeCDD	84.6	85.6	25 - 181	
1,2,3,4,7,8-HxCDD	0.192	ND	#	25	13C-1,2,3,4,7,8-HxCDD	69.5	67.8	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.179	#	25	13C-1,2,3,6,7,8-HxCDD	66.7	63.3	28 - 130	
1,2,3,7,8,9-HxCDD	ND	ND	NA	25	13C-1,2,3,7,8,9-HxCDD	65.9	61.0	32 - 141	
1,2,3,4,6,7,8-HpCDD	5.17	4.38	16.5	25	13C-1,2,3,4,6,7,8-HpCDD	59.0	52.7	23 - 140	
OCDD	75.8	65.5	14.6	25	13C-OCDD	58.2	45.5	17 - 157	
2,3,7,8-TCDF	ND	ND	NA	25	13C-2,3,7,8-TCDF	76.4	77.1	24 - 169	
1,2,3,7,8-PeCDF	ND	ND	NA	25	13C-1,2,3,7,8-PeCDF	77.7	79.6	24 - 185	
2,3,4,7,8-PeCDF	ND	0.228	#	25	13C-2,3,4,7,8-PeCDF	78.6	80.5	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.120	#	25	13C-1,2,3,4,7,8-HxCDF	73.1	69.0	26 - 152	
1,2,3,6,7,8-HxCDF	0.130	0.218	51.0	25	13C-1,2,3,6,7,8-HxCDF	70.3	66.1	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.186	#	25	13C-2,3,4,6,7,8-HxCDF	67.4	62.9	28 - 136	
1,2,3,7,8,9-HxCDF	ND	ND	NA	25	13C-1,2,3,7,8,9-HxCDF	68.4	61.7	29 - 147	
1,2,3,4,6,7,8-HpCDF	3.08	4.59	39.3	25	13C-1,2,3,4,6,7,8-HpCDF	59.5	53.6	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	ND	NA	25	13C-1,2,3,4,7,8,9-HpCDF	62.4	52.3	26 - 138	
OCDF	4.36	3.62	18.6	25	13C-OCDF	56.6	47.5	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	73.4	81.2	35 - 197	

LCL-UCL - Lower control limit - upper control limit  
The results are reported in dry weight.  
The sample size is reported in wet weight. Results reported to the MDL.

**Sample ID: PDI-017SC-A-03-04-191003** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000411-02      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 12.7 g	QC Batch: B0C0076      Date Extracted: 06-Mar-2020 6:42
Date Collected: 03-Oct-2019 12:08	% Solids: 79.1	Date Analyzed : 14-Mar-20 18:25      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0855			IS 13C-2,3,7,8-TCDD	98.9	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0682			13C-1,2,3,7,8-PeCDD	106	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0647			13C-1,2,3,4,7,8-HxCDD	89.1	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0654			13C-1,2,3,6,7,8-HxCDD	84.2	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0742			13C-1,2,3,7,8,9-HxCDD	84.0	32 - 141	
1,2,3,4,6,7,8-HpCDD	2.27			J	13C-1,2,3,4,6,7,8-HpCDD	77.9	23 - 140	
OCDD	31.9			B	13C-OCDD	89.7	17 - 157	
2,3,7,8-TCDF	ND	0.0683			13C-2,3,7,8-TCDF	91.5	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0740			13C-1,2,3,7,8-PeCDF	94.9	24 - 185	
2,3,4,7,8-PeCDF	ND		0.0458		13C-2,3,4,7,8-PeCDF	98.0	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0532			13C-1,2,3,4,7,8-HxCDF	90.9	26 - 152	
1,2,3,6,7,8-HxCDF	ND		0.156		13C-1,2,3,6,7,8-HxCDF	88.7	26 - 123	
2,3,4,6,7,8-HxCDF	0.117			J	13C-2,3,4,6,7,8-HxCDF	85.8	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0726			13C-1,2,3,7,8,9-HxCDF	86.4	29 - 147	
1,2,3,4,6,7,8-HpCDF	1.49			J	13C-1,2,3,4,6,7,8-HpCDF	78.5	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0776			13C-1,2,3,4,7,8,9-HpCDF	79.6	26 - 138	
OCDF	0.802			J	13C-OCDF	84.2	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	94.2	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.0591

<b>TOTALS</b>								
Total TCDD	ND	0.0855						
Total PeCDD	ND		0.0858					
Total HxCDD	1.09							
Total HpCDD	6.18							
Total TCDF	1.13							
Total PeCDF	1.87		1.92					
Total HxCDF	2.06		2.21					
Total HpCDF	3.07							

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: PDI-017SC-A-04-05-191003** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000411-03      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 12.0 g	QC Batch: B0C0076      Date Extracted: 06-Mar-2020 6:42
Date Collected: 03-Oct-2019 12:08	% Solids: 83.6	Date Analyzed: 14-Mar-20 19:13      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0765			IS 13C-2,3,7,8-TCDD	96.8	25 - 164	
1,2,3,7,8-PeCDD	ND	0.101			13C-1,2,3,7,8-PeCDD	103	25 - 181	
1,2,3,4,7,8-HxCDD	0.0447			J	13C-1,2,3,4,7,8-HxCDD	86.1	32 - 141	
1,2,3,6,7,8-HxCDD	0.215			J	13C-1,2,3,6,7,8-HxCDD	82.5	28 - 130	
1,2,3,7,8,9-HxCDD	0.173			J	13C-1,2,3,7,8,9-HxCDD	79.3	32 - 141	
1,2,3,4,6,7,8-HpCDD	5.59				13C-1,2,3,4,6,7,8-HpCDD	75.1	23 - 140	
OCDD	75.7			B	13C-OCDD	79.7	17 - 157	
2,3,7,8-TCDF	ND	0.0951			13C-2,3,7,8-TCDF	88.0	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0705			13C-1,2,3,7,8-PeCDF	91.5	24 - 185	
2,3,4,7,8-PeCDF	0.660			J	13C-2,3,4,7,8-PeCDF	92.9	21 - 178	
1,2,3,4,7,8-HxCDF	ND		0.111		13C-1,2,3,4,7,8-HxCDF	88.9	26 - 152	
1,2,3,6,7,8-HxCDF	0.683			J	13C-1,2,3,6,7,8-HxCDF	86.2	26 - 123	
2,3,4,6,7,8-HxCDF	0.525			J	13C-2,3,4,6,7,8-HxCDF	83.3	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0832			13C-1,2,3,7,8,9-HxCDF	80.5	29 - 147	
1,2,3,4,6,7,8-HpCDF	2.96				13C-1,2,3,4,6,7,8-HpCDF	76.0	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0737			13C-1,2,3,4,7,8,9-HpCDF	77.3	26 - 138	
OCDF	1.94			J	13C-OCDF	77.2	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	88.0	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.471

<b>TOTALS</b>				
Total TCDD	0.153			
Total PeCDD	0.112	0.306		
Total HxCDD	3.07			
Total HpCDD	15.1			
Total TCDF	6.83	7.00		
Total PeCDF	14.6			
Total HxCDF	8.06	8.17		
Total HpCDF	6.75			

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: PDI-017SC-A-05-06-191003** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000411-04      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 13.9 g	QC Batch: B0C0076      Date Extracted: 06-Mar-2020 6:42
Date Collected: 03-Oct-2019 12:08	% Solids: 72.0	Date Analyzed : 14-Mar-20 20:00      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0877			IS 13C-2,3,7,8-TCDD	101	25 - 164	
1,2,3,7,8-PeCDD	0.937			J	13C-1,2,3,7,8-PeCDD	104	25 - 181	
1,2,3,4,7,8-HxCDD	0.560			J	13C-1,2,3,4,7,8-HxCDD	87.8	32 - 141	
1,2,3,6,7,8-HxCDD	6.76				13C-1,2,3,6,7,8-HxCDD	85.0	28 - 130	
1,2,3,7,8,9-HxCDD	2.54				13C-1,2,3,7,8,9-HxCDD	86.8	32 - 141	
1,2,3,4,6,7,8-HpCDD	50.7				13C-1,2,3,4,6,7,8-HpCDD	85.7	23 - 140	
OCDD	815			B	13C-OCDD	90.6	17 - 157	
2,3,7,8-TCDF	0.307			J	13C-2,3,7,8-TCDF	94.5	24 - 169	
1,2,3,7,8-PeCDF	0.851			J	13C-1,2,3,7,8-PeCDF	94.8	24 - 185	
2,3,4,7,8-PeCDF	4.43				13C-2,3,4,7,8-PeCDF	94.8	21 - 178	
1,2,3,4,7,8-HxCDF	5.71				13C-1,2,3,4,7,8-HxCDF	94.8	26 - 152	
1,2,3,6,7,8-HxCDF	13.7				13C-1,2,3,6,7,8-HxCDF	91.3	26 - 123	
2,3,4,6,7,8-HxCDF	9.21				13C-2,3,4,6,7,8-HxCDF	85.8	28 - 136	
1,2,3,7,8,9-HxCDF	0.411			J	13C-1,2,3,7,8,9-HxCDF	87.9	29 - 147	
1,2,3,4,6,7,8-HpCDF	492				13C-1,2,3,4,6,7,8-HpCDF	89.0	28 - 143	
1,2,3,4,7,8,9-HpCDF	2.62				13C-1,2,3,4,7,8,9-HpCDF	85.9	26 - 138	
OCDF	156				13C-OCDF	84.8	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	92.2	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      12.0

<b>TOTALS</b>			
Total TCDD	1.61		
Total PeCDD	10.7	11.5	
Total HxCDD	63.6		
Total HpCDD	126		
Total TCDF	31.6	32.2	
Total PeCDF	115		
Total HxCDF	301		
Total HpCDF	813		

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: PDI-017SC-A-06-07-191003** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000411-05      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 13.5 g	QC Batch: B0C0076      Date Extracted: 06-Mar-2020 6:42
Date Collected: 03-Oct-2019 12:08	% Solids: 74.2	Date Analyzed: 14-Mar-20 20:48      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0822			IS 13C-2,3,7,8-TCDD	88.0	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0866			13C-1,2,3,7,8-PeCDD	95.6	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0862			13C-1,2,3,4,7,8-HxCDD	85.8	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0878			13C-1,2,3,6,7,8-HxCDD	82.5	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.106			13C-1,2,3,7,8,9-HxCDD	81.6	32 - 141	
1,2,3,4,6,7,8-HpCDD	1.45			J	13C-1,2,3,4,6,7,8-HpCDD	80.6	23 - 140	
OCDD	13.2			B	13C-OCDD	90.0	17 - 157	
2,3,7,8-TCDF	ND	0.0533			13C-2,3,7,8-TCDF	80.3	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0433			13C-1,2,3,7,8-PeCDF	83.6	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0406			13C-2,3,4,7,8-PeCDF	82.9	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0452			13C-1,2,3,4,7,8-HxCDF	86.9	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0455			13C-1,2,3,6,7,8-HxCDF	85.2	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0464			13C-2,3,4,6,7,8-HxCDF	83.6	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0651			13C-1,2,3,7,8,9-HxCDF	79.6	29 - 147	
1,2,3,4,6,7,8-HpCDF	0.366			J	13C-1,2,3,4,6,7,8-HpCDF	81.2	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0986			13C-1,2,3,4,7,8,9-HpCDF	84.5	26 - 138	
OCDF	ND	0.0950			13C-OCDF	85.2	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	82.5	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.0221

<b>TOTALS</b>			
Total TCDD	0.300		
Total PeCDD	ND	0.433	
Total HxCDD	1.90		
Total HpCDD	4.47		
Total TCDF	0.0953		
Total PeCDF	ND	0.0433	
Total HxCDF	ND	0.0651	
Total HpCDF	0.366		

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: PDI-020SC-A-04-05-191008** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000411-06      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 12.1 g	QC Batch: B0C0076      Date Extracted: 06-Mar-2020 6:42
Date Collected: 08-Oct-2019 10:37	% Solids: 83.4	Date Analyzed : 14-Mar-20 21:35      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0831			IS 13C-2,3,7,8-TCDD	81.4	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0839			13C-1,2,3,7,8-PeCDD	93.1	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0839			13C-1,2,3,4,7,8-HxCDD	85.3	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0807			13C-1,2,3,6,7,8-HxCDD	82.9	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0873			13C-1,2,3,7,8,9-HxCDD	85.5	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND		0.301		13C-1,2,3,4,6,7,8-HpCDD	81.6	23 - 140	
OCDD	2.59			J, B	13C-OCDD	100	17 - 157	
2,3,7,8-TCDF	ND	0.0446			13C-2,3,7,8-TCDF	74.1	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0433			13C-1,2,3,7,8-PeCDF	80.5	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0402			13C-2,3,4,7,8-PeCDF	86.2	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0407			13C-1,2,3,4,7,8-HxCDF	86.9	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0414			13C-1,2,3,6,7,8-HxCDF	83.5	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0433			13C-2,3,4,6,7,8-HxCDF	85.2	28 - 136	
1,2,3,7,8,9-HxCDF	ND		0.0488		13C-1,2,3,7,8,9-HxCDF	83.5	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0698			13C-1,2,3,4,6,7,8-HpCDF	83.1	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0877			13C-1,2,3,4,7,8,9-HpCDF	82.7	26 - 138	
OCDF	ND	0.0861			13C-OCDF	98.0	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	71.9	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.000777

<b>TOTALS</b>								
Total TCDD	ND	0.0831						
Total PeCDD	ND	0.0839						
Total HxCDD	0.306							
Total HpCDD	0.644		0.946					
Total TCDF	ND	0.0446						
Total PeCDF	ND	0.0433						
Total HxCDF	ND		0.0670					
Total HpCDF	ND	0.0877						

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: PDI-031SC-A-05-06-191017** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000411-07      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 11.8 g	QC Batch: B0C0076      Date Extracted: 06-Mar-2020 6:42
Date Collected: 17-Oct-2019 9:04	% Solids: 85.1	Date Analyzed : 14-Mar-20 22:23      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0654			IS 13C-2,3,7,8-TCDD	109	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0465			13C-1,2,3,7,8-PeCDD	123	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0560			13C-1,2,3,4,7,8-HxCDD	102	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0570			13C-1,2,3,6,7,8-HxCDD	99.4	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0668			13C-1,2,3,7,8,9-HxCDD	99.4	32 - 141	
1,2,3,4,6,7,8-HpCDD	1.02			J	13C-1,2,3,4,6,7,8-HpCDD	95.0	23 - 140	
OCDD	8.42			B	13C-OCDD	109	17 - 157	
2,3,7,8-TCDF	0.0548			J	13C-2,3,7,8-TCDF	103	24 - 169	
1,2,3,7,8-PeCDF	0.0861			J	13C-1,2,3,7,8-PeCDF	110	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0350			13C-2,3,4,7,8-PeCDF	112	21 - 178	
1,2,3,4,7,8-HxCDF	0.139			J	13C-1,2,3,4,7,8-HxCDF	107	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0525			13C-1,2,3,6,7,8-HxCDF	101	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0553			13C-2,3,4,6,7,8-HxCDF	99.2	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0729			13C-1,2,3,7,8,9-HxCDF	99.2	29 - 147	
1,2,3,4,6,7,8-HpCDF	0.210			J	13C-1,2,3,4,6,7,8-HpCDF	97.4	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.105			13C-1,2,3,4,7,8,9-HpCDF	96.3	26 - 138	
OCDF	0.427			J	13C-OCDF	108	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	90.6	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.0369

<b>TOTALS</b>								
Total TCDD	ND	0.0654						
Total PeCDD	ND		0.0469					
Total HxCDD	0.757							
Total HpCDD	2.52							
Total TCDF	0.111							
Total PeCDF	0.0861							
Total HxCDF	0.139		0.185					
Total HpCDF	0.210		0.452					

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: PDI-031SC-A-06-07-191017** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000411-08      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 13.1 g	QC Batch: B0C0076      Date Extracted: 06-Mar-2020 6:42
Date Collected: 17-Oct-2019 9:04	% Solids: 76.6	Date Analyzed : 15-Mar-20 01:41      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.105			IS 13C-2,3,7,8-TCDD	61.1	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0943			13C-1,2,3,7,8-PeCDD	69.3	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0893			13C-1,2,3,4,7,8-HxCDD	63.7	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0921			13C-1,2,3,6,7,8-HxCDD	63.4	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0982			13C-1,2,3,7,8,9-HxCDD	66.6	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND	0.170			13C-1,2,3,4,6,7,8-HpCDD	64.8	23 - 140	
OCDD	0.526			J, B	13C-OCDD	59.4	17 - 157	
2,3,7,8-TCDF	ND	0.0700			13C-2,3,7,8-TCDF	53.6	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0853			13C-1,2,3,7,8-PeCDF	58.7	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0804			13C-2,3,4,7,8-PeCDF	60.3	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0575			13C-1,2,3,4,7,8-HxCDF	64.9	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0544			13C-1,2,3,6,7,8-HxCDF	63.2	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0580			13C-2,3,4,6,7,8-HxCDF	65.2	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0783			13C-1,2,3,7,8,9-HxCDF	62.7	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0722			13C-1,2,3,4,6,7,8-HpCDF	64.5	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.101			13C-1,2,3,4,7,8,9-HpCDF	60.6	26 - 138	
OCDF	ND	0.132			13C-OCDF	59.0	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	56.3	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.000158

<b>TOTALS</b>								
Total TCDD	ND	0.105						
Total PeCDD	ND	0.0943						
Total HxCDD	ND		0.0961					
Total HpCDD	ND		0.125					
Total TCDF	ND	0.0700						
Total PeCDF	ND	0.0853						
Total HxCDF	ND	0.0783						
Total HpCDF	ND	0.101						

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: PDI-034SC-A-04-05-191022** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000411-09      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 11.6 g	QC Batch: B0C0076      Date Extracted: 06-Mar-2020 6:42
Date Collected: 22-Oct-2019 8:26	% Solids: 86.7	Date Analyzed : 15-Mar-20 02:29      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0608			IS 13C-2,3,7,8-TCDD	113	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0483			13C-1,2,3,7,8-PeCDD	124	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0414			13C-1,2,3,4,7,8-HxCDD	102	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0444			13C-1,2,3,6,7,8-HxCDD	99.0	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0505			13C-1,2,3,7,8,9-HxCDD	99.3	32 - 141	
1,2,3,4,6,7,8-HpCDD	0.172			J	13C-1,2,3,4,6,7,8-HpCDD	92.0	23 - 140	
OCDD	0.968			J, B	13C-OCDD	97.0	17 - 157	
2,3,7,8-TCDF	ND	0.0338			13C-2,3,7,8-TCDF	108	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0375			13C-1,2,3,7,8-PeCDF	111	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0336			13C-2,3,4,7,8-PeCDF	114	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0344			13C-1,2,3,4,7,8-HxCDF	108	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0345			13C-1,2,3,6,7,8-HxCDF	103	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0365			13C-2,3,4,6,7,8-HxCDF	101	28 - 136	
1,2,3,7,8,9-HxCDF	ND		0.0396		13C-1,2,3,7,8,9-HxCDF	98.2	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0391			13C-1,2,3,4,6,7,8-HpCDF	91.7	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0521			13C-1,2,3,4,7,8,9-HpCDF	89.0	26 - 138	
OCDF	ND	0.0658			13C-OCDF	97.8	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	94.2	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.00201

<b>TOTALS</b>								
Total TCDD	ND	0.0608						
Total PeCDD	ND	0.0483						
Total HxCDD	0.139							
Total HpCDD	0.172		0.420					
Total TCDF	ND	0.0338						
Total PeCDF	ND	0.0375						
Total HxCDF	ND		0.0612					
Total HpCDF	ND	0.0521						

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: PDI-052SC-A-07-08-191015** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000411-10      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 15.5 g	QC Batch: B0C0168      Date Extracted: 13-Mar-2020 10:18
Date Collected: 15-Oct-2019 8:41	% Solids: 71.9	Date Analyzed: 15-Mar-20 04:04      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.105			IS 13C-2,3,7,8-TCDD	96.5	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0899			13C-1,2,3,7,8-PeCDD	97.0	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0772			13C-1,2,3,4,7,8-HxCDD	88.5	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0808			13C-1,2,3,6,7,8-HxCDD	85.4	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0888			13C-1,2,3,7,8,9-HxCDD	84.5	32 - 141	
1,2,3,4,6,7,8-HpCDD	1.21			J	13C-1,2,3,4,6,7,8-HpCDD	85.0	23 - 140	
OCDD	13.6				13C-OCDD	91.8	17 - 157	
2,3,7,8-TCDF	ND		0.126		13C-2,3,7,8-TCDF	92.3	24 - 169	
1,2,3,7,8-PeCDF	ND		0.168		13C-1,2,3,7,8-PeCDF	91.7	24 - 185	
2,3,4,7,8-PeCDF	0.0669			J	13C-2,3,4,7,8-PeCDF	94.4	21 - 178	
1,2,3,4,7,8-HxCDF	0.314			J	13C-1,2,3,4,7,8-HxCDF	90.7	26 - 152	
1,2,3,6,7,8-HxCDF	ND		0.0864		13C-1,2,3,6,7,8-HxCDF	87.5	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0549			13C-2,3,4,6,7,8-HxCDF	87.2	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0796			13C-1,2,3,7,8,9-HxCDF	85.0	29 - 147	
1,2,3,4,6,7,8-HpCDF	0.327			J	13C-1,2,3,4,6,7,8-HpCDF	84.1	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.126			13C-1,2,3,4,7,8,9-HpCDF	86.3	26 - 138	
OCDF	0.634			J	13C-OCDF	91.6	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	97.6	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.0711

<b>TOTALS</b>				
Total TCDD	0.280			
Total PeCDD	ND		0.0744	
Total HxCDD	0.278		0.901	
Total HpCDD	3.01			
Total TCDF	0.212		0.338	
Total PeCDF	0.0669		0.388	
Total HxCDF	0.314		0.547	
Total HpCDF	0.692			

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: PDI-052SC-A-08-09-191015** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000411-11      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 14.4 g	QC Batch: B0C0076      Date Extracted: 06-Mar-2020 6:42
Date Collected: 15-Oct-2019 8:41	% Solids: 69.5	Date Analyzed: 15-Mar-20 04:51      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0697			IS 13C-2,3,7,8-TCDD	106	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0505			13C-1,2,3,7,8-PeCDD	119	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0631			13C-1,2,3,4,7,8-HxCDD	101	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0627			13C-1,2,3,6,7,8-HxCDD	102	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0752			13C-1,2,3,7,8,9-HxCDD	102	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND	0.130			13C-1,2,3,4,6,7,8-HpCDD	97.5	23 - 140	
OCDD	1.21			J, B	13C-OCDD	119	17 - 157	
2,3,7,8-TCDF	ND	0.0407			13C-2,3,7,8-TCDF	98.9	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0313			13C-1,2,3,7,8-PeCDF	106	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0277			13C-2,3,4,7,8-PeCDF	113	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0337			13C-1,2,3,4,7,8-HxCDF	105	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0332			13C-1,2,3,6,7,8-HxCDF	101	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0347			13C-2,3,4,6,7,8-HxCDF	99.8	28 - 136	
1,2,3,7,8,9-HxCDF	0.0591			J	13C-1,2,3,7,8,9-HxCDF	102	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0546			13C-1,2,3,4,6,7,8-HpCDF	96.4	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0692			13C-1,2,3,4,7,8,9-HpCDF	98.1	26 - 138	
OCDF	ND	0.0713			13C-OCDF	123	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	85.6	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.00627

<b>TOTALS</b>				
Total TCDD	0.163			
Total PeCDD	ND	0.0505		
Total HxCDD	ND		0.163	
Total HpCDD	0.343			
Total TCDF	ND	0.0407		
Total PeCDF	ND	0.0313		
Total HxCDF	0.0591		0.0690	
Total HpCDF	ND	0.0692		

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: PDI-052SC-A-09-10-191015** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000411-12      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 13.3 g	QC Batch: B0C0076      Date Extracted: 06-Mar-2020 6:42
Date Collected: 15-Oct-2019 8:41	% Solids: 75.3	Date Analyzed : 15-Mar-20 05:39      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0715			IS 13C-2,3,7,8-TCDD	88.7	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0514			13C-1,2,3,7,8-PeCDD	114	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0478			13C-1,2,3,4,7,8-HxCDD	94.9	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0494			13C-1,2,3,6,7,8-HxCDD	91.8	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0550			13C-1,2,3,7,8,9-HxCDD	95.2	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND	0.142			13C-1,2,3,4,6,7,8-HpCDD	86.6	23 - 140	
OCDD	0.946			J, B	13C-OCDD	89.9	17 - 157	
2,3,7,8-TCDF	ND	0.0410			13C-2,3,7,8-TCDF	79.9	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0358			13C-1,2,3,7,8-PeCDF	98.7	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0324			13C-2,3,4,7,8-PeCDF	103	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0380			13C-1,2,3,4,7,8-HxCDF	99.6	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0376			13C-1,2,3,6,7,8-HxCDF	94.5	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0397			13C-2,3,4,6,7,8-HxCDF	93.1	28 - 136	
1,2,3,7,8,9-HxCDF	0.0361			J	13C-1,2,3,7,8,9-HxCDF	90.4	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0430			13C-1,2,3,4,6,7,8-HpCDF	86.1	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0571			13C-1,2,3,4,7,8,9-HpCDF	83.1	26 - 138	
OCDF	ND	0.0768			13C-OCDF	86.7	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	76.9	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.00389

<b>TOTALS</b>								
Total TCDD	ND	0.0715						
Total PeCDD	ND		0.0681					
Total HxCDD	0.193							
Total HpCDD	0.260							
Total TCDF	ND	0.0410						
Total PeCDF	ND	0.0358						
Total HxCDF	0.0361		0.0560					
Total HpCDF	ND	0.0571						

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: PDI-052SC-A-10-11-191015** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000411-13      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 13.9 g	QC Batch: B0C0076      Date Extracted: 06-Mar-2020 6:42
Date Collected: 15-Oct-2019 8:41	% Solids: 71.8	Date Analyzed: 15-Mar-20 06:26      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0790			IS 13C-2,3,7,8-TCDD	79.7	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0667			13C-1,2,3,7,8-PeCDD	96.0	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0573			13C-1,2,3,4,7,8-HxCDD	82.5	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0571			13C-1,2,3,6,7,8-HxCDD	79.2	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0680			13C-1,2,3,7,8,9-HxCDD	80.3	32 - 141	
1,2,3,4,6,7,8-HpCDD	ND	0.139			13C-1,2,3,4,6,7,8-HpCDD	81.1	23 - 140	
OCDD	0.476			J, B	13C-OCDD	83.7	17 - 157	
2,3,7,8-TCDF	ND	0.0511			13C-2,3,7,8-TCDF	72.4	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0385			13C-1,2,3,7,8-PeCDF	82.8	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0338			13C-2,3,4,7,8-PeCDF	88.1	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0.0371			13C-1,2,3,4,7,8-HxCDF	82.9	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0361			13C-1,2,3,6,7,8-HxCDF	80.6	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0386			13C-2,3,4,6,7,8-HxCDF	79.4	28 - 136	
1,2,3,7,8,9-HxCDF	0.0530			J	13C-1,2,3,7,8,9-HxCDF	81.4	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND	0.0567			13C-1,2,3,4,6,7,8-HpCDF	78.0	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0722			13C-1,2,3,4,7,8,9-HpCDF	76.1	26 - 138	
OCDF	ND	0.103			13C-OCDF	80.1	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	78.7	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
 TEQMinWHO2005Dioxin      0.00544

<b>TOTALS</b>			
Total TCDD	ND	0.0790	
Total PeCDD	ND	0.0667	
Total HxCDD	ND		0.0827
Total HpCDD	ND	0.139	
Total TCDF	ND	0.0511	
Total PeCDF	ND	0.0385	
Total HxCDF	0.0767		
Total HpCDF	ND	0.0722	

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: PDI-055SC-A-04-05-191015** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000411-14      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 13.5 g	QC Batch: B0C0076      Date Extracted: 06-Mar-2020 6:42
Date Collected: 15-Oct-2019 10:51	% Solids: 74.4	Date Analyzed : 13-Mar-20 03:45      Column: DB-225 15-Mar-20 07:14      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	0.392			J	IS 13C-2,3,7,8-TCDD	98.6	25 - 164	
1,2,3,7,8-PeCDD	ND		0.228		13C-1,2,3,7,8-PeCDD	105	25 - 181	
1,2,3,4,7,8-HxCDD	0.293			J	13C-1,2,3,4,7,8-HxCDD	96.0	32 - 141	
1,2,3,6,7,8-HxCDD	1.66			J	13C-1,2,3,6,7,8-HxCDD	94.2	28 - 130	
1,2,3,7,8,9-HxCDD	0.773			J	13C-1,2,3,7,8,9-HxCDD	92.7	32 - 141	
1,2,3,4,6,7,8-HpCDD	52.8				13C-1,2,3,4,6,7,8-HpCDD	97.2	23 - 140	
OCDD	626			B	13C-OCDD	102	17 - 157	
2,3,7,8-TCDF	5.90				13C-2,3,7,8-TCDF	91.8	24 - 169	
1,2,3,7,8-PeCDF	8.99				13C-1,2,3,7,8-PeCDF	96.4	24 - 185	
2,3,4,7,8-PeCDF	4.40				13C-2,3,4,7,8-PeCDF	97.7	21 - 178	
1,2,3,4,7,8-HxCDF	14.9				13C-1,2,3,4,7,8-HxCDF	96.7	26 - 152	
1,2,3,6,7,8-HxCDF	4.19				13C-1,2,3,6,7,8-HxCDF	92.4	26 - 123	
2,3,4,6,7,8-HxCDF	1.29			J	13C-2,3,4,6,7,8-HxCDF	91.9	28 - 136	
1,2,3,7,8,9-HxCDF	1.07			J	13C-1,2,3,7,8,9-HxCDF	91.9	29 - 147	
1,2,3,4,6,7,8-HpCDF	15.4				13C-1,2,3,4,6,7,8-HpCDF	91.1	28 - 143	
1,2,3,4,7,8,9-HpCDF	3.28				13C-1,2,3,4,7,8,9-HpCDF	90.8	26 - 138	
OCDF	37.1				13C-OCDF	98.9	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	91.3	35 - 197	

**Toxic Equivalent Quotient (TEQ) Data (pg/g dry wt)**  
TEQMinWHO2005Dioxin      5.90

<b>TOTALS</b>		
Total TCDD	1.51	1.74
Total PeCDD	1.63	2.48
Total HxCDD	16.6	
Total HpCDD	119	
Total TCDF	20.7	22.3
Total PeCDF	29.9	30.6
Total HxCDF	35.7	
Total HpCDF	44.5	

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: PDI-055SC-A-05-06-191015** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000411-15      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 13.7 g	QC Batch: B0C0076      Date Extracted: 06-Mar-2020 6:42
Date Collected: 15-Oct-2019 10:51	% Solids: 74.1	Date Analyzed : 13-Mar-20 04:16 Column: DB-225 15-Mar-20 08:01 Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND		0.170		IS 13C-2,3,7,8-TCDD	94.0	25 - 164	
1,2,3,7,8-PeCDD	ND	0.197			13C-1,2,3,7,8-PeCDD	102	25 - 181	
1,2,3,4,7,8-HxCDD	0.233			J	13C-1,2,3,4,7,8-HxCDD	85.4	32 - 141	
1,2,3,6,7,8-HxCDD	1.65			J	13C-1,2,3,6,7,8-HxCDD	80.9	28 - 130	
1,2,3,7,8,9-HxCDD	ND		0.530		13C-1,2,3,7,8,9-HxCDD	81.8	32 - 141	
1,2,3,4,6,7,8-HpCDD	88.3				13C-1,2,3,4,6,7,8-HpCDD	75.1	23 - 140	
OCDD	707			B	13C-OCDD	71.0	17 - 157	
2,3,7,8-TCDF	2.11				13C-2,3,7,8-TCDF	86.4	24 - 169	
1,2,3,7,8-PeCDF	2.65				13C-1,2,3,7,8-PeCDF	92.0	24 - 185	
2,3,4,7,8-PeCDF	1.56			J	13C-2,3,4,7,8-PeCDF	94.6	21 - 178	
1,2,3,4,7,8-HxCDF	3.38				13C-1,2,3,4,7,8-HxCDF	85.5	26 - 152	
1,2,3,6,7,8-HxCDF	1.03			J	13C-1,2,3,6,7,8-HxCDF	82.4	26 - 123	
2,3,4,6,7,8-HxCDF	0.546			J	13C-2,3,4,6,7,8-HxCDF	79.6	28 - 136	
1,2,3,7,8,9-HxCDF	0.365			J	13C-1,2,3,7,8,9-HxCDF	80.5	29 - 147	
1,2,3,4,6,7,8-HpCDF	9.92				13C-1,2,3,4,6,7,8-HpCDF	74.3	28 - 143	
1,2,3,4,7,8,9-HpCDF	1.05			J	13C-1,2,3,4,7,8,9-HpCDF	79.0	26 - 138	
OCDF	37.6				13C-OCDF	67.7	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	86.7	35 - 197	

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

TEQMinWHO2005Dioxin      2.69

<b>TOTALS</b>		
Total TCDD	1.04	2.31
Total PeCDD	2.69	3.12
Total HxCDD	23.6	24.1
Total HpCDD	209	
Total TCDF	7.74	8.08
Total PeCDF	12.8	
Total HxCDF	14.5	
Total HpCDF	37.8	

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: PDI-055SC-A-06-07-191015** **EPA Method 1613B**

<b>Client Data</b>	<b>Sample Data</b>	<b>Laboratory Data</b>
Name: Anchor QEA, LLC	Matrix: Sediment	Lab Sample: 2000411-16      Date Received: 27-Feb-2020 8:43
Project: Gasco PDI 000029-02.59	Sample Size: 13.5 g	QC Batch: B0C0076      Date Extracted: 06-Mar-2020 6:42
Date Collected: 15-Oct-2019 10:51	% Solids: 74.4	Date Analyzed : 15-Mar-20 08:49      Column: ZB-5MS

Analyte	Conc. (pg/g)	DL	EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0731			IS 13C-2,3,7,8-TCDD	107	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0730			13C-1,2,3,7,8-PeCDD	113	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0840			13C-1,2,3,4,7,8-HxCDD	96.7	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0896			13C-1,2,3,6,7,8-HxCDD	95.8	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0999			13C-1,2,3,7,8,9-HxCDD	95.1	32 - 141	
1,2,3,4,6,7,8-HpCDD	1.65			J	13C-1,2,3,4,6,7,8-HpCDD	93.6	23 - 140	
OCDD	11.6			B	13C-OCDD	99.3	17 - 157	
2,3,7,8-TCDF	ND	0.0263			13C-2,3,7,8-TCDF	97.6	24 - 169	
1,2,3,7,8-PeCDF	0.207			J	13C-1,2,3,7,8-PeCDF	104	24 - 185	
2,3,4,7,8-PeCDF	0.0812			J	13C-2,3,4,7,8-PeCDF	104	21 - 178	
1,2,3,4,7,8-HxCDF	ND		0.418		13C-1,2,3,4,7,8-HxCDF	101	26 - 152	
1,2,3,6,7,8-HxCDF	ND		0.120		13C-1,2,3,6,7,8-HxCDF	96.0	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0463			13C-2,3,4,6,7,8-HxCDF	95.3	28 - 136	
1,2,3,7,8,9-HxCDF	ND	0.0673			13C-1,2,3,7,8,9-HxCDF	93.8	29 - 147	
1,2,3,4,6,7,8-HpCDF	0.301			J	13C-1,2,3,4,6,7,8-HpCDF	89.8	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.116			13C-1,2,3,4,7,8,9-HpCDF	93.0	26 - 138	
OCDF	0.429			J	13C-OCDF	96.8	17 - 157	
					CRS 37Cl-2,3,7,8-TCDD	99.6	35 - 197	

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

TEQMinWHO2005Dioxin      0.0537

<b>TOTALS</b>								
Total TCDD	0.239							
Total PeCDD	0.138							
Total HxCDD	1.37							
Total HpCDD	4.18							
Total TCDF	ND	0.0263						
Total PeCDF	0.289							
Total HxCDF	ND		0.616					
Total HpCDF	0.604							

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
LOD	Limit of Detection
LOQ	Limit of Quantitation
M	Estimated Maximum Possible Concentration (CA Region 2 projects only)
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)
*	See Cover Letter

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





# Sample Log-In Checklist

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 Vista Work Order #: 2000411

 TAT Std

Samples Arrival:	Date/Time <u>02/27/20 0843</u>	Initials: <u>JP</u>	Location: <u>WR-2</u>
			Shelf/Rack: <u>NA</u>
Delivered By:	<input checked="" type="radio"/> FedEx	<input type="radio"/> UPS	<input type="radio"/> On Trac
		<input type="radio"/> GLS	<input type="radio"/> DHL
		<input type="radio"/> Hand Delivered	<input type="radio"/> Other
Preservation:	<input checked="" type="radio"/> Ice	<input type="radio"/> Blue Ice	<input type="radio"/> Dry Ice
	<input type="radio"/> None		
Temp °C: <u>3.0</u> (uncorrected)	Probe used: Y / <input checked="" type="radio"/> N		Thermometer ID: <u>IR-4</u>
Temp °C: <u>3.0</u> (corrected)			

	YES	NO	NA
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Shipping Custody Seals Intact?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Airbill <u>1042</u> Trk # <u>7778 6671 1399</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 type="checkbox"/> Vista	<input checked="" type="checkbox"/> Client	<input type="checkbox"/> Retain
			<input checked="" type="checkbox"/> Return
			<input type="checkbox"/> 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"/>
Logged In:	Date/Time <u>02/27/20 1204</u>	Initials: <u>KS</u>	Location: <u>WR-2</u>
			Shelf/Rack: <u>D-7</u>
COC Anomaly/Sample Acceptance Form completed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Comments:

## Sample Log-In Checklist

Page # 2 of 2

Vista Work Order #: 2000411

TAT Std

Samples Arrival:	Date/Time <u>02/27/20 0843</u>		Initials: <u>KP</u>		Location: <u>WR-2</u>		Shelf/Rack: <u>NA</u>
	Delivered By:	<input checked="" type="radio"/> FedEx	<input type="radio"/> UPS	<input type="radio"/> On Trac	<input type="radio"/> GLS	<input type="radio"/> DHL	
Preservation:	<input checked="" type="radio"/> Ice		<input type="radio"/> Blue Ice		<input type="radio"/> Dry Ice		<input type="radio"/> None
Temp °C: <u>2.1</u> (uncorrected)	Probe used: Y / <input checked="" type="radio"/> N		Thermometer ID: <u>IR-4</u>				
Temp °C: <u>2.1</u> (corrected)							

	YES	NO	NA				
Shipping Container(s) Intact?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>				
Shipping Custody Seals Intact?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>				
Airbill <u>2 of 2</u>   Trk # <u>7778 6671 1414</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 type="checkbox"/> Vista	<input checked="" type="checkbox"/> Client	<input type="checkbox"/> Retain	<input checked="" type="checkbox"/> Return	<input type="checkbox"/> 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"/>				
Logged In:	Date/Time <u>02/27/20 1204</u>		Initials: <u>KS</u>		Location: <u>WR-2</u>		Shelf/Rack: <u>D-7</u>
COC Anomaly/Sample Acceptance Form completed?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				

Comments:

# CoC/Label Reconciliation Report WO# 2000411

LabNumber	CoC Sample ID	SampleAlias	Sample Date/Time	Container	BaseMatrix	Sample Comments
C2 ↓ C1 C1 C2 ↓	2000411-01	A PDI-017SC-A-02-03-191003	03-Oct-19 12:08	Amber Glass, 120 mL	Solid	DUP
	2000411-02	A PDI-017SC-A-03-04-191003	03-Oct-19 12:08	Amber Glass, 120 mL	Solid	
	2000411-03	A PDI-017SC-A-04-05-191003	03-Oct-19 12:08	Amber Glass, 120 mL	Solid	
	2000411-04	A PDI-017SC-A-05-06-191003	03-Oct-19 12:08	Amber Glass, 120 mL	Solid	
	2000411-05	A PDI-017SC-A-06-07-191003	03-Oct-19 12:08	Amber Glass, 120 mL	Solid	
	2000411-06	A PDI-020SC-A-04-05-191008	08-Oct-19 10:37	Amber Glass, 120 mL	Solid	
	2000411-07	A PDI-031SC-A-05-06-191017	17-Oct-19 09:04	Amber Glass, 120 mL	Solid	
	2000411-08	A PDI-031SC-A-06-07-191017	17-Oct-19 09:04	Amber Glass, 120 mL	Solid	
	2000411-09	A PDI-034SC-A-04-05-191022	22-Oct-19 08:26	Amber Glass, 120 mL	Solid	
	2000411-10	A PDI-052SC-A-07-08-191015	15-Oct-19 08:41	Amber Glass, 120 mL	Solid	
	2000411-11	A PDI-052SC-A-08-09-191015	15-Oct-19 08:41	Amber Glass, 120 mL	Solid	
	2000411-12	A PDI-052SC-A-09-10-191015	15-Oct-19 08:41	Amber Glass, 120 mL	Solid	
	2000411-13	A PDI-052SC-A-10-11-191015	15-Oct-19 08:41	Amber Glass, 120 mL	Solid	
	2000411-14	A PDI-055SC-A-04-05-191015	15-Oct-19 10:51	Amber Glass, 120 mL	Solid	
	2000411-15	A PDI-055SC-A-05-06-191015	15-Oct-19 10:51	Amber Glass, 120 mL	Solid	
	2000411-16	A PDI-055SC-A-06-07-191015	15-Oct-19 10:51	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
Sample Container Intact?	✓		
Sample Custody Seals Intact?			✓
Adequate Sample Volume?	✓		
Container Type Appropriate for Analysis(es)	✓		
Preservation Documented: Na2S2O3 Trizma <u>None</u> Other		✓	✓
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			✓

Comments:  
C1 = cooler 1  
C2 = cooler 2

Verified by/Date: KS 02/27/20

## **EXTRACTION INFORMATION**

**PRIORITY**

Process Sheet

Workorder: **2000411**

Prep Expiration: 2020-10-02  
Client: Anchor QEA, LLC

Workorder Due: **12-Mar-20 00:00**

TAT: 14

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

Prep Batch: BOC0076

Prep Data Entered: AR 03/09/20  
Date and Initials

Initial Sequence: SOC0044

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
2000411-01	<input checked="" type="checkbox"/>	PDI-017SC-A-02-03-191003	27-Feb-20 08:43	WR-2 D-7	<b>DUP</b>
2000411-02	<input checked="" type="checkbox"/>	PDI-017SC-A-03-04-191003	27-Feb-20 08:43	WR-2 D-7	
2000411-03	<input checked="" type="checkbox"/>	PDI-017SC-A-04-05-191003	27-Feb-20 08:43	WR-2 D-7	
2000411-04	<input checked="" type="checkbox"/>	PDI-017SC-A-05-06-191003	27-Feb-20 08:43	WR-2 D-7	
2000411-05	<input checked="" type="checkbox"/>	PDI-017SC-A-06-07-191003	27-Feb-20 08:43	WR-2 D-7	
2000411-06	<input checked="" type="checkbox"/>	PDI-020SC-A-04-05-191008	27-Feb-20 08:43	WR-2 D-7	
2000411-07	<input checked="" type="checkbox"/>	PDI-031SC-A-05-06-191017	27-Feb-20 08:43	WR-2 D-7	
2000411-08	<input checked="" type="checkbox"/>	PDI-031SC-A-06-07-191017	27-Feb-20 08:43	WR-2 D-7	
2000411-09	<input checked="" type="checkbox"/>	PDI-034SC-A-04-05-191022	27-Feb-20 08:43	WR-2 D-7	
2000411-10	<input checked="" type="checkbox"/>	PDI-052SC-A-07-08-191015	27-Feb-20 08:43	WR-2 D-7	
2000411-11	<input checked="" type="checkbox"/>	PDI-052SC-A-08-09-191015	27-Feb-20 08:43	WR-2 D-7	
2000411-12	<input checked="" type="checkbox"/>	PDI-052SC-A-09-10-191015	27-Feb-20 08:43	WR-2 D-7	
2000411-13	<input checked="" type="checkbox"/>	PDI-052SC-A-10-11-191015	27-Feb-20 08:43	WR-2 D-7	
2000411-14	<input checked="" type="checkbox"/>	PDI-055SC-A-04-05-191015	27-Feb-20 08:43	WR-2 D-7	
2000411-15	<input checked="" type="checkbox"/>	PDI-055SC-A-05-06-191015	27-Feb-20 08:43	WR-2 D-7	
2000411-16	<input checked="" type="checkbox"/>	PDI-055SC-A-06-07-191015	27-Feb-20 08:43	WR-2 D-7	

WO Comments: ~~...~~

~~...~~

**Dioxin - 10g (dry weight)**

~~...~~

Pre-Prep Check Out: EM 02/28/20      Prep Check Out: RR 03/06/20      Prep Reconciled Initials/Date: EM 02/28/20  
Pre-Prep Check In: EM 02/28/20      Prep Check In: RR 03/06/20      Spike Reconciled Initials/Date: RR 03/06/20  
VialBoxID: Nighthawk

PREPARATION BENCH SHEET

Matrix: Solid

B0C0076

Chemist: RR

Method: 1613 Full List  
Method: 8290 Full List

Prepared using: HRMS - Soxhlet

Prep Date/Time: 06-Mar-20 06:42

C	VISTA Sample ID	G Eqv	Sample Amt. (g)	IS/NS CHEM/WIT DATE	CRS CHEM/WIT DATE	AP CHEM/ DATE	ABSG CHEM/ DATE	AA CHEM/ DATE	Florisil CHEM/ DATE	RS CHEM/WIT DATE
<input type="checkbox"/>	B0C0076-BLK1	NA	(10.00)	00 RR 03/06/20	00 AZ 03/09/20	NA	AZ 03/09/20	AZ 03/09/20	00 03/09/20	00 AZ 03/09/20
<input type="checkbox"/>	B0C0076-BS1	NA	(10.00)	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	B0C0076-DUP1 2000411-01	11.40	11.65	↓	↓	↓	orange	↓	↓	↓
<input type="checkbox"/>	2000401-01RE1	10.77	10.80	↓	↓	↓	orange	↓	↓	↓
<input type="checkbox"/>	2000411-01	11.40	11.53	↓	↓	↓	orange	↓	↓	↓
<input type="checkbox"/>	2000411-02	12.65	12.65	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	2000411-03	11.97	12.01	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	2000411-04	13.88	13.89	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	2000411-05	13.48	13.52	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	2000411-06	11.99	12.05	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	2000411-07	11.76	11.82	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	2000411-08	13.05	13.06	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	2000411-09	11.54	11.56	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	2000411-10	13.91	13.95	↓	↓	↓	↓	↓	↓	↓
<input type="checkbox"/>	2000411-11	14.38	14.42	↓	↓	↓	↓	↓	↓	↓

\* 11.62 RR 03/06/20

IS Name <u>V5</u>	NS Name <u>V3</u>	CRS Name <u>V3</u>	RS Name <u>V3</u>	Cycle Time	APP: SEFUN SOX <u>SDS</u>	Check Out: Chemist/Date: <u>RR 03-06-20</u>
PCDD/F <u>19L2301, 10ml</u>	PCDD/F <u>18F193, 10ml</u>	PCDD/F <u>15I1602, 10ml</u>	PCDD/F <u>19F1603, 10ml</u>	Start Date/Time <u>03-06-20</u> <u>1435</u>	SOLV: <u>Toluene</u>	Check In: Chemist/Date: <u>RR 03-06-20</u>
PCB _____	PCB _____	PCB _____	PCB _____	Stop Date/Time <u>03-07-20</u> <u>0745</u>	Other <u>NA</u>	Balance ID: <u>HRMS-8</u>
PAH _____	PAH _____	PAH _____	PAH _____	Final Volume(s) <u>20ml</u> <u>C14</u>		

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

PREPARATION BENCH SHEET

Matrix: Solid

B0C0076

Chemist: RR

Method: 1613 Full List

Prepared using: HRMS - Soxhlet

Prep Date/Time: 06-Mar-20 06:42

C	VISTA Sample ID	G Eqv	Sample Amt. (g)	IS/NS CHEM/WIT DATE	CRS CHEM/WIT DATE	AP CHEM/ DATE	ABSG CHEM/ DATE	AA CHEM/ DATE	Florisisl CHEM/ DATE	RS CHEM/WIT DATE
<input type="checkbox"/>	2000411-12	13.28	13.28	AO RR 03/06/20	AO AZ 03/01/20	NA	AZ 03/01/20	AZ 03/01/20	AO 03/09/20	AO AZ 03/09/20
<input type="checkbox"/>	2000411-13	13.93	13.94	T	T	T	T	T	T	T
<input type="checkbox"/>	2000411-14	13.45	13.45	T	T	T	yellow	T	T	T
<input type="checkbox"/>	2000411-15	13.50	13.65	T	T	T	orange	T	T	T
<input type="checkbox"/>	2000411-16	13.43	13.53	T	T	T	T	T	T	T

IS Name <u>V5</u>	NS Name <u>V3</u>	CRS Name <u>V3</u>	RS Name <u>V2</u>	Cycle Time	APP: SEFUN SOX <u>SDS</u>	Check Out: Chemist/Date: <u>RR 03/06/20</u>
PCDD/F <u>19L2301, 10mL</u>	PCDD/F <u>18F1913, 10mL</u>	PCDD/F <u>19F1602, 10mL</u>	PCDD/F <u>19F1603, 10mL</u>	Start Date/Time <u>03-06-20 1435</u>	SOLV: <u>Toluene</u>	Check In: Chemist/Date: <u>RR 03/06/20</u>
PCB _____	PCB _____	PCB _____	PCB _____	Stop Date/Time <u>03-07-20 0745</u>	Other <u>NA</u>	Balance ID: <u>HRMS-8</u>
PAH _____	PAH _____	PAH _____	PAH _____	Final Volume(s) <u>20ML</u>	<u>C14</u>	

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











LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
2000401-01RE1	10.8 ✓	92.8382	10.0265	20	06-Mar-20 06:42	ACO			Solid	8290 Full List
<del>2000411-01</del>	<del>11.53</del>			<del>20</del>	<del>06-Mar-20 06:42</del>	<del>ACO</del>			<del>Sediment</del>	<del>8290 Full List</del>
2000411-01	11.53 ✓	87.74885	10.1174 ✓	20	06-Mar-20 06:42	ACO			Sediment	1613 Full List
2000411-02	12.65 ✓	79.07574	10.0031 ✓	20	06-Mar-20 06:42	ACO			Sediment	1613 Full List
2000411-03	12.01 ✓	83.57664	10.0376 ✓	20	06-Mar-20 06:42	ACO			Sediment	1613 Full List
2000411-04	13.89 ✓	72.04969	10.0077 ✓	20	06-Mar-20 06:42	ACO			Sediment	1613 Full List
2000411-05	13.52 ✓	74.16666	10.0273 ✓	20	06-Mar-20 06:42	ACO			Sediment	1613 Full List
2000411-06	12.05 ✓	83.38068	10.0474 ✓	20	06-Mar-20 06:42	ACO			Sediment	1613 Full List
2000411-07	11.82 ✓	85.05393	10.0534 ✓	20	06-Mar-20 06:42	ACO			Sediment	1613 Full List
2000411-08	13.06 ✓	76.64835	10.0103 ✓	20	06-Mar-20 06:42	ACO			Sediment	1613 Full List
2000411-09	11.56 ✓	86.67665	10.0198 ✓	20	06-Mar-20 06:42	ACO			Sediment	1613 Full List
2000411-10	13.95 ✓	71.867	10.0254	20	06-Mar-20 06:42	ACO			Sediment	1613 Full List
2000411-11	14.42 ✓	69.54178	10.0279 ✓	20	06-Mar-20 06:42	ACO			Sediment	1613 Full List
2000411-12	13.28 ✓	75.28735	9.9982 ✓	20	06-Mar-20 06:42	ACO			Sediment	1613 Full List
2000411-13	13.94 ✓	71.76617	10.0042 ✓	20	06-Mar-20 06:42	ACO			Sediment	1613 Full List
2000411-14	13.45 ✓	74.37426	10.0033 ✓	20	06-Mar-20 06:42	ACO			Sediment	1613 Full List
2000411-15	13.65 ✓	74.05159	10.1080 ✓	20	06-Mar-20 06:42	ACO			Sediment	1613 Full List
2000411-16	13.53 ✓	74.4459	10.0725 ✓	20	06-Mar-20 06:42	ACO			Sediment	1613 Full List
B0C0076-BLK1	10 ✓			20	06-Mar-20 06:42	ACO				QC
B0C0076-BS1	10 ✓			20	06-Mar-20 06:42	ACO	18F1913 ✓	10 ✓		QC
B0C0076-DUP1	11.62 ✓	87.74885	10.1964 ✓	20	06-Mar-20 06:42	ACO				QC

All bolded data on report verified against written benchsheet by (initial/date)

*[Signature]* 03/12/20



Process Sheet  
 Workorder: **2000411**

RX **ASTP**  
 @ 03/13/20

Prep Expiration: 2020-10-02  
 Client: Anchor QEA, LLC

Workorder Due: **12-Mar-20 00:00**

TAT: 14

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

Prep Batch: BOC0168

Prep Data Entered: AO 03/14/20  
Date and Initials

Initial Sequence: SOC0054

LabSampleID	Recon	ClientSampleID	Date Received	Location	Comments
<del>2000411-01</del>	<input type="checkbox"/>	<del>PDI-017SC-A-02-03-191003</del>	27-Feb-20 08:43	WR-2 D-7	<b>DUP</b>
2000411-02	<input type="checkbox"/>	PDI-017SC-A-03-04-191003	27-Feb-20 08:43	WR-2 D-7	
2000411-03	<input type="checkbox"/>	PDI-017SC-A-04-05-191003	27-Feb-20 08:43	WR-2 D-7	
2000411-04	<input type="checkbox"/>	PDI-017SC-A-05-06-191003	27-Feb-20 08:43	WR-2 D-7	
2000411-05	<input type="checkbox"/>	PDI-017SC-A-06-07-191003	27-Feb-20 08:43	WR-2 D-7	
2000411-06	<input type="checkbox"/>	PDI-020SC-A-04-05-191008	27-Feb-20 08:43	WR-2 D-7	
2000411-07	<input type="checkbox"/>	PDI-031SC-A-05-06-191017	27-Feb-20 08:43	WR-2 D-7	
2000411-08	<input type="checkbox"/>	PDI-031SC-A-06-07-191017	27-Feb-20 08:43	WR-2 D-7	
<del>2000411-09</del>	<input type="checkbox"/>	<del>PDI-052SC-A-07-08-191015</del>	27-Feb-20 08:43	WR-2 D-7	
2000411-10	<input checked="" type="checkbox"/>	PDI-052SC-A-07-08-191015	27-Feb-20 08:43	WR-2 D-7	
<del>2000411-11</del>	<input type="checkbox"/>	<del>PDI-052SC-A-08-10-191015</del>	27-Feb-20 08:43	WR-2 D-7	
2000411-12	<input type="checkbox"/>	PDI-052SC-A-08-10-191015	27-Feb-20 08:43	WR-2 D-7	
2000411-13	<input type="checkbox"/>	PDI-052SC-A-10-11-191015	27-Feb-20 08:43	WR-2 D-7	
2000411-14	<input type="checkbox"/>	PDI-055SC-A-04-05-191015	27-Feb-20 08:43	WR-2 D-7	
2000411-15	<input type="checkbox"/>	PDI-055SC-A-05-06-191015	27-Feb-20 08:43	WR-2 D-7	
<del>2000411-16</del>	<input type="checkbox"/>	<del>PDI-055SC-A-06-07-191015</del>	27-Feb-20 08:43	WR-2 D-7	

WO Comments: ~~Rest 1g extraction (dry weight) DDX, Aldrin, Dieldrin, Dieldrin, Dieldrin~~

**Dioxin - 10g (dry weight)**

~~Rest 5g extraction (dry weight)~~

AO 03/13/20

Pre-Prep Check Out: N/A  
 Pre-Prep Check In: N/A

Prep Check Out: AO 03/13/20  
 Prep Check In: BA 03/13/2020

Prep Reconciled Initials/Date: AO 03/13/20  
 Spike Reconciled Initials/Date: RR 03/13/20

VialBoxID: NIGHTHAWK



Batch: B0C0168

Matrix: Solid

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight	Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
2000411-10RE2	15.49 ✓	71.867	11.1322	20	13-Mar-20 10:18	MSD			Sediment	1613 Full List
B0C0168-BLK1	10 ✓			20	13-Mar-20 10:18	MSD				QC
B0C0168-BS1	10 ✓			20 ✓	13-Mar-20 10:18 ✓	MSD ✓	18F1913 ✓	10 ✓		QC

All bolded data on report verified against written benchsheet by (initial/date) AO 03/14/20

SAMPLE DATA – EPA METHOD 1613



Dataset: U:\VG12.PRO\Results\200314R2\200314R2-5.qld

Last Altered: Sunday, March 15, 2020 10:11:36 Pacific Daylight Time

Printed: Sunday, March 15, 2020 10:13:25 Pacific Daylight Time

*GRB 03/15/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\vb5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

*MW 3/15/20*

Name: 200314R2\_5, Date: 14-Mar-2020, Time: 14:27:57, ID: B0C0076-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	0.983	10.000	25.766		1.001				0.0820	
2	2 1,2,3,7,8-PeCDD			NO	0.921	10.000	31.009		1.001				0.0647	
3	3 1,2,3,4,7,8-HxCDD			NO	1.13	10.000	34.413		1.000				0.0671	
4	4 1,2,3,6,7,8-HxCDD			NO	0.984	10.000	34.509		1.000				0.0697	
5	5 1,2,3,7,8,9-HxCDD			NO	0.967	10.000	34.785		1.000				0.0804	
6	6 1,2,3,4,6,7,8-HpCDD			NO	1.01	10.000	38.248		1.000				0.145	
7	7 OCDD	6.71e2	0.96	NO	1.05	10.000	41.357	41.41	1.000	1.001	0.30904		0.132	0.309
8	8 2,3,7,8-TCDF			NO	0.915	10.000	24.772		1.001				0.0448	
9	9 1,2,3,7,8-PeCDF			NO	0.959	10.000	29.666		1.001				0.0436	
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.000	30.698		1.001				0.0392	
11	11 1,2,3,4,7,8-HxCDF			NO	1.04	10.000	33.540		1.000				0.0499	
12	12 1,2,3,6,7,8-HxCDF			NO	1.01	10.000	33.678		1.000				0.0497	
13	13 2,3,4,6,7,8-HxCDF			NO	1.09	10.000	34.266		1.001				0.0505	
14	14 1,2,3,7,8,9-HxCDF	3.05e2	1.77	YES	1.03	10.000	35.105	35.13	1.000	1.001	0.088224		0.0354	0.0715
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.05	10.000	36.857		1.001				0.0626	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.000	38.887		1.000				0.0835	
17	17 OCDF	3.36e2	1.09	YES	0.947	10.000	41.539	41.58	1.000	1.001	0.14431		0.135	0.130
18	18 13C-2,3,7,8-TCDD	9.86e5	0.78	NO	1.18	10.000	25.735	25.74	1.029	1.029	167.51	83.8	0.256	
19	19 13C-1,2,3,7,8-PeCDD	8.35e5	0.62	NO	0.864	10.000	30.919	30.99	1.236	1.239	194.31	97.2	0.233	
20	20 13C-1,2,3,4,7,8-HxCDD	5.70e5	1.26	NO	0.754	10.000	34.406	34.40	1.014	1.014	169.67	84.8	0.283	
21	21 13C-1,2,3,6,7,8-HxCDD	7.19e5	1.30	NO	0.925	10.000	34.514	34.51	1.017	1.017	174.34	87.2	0.231	
22	22 13C-1,2,3,7,8,9-HxCDD	6.42e5	1.32	NO	0.829	10.000	34.776	34.78	1.025	1.025	173.78	86.9	0.257	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.55e5	1.05	NO	0.598	10.000	38.230	38.24	1.127	1.127	170.89	85.4	0.349	
24	24 13C-OCDD	8.26e5	0.91	NO	0.571	10.000	41.376	41.36	1.219	1.219	324.53	81.1	0.398	
25	25 13C-2,3,7,8-TCDF	1.27e6	0.78	NO	1.09	10.000	24.757	24.75	0.990	0.989	151.48	75.7	0.428	
26	26 13C-1,2,3,7,8-PeCDF	1.16e6	1.59	NO	0.876	10.000	29.590	29.65	1.183	1.185	172.55	86.3	0.479	
27	27 13C-2,3,4,7,8-PeCDF	1.15e6	1.57	NO	0.844	10.000	30.601	30.67	1.223	1.226	177.39	88.7	0.497	
28	28 13C-1,2,3,4,7,8-HxCDF	7.81e5	0.53	NO	1.00	10.000	33.554	33.54	0.989	0.988	175.33	87.7	0.396	
29	29 13C-1,2,3,6,7,8-HxCDF	8.55e5	0.52	NO	1.12	10.000	33.663	33.67	0.992	0.992	171.79	85.9	0.355	
30	30 13C-2,3,4,6,7,8-HxCDF	7.98e5	0.53	NO	1.04	10.000	34.243	34.23	1.009	1.009	173.07	86.5	0.383	
31	31 13C-1,2,3,7,8,9-HxCDF	6.73e5	0.50	NO	0.873	10.000	35.115	35.10	1.035	1.035	172.96	86.5	0.454	

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-5.qld

Last Altered: Sunday, March 15, 2020 10:11:36 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 10:13:25 Pacific Daylight Time

Name: 200314R2\_5, Date: 14-Mar-2020, Time: 14:27:57, ID: B0C0076-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
32	32 13C-1,2,3,4,6,7,8-HpCDF	5.63e5	0.45	NO	0.771	10.000	36.829	36.82	1.085	1.085	164.07	82.0	0.381	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.72e5	0.45	NO	0.519	10.000	38.912	38.89	1.147	1.146	160.82	80.4	0.565	
34	34 13C-OCDF	9.83e5	0.88	NO	0.696	10.000	41.556	41.54	1.225	1.224	316.79	79.2	0.412	
35	35 37Cl-2,3,7,8-TCDD	3.76e5			1.17	10.000	25.745	25.75	1.029	1.029	64.359	80.4	0.0594	
36	36 13C-1,2,3,4-TCDD	9.94e5	0.78	NO	1.00	10.000	25.050	25.02	1.000	1.000	200.00	100	0.304	
37	37 13C-1,2,3,4-TCDF	1.54e6	0.79	NO	1.00	10.000	23.190	23.12	1.000	1.000	200.00	100	0.466	
38	38 13C-1,2,3,4,6,9-HxCDF	8.91e5	0.53	NO	1.00	10.000	33.880	33.93	1.000	1.000	200.00	100	0.396	
39	39 Total Tetra-Dioxins				0.983	10.000	24.620		0.000				0.0521	
40	40 Total Penta-Dioxins				0.921	10.000	29.960		0.000				0.0254	
41	41 Total Hexa-Dioxins				0.984	10.000	33.635		0.000				0.0360	
42	42 Total Hepta-Dioxins				1.01	10.000	37.640		0.000				0.0837	
43	43 Total Tetra-Furans				0.915	10.000	23.610		0.000				0.0179	
44	44 1st Func. Penta-Furans				0.959	10.000	27.090		0.000				0.0113	
45	45 Total Penta-Furans				0.959	10.000	29.275		0.000				0.0162	
46	46 Total Hexa-Furans				1.09	10.000	33.555		0.000		0.00000		0.0248	0.0715
47	47 Total Hepta-Furans				1.05	10.000	37.835		0.000				0.0403	

**Quantify Totals Report MassLynx 4.1 SCN815**

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-5.qld

Last Altered: Sunday, March 15, 2020 10:11:36 Pacific Daylight Time

Printed: Sunday, March 15, 2020 10:13:25 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\ldb5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R2\_5, Date: 14-Mar-2020, Time: 14:27:57, ID: B0C0076-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\200314R2\200314R2-5.qld

Last Altered: Sunday, March 15, 2020 10:11:36 Pacific Daylight Time

Printed: Sunday, March 15, 2020 10:13:25 Pacific Daylight Time

Name: 200314R2\_5, Date: 14-Mar-2020, Time: 14:27:57, ID: B0C0076-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	1,2,3,7,8,9-HxCDF	35.13	3.230e3	2.319e3	1.945e2	1.102e2	1.77	YES	3.047e2	0.00000	0.071456	0.0354

Hepta-Furans

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



Dataset: Untitled

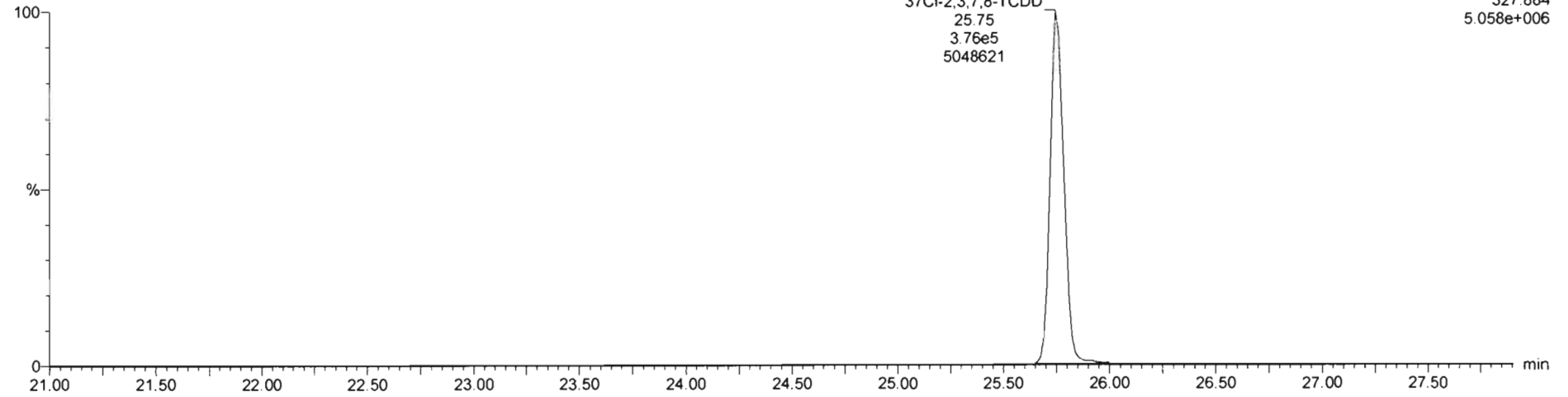
Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time

Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_5, Date: 14-Mar-2020, Time: 14:27:57, ID: B0C0076-BLK1 Method Blank 10, Description: Method Blank

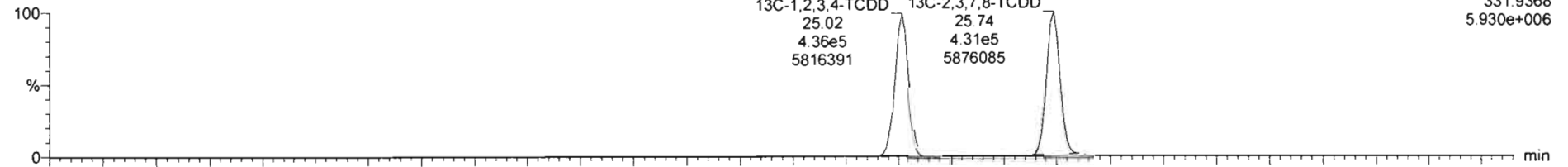
37Cl-2,3,7,8-TCDD

200314R2\_5

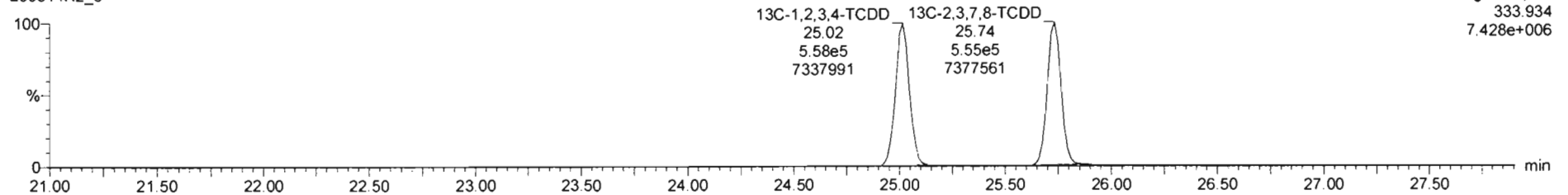


13C-1,2,3,4-TCDD

200314R2\_5



200314R2\_5



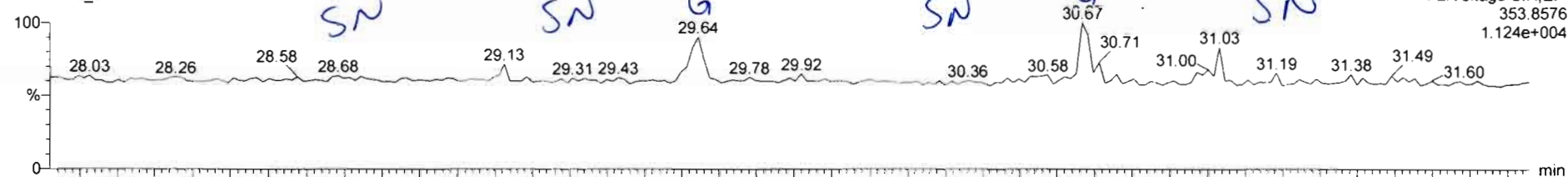
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Name: 200314R2\_5, Date: 14-Mar-2020, Time: 14:27:57, ID: B0C0076-BLK1 Method Blank 10, Description: Method Blank

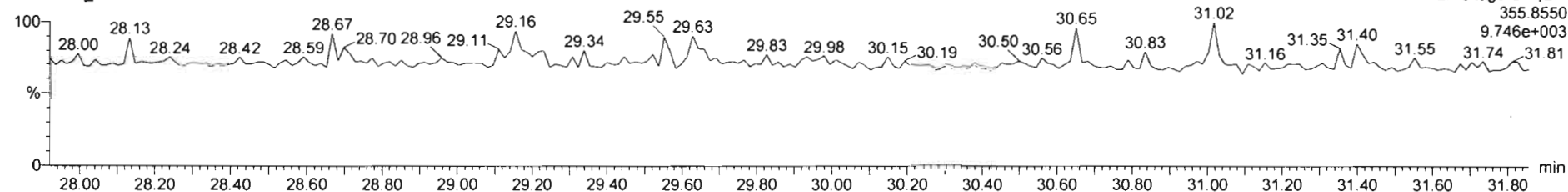
1,2,3,7,8-PeCDD

200314R2\_5



F2: Voltage SIR, EI+  
353.8576  
1.124e+004

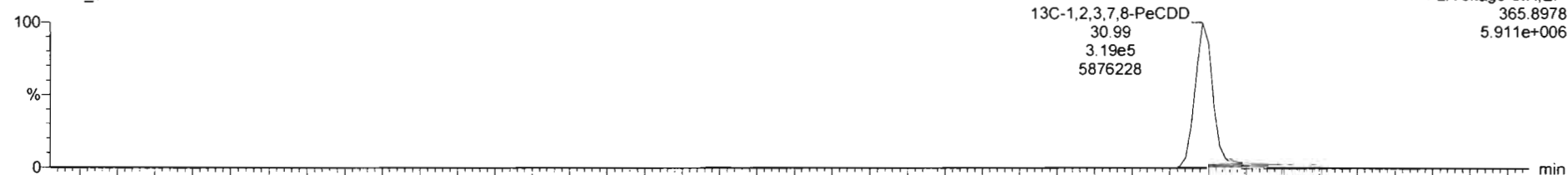
200314R2\_5



F2: Voltage SIR, EI+  
355.8550  
9.746e+003

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

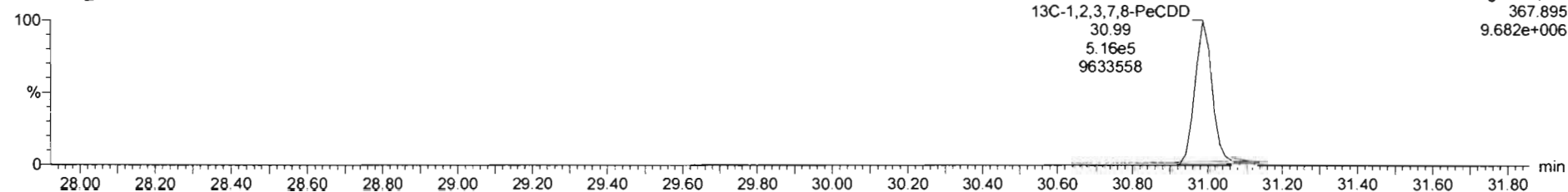
200314R2\_5



13C-1,2,3,7,8-PeCDD  
30.99  
3.19e5  
5876228

F2: Voltage SIR, EI+  
365.8978  
5.911e+006

200314R2\_5



13C-1,2,3,7,8-PeCDD  
30.99  
5.16e5  
9633558

F2: Voltage SIR, EI+  
367.895  
9.682e+006

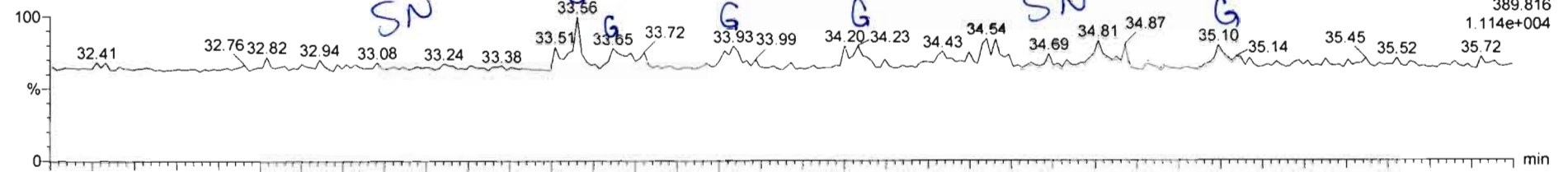
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

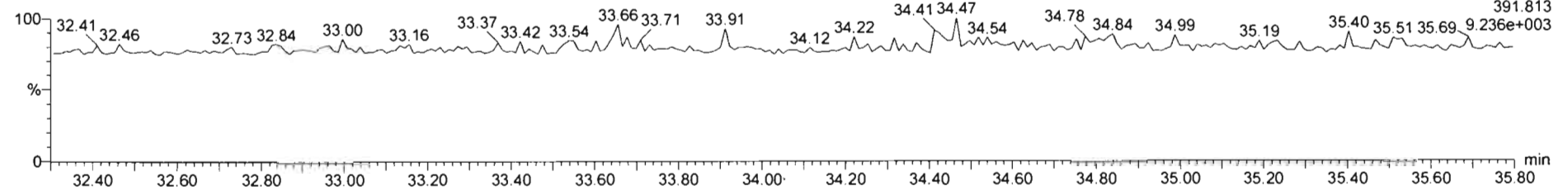
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1,2,3,4,7,8-HxCDD

200314R2\_5

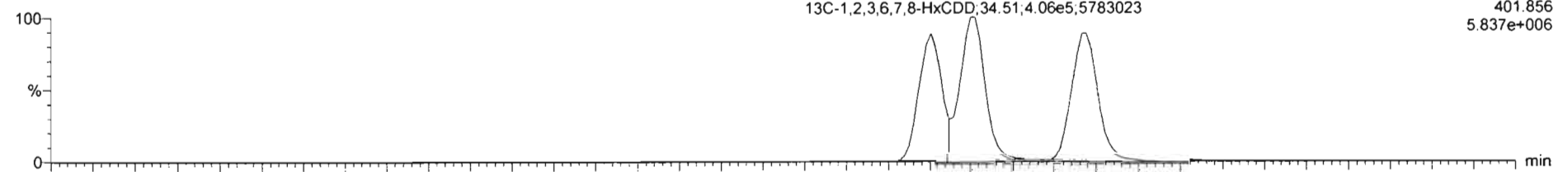


200314R2\_5

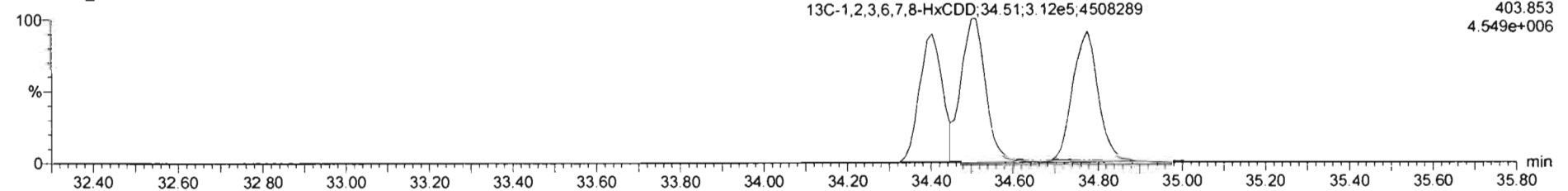


13C-1,2,3,4,7,8-HxCDD

200314R2\_5



200314R2\_5



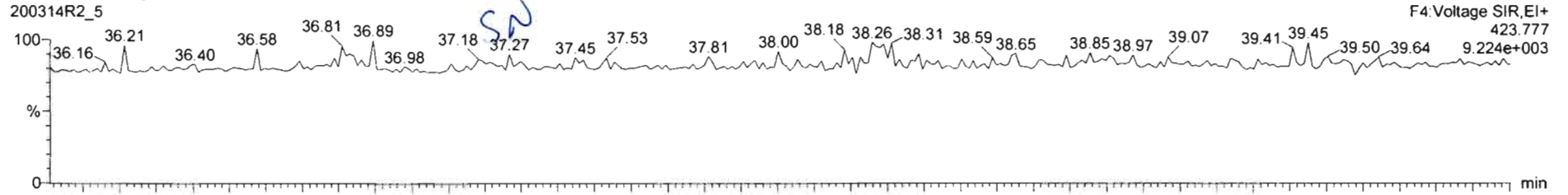


Dataset: Untitled

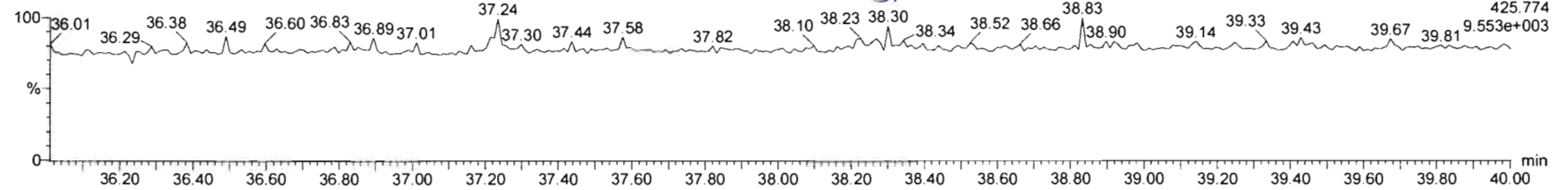
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_5, Date: 14-Mar-2020, Time: 14:27:57, ID: B0C0076-BLK1 Method Blank 10, Description: Method Blank

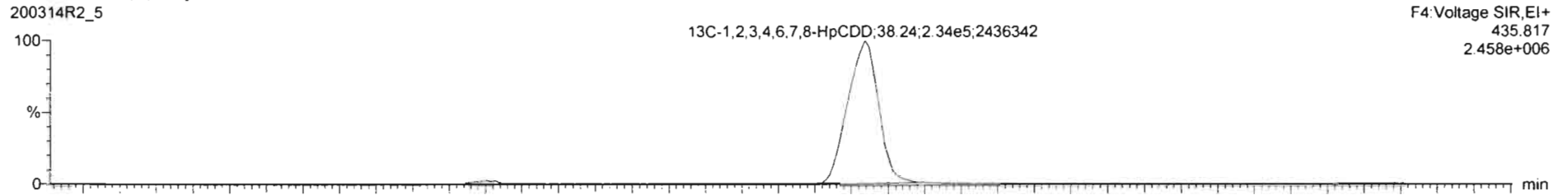
1,2,3,4,6,7,8-HpCDD



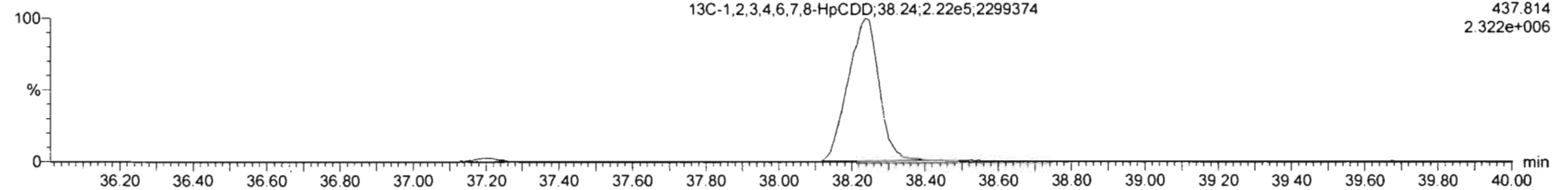
200314R2\_5



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



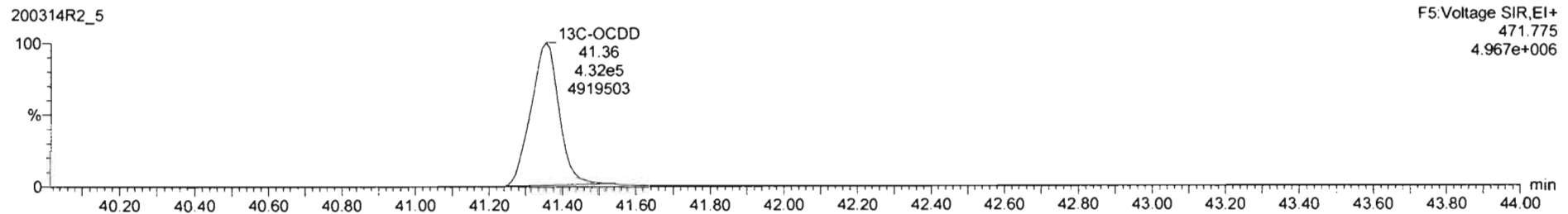
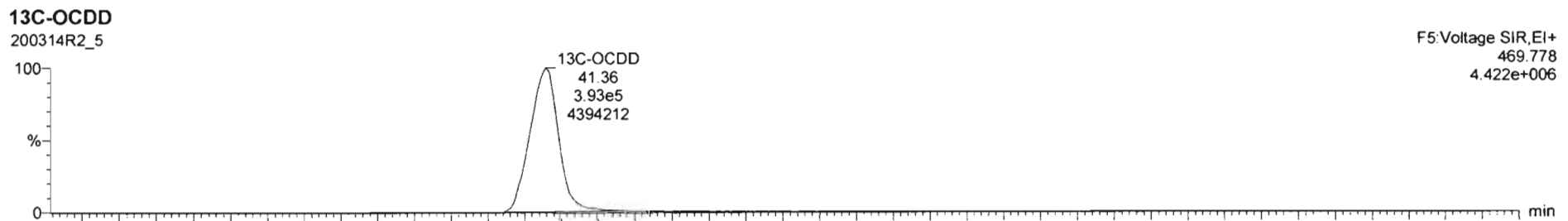
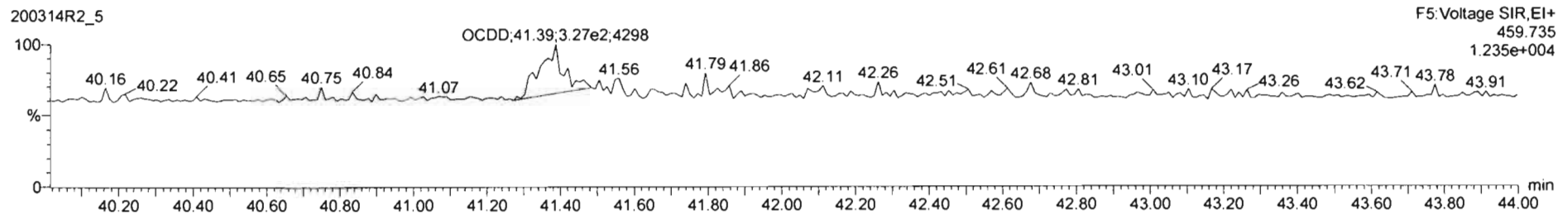
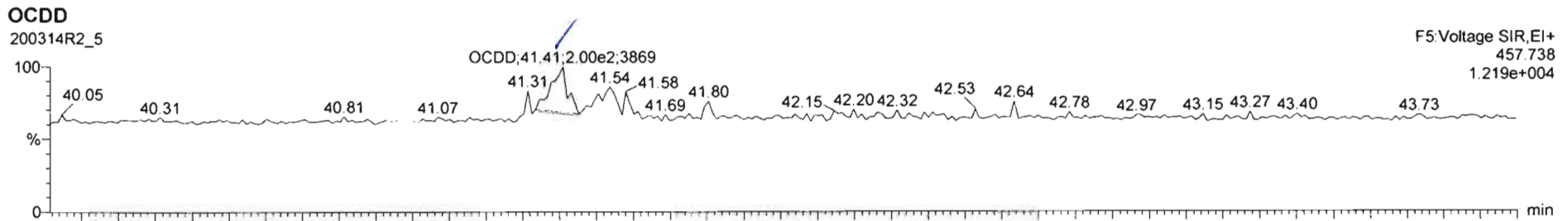
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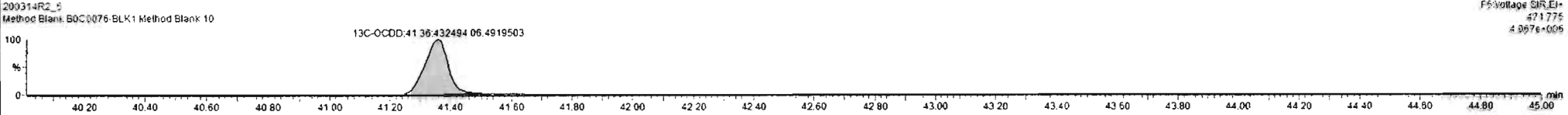
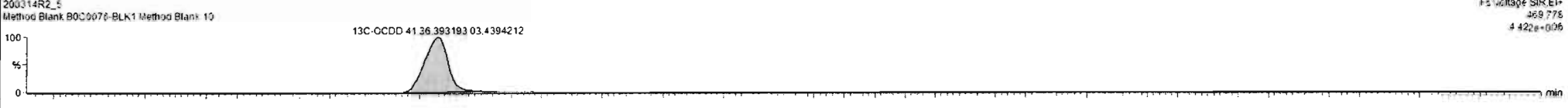
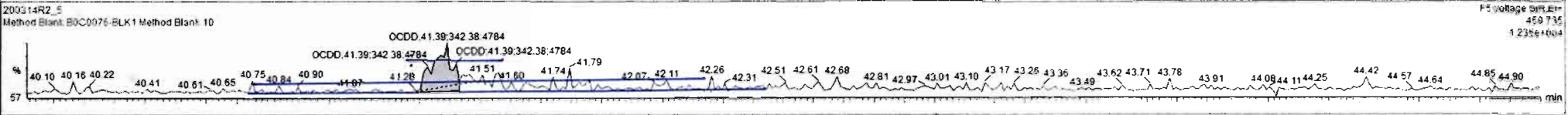
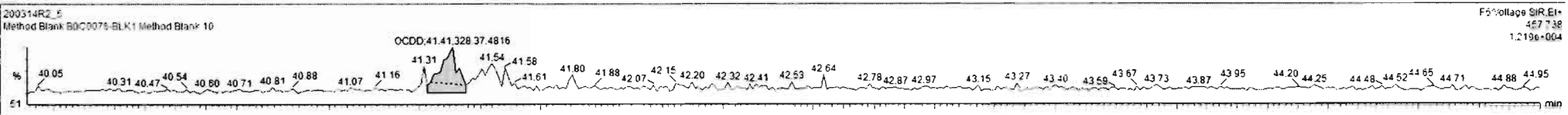
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_5, Date: 14-Mar-2020, Time: 14:27:57, ID: B0C0076-BLK1 Method Blank 10, Description: Method Blank



Name	Resp	RA	nly	RRF	wVol	RT	RRT	Conc	%Rec	DL	EMPC
OCDD	6.71e2	0.96	NO	1.0515	10.000	41.41	1.001	0.309		0.132	0.309

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.



Dataset: Untitled

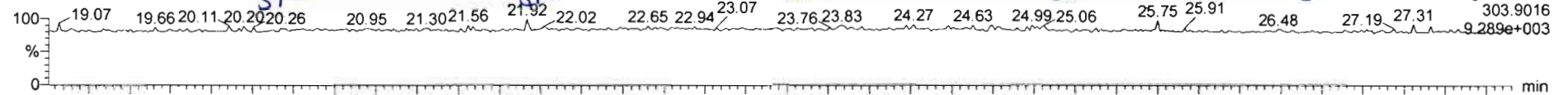
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

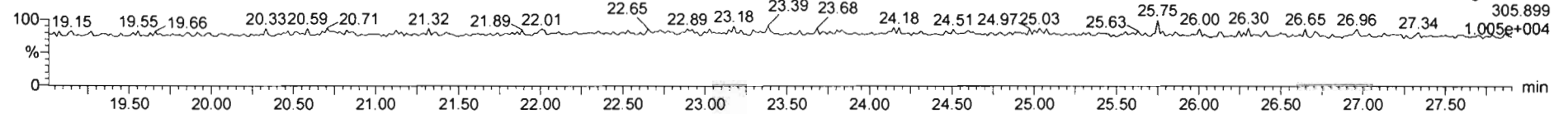
Name: 200314R2\_5, Date: 14-Mar-2020, Time: 14:27:57, ID: B0C0076-BLK1 Method Blank 10, Description: Method Blank

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

200314R2\_5

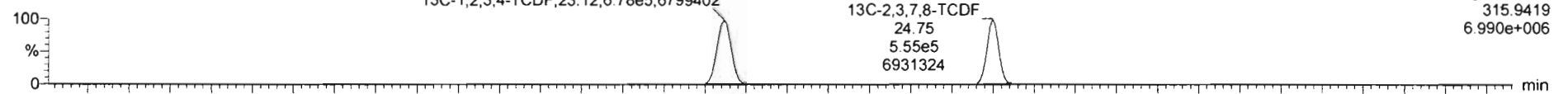


200314R2\_5

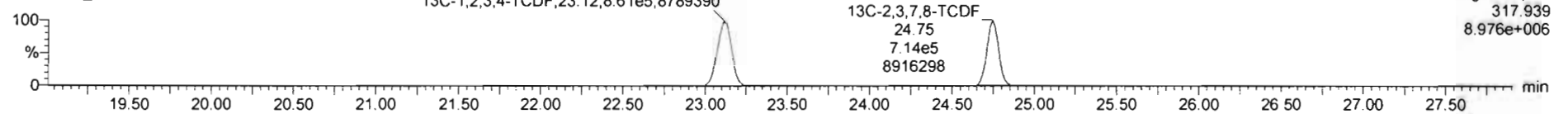


**13C-2,3,7,8-TCDF**

200314R2\_5

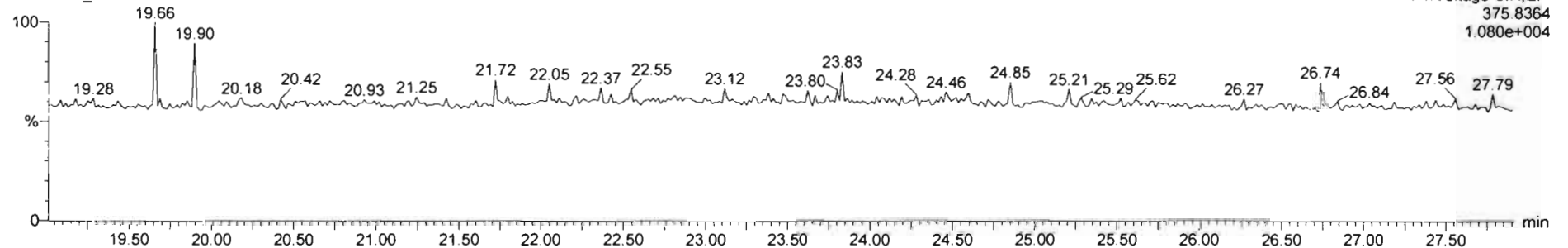


200314R2\_5



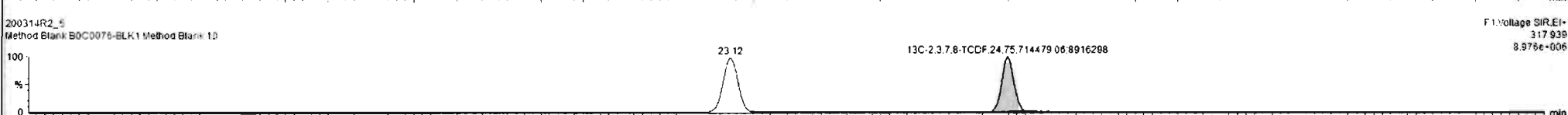
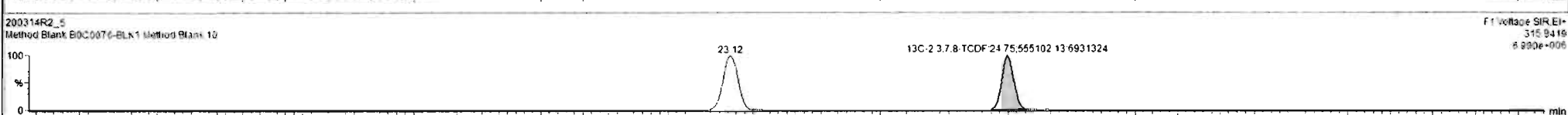
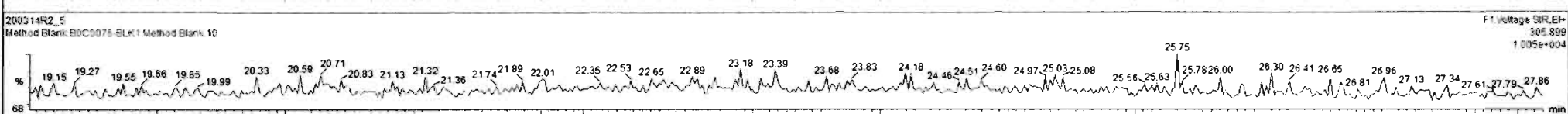
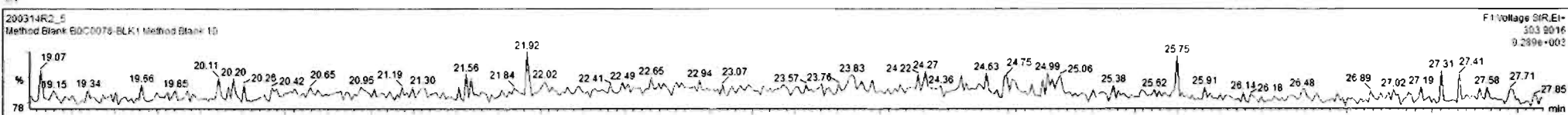
**DPE1**

200314R2\_5



Name	Resp	RA	n/y	RRF	wt/Vol	RT	RRT	Conc	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9154	10.000					0.0179	
44 Tet Furan Derivs.Furans				0.9504	10.000					0.0111	

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



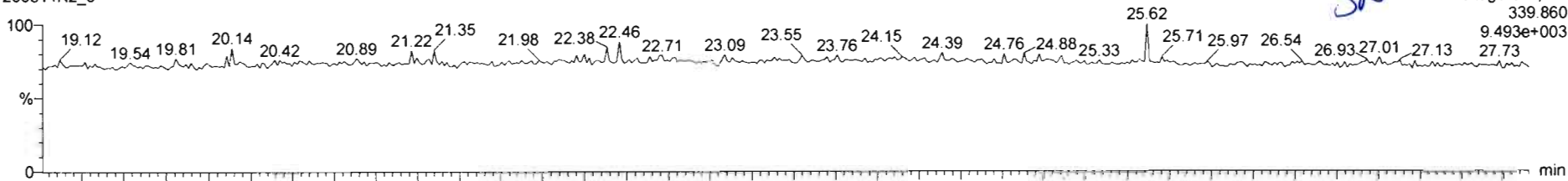
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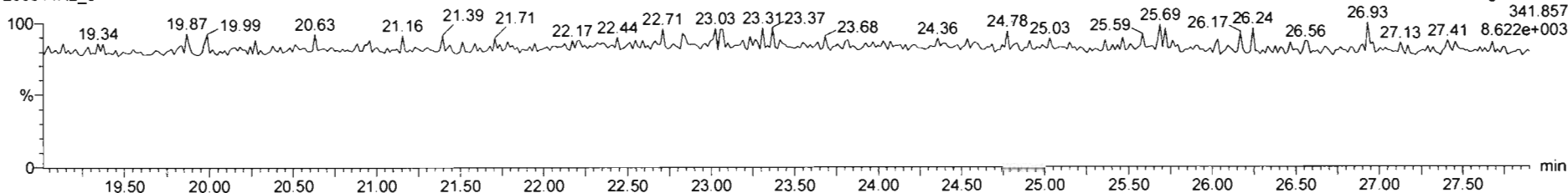
Name: 200314R2\_5, Date: 14-Mar-2020, Time: 14:27:57, ID: B0C0076-BLK1 Method Blank 10, Description: Method Blank

1st Func. Penta-Furans

200314R2\_5

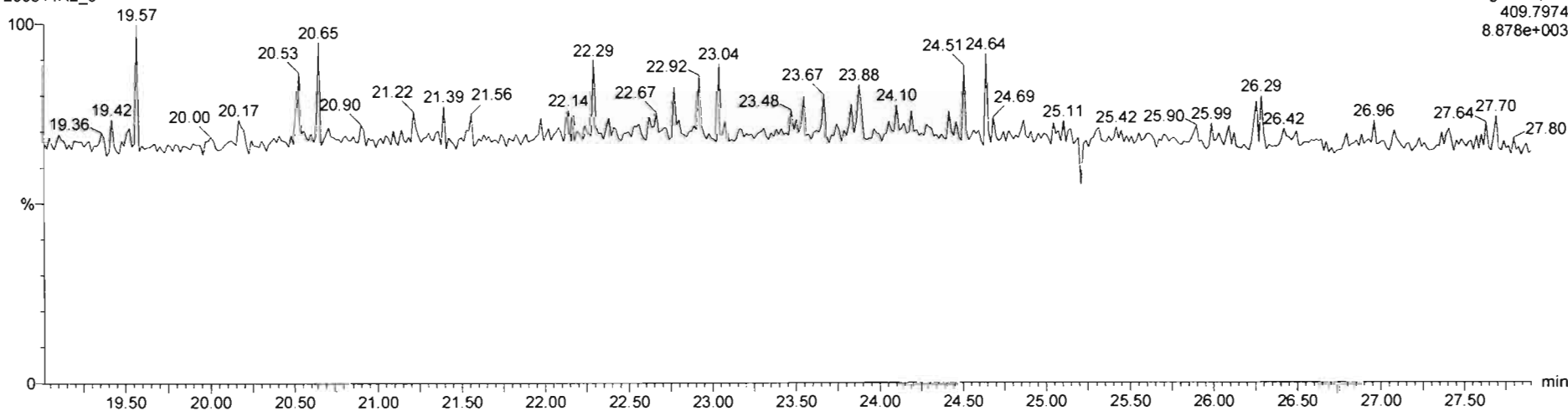


200314R2\_5



DPE6

200314R2\_5

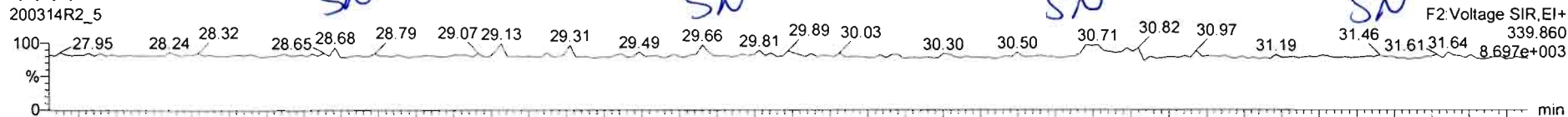


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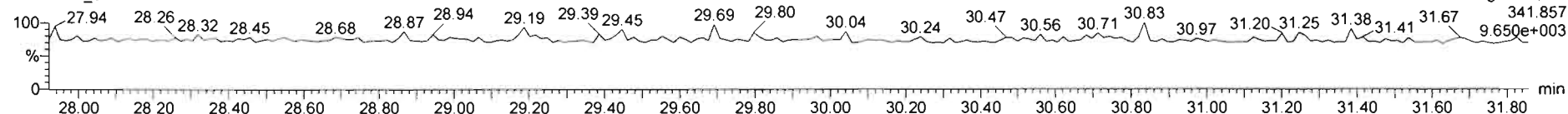
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Name: 200314R2\_5, Date: 14-Mar-2020, Time: 14:27:57, ID: B0C0076-BLK1 Method Blank 10, Description: Method Blank

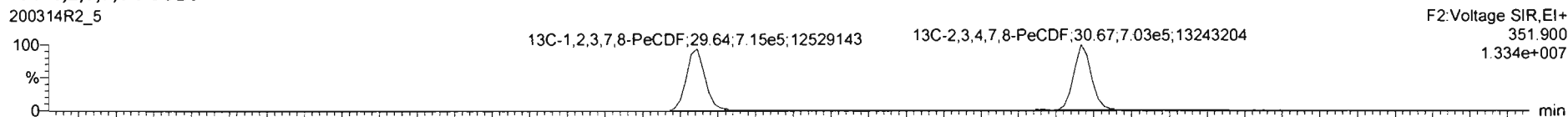
1,2,3,7,8-PeCDF



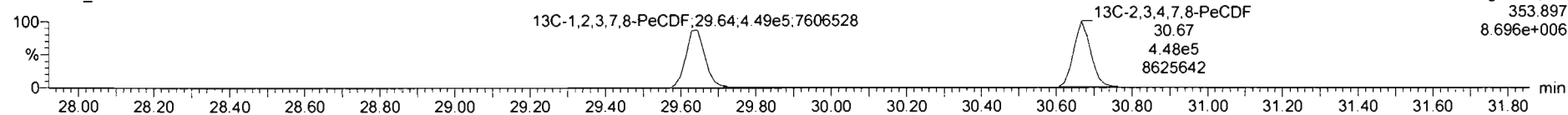
200314R2\_5



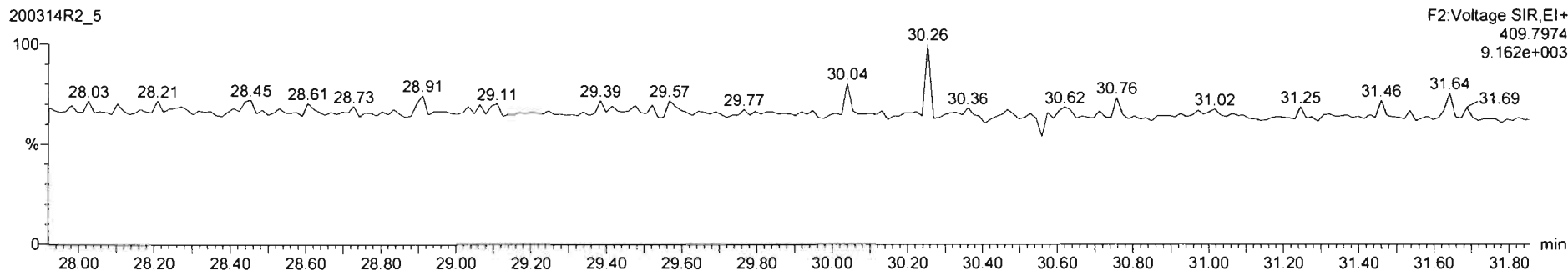
13C-1,2,3,7,8-PeCDF



200314R2\_5

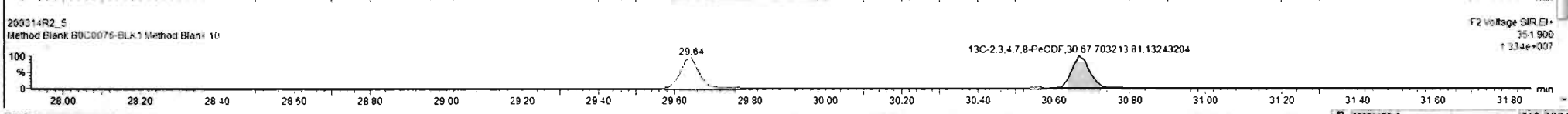
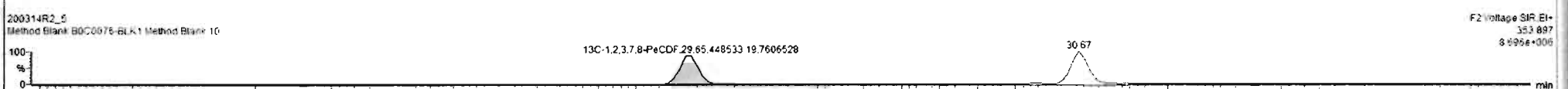
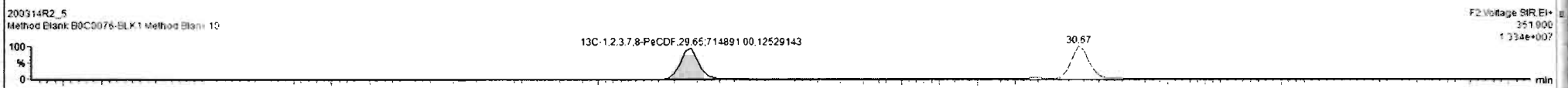
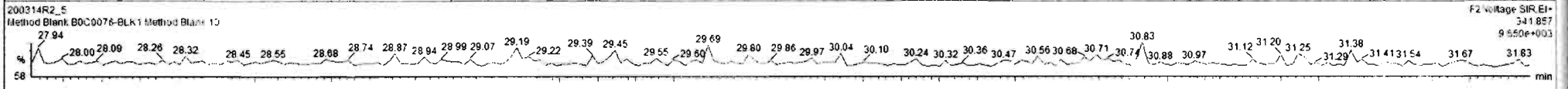
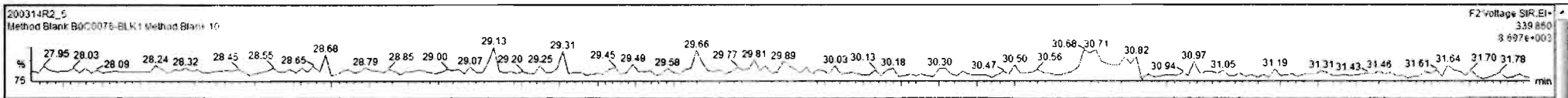


DPE2



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.8594	10.000					0.0162	
46 Total Hexa-Furans				1.0928	10.000					0.0246	

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



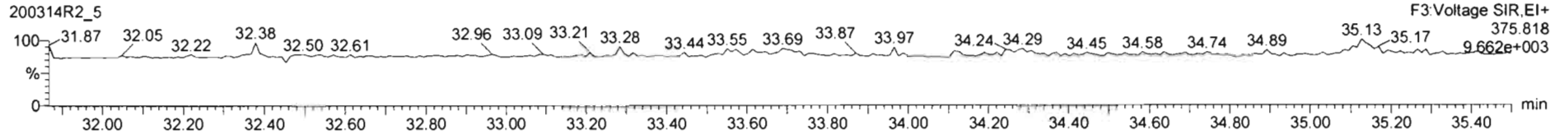
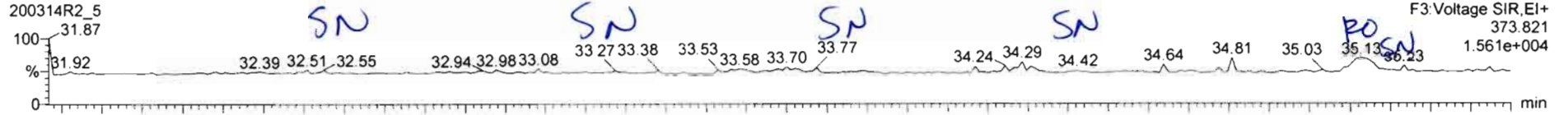


Dataset: Untitled

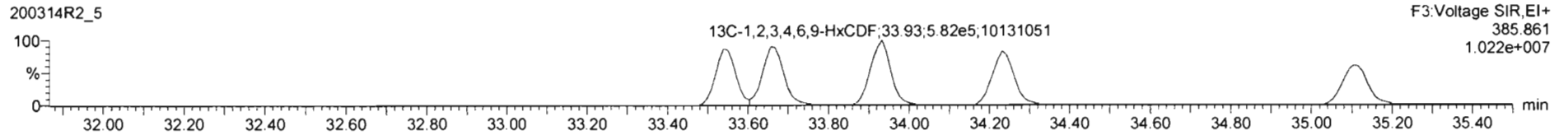
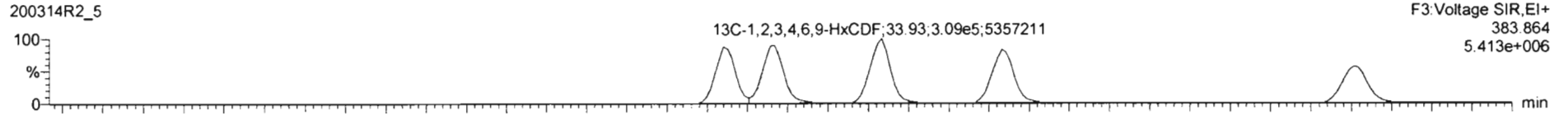
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_5, Date: 14-Mar-2020, Time: 14:27:57, ID: B0C0076-BLK1 Method Blank 10, Description: Method Blank

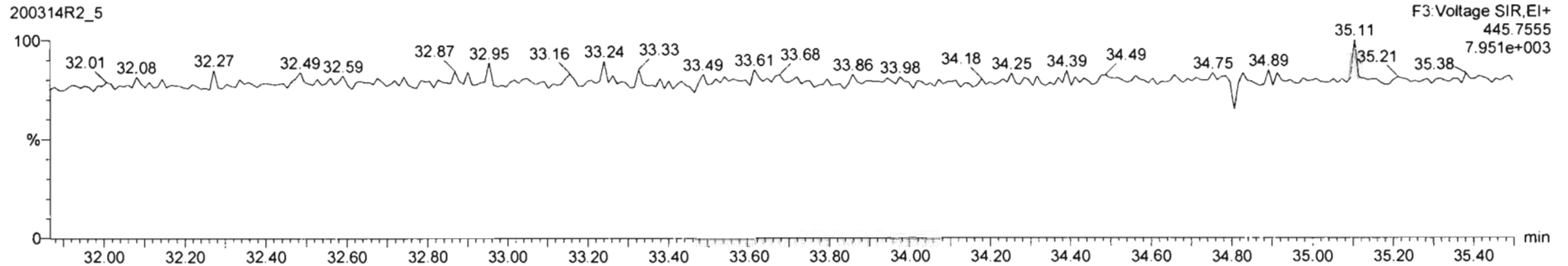
1,2,3,4,7,8-HxCDF



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



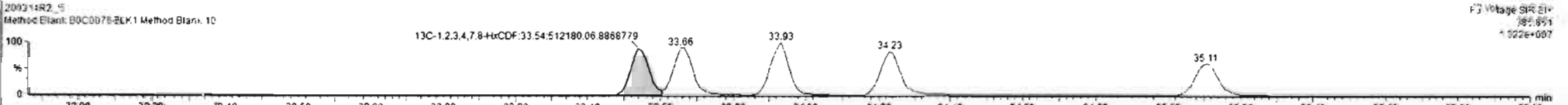
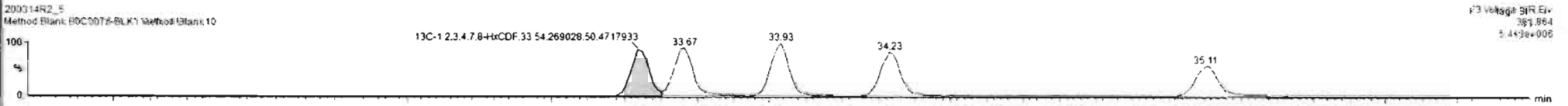
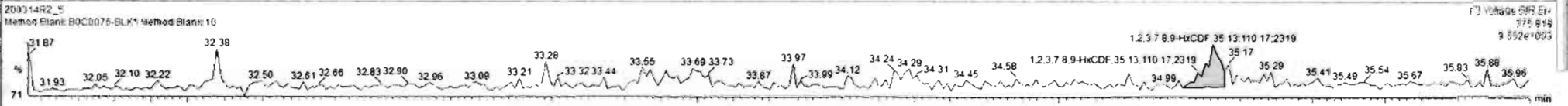
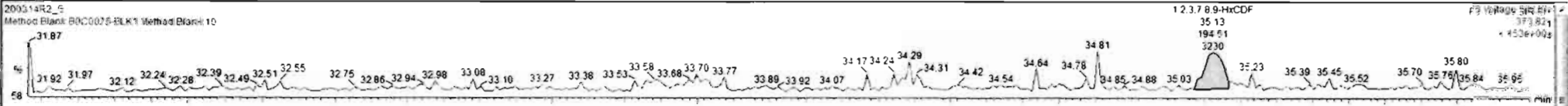
DPE3



200314R2\_5 - B0C0076-BLK1 Method Blank 10 - Method Blank

Name	Resp	RA	n/y	RRF	w/hol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	13.000					0.0162	
46 Total Hexa-Furans				1.0026	18.000					0.0248	0.0714

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 1,2,3,7,8,9-HxCDF	35.13	1.945e2	1.102e2	1.77	YES	0.071456	0.00000

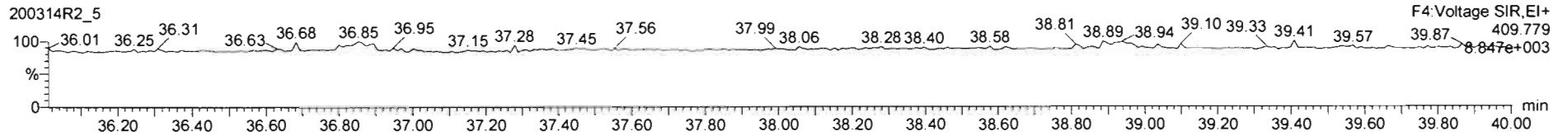
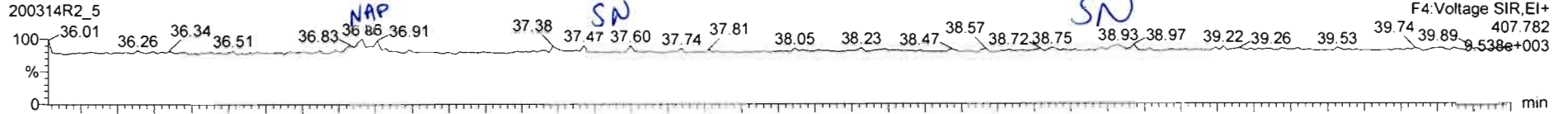


Dataset: Untitled

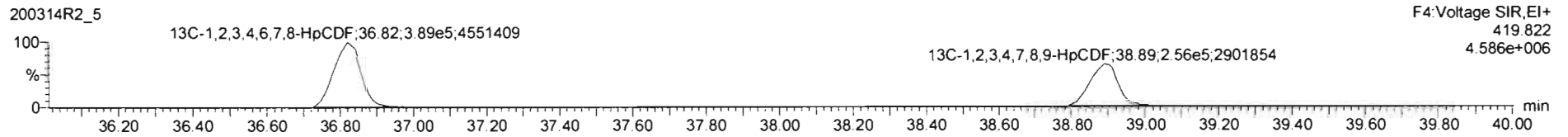
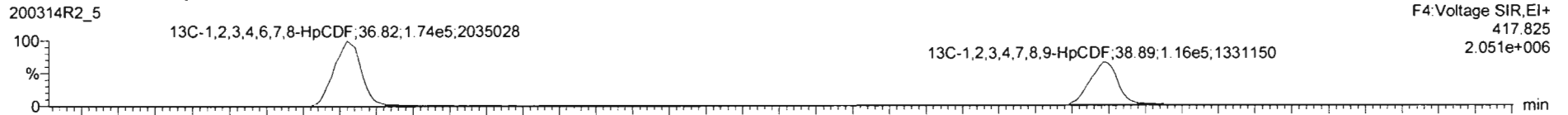
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_5, Date: 14-Mar-2020, Time: 14:27:57, ID: B0C0076-BLK1 Method Blank 10, Description: Method Blank

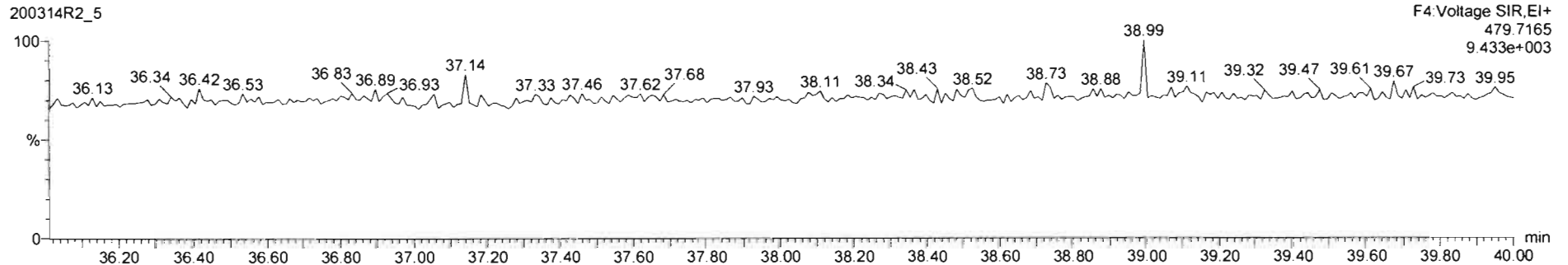
1,2,3,4,6,7,8-HpCDF



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

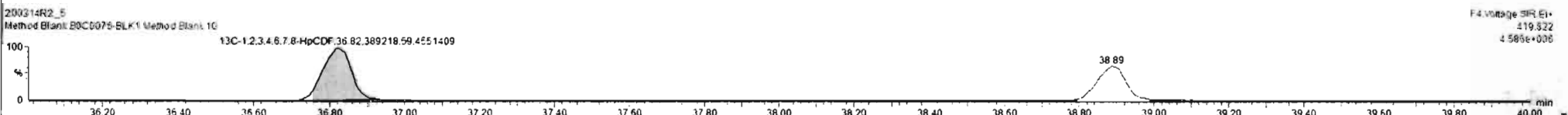
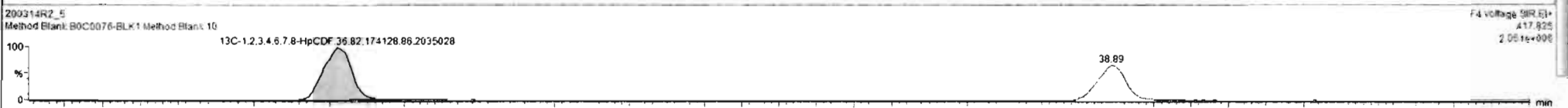
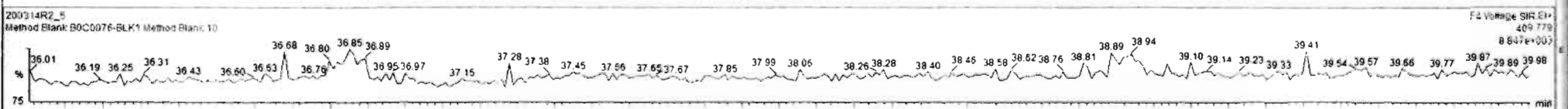
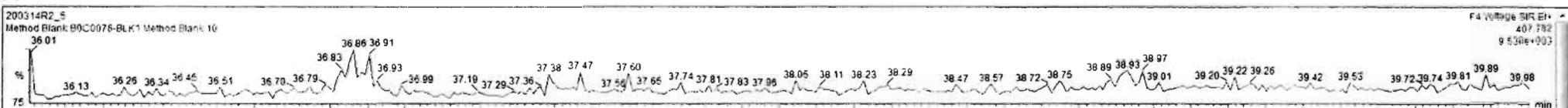


DPE4



Name	Resp	RA	nly	RRF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
47 Total Hepta-Furans				1.0423	10.000					0.0403	

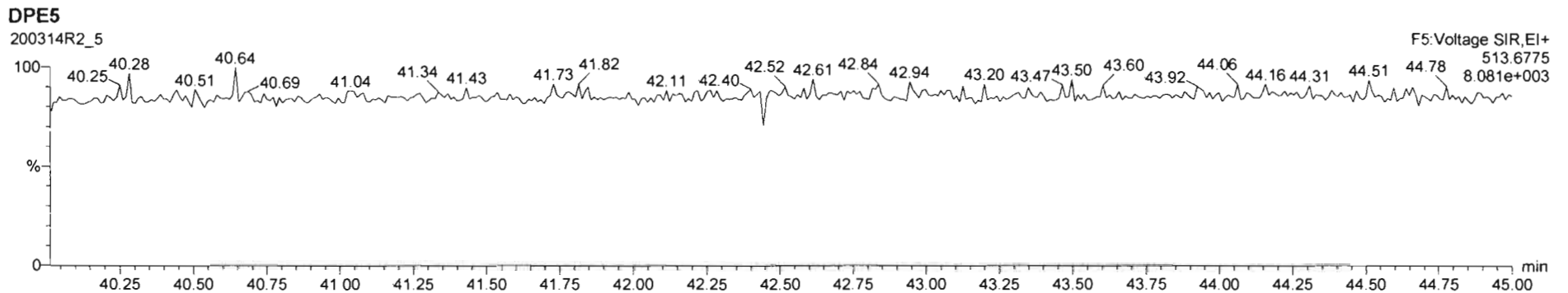
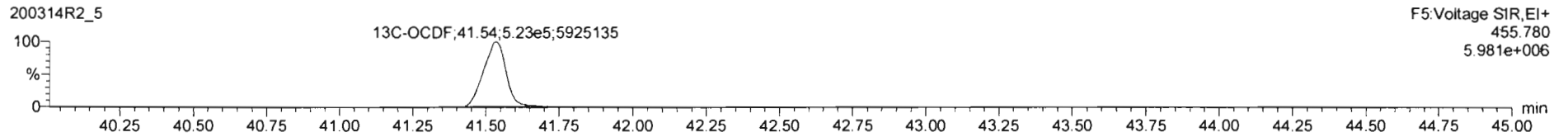
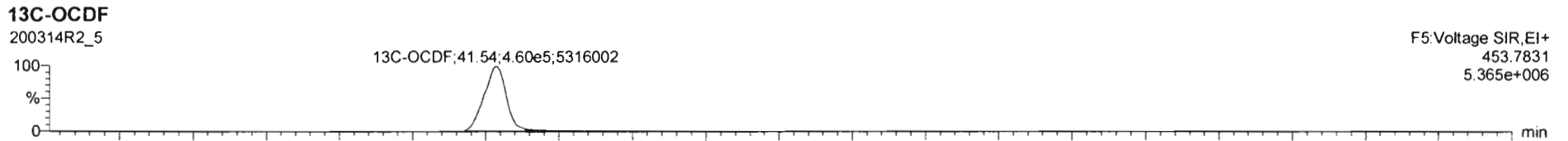
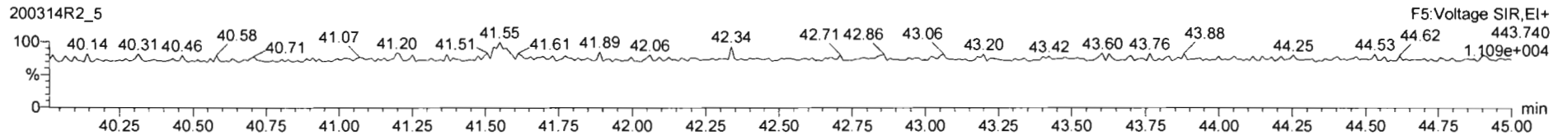
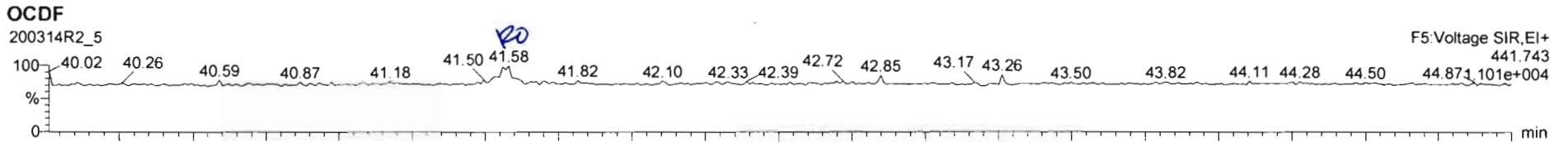
Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1							



Dataset: Untitled

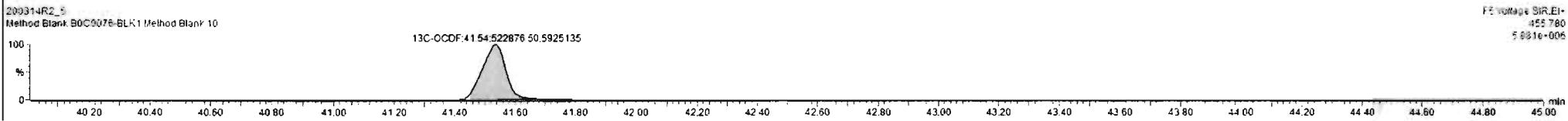
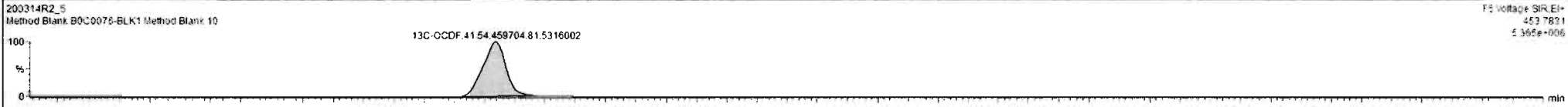
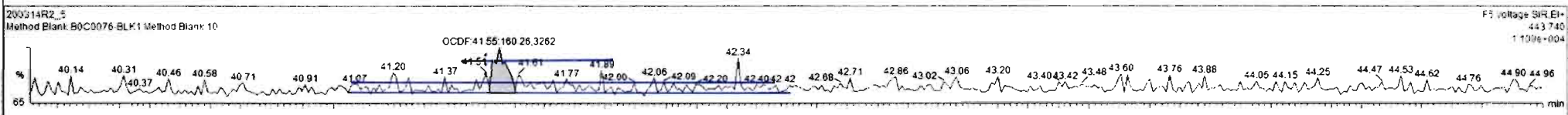
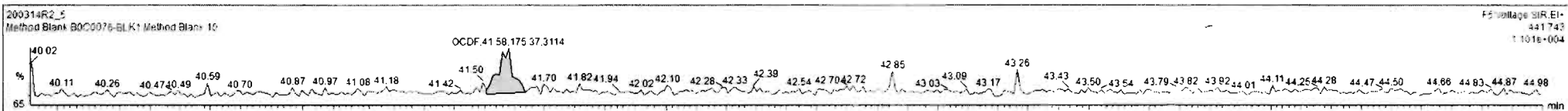
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_5, Date: 14-Mar-2020, Time: 14:27:57, ID: B0C0076-BLK1 Method Blank 10, Description: Method Blank



Name	Resp	RA	nly	SRF	wVol	RT	FRT	Conc	%Rec	DL	EMPC
17	OCDF	3.30e2	1.09	YES	0.8465	10.000	41.58	1.001	0.144	0.135	0.130

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1							



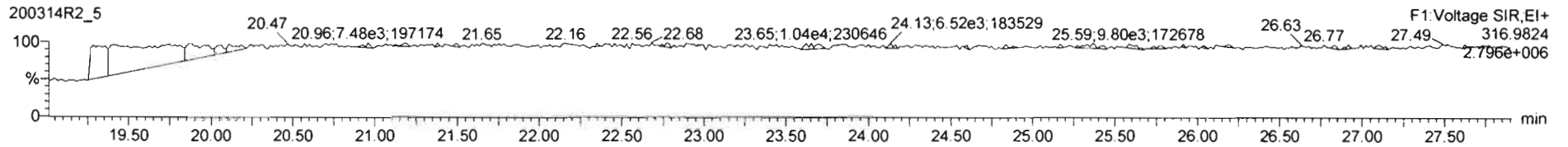
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Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time

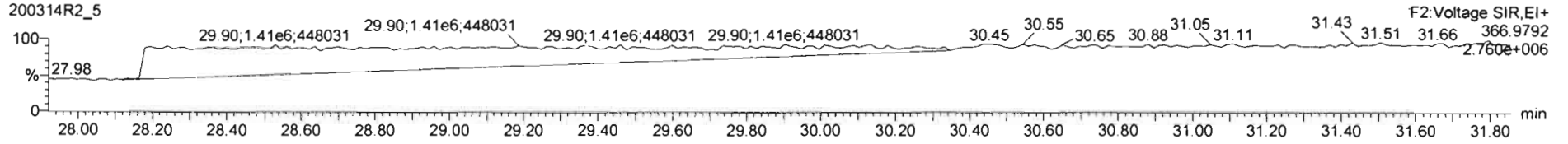
Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_5, Date: 14-Mar-2020, Time: 14:27:57, ID: B0C0076-BLK1 Method Blank 10, Description: Method Blank

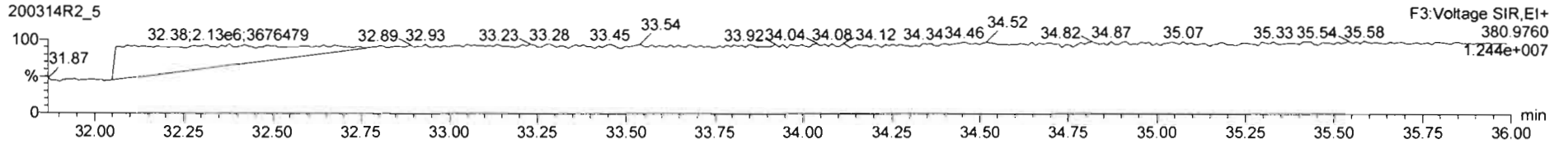
PFK1



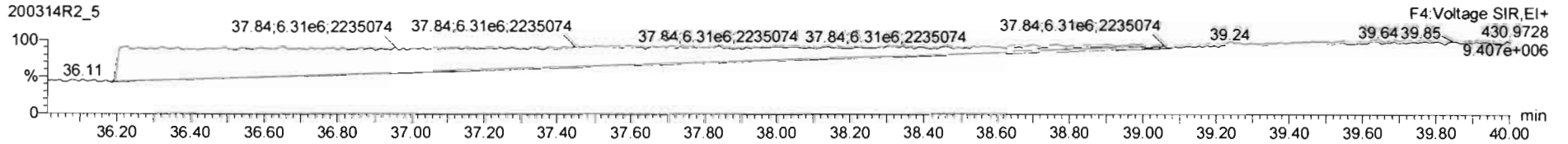
PFK2



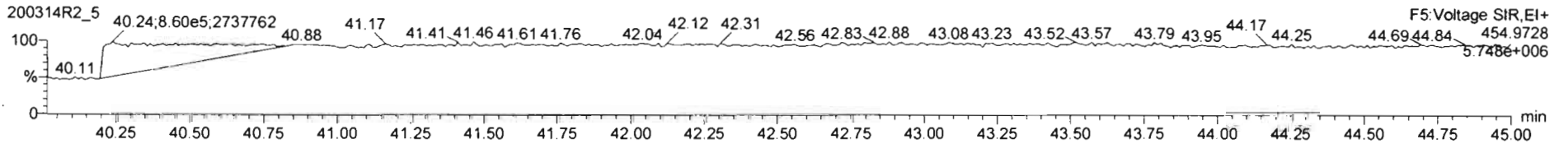
PFK3



PFK4



PFK5



Dataset: U:\VG12.PRO\Results\200314R2\200314R2-2.qld

Last Altered: Sunday, March 15, 2020 10:00:14 Pacific Daylight Time

Printed: Sunday, March 15, 2020 10:00:30 Pacific Daylight Time

*GRB 03/15/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\lb5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

*Wm  
3/15/20*

Name: 200314R2\_2, Date: 14-Mar-2020, Time: 12:06:21, ID: B0C0076-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	7.39e4	0.78	NO	0.983	10.000	25.751	25.74	1.001	1.001	17.331		0.114	17.3
2	2 1,2,3,7,8-PeCDD	3.30e5	0.61	NO	0.921	10.000	31.025	31.02	1.001	1.000	90.954		0.119	91.0
3	3 1,2,3,4,7,8-HxCDD	2.92e5	1.25	NO	1.13	10.000	34.423	34.44 ✓	1.000	1.001	88.011		0.163	88.0
4	4 1,2,3,6,7,8-HxCDD	3.11e5	1.25	NO	0.984	10.000	34.520	34.53 ✓	1.000	1.000	89.378		0.162	89.4
5	5 1,2,3,7,8,9-HxCDD	2.80e5	1.25	NO	0.967	10.000	34.796	34.80 ✓	1.000	1.000	91.019		0.189	91.0
6	6 1,2,3,4,6,7,8-HpCDD	1.94e5	1.03	NO	1.01	10.000	38.248	38.26	1.000	1.001	87.970		0.357	88.0
7	7 OCDD	3.57e5	0.90	NO	1.05	10.000	41.347	41.36	1.000	1.000	172.25		0.238	172
8	8 2,3,7,8-TCDF	8.46e4	0.76	NO	0.915	10.000	24.743	24.76	1.001	1.002	16.685		0.0863	16.7
9	9 1,2,3,7,8-PeCDF	4.73e5	1.63	NO	0.959	10.000	29.666	29.66	1.001	1.001	89.864		0.166	89.9
10	10 2,3,4,7,8-PeCDF	4.95e5	1.55	NO	1.00	10.000	30.713	30.70	1.001	1.001	89.185		0.150	89.2
11	11 1,2,3,4,7,8-HxCDF	3.61e5	1.18	NO	1.04	10.000	33.561	33.57 ✓	1.000	1.000	89.967		0.183	90.0
12	12 1,2,3,6,7,8-HxCDF	3.95e5	1.18	NO	1.01	10.000	33.689	33.69 ✓	1.000	1.000	91.859		0.172	91.9
13	13 2,3,4,6,7,8-HxCDF	3.89e5	1.18	NO	1.09	10.000	34.288	34.26 ✓	1.001	1.000	89.093		0.175	89.1
14	14 1,2,3,7,8,9-HxCDF	2.91e5	1.19	NO	1.03	10.000	35.127	35.14 ✓	1.000	1.000	87.298		0.248	87.3
15	15 1,2,3,4,6,7,8-HpCDF	2.66e5	1.00	NO	1.05	10.000	36.868	36.84	1.001	1.000	89.343		0.194	89.3
16	16 1,2,3,4,7,8,9-HpCDF	2.00e5	1.01	NO	1.21	10.000	38.897	38.91	1.000	1.000	91.560		0.265	91.6
17	17 OCDF	4.09e5	0.88	NO	0.947	10.000	41.528	41.54	1.000	1.000	176.50		0.250	176
18	18 13C-2,3,7,8-TCDD	8.67e5	0.74	NO	1.18	10.000	25.720	25.72	1.029	1.029	158.03	79.0	0.250	
19	19 13C-1,2,3,7,8-PeCDD	7.87e5	0.64	NO	0.864	10.000	30.900	31.00	1.236	1.240	196.65	98.3	0.360	
20	20 13C-1,2,3,4,7,8-HxCDD	5.85e5	1.27	NO	0.754	10.000	34.417	34.41 ✓	1.014	1.014	172.73	86.4	0.272	
21	21 13C-1,2,3,6,7,8-HxCDD	7.07e5	1.27	NO	0.925	10.000	34.525	34.52 ✓	1.017	1.017	170.06	85.0	0.222	
22	22 13C-1,2,3,7,8,9-HxCDD	6.37e5	1.28	NO	0.829	10.000	34.787	34.79 ✓	1.025	1.025	170.74	85.4	0.248	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.39e5	1.07	NO	0.598	10.000	38.242	38.24	1.127	1.126	163.43	81.7	0.311	
24	24 13C-OCDD	7.88e5	0.87	NO	0.571	10.000	41.389	41.35	1.219	1.218	307.11	76.8	0.298	
25	25 13C-2,3,7,8-TCDF	1.11e6	0.77	NO	1.09	10.000	24.742	24.72	0.990	0.989	140.14	70.1	0.449	
26	26 13C-1,2,3,7,8-PeCDF	1.10e6	1.58	NO	0.876	10.000	29.572	29.65	1.183	1.186	172.51	86.3	0.399	
27	27 13C-2,3,4,7,8-PeCDF	1.11e6	1.60	NO	0.844	10.000	30.582	30.68	1.223	1.227	180.66	90.3	0.414	
28	28 13C-1,2,3,4,7,8-HxCDF	7.72e5	0.51	NO	1.00	10.000	33.565	33.56 ✓	0.989	0.989	171.78	85.9	0.370	
29	29 13C-1,2,3,6,7,8-HxCDF	8.48e5	0.50	NO	1.12	10.000	33.673	33.68 ✓	0.992	0.992	168.86	84.4	0.331	
30	30 13C-2,3,4,6,7,8-HxCDF	8.01e5	0.51	NO	1.04	10.000	34.254	34.25 ✓	1.009	1.009	172.06	86.0	0.358	
31	31 13C-1,2,3,7,8,9-HxCDF	6.48e5	0.49	NO	0.873	10.000	35.126	35.13 ✓	1.035	1.035	165.21	82.6	0.424	



Dataset: U:\VG12.PRO\Results\200314R2\200314R2-2.qld

Last Altered: Sunday, March 15, 2020 10:00:14 Pacific Daylight Time

Printed: Sunday, March 15, 2020 10:00:30 Pacific Daylight Time

Name: 200314R2\_2, Date: 14-Mar-2020, Time: 12:06:21, ID: B0C0076-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	5.68e5	0.44	NO	0.771	10.000	36.841	36.83	1.085	1.085	163.84	81.9	0.337	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.60e5	0.44	NO	0.519	10.000	38.925	38.90	1.147	1.146	154.45	77.2	0.501	
34	34 13C-OCDF	9.78e5	0.89	NO	0.696	10.000	41.569	41.53	1.225	1.223	312.60	78.1	0.241	
35	35 37Cl-2,3,7,8-TCDD	3.32e5			1.17	10.000	25.730	25.74	1.029	1.029	60.999	76.2	0.0499	
36	36 13C-1,2,3,4-TCDD	9.26e5	0.77	NO	1.00	10.000	25.050	25.00	1.000	1.000	200.00	100	0.296	
37	37 13C-1,2,3,4-TCDF	1.45e6	0.79	NO	1.00	10.000	23.190	23.07	1.000	1.000	200.00	100	0.489	
38	38 13C-1,2,3,4,6,9-HxCDF	8.99e5	0.51	NO	1.00	10.000	33.880	33.94	1.000	1.000	200.00	100	0.370	

Dataset: Untitled

Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time

Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

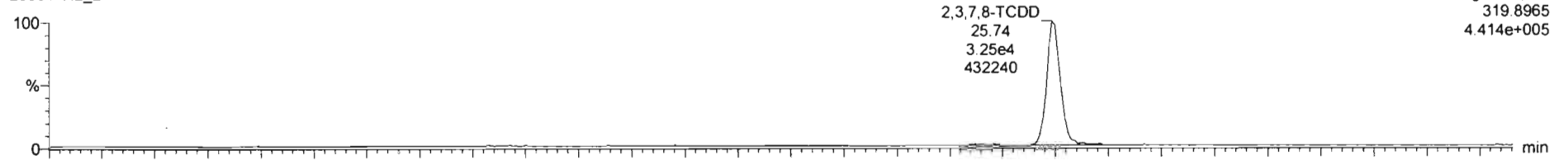
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Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

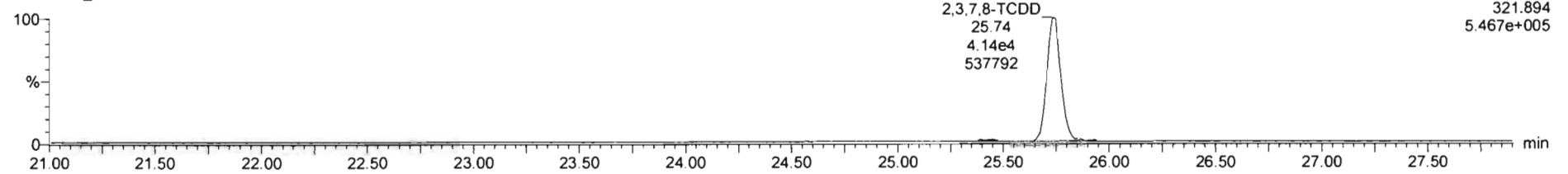
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**2,3,7,8-TCDD**

200314R2\_2

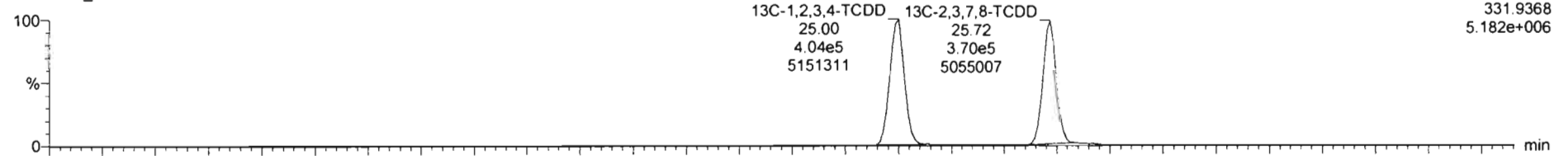


200314R2\_2

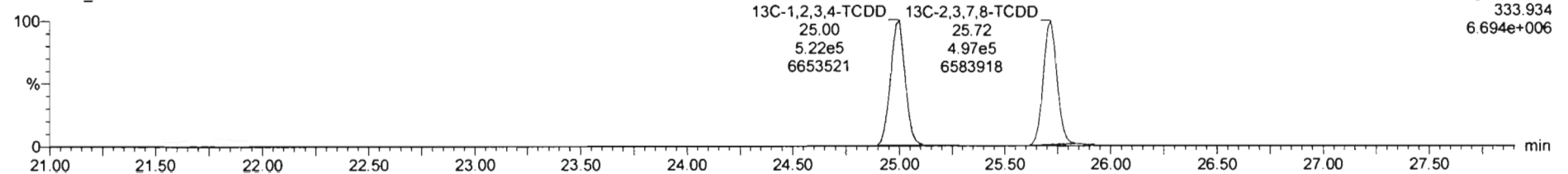


**13C-2,3,7,8-TCDD**

200314R2\_2



200314R2\_2



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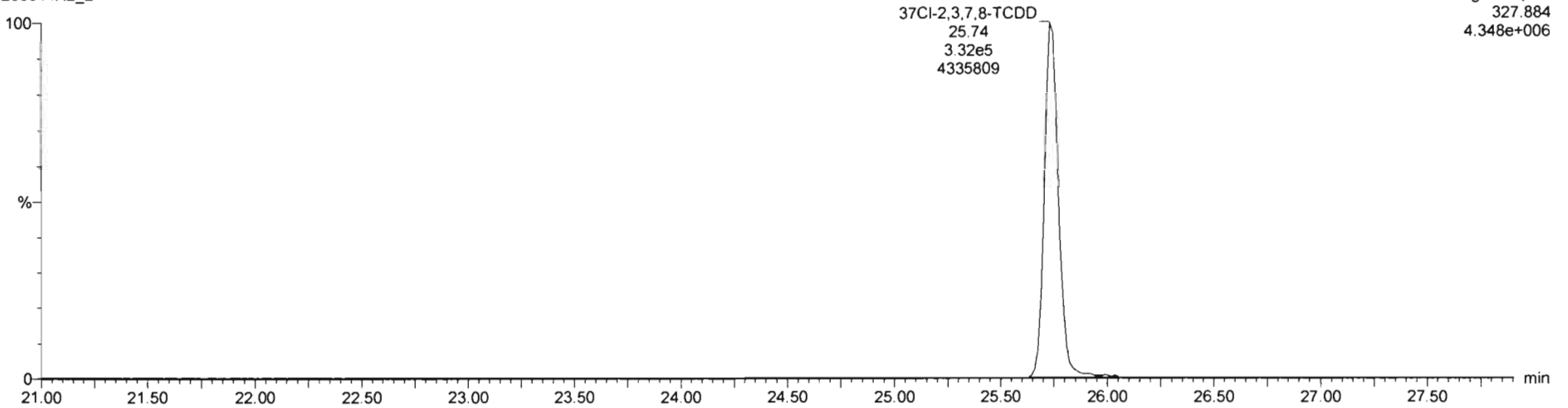
Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time

Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_2, Date: 14-Mar-2020, Time: 12:06:21, ID: B0C0076-BS1 OPR 10, Description: OPR

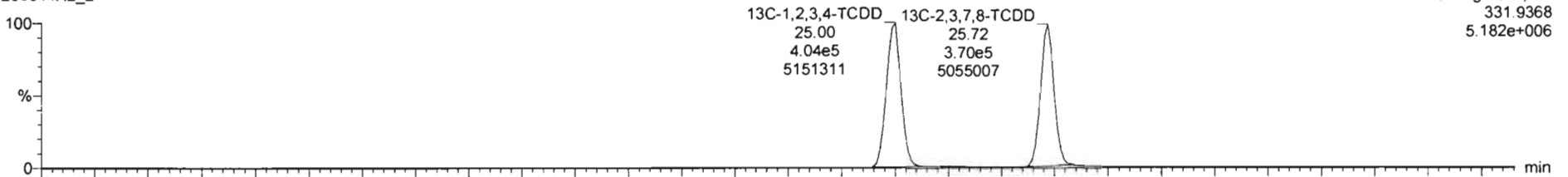
**37Cl-2,3,7,8-TCDD**

200314R2\_2

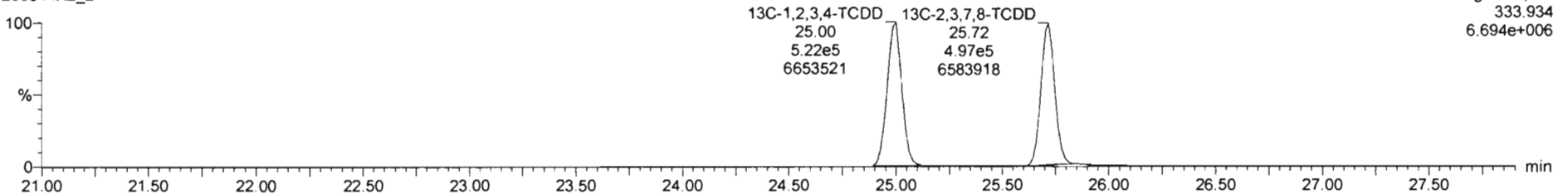


**13C-1,2,3,4-TCDD**

200314R2\_2



200314R2\_2



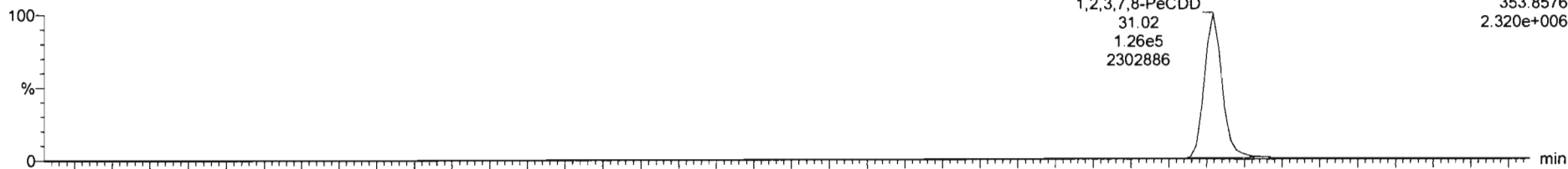
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

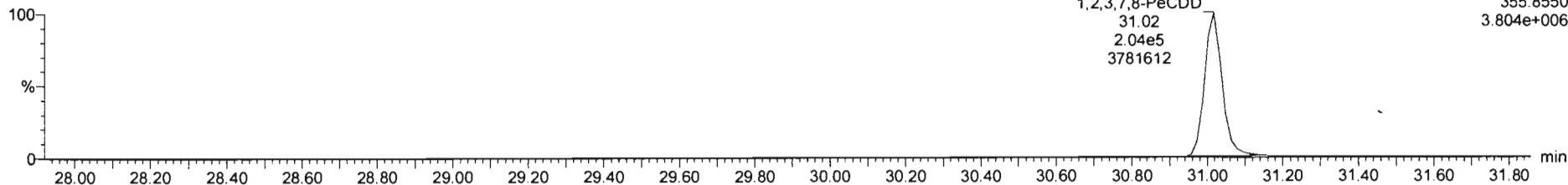
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**1,2,3,7,8-PeCDD**

200314R2\_2

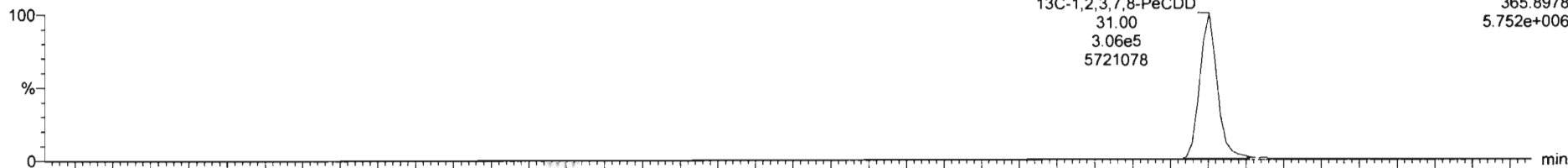


200314R2\_2

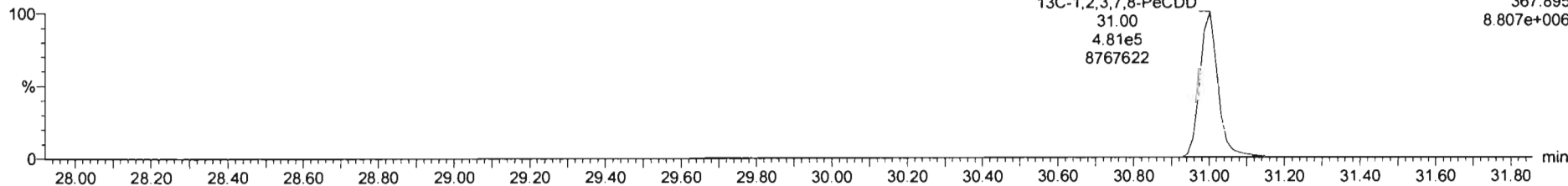


**13C-1,2,3,7,8-PeCDD**

200314R2\_2



200314R2\_2



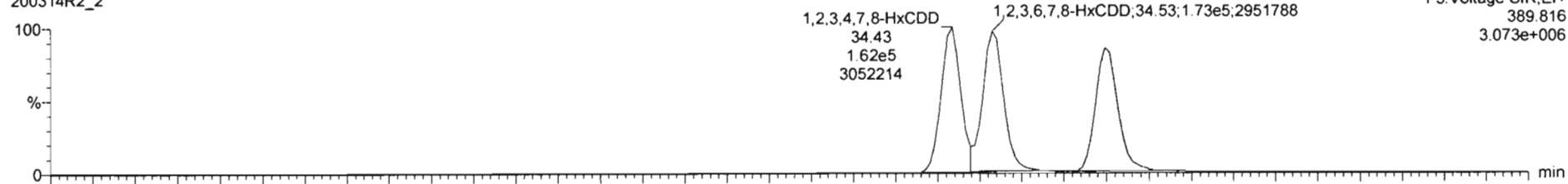
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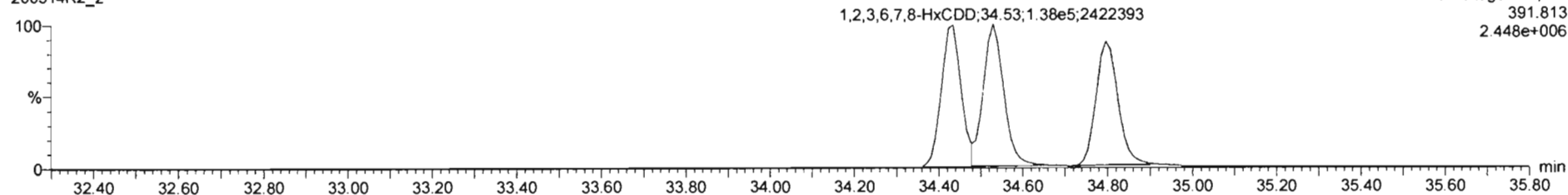
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1,2,3,4,7,8-HxCDD

200314R2\_2

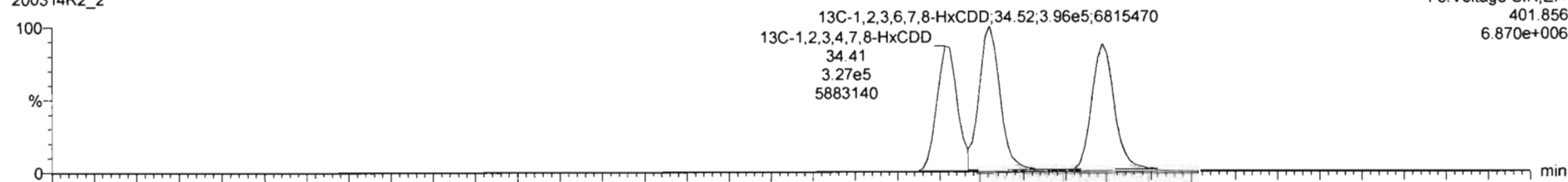


200314R2\_2

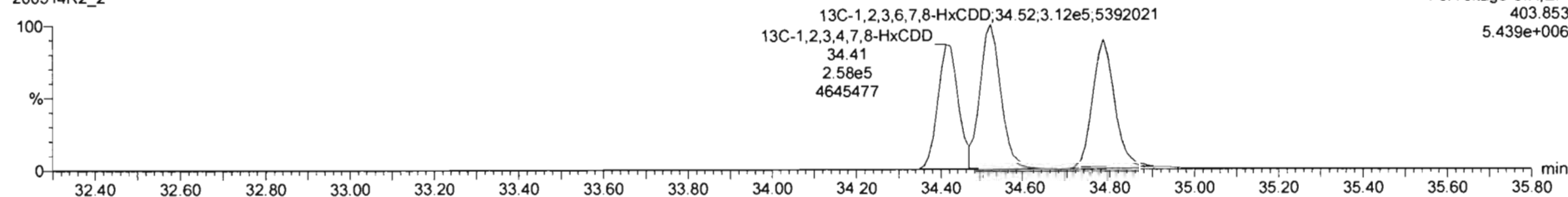


13C-1,2,3,4,7,8-HxCDD

200314R2\_2



200314R2\_2



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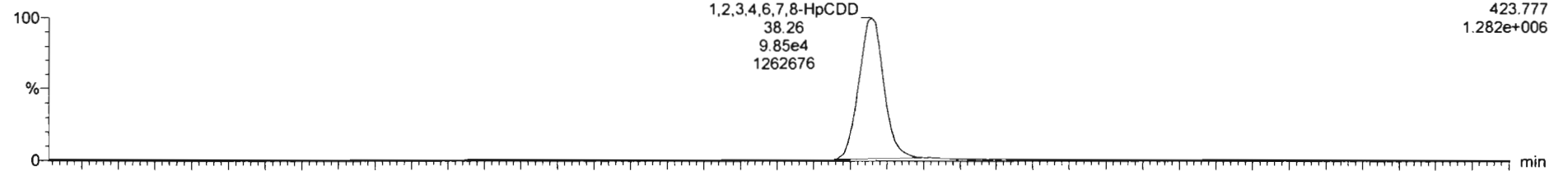
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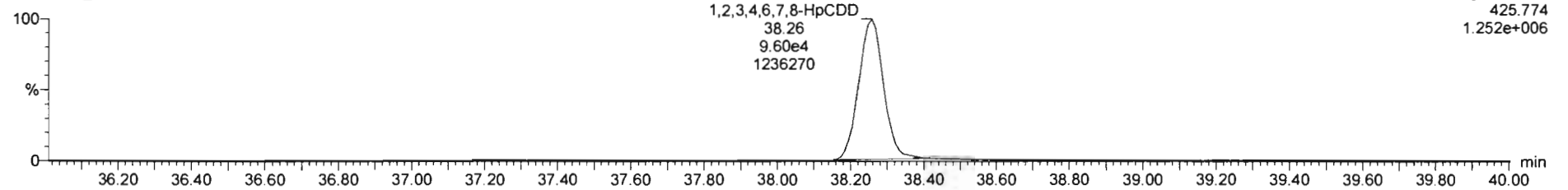
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**1,2,3,4,6,7,8-HpCDD**

200314R2\_2

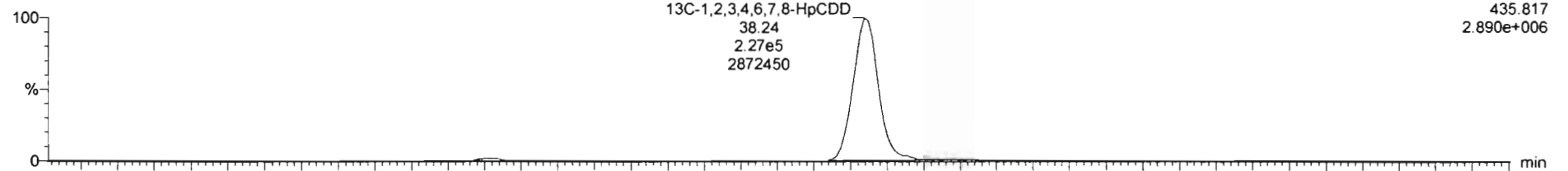


200314R2\_2

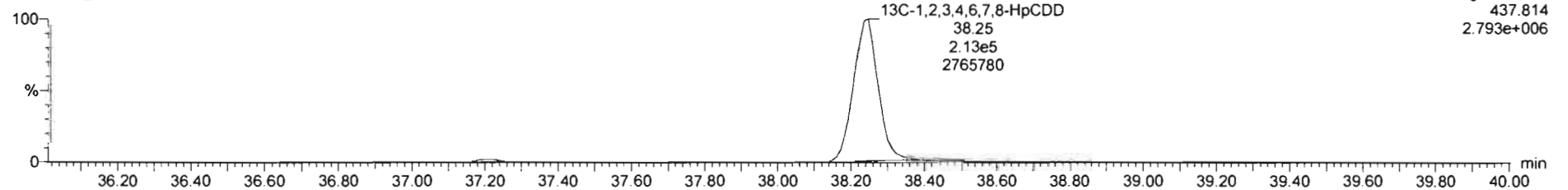


**13C-1,2,3,4,6,7,8-HpCDD**

200314R2\_2



200314R2\_2



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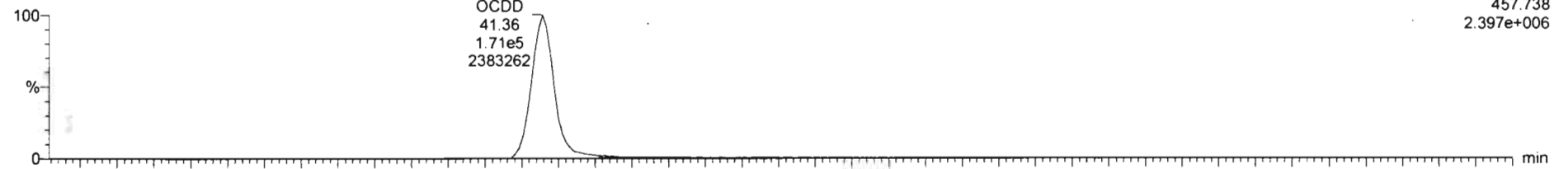
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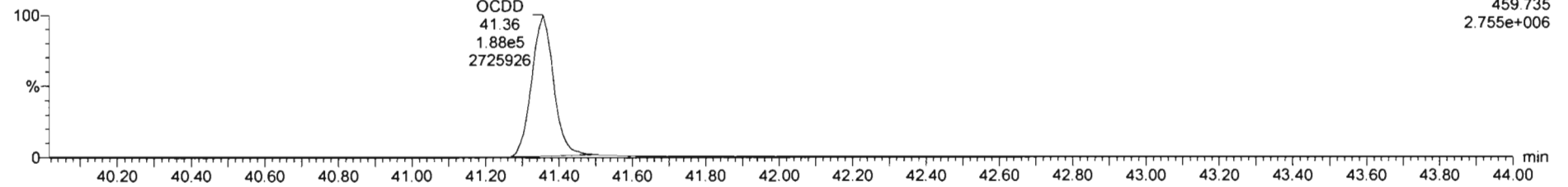
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OCDD

200314R2\_2

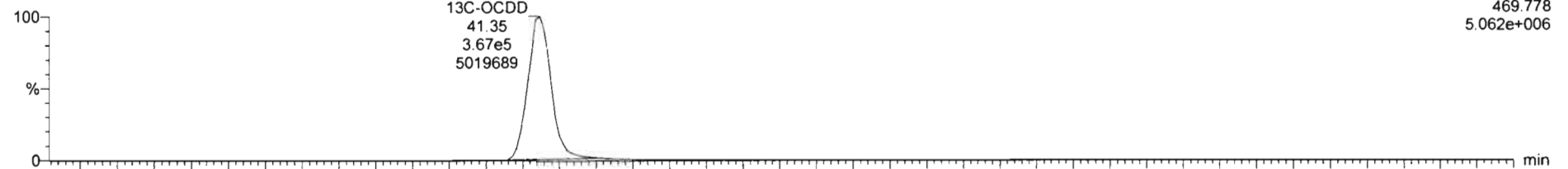


200314R2\_2

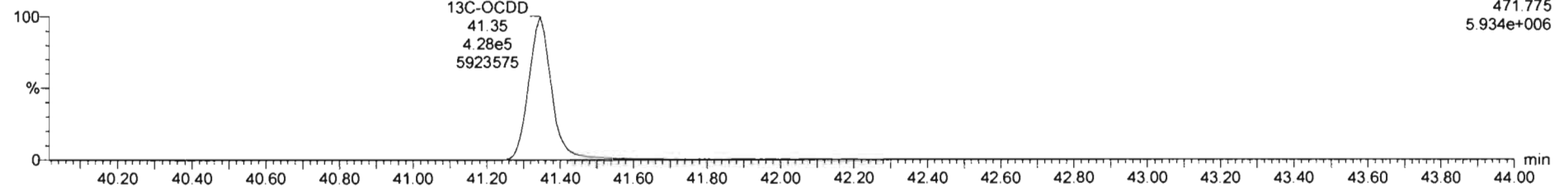


13C-OCDD

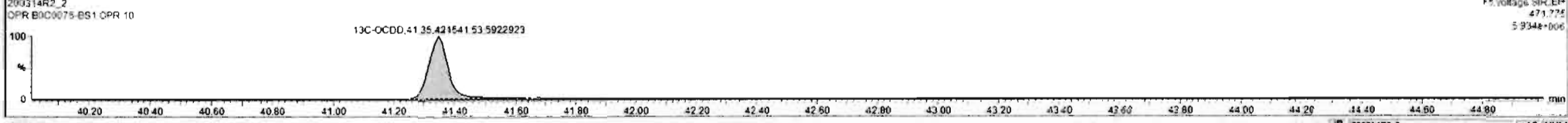
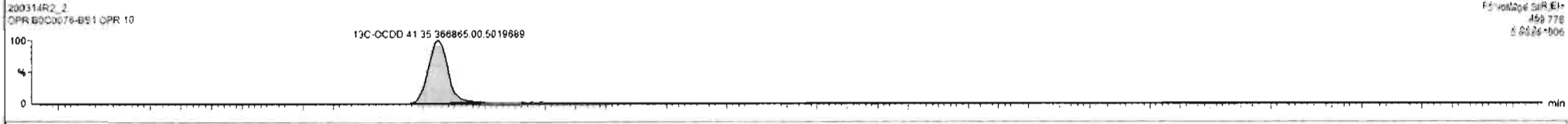
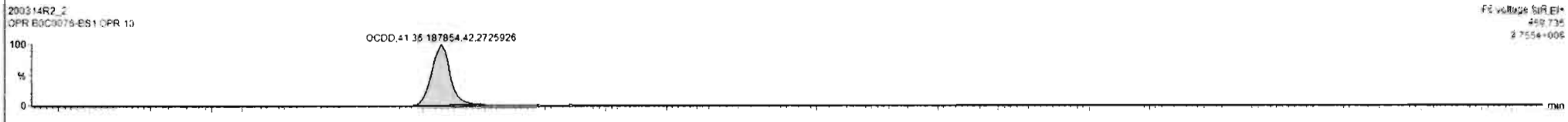
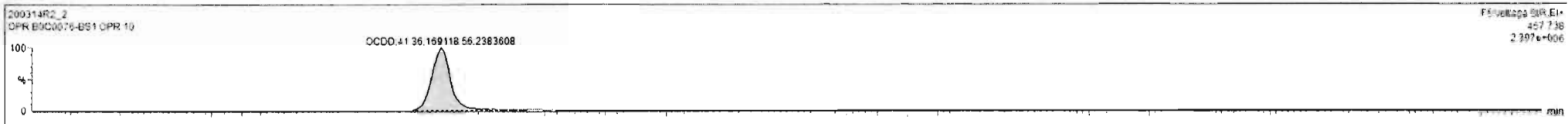
200314R2\_2



200314R2\_2



Name	Resp	RA	nly	RRF	wtvol	RT	RRT	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	7.39e4	0.78	NO	0.9835	10.000	25.74	1.001	17.3		0.114	17.3
2 1,2,3,7,8-PeCDD	3.30e5	0.81	NO	0.9212	10.000	31.02	1.000	91.0		0.119	91.0
3 1,2,3,4,7,8-HxCDD	2.92e5	1.25	NO	1.1325	10.000	34.44	1.001	88.0		0.163	88.0
4 1,2,3,6,7,8-HxCDD	3.11e5	1.25	NO	0.9844	10.000	34.53	1.000	89.4		0.162	89.4
5 1,2,3,7,8,9-HxCDD	2.80e5	1.25	NO	0.9674	10.000	34.80	1.000	91.0		0.189	91.0
6 1,2,3,4,6,7,8-HpCDD	1.94e5	1.03	NO	1.0061	10.000	36.26	1.001	88.0		0.357	88.0
7 OCDD	3.57e5	0.59	NO	1.0515	10.000	41.36	1.000	172		0.238	172
8 2,3,7,8-TCDF	6.46e4	0.76	NO	0.9154	10.000	24.78	1.002	16.7		0.0663	16.7
9 1,2,3,7,8-PeCDF	4.79e5	1.86	NO	0.9594	10.000	29.66	1.001	90.4		0.165	90.4
10 2,3,4,7,8-PeCDF	4.95e5	1.55	NO	1.0035	10.000	30.70	1.001	89.2		0.150	89.2
11 1,2,3,4,7,8-HxCDF	3.61e5	1.18	NO	1.0361	10.000	33.57	1.000	90.0		0.183	90.0
12 1,2,3,6,7,8-HxCDF	3.95e5	1.18	NO	1.0126	10.000	33.69	1.000	91.9		0.172	91.9
13 2,3,4,6,7,8-HxCDF	3.89e5	1.18	NO	1.0920	10.000	34.28	1.000	89.1		0.175	89.1
14 1,2,3,7,8,9-HxCDF	2.91e5	1.19	NO	1.0268	10.000	35.14	1.000	87.3		0.246	87.3
15 1,2,3,4,6,7,8-HpCDF	2.66e5	1.00	NO	1.0483	10.000	36.84	1.000	89.3		0.194	89.3
16 1,2,3,4,7,8,9-HpCDF	2.00e5	1.01	NO	1.2099	10.000	38.91	1.000	91.6		0.285	91.6
17 OCDF	4.09e5	0.88	NO	0.9488	10.000	41.54	1.000	176		0.251	176





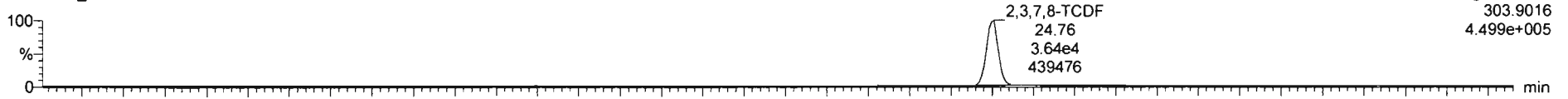
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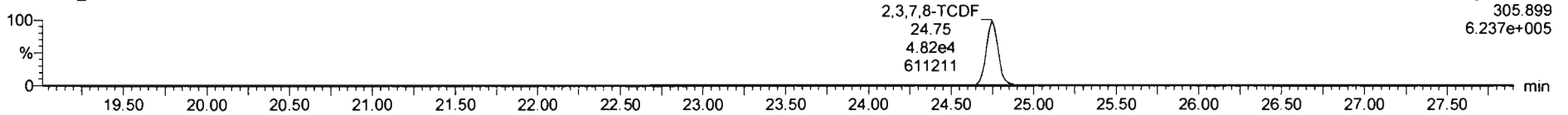
Name: 200314R2\_2, Date: 14-Mar-2020, Time: 12:06:21, ID: B0C0076-BS1 OPR 10, Description: OPR

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

200314R2\_2

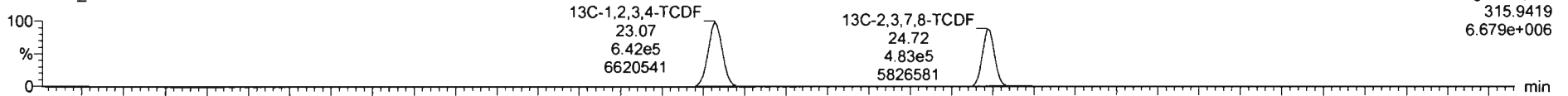


200314R2\_2

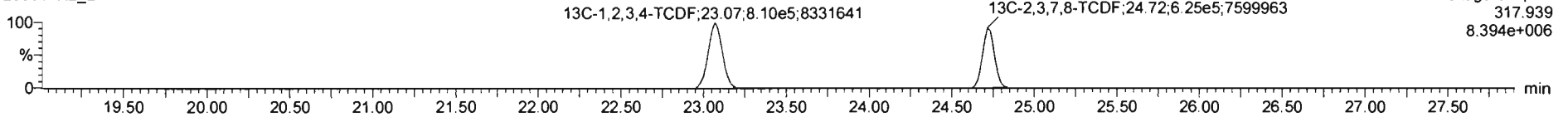


**13C-2,3,7,8-TCDF**

200314R2\_2

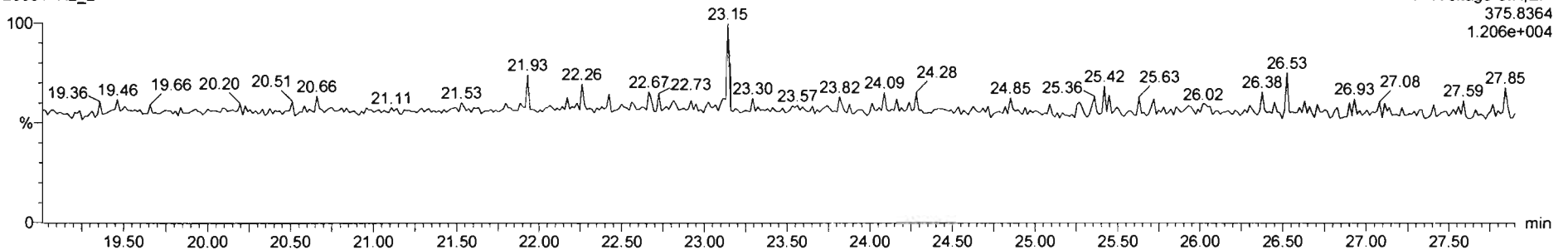


200314R2\_2



**DPE1**

200314R2\_2



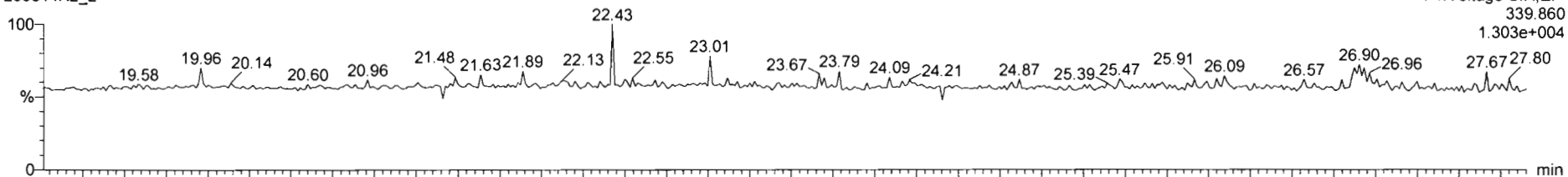
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

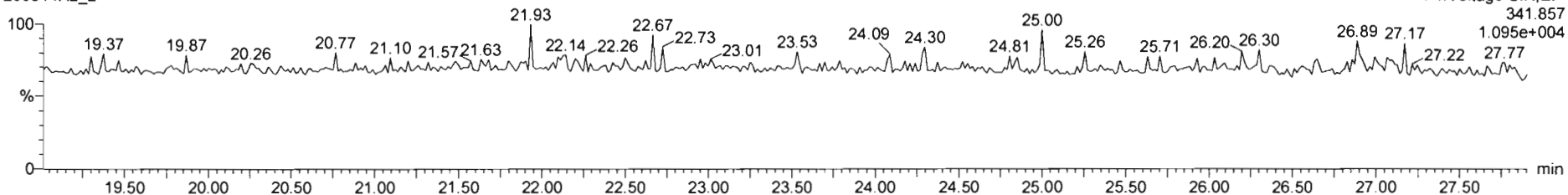
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200314R2\_2

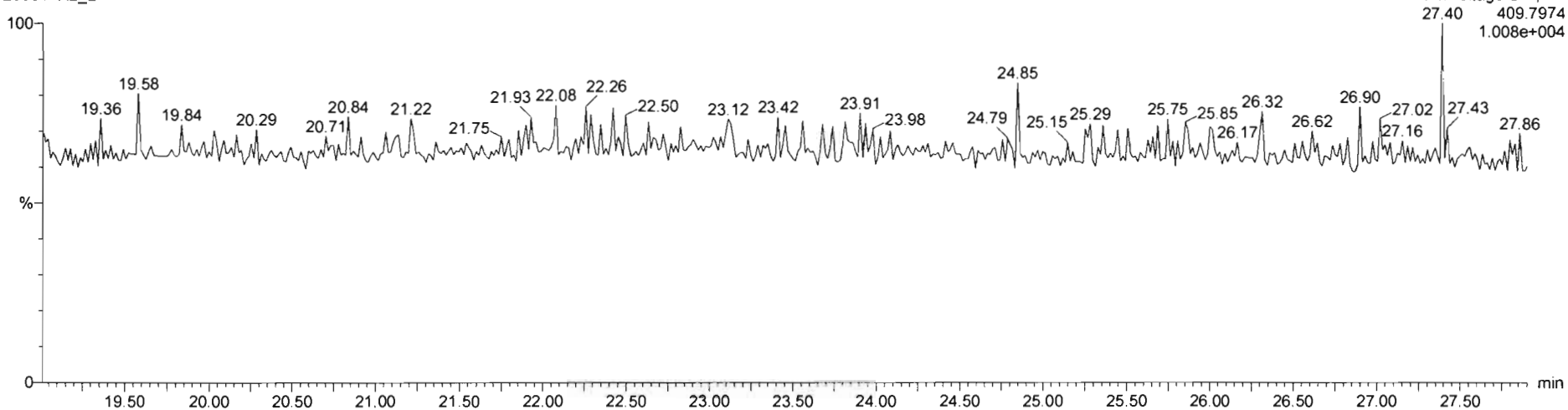


200314R2\_2



DPE6

200314R2\_2



Dataset: Untitled

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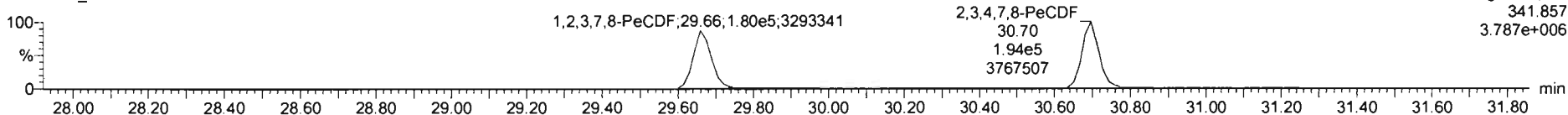
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**1,2,3,7,8-PeCDF**

200314R2\_2



200314R2\_2

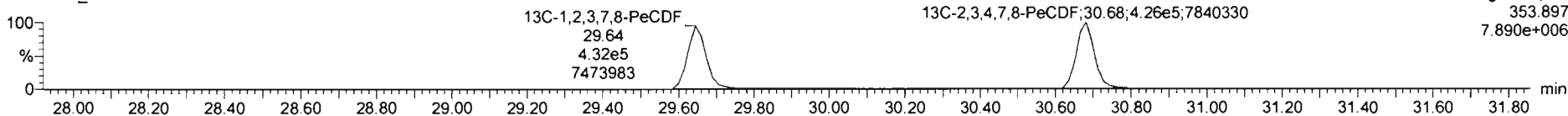


**13C-1,2,3,7,8-PeCDF**

200314R2\_2

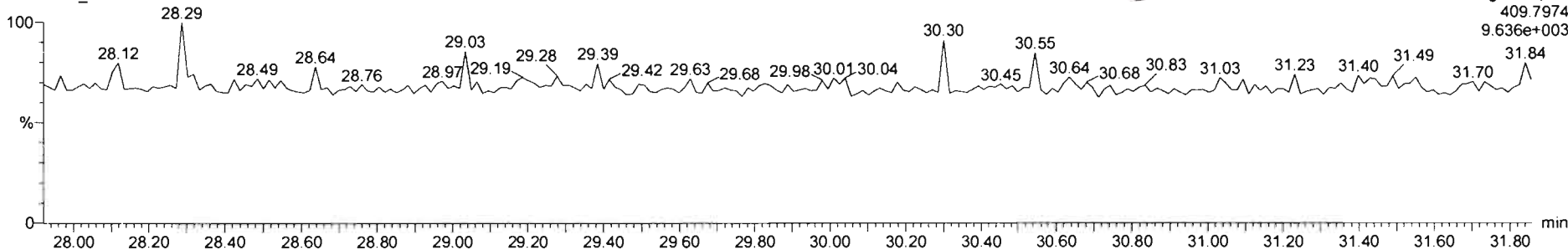


200314R2\_2

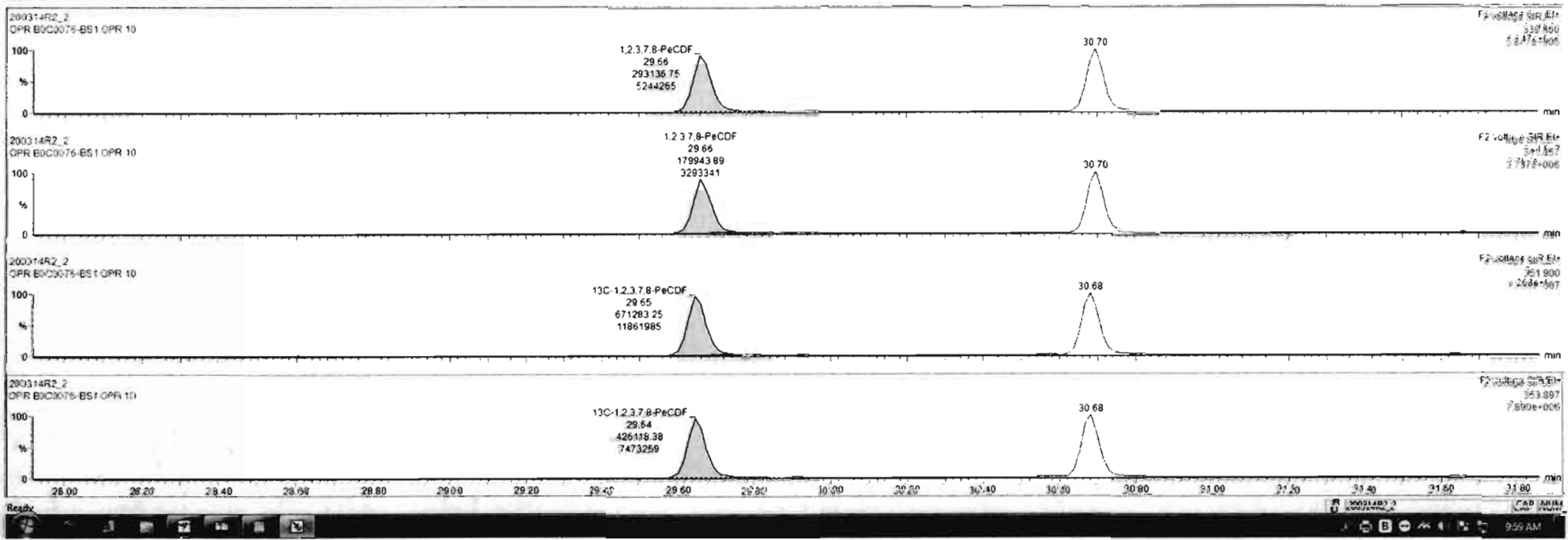


**DPE2**

200314R2\_2



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
1 2,3,7,8-TCDD	7.39e4	0.76	NO	0.9835	10.000	25.74	1.001	17.3		0.114	17.3
2 1,2,3,7,8-PeCDD	3.30e5	0.61	NO	0.9212	10.000	31.02	1.000	91.0		0.119	91.0
3 1,2,3,4,7,8-HxCDD	2.92e5	1.25	NO	1.1325	10.000	34.44	1.001	88.0		0.163	88.0
4 1,2,3,6,7,8-HxCDD	3.11e5	1.25	NO	0.9844	10.000	34.53	1.000	89.4		0.152	89.4
5 1,2,3,7,8,9-HxCDD	2.80e5	1.25	NO	0.9574	10.000	34.80	1.000	91.0		0.189	91.0
6 1,2,3,4,6,7,8-HpCDD	1.94e5	1.03	NO	1.0061	10.000	36.26	1.001	88.0		0.357	88.0
7 OCDD	3.57e5	0.90	NO	1.0515	10.000	41.36	1.000	172		0.238	172
8 2,3,7,8-TCDF	8.46e4	0.76	NO	0.9154	10.000	24.76	1.002	16.7		0.0663	16.7
9 1,2,3,7,8-PeCDF	4.73e5	1.63	NO	0.9594	10.000	29.68	1.001	89.9		0.166	89.9
10 2,3,4,7,8-PeCDF	4.95e5	1.55	NO	1.0035	10.000	30.70	1.001	89.2		0.150	89.2
11 1,2,3,4,7,8-HxCDF	3.61e5	1.18	NO	1.0381	10.000	33.57	1.000	90.0		0.183	90.0
12 1,2,2,6,7,8-HxCDF	3.95e5	1.18	NO	1.0126	10.000	32.69	1.000	91.9		0.172	91.9
13 2,3,4,6,7,8-HxCDF	3.89e5	1.18	NO	1.0920	10.000	34.26	1.000	89.1		0.175	89.1
14 1,2,3,7,8,9-HxCDF	2.91e5	1.19	NO	1.0268	10.000	35.14	1.000	87.3		0.248	87.3
15 1,2,3,4,6,7,8-HpCDF	2.66e5	1.00	NO	1.0483	10.000	36.84	1.000	89.3		0.194	89.3
16 1,2,3,4,7,8,9-HoCDF	2.00e5	1.01	NO	1.2099	10.000	38.51	1.000	91.6		0.285	91.6
17 OCDF	4.09e5	0.88	NO	0.9488	10.000	41.54	1.000	176		0.251	176



Dataset: Untitled

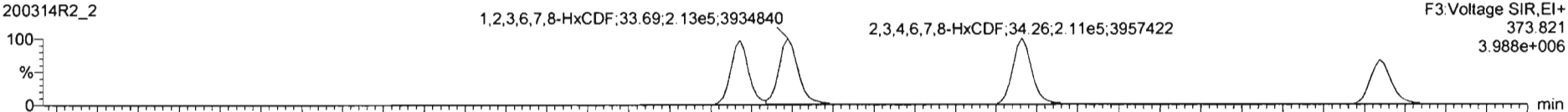
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

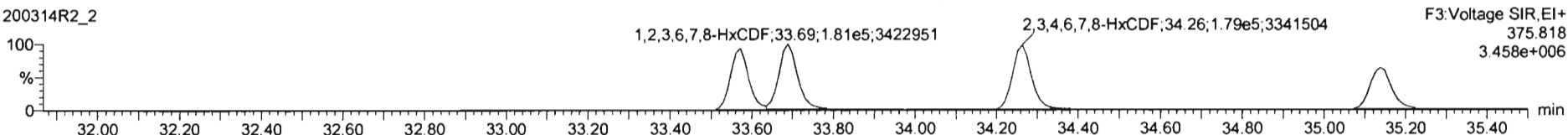
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**1,2,3,4,7,8-HxCDF**

200314R2\_2

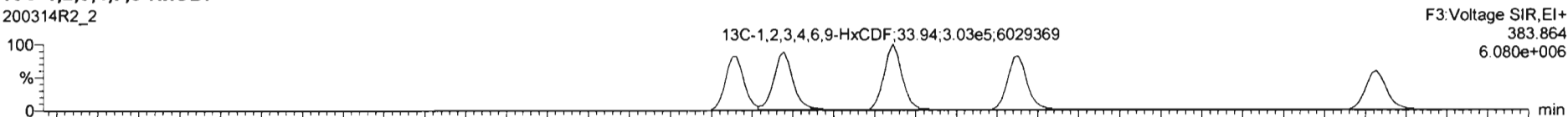


200314R2\_2

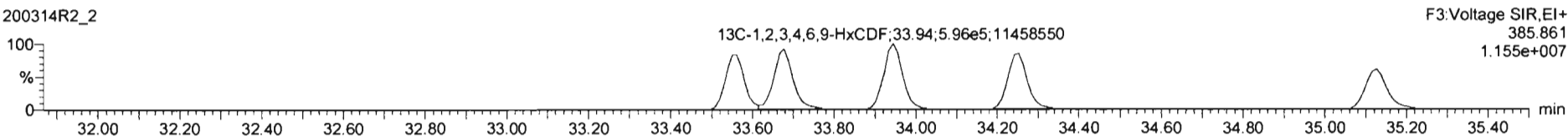


**13C-1,2,3,4,7,8-HxCDF**

200314R2\_2

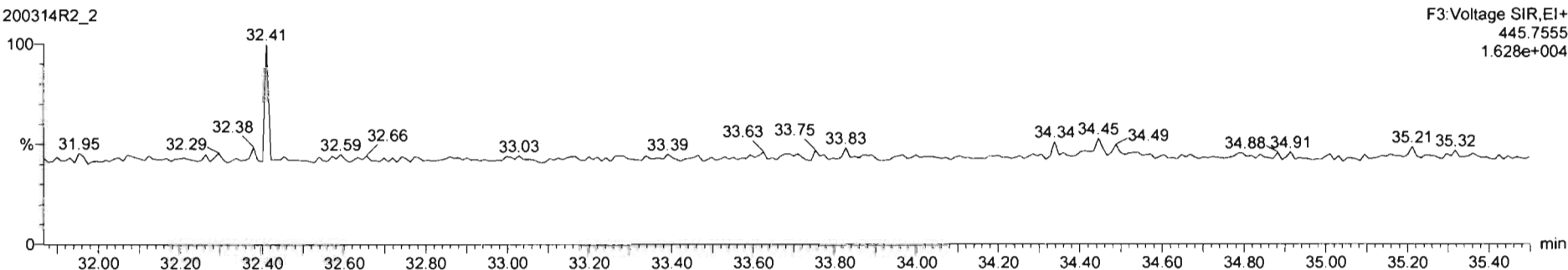


200314R2\_2



**DPE3**

200314R2\_2



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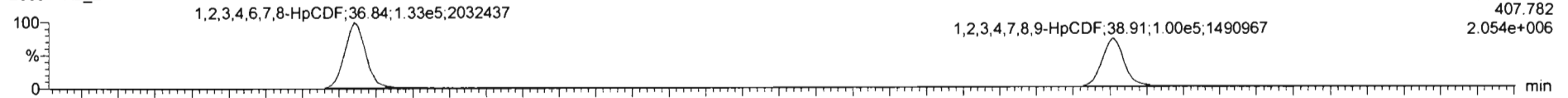
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_2, Date: 14-Mar-2020, Time: 12:06:21, ID: B0C0076-BS1 OPR 10, Description: OPR

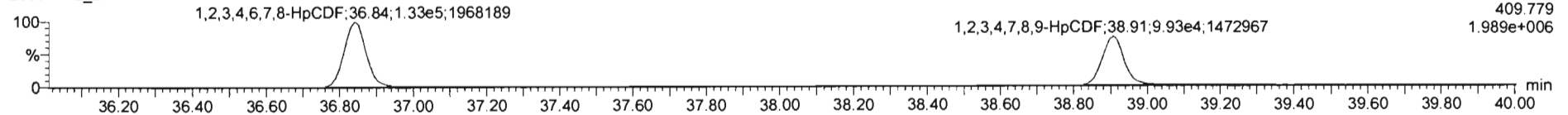
**1,2,3,4,6,7,8-HpCDF**

200314R2\_2



F4: Voltage SIR, EI+  
407.782  
2.054e+006

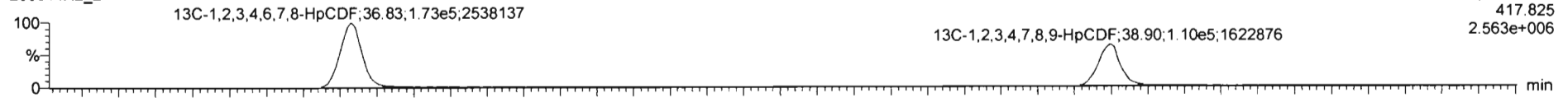
200314R2\_2



F4: Voltage SIR, EI+  
409.779  
1.989e+006

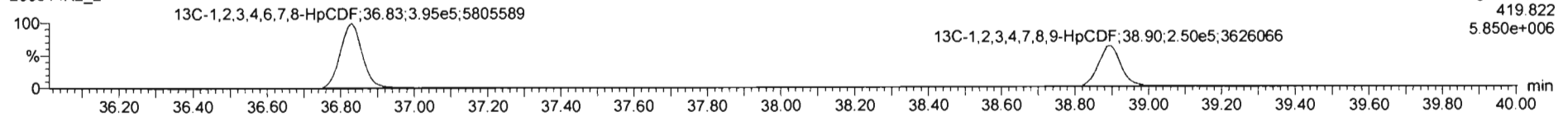
**13C-1,2,3,4,6,7,8-HpCDF**

200314R2\_2



F4: Voltage SIR, EI+  
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2.563e+006

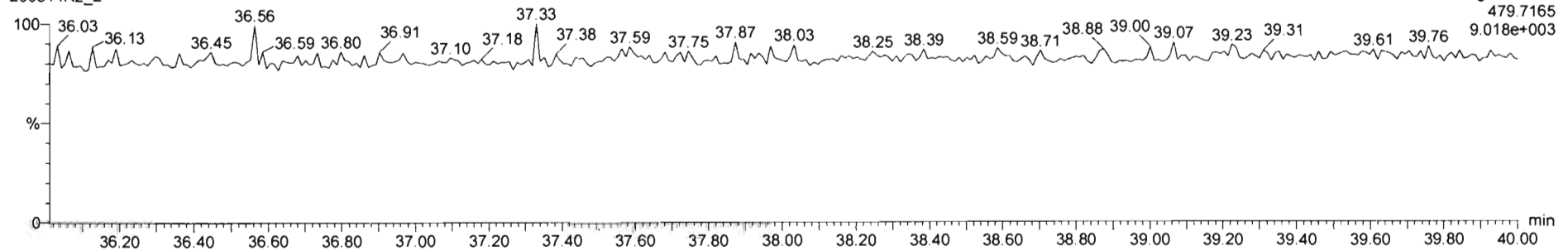
200314R2\_2



F4: Voltage SIR, EI+  
419.822  
5.850e+006

**DPE4**

200314R2\_2



F4: Voltage SIR, EI+  
479.7165  
9.018e+003

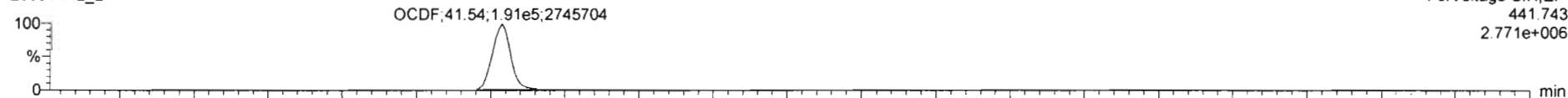
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

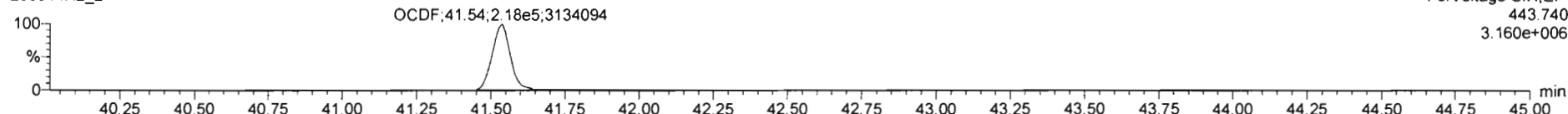
Name: 200314R2\_2, Date: 14-Mar-2020, Time: 12:06:21, ID: B0C0076-BS1 OPR 10, Description: OPR

OCDF

200314R2\_2

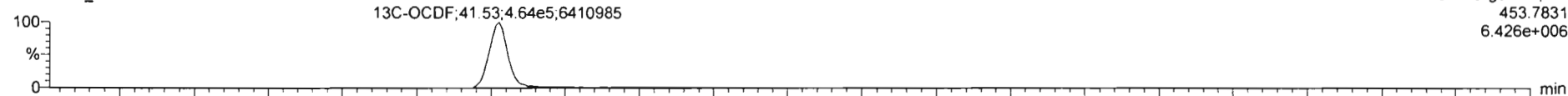


200314R2\_2

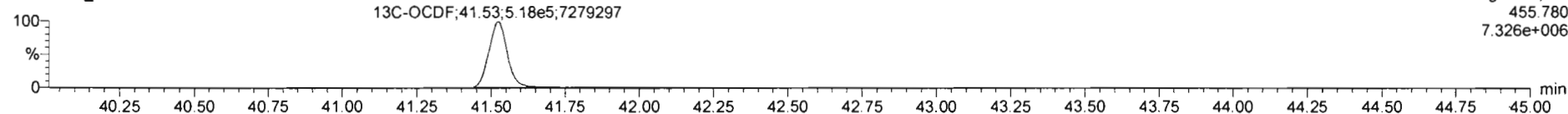


13C-OCDF

200314R2\_2

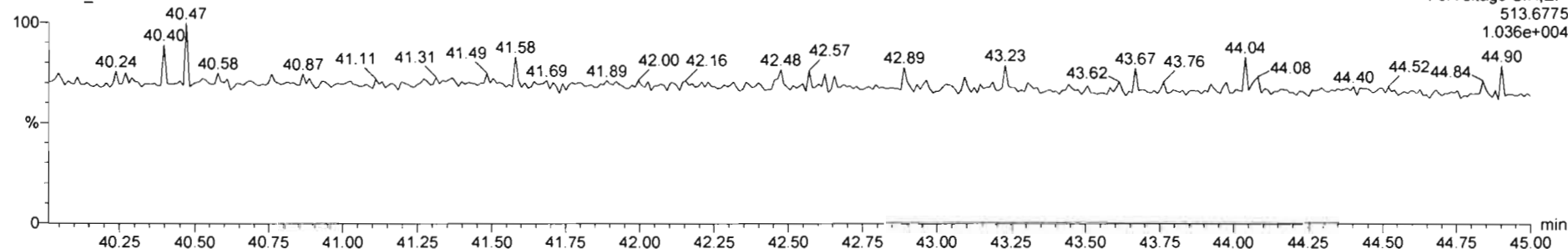


200314R2\_2

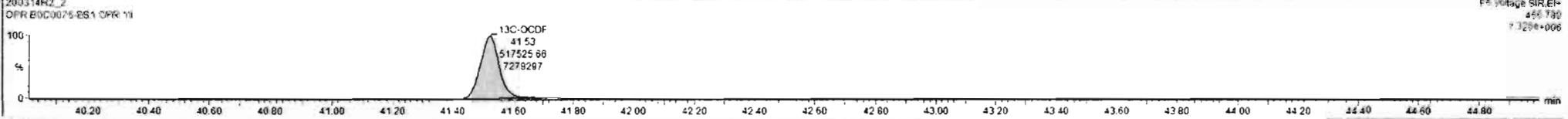
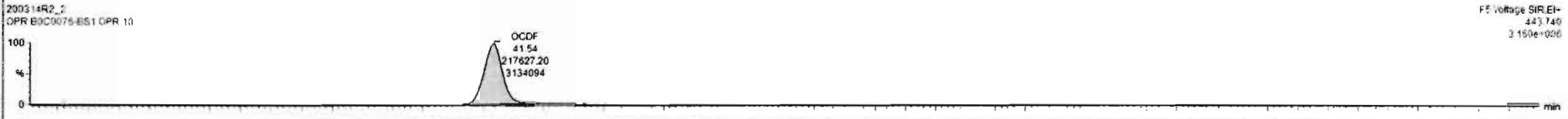
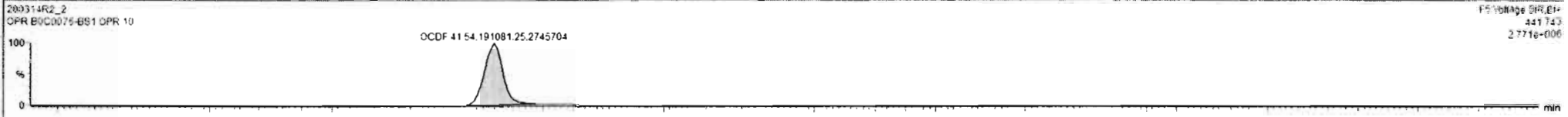


DPE5

200314R2\_2



	Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	7.39e4	0.76	NO	0.9835	10.000	25.74	1.001	17.3	0.114	17.3	
2	1,2,3,7,8-PeCDD	3.30e5	0.61	NO	0.9212	10.000	31.02	1.000	81.0	0.119	91.0	
3	1,2,3,4,7,8-HxCDD	2.92e5	1.25	NO	1.1325	10.000	34.44	1.001	88.0	0.163	88.0	
4	1,2,3,6,7,8-HxCDD	3.11e5	1.25	NO	0.9844	10.000	34.53	1.000	89.4	0.152	89.4	
5	1,2,3,7,8,9-HxCDD	2.80e5	1.25	NO	0.9674	10.000	34.80	1.000	91.0	0.169	91.0	
6	1,2,3,4,6,7,8-HpCDD	1.94e5	1.03	NO	1.0061	10.000	36.26	1.001	88.0	0.357	88.0	
7	OCDD	3.57e5	0.90	NO	1.0515	10.000	41.36	1.000	172	0.238	172	
8	2,3,7,8-TCDF	6.46e4	0.76	NO	0.9154	10.000	24.78	1.002	16.7	0.0863	16.7	
9	1,2,3,7,8-PeCDF	4.73e5	1.63	NO	0.9594	10.000	29.66	1.001	89.9	0.166	89.9	
10	2,3,4,7,8-PeCDF	4.95e5	1.55	NO	1.0025	10.000	30.70	1.001	89.2	0.150	89.2	
11	1,2,3,4,7,8-HxCDF	3.61e5	1.18	NO	1.0361	10.000	33.57	1.000	90.0	0.183	90.0	
12	1,2,3,6,7,8-HxCDF	3.95e5	1.18	NO	1.0126	10.000	32.69	1.000	91.9	0.172	91.9	
13	2,3,4,6,7,8-HxCDF	3.89e5	1.18	NO	1.0920	10.000	34.26	1.000	89.1	0.175	89.1	
14	1,2,3,7,8,9-HxCDF	2.91e5	1.19	NO	1.0268	10.000	35.14	1.000	87.3	0.248	87.3	
15	1,2,3,4,6,7,8-HpCDF	2.66e5	1.00	NO	1.0483	10.000	36.64	1.000	89.3	0.194	89.3	
16	1,2,3,4,7,8,9-HpCDF	2.00e5	1.01	NO	1.2069	10.000	38.91	1.000	91.6	0.265	91.6	
17	OCDF	4.09e5	0.88	NO	0.9468	10.000	41.54	1.000	176	0.250	176	



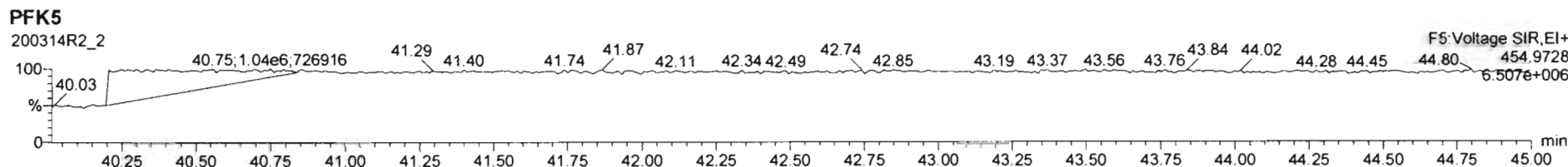
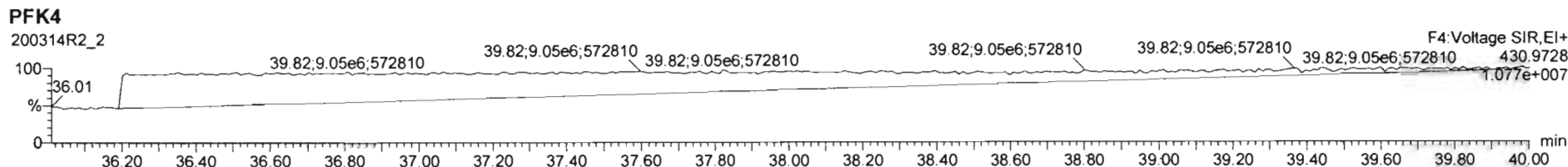
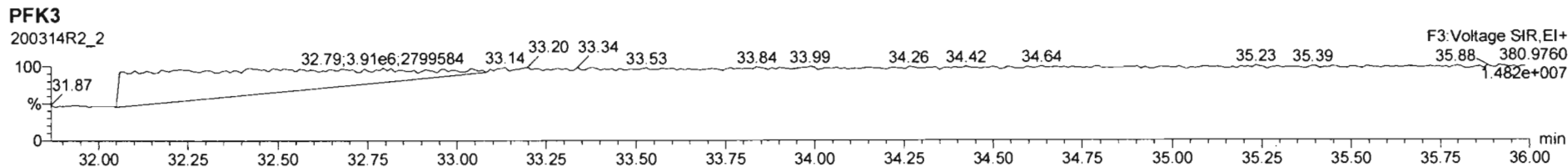
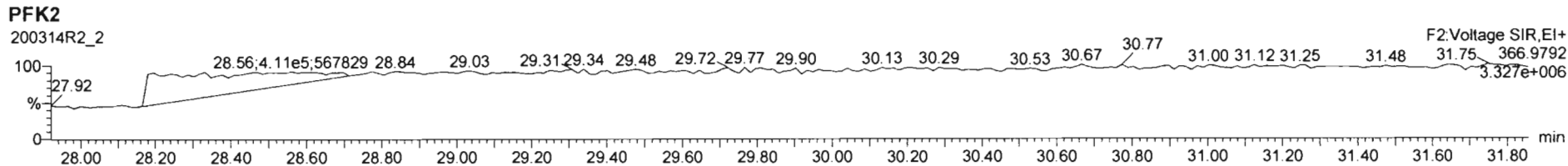
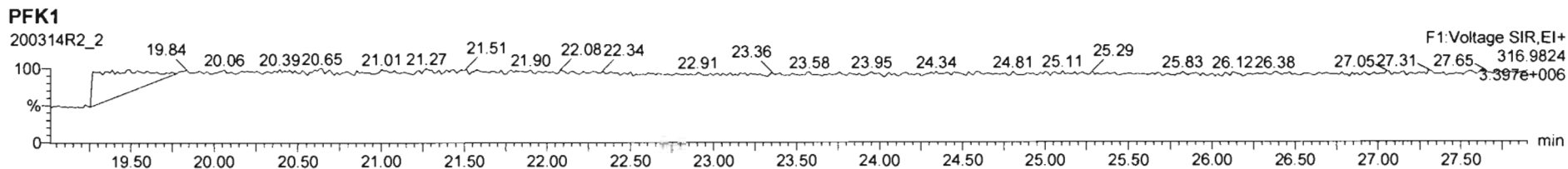


Dataset: Untitled

Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time

Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_2, Date: 14-Mar-2020, Time: 12:06:21, ID: B0C0076-BS1 OPR 10, Description: OPR



Dataset: U:\VG12.PRO\Results\200314R2\200314R2-6.qld

Last Altered: Sunday, March 15, 2020 10:19:20 Pacific Daylight Time

Printed: Sunday, March 15, 2020 10:20:06 Pacific Daylight Time

*GPB 03/15/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\lb5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

*Mu  
3/15/20*

Name: 200314R2\_6, Date: 14-Mar-2020, Time: 15:15:32, ID: B0C0168-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	0.983	10.000	25.751		1.001				0.0965	
2	2 1,2,3,7,8-PeCDD			NO	0.921	10.000	31.025		1.001				0.0771	
3	3 1,2,3,4,7,8-HxCDD			NO	1.13	10.000	34.434		1.000				0.0582	
4	4 1,2,3,6,7,8-HxCDD			NO	0.984	10.000	34.520		1.000				0.0582	
5	5 1,2,3,7,8,9-HxCDD			NO	0.967	10.000	34.796		1.000				0.0681	
6	6 1,2,3,4,6,7,8-HpCDD			NO	1.01	10.000	38.259		1.000				0.120	
7	7 OCDD			NO	1.05	10.000	41.379		1.000				0.117	
8	8 2,3,7,8-TCDF			NO	0.915	10.000	24.757		1.001				0.0519	
9	9 1,2,3,7,8-PeCDF			NO	0.959	10.000	29.681		1.001				0.0482	
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.000	30.729		1.001				0.0442	
11	11 1,2,3,4,7,8-HxCDF			NO	1.04	10.000	33.561		1.000				0.0397	
12	12 1,2,3,6,7,8-HxCDF			NO	1.01	10.000	33.688		1.000				0.0409	
13	13 2,3,4,6,7,8-HxCDF			NO	1.09	10.000	34.288		1.001				0.0419	
14	14 1,2,3,7,8,9-HxCDF	1.19e2	0.81	YES	1.03	10.000	35.127	35.14	1.000	1.000	0.040305		0.0332	0.0326
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.05	10.000	36.868		1.001				0.0515	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.000	38.908		1.000				0.0689	
17	17 OCDF			NO	0.947	10.000	41.549		1.000				0.0943	
18	18 13C-2,3,7,8-TCDD	8.40e5	0.76	NO	1.18	10.000	25.735	25.72	1.029	1.028	154.72	77.4	0.238	
19	19 13C-1,2,3,7,8-PeCDD	7.11e5	0.63	NO	0.864	10.000	30.919	31.00	1.236	1.239	179.50	89.8	0.422	
20	20 13C-1,2,3,4,7,8-HxCDD	4.99e5	1.30	NO	0.754	10.000	34.417	34.42	1.014	1.014	146.73	73.4	0.281	
21	21 13C-1,2,3,6,7,8-HxCDD	6.09e5	1.27	NO	0.925	10.000	34.525	34.52	1.017	1.017	145.90	72.9	0.229	
22	22 13C-1,2,3,7,8,9-HxCDD	5.49e5	1.24	NO	0.829	10.000	34.787	34.79	1.025	1.025	146.85	73.4	0.255	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.69e5	1.05	NO	0.598	10.000	38.242	38.25	1.127	1.127	136.90	68.4	0.353	
24	24 13C-OCDD	8.30e5	0.90	NO	0.571	10.000	41.389	41.38	1.219	1.219	322.59	80.6	0.352	
25	25 13C-2,3,7,8-TCDF	1.16e6	0.76	NO	1.09	10.000	24.757	24.73	0.990	0.989	150.85	75.4	0.437	
26	26 13C-1,2,3,7,8-PeCDF	9.82e5	1.57	NO	0.876	10.000	29.590	29.66	1.183	1.186	158.60	79.3	0.550	
27	27 13C-2,3,4,7,8-PeCDF	1.02e6	1.61	NO	0.844	10.000	30.601	30.70	1.223	1.227	171.42	85.7	0.572	
28	28 13C-1,2,3,4,7,8-HxCDF	6.87e5	0.51	NO	1.00	10.000	33.565	33.56	0.989	0.989	152.46	76.2	0.380	
29	29 13C-1,2,3,6,7,8-HxCDF	7.38e5	0.51	NO	1.12	10.000	33.673	33.68	0.992	0.992	146.40	73.2	0.340	
30	30 13C-2,3,4,6,7,8-HxCDF	6.80e5	0.51	NO	1.04	10.000	34.254	34.25	1.009	1.009	145.75	72.9	0.367	
31	31 13C-1,2,3,7,8,9-HxCDF	5.77e5	0.51	NO	0.873	10.000	35.126	35.13	1.035	1.035	146.66	73.3	0.436	

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-6.qld

Last Altered: Sunday, March 15, 2020 10:19:20 Pacific Daylight Time

Printed: Sunday, March 15, 2020 10:20:06 Pacific Daylight Time

Name: 200314R2\_6, Date: 14-Mar-2020, Time: 15:15:32, ID: B0C0168-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
32	32 13C-1,2,3,4,6,7,8-HpCDF	4.81e5	0.44	NO	0.771	10.000	36.841	36.83	1.085	1.085	138.47	69.2	0.340	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.22e5	0.46	NO	0.519	10.000	38.925	38.91	1.147	1.146	137.61	68.8	0.504	
34	34 13C-OCDF	9.02e5	0.89	NO	0.696	10.000	41.569	41.55	1.225	1.224	287.55	71.9	0.285	
35	35 37Cl-2,3,7,8-TCDD	4.05e5			1.17	10.000	25.745	25.75	1.029	1.029	75.219	94.0	0.0417	
36	36 13C-1,2,3,4-TCDD	9.16e5	0.79	NO	1.00	10.000	25.050	25.02	1.000	1.000	200.00	100	0.282	
37	37 13C-1,2,3,4-TCDF	1.41e6	0.78	NO	1.00	10.000	23.190	23.09	1.000	1.000	200.00	100	0.476	
38	38 13C-1,2,3,4,6,9-HxCDF	9.01e5	0.51	NO	1.00	10.000	33.880	33.94	1.000	1.000	200.00	100	0.380	
39	39 Total Tetra-Dioxins				0.983	10.000	24.620		0.000				0.0590	
40	40 Total Penta-Dioxins				0.921	10.000	29.960		0.000				0.0350	
41	41 Total Hexa-Dioxins				0.984	10.000	33.635		0.000				0.0336	
42	42 Total Hepta-Dioxins				1.01	10.000	37.640		0.000				0.0676	
43	43 Total Tetra-Furans				0.915	10.000	23.610		0.000				0.0223	
44	44 1st Func. Penta-Furans				0.959	10.000	27.090		0.000				0.0119	
45	45 Total Penta-Furans				0.959	10.000	29.275		0.000				0.0229	
46	46 Total Hexa-Furans				1.09	10.000	33.555		0.000		0.00000		0.0235	0.0589
47	47 Total Hepta-Furans				1.05	10.000	37.835		0.000				0.0305	

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-6.qld

Last Altered: Sunday, March 15, 2020 10:19:20 Pacific Daylight Time

Printed: Sunday, March 15, 2020 10:20:06 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R2\_6, Date: 14-Mar-2020, Time: 15:15:32, ID: B0C0168-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												

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-6.qld

Last Altered: Sunday, March 15, 2020 10:19:20 Pacific Daylight Time

Printed: Sunday, March 15, 2020 10:20:06 Pacific Daylight Time

Name: 200314R2\_6, Date: 14-Mar-2020, Time: 15:15:32, ID: B0C0168-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	1,2,3,7,8,9-HxCDF	35.14	1.505e3	3.129e3	5.345e1	6.598e1	0.81	YES	1.194e2	0.00000	0.032585	0.0332
2	Total Hexa-Furans	35.15	1.995e3	1.829e3	7.245e1	4.297e1	1.69	YES	0.000e0	0.00000	0.026290	0.0235

**Hepta-Furans**

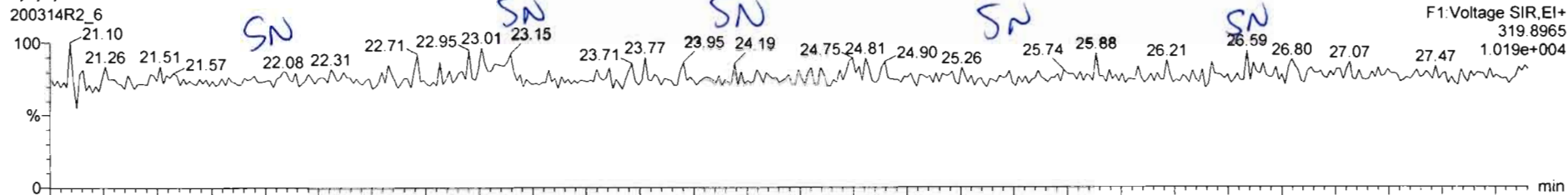
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1												

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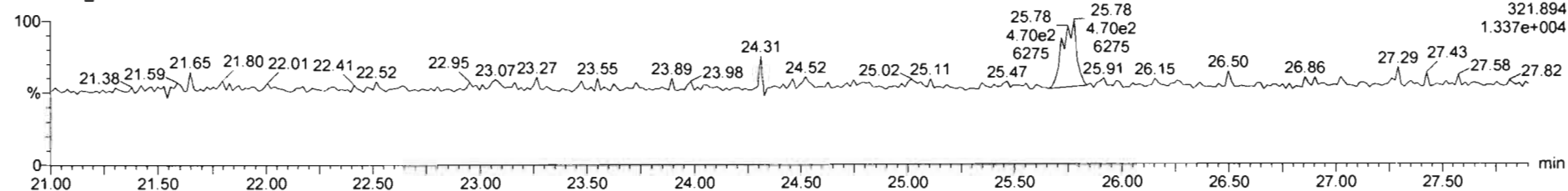
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_6, Date: 14-Mar-2020, Time: 15:15:32, ID: B0C0168-BLK1 Method Blank 10, Description: Method Blank

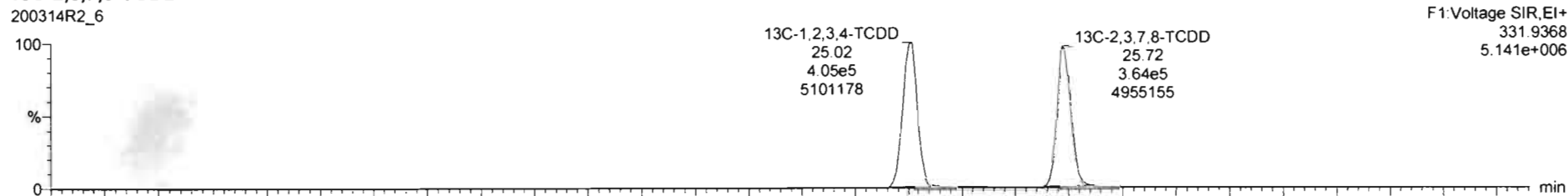
2,3,7,8-TCDD



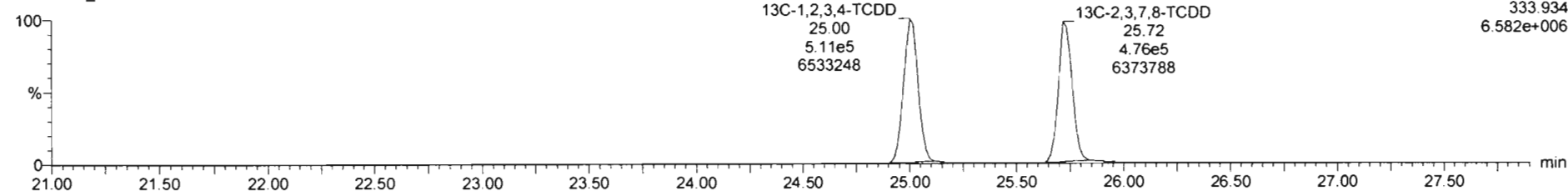
200314R2\_6



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



200314R2\_6

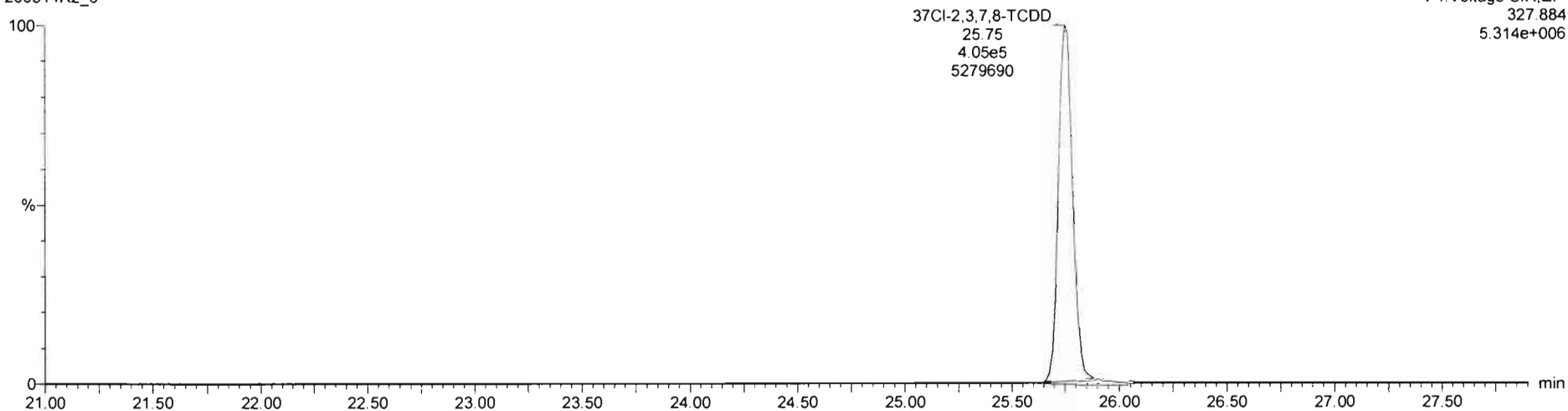


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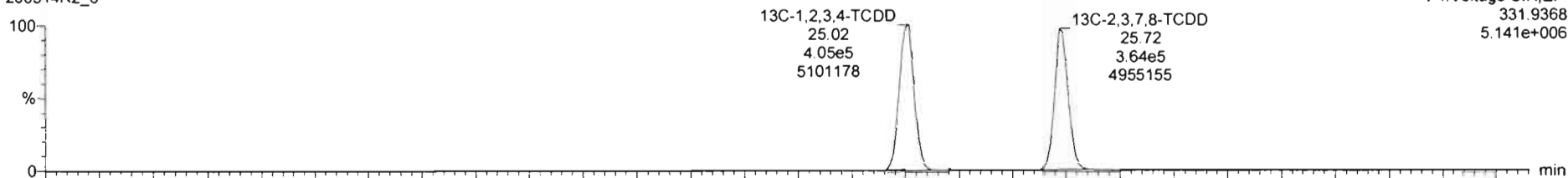
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_6, Date: 14-Mar-2020, Time: 15:15:32, ID: B0C0168-BLK1 Method Blank 10, Description: Method Blank

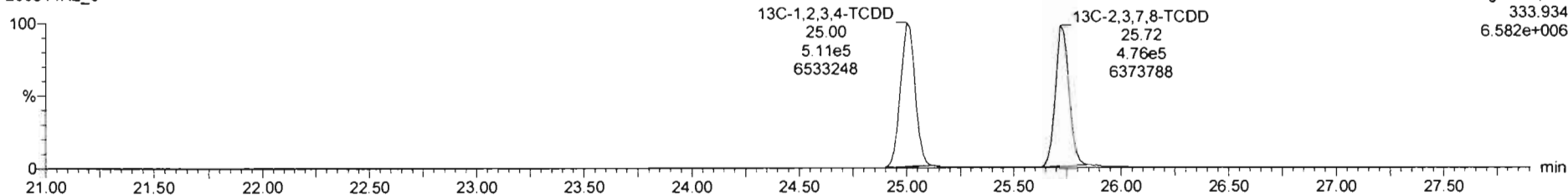
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200314R2\_6



13C-1,2,3,4-TCDD  
200314R2\_6



200314R2\_6



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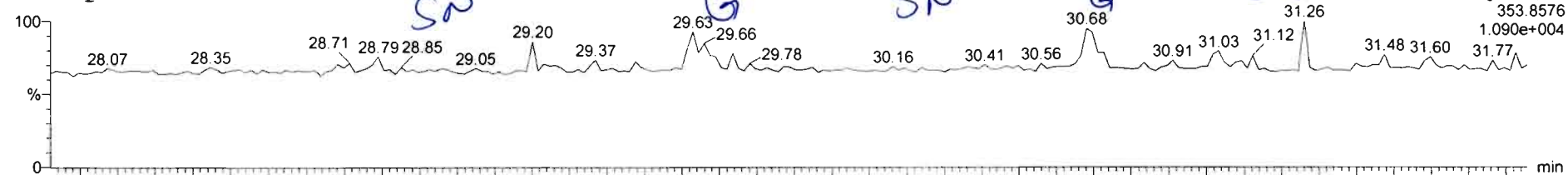
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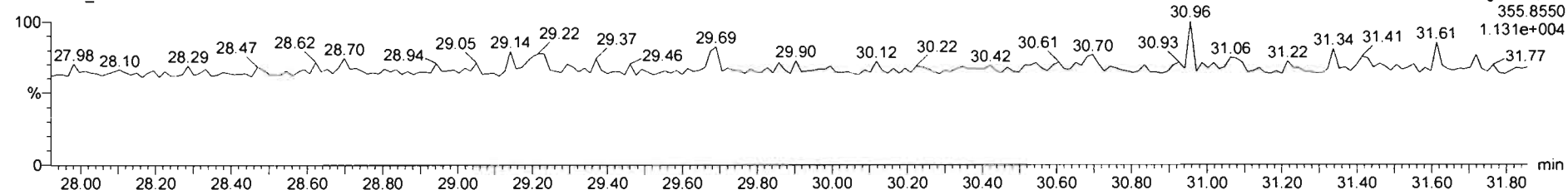
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1,2,3,7,8-PeCDD

200314R2\_6



200314R2\_6

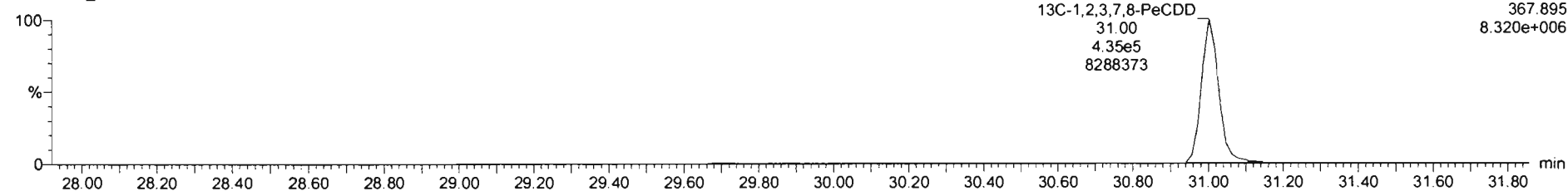


13C-1,2,3,7,8-PeCDD

200314R2\_6



200314R2\_6





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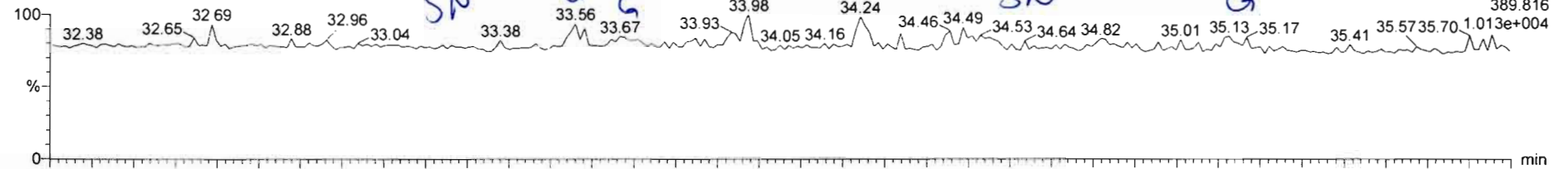
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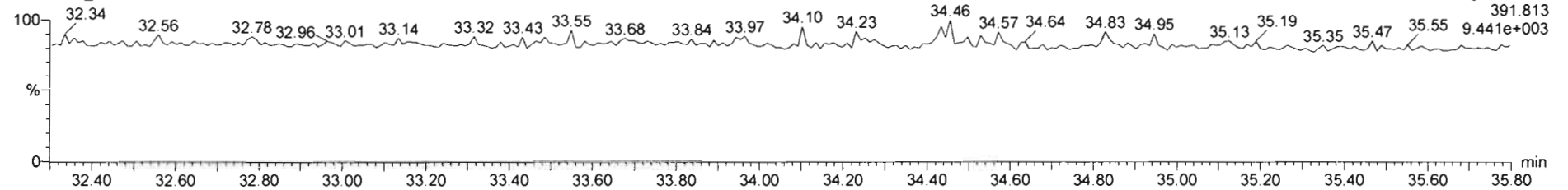
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1,2,3,4,7,8-HxCDD

200314R2\_6

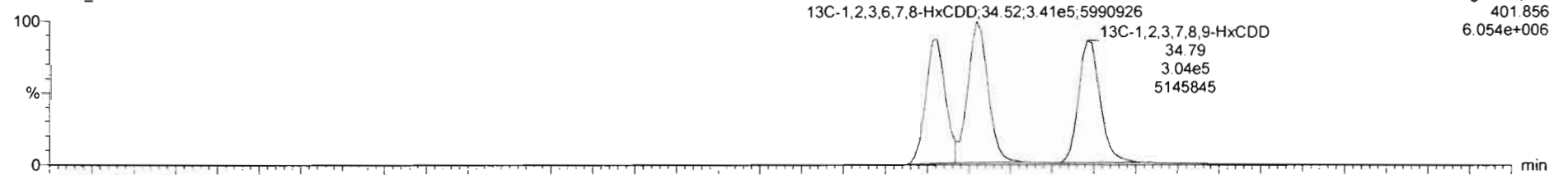


200314R2\_6

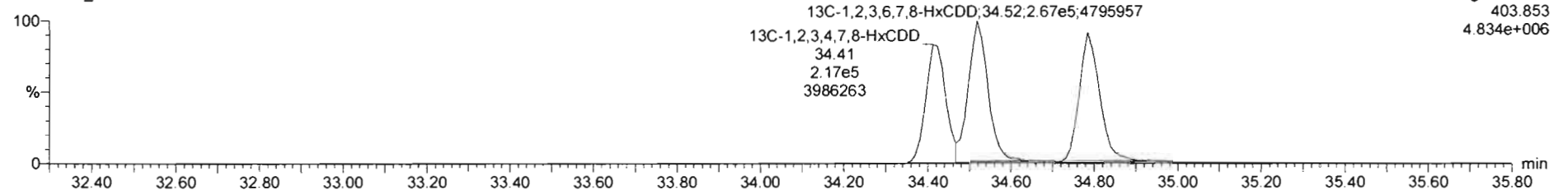


13C-1,2,3,4,7,8-HxCDD

200314R2\_6



200314R2\_6



Dataset: Untitled

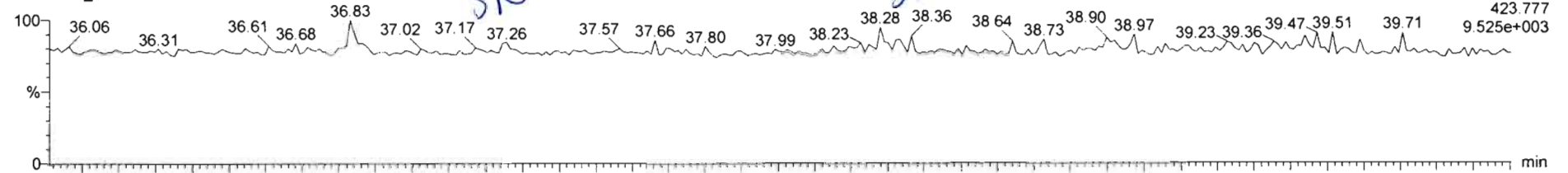
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

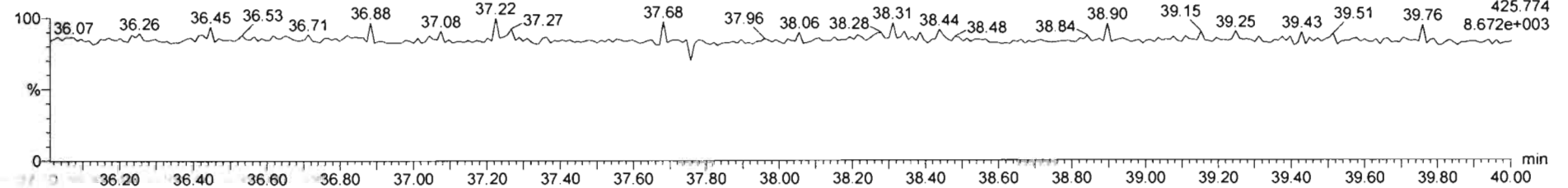
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1,2,3,4,6,7,8-HpCDD

200314R2\_6

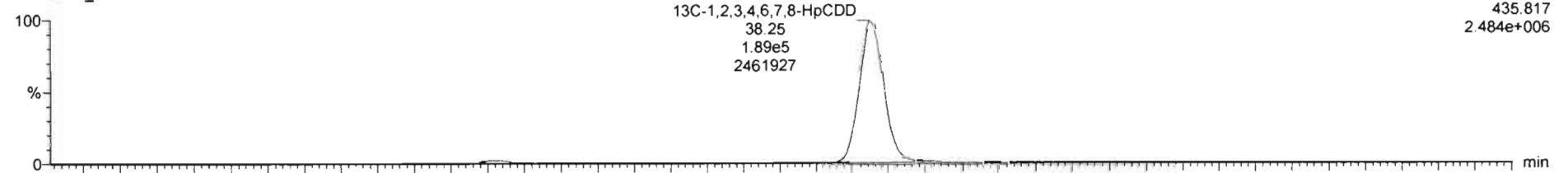


200314R2\_6

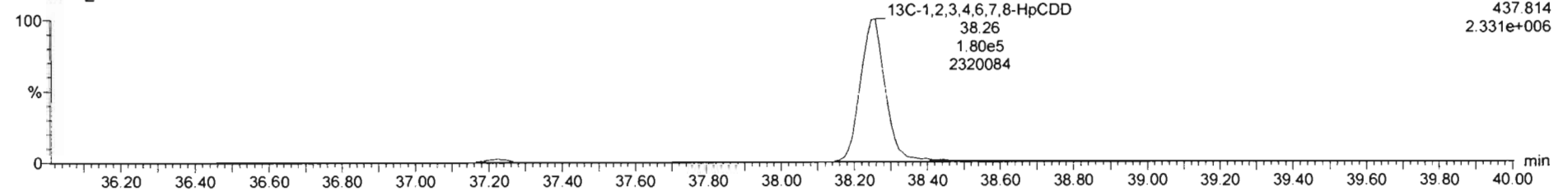


13C-1,2,3,4,6,7,8-HpCDD

200314R2\_6



200314R2\_6

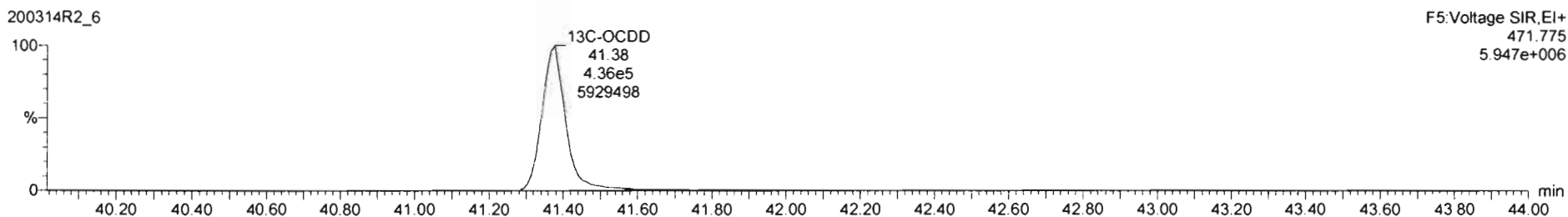
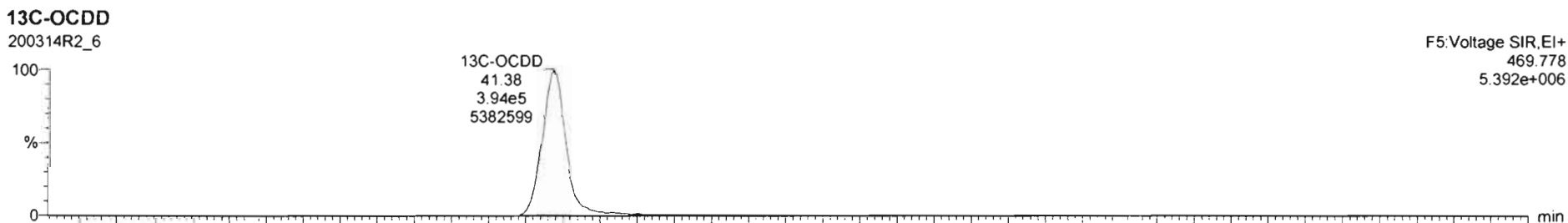
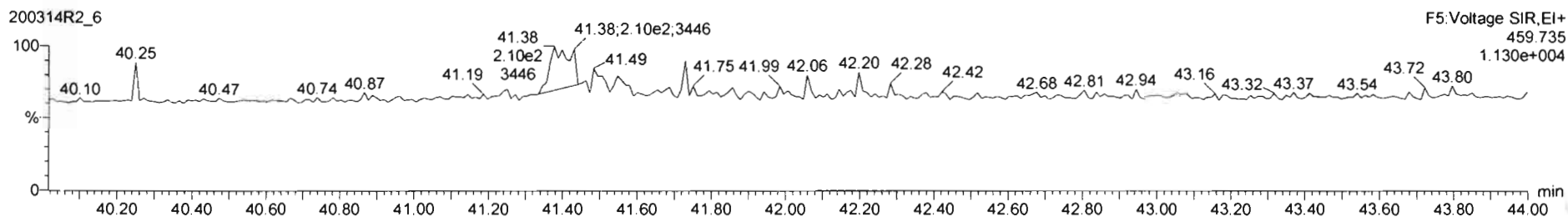
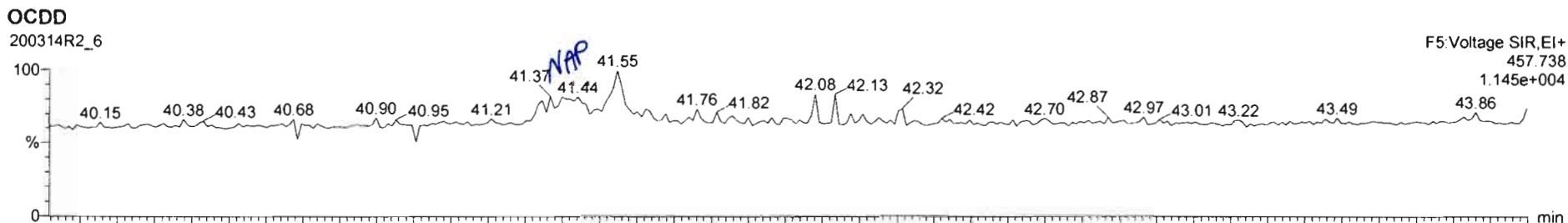


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Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time

Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

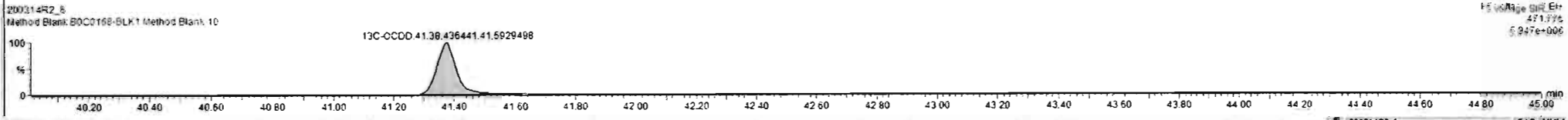
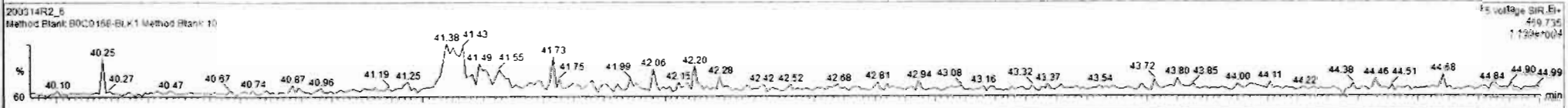
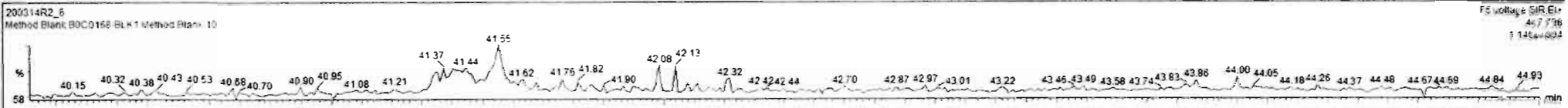
Name: 200314R2\_6, Date: 14-Mar-2020, Time: 15:15:32, ID: B0C0168-BLK1 Method Blank 10, Description: Method Blank



200314R2\_6 - B0C0168-BLK1 Method Blank 10 - Method Blank

Name	Resp	RA	nly	RRF	wthol	RT	RRT	Conc	%Rec	DL	EMPC
OCDD	NO	1.8515	10.000							0.017	
2.17.R.TIME				0.0154	10.000					0.0410	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc



Dataset: Untitled

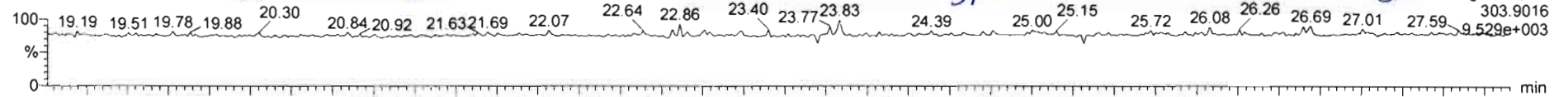
Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time

Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

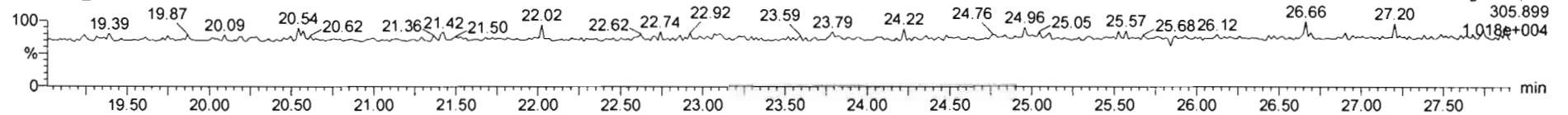
Name: 200314R2\_6, Date: 14-Mar-2020, Time: 15:15:32, ID: B0C0168-BLK1 Method Blank 10, Description: Method Blank

2,3,7,8-TCDF

200314R2\_6

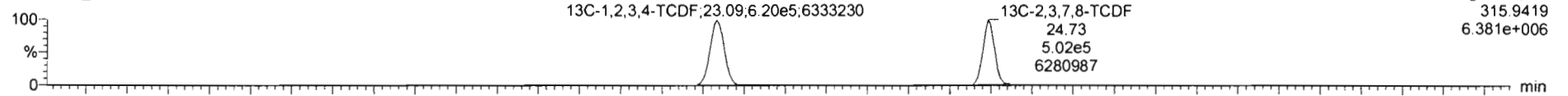


200314R2\_6

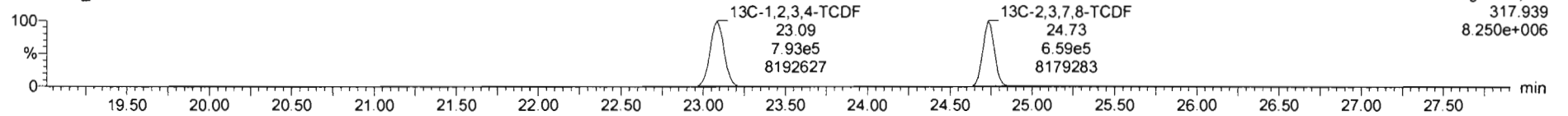


13C-2,3,7,8-TCDF

200314R2\_6

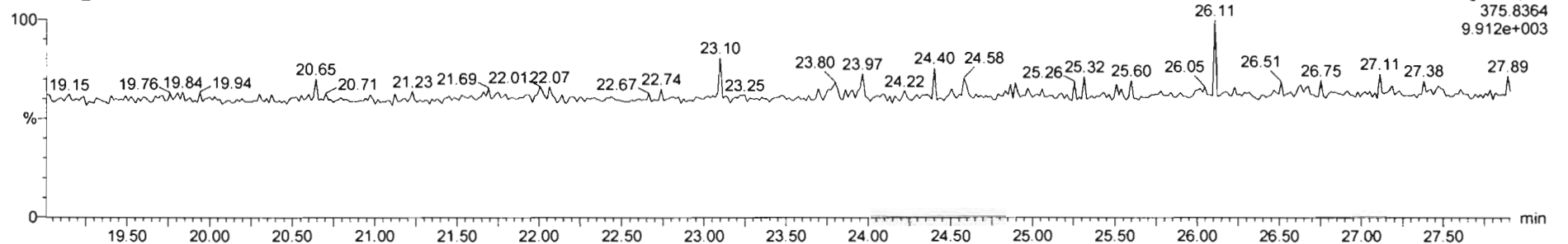


200314R2\_6



DPE1

200314R2\_6

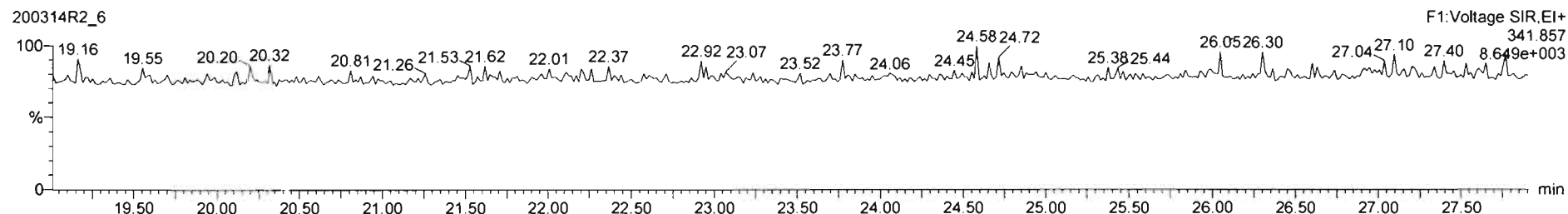
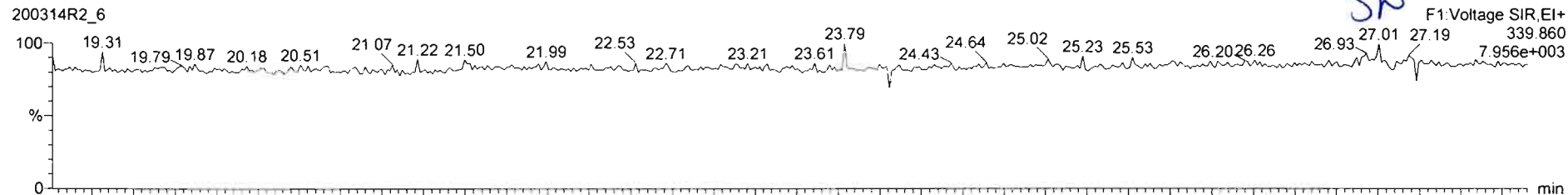


Dataset: Untitled

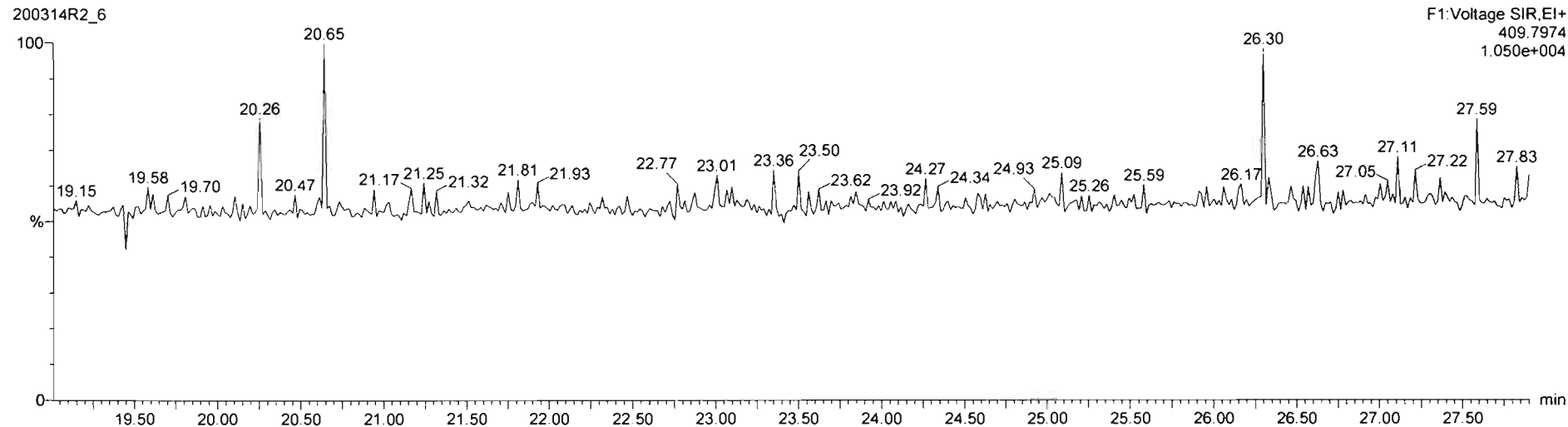
Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_6, Date: 14-Mar-2020, Time: 15:15:32, ID: B0C0168-BLK1 Method Blank 10, Description: Method Blank

1st Func. Penta-Furans



DPE6



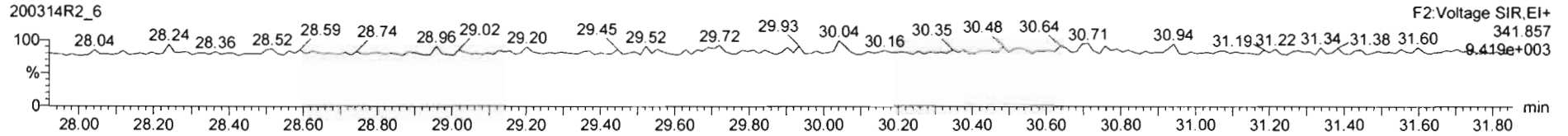
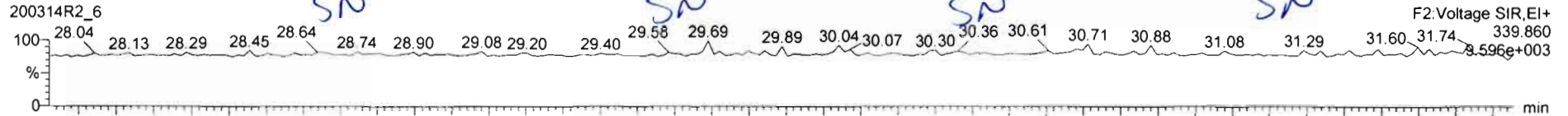
Dataset: Untitled

Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time

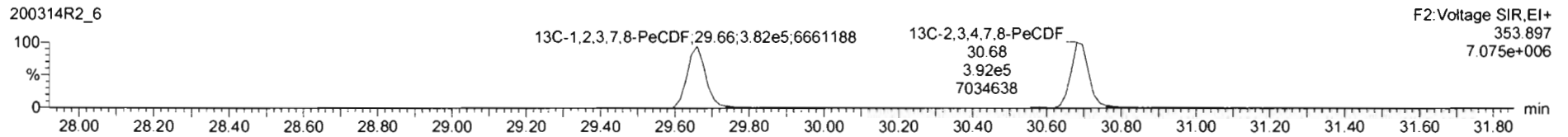
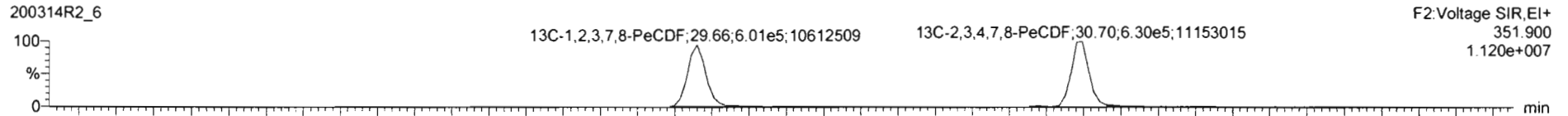
Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_6, Date: 14-Mar-2020, Time: 15:15:32, ID: B0C0168-BLK1 Method Blank 10, Description: Method Blank

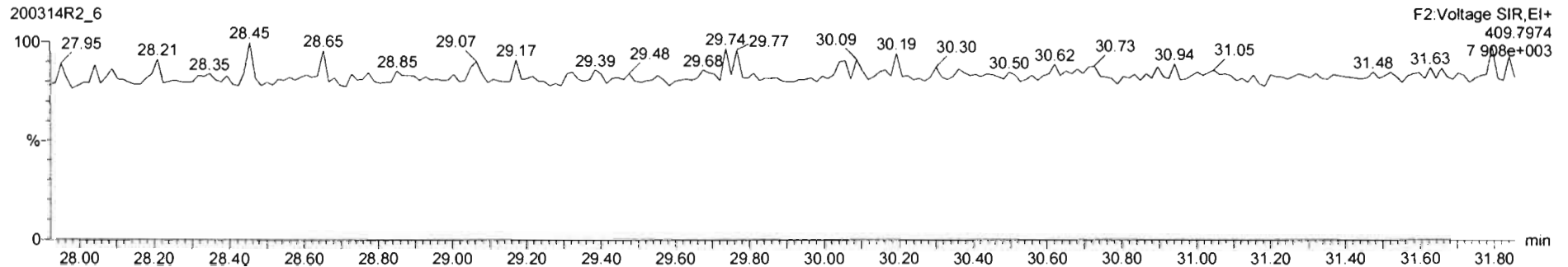
**1,2,3,7,8-PeCDF**



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



**DPE2**

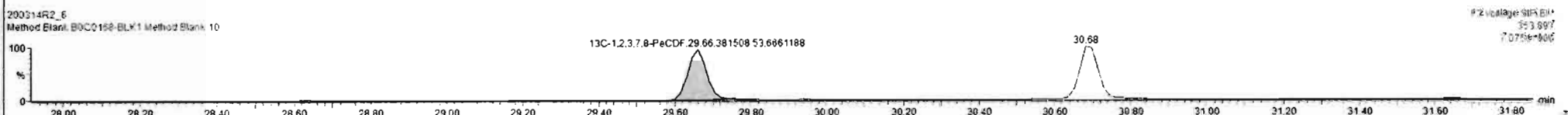
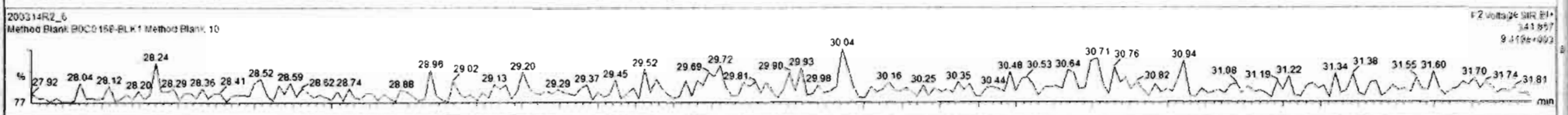
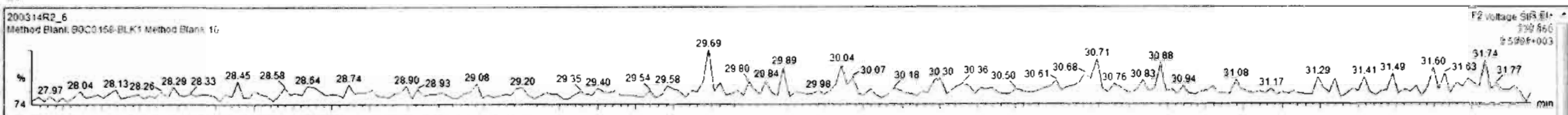


200314R2\_6 - B0C0168-BLK1 Method Blank 10 - Method Blank

Name	Resp	RA	n/y	RRF	w/Prcl	RT	RRT	Conc.	%Rec	DL	EMPC
45	Total Penta-Furens			0.9584	10.800					0.0229	
Total Mass_Furens											0.0314

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



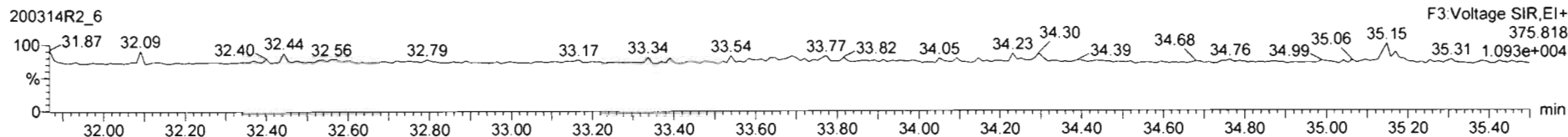
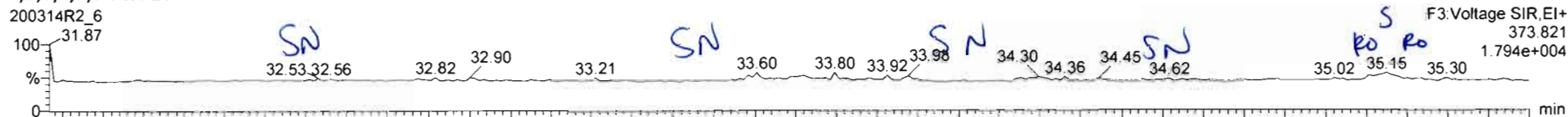


Dataset: Untitled

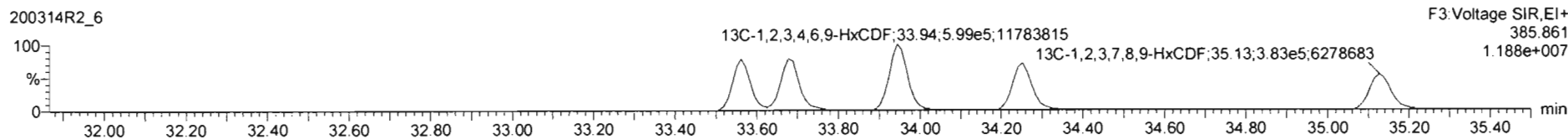
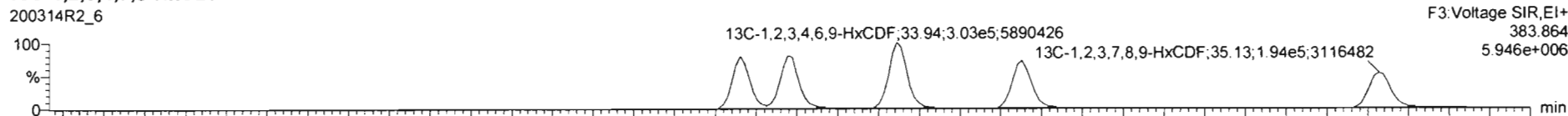
Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_6, Date: 14-Mar-2020, Time: 15:15:32, ID: B0C0168-BLK1 Method Blank 10, Description: Method Blank

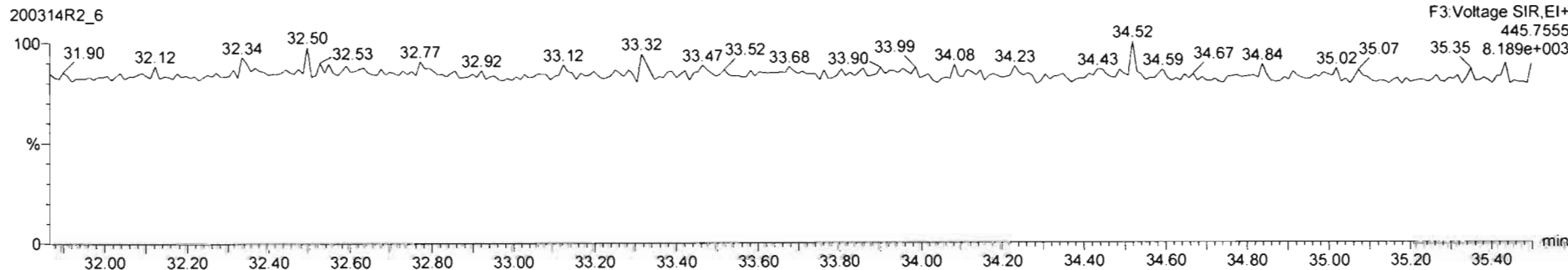
**1,2,3,4,7,8-HxCDF**



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

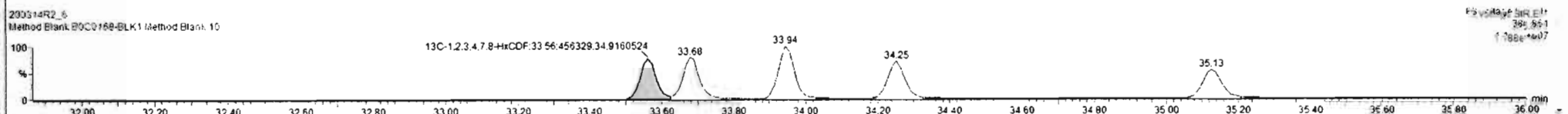
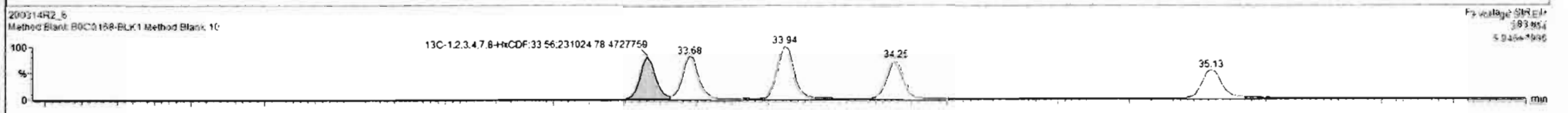
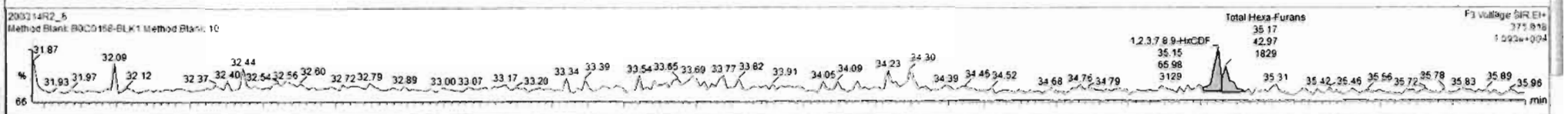
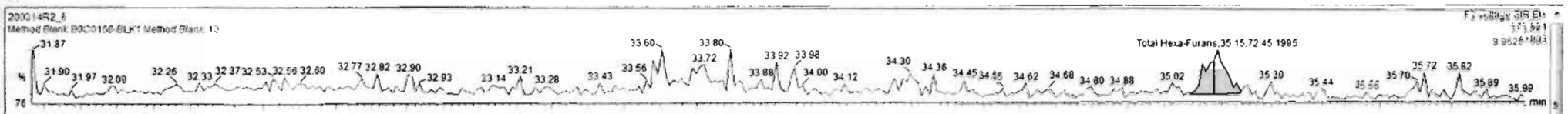


**DPE3**



Name	Resp	RA	n/y	RRF	wt%vol	RT	RRT	Conc	%Rec	DL	EMPC
45	Total Penta-Furans			0.9594	10.000					0.0229	
all	Total Hexa-Furans			1.0000	10.000					0.0229	0.0000

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.	
1	Total Hexa-Furans	35.15	7.245e1	4.297e1	1.69	YES	0.025290	0.00000
2	1,2,3,7,8,9-HxCDF	35.14	5.345e1	6.596e1	0.81	YES	0.032585	0.00000



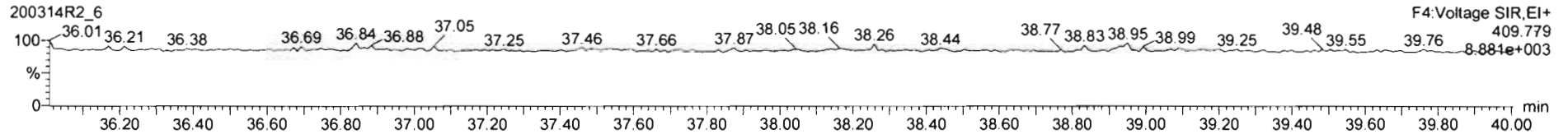
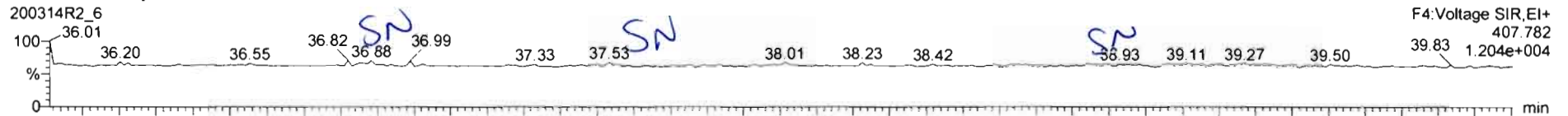
Dataset: Untitled

Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time

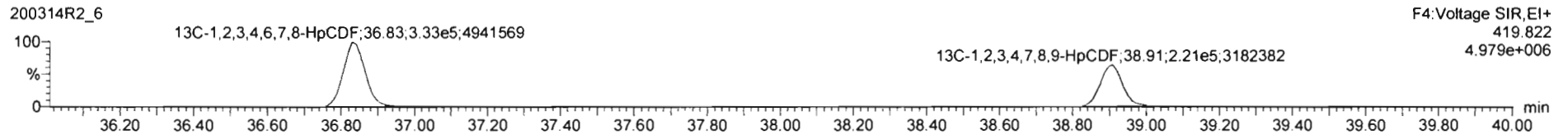
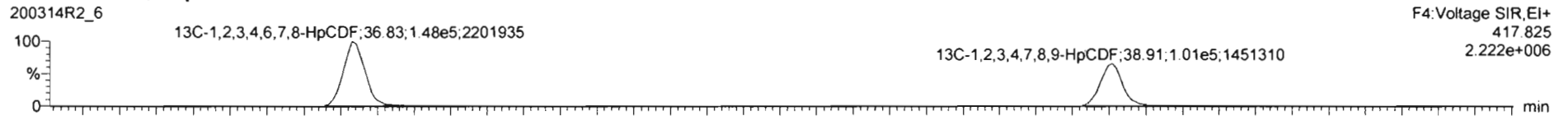
Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_6, Date: 14-Mar-2020, Time: 15:15:32, ID: B0C0168-BLK1 Method Blank 10, Description: Method Blank

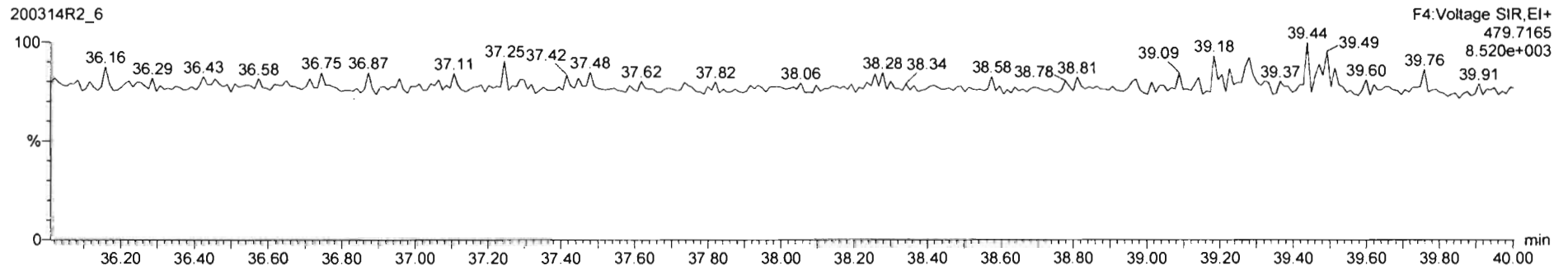
1,2,3,4,6,7,8-HpCDF



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



DPE4

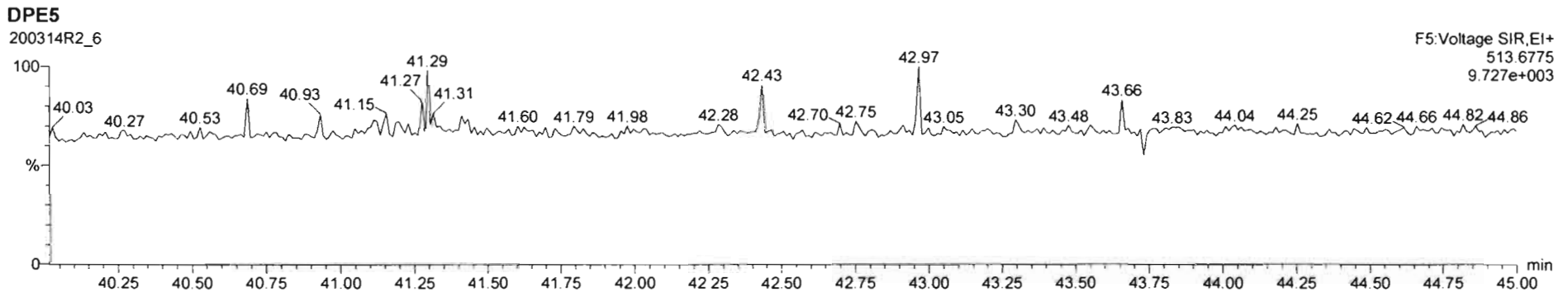
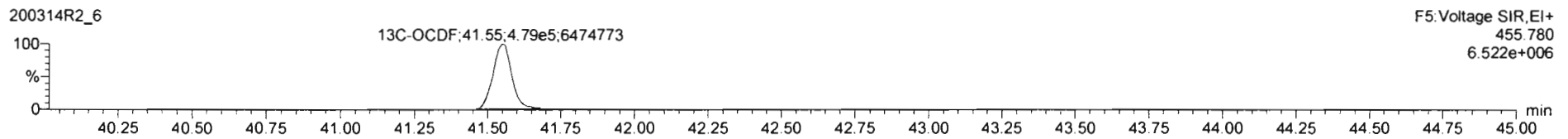
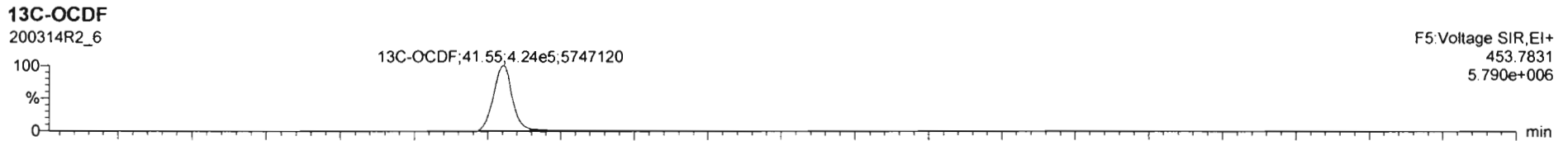
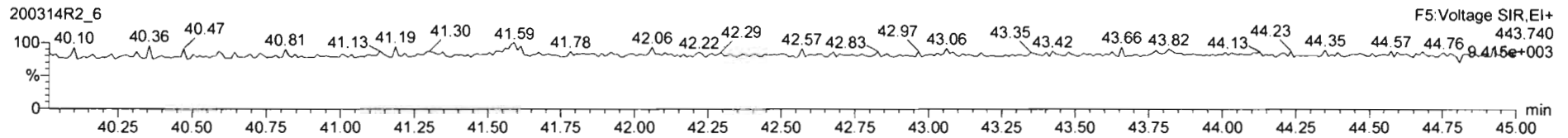
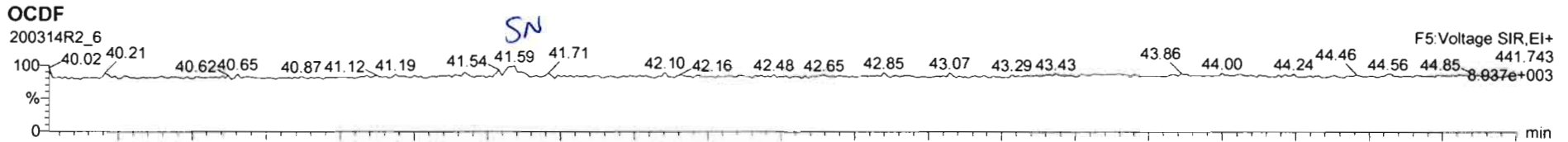


Dataset: Untitled

Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time

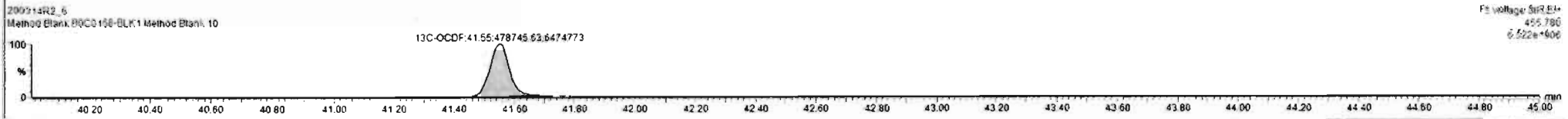
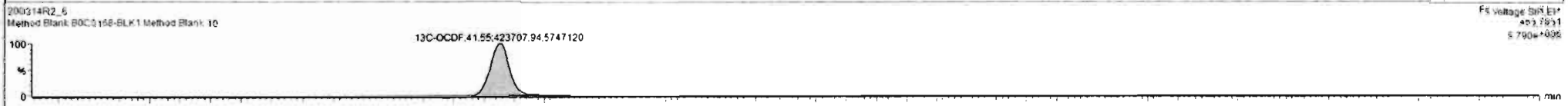
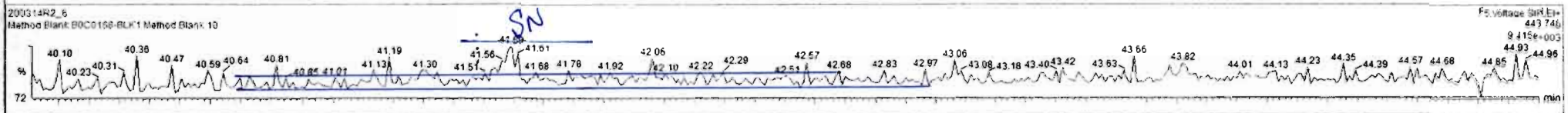
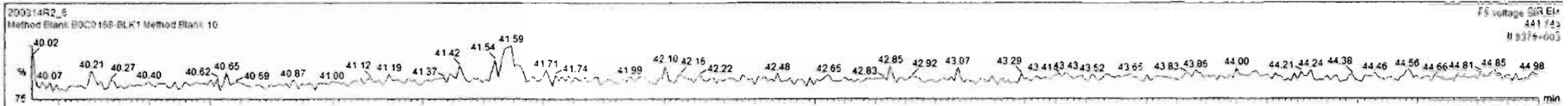
Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_6, Date: 14-Mar-2020, Time: 15:15:32, ID: B0C0168-BLK1 Method Blank 10, Description: Method Blank



Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
17	OCDF			NO	0.9458	10.000				0.0043	
18	13C-OCDF	0.76	NO	1.1247	10.000	41.59	1.029	144	77.4	0.718	

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

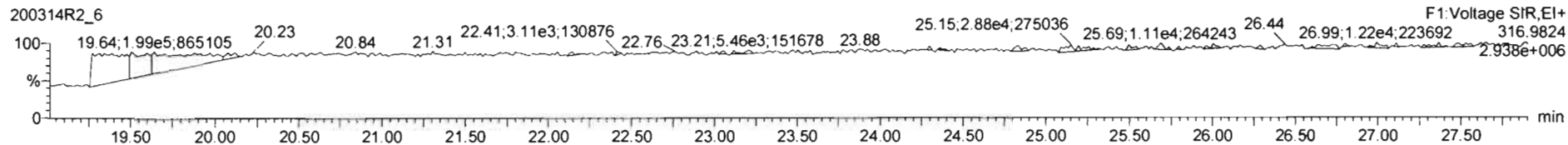


Dataset: Untitled

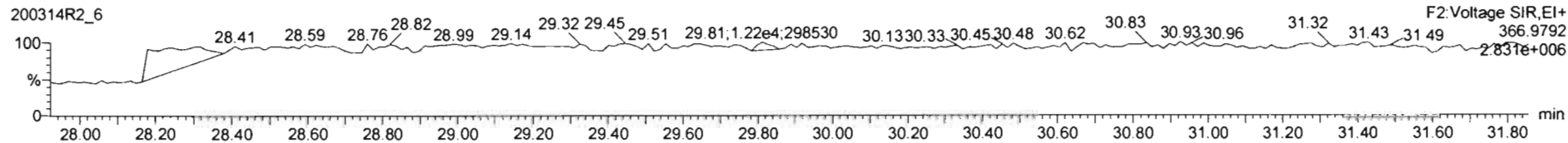
Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_6, Date: 14-Mar-2020, Time: 15:15:32, ID: B0C0168-BLK1 Method Blank 10, Description: Method Blank

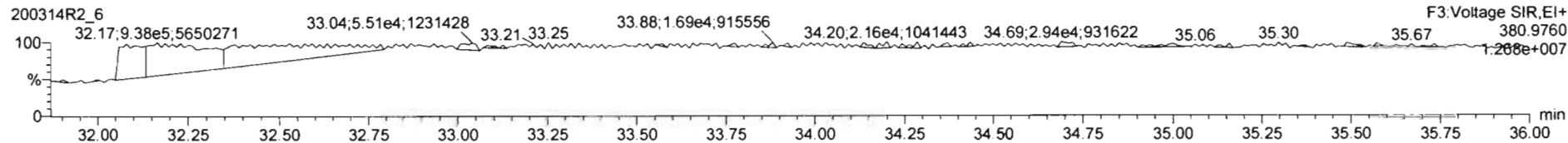
PFK1



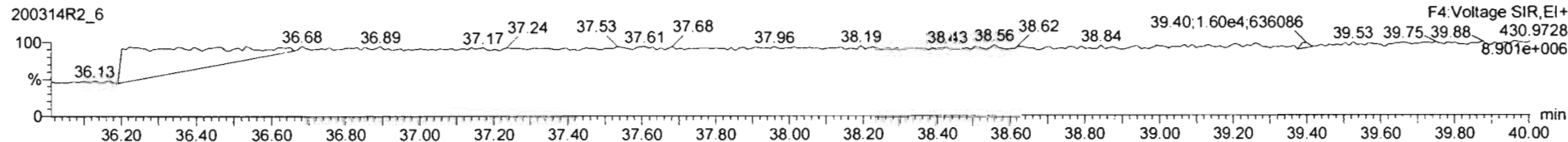
PFK2



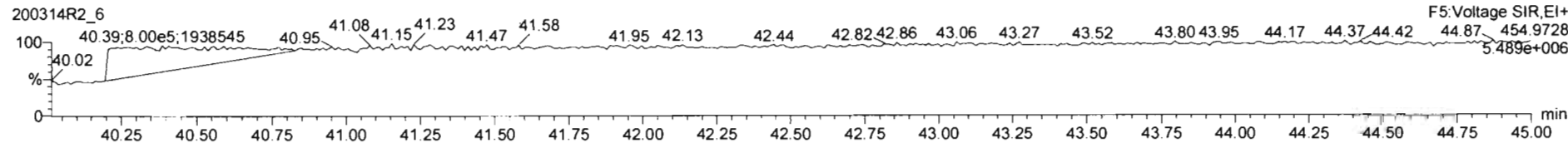
PFK3



PFK4



PFK5



Dataset: U:\VG12.PRO\Results\200314R2\200314R2-3.qld

Last Altered: Sunday, March 15, 2020 10:03:47 Pacific Daylight Time

Printed: Sunday, March 15, 2020 10:04:00 Pacific Daylight Time

*GRB 03/15/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

*MW  
3/15/20*

Name: 200314R2\_3, Date: 14-Mar-2020, Time: 12:52:52, ID: B0C0168-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	9.83e4	0.76	NO	0.983	10.000	25.751	25.74	1.001	1.001	18.516		0.0901	18.5
2	2 1,2,3,7,8-PeCDD	3.92e5	0.61	NO	0.921	10.000	31.009	31.00	1.001	1.001	94.270		0.152	94.3
3	3 1,2,3,4,7,8-HxCDD	3.35e5	1.24	NO	1.13	10.000	34.413	34.42	1.000	1.001	93.558		0.175	93.6
4	4 1,2,3,6,7,8-HxCDD	3.55e5	1.22	NO	0.984	10.000	34.509	34.52	1.000	1.000	95.804		0.178	95.8
5	5 1,2,3,7,8,9-HxCDD	3.08e5	1.21	NO	0.967	10.000	34.786	34.80	1.000	1.001	96.169		0.214	96.2
6	6 1,2,3,4,6,7,8-HpCDD	2.20e5	1.02	NO	1.01	10.000	38.237	38.25	1.000	1.001	94.752		0.381	94.8
7	7 OCDD	4.92e5	0.87	NO	1.05	10.000	41.379	41.39	1.000	1.000	185.26		0.263	185
8	8 2,3,7,8-TCDF	1.20e5	0.78	NO	0.915	10.000	24.758	24.75	1.001	1.001	18.370		0.0610	18.4
9	9 1,2,3,7,8-PeCDF	5.79e5	1.58	NO	0.959	10.000	29.666	29.66	1.001	1.001	94.157		0.185	94.2
10	10 2,3,4,7,8-PeCDF	6.06e5	1.57	NO	1.00	10.000	30.698	30.68	1.001	1.000	94.892		0.167	94.9
11	11 1,2,3,4,7,8-HxCDF	4.18e5	1.22	NO	1.04	10.000	33.551	33.56	1.000	1.000	96.300		0.217	96.3
12	12 1,2,3,6,7,8-HxCDF	4.51e5	1.24	NO	1.01	10.000	33.678	33.68	1.000	1.000	96.620		0.213	96.6
13	13 2,3,4,6,7,8-HxCDF	4.38e5	1.21	NO	1.09	10.000	34.277	34.25	1.001	1.000	95.575		0.223	95.6
14	14 1,2,3,7,8,9-HxCDF	3.37e5	1.24	NO	1.03	10.000	35.116	35.13	1.000	1.000	94.375		0.328	94.4
15	15 1,2,3,4,6,7,8-HpCDF	2.87e5	1.01	NO	1.05	10.000	36.857	36.84	1.001	1.001	96.180		0.328	96.2
16	16 1,2,3,4,7,8,9-HpCDF	2.32e5	1.01	NO	1.21	10.000	38.897	38.91	1.000	1.000	94.995		0.401	95.0
17	17 OCDF	5.21e5	0.87	NO	0.947	10.000	41.560	41.56	1.000	1.000	187.75		0.266	188
18	18 13C-2,3,7,8-TCDD	1.08e6	0.76	NO	1.18	10.000	25.720	25.72	1.029	1.029	206.80	103	0.326	
19	19 13C-1,2,3,7,8-PeCDD	9.03e5	0.63	NO	0.864	10.000	30.900	30.99	1.236	1.239	236.87	118	0.240	
20	20 13C-1,2,3,4,7,8-HxCDD	6.32e5	1.28	NO	0.754	10.000	34.406	34.40	1.014	1.014	187.05	93.5	0.422	
21	21 13C-1,2,3,6,7,8-HxCDD	7.52e5	1.24	NO	0.925	10.000	34.514	34.51	1.017	1.017	181.36	90.7	0.344	
22	22 13C-1,2,3,7,8,9-HxCDD	6.62e5	1.29	NO	0.829	10.000	34.776	34.78	1.025	1.025	178.03	89.0	0.383	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.63e5	1.04	NO	0.598	10.000	38.230	38.23	1.127	1.126	172.58	86.3	0.381	
24	24 13C-OCDD	1.01e6	0.88	NO	0.571	10.000	41.376	41.38	1.219	1.219	394.63	98.7	0.459	
25	25 13C-2,3,7,8-TCDF	1.42e6	0.78	NO	1.09	10.000	24.742	24.73	0.990	0.989	189.31	94.7	0.458	
26	26 13C-1,2,3,7,8-PeCDF	1.28e6	1.58	NO	0.876	10.000	29.572	29.65	1.183	1.186	211.96	106	0.430	
27	27 13C-2,3,4,7,8-PeCDF	1.27e6	1.58	NO	0.844	10.000	30.582	30.67	1.223	1.227	218.52	109	0.446	
28	28 13C-1,2,3,4,7,8-HxCDF	8.36e5	0.51	NO	1.00	10.000	33.554	33.55	0.989	0.989	186.55	93.3	0.371	
29	29 13C-1,2,3,6,7,8-HxCDF	9.21e5	0.51	NO	1.12	10.000	33.663	33.67	0.992	0.992	183.94	92.0	0.332	
30	30 13C-2,3,4,6,7,8-HxCDF	8.39e5	0.51	NO	1.04	10.000	34.243	34.24	1.009	1.009	180.77	90.4	0.358	
31	31 13C-1,2,3,7,8,9-HxCDF	6.95e5	0.50	NO	0.873	10.000	35.115	35.12	1.035	1.035	177.75	88.9	0.425	

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-3.qld

Last Altered: Sunday, March 15, 2020 10:03:47 Pacific Daylight Time

Printed: Sunday, March 15, 2020 10:04:00 Pacific Daylight Time

Name: 200314R2\_3, Date: 14-Mar-2020, Time: 12:52:52, ID: B0C0168-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	5.68e5	0.45	NO	0.771	10.000	36.829	36.82	1.085	1.085	164.59	82.3	0.452	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.04e5	0.44	NO	0.519	10.000	38.912	38.90	1.147	1.146	173.73	86.9	0.671	
34	34 13C-OCDF	1.17e6	0.89	NO	0.696	10.000	41.556	41.56	1.225	1.225	376.11	94.0	0.394	
35	35 37Cl-2,3,7,8-TCDD	4.10e5			1.17	10.000	25.730	25.74	1.029	1.029	79.224	99.0	0.0845	
36	36 13C-1,2,3,4-TCDD	8.82e5	0.79	NO	1.00	10.000	25.050	25.00	1.000	1.000	200.00	100	0.386	
37	37 13C-1,2,3,4-TCDF	1.38e6	0.79	NO	1.00	10.000	23.190	23.09	1.000	1.000	200.00	100	0.499	
38	38 13C-1,2,3,4,6,9-HxCDF	8.96e5	0.51	NO	1.00	10.000	33.880	33.93	1.000	1.000	200.00	100	0.371	



Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-3.qld

Last Altered: Sunday, March 15, 2020 10:03:47 Pacific Daylight Time

Printed: Sunday, March 15, 2020 10:04:00 Pacific Daylight Time

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Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R2\_3, Date: 14-Mar-2020, Time: 12:52:52, ID: B0C0168-BS1 OPR 10, Description: OPR

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	25.44	1.081e4	1.179e4	1.109e3	1.332e3	0.83	NO	2.441e3	0.45985	0.45985	0.0901
2	2,3,7,8-TCDD	25.74	5.822e5	7.340e5	4.246e4	5.583e4	0.76	NO	9.830e4	18.516	18.516	0.0901

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	30.56	8.464e3	5.812e3	3.981e2	3.484e2	1.14	YES	0.000e0	0.00000	0.13657	0.152
2	1,2,3,7,8-PeCDD	31.00	2.702e6	4.314e6	1.491e5	2.429e5	0.61	NO	3.919e5	94.270	94.270	0.152
3	Total Penta-Dioxins	31.42	5.011e3	6.881e3	2.393e2	3.170e2	0.75	YES	0.000e0	0.00000	0.12430	0.152

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,7,8-HxCDD	34.42	3.030e6	2.408e6	1.852e5	1.496e5	1.24	NO	3.348e5	93.558	93.558	0.175
2	1,2,3,6,7,8-HxCDD	34.52	2.963e6	2.406e6	1.952e5	1.595e5	1.22	NO	3.546e5	95.804	95.804	0.178
3	1,2,3,7,8,9-HxCDD	34.80	2.483e6	2.057e6	1.687e5	1.391e5	1.21	NO	3.078e5	96.169	96.169	0.214

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.24	1.154e4	1.153e4	9.542e2	9.545e2	1.00	NO	1.909e3	0.82023	0.82023	0.381
2	1,2,3,4,6,7,8-HpCDD	38.25	1.204e6	1.140e6	1.115e5	1.090e5	1.02	NO	2.205e5	94.752	94.752	0.381

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	23.72	3.014e3	4.432e3	2.359e2	3.965e2	0.59	YES	0.000e0	0.00000	0.083274	0.0610
2	2,3,7,8-TCDF	24.75	6.581e5	8.663e5	5.240e4	6.724e4	0.78	NO	1.196e5	18.370	18.370	0.0610

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-3.qld

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Name: 200314R2\_3, Date: 14-Mar-2020, Time: 12:52:52, ID: B0C0168-BS1 OPR 10, Description: OPR

**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	28.61	1.034e4	7.275e3	8.602e2	5.176e2	1.66	NO	1.378e3	0.22495	0.22495	0.180
2 Total Penta-Furans	29.28	4.712e3	3.684e3	3.342e2	2.238e2	1.49	NO	5.580e2	0.091108	0.091108	0.180
3 Total Penta-Furans	29.31	7.301e3	4.477e3	2.066e2	2.039e2	1.01	YES	0.000e0	0.00000	0.055506	0.180
4 Total Penta-Furans	29.46	1.827e4	6.948e3	8.040e2	3.901e2	2.06	YES	0.000e0	0.00000	0.16242	0.180
5 1,2,3,7,8-PeCDF	29.66	6.099e6	3.849e6	3.544e5	2.245e5	1.58	NO	5.789e5	94.157	94.157	0.185
6 Total Penta-Furans	29.93	4.611e4	3.604e4	1.708e3	2.301e3	0.74	YES	0.000e0	0.00000	0.45869	0.180
7 2,3,4,7,8-PeCDF	30.68	6.953e6	4.477e6	3.696e5	2.359e5	1.57	NO	6.056e5	94.892	94.892	0.167
8 Total Penta-Furans	31.64	2.922e4	1.656e4	1.942e3	1.018e3	1.91	YES	0.000e0	0.00000	0.42372	0.180

**Hexa-Furans**

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Total Hexa-Furans	32.37	8.916e3	4.962e3	4.333e2	3.434e2	1.26	NO	7.767e2	0.17288	0.17288	0.230
2 Total Hexa-Furans	32.55	9.856e3	1.039e4	5.900e2	4.574e2	1.29	NO	1.047e3	0.23314	0.23314	0.230
3 1,2,3,4,7,8-HxCDF	33.56	4.163e6	3.435e6	2.293e5	1.886e5	1.22	NO	4.179e5	96.300	96.300	0.217
4 1,2,3,6,7,8-HxCDF	33.68	4.249e6	3.492e6	2.491e5	2.015e5	1.24	NO	4.507e5	96.620	96.620	0.213
5 2,3,4,6,7,8-HxCDF	34.25	4.024e6	3.338e6	2.398e5	1.978e5	1.21	NO	4.376e5	95.575	95.575	0.223
6 1,2,3,7,8,9-HxCDF	35.13	2.731e6	2.217e6	1.868e5	1.501e5	1.24	NO	3.369e5	94.375	94.375	0.328

**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	36.84	1.723e6	1.707e6	1.438e5	1.428e5	1.01	NO	2.866e5	96.180	96.180	0.328
2 Total Hepta-Furans	37.21	5.018e3	5.661e3	2.813e2	2.599e2	1.08	NO	5.412e2	0.21231	0.21231	0.384
3 Total Hepta-Furans	37.44	6.946e3	6.809e3	5.501e2	7.457e2	0.74	YES	0.000e0	0.00000	0.42332	0.384
4 1,2,3,4,7,8,9-HpCDF	38.91	1.389e6	1.362e6	1.167e5	1.156e5	1.01	NO	2.323e5	94.995	94.995	0.401

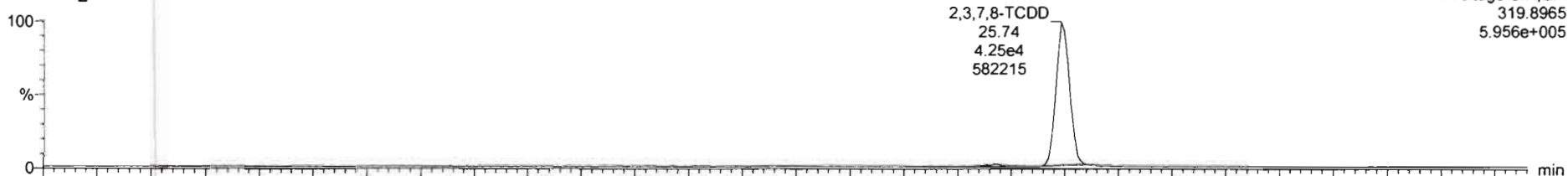
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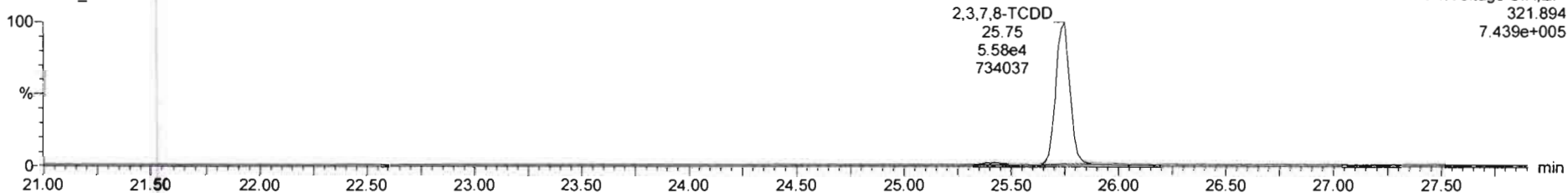
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**2,3,7,8-TCDD**

200314R2\_3

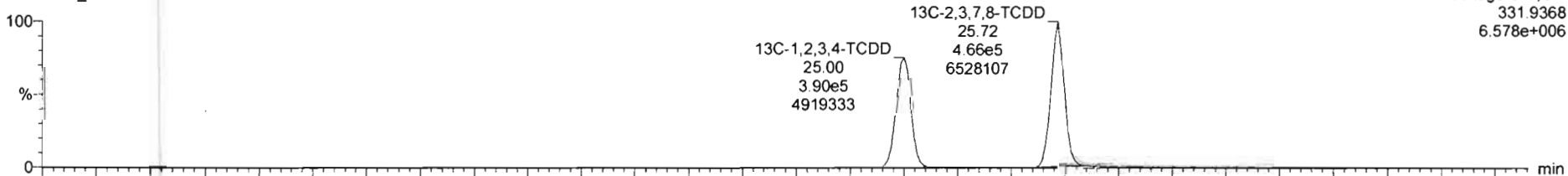


200314R2\_3

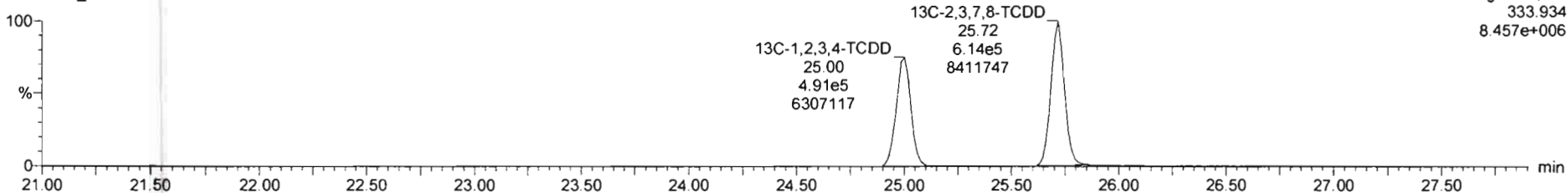


**13C-2,3,7,8-TCDD**

200314R2\_3



200314R2\_3



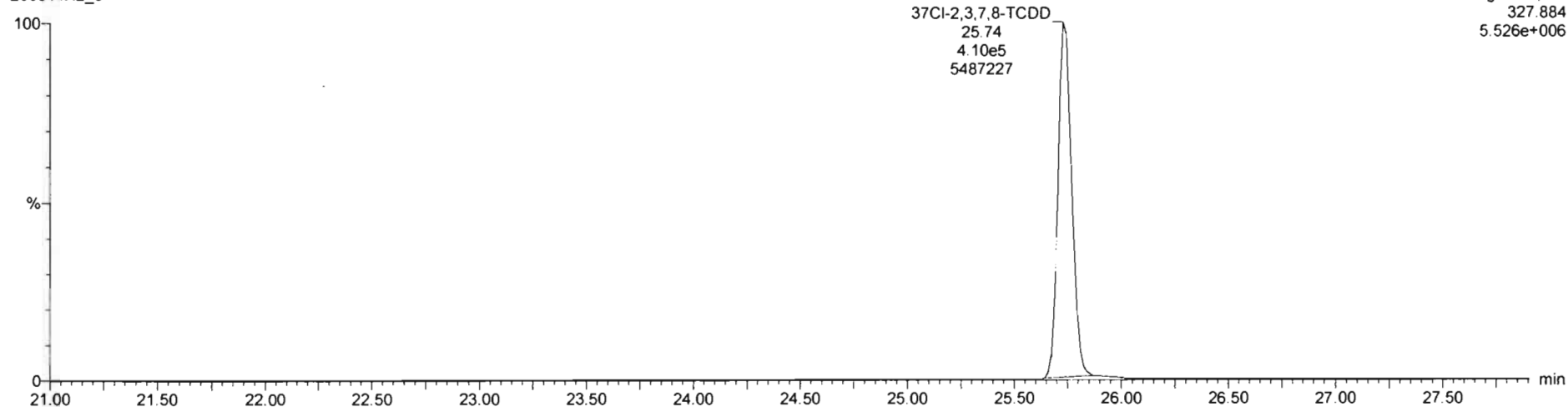
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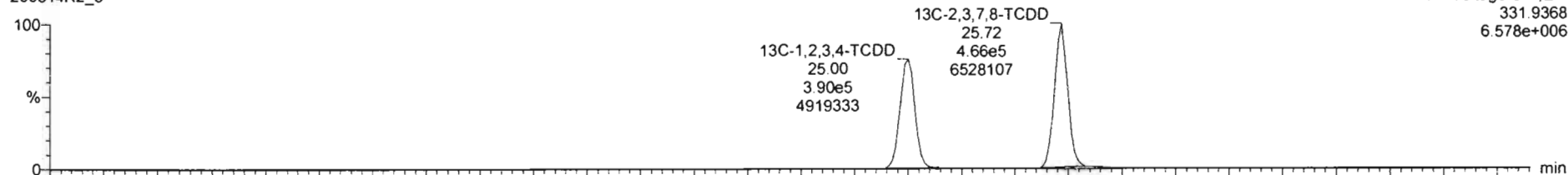
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200314R2\_3

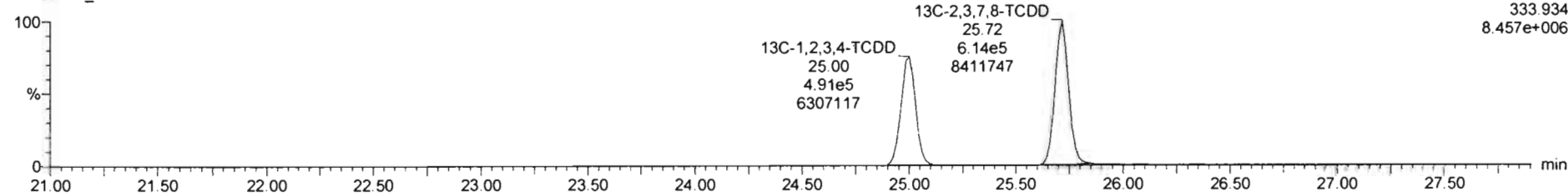


13C-1,2,3,4-TCDD

200314R2\_3



200314R2\_3



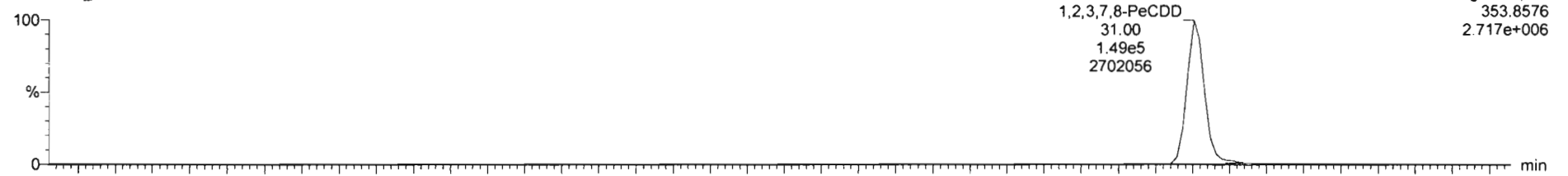
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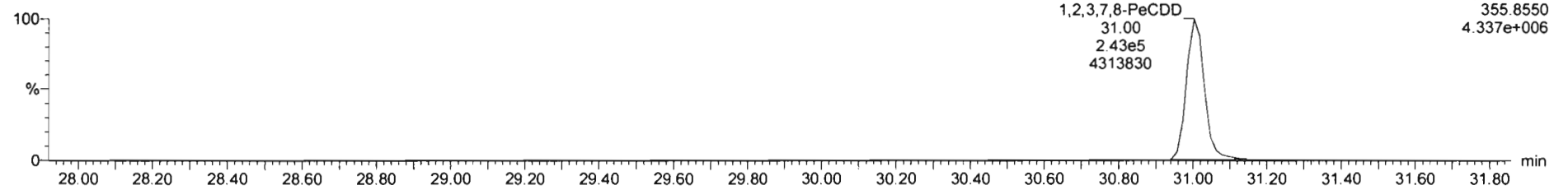
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**1,2,3,7,8-PeCDD**

200314R2\_3

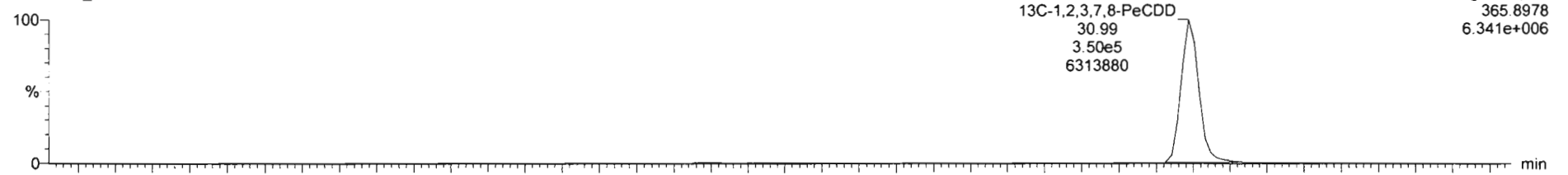


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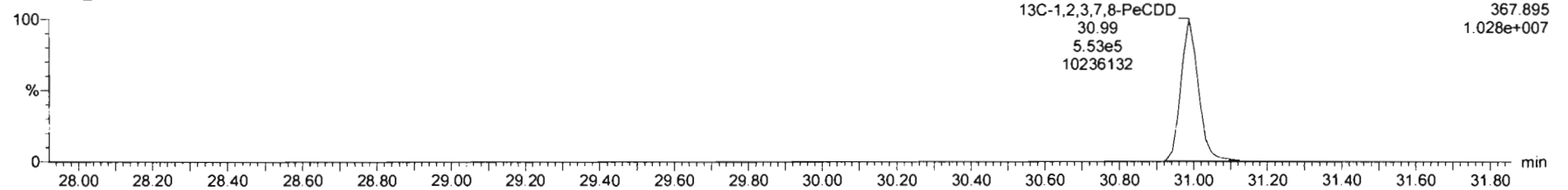


**13C-1,2,3,7,8-PeCDD**

200314R2\_3



200314R2\_3



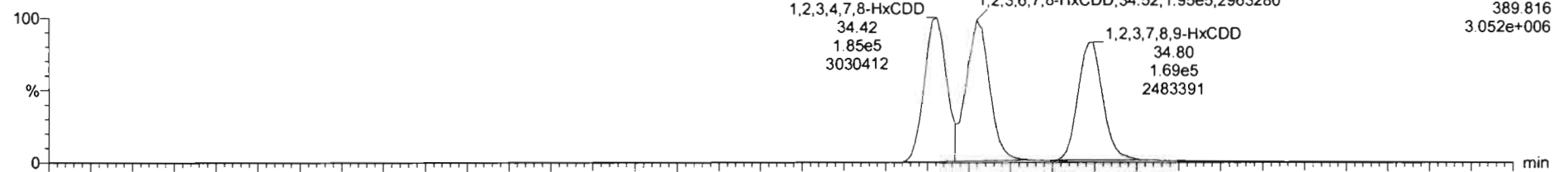
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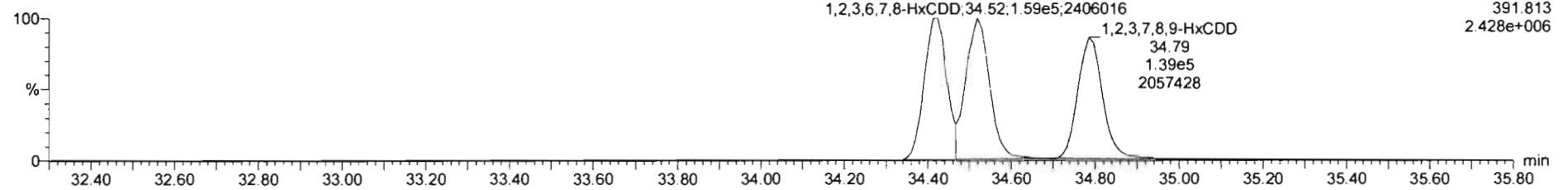
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**1,2,3,4,7,8-HxCDD**

200314R2\_3

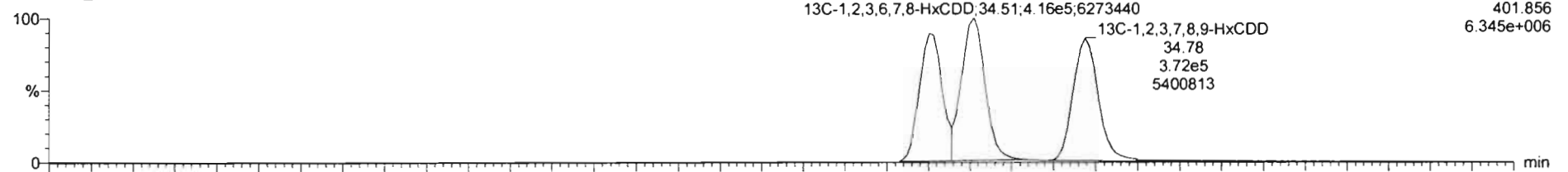


200314R2\_3

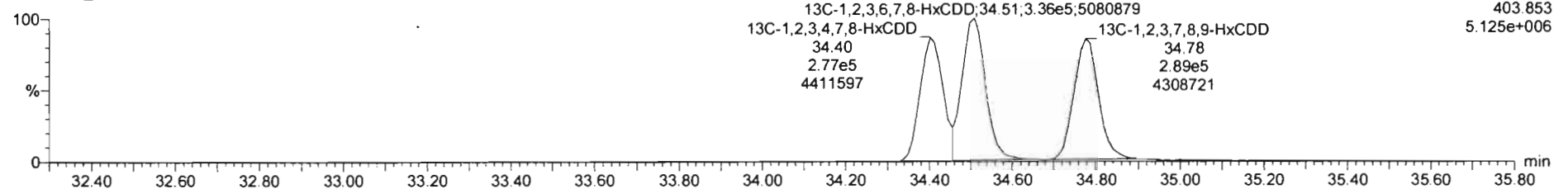


**13C-1,2,3,4,7,8-HxCDD**

200314R2\_3



200314R2\_3



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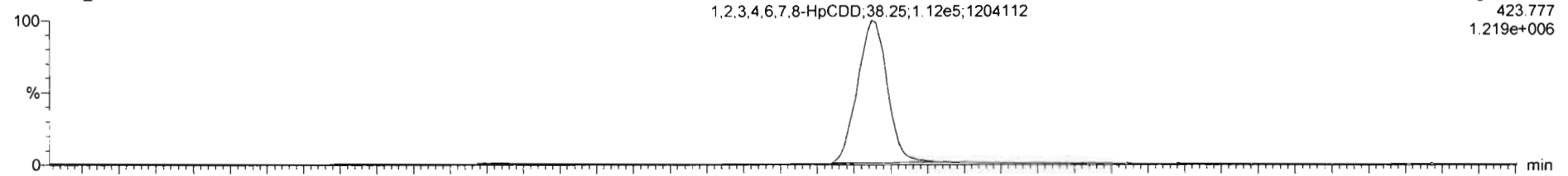
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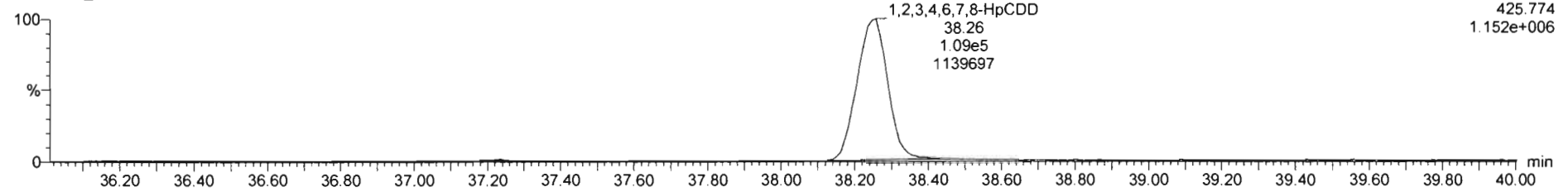
**1,2,3,4,6,7,8-HpCDD**

200314R2\_3



F4:Voltage SIR,EI+  
423.777  
1.219e+006

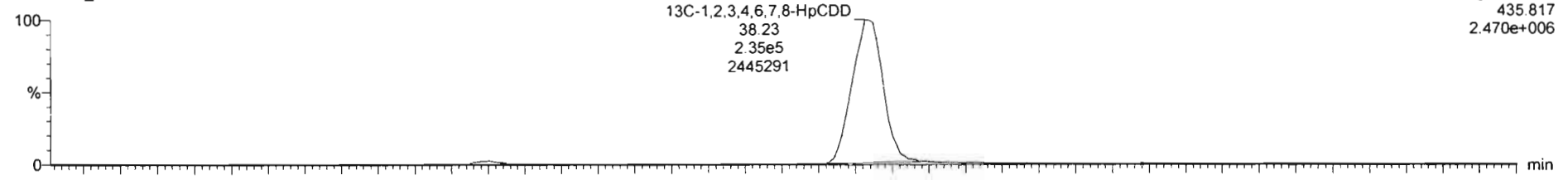
200314R2\_3



F4:Voltage SIR,EI+  
425.774  
1.152e+006

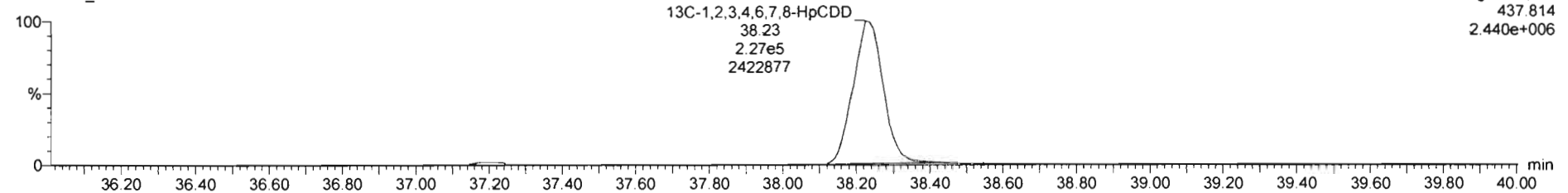
**13C-1,2,3,4,6,7,8-HpCDD**

200314R2\_3



F4:Voltage SIR,EI+  
435.817  
2.470e+006

200314R2\_3



F4:Voltage SIR,EI+  
437.814  
2.440e+006

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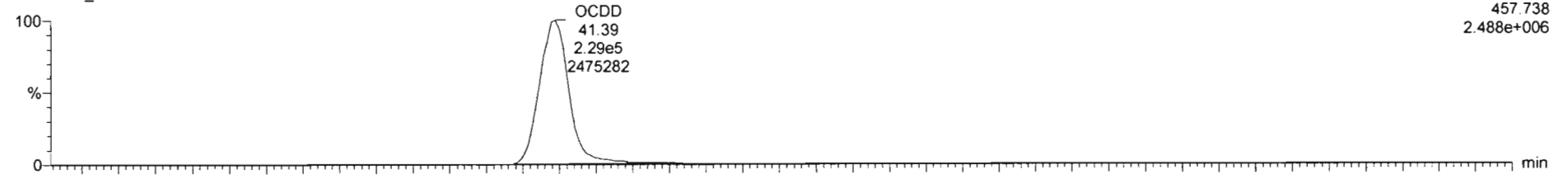
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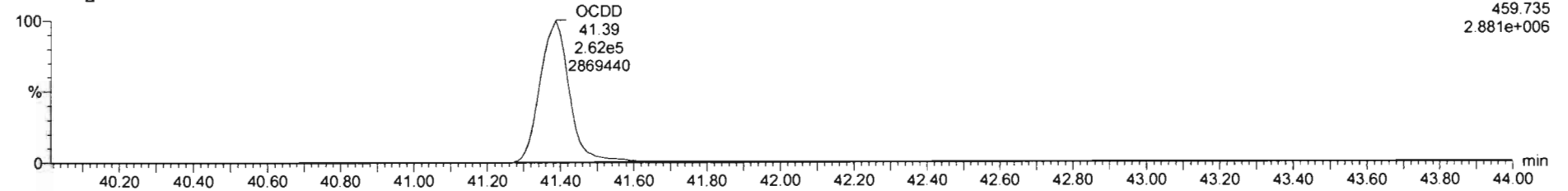
**OCDD**

200314R2\_3



F5: Voltage SIR, EI+  
457.738  
2.488e+006

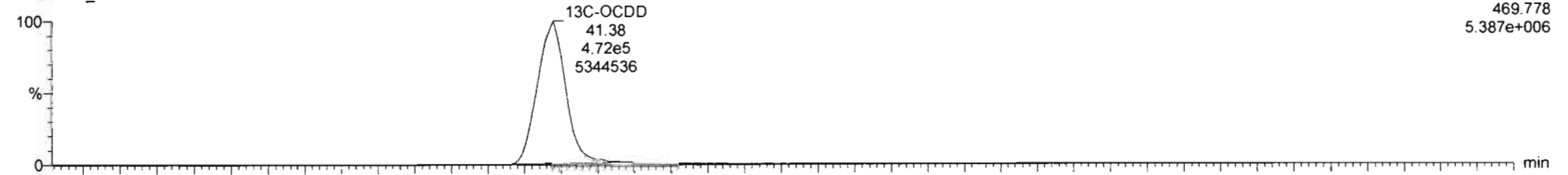
200314R2\_3



F5: Voltage SIR, EI+  
459.735  
2.881e+006

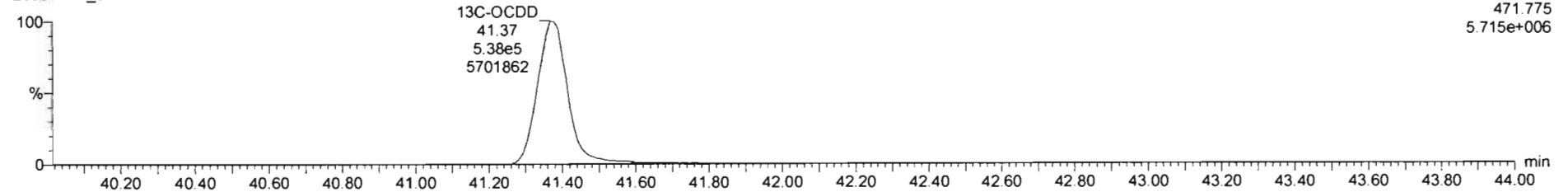
**13C-OCDD**

200314R2\_3



F5: Voltage SIR, EI+  
469.778  
5.387e+006

200314R2\_3



F5: Voltage SIR, EI+  
471.775  
5.715e+006



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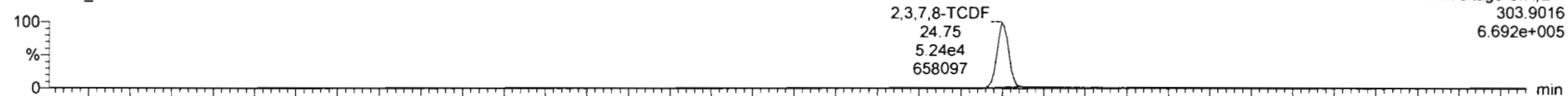
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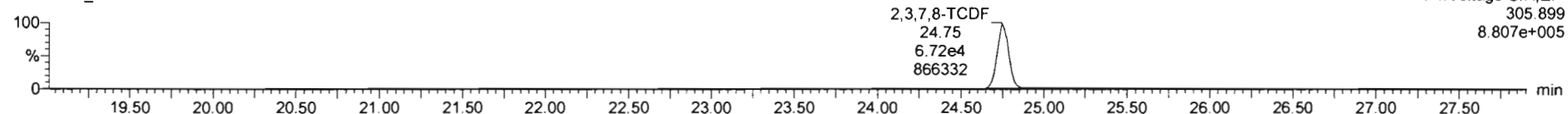
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**2,3,7,8-TCDF**

200314R2\_3

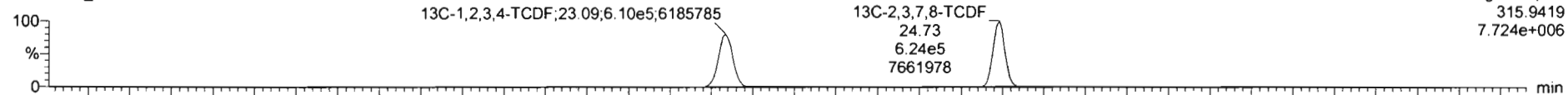


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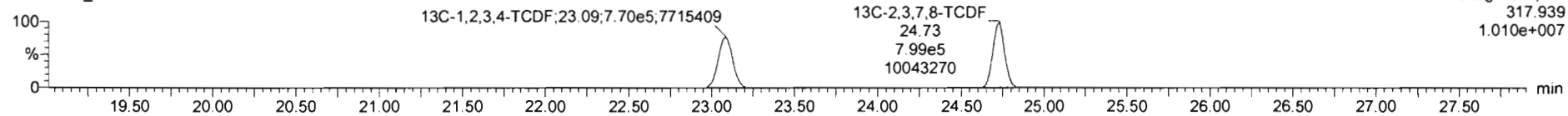


**13C-2,3,7,8-TCDF**

200314R2\_3

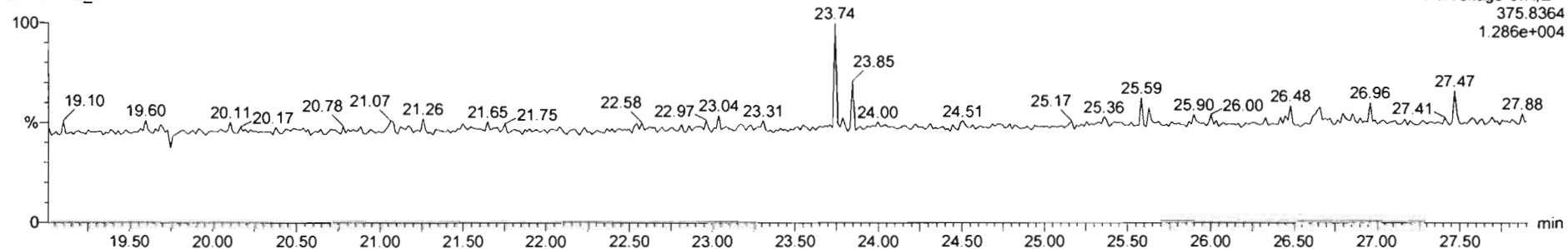


200314R2\_3



**DPE1**

200314R2\_3



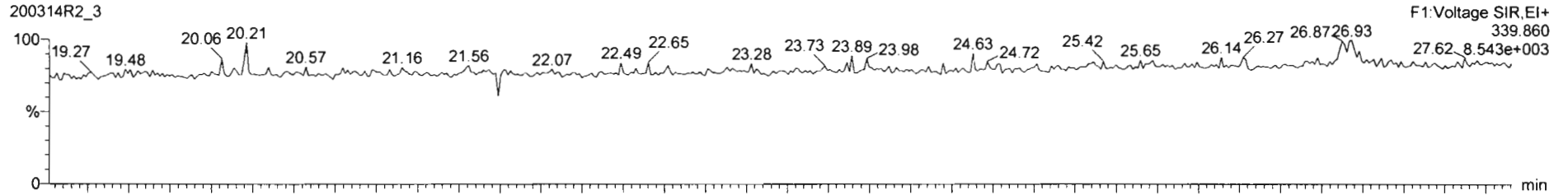
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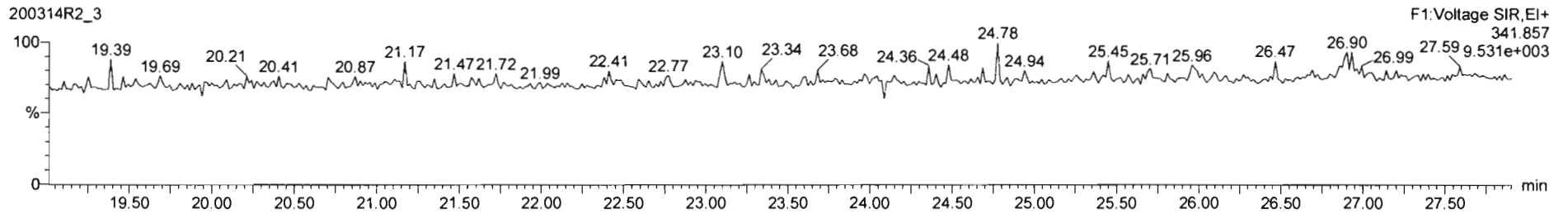
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1st Func. Penta-Furans

200314R2\_3

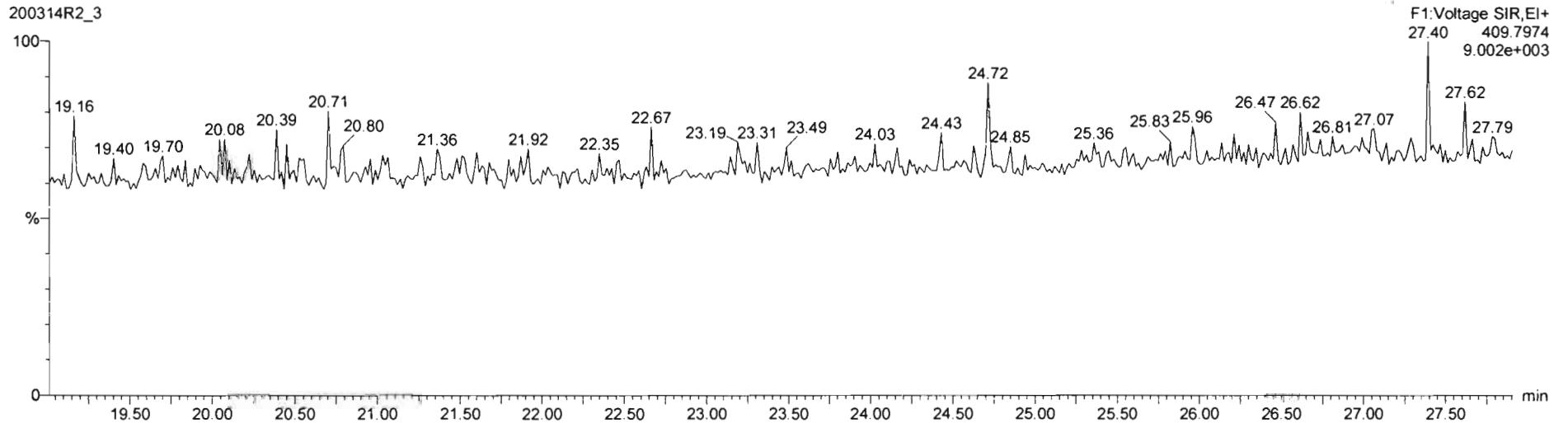


200314R2\_3



DPE6

200314R2\_3



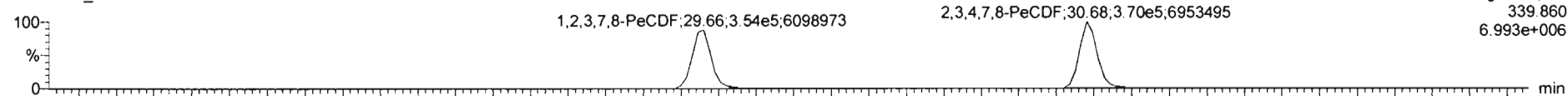
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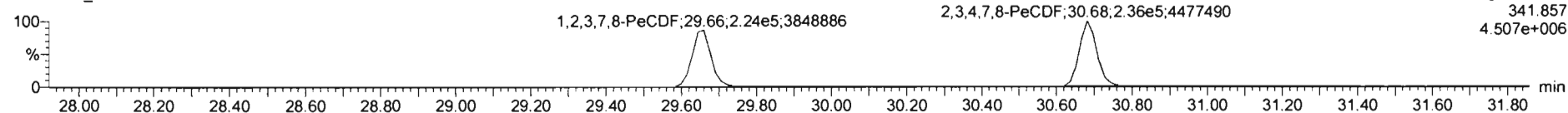
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**1,2,3,7,8-PeCDF**

200314R2\_3

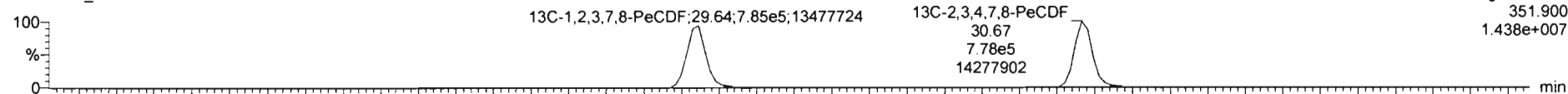


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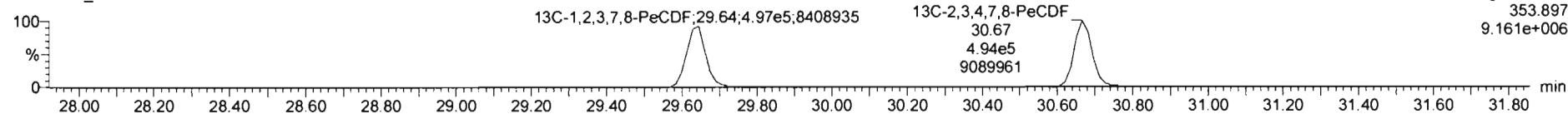


**13C-1,2,3,7,8-PeCDF**

200314R2\_3

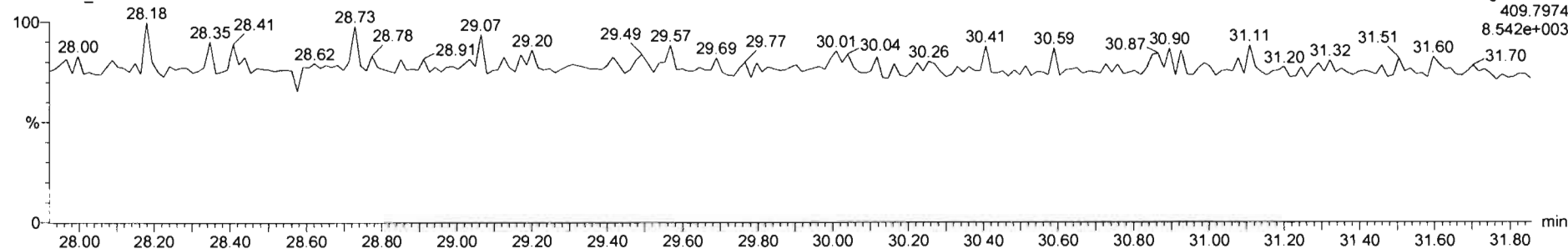


200314R2\_3



**DPE2**

200314R2\_3



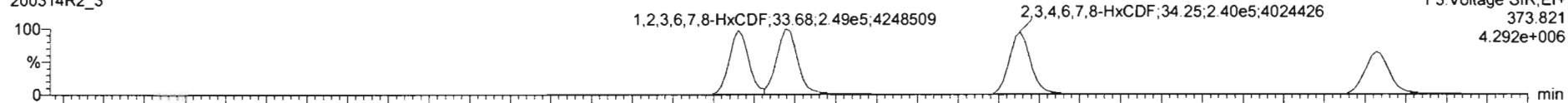
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

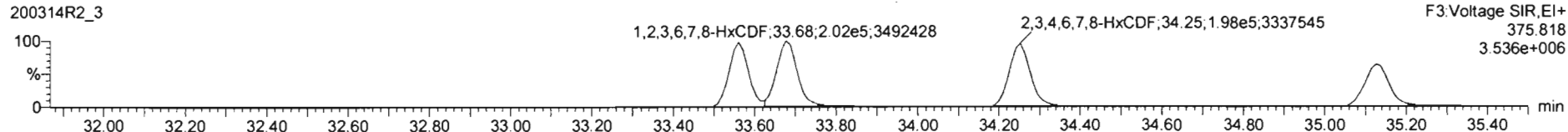
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**1,2,3,4,7,8-HxCDF**

200314R2\_3

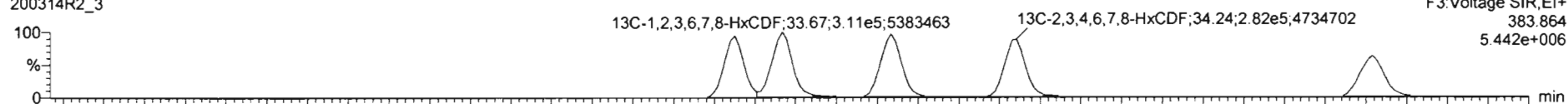


200314R2\_3

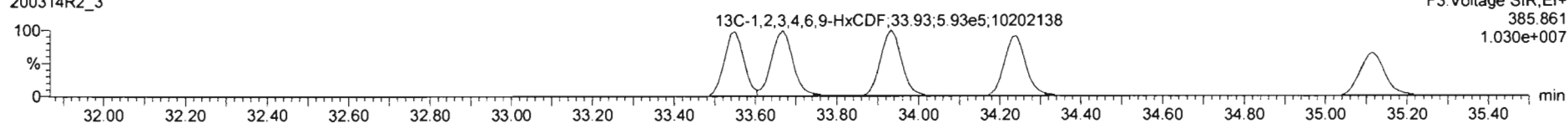


**13C-1,2,3,4,7,8-HxCDF**

200314R2\_3

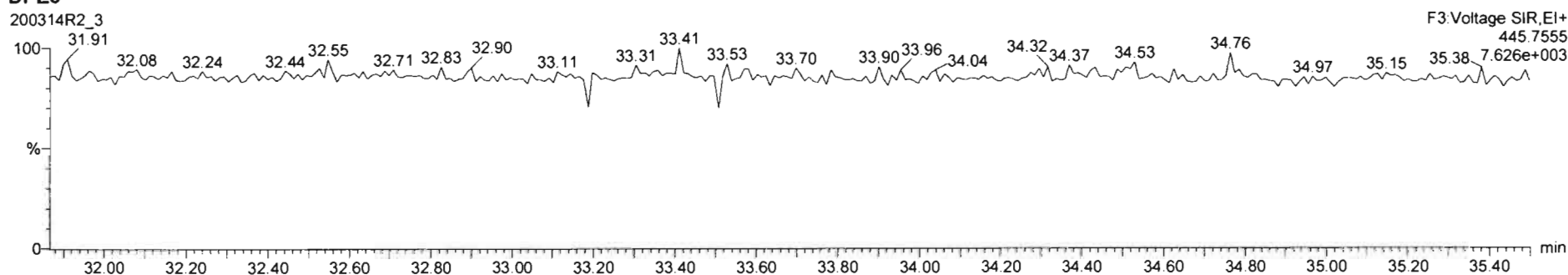


200314R2\_3



**DPE3**

200314R2\_3



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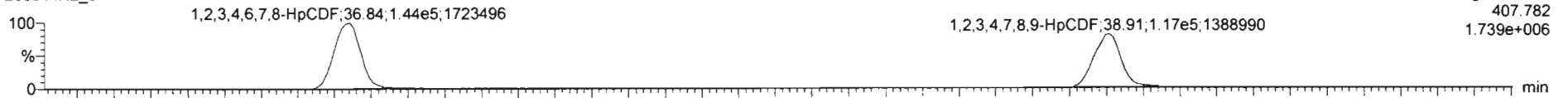
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

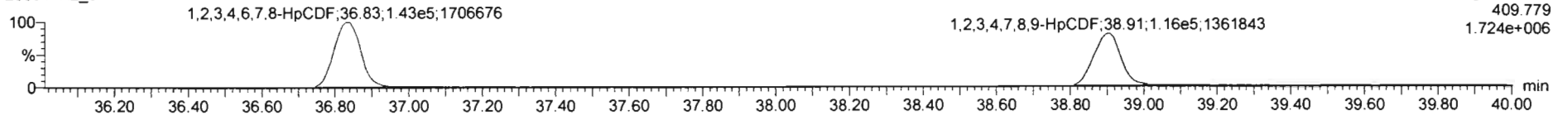
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**1,2,3,4,6,7,8-HpCDF**

200314R2\_3

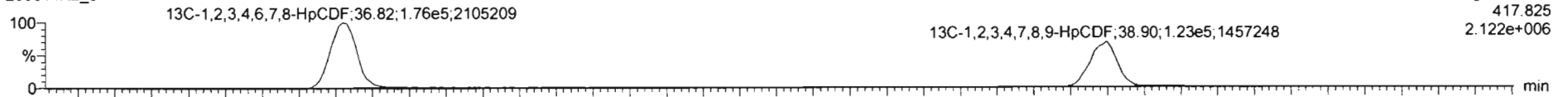


200314R2\_3

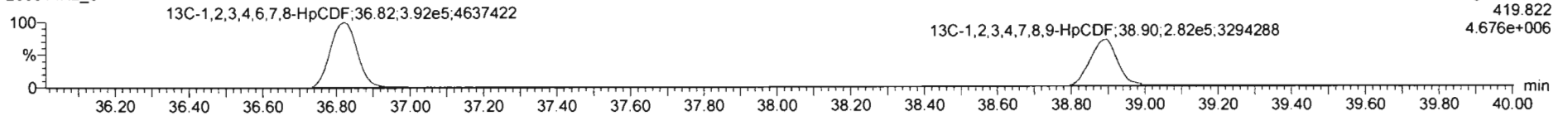


**13C-1,2,3,4,6,7,8-HpCDF**

200314R2\_3

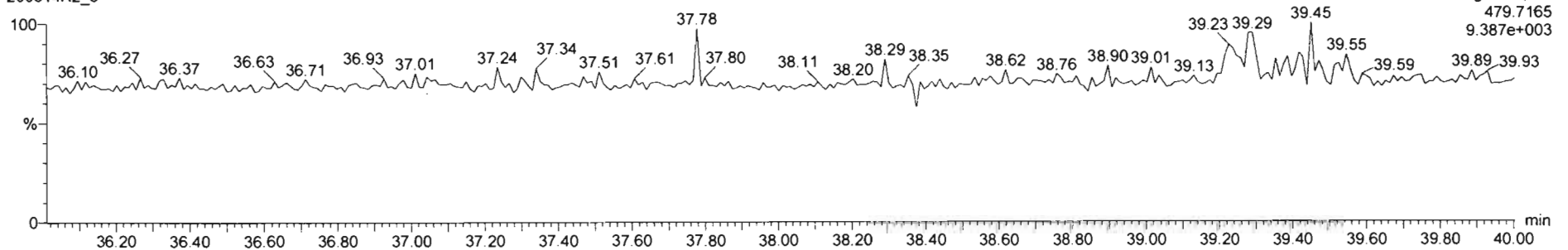


200314R2\_3



**DPE4**

200314R2\_3



Dataset: Untitled

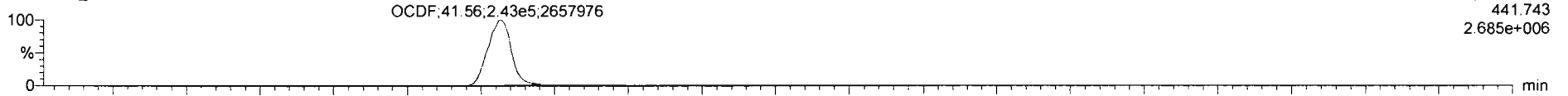
Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time

Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

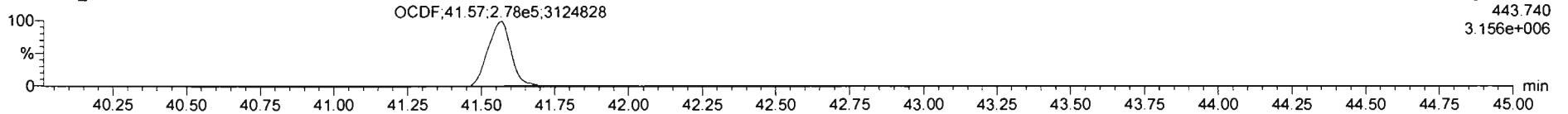
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**OCDF**

200314R2\_3

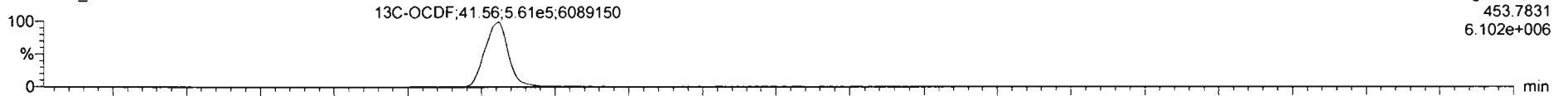


200314R2\_3

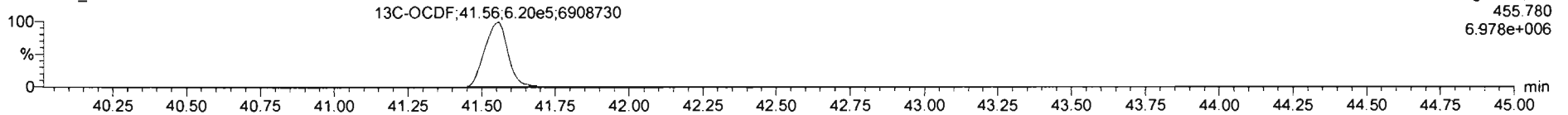


**13C-OCDF**

200314R2\_3

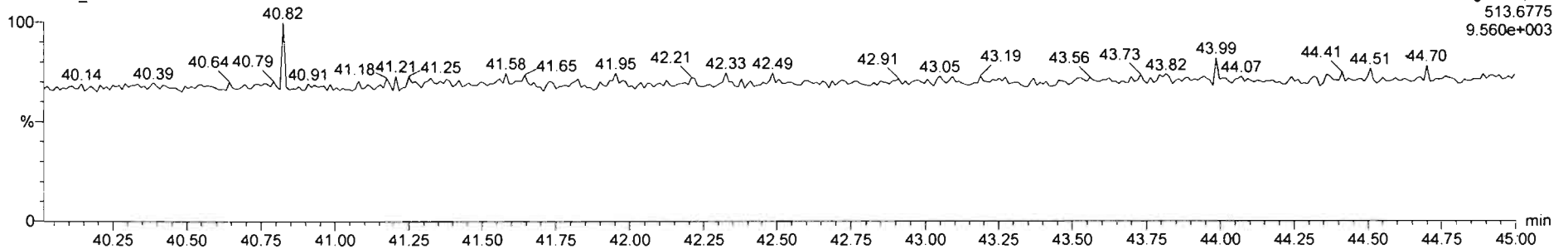


200314R2\_3

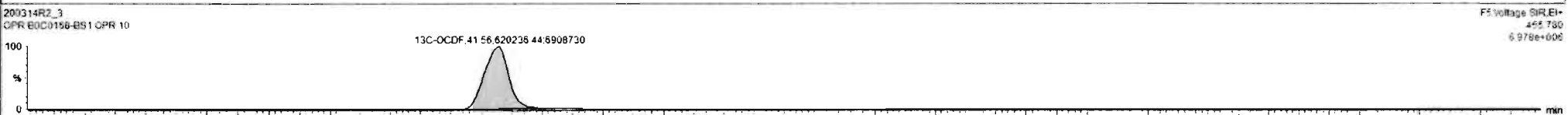
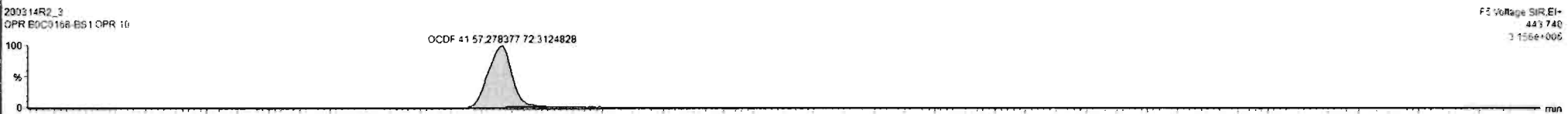
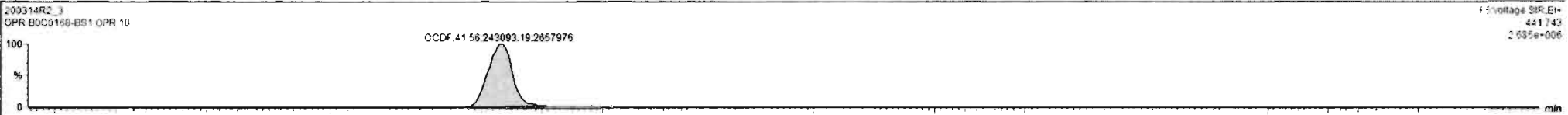


**DPE5**

200314R2\_3



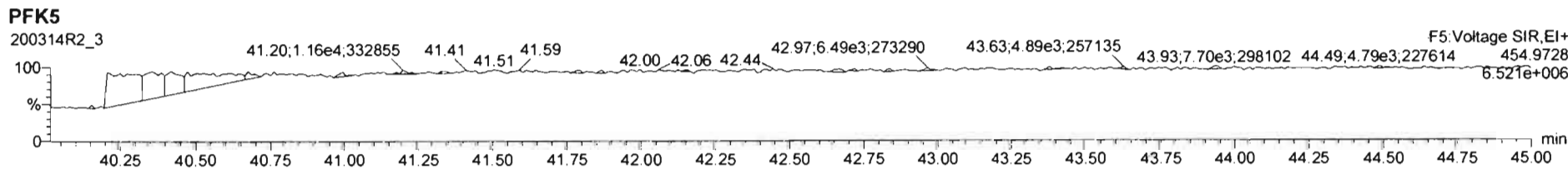
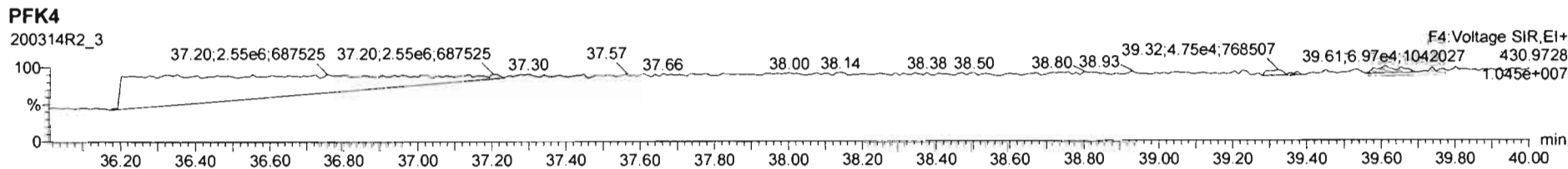
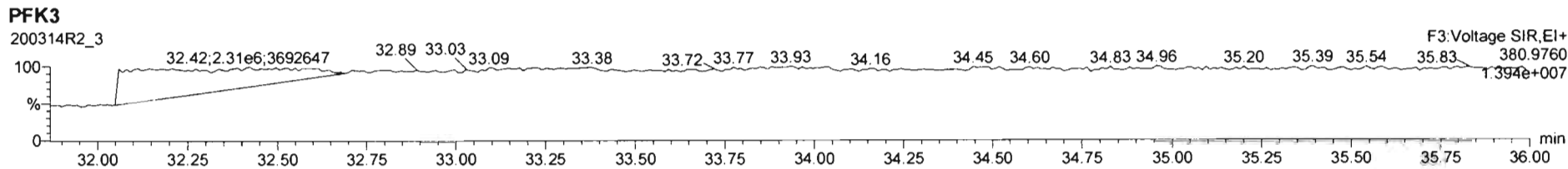
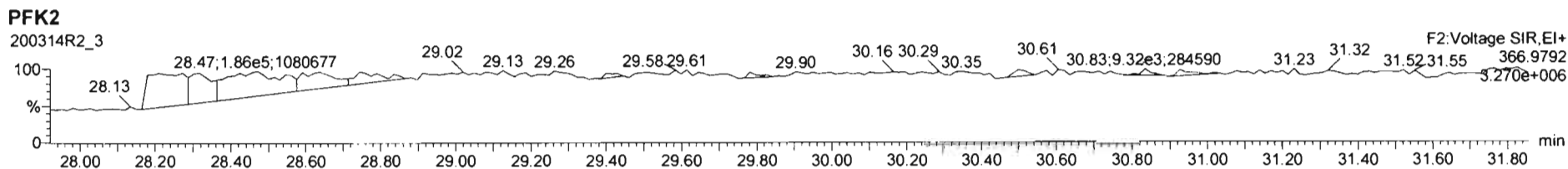
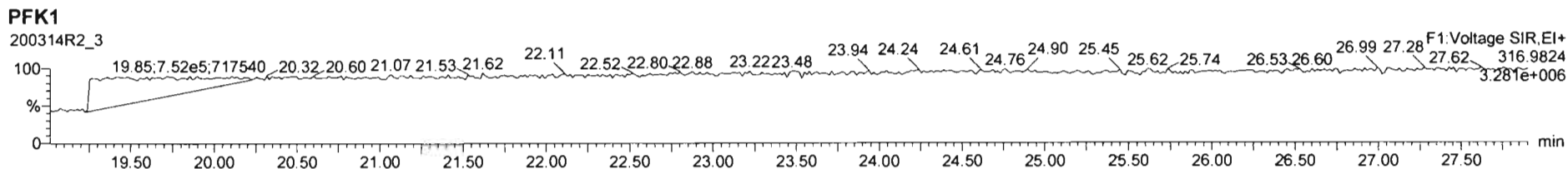
#	Name	Resp	RA	nty	RPF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
1	2,3,7,8-TCDD	9.83e4	0.76	NO	0.9835	10.000	25.74	1.001	18.5	0.0901	16.5	
2	1,2,3,7,8-PeCDD	3.92e5	0.61	NO	0.8212	10.000	31.00	1.001	84.3	0.152	84.3	
3	1,2,3,4,7,8-HxCDD	3.35e5	1.24	NO	1.1325	10.000	34.42	1.001	93.6	0.175	93.6	
4	1,2,3,6,7,8-HxCDD	3.55e5	1.22	NO	0.9844	10.000	34.52	1.000	95.8	0.178	95.8	
5	1,2,3,7,8,9-HxCDD	3.08e5	1.21	NO	0.9574	10.000	34.80	1.001	96.2	0.214	96.2	
6	1,2,3,4,6,7,8-HpCDD	2.28e5	1.02	NO	1.0061	10.000	36.25	1.001	94.6	0.381	94.6	
7	OCDD	4.82e5	0.87	NO	1.0515	10.000	41.39	1.000	185	0.263	185	
8	2,3,7,8-TCDF	1.20e5	0.76	NO	0.9154	10.000	24.75	1.001	18.4	0.0610	18.4	
9	1,2,3,7,8-PeCDF	5.79e5	1.58	NO	0.9594	10.000	29.66	1.001	94.2	0.185	94.2	
10	1,2,3,4,7,8-PeCDF	8.05e5	1.57	NO	1.0035	10.000	30.68	1.000	94.9	0.167	94.9	
11	1,2,3,4,7,8-HxCDF	4.18e5	1.22	NO	1.0381	10.000	33.56	1.000	96.3	0.217	96.3	
12	1,2,3,6,7,8-HxCDF	4.51e5	1.24	NO	1.0126	10.000	33.68	1.000	96.6	0.213	96.6	
13	2,3,4,6,7,8-HxCDF	4.38e5	1.21	NO	1.0920	10.000	34.25	1.000	95.6	0.223	95.6	
14	1,2,3,7,8,9-HxCDF	3.37e5	1.24	NO	1.0268	10.000	35.13	1.000	94.4	0.328	94.4	
15	1,2,3,4,6,7,8-HpCDF	2.87e5	1.01	NO	1.0483	10.000	36.84	1.001	96.2	0.328	96.2	
16	1,2,3,4,7,8,9-HpCDF	2.52e5	1.01	NO	1.2059	10.000	38.81	1.000	65.0	0.461	95.0	
17	OCDF	5.21e5	0.87	NO	0.9468	10.000	41.56	1.000	188	0.266	188	



Dataset: Untitled

Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_3, Date: 14-Mar-2020, Time: 12:52:52, ID: B0C0168-BS1 OPR 10, Description: OPR





Dataset: U:\VG12.PRO\Results\200314R2\200314R2-8.qld

Last Altered: Sunday, March 15, 2020 1:01:47 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 1:03:25 PM Pacific Daylight Time

*GRB 03/15/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

*MW 3/15/20*

Name: 200314R2\_8, Date: 14-Mar-2020, Time: 16:50:40, ID: 2000411-01 PDI-017SC-A-02-03-191003 11.53, Description: PDI-017SC-A-02-03-191003

#	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	0.983	10.117	25.751		1.001				0.0851	
2	2 1,2,3,7,8-PeCDD			NO	0.921	10.117	31.025		1.001				0.0963	
3	3 1,2,3,4,7,8-HxCDD			NO	1.13	10.117	34.423		1.000				0.0518	
4	4 1,2,3,6,7,8-HxCDD	5.45e2	1.10	NO	0.984	10.117	34.509	34.53	1.000	1.001	0.17860		0.0560	0.179
5	5 1,2,3,7,8,9-HxCDD			NO	0.967	10.117	34.796		1.000				0.0673	
6	6 1,2,3,4,6,7,8-HpCDD	7.35e3	0.95	NO	1.01	10.117	38.269	38.27	1.000	1.000	4.3817		0.203	4.38
7	7 OCDD	9.46e4	0.87	NO	1.05	10.117	41.379	41.39	1.000	1.000	65.468		0.196	65.5
8	8 2,3,7,8-TCDF			NO	0.915	10.117	24.743		1.001				0.0773	
9	9 1,2,3,7,8-PeCDF			NO	0.959	10.117	29.666		1.001				0.0949	
10	10 2,3,4,7,8-PeCDF	1.30e3	1.33	NO	1.00	10.117	30.713	30.70	1.001	1.001	0.22820		0.0869	0.228
11	11 1,2,3,4,7,8-HxCDF	4.55e2	1.13	NO	1.04	10.117	33.551	33.59	1.000	1.001	0.12005		0.0631	0.120
12	12 1,2,3,6,7,8-HxCDF	8.64e2	1.41	NO	1.01	10.117	33.689	33.70	1.000	1.001	0.21835		0.0649	0.218
13	13 2,3,4,6,7,8-HxCDF	6.99e2	1.09	NO	1.09	10.117	34.277	34.25	1.001	1.000	0.18585		0.0688	0.186
14	14 1,2,3,7,8,9-HxCDF			NO	1.03	10.117	35.116		1.000				0.0959	
15	15 1,2,3,4,6,7,8-HpCDF	1.05e4	1.01	NO	1.05	10.117	36.868	36.84	1.001	1.000	4.5890		0.318	4.59
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.117	38.908		1.000				0.419	
17	17 OCDF	5.99e3	0.94	NO	0.947	10.117	41.549	41.57	1.000	1.001	3.6180		0.147	3.62
18	18 13C-2,3,7,8-TCDD	1.08e6	0.78	NO	1.18	10.117	25.704	25.72	1.029	1.029	168.66	85.3	0.208	
19	19 13C-1,2,3,7,8-PeCDD	7.92e5	0.62	NO	0.864	10.117	30.881	31.00	1.236	1.241	169.25	85.6	0.264	
20	20 13C-1,2,3,4,7,8-HxCDD	5.35e5	1.29	NO	0.754	10.117	34.417	34.41	1.014	1.014	134.09	67.8	0.264	
21	21 13C-1,2,3,6,7,8-HxCDD	6.13e5	1.29	NO	0.925	10.117	34.525	34.51	1.017	1.017	125.08	63.3	0.215	
22	22 13C-1,2,3,7,8,9-HxCDD	5.30e5	1.29	NO	0.829	10.117	34.787	34.79	1.025	1.025	120.66	61.0	0.240	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.30e5	1.08	NO	0.598	10.117	38.242	38.26	1.127	1.127	104.16	52.7	0.321	
24	24 13C-OCDD	5.44e5	0.88	NO	0.571	10.117	41.389	41.38	1.219	1.219	179.80	45.5	0.317	
25	25 13C-2,3,7,8-TCDF	1.39e6	0.77	NO	1.09	10.117	24.727	24.72	0.990	0.989	152.46	77.1	0.335	
26	26 13C-1,2,3,7,8-PeCDF	1.15e6	1.55	NO	0.876	10.117	29.555	29.65	1.183	1.186	157.40	79.6	0.468	
27	27 13C-2,3,4,7,8-PeCDF	1.12e6	1.56	NO	0.844	10.117	30.564	30.68	1.223	1.228	159.17	80.5	0.486	
28	28 13C-1,2,3,4,7,8-HxCDF	7.22e5	0.51	NO	1.00	10.117	33.565	33.55	0.989	0.988	136.30	69.0	0.249	
29	29 13C-1,2,3,6,7,8-HxCDF	7.73e5	0.50	NO	1.12	10.117	33.673	33.68	0.992	0.992	130.58	66.1	0.223	
30	30 13C-2,3,4,6,7,8-HxCDF	6.81e5	0.50	NO	1.04	10.117	34.254	34.24	1.009	1.009	124.33	62.9	0.240	
31	31 13C-1,2,3,7,8,9-HxCDF	5.64e5	0.51	NO	0.873	10.117	35.126	35.12	1.035	1.034	122.06	61.7	0.285	

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-8.qld

Last Altered: Sunday, March 15, 2020 1:01:47 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 1:03:25 PM Pacific Daylight Time

Name: 200314R2\_8, Date: 14-Mar-2020, Time: 16:50:40, ID: 2000411-01 PDI-017SC-A-02-03-191003 11.53, Description: PDI-017SC-A-02-03-191003

#	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	4.32e5	0.45	NO	0.771	10.117	36.841	36.83	1.085	1.085	105.86	53.6	0.262	
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.84e5	0.44	NO	0.519	10.117	38.925	38.91	1.147	1.146	103.48	52.3	0.388	
34	34 13C-OCDF	6.91e5	0.88	NO	0.696	10.117	41.569	41.55	1.225	1.224	187.60	47.5	0.213	
35	35 37Cl-2,3,7,8-TCDD	4.08e5			1.17	10.117	25.714	25.74	1.029	1.030	64.188	81.2	0.0456	
36	36 13C-1,2,3,4-TCDD	1.07e6	0.79	NO	1.00	10.117	25.050	24.99	1.000	1.000	197.68	100	0.246	
37	37 13C-1,2,3,4-TCDF	1.65e6	0.79	NO	1.00	10.117	23.190	23.07	1.000	1.000	197.68	100	0.365	
38	38 13C-1,2,3,4,6,9-HxCDF	1.05e6	0.50	NO	1.00	10.117	33.880	33.94	1.000	1.000	197.68	100	0.249	
39	39 Total Tetra-Dioxins				0.983	10.117	24.620		0.000		0.00000		0.0542	0.0719
40	40 Total Penta-Dioxins				0.921	10.117	29.960		0.000		0.36335		0.0963	0.363
41	41 Total Hexa-Dioxins				0.984	10.117	33.635		0.000		2.0053		0.0603	2.01
42	42 Total Hepta-Dioxins				1.01	10.117	37.640		0.000		11.285		0.203	11.3
43	43 Total Tetra-Furans				0.915	10.117	23.610		0.000		1.4337		0.0773	1.54
44	44 1st Func. Penta-Furans				0.959	10.117	27.090		0.000		1.6951		0.0288	1.70
45	45 Total Penta-Furans				0.959	10.117	29.275		0.000		0.99862		0.0929	0.999
46	46 Total Hexa-Furans				1.09	10.117	33.555		0.000		4.5341		0.0685	4.53
47	47 Total Hepta-Furans				1.05	10.117	37.835		0.000		9.5194		0.384	9.52

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-8.qld

Last Altered: Sunday, March 15, 2020 1:01:47 PM Pacific Daylight Time  
 Printed: Sunday, March 15, 2020 1:03:25 PM Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08  
 Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R2\_8, Date: 14-Mar-2020, Time: 16:50:40, ID: 2000411-01 PDI-017SC-A-02-03-191003 11.53, Description: PDI-017SC-A-02-03-191003

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	23.27	3.607e3	2.628e3	2.445e2	2.185e2	1.12	YES	0.000e0	0.00000	0.071914	0.0851

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.68	4.855e3	7.190e3	3.899e2	5.911e2	0.66	NO	9.811e2	0.26588	0.26588	0.0963
2	Total Penta-Dioxins	29.20	5.021e3	3.972e3	1.446e2	2.151e2	0.67	NO	3.597e2	0.097473	0.097473	0.0963

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.95	3.338e4	2.125e4	1.569e3	1.110e3	1.41	NO	2.678e3	0.96191	0.96191	0.0603
2	Total Hexa-Dioxins	33.76	2.130e4	1.709e4	1.275e3	1.133e3	1.12	NO	2.408e3	0.86475	0.86475	0.0603
3	1,2,3,6,7,8-HxCDD	34.53	4.746e3	5.022e3	2.850e2	2.599e2	1.10	NO	5.449e2	0.17860	0.17860	0.0560

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.22	7.856e4	8.036e4	5.905e3	5.682e3	1.04	NO	1.159e4	6.9037	6.9037	0.203
2	1,2,3,4,6,7,8-HpCDD	38.27	4.757e4	4.501e4	3.573e3	3.781e3	0.95	NO	7.354e3	4.3817	4.3817	0.203

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.90	4.080e3	4.350e3	3.104e2	4.184e2	0.74	NO	7.288e2	0.11326	0.11326	0.0773
2	Total Tetra-Furans	20.44	1.393e4	2.390e4	1.444e3	1.942e3	0.74	NO	3.386e3	0.52619	0.52619	0.0773
3	Total Tetra-Furans	21.33	8.532e3	9.940e3	7.042e2	8.885e2	0.79	NO	1.593e3	0.24750	0.24750	0.0773
4	Total Tetra-Furans	21.81	9.367e3	1.676e4	8.886e2	1.069e3	0.83	NO	1.957e3	0.30420	0.30420	0.0773
5	Total Tetra-Furans	22.97	7.306e3	9.337e3	6.991e2	8.615e2	0.81	NO	1.561e3	0.24253	0.24253	0.0773
6	Total Tetra-Furans	26.92	5.548e3	6.374e3	3.629e2	3.818e2	0.95	YES	0.000e0	0.00000	0.10501	0.0773

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-8.qld

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Printed: Sunday, March 15, 2020 1:03:25 PM Pacific Daylight Time

Name: 200314R2-8, Date: 14-Mar-2020, Time: 16:50:40, ID: 2000411-01 PDI-017SC-A-02-03-191003 11.53, Description: PDI-017SC-A-02-03-191003

**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	26.93	8.800e4	5.163e4	5.694e3	3.676e3	1.55	NO	9.370e3	1.6951	1.6951	0.0288

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.62	2.052e4	1.214e4	1.653e3	9.527e2	1.73	NO	2.605e3	0.47134	0.47134	0.0929
2	Total Penta-Furans	29.25	1.861e4	1.182e4	1.011e3	6.418e2	1.58	NO	1.653e3	0.29909	0.29909	0.0929
3	2,3,4,7,8-PeCDF	30.70	1.131e4	8.475e3	7.440e2	5.575e2	1.33	NO	1.301e3	0.22820	0.22820	0.0869

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.38	2.567e4	1.920e4	1.223e3	1.057e3	1.16	NO	2.280e3	0.60251	0.60251	0.0685
2	Total Hexa-Furans	32.55	5.807e4	4.447e4	2.752e3	2.308e3	1.19	NO	5.060e3	1.3376	1.3376	0.0685
3	Total Hexa-Furans	33.10	8.949e4	7.271e4	4.240e3	3.591e3	1.18	NO	7.831e3	2.0698	2.0698	0.0685
4	1,2,3,4,7,8-HxCDF	33.59	4.549e3	4.195e3	2.418e2	2.131e2	1.13	NO	4.549e2	0.12005	0.12005	0.0631
5	1,2,3,6,7,8-HxCDF	33.70	1.062e4	7.112e3	5.049e2	3.592e2	1.41	NO	8.641e2	0.21835	0.21835	0.0649
6	2,3,4,6,7,8-HxCDF	34.25	5.913e3	7.046e3	3.647e2	3.347e2	1.09	NO	6.994e2	0.18585	0.18585	0.0688

**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	36.84	8.292e4	7.868e4	5.269e3	5.241e3	1.01	NO	1.051e4	4.5890	4.5890	0.318
2	Total Hepta-Furans	37.42	5.975e4	6.488e4	4.504e3	4.860e3	0.93	NO	9.364e3	4.9304	4.9304	0.384

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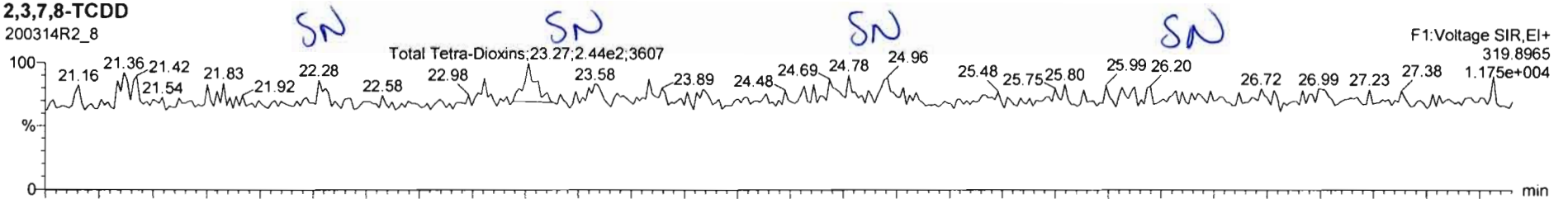
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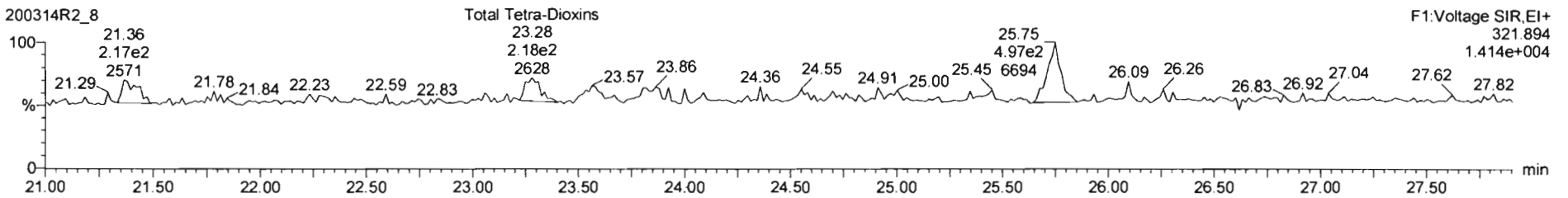
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2,3,7,8-TCDD

200314R2\_8

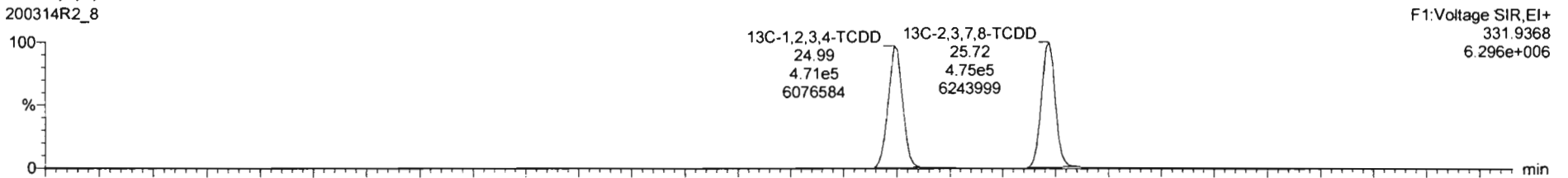


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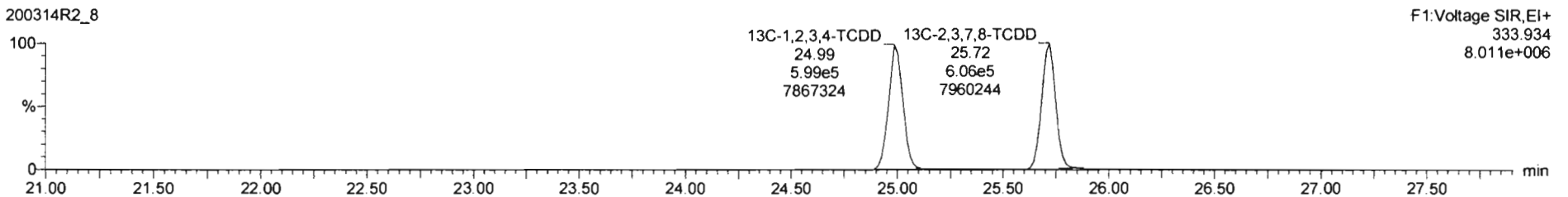


13C-2,3,7,8-TCDD

200314R2\_8



200314R2\_8



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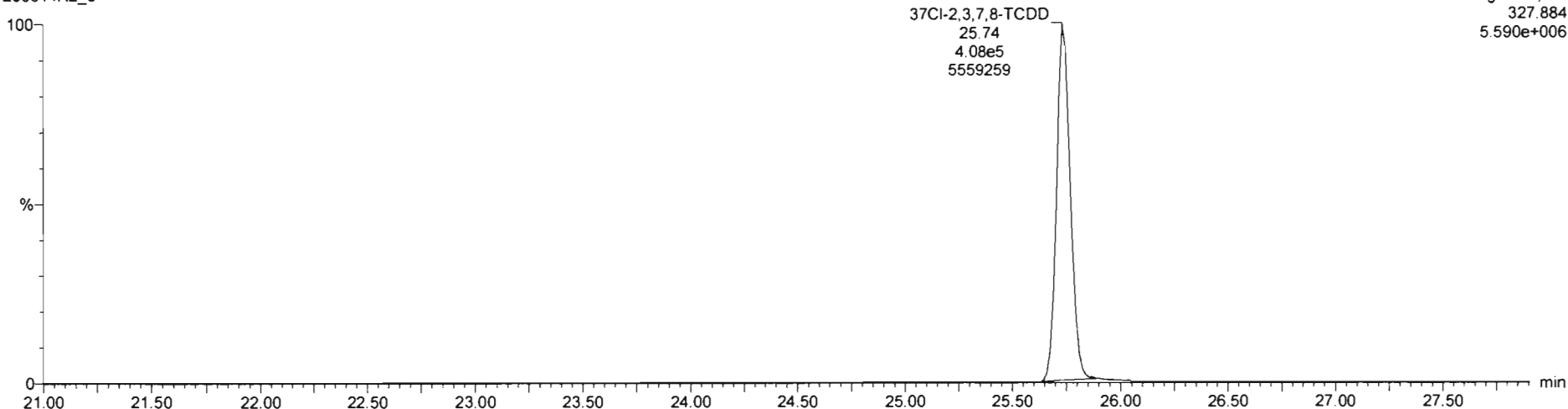
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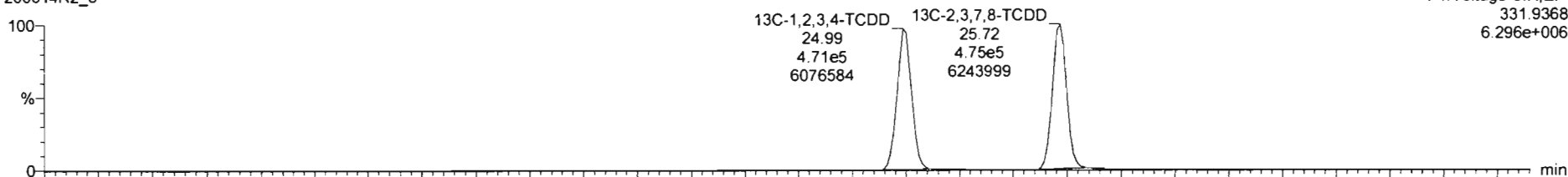
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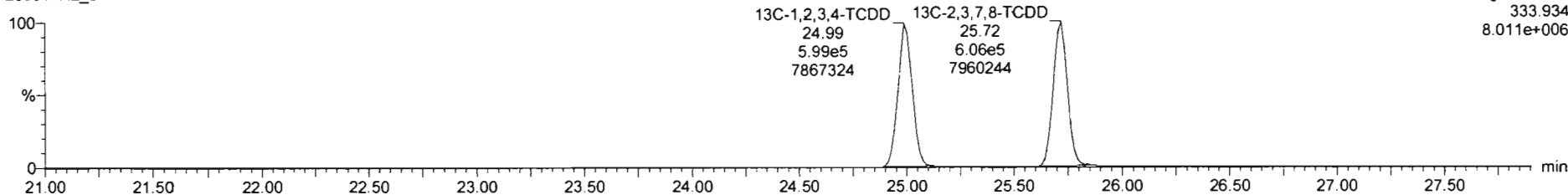


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200314R2\_8



200314R2\_8



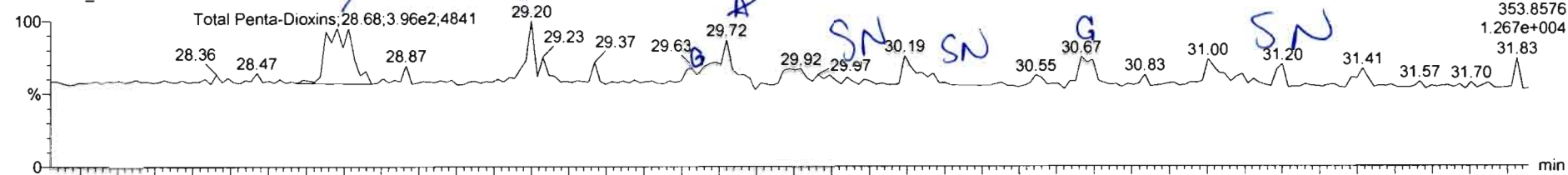
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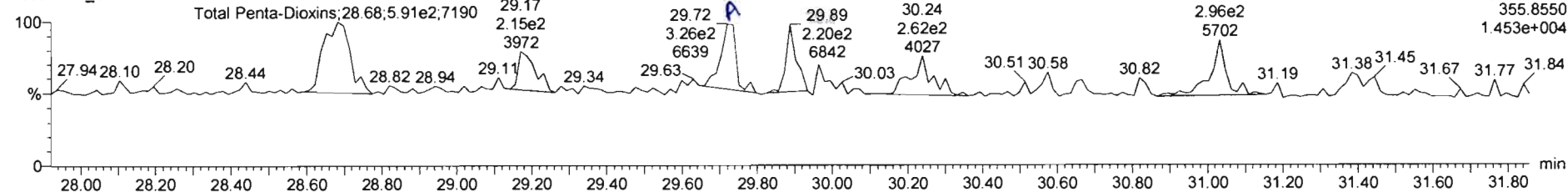
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1,2,3,7,8-PeCDD

200314R2\_8

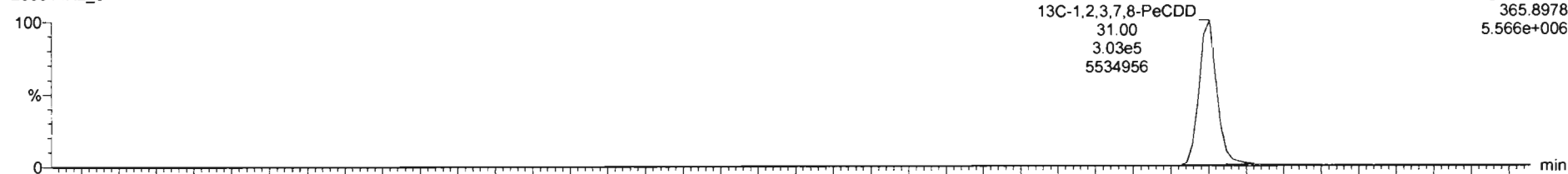


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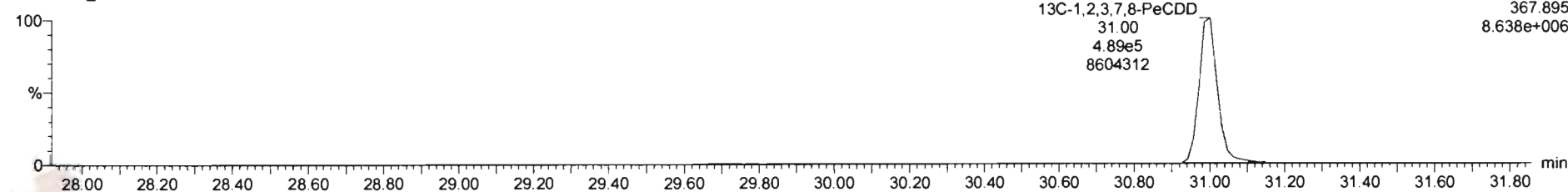


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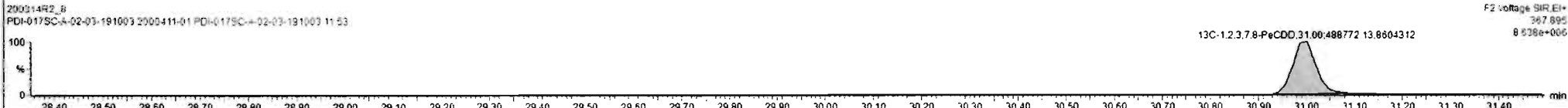
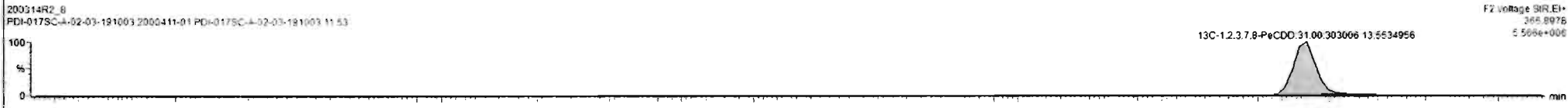
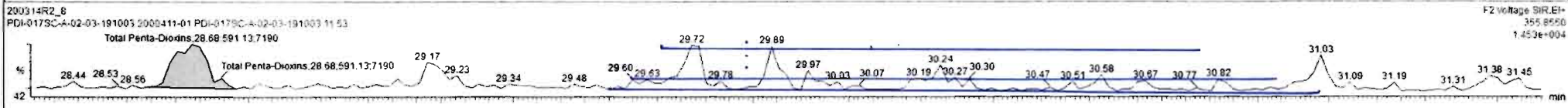


200314R2\_8



Name	Resp	RA	nly	RRF	wthol	RT	RRT	Conc	%Rec	DL	EMPC
Total Penta-Dioxins				0.82	10.117			0.268	0.0963	0.268	
Total Hexa-Dioxins				0.88	10.117			0.173	0.0673	1.88	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
Total Penta-Dioxins	28.68	3.899e2	5.911e2	0.66	NO	0.26568	6.26568





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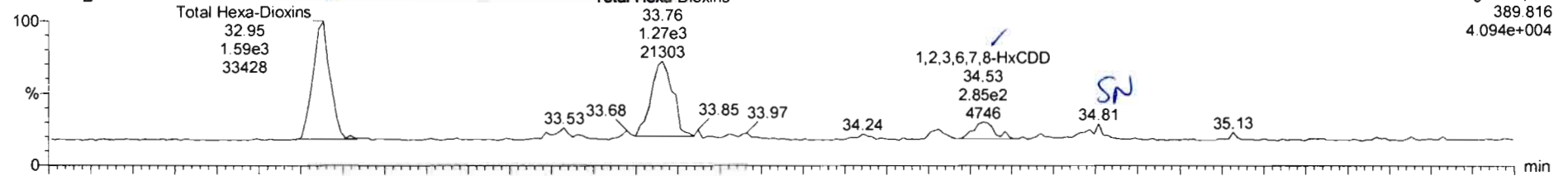
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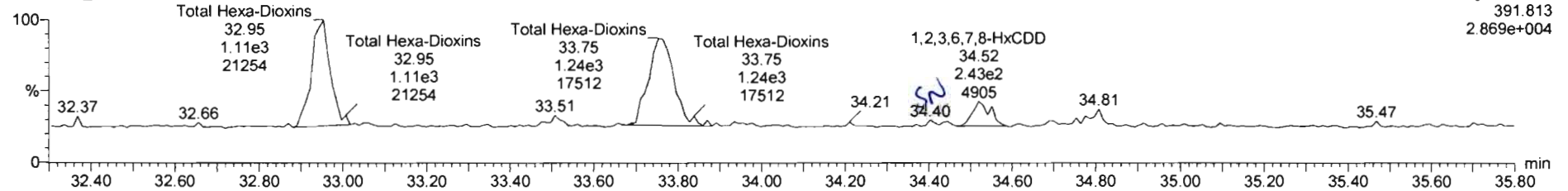
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1,2,3,4,7,8-HxCDD

200314R2\_8

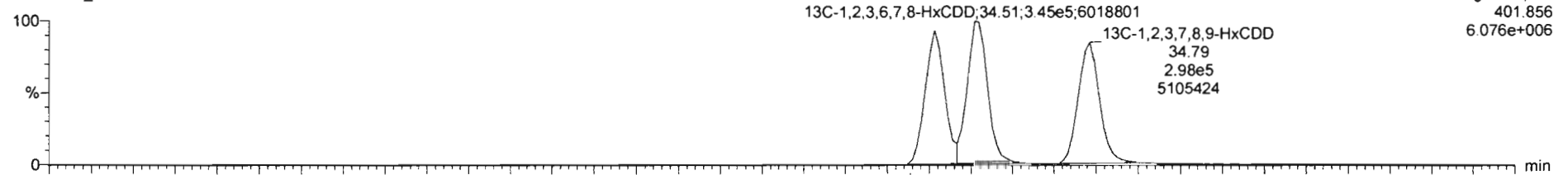


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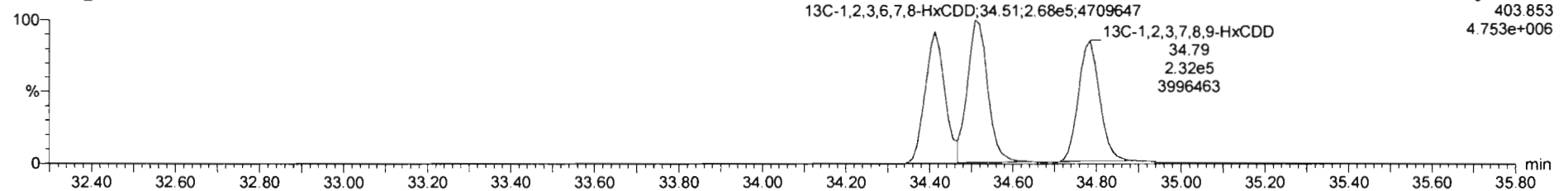


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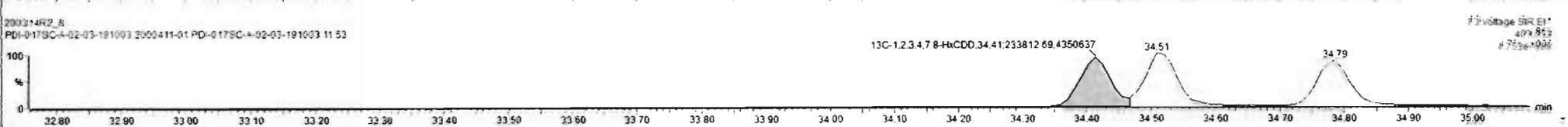
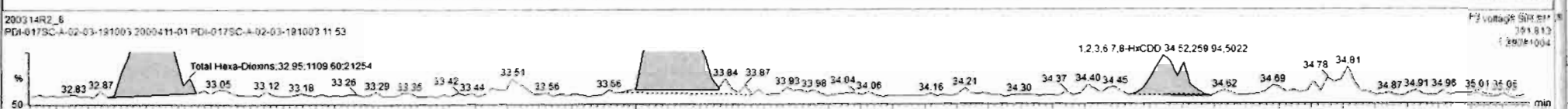
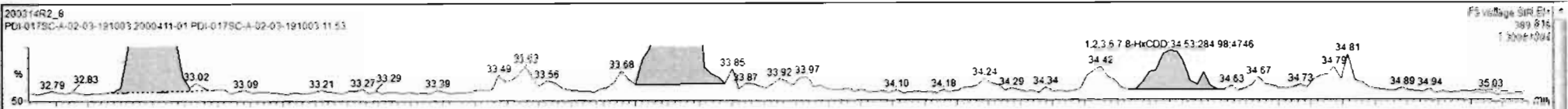


200314R2\_8



Name	Resp	RA	rvj	RRF	wtvol	RT	RRT	Conc.	%Rec	DL	EMPC
40 Total Penta-Dioxins				0.92	10.117			0.363	0.0563	0.479	
41 Total Hexa-Fluorins				0.08	10.117			0.001	0.0001	0.001	

Name	RT	m1 Resp	m2 Resp	RA	rvj	EMPC	Conc.
1 Total Hexa-Dioxins	32.95	1.569e3	1.110e3	1.41	NO	0.96191	0.96191
2 Total Hexa-Dioxins	33.76	1.275e3	1.133e3	1.12	NO	0.86475	0.86475
3 1,2,3,6,7,8-HxCDD	34.53	2.850e2	2.599e2	1.10	NO	0.17660	0.17660



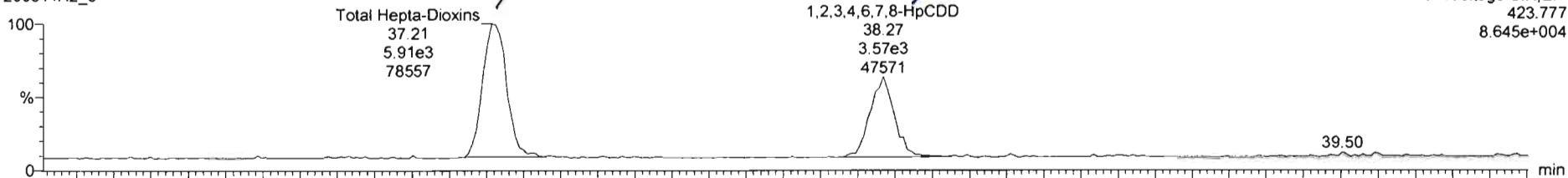
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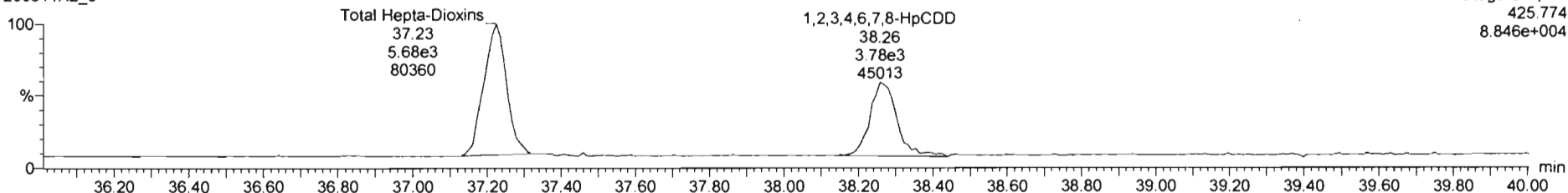
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1,2,3,4,6,7,8-HpCDD

200314R2\_8

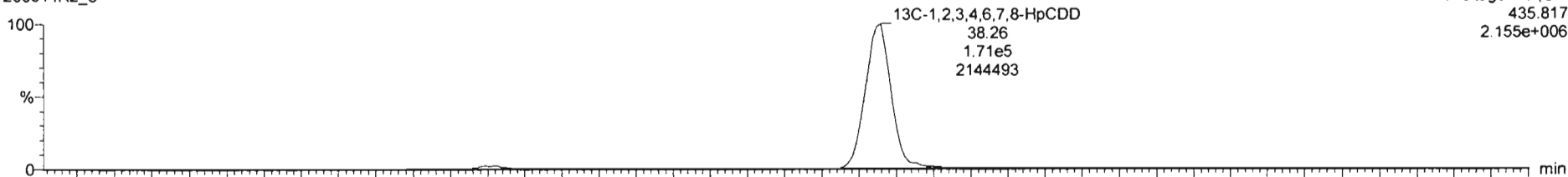


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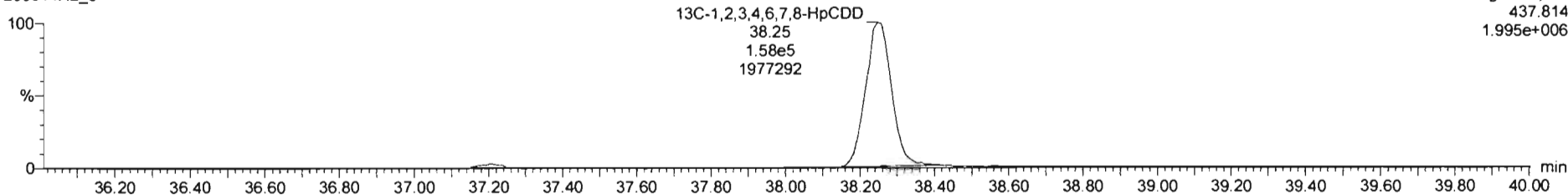


13C-1,2,3,4,6,7,8-HpCDD

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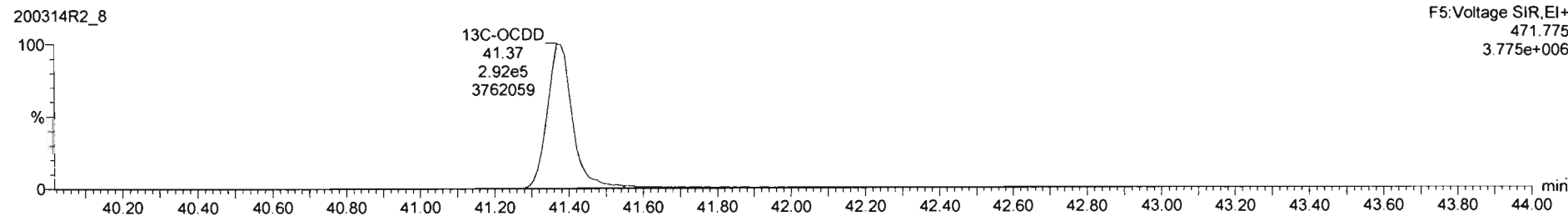
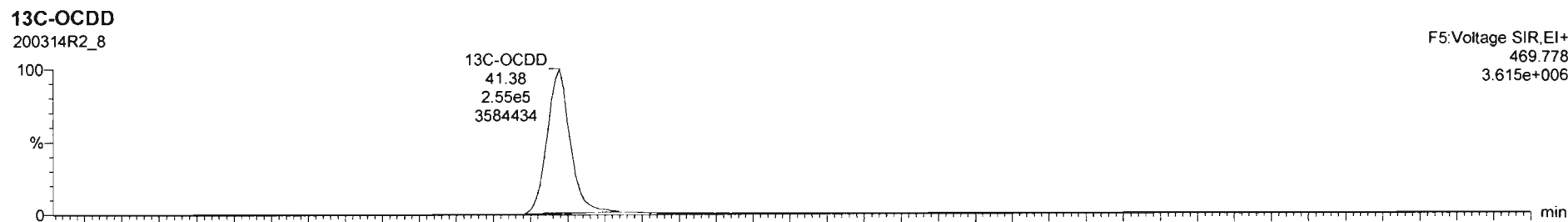
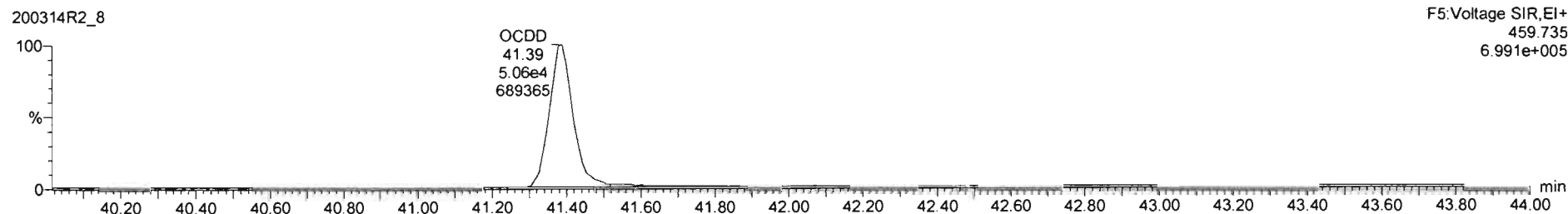
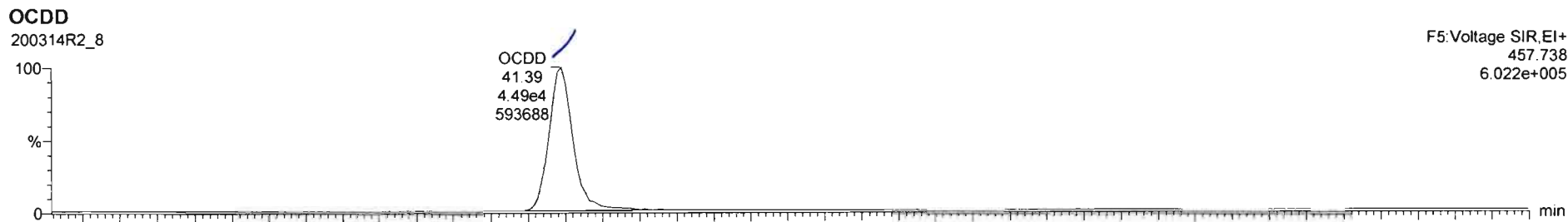
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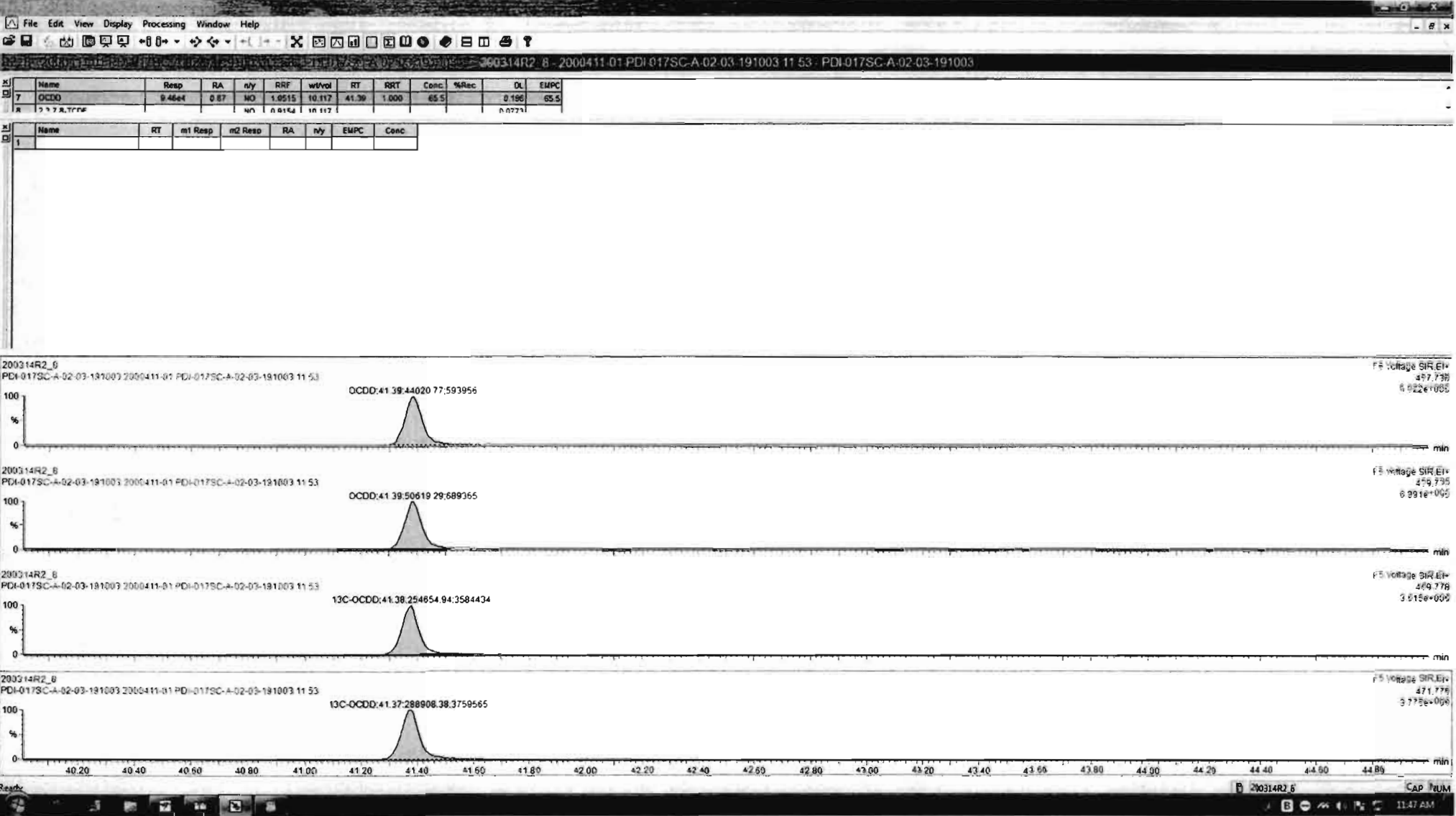


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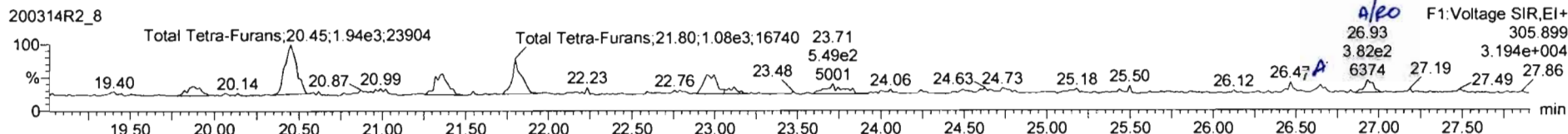
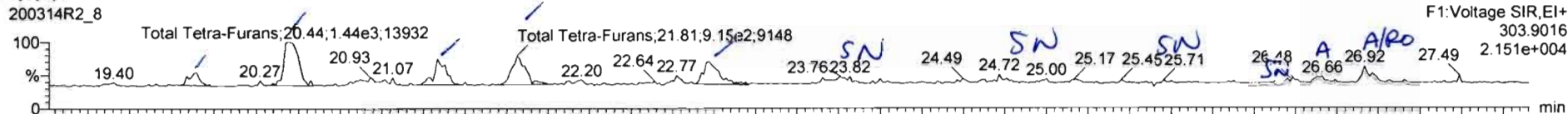


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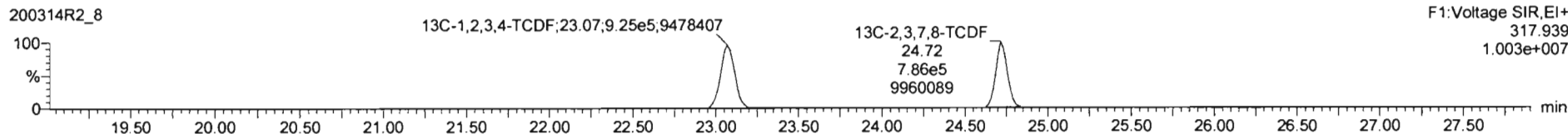
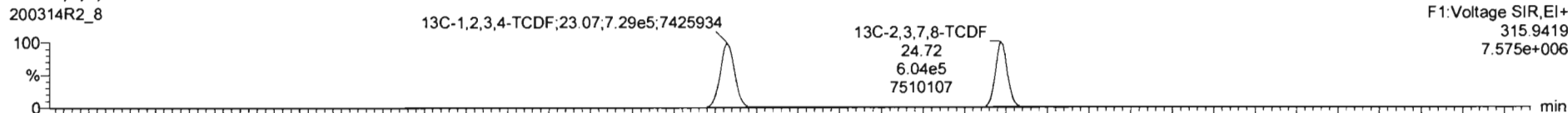
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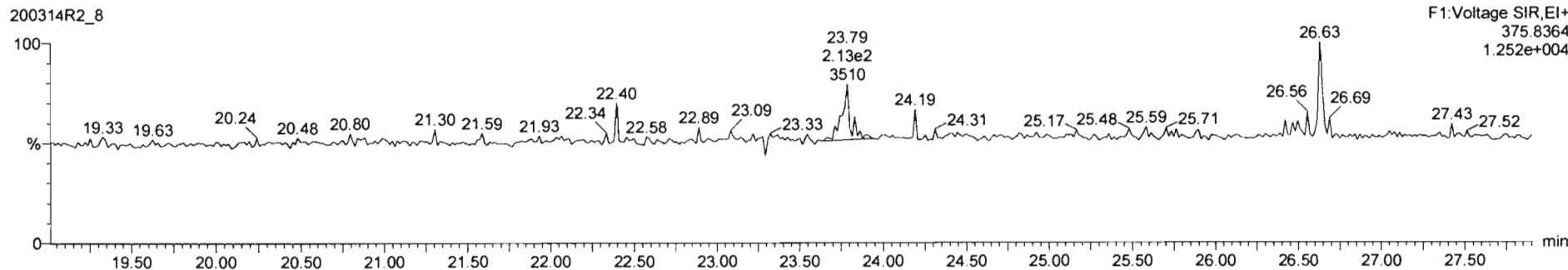
2,3,7,8-TCDF



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

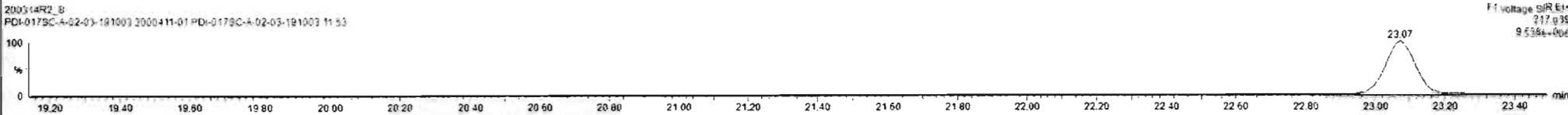
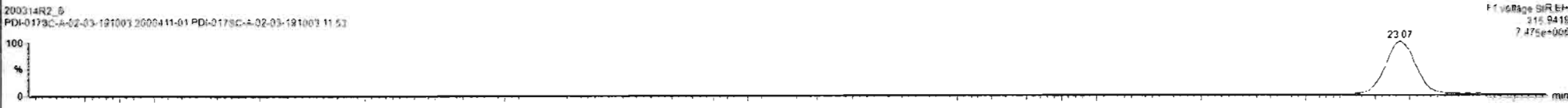
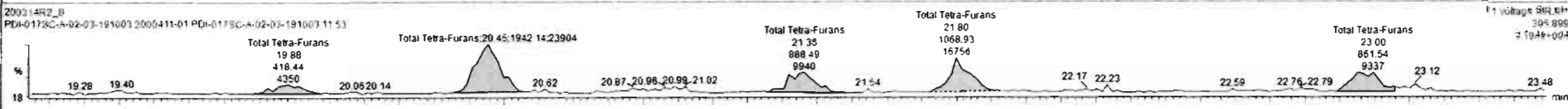
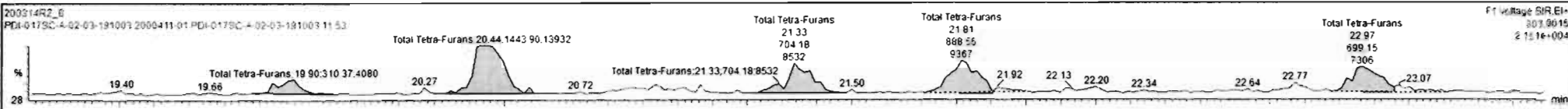


DPE1



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.01	10.117			11.3	0.203	11.3	
47 Total Tetra-Furans				0.92	10.117			1.47	0.0773	1.47	

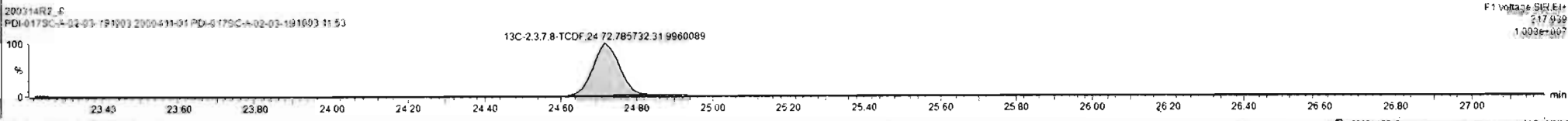
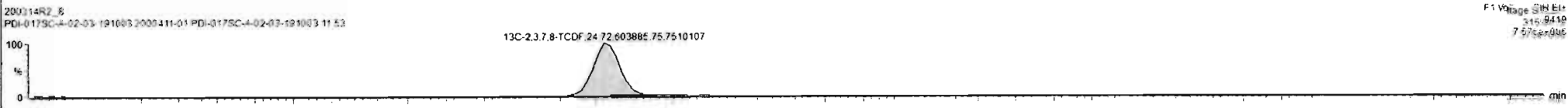
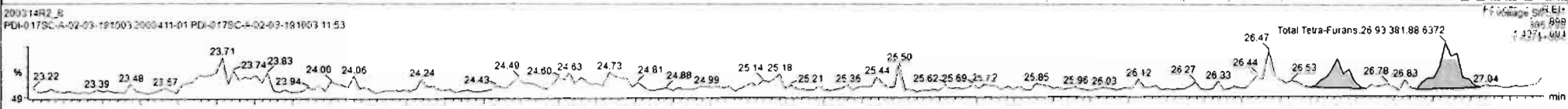
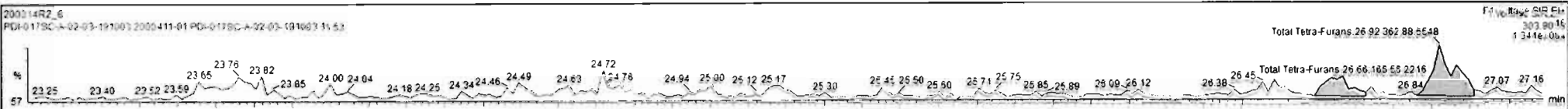
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Tetra-Furans	19.90	3.104e2	4.184e2	0.74	NO	0.11326	0.11326
2 Total Tetra-Furans	20.44	1.444e3	1.942e3	0.74	NO	0.52619	0.52619
3 Total Tetra-Furans	21.33	7.042e2	8.885e2	0.79	NO	0.24750	0.24750
4 Total Tetra-Furans	21.81	8.886e2	1.069e3	0.83	NO	0.30420	0.30420
5 Total Tetra-Furans	22.97	6.991e2	8.615e2	0.81	NO	0.24253	0.24253



200314R2\_8 / 2000411-01-PDI-017SC-A-02-03-191003 11:53 - PDI-017SC-A-02-03-191003

Name	Resp	RA	nly	RRF	wtvol	RT	RRT	Conc.	%Rec	DL	EMPC
42 Total Hepta-Dioxins		1.01	10.117					11.3	0.203	11.3	
43 Total Tetra-Furans		0.03	10.117					1.20	0.077	1.20	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Tetra-Furans	19.90	3.104e2	4.184e2	0.74	NO	0.11326	0.11326
2 Total Tetra-Furans	20.44	1.444e3	1.942e3	0.74	NO	0.52619	0.52619
3 Total Tetra-Furans	21.33	7.042e2	8.885e2	0.79	NO	0.24750	0.24750
4 Total Tetra-Furans	21.81	8.886e2	1.069e3	0.83	NO	0.30420	0.30420
5 Total Tetra-Furans	22.97	6.991e2	8.615e2	0.61	NO	0.24253	0.24253
6 Total Tetra-Furans	26.66	1.866e2	2.102e2	0.79	NO	0.058556	0.058556
7 Total Tetra-Furans	26.92	3.629e2	3.619e2	0.95	+ES	0.10504	0.00000





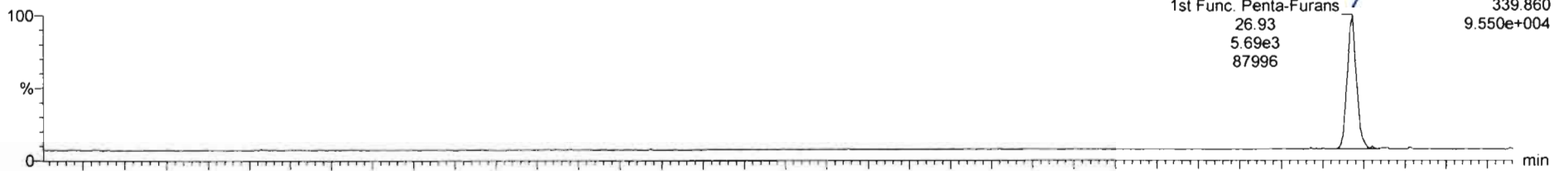
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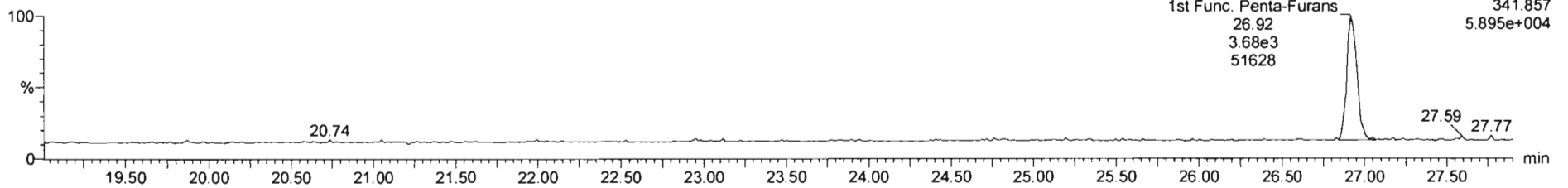
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1st Func. Penta-Furans

200314R2\_8

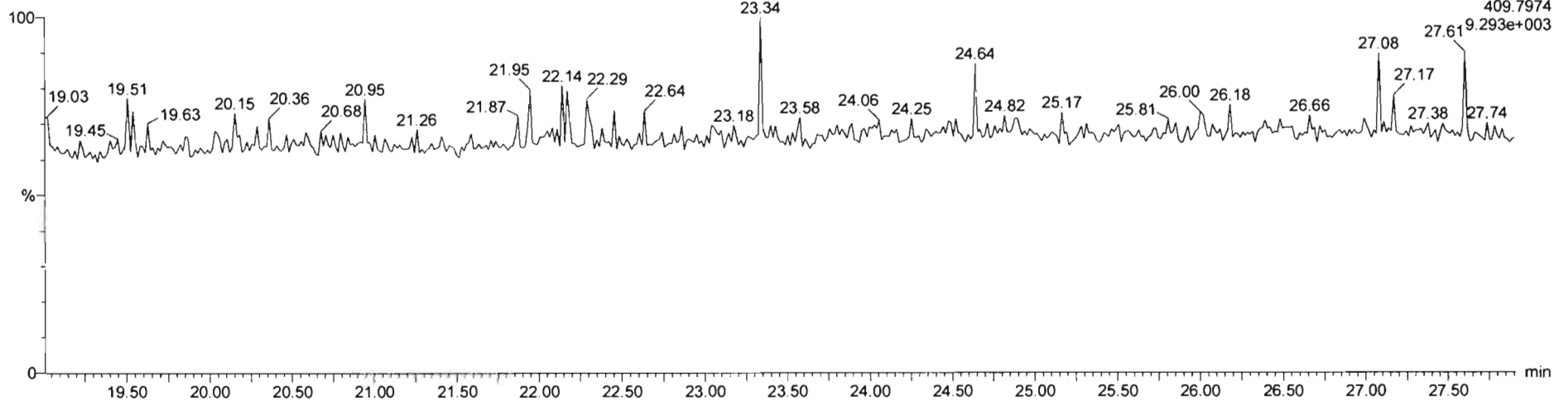


200314R2\_8



DPE6

200314R2\_8

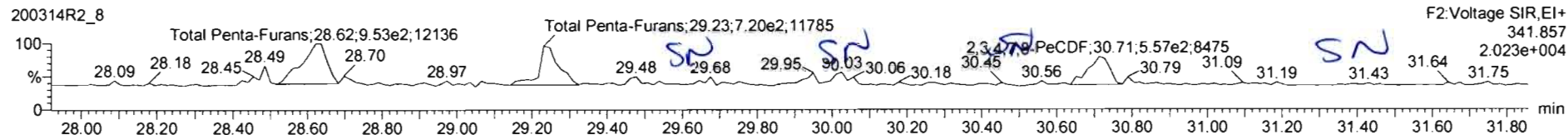
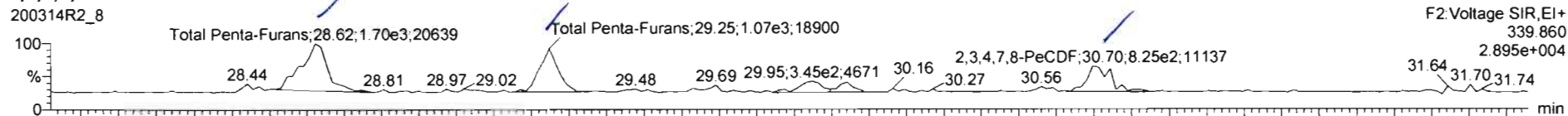


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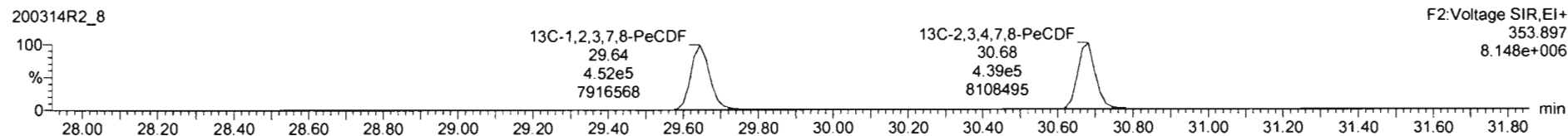
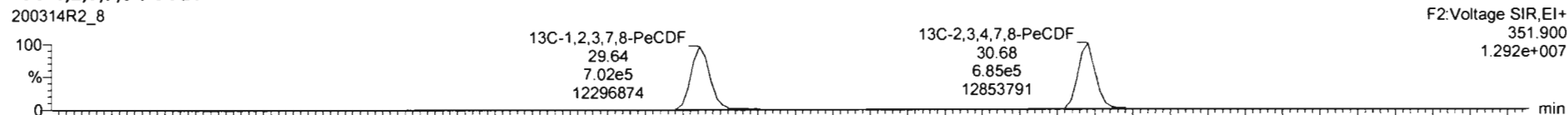
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Printed: Sunday, March 15, 2020 12:03:43 Pacific Daylight Time

Name: 200314R2\_8, Date: 14-Mar-2020, Time: 16:50:40, ID: 2000411-01 PDI-017SC-A-02-03-191003 11.53, Description: PDI-017SC-A-02-03-191003

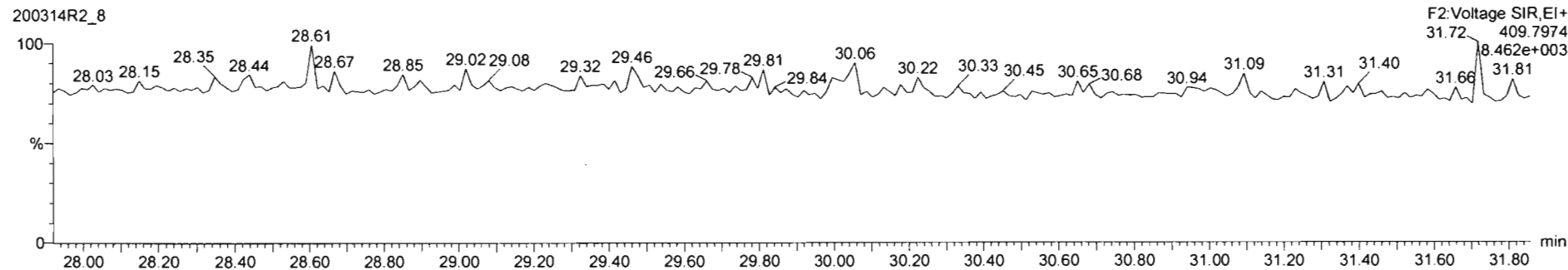
**1,2,3,7,8-PeCDF**



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

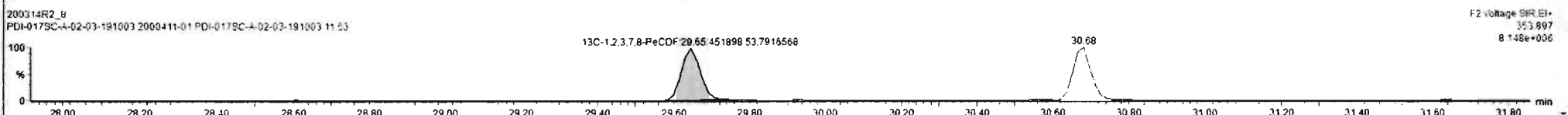
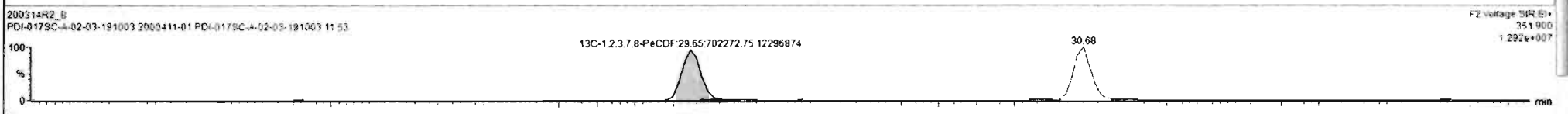
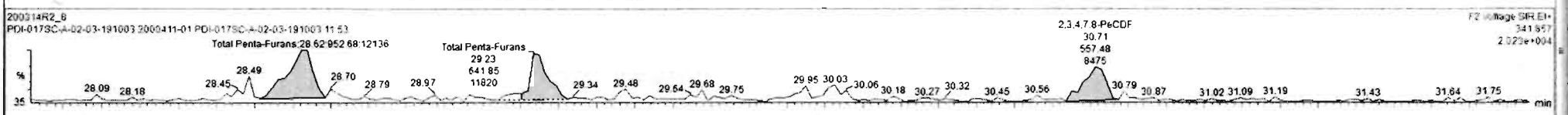
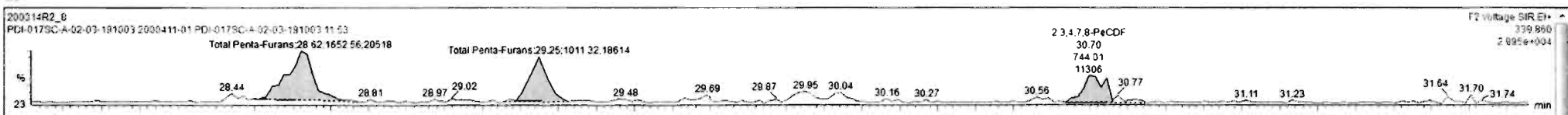


**DPE2**



Name	Resp	RA	nly	RRF	withd	RT	RRT	Conc	%Rec	DL	EMPC
1st Func. Penta-Furans				0.96	10.117			1.70		0.0258	1.70
Total Penta-Furans				0.96	10.117			0.000		0.0000	0.000

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
Total Penta-Furans	28.62	1.853e3	8.527e2	1.73	NO	0.47134	0.47134
Total Penta-Furans	29.25	1.011e3	6.418e2	1.58	NO	0.29909	0.29909
2,3,4,7,8-PeCDF	30.76	7.440e2	5.575e2	1.33	NO	0.22820	0.22820



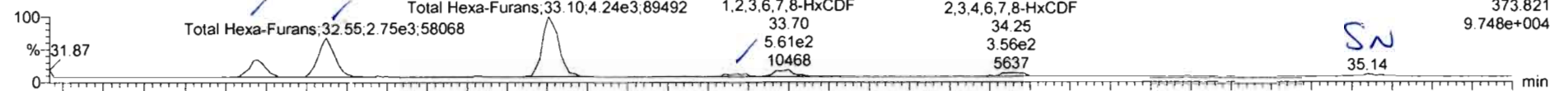
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Last Altered: Sunday, March 15, 2020 12:03:33 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 12:03:43 Pacific Daylight Time

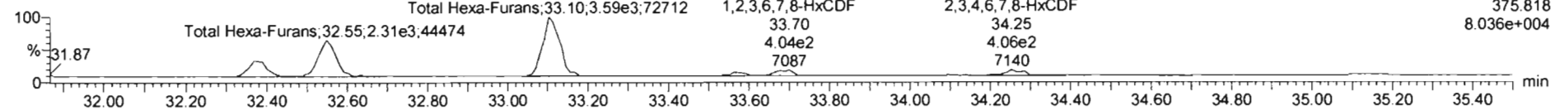
Name: 200314R2\_8, Date: 14-Mar-2020, Time: 16:50:40, ID: 2000411-01 PDI-017SC-A-02-03-191003 11.53, Description: PDI-017SC-A-02-03-191003

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

200314R2\_8

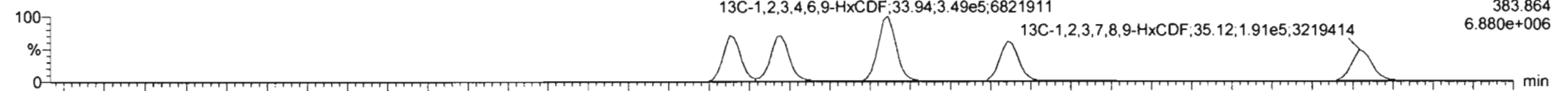


200314R2\_8

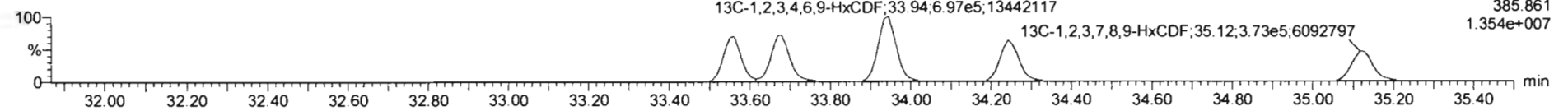


**13C-1,2,3,4,7,8-HxCDF**

200314R2\_8

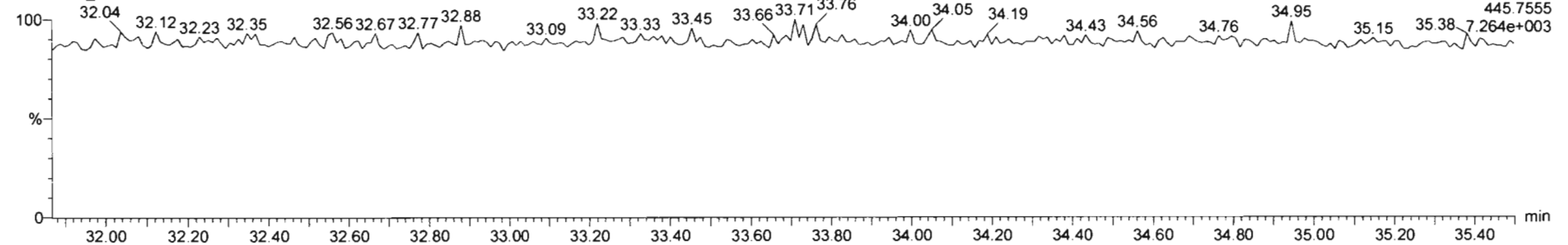


200314R2\_8



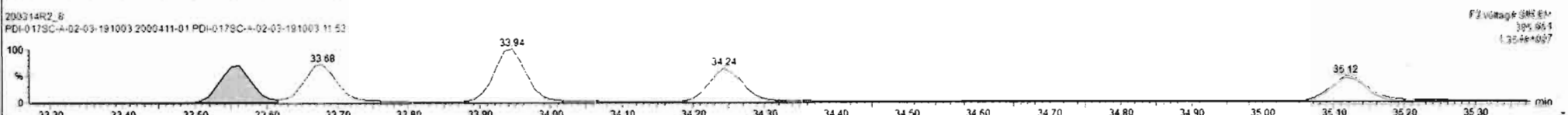
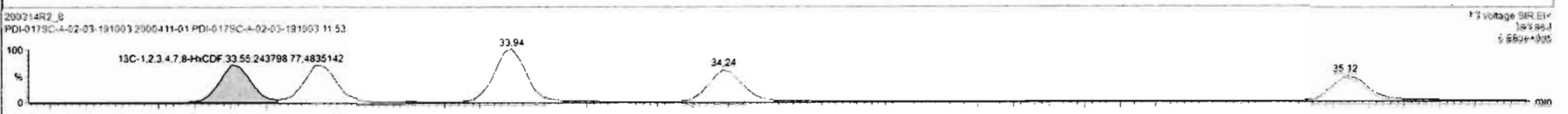
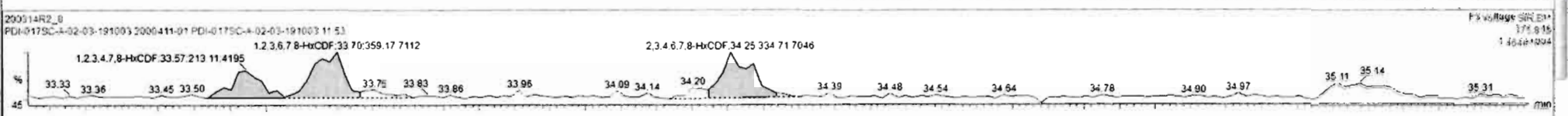
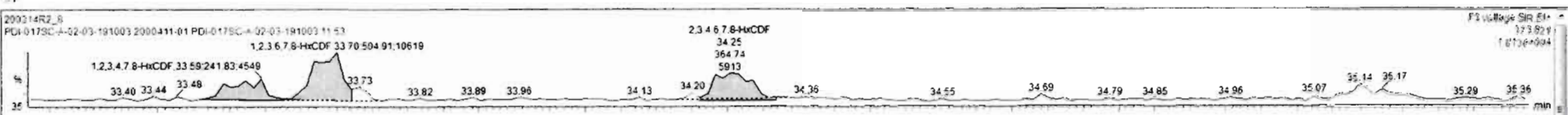
**DPE3**

200314R2\_8



Name	Resp	RA	nly	RRF	wtvol	RT	RRT	Conc	%Rec	CL	EMPC
46 Total Hexa-Furans	1.09	10.117						4.53	0.0685	4.53	
47 Total Hexa-Furans	1.04	10.117						6.47	0.102	6.47	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1 Total Hexa-Furans	32.38	1.222e3	1.057e3	1.16	NO	0.60251	0.60251
2 Total Hexa-Furans	32.55	2.752e3	2.308e3	1.19	NO	1.3376	1.3376
3 Total Hexa-Furans	33.10	4.240e3	3.591e3	1.18	NO	2.0698	2.0698
4 1,2,3,4,7,8-HxCDF	33.59	2.418e2	2.131e2	1.13	NO	0.12005	0.12005
5 1,2,3,6,7,8-HxCDF	33.70	5.049e2	3.592e2	1.41	NO	0.21836	0.21836
6 2,3,4,6,7,8-HxCDF	34.25	3.647e2	3.347e2	1.09	NO	0.18585	0.18585



Dataset: Untitled

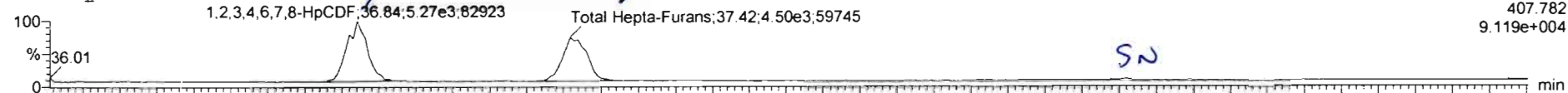
Last Altered: Sunday, March 15, 2020 12:03:33 Pacific Daylight Time

Printed: Sunday, March 15, 2020 12:03:43 Pacific Daylight Time

Name: 200314R2\_8, Date: 14-Mar-2020, Time: 16:50:40, ID: 2000411-01 PDI-017SC-A-02-03-191003 11.53, Description: PDI-017SC-A-02-03-191003

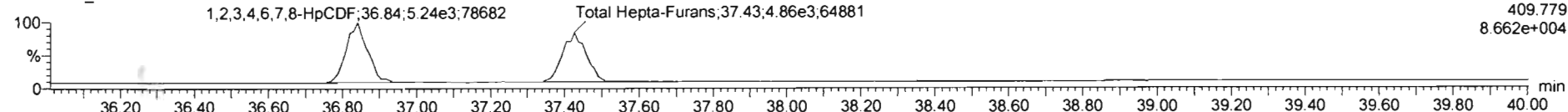
**1,2,3,4,6,7,8-HpCDF**

200314R2\_8



F4:Voltage SIR,EI+  
407.782  
9.119e+004

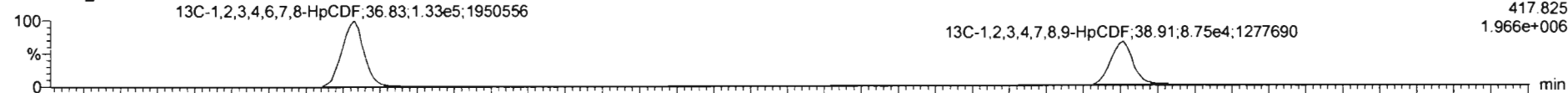
200314R2\_8



F4:Voltage SIR,EI+  
409.779  
8.662e+004

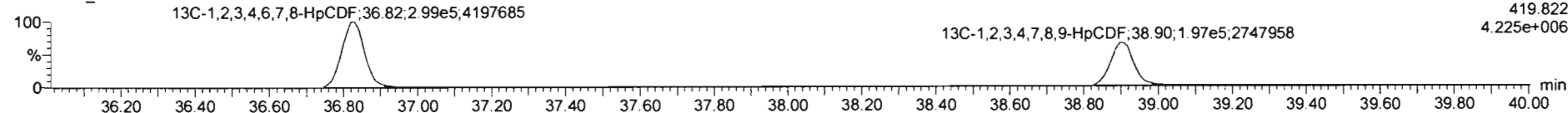
**13C-1,2,3,4,6,7,8-HpCDF**

200314R2\_8



F4:Voltage SIR,EI+  
417.825  
1.966e+006

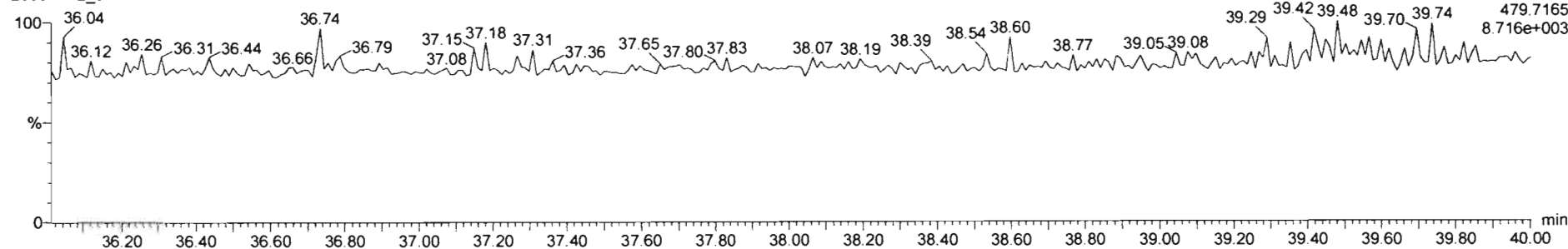
200314R2\_8



F4:Voltage SIR,EI+  
419.822  
4.225e+006

**DPE4**

200314R2\_8

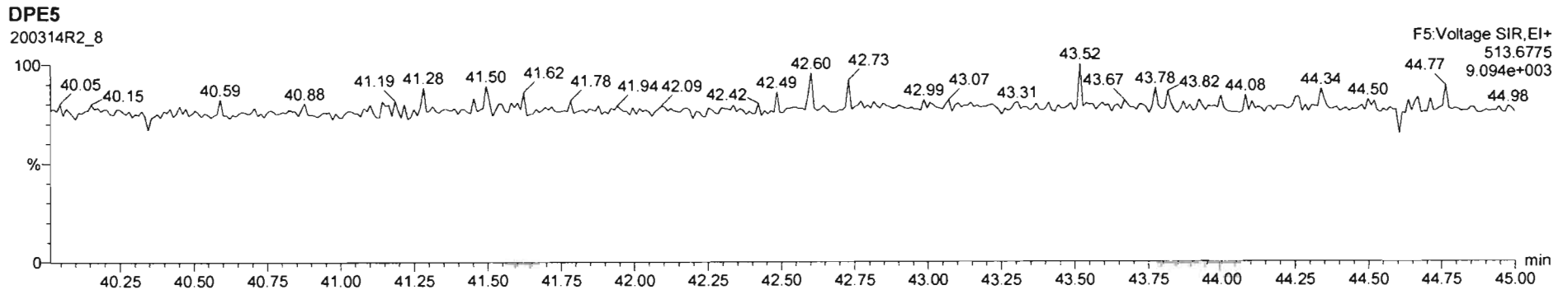
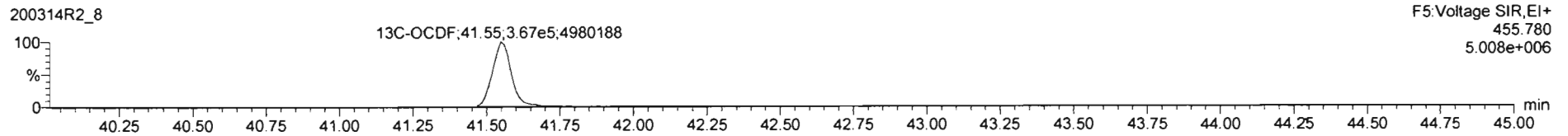
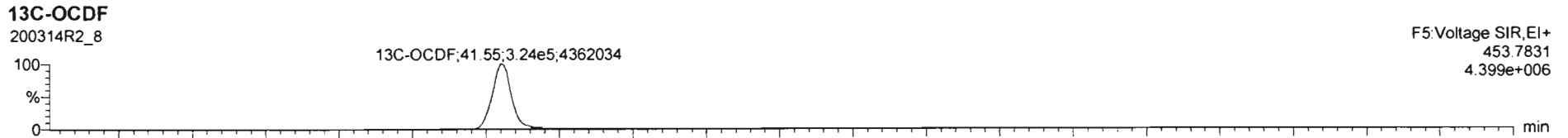
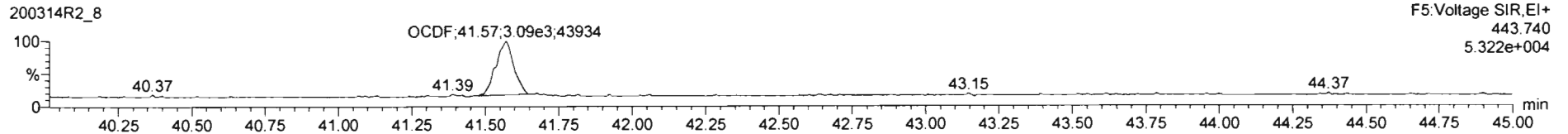
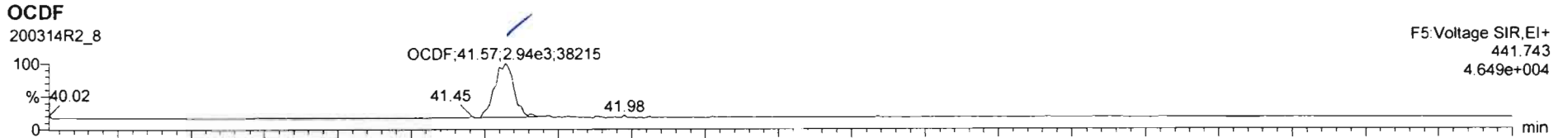


F4:Voltage SIR,EI+  
479.7165  
8.716e+003

Dataset: Untitled

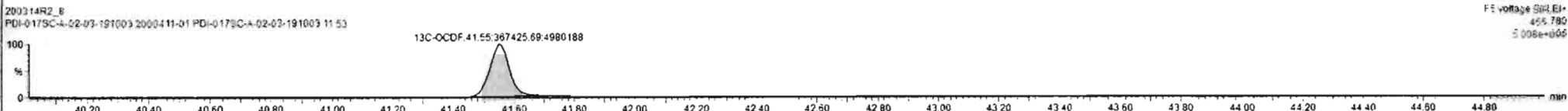
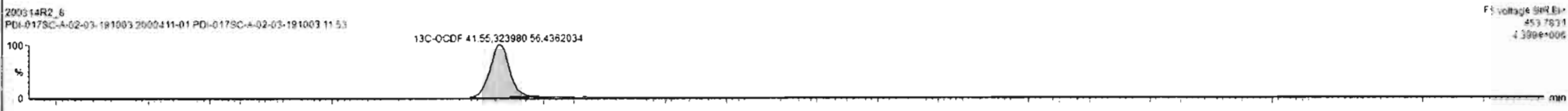
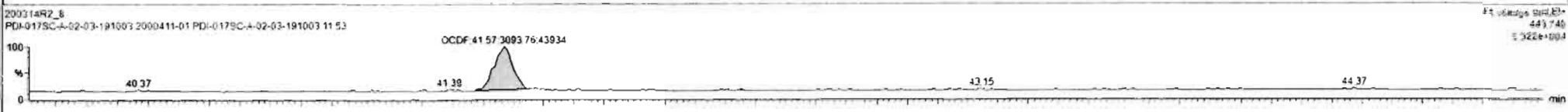
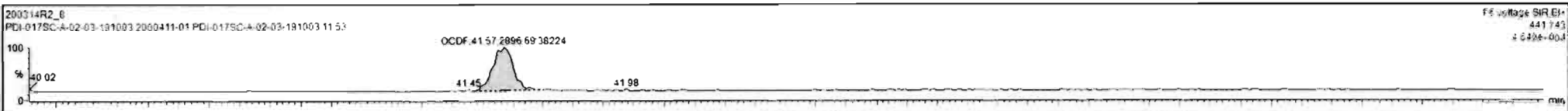
Last Altered: Sunday, March 15, 2020 12:03:33 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 12:03:43 Pacific Daylight Time

Name: 200314R2\_8, Date: 14-Mar-2020, Time: 16:50:40, ID: 2000411-01 PDI-017SC-A-02-03-191003 11.53, Description: PDI-017SC-A-02-03-191003



Name	Resp	RA	nly	RRF	wtAval	RT	RRT	Conc	%Rec	DL	EMPC
17	OCDF	5.98e3	0.94	NO	0.9468	10.117	41.57	1.001	3.62	0.147	3.62
18	13C-2,7,8,13C13H	1.00e4	0.78	NO	1.18e3	10.117	26.73	1.076	1.60	0.208	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1							





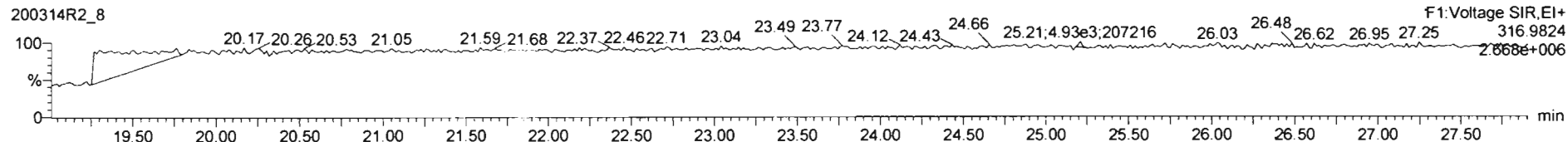
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Last Altered: Sunday, March 15, 2020 12:03:33 Pacific Daylight Time

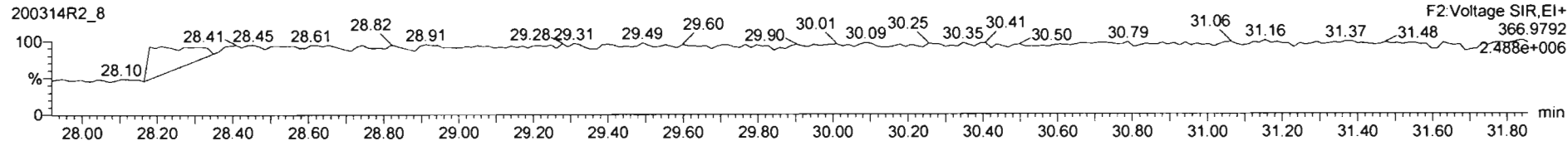
Printed: Sunday, March 15, 2020 12:03:43 Pacific Daylight Time

Name: 200314R2\_8, Date: 14-Mar-2020, Time: 16:50:40, ID: 2000411-01 PDI-017SC-A-02-03-191003 11.53, Description: PDI-017SC-A-02-03-191003

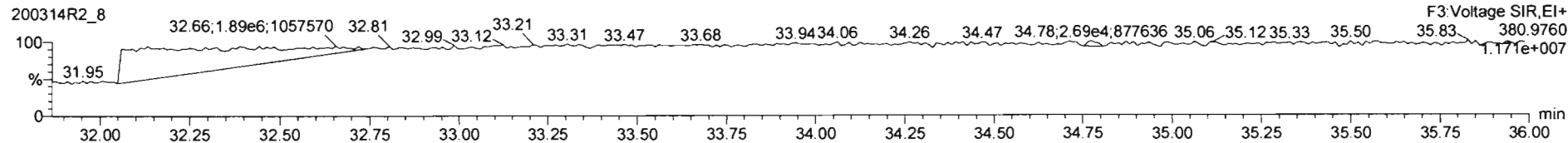
PFK1



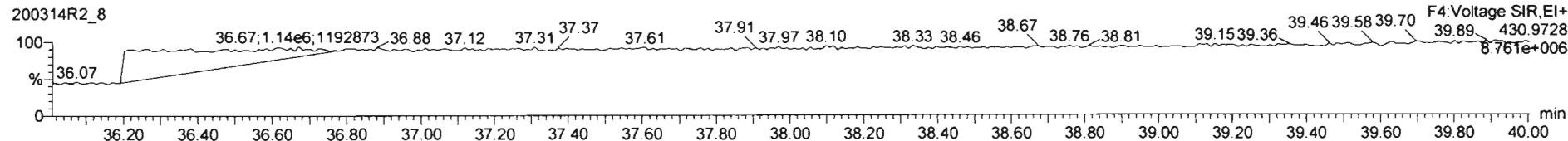
PFK2



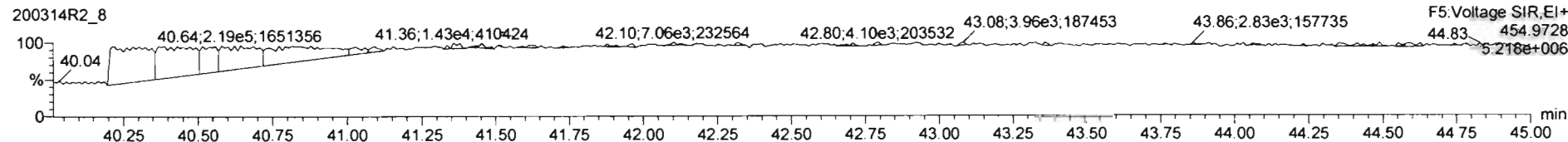
PFK3



PFK4



PFK5



Dataset: U:\VG12.PRO\Results\200314R2\200314R2-9.qld

Last Altered: Sunday, March 15, 2020 11:29:47 Pacific Daylight Time

Printed: Sunday, March 15, 2020 11:30:38 Pacific Daylight Time

GRB 03/15/2020

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

*Handwritten:* MCH 3/15/20

Name: 200314R2\_9, Date: 14-Mar-2020, Time: 17:38:14, ID: B0C0076-DUP1 Duplicate 11.62, Description: Duplicate

#	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	0.983	10.196	25.751		1.001				0.0709	
2	2 1,2,3,7,8-PeCDD	3.33e2	0.52	YES	0.921	10.196	31.025	31.03	1.001	1.001	0.088973		0.0993	0.0785
3	3 1,2,3,4,7,8-HxCDD	5.82e2	1.16	NO	1.13	10.196	34.423	34.52	1.000	1.003	0.19153		0.105	0.192
4	4 1,2,3,6,7,8-HxCDD			NO	0.984	10.196	34.520		1.000				0.107	
5	5 1,2,3,7,8,9-HxCDD			NO	0.967	10.196	34.785		1.000				0.130	
6	6 1,2,3,4,6,7,8-HpCDD	9.39e3	1.04	NO	1.01	10.196	38.248	38.26	1.000	1.001	5.1709		0.216	5.17
7	7 OCDD	1.35e5	0.89	NO	1.05	10.196	41.379	41.39	1.000	1.000	75.751		0.185	75.8
8	8 2,3,7,8-TCDF			NO	0.915	10.196	24.757		1.001				0.0623	
9	9 1,2,3,7,8-PeCDF			NO	0.959	10.196	29.666		1.001				0.0612	
10	10 2,3,4,7,8-PeCDF	1.15e3	1.18	YES	1.00	10.196	30.713	30.71	1.001	1.001	0.20117		0.0551	0.179
11	11 1,2,3,4,7,8-HxCDF	4.25e2	0.92	YES	1.04	10.196	33.561	33.57	1.000	1.000	0.10938		0.0553	0.0946
12	12 1,2,3,6,7,8-HxCDF	5.28e2	1.15	NO	1.01	10.196	33.688	33.69	1.000	1.000	0.12965		0.0559	0.130
13	13 2,3,4,6,7,8-HxCDF	6.34e2	0.93	YES	1.09	10.196	34.288	34.26	1.001	1.000	0.16243		0.0636	0.141
14	14 1,2,3,7,8,9-HxCDF			NO	1.03	10.196	35.116		1.000				0.0845	
15	15 1,2,3,4,6,7,8-HpCDF	7.58e3	0.99	NO	1.05	10.196	36.868	36.85	1.001	1.001	3.0802		0.0936	3.08
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.196	38.897		1.000				0.118	
17	17 OCDF	8.33e3	0.84	NO	0.947	10.196	41.560	41.57	1.000	1.000	4.3602		0.124	4.36
18	18 13C-2,3,7,8-TCDD	1.05e6	0.78	NO	1.18	10.196	25.720	25.72	1.029	1.029	158.88	81.0	0.198	
19	19 13C-1,2,3,7,8-PeCDD	7.98e5	0.64	NO	0.864	10.196	30.900	31.00	1.236	1.240	165.91	84.6	0.295	
20	20 13C-1,2,3,4,7,8-HxCDD	5.26e5	1.31	NO	0.754	10.196	34.417	34.41	1.014	1.014	136.38	69.5	0.258	
21	21 13C-1,2,3,6,7,8-HxCDD	6.20e5	1.32	NO	0.925	10.196	34.525	34.52	1.017	1.017	130.80	66.7	0.210	
22	22 13C-1,2,3,7,8,9-HxCDD	5.49e5	1.27	NO	0.829	10.196	34.787	34.78	1.025	1.024	129.35	65.9	0.235	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.54e5	1.06	NO	0.598	10.196	38.242	38.24	1.127	1.126	115.68	59.0	0.252	
24	24 13C-OCDD	6.67e5	0.85	NO	0.571	10.196	41.389	41.38	1.219	1.219	228.24	58.2	0.243	
25	25 13C-2,3,7,8-TCDF	1.41e6	0.76	NO	1.09	10.196	24.742	24.73	0.990	0.989	149.79	76.4	0.313	
26	26 13C-1,2,3,7,8-PeCDF	1.15e6	1.56	NO	0.876	10.196	29.572	29.65	1.183	1.186	152.41	77.7	0.385	
27	27 13C-2,3,4,7,8-PeCDF	1.12e6	1.56	NO	0.844	10.196	30.582	30.68	1.223	1.227	154.08	78.6	0.400	
28	28 13C-1,2,3,4,7,8-HxCDF	7.34e5	0.50	NO	1.00	10.196	33.565	33.56	0.989	0.989	143.39	73.1	0.352	
29	29 13C-1,2,3,6,7,8-HxCDF	7.89e5	0.50	NO	1.12	10.196	33.673	33.68	0.992	0.992	137.82	70.3	0.315	
30	30 13C-2,3,4,6,7,8-HxCDF	7.01e5	0.51	NO	1.04	10.196	34.254	34.25	1.009	1.009	132.30	67.4	0.340	
31	31 13C-1,2,3,7,8,9-HxCDF	6.00e5	0.50	NO	0.873	10.196	35.126	35.12	1.035	1.034	134.24	68.4	0.404	

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-9.qld

Last Altered: Sunday, March 15, 2020 11:29:47 Pacific Daylight Time

Printed: Sunday, March 15, 2020 11:30:38 Pacific Daylight Time

Name: 200314R2\_9, Date: 14-Mar-2020, Time: 17:38:14, ID: B0C0076-DUP1 Duplicate 11.62, Description: Duplicate

#	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	4.60e5	0.44	NO	0.771	10.196	36.841	36.83	1.085	1.085	116.71	59.5	0.262	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.25e5	0.46	NO	0.519	10.196	38.925	38.90	1.147	1.146	122.46	62.4	0.388	
34	34 13C-OCDF	7.91e5	0.88	NO	0.696	10.196	41.569	41.56	1.225	1.224	222.02	56.6	0.227	
35	35 37Cl-2,3,7,8-TCDD	3.76e5			1.17	10.196	25.730	25.75	1.029	1.030	57.606	73.4	0.0528	
36	36 13C-1,2,3,4-TCDD	1.09e6	0.78	NO	1.00	10.196	25.050	25.00	1.000	1.000	196.15	100	0.235	
37	37 13C-1,2,3,4-TCDF	1.69e6	0.79	NO	1.00	10.196	23.190	23.09	1.000	1.000	196.15	100	0.341	
38	38 13C-1,2,3,4,6,9-HxCDF	1.00e6	0.50	NO	1.00	10.196	33.880	33.94	1.000	1.000	196.15	100	0.352	
39	39 Total Tetra-Dioxins				0.983	10.196	24.620		0.000				0.0467	
40	40 Total Penta-Dioxins				0.921	10.196	29.960		0.000		0.18796		0.0993	0.429
41	41 Total Hexa-Dioxins				0.984	10.196	33.635		0.000		2.0559		0.118	2.06
42	42 Total Hepta-Dioxins				1.01	10.196	37.640		0.000		13.368		0.216	13.4
43	43 Total Tetra-Furans				0.915	10.196	23.610		0.000		1.4357		0.0623	1.44
44	44 1st Func. Penta-Furans				0.959	10.196	27.090		0.000		1.5659		0.0310	1.57
45	45 Total Penta-Furans				0.959	10.196	29.275		0.000		0.53186		0.0595	1.01
46	46 Total Hexa-Furans				1.09	10.196	33.555		0.000		2.8705		0.0608	3.11
47	47 Total Hepta-Furans				1.05	10.196	37.835		0.000		7.0648		0.111	7.06

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-9.qld

Last Altered: Sunday, March 15, 2020 11:29:47 Pacific Daylight Time  
 Printed: Sunday, March 15, 2020 11:30:38 Pacific Daylight Time

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 Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R2\_9, Date: 14-Mar-2020, Time: 17:38:14, ID: B0C0076-DUP1 Duplicate 11.62, Description: Duplicate

**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	Total Penta-Dioxins	28.71	3.550e3	7.271e3	2.821e2	4.219e2	0.67	NO	7.040e2	0.18796	0.18796	0.0993
2	Total Penta-Dioxins	29.20	1.944e3	6.708e3	1.051e2	2.557e2	0.41	YES	0.000e0	0.00000	0.072607	0.0993
3	Total Penta-Dioxins	29.72	4.146e3	3.800e3	1.575e2	2.064e2	0.76	YES	0.000e0	0.00000	0.089817	0.0993
4	1,2,3,7,8-PeCDD	31.03	3.930e3	3.919e3	1.137e2	2.196e2	0.52	YES	3.333e2	0.00000	0.078522	0.0993

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.95	2.758e4	2.283e4	1.395e3	1.179e3	1.18	NO	2.574e3	0.90759	0.90759	0.118
2	Total Hexa-Dioxins	33.76	2.415e4	1.824e4	1.571e3	1.142e3	1.38	NO	2.713e3	0.95678	0.95678	0.118
3	1,2,3,4,7,8-HxCDD	34.52	5.159e3	5.010e3	3.128e2	2.693e2	1.16	NO	5.820e2	0.19153	0.19153	0.105

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.22	1.026e5	9.681e4	7.593e3	7.301e3	1.04	NO	1.489e4	8.1974	8.1974	0.216
2	1,2,3,4,6,7,8-HpCDD	38.26	5.989e4	6.474e4	4.786e3	4.609e3	1.04	NO	9.395e3	5.1709	5.1709	0.216

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-9.qld

Last Altered: Sunday, March 15, 2020 11:29:47 Pacific Daylight Time

Printed: Sunday, March 15, 2020 11:30:38 Pacific Daylight Time

Name: 200314R2\_9, Date: 14-Mar-2020, Time: 17:38:14, ID: B0C0076-DUP1 Duplicate 11.62, Description: Duplicate

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.90	4.816e3	3.961e3	2.410e2	3.152e2	0.76	NO	5.562e2	0.084810	0.084810	0.0623
2	Total Tetra-Furans	20.47	1.585e4	1.994e4	1.318e3	1.647e3	0.80	NO	2.965e3	0.45209	0.45209	0.0623
3	Total Tetra-Furans	21.38	8.990e3	9.565e3	6.143e2	8.558e2	0.72	NO	1.470e3	0.22415	0.22415	0.0623
4	Total Tetra-Furans	21.81	8.461e3	1.030e4	6.756e2	9.061e2	0.75	NO	1.582e3	0.24119	0.24119	0.0623
5	Total Tetra-Furans	23.00	7.948e3	1.102e4	6.360e2	8.825e2	0.72	NO	1.519e3	0.23155	0.23155	0.0623
6	Total Tetra-Furans	26.48	3.132e3	3.211e3	1.478e2	1.788e2	0.83	NO	3.266e2	0.049805	0.049805	0.0623
7	Total Tetra-Furans	26.66	3.851e3	3.656e3	1.897e2	2.322e2	0.82	NO	4.219e2	0.064335	0.064335	0.0623
8	Total Tetra-Furans	26.95	3.731e3	5.957e3	2.400e2	3.356e2	0.71	NO	5.756e2	0.087769	0.087769	0.0623

**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	26.93	7.781e4	4.892e4	5.184e3	3.508e3	1.48	NO	8.692e3	1.5659	1.5659	0.0310

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.64	2.222e4	1.340e4	1.762e3	1.191e3	1.48	NO	2.952e3	0.53186	0.53186	0.0595
2	Total Penta-Furans	29.25	1.500e4	7.978e3	8.071e2	6.136e2	1.32	YES	0.000e0	0.00000	0.23920	0.0595
3	Total Penta-Furans	29.95	5.537e3	5.105e3	2.019e2	2.123e2	0.95	YES	0.000e0	0.00000	0.059838	0.0595
4	2,3,4,7,8-PeCDF	30.71	9.411e3	9.178e3	6.245e2	5.276e2	1.18	YES	1.152e3	0.00000	0.17939	0.0551

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.38	2.057e4	1.831e4	1.001e3	7.820e2	1.28	NO	1.783e3	0.45355	0.45355	0.0608
2	Total Hexa-Furans	32.56	3.857e4	3.511e4	2.056e3	1.834e3	1.12	NO	3.890e3	0.98988	0.98988	0.0608
3	Total Hexa-Furans	33.10	5.934e4	4.555e4	2.762e3	2.337e3	1.18	NO	5.099e3	1.2974	1.2974	0.0608
4	1,2,3,4,7,8-HxCDF	33.57	4.976e3	4.004e3	2.036e2	2.214e2	0.92	YES	4.250e2	0.00000	0.094640	0.0553
5	1,2,3,6,7,8-HxCDF	33.69	5.783e3	6.808e3	2.817e2	2.461e2	1.15	NO	5.278e2	0.12965	0.12965	0.0559
6	2,3,4,6,7,8-HxCDF	34.26	7.009e3	5.299e3	3.049e2	3.291e2	0.93	YES	6.340e2	0.00000	0.14114	0.0636

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-9.qld

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Name: 200314R2\_9, Date: 14-Mar-2020, Time: 17:38:14, ID: B0C0076-DUP1 Duplicate 11.62, Description: Duplicate

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	36.85	5.190e4	5.972e4	3.780e3	3.800e3	0.99	NO	7.580e3	3.0802	3.0802	0.0936
2	Total Hepta-Furans	37.44	5.135e4	6.005e4	4.085e3	4.283e3	0.95	NO	8.369e3	3.9846	3.9846	0.111

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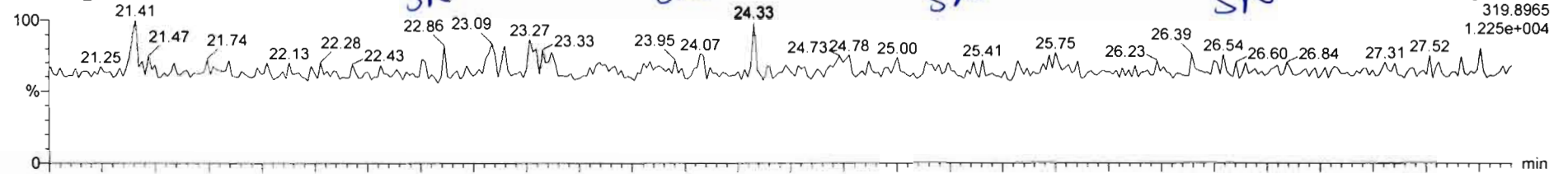
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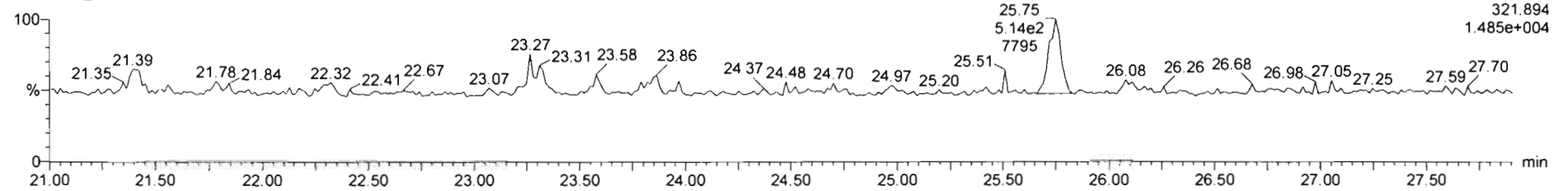
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2,3,7,8-TCDD

200314R2\_9

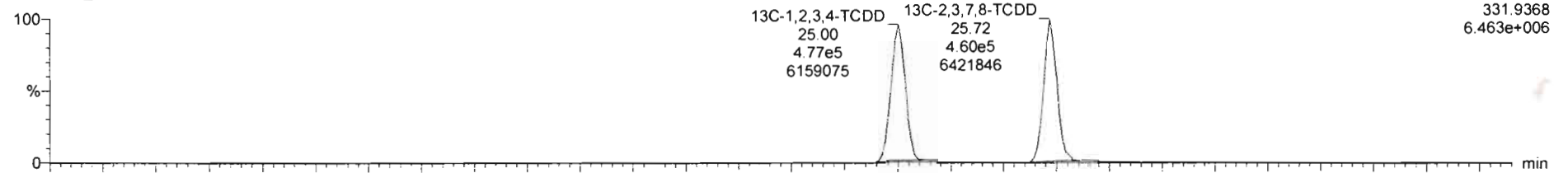


200314R2\_9

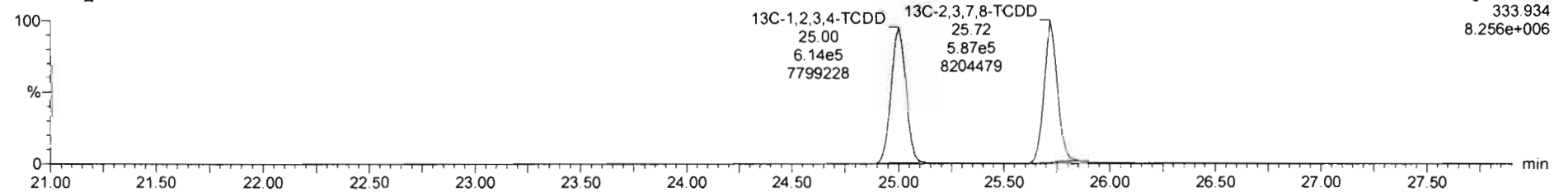


13C-2,3,7,8-TCDD

200314R2\_9



200314R2\_9



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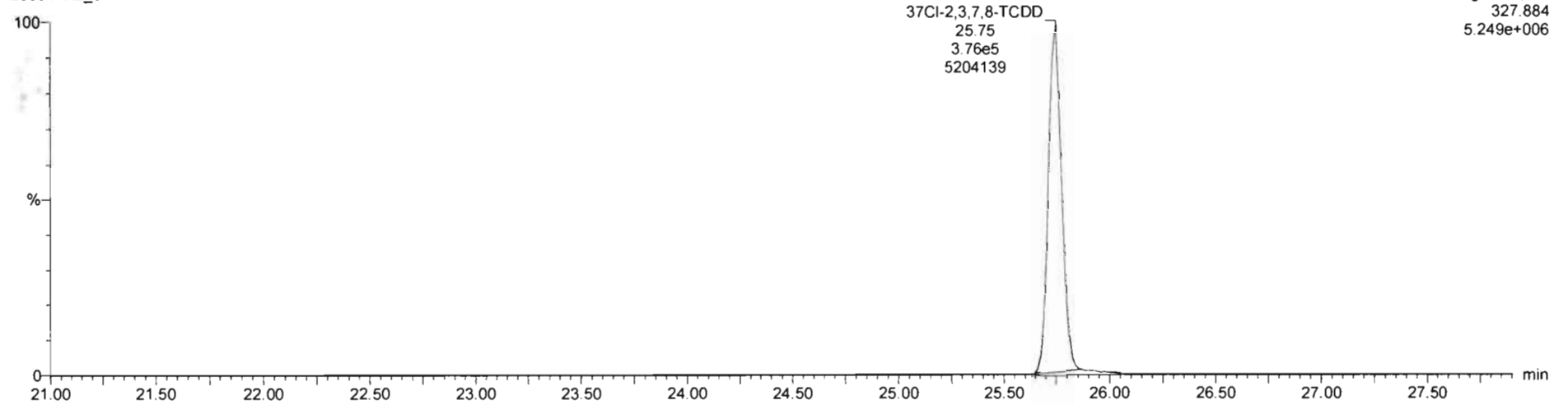
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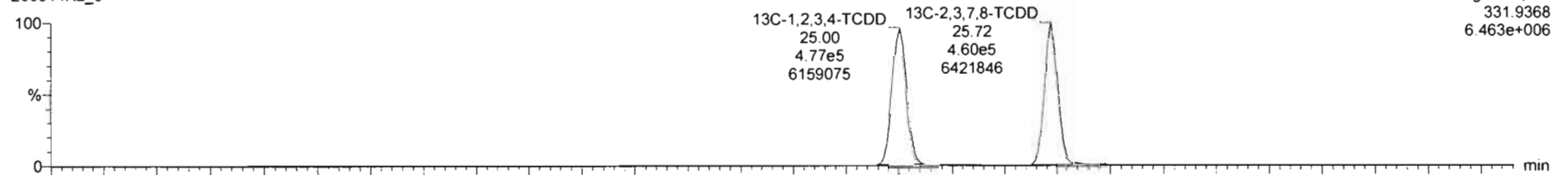
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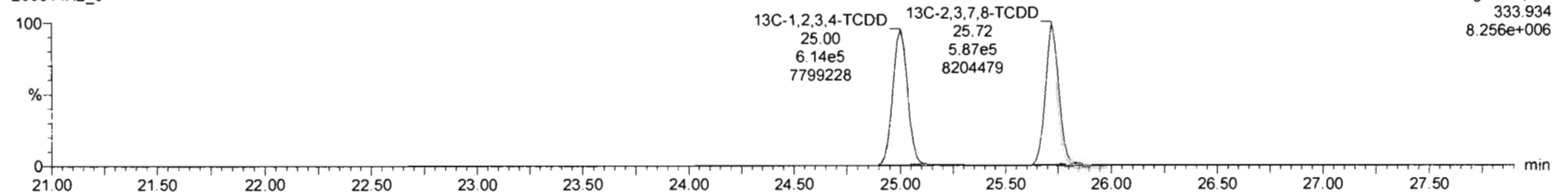


**13C-1,2,3,4-TCDD**

200314R2\_9



200314R2\_9





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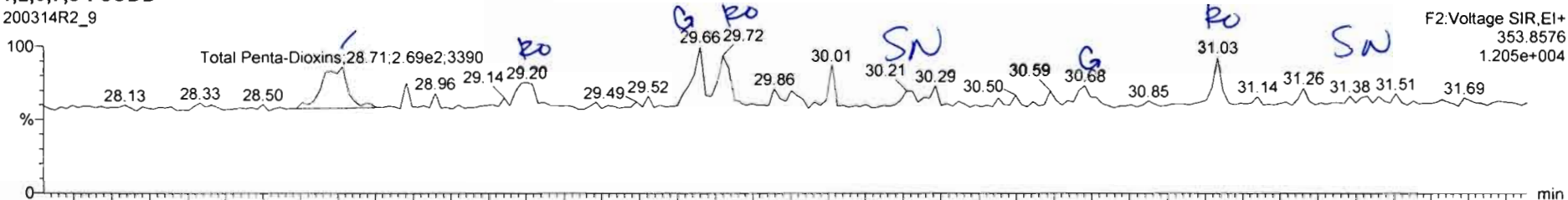
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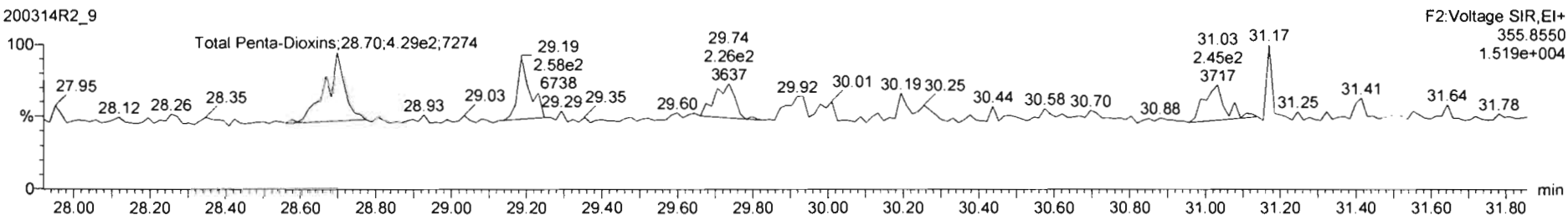
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1,2,3,7,8-PeCDD

200314R2\_9

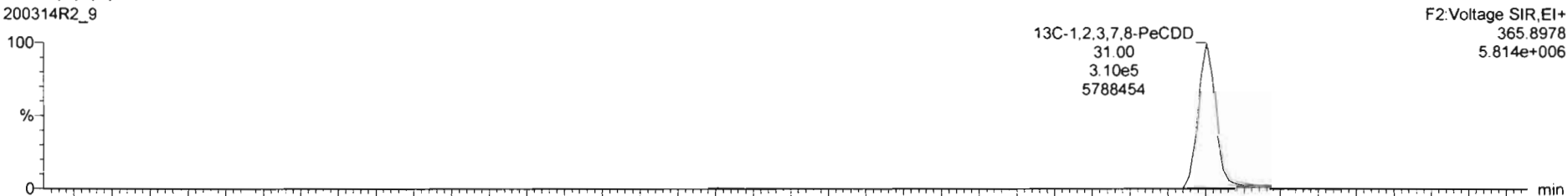


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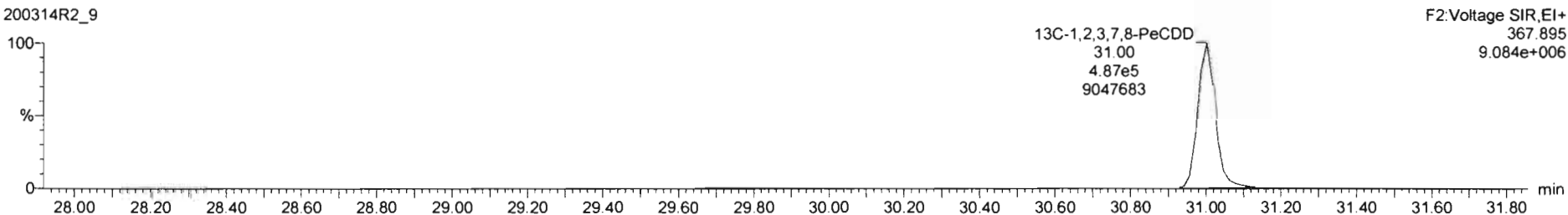


13C-1,2,3,7,8-PeCDD

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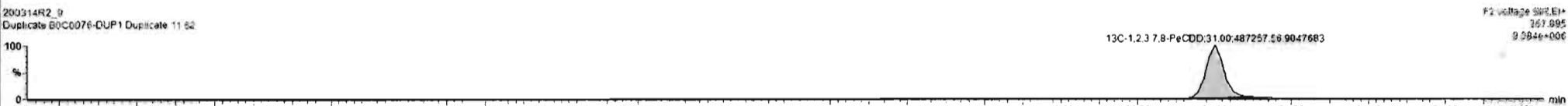
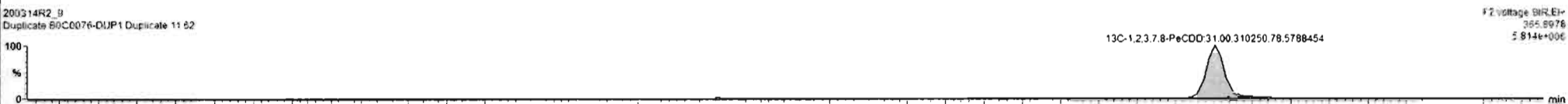
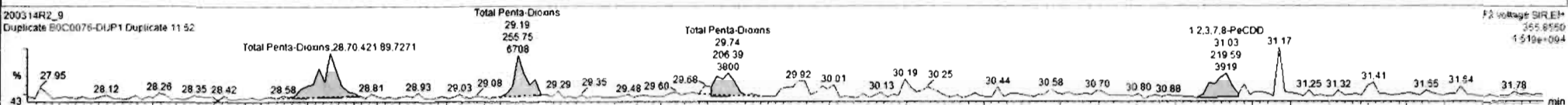
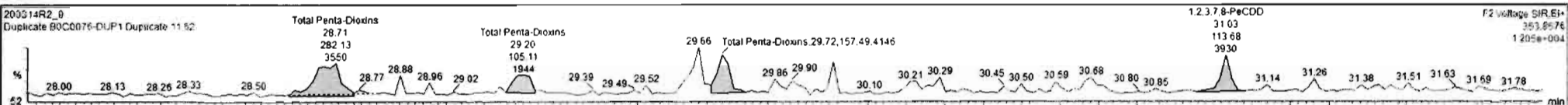


200314R2\_9



Name	Resp	RA	n/y	RRF	w/Avol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9635	13.196					0.0467	
40 Total Tetra-Dioxins				0.9715	13.196					0.0507	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Penta-Dioxins	28.71	2.821e2	4.219e2	0.67	NO	0.18796	0.18796
2 Total Penta-Dioxins	29.20	1.051e2	2.557e2	0.41	YES	0.072607	0.00000
3 Total Penta-Dioxins	29.72	1.575e2	2.064e2	0.76	YES	0.089817	0.00000
4 1,2,3,7,8-PeCDD	31.03	1.137e2	2.195e2	0.52	YES	0.078522	0.00000



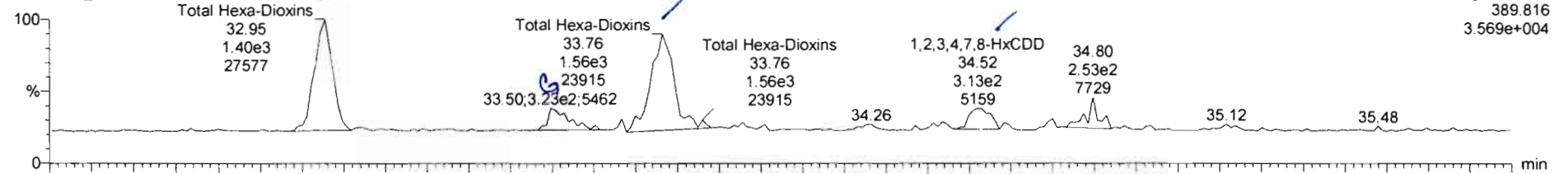
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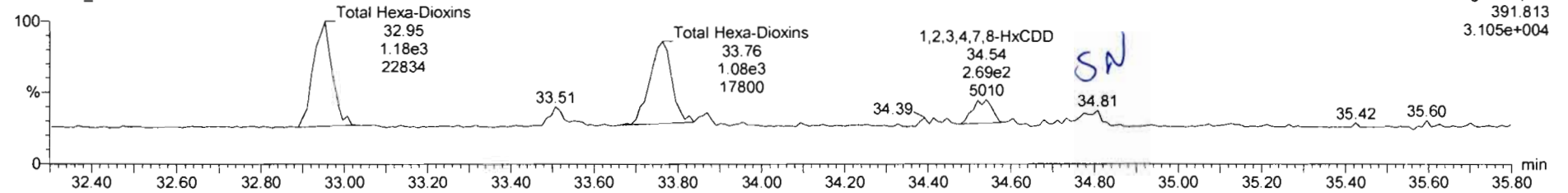
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1,2,3,4,7,8-HxCDD

200314R2\_9

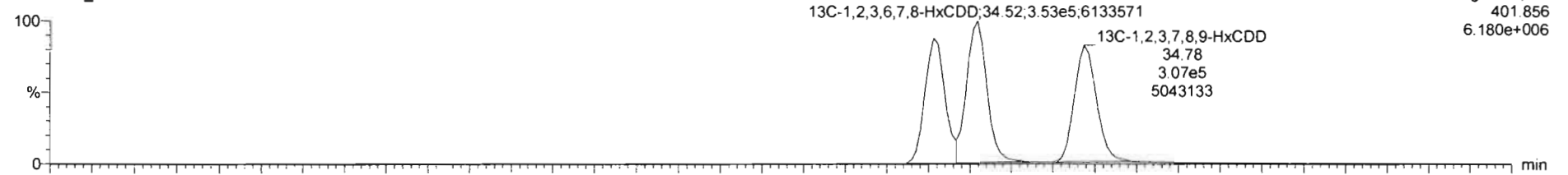


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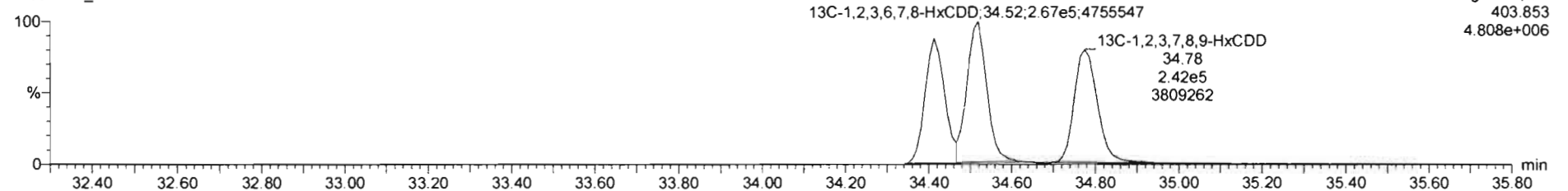


13C-1,2,3,4,7,8-HxCDD

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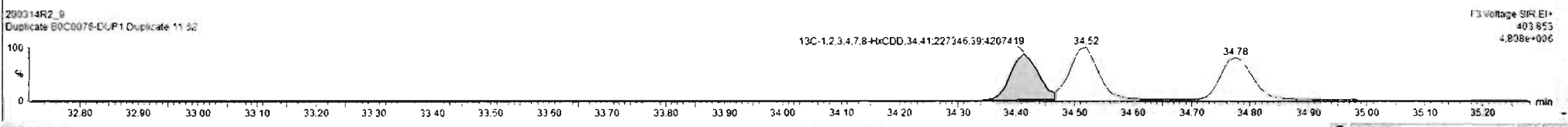
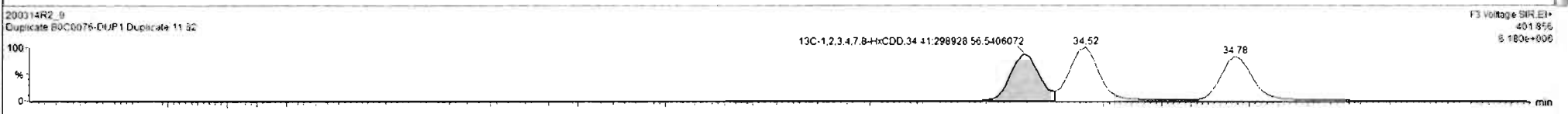
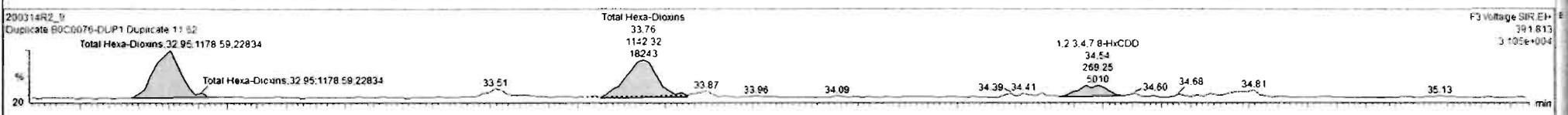
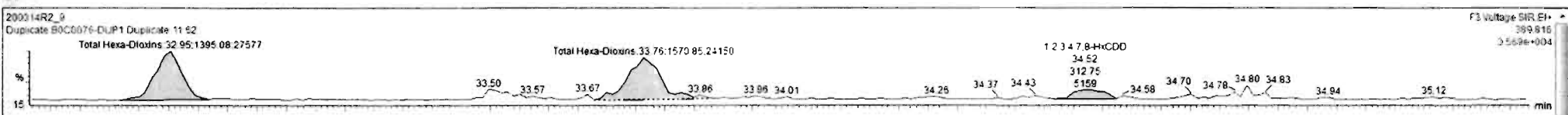


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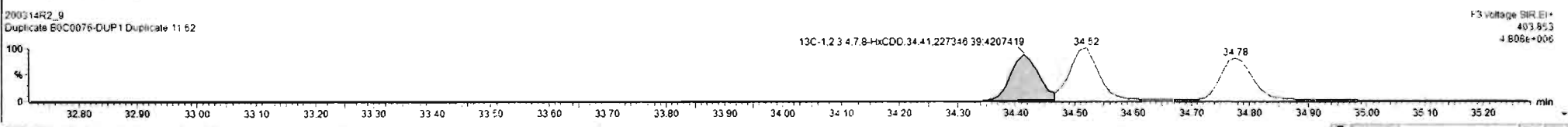
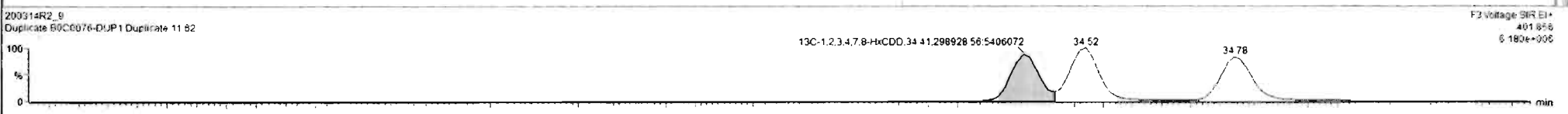
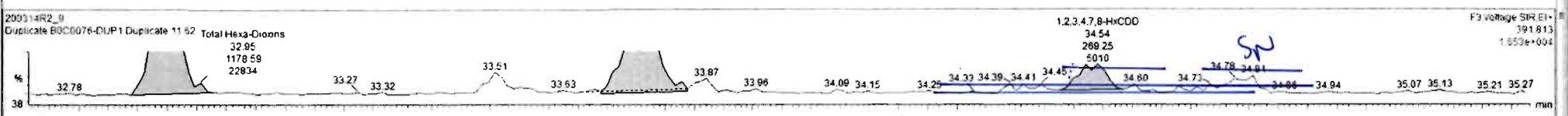
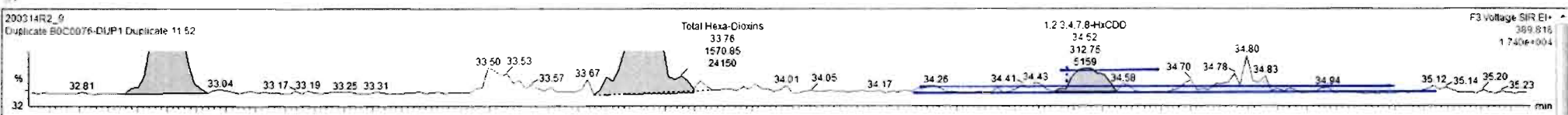
Name	Resp	RA	n/y	RRF	wt/wt	RT	RRT	Conc	%Rec	DL	EMPC
41 Total Hexa-Dioxins				0.9844	10.196			2.06		0.118	2.06
42 Total Hexa-Dioxins				1.6561	10.196			13.2		0.146	13.2

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hexa-Dioxins	32.95	1.305e2	1.179e3	1.18	NO	0.90759	0.90759
2 Total Hexa-Dioxins	33.76	1.571e3	1.142e3	1.38	NO	0.95678	0.95678
3 1,2,3,4,7,8-HxCDD	34.52	3.128e2	2.893e2	1.16	NO	0.19153	0.19153



Name	Resp	RA	nly	RRF	wVvol	RT	RRT	Conc.	%Rec	DL	EMPC
41 Total Hexa-Dioxins				0.9844	10.196			2.06		0.118	2.96
42 Total Hexa-Dioxins				1.0061	10.166			13.2		0.216	13.2

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1 Total Hexa-Dioxins	32.95	1.395e3	1.179e2	1.18	NO	0.90759	0.90759
2 Total Hexa-Dioxins	33.76	1.571e3	1.142e3	1.38	NO	0.95678	0.95678
3 1,2,3,4,7,8-HxCDD	34.52	3.128e2	2.693e2	1.16	NO	0.19153	0.19153



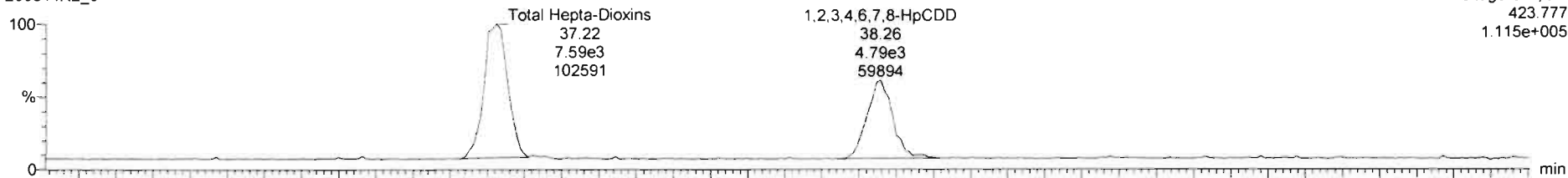
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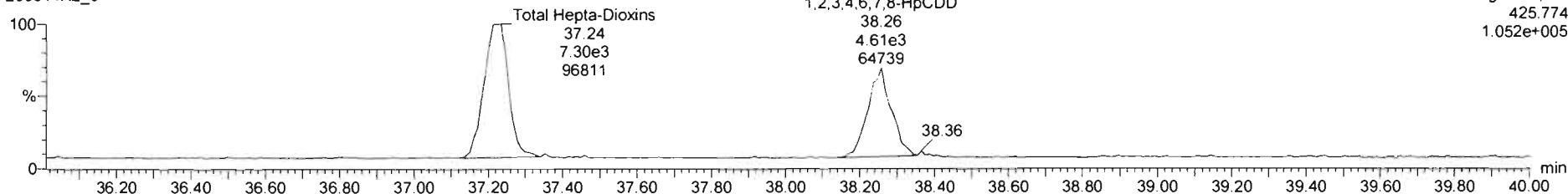
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1,2,3,4,6,7,8-HpCDD

200314R2\_9

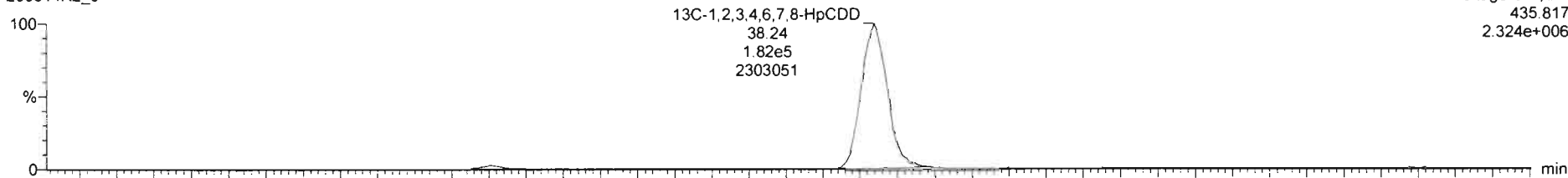


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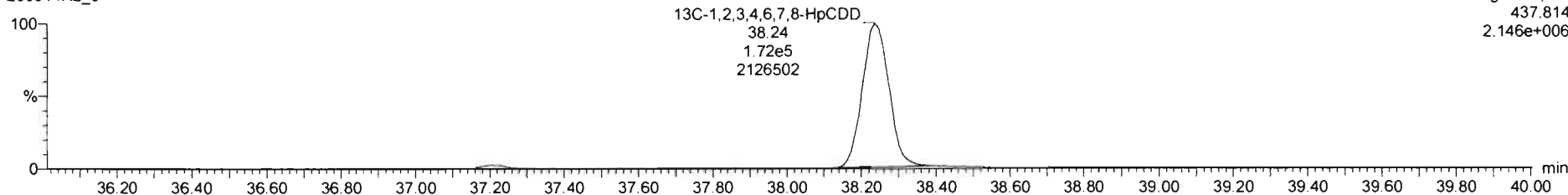


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200314R2\_9



200314R2\_9

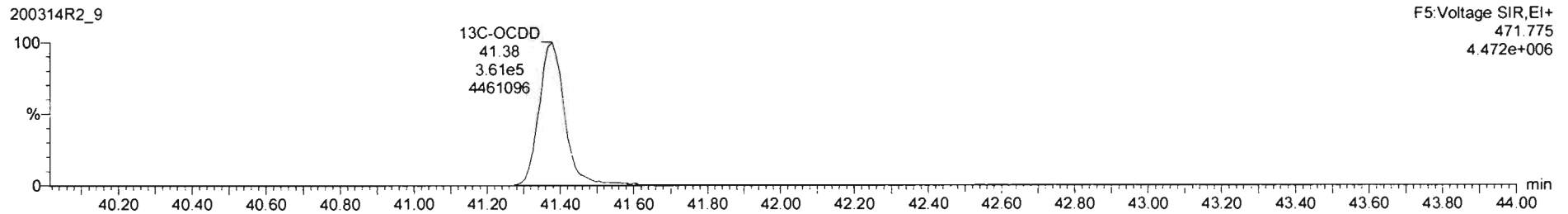
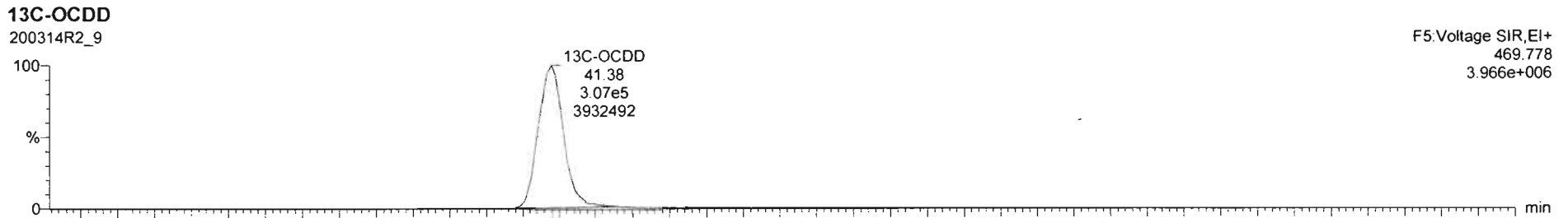
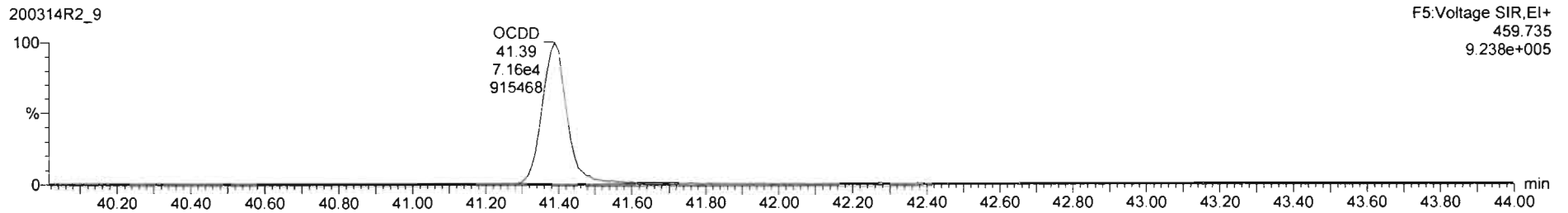
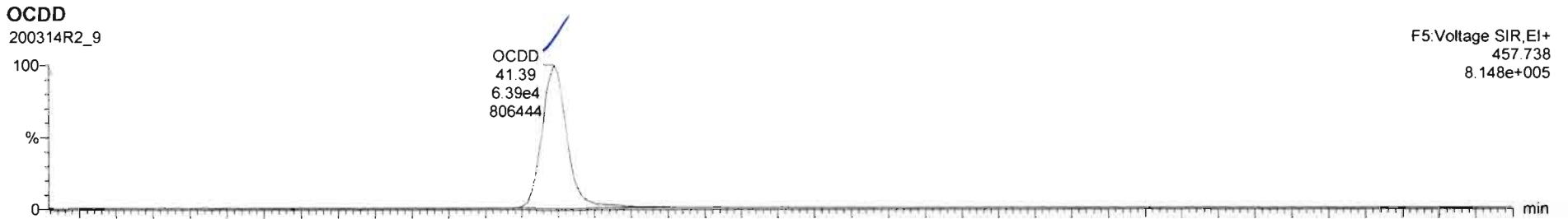


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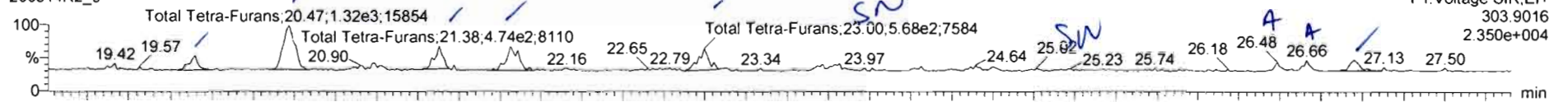
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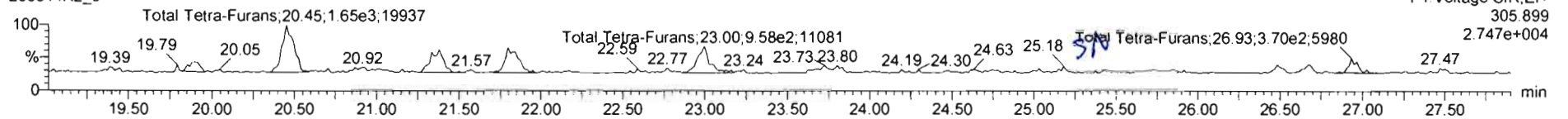
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**2,3,7,8-TCDF**

200314R2\_9

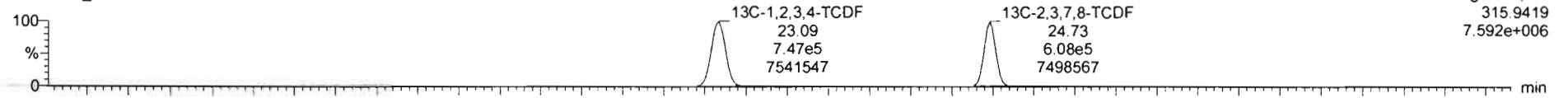


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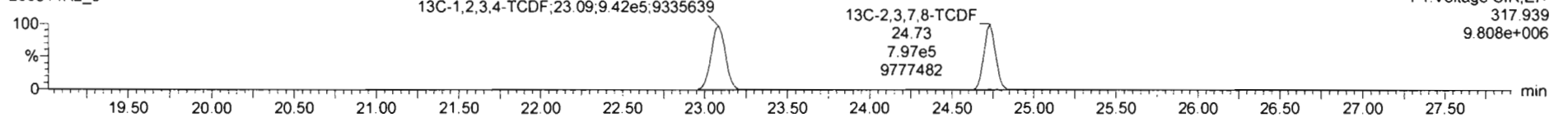


**13C-2,3,7,8-TCDF**

200314R2\_9

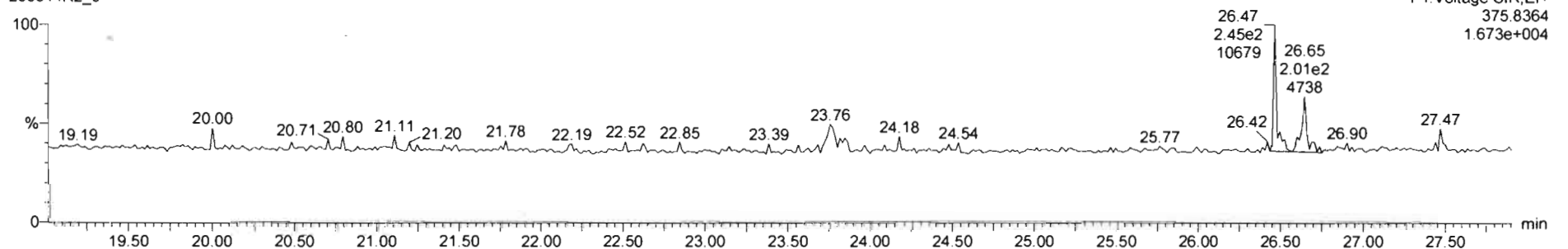


200314R2\_9



**DPE1**

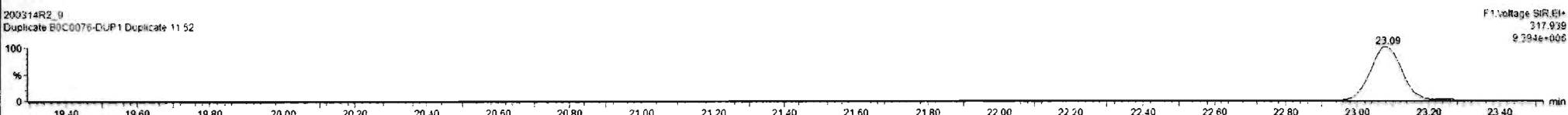
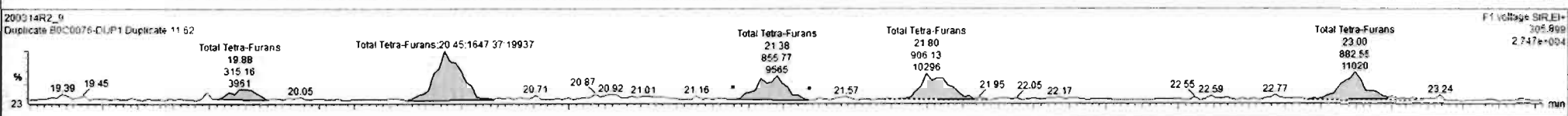
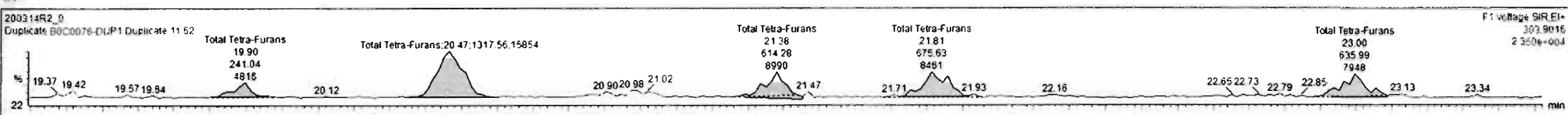
200314R2\_9





Name	Resp	RA	nly	RRF	wVvol	RT	RRT	Conc.	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9154	10.195			1.33		0.0523	1.33
44 Tet Furs Denta-Furans				0.8504	10.106			1.47		0.0310	1.47

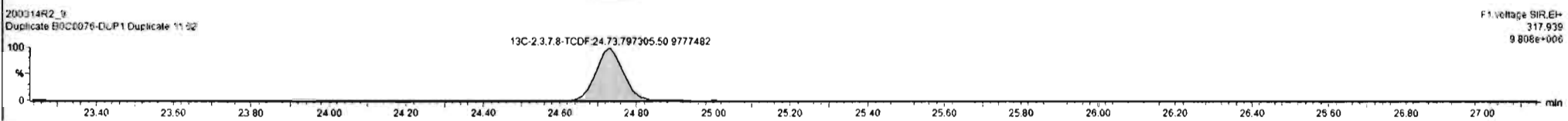
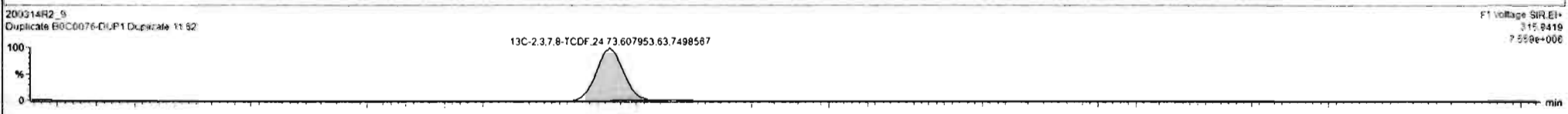
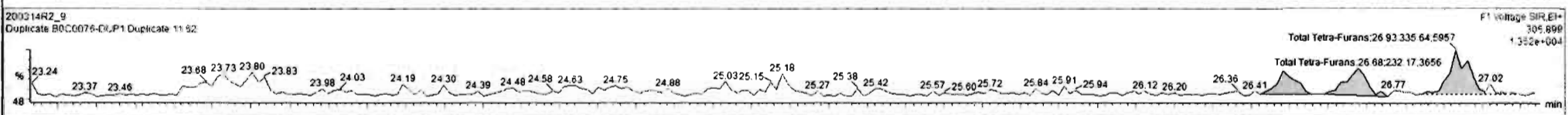
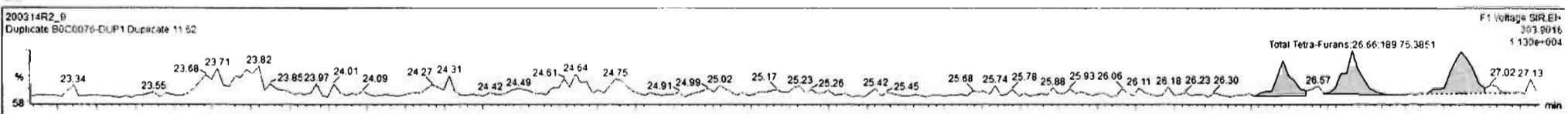
Name	RT	m1 Resp	n2 Resp	RA	nly	EMPC	Conc.
1 Total Tetra-Furans	19.90	2.410e2	3.152e2	0.76	NO	0.084810	0.084810
2 Total Tetra-Furans	20.47	1.318e3	1.647e3	0.80	NO	0.45209	0.45209
3 Total Tetra-Furans	21.38	6.143e2	8.558e2	0.72	NO	0.22415	0.22415
4 Total Tetra-Furans	21.81	6.758e2	9.061e2	0.75	NO	0.24119	0.24119
5 Total Tetra-Furans	23.00	6.360e2	8.825e2	0.72	NO	0.23155	0.23155
6 Total Tetra-Furans	28.95	2.683e2	2.705e2	0.72	NO	0.097398	0.097398



200314R2\_9 - B0C0076-DUP1 Duplicate 11 62 - Duplicate

Name	Resp	RA	n/y	RRF	w/wVol	RT	RRT	Conc.	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9154	10.196			1.44	0.0823	1.44	
44 Tet Furr Pentu-Furans				0.9504	10.196			1.47	0.0710	1.47	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Tetra-Furans	19.90	2.410e2	3.152e2	0.76	NO	0.084810	0.084810
2 Total Tetra-Furans	20.47	1.318e3	1.647e3	0.80	NO	0.45209	0.45209
3 Total Tetra-Furans	21.36	6.143e2	6.558e2	0.72	NO	0.22415	0.22415
4 Total Tetra-Furans	21.81	6.756e2	8.081e2	0.75	NO	0.24119	0.24119
5 Total Tetra-Furans	23.00	6.360e2	8.825e2	0.72	NO	0.23155	0.23155
6 Total Tetra-Furans	26.48	1.478e2	1.788e2	0.83	NO	0.049805	0.049805
7 Total Tetra-Furans	26.66	1.897e2	2.322e2	0.82	NO	0.064335	0.064335
8 Total Tetra-Furans	26.95	2.400e2	3.356e2	0.71	NO	0.087768	0.087768



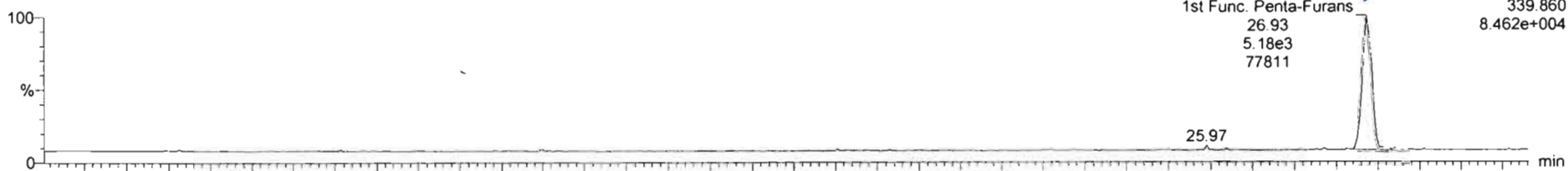
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

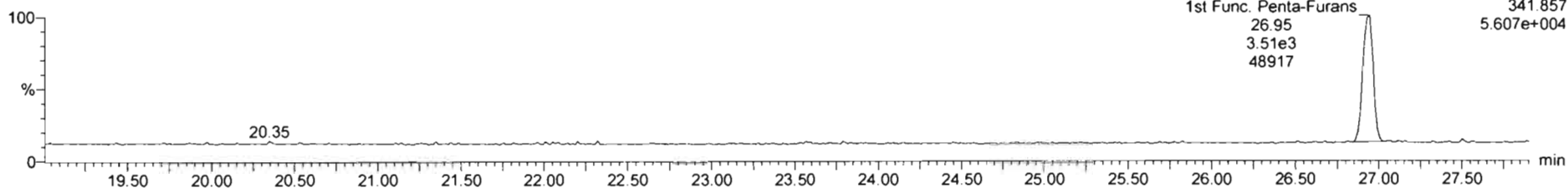
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1st Func. Penta-Furans

200314R2\_9

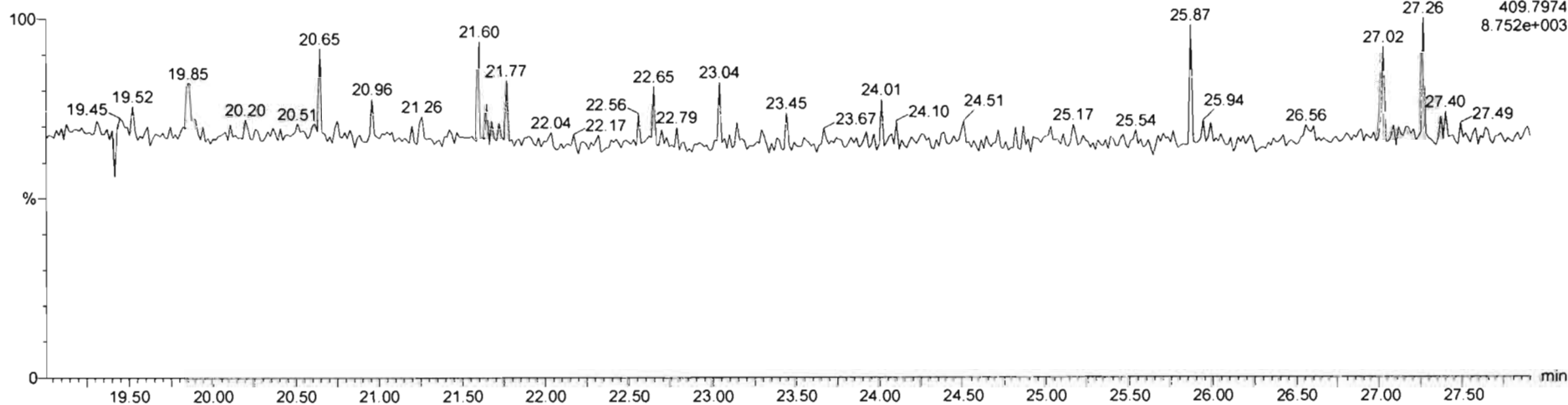


200314R2\_9



DPE6

200314R2\_9



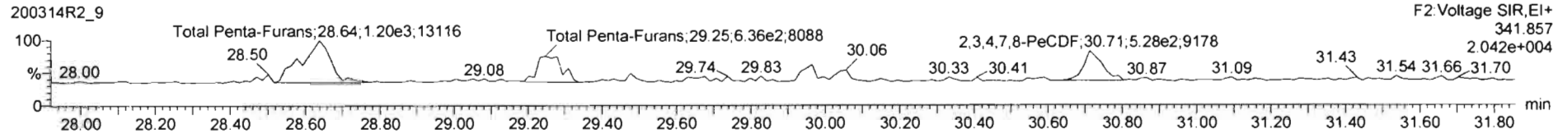
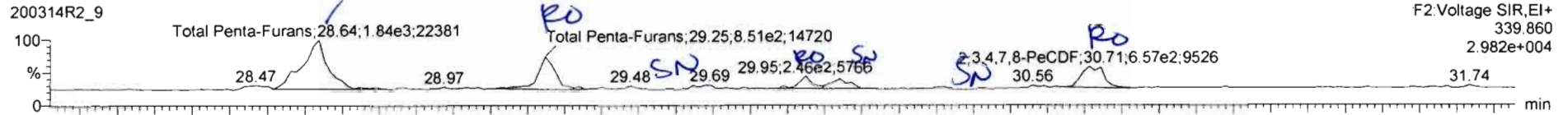
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Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time

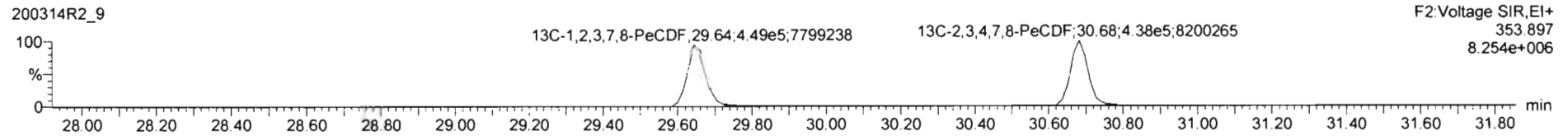
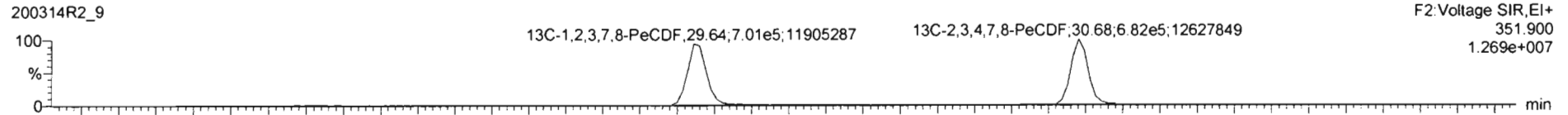
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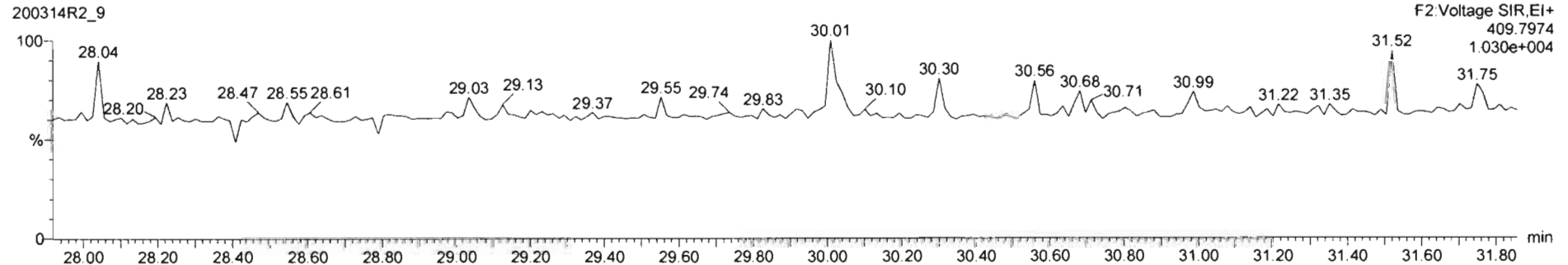
**1,2,3,7,8-PeCDF**



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

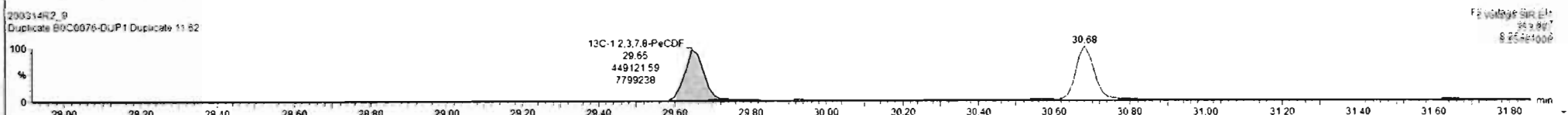
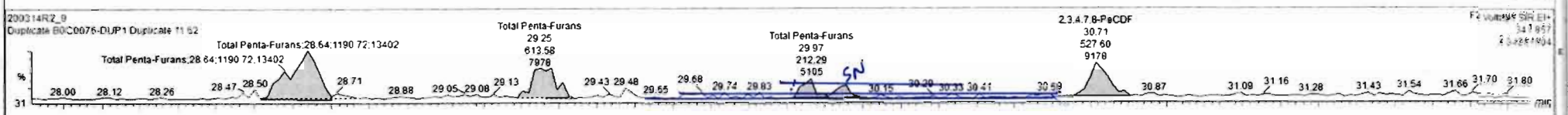
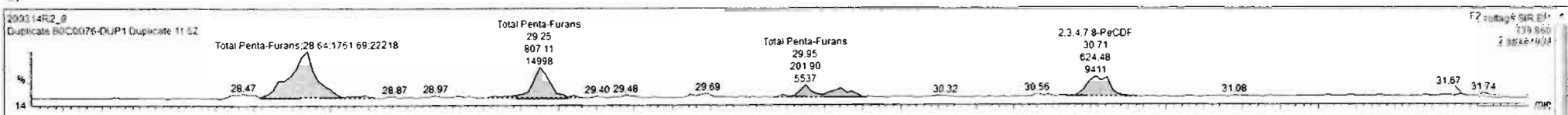


**DPE2**



Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
1st Func. Penta-Furans				0.9594	10.196			1.57		0.0310	1.57
Total Penta-Furans				0.9594	10.196			1.57		0.0310	1.57

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Penta-Furans	28.64	1.762e3	1.191e3	1.48	NO	0.53186	0.53186
2 Total Penta-Furans	29.25	8.071e2	6.136e2	1.32	YES	0.23920	0.00000
3 Total Penta-Furans	29.95	2.019e2	2.123e2	0.95	YES	0.059836	0.00000
4 Total Penta-Furans	30.04	2.492e2	1.683e2	1.48	NO	0.075214	0.075214
2,3,4,7,8-PeCDF	30.71	6.245e2	5.276e2	1.18	YES	0.17939	0.00000

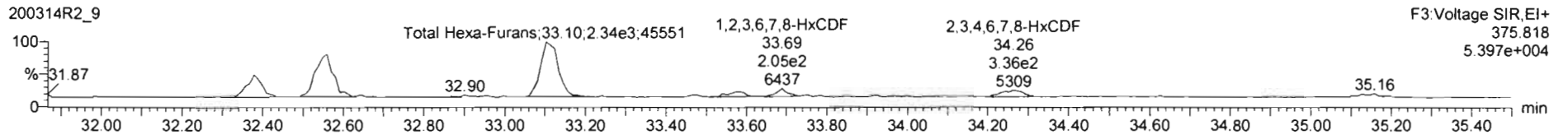
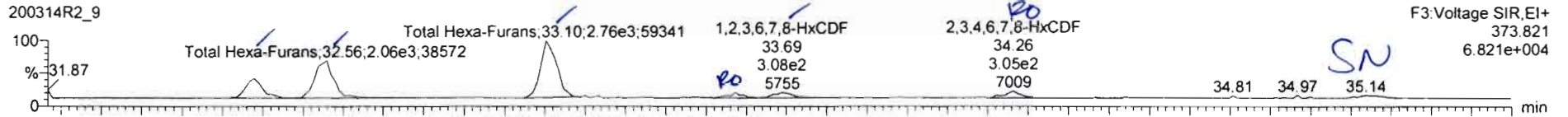


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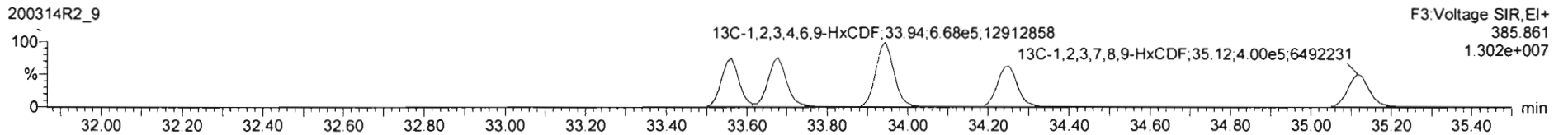
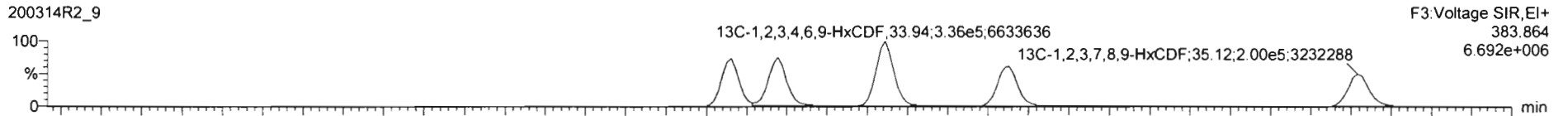
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

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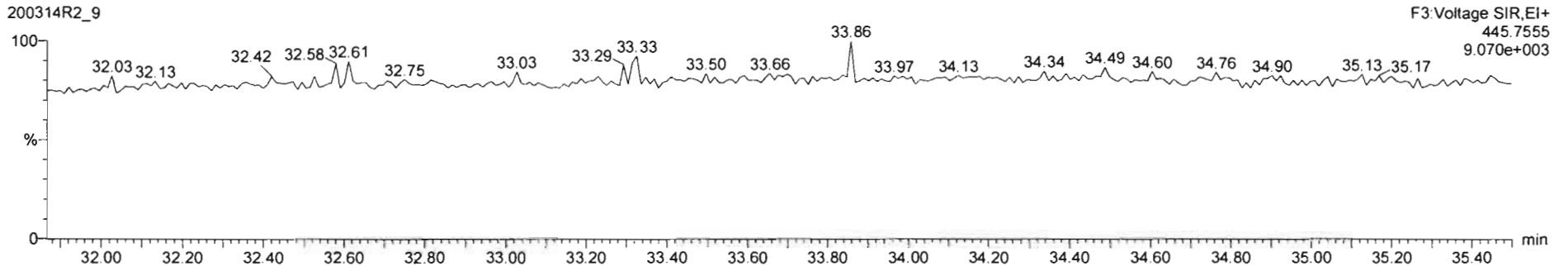
1,2,3,4,7,8-HxCDF



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

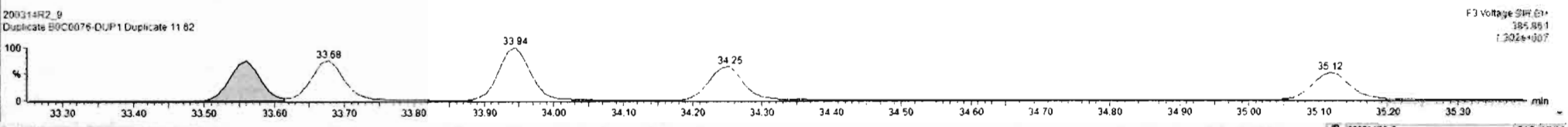
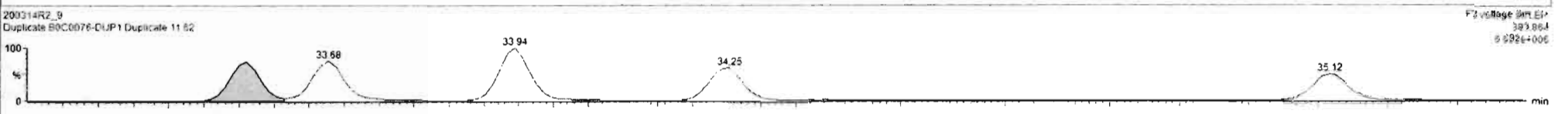
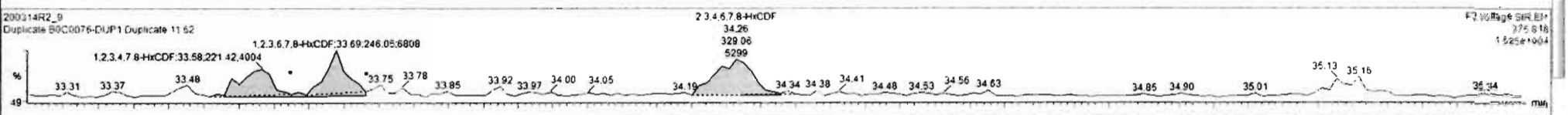
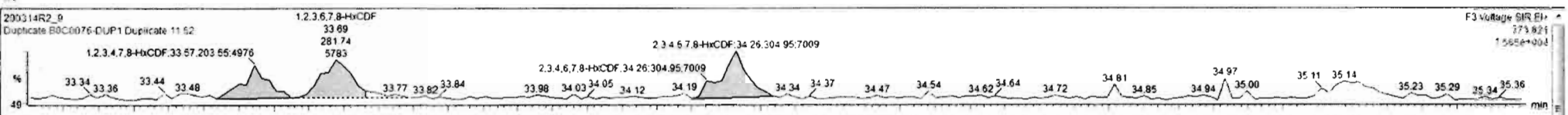


DPE3



Name	Resp	RA	nly	RRF	wtvol	RT	RRT	Conc	%Rec	DL	EMPC
46 Total Hexa-Furans				1.6929	10.196			2.67	0.0608	3.11	
47 Total Hexa-Furans				1.6911	10.164			7.61	0.1111	7.61	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Hexa-Furans	32.38	1.001e3	7.820e2	1.28	NO	0.45355	0.45355
2 Total Hexa-Furans	32.56	2.056e3	1.834e3	1.12	NO	0.56568	0.98968
3 Total Hexa-Furans	33.10	2.762e3	2.337e3	1.18	NO	1.2974	1.2974
4 1,2,3,4,7,8-HxCDF	33.57	2.036e2	2.214e2	0.92	YES	0.094640	0.00000
5 1,2,3,6,7,8-HxCDF	33.69	2.817e2	2.461e2	1.15	NO	0.12965	0.12965
6 2,3,4,6,7,8-HxCDF	34.26	3.049e2	3.291e2	0.92	YES	0.14114	0.00000



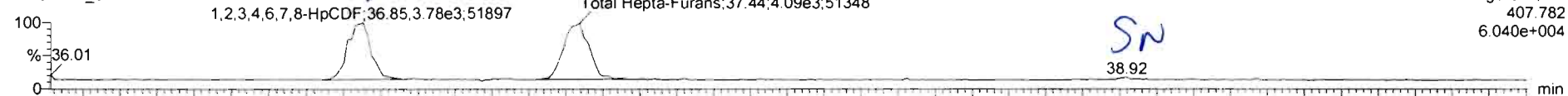
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

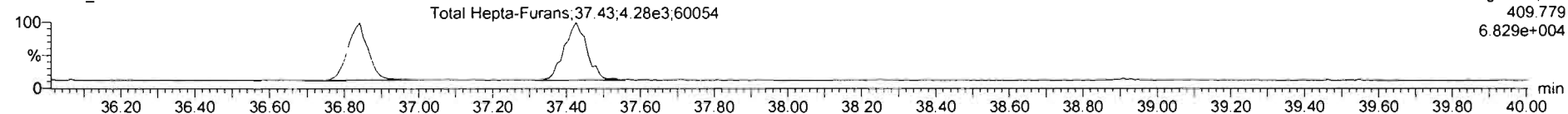
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**1,2,3,4,6,7,8-HpCDF**

200314R2\_9



200314R2\_9

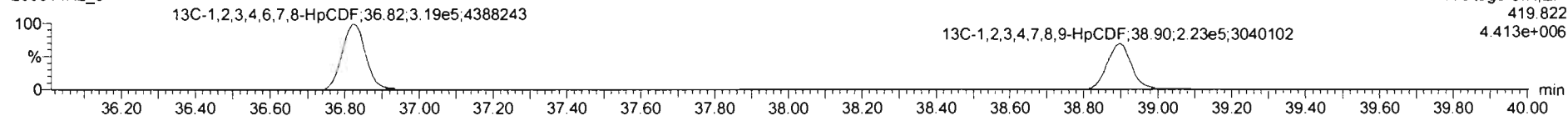


**13C-1,2,3,4,6,7,8-HpCDF**

200314R2\_9

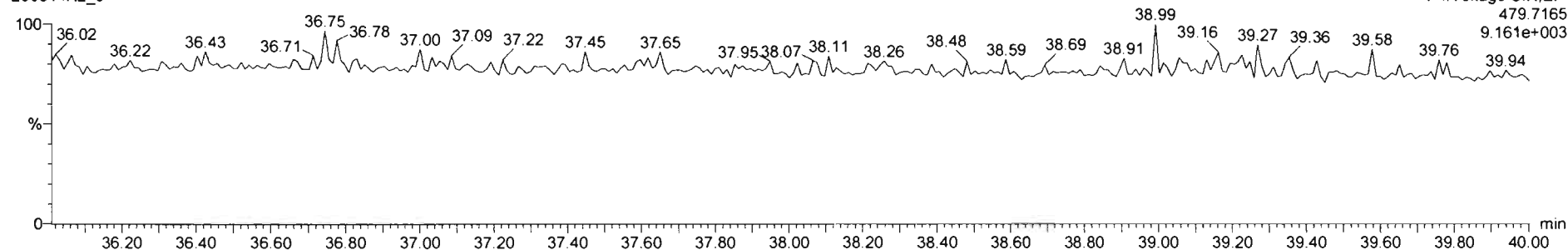


200314R2\_9



**DPE4**

200314R2\_9



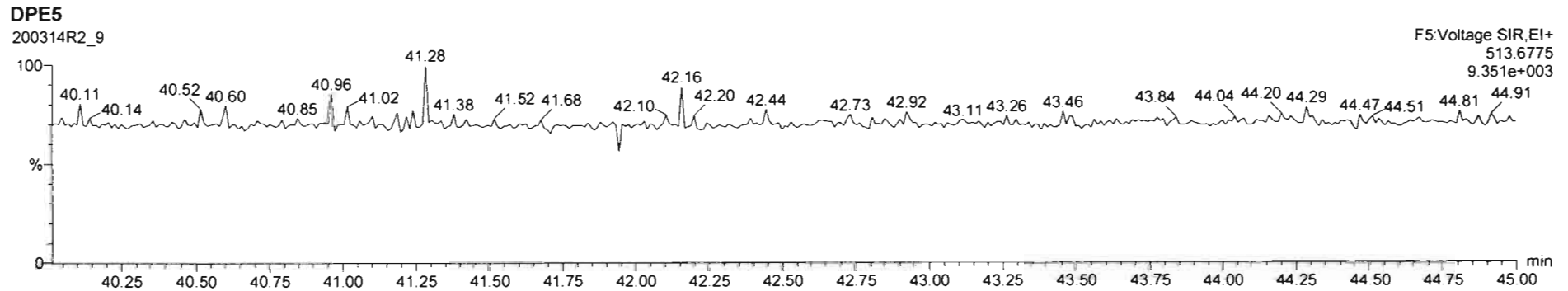
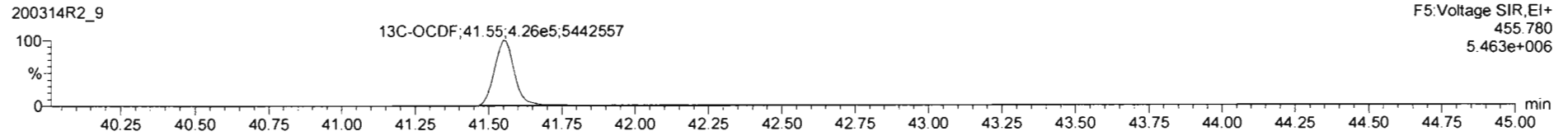
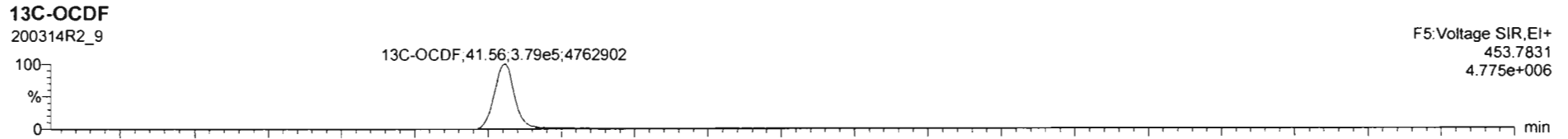
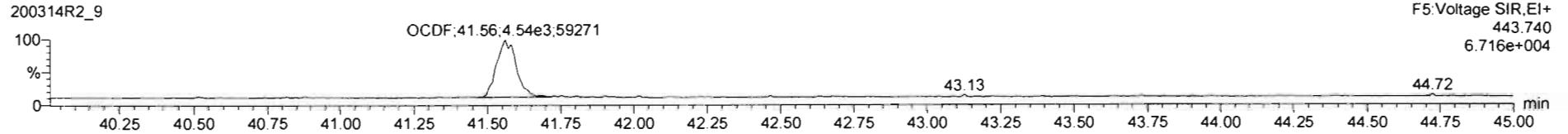
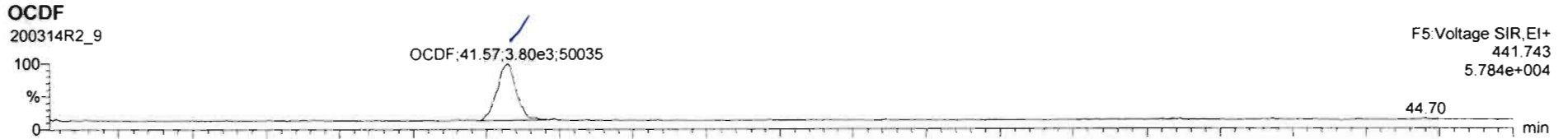


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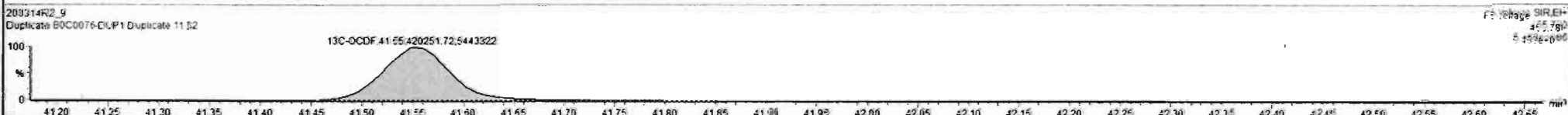
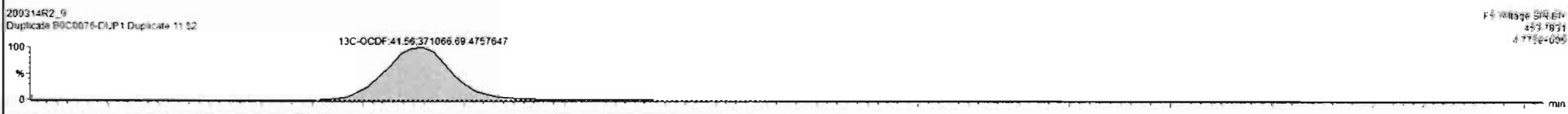
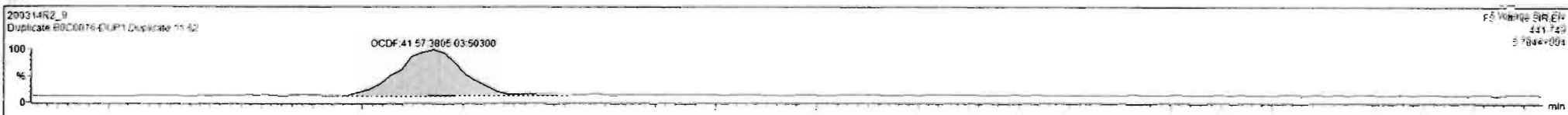
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Name: 200314R2\_9, Date: 14-Mar-2020, Time: 17:38:14, ID: B0C0076-DUP1 Duplicate 11.62, Description: Duplicate



Name	Resp	RA	n/y	RRF	wt/Vol	RT	RRT	Conc	%Rec	DL	EMPC
17	OCDF	0.33e3	0.54	NO	0.9463	10.166	41.57	1.000	4.30	0.124	4.30

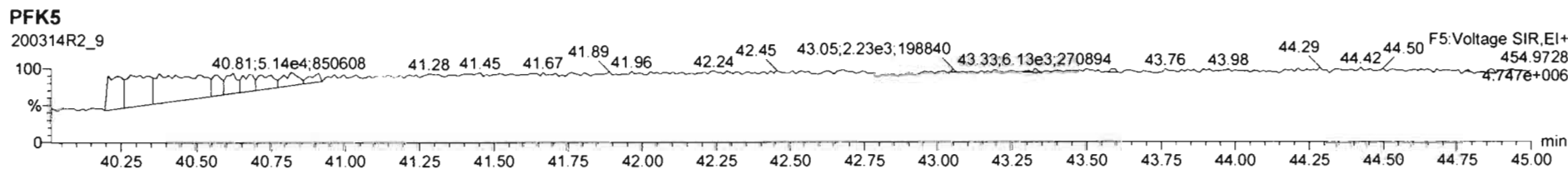
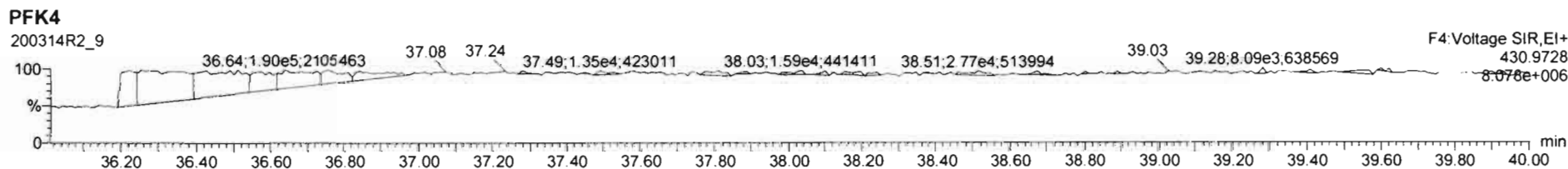
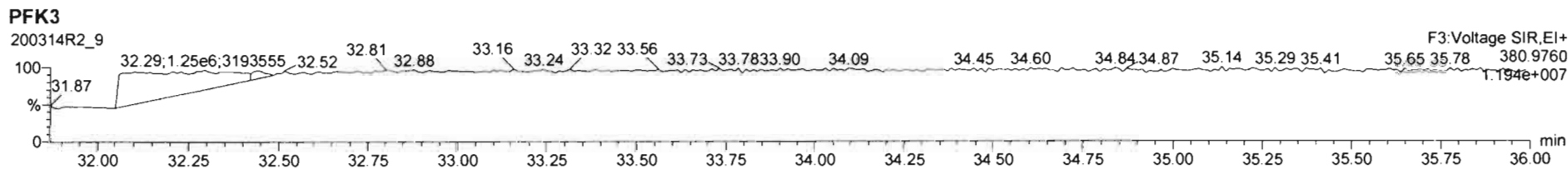
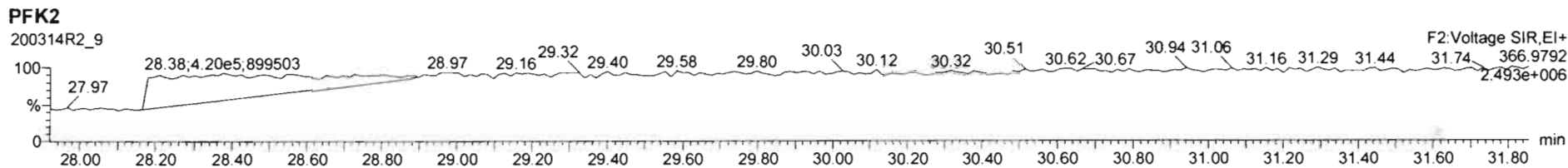
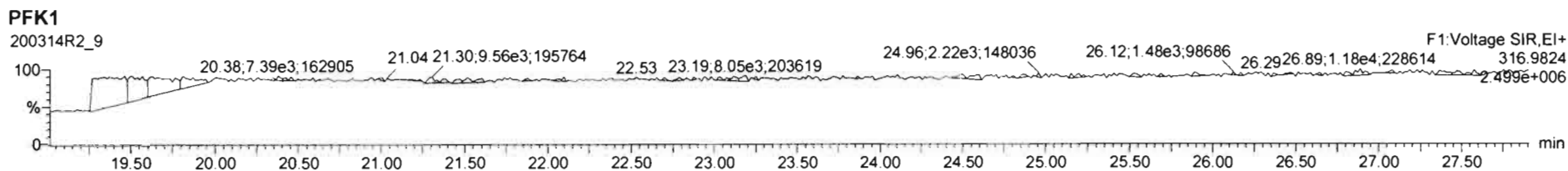
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1							



Dataset: Untitled

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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_9, Date: 14-Mar-2020, Time: 17:38:14, ID: B0C0076-DUP1 Duplicate 11.62, Description: Duplicate



Dataset: U:\VG12.PRO\Results\200314R2\200314R2-10.qld

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Printed: Sunday, March 15, 2020 12:30:05 PM Pacific Daylight Time

*GRB 03/15/2020*

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*MLK  
3/15/20*

Name: 200314R2\_10, Date: 14-Mar-2020, Time: 18:25:45, ID: 2000411-02 PDI-017SC-A-03-04-191003 12.65, Description: PDI-017SC-A-03-04-191003

#	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	0.983	10.003	25.751		1.001				0.0855	
2	2 1,2,3,7,8-PeCDD			NO	0.921	10.003	31.025		1.001				0.0682	
3	3 1,2,3,4,7,8-HxCDD			NO	1.13	10.003	34.423		1.000				0.0647	
4	4 1,2,3,6,7,8-HxCDD			NO	0.984	10.003	34.520		1.000				0.0654	
5	5 1,2,3,7,8,9-HxCDD			NO	0.967	10.003	34.796		1.000				0.0742	
6	6 1,2,3,4,6,7,8-HpCDD	4.53e3	1.04	NO	1.01	10.003	38.259	38.26	1.000	1.000	2.2666		0.144	2.27
7	7 OCDD	7.32e4	0.93	NO	1.05	10.003	41.336	41.35	1.000	1.000	31.863		0.146	31.9
8	8 2,3,7,8-TCDF			NO	0.915	10.003	24.758		1.001				0.0683	
9	9 1,2,3,7,8-PeCDF			NO	0.959	10.003	29.666		1.001				0.0740	
10	10 2,3,4,7,8-PeCDF	2.92e2	1.27	YES	1.00	10.003	30.713	30.71	1.001	1.001	0.049688		0.0653	0.0458
11	11 1,2,3,4,7,8-HxCDF			NO	1.04	10.003	33.561		1.000				0.0532	
12	12 1,2,3,6,7,8-HxCDF	7.47e2	1.50	YES	1.01	10.003	33.678	33.69	1.000	1.001	0.17449		0.0526	0.156
13	13 2,3,4,6,7,8-HxCDF	4.86e2	1.22	NO	1.09	10.003	34.277	34.25	1.001	1.000	0.11742		0.0529	0.117
14	14 1,2,3,7,8,9-HxCDF			NO	1.03	10.003	35.127		1.000				0.0726	
15	15 1,2,3,4,6,7,8-HpCDF	4.02e3	0.96	NO	1.05	10.003	36.868	36.85	1.001	1.001	1.4883		0.0576	1.49
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.003	38.897		1.000				0.0776	
17	17 OCDF	1.90e3	0.97	NO	0.947	10.003	41.517	41.54	1.000	1.001	0.80190		0.0782	0.802
18	18 13C-2,3,7,8-TCDD	1.07e6	0.77	NO	1.18	10.003	25.720	25.72	1.029	1.029	197.70	98.9	0.277	
19	19 13C-1,2,3,7,8-PeCDD	8.37e5	0.63	NO	0.864	10.003	30.900	31.00	1.236	1.240	211.48	106	0.233	
20	20 13C-1,2,3,4,7,8-HxCDD	5.72e5	1.29	NO	0.754	10.003	34.417	34.41	1.014	1.014	178.06	89.1	0.315	
21	21 13C-1,2,3,6,7,8-HxCDD	6.65e5	1.27	NO	0.925	10.003	34.525	34.52	1.017	1.017	168.41	84.2	0.257	
22	22 13C-1,2,3,7,8,9-HxCDD	5.94e5	1.26	NO	0.829	10.003	34.787	34.79	1.025	1.025	167.88	84.0	0.287	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.97e5	1.05	NO	0.598	10.003	38.242	38.25	1.127	1.127	155.81	77.9	0.330	
24	24 13C-OCDD	8.74e5	0.90	NO	0.571	10.003	41.389	41.34	1.219	1.218	358.73	89.7	0.436	
25	25 13C-2,3,7,8-TCDF	1.41e6	0.78	NO	1.09	10.003	24.742	24.73	0.990	0.989	182.94	91.5	0.446	
26	26 13C-1,2,3,7,8-PeCDF	1.18e6	1.65	NO	0.876	10.003	29.572	29.65	1.183	1.186	189.72	94.9	0.554	
27	27 13C-2,3,4,7,8-PeCDF	1.17e6	1.60	NO	0.844	10.003	30.582	30.68	1.223	1.227	196.01	98.0	0.576	
28	28 13C-1,2,3,4,7,8-HxCDF	7.76e5	0.51	NO	1.00	10.003	33.565	33.56	0.989	0.989	181.82	90.9	0.364	
29	29 13C-1,2,3,6,7,8-HxCDF	8.45e5	0.50	NO	1.12	10.003	33.673	33.67	0.992	0.992	177.29	88.7	0.326	
30	30 13C-2,3,4,6,7,8-HxCDF	7.57e5	0.51	NO	1.04	10.003	34.254	34.24	1.009	1.009	171.56	85.8	0.352	
31	31 13C-1,2,3,7,8,9-HxCDF	6.43e5	0.49	NO	0.873	10.003	35.126	35.13	1.035	1.035	172.75	86.4	0.417	

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-10.qld

Last Altered: Sunday, March 15, 2020 12:29:18 PM Pacific Daylight Time

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Name: 200314R2\_10, Date: 14-Mar-2020, Time: 18:25:45, ID: 2000411-02 PDI-017SC-A-03-04-191003 12.65, Description: PDI-017SC-A-03-04-191003

#	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	5.16e5	0.45	NO	0.771	10.003	36.841	36.83	1.085	1.085	156.86	78.5	0.317	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.52e5	0.47	NO	0.519	10.003	38.925	38.90	1.147	1.146	159.15	79.6	0.471	
34	34 13C-OCDF	9.99e5	0.89	NO	0.696	10.003	41.569	41.52	1.225	1.223	336.51	84.2	0.317	
35	35 37Cl-2,3,7,8-TCDD	4.05e5			1.17	10.003	25.730	25.74	1.029	1.029	75.327	94.2	0.0412	
36	36 13C-1,2,3,4-TCDD	9.16e5	0.79	NO	1.00	10.003	25.050	25.00	1.000	1.000	199.94	100	0.328	
37	37 13C-1,2,3,4-TCDF	1.42e6	0.78	NO	1.00	10.003	23.190	23.07	1.000	1.000	199.94	100	0.486	
38	38 13C-1,2,3,4,6,9-HxCDF	8.53e5	0.51	NO	1.00	10.003	33.880	33.94	1.000	1.000	199.94	100	0.364	
39	39 Total Tetra-Dioxins				0.983	10.003	24.620		0.000				0.0541	
40	40 Total Penta-Dioxins				0.921	10.003	29.960		0.000		0.00000		0.0263	0.0858
41	41 Total Hexa-Dioxins				0.984	10.003	33.635		0.000		1.0908		0.0707	1.09
42	42 Total Hepta-Dioxins				1.01	10.003	37.640		0.000		6.1777		0.144	6.18
43	43 Total Tetra-Furans				0.915	10.003	23.610		0.000		1.1333		0.0683	1.13
44	44 1st Func. Penta-Furans				0.959	10.003	27.090		0.000		1.1998		0.0288	1.20
45	45 Total Penta-Furans				0.959	10.003	29.275		0.000		0.67251		0.0712	0.718
46	46 Total Hexa-Furans				1.09	10.003	33.555		0.000		2.0557		0.0544	2.21
47	47 Total Hepta-Furans				1.05	10.003	37.835		0.000		3.0739		0.0706	3.07

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-10.qld

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Printed: Sunday, March 15, 2020 12:30:05 PM Pacific Daylight Time

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Name: 200314R2\_10, Date: 14-Mar-2020, Time: 18:25:45, ID: 2000411-02 PDI-017SC-A-03-04-191003 12.65, Description: PDI-017SC-A-03-04-191003

**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	Total Penta-Dioxins	28.67	2.246e3	3.731e3	1.279e2	2.437e2	0.52	YES	0.000e0	0.00000	0.085769	0.0263

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.94	1.966e4	1.768e4	9.521e2	8.607e2	1.11	NO	1.813e3	0.60332	0.60332	0.0707
2	Total Hexa-Dioxins	33.76	1.403e4	1.006e4	8.327e2	6.319e2	1.32	NO	1.465e3	0.48744	0.48744	0.0707

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.22	5.980e4	5.668e4	4.113e3	3.709e3	1.11	NO	7.822e3	3.9111	3.9111	0.144
2	1,2,3,4,6,7,8-HpCDD	38.26	3.348e4	2.942e4	2.306e3	2.227e3	1.04	NO	4.533e3	2.2666	2.2666	0.144

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.88	2.553e3	3.232e3	2.081e2	2.685e2	0.77	NO	4.765e2	0.073678	0.073678	0.0683
2	Total Tetra-Furans	20.45	1.330e4	2.113e4	1.045e3	1.577e3	0.66	NO	2.622e3	0.40544	0.40544	0.0683
3	Total Tetra-Furans	21.36	5.426e3	8.479e3	4.643e2	6.453e2	0.72	NO	1.110e3	0.17157	0.17157	0.0683
4	Total Tetra-Furans	21.81	7.266e3	7.933e3	5.728e2	7.558e2	0.76	NO	1.329e3	0.20542	0.20542	0.0683
5	Total Tetra-Furans	22.97	5.450e3	7.083e3	5.032e2	7.297e2	0.69	NO	1.233e3	0.19064	0.19064	0.0683
6	Total Tetra-Furans	26.93	3.061e3	4.302e3	2.456e2	3.142e2	0.78	NO	5.599e2	0.086563	0.086563	0.0683

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-10.qld

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Printed: Sunday, March 15, 2020 12:30:05 PM Pacific Daylight Time

Name: 200314R2\_10, Date: 14-Mar-2020, Time: 18:25:45, ID: 2000411-02 PDI-017SC-A-03-04-191003 12.65, Description: PDI-017SC-A-03-04-191003

**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	26.93	6.847e4	3.829e4	4.236e3	2.531e3	1.67	NO	6.768e3	1.1998	1.1998	0.0288

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.64	1.952e4	8.421e3	1.384e3	8.057e2	1.72	NO	2.190e3	0.38828	0.38828	0.0712
2	Total Penta-Furans	29.26	1.169e4	7.866e3	6.084e2	3.853e2	1.58	NO	9.938e2	0.17619	0.17619	0.0712
3	2,3,4,7,8-PeCDF	30.71	5.447e3	4.998e3	1.638e2	1.285e2	1.27	YES	2.923e2	0.00000	0.045812	0.0653
4	Total Penta-Furans	30.74	8.802e3	6.064e3	3.622e2	2.472e2	1.47	NO	6.094e2	0.10805	0.10805	0.0712

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.39	1.608e4	9.859e3	6.436e2	4.909e2	1.31	NO	1.135e3	0.27504	0.27504	0.0544
2	Total Hexa-Furans	32.56	3.058e4	2.190e4	1.487e3	1.160e3	1.28	NO	2.647e3	0.64173	0.64173	0.0544
3	Total Hexa-Furans	33.11	5.336e4	4.131e4	2.334e3	1.880e3	1.24	NO	4.214e3	1.0215	1.0215	0.0544
4	1,2,3,6,7,8-HxCDF	33.69	1.004e4	6.111e3	4.486e2	2.982e2	1.50	YES	7.467e2	0.00000	0.15607	0.0526
5	2,3,4,6,7,8-HxCDF	34.25	4.608e3	5.633e3	2.665e2	2.192e2	1.22	NO	4.857e2	0.11742	0.11742	0.0529

**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	36.85	2.755e4	3.087e4	1.970e3	2.053e3	0.96	NO	4.023e3	1.4883	1.4883	0.0576
2	Total Hepta-Furans	37.44	2.712e4	2.741e4	1.822e3	1.786e3	1.02	NO	3.608e3	1.5856	1.5856	0.0706

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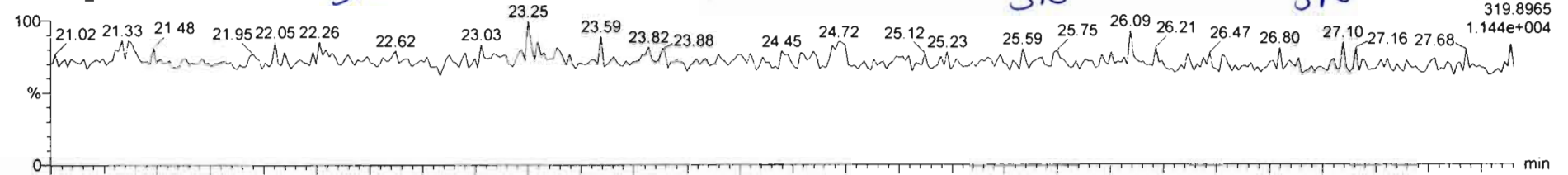
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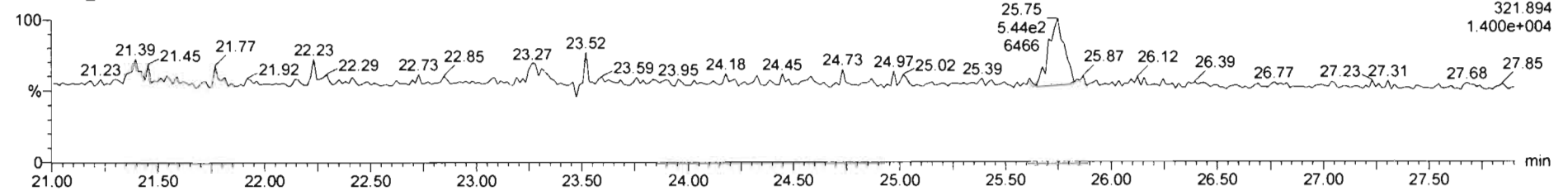
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**2,3,7,8-TCDD**

200314R2\_10

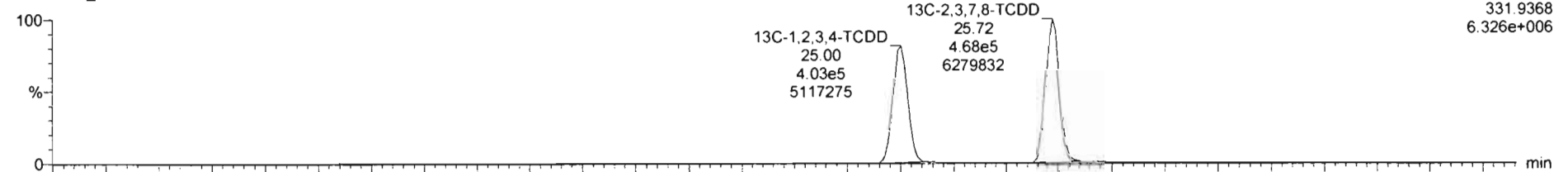


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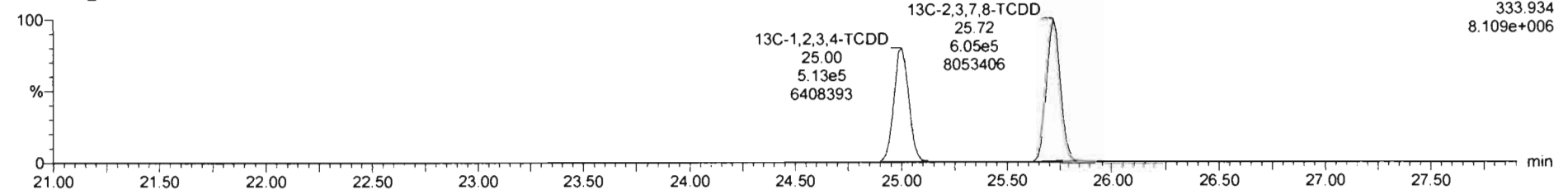


**13C-2,3,7,8-TCDD**

200314R2\_10



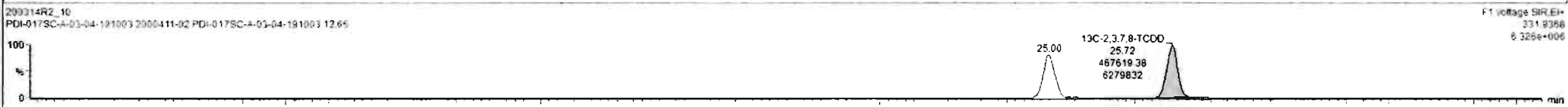
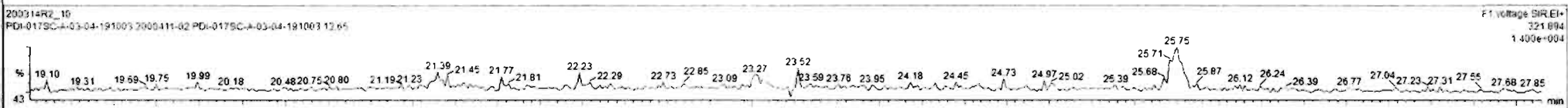
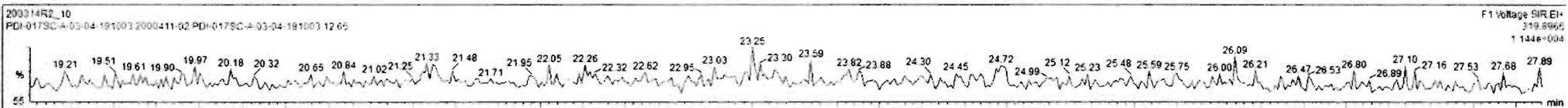
200314R2\_10





Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.983					0.0541	
40 Total Dioxin, Furoxins				0.9317	10.903					0.0541	

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



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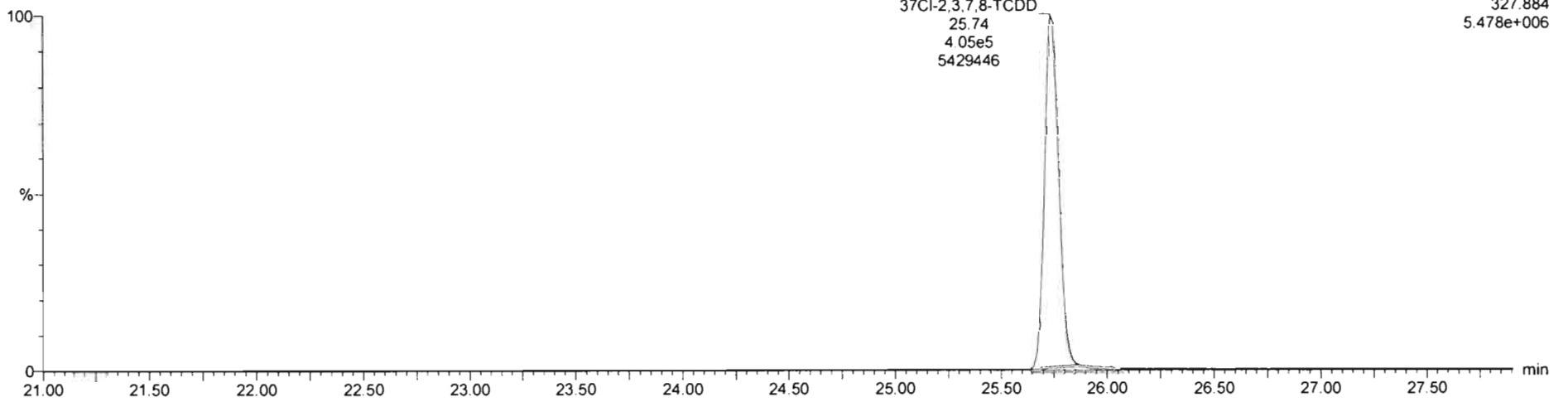
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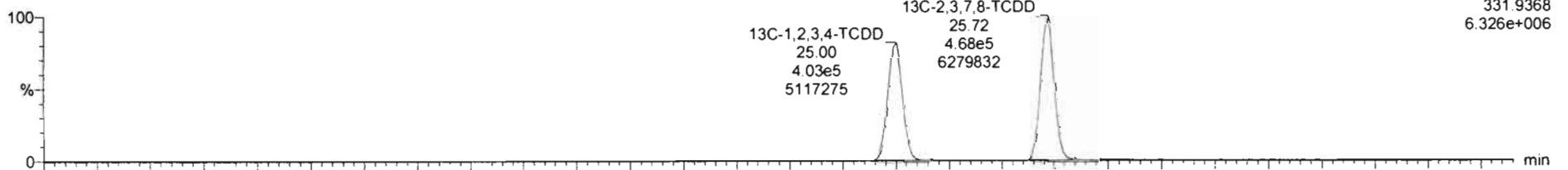
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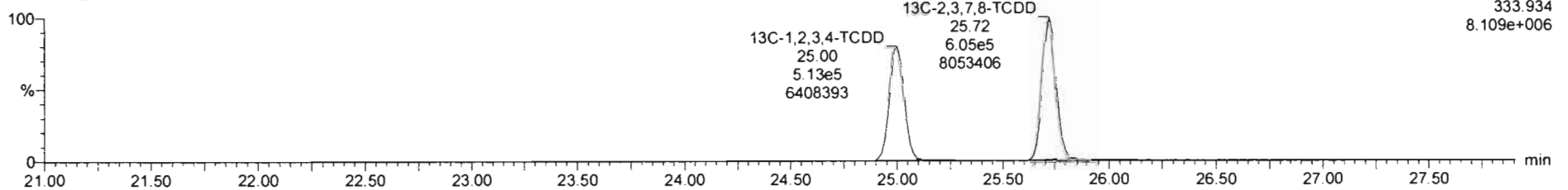


13C-1,2,3,4-TCDD

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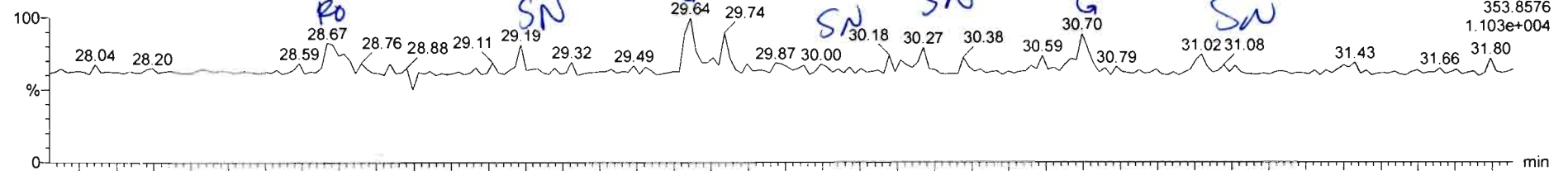
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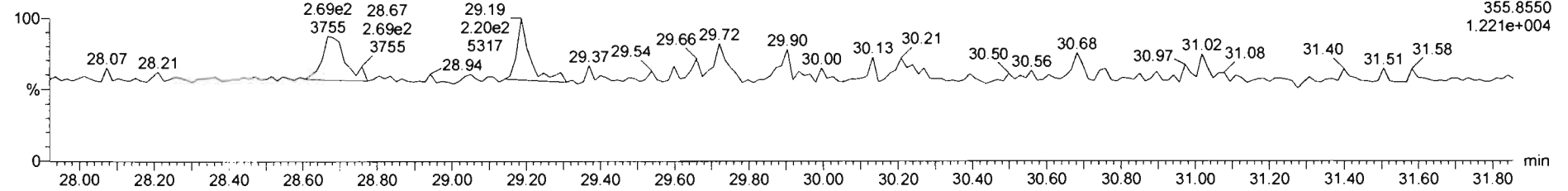
1,2,3,7,8-PeCDD

200314R2\_10



F2:Voltage SIR,EI+  
353.8576  
1.103e+004

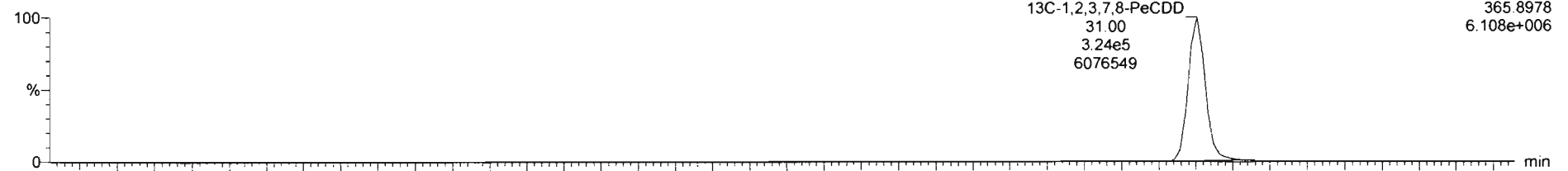
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F2:Voltage SIR,EI+  
355.8550  
1.221e+004

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

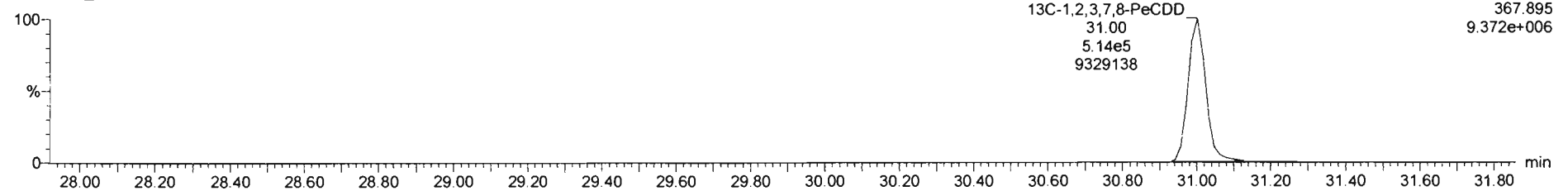
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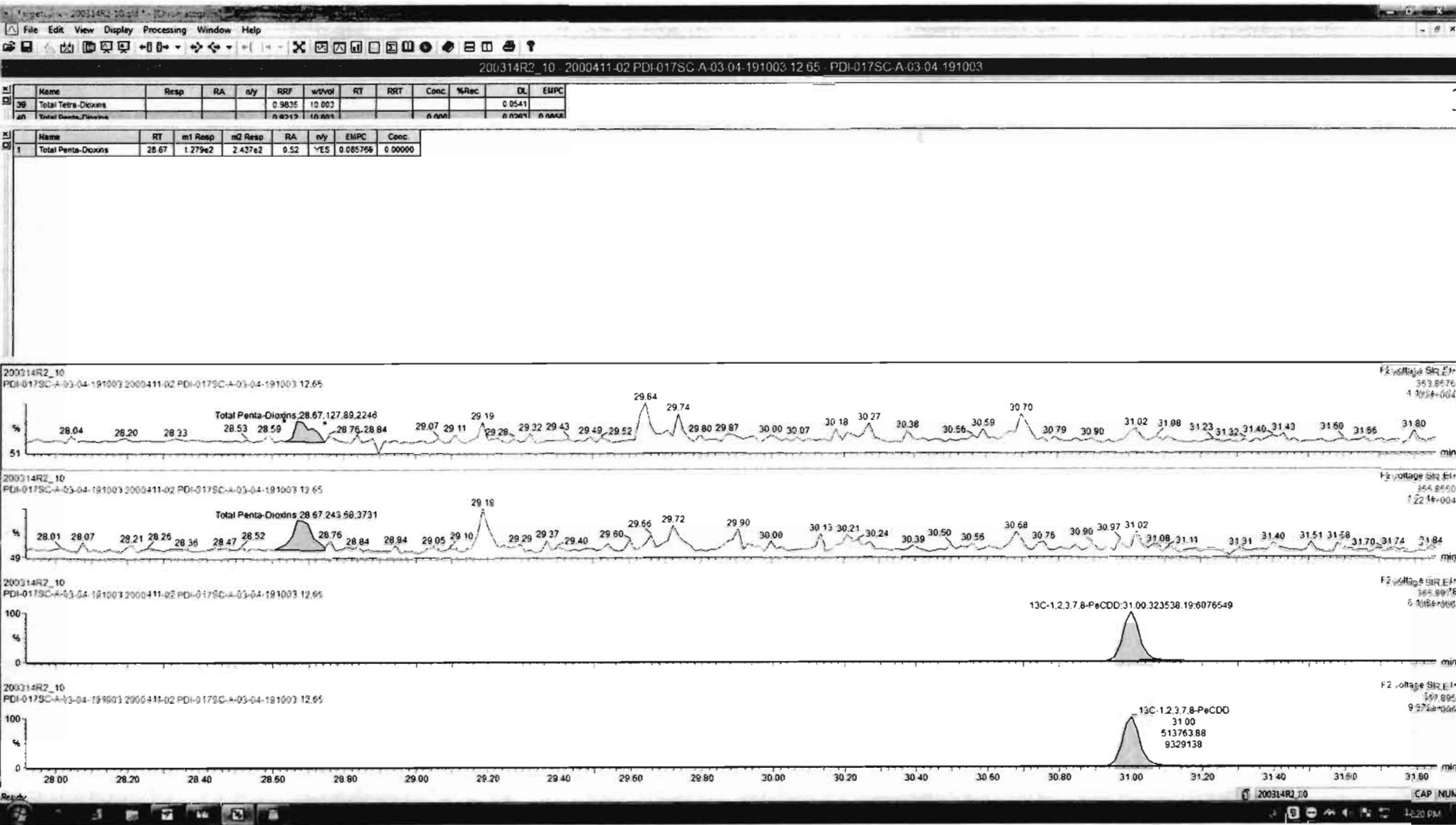
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6.108e+006

200314R2\_10



13C-1,2,3,7,8-PeCDD  
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F2:Voltage SIR,EI+  
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9.372e+006



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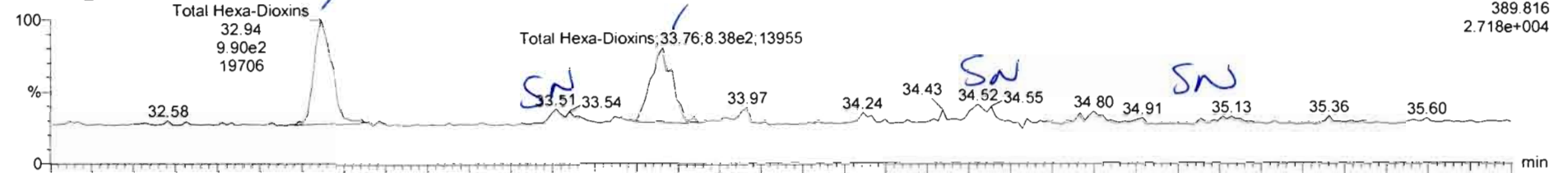
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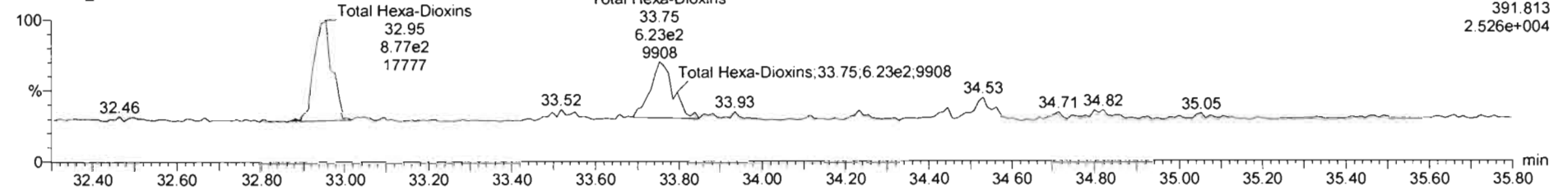
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1,2,3,4,7,8-HxCDD

200314R2\_10

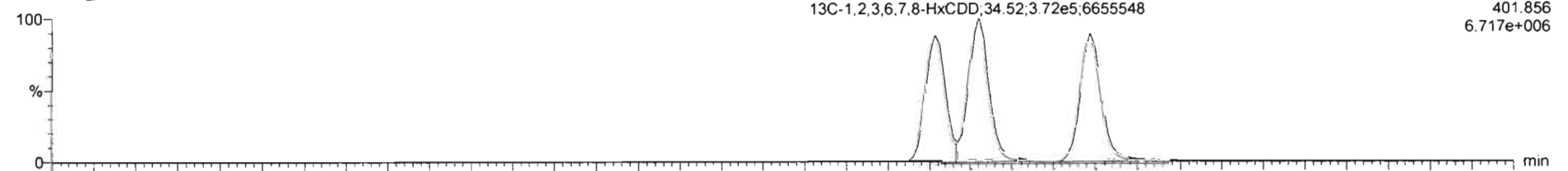


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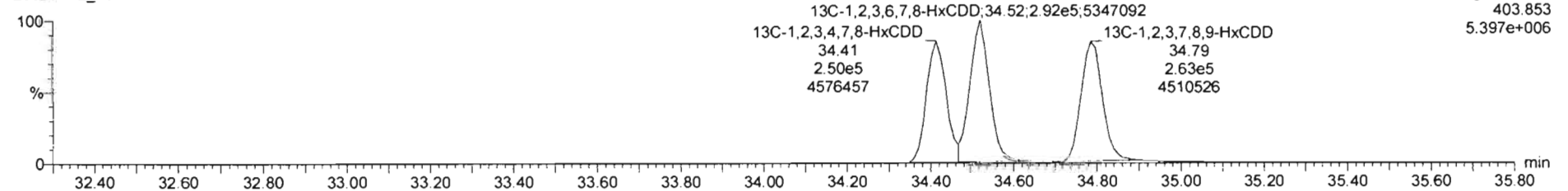


13C-1,2,3,4,7,8-HxCDD

200314R2\_10



200314R2\_10



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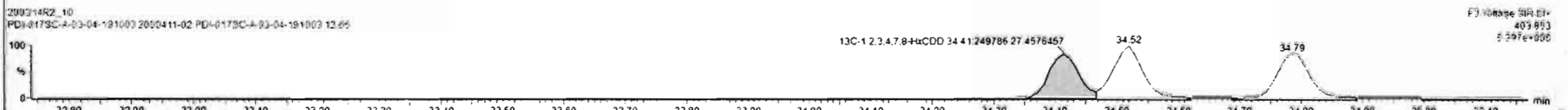
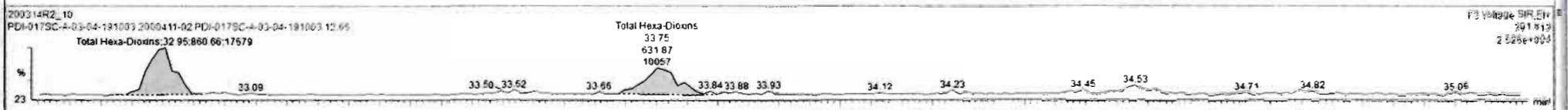
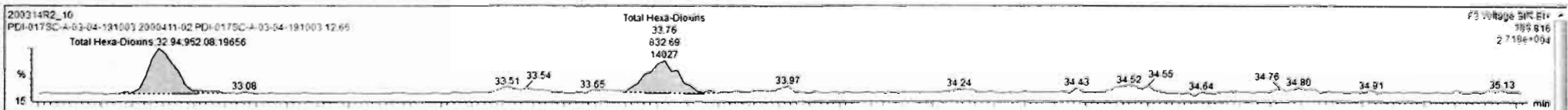
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200314R2\_10 - 2000411-02 PDI-017SC-A-03-04-191003 12.65 - PDI-017SC-A-03-04-191003

Name	Resp	RA	n/y	RRF	w/Vol	RT	RRT	Conc	%Rec	DL	EMPC
41 Total Hexa-Dioxins	0.8844	10.863						1.09	0.0707	1.09	
42 Total Hexa-Perylene	1.0061	11.063						1.18	0.144	1.18	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Dioxins	33.76	6.327e2	6.319e2	1.32	NO	0.48744	0.48744
2 Total Hexa-Dioxins	32.94	9.521e2	8.607e2	1.11	NO	6.60332	0.60332



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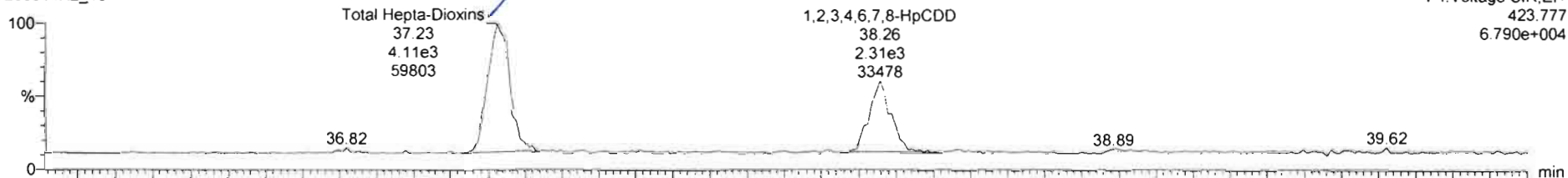
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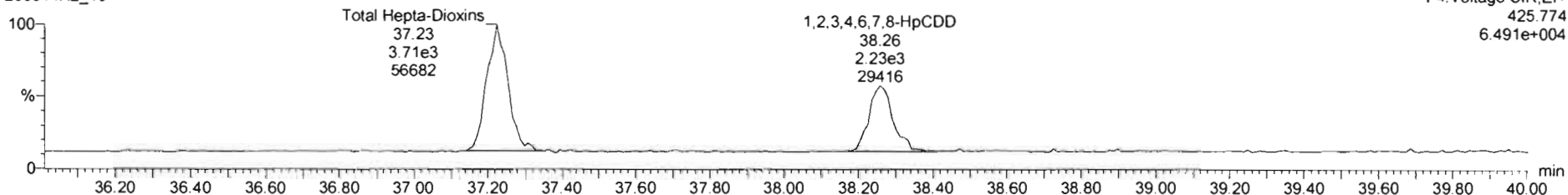
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1,2,3,4,6,7,8-HpCDD

200314R2\_10

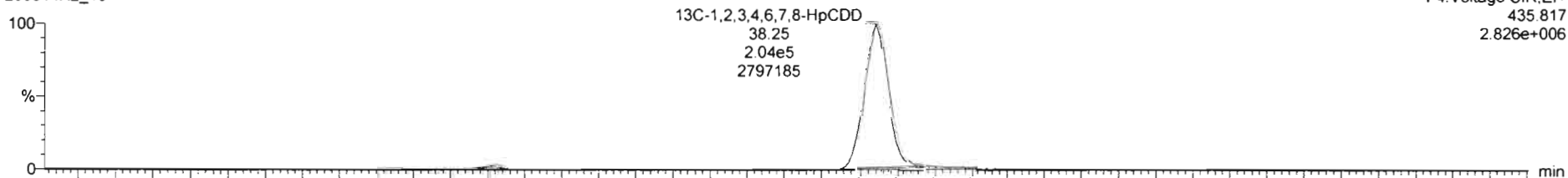


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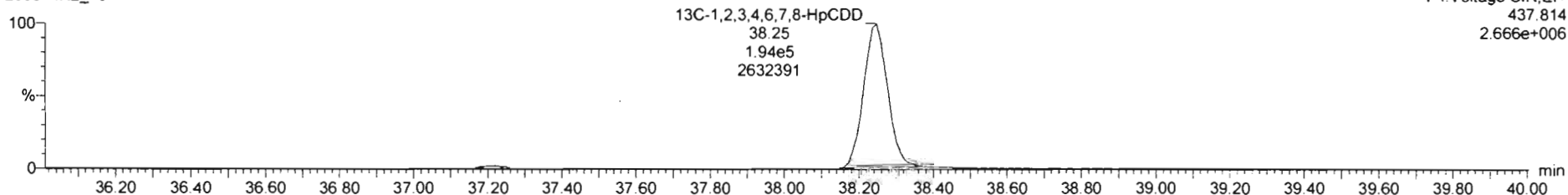


13C-1,2,3,4,6,7,8-HpCDD

200314R2\_10



200314R2\_10

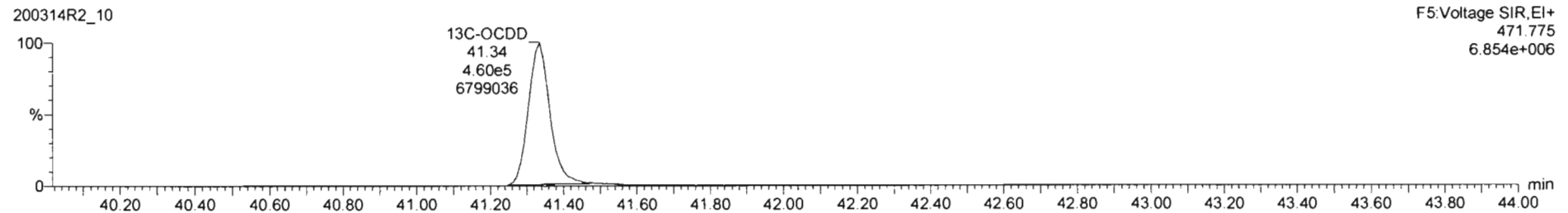
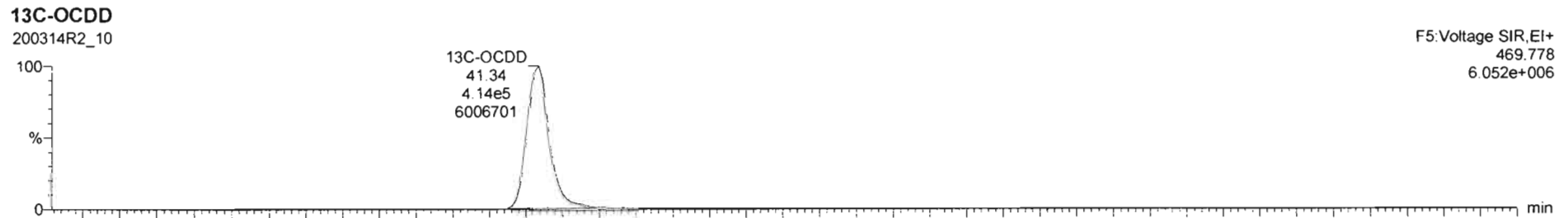
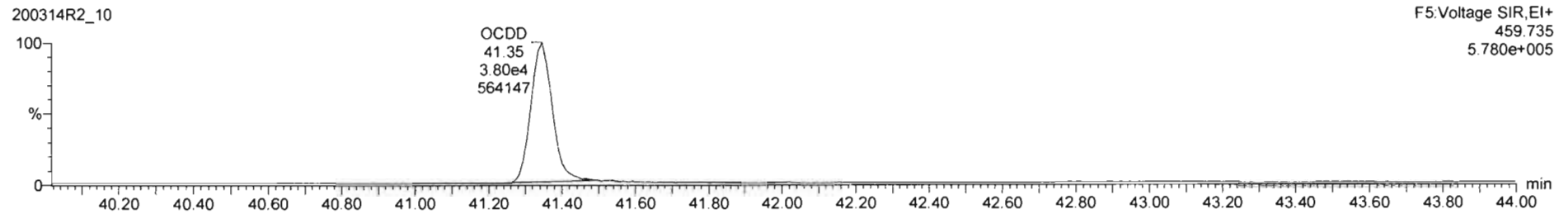
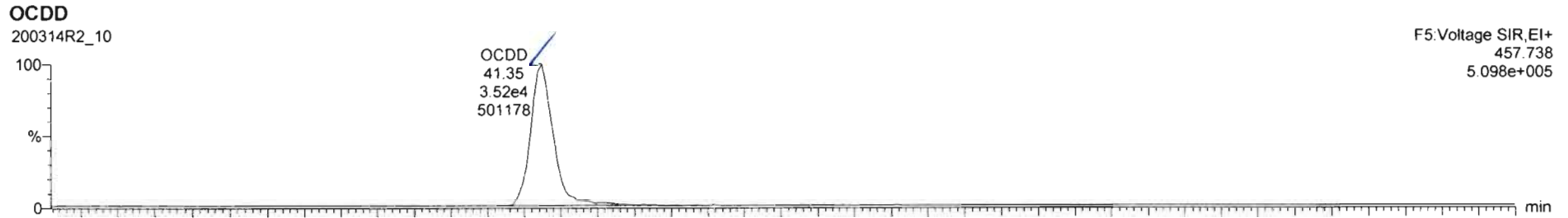


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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_10, Date: 14-Mar-2020, Time: 18:25:45, ID: 2000411-02 PDI-017SC-A-03-04-191003 12.65, Description: PDI-017SC-A-03-04-191003



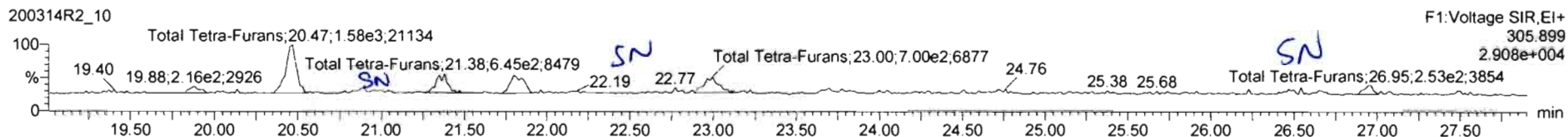
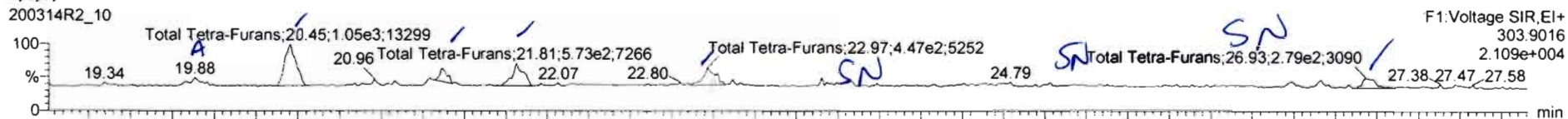


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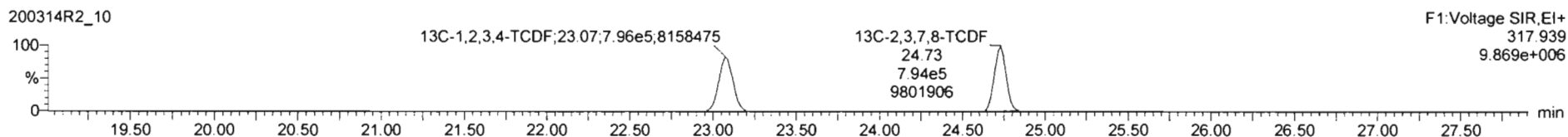
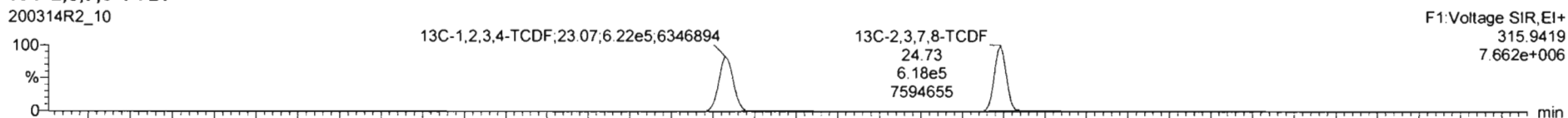
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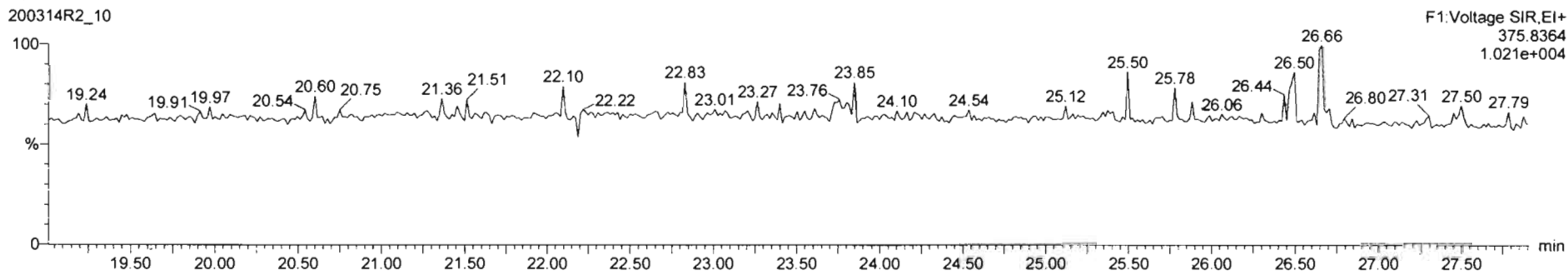
**2,3,7,8-TCDF**

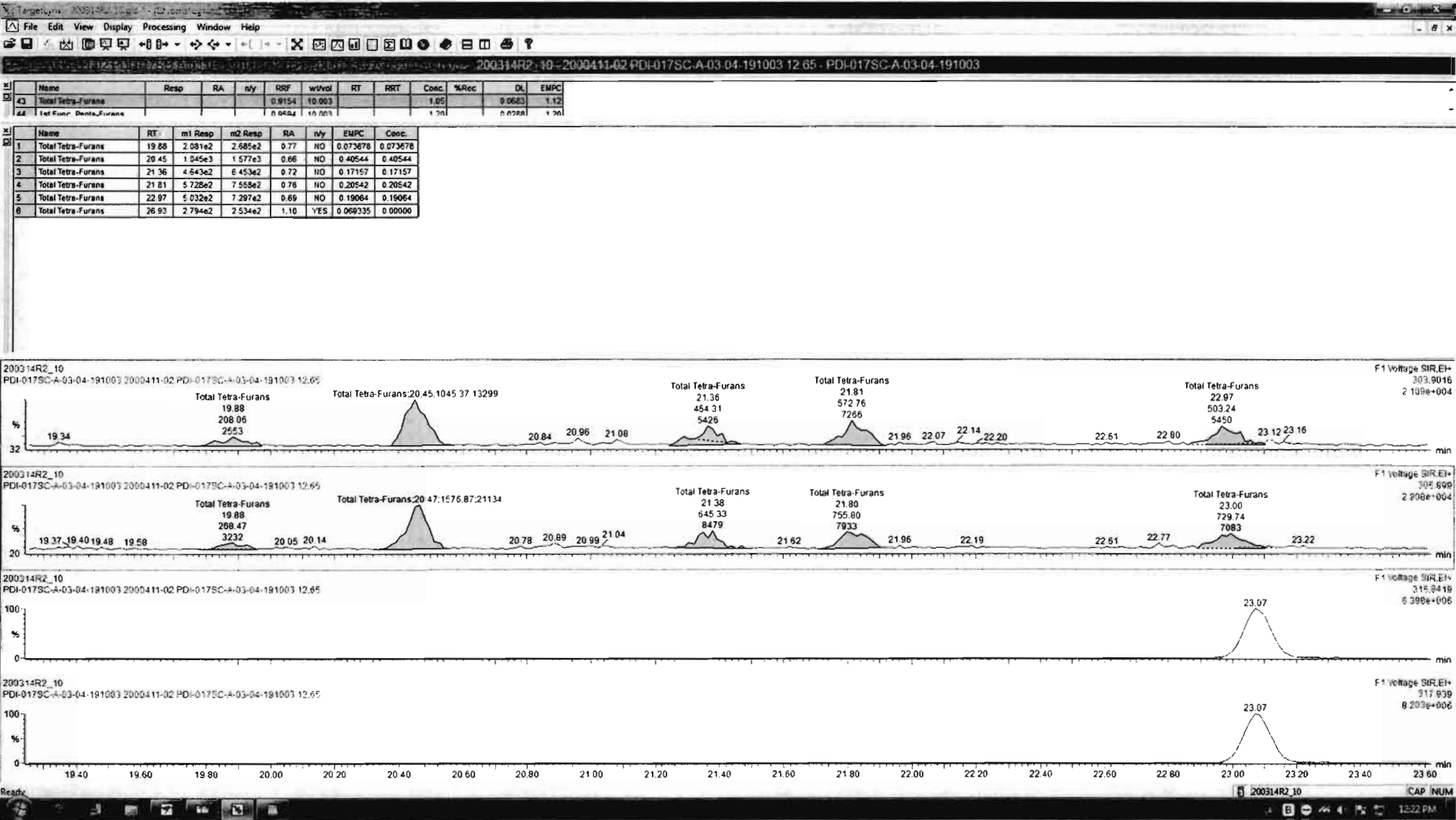


**13C-2,3,7,8-TCDF**



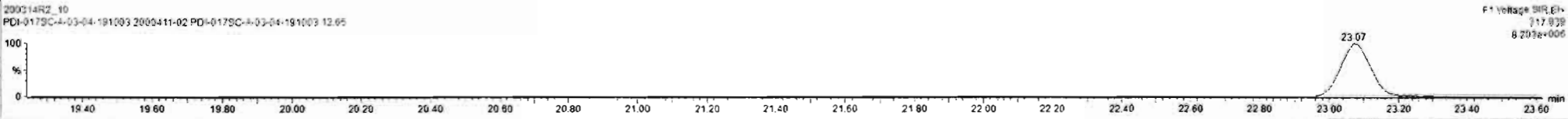
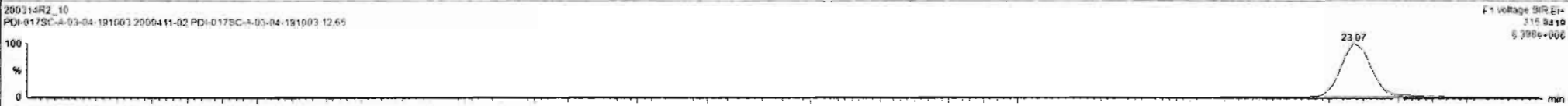
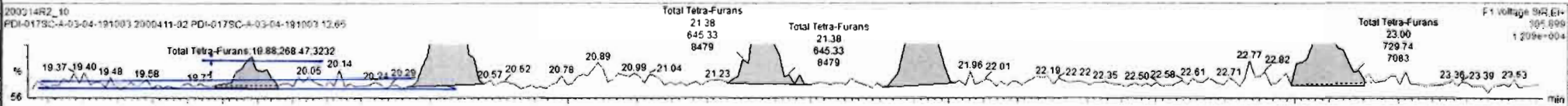
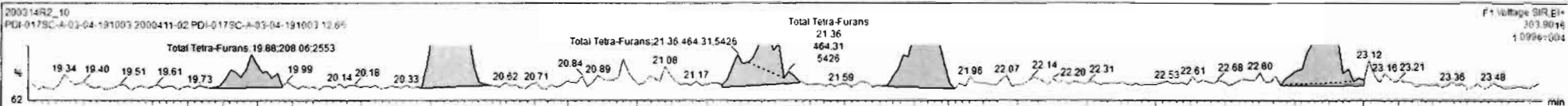
**DPE1**





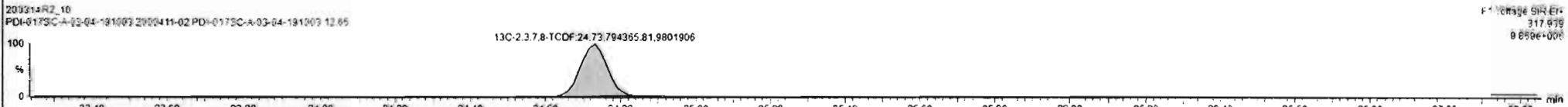
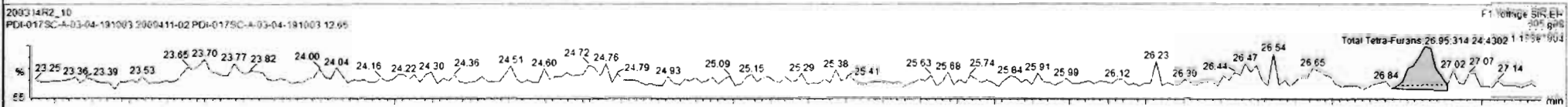
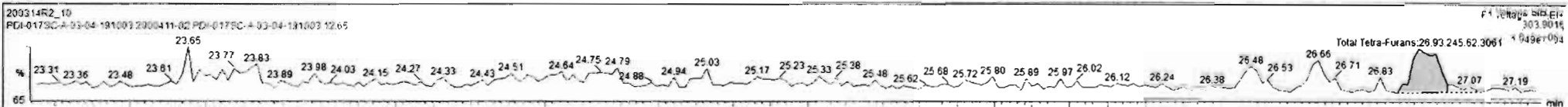
Name	Resp	RA	n/y	RRF	wVol	RT	RRT	Conc	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9154	10.003			1.05		0.0623	1.12
44 Tot Furans Dests-Furans				0.0454	10.003			1.50		0.0762	1.50

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Tetra-Furans	19.88	2.081e2	2.685e2	0.77	NO	0.073878	0.073878
2 Total Tetra-Furans	20.45	1.045e3	1.577e3	0.66	NO	0.40544	0.40544
3 Total Tetra-Furans	21.38	4.643e2	6.453e2	0.72	NO	0.17157	0.17157
4 Total Tetra-Furans	21.81	5.728e2	7.558e2	0.76	NO	0.20542	0.20542
5 Total Tetra-Furans	22.37	5.032e2	7.297e2	0.69	NO	0.19064	0.19064
6 Total Tetra-Furans	26.53	2.794e2	2.534e2	1.10	YES	0.068335	0.00000



Name	Resp	RA	nly	RRF	wtvol	RT	RRT	Conc	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9154	10.003			1.13	0.0683	1.13	
44 Tetra-Furans				0.9404	10.003			1.30	0.0788	1.30	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1 Total Tetra-Furans	19.88	2.081e2	2.585e2	0.77	NO	0.073678	0.073678
2 Total Tetra-Furans	20.45	1.045e3	1.577e3	0.66	NO	0.40544	0.40544
3 Total Tetra-Furans	21.36	4.643e2	6.453e2	0.72	NO	0.17157	0.17157
4 Total Tetra-Furans	21.81	5.728e2	7.558e2	0.76	NO	0.20542	0.20542
5 Total Tetra-Furans	22.97	5.032e2	7.297e2	0.69	NO	0.19064	0.19064
6 Total Tetra-Furans	26.93	2.456e2	3.142e2	0.78	NO	0.086563	0.086563



Dataset: Untitled

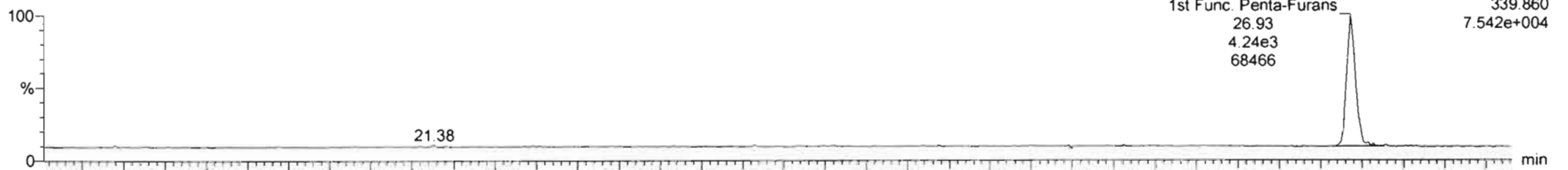
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

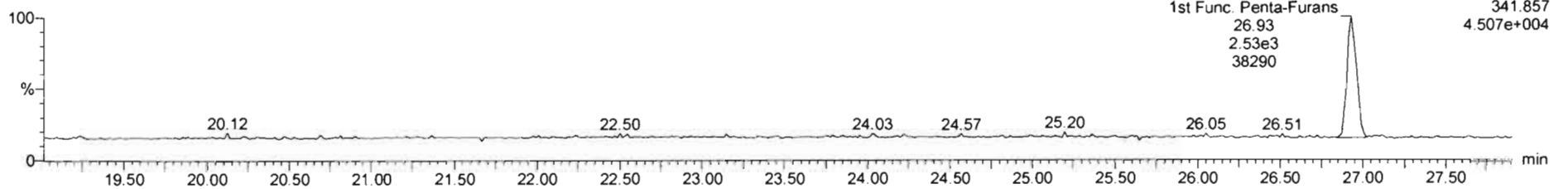
Name: 200314R2\_10, Date: 14-Mar-2020, Time: 18:25:45, ID: 2000411-02 PDI-017SC-A-03-04-191003 12.65, Description: PDI-017SC-A-03-04-191003

1st Func. Penta-Furans

200314R2\_10

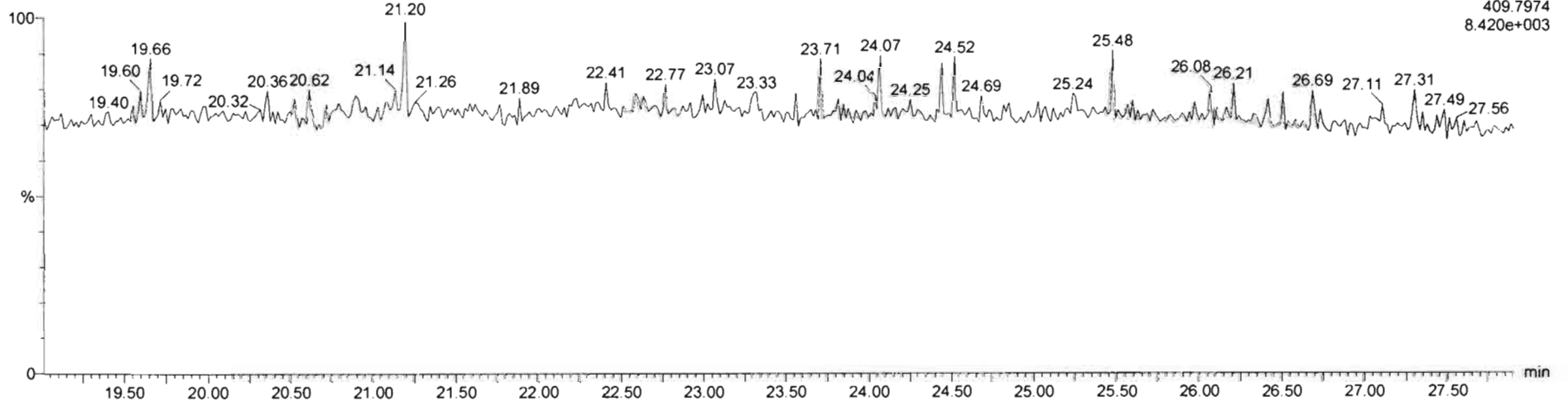


200314R2\_10



DPE6

200314R2\_10

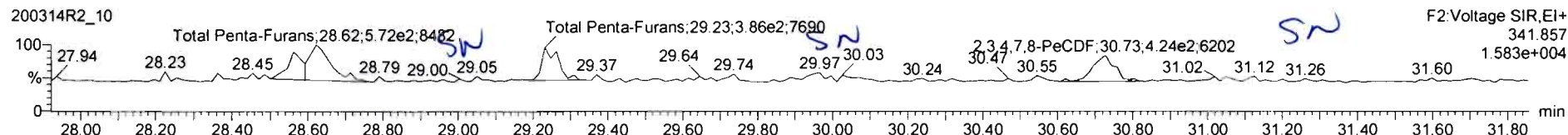
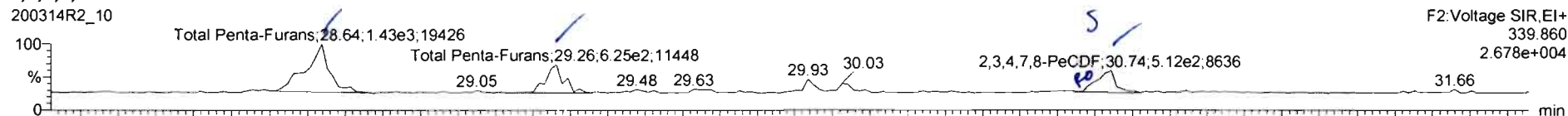


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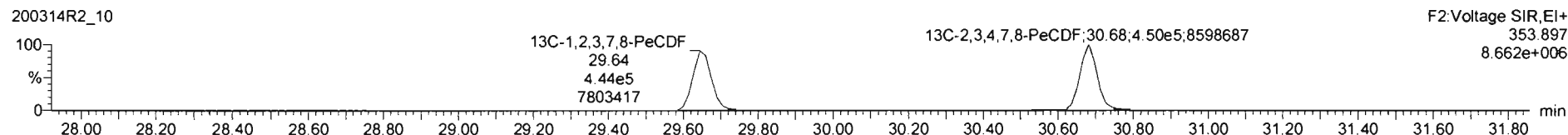
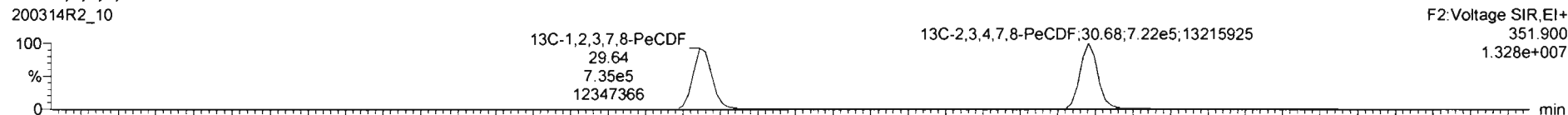
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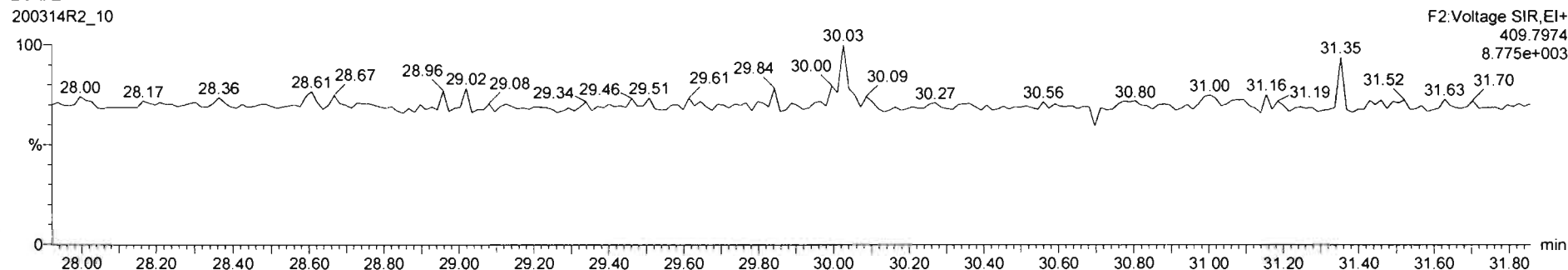
1,2,3,7,8-PeCDF



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

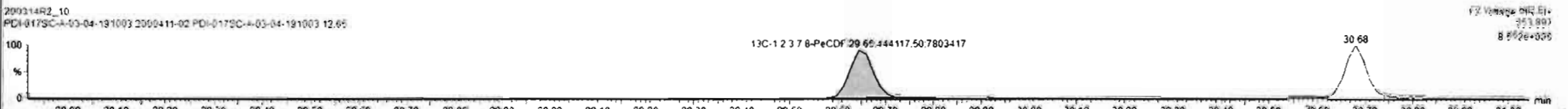
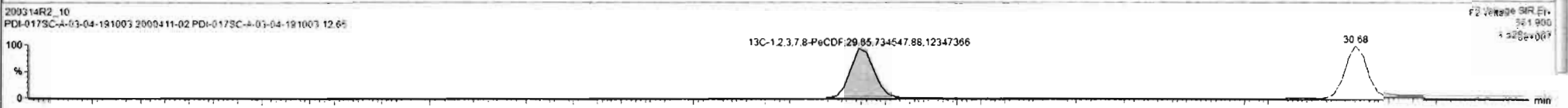
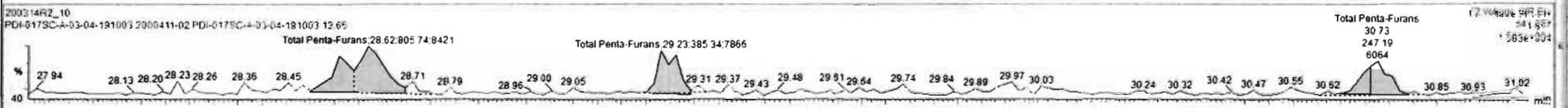


DPE2



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans	0.9594	10.003						0.673		0.0712	0.718
46 Total Hexa-Furans	1.0020	10.003						0.644		0.0712	0.718

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Penta-Furans	28.64	1.384e3	6.057e2	1.72	NO	0.38628	0.38628
2 Total Penta-Furans	29.26	6.084e2	3.853e2	1.58	NO	0.17619	0.17619
3 2,3,4,7,8-PeCDF	30.71	1.638e2	1.285e2	1.27	YES	0.045812	0.00000
4 Total Penta-Furans	30.74	3.622e2	2.472e2	1.47	NO	0.10505	0.10505



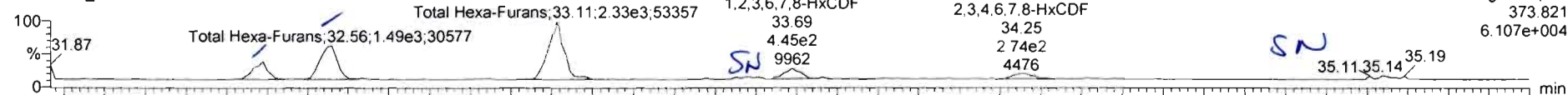
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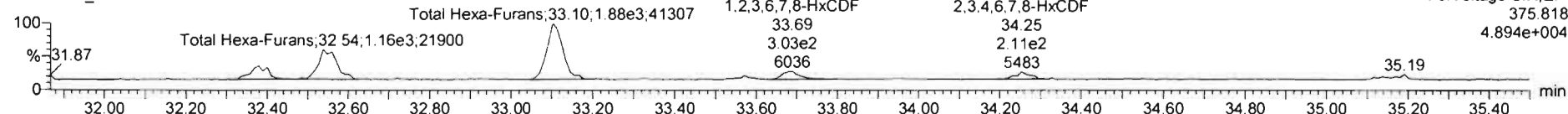
Name: 200314R2\_10, Date: 14-Mar-2020, Time: 18:25:45, ID: 2000411-02 PDI-017SC-A-03-04-191003 12.65, Description: PDI-017SC-A-03-04-191003

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

200314R2\_10

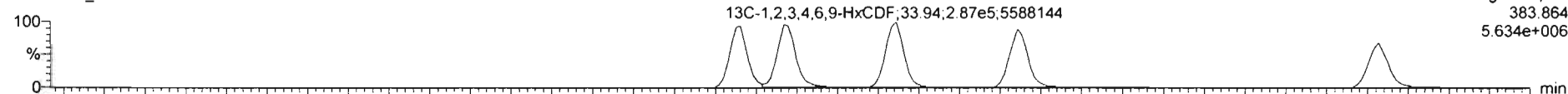


200314R2\_10

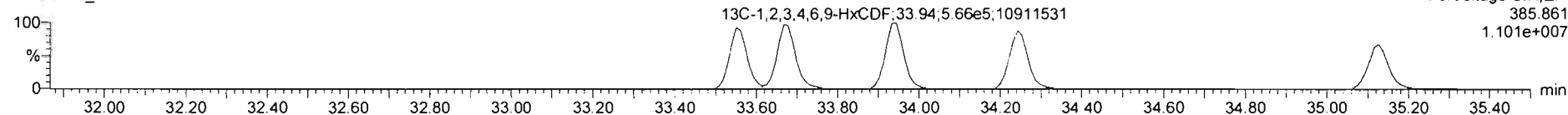


**13C-1,2,3,4,7,8-HxCDF**

200314R2\_10

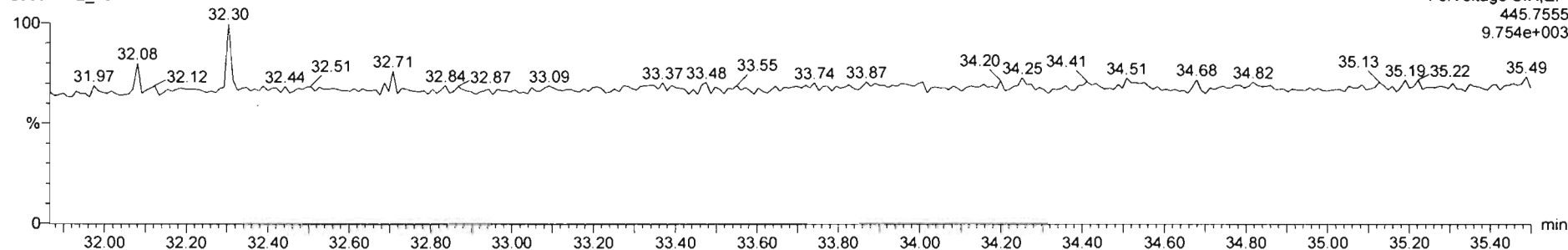


200314R2\_10

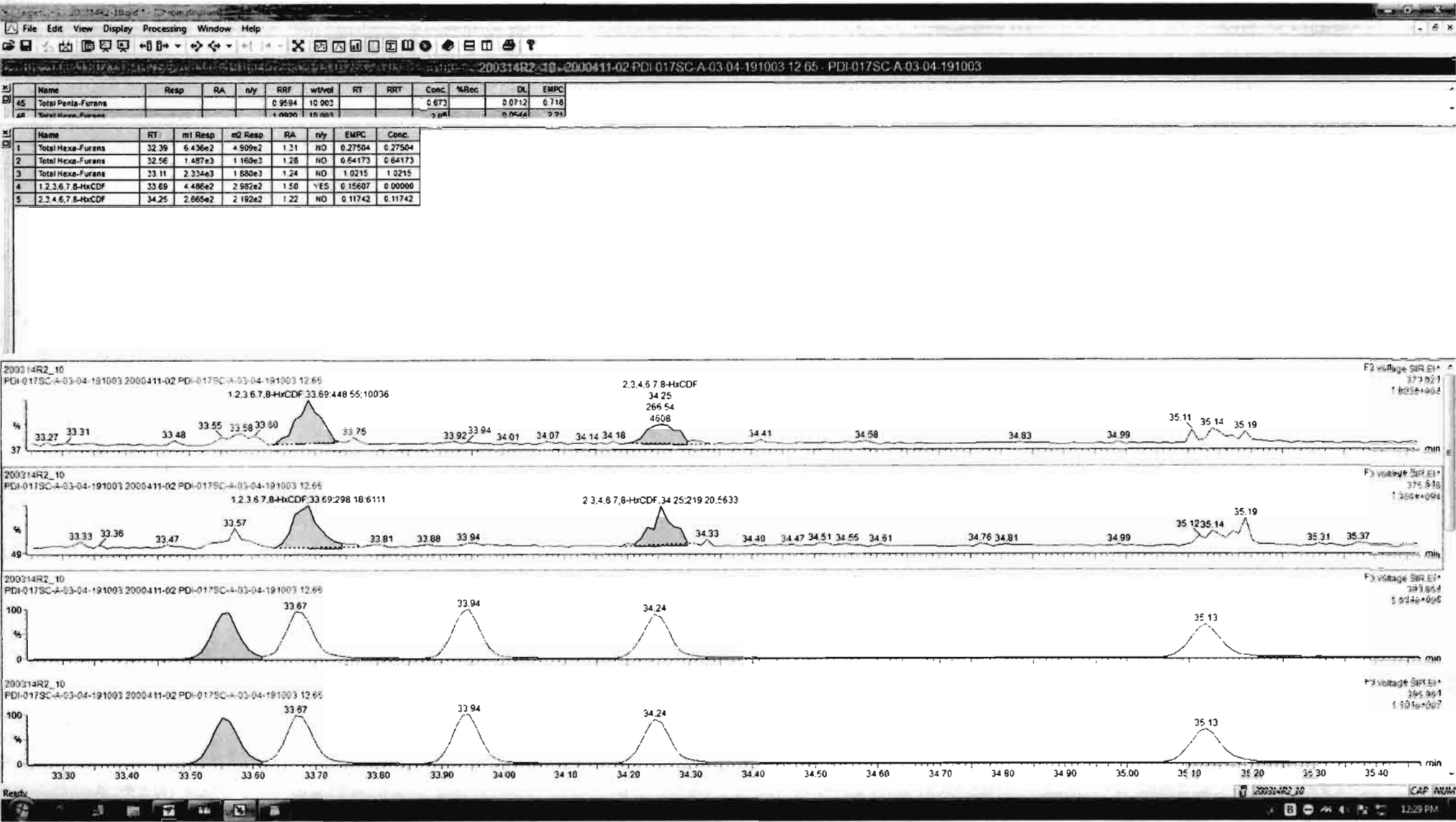


**DPE3**

200314R2\_10





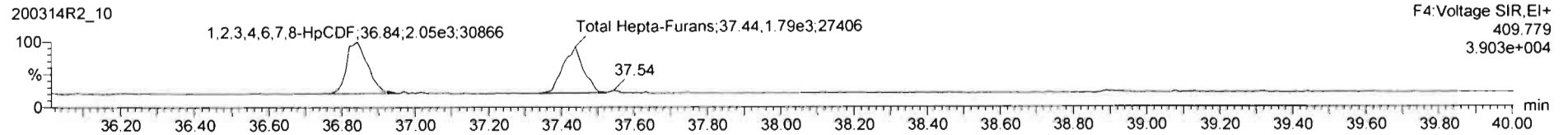
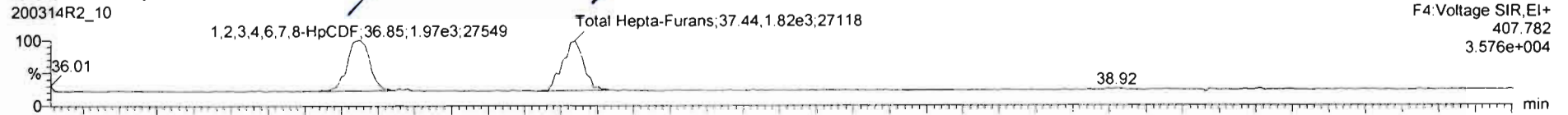


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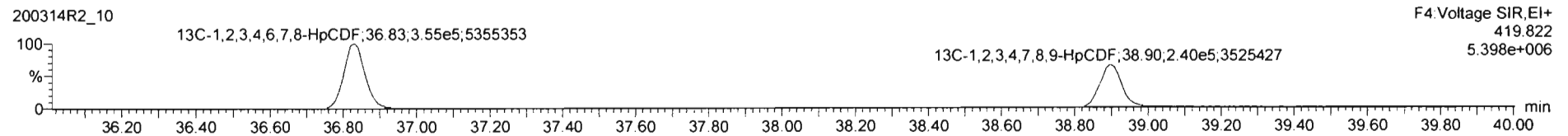
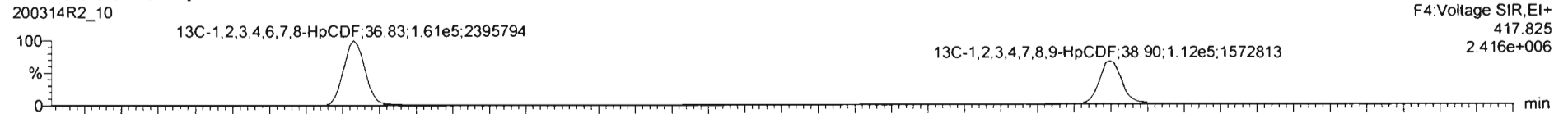
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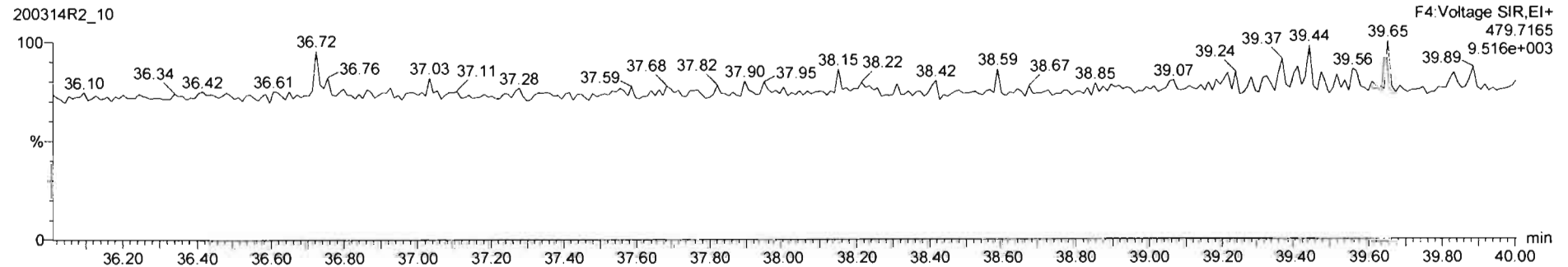
**1,2,3,4,6,7,8-HpCDF**



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



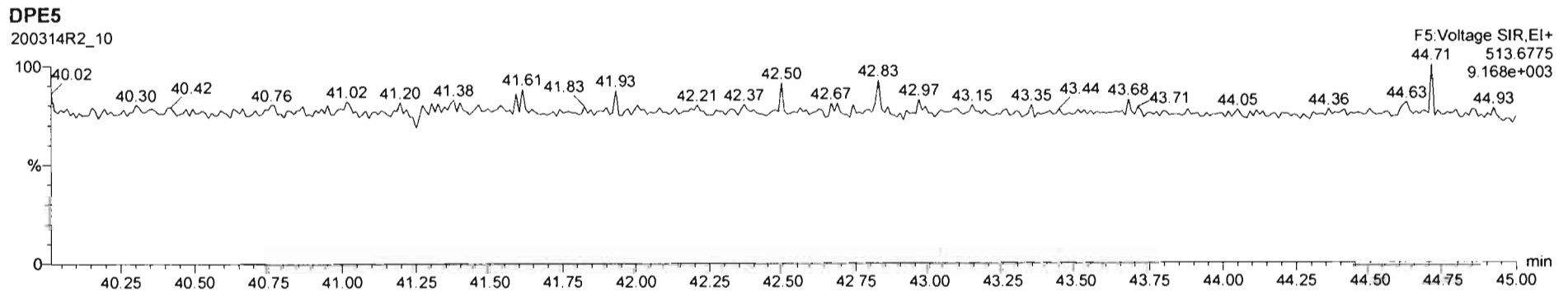
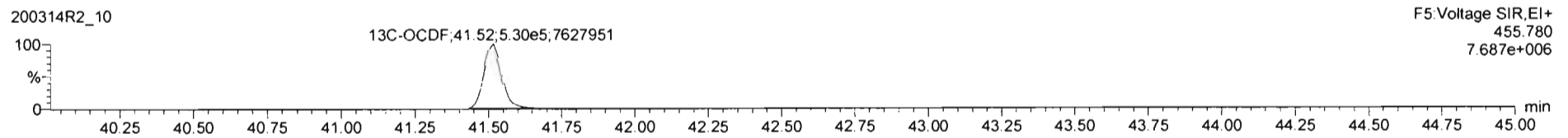
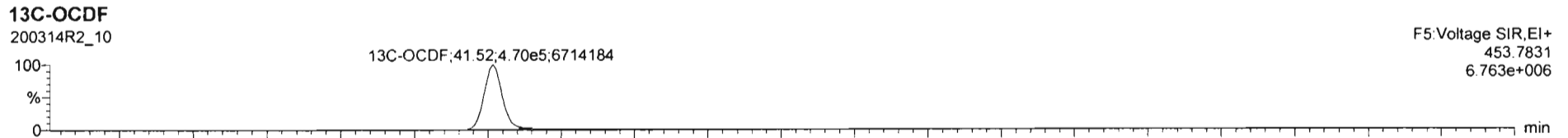
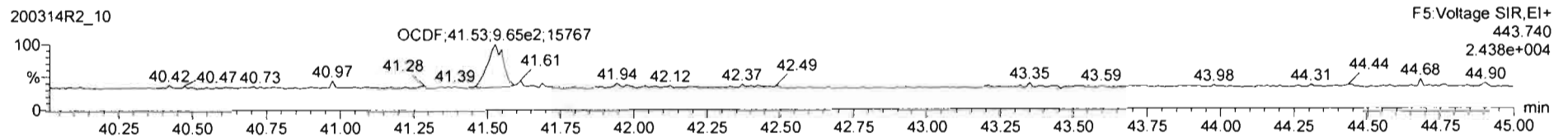
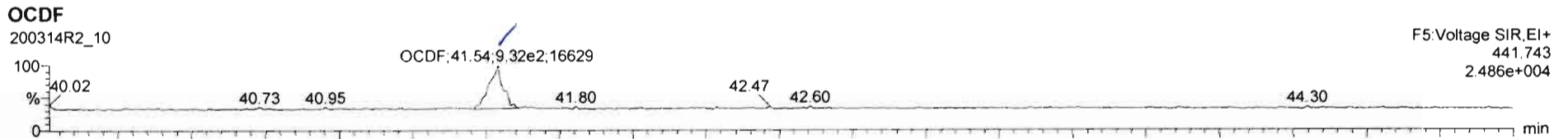
**DPE4**



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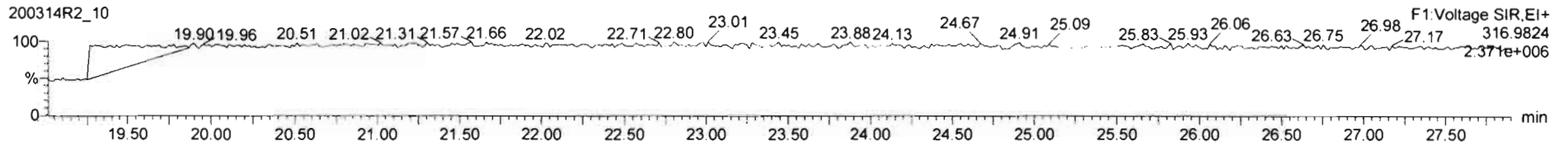
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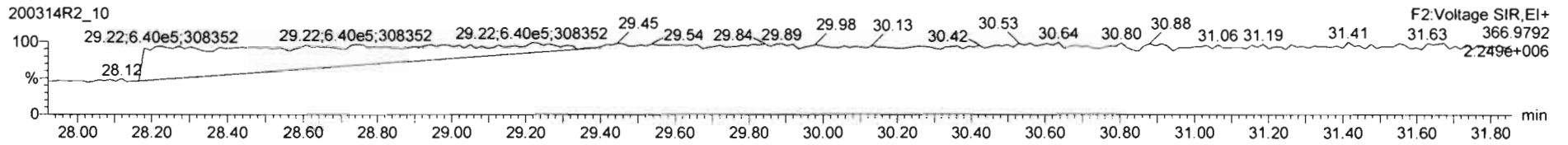
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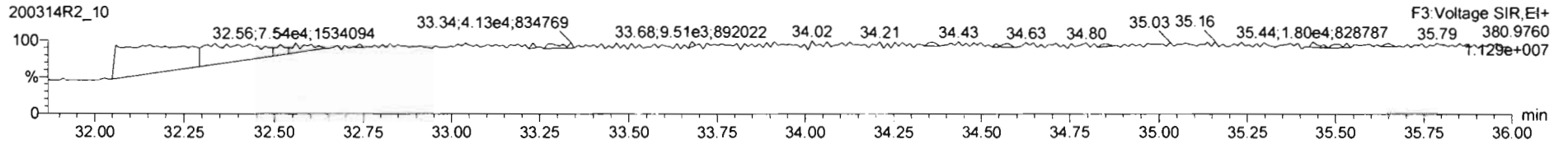
PFK1



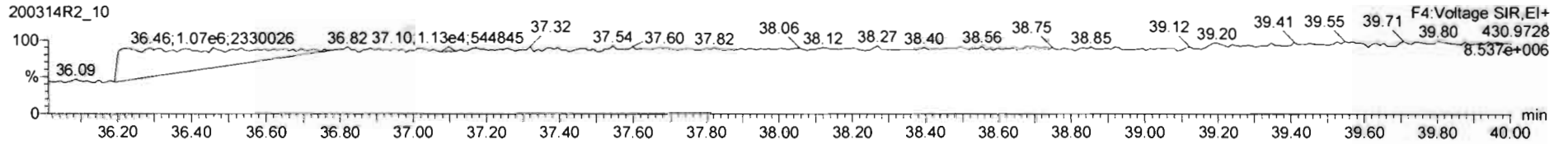
PFK2



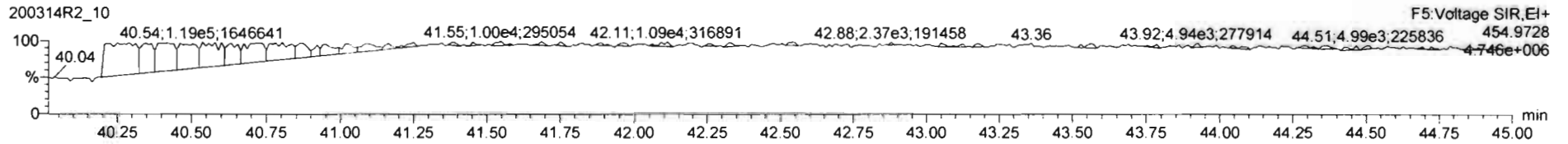
PFK3



PFK4



PFK5



Dataset: U:\VG12.PRO\Results\200314R2\200314R2-11.qld

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*GRB 03/15/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08  
Calibration: U:\VG12.PRO\CurveDB\1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

*Muk 3/15/20*

Name: 200314R2\_11, Date: 14-Mar-2020, Time: 19:13:19, ID: 2000411-03 PDI-017SC-A-04-05-191003 12.01, Description: PDI-017SC-A-04-05-191003

#	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	0.983	10.038	25.751		1.001				0.0765	
2	2 1,2,3,7,8-PeCDD			NO	0.921	10.038	31.025		1.001				0.101	
3	3 1,2,3,4,7,8-HxCDD	1.39e2	1.15	NO	1.13	10.038	34.423	34.41	1.000	1.000	0.044745		0.0832	0.0447
4	4 1,2,3,6,7,8-HxCDD	6.82e2	1.12	NO	0.984	10.038	34.509	34.53	1.000	1.001	0.21495		0.0882	0.215
5	5 1,2,3,7,8,9-HxCDD	4.63e2	1.07	NO	0.967	10.038	34.796	34.79	1.000	1.000	0.17261		0.103	0.173
6	6 1,2,3,4,6,7,8-HpCDD	1.07e4	1.03	NO	1.01	10.038	38.248	38.27	1.000	1.001	5.5920		0.217	5.59
7	7 OCDD	1.53e5	0.89	NO	1.05	10.038	41.379	41.39	1.000	1.000	75.699		0.213	75.7
8	8 2,3,7,8-TCDF			NO	0.915	10.038	24.757		1.001				0.0951	
9	9 1,2,3,7,8-PeCDF			NO	0.959	10.038	29.666		1.001				0.0705	
10	10 2,3,4,7,8-PeCDF	3.78e3	1.46	NO	1.00	10.038	30.713	30.71	1.001	1.001	0.65971		0.0649	0.660
11	11 1,2,3,4,7,8-HxCDF	4.86e2	0.97	YES	1.04	10.038	33.550	33.55	1.000	1.000	0.12470		0.0576	0.111
12	12 1,2,3,6,7,8-HxCDF	2.81e3	1.23	NO	1.01	10.038	33.688	33.69	1.000	1.000	0.68338		0.0558	0.683
13	13 2,3,4,6,7,8-HxCDF	2.09e3	1.25	NO	1.09	10.038	34.277	34.26	1.001	1.001	0.52510		0.0636	0.525
14	14 1,2,3,7,8,9-HxCDF			NO	1.03	10.038	35.116		1.000				0.0832	
15	15 1,2,3,4,6,7,8-HpCDF	7.67e3	1.02	NO	1.05	10.038	36.868	36.85	1.001	1.001	2.9551		0.0605	2.96
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.038	38.897		1.000				0.0737	
17	17 OCDF	4.17e3	0.77	NO	0.947	10.038	41.560	41.57	1.000	1.000	1.9396		0.104	1.94
18	18 13C-2,3,7,8-TCDD	1.06e6	0.78	NO	1.18	10.038	25.720	25.72	1.029	1.029	192.90	96.8	0.243	
19	19 13C-1,2,3,7,8-PeCDD	8.22e5	0.63	NO	0.864	10.038	30.900	31.00	1.236	1.240	204.21	102	0.245	
20	20 13C-1,2,3,4,7,8-HxCDD	5.46e5	1.32	NO	0.754	10.038	34.417	34.41	1.014	1.014	171.61	86.1	0.339	
21	21 13C-1,2,3,6,7,8-HxCDD	6.42e5	1.19	NO	0.925	10.038	34.525	34.51	1.017	1.017	164.30	82.5	0.276	
22	22 13C-1,2,3,7,8,9-HxCDD	5.53e5	1.20	NO	0.829	10.038	34.787	34.79	1.025	1.025	157.94	79.3	0.308	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.78e5	1.05	NO	0.598	10.038	38.242	38.24	1.127	1.126	149.72	75.1	0.377	
24	24 13C-OCDD	7.66e5	0.88	NO	0.571	10.038	41.389	41.38	1.219	1.219	317.49	79.7	0.353	
25	25 13C-2,3,7,8-TCDF	1.39e6	0.78	NO	1.09	10.038	24.742	24.73	0.990	0.989	175.40	88.0	0.373	
26	26 13C-1,2,3,7,8-PeCDF	1.16e6	1.55	NO	0.876	10.038	29.572	29.65	1.183	1.186	182.22	91.5	0.459	
27	27 13C-2,3,4,7,8-PeCDF	1.14e6	1.56	NO	0.844	10.038	30.582	30.68	1.223	1.227	185.05	92.9	0.477	
28	28 13C-1,2,3,4,7,8-HxCDF	7.48e5	0.49	NO	1.00	10.038	33.565	33.55	0.989	0.988	177.04	88.9	0.521	
29	29 13C-1,2,3,6,7,8-HxCDF	8.10e5	0.50	NO	1.12	10.038	33.673	33.68	0.992	0.992	171.68	86.2	0.467	
30	30 13C-2,3,4,6,7,8-HxCDF	7.26e5	0.50	NO	1.04	10.038	34.254	34.24	1.009	1.009	166.05	83.3	0.504	
31	31 13C-1,2,3,7,8,9-HxCDF	5.91e5	0.50	NO	0.873	10.038	35.126	35.12	1.035	1.034	160.44	80.5	0.597	

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-11.qld

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19: ID: 200314R2\_11, Date: 14-Mar-2020, Time: 19:13:19, ID: 2000411-03 PDI-017SC-A-04-05-191003 12.01, Description: PDI-017SC-A-04-05-191003

#	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	4.93e5	0.42	NO	0.771	10.038	36.841	36.83	1.085	1.085	151.53	76.0	0.407	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.38e5	0.42	NO	0.519	10.038	38.925	38.90	1.147	1.146	154.04	77.3	0.604	
34	34 13C-OCDF	9.04e5	0.89	NO	0.696	10.038	41.569	41.56	1.225	1.224	307.57	77.2	0.215	
35	35 37Cl-2,3,7,8-TCDD	3.83e5			1.17	10.038	25.730	25.75	1.029	1.030	70.118	88.0	0.0956	
36	36 13C-1,2,3,4-TCDD	9.27e5	0.79	NO	1.00	10.038	25.050	25.00	1.000	1.000	199.25	100	0.287	
37	37 13C-1,2,3,4-TCDF	1.45e6	0.79	NO	1.00	10.038	23.190	23.09	1.000	1.000	199.25	100	0.407	
38	38 13C-1,2,3,4,6,9-HxCDF	8.41e5	0.50	NO	1.00	10.038	33.880	33.94	1.000	1.000	199.25	100	0.522	
39	39 Total Tetra-Dioxins				0.983	10.038	24.620		0.000		0.15284		0.0765	0.153
40	40 Total Penta-Dioxins				0.921	10.038	29.960		0.000		0.11211		0.101	0.306
41	41 Total Hexa-Dioxins				0.984	10.038	33.635		0.000		3.0657		0.0946	3.07
42	42 Total Hepta-Dioxins				1.01	10.038	37.640		0.000		15.092		0.217	15.1
43	43 Total Tetra-Furans				0.915	10.038	23.610		0.000		6.8297		0.0951	7.00
44	44 1st Func. Penta-Furans				0.959	10.038	27.090		0.000		8.6835		0.0304	8.68
45	45 Total Penta-Furans				0.959	10.038	29.275		0.000		5.9552		0.0692	5.96
46	46 Total Hexa-Furans				1.09	10.038	33.555		0.000		8.0609		0.0610	8.17
47	47 Total Hepta-Furans				1.05	10.038	37.835		0.000		6.7464		0.0705	6.75

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-11.qld

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Name: 200314R2\_11, Date: 14-Mar-2020, Time: 19:13:19, ID: 2000411-03 PDI-017SC-A-04-05-191003 12.01, Description: PDI-017SC-A-04-05-191003

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	23.31	5.910e3	5.265e3	3.356e2	4.666e2	0.72	NO	8.021e2	0.15284	0.15284	0.0765

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.70	3.938e3	1.111e4	2.850e2	7.583e2	0.38	YES	0.000e0	0.00000	0.19413	0.101
2	Total Penta-Dioxins	29.20	2.740e3	4.294e3	1.540e2	2.719e2	0.57	NO	4.259e2	0.11211	0.11211	0.101

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.94	4.259e4	3.460e4	2.064e3	1.698e3	1.22	NO	3.763e3	1.3121	1.3121	0.0946
2	Total Hexa-Dioxins	33.51	3.549e3	5.089e3	2.567e2	2.138e2	1.20	NO	4.706e2	0.16410	0.16410	0.0946
3	Total Hexa-Dioxins	33.75	3.107e4	2.553e4	1.764e3	1.554e3	1.14	NO	3.318e3	1.1572	1.1572	0.0946
4	1,2,3,4,7,8-HxCDD	34.41	2.361e3	2.554e3	7.443e1	6.449e1	1.15	NO	1.389e2	0.044745	0.044745	0.0832
5	1,2,3,6,7,8-HxCDD	34.53	9.098e3	5.650e3	3.607e2	3.210e2	1.12	NO	6.817e2	0.21495	0.21495	0.0882
6	1,2,3,7,8,9-HxCDD	34.79	5.784e3	4.619e3	2.395e2	2.240e2	1.07	NO	4.635e2	0.17261	0.17261	0.103

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.22	1.261e5	1.242e5	9.202e3	8.935e3	1.03	NO	1.814e4	9.4995	9.4995	0.217
2	1,2,3,4,6,7,8-HpCDD	38.27	6.548e4	6.682e4	5.426e3	5.251e3	1.03	NO	1.068e4	5.5920	5.5920	0.217

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-11.qld

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Name: 200314R2\_11, Date: 14-Mar-2020, Time: 19:13:19, ID: 2000411-03 PDI-017SC-A-04-05-191003 12.01, Description: PDI-017SC-A-04-05-191003

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.39	3.755e3	3.079e3	2.107e2	2.395e2	0.88	NO	4.502e2	0.070355	0.070355	0.0951
2	Total Tetra-Furans	19.88	1.179e4	1.529e4	9.266e2	1.171e3	0.79	NO	2.098e3	0.32781	0.32781	0.0951
3	Total Tetra-Furans	20.47	6.303e4	8.736e4	5.675e3	7.559e3	0.75	NO	1.323e4	2.0680	2.0680	0.0951
4	Total Tetra-Furans	20.87	3.367e3	3.790e3	3.129e2	4.045e2	0.77	NO	7.174e2	0.11210	0.11210	0.0951
5	Total Tetra-Furans	21.02	3.723e3	4.003e3	2.190e2	2.838e2	0.77	NO	5.029e2	0.078580	0.078580	0.0951
6	Total Tetra-Furans	21.36	2.225e4	3.242e4	2.271e3	2.948e3	0.77	NO	5.219e3	0.81550	0.81550	0.0951
7	Total Tetra-Furans	21.81	4.902e4	7.464e4	4.538e3	6.563e3	0.69	NO	1.110e4	1.7348	1.7348	0.0951
8	Total Tetra-Furans	22.97	3.101e4	3.657e4	3.049e3	4.038e3	0.75	NO	7.087e3	1.1074	1.1074	0.0951
9	Total Tetra-Furans	26.50	4.086e3	5.164e3	2.088e2	3.706e2	0.56	YES	0.000e0	0.00000	0.075007	0.0951
10	Total Tetra-Furans	26.68	4.829e3	4.081e3	3.248e2	3.402e2	0.95	YES	0.000e0	0.00000	0.094095	0.0951
11	Total Tetra-Furans	26.93	2.168e4	2.455e4	1.411e3	1.886e3	0.75	NO	3.297e3	0.51519	0.51519	0.0951

**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	26.93	4.469e5	2.990e5	2.938e4	1.875e4	1.57	NO	4.813e4	8.6835	8.6835	0.0304

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.49	1.052e4	4.797e3	5.378e2	3.201e2	1.68	NO	8.579e2	0.15478	0.15478	0.0692
2	Total Penta-Furans	28.64	1.243e5	8.192e4	1.025e4	6.857e3	1.49	NO	1.711e4	3.0860	3.0860	0.0692
3	Total Penta-Furans	28.68	1.756e4	9.787e3	6.038e2	3.717e2	1.62	NO	9.755e2	0.17599	0.17599	0.0692
4	Total Penta-Furans	29.26	4.972e4	3.754e4	3.153e3	2.141e3	1.47	NO	5.293e3	0.95498	0.95498	0.0692
5	Total Penta-Furans	29.95	2.189e4	1.583e4	1.293e3	8.599e2	1.50	NO	2.153e3	0.38844	0.38844	0.0692
6	Total Penta-Furans	30.04	9.150e3	3.673e3	3.517e2	2.109e2	1.67	NO	5.626e2	0.10150	0.10150	0.0692
7	2,3,4,7,8-PeCDF	30.71	6.144e4	4.492e4	2.243e3	1.538e3	1.46	NO	3.781e3	0.65971	0.65971	0.0649
8	Total Penta-Furans	30.73	5.335e4	4.577e4	1.447e3	9.574e2	1.51	NO	2.405e3	0.43384	0.43384	0.0692



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Hexa-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.37	3.064e4	2.906e4	1.510e3	1.416e3	1.07	NO	2.925e3	0.74264	0.74264	0.0610
2	Total Hexa-Furans	32.55	1.366e5	1.166e5	6.470e3	5.396e3	1.20	NO	1.187e4	3.0122	3.0122	0.0610
3	Total Hexa-Furans	33.10	1.337e5	1.147e5	6.677e3	5.525e3	1.21	NO	1.220e4	3.0975	3.0975	0.0610
4	1,2,3,4,7,8-HxCDF	33.55	5.296e3	5.843e3	2.390e2	2.467e2	0.97	YES	4.857e2	0.00000	0.11086	0.0576
5	1,2,3,6,7,8-HxCDF	33.69	2.979e4	2.572e4	1.550e3	1.264e3	1.23	NO	2.814e3	0.68338	0.68338	0.0558
6	2,3,4,6,7,8-HxCDF	34.26	1.986e4	1.558e4	1.160e3	9.287e2	1.25	NO	2.089e3	0.52510	0.52510	0.0636

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	36.85	5.422e4	5.536e4	3.864e3	3.802e3	1.02	NO	7.666e3	2.9551	2.9551	0.0605
2	Total Hepta-Furans	37.43	5.786e4	5.719e4	4.127e3	4.159e3	0.99	NO	8.286e3	3.7913	3.7913	0.0705

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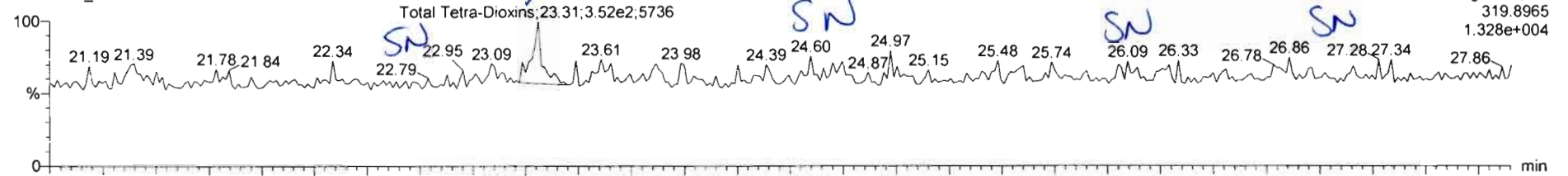
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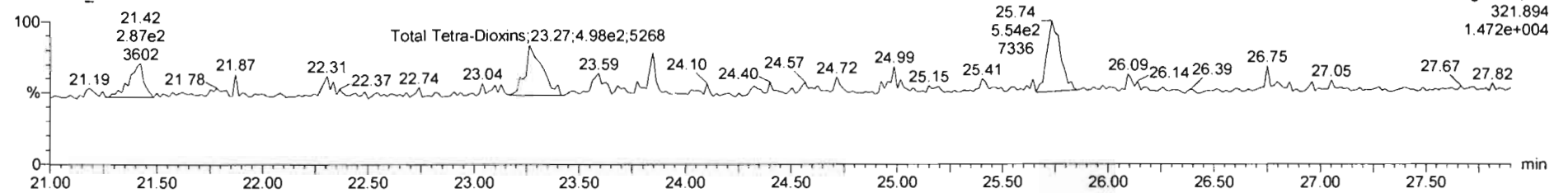
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**2,3,7,8-TCDD**

200314R2\_11

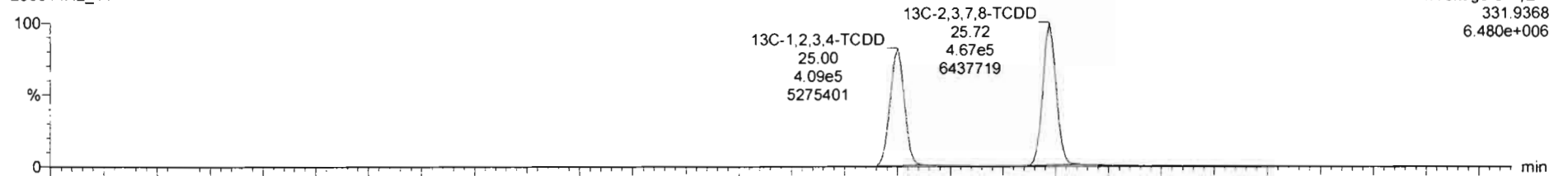


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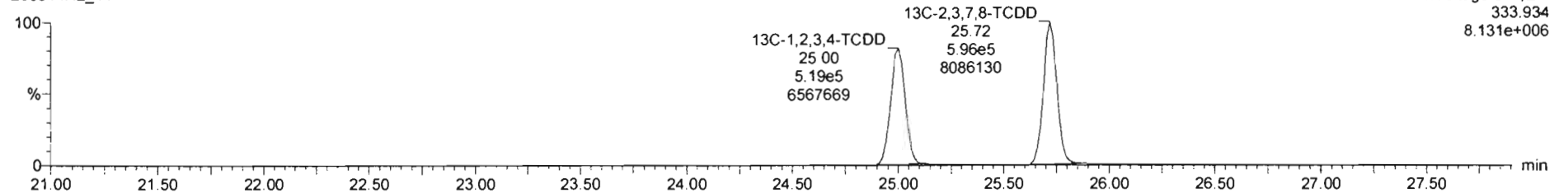


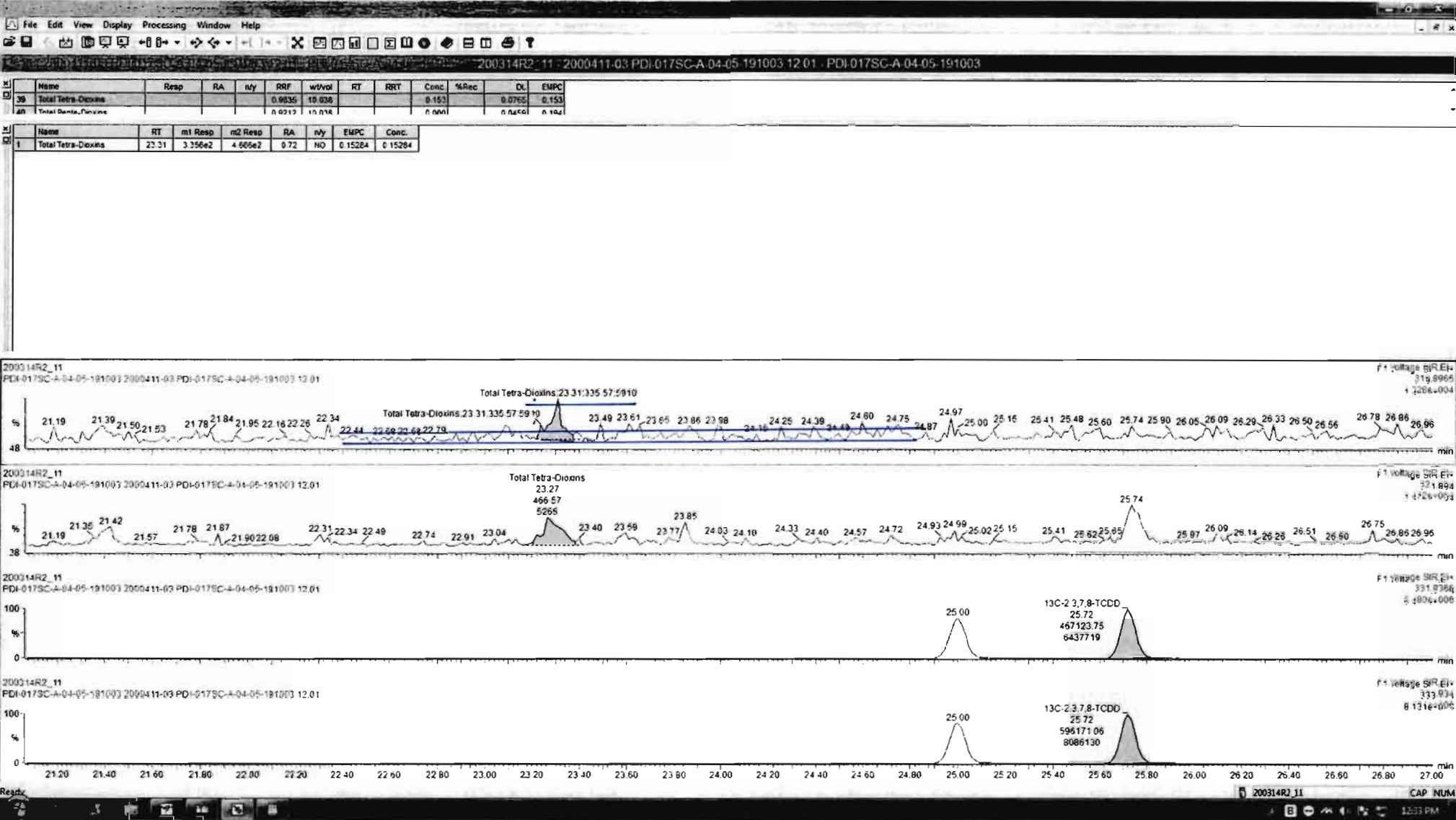
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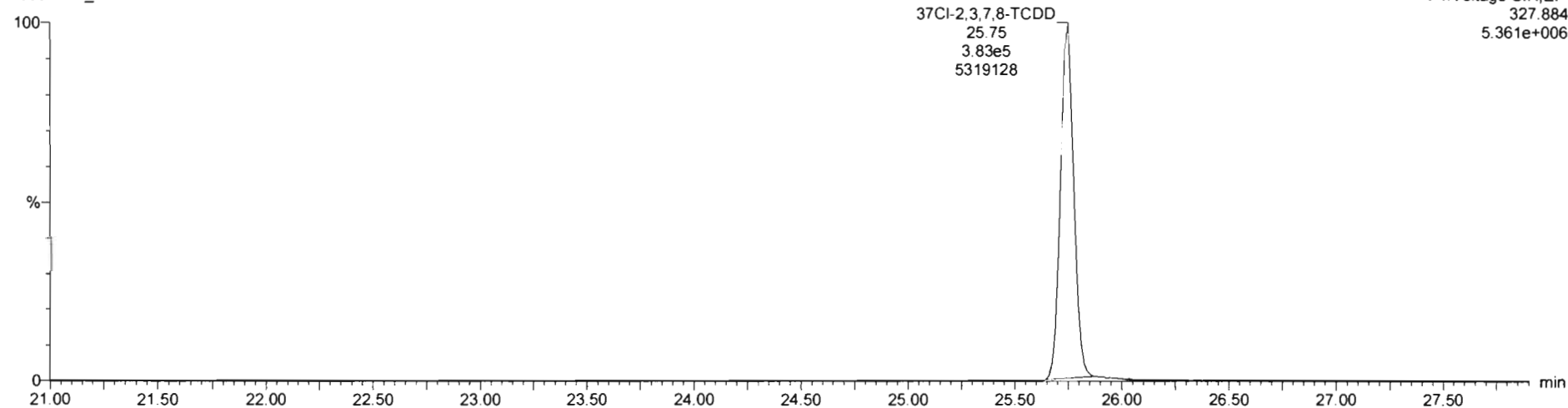
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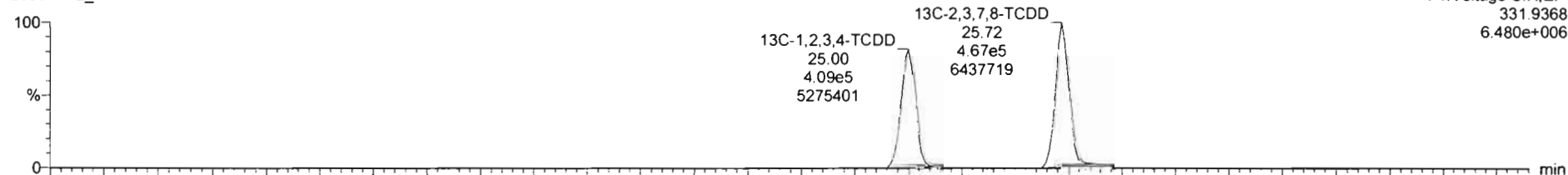
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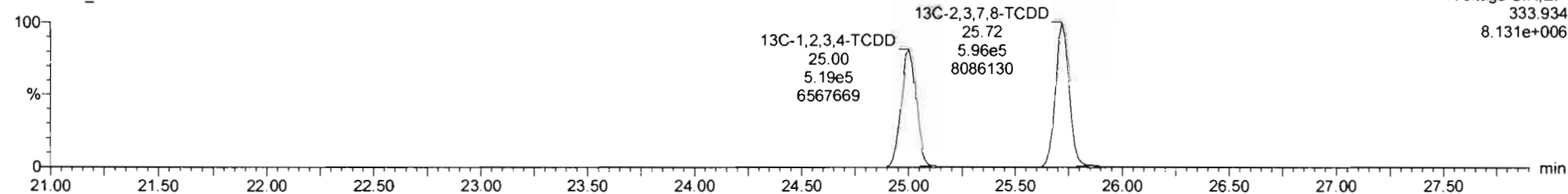


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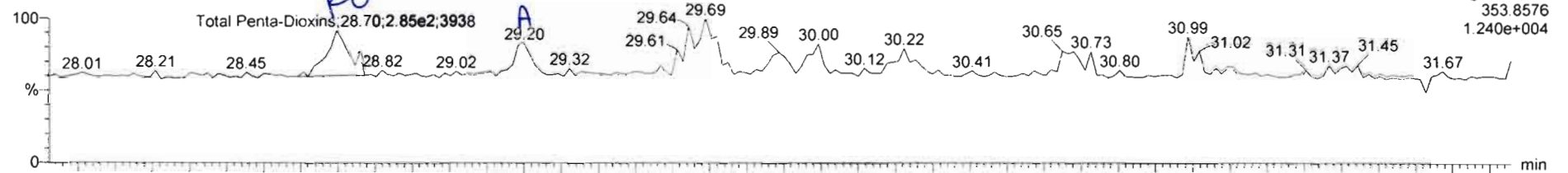
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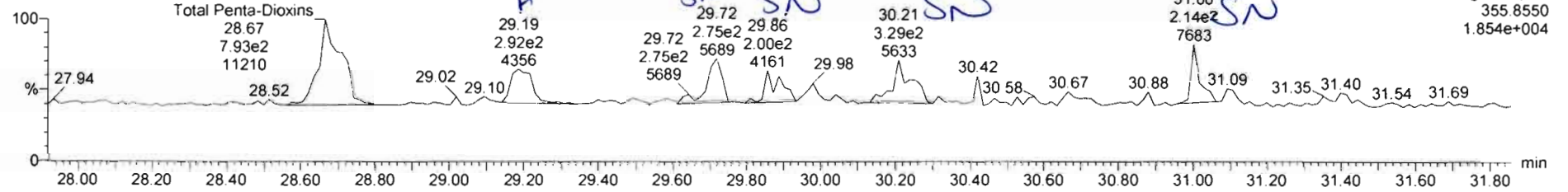
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1,2,3,7,8-PeCDD

200314R2\_11

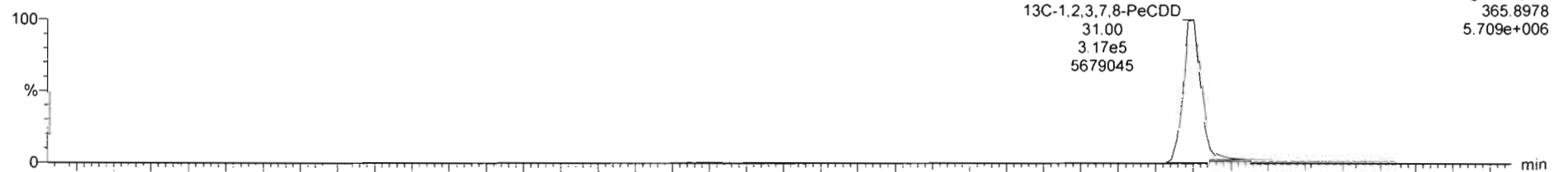


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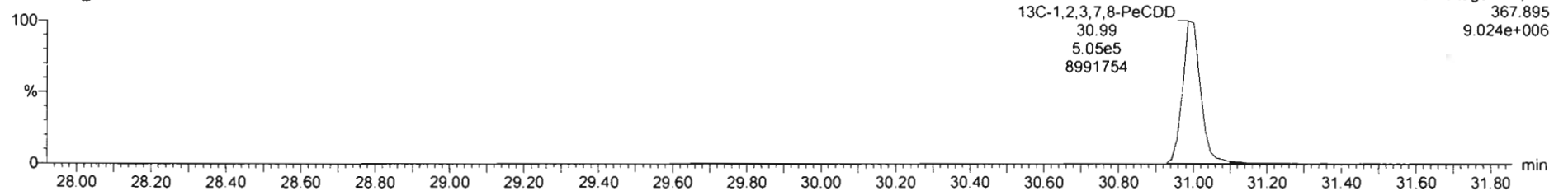


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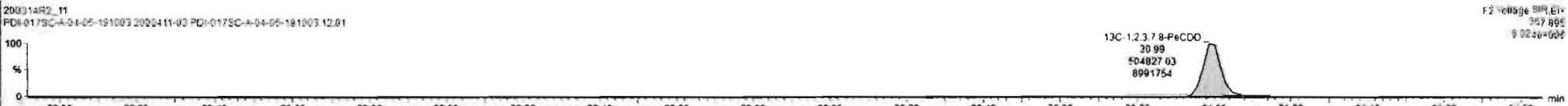
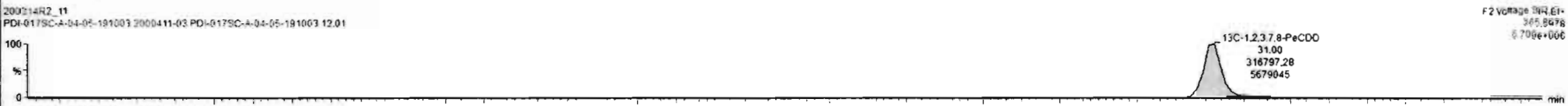
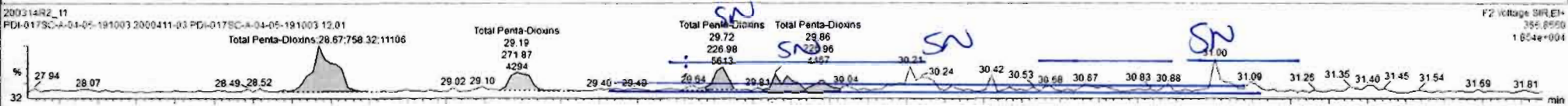
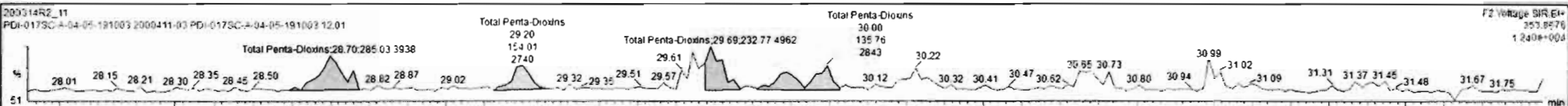


200314R2\_11



Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc.	%Rec	DL	EMPC
Total Tetra-Dioxins				0.9835	10.038			0.153	0.0765	0.153	
Total Penta-Dioxins				0.9212	10.676			0.207	0.101	0.207	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
Total Penta-Dioxins	28.70	2.850e2	7.583e2	0.38	YES	0.19413	0.00000
Total Penta-Dioxins	29.20	1.540e2	2.719e2	0.57	NO	0.11211	0.11211
Total Penta-Dioxins	29.69	2.328e2	2.270e2	1.03	YES	0.097395	0.00000
Total Penta-Dioxins	30.00	1.358e2	1.299e2	1.05	YES	0.055741	0.00000
Total Penta-Dioxins	29.89	1.352e2	2.270e2	0.60	NO	0.095328	0.095328



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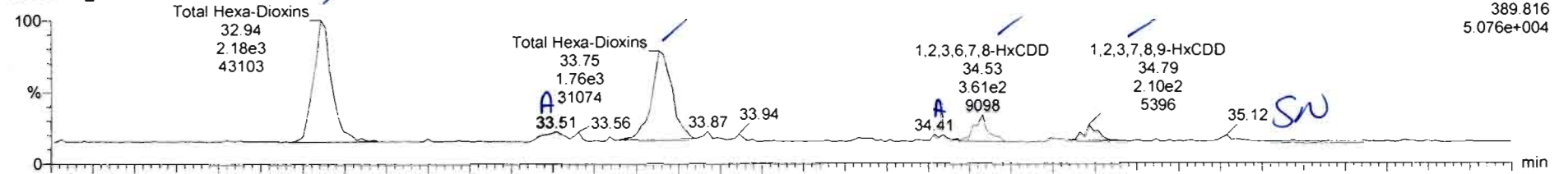
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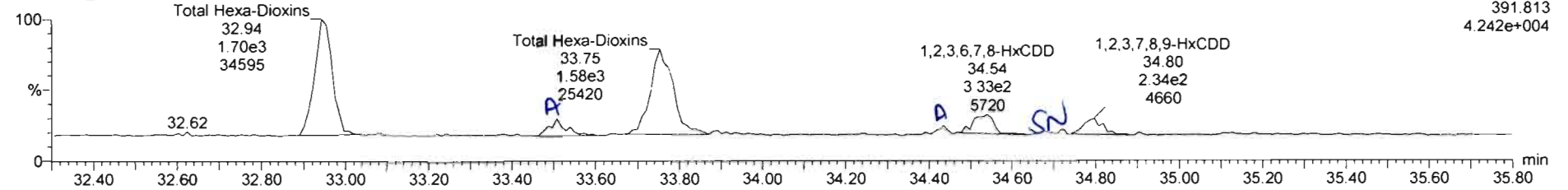
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1,2,3,4,7,8-HxCDD

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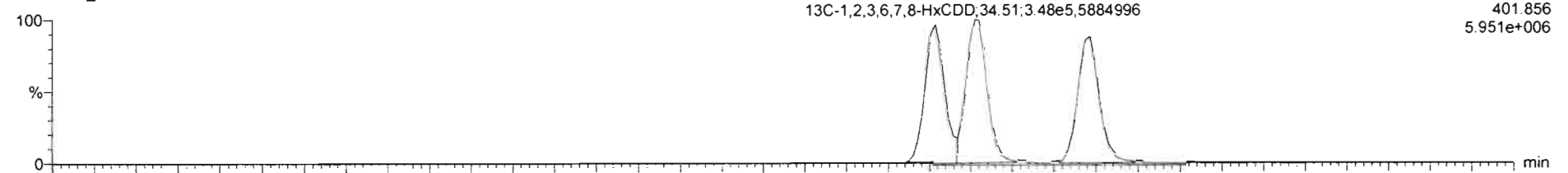


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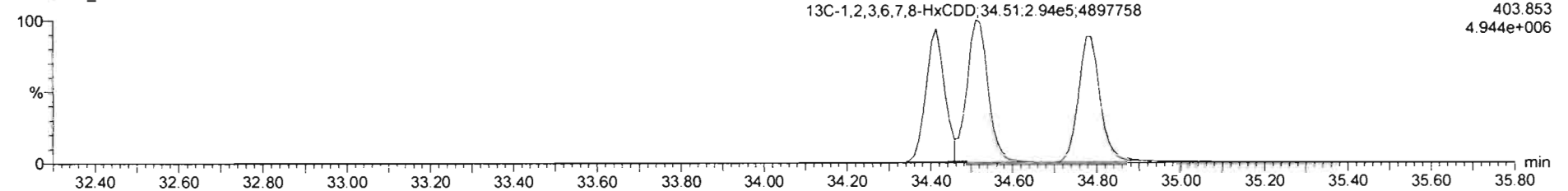


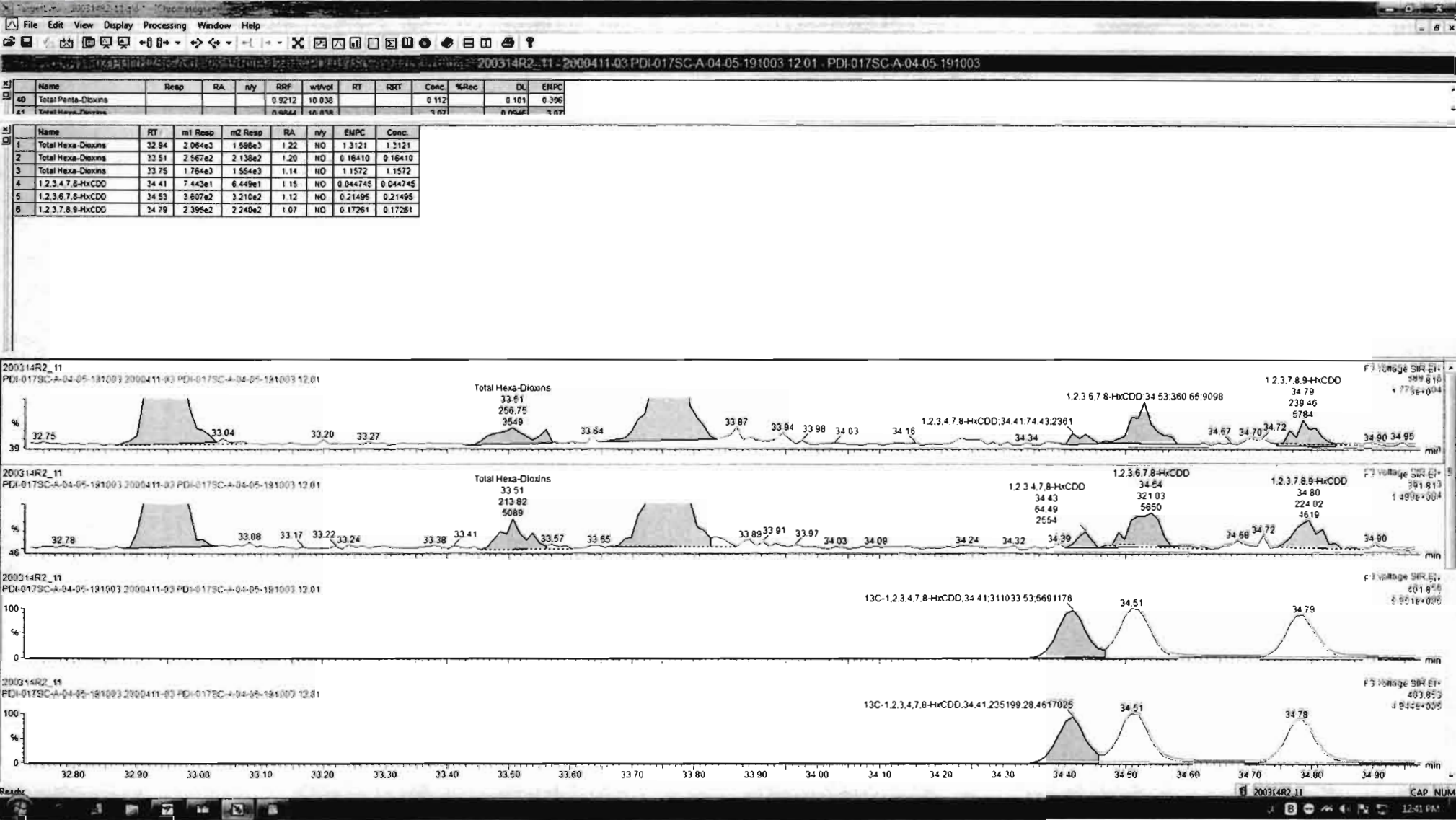
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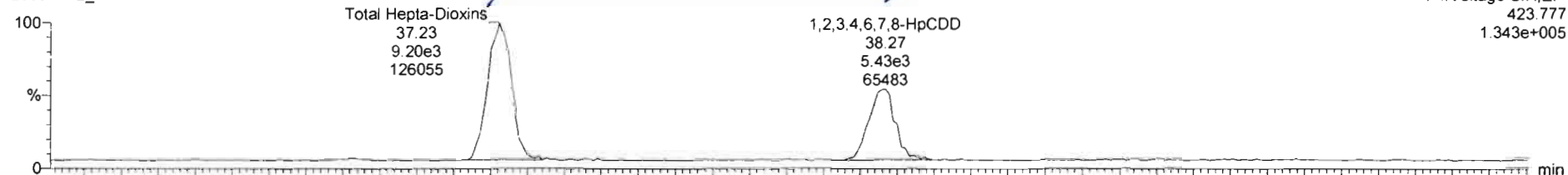
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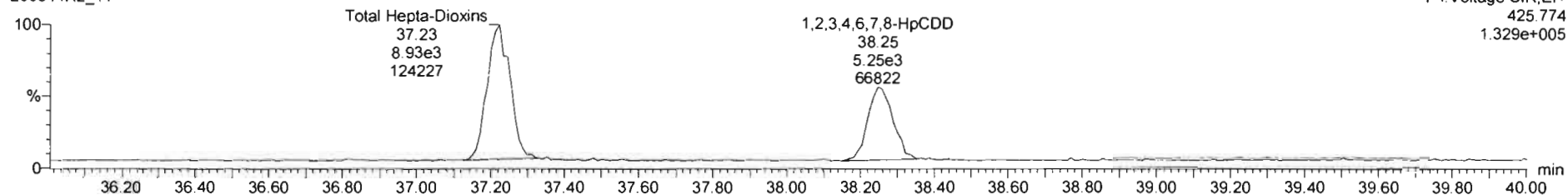
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1,2,3,4,6,7,8-HpCDD

200314R2\_11

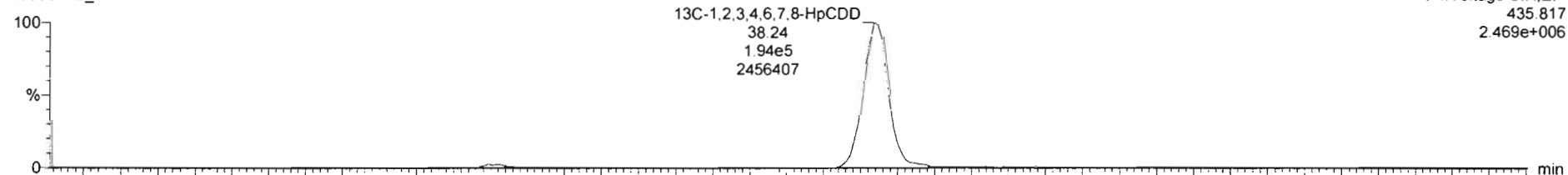


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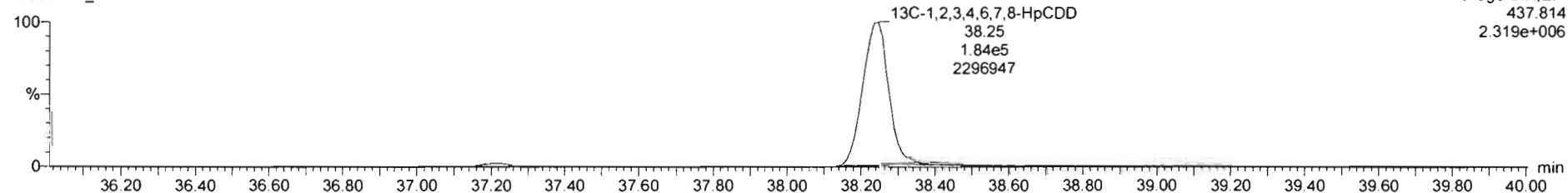


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200314R2\_11



200314R2\_11

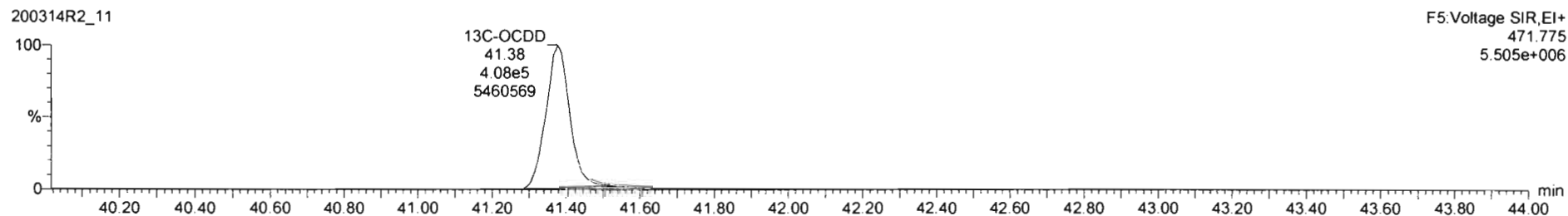
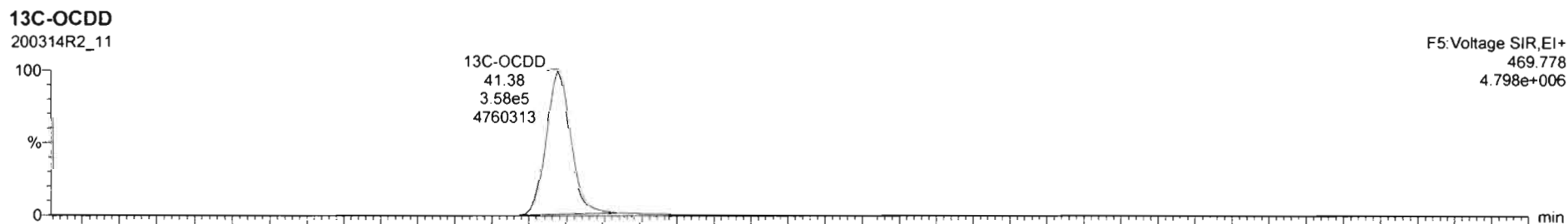
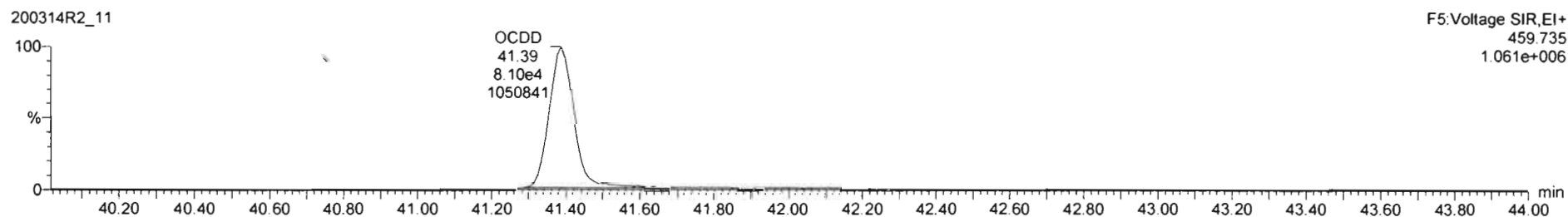
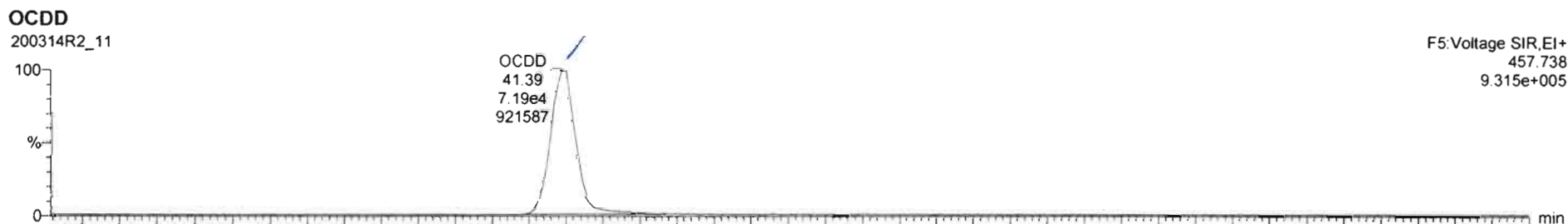


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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

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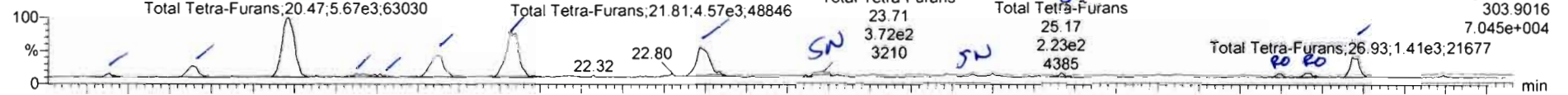
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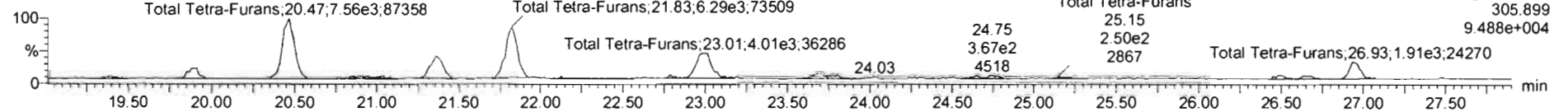
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2,3,7,8-TCDF

200314R2\_11

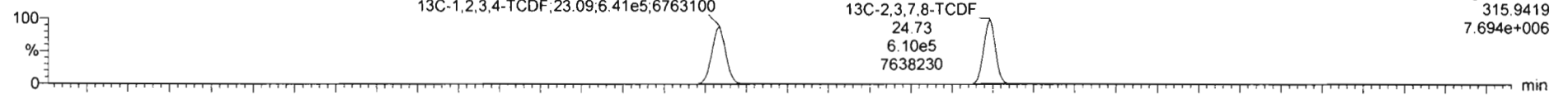


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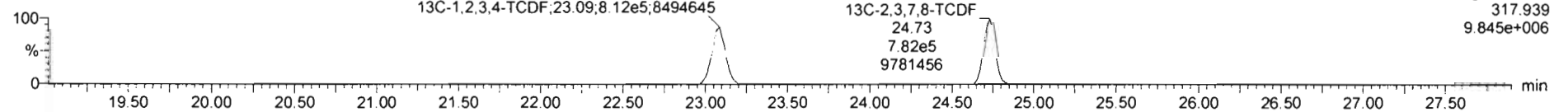


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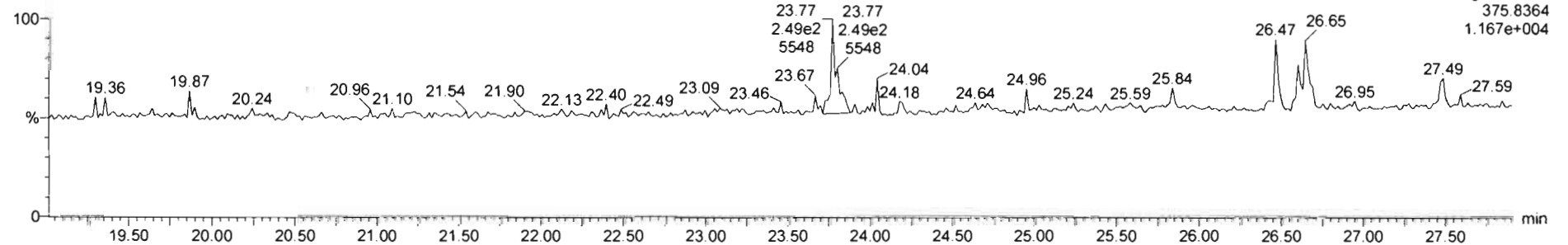


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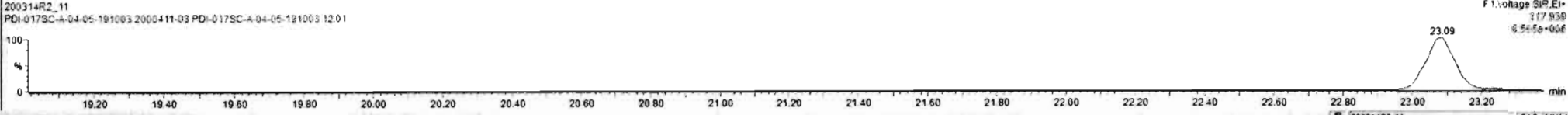
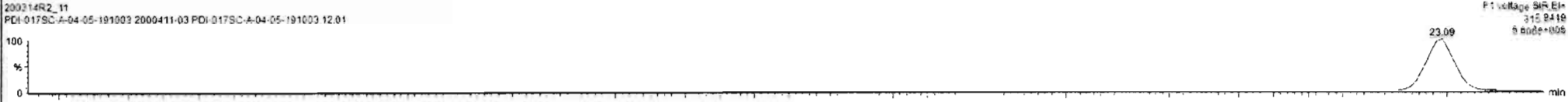
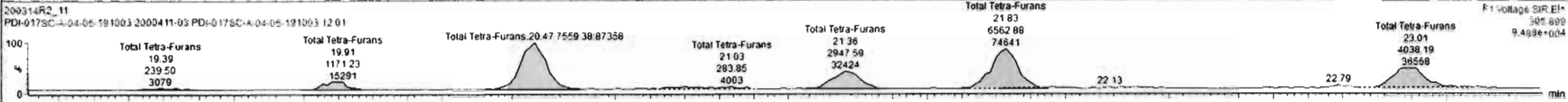
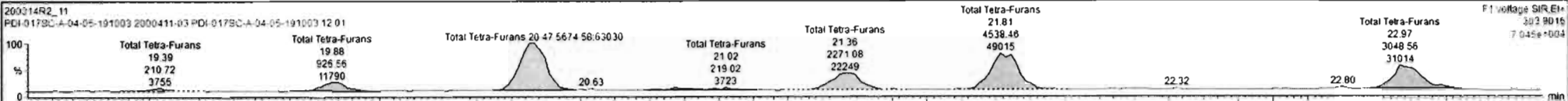
DPE1

200314R2\_11



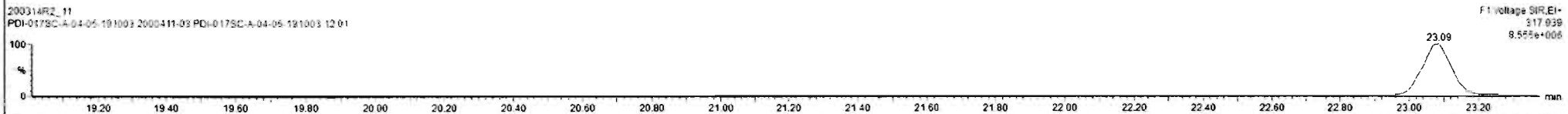
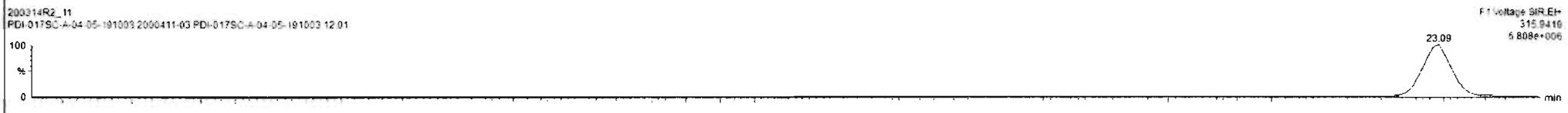
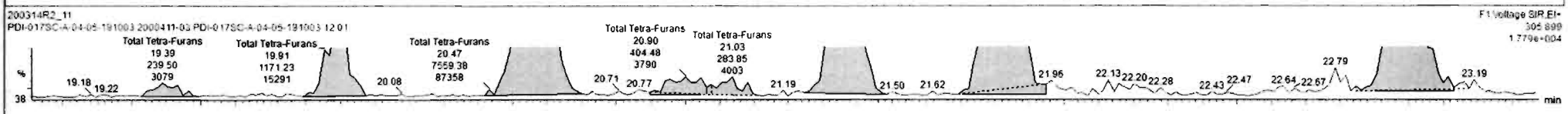
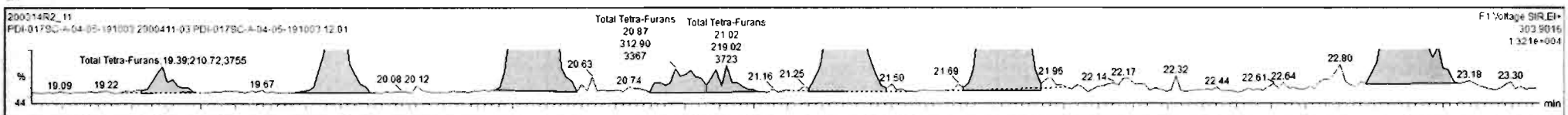
Name	Resp	RA	n/y	RRF	wtvol	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxans				1.0361	10.938			15.1		0.217	15.1
43 Total Tetra-Furans				0.9154	10.838			6.83		0.0951	7.29

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Tetra-Furans	19.39	2.107e2	2.395e2	0.88	NO	0.070000	0.070355
2 Total Tetra-Furans	19.88	9.266e2	1.171e3	0.79	NO	0.328000	0.32781
3 Total Tetra-Furans	20.47	5.675e3	7.559e3	0.75	NO	2.0680	2.0680
4 Total Tetra-Furans	20.87	3.125e2	3.559e2	0.88	NO	0.105000	0.10450
5 Total Tetra-Furans	21.02	2.190e2	2.838e2	0.77	NO	0.079000	0.078580
6 Total Tetra-Furans	21.36	2.271e3	2.948e3	0.77	NO	0.815000	0.81550
7 Total Tetra-Furans	21.81	4.538e3	6.563e3	0.69	NO	1.7350	1.7348
8 Total Tetra-Furans	22.87	3.049e3	4.038e3	0.75	NO	1.1070	1.1074
9 Total Tetra-Furans	25.72	3.721e2	6.375e2	0.58	YES	0.134000	0.00000
10 Total Tetra-Furans	25.17	2.226e2	2.502e2	0.89	YES	0.069000	0.00000
11 Total Tetra-Furans	26.50	2.088e2	3.736e2	0.56	YES	0.075000	0.00000
12 Total Tetra-Furans	26.68	3.202e2	3.554e2	0.90	YES	0.066000	0.00000
13 Total Tetra-Furans	26.93	1.411e3	1.913e3	0.74	NO	0.519000	0.51934



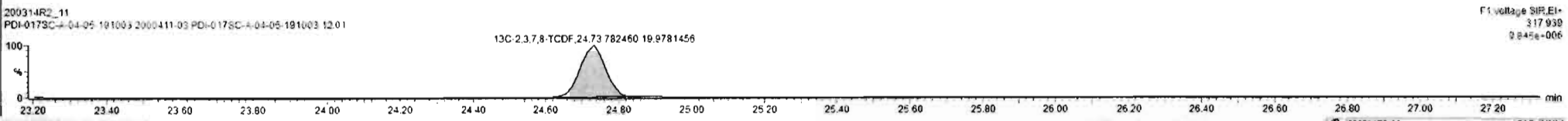
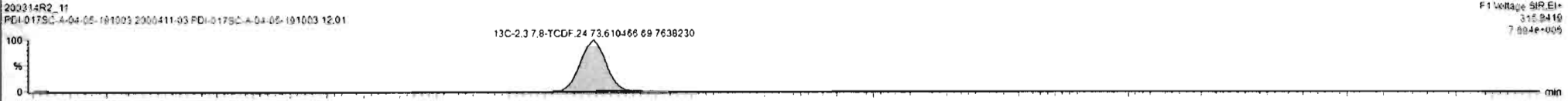
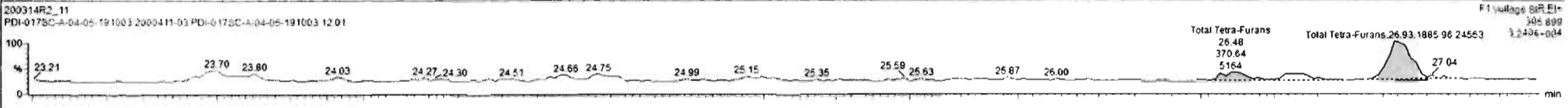
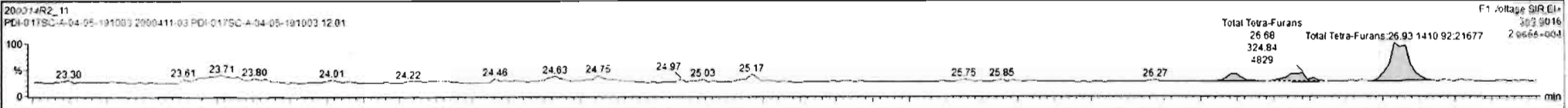
Name	Resp	RA	n/y	RRF	wtdvol	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0061	10.038			15.1		0.217	15.1
43 Total Tetra-Furans				0.9154	10.038			6.82		0.0951	7.21

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Tetra-Furans	19.39	2.107e2	2.395e2	0.86	NO	0.070355	0.070355
2 Total Tetra-Furans	19.63	9.266e2	1.171e3	0.79	NO	0.32781	0.32781
3 Total Tetra-Furans	20.47	5.675e3	7.559e3	0.75	NO	2.0660	2.0660
4 Total Tetra-Furans	20.87	3.129e2	4.045e2	0.77	NO	0.11210	0.11210
5 Total Tetra-Furans	21.02	2.190e2	2.838e2	0.77	NO	0.078580	0.078580
6 Total Tetra-Furans	21.36	2.271e3	2.948e3	0.77	NO	0.81550	0.81550
7 Total Tetra-Furans	21.81	4.538e3	6.563e3	0.69	NO	1.7348	1.7348
8 Total Tetra-Furans	22.97	3.049e3	4.038e3	0.75	NO	1.1074	1.1074
9 Total Tetra-Furane	23.72	3.721e2	6.375e2	0.58	YES	0.13366	0.00000
10 Total Tetra-Furans	25.17	2.226e2	2.502e2	0.89	YES	0.069202	0.00000
11 Total Tetra-Furans	26.50	2.088e2	3.736e2	0.56	YES	0.075007	0.00000
12 Total Tetra-Furane	26.69	3.202e2	3.554e2	0.90	YES	0.098302	0.00000
13 Total Tetra-Furans	26.93	1.411e3	1.913e3	0.74	NO	0.51934	0.51934



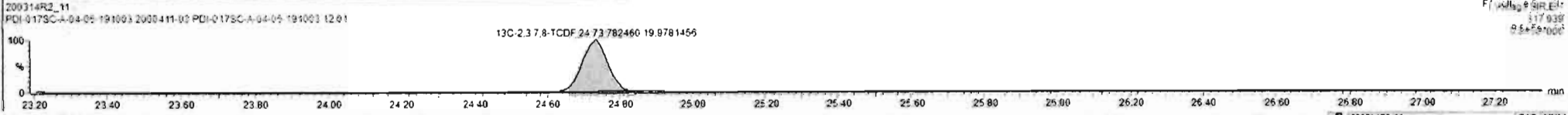
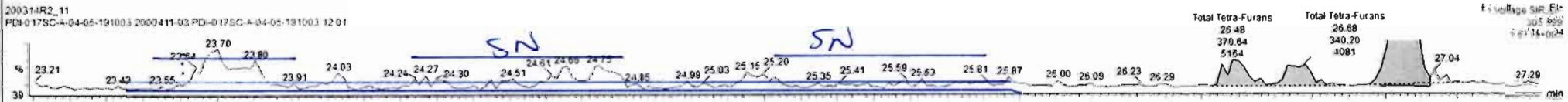
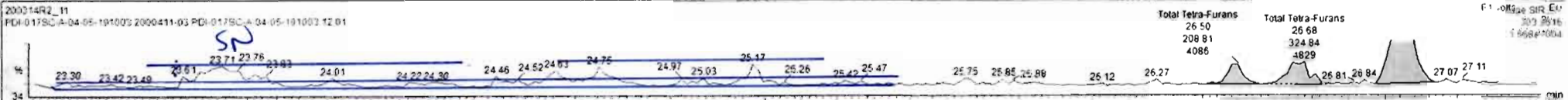
Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0061	10.036			15.1		0.217	15.1
43 Total Tetra-Furans				0.9154	10.038			6.83		0.0951	7.00

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Tetra-Furans	19.39	2.107e2	2.395e2	0.88	NO	0.070255	0.070255
2 Total Tetra-Furans	19.68	5.266e2	1.171e3	0.79	NO	0.32761	0.32761
3 Total Tetra-Furans	20.47	5.675e3	7.559e3	0.75	NO	2.0680	2.0680
4 Total Tetra-Furans	20.87	3.129e2	4.045e2	0.77	NO	0.11210	0.11210
5 Total Tetra-Furans	21.02	2.190e2	2.838e2	0.77	NO	0.078580	0.078580
6 Total Tetra-Furans	21.36	2.271e3	2.948e3	0.77	NO	0.81550	0.81550
7 Total Tetra-Furans	21.81	4.538e3	6.563e3	0.69	NO	1.7348	1.7348
8 Total Tetra-Furans	22.97	3.049e3	4.038e3	0.75	NO	1.1074	1.1074
9 Total Tetra-Furans	26.50	2.086e2	3.706e2	0.56	YES	0.075007	0.000000
10 Total Tetra-Furans	26.56	3.248e2	3.402e2	0.95	YES	0.094095	0.000000
11 Total Tetra-Furans	26.93	1.411e3	1.686e3	0.75	NO	0.51519	0.51519



#1	Name	Resp	RA	nfy	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
42	Total Hepta-Dioxins				1.0561	10.038			15.1		0.217	15.1
43	Total Tetra-Furans				0.9154	10.038			6.83		0.0951	7.00

#1	Name	RT	m1 Resp	m2 Resp	RA	nfy	EMPC	Conc
1	Total Tetra-Furans	19.39	2.107e2	2.395e2	0.86	NO	0.070355	0.070355
2	Total Tetra-Furans	19.68	9.268e2	1.171e2	0.79	NO	0.32761	0.32791
3	Total Tetra-Furans	20.47	5.675e3	7.559e2	0.75	NO	2.0680	2.0680
4	Total Tetra-Furans	20.87	3.129e2	4.045e2	0.77	NO	0.11210	0.11210
5	Total Tetra-Furans	21.02	2.190e2	2.838e2	0.77	NO	0.078580	0.078580
6	Total Tetra-Furans	21.36	2.271e3	2.948e2	0.77	NO	0.81550	0.81550
7	Total Tetra-Furans	21.81	4.538e3	6.563e3	0.69	NO	1.7348	1.7348
8	Total Tetra-Furans	22.97	3.049e3	4.038e2	0.75	NO	1.1074	1.1074
9	Total Tetra-Furans	26.50	2.086e2	3.706e2	0.56	YES	0.075007	0.000000
10	Total Tetra-Furans	26.58	3.248e2	3.402e2	0.95	YES	0.094085	0.000000
11	Total Tetra-Furans	26.93	1.411e3	1.686e3	0.75	NO	0.51519	0.51519



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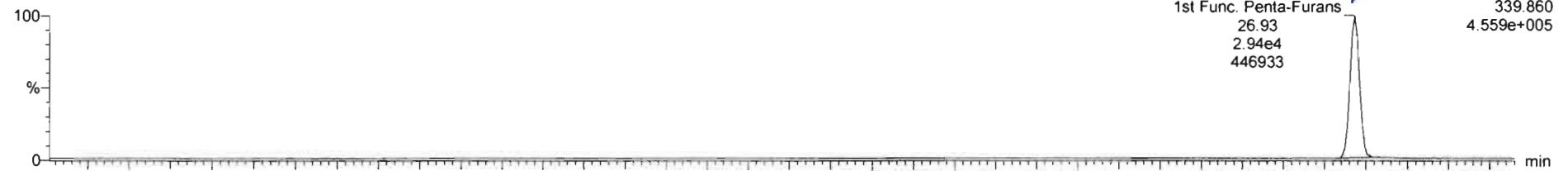
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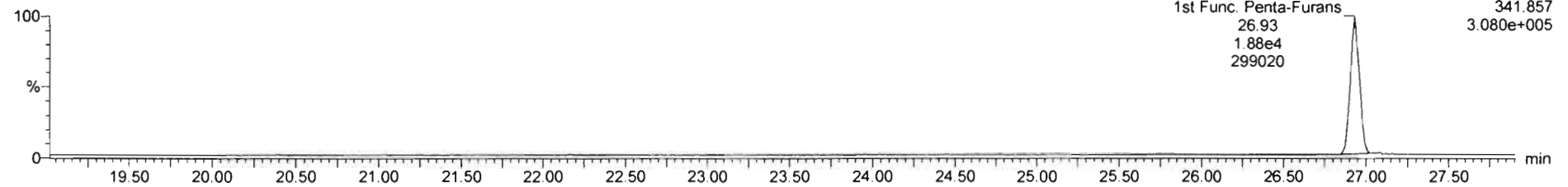
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1st Func. Penta-Furans

200314R2\_11

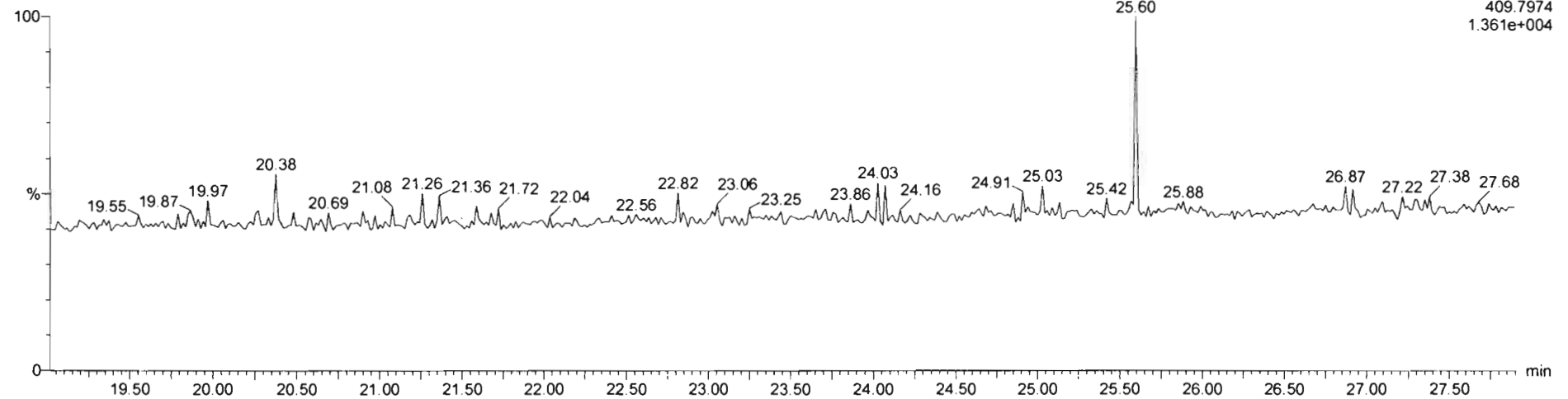


200314R2\_11



DPE6

200314R2\_11





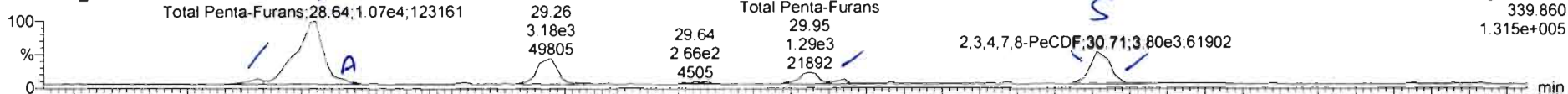
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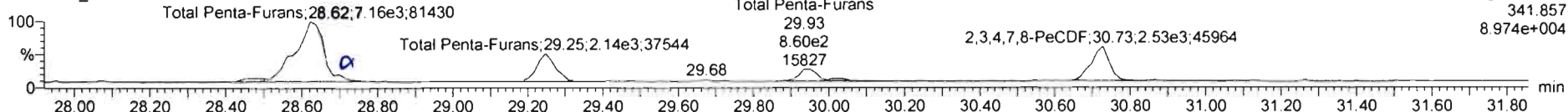
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**1,2,3,7,8-PeCDF**

200314R2\_11

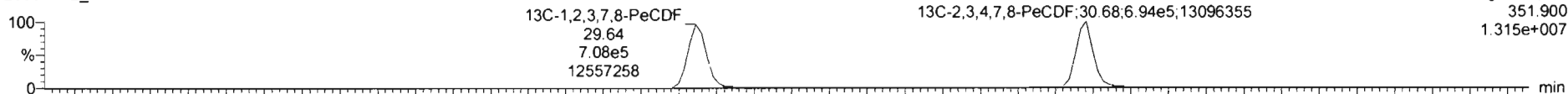


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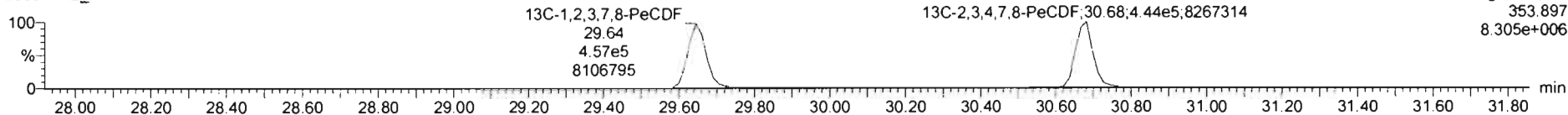


**13C-1,2,3,7,8-PeCDF**

200314R2\_11

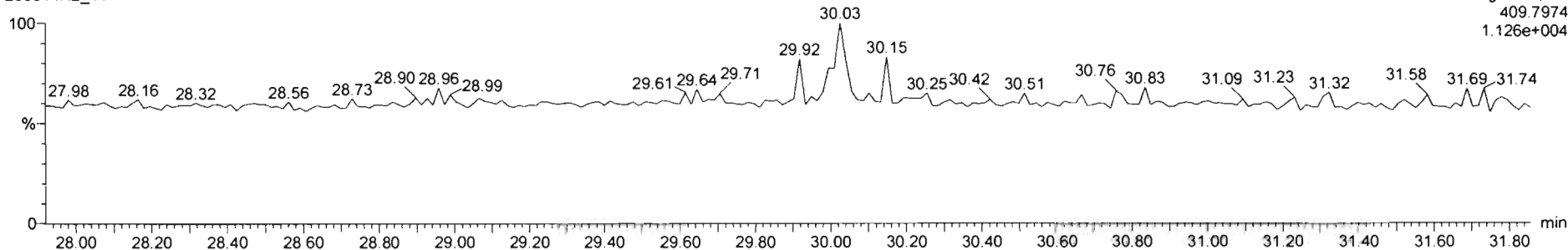


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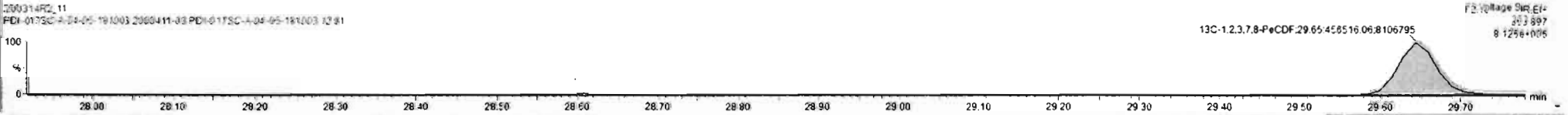
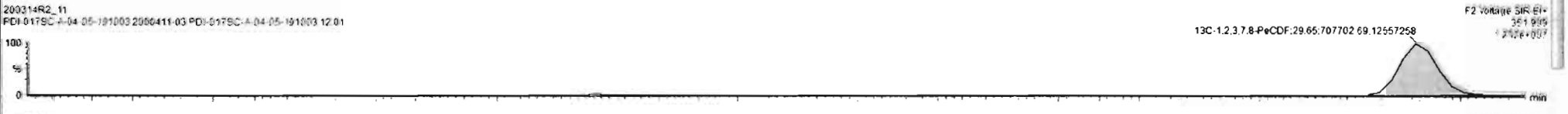
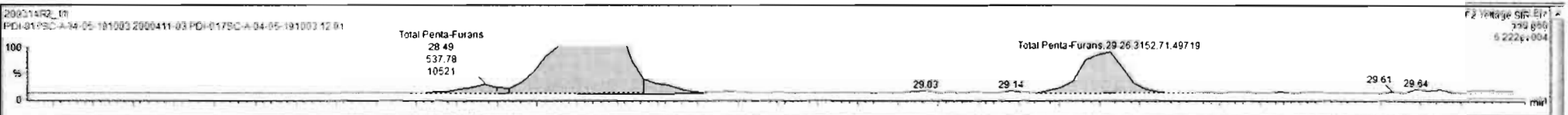
**DPE2**

200314R2\_11



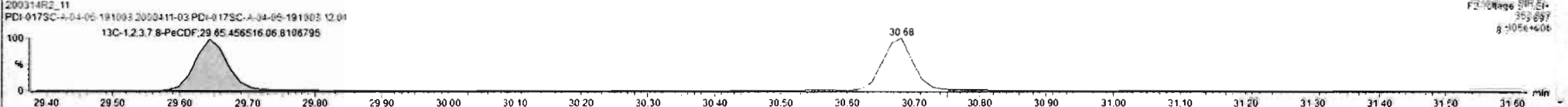
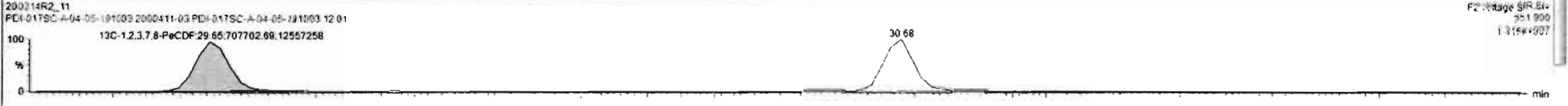
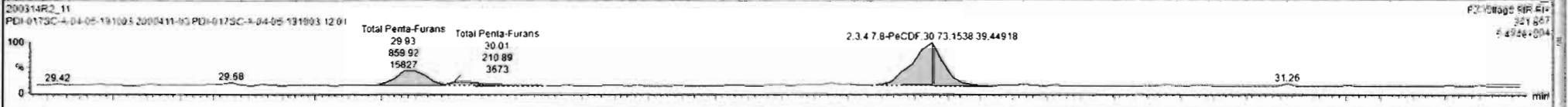
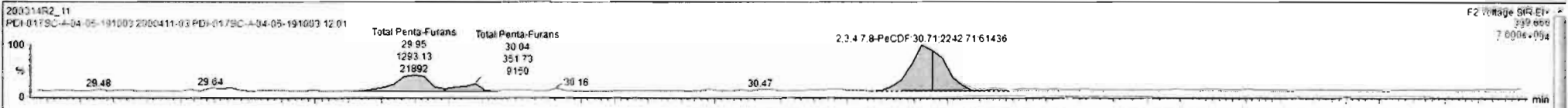
Name	Resp	RA	n/y	RRF	w/Vol	RT	RRT	Conc	%Rec	Dx	EMPC
45 Total Penta-Furans				0.9594	10.836			5.97		0.0662	5.97
46 Total Hexa-Furans				1.0920	10.038			7.39		0.0610	8.19

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Penta-Furans	28.49	5.378e2	3.201e2	1.68	NO	0.15478	0.15478
2 Total Penta-Furans	28.84	1.025e4	6.857e3	1.49	NO	3.0860	3.0860
3 Total Penta-Furans	28.68	6.038e2	3.717e2	1.62	NO	0.17599	0.17599
4 Total Penta-Furans	29.26	3.153e3	2.141e3	1.47	NO	0.95496	0.95496
5 Total Penta-Furans	29.95	1.293e3	8.599e2	1.50	NO	0.38844	0.38844
6 Total Penta-Furans	30.04	3.517e2	2.072e2	1.70	NO	0.10083	0.10083
7 2,3,4,7,8-PeCDF	30.71	3.797e3	2.532e3	1.50	NO	1.1043	1.1043



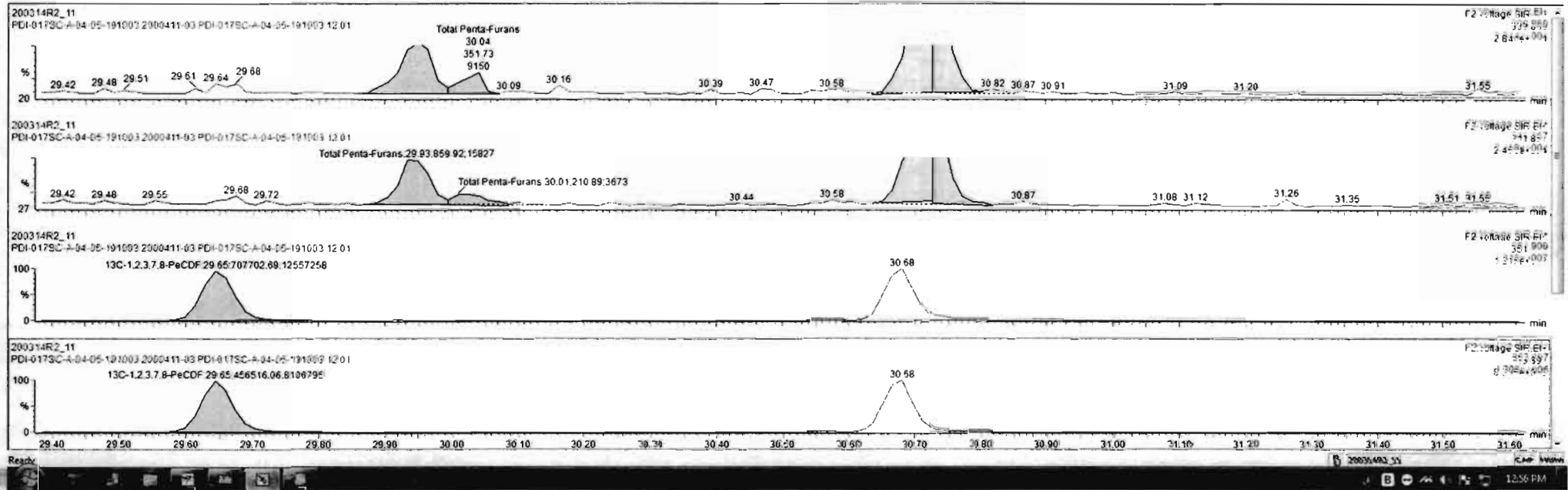
Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9584	10.038			5.96		0.0652	5.96
46 Total Hexa-Furans				1.0920	10.038			7.39		0.0610	8.19

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Penta-Furans	28.49	5.378e2	3.201e2	1.66	NO	0.15478	0.15478
2 Total Penta-Furans	28.64	1.025e4	6.857e3	1.49	NO	2.0880	3.0860
3 Total Penta-Furans	28.68	6.038e2	3.717e2	1.62	NO	0.17599	0.17599
4 Total Penta-Furans	29.26	3.153e3	2.141e3	1.47	NO	0.95496	0.95496
5 Total Penta-Furans	29.95	1.293e3	8.599e2	1.50	NO	0.38844	0.38844
6 Total Penta-Furans	30.04	3.517e2	2.109e2	1.67	NO	0.10150	0.10150
7 2,3,4,7,8-PeCDF	30.71	2.243e3	1.538e3	1.48	NO	0.65971	0.65971
8 Total Penta-Furans	30.73	1.447e3	9.574e2	1.51	NO	0.43384	0.43384



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.038			5.90		0.0602	5.98
46 Total Hexa-Furans				1.0920	10.038			7.39		0.0610	8.19

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Penta-Furans	28.49	5.378e2	3.201e2	1.68	NO	0.15478	0.15478
2 Total Penta-Furans	28.84	1.025e4	6.857e3	1.46	NO	3.0860	3.0860
3 Total Penta-Furans	28.68	6.038e2	3.717e2	1.62	NO	0.17599	0.17599
4 Total Penta-Furans	29.26	3.153e3	2.141e3	1.47	NO	0.95496	0.95496
5 Total Penta-Furans	29.85	1.293e3	8.599e2	1.50	NO	0.38844	0.38844
6 Total Penta-Furans	30.04	3.517e2	2.109e2	1.67	NO	0.10150	0.10150
7 2,3,4,7,8-PeCDF	30.71	2.243e3	1.538e3	1.48	NO	0.65971	0.65971
8 Total Penta-Furans	30.73	1.447e3	9.574e2	1.51	NO	0.43384	0.43384



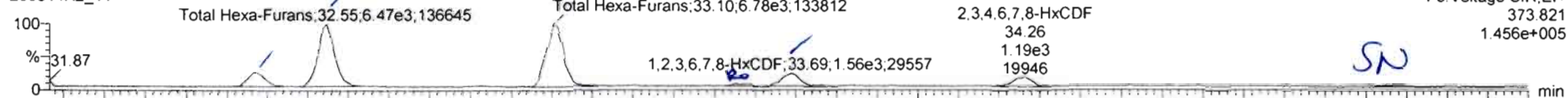
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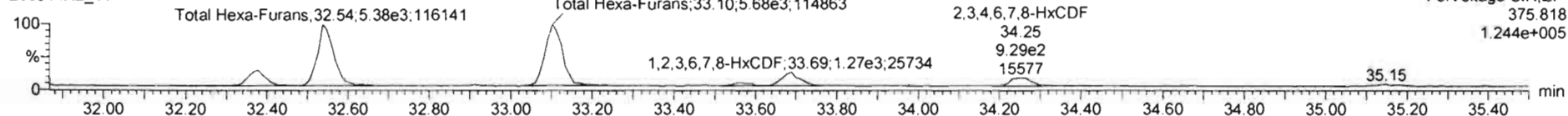
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**1,2,3,4,7,8-HxCDF**

200314R2\_11

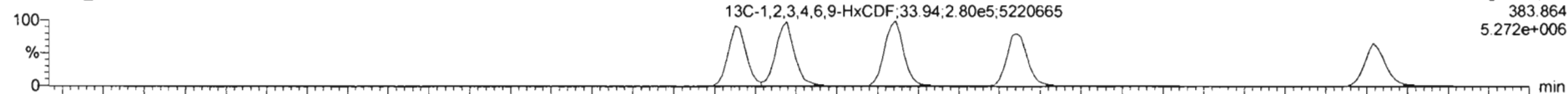


200314R2\_11

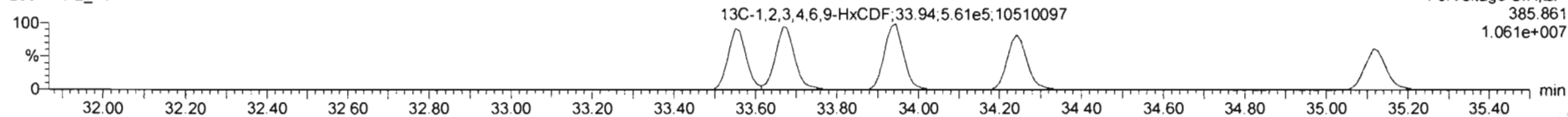


**13C-1,2,3,4,7,8-HxCDF**

200314R2\_11

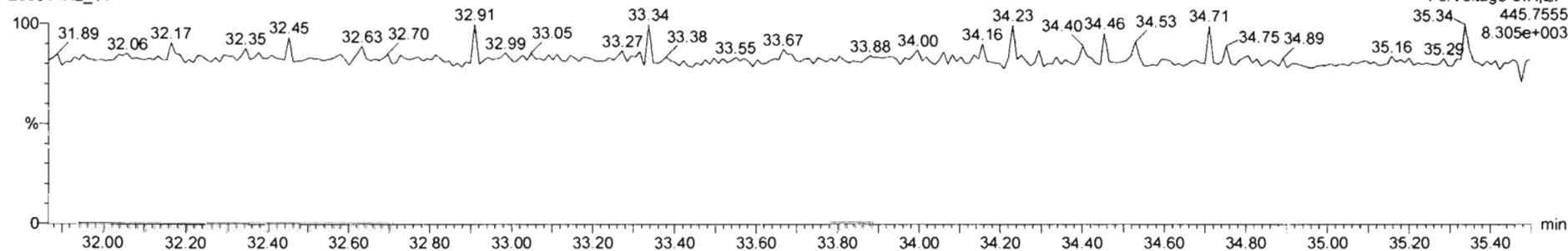


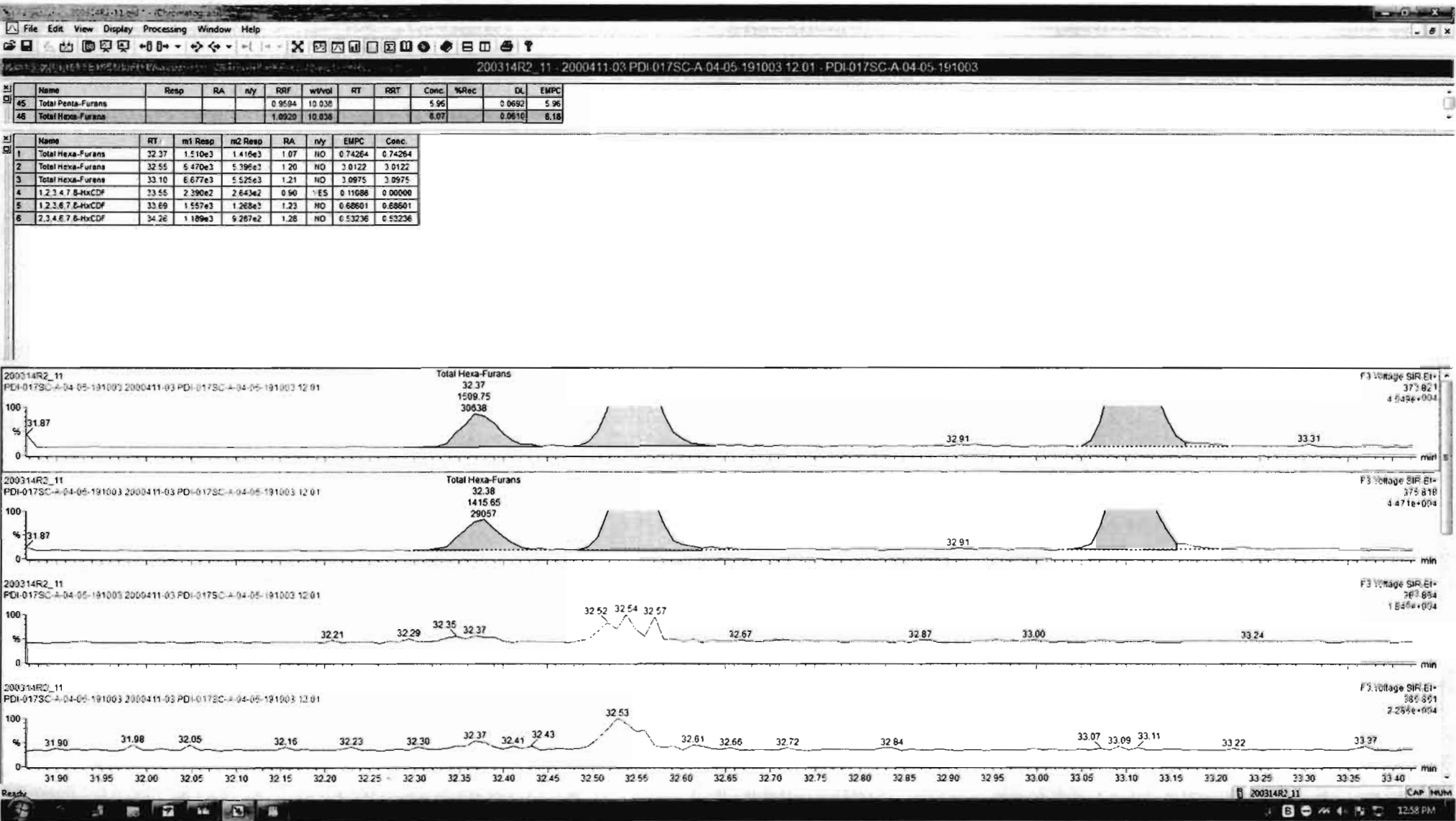
200314R2\_11



**DPE3**

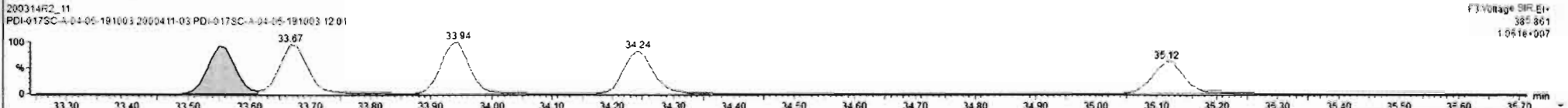
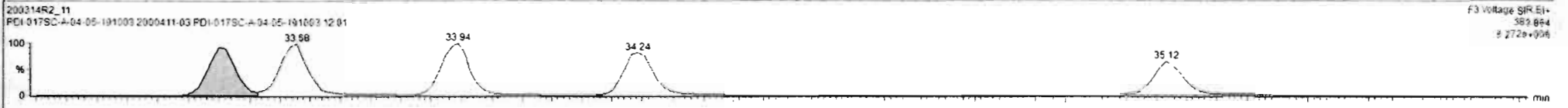
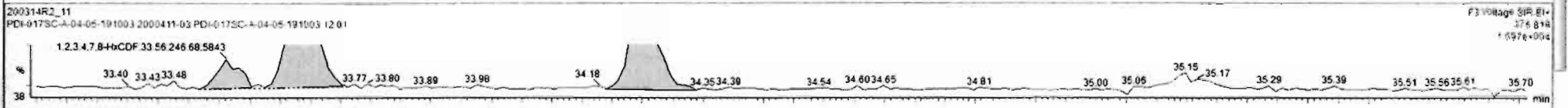
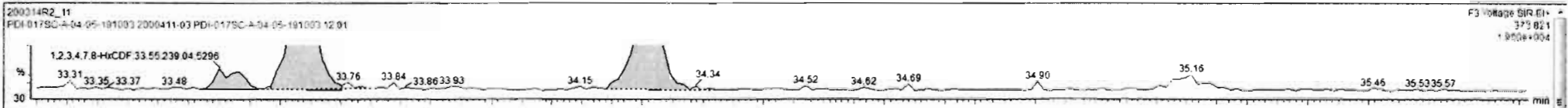
200314R2\_11





#	Name	Resp	RA	n/y	RRF	wtvol	RT	RRT	Conc	%Rec	DL	EMPC
45	Total Penta-Furans				0.9594	10.038			5.96		0.0692	5.96
46	Total Hexa-Furans				1.8920	10.038			8.06		0.0610	8.17

#	Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1	Total Hexa-Furans	32.37	1.510e3	1.415e3	1.07	NO	0.74264	0.74264
2	Total Hexa-Furans	32.55	6.470e3	5.396e3	1.20	NO	3.0122	3.0122
3	Total Hexa-Furans	33.10	6.677e3	5.525e3	1.21	NO	3.0975	3.0975
4	1,2,3,4,7,8-HxCDF	33.55	2.390e2	2.467e2	0.97	YES	0.11088	0.00000
5	1,2,3,6,7,8-HxCDF	33.69	1.550e3	1.264e3	1.23	NO	0.68328	0.68328
6	2,3,4,6,7,8-HxCDF	34.26	1.160e3	9.287e2	1.25	NO	0.52510	0.52510



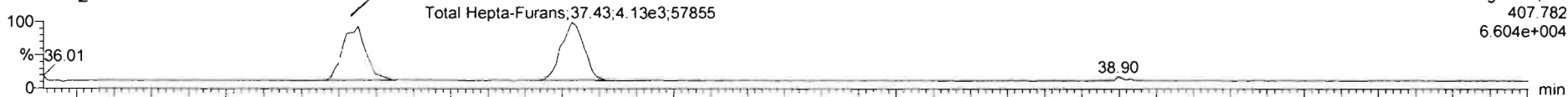
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

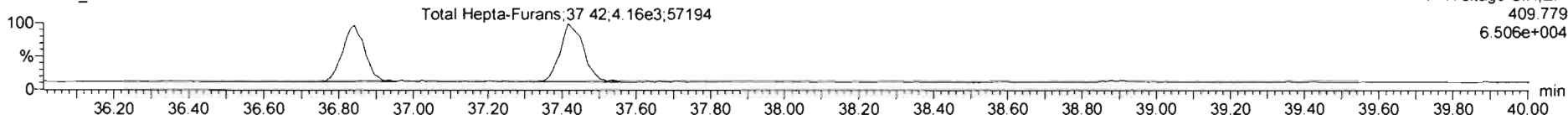
Name: 200314R2\_11, Date: 14-Mar-2020, Time: 19:13:19, ID: 2000411-03 PDI-017SC-A-04-05-191003 12.01, Description: PDI-017SC-A-04-05-191003

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

200314R2\_11



200314R2\_11

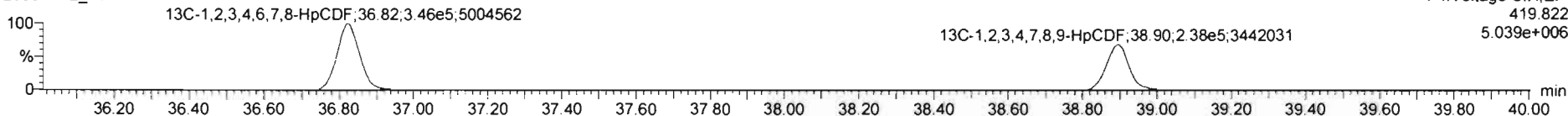


**13C-1,2,3,4,6,7,8-HpCDF**

200314R2\_11

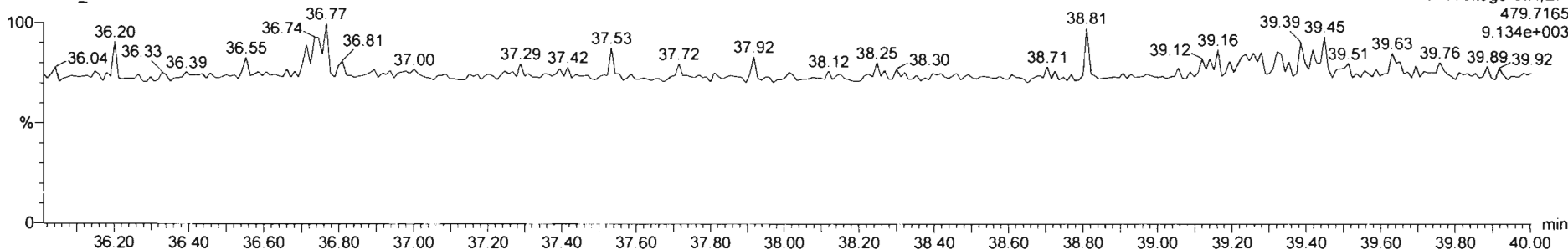


200314R2\_11



**DPE4**

200314R2\_11



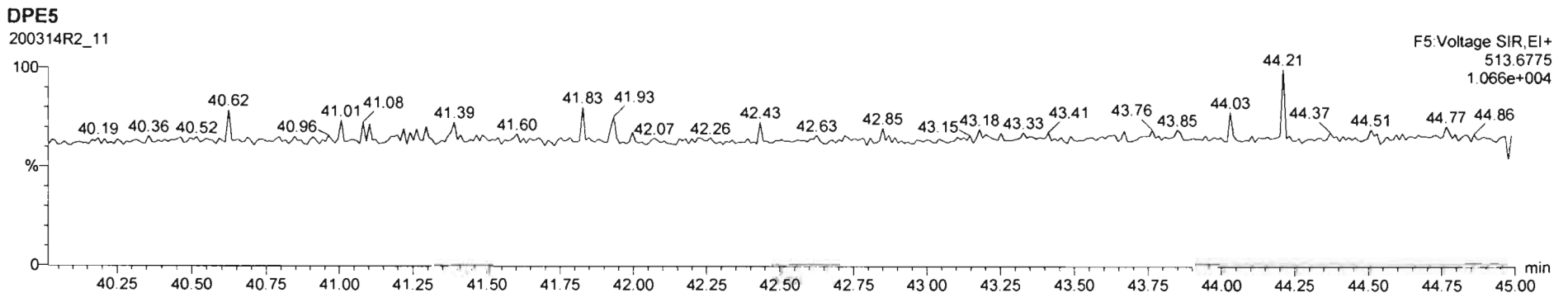
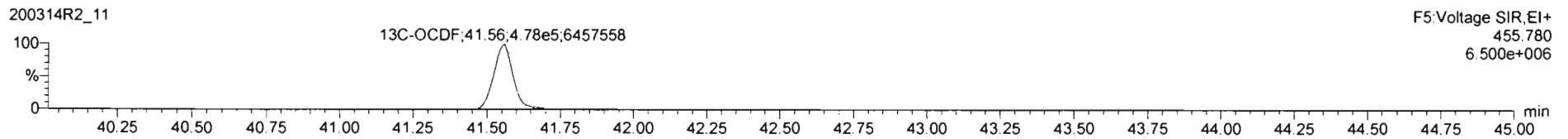
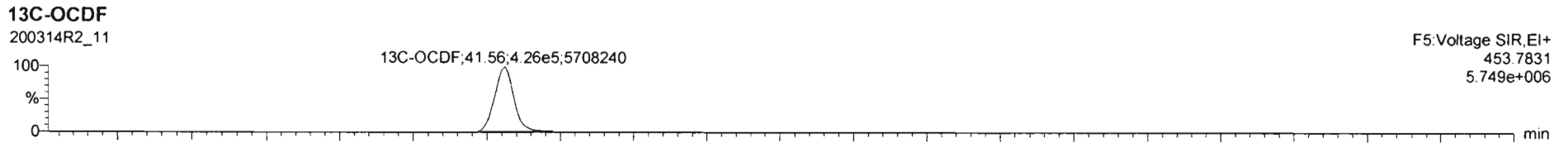
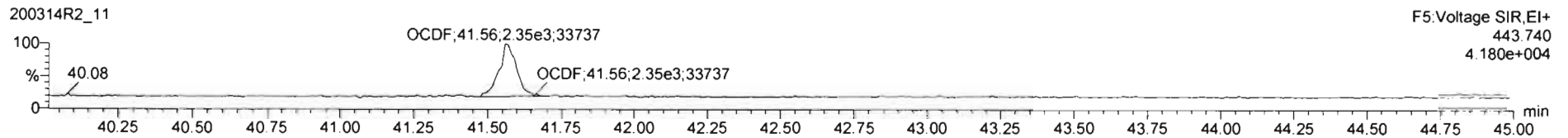
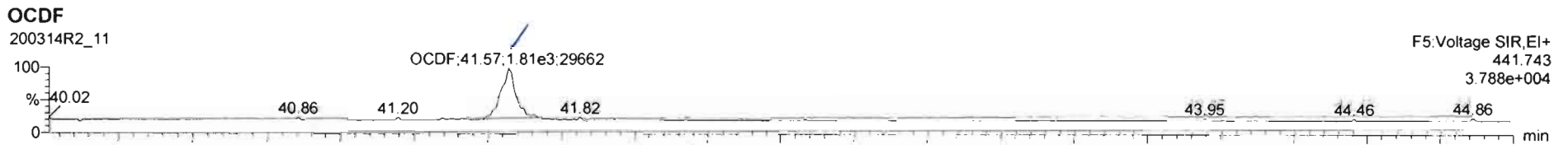


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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_11, Date: 14-Mar-2020, Time: 19:13:19, ID: 2000411-03 PDI-017SC-A-04-05-191003 12.01, Description: PDI-017SC-A-04-05-191003



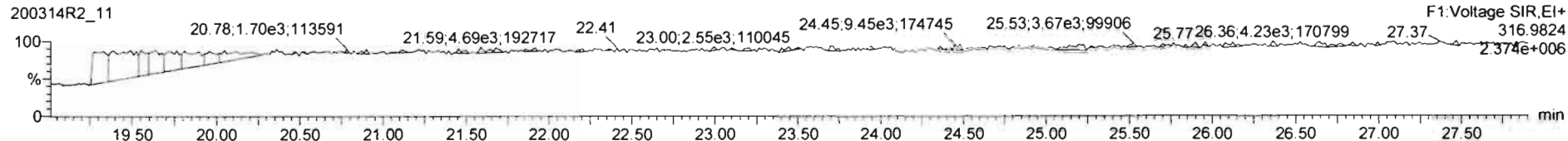
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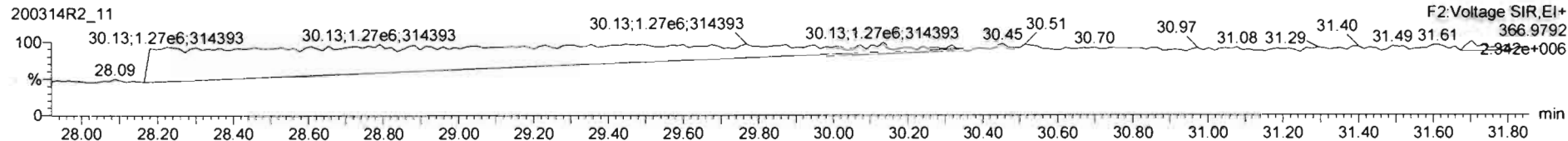
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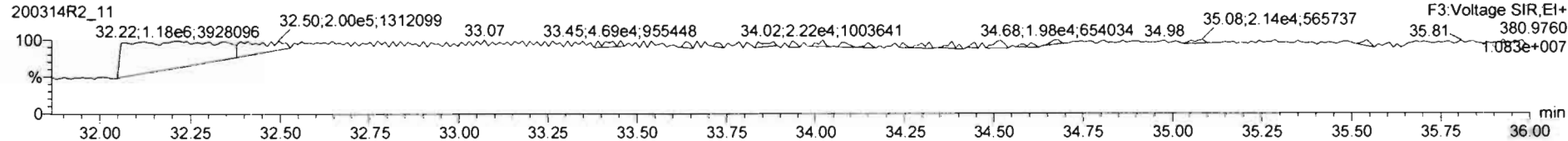
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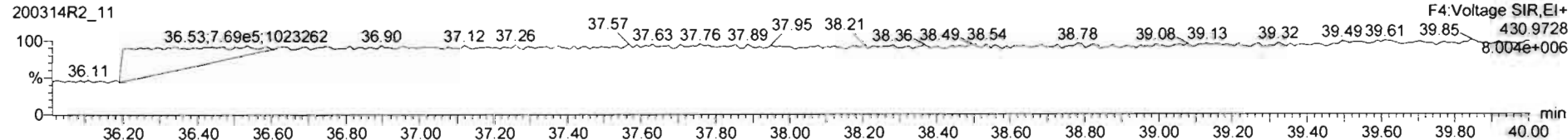
**PFK2**



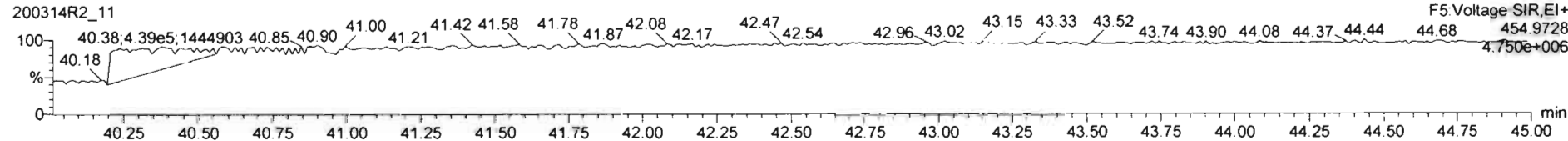
**PFK3**



**PFK4**



**PFK5**



Dataset: U:\VG12.PRO\Results\200314R2\200314R2-12.qld

Last Altered: Sunday, March 15, 2020 1:47:01 PM Pacific Daylight Time  
Printed: Sunday, March 15, 2020 1:47:32 PM Pacific Daylight Time

*GRB 03/15/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08  
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

*WJH  
3/15/20*

Name: 200314R2\_12, Date: 14-Mar-2020, Time: 20:00:54, ID: 2000411-04 PDI-017SC-A-05-06-191003 13.89, Description: PDI-017SC-A-05-06-191003

#	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	0.983	10.008	25.766		1.001				0.0877	
2	2 1,2,3,7,8-PeCDD	3.43e3	0.69	NO	0.921	10.008	31.025	31.02	1.001	1.000	0.93678		0.0887	0.937
3	3 1,2,3,4,7,8-HxCDD	1.67e3	1.35	NO	1.13	10.008	34.423	34.44	1.000	1.001	0.55962		0.115	0.560
4	4 1,2,3,6,7,8-HxCDD	2.08e4	1.22	NO	0.984	10.008	34.520	34.53	1.000	1.000	6.7648		0.121	6.76
5	5 1,2,3,7,8,9-HxCDD	7.03e3	1.18	NO	0.967	10.008	34.796	34.80	1.000	1.000	2.5436		0.132	2.54
6	6 1,2,3,4,6,7,8-HpCDD	1.04e5	1.00	NO	1.01	10.008	38.269	38.27	1.000	1.000	50.681		0.516	50.7
7	7 OCDD	1.76e6	0.90	NO	1.05	10.008	41.379	41.39	1.000	1.000	815.48		0.438	815
8	8 2,3,7,8-TCDF	1.99e3	0.66	NO	0.915	10.008	24.772	24.75	1.001	1.000	0.30679		0.137	0.307
9	9 1,2,3,7,8-PeCDF	4.67e3	1.75	NO	0.959	10.008	29.681	29.67	1.001	1.001	0.85140		0.108	0.851
10	10 2,3,4,7,8-PeCDF	2.45e4	1.44	NO	1.00	10.008	30.713	30.73	1.001	1.001	4.4303		0.112	4.43
11	11 1,2,3,4,7,8-HxCDF	2.23e4	1.27	NO	1.04	10.008	33.551	33.57	1.000	1.001	5.7136		0.158	5.71
12	12 1,2,3,6,7,8-HxCDF	5.60e4	1.21	NO	1.01	10.008	33.689	33.69	1.000	1.000	13.651		0.152	13.7
13	13 2,3,4,6,7,8-HxCDF	3.54e4	1.22	NO	1.09	10.008	34.277	34.26	1.001	1.001	9.2064		0.177	9.21
14	14 1,2,3,7,8,9-HxCDF	1.29e3	1.21	NO	1.03	10.008	35.127	35.16	1.000	1.001	0.41135		0.245	0.411
15	15 1,2,3,4,6,7,8-HpCDF	1.41e6	1.00	NO	1.05	10.008	36.868	36.85	1.001	1.001	492.17		0.497	492
16	16 1,2,3,4,7,8,9-HpCDF	5.62e3	0.97	NO	1.21	10.008	38.897	38.92	1.000	1.001	2.6218		0.648	2.62
17	17 OCDF	3.45e5	0.88	NO	0.947	10.008	41.560	41.56	1.000	1.000	155.55		0.213	156
18	18 13C-2,3,7,8-TCDD	1.05e6	0.78	NO	1.18	10.008	25.735	25.74	1.029	1.029	200.77	100	0.307	
19	19 13C-1,2,3,7,8-PeCDD	7.94e5	0.62	NO	0.864	10.008	30.919	31.00	1.236	1.239	207.66	104	0.212	
20	20 13C-1,2,3,4,7,8-HxCDD	5.25e5	1.22	NO	0.754	10.008	34.417	34.41	1.014	1.014	175.56	87.8	0.440	
21	21 13C-1,2,3,6,7,8-HxCDD	6.24e5	1.22	NO	0.925	10.008	34.525	34.52	1.017	1.017	169.84	85.0	0.359	
22	22 13C-1,2,3,7,8,9-HxCDD	5.71e5	1.20	NO	0.829	10.008	34.787	34.79	1.025	1.025	173.38	86.8	0.400	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.07e5	1.06	NO	0.598	10.008	38.242	38.26	1.127	1.127	171.32	85.7	0.378	
24	24 13C-OCDD	8.21e5	0.91	NO	0.571	10.008	41.389	41.38	1.219	1.219	361.99	90.6	0.423	
25	25 13C-2,3,7,8-TCDF	1.42e6	0.77	NO	1.09	10.008	24.757	24.75	0.990	0.989	188.85	94.5	0.405	
26	26 13C-1,2,3,7,8-PeCDF	1.14e6	1.56	NO	0.876	10.008	29.590	29.66	1.183	1.186	189.48	94.8	0.504	
27	27 13C-2,3,4,7,8-PeCDF	1.10e6	1.62	NO	0.844	10.008	30.601	30.68	1.223	1.226	189.41	94.8	0.524	
28	28 13C-1,2,3,4,7,8-HxCDF	7.52e5	0.50	NO	1.00	10.008	33.565	33.55	0.989	0.988	189.47	94.8	0.414	
29	29 13C-1,2,3,6,7,8-HxCDF	8.10e5	0.49	NO	1.12	10.008	33.673	33.68	0.992	0.992	182.53	91.3	0.370	
30	30 13C-2,3,4,6,7,8-HxCDF	7.05e5	0.50	NO	1.04	10.008	34.254	34.24	1.009	1.009	171.46	85.8	0.400	
31	31 13C-1,2,3,7,8,9-HxCDF	6.09e5	0.52	NO	0.873	10.008	35.126	35.13	1.035	1.035	175.60	87.9	0.474	

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-12.qld

Last Altered: Sunday, March 15, 2020 1:47:01 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 1:47:32 PM Pacific Daylight Time

Name: 200314R2\_12, Date: 14-Mar-2020, Time: 20:00:54, ID: 2000411-04 PDI-017SC-A-05-06-191003 13.89, Description: PDI-017SC-A-05-06-191003

#	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	5.44e5	0.42	NO	0.771	10.008	36.841	36.83	1.085	1.085	177.96	89.0	0.397	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.54e5	0.44	NO	0.519	10.008	38.925	38.90	1.147	1.146	171.69	85.9	0.589	
34	34 13C-OCDF	9.37e5	0.90	NO	0.696	10.008	41.569	41.56	1.225	1.224	339.09	84.8	0.389	
35	35 37Cl-2,3,7,8-TCDD	3.83e5			1.17	10.008	25.745	25.76	1.029	1.030	73.683	92.2	0.0662	
36	36 13C-1,2,3,4-TCDD	8.84e5	0.78	NO	1.00	10.008	25.050	25.02	1.000	1.000	199.85	100	0.364	
37	37 13C-1,2,3,4-TCDF	1.38e6	0.79	NO	1.00	10.008	23.190	23.10	1.000	1.000	199.85	100	0.441	
38	38 13C-1,2,3,4,6,9-HxCDF	7.93e5	0.50	NO	1.00	10.008	33.880	33.94	1.000	1.000	199.85	100	0.414	
39	39 Total Tetra-Dioxins				0.983	10.008	24.620		0.000		1.6093		0.0877	1.61
40	40 Total Penta-Dioxins				0.921	10.008	29.960		0.000		10.713		0.0887	11.5
41	41 Total Hexa-Dioxins				0.984	10.008	33.635		0.000		63.614		0.127	63.6
42	42 Total Hepta-Dioxins				1.01	10.008	37.640		0.000		125.72		0.516	126
43	43 Total Tetra-Furans				0.915	10.008	23.610		0.000		31.580		0.137	32.2
44	44 1st Func. Penta-Furans				0.959	10.008	27.090		0.000		82.320		0.0375	82.3
45	45 Total Penta-Furans				0.959	10.008	29.275		0.000		32.991		0.112	33.0
46	46 Total Hexa-Furans				1.09	10.008	33.555		0.000		301.14		0.171	301
47	47 Total Hepta-Furans				1.05	10.008	37.835		0.000		812.98		0.596	813

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-12.qld

Last Altered: Sunday, March 15, 2020 1:47:01 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 1:47:32 PM Pacific Daylight Time

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Calibration: U:\VG12.PRO\CurveDB\1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R2\_12, Date: 14-Mar-2020, Time: 20:00:54, ID: 2000411-04 PDI-017SC-A-05-06-191003 13.89, Description: PDI-017SC-A-05-06-191003

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.42	1.339e4	1.390e4	1.002e3	1.269e3	0.79	NO	2.271e3	0.43875	0.43875	0.0877
2	Total Tetra-Dioxins	21.83	6.031e3	6.801e3	4.433e2	6.110e2	0.73	NO	1.054e3	0.20366	0.20366	0.0877
3	Total Tetra-Dioxins	22.31	8.622e3	8.553e3	8.284e2	9.709e2	0.85	NO	1.799e3	0.34757	0.34757	0.0877
4	Total Tetra-Dioxins	23.33	7.163e3	7.449e3	5.653e2	6.579e2	0.86	NO	1.223e3	0.23628	0.23628	0.0877
5	Total Tetra-Dioxins	23.86	5.344e3	7.460e3	4.838e2	6.311e2	0.77	NO	1.115e3	0.21538	0.21538	0.0877
6	Total Tetra-Dioxins	24.39	5.032e3	7.371e3	3.516e2	5.162e2	0.68	NO	8.678e2	0.16763	0.16763	0.0877

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.71	7.280e4	1.166e5	5.879e3	8.562e3	0.69	NO	1.444e4	3.9445	3.9445	0.0887
2	Total Penta-Dioxins	29.20	2.463e4	3.168e4	1.155e3	1.706e3	0.68	NO	2.861e3	0.78144	0.78144	0.0887
3	Total Penta-Dioxins	29.74	4.561e4	6.258e4	2.486e3	3.924e3	0.63	NO	6.409e3	1.7507	1.7507	0.0887
4	Total Penta-Dioxins	29.90	2.492e4	4.553e4	1.492e3	2.398e3	0.62	NO	3.890e3	1.0625	1.0625	0.0887
5	Total Penta-Dioxins	29.98	1.848e4	2.767e4	8.810e2	1.497e3	0.59	NO	2.378e3	0.64965	0.64965	0.0887
6	Total Penta-Dioxins	30.23	2.453e4	4.031e4	1.138e3	1.898e3	0.60	NO	3.036e3	0.82936	0.82936	0.0887
7	Total Penta-Dioxins	30.25	2.560e4	3.724e4	1.249e3	1.689e3	0.74	YES	0.000e0	0.00000	0.75211	0.0887
8	1,2,3,7,8-PeCDD	31.02	2.720e4	3.632e4	1.405e3	2.024e3	0.69	NO	3.430e3	0.93678	0.93678	0.0887
9	Total Penta-Dioxins	31.11	8.990e3	1.507e4	4.907e2	6.774e2	0.72	NO	1.168e3	0.31906	0.31906	0.0887
10	Total Penta-Dioxins	31.42	1.191e4	1.834e4	6.345e2	9.738e2	0.65	NO	1.608e3	0.43930	0.43930	0.0887

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-12.qld

Last Altered: Sunday, March 15, 2020 1:47:01 PM Pacific Daylight Time

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Name: 200314R2\_12, Date: 14-Mar-2020, Time: 20:00:54, ID: 2000411-04 PDI-017SC-A-05-06-191003 13.89, Description: PDI-017SC-A-05-06-191003

Hexa-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.95	6.189e5	4.448e5	3.000e4	2.342e4	1.28	NO	5.341e4	18.913	18.913	0.127
2	Total Hexa-Dioxins	33.02	2.380e4	1.604e4	5.607e2	4.059e2	1.38	NO	9.666e2	0.34228	0.34228	0.127
3	Total Hexa-Dioxins	33.51	4.904e4	4.503e4	2.494e3	2.081e3	1.20	NO	4.575e3	1.6200	1.6200	0.127
4	Total Hexa-Dioxins	33.56	9.320e3	6.972e3	2.399e2	2.015e2	1.19	NO	4.413e2	0.15626	0.15626	0.127
5	Total Hexa-Dioxins	33.76	7.975e5	6.488e5	4.855e4	3.978e4	1.22	NO	8.833e4	31.277	31.277	0.127
6	Total Hexa-Dioxins	33.83	4.662e4	3.287e4	1.838e3	1.307e3	1.41	NO	3.145e3	1.1137	1.1137	0.127
7	1,2,3,4,7,8-HxCDD	34.44	2.184e4	1.276e4	9.568e2	7.093e2	1.35	NO	1.666e3	0.55962	0.55962	0.115
8	1,2,3,6,7,8-HxCDD	34.53	2.009e5	1.654e5	1.141e4	9.377e3	1.22	NO	2.079e4	6.7648	6.7648	0.121
9	Total Hexa-Dioxins	34.71	1.285e4	9.083e3	5.050e2	4.107e2	1.23	NO	9.157e2	0.32422	0.32422	0.127
10	1,2,3,7,8,9-HxCDD	34.80	6.336e4	5.176e4	3.806e3	3.222e3	1.18	NO	7.028e3	2.5436	2.5436	0.132

Hepta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.22	1.034e6	1.057e6	7.647e4	7.718e4	0.99	NO	1.537e5	75.036	75.036	0.516
2	1,2,3,4,6,7,8-HpCDD	38.27	6.464e5	6.555e5	5.189e4	5.190e4	1.00	NO	1.038e5	50.681	50.681	0.516

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-12.qld

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 Printed: Sunday, March 15, 2020 1:47:32 PM Pacific Daylight Time

Name: 200314R2\_12, Date: 14-Mar-2020, Time: 20:00:54, ID: 2000411-04 PDI-017SC-A-05-06-191003 13.89, Description: PDI-017SC-A-05-06-191003

Tetra-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.40	1.749e4	1.673e4	1.167e3	1.433e3	0.81	NO	2.601e3	0.40108	0.40108	0.137
2	Total Tetra-Furans	19.90	4.016e4	4.306e4	2.857e3	3.608e3	0.79	NO	6.465e3	0.99705	0.99705	0.137
3	Total Tetra-Furans	20.48	3.671e5	4.790e5	3.182e4	4.232e4	0.75	NO	7.414e4	11.434	11.434	0.137
4	Total Tetra-Furans	20.92	1.115e4	1.182e4	8.181e2	1.049e3	0.78	NO	1.867e3	0.28794	0.28794	0.137
5	Total Tetra-Furans	21.01	1.059e4	1.434e4	9.465e2	1.415e3	0.67	NO	2.361e3	0.36415	0.36415	0.137
6	Total Tetra-Furans	21.38	9.023e4	1.177e5	8.368e3	1.107e4	0.76	NO	1.944e4	2.9981	2.9981	0.137
7	Total Tetra-Furans	21.84	1.402e5	1.950e5	1.245e4	1.661e4	0.75	NO	2.905e4	4.4802	4.4802	0.137
8	Total Tetra-Furans	21.98	4.826e3	5.426e3	4.355e2	3.541e2	1.23	YES	0.000e0	0.00000	0.096668	0.137
9	Total Tetra-Furans	22.22	6.356e3	9.099e3	5.268e2	7.277e2	0.72	NO	1.255e3	0.19347	0.19347	0.137
10	Total Tetra-Furans	22.82	7.004e3	7.778e3	4.290e2	5.611e2	0.76	NO	9.902e2	0.15270	0.15270	0.137
11	Total Tetra-Furans	23.00	7.787e4	1.057e5	7.994e3	1.111e4	0.72	NO	1.911e4	2.9467	2.9467	0.137
12	Total Tetra-Furans	23.13	7.124e3	8.077e3	5.599e2	5.686e2	0.98	YES	0.000e0	0.00000	0.15520	0.137
13	Total Tetra-Furans	23.70	1.778e4	2.544e4	1.843e3	2.460e3	0.75	NO	4.303e3	0.66361	0.66361	0.137
14	Total Tetra-Furans	23.83	1.774e4	2.167e4	1.329e3	1.538e3	0.86	NO	2.868e3	0.44222	0.44222	0.137
15	Total Tetra-Furans	24.66	9.152e3	9.986e3	4.940e2	8.503e2	0.58	YES	0.000e0	0.00000	0.17511	0.137
16	2,3,7,8-TCDF	24.75	1.054e4	1.775e4	7.913e2	1.198e3	0.66	NO	1.989e3	0.30679	0.30679	0.137
17	Total Tetra-Furans	25.20	6.213e3	8.084e3	4.468e2	5.937e2	0.75	NO	1.041e3	0.16046	0.16046	0.137
18	Total Tetra-Furans	25.45	3.278e3	4.581e3	1.802e2	3.241e2	0.56	YES	0.000e0	0.00000	0.063865	0.137
19	Total Tetra-Furans	25.90	2.969e3	4.654e3	2.743e2	2.961e2	0.93	YES	0.000e0	0.00000	0.080822	0.137
20	Total Tetra-Furans	26.48	2.118e4	3.120e4	1.558e3	2.016e3	0.77	NO	3.575e3	0.55124	0.55124	0.137
21	Total Tetra-Furans	26.68	1.176e4	1.531e4	8.034e2	1.021e3	0.79	NO	1.825e3	0.28140	0.28140	0.137
22	Total Tetra-Furans	26.95	1.836e5	2.653e5	1.356e4	1.833e4	0.74	NO	3.190e4	4.9187	4.9187	0.137

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	26.95	4.173e6	2.621e6	2.710e5	1.721e5	1.57	NO	4.431e5	82.320	82.320	0.0375

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-12.qld

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Name: 200314R2\_12, Date: 14-Mar-2020, Time: 20:00:54, ID: 2000411-04 PDI-017SC-A-05-06-191003 13.89, Description: PDI-017SC-A-05-06-191003

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.49	3.476e4	2.278e4	2.167e3	1.340e3	1.62	NO	3.507e3	0.65156	0.65156	0.112
2	Total Penta-Furans	28.64	5.866e5	3.777e5	5.147e4	3.236e4	1.59	NO	8.383e4	15.575	15.575	0.112
3	Total Penta-Furans	28.70	6.026e4	2.957e4	2.197e3	1.284e3	1.71	NO	3.481e3	0.64669	0.64669	0.112
4	Total Penta-Furans	29.03	1.155e4	7.450e3	6.299e2	3.829e2	1.65	NO	1.013e3	0.18818	0.18818	0.112
5	Total Penta-Furans	29.26	4.260e5	2.749e5	2.465e4	1.567e4	1.57	NO	4.032e4	7.4907	7.4907	0.112
6	Total Penta-Furans	29.32	2.524e4	1.520e4	6.950e2	4.945e2	1.41	NO	1.190e3	0.22101	0.22101	0.112
7	Total Penta-Furans	29.48	2.487e4	1.720e4	1.333e3	8.121e2	1.64	NO	2.145e3	0.39849	0.39849	0.112
8	1,2,3,7,8-PeCDF	29.67	5.423e4	3.739e4	2.972e3	1.699e3	1.75	NO	4.671e3	0.85140	0.85140	0.108
9	Total Penta-Furans	29.95	9.558e4	5.889e4	5.129e3	3.487e3	1.47	NO	8.616e3	1.6008	1.6008	0.112
10	Total Penta-Furans	30.06	4.125e4	3.120e4	2.531e3	1.429e3	1.77	NO	3.960e3	0.73573	0.73573	0.112
11	Total Penta-Furans	30.59	1.319e4	9.016e3	6.567e2	4.231e2	1.55	NO	1.080e3	0.20061	0.20061	0.112
12	2,3,4,7,8-PeCDF	30.73	2.027e5	1.439e5	1.443e4	1.003e4	1.44	NO	2.446e4	4.4303	4.4303	0.112

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.39	2.469e6	2.033e6	1.274e5	1.050e5	1.21	NO	2.324e5	59.165	59.165	0.171
2	Total Hexa-Furans	32.56	4.519e6	3.737e6	2.316e5	1.894e5	1.22	NO	4.210e5	107.19	107.19	0.171
3	Total Hexa-Furans	32.92	3.463e4	2.937e4	1.661e3	1.470e3	1.13	NO	3.131e3	0.79727	0.79727	0.171
4	Total Hexa-Furans	33.11	4.447e6	3.727e6	2.245e5	1.828e5	1.23	NO	4.073e5	103.71	103.71	0.171
5	Total Hexa-Furans	33.47	1.364e4	1.426e4	6.862e2	5.910e2	1.16	NO	1.277e3	0.32520	0.32520	0.171
6	1,2,3,4,7,8-HxCDF	33.57	2.275e5	1.919e5	1.249e4	9.834e3	1.27	NO	2.232e4	5.7136	5.7136	0.158
7	1,2,3,6,7,8-HxCDF	33.69	6.184e5	4.870e5	3.068e4	2.533e4	1.21	NO	5.601e4	13.651	13.651	0.152
8	Total Hexa-Furans	33.97	1.327e4	8.819e3	6.342e2	4.669e2	1.36	NO	1.101e3	0.28036	0.28036	0.171
9	2,3,4,6,7,8-HxCDF	34.26	3.496e5	2.949e5	1.949e4	1.595e4	1.22	NO	3.544e4	9.2064	9.2064	0.177
10	1,2,3,7,8,9-HxCDF	35.16	2.240e4	2.119e4	7.052e2	5.809e2	1.21	NO	1.286e3	0.41135	0.41135	0.245
11	Total Hexa-Furans	35.17	3.092e4	3.339e4	1.397e3	1.306e3	1.07	NO	2.703e3	0.68817	0.68817	0.171



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Dataset: U:\VG12.PRO\Results\200314R2\200314R2-12.qld

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Name: 200314R2\_12, Date: 14-Mar-2020, Time: 20:00:54, ID: 2000411-04 PDI-017SC-A-05-06-191003 13.89, Description: PDI-017SC-A-05-06-191003

**Hepta-Furans**

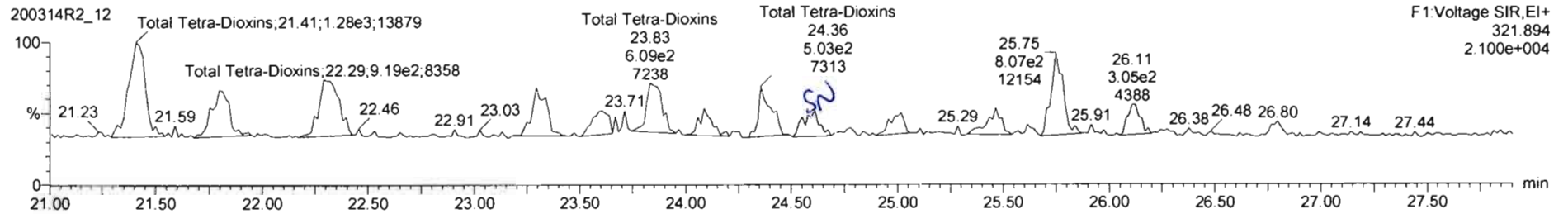
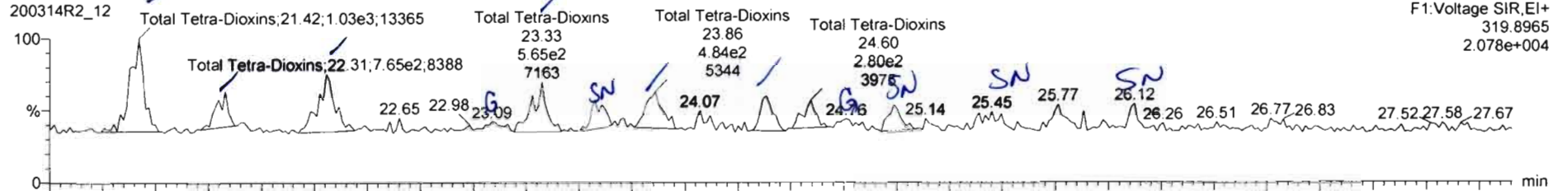
	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.85	1.012e7	9.894e6	7.029e5	7.027e5	1.00	NO	1.406e6	492.17	492.17	0.497
2	Total Hepta-Furans	37.44	5.021e6	5.019e6	3.738e5	3.758e5	0.99	NO	7.496e5	318.19	318.19	0.596
3	1,2,3,4,7,8,9-HpCDF	38.92	4.126e4	4.045e4	2.767e3	2.850e3	0.97	NO	5.617e3	2.6218	2.6218	0.648

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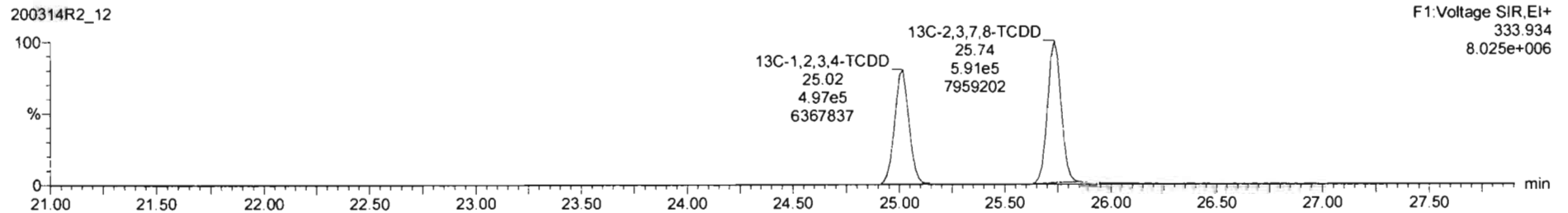
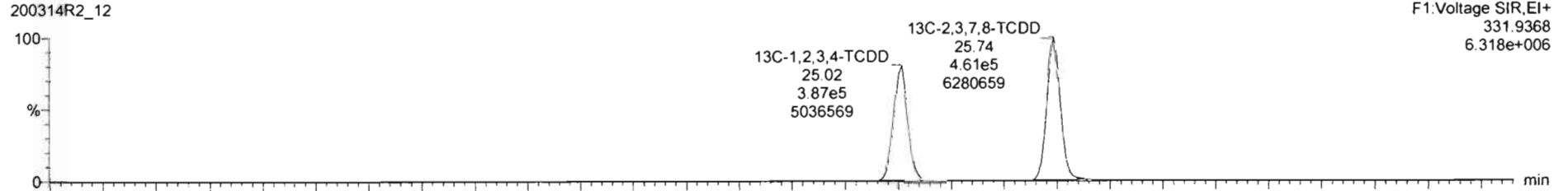
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**2,3,7,8-TCDD**

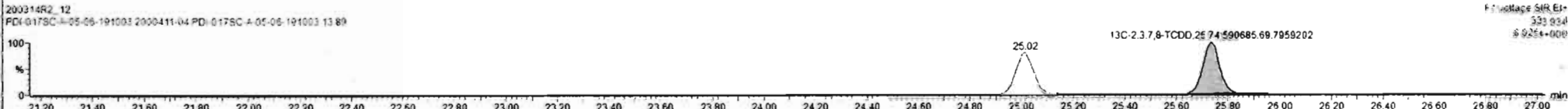
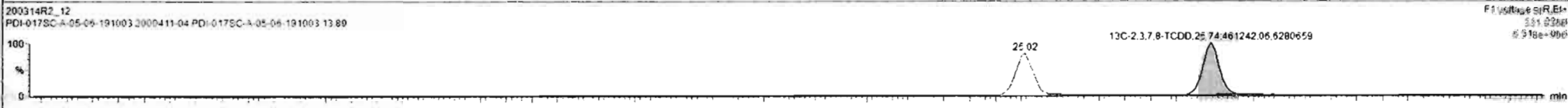
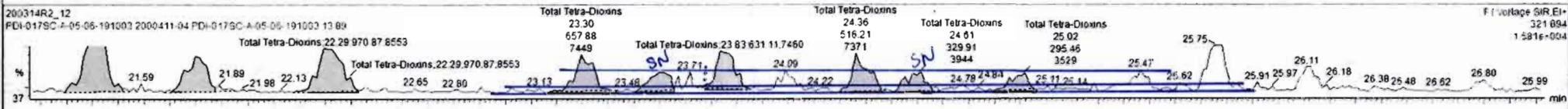
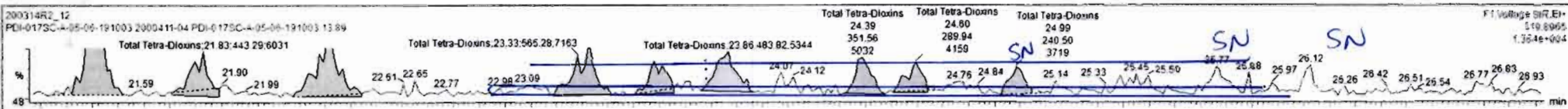


**13C-2,3,7,8-TCDD**



Name	Resp	RA	rvy	RRF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.000			1.96		0.0677	1.96
40 Total Penta-Dioxins				0.9212	10.000			11.3		0.0667	11.8

Name	RT	m1 Resp	m2 Resp	RA	rvy	EMPC	Conc
1 Total Tetra-Dioxins	21.42	1.002e3	1.269e3	0.79	NO	0.43875	0.43675
2 Total Tetra-Dioxins	21.83	4.433e2	8.110e2	0.73	NO	0.20266	0.20366
3 Total Tetra-Dioxins	22.31	6.264e2	9.709e2	0.65	NO	0.34757	0.34757
4 Total Tetra-Dioxins	23.33	5.650e2	6.579e2	0.66	NO	0.22628	0.23626
5 Total Tetra-Dioxins	23.58	3.132e2	3.614e2	0.67	NO	0.13033	0.13033
6 Total Tetra-Dioxins	23.56	4.838e2	6.311e2	0.77	NO	0.21536	0.21536
7 Total Tetra-Dioxins	24.39	3.518e2	5.162e2	0.68	NO	0.16763	0.16763
8 Total Tetra-Dioxins	24.60	2.899e2	3.299e2	0.88	NO	0.11974	0.11974
9 Total Tetra-Dioxins	24.96	2.405e2	2.955e2	0.81	NO	0.10353	0.10353



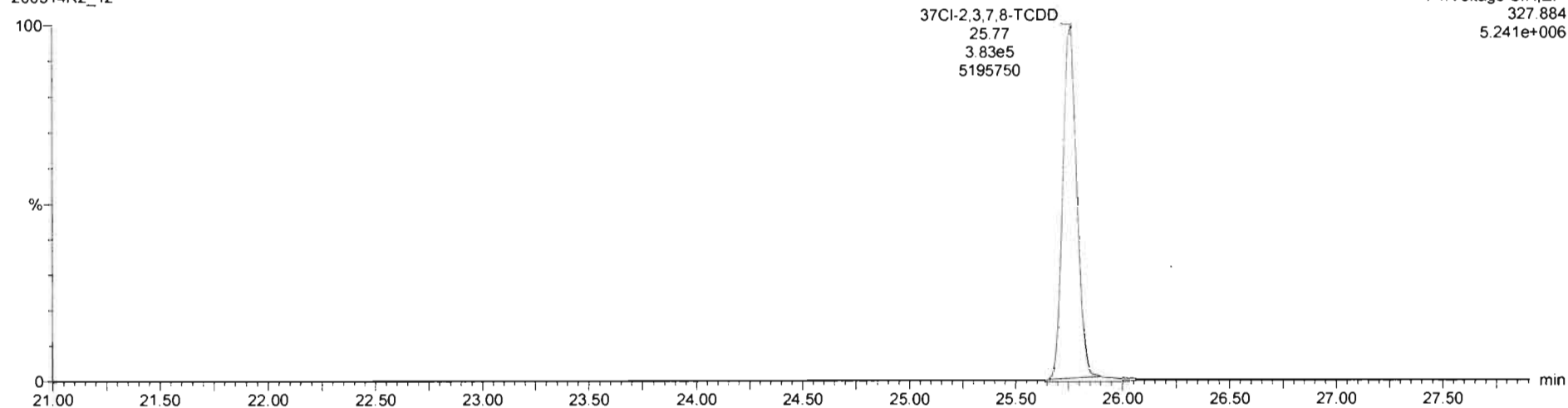
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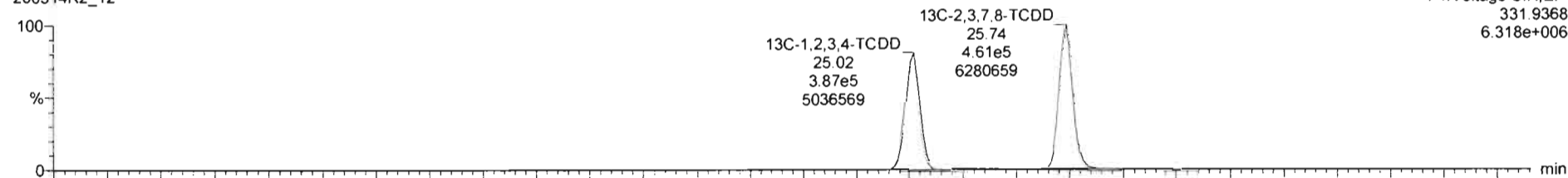
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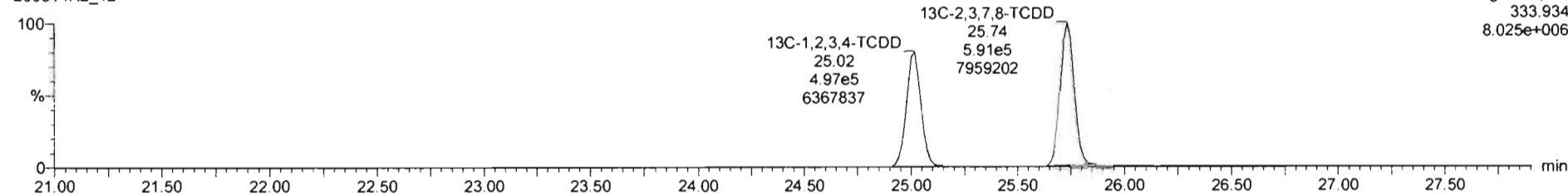


**13C-1,2,3,4-TCDD**

200314R2\_12



200314R2\_12



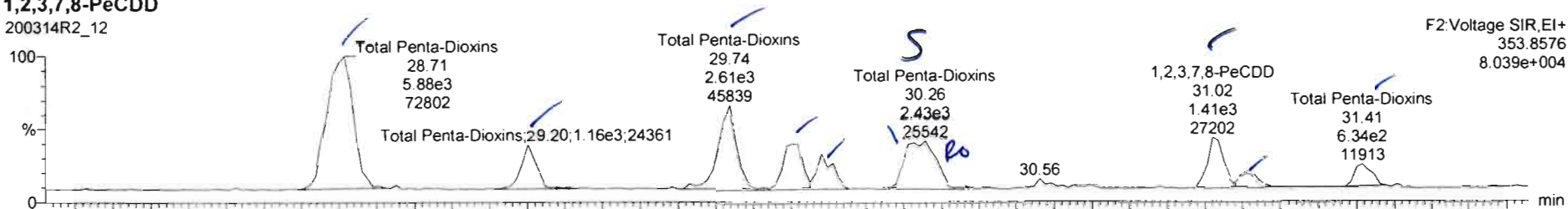
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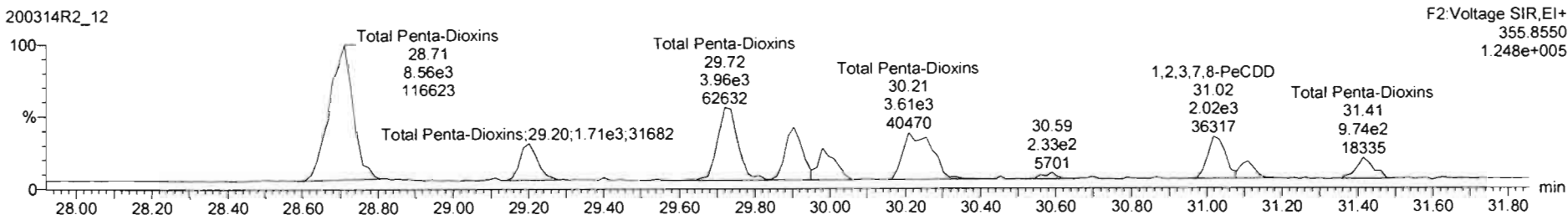
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1,2,3,7,8-PeCDD

200314R2\_12

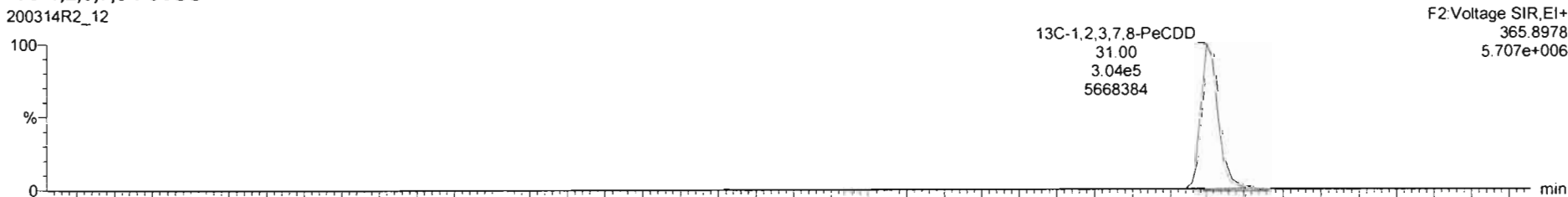


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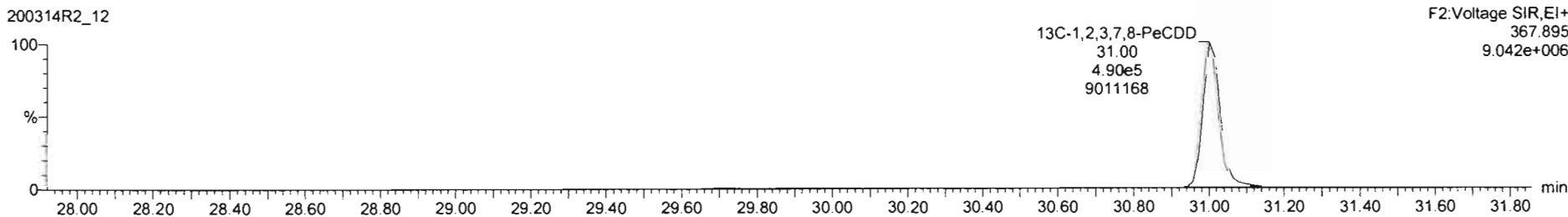


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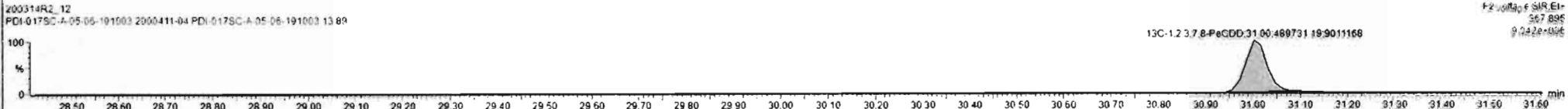
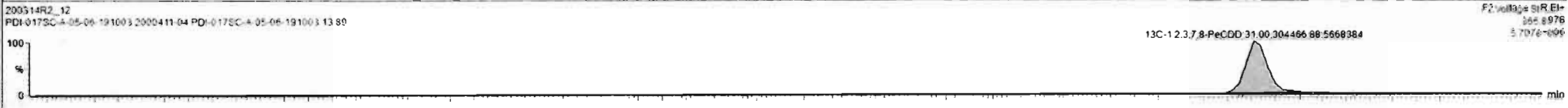
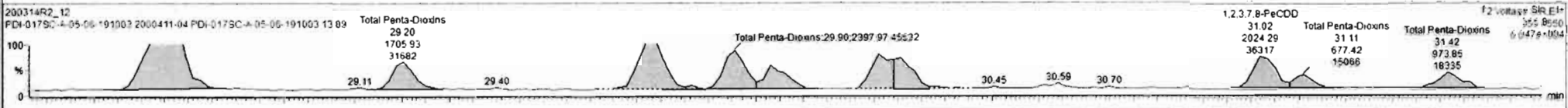
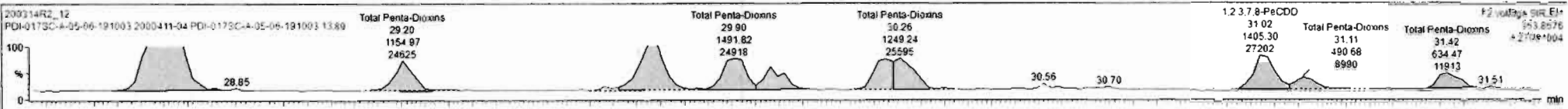


200314R2\_12



Name	Resp	RA	nly	RRF	wtdVol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9635	10.065			1.61		0.0677	1.61
40 Total Penta-Dioxins				0.9212	10.008			10.7		0.0887	11.5

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1 Total Penta-Dioxins	28.71	5.879e3	8.562e3	0.69	NO	3.9445	3.9445
2 Total Penta-Dioxins	29.20	1.155e3	1.706e3	0.68	NO	0.78144	0.78144
3 Total Penta-Dioxins	29.74	2.486e3	3.924e3	0.63	NO	1.7507	1.7507
4 Total Penta-Dioxins	29.90	1.492e3	2.388e3	0.62	NO	1.0625	1.0625
5 Total Penta-Dioxins	29.96	8.810e2	1.497e3	0.58	NO	0.64965	0.64965
6 Total Penta-Dioxins	30.22	1.138e3	1.686e3	0.60	NO	0.82936	0.82936
7 Total Penta-Dioxins	30.26	1.249e3	1.689e3	0.74	YES	0.75211	0.00000
8 1,2,3,7,8-PeCDD	31.02	1.405e3	2.024e3	0.69	NO	0.53678	0.93678
9 Total Penta-Dioxins	31.11	4.907e2	6.774e2	0.72	NO	0.31906	0.31906
10 Total Penta-Dioxins	31.42	6.345e2	9.735e2	0.65	NO	0.42930	0.42930



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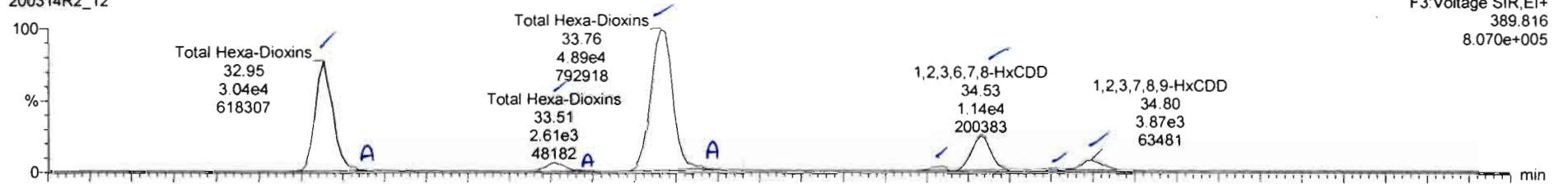
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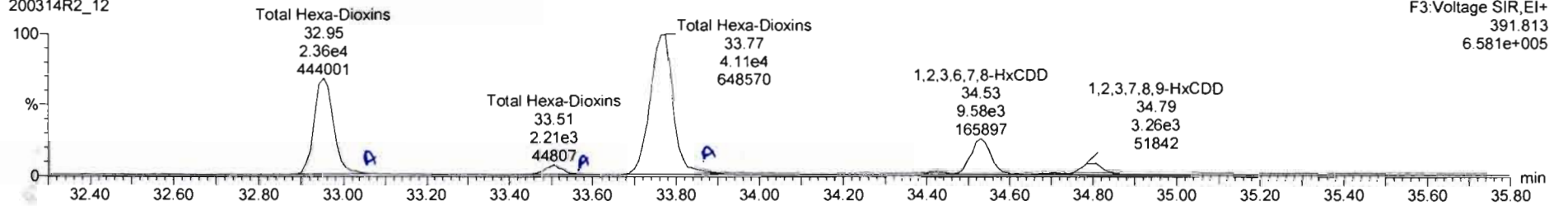
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1,2,3,4,7,8-HxCDD

200314R2\_12

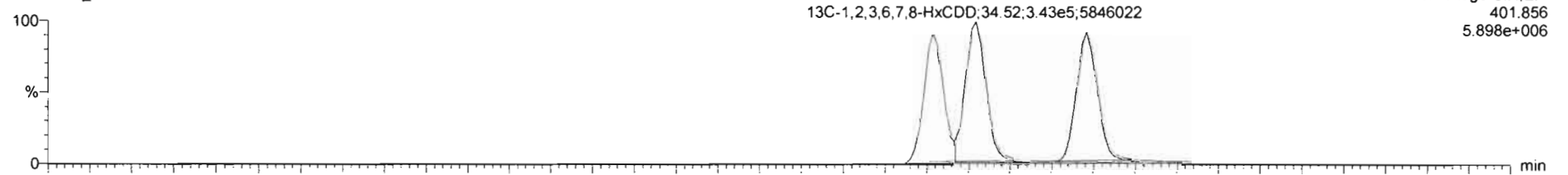


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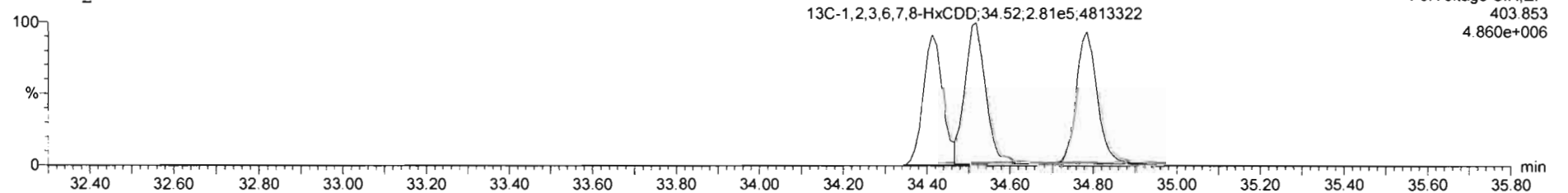


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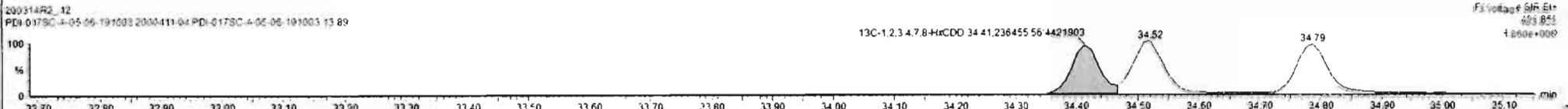
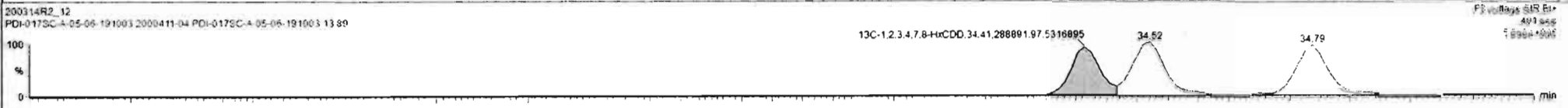
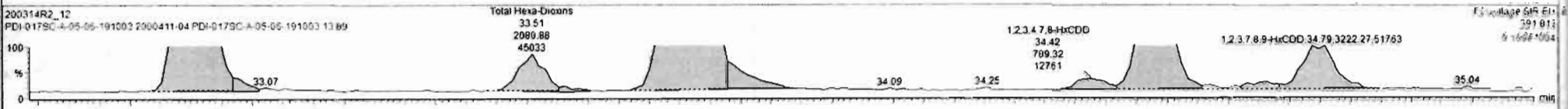
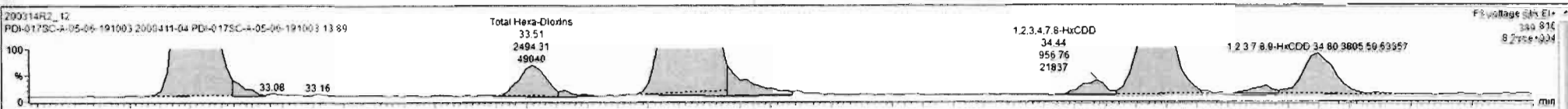


200314R2\_12



Name	Resp	RA	nly	RFU	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
41 Total Hexa-Dioxins				0.9844	10.008			63.6		0.127	63.6
42 Total Hepta-Dioxins				1.0061	10.008			126		0.516	126

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Hexa-Dioxins	32.95	3.000e4	2.342e4	1.28	NO	18.913	18.913
2 Total Hexa-Dioxins	33.02	5.607e2	4.059e2	1.38	NO	0.34228	0.34228
3 Total Hexa-Dioxins	33.51	2.494e3	2.081e3	1.20	NO	1.6200	1.6200
4 Total Hexa-Dioxins	33.56	2.299e2	2.015e2	1.18	NO	0.15626	0.15626
5 Total Hexa-Dioxins	33.76	4.855e4	3.975e4	1.22	NO	31.277	31.277
6 Total Hexa-Dioxins	33.83	1.836e3	1.307e3	1.41	NO	1.1137	1.1137
7 1,2,3,4,7,8-HxCDD	34.44	9.568e2	7.093e2	1.35	NO	0.55962	0.55962
8 1,2,3,6,7,8-HxCDD	34.53	1.141e4	9.377e3	1.22	NO	6.7648	6.7648
9 Total Hexa-Dioxins	34.71	5.050e2	4.107e2	1.23	NO	0.32422	0.32422
10 1,2,3,7,8,9-HxCDD	34.80	3.806e3	3.222e3	1.18	NO	2.5436	2.5436





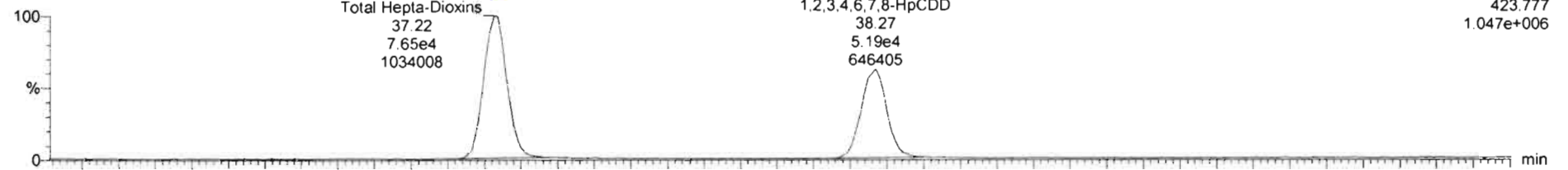
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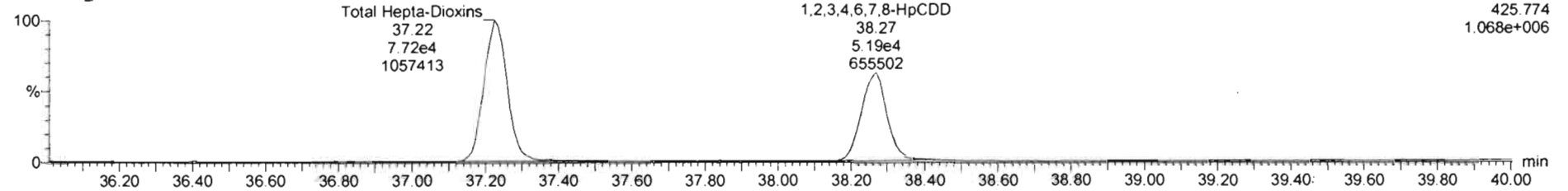
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**1,2,3,4,6,7,8-HpCDD**

200314R2\_12

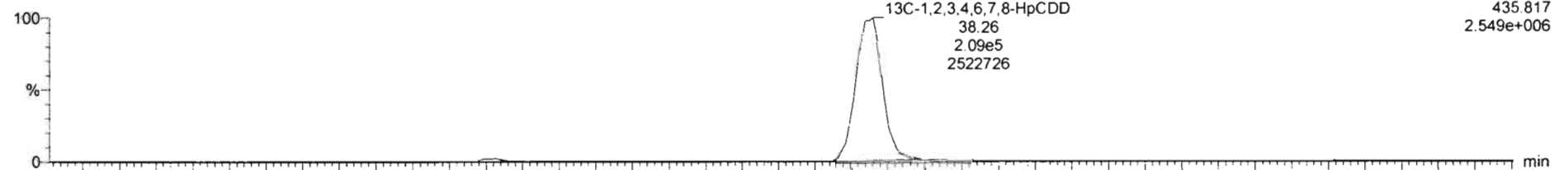


200314R2\_12

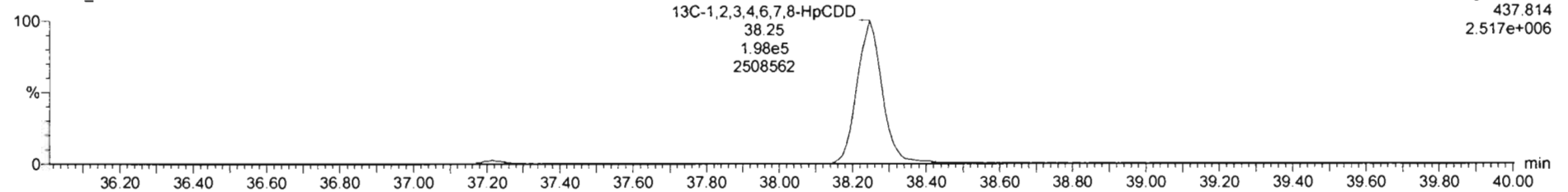


**13C-1,2,3,4,6,7,8-HpCDD**

200314R2\_12



200314R2\_12

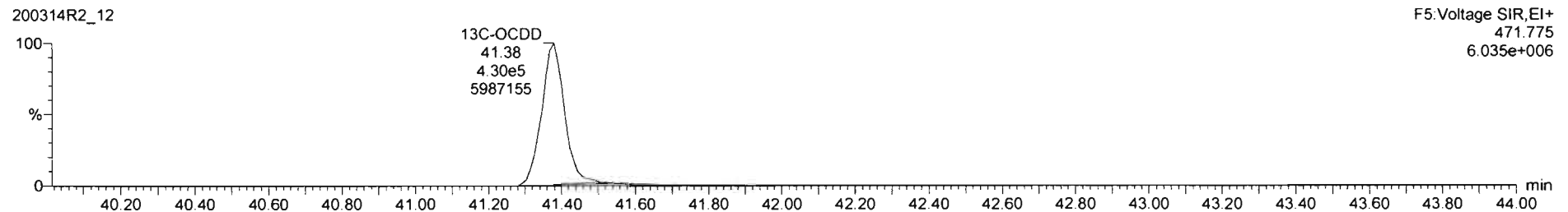
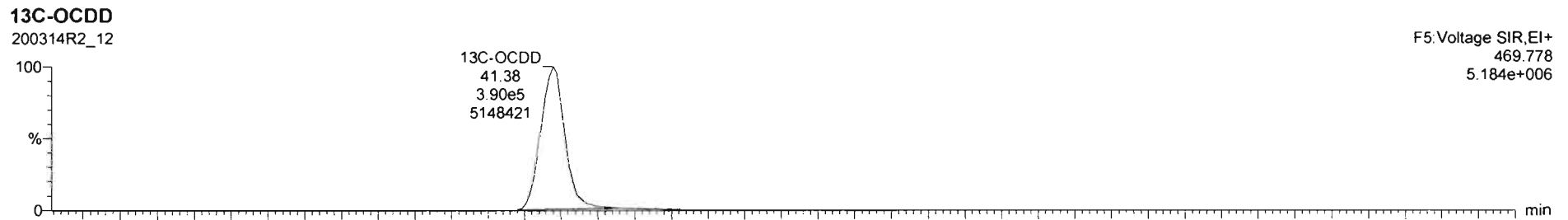
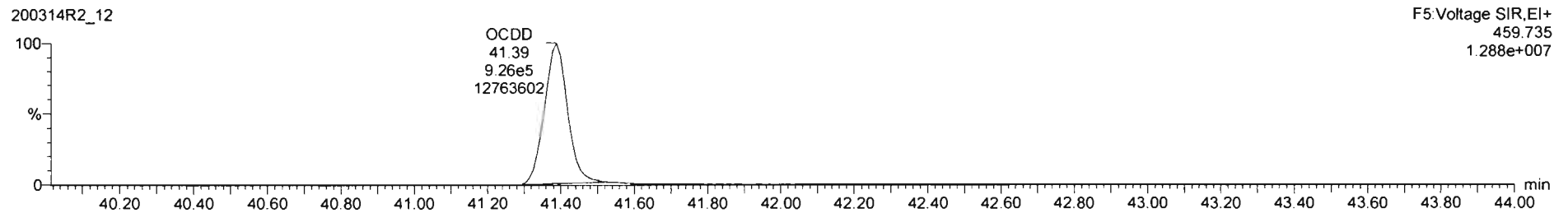
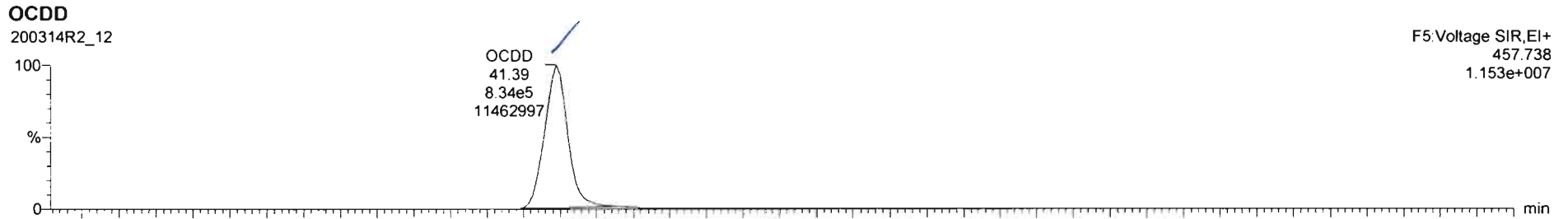


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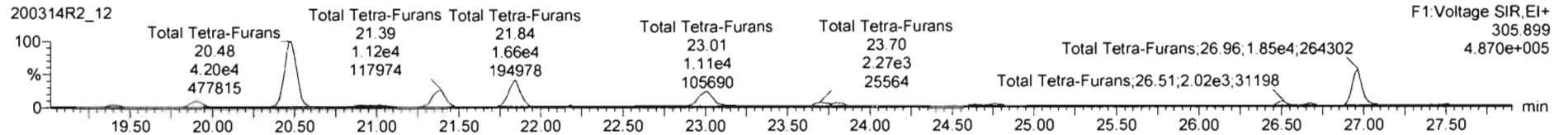
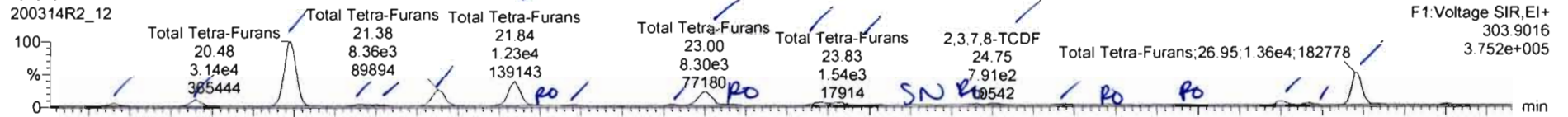


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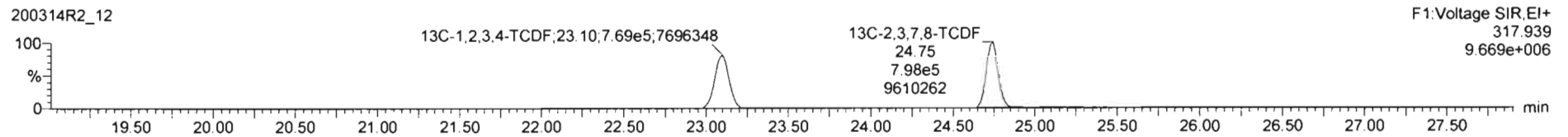
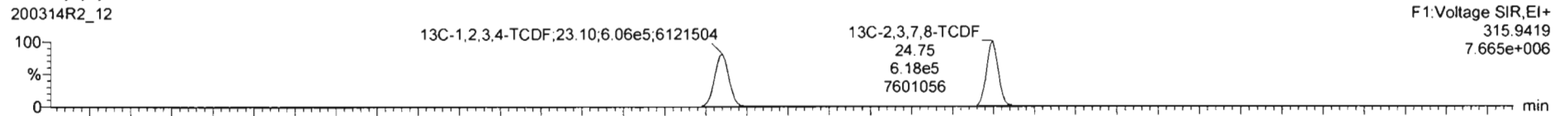
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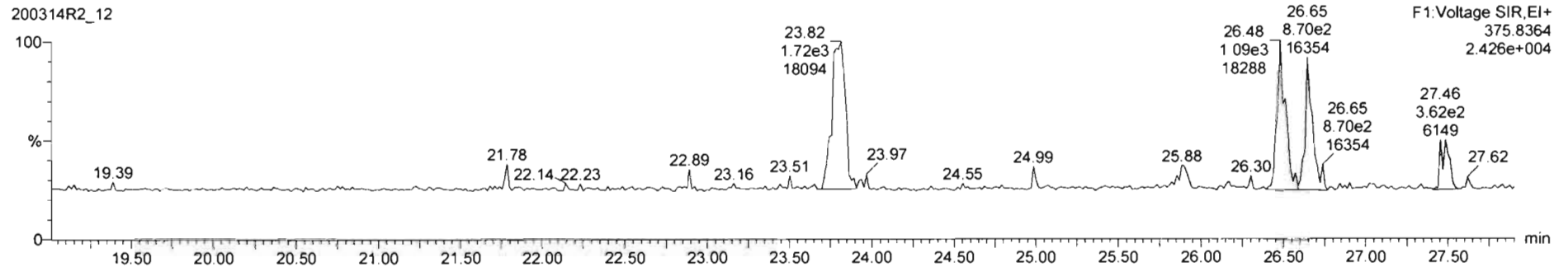
2,3,7,8-TCDF



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

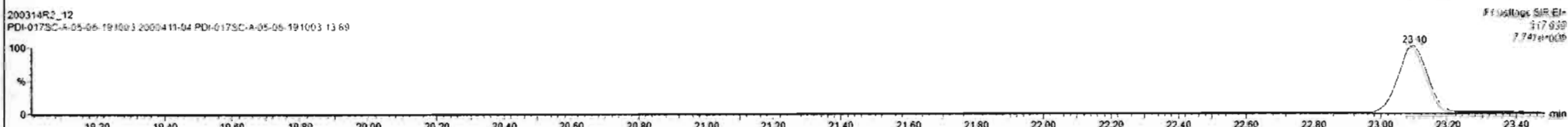
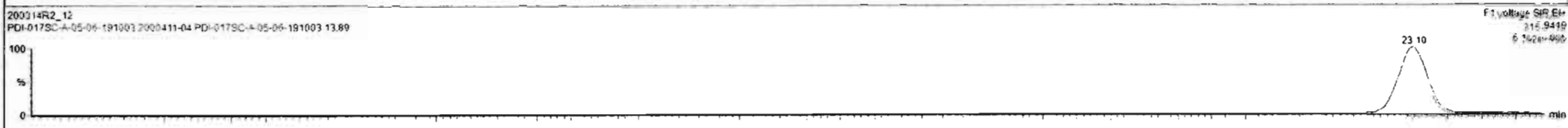
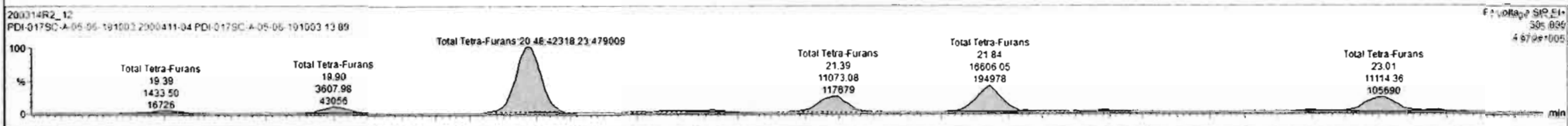
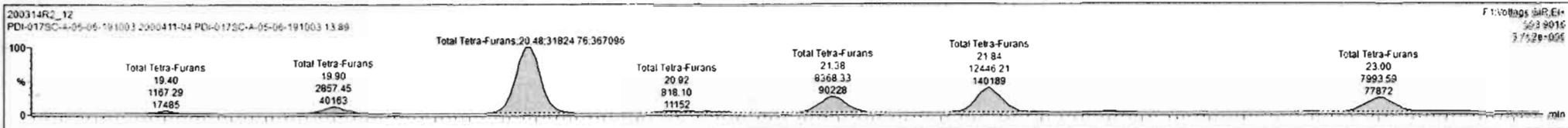


DPE1



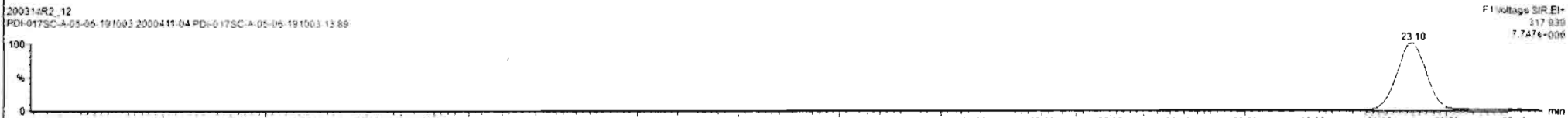
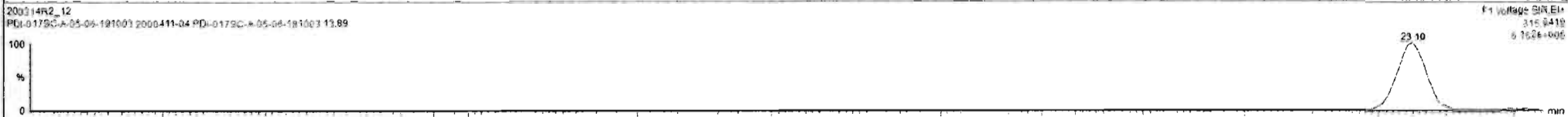
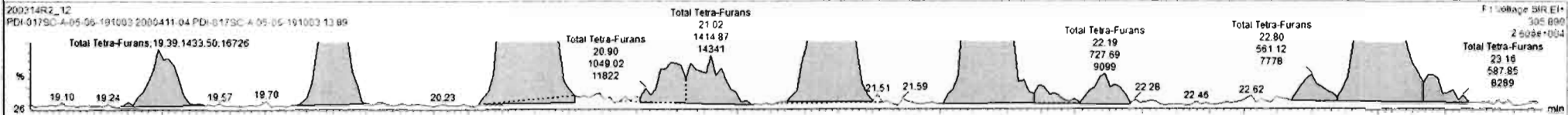
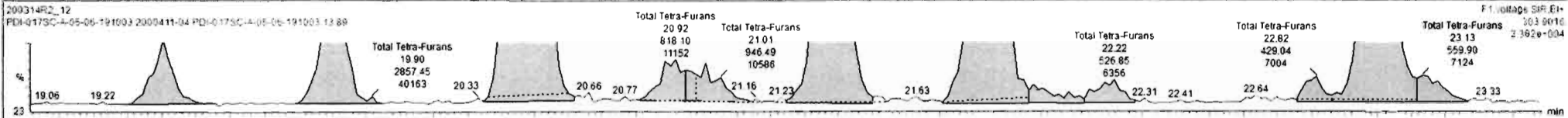
Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
43 Total Tetra-Furans				0.8154	10.006			31.6		0.137	32.4
44 1st Func. Penta-Furans				0.8594	10.006			82.3		0.6375	82.3

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Tetra-Furans	19.40	1.167e3	1.433e3	0.81	NO	0.40108	0.40108
2 Total Tetra-Furans	19.90	2.857e3	3.606e3	0.79	NO	0.99705	0.99705
3 Total Tetra-Furans	20.48	3.182e4	4.232e4	0.75	NO	11.434	11.434
4 Total Tetra-Furans	20.92	8.181e2	1.049e3	0.78	NO	0.28794	0.28794
5 Total Tetra-Furans	21.01	9.455e2	1.415e3	0.67	NO	0.38415	0.38415
6 Total Tetra-Furans	21.38	6.368e3	1.197e4	0.78	NO	2.9981	2.9981
7 Total Tetra-Furans	21.84	1.245e4	1.661e4	0.75	NO	4.4882	4.4882
8 Total Tetra-Furans	21.98	4.355e2	3.541e2	1.23	YES	0.096668	0.090000
9 Total Tetra-Furans	22.22	5.268e2	7.277e2	0.72	NO	0.19347	0.19347
10 Total Tetra-Furans	22.82	4.290e2	5.611e2	0.76	NO	0.15270	0.15270
11 Total Tetra-Furans	23.00	7.994e3	1.111e4	0.72	NO	2.9487	2.9487
12 Total Tetra-Furans	23.13	5.199e2	5.876e2	0.95	YES	0.16046	0.090000



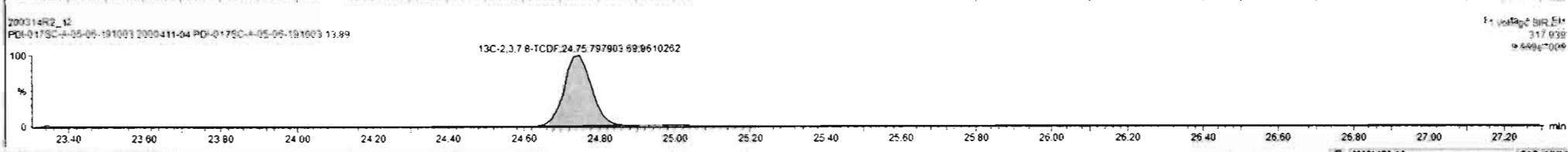
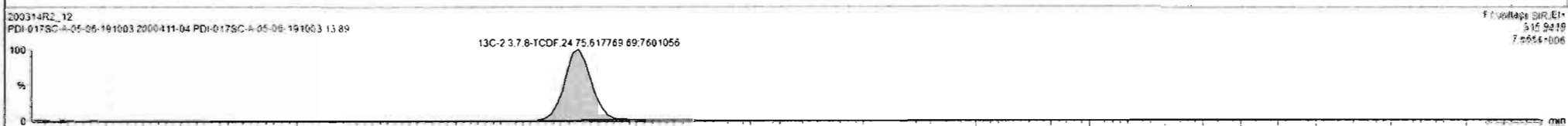
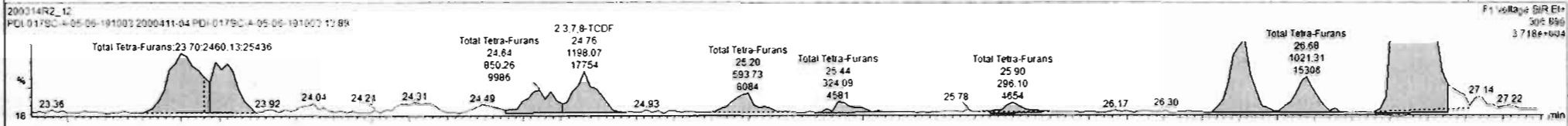
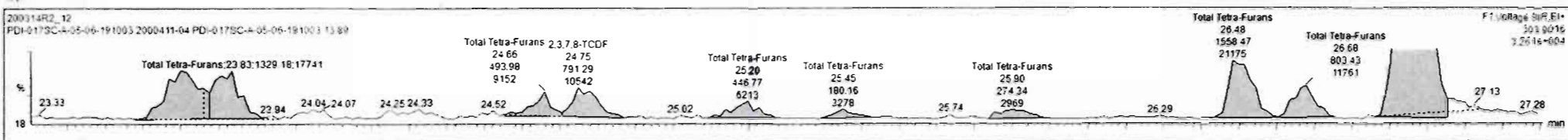
#	Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
43	Total Tetra-Furans				0.9154	10.008			21.6		0.137	32.3
44	1st Func. Penta-Furans				0.9594	10.008			82.3		0.0375	82.3

#	Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1	Total Tetra-Furans	19.40	1.167e3	1.433e2	0.61	NO	0.40108	0.40108
2	Total Tetra-Furans	19.90	2.857e3	3.606e3	0.79	NO	0.99705	0.99705
3	Total Tetra-Furans	20.45	3.182e4	4.232e4	0.75	NO	11.434	11.434
4	Total Tetra-Furans	20.92	8.181e2	1.049e2	0.78	NO	0.28794	0.28794
5	Total Tetra-Furans	21.01	5.485e2	1.415e3	0.67	NO	0.36415	0.36415
6	Total Tetra-Furans	21.36	8.368e3	1.107e4	0.76	NO	2.9961	2.9961
7	Total Tetra-Furans	21.84	1.245e4	1.561e4	0.75	NO	4.4802	4.4802
8	Total Tetra-Furans	21.98	4.255e2	2.541e2	1.23	YES	0.096668	0.00000
9	Total Tetra-Furans	22.22	5.268e2	7.277e2	0.72	NO	0.19347	0.19347
10	Total Tetra-Furans	22.82	4.290e2	5.611e2	0.76	NO	0.15270	0.15270
11	Total Tetra-Furans	23.00	7.994e3	1.111e4	0.72	NO	2.9467	2.9467
12	Total Tetra-Furans	23.13	5.159e2	5.676e2	0.96	YES	0.16046	0.00000



Name	Resp	RA	nly	RRF	wt/wt	RT	RRT	Conc	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9154	10.906			31.6		0.137	32.2
44 1st Func. Penta-Furans				0.9194	10.906			82.3		0.0378	82.3

Item	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
13 Total Tetra-Furans	23.70	1.843e3	2.460e3	0.75	NO	0.66361	0.66361
14 Total Tetra-Furans	23.83	1.329e3	1.538e3	0.86	NO	0.44222	0.44222
15 Total Tetra-Furans	24.66	4.540e2	8.503e2	0.58	YES	0.17511	0.00000
16 2,3,7,8-TCDF	24.75	7.913e2	1.198e3	0.66	NO	0.30679	0.30679
17 Total Tetra-Furans	25.20	4.468e2	5.937e2	0.75	NO	0.16046	0.16046
18 Total Tetra-Furans	25.45	1.802e2	3.241e2	0.56	YES	0.063865	0.00000
19 Total Tetra-Furans	25.90	2.743e2	2.981e2	0.93	YES	0.060822	0.00000
20 Total Tetra-Furans	26.48	1.558e3	2.016e3	0.77	NO	0.55124	0.55124
21 Total Tetra-Furans	26.68	6.034e2	1.021e3	0.79	NO	0.28140	0.28140
22 Total Tetra-Furans	26.95	1.356e4	1.832e4	0.74	NO	4.9187	4.9187



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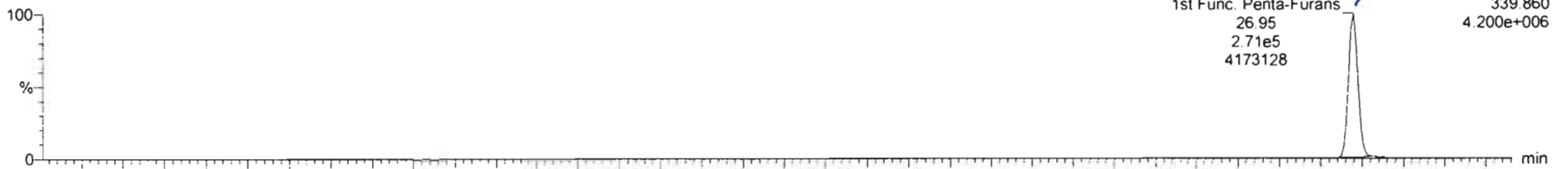
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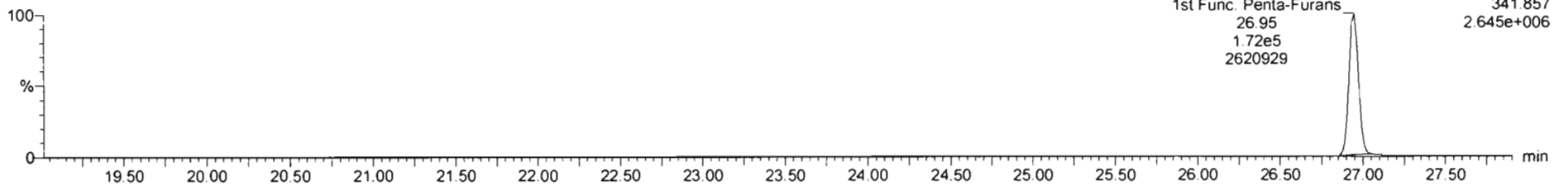
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1st Func. Penta-Furans

200314R2\_12

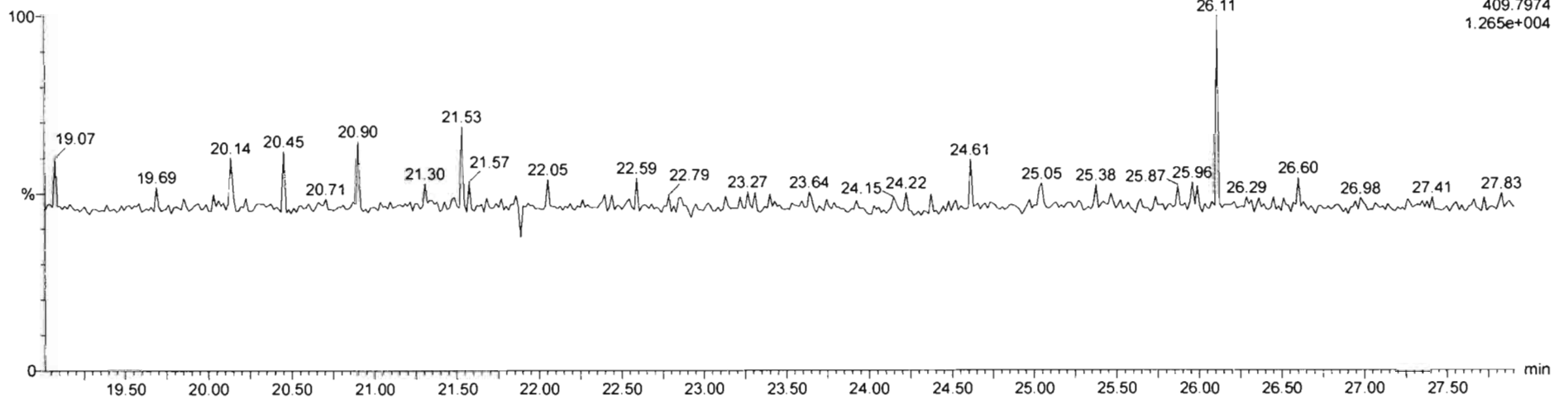


200314R2\_12



DPE6

200314R2\_12



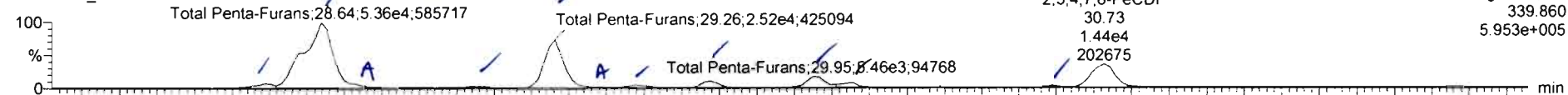
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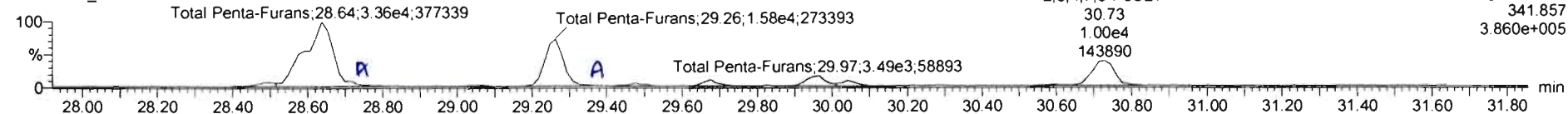
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**1,2,3,7,8-PeCDF**

200314R2\_12

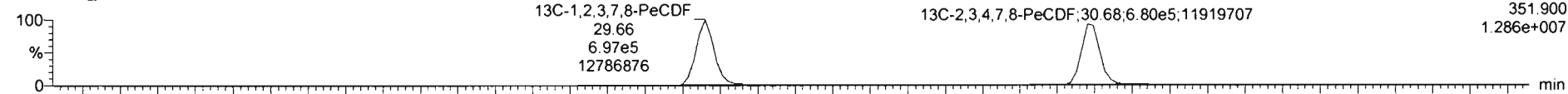


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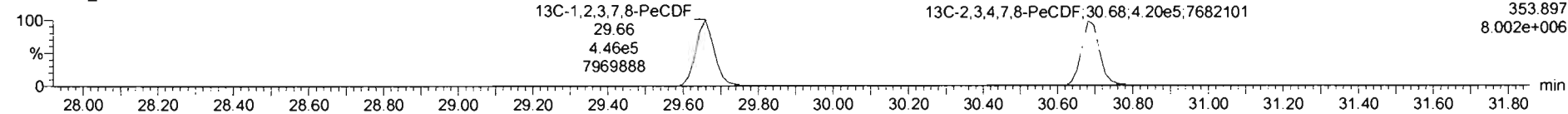


**13C-1,2,3,7,8-PeCDF**

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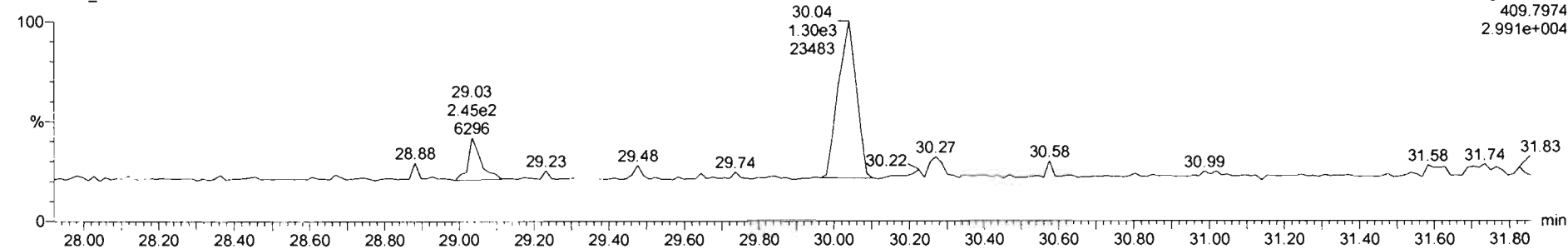


200314R2\_12



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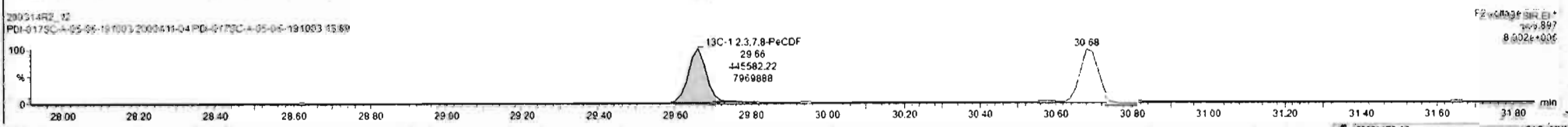
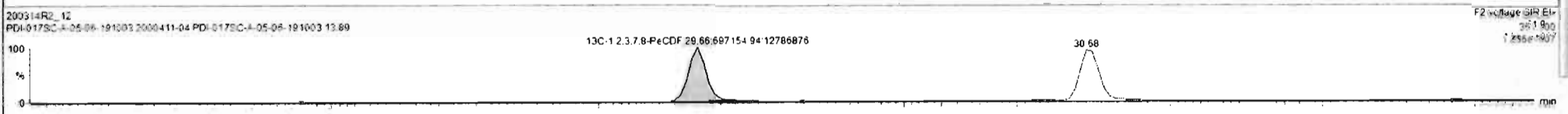
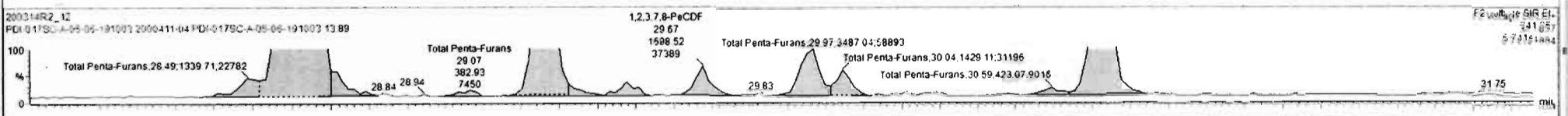
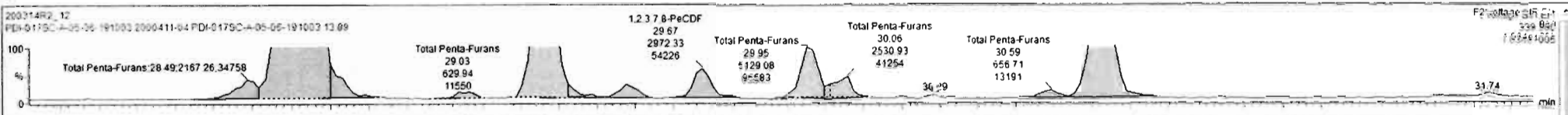
200314R2\_12





Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc	%Rec	Dt	EMPC
43 Total Tetra-Furans				0.9154	10.008			31.6		0.137	32.2
44 1st Func. Penta-Furans				0.9594	10.008			82.3		0.0375	82.3

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Penta-Furans	28.49	2.167e3	1.340e3	1.62	NO	0.65156	0.65156
2 Total Penta-Furans	28.64	5.147e4	3.236e4	1.59	NO	15.575	15.575
3 Total Penta-Furans	28.70	2.197e3	1.284e3	1.71	NO	0.64669	0.64669
4 Total Penta-Furans	29.02	6.259e2	3.829e2	1.65	NO	0.16818	0.16818
5 Total Penta-Furans	29.26	2.465e4	1.567e4	1.57	NO	7.4907	7.4907
6 Total Penta-Furans	29.32	6.950e2	4.945e2	1.41	NO	0.22101	0.22101
7 Total Penta-Furans	29.48	1.330e3	8.121e2	1.64	NO	0.39849	0.39849
8 1,2,3,7,8-PeCDF	29.67	2.872e3	1.899e3	1.75	NO	0.85140	0.85140
9 Total Penta-Furans	29.95	5.129e3	3.487e3	1.47	NO	1.6008	1.6008
10 Total Penta-Furans	30.06	2.531e3	1.429e3	1.77	NO	0.73573	0.73573
11 Total Penta-Furans	30.59	6.567e2	4.231e2	1.55	NO	0.20061	0.20061
12 2,3,4,7,8-PeCDF	30.73	1.445e4	1.003e4	1.44	NO	4.4303	4.4303



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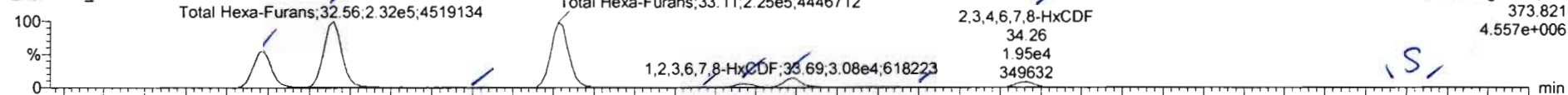
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

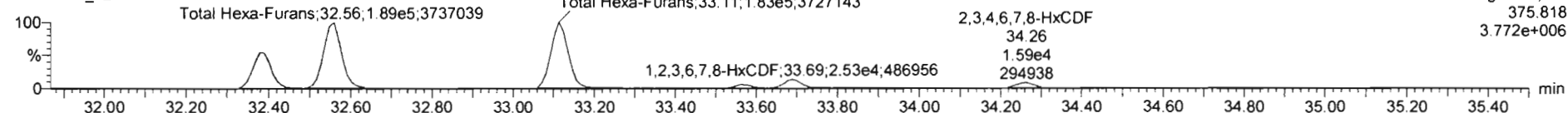
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**1,2,3,4,7,8-HxCDF**

200314R2\_12

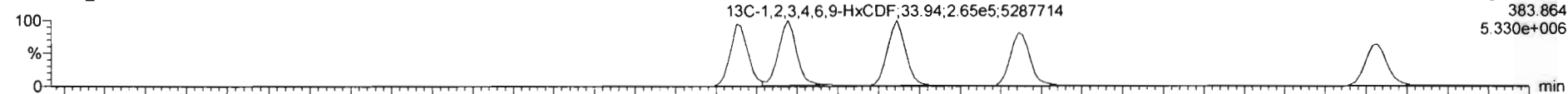


200314R2\_12

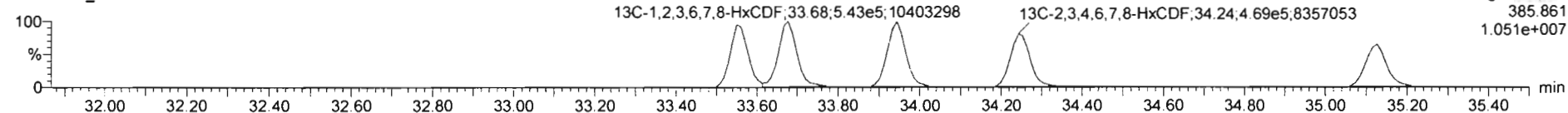


**13C-1,2,3,4,7,8-HxCDF**

200314R2\_12

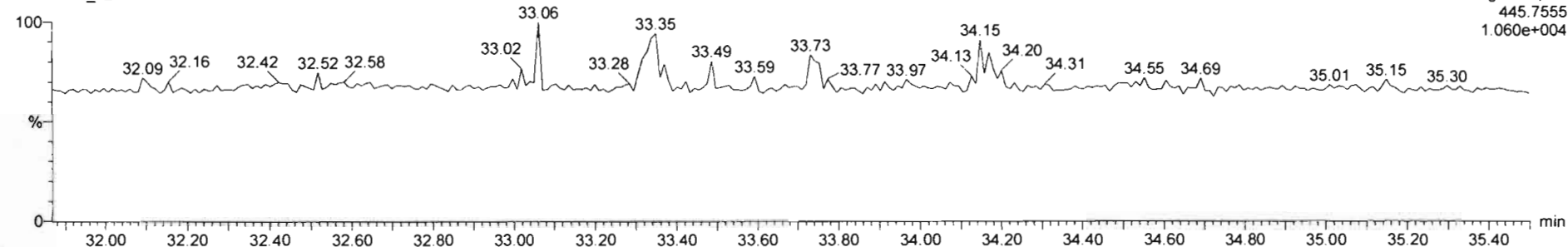


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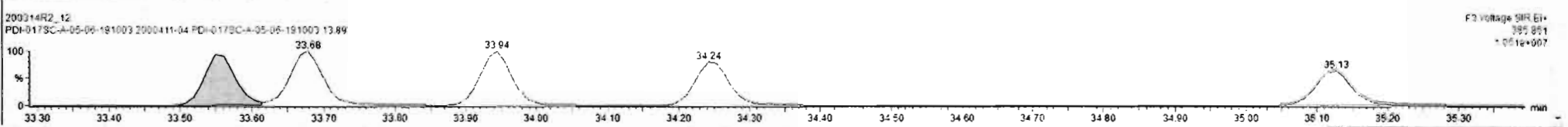
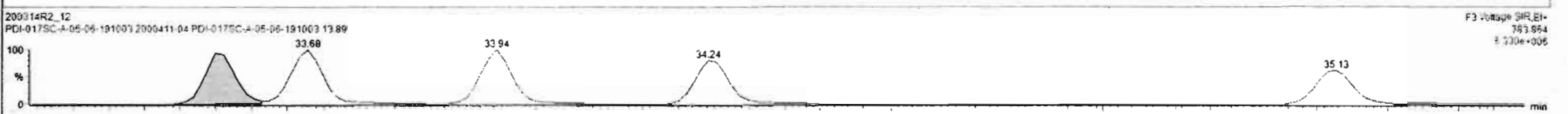
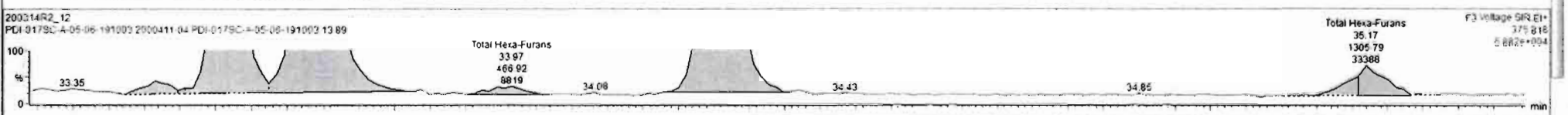
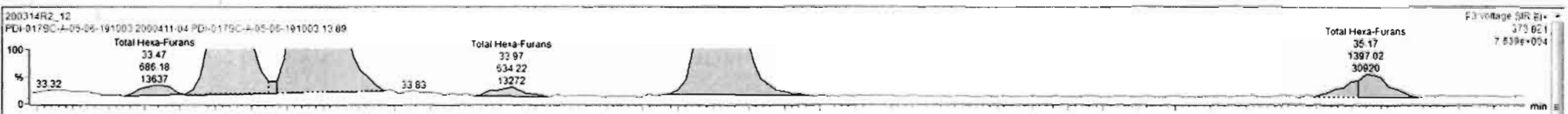
**DPE3**

200314R2\_12



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
46 Total Hexa-Furans				1.0920	10.008			301	0.171	301	
47 Total Hepta-Furans				1.0483	10.008			796	0.596	796	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hexa-Furans	32.39	1.274e5	1.050e5	1.21	NO	59.165	59.165
2 Total Hexa-Furans	32.56	2.316e5	1.694e5	1.22	NO	107.19	107.19
3 Total Hexa-Furans	32.92	1.661e3	1.470e3	1.13	NO	0.79727	0.79727
4 Total Hexa-Furans	33.11	2.245e5	1.828e5	1.23	NO	103.71	103.71
5 Total Hexa-Furans	33.47	6.862e2	5.910e2	1.16	NO	0.32520	0.32520
6 1,2,3,4,7,8-HxCDF	33.57	1.249e4	9.834e3	1.27	NO	5.7136	5.7136
7 1,2,3,6,7,8-HxCDF	33.89	3.066e4	2.533e4	1.21	NO	13.651	13.651
8 Total Hexa-Furans	33.97	6.342e2	4.669e2	1.36	NO	0.28036	0.28036
9 2,3,4,6,7,8-HxCDF	34.26	1.945e4	1.595e4	1.22	NO	5.2064	5.2064
10 1,2,3,7,8,9-HxCDF	35.16	7.052e2	5.609e2	1.21	NO	0.41135	0.41135
11 Total Hexa-Furans	35.17	1.397e3	1.306e3	1.07	NO	0.66817	0.66817



Dataset: Untitled

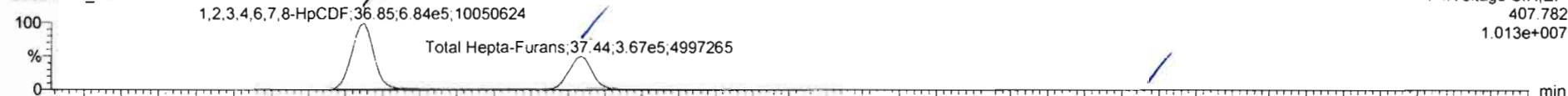
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Name: 200314R2\_12, Date: 14-Mar-2020, Time: 20:00:54, ID: 2000411-04 PDI-017SC-A-05-06-191003 13.89, Description: PDI-017SC-A-05-06-191003

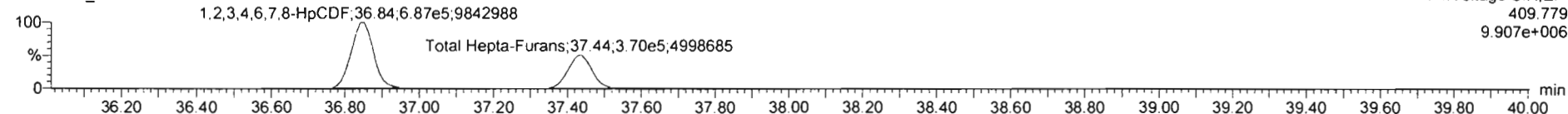
### 1,2,3,4,6,7,8-HpCDF

200314R2\_12



F4: Voltage SIR, EI+  
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1.013e+007

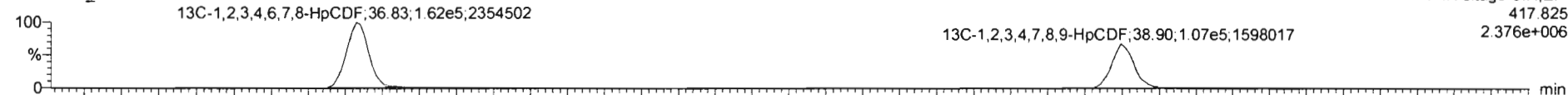
200314R2\_12



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9.907e+006

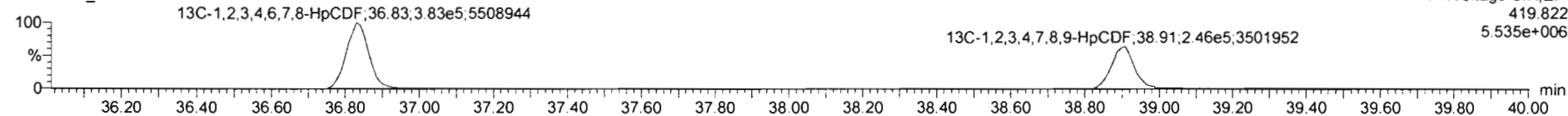
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200314R2\_12



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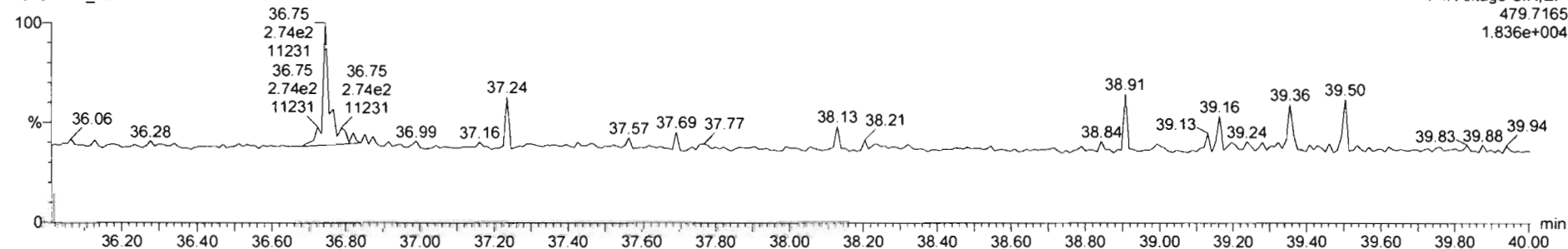
200314R2\_12



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### DPE4

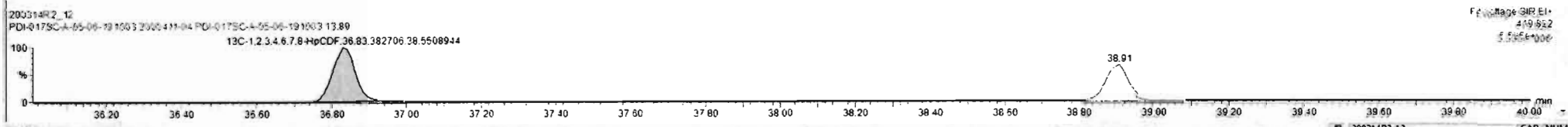
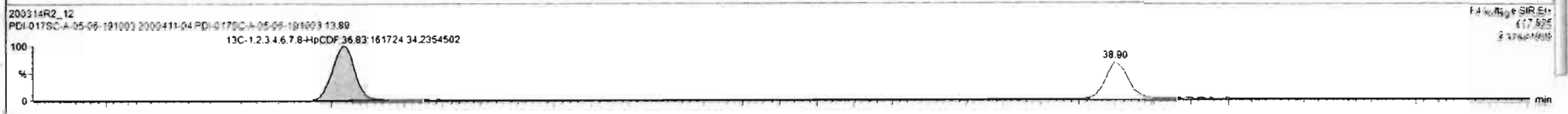
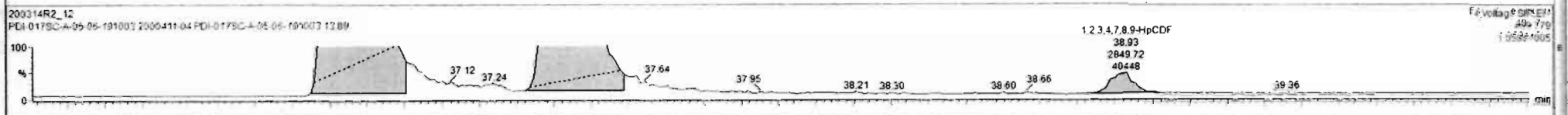
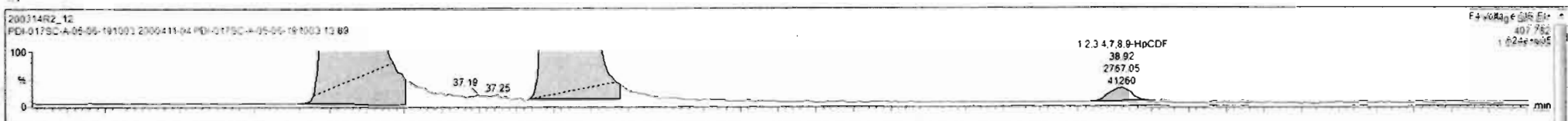
200314R2\_12



F4: Voltage SIR, EI+  
479.7165  
1.836e+004

Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
46 Total Hexa-Furans				1.0520	10.008			301		0.171	301
47 Total Hepta-Furans				1.0483	10.806			813		0.596	813

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 1,2,3,4,6,7,8-HpCDF	36.55	7.029e5	7.027e5	1.00	NO	492.17	492.17
2 Total Hepta-Furans	37.44	3.738e5	3.758e5	0.99	NO	318.19	318.19
3 1,2,3,4,7,8,9-HpCDF	38.62	2.767e3	2.850e3	0.97	NO	2.6218	2.6218

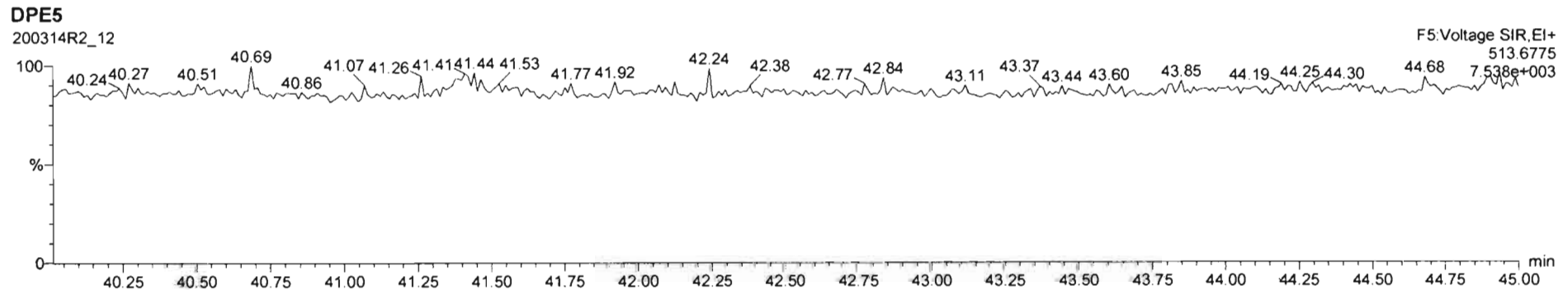
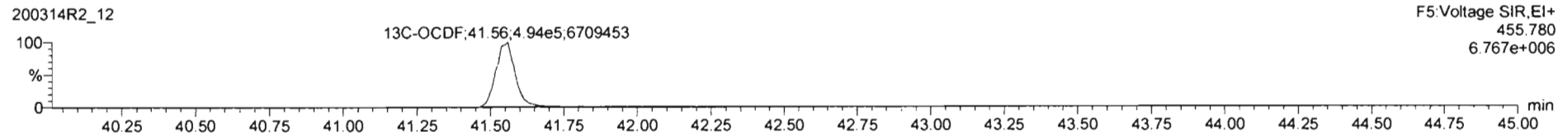
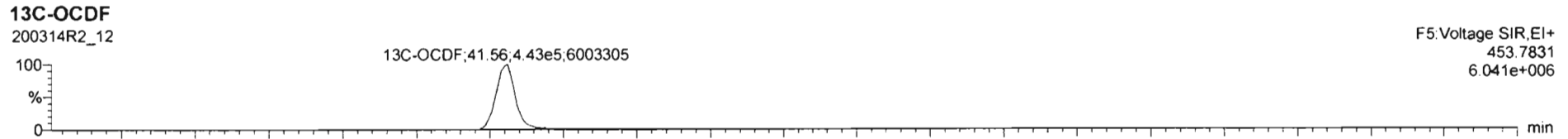
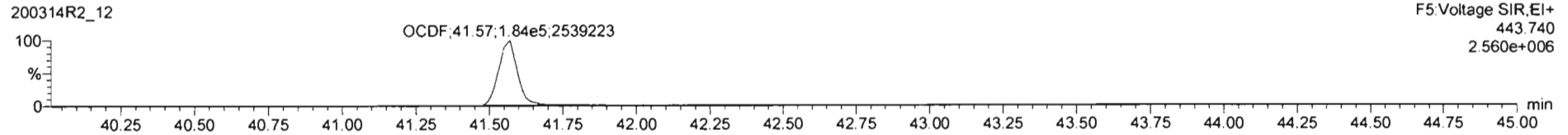
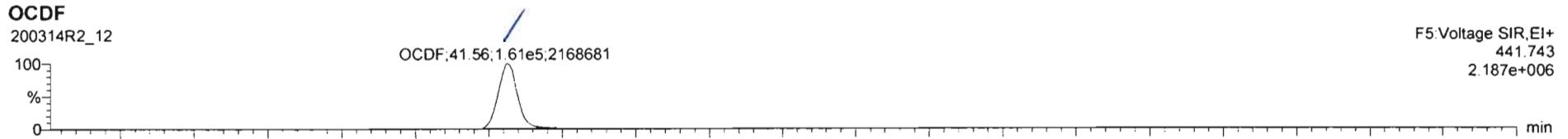


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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_12, Date: 14-Mar-2020, Time: 20:00:54, ID: 2000411-04 PDI-017SC-A-05-06-191003 13.89, Description: PDI-017SC-A-05-06-191003

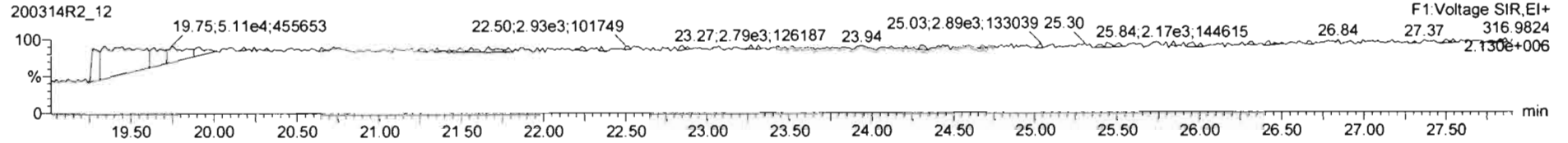


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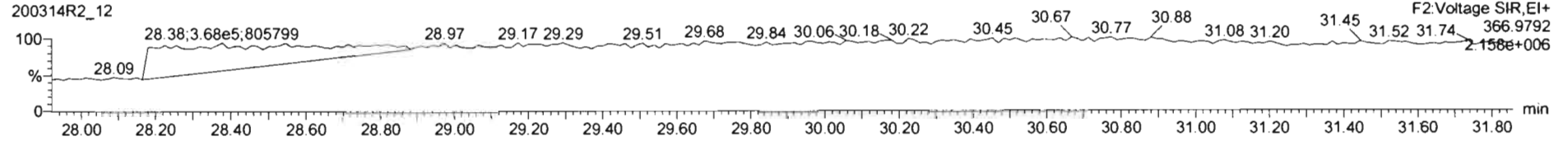
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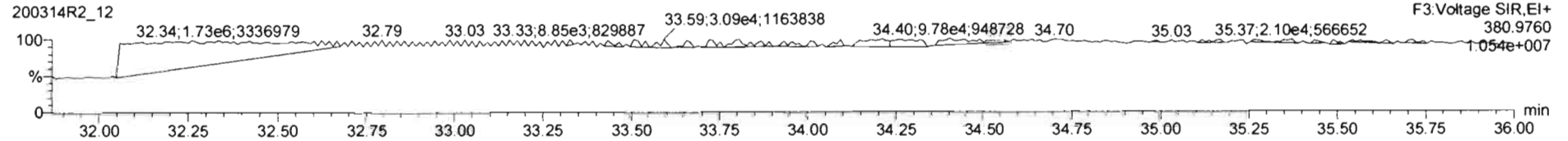
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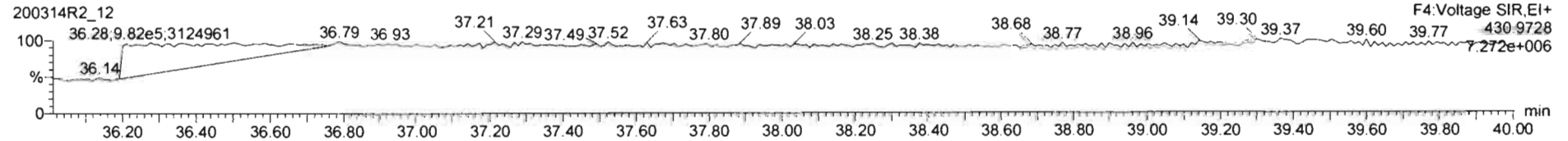
PFK2



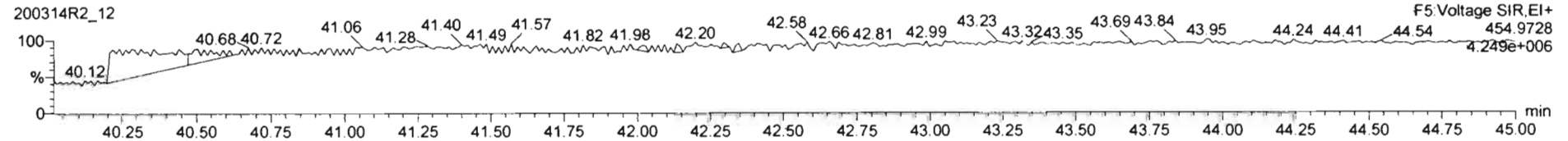
PFK3



PFK4



PFK5



Dataset: U:\VG12.PRO\Results\200314R2\200314R2-13.qld

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Printed: Sunday, March 15, 2020 1:59:37 PM Pacific Daylight Time

*GRB 03/15/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08  
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

*MK 3/15/20*

Name: 200314R2\_13, Date: 14-Mar-2020, Time: 20:48:26, ID: 2000411-05 PDI-017SC-A-06-07-191003 13.52, Description: PDI-017SC-A-06-07-191003

#	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	0.983	10.027	25.736		1.001				0.0822	
2	2 1,2,3,7,8-PeCDD			NO	0.921	10.027	31.010		1.001				0.0866	
3	3 1,2,3,4,7,8-HxCDD			NO	1.13	10.027	34.423		1.000				0.0862	
4	4 1,2,3,6,7,8-HxCDD			NO	0.984	10.027	34.509		1.000				0.0878	
5	5 1,2,3,7,8,9-HxCDD			NO	0.967	10.027	34.796		1.000				0.106	
6	6 1,2,3,4,6,7,8-HpCDD	3.08e3	0.99	NO	1.01	10.027	38.248	38.27	1.000	1.001	1.4474		0.203	1.45
7	7 OCDD	3.14e4	0.91	NO	1.05	10.027	41.347	41.36	1.000	1.000	13.219		0.0977	13.2
8	8 2,3,7,8-TCDF			NO	0.915	10.027	24.758		1.001				0.0533	
9	9 1,2,3,7,8-PeCDF			NO	0.959	10.027	29.666		1.001				0.0433	
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.027	30.698		1.001				0.0406	
11	11 1,2,3,4,7,8-HxCDF			NO	1.04	10.027	33.551		1.000				0.0452	
12	12 1,2,3,6,7,8-HxCDF			NO	1.01	10.027	33.678		1.000				0.0455	
13	13 2,3,4,6,7,8-HxCDF			NO	1.09	10.027	34.277		1.001				0.0464	
14	14 1,2,3,7,8,9-HxCDF			NO	1.03	10.027	35.116		1.000				0.0651	
15	15 1,2,3,4,6,7,8-HpCDF	1.05e3	1.07	NO	1.05	10.027	36.857	36.85	1.001	1.001	0.36580		0.0452	0.366
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.027	38.897		1.000				0.0986	
17	17 OCDF			NO	0.947	10.027	41.528		1.000				0.0950	
18	18 13C-2,3,7,8-TCDD	1.05e6	0.78	NO	1.18	10.027	25.704	25.70	1.029	1.029	175.52	88.0	0.249	
19	19 13C-1,2,3,7,8-PeCDD	8.32e5	0.63	NO	0.864	10.027	30.881	30.99	1.236	1.240	190.71	95.6	0.283	
20	20 13C-1,2,3,4,7,8-HxCDD	5.66e5	1.26	NO	0.754	10.027	34.406	34.41	1.014	1.014	171.19	85.8	0.276	
21	21 13C-1,2,3,6,7,8-HxCDD	6.68e5	1.33	NO	0.925	10.027	34.514	34.51	1.017	1.017	164.58	82.5	0.225	
22	22 13C-1,2,3,7,8,9-HxCDD	5.93e5	1.32	NO	0.829	10.027	34.776	34.79	1.025	1.025	162.82	81.6	0.251	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.22e5	1.05	NO	0.598	10.027	38.230	38.24	1.127	1.127	160.73	80.6	0.616	
24	24 13C-OCDD	9.00e5	0.89	NO	0.571	10.027	41.376	41.35	1.219	1.218	359.04	90.0	0.386	
25	25 13C-2,3,7,8-TCDF	1.37e6	0.78	NO	1.09	10.027	24.727	24.73	0.990	0.990	160.11	80.3	0.315	
26	26 13C-1,2,3,7,8-PeCDF	1.15e6	1.57	NO	0.876	10.027	29.555	29.65	1.183	1.186	166.80	83.6	0.439	
27	27 13C-2,3,4,7,8-PeCDF	1.10e6	1.54	NO	0.844	10.027	30.564	30.67	1.223	1.227	165.41	82.9	0.456	
28	28 13C-1,2,3,4,7,8-HxCDF	7.61e5	0.51	NO	1.00	10.027	33.554	33.55	0.989	0.989	173.24	86.9	0.421	
29	29 13C-1,2,3,6,7,8-HxCDF	8.34e5	0.51	NO	1.12	10.027	33.663	33.67	0.992	0.992	170.01	85.2	0.376	
30	30 13C-2,3,4,6,7,8-HxCDF	7.58e5	0.52	NO	1.04	10.027	34.243	34.24	1.009	1.009	166.78	83.6	0.406	
31	31 13C-1,2,3,7,8,9-HxCDF	6.08e5	0.55	NO	0.873	10.027	35.115	35.12	1.035	1.035	158.77	79.6	0.482	



Dataset: U:\VG12.PRO\Results\200314R2\200314R2-13.qld

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Printed: Sunday, March 15, 2020 1:59:37 PM Pacific Daylight Time

Name: 200314R2\_13, Date: 14-Mar-2020, Time: 20:48:26, ID: 2000411-05 PDI-017SC-A-06-07-191003 13.52, Description: PDI-017SC-A-06-07-191003

#	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	5.48e5	0.44	NO	0.771	10.027	36.829	36.82	1.085	1.085	161.97	81.2	0.436	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.84e5	0.44	NO	0.519	10.027	38.912	38.90	1.147	1.146	168.58	84.5	0.647	
34	34 13C-OCDF	1.04e6	0.81	NO	0.696	10.027	41.556	41.53	1.225	1.224	339.80	85.2	0.326	
35	35 37Cl-2,3,7,8-TCDD	3.90e5			1.17	10.027	25.714	25.74	1.029	1.030	65.850	82.5	0.0567	
36	36 13C-1,2,3,4-TCDD	1.01e6	0.79	NO	1.00	10.027	25.050	24.99	1.000	1.000	199.45	100	0.295	
37	37 13C-1,2,3,4-TCDF	1.57e6	0.79	NO	1.00	10.027	23.190	23.07	1.000	1.000	199.45	100	0.343	
38	38 13C-1,2,3,4,6,9-HxCDF	8.75e5	0.52	NO	1.00	10.027	33.880	33.93	1.000	1.000	199.45	100	0.421	
39	39 Total Tetra-Dioxins				0.983	10.027	24.620		0.000		0.30014		0.0822	0.300
40	40 Total Penta-Dioxins				0.921	10.027	29.960		0.000		0.00000		0.0417	0.433
41	41 Total Hexa-Dioxins				0.984	10.027	33.635		0.000		1.8991		0.0967	1.90
42	42 Total Hepta-Dioxins				1.01	10.027	37.640		0.000		4.4714		0.203	4.47
43	43 Total Tetra-Furans				0.915	10.027	23.610		0.000		0.095294		0.0533	0.0953
44	44 1st Func. Penta-Furans				0.959	10.027	27.090		0.000				0.0148	
45	45 Total Penta-Furans				0.959	10.027	29.275		0.000				0.0212	
46	46 Total Hexa-Furans				1.09	10.027	33.555		0.000				0.0241	
47	47 Total Hepta-Furans				1.05	10.027	37.835		0.000		0.36580		0.0531	0.366

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-13.qld

Last Altered: Sunday, March 15, 2020 1:59:06 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 1:59:37 PM Pacific Daylight Time

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Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R2\_13, Date: 14-Mar-2020, Time: 20:48:26, ID: 2000411-05 PDI-017SC-A-06-07-191003 13.52, Description: PDI-017SC-A-06-07-191003

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	23.27	7.832e3	9.366e3	6.673e2	8.844e2	0.75	NO	1.552e3	0.30014	0.30014	0.0822

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.71	3.421e3	4.732e3	1.692e2	3.780e2	0.45	YES	0.000e0	0.00000	0.11397	0.0866
2	Total Penta-Dioxins	29.17	5.755e3	1.150e4	2.916e2	6.195e2	0.47	YES	0.000e0	0.00000	0.19641	0.0866
3	Total Penta-Dioxins	30.19	3.790e3	4.690e3	2.294e2	2.884e2	0.80	YES	0.000e0	0.00000	0.12239	0.0866

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.94	4.064e4	3.146e4	2.175e3	1.758e3	1.24	NO	3.933e3	1.3081	1.3081	0.0967
2	Total Hexa-Dioxins	33.75	1.464e4	1.301e4	9.722e2	8.048e2	1.21	NO	1.777e3	0.59099	0.59099	0.0967

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.24	4.874e4	4.453e4	3.199e3	3.238e3	0.99	NO	6.437e3	3.0240	3.0240	0.203
2	1,2,3,4,6,7,8-HpCDD	38.27	2.110e4	1.887e4	1.535e3	1.545e3	0.99	NO	3.081e3	1.4474	1.4474	0.203

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	20.47	3.681e3	5.050e3	2.493e2	3.519e2	0.71	NO	6.012e2	0.095294	0.095294	0.0533

**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\200314R2\200314R2-13.qld

Last Altered: Sunday, March 15, 2020 1:59:06 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 1:59:37 PM Pacific Daylight Time

Name: 200314R2\_13, Date: 14-Mar-2020, Time: 20:48:26, ID: 2000411-05 PDI-017SC-A-06-07-191003 13.52, Description: PDI-017SC-A-06-07-191003

**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	1,2,3,4,6,7,8-HpCDF	36.85	6.894e3	7.431e3	5.450e2	5.084e2	1.07	NO	1.053e3	0.36580	0.36580	0.0452

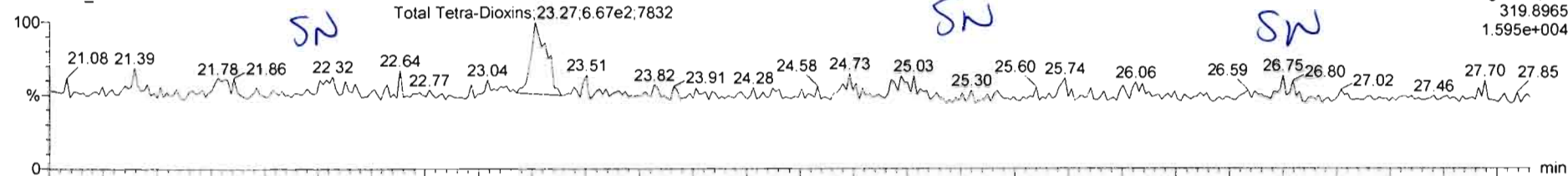
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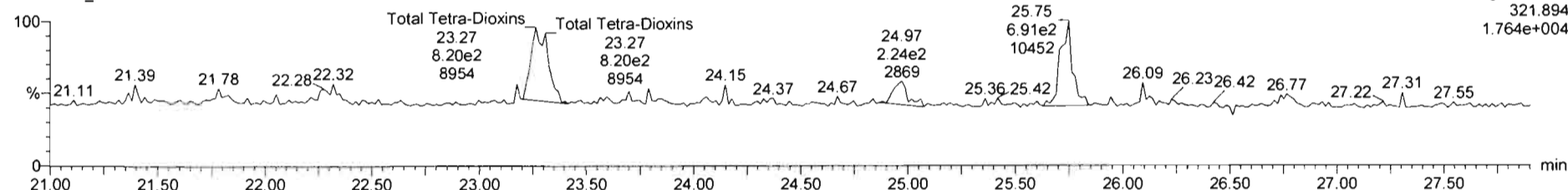
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2,3,7,8-TCDD

200314R2\_13

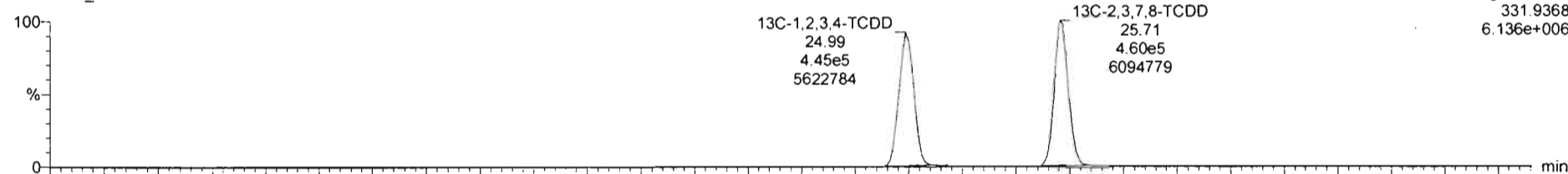


200314R2\_13

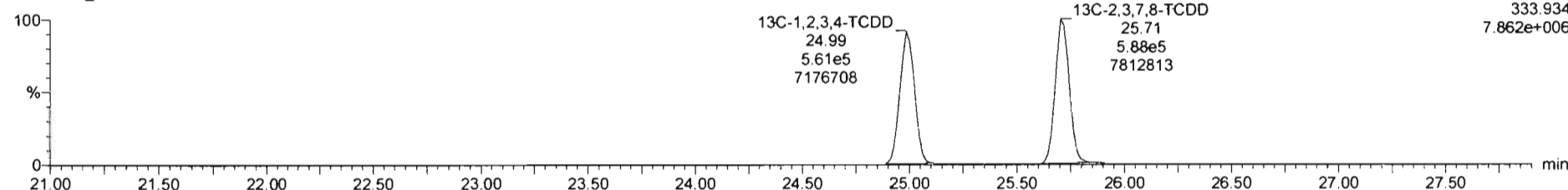


13C-2,3,7,8-TCDD

200314R2\_13

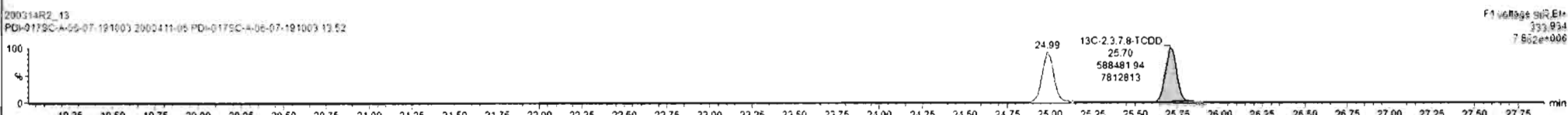
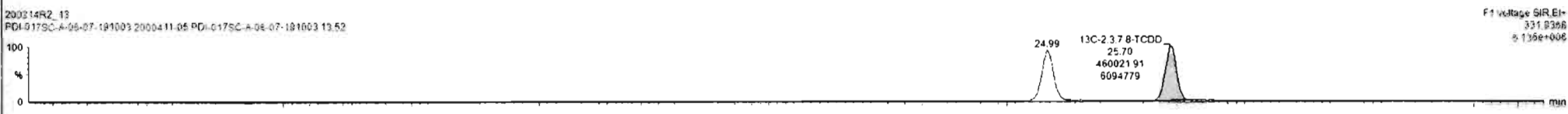
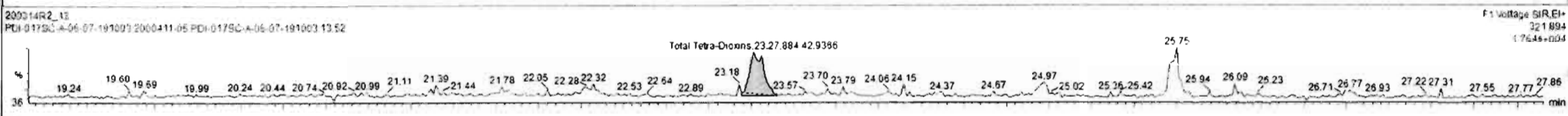
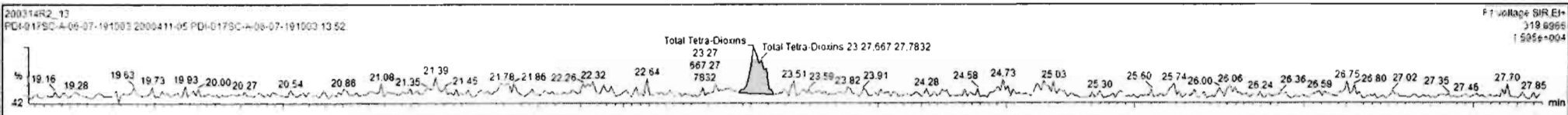


200314R2\_13



Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.027			0.300	0.0822	0.300	
40 Total Penta-Dioxins				0.9212	10.027			0.000	0.0417	0.342	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1 Total Tetra-Dioxins	23.27	6.673e2	8.844e2	0.75	NO	0.30014	0.30014



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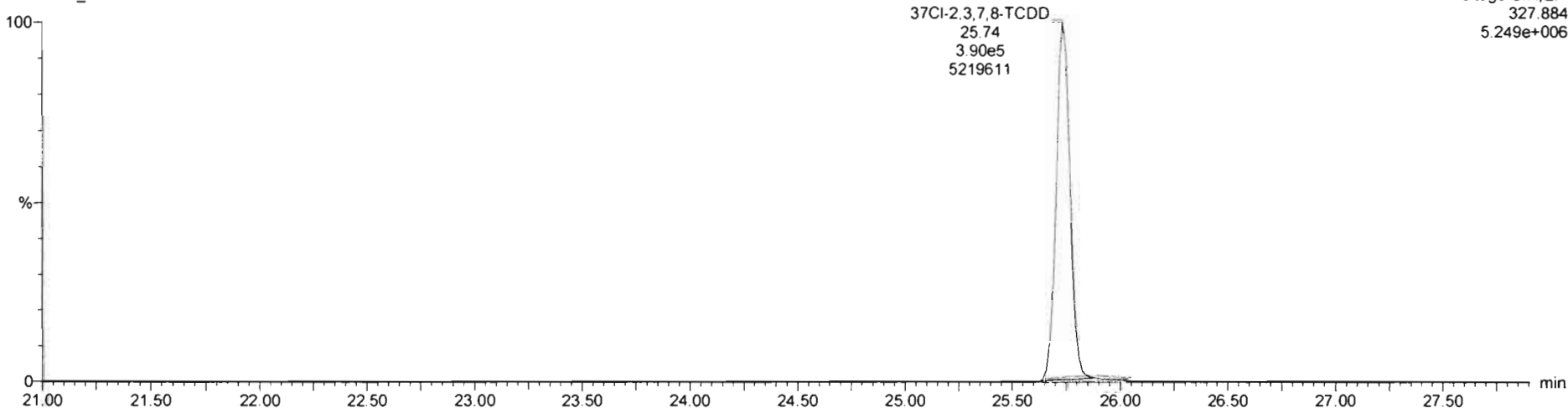
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Name: 200314R2\_13, Date: 14-Mar-2020, Time: 20:48:26, ID: 2000411-05 PDI-017SC-A-06-07-191003 13.52, Description: PDI-017SC-A-06-07-191003

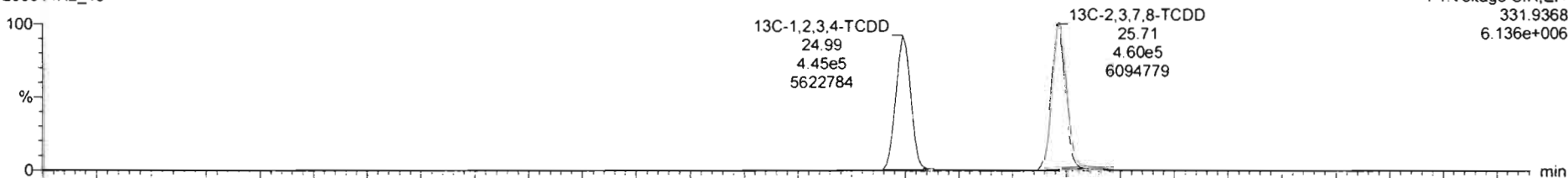
37Cl-2,3,7,8-TCDD

200314R2\_13

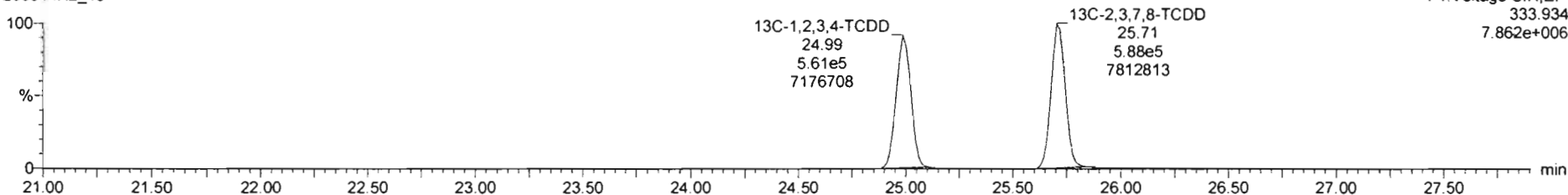


13C-1,2,3,4-TCDD

200314R2\_13



200314R2\_13



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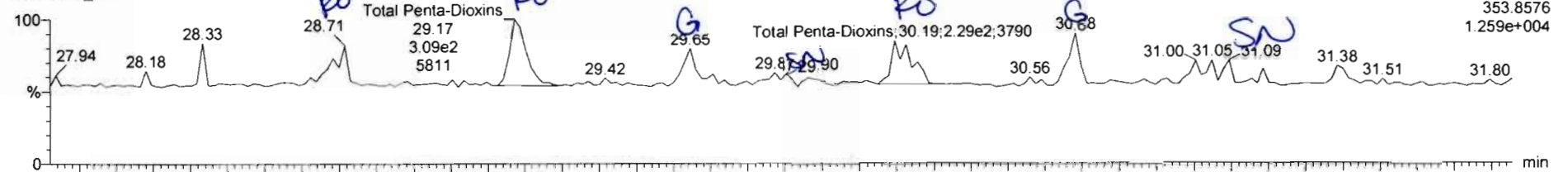
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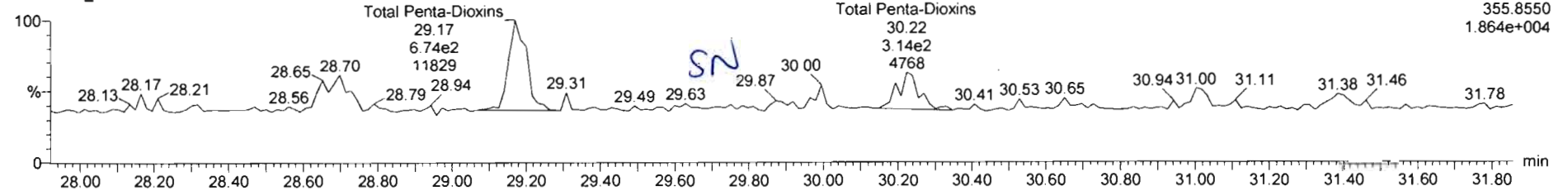
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**1,2,3,7,8-PeCDD**

200314R2\_13

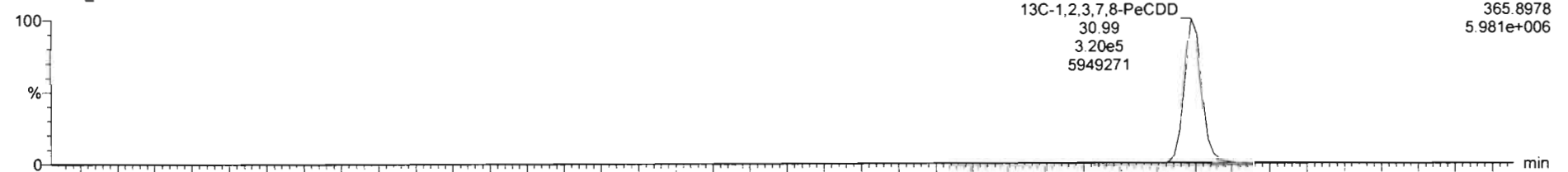


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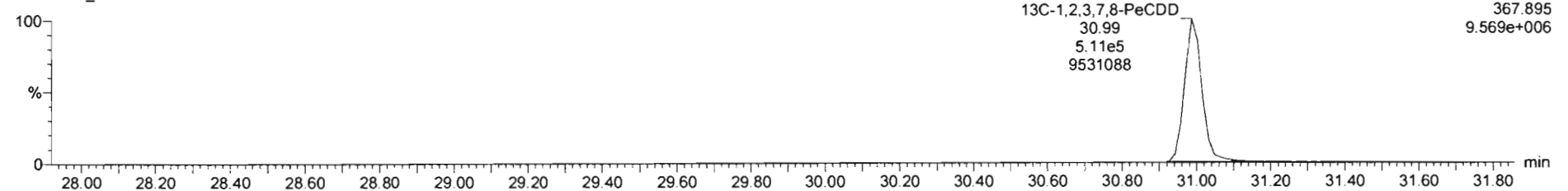


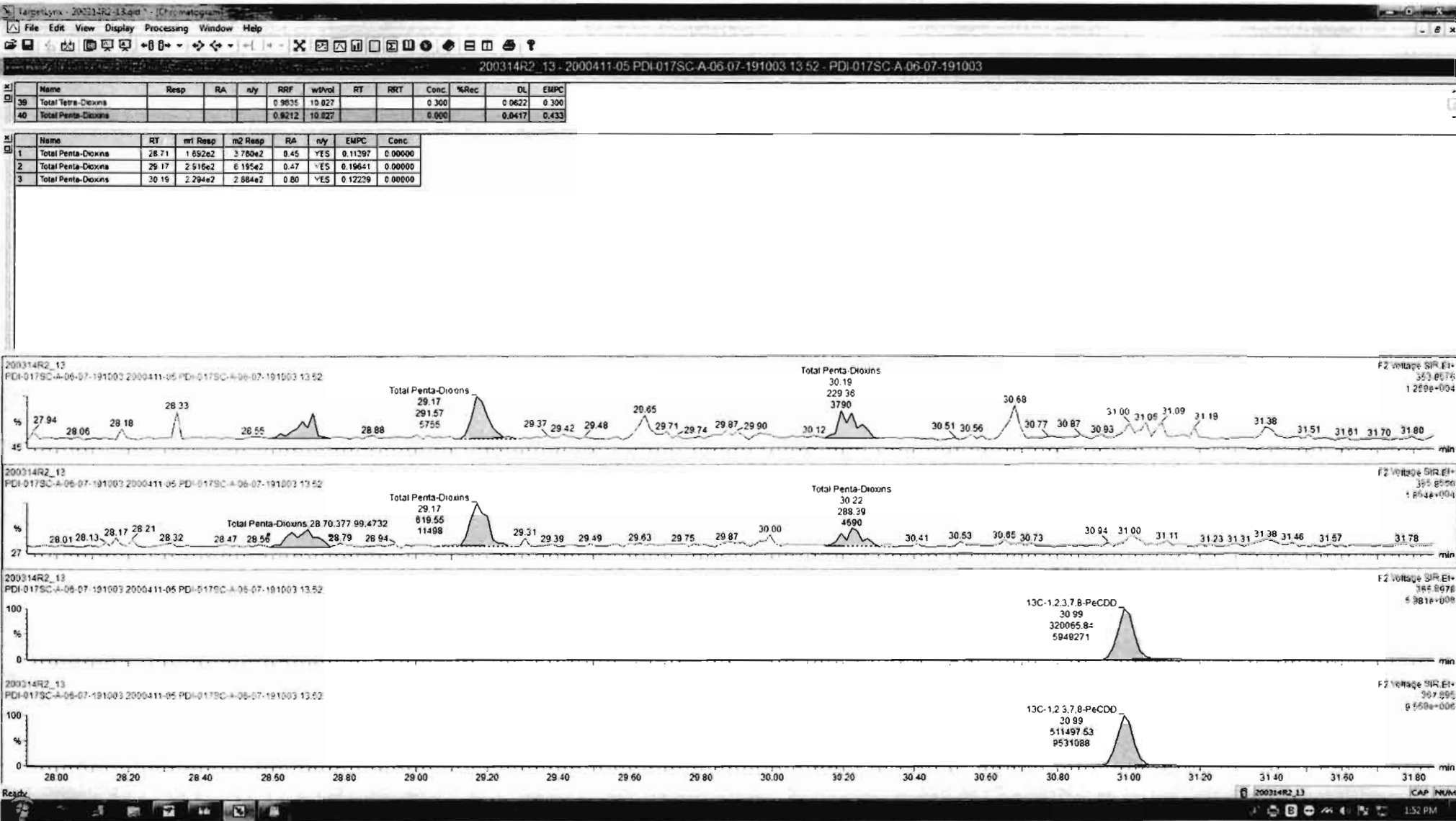
**13C-1,2,3,7,8-PeCDD**

200314R2\_13



200314R2\_13







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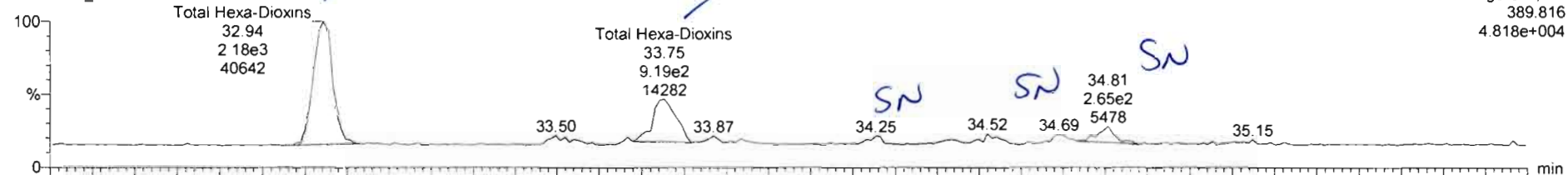
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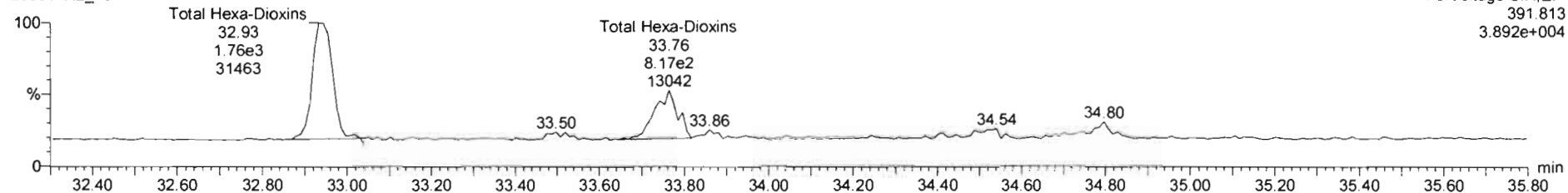
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### 1,2,3,4,7,8-HxCDD

200314R2\_13

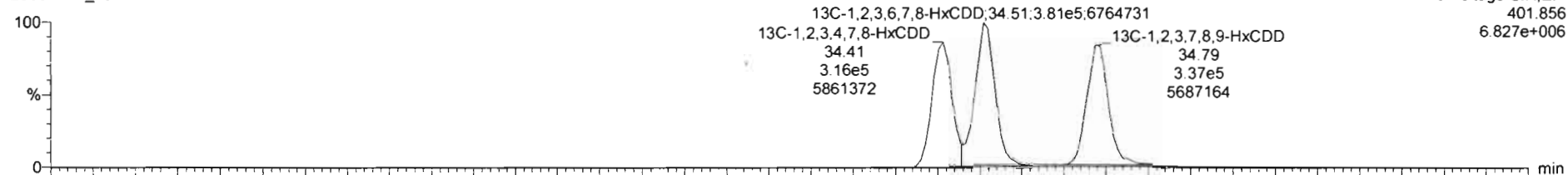


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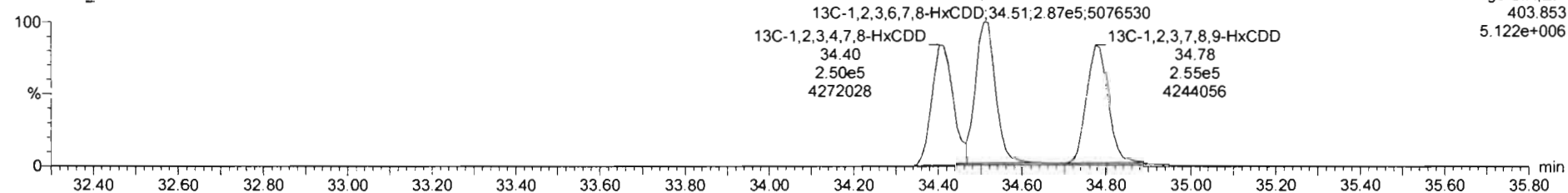


### 13C-1,2,3,4,7,8-HxCDD

200314R2\_13

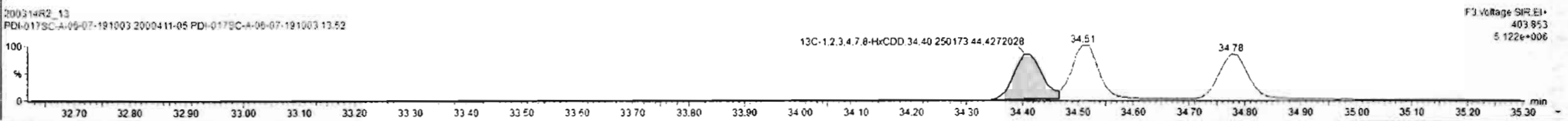
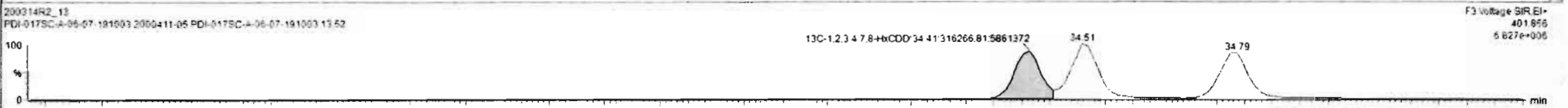
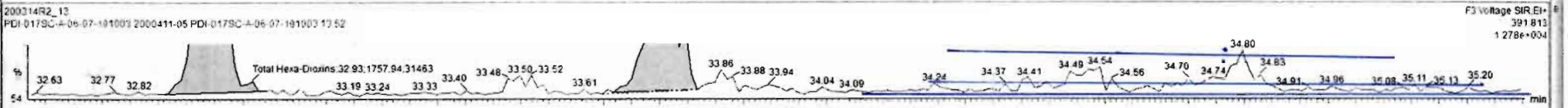
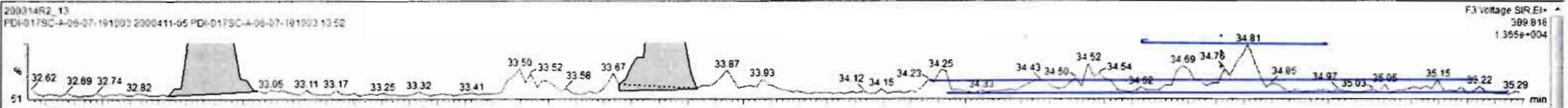


200314R2\_13



Name	Resp	RA	n/y	RRF	wt/Vol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.027			0.300	0.0822	0.300	
40 Total Penta-Dioxins				0.9212	10.027			0.060	0.0417	0.433	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hexa-Dioxins	32.94	2.175e3	1.758e3	1.24	NO	1.3081	1.3081
2 Total Hexa-Dioxins	33.75	9.722e2	8.048e2	1.21	NO	0.59099	0.59099



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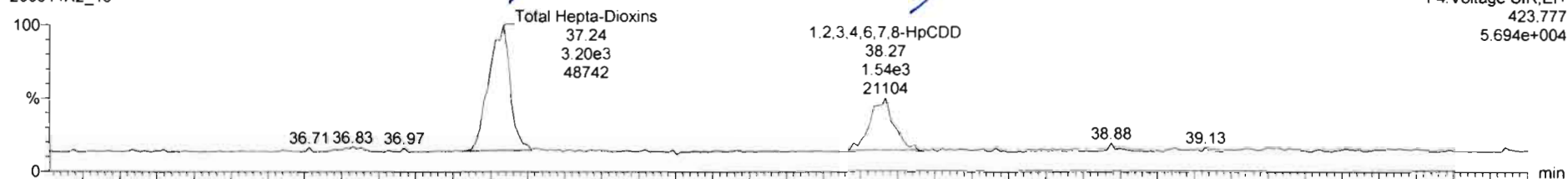
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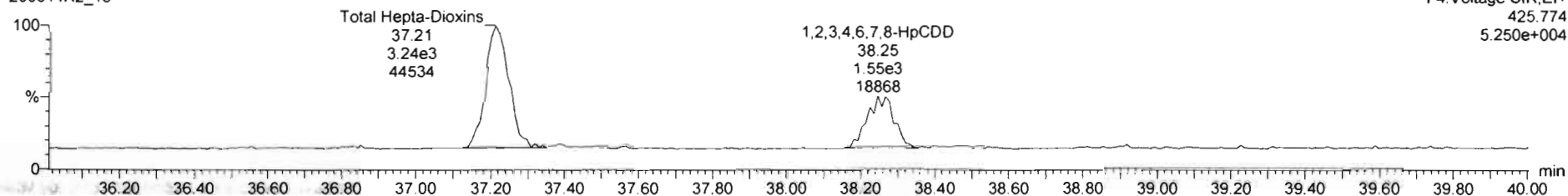
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1,2,3,4,6,7,8-HpCDD

200314R2\_13

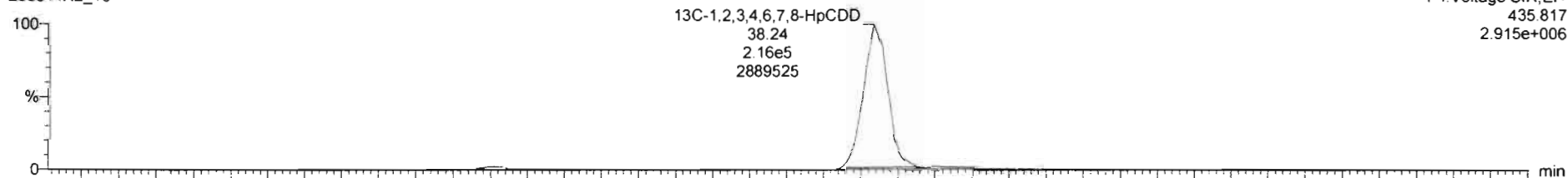


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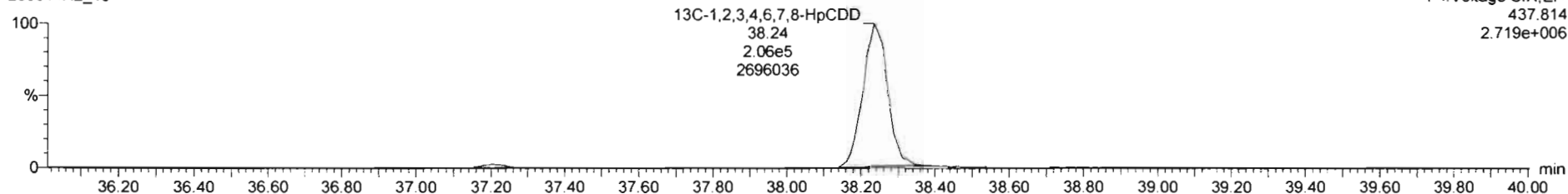


13C-1,2,3,4,6,7,8-HpCDD

200314R2\_13



200314R2\_13

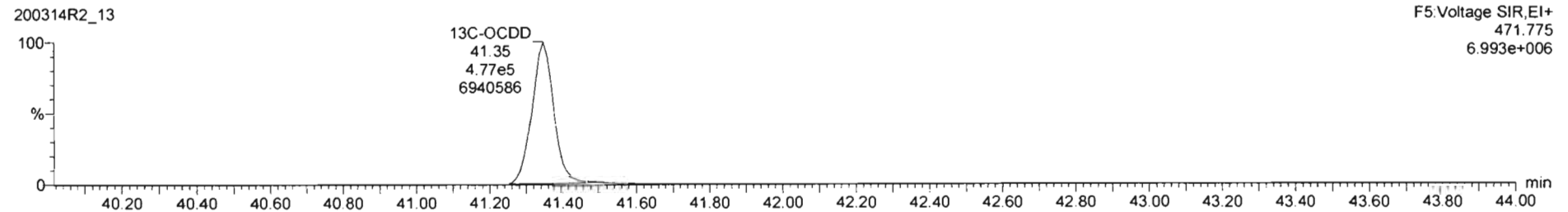
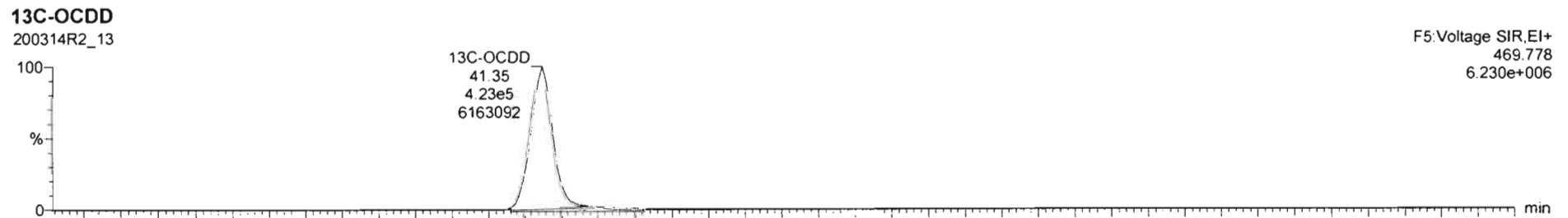
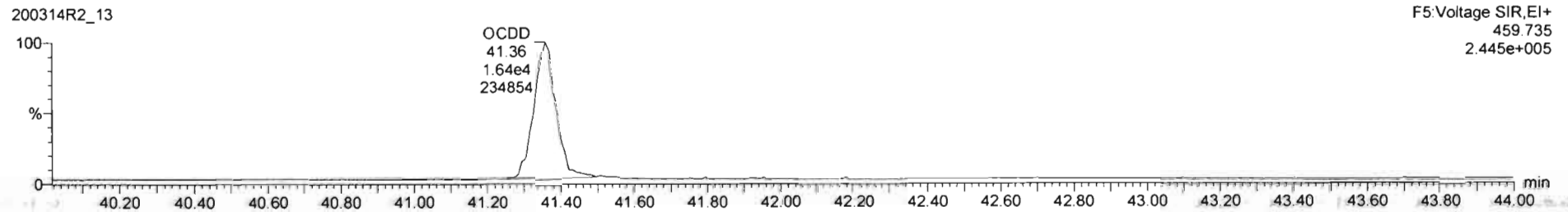
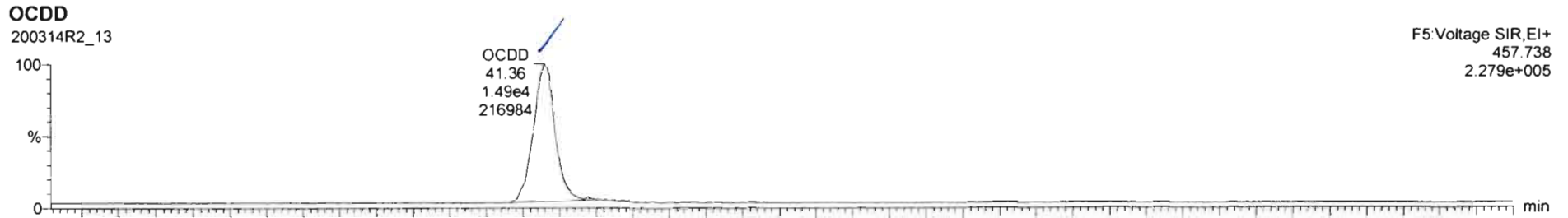


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Name: 200314R2\_13, Date: 14-Mar-2020, Time: 20:48:26, ID: 2000411-05 PDI-017SC-A-06-07-191003 13.52, Description: PDI-017SC-A-06-07-191003



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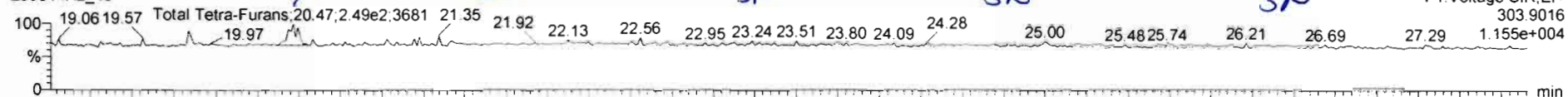
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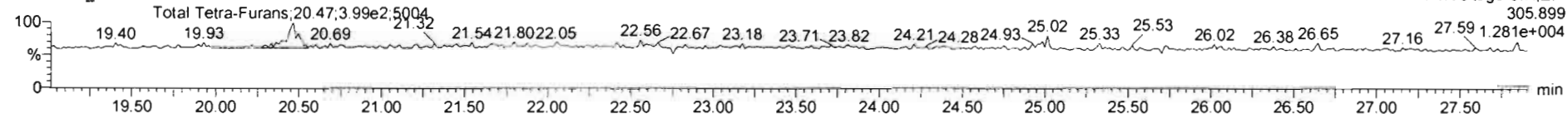
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2,3,7,8-TCDF

200314R2\_13

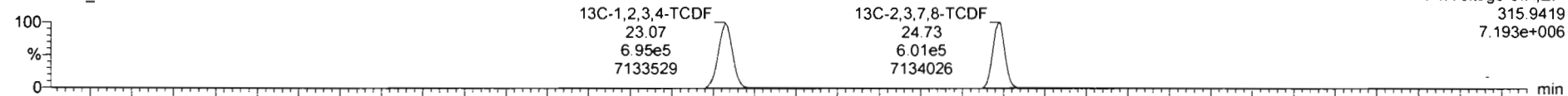


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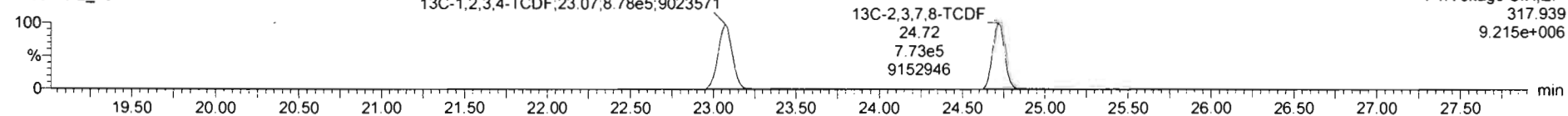


13C-2,3,7,8-TCDF

200314R2\_13

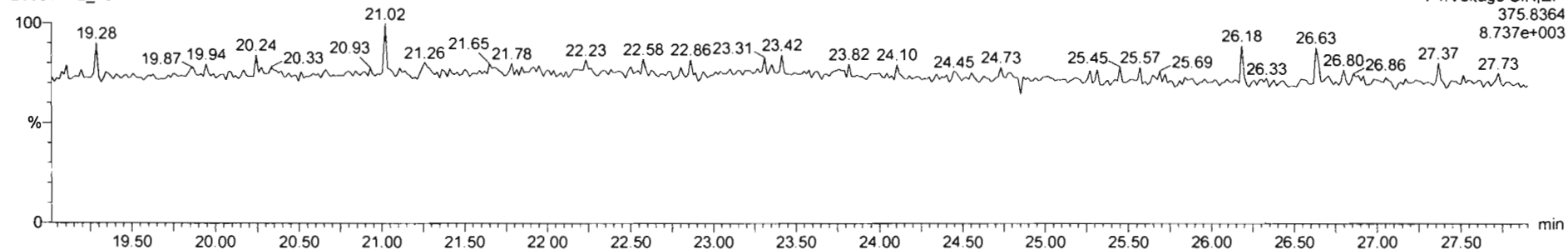


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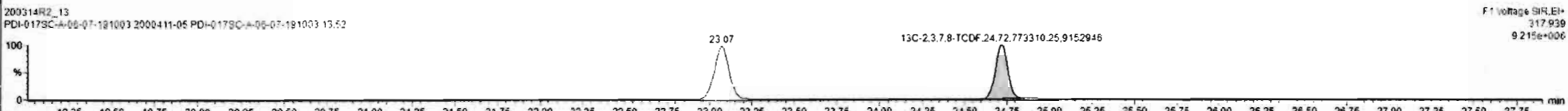
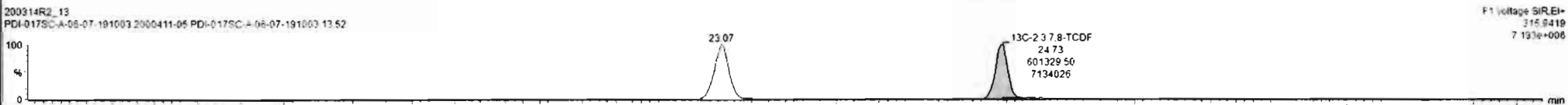
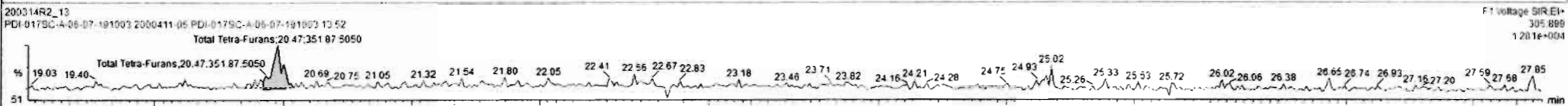
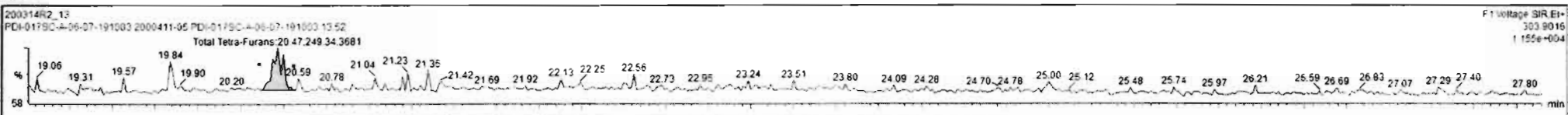
DPE1

200314R2\_13



Name	Resp	RA	nly	RRF	wtvol	RT	RRT	Conc.	%Rec	DL	EMPC
42 Total Hepta-Chlorins				1.9961	10.027			4.47		0.203	4.47
43 Total Tetra-Furans				0.9154	10.027			0.0953		0.0533	0.0953

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Tetra-Furans	20.47	2.453e2	3.519e2	0.71	NO	0.095294	0.095294



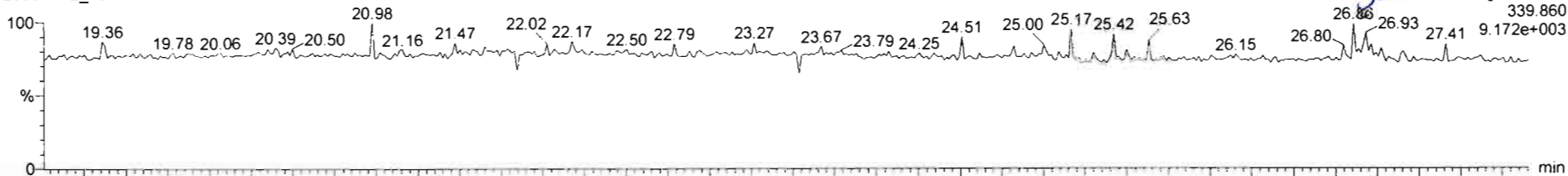
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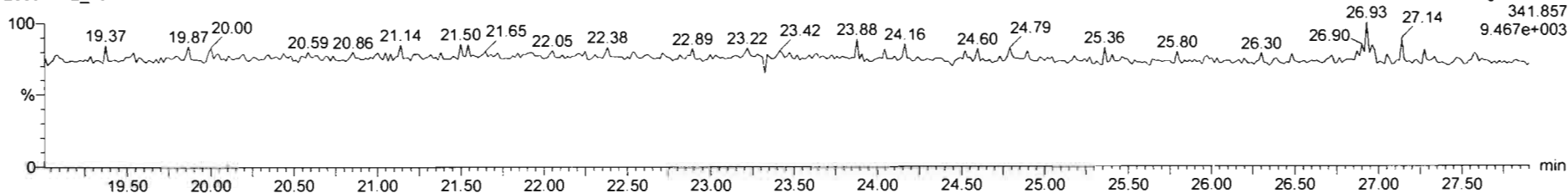
1st Func. Penta-Furans

200314R2\_13



F1: Voltage SIR, EI+  
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9.172e+003

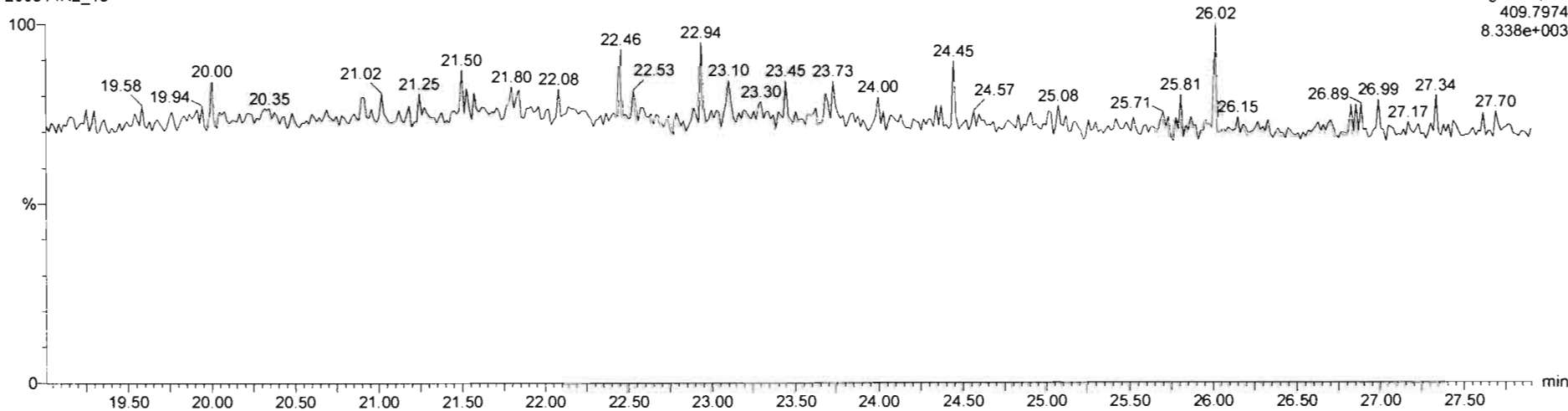
200314R2\_13



F1: Voltage SIR, EI+  
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DPE6

200314R2\_13



F1: Voltage SIR, EI+  
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8.338e+003

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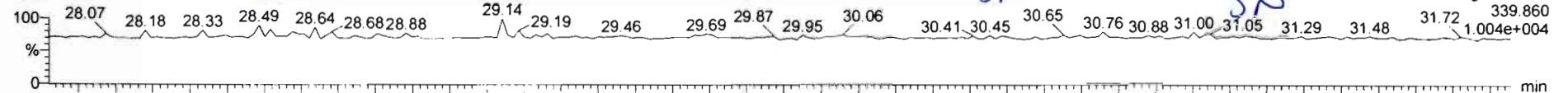
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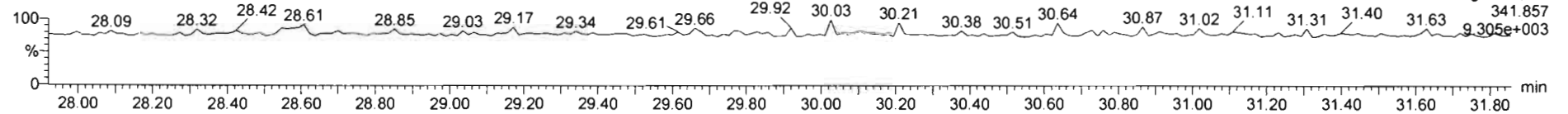
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**1,2,3,7,8-PeCDF**

200314R2\_13

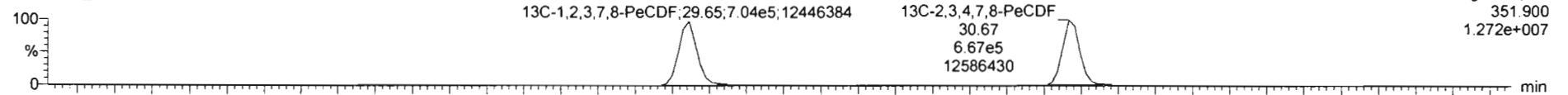


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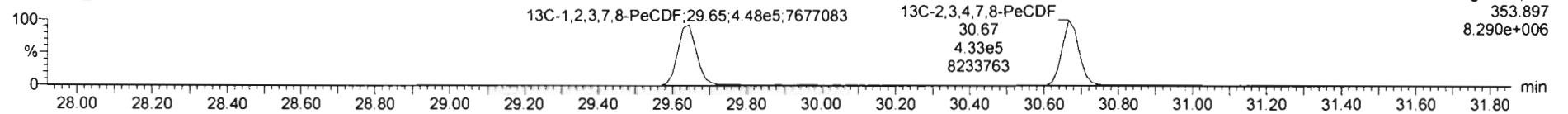


**13C-1,2,3,7,8-PeCDF**

200314R2\_13

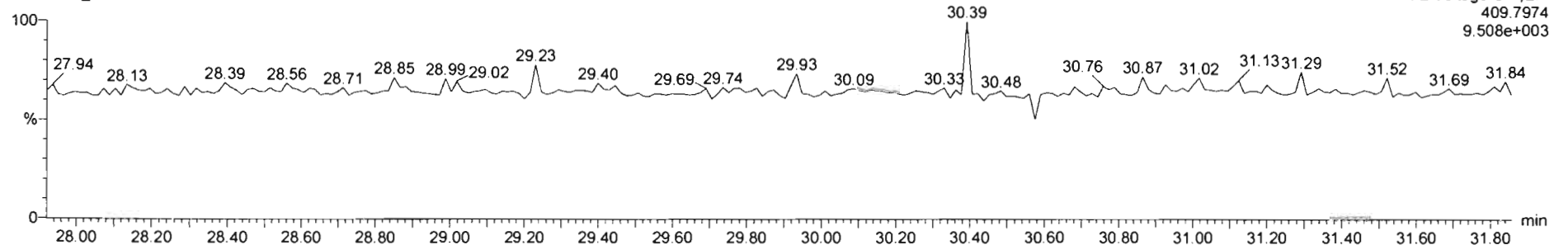


200314R2\_13



**DPE2**

200314R2\_13



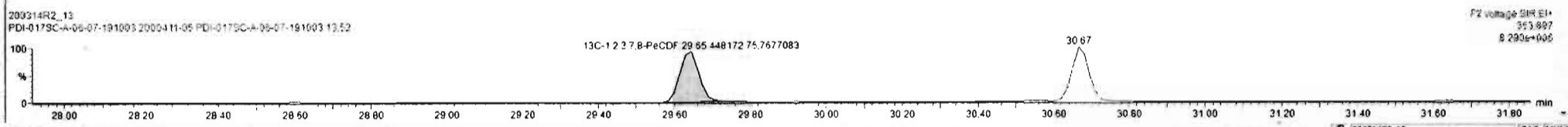
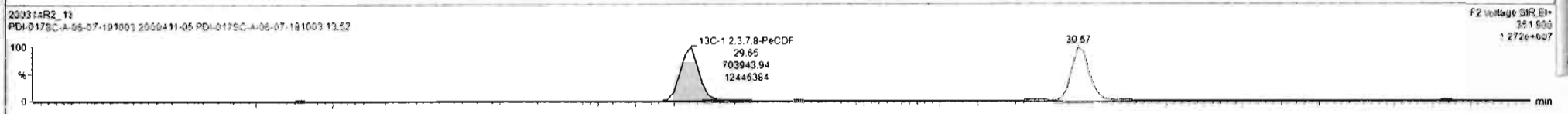
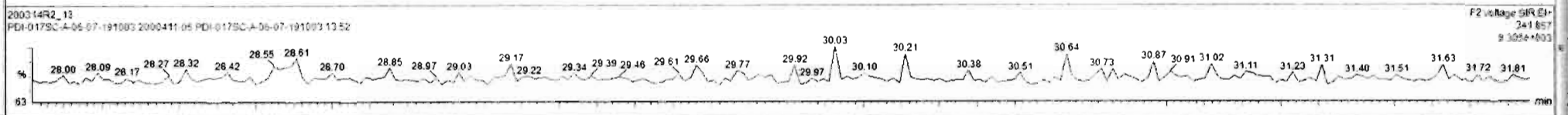
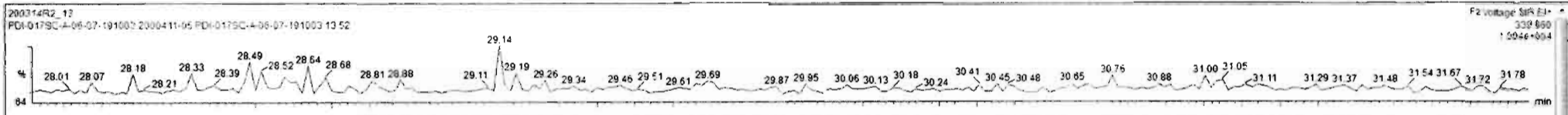


200314R2\_13 - 2000411-05 PDI-017SC-A-06-07-191003 13:52 - PDI-017SC-A-06-07-191003

Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.027					0.0212	
46 Total Hexa-Furans				1.0520	10.027					0.0241	

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



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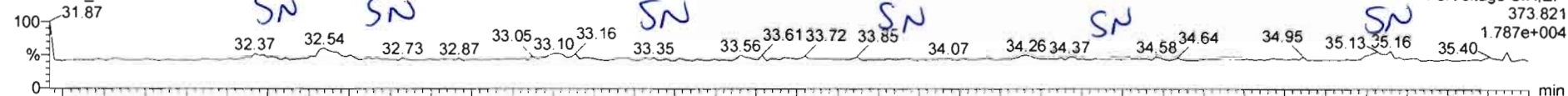
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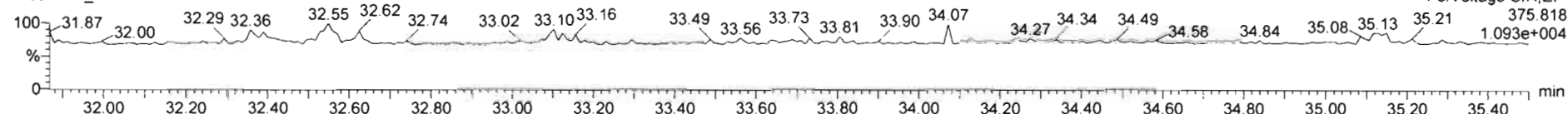
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1,2,3,4,7,8-HxCDF

200314R2\_13

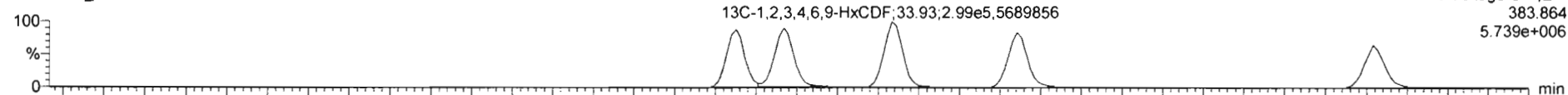


200314R2\_13

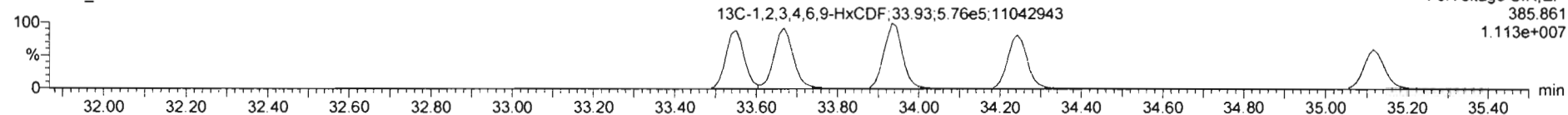


13C-1,2,3,4,7,8-HxCDF

200314R2\_13

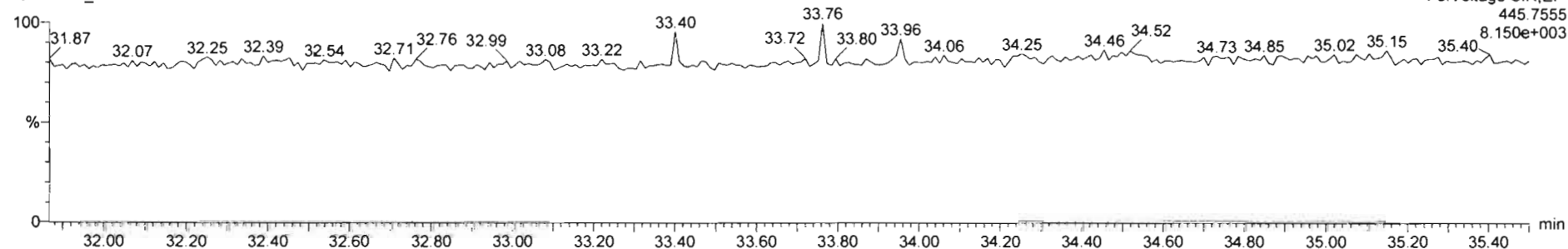


200314R2\_13



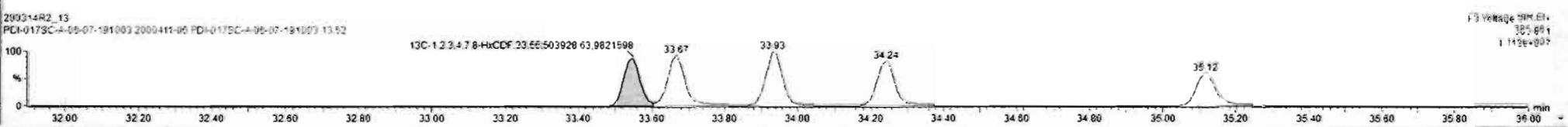
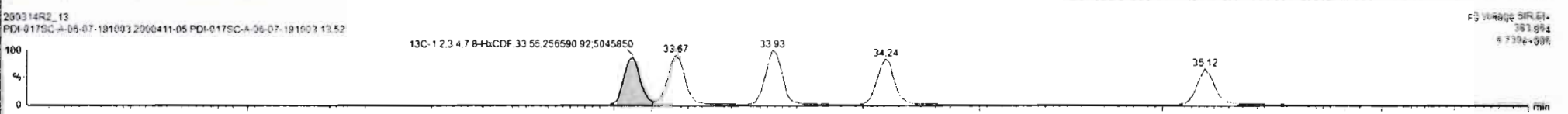
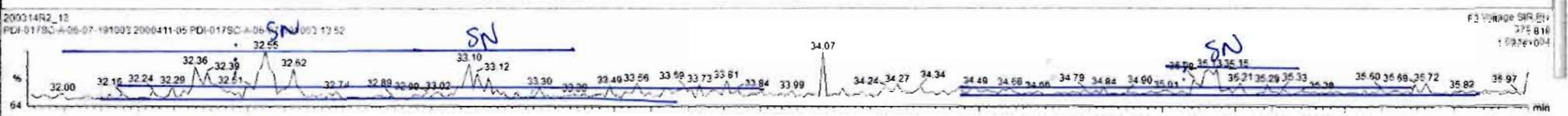
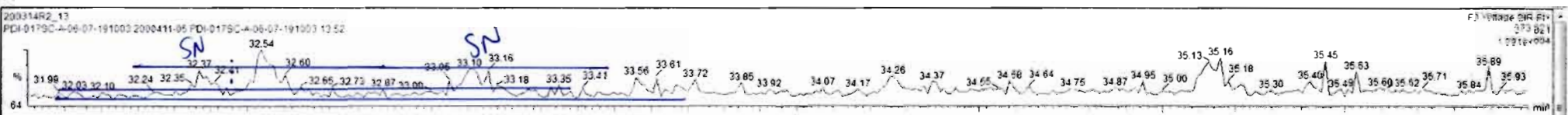
DPE3

200314R2\_13



Name	Resp	RA	n/y	RRF	wVvol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.027					0.0212	
46 Total Hexa-Furans				1.0920	10.027					0.0241	

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



Dataset: Untitled

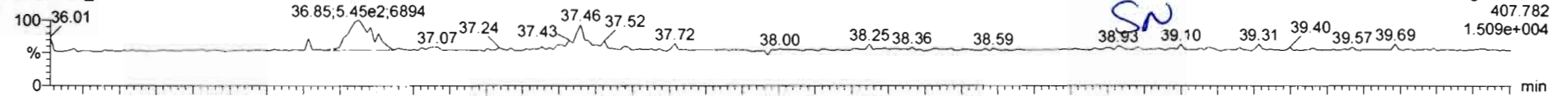
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

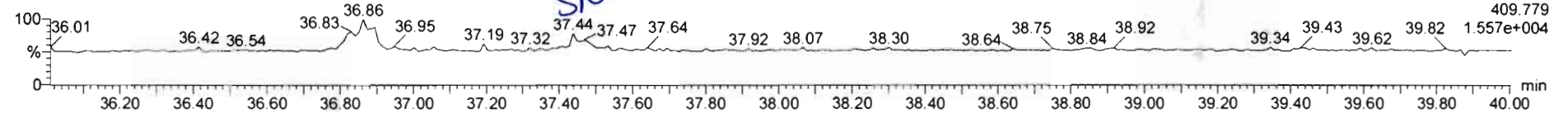
Name: 200314R2\_13, Date: 14-Mar-2020, Time: 20:48:26, ID: 2000411-05 PDI-017SC-A-06-07-191003 13.52, Description: PDI-017SC-A-06-07-191003

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

200314R2\_13

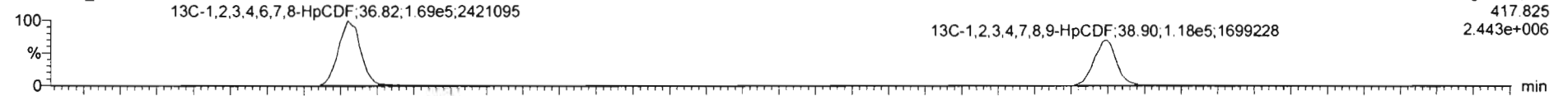


200314R2\_13

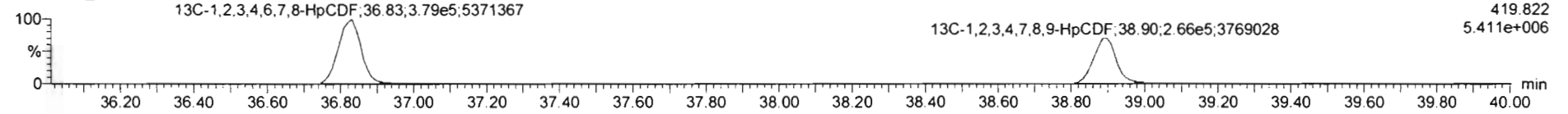


13C-1,2,3,4,6,7,8-HpCDF

200314R2\_13

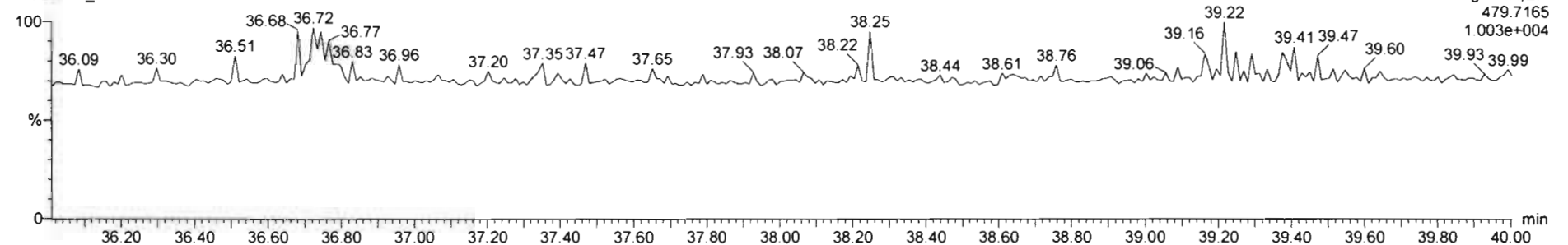


200314R2\_13



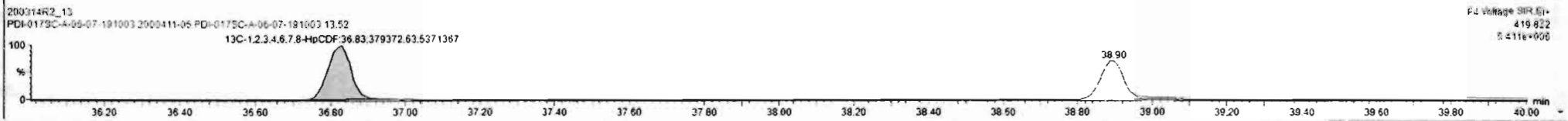
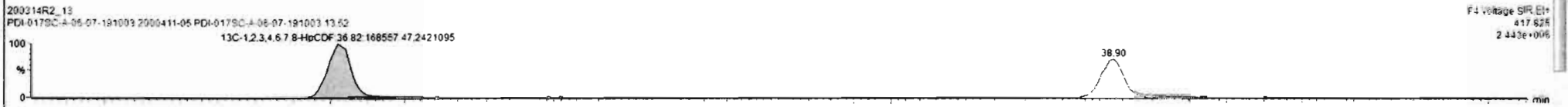
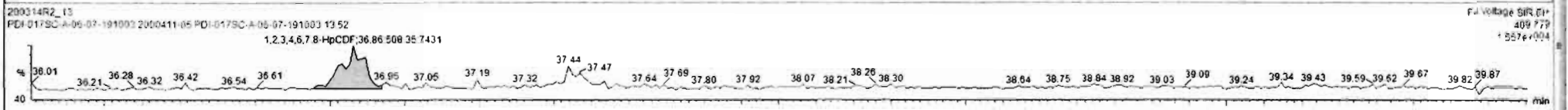
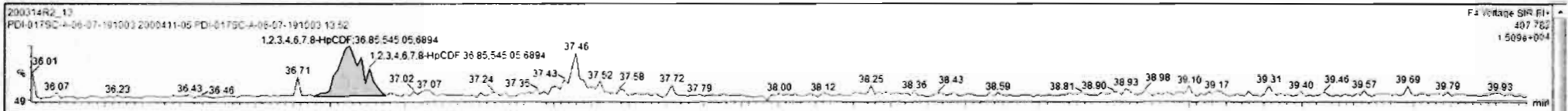
DPE4

200314R2\_13



Name	Resp	RA	n/y	RRF	w/Vol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.027					0.0212	
46 Total Hexa-Furans				1.0920	10.027					0.0241	

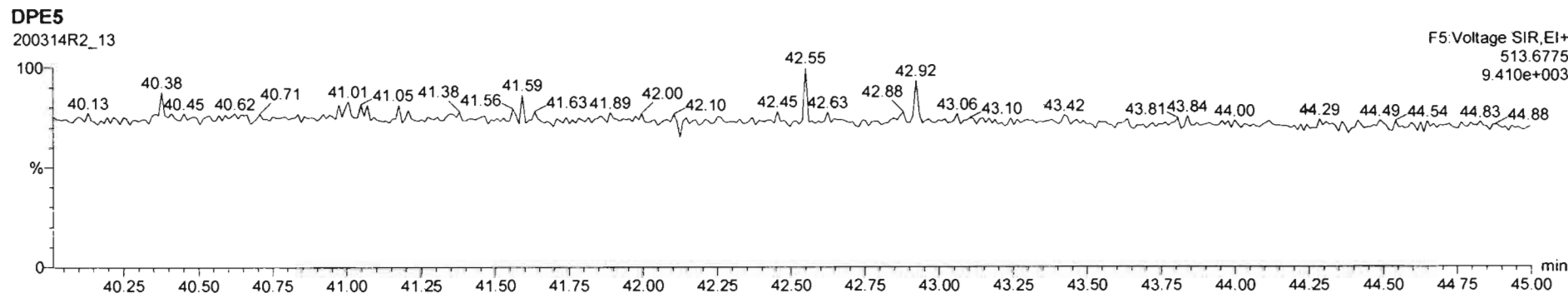
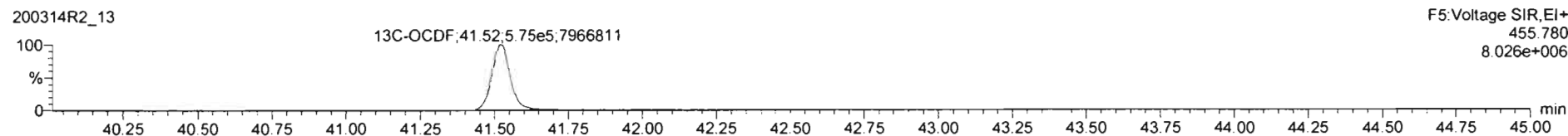
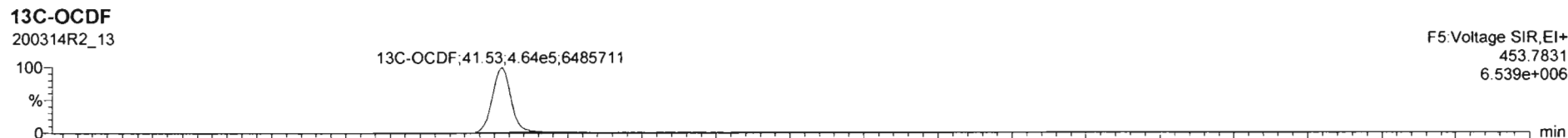
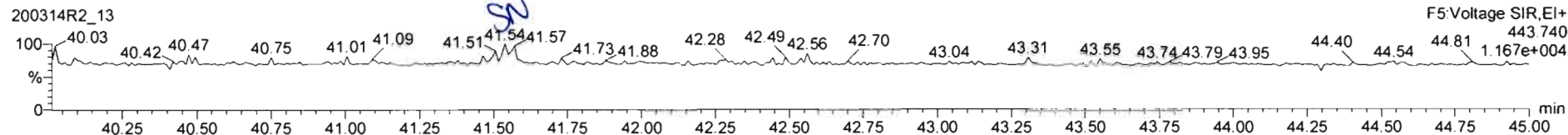
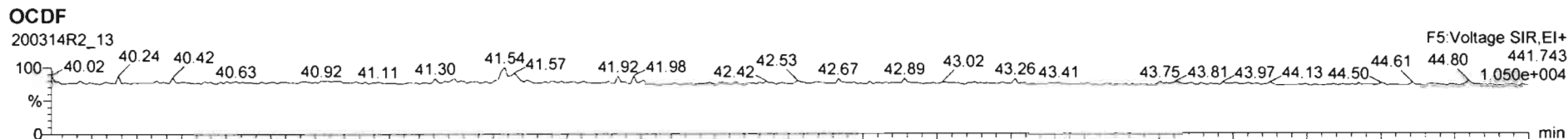
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 1,2,3,4,6,7,8-HpCDF	36.85	5.450e2	5.094e2	1.07	HO	0.36580	0.36580



Dataset: Untitled

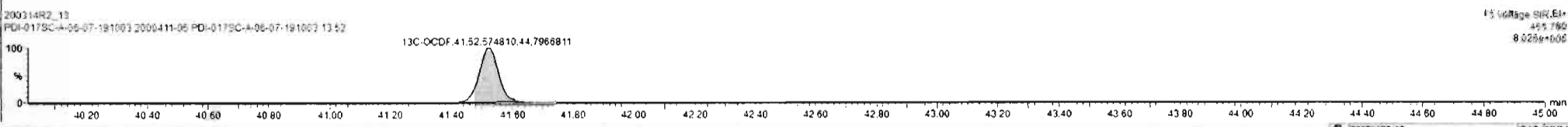
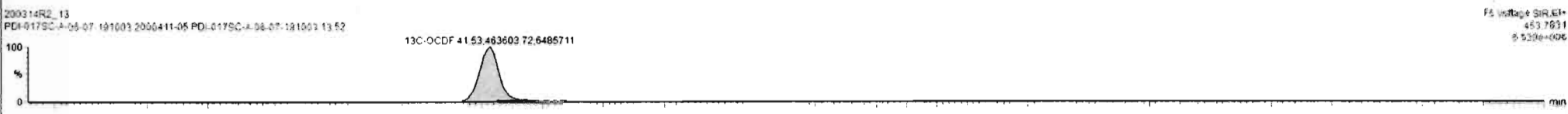
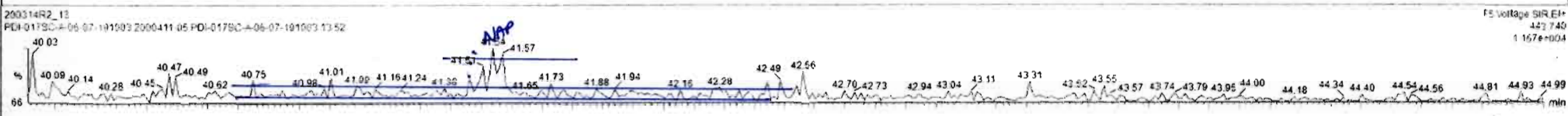
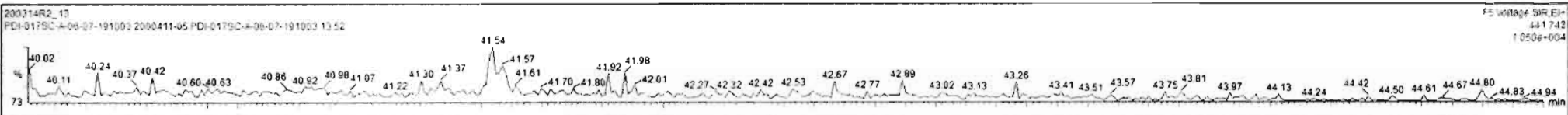
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Name: 200314R2\_13, Date: 14-Mar-2020, Time: 20:48:26, ID: 2000411-05 PDI-017SC-A-06-07-191003 13.52, Description: PDI-017SC-A-06-07-191003



Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc.	%Rec	Dt	EMPC
17	OCDP			0.9468	10.027				0.0950		
18	13C-2,3,7,8-TCDD	1.05e6	0.78	NO	1.1842	13.027	25.70	1.029	176	88.0	0.249

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1							

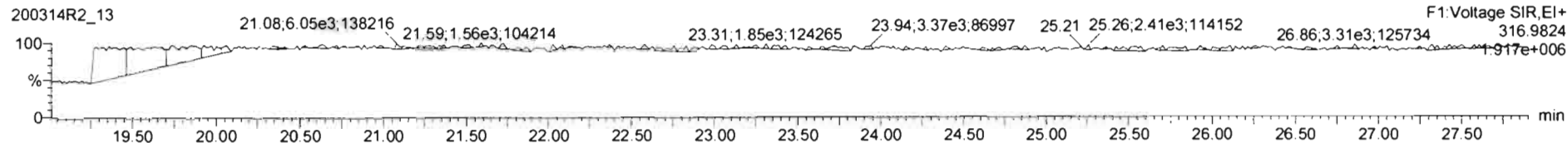


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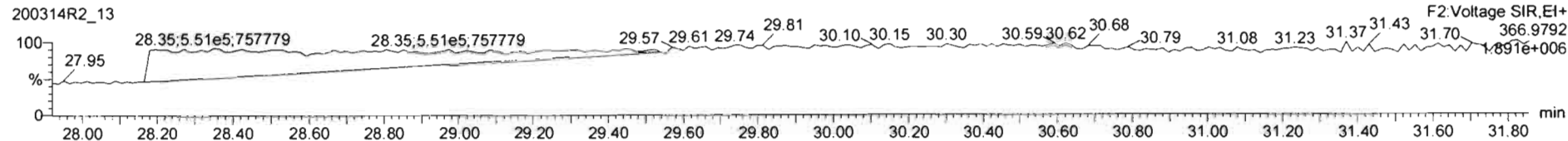
Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_13, Date: 14-Mar-2020, Time: 20:48:26, ID: 2000411-05 PDI-017SC-A-06-07-191003 13.52, Description: PDI-017SC-A-06-07-191003

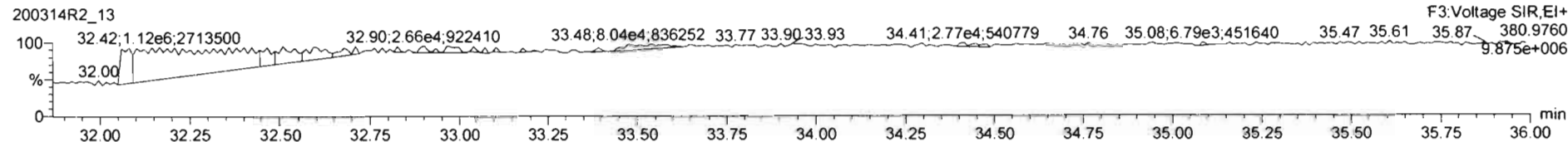
PFK1



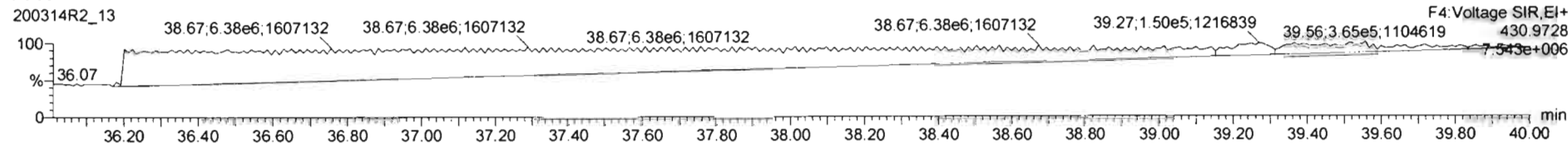
PFK2



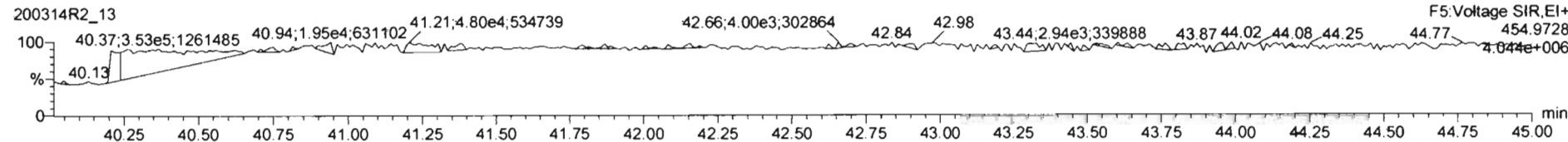
PFK3



PFK4



PFK5





Dataset: U:\VG12.PRO\Results\200314R2\200314R2-14.qld

Last Altered: Sunday, March 15, 2020 2:08:45 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 2:09:45 PM Pacific Daylight Time

*GRB 03/15/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

*MW  
3/15/20*

Name: 200314R2\_14, Date: 14-Mar-2020, Time: 21:35:59, ID: 2000411-06 PDI-020SC-A-04-05-191008 12.05, Description: PDI-020SC-A-04-05-191008

#	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	0.983	10.047	25.751		1.001				0.0831	
2	2 1,2,3,7,8-PeCDD			NO	0.921	10.047	31.009		1.001				0.0839	
3	3 1,2,3,4,7,8-HxCDD			NO	1.13	10.047	34.423		1.000				0.0839	
4	4 1,2,3,6,7,8-HxCDD			NO	0.984	10.047	34.509		1.000				0.0807	
5	5 1,2,3,7,8,9-HxCDD			NO	0.967	10.047	34.795		1.000				0.0873	
6	6 1,2,3,4,6,7,8-HpCDD	6.87e2	0.83	YES	1.01	10.047	38.258	38.25	1.000	1.000	0.33811		0.172	0.301
7	7 OCDD	6.46e3	0.97	NO	1.05	10.047	41.368	41.39	1.000	1.001	2.5916		0.129	2.59
8	8 2,3,7,8-TCDF			NO	0.915	10.047	24.742		1.001				0.0446	
9	9 1,2,3,7,8-PeCDF			NO	0.959	10.047	29.666		1.001				0.0433	
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.047	30.713		1.001				0.0402	
11	11 1,2,3,4,7,8-HxCDF			NO	1.04	10.047	33.550		1.000				0.0407	
12	12 1,2,3,6,7,8-HxCDF			NO	1.01	10.047	33.688		1.000				0.0414	
13	13 2,3,4,6,7,8-HxCDF			NO	1.09	10.047	34.276		1.001				0.0433	
14	14 1,2,3,7,8,9-HxCDF	1.86e2	1.75	YES	1.03	10.047	35.126	35.13	1.000	1.000	0.059990		0.0344	0.0488
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.05	10.047	36.868		1.001				0.0698	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.047	38.907		1.000				0.0877	
17	17 OCDF			NO	0.947	10.047	41.549		1.000				0.0861	
18	18 13C-2,3,7,8-TCDD	8.73e5	0.78	NO	1.18	10.047	25.704	25.72	1.029	1.029	162.01	81.4	0.227	
19	19 13C-1,2,3,7,8-PeCDD	7.29e5	0.63	NO	0.864	10.047	30.881	30.99	1.236	1.240	185.32	93.1	0.290	
20	20 13C-1,2,3,4,7,8-HxCDD	5.29e5	1.30	NO	0.754	10.047	34.416	34.41	1.014	1.014	169.74	85.3	0.433	
21	21 13C-1,2,3,6,7,8-HxCDD	6.32e5	1.28	NO	0.925	10.047	34.524	34.51	1.017	1.017	165.04	82.9	0.353	
22	22 13C-1,2,3,7,8,9-HxCDD	5.84e5	1.25	NO	0.829	10.047	34.786	34.78	1.025	1.025	170.14	85.5	0.394	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.02e5	1.05	NO	0.598	10.047	38.241	38.25	1.127	1.127	162.39	81.6	0.352	
24	24 13C-OCDD	9.44e5	0.93	NO	0.571	10.047	41.388	41.37	1.219	1.219	399.53	100	0.427	
25	25 13C-2,3,7,8-TCDF	1.14e6	0.77	NO	1.09	10.047	24.727	24.72	0.990	0.989	147.48	74.1	0.338	
26	26 13C-1,2,3,7,8-PeCDF	9.95e5	1.57	NO	0.876	10.047	29.555	29.65	1.183	1.186	160.27	80.5	0.381	
27	27 13C-2,3,4,7,8-PeCDF	1.03e6	1.55	NO	0.844	10.047	30.564	30.68	1.223	1.228	171.49	86.2	0.395	
28	28 13C-1,2,3,4,7,8-HxCDF	7.15e5	0.52	NO	1.00	10.047	33.564	33.55	0.989	0.988	172.93	86.9	0.388	
29	29 13C-1,2,3,6,7,8-HxCDF	7.68e5	0.53	NO	1.12	10.047	33.672	33.68	0.992	0.992	166.19	83.5	0.348	
30	30 13C-2,3,4,6,7,8-HxCDF	7.26e5	0.51	NO	1.04	10.047	34.253	34.24	1.009	1.009	169.62	85.2	0.375	
31	31 13C-1,2,3,7,8,9-HxCDF	6.00e5	0.53	NO	0.873	10.047	35.125	35.13	1.035	1.035	166.19	83.5	0.445	

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-14.qld

Last Altered: Sunday, March 15, 2020 2:08:45 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 2:09:45 PM Pacific Daylight Time

Name: 200314R2\_14, Date: 14-Mar-2020, Time: 21:35:59, ID: 2000411-06 PDI-020SC-A-04-05-191008 12.05, Description: PDI-020SC-A-04-05-191008

#	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	5.27e5	0.44	NO	0.771	10.047	36.839	36.83	1.085	1.085	165.44	83.1	0.368	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.54e5	0.43	NO	0.519	10.047	38.924	38.91	1.147	1.146	164.62	82.7	0.546	
34	34 13C-OCDF	1.12e6	0.82	NO	0.696	10.047	41.568	41.55	1.225	1.224	390.11	98.0	0.269	
35	35 37Cl-2,3,7,8-TCDD	3.06e5			1.17	10.047	25.714	25.74	1.029	1.030	57.221	71.9	0.0627	
36	36 13C-1,2,3,4-TCDD	9.05e5	0.80	NO	1.00	10.047	25.050	24.99	1.000	1.000	199.06	100	0.269	
37	37 13C-1,2,3,4-TCDF	1.41e6	0.78	NO	1.00	10.047	23.190	23.07	1.000	1.000	199.06	100	0.368	
38	38 13C-1,2,3,4,6,9-HxCDF	8.23e5	0.52	NO	1.00	10.047	33.880	33.94	1.000	1.000	199.06	100	0.389	
39	39 Total Tetra-Dioxins				0.983	10.047	24.620		0.000				0.0552	
40	40 Total Penta-Dioxins				0.921	10.047	29.960		0.000				0.0322	
41	41 Total Hexa-Dioxins				0.984	10.047	33.635		0.000		0.30583		0.0872	0.306
42	42 Total Hepta-Dioxins				1.01	10.047	37.640		0.000		0.64431		0.172	0.946
43	43 Total Tetra-Furans				0.915	10.047	23.610		0.000				0.0181	
44	44 1st Func. Penta-Furans				0.959	10.047	27.090		0.000				0.0120	
45	45 Total Penta-Furans				0.959	10.047	29.275		0.000				0.0205	
46	46 Total Hexa-Furans				1.09	10.047	33.555		0.000		0.00000		0.0246	0.0670
47	47 Total Hepta-Furans				1.05	10.047	37.835		0.000				0.0381	

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-14.qld

Last Altered: Sunday, March 15, 2020 2:08:45 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 2:09:45 PM Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\lb5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R2\_14, Date: 14-Mar-2020, Time: 21:35:59, ID: 2000411-06 PDI-020SC-A-04-05-191008 12.05, Description: PDI-020SC-A-04-05-191008

**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	Total Hexa-Dioxins	32.95	8.366e3	6.997e3	4.993e2	3.802e2	1.31	NO	8.795e2	0.30583	0.30583	0.0872

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.22	8.276e3	1.183e4	6.452e2	6.632e2	0.97	NO	1.308e3	0.64431	0.64431	0.172
2	1,2,3,4,6,7,8-HpCDD	38.25	3.631e3	4.749e3	3.119e2	3.747e2	0.83	YES	6.866e2	0.00000	0.30132	0.172

**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												

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-14.qld

Last Altered: Sunday, March 15, 2020 2:08:45 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 2:09:45 PM Pacific Daylight Time

Name: 200314R2\_14, Date: 14-Mar-2020, Time: 21:35:59, ID: 2000411-06 PDI-020SC-A-04-05-191008 12.05, Description: PDI-020SC-A-04-05-191008

**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	1,2,3,7,8,9-HxCDF	35.13	2.871e3	1.829e3	1.182e2	6.750e1	1.75	YES	1.857e2	0.00000	0.048846	0.0344
2	Total Hexa-Furans	35.17	2.529e3	1.282e3	7.418e1	3.121e1	2.38	YES	0.000e0	0.00000	0.018143	0.0246

**Hepta-Furans**

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

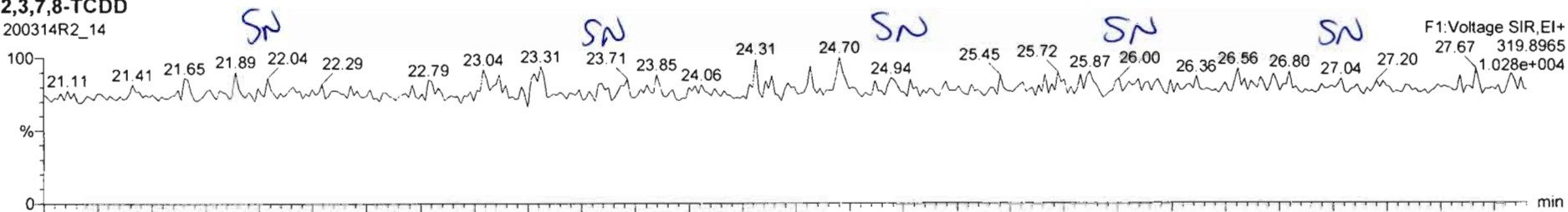
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

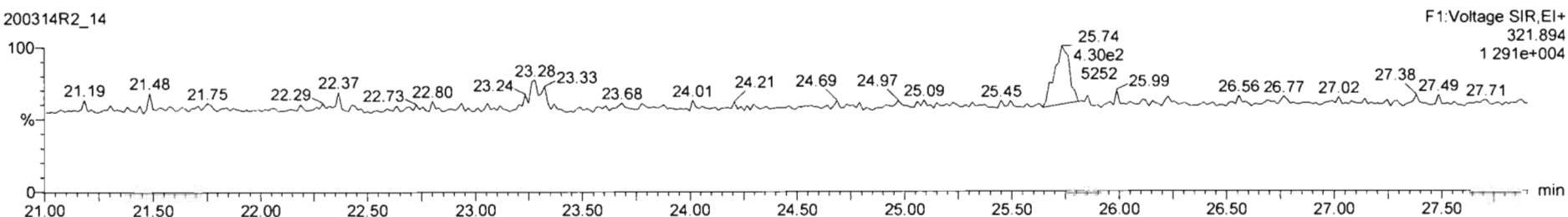
Name: 200314R2\_14, Date: 14-Mar-2020, Time: 21:35:59, ID: 2000411-06 PDI-020SC-A-04-05-191008 12.05, Description: PDI-020SC-A-04-05-191008

2,3,7,8-TCDD

200314R2\_14

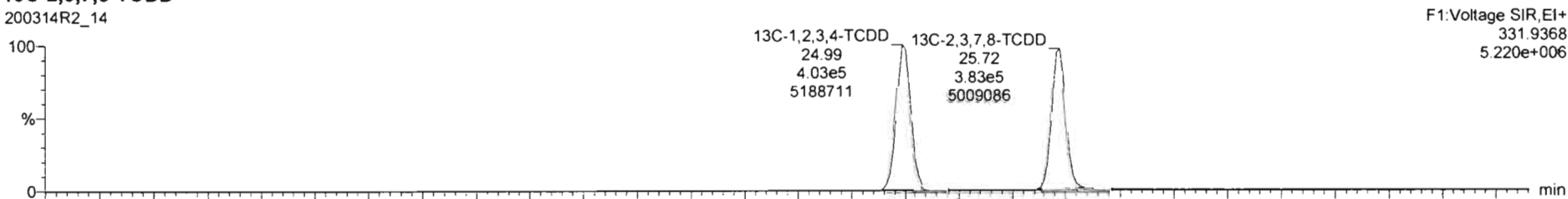


200314R2\_14

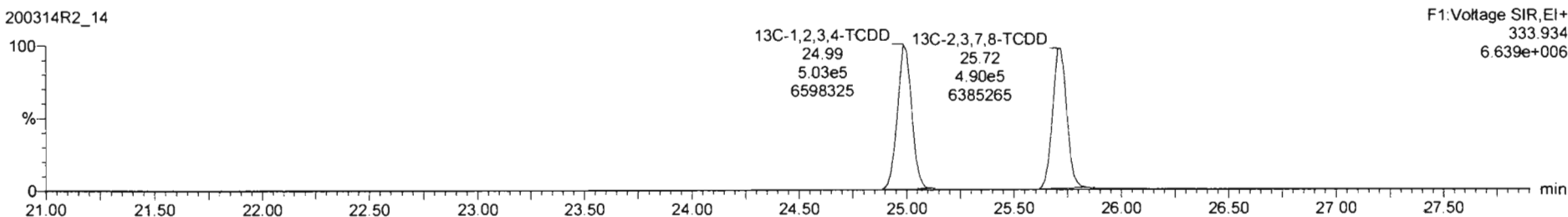


13C-2,3,7,8-TCDD

200314R2\_14



200314R2\_14

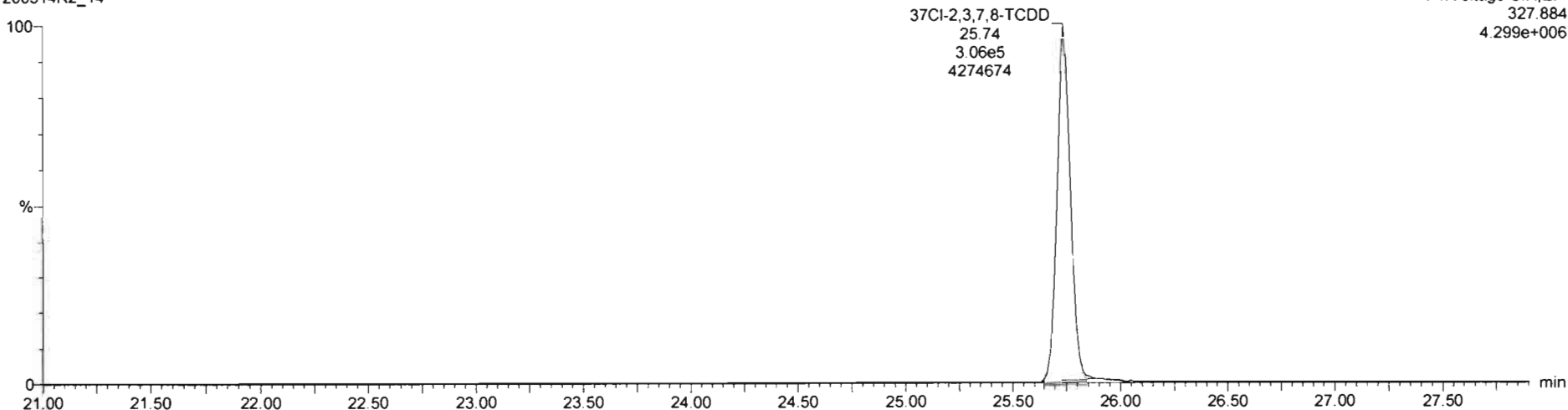


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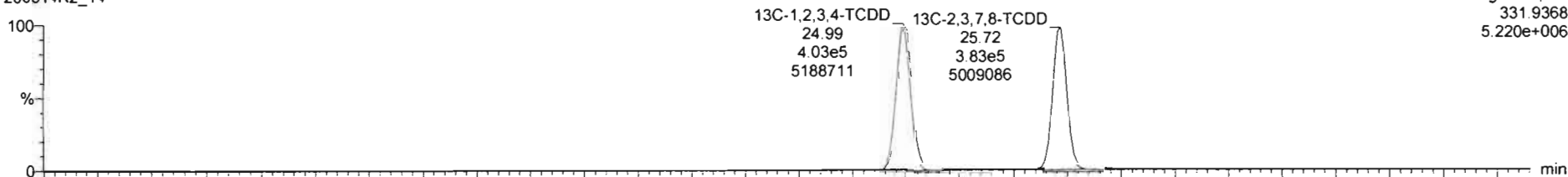
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Name: 200314R2\_14, Date: 14-Mar-2020, Time: 21:35:59, ID: 2000411-06 PDI-020SC-A-04-05-191008 12.05, Description: PDI-020SC-A-04-05-191008

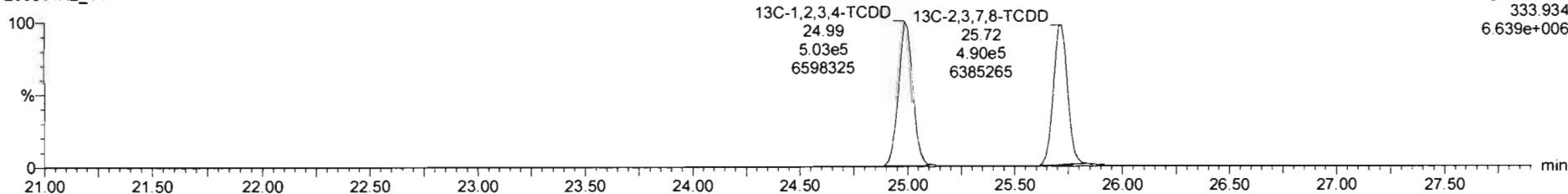
**37Cl-2,3,7,8-TCDD**  
200314R2\_14



**13C-1,2,3,4-TCDD**  
200314R2\_14



200314R2\_14



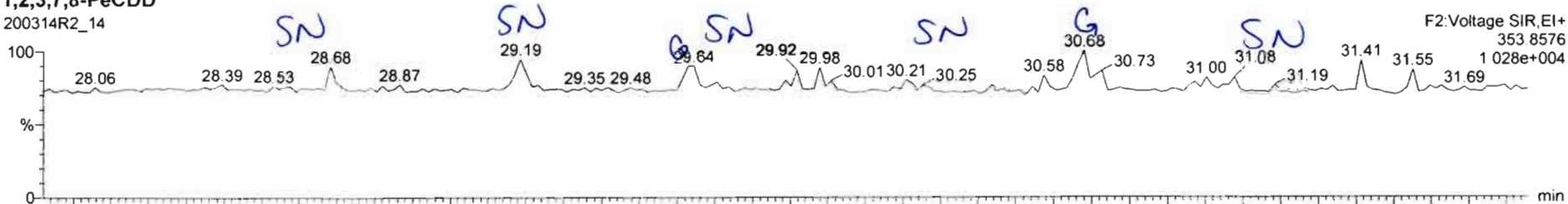
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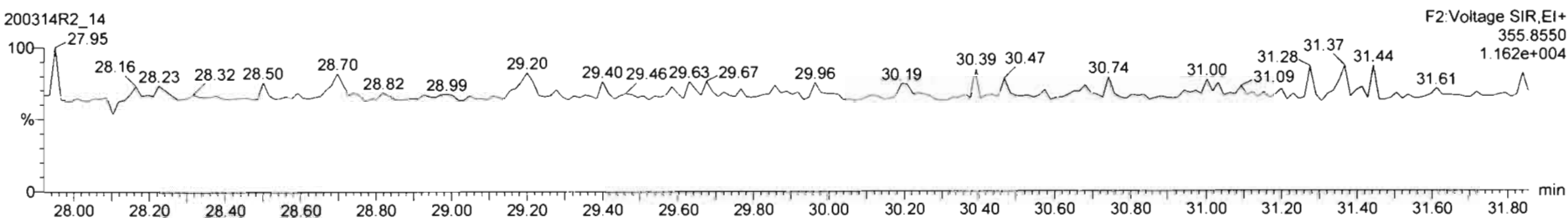
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1,2,3,7,8-PeCDD

200314R2\_14

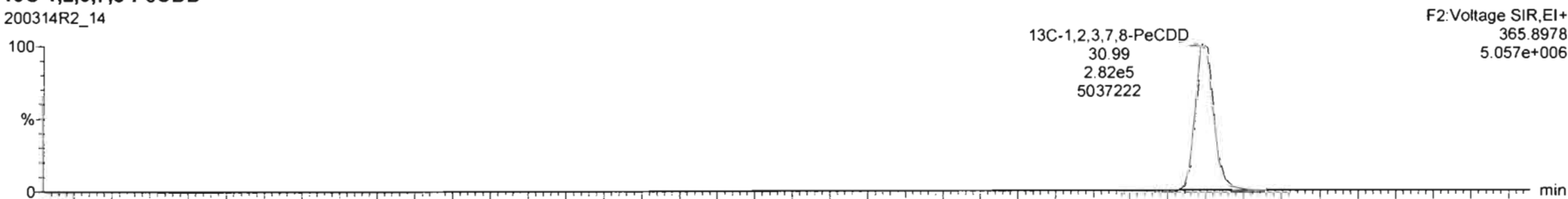


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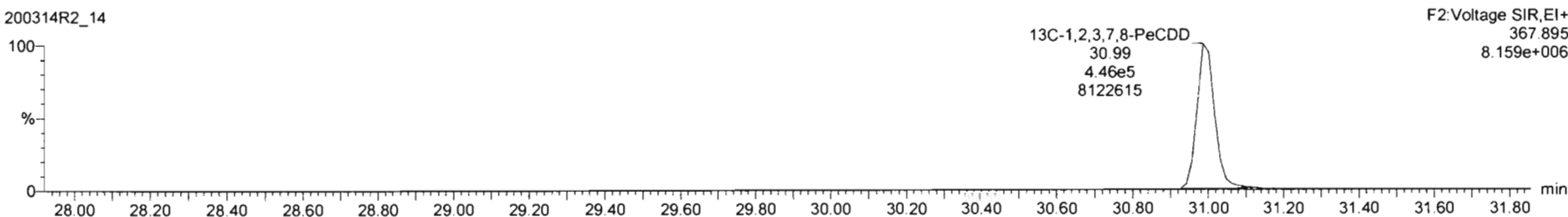


13C-1,2,3,7,8-PeCDD

200314R2\_14

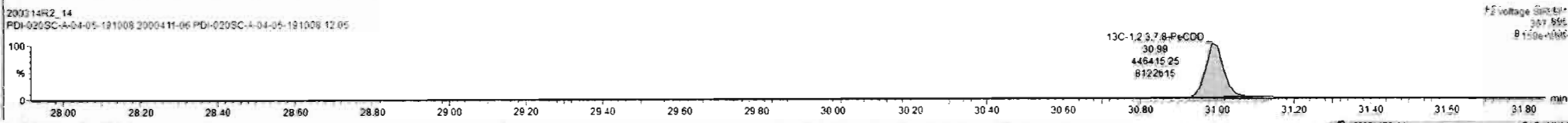
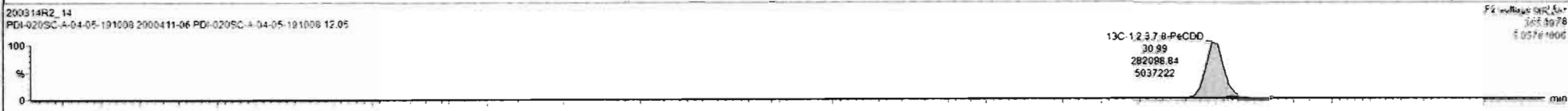
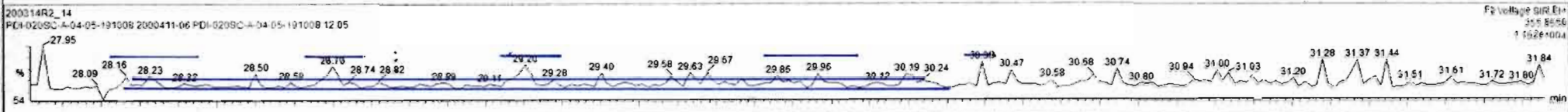
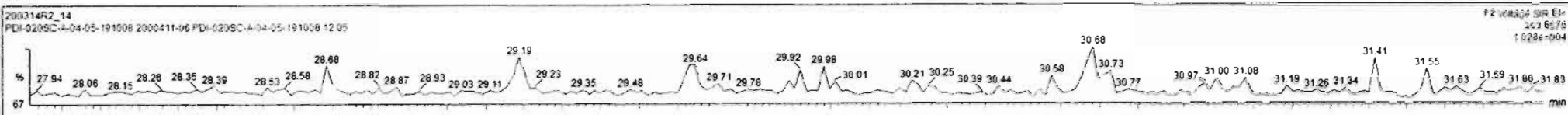


200314R2\_14



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
39	Total Tetra-Dioxina			0.9835	10.047				0.8552		
40	Total Penta-Dioxina			0.9212	10.047				0.8322		

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





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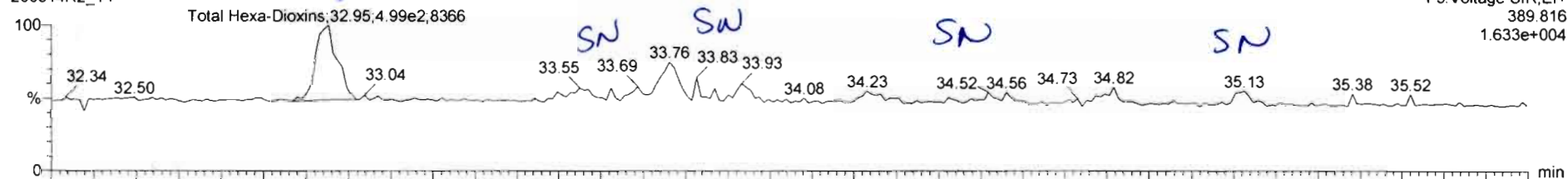
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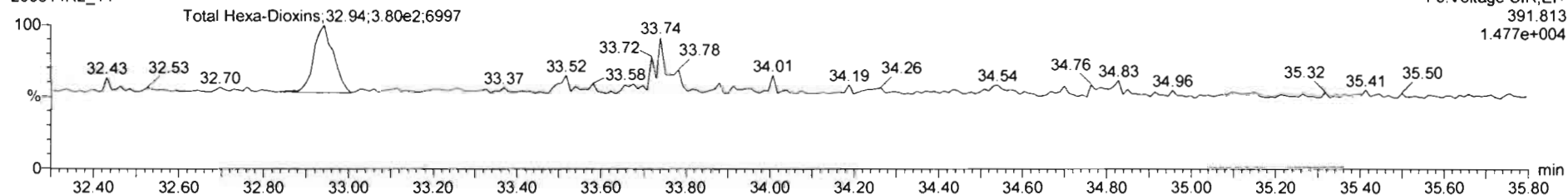
Name: 200314R2\_14, Date: 14-Mar-2020, Time: 21:35:59, ID: 2000411-06 PDI-020SC-A-04-05-191008 12.05, Description: PDI-020SC-A-04-05-191008

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

200314R2\_14

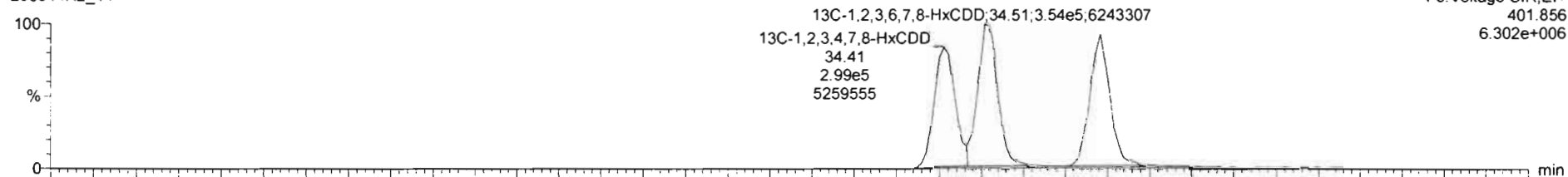


200314R2\_14

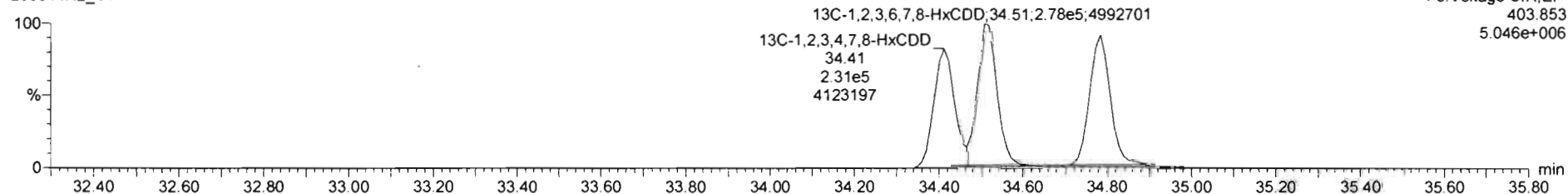


13C-1,2,3,4,7,8-HxCDD

200314R2\_14



200314R2\_14



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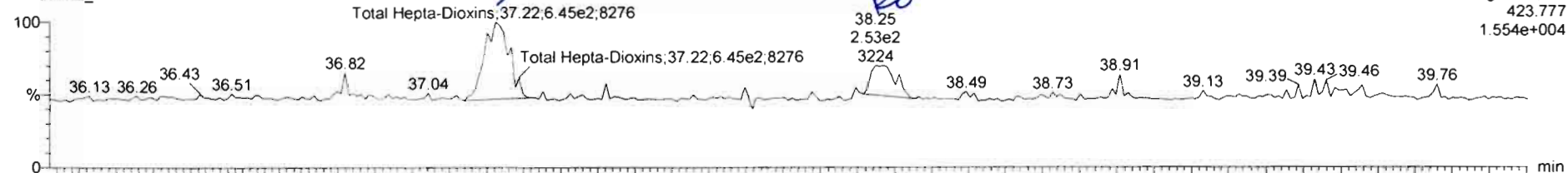
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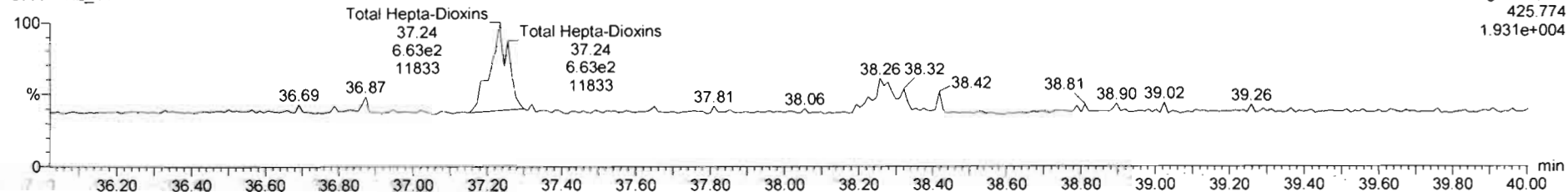
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1,2,3,4,6,7,8-HpCDD

200314R2\_14

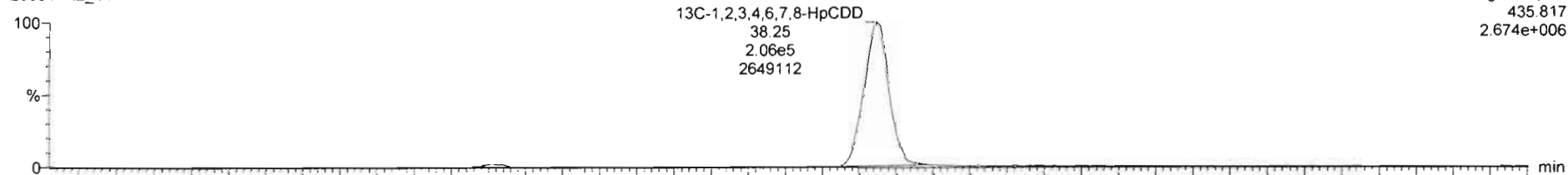


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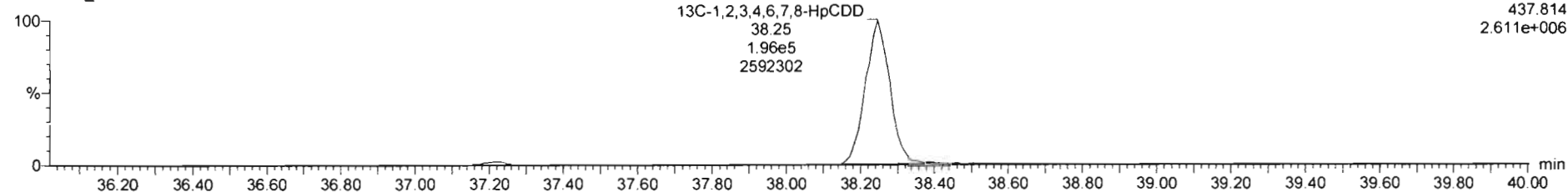


13C-1,2,3,4,6,7,8-HpCDD

200314R2\_14

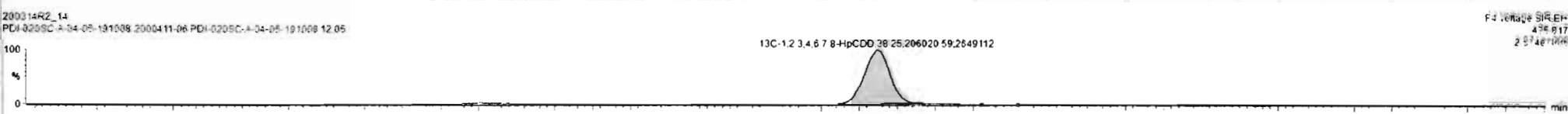
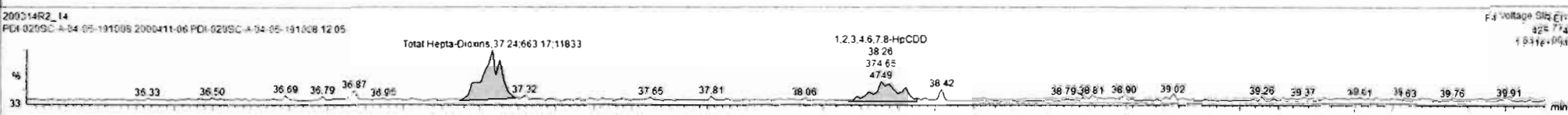
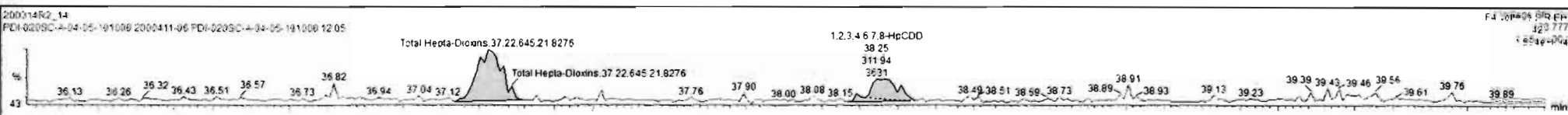
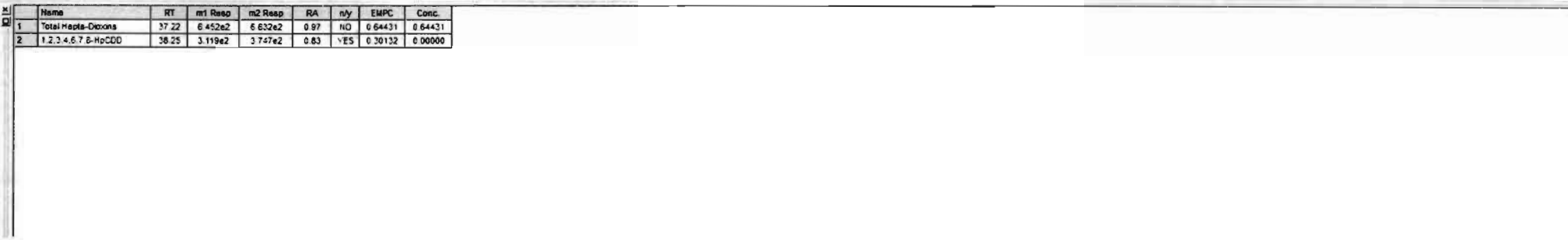


200314R2\_14



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
A2 Total Hepta-Dioxins				1.0061	10.047				0.644	0.172	0.948
A3 Total Tetra-Furans				0.9154	10.047					0.0181	

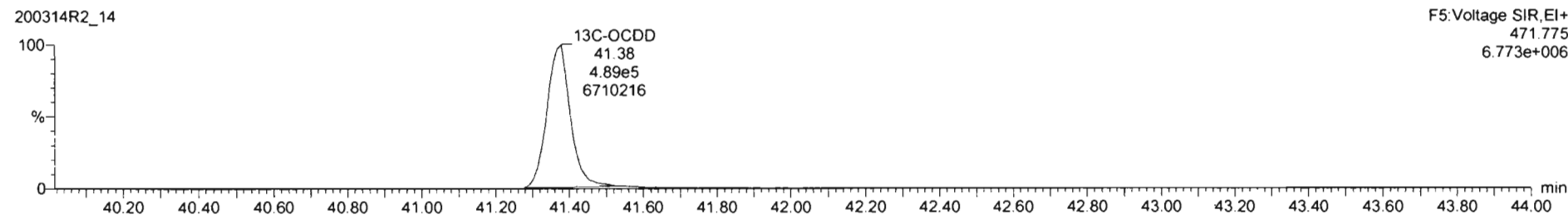
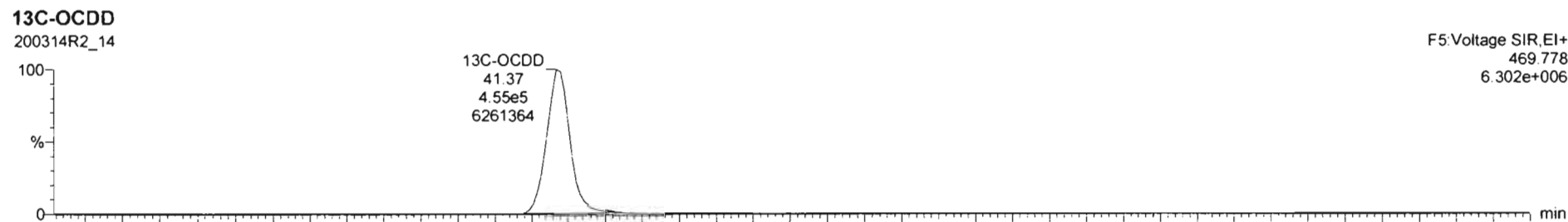
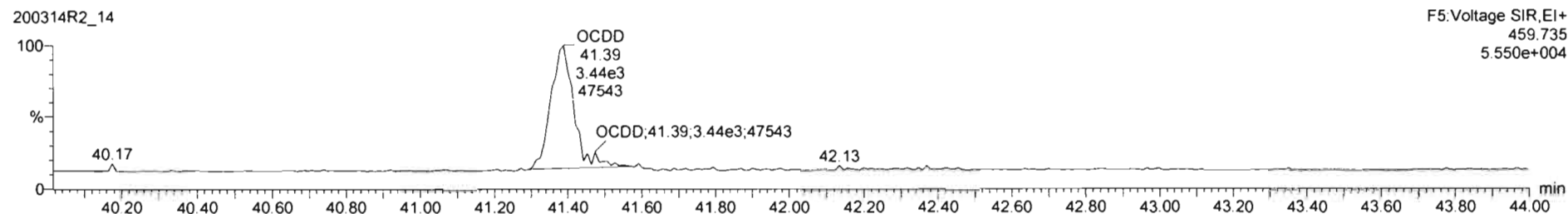
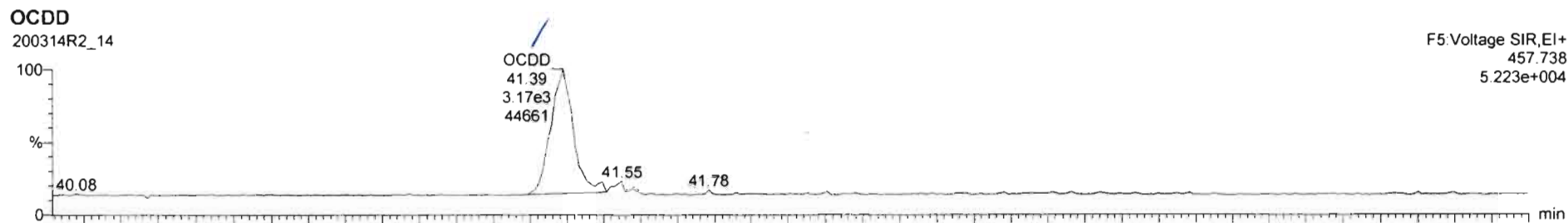
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hepta-Dioxins	37.22	6.452e2	6.632e2	0.97	NO	0.64431	0.64431
2 1,2,3,4,6,7,8-HpCDD	38.25	3.119e2	3.747e2	0.83	YES	0.30132	0.00000



Dataset: Untitled

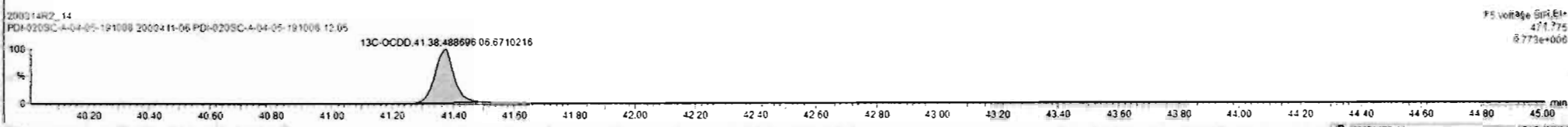
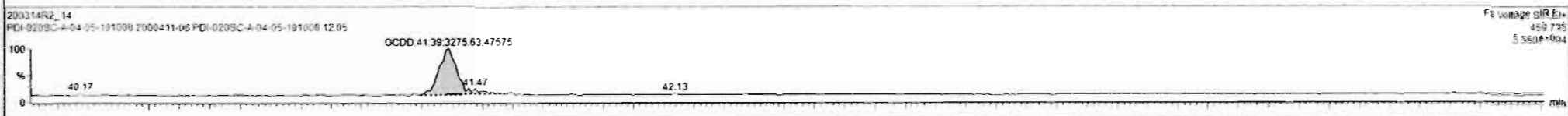
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_14, Date: 14-Mar-2020, Time: 21:35:59, ID: 2000411-06 PDI-020SC-A-04-05-191008 12.05, Description: PDI-020SC-A-04-05-191008



Name	Resp	RA	nHy	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
7	OCDD	6.46e3	0.97	NO	1.0515	10.047	41.39	1.001	2.59	0.129	2.59
8	2,2,7,8-TCDF			NO	0.9154	10.047				0.0446	

Name	RT	m1 Resp	m2 Resp	RA	nHy	EMPC	Conc.
1							

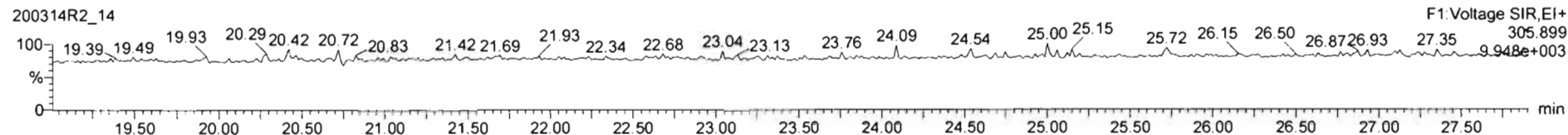
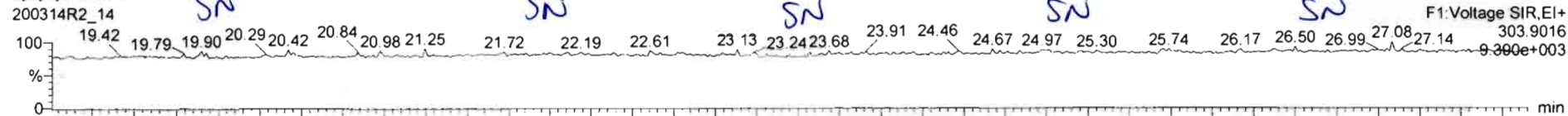


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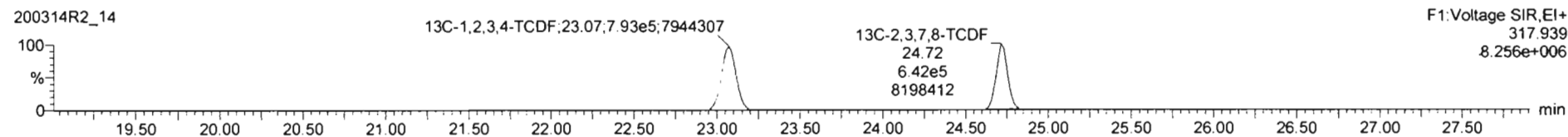
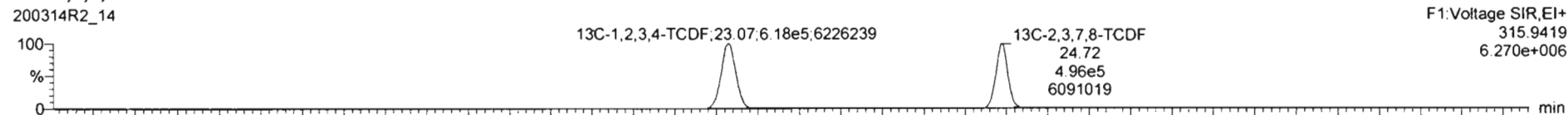
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Name: 200314R2\_14, Date: 14-Mar-2020, Time: 21:35:59, ID: 2000411-06 PDI-020SC-A-04-05-191008 12.05, Description: PDI-020SC-A-04-05-191008

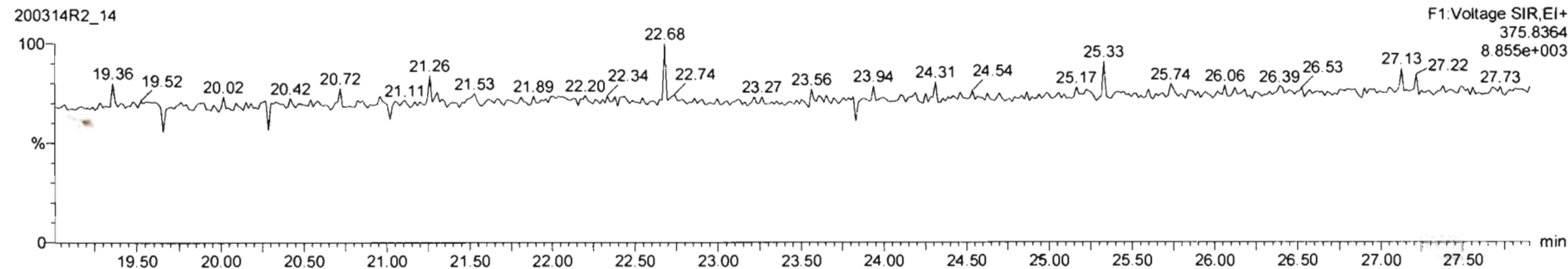
**2,3,7,8-TCDF**



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

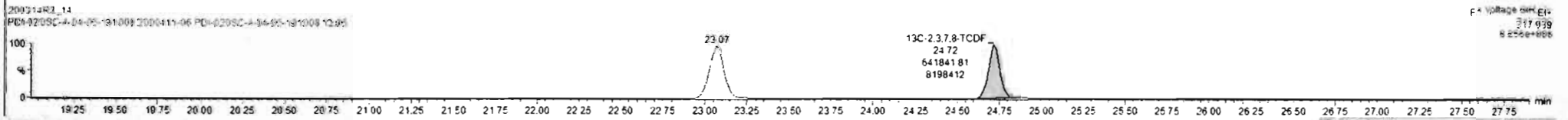
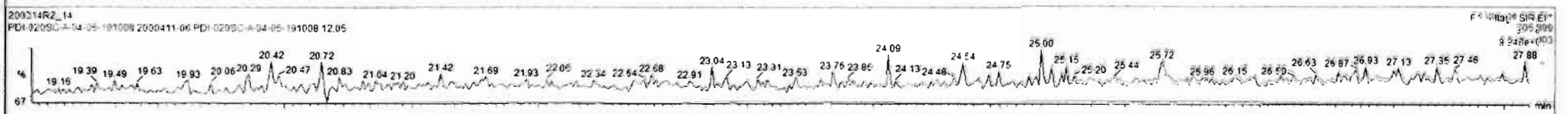
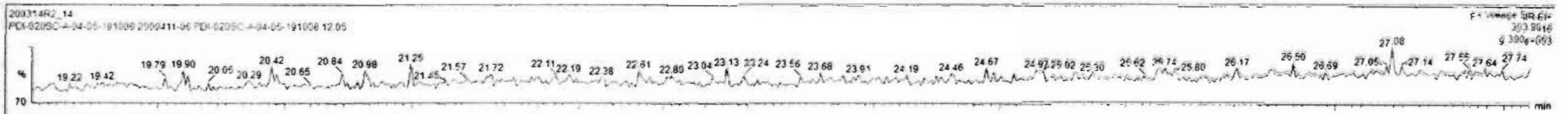


**DPE1**



Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0061	10.047			0.644		0.172	0.546
43 Total Tetra-Furans				0.9154	10.047					0.0181	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc



Dataset: Untitled

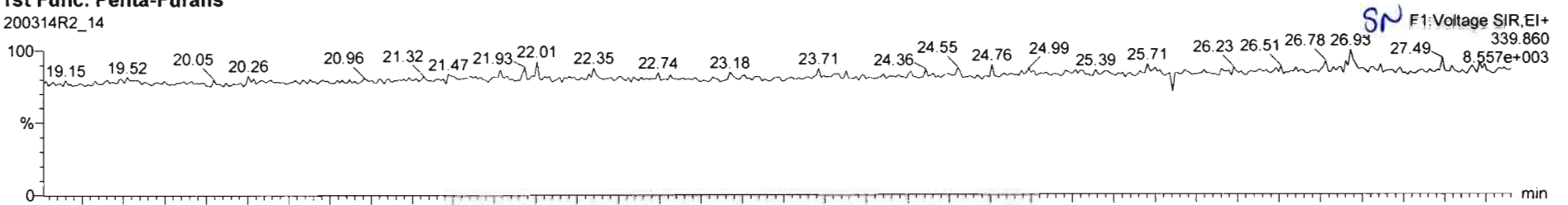
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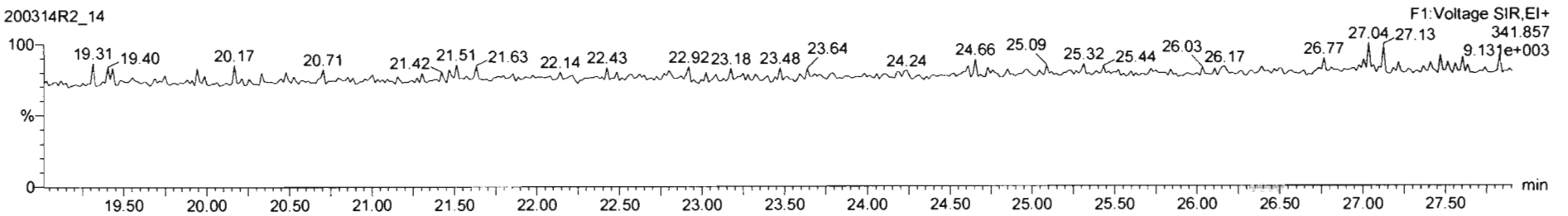
Name: 200314R2\_14, Date: 14-Mar-2020, Time: 21:35:59, ID: 2000411-06 PDI-020SC-A-04-05-191008 12.05, Description: PDI-020SC-A-04-05-191008

1st Func. Penta-Furans

200314R2\_14

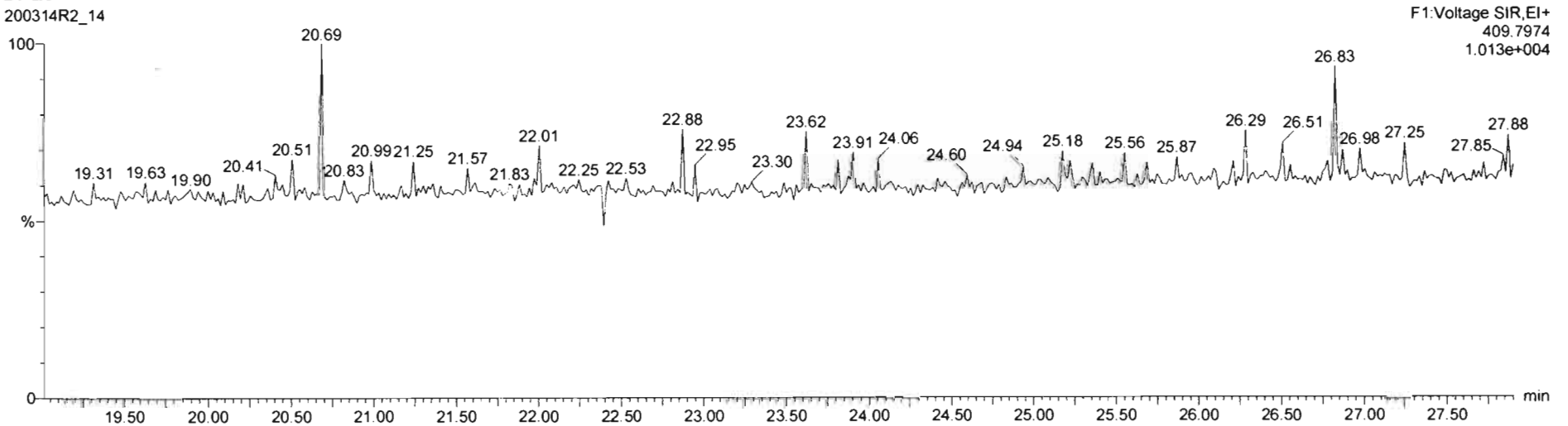


200314R2\_14



DPE6

200314R2\_14





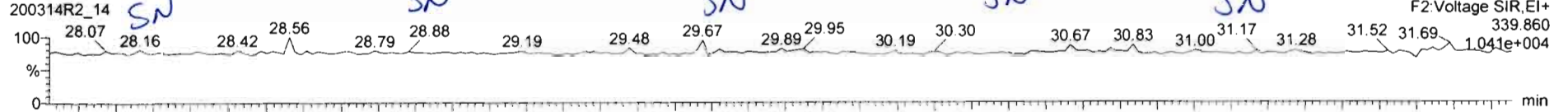
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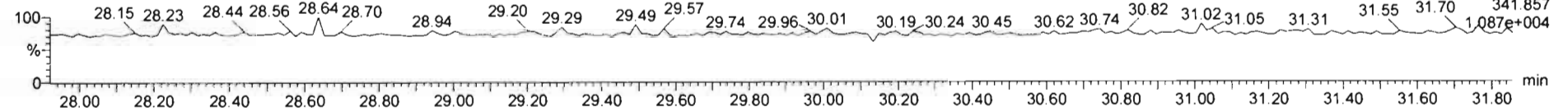
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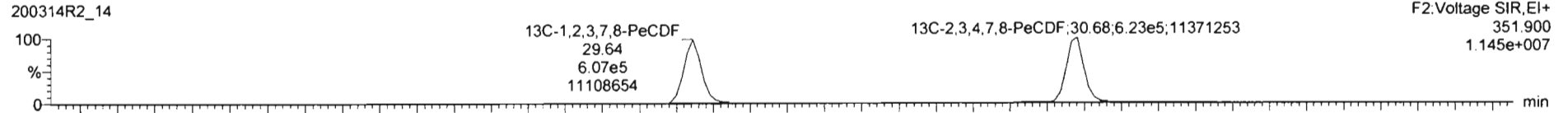
1,2,3,7,8-PeCDF



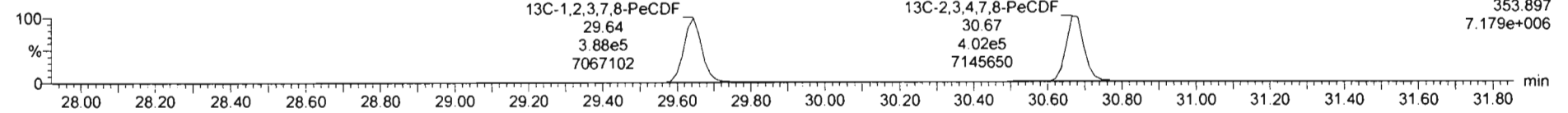
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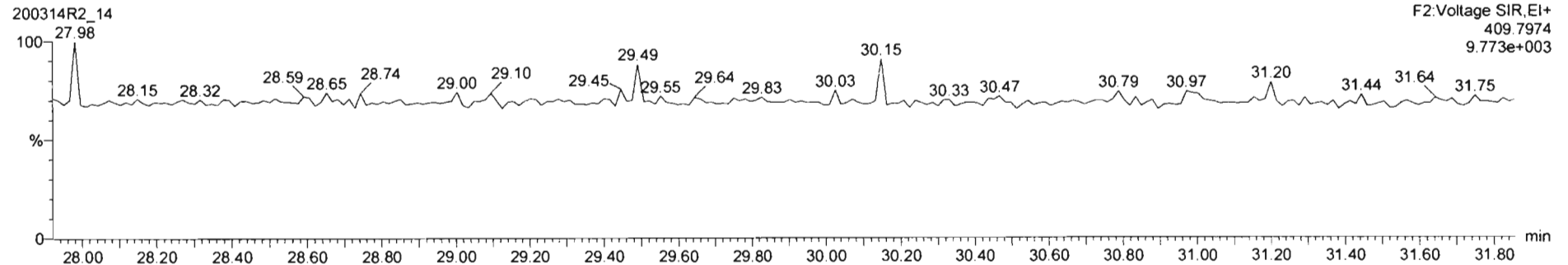
13C-1,2,3,7,8-PeCDF



200314R2\_14

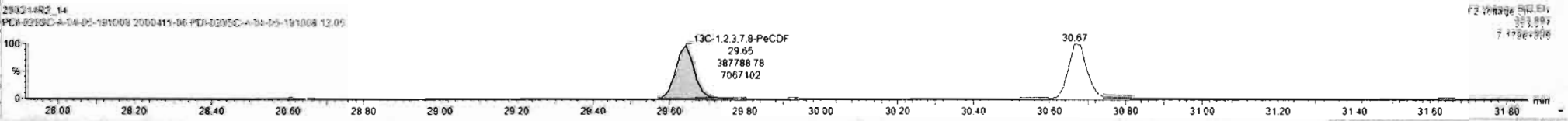
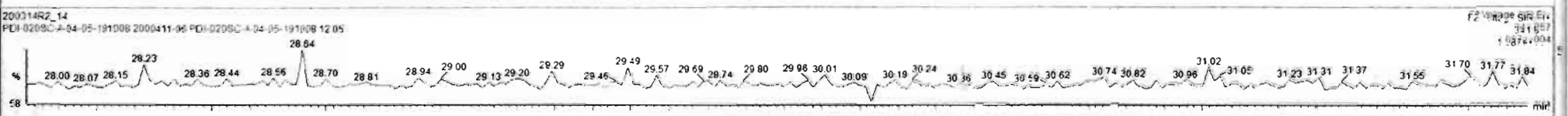
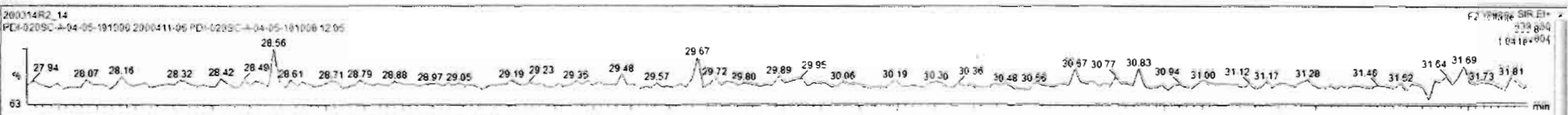


DPE2



Name	Resp	RA	nly	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.047					0.0205	
46 Total Hexa-Furans				1.0920	10.047					0.0246	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1							



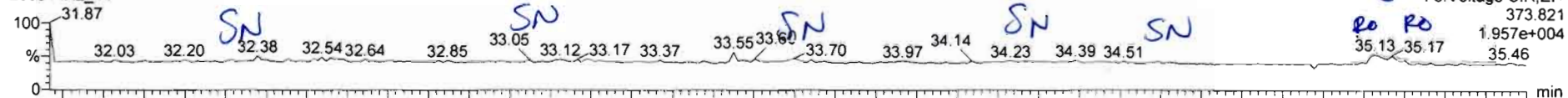
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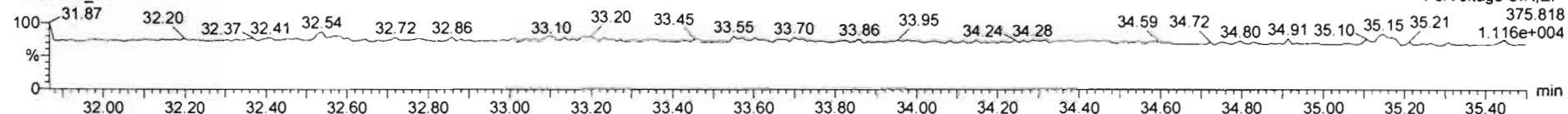
Name: 200314R2\_14, Date: 14-Mar-2020, Time: 21:35:59, ID: 2000411-06 PDI-020SC-A-04-05-191008 12.05, Description: PDI-020SC-A-04-05-191008

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

200314R2\_14

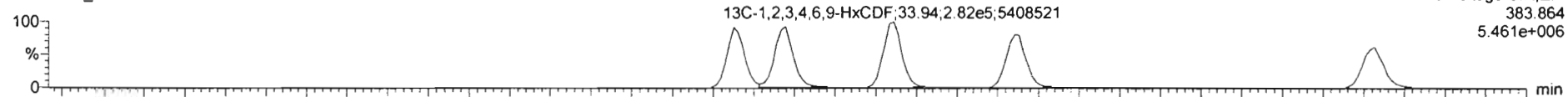


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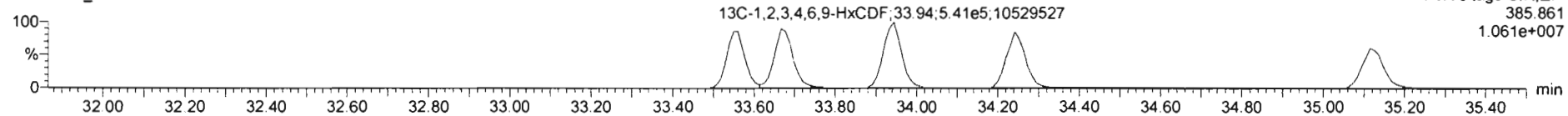


**13C-1,2,3,4,7,8-HxCDF**

200314R2\_14

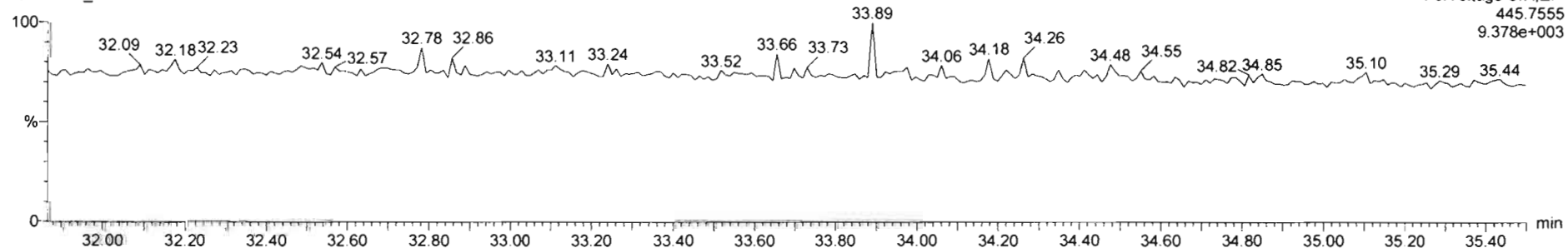


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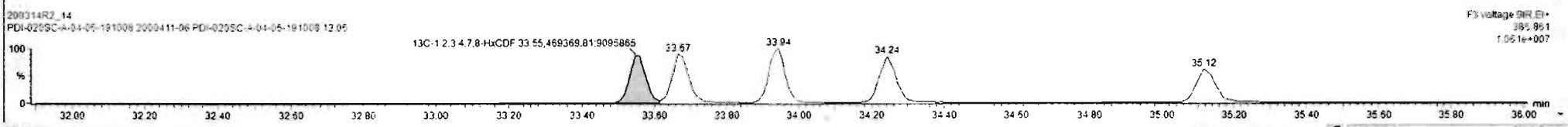
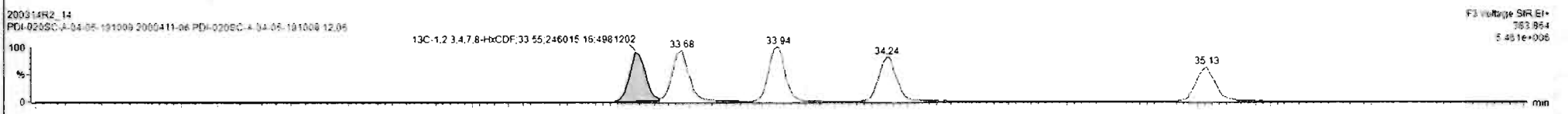
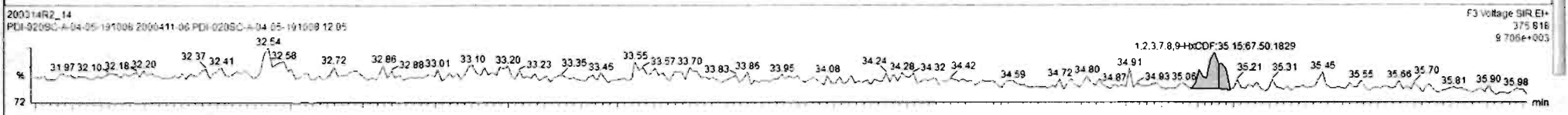
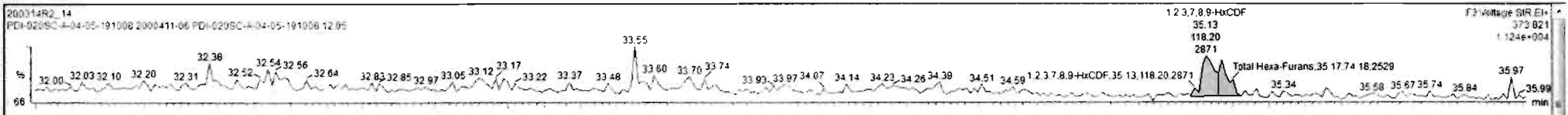
**DPE3**

200314R2\_14



Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
45	Total Penta-Furans			0.9594	10.047				0.0205		
46	Total Hexa-Furans			1.0929	10.047			0.000	0.0246	0.0670	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1	1.2,3,7,8,9-HxCDF	35.13	1.182e2	6.750e1	1.75	YES	0.048946
2	Total Hexa-Furans	35.17	7.418e1	3.121e1	2.36	ES	0.018143

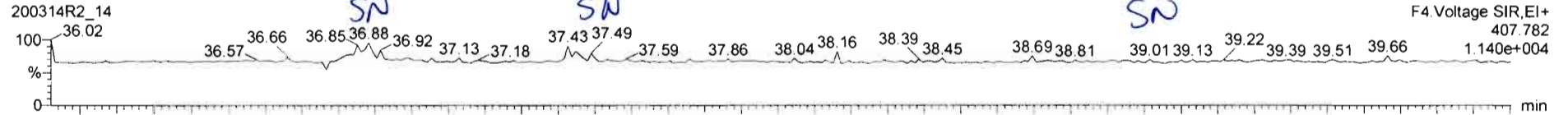


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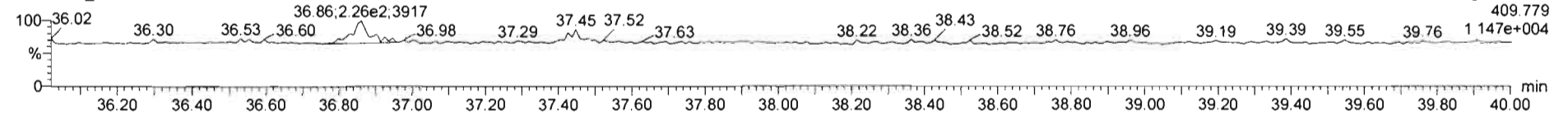
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Name: 200314R2\_14, Date: 14-Mar-2020, Time: 21:35:59, ID: 2000411-06 PDI-020SC-A-04-05-191008 12.05, Description: PDI-020SC-A-04-05-191008

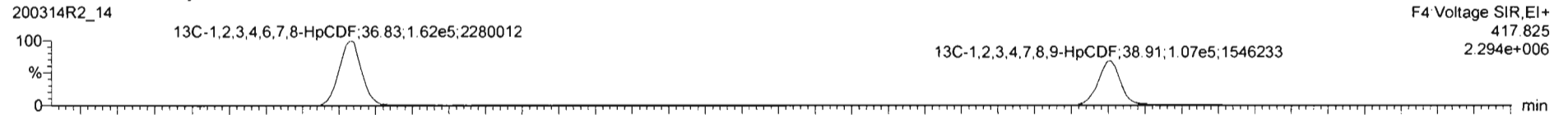
**1,2,3,4,6,7,8-HpCDF**



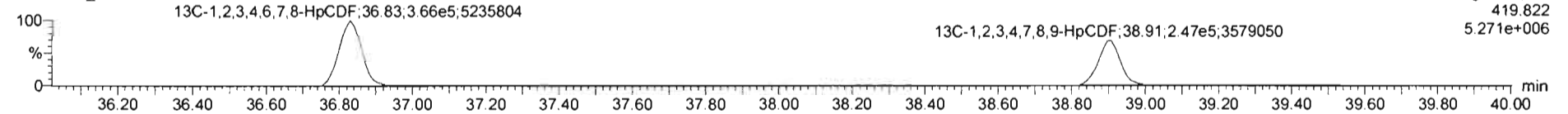
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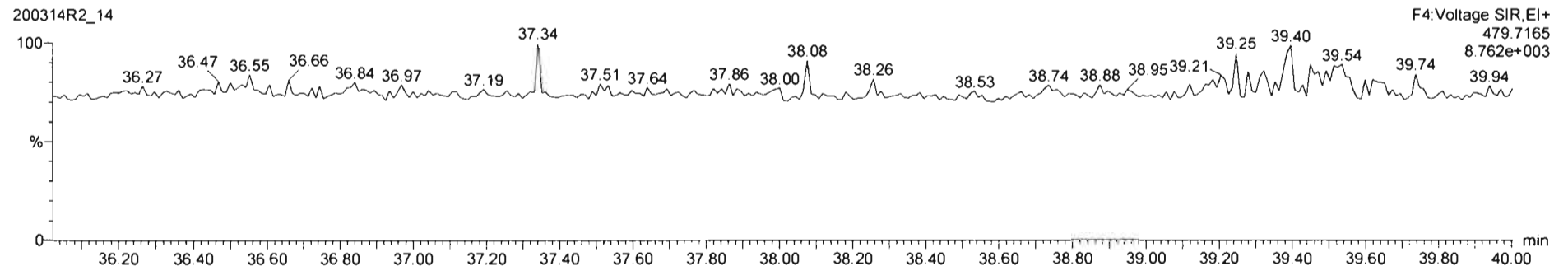
**13C-1,2,3,4,6,7,8-HpCDF**



200314R2\_14

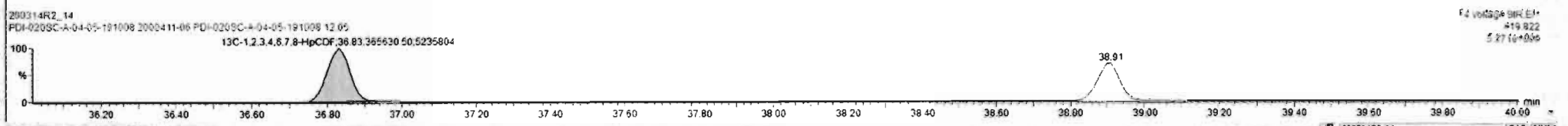
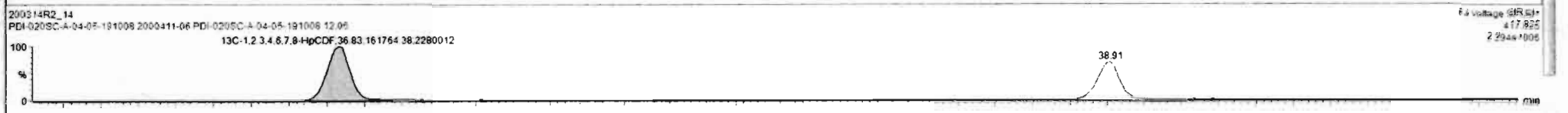
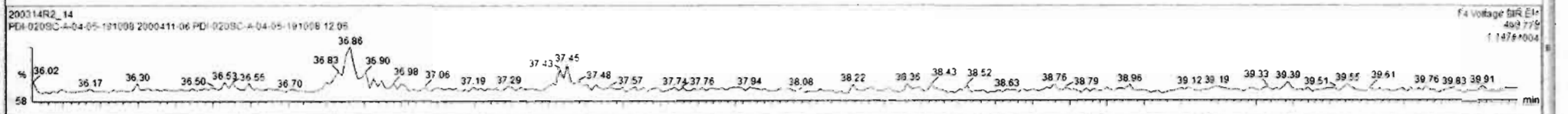
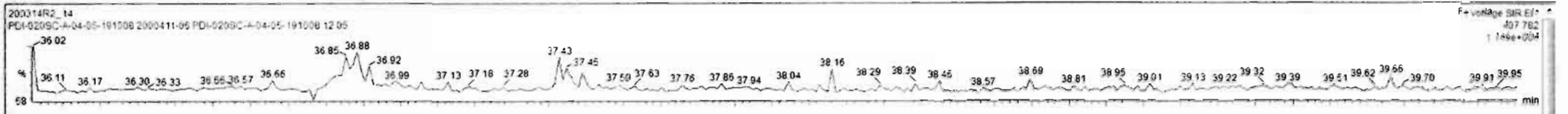


**DPE4**



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.047				0.0205		
46 Total Hexa-Furans				1.0920	10.047			0.000	0.0246	0.0670	

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

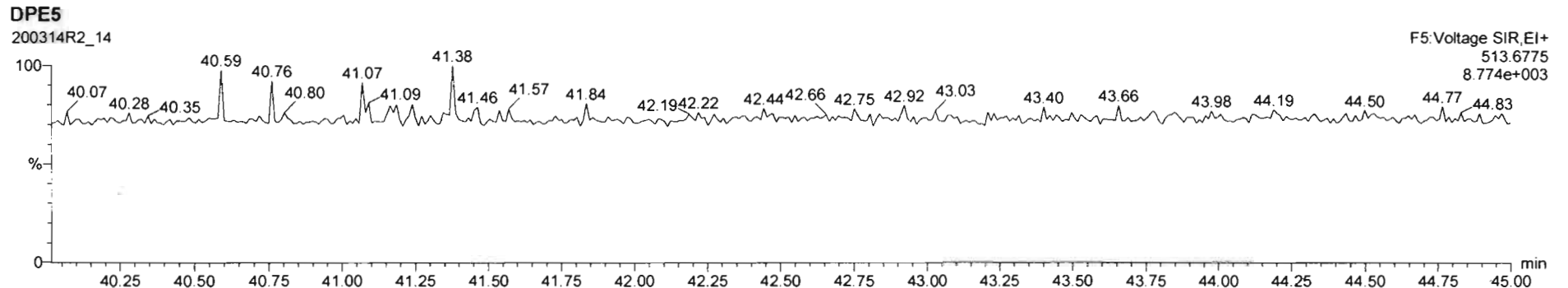
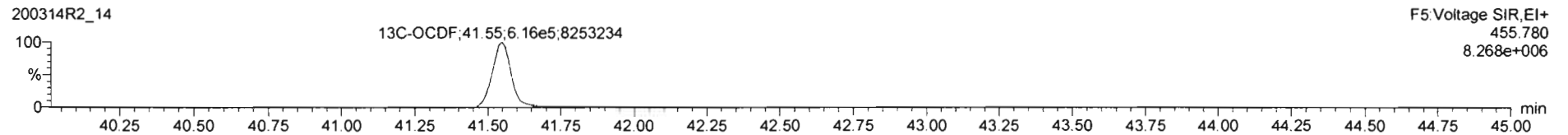
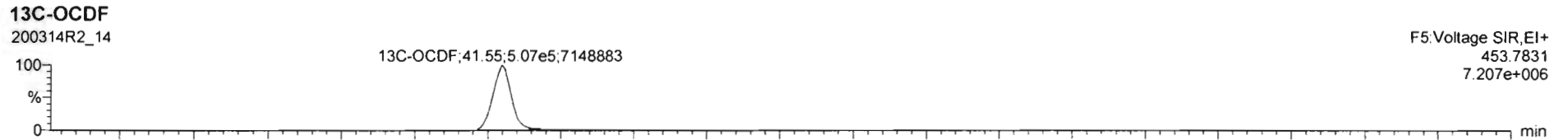
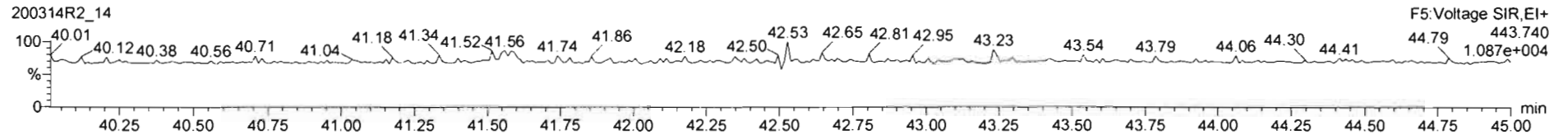
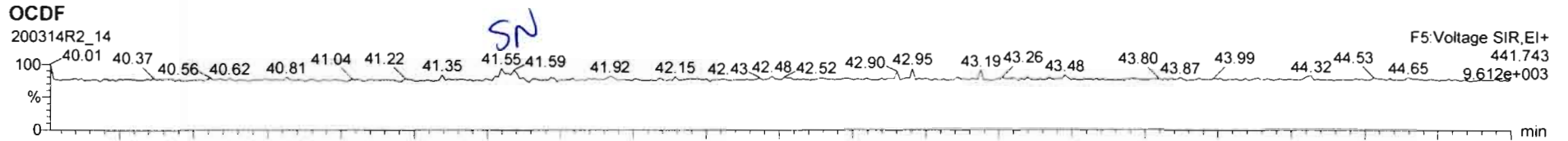


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Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time

Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

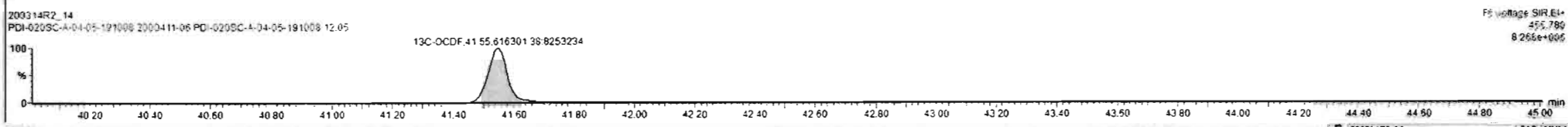
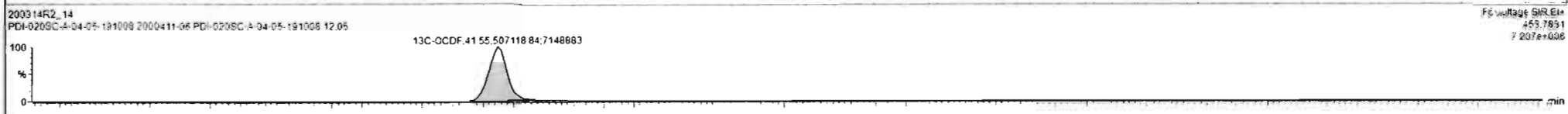
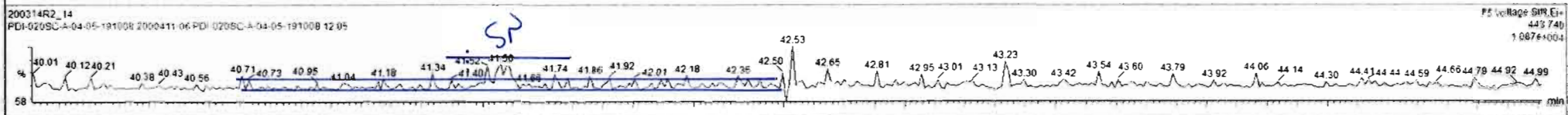
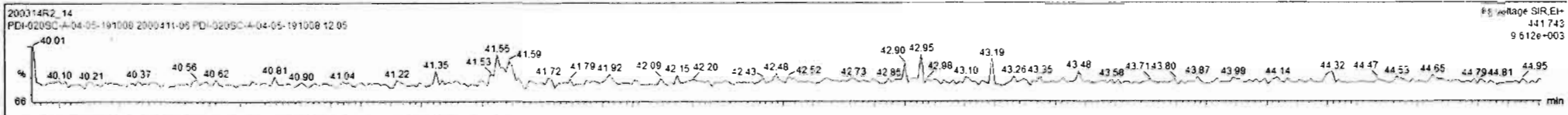
Name: 200314R2\_14, Date: 14-Mar-2020, Time: 21:35:59, ID: 2000411-06 PDI-020SC-A-04-05-191008 12.05, Description: PDI-020SC-A-04-05-191008



200314R2\_14 - 2000411-06 PDI-020SC-A-04-05-191008 12.05 - PDI-020SC-A-04-05-191008

Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
17	OCDF		NO	0.9468	10.047				0.0861		
18	13C-2,3,7,8-TCDD	8.73e5	0.78	NO	1.1842	10.047	25.72	1.029	162	81.4	0.227

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1							



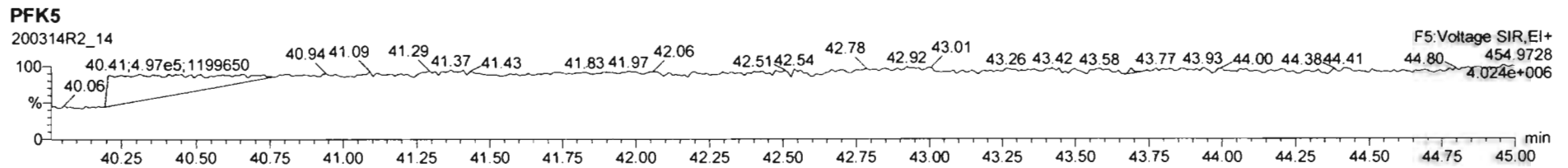
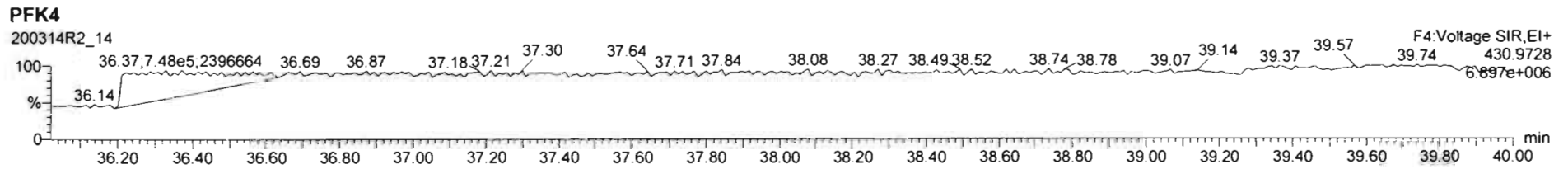
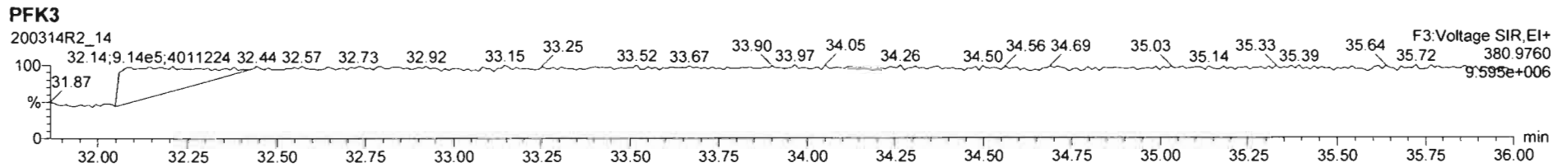
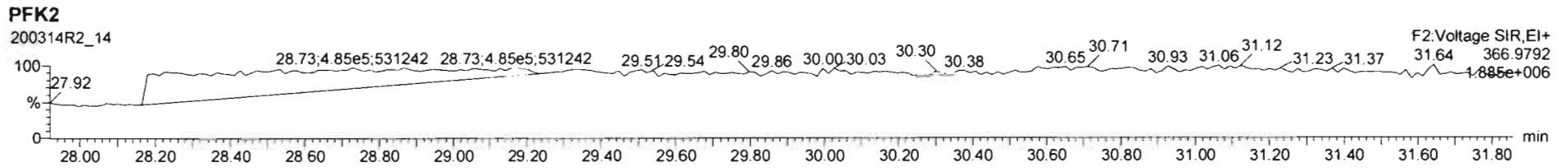
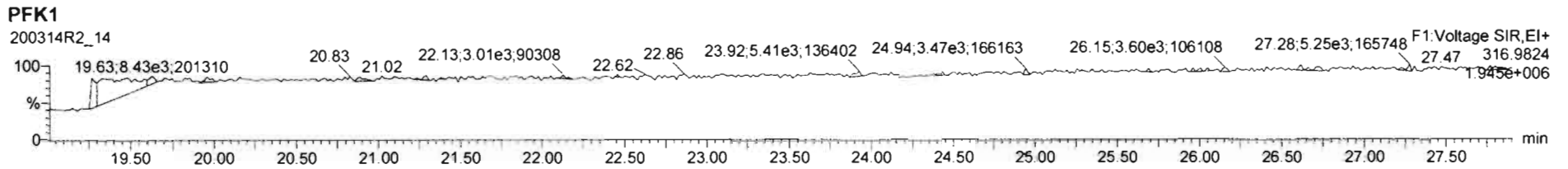


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Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time

Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_14, Date: 14-Mar-2020, Time: 21:35:59, ID: 2000411-06 PDI-020SC-A-04-05-191008 12.05, Description: PDI-020SC-A-04-05-191008



Dataset: U:\VG12.PRO\Results\200314R2\200314R2-15.qld

Last Altered: Sunday, March 15, 2020 2:21:05 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 2:21:34 PM Pacific Daylight Time

GRB 03/15/2020

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Wm  
3/15/20

Name: 200314R2\_15, Date: 14-Mar-2020, Time: 22:23:32, ID: 2000411-07 PDI-031SC-A-05-06-191017 11.82, Description: PDI-031SC-A-05-06-191017

#	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	0.983	10.053	25.781		1.001				0.0654	
2	2 1,2,3,7,8-PeCDD			NO	0.921	10.053	31.040		1.001				0.0465	
3	3 1,2,3,4,7,8-HxCDD			NO	1.13	10.053	34.445		1.000				0.0560	
4	4 1,2,3,6,7,8-HxCDD			NO	0.984	10.053	34.531		1.000				0.0570	
5	5 1,2,3,7,8,9-HxCDD			NO	0.967	10.053	34.807		1.000				0.0668	
6	6 1,2,3,4,6,7,8-HpCDD	2.46e3	0.91	NO	1.01	10.053	38.280	38.27	1.000	1.000	1.0247		0.119	1.02
7	7 OCDD	2.32e4	0.87	NO	1.05	10.053	41.379	41.39	1.000	1.000	8.4235		0.0785	8.42
8	8 2,3,7,8-TCDF	3.83e2	0.71	NO	0.915	10.053	24.788	24.78	1.001	1.001	0.054850		0.0143	0.0548
9	9 1,2,3,7,8-PeCDF	5.44e2	1.61	NO	0.959	10.053	29.697	29.71	1.001	1.001	0.086113		0.0139	0.0861
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.053	30.729		1.001				0.0350	
11	11 1,2,3,4,7,8-HxCDF	6.49e2	1.24	NO	1.04	10.053	33.572	33.58	1.000	1.000	0.13868		0.0492	0.139
12	12 1,2,3,6,7,8-HxCDF			NO	1.01	10.053	33.699		1.000				0.0525	
13	13 2,3,4,6,7,8-HxCDF			NO	1.09	10.053	34.298		1.001				0.0553	
14	14 1,2,3,7,8,9-HxCDF			NO	1.03	10.053	35.138		1.000				0.0729	
15	15 1,2,3,4,6,7,8-HpCDF	6.94e2	1.09	NO	1.05	10.053	36.879	36.86	1.001	1.001	0.20972		0.0799	0.210
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.053	38.919		1.000				0.105	
17	17 OCDF	1.28e3	0.92	NO	0.947	10.053	41.560	41.56	1.000	1.000	0.42689		0.0740	0.427
18	18 13C-2,3,7,8-TCDD	1.13e6	0.79	NO	1.18	10.053	25.750	25.75	1.029	1.029	216.19	109	0.272	
19	19 13C-1,2,3,7,8-PeCDD	9.40e5	0.63	NO	0.864	10.053	30.937	31.02	1.236	1.239	245.50	123	0.340	
20	20 13C-1,2,3,4,7,8-HxCDD	6.46e5	1.30	NO	0.754	10.053	34.428	34.44	1.014	1.014	203.81	102	0.285	
21	21 13C-1,2,3,6,7,8-HxCDD	7.70e5	1.28	NO	0.925	10.053	34.537	34.53	1.017	1.017	197.73	99.4	0.232	
22	22 13C-1,2,3,7,8,9-HxCDD	6.90e5	1.29	NO	0.829	10.053	34.798	34.80	1.025	1.025	197.77	99.4	0.259	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.75e5	1.07	NO	0.598	10.053	38.255	38.27	1.127	1.127	188.97	95.0	0.424	
24	24 13C-OCDD	1.04e6	0.90	NO	0.571	10.053	41.403	41.38	1.219	1.219	433.76	109	0.415	
25	25 13C-2,3,7,8-TCDF	1.52e6	0.78	NO	1.09	10.053	24.772	24.76	0.990	0.989	203.87	102	0.362	
26	26 13C-1,2,3,7,8-PeCDF	1.31e6	1.60	NO	0.876	10.053	29.608	29.68	1.183	1.186	218.67	110	0.580	
27	27 13C-2,3,4,7,8-PeCDF	1.28e6	1.61	NO	0.844	10.053	30.619	30.70	1.223	1.226	222.22	112	0.603	
28	28 13C-1,2,3,4,7,8-HxCDF	8.97e5	0.52	NO	1.00	10.053	33.576	33.57	0.989	0.989	213.15	107	0.441	
29	29 13C-1,2,3,6,7,8-HxCDF	9.48e5	0.52	NO	1.12	10.053	33.684	33.69	0.992	0.992	201.66	101	0.395	
30	30 13C-2,3,4,6,7,8-HxCDF	8.59e5	0.52	NO	1.04	10.053	34.265	34.26	1.009	1.009	197.38	99.2	0.426	
31	31 13C-1,2,3,7,8,9-HxCDF	7.25e5	0.53	NO	0.873	10.053	35.138	35.14	1.035	1.035	197.31	99.2	0.506	

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-15.qld

Last Altered: Sunday, March 15, 2020 2:21:05 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 2:21:34 PM Pacific Daylight Time

Name: 200314R2\_15, Date: 14-Mar-2020, Time: 22:23:32, ID: 2000411-07 PDI-031SC-A-05-06-191017 11.82, Description: PDI-031SC-A-05-06-191017

#	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	6.28e5	0.44	NO	0.771	10.053	36.852	36.84	1.085	1.085	193.71	97.4 ✓	0.396	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.19e5	0.43	NO	0.519	10.053	38.937	38.92	1.147	1.146	191.64	96.3	0.587	
34	34 13C-OCDF	1.26e6	0.88	NO	0.696	10.053	41.583	41.56	1.225	1.224	428.89	108	0.358	
35	35 37Cl-2,3,7,8-TCDD	3.75e5			1.17	10.053	25.760	25.78	1.029	1.030	72.059	90.6	0.0666	
36	36 13C-1,2,3,4-TCDD	8.81e5	0.79	NO	1.00	10.053	25.050	25.03	1.000	1.000	198.94	100	0.322	
37	37 13C-1,2,3,4-TCDF	1.36e6	0.79	NO	1.00	10.053	23.190	23.12	1.000	1.000	198.94	100	0.394	
38	38 13C-1,2,3,4,6,9-HxCDF	8.37e5	0.52	NO	1.00	10.053	33.880	33.96	1.000	1.000	198.94	100	0.442	
39	39 Total Tetra-Dioxins				0.983	10.053	24.620		0.000				0.0411	
40	40 Total Penta-Dioxins				0.921	10.053	29.960		0.000		0.00000		0.0227	0.0469
41	41 Total Hexa-Dioxins				0.984	10.053	33.635		0.000		0.75660		0.0621	0.757
42	42 Total Hepta-Dioxins				1.01	10.053	37.640		0.000		2.5186		0.119	2.52
43	43 Total Tetra-Furans				0.915	10.053	23.610		0.000		0.11133		0.0143	0.111
44	44 1st Func. Penta-Furans				0.959	10.053	27.090		0.000				0.00999	
45	45 Total Penta-Furans				0.959	10.053	29.275		0.000		0.086113		0.0137	0.0861
46	46 Total Hexa-Furans				1.09	10.053	33.555		0.000		0.13868		0.0540	0.185
47	47 Total Hepta-Furans				1.05	10.053	37.835		0.000		0.20972		0.0966	0.452

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-15.qld

Last Altered: Sunday, March 15, 2020 2:21:05 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 2:21:34 PM Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\lb5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R2\_15, Date: 14-Mar-2020, Time: 22:23:32, ID: 2000411-07 PDI-031SC-A-05-06-191017 11.82, Description: PDI-031SC-A-05-06-191017

**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	Total Penta-Dioxins	29.20	1.832e3	2.589e3	7.883e1	1.585e2	0.50	YES	0.000e0	0.00000	0.046852	0.0227

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.97	1.593e4	1.230e4	8.587e2	6.581e2	1.30	NO	1.517e3	0.43669	0.43669	0.0621
2	Total Hexa-Dioxins	33.77	1.132e4	9.462e3	5.909e2	5.203e2	1.14	NO	1.111e3	0.31990	0.31990	0.0621

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.25	2.717e4	2.537e4	1.756e3	1.837e3	0.96	NO	3.592e3	1.4940	1.4940	0.119
2	1,2,3,4,6,7,8-HpCDD	38.27	1.899e4	1.815e4	1.177e3	1.287e3	0.91	NO	2.464e3	1.0247	1.0247	0.119

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	23.73	1.908e3	3.010e3	1.584e2	2.361e2	0.67	NO	3.945e2	0.056483	0.056483	0.0143
2	2,3,7,8-TCDF	24.78	2.628e3	3.359e3	1.585e2	2.247e2	0.71	NO	3.831e2	0.054850	0.054850	0.0143

**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\200314R2\200314R2-15.qld

Last Altered: Sunday, March 15, 2020 2:21:05 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 2:21:34 PM Pacific Daylight Time

Name: 200314R2\_15, Date: 14-Mar-2020, Time: 22:23:32, ID: 2000411-07 PDI-031SC-A-05-06-191017 11.82, Description: PDI-031SC-A-05-06-191017

**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	29.71	6.115e3	5.650e3	3.354e2	2.086e2	1.61	NO	5.440e2	0.086113	0.086113	0.0139

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	33.12	3.511e3	2.046e3	1.593e2	9.739e1	1.64	YES	0.000e0	0.00000	0.046361	0.0540
2	1,2,3,4,7,8-HxCDF	33.58	7.531e3	6.176e3	3.598e2	2.891e2	1.24	NO	6.489e2	0.13868	0.13868	0.0492

**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	36.86	5.675e3	5.000e3	3.612e2	3.328e2	1.09	NO	6.940e2	0.20972	0.20972	0.0799
2	Total Hepta-Furans	37.47	4.053e3	7.188e3	3.162e2	3.504e2	0.90	NO	0.000e0	0.00000	0.24178	0.0966

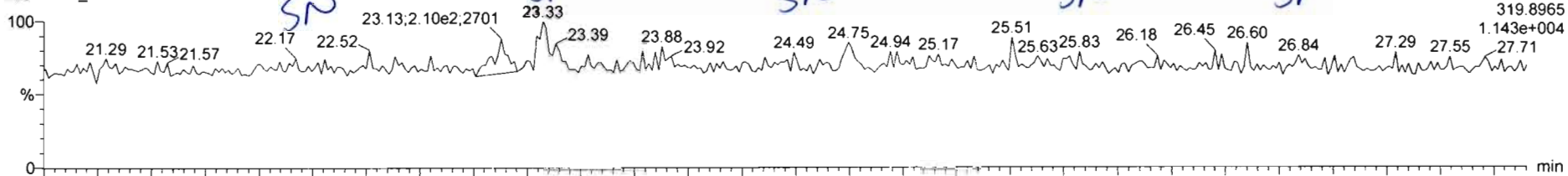
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Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_15, Date: 14-Mar-2020, Time: 22:23:32, ID: 2000411-07 PDI-031SC-A-05-06-191017 11.82, Description: PDI-031SC-A-05-06-191017

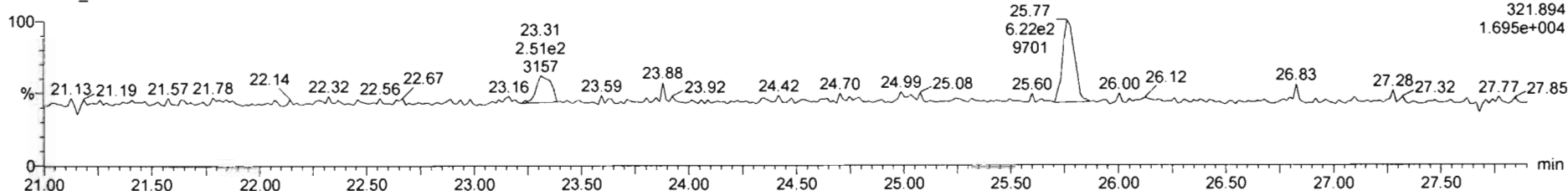
**2,3,7,8-TCDD**

200314R2\_15



F1: Voltage SIR, EI+  
319.8965  
1.143e+004

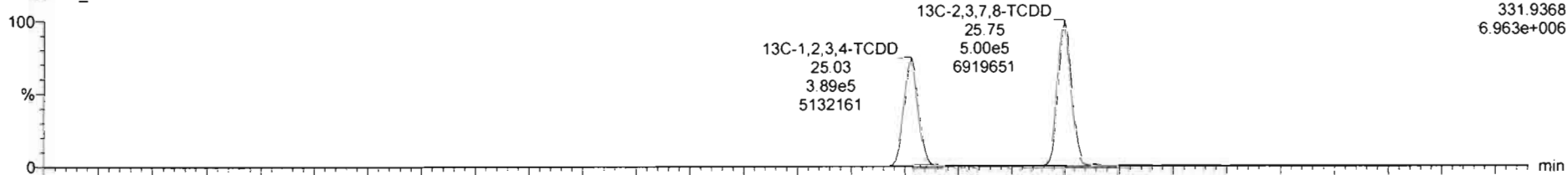
200314R2\_15



F1: Voltage SIR, EI+  
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1.695e+004

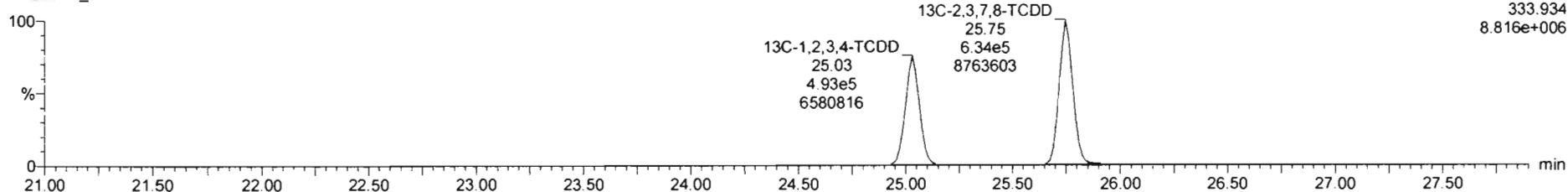
**13C-2,3,7,8-TCDD**

200314R2\_15



F1: Voltage SIR, EI+  
331.9368  
6.963e+006

200314R2\_15

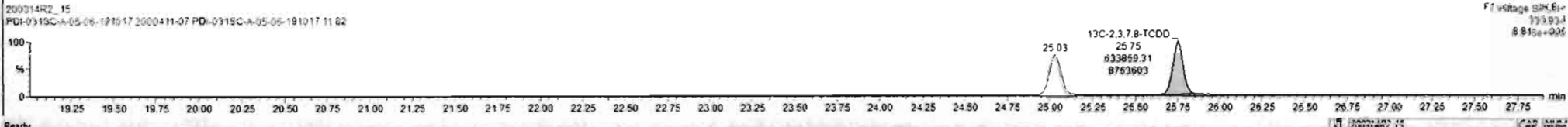
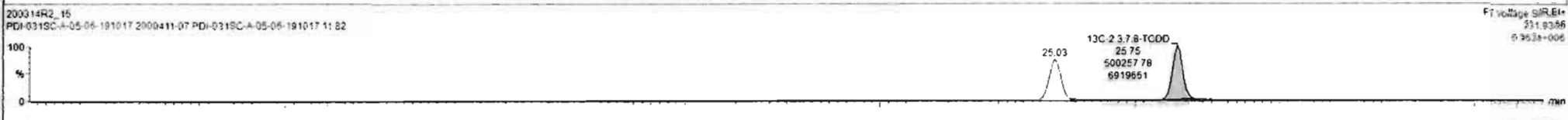
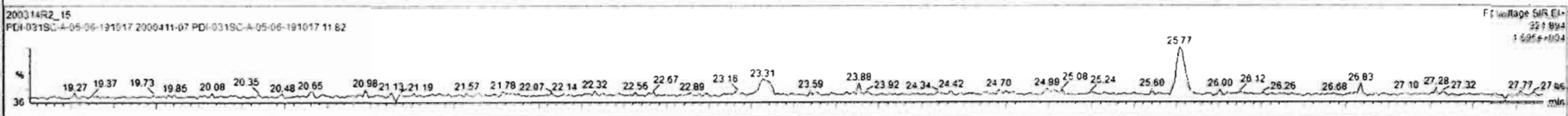
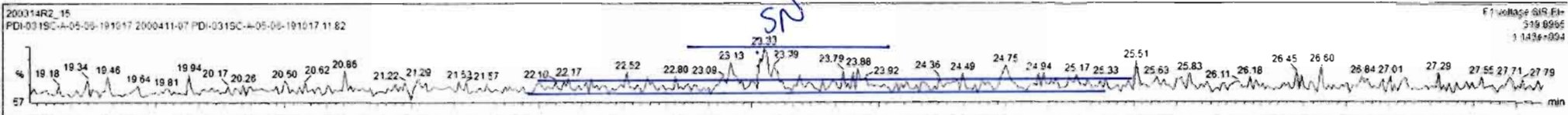


F1: Voltage SIR, EI+  
333.934  
8.816e+006

200314R2\_15 - 2000411-07 PDI-031SC-A-05-06-191017 11 82 PDI-031SC-A-05-06-191017

Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.053					0.0411	
40 Total Penta-Dioxins				0.9212	10.053					0.0227	

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



Dataset: Untitled

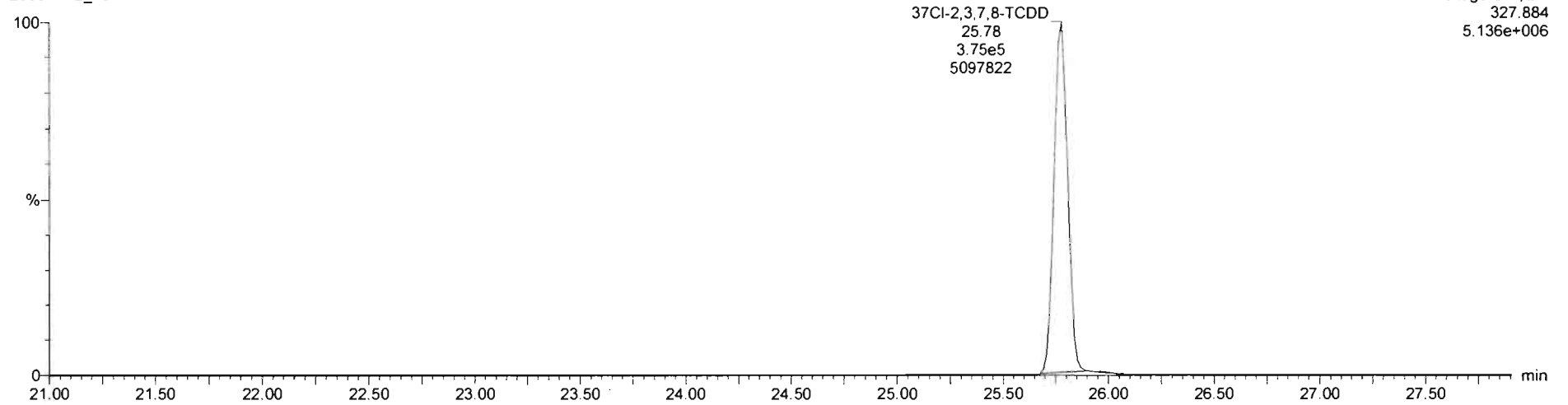
Last Altered: Sunday, March 15, 2020 09:17:21 Pacific Daylight Time

Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

Name: 200314R2\_15, Date: 14-Mar-2020, Time: 22:23:32, ID: 2000411-07 PDI-031SC-A-05-06-191017 11.82, Description: PDI-031SC-A-05-06-191017

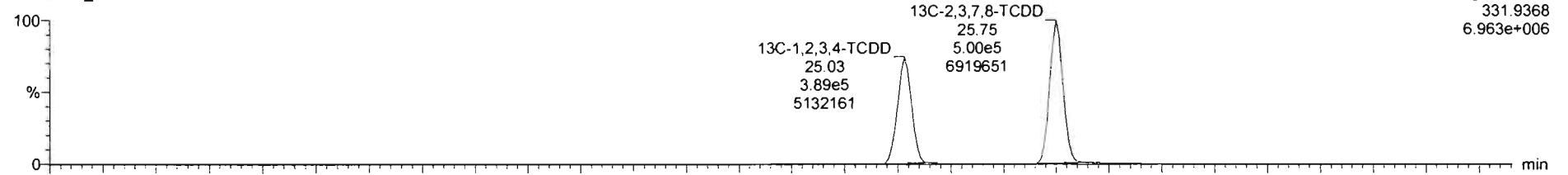
**37Cl-2,3,7,8-TCDD**

200314R2\_15

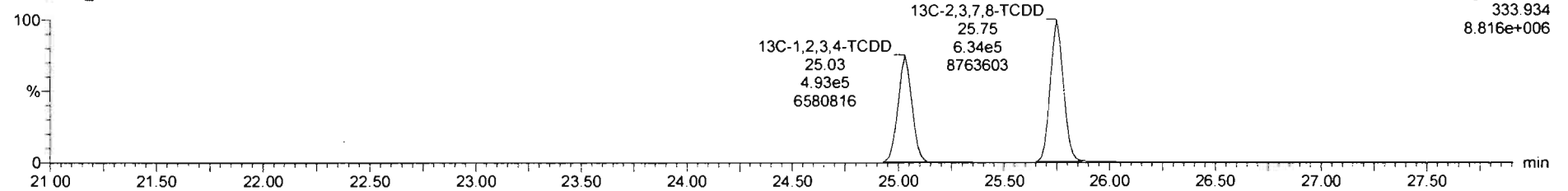


**13C-1,2,3,4-TCDD**

200314R2\_15



200314R2\_15





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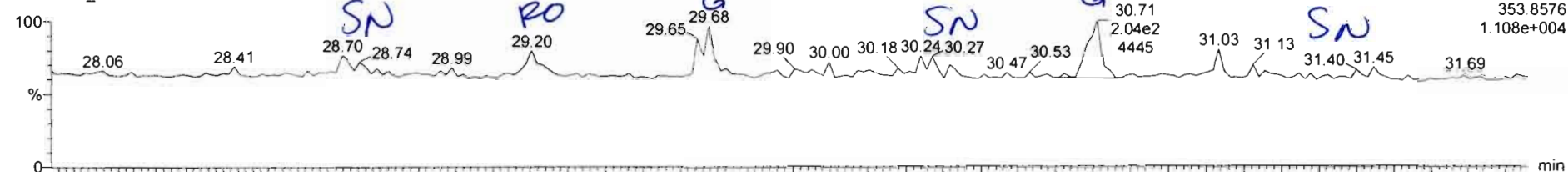
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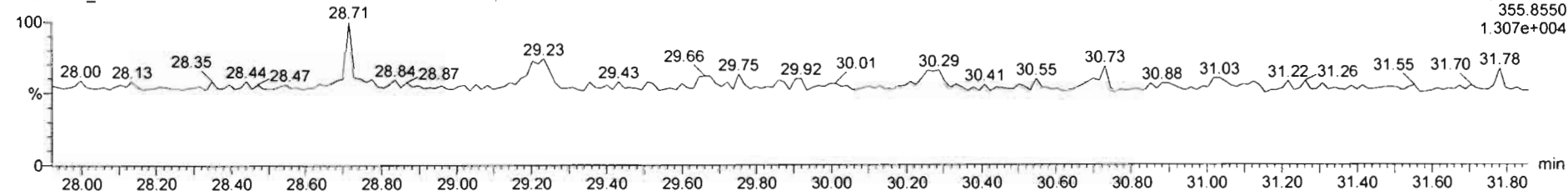
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1,2,3,7,8-PeCDD

200314R2\_15

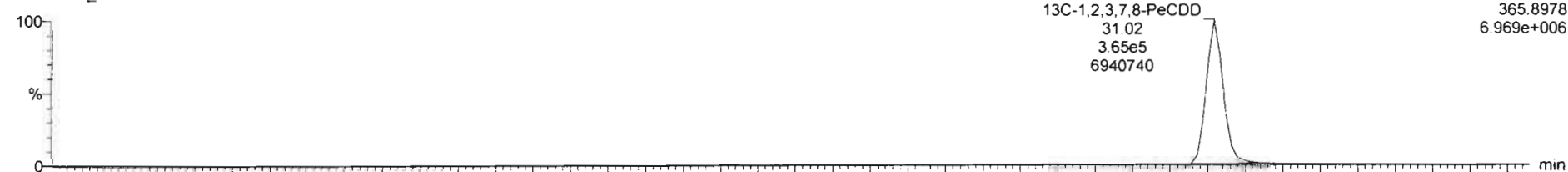


200314R2\_15

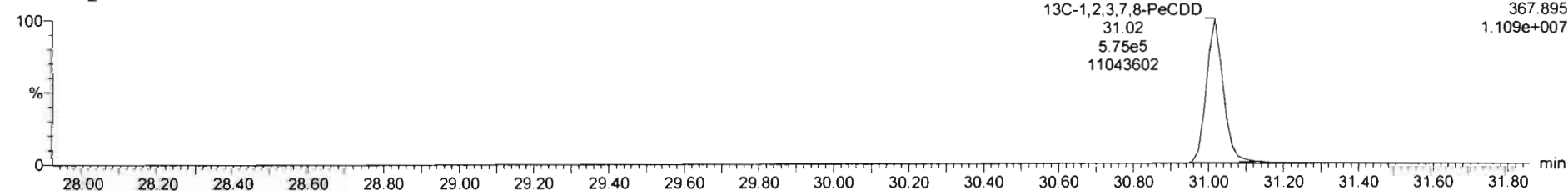


13C-1,2,3,7,8-PeCDD

200314R2\_15

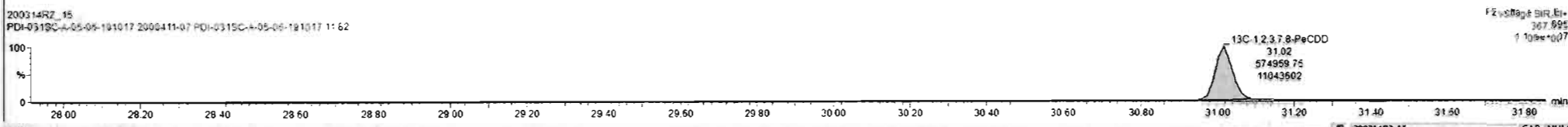
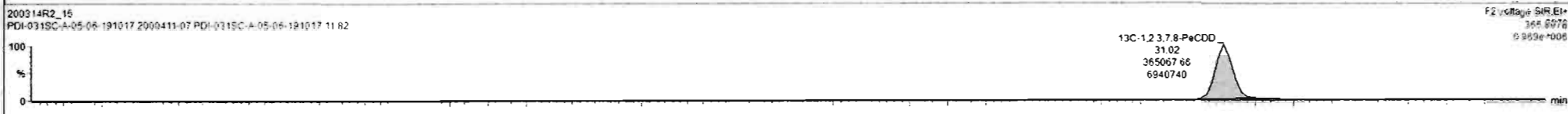
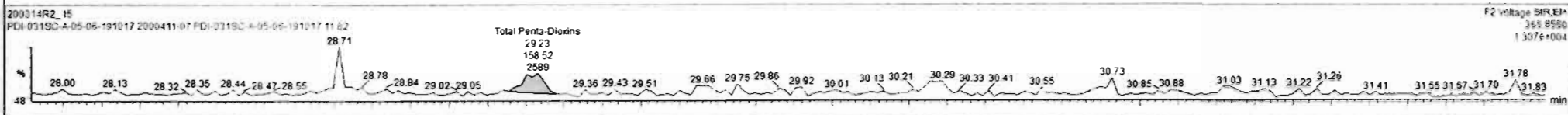
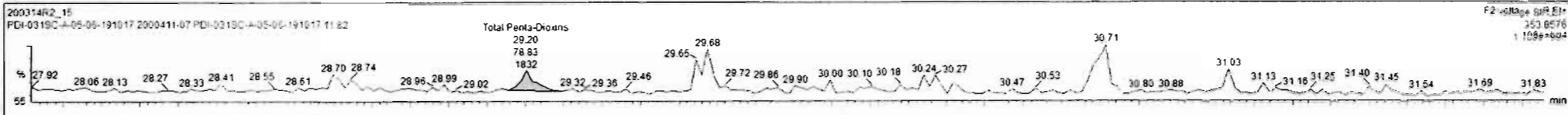


200314R2\_15



Name	Resp	RA	nly	RRF	wtdVol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9625	10.053					0.0411	
40 Total Penta-Dioxins				0.9212	10.853			0.000		0.0227	0.0488

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1 Total Penta-Dioxins	29.20	7.853e1	1.585e2	0.50	YES	0.046852	0.00000



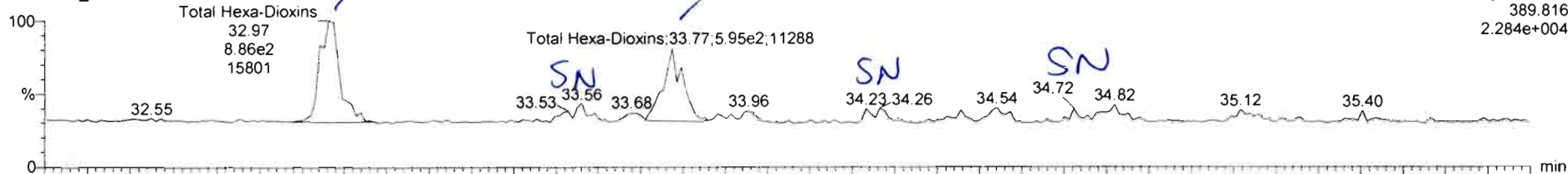
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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

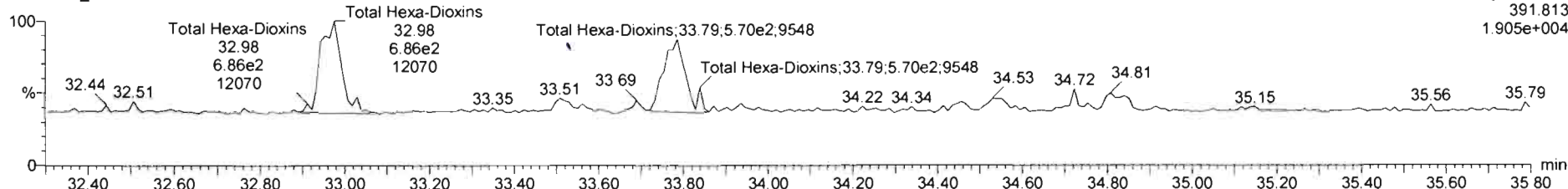
Name: 200314R2\_15, Date: 14-Mar-2020, Time: 22:23:32, ID: 2000411-07 PDI-031SC-A-05-06-191017 11.82, Description: PDI-031SC-A-05-06-191017

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

200314R2\_15

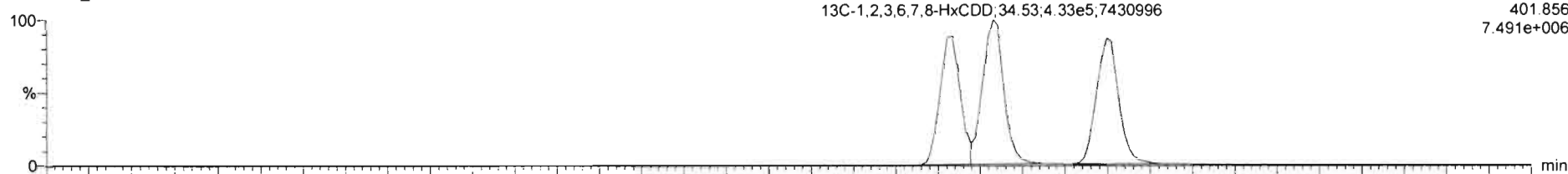


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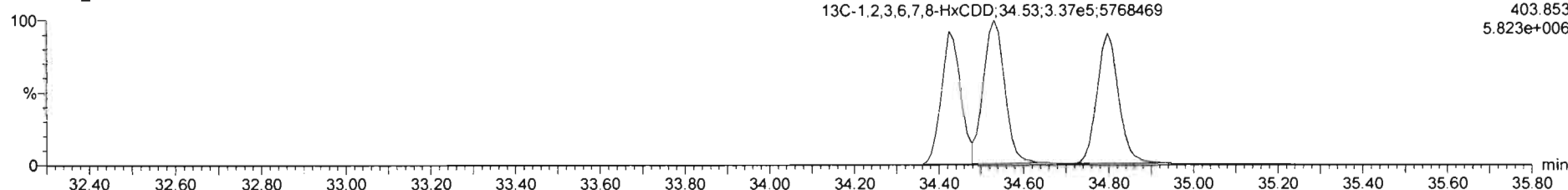


13C-1,2,3,4,7,8-HxCDD

200314R2\_15

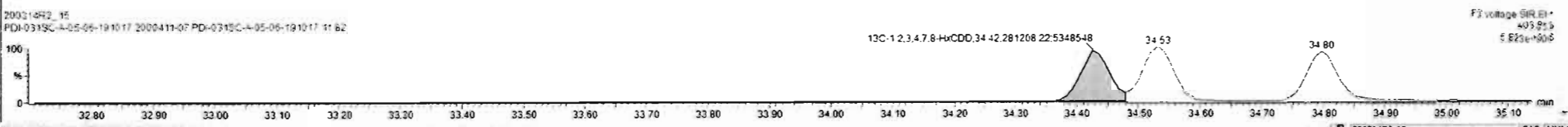
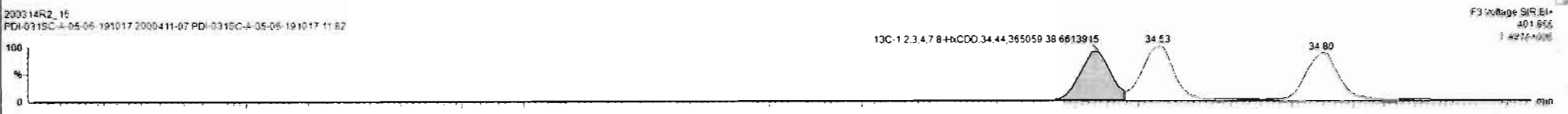
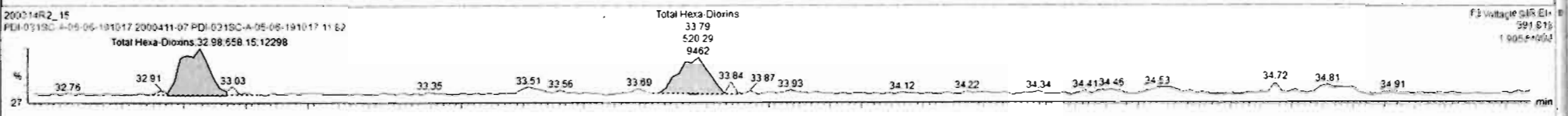
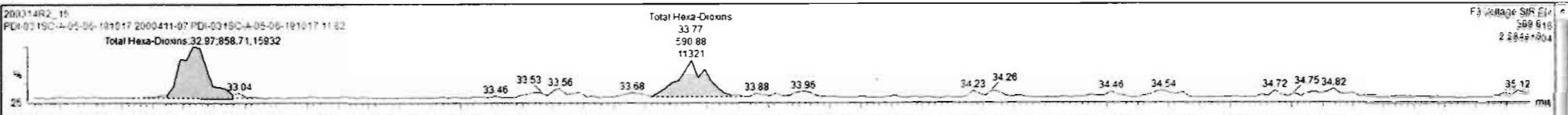
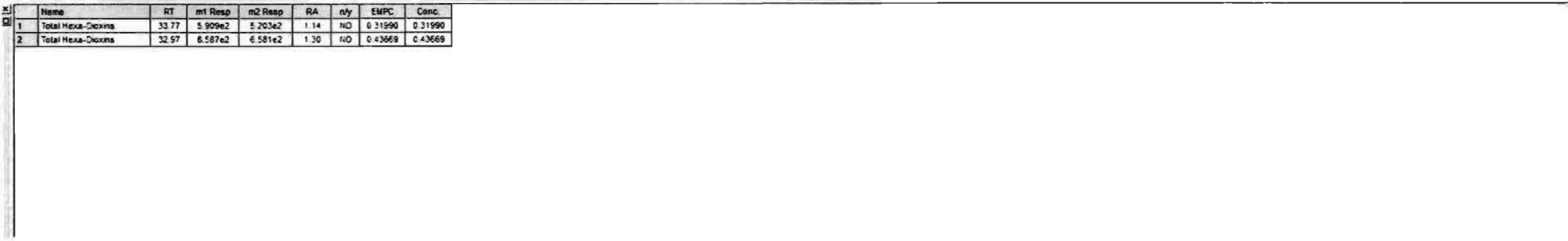


200314R2\_15



Name	Resp	RA	rfy	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.053				0.0411		
40 Total Penta-Dioxins				0.9212	10.053			0.000	0.0227	0.0469	

Name	RT	m1 Resp	m2 Resp	RA	rfy	EMPC	Conc
1 Total Hexa-Dioxins	33.77	5.909e2	5.203e2	1.14	NO	0.31590	0.31590
2 Total Hexa-Dioxins	32.97	6.587e2	6.581e2	1.30	NO	0.43669	0.43669



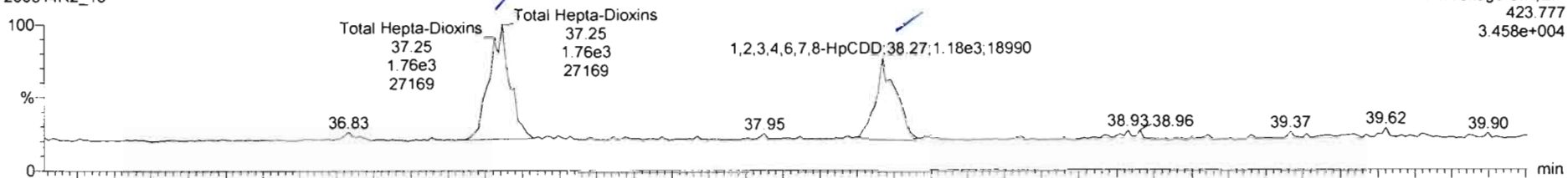
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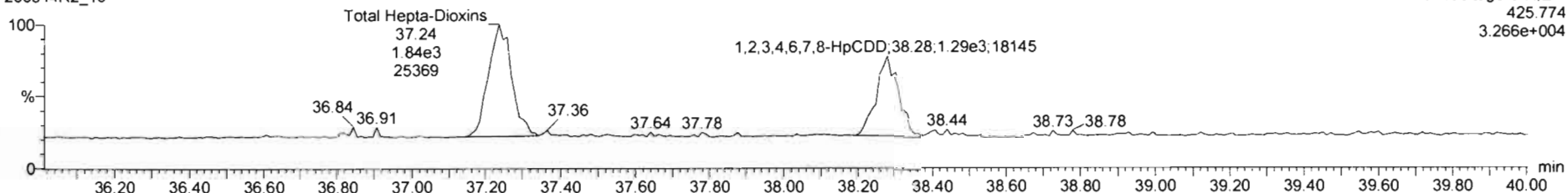
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1,2,3,4,6,7,8-HpCDD

200314R2\_15

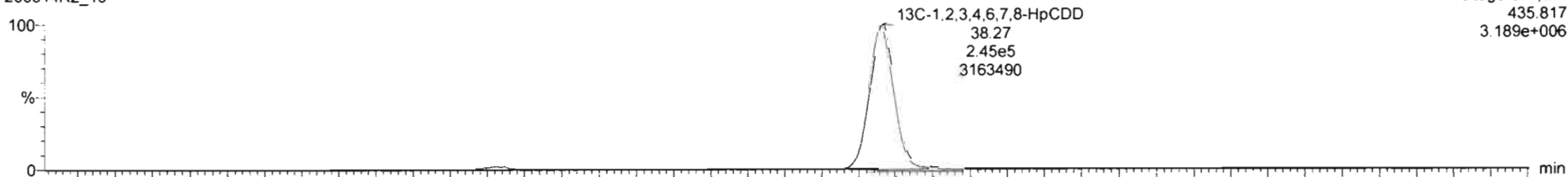


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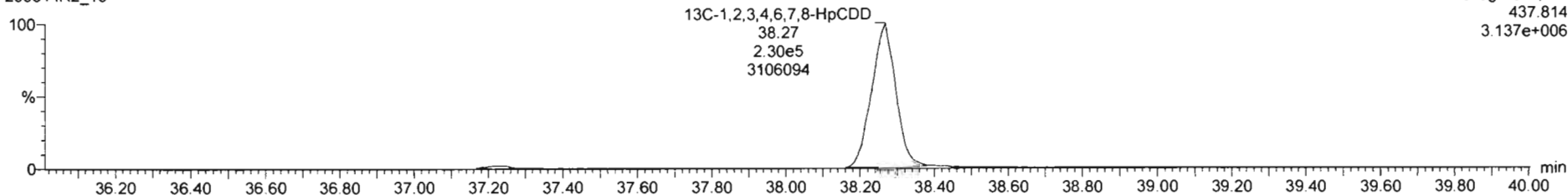


13C-1,2,3,4,6,7,8-HpCDD

200314R2\_15



200314R2\_15

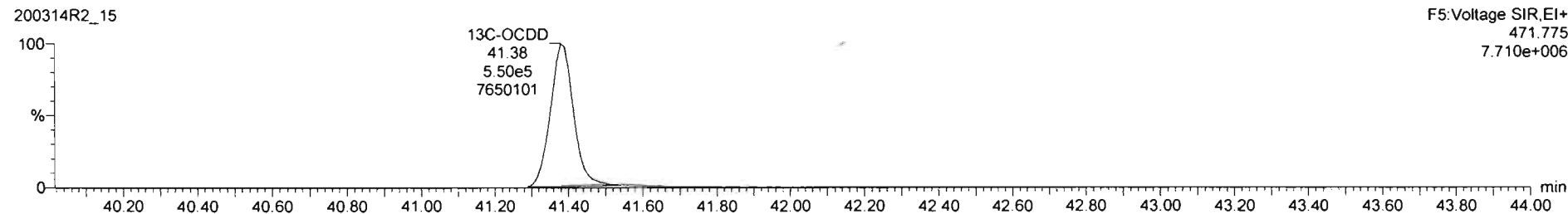
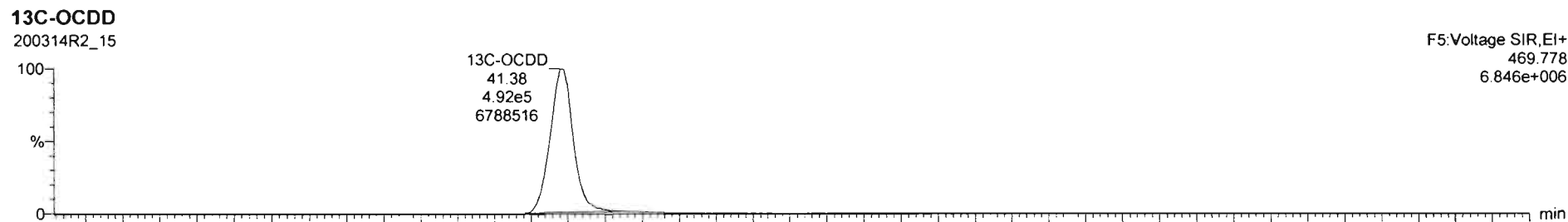
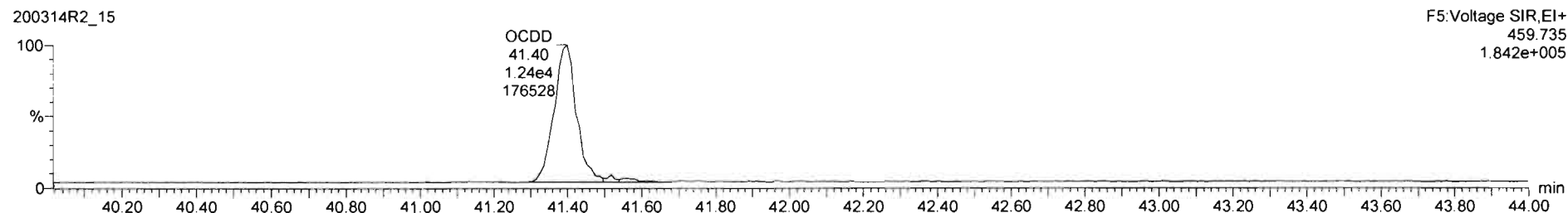
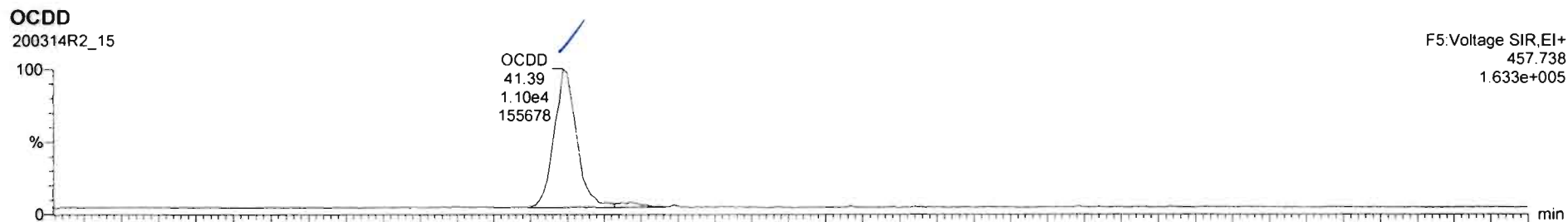


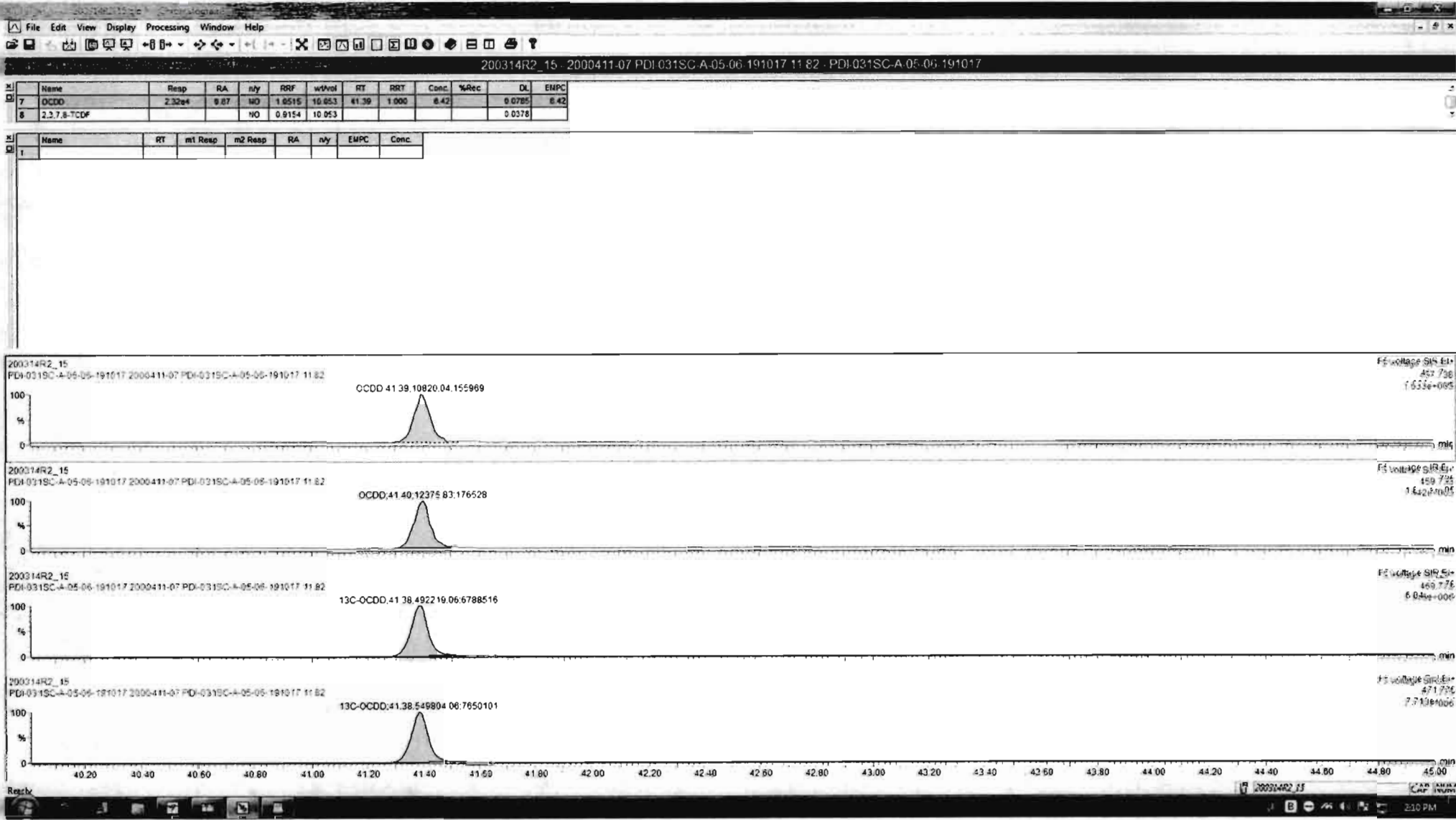
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Name: 200314R2\_15, Date: 14-Mar-2020, Time: 22:23:32, ID: 2000411-07 PDI-031SC-A-05-06-191017 11.82, Description: PDI-031SC-A-05-06-191017



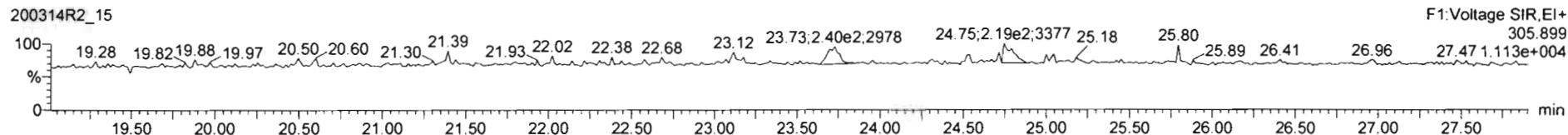
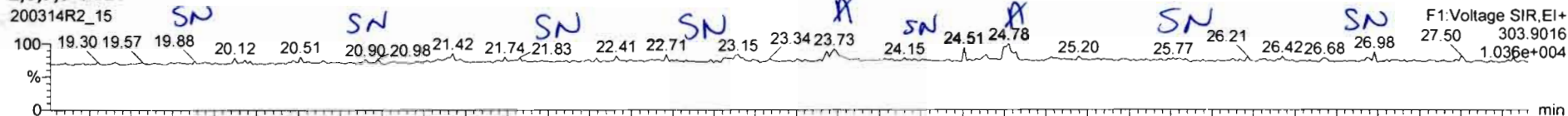


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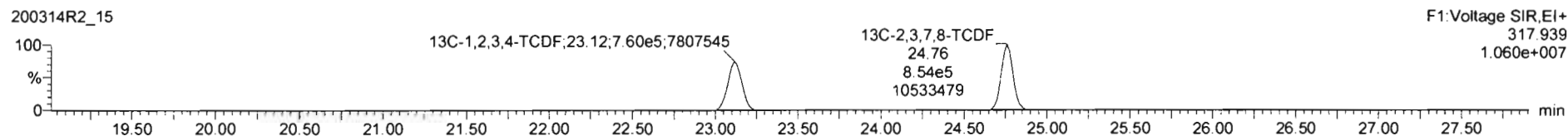
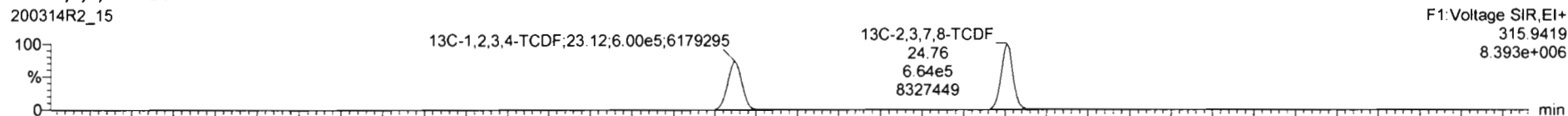
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Name: 200314R2\_15, Date: 14-Mar-2020, Time: 22:23:32, ID: 2000411-07 PDI-031SC-A-05-06-191017 11.82, Description: PDI-031SC-A-05-06-191017

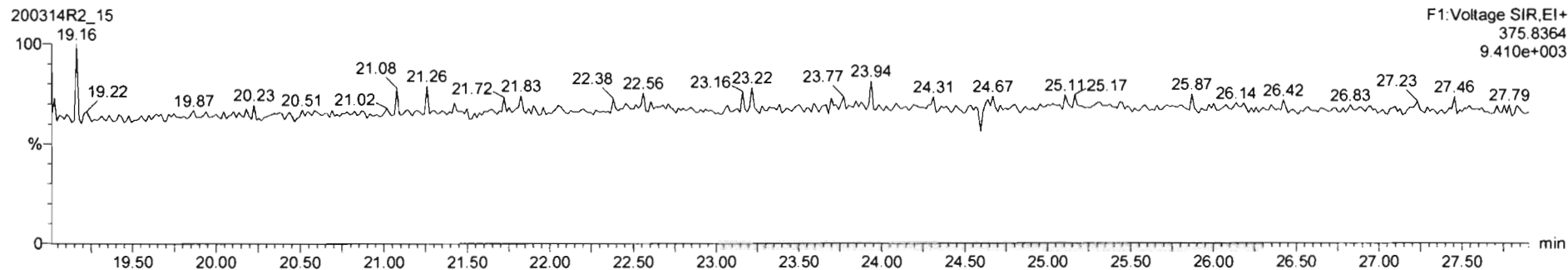
2,3,7,8-TCDF



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



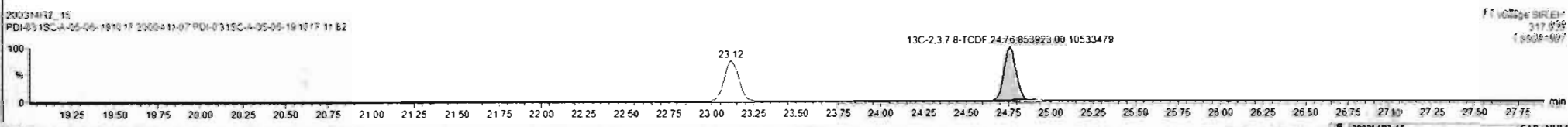
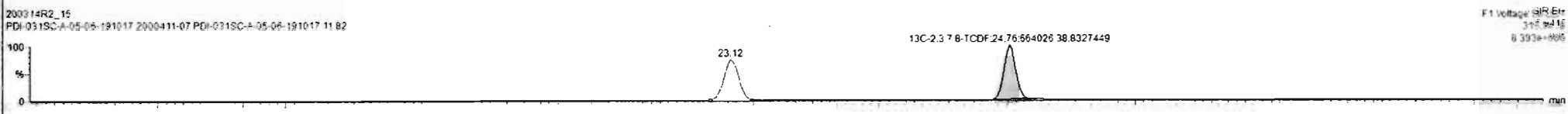
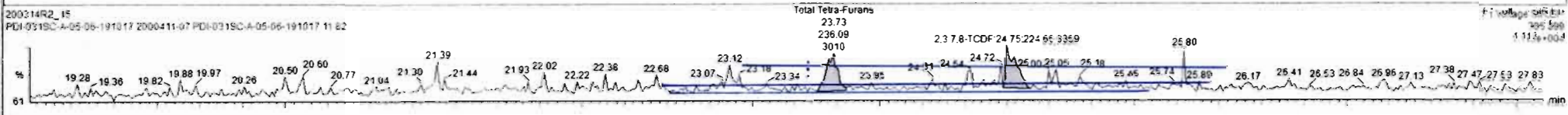
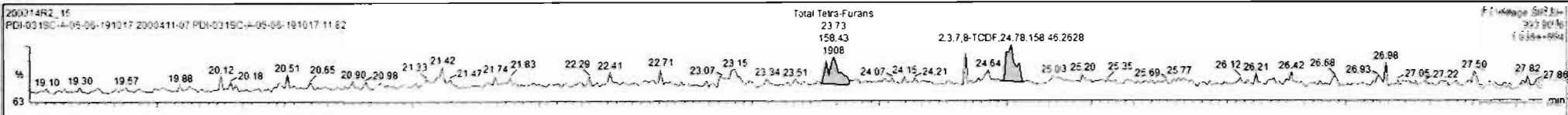
DPE1





Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.00E1	10.053			2.52	0.119	2.52	
43 Total Tetra-Furans				0.9154	10.053			0.111	0.0143	0.111	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 2,3,7,8-TCDF	24.78	1.585e2	2.247e2	0.71	NO	0.054850	0.054850
2 Total Tetra-Furans	23.73	1.584e2	2.361e2	0.67	NO	0.056483	0.056483



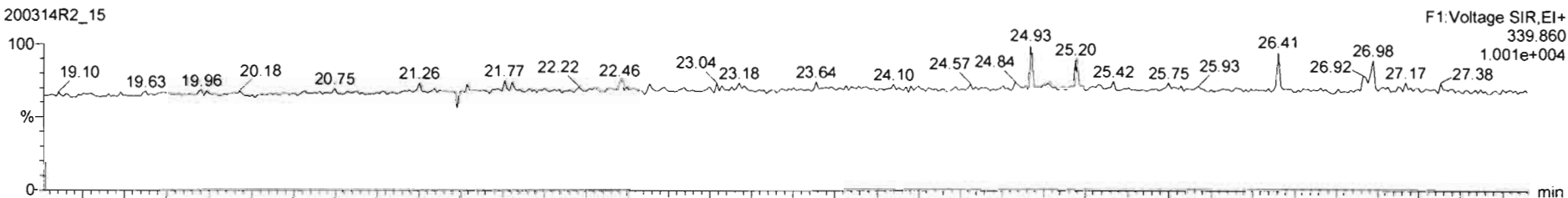
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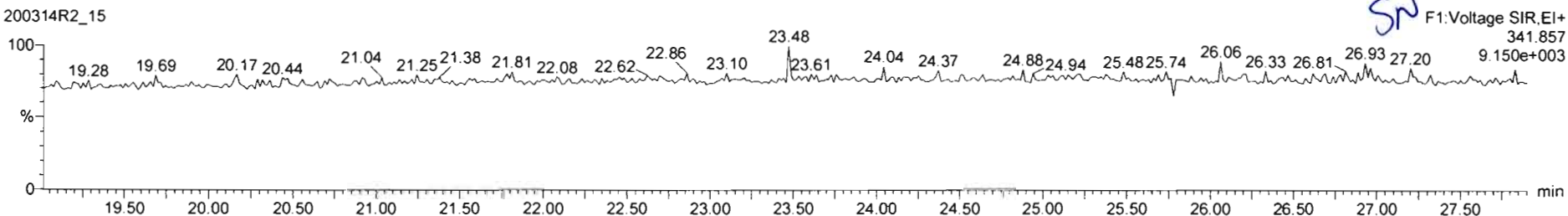
Name: 200314R2\_15, Date: 14-Mar-2020, Time: 22:23:32, ID: 2000411-07 PDI-031SC-A-05-06-191017 11.82, Description: PDI-031SC-A-05-06-191017

1st Func. Penta-Furans

200314R2\_15

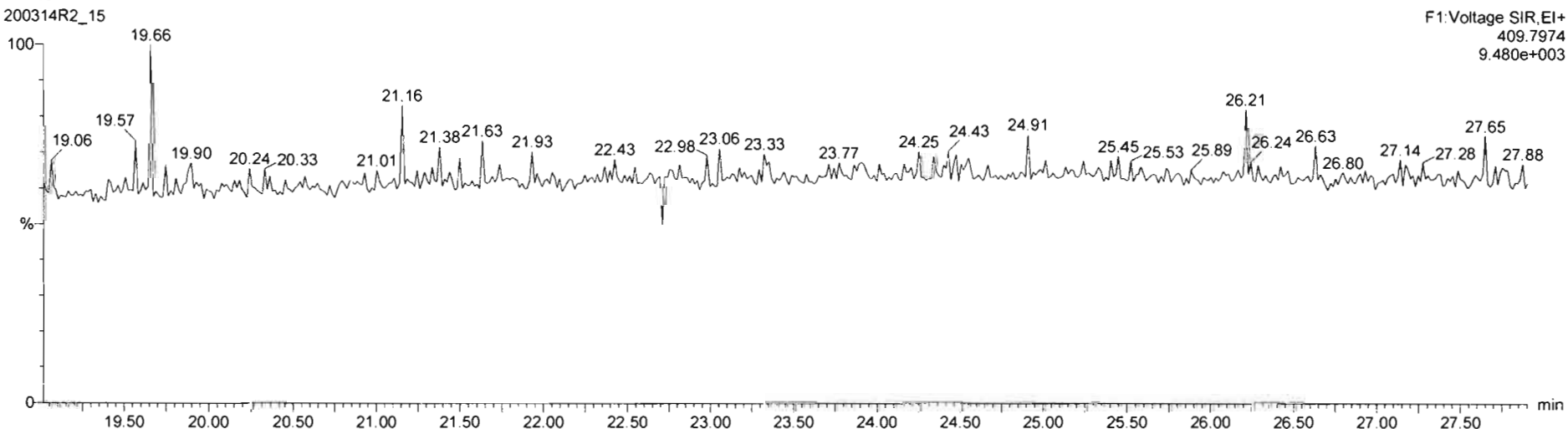


200314R2\_15



DPE6

200314R2\_15

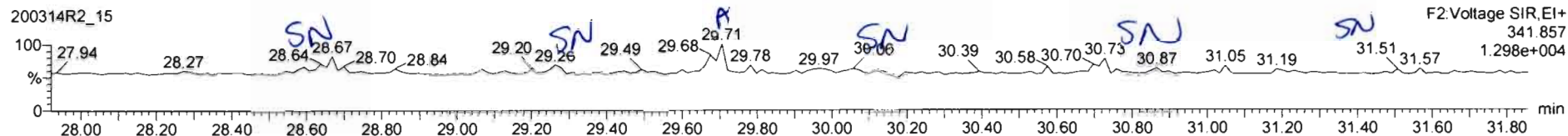
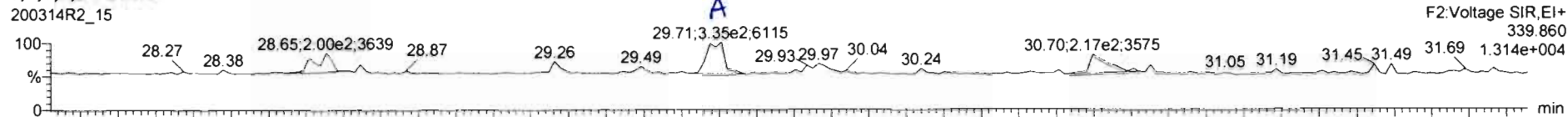


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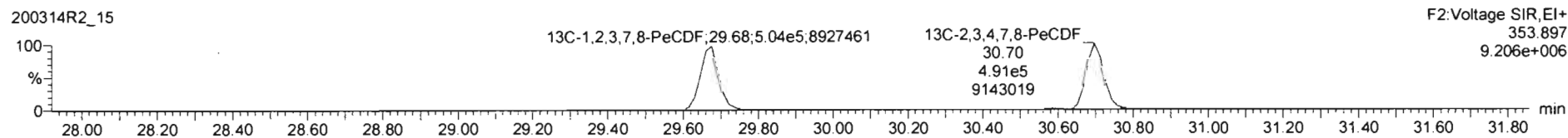
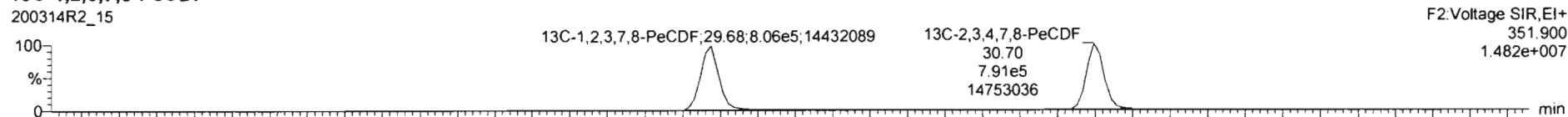
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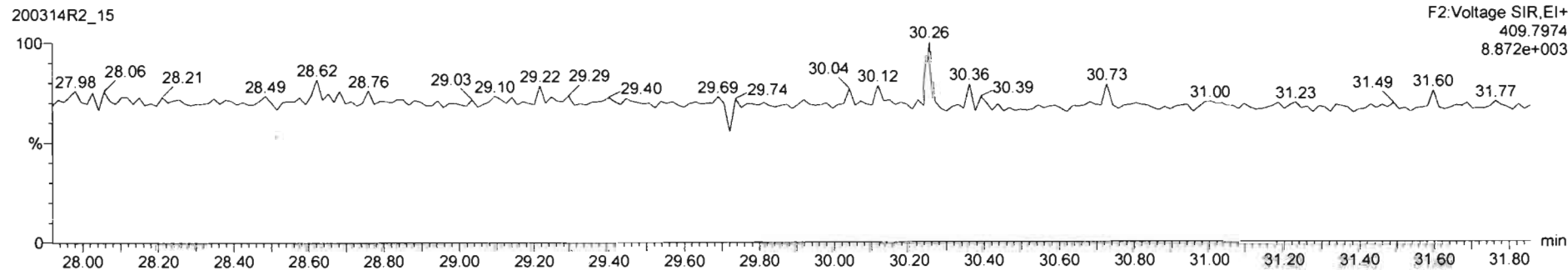
1,2,3,7,8-PeCDF



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

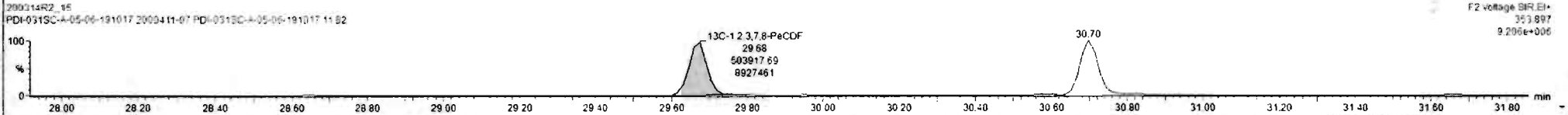
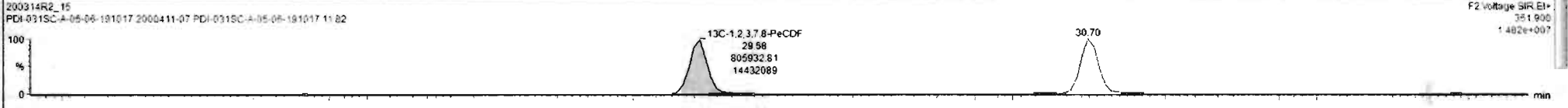
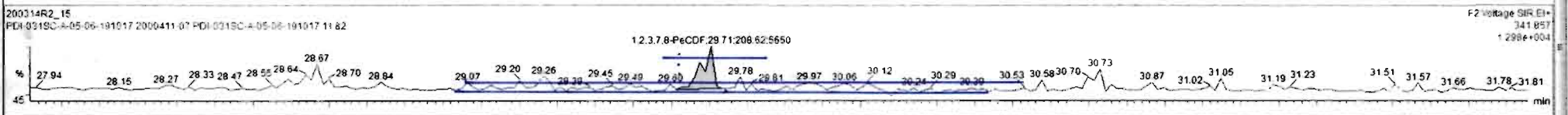
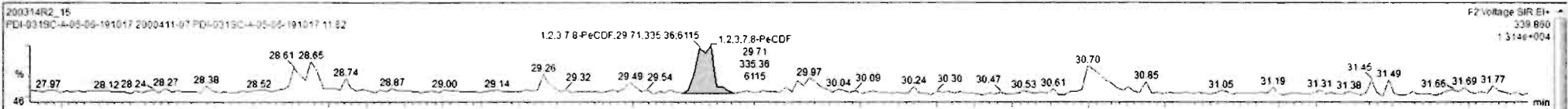


DPE2



Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.053			0.0861	0.0137	0.0861	
46 Total Hexa-Furans				1.0920	10.053			0.135	0.0540	0.135	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1 1,2,3,7,8-PeCDF	29.71	3.354e2	2.086e2	1.61	NO	0.086112	0.086112



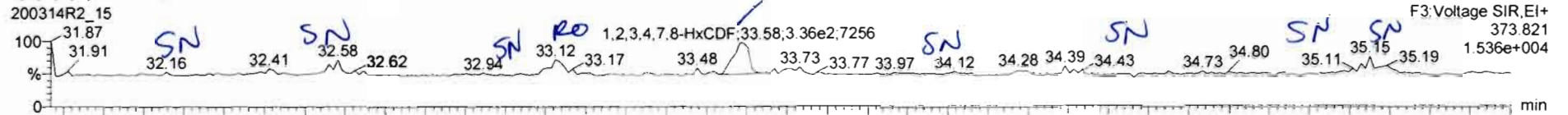
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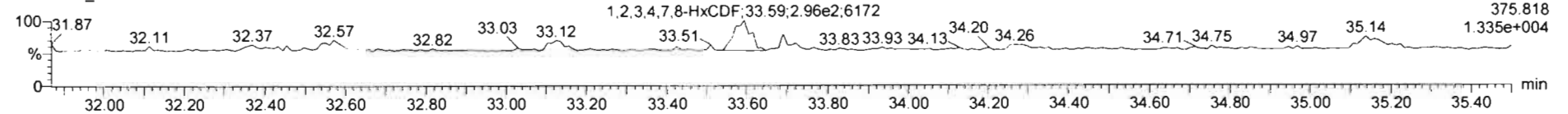
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Name: 200314R2\_15, Date: 14-Mar-2020, Time: 22:23:32, ID: 2000411-07 PDI-031SC-A-05-06-191017 11.82, Description: PDI-031SC-A-05-06-191017

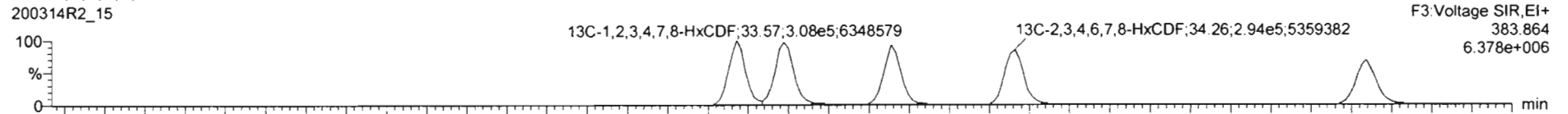
**1,2,3,4,7,8-HxCDF**



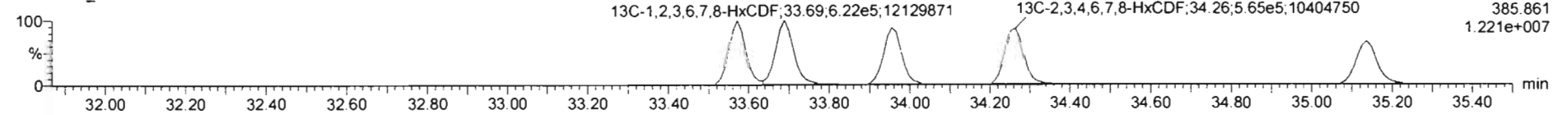
200314R2\_15



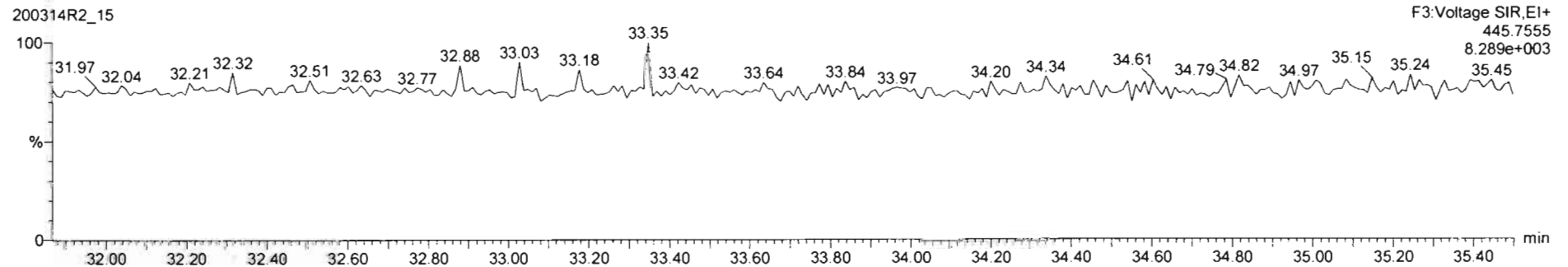
**13C-1,2,3,4,7,8-HxCDF**



200314R2\_15

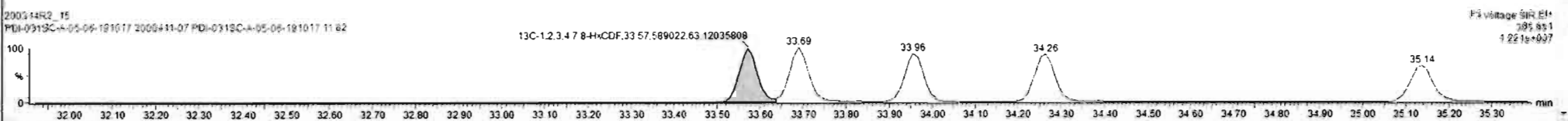
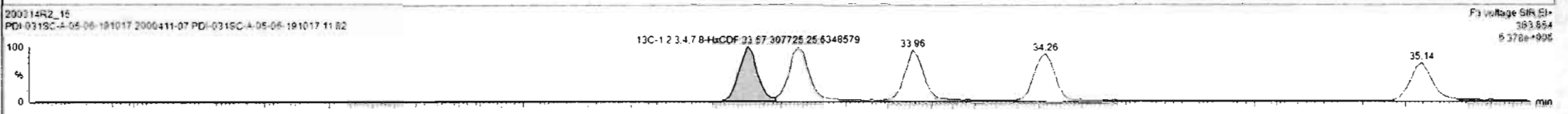
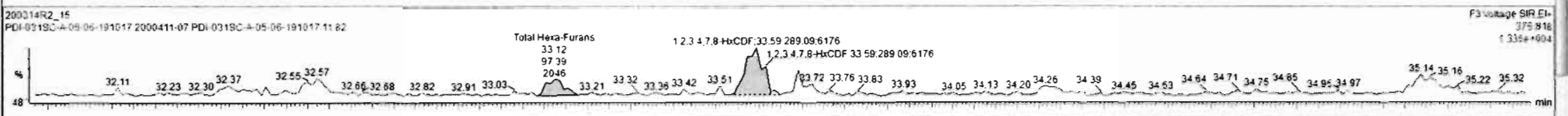
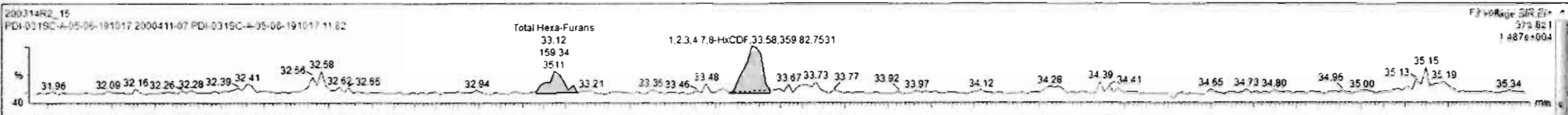


**DPE3**



Name	Resp	RA	nfy	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.053			0.0861		0.0137	0.0861
46 Total Hexa-Furans				1.0920	10.653			0.136		0.0540	0.185

Name	RT	m1 Resp	m2 Resp	RA	nfy	EMPC	Conc
1 1,2,3,4,7,8-HxCDF	33.58	3.596e2	2.891e2	1.24	HQ	0.13868	0.13868
2 Total Hexa-Furans	33.12	1.593e2	9.739e1	1.64	YES	0.046361	0.00000

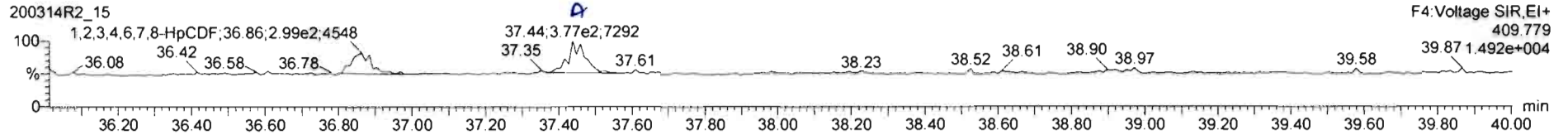
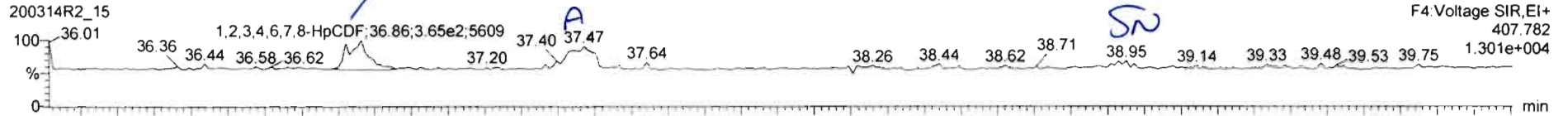


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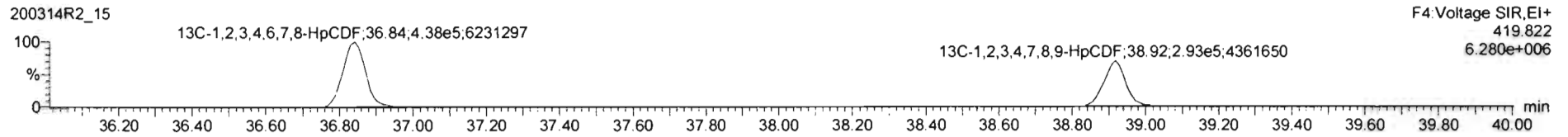
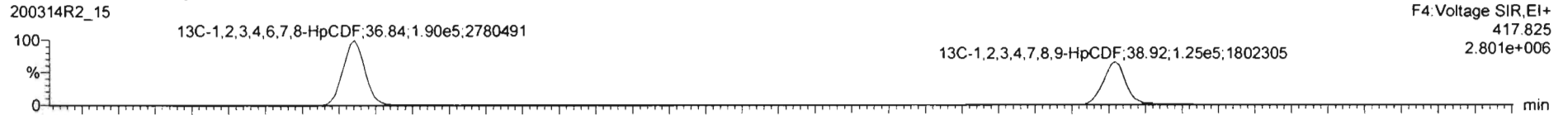
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Name: 200314R2\_15, Date: 14-Mar-2020, Time: 22:23:32, ID: 2000411-07 PDI-031SC-A-05-06-191017 11.82, Description: PDI-031SC-A-05-06-191017

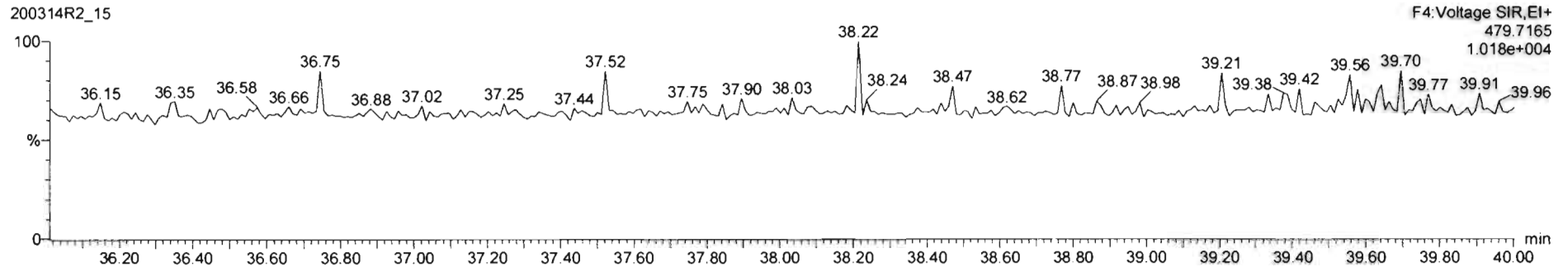
1,2,3,4,6,7,8-HpCDF



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

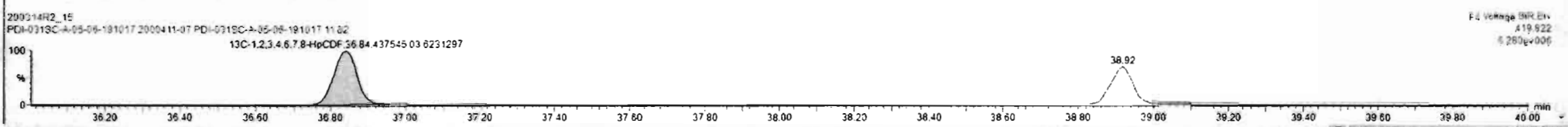
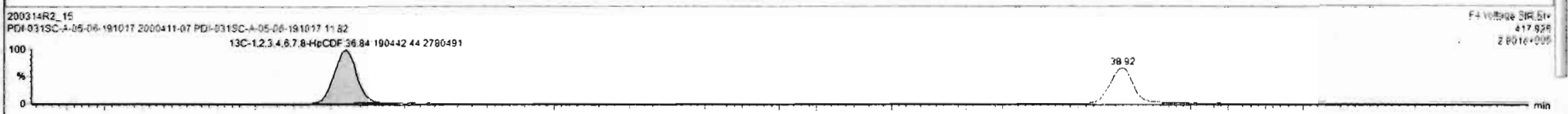
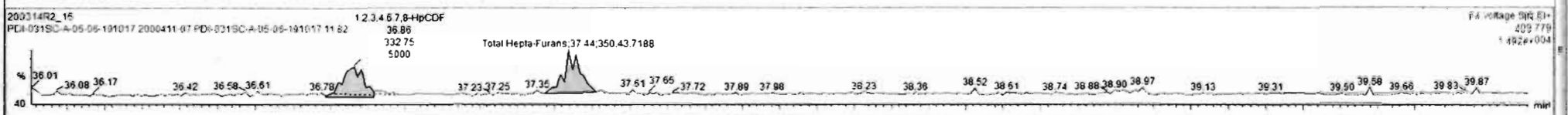
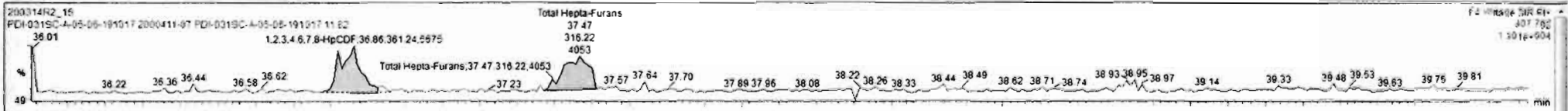


DPE4



Name	Resp	RA	n/y	RRF	wt/Vol	RT	RRT	Conc	%Rec	DL	EMPC
45	Total Penta-Furans			0.9594	10.053			0.0861	0.0137	0.0861	
46	Total Hexa-Furans			1.0920	10.053			0.138	0.0540	0.185	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc	
1	1.2,3,4,6,7,8-HpCDF	36.86	3.612e2	3.328e2	1.09	ND	0.20972	0.20972
2	Total Hepta-Furans	37.47	3.162e2	3.504e2	0.90	ND	0.24176	0.06000

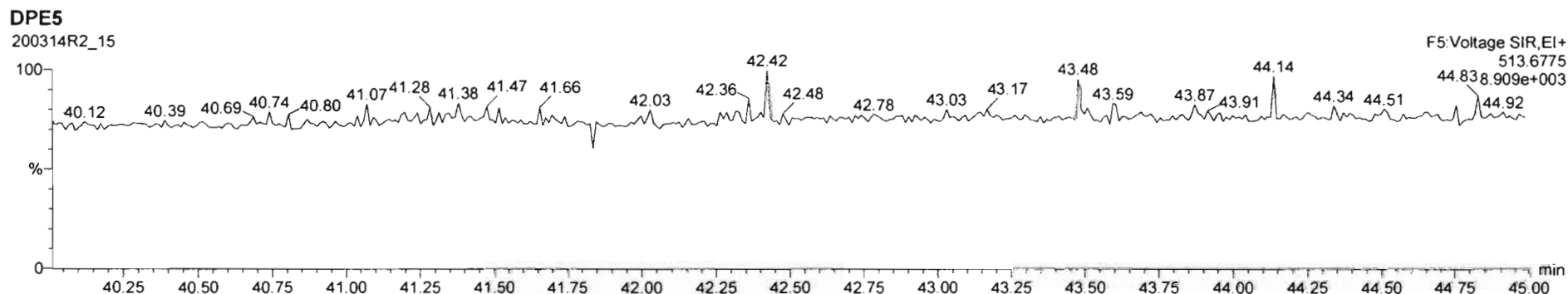
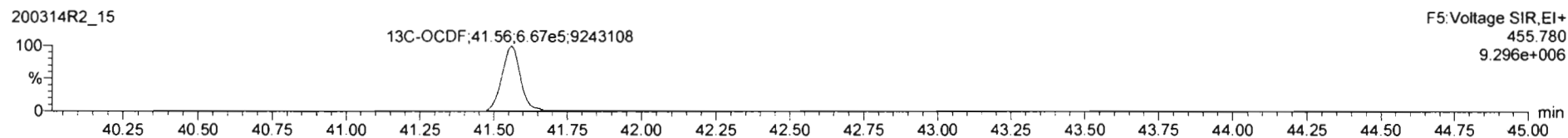
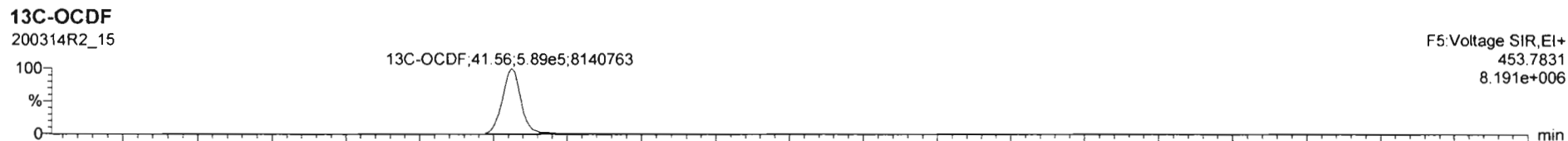
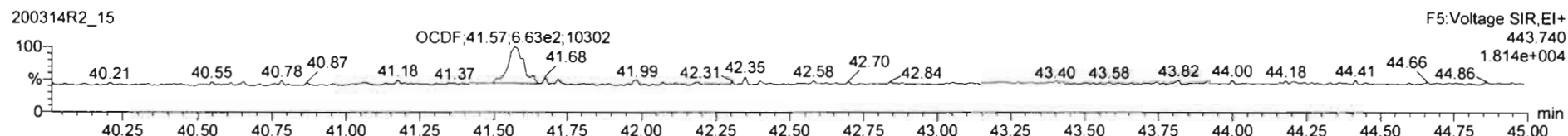
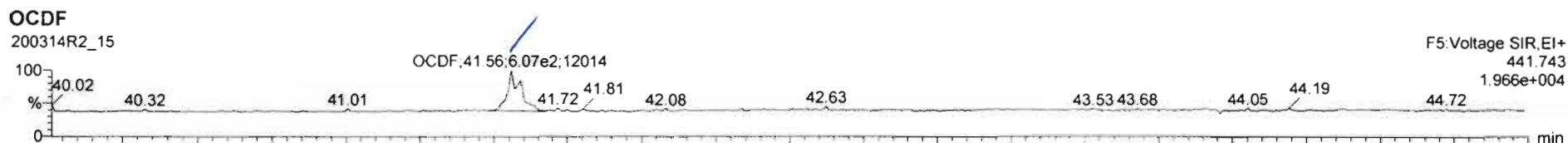




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Printed: Sunday, March 15, 2020 09:19:07 Pacific Daylight Time

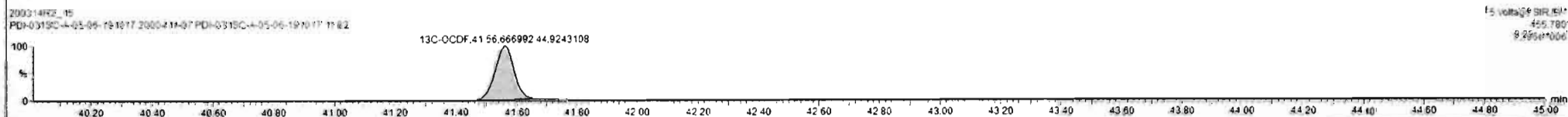
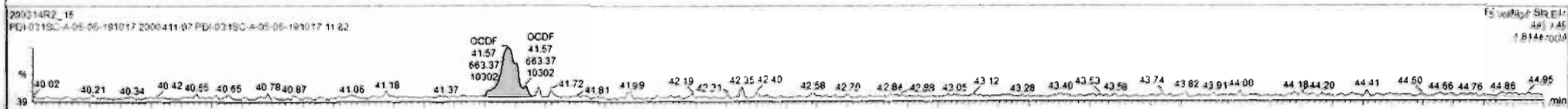
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200314R2\_15 - 2000411-07 PDI-031SC-A-05-06-191017 11:82 - PDI-031SC-A-05-06-191017

Name	Resp	RA	nly	RAF	wVol	RT	RRT	Conc	%Rec	DL	EMPC
17 OCDF	1.28e3	0.92	NO	0.9468	10.953	41.56	1.000	9.427	0.0740	0.427	
18 13C-2,3,7,8-TCDD	1.13e6	0.79	NO	1.1842	10.953	25.75	1.029	216	106	0.272	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1							

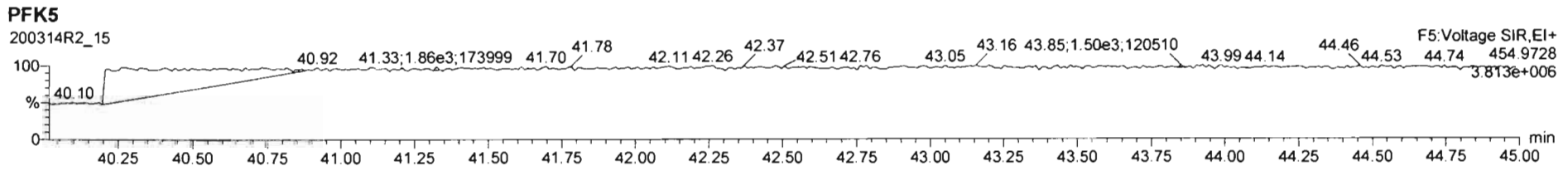
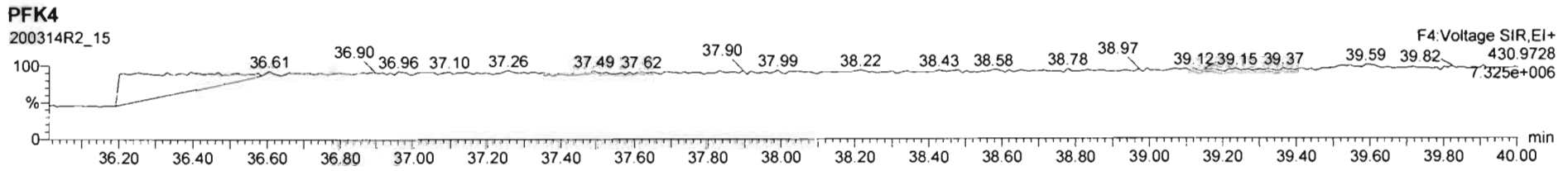
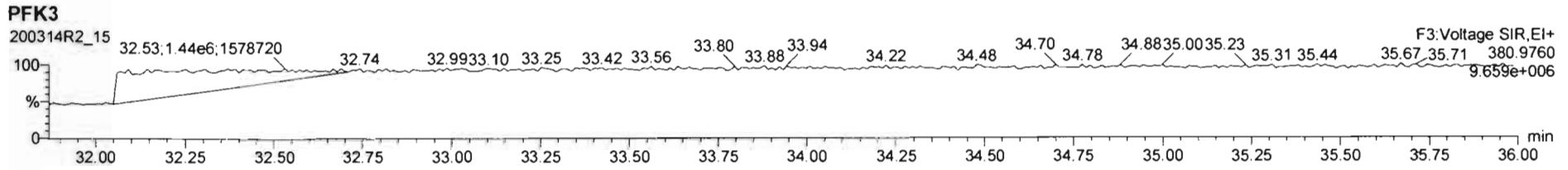
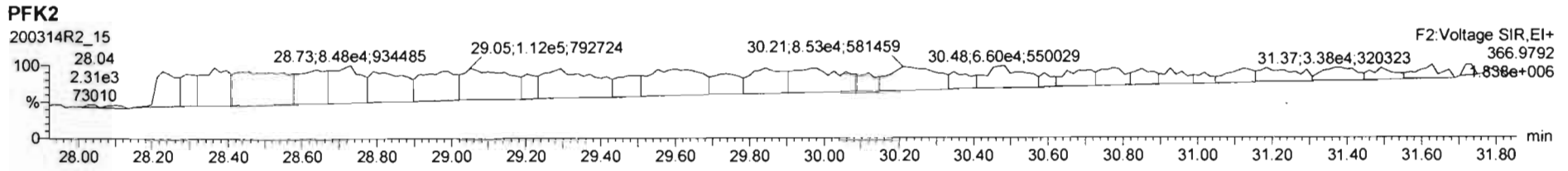
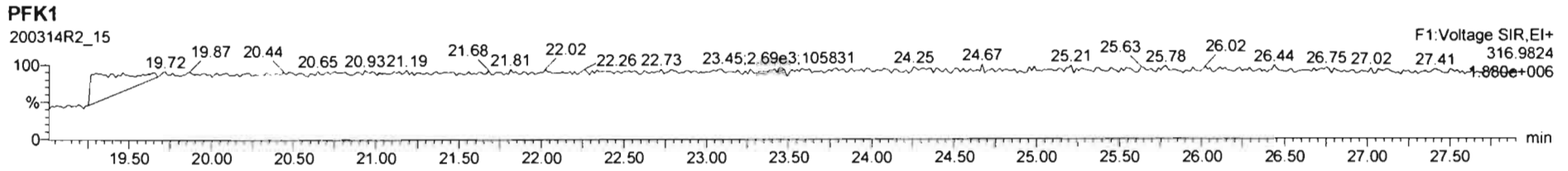


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Name: 200314R2\_15, Date: 14-Mar-2020, Time: 22:23:32, ID: 2000411-07 PDI-031SC-A-05-06-191017 11.82, Description: PDI-031SC-A-05-06-191017



Dataset: U:\VG12.PRO\Results\200314R3\200314R3-4.qld

Last Altered: Sunday, March 15, 2020 2:34:02 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 2:36:57 PM Pacific Daylight Time

*GRB 03/15/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

*nm  
3/15/20*

Name: 200314R3\_4, Date: 15-Mar-2020, Time: 01:41:27, ID: 2000411-08 PDI-031SC-A-06-07-191017 13.06, Description: PDI-031SC-A-06-07-191017

#	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	0.983	10.010	25.751		1.001				0.105	
2	2 1,2,3,7,8-PeCDD			NO	0.921	10.010	31.025		1.001				0.0943	
3	3 1,2,3,4,7,8-HxCDD			NO	1.13	10.010	34.423		1.000				0.0893	
4	4 1,2,3,6,7,8-HxCDD			NO	0.984	10.010	34.520		1.000				0.0921	
5	5 1,2,3,7,8,9-HxCDD			NO	0.967	10.010	34.786		1.000				0.0982	
6	6 1,2,3,4,6,7,8-HpCDD			NO	1.01	10.010	38.248		1.000				0.170	
7	7 OCDD	6.55e2	0.97	NO	1.05	10.010	41.379	41.39	1.000	1.000	0.52636		0.128	0.526
8	8 2,3,7,8-TCDF			NO	0.915	10.010	24.757		1.001				0.0700	
9	9 1,2,3,7,8-PeCDF			NO	0.959	10.010	29.666		1.001				0.0853	
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.010	30.713		1.001				0.0804	
11	11 1,2,3,4,7,8-HxCDF			NO	1.04	10.010	33.550		1.000				0.0575	
12	12 1,2,3,6,7,8-HxCDF			NO	1.01	10.010	33.678		1.000				0.0544	
13	13 2,3,4,6,7,8-HxCDF			NO	1.09	10.010	34.277		1.001				0.0580	
14	14 1,2,3,7,8,9-HxCDF			NO	1.03	10.010	35.116		1.000				0.0783	
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.05	10.010	36.868		1.001				0.0722	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.010	38.897		1.000				0.101	
17	17 OCDF			NO	0.947	10.010	41.560		1.000				0.132	
18	18 13C-2,3,7,8-TCDD	5.64e5	0.76	NO	1.18	10.010	25.720	25.72	1.029	1.029	122.02	61.1	0.215	
19	19 13C-1,2,3,7,8-PeCDD	4.67e5	0.65	NO	0.864	10.010	30.900	31.00	1.236	1.240	138.40	69.3	0.313	
20	20 13C-1,2,3,4,7,8-HxCDD	3.35e5	1.26	NO	0.754	10.010	34.406	34.41	1.014	1.014	127.32	63.7	0.283	
21	21 13C-1,2,3,6,7,8-HxCDD	4.08e5	1.26	NO	0.925	10.010	34.514	34.52	1.017	1.017	126.57	63.4	0.231	
22	22 13C-1,2,3,7,8,9-HxCDD	3.85e5	1.19	NO	0.829	10.010	34.776	34.78	1.025	1.025	133.09	66.6	0.257	
23	23 13C-1,2,3,4,6,7,8-HpCDD	2.70e5	1.05	NO	0.598	10.010	38.230	38.24	1.127	1.127	129.53	64.8	0.380	
24	24 13C-OCDD	4.73e5	0.90	NO	0.571	10.010	41.376	41.38	1.219	1.219	237.42	59.4	0.394	
25	25 13C-2,3,7,8-TCDF	7.12e5	0.78	NO	1.09	10.010	24.742	24.73	0.990	0.989	107.07	53.6	0.344	
26	26 13C-1,2,3,7,8-PeCDF	6.27e5	1.63	NO	0.876	10.010	29.572	29.65	1.183	1.186	117.21	58.7	0.567	
27	27 13C-2,3,4,7,8-PeCDF	6.20e5	1.57	NO	0.844	10.010	30.582	30.68	1.223	1.227	120.49	60.3	0.589	
28	28 13C-1,2,3,4,7,8-HxCDF	4.52e5	0.51	NO	1.00	10.010	33.554	33.55	0.989	0.989	129.66	64.9	0.344	
29	29 13C-1,2,3,6,7,8-HxCDF	4.92e5	0.52	NO	1.12	10.010	33.663	33.67	0.992	0.992	126.34	63.2	0.308	
30	30 13C-2,3,4,6,7,8-HxCDF	4.70e5	0.52	NO	1.04	10.010	34.243	34.24	1.009	1.009	130.26	65.2	0.332	
31	31 13C-1,2,3,7,8,9-HxCDF	3.81e5	0.51	NO	0.873	10.010	35.115	35.12	1.035	1.035	125.30	62.7	0.394	

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-4.qld

Last Altered: Sunday, March 15, 2020 2:34:02 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 2:36:57 PM Pacific Daylight Time

Name: 200314R3\_4, Date: 15-Mar-2020, Time: 01:41:27, ID: 2000411-08 PDI-031SC-A-06-07-191017 13.06, Description: PDI-031SC-A-06-07-191017

#	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	3.46e5	0.44	NO	0.771	10.010	36.829	36.83	1.085	1.085	128.77	64.5	0.362	
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.19e5	0.45	NO	0.519	10.010	38.912	38.90	1.147	1.146	121.11	60.6	0.537	
34	34 13C-OCDF	5.72e5	0.87	NO	0.696	10.010	41.556	41.56	1.225	1.225	235.73	59.0	0.283	
35	35 37Cl-2,3,7,8-TCDD	2.06e5			1.17	10.010	25.730	25.75	1.029	1.030	44.957	56.3	0.0642	
36	36 13C-1,2,3,4-TCDD	7.81e5	0.79	NO	1.00	10.010	25.050	25.00	1.000	1.000	199.79	100	0.255	
37	37 13C-1,2,3,4-TCDF	1.22e6	0.79	NO	1.00	10.010	23.190	23.09	1.000	1.000	199.79	100	0.375	
38	38 13C-1,2,3,4,6,9-HxCDF	6.96e5	0.51	NO	1.00	10.010	33.880	33.93	1.000	1.000	199.79	100	0.344	
39	39 Total Tetra-Dioxins				0.983	10.010	24.620		0.000				0.0671	
40	40 Total Penta-Dioxins				0.921	10.010	29.960		0.000				0.0351	
41	41 Total Hexa-Dioxins				0.984	10.010	33.635		0.000		0.00000		0.0477	0.0961
42	42 Total Hepta-Dioxins				1.01	10.010	37.640		0.000		0.00000		0.100	0.125
43	43 Total Tetra-Furans				0.915	10.010	23.610		0.000				0.0314	
44	44 1st Func. Penta-Furans				0.959	10.010	27.090		0.000				0.0176	
45	45 Total Penta-Furans				0.959	10.010	29.275		0.000				0.0405	
46	46 Total Hexa-Furans				1.09	10.010	33.555		0.000				0.0311	
47	47 Total Hepta-Furans				1.05	10.010	37.835		0.000				0.0422	

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-4.qld

Last Altered: Sunday, March 15, 2020 2:34:02 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 2:36:57 PM Pacific Daylight Time

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Calibration: U:\VG12.PRO\CurveDB\1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R3\_4, Date: 15-Mar-2020, Time: 01:41:27, ID: 2000411-08 PDI-031SC-A-06-07-191017 13.06, Description: PDI-031SC-A-06-07-191017

**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	Total Hexa-Dioxins	32.95	1.942e3	2.024e3	9.849e1	1.091e2	0.90	YES	0.000e0	0.00000	0.096082	0.0477

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.24	3.496e3	2.302e3	1.252e2	8.342e1	1.50	YES	0.000e0	0.00000	0.12515	0.100

**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												

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-4.qld

Last Altered: Sunday, March 15, 2020 2:34:02 PM Pacific Daylight Time  
Printed: Sunday, March 15, 2020 2:36:57 PM Pacific Daylight Time

Name: 200314R3\_4, Date: 15-Mar-2020, Time: 01:41:27, ID: 2000411-08 PDI-031SC-A-06-07-191017 13.06, Description: PDI-031SC-A-06-07-191017

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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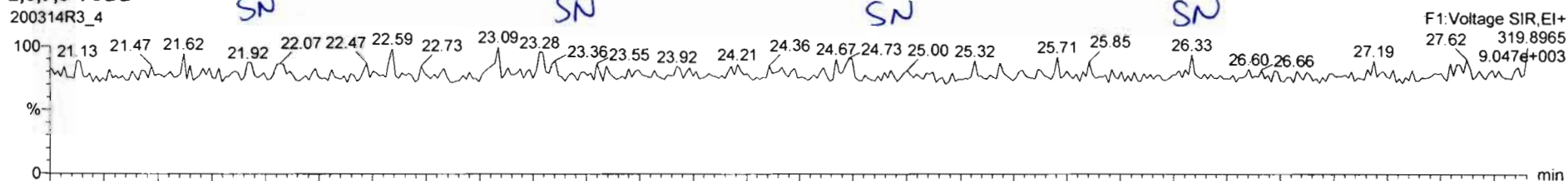
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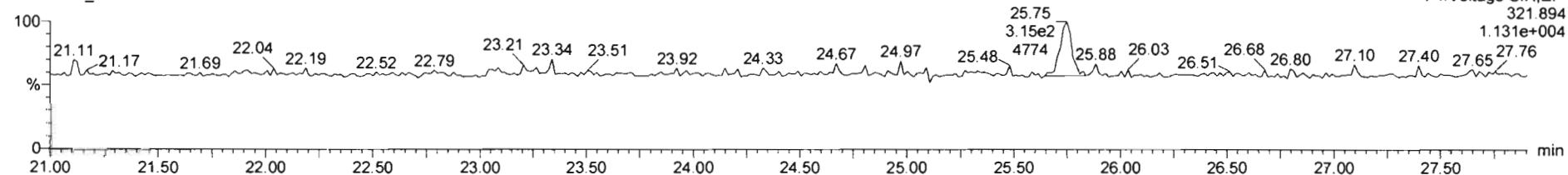
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2,3,7,8-TCDD

200314R3\_4

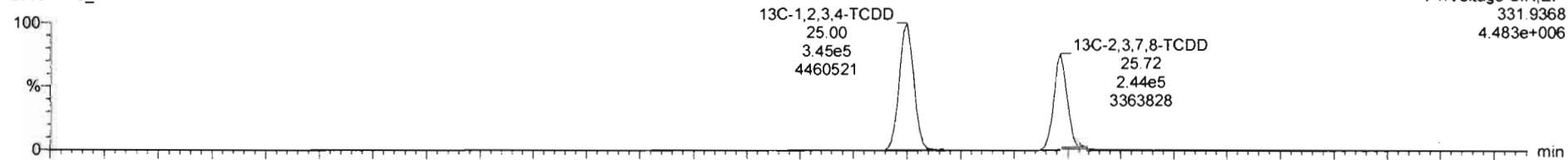


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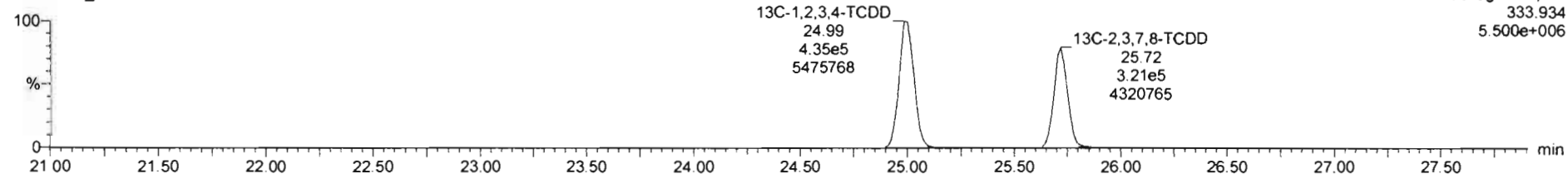


13C-2,3,7,8-TCDD

200314R3\_4



200314R3\_4





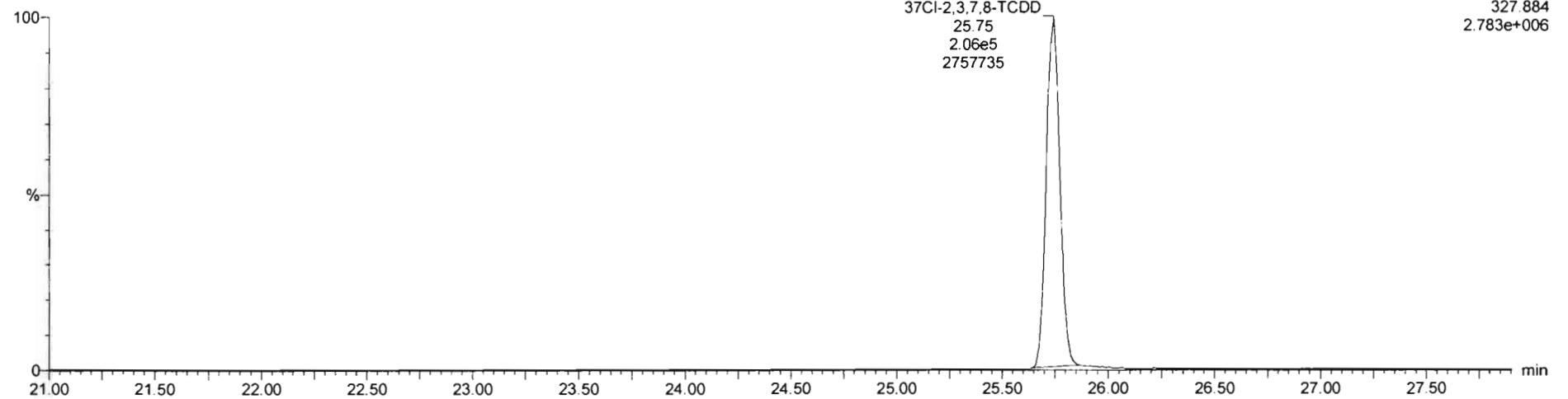
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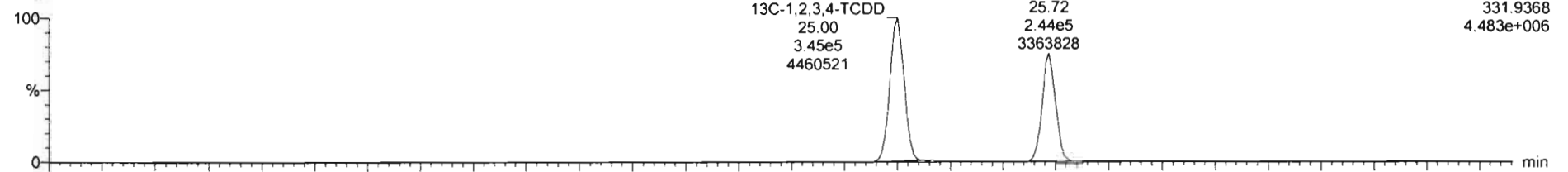
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200314R3\_4

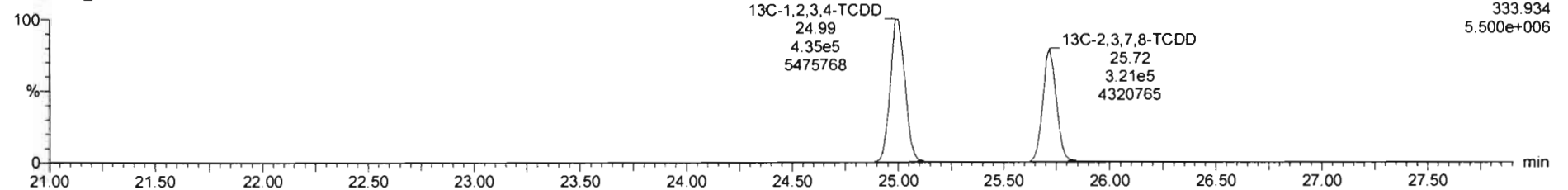


**13C-1,2,3,4-TCDD**

200314R3\_4



200314R3\_4



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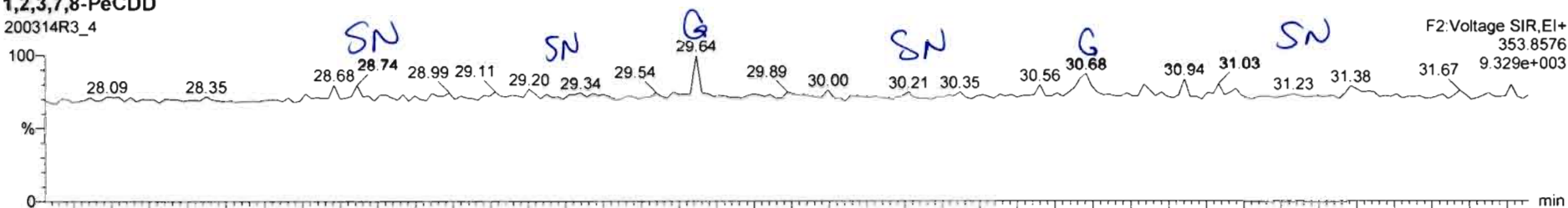
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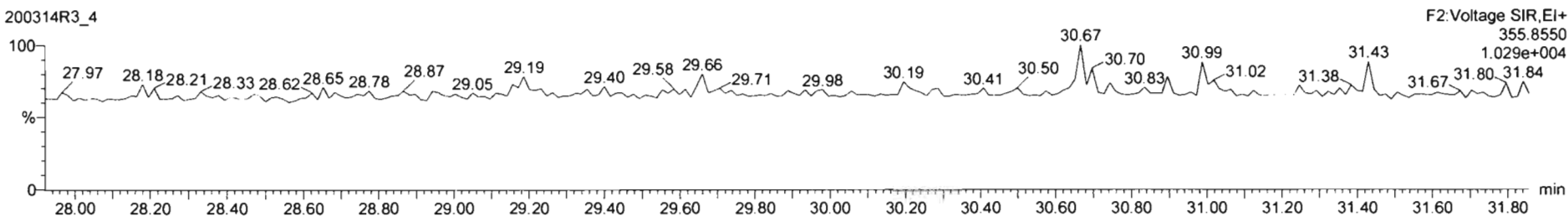
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**1,2,3,7,8-PeCDD**

200314R3\_4

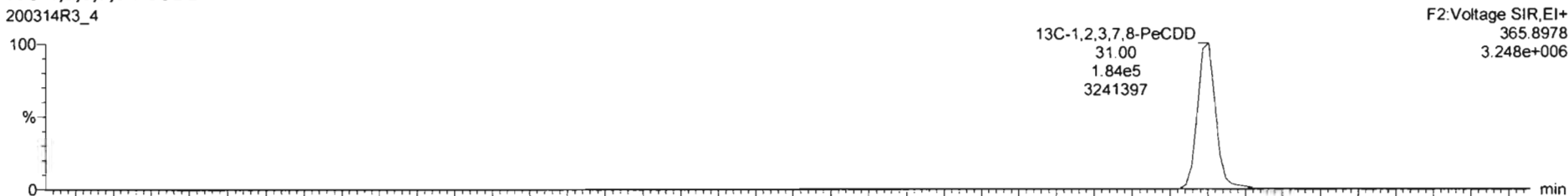


200314R3\_4

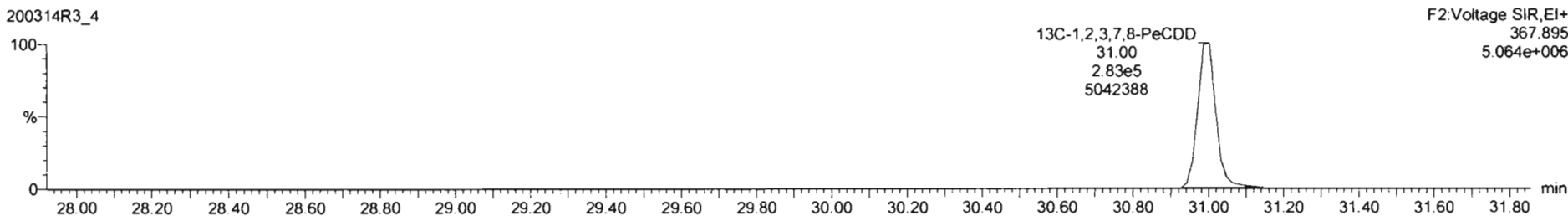


**13C-1,2,3,7,8-PeCDD**

200314R3\_4



200314R3\_4



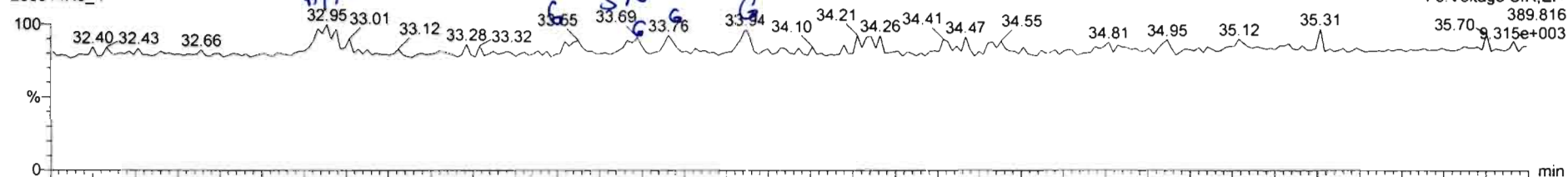
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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

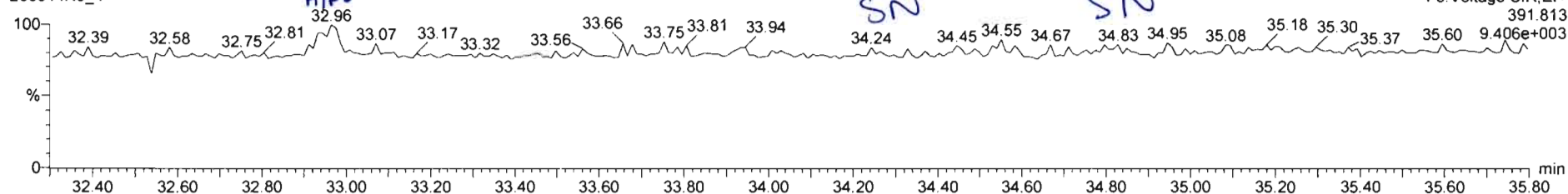
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1,2,3,4,7,8-HxCDD

200314R3\_4

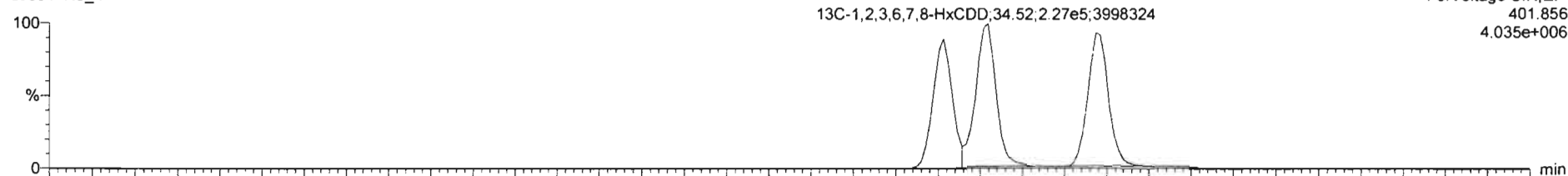


200314R3\_4

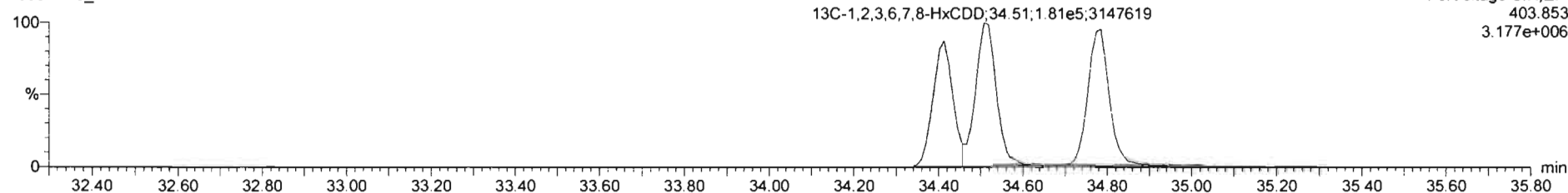


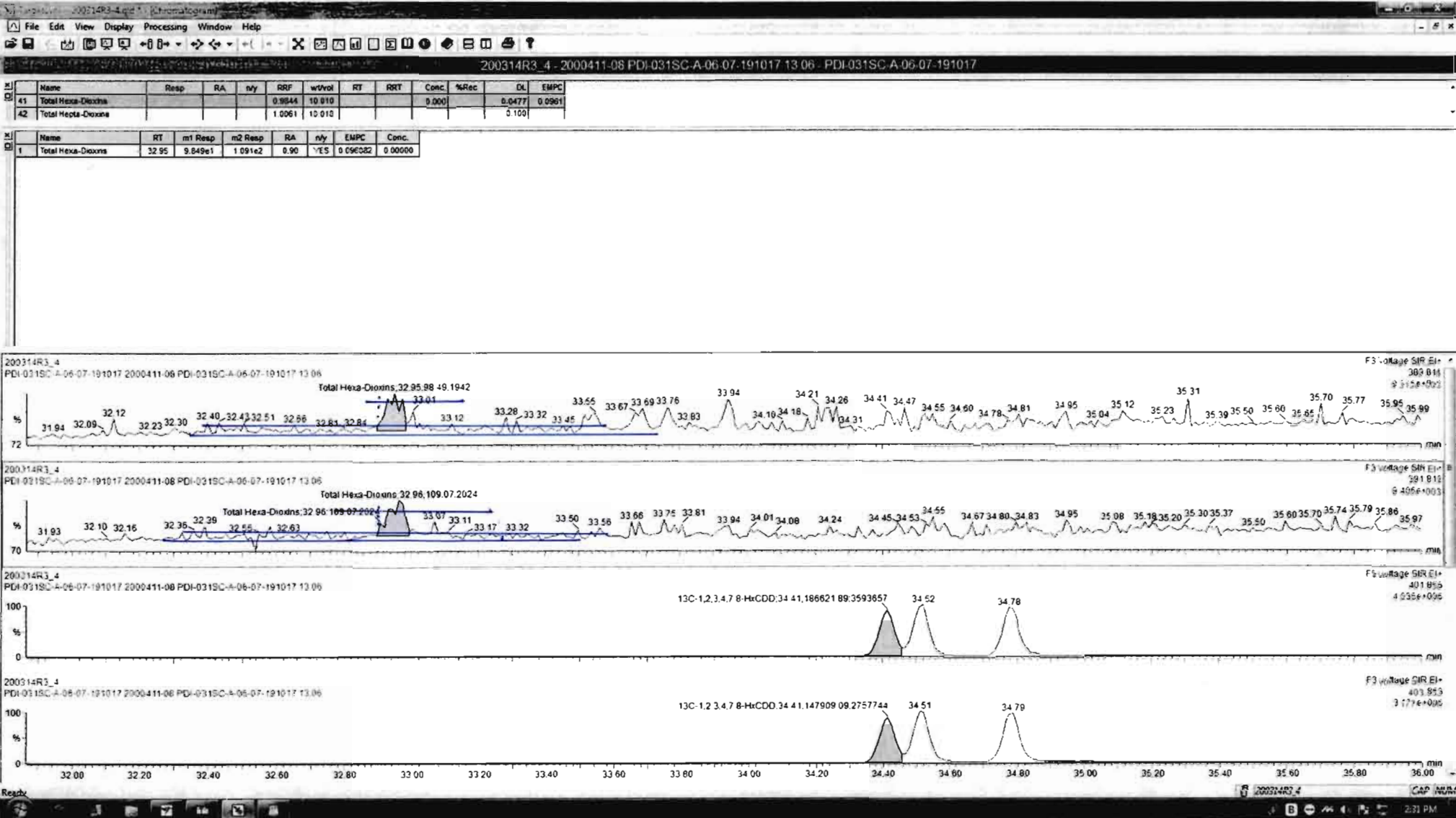
13C-1,2,3,4,7,8-HxCDD

200314R3\_4



200314R3\_4





Dataset: Untitled

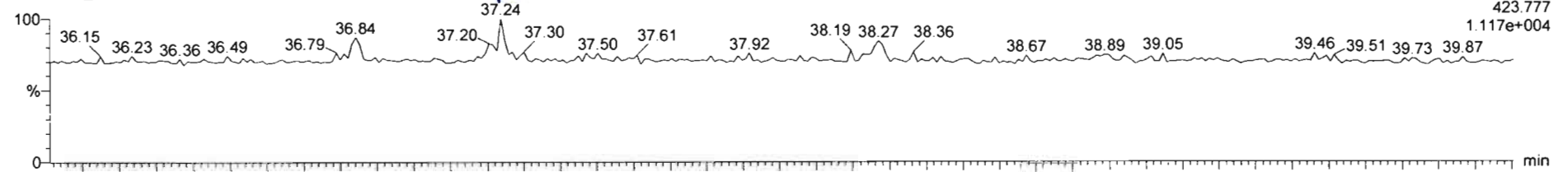
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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Last Altered:  
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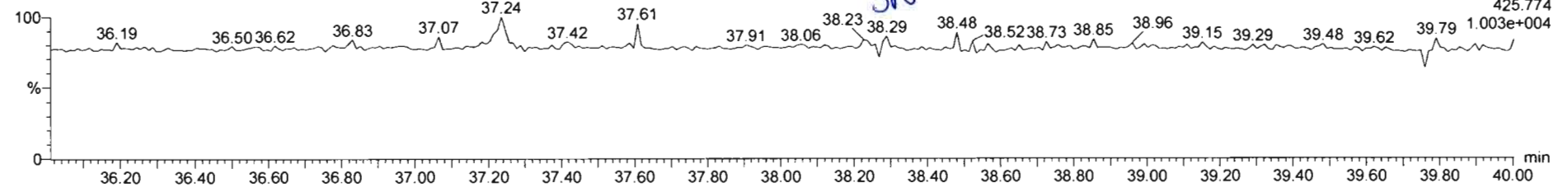
Name: 200314R3\_4, Date: 15-Mar-2020, Time: 01:41:27, ID: 2000411-08 PDI-031SC-A-06-07-191017 13.06, Description: PDI-031SC-A-06-07-191017

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

200314R3\_4

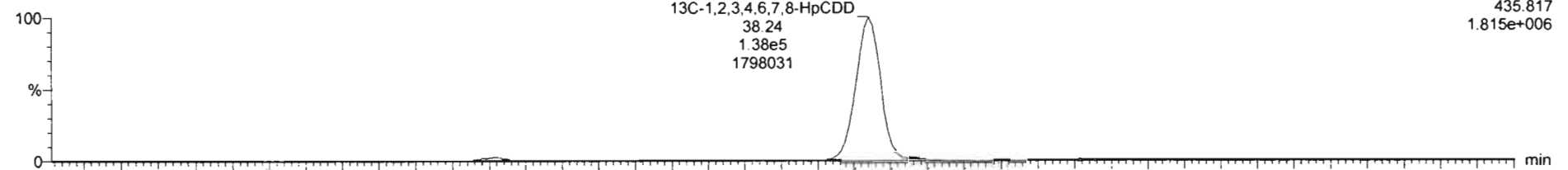


200314R3\_4

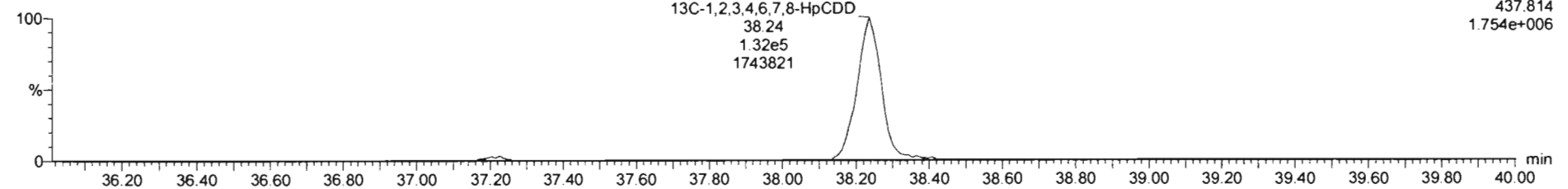


**13C-1,2,3,4,6,7,8-HpCDD**

200314R3\_4



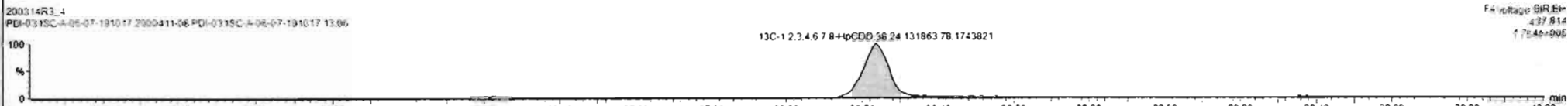
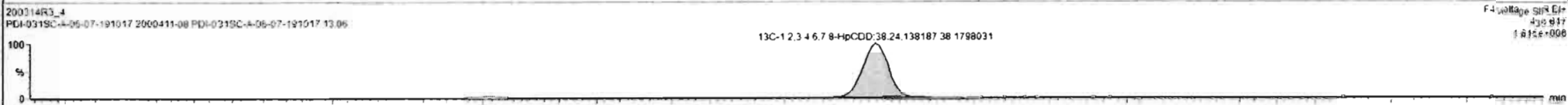
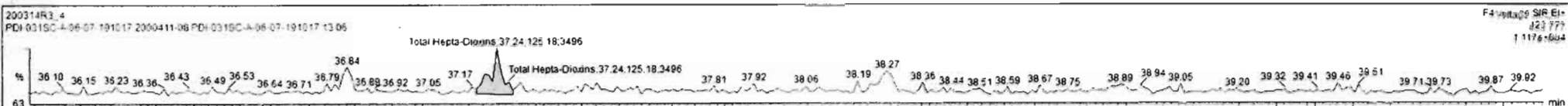
200314R3\_4



200314R3\_4 - 2000411-08 PDI-031SC-A-06-07-191017 13.06 PDI-031SC-A-06-07-191017

Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
41 Total Hexa-Dioxins				0.3644	10.010			0.000	0.0477	0.0561	
42 Total Hepta-Dioxins				1.0061	10.910			0.000	0.100	0.125	

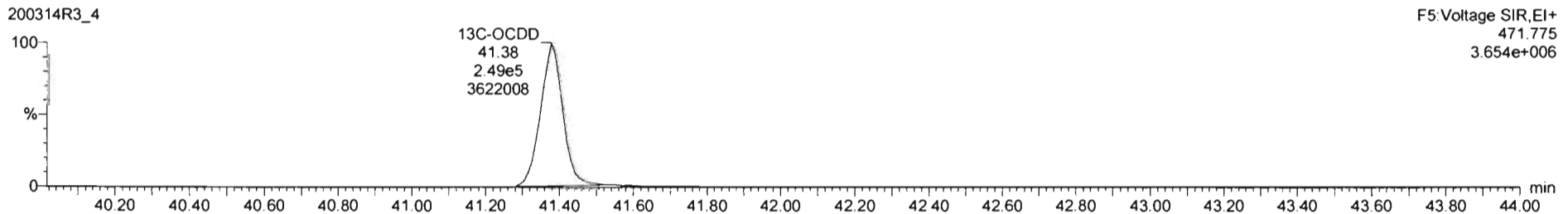
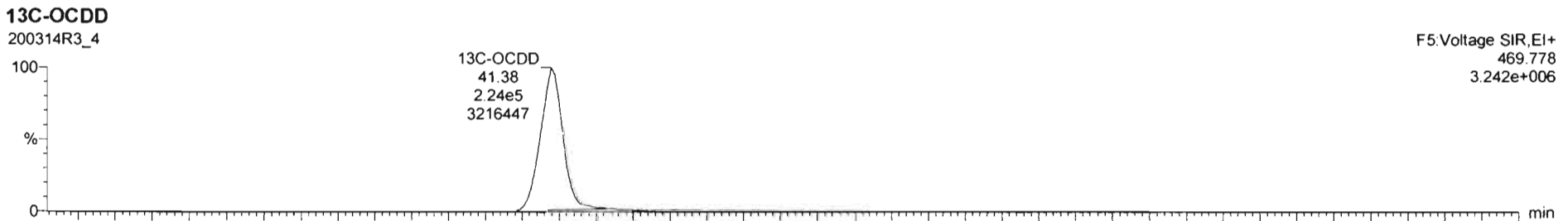
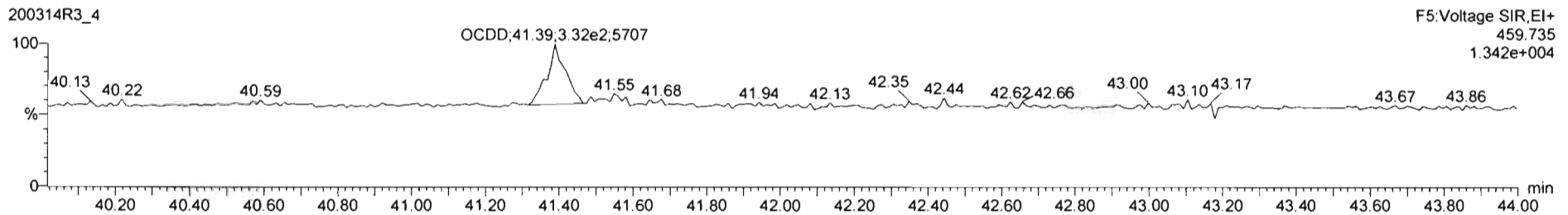
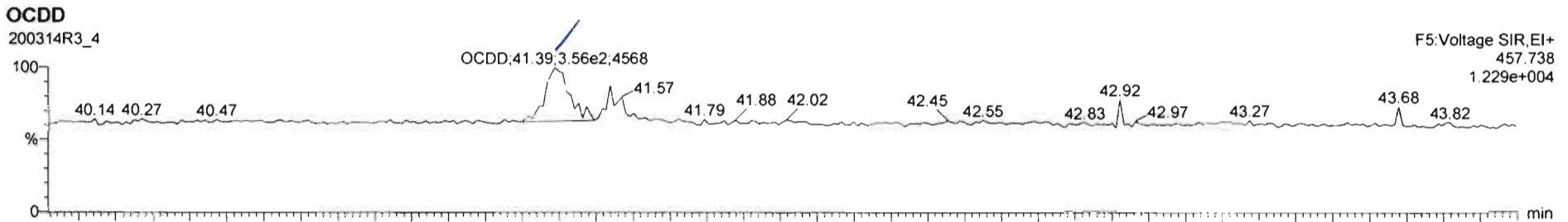
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hepta-Dioxins	37.24	1.252e2	8.342e1	1.50	YES	0.12515	0.00000



Dataset: Untitled

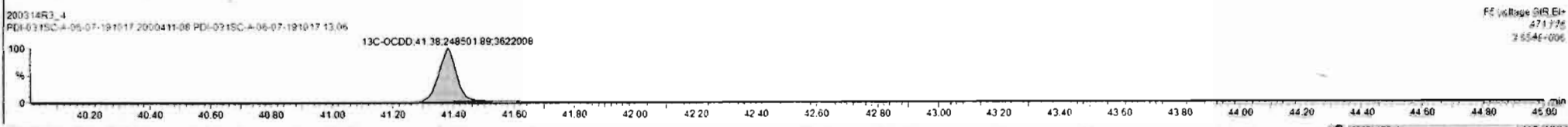
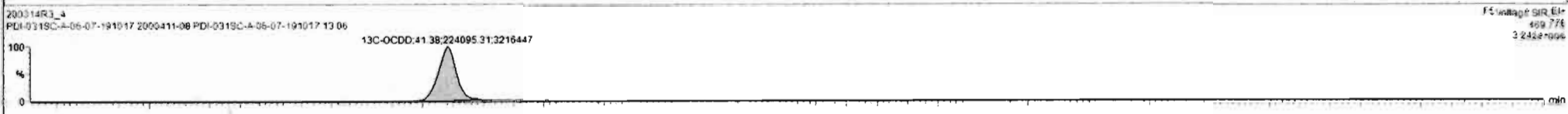
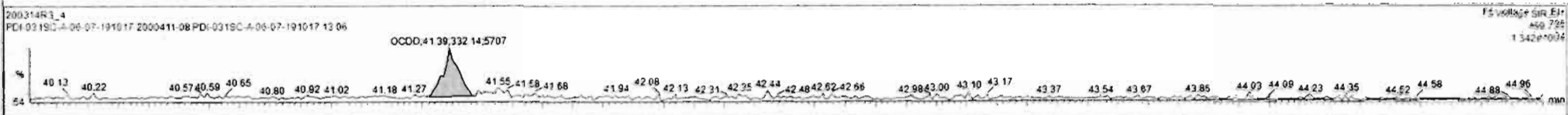
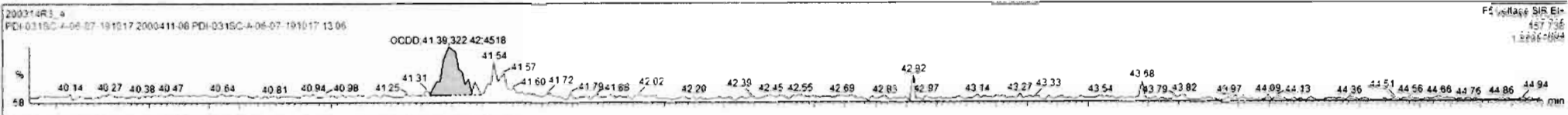
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Name: 200314R3\_4, Date: 15-Mar-2020, Time: 01:41:27, ID: 2000411-08 PDI-031SC-A-06-07-191017 13.06, Description: PDI-031SC-A-06-07-191017



Name	Resp	RA	nly	RRF	wVol	RT	RRT	Conc	%Rec	DL	EMPC
7	OCDD	6.55e2	0.97	NO	1.8515	10.810	41.39	1.000	0.526	0.128	0.526
8	2,2,7,8-TCDF			NO	0.8154	10.010				0.0700	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1							





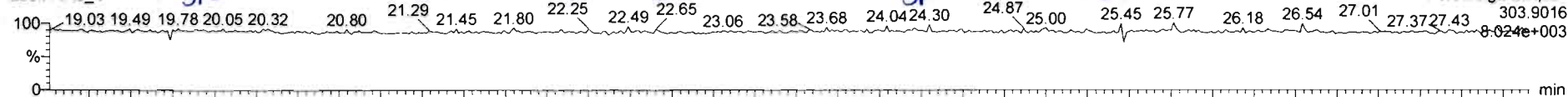
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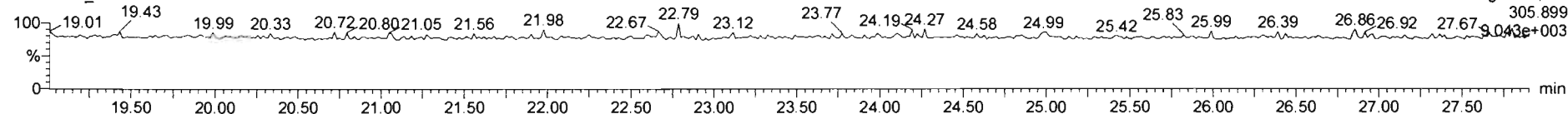
Name: 200314R3\_4, Date: 15-Mar-2020, Time: 01:41:27, ID: 2000411-08 PDI-031SC-A-06-07-191017 13.06, Description: PDI-031SC-A-06-07-191017

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

200314R3\_4

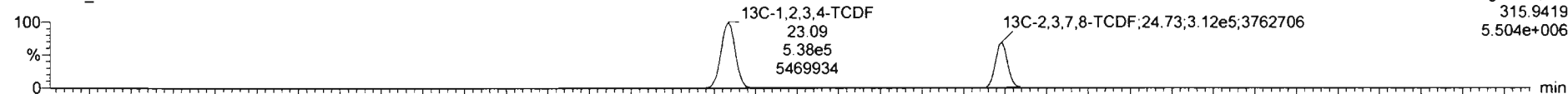


200314R3\_4

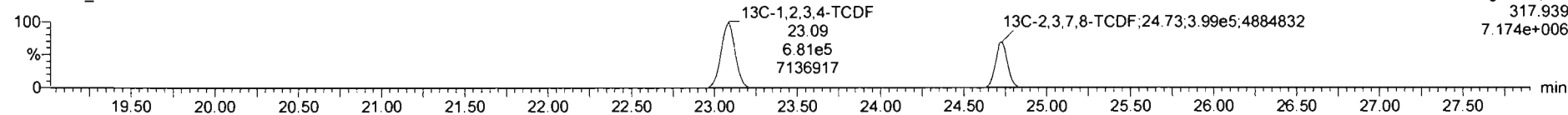


**13C-2,3,7,8-TCDF**

200314R3\_4

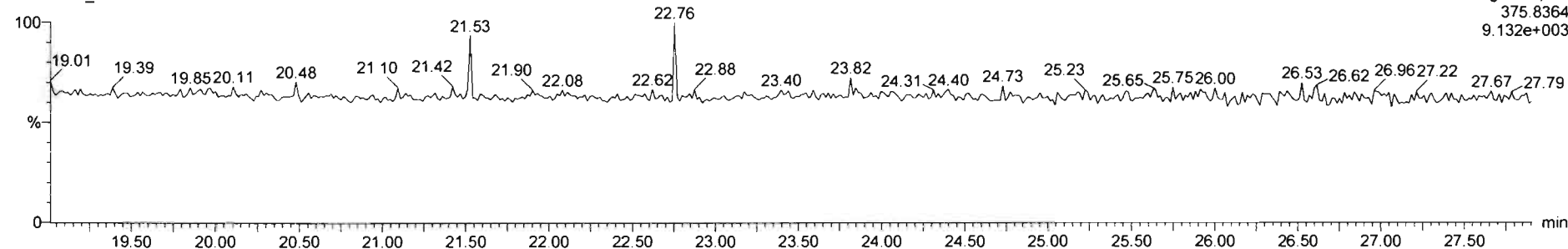


200314R3\_4



**DPE1**

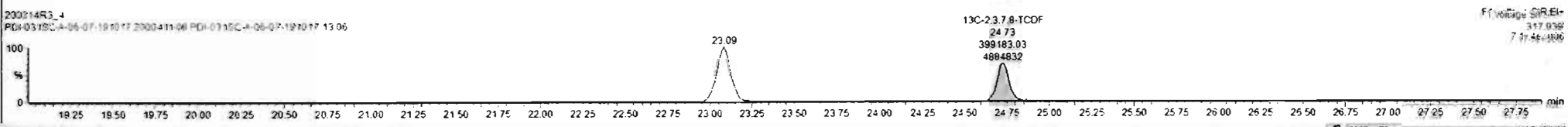
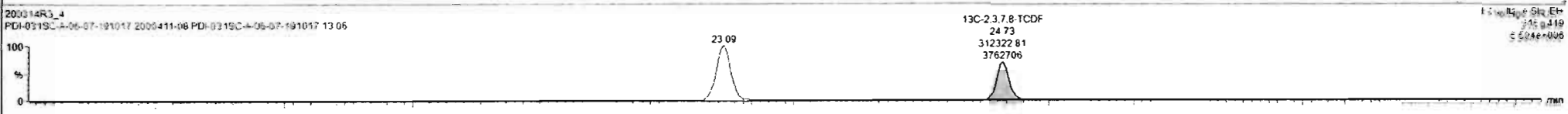
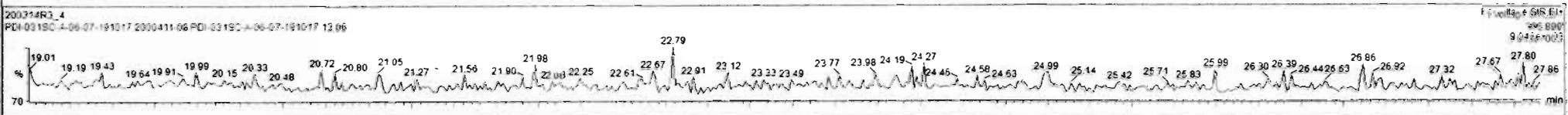
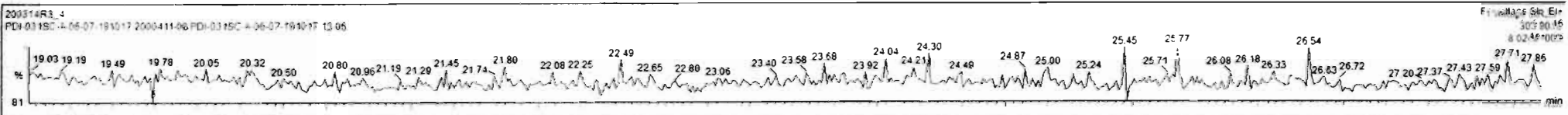
200314R3\_4



200314R3\_4 - 2000411-08 PDI-031SC-A-06-07-191017 13.06 - PDI-031SC-A-06-07-191017

Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9154	10.010					0.0314	
44 1st Func Penta-Furans				0.9594	10.010					0.0175	

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



Dataset: Untitled

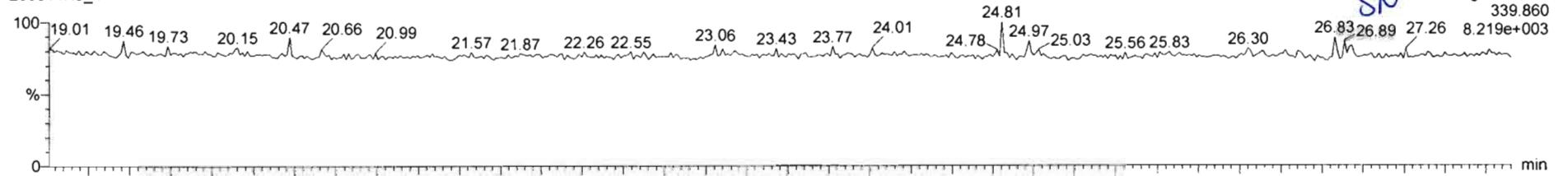
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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

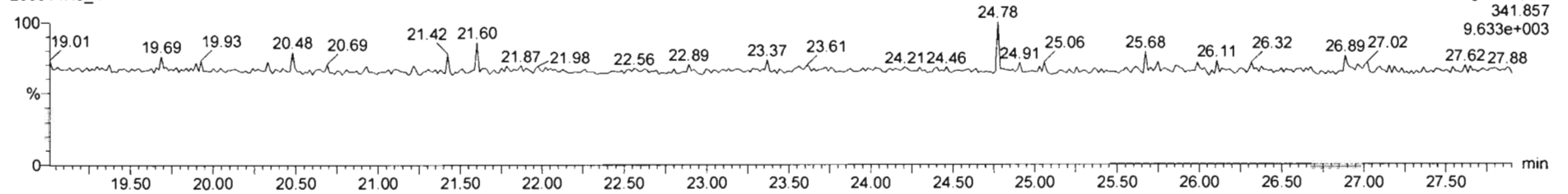
Name: 200314R3\_4, Date: 15-Mar-2020, Time: 01:41:27, ID: 2000411-08 PDI-031SC-A-06-07-191017 13.06, Description: PDI-031SC-A-06-07-191017

1st Func. Penta-Furans

200314R3\_4

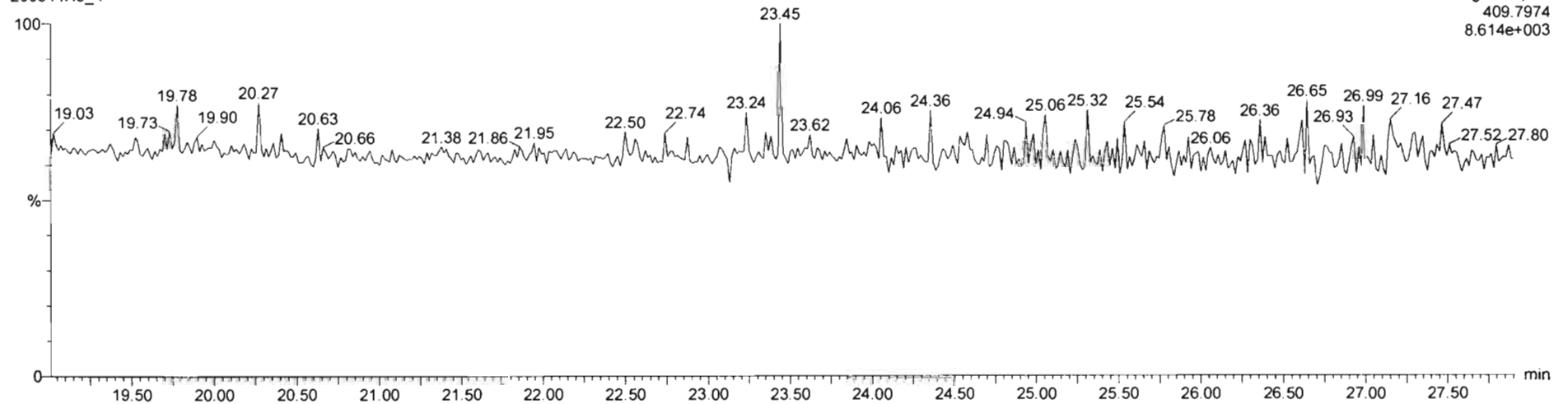


200314R3\_4



DPE6

200314R3\_4



Dataset: Untitled

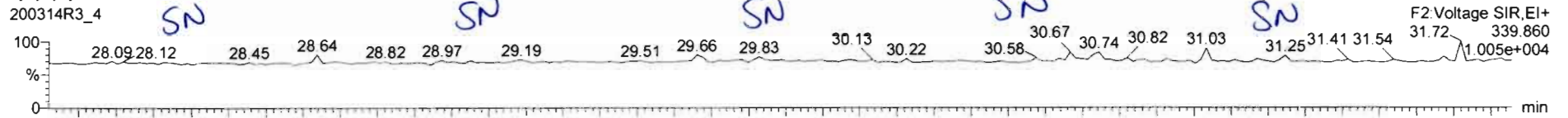
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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

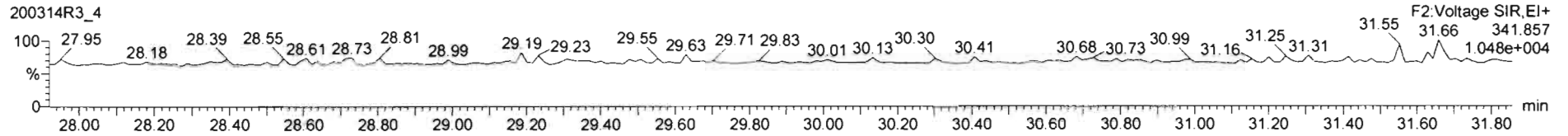
Name: 200314R3\_4, Date: 15-Mar-2020, Time: 01:41:27, ID: 2000411-08 PDI-031SC-A-06-07-191017 13.06, Description: PDI-031SC-A-06-07-191017

1,2,3,7,8-PeCDF

200314R3\_4

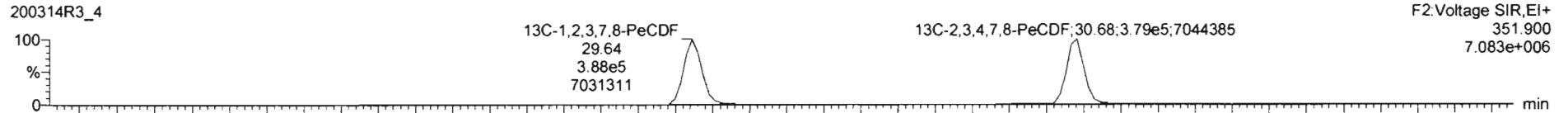


200314R3\_4

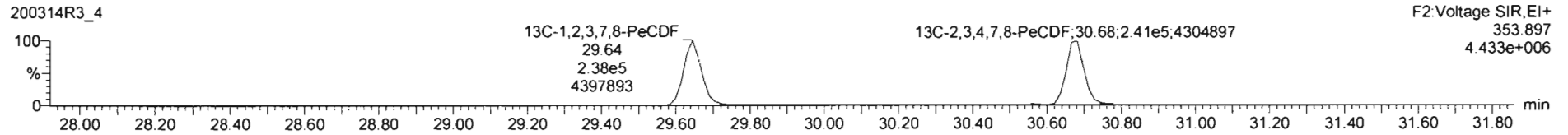


13C-1,2,3,7,8-PeCDF

200314R3\_4

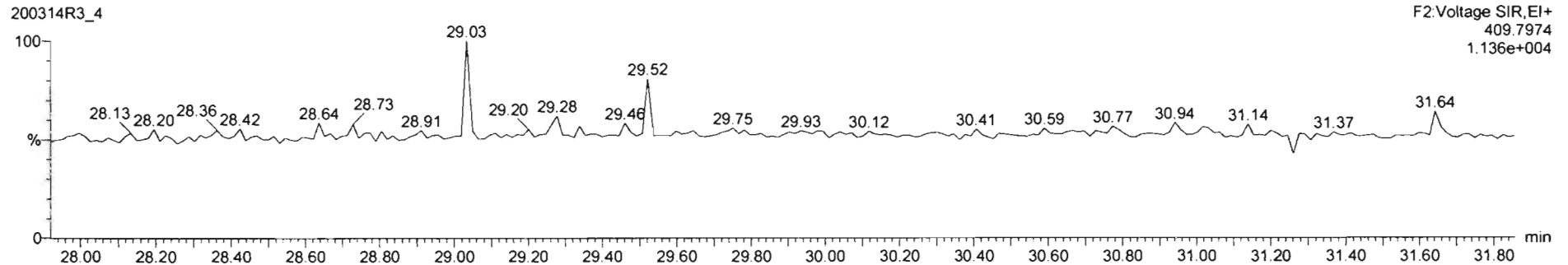


200314R3\_4



DPE2

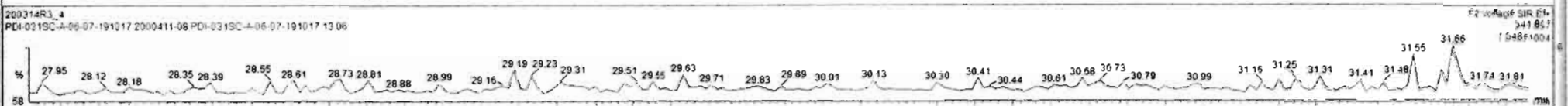
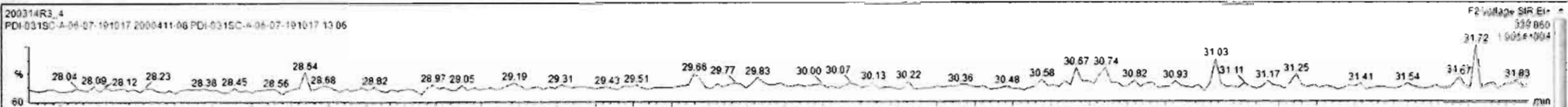
200314R3\_4



200314R3\_4 - 2000411-06 PDI-031SC-A-06-07-191017 13 06 - PDI-031SC-A-06-07-191017

Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9584	10.010				0.0405		
46 Total Hexa-Furans				1.0920	10.010				0.0311		

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1							



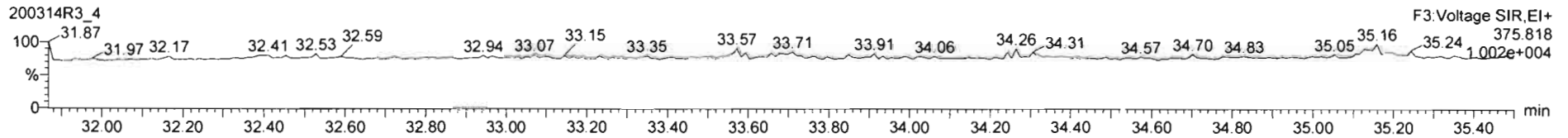
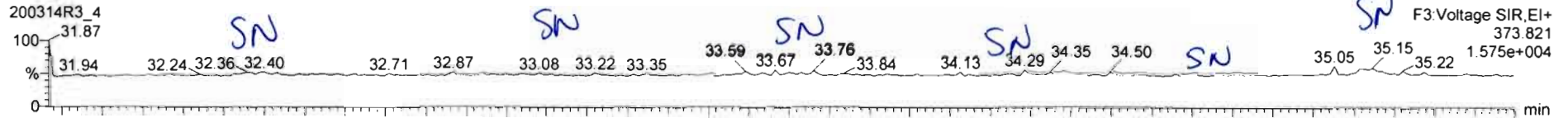
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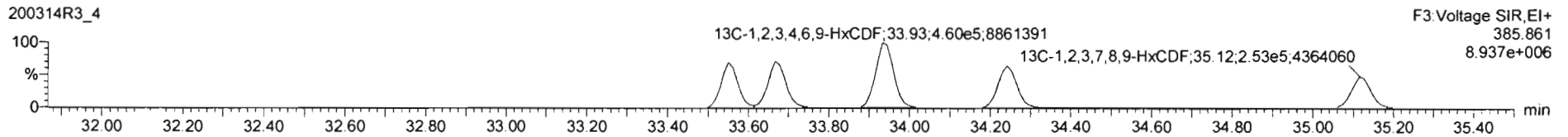
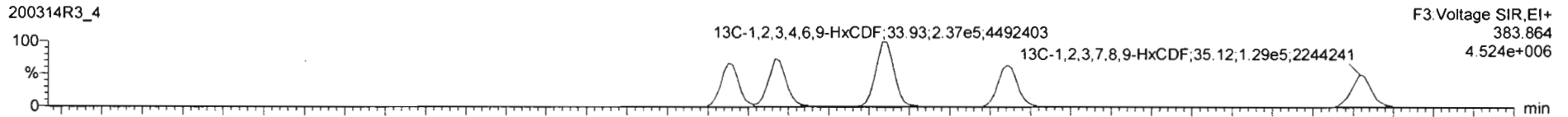
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Name: 200314R3\_4, Date: 15-Mar-2020, Time: 01:41:27, ID: 2000411-08 PDI-031SC-A-06-07-191017 13.06, Description: PDI-031SC-A-06-07-191017

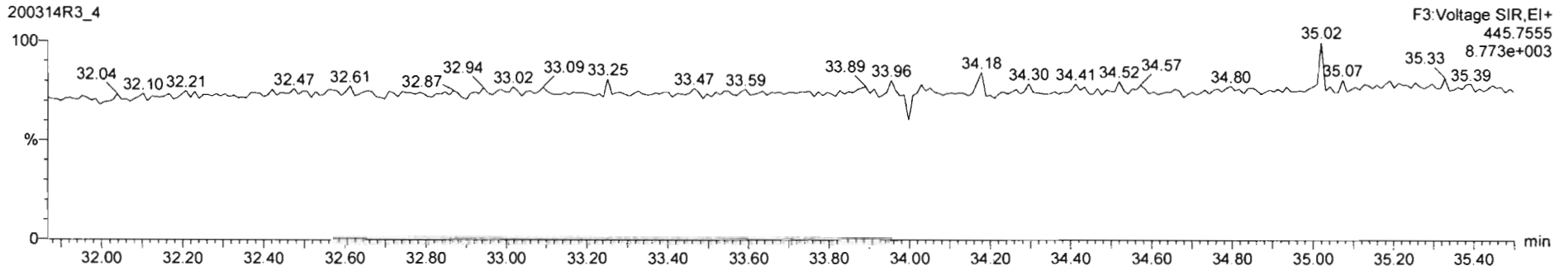
1,2,3,4,7,8-HxCDF



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

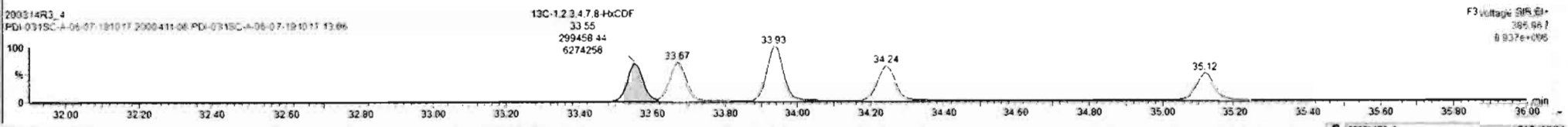
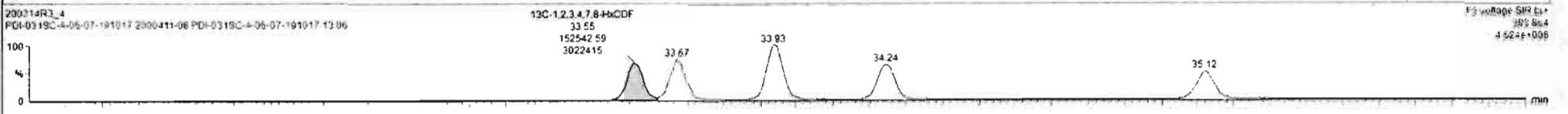
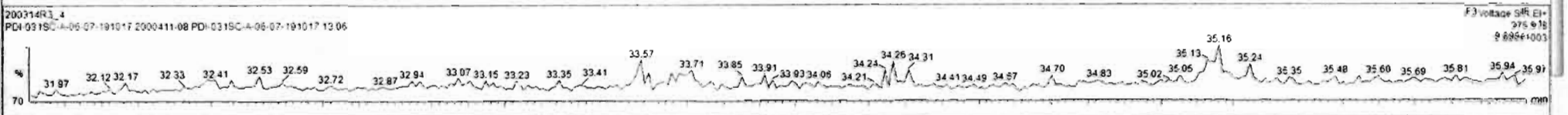
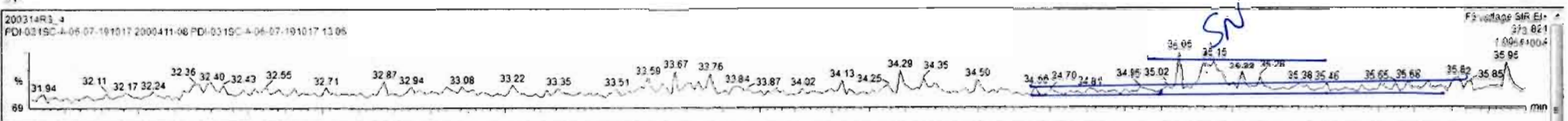


DPE3



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.010				0.0405		
48 Total Hexa-Furans				1.0920	10.010				0.0311		

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



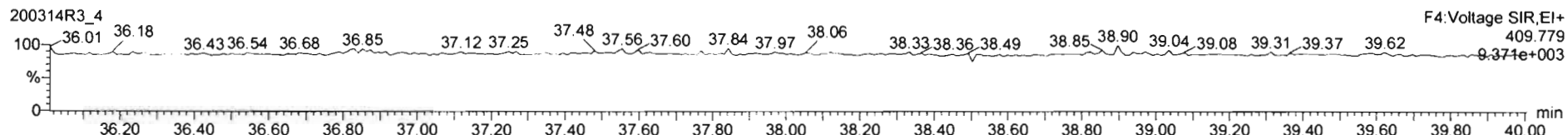
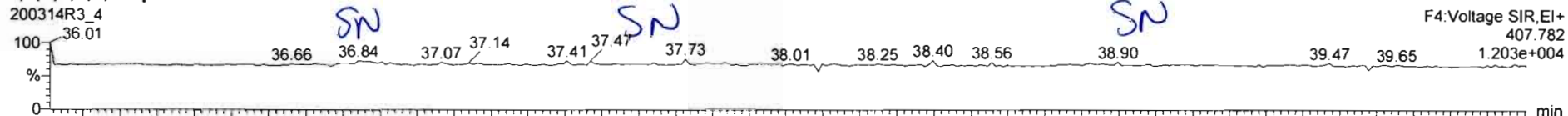
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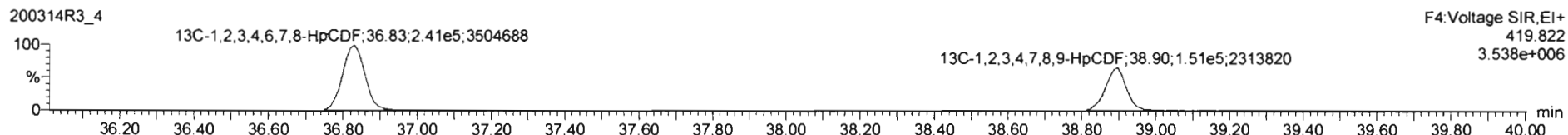
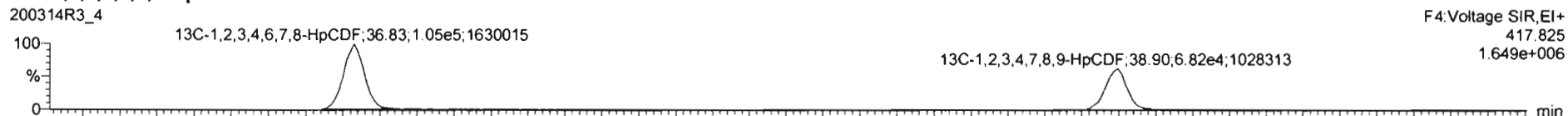
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Name: 200314R3\_4, Date: 15-Mar-2020, Time: 01:41:27, ID: 2000411-08 PDI-031SC-A-06-07-191017 13.06, Description: PDI-031SC-A-06-07-191017

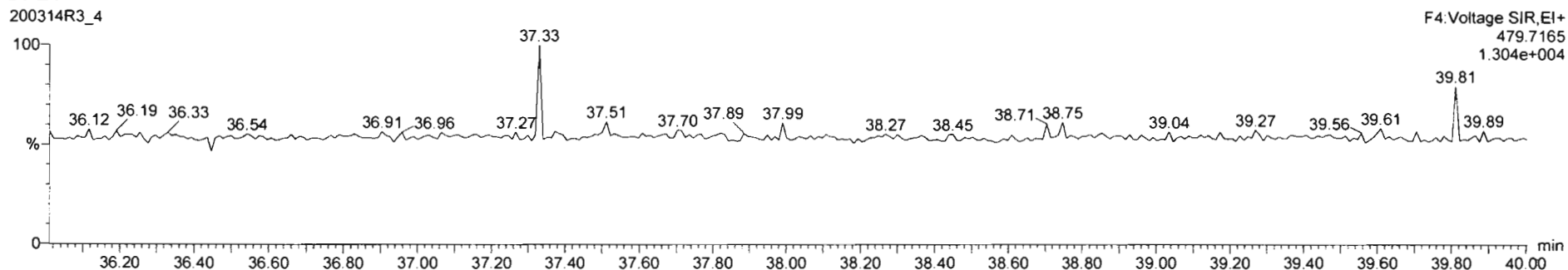
1,2,3,4,6,7,8-HpCDF



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



DPE4



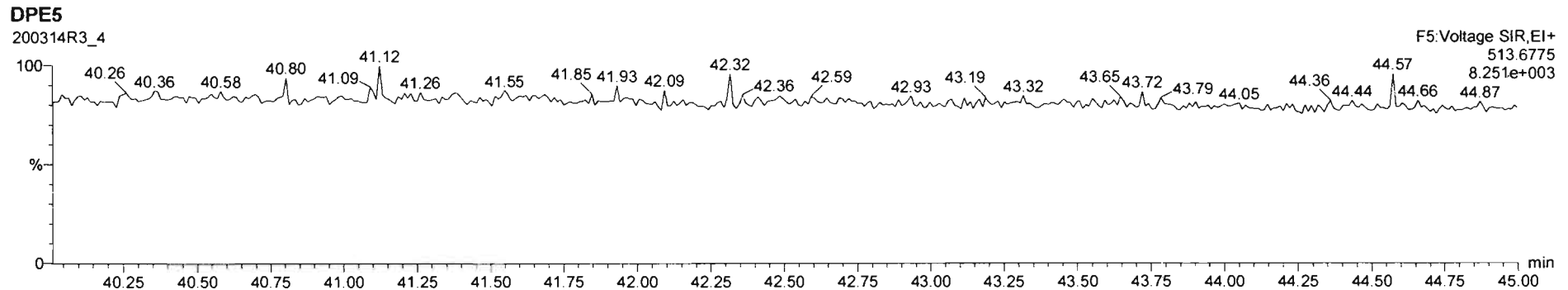
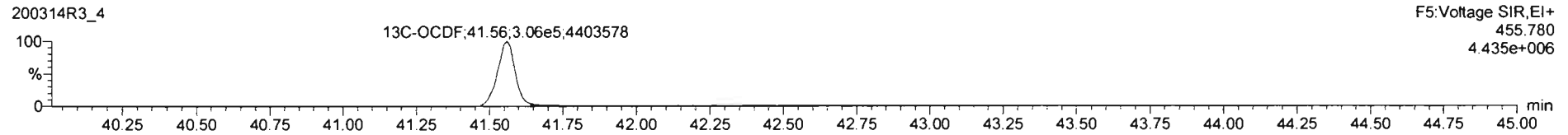
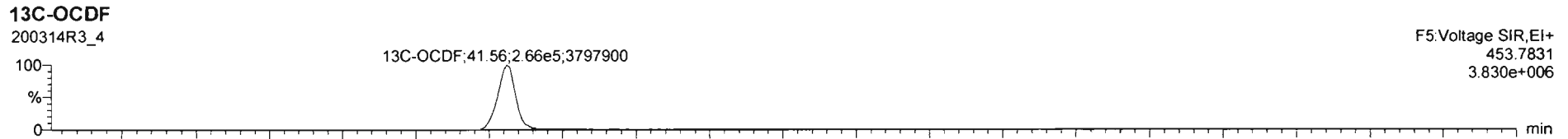
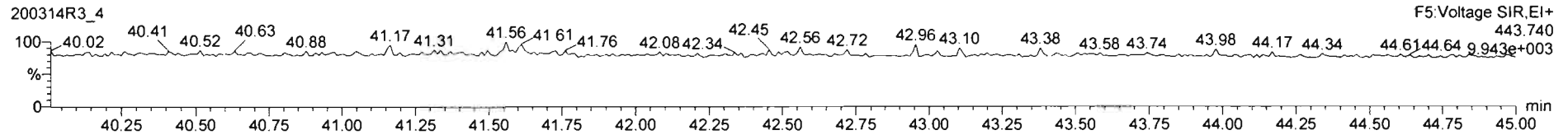
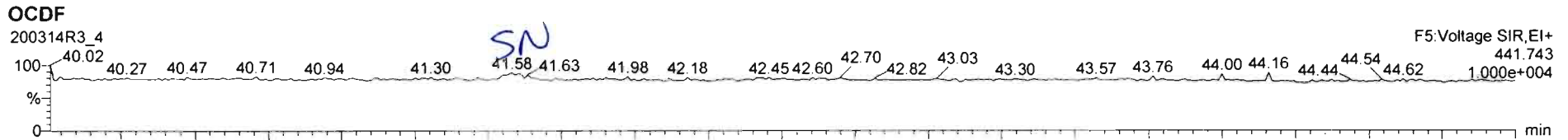


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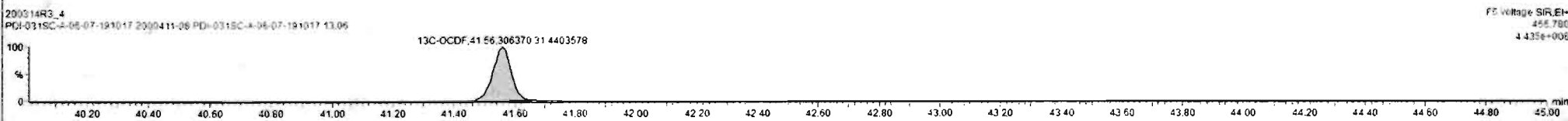
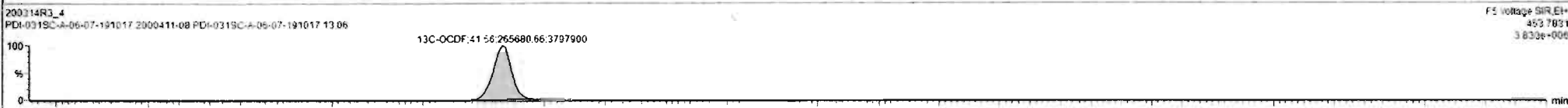
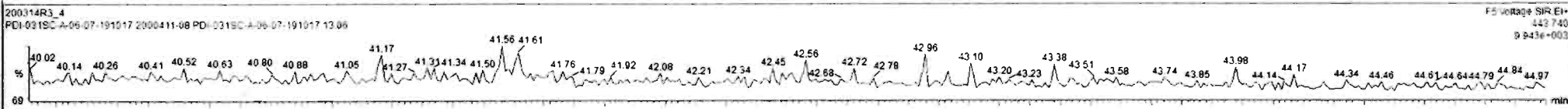
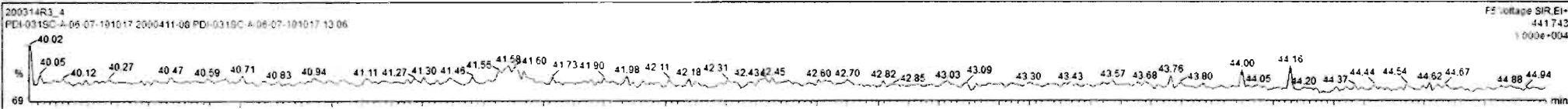
Name: 200314R3\_4, Date: 15-Mar-2020, Time: 01:41:27, ID: 2000411-08 PDI-031SC-A-06-07-191017 13.06, Description: PDI-031SC-A-06-07-191017



200314R3\_4 - 2000411-06 PDI-031SC-A-06-07-191017 13.06 - PDI-031SC-A-06-07-191017

Name	Resp	RA	nly	RRF	w/vol	RT	RRT	Conc	%Rec	Dt	EMPC
17	OCDF		NO	0.9468	10.010						
18	13C-2,3,7,8-TCDD	5.64e5	0.76	NO	1.1842	10.010	25.72	1.029	122	61.1	0.215

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1							

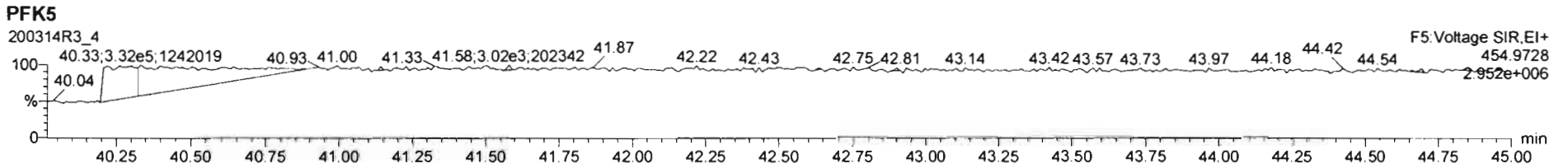
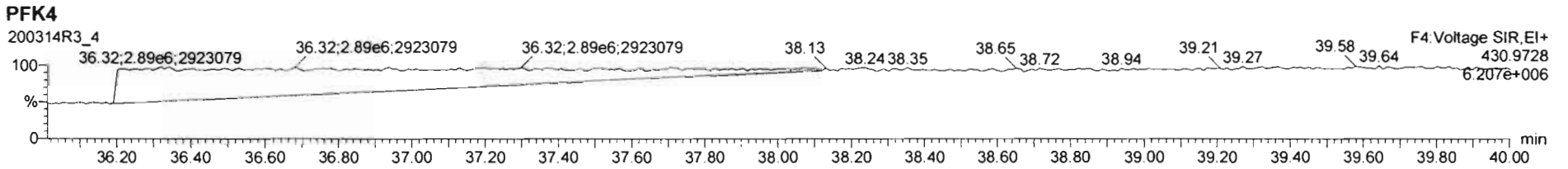
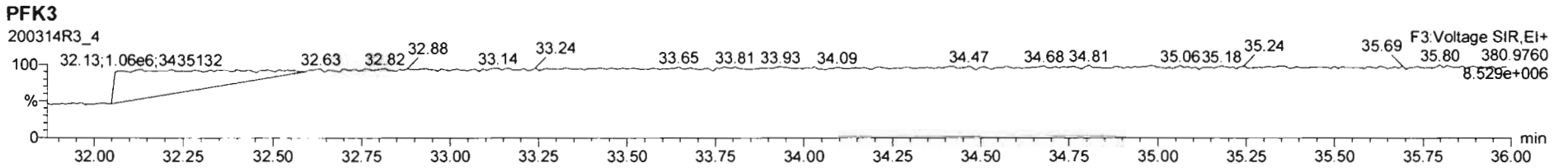
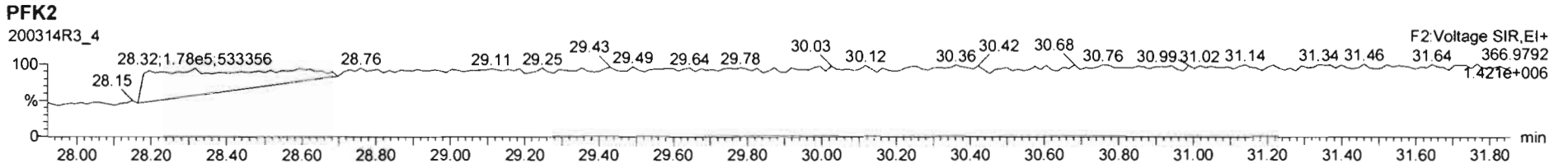
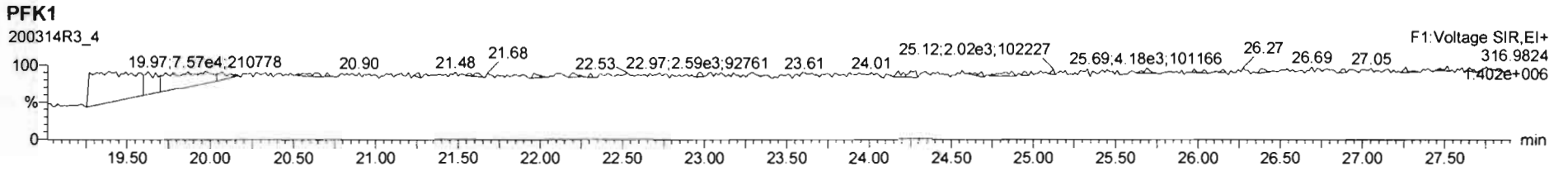


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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_4, Date: 15-Mar-2020, Time: 01:41:27, ID: 2000411-08 PDI-031SC-A-06-07-191017 13.06, Description: PDI-031SC-A-06-07-191017



Dataset: U:\VG12.PRO\Results\200314R3\200314R3-5.qld

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Printed: Sunday, March 15, 2020 2:44:48 PM Pacific Daylight Time

GRB 03/15/2020

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08  
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

*Handwritten signature*  
3/15/20

Name: 200314R3\_5, Date: 15-Mar-2020, Time: 02:29:01, ID: 2000411-09 PDI-034SC-A-04-05-191022 11.56, Description: PDI-034SC-A-04-05-191022

#	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	0.983	10.020	25.766		1.001				0.0608	
2	2 1,2,3,7,8-PeCDD			NO	0.921	10.020	31.025		1.001				0.0483	
3	3 1,2,3,4,7,8-HxCDD			NO	1.13	10.020	34.434		1.000				0.0414	
4	4 1,2,3,6,7,8-HxCDD			NO	0.984	10.020	34.520		1.000				0.0444	
5	5 1,2,3,7,8,9-HxCDD			NO	0.967	10.020	34.807		1.000				0.0505	
6	6 1,2,3,4,6,7,8-HpCDD	3.95e2	1.06	NO	1.01	10.020	38.269	38.27	1.000	1.000	0.17227		0.0847	0.172
7	7 OCDD	2.33e3	1.02	NO	1.05	10.020	41.410	41.42	1.000	1.000	0.96783		0.0875	0.968
8	8 2,3,7,8-TCDF			NO	0.915	10.020	24.772		1.001				0.0338	
9	9 1,2,3,7,8-PeCDF			NO	0.959	10.020	29.681		1.001				0.0375	
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.020	30.713		1.001				0.0336	
11	11 1,2,3,4,7,8-HxCDF			NO	1.04	10.020	33.561		1.000				0.0344	
12	12 1,2,3,6,7,8-HxCDF			NO	1.01	10.020	33.688		1.000				0.0345	
13	13 2,3,4,6,7,8-HxCDF			NO	1.09	10.020	34.287		1.001				0.0365	
14	14 1,2,3,7,8,9-HxCDF	1.70e2	1.63	YES	1.03	10.020	35.127	35.14	1.000	1.000	0.046556		0.0302	0.0396
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.05	10.020	36.868		1.001				0.0391	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.020	38.918		1.000				0.0521	
17	17 OCDF			NO	0.947	10.020	41.581		1.000				0.0658	
18	18 13C-2,3,7,8-TCDD	1.12e6	0.77	NO	1.18	10.020	25.735	25.74	1.029	1.029	225.72	113	0.227	
19	19 13C-1,2,3,7,8-PeCDD	8.98e5	0.63	NO	0.864	10.020	30.919	31.00	1.236	1.239	247.95	124	0.241	
20	20 13C-1,2,3,4,7,8-HxCDD	6.32e5	1.27	NO	0.754	10.020	34.416	34.42	1.014	1.014	202.78	102	0.356	
21	21 13C-1,2,3,6,7,8-HxCDD	7.56e5	1.28	NO	0.925	10.020	34.524	34.52	1.017	1.017	197.57	99.0	0.290	
22	22 13C-1,2,3,7,8,9-HxCDD	6.80e5	1.22	NO	0.829	10.020	34.786	34.80	1.025	1.025	198.13	99.3	0.324	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.54e5	1.07	NO	0.598	10.020	38.241	38.26	1.127	1.127	183.64	92.0	0.391	
24	24 13C-OCDD	9.14e5	0.90	NO	0.571	10.020	41.388	41.41	1.219	1.220	387.13	97.0	0.400	
25	25 13C-2,3,7,8-TCDF	1.52e6	0.76	NO	1.09	10.020	24.757	24.75	0.990	0.989	214.51	107	0.353	
26	26 13C-1,2,3,7,8-PeCDF	1.27e6	1.59	NO	0.876	10.020	29.590	29.66	1.183	1.186	222.34	111	0.547	
27	27 13C-2,3,4,7,8-PeCDF	1.25e6	1.54	NO	0.844	10.020	30.601	30.68	1.223	1.226	227.40	114	0.568	
28	28 13C-1,2,3,4,7,8-HxCDF	8.91e5	0.51	NO	1.00	10.020	33.564	33.56	0.989	0.989	215.27	108	0.396	
29	29 13C-1,2,3,6,7,8-HxCDF	9.52e5	0.52	NO	1.12	10.020	33.672	33.68	0.992	0.992	205.84	103	0.354	
30	30 13C-2,3,4,6,7,8-HxCDF	8.62e5	0.52	NO	1.04	10.020	34.253	34.25	1.009	1.009	201.42	101	0.383	
31	31 13C-1,2,3,7,8,9-HxCDF	7.08e5	0.52	NO	0.873	10.020	35.125	35.13	1.035	1.035	196.02	98.2	0.454	

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-5.qld

Last Altered: Sunday, March 15, 2020 2:44:05 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 2:44:48 PM Pacific Daylight Time

Name: 200314R3\_5, Date: 15-Mar-2020, Time: 02:29:01, ID: 2000411-09 PDI-034SC-A-04-05-191022 11.56, Description: PDI-034SC-A-04-05-191022

#	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	5.83e5	0.44	NO	0.771	10.020	36.839	36.83	1.085	1.085	183.02	91.7	0.374	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.81e5	0.43	NO	0.519	10.020	38.924	38.92	1.147	1.147	177.62	89.0	0.555	
34	34 13C-OCDF	1.12e6	0.89	NO	0.696	10.020	41.568	41.58	1.225	1.225	390.42	97.8	0.296	
35	35 37Cl-2,3,7,8-TCDD	3.70e5			1.17	10.020	25.745	25.75	1.029	1.029	75.229	94.2	0.0470	
36	36 13C-1,2,3,4-TCDD	8.37e5	0.79	NO	1.00	10.020	25.050	25.02	1.000	1.000	199.60	100	0.269	
37	37 13C-1,2,3,4-TCDF	1.30e6	0.79	NO	1.00	10.020	23.190	23.09	1.000	1.000	199.60	100	0.385	
38	38 13C-1,2,3,4,6,9-HxCDF	8.26e5	0.51	NO	1.00	10.020	33.880	33.94	1.000	1.000	199.60	100	0.396	
39	39 Total Tetra-Dioxins				0.983	10.020	24.620		0.000				0.0385	
40	40 Total Penta-Dioxins				0.921	10.020	29.960		0.000				0.0186	
41	41 Total Hexa-Dioxins				0.984	10.020	33.635		0.000		0.13900		0.0471	0.139
42	42 Total Hepta-Dioxins				1.01	10.020	37.640		0.000		0.17227		0.0847	0.420
43	43 Total Tetra-Furans				0.915	10.020	23.610		0.000				0.0150	
44	44 1st Func. Penta-Furans				0.959	10.020	27.090		0.000				0.00818	
45	45 Total Penta-Furans				0.959	10.020	29.275		0.000				0.0172	
46	46 Total Hexa-Furans				1.09	10.020	33.555		0.000		0.00000		0.0210	0.0612
47	47 Total Hepta-Furans				1.05	10.020	37.835		0.000				0.0215	

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-5.qld

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Name: 200314R3\_5, Date: 15-Mar-2020, Time: 02:29:01, ID: 2000411-09 PDI-034SC-A-04-05-191022 11.56, Description: PDI-034SC-A-04-05-191022

**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	Total Hexa-Dioxins	32.94	5.695e3	4.886e3	2.627e2	2.099e2	1.25	NO	4.726e2	0.13900	0.13900	0.0471

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.25	7.644e3	4.881e3	3.353e2	2.782e2	1.21	YES	0.000e0	0.00000	0.24780	0.0847
2	1,2,3,4,6,7,8-HpCDD	38.27	3.651e3	3.065e3	2.031e2	1.914e2	1.06	NO	3.945e2	0.17227	0.17227	0.0847

**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												

**Quantify Totals Report MassLynx 4.1 SCN815**

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-5.qld

Last Altered: Sunday, March 15, 2020 2:44:05 PM Pacific Daylight Time

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**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	1,2,3,7,8,9-HxCDF	35.14	3.123e3	1.982e3	1.051e2	6.444e1	1.63	YES	1.695e2	0.00000	0.039642	0.0302
2	Total Hexa-Furans	35.16	3.135e3	2.377e3	7.344e1	4.496e1	1.63	YES	0.000e0	0.00000	0.021580	0.0210

**Hepta-Furans**

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

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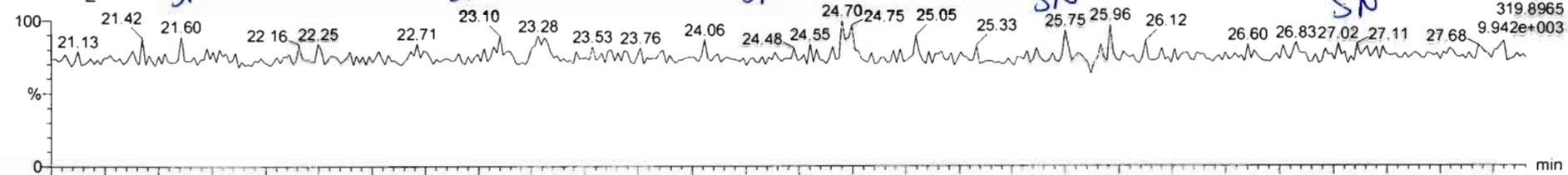
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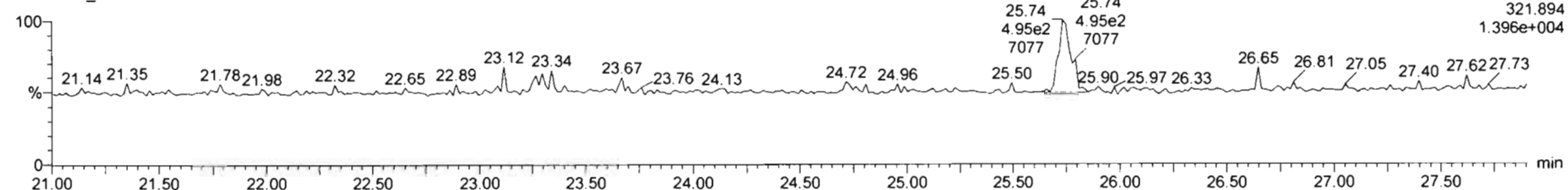
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2,3,7,8-TCDD

200314R3\_5

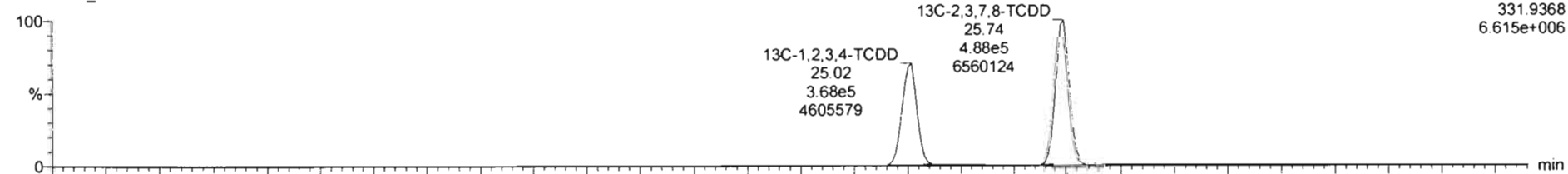


200314R3\_5

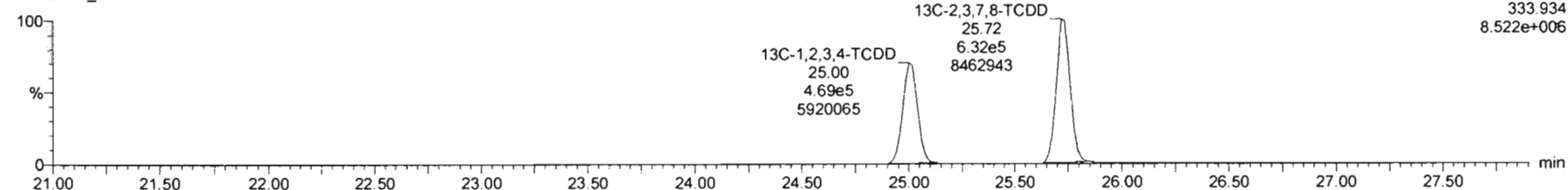


13C-2,3,7,8-TCDD

200314R3\_5



200314R3\_5





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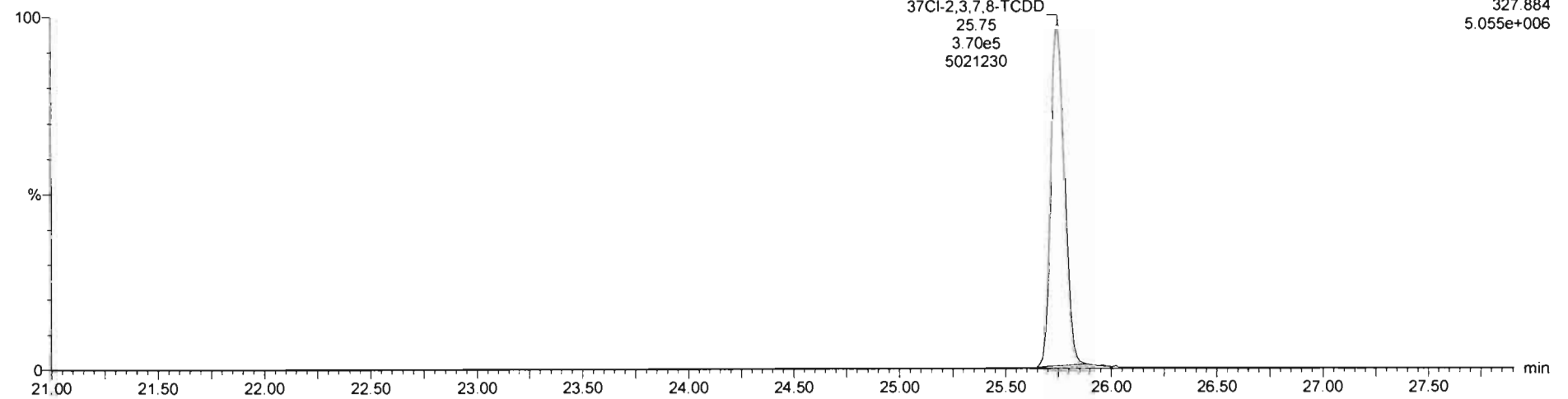
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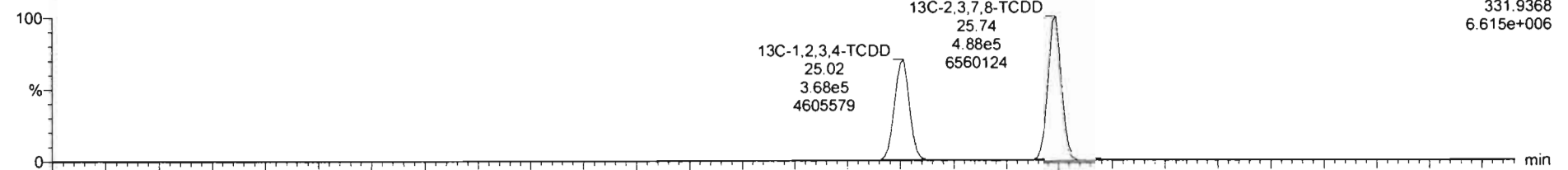
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200314R3\_5

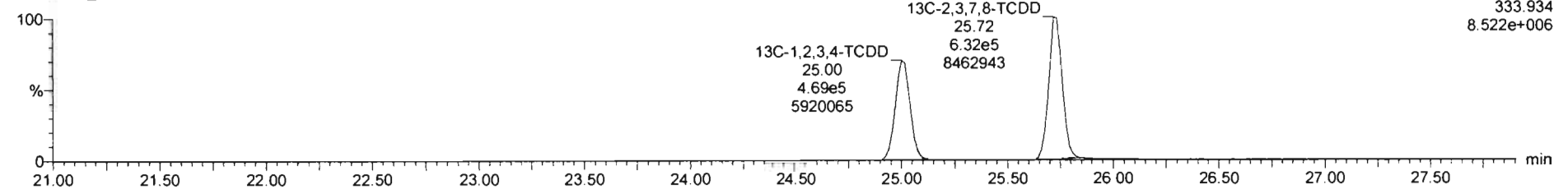


13C-1,2,3,4-TCDD

200314R3\_5



200314R3\_5



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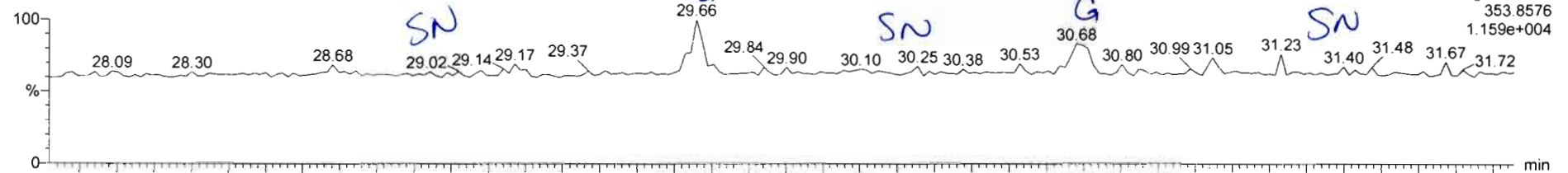
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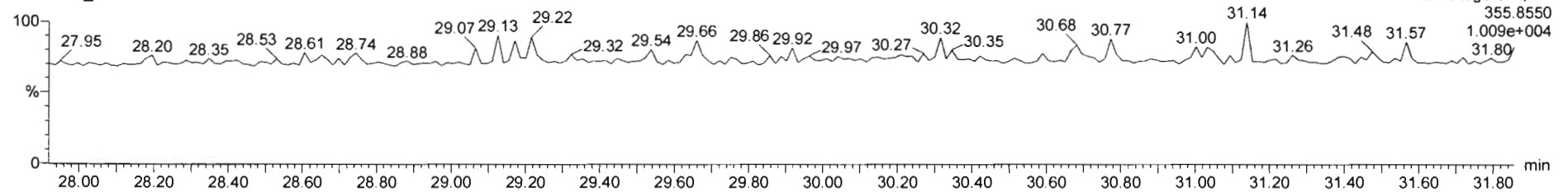
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1,2,3,7,8-PeCDD

200314R3\_5

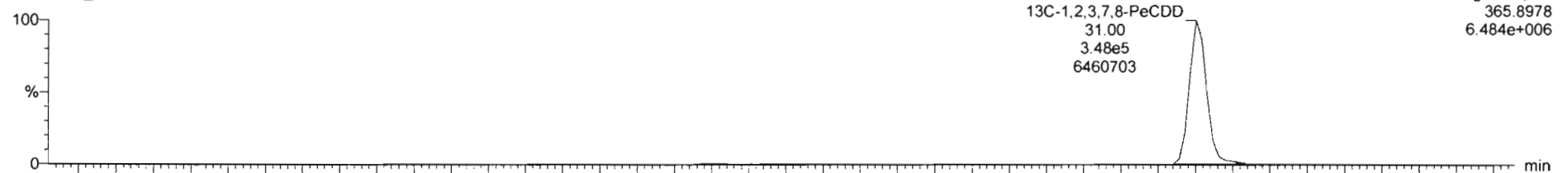


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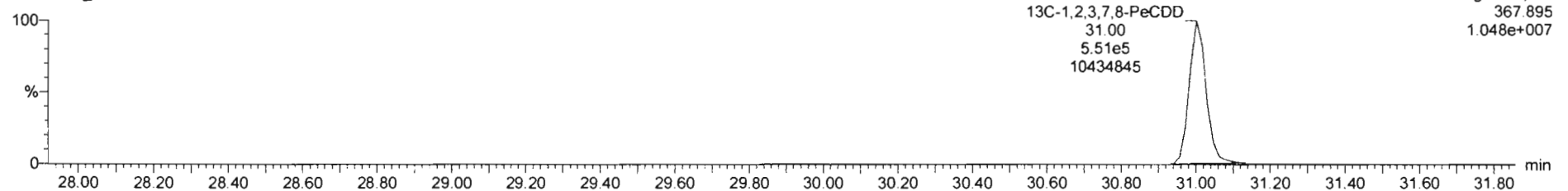


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200314R3\_5



200314R3\_5



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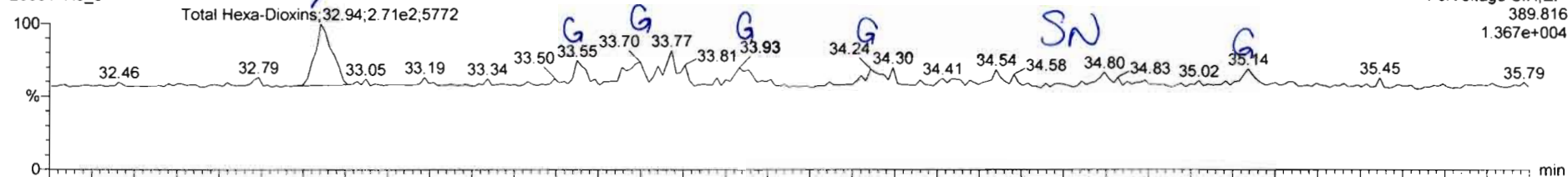
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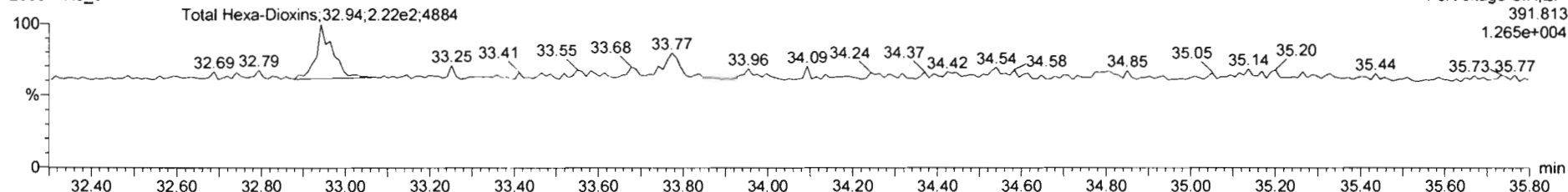
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1,2,3,4,7,8-HxCDD

200314R3\_5

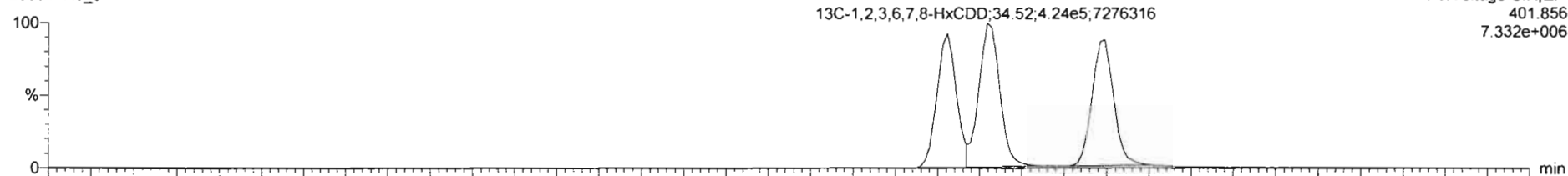


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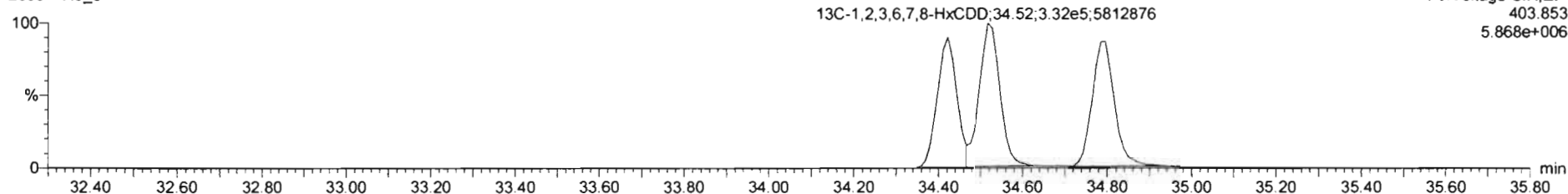


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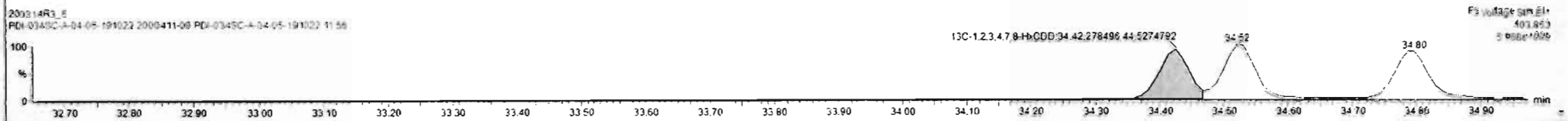
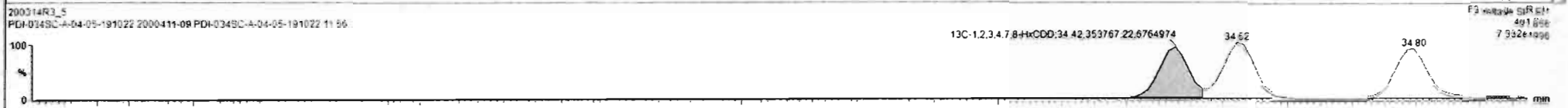
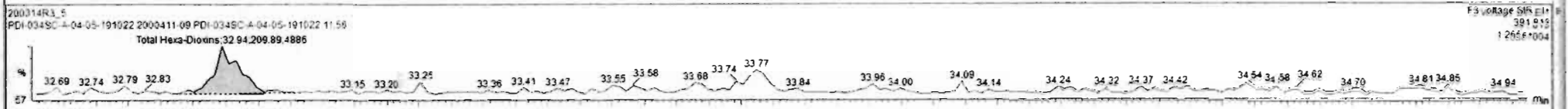
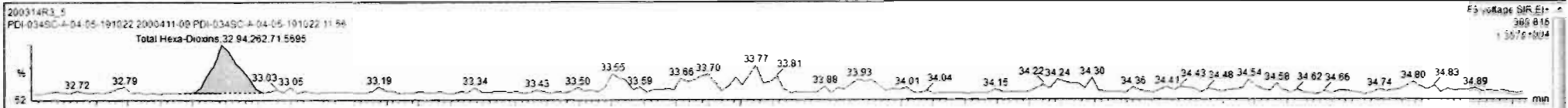
200314R3\_5



200314R3\_5 - 2000411-09 PDI-034SC-A-04-05-191022 11:56 - PDI-034SC-A-04-05-191022

#1	Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
41	Total Hexa-Dioxins				0.9844	10.020			0.130	0.0471	0.138	
42	Total Hepta-Dioxins				1.0061	10.020			0.266	0.0847	0.286	

#1	Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1	Total Hexa-Dioxins	32.94	2.627e2	2.059e2	1.25	NO	0.13500	0.13500



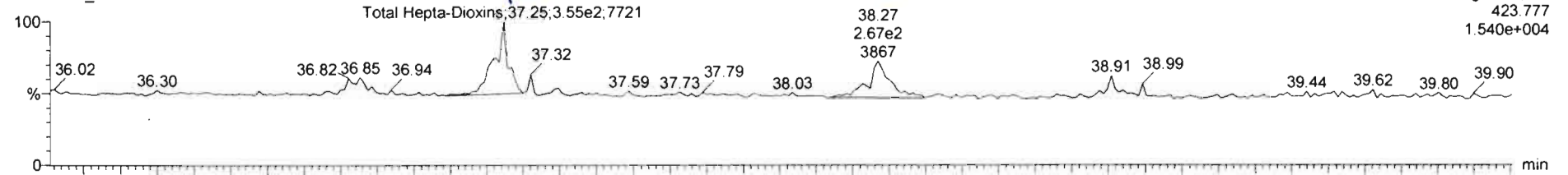
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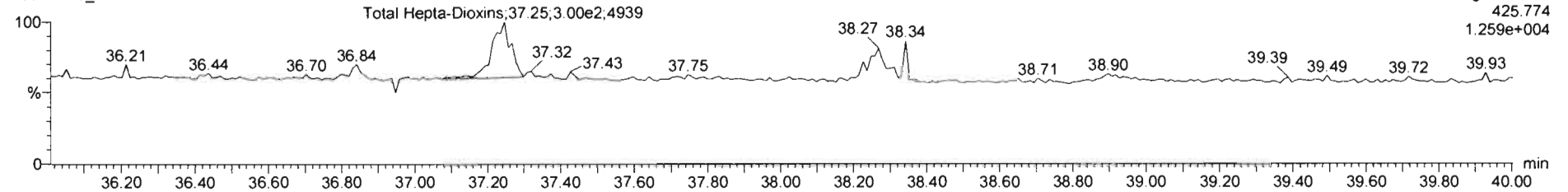
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1,2,3,4,6,7,8-HpCDD

200314R3\_5

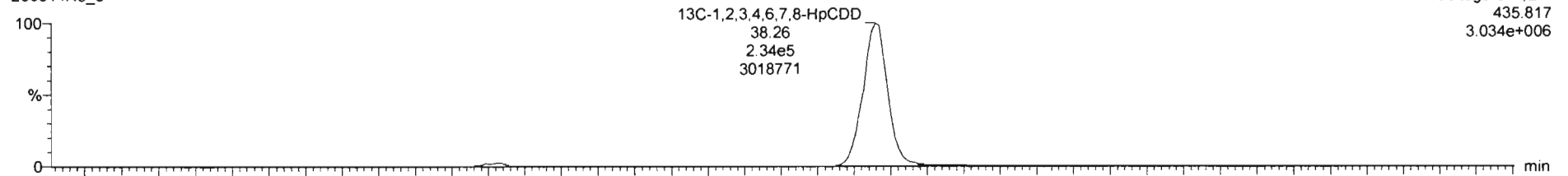


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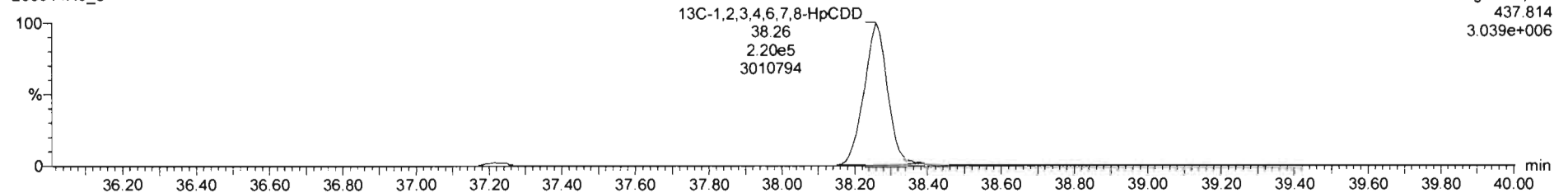


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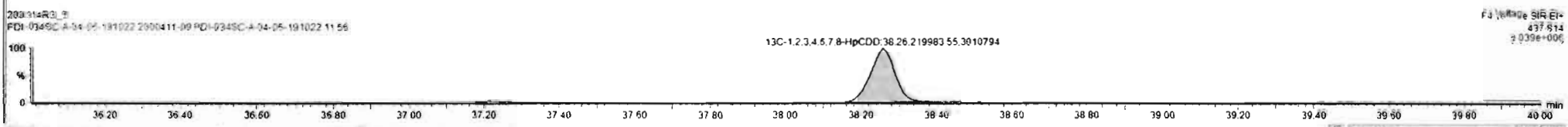
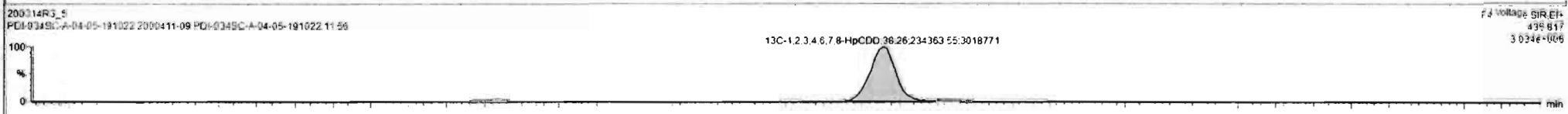
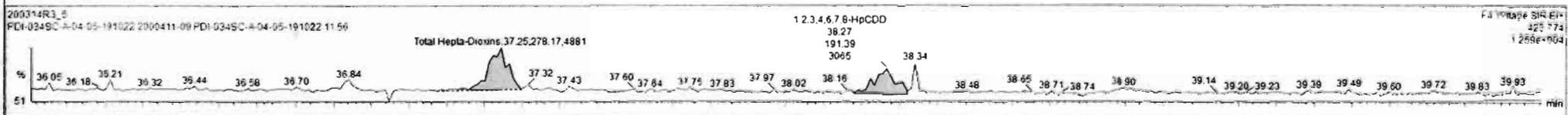
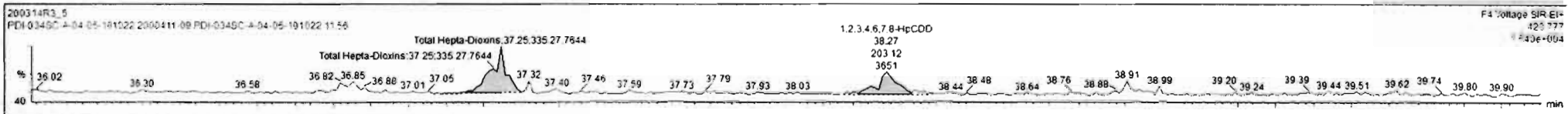


200314R3\_5



Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
41 Total Hexa-Dioxins				0.9844	10.020			0.135		0.0471	0.136
42 Total Hepta-Dioxins				1.0061	10.020			0.172		0.0647	0.420

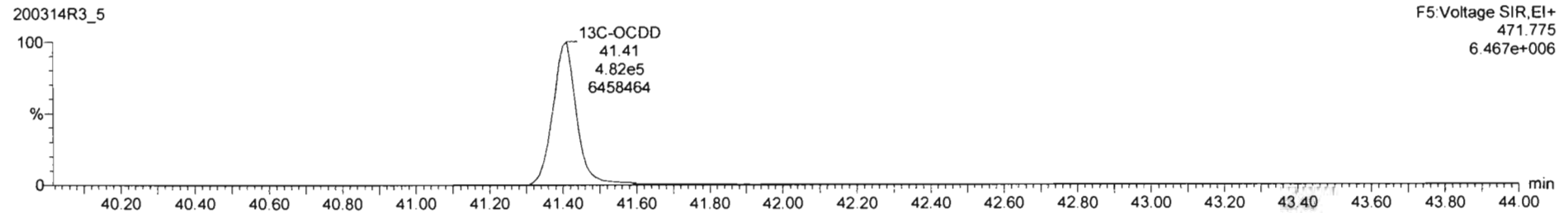
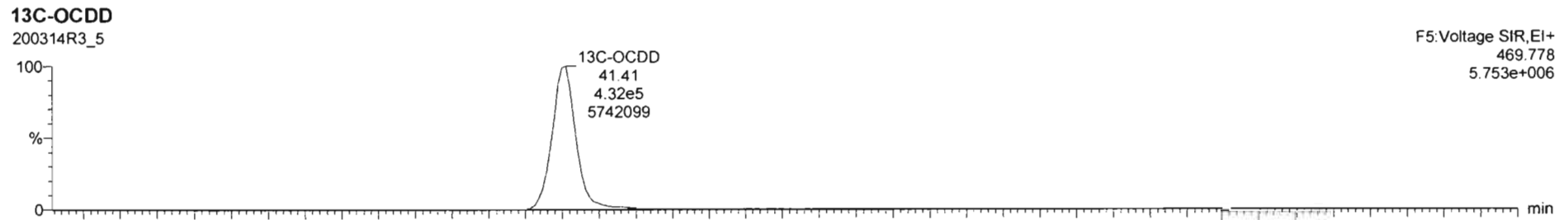
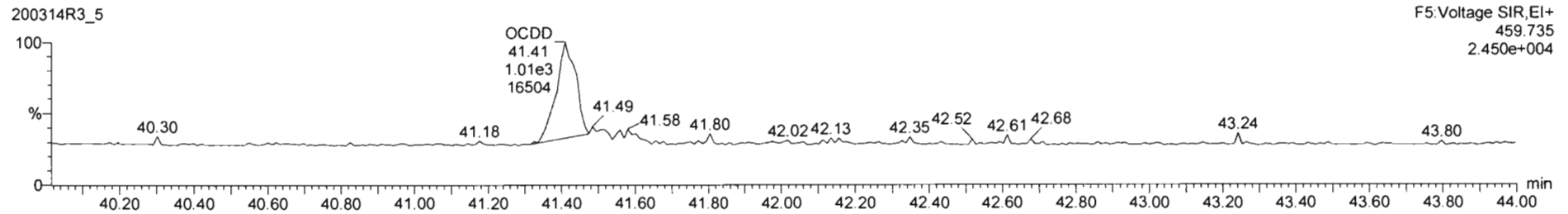
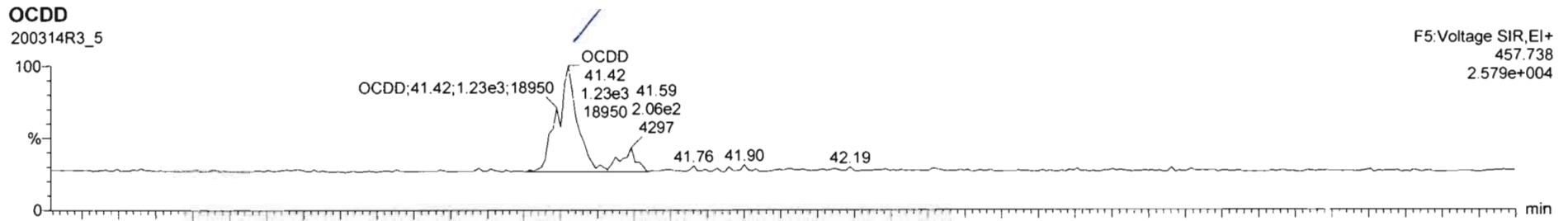
Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1 Total Hepta-Dioxins	37.25	3.353e2	2.782e2	1.21	YES	0.24760	0.00000
2 1,2,3,4,6,7,8-HpCDD	38.27	2.031e2	1.914e2	1.06	NO	0.17227	0.17227



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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

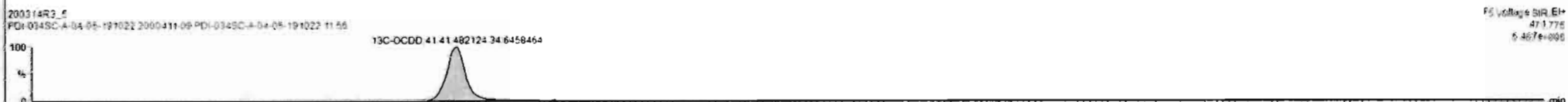
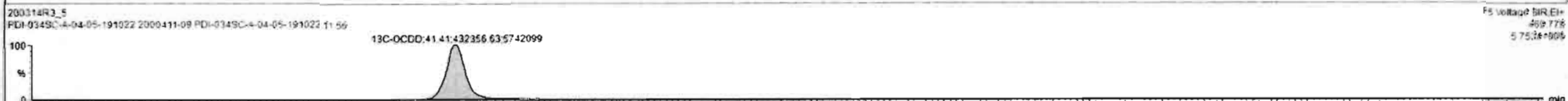
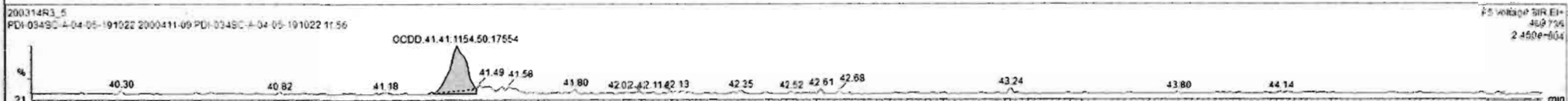
Name: 200314R3\_5, Date: 15-Mar-2020, Time: 02:29:01, ID: 2000411-09 PDI-034SC-A-04-05-191022 11.56, Description: PDI-034SC-A-04-05-191022



200314R3\_5 2000411.09 PDI-034SC-A-04-05-191022 11:56 PDI-034SC-A-04-05-191022

#	Name	Resp	RA	n/y	RRF	w%vol	RT	RRT	Conc	%Rec	DL	EMPC
7	OCDD	2.33e3	1.02	NO	1.0515	10.020	41.42	1.000	0.968		0.0675	0.968
8	2,2,7,8-TCDF			NO	0.9154	10.020					0.0338	

#	Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1								



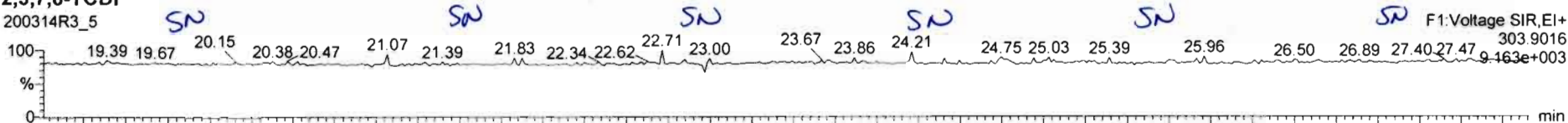


Dataset: Untitled

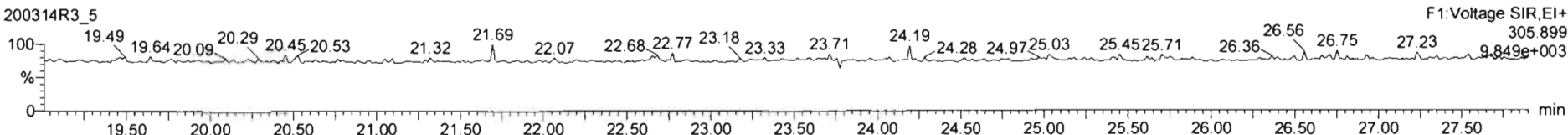
Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_5, Date: 15-Mar-2020, Time: 02:29:01, ID: 2000411-09 PDI-034SC-A-04-05-191022 11.56, Description: PDI-034SC-A-04-05-191022

**2,3,7,8-TCDF**  
200314R3\_5

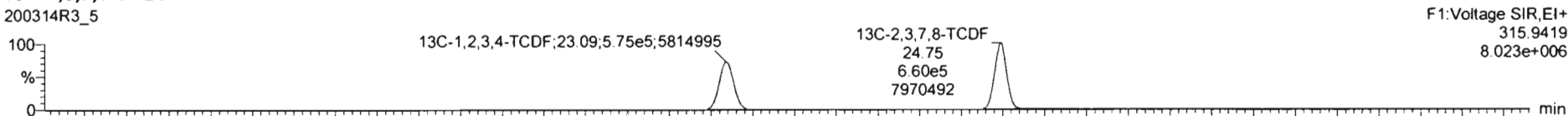


200314R3\_5

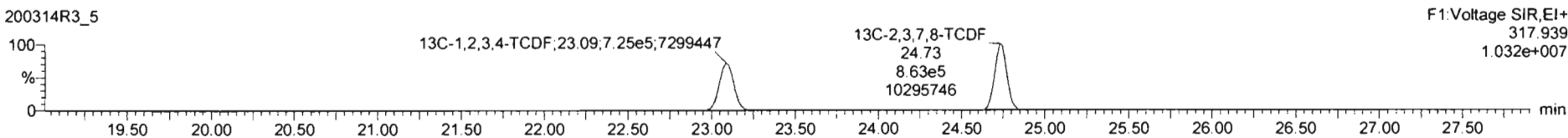


**13C-2,3,7,8-TCDF**

200314R3\_5

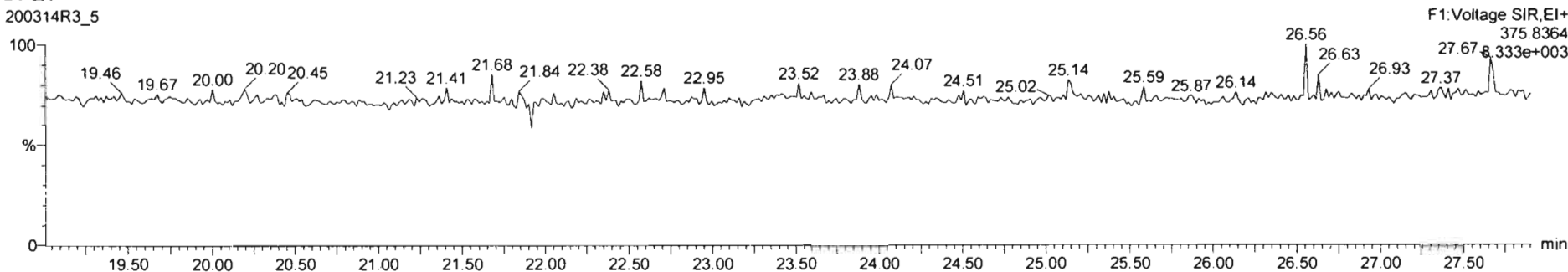


200314R3\_5



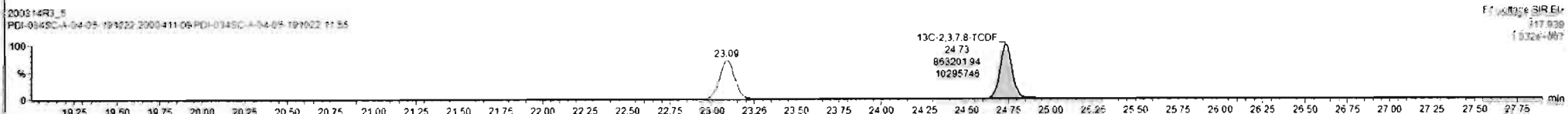
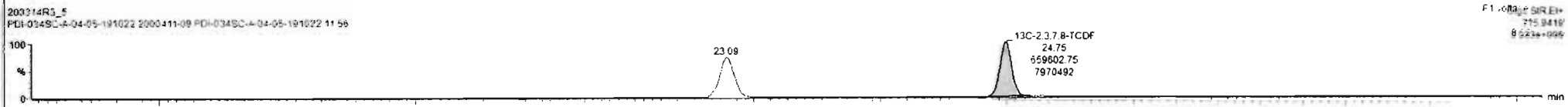
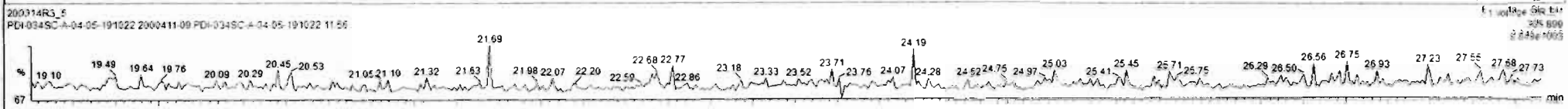
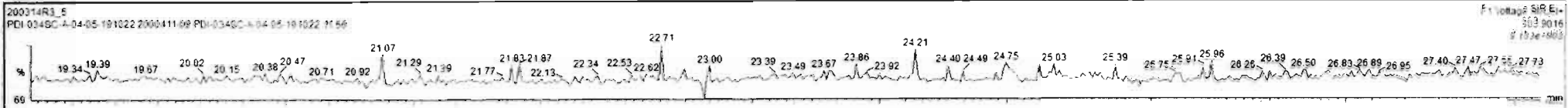
**DPE1**

200314R3\_5



SI	Name	Resp	RA	n/y	RRF	w/Vol	RT	RRT	Conc	%Rec	DL	EMPC
43	Total Tetra-Furans				0.9154	10.020					0.0150	
44	1st Func. Penta-Furans				0.8594	10.020					0.06818	

SI	Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1								

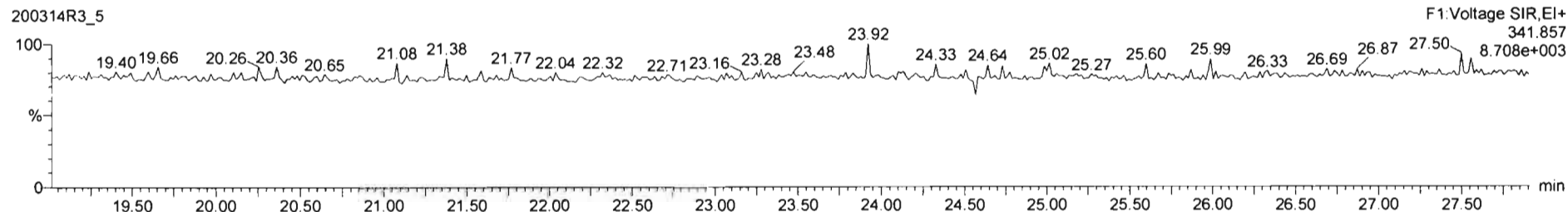
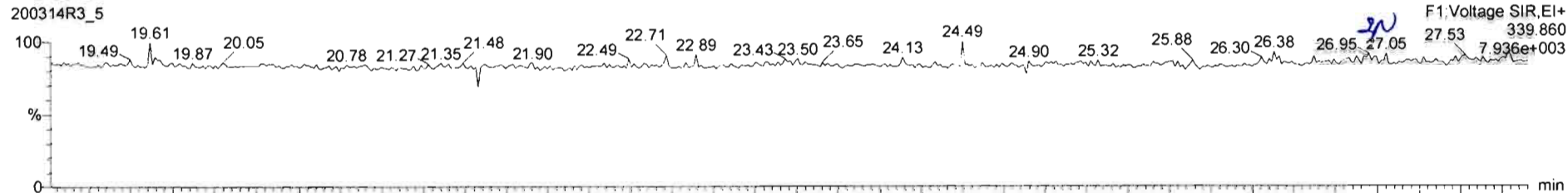


Dataset: Untitled

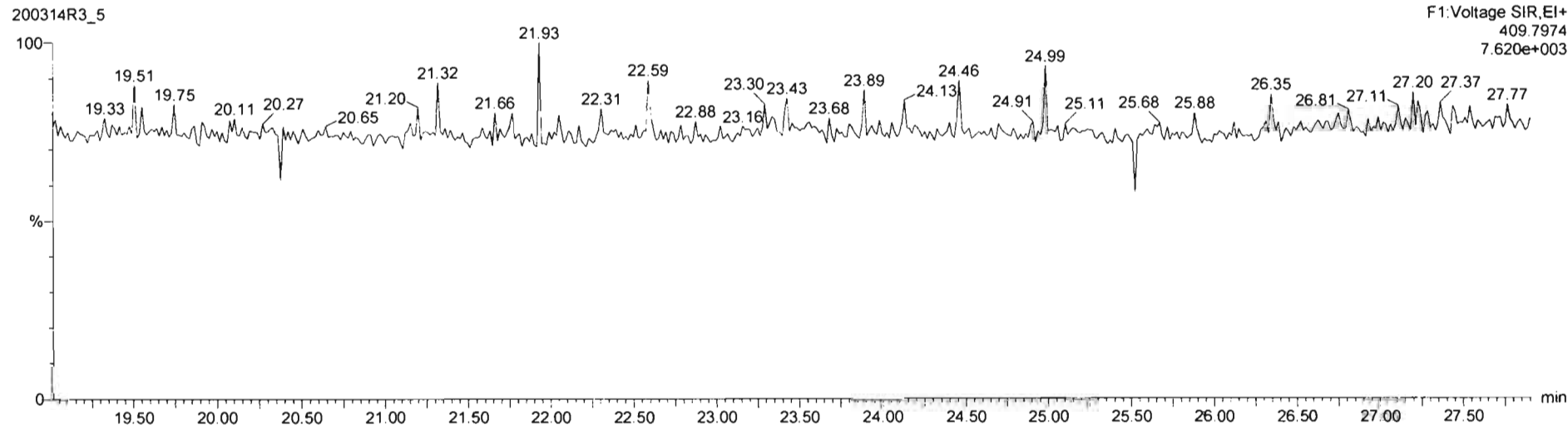
Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_5, Date: 15-Mar-2020, Time: 02:29:01, ID: 2000411-09 PDI-034SC-A-04-05-191022 11.56, Description: PDI-034SC-A-04-05-191022

1st Func. Penta-Furans



DPE6



Dataset: Untitled

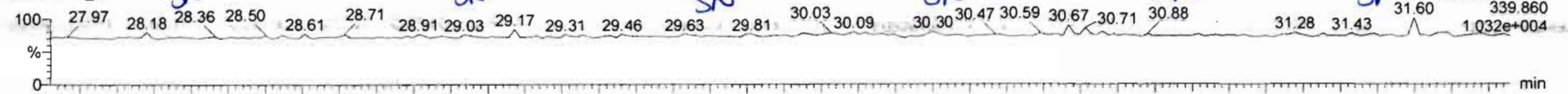
Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time

Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

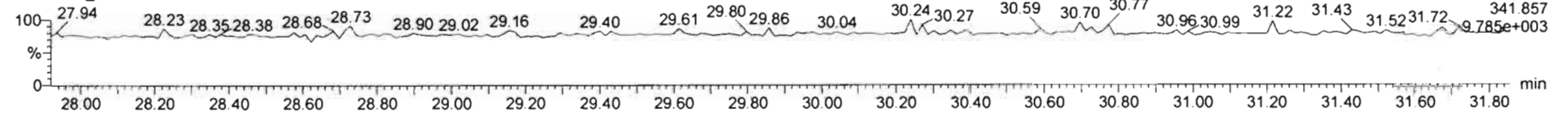
Name: 200314R3\_5, Date: 15-Mar-2020, Time: 02:29:01, ID: 2000411-09 PDI-034SC-A-04-05-191022 11:56, Description: PDI-034SC-A-04-05-191022

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

200314R3\_5

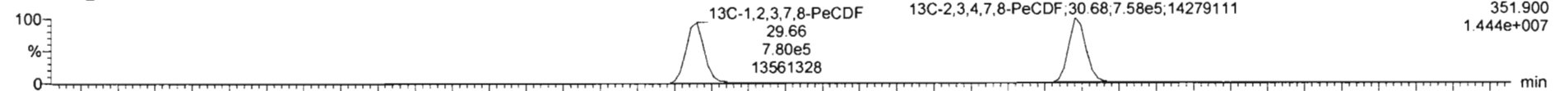


200314R3\_5

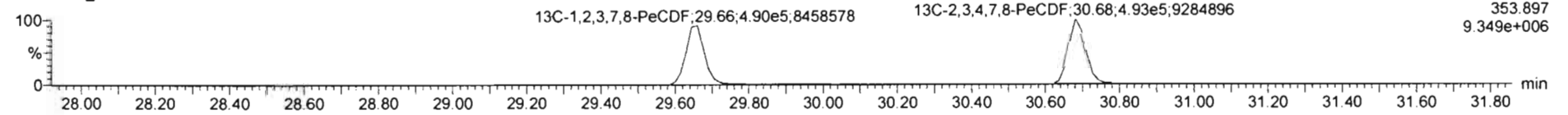


**13C-1,2,3,7,8-PeCDF**

200314R3\_5

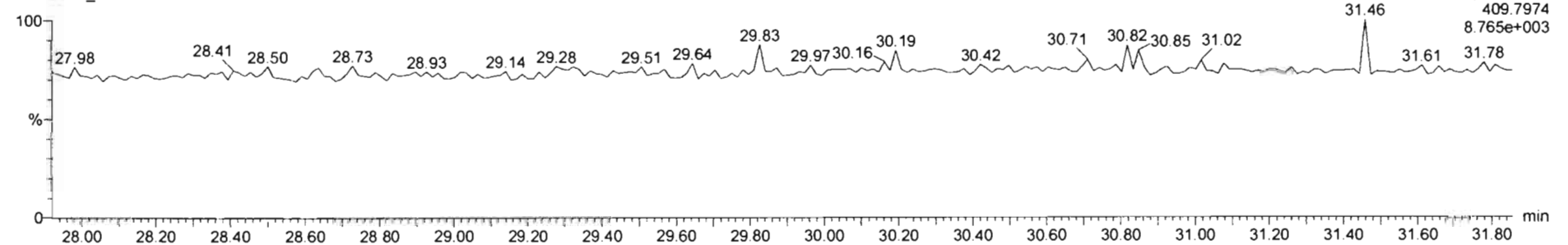


200314R3\_5



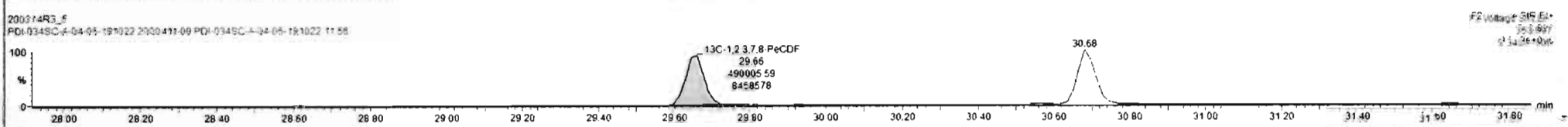
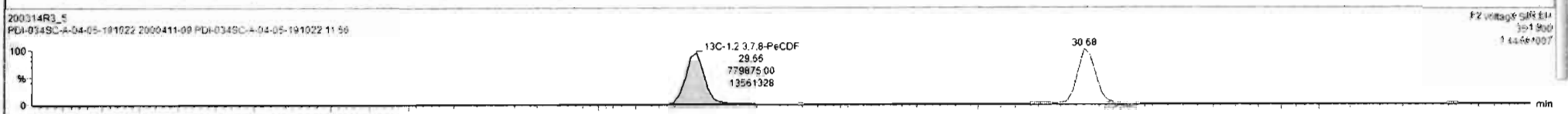
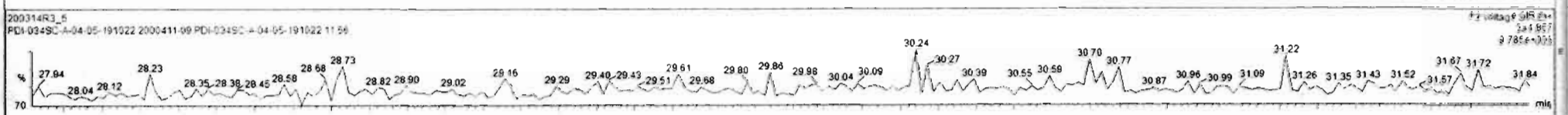
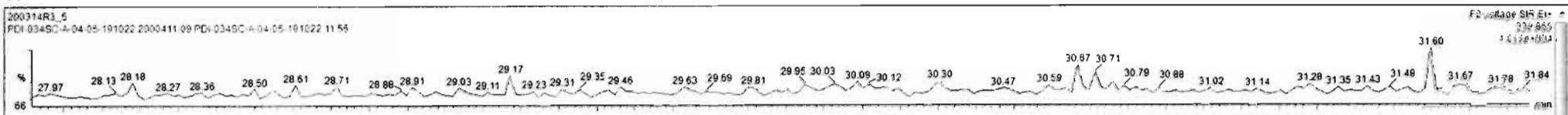
**DPE2**

200314R3\_5



SI	Name	Resp	RA	nly	RRF	wt/mol	RT	RRT	Coec	%Rec	DL	EMPC
45	Total Penta-Furans				0.9584	10.020				0.0172		
46	Total Hexa-Furans				1.0520	10.020				0.0210		

SI	Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Coec
1								



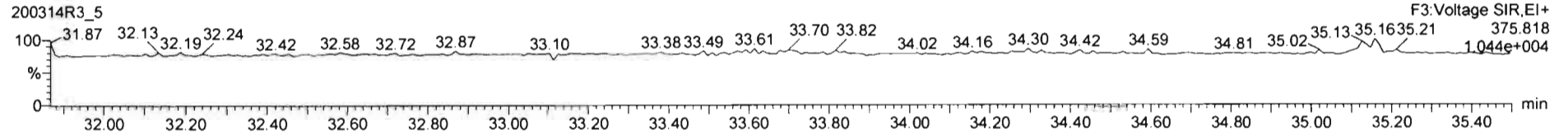
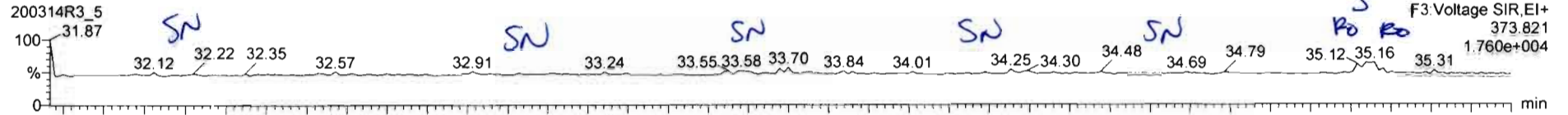
Dataset: Untitled

Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time

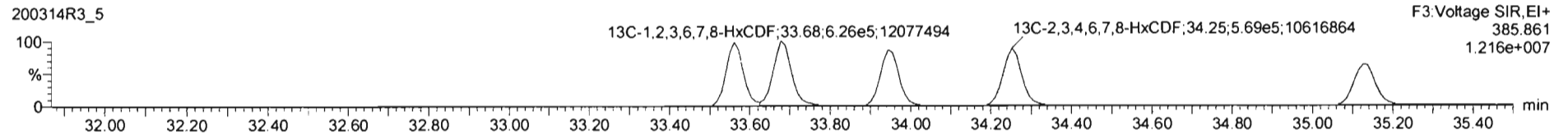
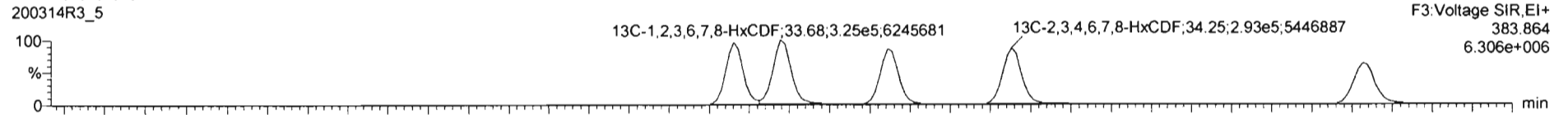
Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_5, Date: 15-Mar-2020, Time: 02:29:01, ID: 2000411-09 PDI-034SC-A-04-05-191022 11.56, Description: PDI-034SC-A-04-05-191022

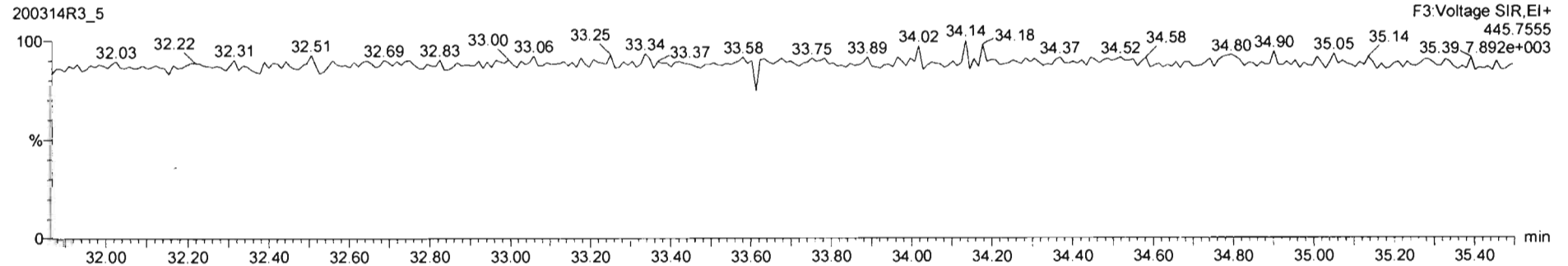
**1,2,3,4,7,8-HxCDF**

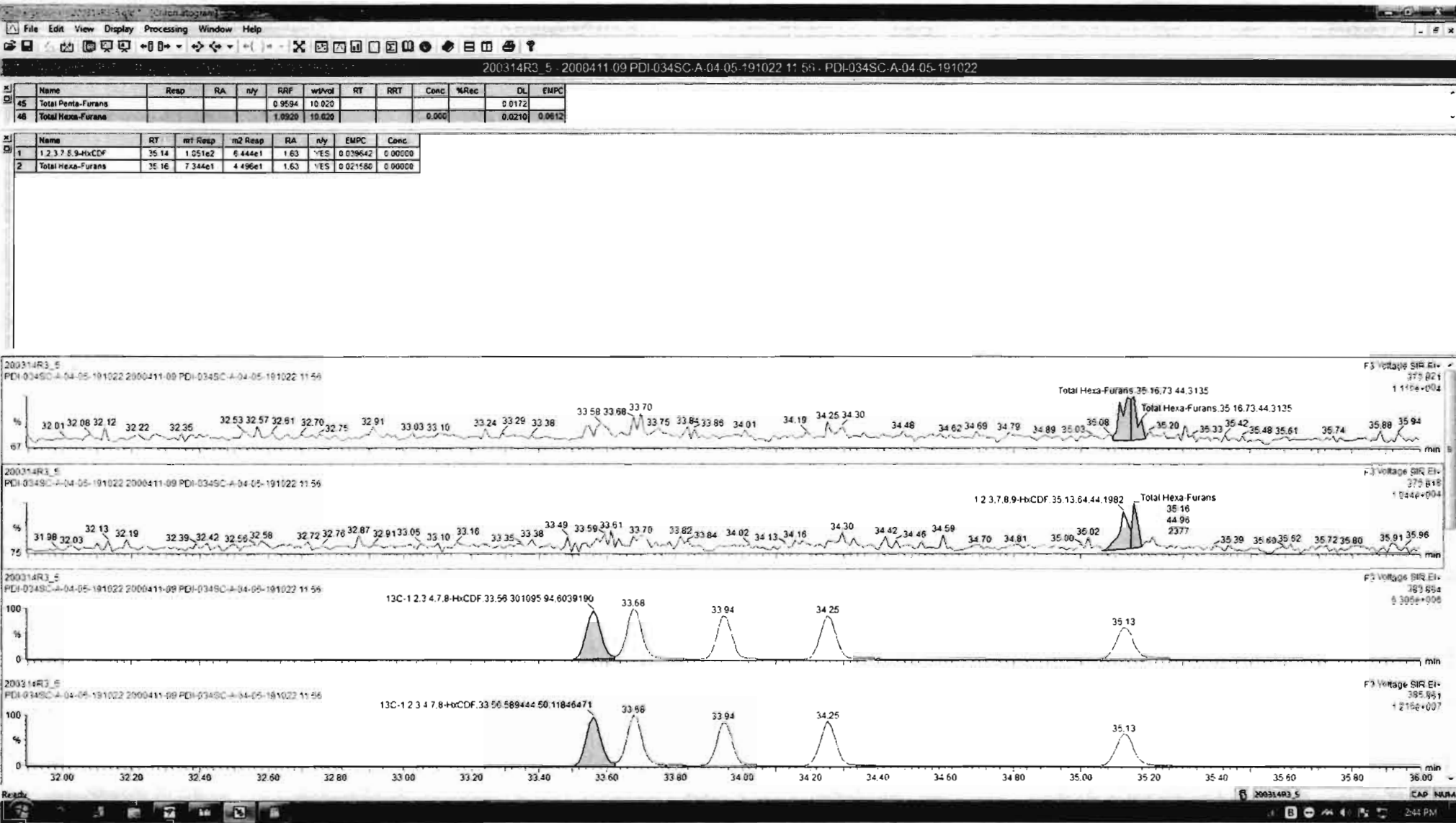


**13C-1,2,3,4,7,8-HxCDF**



**DPE3**



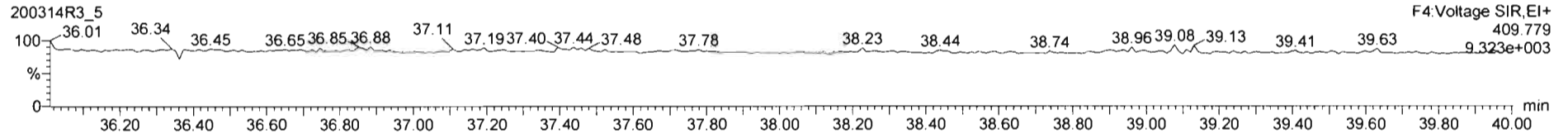
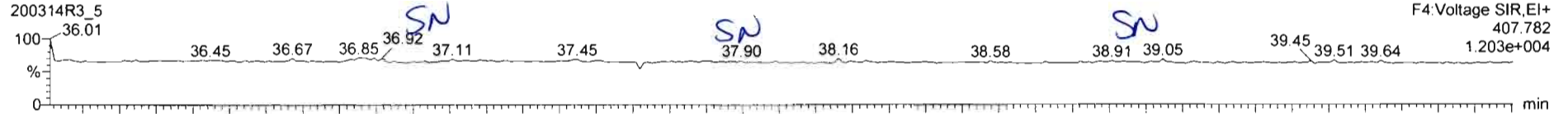


Dataset: Untitled

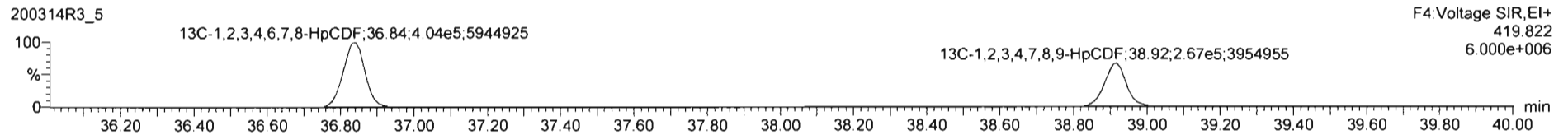
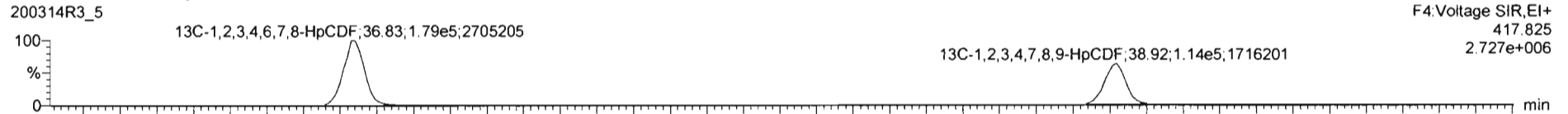
Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_5, Date: 15-Mar-2020, Time: 02:29:01, ID: 2000411-09 PDI-034SC-A-04-05-191022 11.56, Description: PDI-034SC-A-04-05-191022

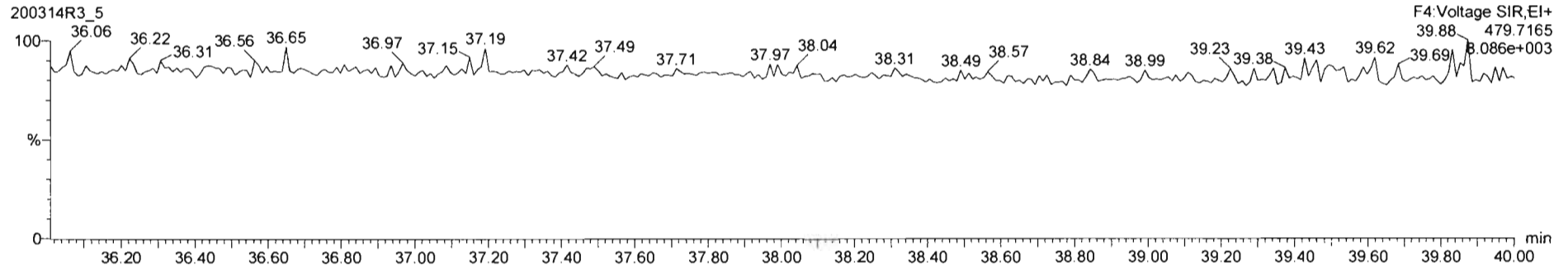
1,2,3,4,6,7,8-HpCDF



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



DPE4



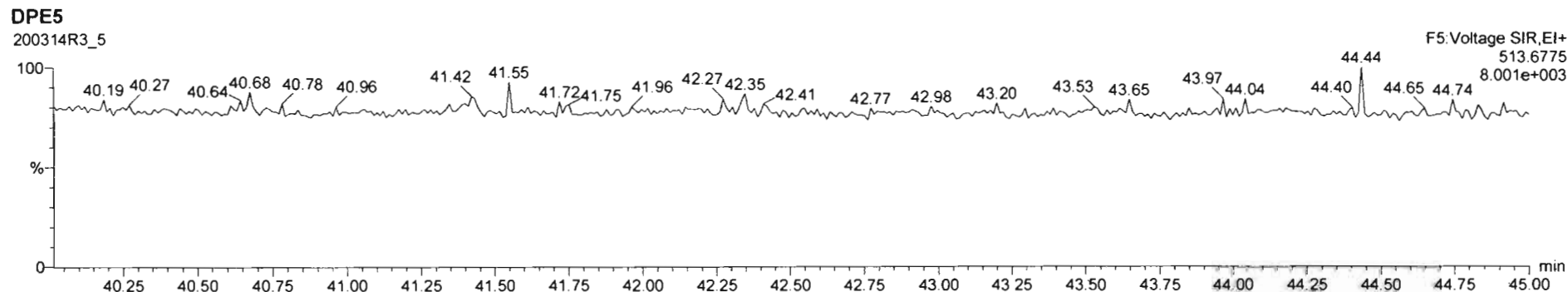
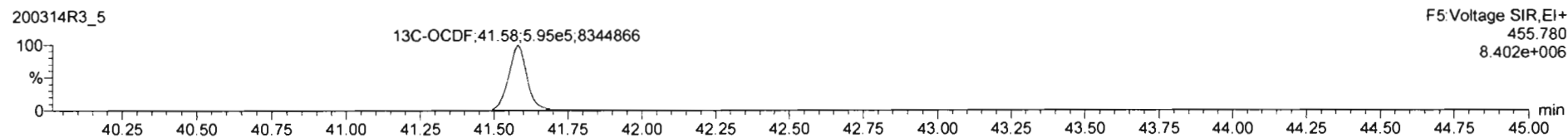
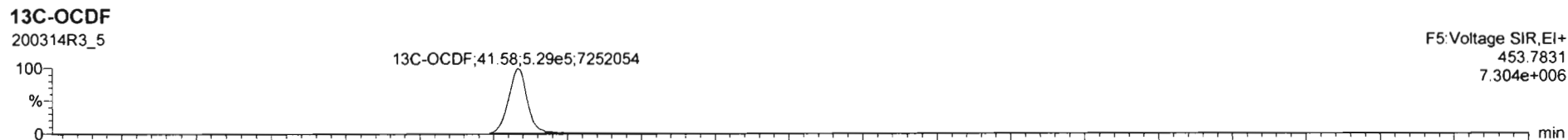
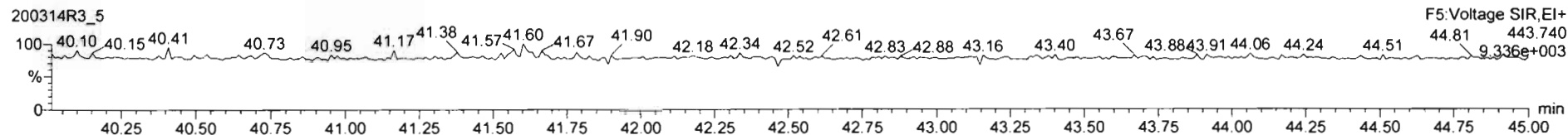
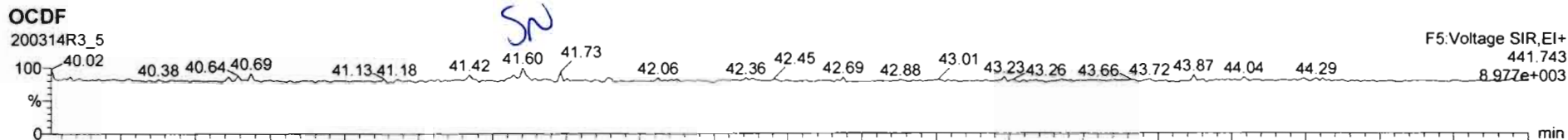


Dataset: Untitled

Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time

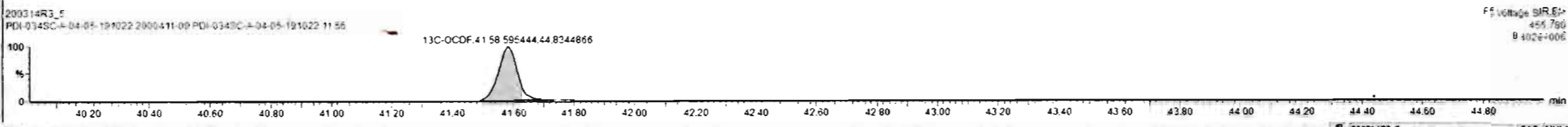
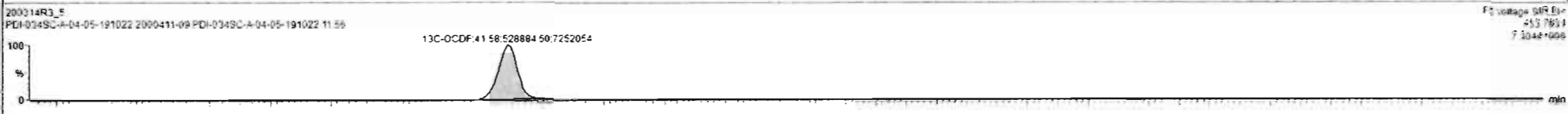
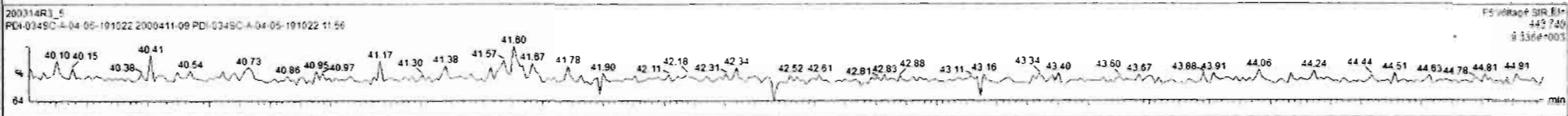
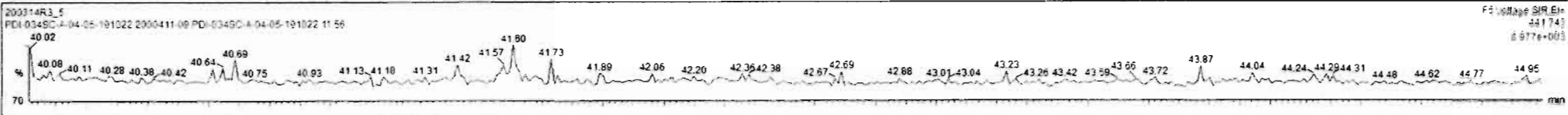
Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_5, Date: 15-Mar-2020, Time: 02:29:01, ID: 2000411-09 PDI-034SC-A-04-05-191022 11.56, Description: PDI-034SC-A-04-05-191022



Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
17	OCDF		NO	0.9468	10.020					0.0658	
18	13C-2,3,7,8-TCDD	1.12e6	0.77	NO	1.1842	10.020	25.74	1.029	228	113	0.227

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1							



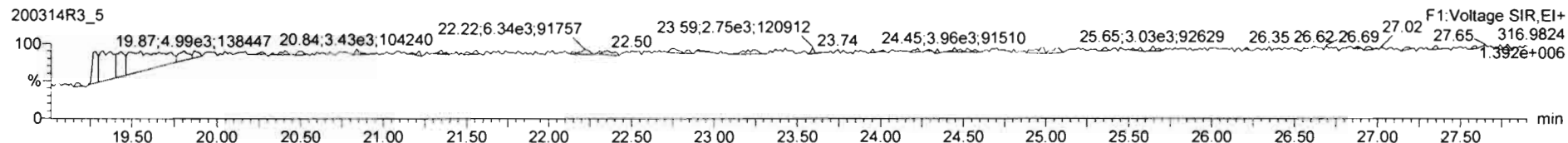
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Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time

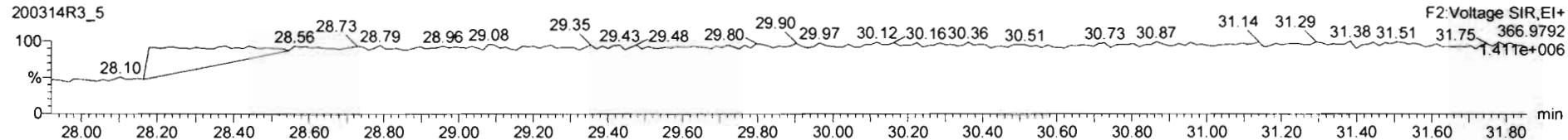
Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_5, Date: 15-Mar-2020, Time: 02:29:01, ID: 2000411-09 PDI-034SC-A-04-05-191022 11.56, Description: PDI-034SC-A-04-05-191022

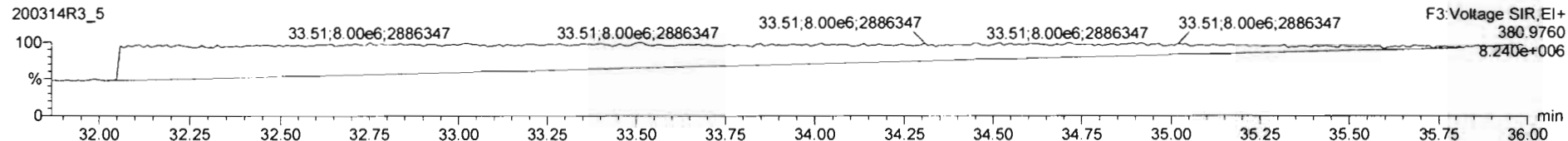
PFK1



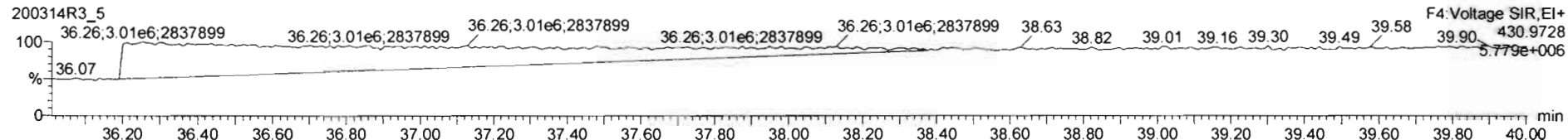
PFK2



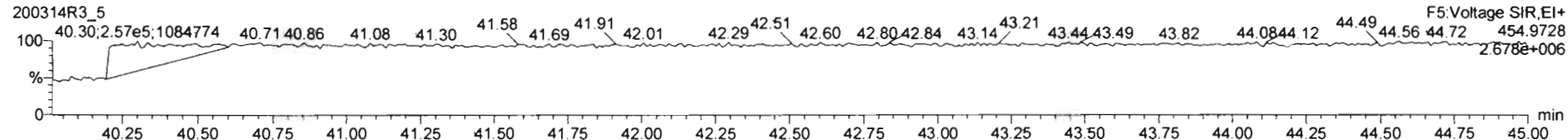
PFK3



PFK4



PFK5



Dataset: U:\VG12.PRO\Results\200314R3\200314R3-7B.qld

Last Altered: Sunday, March 15, 2020 1:07:48 PM Pacific Daylight Time  
Printed: Sunday, March 15, 2020 1:08:49 PM Pacific Daylight Time

*GRB 03/15/2020*

Method: Untitled 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

*mm 3/15/20*

Name: 200314R3\_7, Date: 15-Mar-2020, Time: 04:04:09, ID: 2000411-10RE2 PDI-052SC-A-07-08-191015 13.95, Description: PDI-052SC-A-07-08-191015

*GRB 03/15/2020*

#	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	0.983	10.025	11.322	25.751	1.001				0.105	
2	2 1,2,3,7,8-PeCDD			NO	0.921	10.025		31.025	1.001				0.0899	
3	3 1,2,3,4,7,8-HxCDD			NO	1.13	10.025		34.434	1.000				0.0772	
4	4 1,2,3,6,7,8-HxCDD			NO	0.984	10.025		34.530	1.000				0.0808	
5	5 1,2,3,7,8,9-HxCDD			NO	0.967	10.025		34.807	1.000				0.0888	
6	6 1,2,3,4,6,7,8-HpCDD	1.60e3	1.11	NO	1.01	10.025		38.280	38.27	1.000	1.000	1.2141	0.228	1.21
7	7 OCDD	1.93e4	0.89	NO	1.05	10.025		41.379	41.40	1.000	1.001	13.551	0.146	13.6
8	8 2,3,7,8-TCDF	5.74e2	0.93	YES	0.915	10.025		24.743	24.75	1.001	1.001	0.13799	0.0697	0.126
9	9 1,2,3,7,8-PeCDF	6.39e2	1.79	YES	0.959	10.025		29.681	29.67	1.001	1.001	0.18314	0.0844	0.168
10	10 2,3,4,7,8-PeCDF	2.42e2	1.66	NO	1.00	10.025		30.729	30.71	1.001	1.000	0.066939	0.0798	0.0669
11	11 1,2,3,4,7,8-HxCDF	7.63e2	1.23	NO	1.04	10.025		33.561	33.57	1.000	1.000	0.31432	0.0548	0.314
12	12 1,2,3,6,7,8-HxCDF	3.05e2	2.09	YES	1.01	10.025		33.688	33.70	1.000	1.001	0.11929	0.0555	0.0864
13	13 2,3,4,6,7,8-HxCDF			NO	1.09	10.025		34.288		1.001			0.0549	
14	14 1,2,3,7,8,9-HxCDF			NO	1.03	10.025		35.138		1.000			0.0796	
15	15 1,2,3,4,6,7,8-HpCDF	5.73e2	1.13	NO	1.05	10.025		36.879	36.86	1.001	1.001	0.32746	0.0976	0.327
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.025		38.918		1.000			0.126	
17	17 OCDF	9.86e2	0.79	NO	0.947	10.025		41.560	41.57	1.000	1.000	0.63381	0.126	0.634
18	18 13C-2,3,7,8-TCDD	6.06e5	0.77	NO	1.18	10.025		25.720	25.72	1.029	1.029	173.43	96.5	0.316
19	19 13C-1,2,3,7,8-PeCDD	4.45e5	0.63	NO	0.864	10.025		30.900	31.00	1.236	1.240	174.42	97.0	0.342
20	20 13C-1,2,3,4,7,8-HxCDD	3.09e5	1.30	NO	0.754	10.025		34.427	34.42	1.014	1.014	159.12	88.5	0.523
21	21 13C-1,2,3,6,7,8-HxCDD	3.66e5	1.28	NO	0.925	10.025		34.536	34.53	1.017	1.017	153.52	85.4	0.426
22	22 13C-1,2,3,7,8,9-HxCDD	3.25e5	1.26	NO	0.829	10.025		34.797	34.80	1.025	1.025	151.85	84.5	0.475
23	23 13C-1,2,3,4,6,7,8-HpCDD	2.35e5	1.01	NO	0.598	10.025		38.254	38.27	1.127	1.127	152.75	85.0	0.475
24	24 13C-OCDD	4.86e5	0.90	NO	0.571	10.025		41.401	41.38	1.219	1.219	330.01	91.8	0.573
25	25 13C-2,3,7,8-TCDF	8.17e5	0.77	NO	1.09	10.025		24.742	24.72	0.990	0.989	165.88	92.3	0.507
26	26 13C-1,2,3,7,8-PeCDF	6.53e5	1.63	NO	0.876	10.025		29.572	29.66	1.183	1.186	164.90	91.7	0.685
27	27 13C-2,3,4,7,8-PeCDF	6.47e5	1.62	NO	0.844	10.025		30.582	30.70	1.223	1.228	169.76	94.4	0.711
28	28 13C-1,2,3,4,7,8-HxCDF	4.20e5	0.52	NO	1.00	10.025		33.575	33.56	0.989	0.988	163.02	90.7	0.512
29	29 13C-1,2,3,6,7,8-HxCDF	4.53e5	0.52	NO	1.12	10.025		33.683	33.68	0.992	0.992	157.32	87.5	0.459
30	30 13C-2,3,4,6,7,8-HxCDF	4.18e5	0.51	NO	1.04	10.025		34.264	34.25	1.009	1.009	156.80	87.2	0.495
31	31 13C-1,2,3,7,8,9-HxCDF	3.44e5	0.50	NO	0.873	10.025		35.137	35.14	1.035	1.035	152.81	85.0	0.587

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-7B.qld

Last Altered: Sunday, March 15, 2020 1:07:48 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 1:08:49 PM Pacific Daylight Time

Name: 200314R3\_7, Date: 15-Mar-2020, Time: 04:04:09, ID: 2000411-10RE2 PDI-052SC-A-07-08-191015 13.95, Description: PDI-052SC-A-07-08-191015

*CFB 03/15/2020*

#	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	3.00e5	0.45	NO	0.771	10.025	36.851	36.84	1.085	1.085	151.15	84.1	0.364	
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.07e5	0.43	NO	0.519	10.025	38.936	38.92	1.147	1.146	155.03	86.3	0.540	
34	34 13C-OCDF	5.91e5	0.89	NO	0.696	10.025	41.581	41.56	1.225	1.224	329.20	91.6	0.417	
35	35 37Cl-2,3,7,8-TCDD	2.43e5			1.17	10.025	25.730	25.75	1.029	1.030	70.191	97.6	0.0901	
36	36 13C-1,2,3,4-TCDD	5.30e5	0.79	NO	1.00	10.025	25.050	25.00	1.000	1.000	179.74	100	0.375	
37	37 13C-1,2,3,4-TCDF	8.13e5	0.81	NO	1.00	10.025	23.190	23.07	1.000	1.000	179.74	100	0.552	
38	38 13C-1,2,3,4,6,9-HxCDF	4.63e5	0.51	NO	1.00	10.025	33.880	33.96	1.000	1.000	179.74	100	0.513	
39	39 Total Tetra-Dioxins				0.983	10.025	24.620		0.000		0.28009		0.105	0.280
40	40 Total Penta-Dioxins				0.921	10.025	29.960		0.000		0.00000		0.0384	0.0744
41	41 Total Hexa-Dioxins				0.984	10.025	33.635		0.000		0.27802		0.0854	0.901
42	42 Total Hepta-Dioxins				1.01	10.025	37.640		0.000		3.0134		0.228	3.01
43	43 Total Tetra-Furans				0.915	10.025	23.610		0.000		0.21180		0.0697	0.338
44	44 1st Func. Penta-Furans				0.959	10.025	27.090		0.000		0.00000		0.0138	0.0654
45	45 Total Penta-Furans				0.959	10.025	29.275		0.000		0.066939		0.0840	0.322
46	46 Total Hexa-Furans				1.09	10.025	33.555		0.000		0.31432		0.0574	0.547
47	47 Total Hepta-Furans				1.05	10.025	37.835		0.000		0.69164		0.117	0.692

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-7B.qld

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**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	23.28	4.883e3	5.428e3	4.049e2	5.231e2	0.77	NO	9.281e2	0.28009	0.28009	0.105

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	29.20	1.803e3	4.420e3	6.551e1	2.456e2	0.27	YES	0.000e0	0.00000	0.074385	0.0899

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.95	1.380e4	1.512e4	6.299e2	6.434e2	0.98	YES	0.000e0	0.00000	0.62343	0.0854
2	Total Hexa-Dioxins	33.76	5.433e3	3.944e3	2.859e2	2.216e2	1.29	NO	5.075e2	0.27802	0.27802	0.0854

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.26	1.724e4	2.115e4	1.199e3	1.173e3	1.02	NO	2.372e3	1.7994	1.7994	0.228
2	1,2,3,4,6,7,8-HpCDD	38.27	1.238e4	1.242e4	8.412e2	7.590e2	1.11	NO	1.600e3	1.2141	1.2141	0.228

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	20.42	2.633e3	2.935e3	1.408e2	1.767e2	0.80	NO	3.174e2	0.076292	0.076292	0.0697
2	Total Tetra-Furans	23.70	2.898e3	2.899e3	2.605e2	3.033e2	0.86	NO	5.638e2	0.13551	0.13551	0.0697
3	2,3,7,8-TCDF	24.75	5.110e3	3.668e3	2.769e2	2.972e2	0.93	YES	5.741e2	0.00000	0.12645	0.0697

**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	26.92	2.728e3	1.871e3	1.380e2	1.322e2	1.04	YES	0.000e0	0.00000	0.065392	0.0138

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-7B.qld

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Printed: Sunday, March 15, 2020 1:08:49 PM Pacific Daylight Time

Name: 200314R3\_7, Date: 15-Mar-2020, Time: 04:04:09, ID: 2000411-10RE2 PDI-052SC-A-07-08-191015 13.95, Description: PDI-052SC-A-07-08-191015

## Penta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	29.25	2.880e3	2.265e3	1.077e2	9.516e1	1.13	YES	0.000e0	0.00000	0.051044	0.0840
2	1,2,3,7,8-PeCDF	29.67	8.853e3	5.967e3	4.094e2	2.293e2	1.79	YES	6.387e2	0.00000	0.16768	0.0844
3	Total Penta-Furans	30.68	3.666e3	2.339e3	1.119e2	4.998e1	2.24	YES	0.000e0	0.00000	0.036713	0.0840
4	2,3,4,7,8-PeCDF	30.71	4.523e3	2.459e3	1.511e2	9.085e1	1.66	NO	2.420e2	0.066939	0.066939	0.0798

## Hexa-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.55	3.701e3	1.969e3	1.261e2	8.757e1	1.44	YES	0.000e0	0.00000	0.078969	0.0574
2	Total Hexa-Furans	33.13	1.993e3	2.957e3	9.301e1	1.308e2	0.71	YES	0.000e0	0.00000	0.067635	0.0574
3	1,2,3,4,7,8-HxCDF	33.57	9.443e3	6.465e3	4.213e2	3.414e2	1.23	NO	7.628e2	0.31432	0.31432	0.0548
4	1,2,3,6,7,8-HxCDF	33.70	3.163e3	2.091e3	2.060e2	9.849e1	2.09	YES	3.045e2	0.00000	0.086418	0.0555

## 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	36.86	5.587e3	4.076e3	3.040e2	2.694e2	1.13	NO	5.734e2	0.32746	0.32746	0.0976
2	Total Hepta-Furans	37.46	4.172e3	4.110e3	2.792e2	2.600e2	1.07	NO	5.392e2	0.36418	0.36418	0.117

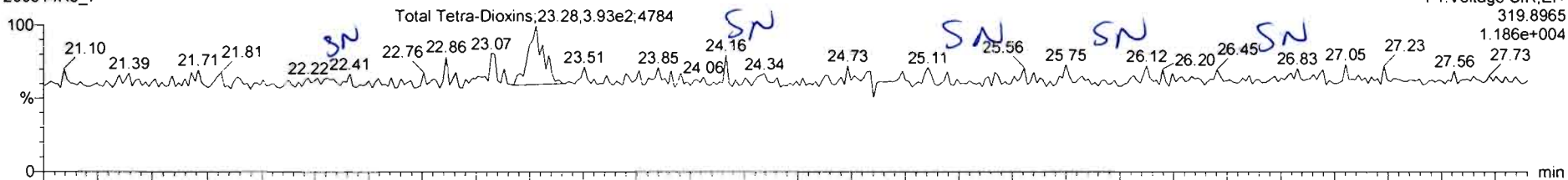
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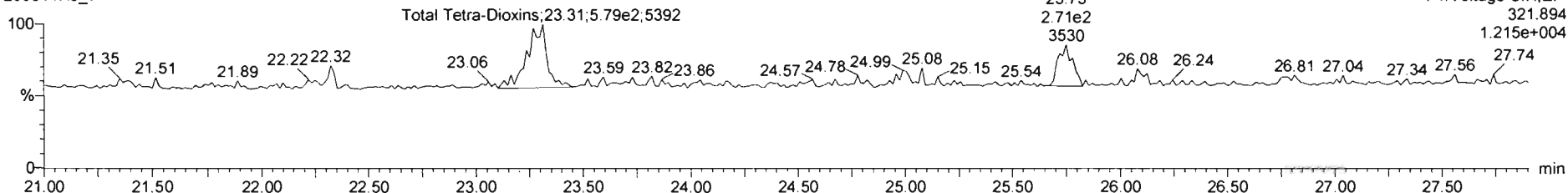
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**2,3,7,8-TCDD**

200314R3\_7

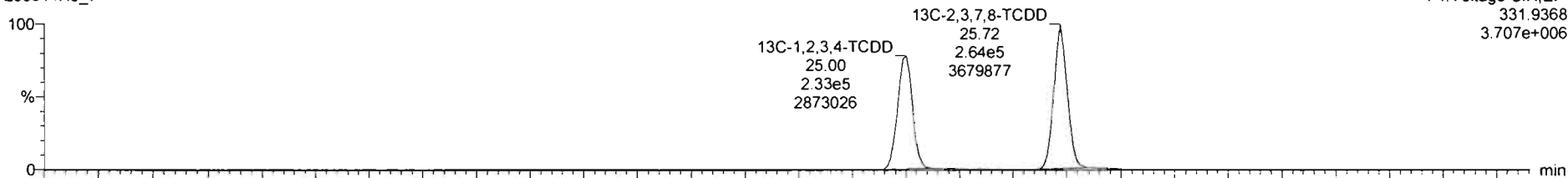


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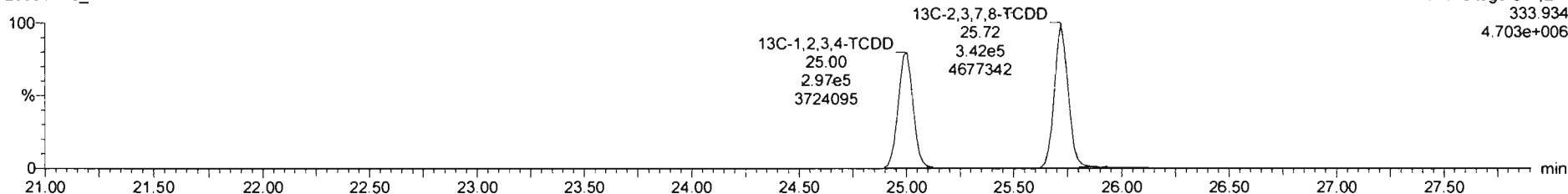


**13C-2,3,7,8-TCDD**

200314R3\_7



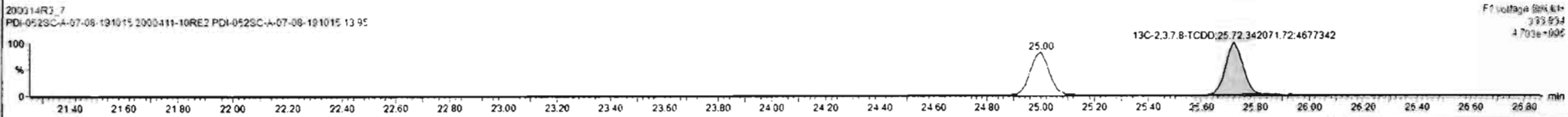
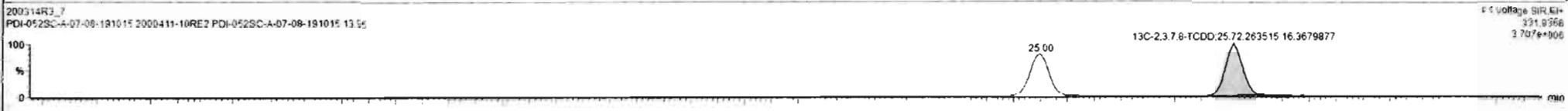
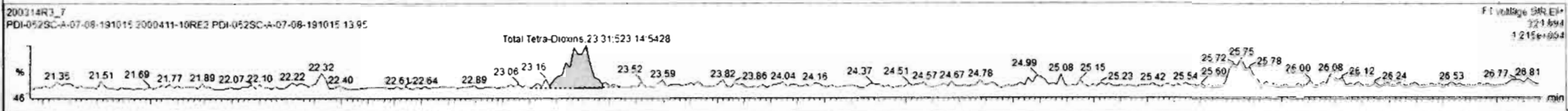
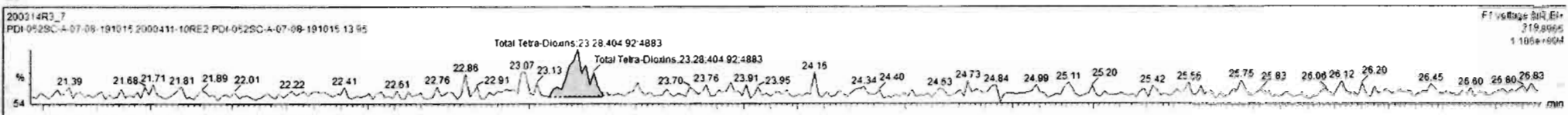
200314R3\_7





Name	Resp	RA	nly	RRF	wtval	RT	RRT	Conc	%Rec	DL	EMPC
39	Total Tetra-Dioxins			0.9835	10.825			0.311		0.116	0.311
40	Total Dioxin-Dioxins			0.0213	10.024					0.0477	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1	Total Tetra-Dioxins	22.28	4.049e2	5.231e2	0.77	NO	0.31066



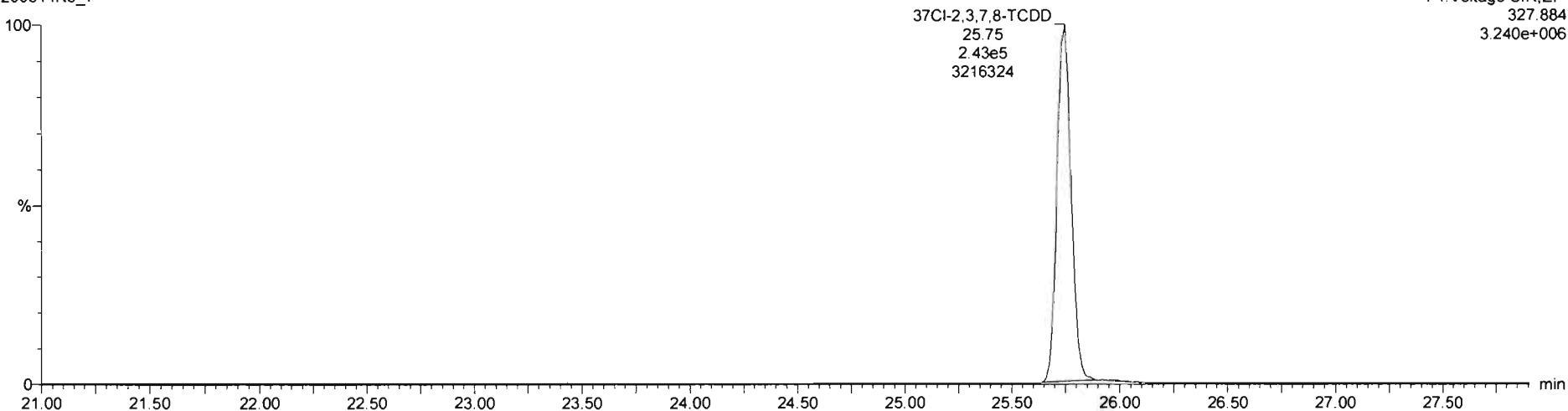
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Name: 200314R3\_7, Date: 15-Mar-2020, Time: 04:04:09, ID: 2000411-10RE2 PDI-052SC-A-07-08-191015 13.95, Description: PDI-052SC-A-07-08-191015

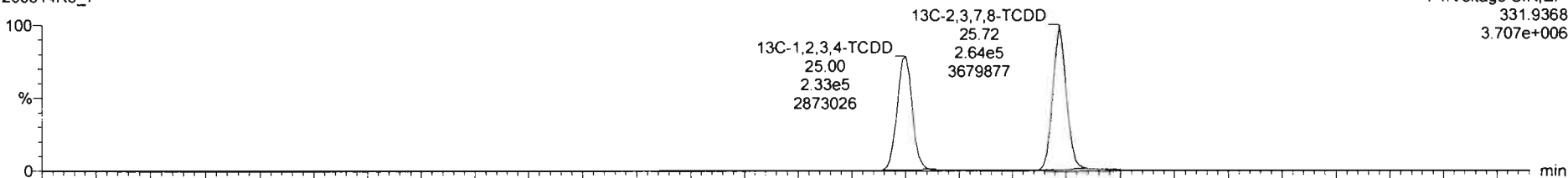
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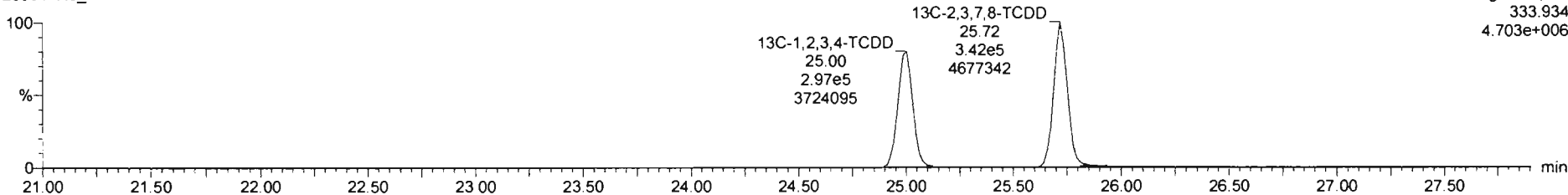


13C-1,2,3,4-TCDD

200314R3\_7



200314R3\_7



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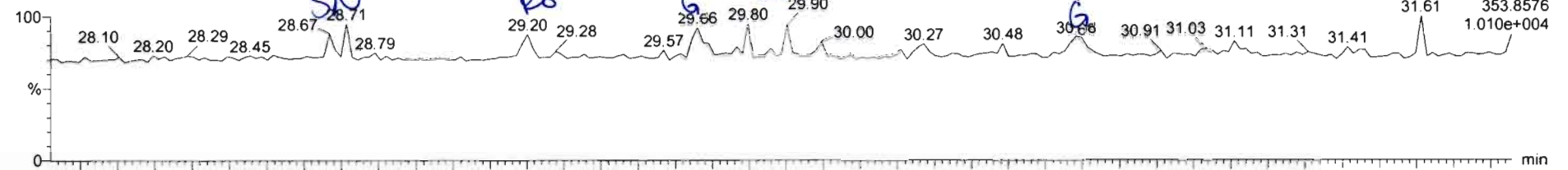
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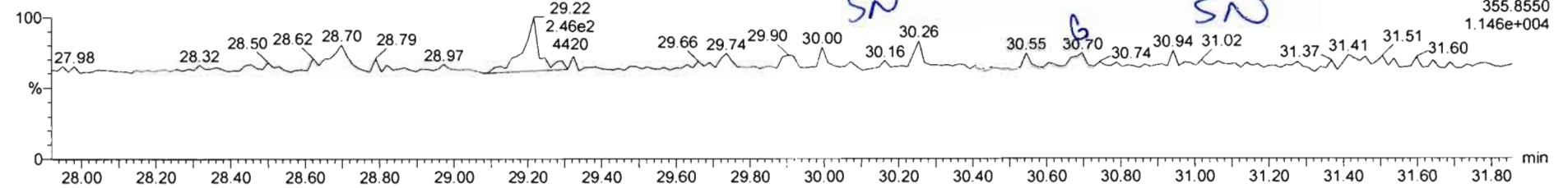
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1,2,3,7,8-PeCDD

200314R3\_7

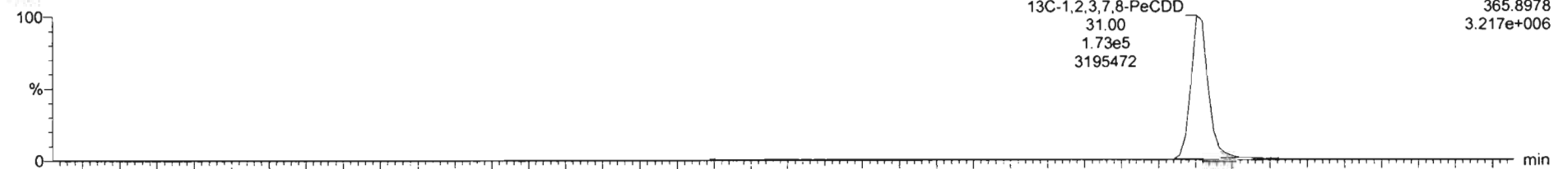


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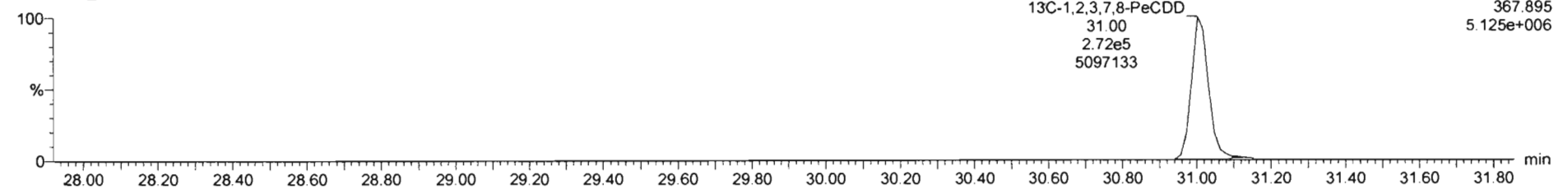


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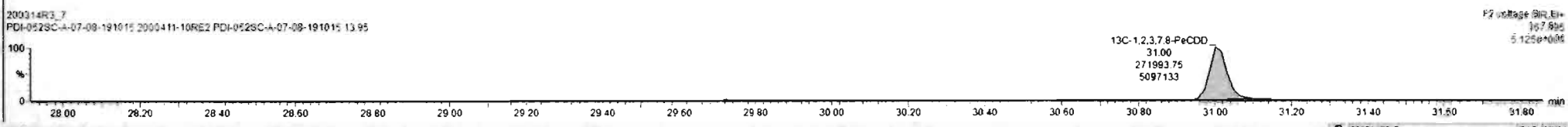
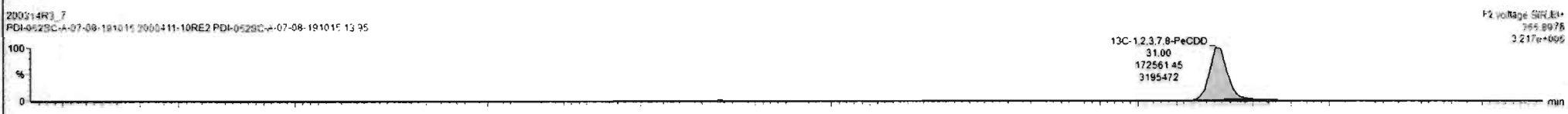
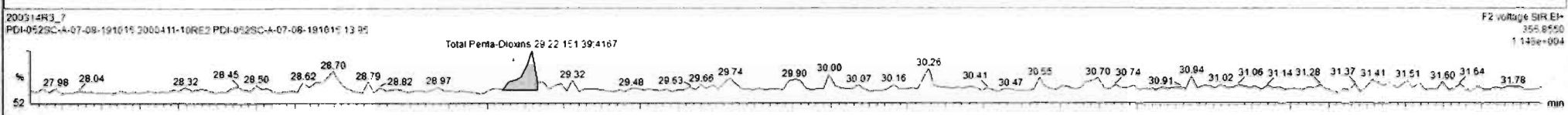
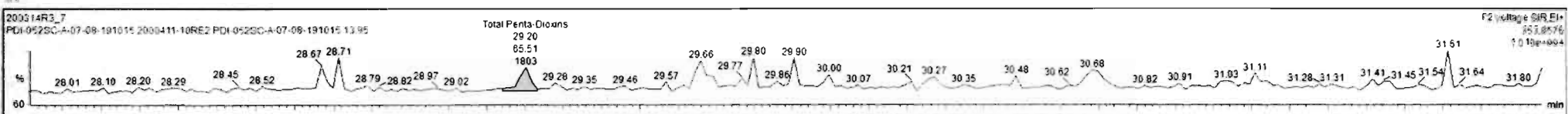
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200314R3\_7 - 2000411-10RE2 PDI-052SC-A-07-08-191015 13.95 - PDI-052SC-A-07-08-191015

Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
Total Tetra-Dioxins				0.9835	12.025			0.311		0.116	0.311
Total Penta-Dioxins				0.9253	16.824			0.0001		0.0277	0.0228

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
Total Penta-Dioxins	29.20	6.551e1	1.514e2	0.43	YES	0.082559	0.00060



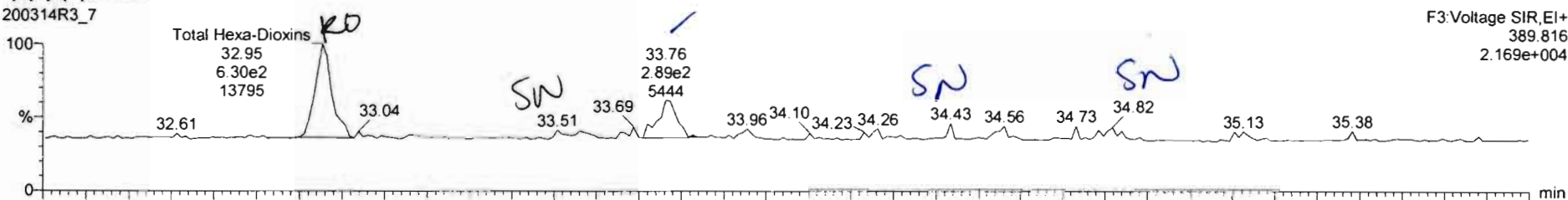
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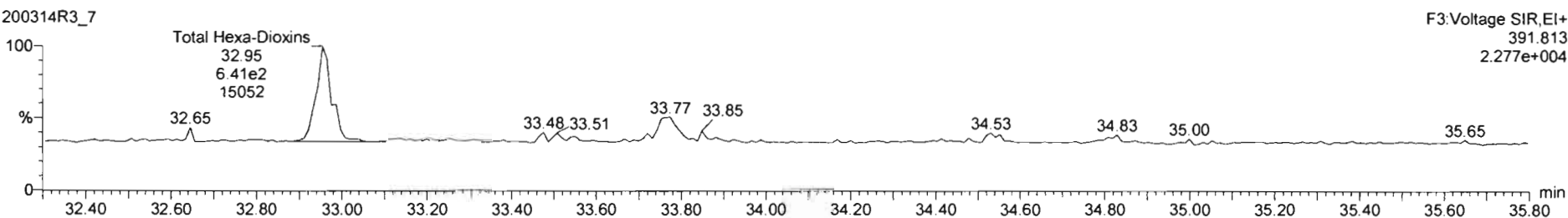
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1,2,3,4,7,8-HxCDD

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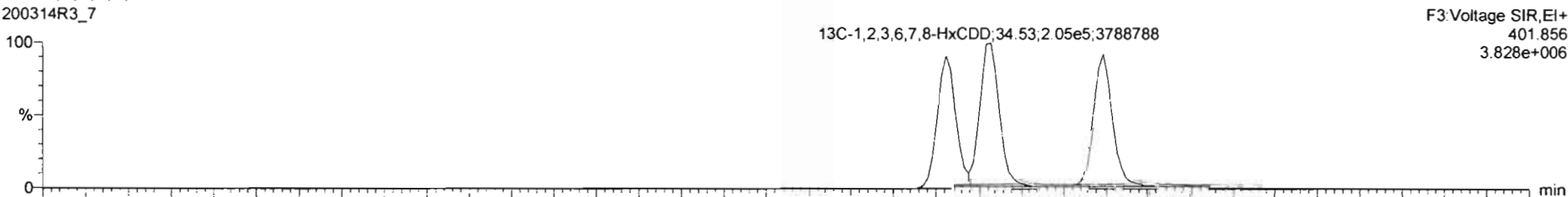


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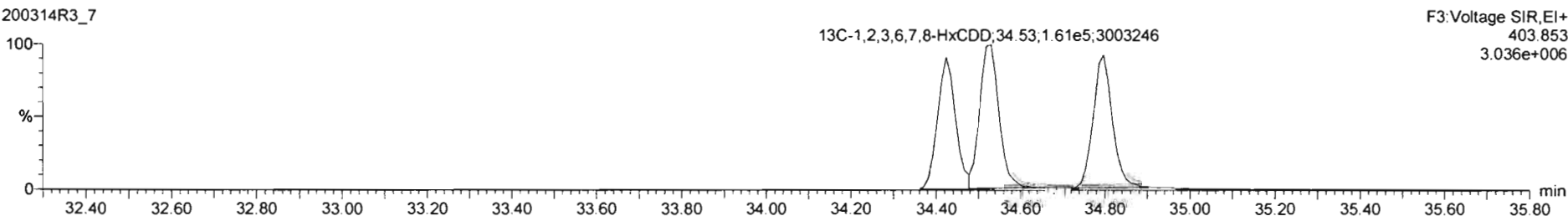


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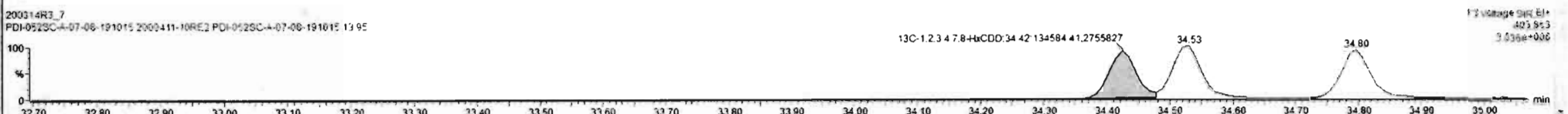
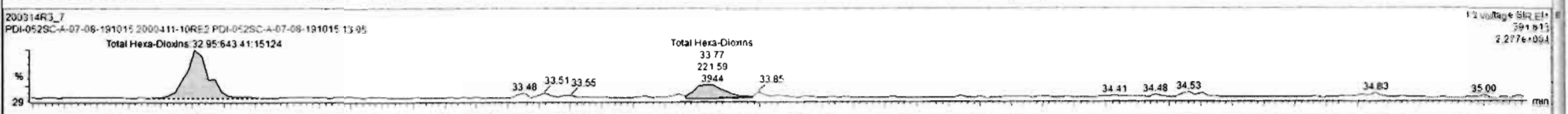
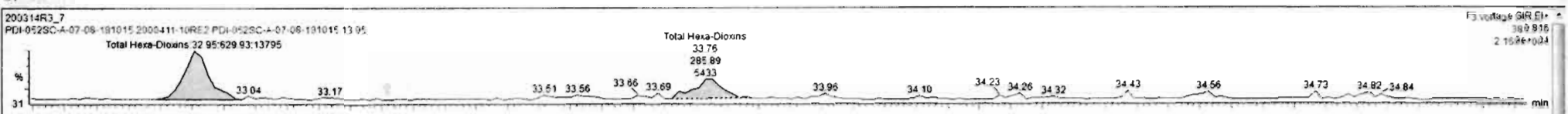
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200314R3\_7 - 2000411-10RE2 PDI-052SC-A-07-08-191015 13 95 - PDI-052SC-A-07-08-191015

Name	Resp	RA	n/y	RRF	w/val	RT	RRT	Conc	%Rec	DL	EMPC
41 Total Hexa-Dioxins				0.9844	10.625			0.300		0.0945	1.00
27 Total Hexa-Dioxins				1.0561	15.026			1.14		0.943	1.12

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Coec
1 Total Hexa-Dioxins	32.95	6.299e2	6.43e2	0.98	YES	0.69193	0.00000
2 Total Hexa-Dioxins	33.76	2.859e2	2.216e2	1.29	NO	0.30857	0.30857



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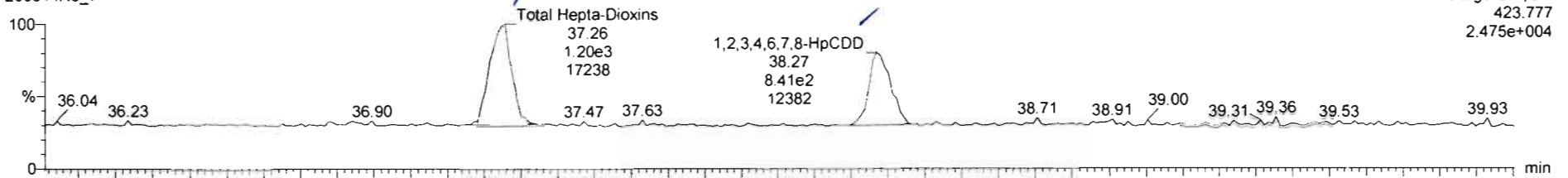
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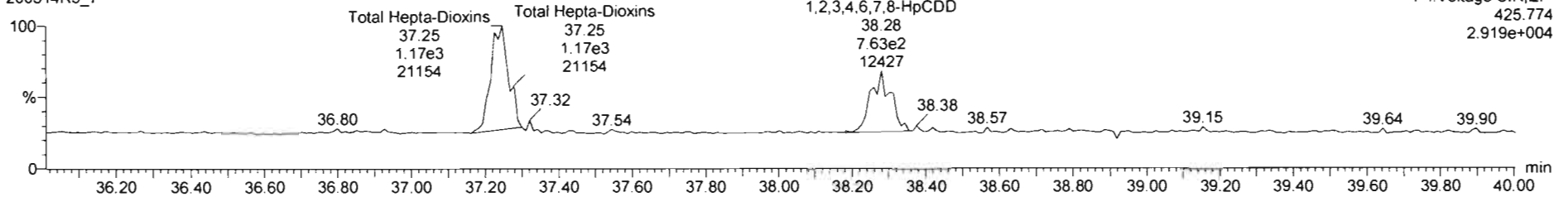
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1,2,3,4,6,7,8-HpCDD

200314R3\_7

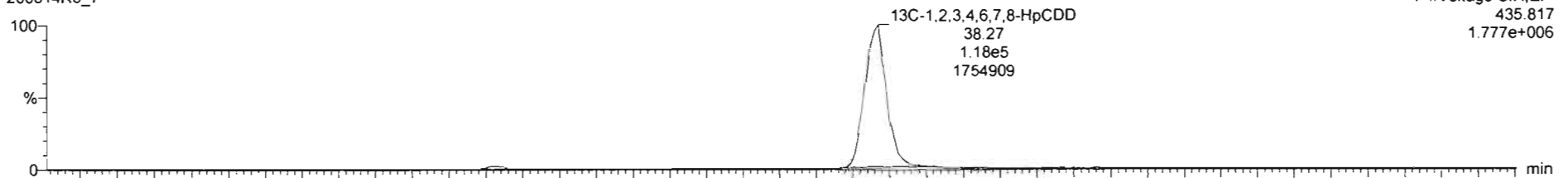


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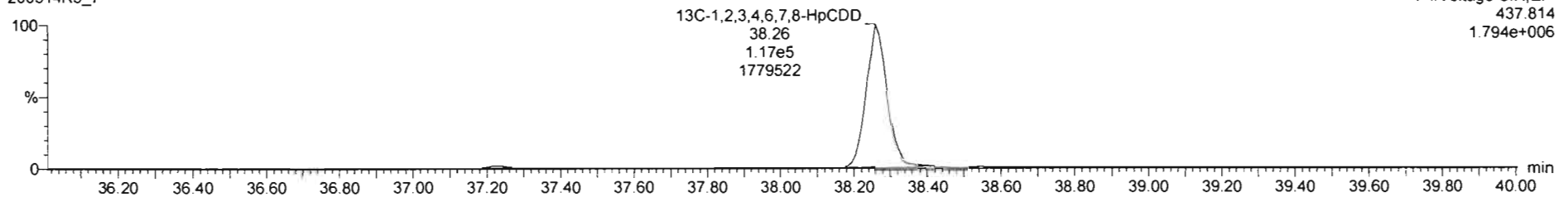


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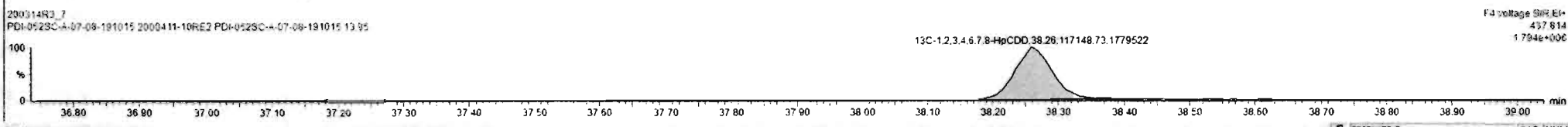
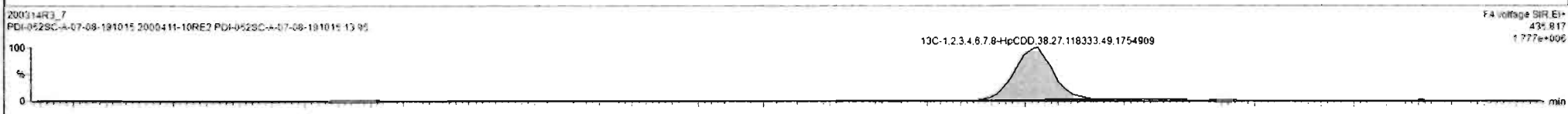
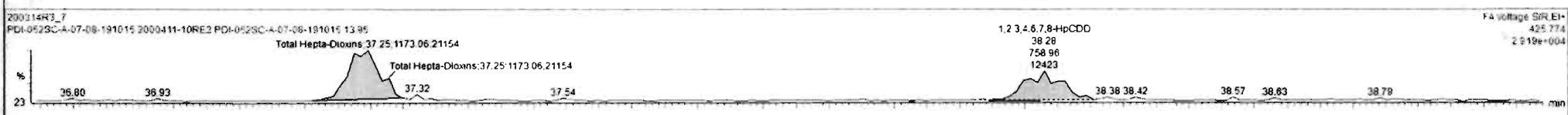


200314R3\_7



Name	Resp	RA	nly	RRF	wVol	RT	RRT	Conc	%Rec	DL	EMPC
42	Total Hepta-Dioxins			1.0061	10.025			3.34		0.253	3.34
27	Total Tetra-Furans			0.9154	10.025			0.143		0.0722	0.122

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1	Total Hepta-Dioxins	37.26	1.199e3	1.173e2	1.02	NO	1.9971
2	1,2,3,4,6,7,8-HpCDD	38.27	8.412e2	7.599e2	1.11	NO	1.3475

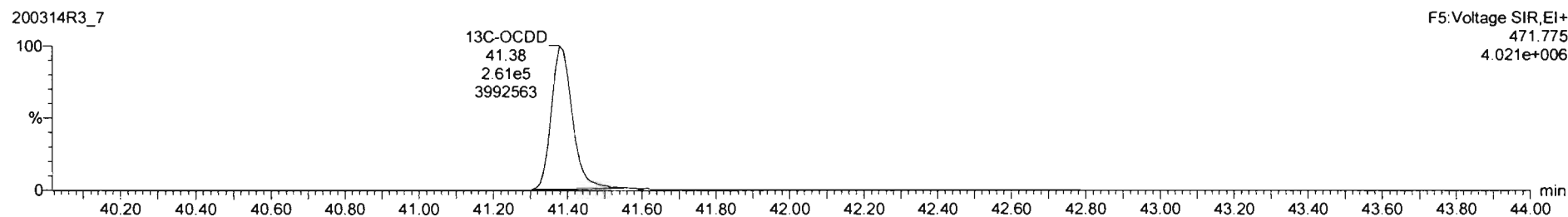
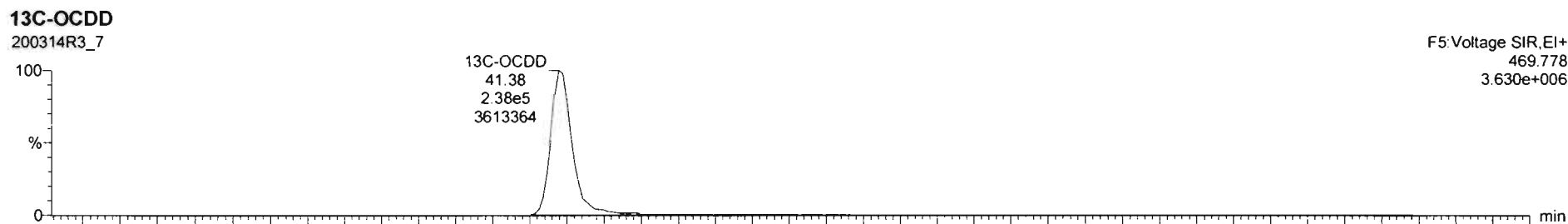
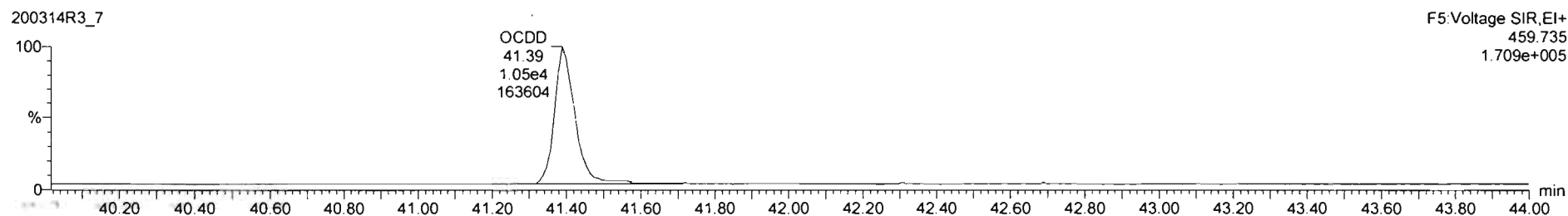
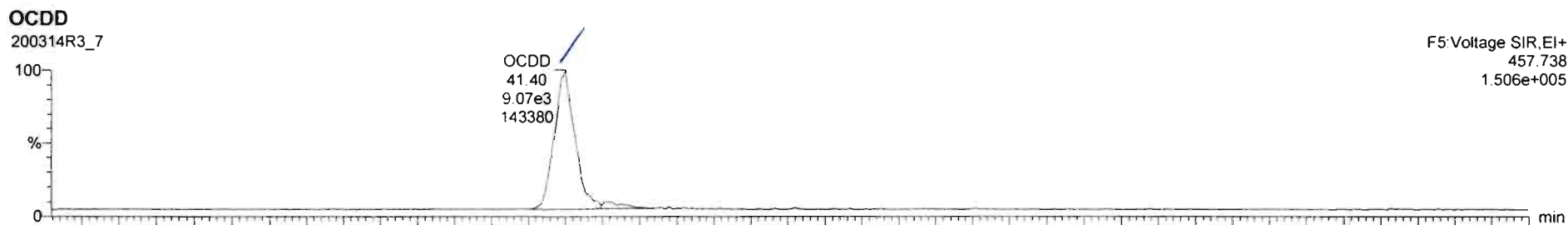




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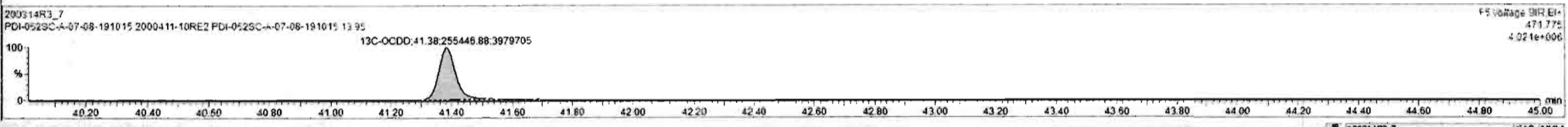
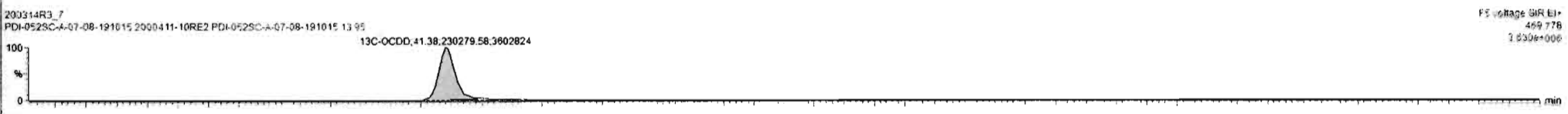
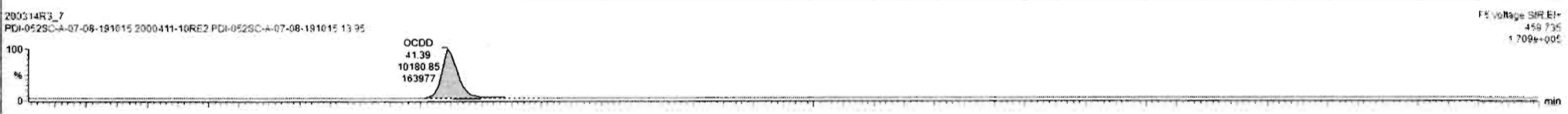
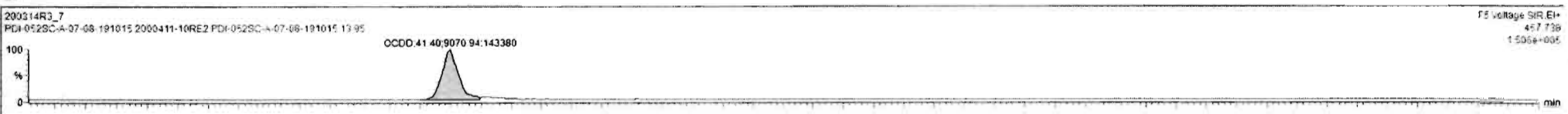
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Name: 200314R3\_7, Date: 15-Mar-2020, Time: 04:04:09, ID: 2000411-10RE2 PDI-052SC-A-07-08-191015 13.95, Description: PDI-052SC-A-07-08-191015



Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
OCDD	1.53e4	8.89	NO	1.9515	10.825	41.40	1.001	15.0		0.162	15.0
12178,TTT	4.66e2	n.86	NO	0.0164	1.0094	24.78	1.001	n.141		n.0774	n.141

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



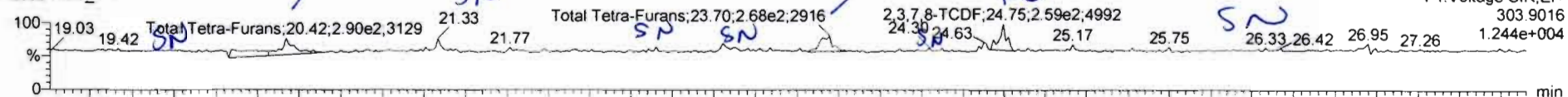
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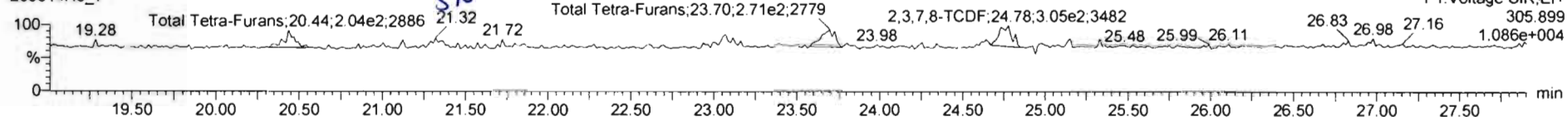
Name: 200314R3\_7, Date: 15-Mar-2020, Time: 04:04:09, ID: 2000411-10RE2 PDI-052SC-A-07-08-191015 13.95, Description: PDI-052SC-A-07-08-191015

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

200314R3\_7

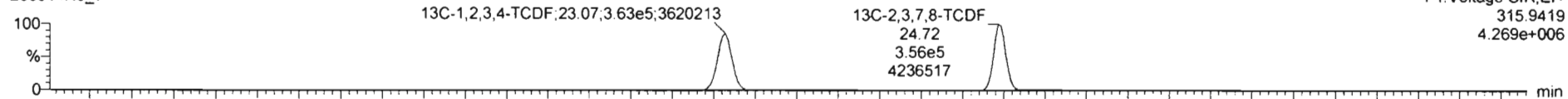


200314R3\_7

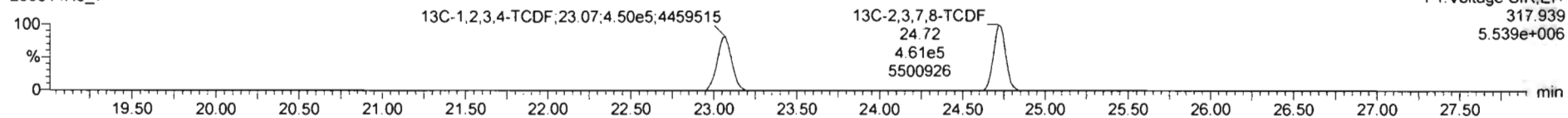


**13C-2,3,7,8-TCDF**

200314R3\_7

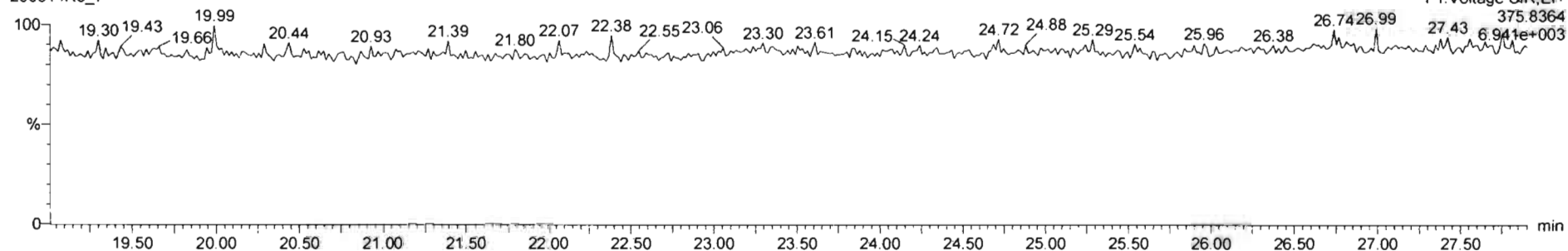


200314R3\_7



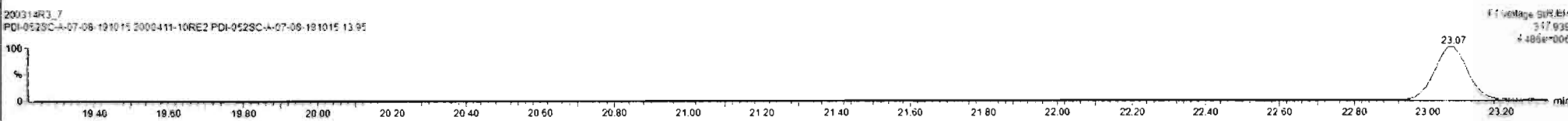
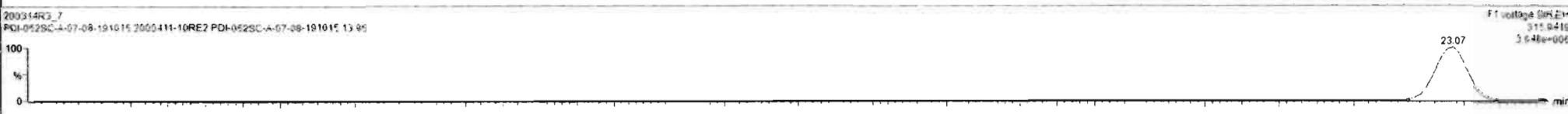
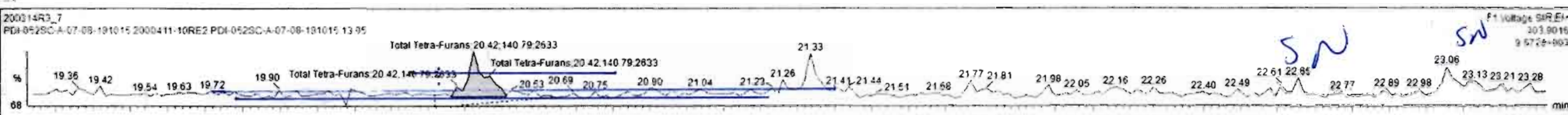
**DPE1**

200314R3\_7



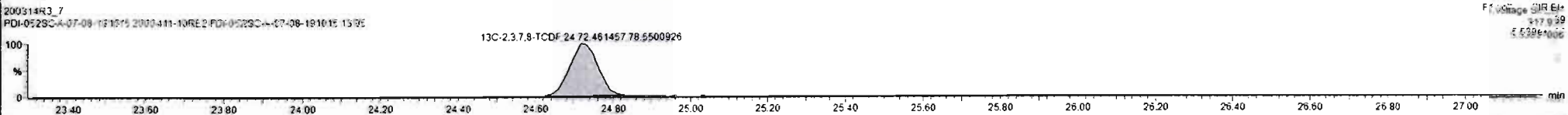
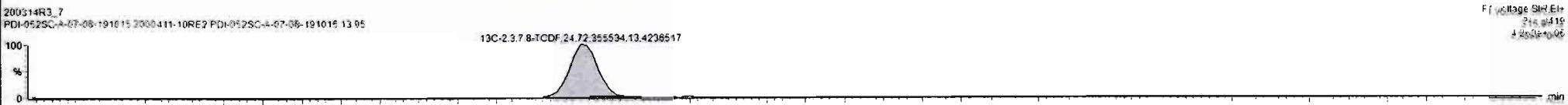
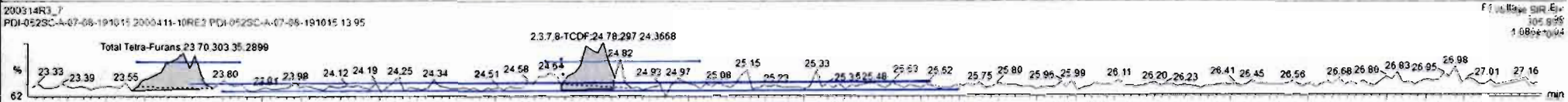
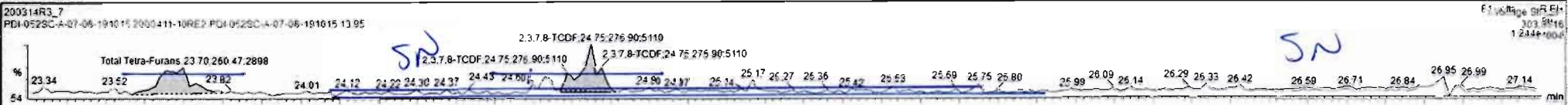
Name	Resp	RA	nly	RRF	wVol	RT	RRT	Conc	%Rec	DL	EMPC
42	Total Hecto-Dioxins			1.0061	10.025			3.34		0.253	3.34
47	Total Tetra-Furans			0.0142	10.025			0.724		0.0772	0.763

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1	Total Tetra-Furans	20.42	1.406e2	1.767e2	0.80	NO	0.084675
2	Total Tetra-Furans	23.70	2.675e2	2.710e2	0.99	YES	0.12795
3	2,3,7,8-TCDF	24.75	2.592e2	3.054e2	0.85	NO	0.15061



Name	Resp	RA	nly	RRF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
42	Total Hepta-Dioxins			1.00E1	10.02E			2.34		0.253	2.34
43	Total Tetra-Furans			0.01E2	10.02E			0.272		0.272	0.272

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1	Total Tetra-Furans	20.42	1.40E2	1.767E2	0.80	NO	0.084675
2	Total Tetra-Furans	23.70	2.60E2	3.033E2	0.66	NO	0.15040
3	2,3,7,8-TCDF	24.75	2.76E2	2.972E2	0.93	YES	0.14034



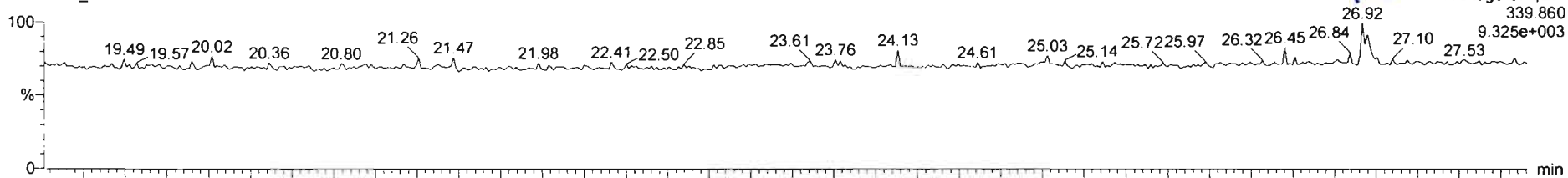
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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

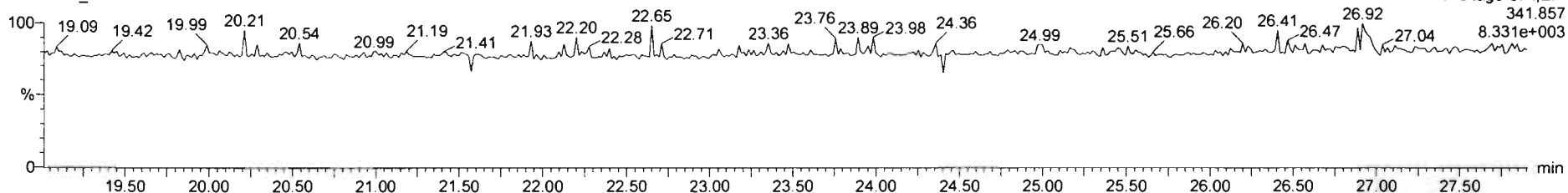
Name: 200314R3\_7, Date: 15-Mar-2020, Time: 04:04:09, ID: 2000411-10RE2 PDI-052SC-A-07-08-191015 13.95, Description: PDI-052SC-A-07-08-191015

1st Func. Penta-Furans

200314R3\_7

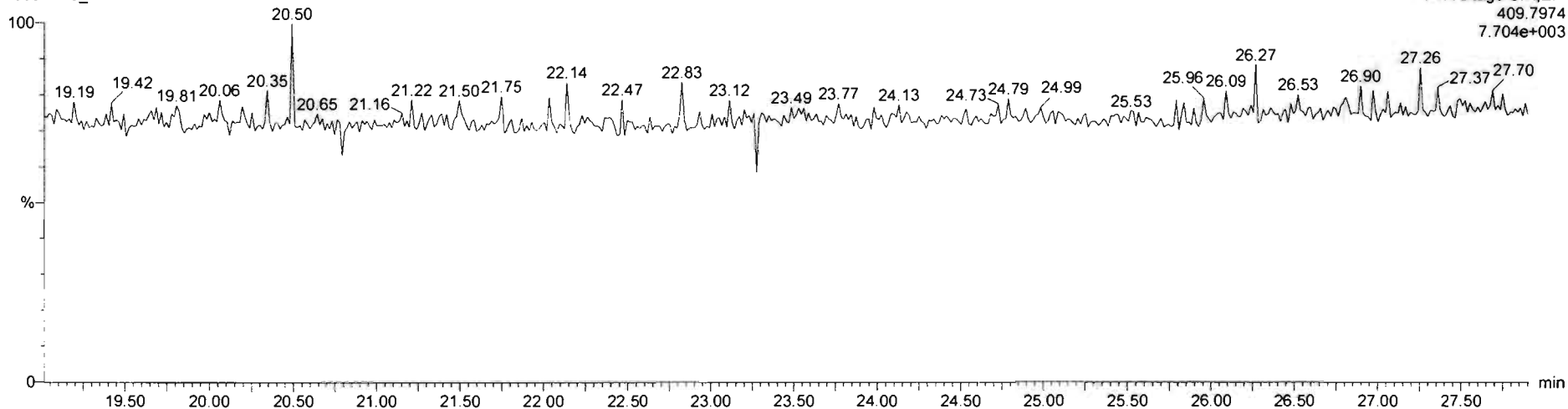


200314R3\_7



DPE6

200314R3\_7



200314R3\_7 (Chromatogram)

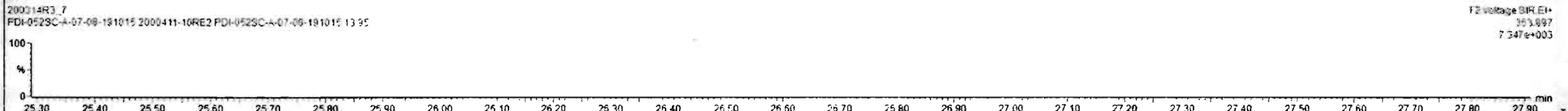
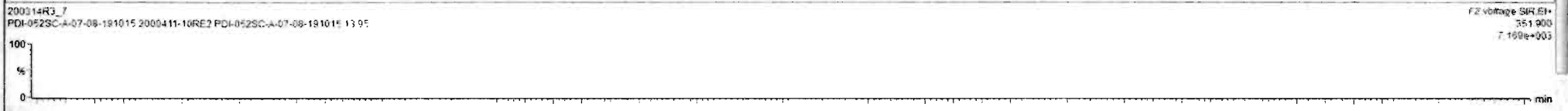
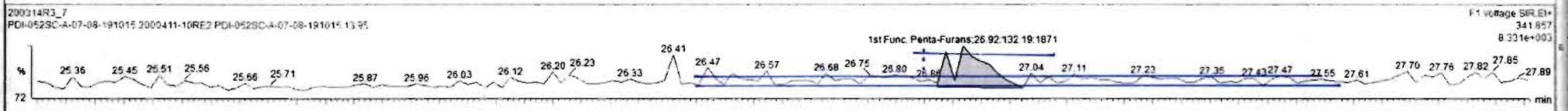
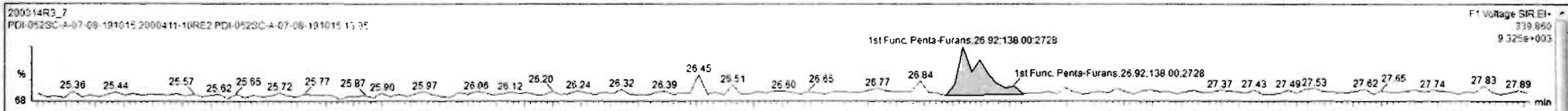
File Edit View Display Processing Window Help

200314R3\_7 - 2000411-10RE2 PDI-052SC-A-07-08-191015 13 95 - PDI-052SC-A-07-08-191015

Name	Resp	RA	n/y	RRF	wVol	RT	RRT	Conc	%Rec	DL	EMPC
1st Func. Penta-Furans				0.9504	10.025			0.000		0.0153	0.0728
Total Penta-Furans				0.0464	10.034			0.001		0.0017	0.001

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1st Func. Penta-Furans	26.92	1.380e2	1.322e2	1.04	YES	0.072577	0.00000



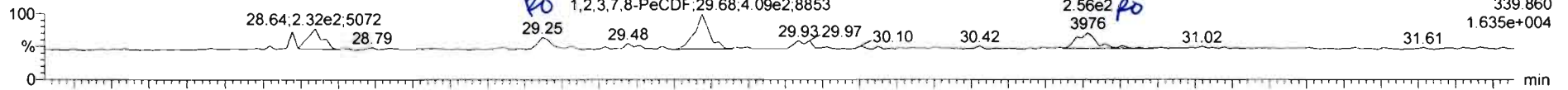
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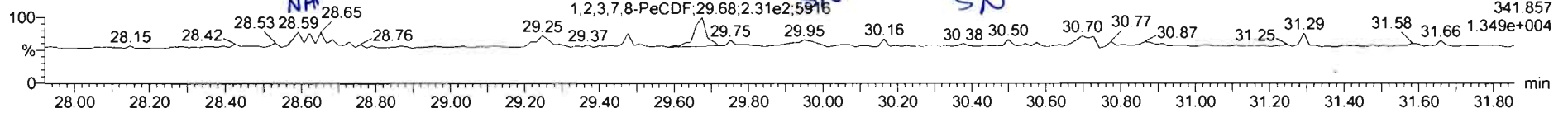
Name: 200314R3\_7, Date: 15-Mar-2020, Time: 04:04:09, ID: 2000411-10RE2 PDI-052SC-A-07-08-191015 13.95, Description: PDI-052SC-A-07-08-191015

1,2,3,7,8-PeCDF

200314R3\_7

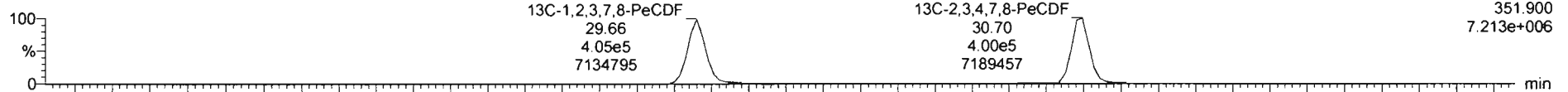


200314R3\_7

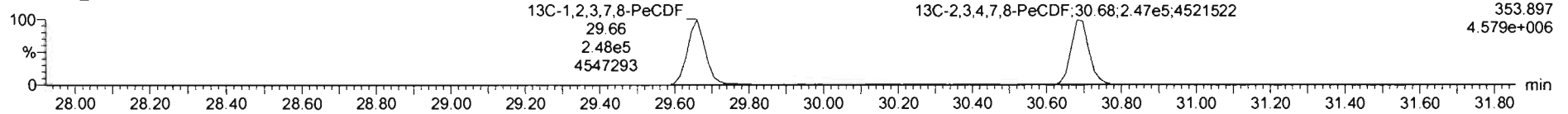


13C-1,2,3,7,8-PeCDF

200314R3\_7

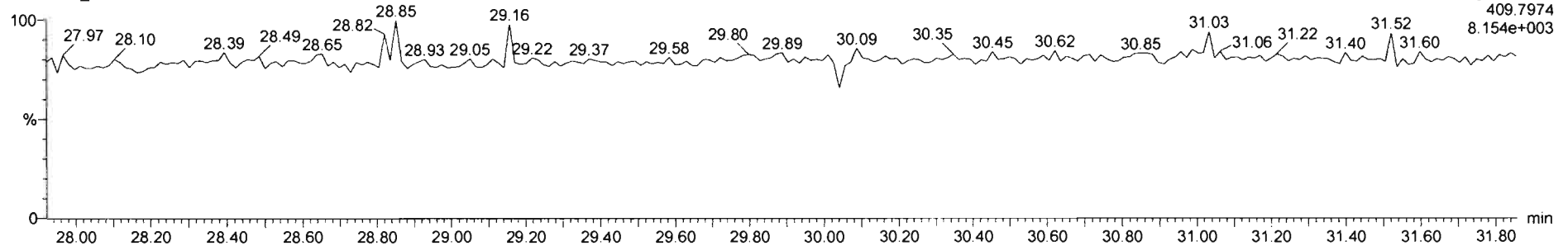


200314R3\_7



DPE2

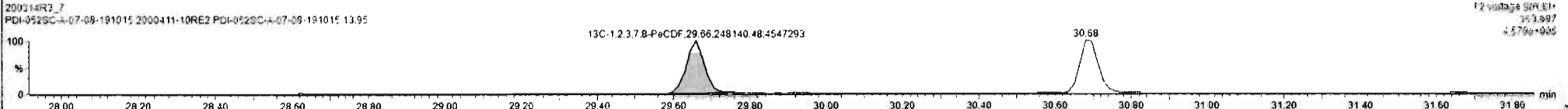
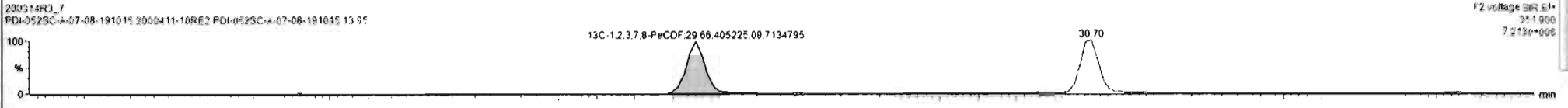
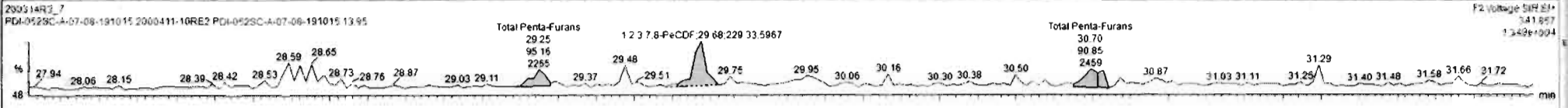
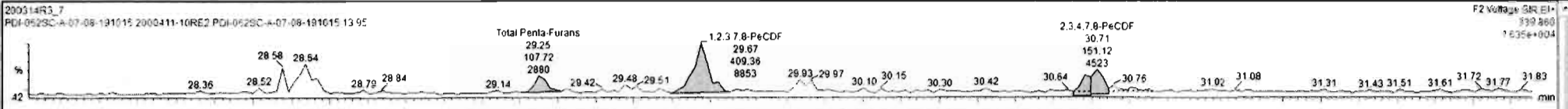
200314R3\_7





Name	Resp	RA	n/y	RRF	w/wvl	RT	RRT	Conc	%Rec	DL	EMPC
44 1st Func. Penta-Furans				0.9594	10.025			0.900		0.0153	0.0726
45 Total Penta-Furans				n=464	n=87			n=nm	n=nm	n=nm	n=nm

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Penta-Furans	29.25	1.077e2	6.516e1	1.13	YES	0.056653	0.00000
2 1,2,3,7,8-PeCDF	29.67	4.094e2	2.293e2	1.79	YES	0.18611	0.00000
3 Total Penta-Furans	30.68	1.119e2	9.085e1	1.23	YES	0.056874	0.00000
4 2,3,4,7,8-PeCDF	30.71	1.511e2	4.998e1	3.02	YES	0.039135	0.00000

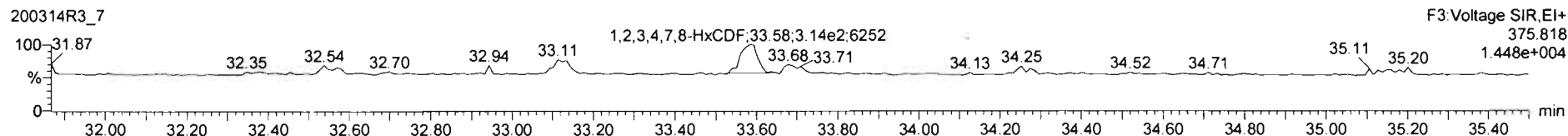
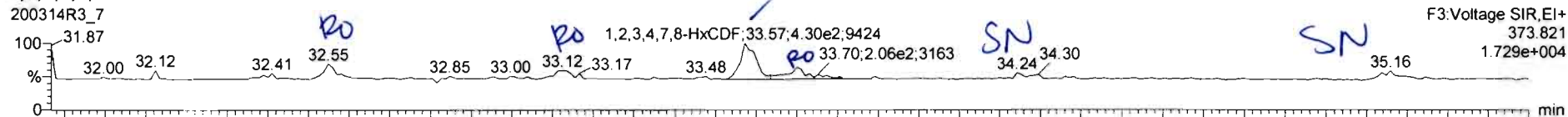


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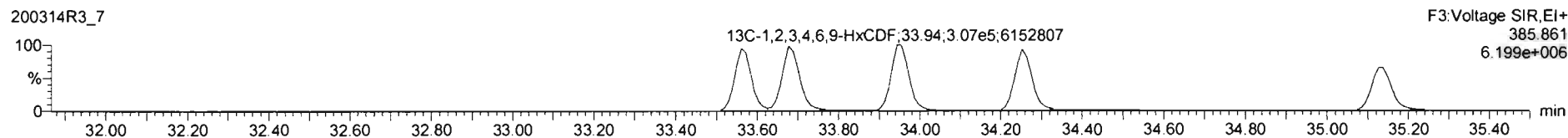
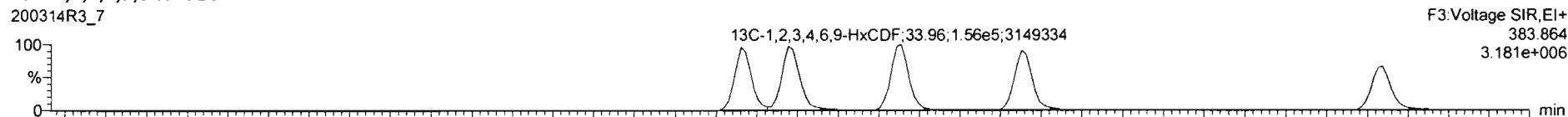
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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_7, Date: 15-Mar-2020, Time: 04:04:09, ID: 2000411-10RE2 PDI-052SC-A-07-08-191015 13.95, Description: PDI-052SC-A-07-08-191015

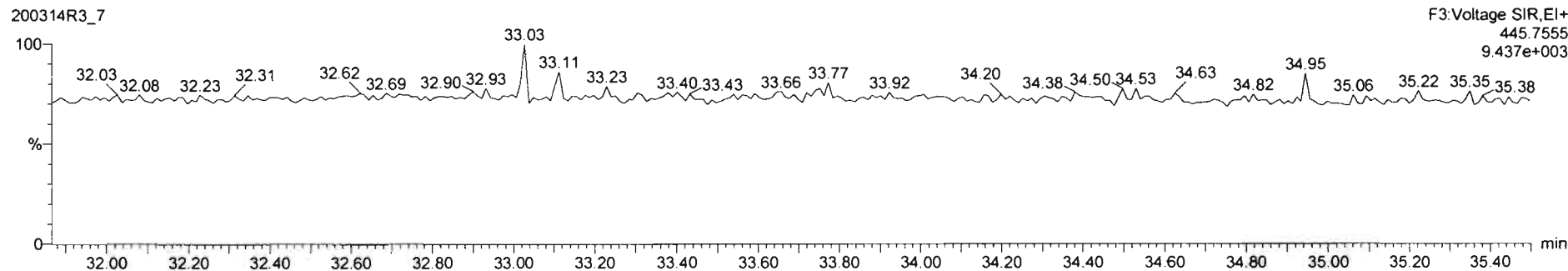
1,2,3,4,7,8-HxCDF



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



DPE3

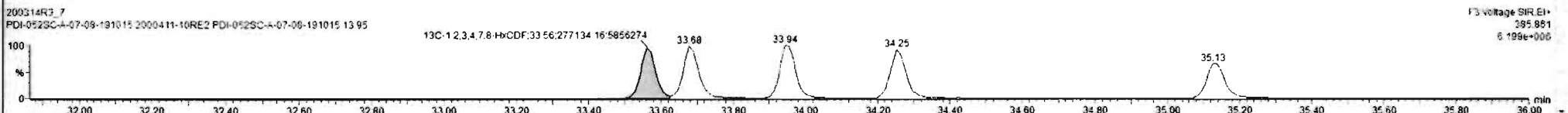
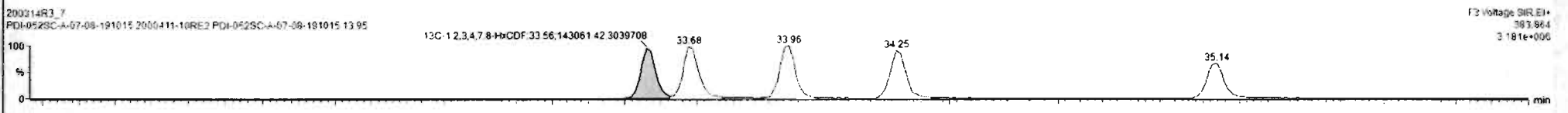
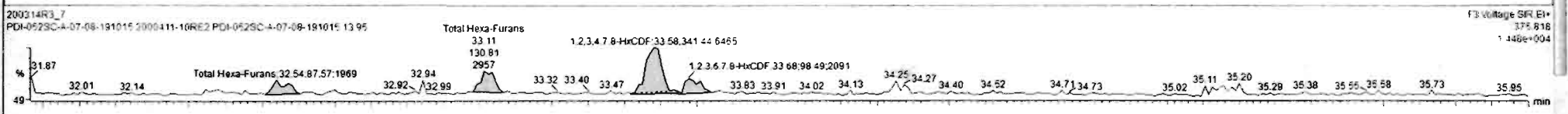
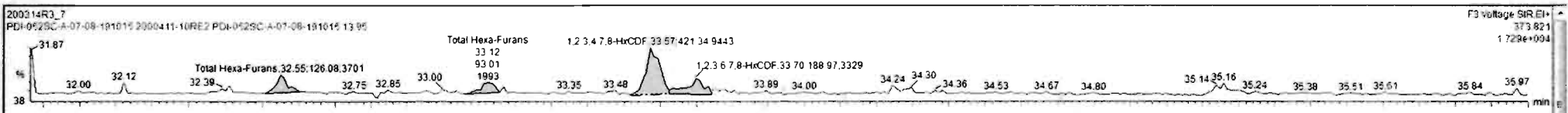


200314R3\_7 - 2000411-10RE2 PDI-052SC-A-07-08-191015 13 95 - PDI-052SC-A-07-08-191015

Name	Resp	RA	n/y	RRF	w/Vol	RT	RRT	Conc	%Rec	DL	EMPC
46 Total Hexa-Furans				1.6920	10.825			0.349		0.0638	0.687
47 Total Hexa-Furans				1.6837	10.095			0.747		0.128	0.747

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hexa-Furans	32.55	1.261e2	8.757e1	1.44	YES	0.087646	0.00090
2 Total Hexa-Furans	32.12	9.301e1	1.308e2	0.71	YES	0.075067	0.00000
3 1,2,3,4,7,8-HxCDF	33.57	4.213e2	3.414e2	1.23	NO	0.34886	0.34886
4 1,2,3,6,7,8-HxCDF	33.70	1.890e2	9.849e1	1.92	YES	0.085914	0.00000

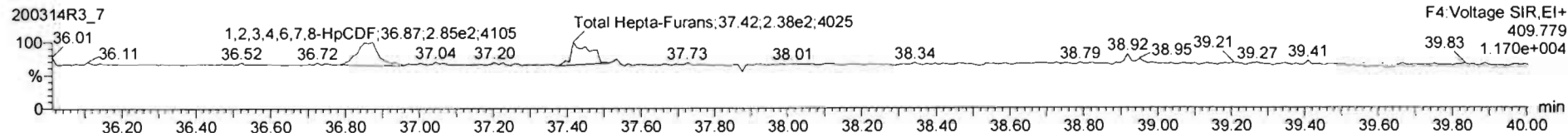
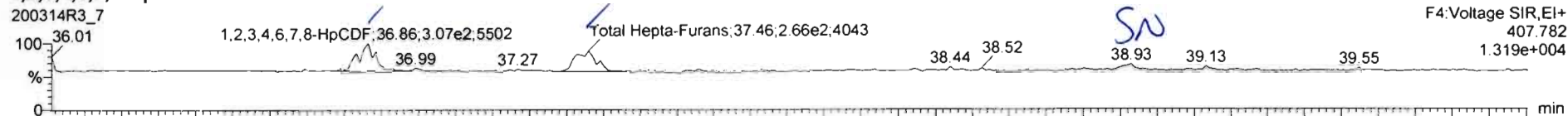


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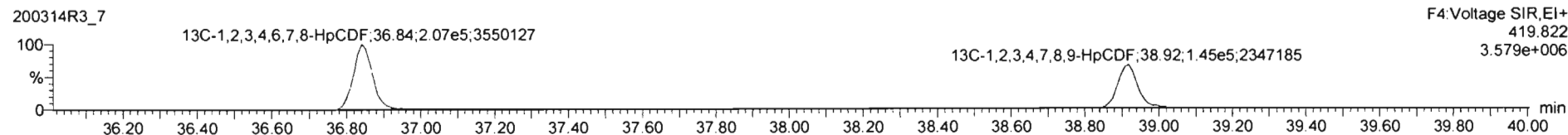
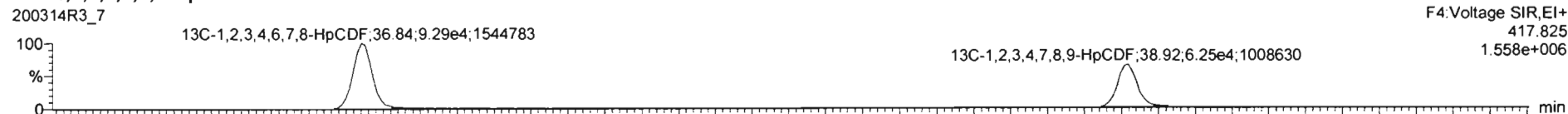
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Name: 200314R3\_7, Date: 15-Mar-2020, Time: 04:04:09, ID: 2000411-10RE2 PDI-052SC-A-07-08-191015 13.95, Description: PDI-052SC-A-07-08-191015

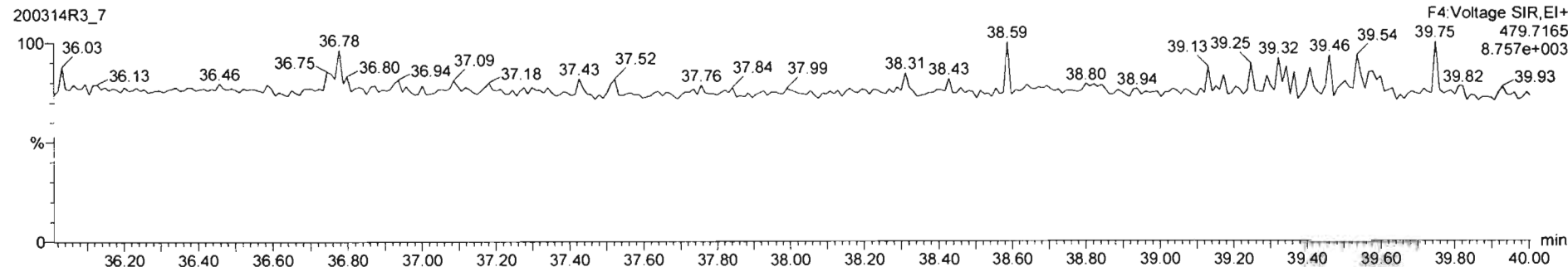
**1,2,3,4,6,7,8-HpCDF**



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



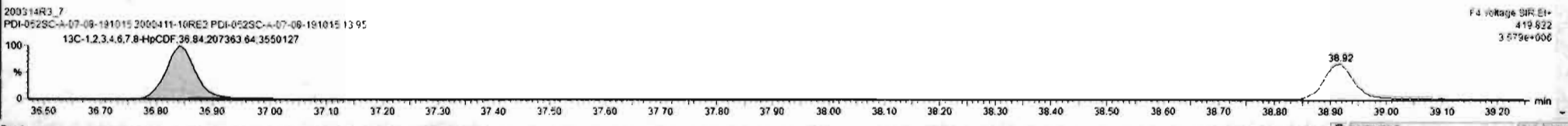
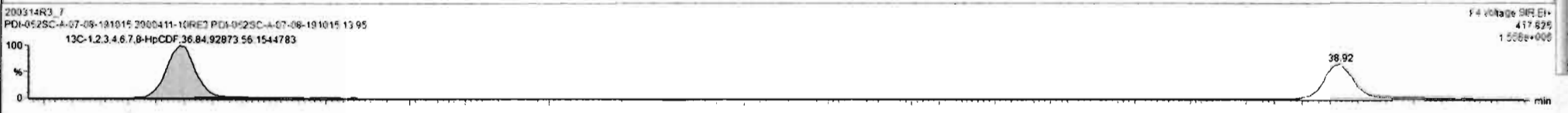
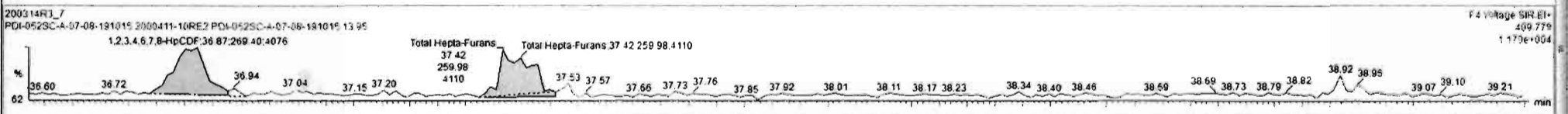
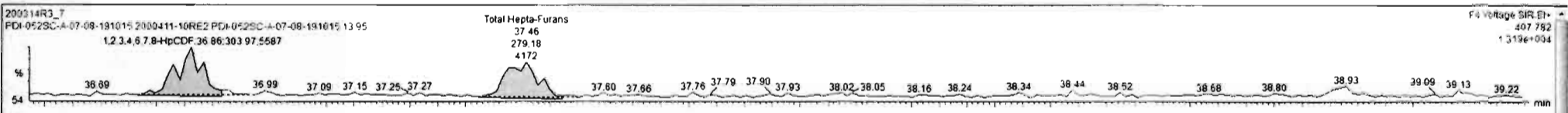
**DPE4**



200314R3\_7 - 2000411-10RE2 PDI-052SC-A 07-08-191015 13 95 - PDI-052SC-A 07-08-191015

Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
46	Total Hexa-Furans			1.0520	10.025			0.349		0.0638	0.667
47	Total Hepta-Furans			1.0663	10.025			0.362		0.1301	0.792

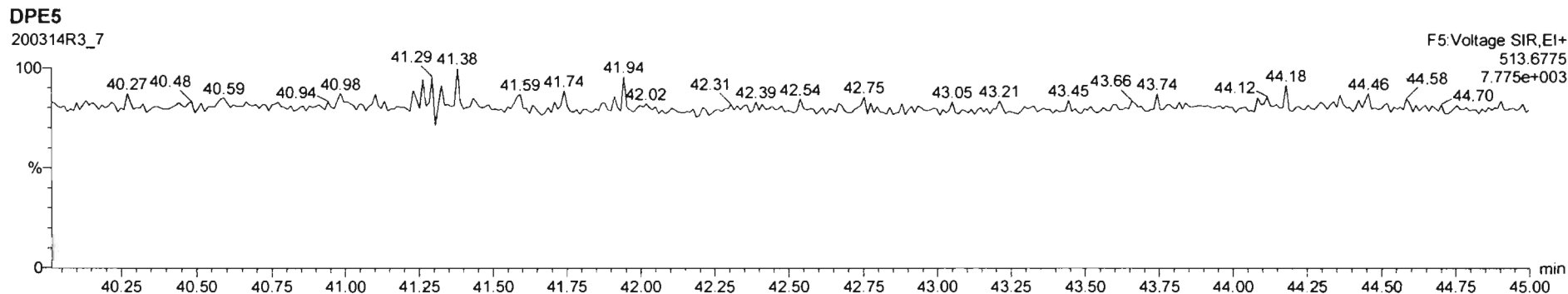
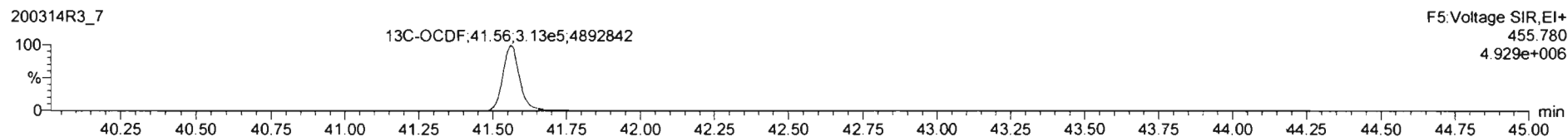
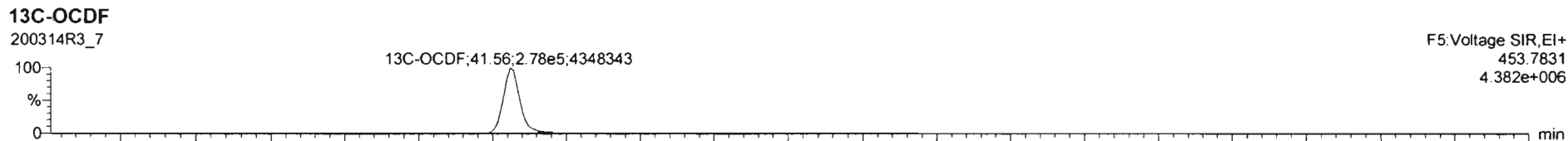
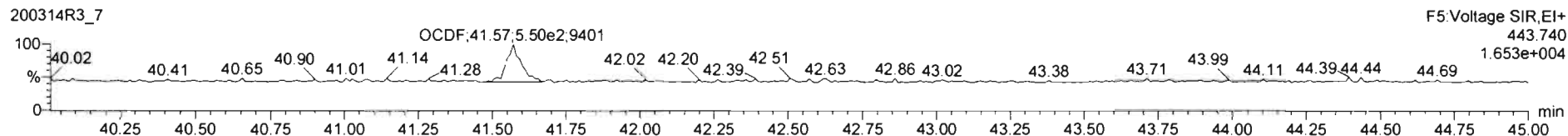
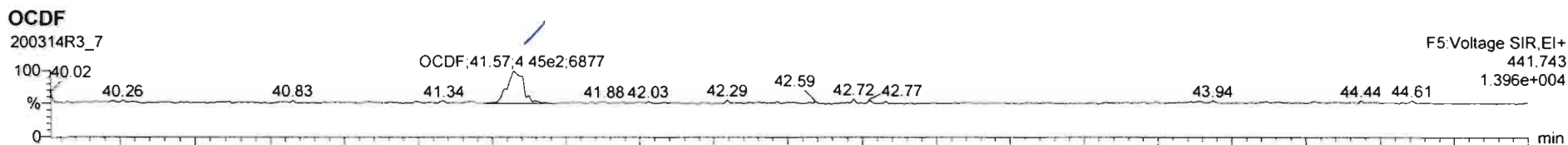
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1	1.2,3,4,6,7,8-HpCDF	36.86	3.040e2	2.694e2	1.13	NO	0.36344
2	Total Hepta-Furans	37.46	2.792e2	2.600e2	1.07	NO	0.40420



Dataset: Untitled

Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time  
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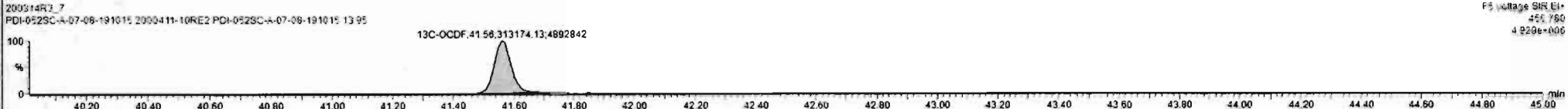
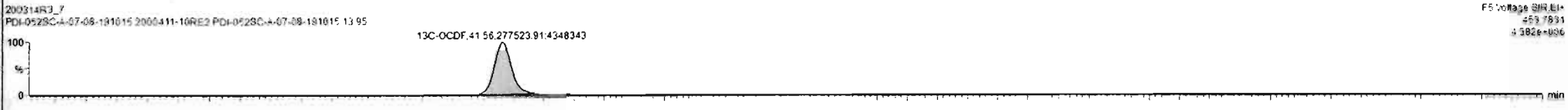
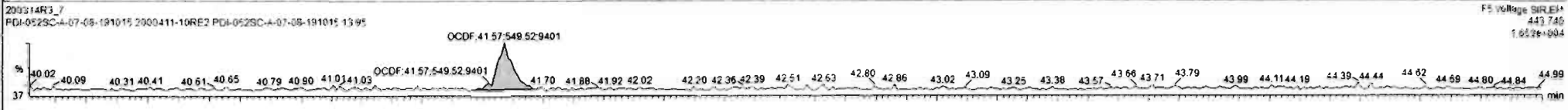
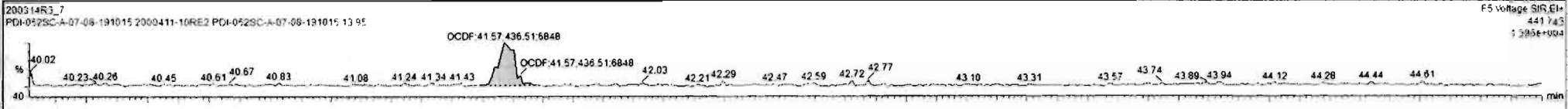
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Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
17	OCDF	9.86e2	0.78	NO	0.8468	10.825	41.57	1.000	0.783	0.140	0.703
18	11P.2 1.7 P.TTTH	6.06e4	0.77	NR	1.19e2	18.025	26.72	1.070	100	0.141	0.141

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



Dataset: Untitled

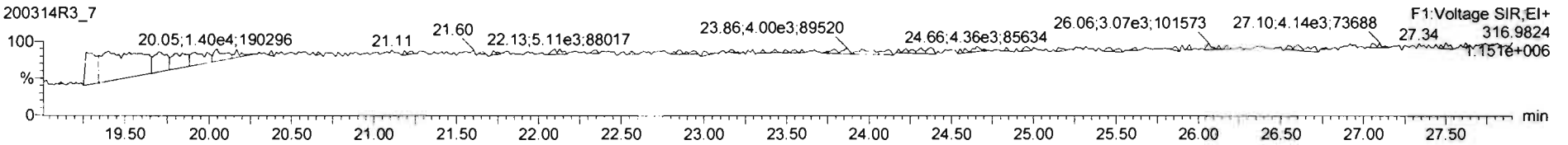
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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_7, Date: 15-Mar-2020, Time: 04:04:09, ID: 2000411-10RE2 PDI-052SC-A-07-08-191015 13.95, Description: PDI-052SC-A-07-08-191015

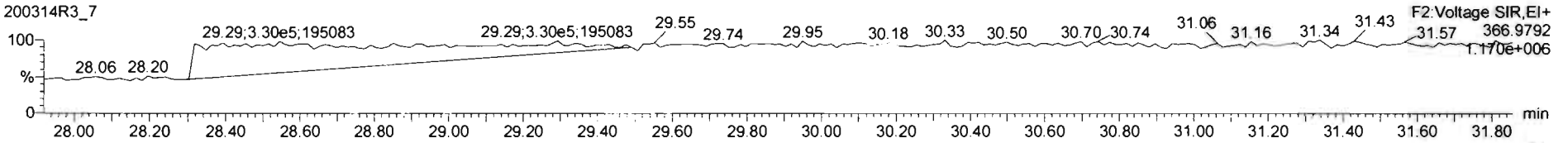
**PFK1**

200314R3\_7



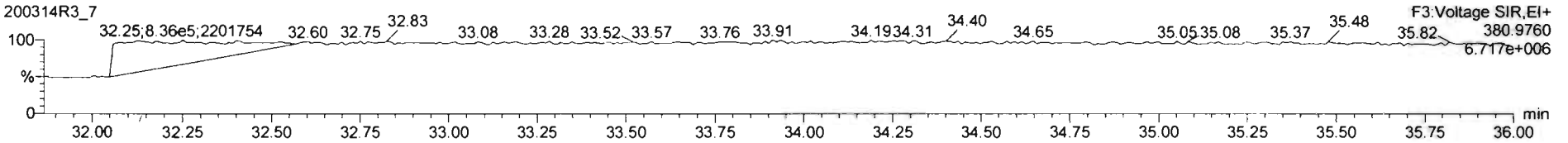
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200314R3\_7



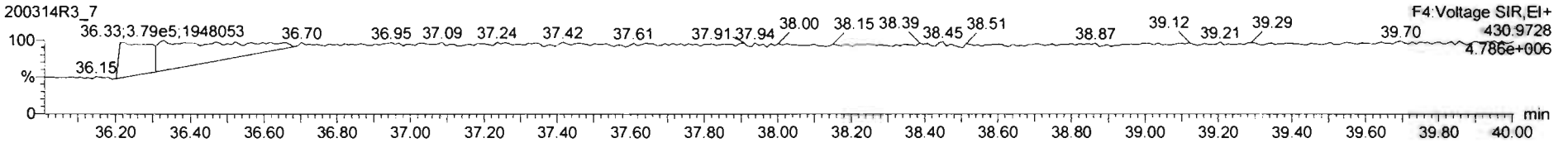
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200314R3\_7



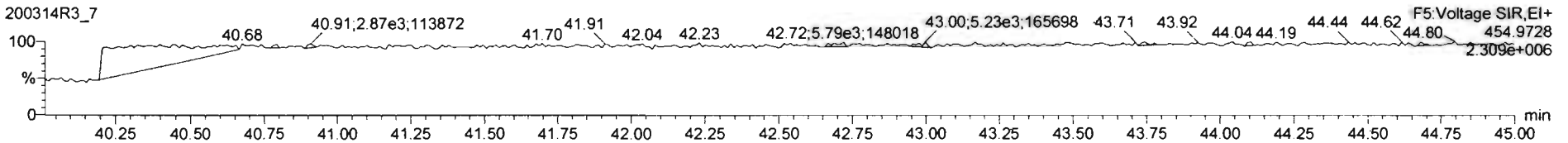
**PFK4**

200314R3\_7



**PFK5**

200314R3\_7





Dataset: U:\VG12.PRO\Results\200314R3\200314R3-8.qld

Last Altered: Sunday, March 15, 2020 2:57:00 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 2:57:57 PM Pacific Daylight Time

*GRB 03/15/2020*

Method: Untitled 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\ldb5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

*Man 3/15/20*

Name: 200314R3\_8, Date: 15-Mar-2020, Time: 04:51:42, ID: 2000411-11 PDI-052SC-A-08-09-191015 14.42, Description: PDI-052SC-A-08-09-191015

#	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	0.983	10.028	25.751		1.001				0.0697	
2	2 1,2,3,7,8-PeCDD			NO	0.921	10.028	31.025		1.001				0.0505	
3	3 1,2,3,4,7,8-HxCDD			NO	1.13	10.028	34.423		1.000				0.0631	
4	4 1,2,3,6,7,8-HxCDD			NO	0.984	10.028	34.520		1.000				0.0627	
5	5 1,2,3,7,8,9-HxCDD			NO	0.967	10.028	34.796		1.000				0.0752	
6	6 1,2,3,4,6,7,8-HpCDD			NO	1.01	10.028	38.269		1.000				0.130	
7	7 OCDD	2.98e3	0.77	NO	1.05	10.028	41.379	41.39	1.000	1.000	1.2137		0.107	1.21
8	8 2,3,7,8-TCDF			NO	0.915	10.028	24.758		1.001				0.0407	
9	9 1,2,3,7,8-PeCDF			NO	0.959	10.028	29.666		1.001				0.0313	
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.028	30.713		1.001				0.0277	
11	11 1,2,3,4,7,8-HxCDF			NO	1.04	10.028	33.561		1.000				0.0337	
12	12 1,2,3,6,7,8-HxCDF			NO	1.01	10.028	33.688		1.000				0.0332	
13	13 2,3,4,6,7,8-HxCDF			NO	1.09	10.028	34.288		1.001				0.0347	
14	14 1,2,3,7,8,9-HxCDF	1.85e2	1.20	NO	1.03	10.028	35.127	35.14	1.000	1.000	0.059105		0.0257	0.0591
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.05	10.028	36.878		1.001				0.0546	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.028	38.908		1.000				0.0692	
17	17 OCDF			NO	0.947	10.028	41.560		1.000				0.0713	
18	18 13C-2,3,7,8-TCDD	9.15e5	0.78	NO	1.18	10.028	25.720	25.72	1.029	1.029	212.12	106	0.302	
19	19 13C-1,2,3,7,8-PeCDD	7.46e5	0.64	NO	0.864	10.028	30.900	31.00	1.236	1.240	236.94	119	0.284	
20	20 13C-1,2,3,4,7,8-HxCDD	5.23e5	1.24	NO	0.754	10.028	34.417	34.41	1.014	1.014	202.14	101	0.439	
21	21 13C-1,2,3,6,7,8-HxCDD	6.45e5	1.26	NO	0.925	10.028	34.525	34.52	1.017	1.017	202.96	102	0.357	
22	22 13C-1,2,3,7,8,9-HxCDD	5.80e5	1.25	NO	0.829	10.028	34.787	34.79	1.025	1.025	203.60	102	0.399	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.99e5	1.04	NO	0.598	10.028	38.242	38.26	1.127	1.127	194.53	97.5	0.412	
24	24 13C-OCDD	9.33e5	0.85	NO	0.571	10.028	41.389	41.38	1.219	1.219	475.97	119	0.432	
25	25 13C-2,3,7,8-TCDF	1.19e6	0.78	NO	1.09	10.028	24.742	24.73	0.990	0.989	197.19	98.9	0.438	
26	26 13C-1,2,3,7,8-PeCDF	1.03e6	1.57	NO	0.876	10.028	29.572	29.65	1.183	1.186	211.41	106	0.641	
27	27 13C-2,3,4,7,8-PeCDF	1.05e6	1.58	NO	0.844	10.028	30.582	30.68	1.223	1.227	224.39	113	0.666	
28	28 13C-1,2,3,4,7,8-HxCDF	7.15e5	0.51	NO	1.00	10.028	33.565	33.56	0.989	0.989	208.43	105	0.445	
29	29 13C-1,2,3,6,7,8-HxCDF	7.70e5	0.51	NO	1.12	10.028	33.673	33.68	0.992	0.992	200.67	101	0.398	
30	30 13C-2,3,4,6,7,8-HxCDF	7.07e5	0.51	NO	1.04	10.028	34.254	34.25	1.009	1.009	199.11	99.8	0.430	
31	31 13C-1,2,3,7,8,9-HxCDF	6.07e5	0.53	NO	0.873	10.028	35.126	35.13	1.035	1.035	202.55	102	0.510	

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-8.qld

Last Altered: Sunday, March 15, 2020 2:57:00 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 2:57:57 PM Pacific Daylight Time

Name: 200314R3\_8, Date: 15-Mar-2020, Time: 04:51:42, ID: 2000411-11 PDI-052SC-A-08-09-191015 14.42, Description: PDI-052SC-A-08-09-191015

#	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	5.09e5	0.45	NO	0.771	10.028	36.841	36.84	1.085	1.085	192.34	96.4	0.522	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.49e5	0.45	NO	0.519	10.028	38.925	38.91	1.147	1.146	195.71	98.1	0.775	
34	34 13C-OCDF	1.18e6	0.89	NO	0.696	10.028	41.569	41.56	1.225	1.224	492.24	123	0.500	
35	35 37Cl-2,3,7,8-TCDD	2.92e5			1.17	10.028	25.730	25.75	1.029	1.030	68.254	85.6	0.0895	
36	36 13C-1,2,3,4-TCDD	7.26e5	0.79	NO	1.00	10.028	25.050	25.00	1.000	1.000	199.44	100	0.358	
37	37 13C-1,2,3,4-TCDF	1.11e6	0.79	NO	1.00	10.028	23.190	23.09	1.000	1.000	199.44	100	0.477	
38	38 13C-1,2,3,4,6,9-HxCDF	6.84e5	0.52	NO	1.00	10.028	33.880	33.94	1.000	1.000	199.44	100	0.445	
39	39 Total Tetra-Dioxins				0.983	10.028	24.620		0.000		0.16318		0.0451	0.163
40	40 Total Penta-Dioxins				0.921	10.028	29.960		0.000				0.0200	
41	41 Total Hexa-Dioxins				0.984	10.028	33.635		0.000		0.00000		0.0432	0.163
42	42 Total Hepta-Dioxins				1.01	10.028	37.640		0.000		0.34261		0.130	0.343
43	43 Total Tetra-Furans				0.915	10.028	23.610		0.000				0.0178	
44	44 1st Func. Penta-Furans				0.959	10.028	27.090		0.000				0.0111	
45	45 Total Penta-Furans				0.959	10.028	29.275		0.000				0.0145	
46	46 Total Hexa-Furans				1.09	10.028	33.555		0.000		0.059105		0.0188	0.0690
47	47 Total Hepta-Furans				1.05	10.028	37.835		0.000				0.0285	

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-8.qld

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Calibration: U:\VG12.PRO\CurveDB\lb5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R3\_8, Date: 15-Mar-2020, Time: 04:51:42, ID: 2000411-11 PDI-052SC-A-08-09-191015 14.42, Description: PDI-052SC-A-08-09-191015

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	23.34	4.012e3	4.948e3	3.155e2	4.206e2	0.75	NO	7.361e2	0.16318	0.16318	0.0451

**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	Total Hexa-Dioxins	32.96	5.394e3	7.086e3	2.601e2	2.900e2	0.90	YES	0.000e0	0.00000	0.16348	0.0694

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.24	5.656e3	5.384e3	3.412e2	3.490e2	0.98	NO	6.902e2	0.34261	0.34261	0.130

**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												

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-8.qld

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Last Altered: 3/15/2020 2:57:00 PM

Name: 200314R3\_8, Date: 15-Mar-2020, Time: 04:51:42, ID: 2000411-11 PDI-052SC-A-08-09-191015 14.42, Description: PDI-052SC-A-08-09-191015

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	1,2,3,7,8,9-HxCDF	35.14	2.275e3	2.458e3	1.007e2	8.397e1	1.20	NO	1.847e2	0.059105	0.059105	0.0257
2	Total Hexa-Furans	35.16	1.430e3	1.034e3	3.590e1	1.693e1	2.12	YES	0.000e0	0.00000	0.00989...	0.0188

Hepta-Furans

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

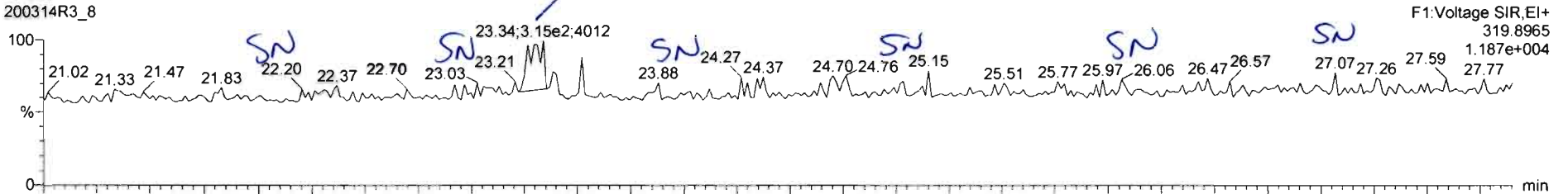
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Name: 200314R3\_8, Date: 15-Mar-2020, Time: 04:51:42, ID: 2000411-11 PDI-052SC-A-08-09-191015 14.42, Description: PDI-052SC-A-08-09-191015

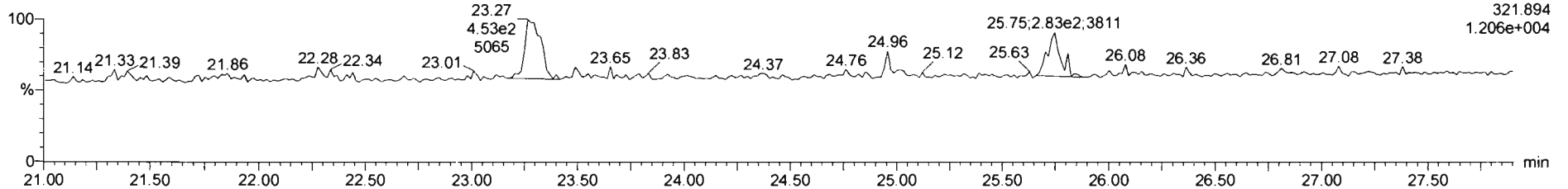
**2,3,7,8-TCDD**

200314R3\_8



F1: Voltage SIR, EI+  
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1.187e+004

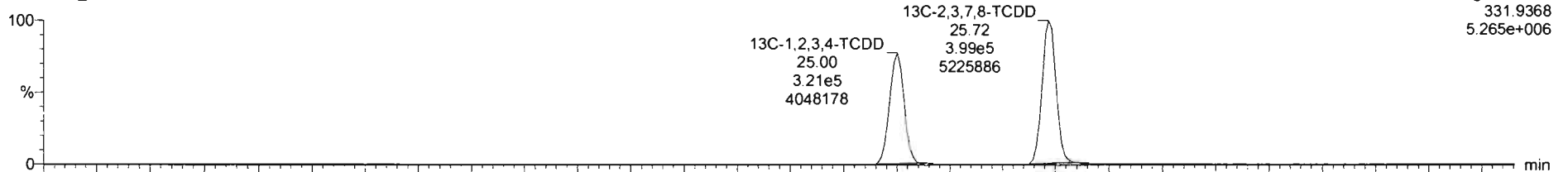
200314R3\_8



F1: Voltage SIR, EI+  
321.894  
1.206e+004

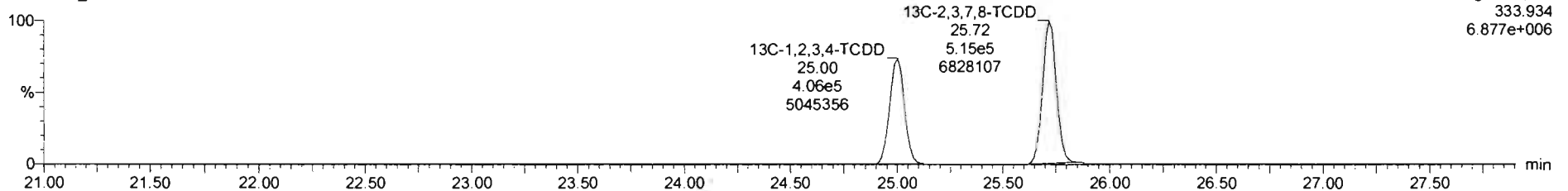
**13C-2,3,7,8-TCDD**

200314R3\_8



F1: Voltage SIR, EI+  
331.9368  
5.265e+006

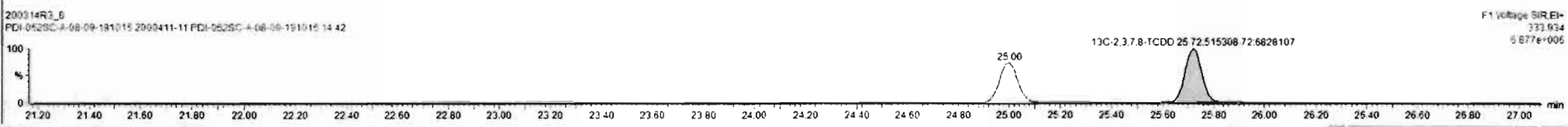
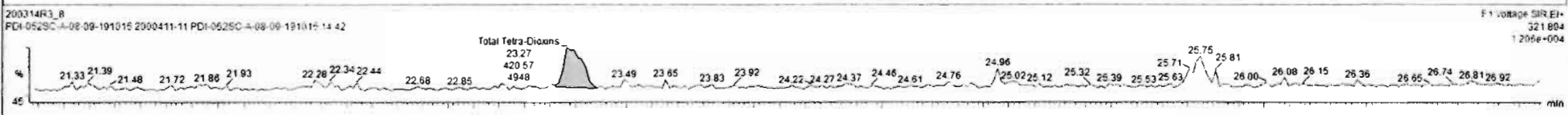
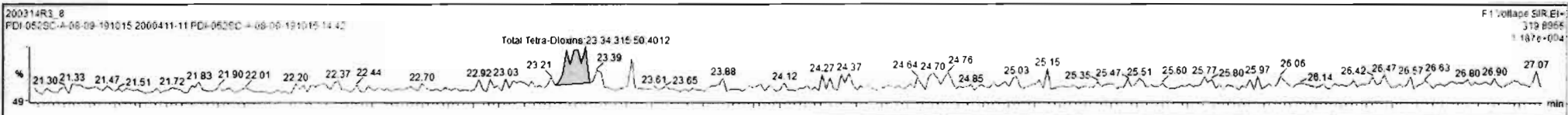
200314R3\_8



F1: Voltage SIR, EI+  
333.934  
6.877e+006

Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.028			0.163	0.0451	0.163	
40 Total Penta-Dioxins				0.9212	10.028					0.0200	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Tetra-Dioxins	23.34	3.155e2	4.706e2	0.75	NO	0.16318	0.16318



Dataset: Untitled

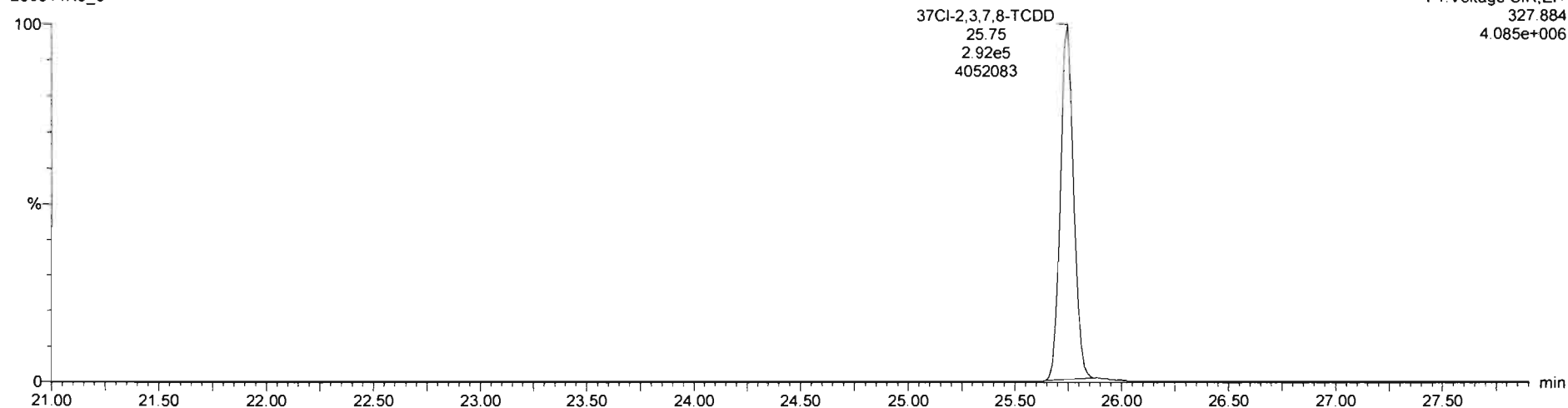
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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_8, Date: 15-Mar-2020, Time: 04:51:42, ID: 2000411-11 PDI-052SC-A-08-09-191015 14.42, Description: PDI-052SC-A-08-09-191015

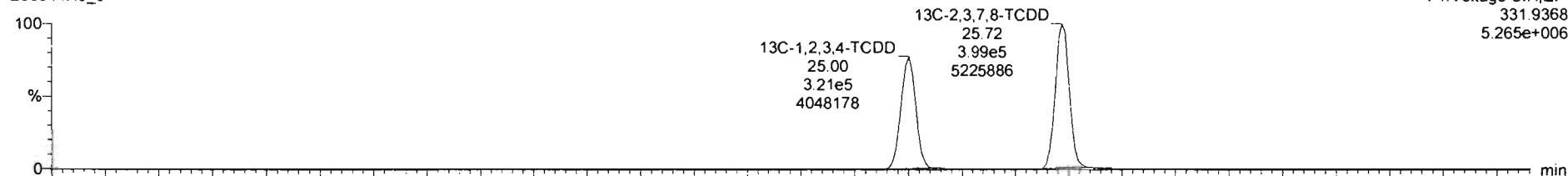
**37Cl-2,3,7,8-TCDD**

200314R3\_8

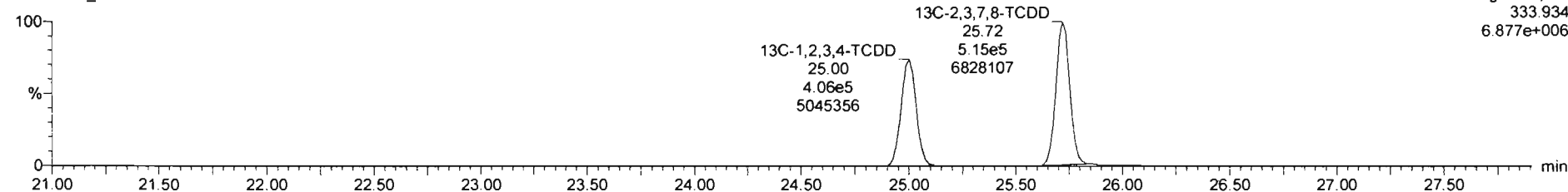


**13C-1,2,3,4-TCDD**

200314R3\_8



200314R3\_8



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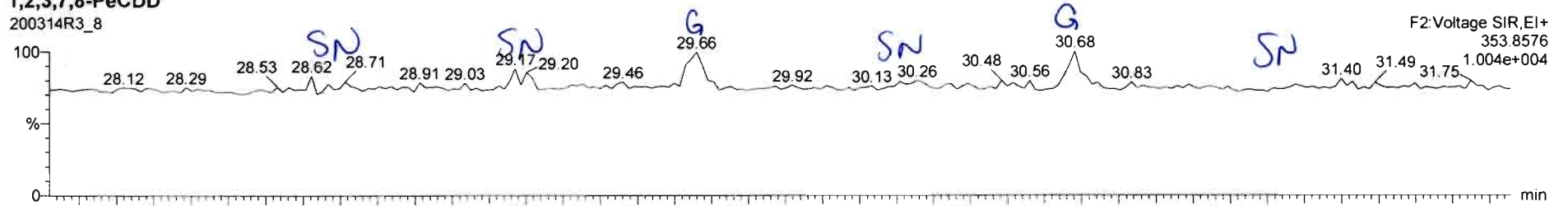
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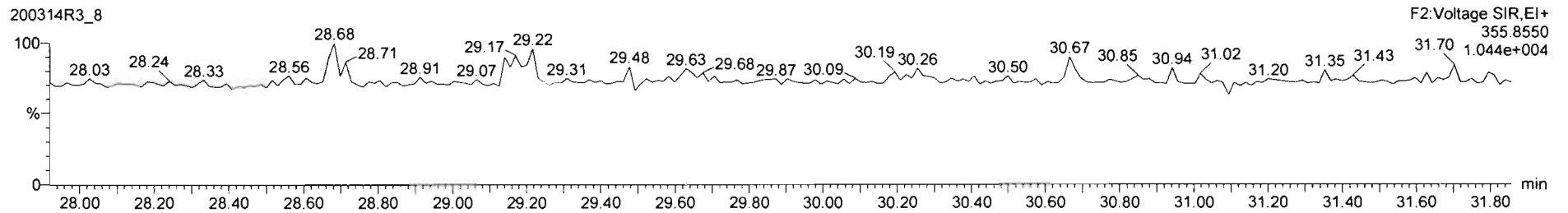
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1,2,3,7,8-PeCDD

200314R3\_8

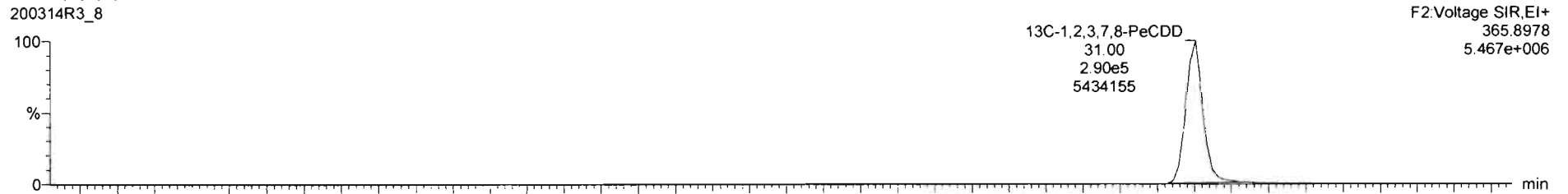


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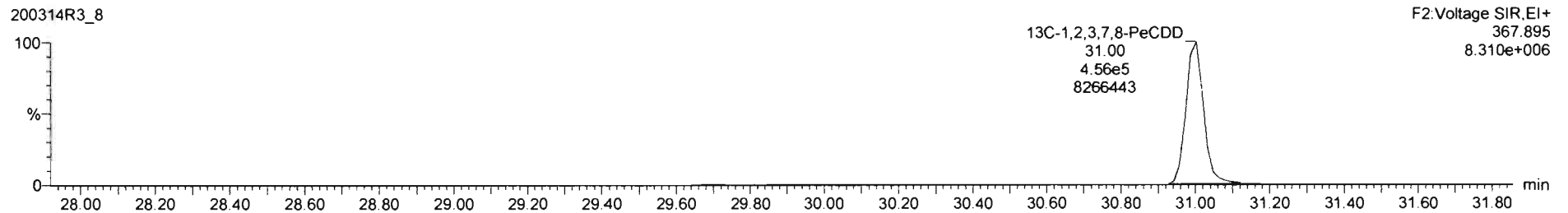


13C-1,2,3,7,8-PeCDD

200314R3\_8



200314R3\_8





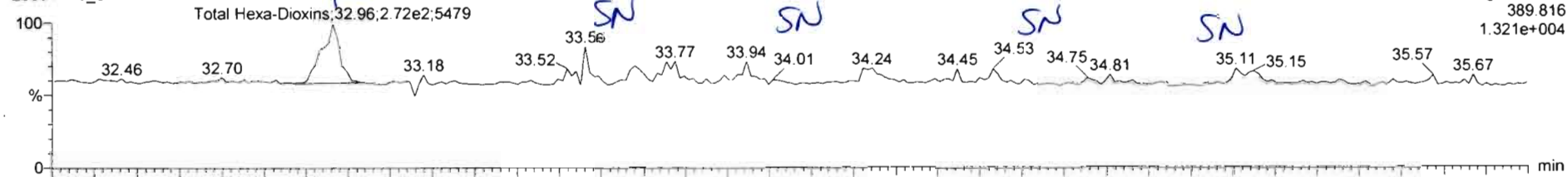
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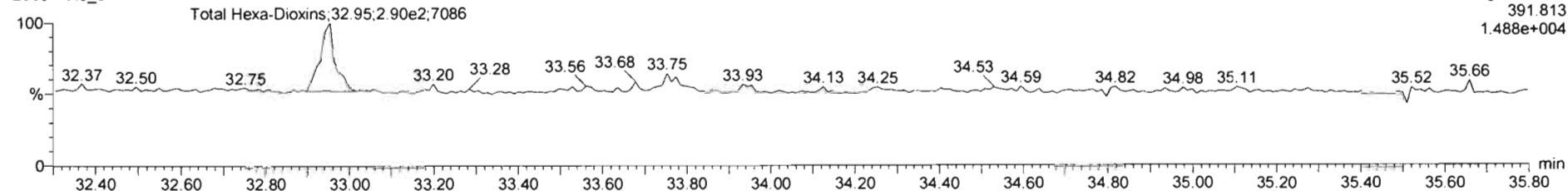
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1,2,3,4,7,8-HxCDD

200314R3\_8

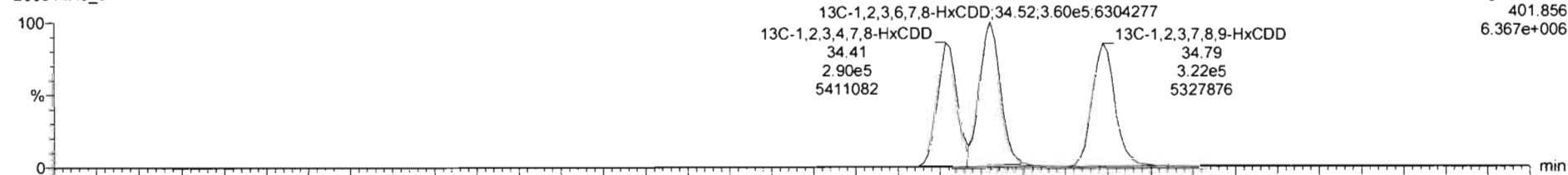


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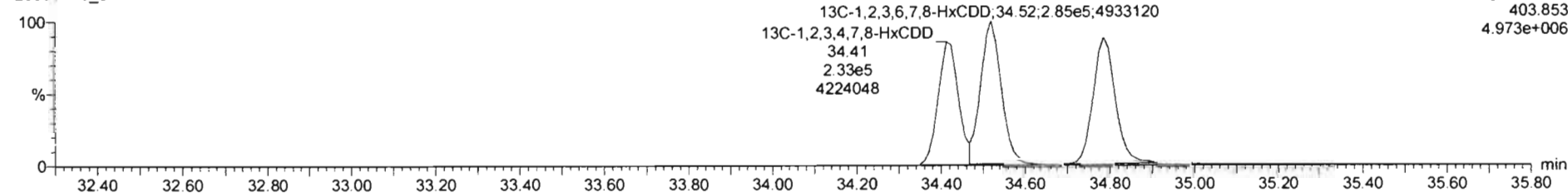


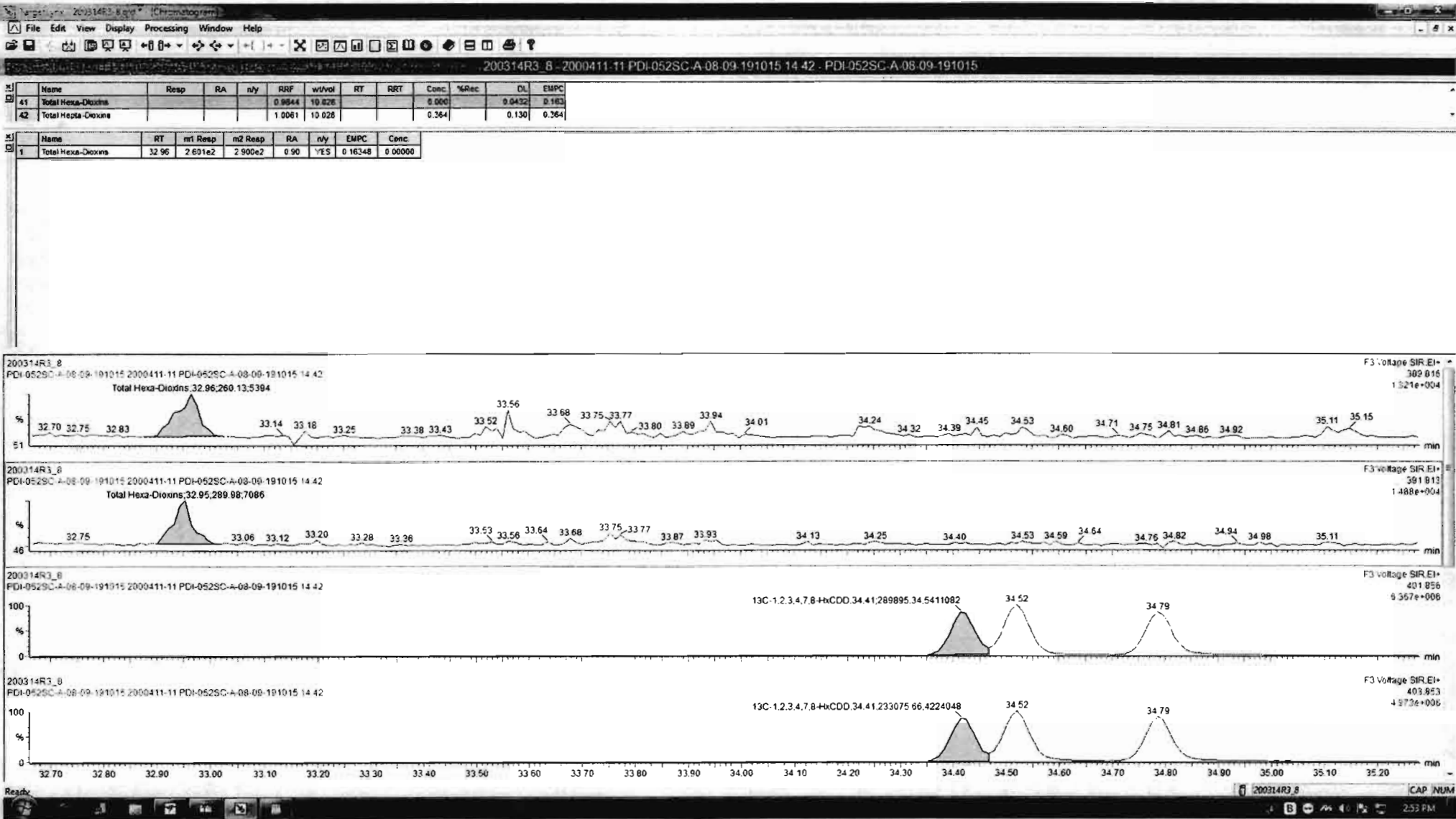
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200314R3\_8



200314R3\_8



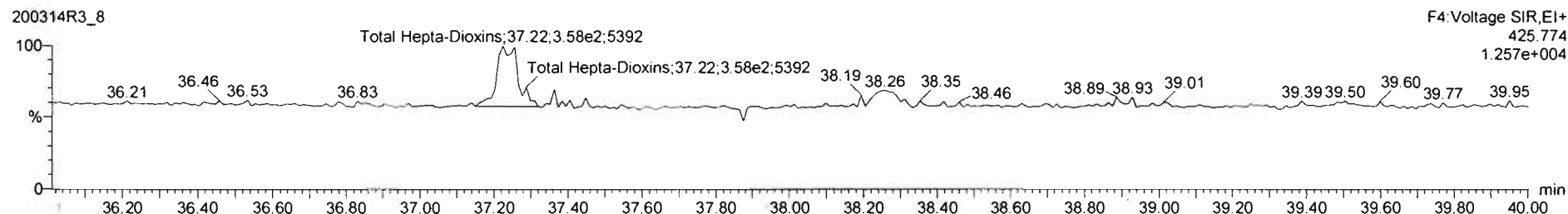
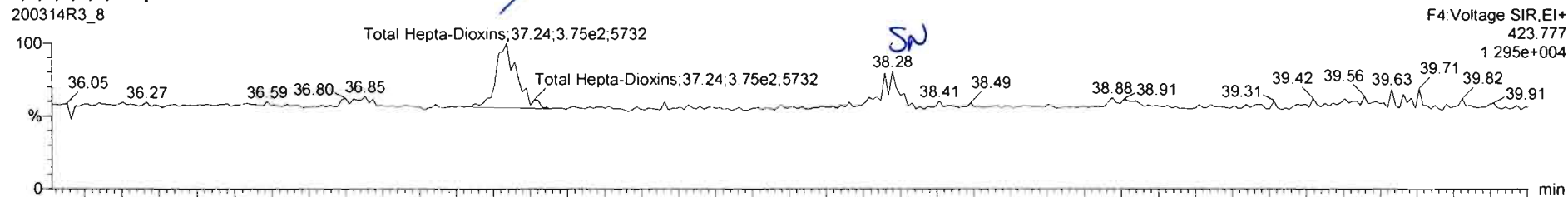


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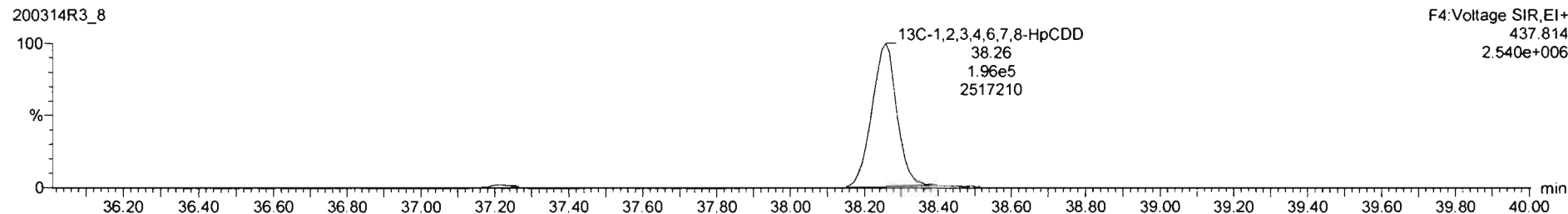
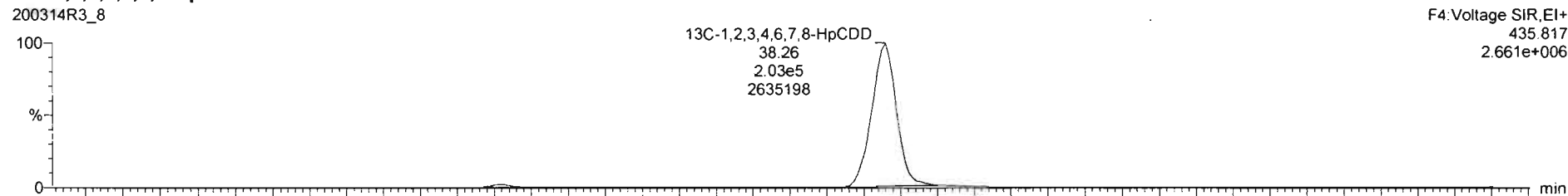
Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_8, Date: 15-Mar-2020, Time: 04:51:42, ID: 2000411-11 PDI-052SC-A-08-09-191015 14.42, Description: PDI-052SC-A-08-09-191015

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



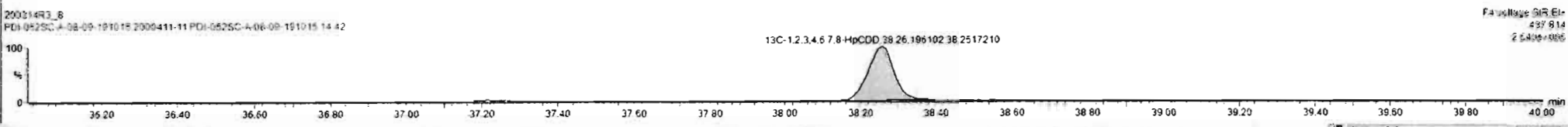
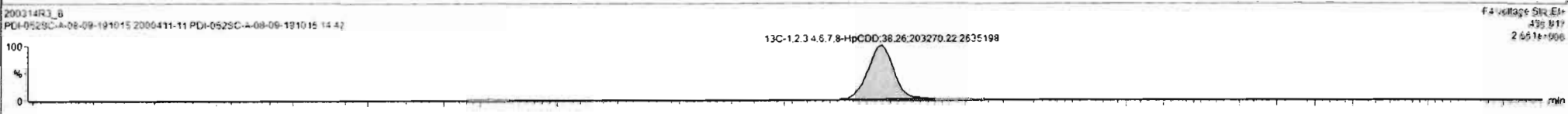
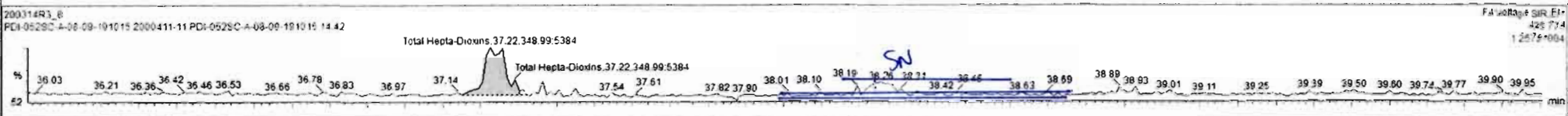
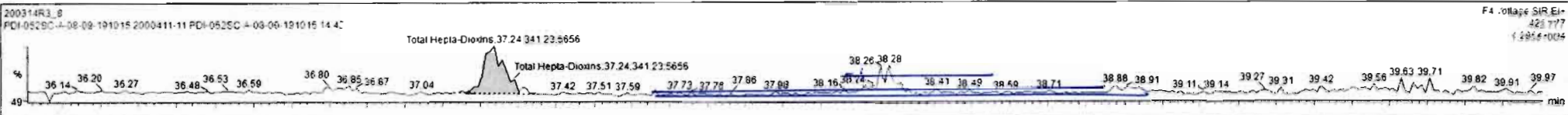
13C-1,2,3,4,6,7,8-HpCDD



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
41 Total Hexa-Dioxins				0.9844	10.028			0.000	0.0432	0.163	
42 Total Hepta-Dioxins				1.0061	10.828			0.343	0.130	0.343	

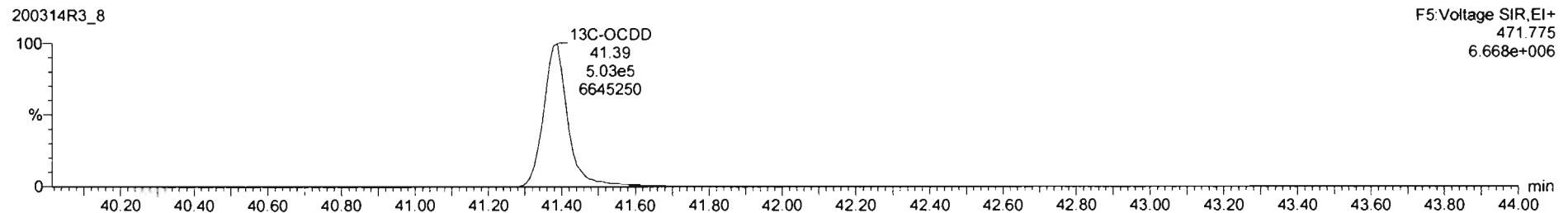
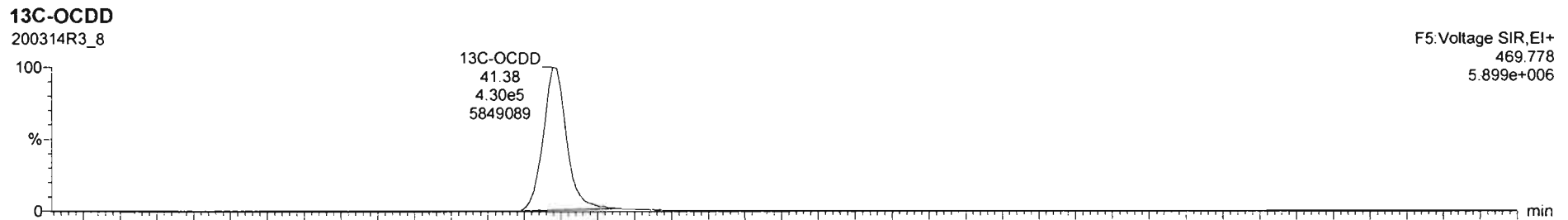
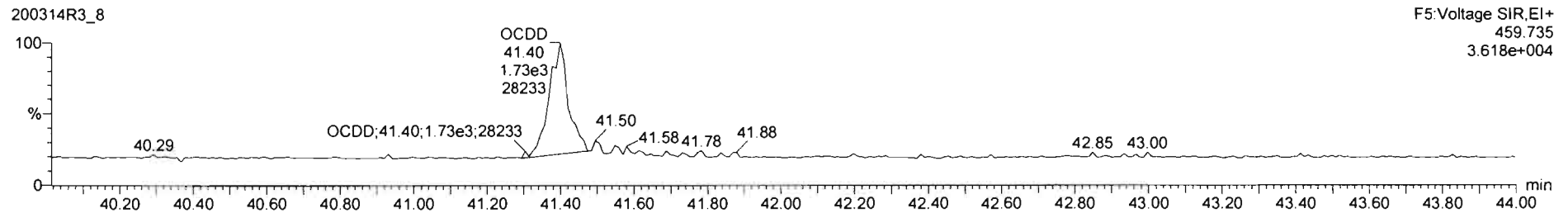
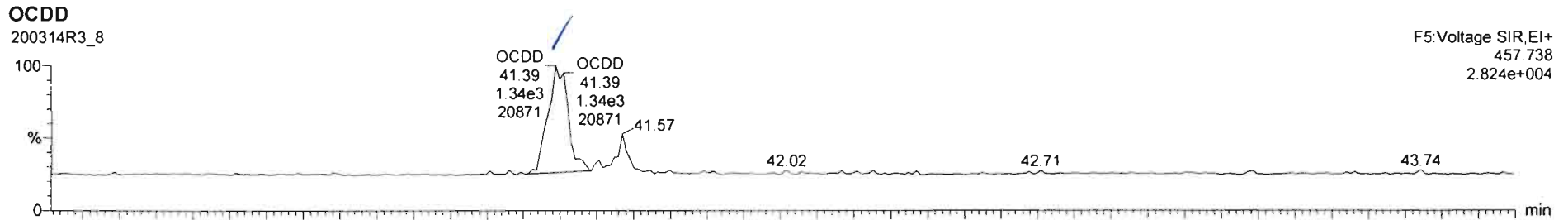
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hepta-Dioxins	37.24	3.412e2	3.450e2	0.98	NO	0.34261	0.34261



Dataset: Untitled

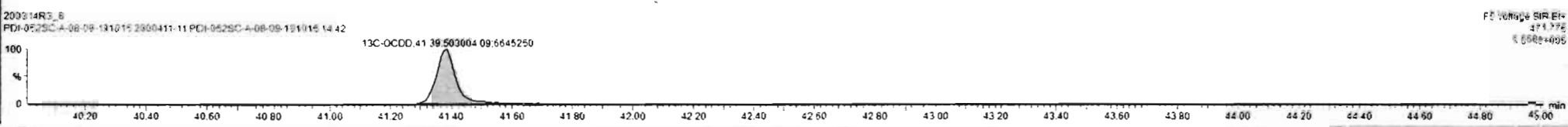
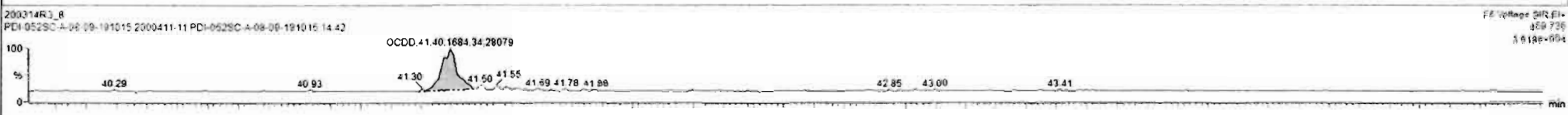
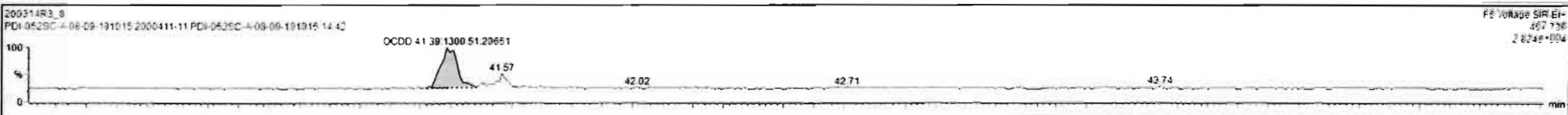
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Name: 200314R3\_8, Date: 15-Mar-2020, Time: 04:51:42, ID: 2000411-11 PDI-052SC-A-08-09-191015 14.42, Description: PDI-052SC-A-08-09-191015



SI	Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
7	OCDD	2.96e3	0.77	NO	1.8515	10.028	41.39	1.000	1.21		0.107	1.21
8	2,2,7,8-TCDF			NO	0.9154	10.028					0.0467	

SI	Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1								

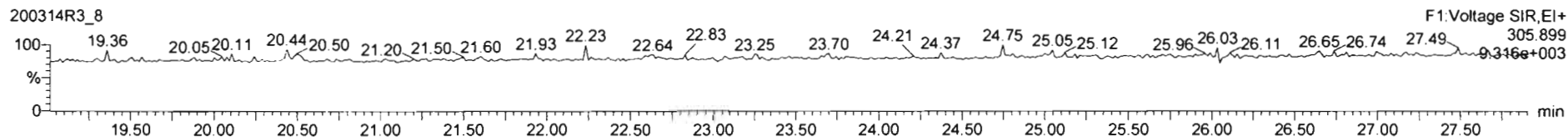
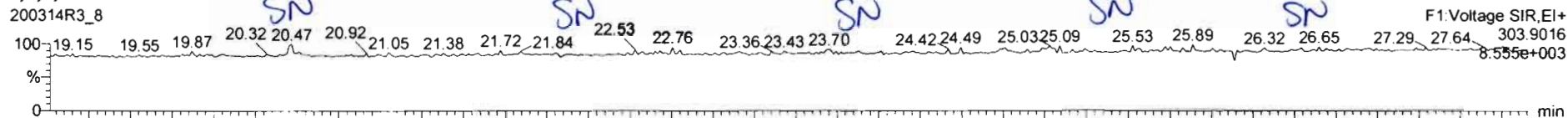


Dataset: Untitled

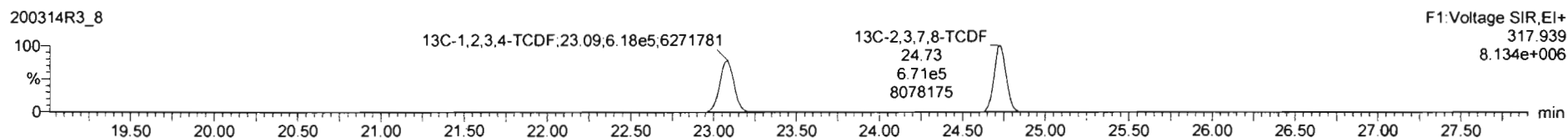
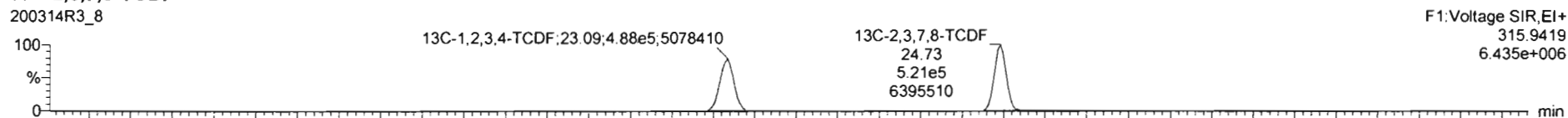
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Name: 200314R3\_8, Date: 15-Mar-2020, Time: 04:51:42, ID: 2000411-11 PDI-052SC-A-08-09-191015 14.42, Description: PDI-052SC-A-08-09-191015

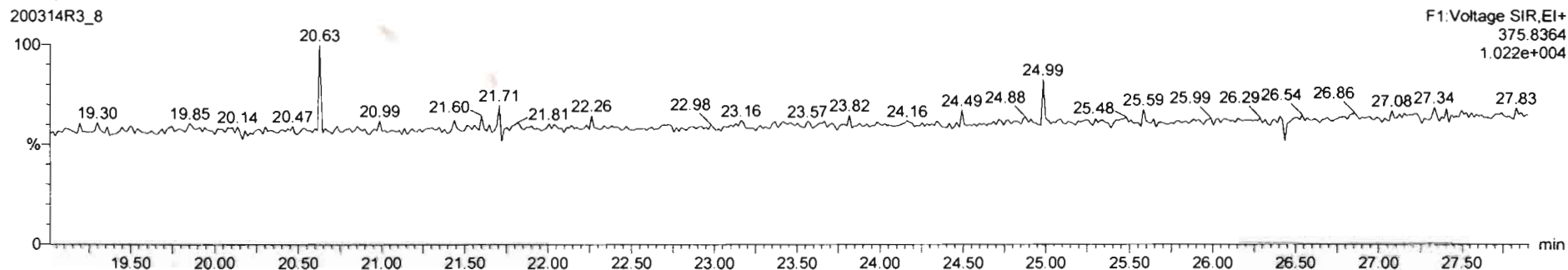
2,3,7,8-TCDF

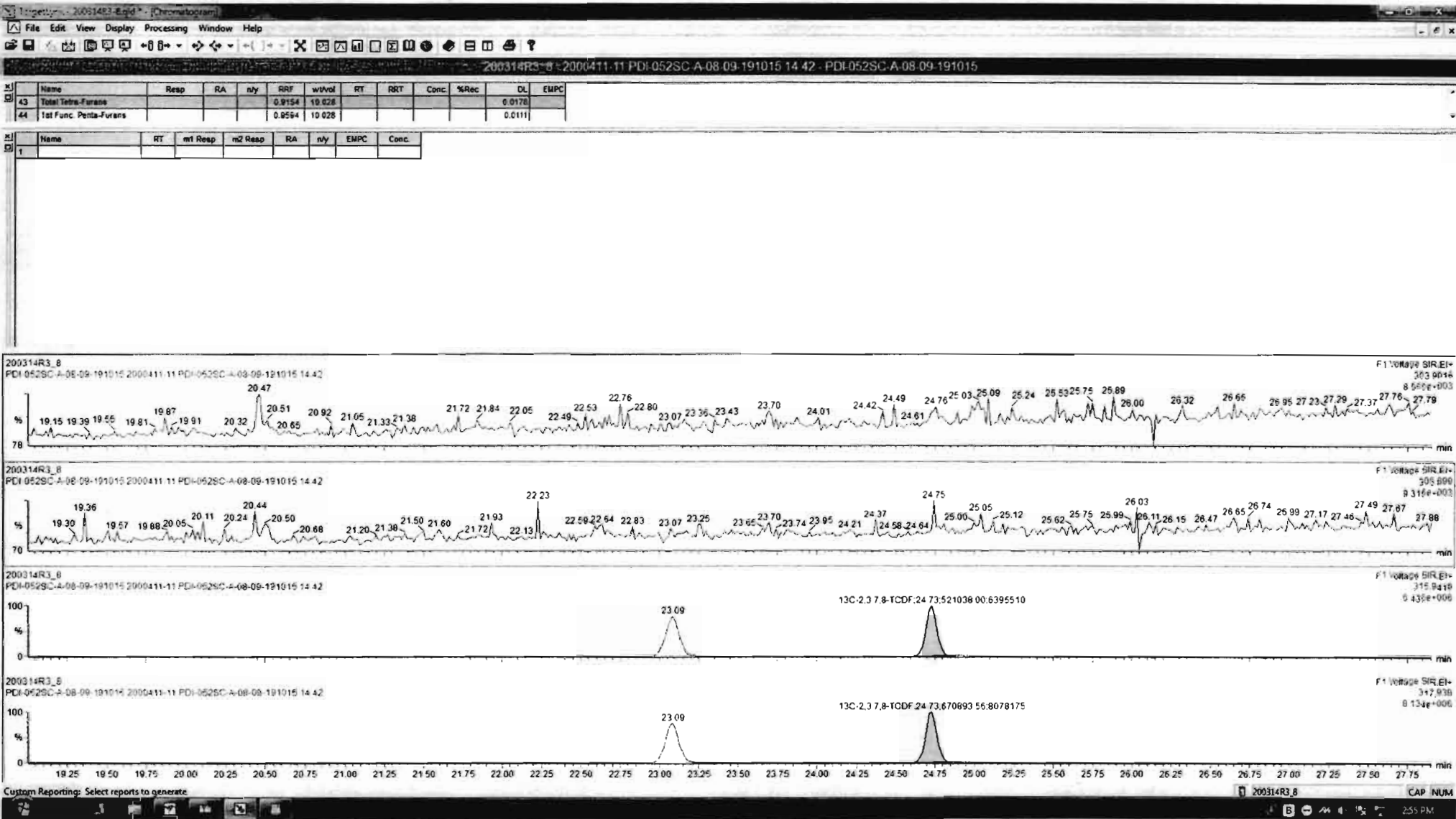


13C-2,3,7,8-TCDF



DPE1





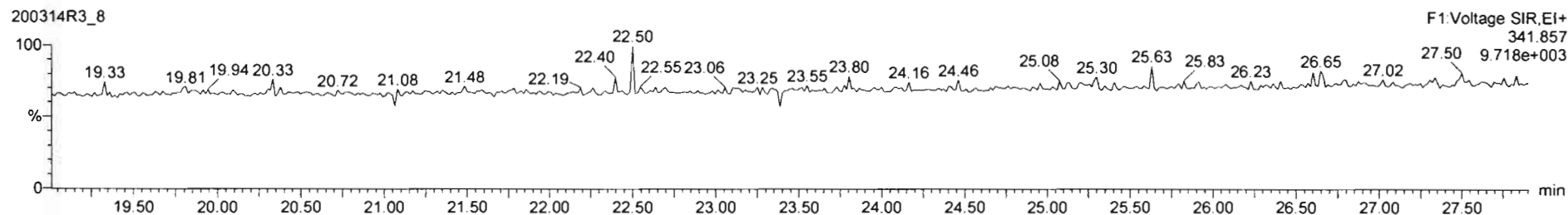
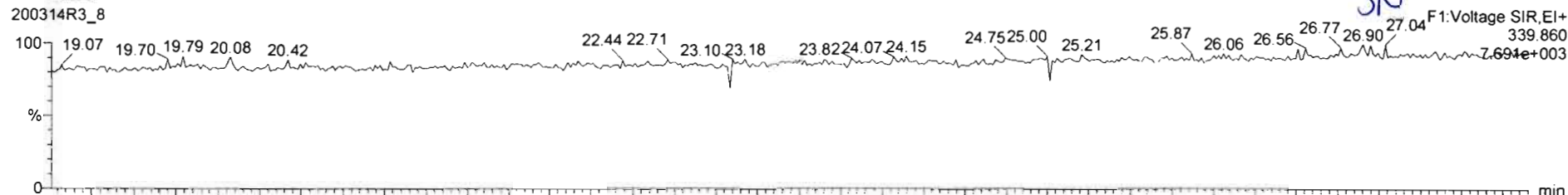


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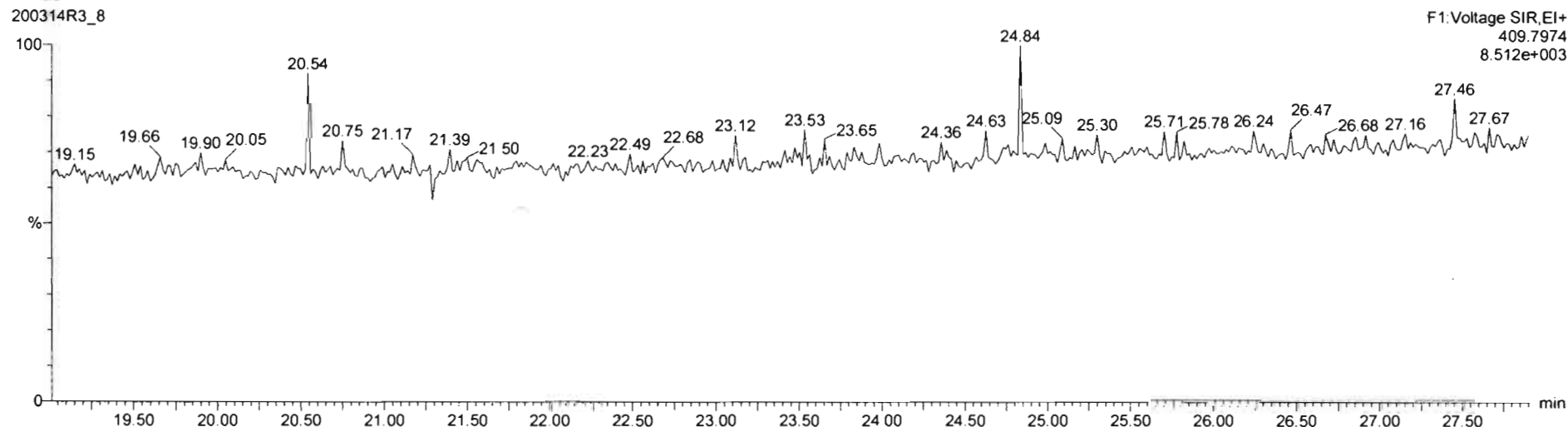
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Name: 200314R3\_8, Date: 15-Mar-2020, Time: 04:51:42, ID: 2000411-11 PDI-052SC-A-08-09-191015 14.42, Description: PDI-052SC-A-08-09-191015

1st Func. Penta-Furans



DPE6

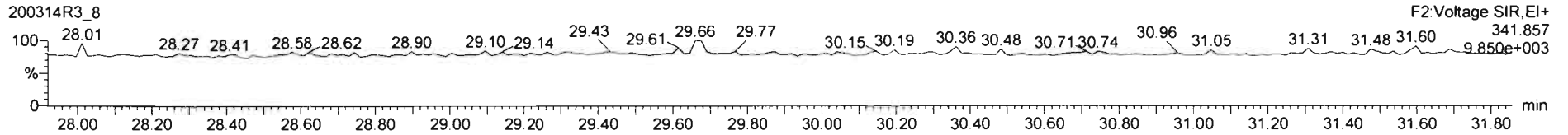
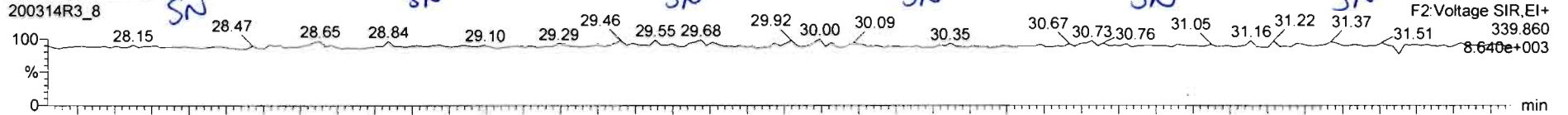


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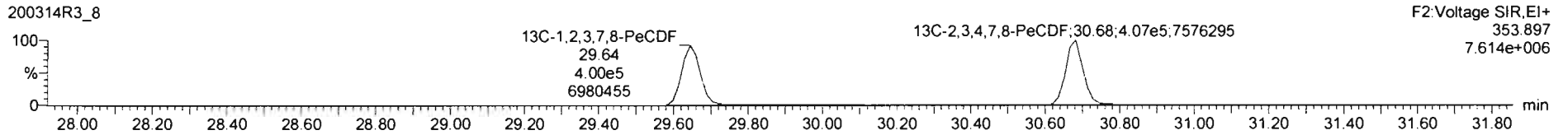
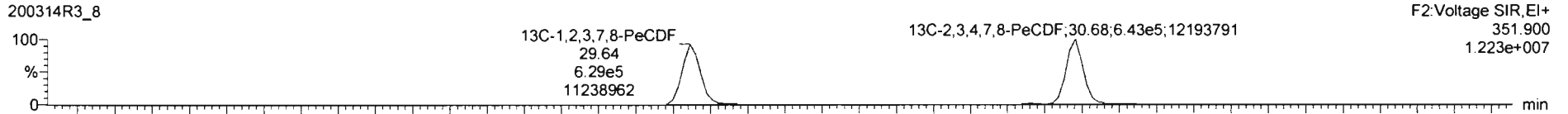
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Name: 200314R3\_8, Date: 15-Mar-2020, Time: 04:51:42, ID: 2000411-11 PDI-052SC-A-08-09-191015 14.42, Description: PDI-052SC-A-08-09-191015

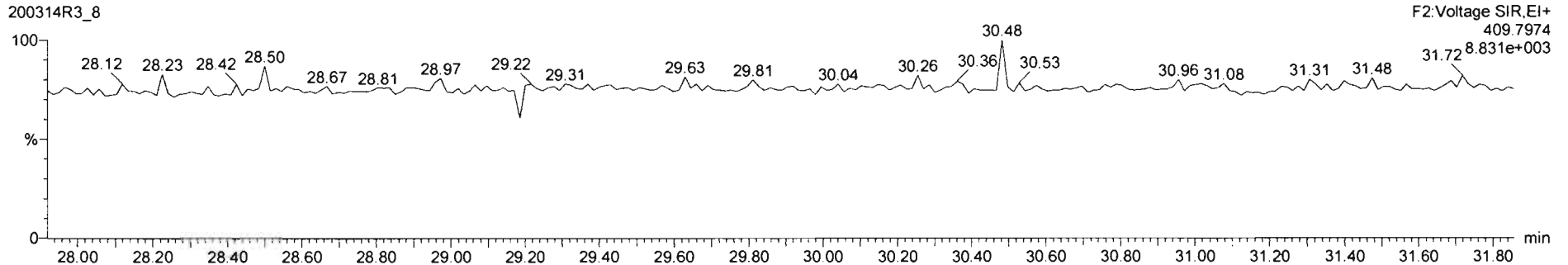
1,2,3,7,8-PeCDF



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



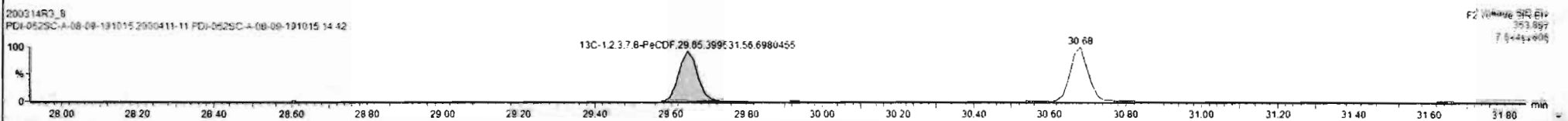
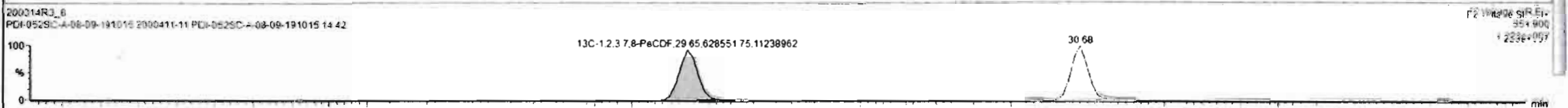
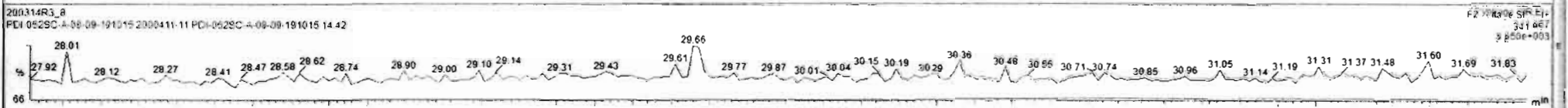
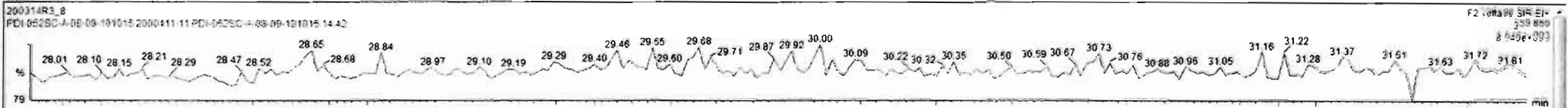
DPE2



200314R3\_8 - 2000411-11 PDI-052SC-A-08-09-191015 14:42 - PDI-052SC-A-08-09-191015

#	Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc.	%Rec	DL	EMPC
45	Total Penta-Furans				0.9594	10.028				0.0145		
46	Total Hexa-Furans				1.0920	10.028				0.0168		

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

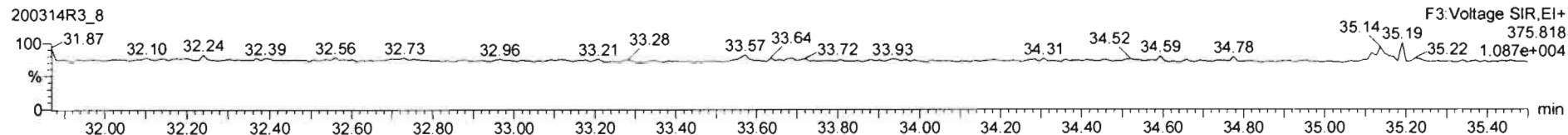
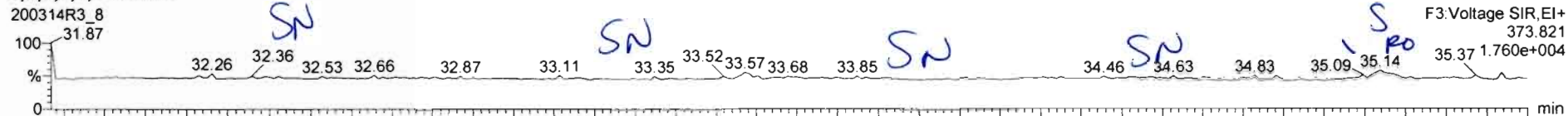


Dataset: Untitled

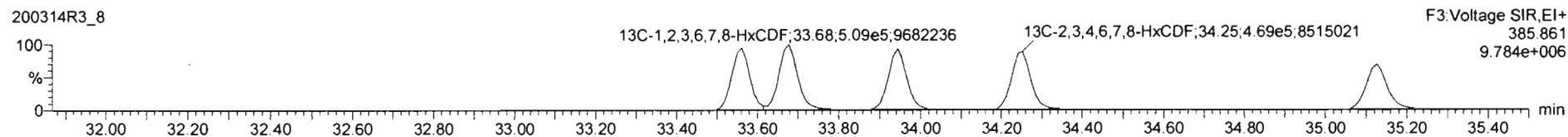
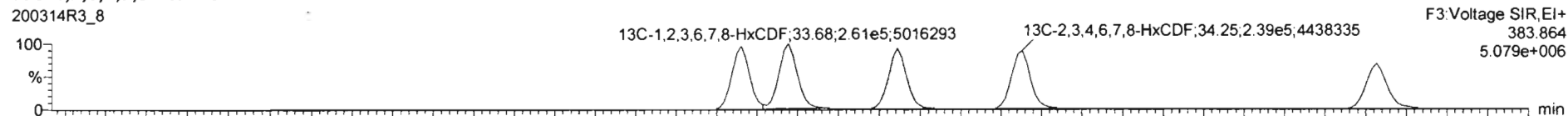
Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_8, Date: 15-Mar-2020, Time: 04:51:42, ID: 2000411-11 PDI-052SC-A-08-09-191015 14.42, Description: PDI-052SC-A-08-09-191015

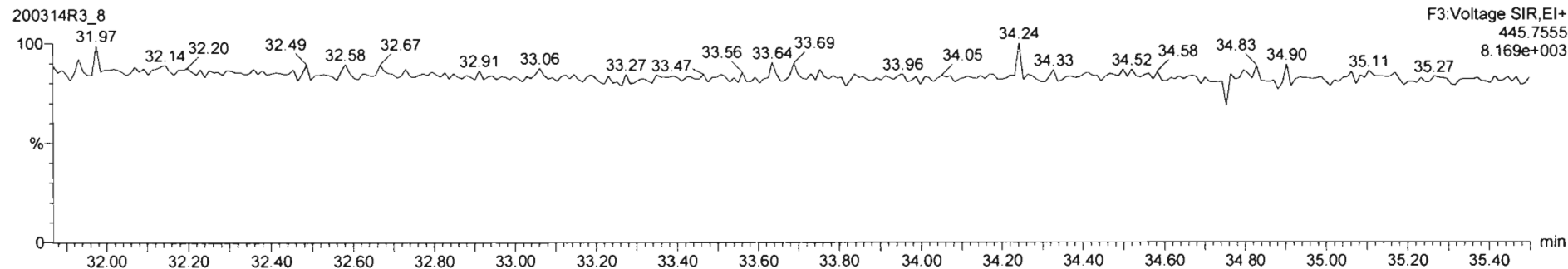
1,2,3,4,7,8-HxCDF



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

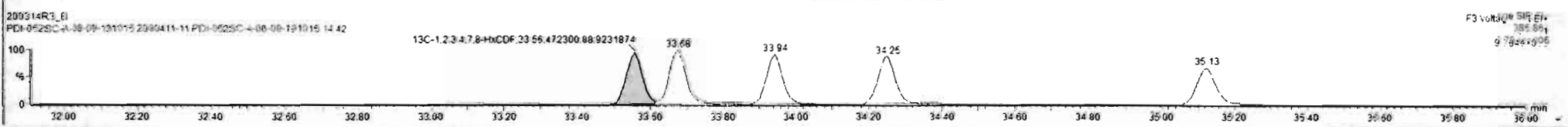
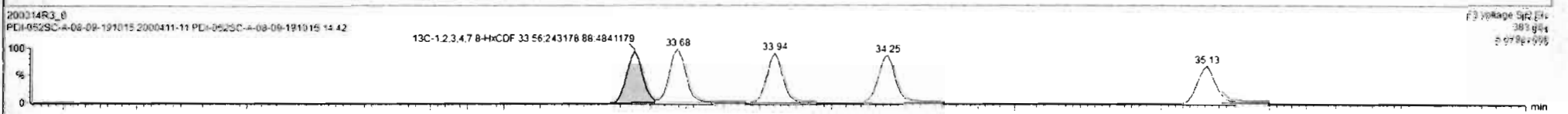
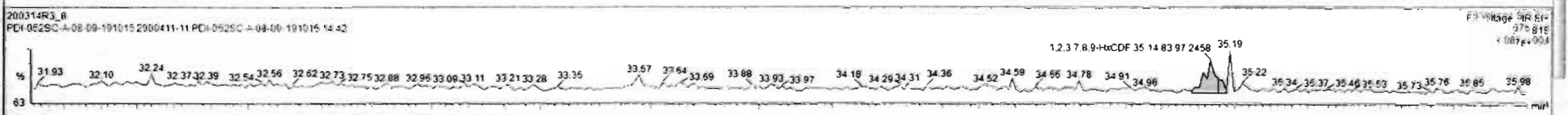
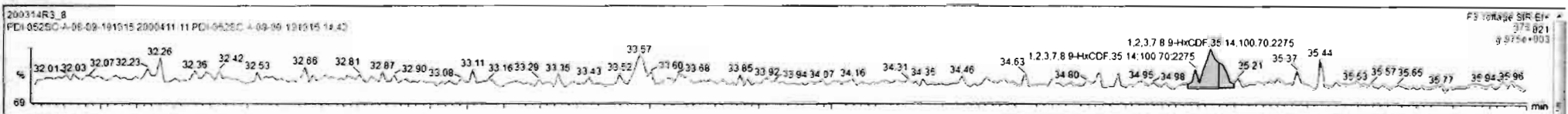


DPE3



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.028				0.0145		
46 Total Hexa-Furans				1.0920	10.028			0.0591	0.0188	0.0690	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 1,2,3,7,8,9-HxCDF	35.14	1.007e2	8.197e1	1.20	NO	0.059105	0.059105
2 Total Hexa-Furans	35.16	3.590e1	1.693e1	2.12	YES	0.00969	0.00000

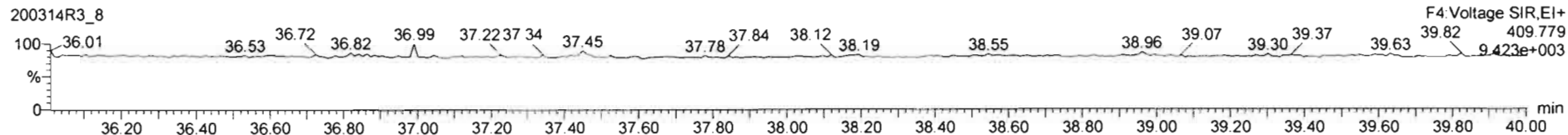
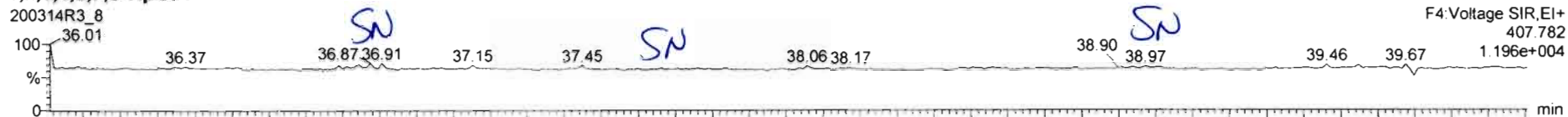


Dataset: Untitled

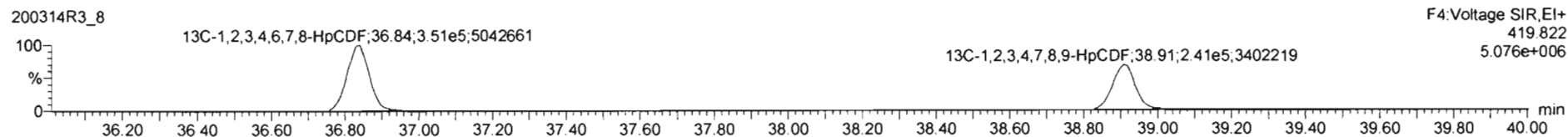
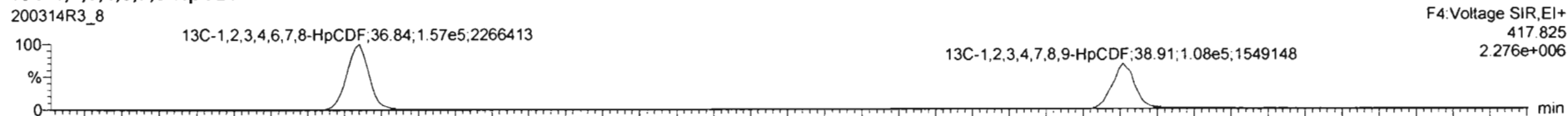
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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_8, Date: 15-Mar-2020, Time: 04:51:42, ID: 2000411-11 PDI-052SC-A-08-09-191015 14.42, Description: PDI-052SC-A-08-09-191015

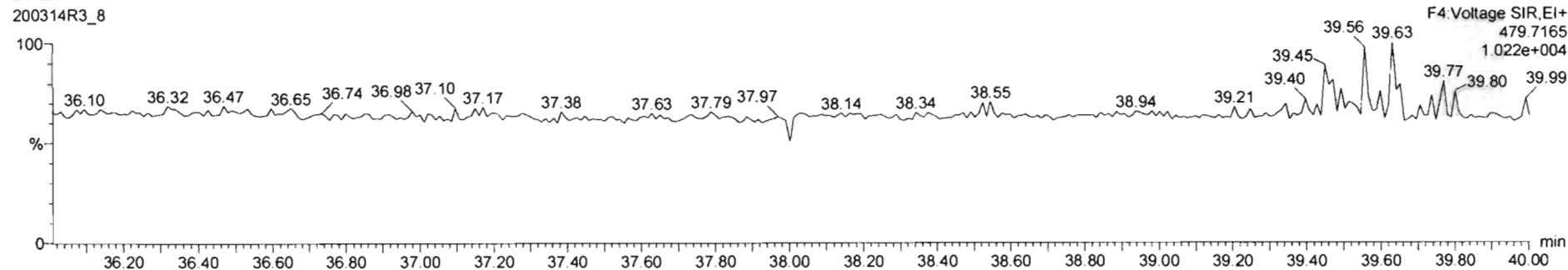
1,2,3,4,6,7,8-HpCDF



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

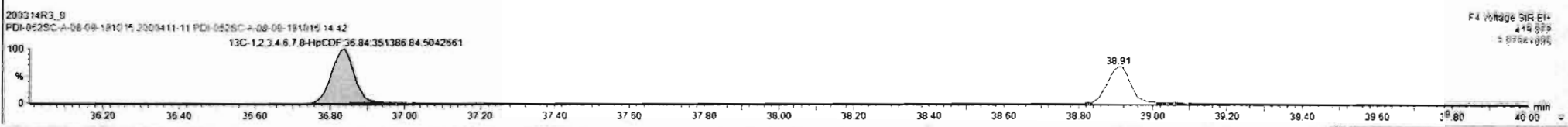
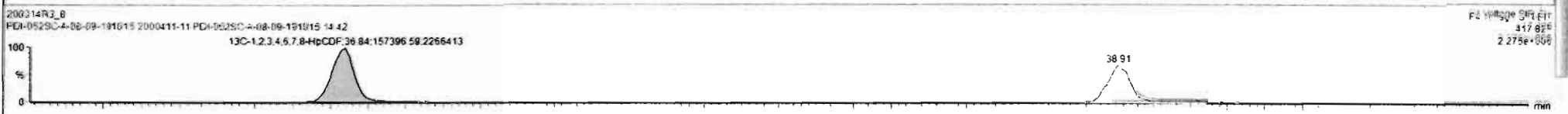
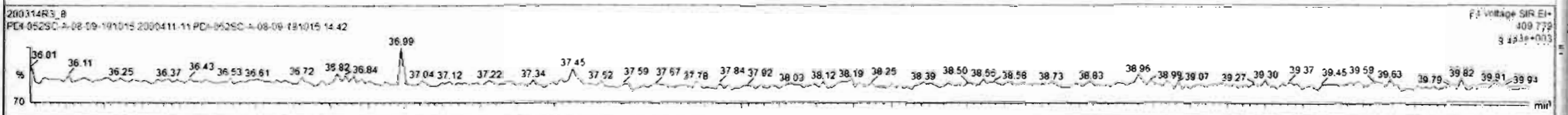
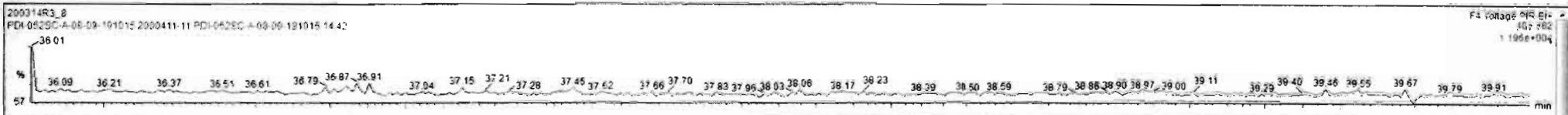


DPE4



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
47 Total Hepta-Furans				1.0463	10.028						0.0205
48 PFK1											

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

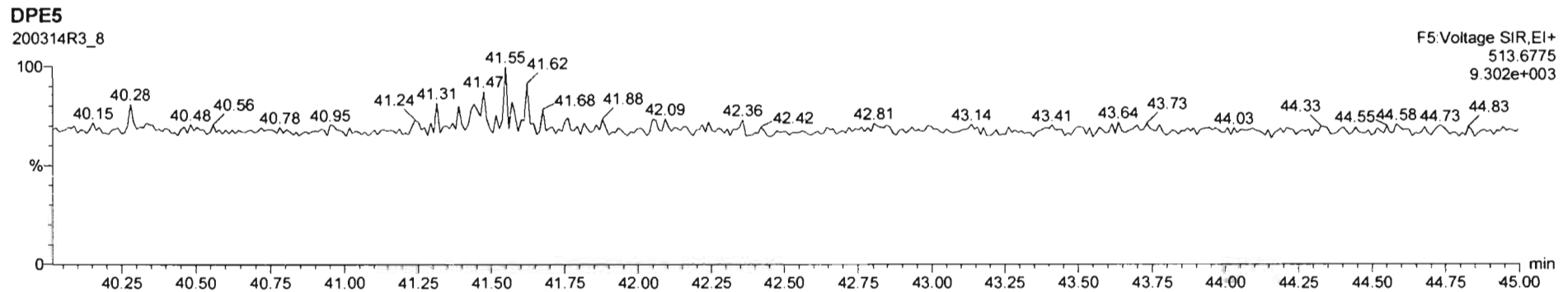
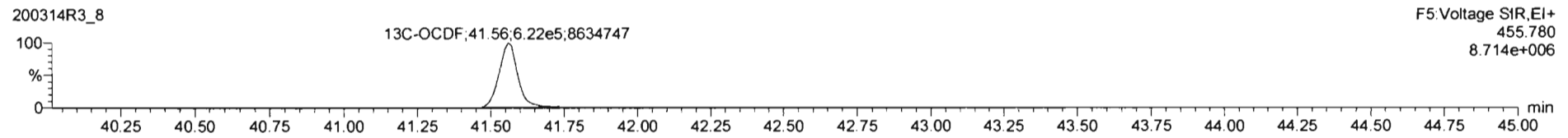
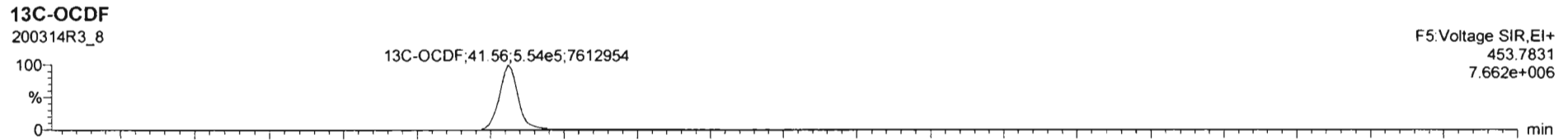
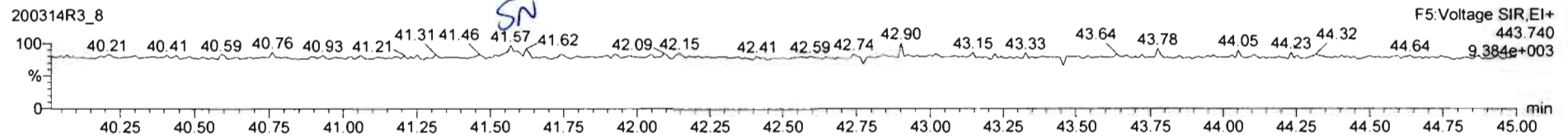
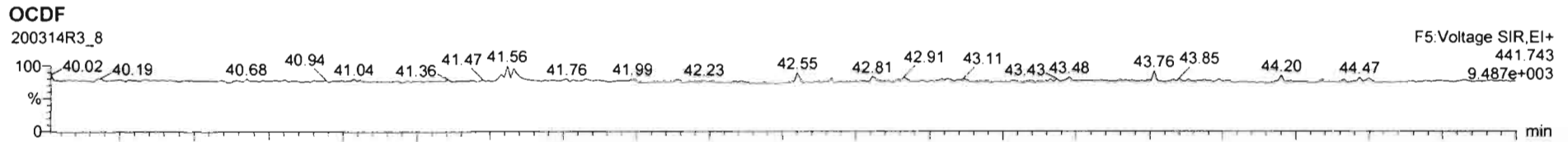


Dataset: Untitled

Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time

Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

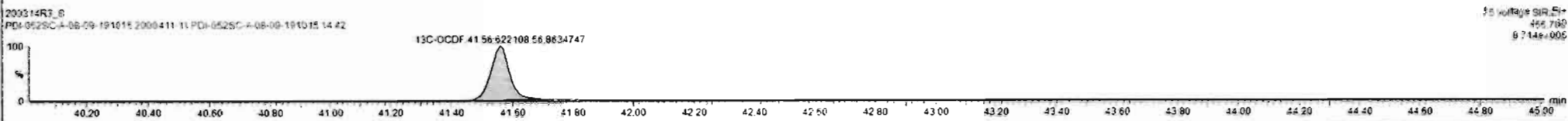
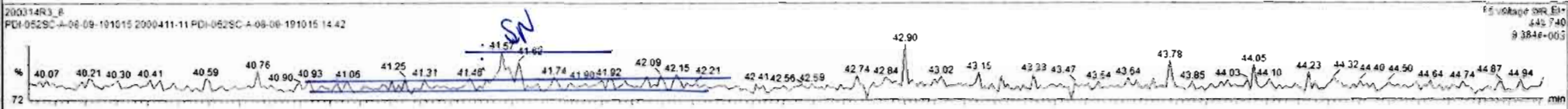
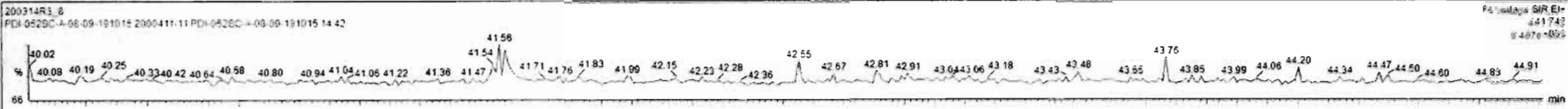
Name: 200314R3\_8, Date: 15-Mar-2020, Time: 04:51:42, ID: 2000411-11 PDI-052SC-A-08-09-191015 14.42, Description: PDI-052SC-A-08-09-191015





Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
17	OCDF		NO	0.9468	10.028					0.0713	
18	13C-2,3,7,8-TCDD	9.15e5	0.73	NO	1.1842	10.028	25.72	1.029	212	106	0.302

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1							



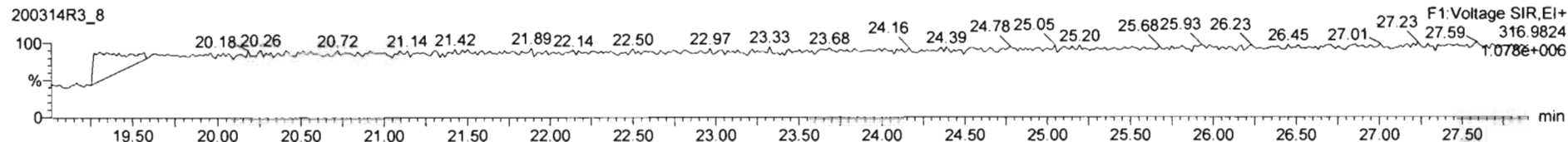
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Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time

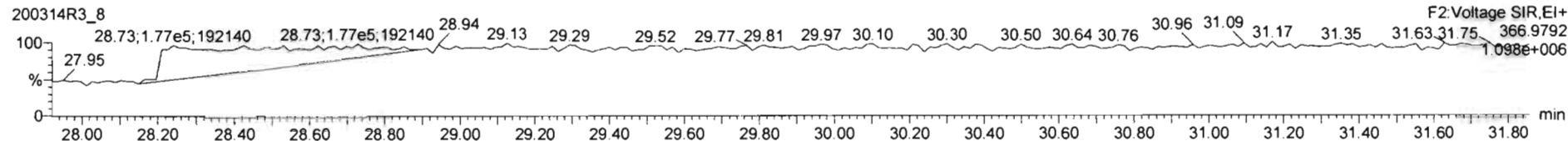
Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_8, Date: 15-Mar-2020, Time: 04:51:42, ID: 2000411-11 PDI-052SC-A-08-09-191015 14.42, Description: PDI-052SC-A-08-09-191015

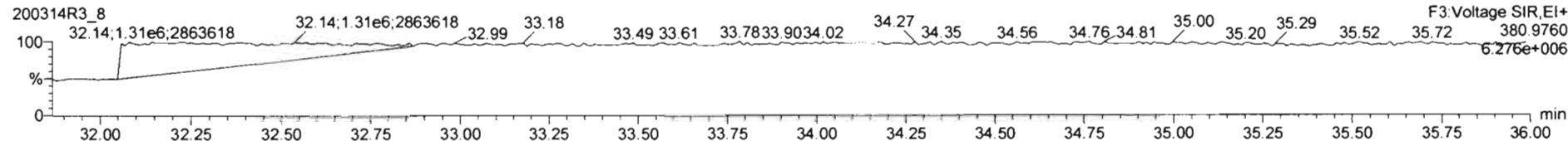
PFK1



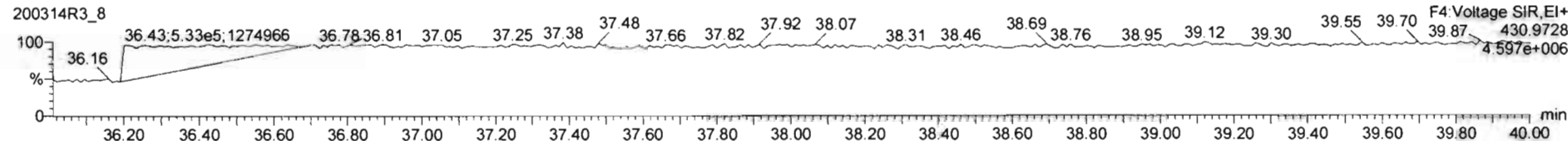
PFK2



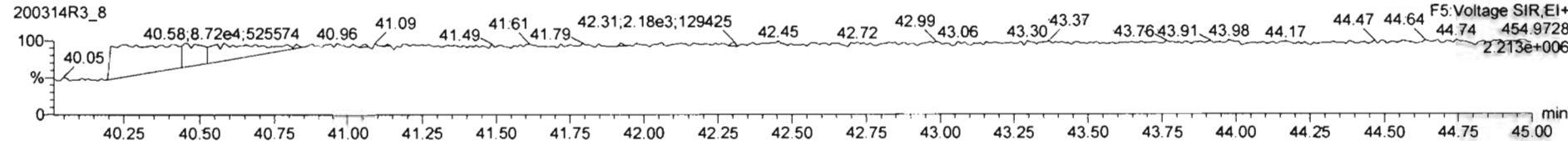
PFK3



PFK4



PFK5



Dataset: U:\VG12.PRO\Results\200314R3\200314R3-9.qld

Last Altered: Sunday, March 15, 2020 3:07:13 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 3:07:52 PM Pacific Daylight Time

*GRB 03/15/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

*MW 3/15/20*

Name: 200314R3\_9, Date: 15-Mar-2020, Time: 05:39:16, ID: 2000411-12 PDI-052SC-A-09-10-191015 13.28, Description: PDI-052SC-A-09-10-191015

#	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	0.983	9.998	25.751		1.001				0.0715	
2	2 1,2,3,7,8-PeCDD			NO	0.921	9.998	31.025		1.001				0.0514	
3	3 1,2,3,4,7,8-HxCDD			NO	1.13	9.998	34.434		1.000				0.0478	
4	4 1,2,3,6,7,8-HxCDD			NO	0.984	9.998	34.530		1.000				0.0494	
5	5 1,2,3,7,8,9-HxCDD			NO	0.967	9.998	34.807		1.000				0.0550	
6	6 1,2,3,4,6,7,8-HpCDD			NO	1.01	9.998	38.269		1.000				0.142	
7	7 OCDD	2.04e3	1.00	NO	1.05	9.998	41.379	41.38	1.000	1.000	0.94559		0.119	0.946
8	8 2,3,7,8-TCDF			NO	0.915	9.998	24.743		1.001				0.0410	
9	9 1,2,3,7,8-PeCDF			NO	0.959	9.998	29.666		1.001				0.0358	
10	10 2,3,4,7,8-PeCDF			NO	1.00	9.998	30.713		1.001				0.0324	
11	11 1,2,3,4,7,8-HxCDF			NO	1.04	9.998	33.561		1.000				0.0380	
12	12 1,2,3,6,7,8-HxCDF			NO	1.01	9.998	33.699		1.000				0.0376	
13	13 2,3,4,6,7,8-HxCDF			NO	1.09	9.998	34.288		1.001				0.0397	
14	14 1,2,3,7,8,9-HxCDF	1.17e2	1.15	NO	1.03	9.998	35.138	35.14	1.000	1.000	0.036059		0.0343	0.0361
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.05	9.998	36.879		1.001				0.0430	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	9.998	38.908		1.000				0.0571	
17	17 OCDF			NO	0.947	9.998	41.560		1.000				0.0768	
18	18 13C-2,3,7,8-TCDD	8.26e5	0.76	NO	1.18	9.998	25.720	25.72	1.029	1.029	177.36	88.7	0.223	
19	19 13C-1,2,3,7,8-PeCDD	7.73e5	0.64	NO	0.864	9.998	30.900	31.00	1.236	1.240	227.32	114	0.294	
20	20 13C-1,2,3,4,7,8-HxCDD	5.72e5	1.27	NO	0.754	9.998	34.427	34.42	1.014	1.014	189.91	94.9	0.408	
21	21 13C-1,2,3,6,7,8-HxCDD	6.79e5	1.26	NO	0.925	9.998	34.536	34.53	1.017	1.017	183.55	91.8	0.332	
22	22 13C-1,2,3,7,8,9-HxCDD	6.31e5	1.24	NO	0.829	9.998	34.797	34.80	1.025	1.025	190.50	95.2	0.370	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.14e5	1.08	NO	0.598	9.998	38.254	38.26	1.127	1.127	173.22	86.6	0.351	
24	24 13C-OCDD	8.21e5	0.90	NO	0.571	9.998	41.401	41.38	1.219	1.219	359.69	89.9	0.456	
25	25 13C-2,3,7,8-TCDF	1.04e6	0.79	NO	1.09	9.998	24.742	24.72	0.990	0.989	159.83	79.9	0.360	
26	26 13C-1,2,3,7,8-PeCDF	1.03e6	1.58	NO	0.876	9.998	29.572	29.65	1.183	1.186	197.46	98.7	0.577	
27	27 13C-2,3,4,7,8-PeCDF	1.03e6	1.57	NO	0.844	9.998	30.582	30.68	1.223	1.227	205.91	103	0.600	
28	28 13C-1,2,3,4,7,8-HxCDF	7.96e5	0.50	NO	1.00	9.998	33.575	33.56	0.989	0.988	199.27	99.6	0.533	
29	29 13C-1,2,3,6,7,8-HxCDF	8.44e5	0.52	NO	1.12	9.998	33.683	33.69	0.992	0.992	188.96	94.5	0.477	
30	30 13C-2,3,4,6,7,8-HxCDF	7.70e5	0.51	NO	1.04	9.998	34.264	34.25	1.009	1.009	186.20	93.1	0.515	
31	31 13C-1,2,3,7,8,9-HxCDF	6.31e5	0.51	NO	0.873	9.998	35.137	35.14	1.035	1.035	180.85	90.4	0.611	

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-9.qld

Last Altered: Sunday, March 15, 2020 3:07:13 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 3:07:52 PM Pacific Daylight Time

Name: 200314R3\_9, Date: 15-Mar-2020, Time: 05:39:16, ID: 2000411-12 PDI-052SC-A-09-10-191015 13.28, Description: PDI-052SC-A-09-10-191015

#	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	5.30e5	0.44	NO	0.771	9.998	36.851	36.84	1.085	1.085	172.21	86.1 ✓	0.365	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.45e5	0.42	NO	0.519	9.998	38.936	38.91	1.147	1.146	166.29	83.1	0.542	
34	34 13C-OCDF	9.65e5	0.88	NO	0.696	9.998	41.581	41.56	1.225	1.224	346.75	86.7	0.269	
35	35 37Cl-2,3,7,8-TCDD	2.84e5			1.17	9.998	25.730	25.74	1.029	1.029	61.539	76.9	0.0851	
36	36 13C-1,2,3,4-TCDD	7.87e5	0.79	NO	1.00	9.998	25.050	25.00	1.000	1.000	200.04	100	0.264	
37	37 13C-1,2,3,4-TCDF	1.19e6	0.79	NO	1.00	9.998	23.190	23.07	1.000	1.000	200.04	100	0.392	
38	38 13C-1,2,3,4,6,9-HxCDF	7.99e5	0.52	NO	1.00	9.998	33.880	33.96	1.000	1.000	200.04	100	0.534	
39	39 Total Tetra-Dioxins				0.983	9.998	24.620		0.000				0.0413	
40	40 Total Penta-Dioxins				0.921	9.998	29.960		0.000		0.00000		0.0203	0.0681
41	41 Total Hexa-Dioxins				0.984	9.998	33.635		0.000		0.19266		0.0527	0.193
42	42 Total Hepta-Dioxins				1.01	9.998	37.640		0.000		0.25984		0.142	0.260
43	43 Total Tetra-Furans				0.915	9.998	23.610		0.000				0.0174	
44	44 1st Func. Penta-Furans				0.959	9.998	27.090		0.000				0.00939	
45	45 Total Penta-Furans				0.959	9.998	29.275		0.000				0.0163	
46	46 Total Hexa-Furans				1.09	9.998	33.555		0.000		0.036059		0.0245	0.0560
47	47 Total Hepta-Furans				1.05	9.998	37.835		0.000				0.0246	

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-9.qld

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Name: 200314R3\_9, Date: 15-Mar-2020, Time: 05:39:16, ID: 2000411-12 PDI-052SC-A-09-10-191015 13.28, Description: PDI-052SC-A-09-10-191015

**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	Total Penta-Dioxins	29.20	2.400e3	3.331e3	9.363e1	2.148e2	0.44	YES	0.000e0	0.00000	0.068063	0.0203

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.94	6.060e3	5.736e3	3.455e2	2.493e2	1.39	NO	5.948e2	0.19266	0.19266	0.0527

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.27	5.035e3	4.912e3	2.644e2	2.767e2	0.96	NO	5.411e2	0.25984	0.25984	0.142

**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\200314R3\200314R3-9.qld

Last Altered: Sunday, March 15, 2020 3:07:13 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 3:07:52 PM Pacific Daylight Time

Name: 200314R3\_9, Date: 15-Mar-2020, Time: 05:39:16, ID: 2000411-12 PDI-052SC-A-09-10-191015 13.28, Description: PDI-052SC-A-09-10-191015

**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	1,2,3,7,8,9-HxCDF	35.14	2.679e3	2.865e3	6.243e1	5.434e1	1.15	NO	1.168e2	0.036059	0.036059	0.0343
2	Total Hexa-Furans	35.17	2.053e3	1.189e3	5.347e1	3.686e1	1.45	YES	0.000e0	0.00000	0.019892	0.0245

**Hepta-Furans**

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

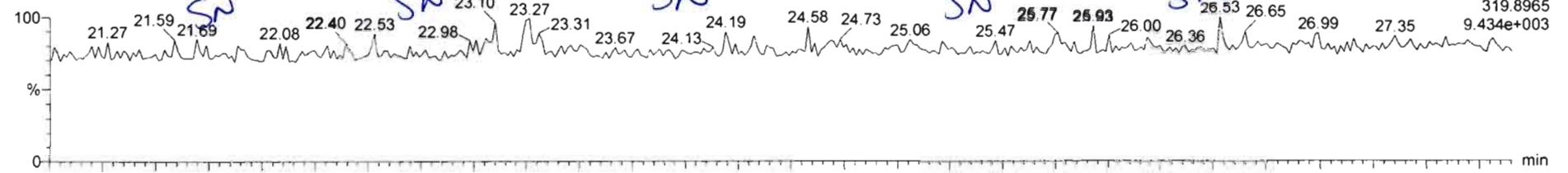
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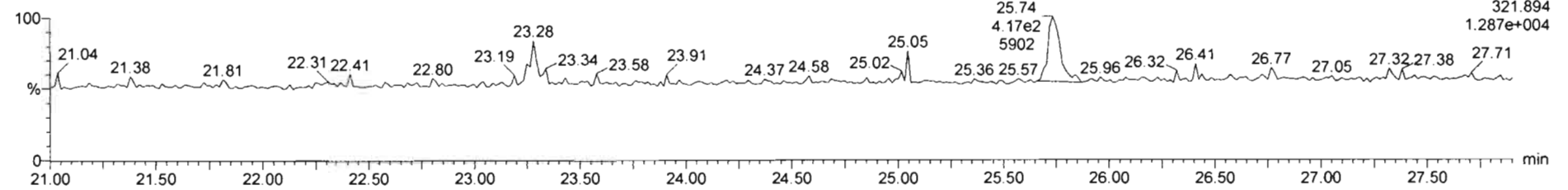
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2,3,7,8-TCDD

200314R3\_9

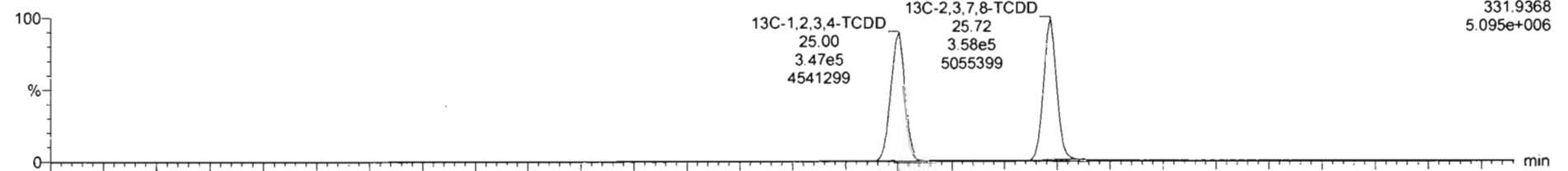


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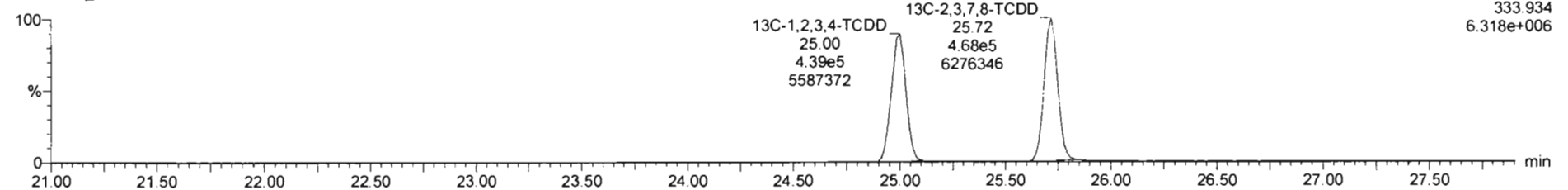


13C-2,3,7,8-TCDD

200314R3\_9

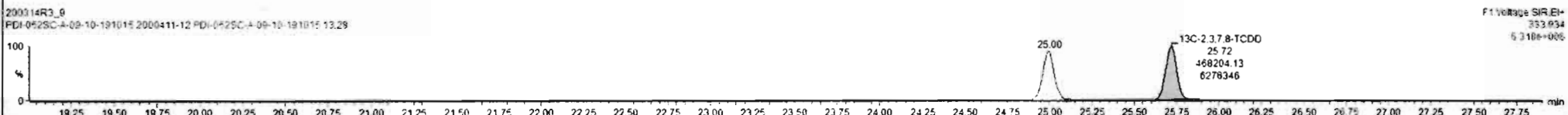
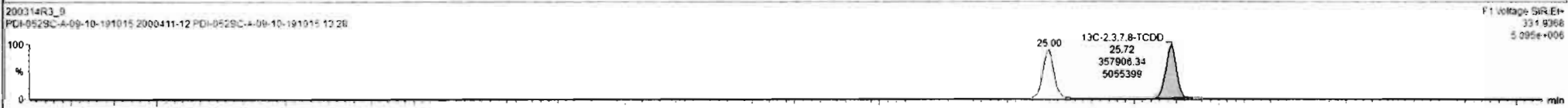
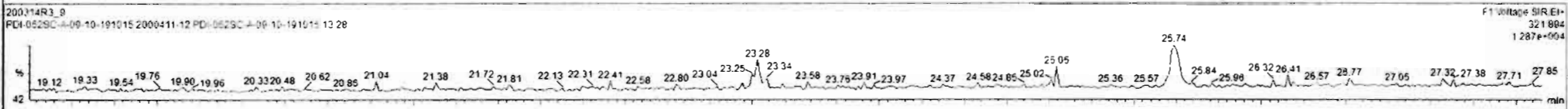
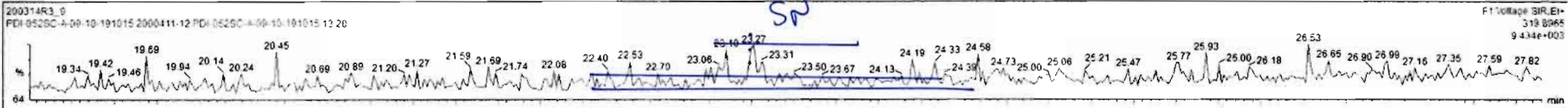


200314R3\_9



MI	Name	Resp	RA	n/y	RRF	w/Vol	RT	RRT	Conc.	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9835	9.998				0.0413		
40	Total Penta-Dioxins				0.8212	5.998				0.0203		

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





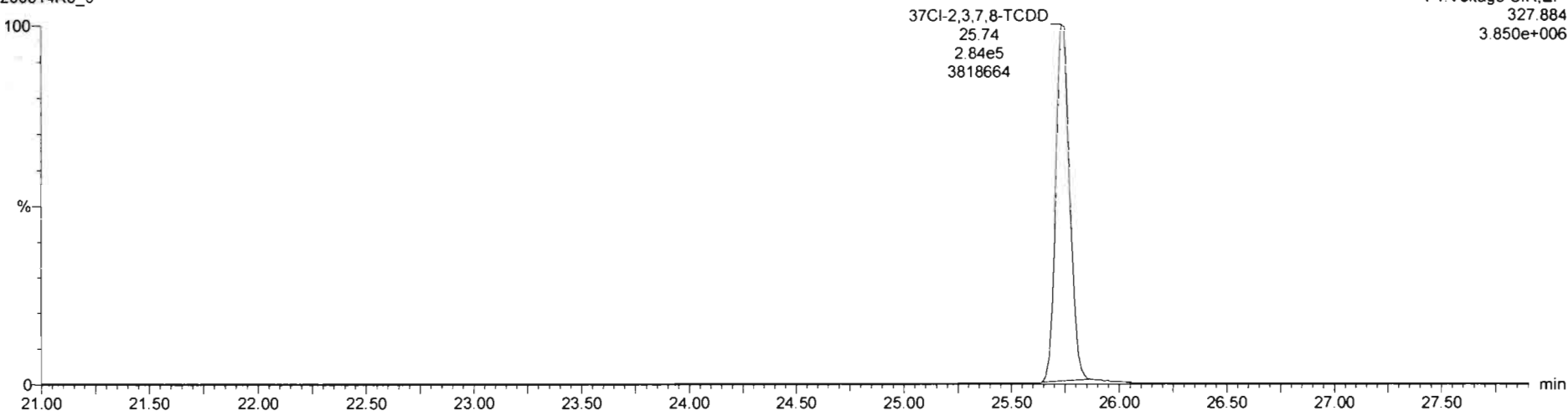
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Name: 200314R3\_9, Date: 15-Mar-2020, Time: 05:39:16, ID: 2000411-12 PDI-052SC-A-09-10-191015 13.28, Description: PDI-052SC-A-09-10-191015

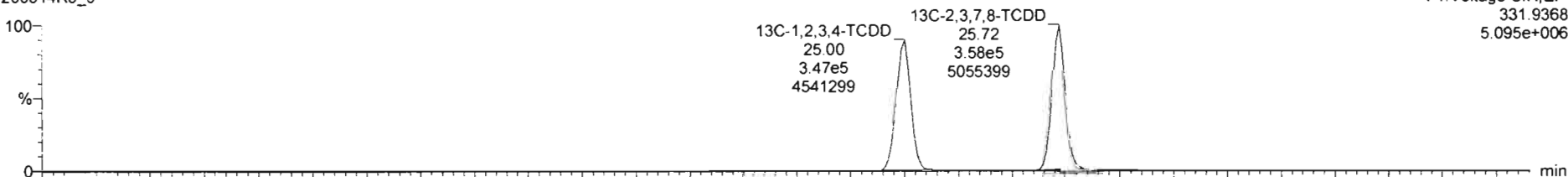
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200314R3\_9

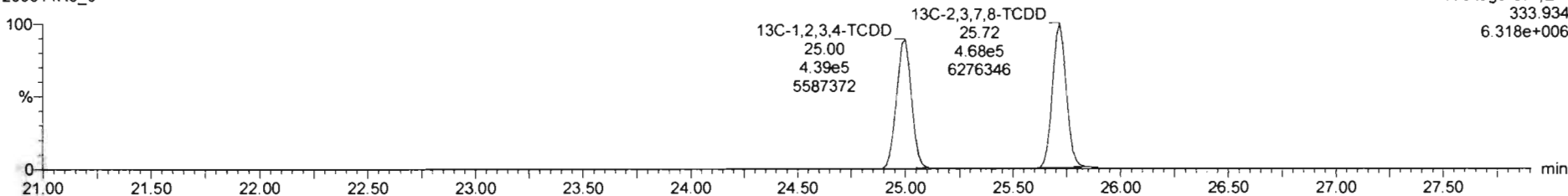


**13C-1,2,3,4-TCDD**

200314R3\_9



200314R3\_9



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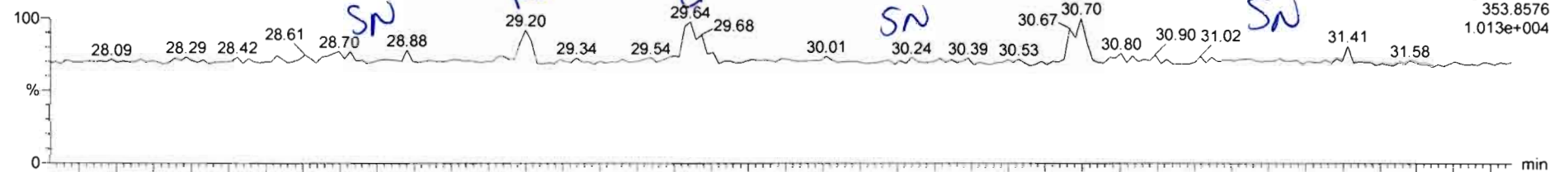
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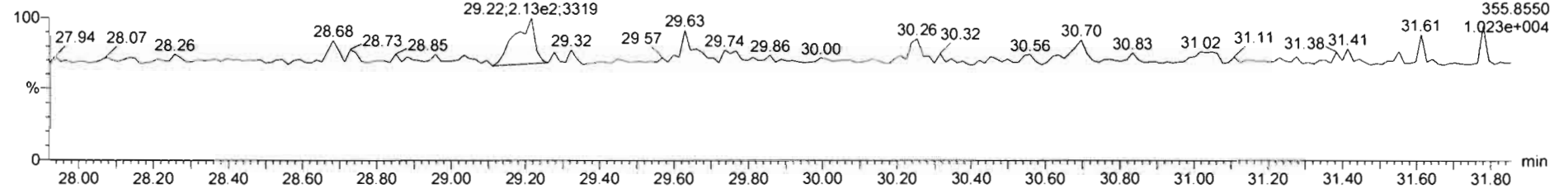
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1,2,3,7,8-PeCDD

200314R3\_9

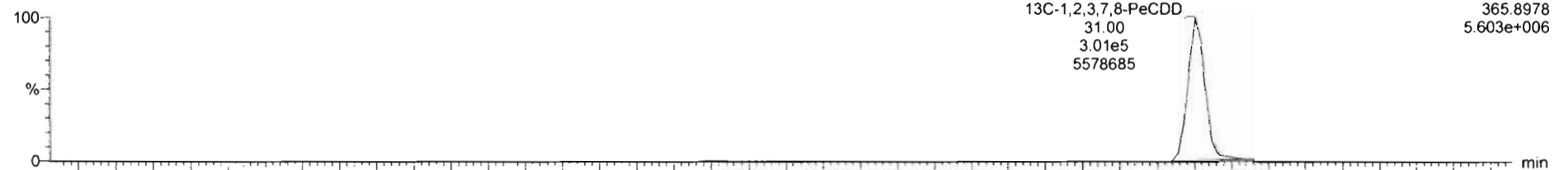


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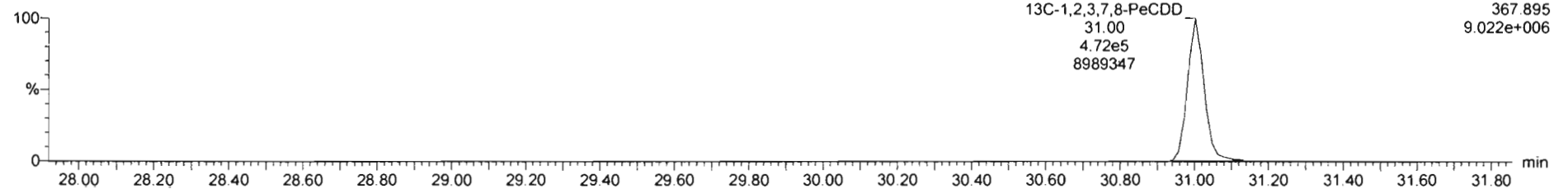


13C-1,2,3,7,8-PeCDD

200314R3\_9



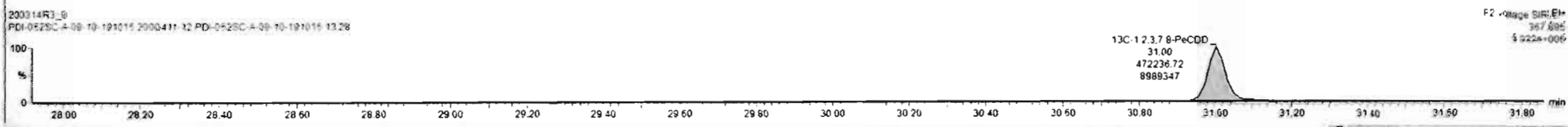
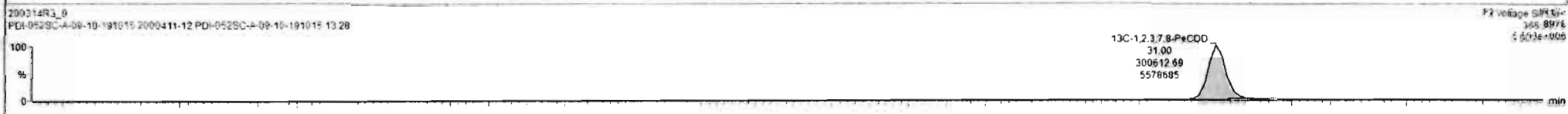
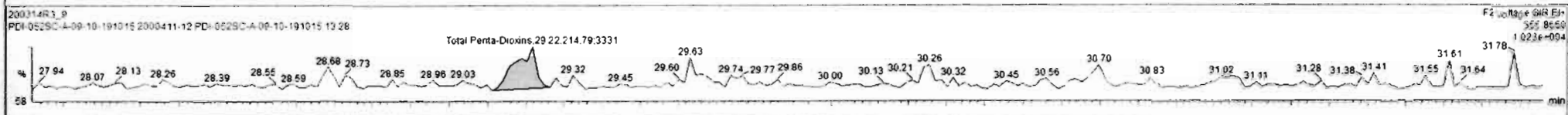
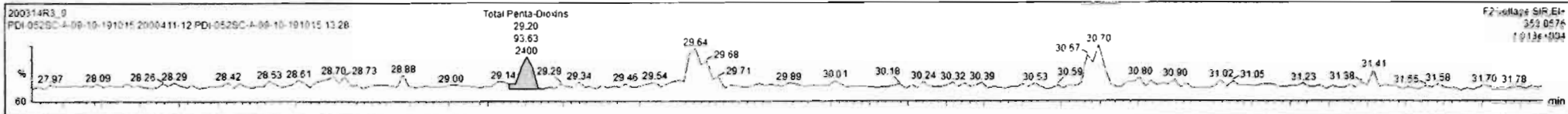
200314R3\_9



200314R3\_9 - 2000411-12 PDI-052SC-A-09-10-191015 13 28 - PDI-052SC-A-09-10-191015

#	Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc.	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9835	9.956				0.0413		
40	Total Penta-Dioxins				0.9212	9.998			0.000	0.0203	0.9681	

#	Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1	Total Penta-Dioxins	29.20	9.363e1	2.148e2	0.44	YES	0.0680e3	0.00000



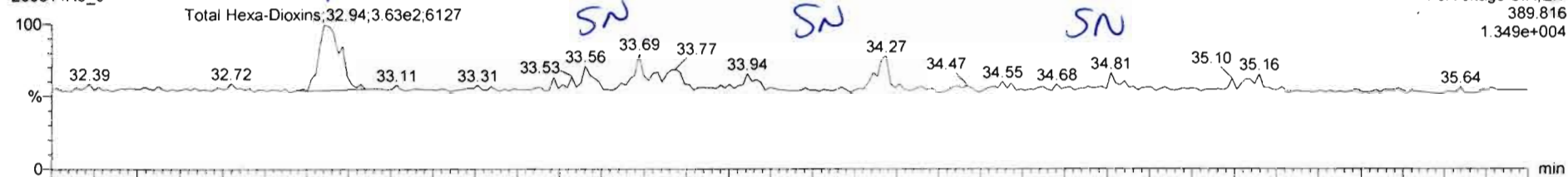
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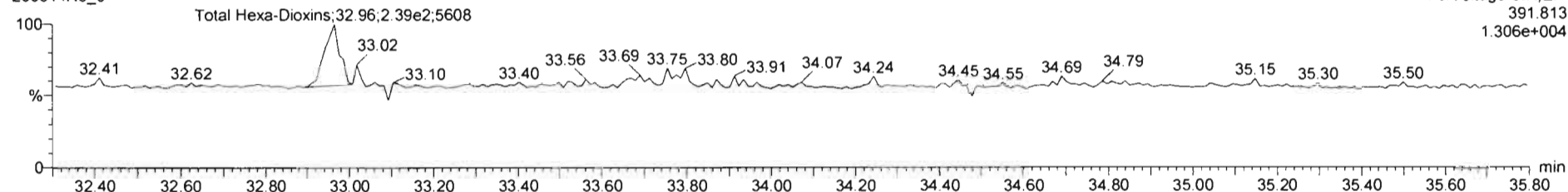
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1,2,3,4,7,8-HxCDD

200314R3\_9

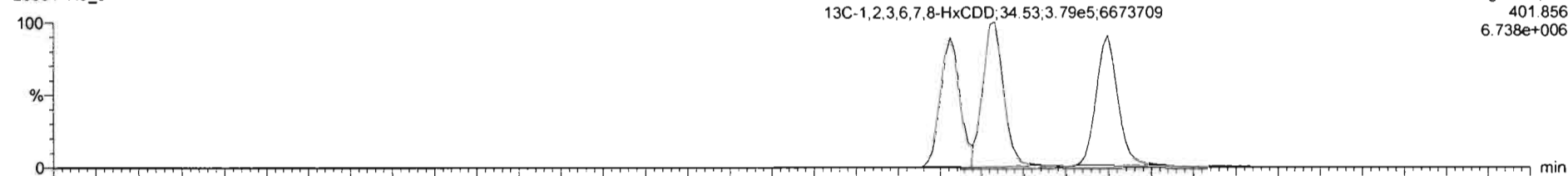


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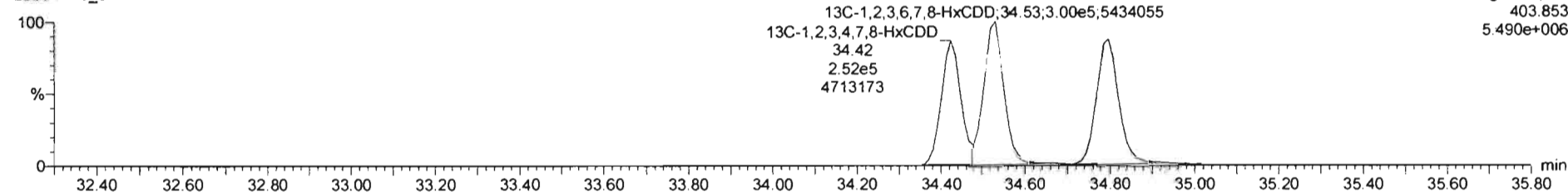


13C-1,2,3,4,7,8-HxCDD

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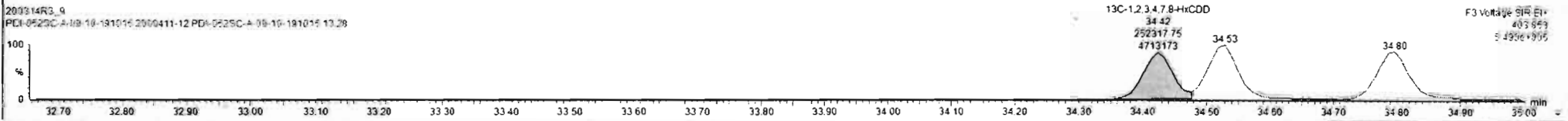
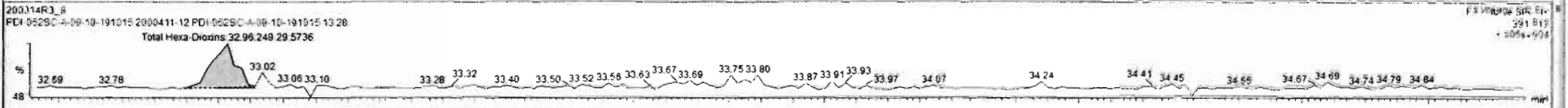
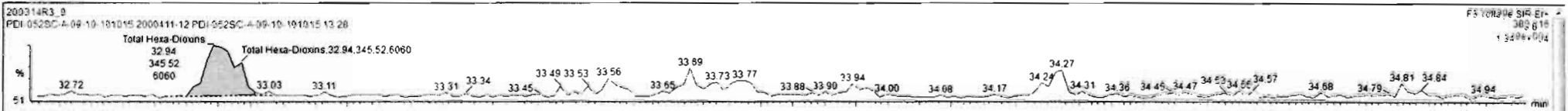


200314R3\_9



Name	Resp	RA	n/y	RRF	wVol	RT	RRT	Conc	%Rec	DL	EMPC
41 Total Hexa-Dioxins				0.9844	9.998			0.193		0.0527	0.193
42 Total Hepta-Dioxins				1.0061	9.998					0.0636	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hexa-Dioxins	32.64	3.455e2	2.493e2	1.39	NO	0.19266	0.19266



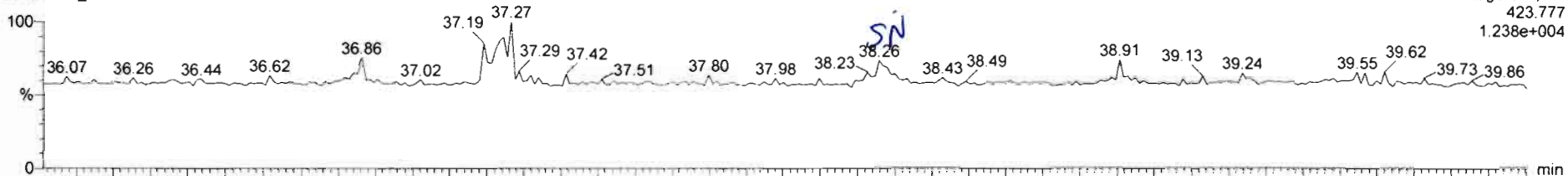
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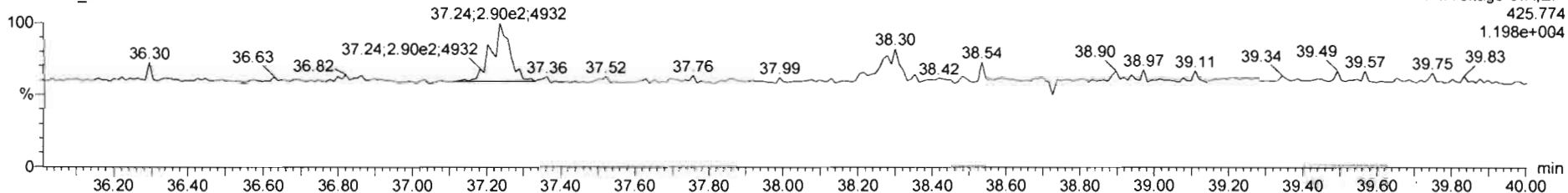
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1,2,3,4,6,7,8-HpCDD

200314R3\_9

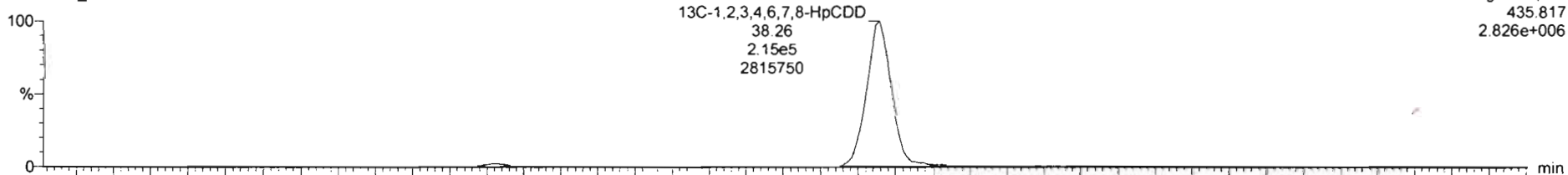


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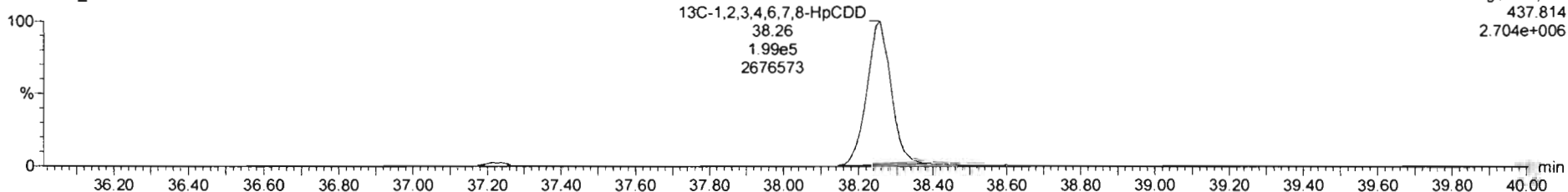


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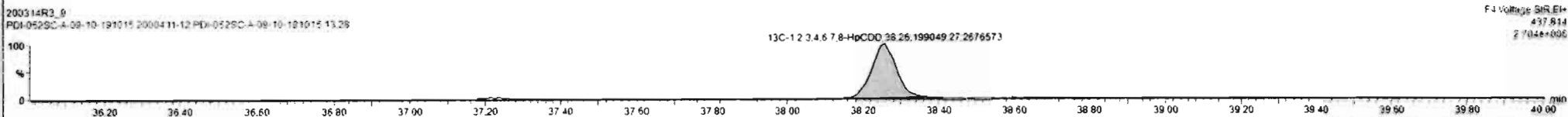
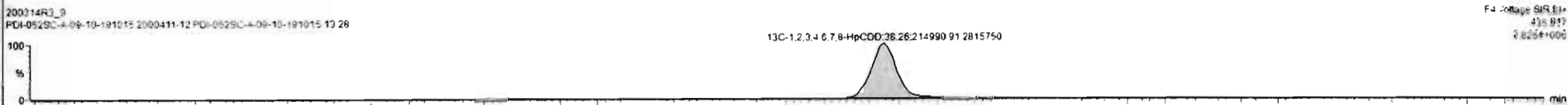
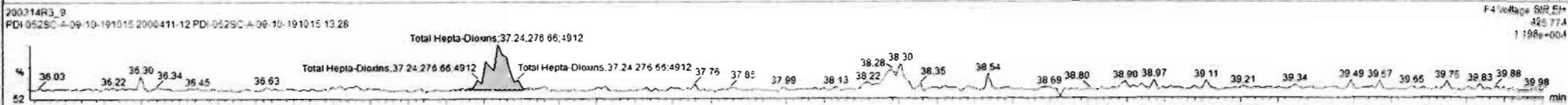
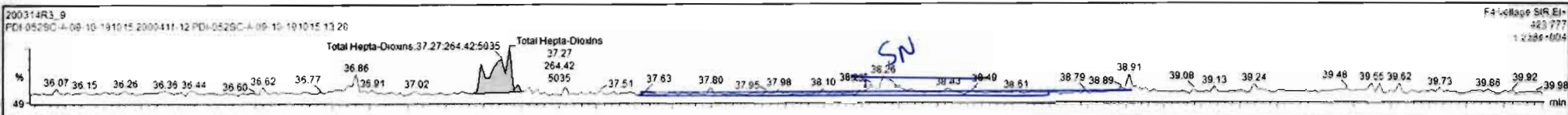


200314R3\_9



Name	Resp	RA	nly	RRF	wTvol	RT	RRT	Conc	%Rec	DL	EMPC
41 Total Hexa-Dioxins	0.9844	5.996						0.193	0.0527	0.193	
42 Total Hepta-Dioxins				1.0061	0.998			0.260	0.142	0.260	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1 Total Hepta-Dioxins	37.27	2.644e2	2.767e2	0.96	HD	0.25964	0.25964

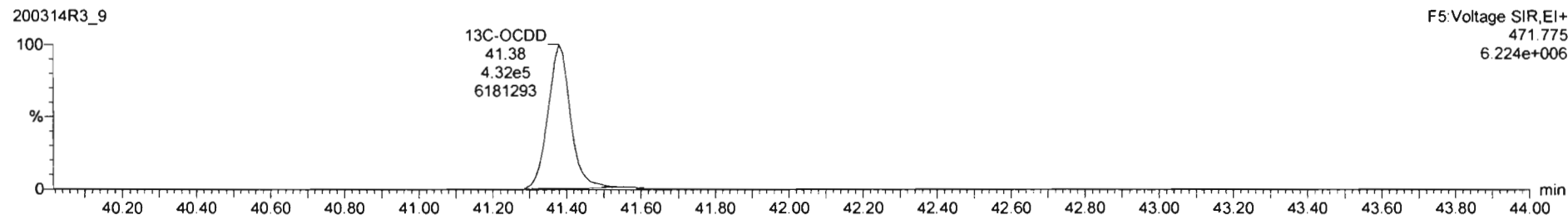
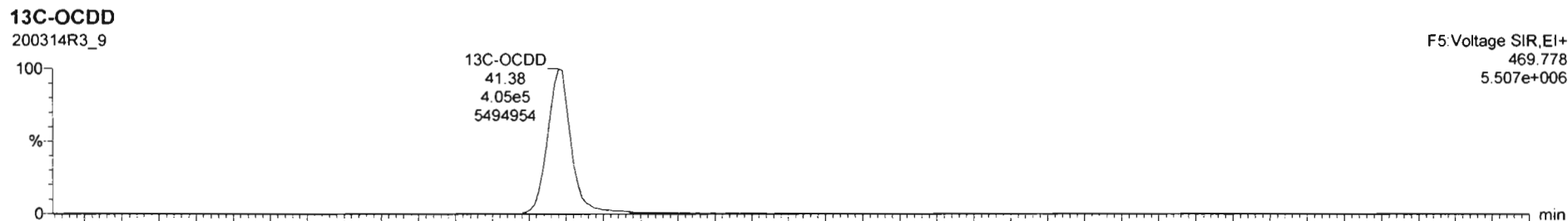
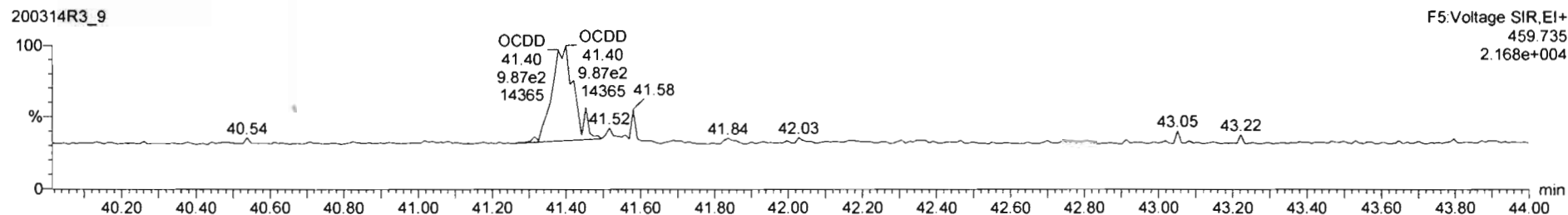
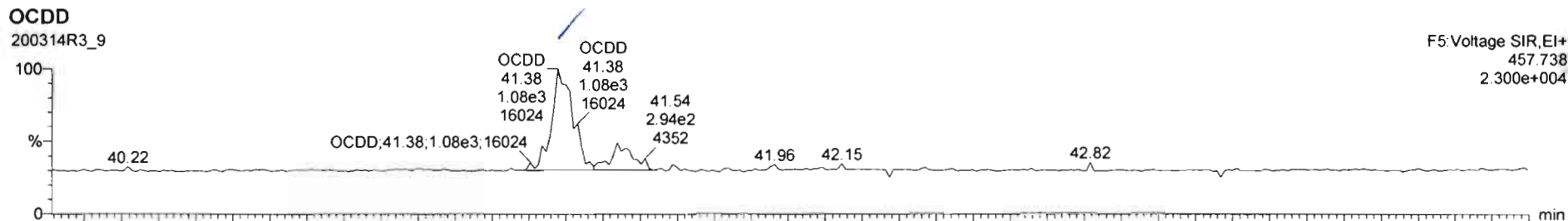


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Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time

Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

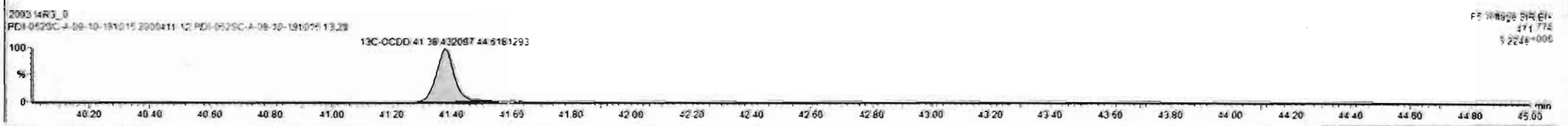
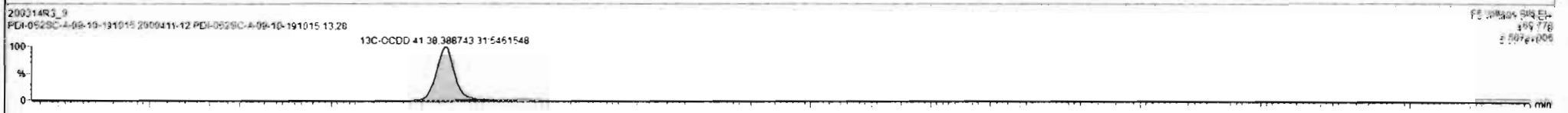
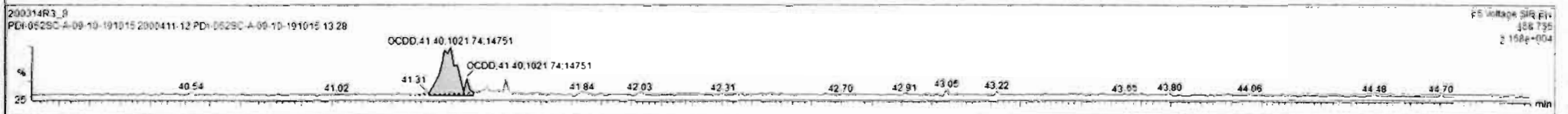
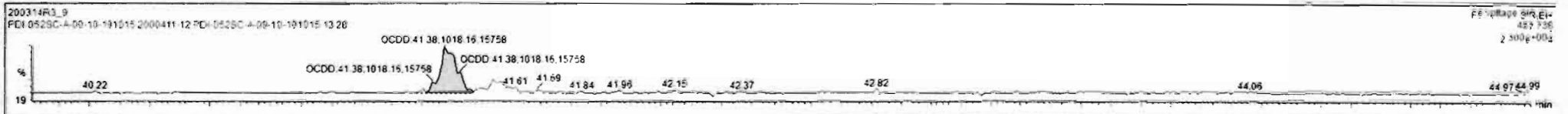
Name: 200314R3\_9, Date: 15-Mar-2020, Time: 05:39:16, ID: 2000411-12 PDI-052SC-A-09-10-191015 13.28, Description: PDI-052SC-A-09-10-191015





Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
7 OCDD	2.94e3	1.00	NO	1.0515	9.996	41.38	1.000	0.948		0.110	0.948
8 2,3,7,8-TCDF			NO	0.9154	9.996					0.0410	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc

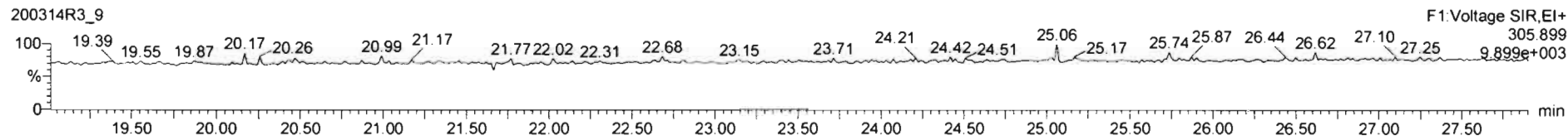
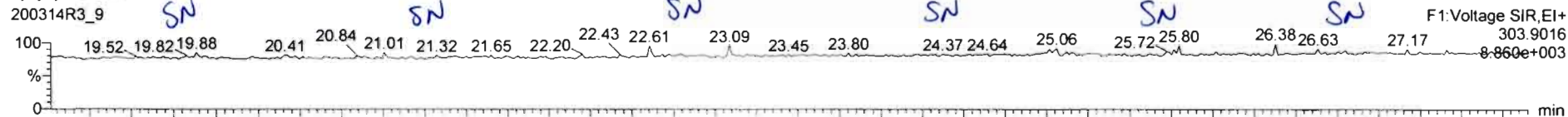


Dataset: Untitled

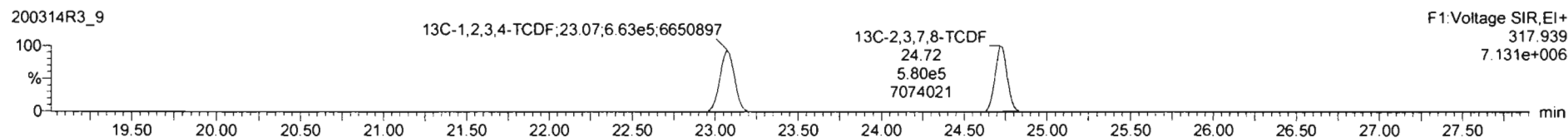
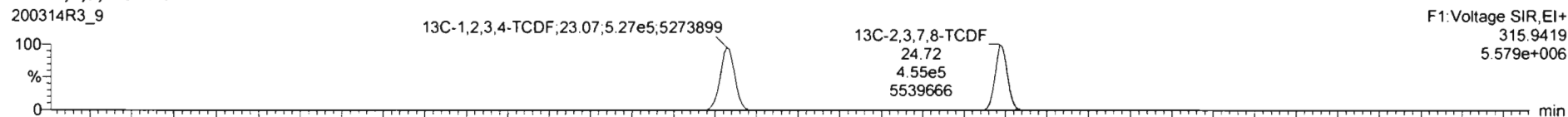
Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_9, Date: 15-Mar-2020, Time: 05:39:16, ID: 2000411-12 PDI-052SC-A-09-10-191015 13.28, Description: PDI-052SC-A-09-10-191015

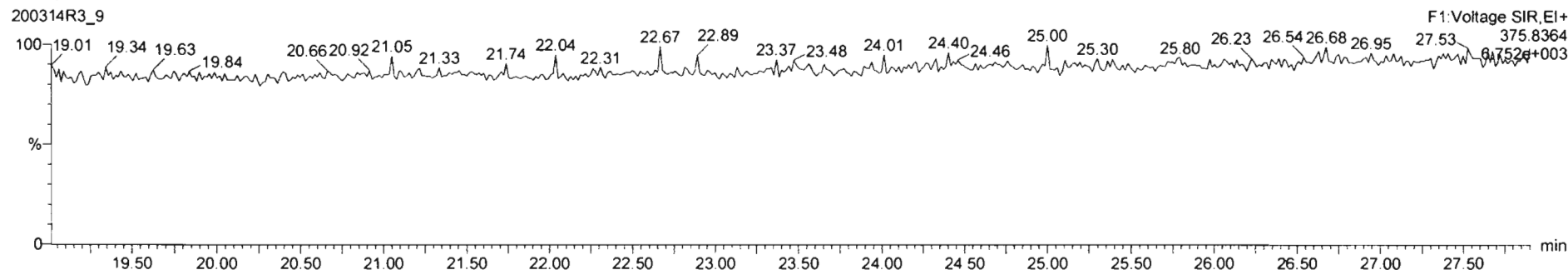
**2,3,7,8-TCDF**



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

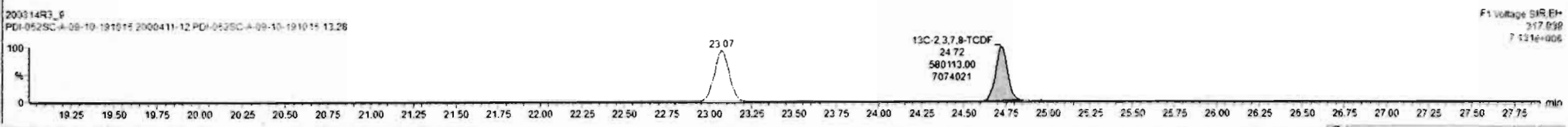
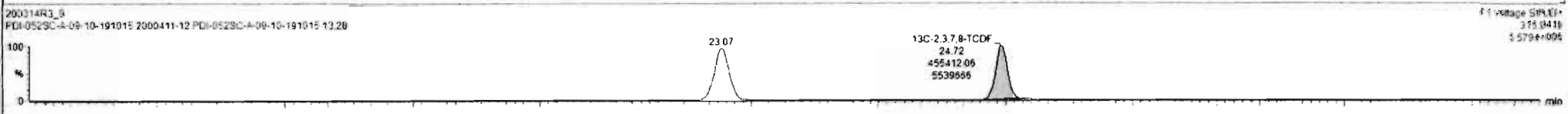
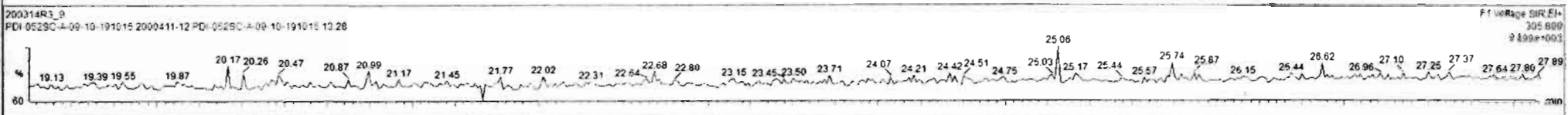
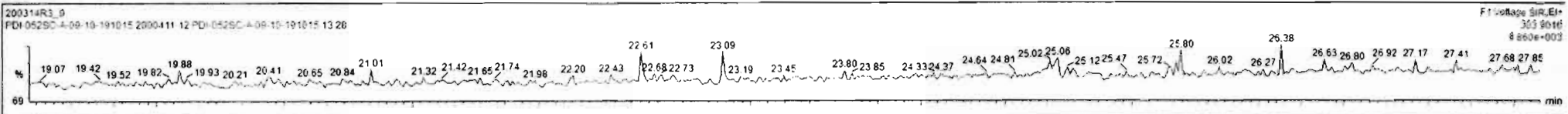


**DPE1**



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9154	9.998					0.0174	
44 1st Func Penta-Furans				0.9594	9.998					0.00929	

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



Dataset: Untitled

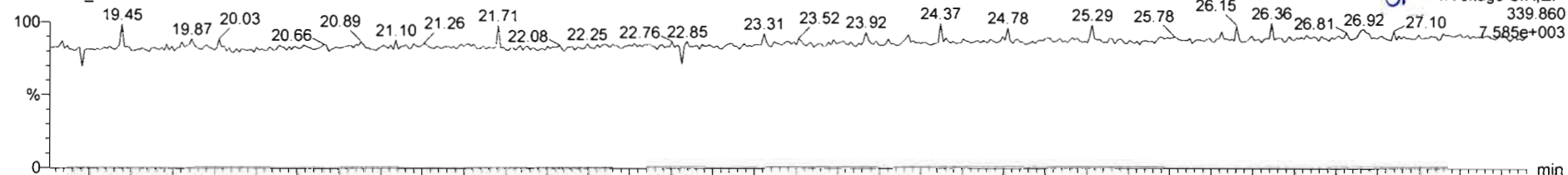
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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

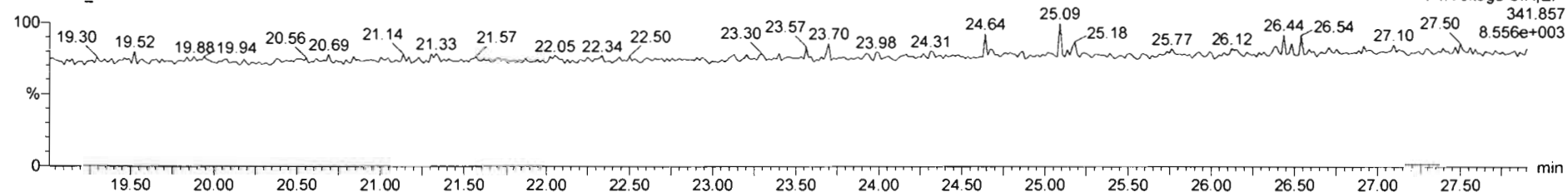
6, ID: 200 Name: 200314R3\_9, Date: 15-Mar-2020, Time: 05:39:16, ID: 2000411-12 PDI-052SC-A-09-10-191015 13.28, Description: PDI-052SC-A-09-10-191015

1st Func. Penta-Furans

200314R3\_9

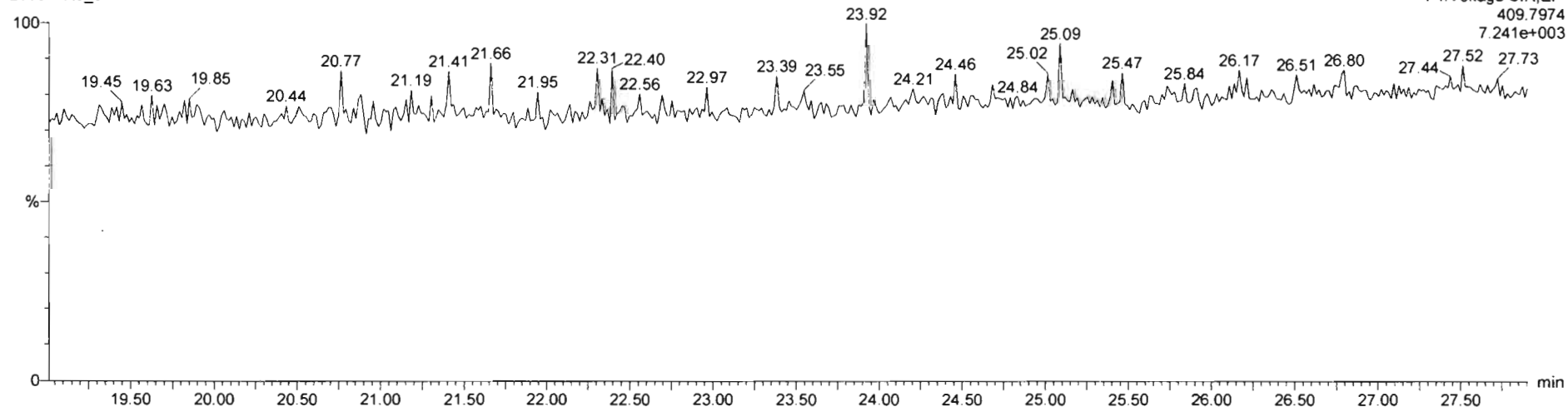


200314R3\_9



DPE6

200314R3\_9



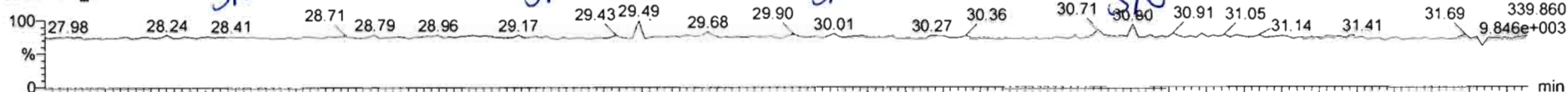
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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

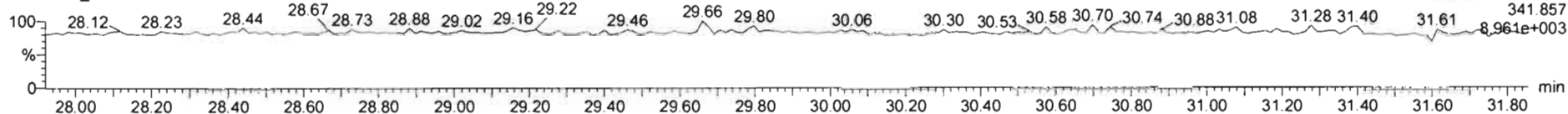
Name: 200314R3\_9, Date: 15-Mar-2020, Time: 05:39:16, ID: 2000411-12 PDI-052SC-A-09-10-191015 13.28, Description: PDI-052SC-A-09-10-191015

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

200314R3\_9

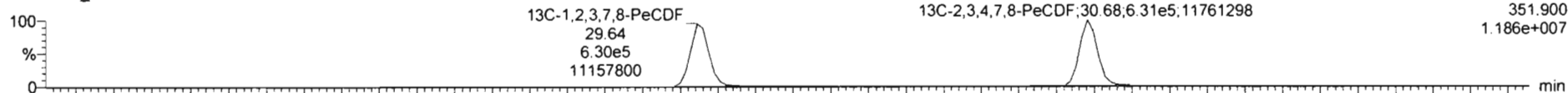


200314R3\_9

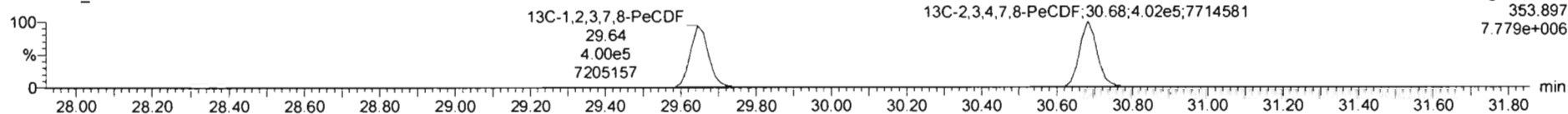


**13C-1,2,3,7,8-PeCDF**

200314R3\_9

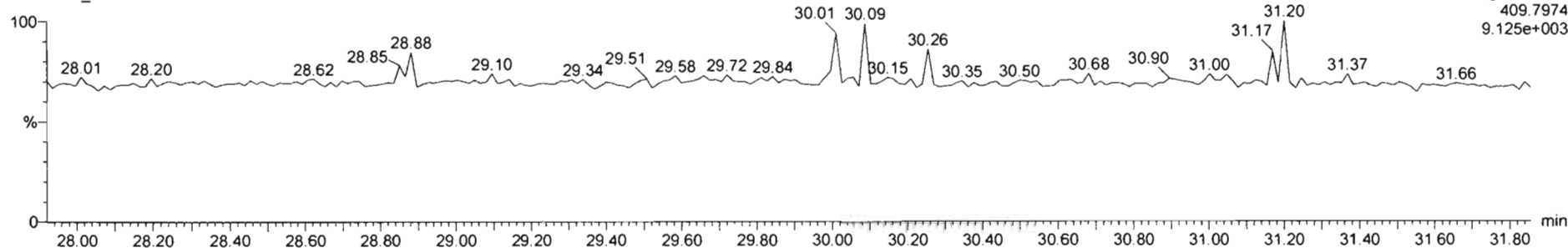


200314R3\_9



**DPE2**

200314R3\_9



TargetLynx - 200314R3\_9.qd\* - [Chromatogram]

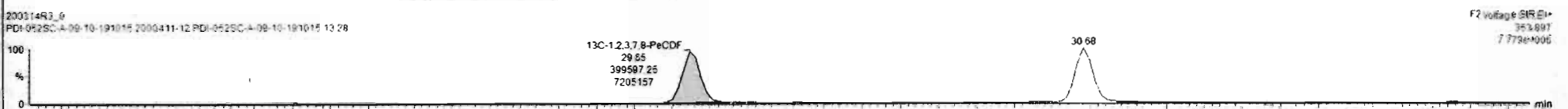
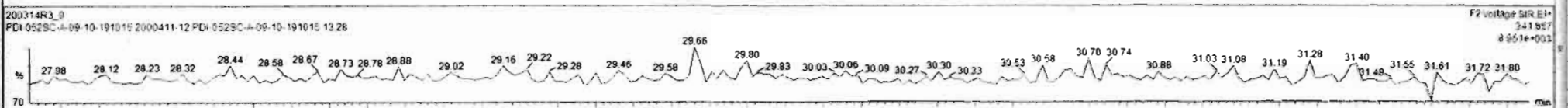
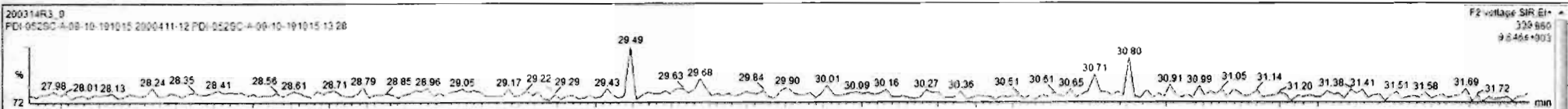
File Edit View Display Processing Window Help

200314R3\_9\_2000411-12 PDI-052SC-A-09-10-191015 13 28 PDI-052SC-A-09-10-191015

#	Name	Resp	RA	n/y	RRF	w%vol	RT	RRT	Conc	%Rec	DL	EMPC
45	Total Penta-Furens				0.9594	9.999					0.0163	
46	Total Hexa-Furens				1.0920	9.999					0.0245	

#	Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1								

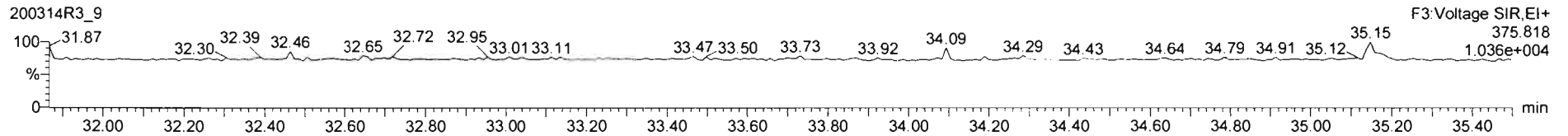


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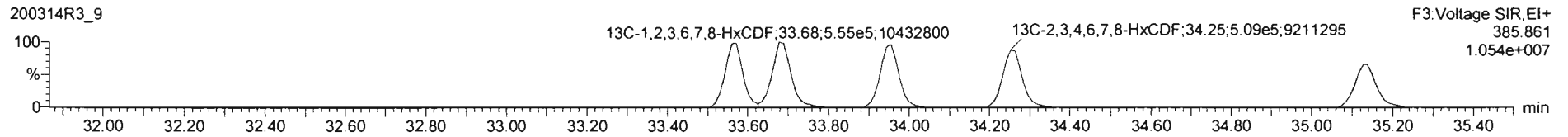
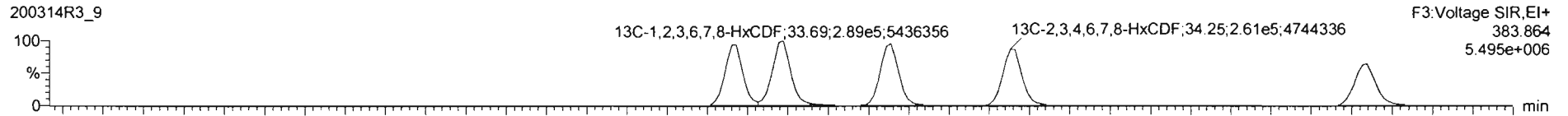
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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_9, Date: 15-Mar-2020, Time: 05:39:16, ID: 2000411-12 PDI-052SC-A-09-10-191015 13.28, Description: PDI-052SC-A-09-10-191015

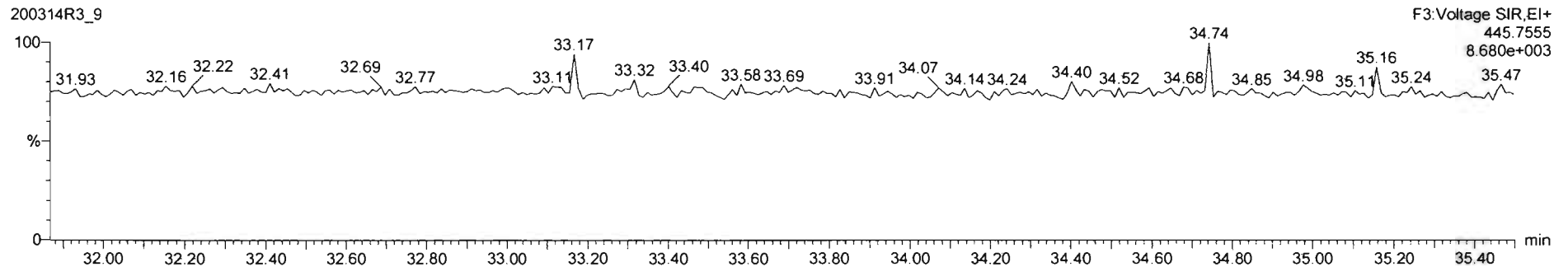
**1,2,3,4,7,8-HxCDF**



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



**DPE3**



Targetlyn - 200314R3\_9.mxd - Chromatogram

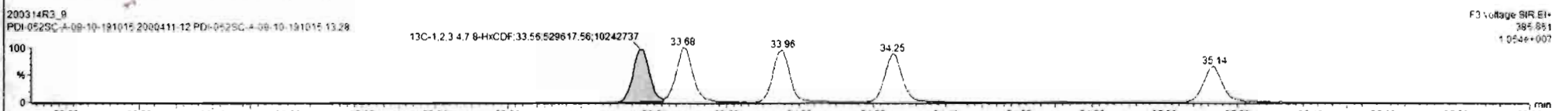
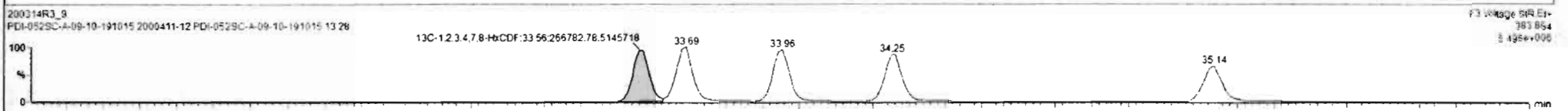
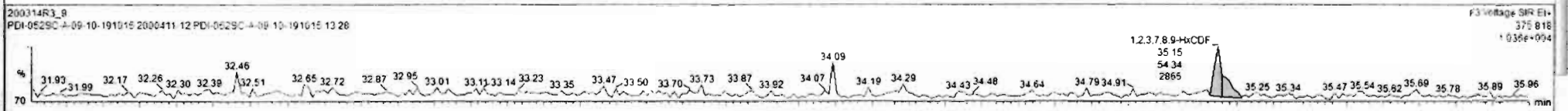
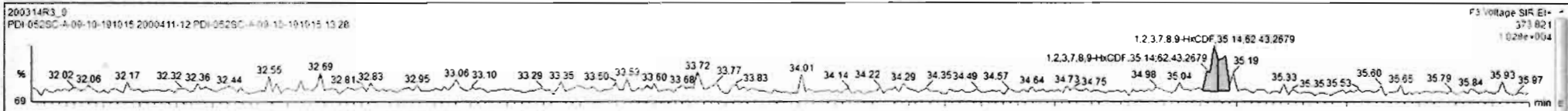
File Edit View Display Processing Window Help

200314R3\_9 - 2000411-12 PDI-052SC-A-09-10-191015 13-28 PDI-052SC-A-09-10-191015

Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	9.996					0.0163	
46 Total Hexa-Furans				1.0920	9.996			0.0361		0.0245	0.0560

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 1,2,3,7,8,9-HxCDF	35.14	6.243e1	5.434e1	1.15	NO	0.036059	0.036059
2 Total Hexa-Furans	35.17	5.347e1	3.686e1	1.45	YES	0.019692	0.00000





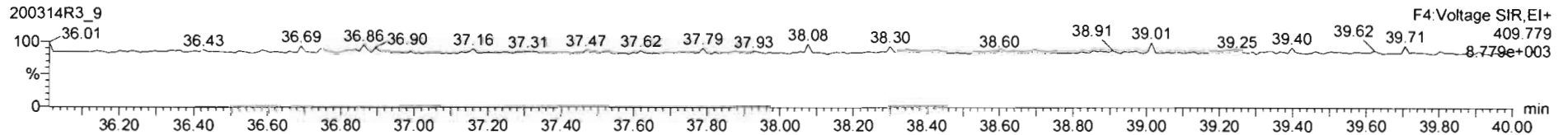
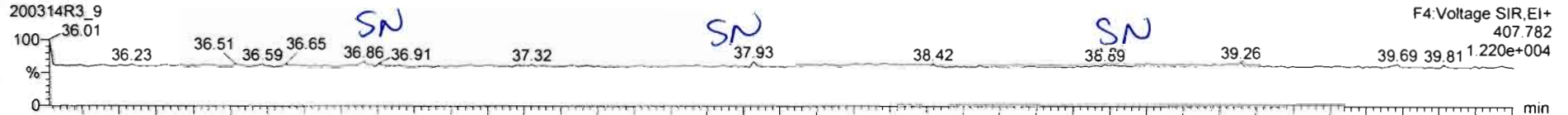
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Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time

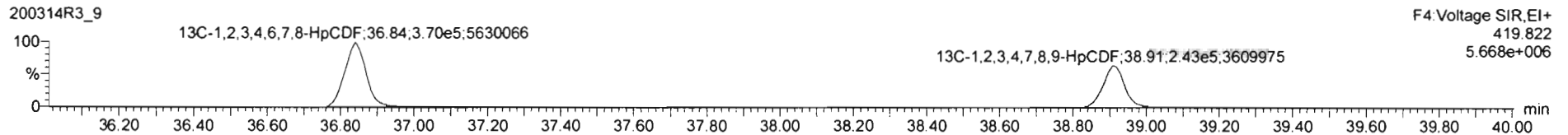
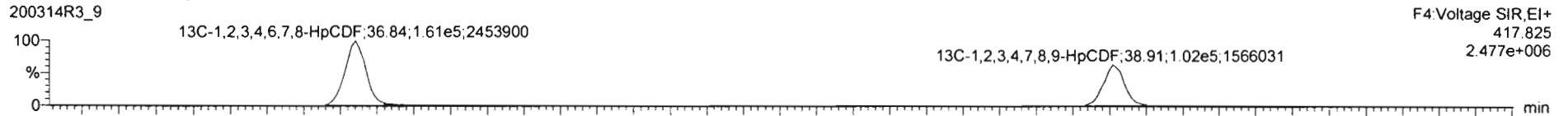
Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_9, Date: 15-Mar-2020, Time: 05:39:16, ID: 2000411-12 PDI-052SC-A-09-10-191015 13.28, Description: PDI-052SC-A-09-10-191015

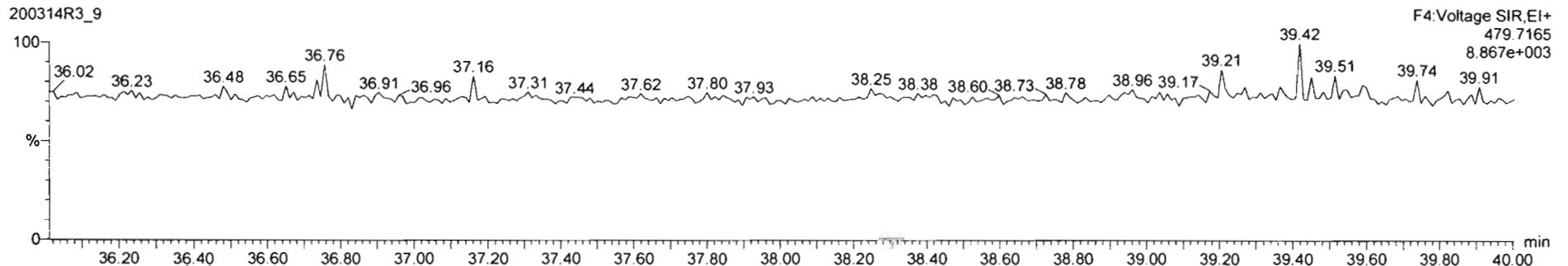
1,2,3,4,6,7,8-HpCDF



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



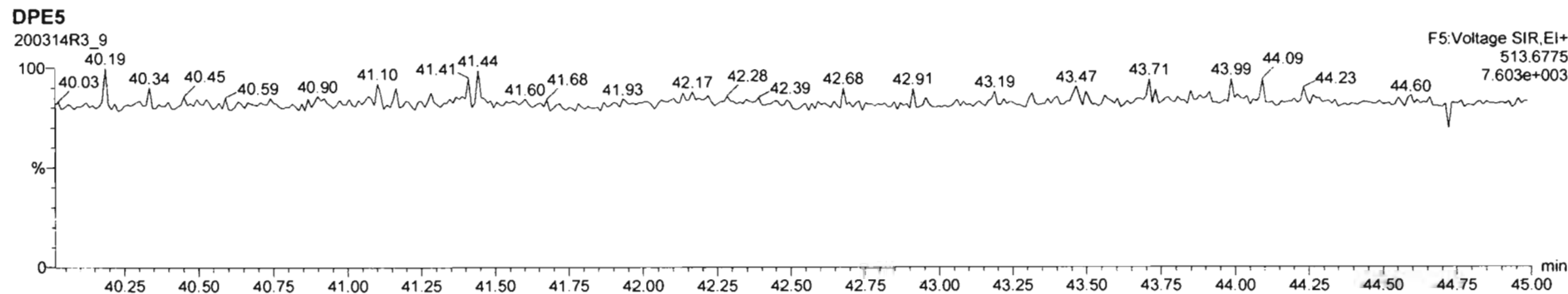
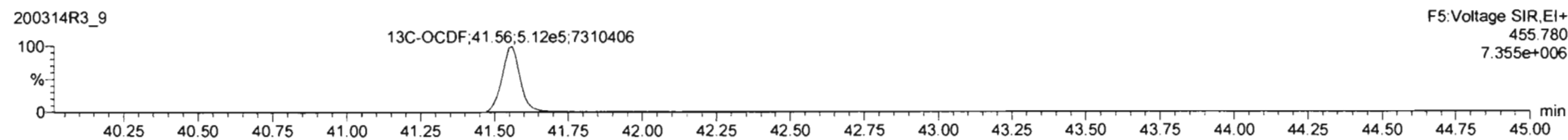
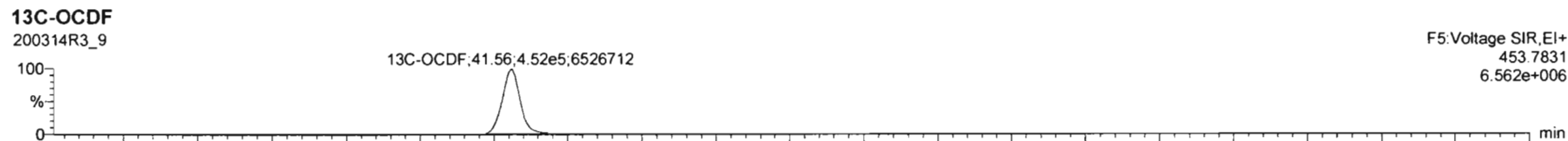
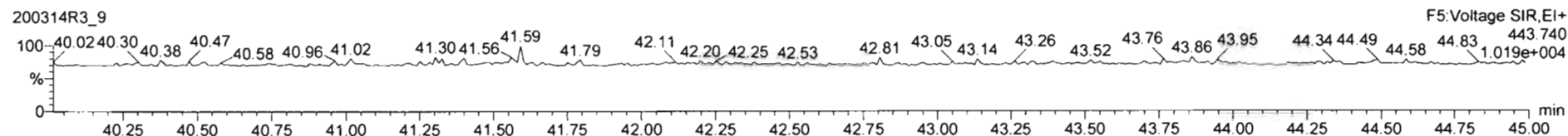
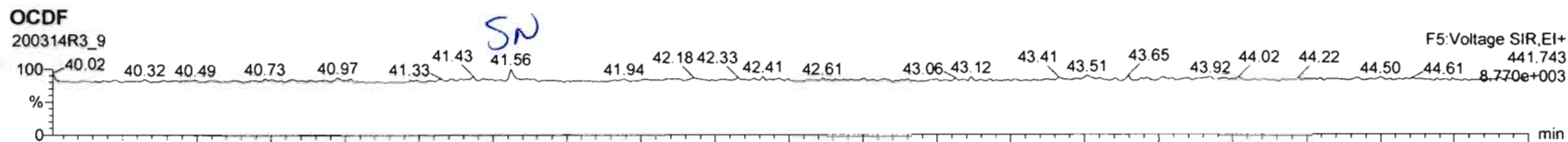
DPE4



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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_9, Date: 15-Mar-2020, Time: 05:39:16, ID: 2000411-12 PDI-052SC-A-09-10-191015 13.28, Description: PDI-052SC-A-09-10-191015



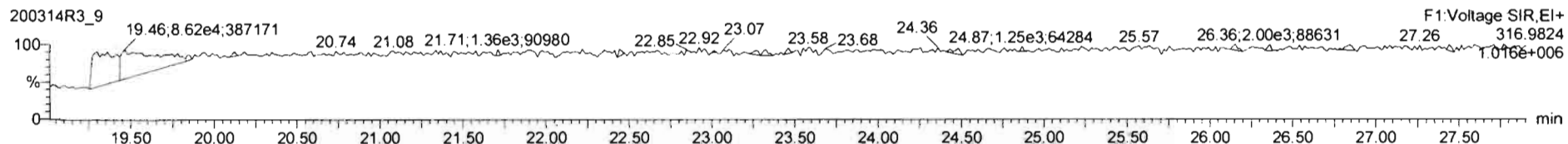
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Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time

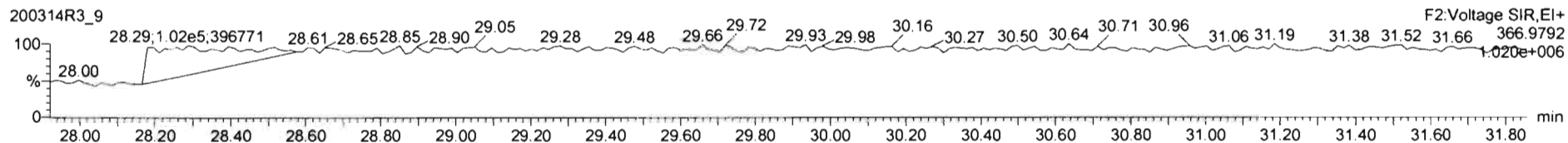
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Name: 200314R3\_9, Date: 15-Mar-2020, Time: 05:39:16, ID: 2000411-12 PDI-052SC-A-09-10-191015 13.28, Description: PDI-052SC-A-09-10-191015

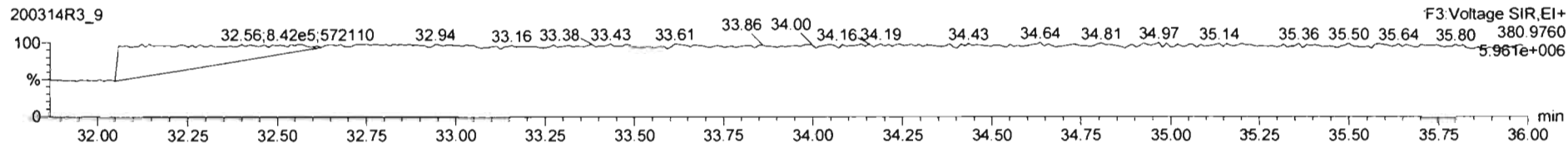
PFK1



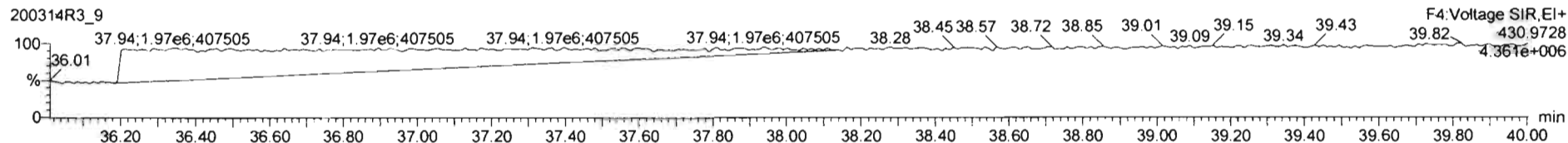
PFK2



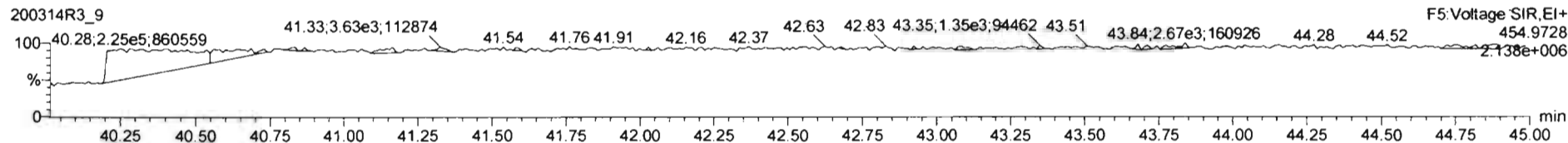
PFK3



PFK4



PFK5



Dataset: U:\VG12.PRO\Results\200314R3\200314R3-10.qld

Last Altered: Sunday, March 15, 2020 3:18:38 PM Pacific Daylight Time  
Printed: Sunday, March 15, 2020 3:19:21 PM Pacific Daylight Time

GRB 03/15/2020

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08  
Calibration: U:\VG12.PRO\CurveDB\lb5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

*MLH*  
3/15/20

Name: 200314R3\_10, Date: 15-Mar-2020, Time: 06:26:48, ID: 2000411-13 PDI-052SC-A-10-11-191015 13.94, Description: PDI-052SC-A-10-11-191015

#	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	0.983	10.004	25.736		1.001				0.0790	
2	2 1,2,3,7,8-PeCDD			NO	0.921	10.004	31.009		1.001				0.0667	
3	3 1,2,3,4,7,8-HxCDD			NO	1.13	10.004	34.413		1.000				0.0573	
4	4 1,2,3,6,7,8-HxCDD			NO	0.984	10.004	34.509		1.000				0.0571	
5	5 1,2,3,7,8,9-HxCDD			NO	0.967	10.004	34.786		1.000				0.0680	
6	6 1,2,3,4,6,7,8-HpCDD			NO	1.01	10.004	38.248		1.000				0.139	
7	7 OCDD	8.76e2	0.88	NO	1.05	10.004	41.379	41.41	1.000	1.001	0.47644		0.149	0.476
8	8 2,3,7,8-TCDF			NO	0.915	10.004	24.743		1.001				0.0511	
9	9 1,2,3,7,8-PeCDF			NO	0.959	10.004	29.651		1.001				0.0385	
10	10 2,3,4,7,8-PeCDF			NO	1.00	10.004	30.698		1.001				0.0338	
11	11 1,2,3,4,7,8-HxCDF			NO	1.04	10.004	33.551		1.000				0.0371	
12	12 1,2,3,6,7,8-HxCDF			NO	1.01	10.004	33.678		1.000				0.0361	
13	13 2,3,4,6,7,8-HxCDF			NO	1.09	10.004	34.277		1.001				0.0386	
14	14 1,2,3,7,8,9-HxCDF	1.41e2	1.31	NO	1.03	10.004	35.116	35.13	1.000	1.000	0.052959		0.0269	0.0530
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.05	10.004	36.868		1.001				0.0567	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	10.004	38.897		1.000				0.0722	
17	17 OCDF			NO	0.947	10.004	41.560		1.000				0.103	
18	18 13C-2,3,7,8-TCDD	7.11e5	0.78	NO	1.18	10.004	25.704	25.70	1.029	1.029	159.36	79.7	0.246	
19	19 13C-1,2,3,7,8-PeCDD	6.25e5	0.63	NO	0.864	10.004	30.881	30.99	1.236	1.240	191.99	96.0	0.472	
20	20 13C-1,2,3,4,7,8-HxCDD	4.55e5	1.27	NO	0.754	10.004	34.406	34.40	1.014	1.014	164.93	82.5	0.443	
21	21 13C-1,2,3,6,7,8-HxCDD	5.36e5	1.27	NO	0.925	10.004	34.514	34.51	1.017	1.017	158.28	79.2	0.361	
22	22 13C-1,2,3,7,8,9-HxCDD	4.88e5	1.26	NO	0.829	10.004	34.776	34.78	1.025	1.025	160.58	80.3	0.403	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.55e5	1.08	NO	0.598	10.004	38.230	38.24	1.127	1.127	162.05	81.1	0.394	
24	24 13C-OCDD	6.99e5	0.85	NO	0.571	10.004	41.376	41.38	1.219	1.219	334.51	83.7	0.595	
25	25 13C-2,3,7,8-TCDF	9.06e5	0.77	NO	1.09	10.004	24.727	24.72	0.990	0.989	144.79	72.4	0.325	
26	26 13C-1,2,3,7,8-PeCDF	8.33e5	1.57	NO	0.876	10.004	29.555	29.63	1.183	1.186	165.44	82.8	0.694	
27	27 13C-2,3,4,7,8-PeCDF	8.53e5	1.60	NO	0.844	10.004	30.564	30.67	1.223	1.227	176.03	88.1	0.721	
28	28 13C-1,2,3,4,7,8-HxCDF	6.07e5	0.52	NO	1.00	10.004	33.554	33.55	0.989	0.989	165.74	82.9	0.511	
29	29 13C-1,2,3,6,7,8-HxCDF	6.60e5	0.52	NO	1.12	10.004	33.663	33.67	0.992	0.992	161.23	80.6	0.457	
30	30 13C-2,3,4,6,7,8-HxCDF	6.01e5	0.51	NO	1.04	10.004	34.243	34.24	1.009	1.009	158.68	79.4	0.494	
31	31 13C-1,2,3,7,8,9-HxCDF	5.20e5	0.50	NO	0.873	10.004	35.115	35.12	1.035	1.035	162.71	81.4	0.585	

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-10.qld

Last Altered: Sunday, March 15, 2020 3:18:38 PM Pacific Daylight Time  
Printed: Sunday, March 15, 2020 3:19:21 PM Pacific Daylight Time

Name: 200314R3\_10, Date: 15-Mar-2020, Time: 06:26:48, ID: 2000411-13 PDI-052SC-A-10-11-191015 13.94, Description: PDI-052SC-A-10-11-191015

#	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	4.40e5	0.42	NO	0.771	10.004	36.829	36.83	1.085	1.085	155.85	78.0	0.441	
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.89e5	0.43	NO	0.519	10.004	38.912	38.90	1.147	1.146	152.17	76.1	0.654	
34	34 13C-OCDF	8.16e5	0.89	NO	0.696	10.004	41.556	41.56	1.225	1.225	320.15	80.1	0.333	
35	35 37Cl-2,3,7,8-TCDD	2.78e5			1.17	10.004	25.714	25.74	1.029	1.030	62.904	78.7	0.0463	
36	36 13C-1,2,3,4-TCDD	7.53e5	0.78	NO	1.00	10.004	25.050	24.99	1.000	1.000	199.92	100	0.292	
37	37 13C-1,2,3,4-TCDF	1.15e6	0.80	NO	1.00	10.004	23.190	23.07	1.000	1.000	199.92	100	0.354	
38	38 13C-1,2,3,4,6,9-HxCDF	7.32e5	0.51	NO	1.00	10.004	33.880	33.93	1.000	1.000	199.92	100	0.511	
39	39 Total Tetra-Dioxins				0.983	10.004	24.620		0.000				0.0493	
40	40 Total Penta-Dioxins				0.921	10.004	29.960		0.000				0.0265	
41	41 Total Hexa-Dioxins				0.984	10.004	33.635		0.000		0.00000		0.0372	0.0827
42	42 Total Hepta-Dioxins				1.01	10.004	37.640		0.000				0.0832	
43	43 Total Tetra-Furans				0.915	10.004	23.610		0.000				0.0220	
44	44 1st Func. Penta-Furans				0.959	10.004	27.090		0.000				0.0111	
45	45 Total Penta-Furans				0.959	10.004	29.275		0.000				0.0139	
46	46 Total Hexa-Furans				1.09	10.004	33.555		0.000		0.076750		0.0198	0.0767
47	47 Total Hepta-Furans				1.05	10.004	37.835		0.000				0.0332	

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-10.qld

Last Altered: Sunday, March 15, 2020 3:18:38 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 3:19:21 PM Pacific Daylight Time

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Calibration: U:\VG12.PRO\CurveDB\vb5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R3\_10, Date: 15-Mar-2020, Time: 06:26:48, ID: 2000411-13 PDI-052SC-A-10-11-191015 13.94, Description: PDI-052SC-A-10-11-191015

**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	Total Hexa-Dioxins	32.94	3.763e3	3.446e3	1.488e2	8.963e1	1.66	YES	0.000e0	0.00000	0.082695	0.0372

**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\200314R3\200314R3-10.qld

Last Altered: Sunday, March 15, 2020 3:18:38 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 3:19:21 PM Pacific Daylight Time

Name: 200314R3\_10, Date: 15-Mar-2020, Time: 06:26:48, ID: 2000411-13-PDI-052SC-A-10-11-191015 13.94, Description: PDI-052SC-A-10-11-191015

**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	1,2,3,7,8,9-HxCDF	35.13	1.863e3	2.121e3	8.022e1	6.125e1	1.31	NO	1.415e2	0.052959	0.052959	0.0269
2	Total Hexa-Furans	35.15	2.077e3	1.222e3	4.165e1	3.594e1	1.16	NO	7.759e1	0.023791	0.023791	0.0198

**Hepta-Furans**

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

Dataset: Untitled

Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time

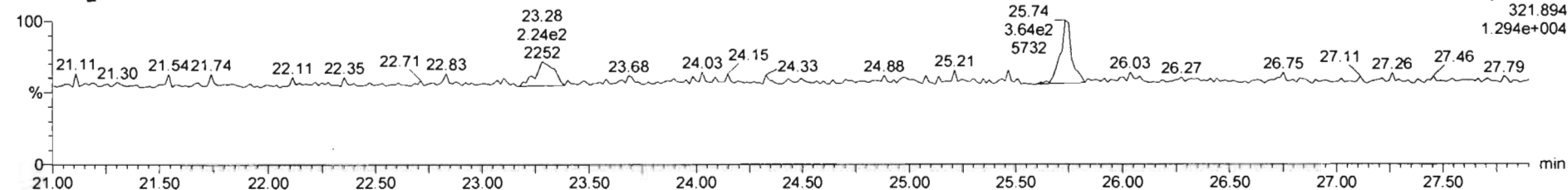
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Name: 200314R3\_10, Date: 15-Mar-2020, Time: 06:26:48, ID: 2000411-13 PDI-052SC-A-10-11-191015 13.94, Description: PDI-052SC-A-10-11-191015

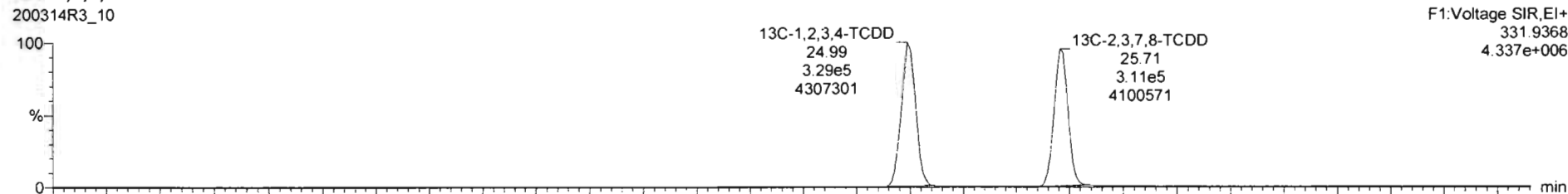
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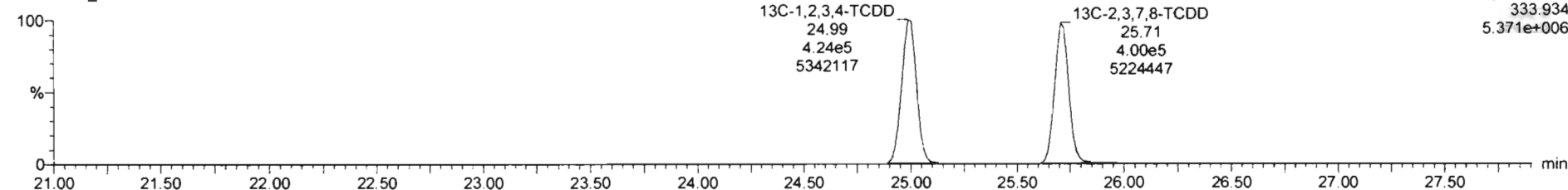
200314R3\_10



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



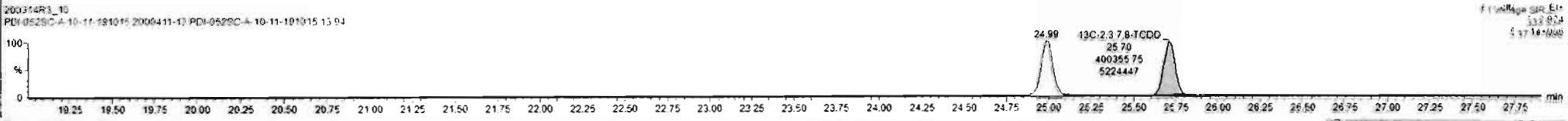
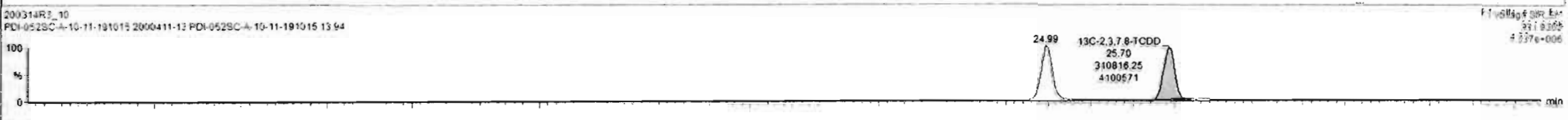
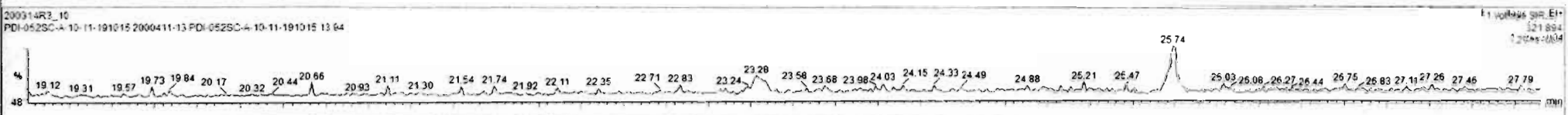
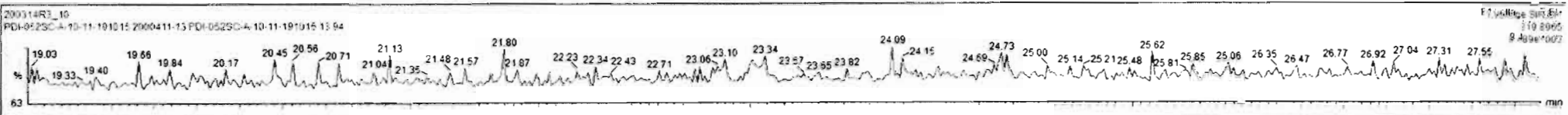
200314R3\_10





#	Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
39	Total Tetra-Dioxins				0.9835	10.004					0.0493	
40	Total Penta-Dioxins				0.8212	10.004					0.0265	

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



Dataset: Untitled

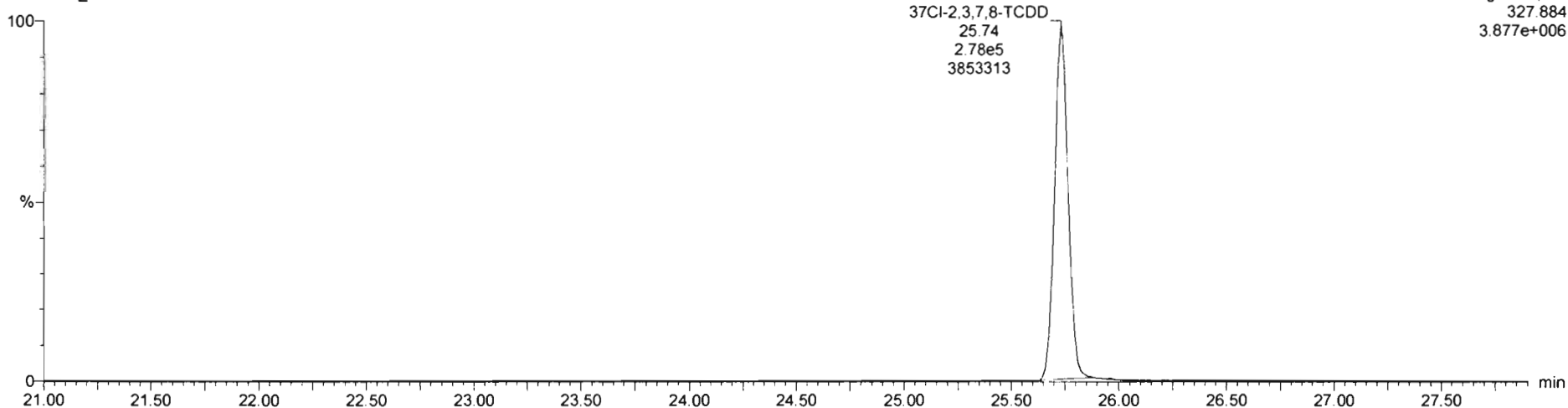
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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_10, Date: 15-Mar-2020, Time: 06:26:48, ID: 2000411-13 PDI-052SC-A-10-11-191015 13.94, Description: PDI-052SC-A-10-11-191015

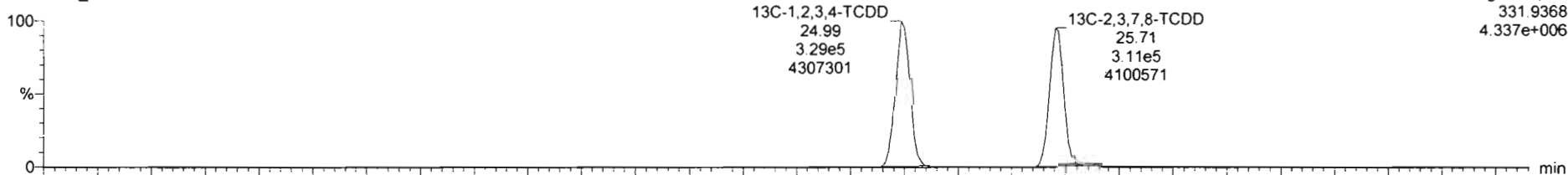
**37Cl-2,3,7,8-TCDD**

200314R3\_10

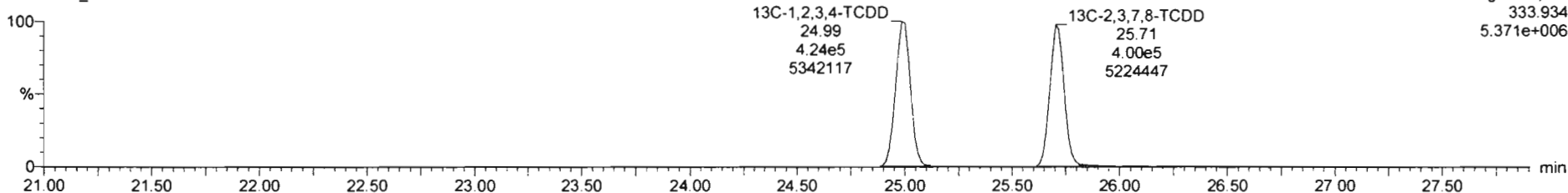


**13C-1,2,3,4-TCDD**

200314R3\_10



200314R3\_10

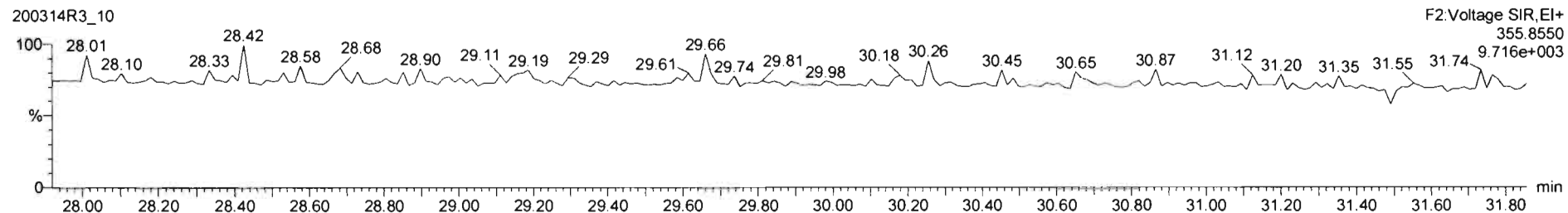
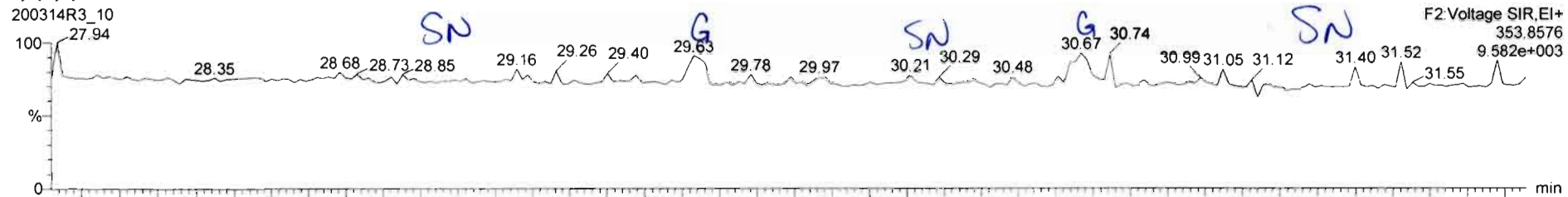


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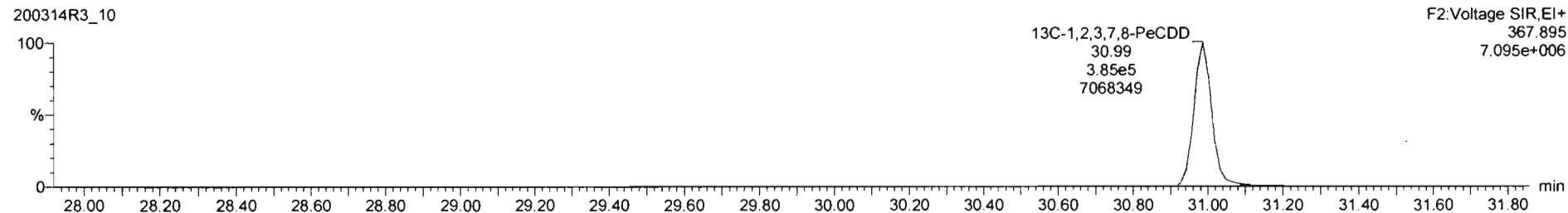
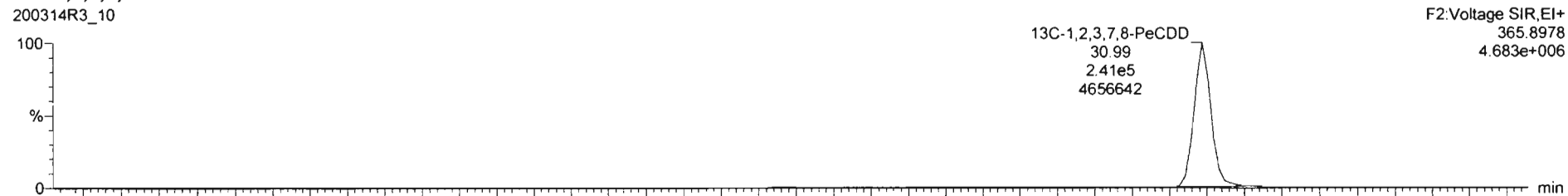
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1,2,3,7,8-PeCDD



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



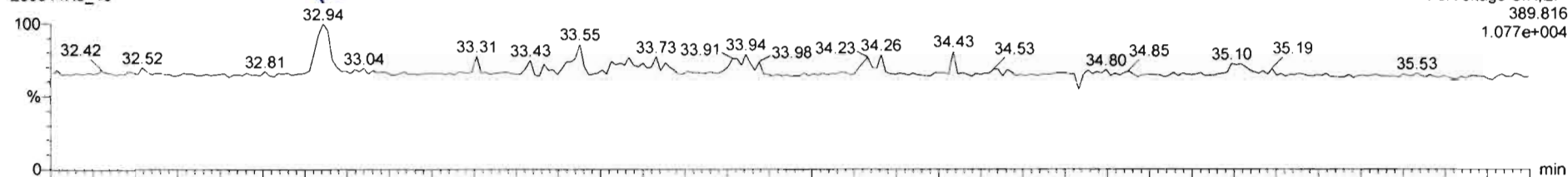
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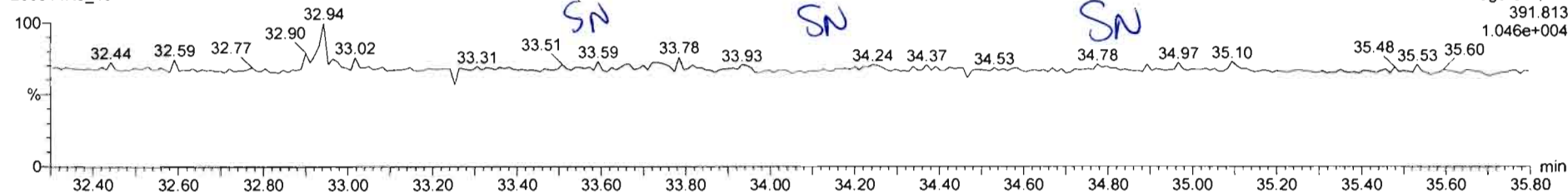
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1,2,3,4,7,8-HxCDD

200314R3\_10

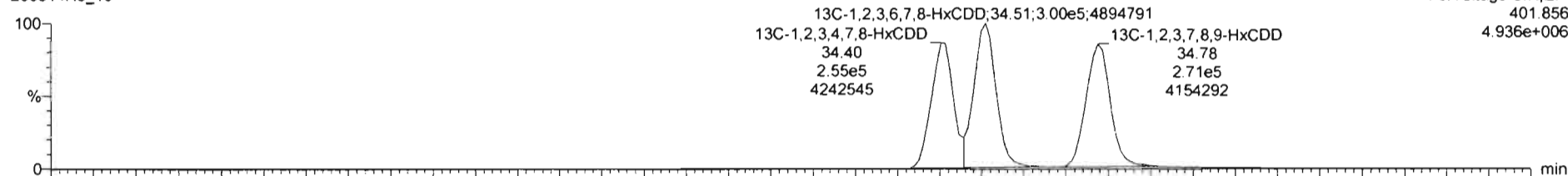


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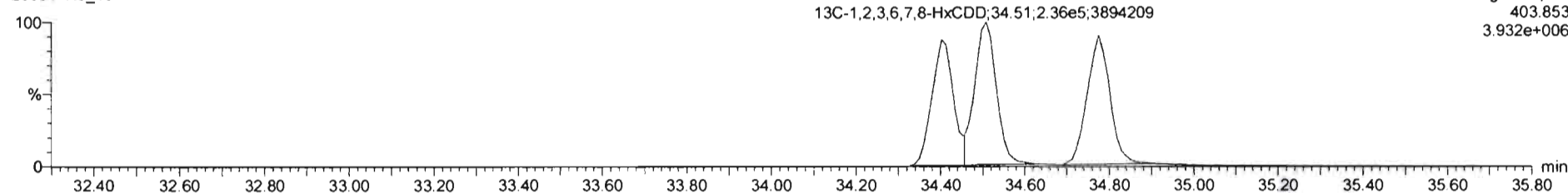


13C-1,2,3,4,7,8-HxCDD

200314R3\_10

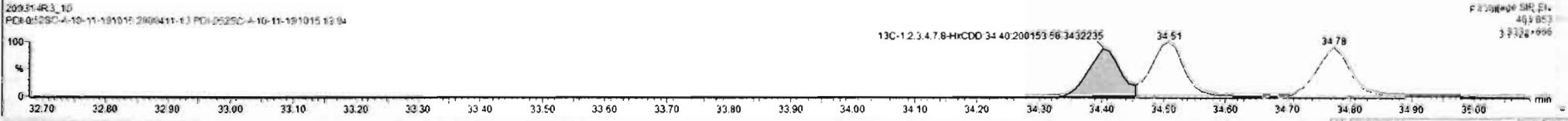
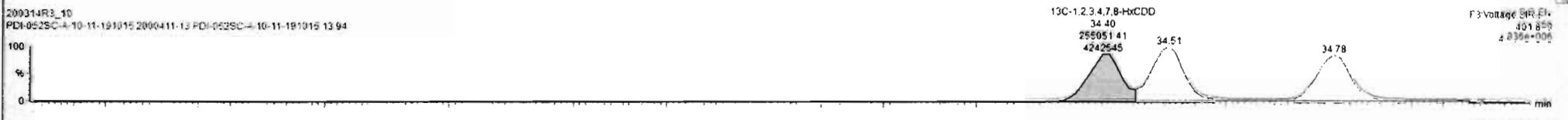
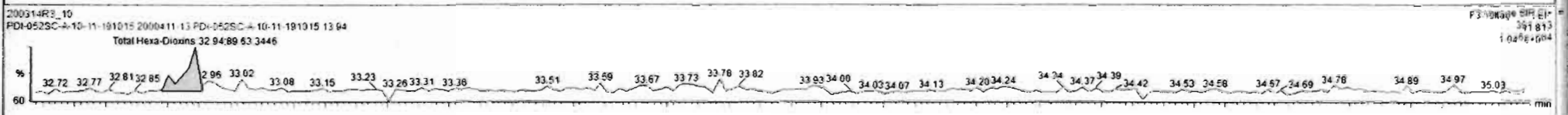
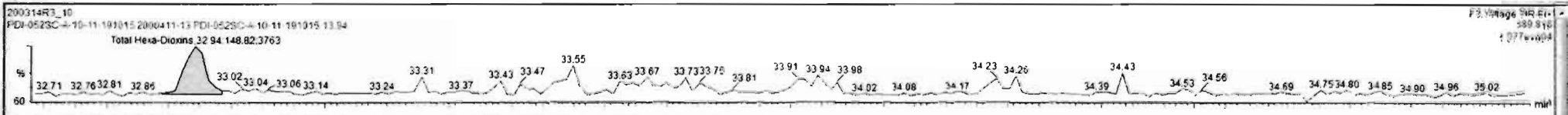


200314R3\_10



Name	Resp	RA	n/y	RAF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.004					0.0493	
40 Total Penta-Dioxins				0.9212	10.004					0.0265	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hexa-Dioxins	32.94	1.488e2	5.963e1	1.66	YES	0.082695	0.0000



Dataset: Untitled

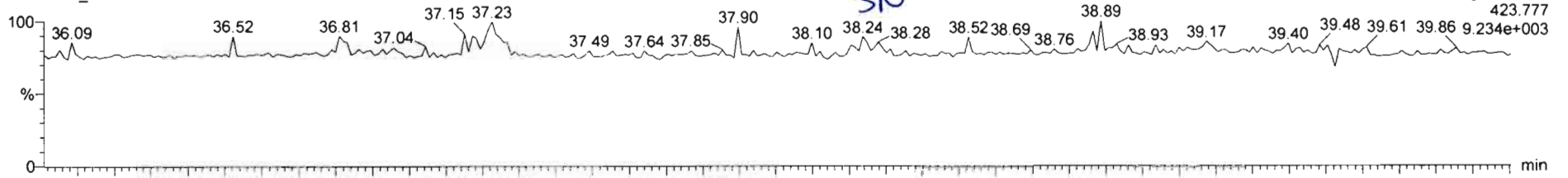
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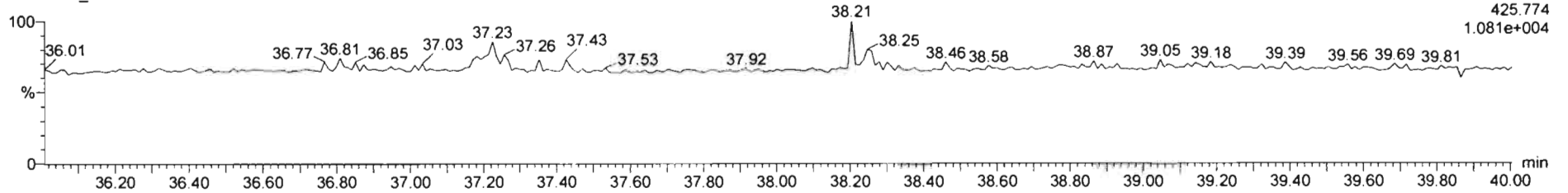
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1,2,3,4,6,7,8-HpCDD

200314R3\_10

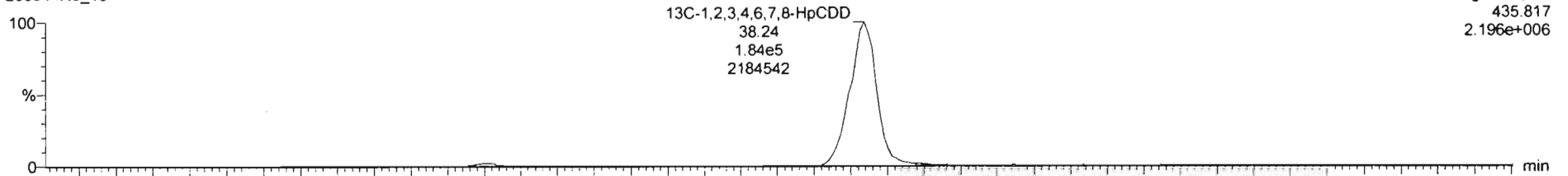


200314R3\_10

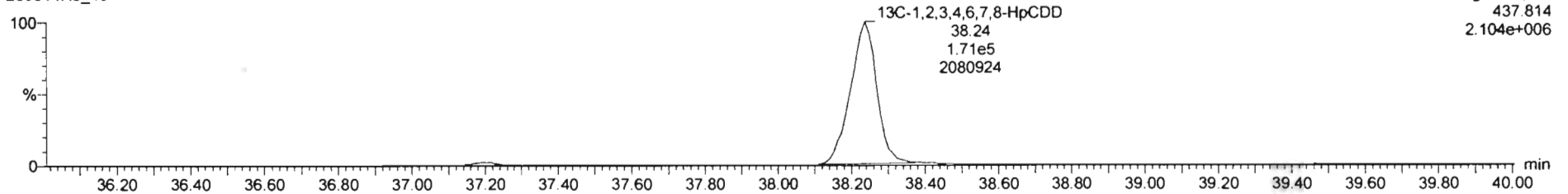


13C-1,2,3,4,6,7,8-HpCDD

200314R3\_10



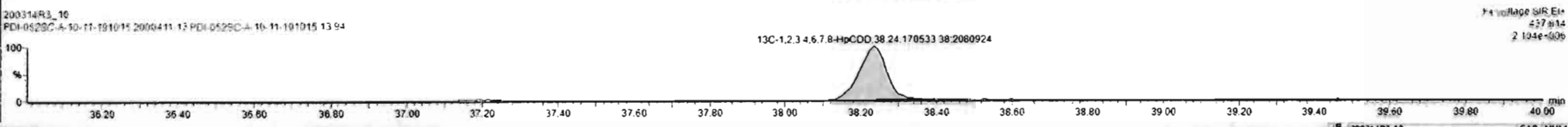
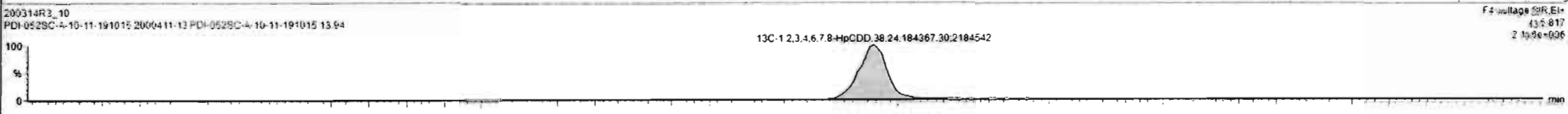
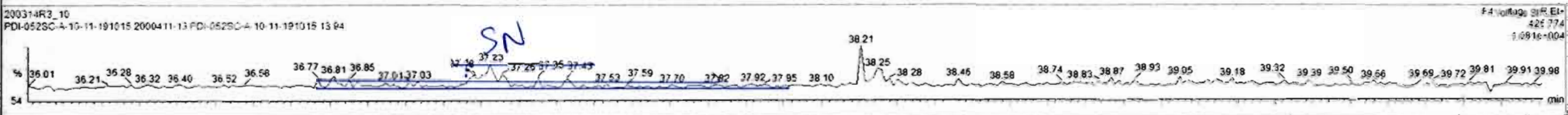
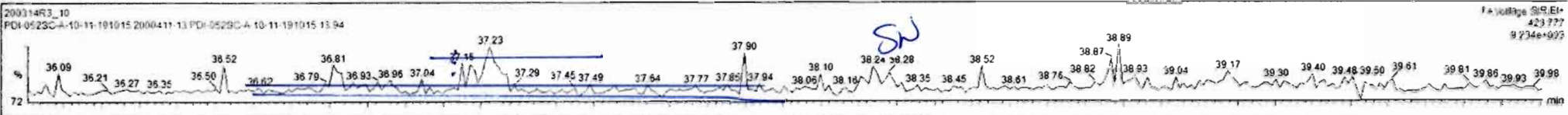
200314R3\_10



200314R3\_10 - 2000411-13 PDI-052SC-A-10-11-191015 13 94 - PDI-052SC-A-10-11-191015

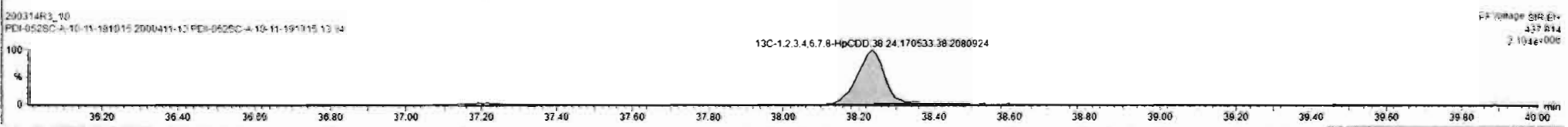
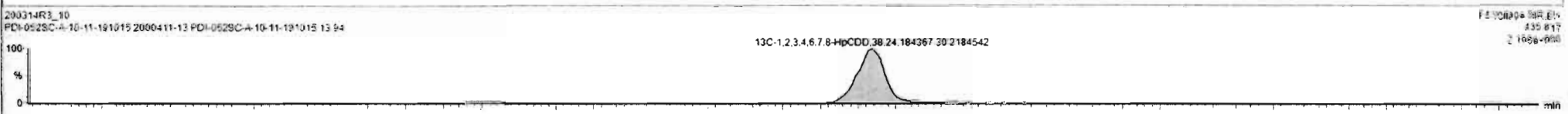
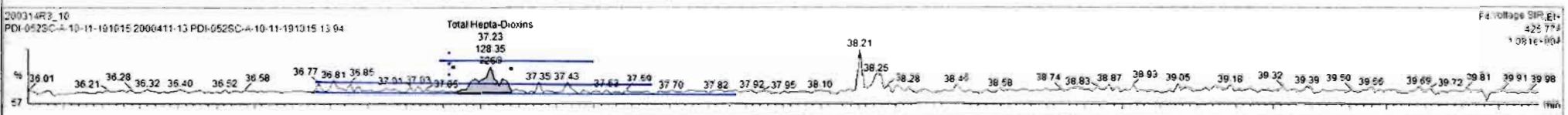
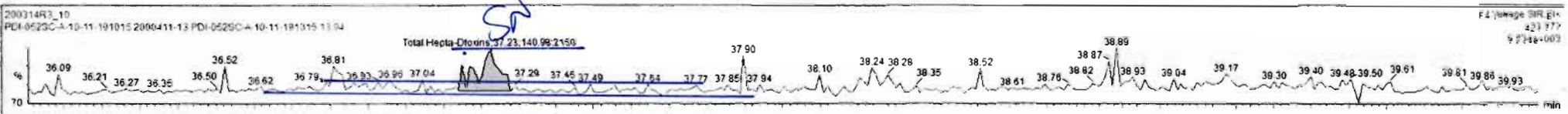
Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0061	10.004					0.0832	
43 Total Tetra-Furans				0.8154	10.004					0.0220	

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



Name	Resp	RA	nly	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0061	10.004			0.151	0.0632	0.151	
43 Total Tetra-Furans				0.0154	10.004				0.0220		

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc
1 Total Hepta-Dioxins	37.23	1.410e2	1.283e2	1.10	NO	0.15080	0.15060

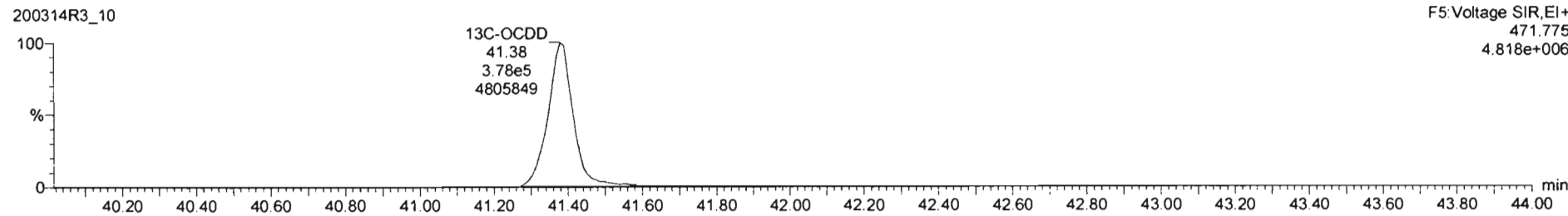
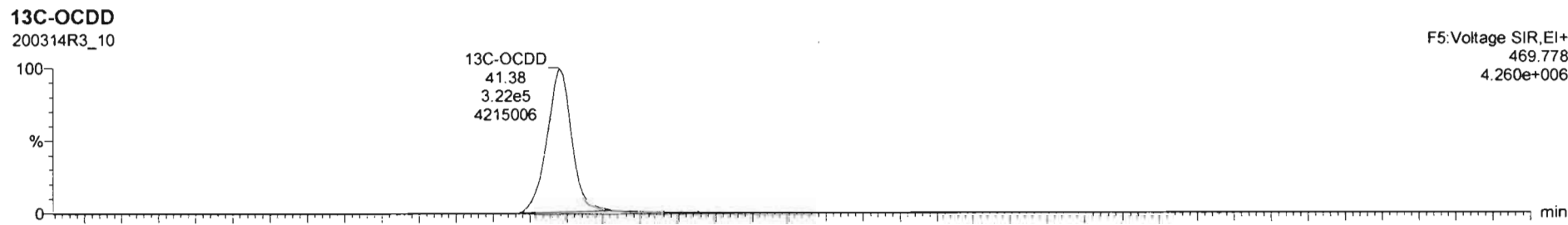
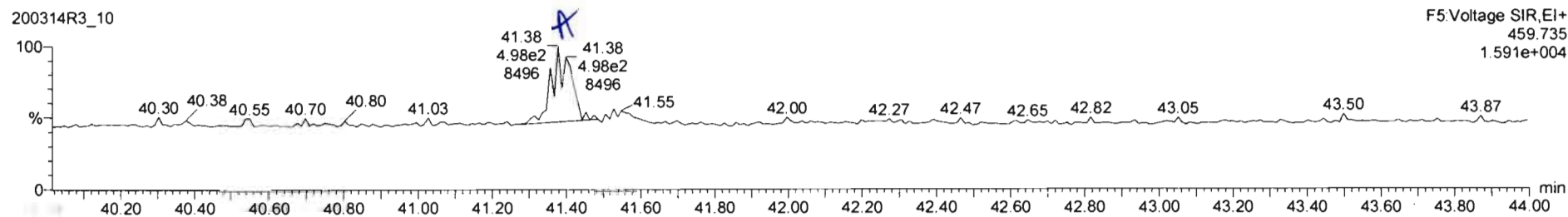
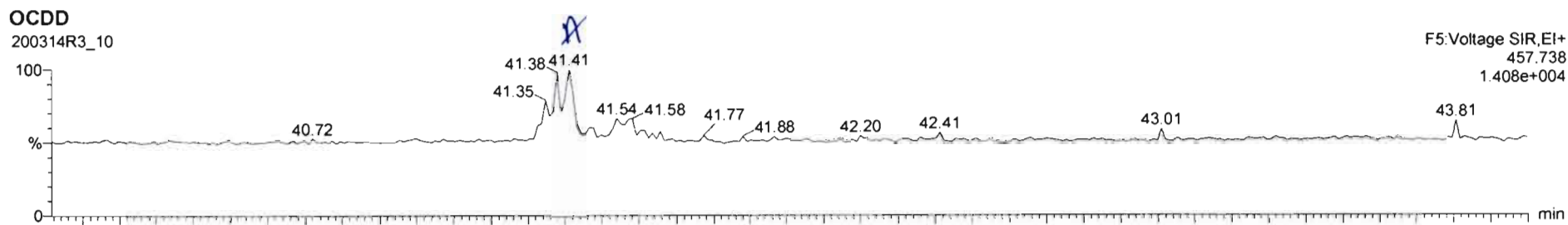




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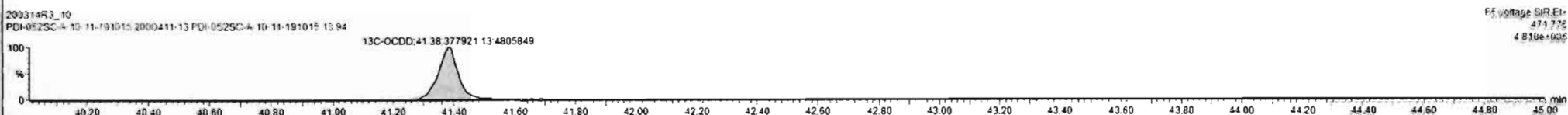
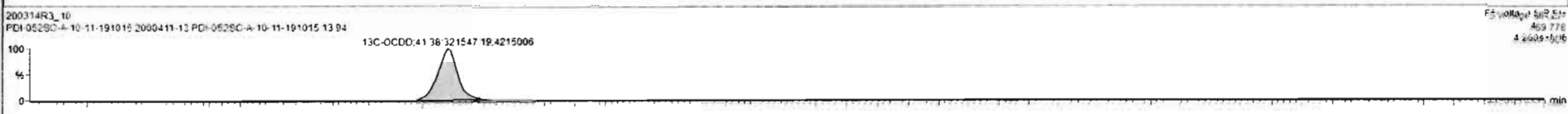
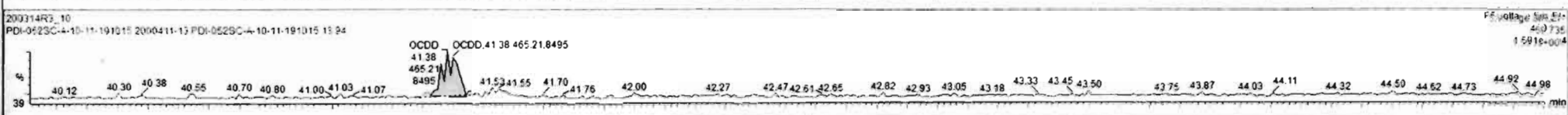
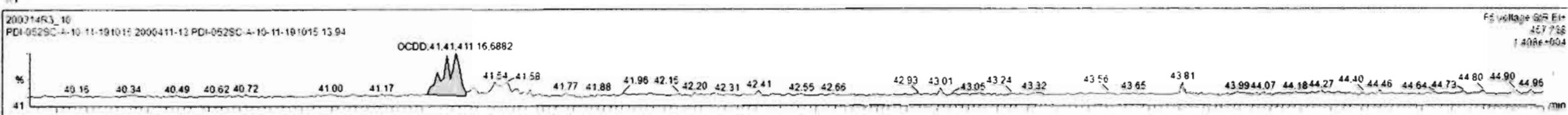
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Name: 200314R3\_10, Date: 15-Mar-2020, Time: 06:26:48, ID: 2000411-13 PDI-052SC-A-10-11-191015 13.94, Description: PDI-052SC-A-10-11-191015



#	Name	Conc.	DL	%Rec	EMPC	Abs. Resp	RRF	RT	#	IS#	RA	Y/N	RRF	Acq Date	Acq Time	I# Chr. Name	ID	Sample Text	Factor1	SW	Cal File
7	OCDD	0.476442	0.140		0.476000	8.76442	1.851	41.41	7	24	0.684	NO	1.001	15-Mar-20	06:26:48	753.450	2000411-13	PDI-052SC-A-10	0.0	10.0	db5_1
8	2,3,7,8-TCDF		0.0511				0.915		8	25		NO		15-Mar-20	06:26:48	485.269	2000411-13	PDI-052SC-A-10	0.0	10.0	db5_1

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



Dataset: Untitled

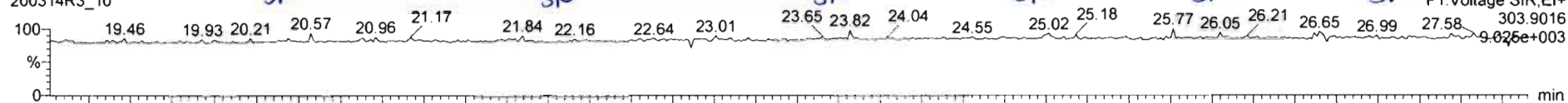
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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

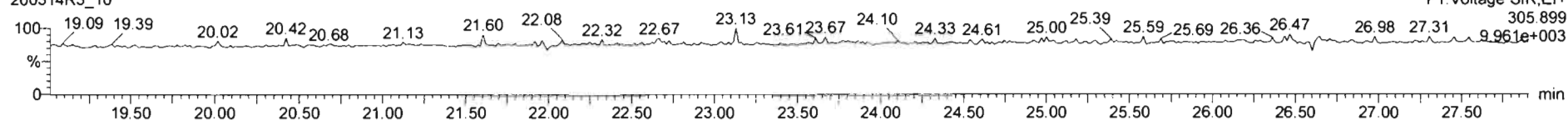
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2,3,7,8-TCDF

200314R3\_10

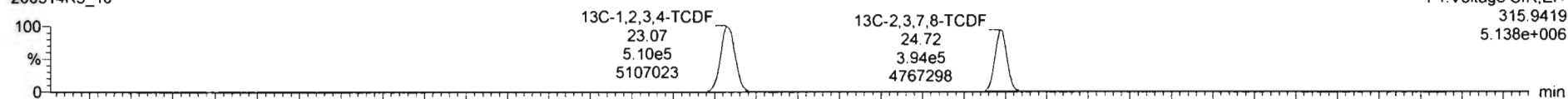


200314R3\_10

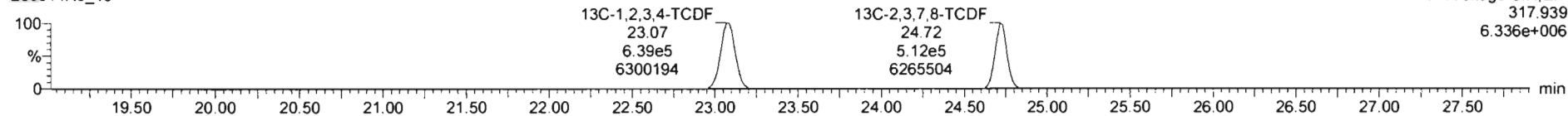


13C-2,3,7,8-TCDF

200314R3\_10

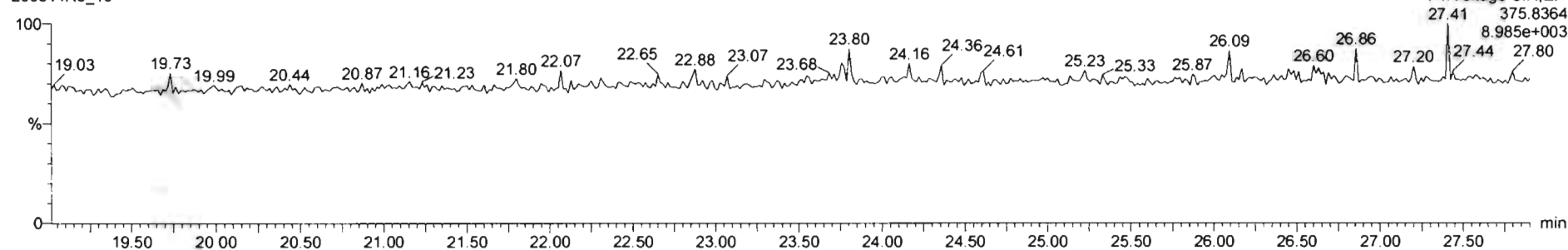


200314R3\_10



DPE1

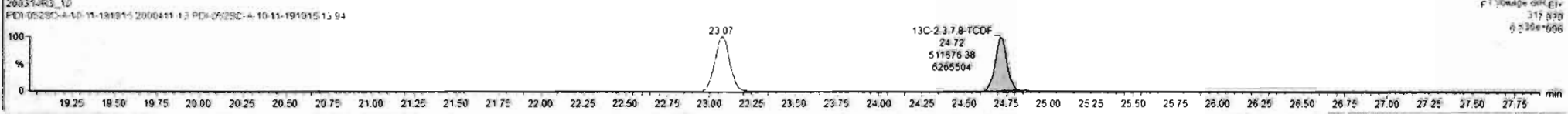
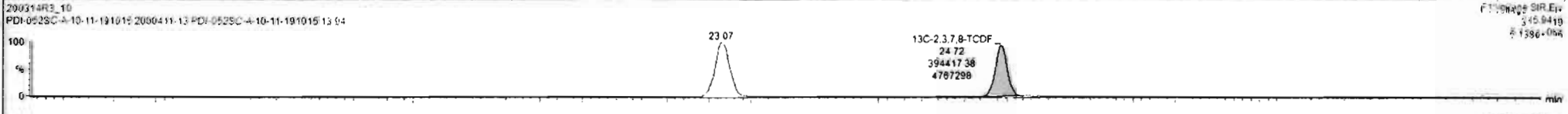
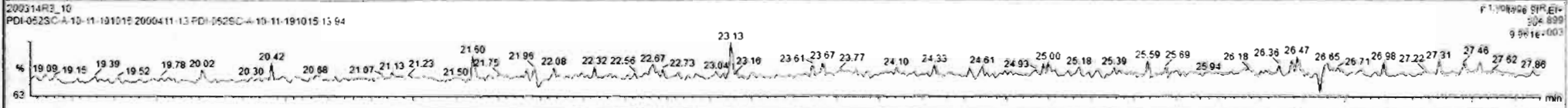
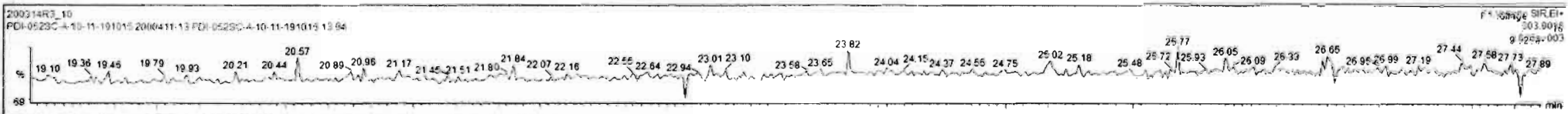
200314R3\_10



200314R3\_10 - 2000411-13 PDI-052SC-A-10-11-191015 13 94 - PDI-052SC-A-10-11-191015

Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0061	10.004					0.0632	
43 Total Tetra-Furans				0.9154	10.804					0.0220	

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



Dataset: Untitled

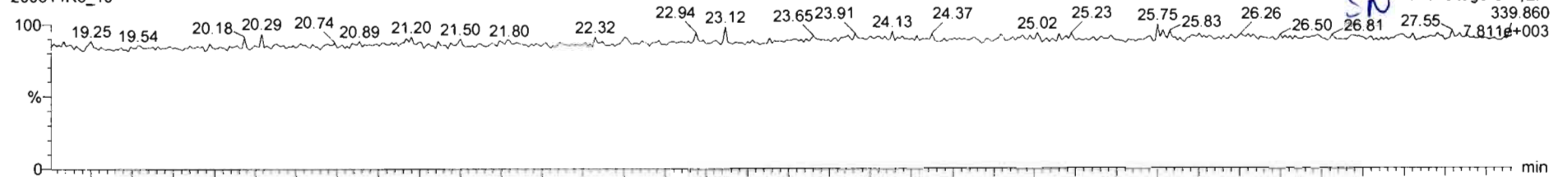
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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

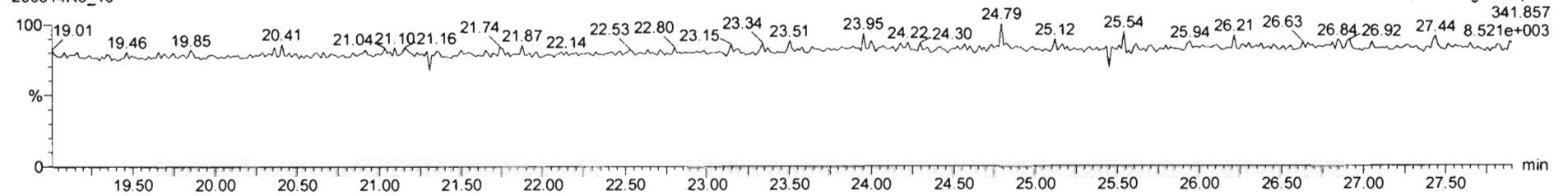
Name: 200314R3\_10, Date: 15-Mar-2020, Time: 06:26:48, ID: 2000411-13 PDI-052SC-A-10-11-191015 13.94, Description: PDI-052SC-A-10-11-191015

1st Func. Penta-Furans

200314R3\_10

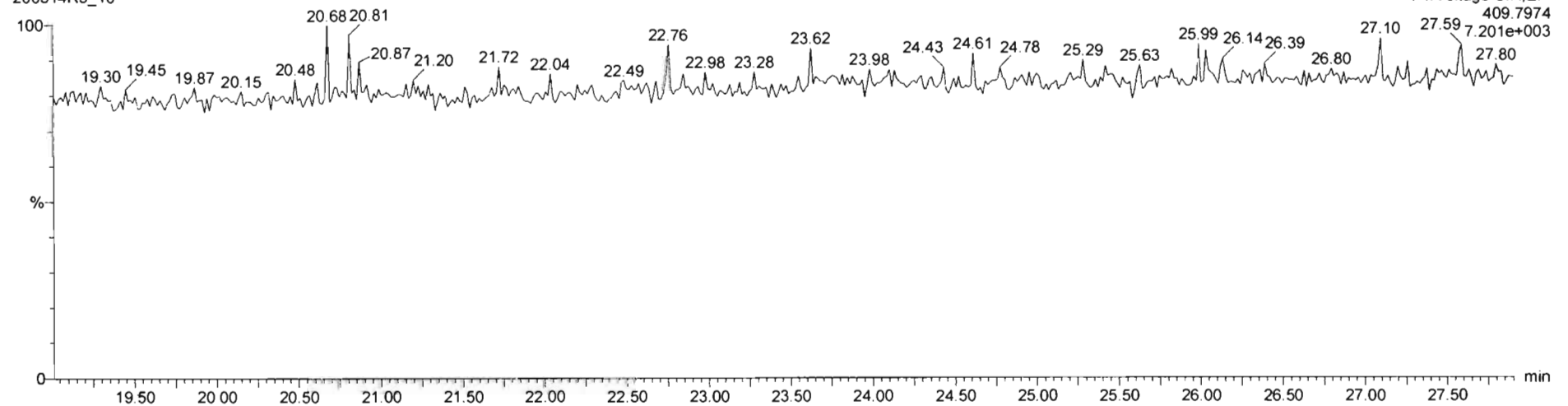


200314R3\_10



DPE6

200314R3\_10



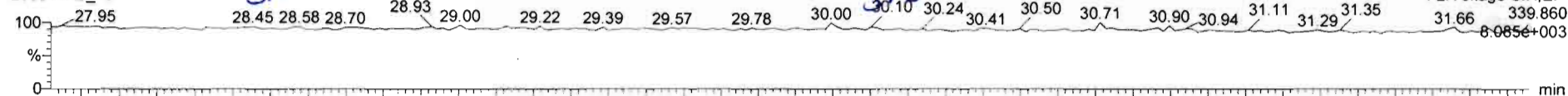
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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

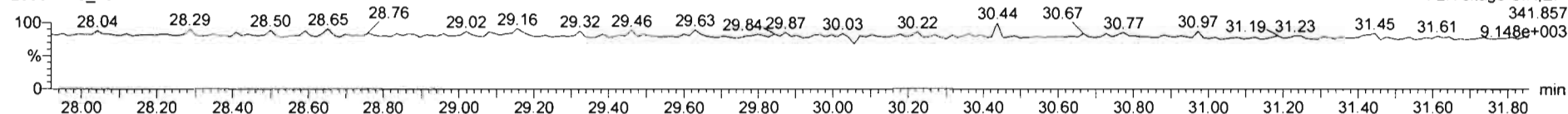
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1,2,3,7,8-PeCDF

200314R3\_10

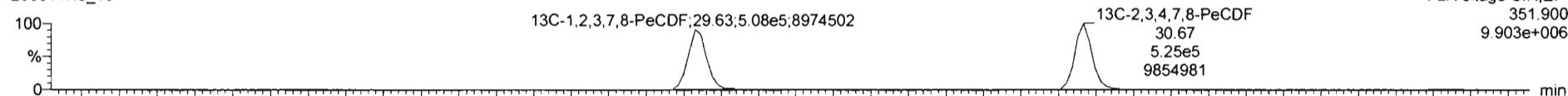


200314R3\_10

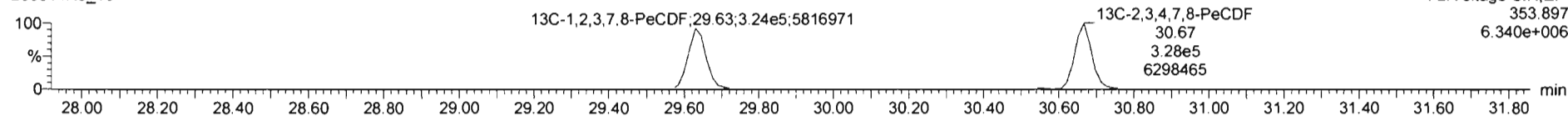


13C-1,2,3,7,8-PeCDF

200314R3\_10

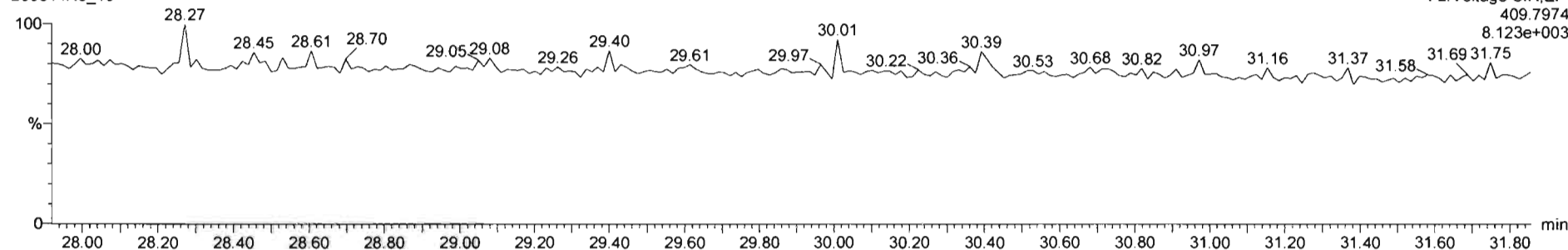


200314R3\_10



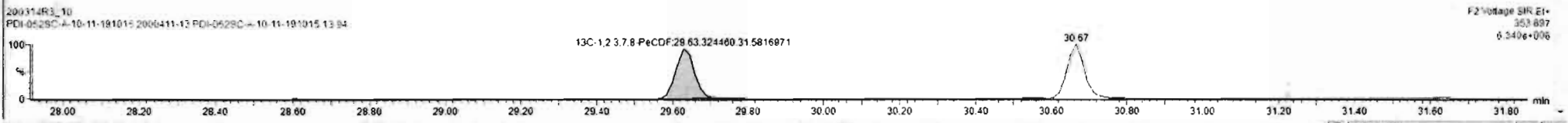
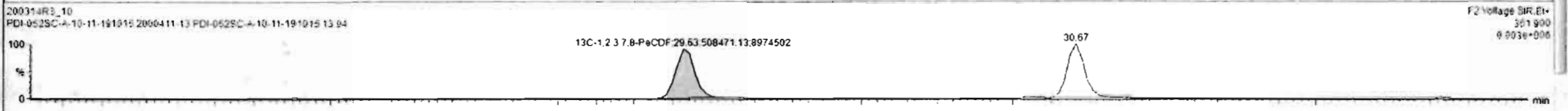
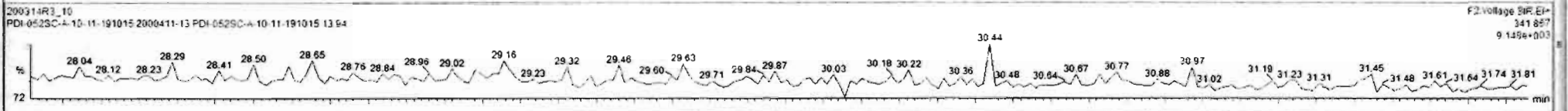
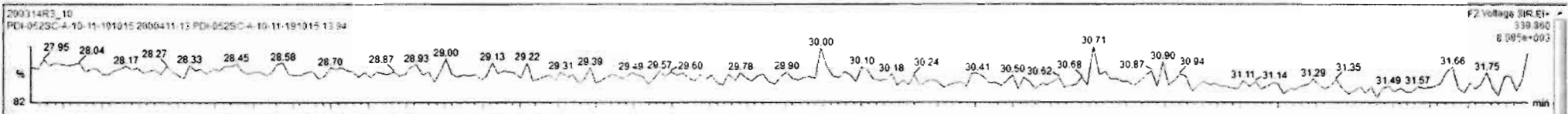
DPE2

200314R3\_10



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.8584	10.004					0.0139	
46 Total Hexa-Furans				1.0920	13.064					0.0198	

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

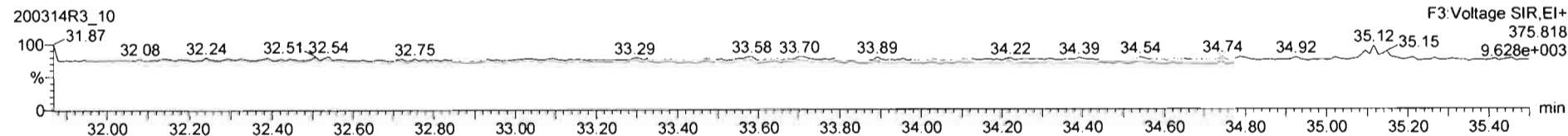
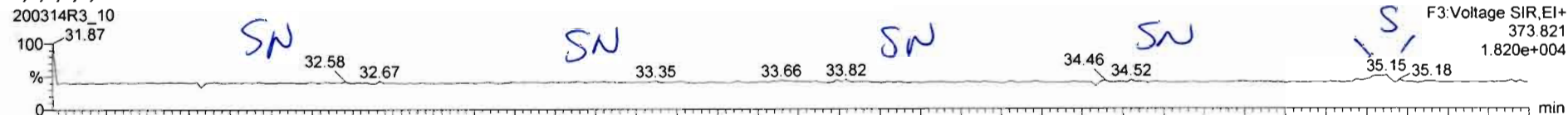


Dataset: Untitled

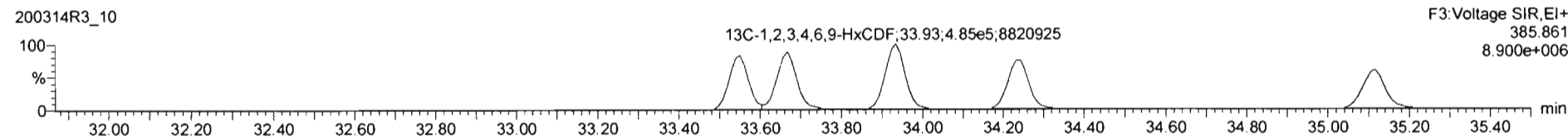
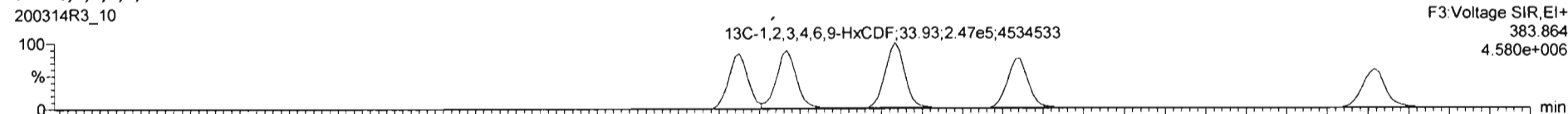
Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_10, Date: 15-Mar-2020, Time: 06:26:48, ID: 2000411-13 PDI-052SC-A-10-11-191015 13.94, Description: PDI-052SC-A-10-11-191015

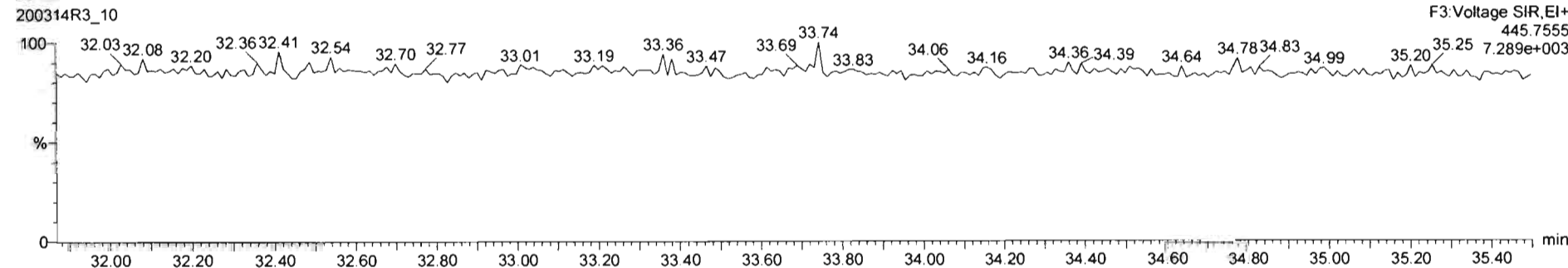
1,2,3,4,7,8-HxCDF



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



DPE3





Targetlynx - 200314R3\_10.qld - [Chromatogram]

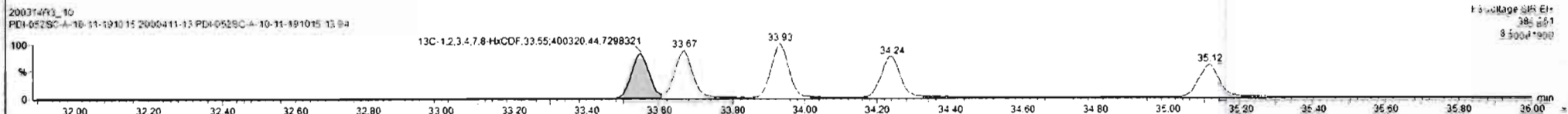
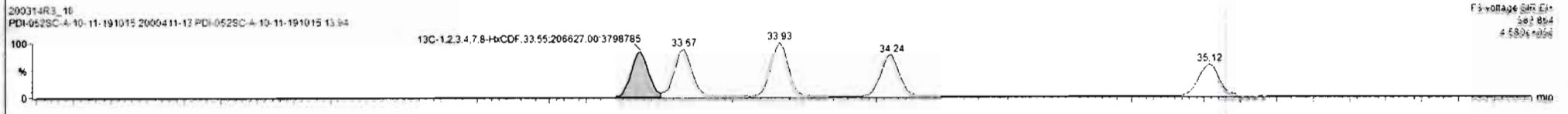
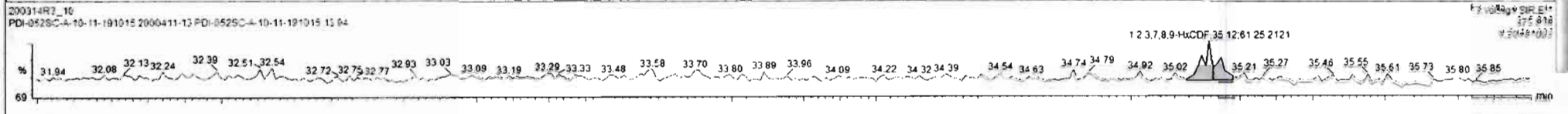
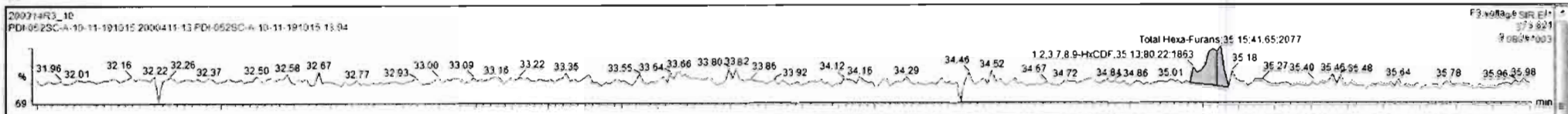
File Edit View Display Processing Window Help

200314R3\_10 2000411-13 PDI-052SC-A 10-11-191015 13 94 - PDI-052SC-A-10-11-191015

Name	Resp	RA	nly	RRF	w/hol	RT	RRT	Conc.	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.004					0.0139	
46 Total Hexa-Furans				1.0920	10.004			0.0767		0.0168	0.0767

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 1,2,3,7,8,9-HxCDF	35.13	6.022e1	6.125e1	1.31	NO	0.052959	0.052959
2 Total Hexa-Furans	35.15	4.165e1	3.594e1	1.16	NO	0.023791	0.023791

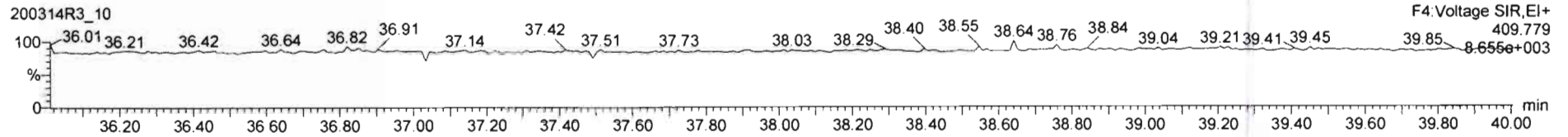
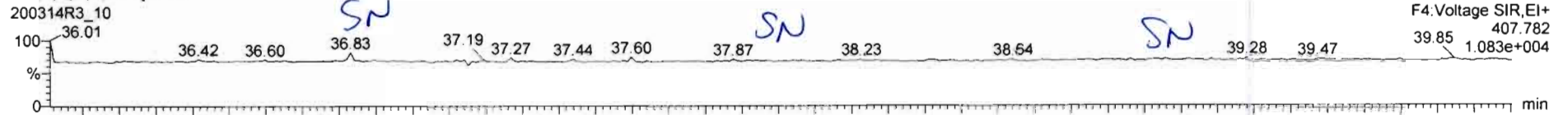


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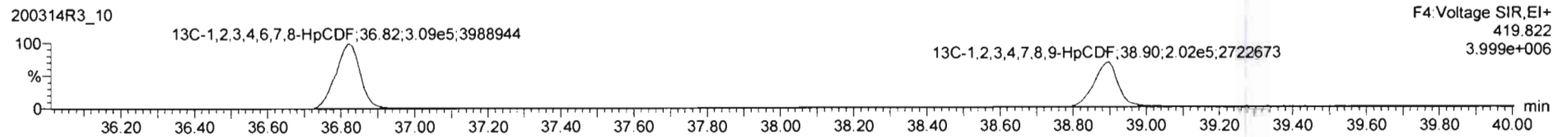
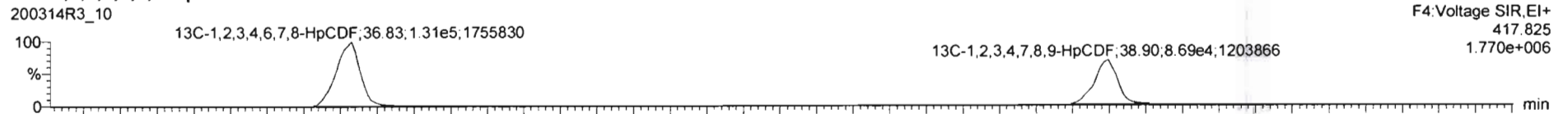
Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time  
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Name: 200314R3\_10, Date: 15-Mar-2020, Time: 06:26:48, ID: 2000411-13 PDI-052SC-A-10-11-191015 13.94, Description: PDI-052SC-A-10-11-191015

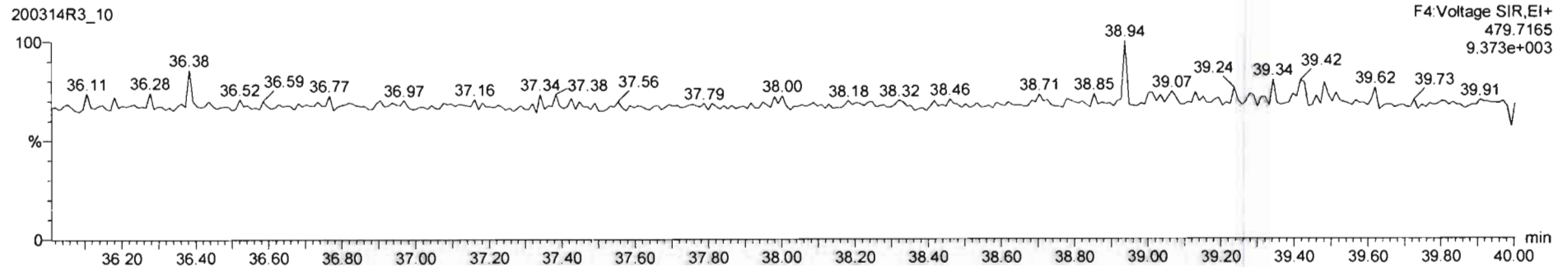
1,2,3,4,6,7,8-HpCDF



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



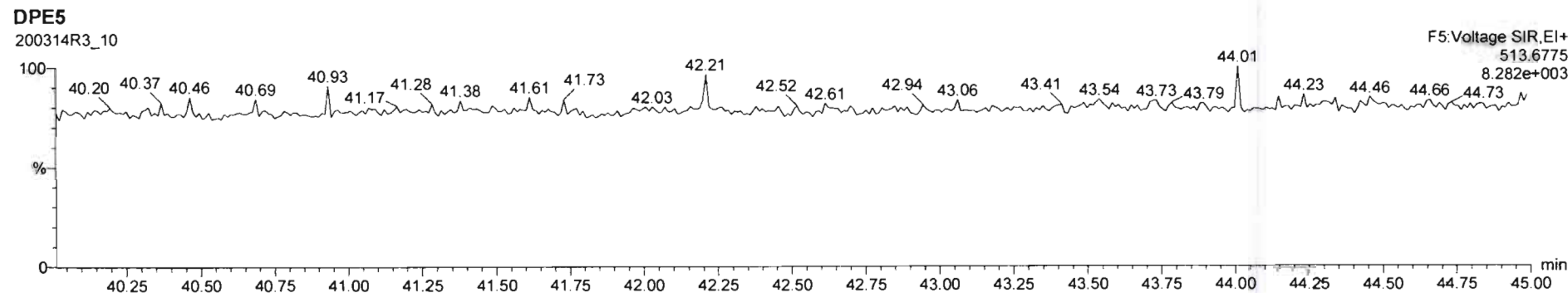
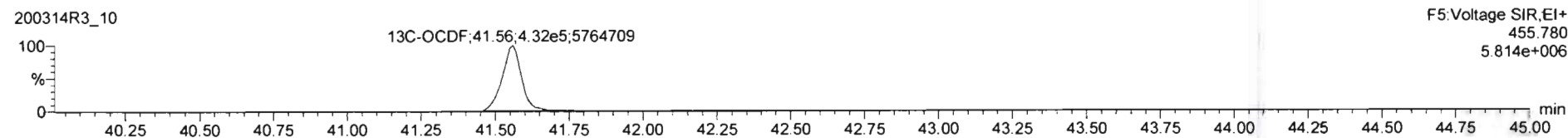
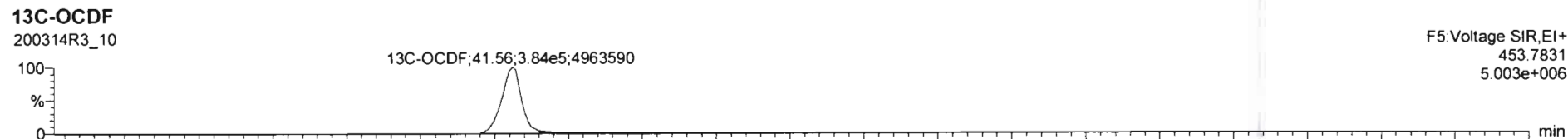
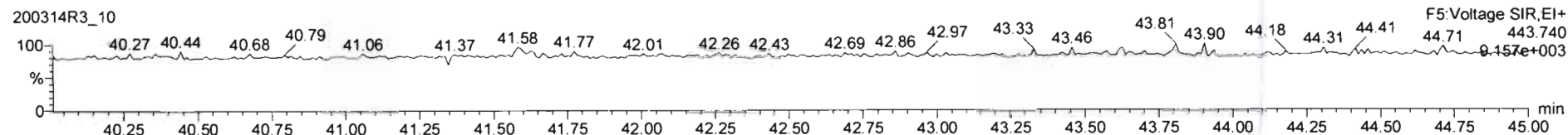
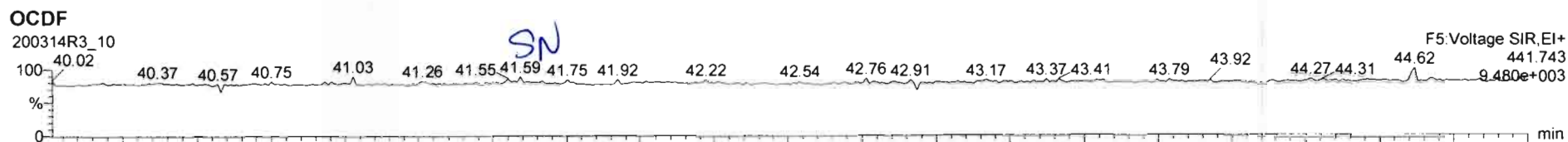
DPE4



Dataset: Untitled

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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_10, Date: 15-Mar-2020, Time: 06:26:48, ID: 2000411-13 PDI-052SC-A-10-11-191015 13.94, Description: PDI-052SC-A-10-11-191015



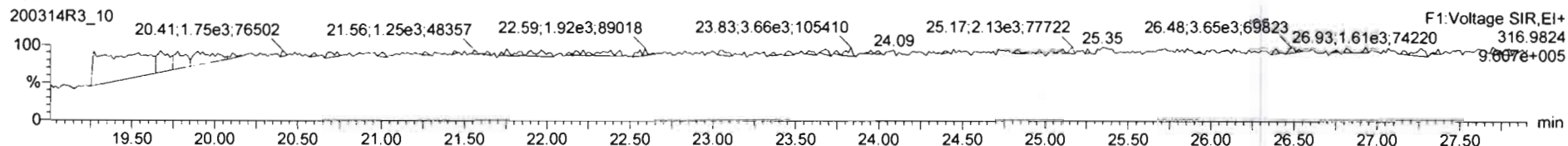
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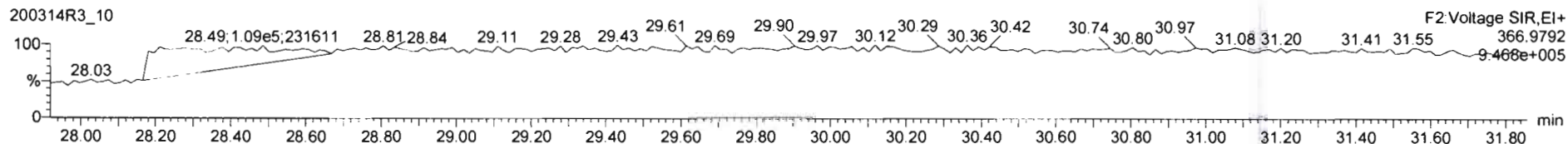
Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_10, Date: 15-Mar-2020, Time: 06:26:48, ID: 2000411-13 PDI-052SC-A-10-11-191015 13.94, Description: PDI-052SC-A-10-11-191015

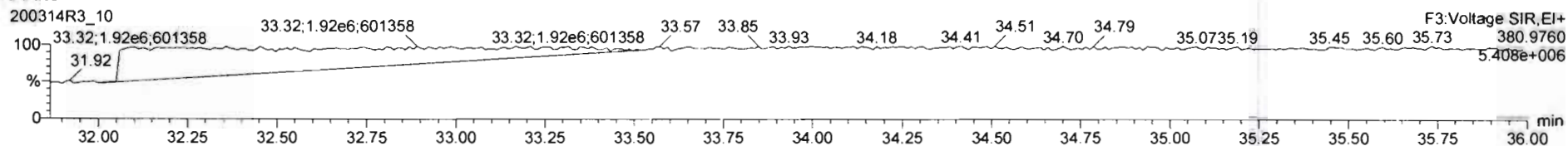
**PFK1**



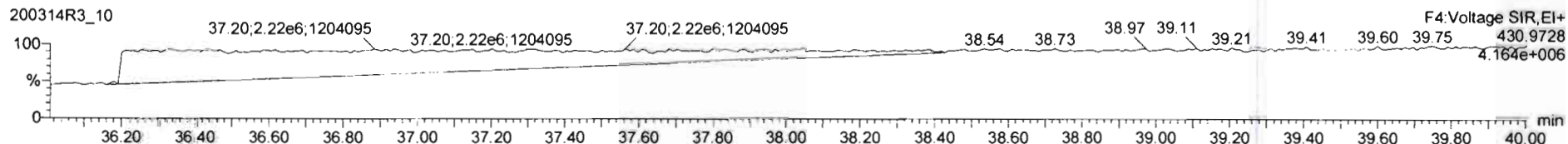
**PFK2**



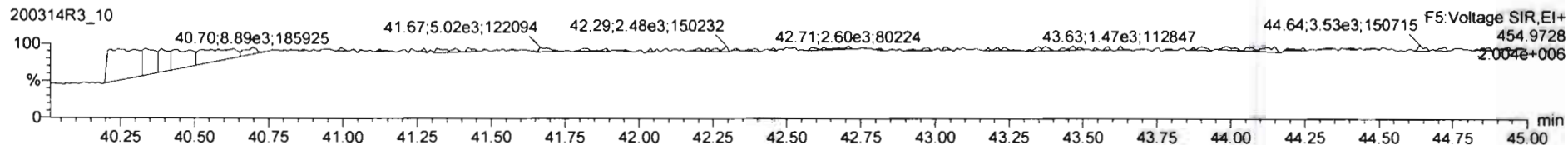
**PFK3**



**PFK4**



**PFK5**



Dataset: U:\VG12.PRO\Results\200314R3\200314R3-11.qld

Last Altered: Sunday, March 15, 2020 3:47:00 PM Pacific Daylight Time  
Printed: Sunday, March 15, 2020 3:47:05 PM Pacific Daylight Time

GRB 03/15/2020

Method: Untitled 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\lb5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

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Name: 200314R3\_11, Date: 15-Mar-2020, Time: 07:14:22, ID: 2000411-14 PDI-055SC-A-04-05-191015 13.45, Description: PDI-055SC-A-04-05-191015

#	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	1.72e3	0.65	NO	0.983	10.003	25.766	25.75	1.001	1.001	0.39216		0.0838	0.392
2	2 1,2,3,7,8-PeCDD	1.14e3	0.33	YES	0.921	10.003	31.025	31.02	1.001	1.000	0.35738		0.105	0.228
3	3 1,2,3,4,7,8-HxCDD	8.12e2	1.18	NO	1.13	10.003	34.434	34.43	1.000	1.000	0.29335		0.100	0.293
4	4 1,2,3,6,7,8-HxCDD	4.81e3	1.25	NO	0.984	10.003	34.520	34.53	1.000	1.000	1.6566		0.0948	1.66
5	5 1,2,3,7,8,9-HxCDD	1.94e3	1.12	NO	0.967	10.003	34.807	34.80	1.000	1.000	0.77317		0.115	0.773
6	6 1,2,3,4,6,7,8-HpCDD	1.04e5	1.03	NO	1.01	10.003	38.269	38.28	1.000	1.001	52.801		0.436	52.8
7	7 OCDD	1.30e6	0.85	NO	1.05	10.003	41.389	41.40	1.000	1.000	625.75		0.455	626
8	8 2,3,7,8-TCDF	3.11e4	0.73	NO	0.915	10.003	24.757	24.76	1.001	1.001	5.8970		0.117	5.90
9	9 1,2,3,7,8-PeCDF	4.20e4	1.53	NO	0.959	10.003	29.681	29.67	1.001	1.001	8.9910		0.0968	8.99
10	10 2,3,4,7,8-PeCDF	2.10e4	1.51	NO	1.00	10.003	30.702	30.71	1.001	1.001	4.3967		0.0903	4.40
11	11 1,2,3,4,7,8-HxCDF	5.06e4	1.23	NO	1.04	10.003	33.561	33.58	1.000	1.001	14.916		0.0833	14.9
12	12 1,2,3,6,7,8-HxCDF	1.48e4	1.23	NO	1.01	10.003	33.699	33.70	1.000	1.000	4.1897		0.0865	4.19
13	13 2,3,4,6,7,8-HxCDF	4.51e3	1.25	NO	1.09	10.003	34.288	34.27	1.001	1.001	1.2853		0.0905	1.29
14	14 1,2,3,7,8,9-HxCDF	2.98e3	1.07	NO	1.03	10.003	35.127	35.17	1.000	1.001	1.0716		0.124	1.07
15	15 1,2,3,4,6,7,8-HpCDF	3.82e4	0.99	NO	1.05	10.003	36.879	36.85	1.001	1.000	15.353		0.155	15.4
16	16 1,2,3,4,7,8,9-HpCDF	6.32e3	1.01	NO	1.21	10.003	38.918	38.93	1.000	1.000	3.2775		0.209	3.28
17	17 OCDF	8.17e4	0.87	NO	0.947	10.003	41.570	41.58	1.000	1.000	37.076		0.141	37.1
18	18 13C-2,3,7,8-TCDD	8.91e5	0.78	NO	1.18	10.003	25.720	25.74	1.029	1.029	197.04	98.6	0.222	
19	19 13C-1,2,3,7,8-PeCDD	6.91e5	0.62	NO	0.864	10.003	30.900	31.00	1.236	1.240	209.34	105	0.281	
20	20 13C-1,2,3,4,7,8-HxCDD	4.89e5	1.32	NO	0.754	10.003	34.416	34.42	1.014	1.014	191.88	96.0	0.563	
21	21 13C-1,2,3,6,7,8-HxCDD	5.89e5	1.22	NO	0.925	10.003	34.524	34.52	1.017	1.017	188.36	94.2	0.459	
22	22 13C-1,2,3,7,8,9-HxCDD	5.20e5	1.22	NO	0.829	10.003	34.786	34.80	1.025	1.025	185.43	92.7	0.512	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.93e5	1.04	NO	0.598	10.003	38.241	38.26	1.127	1.127	194.28	97.2	0.483	
24	24 13C-OCDD	7.89e5	0.89	NO	0.571	10.003	41.388	41.39	1.219	1.219	408.89	102	0.528	
25	25 13C-2,3,7,8-TCDF	1.15e6	0.78	NO	1.09	10.003	24.742	24.73	0.990	0.989	183.58	91.8	0.382	
26	26 13C-1,2,3,7,8-PeCDF	9.74e5	1.57	NO	0.876	10.003	29.572	29.66	1.183	1.186	192.76	96.4	0.499	
27	27 13C-2,3,4,7,8-PeCDF	9.50e5	1.56	NO	0.844	10.003	30.582	30.68	1.223	1.227	195.30	97.7	0.518	
28	28 13C-1,2,3,4,7,8-HxCDF	6.54e5	0.50	NO	1.00	10.003	33.564	33.56	0.989	0.989	193.39	96.7	0.419	
29	29 13C-1,2,3,6,7,8-HxCDF	6.98e5	0.51	NO	1.12	10.003	33.672	33.69	0.992	0.992	184.72	92.4	0.375	
30	30 13C-2,3,4,6,7,8-HxCDF	6.43e5	0.51	NO	1.04	10.003	34.253	34.25	1.009	1.009	183.79	91.9	0.405	
31	31 13C-1,2,3,7,8,9-HxCDF	5.42e5	0.52	NO	0.873	10.003	35.125	35.13	1.035	1.035	183.69	91.9	0.480	

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-11.qld

Last Altered: Sunday, March 15, 2020 3:47:00 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 3:47:05 PM Pacific Daylight Time

Name: 200314R3\_11, Date: 15-Mar-2020, Time: 07:14:22, ID: 2000411-14 PDI-055SC-A-04-05-191015 13.45, Description: PDI-055SC-A-04-05-191015

#	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	4.74e5	0.45	NO	0.771	10.003	36.839	36.84	1.085	1.085	182.06	91.1	0.481	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.19e5	0.43	NO	0.519	10.003	38.924	38.92	1.147	1.147	181.62	90.8	0.714	
34	34 13C-OCDF	9.31e5	0.89	NO	0.696	10.003	41.568	41.57	1.225	1.225	395.60	98.9	0.361	
35	35 37Cl-2,3,7,8-TCDD	3.28e5			1.17	10.003	25.730	25.75	1.029	1.030	73.041	91.3	0.0825	
36	36 13C-1,2,3,4-TCDD	7.63e5	0.78	NO	1.00	10.003	25.050	25.00	1.000	1.000	199.93	100	0.262	
37	37 13C-1,2,3,4-TCDF	1.15e6	0.80	NO	1.00	10.003	23.190	23.09	1.000	1.000	199.93	100	0.416	
38	38 13C-1,2,3,4,6,9-HxCDF	6.76e5	0.52	NO	1.00	10.003	33.880	33.94	1.000	1.000	199.93	100	0.419	
39	39 Total Tetra-Dioxins				0.983	10.003	24.620		0.000		1.5146		0.0838	1.74
40	40 Total Penta-Dioxins				0.921	10.003	29.960		0.000		1.6316		0.105	2.48
41	41 Total Hexa-Dioxins				0.984	10.003	33.635		0.000		16.615		0.107	16.6
42	42 Total Hepta-Dioxins				1.01	10.003	37.640		0.000		119.47		0.436	119
43	43 Total Tetra-Furans				0.915	10.003	23.610		0.000		20.662		0.117	22.3
44	44 1st Func. Penta-Furans				0.959	10.003	27.090		0.000		4.3347		0.0280	4.33
45	45 Total Penta-Furans				0.959	10.003	29.275		0.000		25.591		0.0956	26.2
46	46 Total Hexa-Furans				1.09	10.003	33.555		0.000		35.677		0.0903	35.7
47	47 Total Hepta-Furans				1.05	10.003	37.835		0.000		44.525		0.189	44.5

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Dataset: U:\VG12.PRO\Results\200314R3\200314R3-11.qld

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Calibration: U:\VG12.PRO\CurveDB\lb5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R3\_11, Date: 15-Mar-2020, Time: 07:14:22, ID: 2000411-14 PDI-055SC-A-04-05-191015 13.45, Description: PDI-055SC-A-04-05-191015

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.40	1.698e4	2.626e4	1.655e3	2.285e3	0.72	NO	3.940e3	0.89888	0.89888	0.0838
2	Total Tetra-Dioxins	23.33	7.294e3	7.340e3	5.407e2	5.620e2	0.96	YES	0.000e0	0.00000	0.22695	0.0838
3	Total Tetra-Dioxins	25.45	6.675e3	8.652e3	4.337e2	5.462e2	0.79	NO	9.799e2	0.22357	0.22357	0.0838
4	2,3,7,8-TCDD	25.75	9.456e3	1.268e4	6.800e2	1.039e3	0.65	NO	1.719e3	0.39216	0.39216	0.0838

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.71	1.094e4	2.342e4	8.904e2	1.509e3	0.59	NO	2.399e3	0.75359	0.75359	0.105
2	Total Penta-Dioxins	29.20	7.591e3	9.217e3	3.482e2	4.688e2	0.74	YES	0.000e0	0.00000	0.24003	0.105
3	Total Penta-Dioxins	29.71	1.199e4	2.044e4	6.700e2	1.163e3	0.58	NO	1.832e3	0.57559	0.57559	0.105
4	Total Penta-Dioxins	29.78	1.202e3	2.742e3	4.817e1	6.627e1	0.73	YES	0.000e0	0.00000	0.033930	0.105
5	Total Penta-Dioxins	29.90	5.627e3	6.589e3	3.566e2	6.063e2	0.59	NO	9.630e2	0.30247	0.30247	0.105
6	Total Penta-Dioxins	29.98	5.209e3	4.085e3	1.847e2	1.729e2	1.07	YES	0.000e0	0.00000	0.088508	0.105
7	Total Penta-Dioxins	30.22	7.293e3	8.050e3	4.173e2	5.083e2	0.82	YES	0.000e0	0.00000	0.26024	0.105
8	1,2,3,7,8-PeCDD	31.02	5.354e3	1.434e4	2.811e2	8.567e2	0.33	YES	1.138e3	0.00000	0.22842	0.105

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.95	1.915e5	1.394e5	9.234e3	7.381e3	1.25	NO	1.662e4	6.3359	6.3359	0.107
2	Total Hexa-Dioxins	33.52	2.083e4	1.810e4	1.080e3	8.171e2	1.32	NO	1.897e3	0.72338	0.72338	0.107
3	Total Hexa-Dioxins	33.77	1.573e5	1.186e5	8.926e3	7.554e3	1.18	NO	1.648e4	6.2841	6.2841	0.107
4	Total Hexa-Dioxins	33.86	1.029e4	8.678e3	4.217e2	3.743e2	1.13	NO	7.960e2	0.30354	0.30354	0.107
5	1,2,3,4,7,8-HxCDD	34.43	8.538e3	7.258e3	4.405e2	3.719e2	1.18	NO	8.124e2	0.29335	0.29335	0.100
6	1,2,3,6,7,8-HxCDD	34.53	4.849e4	3.900e4	2.665e3	2.140e3	1.25	NO	4.805e3	1.6566	1.6566	0.0948
7	Total Hexa-Dioxins	34.74	5.535e3	4.696e3	3.556e2	2.862e2	1.24	NO	6.418e2	0.24474	0.24474	0.107
8	1,2,3,7,8,9-HxCDD	34.80	2.155e4	1.852e4	1.027e3	9.172e2	1.12	NO	1.945e3	0.77317	0.77317	0.115

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-11.qld

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Name: 200314R3\_11, Date: 15-Mar-2020, Time: 07:14:22, ID: 2000411-14 PDI-055SC-A-04-05-191015 13.45, Description: PDI-055SC-A-04-05-191015

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.25	9.765e5	9.209e5	6.670e4	6.507e4	1.03	NO	1.318e5	66.669	66.669	0.436
2	1,2,3,4,6,7,8-HpCDD	38.28	6.866e5	6.823e5	5.285e4	5.151e4	1.03	NO	1.044e5	52.801	52.801	0.436

**Tetra-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.40	4.185e3	4.060e3	3.074e2	3.123e2	0.98	YES	0.000e0	0.00000	0.10466	0.117
2	Total Tetra-Furans	19.91	5.956e3	1.039e4	5.011e2	7.918e2	0.63	YES	0.000e0	0.00000	0.21807	0.117
3	Total Tetra-Furans	20.47	3.133e4	4.227e4	2.810e3	3.855e3	0.73	NO	6.665e3	1.2619	1.2619	0.117
4	Total Tetra-Furans	21.01	8.121e3	1.509e4	1.146e3	1.605e3	0.71	NO	2.751e3	0.52080	0.52080	0.117
5	Total Tetra-Furans	21.36	4.674e4	5.721e4	4.430e3	5.728e3	0.77	NO	1.016e4	1.9231	1.9231	0.117
6	Total Tetra-Furans	21.83	1.875e4	2.494e4	1.810e3	2.482e3	0.73	NO	4.292e3	0.81260	0.81260	0.117
7	Total Tetra-Furans	21.99	4.183e3	4.156e3	2.989e2	3.456e2	0.87	NO	6.445e2	0.12203	0.12203	0.117
8	Total Tetra-Furans	22.22	7.464e3	1.300e4	8.188e2	1.079e3	0.76	NO	1.898e3	0.35938	0.35938	0.117
9	Total Tetra-Furans	23.03	2.253e4	2.525e4	1.542e3	1.828e3	0.84	NO	3.370e3	0.63807	0.63807	0.117
10	Total Tetra-Furans	23.10	4.808e4	5.669e4	4.872e3	6.758e3	0.72	NO	1.163e4	2.2019	2.2019	0.117
11	Total Tetra-Furans	23.68	1.271e5	1.670e5	1.240e4	1.607e4	0.77	NO	2.846e4	5.3891	5.3891	0.117
12	Total Tetra-Furans	24.64	3.837e4	4.670e4	2.973e3	3.887e3	0.76	NO	6.861e3	1.2989	1.2989	0.117
13	2,3,7,8-TCDF	24.76	1.543e5	2.226e5	1.312e4	1.803e4	0.73	NO	3.115e4	5.8970	5.8970	0.117
14	Total Tetra-Furans	25.17	1.399e4	1.728e4	9.897e2	1.107e3	0.89	YES	0.000e0	0.00000	0.37088	0.117
15	Total Tetra-Furans	26.51	5.718e3	5.369e3	2.461e2	3.347e2	0.74	NO	5.807e2	0.10995	0.10995	0.117
16	Total Tetra-Furans	26.65	4.530e3	7.562e3	2.777e2	3.947e2	0.70	NO	6.724e2	0.12730	0.12730	0.117
17	Total Tetra-Furans	26.95	3.776e4	3.817e4	2.615e3	2.670e3	0.98	YES	0.000e0	0.00000	0.89492	0.117

**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	26.95	1.899e5	1.199e5	1.239e4	7.631e3	1.62	NO	2.002e4	4.3347	4.3347	0.0280



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Dataset: U:\VG12.PRO\Results\200314R3\200314R3-11.qld

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Printed: Sunday, March 15, 2020 3:47:05 PM Pacific Daylight Time

Name: 200314R3\_11, Date: 15-Mar-2020, Time: 07:14:22, ID: 2000411-14 PDI-055SC-A-04-05-191015 13.45, Description: PDI-055SC-A-04-05-191015

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.49	1.283e4	1.104e4	8.496e2	5.134e2	1.65	NO	1.363e3	0.29510	0.29510	0.0956
2	Total Penta-Furans	28.62	2.053e5	1.515e5	1.598e4	1.071e4	1.49	NO	2.670e4	5.7808	5.7808	0.0956
3	Total Penta-Furans	28.70	2.172e4	8.713e3	6.509e2	4.431e2	1.47	NO	1.094e3	0.23687	0.23687	0.0956
4	Total Penta-Furans	29.25	7.969e4	5.083e4	4.407e3	3.058e3	1.44	NO	7.465e3	1.6163	1.6163	0.0956
5	Total Penta-Furans	29.31	1.173e4	8.011e3	4.782e2	2.814e2	1.70	NO	7.596e2	0.16448	0.16448	0.0956
6	Total Penta-Furans	29.49	5.693e4	3.232e4	3.043e3	1.908e3	1.59	NO	4.951e3	1.0720	1.0720	0.0956
7	1,2,3,7,8-PeCDF	29.67	4.442e5	3.144e5	2.544e4	1.661e4	1.53	NO	4.204e4	8.9910	8.9910	0.0968
8	Total Penta-Furans	29.95	1.552e5	9.413e4	8.095e3	5.058e3	1.60	NO	1.315e4	2.8479	2.8479	0.0956
9	2,3,4,7,8-PeCDF	30.71	2.304e5	1.469e5	1.260e4	8.369e3	1.51	NO	2.097e4	4.3967	4.3967	0.0903
10	Total Penta-Furans	30.74	9.340e4	5.901e4	1.730e3	1.245e3	1.39	NO	0.000e0	0.00000	0.64425	0.0956
11	Total Penta-Furans	31.66	1.140e4	6.176e3	5.070e2	3.691e2	1.37	NO	8.761e2	0.18969	0.18969	0.0956

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.38	6.396e4	5.929e4	3.448e3	2.926e3	1.18	NO	6.374e3	1.8404	1.8404	0.0903
2	Total Hexa-Furans	32.56	2.027e5	1.469e5	9.858e3	7.931e3	1.24	NO	1.779e4	5.1359	5.1359	0.0903
3	Total Hexa-Furans	33.11	2.387e5	1.891e5	1.209e4	9.726e3	1.24	NO	2.182e4	6.2993	6.2993	0.0903
4	Total Hexa-Furans	33.49	6.812e3	9.252e3	3.560e2	2.792e2	1.28	NO	6.352e2	0.18340	0.18340	0.0903
5	1,2,3,4,7,8-HxCDF	33.58	5.550e5	4.398e5	2.789e4	2.274e4	1.23	NO	5.063e4	14.916	14.916	0.0833
6	1,2,3,6,7,8-HxCDF	33.70	1.507e5	1.324e5	8.167e3	6.640e3	1.23	NO	1.481e4	4.1897	4.1897	0.0865
7	2,3,4,6,7,8-HxCDF	34.27	5.167e4	3.572e4	2.506e3	2.008e3	1.25	NO	4.514e3	1.2853	1.2853	0.0905
8	1,2,3,7,8,9-HxCDF	35.17	4.045e4	3.746e4	1.540e3	1.443e3	1.07	NO	2.983e3	1.0716	1.0716	0.124
9	Total Hexa-Furans	35.18	4.111e4	3.706e4	1.406e3	1.210e3	1.16	NO	2.617e3	0.75546	0.75546	0.0903

**Hepta-Furans**

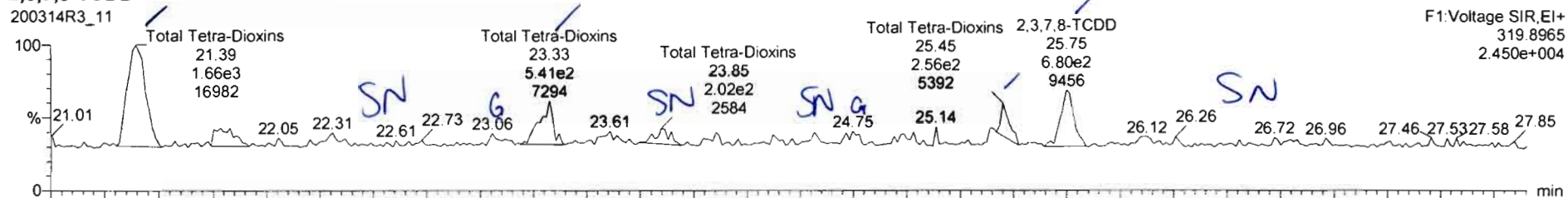
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1	1,2,3,4,6,7,8-HpCDF	36.85	2.870e5	2.776e5	1.896e4	1.922e4	0.99	NO	3.818e4	15.353	15.353	0.155
2	Total Hepta-Furans	37.45	3.717e5	3.614e5	2.732e4	2.651e4	1.03	NO	5.383e4	25.894	25.894	0.189
3	1,2,3,4,7,8,9-HpCDF	38.93	4.725e4	5.297e4	3.170e3	3.152e3	1.01	NO	6.322e3	3.2775	3.2775	0.209

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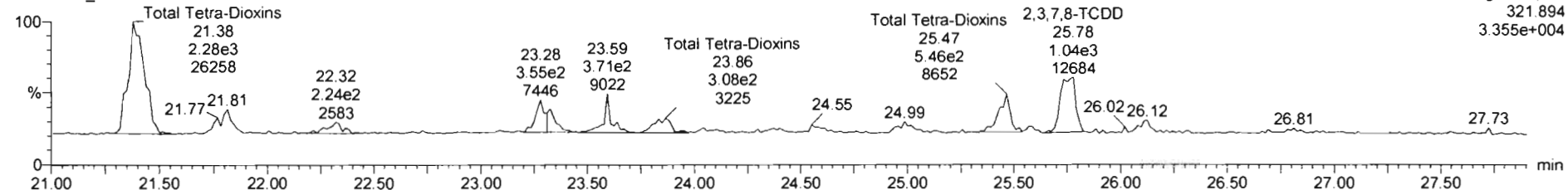
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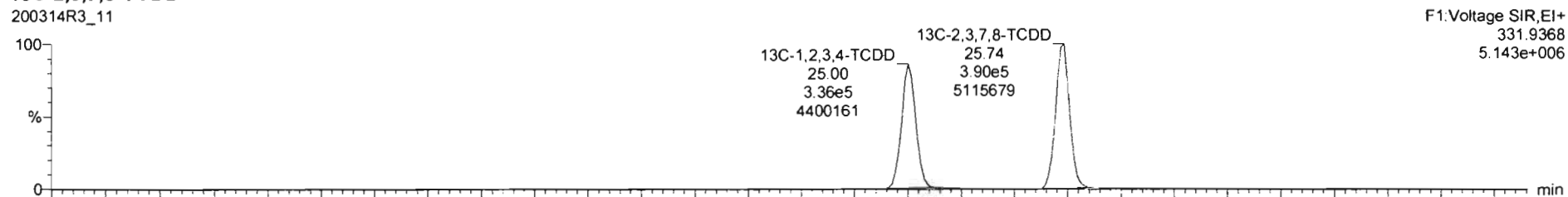
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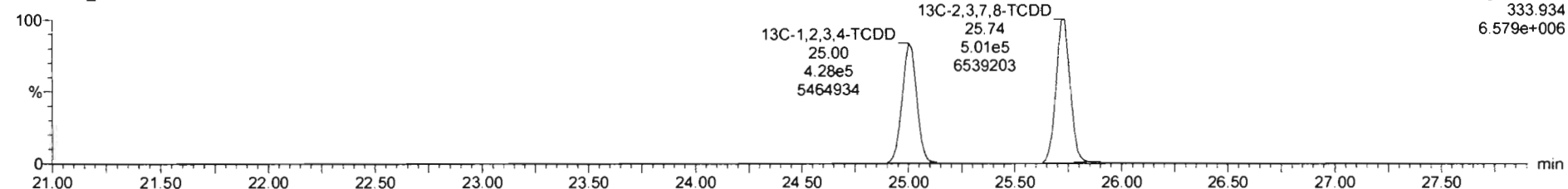
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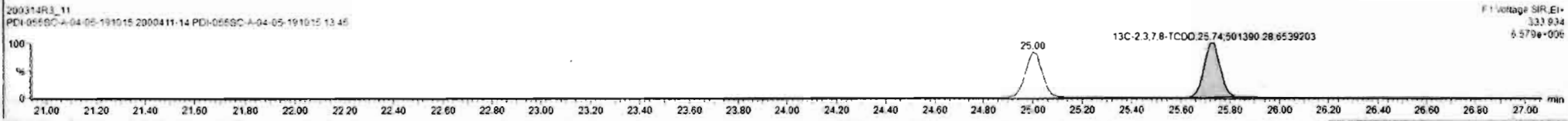
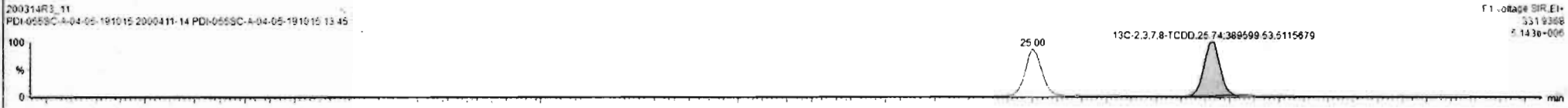
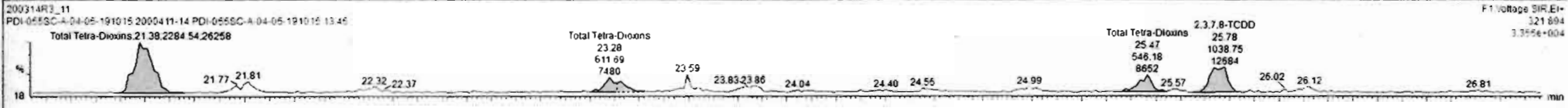
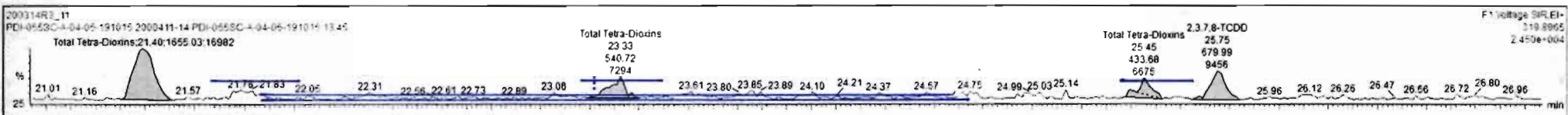


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Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	10.003			1.51		0.0630	1.78
40 Total Penta-Dioxins				0.8212	10.003			1.95		0.105	2.33

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Tetra-Dioxins	21.40	1.655e3	2.285e3	0.72	NO	0.89688	0.89688
2 Total Tetra-Dioxins	23.33	5.407e2	6.117e2	0.88	NO	0.28294	0.00000
3 Total Tetra-Dioxins	25.45	4.337e2	5.462e2	0.79	NO	0.22357	0.22357
4 2,3,7,8-TCDD	25.75	6.800e2	1.039e3	0.65	NO	0.39216	0.39216

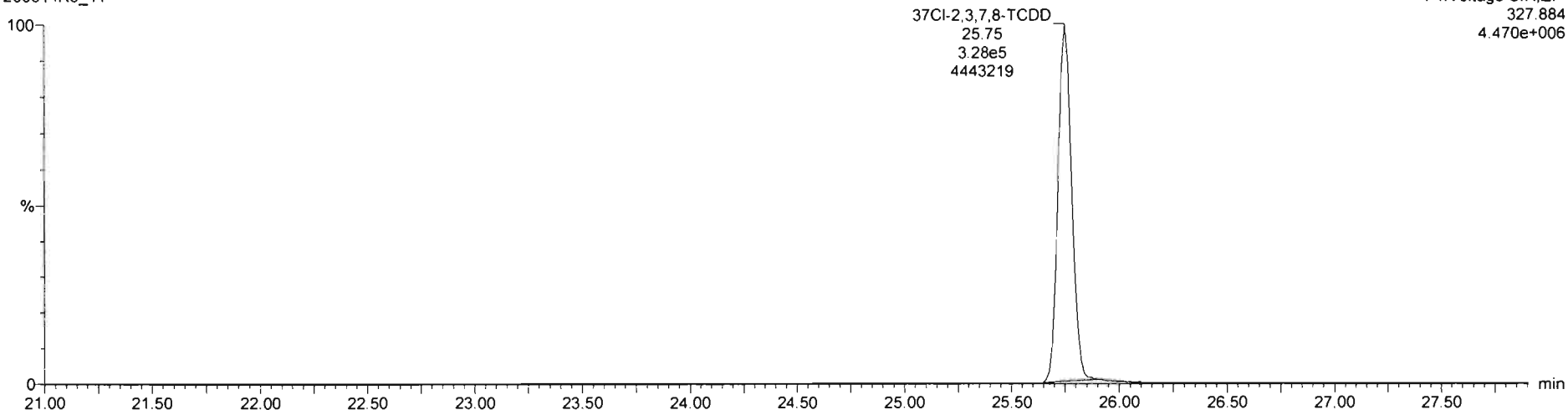


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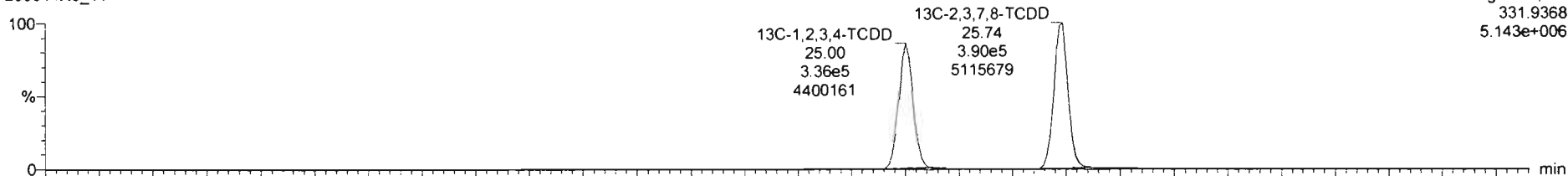
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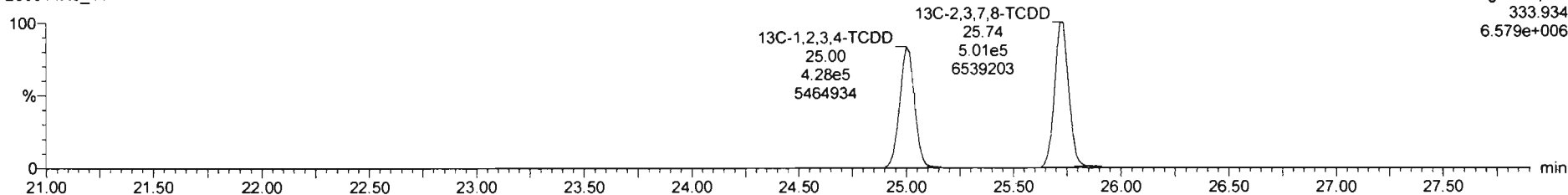
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**13C-1,2,3,4-TCDD**  
200314R3\_11



200314R3\_11



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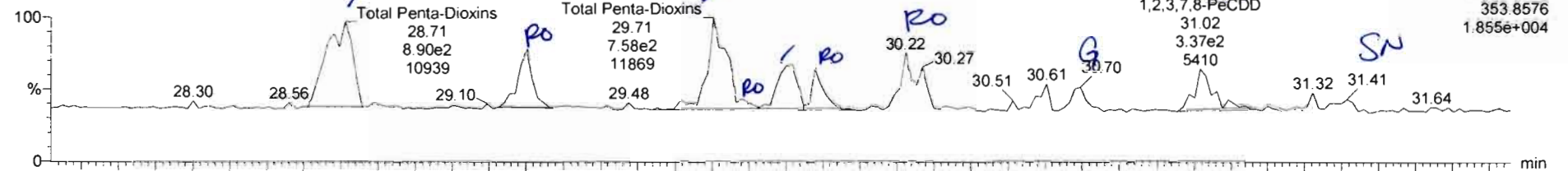
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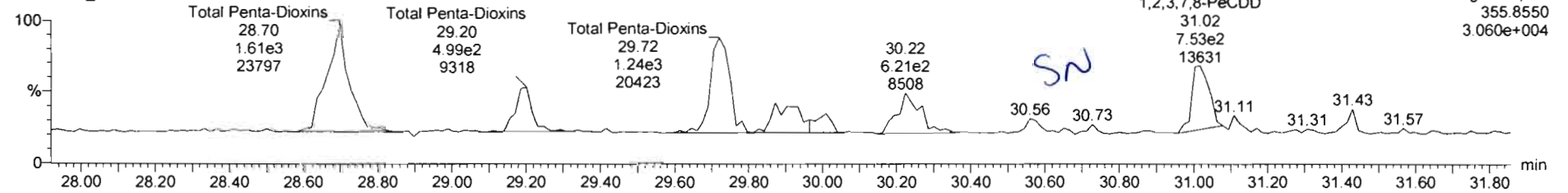
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1,2,3,7,8-PeCDD

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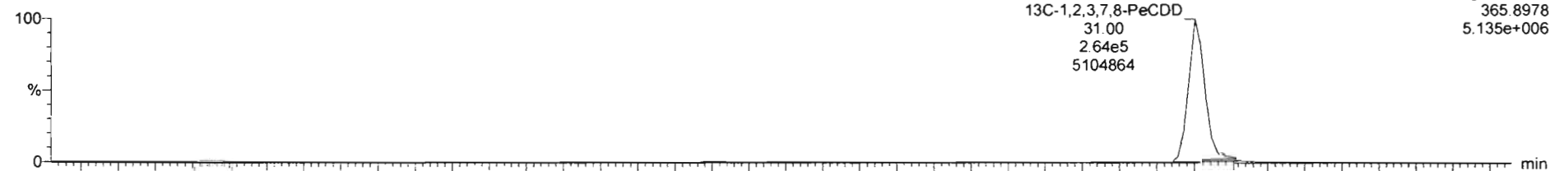


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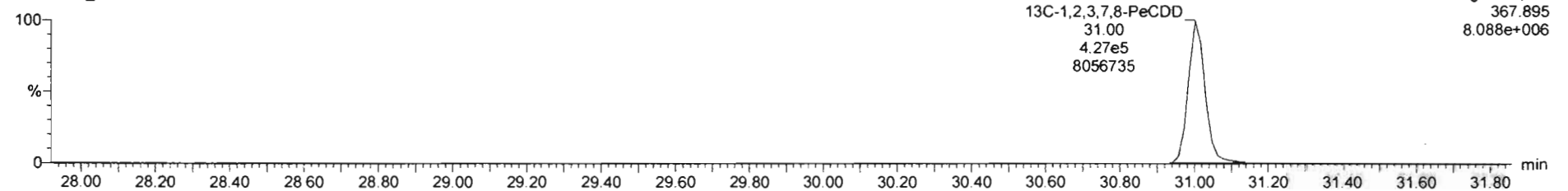


13C-1,2,3,7,8-PeCDD

200314R3\_11

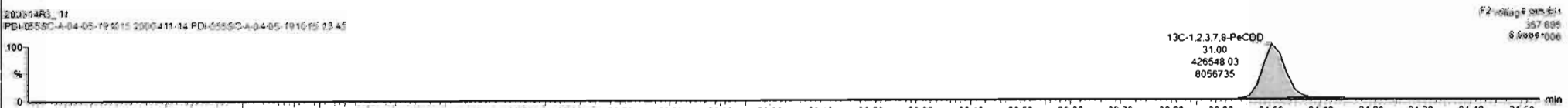
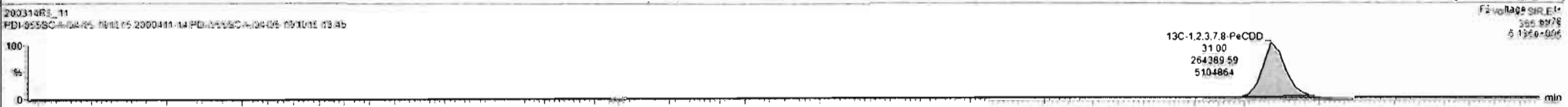
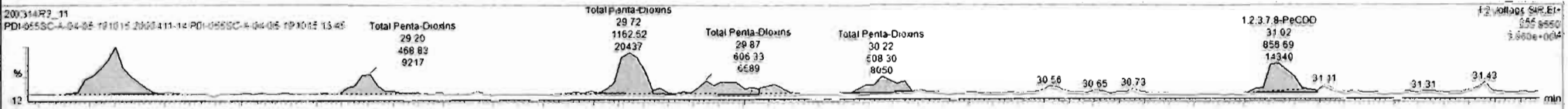
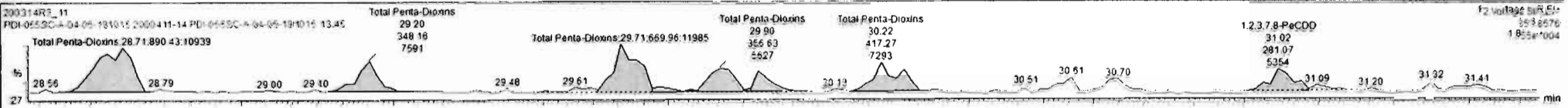


200314R3\_11



Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc.	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9825	10.003			1.51	0.0636		1.78
40 Total Penta-Dioxins				0.9212	10.003			1.63	0.105		2.48

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Penta-Dioxins	28.71	6.904e2	1.509e3	0.59	NO	0.75359	0.75359
2 Total Penta-Dioxins	29.20	3.452e2	4.568e2	0.74	YES	0.24003	0.00000
3 Total Penta-Dioxins	29.71	6.700e2	1.163e3	0.58	NO	0.57559	0.57559
4 Total Penta-Dioxins	29.78	4.817e1	8.627e1	0.73	YES	0.033930	0.00000
5 Total Penta-Dioxins	29.90	3.566e2	6.063e2	0.59	NO	0.30247	0.30247
6 Total Penta-Dioxins	29.98	1.847e2	1.729e2	1.07	YES	0.068508	0.00000
7 Total Penta-Dioxins	30.22	4.173e2	5.083e2	0.82	YES	0.26024	0.00000
8 1,2,3,7,8-PeCDD	31.02	2.811e2	8.567e2	0.33	YES	0.22842	0.00000



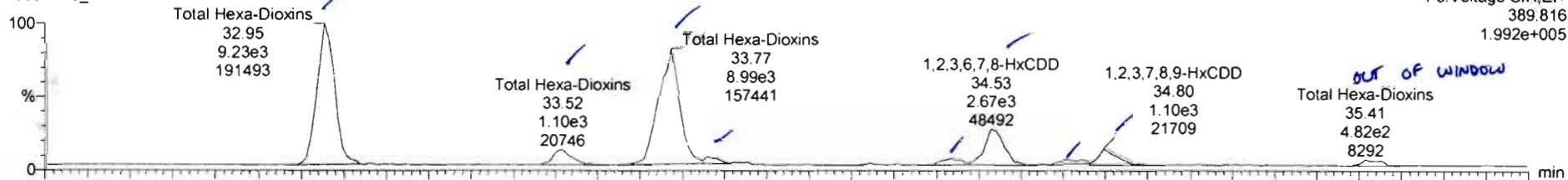
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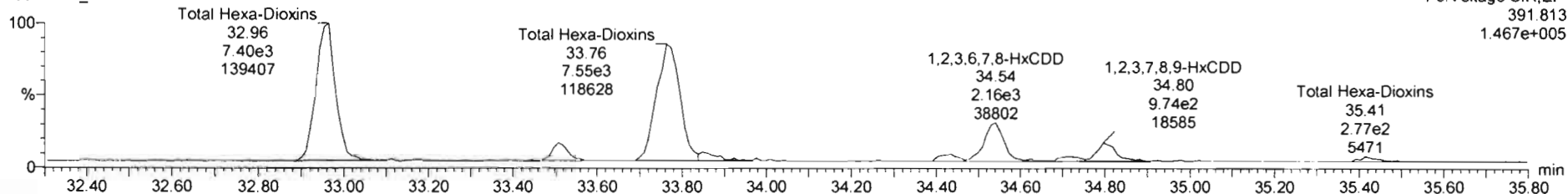
Name: 200314R3\_11, Date: 15-Mar-2020, Time: 07:14:22, ID: 2000411-14 PDI-055SC-A-04-05-191015 13.45, Description: PDI-055SC-A-04-05-191015

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

200314R3\_11

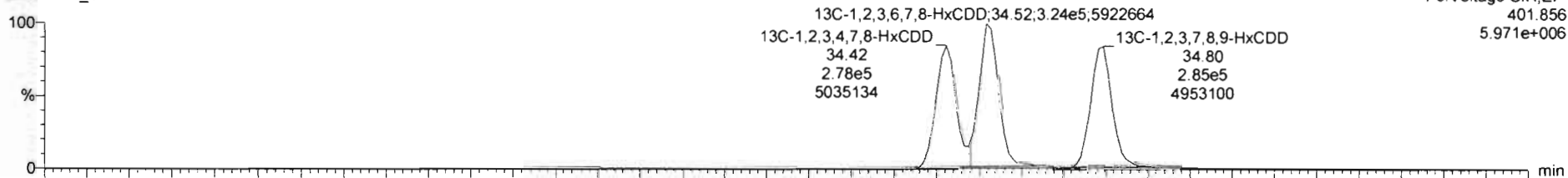


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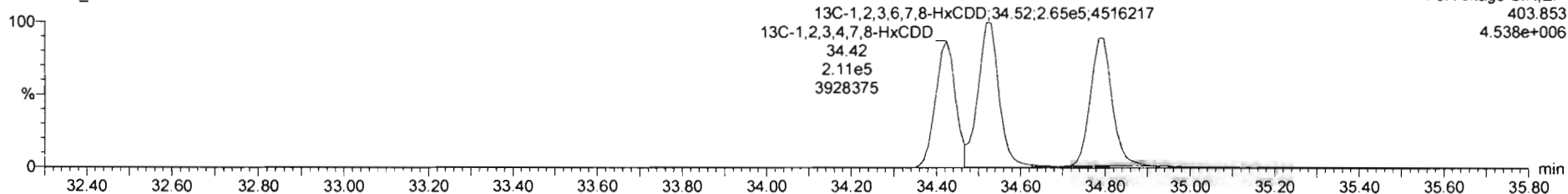


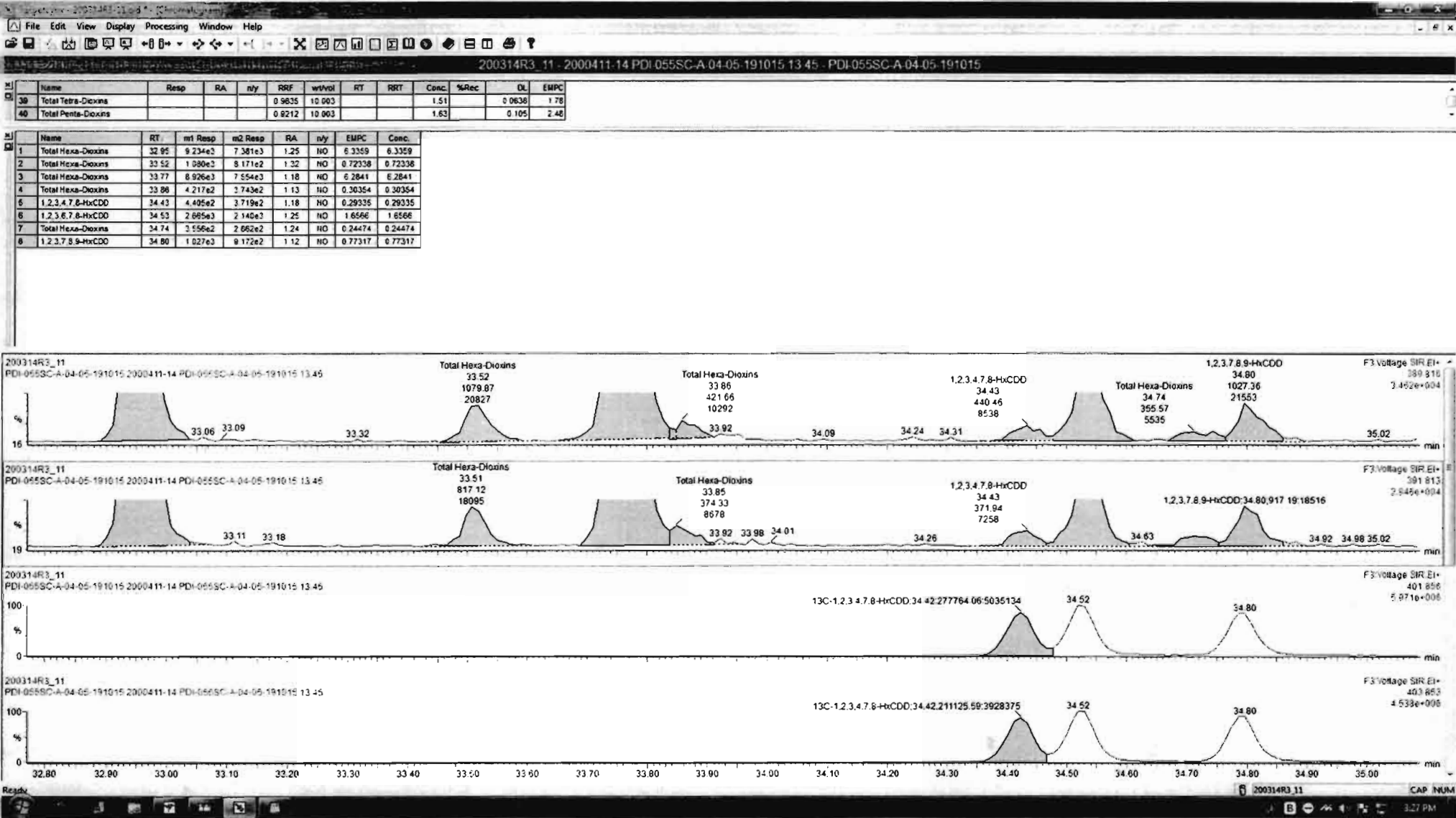
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200314R3\_11



200314R3\_11







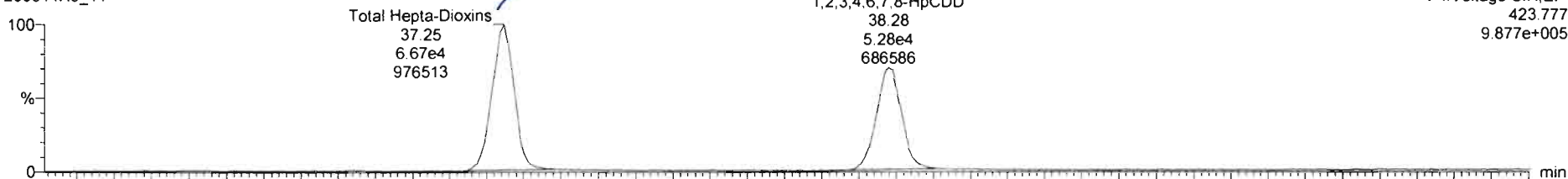
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Name: 200314R3\_11, Date: 15-Mar-2020, Time: 07:14:22, ID: 2000411-14 PDI-055SC-A-04-05-191015 13.45, Description: PDI-055SC-A-04-05-191015

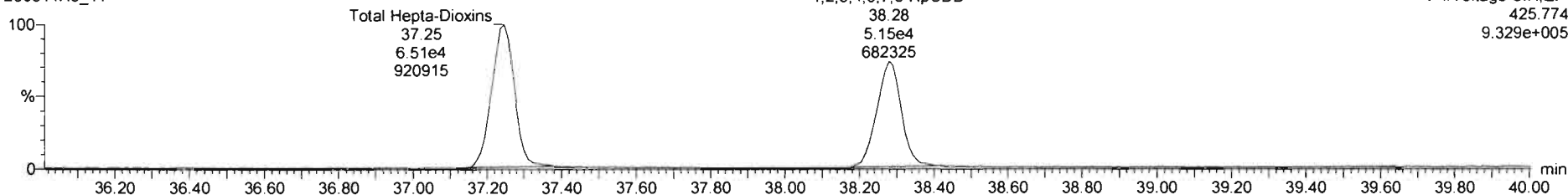
1,2,3,4,6,7,8-HpCDD

200314R3\_11



F4: Voltage SIR, EI+  
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9.877e+005

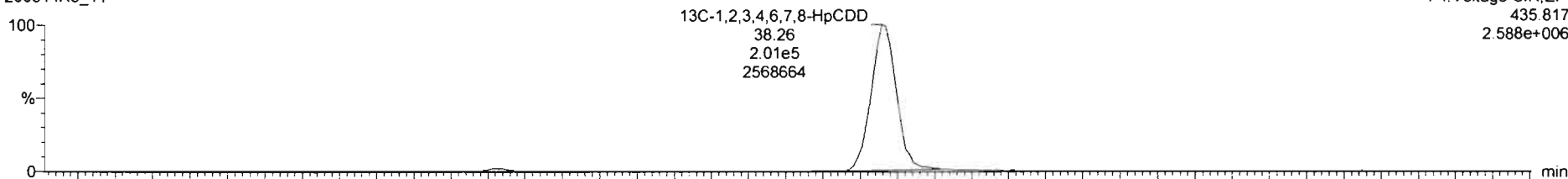
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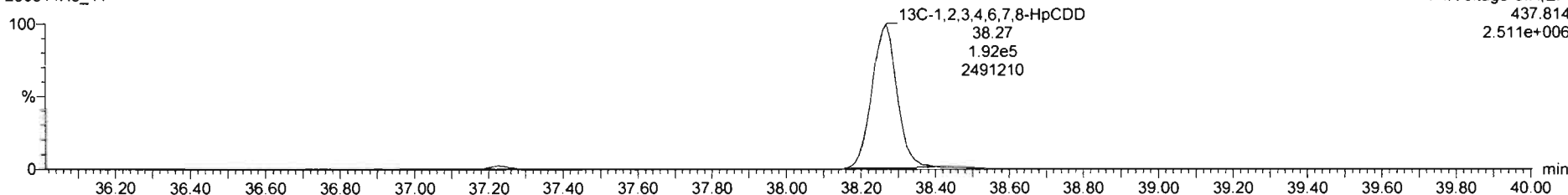
13C-1,2,3,4,6,7,8-HpCDD

200314R3\_11



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200314R3\_11

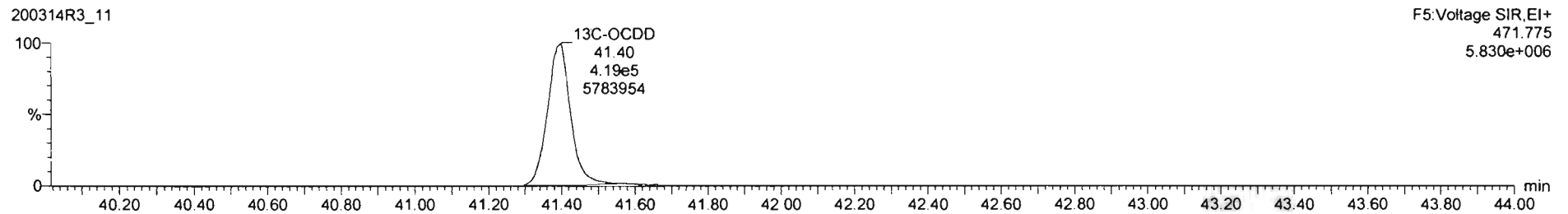
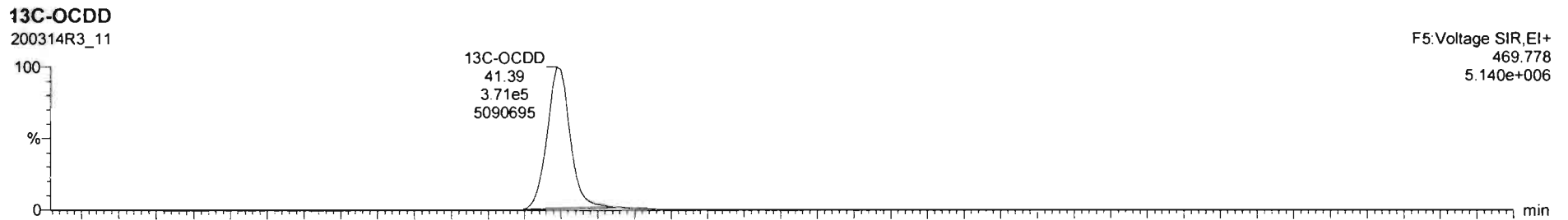
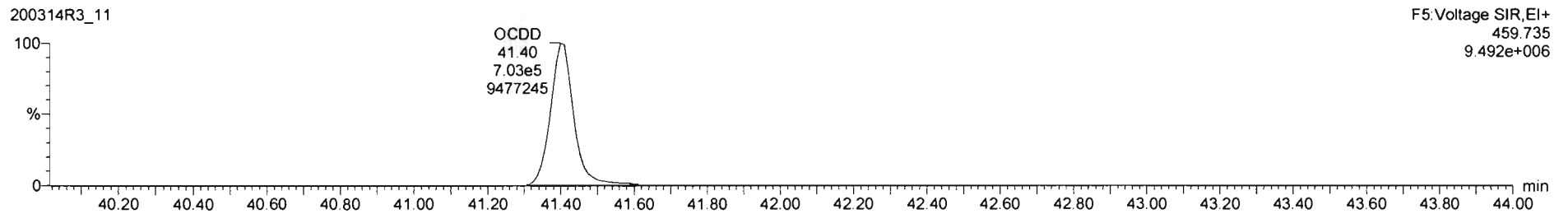
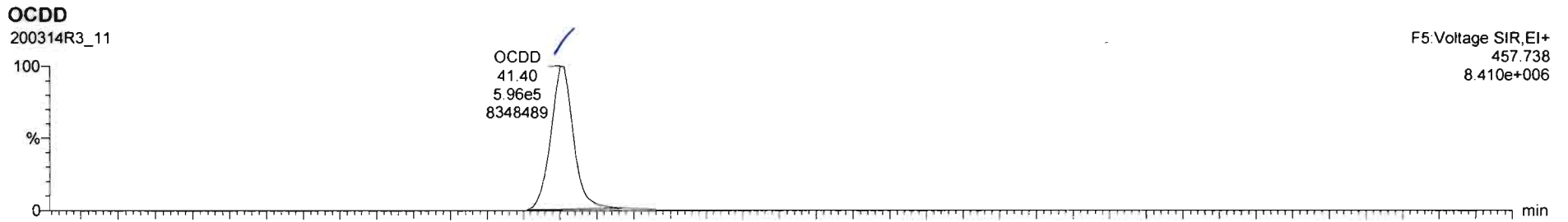


F4: Voltage SIR, EI+  
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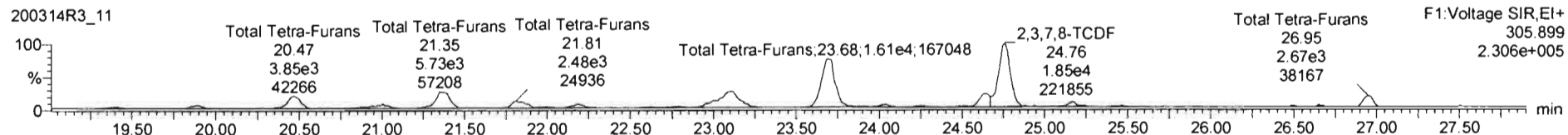
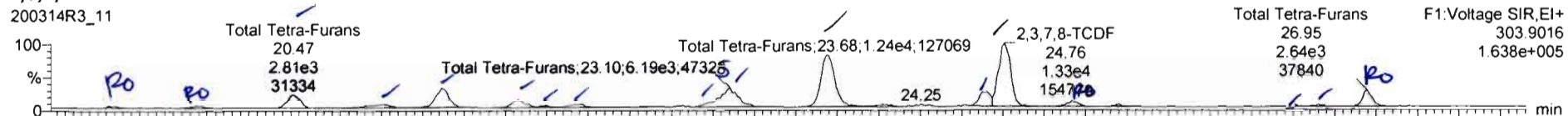
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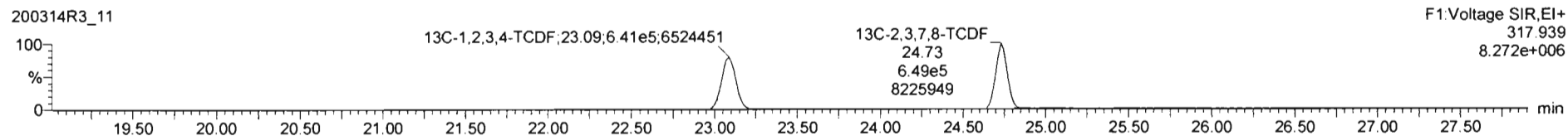
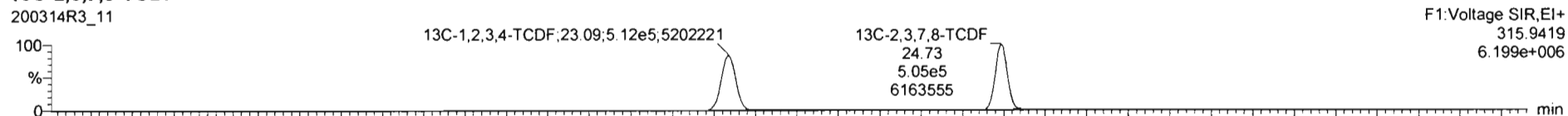
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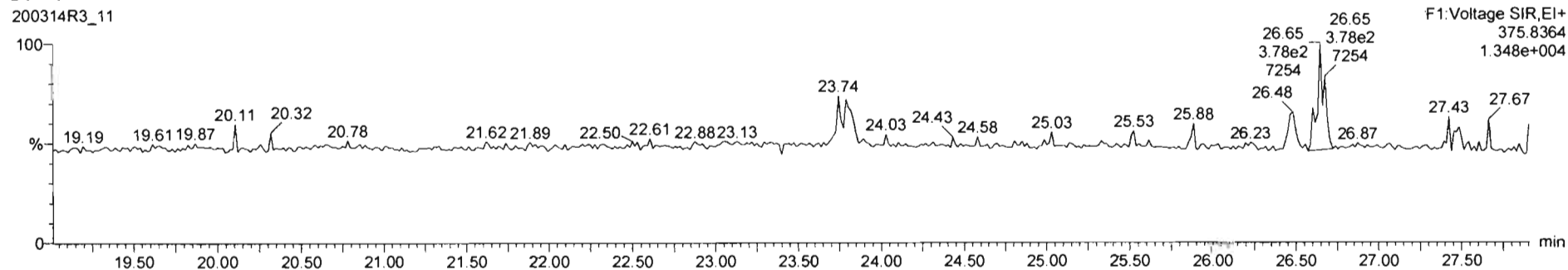
2,3,7,8-TCDF



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

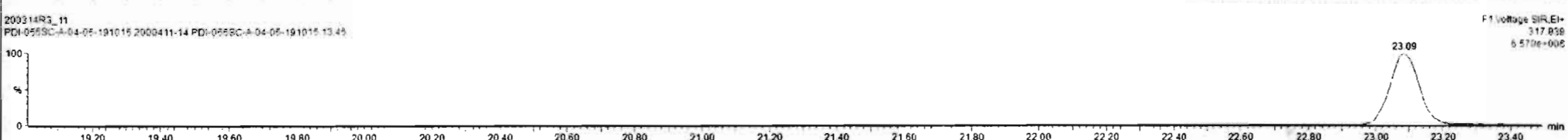
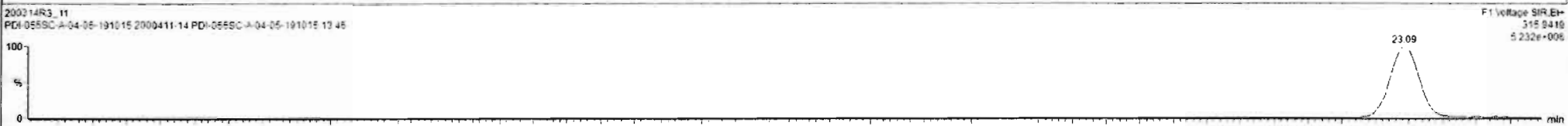
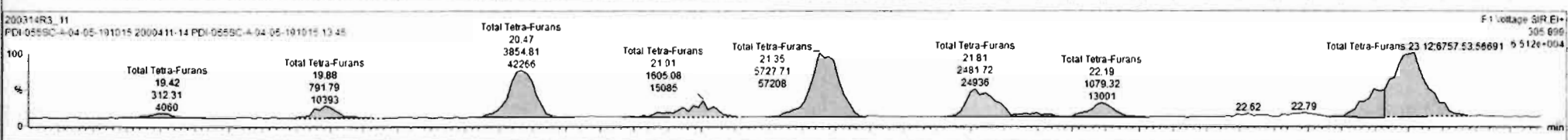
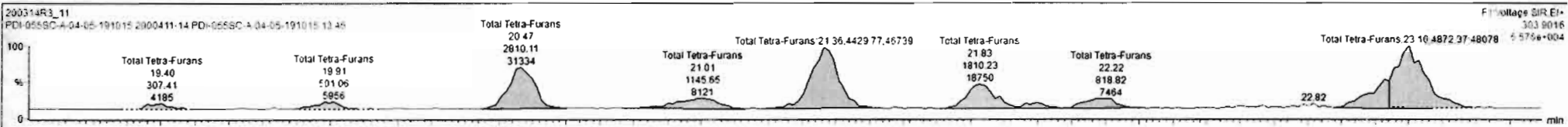


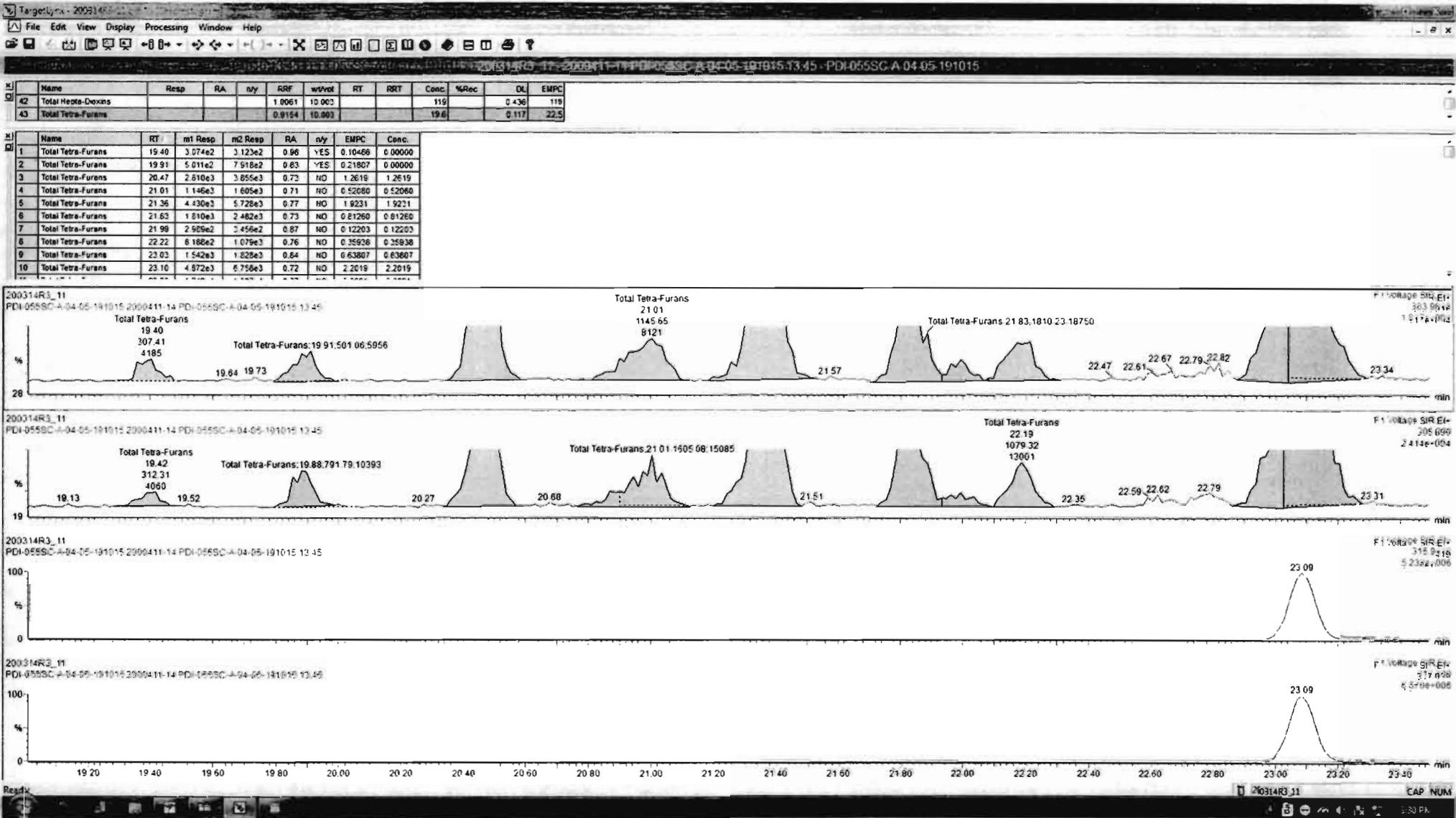
DPE1

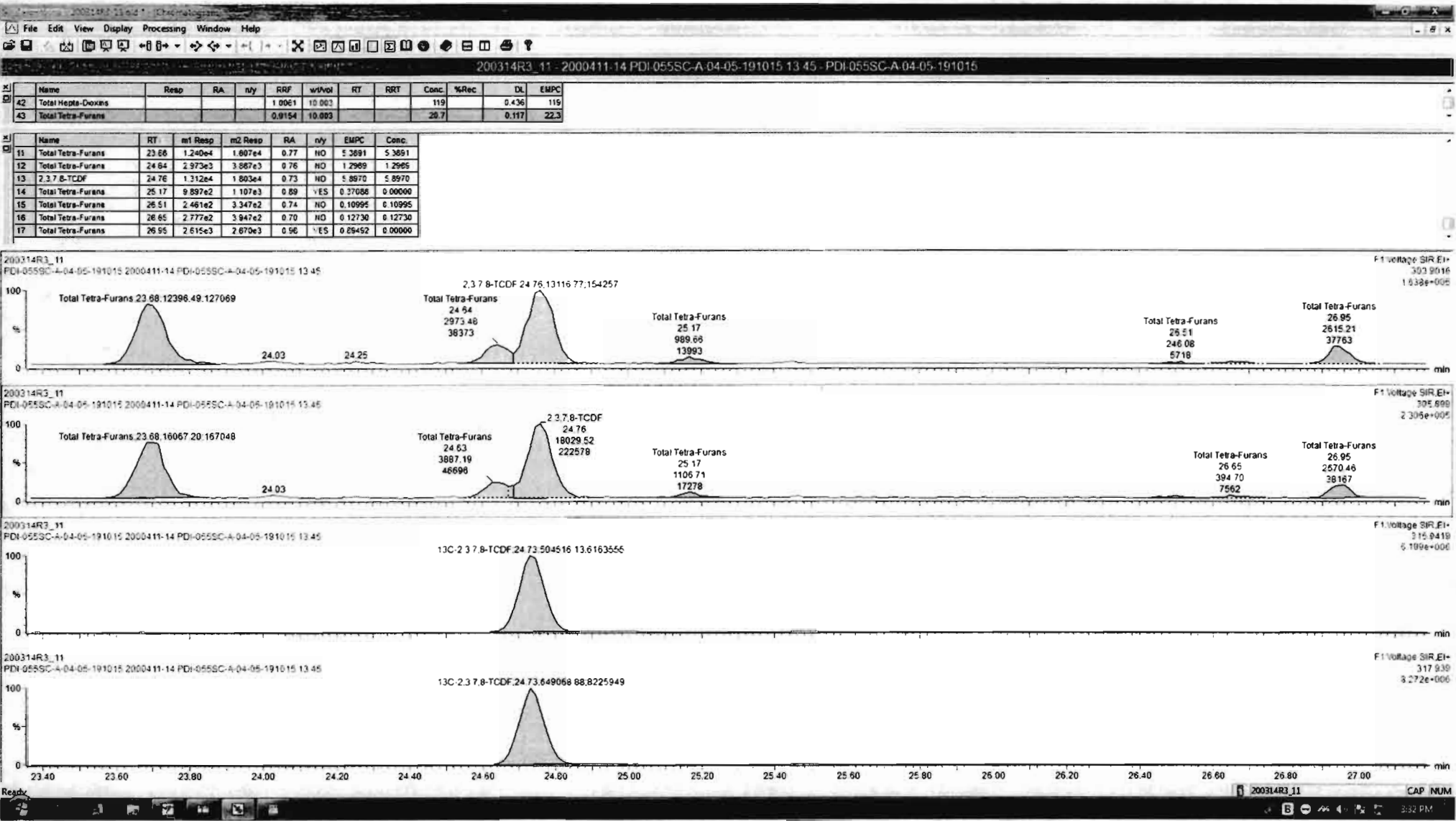


Name	Resp	RA	nly	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0061	10.003			119	0.436	119	
43 Total Tetra-Furans				0.9154	10.003			196	0.117	22.5	

Name	RT	m1 Resp	m2 Resp	RA	nly	EMPC	Conc.
1 Total Tetra-Furans	19.40	3.074e2	3.122e2	0.96	YES	0.10466	0.00000
2 Total Tetra-Furans	19.91	5.011e2	7.918e2	0.63	YES	0.21807	0.00000
3 Total Tetra-Furans	20.47	2.810e3	3.855e3	0.73	NO	1.2619	1.2619
4 Total Tetra-Furans	21.01	1.146e3	1.605e3	0.71	NO	0.52080	0.52060
5 Total Tetra-Furans	21.36	4.430e3	5.728e3	0.77	NO	1.9231	1.9221
6 Total Tetra-Furans	21.83	1.810e3	2.482e3	0.72	NO	0.81260	0.81260
7 Total Tetra-Furans	21.99	2.985e2	3.456e2	0.87	NO	0.12203	0.12203
8 Total Tetra-Furans	22.22	8.188e2	1.079e3	0.76	NO	0.35938	0.35938
9 Total Tetra-Furans	23.03	1.542e3	1.828e3	0.84	NO	0.63807	0.63607
10 Total Tetra-Furans	23.10	4.872e3	6.756e3	0.72	NO	2.2018	2.2019

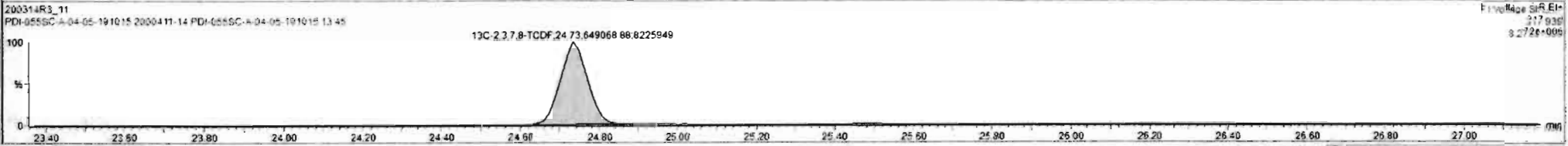
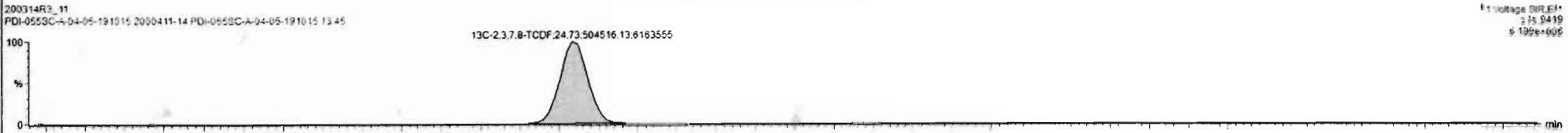
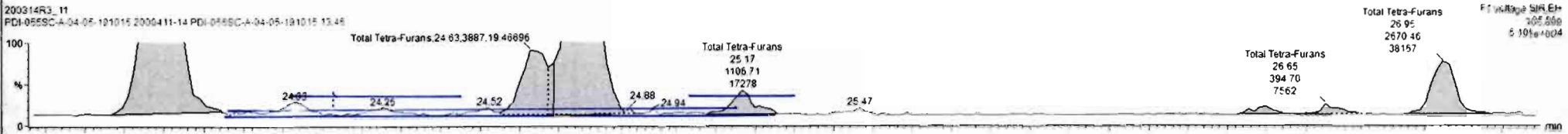
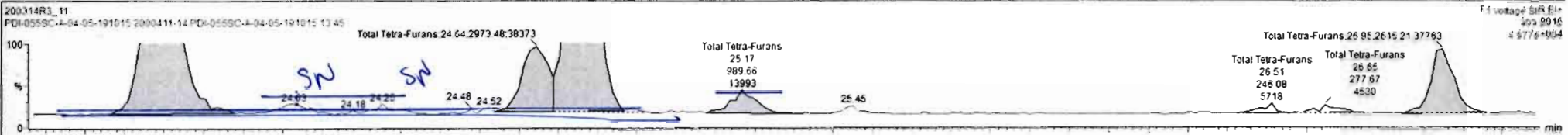






Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
42 Total Hepta-Dioxins				1.0061	10.002			119		0.436	119
43 Total Tetra-Furans				0.9154	10.603			28.7		0.117	22.3

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
11 Total Tetra-Furans	23.66	1.240e4	1.607e4	0.77	NO	5.3681	5.3651
12 Total Tetra-Furans	24.64	2.975e3	3.867e3	0.76	NO	1.2999	1.2996
13 2,3,7,8-TCDF	24.76	1.312e4	1.603e4	0.72	NO	5.8970	5.8970
14 Total Tetra-Furans	25.17	9.897e2	1.107e3	0.89	YES	0.37088	0.00000
15 Total Tetra-Furans	26.51	2.461e2	3.347e2	0.74	NO	0.10995	0.10995
16 Total Tetra-Furans	26.65	2.777e2	3.947e2	0.70	NO	0.12730	0.12730
17 Total Tetra-Furans	26.95	2.615e3	2.670e3	0.96	YES	0.89492	0.00000



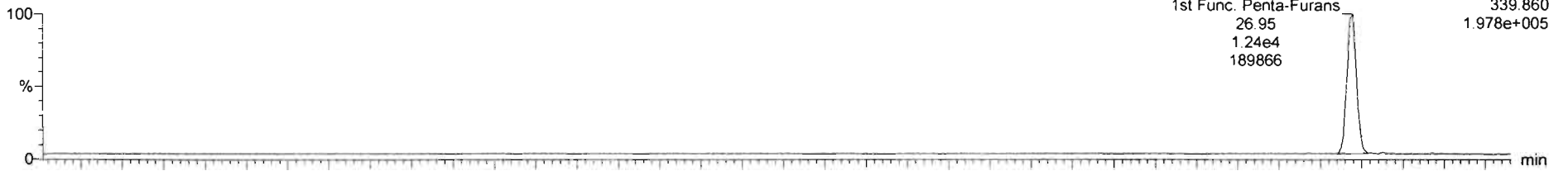
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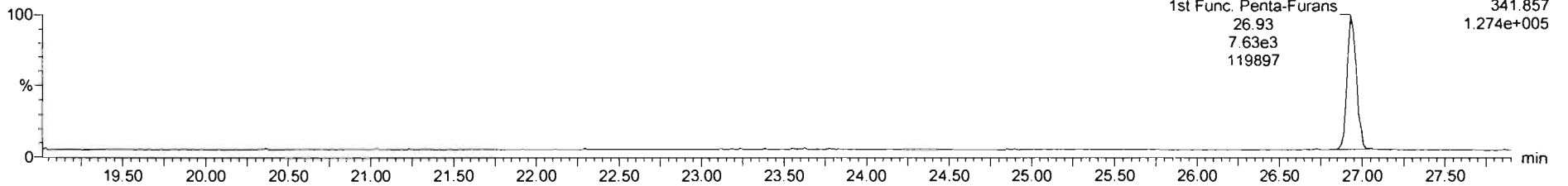
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1st Func. Penta-Furans

200314R3\_11

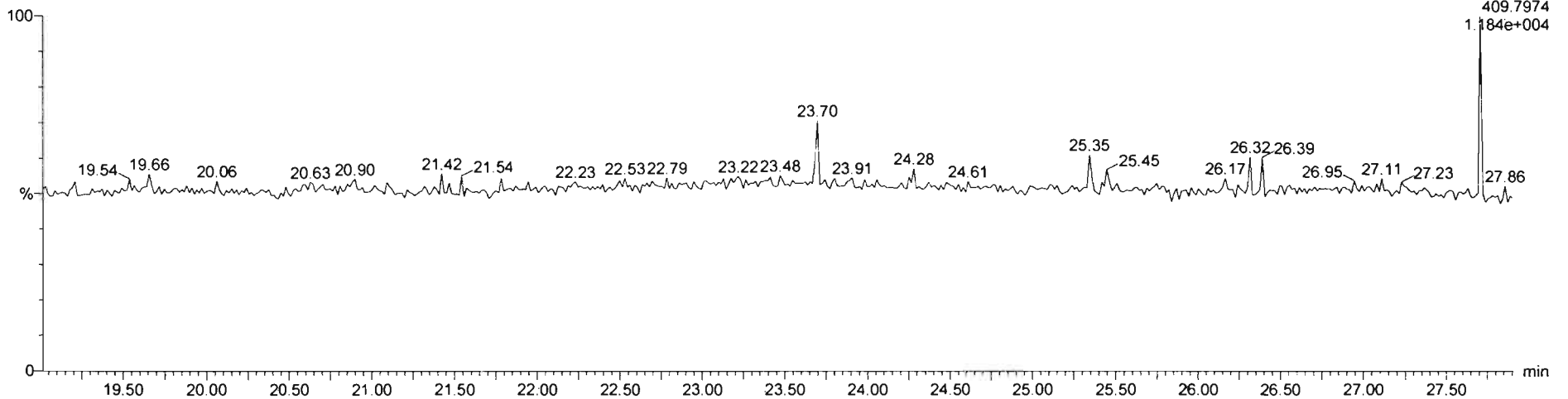


200314R3\_11



DPE6

200314R3\_11





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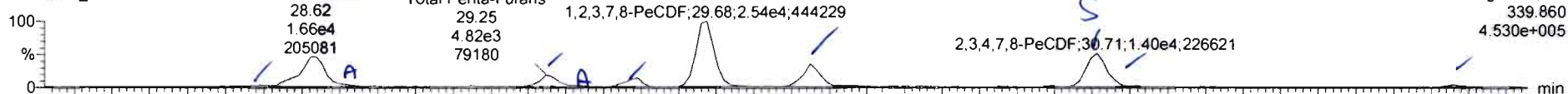
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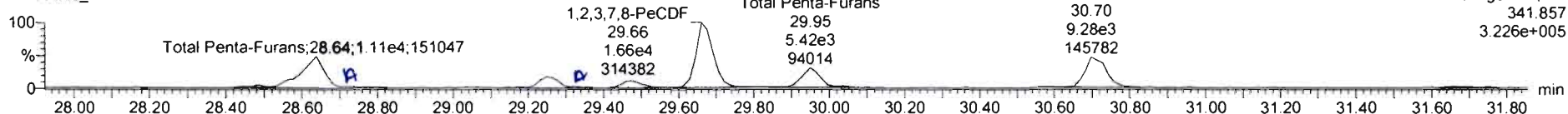
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**1,2,3,7,8-PeCDF**

200314R3\_11

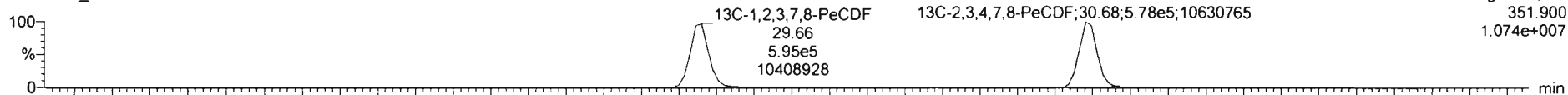


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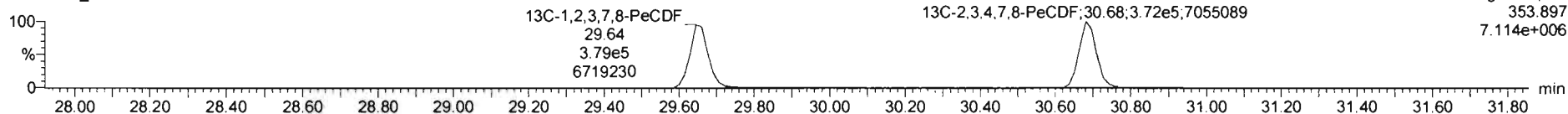


**13C-1,2,3,7,8-PeCDF**

200314R3\_11

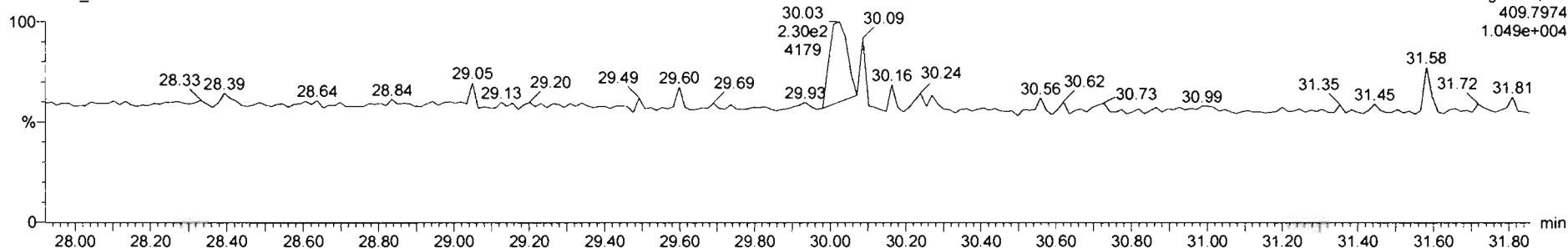


200314R3\_11



**DPE2**

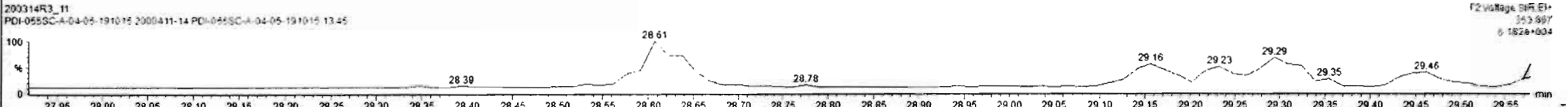
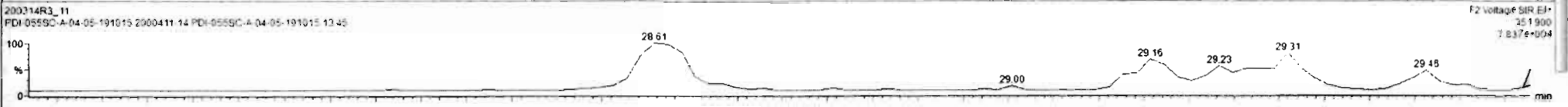
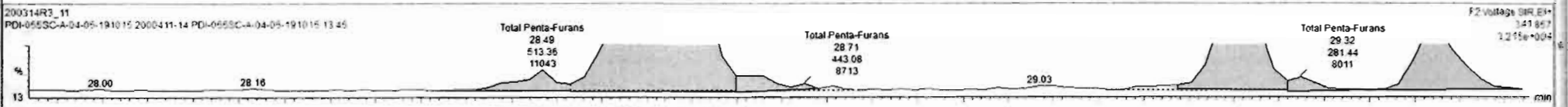
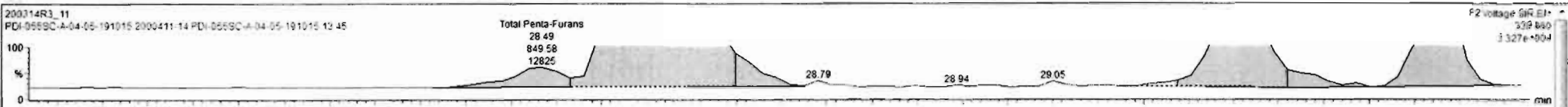
200314R3\_11



200314R3\_11 - 2000411-14 PDI-055SC-A-04-05-191015 13 45 - PDI-055SC-A-04-05-191015

Name	Resp	RA	n/y	RRF	w/Vol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.003			26.3		0.0956	26.3
46 Total Hexa-Furans				1.0920	10.003			35.9		0.0903	36.2

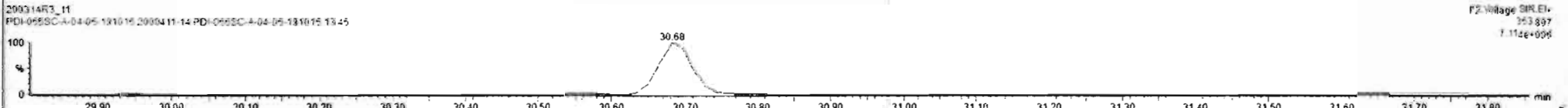
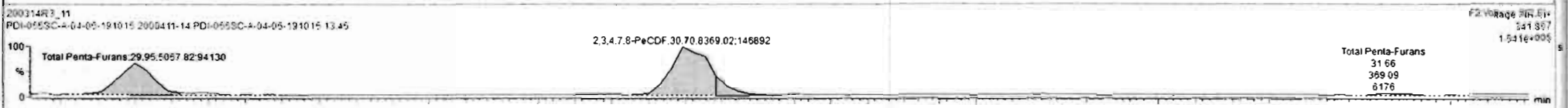
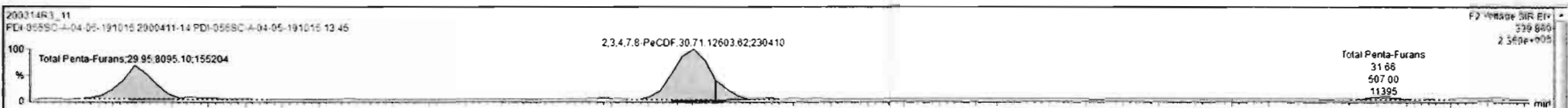
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Penta-Furans	28.49	6.496e2	5.134e2	1.65	NO	0.29510	0.29510
2 Total Penta-Furans	28.62	1.596e4	1.071e4	1.49	NO	5.7808	5.7808
3 Total Penta-Furans	28.70	6.509e2	4.431e2	1.47	NO	0.23687	0.23687
4 Total Penta-Furans	29.25	4.407e3	3.058e3	1.44	NO	1.6163	1.6163
5 Total Penta-Furans	29.31	4.782e2	2.814e2	1.70	NO	0.16448	0.16448
6 Total Penta-Furans	29.49	3.043e3	1.908e3	1.59	NO	1.0720	1.0720
7 1,2,3,7,8-PeCDF	29.67	2.444e4	1.661e4	1.53	NO	8.9910	8.9910
8 Total Penta-Furans	29.95	8.553e3	5.416e3	1.58	NO	3.0247	3.0247
9 2,3,4,7,8-PeCDF	30.71	1.401e4	9.278e3	1.51	NO	4.8830	4.8830
10 Total Penta-Furans	31.66	6.090e2	4.325e2	1.41	NO	0.22552	0.22552



200314R3\_11 - 2000411-14 PDI-055SC-A-04-05-191015 13.45 - PDI-055SC-A-04-05-191015

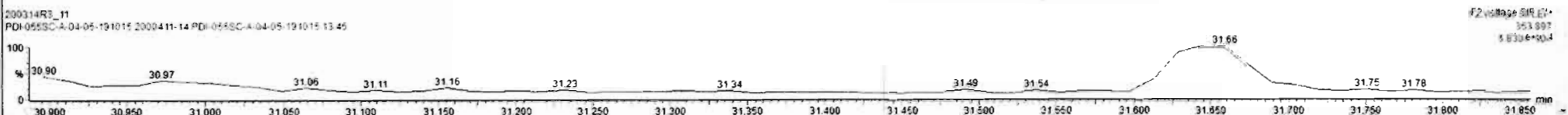
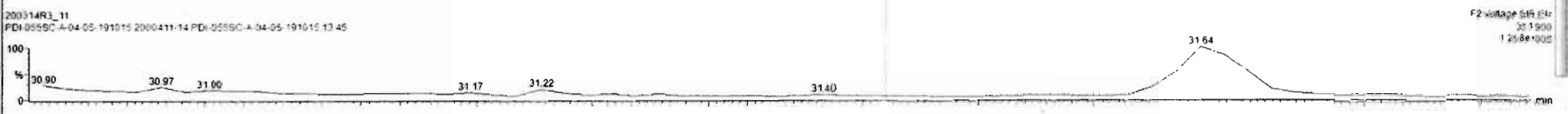
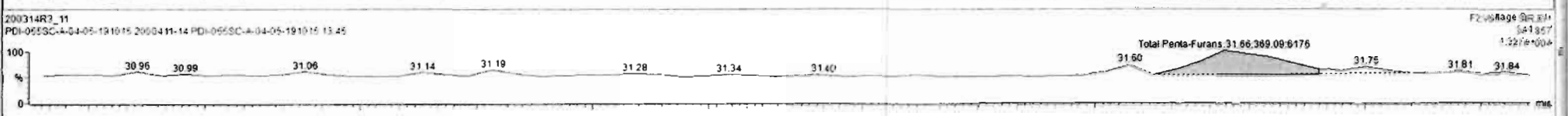
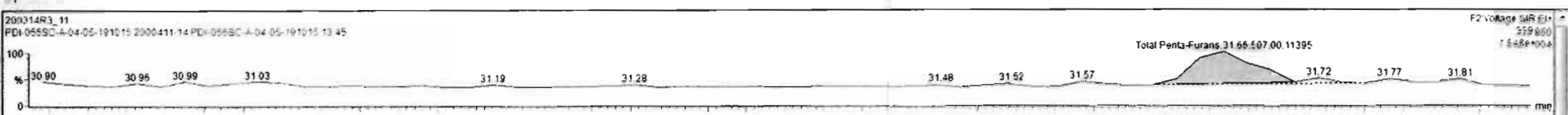
Name	Resp	RA	n/y	RAF	w/Vol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9584	10.003			25.6		0.0956	26.2
46 Total Hexa-Furans				1.0920	10.003			25.9		0.0903	26.2

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Penta-Furans	28.49	8.496e2	5.134e2	1.65	NO	0.29510	0.29510
2 Total Penta-Furans	28.62	1.566e4	1.071e4	1.49	NO	5.7828	5.7808
3 Total Penta-Furans	28.70	6.599e2	4.431e2	1.47	NO	0.23687	0.23687
4 Total Penta-Furans	28.25	4.407e3	3.058e3	1.44	NO	1.6153	1.6163
5 Total Penta-Furans	29.31	4.782e2	2.814e2	1.70	NO	0.16448	0.16448
6 Total Penta-Furans	29.49	3.043e3	1.988e3	1.59	NO	1.0720	1.0720
7 1,2,3,7,8-PeCDF	29.67	2.544e4	1.661e4	1.53	NO	8.9910	6.9910
8 Total Penta-Furans	29.95	8.095e3	5.058e3	1.60	NO	2.8479	2.8479
9 2,2',4,7,8-PeCDF	30.71	1.260e4	8.369e3	1.51	NO	4.3967	4.3967
10 Total Penta-Furans	30.74	1.730e3	1.245e3	1.39	NO	0.64425	0.00000
11 Total Penta-Furans	31.66	5.070e2	3.691e2	1.37	NO	0.18969	0.18969



Name	Resp	RA	n/y	RRF	wt/pt	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.003			25.5		0.0956	26.2
46 Total Hexa-Furans				1.9920	10.003			35.9		0.0903	36.2

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Penta-Furans	28.49	8.496e2	5.124e2	1.85	NO	0.29510	0.29510
2 Total Penta-Furans	28.82	1.596e4	1.071e4	1.49	NO	5.7808	5.7808
3 Total Penta-Furans	28.70	6.509e2	4.431e2	1.47	NO	0.23687	0.23687
4 Total Penta-Furans	29.25	4.407e3	3.058e3	1.44	NO	1.6163	1.6163
5 Total Penta-Furans	29.31	4.782e2	2.814e2	1.70	NO	0.16448	0.16448
6 Total Penta-Furans	29.49	3.043e3	1.968e3	1.59	NO	1.0720	1.0720
7 1,2,3,7,8-PeCDF	29.57	2.544e4	1.861e4	1.53	NO	8.9910	8.9910
8 Total Penta-Furans	29.95	8.095e3	5.058e3	1.60	NO	2.8479	2.8479
9 2,3,4,7,8-PeCDF	30.71	1.260e4	8.369e3	1.51	NO	4.3987	4.3987
10 Total Penta-Furans	30.74	1.730e3	1.245e3	1.39	NO	0.64425	0.00000
11 Total Penta-Furans	31.66	5.070e2	3.691e2	1.37	NO	0.18969	0.18969

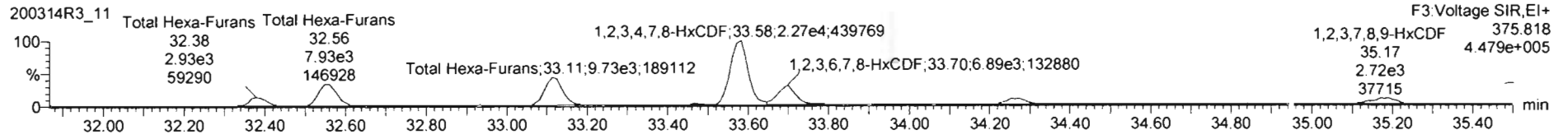
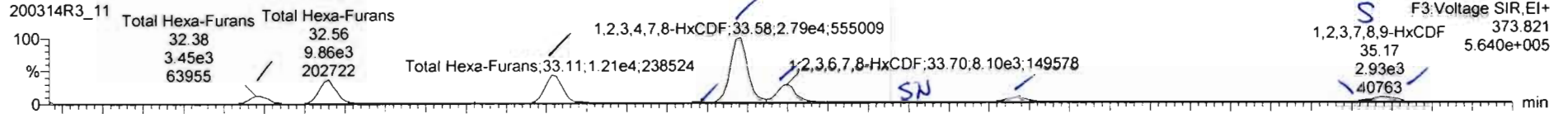


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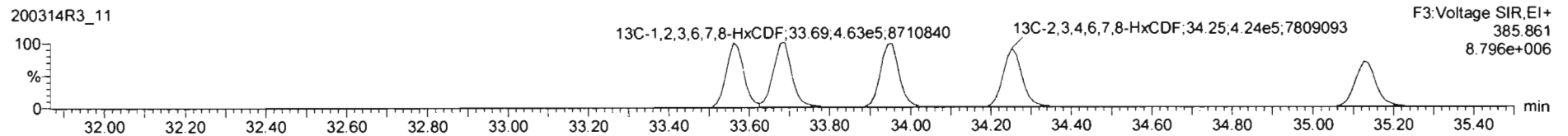
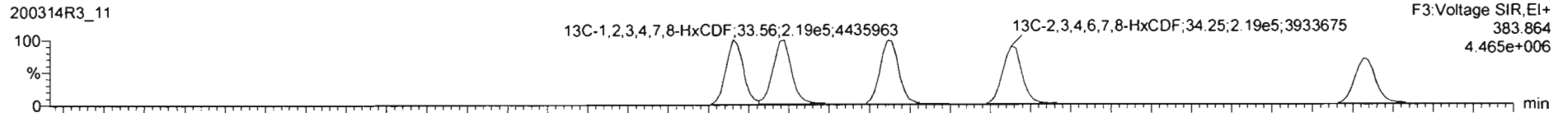
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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_11, Date: 15-Mar-2020, Time: 07:14:22, ID: 2000411-14 PDI-055SC-A-04-05-191015 13.45, Description: PDI-055SC-A-04-05-191015

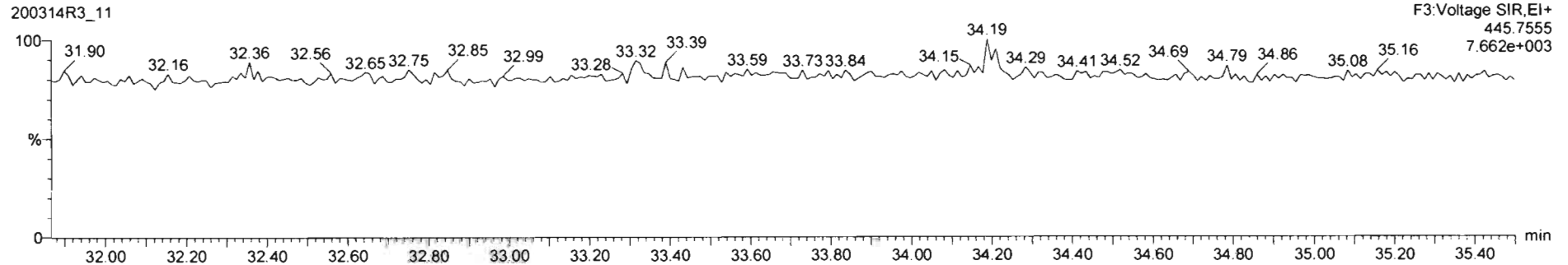
1,2,3,4,7,8-HxCDF



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

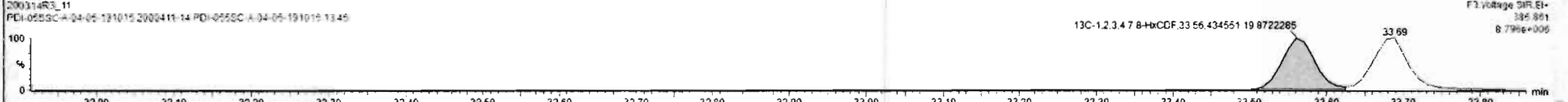
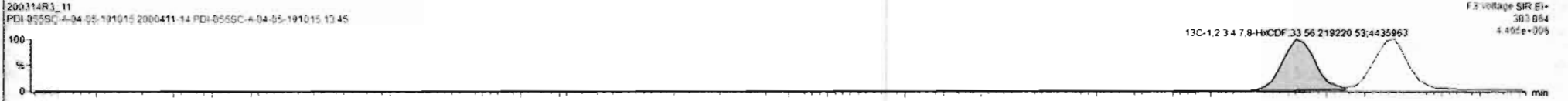


DPE3



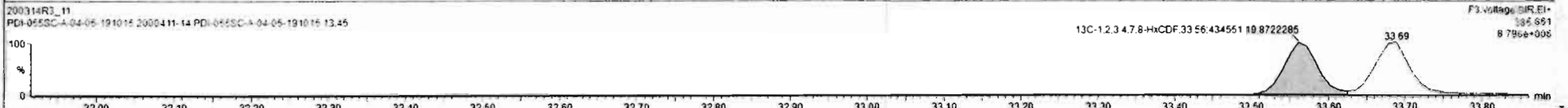
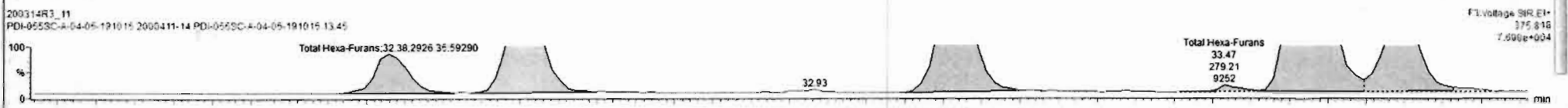
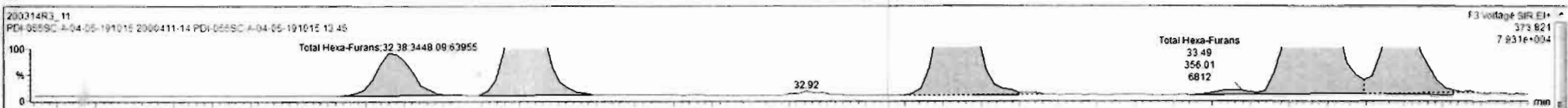
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45 Total Penta-Furans				0.9594	10.003			25.6		0.0956	26.2
46 Total Hexa-Furans				1.9920	10.003			35.8		0.0903	36.2

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hexa-Furans	32.36	3.448e3	2.926e3	1.18	NO	1.8404	1.8404
2 Total Hexa-Furans	32.56	9.856e3	7.931e3	1.24	NO	5.1359	5.1359
3 Total Hexa-Furans	33.11	1.209e4	9.726e3	1.24	NO	6.2993	6.2993
4 Total Hexa-Furans	33.49	3.580e2	2.792e2	1.28	NO	0.18340	0.00000
5 1,2,3,4,7,8-HxCDF	33.58	2.789e4	2.274e4	1.23	NO	14.916	14.916
6 1,2,3,6,7,8-HxCDF	33.70	8.187e3	6.640e3	1.23	NO	4.1897	4.1897
7 Total Hexa-Furans	33.97	3.745e2	2.203e2	1.70	YES	0.14250	0.00000
8 2,3,4,6,7,8-HxCDF	34.28	2.788e3	2.227e3	1.25	NO	1.4278	1.4278
9 1,2,3,7,8,9-HxCDF	35.17	2.932e3	2.718e3	1.08	NO	2.0296	2.0296



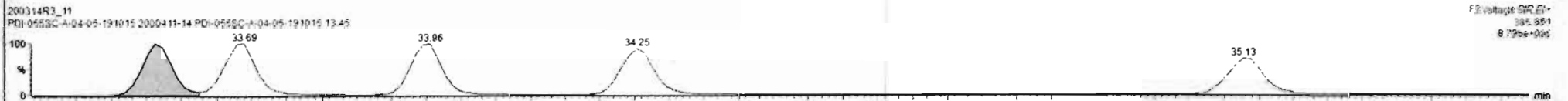
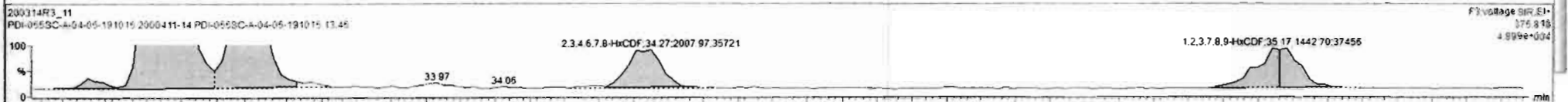
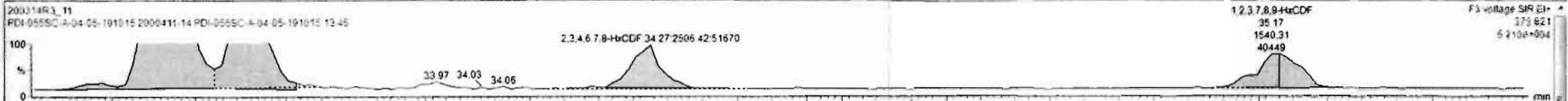
Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.003			25.6		0.0956	26.2
46 Total Hexa-Furans				1.6928	10.003			35.8		0.0963	36.2

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hexa-Furans	32.38	3.448e3	2.926e3	1.18	NO	1.8404	1.8404
2 Total Hexa-Furans	32.56	9.858e3	7.931e3	1.24	NO	5.1359	5.1355
3 Total Hexa-Furans	33.11	1.209e4	9.728e3	1.24	NO	6.2993	6.2993
4 Total Hexa-Furans	33.49	3.580e2	2.792e2	1.28	NO	0.18340	0.00000
5 1,2,3,4,7,8-HxCDF	33.58	2.789e4	2.274e4	1.23	NO	14.916	14.916
6 1,2,3,6,7,8-HxCDF	33.70	8.167e3	6.640e3	1.23	NO	4.1897	4.1897
7 Total Hexa-Furans	33.97	3.745e2	2.203e2	1.70	YES	0.14250	0.00000
8 2,3,4,6,7,8-HxCDF	34.28	2.788e3	2.227e3	1.25	NO	1.4278	1.4278
9 1,2,3,7,8,9-HxCDF	35.17	2.932e3	2.718e3	1.08	NO	2.0296	2.0296



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
45 Total Penta-Furans				0.9594	10.003			25.6		0.0956	26.2
46 Total Hexa-Furans				1.9920	10.003			35.7		0.0963	35.7

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hexa-Furans	32.36	3.448e3	2.526e3	1.16	NO	1.8404	1.8404
2 Total Hexa-Furans	32.56	9.856e3	7.931e3	1.24	NO	5.1359	5.1359
3 Total Hexa-Furans	33.11	1.209e4	9.726e3	1.24	NO	6.2993	6.2993
4 Total Hexa-Furans	33.49	3.580e2	2.792e2	1.26	NO	0.18340	0.18340
5 1,2,3,4,7,8-HxCDF	33.58	2.789e4	2.274e4	1.23	NO	14.916	14.916
6 1,2,3,6,7,8-HxCDF	33.70	8.167e3	6.640e3	1.23	NO	4.1897	4.1897
7 2,3,4,6,7,8-HxCDF	34.27	2.506e3	2.006e3	1.25	NO	1.2853	1.2853
8 1,2,3,7,8,9-HxCDF	35.17	1.540e3	1.443e3	1.07	NO	1.0716	1.0716
9 Total Hexa-Furans	35.18	1.406e3	1.210e3	1.16	NO	0.75546	0.75546





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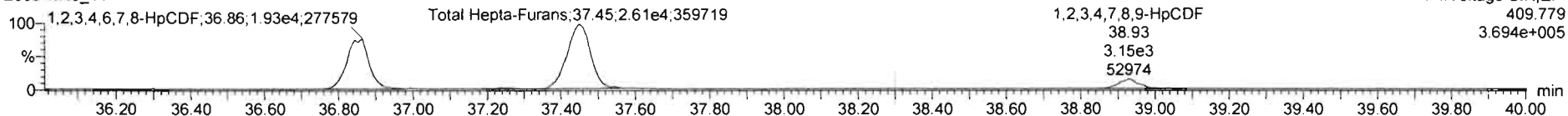
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**1,2,3,4,6,7,8-HpCDF**

200314R3\_11

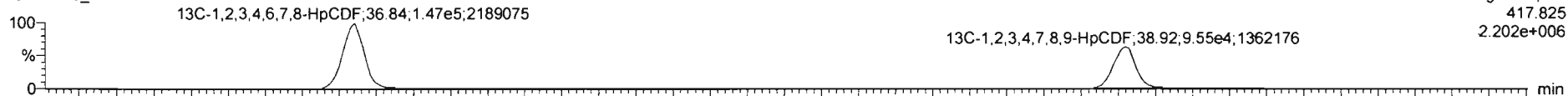


200314R3\_11

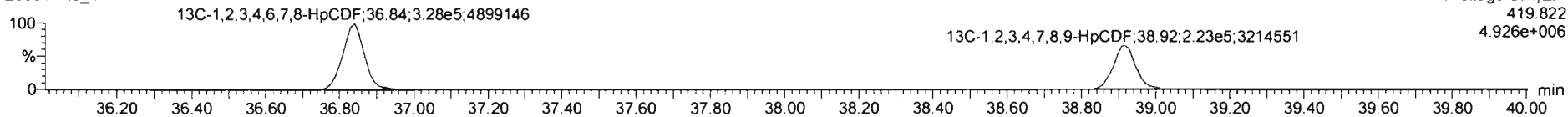


**13C-1,2,3,4,6,7,8-HpCDF**

200314R3\_11

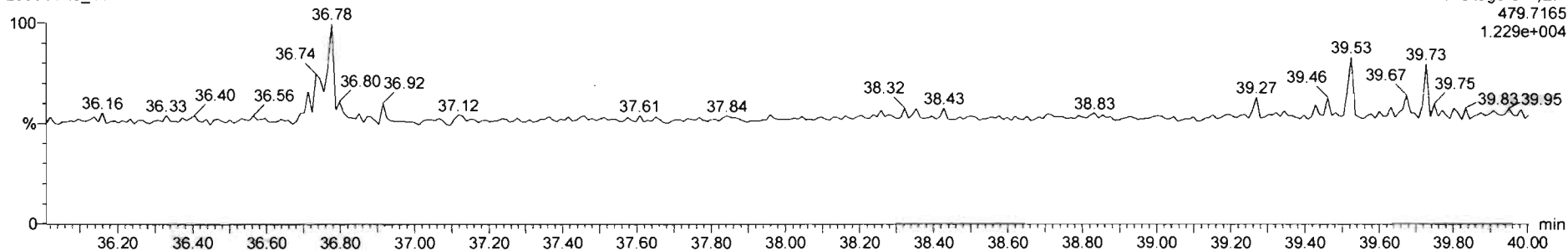


200314R3\_11



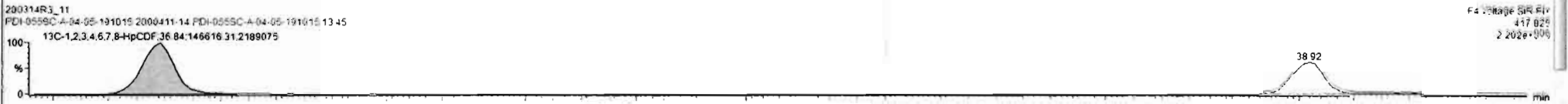
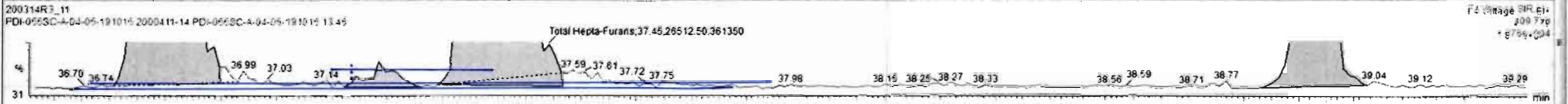
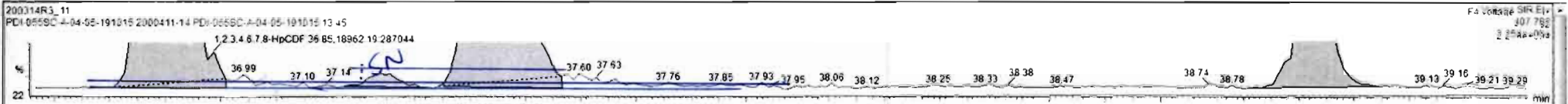
**DPE4**

200314R3\_11



#	Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
45	Total Penta-Furans				0.9534	10.003			25.6	0.0956	26.2	
46	Total Hexa-Furans				1.0520	10.003			35.7	0.0903	35.7	

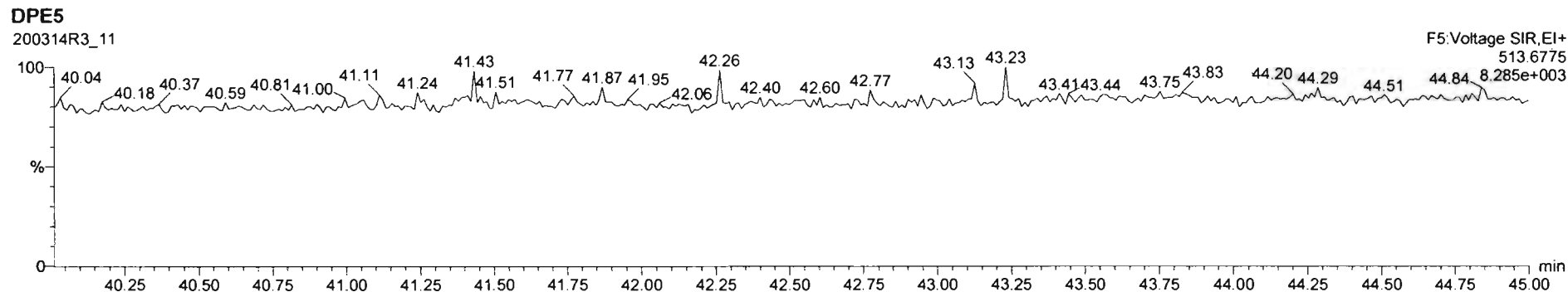
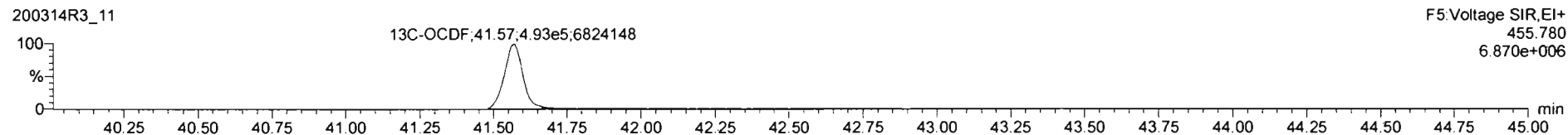
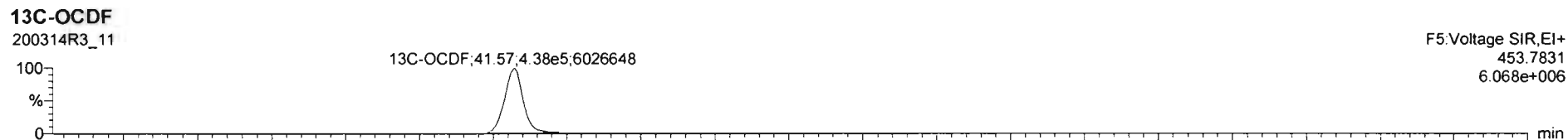
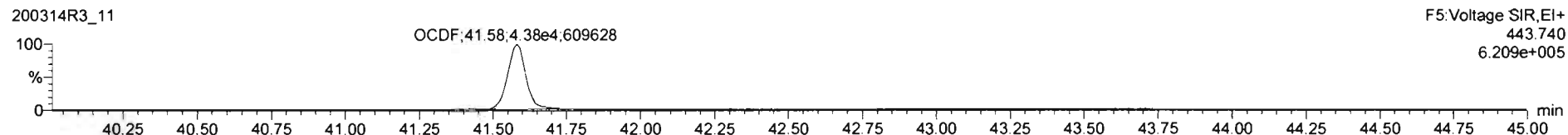
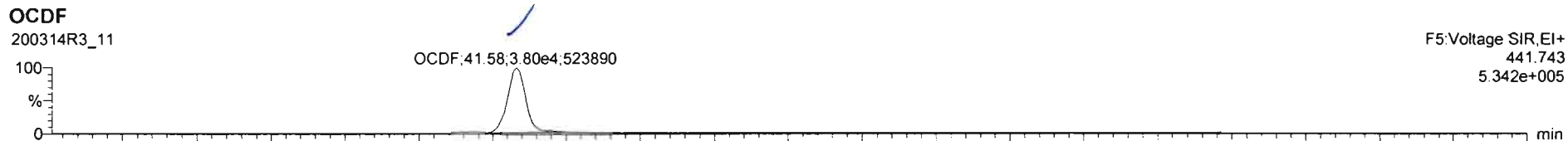
#	Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1	1,2,3,4,6,7,8-HpCDF	36.85	1.896e4	1.922e4	0.99	NO	15.353	15.353
2	Total Hepta-Furans	37.24	3.166e2	3.327e2	0.95	NO	0.31231	0.31231
3	Total Hepta-Furans	37.45	2.732e4	2.851e4	1.03	NO	25.864	25.864
4	1,2,3,4,7,8,9-HpCDF	38.93	3.170e3	3.152e3	1.01	NO	3.2775	3.2775



Dataset: Untitled

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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_11, Date: 15-Mar-2020, Time: 07:14:22, ID: 2000411-14 PDI-055SC-A-04-05-191015 13.45, Description: PDI-055SC-A-04-05-191015



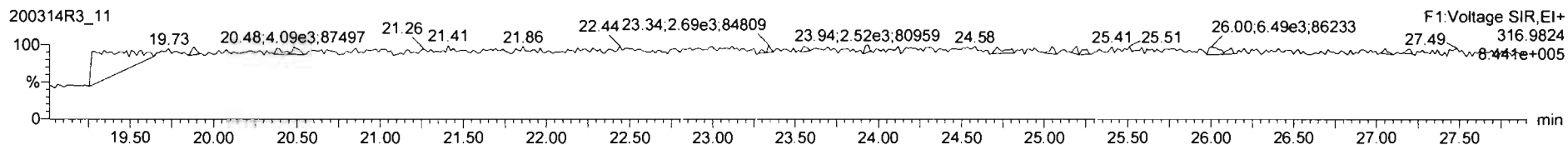
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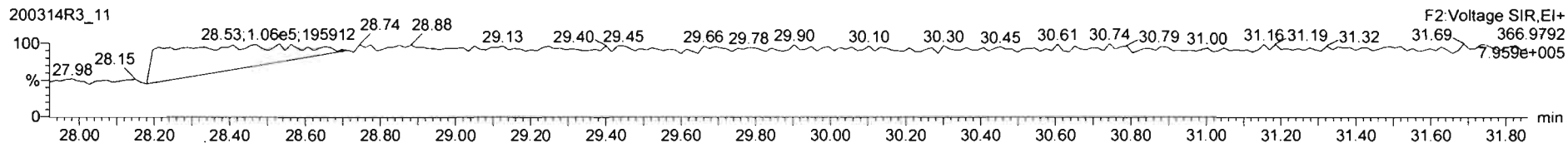
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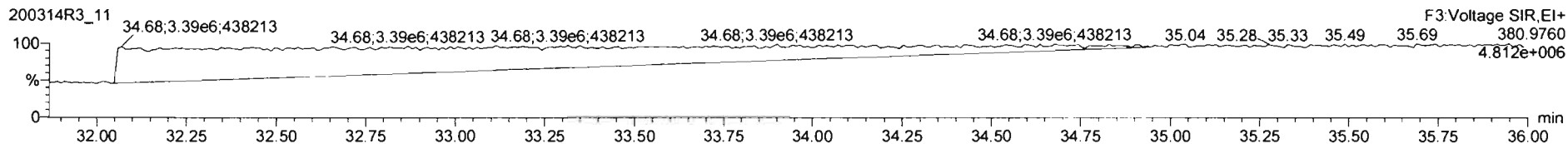
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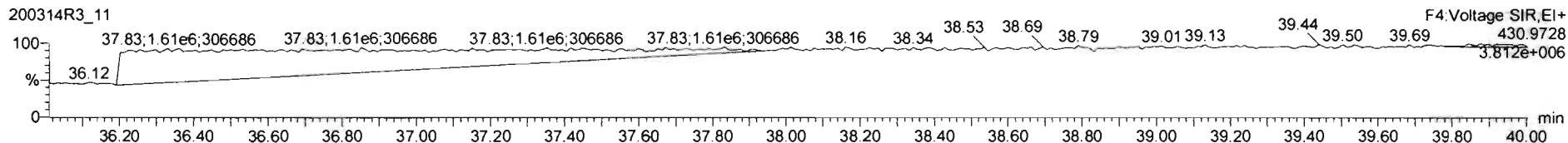
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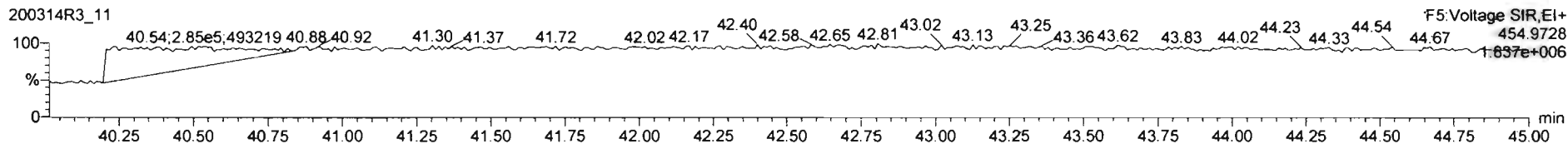
PFK3



PFK4



PFK5



Dataset: U:\VG12.PRO\Results\200314R3\200314R3-12.qld

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*GRB 03/15/2020*

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*WLL  
3/15/20*

Name: 200314R3\_12, Date: 15-Mar-2020, Time: 08:01:57, ID: 2000411-15 PDI-055SC-A-05-06-191015 13.65, Description: PDI-055SC-A-05-06-191015

#	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	7.83e2	0.56	YES	0.983	10.108	25.766	25.74	1.001	1.000	0.20610		0.119	0.170
2	2 1,2,3,7,8-PeCDD			NO	0.921	10.108	31.040		1.001				0.197	
3	3 1,2,3,4,7,8-HxCDD	5.58e2	1.27	NO	1.13	10.108	34.434	34.44	1.000	1.000	0.23347		0.111	0.233
4	4 1,2,3,6,7,8-HxCDD	3.98e3	1.21	NO	0.984	10.108	34.530	34.54	1.000	1.000	1.6457		0.116	1.65
5	5 1,2,3,7,8,9-HxCDD	1.33e3	0.90	YES	0.967	10.108	34.807	34.81	1.000	1.000	0.61989		0.127	0.530
6	6 1,2,3,4,6,7,8-HpCDD	1.31e5	1.04	NO	1.01	10.108	38.259	38.27	1.000	1.001	88.276		0.617	88.3
7	7 OCDD	9.88e5	0.89	NO	1.05	10.108	41.368	41.38	1.000	1.000	707.08		0.539	707
8	8 2,3,7,8-TCDF	9.56e3	0.78	NO	0.915	10.108	24.772	24.78	1.001	1.001	2.1148		0.127	2.11
9	9 1,2,3,7,8-PeCDF	1.08e4	1.50	NO	0.959	10.108	29.681	29.68	1.001	1.001	2.6532		0.0771	2.65
10	10 2,3,4,7,8-PeCDF	6.54e3	1.49	NO	1.00	10.108	30.729	30.73	1.001	1.001	1.5559		0.0728	1.56
11	11 1,2,3,4,7,8-HxCDF	9.84e3	1.29	NO	1.04	10.108	33.572	33.58	1.000	1.000	3.3796		0.0770	3.38
12	12 1,2,3,6,7,8-HxCDF	3.15e3	1.09	NO	1.01	10.108	33.699	33.70	1.000	1.000	1.0312		0.0759	1.03
13	13 2,3,4,6,7,8-HxCDF	1.61e3	1.16	NO	1.09	10.108	34.288	34.27	1.001	1.001	0.54598		0.0793	0.546
14	14 1,2,3,7,8,9-HxCDF	8.63e2	1.20	NO	1.03	10.108	35.138	35.18	1.000	1.001	0.36488		0.108	0.365
15	15 1,2,3,4,6,7,8-HpCDF	1.95e4	0.99	NO	1.05	10.108	36.879	36.86	1.001	1.001	9.9219		0.143	9.92
16	16 1,2,3,4,7,8,9-HpCDF	1.71e3	1.01	NO	1.21	10.108	38.908	38.90	1.000	1.000	1.0508		0.176	1.05
17	17 OCDF	5.50e4	0.90	NO	0.947	10.108	41.549	41.56	1.000	1.000	37.595		0.234	37.6
18	18 13C-2,3,7,8-TCDD	7.64e5	0.77	NO	1.18	10.108	25.735	25.74	1.029	1.029	186.03	94.0	0.231	
19	19 13C-1,2,3,7,8-PeCDD	6.04e5	0.63	NO	0.864	10.108	30.919	31.02	1.236	1.240	201.38	102	0.277	
20	20 13C-1,2,3,4,7,8-HxCDD	4.17e5	1.29	NO	0.754	10.108	34.427	34.42	1.014	1.014	168.91	85.4	0.376	
21	21 13C-1,2,3,6,7,8-HxCDD	4.85e5	1.27	NO	0.925	10.108	34.536	34.53	1.017	1.017	160.01	80.9	0.306	
22	22 13C-1,2,3,7,8,9-HxCDD	4.40e5	1.24	NO	0.829	10.108	34.797	34.80	1.025	1.025	161.92	81.8	0.342	
23	23 13C-1,2,3,4,6,7,8-HpCDD	2.91e5	1.04	NO	0.598	10.108	38.254	38.25	1.127	1.126	148.58	75.1	0.533	
24	24 13C-OCDD	5.26e5	0.87	NO	0.571	10.108	41.401	41.37	1.219	1.218	280.78	71.0	0.459	
25	25 13C-2,3,7,8-TCDF	9.77e5	0.79	NO	1.09	10.108	24.757	24.75	0.990	0.989	171.01	86.4	0.294	
26	26 13C-1,2,3,7,8-PeCDF	8.37e5	1.58	NO	0.876	10.108	29.590	29.66	1.183	1.186	182.08	92.0	0.377	
27	27 13C-2,3,4,7,8-PeCDF	8.29e5	1.59	NO	0.844	10.108	30.601	30.70	1.223	1.227	187.25	94.6	0.392	
28	28 13C-1,2,3,4,7,8-HxCDF	5.55e5	0.51	NO	1.00	10.108	33.575	33.57	0.989	0.989	169.18	85.5	0.438	
29	29 13C-1,2,3,6,7,8-HxCDF	5.98e5	0.52	NO	1.12	10.108	33.683	33.69	0.992	0.992	163.13	82.4	0.392	
30	30 13C-2,3,4,6,7,8-HxCDF	5.35e5	0.51	NO	1.04	10.108	34.264	34.25	1.009	1.009	157.56	79.6	0.423	
31	31 13C-1,2,3,7,8,9-HxCDF	4.56e5	0.51	NO	0.873	10.108	35.137	35.14	1.035	1.035	159.22	80.5	0.502	

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-12.qld

Last Altered: Sunday, March 15, 2020 4:13:42 PM Pacific Daylight Time  
Printed: Sunday, March 15, 2020 4:14:09 PM Pacific Daylight Time

Name: 200314R3\_12, Date: 15-Mar-2020, Time: 08:01:57, ID: 2000411-15 PDI-055SC-A-05-06-191015 13.65, Description: PDI-055SC-A-05-06-191015

#	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	3.72e5	0.42	NO	0.771	10.108	36.851	36.84	1.085	1.085	147.03	74.3	0.366	
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.66e5	0.44	NO	0.519	10.108	38.936	38.91	1.147	1.146	156.22	79.0	0.543	
34	34 13C-OCDF	6.12e5	0.91	NO	0.696	10.108	41.581	41.55	1.225	1.224	267.89	67.7	0.336	
35	35 37Cl-2,3,7,8-TCDD	2.80e5			1.17	10.108	25.745	25.76	1.029	1.030	68.617	86.7	0.0680	
36	36 13C-1,2,3,4-TCDD	6.86e5	0.78	NO	1.00	10.108	25.050	25.02	1.000	1.000	197.86	100	0.274	
37	37 13C-1,2,3,4-TCDF	1.04e6	0.79	NO	1.00	10.108	23.190	23.10	1.000	1.000	197.86	100	0.320	
38	38 13C-1,2,3,4,6,9-HxCDF	6.49e5	0.52	NO	1.00	10.108	33.880	33.96	1.000	1.000	197.86	100	0.438	
39	39 Total Tetra-Dioxins				0.983	10.108	24.620		0.000		1.0416		0.119	2.31
40	40 Total Penta-Dioxins				0.921	10.108	29.960		0.000		2.6900		0.197	3.12
41	41 Total Hexa-Dioxins				0.984	10.108	33.635		0.000		23.600		0.122	24.1
42	42 Total Hepta-Dioxins				1.01	10.108	37.640		0.000		208.65		0.617	209
43	43 Total Tetra-Furans				0.915	10.108	23.610		0.000		7.7405		0.127	8.08
44	44 1st Func. Penta-Furans				0.959	10.108	27.090		0.000		3.5941		0.0329	3.59
45	45 Total Penta-Furans				0.959	10.108	29.275		0.000		9.2088		0.0767	9.21
46	46 Total Hexa-Furans				1.09	10.108	33.555		0.000		14.549		0.0800	14.5
47	47 Total Hepta-Furans				1.05	10.108	37.835		0.000		37.842		0.168	37.8

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Dataset: U:\VG12.PRO\Results\200314R3\200314R3-12.qld

Last Altered: Sunday, March 15, 2020 4:13:42 PM Pacific Daylight Time

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Method: Untitled 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R3\_12, Date: 15-Mar-2020, Time: 08:01:57, ID: 2000411-15 PDI-055SC-A-05-06-191015 13.65, Description: PDI-055SC-A-05-06-191015

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	21.41	5.461e3	7.153e3	5.097e2	7.009e2	0.73	NO	1.211e3	0.31874	0.31874	0.119
2	Total Tetra-Dioxins	21.83	4.228e3	5.043e3	2.948e2	3.974e2	0.74	NO	6.922e2	0.18224	0.18224	0.119
3	Total Tetra-Dioxins	22.32	3.940e3	5.222e3	2.811e2	3.567e2	0.79	NO	6.378e2	0.16791	0.16791	0.119
4	Total Tetra-Dioxins	23.33	4.070e3	5.507e3	3.968e2	4.413e2	0.90	YES	0.000e0	0.00000	0.20566	0.119
5	Total Tetra-Dioxins	23.63	4.725e3	5.825e3	6.090e2	6.128e2	0.99	YES	0.000e0	0.00000	0.28559	0.119
6	Total Tetra-Dioxins	23.86	6.285e3	4.492e3	4.125e2	3.909e2	1.06	YES	0.000e0	0.00000	0.18215	0.119
7	Total Tetra-Dioxins	24.12	2.627e3	2.994e3	2.499e2	2.305e2	1.08	YES	0.000e0	0.00000	0.10743	0.119
8	Total Tetra-Dioxins	24.43	3.102e3	2.571e3	2.554e2	2.112e2	1.21	YES	0.000e0	0.00000	0.098407	0.119
9	Total Tetra-Dioxins	24.60	4.911e3	4.473e3	3.113e2	3.519e2	0.88	NO	6.633e2	0.17464	0.17464	0.119
10	Total Tetra-Dioxins	24.97	3.919e3	5.379e3	3.226e2	4.297e2	0.75	NO	7.522e2	0.19806	0.19806	0.119
11	2,3,7,8-TCDD	25.74	3.798e3	8.178e3	2.805e2	5.023e2	0.56	YES	7.828e2	0.00000	0.16978	0.119
12	Total Tetra-Dioxins	26.12	4.474e3	7.084e3	3.145e2	3.137e2	1.00	YES	0.000e0	0.00000	0.14621	0.119
13	Total Tetra-Dioxins	26.83	3.382e3	2.211e3	1.671e2	1.640e2	1.02	YES	0.000e0	0.00000	0.076430	0.119

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.71	1.612e4	2.578e4	1.053e3	1.891e3	0.56	NO	2.943e3	1.0469	1.0469	0.197
2	Total Penta-Dioxins	29.20	7.944e3	1.222e4	4.336e2	7.852e2	0.55	NO	1.219e3	0.43353	0.43353	0.197
3	Total Penta-Dioxins	29.74	1.225e4	1.836e4	5.391e2	8.434e2	0.64	NO	1.382e3	0.49177	0.49177	0.197
4	Total Penta-Dioxins	29.92	7.523e3	1.311e4	4.196e2	5.025e2	0.83	YES	0.000e0	0.00000	0.29137	0.197
5	Total Penta-Dioxins	30.00	4.052e3	8.929e3	1.541e2	3.774e2	0.41	YES	0.000e0	0.00000	0.14178	0.197
6	Total Penta-Dioxins	30.27	8.815e3	1.555e4	7.529e2	1.265e3	0.60	NO	2.018e3	0.71783	0.71783	0.197

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Dataset: U:\VG12.PRO\Results\200314R3\200314R3-12.qld

Last Altered: Sunday, March 15, 2020 4:13:42 PM Pacific Daylight Time

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Name: 200314R3\_12, Date: 15-Mar-2020, Time: 08:01:57, ID: 2000411-15 PDI-055SC-A-05-06-191015 13.65, Description: PDI-055SC-A-05-06-191015

Hexa-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.95	2.429e5	2.037e5	1.244e4	1.027e4	1.21	NO	2.271e4	10.195	10.195	0.122
2	Total Hexa-Dioxins	33.52	2.821e4	2.167e4	1.420e3	1.070e3	1.33	NO	2.490e3	1.1176	1.1176	0.122
3	Total Hexa-Dioxins	33.77	1.759e5	1.406e5	1.124e4	8.967e3	1.25	NO	2.020e4	9.0689	9.0689	0.122
4	Total Hexa-Dioxins	33.87	1.555e4	1.626e4	8.671e2	8.225e2	1.05	NO	1.690e3	0.75844	0.75844	0.122
5	1,2,3,4,7,8-HxCDD	34.44	7.016e3	5.484e3	3.122e2	2.458e2	1.27	NO	5.579e2	0.23347	0.23347	0.111
6	1,2,3,6,7,8-HxCDD	34.54	4.296e4	3.250e4	2.179e3	1.797e3	1.21	NO	3.975e3	1.6457	1.6457	0.116
7	Total Hexa-Dioxins	34.72	1.367e4	1.380e4	6.802e2	6.151e2	1.11	NO	1.295e3	0.58140	0.58140	0.122
8	1,2,3,7,8,9-HxCDD	34.81	1.343e4	1.371e4	6.320e2	7.025e2	0.90	YES	1.334e3	0.00000	0.53031	0.127

Hepta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.24	1.378e6	1.350e6	9.005e4	8.831e4	1.02	NO	1.784e5	120.37	120.37	0.617
2	1,2,3,4,6,7,8-HpCDD	38.27	9.170e5	9.038e5	6.666e4	6.414e4	1.04	NO	1.308e5	88.276	88.276	0.617

Tetra-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	19.93	4.072e3	4.400e3	2.854e2	3.882e2	0.74	NO	6.736e2	0.14895	0.14895	0.127
2	Total Tetra-Furans	20.48	2.022e4	2.391e4	1.670e3	2.033e3	0.82	NO	3.703e3	0.81887	0.81887	0.127
3	Total Tetra-Furans	21.38	1.612e4	2.598e4	1.236e3	1.834e3	0.67	NO	3.070e3	0.67885	0.67885	0.127
4	Total Tetra-Furans	21.83	8.955e3	1.818e4	9.697e2	1.392e3	0.70	NO	2.362e3	0.52229	0.52229	0.127
5	Total Tetra-Furans	22.19	4.215e3	3.938e3	2.295e2	2.795e2	0.82	NO	5.090e2	0.11255	0.11255	0.127
6	Total Tetra-Furans	23.01	1.052e4	1.449e4	9.886e2	1.185e3	0.83	NO	2.174e3	0.48071	0.48071	0.127
7	Total Tetra-Furans	23.12	7.046e3	1.022e4	7.039e2	8.379e2	0.84	NO	1.542e3	0.34093	0.34093	0.127
8	Total Tetra-Furans	23.70	4.208e4	4.865e4	3.676e3	4.363e3	0.84	NO	8.040e3	1.7777	1.7777	0.127
9	Total Tetra-Furans	23.82	5.379e3	7.644e3	2.824e2	3.727e2	0.76	NO	6.551e2	0.14487	0.14487	0.127
10	Total Tetra-Furans	24.64	9.709e3	1.164e4	4.925e2	7.310e2	0.67	NO	1.224e3	0.27055	0.27055	0.127
11	2,3,7,8-TCDF	24.78	5.245e4	6.353e4	4.191e3	5.372e3	0.78	NO	9.564e3	2.1148	2.1148	0.127
12	Total Tetra-Furans	26.51	4.652e3	6.918e3	2.617e2	3.517e2	0.74	NO	6.134e2	0.13564	0.13564	0.127
13	Total Tetra-Furans	26.66	7.563e3	7.518e3	3.752e2	5.011e2	0.75	NO	8.763e2	0.19378	0.19378	0.127
14	Total Tetra-Furans	26.96	1.021e4	1.632e4	6.630e2	1.016e3	0.65	YES	0.000e0	0.00000	0.33703	0.127



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Dataset: U:\VG12.PRO\Results\200314R3\200314R3-12.qld

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7. ID: 200314R3\_12, Date: 15-Mar-2020, Time: 08:01:57, ID: 2000411-15 PDI-055SC-A-05-06-191015 13.65, Description: PDI-055SC-A-05-06-191015

**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	26.95	1.372e5	8.598e4	8.861e3	5.658e3	1.57	NO	1.452e4	3.5941	3.5941	0.0329

**Penta-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.64	8.429e4	4.357e4	5.989e3	3.404e3	1.76	NO	9.394e3	2.3254	2.3254	0.0767
2	Total Penta-Furans	29.26	2.348e4	1.672e4	1.234e3	9.297e2	1.33	NO	2.164e3	0.53572	0.53572	0.0767
3	Total Penta-Furans	29.32	4.081e3	2.338e3	1.660e2	1.156e2	1.44	NO	2.816e2	0.069701	0.069701	0.0767
4	Total Penta-Furans	29.48	1.273e4	8.721e3	6.930e2	4.989e2	1.39	NO	1.192e3	0.29506	0.29506	0.0767
5	1,2,3,7,8-PeCDF	29.68	1.091e5	7.468e4	6.468e3	4.304e3	1.50	NO	1.077e4	2.6532	2.6532	0.0771
6	Total Penta-Furans	29.95	4.829e4	3.346e4	2.799e3	1.773e3	1.58	NO	4.572e3	1.1318	1.1318	0.0767
7	Total Penta-Furans	30.04	9.332e3	6.690e3	5.179e2	3.641e2	1.42	NO	8.820e2	0.21834	0.21834	0.0767
8	2,3,4,7,8-PeCDF	30.73	7.277e4	4.680e4	3.912e3	2.629e3	1.49	NO	6.541e3	1.5559	1.5559	0.0728
9	Total Penta-Furans	30.74	4.821e4	3.136e4	1.038e3	6.733e2	1.54	NO	1.712e3	0.42369	0.42369	0.0767

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.39	3.023e4	2.710e4	1.436e3	1.258e3	1.14	NO	2.695e3	0.91127	0.91127	0.0800
2	Total Hexa-Furans	32.56	9.465e4	7.962e4	4.400e3	3.764e3	1.17	NO	8.164e3	2.7607	2.7607	0.0800
3	Total Hexa-Furans	33.13	1.639e5	1.388e5	8.735e3	7.135e3	1.22	NO	1.587e4	5.3665	5.3665	0.0800
4	1,2,3,4,7,8-HxCDF	33.58	1.199e5	9.356e4	5.547e3	4.290e3	1.29	NO	9.837e3	3.3796	3.3796	0.0770
5	1,2,3,6,7,8-HxCDF	33.70	3.236e4	2.773e4	1.648e3	1.506e3	1.09	NO	3.155e3	1.0312	1.0312	0.0759
6	2,3,4,6,7,8-HxCDF	34.27	1.578e4	1.392e4	8.655e2	7.460e2	1.16	NO	1.612e3	0.54598	0.54598	0.0793
7	1,2,3,7,8,9-HxCDF	35.18	1.369e4	1.024e4	4.700e2	3.930e2	1.20	NO	8.630e2	0.36488	0.36488	0.108
8	Total Hexa-Furans	35.20	1.099e4	9.116e3	3.259e2	2.343e2	1.39	NO	5.602e2	0.18945	0.18945	0.0800

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Name: 200314R3\_12, Date: 15-Mar-2020, Time: 08:01:57, ID: 2000411-15 PDI-055SC-A-05-06-191015 13.65, Description: PDI-055SC-A-05-06-191015

**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	36.86	1.451e5	1.556e5	9.707e3	9.824e3	0.99	NO	1.953e4	9.9219	9.9219	0.143
2	Total Hepta-Furans	37.44	3.667e5	3.374e5	2.282e4	2.256e4	1.01	NO	4.538e4	26.870	26.870	0.168
3	1,2,3,4,7,8,9-HpCDF	38.90	1.417e4	1.397e4	8.581e2	8.508e2	1.01	NO	1.709e3	1.0508	1.0508	0.176

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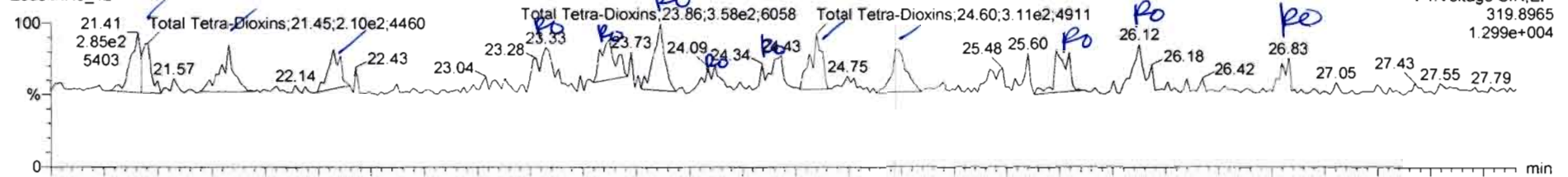
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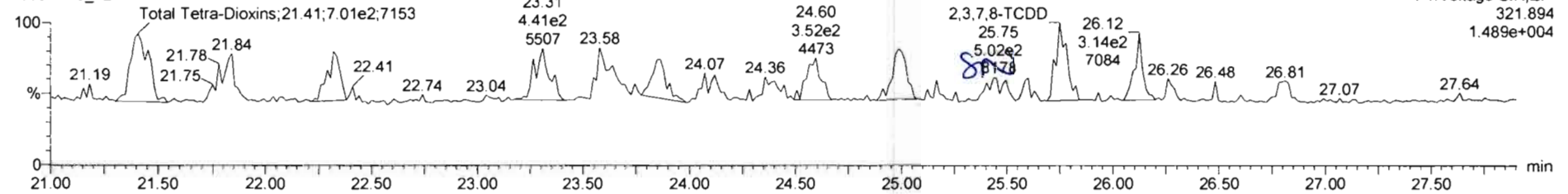
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**2,3,7,8-TCDD**

200314R3\_12

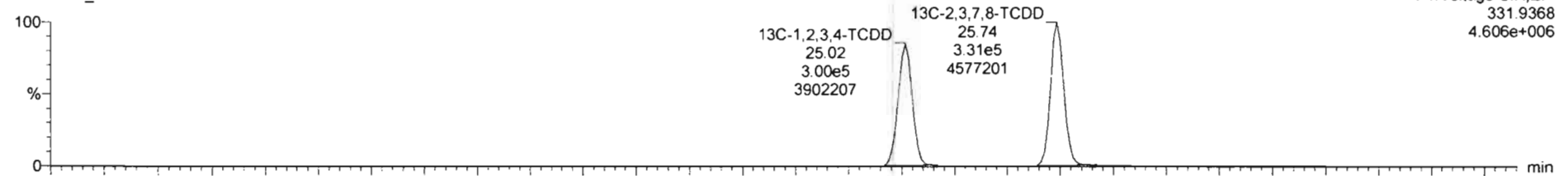


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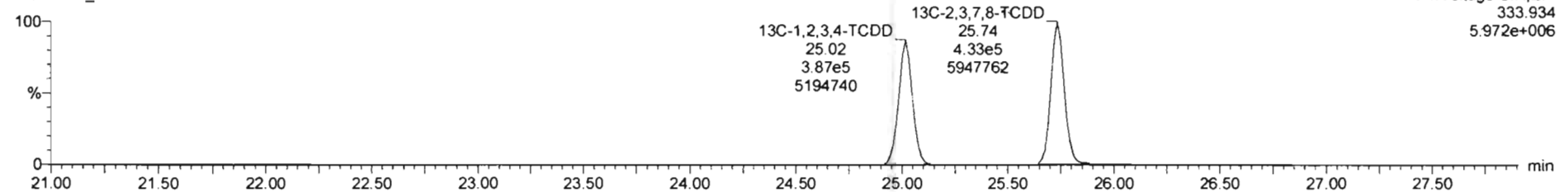


**13C-2,3,7,8-TCDD**

200314R3\_12

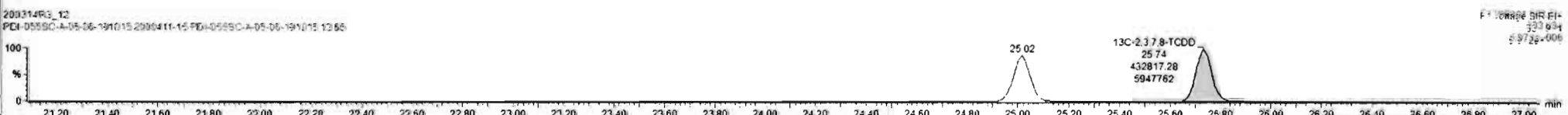
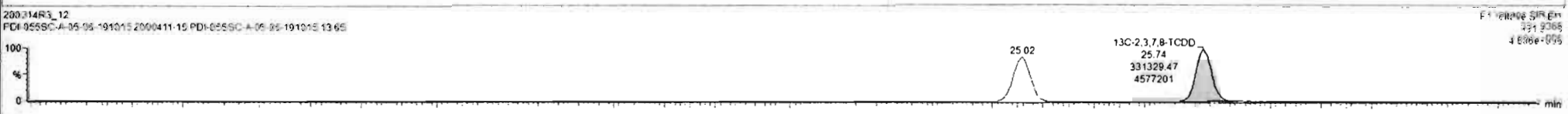
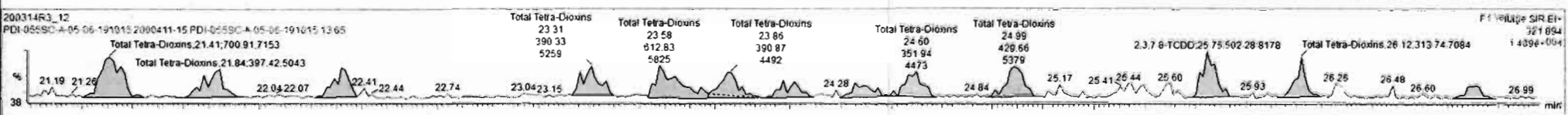
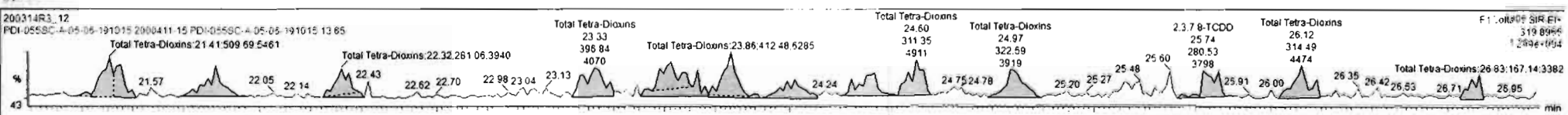


200314R3\_12



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9635	10.168			1.54		0.119	2.29
40 Total Penta-Dioxins				0.9212	10.108			2.49		0.197	2.99

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Tetra-Dioxins	21.41	5.097e2	7.009e2	0.73	NO	0.31874	0.31874
2 Total Tetra-Dioxins	21.83	2.948e2	3.974e2	0.74	NO	0.18224	0.18224
3 Total Tetra-Dioxins	22.32	2.811e2	3.567e2	0.79	NO	0.16791	0.16791
4 Total Tetra-Dioxins	23.33	3.958e2	3.903e2	1.02	YES	0.18190	0.00000
5 Total Tetra-Dioxins	23.62	6.090e2	6.128e2	0.99	YES	0.28559	0.00000
6 Total Tetra-Dioxins	23.86	4.125e2	3.909e2	1.06	YES	0.18215	0.00000
7 Total Tetra-Dioxins	24.12	2.499e2	2.305e2	1.06	YES	0.10743	0.00000
8 Total Tetra-Dioxins	24.43	2.554e2	2.112e2	1.21	YES	0.096407	0.00000
9 Total Tetra-Dioxins	24.80	3.113e2	3.519e2	0.68	NO	0.17464	0.17464
10 Total Tetra-Dioxins	24.97	3.226e2	4.297e2	0.75	NO	0.19606	0.19606
11 2,3,7,8-TCDD	25.74	2.865e2	5.023e2	0.56	YES	0.16978	0.00000
12 Total Tetra-Dioxins	26.12	3.145e2	3.137e2	1.00	YES	0.14621	0.00000
13 Total Tetra-Dioxins	26.63	1.671e2	1.640e2	1.02	YES	0.076420	0.00000



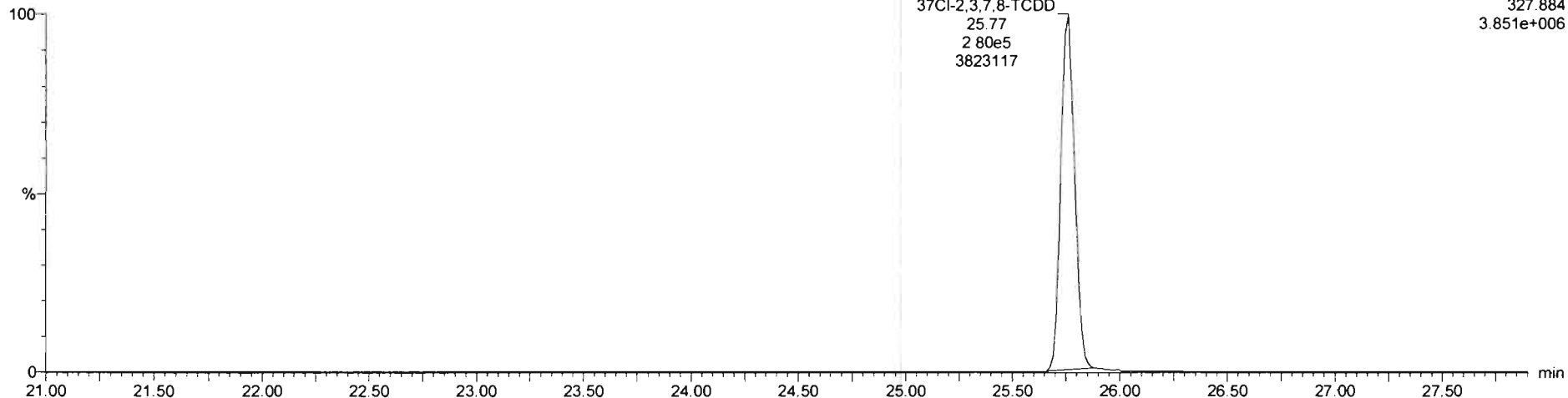
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Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_12, Date: 15-Mar-2020, Time: 08:01:57, ID: 2000411-15 PDI-055SC-A-05-06-191015 13.65, Description: PDI-055SC-A-05-06-191015

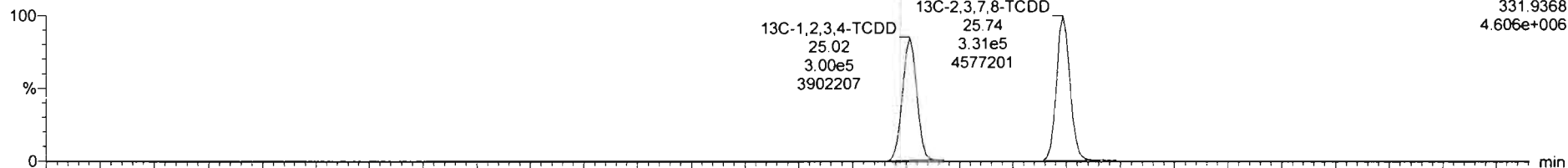
37Cl-2,3,7,8-TCDD

200314R3\_12

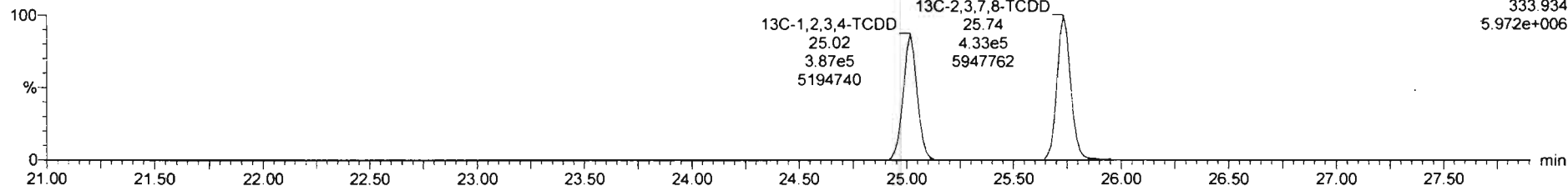


13C-1,2,3,4-TCDD

200314R3\_12



200314R3\_12



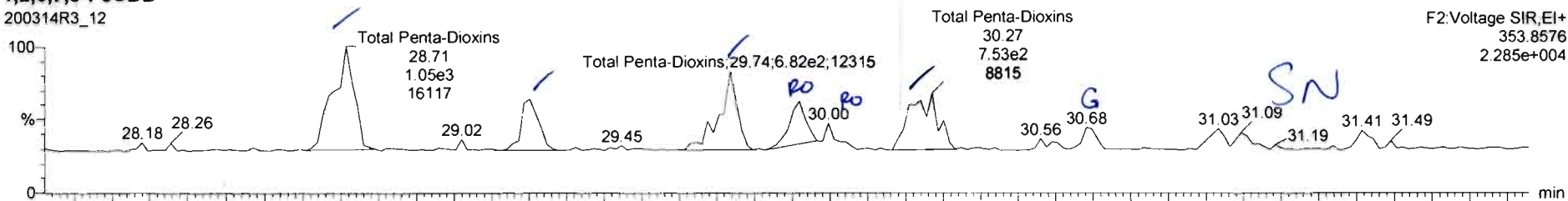
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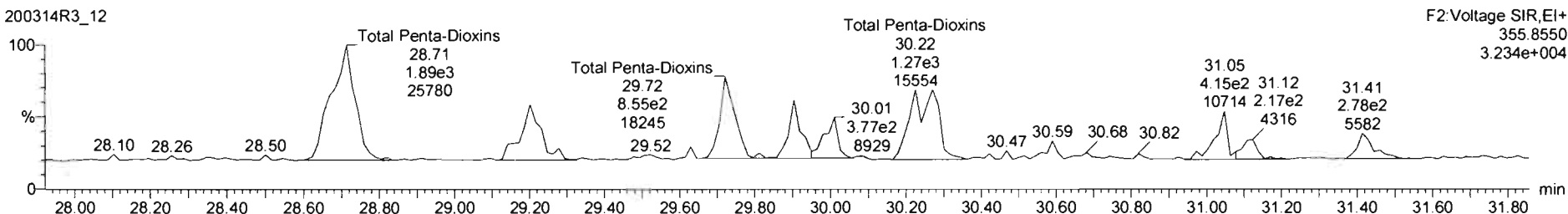
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1,2,3,7,8-PeCDD

200314R3\_12

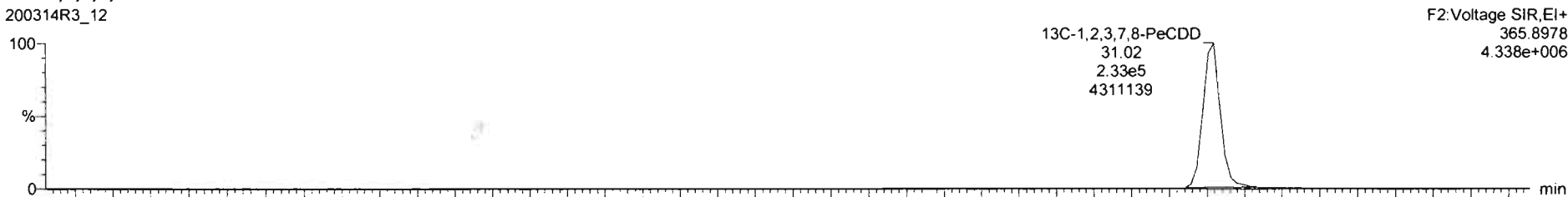


200314R3\_12

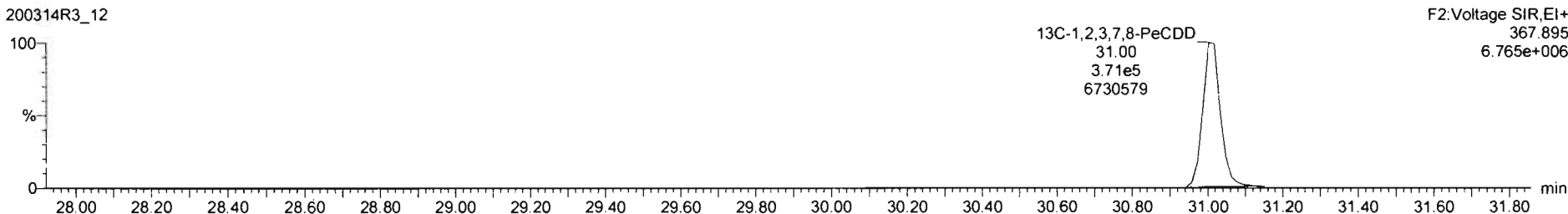


13C-1,2,3,7,8-PeCDD

200314R3\_12

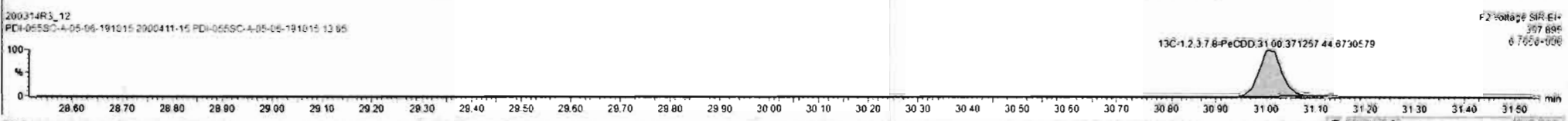
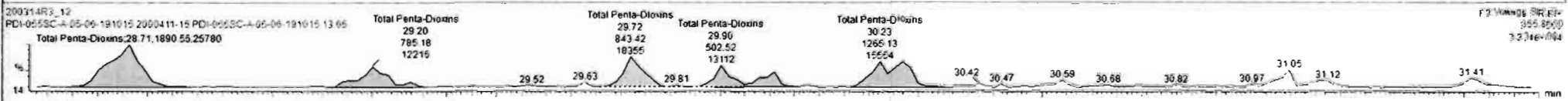
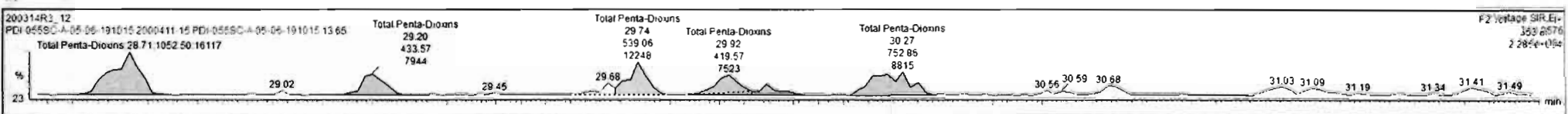


200314R3\_12



Name	Resp	RA	n/y	RRF	w/wal	RT	RRT	Conc	%Rec	DL	EMPC
40 Total Penta-Dioxins				0.8212	10.108			2.68		0.197	3.12
41 Total Hexa-Dioxins				0.9844	10.108			22.6		0.122	24.2
42 Total Hepta-Dioxins				1.0061	10.108			209		0.617	209
43 Total Tetra-Furans				0.9154	10.108			5.19		0.127	7.61

Name	RT	m1 Reso	m2 Reso	RA	n/y	EMPC	Conc
1 Total Penta-Dioxins	28.71	1.053e3	1.891e3	0.56	NO	1.0469	1.0e69
2 Total Penta-Dioxins	29.20	4.336e2	7.852e2	0.55	NO	0.42353	0.43353
3 Total Penta-Dioxins	29.74	5.391e2	8.434e2	0.84	NO	0.49177	0.49177
4 Total Penta-Dioxins	29.92	4.196e2	5.025e2	0.83	YES	0.26137	0.00000
5 Total Penta-Dioxins	30.00	1.541e2	3.774e2	0.41	YES	0.14178	0.00000
6 Total Penta-Dioxins	30.27	7.529e2	1.265e3	0.60	NO	0.71763	0.71763



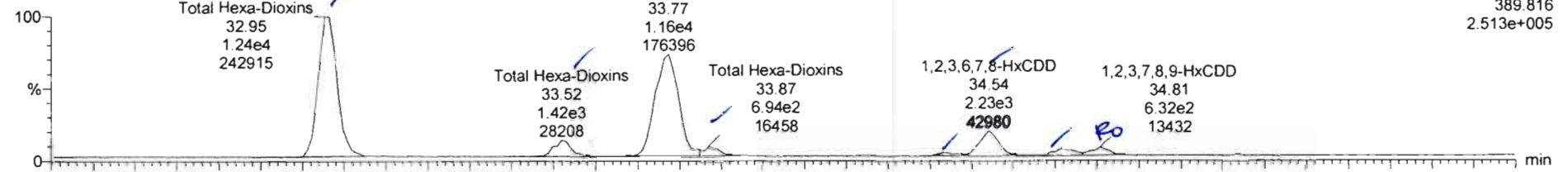
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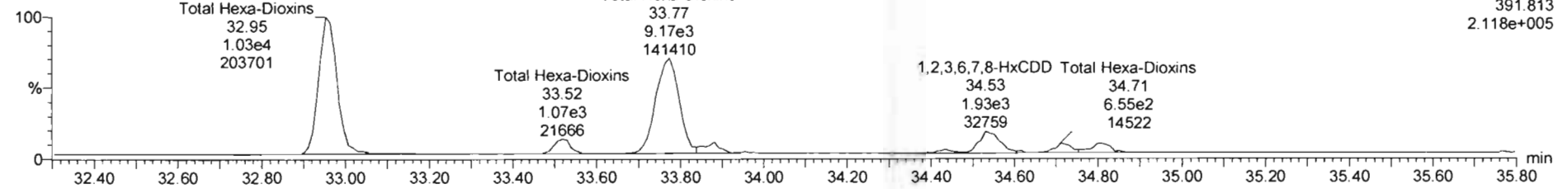
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1,2,3,4,7,8-HxCDD

200314R3\_12

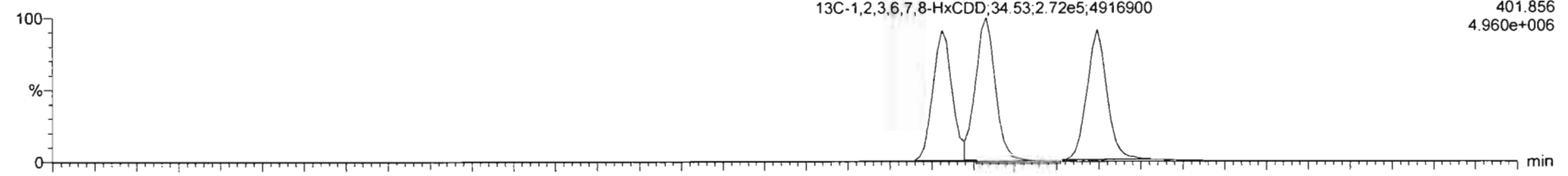


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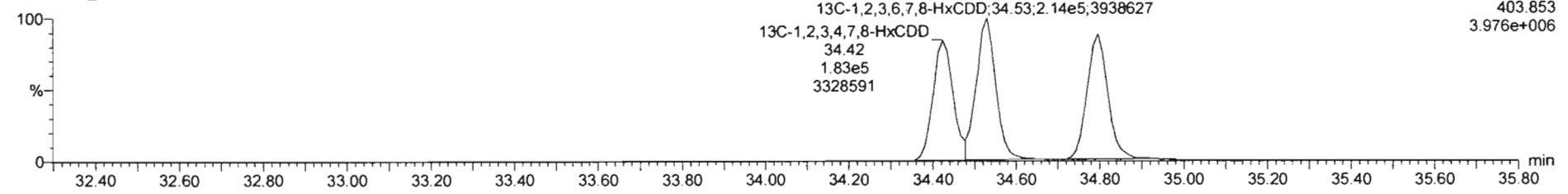


13C-1,2,3,4,7,8-HxCDD

200314R3\_12



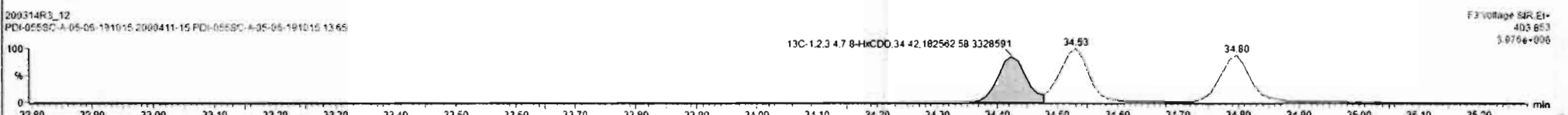
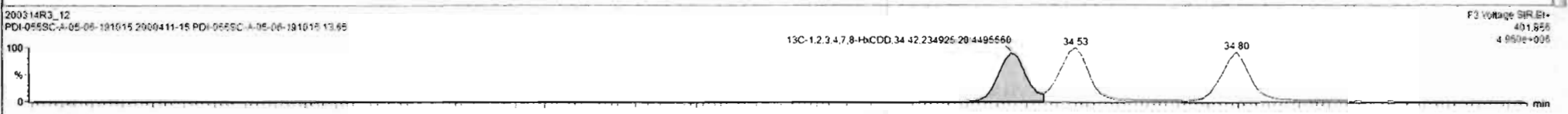
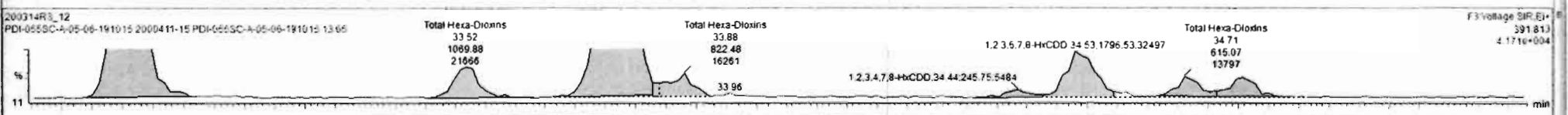
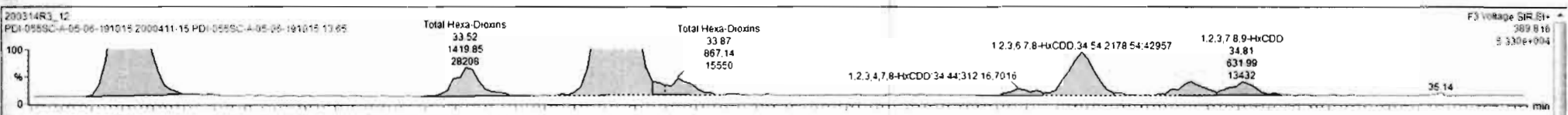
200314R3\_12





Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
40 Total Penta-Dioxins				0.9212	10.108			2.69		0.197	3.12
41 Total Hexa-Dioxins				0.9844	10.108			23.6		0.122	24.1
42 Total Hepta-Dioxins				1.0051	10.108			209		0.617	209
43 Total Tetra-Furans				0.9154	10.108			5.19		0.127	7.64

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hexa-Dioxins	32.95	1.244e4	1.027e4	1.21	NO	10.195	10.195
2 Total Hexa-Dioxins	33.52	1.420e3	1.070e3	1.33	NO	1.1176	1.1176
3 Total Hexa-Dioxins	33.77	1.124e4	8.967e3	1.25	NO	9.0689	9.0689
4 Total Hexa-Dioxins	33.87	6.671e2	6.225e2	1.05	NO	0.75644	0.75644
5 1,2,3,4,7,8-HxCDD	34.44	3.122e2	2.458e2	1.27	NO	0.23347	0.23347
6 1,2,3,6,7,8-HxCDD	34.54	2.179e3	1.797e3	1.21	NO	1.6457	1.6457
7 Total Hexa-Dioxins	34.72	6.802e2	6.151e2	1.11	NO	0.58140	0.58140
8 1,2,3,7,8,9-HxCDD	34.81	6.320e2	7.025e2	0.90	YES	0.53031	0.00000



Dataset: Untitled

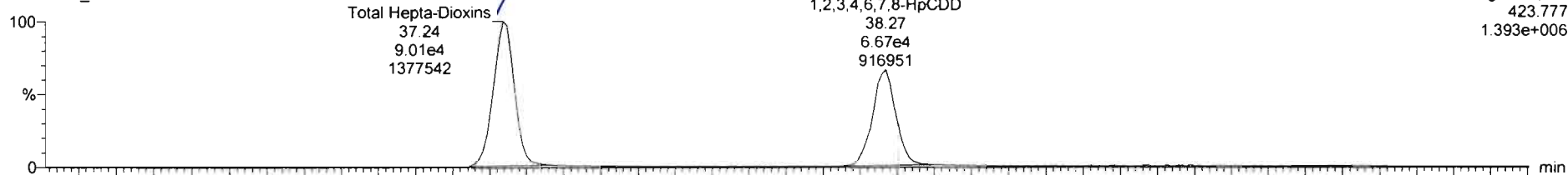
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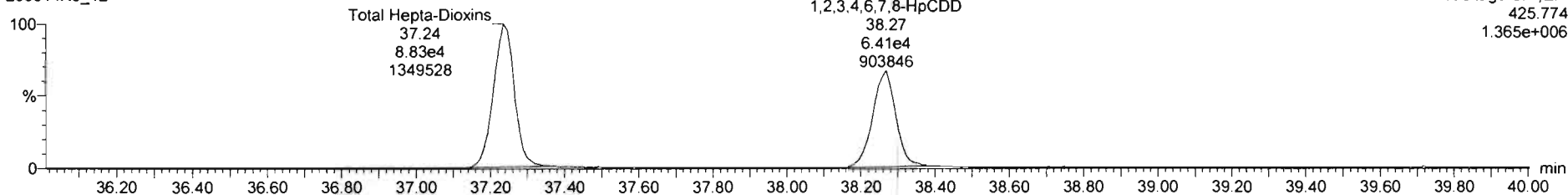
57; ID: 200314R3\_12, Date: 15-Mar-2020, Time: 08:01:57, ID: 2000411-15 PDI-055SC-A-05-06-191015 13.65, Description: PDI-055SC-A-05-06-191015

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

200314R3\_12

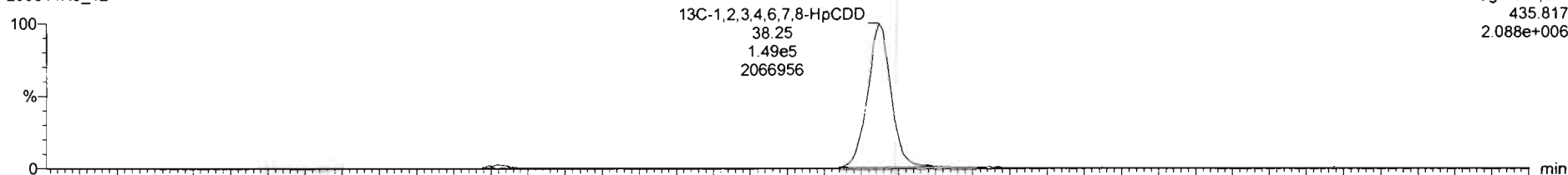


200314R3\_12

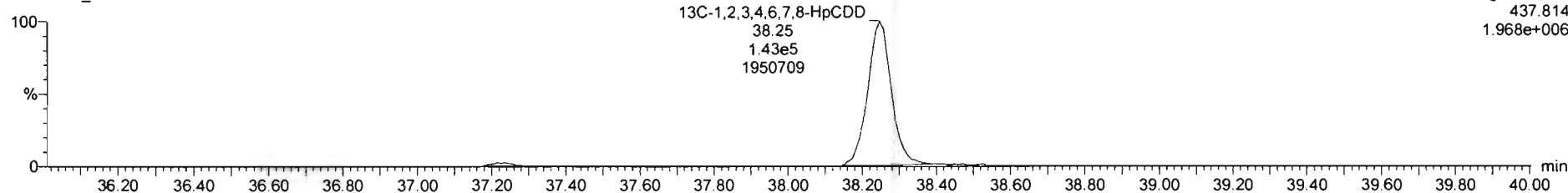


**13C-1,2,3,4,6,7,8-HpCDD**

200314R3\_12



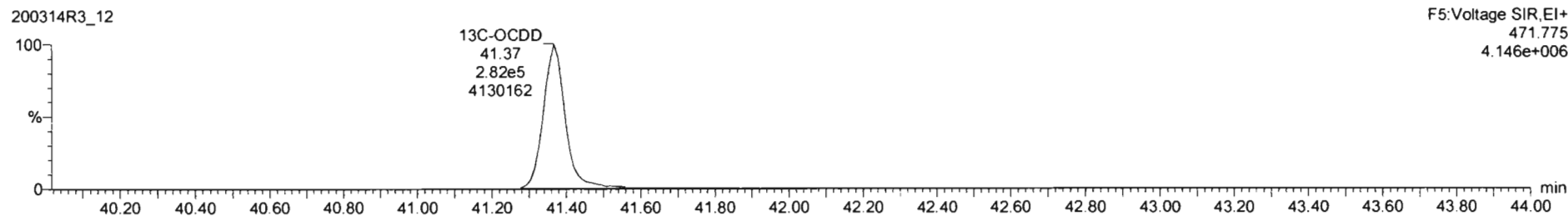
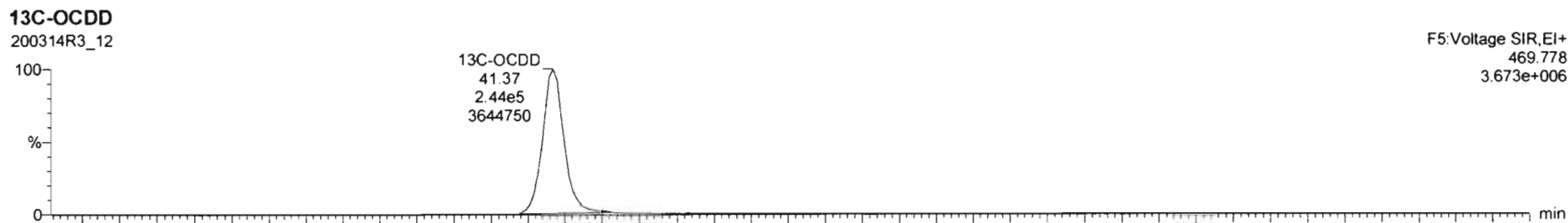
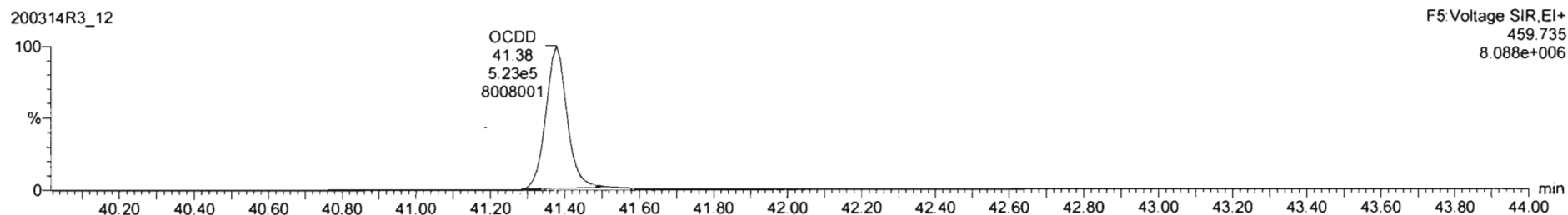
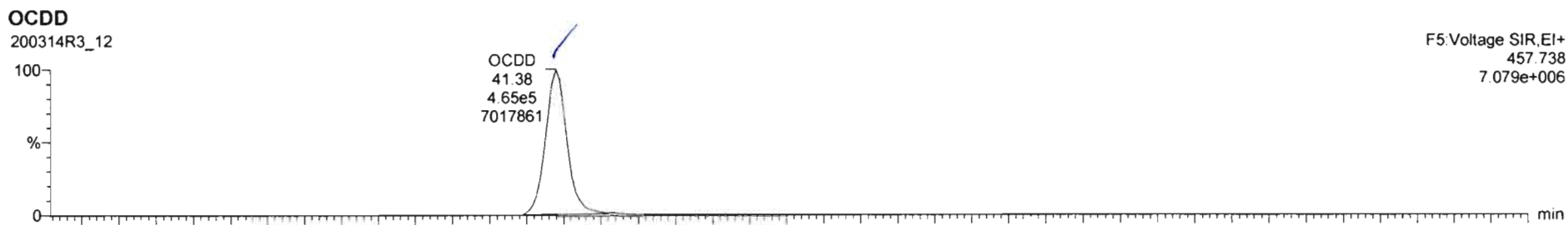
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Name: 200314R3\_12, Date: 15-Mar-2020, Time: 08:01:57, ID: 2000411-15 PDI-055SC-A-05-06-191015 13.65, Description: PDI-055SC-A-05-06-191015

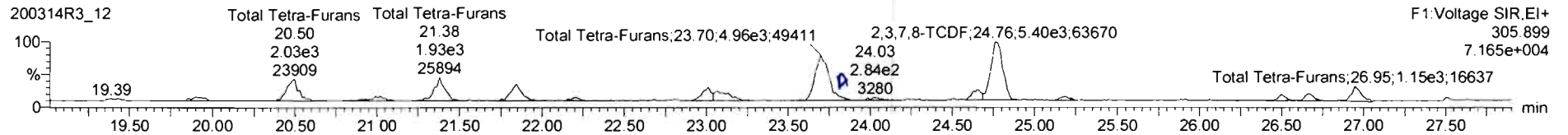
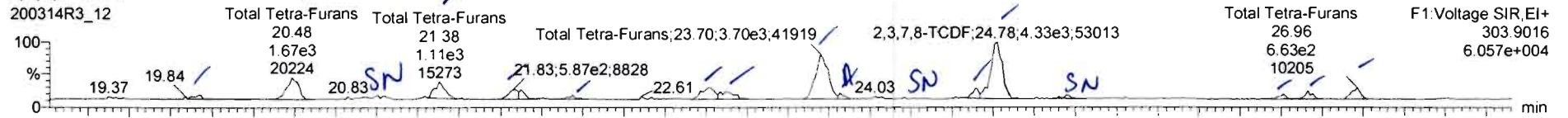


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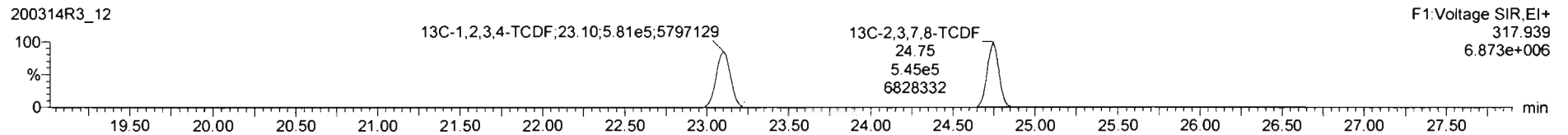
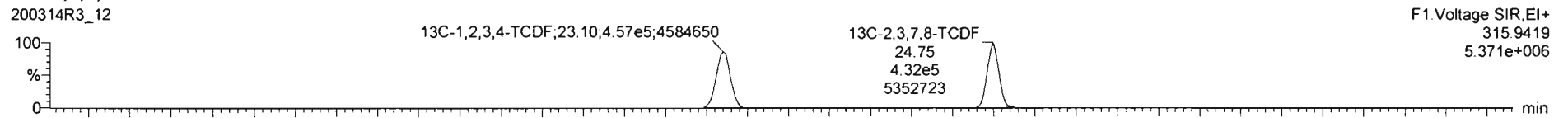
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Name: 200314R3\_12, Date: 15-Mar-2020, Time: 08:01:57, ID: 2000411-15 PDI-055SC-A-05-06-191015 13.65, Description: PDI-055SC-A-05-06-191015

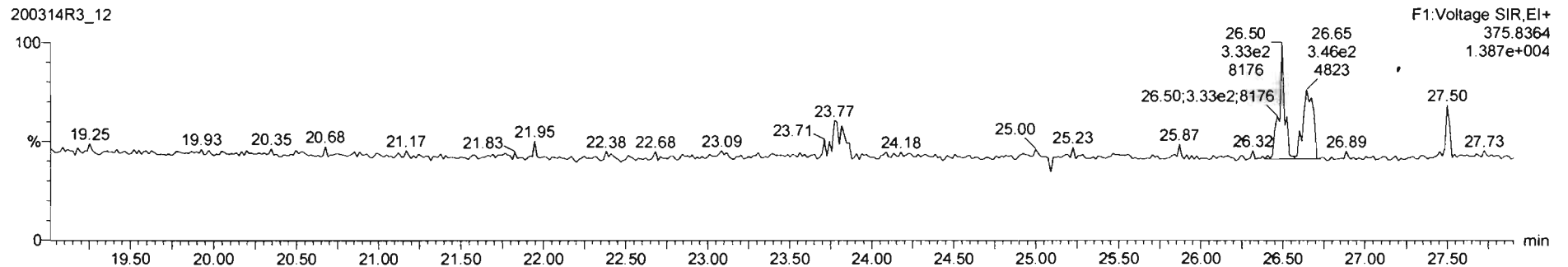
**2,3,7,8-TCDF**



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



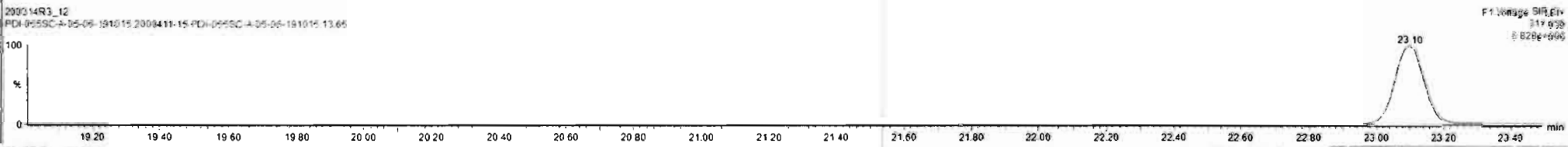
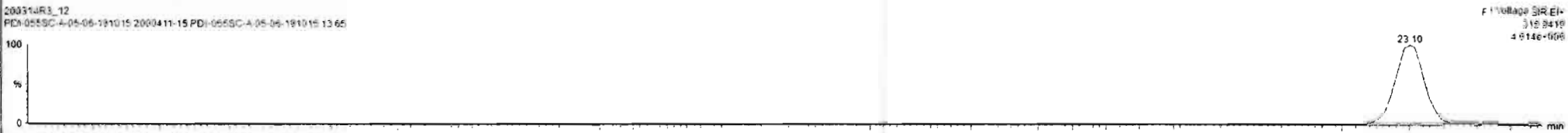
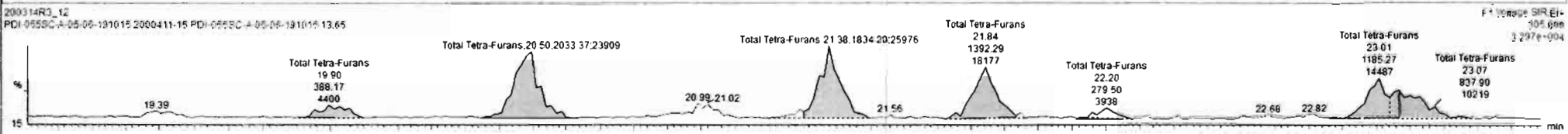
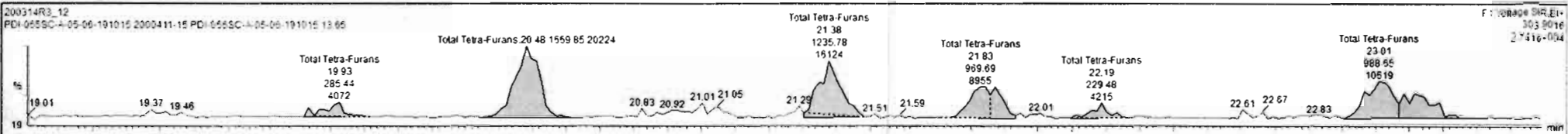
**DPE1**



200314R3\_12 - 2000411-15 PDI-055SC-A-05-06-191015 13.65 - PDI-055SC-A-05-06-191015

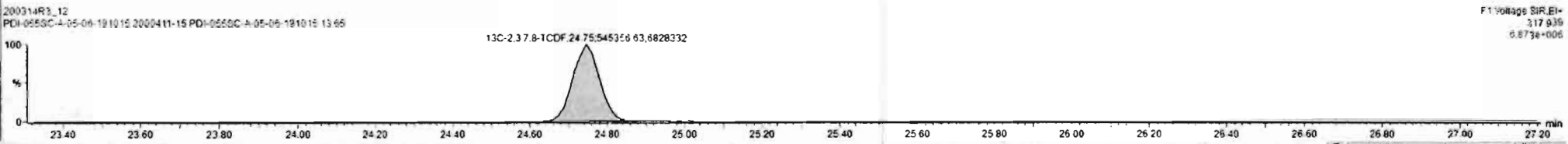
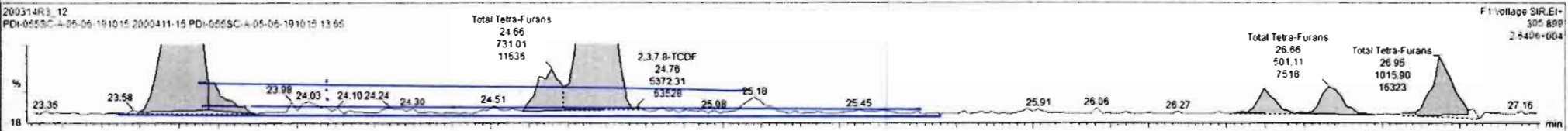
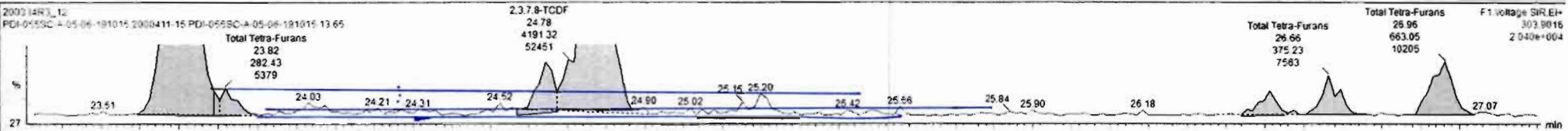
Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc	%Rec	DL	EMPC
40 Total Penta-Dioxins				0.9212	10.106			2.69		0.197	3.12
41 Total Hexa-Dioxins				0.9644	10.106			23.6		0.122	24.1
42 Total Hepta-Dioxins				1.0061	10.106			209		0.617	209
43 Total Tetra-Furans				0.9154	10.106			7.47		0.127	6.15

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Tetra-Furans	19.93	2.854e2	3.882e2	0.74	NO	0.14895	0.14895
2 Total Tetra-Furans	20.48	1.670e3	2.033e3	0.62	NO	0.81887	0.81887
3 Total Tetra-Furans	21.38	1.236e3	1.634e3	0.67	NO	0.67685	0.67685
4 Total Tetra-Furans	21.83	9.697e2	1.392e3	0.70	NO	0.52229	0.52229
5 Total Tetra-Furans	22.19	2.295e2	2.795e2	0.62	NO	0.11255	0.11255
6 Total Tetra-Furans	23.01	9.686e2	1.185e3	0.83	NO	0.48071	0.48071
7 Total Tetra-Furans	23.12	7.039e2	8.379e2	0.84	NO	0.34093	0.34093



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
40 Total Penta-Dioxins				0.9212	10.108			2.69	0.197	3.12	
41 Total Hexa-Dioxins				0.9844	10.168			23.8	0.122	24.1	
42 Total Hepta-Dioxins				1.0061	10.168			209	0.617	209	
43 Total Tetra-Furans				0.9154	10.100			7.741	0.1271	8.08	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
8 Total Tetra-Furans	23.70	3.676e3	4.363e3	0.84	NO	1.7777	1.7777
9 Total Tetra-Furans	23.82	2.824e2	3.727e2	0.78	NO	0.14487	0.14487
10 Total Tetra-Furans	24.64	4.925e2	7.310e2	0.67	NO	0.27055	0.27055
11 2,3,7,8-TCDF	24.78	4.191e3	5.372e3	0.78	NO	2.1148	2.1148
12 Total Tetra-Furans	26.51	2.617e2	3.517e2	0.74	NO	0.13584	0.13584
13 Total Tetra-Furans	26.66	3.752e2	5.011e2	0.75	NO	0.19378	0.19378
14 Total Tetra-Furans	26.96	6.630e2	1.016e3	0.65	YES	0.33703	0.00000



Dataset: Untitled

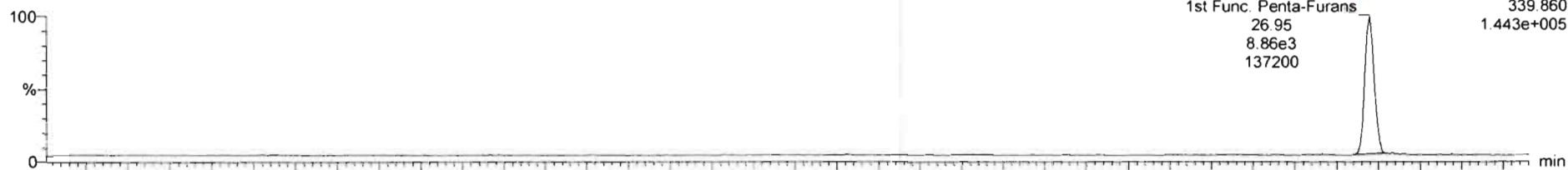
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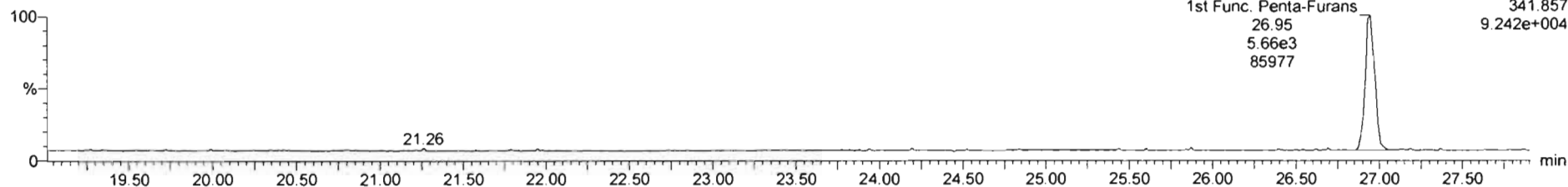
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1st Func. Penta-Furans

200314R3\_12

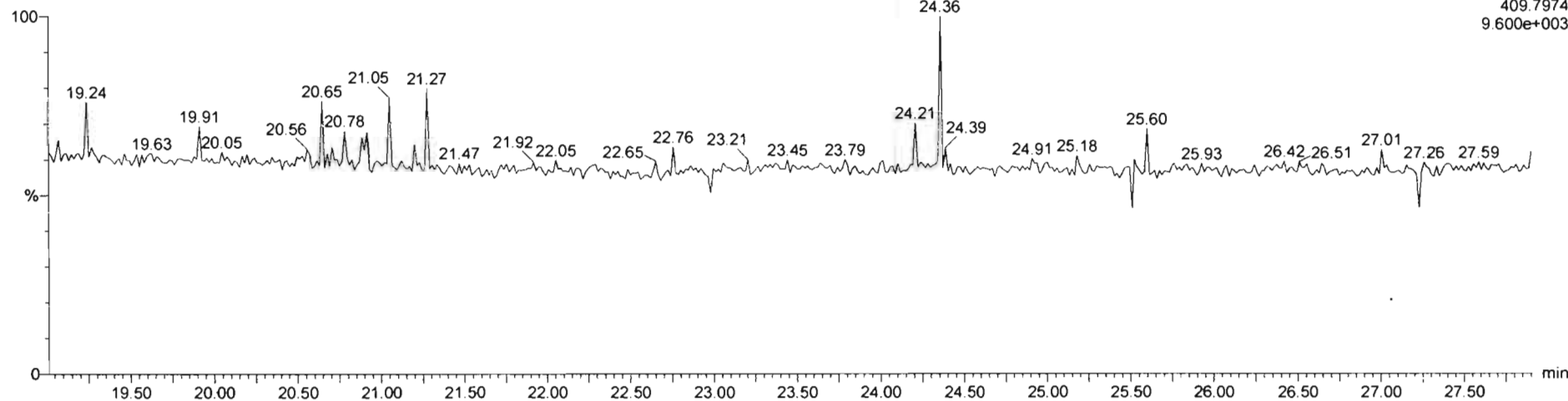


200314R3\_12



DPE6

200314R3\_12



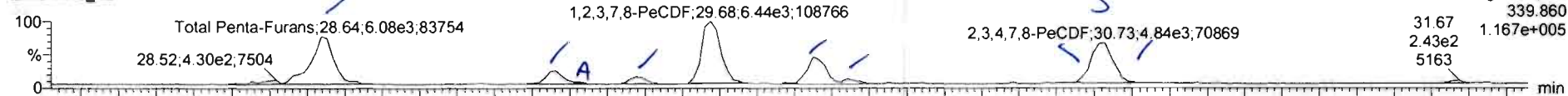
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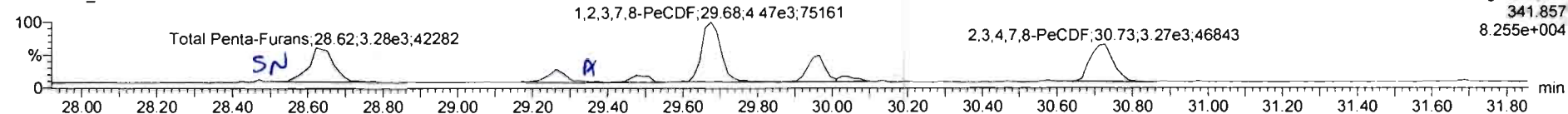
**1,2,3,7,8-PeCDF**

200314R3\_12



F2: Voltage SIR, EI+  
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31.67 1.167e+005  
2.43e2  
5163

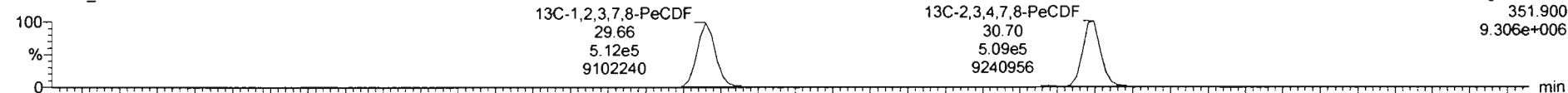
200314R3\_12



F2: Voltage SIR, EI+  
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8.255e+004

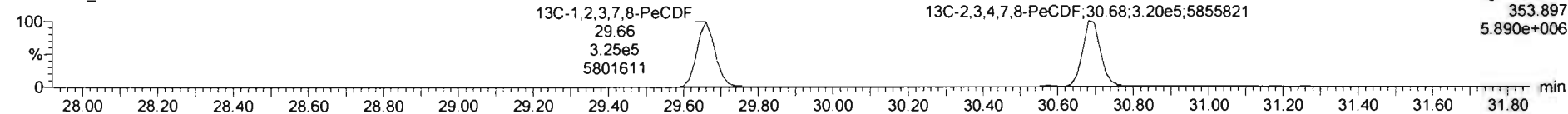
**13C-1,2,3,7,8-PeCDF**

200314R3\_12



F2: Voltage SIR, EI+  
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9.306e+006

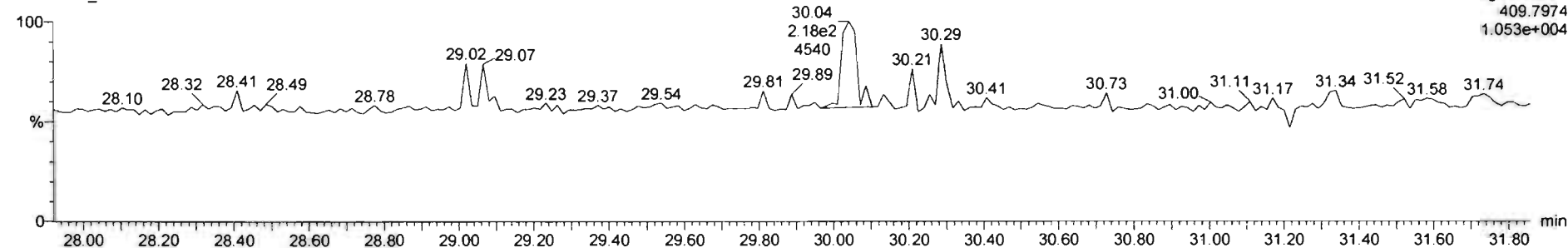
200314R3\_12



F2: Voltage SIR, EI+  
353.897  
5.890e+006

**DPE2**

200314R3\_12

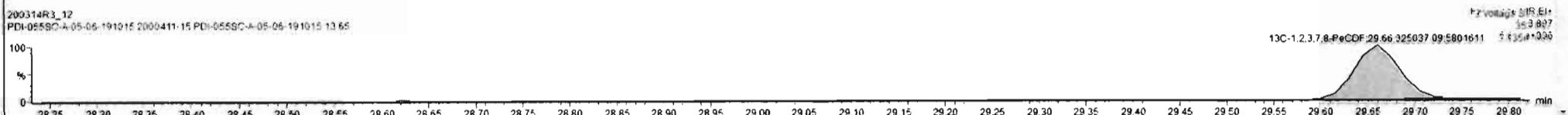
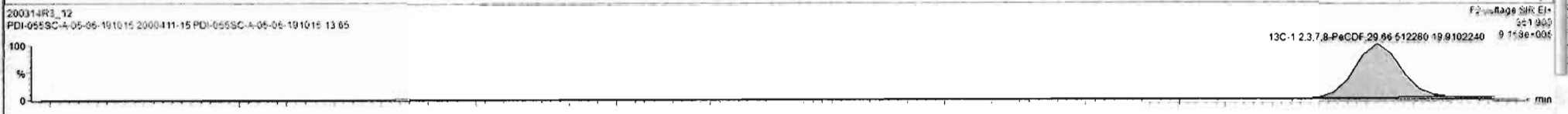
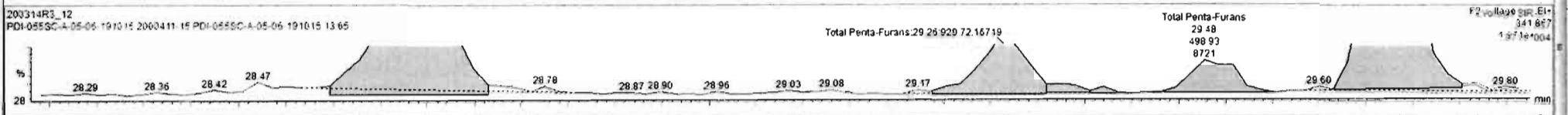
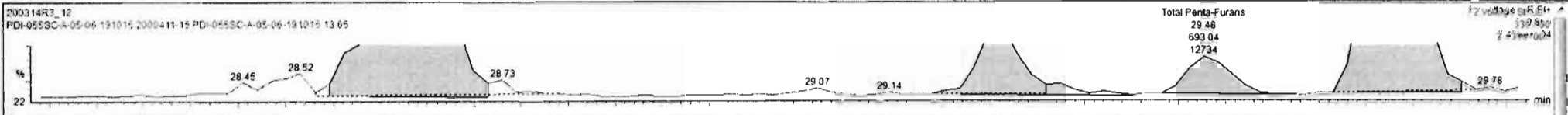


F2: Voltage SIR, EI+  
409.7974  
1.053e+004



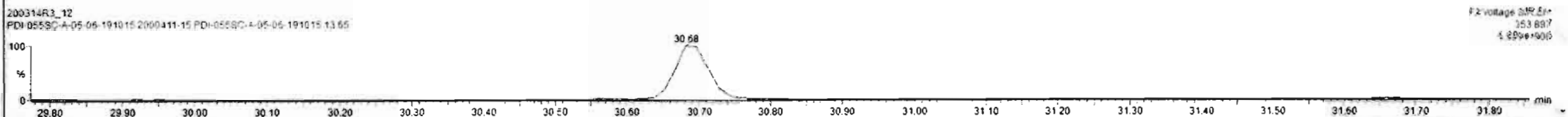
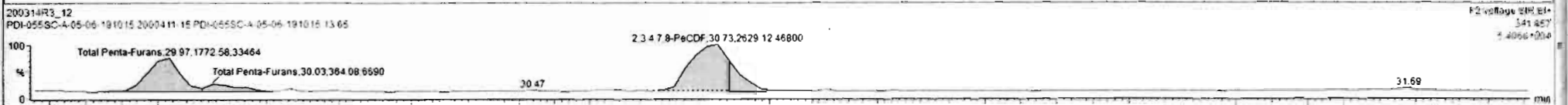
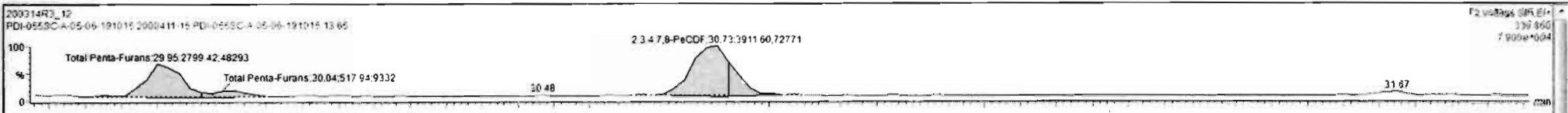
Name	Resp	RA	n/y	RRF	w/w%	RT	RRT	Conc	%Rec	DL	EMPC
44 1st Func. Penta-Furans				0.9594	10.108			2.59	0.0329	3.59	
45 Total Penta-Furans				0.9594	10.108			8.93	0.0767	0.08	
46 Total Hexa-Furans				1.0920	12.108			14.1	0.0800	14.6	
47 Total Hepta-Furans				1.6483	10.108			27.8	0.166	37.8	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Penta-Furans	28.54	5.689e3	3.404e3	1.78	NO	2.3254	2.3254
2 Total Penta-Furans	29.26	1.734e3	9.297e2	1.33	NO	0.52572	0.53572
3 Total Penta-Furans	29.32	1.660e2	1.156e2	1.44	NO	0.069701	0.069701
4 Total Penta-Furans	28.48	6.630e2	4.989e2	1.39	NO	0.29506	0.29506
5 1,2,3,7,8-PeCDF	29.66	6.466e3	4.304e3	1.50	NO	2.6532	2.6532
6 Total Penta-Furans	29.95	2.736e3	1.772e3	1.54	NO	1.1160	1.1160
7 Total Penta-Furans	30.04	3.805e2	3.841e2	1.05	YES	0.15498	0.00000
8 2,3,4,7,8-PeCDF	30.73	4.841e3	3.273e3	1.48	NO	1.9303	1.9303



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
44 1st Func. Penta-Furans				0.9594	10.108			3.59	0.0329	3.59	
45 Total Penta-Furans				0.8594	10.168			9.21	0.0767	9.21	
46 Total Hexa-Furans				1.9920	10.108			14.1	0.0860	14.6	
47 Total Hepta-Furans				1.0423	10.168			37.8	0.168	37.8	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Penta-Furans	28.64	5.985e3	3.404e3	1.78	NO	2.3254	2.3254
2 Total Penta-Furans	29.26	1.234e3	9.297e2	1.33	NO	0.53572	0.53572
3 Total Penta-Furans	29.32	1.680e2	1.156e2	1.44	NO	0.069701	0.069701
4 Total Penta-Furans	29.46	6.930e2	4.989e2	1.39	NO	0.29506	0.29506
5 1,2,3,7,8-PeCDF	29.68	6.466e3	4.304e3	1.50	NO	2.6532	2.6532
6 Total Penta-Furans	29.95	2.759e3	1.772e3	1.58	NO	1.1318	1.1318
7 Total Penta-Furans	30.04	5.179e2	3.641e2	1.42	NO	0.21834	0.21834
8 2,3,4,7,8-PeCDF	30.73	3.512e3	2.629e3	1.49	NO	1.5569	1.5569
9 Total Penta-Furans	30.74	1.036e3	6.732e2	1.54	NO	0.42369	0.42369



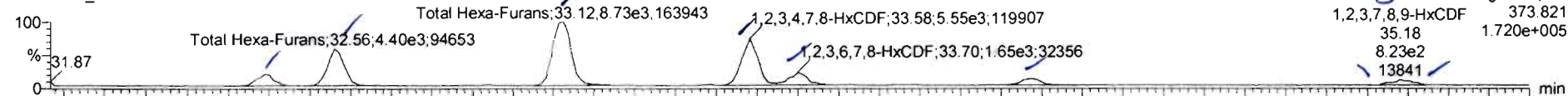
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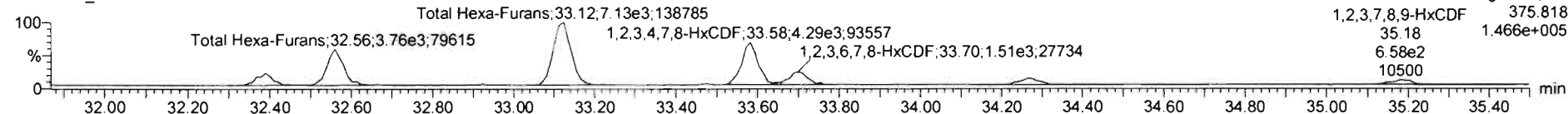
Name: 200314R3\_12, Date: 15-Mar-2020, Time: 08:01:57, ID: 2000411-15 PDI-055SC-A-05-06-191015 13.65, Description: PDI-055SC-A-05-06-191015

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

200314R3\_12

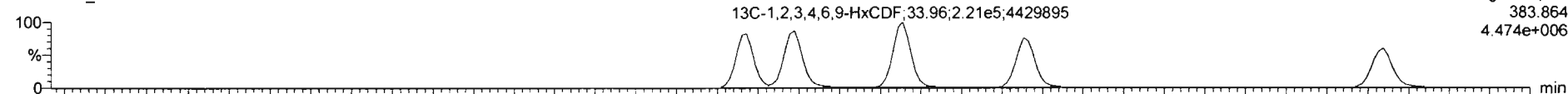


200314R3\_12

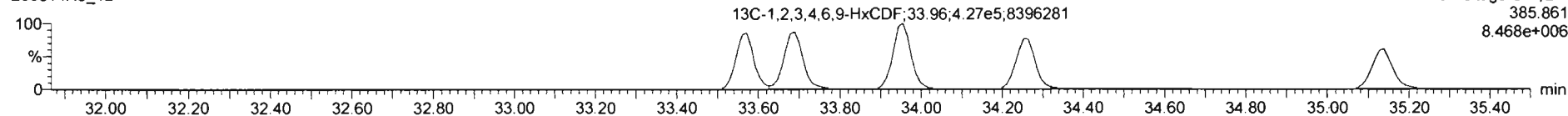


**13C-1,2,3,4,7,8-HxCDF**

200314R3\_12

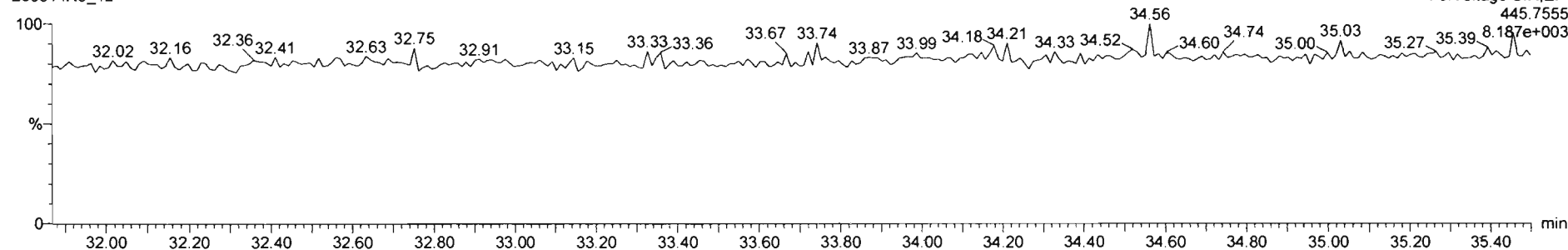


200314R3\_12



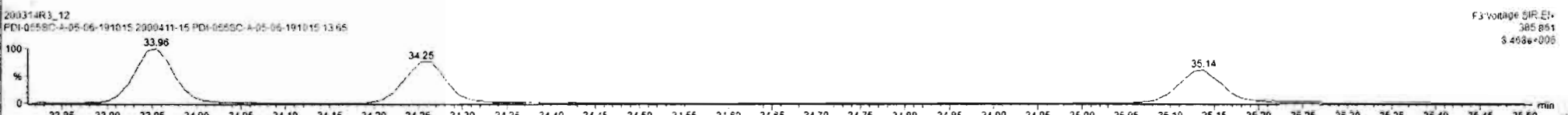
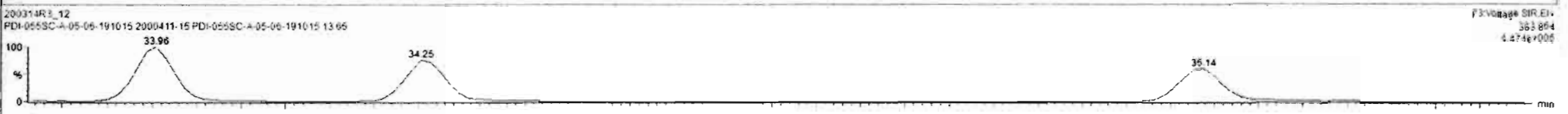
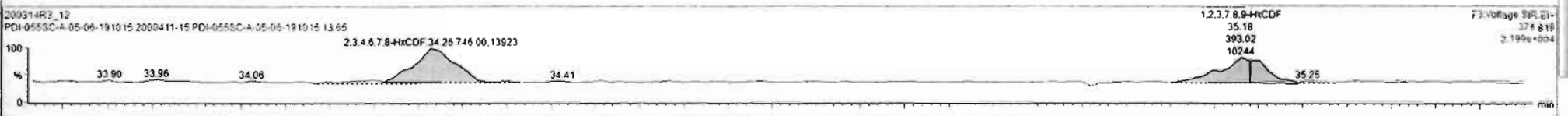
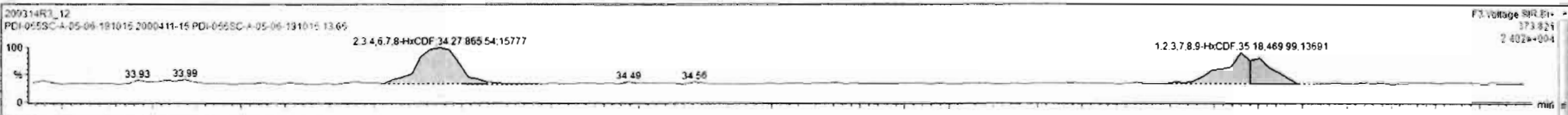
**DPE3**

200314R3\_12



Name	Resp	RA	ny	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
44 1st Func. Penta-Furans				0.9594	10.108			3.59		0.0329	3.59
45 Total Penta-Furans				0.9594	10.108			9.21		0.0767	9.21
46 Total Hexa-Furans				1.0920	10.108			14.5		0.0800	14.5
47 Total Hepta-Furans				1.0423	10.108			37.8		0.166	37.8

Name	RT	m1 Resp	m2 Resp	RA	ny	EMPC	Conc
1 Total Hexa-Furans	32.39	1.439e3	1.258e3	1.14	NO	0.91127	0.91127
2 Total Hexa-Furans	32.56	4.400e3	3.764e3	1.17	NO	2.7607	2.7607
3 Total Hexa-Furans	33.13	8.735e3	7.135e3	1.22	NO	5.3665	5.3665
4 1,2,3,4,7,8-HxCDF	33.58	5.547e3	4.290e3	1.29	NO	3.3798	3.3798
5 1,2,3,6,7,8-HxCDF	33.70	1.846e3	1.505e3	1.09	NO	1.0312	1.0312
6 2,3,4,6,7,8-HxCDF	34.27	8.655e2	7.460e2	1.16	NO	0.54598	0.54598
7 1,2,3,7,8,9-HxCDF	35.18	4.700e2	3.930e2	1.20	NO	0.36488	0.36488
8 Total Hexa-Furans	35.20	3.259e2	2.343e2	1.39	NO	0.18945	0.18945



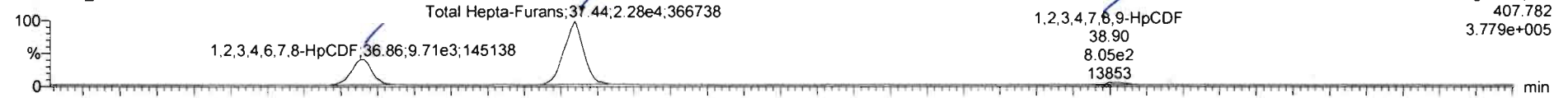
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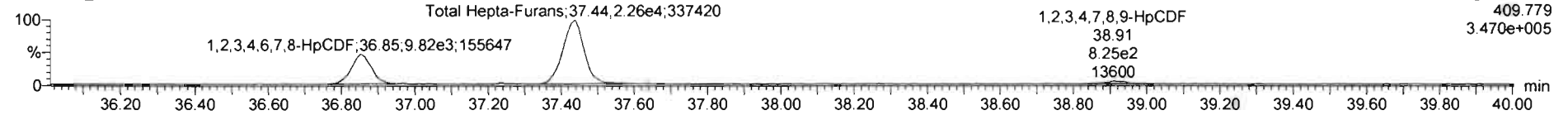
Name: 200314R3\_12, Date: 15-Mar-2020, Time: 08:01:57, ID: 2000411-15 PDI-055SC-A-05-06-191015 13.65, Description: PDI-055SC-A-05-06-191015

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

200314R3\_12

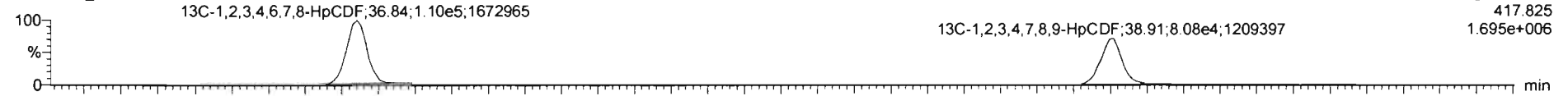


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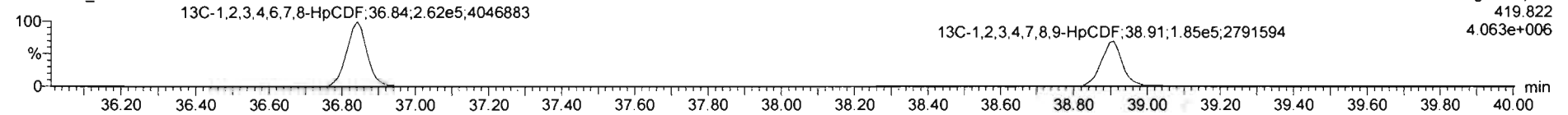


**13C-1,2,3,4,6,7,8-HpCDF**

200314R3\_12

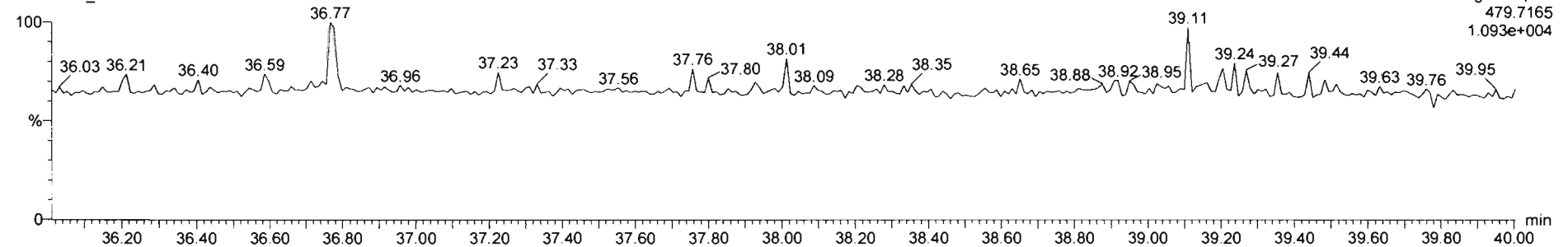


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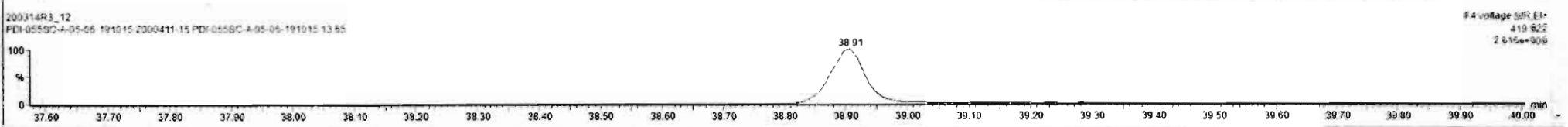
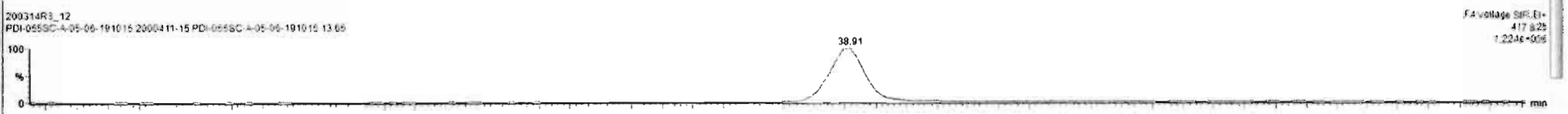
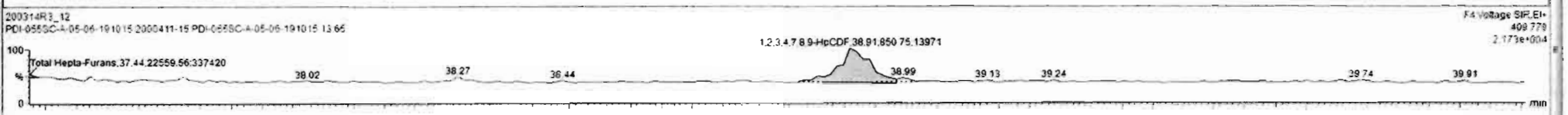
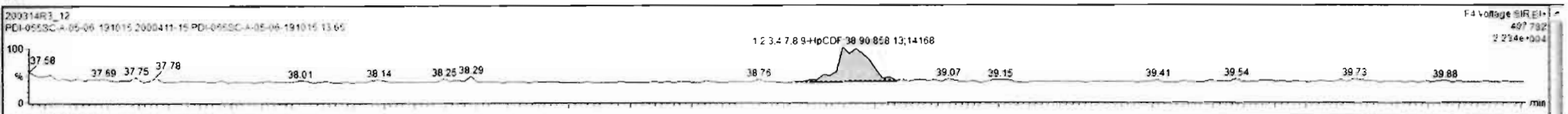
**DPE4**

200314R3\_12



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
44 1st Func Penta-Furans				0.9594	10 108			7.59	0.0329	3.59	
45 Total Penta-Furans				0.9594	10 108			9.21	0.0767	8.21	
46 Total Hexa-Furans				1.0920	10 108			14.5	0.0800	14.5	
47 Total Hepta-Furans				1.8483	10 108			37.8	0.168	37.8	

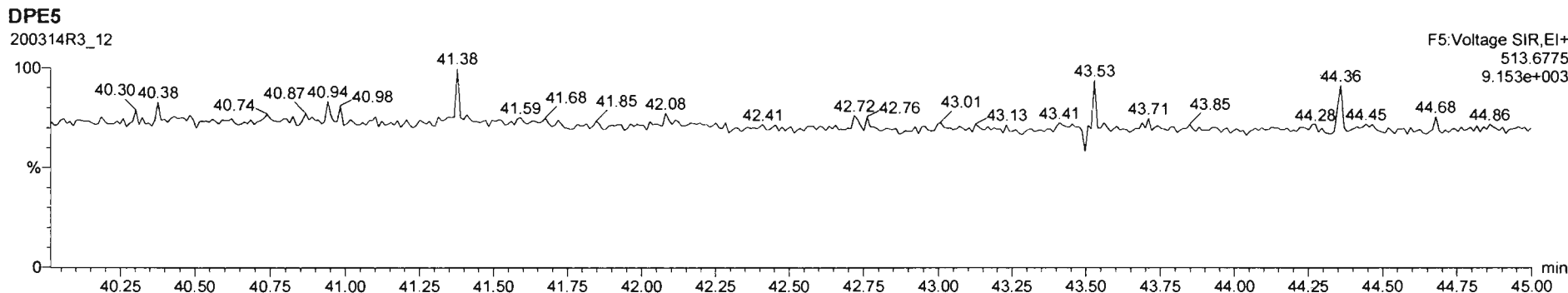
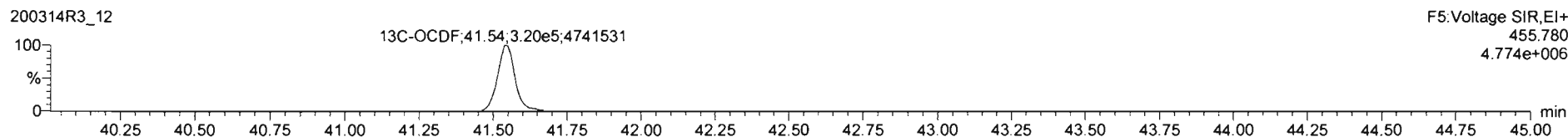
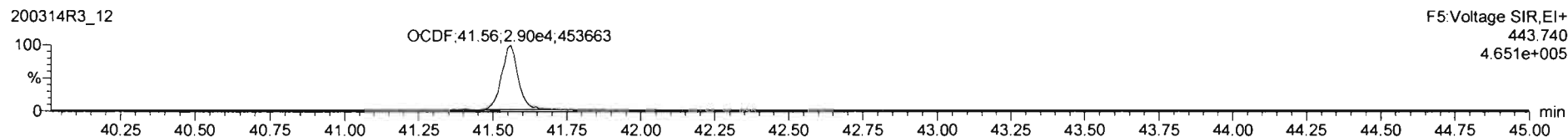
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 1,2,3,4,6,7,8-HpCDF	36.66	9.707e3	9.624e3	0.99	HO	9.9219	9.9219
2 Total Hepta-Furans	37.44	2.282e4	2.256e4	1.01	HO	26.870	26.870
3 1,2,3,4,7,8,9-HpCDF	38.90	8.581e2	8.508e2	1.01	HO	1.0503	1.0508



Dataset: Untitled

Last Altered: Sunday, March 15, 2020 09:30:20 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_12, Date: 15-Mar-2020, Time: 08:01:57, ID: 2000411-15 PDI-055SC-A-05-06-191015 13.65, Description: PDI-055SC-A-05-06-191015



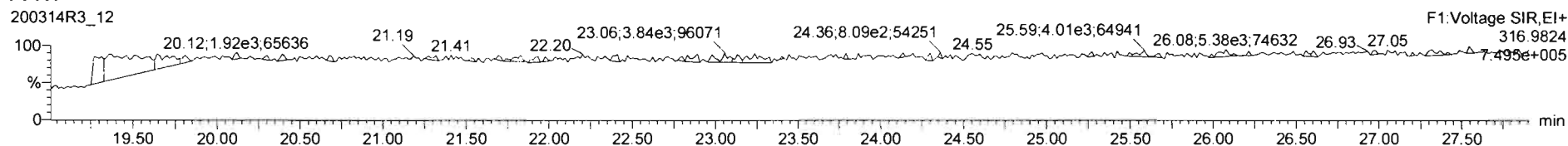
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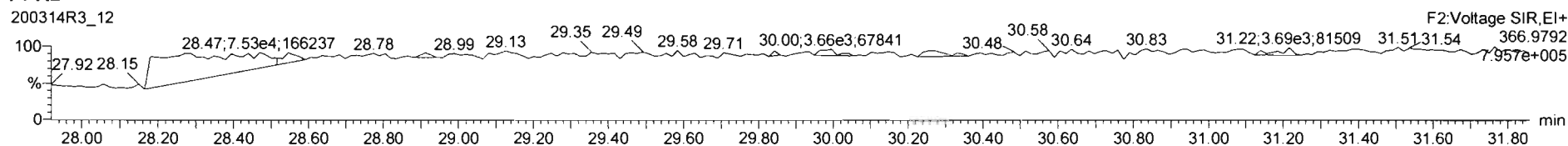
Printed: Sunday, March 15, 2020 09:31:49 Pacific Daylight Time

Name: 200314R3\_12, Date: 15-Mar-2020, Time: 08:01:57, ID: 2000411-15 PDI-055SC-A-05-06-191015 13.65, Description: PDI-055SC-A-05-06-191015

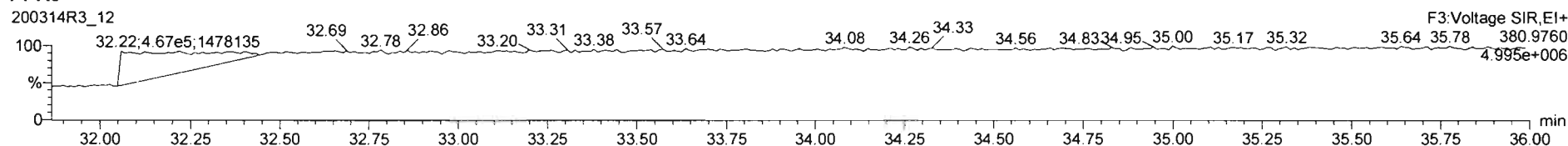
PFK1



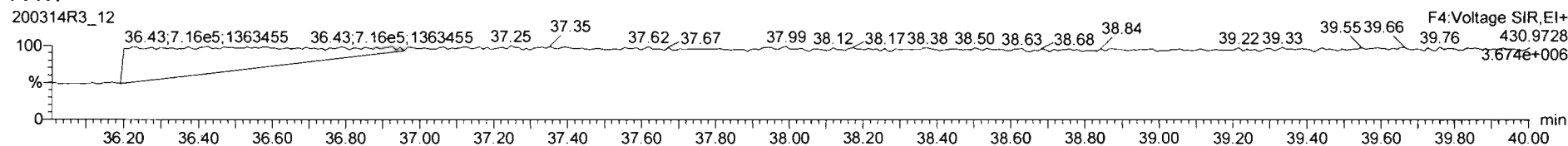
PFK2



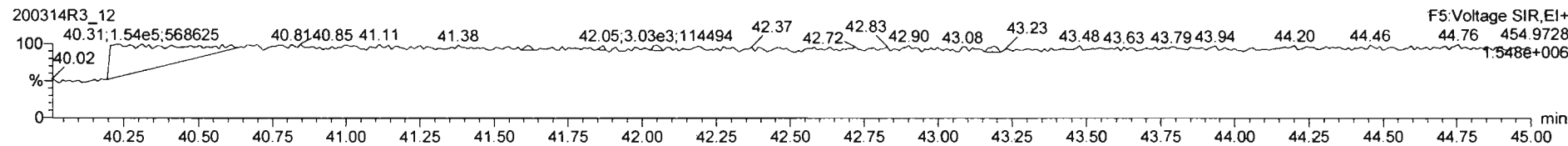
PFK3



PFK4



PFK5





Dataset: U:\VG12.PRO\Results\200314R3\200314R3-13B.qld

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*GRB 03/15/2020*

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*MLW 3/15/2020*

Name: 200314R3\_13, Date: 15-Mar-2020, Time: 08:49:30, ID: 2000411-16 PDI-055SC-A-06-07-191015 13.53, Description: PDI-055SC-A-06-07-191015

#	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	0.983	10.0725	26.736		1.001				0.0731	
2	2 1,2,3,7,8-PeCDD			NO	0.921	13.530	31.009		1.001				0.0730	
3	3 1,2,3,4,7,8-HxCDD			NO	1.13	13.530	34.423		1.000				0.0840	
4	4 1,2,3,6,7,8-HxCDD			NO	0.984	13.530	34.509		1.000				0.0896	
5	5 1,2,3,7,8,9-HxCDD			NO	0.967	13.530	34.796		1.000				0.0999	
6	6 1,2,3,4,6,7,8-HpCDD	2.59e3	0.99	NO	1.01	13.530	38.259	38.26	1.000	1.000	1.6527		0.160	1.65
7	7 OCDD	1.93e4	0.91	NO	1.05	13.530	41.379	41.39	1.000	1.000	11.639		0.134	11.6
8	8 2,3,7,8-TCDF				0.915	13.530	24.743		1.001				0.0263	
9	9 1,2,3,7,8-PeCDF	8.08e2	1.55	NO	0.959	13.530	29.666	29.66	1.001	1.001	0.20742		0.0643	0.207
10	10 2,3,4,7,8-PeCDF	3.20e2	1.63	NO	1.00	13.530	30.698	30.68	1.001	1.000	0.081243		0.0587	0.0812
11	11 1,2,3,4,7,8-HxCDF	1.33e3	1.02	YES	1.04	13.530	33.551	33.57	1.000	1.001	0.45853		0.0429	0.418
12	12 1,2,3,6,7,8-HxCDF	3.95e2	1.03	YES	1.01	13.530	33.678	33.69	1.000	1.001	0.13051		0.0437	0.120
13	13 2,3,4,6,7,8-HxCDF			NO	1.09	13.530	34.277		1.001				0.0463	
14	14 1,2,3,7,8,9-HxCDF			NO	1.03	13.530	35.127		1.000				0.0673	
15	15 1,2,3,4,6,7,8-HpCDF	6.08e2	0.92	NO	1.05	13.530	36.857	36.84	1.001	1.001	0.30086		0.0953	0.301
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.21	13.530	38.897		1.000				0.116	
17	17 OCDF	7.63e2	1.02	NO	0.947	13.530	41.560	41.56	1.000	1.000	0.42943		0.103	0.429
18	18 13C-2,3,7,8-TCDD	7.49e5	0.79	NO	1.18	13.530	25.704	25.70	1.029	1.029	212.58	107	0.305	
19	19 13C-1,2,3,7,8-PeCDD	5.76e5	0.63	NO	0.864	13.530	30.881	30.99	1.236	1.240	224.26	113	0.513	
20	20 13C-1,2,3,4,7,8-HxCDD	4.03e5	1.26	NO	0.754	13.530	34.406	34.41	1.014	1.014	191.99	96.7	0.441	
21	21 13C-1,2,3,6,7,8-HxCDD	4.90e5	1.26	NO	0.925	13.530	34.514	34.51	1.017	1.017	190.16	95.8	0.359	
22	22 13C-1,2,3,7,8,9-HxCDD	4.36e5	1.24	NO	0.829	13.530	34.776	34.79	1.025	1.025	188.75	95.1	0.401	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.10e5	1.05	NO	0.598	13.530	38.230	38.25	1.127	1.127	185.90	93.6	0.617	
24	24 13C-OCDD	6.27e5	0.92	NO	0.571	13.530	41.376	41.38	1.219	1.219	394.13	99.3	0.482	
25	25 13C-2,3,7,8-TCDF	9.44e5	0.77	NO	1.09	13.530	24.727	24.72	0.990	0.989	193.79	97.6	0.430	
26	26 13C-1,2,3,7,8-PeCDF	8.06e5	1.61	NO	0.876	13.530	29.555	29.65	1.183	1.186	205.64	104	0.597	
27	27 13C-2,3,4,7,8-PeCDF	7.79e5	1.58	NO	0.844	13.530	30.564	30.67	1.223	1.227	206.50	104	0.621	
28	28 13C-1,2,3,4,7,8-HxCDF	5.56e5	0.51	NO	1.00	13.530	33.554	33.55	0.989	0.989	199.49	100	0.565	
29	29 13C-1,2,3,6,7,8-HxCDF	5.93e5	0.51	NO	1.12	13.530	33.663	33.67	0.992	0.992	190.52	96.0	0.505	
30	30 13C-2,3,4,6,7,8-HxCDF	5.45e5	0.51	NO	1.04	13.530	34.243	34.24	1.009	1.009	189.17	95.3	0.545	
31	31 13C-1,2,3,7,8,9-HxCDF	4.53e5	0.51	NO	0.873	13.530	35.115	35.13	1.035	1.035	186.16	93.8	0.647	

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-13B.qld

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Name: 200314R3\_13, Date: 15-Mar-2020, Time: 08:49:30, ID: 2000411-16 PDI-055SC-A-06-07-191015 13.53, Description: PDI-055SC-A-06-07-191015

CRB 03/15/2020

#	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	3.83e5	0.43	NO	0.771	13.530	36.829	36.82	1.085	1.085	178.23	89.8	0.462	
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.67e5	0.42	NO	0.519	13.530	38.912	38.90	1.147	1.146	184.71	93.0	0.685	
34	34 13C-OCDF	7.45e5	0.89	NO	0.696	13.530	41.556	41.56	1.225	1.225	384.15	96.8	0.596	
35	35 37Cl-2,3,7,8-TCDD	2.76e5			1.17	13.530	25.714	25.74	1.029	1.030	79.079	99.6	0.111	
36	36 13C-1,2,3,4-TCDD	5.90e5	0.80	NO	1.00	13.530	25.050	24.99	1.000	1.000	198.52	100	0.361	
37	37 13C-1,2,3,4-TCDF	8.88e5	0.79	NO	1.00	13.530	23.190	23.07	1.000	1.000	198.52	100	0.469	
38	38 13C-1,2,3,4,6,9-HxCDF	5.53e5	0.51	NO	1.00	13.530	33.880	33.93	1.000	1.000	198.52	100	0.565	
39	39 Total Tetra-Dioxins				0.983	13.530	24.620		0.000		0.23921		0.0731	0.239
40	40 Total Penta-Dioxins				0.921	13.530	29.960		0.000		0.13753		0.0730	0.138
41	41 Total Hexa-Dioxins				0.984	13.530	33.635		0.000		1.3730		0.0945	1.37
42	42 Total Hepta-Dioxins				1.01	13.530	37.640		0.000		4.1750		0.160	4.18
43	43 Total Tetra-Furans				0.915	13.530	23.610		0.000				0.0263	
44	44 1st Func. Penta-Furans				0.959	13.530	27.090		0.000				0.0170	
45	45 Total Penta-Furans				0.959	13.530	29.275		0.000		0.28866		0.0628	0.289
46	46 Total Hexa-Furans				1.09	13.530	33.555		0.000		0.00000		0.0217	0.616
47	47 Total Hepta-Furans				1.05	13.530	37.835		0.000		0.60444		0.111	0.604

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-13B.qld

Last Altered: Sunday, March 15, 2020 4:30:45 PM Pacific Daylight Time

Printed: Sunday, March 15, 2020 4:31:08 PM Pacific Daylight Time

Method: Untitled 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R3\_13, Date: 15-Mar-2020, Time: 08:49:30, ID: 2000411-16 PDI-055SC-A-06-07-191015 13.53, Description: PDI-055SC-A-06-07-191015

**Tetra-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	23.30	5.470e3	7.995e3	4.042e2	4.829e2	0.84	NO	8.870e2	0.23921	0.23921	0.0731

**Penta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	29.19	3.264e3	6.206e3	1.388e2	2.290e2	0.61	NO	3.679e2	0.13753	0.13753	0.0730

**Hexa-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.94	2.444e4	2.058e4	1.093e3	8.735e2	1.25	NO	1.966e3	0.89521	0.89521	0.0945
2	Total Hexa-Dioxins	33.75	9.210e3	1.009e4	5.446e2	5.048e2	1.08	NO	1.049e3	0.47776	0.47776	0.0945

**Hepta-Dioxins**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.22	2.882e4	3.206e4	1.968e3	1.991e3	0.99	NO	3.958e3	2.5223	2.5223	0.160
2	1,2,3,4,6,7,8-HpCDD	38.26	1.755e4	1.765e4	1.289e3	1.304e3	0.99	NO	2.593e3	1.6527	1.6527	0.160

**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\200314R3\200314R3-13B.qld

Last Altered: Sunday, March 15, 2020 4:30:45 PM Pacific Daylight Time

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Name: 200314R3\_13, Date: 15-Mar-2020, Time: 08:49:30, ID: 2000411-16 PDI-055SC-A-06-07-191015 13.53, Description: PDI-055SC-A-06-07-191015

**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	29.66	1.216e4	5.788e3	4.903e2	3.173e2	1.55	NO	8.076e2	0.20742	0.20742	0.0643
2	2,3,4,7,8-PeCDF	30.68	3.659e3	3.010e3	1.982e2	1.216e2	1.63	NO	3.198e2	0.081243	0.081243	0.0587

**Hexa-Furans**

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.55	4.221e3	2.374e3	1.543e2	1.040e2	1.48	YES	0.000e0	0.00000	0.078938	0.0468
2	1,2,3,4,7,8-HxCDF	33.57	1.408e4	1.537e4	6.715e2	6.606e2	1.02	YES	1.332e3	0.00000	0.41756	0.0429
3	1,2,3,6,7,8-HxCDF	33.69	3.704e3	3.536e3	2.007e2	1.940e2	1.03	YES	3.947e2	0.00000	0.11988	0.0437

**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	36.84	5.620e3	4.391e3	2.915e2	3.161e2	0.92	NO	6.077e2	0.30086	0.30086	0.0953
2	Total Hepta-Furans	37.45	5.535e3	4.296e3	2.792e2	2.414e2	1.16	NO	5.206e2	0.30357	0.30357	0.111

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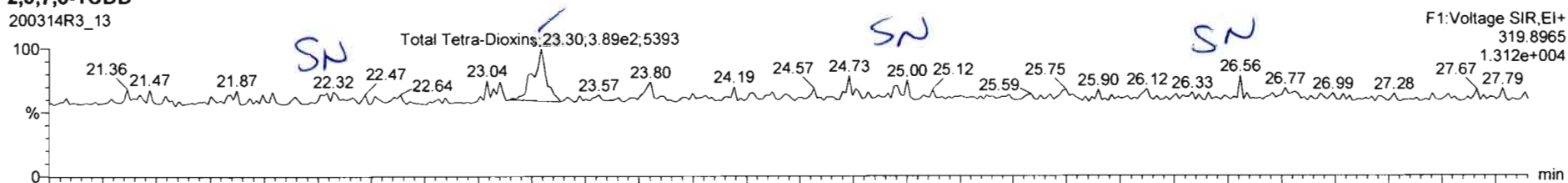
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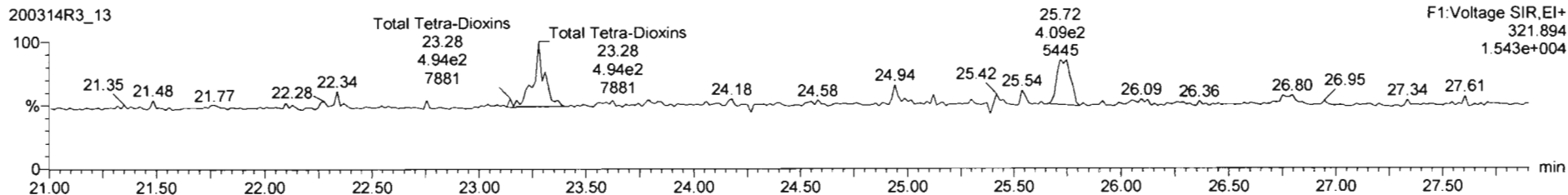
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2,3,7,8-TCDD

200314R3\_13

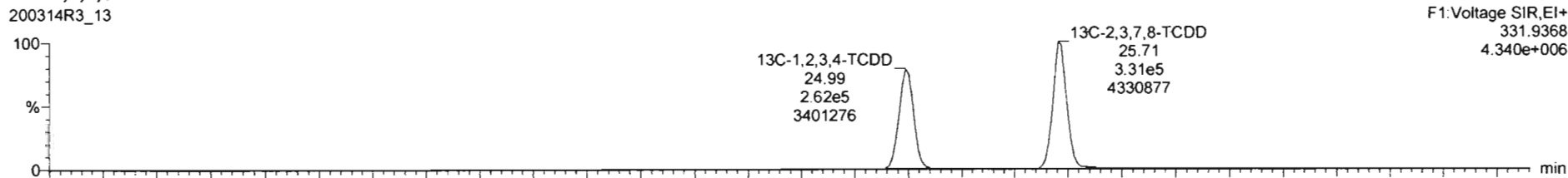


200314R3\_13

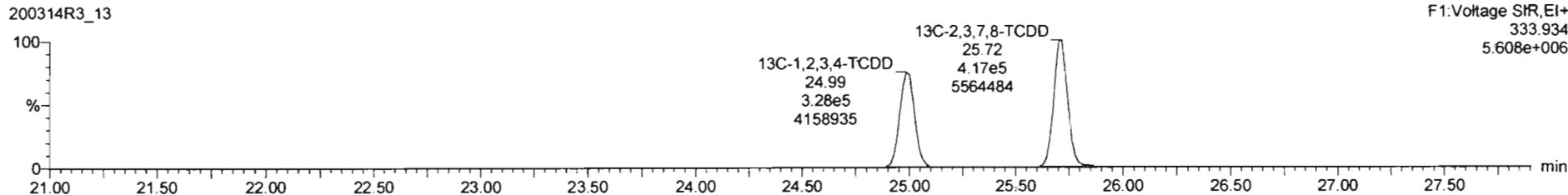


13C-2,3,7,8-TCDD

200314R3\_13

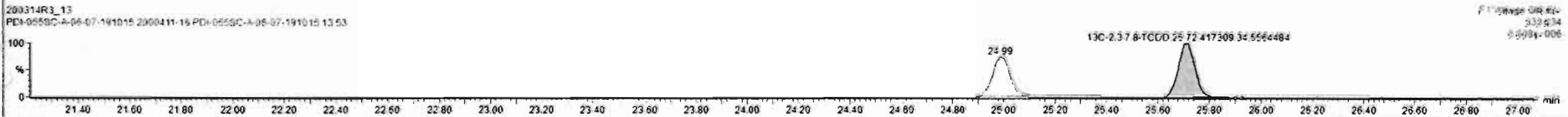
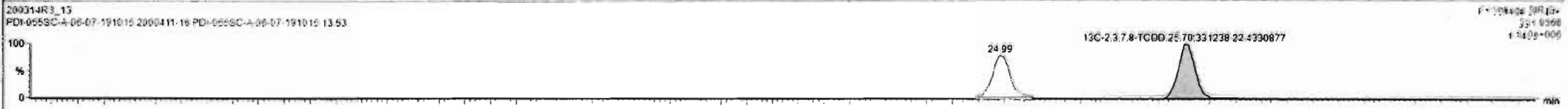
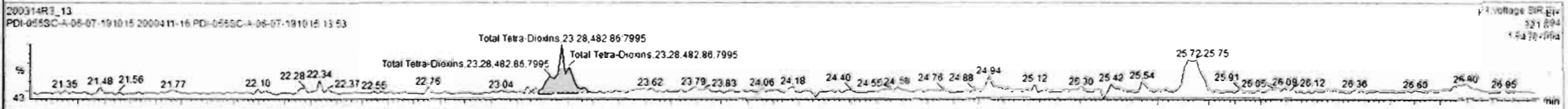
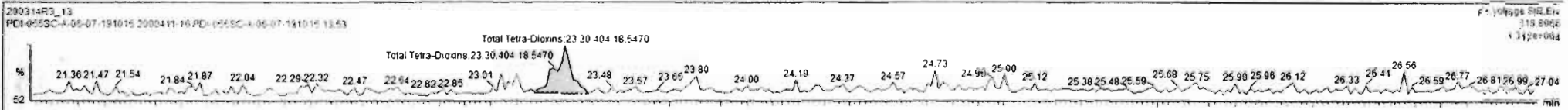


200314R3\_13



Name	Resp	RA	n/y	RRF	wtvol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.8635	13.530			0.178		0.0544	0.178
40 Total Penta-Dioxins				0.8212	13.530					0.0221	
41 Total Hexa-Dioxins				0.9644	13.530			0.067		0.0704	0.920
42 Total Hepta-Dioxins				1.0061	13.530			3.11		0.119	3.11

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Tetra-Dioxins	23.30	4.042e2	4.629e2	0.84	NO	0.17811	0.17811



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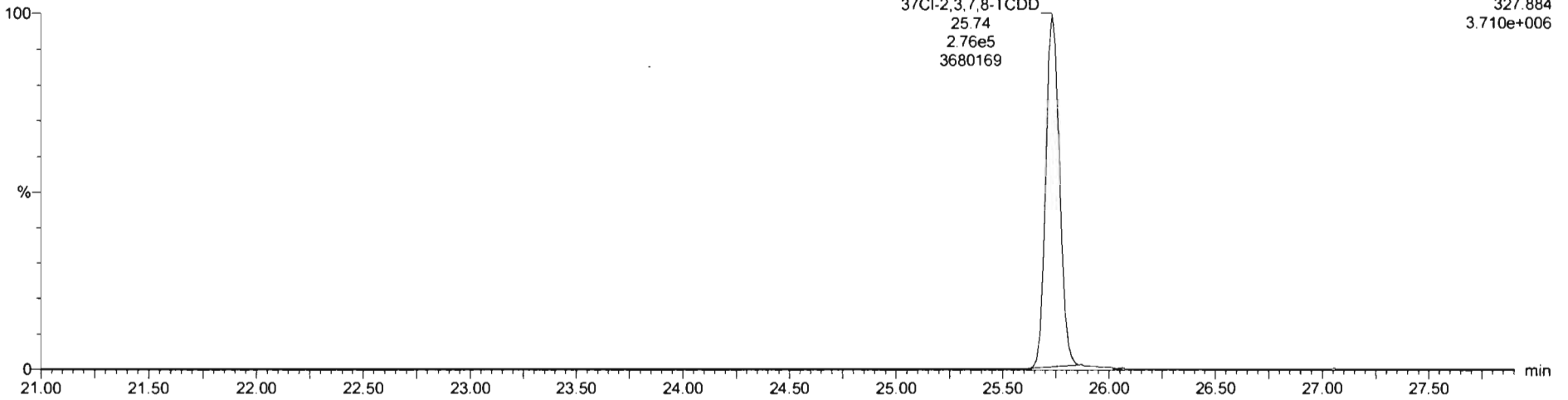
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Name: 200314R3\_13, Date: 15-Mar-2020, Time: 08:49:30, ID: 2000411-16 PDI-055SC-A-06-07-191015 13.53, Description: PDI-055SC-A-06-07-191015

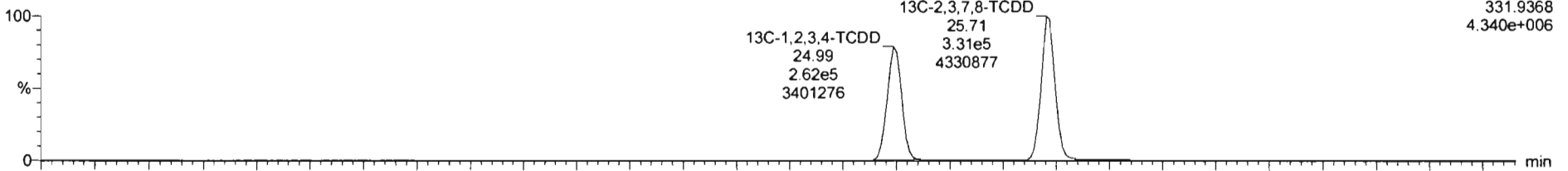
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200314R3\_13

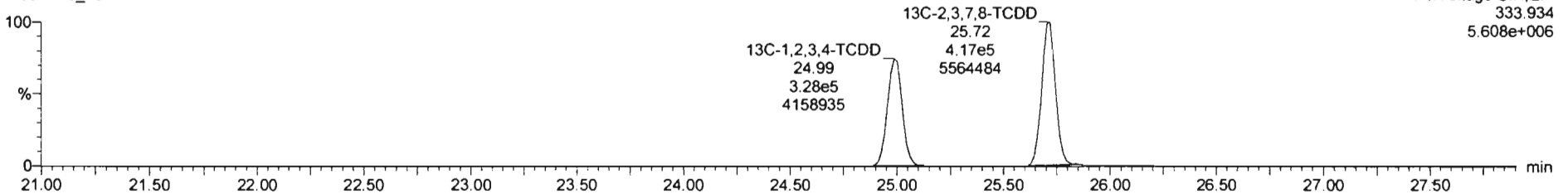


**13C-1,2,3,4-TCDD**

200314R3\_13



200314R3\_13



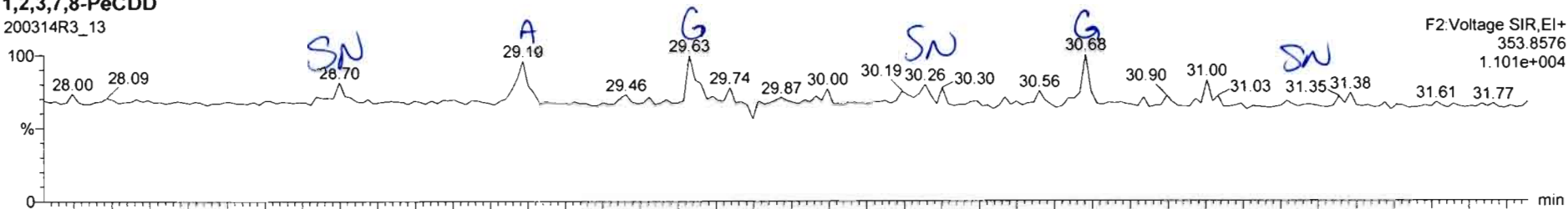
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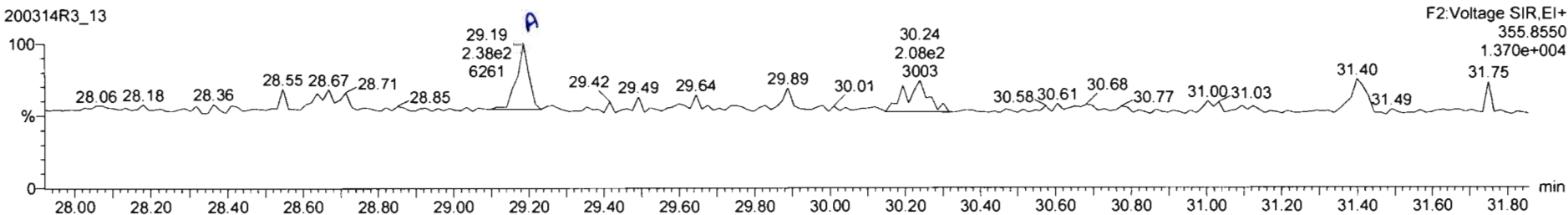
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1,2,3,7,8-PeCDD

200314R3\_13

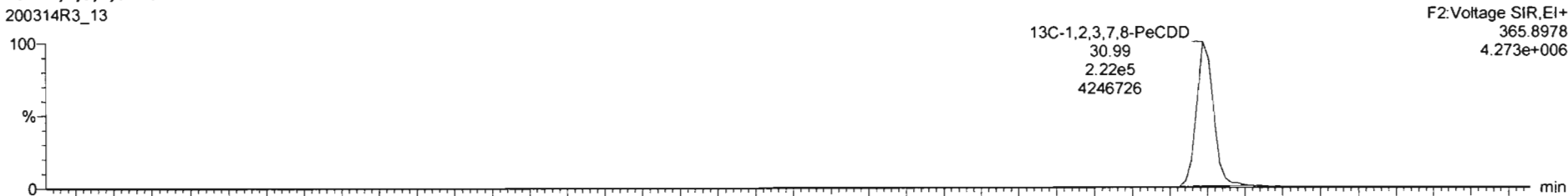


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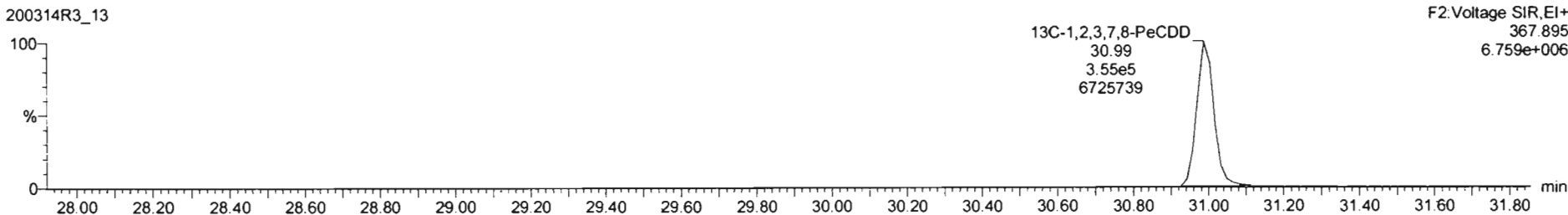


13C-1,2,3,7,8-PeCDD

200314R3\_13



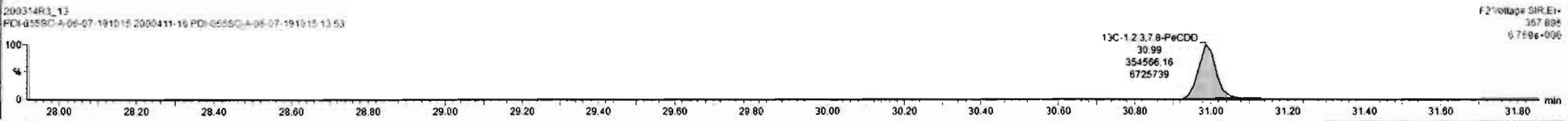
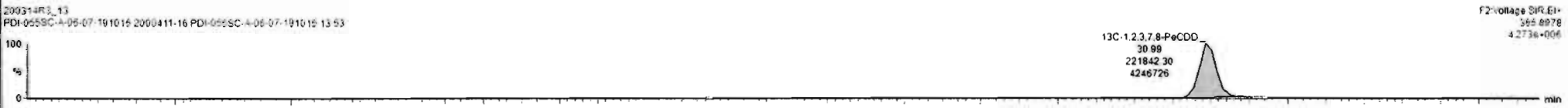
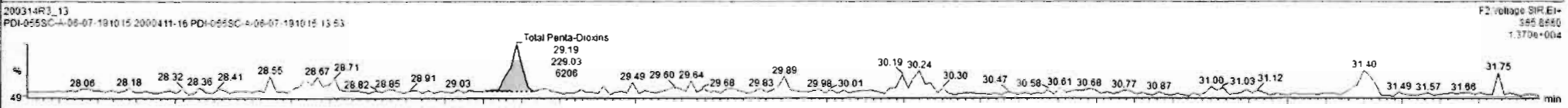
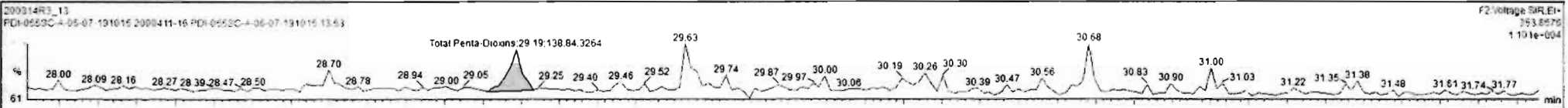
200314R3\_13





Name	Resp	RA	ny	RRF	wVol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	13.530			0.178	0.0544	0.178	
40 Total Penta-Dioxins				0.9212	13.530			0.102	0.0543	0.102	
41 Total Hexa-Dioxins				0.9844	13.530			0.667	0.0704	0.920	
42 Total Hepta-Dioxins				1.0061	13.530			3.11	0.119	3.11	

Name	RT	m1 Resp	m2 Resp	RA	ny	EMPC	Conc
1 Total Penta-Dioxine	29.19	1.368e2	2.290e2	0.61	NO	0.10240	6.10240



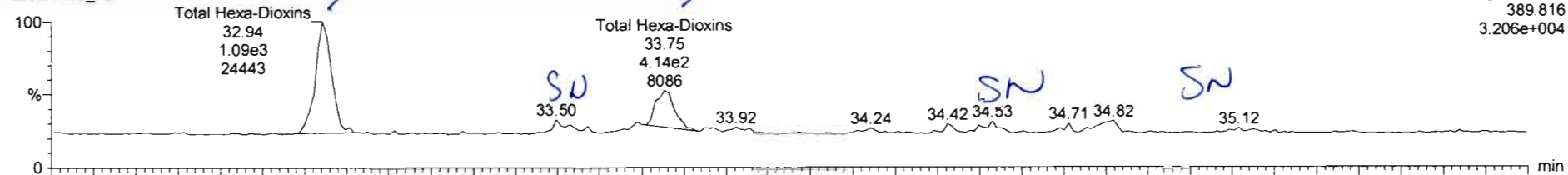
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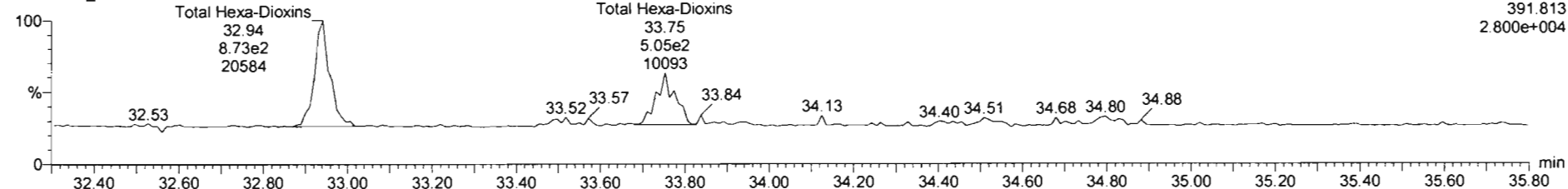
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1,2,3,4,7,8-HxCDD

200314R3\_13

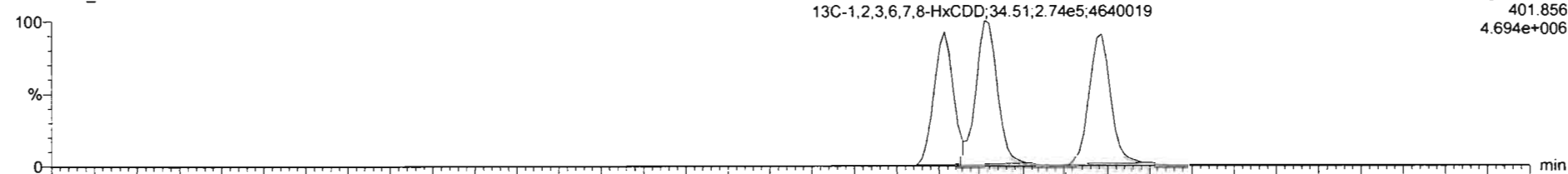


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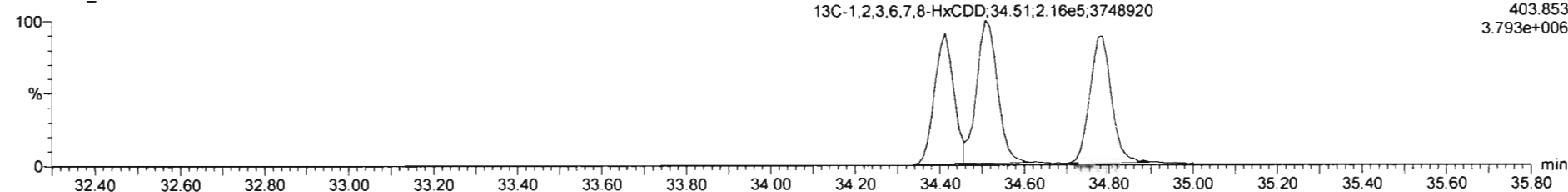


13C-1,2,3,4,7,8-HxCDD

200314R3\_13

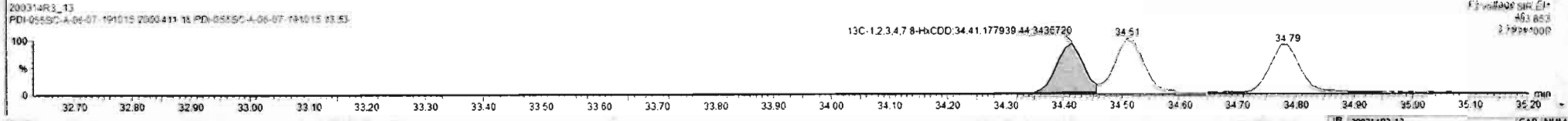
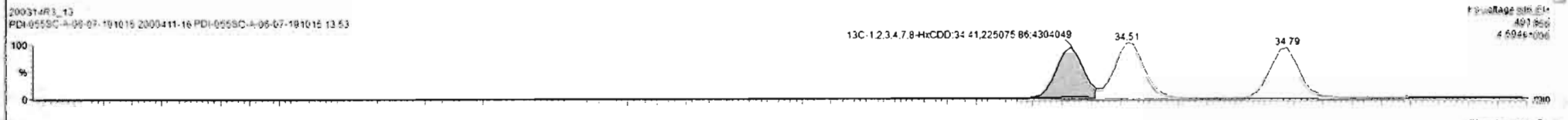
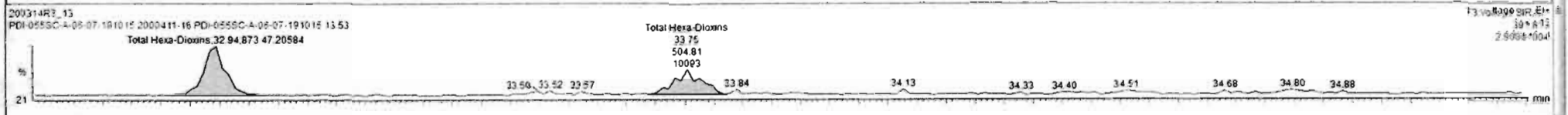
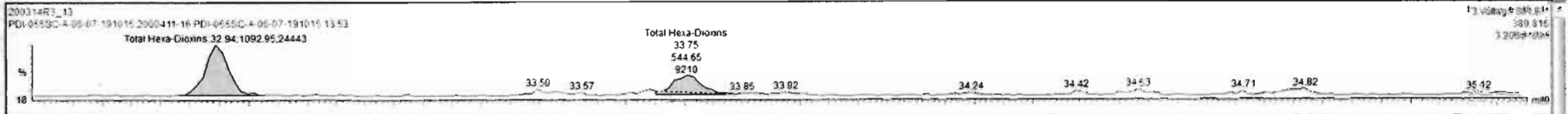


200314R3\_13



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc	%Rec	DL	EMPC
39 Total Tetra-Dioxins				0.9835	13.530			0.178	0.0544	0.178	
40 Total Penta-Dioxins				0.9212	13.530			0.162	0.0543	0.162	
41 Total Hexa-Dioxins				0.9644	13.530			1.02	0.0764	1.02	
42 Total Hepta-Dioxins				1.0061	13.530			0.111	0.1151	0.111	

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc
1 Total Hexa-Dioxins	32.94	1.093e3	8.735e2	1.25	NO	0.68658	0.68658
2 Total Hexa-Dioxins	33.75	5.446e2	5.048e2	1.08	NO	0.35574	0.35574



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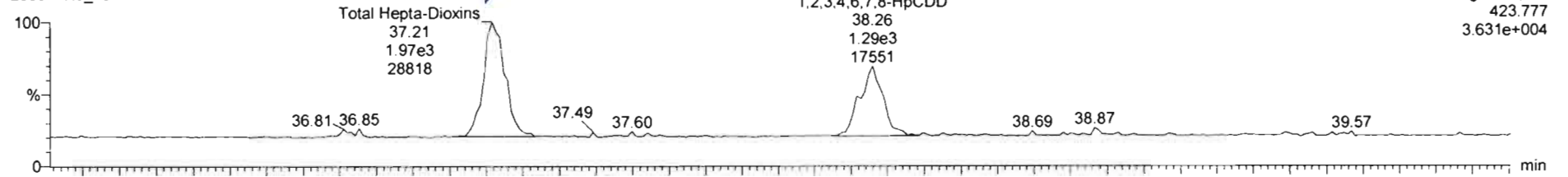
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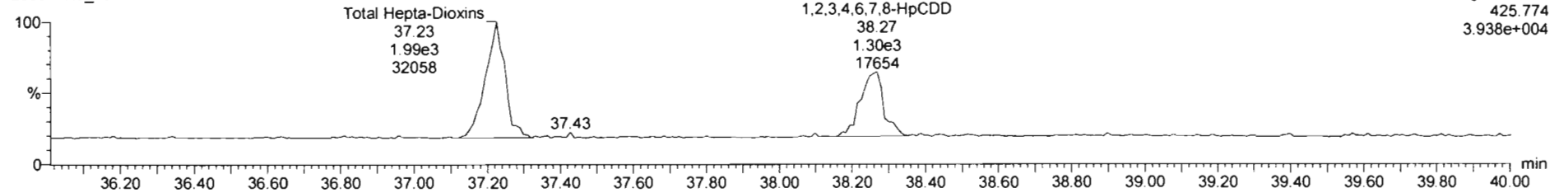
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**1,2,3,4,6,7,8-HpCDD**

200314R3\_13

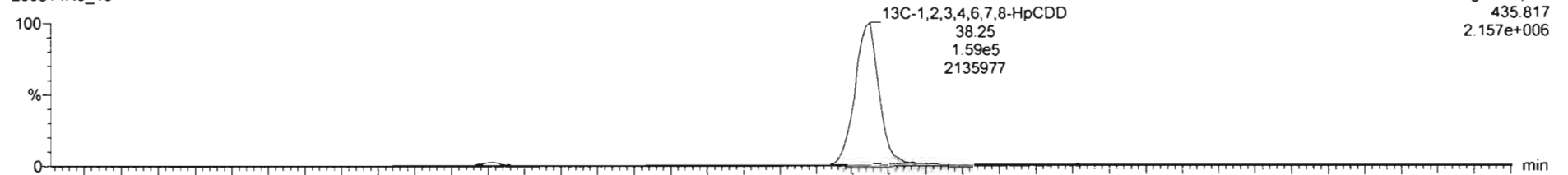


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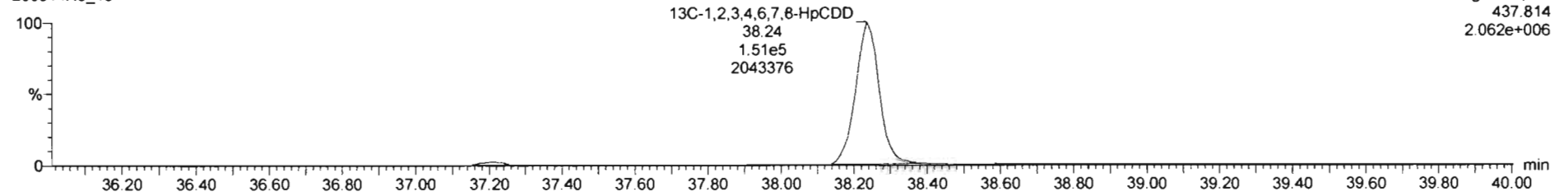


**13C-1,2,3,4,6,7,8-HpCDD**

200314R3\_13



200314R3\_13

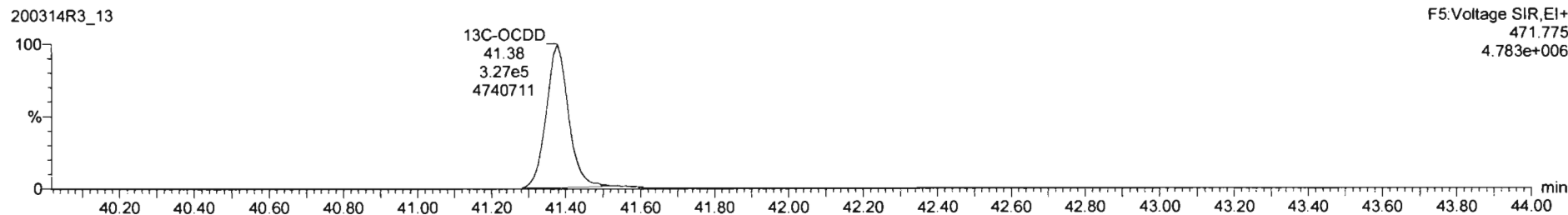
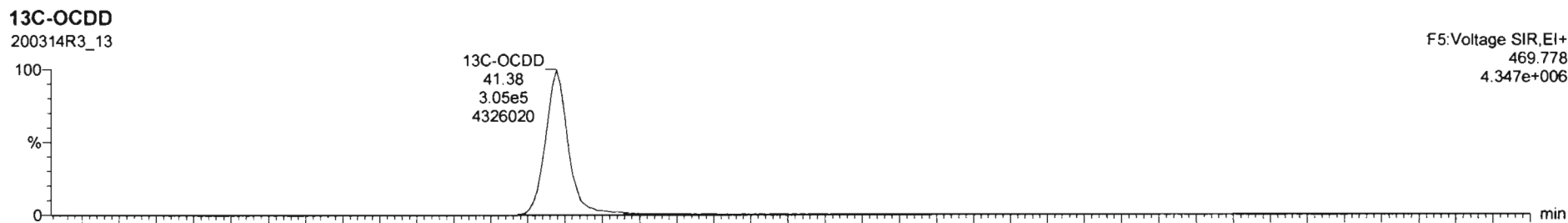
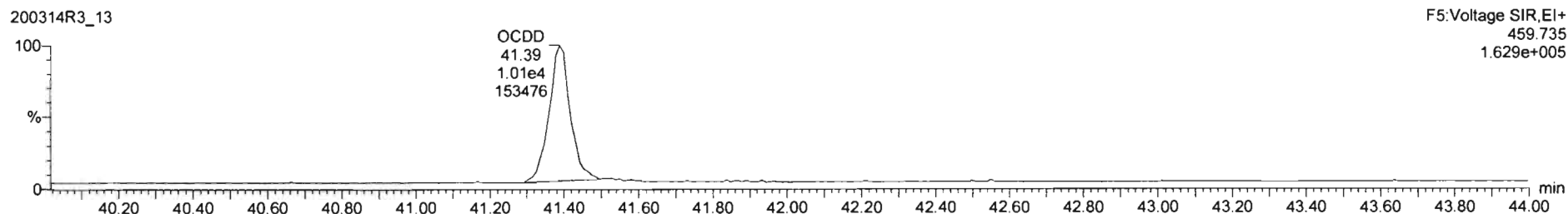
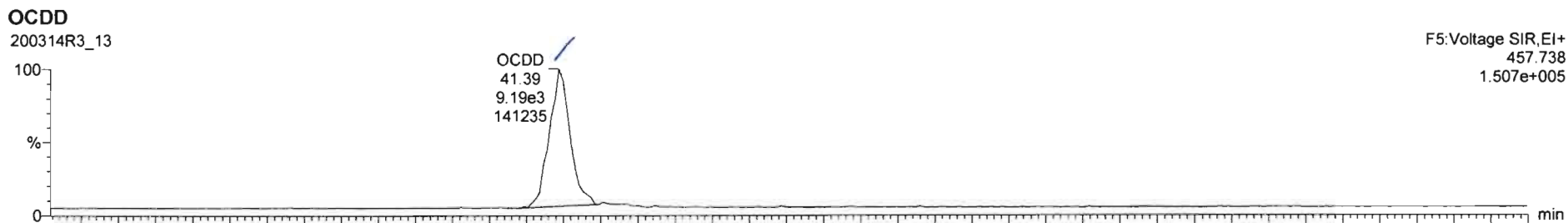


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Name	Resp	RA	ny	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
7 OCDD	1.93e4	0.91	NO	1.0515	13.530	41.39	1.000	8.67		0.0998	8.67
8 2,3,7,8-TCDF			NO	0.9154	12.530					0.0448	
9 1,2,3,7,8-PeCDF	8.06e2	1.55	NO	0.9594	13.530	29.66	1.001	0.154		0.0479	0.154
10 2,3,4,7,8-PeCDF			NO	1.0025	13.530					0.0437	

Name	RT	m1 Resp	m2 Resp	RA	ny	EMPC	Conc.
1							

200314R3\_13  
PDI-055SC-A-06-07-191015 2000411-16 PDI-055SC-A-06-07-191015 13 53



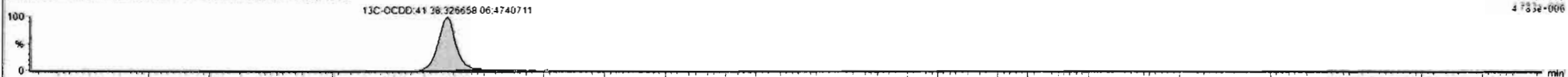
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200314R3\_13  
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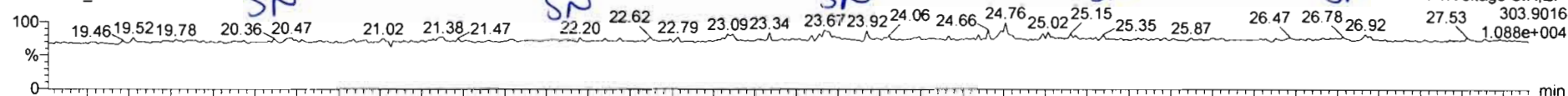
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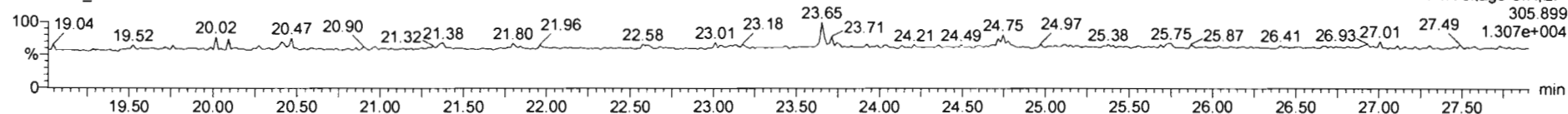
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2,3,7,8-TCDF

200314R3\_13

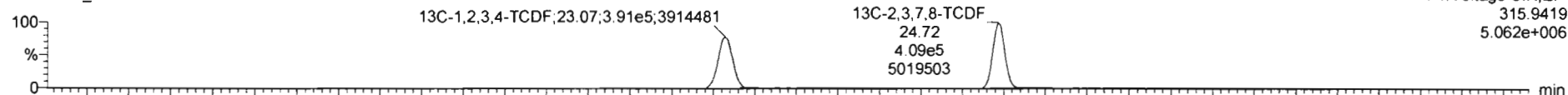


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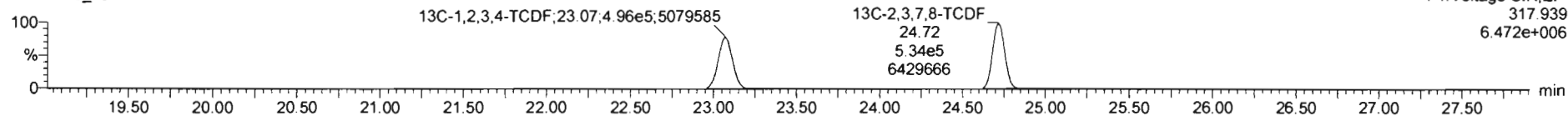


13C-2,3,7,8-TCDF

200314R3\_13

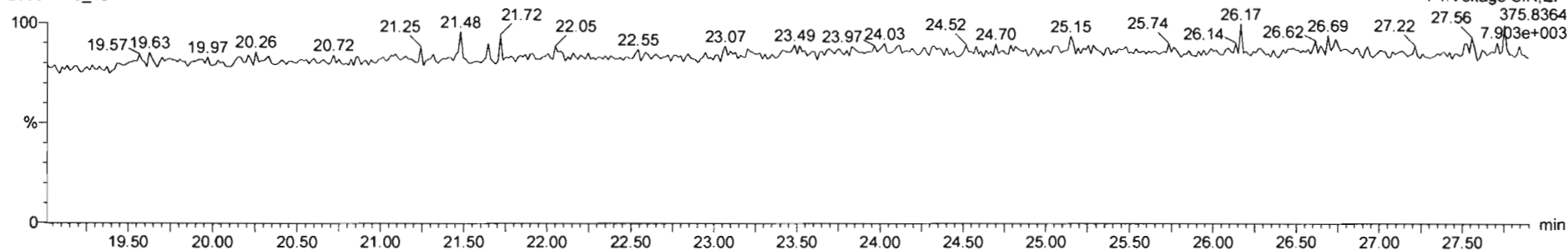


200314R3\_13



DPE1

200314R3\_13



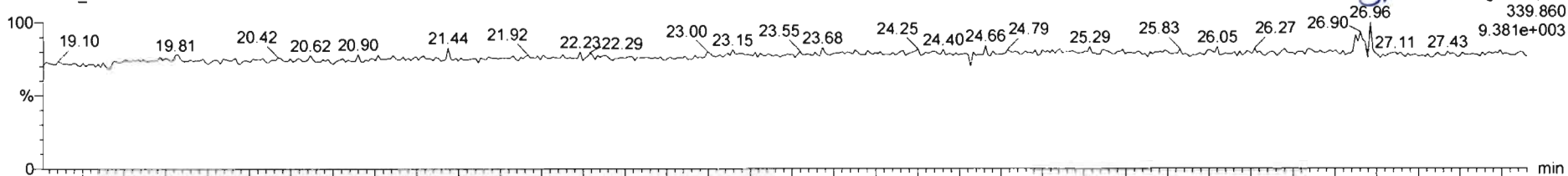
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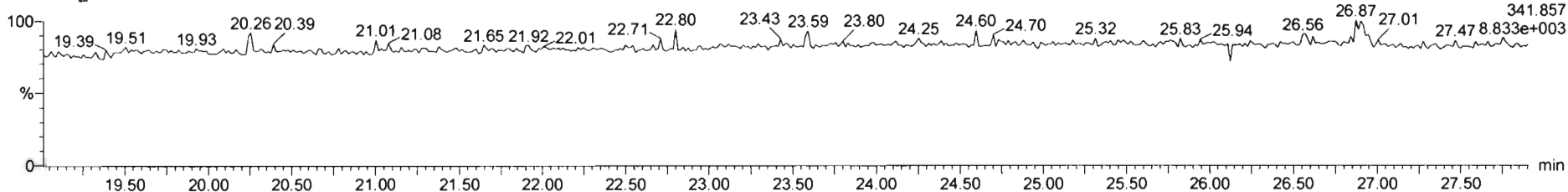
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1st Func. Penta-Furans

200314R3\_13

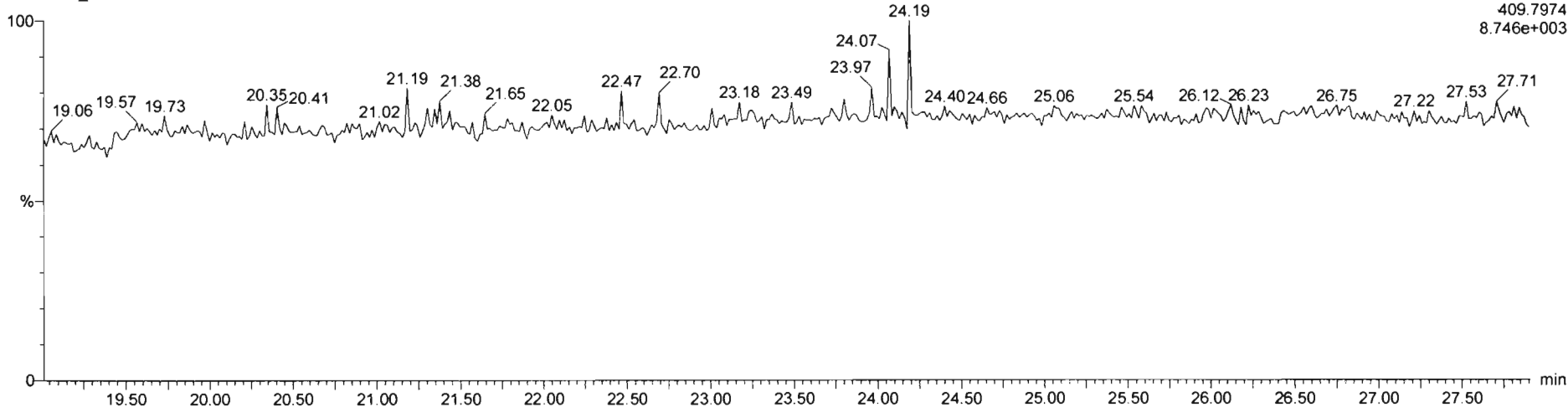


200314R3\_13



DPE6

200314R3\_13



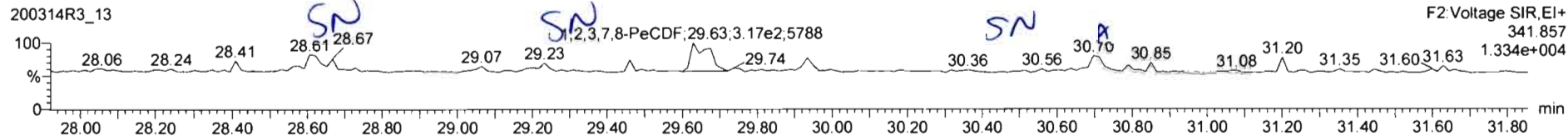
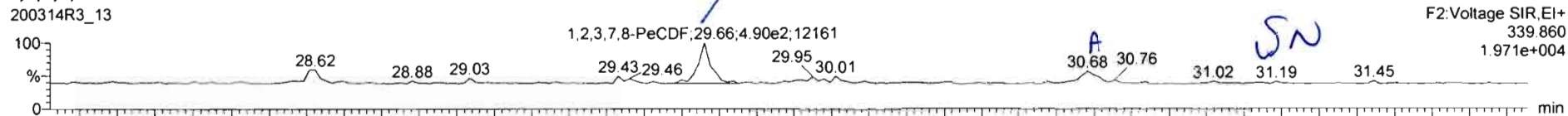


Dataset: Untitled

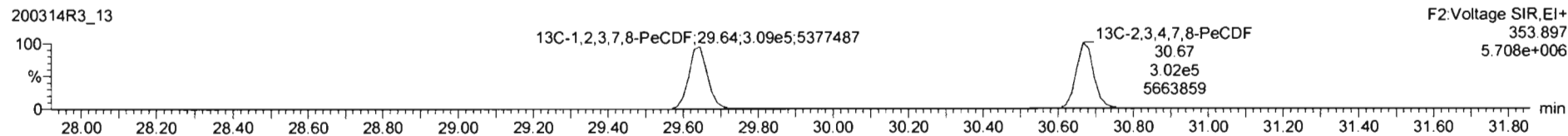
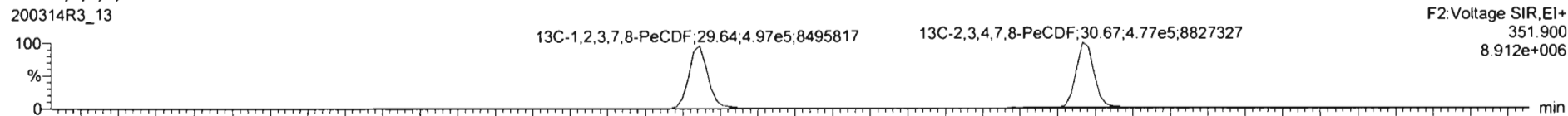
Last Altered: Sunday, March 15, 2020 09:46:27 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 09:46:45 Pacific Daylight Time

Name: 200314R3\_13, Date: 15-Mar-2020, Time: 08:49:30, ID: 2000411-16 PDI-055SC-A-06-07-191015 13.53, Description: PDI-055SC-A-06-07-191015

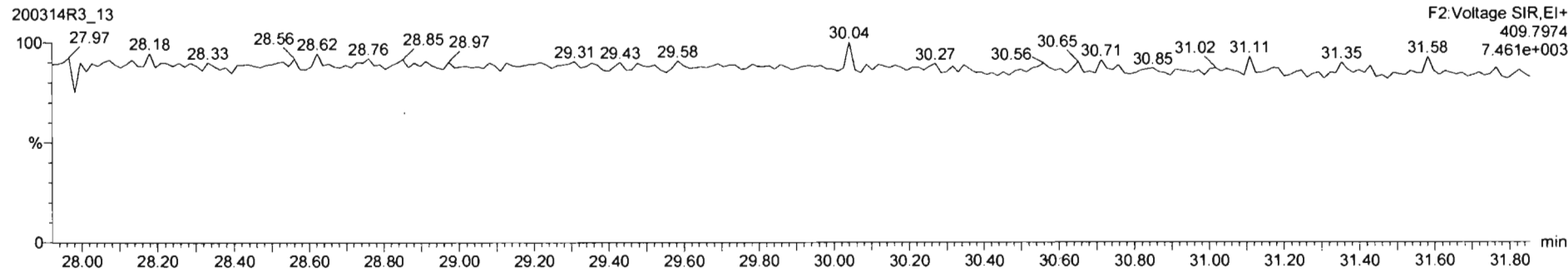
**1,2,3,7,8-PeCDF**



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

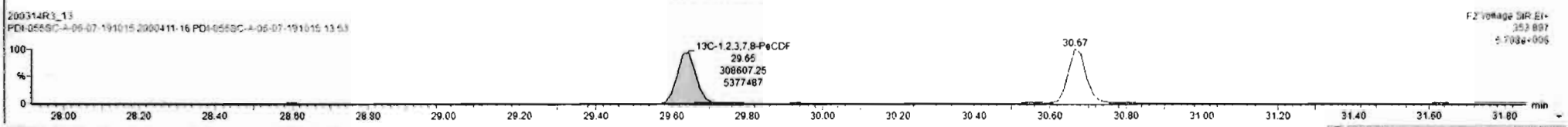
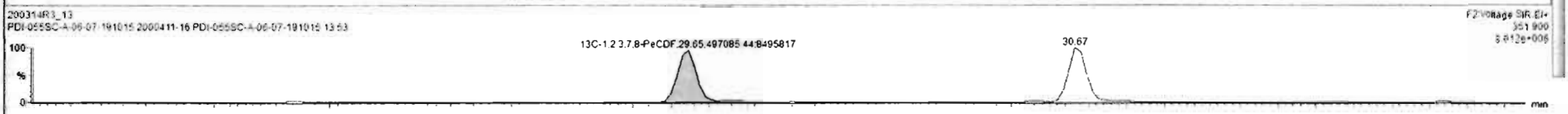
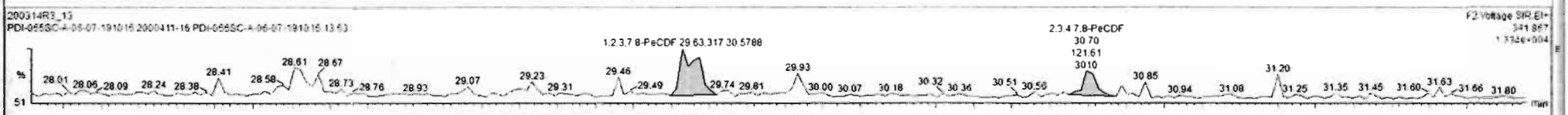
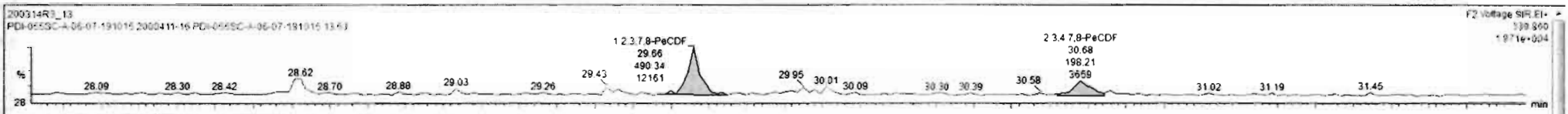


**DPE2**



Name	Resp	RA	n/y	RRF	wtVol	RT	RRT	Conc	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9154	13.530					0.0196	
44 1st Func. Penta-Furans				0.8594	13.530					0.0126	
45 Total Penta-Furans				0.9594	13.530			0.215		0.0468	0.215
46 Total Hexa-Furans				1.0920	13.530			0.000		0.0162	0.288

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 1,2,3,7,8-PeCDF	29.56	4.603e2	3.173e2	1.55	NO	0.15444	0.15444
2 2,3,4,7,8-PeCDF	30.68	1.982e2	1.215e2	1.63	NO	0.060494	0.060494



Dataset: Untitled

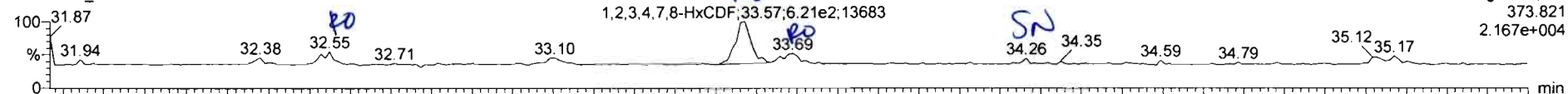
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Printed: Sunday, March 15, 2020 09:46:45 Pacific Daylight Time

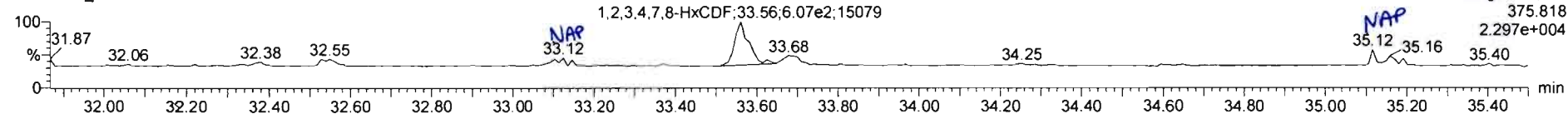
Name: 200314R3\_13, Date: 15-Mar-2020, Time: 08:49:30, ID: 2000411-16 PDI-055SC-A-06-07-191015 13.53, Description: PDI-055SC-A-06-07-191015

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

200314R3\_13

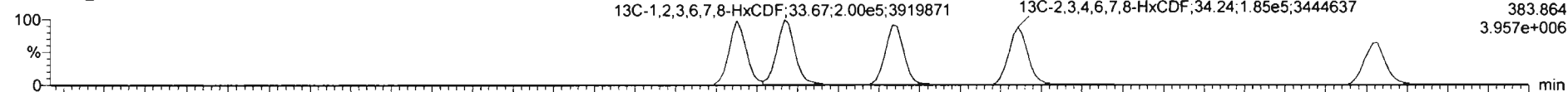


200314R3\_13

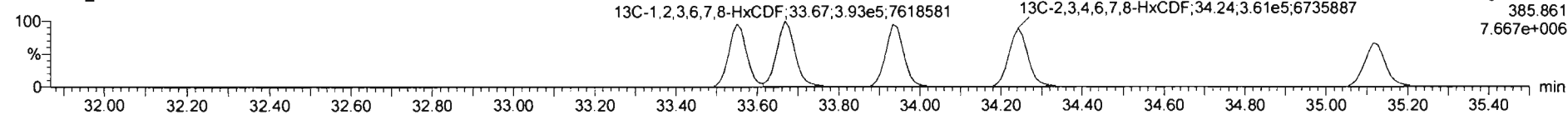


**13C-1,2,3,4,7,8-HxCDF**

200314R3\_13

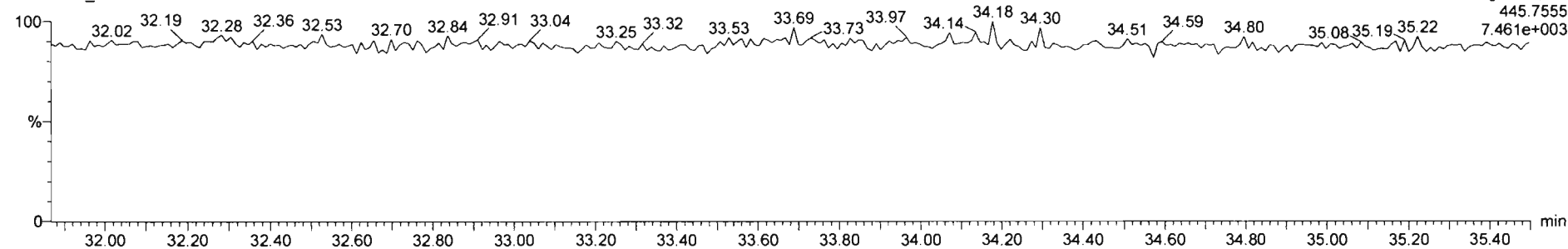


200314R3\_13



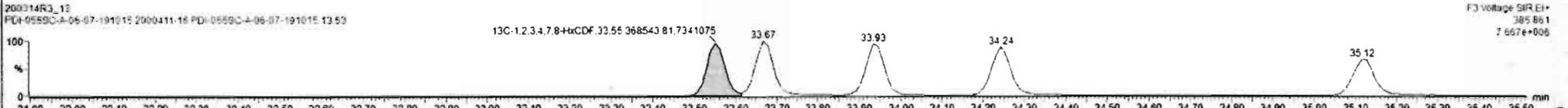
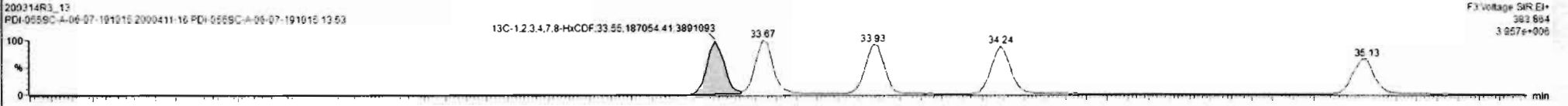
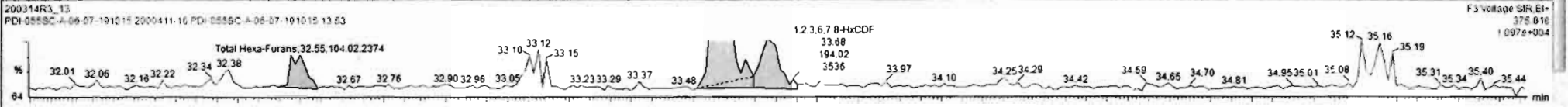
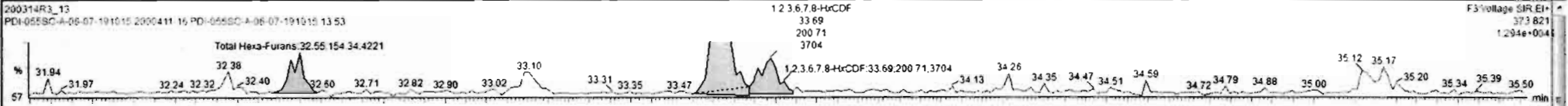
**DPE3**

200314R3\_13



Name	Resp	RA	n/y	RRF	w/vol	RT	RRT	Conc.	%Rec	DL	EMPC
43 Total Tetra-Furans				0.9154	13.530					0.0196	
44 1st Func. Penta-Furans				0.9594	13.530					0.0128	
45 Total Penta-Furans				0.9594	13.530			0.215		0.0458	0.215
46 Total Hexa-Furans				1.8928	13.530			8.000		0.0162	0.458

Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 Total Hexa-Furans	32.55	1.542e2	1.040e2	1.48	YES	0.056777	0.00000
2 1,2,3,4,7,8-HxCDF	33.57	6.715e2	6.606e2	1.02	YES	0.31091	0.00000
3 1,2,3,6,7,8-HxCDF	33.68	2.007e2	1.940e2	1.03	YES	0.089259	0.00000

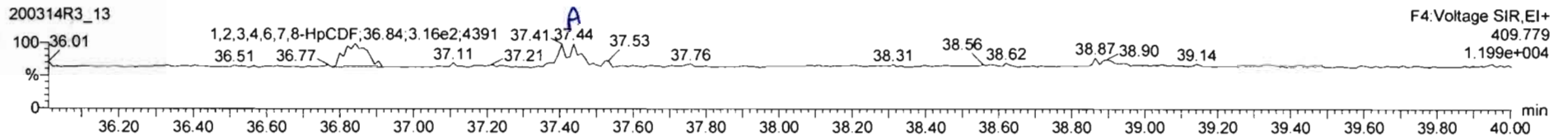
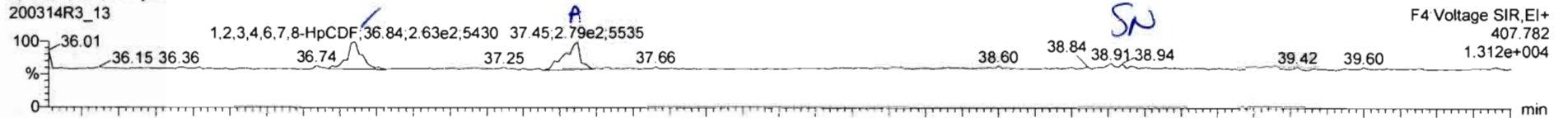


Dataset: Untitled

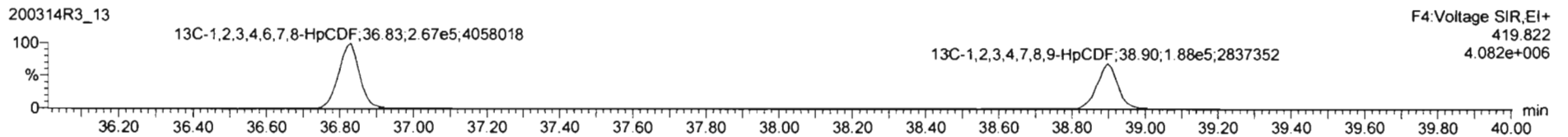
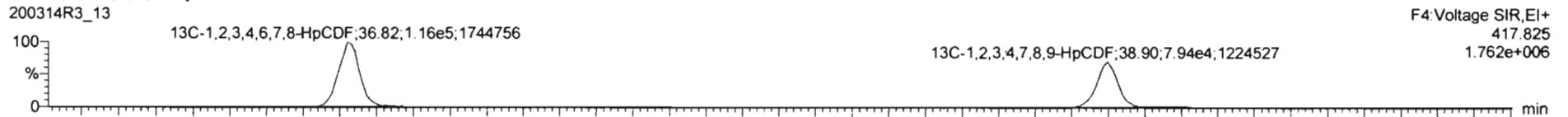
Last Altered: Sunday, March 15, 2020 09:46:27 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 09:46:45 Pacific Daylight Time

Name: 200314R3\_13, Date: 15-Mar-2020, Time: 08:49:30, ID: 2000411-16 PDI-055SC-A-06-07-191015 13.53, Description: PDI-055SC-A-06-07-191015

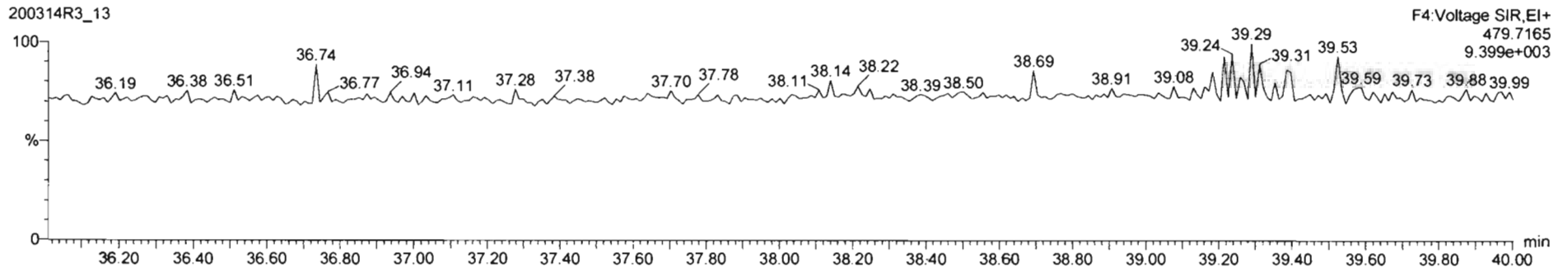
1,2,3,4,6,7,8-HpCDF



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

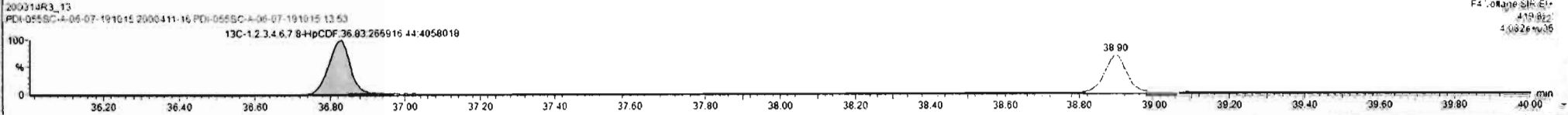
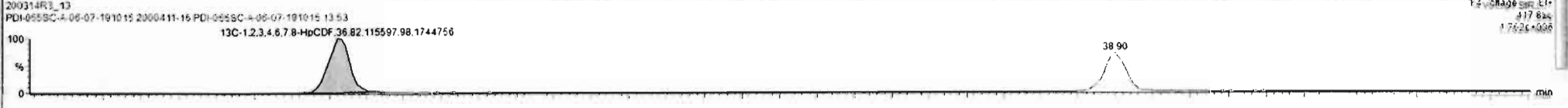
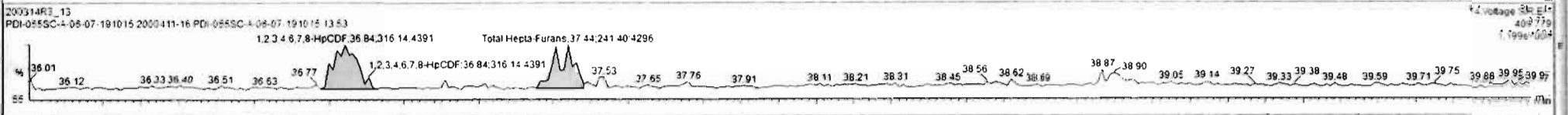
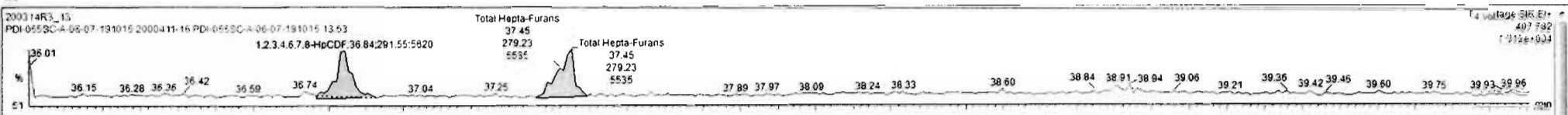


DPE4



Name	Resp	RA	n/y	RRF	wt/vol	RT	RRT	Conc.	%Rec	DL	EMPC
47 Total Hepta-Furans				1.0483	13.538			0.450		0.0827	0.450
48 PFK1											
49 PFK2											
50 PFK3											

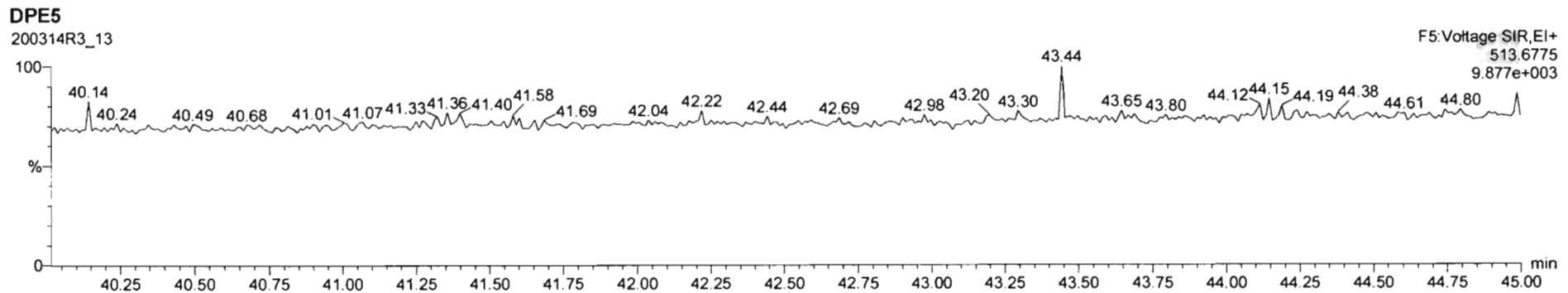
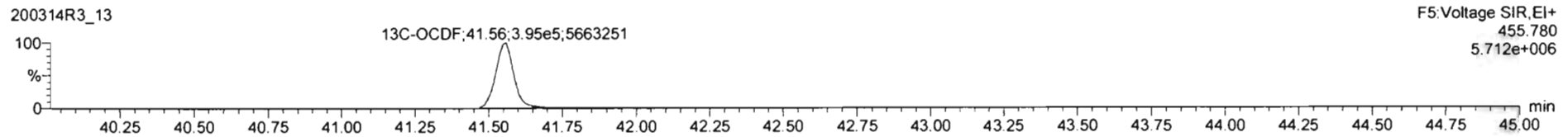
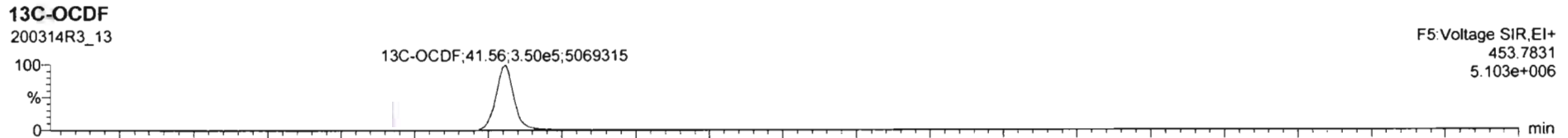
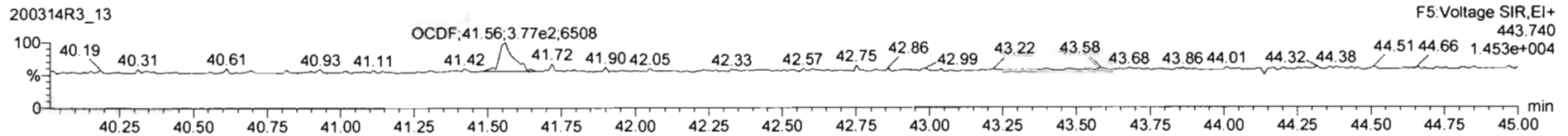
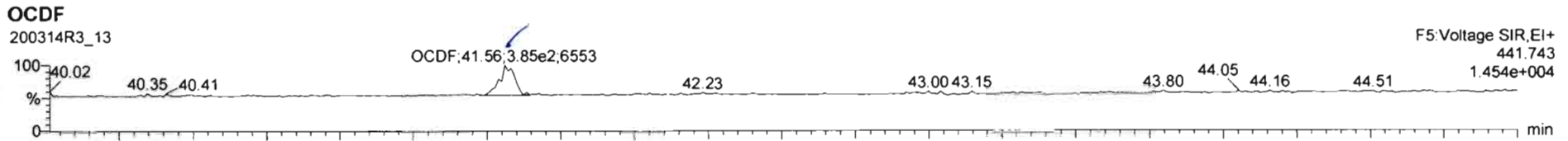
Name	RT	m1 Resp	m2 Resp	RA	n/y	EMPC	Conc.
1 1,2,3,4,6,7,8-HpCDF	36.84	2.515e2	3.161e2	0.52	NO	0.22402	0.22402
2 Total Hepta-Furans	37.45	2.782e2	2.414e2	1.18	NO	0.22604	0.22604



Dataset: Untitled

Last Altered: Sunday, March 15, 2020 09:46:27 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 09:46:45 Pacific Daylight Time

Name: 200314R3\_13, Date: 15-Mar-2020, Time: 08:49:30, ID: 2000411-16 PDI-055SC-A-06-07-191015 13.53, Description: PDI-055SC-A-06-07-191015



Dataset: Untitled

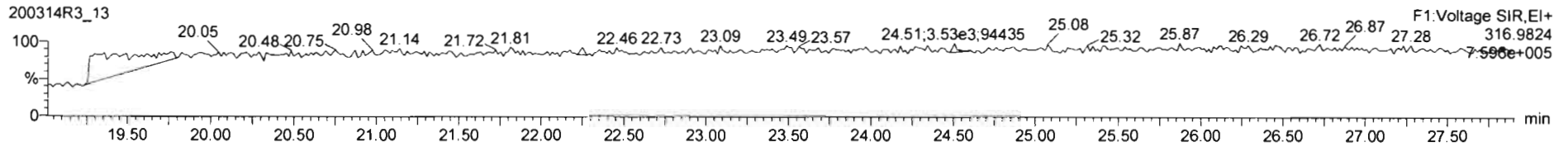
Last Altered: Sunday, March 15, 2020 09:46:27 Pacific Daylight Time

Printed: Sunday, March 15, 2020 09:46:45 Pacific Daylight Time

Name: 200314R3\_13, Date: 15-Mar-2020, Time: 08:49:30, ID: 2000411-16 PDI-055SC-A-06-07-191015 13.53, Description: PDI-055SC-A-06-07-191015

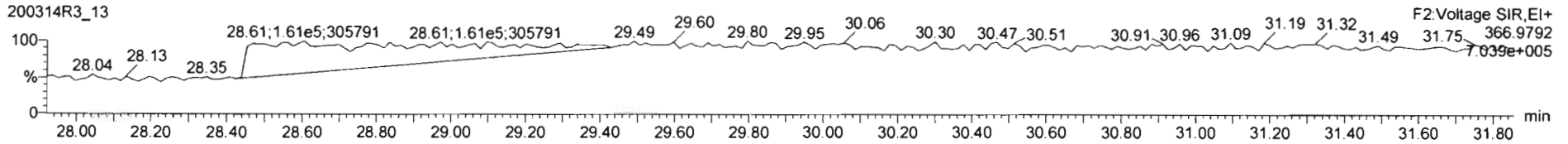
PFK1

200314R3\_13



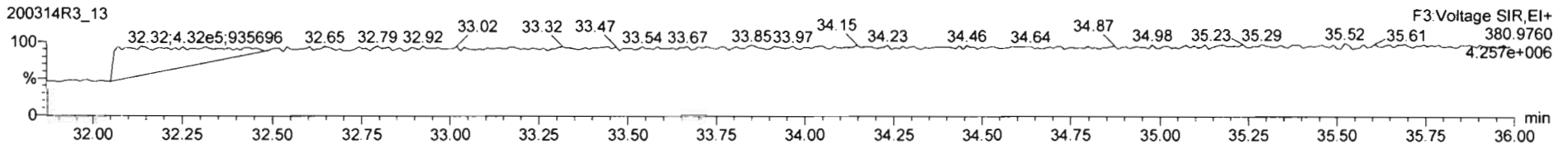
PFK2

200314R3\_13



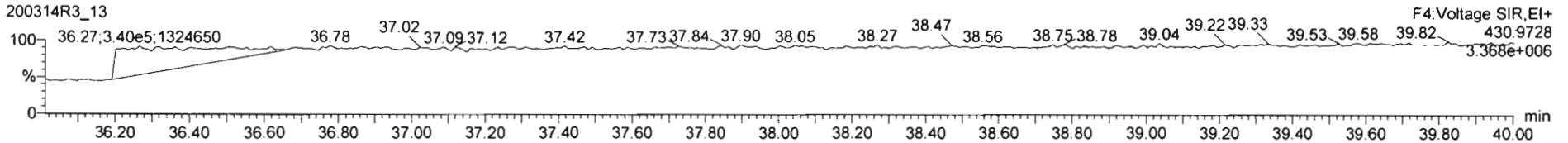
PFK3

200314R3\_13



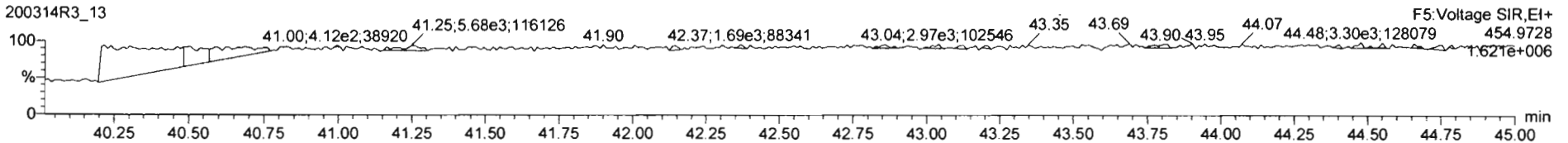
PFK4

200314R3\_13



PFK5

200314R3\_13





## **CONFIRMATION**

Dataset: U:\VG12.PRO\Results\200311R5\200311R5-17.qld

Last Altered: Friday, March 13, 2020 9:47:03 AM Pacific Daylight Time  
Printed: Sunday, March 15, 2020 4:15:53 PM Pacific Daylight Time

*GRB 03/15/2020*

Method: U:\VG12.PRO\MethDB\tcdf.mdb 11 Mar 2020 07:47:30

Calibration: U:\VG12.PRO\CurveDB\cb225\_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

*ML  
3/15/20*

Name: 200311R5\_17, Date: 13-Mar-2020, Time: 03:45:52, ID: 2000411-14RE1 PDI-055SC-A-04-05-191015 13.45, Description: PDI-055SC-A-04-05-191015

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDF	5.38e4	0.74	NO	0.821	10.003	16.617	16.61	1.000	1.001	6.3790		0.0669	6.38
2	2 13C-2,3,7,8-TCDF	2.05e6	0.78	NO	1.10	10.003	16.384	16.59	1.133	1.144	188.77	94.4	0.214	
3	3 13C-1,2,3,4-TCDF	1.98e6	0.79	NO	1.00	10.003	14.450	14.49	1.000	1.000	199.93	100	0.236	

Dataset: U:\VG12.PRO\Results\200311R5\200311R5-17.qld

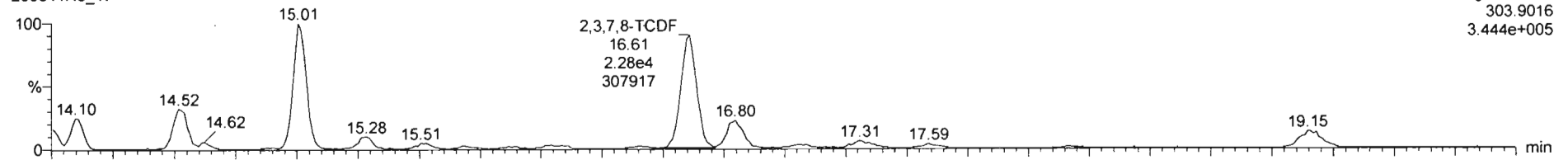
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Printed: Sunday, March 15, 2020 4:15:40 PM Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\tcdf.mdb 11 Mar 2020 07:47:30  
Calibration: U:\VG12.PRO\CurveDB\db225\_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

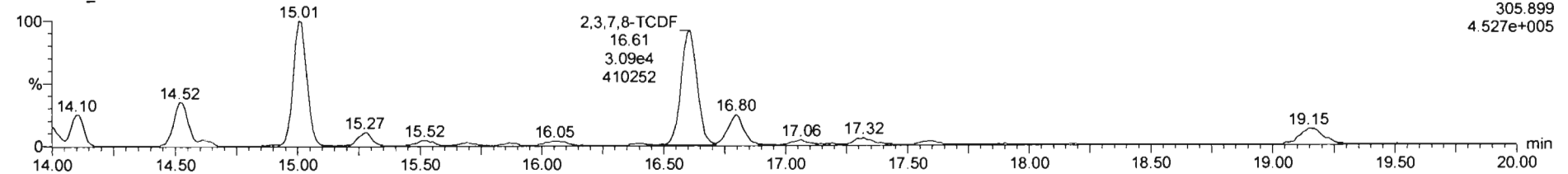
Name: 200311R5\_17, Date: 13-Mar-2020, Time: 03:45:52, ID: 2000411-14RE1 PDI-055SC-A-04-05-191015 13.45, Description: PDI-055SC-A-04-05-191015

2,3,7,8-TCDF

200311R5\_17

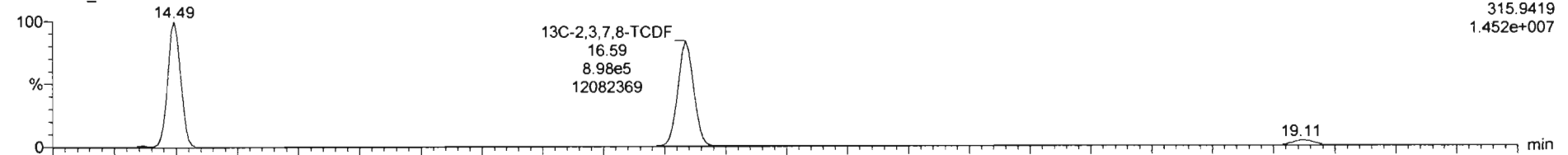


200311R5\_17

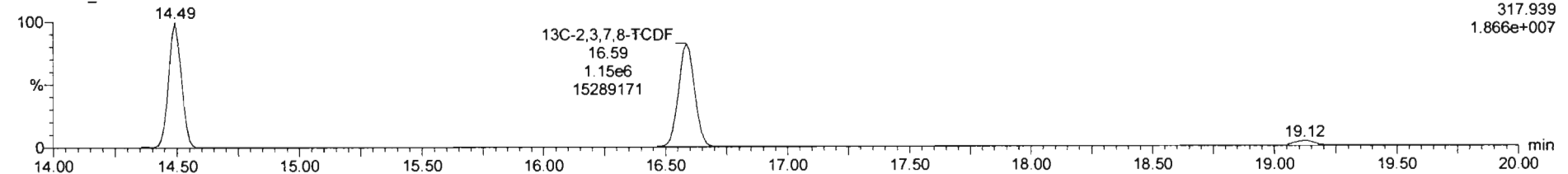


13C-2,3,7,8-TCDF

200311R5\_17



200311R5\_17



Dataset: U:\VG12.PRO\Results\200311R5\200311R5-17.qld

Last Altered: Friday, March 13, 2020 9:47:03 AM Pacific Daylight Time  
Printed: Sunday, March 15, 2020 4:15:40 PM Pacific Daylight Time

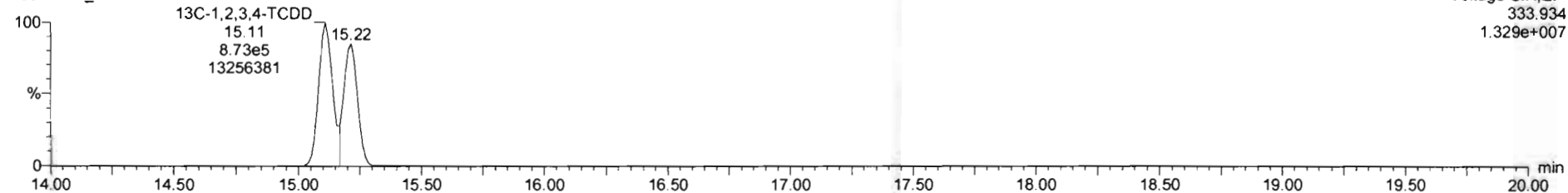
Name: 200311R5\_17, Date: 13-Mar-2020, Time: 03:45:52, ID: 2000411-14RE1 PDI-055SC-A-04-05-191015 13.45, Description: PDI-055SC-A-04-05-191015

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

200311R5\_17

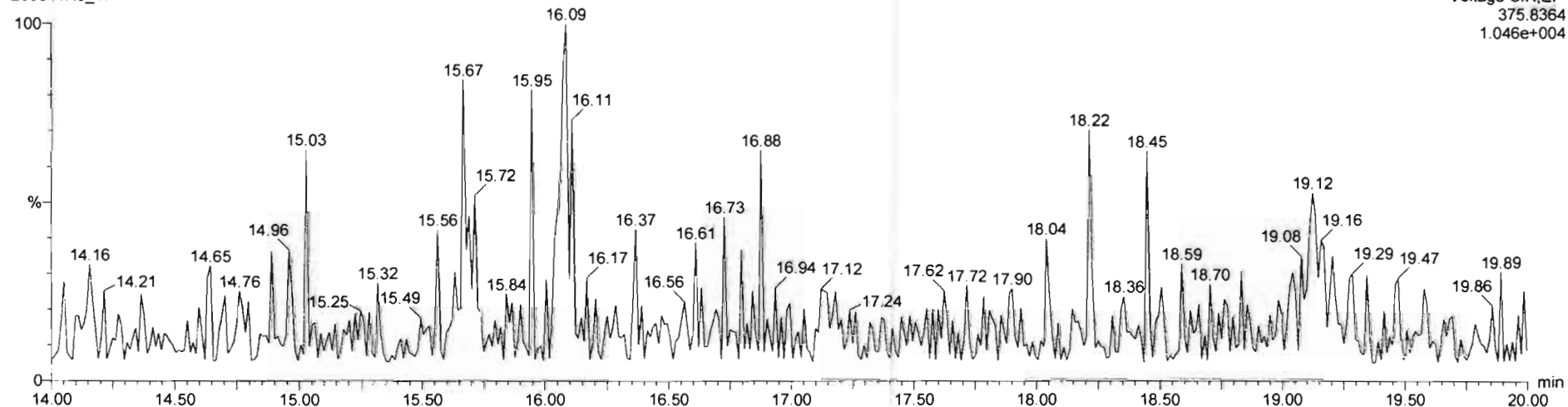


200311R5\_17



DPE1

200311R5\_17



Dataset: U:\VG12.PRO\Results\200311R5\200311R5-18.qld

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Printed: Sunday, March 15, 2020 4:17:29 PM Pacific Daylight Time

*GRB 03/15/2020*

Method: U:\VG12.PRO\MethDB\tcdf.mdb 11 Mar 2020 07:47:30  
Calibration: U:\VG12.PRO\CurveDB\db225\_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

*MW 3/15/20*

Name: 200311R5\_18, Date: 13-Mar-2020, Time: 04:16:18, ID: 2000411-15RE1 PDI-055SC-A-05-06-191015 13.65, Description: PDI-055SC-A-05-06-191015

#	Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDF	1.87e4	0.79	NO	0.821	10.108	16.617	16.61	1.000	1.001	2.2599		0.0727	2.26
2	2 13C-2,3,7,8-TCDF	2.00e6	0.79	NO	1.10	10.108	16.384	16.59	1.133	1.144	178.65	90.3	0.185	
3	3 13C-1,2,3,4-TCDF	2.01e6	0.80	NO	1.00	10.108	14.450	14.49	1.000	1.000	197.86	100	0.204	

Dataset: U:\VG12.PRO\Results\200311R5\200311R5-18.qld

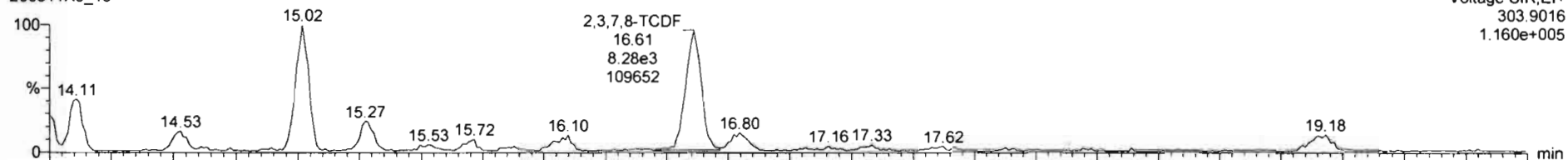
Last Altered: Friday, March 13, 2020 9:47:22 AM Pacific Daylight Time  
Printed: Sunday, March 15, 2020 4:17:18 PM Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\tcdf.mdb 11 Mar 2020 07:47:30  
Calibration: U:\VG12.PRO\CurveDB\db225\_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Name: 200311R5\_18, Date: 13-Mar-2020, Time: 04:16:18, ID: 2000411-15RE1 PDI-055SC-A-05-06-191015 13.65, Description: PDI-055SC-A-05-06-191015

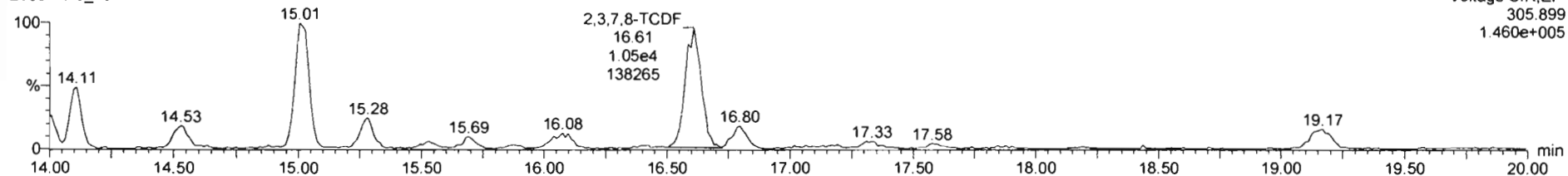
2,3,7,8-TCDF

200311R5\_18



Voltage SIR,EI+  
303.9016  
1.160e+005

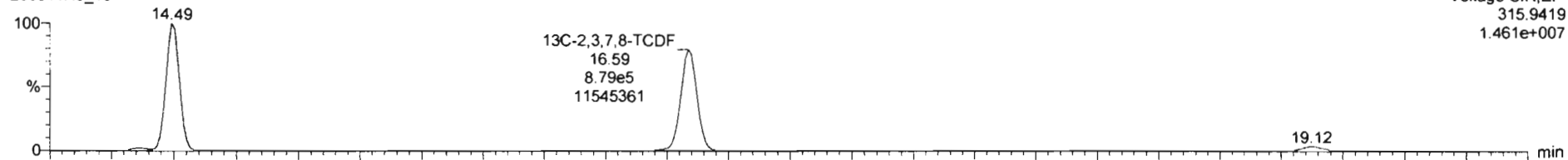
200311R5\_18



Voltage SIR,EI+  
305.899  
1.460e+005

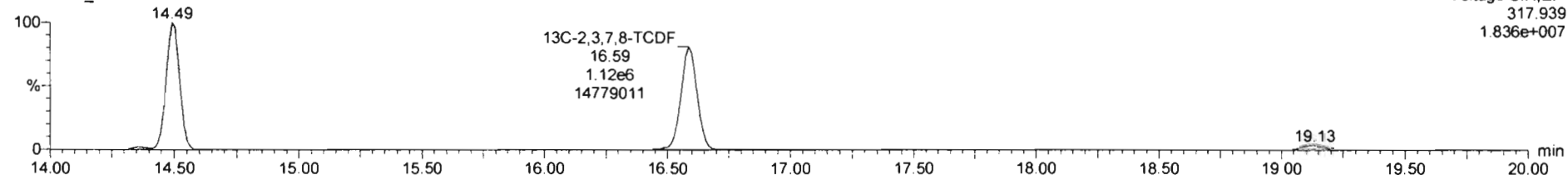
13C-2,3,7,8-TCDF

200311R5\_18



Voltage SIR,EI+  
315.9419  
1.461e+007

200311R5\_18



Voltage SIR,EI+  
317.939  
1.836e+007

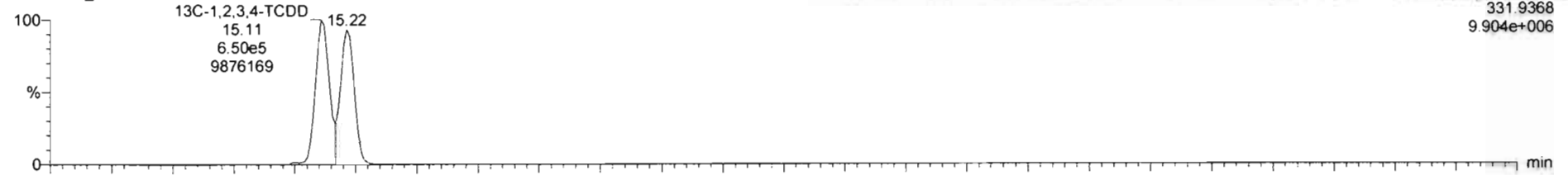
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Printed: Sunday, March 15, 2020 4:17:18 PM Pacific Daylight Time

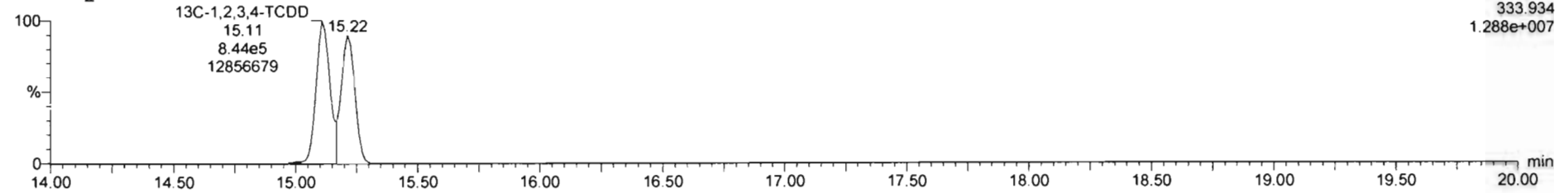
Name: 200311R5\_18, Date: 13-Mar-2020, Time: 04:16:18, ID: 2000411-15RE1 PDI-055SC-A-05-06-191015 13.65, Description: PDI-055SC-A-05-06-191015

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

200311R5\_18

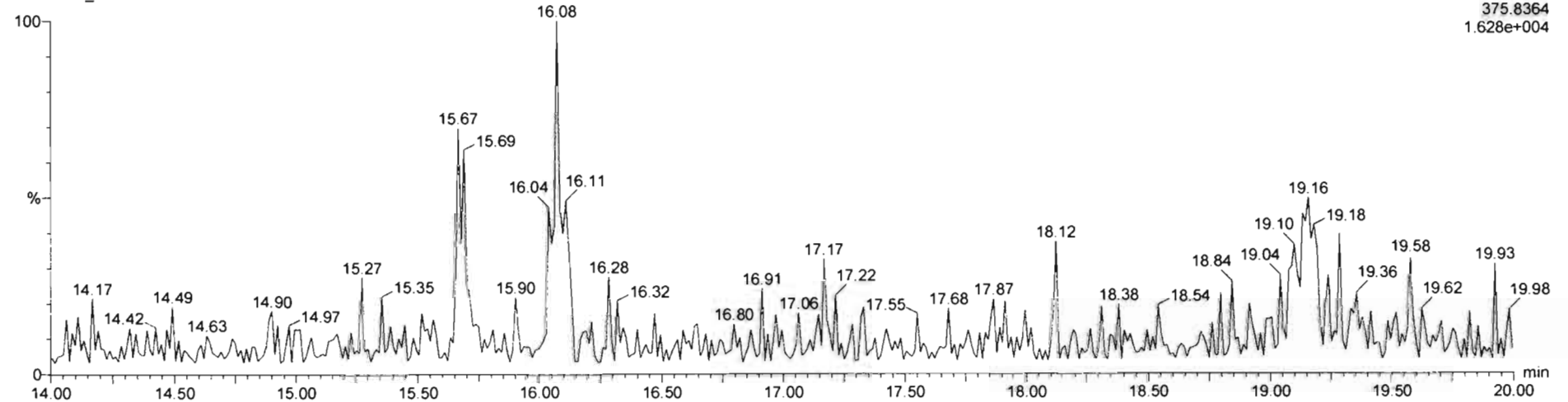


200311R5\_18



DPE1

200311R5\_18



**CONTINUING CALIBRATION**



# HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

**Beg. Calibration ID:** ST20031125-1

**Reviewed By:** CT03/16/2020  
*Initials & Date*

**End Calibration ID:** NA

	<u>Beg.</u>	<u>End</u>		<u>Beg.</u>	<u>End</u>
<b>Ion abundance within QC limits?</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> NA	<b>Mass resolution <math>\geq</math></b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
<b>Concentrations within criteria?</b>	<input checked="" type="checkbox"/>	<input 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		
<b>TCDD/TCDF Valleys &lt;25%</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>Intergrated peaks display correctly?</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> NA
<b>First and last eluters present?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>GC Break &lt;20%</b>	<input checked="" type="checkbox"/> NA	
<b>Retention Times within criteria?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b><u>8280 CS1 End Standard:</u></b>		
<b>Verification Std. named correctly?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<b>- Ratios within limits, S/N &lt;2.5:1, CS1 within 12 hours</b>	<input checked="" type="checkbox"/> NA	
<b>(ST-Year-Month-Day-VG ID)</b>			<b>Comments:</b>		
<b>Forms signed and dated?</b>	<input checked="" type="checkbox"/>	<input type="checkbox"/>			
<b>Correct ICAL referenced?</b>	<input checked="" type="checkbox"/> GPB	<input type="checkbox"/>			
<b><u>Run Log:</u></b>					
<b>- Correct instrument listed?</b>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/> V			
<b>- Samples within 12 hour clock?</b>	<input checked="" type="checkbox"/> V	N			
<b>- Bottle position verified?</b>	<input checked="" type="checkbox"/> GPB				

Dataset: U:\VG12.PRO\Results\200311R5\200311R5-2B.qld

Last Altered: Monday, March 16, 2020 09:55:15 Pacific Daylight Time  
Printed: Monday, March 16, 2020 09:57:20 Pacific Daylight Time

*GRB 03/16/2020*

*(17 03/16/2020*

Method: U:\VG12.PRO\MethDB\tcddtcdf.mdb 13 Mar 2020 15:19:11

Calibration: U:\VG12.PRO\CurveDB\db225\_1613tcddtcdfvg12-03-09-20.cdb 13 Mar 2020 15:20:25

Name: 200311R5\_2, Date: 12-Mar-2020, Time: 20:09:32, ID: ST200311R5\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

#	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	1.20e5	0.85	NO	0.817	1.000	15.064	15.09	1.001	1.002	10.098	101	0.0623	10.1
2	2 2,3,7,8-TCDF	1.64e5	0.75	NO	0.816	1.000	16.572	16.58	1.001	1.001	10.047	100	0.0561	10.0
3	3 13C-2,3,7,8-TCDD	1.45e6	0.77	NO	1.16	1.000	15.068	15.06	1.029	0.993	101.53	102	0.0971	
4	4 13C-2,3,7,8-TCDF	2.00e6	0.77	NO	1.10	1.000	16.558	16.55	0.990	1.091	100.67	101	0.132	
5	5 37Cl-2,3,7,8-TCDD	1.38e5			1.01	1.000	15.078	15.09	1.029	0.995	11.148	111	0.0498	
6	6 13C-1,2,3,4-TCDD	1.23e6	0.79	NO	1.00	1.000	15.150	15.17	1.000	1.000	100.00	100	0.113	
7	7 13C-1,2,3,4-TCDF	1.80e6	0.79	NO	1.00	1.000	14.440	14.45	1.000	1.000	100.00	100	0.146	

Dataset: Untitled

Last Altered: Friday, March 13, 2020 07:34:55 Pacific Daylight Time

Printed: Friday, March 13, 2020 07:37:17 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\tcdf.mdb 11 Mar 2020 07:47:30

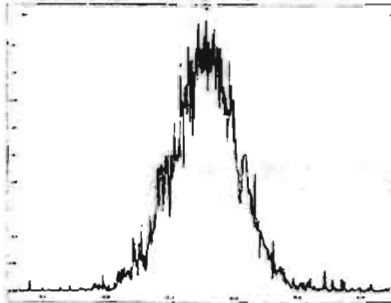
Calibration: U:\VG12.PRO\CurveDB\ldb225\_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

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

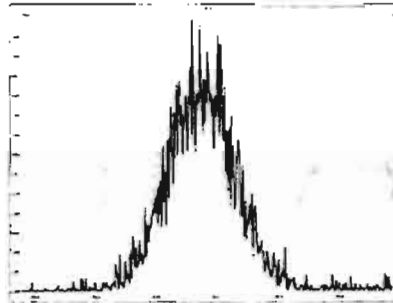
	Name	ID	Acq.Date	Acq.Time
1	200311R5_1	CP200311R5_1 225 CPSM	12-Mar-20	19:39:08
2	200311R5_2	ST200311R5_1 1613 CS3 19L2305	12-Mar-20	20:09:32
3	200311R5_3	SOLVENT BLANK	12-Mar-20	20:39:58
4	200311R5_4	2000411-01RE1 PDI-017SC-A-02-03-191003 ...	12-Mar-20	21:10:23
5	200311R5_5	2000411-02RE1 PDI-017SC-A-03-04-191003 ...	12-Mar-20	21:40:49
6	200311R5_6	2000411-03RE1 PDI-017SC-A-04-05-191003 ...	12-Mar-20	22:11:14
7	200311R5_7	2000411-04RE1 PDI-017SC-A-05-06-191003 ...	12-Mar-20	22:41:40
8	200311R5_8	2000411-05RE1 PDI-017SC-A-06-07-191003 ...	12-Mar-20	23:12:05
9	200311R5_9	2000411-06RE1 PDI-020SC-A-04-05-191008 ...	12-Mar-20	23:42:30
10	200311R5_10	2000411-07RE1 PDI-031SC-A-05-06-191017 ...	13-Mar-20	00:12:56
11	200311R5_11	2000411-08RE1 PDI-031SC-A-06-07-191017 ...	13-Mar-20	00:43:22
12	200311R5_12	2000411-09RE1 PDI-034SC-A-04-05-191022 ...	13-Mar-20	01:13:46
13	200311R5_13	2000411-10RE1 PDI-052SC-A-07-08-191015 ...	13-Mar-20	01:44:11
14	200311R5_14	2000411-11RE1 PDI-052SC-A-08-09-191015 ...	13-Mar-20	02:14:35
15	200311R5_15	2000411-12RE1 PDI-052SC-A-09-10-191015 ...	13-Mar-20	02:45:02
16	200311R5_16	2000411-13RE1 PDI-052SC-A-10-11-191015 ...	13-Mar-20	03:15:27
17	200311R5_17	2000411-14RE1 PDI-055SC-A-04-05-191015 ...	13-Mar-20	03:45:52
18	200311R5_18	2000411-15RE1 PDI-055SC-A-05-06-191015 ...	13-Mar-20	04:16:18
19	200311R5_19	2000411-16RE1 PDI-055SC-A-06-07-191015 ...	13-Mar-20	04:46:42
20	200311R5_20	2000248-01RE1 S Sump_20200131 0.97808	13-Mar-20	05:17:09
21	200311R5_21	1904160-18RE1 PDI-040SC-A-01-02-190930 ...	13-Mar-20	05:47:33

Printed: Thursday, March 12, 2020 19:08:52 Pacific Daylight Time

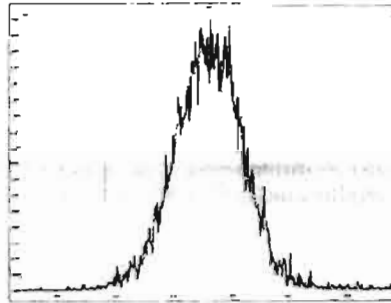
M 292.9824 R 13440



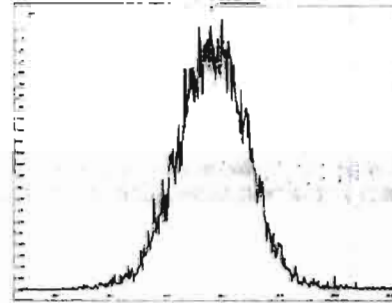
M 304.9824 R 12823



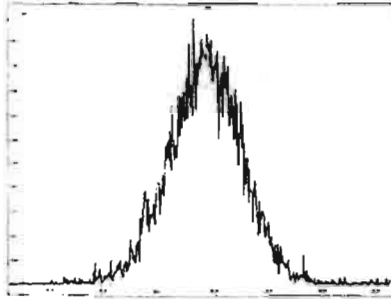
M 318.9792 R 12197



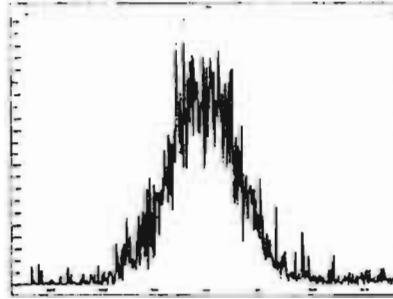
M 330.9792 R 11991



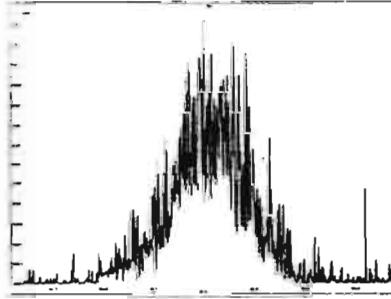
M 342.9792 R 12228



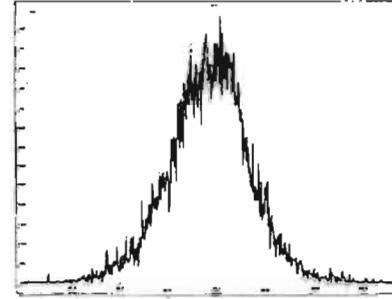
M 354.9792 R 11683



M 366.9792 R 12269



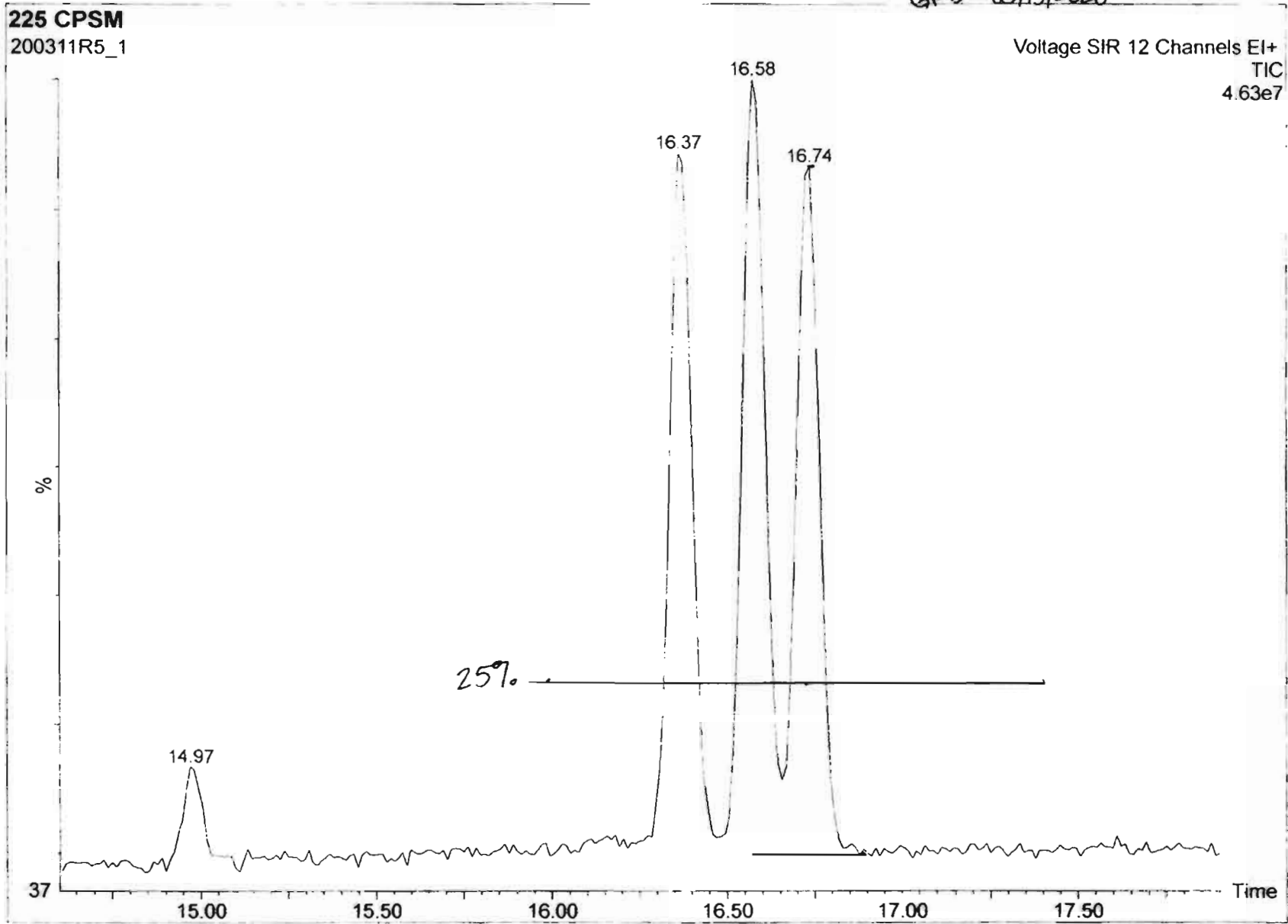
M 380.9760 R 10640



GRO 03/13/2020

225 CPSM  
200311R5\_1

Voltage SIR 12 Channels EI+  
TIC  
4.63e7



Dataset: Untitled

Last Altered: Monday, March 16, 2020 09:53:19 Pacific Daylight Time  
Printed: Monday, March 16, 2020 09:53:32 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\Tcddtcdf.mdb 13 Mar 2020 15:19:11  
Calibration: U:\VG12.PRO\CurveDB\lb225\_1613tcddtcdfvg12-03-09-20.cdb 13 Mar 2020 15:20:25

Name: 200311R5\_2, Date: 12-Mar-2020, Time: 20:09:32, ID: ST200311R5\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

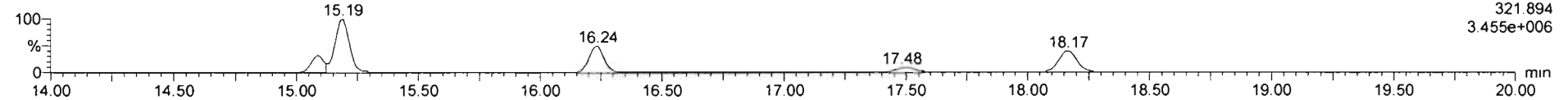
**2,3,7,8-TCDD**

200311R5\_2



Voltage SIR,EI+  
319.8965  
2.659e+006

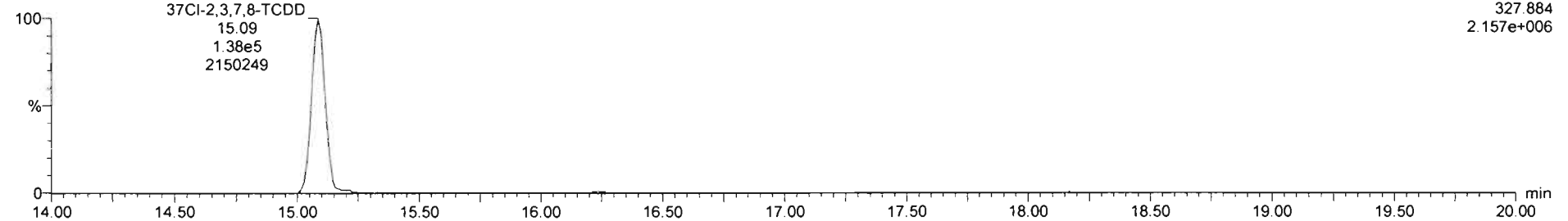
200311R5\_2



Voltage SIR,EI+  
321.894  
3.455e+006

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

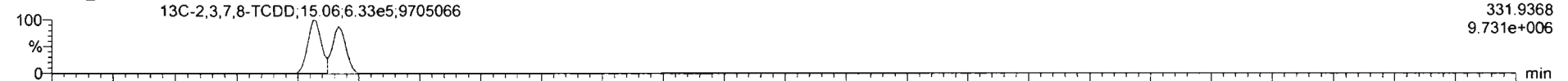
200311R5\_2



Voltage SIR,EI+  
327.884  
2.157e+006

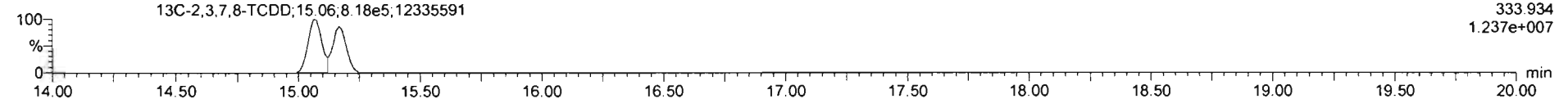
**13C-2,3,7,8-TCDD**

200311R5\_2



Voltage SIR,EI+  
331.9368  
9.731e+006

200311R5\_2



Voltage SIR,EI+  
333.934  
1.237e+007

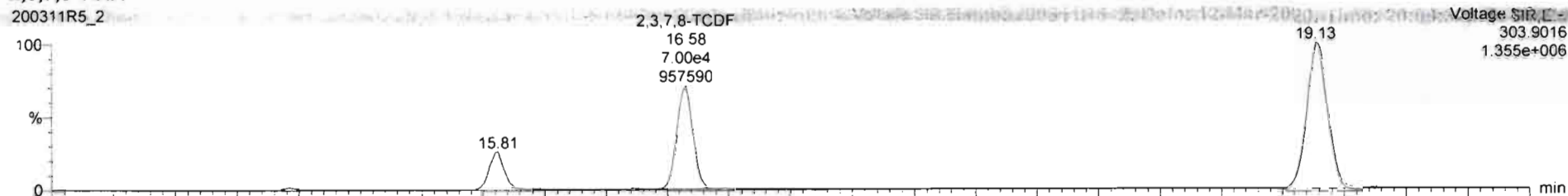
Dataset: Untitled

Last Altered: Monday, March 16, 2020 09:53:19 Pacific Daylight Time  
Printed: Monday, March 16, 2020 09:53:32 Pacific Daylight Time

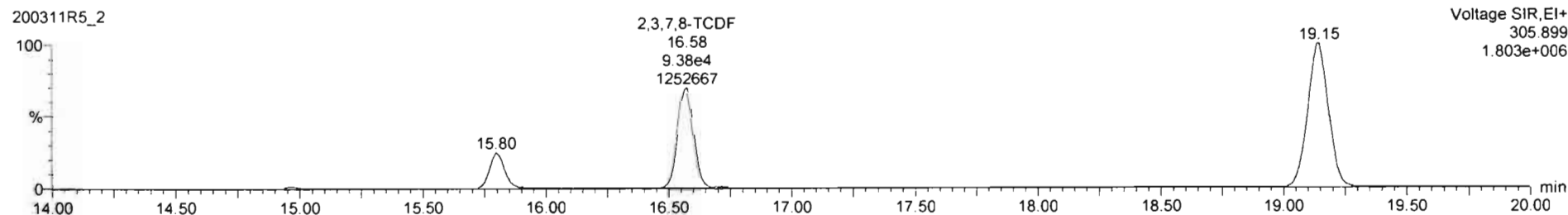
Sample Name: 200311R5\_2, Date: 12-Mar-2020, Time: 20:09:32, ID: ST200311R5\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

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

200311R5\_2

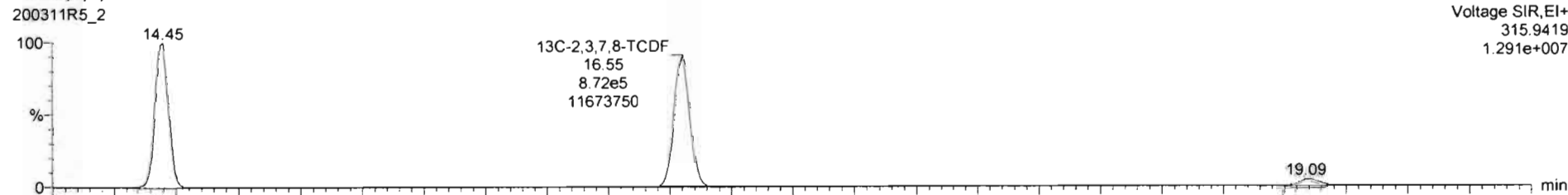


200311R5\_2

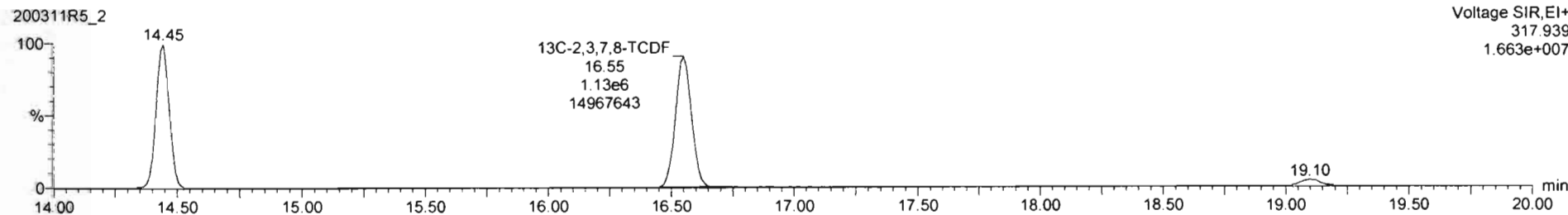


**13C-2,3,7,8-TCDF**

200311R5\_2



200311R5\_2



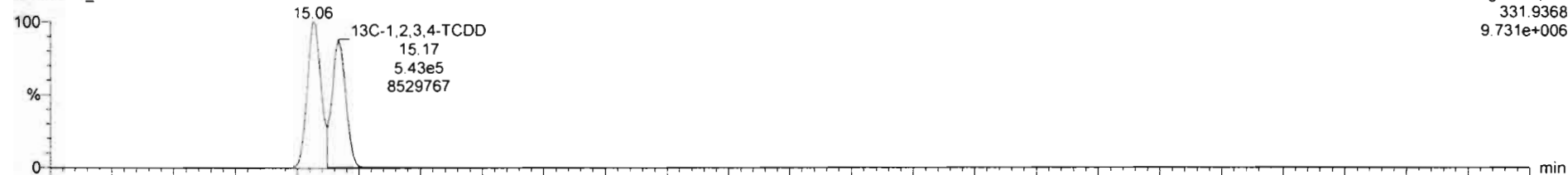
Dataset: Untitled

Last Altered: Monday, March 16, 2020 09:53:19 Pacific Daylight Time  
Printed: Monday, March 16, 2020 09:53:32 Pacific Daylight Time

Name: 200311R5\_2, Date: 12-Mar-2020, Time: 20:09:32, ID: ST200311R5\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

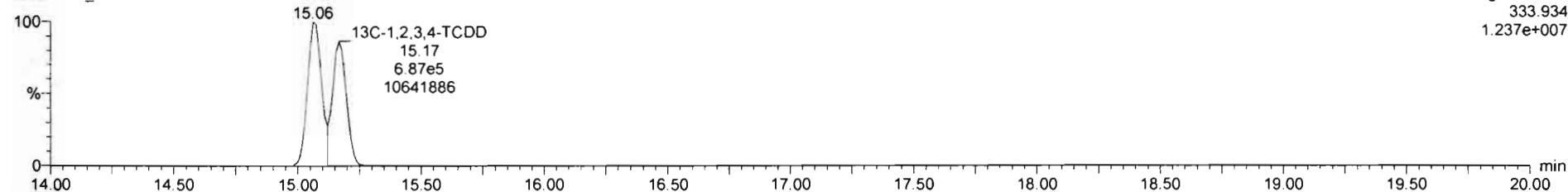
13C-1,2,3,4-TCDD

200311R5\_2



Voltage SIR, EI+  
331.9368  
9.731e+006

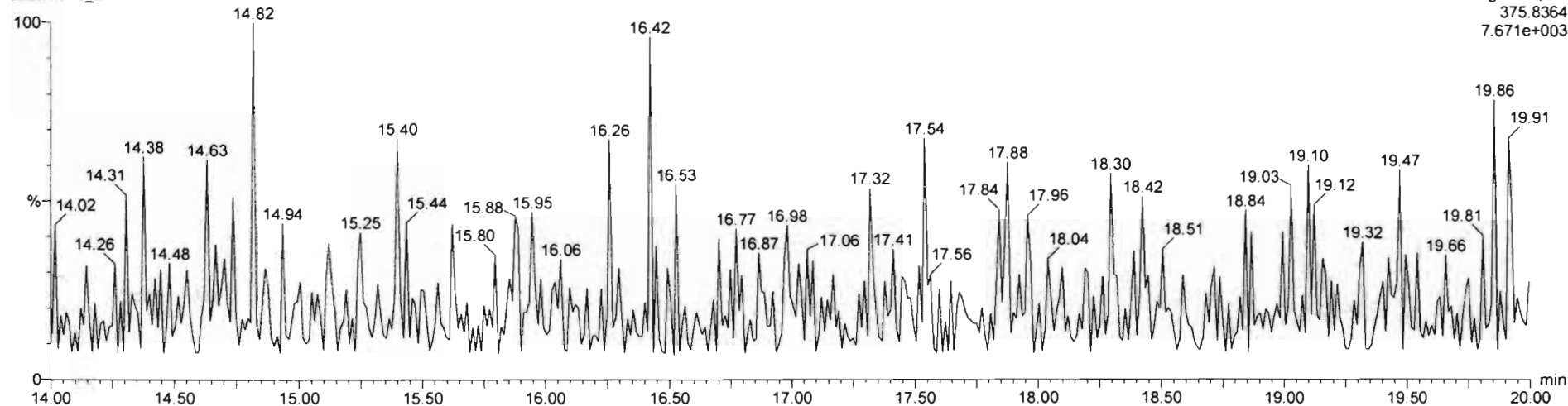
200311R5\_2



Voltage SIR, EI+  
333.934  
1.237e+007

DPE1

200311R5\_2



Voltage SIR, EI+  
375.8364  
7.671e+003

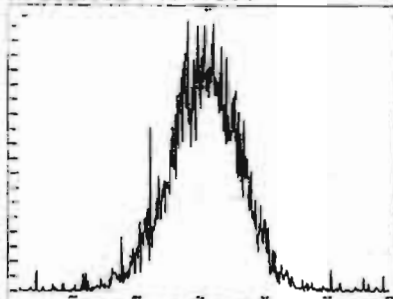


Resolution Check Report

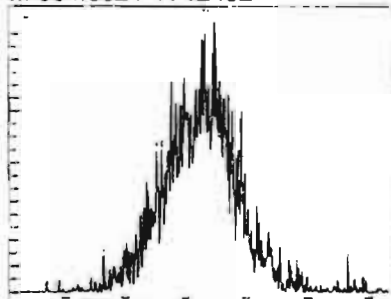
MassLynx 4.1 SCN815

Printed: Friday, March 13, 2020 06:19:48 Pacific Daylight Time

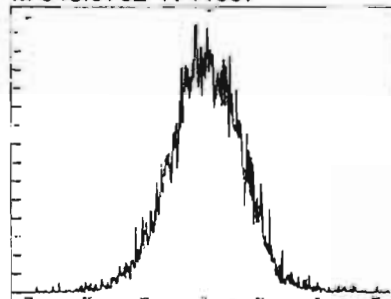
M 292.9824 R 11931



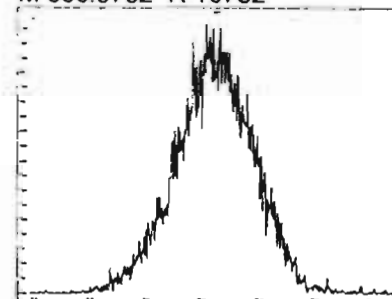
M 304.9824 R 12452



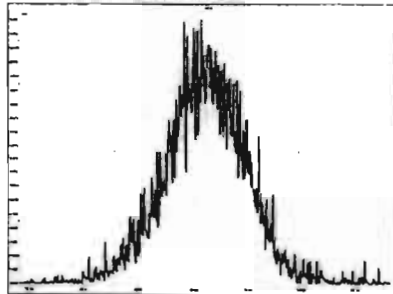
M 318.9792 R 11337



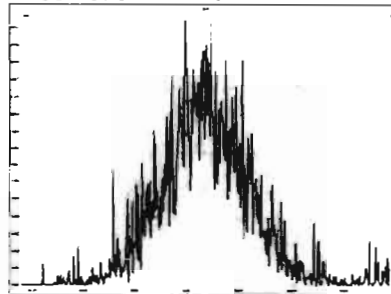
M 330.9792 R 10752



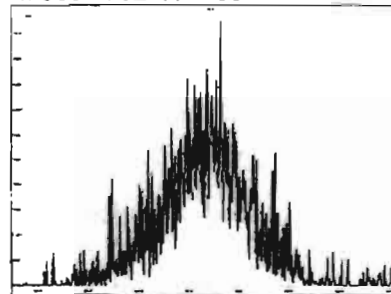
M 342.9792 R 11086



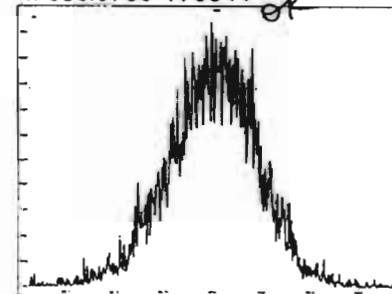
M 354.9792 R 11319



M 366.9792 R 11961



M 380.9760 R 9644



## HRMS CALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calibration ID: ST200314R2-1

Reviewed By: CT03/16/2020  
*Initials & Date*

End Calibration ID: ST200314R3-1

	<u>Beg.</u>	<u>End</u>		<u>Beg.</u>	<u>End</u>
Ion abundance within QC limits?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Mass resolution $\geq$	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Concentrations within criteria?	<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		
TCDD/TCDF Valleys <25%	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	Intergrated peaks display correctly?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
First and last eluters present?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	GC Break <20%	<input type="checkbox"/> NA	
Retention Times within criteria?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<b>8280 CS1 End Standard:</b>		
Verification Std. named correctly? (ST-Year-Month-Day-VG ID)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	- Ratios within limits, S/N <2.5:1, CS1 within 12 hours	<input type="checkbox"/> NA	
Forms signed and dated?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<b>Comments:</b>     		
Correct ICAL referenced?	<u>GRB</u>	<u>GRB</u>			
<b>Run Log:</b>					
- Correct instrument listed?	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>			
- Samples within 12 hour clock?	<input checked="" type="checkbox"/>	N			
- Bottle position verified?	<u>GRB</u>				

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-1.qld

Last Altered: Saturday, March 14, 2020 12:13:56 Pacific Daylight Time  
Printed: Saturday, March 14, 2020 12:14:46 Pacific Daylight Time

GRB 03/14/2020

C7 03/16/2020

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08  
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R2\_1, Date: 14-Mar-2020, Time: 11:19:02, ID: ST200314R2\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

#	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	7.48e4	8.54e5	0.76	NO	0.983	25.77	25.77	NO	1.001	1.001	8.8992	89.0	NO
2	2 1,2,3,7,8-PeCDD	2.77e5	6.39e5	0.62	NO	0.921	31.02	31.02	NO	1.001	1.000	47.100	94.2	NO
3	3 1,2,3,4,7,8-HxCDD	2.38e5	4.56e5	1.24	NO	1.13	34.42	34.43	NO	1.000	1.001	46.036	92.1	NO
4	4 1,2,3,6,7,8-HxCDD	2.55e5	5.66e5	1.26	NO	0.984	34.52	34.53	NO	1.000	1.000	45.851	91.7	NO
5	5 1,2,3,7,8,9-HxCDD	2.21e5	4.95e5	1.24	NO	0.967	34.80	34.80	NO	1.000	1.000	46.240	92.5	NO
6	6 1,2,3,4,6,7,8-HpCDD	1.66e5	3.63e5	1.02	NO	1.01	38.25	38.25	NO	1.000	1.000	45.451	90.9	NO
7	7 OCDD	3.25e5	7.12e5	0.89	NO	1.05	41.37	41.38	NO	1.000	1.000	86.991	87.0	NO
8	8 2,3,7,8-TCDF	9.03e4	1.16e6	0.74	NO	0.915	24.77	24.78	NO	1.001	1.001	8.4805	84.8	NO
9	9 1,2,3,7,8-PeCDF	4.31e5	9.50e5	1.60	NO	0.959	29.68	29.68	NO	1.001	1.001	47.334	94.7	NO
10	10 2,3,4,7,8-PeCDF	4.36e5	9.31e5	1.56	NO	1.00	30.71	30.70	NO	1.001	1.000	46.691	93.4	NO
11	11 1,2,3,4,7,8-HxCDF	3.02e5	6.20e5	1.17	NO	1.04	33.56	33.57	NO	1.000	1.000	46.917	93.8	NO
12	12 1,2,3,6,7,8-HxCDF	3.32e5	6.92e5	1.14	NO	1.01	33.69	33.69	NO	1.000	1.000	47.399	94.8	NO
13	13 2,3,4,6,7,8-HxCDF	3.16e5	6.40e5	1.17	NO	1.09	34.28	34.26	NO	1.001	1.001	45.286	90.6	NO
14	14 1,2,3,7,8,9-HxCDF	2.38e5	5.01e5	1.18	NO	1.03	35.12	35.13	NO	1.000	1.000	46.238	92.5	NO
15	15 1,2,3,4,6,7,8-HpCDF	2.23e5	4.64e5	0.99	NO	1.05	36.87	36.84	NO	1.001	1.000	45.957	91.9	NO
16	16 1,2,3,4,7,8,9-HpCDF	1.71e5	3.00e5	1.00	NO	1.21	38.90	38.91	NO	1.000	1.000	47.205	94.4	NO
17	17 OCDF	3.65e5	8.44e5	0.88	NO	0.947	41.54	41.55	NO	1.000	1.000	91.466	91.5	NO
18	18 13C-2,3,7,8-TCDD	8.54e5	7.03e5	0.76	NO	1.18	25.73	25.74	NO	1.029	1.029	102.65	103	NO
19	19 13C-1,2,3,7,8-PeCDD	6.39e5	7.03e5	0.62	NO	0.864	30.92	31.00	NO	1.236	1.239	105.15	105	NO
20	20 13C-1,2,3,4,7,8-HxCDD	4.56e5	6.26e5	1.31	NO	0.754	34.42	34.41	NO	1.014	1.014	96.557	96.6	NO
21	21 13C-1,2,3,6,7,8-HxCDD	5.66e5	6.26e5	1.34	NO	0.925	34.53	34.52	NO	1.017	1.017	97.682	97.7	NO
22	22 13C-1,2,3,7,8,9-HxCDD	4.95e5	6.26e5	1.30	NO	0.829	34.79	34.79	NO	1.025	1.025	95.385	95.4	NO
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.63e5	6.26e5	1.03	NO	0.598	38.24	38.24	NO	1.127	1.126	96.924	96.9	NO
24	24 13C-OCDD	7.12e5	6.26e5	0.89	NO	0.571	41.39	41.37	NO	1.219	1.219	199.09	99.5	NO
25	25 13C-2,3,7,8-TCDF	1.16e6	1.08e6	0.78	NO	1.09	24.76	24.75	NO	0.990	0.989	99.223	99.2	NO
26	26 13C-1,2,3,7,8-PeCDF	9.50e5	1.08e6	1.54	NO	0.876	29.59	29.66	NO	1.183	1.186	100.67	101	NO
27	27 13C-2,3,4,7,8-PeCDF	9.31e5	1.08e6	1.59	NO	0.844	30.60	30.68	NO	1.223	1.226	102.45	102	NO
28	28 13C-1,2,3,4,7,8-HxCDF	6.20e5	6.26e5	0.50	NO	1.00	33.56	33.56	NO	0.989	0.989	99.075	99.1	NO
29	29 13C-1,2,3,6,7,8-HxCDF	6.92e5	6.26e5	0.50	NO	1.12	33.67	33.68	NO	0.992	0.992	98.934	98.9	NO
30	30 13C-2,3,4,6,7,8-HxCDF	6.40e5	6.26e5	0.51	NO	1.04	34.25	34.24	NO	1.009	1.009	98.759	98.8	NO
31	31 13C-1,2,3,7,8,9-HxCDF	5.01e5	6.26e5	0.50	NO	0.873	35.13	35.12	NO	1.035	1.035	91.717	91.7	NO

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-1.qld

Last Altered: Saturday, March 14, 2020 12:13:56 Pacific Daylight Time

Printed: Saturday, March 14, 2020 12:14:46 Pacific Daylight Time

Name: 200314R2\_1, Date: 14-Mar-2020, Time: 11:19:02, ID: ST200314R2\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

	# 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	4.64e5	6.26e5	0.44	NO	0.771	36.84	36.83	NO	1.085	1.085	96.167	96.2	NO
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.00e5	6.26e5	0.44	NO	0.519	38.92	38.90	NO	1.147	1.146	92.348	92.3	NO
34	34 13C-OCDF	8.44e5	6.26e5	0.89	NO	0.696	41.57	41.54	NO	1.225	1.224	193.59	96.8	NO
35	35 37Cl-2,3,7,8-TCDD	7.86e4	7.03e5			1.17	25.74	25.75	NO	1.029	1.029	9.5221	95.2	NO
36	36 13C-1,2,3,4-TCDD	7.03e5	7.03e5	0.76	NO	1.00	25.05	25.02	NO	1.000	1.000	100.00	100	NO
37	37 13C-1,2,3,4-TCDF	1.08e6	1.08e6	0.78	NO	1.00	23.19	23.10	NO	1.000	1.000	100.00	100	NO
38	38 13C-1,2,3,4,6,9-HxCDF	6.26e5	6.26e5	0.50	NO	1.00	33.88	33.94	NO	1.000	1.000	100.00	100	YES <i>ok</i>
39	39 Total Tetra-Dioxins		8.54e5			0.983	24.62		NO	0.000		77.905		NO
40	40 Total Penta-Dioxins		6.39e5			0.921	29.96		NO	0.000		208.94		NO
41	41 Total Hexa-Dioxins		0.00e0			0.984	33.63		NO	0.000		232.96		NO
42	42 Total Hepta-Dioxins		3.63e5			1.01	37.64		NO	0.000		123.25		NO
43	43 Total Tetra-Furans		1.16e6			0.915	23.61		NO	0.000		44.499		NO
44	44 1st Func. Penta-Furans		0.00e0			0.959	27.09		NO	0.000		86.390		NO
45	45 Total Penta-Furans		0.00e0			0.959	29.27		NO	0.000		162.41		NO
46	46 Total Hexa-Furans		0.00e0			1.09	33.56		NO	0.000		268.96		NO
47	47 Total Hepta-Furans		0.00e0			1.05	37.83		NO	0.000		93.356		NO

Dataset: Untitled

Last Altered: Sunday, March 15, 2020 09:30:03 Pacific Daylight Time  
Printed: Sunday, March 15, 2020 09:30:06 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 06 Mar 2020 18:12:45  
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Compound name: 1,3,6,8-TCDD (First)

	Name	ID	Acq.Date	Acq.Time
1	200314R2_1	ST200314R2_1 1613 CS3 19L2305	14-Mar-20	11:19:02
2	200314R2_2	B0C0076-BS1 OPR 10	14-Mar-20	12:06:21
3	200314R2_3	B0C0168-BS1 OPR 10	14-Mar-20	12:52:52
4	200314R2_4	SOLVENT BLANK	14-Mar-20	13:40:23
5	200314R2_5	B0C0076-BLK1 Method Blank 10	14-Mar-20	14:27:57
6	200314R2_6	B0C0168-BLK1 Method Blank 10	14-Mar-20	15:15:32
7	200314R2_7	2000401-01RE1 ITXAX-20-077 10.8	14-Mar-20	16:03:05
8	200314R2_8	2000411-01 PDI-017SC-A-02-03-191003 11.53	14-Mar-20	16:50:40
9	200314R2_9	B0C0076-DUP1 Duplicate 11.62	14-Mar-20	17:38:14
10	200314R2_10	2000411-02 PDI-017SC-A-03-04-191003 12.65	14-Mar-20	18:25:45
11	200314R2_11	2000411-03 PDI-017SC-A-04-05-191003 12.01	14-Mar-20	19:13:19
12	200314R2_12	2000411-04 PDI-017SC-A-05-06-191003 13.89	14-Mar-20	20:00:54
13	200314R2_13	2000411-05 PDI-017SC-A-06-07-191003 13.52	14-Mar-20	20:48:26
14	200314R2_14	2000411-06 PDI-020SC-A-04-05-191008 12.05	14-Mar-20	21:35:59
15	200314R2_15	2000411-07 PDI-031SC-A-05-06-191017 11.82	14-Mar-20	22:23:32
16	200314R3_1	SOLVENT BLANK	14-Mar-20	23:20:01
17	200314R3_2	ST200314R3_1 1613 CS3 19L2305	15-Mar-20	00:06:17

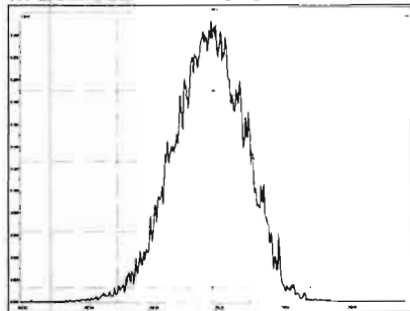
Experiment Calibration Report

MassLynx 4.1 SCN815

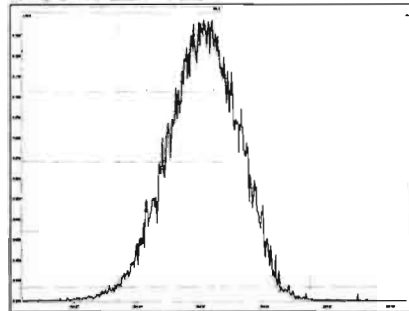
File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Saturday, March 14, 2020 11:13:58 Pacific Daylight Time

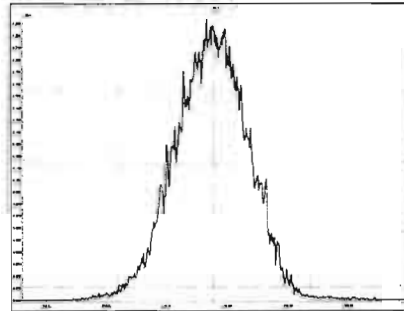
M 292.9824 R 12079



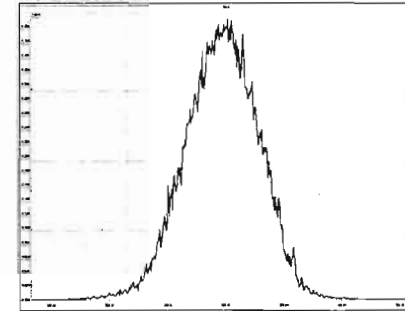
M 304.9824 R 11847



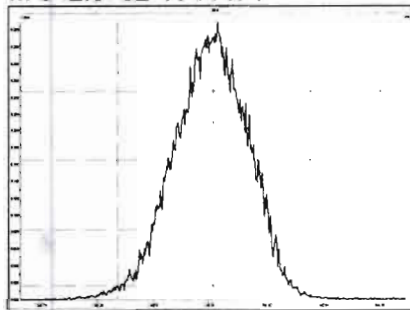
M 318.9792 R 11418



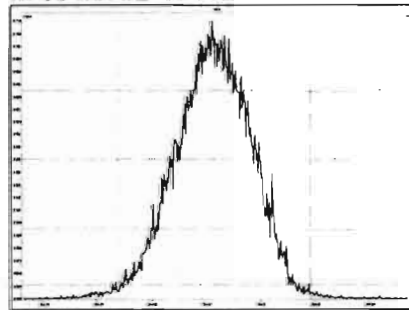
M 330.9792 R 11905



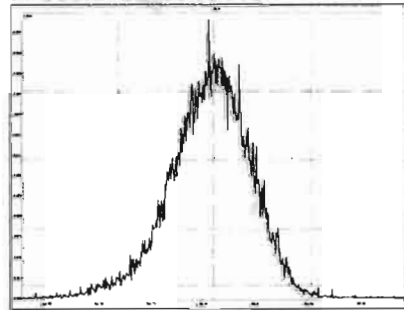
M 342.9792 R 11471



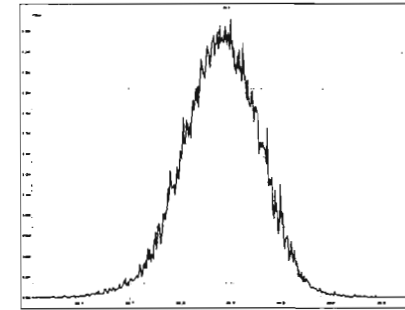
M 354.9792 R 11212



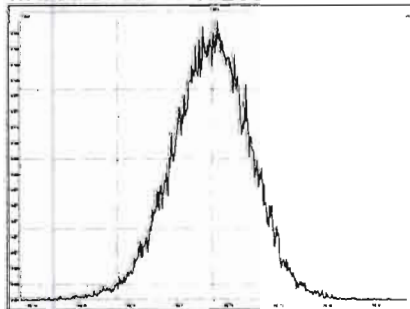
M 366.9792 R 10416



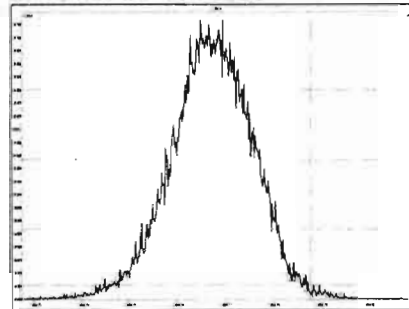
M 380.9760 R 10595



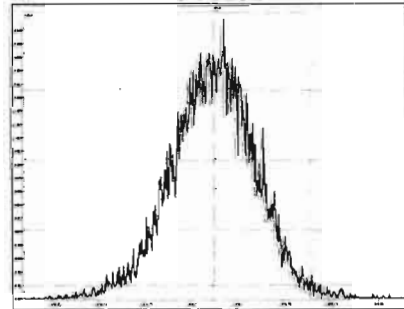
M 392.9760 R 10288



M 404.9760 R 10290



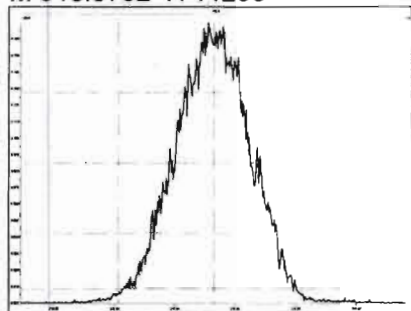
M 416.9760 R 10866



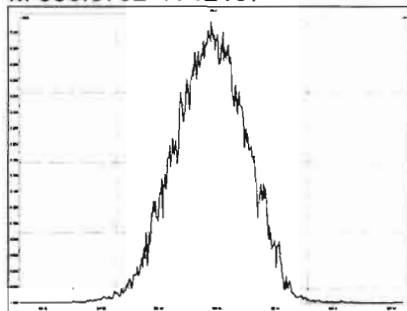
File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed: Saturday, March 14, 2020 11:14:32 Pacific Daylight Time

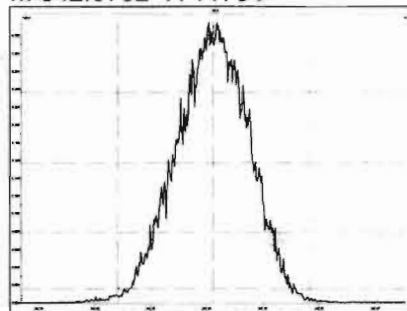
M 318.9792 R 11208



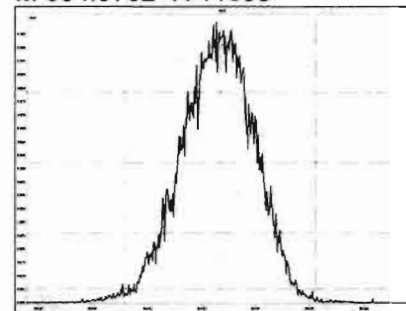
M 330.9792 R 12137



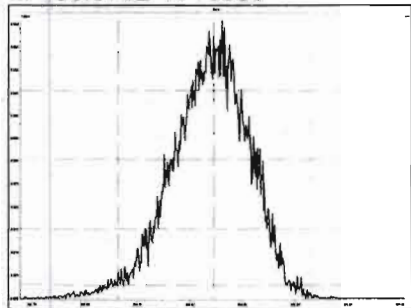
M 342.9792 R 11791



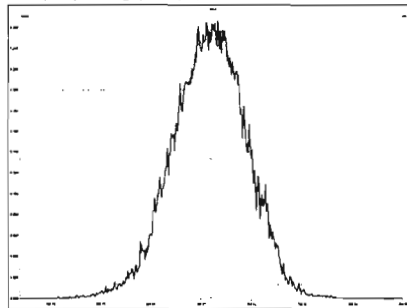
M 354.9792 R 11906



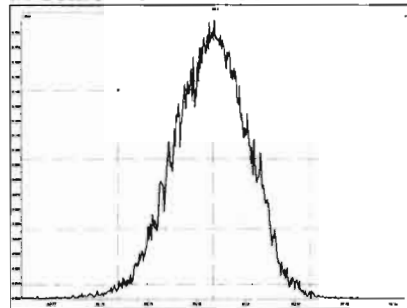
M 366.9792 R 10593



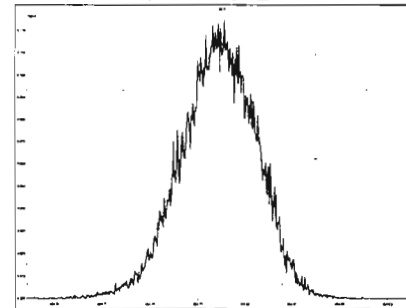
M 380.9760 R 11310



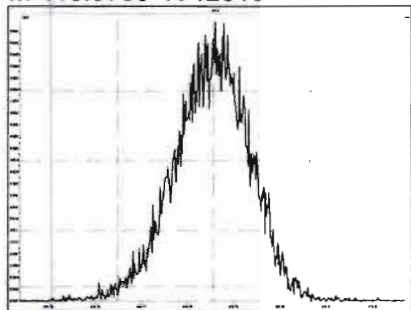
M 392.9760 R 11789



M 404.9760 R 11012



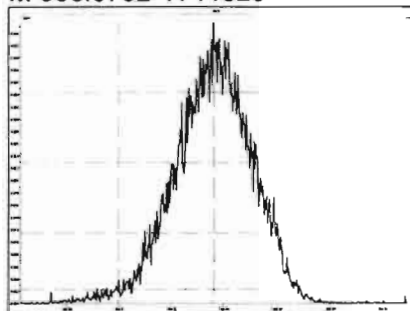
M 416.9760 R 12016



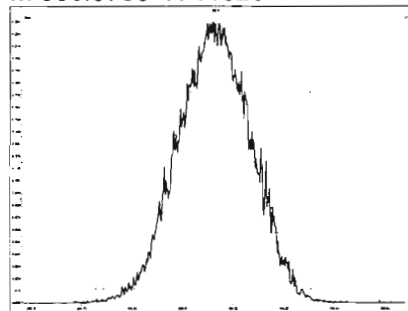
File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed: Saturday, March 14, 2020 11:15:19 Pacific Daylight Time

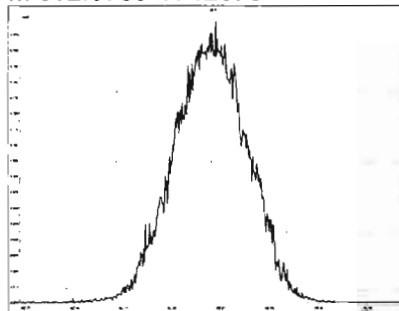
M 366.9792 R 11628



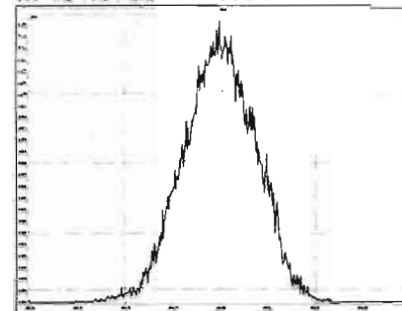
M 380.9760 R 11626



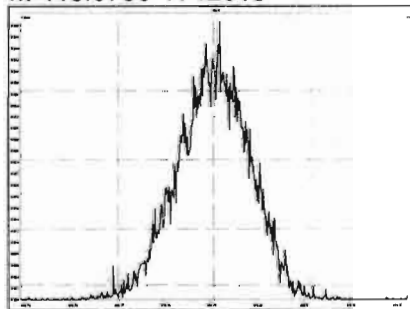
M 392.9760 R 12078



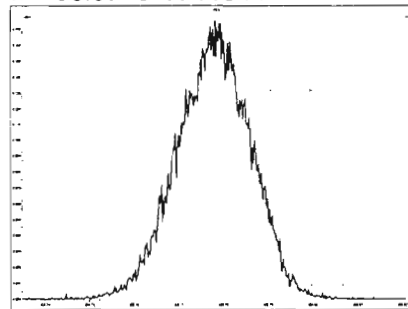
M 404.9760 R 11961



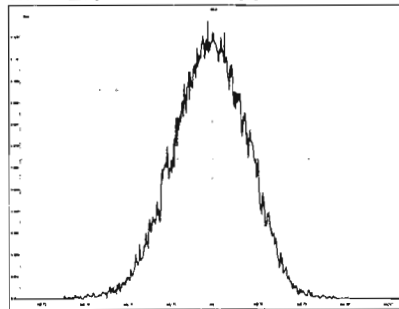
M 416.9760 R 12016



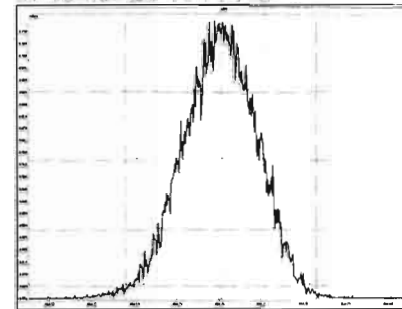
M 430.9728 R 11844



M 442.9728 R 11260



M 454.9728 R 11416

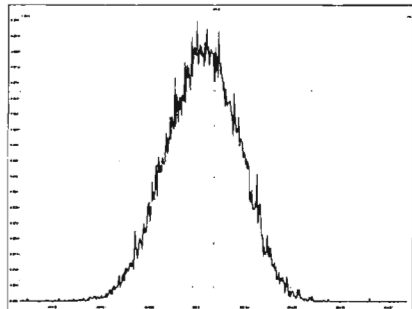




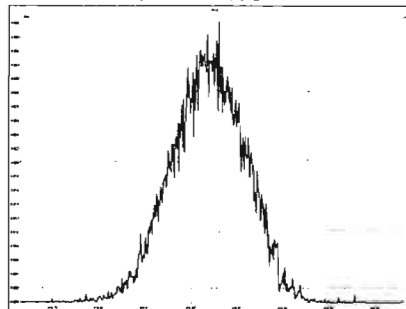
File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Saturday, March 14, 2020 11:16:11 Pacific Daylight Time

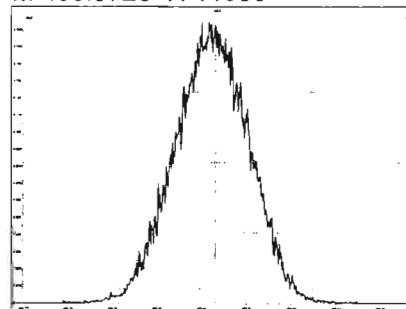
M 404.9760 R 11364



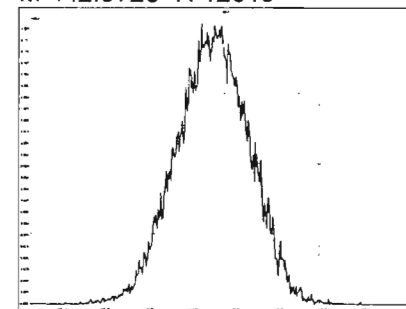
M 416.9760 R 11209



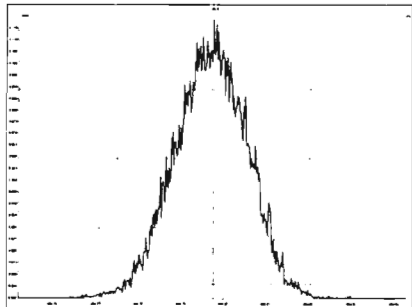
M 430.9728 R 11365



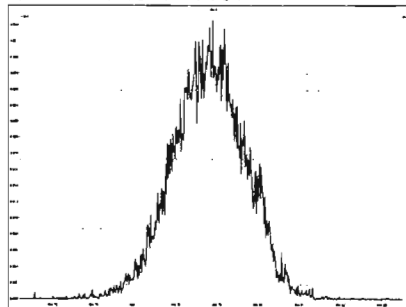
M 442.9728 R 12019



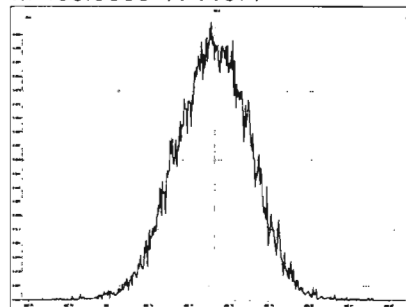
M 454.9728 R 12017



M 466.9728 R 11574



M 480.9696 R 11577



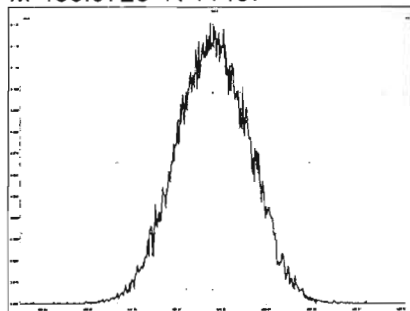
Experiment Calibration Report

MassLynx 4.1 SCN815

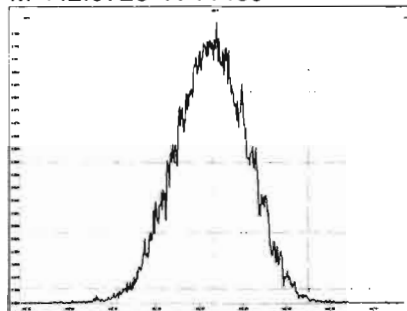
File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Saturday, March 14, 2020 11:16:40 Pacific Daylight Time

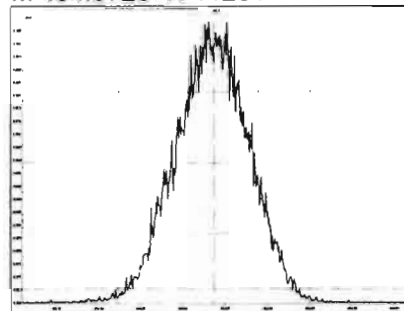
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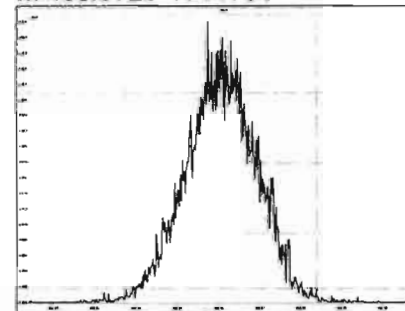
M 442.9728 R 11469



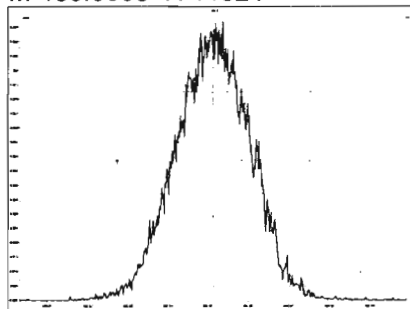
M 454.9728 R 11261



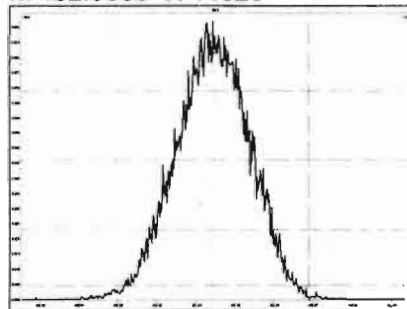
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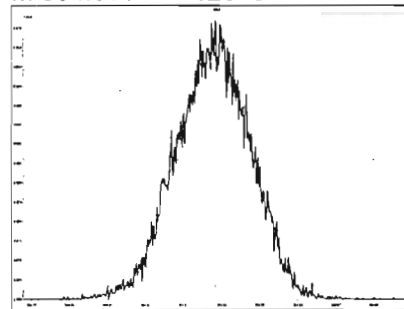
M 480.9696 R 11521



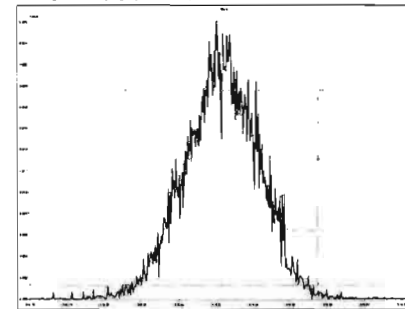
M 492.9696 R 11520



M 504.9696 R 12075



M 516.9697 R 11464



Dataset: U:\VG12.PRO\Results\200314R2\200314R2-CPSM.qld

Last Altered: Saturday, March 14, 2020 12:09:41 Pacific Daylight Time

Printed: Saturday, March 14, 2020 12:10:09 Pacific Daylight Time

Method: Untitled 06 Mar 2020 18:12:45

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R2\_1, Date: 14-Mar-2020, Time: 11:19:02, ID: ST200314R2\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

#	Name	RT
1	1,3,6,8-TCDD (First)	21.41
2	1,2,8,9-TCDD (Last)	26.80
3	1,2,4,7,9-PeCDD (First)	28.71
4	1,2,3,8,9-PeCDD (Last)	31.41
5	1,2,4,6,7,9-HxCDD (First)	32.95
6	1,2,3,7,8,9-HxCDD (Last)	34.80
7	1,2,3,4,6,7,9-HpCDD (First)	37.22
8	1,2,3,4,6,7,8-HpCDD (Last)	38.25
9	1,3,6,8-TCDF (First)	19.40
10	1,2,8,9-TCDF (Last)	26.95
11	1,3,4,6,8-PeCDF (First)	26.90
12	1,2,3,8,9-PeCDF (Last)	31.66
13	1,2,3,4,6,8-HxCDF (First)	32.38
14	1,2,3,7,8,9-HxCDF (Last)	35.13
15	1,2,3,4,6,7,8-HpCDF (First)	36.84
16	1,2,3,4,7,8,9-HpCDF (Last)	38.91

Dataset: U:\VG12.PRO\Results\200314R2\200314R2-CPSM.qld

Last Altered: Saturday, March 14, 2020 12:09:41 Pacific Daylight Time  
Printed: Saturday, March 14, 2020 12:10:09 Pacific Daylight Time

GRB 03/14/2020

Method: Untitled 06 Mar 2020 18:12:45

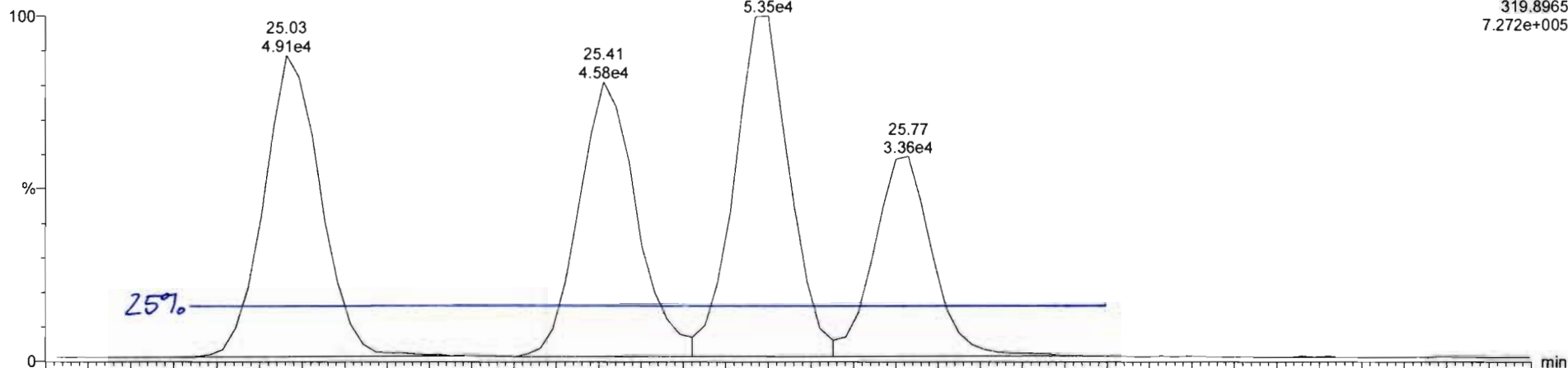
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R2\_1, Date: 14-Mar-2020, Time: 11:19:02, ID: ST200314R2\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

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

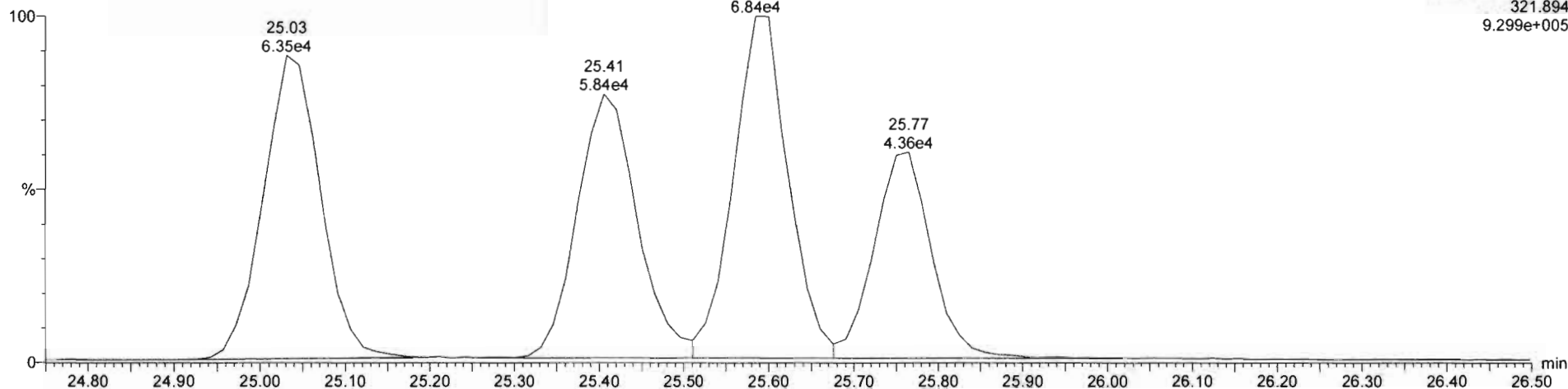
200314R2\_1

F1:Voltage SIR,EI+  
319.8965  
7.272e+005



200314R2\_1

F1:Voltage SIR,EI+  
321.894  
9.299e+005



Dataset: Untitled

Last Altered: Saturday, March 14, 2020 12:12:38 Pacific Daylight Time

Printed: Saturday, March 14, 2020 12:12:42 Pacific Daylight Time

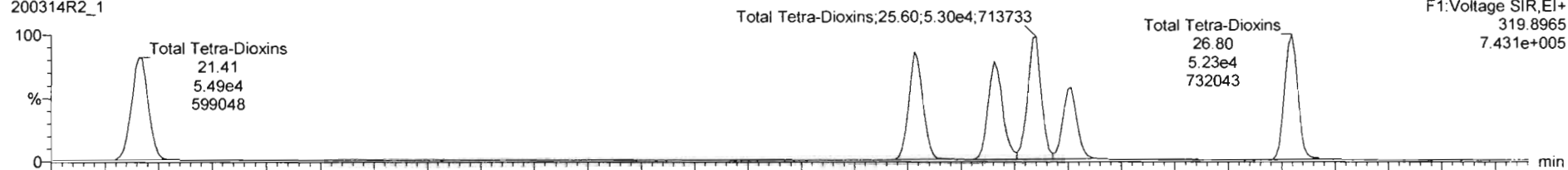
Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R2\_1, Date: 14-Mar-2020, Time: 11:19:02, ID: ST200314R2\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

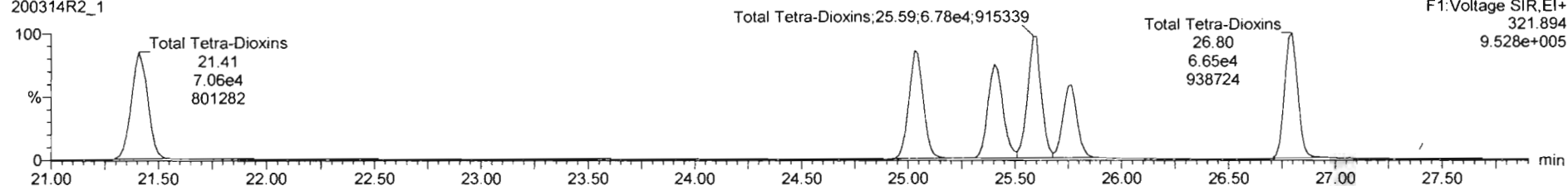
2,3,7,8-TCDD

200314R2\_1



F1: Voltage SIR, EI+  
319.8965  
7.431e+005

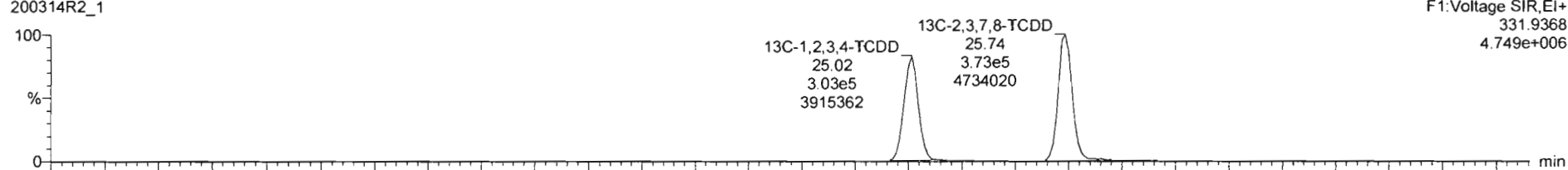
200314R2\_1



F1: Voltage SIR, EI+  
321.894  
9.528e+005

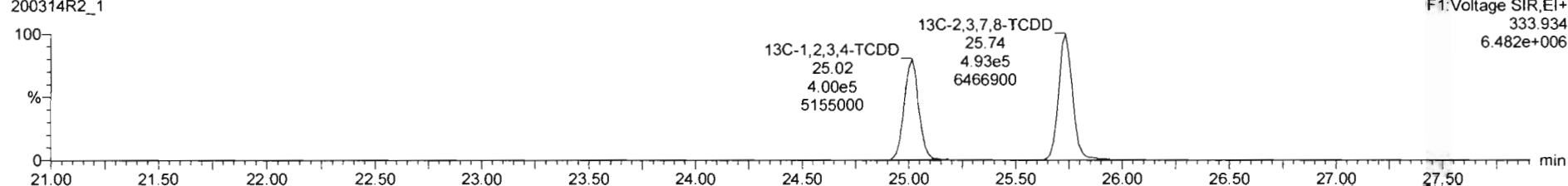
13C-2,3,7,8-TCDD

200314R2\_1

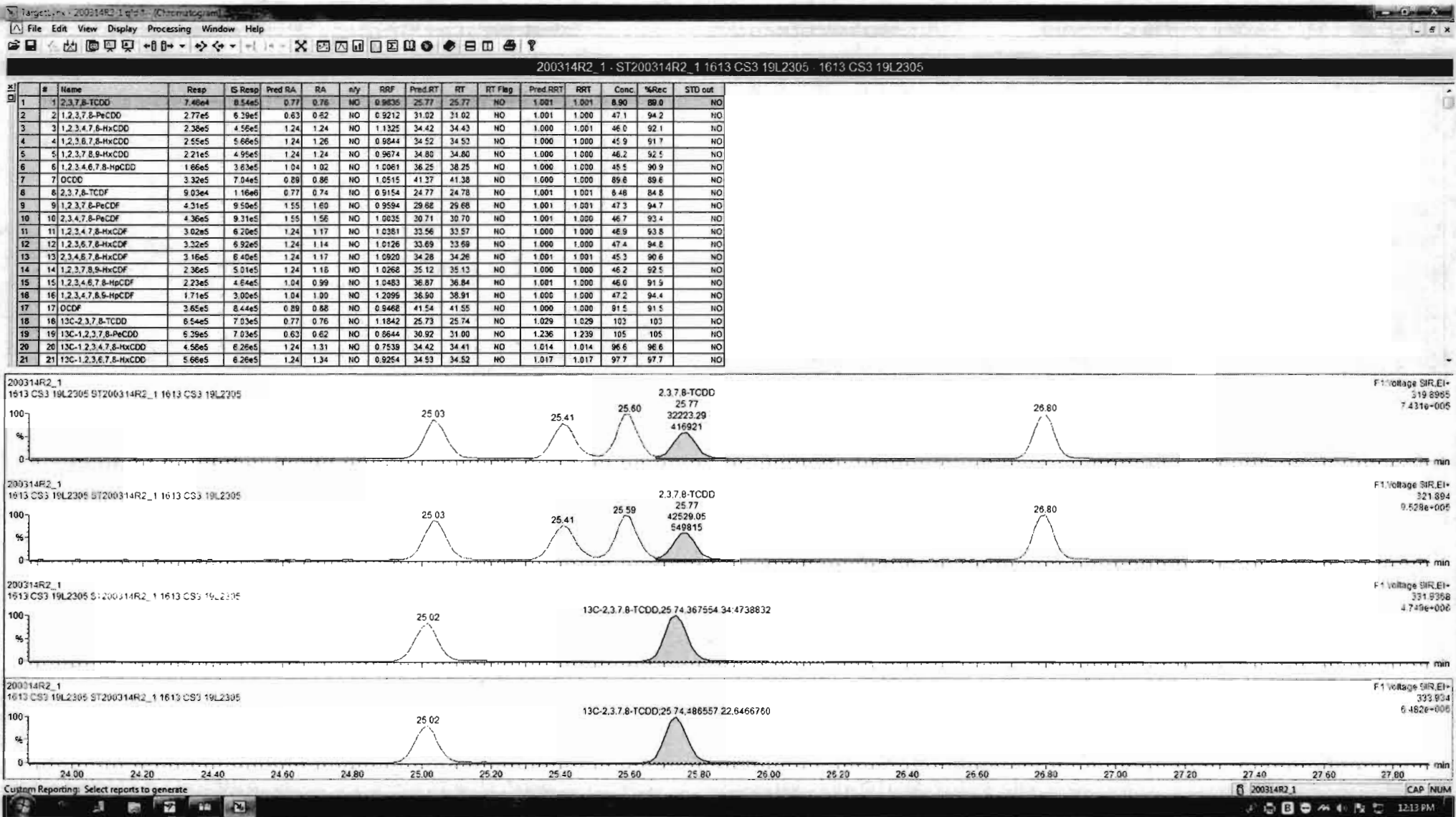


F1: Voltage SIR, EI+  
331.9368  
4.749e+006

200314R2\_1



F1: Voltage SIR, EI+  
333.934  
6.482e+006



Dataset: Untitled

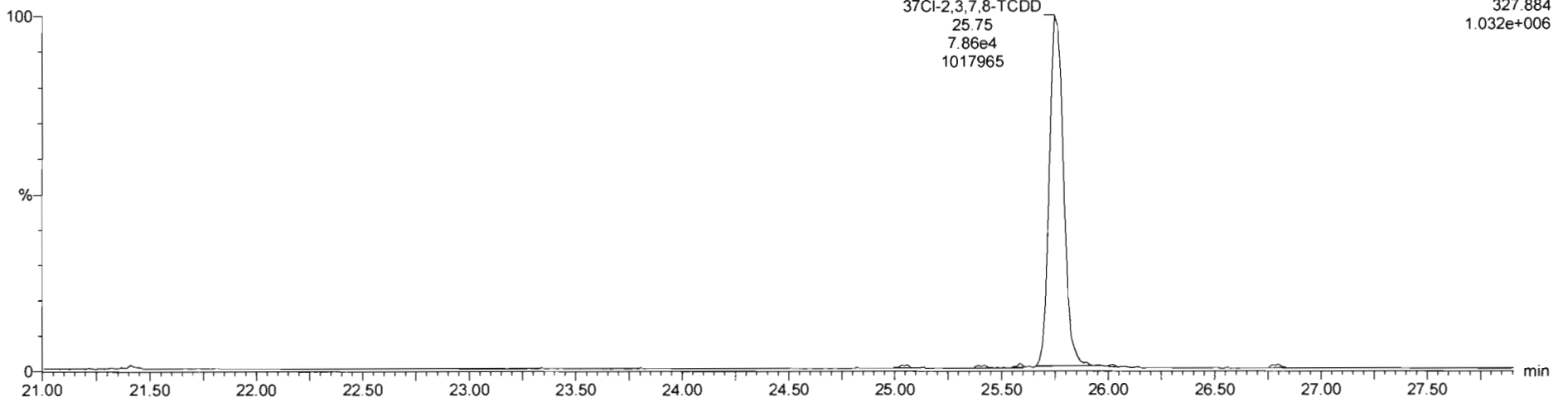
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Printed: Saturday, March 14, 2020 12:12:42 Pacific Daylight Time

Name: 200314R2\_1, Date: 14-Mar-2020, Time: 11:19:02, ID: ST200314R2\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

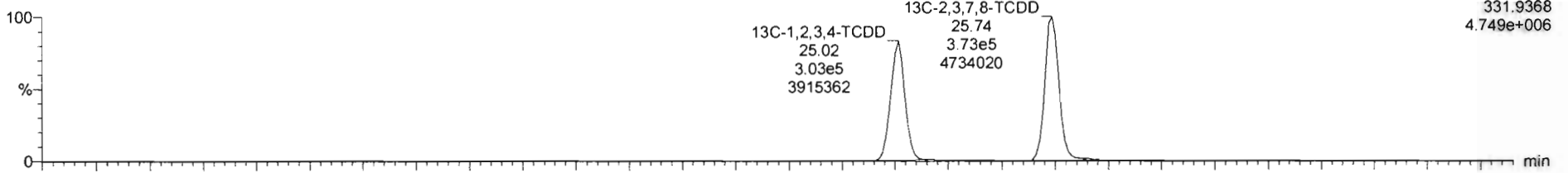
**37Cl-2,3,7,8-TCDD**

200314R2\_1

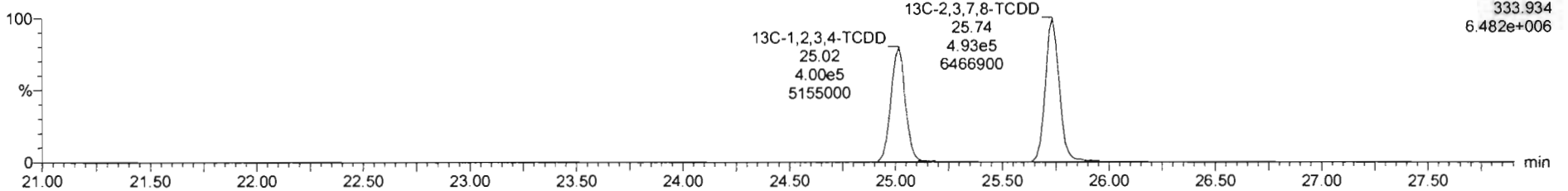


**13C-1,2,3,4-TCDD**

200314R2\_1



200314R2\_1



Dataset: Untitled

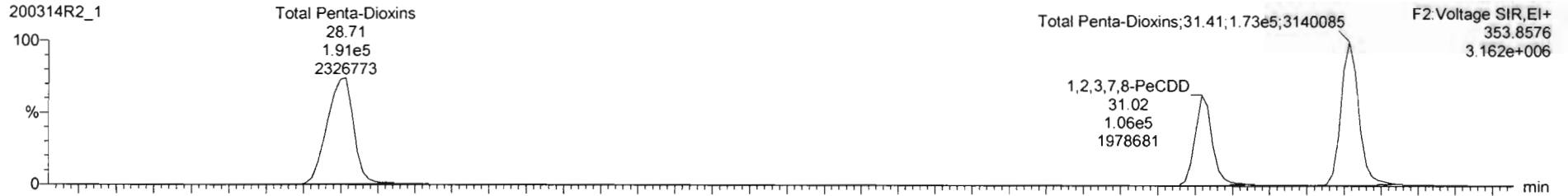
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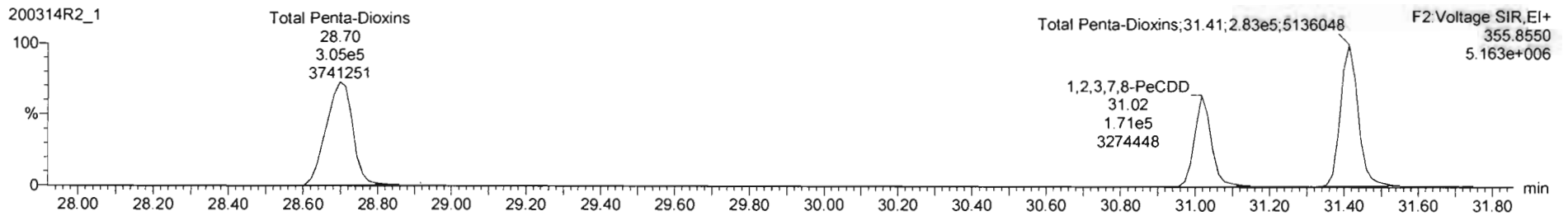
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**1,2,3,7,8-PeCDD**

200314R2\_1

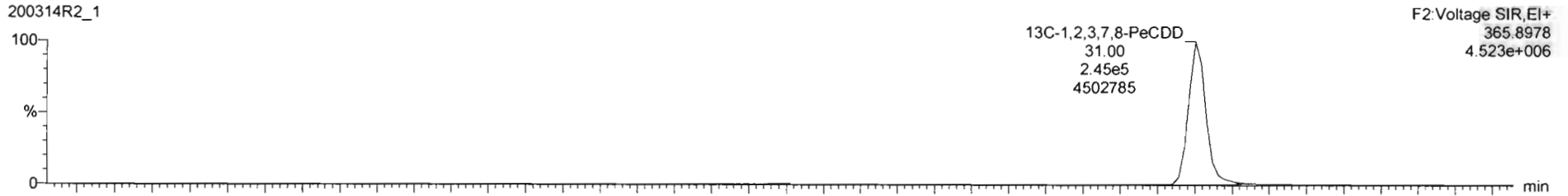


200314R2\_1

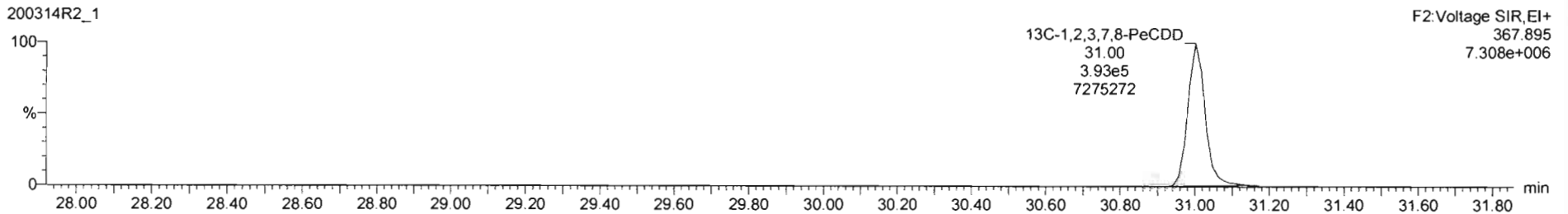


**<sup>13</sup>C-1,2,3,7,8-PeCDD**

200314R2\_1



200314R2\_1





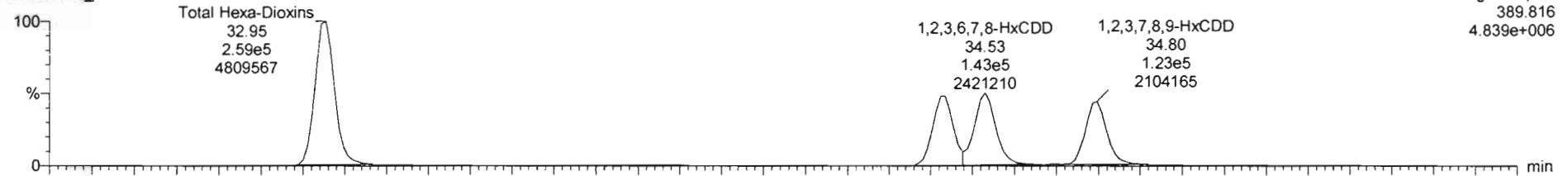
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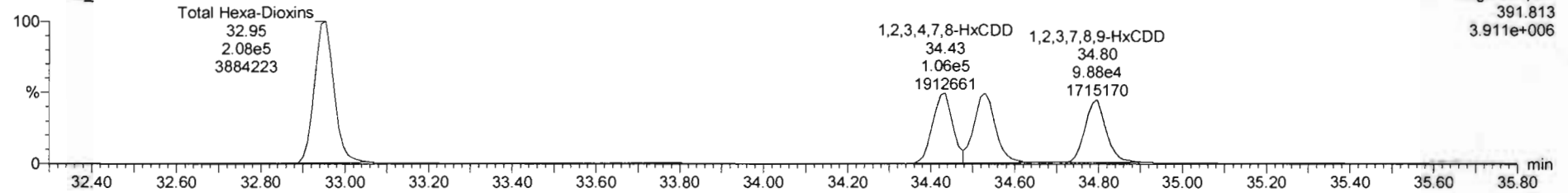
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1,2,3,4,7,8-HxCDD

200314R2\_1

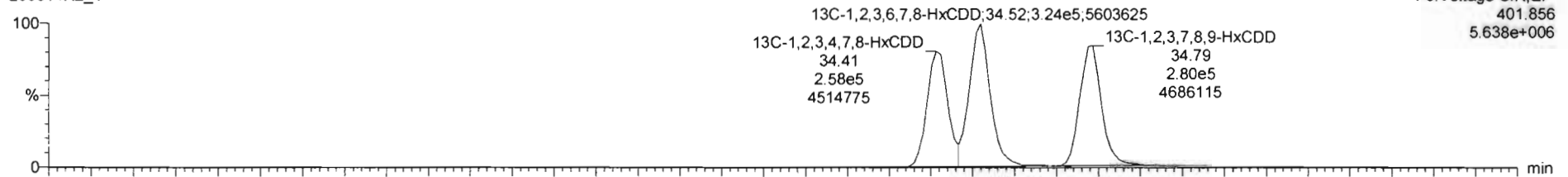


200314R2\_1

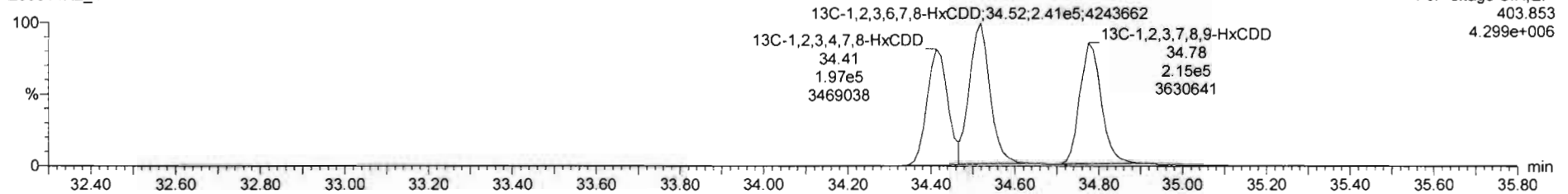


13C-1,2,3,4,7,8-HxCDD

200314R2\_1



200314R2\_1



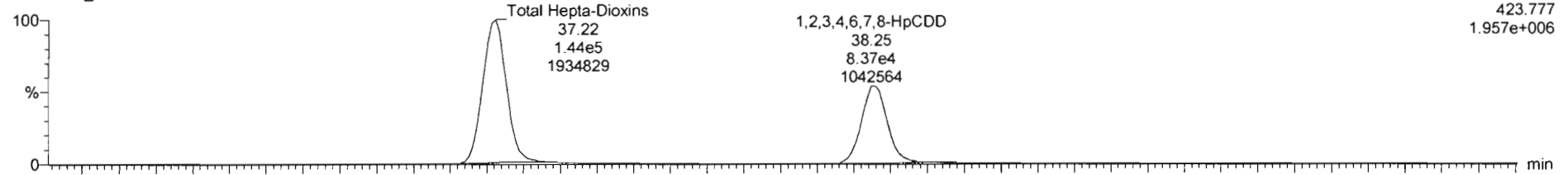
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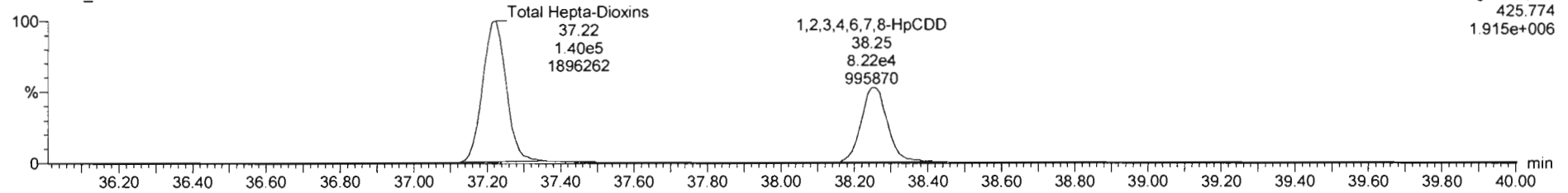
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**1,2,3,4,6,7,8-HpCDD**

200314R2\_1

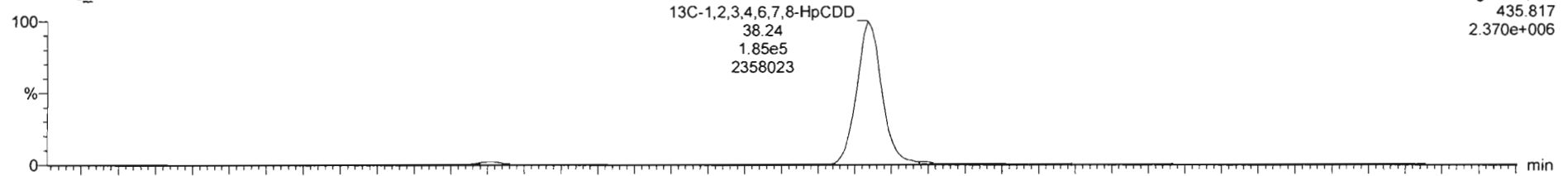


200314R2\_1

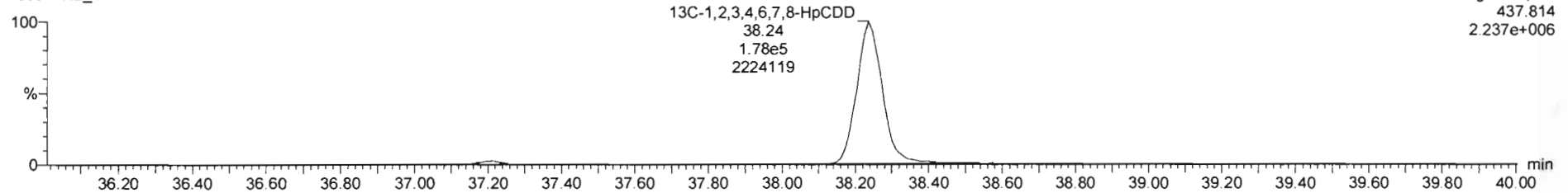


**13C-1,2,3,4,6,7,8-HpCDD**

200314R2\_1



200314R2\_1



Dataset: Untitled

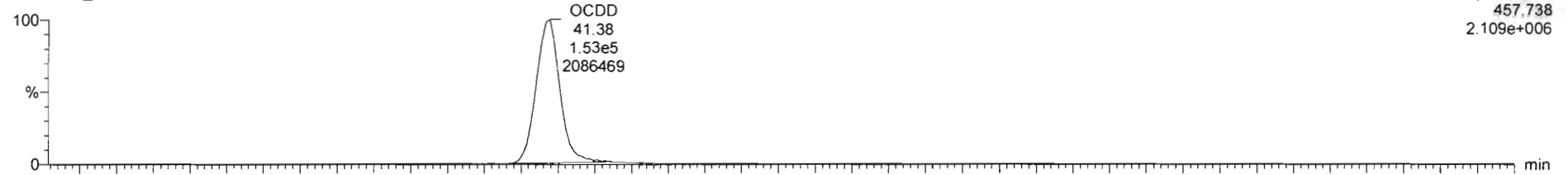
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Printed: Saturday, March 14, 2020 12:12:42 Pacific Daylight Time

Name: 200314R2\_1, Date: 14-Mar-2020, Time: 11:19:02, ID: ST200314R2\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

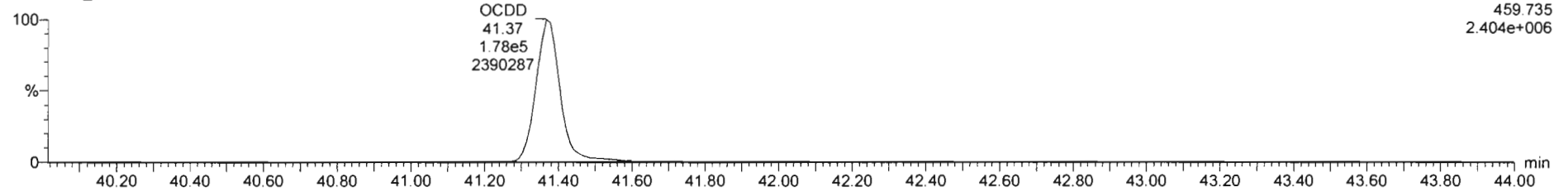
**OCDD**

200314R2\_1



F5: Voltage SIR, EI+  
457.738  
2.109e+006

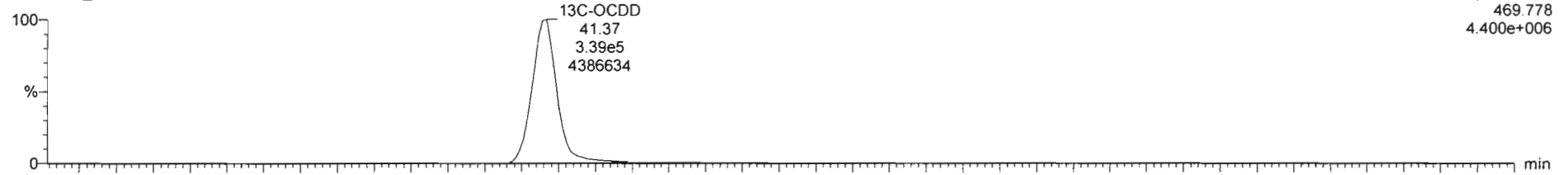
200314R2\_1



F5: Voltage SIR, EI+  
459.735  
2.404e+006

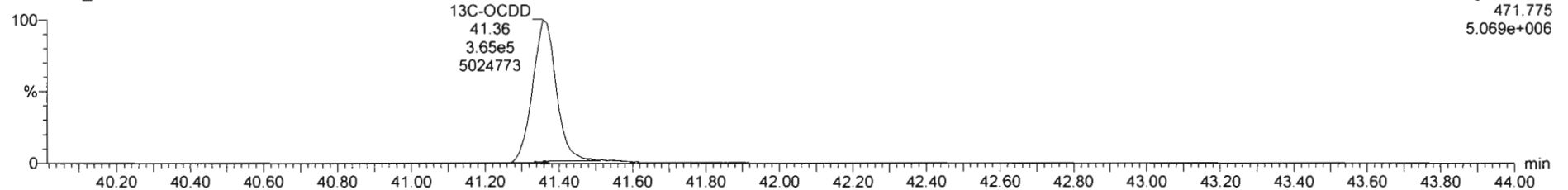
**13C-OCDD**

200314R2\_1



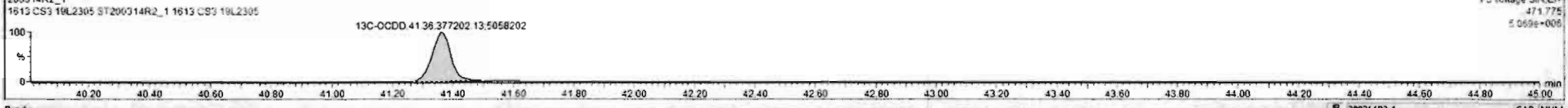
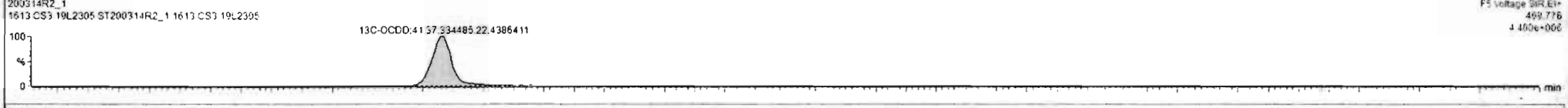
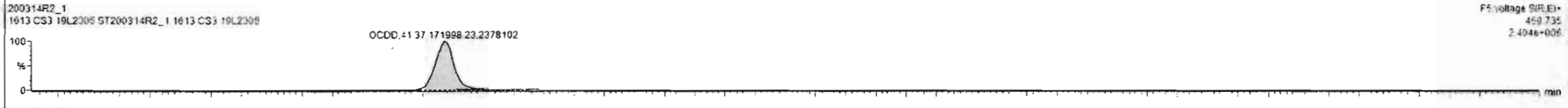
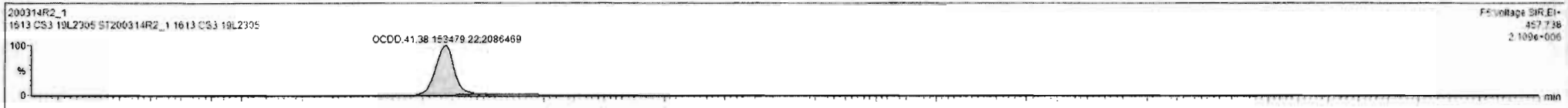
F5: Voltage SIR, EI+  
469.778  
4.400e+006

200314R2\_1



F5: Voltage SIR, EI+  
471.775  
5.069e+006

#	Name	Resp	IS Resp	Pred RA	RA	inly	RRF	Pred RT	RT	RT Flag	Pred RRT	RRT	Conc	%Rec	STD out
1	2,3,7,8-TCDD	7.48e4	8.54e5	0.77	0.76	NO	0.9835	25.77	25.77	NO	1.001	1.001	8.90	89.0	NO
2	1,2,3,7,8-PeCDD	2.77e5	6.39e5	0.83	0.82	NO	0.9212	31.02	31.02	NO	1.001	1.000	47.1	94.2	NO
3	1,2,3,4,7,8-HxCDD	2.38e5	4.56e5	1.24	1.24	NO	1.1325	34.42	34.42	NO	1.000	1.001	46.0	92.1	NO
4	1,2,3,6,7,8-HxCDD	2.55e5	5.66e5	1.24	1.26	NO	0.9844	34.52	34.52	NO	1.000	1.000	45.9	91.7	NO
5	1,2,3,7,8,9-HxCDD	2.21e5	4.95e5	1.24	1.24	NO	0.9674	34.80	34.80	NO	1.000	1.000	46.2	92.5	NO
6	1,2,3,4,6,7,8-HpCDD	1.86e5	3.63e5	1.04	1.02	NO	1.0061	36.25	36.25	NO	1.000	1.000	45.5	90.9	NO
7	OCDD	3.25e5	7.12e5	0.89	0.89	NO	1.0515	41.37	41.38	NO	1.000	1.000	87.0	87.0	NO
8	2,3,7,8-TCDF	9.03e4	1.16e6	0.77	0.74	NO	0.9154	24.77	24.78	NO	1.001	1.001	8.46	84.8	NO
9	1,2,3,7,8-PeCDF	4.31e5	9.50e5	1.55	1.60	NO	0.9594	29.68	29.68	NO	1.001	1.001	47.3	94.7	NO
10	2,3,4,7,8-PeCDF	4.36e5	9.31e5	1.55	1.56	NO	1.0035	30.71	30.70	NO	1.001	1.000	46.7	93.4	NO
11	1,2,3,4,7,8-HxCDF	3.02e5	6.20e5	1.24	1.17	NO	1.0281	33.56	33.57	NO	1.000	1.000	46.9	93.8	NO
12	1,2,3,6,7,8-HxCDF	3.32e5	6.92e5	1.24	1.14	NO	1.0126	33.69	33.69	NO	1.000	1.000	47.4	94.6	NO
13	2,3,4,6,7,8-HxCDF	3.16e5	6.40e5	1.24	1.17	NO	1.0920	34.28	34.26	NO	1.001	1.001	45.3	90.6	NO
14	1,2,3,7,8,9-HxCDF	2.36e5	5.01e5	1.24	1.18	NO	1.0266	35.12	35.12	NO	1.000	1.000	45.2	92.5	NO
15	1,2,3,4,6,7,8-HpCDF	2.23e5	4.64e5	1.04	0.99	NO	1.0483	36.87	36.84	NO	1.001	1.000	46.0	91.9	NO
16	1,2,3,4,7,8,9-HpCDF	1.71e5	3.05e5	1.04	1.00	NO	1.2095	36.50	36.91	NO	1.000	1.000	47.2	94.4	NO
17	OCDF	3.65e5	8.44e5	0.89	0.88	NO	0.9462	41.54	41.55	NO	1.000	1.000	91.5	91.5	NO
18	13C-2,3,7,8-TCDD	8.54e5	7.03e5	0.77	0.76	NO	1.1842	25.73	25.74	NO	1.029	1.029	103	103	NO
19	13C-1,2,3,7,8-PeCDD	6.39e5	7.03e5	0.83	0.82	NO	0.9644	30.92	31.00	NO	1.236	1.239	105	105	NO
20	13C-1,2,3,4,7,8-HxCDD	4.56e5	6.26e5	1.24	1.31	NO	0.7539	34.42	34.41	NO	1.014	1.014	96.6	96.6	NO
21	13C-1,2,3,6,7,8-HxCDD	5.66e5	8.26e5	1.24	1.34	NO	0.9254	34.53	34.52	NO	1.017	1.017	97.7	97.7	NO

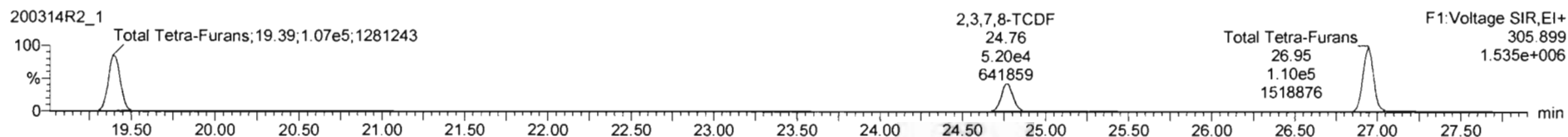


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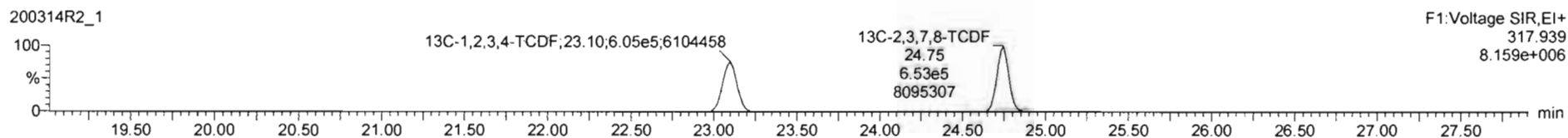
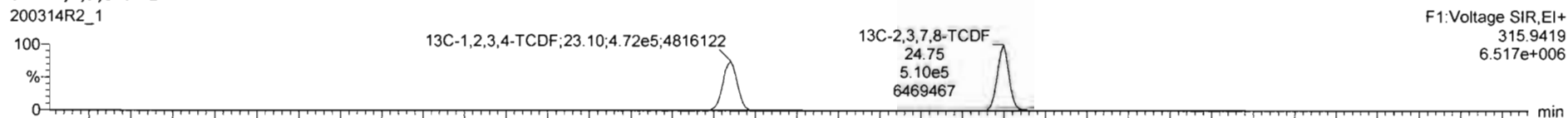
Last Altered: Saturday, March 14, 2020 12:12:38 Pacific Daylight Time  
Printed: Saturday, March 14, 2020 12:12:42 Pacific Daylight Time

Name: 200314R2\_1, Date: 14-Mar-2020, Time: 11:19:02, ID: ST200314R2\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

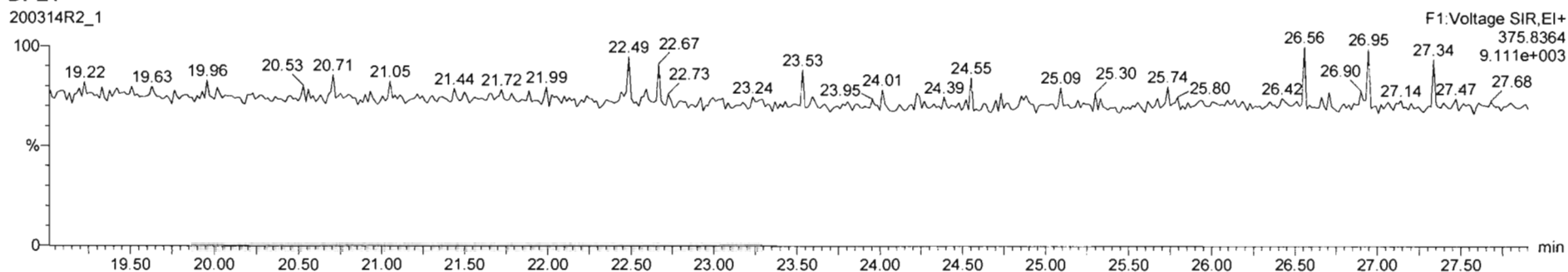
### 2,3,7,8-TCDF



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



### DPE1



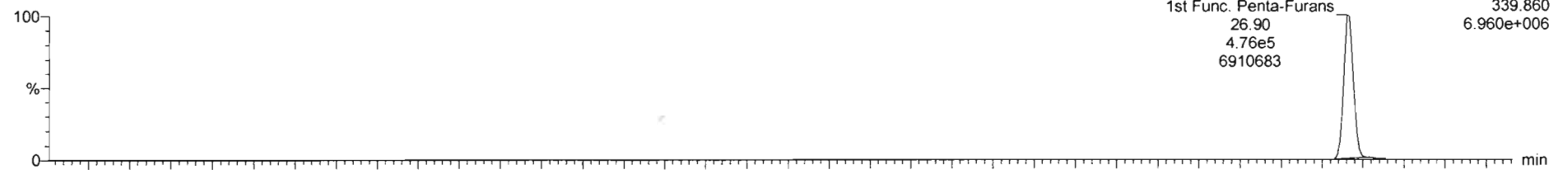
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Printed: Saturday, March 14, 2020 12:12:42 Pacific Daylight Time

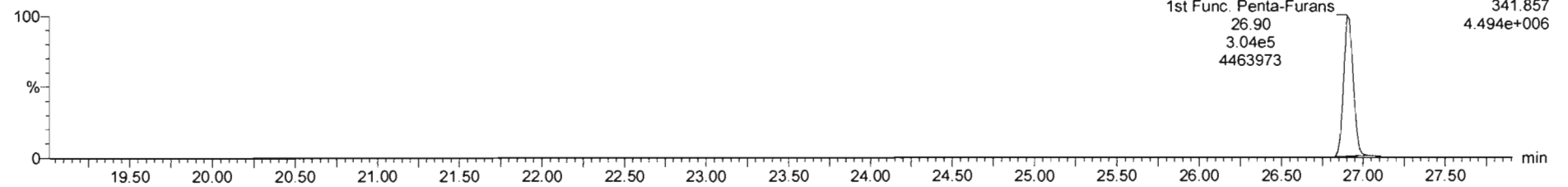
Name: 200314R2\_1, Date: 14-Mar-2020, Time: 11:19:02, ID: ST200314R2\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

1st Func. Penta-Furans

200314R2\_1

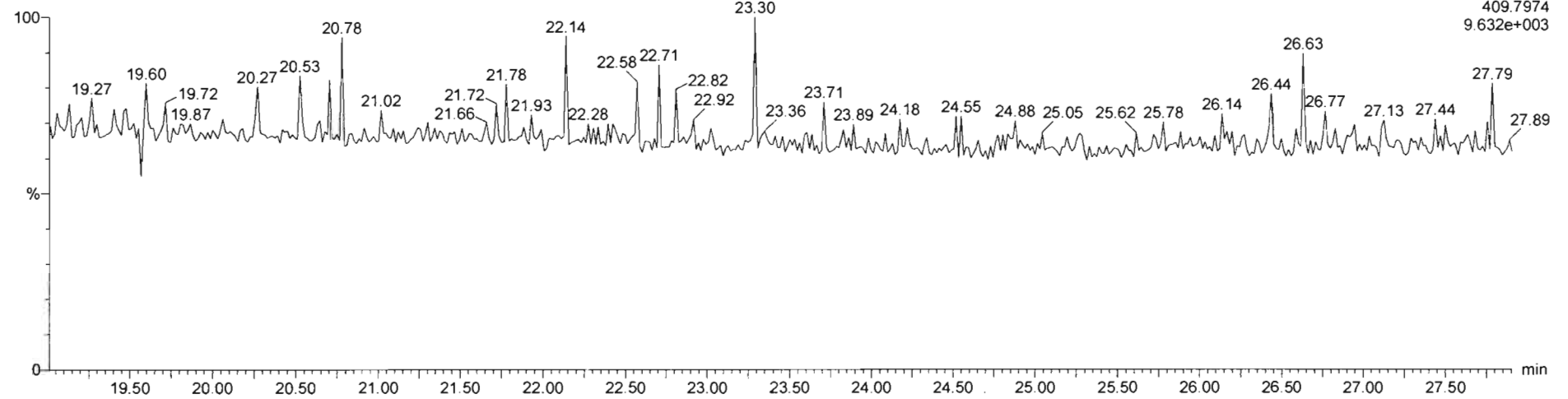


200314R2\_1



DPE6

200314R2\_1



Dataset: Untitled

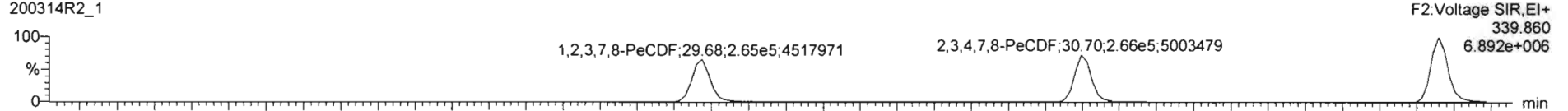
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Printed: Saturday, March 14, 2020 12:12:42 Pacific Daylight Time

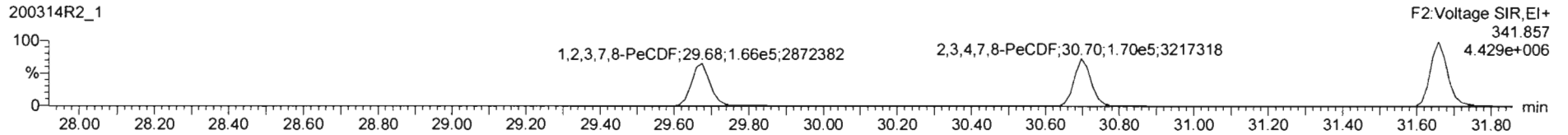
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**1,2,3,7,8-PeCDF**

200314R2\_1

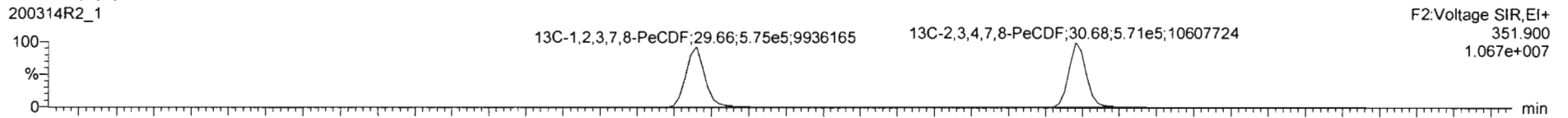


200314R2\_1

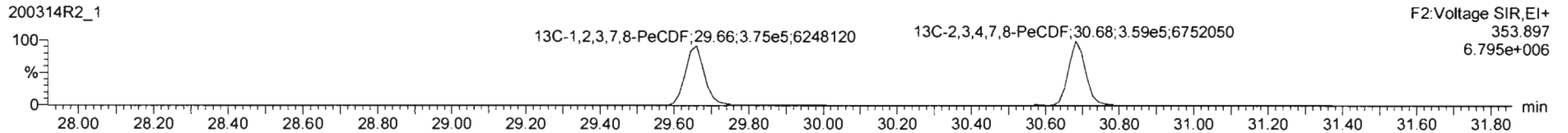


**13C-1,2,3,7,8-PeCDF**

200314R2\_1

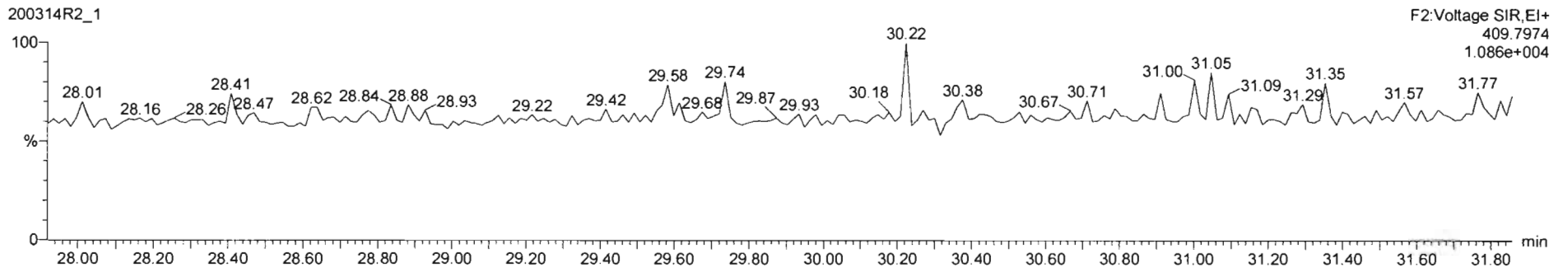


200314R2\_1



**DPE2**

200314R2\_1



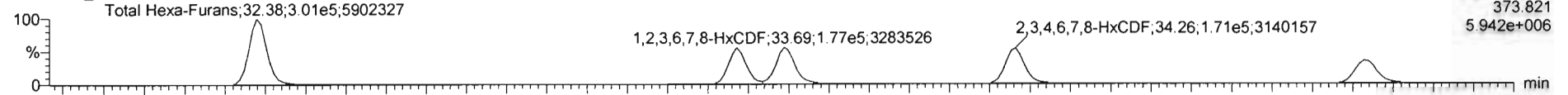
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Printed: Saturday, March 14, 2020 12:12:42 Pacific Daylight Time

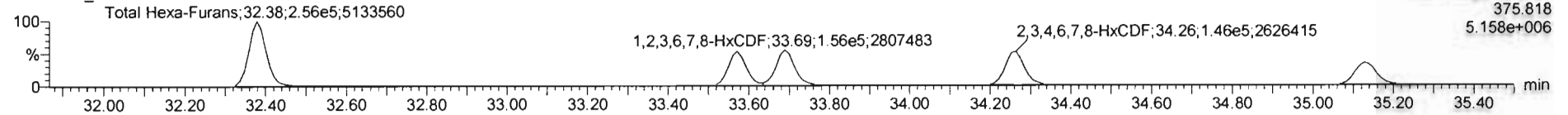
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**1,2,3,4,7,8-HxCDF**

200314R2\_1

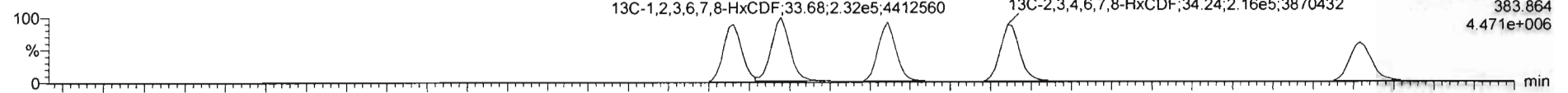


200314R2\_1

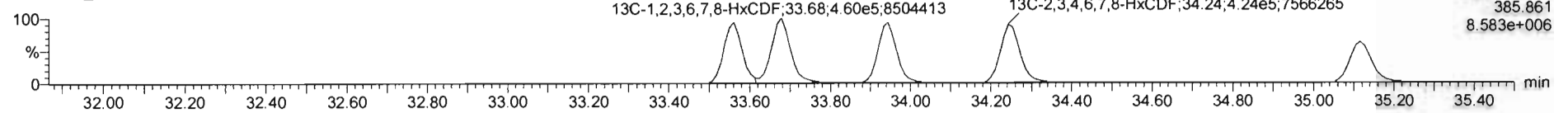


**13C-1,2,3,4,7,8-HxCDF**

200314R2\_1

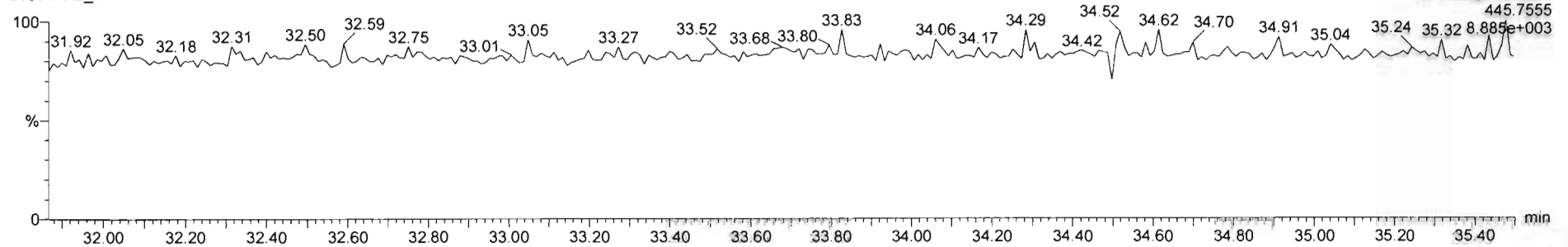


200314R2\_1



**DPE3**

200314R2\_1





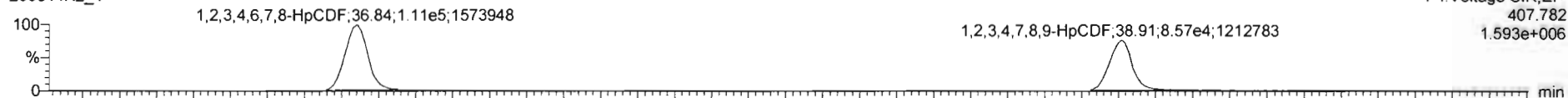
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Last Altered: Saturday, March 14, 2020 12:12:38 Pacific Daylight Time  
Printed: Saturday, March 14, 2020 12:12:42 Pacific Daylight Time

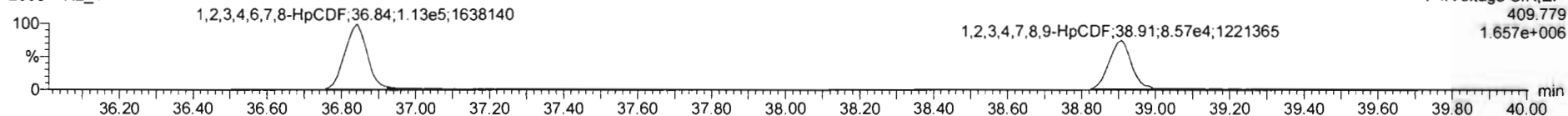
Name: 200314R2\_1, Date: 14-Mar-2020, Time: 11:19:02, ID: ST200314R2\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

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

200314R2\_1

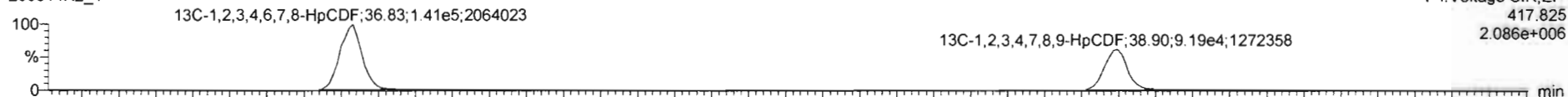


200314R2\_1

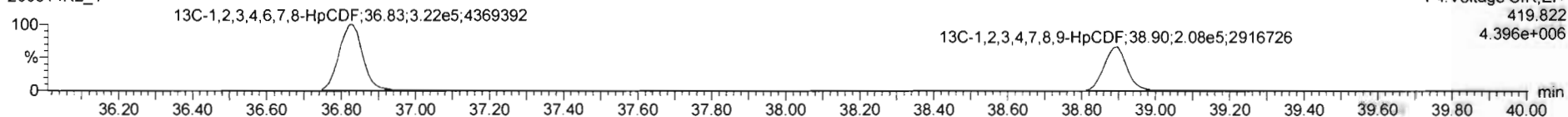


**13C-1,2,3,4,6,7,8-HpCDF**

200314R2\_1

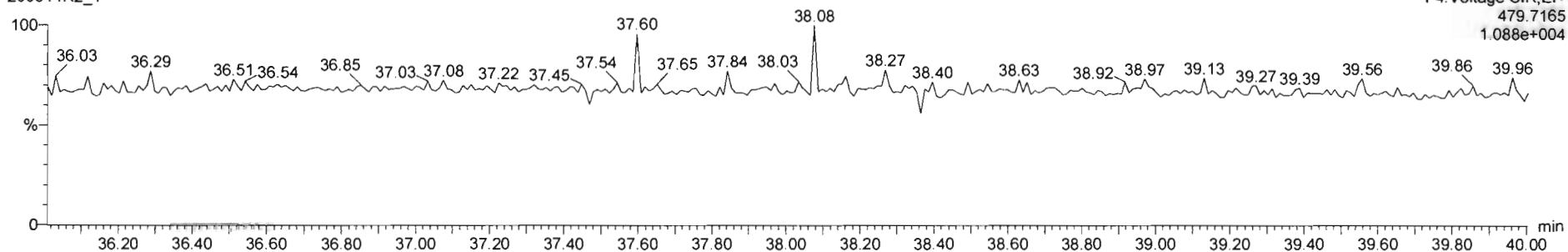


200314R2\_1



**DPE4**

200314R2\_1



Dataset: Untitled

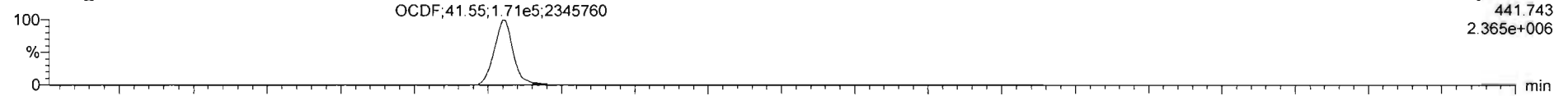
Last Altered: Saturday, March 14, 2020 12:12:38 Pacific Daylight Time

Printed: Saturday, March 14, 2020 12:12:42 Pacific Daylight Time

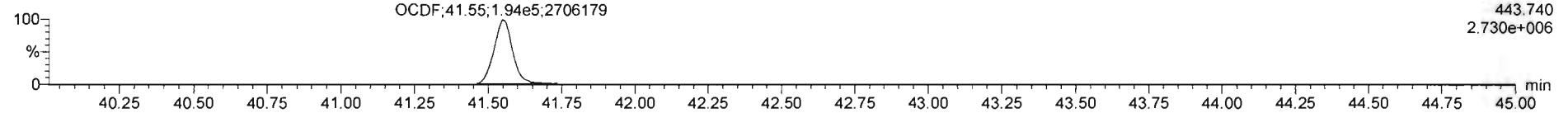
Name: 200314R2\_1, Date: 14-Mar-2020, Time: 11:19:02, ID: ST200314R2\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

**OCDF**

200314R2\_1

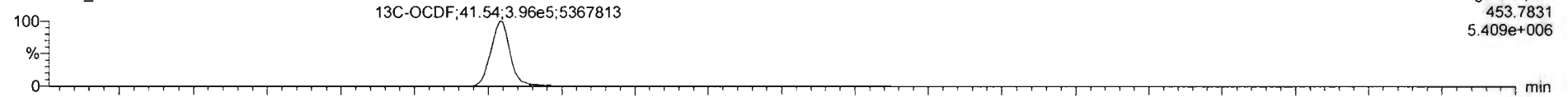


200314R2\_1

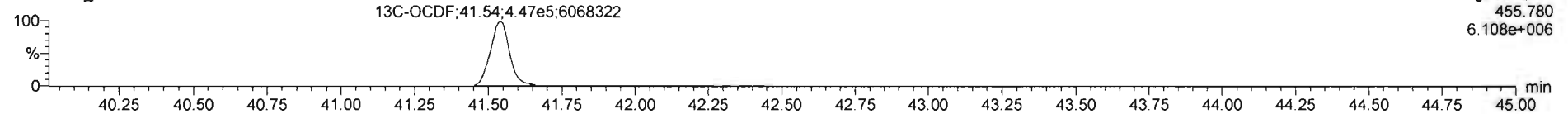


**13C-OCDF**

200314R2\_1

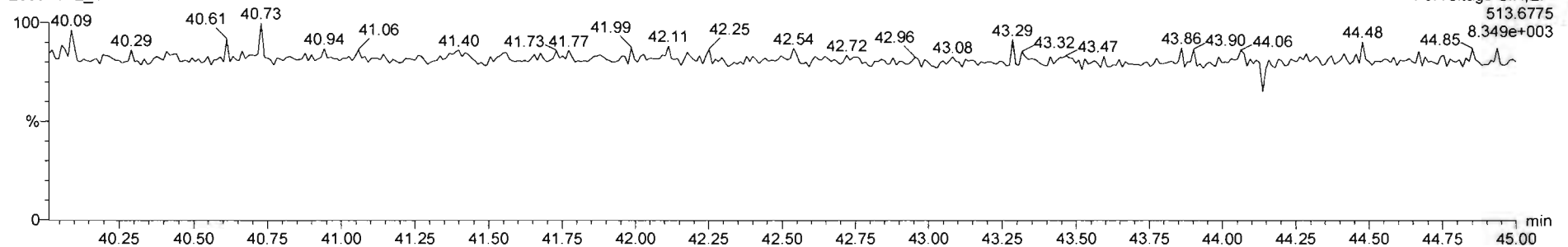


200314R2\_1



**DPE5**

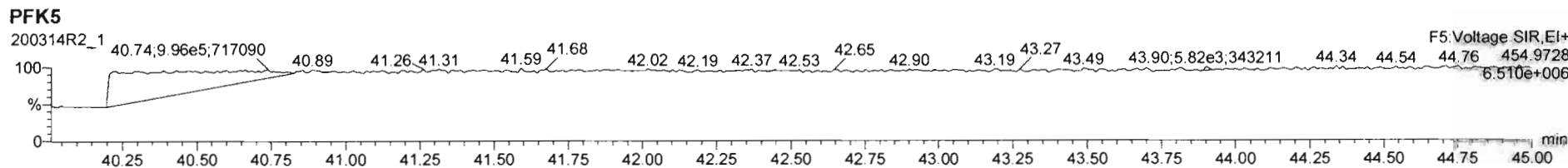
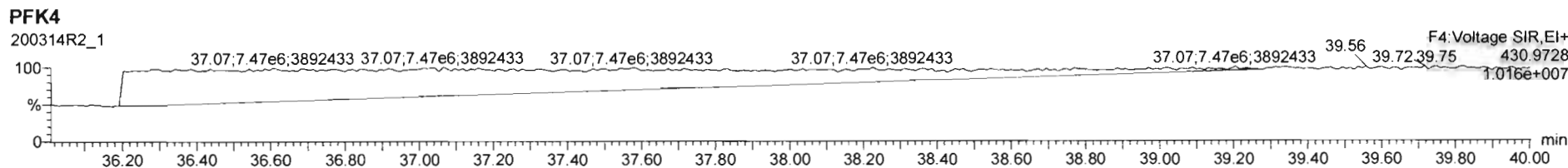
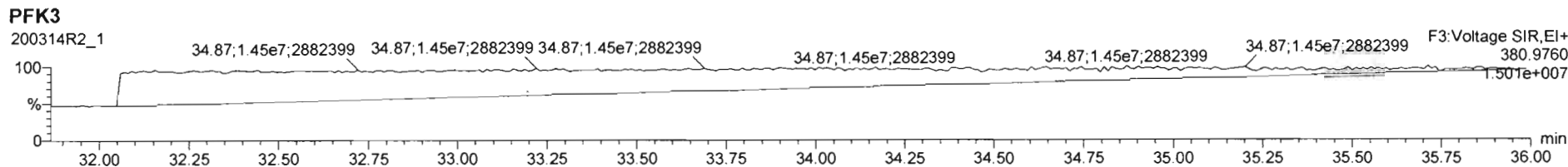
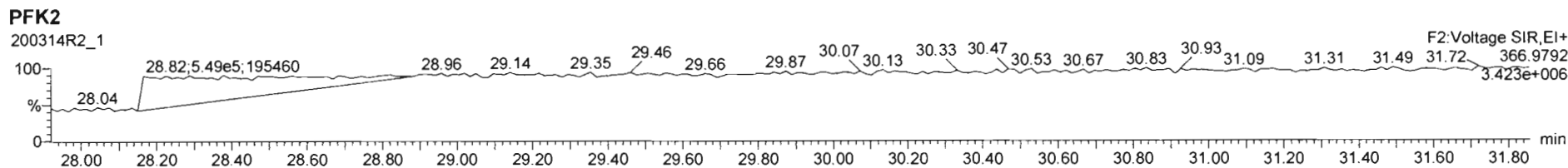
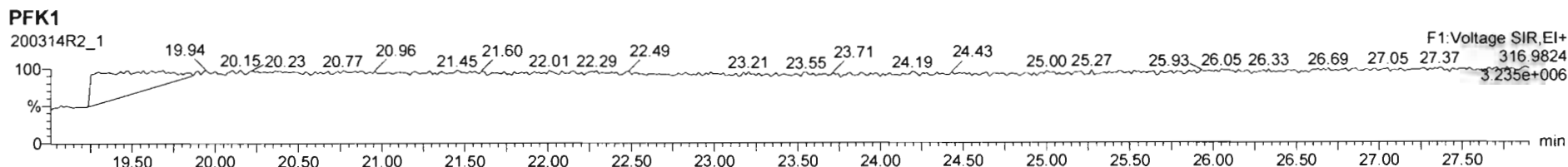
200314R2\_1



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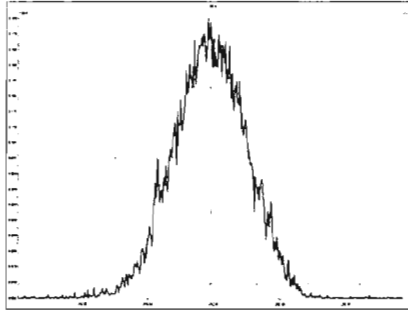
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Printed: Saturday, March 14, 2020 12:12:42 Pacific Daylight Time

Name: 200314R2\_1, Date: 14-Mar-2020, Time: 11:19:02, ID: ST200314R2\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

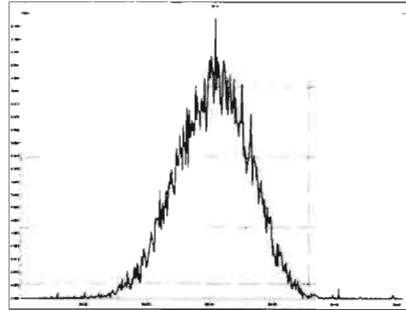


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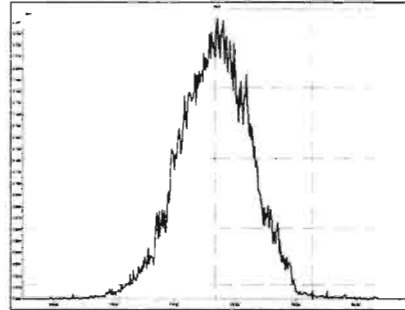
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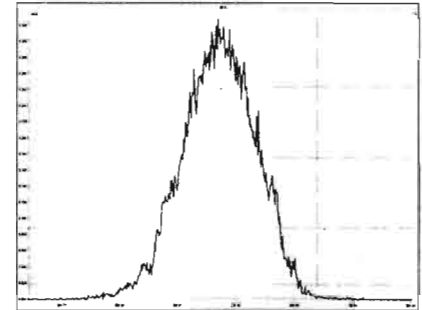
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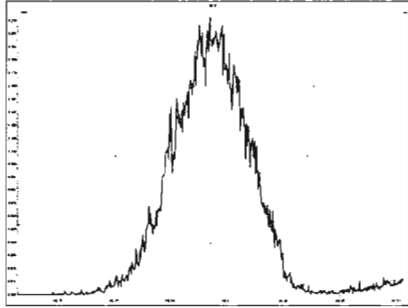
M 318.9792 R 11669



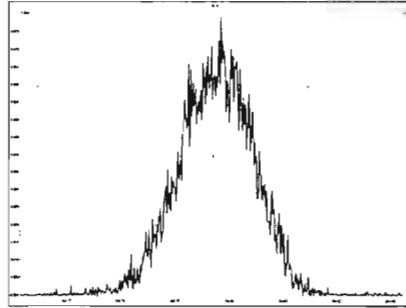
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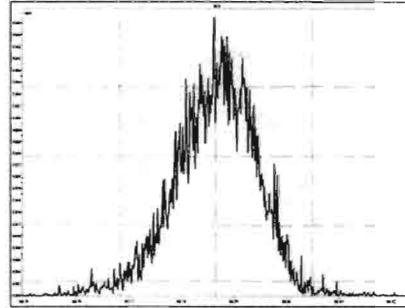
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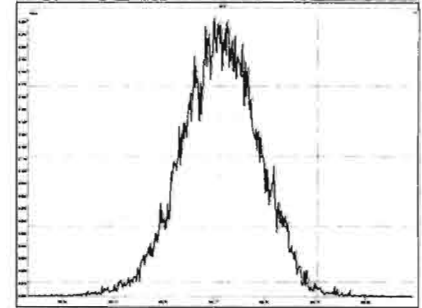
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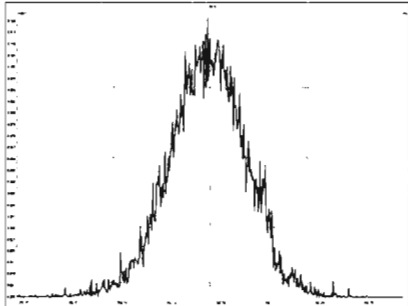
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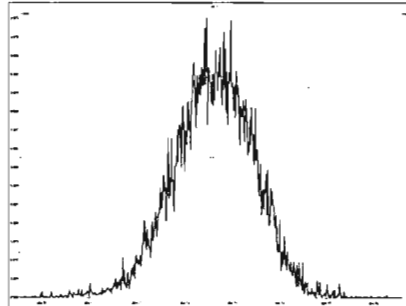
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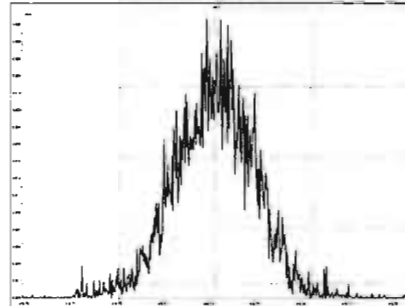
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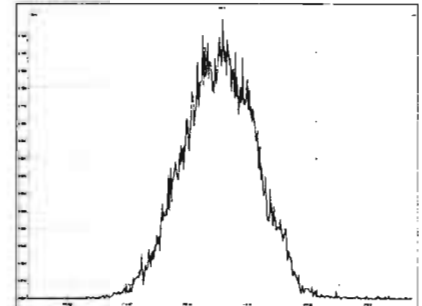
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M 416.9760 R 11880

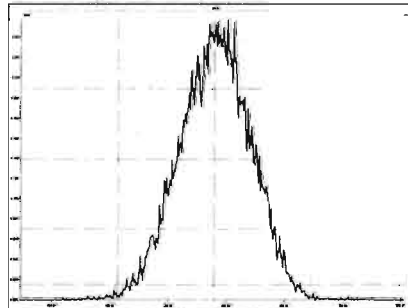


M 318.9792 R 11416

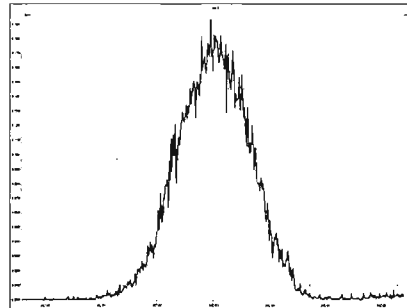


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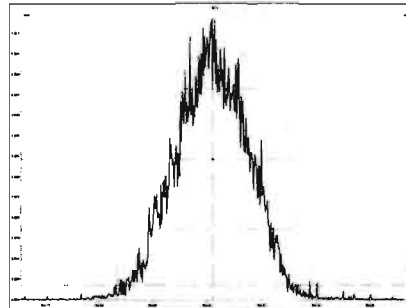
M 330.9792 R 11522



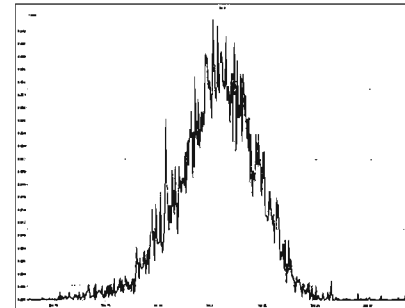
M 342.9792 R 11605



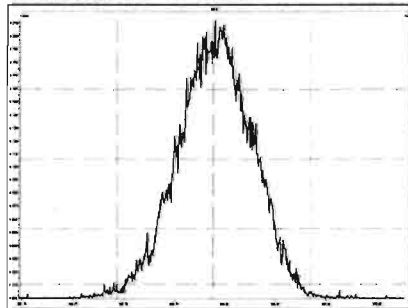
M 354.9792 R 12165



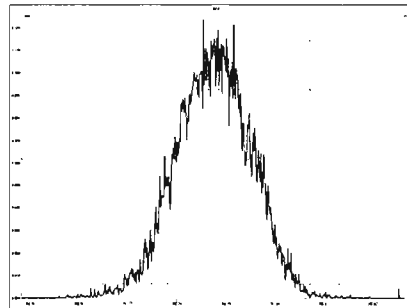
M 366.9792 R 11850



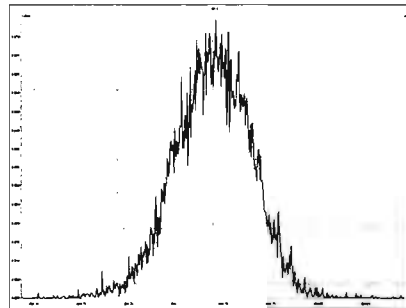
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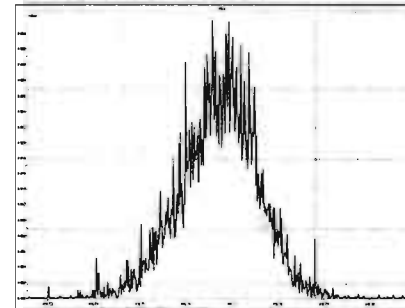
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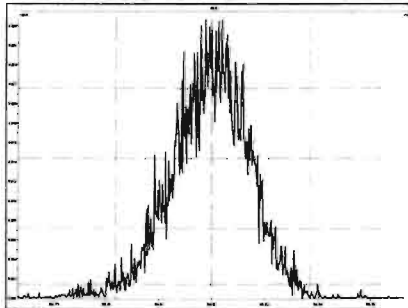
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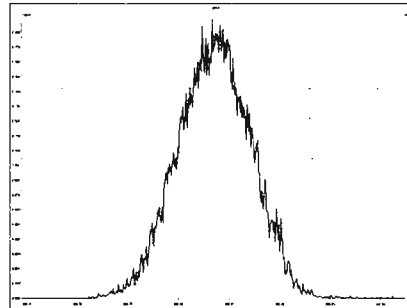
M 416.9760 R 12301



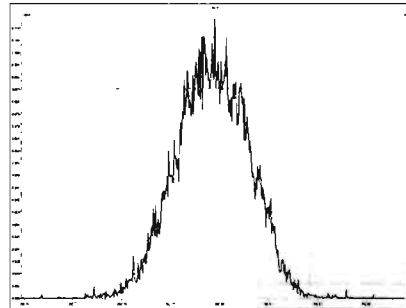
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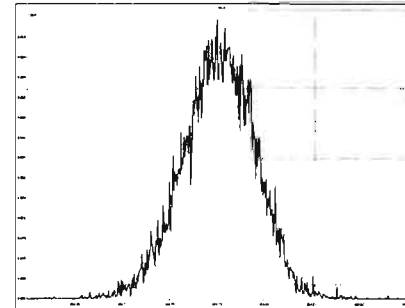
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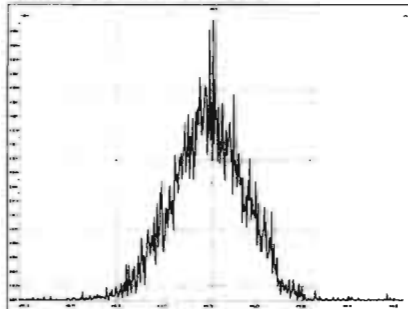


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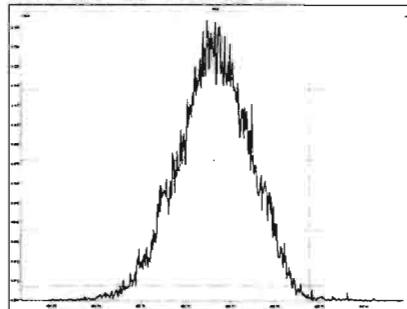


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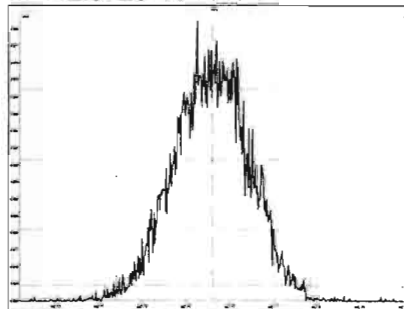
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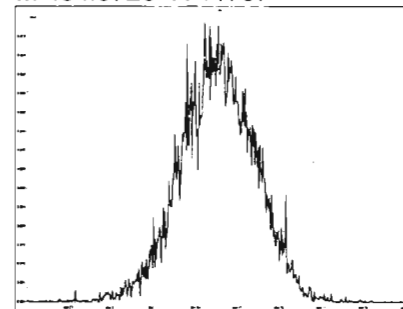
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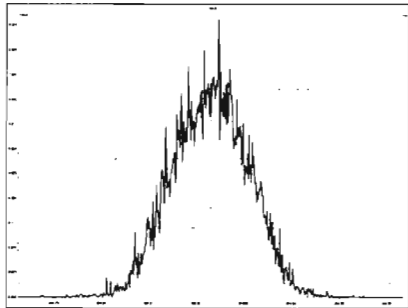
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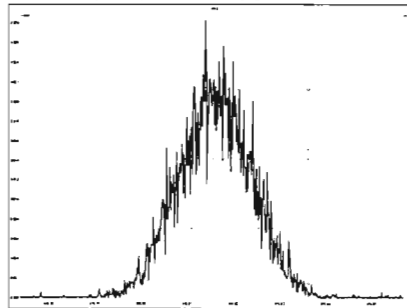
M 454.9728 R 11767



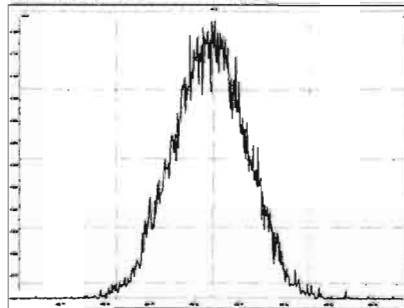
M 404.9760 R 11547



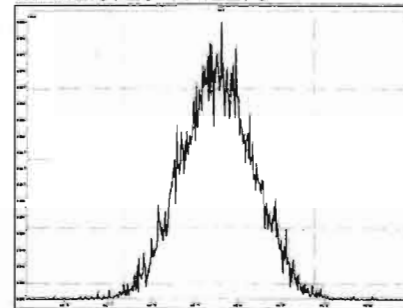
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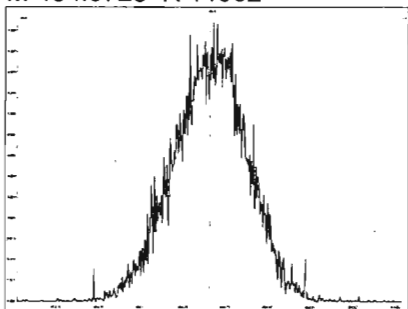
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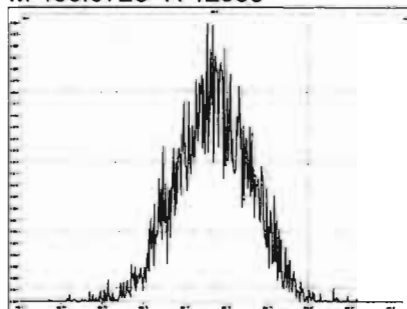
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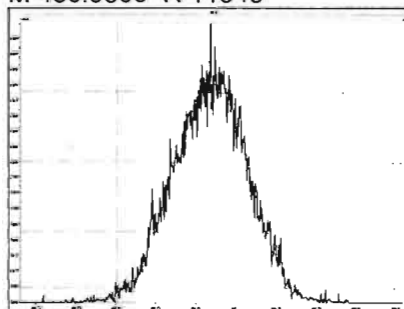
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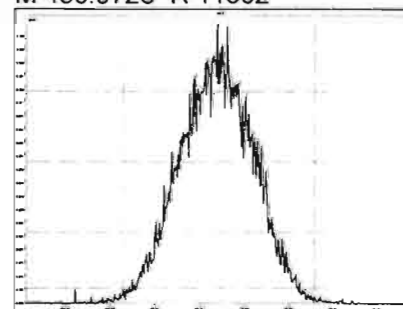
M 466.9728 R 12385



M 480.9696 R 11643

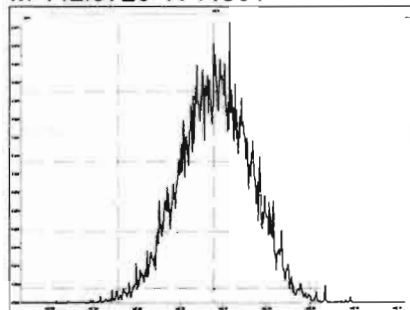


M 430.9728 R 11602

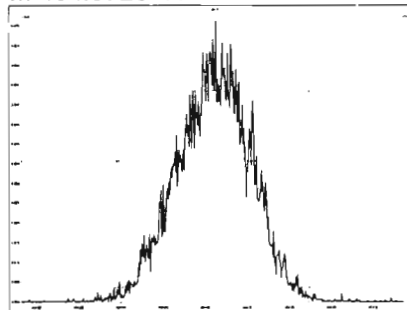


Printed: Saturday, March 14, 2020 23:19:59 Pacific Daylight Time

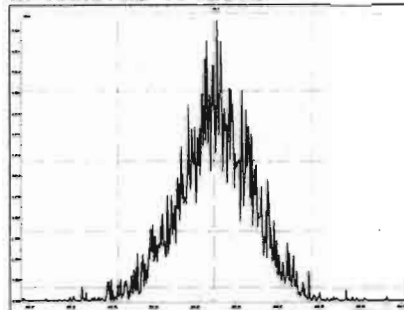
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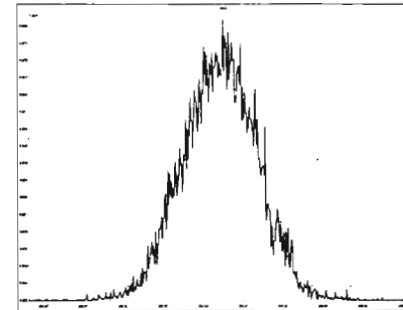
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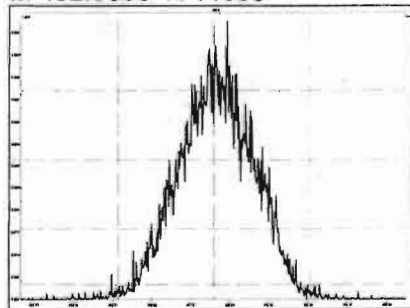
M 466.9728 R 12570



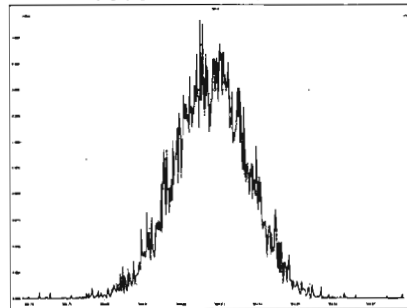
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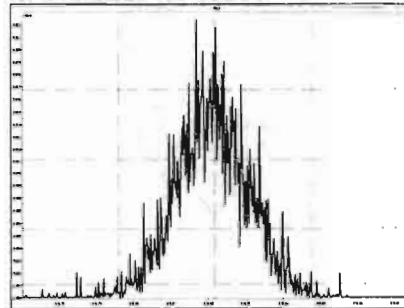
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M 504.9696 R 11998



M 516.9697 R 13561



Dataset: U:\VG12.PRO\Results\200314R3\200314R3-2.qld

Last Altered: Sunday, March 15, 2020 09:24:08 Pacific Daylight Time

Printed: Sunday, March 15, 2020 09:24:33 Pacific Daylight Time

*GRB 03/15/2020*

*C7 03/16/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200314R3\_2, Date: 15-Mar-2020, Time: 00:06:17, ID: ST200314R3\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

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1	1 2,3,7,8-TCDD	8.45e4	9.38e5	0.74	NO	0.983	25.75	25.74	NO	1.001	1.001	9.1649	91.6	NO
2	2 1,2,3,7,8-PeCDD	3.05e5	6.96e5	0.63	NO	0.921	31.02	31.02	NO	1.001	1.000	47.487	95.0	NO
3	3 1,2,3,4,7,8-HxCDD	2.64e5	4.83e5	1.26	NO	1.13	34.43	34.43	NO	1.000	1.000	48.310	96.6	NO
4	4 1,2,3,6,7,8-HxCDD	2.70e5	6.01e5	1.26	NO	0.984	34.52	34.54	NO	1.000	1.001	45.585	91.2	NO
5	5 1,2,3,7,8,9-HxCDD	2.44e5	5.37e5	1.25	NO	0.967	34.80	34.81	NO	1.000	1.001	46.975	93.9	NO
6	6 1,2,3,4,6,7,8-HpCDD	1.77e5	3.73e5	1.01	NO	1.01	38.27	38.27	NO	1.000	1.000	47.044	94.1	NO
7	7 OCDD	3.56e5	7.34e5	0.88	NO	1.05	41.39	41.40	NO	1.000	1.000	92.303	92.3	NO
8	8 2,3,7,8-TCDF	1.05e5	1.28e6	0.75	NO	0.915	24.76	24.75	NO	1.001	1.001	8.9458	89.5	NO
9	9 1,2,3,7,8-PeCDF	4.63e5	9.93e5	1.57	NO	0.959	29.67	29.66	NO	1.001	1.001	48.596	97.2	NO
10	10 2,3,4,7,8-PeCDF	4.64e5	9.84e5	1.57	NO	1.00	30.71	30.70	NO	1.001	1.000	47.034	94.1	NO
11	11 1,2,3,4,7,8-HxCDF	3.30e5	6.74e5	1.23	NO	1.04	33.56	33.57	NO	1.000	1.000	47.203	94.4	NO
12	12 1,2,3,6,7,8-HxCDF	3.56e5	7.39e5	1.22	NO	1.01	33.69	33.69	NO	1.000	1.000	47.574	95.1	NO
13	13 2,3,4,6,7,8-HxCDF	3.50e5	6.77e5	1.23	NO	1.09	34.29	34.26	NO	1.001	1.000	47.326	94.7	NO
14	14 1,2,3,7,8,9-HxCDF	2.73e5	5.63e5	1.23	NO	1.03	35.13	35.14	NO	1.000	1.000	47.252	94.5	NO
15	15 1,2,3,4,6,7,8-HpCDF	2.46e5	4.93e5	1.04	NO	1.05	36.88	36.85	NO	1.001	1.000	47.686	95.4	NO
16	16 1,2,3,4,7,8,9-HpCDF	1.85e5	3.24e5	1.00	NO	1.21	38.91	38.92	NO	1.000	1.000	47.137	94.3	NO
17	17 OCDF	3.93e5	8.96e5	0.88	NO	0.947	41.57	41.58	NO	1.000	1.000	92.746	92.7	NO
18	18 13C-2,3,7,8-TCDD	9.38e5	7.87e5	0.78	NO	1.18	25.72	25.72	NO	1.029	1.029	100.60	101	NO
19	19 13C-1,2,3,7,8-PeCDD	6.96e5	7.87e5	0.62	NO	0.864	30.90	31.00	NO	1.236	1.240	102.29	102	NO
20	20 13C-1,2,3,4,7,8-HxCDD	4.83e5	6.84e5	1.28	NO	0.754	34.42	34.42	NO	1.014	1.014	93.665	93.7	NO
21	21 13C-1,2,3,6,7,8-HxCDD	6.01e5	6.84e5	1.27	NO	0.925	34.53	34.52	NO	1.017	1.017	94.872	94.9	NO
22	22 13C-1,2,3,7,8,9-HxCDD	5.37e5	6.84e5	1.26	NO	0.829	34.79	34.79	NO	1.025	1.025	94.706	94.7	NO
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.73e5	6.84e5	1.03	NO	0.598	38.24	38.26	NO	1.127	1.127	91.128	91.1	NO
24	24 13C-OCDD	7.34e5	6.84e5	0.90	NO	0.571	41.39	41.39	NO	1.219	1.219	187.84	93.9	NO
25	25 13C-2,3,7,8-TCDF	1.28e6	1.17e6	0.79	NO	1.09	24.74	24.73	NO	0.990	0.989	100.46	100	NO
26	26 13C-1,2,3,7,8-PeCDF	9.93e5	1.17e6	1.57	NO	0.876	29.57	29.64	NO	1.183	1.186	96.863	96.9	NO
27	27 13C-2,3,4,7,8-PeCDF	9.84e5	1.17e6	1.62	NO	0.844	30.58	30.68	NO	1.223	1.227	99.742	99.7	NO
28	28 13C-1,2,3,4,7,8-HxCDF	6.74e5	6.84e5	0.51	NO	1.00	33.56	33.56	NO	0.989	0.989	98.552	98.6	NO
29	29 13C-1,2,3,6,7,8-HxCDF	7.39e5	6.84e5	0.51	NO	1.12	33.67	33.68	NO	0.992	0.992	96.627	96.6	NO
30	30 13C-2,3,4,6,7,8-HxCDF	6.77e5	6.84e5	0.51	NO	1.04	34.25	34.25	NO	1.009	1.009	95.550	95.6	NO
31	31 13C-1,2,3,7,8,9-HxCDF	5.63e5	6.84e5	0.50	NO	0.873	35.13	35.13	NO	1.035	1.035	94.236	94.2	NO



Dataset: U:\VG12.PRO\Results\200314R3\200314R3-2.qld

Last Altered: Sunday, March 15, 2020 09:24:08 Pacific Daylight Time

Printed: Sunday, March 15, 2020 09:24:33 Pacific Daylight Time

Name: 200314R3\_2, Date: 15-Mar-2020, Time: 00:06:17, ID: ST200314R3\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

#	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	4.93e5	6.84e5	0.46	NO	0.771	36.84	36.84	NO	1.085	1.085	93.493	93.5	NO
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.24e5	6.84e5	0.44	NO	0.519	38.92	38.91	NO	1.147	1.146	91.177	91.2	NO
34	34 13C-OCDF	8.96e5	6.84e5	0.89	NO	0.696	41.57	41.57	NO	1.225	1.225	188.06	94.0	NO
35	35 37Cl-2,3,7,8-TCDD	8.77e4	7.87e5			1.17	25.73	25.74	NO	1.029	1.029	9.4849	94.8	NO
36	36 13C-1,2,3,4-TCDD	7.87e5	7.87e5	0.79	NO	1.00	25.05	25.00	NO	1.000	1.000	100.00	100	NO
37	37 13C-1,2,3,4-TCDF	1.17e6	1.17e6	0.80	NO	1.00	23.19	23.07	NO	1.000	1.000	100.00	100	NO
38	38 13C-1,2,3,4,6,9-HxCDF	6.84e5	6.84e5	0.51	NO	1.00	33.88	33.94	NO	1.000	1.000	100.00	100	YES*
39	39 Total Tetra-Dioxins		9.38e5			0.983	24.62		NO	0.000		79.554		NO
40	40 Total Penta-Dioxins		6.96e5			0.921	29.96		NO	0.000		207.30		NO
41	41 Total Hexa-Dioxins		0.00e0			0.984	33.63		NO	0.000		233.85		NO
42	42 Total Hepta-Dioxins		3.73e5			1.01	37.64		NO	0.000		128.57		NO
43	43 Total Tetra-Furans		1.28e6			0.915	23.61		NO	0.000		46.371		NO
44	44 1st Func. Penta-Furans		0.00e0			0.959	27.09		NO	0.000		90.011		NO
45	45 Total Penta-Furans		0.00e0			0.959	29.27		NO	0.000		164.89		NO
46	46 Total Hexa-Furans		0.00e0			1.09	33.56		NO	0.000		271.22		NO
47	47 Total Hepta-Furans		0.00e0			1.05	37.83		NO	0.000		95.328		NO

Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Sunday, March 15, 2020 09:48:07 Pacific Daylight Time

Printed: Sunday, March 15, 2020 09:48:30 Pacific Daylight Time

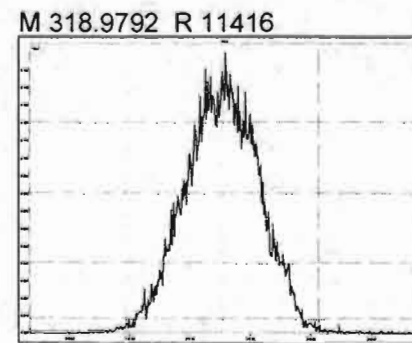
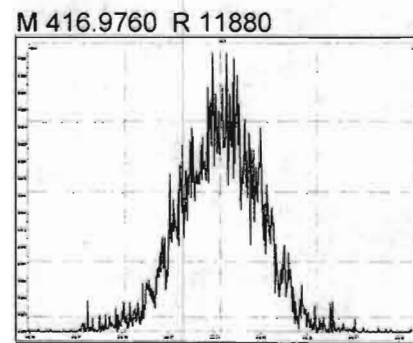
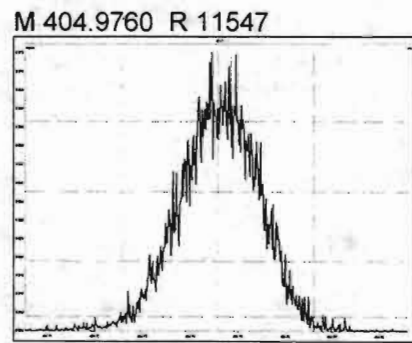
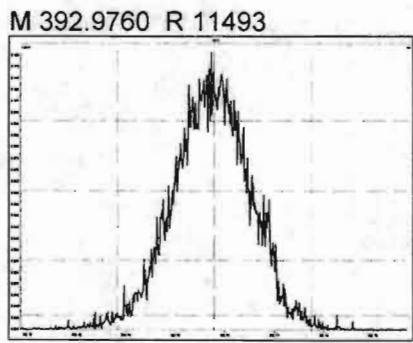
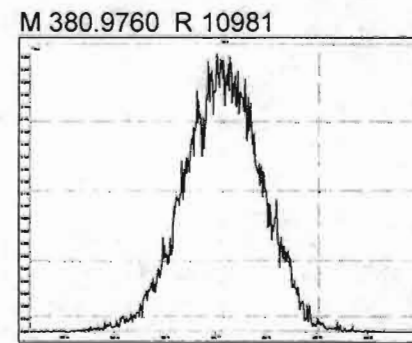
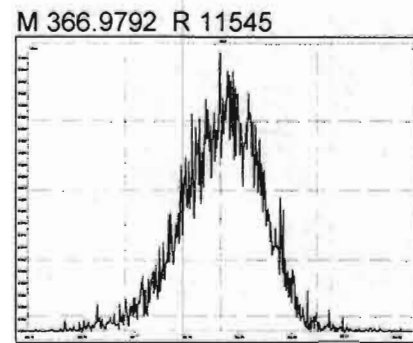
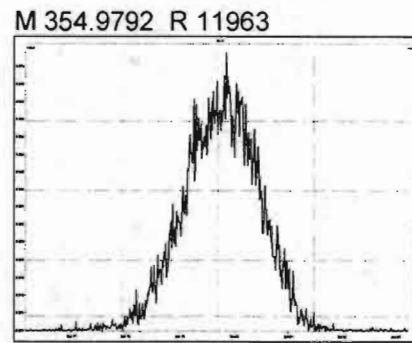
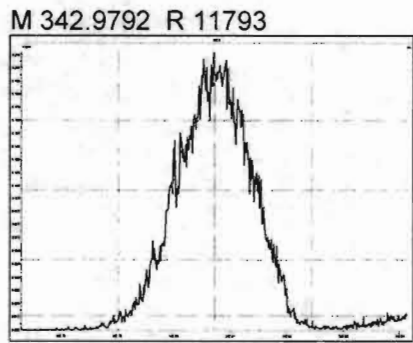
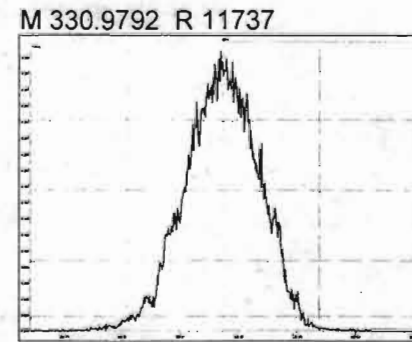
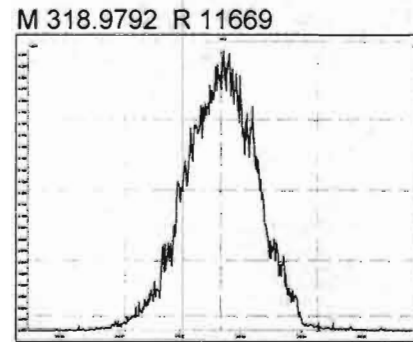
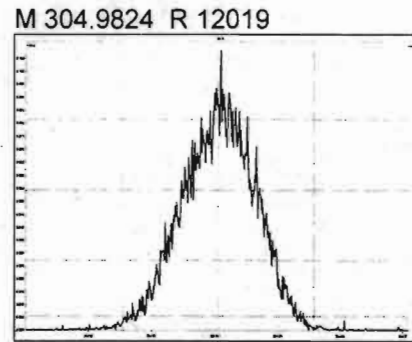
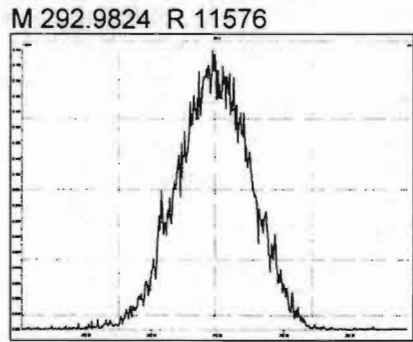
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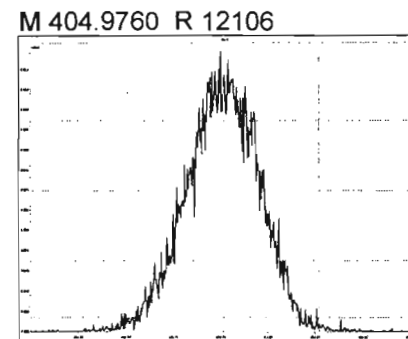
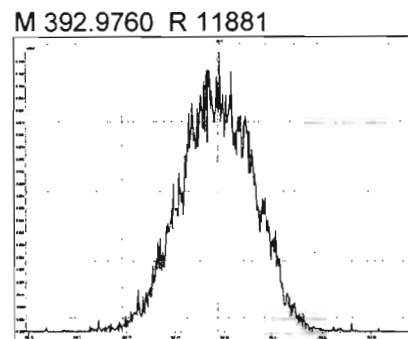
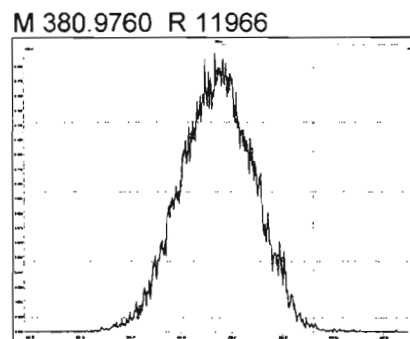
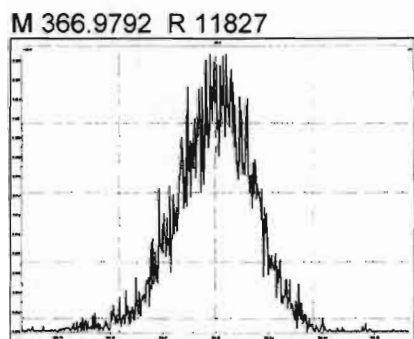
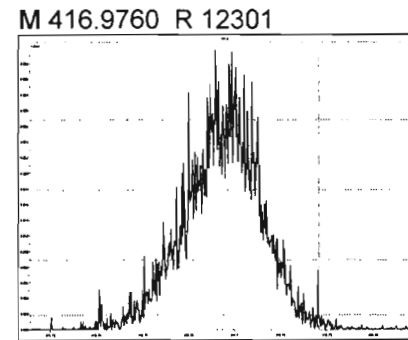
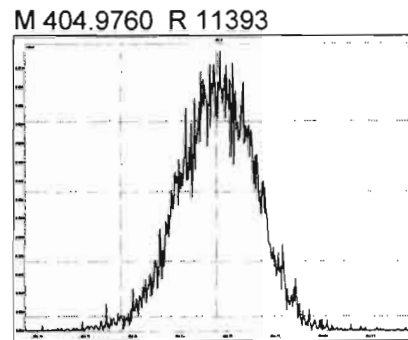
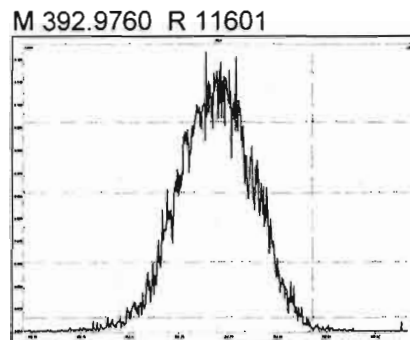
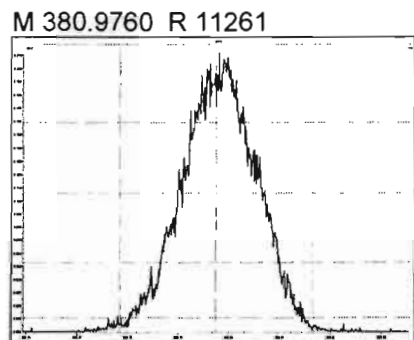
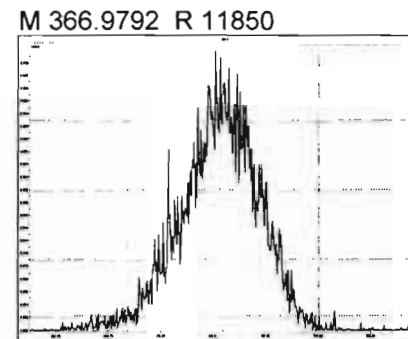
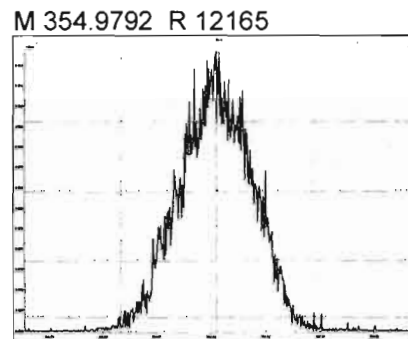
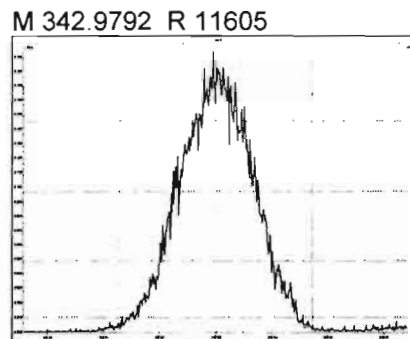
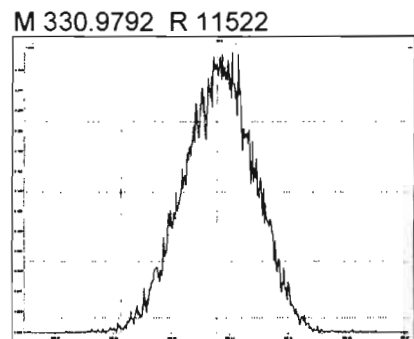
Compound name: 2,3,7,8-TCDD

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2	200314R3_2	ST200314R3_1 1613 CS3 19L2305	15-Mar-20	00:06:17
3	200314R3_3	SOLVENT BLANK	15-Mar-20	00:53:50
4	200314R3_4	2000411-08 PDI-031SC-A-06-07-191017 13.06	15-Mar-20	01:41:27
5	200314R3_5	2000411-09 PDI-034SC-A-04-05-191022 11.56	15-Mar-20	02:29:01
6	200314R3_6	2000411-10 PDI-052SC-A-07-08-191015 13.95	15-Mar-20	03:16:36
7	200314R3_7	2000411-10RE2 PDI-052SC-A-07-08-191015 ...	15-Mar-20	04:04:09
8	200314R3_8	2000411-11 PDI-052SC-A-08-09-191015 14.42	15-Mar-20	04:51:42
9	200314R3_9	2000411-12 PDI-052SC-A-09-10-191015 13.28	15-Mar-20	05:39:16
10	200314R3_10	2000411-13 PDI-052SC-A-10-11-191015 13.94	15-Mar-20	06:26:48
11	200314R3_11	2000411-14 PDI-055SC-A-04-05-191015 13.45	15-Mar-20	07:14:22
12	200314R3_12	2000411-15 PDI-055SC-A-05-06-191015 13.65	15-Mar-20	08:01:57
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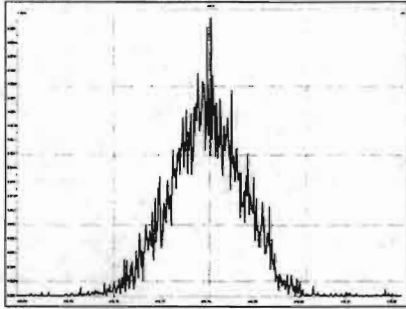
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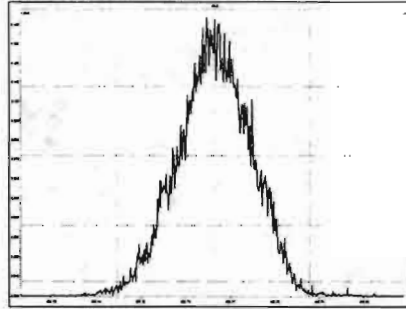
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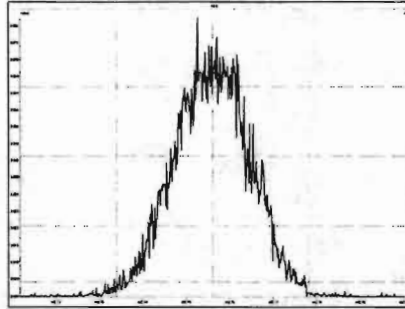
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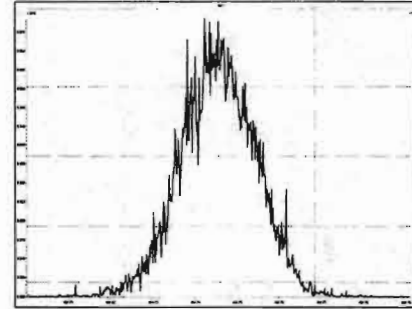
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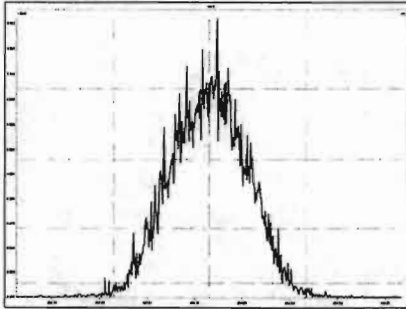
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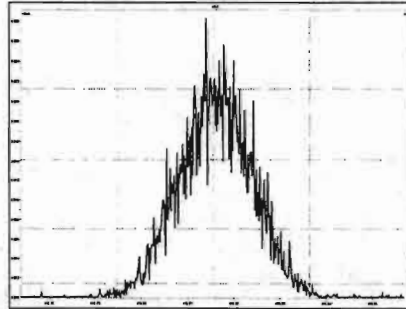
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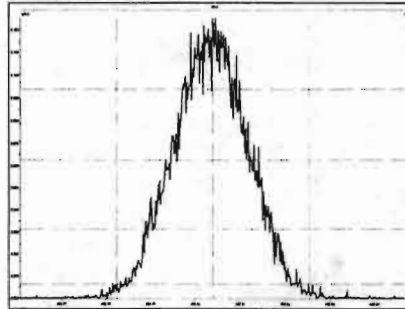
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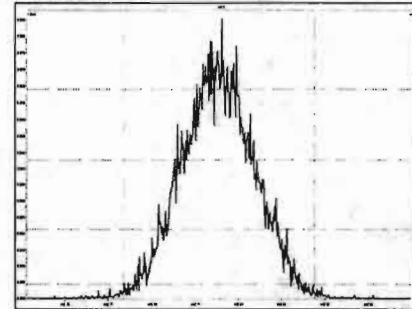
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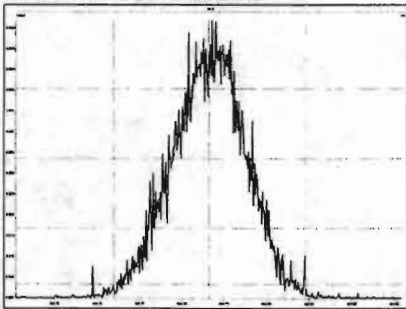
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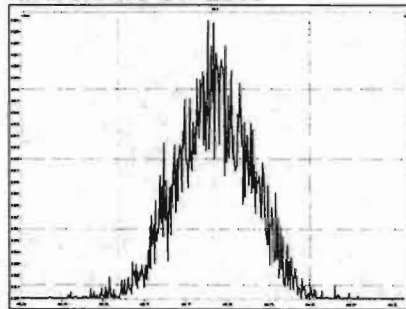
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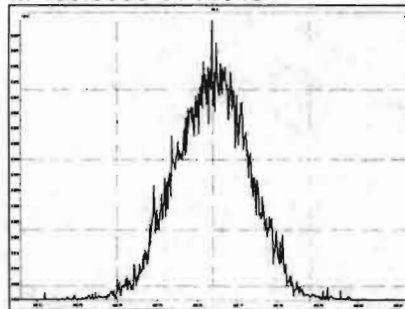
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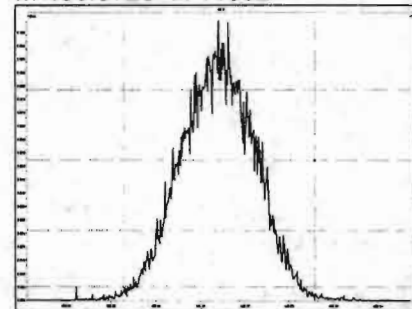
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M 480.9696 R 11643

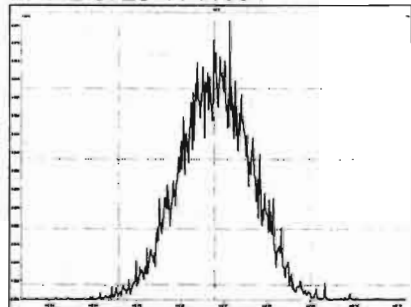


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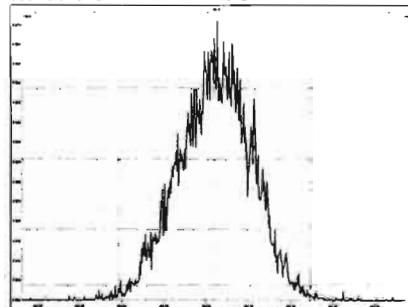


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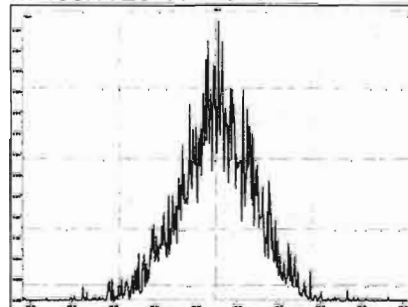
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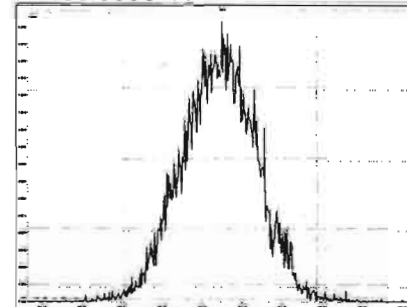
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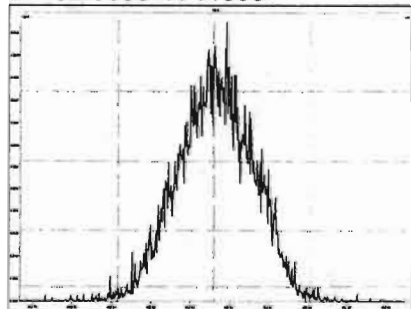
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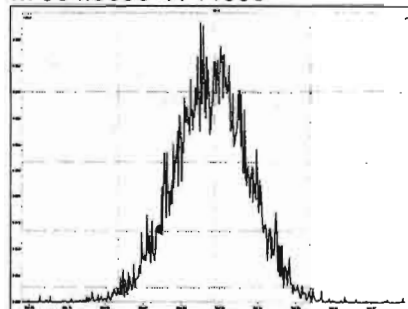
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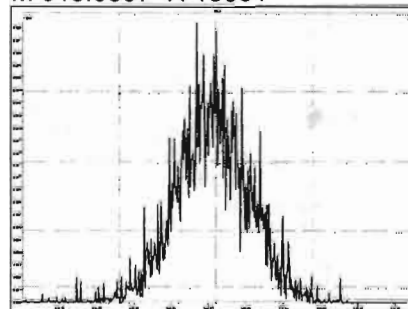
M 492.9696 R 11656



M 504.9696 R 11998



M 516.9697 R 13561



Dataset: U:\VG12.PRO\Results\200314R3\200314R3-CPSM.qld

Last Altered: Sunday, March 15, 2020 09:26:05 Pacific Daylight Time

Printed: Sunday, March 15, 2020 09:26:31 Pacific Daylight Time

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#	Name	RT
1	1,3,6,8-TCDD (First)	21.39
2	1,2,8,9-TCDD (Last)	26.78
3	1,2,4,7,9-PeCDD (First)	28.70
4	1,2,3,8,9-PeCDD (Last)	31.41
5	1,2,4,6,7,9-HxCDD (First)	32.95
6	1,2,3,7,8,9-HxCDD (Last)	34.81
7	1,2,3,4,6,7,9-HpCDD (First)	37.24
8	1,2,3,4,6,7,8-HpCDD (Last)	38.27
9	1,3,6,8-TCDF (First)	19.37
10	1,2,8,9-TCDF (Last)	26.93
11	1,3,4,6,8-PeCDF (First)	26.90
12	1,2,3,8,9-PeCDF (Last)	31.66
13	1,2,3,4,6,8-HxCDF (First)	32.38
14	1,2,3,7,8,9-HxCDF (Last)	35.14
15	1,2,3,4,6,7,8-HpCDF (First)	36.85
16	1,2,3,4,7,8,9-HpCDF (Last)	38.92

Vista Analytical Laboratory VG-11

Dataset: U:\VG12.PRO\Results\200314R3\200314R3-CPSM.qld

Last Altered: Sunday, March 15, 2020 09:26:05 Pacific Daylight Time

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GRB 03/15/2020

Method: Untitled 06 Mar 2020 18:12:45

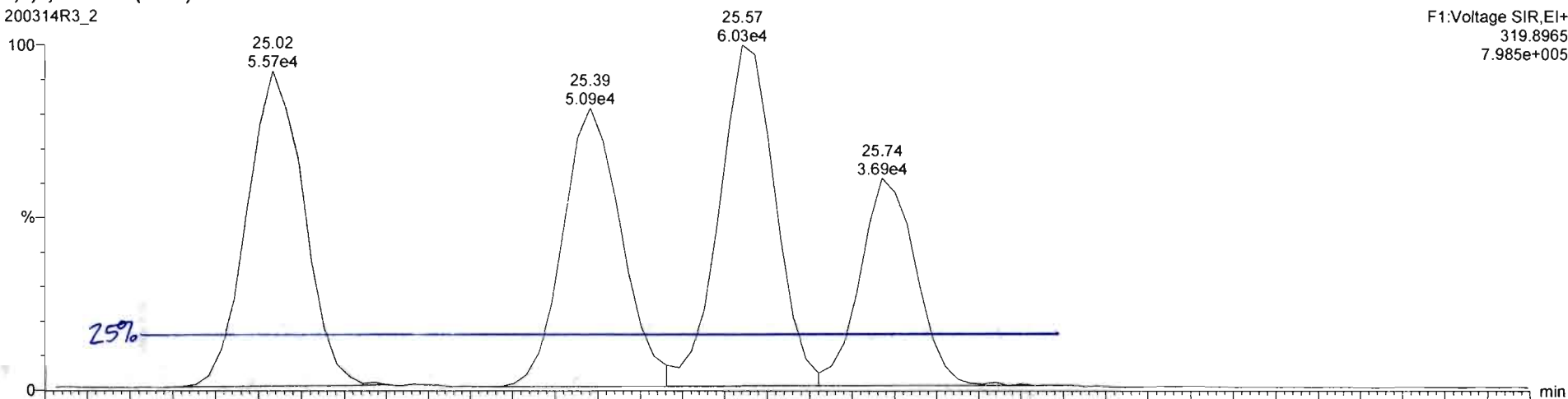
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Name: 200314R3\_2, Date: 15-Mar-2020, Time: 00:06:17, ID: ST200314R3\_1 1613 CS3 19L2305, Description: 1613 CS3 19L2305

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

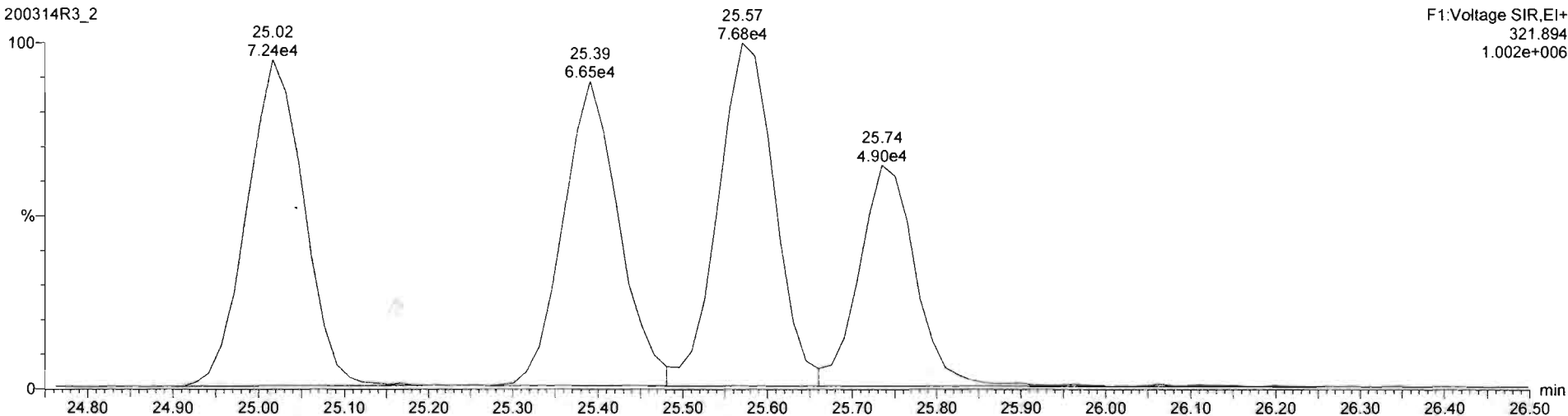
200314R3\_2

F1:Voltage SIR,EI+  
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7.985e+005



200314R3\_2

F1:Voltage SIR,EI+  
321.894  
1.002e+006





Dataset: Untitled

Last Altered: Sunday, March 15, 2020 09:14:23 Pacific Daylight Time

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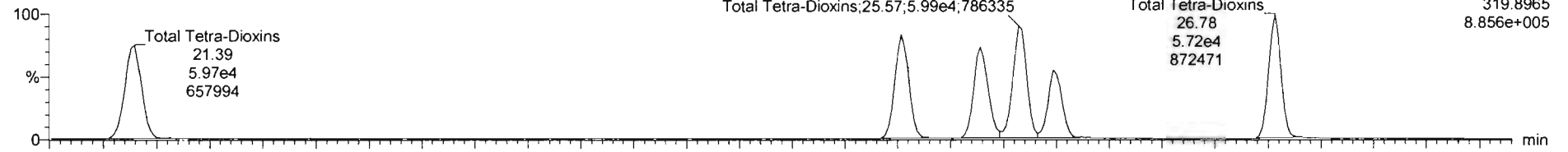
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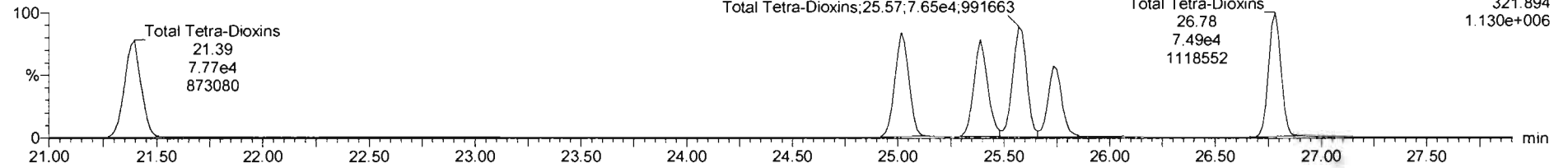
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**2,3,7,8-TCDD**

200314R3\_2

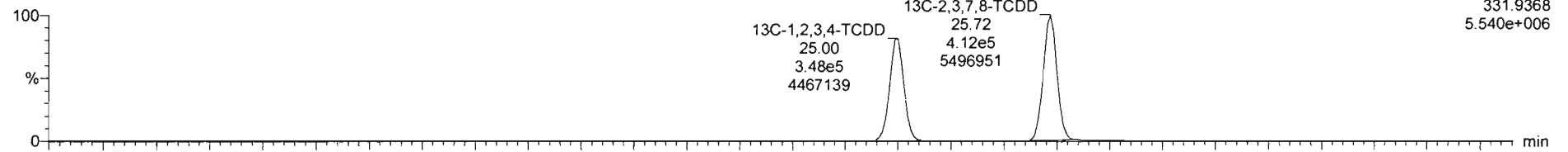


200314R3\_2

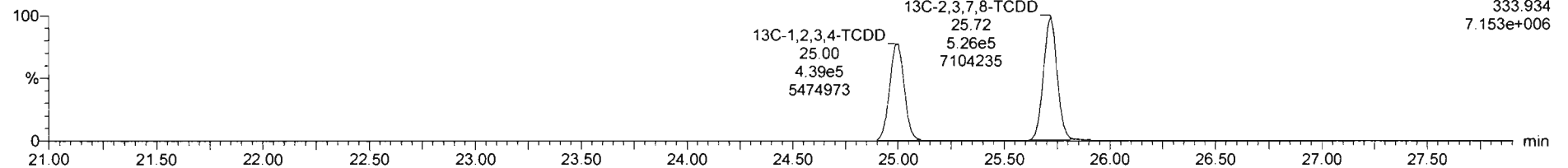


**13C-2,3,7,8-TCDD**

200314R3\_2



200314R3\_2



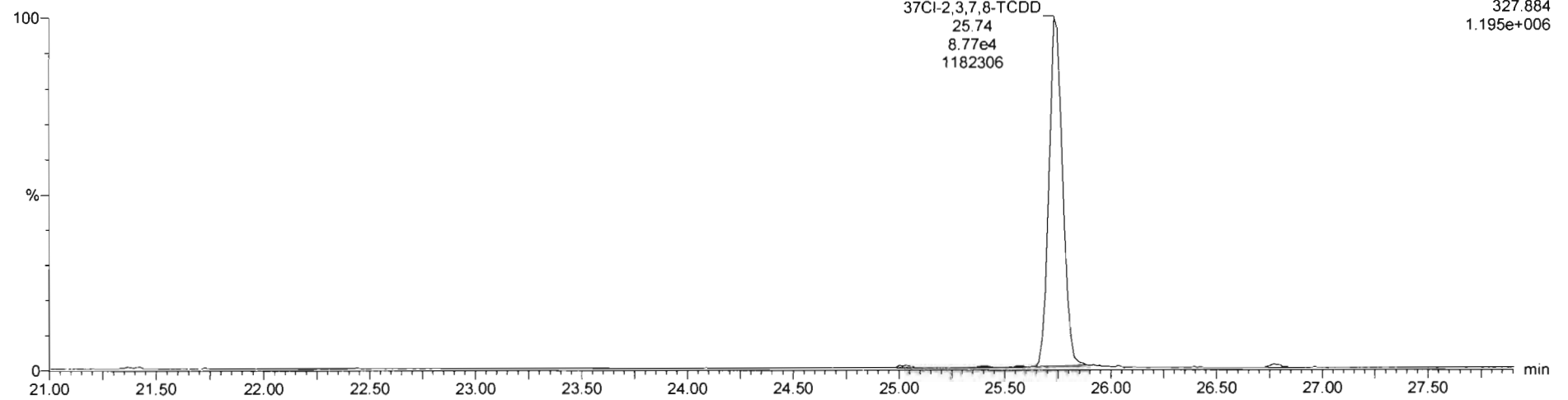
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Printed: Sunday, March 15, 2020 09:16:18 Pacific Daylight Time

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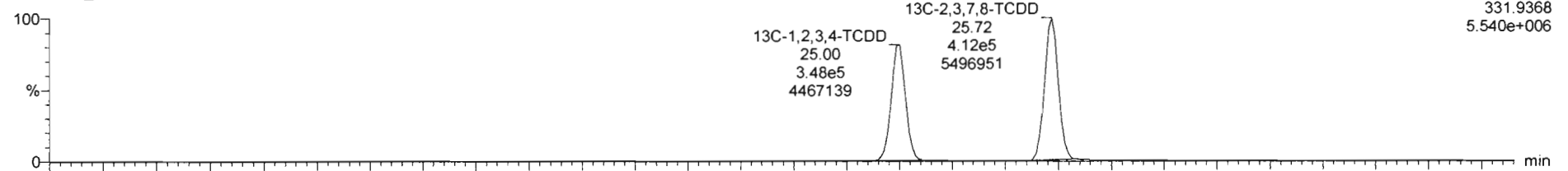
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200314R3\_2

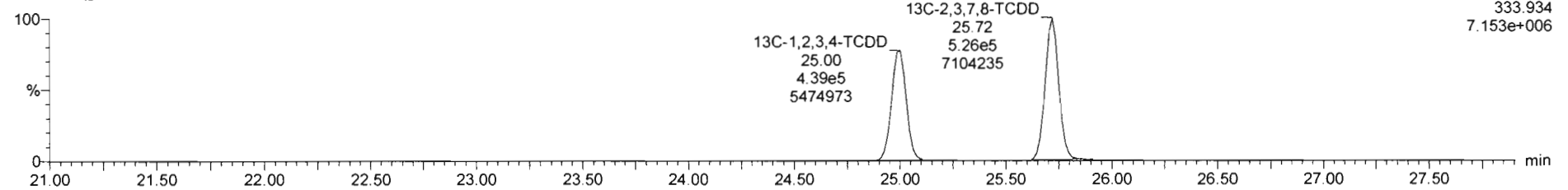


**13C-1,2,3,4-TCDD**

200314R3\_2



200314R3\_2



Dataset: Untitled

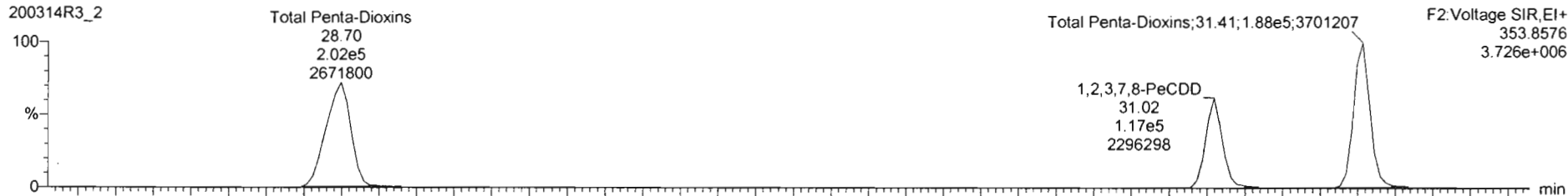
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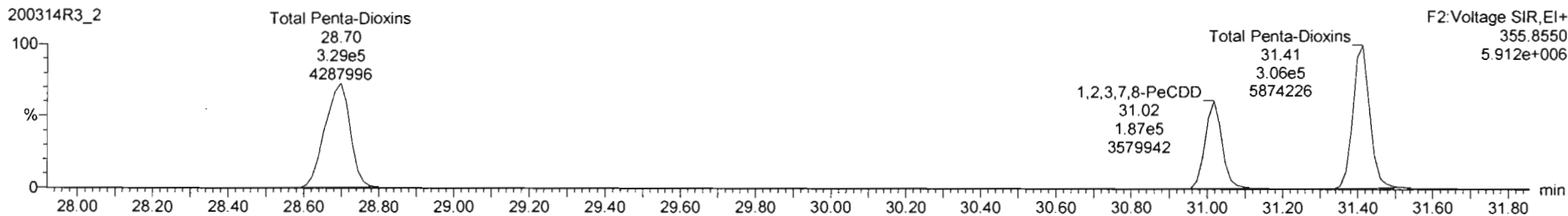
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1,2,3,7,8-PeCDD

200314R3\_2

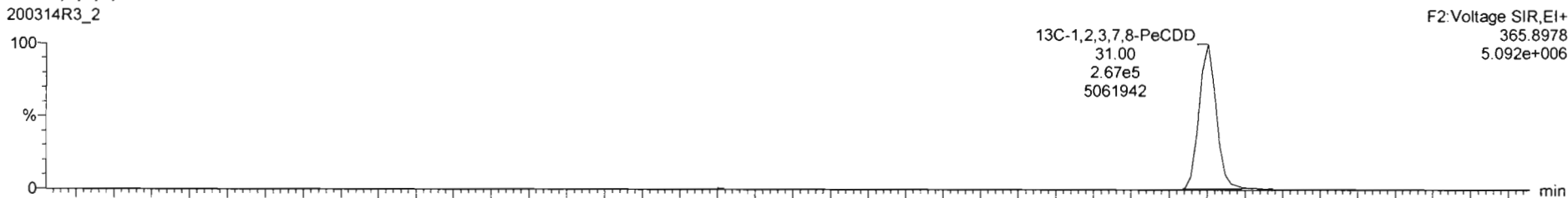


200314R3\_2

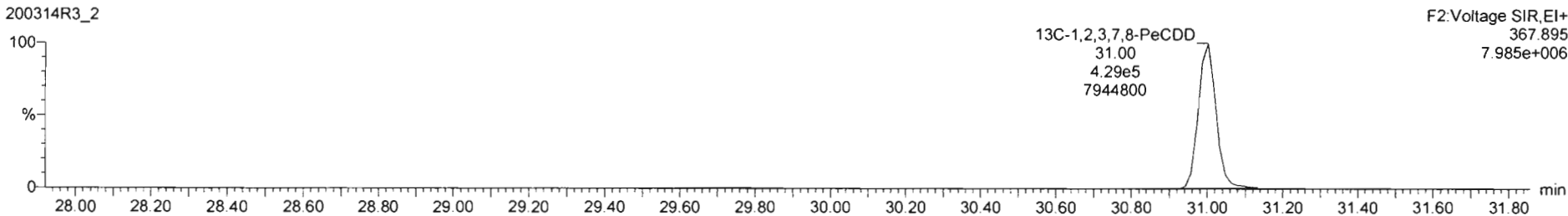


13C-1,2,3,7,8-PeCDD

200314R3\_2



200314R3\_2



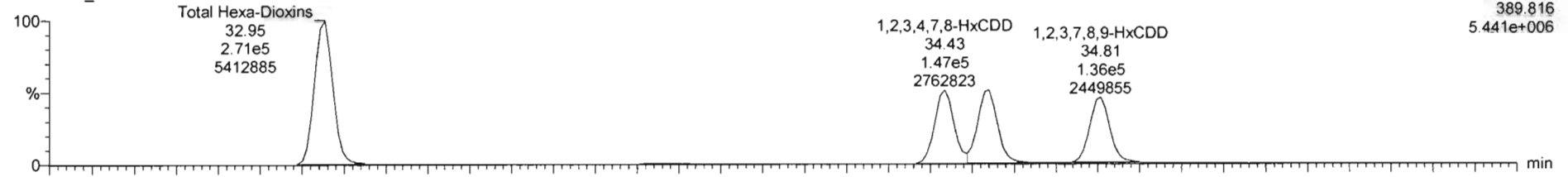
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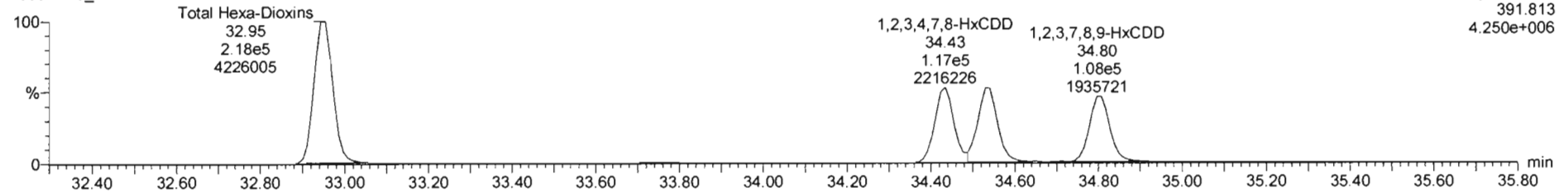
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1,2,3,4,7,8-HxCDD

200314R3\_2

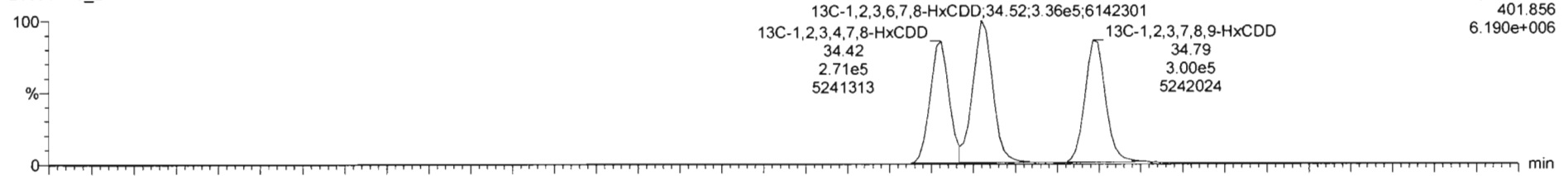


200314R3\_2

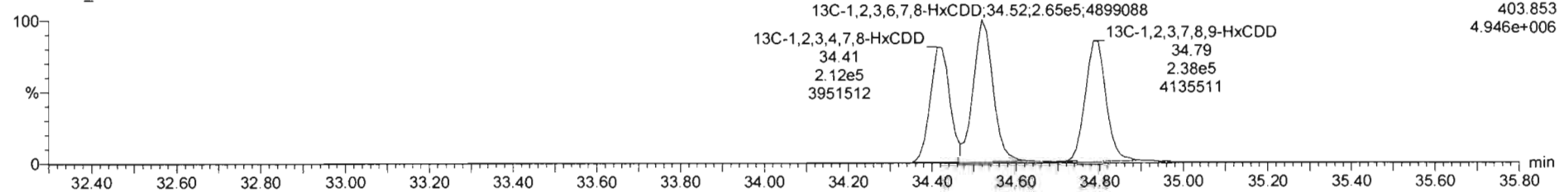


13C-1,2,3,4,7,8-HxCDD

200314R3\_2



200314R3\_2



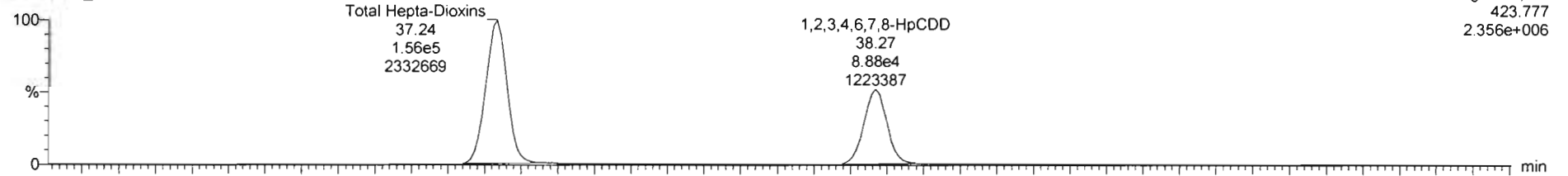
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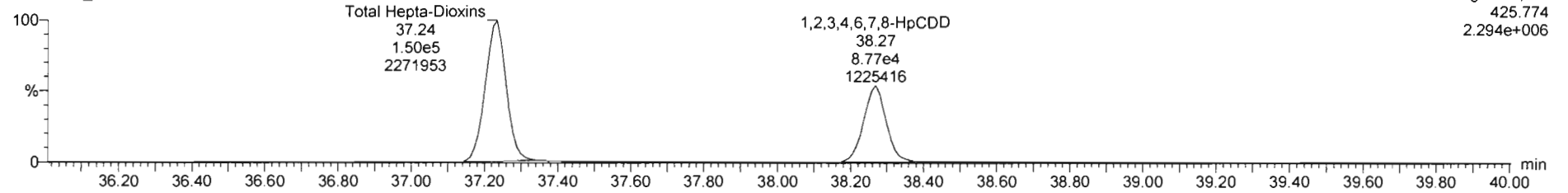
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1,2,3,4,6,7,8-HpCDD

200314R3\_2

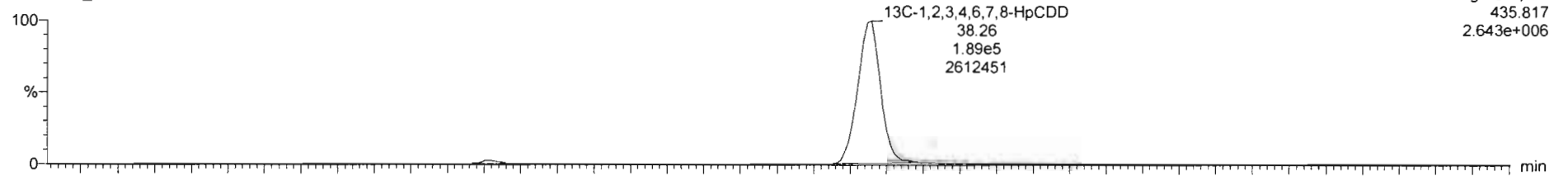


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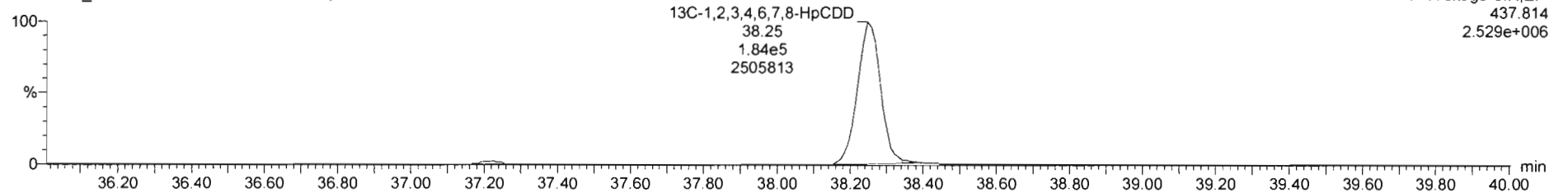


13C-1,2,3,4,6,7,8-HpCDD

200314R3\_2



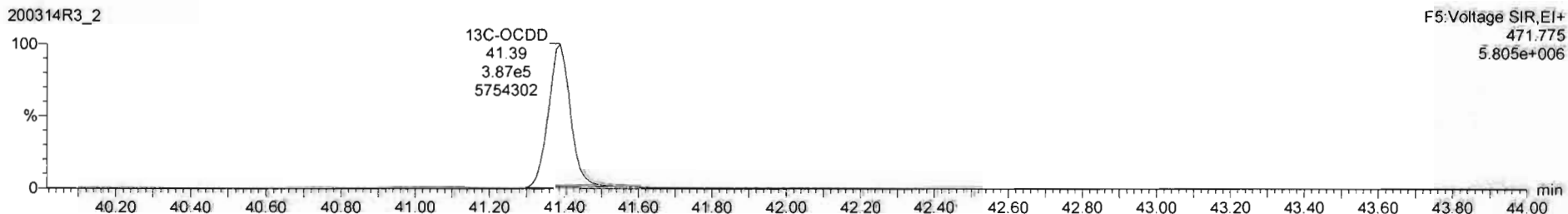
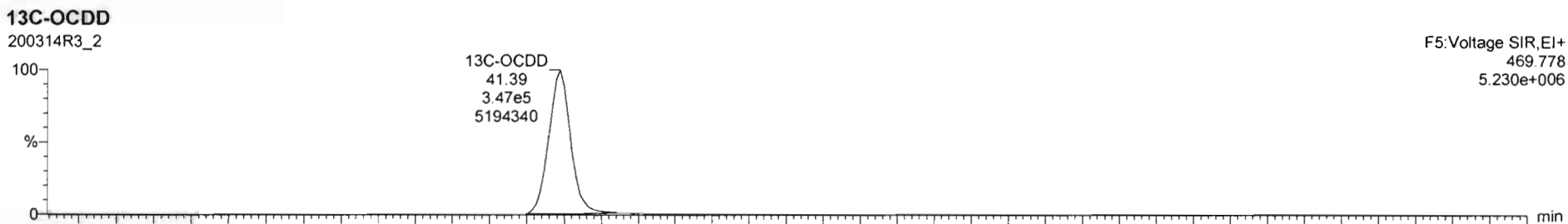
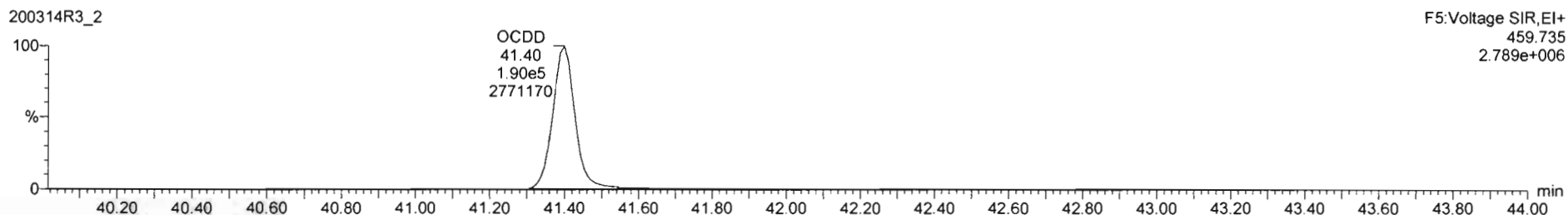
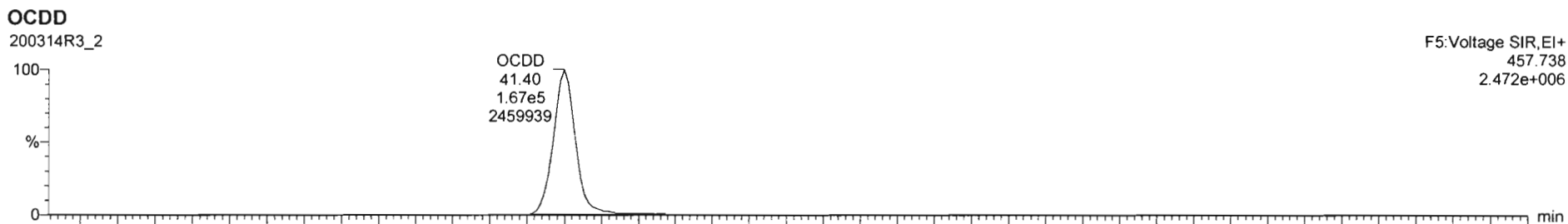
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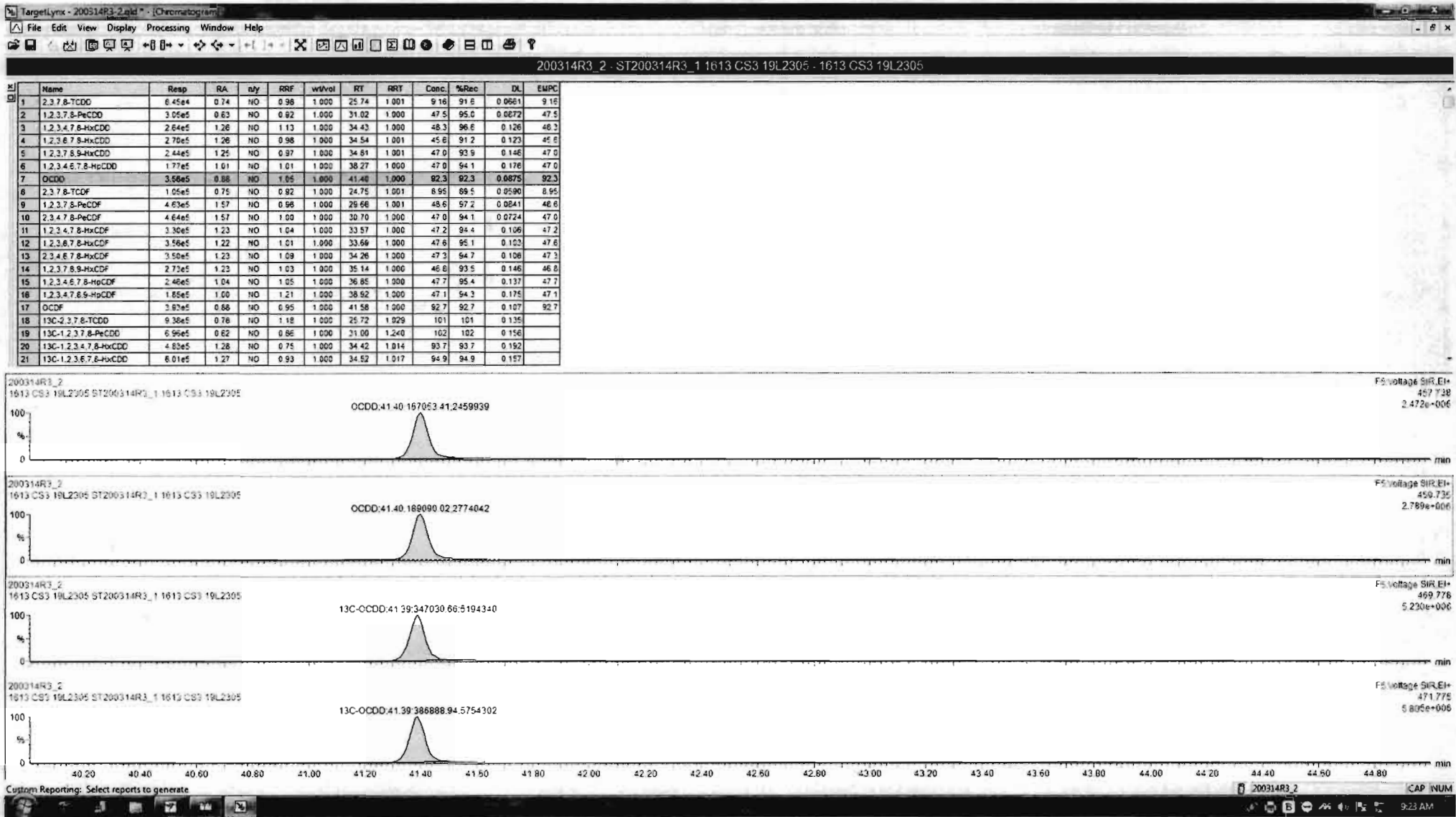


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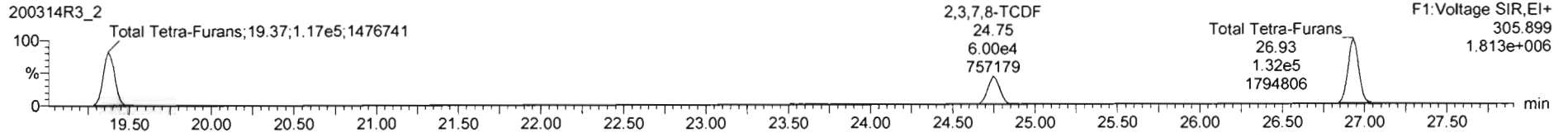
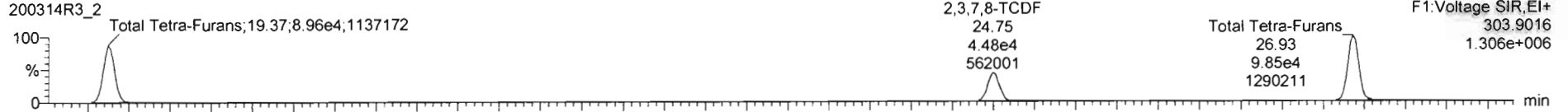


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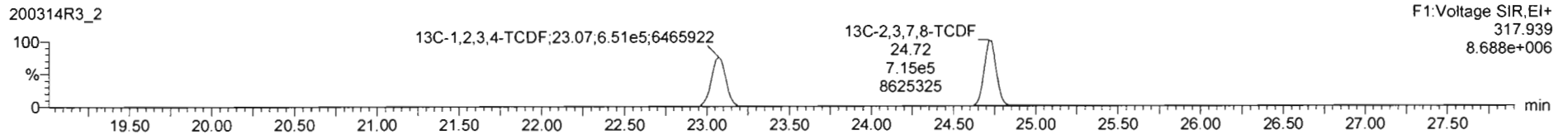
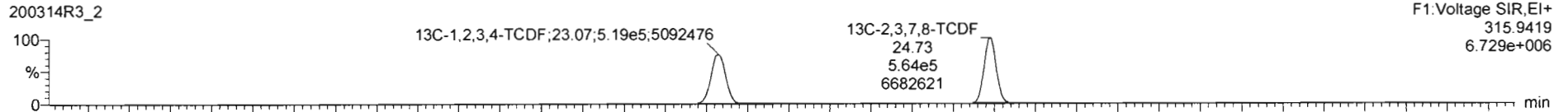
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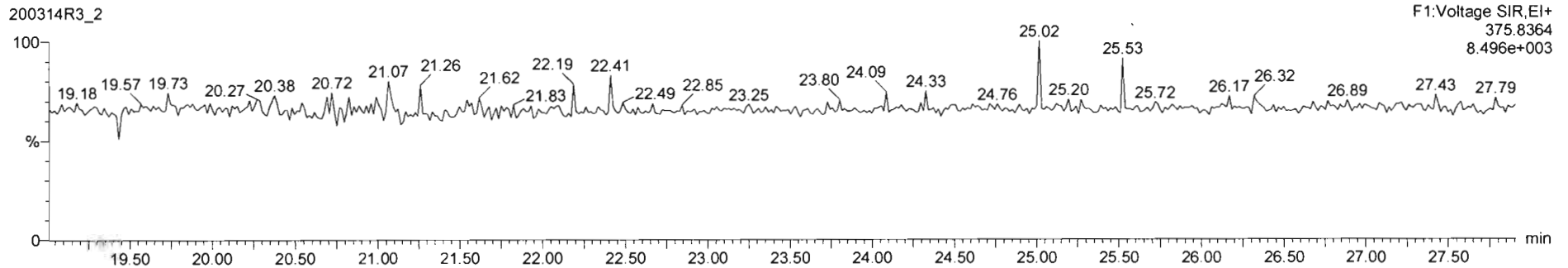
**2,3,7,8-TCDF**



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



**DPE1**





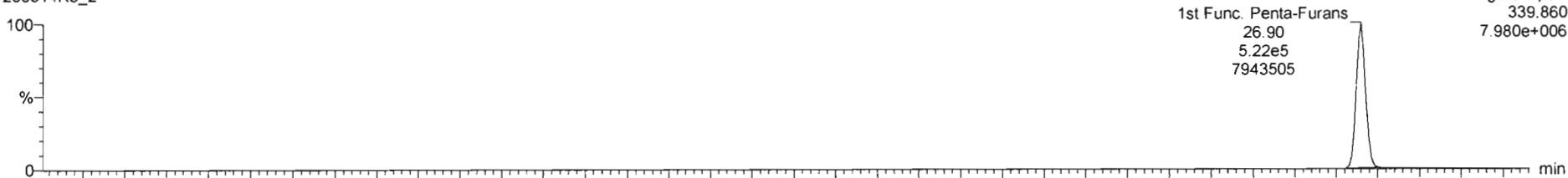
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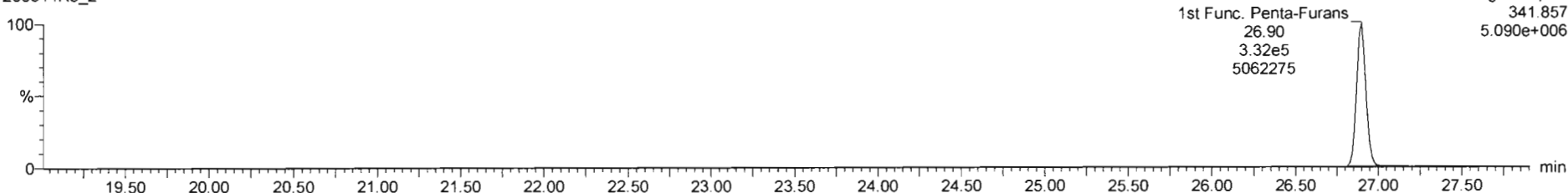
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200314R3\_2

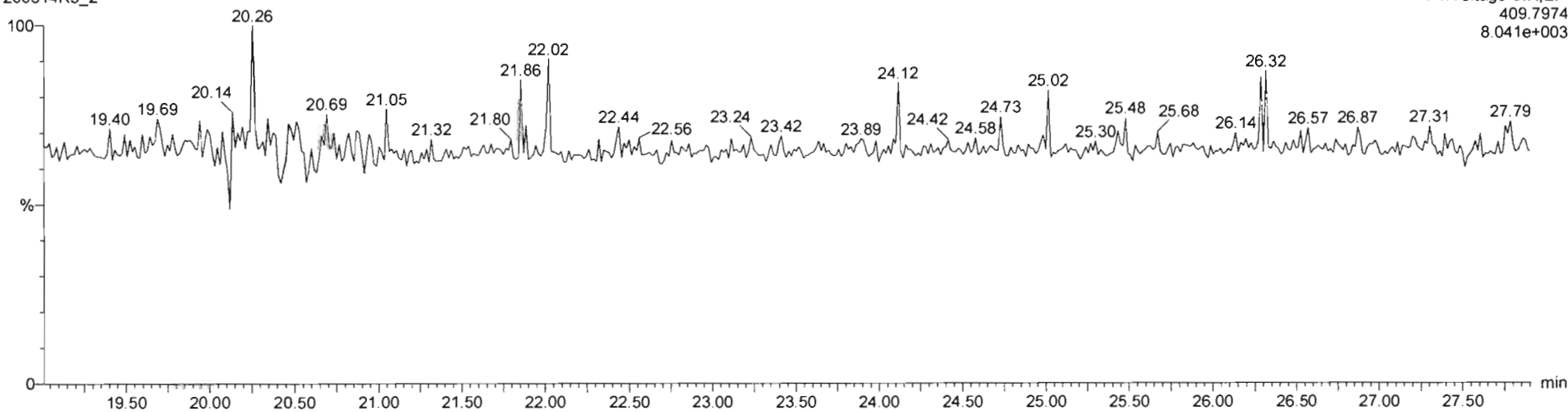


200314R3\_2



DPE6

200314R3\_2



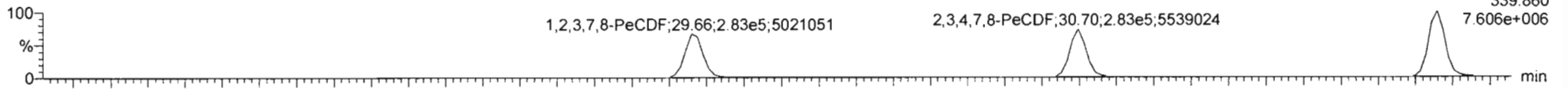
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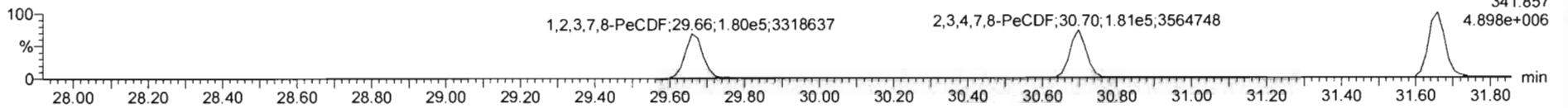
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**1,2,3,7,8-PeCDF**

200314R3\_2

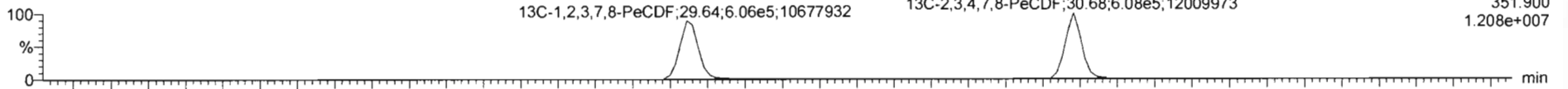


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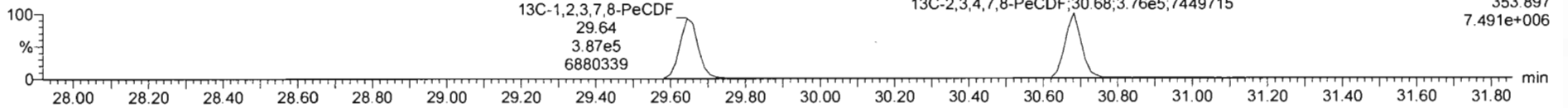


**13C-1,2,3,7,8-PeCDF**

200314R3\_2

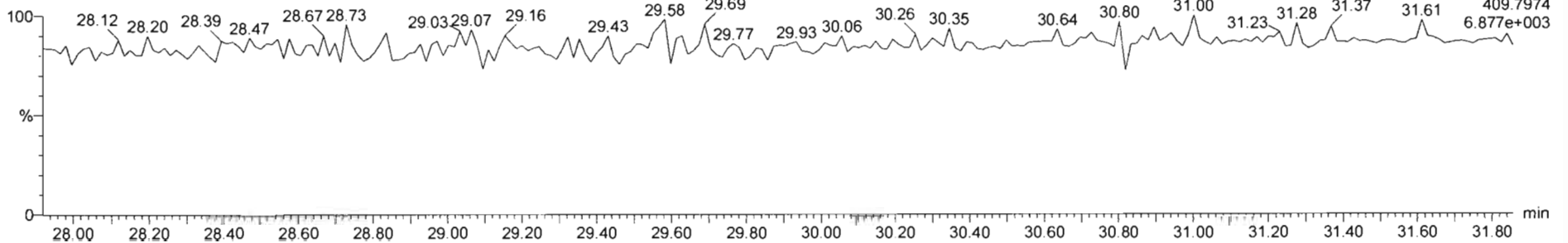


200314R3\_2



**DPE2**

200314R3\_2



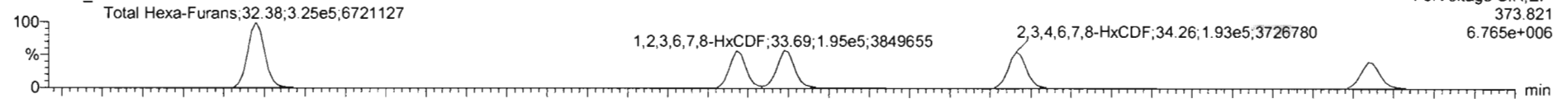
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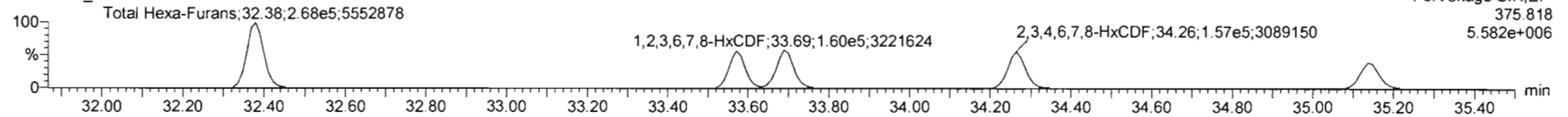
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**1,2,3,4,7,8-HxCDF**

200314R3\_2

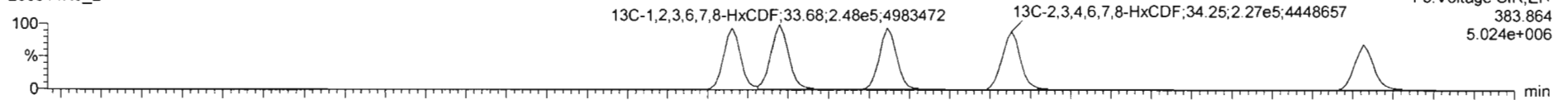


200314R3\_2

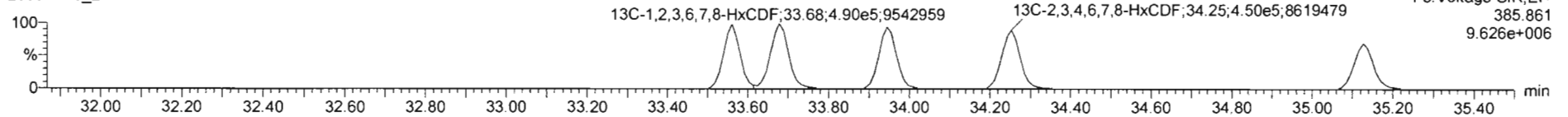


**13C-1,2,3,4,7,8-HxCDF**

200314R3\_2

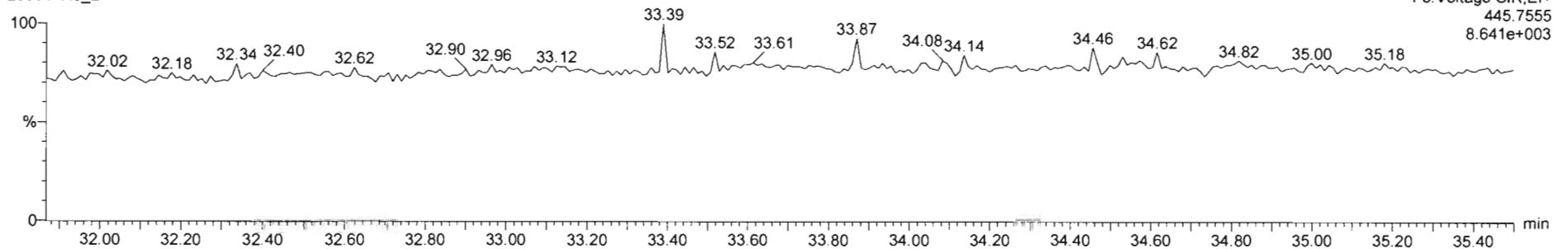


200314R3\_2



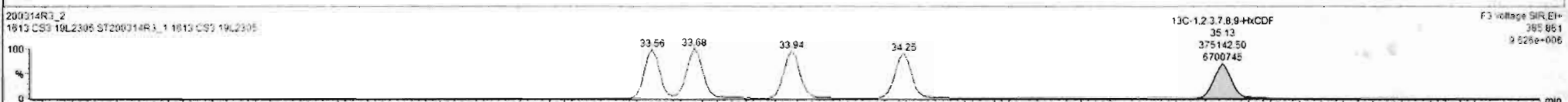
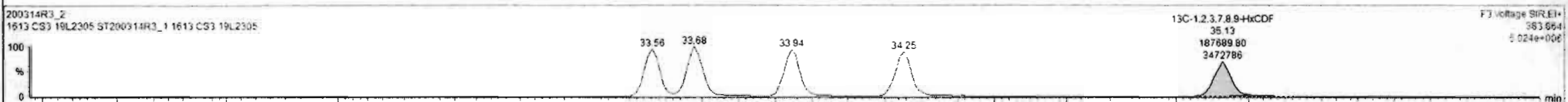
**DPE3**

200314R3\_2



200314R3\_2 - ST200314R3\_1 1613 CS3 19L2305 - 1613 CS3 19L2305

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1	2,3,7,8-TCDD	8.45e4	0.74	NO	0.98	1.000	25.74	1.001	9.16	91.6	0.0661	9.15
2	1,2,3,7,8-PeCDD	3.05e5	0.83	NO	0.92	1.000	31.02	1.000	47.5	95.0	0.0872	47.5
3	1,2,3,4,7,8-HxCDD	2.64e5	1.26	NO	1.13	1.000	34.43	1.000	48.3	96.6	0.126	46.3
4	1,2,3,6,7,8-HxCDD	2.76e5	1.26	NO	0.98	1.000	34.54	1.001	45.6	91.2	0.123	46.6
5	1,2,3,7,8,9-HxCDD	2.44e5	1.25	NO	0.97	1.000	34.81	1.001	47.0	93.9	0.146	47.0
6	1,2,3,4,6,7,8-HpCDD	1.77e5	1.01	NO	1.01	1.000	38.27	1.000	47.0	94.1	0.176	47.0
7	OCDD	3.56e5	0.86	NO	1.05	1.000	41.40	1.000	92.3	92.2	0.0875	92.3
8	2,3,7,8-TCDF	1.05e5	0.75	NO	0.92	1.000	24.75	1.001	8.95	89.5	0.0590	8.95
9	1,2,3,7,8-PeCDF	4.63e5	1.57	NO	0.96	1.000	29.66	1.001	48.6	97.2	0.0841	46.6
10	2,3,4,7,8-PeCDF	4.64e5	1.57	NO	1.00	1.000	30.70	1.000	47.0	94.1	0.0724	47.0
11	1,2,3,4,7,8-HxCDF	3.30e5	1.23	NO	1.04	1.000	33.57	1.000	47.2	94.4	0.196	47.2
12	1,2,3,6,7,8-HxCDF	3.56e5	1.22	NO	1.01	1.000	33.69	1.000	47.6	95.1	0.103	47.6
13	2,3,4,6,7,8-HxCDF	3.50e5	1.23	NO	1.09	1.000	34.26	1.000	47.3	94.7	0.196	47.3
14	1,2,3,7,8,9-HxCDF	2.73e5	1.23	NO	1.03	1.000	35.14	1.000	47.3	94.5	0.144	47.3
15	1,2,3,4,6,7,8-HpCDF	2.46e5	1.04	NO	1.05	1.000	36.85	1.000	47.7	95.4	0.137	47.7
16	1,2,3,4,7,8,9-HpCDF	1.85e5	1.00	NO	1.21	1.000	38.92	1.000	47.1	94.2	0.175	47.1
17	OCDF	3.92e5	0.68	NO	0.95	1.000	41.58	1.000	92.7	92.7	0.107	92.7
18	13C-2,3,7,8-TCDD	9.38e5	0.78	NO	1.18	1.000	25.72	1.029	101	101	0.135	
19	13C-1,2,3,7,8-PeCDD	5.96e5	0.82	NO	0.85	1.000	31.00	1.240	102	102	0.156	
20	13C-1,2,3,4,7,8-HxCDD	4.83e5	1.28	NO	0.75	1.000	34.42	1.014	93.7	93.7	0.192	
21	13C-1,2,3,6,7,8-HxCDD	6.01e5	1.27	NO	0.93	1.000	34.52	1.017	94.9	94.9	0.157	



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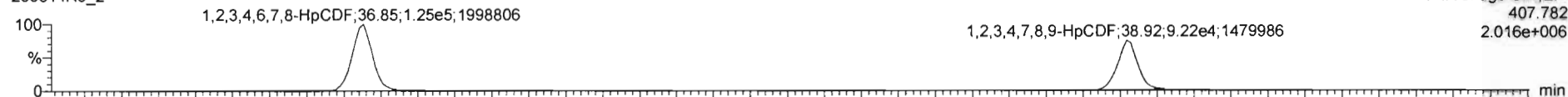
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Printed: Sunday, March 15, 2020 09:16:18 Pacific Daylight Time

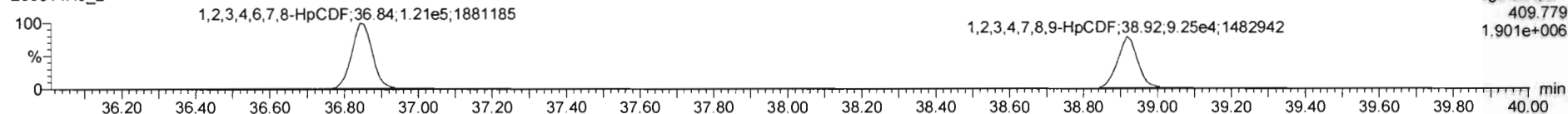
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**1,2,3,4,6,7,8-HpCDF**

200314R3\_2

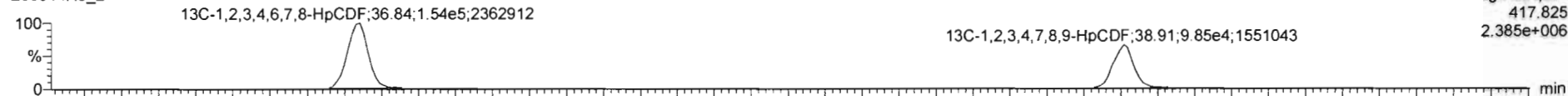


200314R3\_2

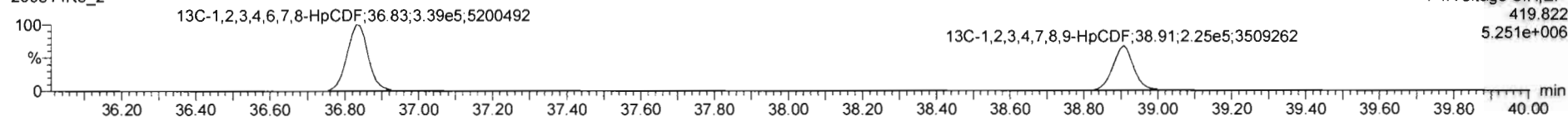


**13C-1,2,3,4,6,7,8-HpCDF**

200314R3\_2

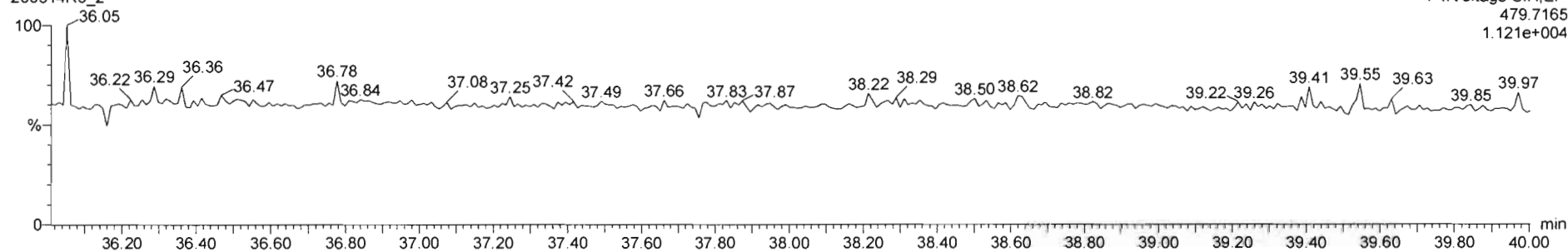


200314R3\_2



**DPE4**

200314R3\_2



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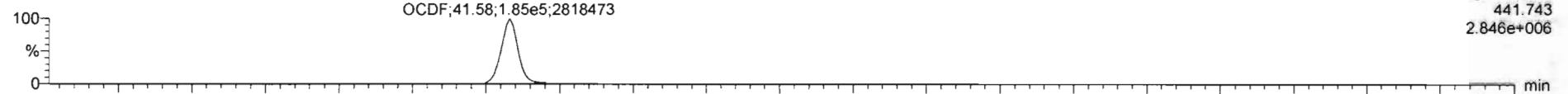
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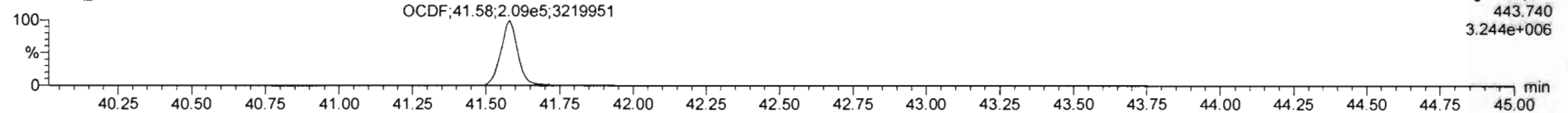
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**OCDF**

200314R3\_2

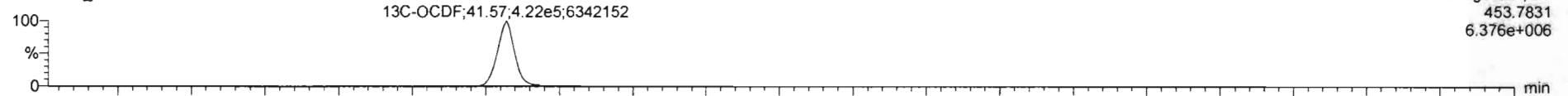


200314R3\_2

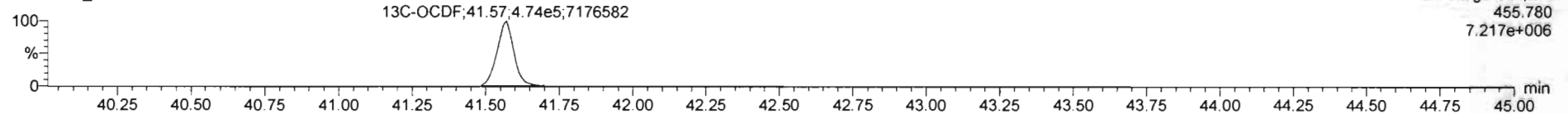


**13C-OCDF**

200314R3\_2

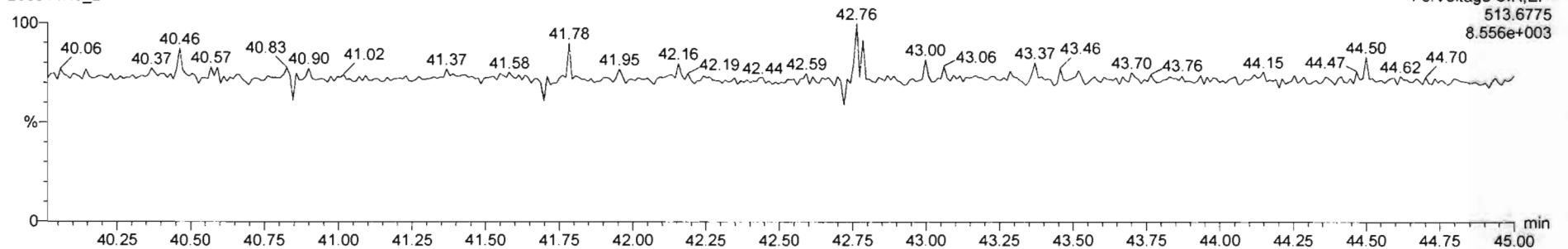


200314R3\_2



**DPE5**

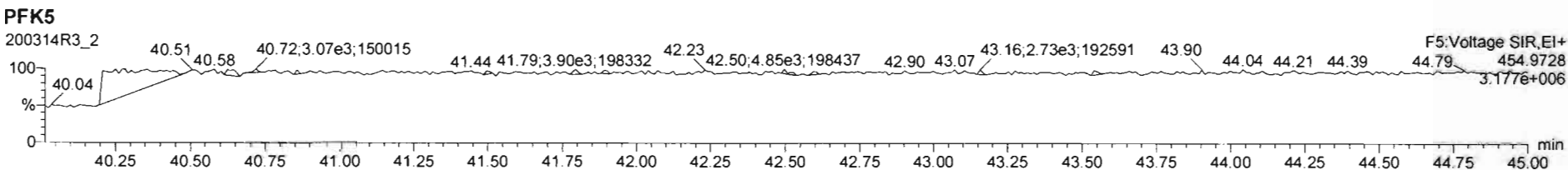
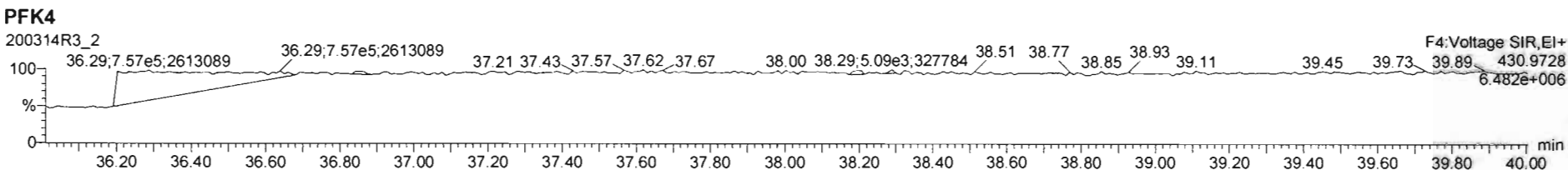
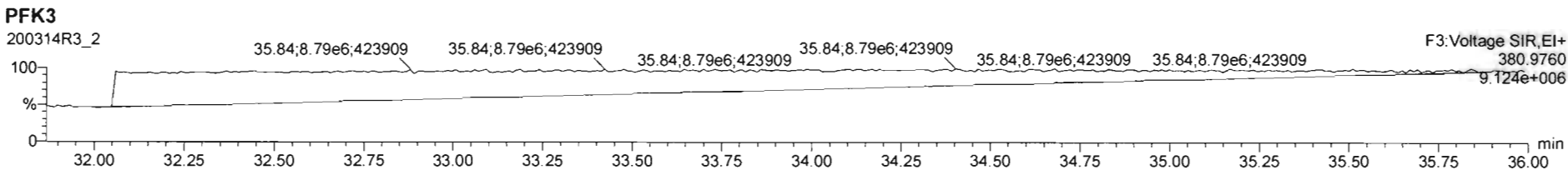
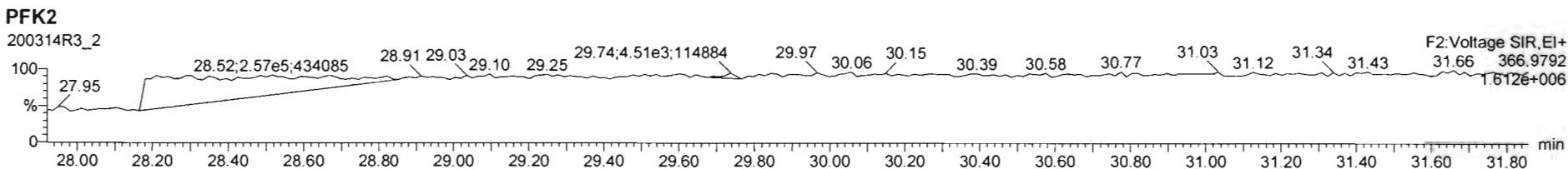
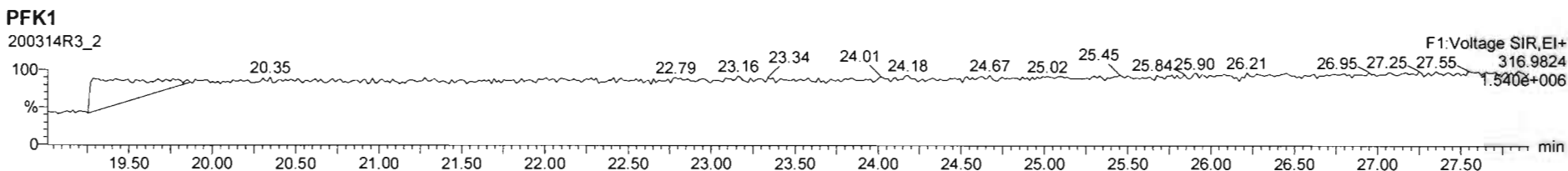
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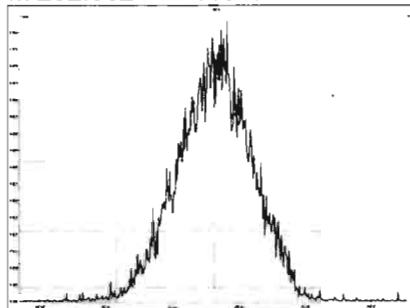
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Printed: Sunday, March 15, 2020 09:16:18 Pacific Daylight Time

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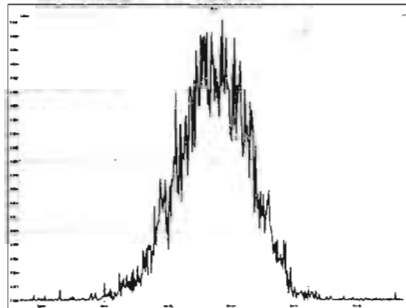


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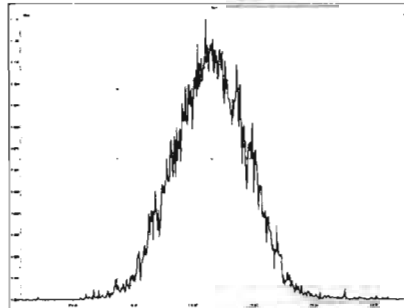
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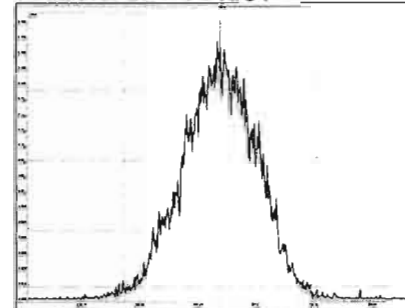
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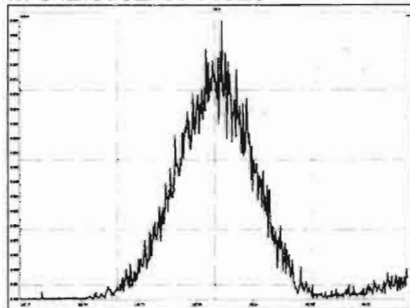
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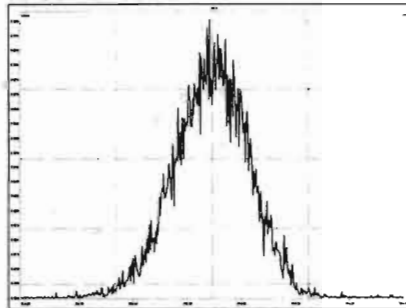
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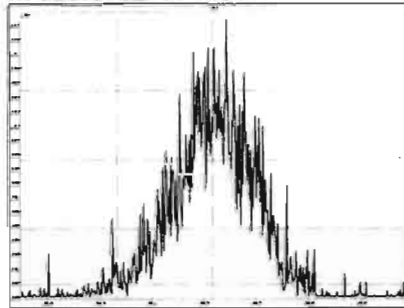
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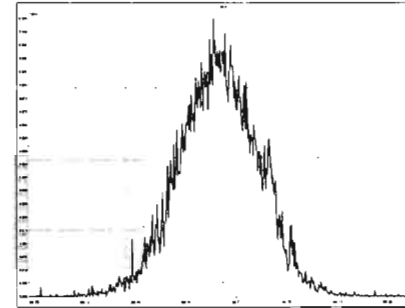
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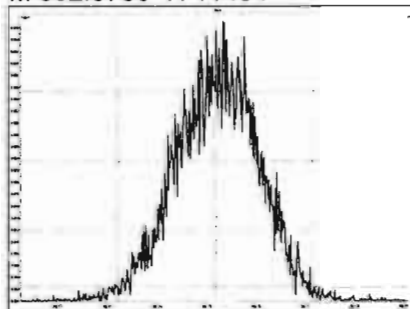
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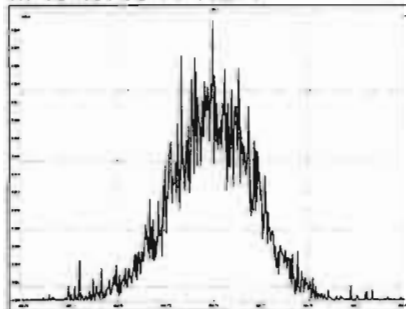
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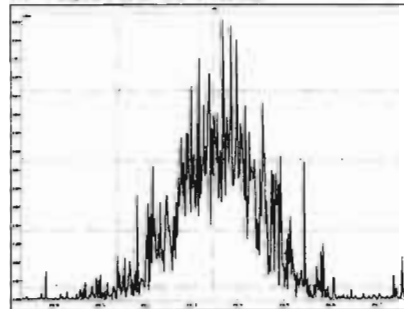
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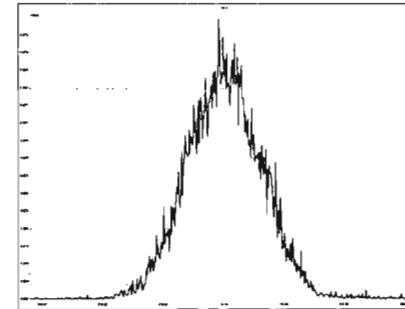
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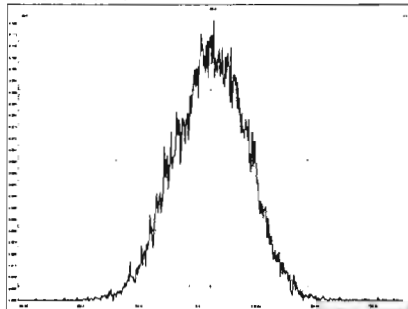
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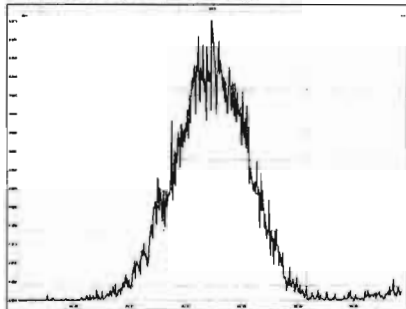


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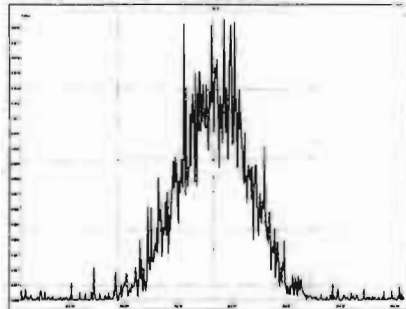
M 330.9792 R 11392



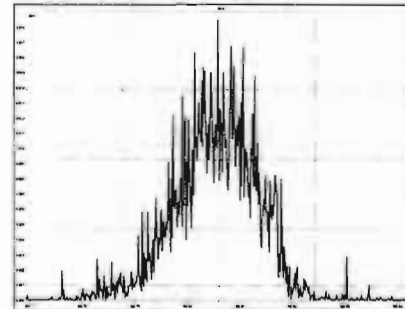
M 342.9792 R 12406



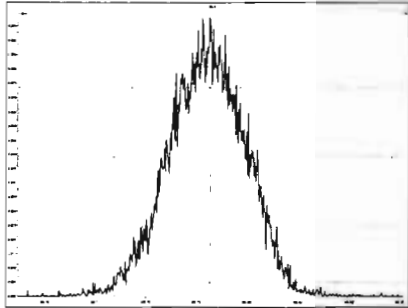
M 354.9792 R 12886



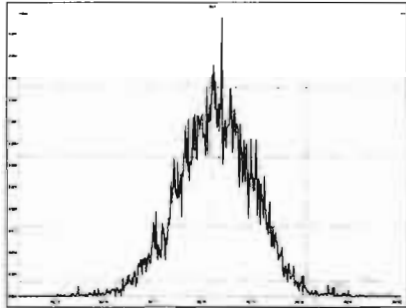
M 366.9792 R 11767



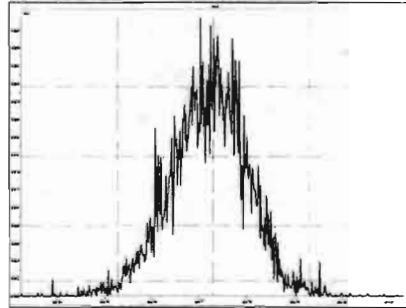
M 380.9760 R 11712



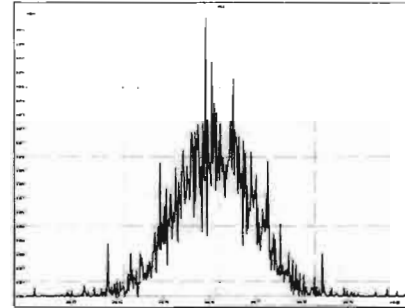
M 392.9760 R 11662



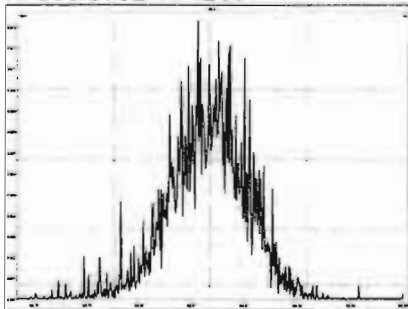
M 404.9760 R 11796



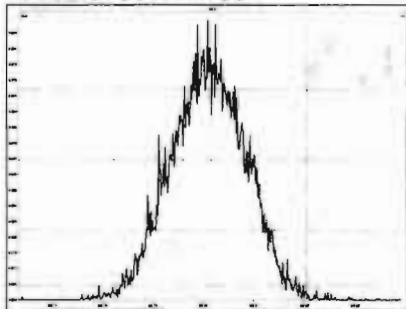
M 416.9760 R 12041



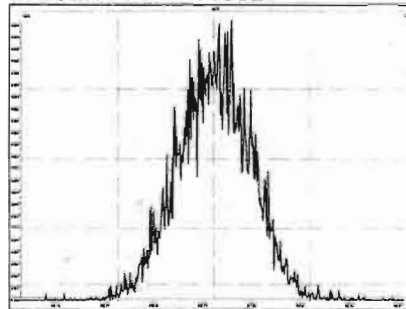
M 366.9792 R 12664



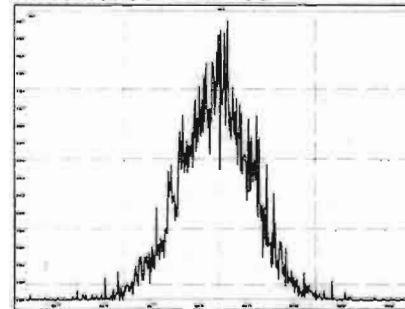
M 380.9760 R 11691



M 392.9760 R 11602

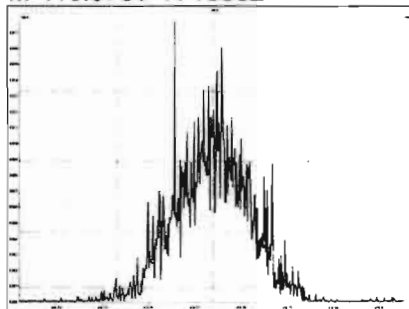


M 404.9760 R 12496

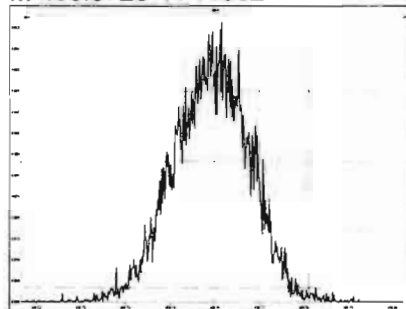


Printed: Sunday, March 15, 2020 09:45:51 Pacific Daylight Time

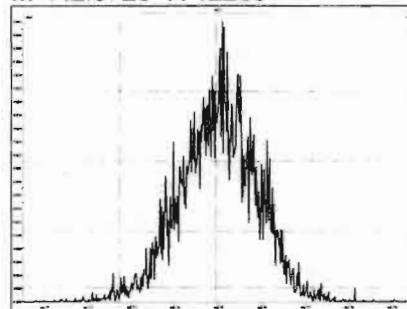
M 416.9760 R 13662



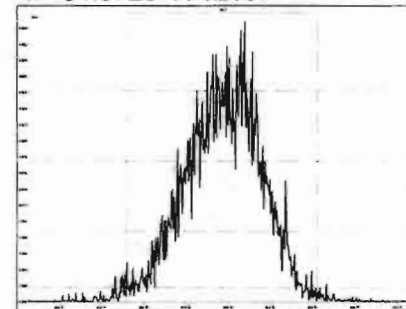
M 430.9728 R 11962



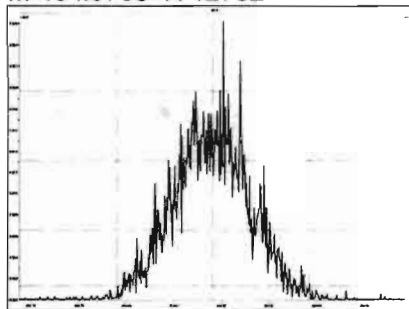
M 442.9728 R 12269



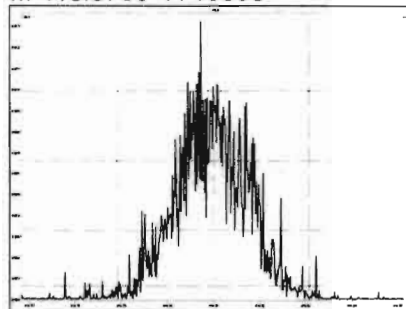
M 454.9728 R 12197



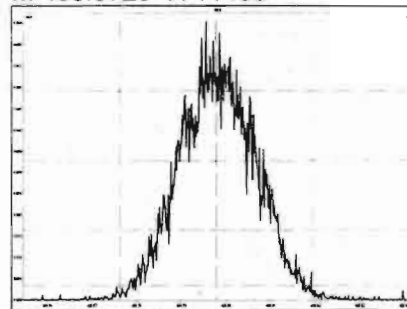
M 404.9760 R 12732



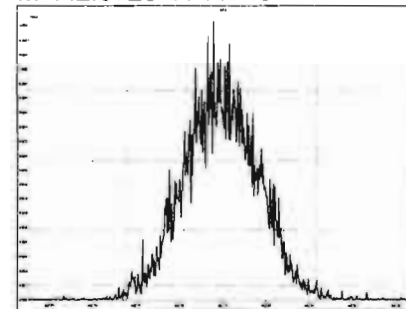
M 416.9760 R 13698



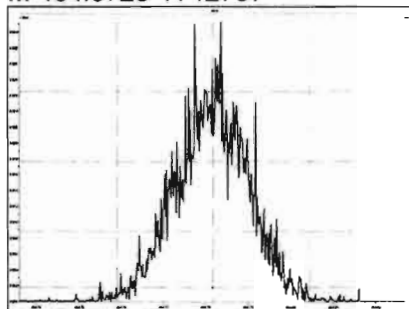
M 430.9728 R 11493



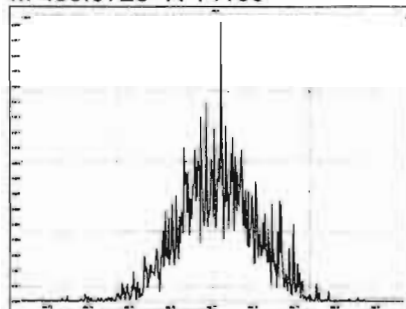
M 442.9728 R 11743



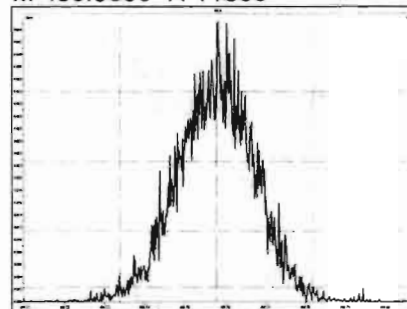
M 454.9728 R 12787



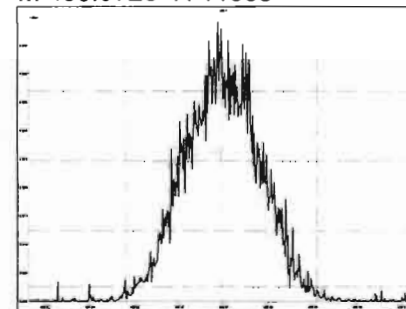
M 466.9728 R 14159



M 480.9696 R 11805

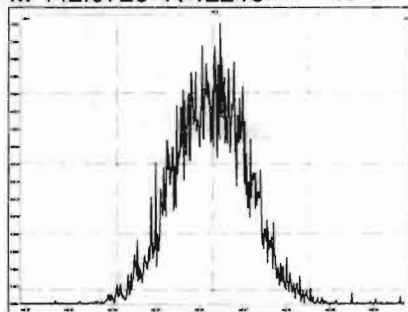


M 430.9728 R 11338

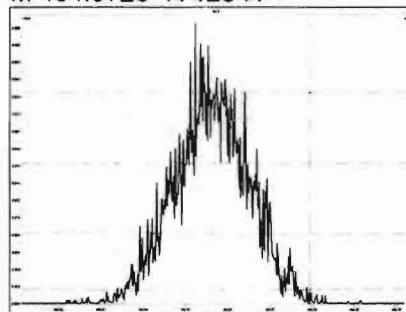


Printed: Sunday, March 15, 2020 09:45:51 Pacific Daylight Time

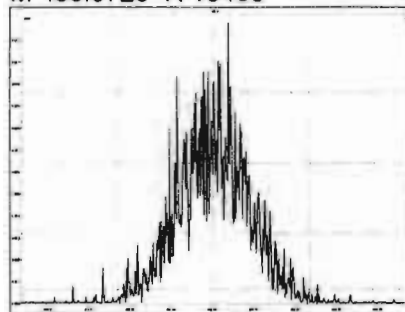
M 442.9728 R 12210



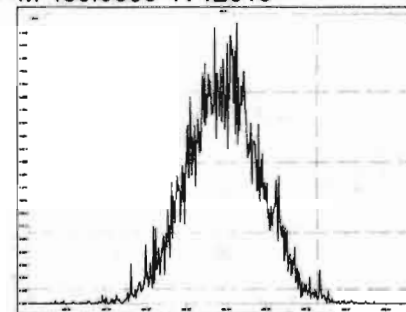
M 454.9728 R 12841



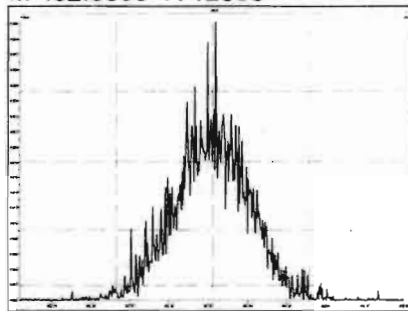
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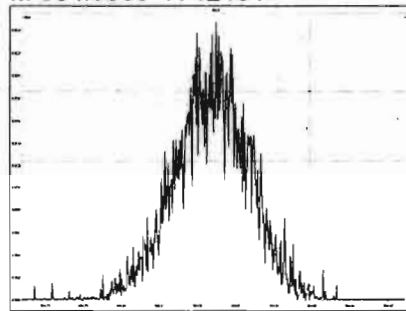
M 480.9696 R 12319



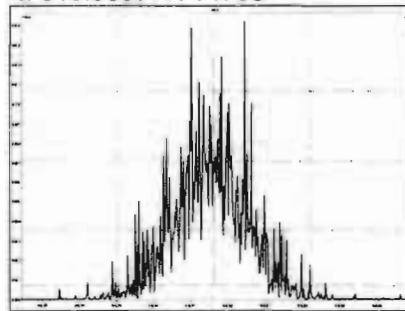
M 492.9696 R 12658



M 504.9696 R 12181



M 516.9697 R 14758



## **INITIAL CALIBRATION**

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time

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*GRB 03/09/2020*

*C1 03/09/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 11:03:08

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

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

Response Factor: 0.983462

RRF SD: 0.0620764, Relative SD: 6.31202

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	200306R2_1	0.250	0.88	NO	25.83	1.001	2.55e3	1.02e6	0.255	1.8	1.00	MM
2	200306R2_2	0.500	0.79	NO	25.80	1.001	5.56e3	1.04e6	0.545	9.0	1.07	bb
3	200306R2_3	2.00	0.77	NO	25.81	1.001	2.04e4	9.83e5	2.11	5.3	1.04	bb
4	200306R2_4	10.0	0.80	NO	25.81	1.001	1.07e5	1.15e6	9.48	-5.2	0.933	db
5	200306R2_5	40.0	0.77	NO	25.80	1.001	4.79e5	1.30e6	37.6	-5.9	0.925	bb
6	200306R2_6	300	0.79	NO	25.80	1.001	3.75e6	1.34e6	285	-5.0	0.934	bb

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

Response Factor: 0.921241

RRF SD: 0.0620739, Relative SD: 6.73807

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	200306R2_1	1.25	0.68	NO	31.00	1.000	7.57e3	7.13e5	1.15	-7.8	0.849	MM
2	200306R2_2	2.50	0.65	NO	30.97	1.000	1.74e4	6.98e5	2.70	8.2	0.996	bb
3	200306R2_3	10.0	0.68	NO	30.99	1.000	6.63e4	6.63e5	10.8	8.5	0.999	bb
4	200306R2_4	50.0	0.63	NO	30.99	1.000	3.98e5	9.00e5	48.0	-4.0	0.884	bb
5	200306R2_5	200	0.63	NO	30.99	1.000	1.71e6	9.49e5	195	-2.4	0.899	bb
6	200306R2_6	1500	0.63	NO	30.99	1.000	1.46e7	1.08e6	1460	-2.3	0.900	bb

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

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

Response Factor: 1.13254

RRF SD: 0.050207, Relative SD: 4.43315

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	200306R2_1	1.25	1.29	NO	34.40	1.001	7.33e3	5.37e5	1.21	-3.6	1.09	bd
2	200306R2_2	2.50	1.25	NO	34.37	1.001	1.58e4	5.23e5	2.66	6.4	1.21	bd
3	200306R2_3	10.0	1.25	NO	34.37	1.000	5.85e4	4.95e5	10.4	4.4	1.18	bd
4	200306R2_4	50.0	1.24	NO	34.38	1.001	3.69e5	6.79e5	48.0	-4.0	1.09	bd
5	200306R2_5	200	1.24	NO	34.37	1.000	1.50e6	6.81e5	194	-3.0	1.10	bd
6	200306R2_6	1500	1.24	NO	34.38	1.000	1.42e7	8.39e5	1500	-0.3	1.13	bd

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

Response Factor: 0.984449

RRF SD: 0.0570908, Relative SD: 5.79927

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	200306R2_1	1.25	1.21	NO	34.49	1.000	7.49e3	6.23e5	1.22	-2.3	0.961	MM
2	200306R2_2	2.50	1.23	NO	34.47	1.000	1.71e4	6.45e5	2.69	7.8	1.06	db
3	200306R2_3	10.0	1.24	NO	34.48	1.000	6.35e4	6.06e5	10.6	6.4	1.05	db
4	200306R2_4	50.0	1.26	NO	34.48	1.000	3.94e5	8.29e5	48.3	-3.4	0.951	db
5	200306R2_5	200	1.25	NO	34.47	1.000	1.68e6	8.67e5	197	-1.6	0.969	db
6	200306R2_6	1500	1.24	NO	34.49	1.001	1.45e7	1.05e6	1400	-6.8	0.917	db

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

Response Factor: 0.967395

RRF SD: 0.0672904, Relative SD: 6.95583

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	200306R2_1	1.25	1.19	NO	34.76	1.000	6.08e3	5.57e5	1.13	-9.9	0.872	MM
2	200306R2_2	2.50	1.24	NO	34.74	1.001	1.51e4	5.80e5	2.70	7.9	1.04	bb

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

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**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	200306R2_3	10.0	1.23	NO	34.74	1.000	5.71e4	5.46e5	10.8	8.1	1.05	bb
4	200306R2_4	50.0	1.23	NO	34.74	1.000	3.51e5	7.47e5	48.6	-2.9	0.940	bb
5	200306R2_5	200	1.25	NO	34.74	1.000	1.47e6	7.83e5	194	-2.8	0.940	bb
6	200306R2_6	1500	1.23	NO	34.75	1.000	1.34e7	9.31e5	1490	-0.5	0.963	bb

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

Response Factor: 1.00606

RRF SD: 0.0598777, Relative SD: 5.95172

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	200306R2_1	1.25	1.04	NO	38.23	1.000	4.50e3	3.74e5	1.19	-4.5	0.960	MM
2	200306R2_2	2.50	1.03	NO	38.17	1.000	1.17e4	4.34e5	2.69	7.6	1.08	bb
3	200306R2_3	10.0	1.02	NO	38.18	1.000	4.15e4	3.84e5	10.7	7.4	1.08	bb
4	200306R2_4	50.0	1.03	NO	38.21	1.000	2.63e5	5.52e5	47.4	-5.1	0.954	bb
5	200306R2_5	200	1.04	NO	38.21	1.001	1.14e6	5.89e5	192	-3.9	0.967	bb
6	200306R2_6	1500	1.03	NO	38.22	1.001	9.92e6	6.67e5	1480	-1.4	0.992	bb

**Compound name: OCDD**

Response Factor: 1.05145

RRF SD: 0.114587, Relative SD: 10.898

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	200306R2_1	2.50	0.84	NO	41.25	1.000	1.06e4	7.05e5	2.86	14.2	1.20	MM
2	200306R2_2	5.00	0.98	NO	41.22	1.000	2.24e4	7.62e5	5.60	12.0	1.18	MM
3	200306R2_3	20.0	0.87	NO	41.23	1.000	7.58e4	7.16e5	20.1	0.7	1.06	bb
4	200306R2_4	100	0.90	NO	41.23	1.000	4.62e5	9.75e5	90.2	-9.8	0.948	bb
5	200306R2_5	400	0.89	NO	41.22	1.000	2.22e6	1.17e6	360	-10.0	0.946	bb
6	200306R2_6	3000	0.89	NO	41.24	1.000	2.08e7	1.42e6	2790	-7.1	0.977	MM

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

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

Response Factor: 0.915401

RRF SD: 0.0583768, Relative SD: 6.37719

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	200306R2_1	0.250	0.84	NO	24.87	1.001	3.09e3	1.43e6	0.235	-5.9	0.861	MM
2	200306R2_2	0.500	0.78	NO	24.82	1.001	7.23e3	1.45e6	0.546	9.2	1.00	bb
3	200306R2_3	2.00	0.78	NO	24.82	1.001	2.69e4	1.38e6	2.14	6.8	0.978	bb
4	200306R2_4	10.0	0.77	NO	24.84	1.001	1.28e5	1.46e6	9.56	-4.4	0.875	bb
5	200306R2_5	40.0	0.77	NO	24.82	1.001	6.19e5	1.74e6	38.8	-3.1	0.887	bb
6	200306R2_6	300	0.77	NO	24.82	1.001	4.83e6	1.81e6	292	-2.7	0.891	bb

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

Response Factor: 0.959427

RRF SD: 0.0433152, Relative SD: 4.51469

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	200306R2_1	1.25	1.49	NO	29.68	1.000	1.28e4	1.13e6	1.18	-5.5	0.906	MM
2	200306R2_2	2.50	1.64	NO	29.63	1.000	2.70e4	1.07e6	2.63	5.3	1.01	bb
3	200306R2_3	10.0	1.54	NO	29.65	1.000	1.01e5	9.93e5	10.6	5.7	1.01	MM
4	200306R2_4	50.0	1.55	NO	29.66	1.001	6.19e5	1.30e6	49.4	-1.1	0.948	bb
5	200306R2_5	200	1.56	NO	29.65	1.000	2.60e6	1.38e6	196	-1.9	0.941	bb
6	200306R2_6	1500	1.53	NO	29.66	1.000	2.21e7	1.58e6	1460	-2.4	0.936	bb

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

Response Factor: 1.00349

RRF SD: 0.0546018, Relative SD: 5.44122

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	200306R2_1	1.25	1.61	NO	30.70	1.000	1.23e4	1.05e6	1.17	-6.4	0.940	MM
2	200306R2_2	2.50	1.54	NO	30.65	1.000	2.75e4	1.02e6	2.70	8.1	1.08	bb



Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time  
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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	200306R2_3	10.0	1.56	NO	30.67	1.000	1.02e5	9.68e5	10.5	5.1	1.05	bb
4	200306R2_4	50.0	1.58	NO	30.67	1.000	6.26e5	1.27e6	49.3	-1.4	0.990	bb
5	200306R2_5	200	1.54	NO	30.67	1.000	2.65e6	1.36e6	195	-2.6	0.978	bb
6	200306R2_6	1500	1.53	NO	30.68	1.000	2.24e7	1.53e6	1460	-2.8	0.975	bb

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

Response Factor: 1.03807

RRF SD: 0.0538106, Relative SD: 5.18374

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	200306R2_1	1.25	1.12	NO	33.54	1.001	8.84e3	7.10e5	1.20	-4.0	0.996	bd
2	200306R2_2	2.50	1.19	NO	33.51	1.000	1.92e4	6.91e5	2.68	7.2	1.11	bd
3	200306R2_3	10.0	1.26	NO	33.52	1.000	7.18e4	6.52e5	10.6	6.1	1.10	bd
4	200306R2_4	50.0	1.23	NO	33.52	1.000	4.56e5	8.98e5	48.9	-2.2	1.02	dd
5	200306R2_5	200	1.22	NO	33.52	1.001	1.87e6	9.40e5	192	-4.1	0.996	bd
6	200306R2_6	1500	1.22	NO	33.53	1.001	1.65e7	1.09e6	1460	-2.9	1.01	bd

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

Response Factor: 1.0126

RRF SD: 0.0619783, Relative SD: 6.12071

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	200306R2_1	1.25	1.20	NO	33.66	1.000	9.19e3	7.80e5	1.16	-6.9	0.943	db
2	200306R2_2	2.50	1.27	NO	33.63	1.000	2.08e4	7.71e5	2.66	6.4	1.08	db
3	200306R2_3	10.0	1.18	NO	33.64	1.000	7.95e4	7.22e5	10.9	8.7	1.10	db
4	200306R2_4	50.0	1.22	NO	33.64	1.000	4.93e5	1.01e6	48.1	-3.7	0.975	db
5	200306R2_5	200	1.22	NO	33.64	1.001	2.10e6	1.05e6	196	-1.8	0.994	db
6	200306R2_6	1500	1.22	NO	33.65	1.000	1.83e7	1.24e6	1460	-2.7	0.986	db

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

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

Response Factor: 1.092

RRF SD: 0.0522909, Relative SD: 4.78856

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	200306R2_1	1.25	1.20	NO	34.23	1.001	9.49e3	7.13e5	1.22	-2.5	1.07	bb
2	200306R2_2	2.50	1.18	NO	34.19	1.000	2.08e4	7.13e5	2.68	7.1	1.17	bb
3	200306R2_3	10.0	1.21	NO	34.21	1.001	7.81e4	6.81e5	10.5	5.1	1.15	bb
4	200306R2_4	50.0	1.21	NO	34.21	1.001	4.95e5	9.38e5	48.3	-3.4	1.05	bb
5	200306R2_5	200	1.22	NO	34.20	1.000	2.06e6	9.84e5	192	-3.9	1.05	bb
6	200306R2_6	1500	1.22	NO	34.21	1.000	1.82e7	1.14e6	1460	-2.4	1.07	bb

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

Response Factor: 1.02678

RRF SD: 0.0447492, Relative SD: 4.35823

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	200306R2_1	1.25	1.27	NO	35.11	1.001	7.40e3	5.96e5	1.21	-3.3	0.993	bb
2	200306R2_2	2.50	1.24	NO	35.07	1.000	1.61e4	6.11e5	2.57	2.9	1.06	bb
3	200306R2_3	10.0	1.24	NO	35.08	1.000	6.28e4	5.68e5	10.8	7.6	1.10	bd
4	200306R2_4	50.0	1.25	NO	35.08	1.000	3.95e5	7.83e5	49.1	-1.8	1.01	MM
5	200306R2_5	200	1.23	NO	35.08	1.001	1.63e6	8.17e5	195	-2.7	0.999	bb
6	200306R2_6	1500	1.23	NO	35.10	1.000	1.48e7	9.86e5	1460	-2.7	0.999	bb

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

Response Factor: 1.04827

RRF SD: 0.0494086, Relative SD: 4.71334

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	200306R2_1	1.25	1.07	NO	36.81	1.000	6.78e3	5.13e5	1.26	0.8	1.06	bb
2	200306R2_2	2.50	0.98	NO	36.78	1.000	1.55e4	5.54e5	2.67	6.7	1.12	bb

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

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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	200306R2_3	10.0	1.01	NO	36.79	1.000	5.42e4	4.96e5	10.4	4.2	1.09	bb
4	200306R2_4	50.0	1.00	NO	36.79	1.000	3.53e5	7.08e5	47.5	-5.0	0.996	bb
5	200306R2_5	200	1.00	NO	36.79	1.000	1.46e6	7.21e5	193	-3.6	1.01	bb
6	200306R2_6	1500	1.01	NO	36.80	1.000	1.31e7	8.61e5	1450	-3.2	1.02	bb

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

Response Factor: 1.2099

RRF SD: 0.0633946, Relative SD: 5.23967

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	200306R2_1	1.25	0.94	NO	38.85	1.001	4.87e3	3.35e5	1.20	-3.8	1.16	bb
2	200306R2_2	2.50	0.98	NO	38.82	1.000	1.18e4	3.60e5	2.72	8.8	1.32	bb
3	200306R2_3	10.0	0.98	NO	38.82	1.000	4.25e4	3.38e5	10.4	4.1	1.26	bb
4	200306R2_4	50.0	1.00	NO	38.82	1.000	2.73e5	4.70e5	48.0	-4.0	1.16	bb
5	200306R2_5	200	1.01	NO	38.82	1.000	1.18e6	4.99e5	195	-2.3	1.18	bb
6	200306R2_6	1500	1.01	NO	38.83	1.000	1.06e7	6.02e5	1460	-2.8	1.18	bb

**Compound name: OCDF**

Response Factor: 0.946773

RRF SD: 0.0474682, Relative SD: 5.01368

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	200306R2_1	2.50	0.83	NO	41.43	1.000	9.98e3	8.40e5	2.51	0.4	0.950	MM
2	200306R2_2	5.00	0.93	NO	41.40	1.000	2.36e4	9.23e5	5.39	7.8	1.02	bb
3	200306R2_3	20.0	0.89	NO	41.40	1.000	8.67e4	8.82e5	20.8	3.9	0.983	bb
4	200306R2_4	100	0.88	NO	41.41	1.000	5.44e5	1.20e6	95.4	-4.6	0.904	bb
5	200306R2_5	400	0.88	NO	41.40	1.000	2.61e6	1.42e6	387	-3.2	0.917	bb
6	200306R2_6	3000	0.89	NO	41.42	1.000	2.37e7	1.75e6	2870	-4.3	0.906	bb

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

Response Factor: 1.18423

RRF SD: 0.101442, Relative SD: 8.56612

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	200306R2_1	100	0.79	NO	25.80	1.028	1.02e6	7.81e5	110	10.3	1.31	MM
2	200306R2_2	100	0.78	NO	25.76	1.028	1.04e6	9.79e5	89.6	-10.4	1.06	bb
3	200306R2_3	100	0.79	NO	25.78	1.028	9.83e5	9.27e5	89.5	-10.5	1.06	bb
4	200306R2_4	100	0.78	NO	25.78	1.028	1.15e6	9.40e5	103	3.3	1.22	bb
5	200306R2_5	100	0.78	NO	25.76	1.028	1.30e6	1.07e6	102	2.0	1.21	bb
6	200306R2_6	100	0.79	NO	25.76	1.028	1.34e6	1.07e6	105	5.2	1.25	bb

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

Response Factor: 0.864397

RRF SD: 0.123368, Relative SD: 14.2722

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	200306R2_1	100	0.64	NO	30.99	1.235	7.13e5	7.81e5	106	5.7	0.914	bb
2	200306R2_2	100	0.63	NO	30.96	1.235	6.98e5	9.79e5	82.5	-17.5	0.713	bb
3	200306R2_3	100	0.64	NO	30.97	1.235	6.63e5	9.27e5	82.7	-17.3	0.715	bb
4	200306R2_4	100	0.62	NO	30.97	1.235	9.00e5	9.40e5	111	10.8	0.958	bb
5	200306R2_5	100	0.64	NO	30.97	1.236	9.49e5	1.07e6	102	2.3	0.884	bb
6	200306R2_6	100	0.63	NO	30.97	1.236	1.08e6	1.07e6	116	16.1	1.00	bb

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

Response Factor: 0.753912

RRF SD: 0.0956829, Relative SD: 12.6915

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	200306R2_1	100	1.25	NO	34.38	1.014	5.37e5	6.43e5	111	10.7	0.835	bd
2	200306R2_2	100	1.28	NO	34.35	1.014	5.23e5	7.96e5	87.2	-12.8	0.657	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	200306R2_3	100	1.28	NO	34.36	1.014	4.95e5	7.60e5	86.4	-13.6	0.652	bd
4	200306R2_4	100	1.27	NO	34.36	1.014	6.79e5	9.06e5	99.5	-0.5	0.750	bd
5	200306R2_5	100	1.26	NO	34.36	1.014	6.81e5	9.24e5	97.8	-2.2	0.738	bd
6	200306R2_6	100	1.28	NO	34.37	1.014	8.39e5	9.40e5	118	18.4	0.892	bd

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

Response Factor: 0.925405

RRF SD: 0.118798, Relative SD: 12.8375

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	200306R2_1	100	1.25	NO	34.49	1.017	6.23e5	6.43e5	105	4.6	0.968	db
2	200306R2_2	100	1.26	NO	34.46	1.017	6.45e5	7.96e5	87.5	-12.5	0.810	db
3	200306R2_3	100	1.25	NO	34.47	1.017	6.06e5	7.60e5	86.2	-13.8	0.797	db
4	200306R2_4	100	1.28	NO	34.47	1.017	8.29e5	9.06e5	98.9	-1.1	0.916	db
5	200306R2_5	100	1.28	NO	34.46	1.017	8.67e5	9.24e5	101	1.4	0.939	db
6	200306R2_6	100	1.27	NO	34.47	1.017	1.05e6	9.40e5	121	21.3	1.12	db

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

Response Factor: 0.829419

RRF SD: 0.100271, Relative SD: 12.0893

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	200306R2_1	100	1.30	NO	34.75	1.025	5.57e5	6.43e5	104	4.5	0.867	bd
2	200306R2_2	100	1.23	NO	34.72	1.025	5.80e5	7.96e5	87.8	-12.2	0.728	bb
3	200306R2_3	100	1.24	NO	34.73	1.025	5.46e5	7.60e5	86.6	-13.4	0.718	bb
4	200306R2_4	100	1.23	NO	34.73	1.025	7.47e5	9.06e5	99.4	-0.6	0.825	bb
5	200306R2_5	100	1.19	NO	34.73	1.025	7.83e5	9.24e5	102	2.3	0.848	bb
6	200306R2_6	100	1.25	NO	34.74	1.025	9.31e5	9.40e5	119	19.4	0.990	bb

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

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

Response Factor: 0.598232

RRF SD: 0.0717306, Relative SD: 11.9904

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	200306R2_1	100	1.03	NO	38.21	1.127	3.74e5	6.43e5	97.3	-2.7	0.582	bb
2	200306R2_2	100	1.06	NO	38.17	1.127	4.34e5	7.96e5	91.1	-8.9	0.545	bd
3	200306R2_3	100	1.06	NO	38.17	1.126	3.84e5	7.60e5	84.5	-15.5	0.506	bb
4	200306R2_4	100	1.05	NO	38.19	1.127	5.52e5	9.06e5	102	1.9	0.610	bb
5	200306R2_5	100	1.11	NO	38.18	1.127	5.89e5	9.24e5	107	6.6	0.638	bd
6	200306R2_6	100	1.06	NO	38.19	1.127	6.67e5	9.40e5	119	18.6	0.709	bb

**Compound name: 13C-OCDD**

Response Factor: 0.571169

RRF SD: 0.108174, Relative SD: 18.9391

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	200306R2_1	200	0.90	NO	41.23	1.216	7.05e5	6.43e5	192	-4.0	0.548	bd
2	200306R2_2	200	0.90	NO	41.21	1.216	7.62e5	7.96e5	168	-16.2	0.479	bb
3	200306R2_3	200	0.94	NO	41.22	1.216	7.16e5	7.60e5	165	-17.5	0.471	bd
4	200306R2_4	200	0.85	NO	41.21	1.216	9.75e5	9.06e5	189	-5.7	0.538	bb
5	200306R2_5	200	0.89	NO	41.21	1.216	1.17e6	9.24e5	222	11.0	0.634	bd
6	200306R2_6	200	0.90	NO	41.23	1.217	1.42e6	9.40e5	265	32.5	0.757	bd

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

Response Factor: 1.08928

RRF SD: 0.0987678, Relative SD: 9.06725

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	200306R2_1	100	0.79	NO	24.84	0.990	1.43e6	1.19e6	111	11.0	1.21	bb
2	200306R2_2	100	0.79	NO	24.79	0.989	1.45e6	1.48e6	89.7	-10.3	0.977	bb

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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	200306R2_3	100	0.77	NO	24.81	0.989	1.38e6	1.43e6	88.3	-11.7	0.962	bb
4	200306R2_4	100	0.78	NO	24.82	0.990	1.46e6	1.27e6	106	5.6	1.15	bb
5	200306R2_5	100	0.78	NO	24.81	0.990	1.74e6	1.56e6	103	2.7	1.12	bb
6	200306R2_6	100	0.78	NO	24.79	0.989	1.81e6	1.62e6	103	2.7	1.12	bb

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

Response Factor: 0.876347

RRF SD: 0.137914, Relative SD: 15.7373

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	200306R2_1	100	1.55	NO	29.66	1.182	1.13e6	1.19e6	109	8.6	0.952	bb
2	200306R2_2	100	1.60	NO	29.63	1.182	1.07e6	1.48e6	82.5	-17.5	0.723	bb
3	200306R2_3	100	1.58	NO	29.63	1.182	9.93e5	1.43e6	79.2	-20.8	0.694	bb
4	200306R2_4	100	1.60	NO	29.63	1.181	1.30e6	1.27e6	117	17.2	1.03	bb
5	200306R2_5	100	1.57	NO	29.63	1.182	1.38e6	1.56e6	101	1.2	0.887	bb
6	200306R2_6	100	1.57	NO	29.65	1.183	1.58e6	1.62e6	111	11.3	0.976	bb

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

Response Factor: 0.843553

RRF SD: 0.133299, Relative SD: 15.8021

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	200306R2_1	100	1.57	NO	30.68	1.223	1.05e6	1.19e6	105	4.8	0.884	db
2	200306R2_2	100	1.58	NO	30.64	1.222	1.02e6	1.48e6	81.4	-18.6	0.687	db
3	200306R2_3	100	1.58	NO	30.65	1.222	9.68e5	1.43e6	80.2	-19.8	0.677	db
4	200306R2_4	100	1.60	NO	30.65	1.222	1.27e6	1.27e6	118	18.2	0.997	db
5	200306R2_5	100	1.58	NO	30.65	1.223	1.36e6	1.56e6	103	3.2	0.870	db
6	200306R2_6	100	1.60	NO	30.67	1.224	1.53e6	1.62e6	112	12.2	0.947	db

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

Response Factor: 1.00027

RRF SD: 0.122541, Relative SD: 12.2508

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	200306R2_1	100	0.52	NO	33.52	0.988	7.10e5	6.43e5	110	10.3	1.10	bd
2	200306R2_2	100	0.51	NO	33.50	0.989	6.91e5	7.96e5	86.8	-13.2	0.869	bd
3	200306R2_3	100	0.52	NO	33.51	0.989	6.52e5	7.60e5	85.8	-14.2	0.858	bd
4	200306R2_4	100	0.51	NO	33.51	0.989	8.98e5	9.06e5	99.1	-0.9	0.992	bd
5	200306R2_5	100	0.52	NO	33.50	0.989	9.40e5	9.24e5	102	1.7	1.02	bd
6	200306R2_6	100	0.52	NO	33.51	0.989	1.09e6	9.40e5	116	16.3	1.16	bd

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

Response Factor: 1.1178

RRF SD: 0.141321, Relative SD: 12.6428

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	200306R2_1	100	0.51	NO	33.65	0.992	7.80e5	6.43e5	108	8.5	1.21	db
2	200306R2_2	100	0.51	NO	33.62	0.992	7.71e5	7.96e5	86.6	-13.4	0.969	db
3	200306R2_3	100	0.53	NO	33.63	0.992	7.22e5	7.60e5	85.0	-15.0	0.951	db
4	200306R2_4	100	0.52	NO	33.63	0.992	1.01e6	9.06e5	99.9	-0.1	1.12	db
5	200306R2_5	100	0.53	NO	33.61	0.992	1.05e6	9.24e5	102	2.1	1.14	db
6	200306R2_6	100	0.52	NO	33.64	0.993	1.24e6	9.40e5	118	17.9	1.32	db

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

Response Factor: 1.03533

RRF SD: 0.12301, Relative SD: 11.8812

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	200306R2_1	100	0.52	NO	34.21	1.009	7.13e5	6.43e5	107	7.1	1.11	bb
2	200306R2_2	100	0.51	NO	34.18	1.009	7.13e5	7.96e5	86.5	-13.5	0.896	bb



Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight Time

**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	200306R2_3	100	0.52	NO	34.19	1.009	6.81e5	7.60e5	86.6	-13.4	0.896	bb
4	200306R2_4	100	0.53	NO	34.19	1.009	9.38e5	9.06e5	100	0.1	1.04	MM
5	200306R2_5	100	0.52	NO	34.19	1.009	9.84e5	9.24e5	103	2.9	1.07	bb
6	200306R2_6	100	0.52	NO	34.20	1.009	1.14e6	9.40e5	117	16.9	1.21	bb

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

Response Factor: 0.873112

RRF SD: 0.110234, Relative SD: 12.6254

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	200306R2_1	100	0.51	NO	35.08	1.035	5.96e5	6.43e5	106	6.1	0.926	bb
2	200306R2_2	100	0.51	NO	35.06	1.035	6.11e5	7.96e5	87.9	-12.1	0.768	bb
3	200306R2_3	100	0.52	NO	35.07	1.035	5.68e5	7.60e5	85.6	-14.4	0.747	bb
4	200306R2_4	100	0.52	NO	35.07	1.035	7.83e5	9.06e5	99.0	-1.0	0.864	bb
5	200306R2_5	100	0.51	NO	35.06	1.035	8.17e5	9.24e5	101	1.3	0.884	bb
6	200306R2_6	100	0.53	NO	35.08	1.035	9.86e5	9.40e5	120	20.1	1.05	bb

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

Response Factor: 0.770799

RRF SD: 0.0912069, Relative SD: 11.8328

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	200306R2_1	100	0.44	NO	36.80	1.085	5.13e5	6.43e5	104	3.5	0.798	bb
2	200306R2_2	100	0.46	NO	36.77	1.085	5.54e5	7.96e5	90.3	-9.7	0.696	bb
3	200306R2_3	100	0.45	NO	36.78	1.085	4.96e5	7.60e5	84.6	-15.4	0.652	bb
4	200306R2_4	100	0.46	NO	36.78	1.085	7.08e5	9.06e5	101	1.4	0.782	bd
5	200306R2_5	100	0.45	NO	36.78	1.086	7.21e5	9.24e5	101	1.3	0.781	bb
6	200306R2_6	100	0.45	NO	36.79	1.086	8.61e5	9.40e5	119	18.8	0.916	bb

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight Time

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

Response Factor: 0.519283

RRF SD: 0.0710328, Relative SD: 13.679

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	200306R2_1	100	0.45	NO	38.83	1.145	3.35e5	6.43e5	100	0.2	0.521	bd
2	200306R2_2	100	0.45	NO	38.80	1.145	3.60e5	7.96e5	87.0	-13.0	0.452	bd
3	200306R2_3	100	0.44	NO	38.81	1.145	3.38e5	7.60e5	85.6	-14.4	0.444	bd
4	200306R2_4	100	0.45	NO	38.81	1.145	4.70e5	9.06e5	99.9	-0.1	0.519	bb
5	200306R2_5	100	0.44	NO	38.81	1.145	4.99e5	9.24e5	104	3.9	0.540	bb
6	200306R2_6	100	0.45	NO	38.82	1.145	6.02e5	9.40e5	123	23.3	0.640	bb

**Compound name: 13C-OCDF**

Response Factor: 0.696311

RRF SD: 0.133796, Relative SD: 19.215

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	200306R2_1	200	0.88	NO	41.42	1.221	8.40e5	6.43e5	188	-6.2	0.653	bb
2	200306R2_2	200	0.90	NO	41.38	1.221	9.23e5	7.96e5	167	-16.7	0.580	bb
3	200306R2_3	200	0.86	NO	41.39	1.221	8.82e5	7.60e5	167	-16.6	0.581	bb
4	200306R2_4	200	0.89	NO	41.40	1.222	1.20e6	9.06e5	191	-4.6	0.664	bb
5	200306R2_5	200	0.89	NO	41.39	1.222	1.42e6	9.24e5	221	10.7	0.771	bb
6	200306R2_6	200	0.89	NO	41.41	1.222	1.75e6	9.40e5	267	33.4	0.929	bb

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

Response Factor: 1.17455

RRF SD: 0.0840795, Relative SD: 7.15847

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	200306R2_1	0.250			25.84	1.030	2.53e3	7.81e5	0.276	10.3	1.30	bb
2	200306R2_2	0.500			25.78	1.029	5.58e3	9.79e5	0.486	-2.9	1.14	bb

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight Time

**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	200306R2_3	2.00			25.80	1.029	1.94e4	9.27e5	1.78	-11.1	1.04	bb
4	200306R2_4	10.0			25.80	1.029	1.11e5	9.40e5	10.1	0.8	1.18	bb
5	200306R2_5	40.0			25.80	1.029	4.97e5	1.07e6	39.5	-1.4	1.16	bb
6	200306R2_6	200			25.80	1.029	2.63e6	1.07e6	208	4.2	1.22	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	200306R2_1	100	0.81	NO	25.09	1.000	7.81e5	7.81e5	100	0.0	1.00	bb
2	200306R2_2	100	0.80	NO	25.06	1.000	9.79e5	9.79e5	100	0.0	1.00	bb
3	200306R2_3	100	0.80	NO	25.08	1.000	9.27e5	9.27e5	100	0.0	1.00	bb
4	200306R2_4	100	0.78	NO	25.08	1.000	9.40e5	9.40e5	100	0.0	1.00	bb
5	200306R2_5	100	0.81	NO	25.06	1.000	1.07e6	1.07e6	100	0.0	1.00	bb
6	200306R2_6	100	0.79	NO	25.06	1.000	1.07e6	1.07e6	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	200306R2_1	100	0.80	NO	23.24	1.000	1.19e6	1.19e6	100	0.0	1.00	bb
2	200306R2_2	100	0.79	NO	23.21	1.000	1.48e6	1.48e6	100	0.0	1.00	bb
3	200306R2_3	100	0.81	NO	23.21	1.000	1.43e6	1.43e6	100	0.0	1.00	bb
4	200306R2_4	100	0.79	NO	23.22	1.000	1.27e6	1.27e6	100	0.0	1.00	bb
5	200306R2_5	100	0.79	NO	23.21	1.000	1.56e6	1.56e6	100	0.0	1.00	bb
6	200306R2_6	100	0.79	NO	23.19	1.000	1.62e6	1.62e6	100	0.0	1.00	bb

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-CRV.qld

Last Altered: Monday, March 09, 2020 08:18:02 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:33:03 Pacific Daylight Time

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	200306R2_1	100	0.51	NO	33.91	1.000	6.43e5	6.43e5	100	0.0	1.00	bb
2	200306R2_2	100	0.52	NO	33.88	1.000	7.96e5	7.96e5	100	0.0	1.00	bb
3	200306R2_3	100	0.51	NO	33.89	1.000	7.60e5	7.60e5	100	0.0	1.00	bb
4	200306R2_4	100	0.52	NO	33.89	1.000	9.06e5	9.06e5	100	0.0	1.00	bb
5	200306R2_5	100	0.52	NO	33.88	1.000	9.24e5	9.24e5	100	0.0	1.00	bb
6	200306R2_6	100	0.52	NO	33.89	1.000	9.40e5	9.40e5	100	0.0	1.00	bb

Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:43:03 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:45:55 Pacific Daylight Time

Method: U:\VG12.PROMethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08  
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

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

	Name	ID	Acq.Date	Acq.Time
1	200306R2_1	ST200306R2_1 1613 CS0 19L2302	06-Mar-20	13:08:38
2	200306R2_2	ST200306R2_2 1613 CS1 19L2303	06-Mar-20	13:58:25
3	200306R2_3	ST200306R2_3 1613 CS2 19L2304	06-Mar-20	14:44:37
4	200306R2_4	ST200306R2_4 1613 CS3 19L2305	06-Mar-20	15:32:12
5	200306R2_5	ST200306R2_5 1613 CS4 19L2306	06-Mar-20	16:19:37
6	200306R2_6	ST200306R2_6 1613 CS5 19L2307	06-Mar-20	17:07:03
7	200306R2_7	SOLVENT BLANK	06-Mar-20	17:56:11
8	200306R2_8	SS200306R2_1 1613 SSS 19L2308	06-Mar-20	18:42:29
9	200306R2_9	SOLVENT BLANK	06-Mar-20	19:38:48
10	200306R2_10	2000406-09 PDI-049SC-A-04-05-191015 16.98	06-Mar-20	20:25:03
11	200306R2_11	2000406-10 PDI-049SC-A-05-06-191015 16.09	06-Mar-20	21:12:36
12	200306R2_12	2000406-11 PDI-049SC-A-06-07-191015 13.96	06-Mar-20	22:00:09
13	200306R2_13	2000406-12 PDI-049SC-A-07-08-191015 12.78	06-Mar-20	22:47:33
14	200306R2_14	2000406-13 PDI-059SC-A-11-12-191016 13.47	06-Mar-20	23:35:07
15	200306R2_15	2000406-14 PDI-084SC-A-03-04-191002 18.94	07-Mar-20	00:22:31
16	200306R2_16	2000406-15 PDI-084SC-A-04-05-191002 17.76	07-Mar-20	01:09:56

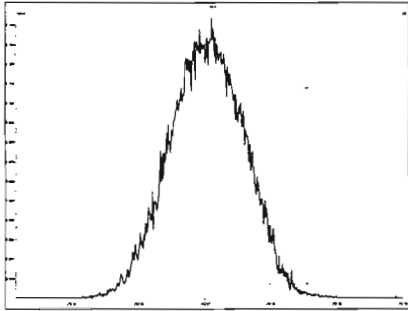
Experiment Calibration Report

MassLynx 4.1 SCN815

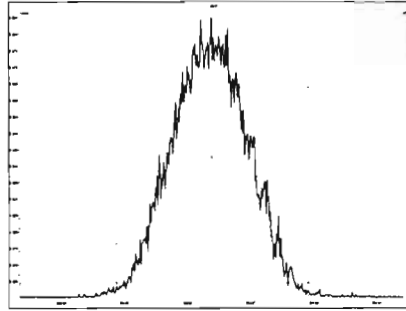
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Printed: Friday, March 06, 2020 13:05:44 Pacific Standard Time

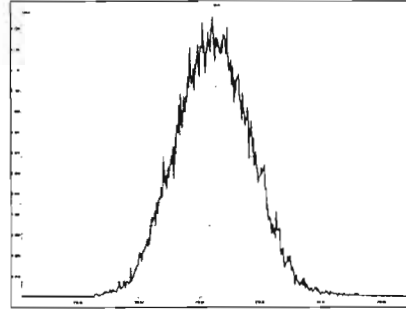
M 292.9824 R 11365



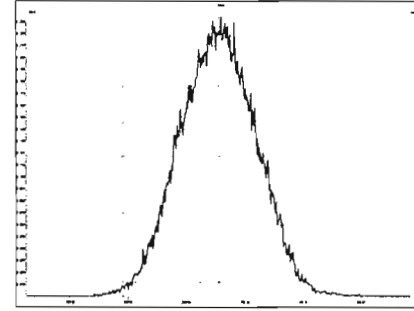
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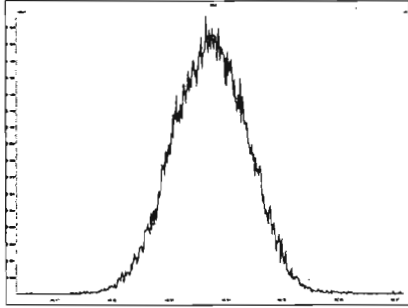
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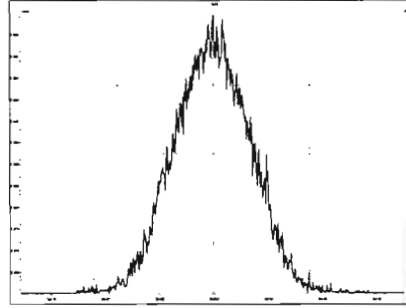
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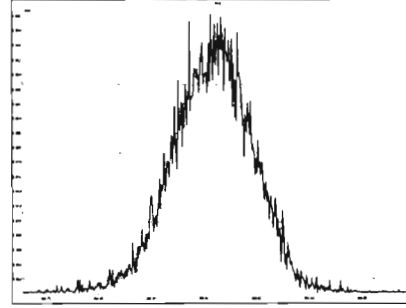
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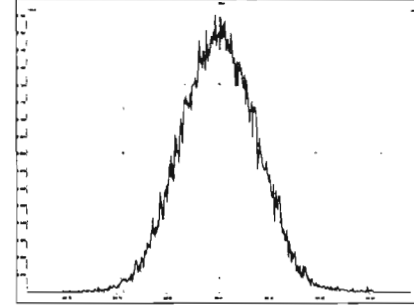
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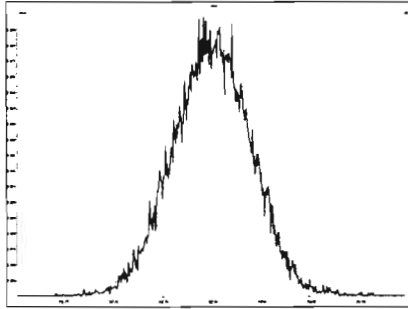
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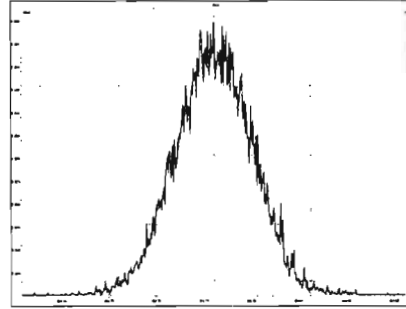
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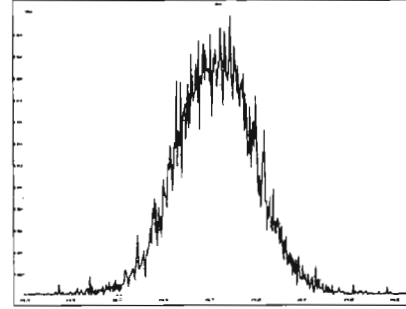
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M 404.9760 R 11260



M 416.9760 R 11465



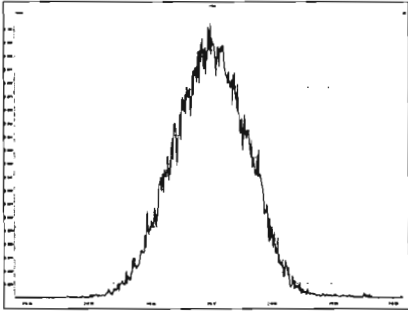
Experiment Calibration Report

MassLynx 4.1 SCN815

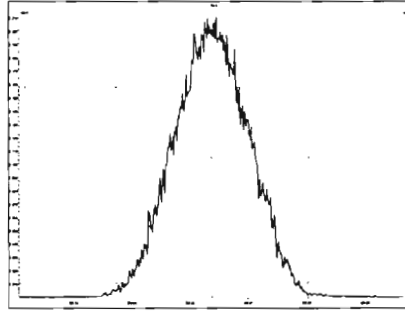
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Printed: Friday, March 06, 2020 13:06:28 Pacific Standard Time

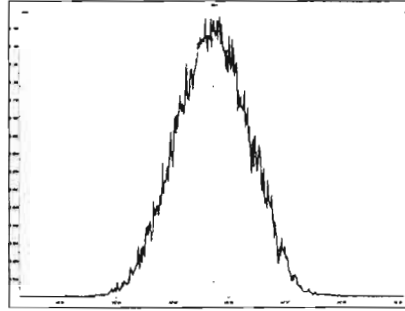
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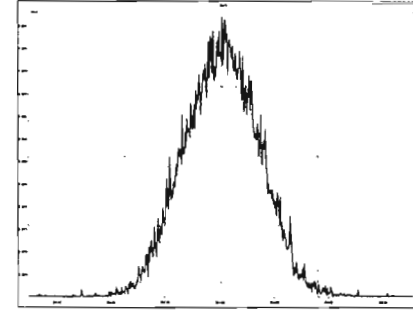
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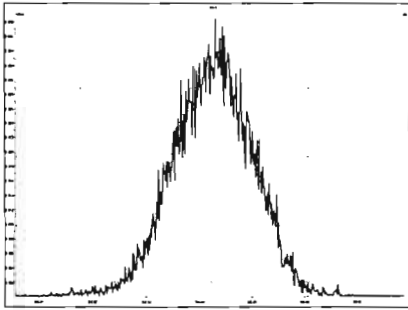
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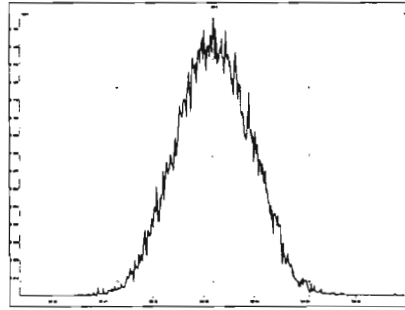
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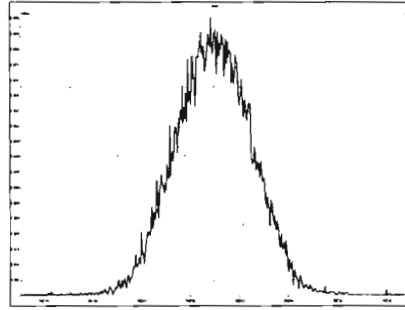
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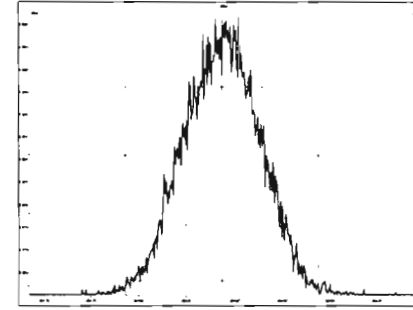
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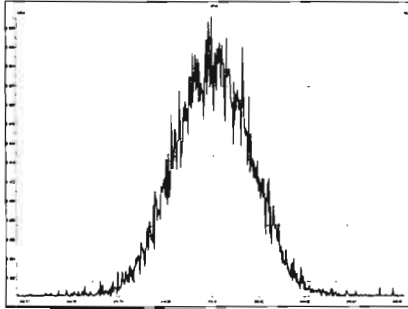
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M 404.9760 R 11061



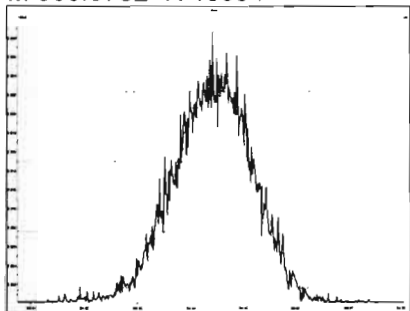
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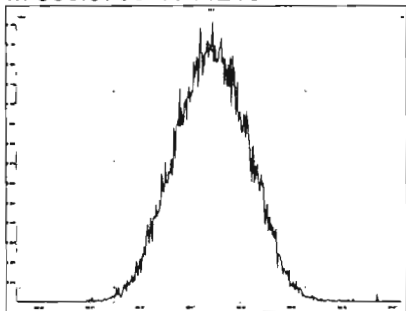
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Printed: Friday, March 06, 2020 13:07:06 Pacific Standard Time

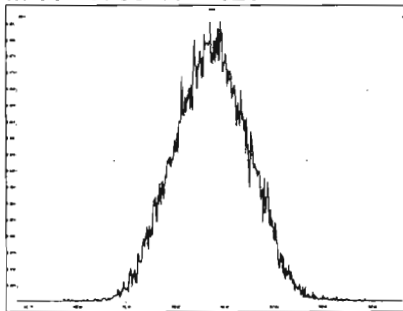
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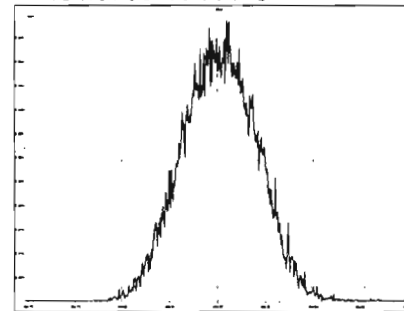
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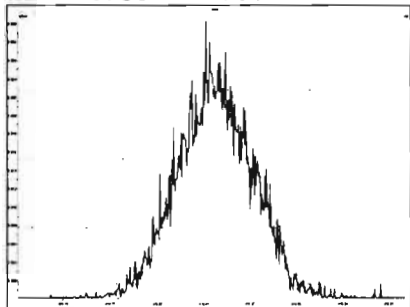
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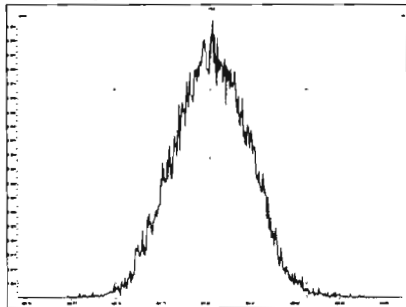
M 404.9760 R 11415



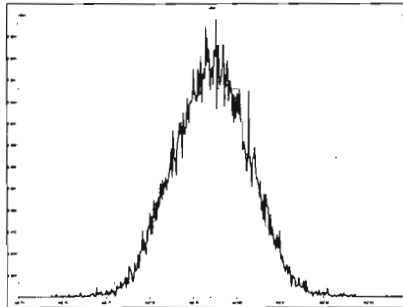
M 416.9760 R 11795



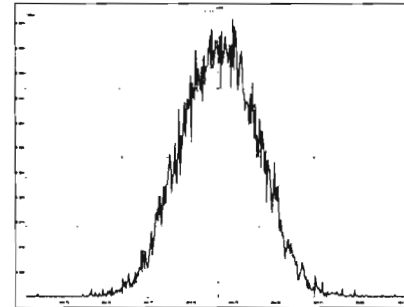
M 430.9728 R 11108



M 442.9728 R 11415



M 454.9728 R 11063

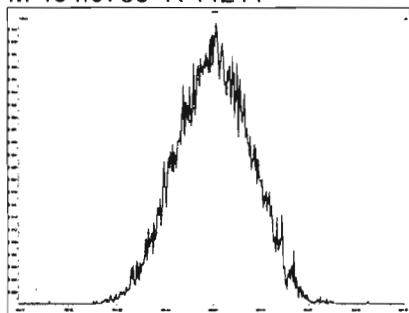




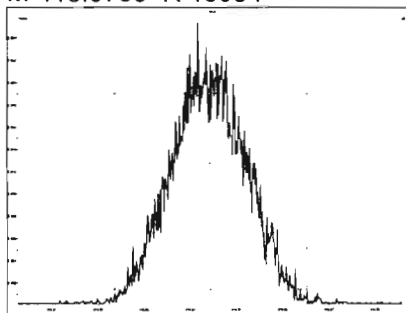
File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed: Friday, March 06, 2020 13:07:43 Pacific Standard Time

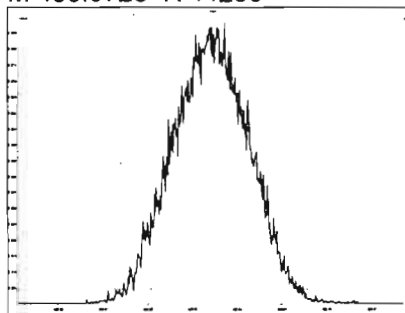
M 404.9760 R 11211



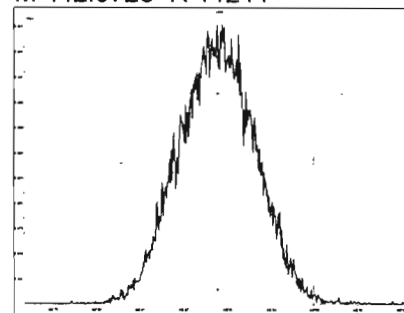
M 416.9760 R 10964



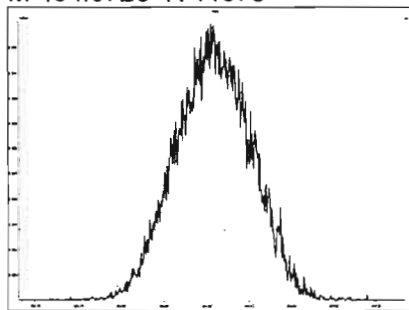
M 430.9728 R 11263



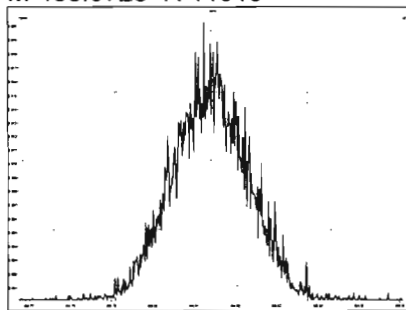
M 442.9728 R 11211



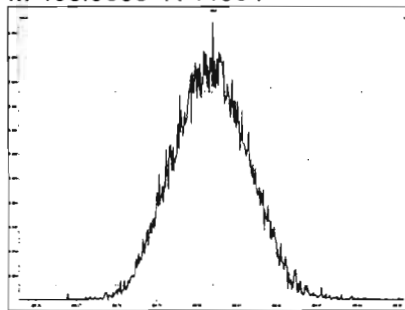
M 454.9728 R 11576



M 466.9728 R 11313



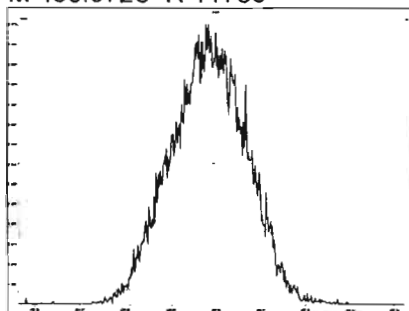
M 480.9696 R 11904



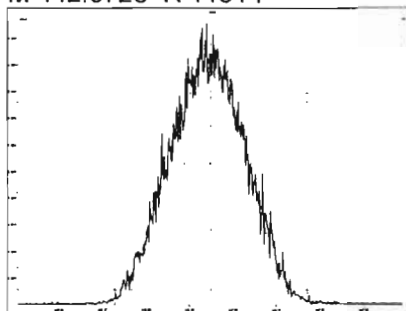
File: Experiment: OCDD\_DB5.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed: Friday, March 06, 2020 13:08:16 Pacific Standard Time

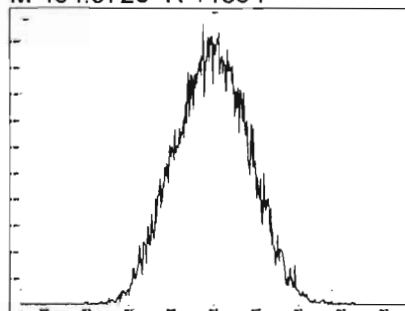
M 430.9728 R 11736



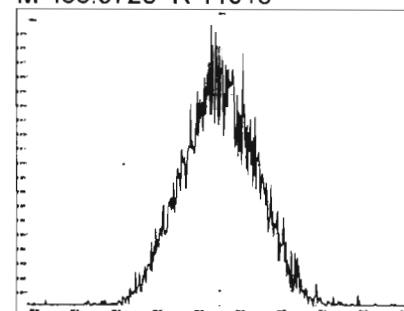
M 442.9728 R 11314



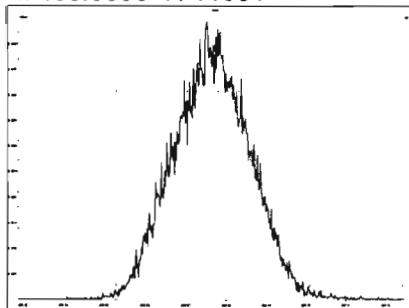
M 454.9728 R 11364



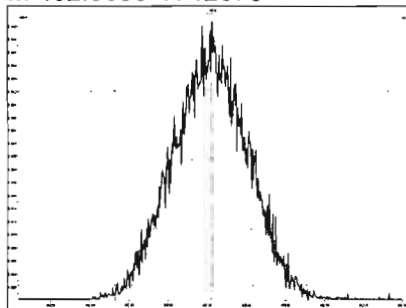
M 466.9728 R 11015



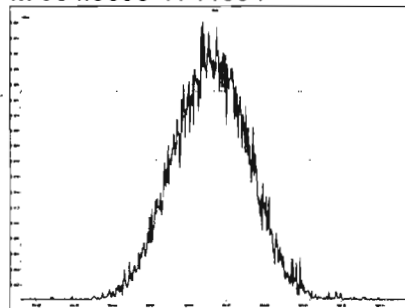
M 480.9696 R 11361



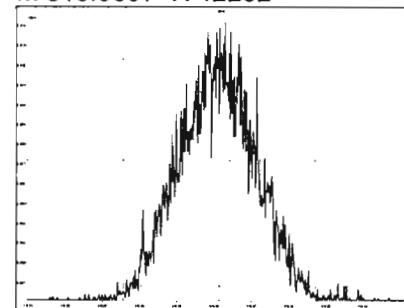
M 492.9696 R 12376



M 504.9696 R 11064



M 516.9697 R 12252



Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:48:00 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:48:29 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 06 Mar 2020 18:12:45

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200306R2\_4, Date: 06-Mar-2020, Time: 15:32:12, ID: ST200306R2\_4 1613 CS3 19L2305, Description: 1613 CS3 19L2305

#	Name	RT
1	1 1,3,6,8-TCDD (First)	21.53
2	2 1,2,8,9-TCDD (Last)	26.81
3	3 1,2,4,7,9-PeCDD (First)	28.70
4	4 1,2,3,8,9-PeCDD (Last)	31.38
5	5 1,2,4,6,7,9-HxCDD (First)	32.90
6	6 1,2,3,7,8,9-HxCDD (Last)	34.74
7	7 1,2,3,4,6,7,9-HpCDD (First)	37.17
8	8 1,2,3,4,6,7,8-HpCDD (Last)	38.21
9	9 1,3,6,8-TCDF (First)	19.52
10	10 1,2,8,9-TCDF (Last)	26.96
11	11 1,3,4,6,8-PeCDF (First)	26.93
12	12 1,2,3,8,9-PeCDF (Last)	31.63
13	13 1,2,3,4,6,8-HxCDF (First)	32.34
14	14 1,2,3,7,8,9-HxCDF (Last)	35.08
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.79
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.82

Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:48:00 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:48:29 Pacific Daylight Time

GRB 03/09/2020

Method: U:\VG12.PRO\MethDB\CPSM.mdb 06 Mar 2020 18:12:45

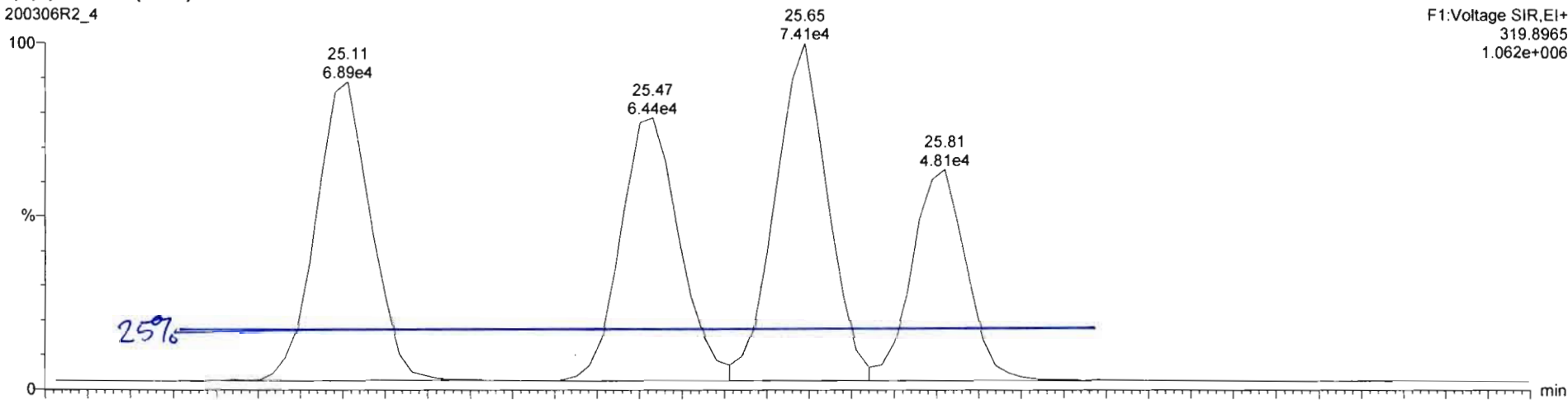
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200306R2\_4, Date: 06-Mar-2020, Time: 15:32:12, ID: ST200306R2\_4 1613 CS3 19L2305, Description: 1613 CS3 19L2305

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

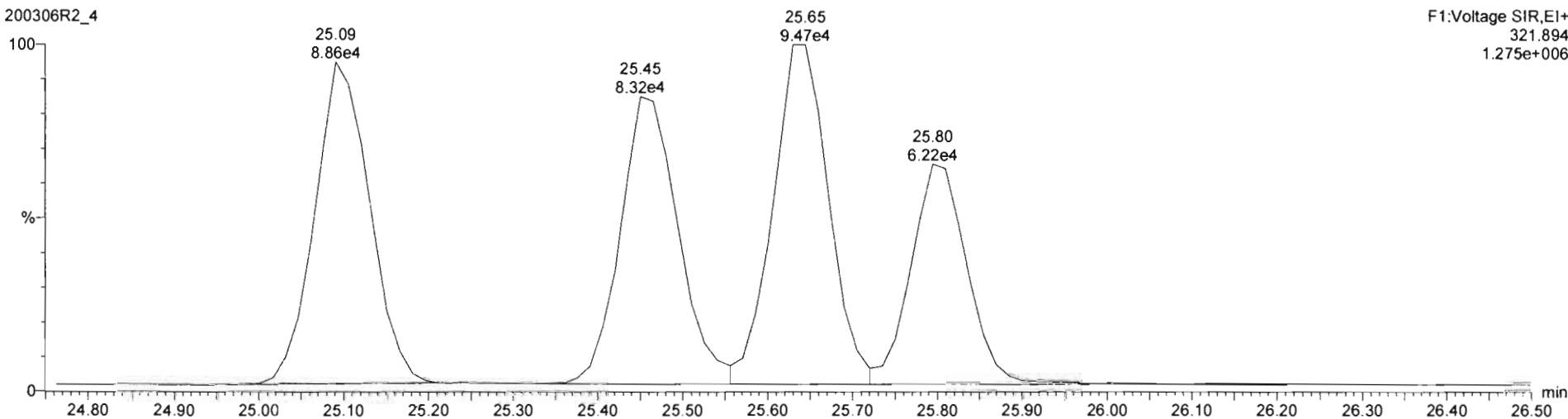
200306R2\_4

F1:Voltage SIR,EI+  
319.8965  
1.062e+006



200306R2\_4

F1:Voltage SIR,EI+  
321.894  
1.275e+006



Dataset: Untitled

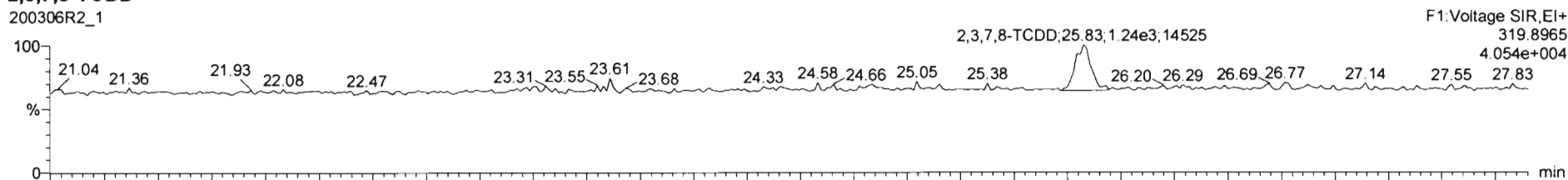
Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08  
Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

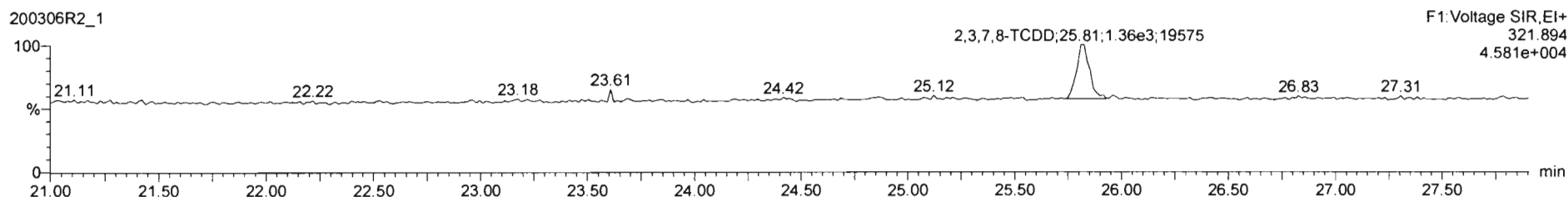
Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

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

200306R2\_1

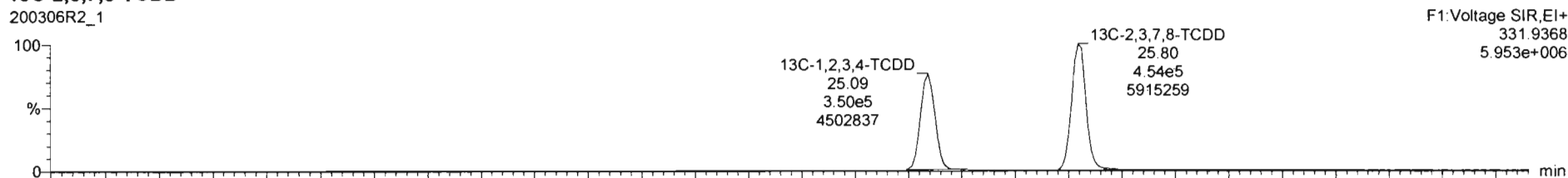


200306R2\_1

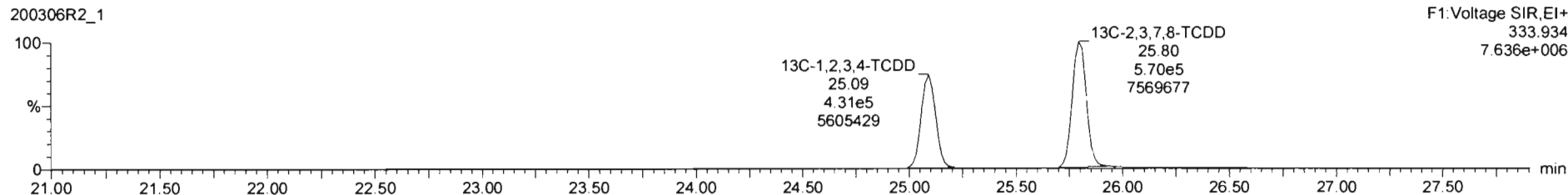


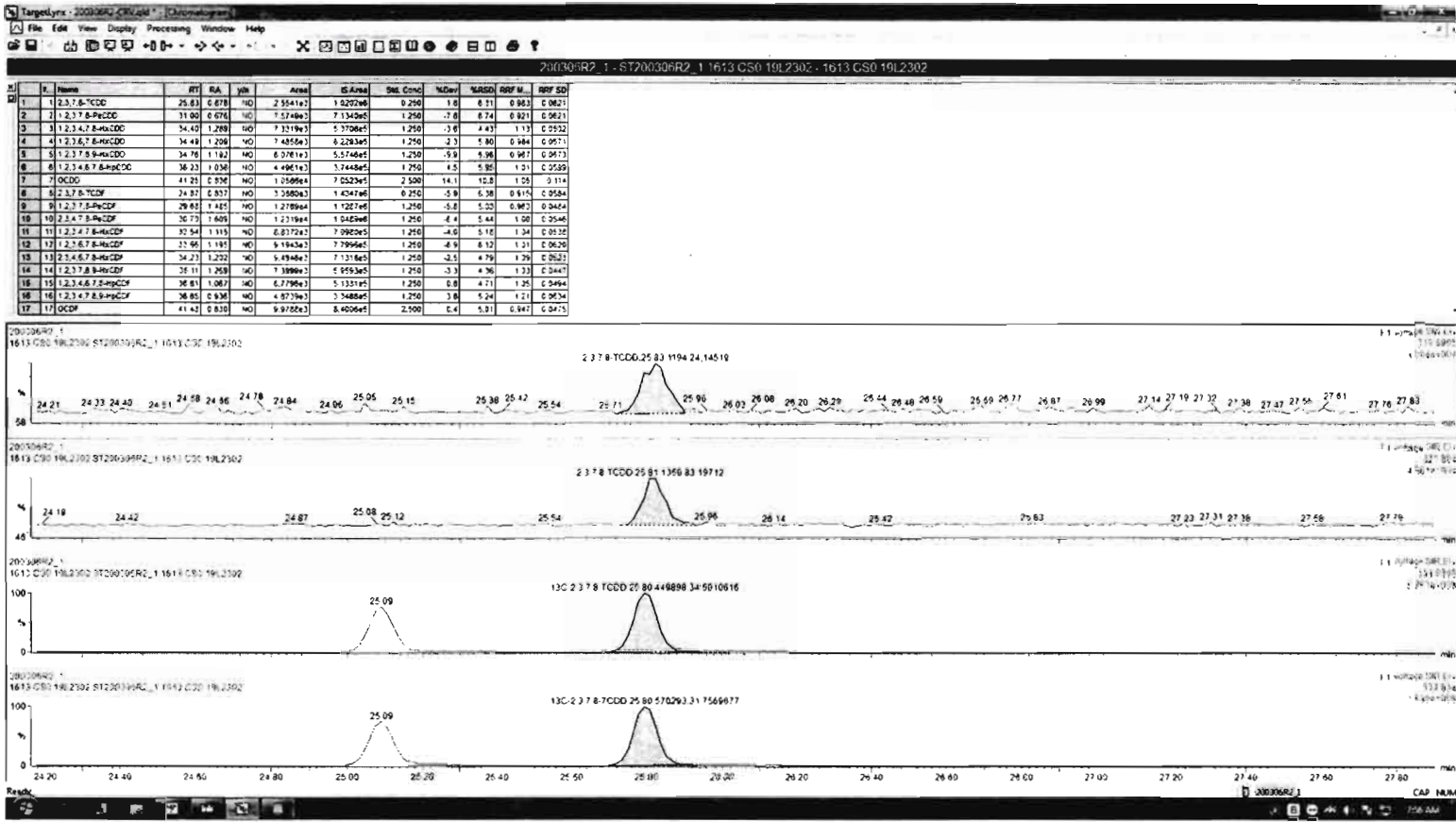
**13C-2,3,7,8-TCDD**

200306R2\_1



200306R2\_1





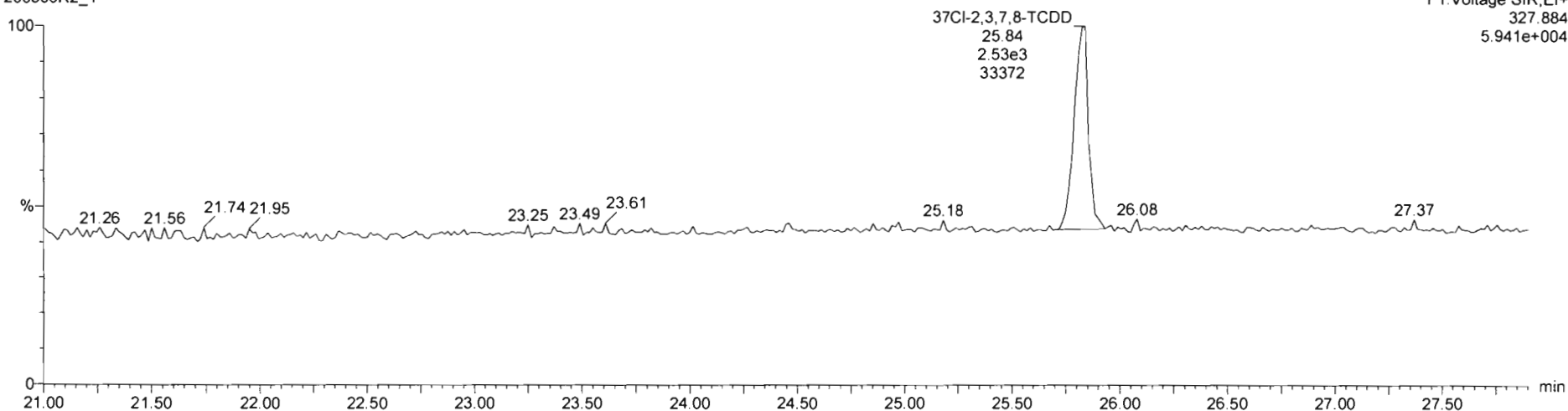
Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

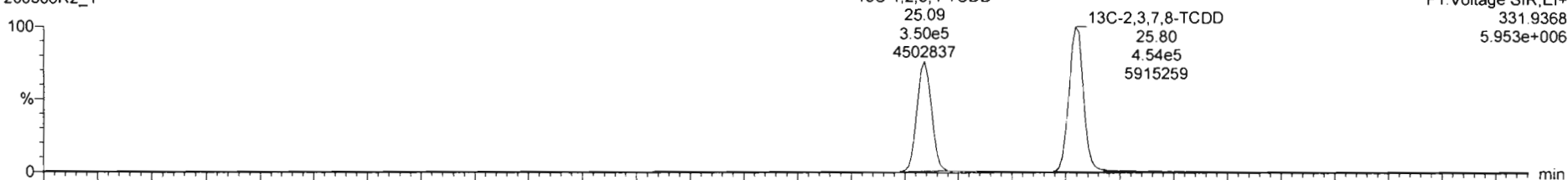
**37Cl-2,3,7,8-TCDD**

200306R2\_1

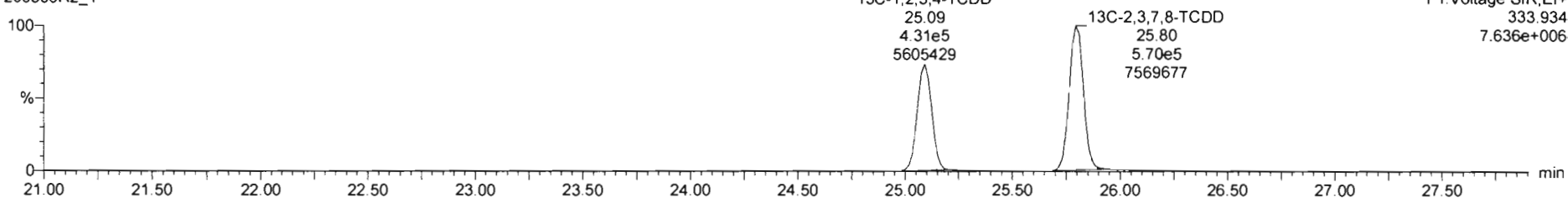


**13C-1,2,3,4-TCDD**

200306R2\_1



200306R2\_1



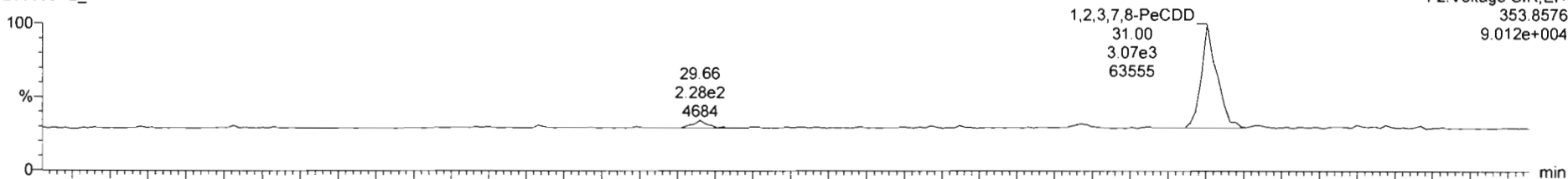
Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

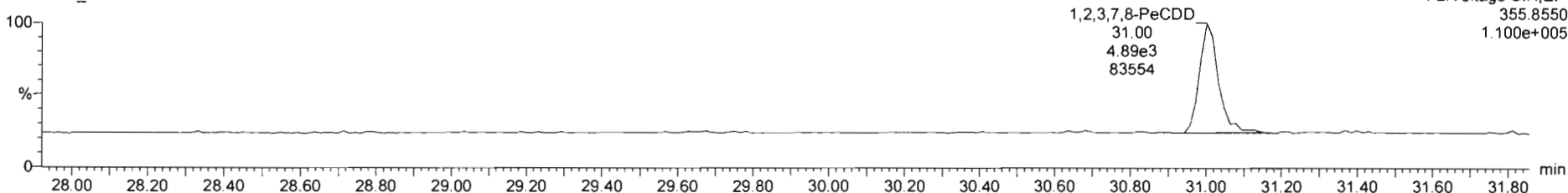
Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

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

200306R2\_1

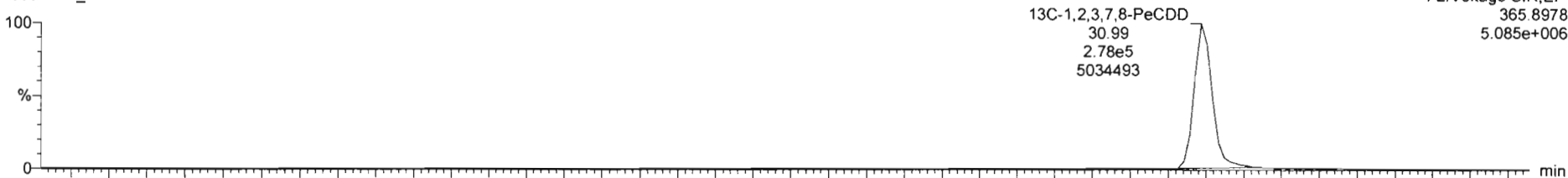


200306R2\_1

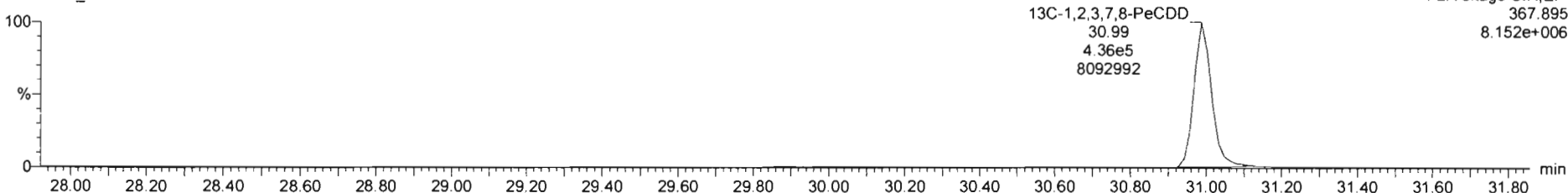


**13C-1,2,3,7,8-PeCDD**

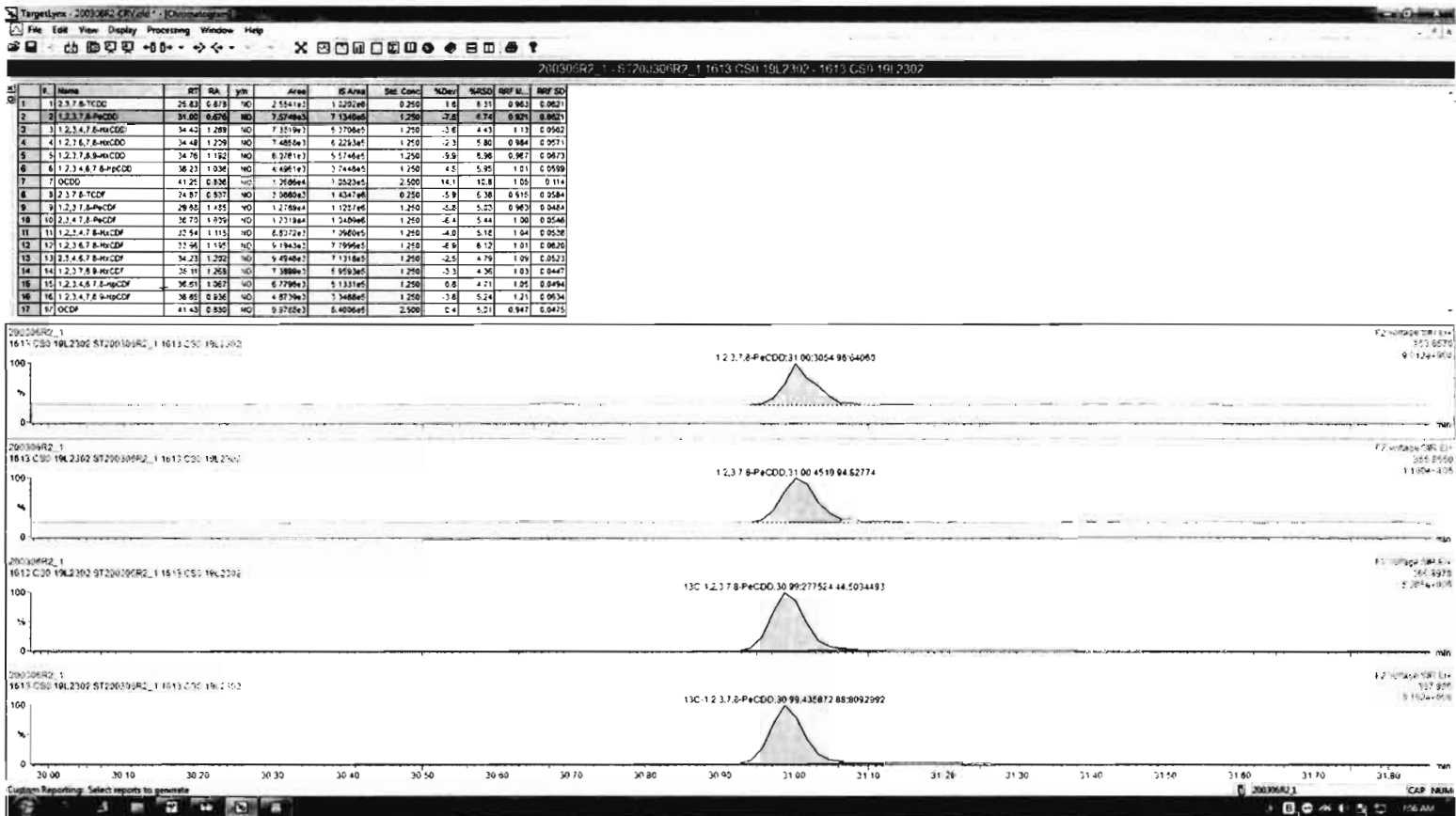
200306R2\_1



200306R2\_1







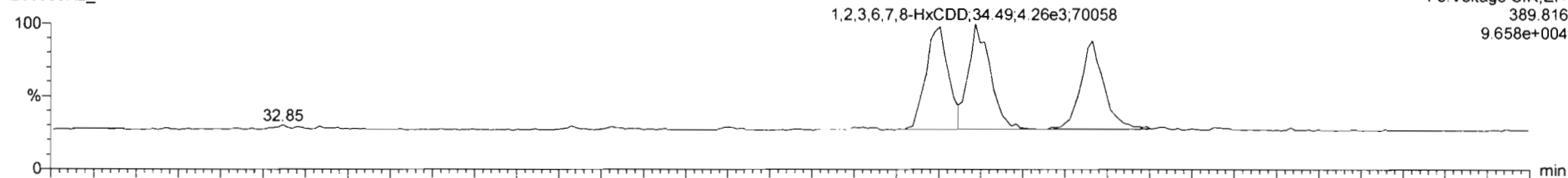
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

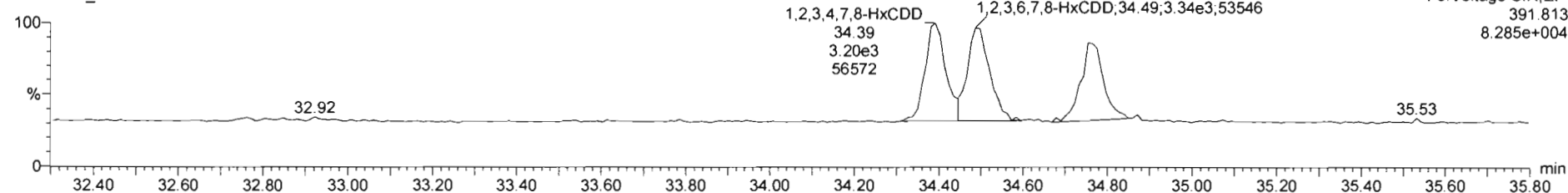
Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

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

200306R2\_1

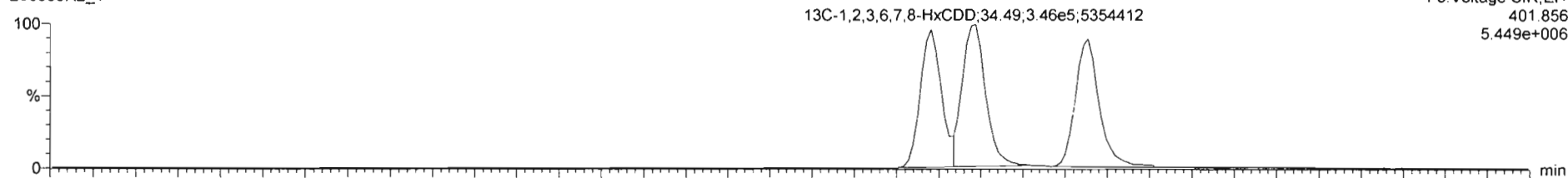


200306R2\_1

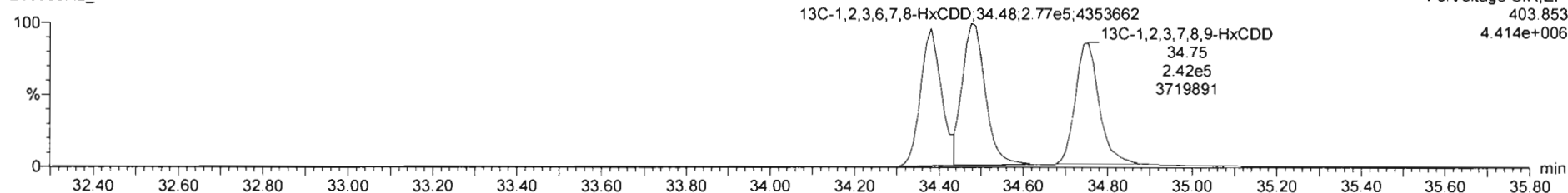


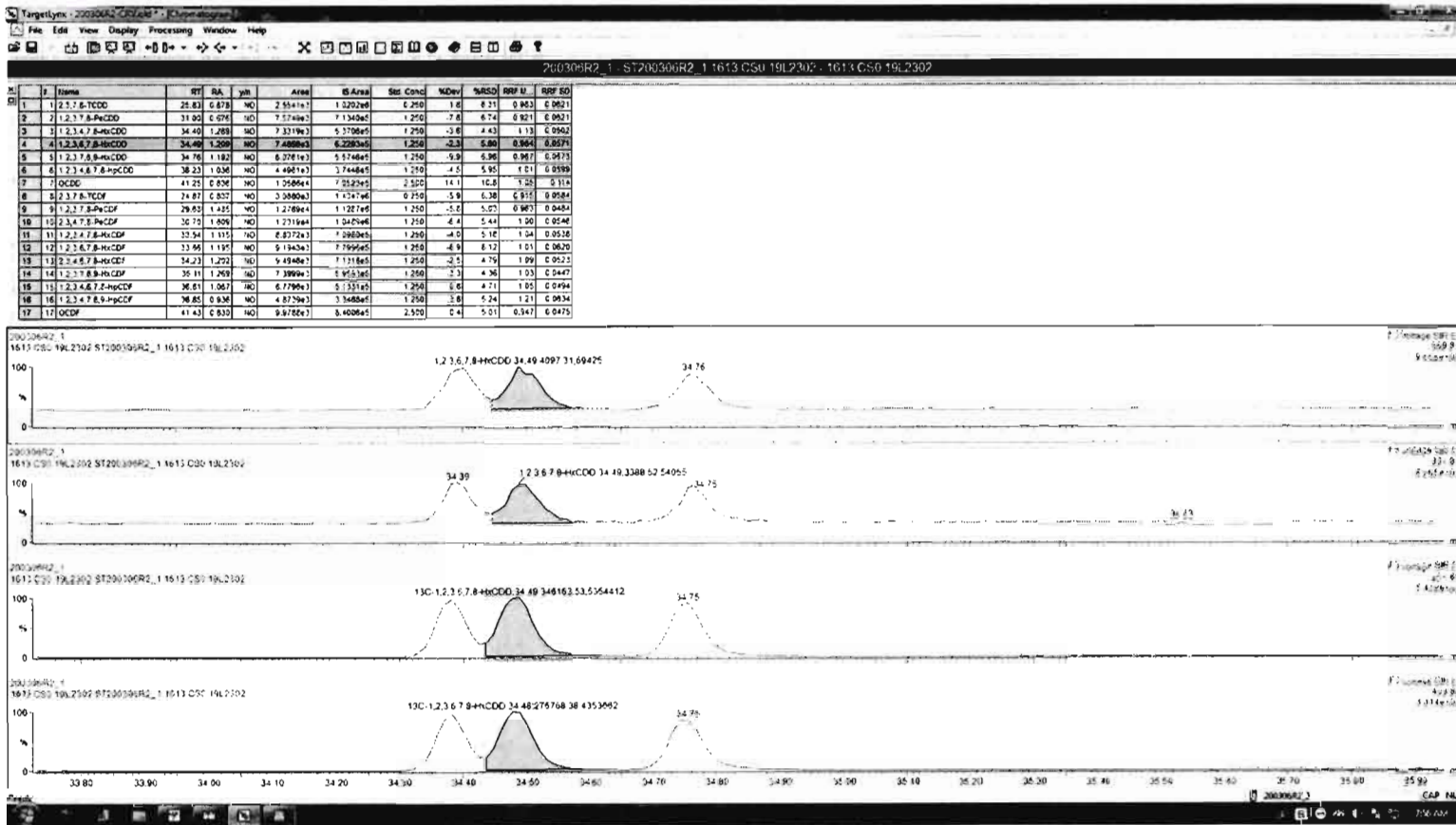
**13C-1,2,3,4,7,8-HxCDD**

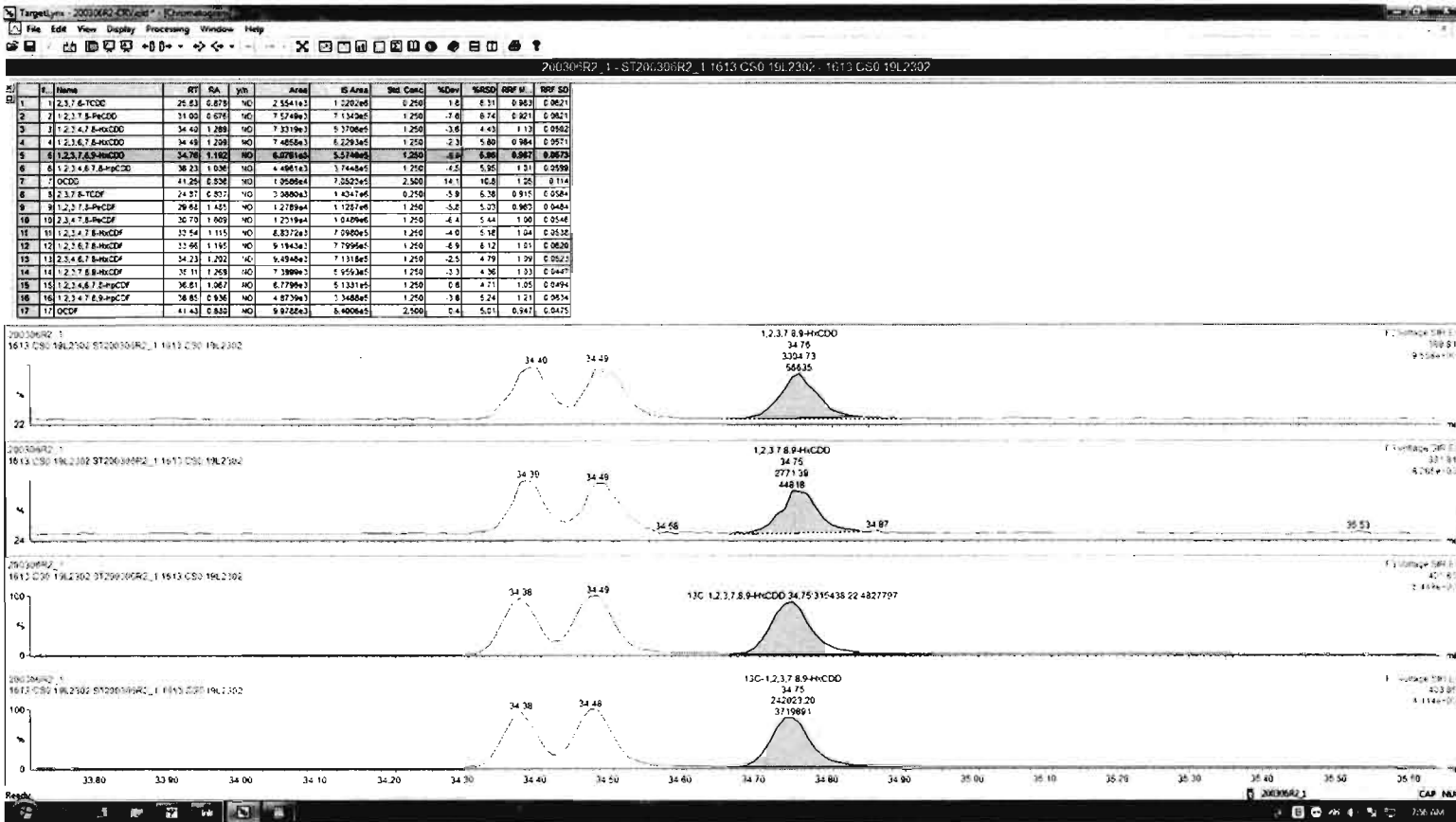
200306R2\_1



200306R2\_1







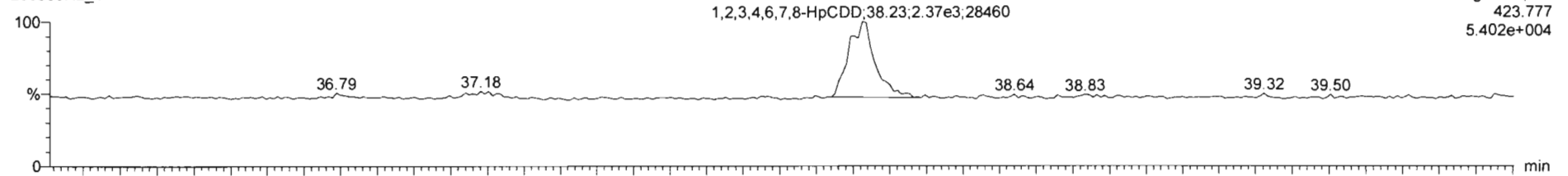
Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

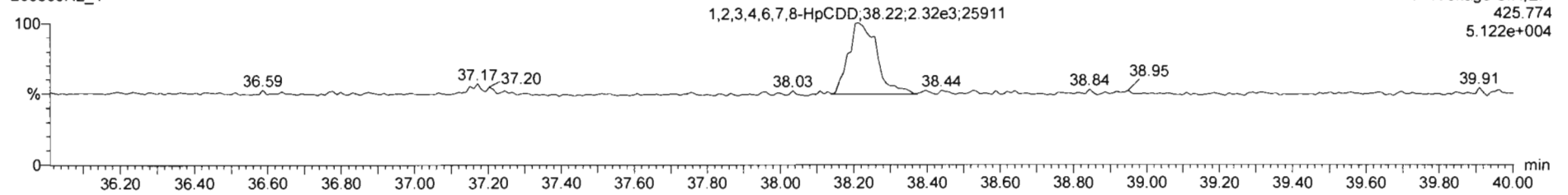
Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

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

200306R2\_1

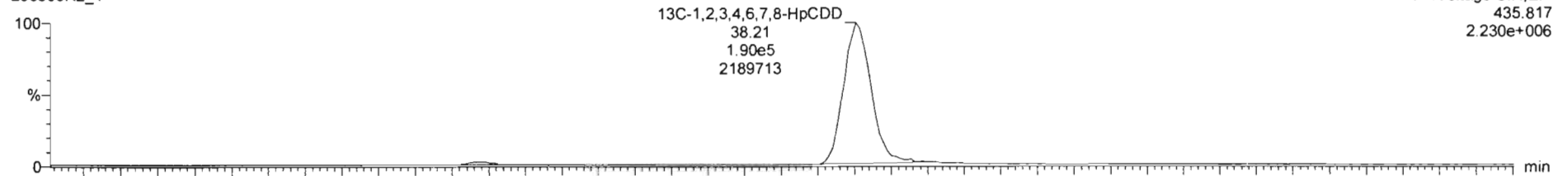


200306R2\_1

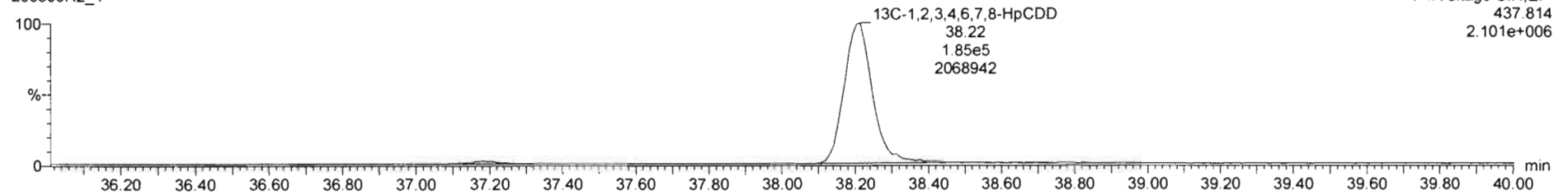


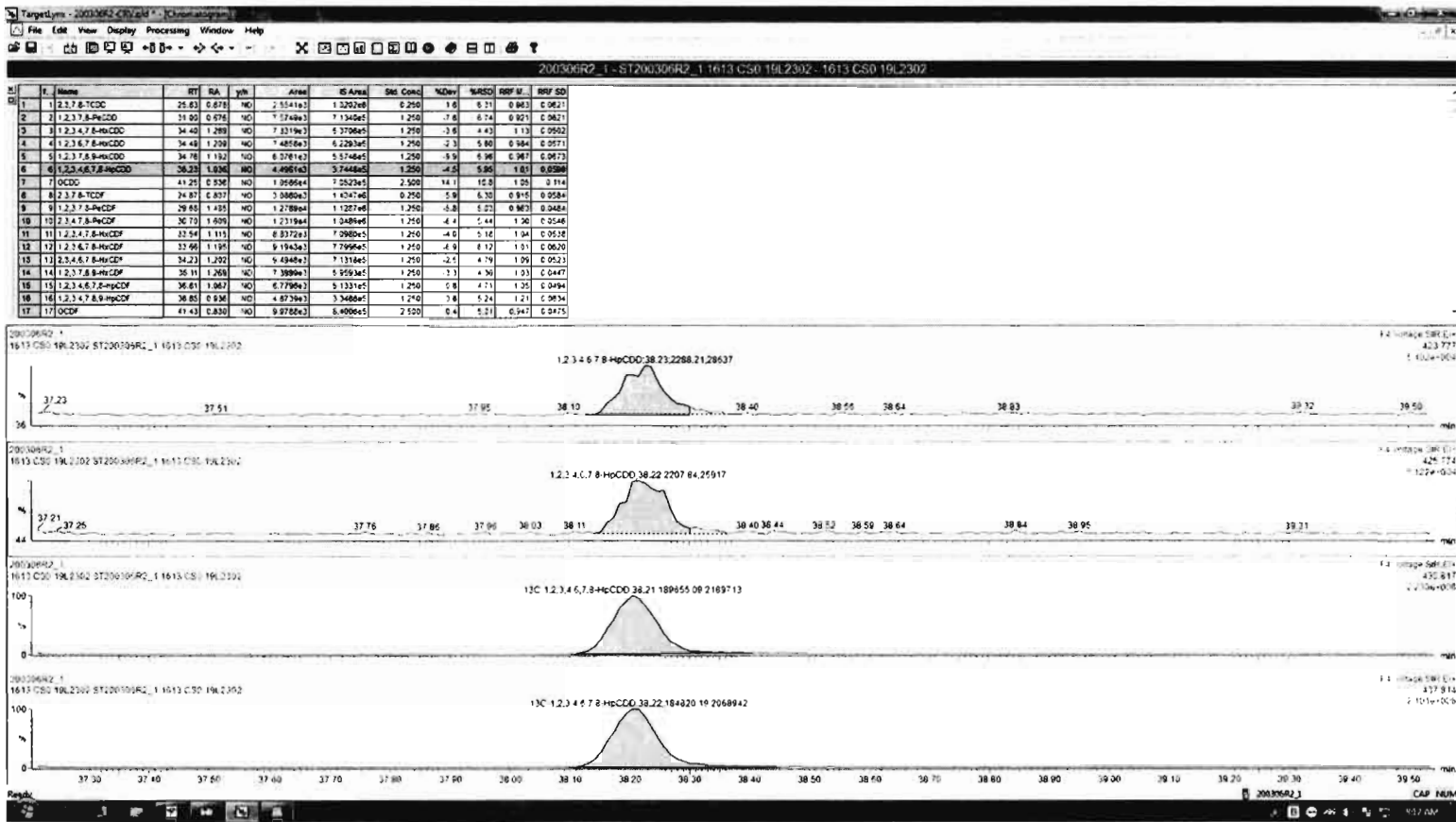
13C-1,2,3,4,6,7,8-HpCDD

200306R2\_1



200306R2\_1





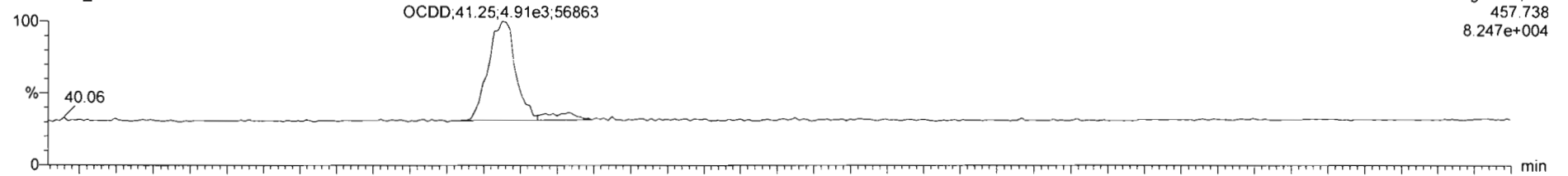
Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

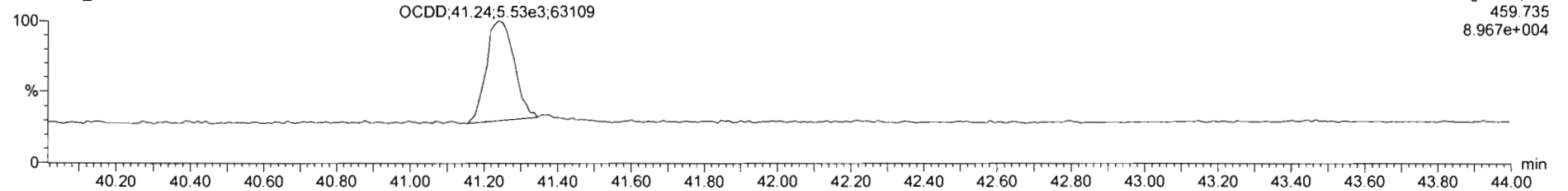
**OCDD**

200306R2\_1



F5:Voltage SIR,EI+  
457.738  
8.247e+004

200306R2\_1



F5:Voltage SIR,EI+  
459.735  
8.967e+004

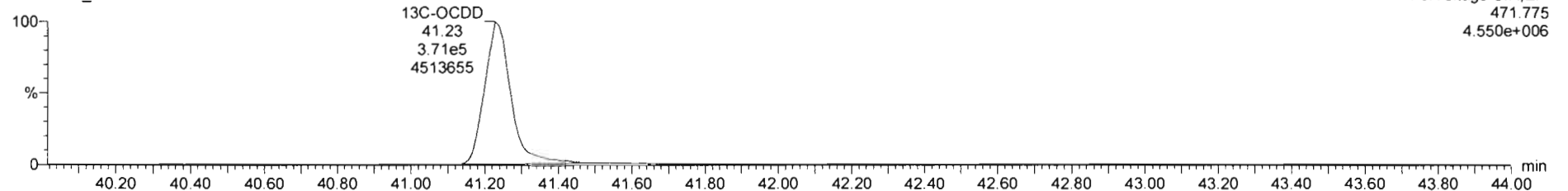
**13C-OCDD**

200306R2\_1

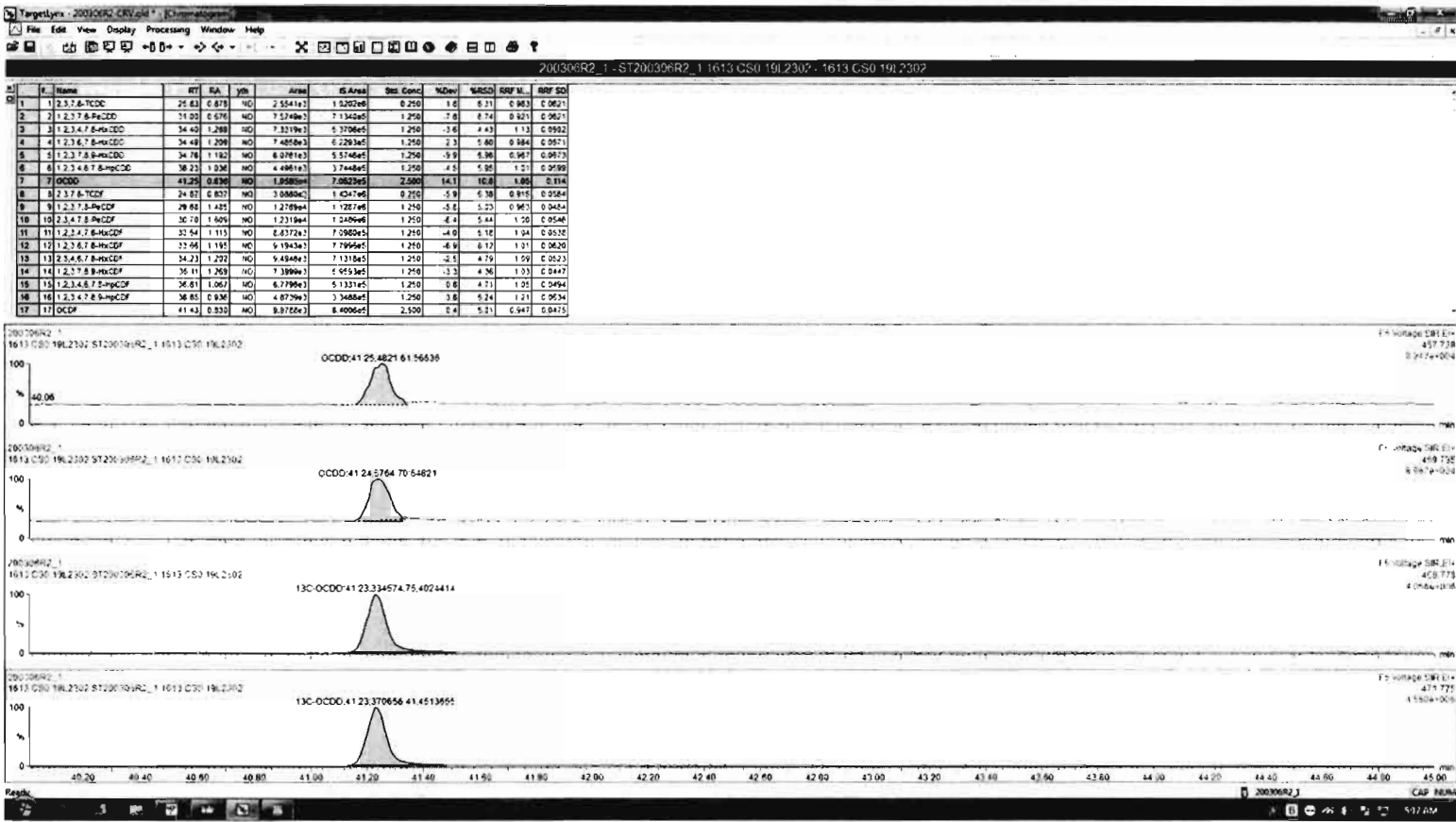


F5:Voltage SIR,EI+  
469.778  
4.056e+006

200306R2\_1



F5:Voltage SIR,EI+  
471.775  
4.550e+006





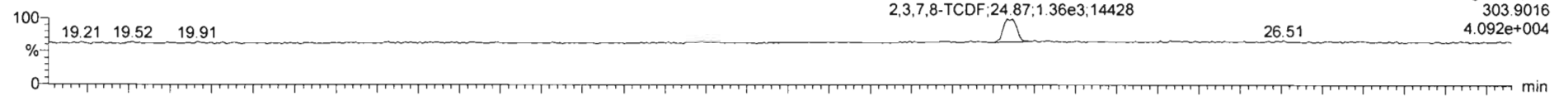
Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

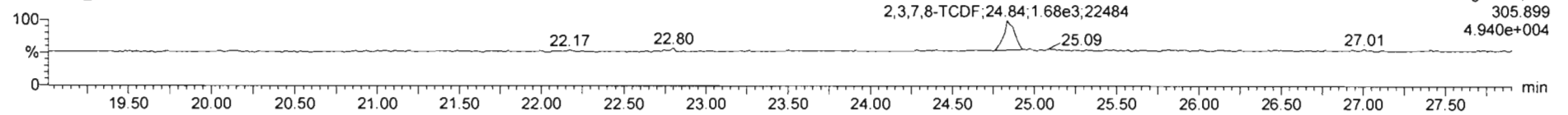
Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

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

200306R2\_1

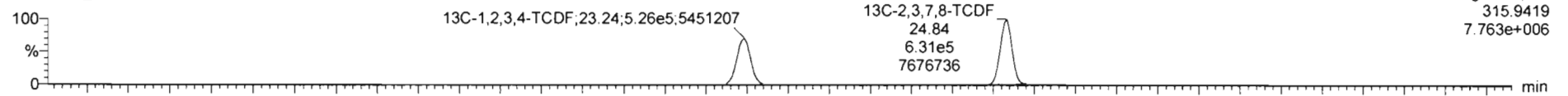


200306R2\_1

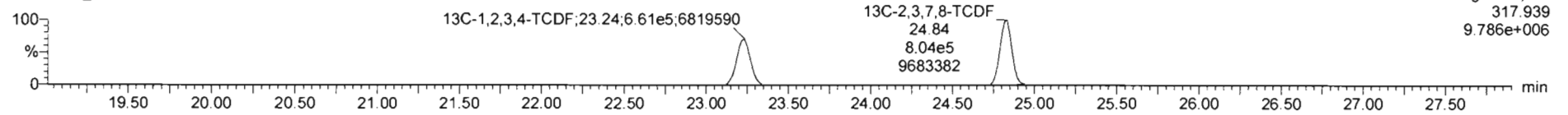


**13C-2,3,7,8-TCDF**

200306R2\_1

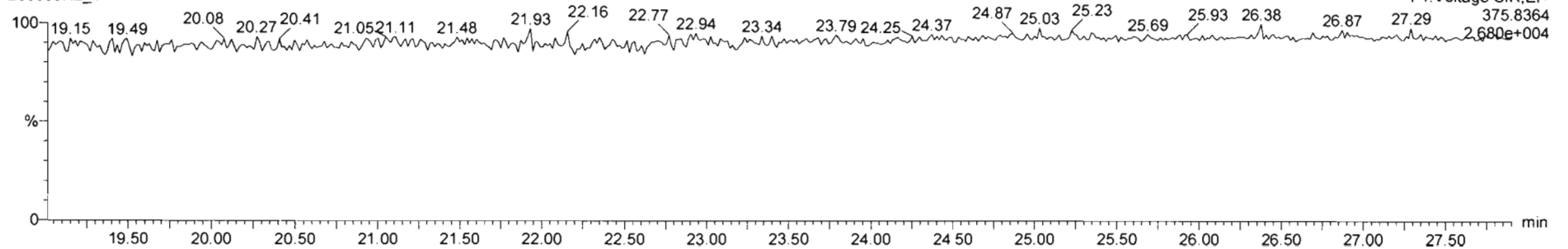


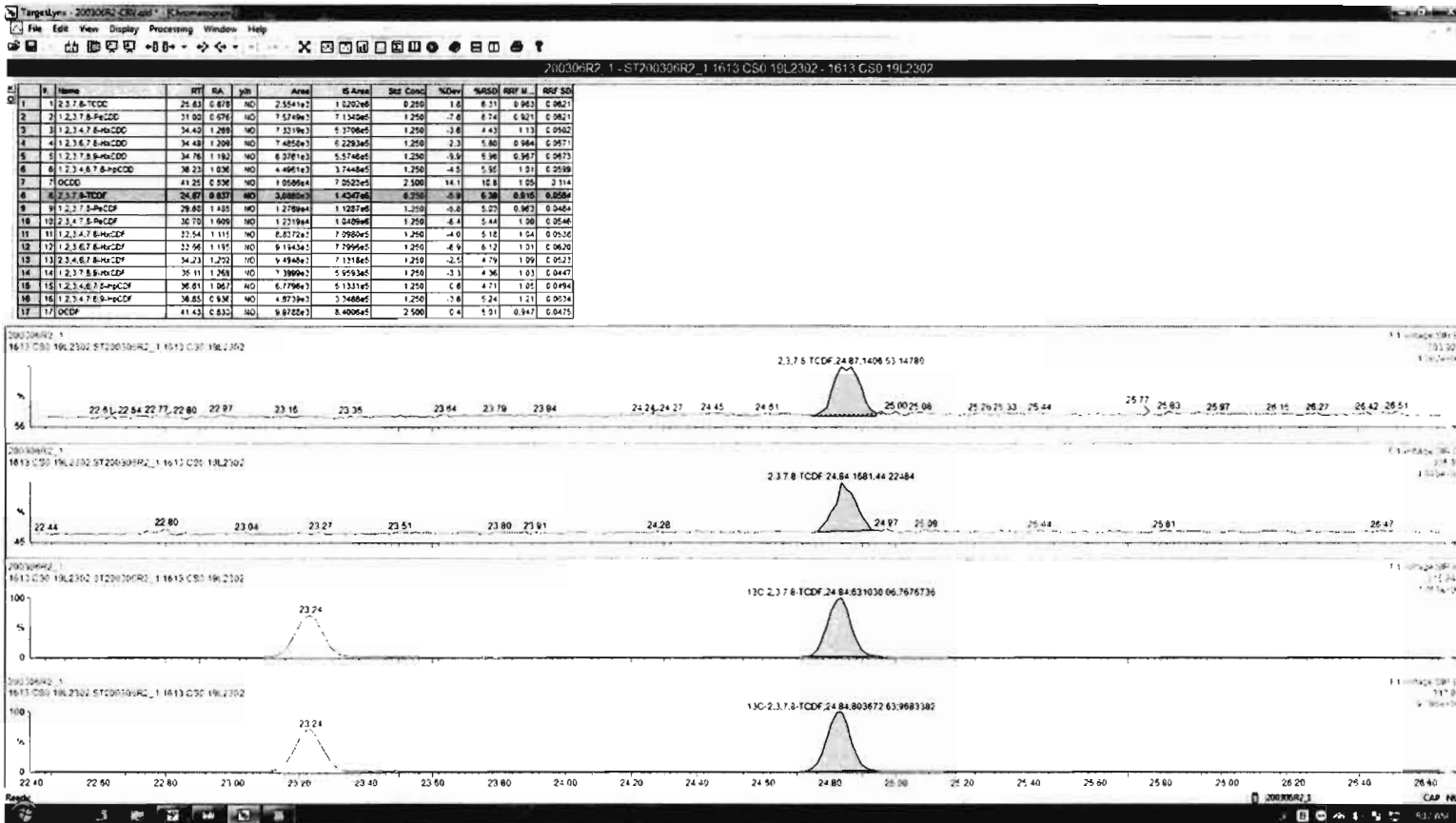
200306R2\_1



**DPE1**

200306R2\_1





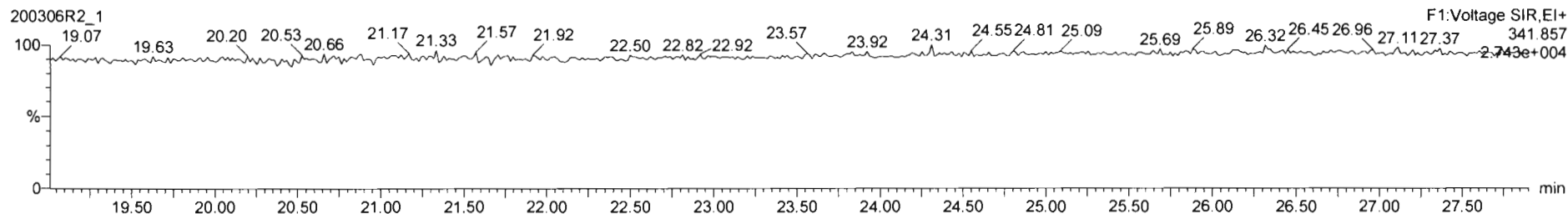
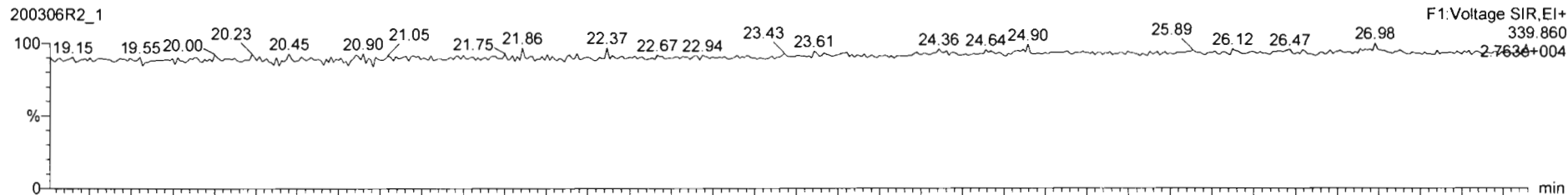
Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

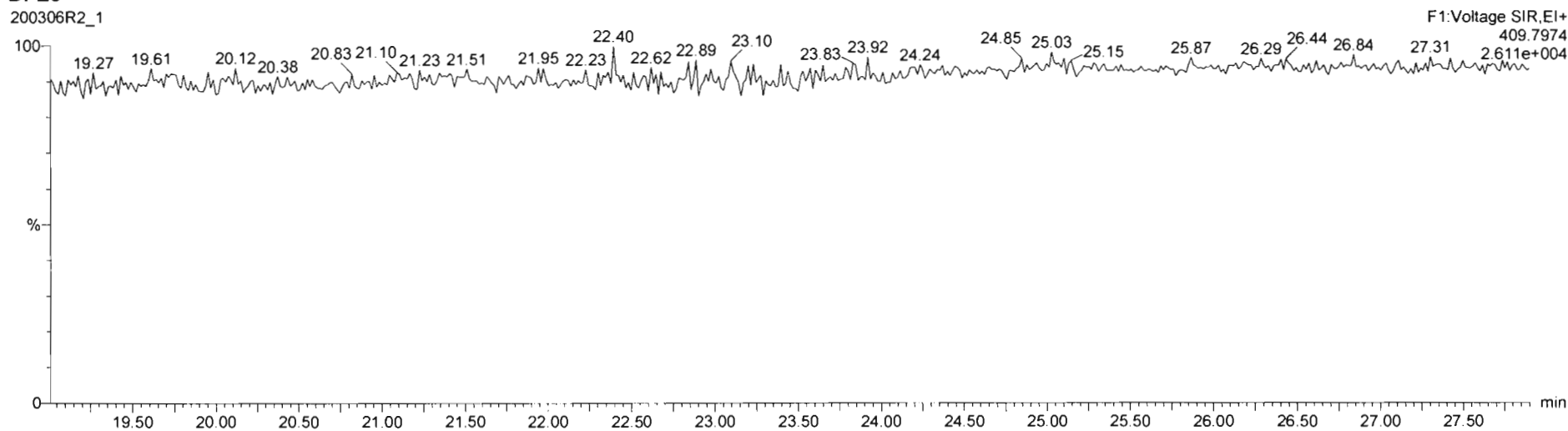
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

1st Func. Penta-Furans



DPE6



Dataset: Untitled

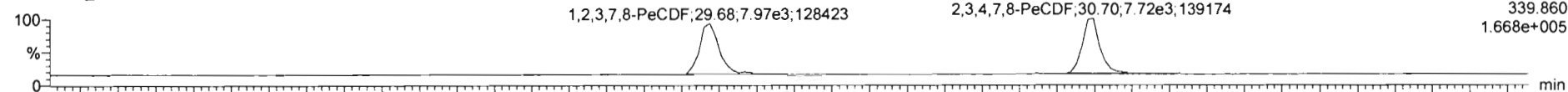
Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

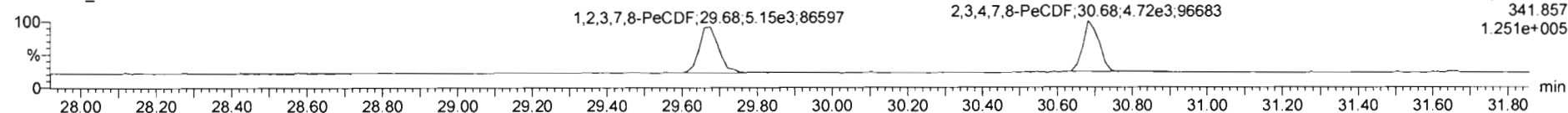
**1,2,3,7,8-PeCDF**

200306R2\_1



F2: Voltage SIR, EI+  
339.860  
1.668e+005

200306R2\_1



F2: Voltage SIR, EI+  
341.857  
1.251e+005

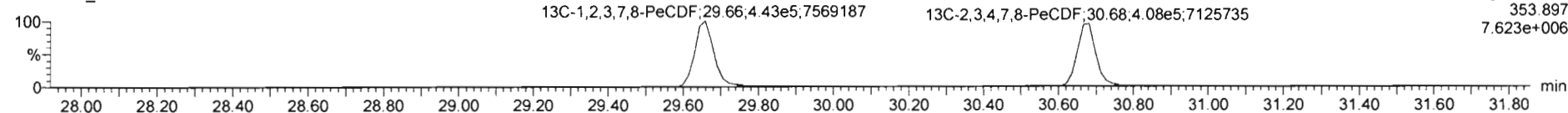
**13C-1,2,3,7,8-PeCDF**

200306R2\_1



F2: Voltage SIR, EI+  
351.900  
1.216e+007

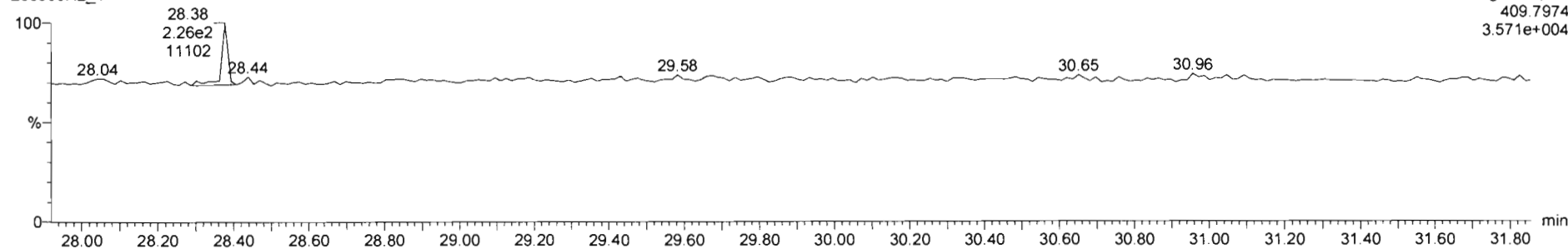
200306R2\_1



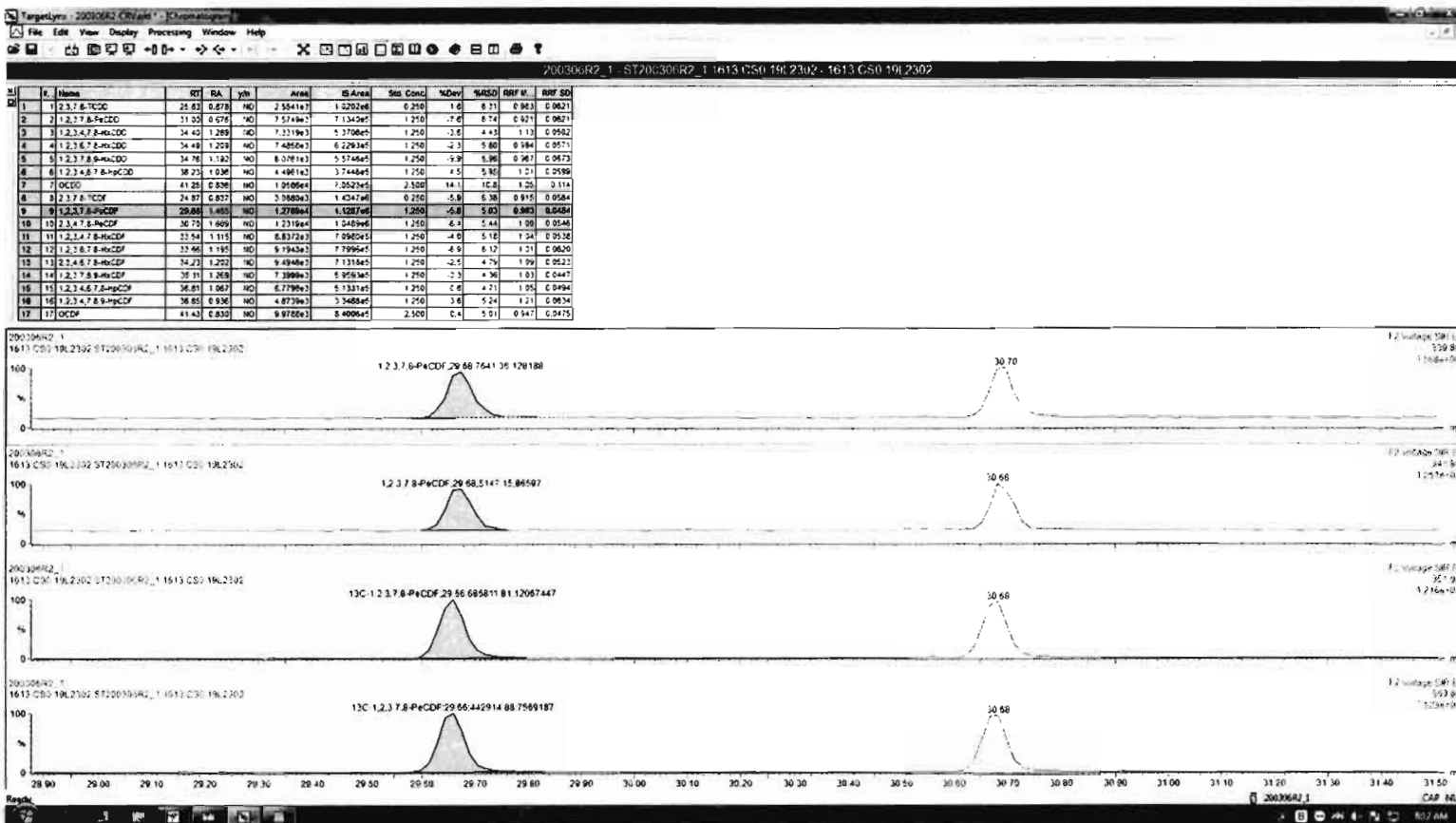
F2: Voltage SIR, EI+  
353.897  
7.623e+006

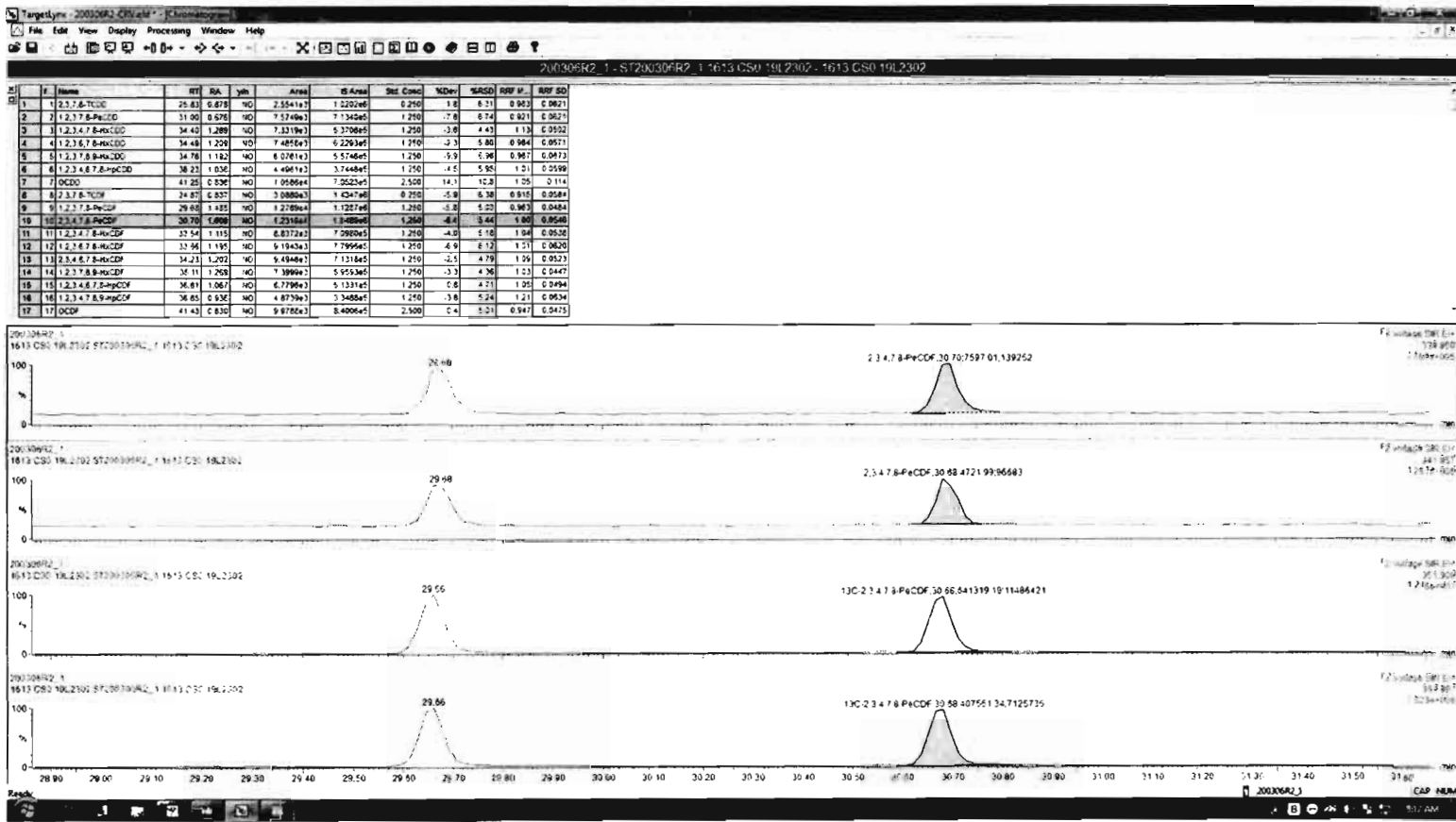
**DPE2**

200306R2\_1



F2: Voltage SIR, EI+  
409.7974  
3.571e+004





Dataset: Untitled

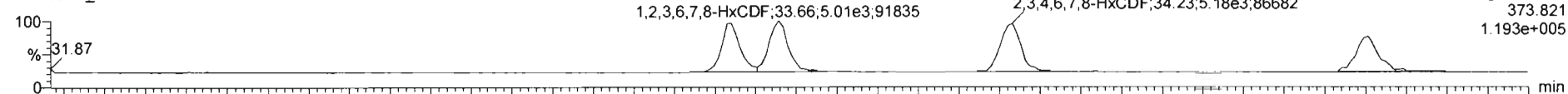
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

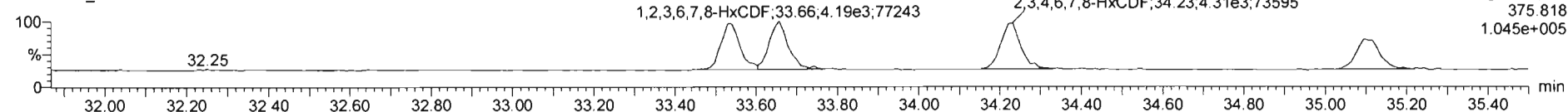
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**1,2,3,4,7,8-HxCDF**

200306R2\_1

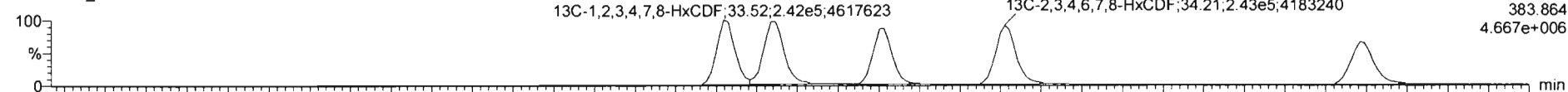


200306R2\_1

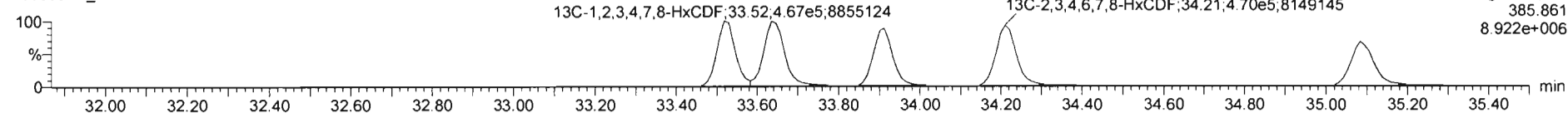


**13C-1,2,3,4,7,8-HxCDF**

200306R2\_1

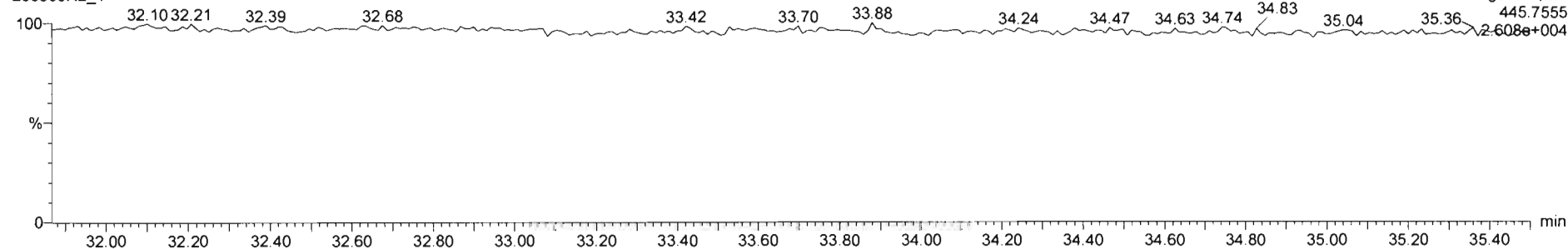


200306R2\_1



**DPE3**

200306R2\_1

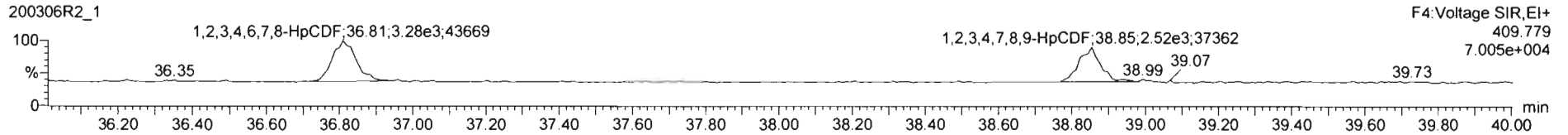
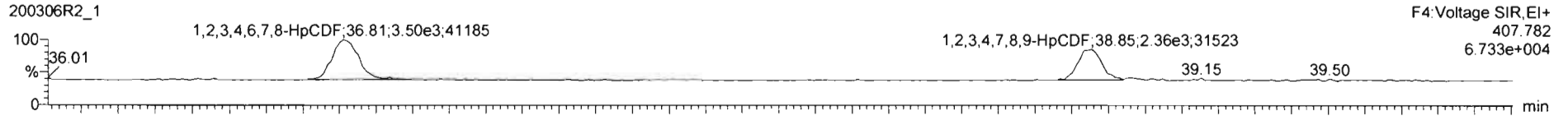


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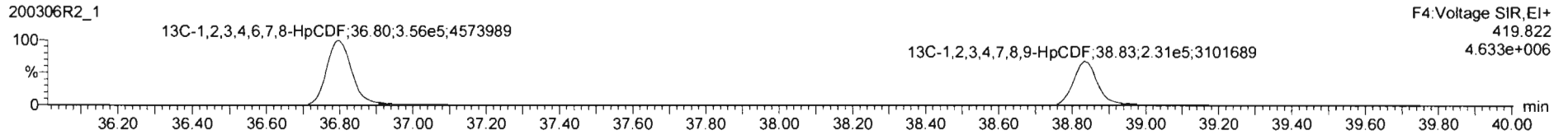
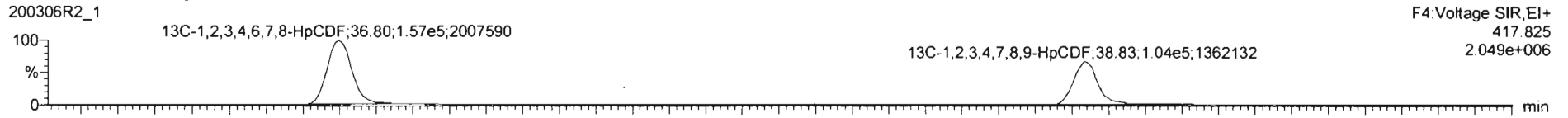
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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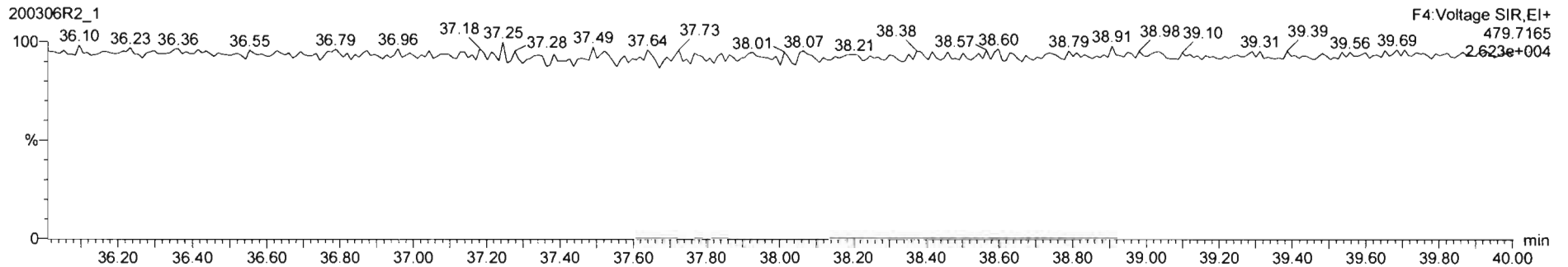
1,2,3,4,6,7,8-HpCDF



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



DPE4

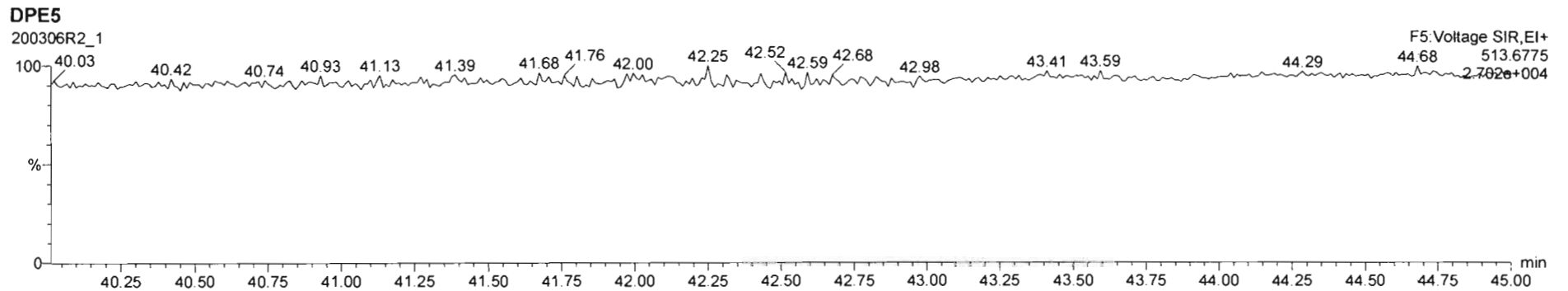
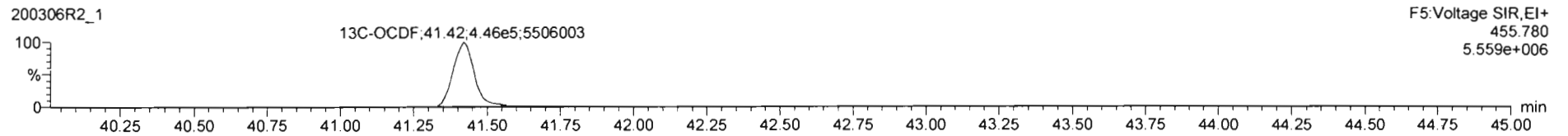
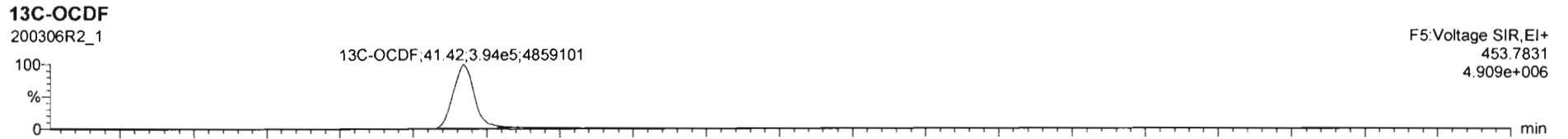
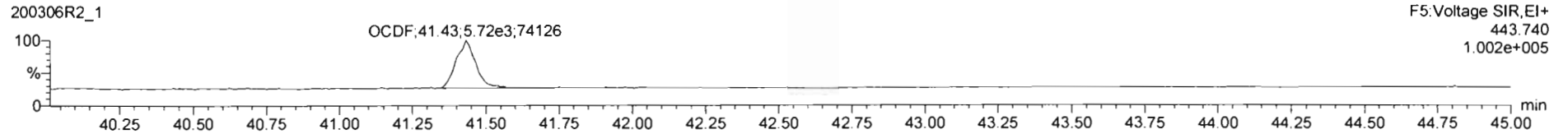
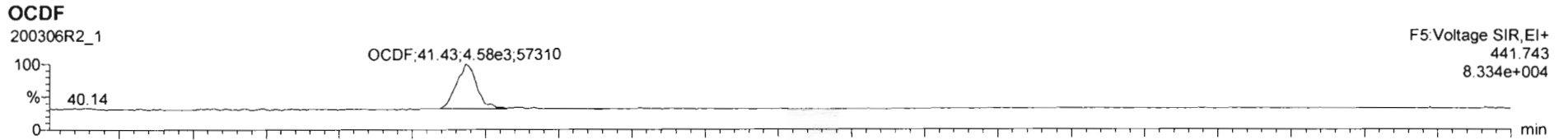


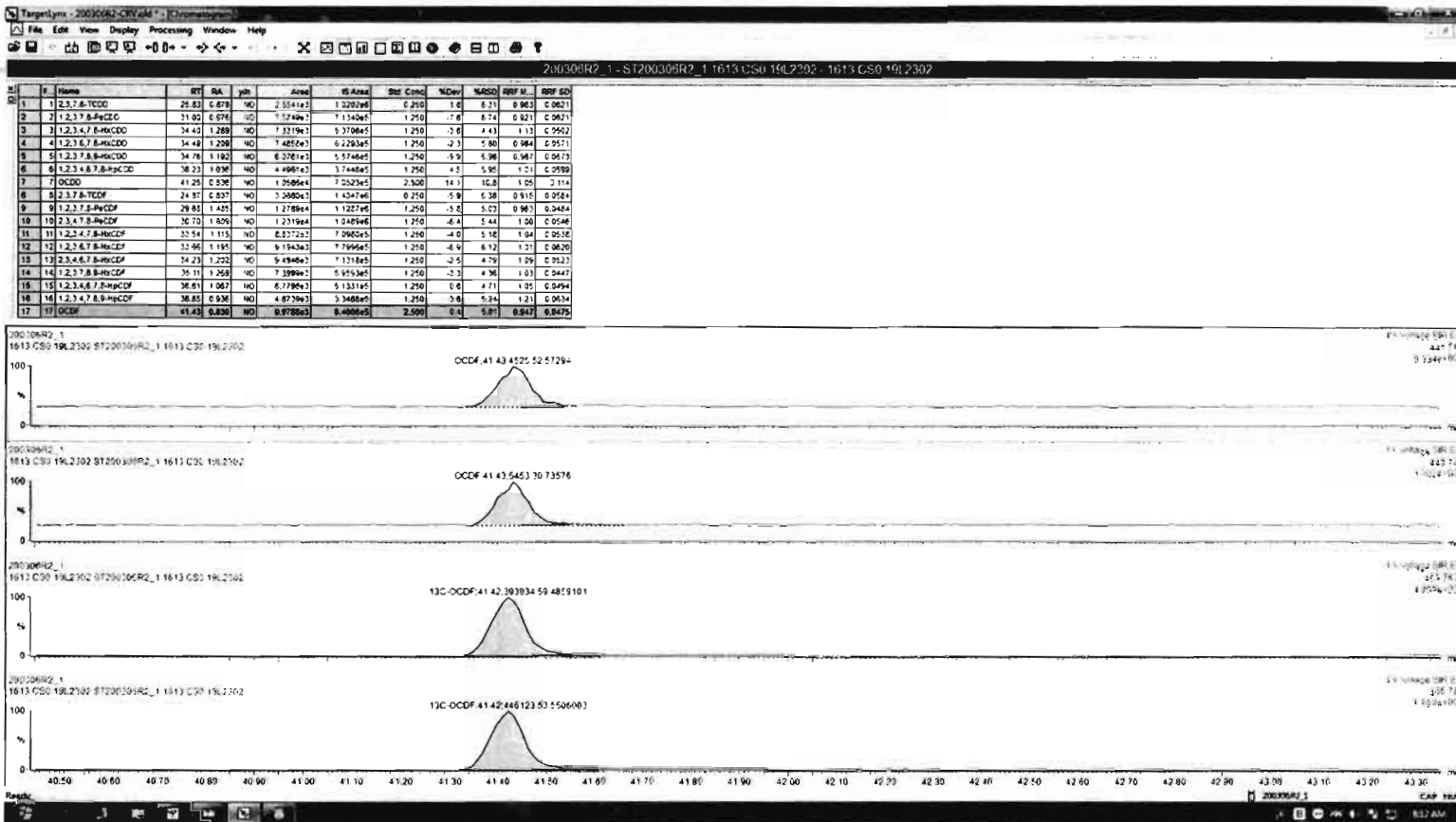


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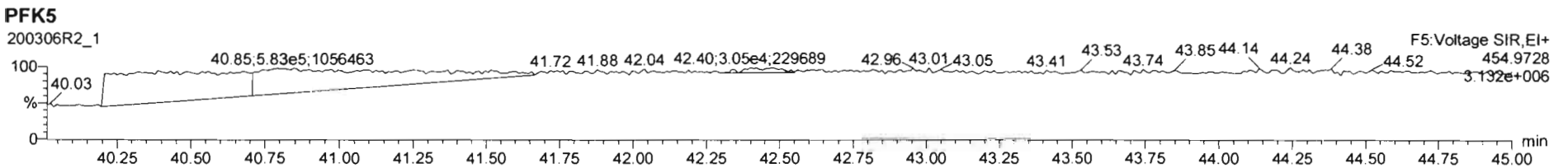
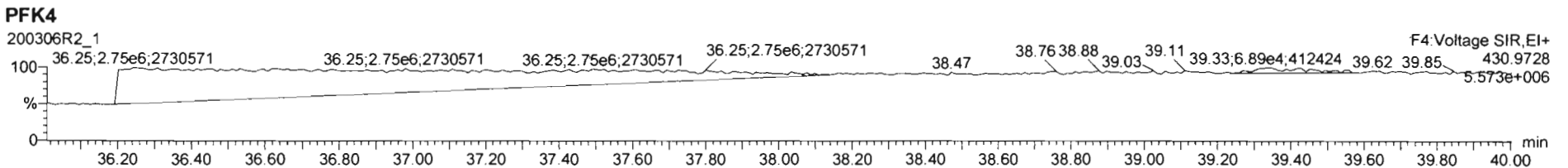
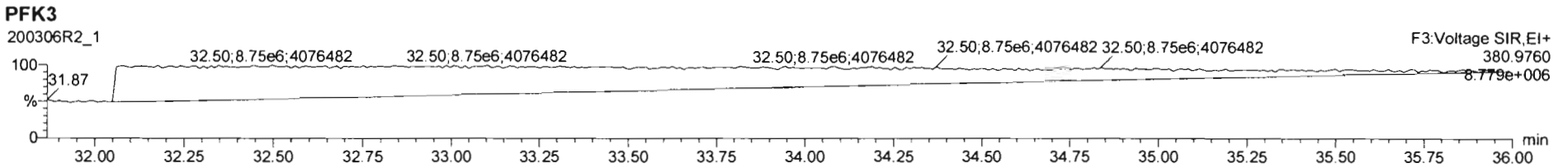
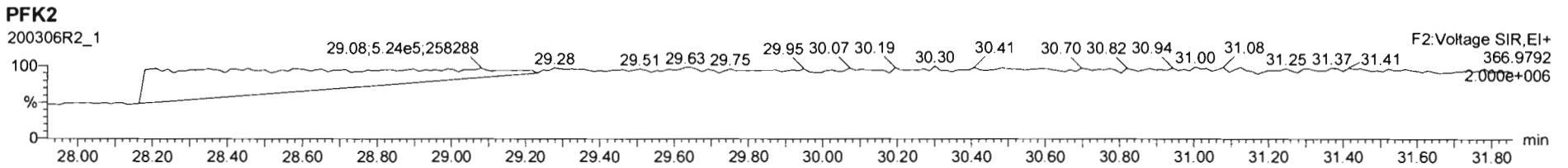
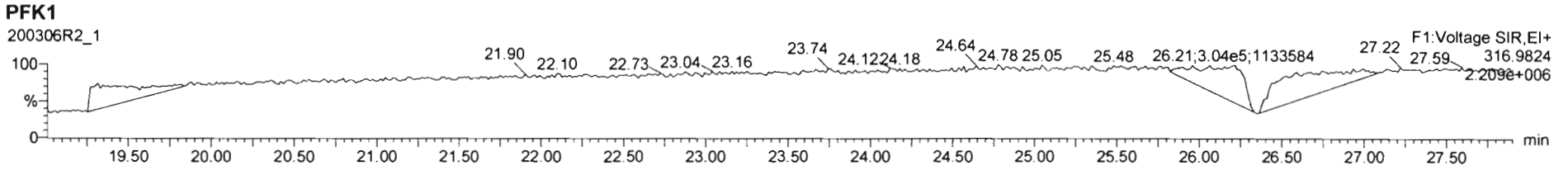




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Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_1, Date: 06-Mar-2020, Time: 13:08:38, ID: ST200306R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302



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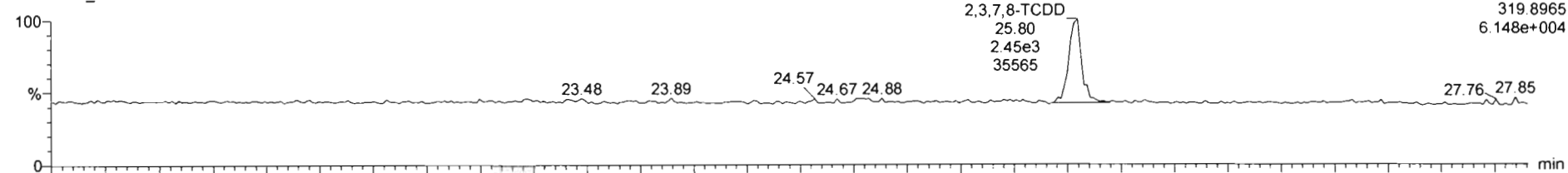
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

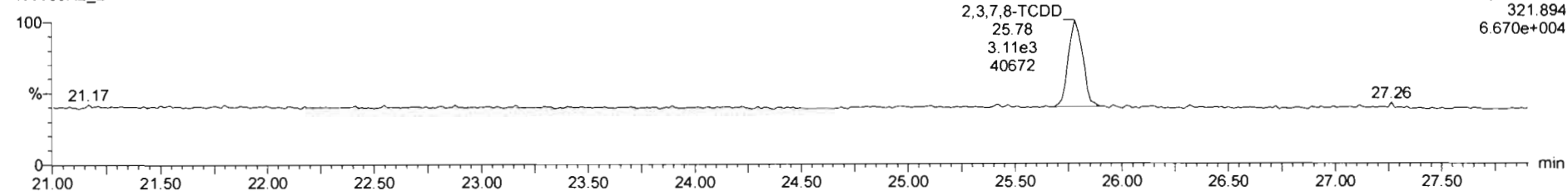
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**2,3,7,8-TCDD**

200306R2\_2

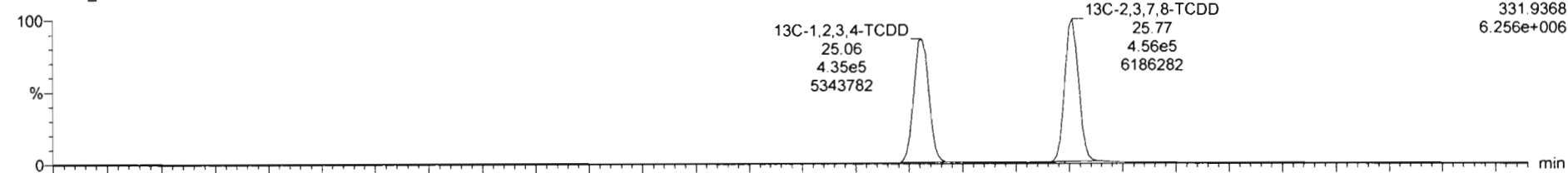


200306R2\_2

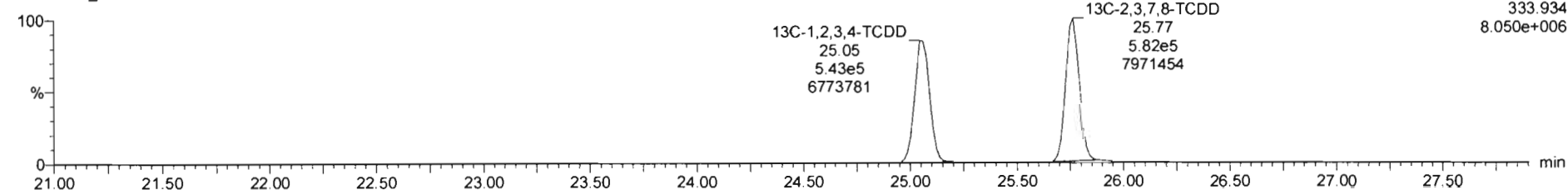


**13C-2,3,7,8-TCDD**

200306R2\_2



200306R2\_2



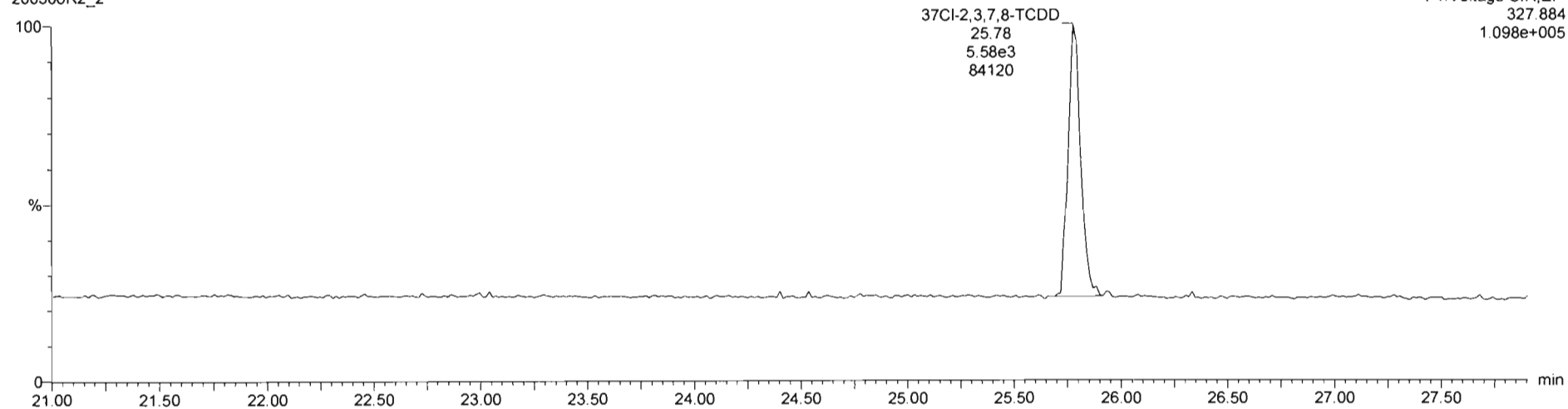
Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
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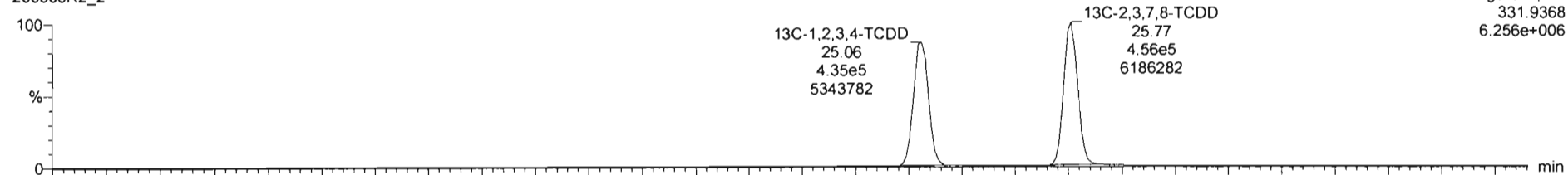
**37Cl-2,3,7,8-TCDD**

200306R2\_2

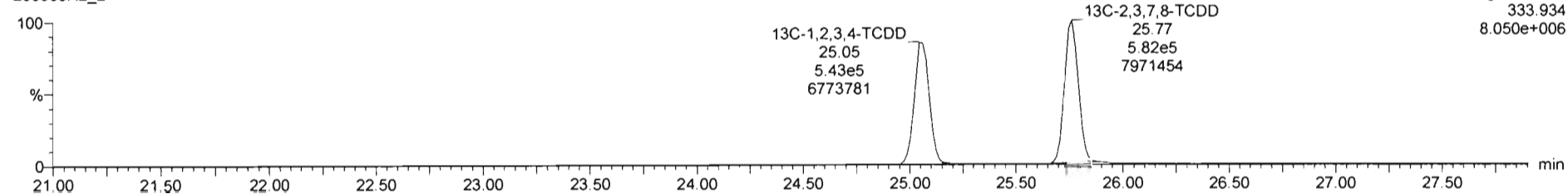


**13C-1,2,3,4-TCDD**

200306R2\_2



200306R2\_2



Dataset: Untitled

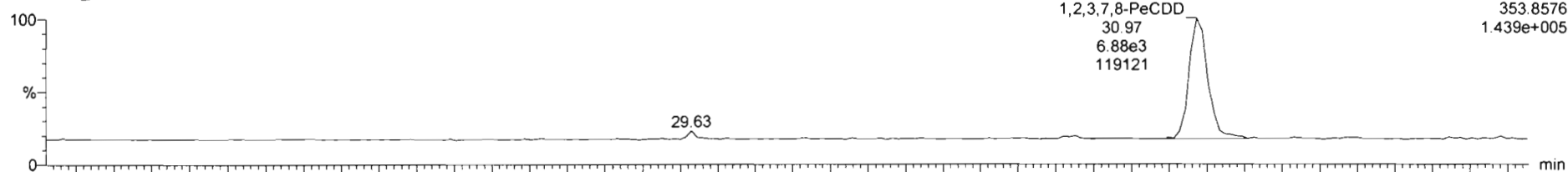
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

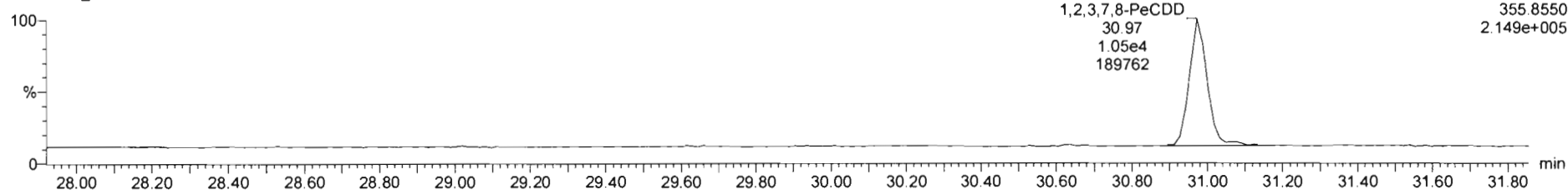
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**1,2,3,7,8-PeCDD**

200306R2\_2

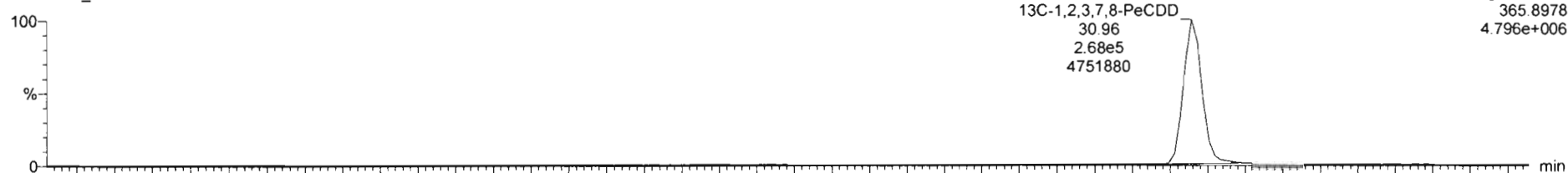


200306R2\_2

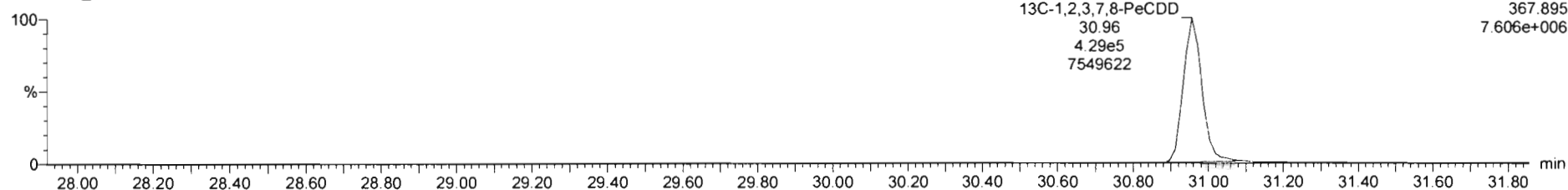


**13C-1,2,3,7,8-PeCDD**

200306R2\_2



200306R2\_2



Dataset: Untitled

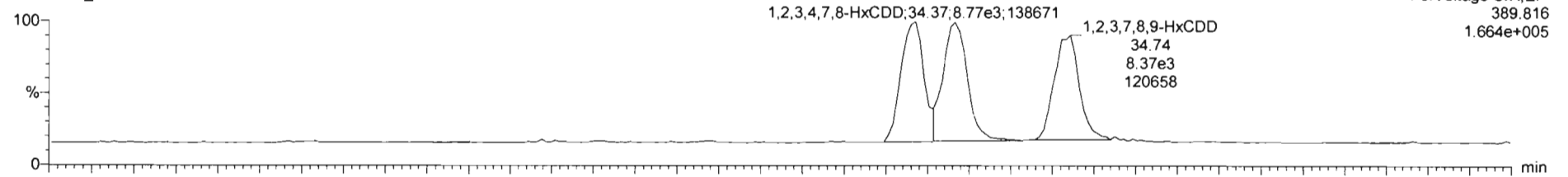
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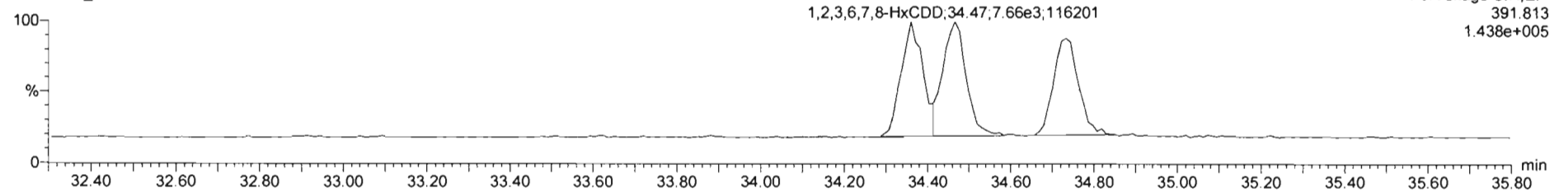
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**1,2,3,4,7,8-HxCDD**

200306R2\_2

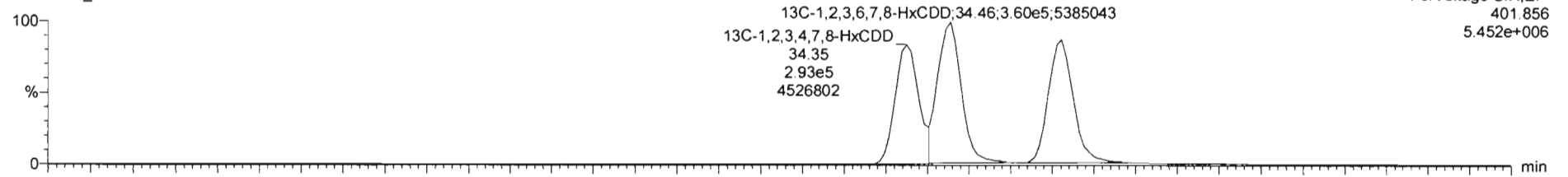


200306R2\_2

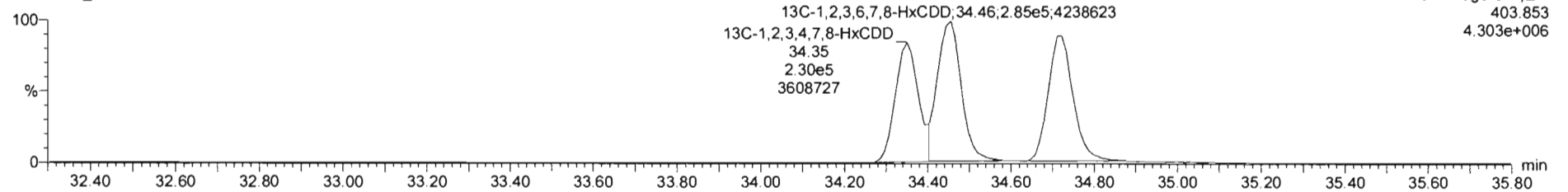


**13C-1,2,3,4,7,8-HxCDD**

200306R2\_2



200306R2\_2



Dataset: Untitled

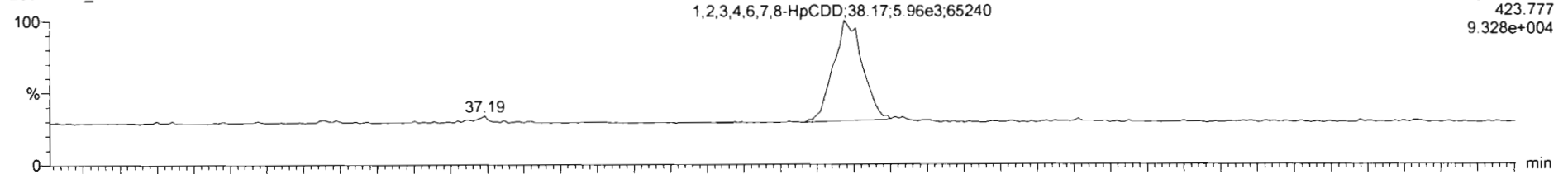
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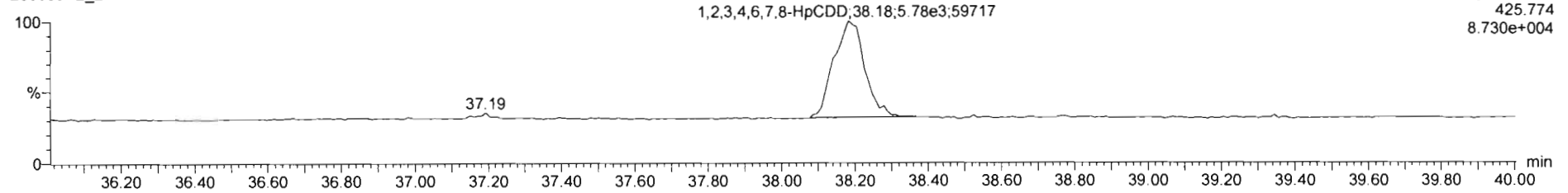
1,2,3,4,6,7,8-HpCDD

200306R2\_2



F4: Voltage SIR, EI+  
423.777  
9.328e+004

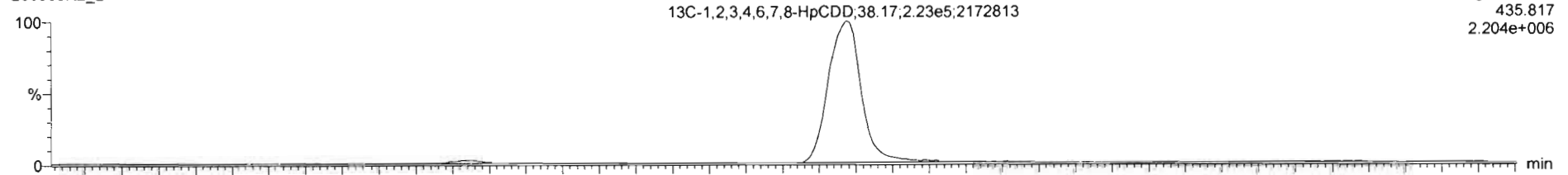
200306R2\_2



F4: Voltage SIR, EI+  
425.774  
8.730e+004

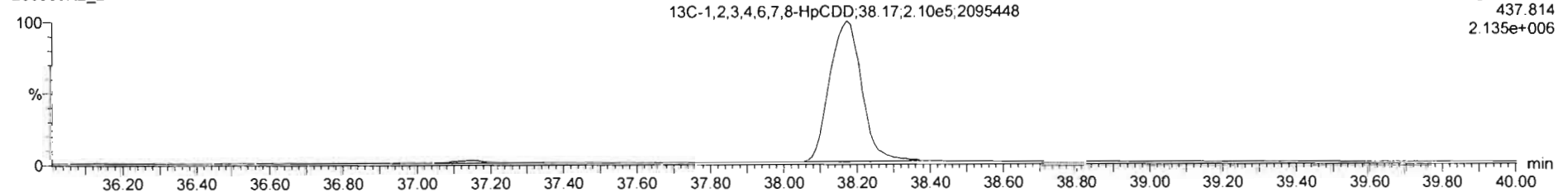
13C-1,2,3,4,6,7,8-HpCDD

200306R2\_2



F4: Voltage SIR, EI+  
435.817  
2.204e+006

200306R2\_2



F4: Voltage SIR, EI+  
437.814  
2.135e+006



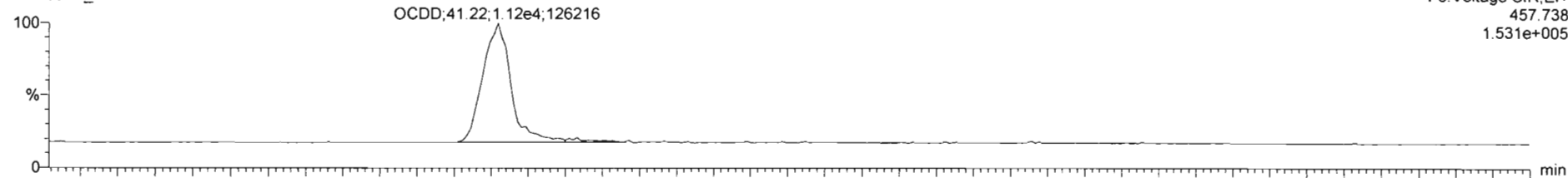
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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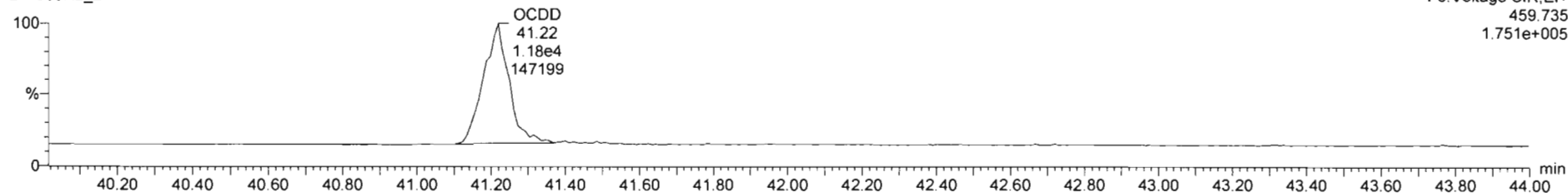
OCDD

200306R2\_2



F5:Voltage SIR,EI+  
457.738  
1.531e+005

200306R2\_2



F5:Voltage SIR,EI+  
459.735  
1.751e+005

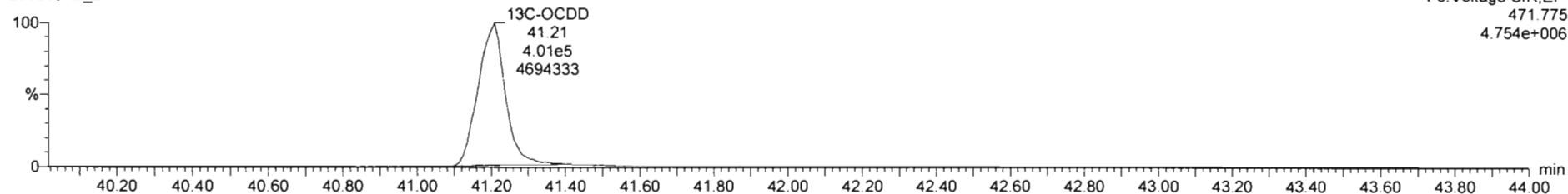
13C-OCDD

200306R2\_2

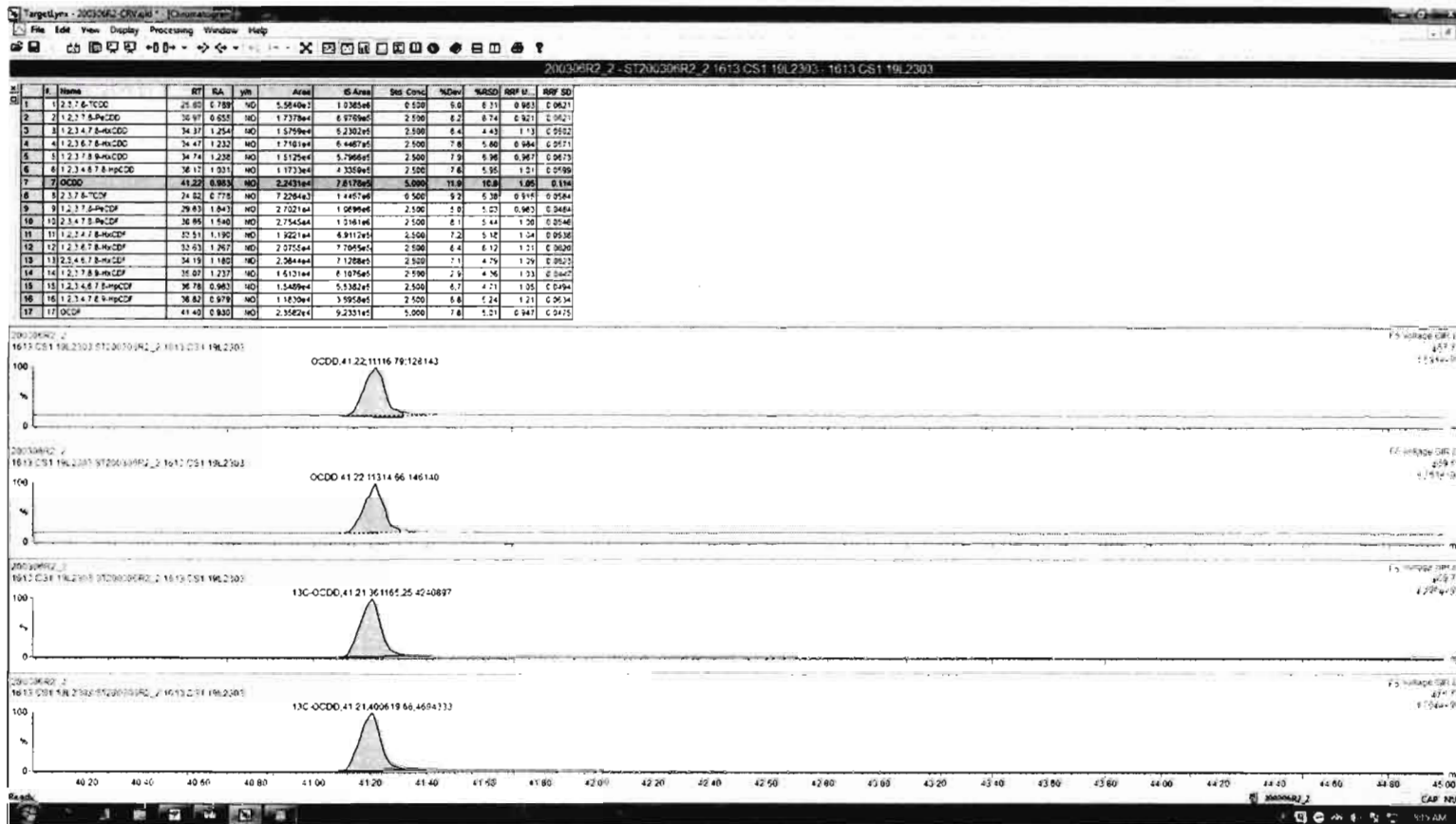


F5:Voltage SIR,EI+  
469.778  
4.295e+006

200306R2\_2



F5:Voltage SIR,EI+  
471.775  
4.754e+006



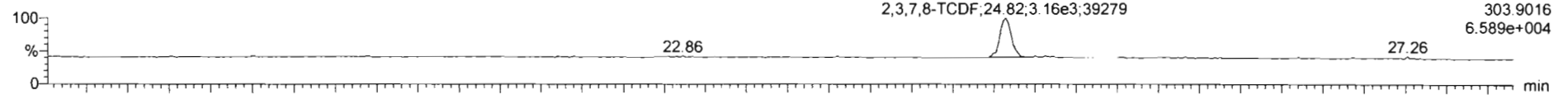
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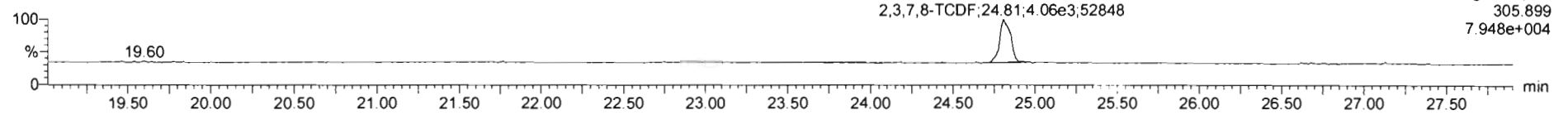
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**2,3,7,8-TCDF**

200306R2\_2

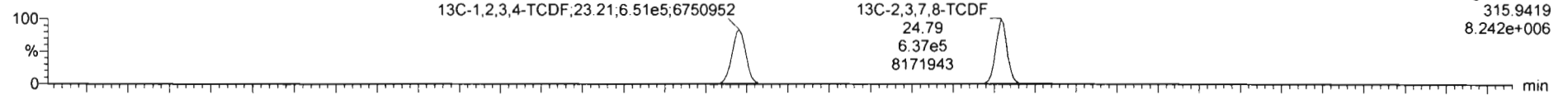


200306R2\_2

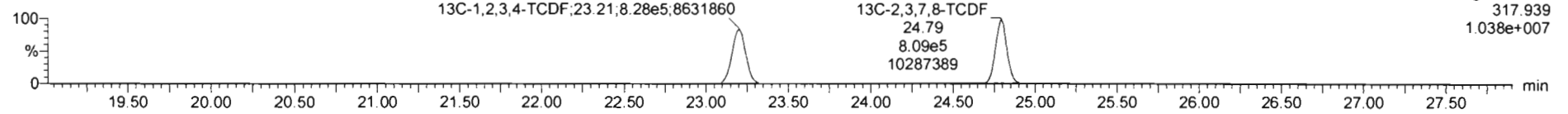


**13C-2,3,7,8-TCDF**

200306R2\_2

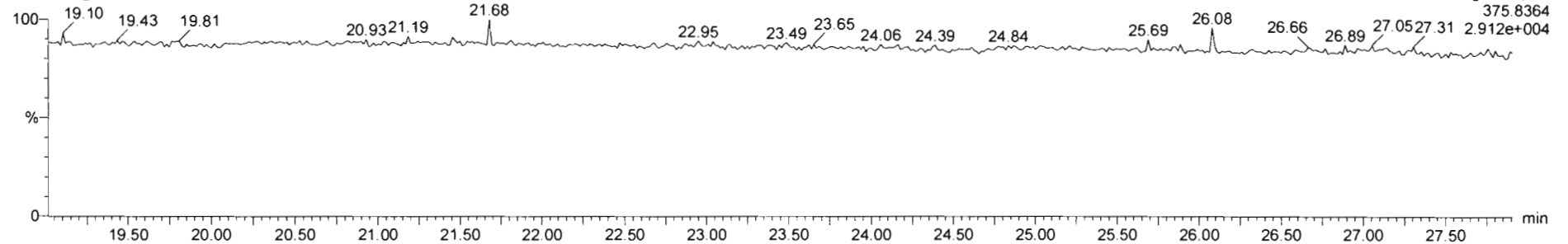


200306R2\_2



**DPE1**

200306R2\_2



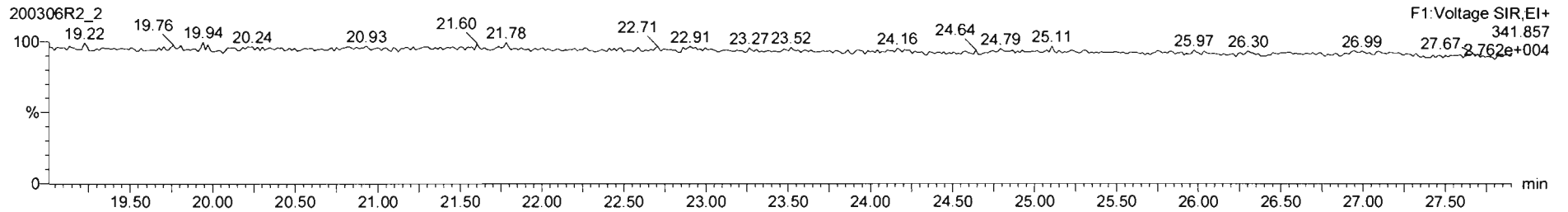
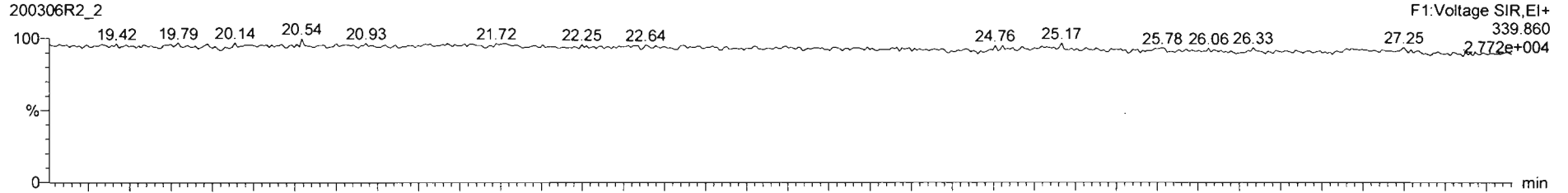
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Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

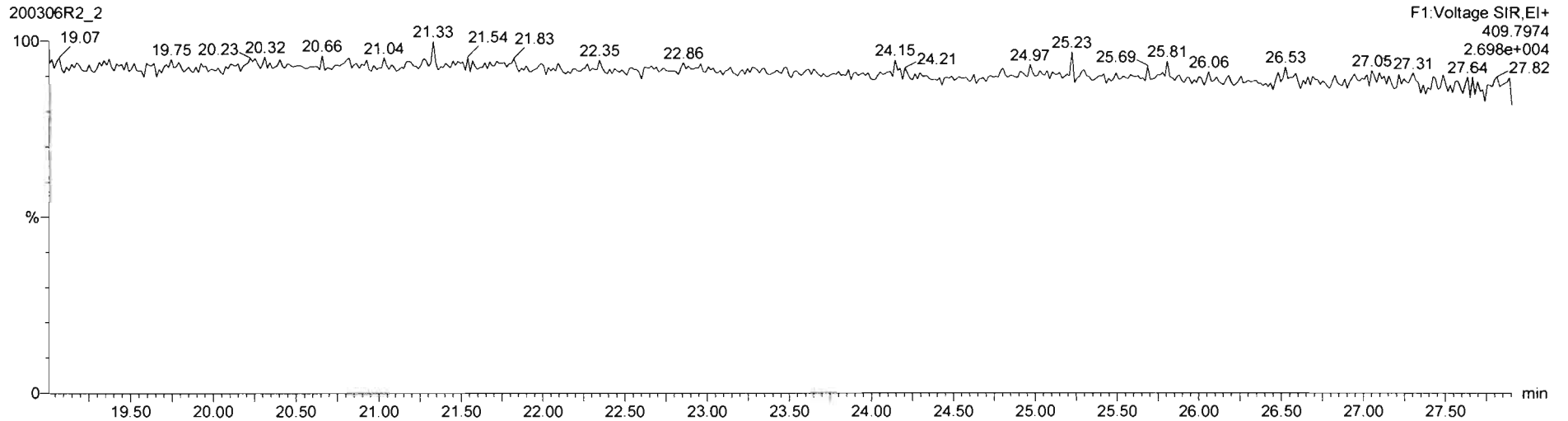
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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1st Func. Penta-Furans



DPE6



Dataset: Untitled

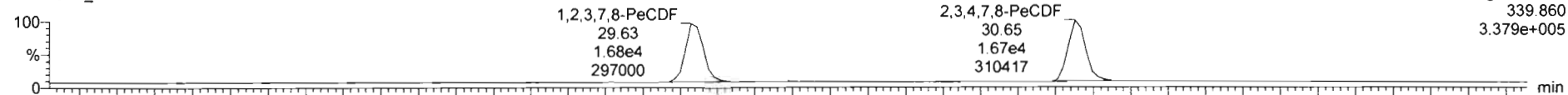
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

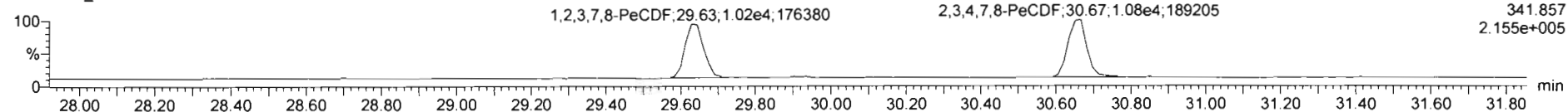
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**1,2,3,7,8-PeCDF**

200306R2\_2

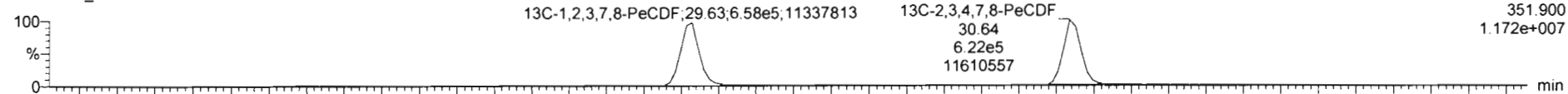


200306R2\_2

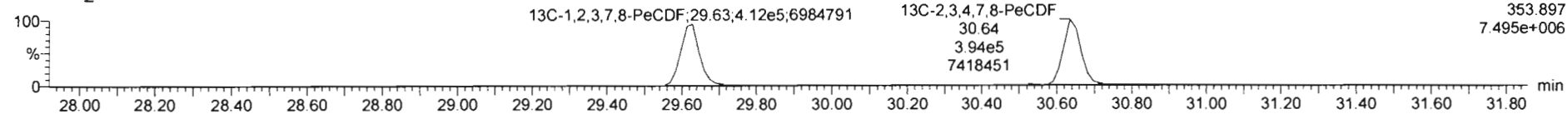


**13C-1,2,3,7,8-PeCDF**

200306R2\_2

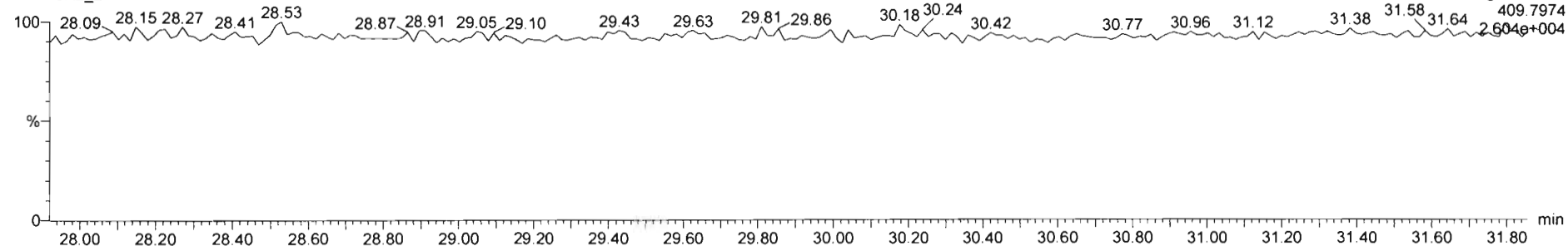


200306R2\_2



**DPE2**

200306R2\_2



Dataset: Untitled

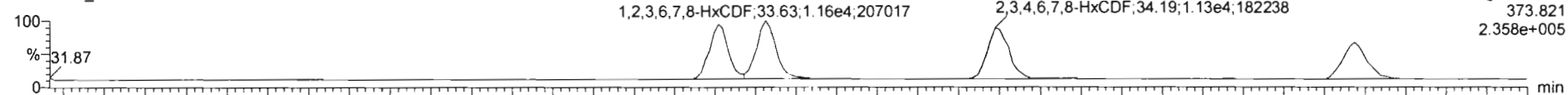
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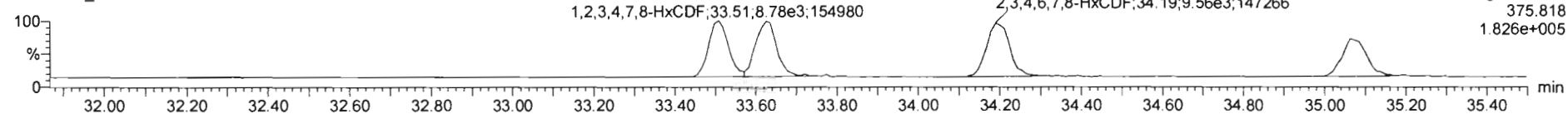
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1,2,3,4,7,8-HxCDF

200306R2\_2

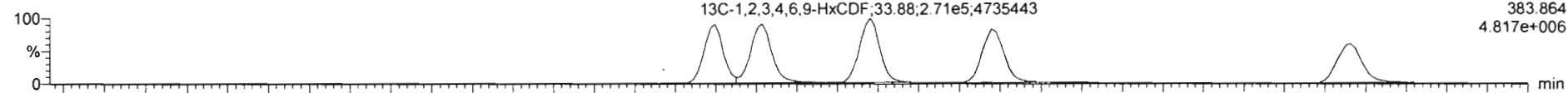


200306R2\_2

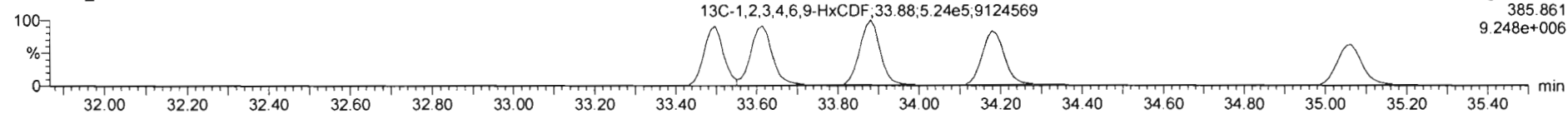


13C-1,2,3,4,7,8-HxCDF

200306R2\_2

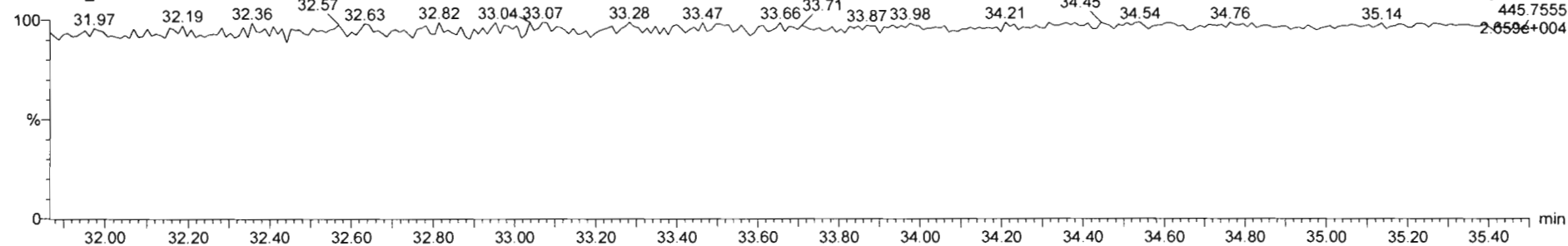


200306R2\_2



DPE3

200306R2\_2

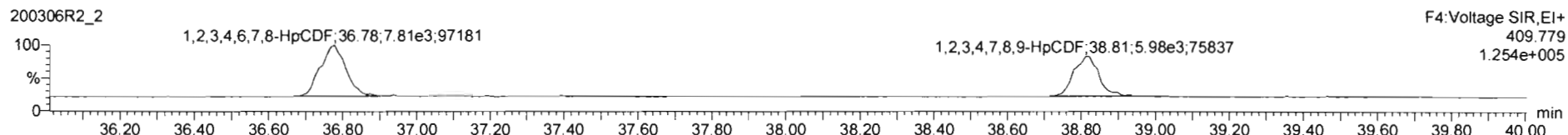
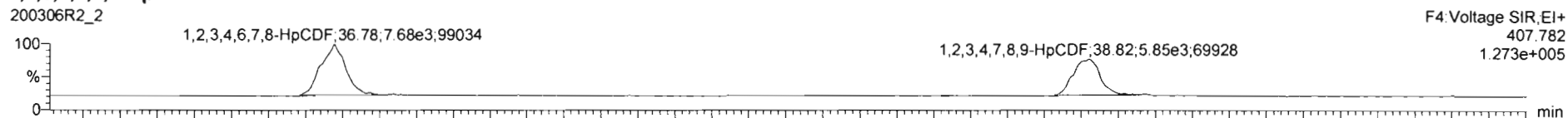


Dataset: Untitled

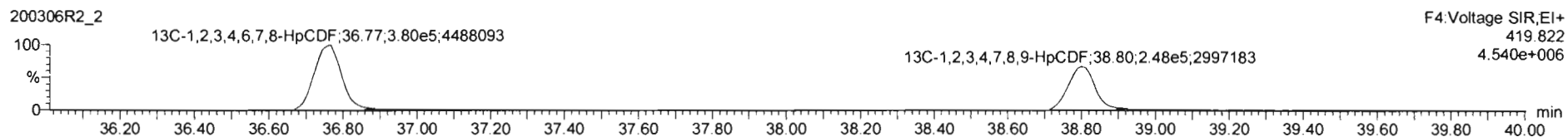
Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_2, Date: 06-Mar-2020, Time: 13:58:25, ID: ST200306R2\_2 1613 CS1 19L2303, Description: 1613 CS1 19L2303

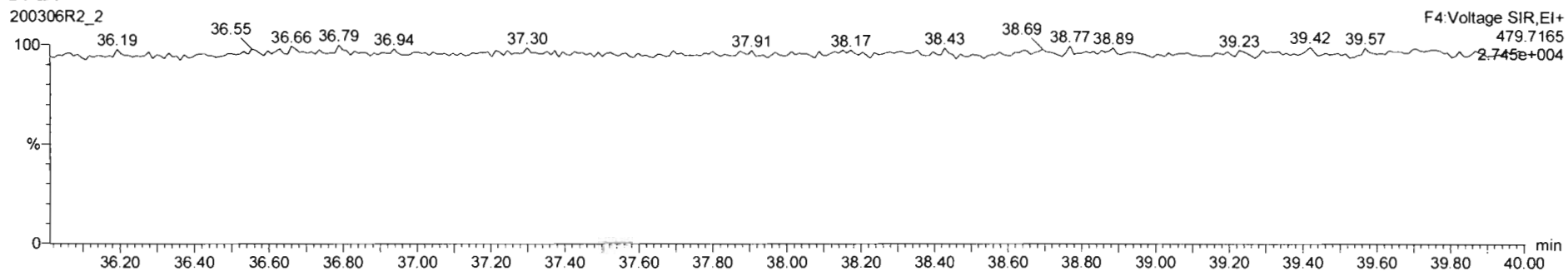
**1,2,3,4,6,7,8-HpCDF**



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



**DPE4**



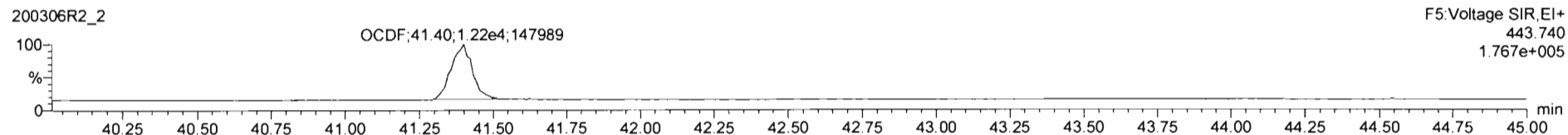
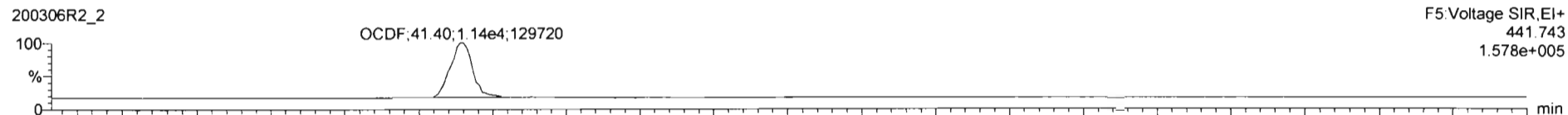
Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

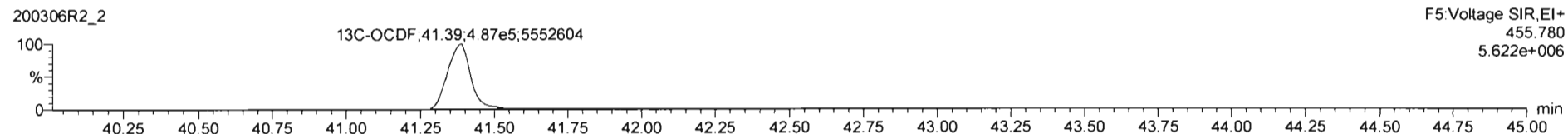
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_2, Date: 06-Mar-2020, Time: 13:58:25, ID: ST200306R2\_2 1613 CS1 19L2303, Description: 1613 CS1 19L2303

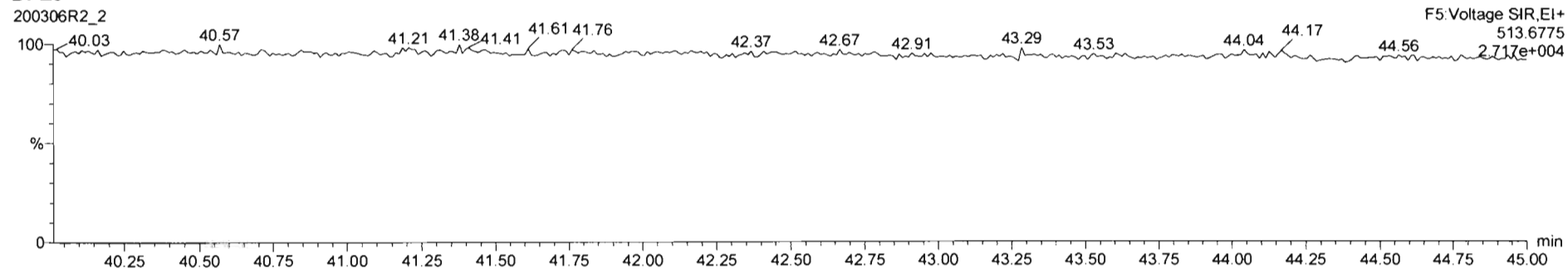
**OCDF**



**13C-OCDF**



**DPE5**



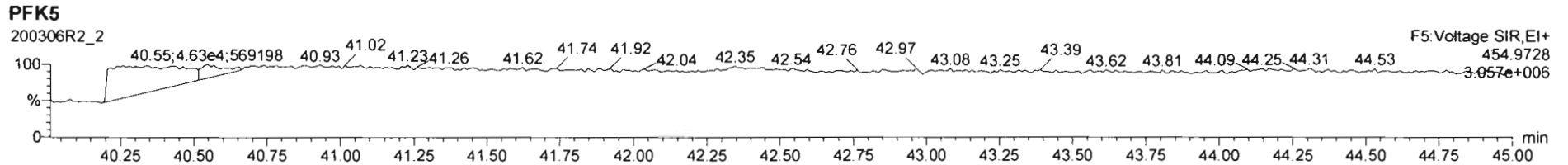
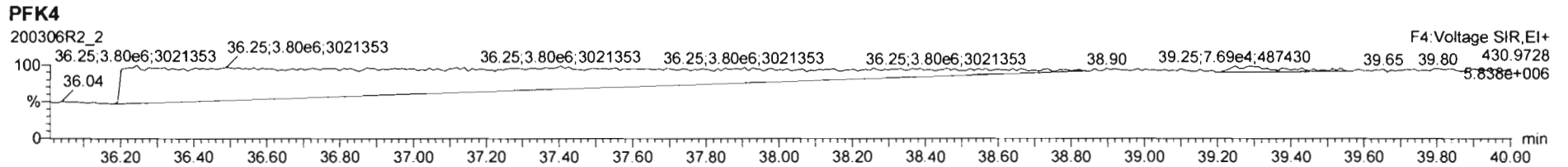
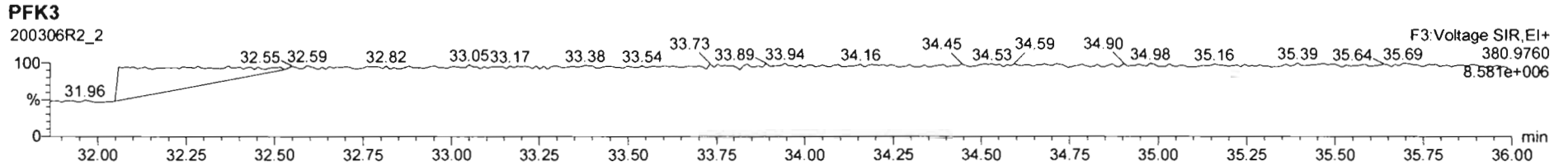
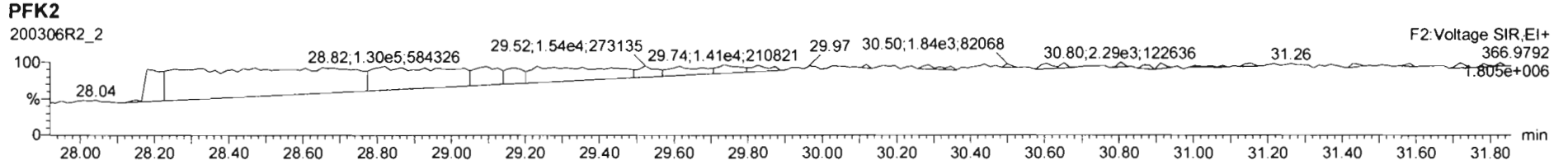
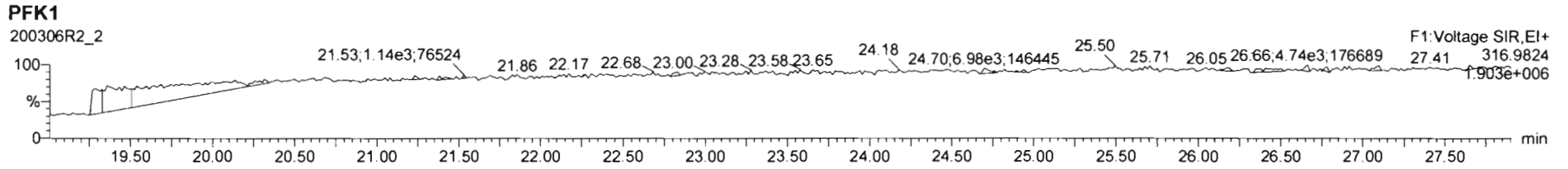


Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_2, Date: 06-Mar-2020, Time: 13:58:25, ID: ST200306R2\_2 1613 CS1 19L2303, Description: 1613 CS1 19L2303



Dataset: Untitled

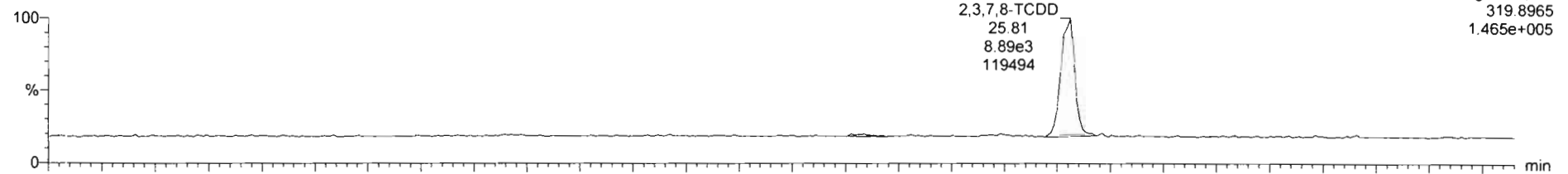
Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_3, Date: 06-Mar-2020, Time: 14:44:37, ID: ST200306R2\_3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

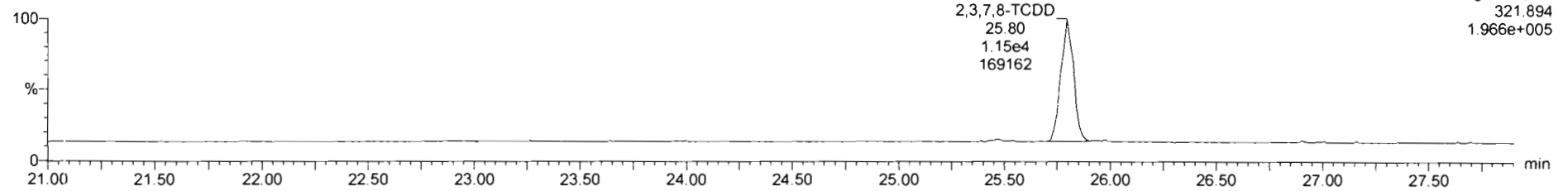
**2,3,7,8-TCDD**

200306R2\_3



F1: Voltage SIR, EI+  
319.8965  
1.465e+005

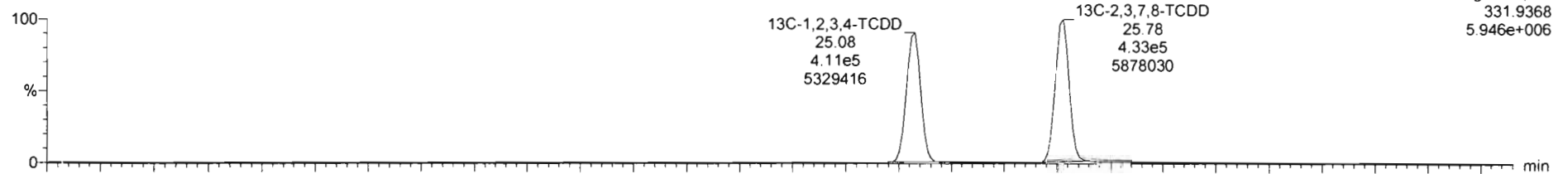
200306R2\_3



F1: Voltage SIR, EI+  
321.894  
1.966e+005

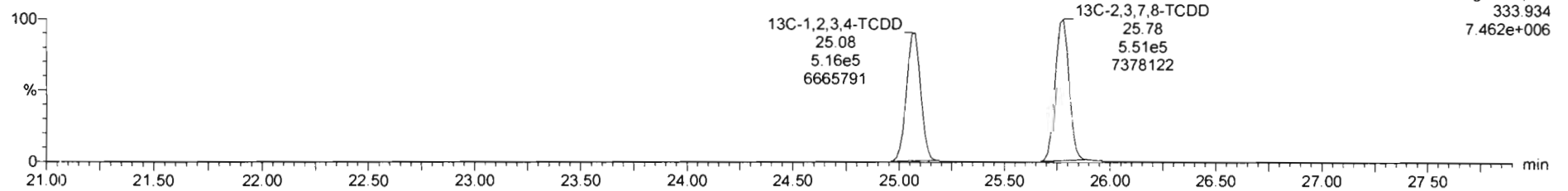
**13C-2,3,7,8-TCDD**

200306R2\_3



F1: Voltage SIR, EI+  
331.9368  
5.946e+006

200306R2\_3



F1: Voltage SIR, EI+  
333.934  
7.462e+006

Dataset: Untitled

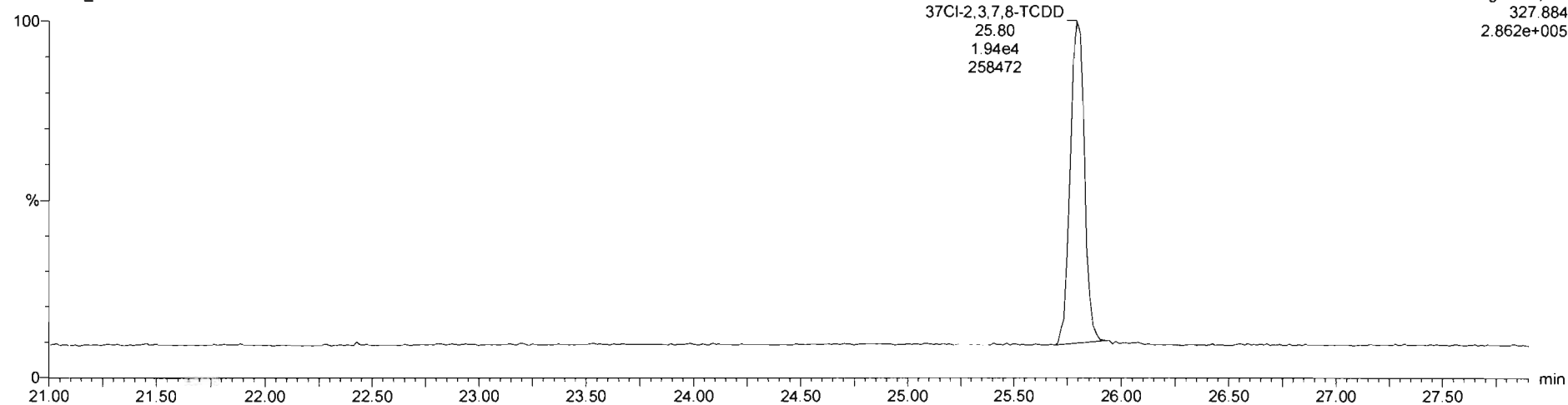
Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_3, Date: 06-Mar-2020, Time: 14:44:37, ID: ST200306R2\_3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

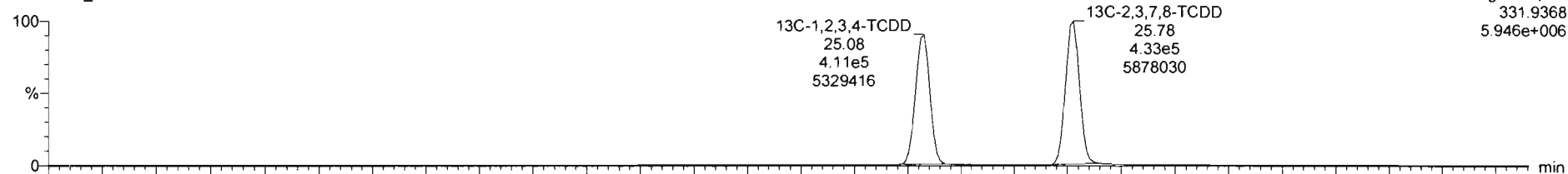
37Cl-2,3,7,8-TCDD

200306R2\_3

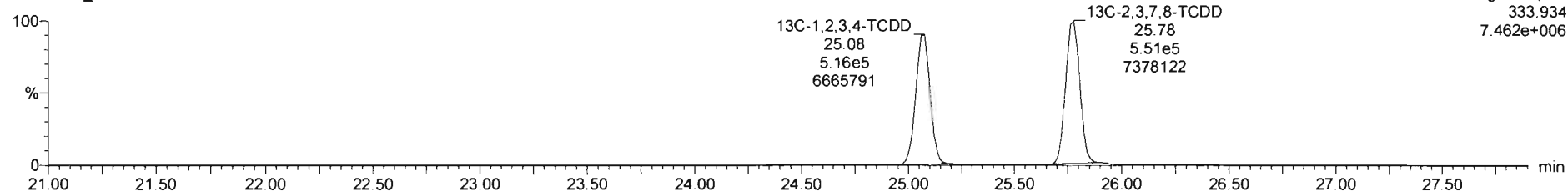


13C-1,2,3,4-TCDD

200306R2\_3



200306R2\_3



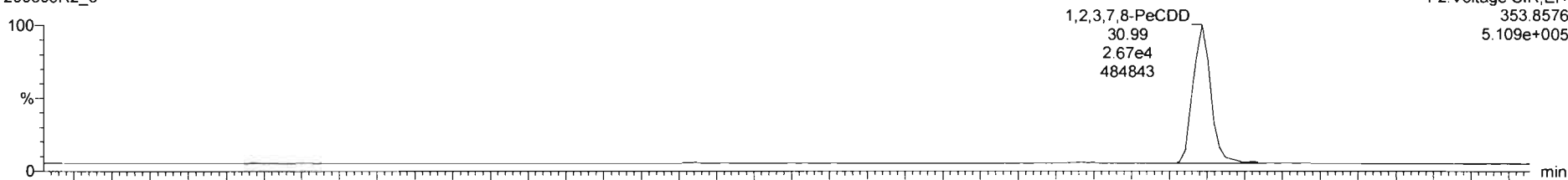
Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

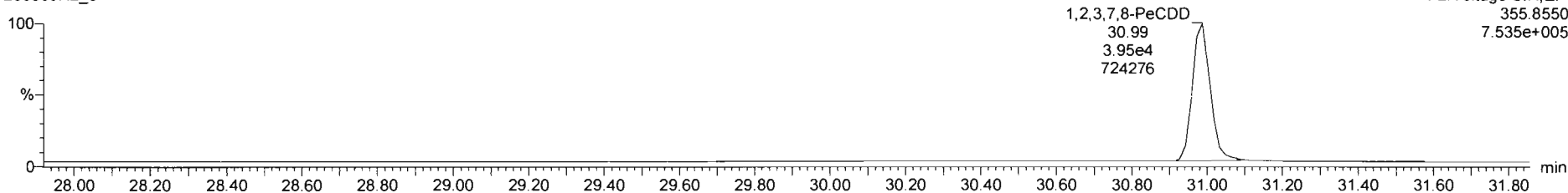
Name: 200306R2\_3, Date: 06-Mar-2020, Time: 14:44:37, ID: ST200306R2\_3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

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

200306R2\_3

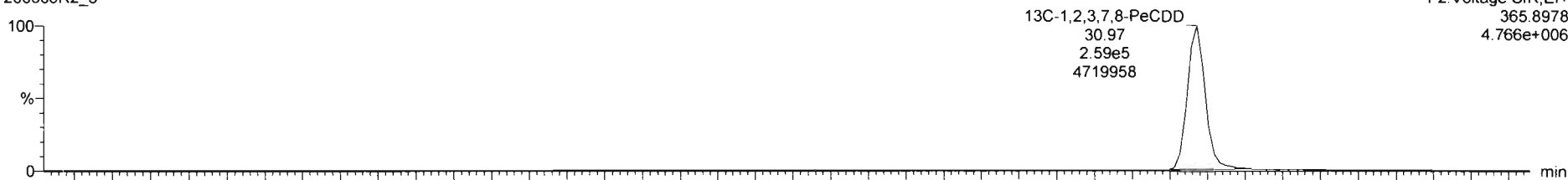


200306R2\_3

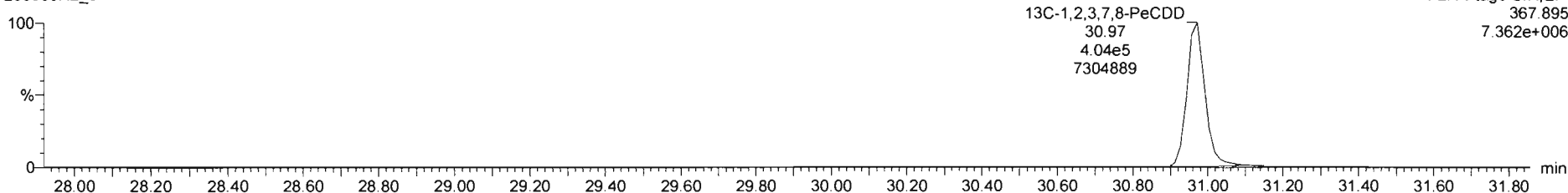


**13C-1,2,3,7,8-PeCDD**

200306R2\_3



200306R2\_3



Dataset: Untitled

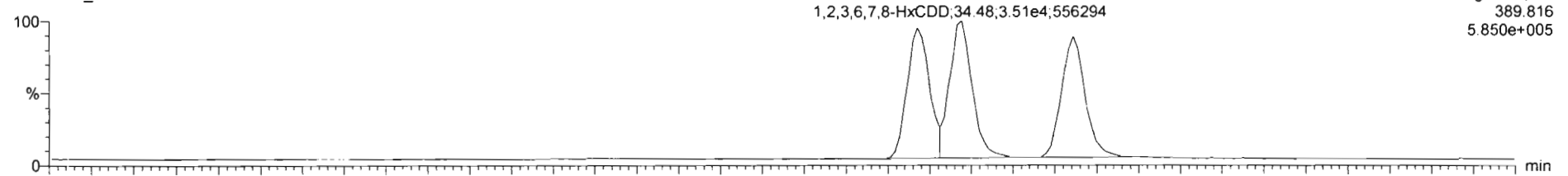
Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_3, Date: 06-Mar-2020, Time: 14:44:37, ID: ST200306R2\_3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

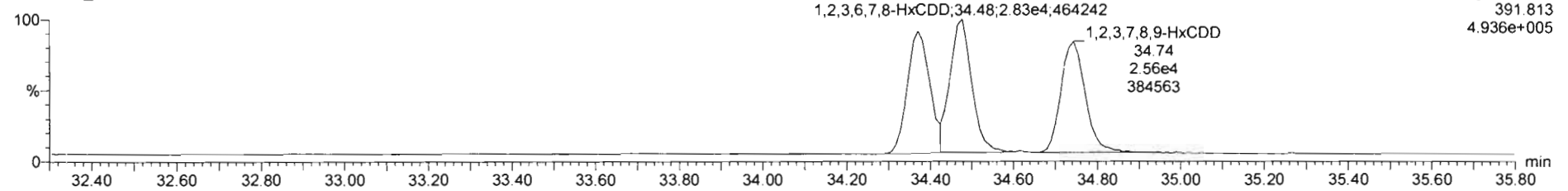
**1,2,3,4,7,8-HxCDD**

200306R2\_3



F3: Voltage SIR, EI+  
389.816  
5.850e+005

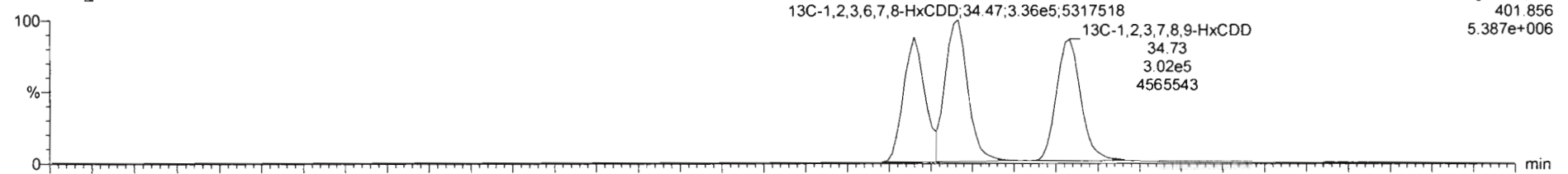
200306R2\_3



F3: Voltage SIR, EI+  
391.813  
4.936e+005

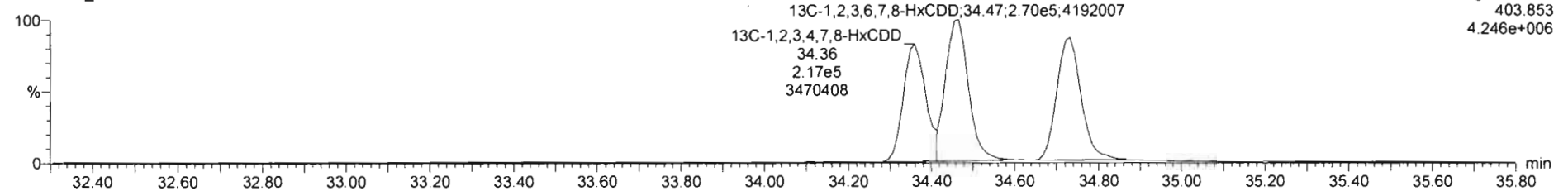
**13C-1,2,3,4,7,8-HxCDD**

200306R2\_3



F3: Voltage SIR, EI+  
401.856  
5.387e+006

200306R2\_3



F3: Voltage SIR, EI+  
403.853  
4.246e+006

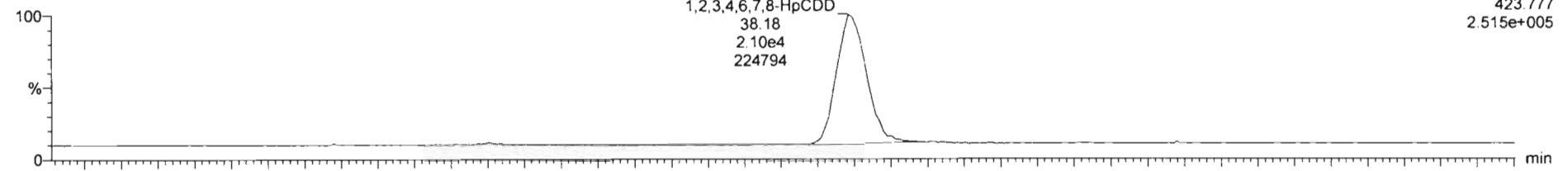
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Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

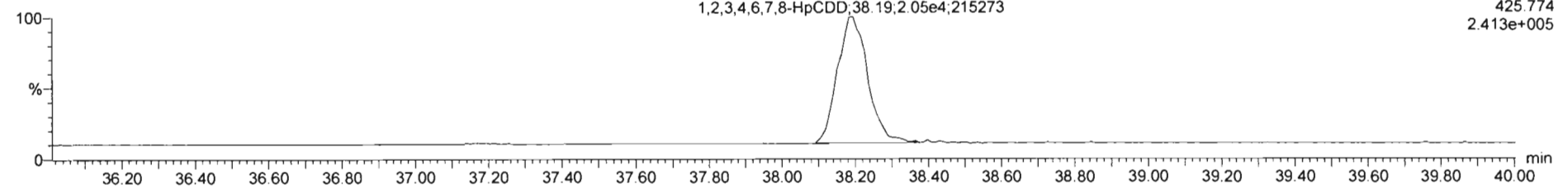
Name: 200306R2\_3, Date: 06-Mar-2020, Time: 14:44:37, ID: ST200306R2\_3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

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

200306R2\_3

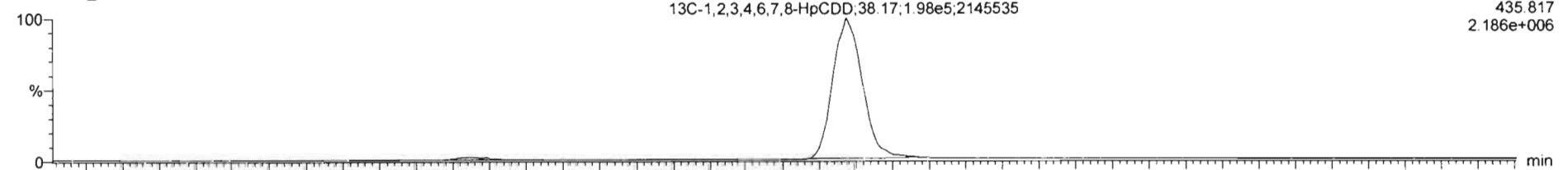


200306R2\_3

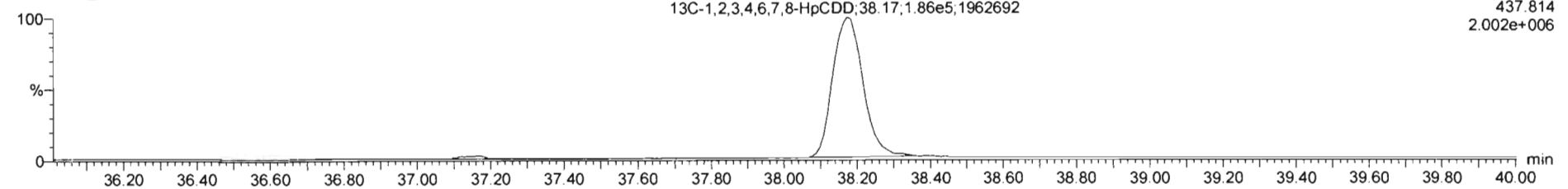


13C-1,2,3,4,6,7,8-HpCDD

200306R2\_3



200306R2\_3



Dataset: Untitled

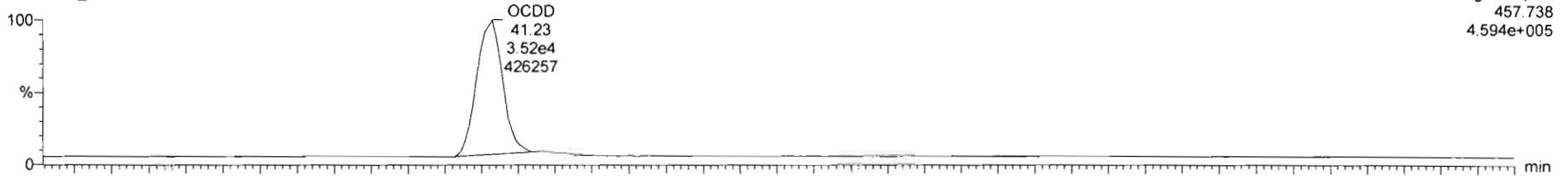
Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_3, Date: 06-Mar-2020, Time: 14:44:37, ID: ST200306R2\_3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

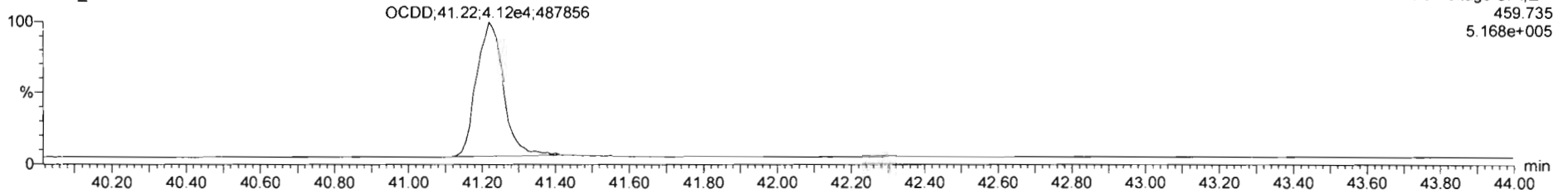
**OCDD**

200306R2\_3



F5:Voltage SIR,EI+  
457.738  
4.594e+005

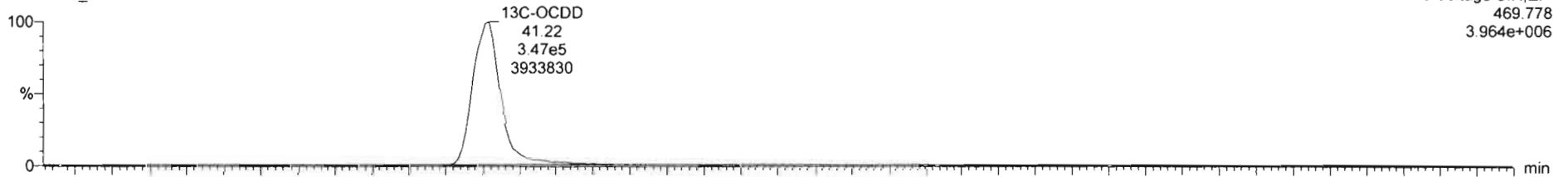
200306R2\_3



F5:Voltage SIR,EI+  
459.735  
5.168e+005

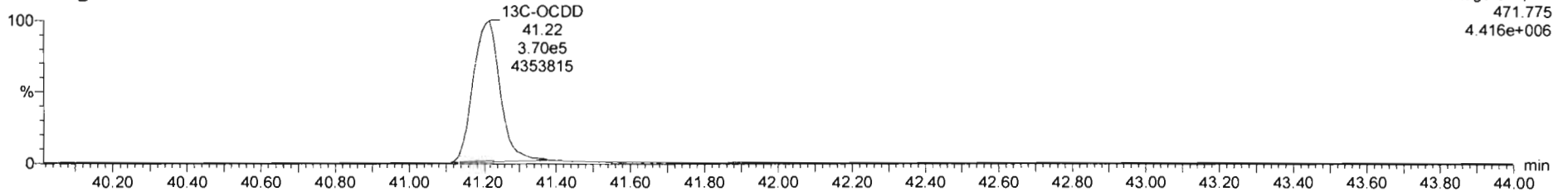
**13C-OCDD**

200306R2\_3



F5:Voltage SIR,EI+  
469.778  
3.964e+006

200306R2\_3



F5:Voltage SIR,EI+  
471.775  
4.416e+006

Dataset: Untitled

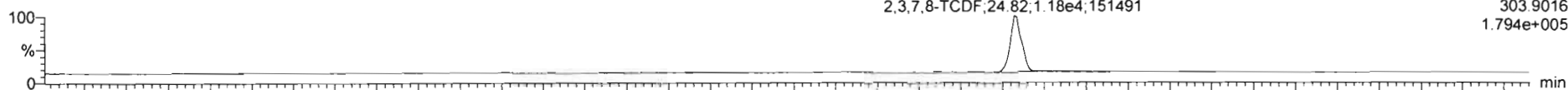
Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

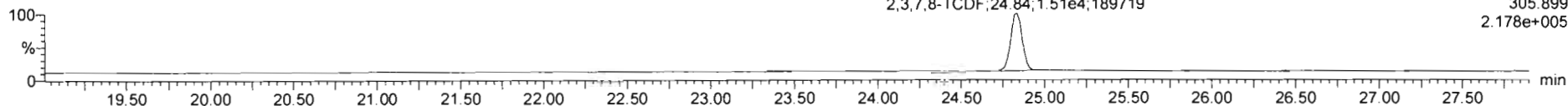
Name: 200306R2\_3, Date: 06-Mar-2020, Time: 14:44:37, ID: ST200306R2\_3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

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

200306R2\_3

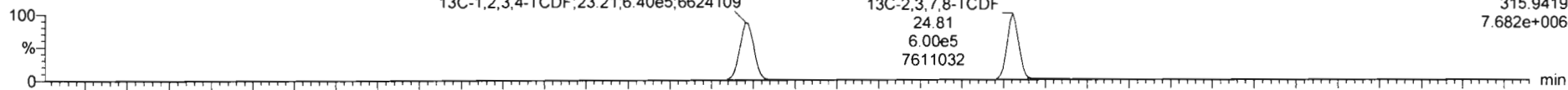


200306R2\_3

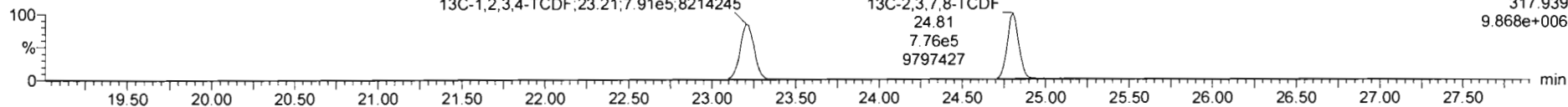


**13C-2,3,7,8-TCDF**

200306R2\_3

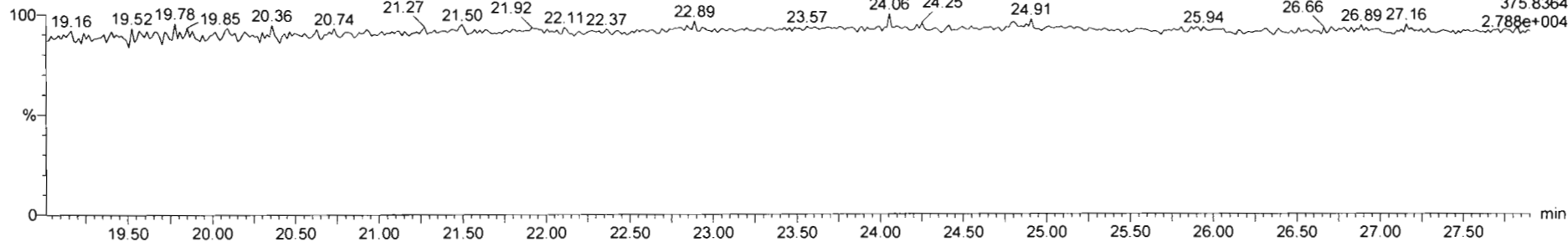


200306R2\_3



**DPE1**

200306R2\_3





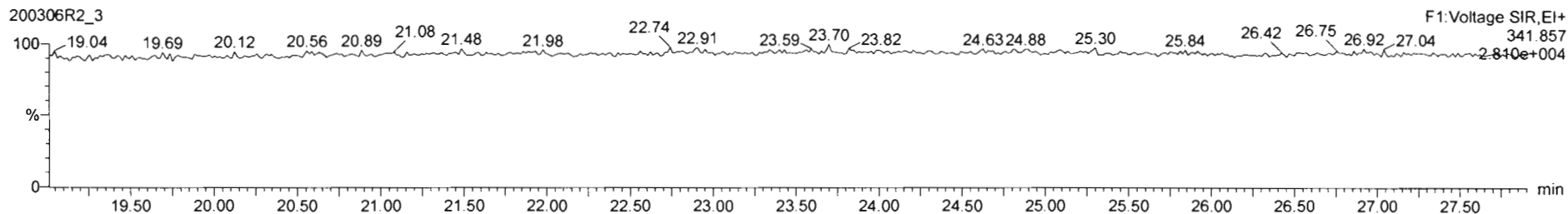
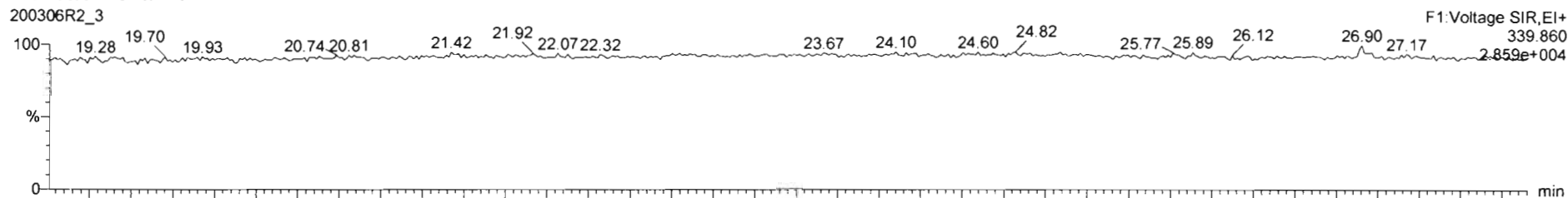
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Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

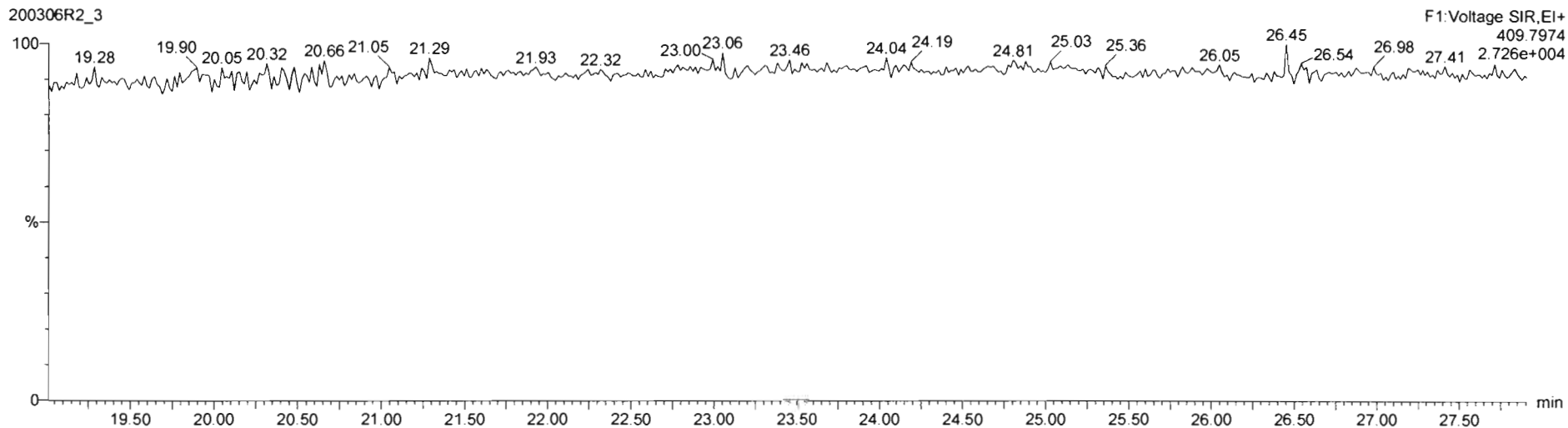
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_3, Date: 06-Mar-2020, Time: 14:44:37, ID: ST200306R2\_3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

1st Func. Penta-Furans



DPE6



Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

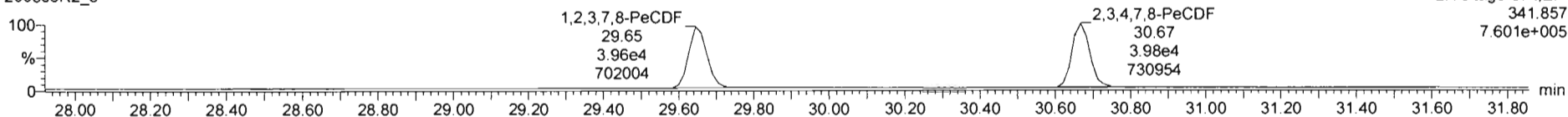
Name: 200306R2\_3, Date: 06-Mar-2020, Time: 14:44:37, ID: ST200306R2\_3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

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

200306R2\_3

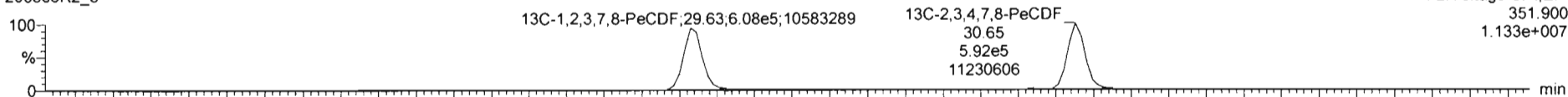


200306R2\_3

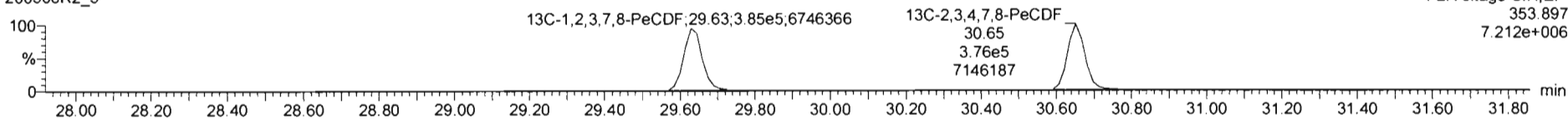


**13C-1,2,3,7,8-PeCDF**

200306R2\_3

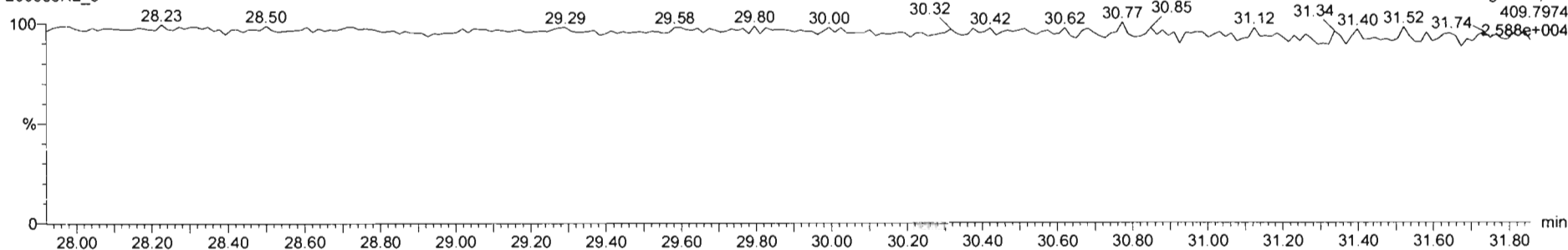


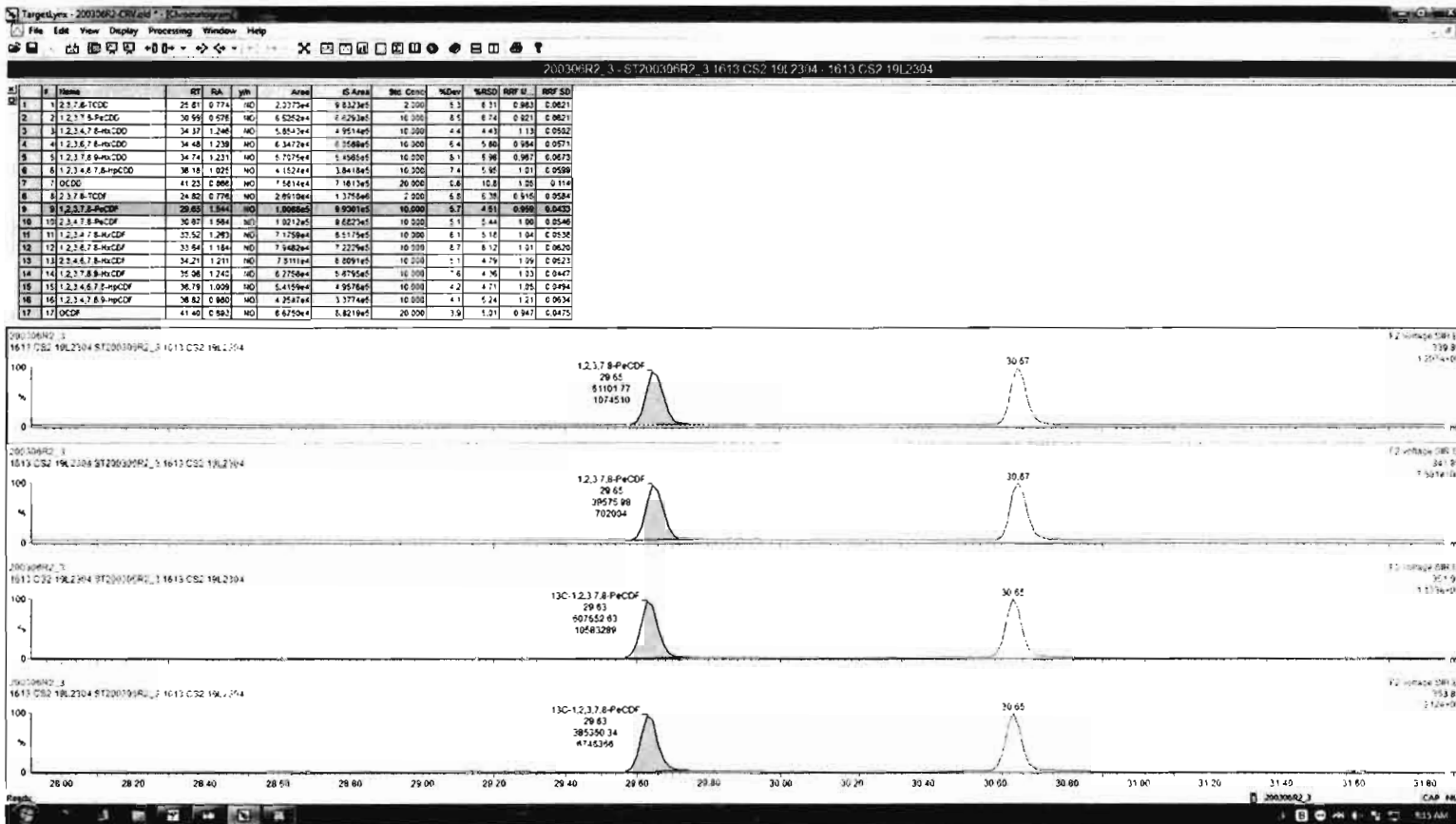
200306R2\_3



**DPE2**

200306R2\_3





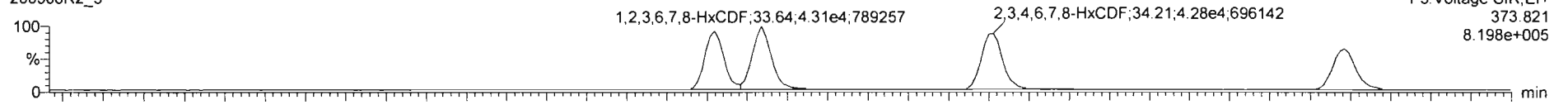
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Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

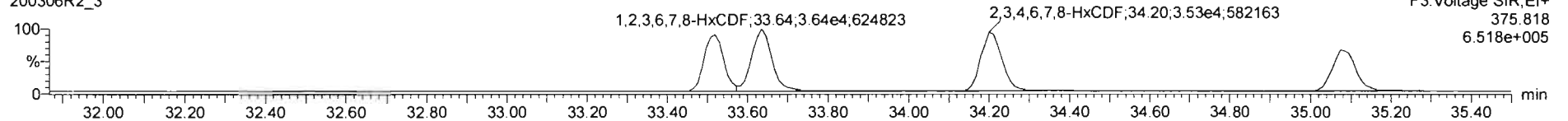
Name: 200306R2\_3, Date: 06-Mar-2020, Time: 14:44:37, ID: ST200306R2\_3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

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

200306R2\_3

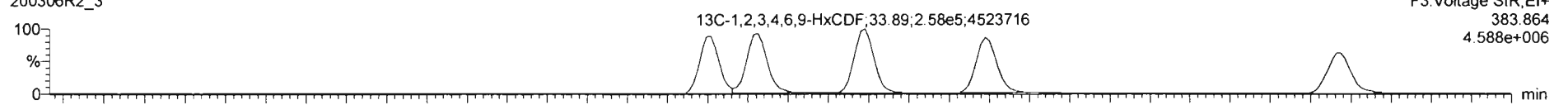


200306R2\_3

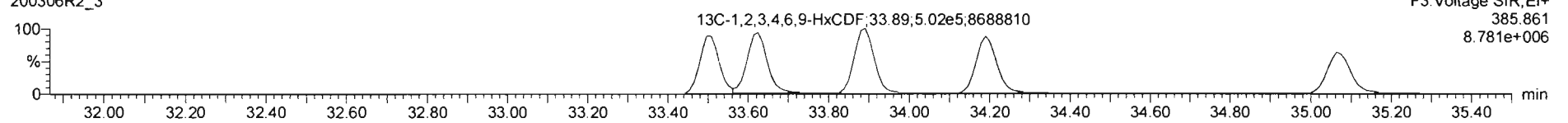


**13C-1,2,3,4,7,8-HxCDF**

200306R2\_3

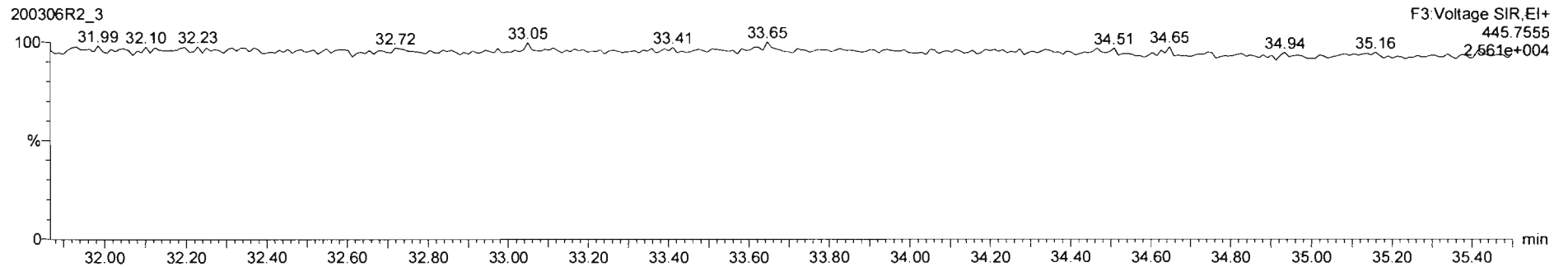


200306R2\_3



**DPE3**

200306R2\_3

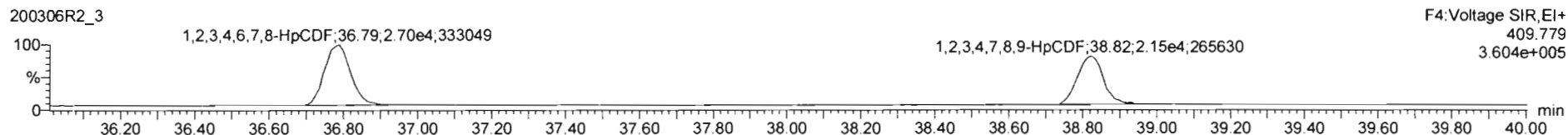
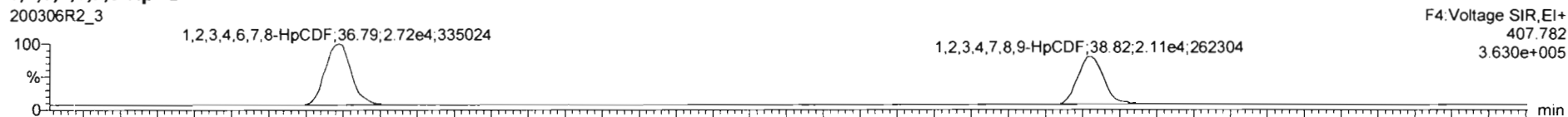


Dataset: Untitled

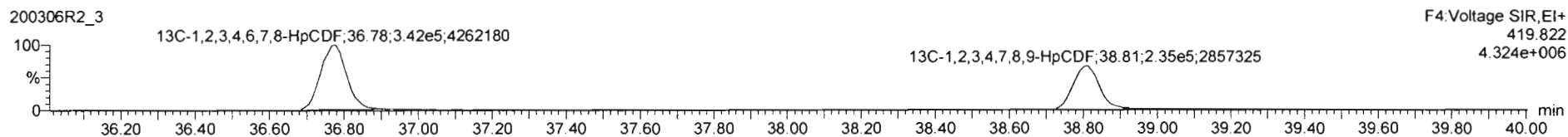
Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_3, Date: 06-Mar-2020, Time: 14:44:37, ID: ST200306R2\_3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

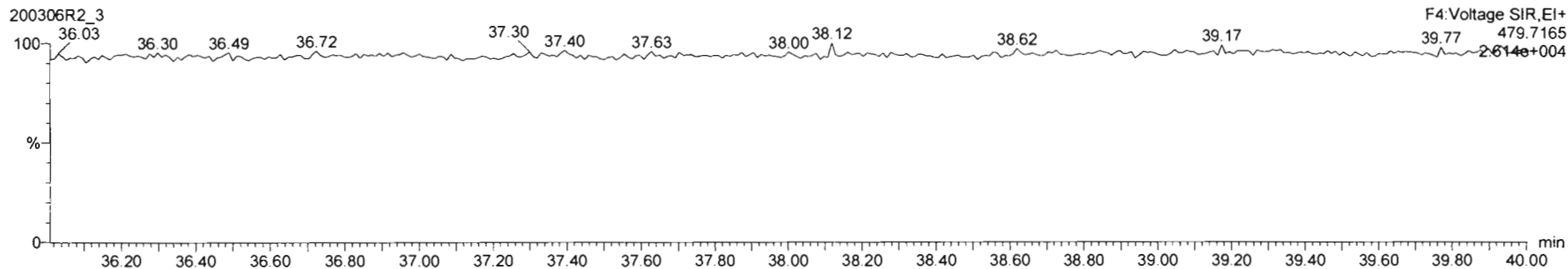
**1,2,3,4,6,7,8-HpCDF**



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



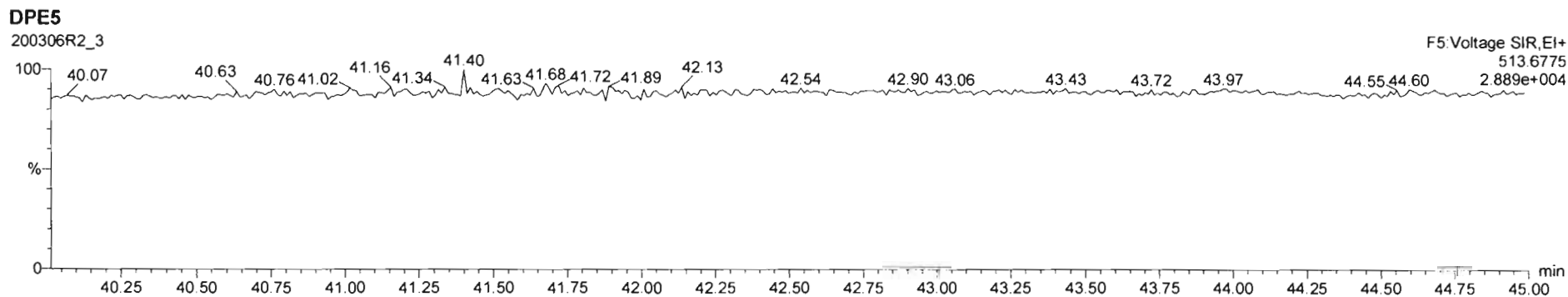
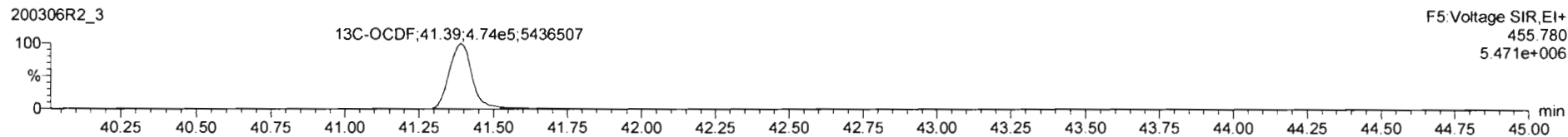
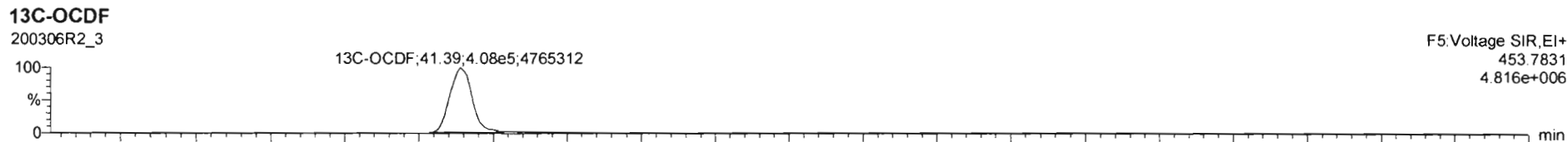
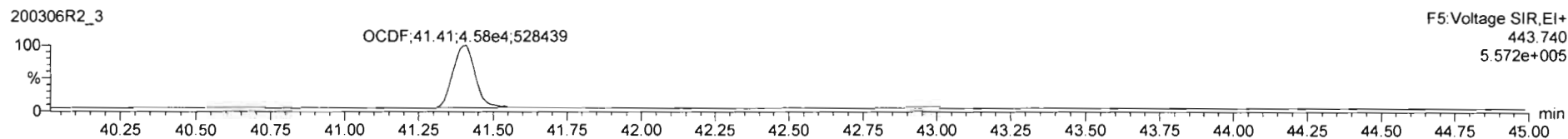
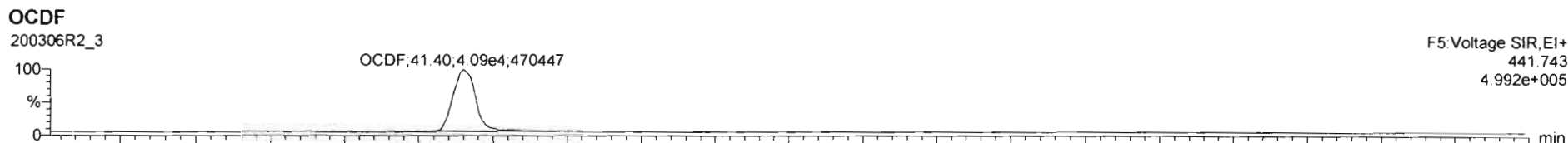
**DPE4**



Dataset: Untitled

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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_3, Date: 06-Mar-2020, Time: 14:44:37, ID: ST200306R2\_3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

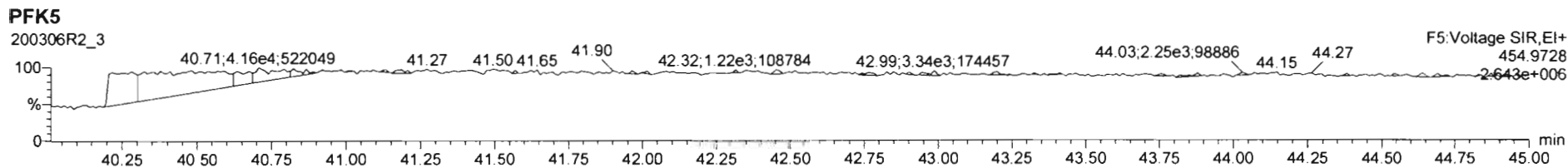
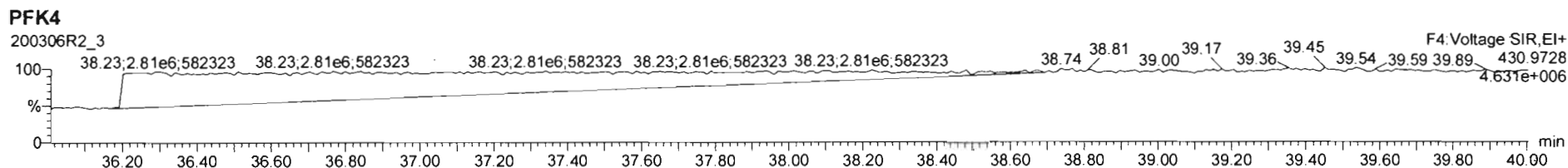
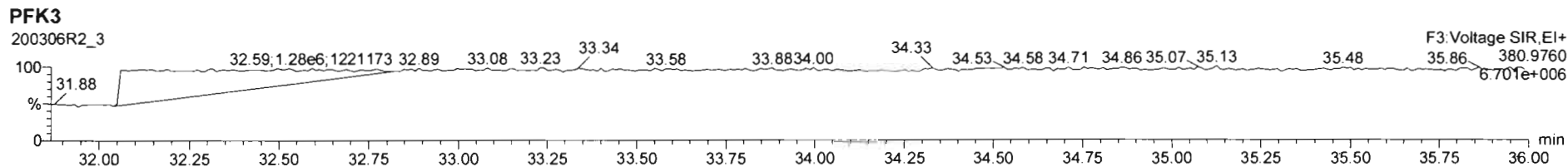
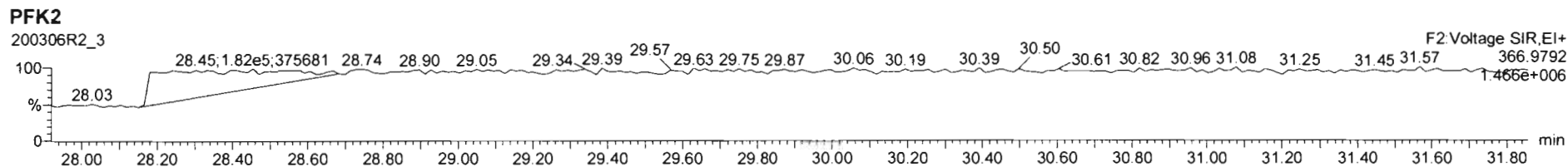
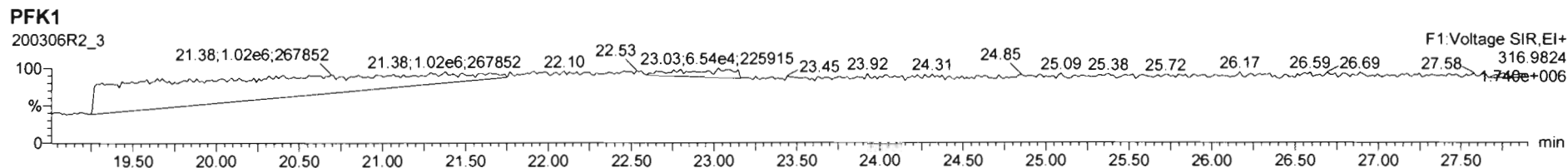


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Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_3, Date: 06-Mar-2020, Time: 14:44:37, ID: ST200306R2\_3 1613 CS2 19L2304, Description: 1613 CS2 19L2304

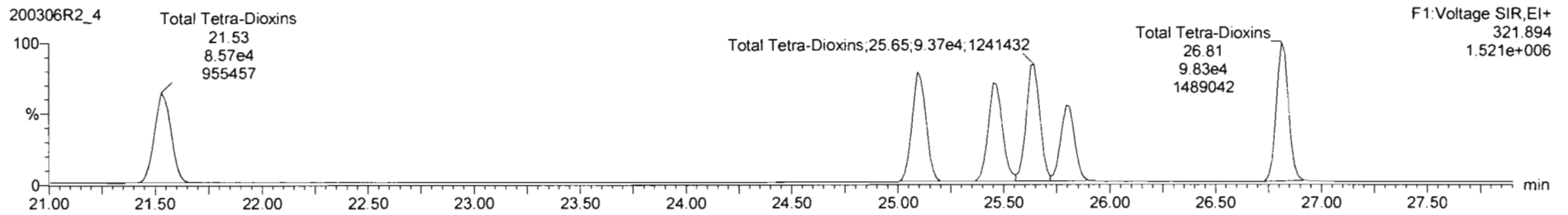
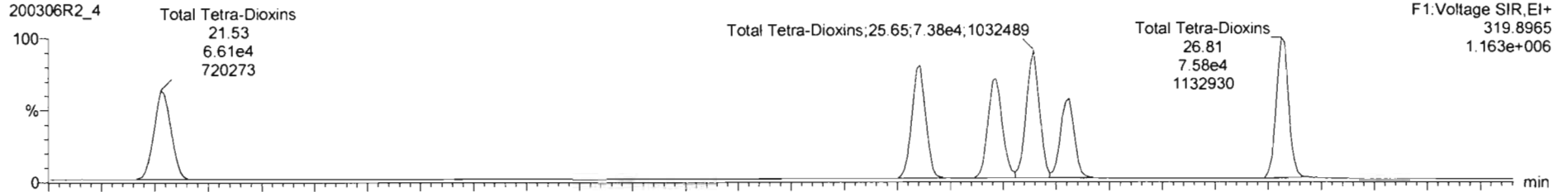


Dataset: Untitled

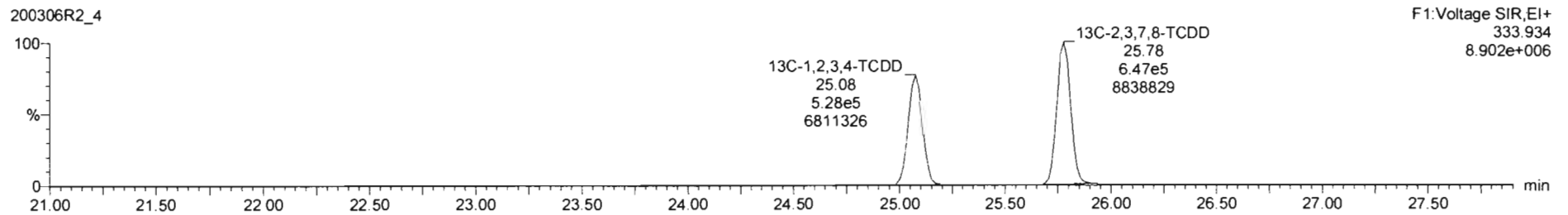
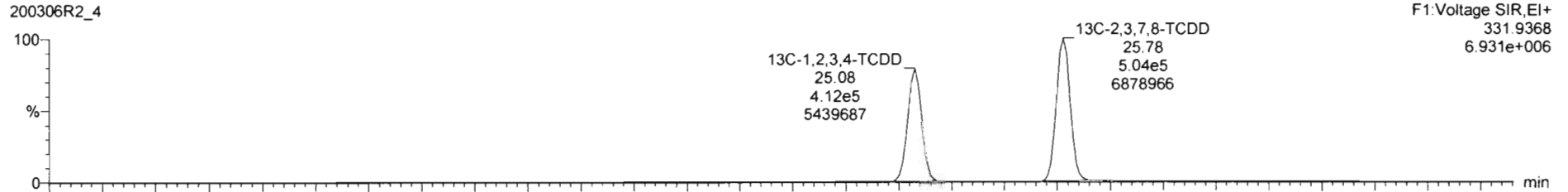
Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_4, Date: 06-Mar-2020, Time: 15:32:12, ID: ST200306R2\_4 1613 CS3 19L2305, Description: 1613 CS3 19L2305

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



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





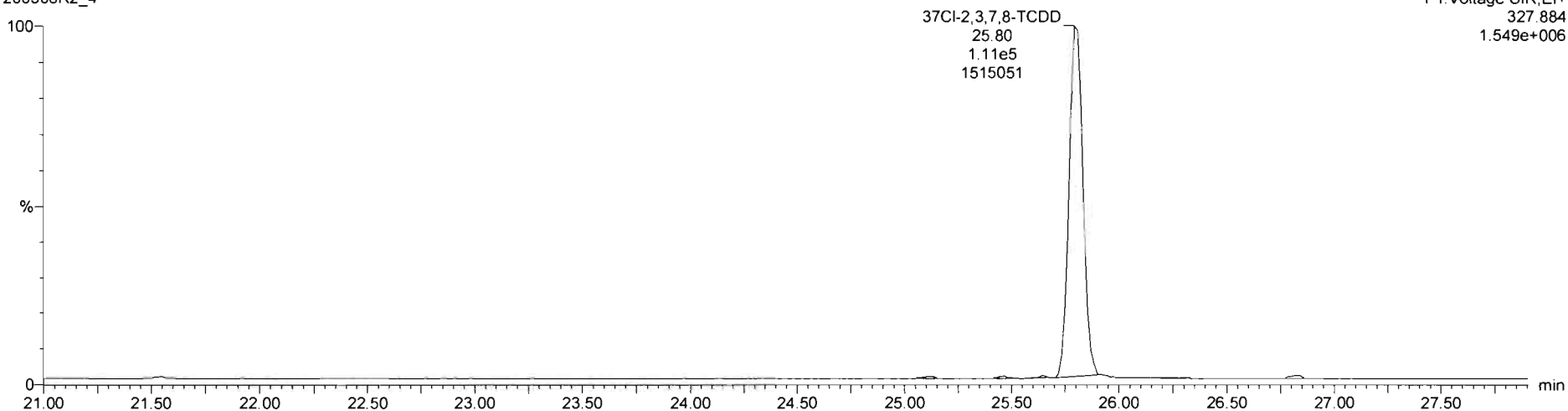
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

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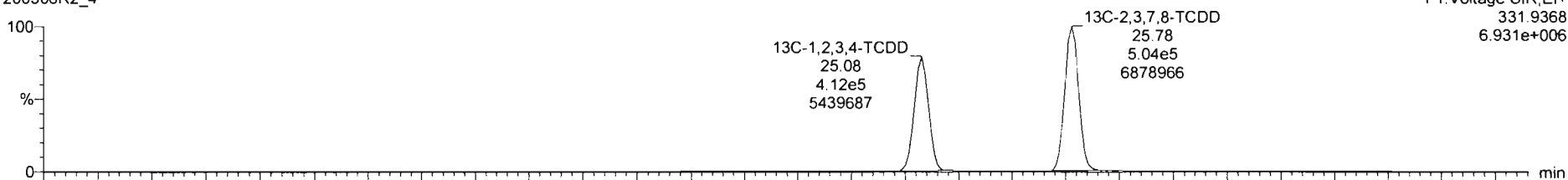
**37Cl-2,3,7,8-TCDD**

200306R2\_4

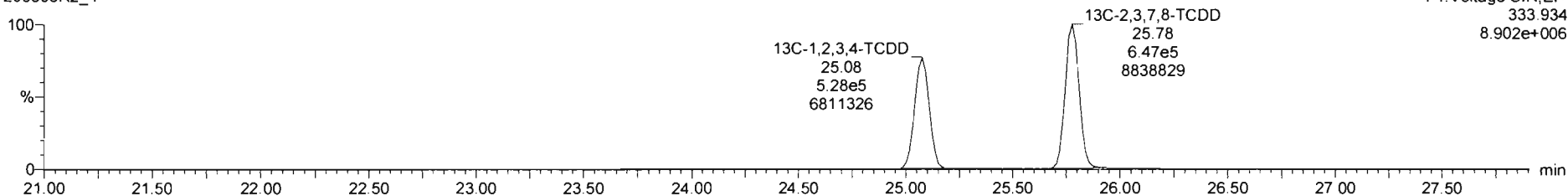


**13C-1,2,3,4-TCDD**

200306R2\_4



200306R2\_4



Dataset: Untitled

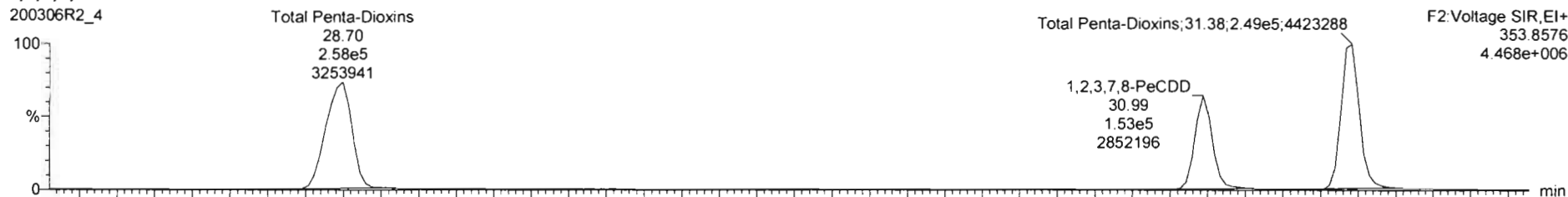
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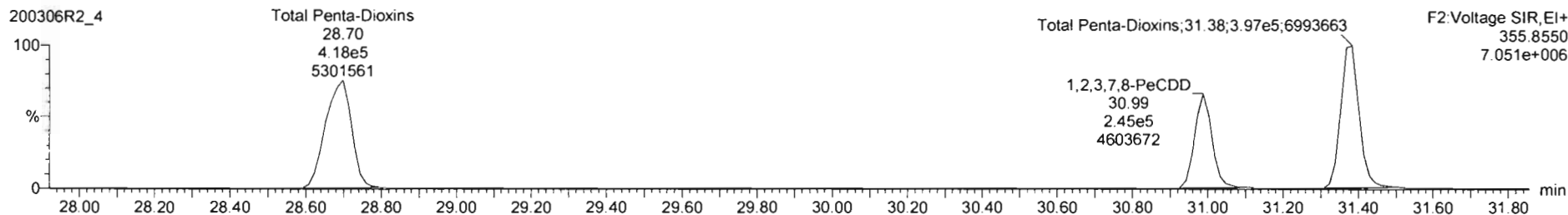
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**1,2,3,7,8-PeCDD**

200306R2\_4

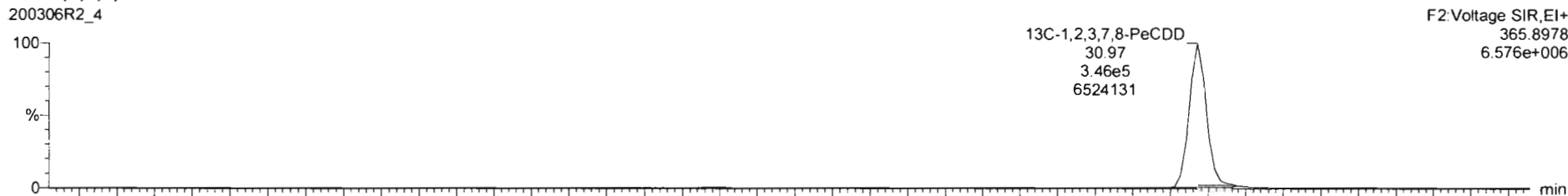


200306R2\_4

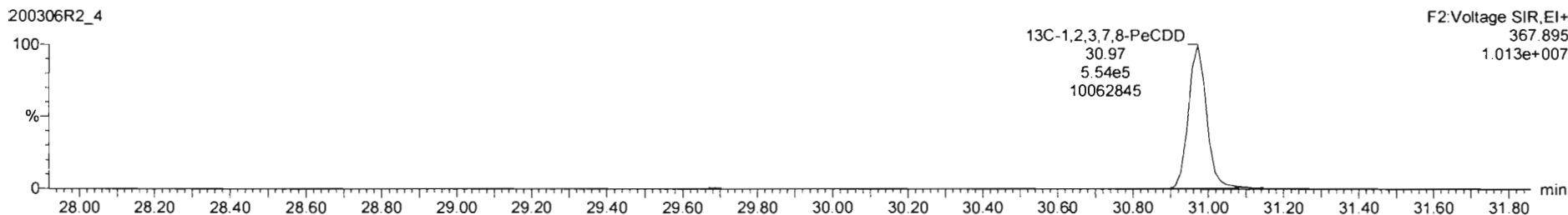


**13C-1,2,3,7,8-PeCDD**

200306R2\_4



200306R2\_4



Dataset: Untitled

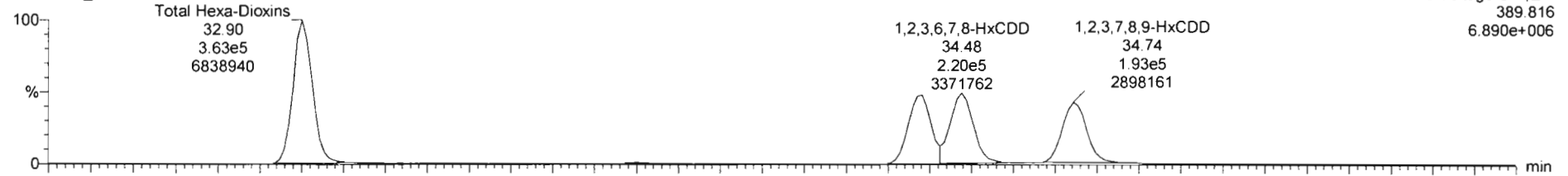
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

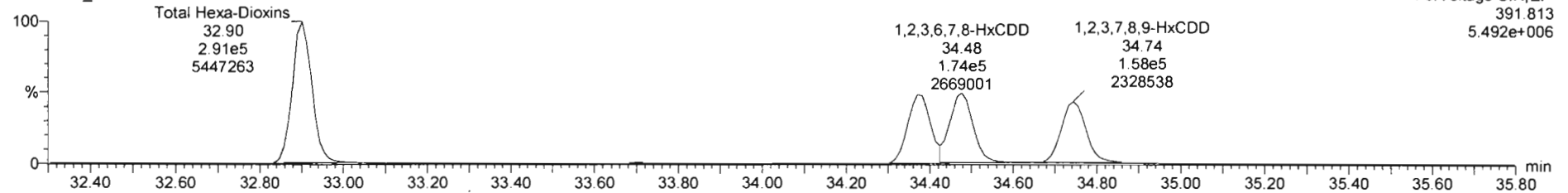
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**1,2,3,4,7,8-HxCDD**

200306R2\_4

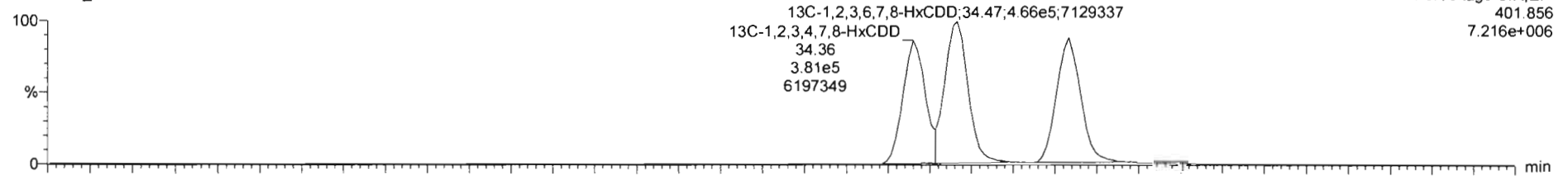


200306R2\_4

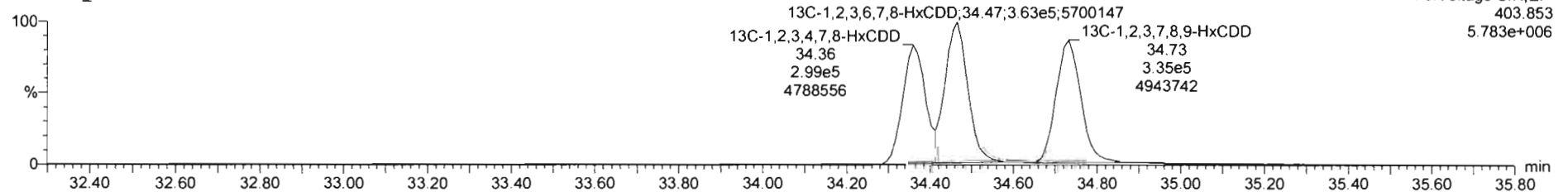


**13C-1,2,3,4,7,8-HxCDD**

200306R2\_4



200306R2\_4



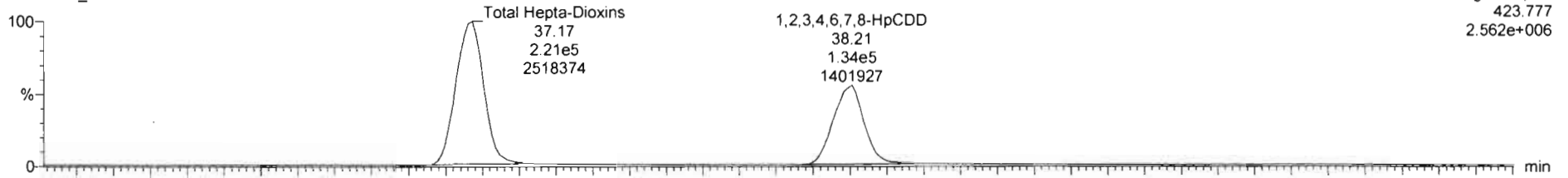
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Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_4, Date: 06-Mar-2020, Time: 15:32:12, ID: ST200306R2\_4 1613 CS3 19L2305, Description: 1613 CS3 19L2305

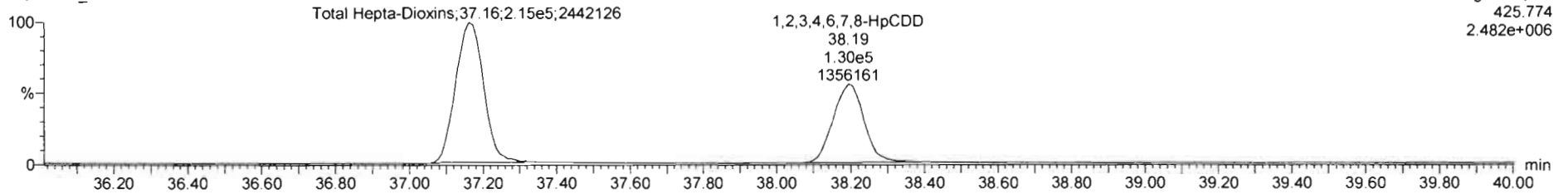
1,2,3,4,6,7,8-HpCDD

200306R2\_4



F4: Voltage SIR, EI+  
423.777  
2.562e+006

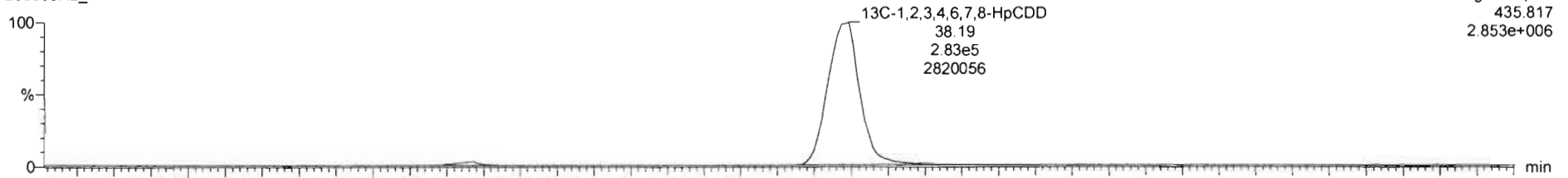
200306R2\_4



F4: Voltage SIR, EI+  
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2.482e+006

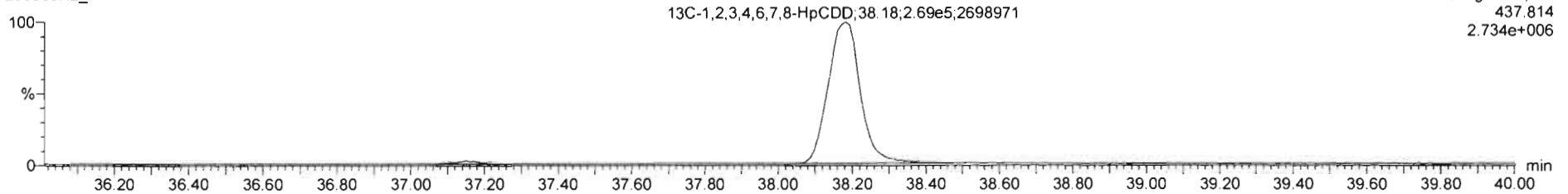
13C-1,2,3,4,6,7,8-HpCDD

200306R2\_4



F4: Voltage SIR, EI+  
435.817  
2.853e+006

200306R2\_4

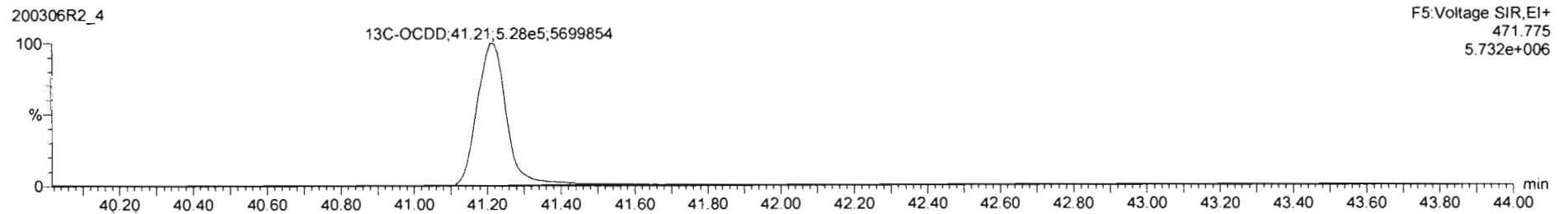
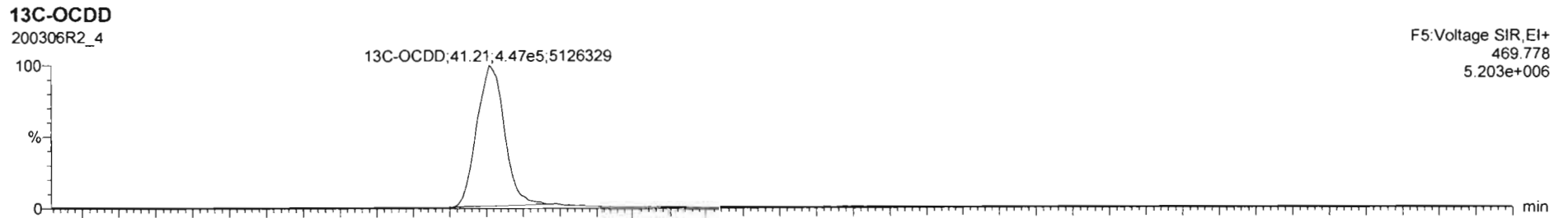
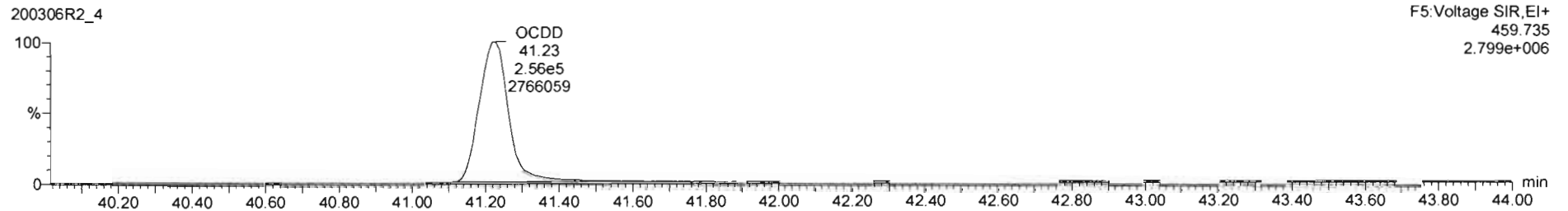
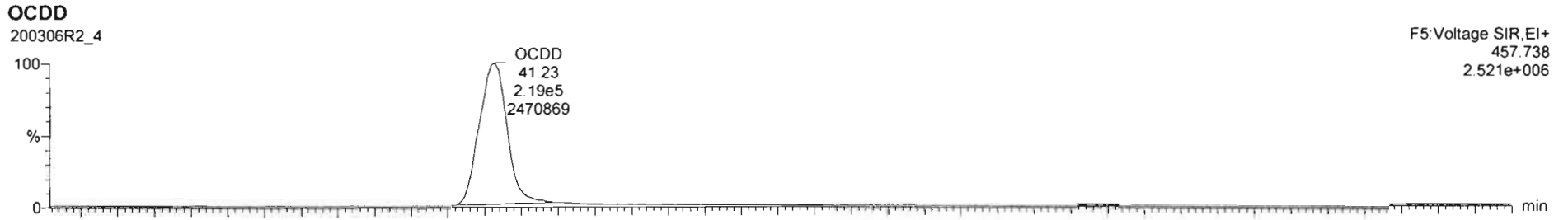


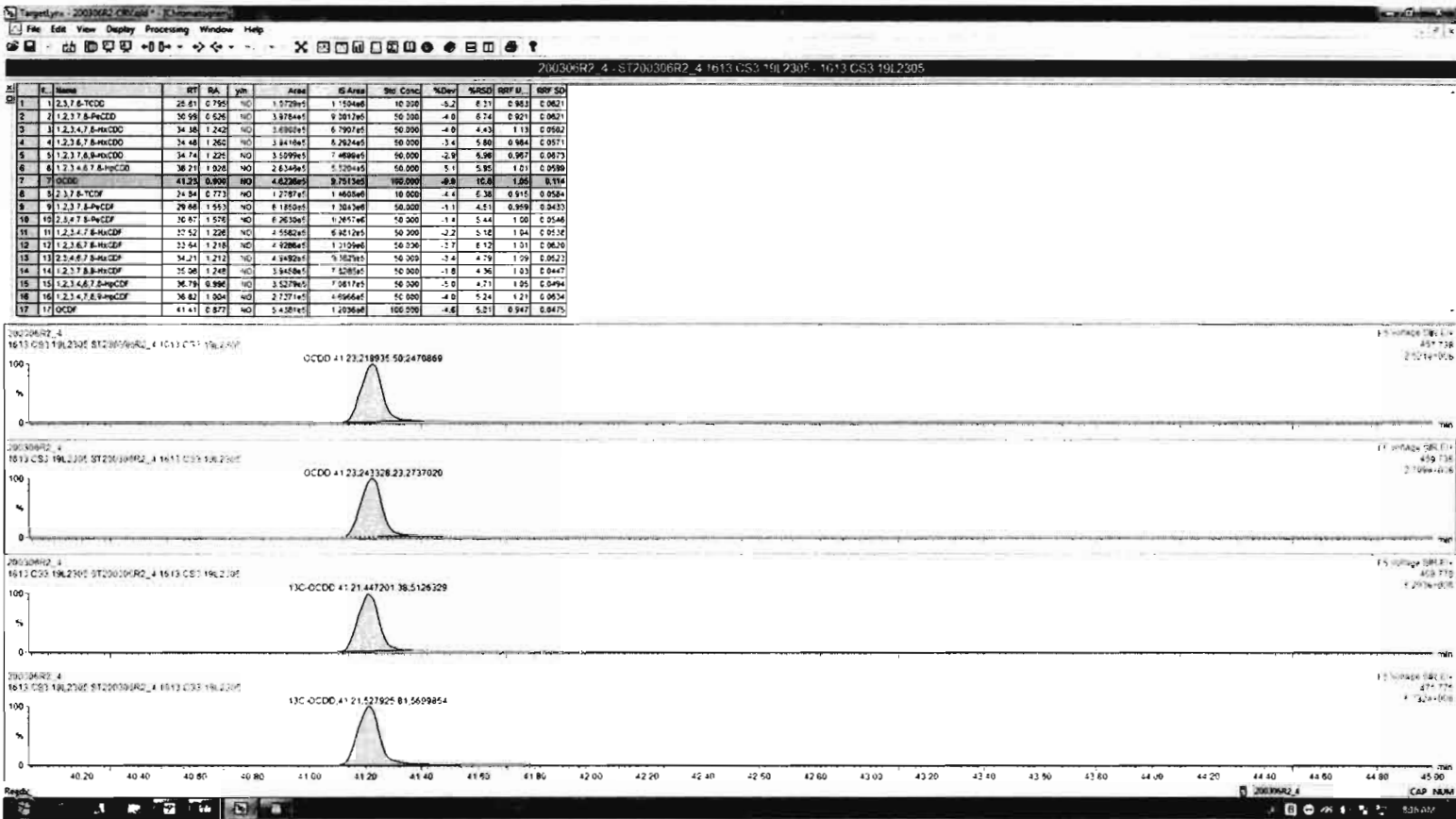
F4: Voltage SIR, EI+  
437.814  
2.734e+006

Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_4, Date: 06-Mar-2020, Time: 15:32:12, ID: ST200306R2\_4 1613 CS3 19L2305, Description: 1613 CS3 19L2305





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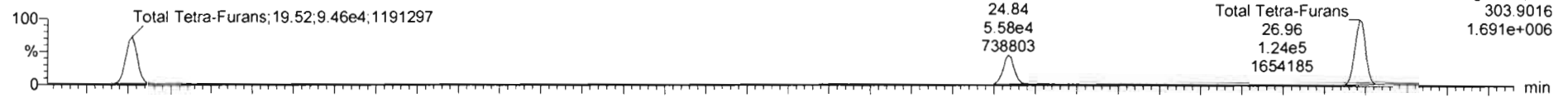
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

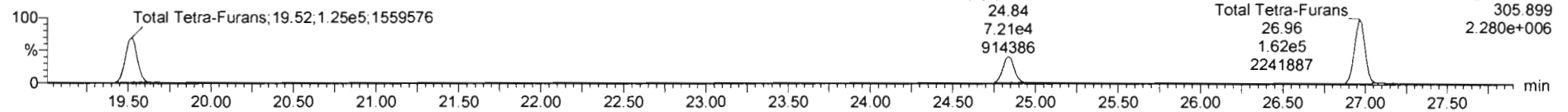
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**2,3,7,8-TCDF**

200306R2\_4

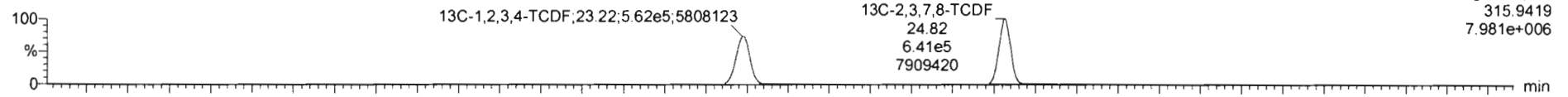


200306R2\_4

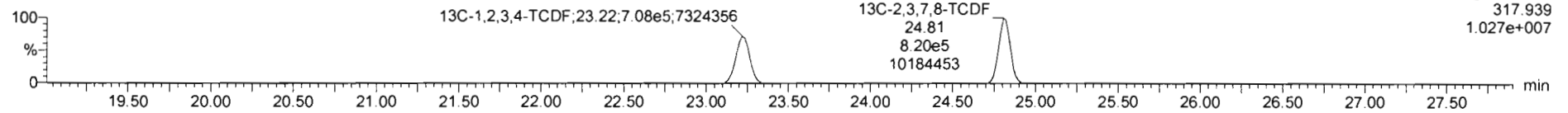


**13C-2,3,7,8-TCDF**

200306R2\_4

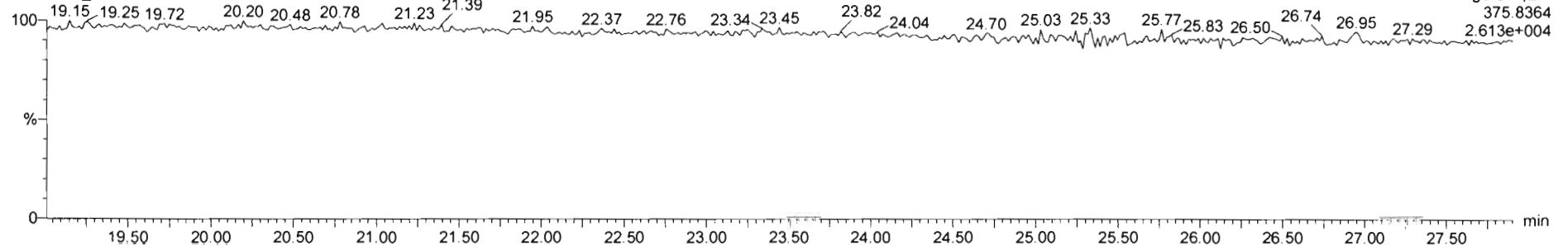


200306R2\_4



**DPE1**

200306R2\_4



Dataset: Untitled

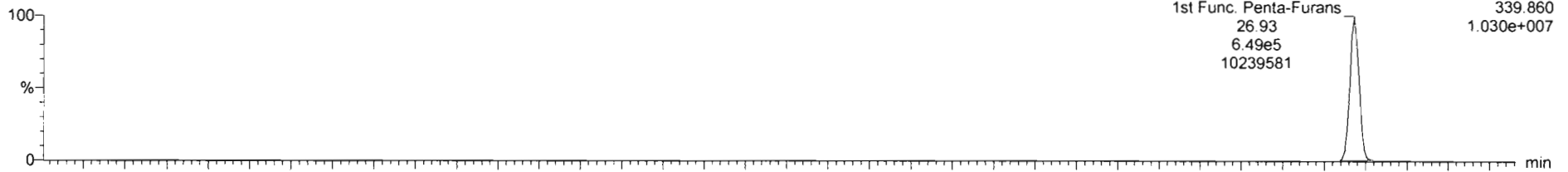
Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

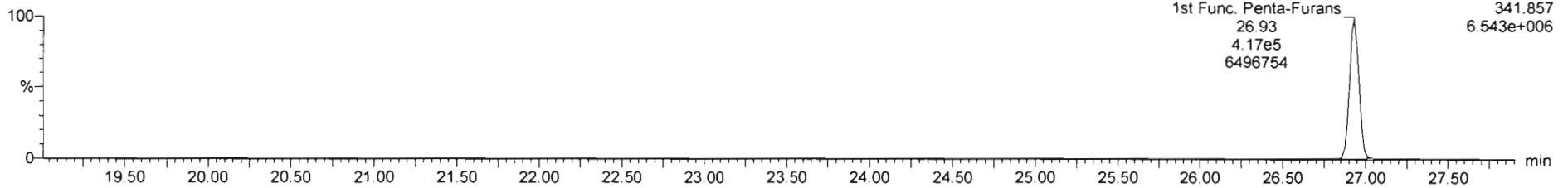
Name: 200306R2\_4, Date: 06-Mar-2020, Time: 15:32:12, ID: ST200306R2\_4 1613 CS3 19L2305, Description: 1613 CS3 19L2305

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200306R2\_4

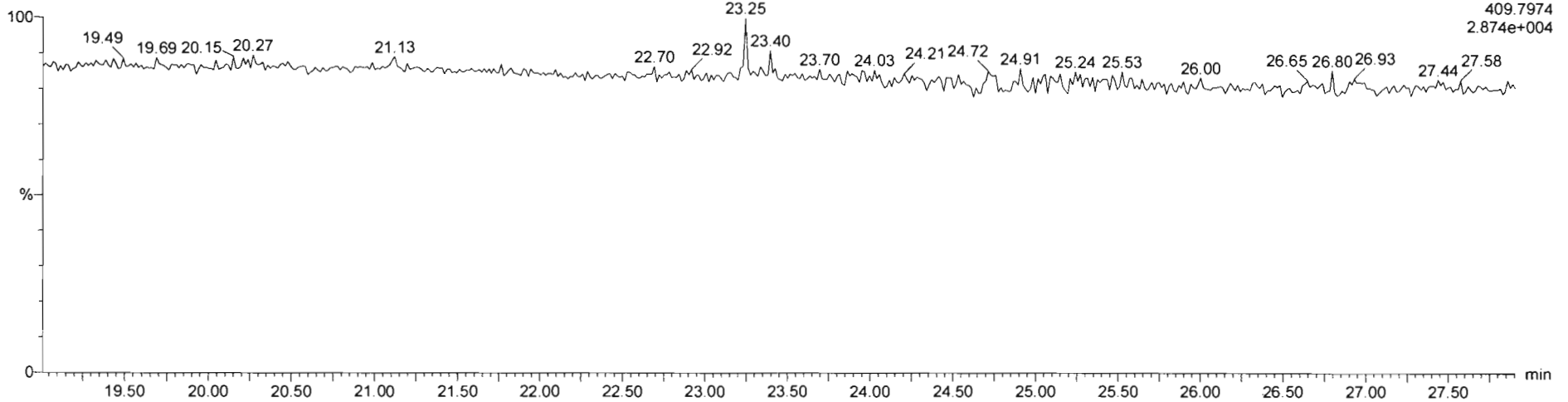


200306R2\_4



DPE6

200306R2\_4





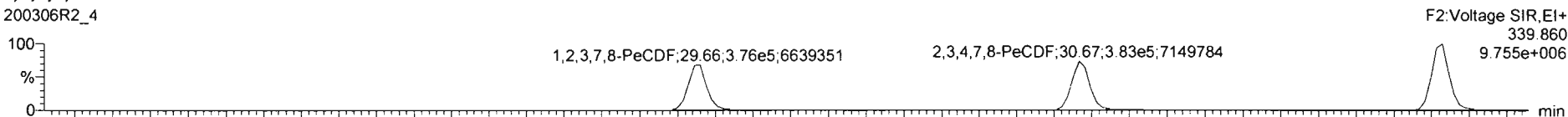
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

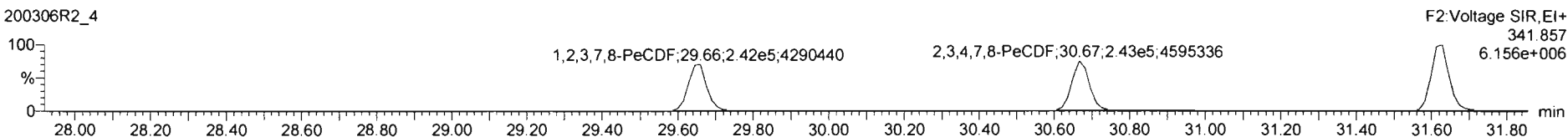
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**1,2,3,7,8-PeCDF**

200306R2\_4

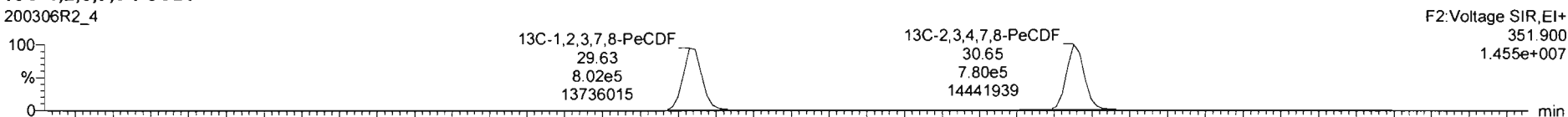


200306R2\_4

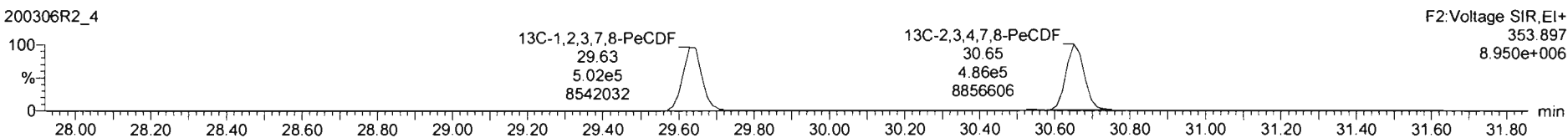


**13C-1,2,3,7,8-PeCDF**

200306R2\_4

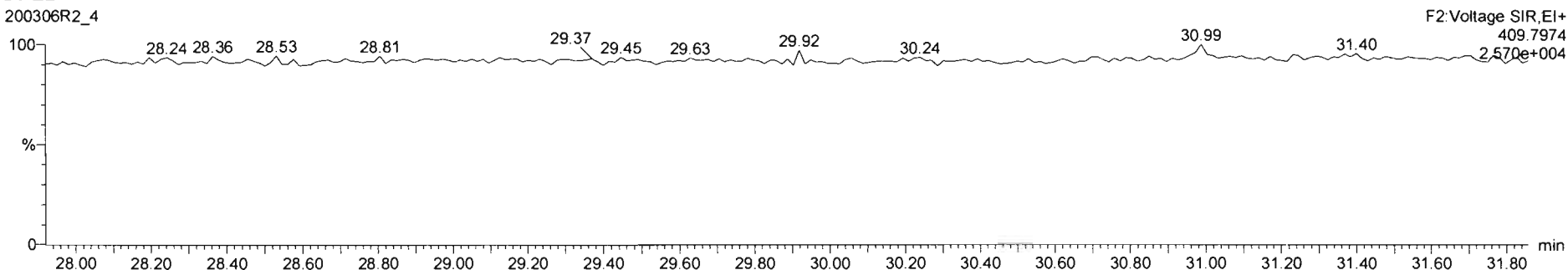


200306R2\_4



**DPE2**

200306R2\_4



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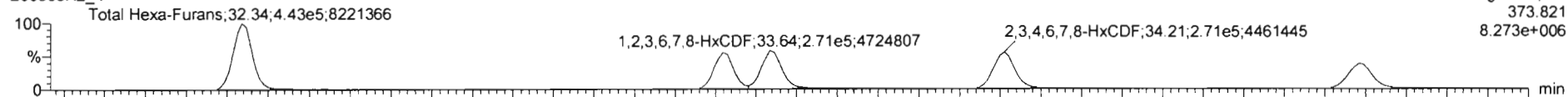
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

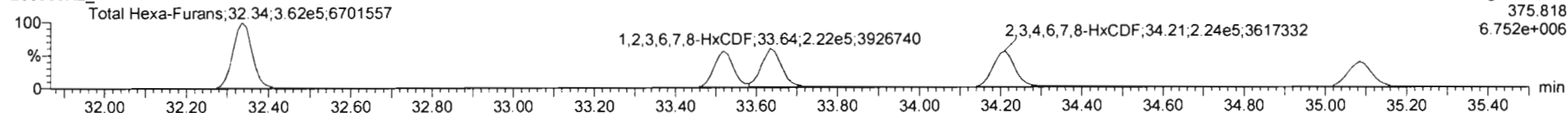
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**1,2,3,4,7,8-HxCDF**

200306R2\_4

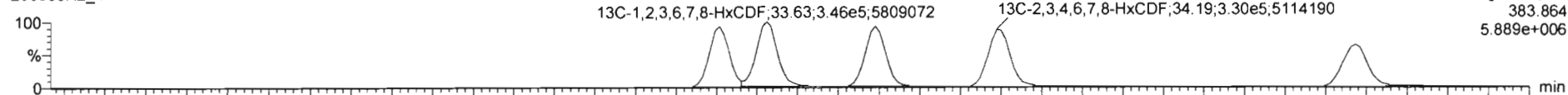


200306R2\_4

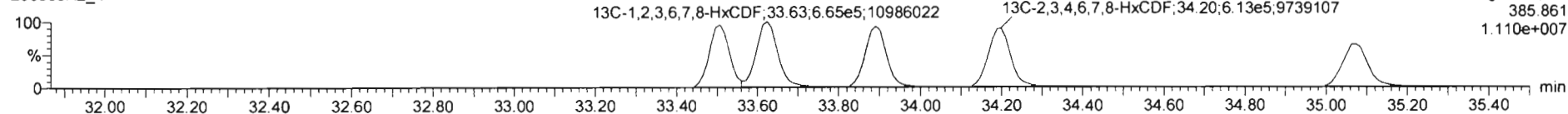


**13C-1,2,3,4,7,8-HxCDF**

200306R2\_4

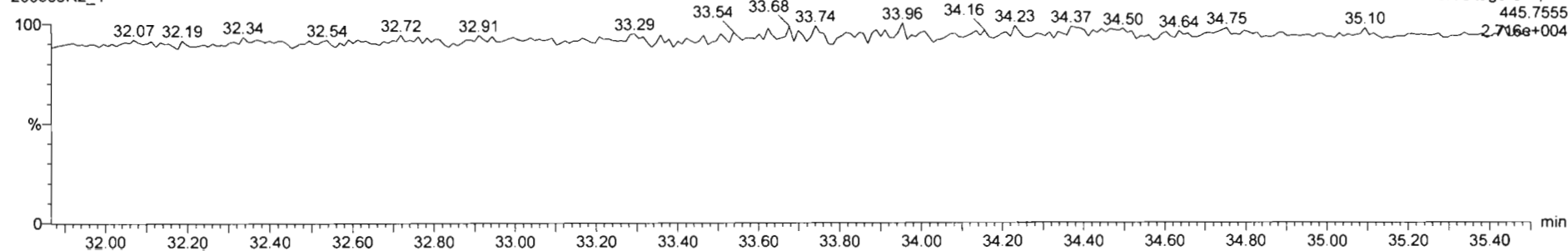


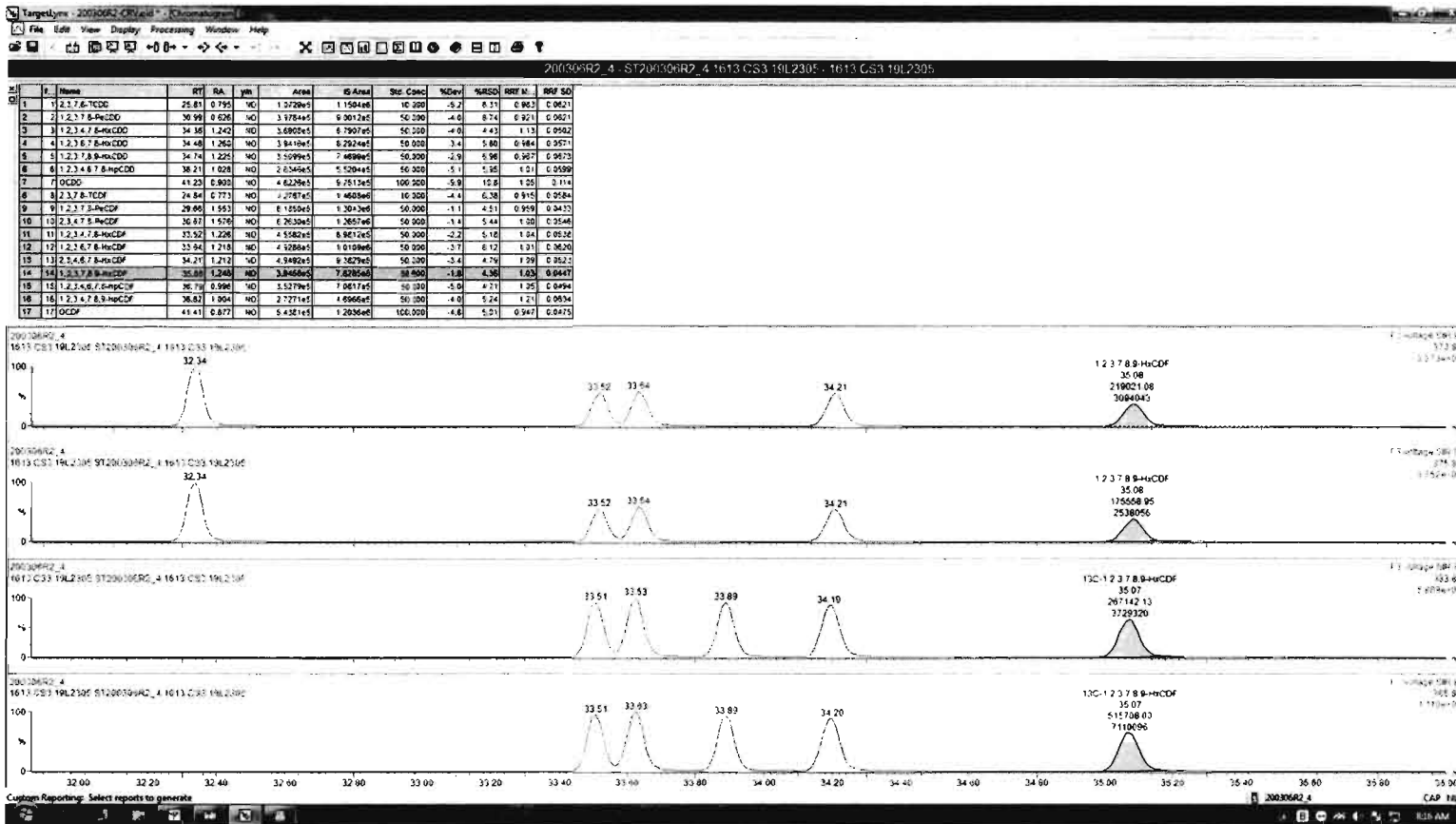
200306R2\_4



**DPE3**

200306R2\_4





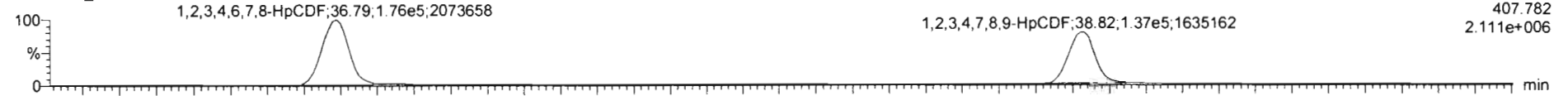
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

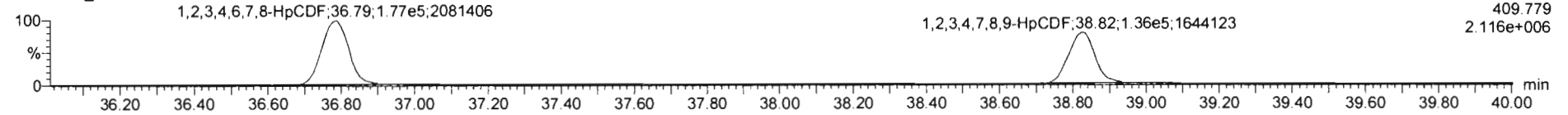
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**1,2,3,4,6,7,8-HpCDF**

200306R2\_4

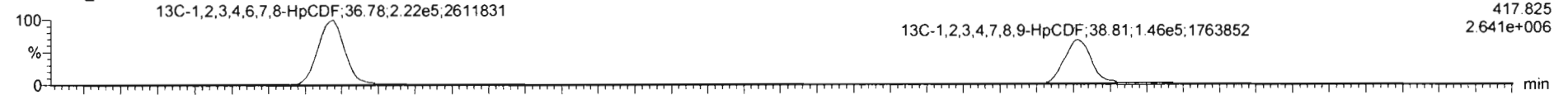


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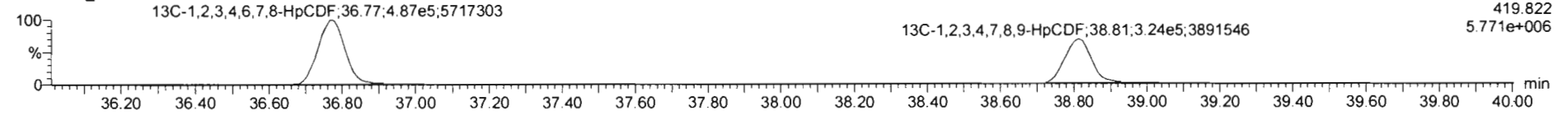


**13C-1,2,3,4,6,7,8-HpCDF**

200306R2\_4

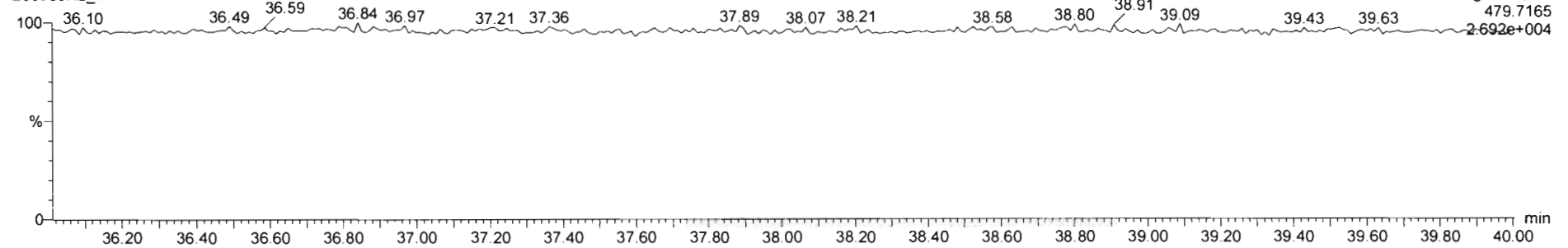


200306R2\_4



**DPE4**

200306R2\_4

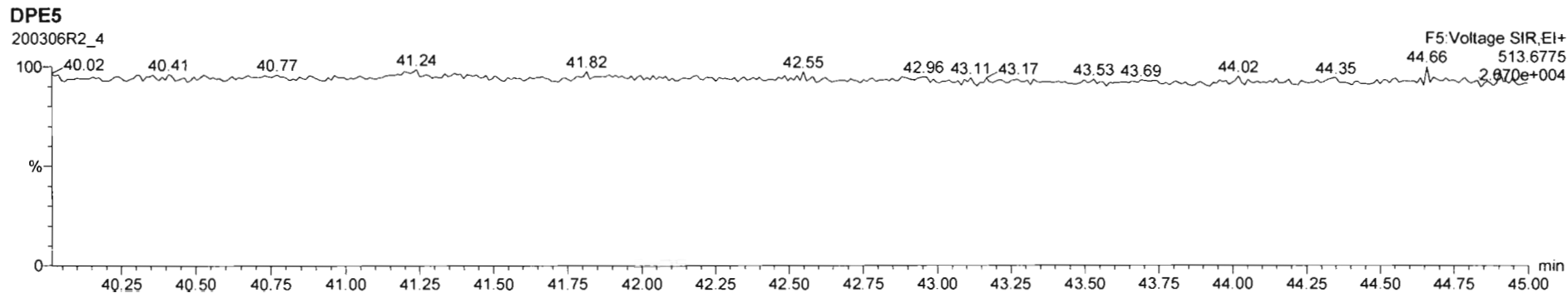
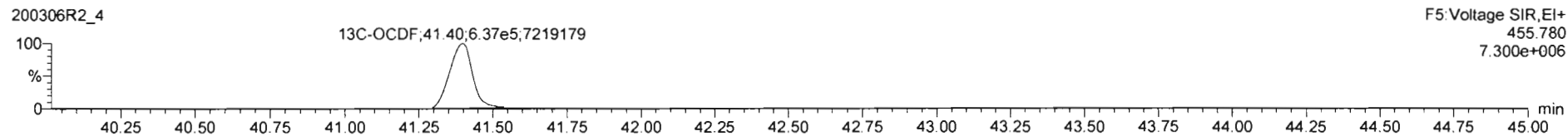
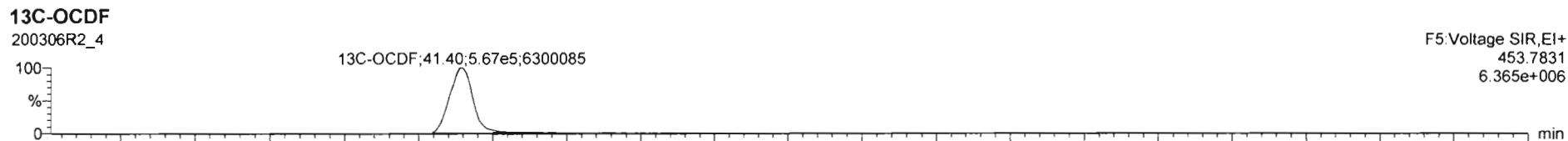
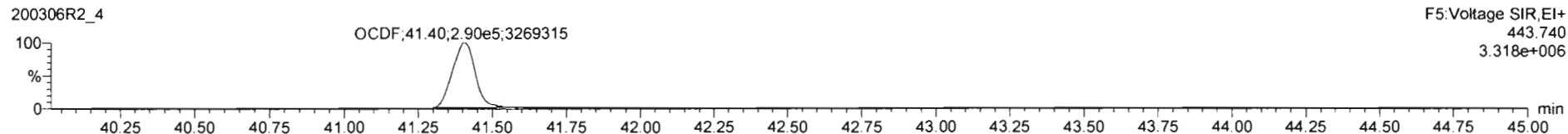
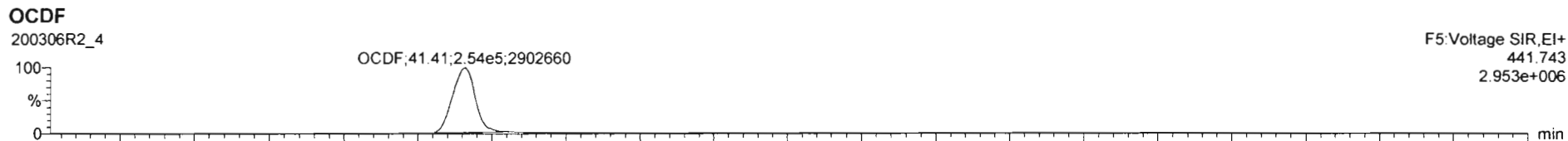


Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

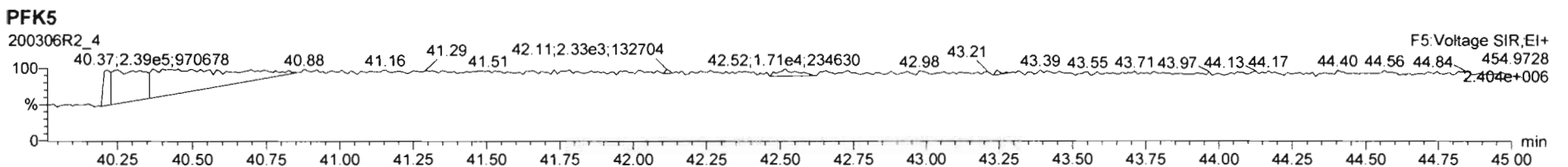
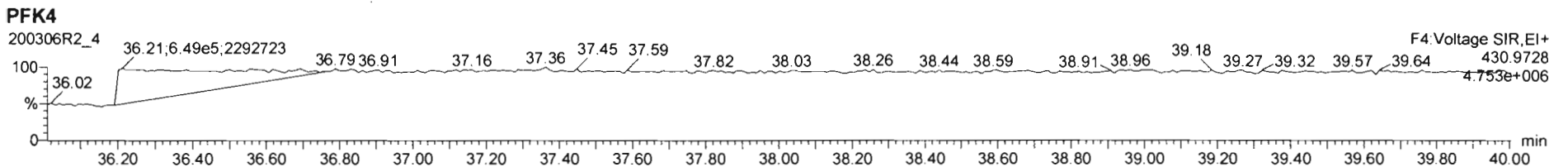
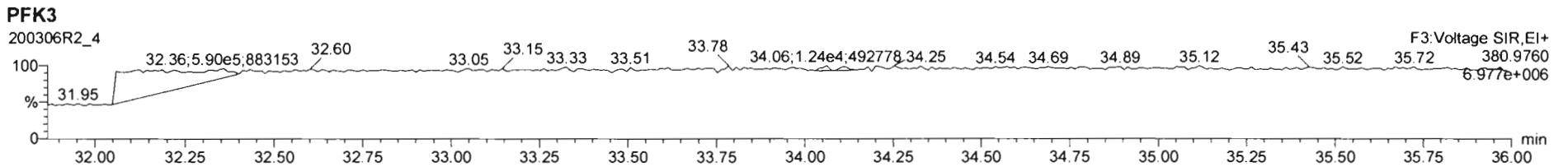
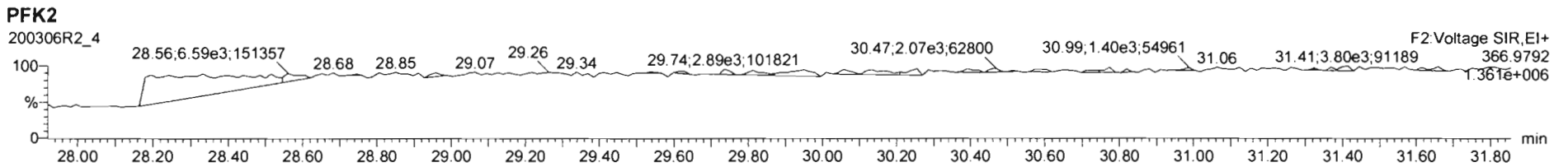
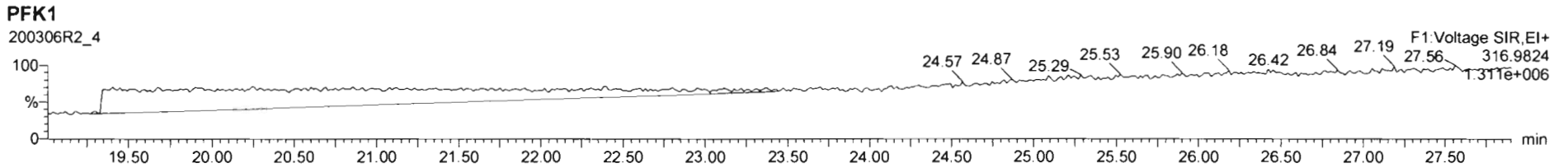
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Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_4, Date: 06-Mar-2020, Time: 15:32:12, ID: ST200306R2\_4 1613 CS3 19L2305, Description: 1613 CS3 19L2305



Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

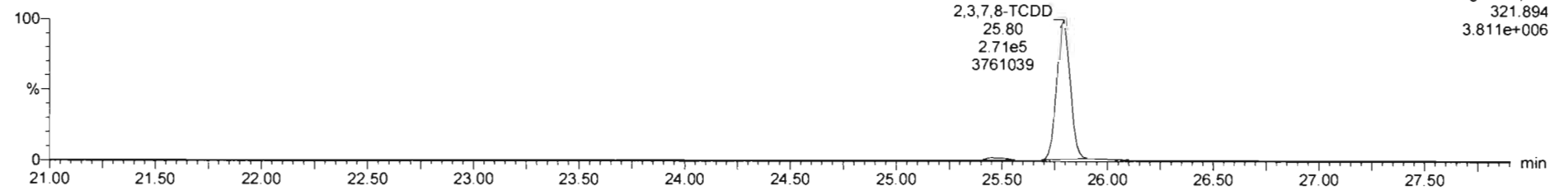
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**2,3,7,8-TCDD**

200306R2\_5

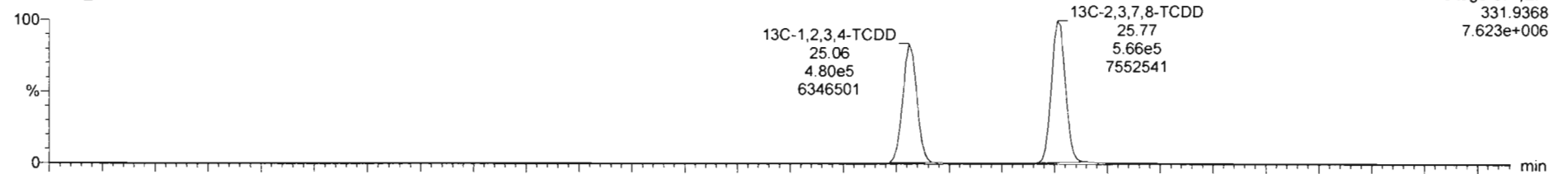


200306R2\_5

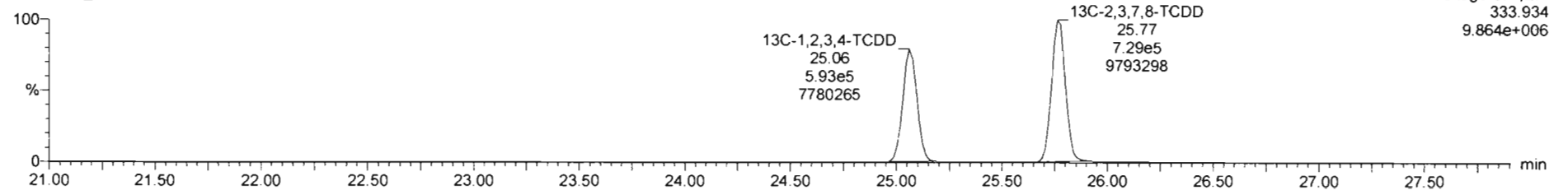


**13C-2,3,7,8-TCDD**

200306R2\_5



200306R2\_5



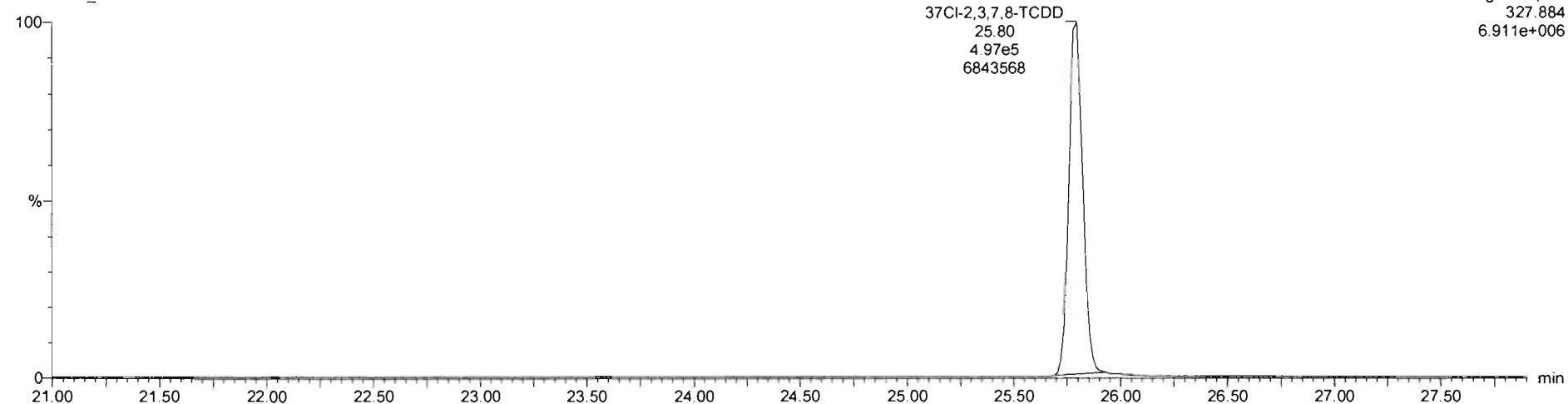
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Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time  
Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_5, Date: 06-Mar-2020, Time: 16:19:37, ID: ST200306R2\_5 1613 CS4 19L2306, Description: 1613 CS4 19L2306

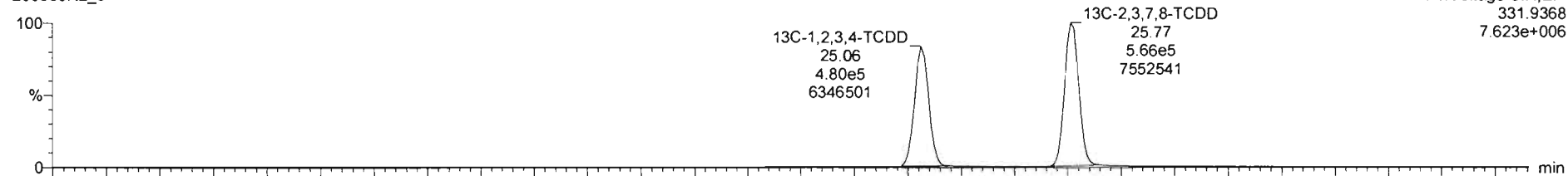
**37Cl-2,3,7,8-TCDD**

200306R2\_5

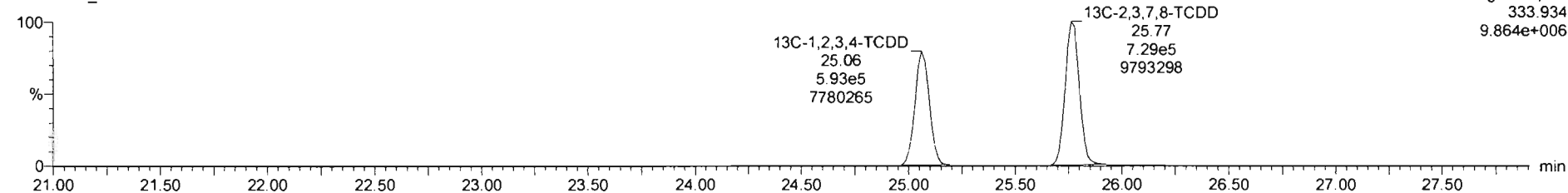


**13C-1,2,3,4-TCDD**

200306R2\_5



200306R2\_5





Dataset: Untitled

Last Altered: Monday, March 09, 2020 08:23:06 Pacific Daylight Time

Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

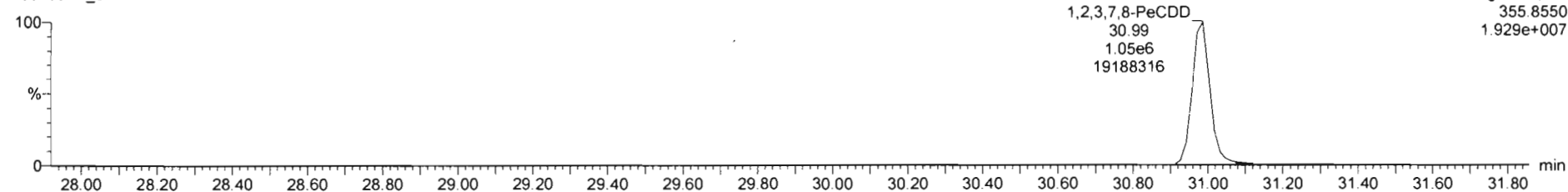
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**1,2,3,7,8-PeCDD**

200306R2\_5



200306R2\_5

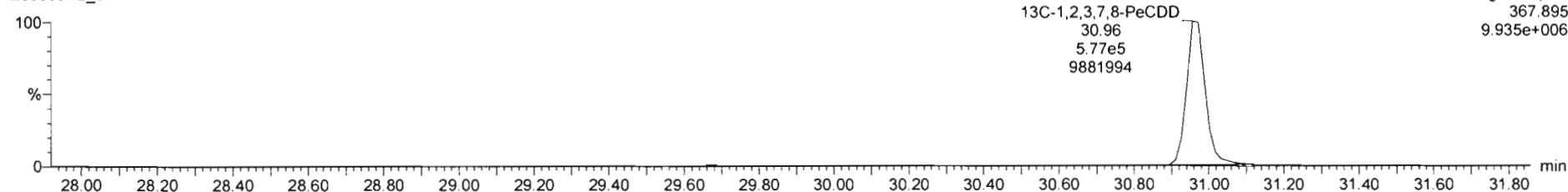


**13C-1,2,3,7,8-PeCDD**

200306R2\_5



200306R2\_5



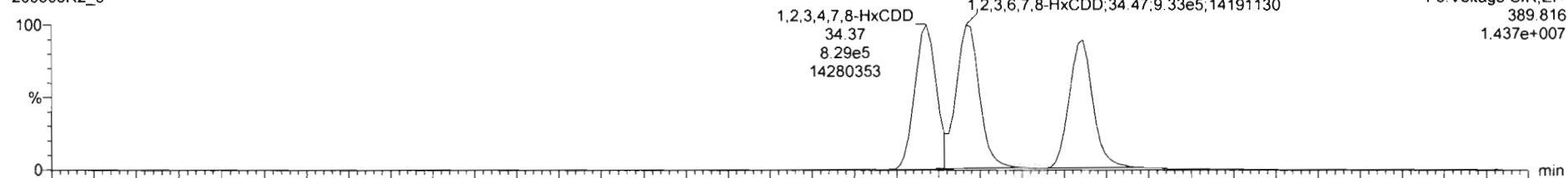
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

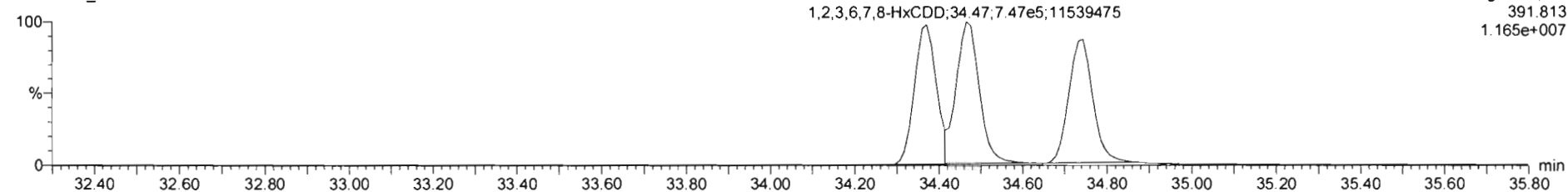
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**1,2,3,4,7,8-HxCDD**

200306R2\_5

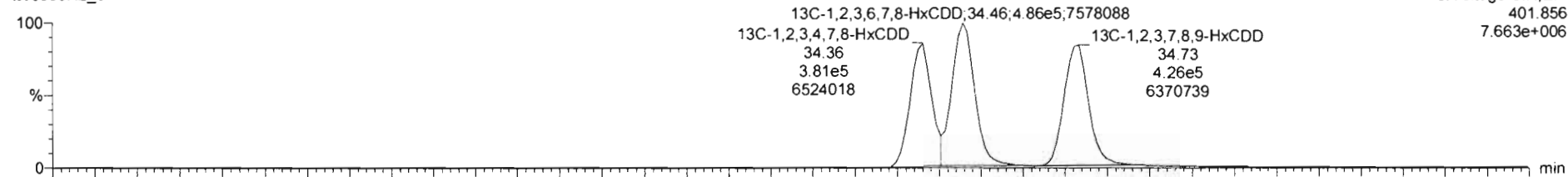


200306R2\_5

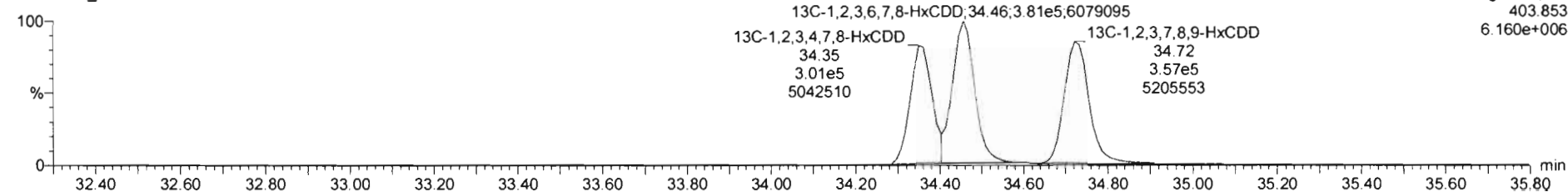


**13C-1,2,3,4,7,8-HxCDD**

200306R2\_5



200306R2\_5



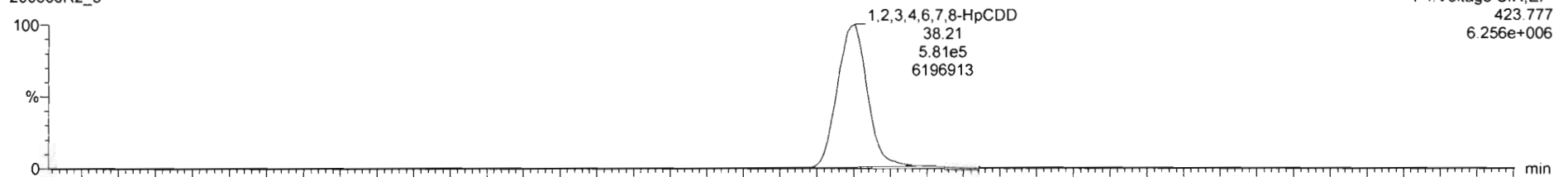
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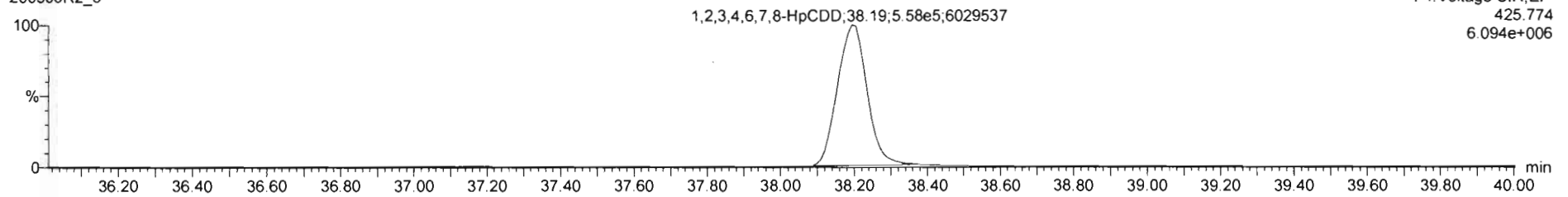
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**1,2,3,4,6,7,8-HpCDD**

200306R2\_5

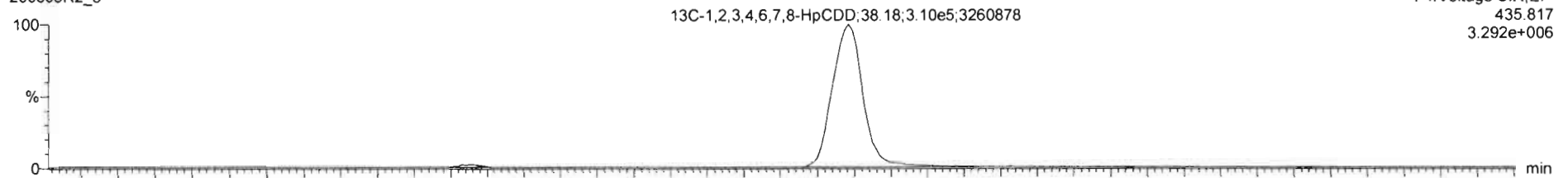


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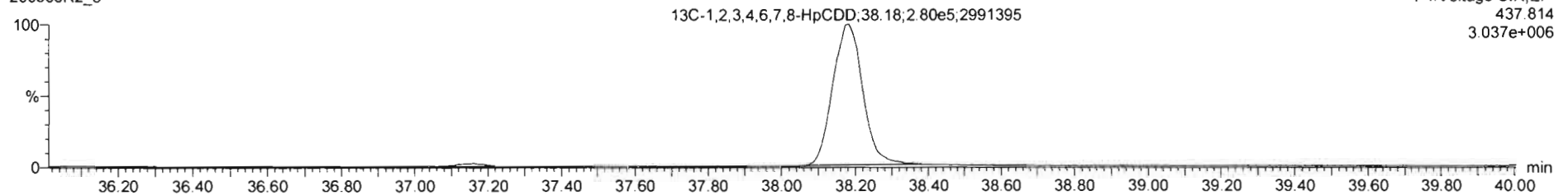


**13C-1,2,3,4,6,7,8-HpCDD**

200306R2\_5



200306R2\_5



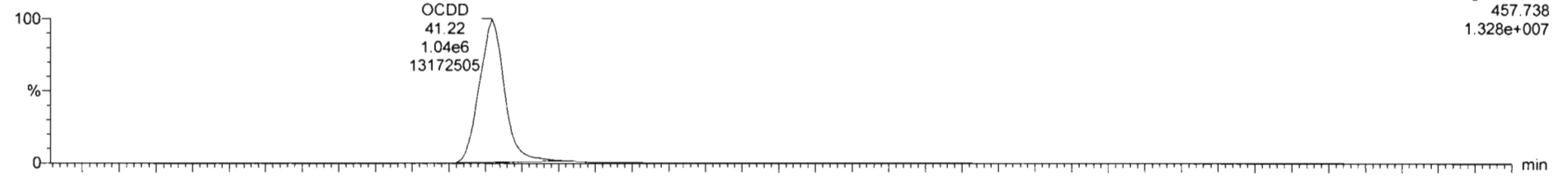
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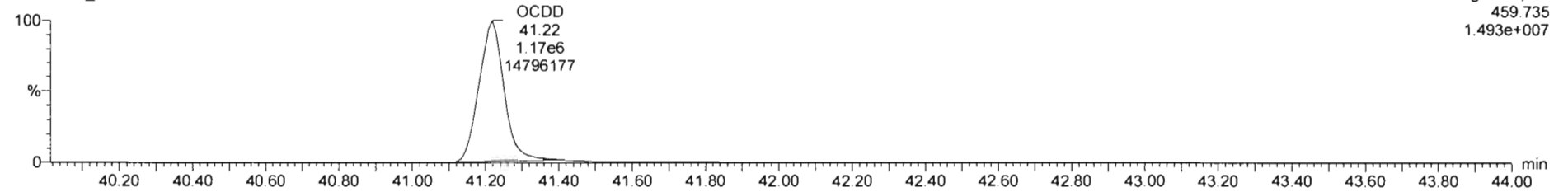
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OCDD

200306R2\_5

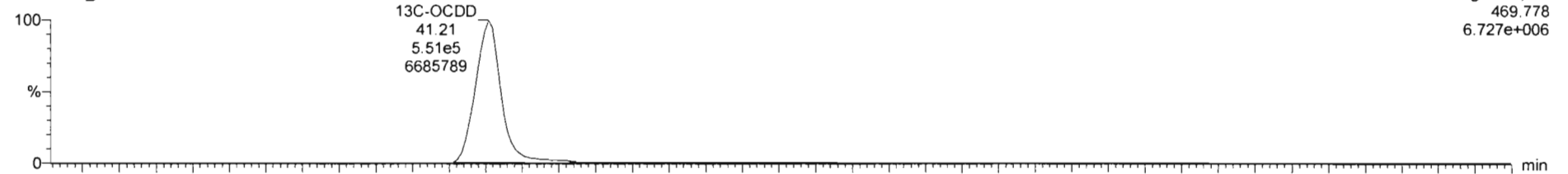


200306R2\_5

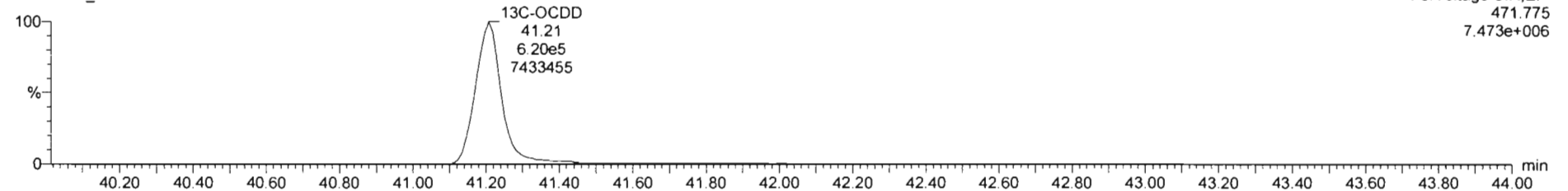


13C-OCDD

200306R2\_5



200306R2\_5



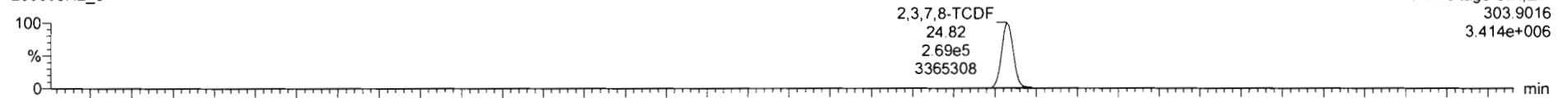
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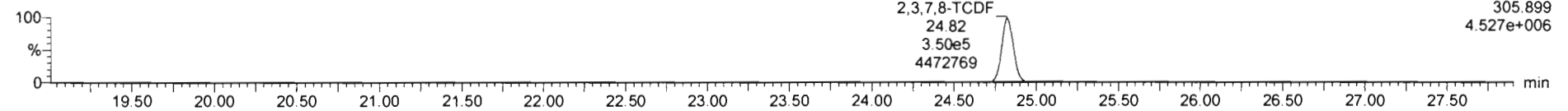
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**2,3,7,8-TCDF**

200306R2\_5

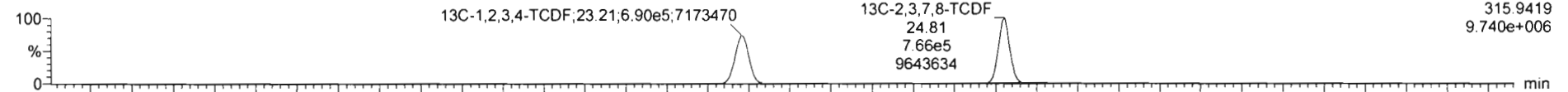


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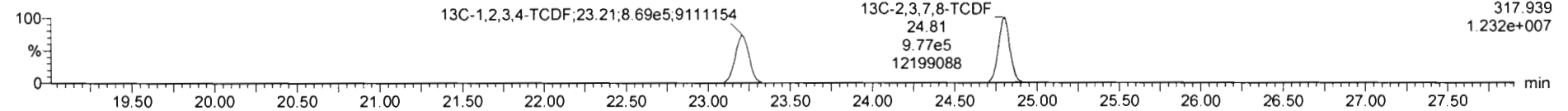


**13C-2,3,7,8-TCDF**

200306R2\_5

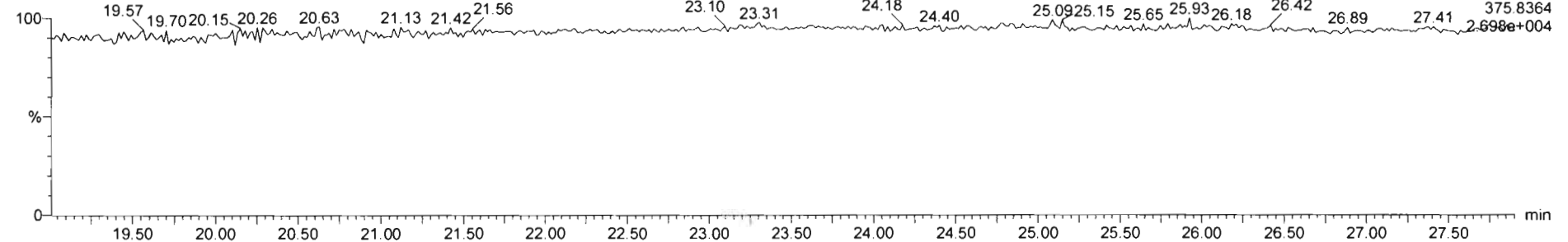


200306R2\_5



**DPE1**

200306R2\_5

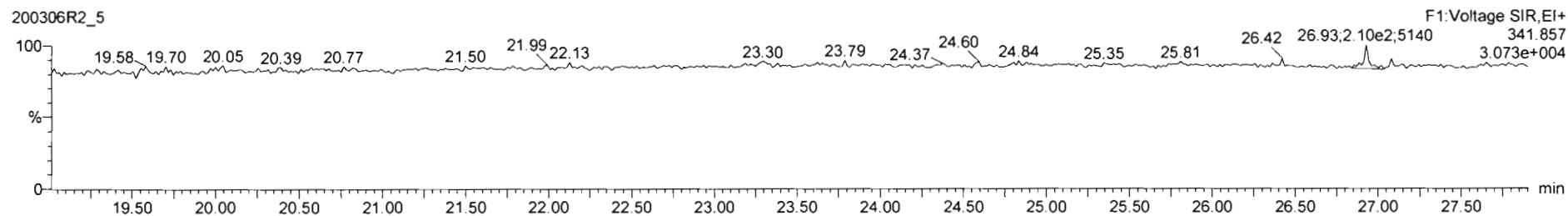
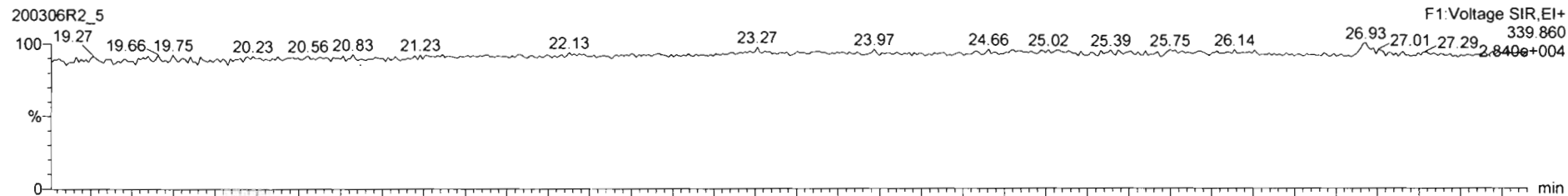


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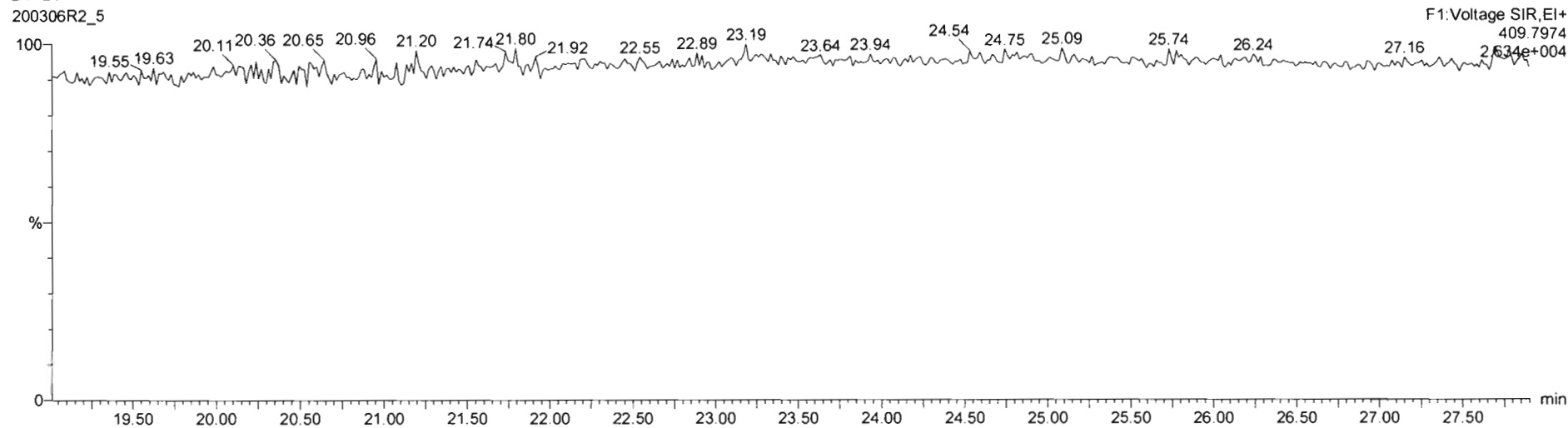
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_5, Date: 06-Mar-2020, Time: 16:19:37, ID: ST200306R2\_5 1613 CS4 19L2306, Description: 1613 CS4 19L2306

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DPE6



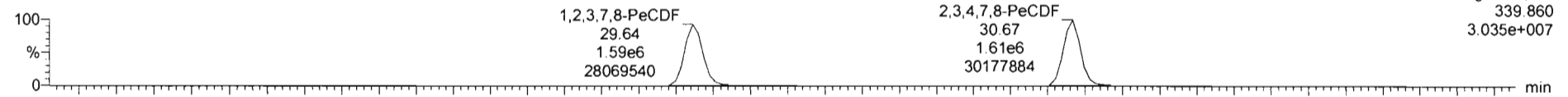
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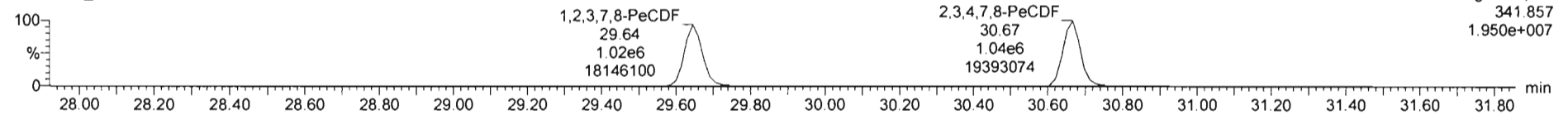
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**1,2,3,7,8-PeCDF**

200306R2\_5

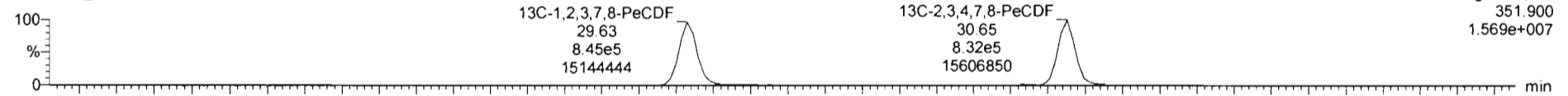


200306R2\_5

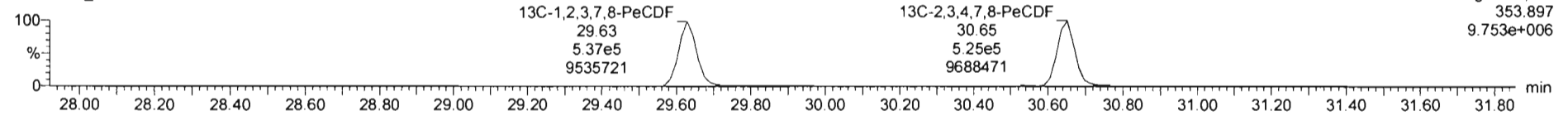


**13C-1,2,3,7,8-PeCDF**

200306R2\_5

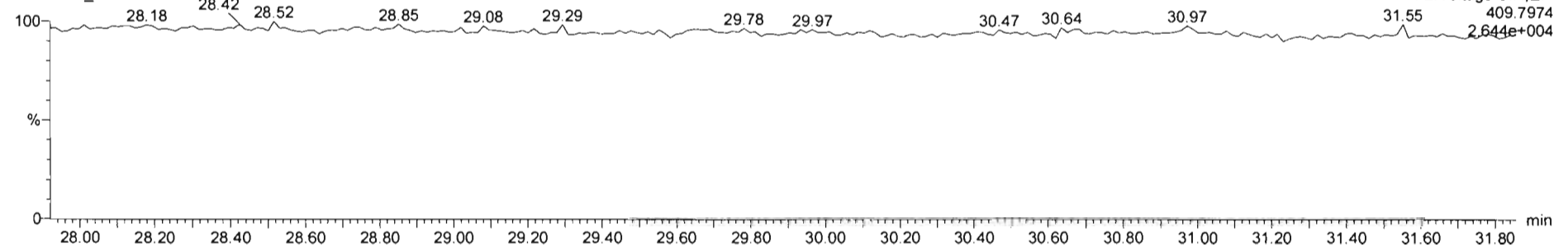


200306R2\_5



**DPE2**

200306R2\_5



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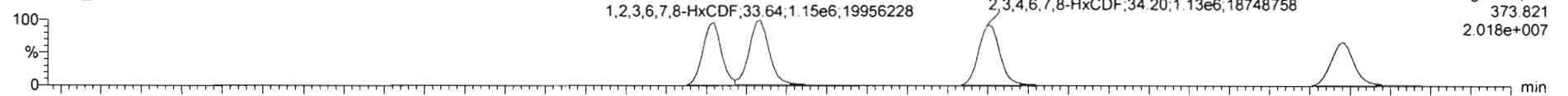
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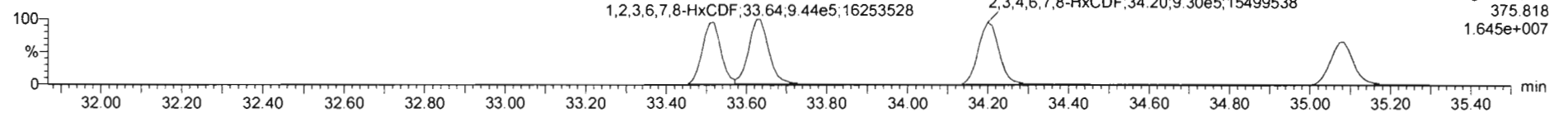
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**1,2,3,4,7,8-HxCDF**

200306R2\_5

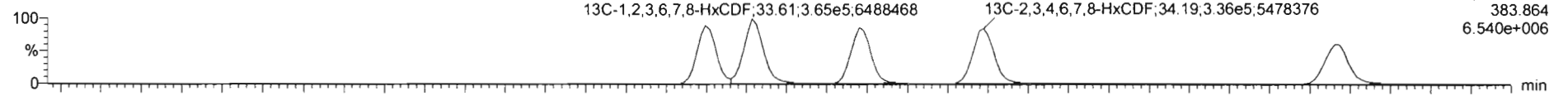


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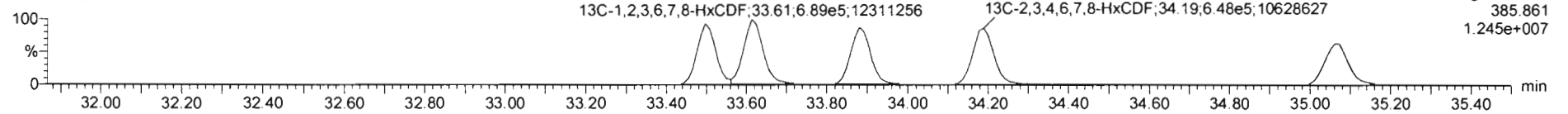


**13C-1,2,3,4,7,8-HxCDF**

200306R2\_5

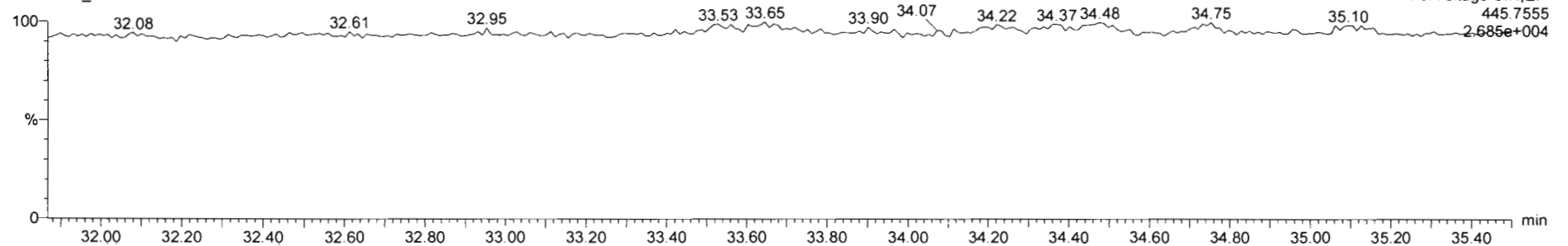


200306R2\_5



**DPE3**

200306R2\_5





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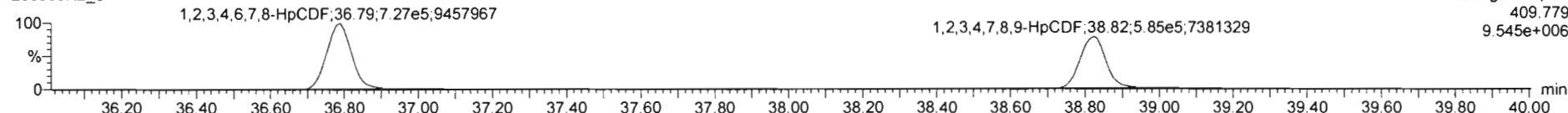
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**1,2,3,4,6,7,8-HpCDF**

200306R2\_5

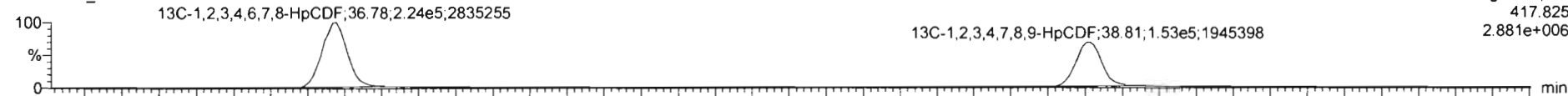


200306R2\_5

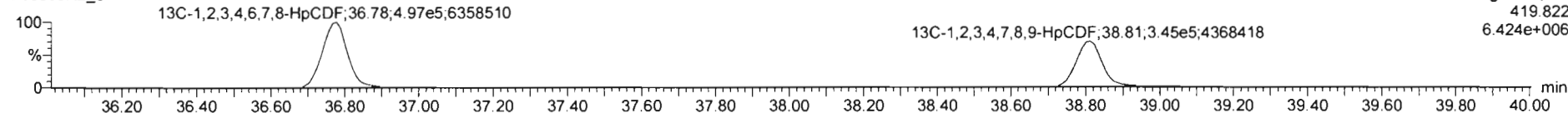


**13C-1,2,3,4,6,7,8-HpCDF**

200306R2\_5

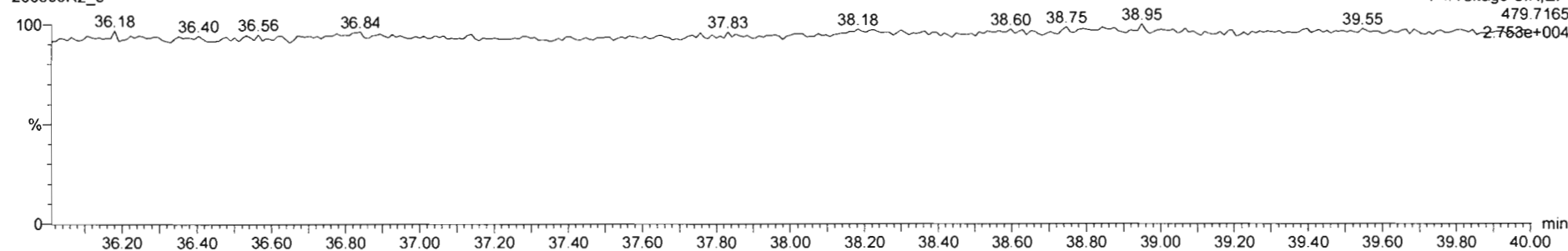


200306R2\_5



**DPE4**

200306R2\_5



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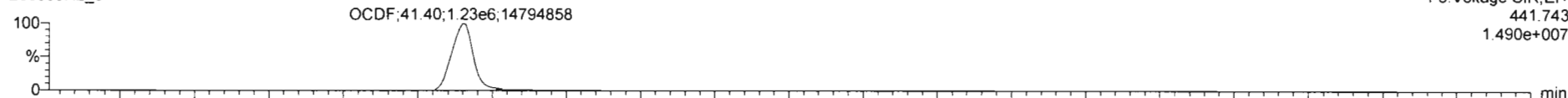
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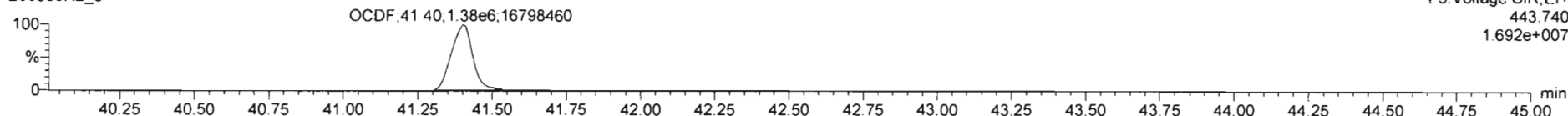
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**OCDF**

200306R2\_5

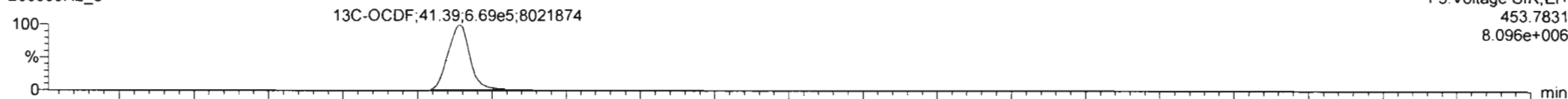


200306R2\_5

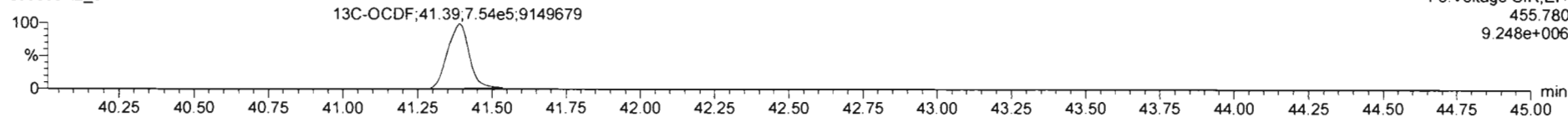


**13C-OCDF**

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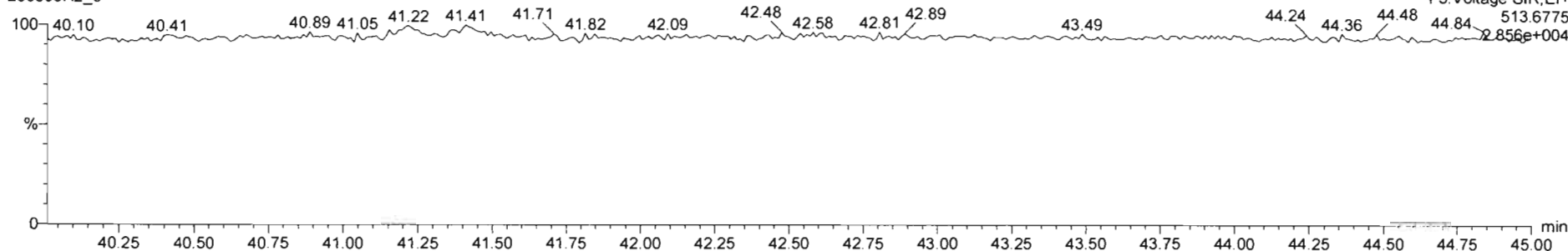


200306R2\_5



**DPE5**

200306R2\_5



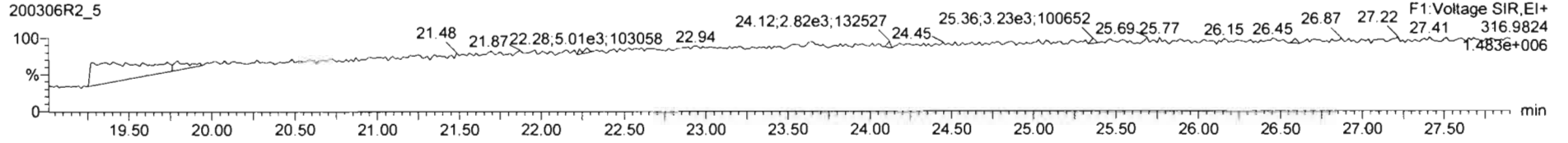
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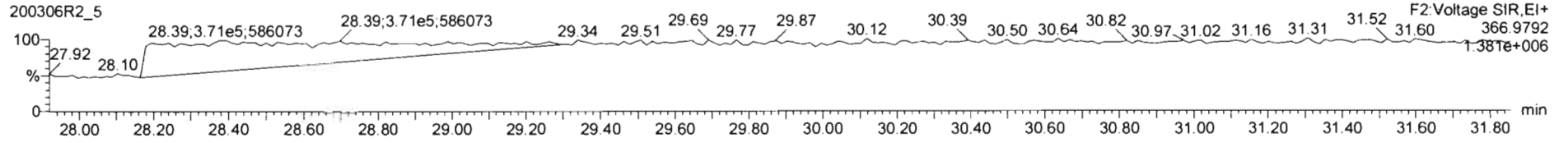
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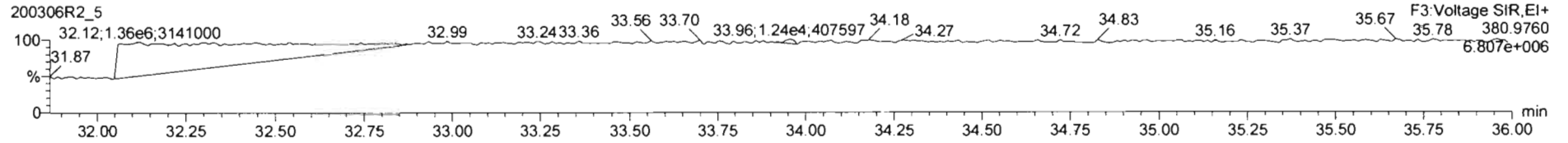
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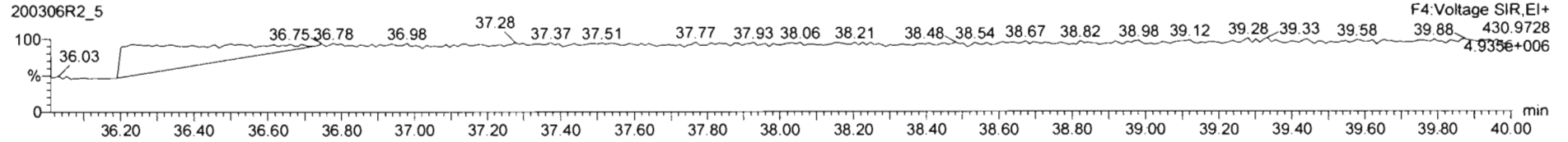
PFK2



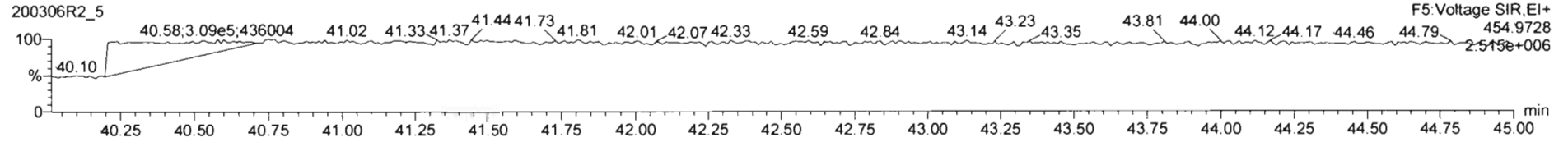
PFK3



PFK4



PFK5



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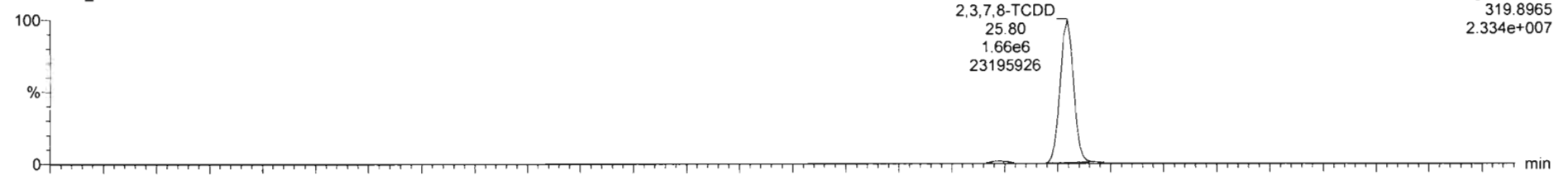
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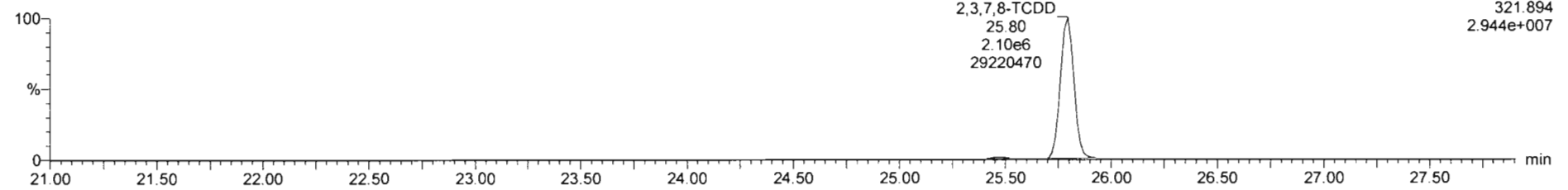
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**2,3,7,8-TCDD**

200306R2\_6

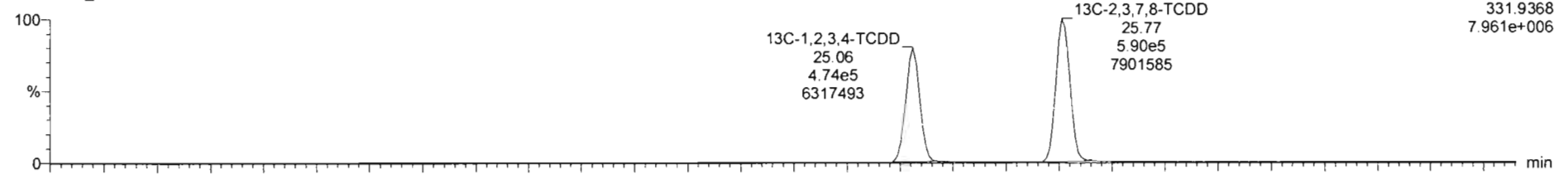


200306R2\_6

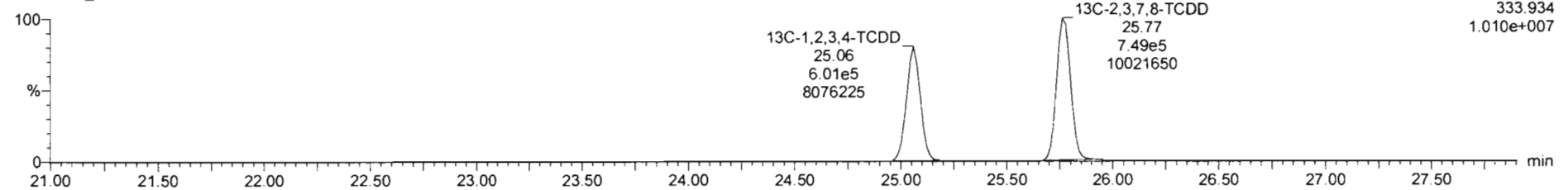


**13C-2,3,7,8-TCDD**

200306R2\_6



200306R2\_6



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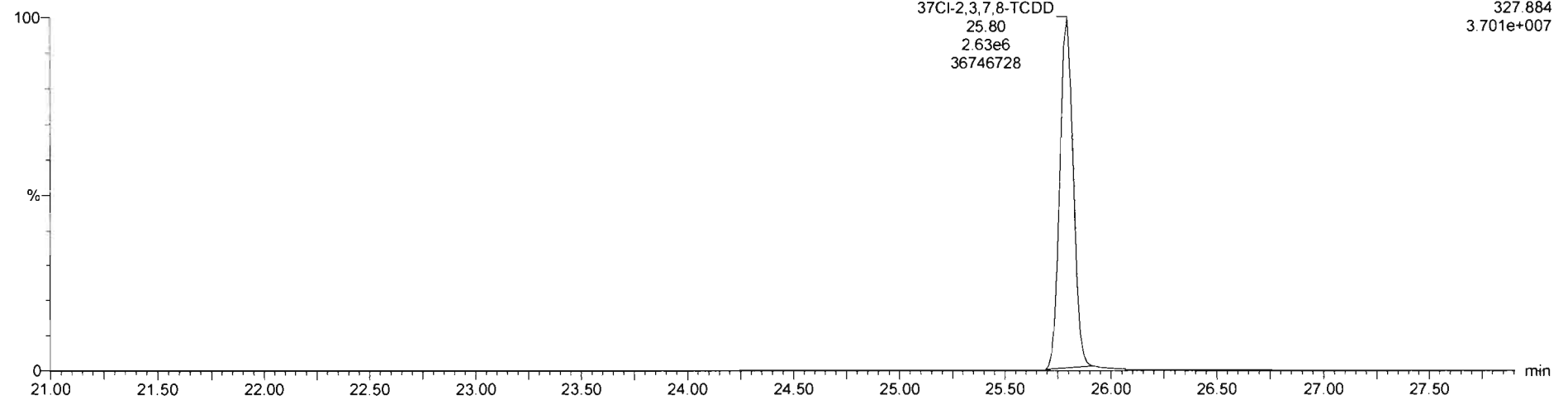
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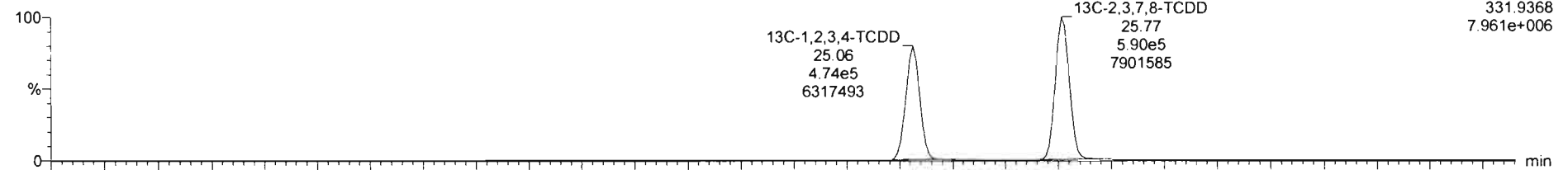
**37Cl-2,3,7,8-TCDD**

200306R2\_6

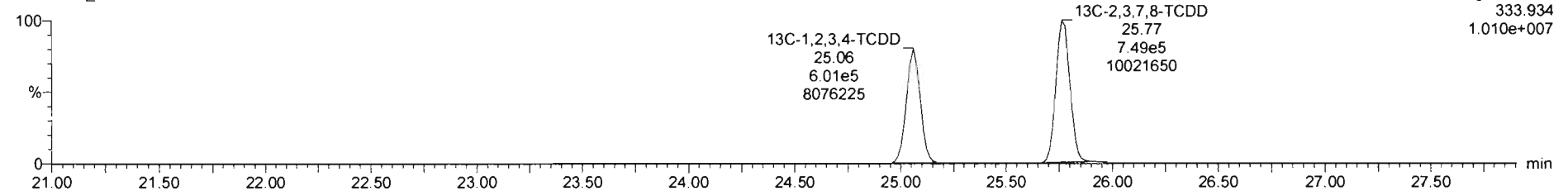


**13C-1,2,3,4-TCDD**

200306R2\_6



200306R2\_6



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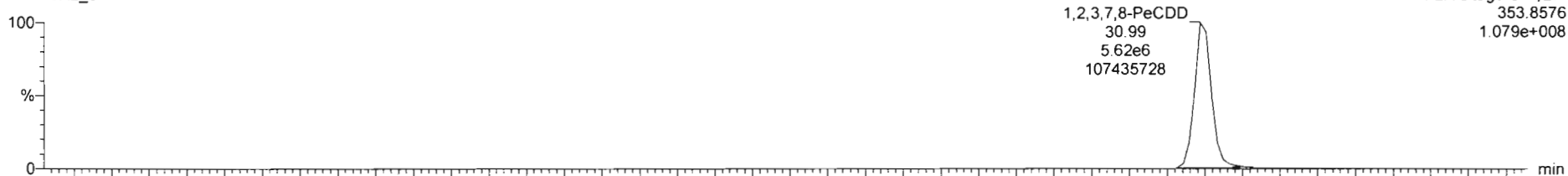
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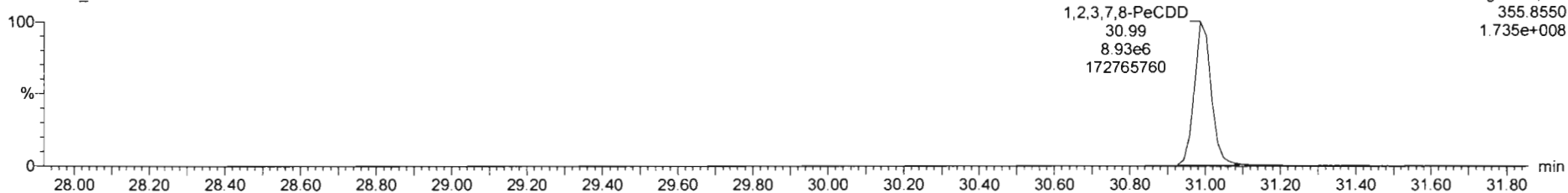
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**1,2,3,7,8-PeCDD**

200306R2\_6

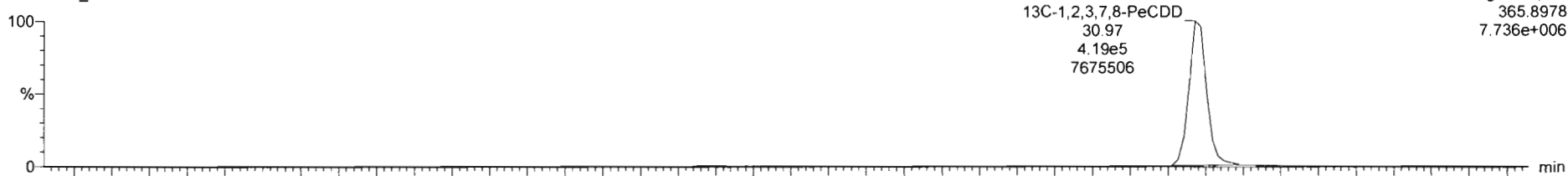


200306R2\_6

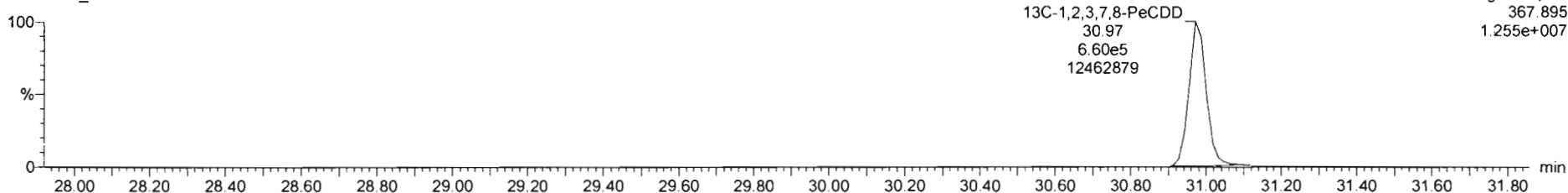


**13C-1,2,3,7,8-PeCDD**

200306R2\_6



200306R2\_6



Dataset: Untitled

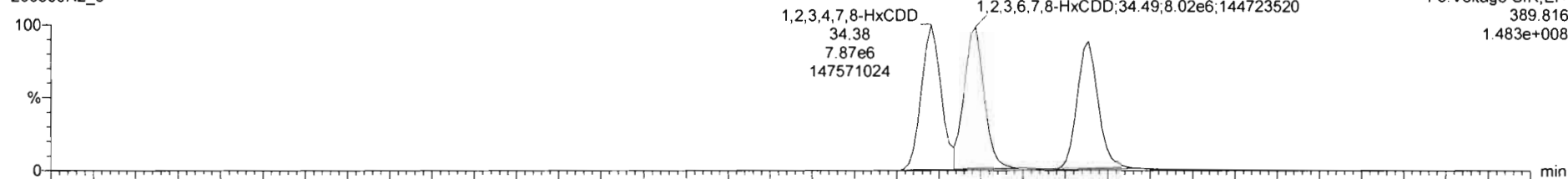
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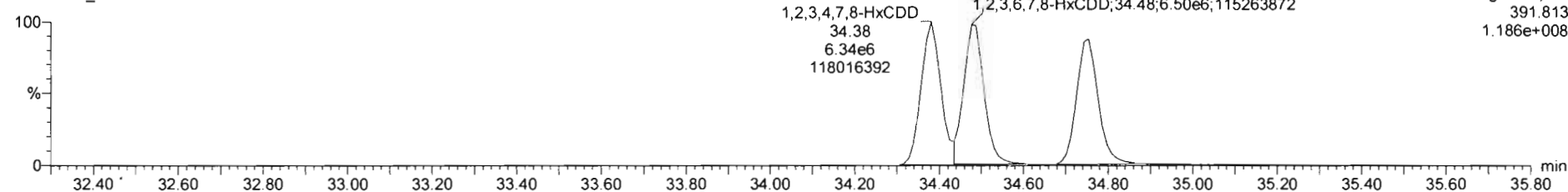
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1,2,3,4,7,8-HxCDD

200306R2\_6

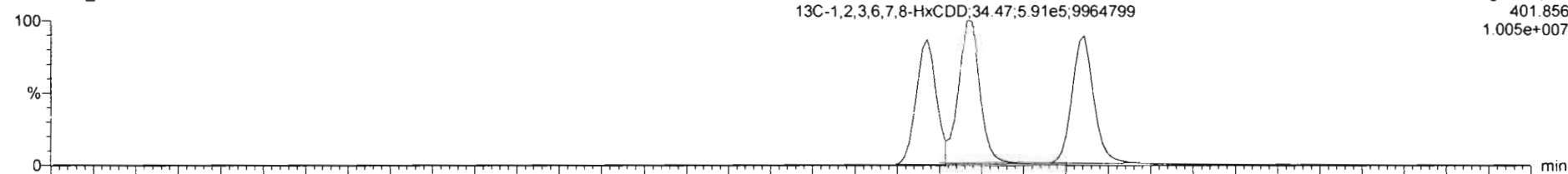


200306R2\_6

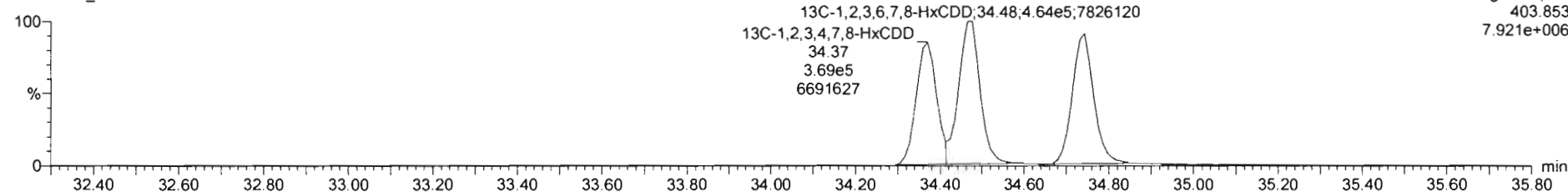


13C-1,2,3,4,7,8-HxCDD

200306R2\_6



200306R2\_6



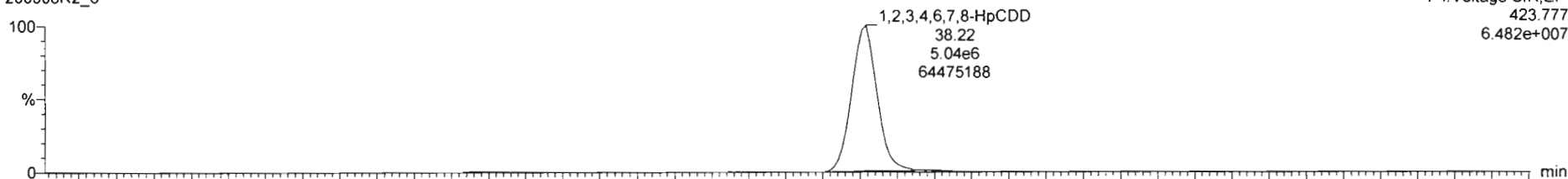
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

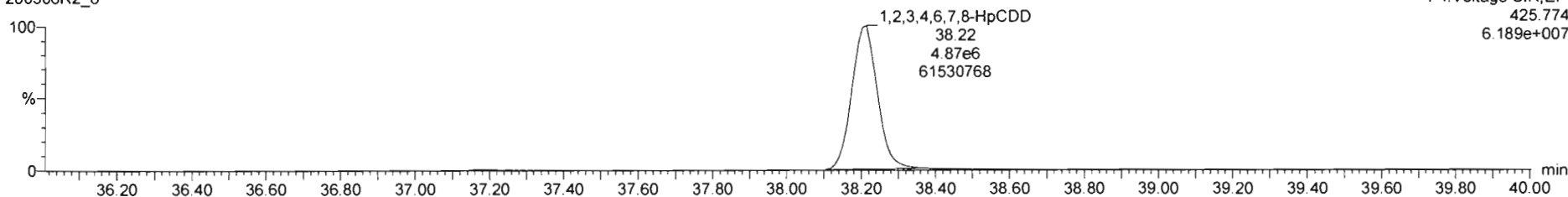
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**1,2,3,4,6,7,8-HpCDD**

200306R2\_6

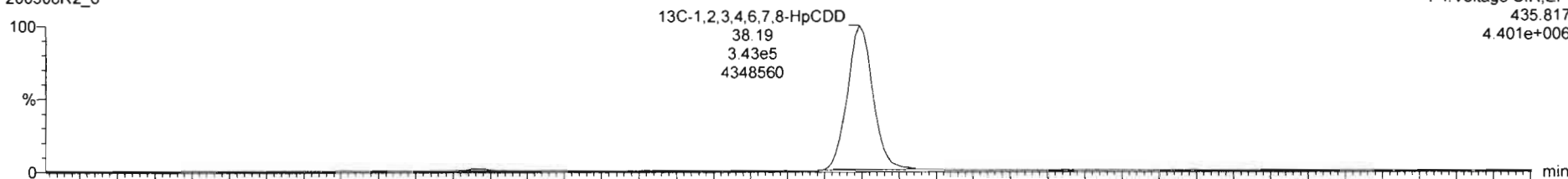


200306R2\_6

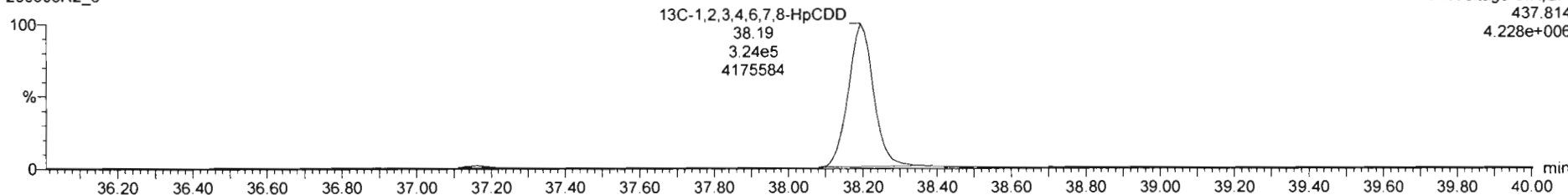


**13C-1,2,3,4,6,7,8-HpCDD**

200306R2\_6



200306R2\_6





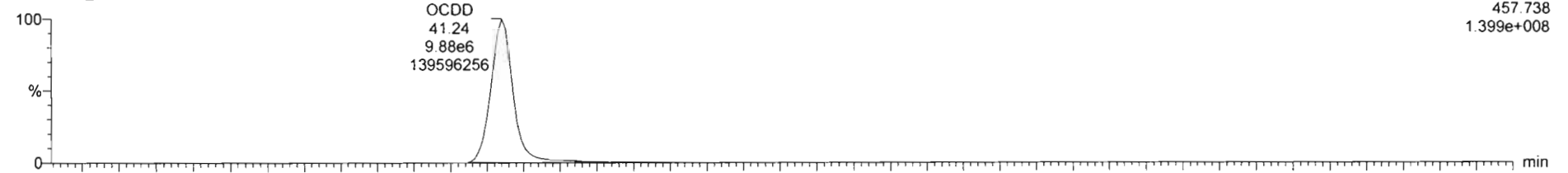
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

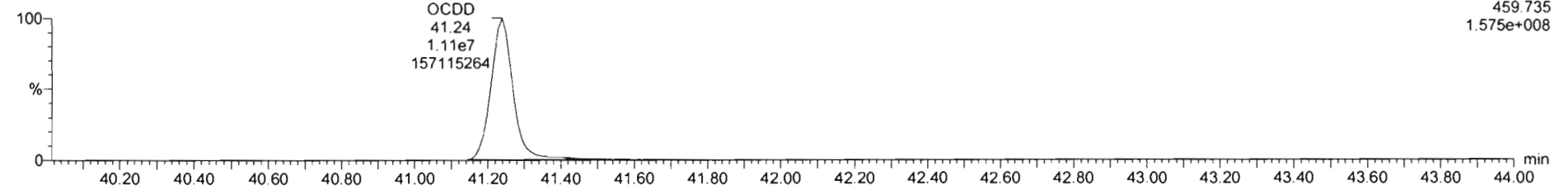
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**OCDD**

200306R2\_6

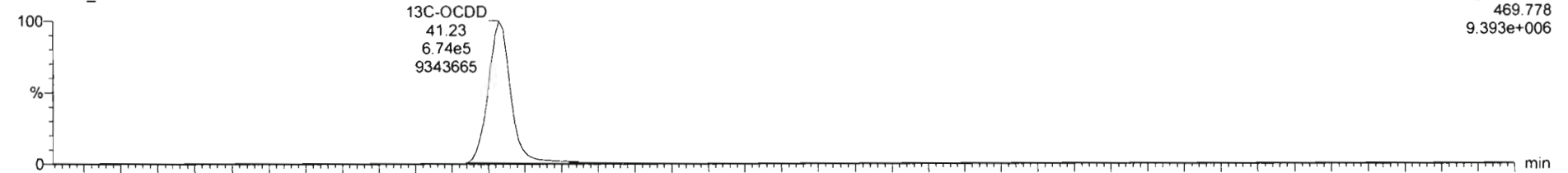


200306R2\_6

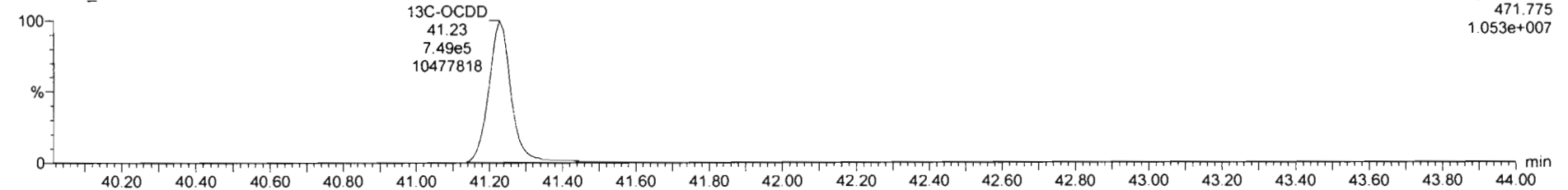


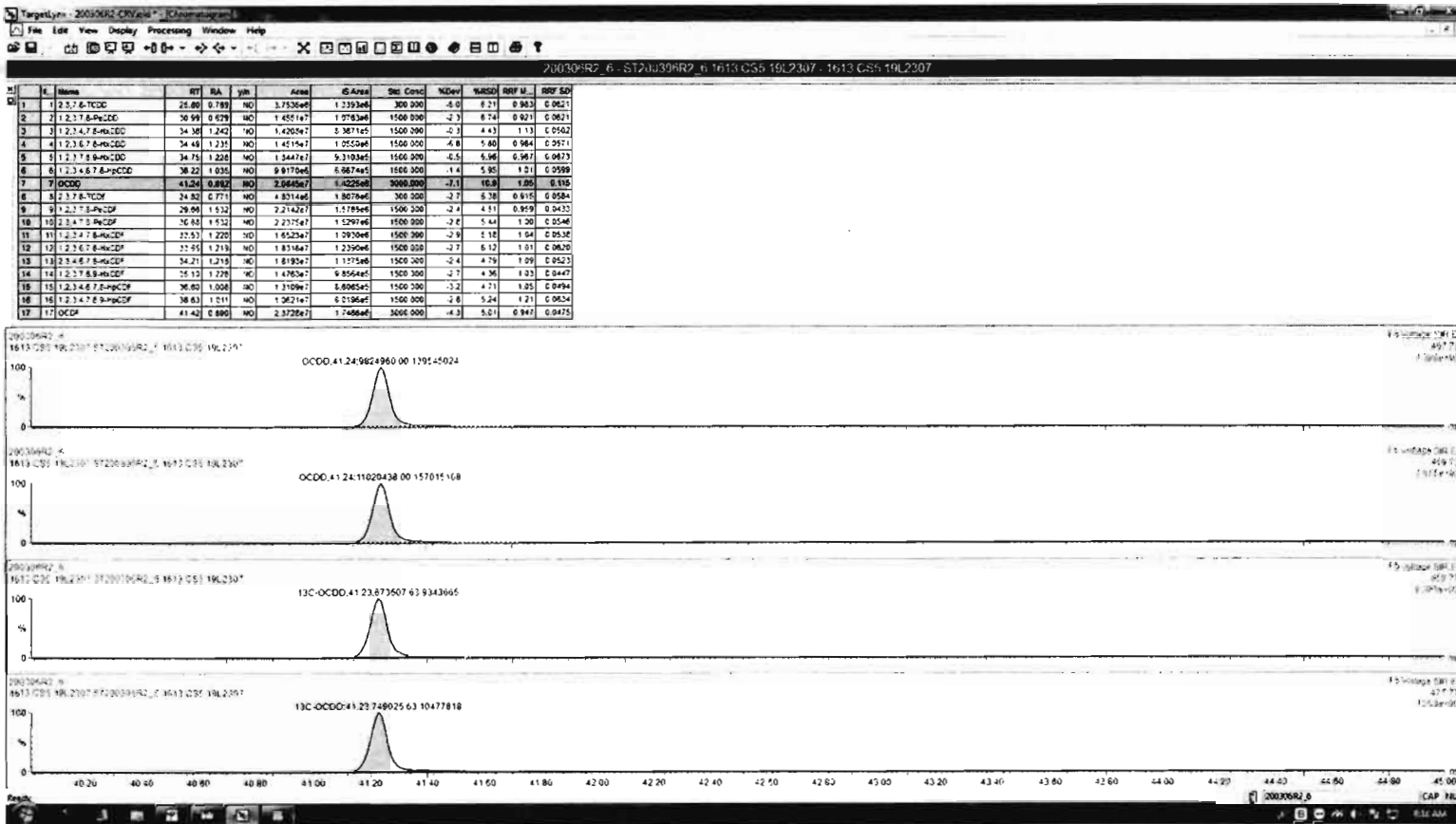
**13C-OCDD**

200306R2\_6



200306R2\_6





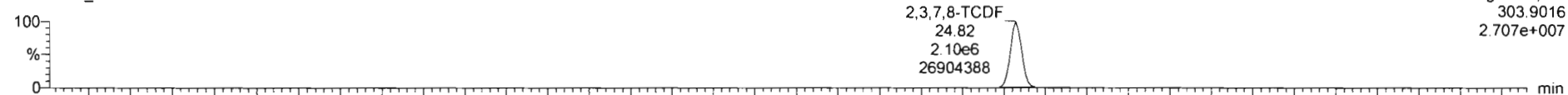
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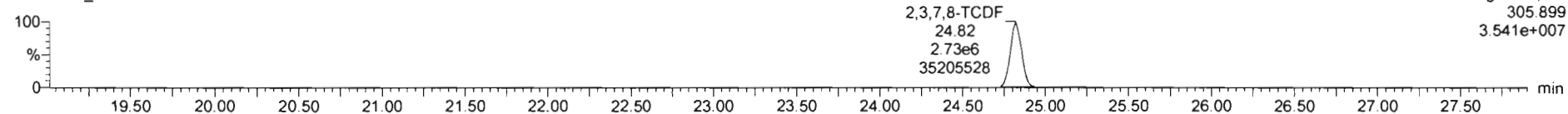
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**2,3,7,8-TCDF**

200306R2\_6

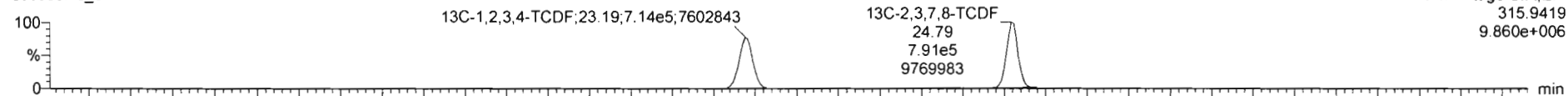


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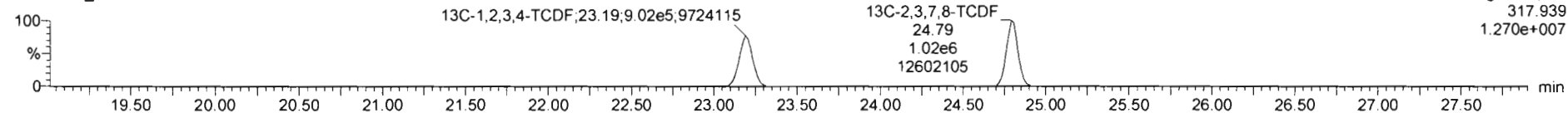


**13C-2,3,7,8-TCDF**

200306R2\_6

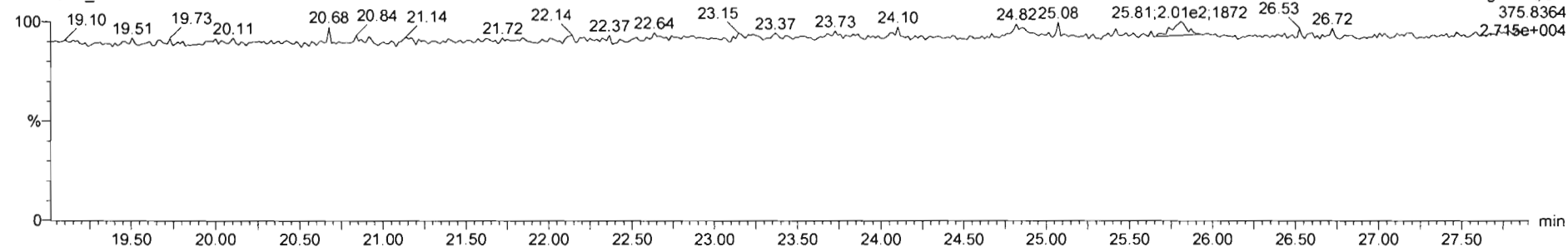


200306R2\_6



**DPE1**

200306R2\_6



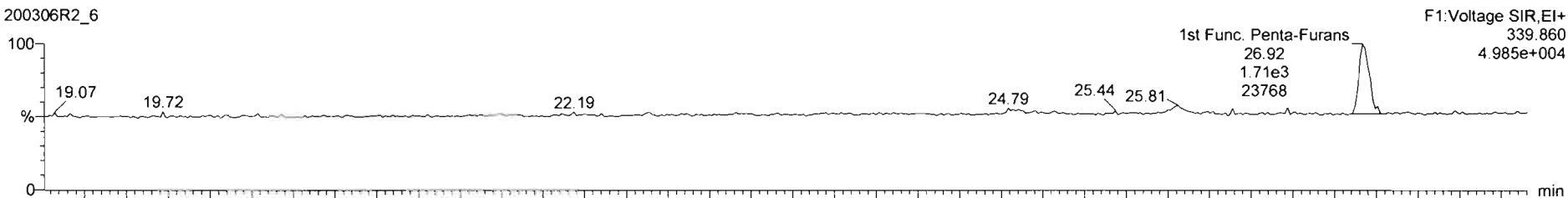
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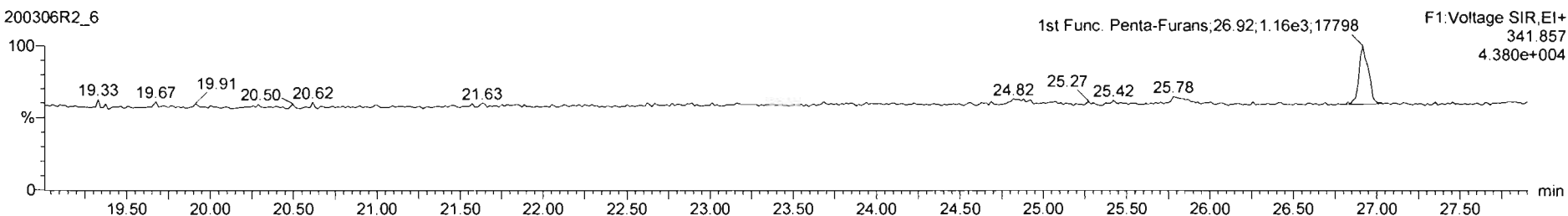
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200306R2\_6

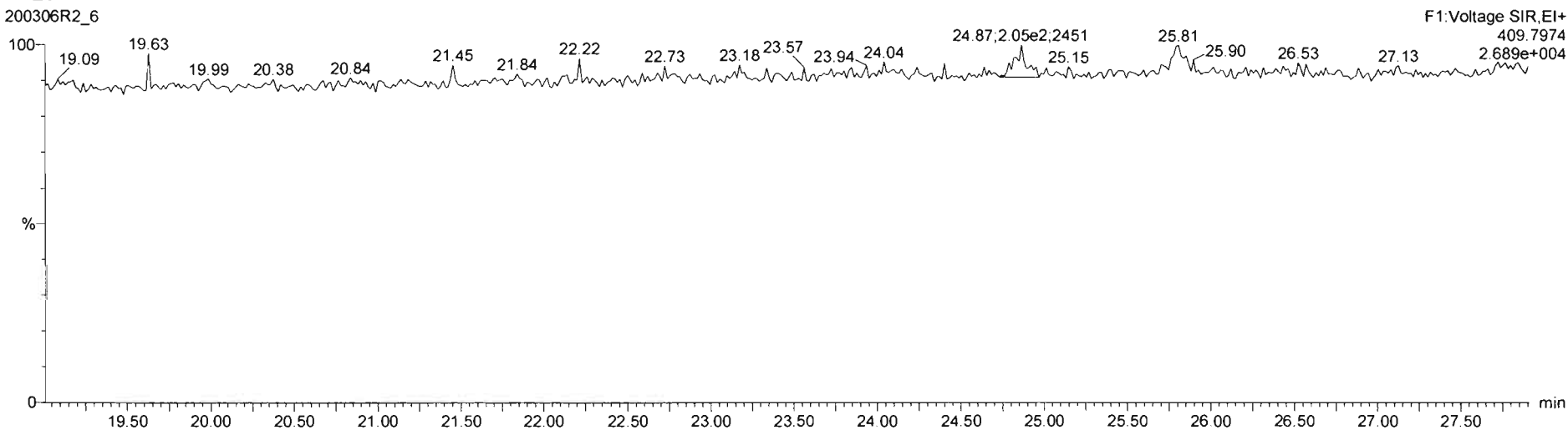


200306R2\_6



DPE6

200306R2\_6



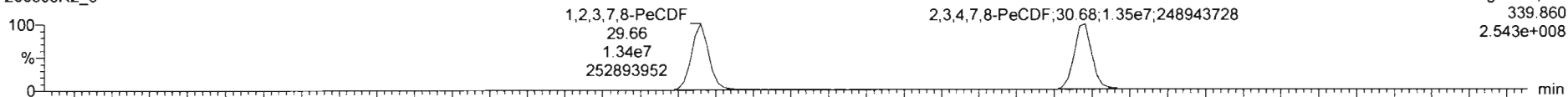
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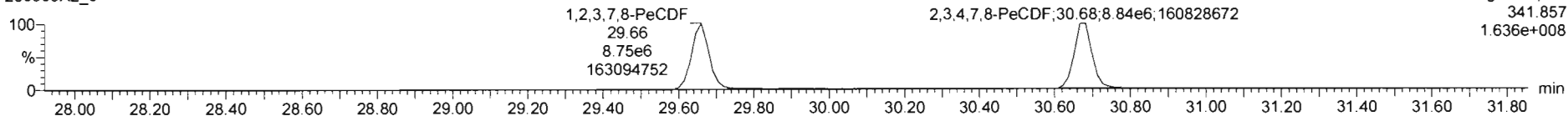
**1,2,3,7,8-PeCDF**

200306R2\_6



F2:Voltage SIR,EI+  
339.860  
2.543e+008

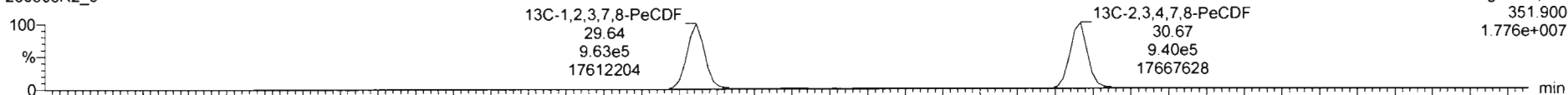
200306R2\_6



F2:Voltage SIR,EI+  
341.857  
1.636e+008

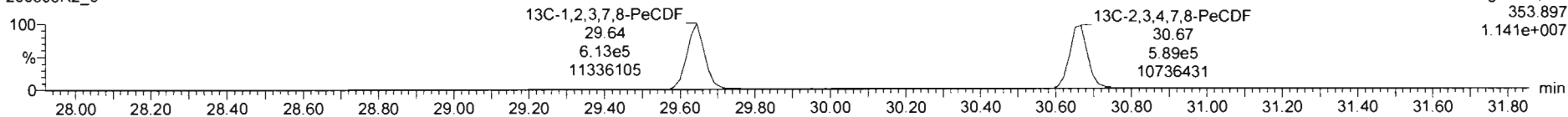
**13C-1,2,3,7,8-PeCDF**

200306R2\_6



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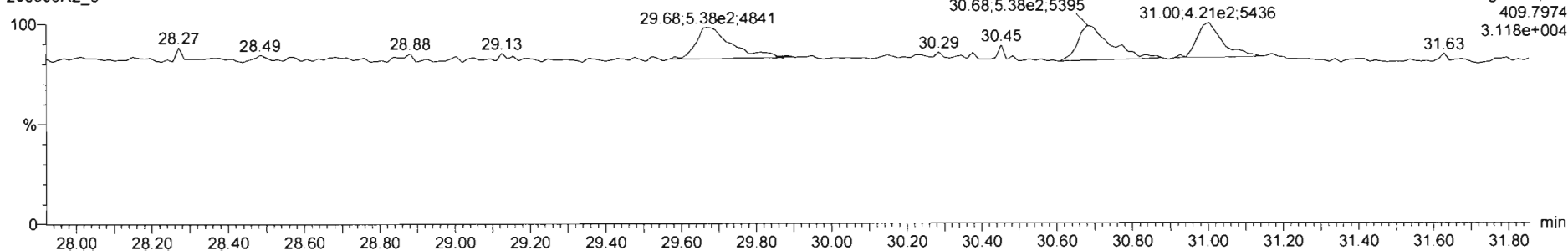
200306R2\_6



F2:Voltage SIR,EI+  
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**DPE2**

200306R2\_6



F2:Voltage SIR,EI+  
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3.118e+004

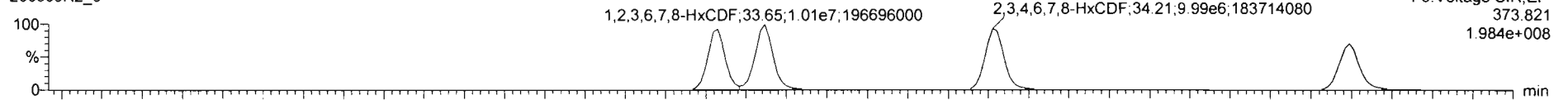
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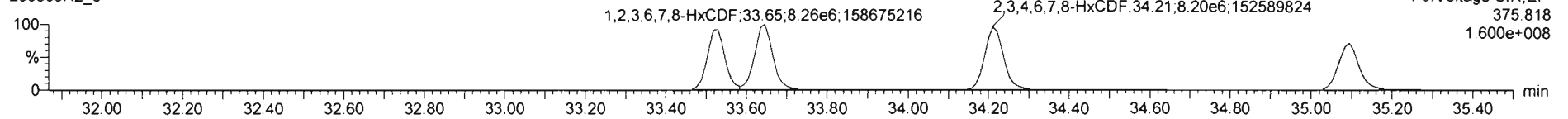
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**1,2,3,4,7,8-HxCDF**

200306R2\_6

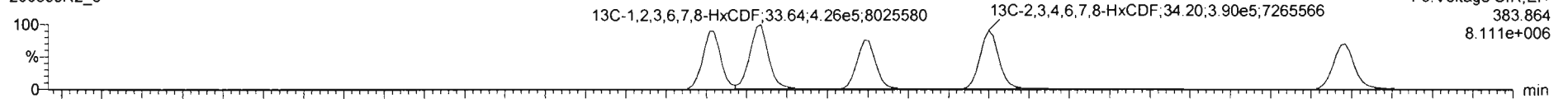


200306R2\_6

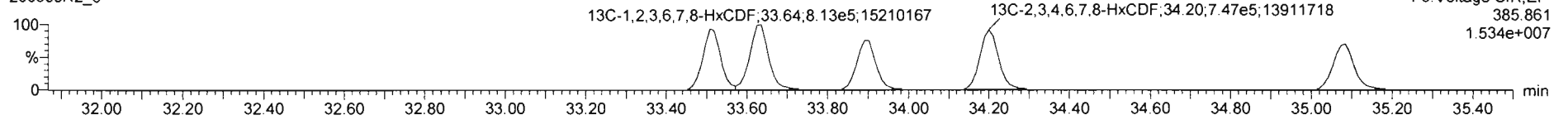


**13C-1,2,3,4,7,8-HxCDF**

200306R2\_6

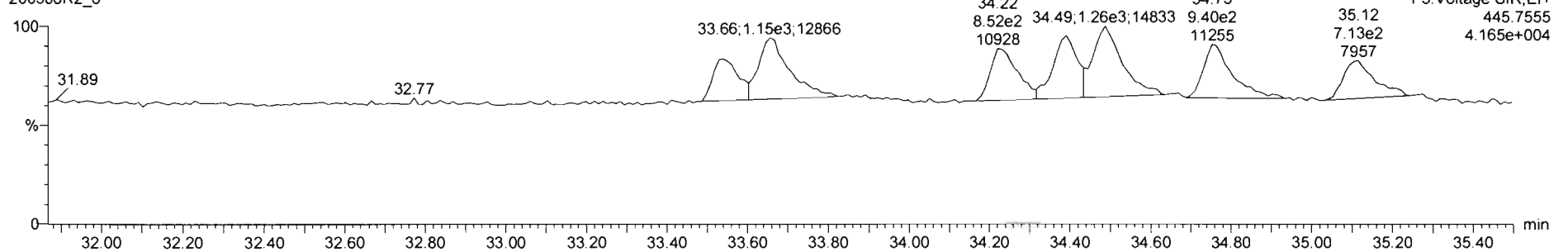


200306R2\_6



**DPE3**

200306R2\_6



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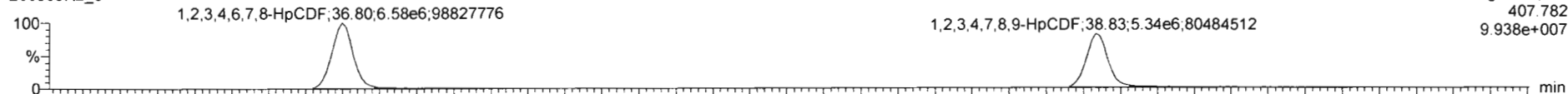
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

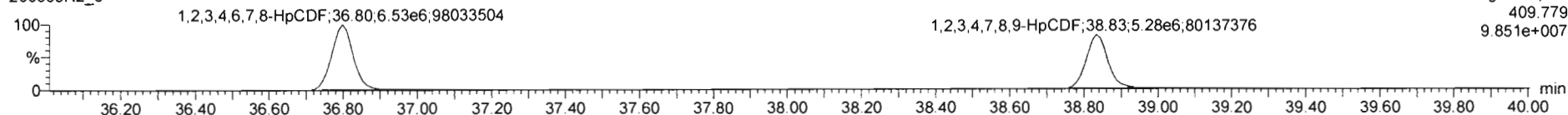
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**1,2,3,4,6,7,8-HpCDF**

200306R2\_6

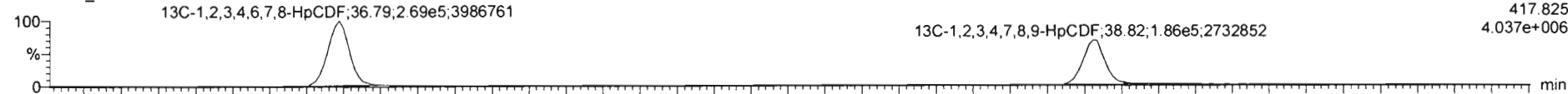


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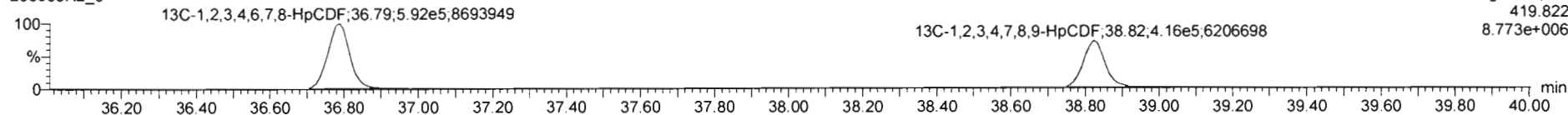


**13C-1,2,3,4,6,7,8-HpCDF**

200306R2\_6

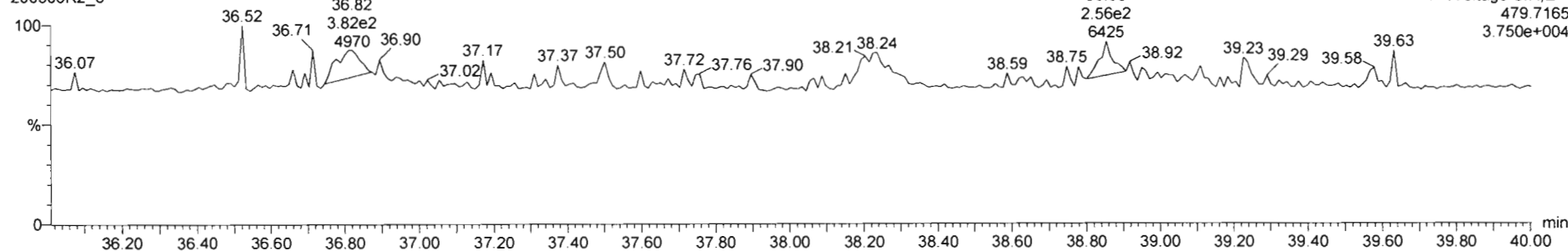


200306R2\_6



**DPE4**

200306R2\_6



Dataset: Untitled

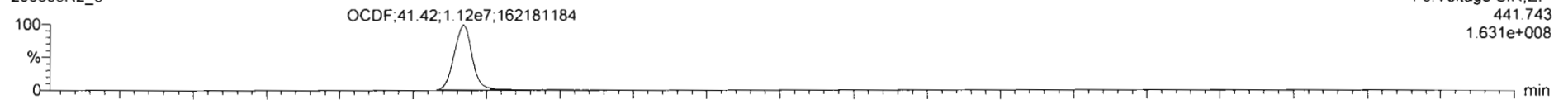
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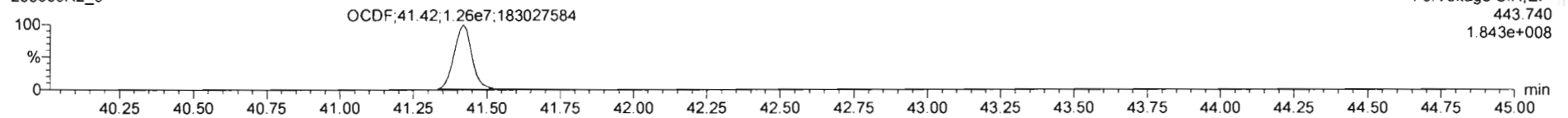
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**OCDF**

200306R2\_6

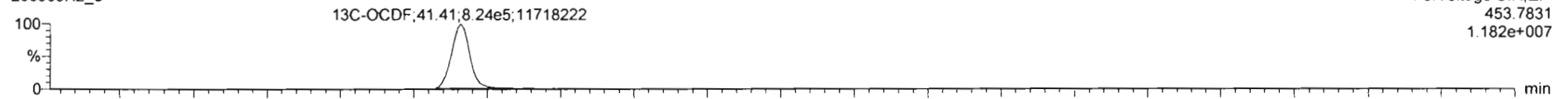


200306R2\_6

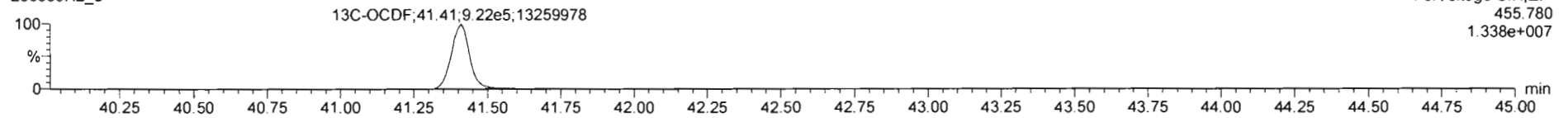


**13C-OCDF**

200306R2\_6

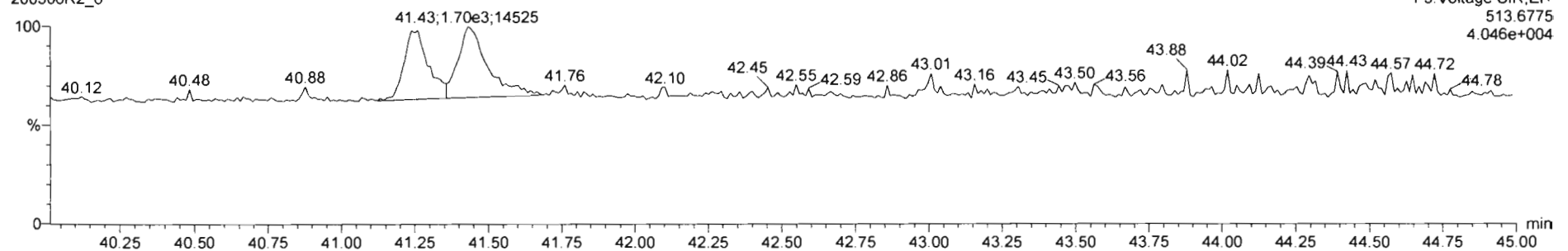


200306R2\_6



**DPE5**

200306R2\_6

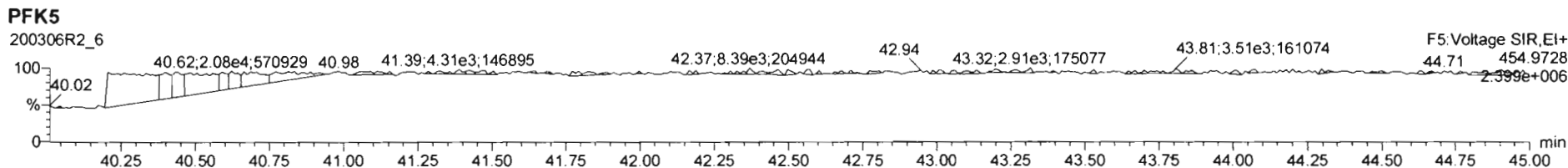
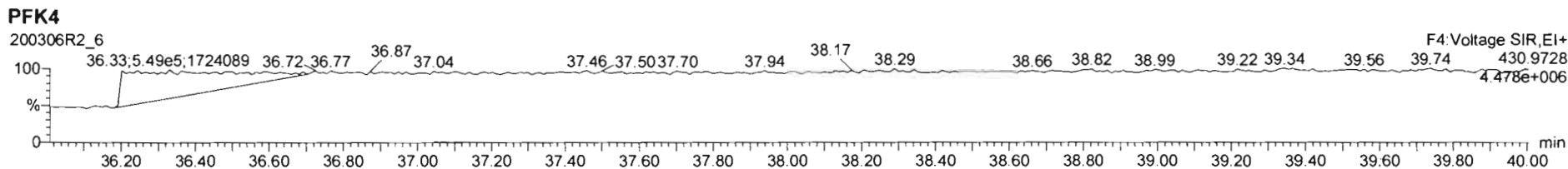
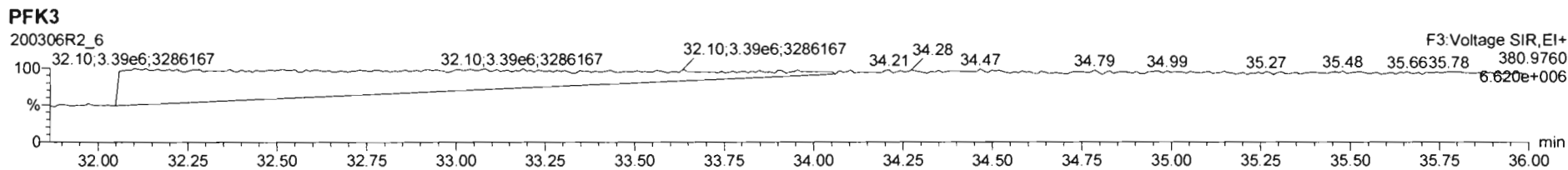
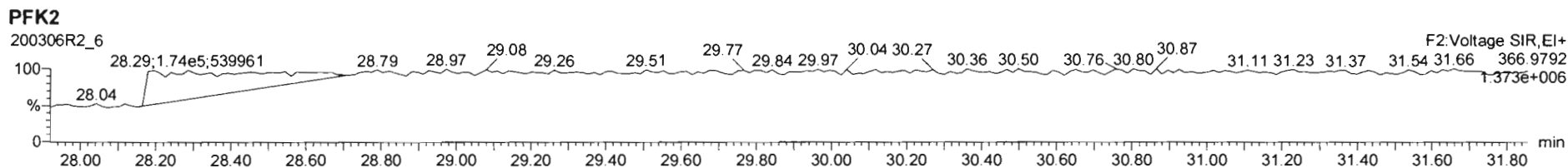
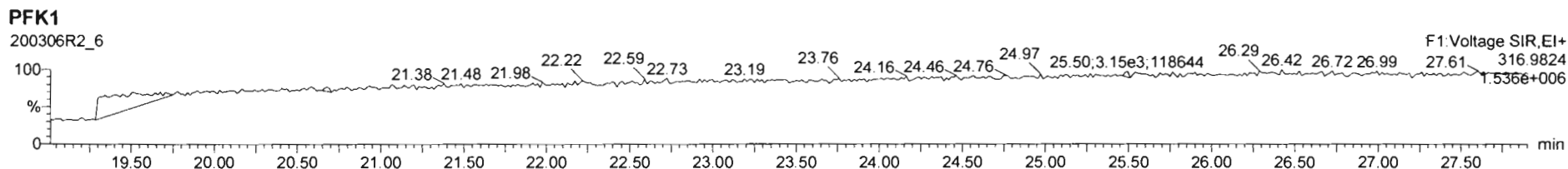




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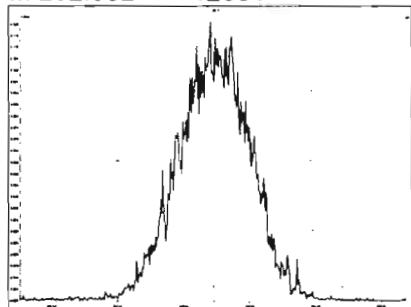
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Printed: Monday, March 09, 2020 08:23:18 Pacific Daylight Time

Name: 200306R2\_6, Date: 06-Mar-2020, Time: 17:07:03, ID: ST200306R2\_6 1613 CS5 19L2307, Description: 1613 CS5 19L2307

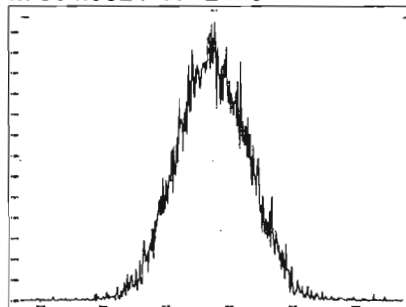


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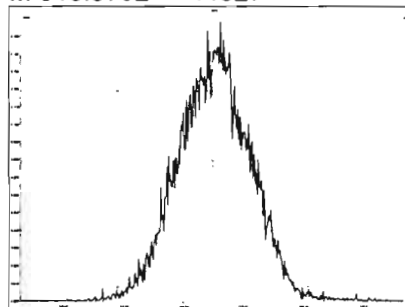
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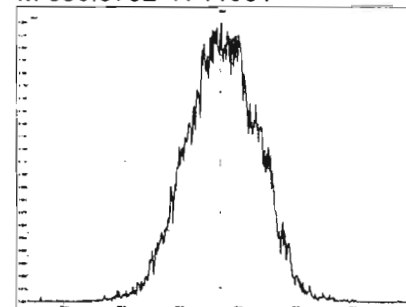
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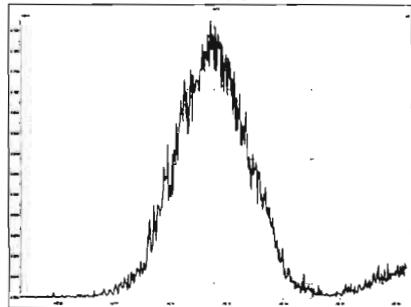
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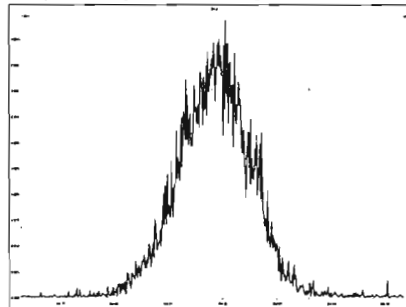
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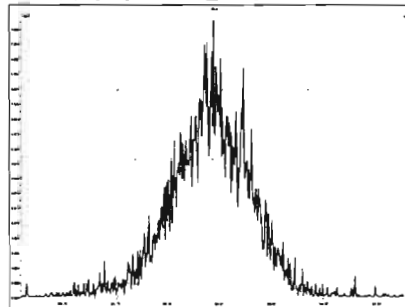
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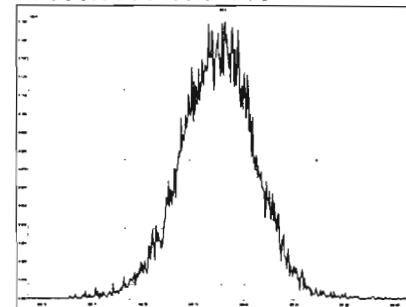
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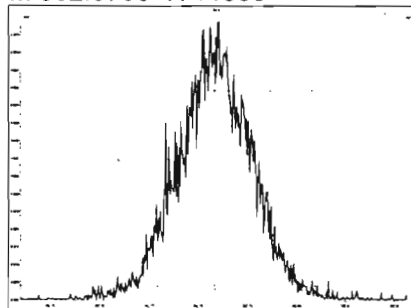
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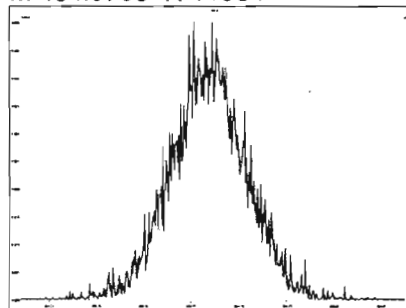
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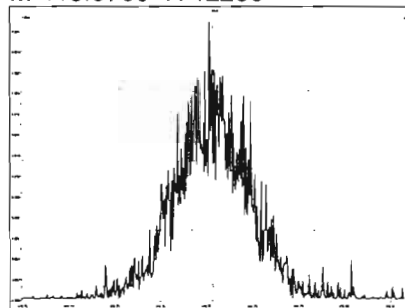
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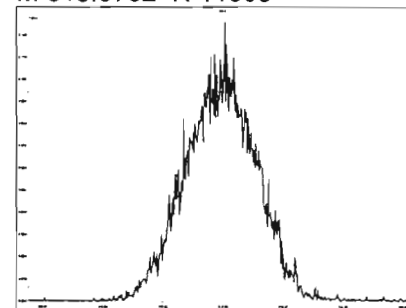
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M 416.9760 R 12269

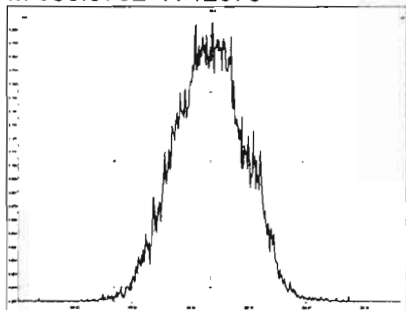


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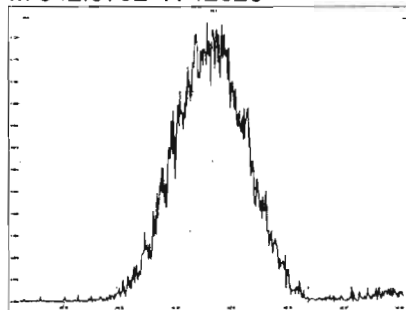


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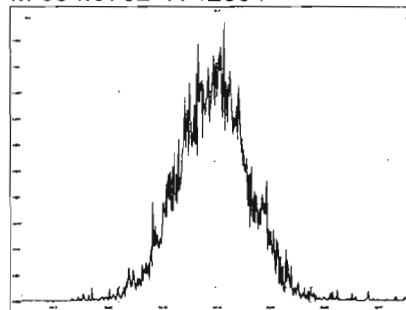
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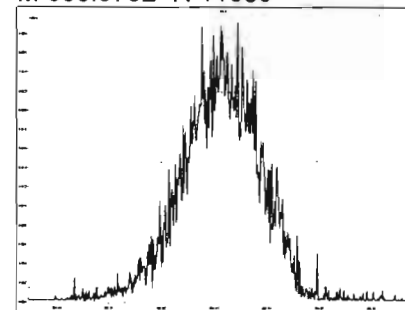
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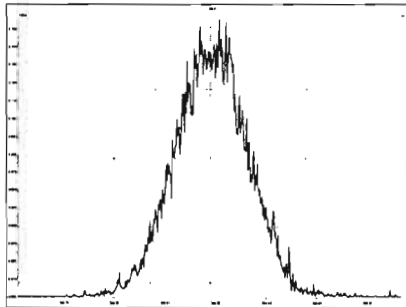
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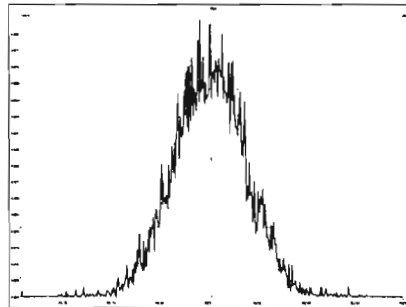
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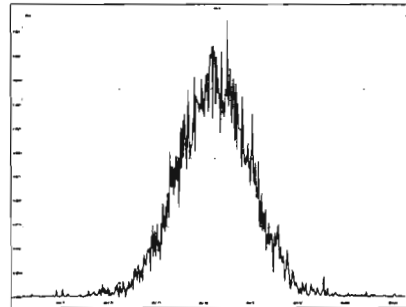
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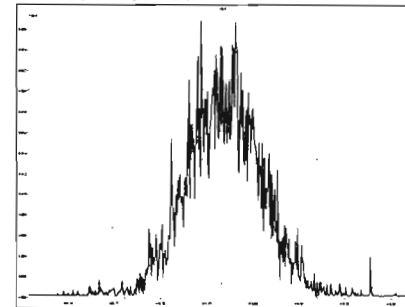
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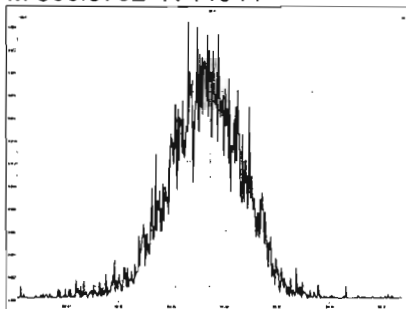
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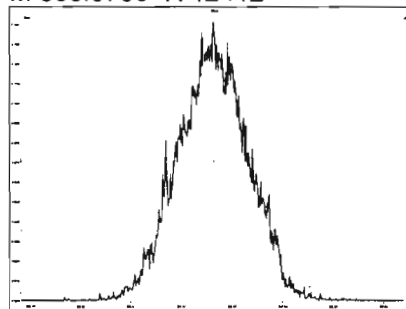
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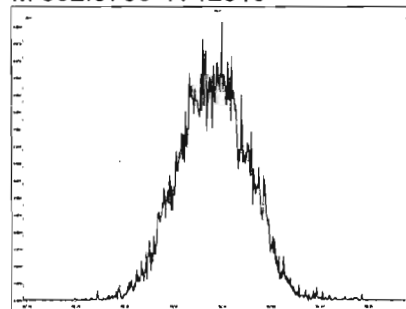
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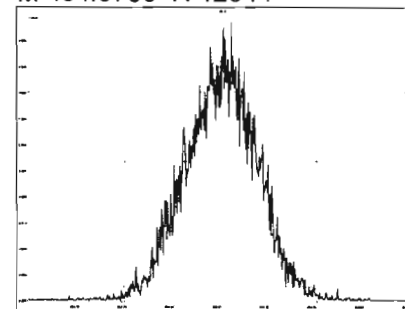
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M 392.9760 R 12319

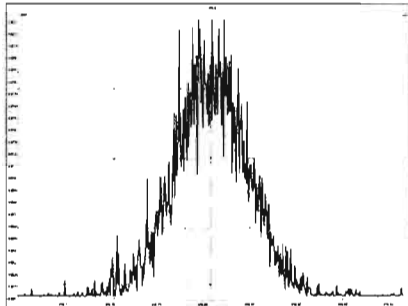


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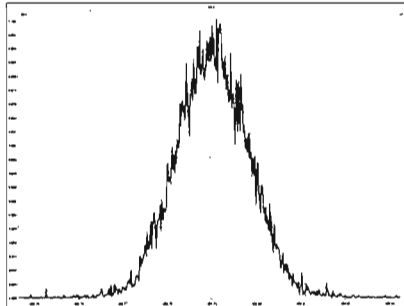


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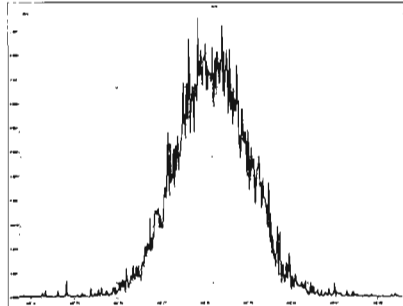
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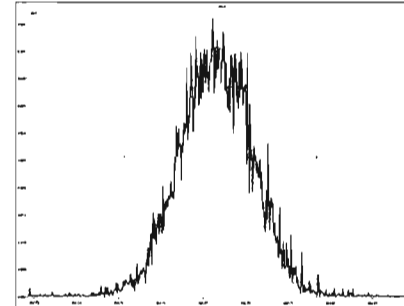
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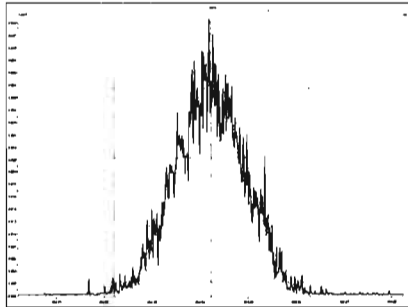
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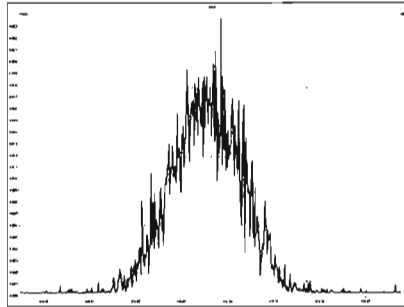
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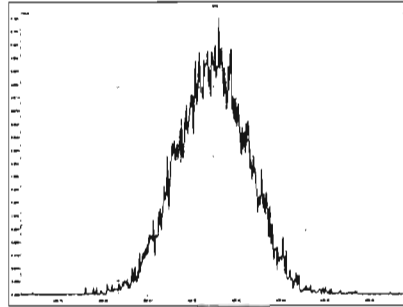
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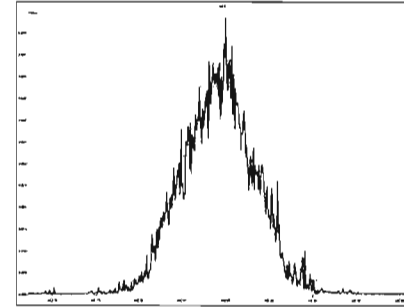
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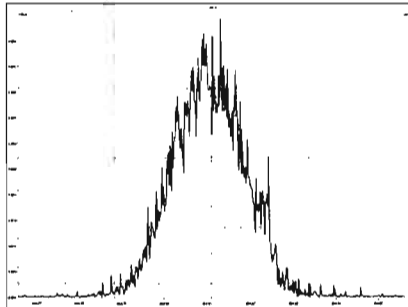
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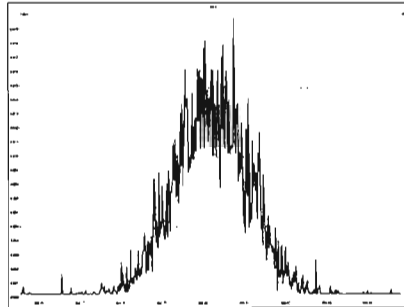
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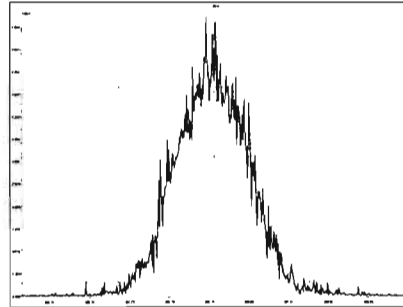
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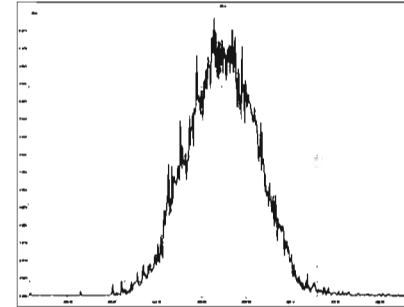
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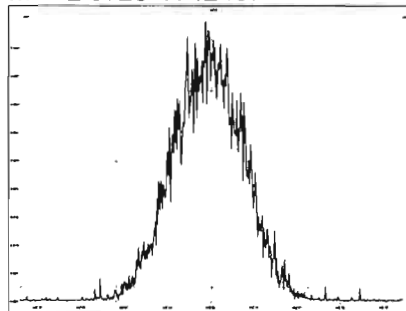


M 430.9728 R 12416

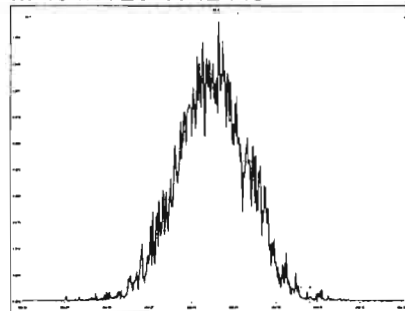


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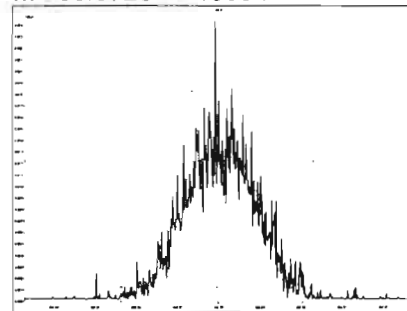
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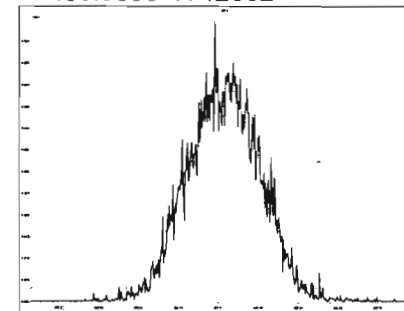
M 454.9728 R 12440



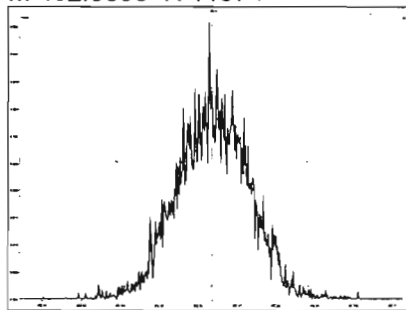
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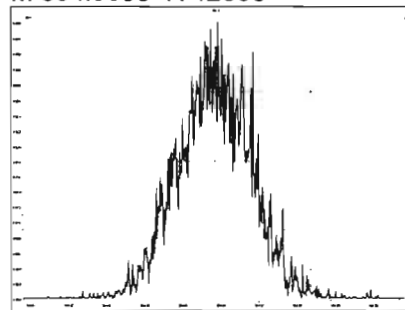
M 480.9696 R 12362



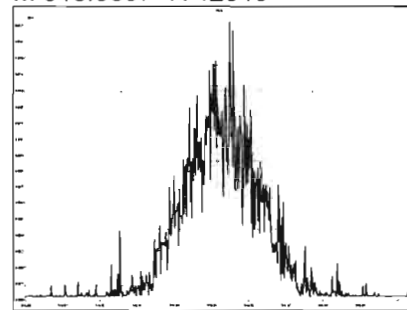
M 492.9696 R 11874



M 504.9696 R 12658



M 516.9697 R 12919



Dataset: U:\VG12.PRO\Results\200306R2\200306R2-8.qld

Last Altered: Monday, March 09, 2020 09:14:18 Pacific Daylight Time

Printed: Monday, March 09, 2020 09:15:42 Pacific Daylight Time

*GRB 03/09/2020*

*0703/09/2020*

Method: U:\VG12.PRO\MethDB\1613rrt-3-6-20.mdb 06 Mar 2020 12:03:08

Calibration: U:\VG12.PRO\CurveDB\lb5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

Name: 200306R2\_8, Date: 06-Mar-2020, Time: 18:42:29, ID: SS200306R2\_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

#	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	9.28e4	0.77	NO	0.983	1.000	25.781	25.78	1.001	1.001	10.508	105	0.0462	10.5
2	2 1,2,3,7,8-PeCDD	3.71e5	0.63	NO	0.921	1.000	30.979	30.97	1.001	1.000	54.038	108	0.0655	54.0
3	3 1,2,3,4,7,8-HxCDD	3.32e5	1.24	NO	1.13	1.000	34.349	34.36	1.000	1.001	53.824	108	0.101	53.8
4	4 1,2,3,6,7,8-HxCDD	3.81e5	1.27	NO	0.984	1.000	34.445	34.46	1.000	1.000	57.230	114	0.0994	57.2
5	5 1,2,3,7,8,9-HxCDD	3.33e5	1.22	NO	0.967	1.000	34.722	34.72	1.000	1.000	56.617	113	0.117	56.6
6	6 1,2,3,4,6,7,8-HpCDD	2.52e5	1.04	NO	1.01	1.000	38.184	38.19	1.000	1.001	55.470	111	0.201	55.5
7	7 OCDD	4.61e5	0.91	NO	1.05	1.000	41.208	41.22	1.000	1.000	104.33	104	0.212	104
8	8 2,3,7,8-TCDF	1.19e5	0.80	NO	0.915	1.000	24.817	24.81	1.001	1.001	10.876	109	0.0390	10.9
9	9 1,2,3,7,8-PeCDF	5.58e5	1.55	NO	0.959	1.000	29.635	29.63	1.001	1.001	53.583	107	0.0901	53.6
10	10 2,3,4,7,8-PeCDF	6.50e5	1.53	NO	1.00	1.000	30.667	30.65	1.001	1.000	60.478	121	0.0822	60.5
11	11 1,2,3,4,7,8-HxCDF	4.39e5	1.22	NO	1.04	1.000	33.486	33.50	1.000	1.000	56.277	113	0.116	56.3
12	12 1,2,3,6,7,8-HxCDF	4.83e5	1.22	NO	1.01	1.000	33.614	33.63	1.000	1.001	58.225	116	0.120	58.2
13	13 2,3,4,6,7,8-HxCDF	4.58e5	1.23	NO	1.09	1.000	34.213	34.19	1.001	1.000	53.808	108	0.121	53.8
14	14 1,2,3,7,8,9-HxCDF	3.65e5	1.23	NO	1.03	1.000	35.052	35.06	1.000	1.000	54.692	109	0.173	54.7
15	15 1,2,3,4,6,7,8-HpCDF	3.38e5	1.03	NO	1.05	1.000	36.793	36.78	1.001	1.001	55.962	112	0.171	56.0
16	16 1,2,3,4,7,8,9-HpCDF	2.60e5	1.01	NO	1.21	1.000	38.801	38.81	1.000	1.000	55.091	110	0.218	55.1
17	17 OCDF	5.30e5	0.88	NO	0.947	1.000	41.389	41.40	1.000	1.000	107.93	108	0.154	108
18	18 13C-2,3,7,8-TCDD	8.98e5	0.78	NO	1.18	1.000	25.781	25.75	1.029	1.027	94.504	94.5	0.106	
19	19 13C-1,2,3,7,8-PeCDD	7.45e5	0.64	NO	0.864	1.000	30.974	30.96	1.236	1.235	107.38	107	0.187	
20	20 13C-1,2,3,4,7,8-HxCDD	5.45e5	1.26	NO	0.754	1.000	34.341	34.34	1.014	1.014	85.136	85.1	0.201	
21	21 13C-1,2,3,6,7,8-HxCDD	6.77e5	1.26	NO	0.925	1.000	34.449	34.45	1.017	1.017	86.121	86.1	0.164	
22	22 13C-1,2,3,7,8,9-HxCDD	6.09e5	1.27	NO	0.829	1.000	34.710	34.71	1.025	1.025	86.383	86.4	0.183	
23	23 13C-1,2,3,4,6,7,8-HpCDD	4.51e5	1.04	NO	0.598	1.000	38.158	38.17	1.127	1.127	88.689	88.7	0.205	
24	24 13C-OCDD	8.40e5	0.87	NO	0.571	1.000	41.298	41.21	1.219	1.217	173.12	86.6	0.205	
25	25 13C-2,3,7,8-TCDF	1.19e6	0.78	NO	1.09	1.000	24.801	24.79	0.990	0.989	86.829	86.8	0.143	
26	26 13C-1,2,3,7,8-PeCDF	1.09e6	1.58	NO	0.876	1.000	29.643	29.61	1.183	1.182	98.396	98.4	0.243	
27	27 13C-2,3,4,7,8-PeCDF	1.07e6	1.60	NO	0.844	1.000	30.655	30.64	1.223	1.222	100.81	101	0.253	
28	28 13C-1,2,3,4,7,8-HxCDF	7.52e5	0.52	NO	1.00	1.000	33.491	33.49	0.989	0.989	88.441	88.4	0.228	
29	29 13C-1,2,3,6,7,8-HxCDF	8.18e5	0.53	NO	1.12	1.000	33.599	33.60	0.992	0.992	86.171	86.2	0.204	
30	30 13C-2,3,4,6,7,8-HxCDF	7.80e5	0.52	NO	1.04	1.000	34.178	34.18	1.009	1.009	88.698	88.7	0.220	
31	31 13C-1,2,3,7,8,9-HxCDF	6.50e5	0.50	NO	0.873	1.000	35.049	35.05	1.035	1.035	87.589	87.6	0.261	

Dataset: U:\VG12.PRO\Results\200306R2\200306R2-8.qld

Last Altered: Monday, March 09, 2020 09:14:18 Pacific Daylight Time

Printed: Monday, March 09, 2020 09:15:42 Pacific Daylight Time

Name: 200306R2\_8, Date: 06-Mar-2020, Time: 18:42:29, ID: SS200306R2\_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

	# 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	5.76e5	0.45	NO	0.771	1.000	36.759	36.76	1.085	1.085	87.916	87.9	0.211	
33	33 13C-1,2,3,4,7,8,9-HpCDF	3.91e5	0.44	NO	0.519	1.000	38.839	38.80	1.147	1.146	88.538	88.5	0.314	
34	34 13C-OCDF	1.04e6	0.90	NO	0.696	1.000	41.477	41.39	1.225	1.222	175.32	87.7	0.183	
35	35 37Cl-2,3,7,8-TCDD	9.59e4			1.17	1.000	25.791	25.78	1.029	1.029	10.173	102	0.0234	
36	36 13C-1,2,3,4-TCDD	8.02e5	0.79	NO	1.00	1.000	25.050	25.06	1.000	1.000	100.00	100	0.126	
37	37 13C-1,2,3,4-TCDF	1.26e6	0.80	NO	1.00	1.000	23.190	23.19	1.000	1.000	100.00	100	0.156	
38	38 13C-1,2,3,4,6,9-HxCDF	8.50e5	0.51	NO	1.00	1.000	33.880	33.87	1.000	1.000	100.00	100	0.228	

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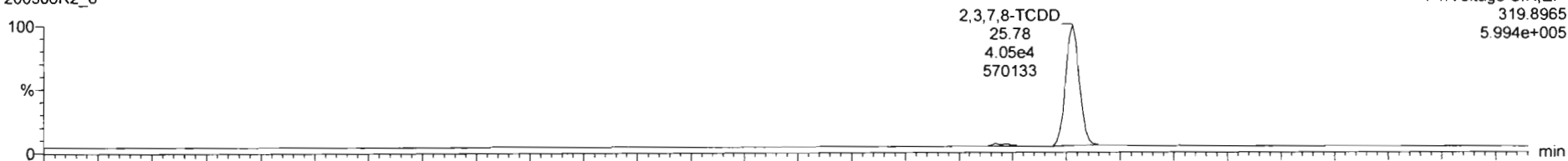
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Printed: Monday, March 09, 2020 09:03:37 Pacific Daylight Time

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Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

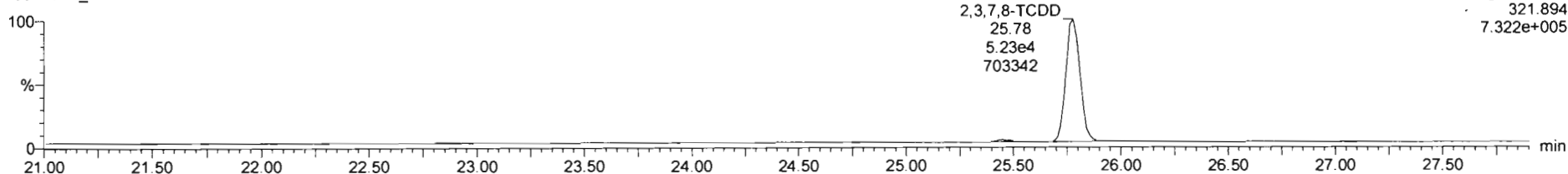
Name: 200306R2\_8, Date: 06-Mar-2020, Time: 18:42:29, ID: SS200306R2\_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

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

200306R2\_8

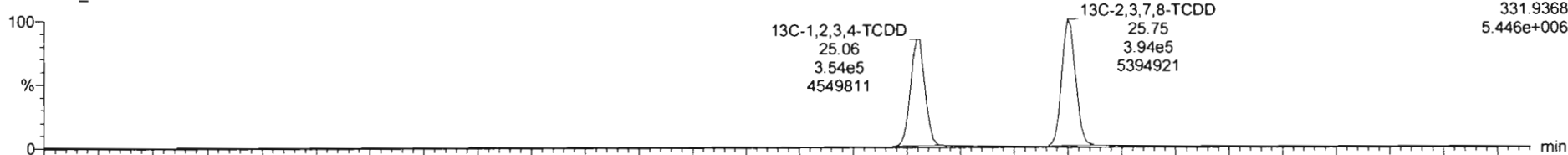


200306R2\_8

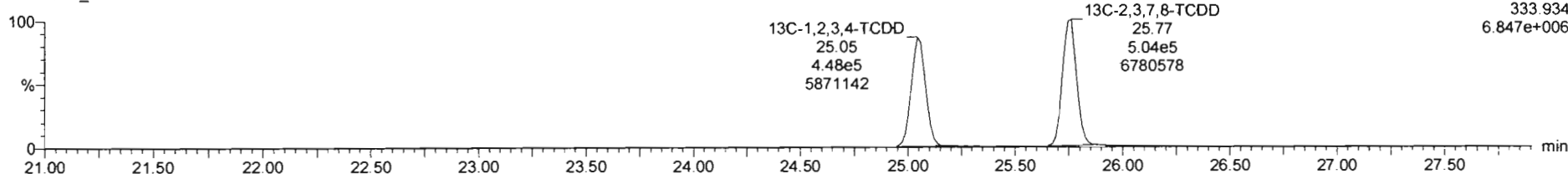


**13C-2,3,7,8-TCDD**

200306R2\_8



200306R2\_8





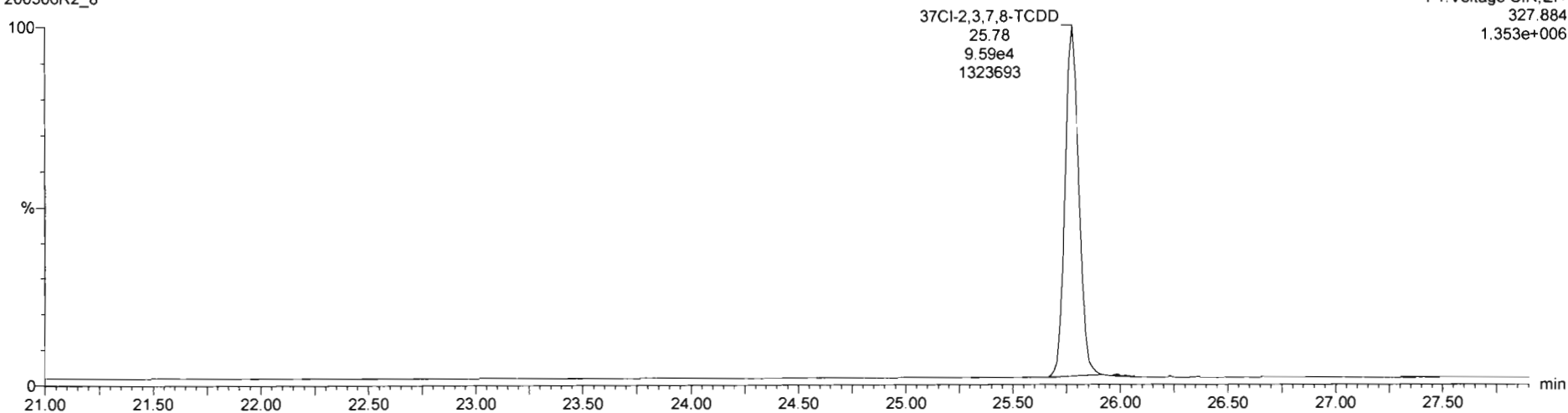
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Printed: Monday, March 09, 2020 09:03:37 Pacific Daylight Time

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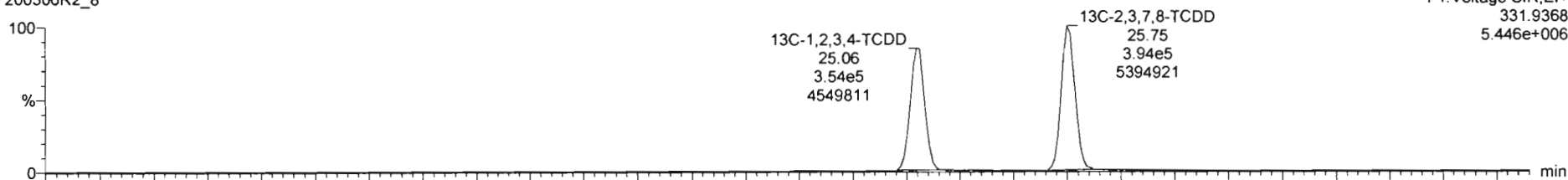
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200306R2\_8

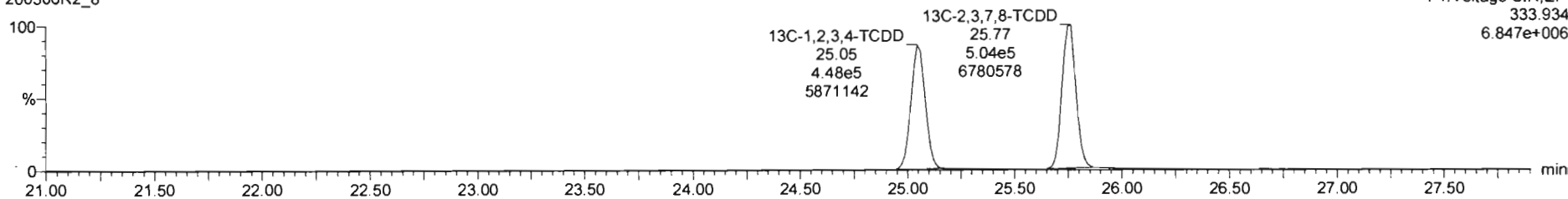


**13C-1,2,3,4-TCDD**

200306R2\_8



200306R2\_8



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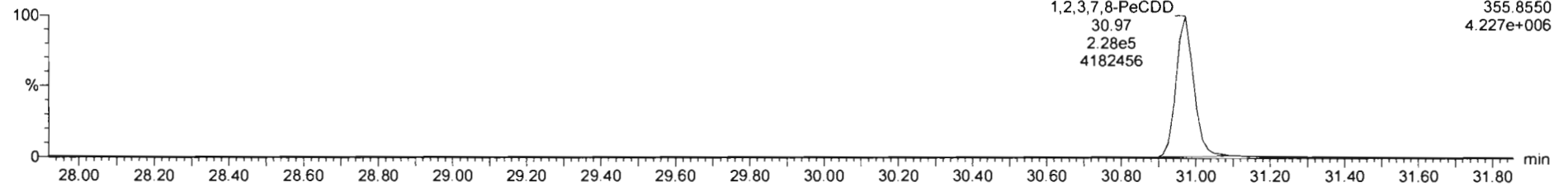
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**1,2,3,7,8-PeCDD**

200306R2\_8

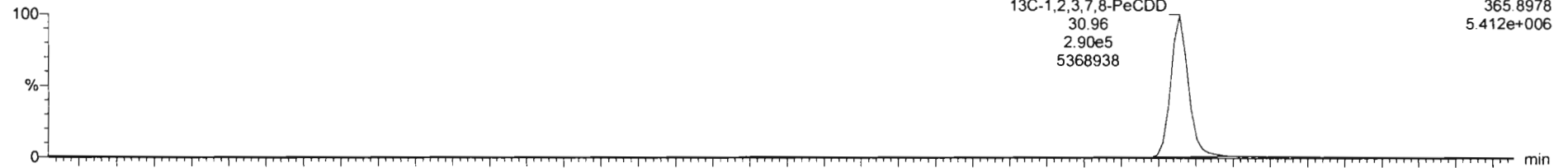


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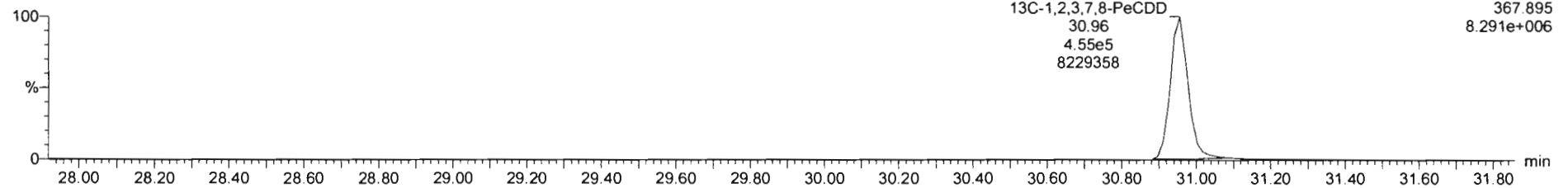


**13C-1,2,3,7,8-PeCDD**

200306R2\_8



200306R2\_8



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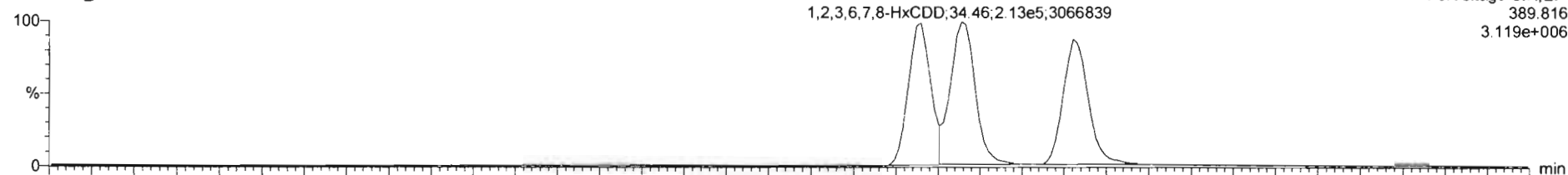
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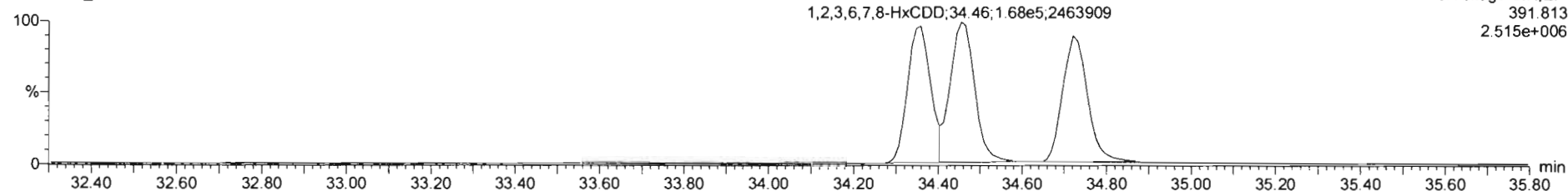
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**1,2,3,4,7,8-HxCDD**

200306R2\_8

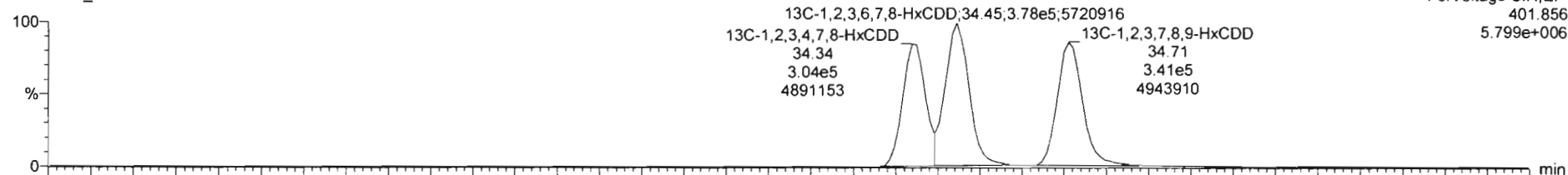


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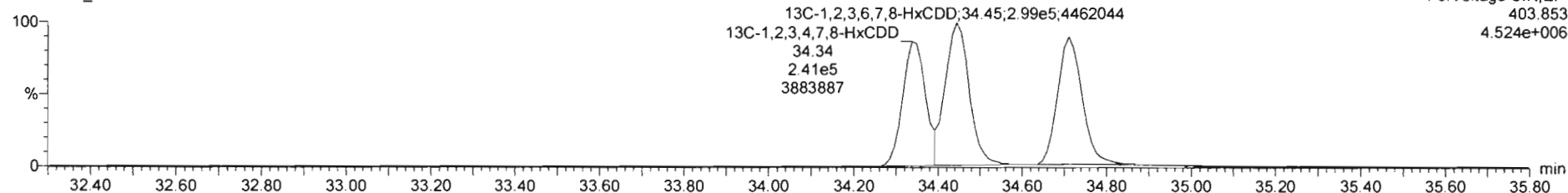


**13C-1,2,3,4,7,8-HxCDD**

200306R2\_8



200306R2\_8



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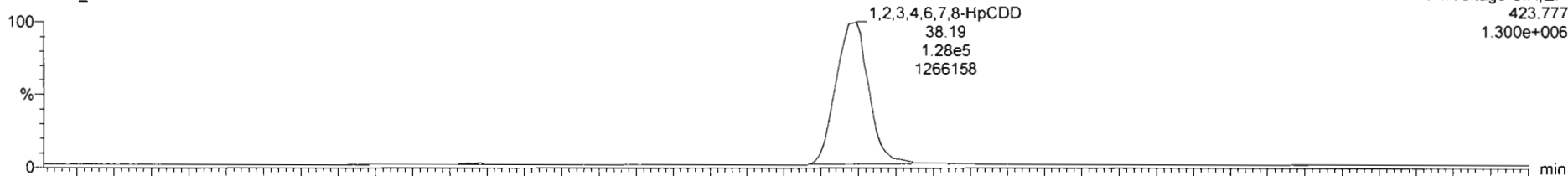
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Printed: Monday, March 09, 2020 09:03:37 Pacific Daylight Time

Name: 200306R2\_8, Date: 06-Mar-2020, Time: 18:42:29, ID: SS200306R2\_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

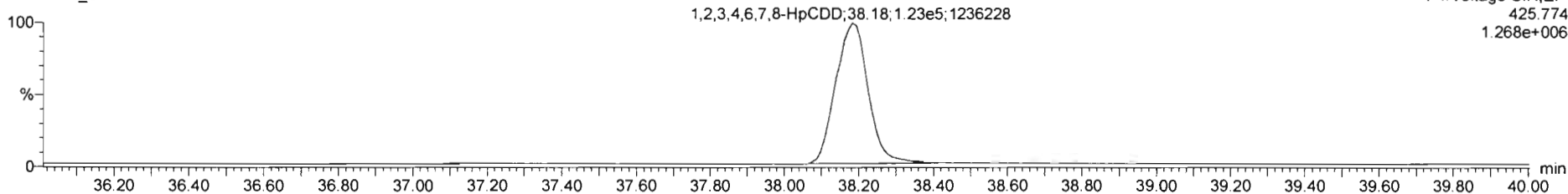
**1,2,3,4,6,7,8-HpCDD**

200306R2\_8



F4: Voltage SIR, EI+  
423.777  
1.300e+006

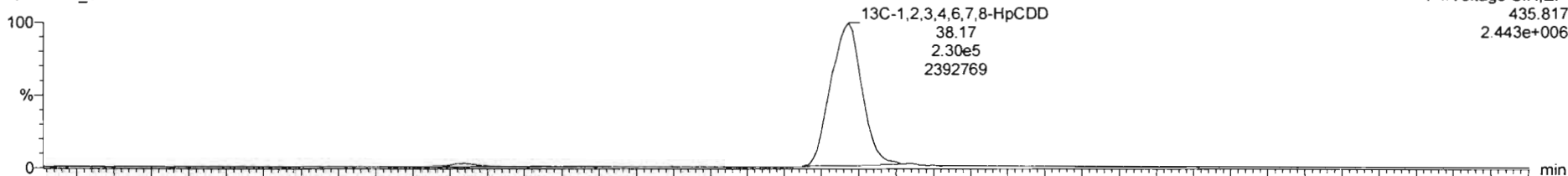
200306R2\_8



F4: Voltage SIR, EI+  
425.774  
1.268e+006

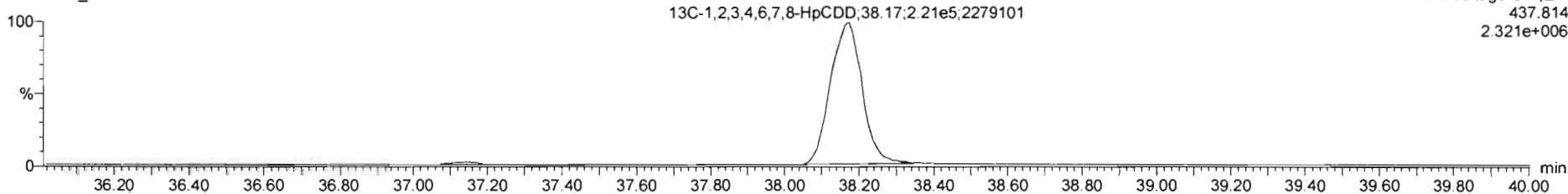
**13C-1,2,3,4,6,7,8-HpCDD**

200306R2\_8



F4: Voltage SIR, EI+  
435.817  
2.443e+006

200306R2\_8



F4: Voltage SIR, EI+  
437.814  
2.321e+006

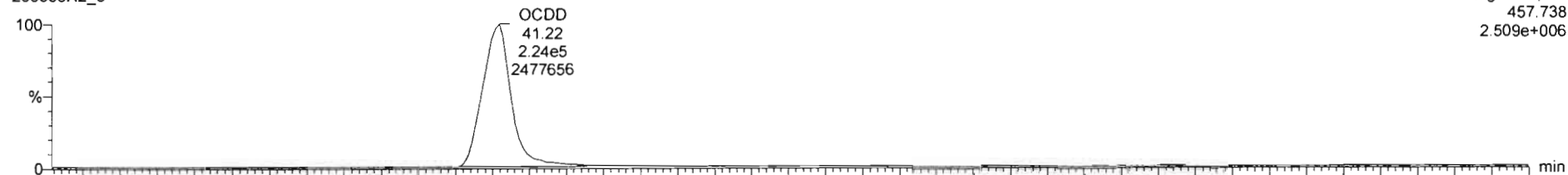
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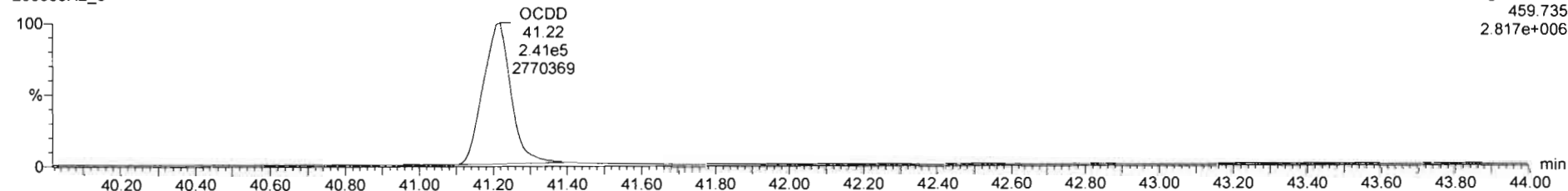
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**OCDD**

200306R2\_8

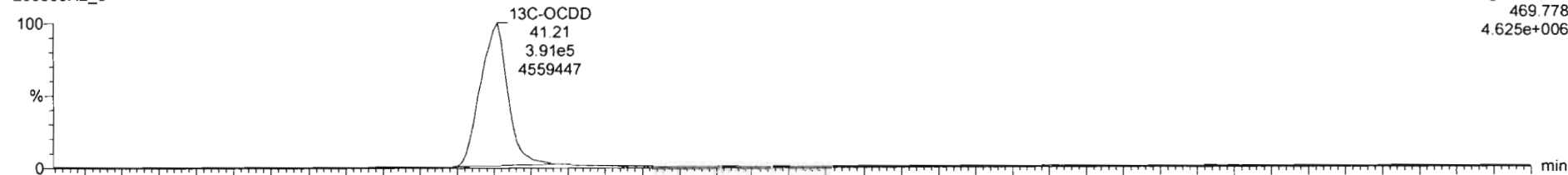


200306R2\_8

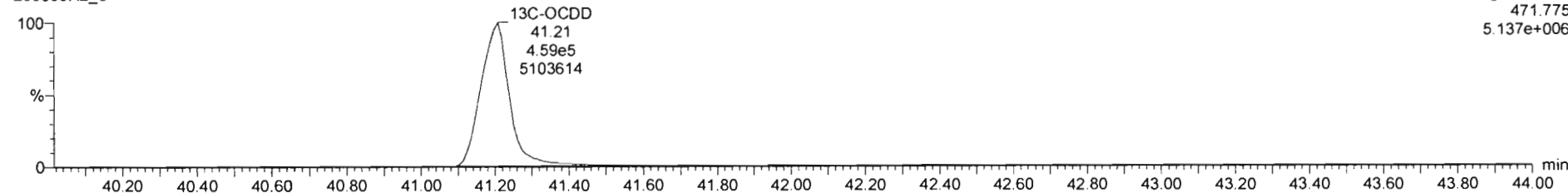


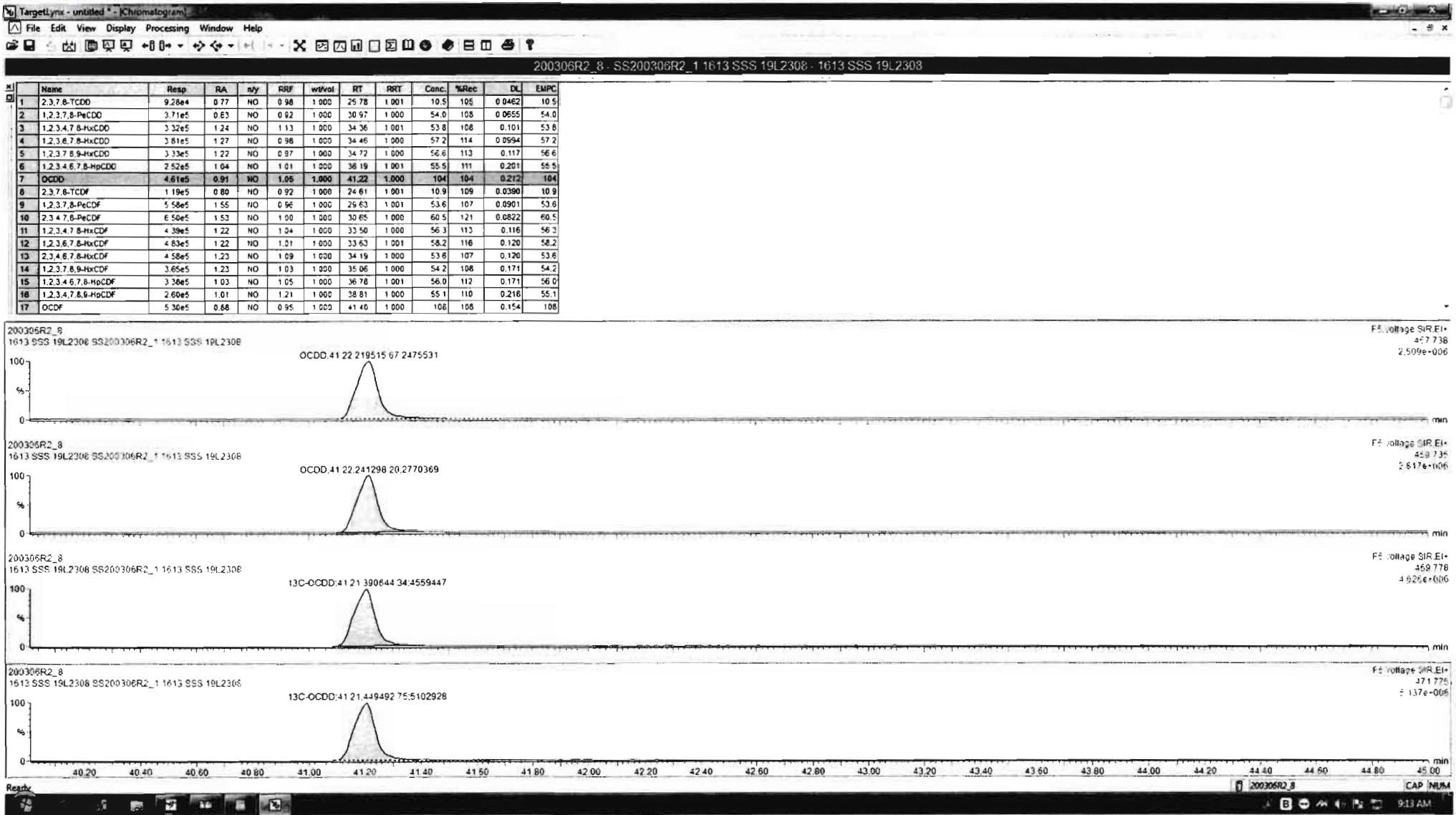
**13C-OCDD**

200306R2\_8



200306R2\_8





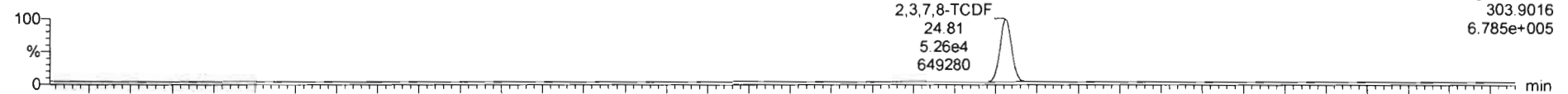
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Name: 200306R2\_8, Date: 06-Mar-2020, Time: 18:42:29, ID: SS200306R2\_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

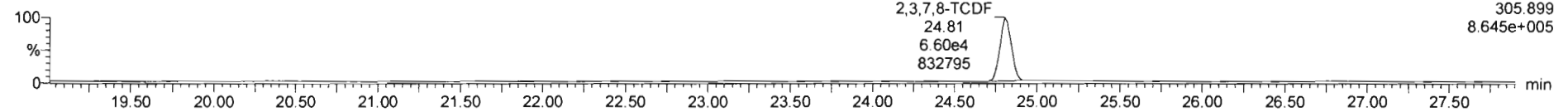
**2,3,7,8-TCDF**

200306R2\_8



F1:Voltage SIR,EI+  
303.9016  
6.785e+005

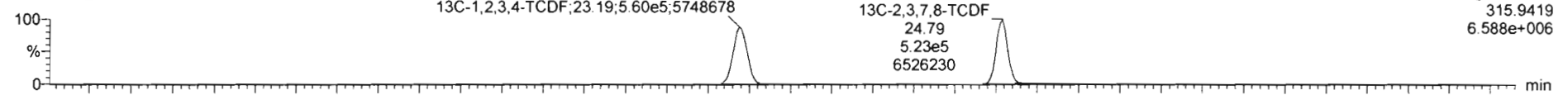
200306R2\_8



F1:Voltage SIR,EI+  
305.899  
8.645e+005

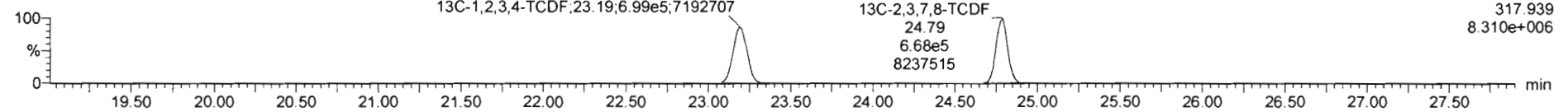
**13C-2,3,7,8-TCDF**

200306R2\_8



F1:Voltage SIR,EI+  
315.9419  
6.588e+006

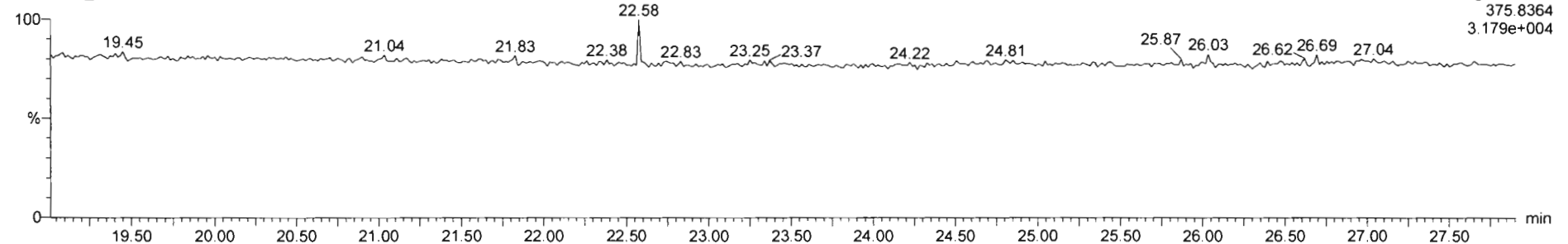
200306R2\_8



F1:Voltage SIR,EI+  
317.939  
8.310e+006

**DPE1**

200306R2\_8



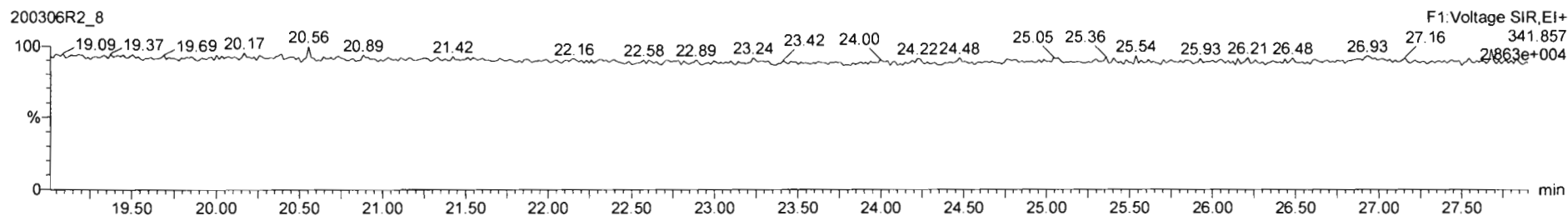
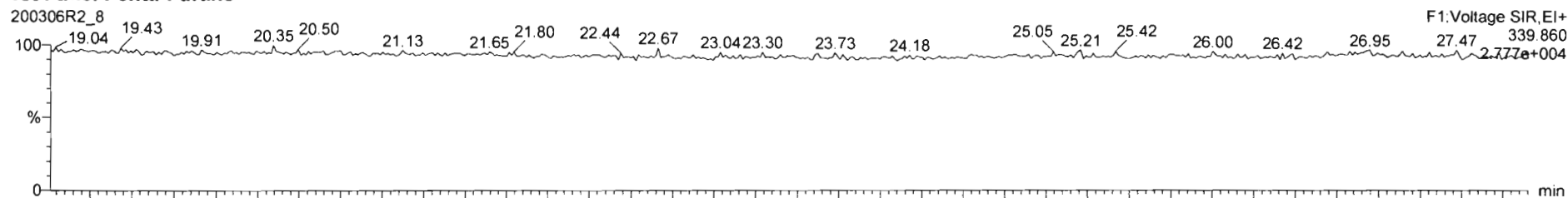
F1:Voltage SIR,EI+  
375.8364  
3.179e+004

Dataset: Untitled

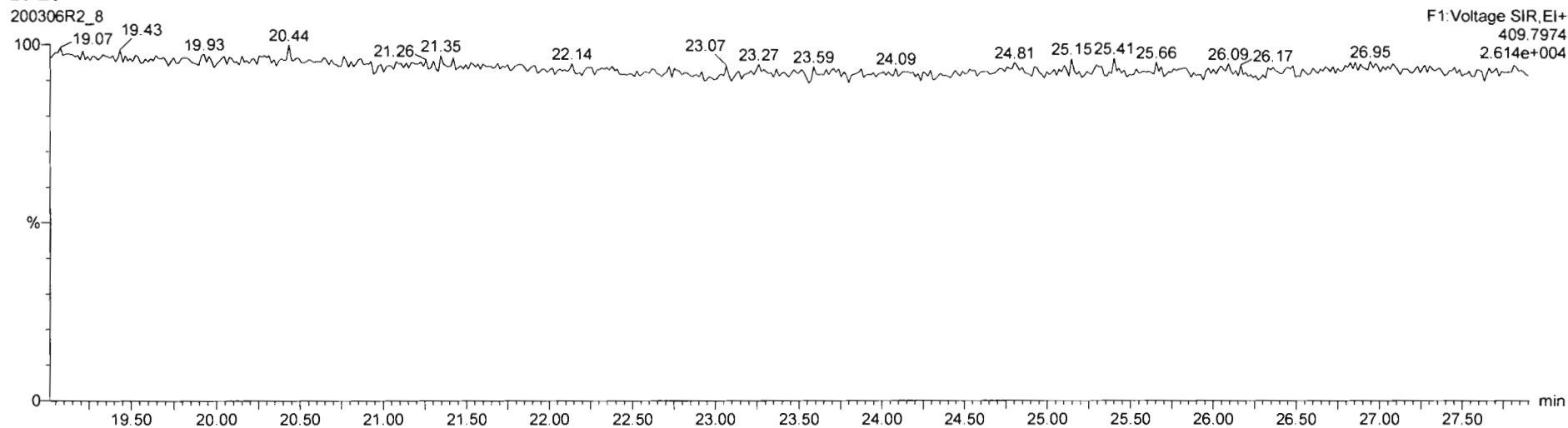
Last Altered: Monday, March 09, 2020 09:01:52 Pacific Daylight Time  
Printed: Monday, March 09, 2020 09:03:37 Pacific Daylight Time

Name: 200306R2\_8, Date: 06-Mar-2020, Time: 18:42:29, ID: SS200306R2\_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

1st Func. Penta-Furans



DPE6





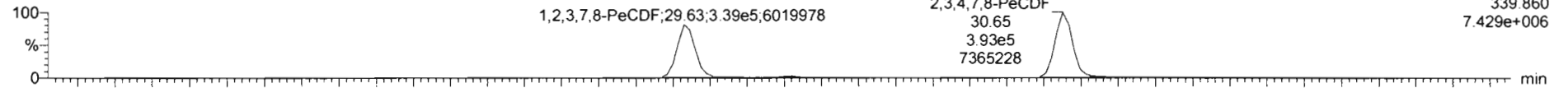
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Last Altered: Monday, March 09, 2020 09:01:52 Pacific Daylight Time  
Printed: Monday, March 09, 2020 09:03:37 Pacific Daylight Time

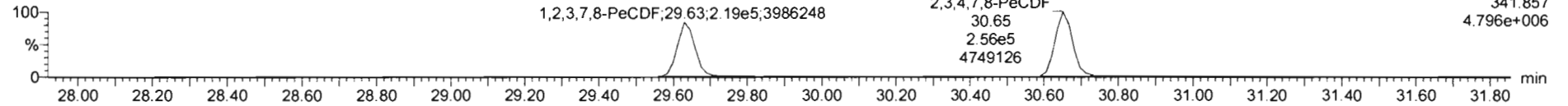
Name: 200306R2\_8, Date: 06-Mar-2020, Time: 18:42:29, ID: SS200306R2\_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

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

200306R2\_8

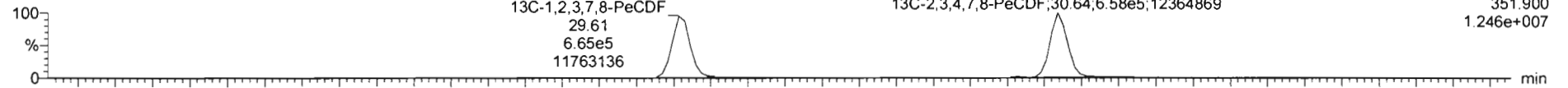


200306R2\_8

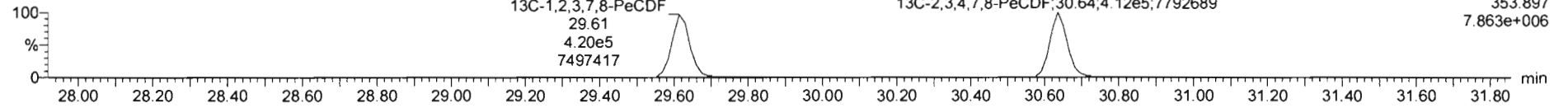


**13C-1,2,3,7,8-PeCDF**

200306R2\_8

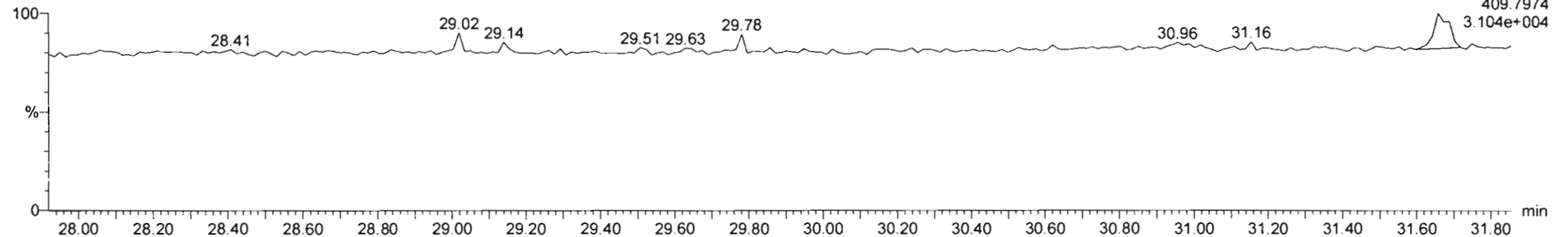


200306R2\_8



**DPE2**

200306R2\_8



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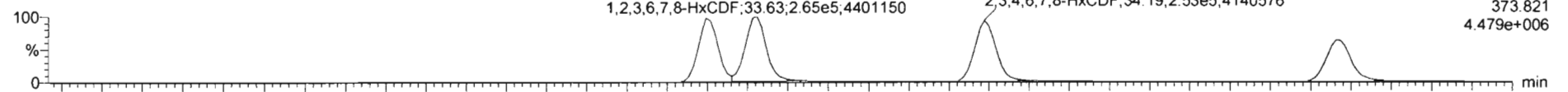
Last Altered: Monday, March 09, 2020 09:01:52 Pacific Daylight Time

Printed: Monday, March 09, 2020 09:03:37 Pacific Daylight Time

Name: 200306R2\_8, Date: 06-Mar-2020, Time: 18:42:29, ID: SS200306R2\_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

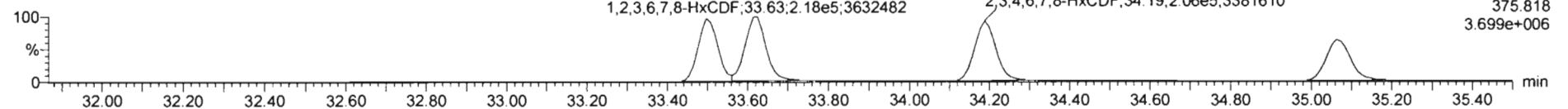
**1,2,3,4,7,8-HxCDF**

200306R2\_8



F3:Voltage SIR,EI+  
373.821  
4.479e+006

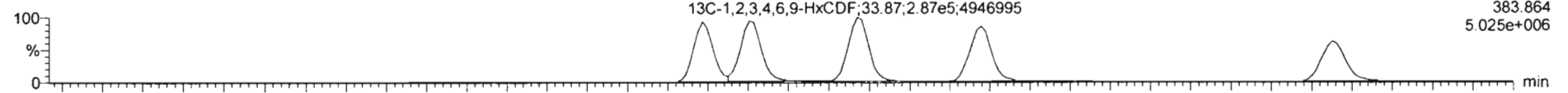
200306R2\_8



F3:Voltage SIR,EI+  
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3.699e+006

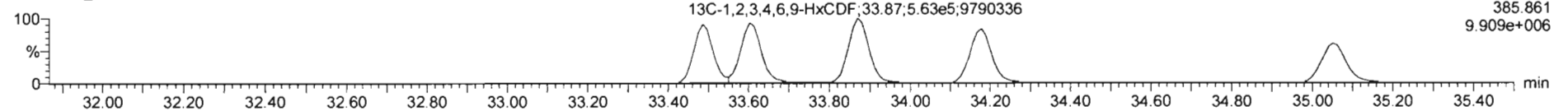
**13C-1,2,3,4,7,8-HxCDF**

200306R2\_8



F3:Voltage SIR,EI+  
383.864  
5.025e+006

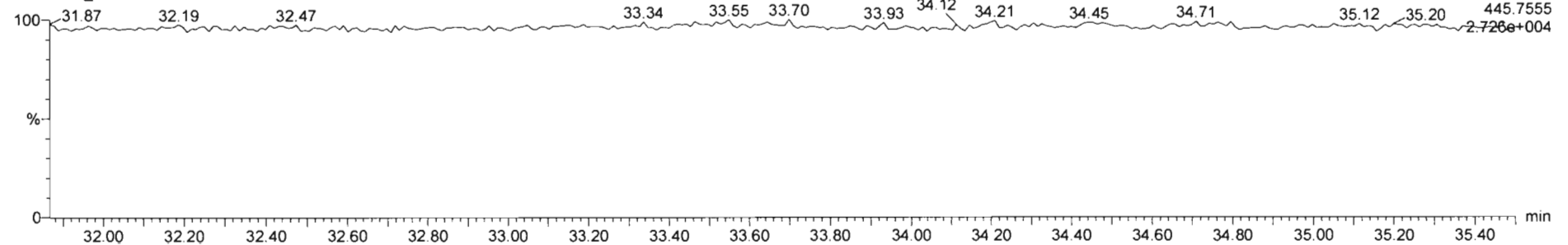
200306R2\_8



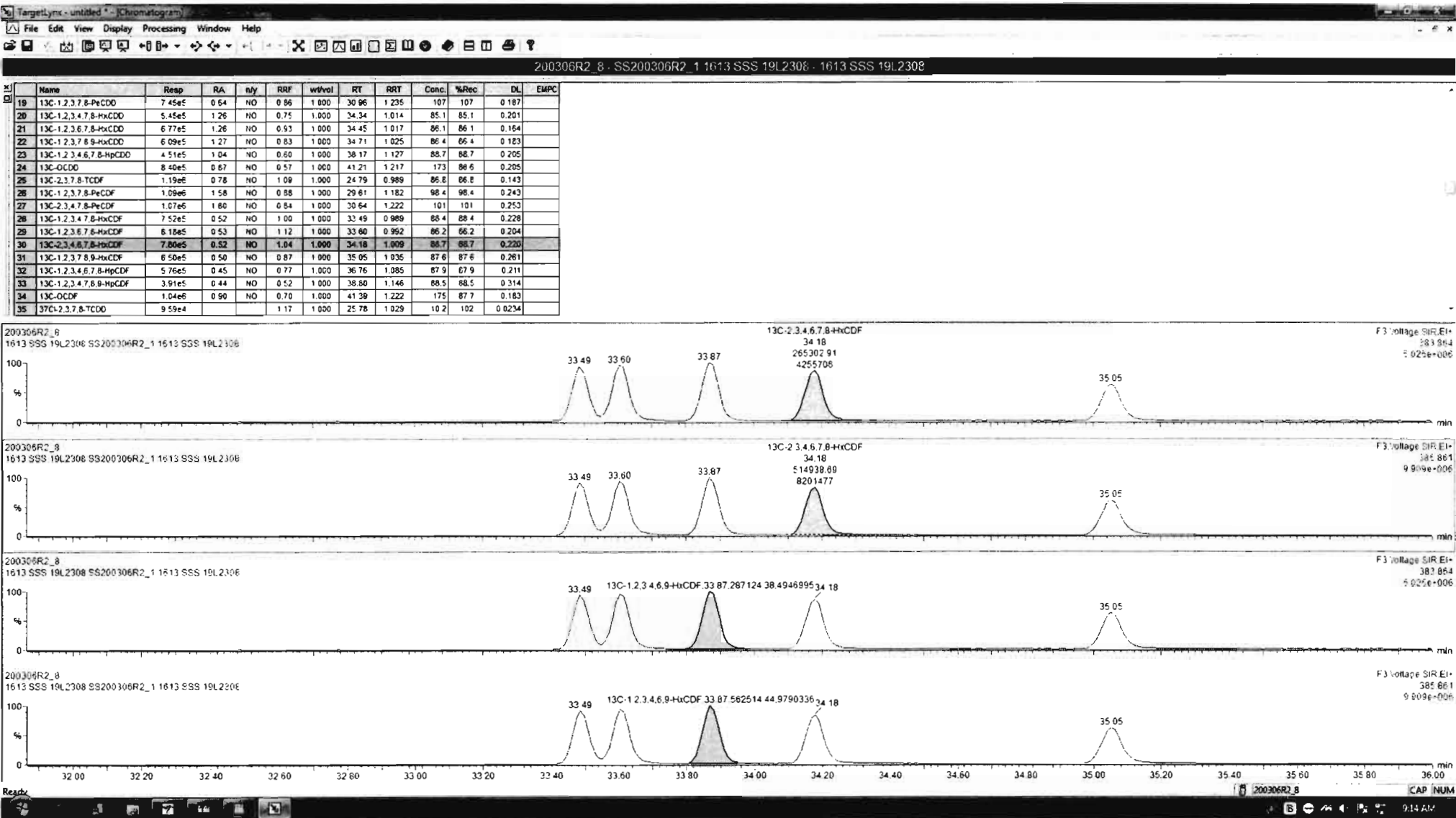
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385.861  
9.909e+006

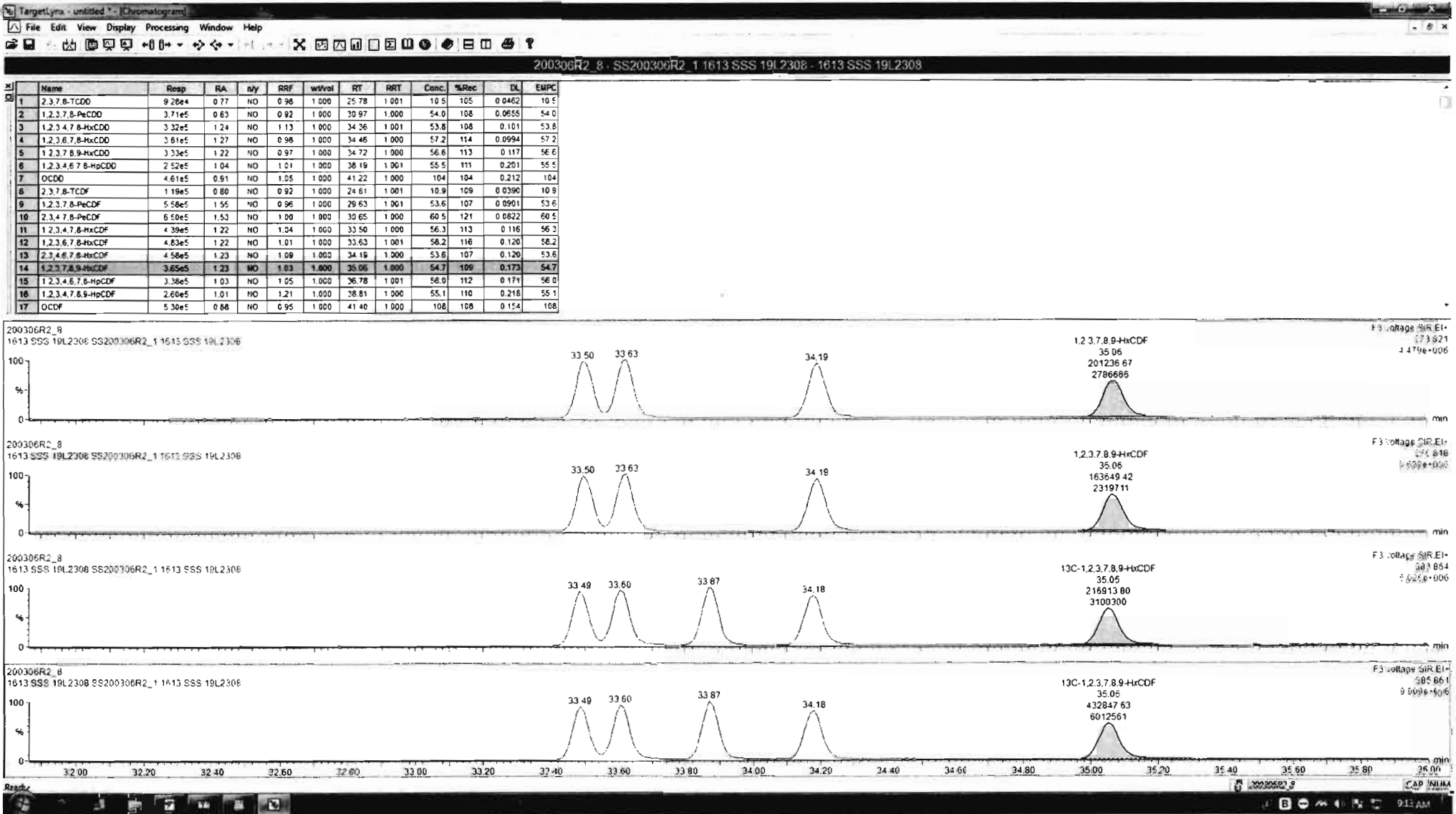
**DPE3**

200306R2\_8



F3:Voltage SIR,EI+  
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2.726e+004





Dataset: Untitled

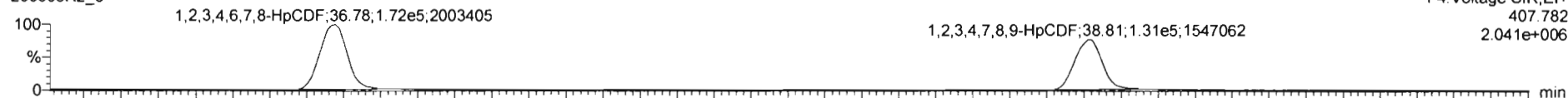
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Printed: Monday, March 09, 2020 09:03:37 Pacific Daylight Time

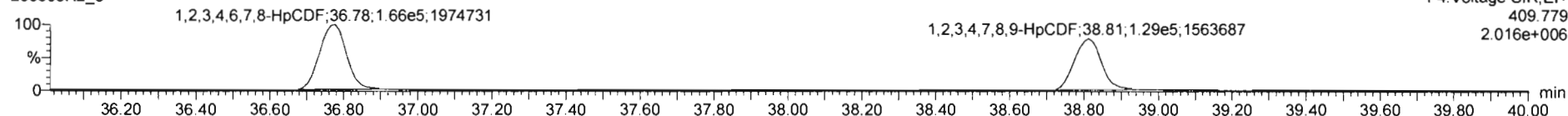
Name: 200306R2\_8, Date: 06-Mar-2020, Time: 18:42:29, ID: SS200306R2\_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

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

200306R2\_8

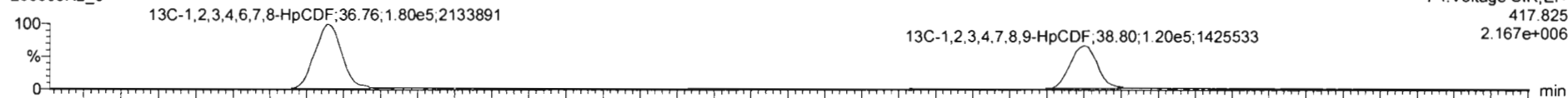


200306R2\_8

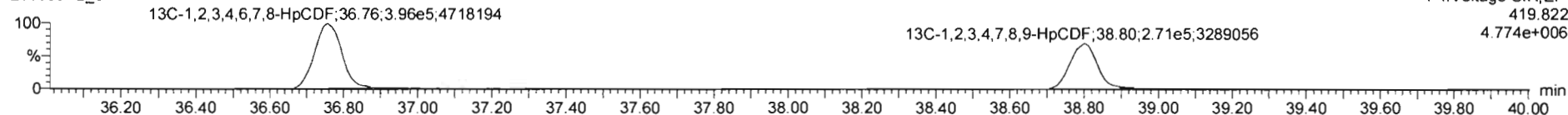


**13C-1,2,3,4,6,7,8-HpCDF**

200306R2\_8

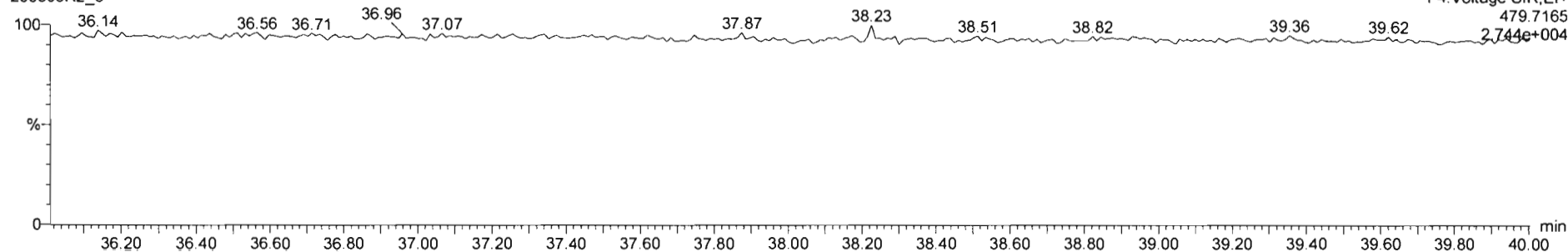


200306R2\_8



**DPE4**

200306R2\_8



Dataset: Untitled

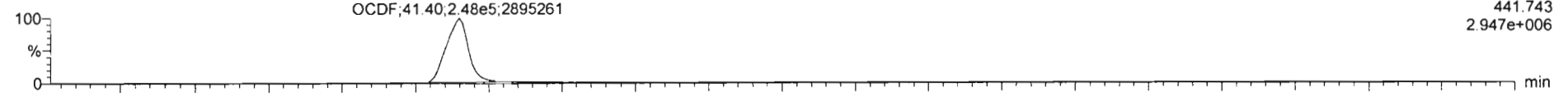
Last Altered: Monday, March 09, 2020 09:01:52 Pacific Daylight Time

Printed: Monday, March 09, 2020 09:03:37 Pacific Daylight Time

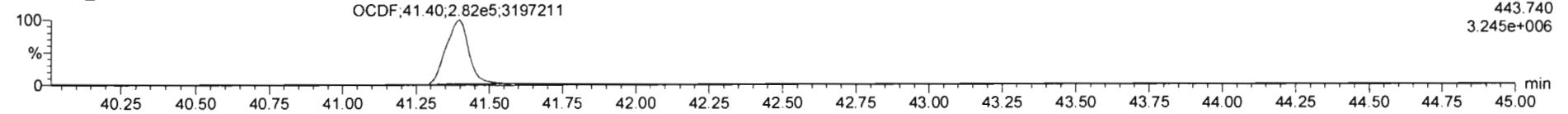
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**OCDF**

200306R2\_8

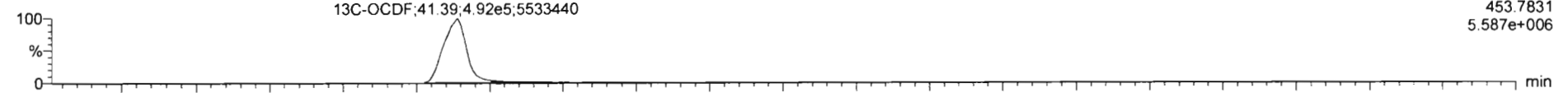


200306R2\_8

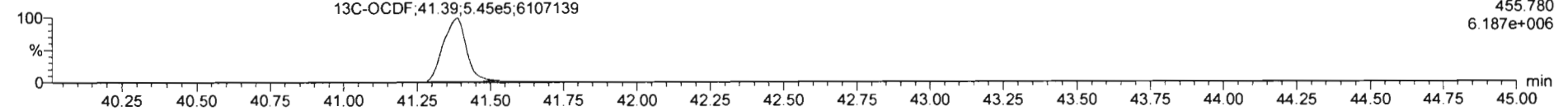


**13C-OCDF**

200306R2\_8

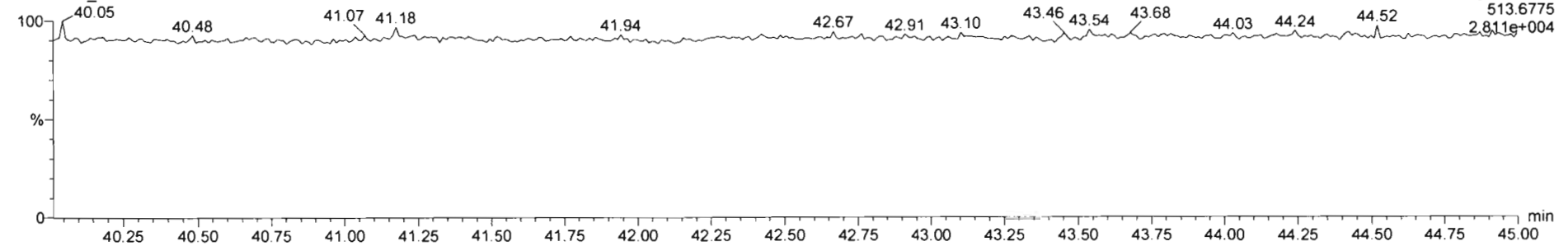


200306R2\_8



**DPE5**

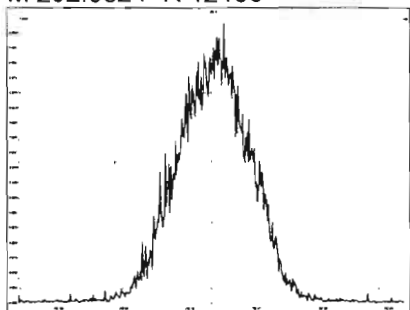
200306R2\_8



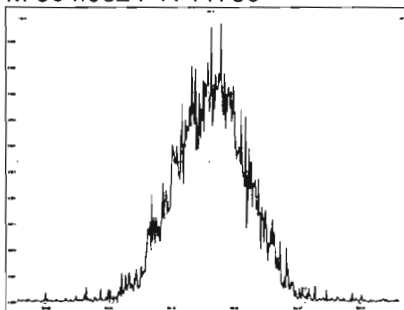


Printed: Saturday, March 07, 2020 02:06:12 Pacific Standard Time

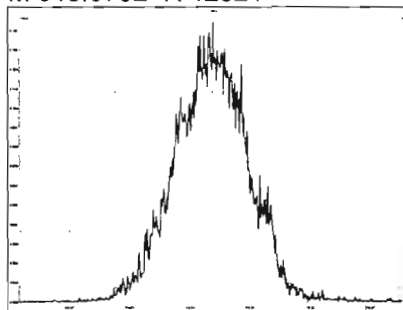
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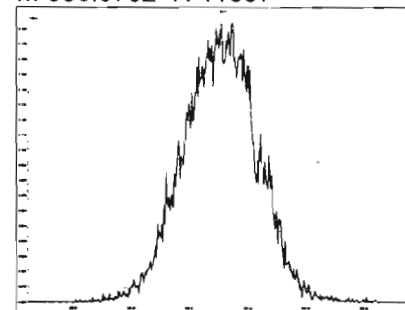
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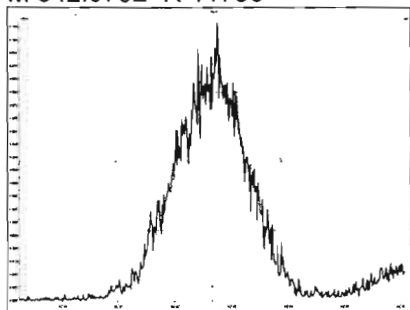
M 318.9792 R 12021



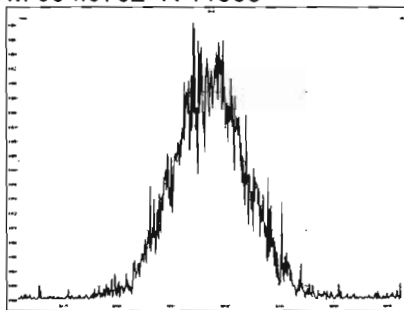
M 330.9792 R 11657



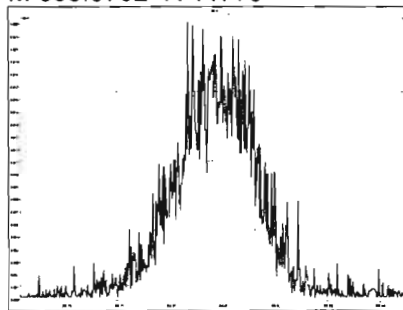
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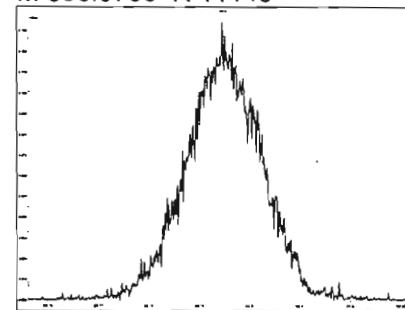
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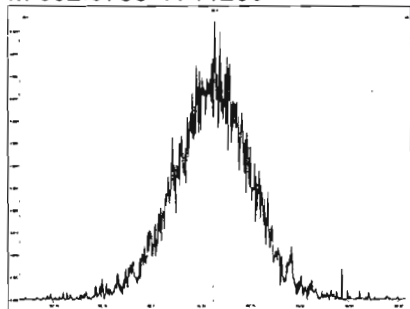
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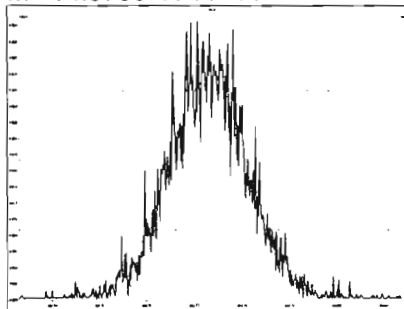
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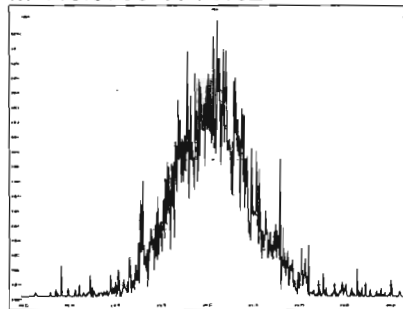
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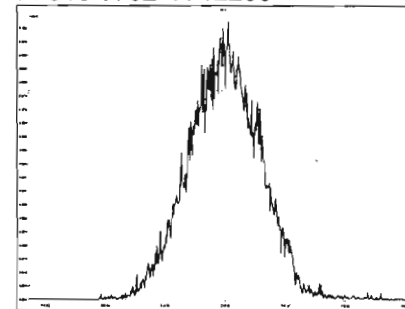
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M 416.9760 R 12132



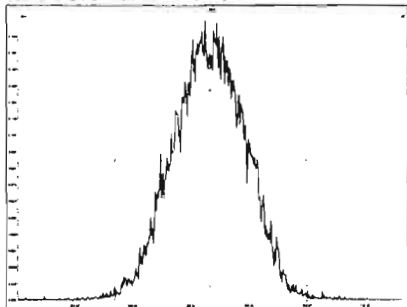
M 318.9792 R 12255



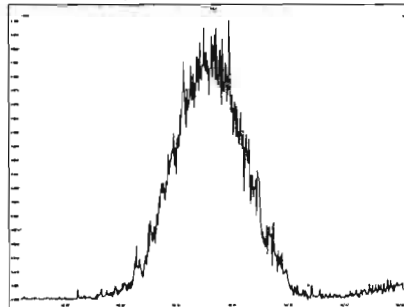


Printed: Saturday, March 07, 2020 02:06:12 Pacific Standard Time

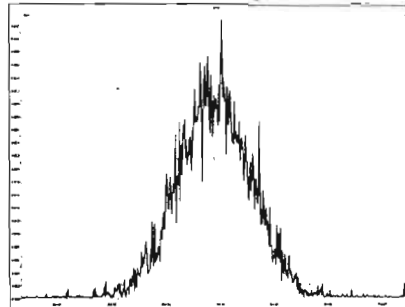
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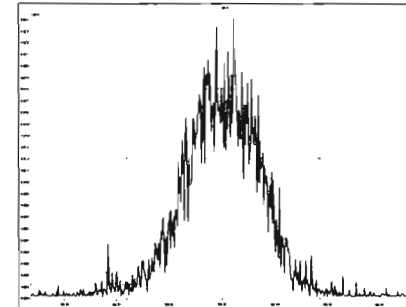
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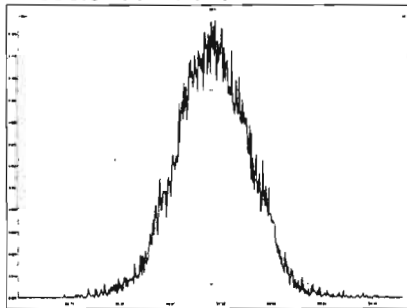
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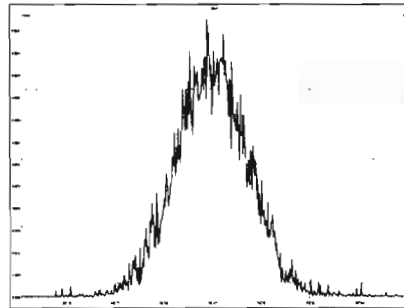
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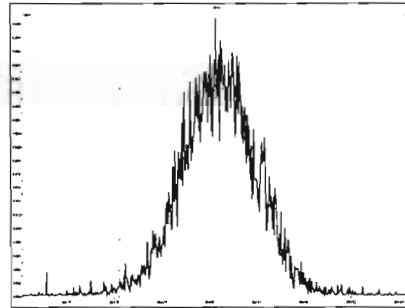
M 380.9760 R 11600



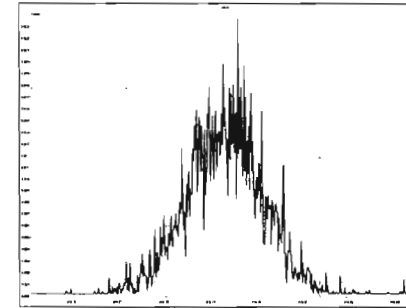
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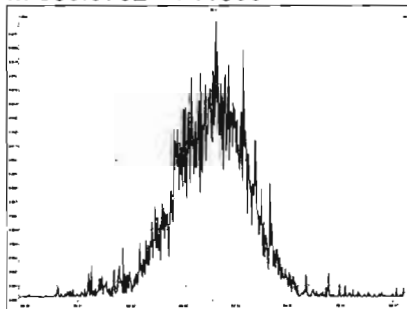
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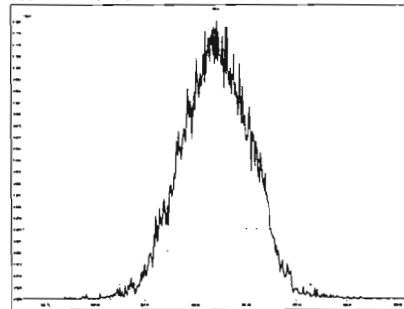
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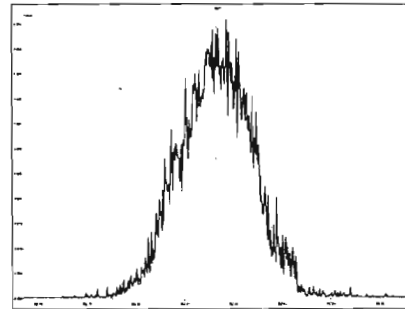
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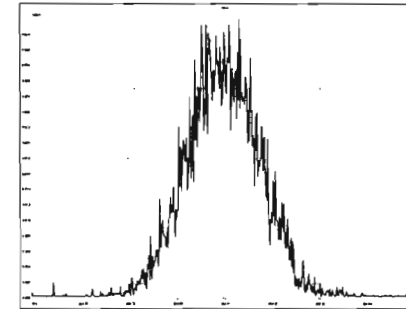
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M 392.9760 R 12090

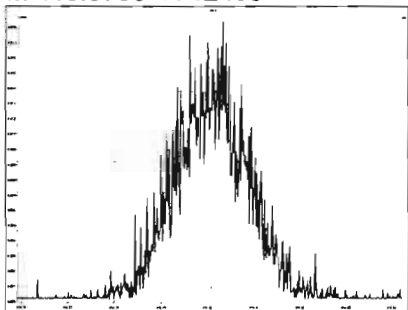


M 404.9760 R 12490

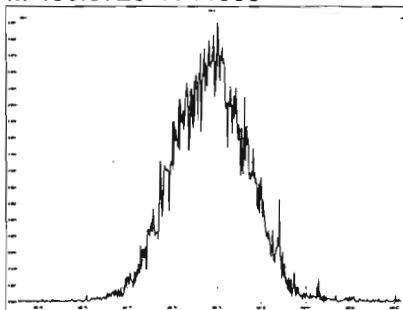


Printed: Saturday, March 07, 2020 02:06:12 Pacific Standard Time

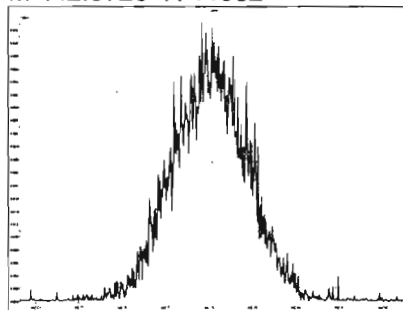
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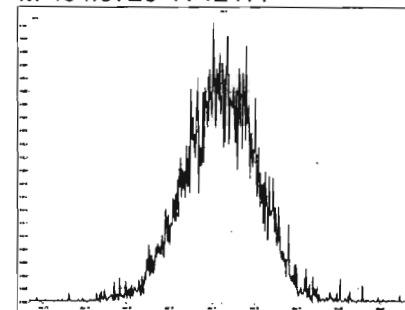
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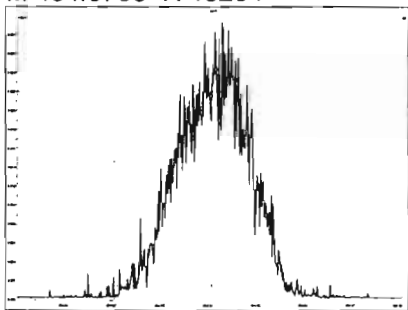
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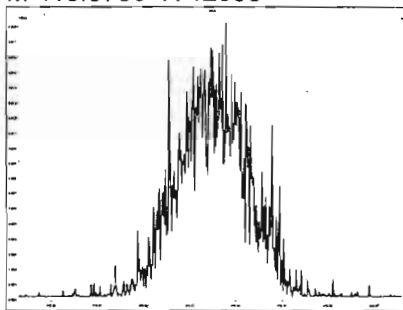
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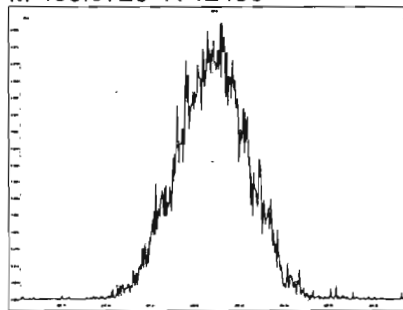
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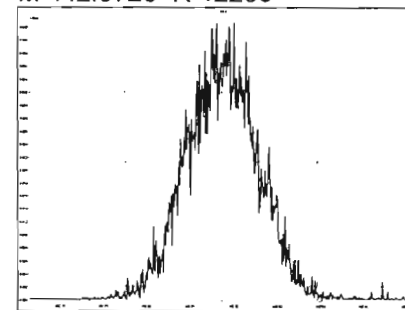
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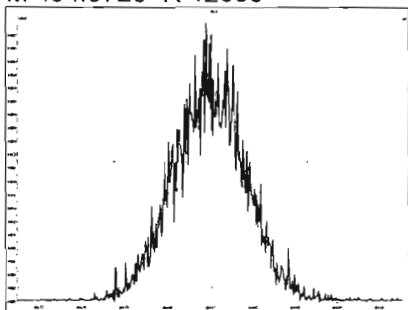
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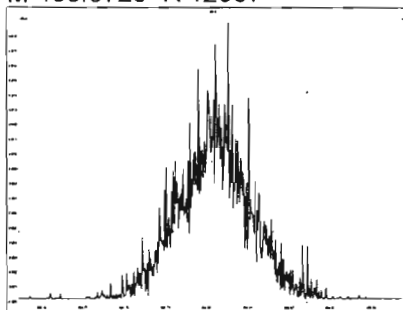
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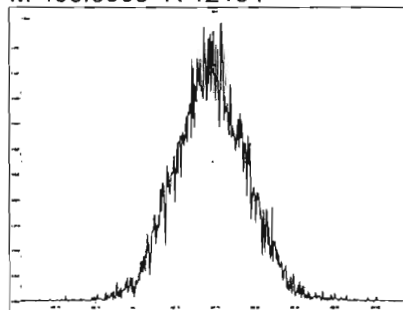
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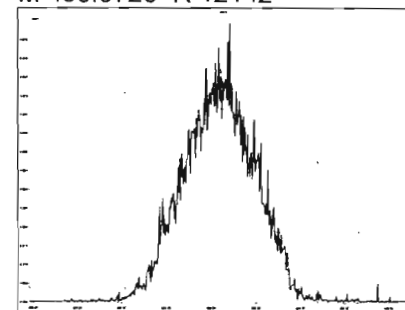
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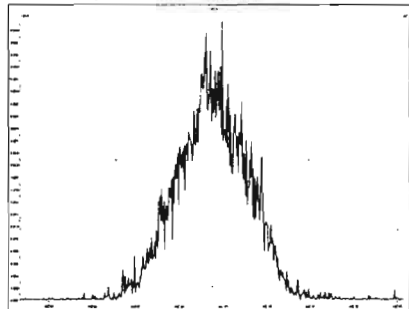
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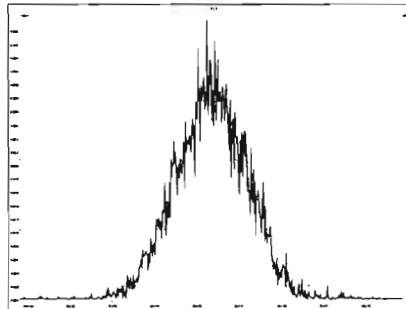
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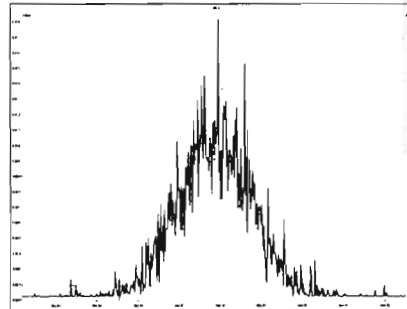
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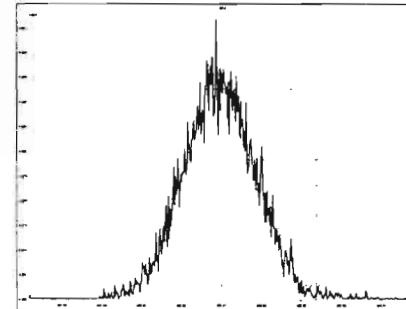
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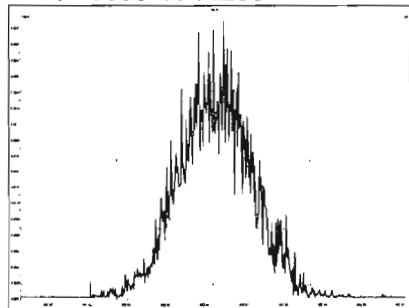
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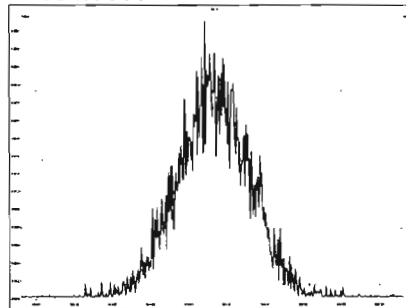
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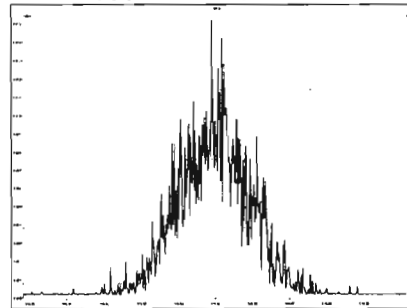
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M 504.9696 R 12406



M 516.9697 R 12265



Dataset: U:\VG12.PRO\Results\200309R2\200309R2-CRV.qld

Last Altered: Tuesday, March 10, 2020 8:18:28 AM Pacific Daylight Time  
 Printed: Tuesday, March 10, 2020 8:19:39 AM Pacific Daylight Time

GRB 03/10/2020

CT 03/10/2020

Method: U:\VG12.PRO\MethDB\tcdf.mdb 10 Mar 2020 07:50:49  
 Calibration: U:\VG12.PRO\CurveDB\db225\_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Compound name: 2,3,7,8-TCDF  
 Response Factor: 0.820787  
 RRF SD: 0.107593, Relative SD: 13.1085  
 Response type: Internal Std ( Ref 2 ), 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	200309R2_2	0.250	0.77	NO	16.58	1.001	4.20e3	1.63e6	0.314	25.4	1.03	MM
2	200309R2_3	0.500	0.73	NO	16.59	1.001	5.46e3	1.37e6	0.487	-2.7	0.799	MM
3	200309R2_4	2.00	0.74	NO	16.56	1.001	2.05e4	1.37e6	1.81	-9.3	0.745	bb
4	200309R2_5	10.0	0.75	NO	16.56	1.001	1.02e5	1.39e6	8.95	-10.5	0.735	bb
5	200309R2_6	40.0	0.74	NO	16.56	1.001	5.13e5	1.61e6	38.8	-3.0	0.796	bb
6	200309R2_7	300	0.76	NO	16.56	1.001	4.09e6	1.66e6	300	-0.0	0.821	bb

Compound name: 13C-2,3,7,8-TCDF  
 Response Factor: 1.10088  
 RRF SD: 0.097324, Relative SD: 8.84057  
 Response type: Internal Std ( Ref 3 ), 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	200309R2_2	100	0.78	NO	16.56	1.147	1.63e6	1.30e6	114	13.7	1.25	bb
2	200309R2_3	100	0.77	NO	16.56	1.147	1.37e6	1.38e6	89.9	-10.1	0.990	bb
3	200309R2_4	100	0.77	NO	16.54	1.146	1.37e6	1.38e6	90.5	-9.5	0.996	bb
4	200309R2_5	100	0.77	NO	16.54	1.147	1.39e6	1.25e6	102	1.6	1.12	bb
5	200309R2_6	100	0.77	NO	16.54	1.146	1.61e6	1.43e6	102	2.2	1.13	bb
6	200309R2_7	100	0.77	NO	16.54	1.146	1.66e6	1.48e6	102	2.0	1.12	bb

Dataset: U:\VG12.PRO\Results\200309R2\200309R2-CRV.qld

Last Altered: Tuesday, March 10, 2020 8:18:28 AM Pacific Daylight Time

Printed: Tuesday, March 10, 2020 8:19:39 AM Pacific Daylight Time

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

Response Factor: 1

RRF SD: 0, Relative SD: 0

Response type: Internal Std ( Ref 3 ), 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	200309R2_2	100	0.79	NO	14.45	1.000	1.30e6	1.30e6	100	0.0	1.00	bb
2	200309R2_3	100	0.79	NO	14.45	1.000	1.38e6	1.38e6	100	0.0	1.00	bb
3	200309R2_4	100	0.79	NO	14.44	1.000	1.38e6	1.38e6	100	0.0	1.00	bb
4	200309R2_5	100	0.78	NO	14.42	1.000	1.25e6	1.25e6	100	0.0	1.00	bb
5	200309R2_6	100	0.79	NO	14.44	1.000	1.43e6	1.43e6	100	0.0	1.00	bb
6	200309R2_7	100	0.78	NO	14.44	1.000	1.48e6	1.48e6	100	0.0	1.00	bb

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

Response Factor: 11994.1

RRF SD: 1070.13, Relative SD: 8.92214

Response type: External Std, Area

Curve type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	200309R2_2	100	0.77	NO	15.08	0.000	1.28e6		107	6.6	12800	bd
2	200309R2_3	100	0.78	NO	15.06	0.000	1.08e6		90.4	-9.6	10800	bd
3	200309R2_4	100	0.77	NO	15.05	0.000	1.11e6		92.2	-7.8	11100	bd
4	200309R2_5	100	0.75	NO	15.05	0.000	1.12e6		93.6	-6.4	11200	bd
5	200309R2_6	100	0.77	NO	15.05	0.000	1.28e6		107	6.5	12800	bd
6	200309R2_7	100	0.78	NO	15.05	0.000	1.33e6		111	10.8	13300	bd

Vista Analytical Laboratory VG-11

Dataset: Untitled

Last Altered: Tuesday, March 10, 2020 8:04:02 AM Pacific Daylight Time

Printed: Tuesday, March 10, 2020 8:04:32 AM Pacific Daylight Time

Method: U:\VG12.PRO\MethDB\tcdf.mdb 10 Mar 2020 07:50:49

Calibration: U:\VG12.PRO\CurveDB\db225\_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 07:53:03

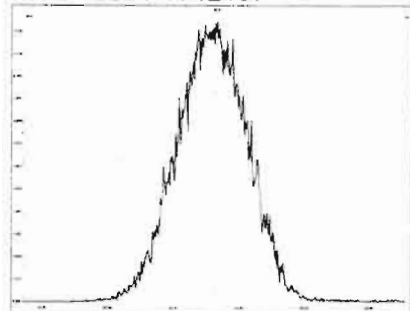
Compound name: 2,3,7,8-TCDF

	Name	ID	Acq.Date	Acq.Time
1	200309R2_1	CP200309R2_1 225 CPSM	09-Mar-20	17:55:29
2	200309R2_2	ST200309R2_1 1613 CS0 19L2302	09-Mar-20	18:25:43
3	200309R2_3	ST200309R2_2 1613 CS1 19L2303	09-Mar-20	18:56:05
4	200309R2_4	ST200309R2_3 1613 CS2 19L2304	09-Mar-20	19:26:33
5	200309R2_5	ST200309R2_4 1613 CS3 19L2305	09-Mar-20	19:57:01
6	200309R2_6	ST200309R2_5 1613 CS4 19L2306	09-Mar-20	20:27:25
7	200309R2_7	ST200309R2_6 1613 CS5 19L2307	09-Mar-20	20:57:48
8	200309R2_8	SOLVENT BLANK	09-Mar-20	21:28:11
9	200309R2_9	SS200309R2_1 1613 SSS 19L2308	09-Mar-20	21:58:38
10	200309R2_10	SOLVENT BLANK	09-Mar-20	22:29:05
11	200309R2_11	1904012-10RE2 PX-S23-SB48-0203 10.92	09-Mar-20	22:59:38
12	200309R2_12	2000301-01RE2 PDI-077SC-A-02-03-191014 ...	09-Mar-20	23:29:57
13	200309R2_13	B0B0291-DUP1 Duplicate 18.51	10-Mar-20	00:00:21
14	200309R2_14	2000407-01RE1 PDI-084SC-A-05-06-191002 ...	10-Mar-20	00:30:51
15	200309R2_15	2000407-02RE1 PDI-084SC-A-06-07-191002 ...	10-Mar-20	01:01:18
16	200309R2_16	2000407-03RE1 PDI-084SC-A-07-08-191002 ...	10-Mar-20	01:31:45
17	200309R2_17	2000407-04RE1 PDI-084SC-A-08-09-191002 ...	10-Mar-20	02:02:13
18	200309R2_18	2000407-05RE1 PDI-084SC-A-09-10-191002 ...	10-Mar-20	02:32:40
19	200309R2_19	2000407-06RE1 PDI-084SC-A-10-11-191002 ...	10-Mar-20	03:03:07
20	200309R2_20	2000407-07RE1 PDI-084SC-A-11-12-191002 ...	10-Mar-20	03:33:35

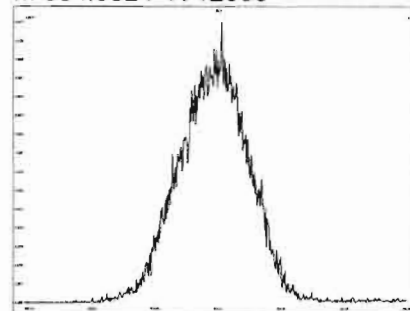
File: Experiment: tcdf\_db225.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed: Monday, March 09, 2020 17:53:48 Pacific Daylight Time

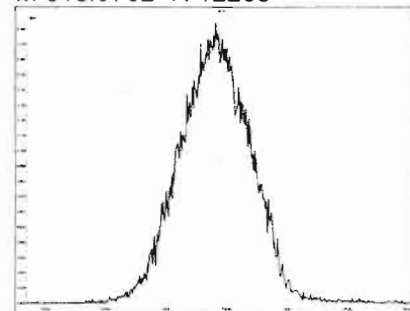
M 292.9824 R 12197



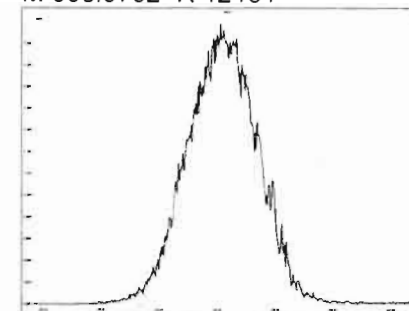
M 304.9824 R 12886



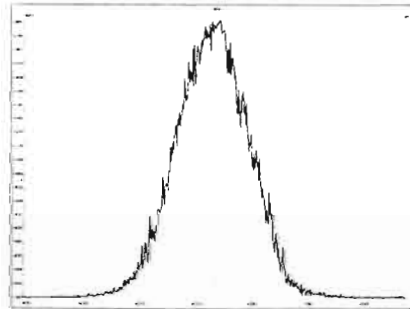
M 318.9792 R 12258



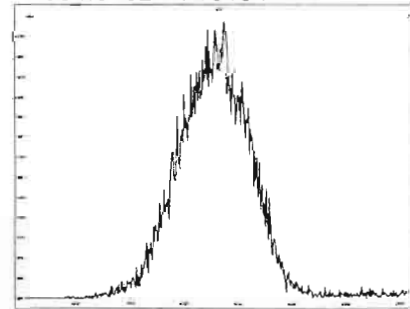
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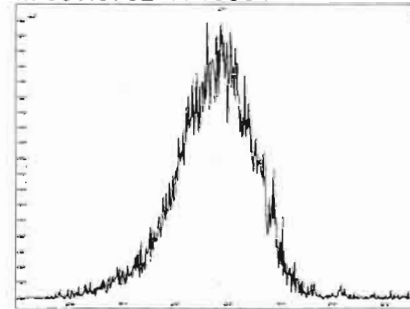
M 342.9792 R 11960



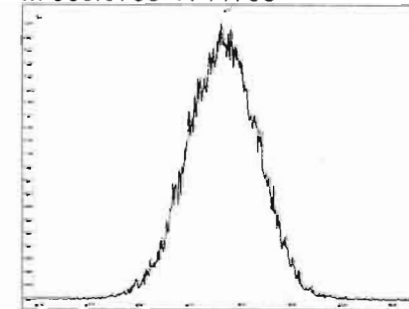
M 354.9792 R 13154



M 366.9792 R 10504



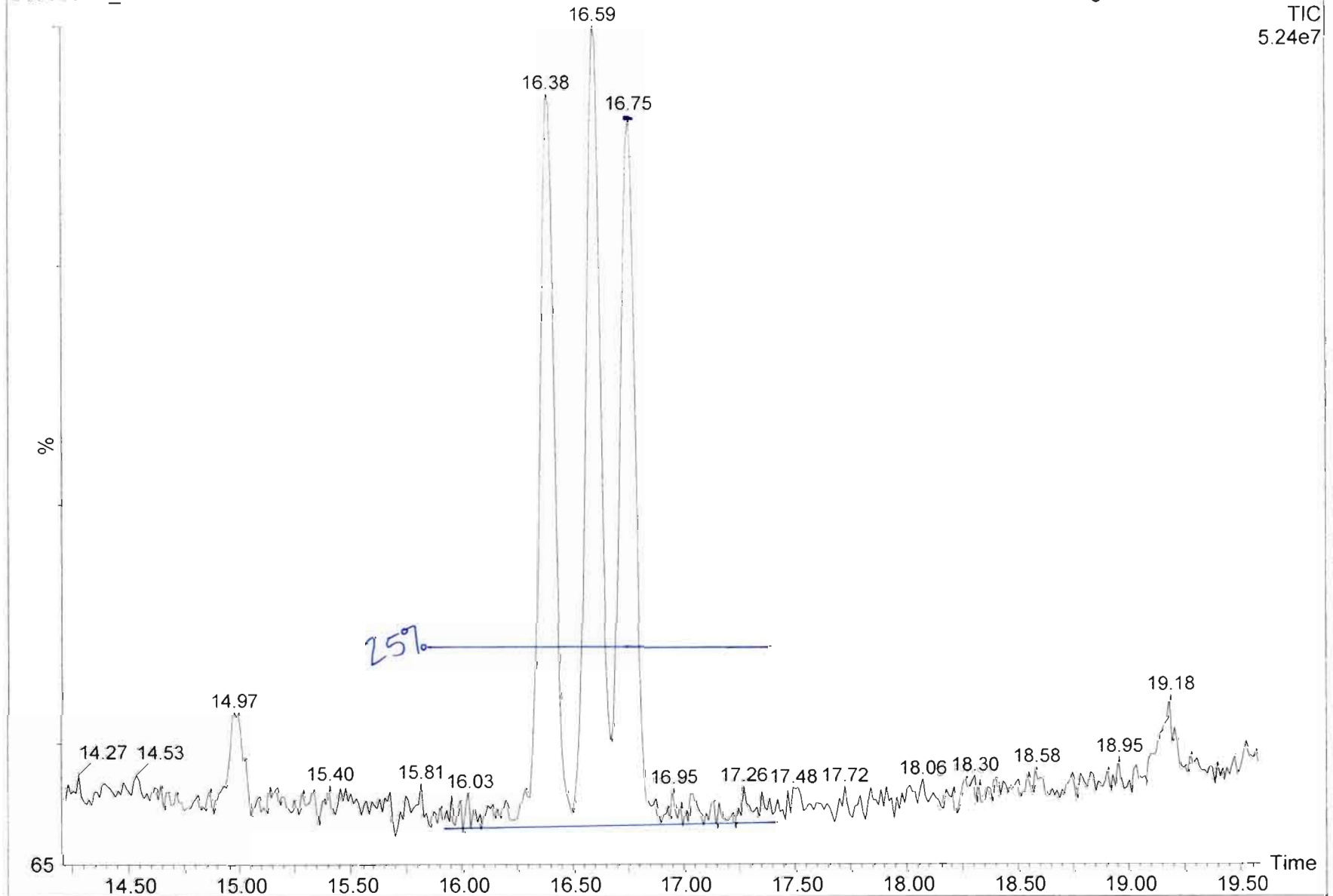
M 380.9760 R 11795



GRB 03/10/2020

225 CPSM  
200309R2\_1

Voltage SIR 12 Channels EI+  
TIC  
5.24e7





Dataset: Untitled

Last Altered: Tuesday, March 10, 2020 7:38:35 AM Pacific Daylight Time

Printed: Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

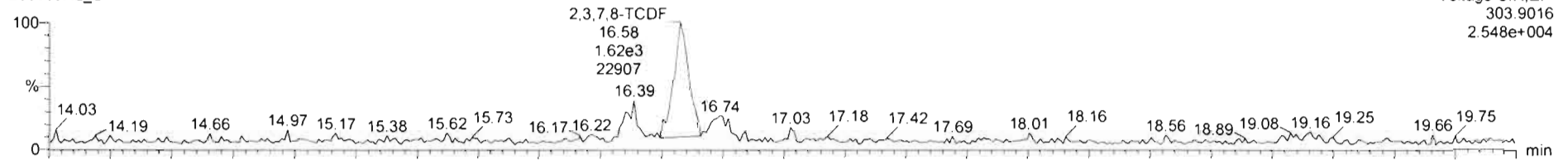
Method: U:\VG11.PRO\MethDB\tcdf.mdb 31 Jan 2020 08:42:36

Calibration: U:\VG12.PRO\CurveDB\db5\_1613vg12-3-6-20.cdb 09 Mar 2020 08:18:02

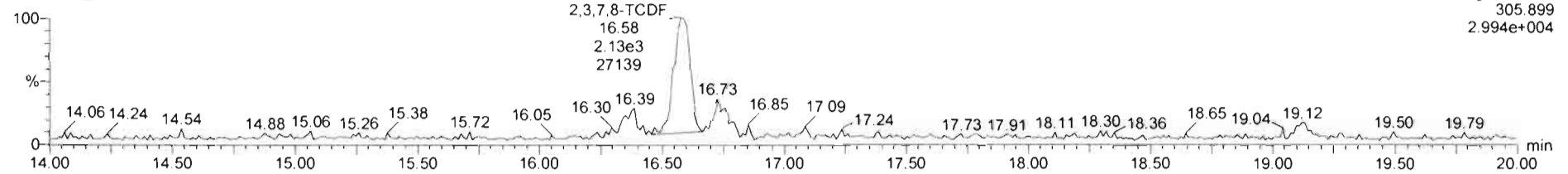
Name: 200309R2\_2, Date: 09-Mar-2020, Time: 18:25:43, ID: ST200309R2\_1 1613 CS0 19L2302, Description: 1613 CS0 19L2302

2,3,7,8-TCDF

200309R2\_2

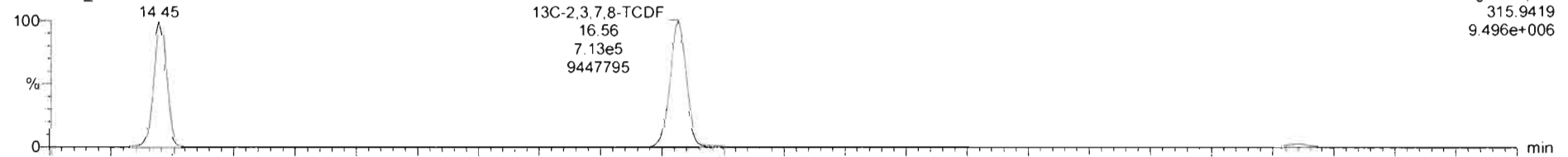


200309R2\_2

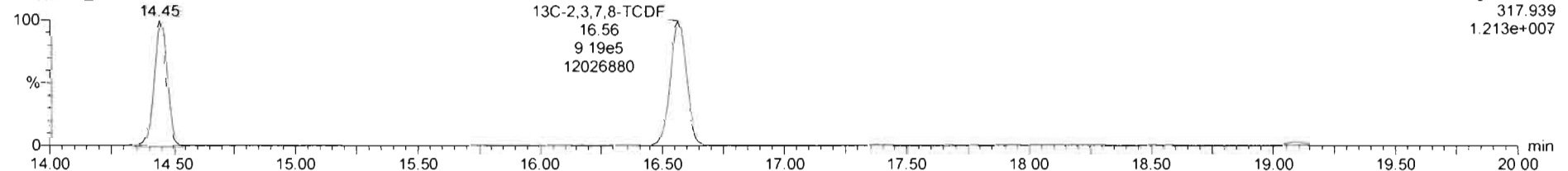


13C-2,3,7,8-TCDF

200309R2\_2



200309R2\_2

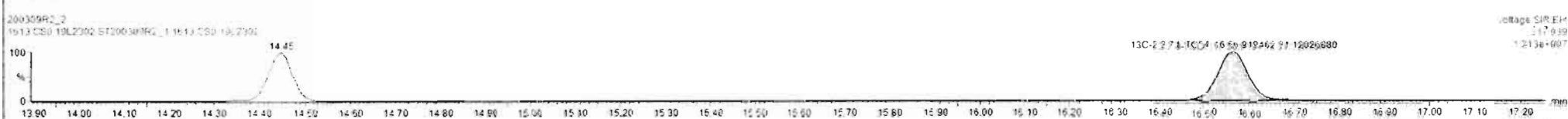
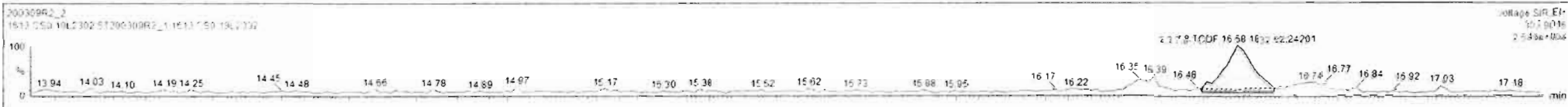


TargetLynx - untitled \* - Chromatogram

File Edit View Display Processing Window Help

200309R2\_2 - ST200309R2\_1 1613 CS0 19L2302 - 1613 CS0 19L2302

Sl	Name	RT	RA	Yln	Area	IS Area	Std Conc	%Dev	%RSD	RRF M	RRF SD
1	2,3,7,8-TCDF	16.58	0.774	NO	4.2011e3	1.6321e6	0.250	24.2	13.0	6.829	0.107
2	13C-2,3,7,8-TCDF	16.58	0.775	NO	1.6321e5	1.3038e6	100.000	12.7	2.84	1.10	0.0973
3	13C-1,2,3,4-TCDF	14.45	0.787	NO	1.3038e6	1.3038e6	100.000	6.0	0.000	1.00	0.000
4	13C-1,2,3,4-TCDD	15.08	0.790	NO	1.2780e6		100.000	6.6	8.92	12000	1070
5	PFK1						1.000				
6	DPE1						1.000				



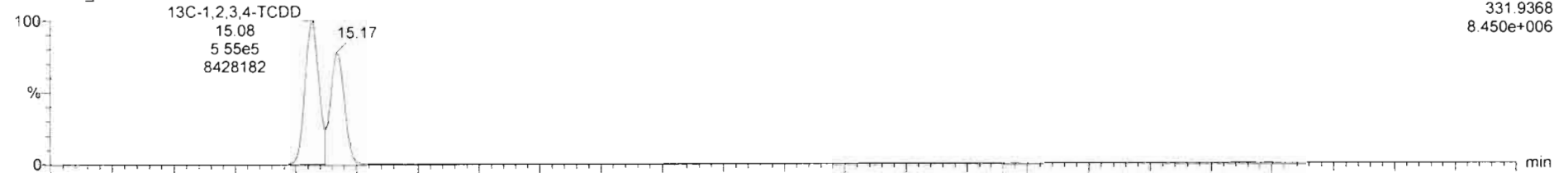
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Printed: Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

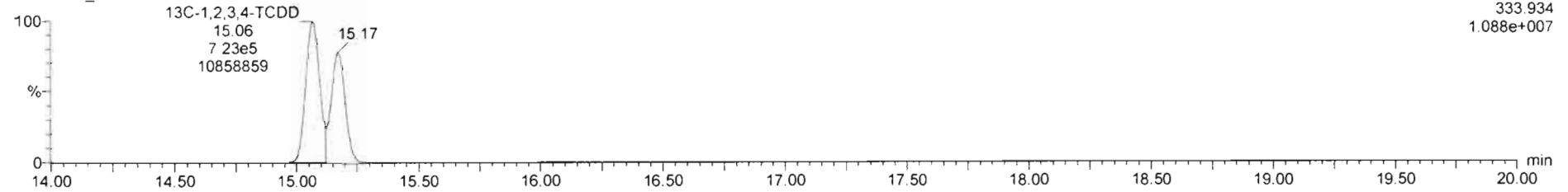
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13C-1,2,3,4-TCDD

200309R2\_2

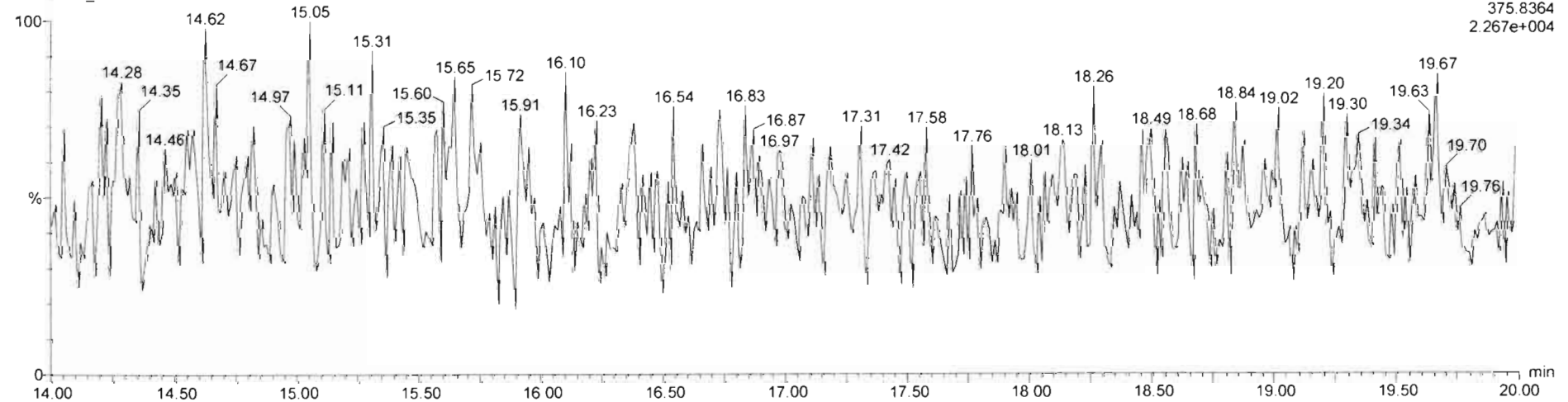


200309R2\_2



DPE1

200309R2\_2



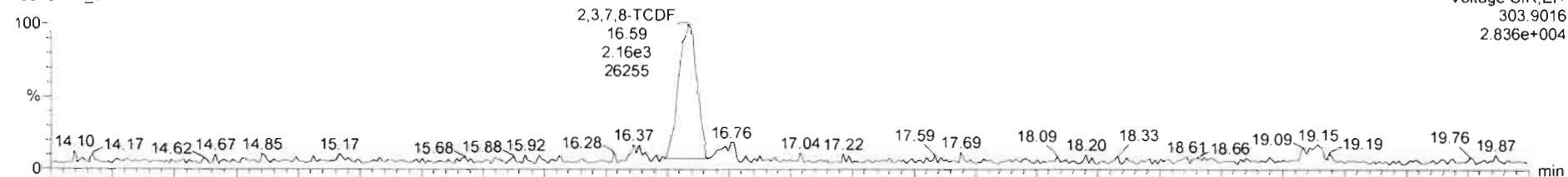
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Printed: Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

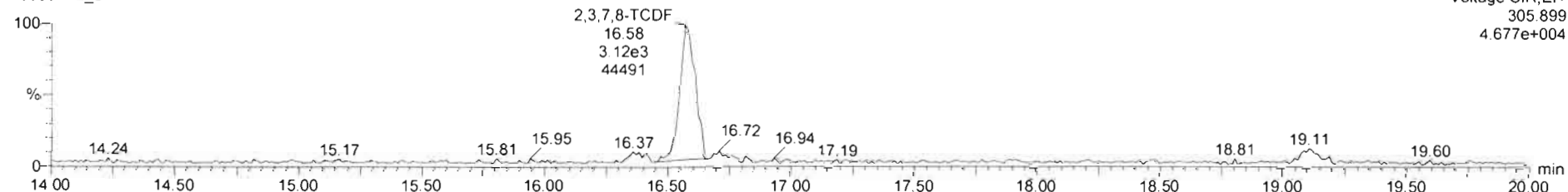
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2,3,7,8-TCDF

200309R2\_3

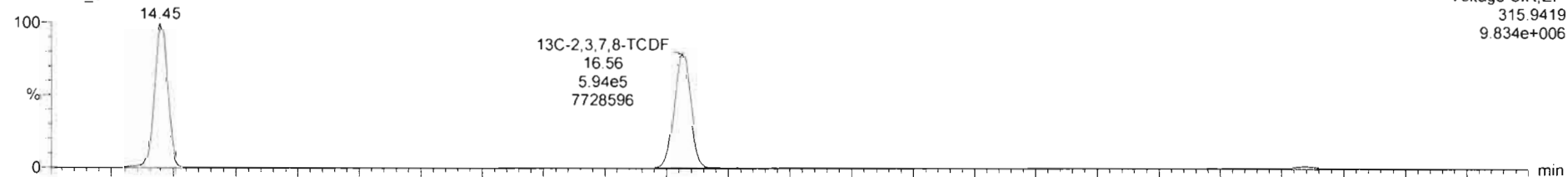


200309R2\_3

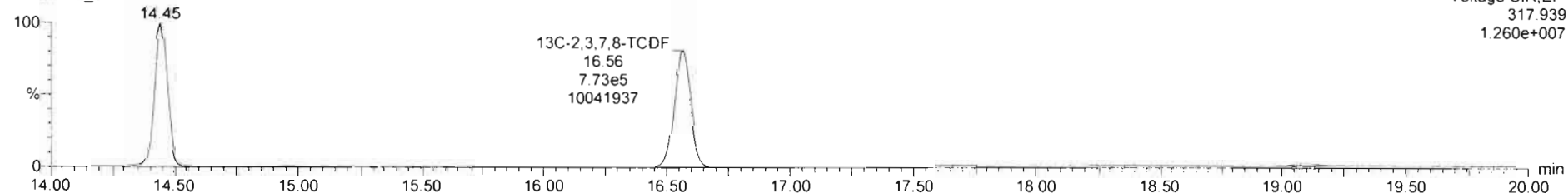


13C-2,3,7,8-TCDF

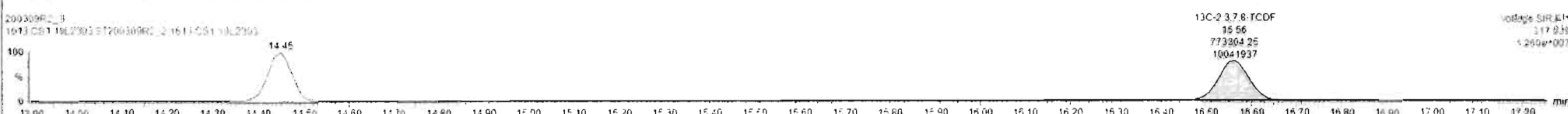
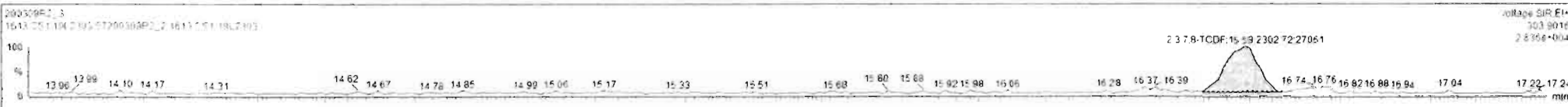
200309R2\_3



200309R2\_3



#	Name	RT	RA	y/n	Area	IS Area	Std Conc	%Dev	%RSD	RRF M	RRF SD
1	2 3 7 8-TCDF	16.56	0.729	NO	5.4614e3	1.3676e6	0.500	-2.7	13.1	0.021	0.109
2	13C 2 3 7 8-TCDF	16.56	0.768	NO	1.3676e6	1.3812e6	100.000	-10.1	2.84	1.10	0.0973
3	13C 1 2 3 4-TCDF	14.45	0.781	NO	1.3812e6	1.3812e6	100.000	0.0	0.000	1.00	0.000
4	13C 1 2 3 4-TCDD	15.96	0.777	NO	1.0641e6		100.000	-9.6	8.92	12000	1070
5	DPK1						1.000				
6	DPS1						1.000				



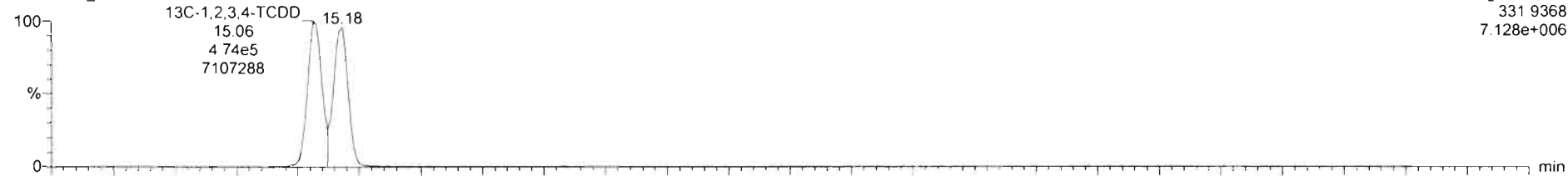
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Last Altered: Tuesday, March 10, 2020 7:38:35 AM Pacific Daylight Time  
Printed: Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

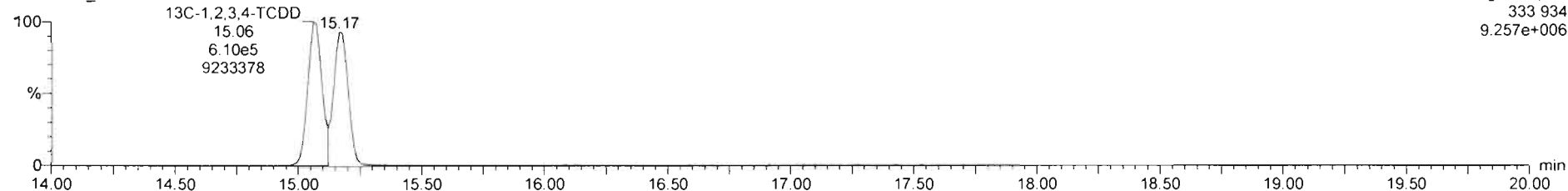
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13C-1,2,3,4-TCDD

200309R2\_3

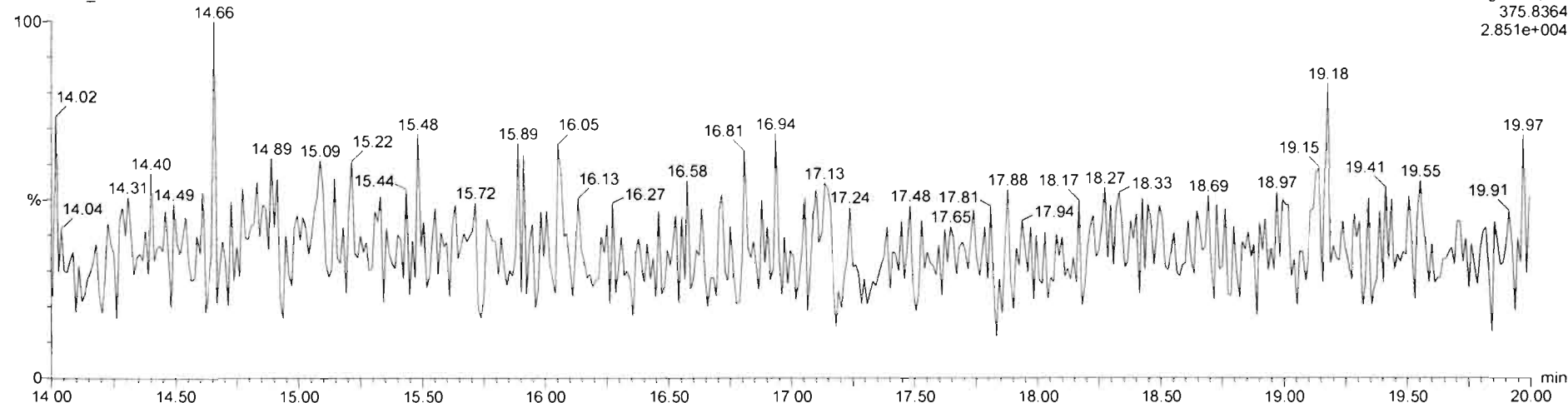


200309R2\_3



DPE1

200309R2\_3



Dataset: Untitled

Last Altered: Tuesday, March 10, 2020 7:38:35 AM Pacific Daylight Time  
Printed: Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

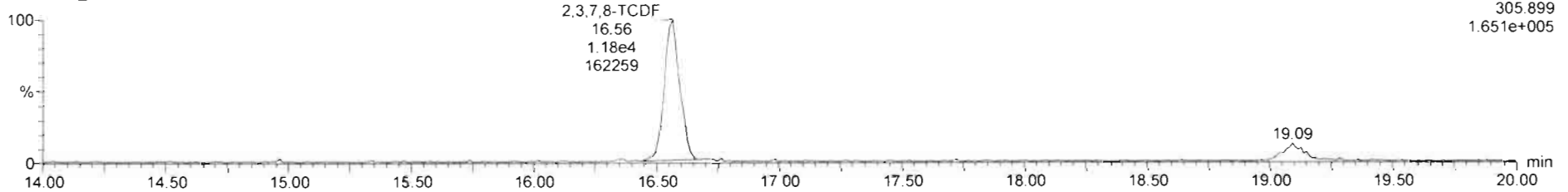
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2,3,7,8-TCDF

200309R2\_4

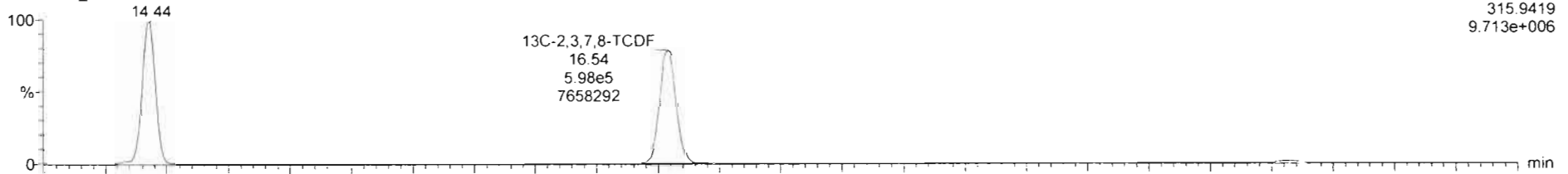


200309R2\_4

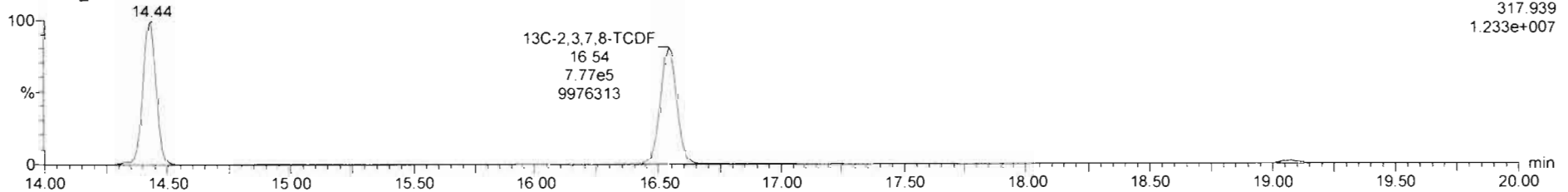


13C-2,3,7,8-TCDF

200309R2\_4



200309R2\_4



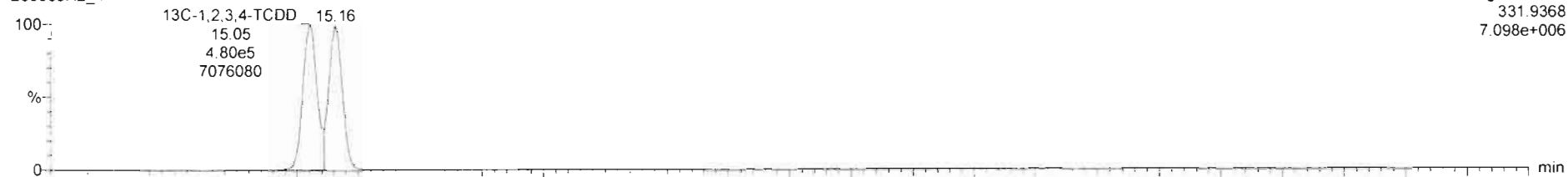
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Printed: Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

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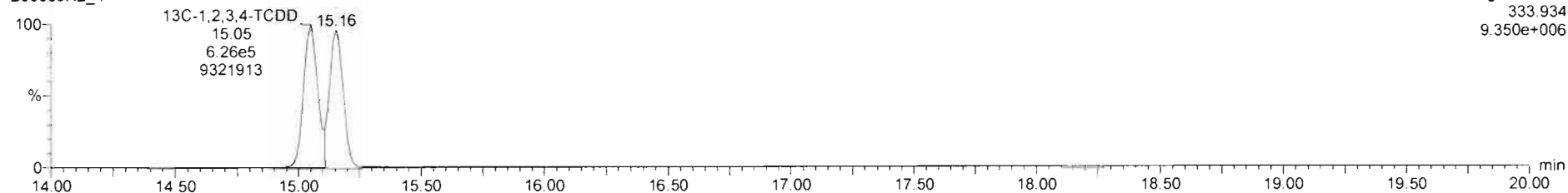
13C-1,2,3,4-TCDD

200309R2\_4



Voltage SIR,EI+  
331.9368  
7.098e+006

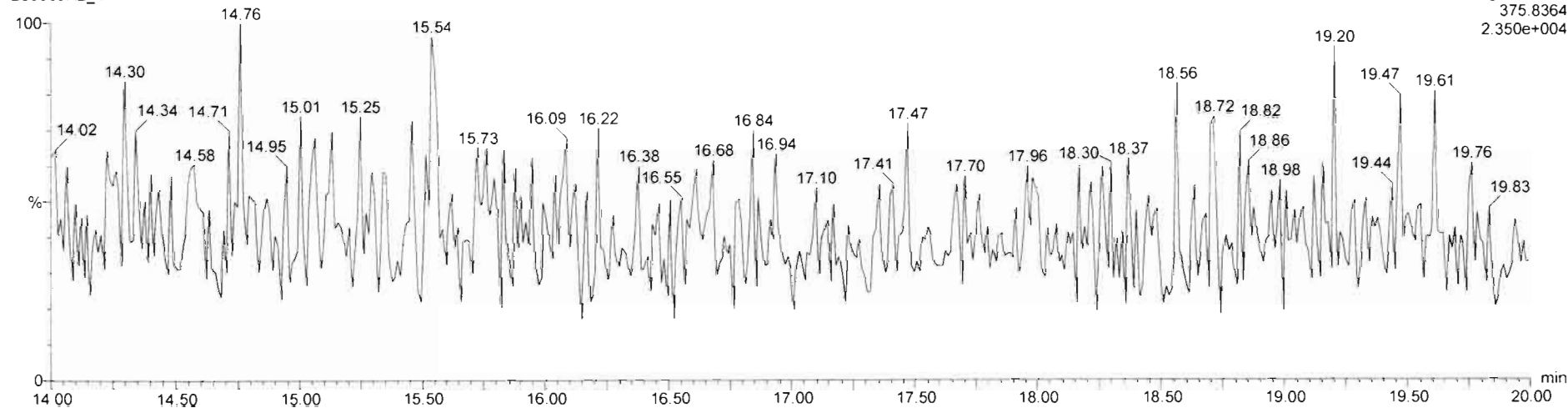
200309R2\_4



Voltage SIR,EI+  
333.934  
9.350e+006

DPE1

200309R2\_4



Voltage SIR,EI+  
375.8364  
2.350e+004



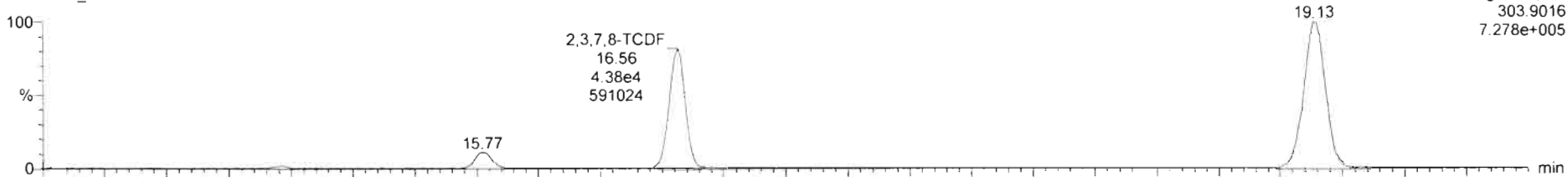
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Last Altered: Tuesday, March 10, 2020 7:38:35 AM Pacific Daylight Time  
Printed: Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

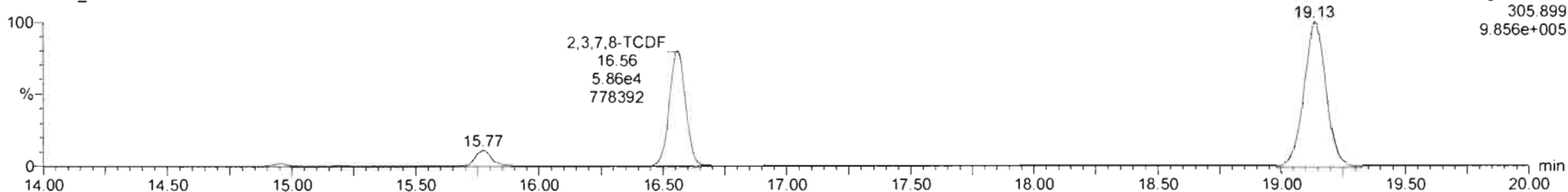
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**2,3,7,8-TCDF**

200309R2\_5

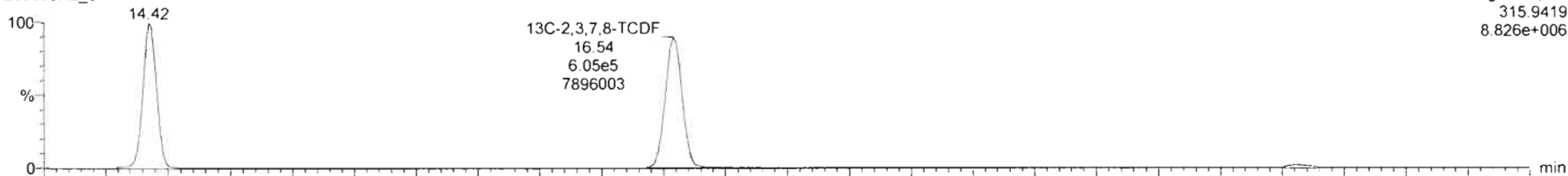


200309R2\_5

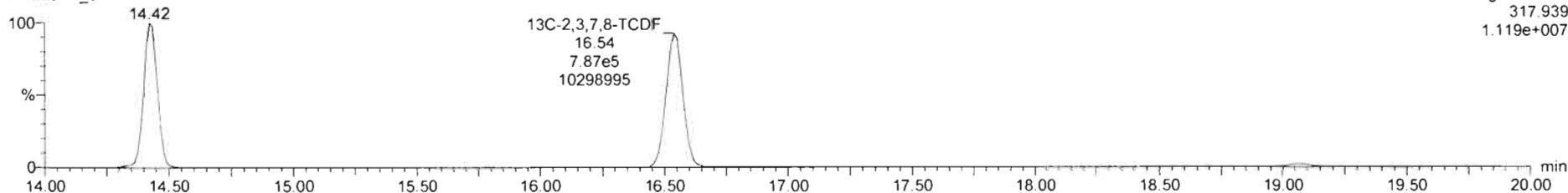


**13C-2,3,7,8-TCDF**

200309R2\_5



200309R2\_5



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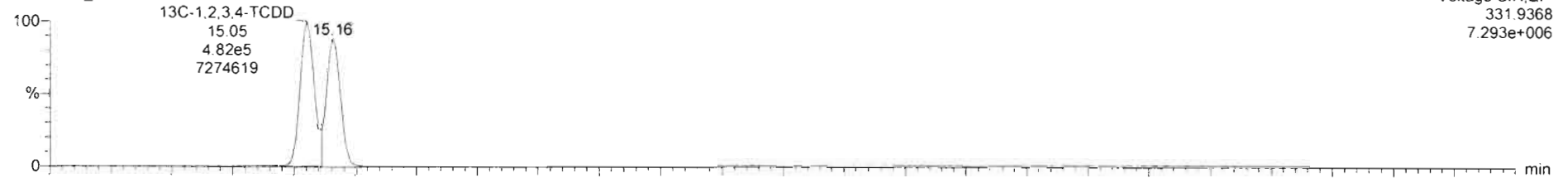
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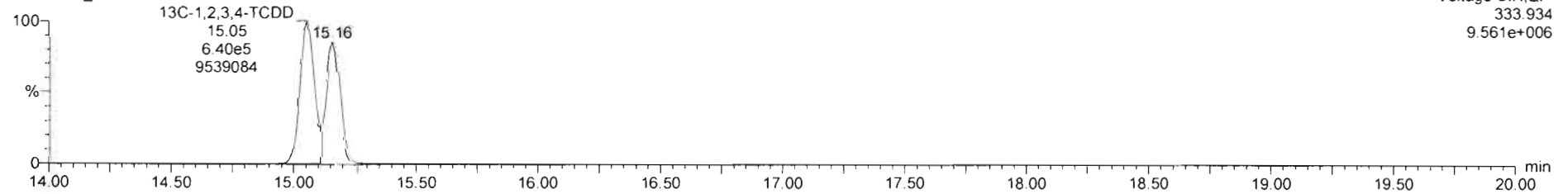
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13C-1,2,3,4-TCDD

200309R2\_5

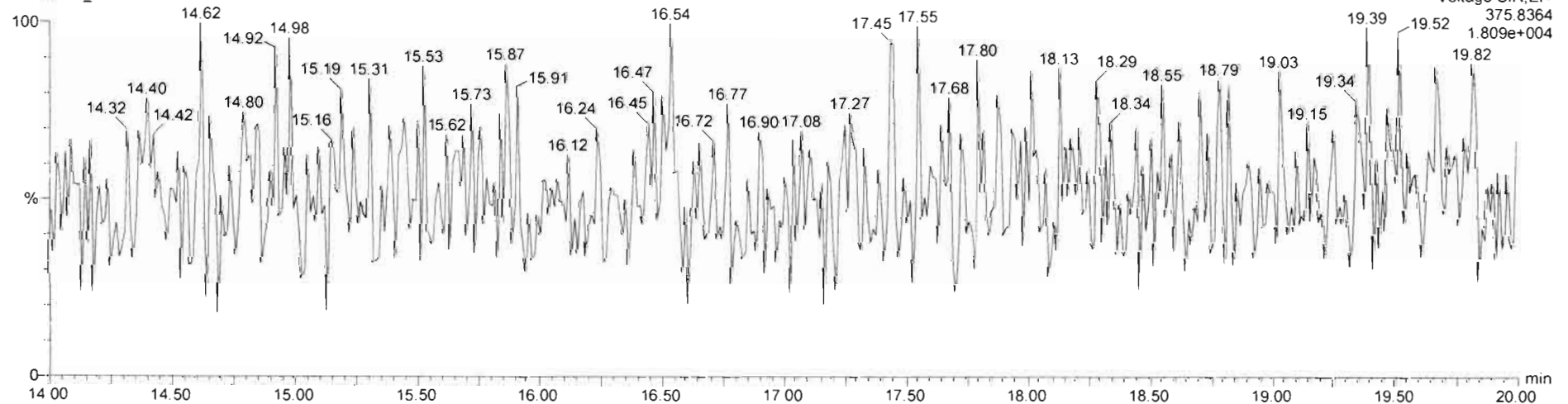


200309R2\_5



DPE1

200309R2\_5



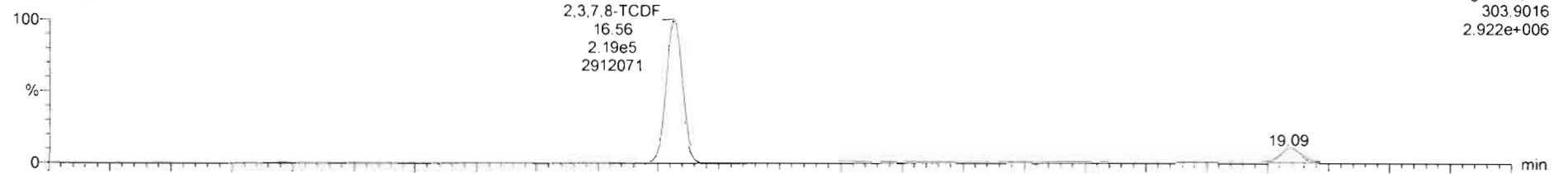
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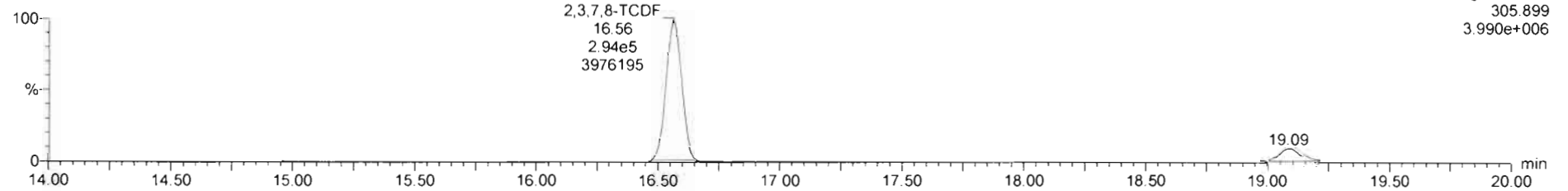
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**2,3,7,8-TCDF**

200309R2\_6

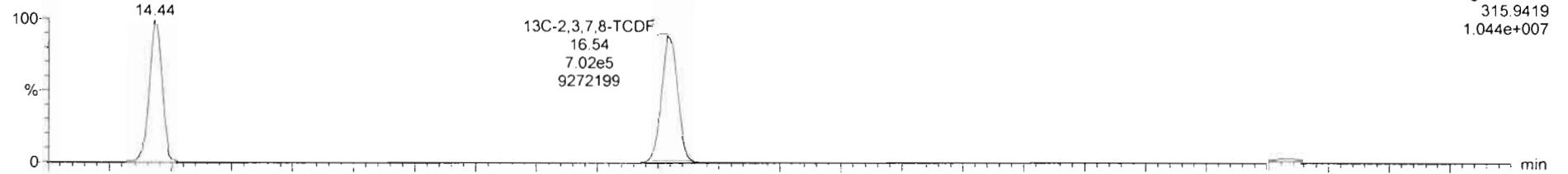


200309R2\_6

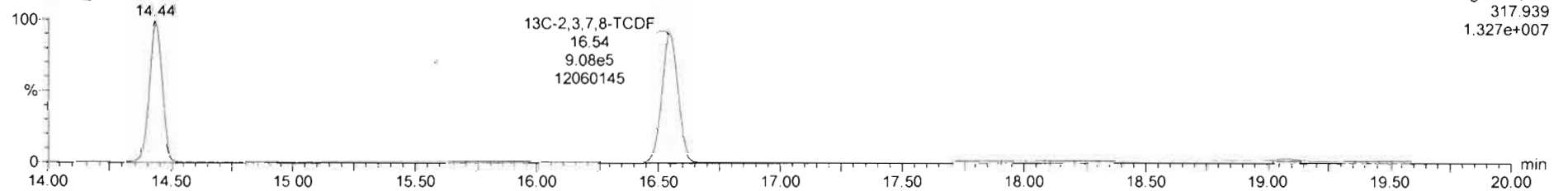


**13C-2,3,7,8-TCDF**

200309R2\_6



200309R2\_6



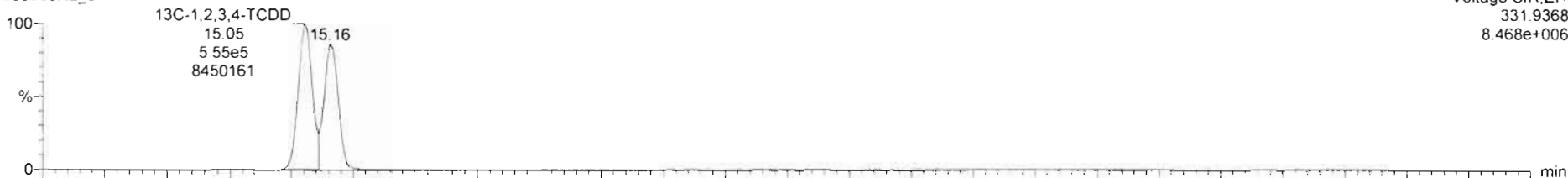
Dataset: Untitled

Last Altered: Tuesday, March 10, 2020 7:38:35 AM Pacific Daylight Time  
Printed: Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

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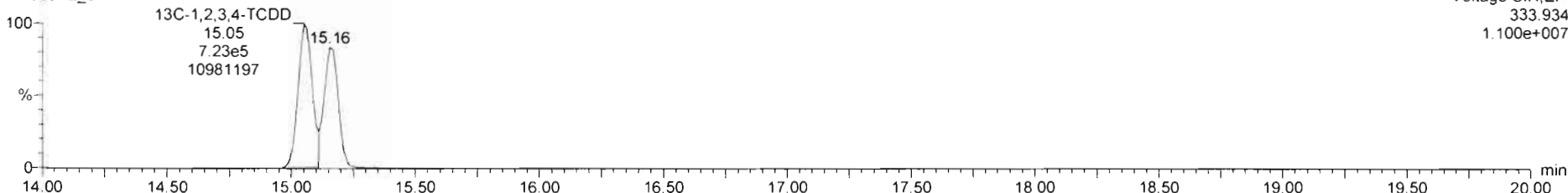
13C-1,2,3,4-TCDD

200309R2\_6



Voltage SIR\_EI+  
331.9368  
8.468e+006

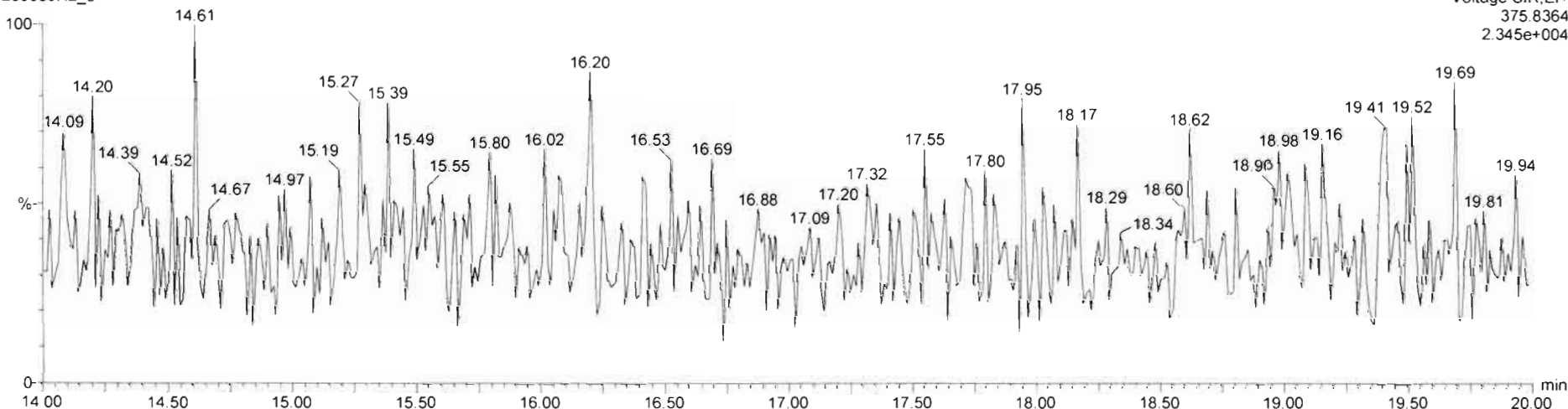
200309R2\_6



Voltage SIR\_EI+  
333.934  
1.100e+007

DPE1

200309R2\_6



Voltage SIR\_EI+  
375.8364  
2.345e+004

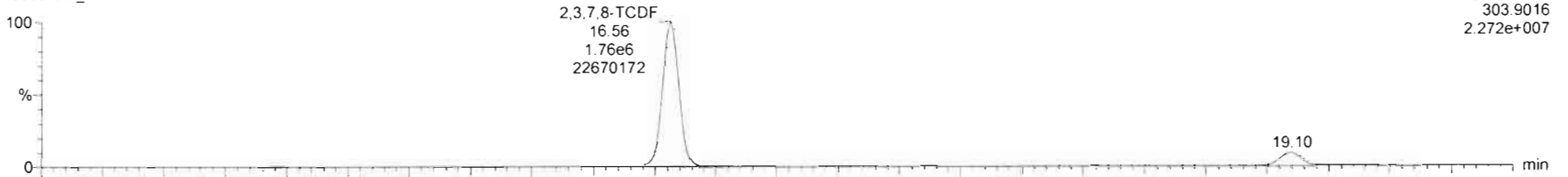
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Printed: Tuesday, March 10, 2020 7:39:58 AM Pacific Daylight Time

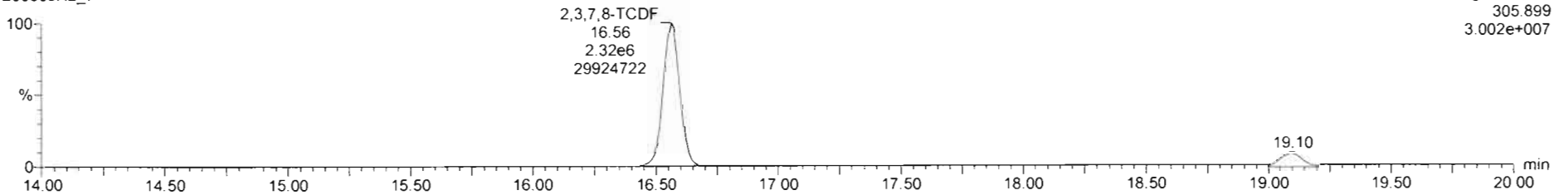
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2,3,7,8-TCDF

200309R2\_7

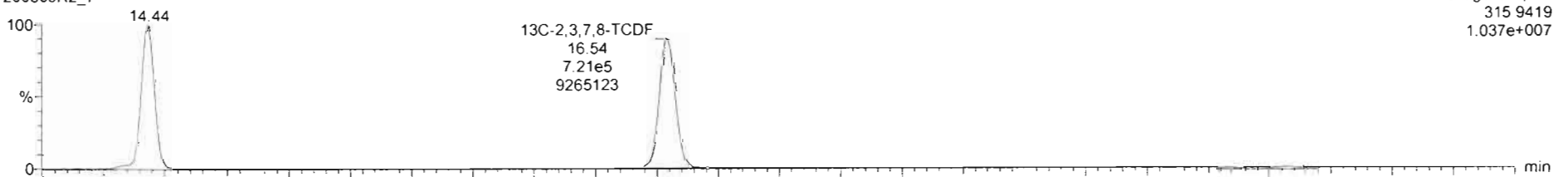


200309R2\_7

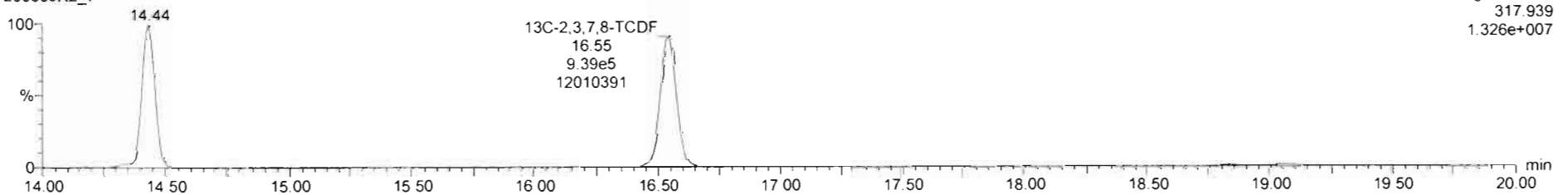


13C-2,3,7,8-TCDF

200309R2\_7



200309R2\_7



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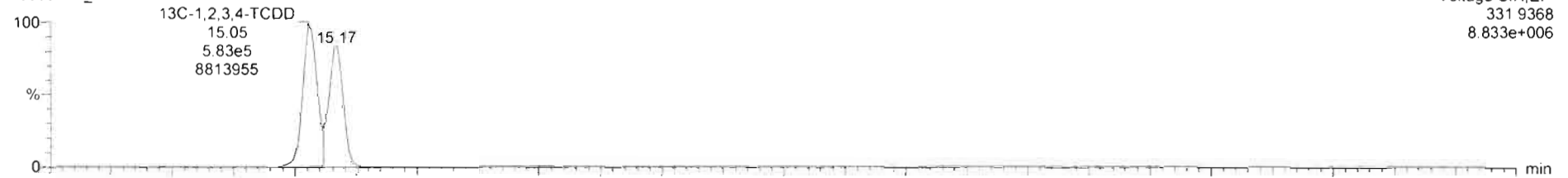
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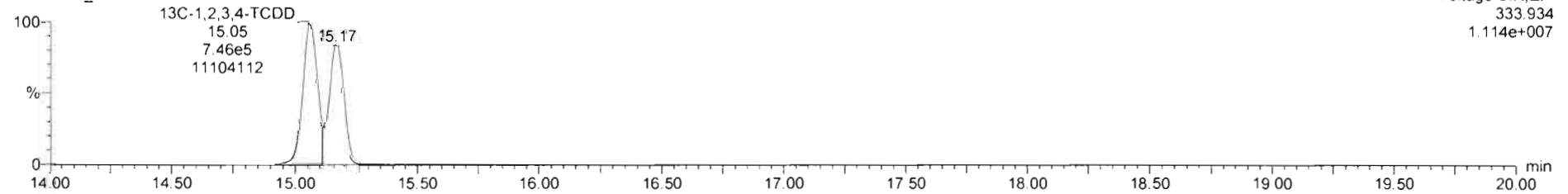
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13C-1,2,3,4-TCDD

200309R2\_7

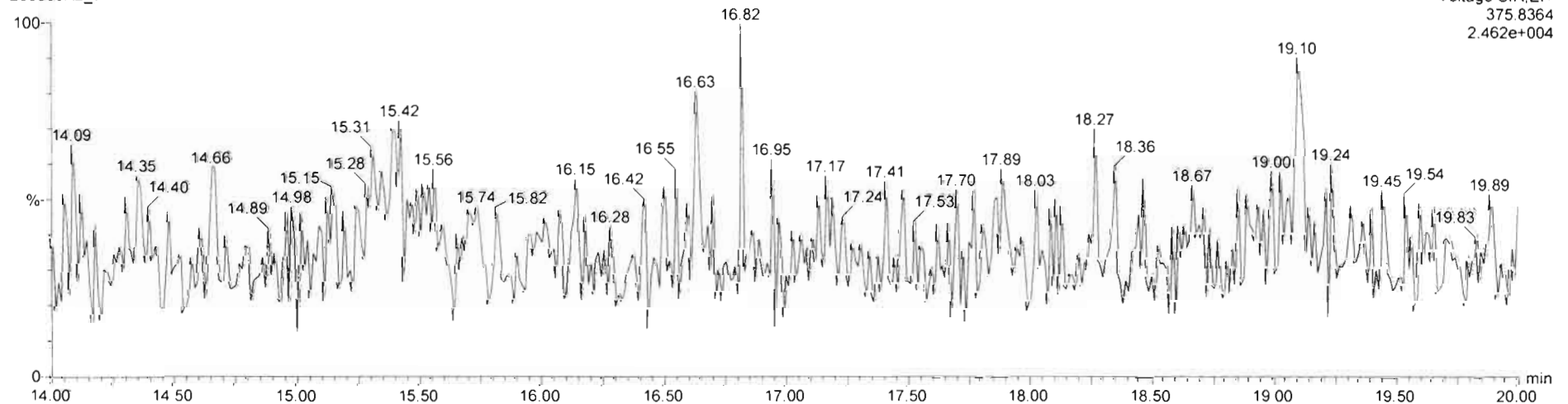


200309R2\_7



DPE1

200309R2\_7



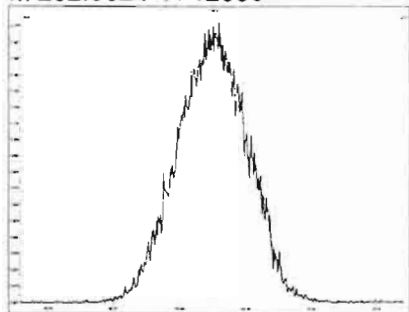
Experiment Calibration Report

MassLynx 4.1 SCN815

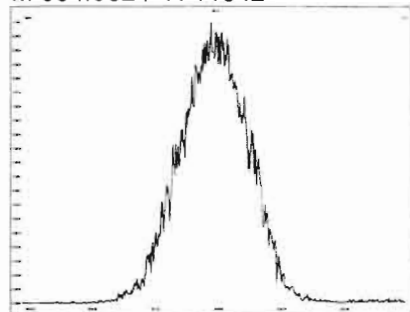
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Printed: Tuesday, March 10, 2020 07:42:24 Pacific Daylight Time

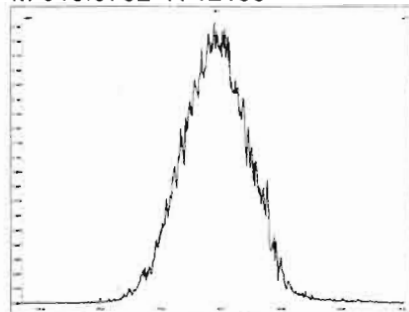
M 292.9824 R 12559



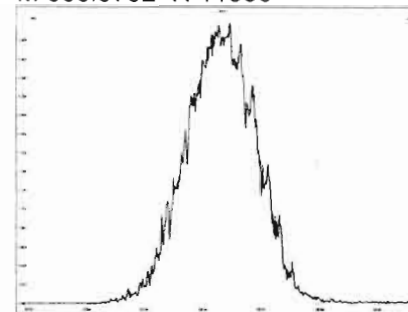
M 304.9824 R 11842



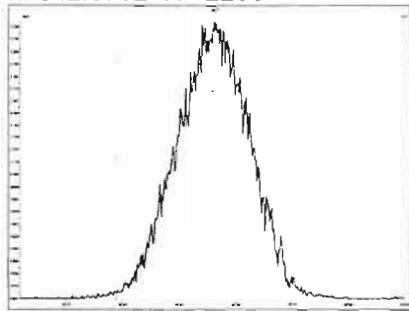
M 318.9792 R 12193



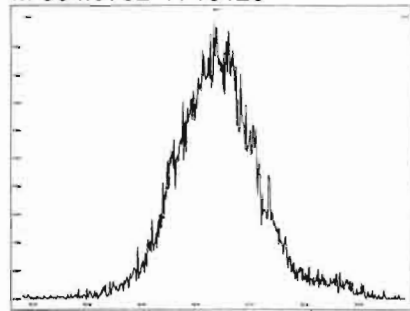
M 330.9792 R 11963



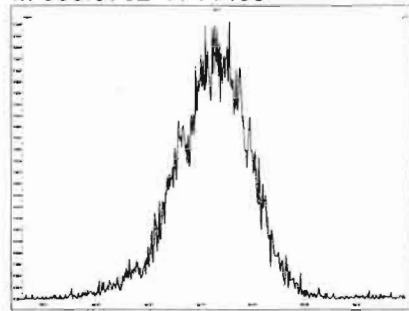
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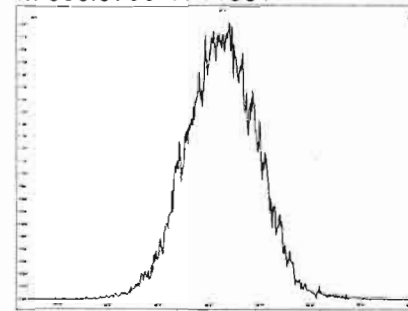
M 354.9792 R 10120



M 366.9792 R 11468



M 380.9760 R 11681



Dataset: U:\VG12.PRO\Results\200309R2\200309R2-9.qld

Last Altered: Tuesday, March 10, 2020 8:22:49 AM Pacific Daylight Time

Printed: Tuesday, March 10, 2020 8:25:09 AM Pacific Daylight Time

*GRB 03/10/2020*

*C1 03/10/2020*

Method: U:\VG12.PRO\MethDB\tcdf.mdb 10 Mar 2020 07:50:49

Calibration: U:\VG12.PRO\CurveDB\db225\_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Name: 200309R2\_9, Date: 09-Mar-2020, Time: 21:58:38, ID: SS200309R2\_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

	# Name	Resp	RA	n/y	RRF M...	wt/vol	RT	Conc.	%Rec	DL
1	1 2,3,7,8-TCDF	1.09e5	0.73	NO	0.821	1.000	16.56	10.163	102	0.0715
2	2 13C-2,3,7,8-TCDF	1.30e6	0.77	NO	1.10	1.000	16.54	93.316	93.3	0.191
3	3 13C-1,2,3,4-TCDF	1.27e6	0.79	NO	1.00	1.000	14.44	100.00	100	0.210



Dataset: Untitled

Last Altered: Tuesday, March 10, 2020 8:22:49 AM Pacific Daylight Time

Printed: Tuesday, March 10, 2020 8:22:54 AM Pacific Daylight Time

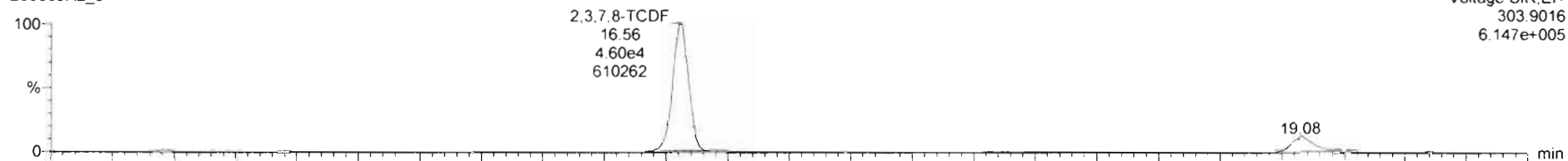
Method: U:\VG12.PRO\MethDB\tcdf.mdb 10 Mar 2020 07:50:49

Calibration: U:\VG12.PRO\CurveDB\db225\_1613TCDFvg12-03-09-20.cdb 10 Mar 2020 08:18:28

Name: 200309R2\_9, Date: 09-Mar-2020, Time: 21:58:38, ID: SS200309R2\_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

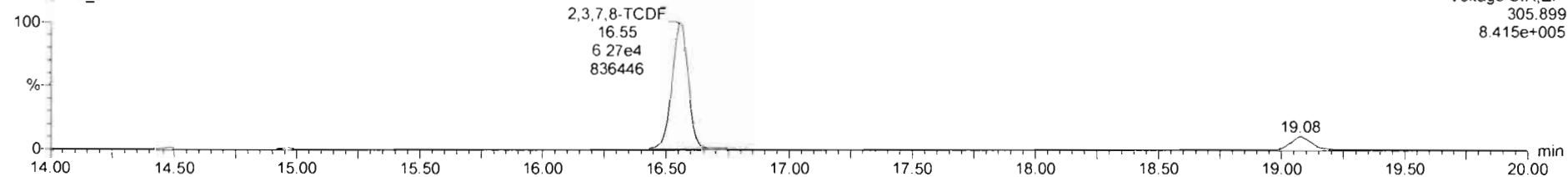
2,3,7,8-TCDF

200309R2\_9



Voltage SIR,EI+  
303.9016  
6.147e+005

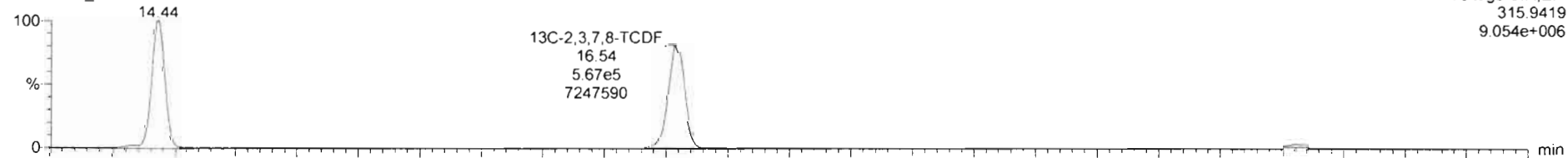
200309R2\_9



Voltage SIR,EI+  
305.899  
8.415e+005

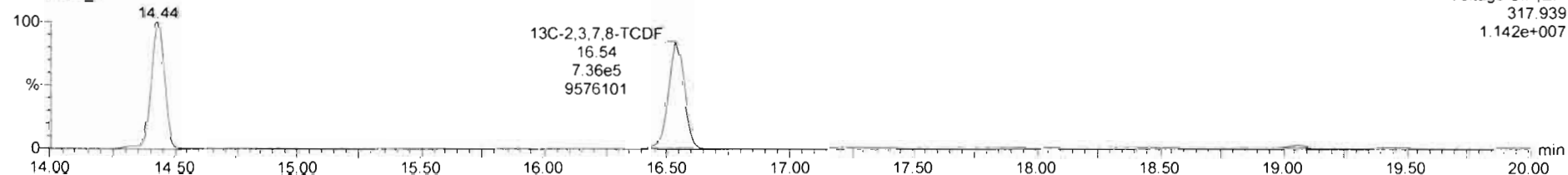
13C-2,3,7,8-TCDF

200309R2\_9



Voltage SIR,EI+  
315.9419  
9.054e+006

200309R2\_9



Voltage SIR,EI+  
317.939  
1.142e+007

Dataset: Untitled

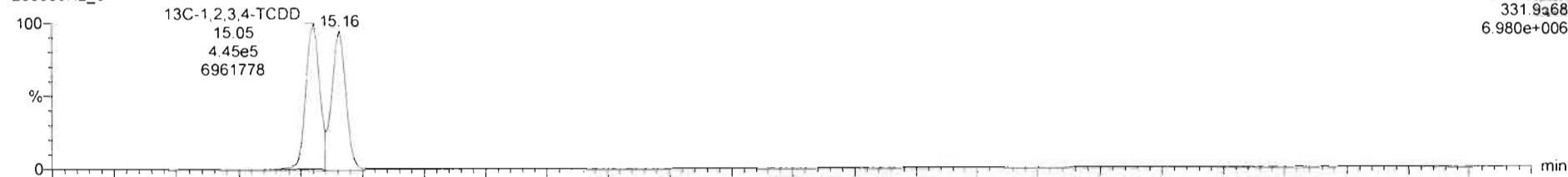
Last Altered: Tuesday, March 10, 2020 8:22:49 AM Pacific Daylight Time

Printed: Tuesday, March 10, 2020 8:22:54 AM Pacific Daylight Time

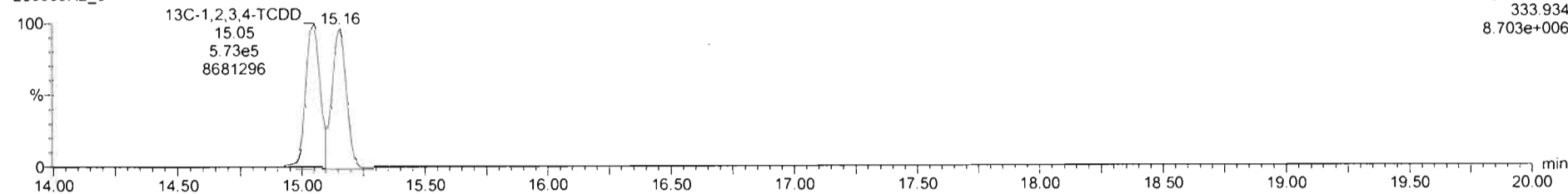
Name: 200309R2\_9, Date: 09-Mar-2020, Time: 21:58:38, ID: SS200309R2\_1 1613 SSS 19L2308, Description: 1613 SSS 19L2308

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

200309R2\_9



200309R2\_9



DPE1

200309R2\_9

