

December 29, 2020

Vista Work Order No. 2002493

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

Dear Ms. Peterson,

Enclosed are the results for the sample set received at Vista Analytical Laboratory on November 12, 2020 under your Project Name 'GascoSiltronic: US Moorings'.

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

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 Analytical Laboratory 1104 Windfield Way El Dorado Hills, CA 95762 ph: 916-673-1520 fx: 916-673-0106 www.vista-analytical.com

Work Order 2002493 Page 1 of 734

Vista Work Order No. 2002493 Case Narrative

Sample Condition on Receipt:

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

Analytical Notes:

EPA Method 1613B

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

Holding Times

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

Quality Control

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

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

The labeled standard recoveries outside the method acceptance criteria are listed in the table below:

QC Anomalies

LabNumber	SampleName	Analysis	Analyte	Flag	%Rec
2002493-07	USMPDI-014SC-A-12-13-201109	EPA Method 1613B	13C-1,2,3,6,7,8-HxCDD	Н	134
2002493-07	USMPDI-014SC-A-12-13-201109	EPA Method 1613B	13C-1,2,3,4,6,7,8-HpCDD	Н	141
2002493-10	USMPDI-057SC-A-04-05-201109	EPA Method 1613B	13C-1,2,3,6,7,8-HxCDD	Н	132
2002493-10	USMPDI-057SC-A-04-05-201109	EPA Method 1613B	13C-1,2,3,4,6,7,8-HpCDD	Н	141
2002493-12	USMPDI-057SC-A-06-07-201109	EPA Method 1613B	13C-1,2,3,6,7,8-HxCDD	Н	132

H = Recovery was outside laboratory acceptance criteria.

Work Order 2002493 Page 2 of 734

TABLE OF CONTENTS

Case Narrative	1
Table of Contents	3
Sample Inventory	4
Analytical Results	5
Qualifiers	20
Certifications	21
Sample Receipt	24
Extraction Information	28
Sample Data - EPA Method 1613	35
Continuing Calibration	448
Initial Calibration	568

Work Order 2002493 Page 3 of 734

Sample Inventory Report

Vista Sample ID	Client Sample ID	Sampled	Received	Components/Containers
2002493-01	USMPDI-012SC-A-01-02-201109	09-Nov-20 12:55	12-Nov-20 10:37	Amber Glass, 120 mL
2002493-02	USMPDI-012SC-A-02-03-201109	09-Nov-20 12:55	12-Nov-20 10:37	Amber Glass, 120 mL
2002493-03	USMPDI-012SC-A-03-04-201109	09-Nov-20 12:55	12-Nov-20 10:37	Amber Glass, 120 mL
2002493-04	USMPDI-012SC-A-04-05-201109	09-Nov-20 12:55	12-Nov-20 10:37	Amber Glass, 120 mL
2002493-05	USMPDI-014SC-A-10-11-201109	09-Nov-20 14:55	12-Nov-20 10:37	Amber Glass, 120 mL
2002493-06	USMPDI-014SC-A-11-12-201109	09-Nov-20 14:55	12-Nov-20 10:37	Amber Glass, 120 mL
2002493-07	USMPDI-014SC-A-12-13-201109	09-Nov-20 14:55	12-Nov-20 10:37	Amber Glass, 120 mL
2002493-08	USMPDI-014SC-A-13-14-201109	09-Nov-20 14:55	12-Nov-20 10:37	Amber Glass, 120 mL
2002493-09	USMPDI-057SC-A-03-04-201109	09-Nov-20 09:30	12-Nov-20 10:37	Amber Glass, 120 mL
2002493-10	USMPDI-057SC-A-04-05-201109	09-Nov-20 09:30	12-Nov-20 10:37	Amber Glass, 120 mL
2002493-11	USMPDI-057SC-A-05-06-201109	09-Nov-20 09:30	12-Nov-20 10:37	Amber Glass, 120 mL
2002493-12	USMPDI-057SC-A-06-07-201109	09-Nov-20 09:30	12-Nov-20 10:37	Amber Glass, 120 mL

Vista Project: 2002493 Client Project: GascoSiltronic: US Moorings

Work Order 2002493 Page 4 of 734

ANALYTICAL RESULTS

Work Order 2002493 Page 5 of 734

Sample ID: Method	l Blank						EPA Me	ethod 1613B		
Matrix: Solid Sample Size: 10.0 g		QC Batch: B0L0040 Date Extracted: 05-Dec-2020) 13:24	Lab Sample: B0L0040-BLK1 Date Analyzed: 14-Dec-20 15:22 Column: ZB-DIOXIN						
Analyte Conc.	(pg/g)	DL EMPC	Qualifiers		Labeled Standard	%R	LCL-UCL	Qualifiers		
2,3,7,8-TCDD	ND	0.0193		IS	13C-2,3,7,8-TCDD	96.6	25 - 164			
1,2,3,7,8-PeCDD	ND	0.0191			13C-1,2,3,7,8-PeCDD	110	25 - 181			
1,2,3,4,7,8-HxCDD	ND	0.0256			13C-1,2,3,4,7,8-HxCDD	109	32 - 141			
1,2,3,6,7,8-HxCDD	ND	0.0270			13C-1,2,3,6,7,8-HxCDD	103	28 - 130			
1,2,3,7,8,9-HxCDD	ND	0.0280			13C-1,2,3,7,8,9-HxCDD	101	32 - 141			
1,2,3,4,6,7,8-HpCDD	ND	0.0450			13C-1,2,3,4,6,7,8-HpCDD	98.9	23 - 140			
OCDD	0.162		J		13C-OCDD	81.5	17 - 157			
2,3,7,8-TCDF	ND	0.0107			13C-2,3,7,8-TCDF	102	24 - 169			
1,2,3,7,8-PeCDF	ND	0.0172			13C-1,2,3,7,8-PeCDF	117	24 - 185			
2,3,4,7,8-PeCDF	ND	0.0150			13C-2,3,4,7,8-PeCDF	114	21 - 178			
1,2,3,4,7,8-HxCDF	ND	0.0159			13C-1,2,3,4,7,8-HxCDF	99.7	26 - 152			
1,2,3,6,7,8-HxCDF	ND	0.0165			13C-1,2,3,6,7,8-HxCDF	92.3	26 - 123			
2,3,4,6,7,8-HxCDF	ND	0.0190			13C-2,3,4,6,7,8-HxCDF	96.0	28 - 136			
1,2,3,7,8,9-HxCDF	ND	0.0224			13C-1,2,3,7,8,9-HxCDF	94.9	29 - 147			
1,2,3,4,6,7,8-HpCDF	ND	0.0398			13C-1,2,3,4,6,7,8-HpCDF	76.8	28 - 143			
1,2,3,4,7,8,9-HpCDF	ND	0.0320			13C-1,2,3,4,7,8,9-HpCDF	95.9	26 - 138			
OCDF	ND	0.0331			13C-OCDF	78.9	17 - 157			
				CRS	37Cl-2,3,7,8-TCDD	93.9	35 - 197			
					Toxic Equivalent Quotient (T	EQ) Data (pg/g dı	y wt)			
					TEQMinWHO2005Dioxin	0.000049				
TOTALS										
Total TCDD	ND	0.0193	· ·							
Total PeCDD	ND	0.0191								
Total HxCDD	ND	0.0280								
Total HpCDD	ND	0.0450								
Total TCDF	ND	0.0107								
Total PeCDF	ND	0.0172								
Total HxCDF	ND	0.0224								
Total HpCDF	ND	0.0398			CI - Lower control limit - unner control li					

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.

Work Order 2002493 Page 6 of 734

Sample ID: OPR								EPA Method 1613B
Matrix: Solid Sample Size: 10.0 g			30L0040)5-Dec-2020	0 13:24		Lab Sample: B0L0040-BS1 Date Analyzed: 14-Dec-20 13:49	Column: ZB-DIOXIN	
Analyte	Amt Found (pg/g)	Spike Amt	%R	Limits		Labeled Standard	%R	LCL-UCL
2,3,7,8-TCDD	20.3	20.0	101	67 - 158	IS	13C-2,3,7,8-TCDD	97.7	20 - 175
1,2,3,7,8-PeCDD	104	100	104	70 - 142		13C-1,2,3,7,8-PeCDD	112	21 - 227
1,2,3,4,7,8-HxCDD	103	100	103	70 - 164		13C-1,2,3,4,7,8-HxCDD	107	21 - 193
1,2,3,6,7,8-HxCDD	101	100	101	76 - 134		13C-1,2,3,6,7,8-HxCDD	105	25 - 163
1,2,3,7,8,9-HxCDD	99.7	100	99.7	64 - 162		13C-1,2,3,7,8,9-HxCDD	101	21 - 193
1,2,3,4,6,7,8-HpCDD	96.9	100	96.9	70 - 140		13C-1,2,3,4,6,7,8-HpCDD	99.6	26 - 166
OCDD	205	200	102	78 - 144		13C-OCDD	80.0	13 - 199
2,3,7,8-TCDF	18.2	20.0	90.8	75 - 158		13C-2,3,7,8-TCDF	100	22 - 152
1,2,3,7,8-PeCDF	99.6	100	99.6	80 - 134		13C-1,2,3,7,8-PeCDF	118	21 - 192
2,3,4,7,8-PeCDF	101	100	101	68 - 160		13C-2,3,4,7,8-PeCDF	115	13 - 328
1,2,3,4,7,8-HxCDF	95.6	100	95.6	72 - 134		13C-1,2,3,4,7,8-HxCDF	100	19 - 202
1,2,3,6,7,8-HxCDF	95.7	100	95.7	84 - 130		13C-1,2,3,6,7,8-HxCDF	93.8	21 - 159
2,3,4,6,7,8-HxCDF	96.9	100	96.9	70 - 156		13C-2,3,4,6,7,8-HxCDF	96.1	22 - 176
1,2,3,7,8,9-HxCDF	96.0	100	96.0	78 - 130		13C-1,2,3,7,8,9-HxCDF	95.6	17 - 205
1,2,3,4,6,7,8-HpCDF	96.4	100	96.4	82 - 122		13C-1,2,3,4,6,7,8-HpCDF	79.4	21 - 158
1,2,3,4,7,8,9-HpCDF	96.0	100	96.0	78 - 138		13C-1,2,3,4,7,8,9-HpCDF	96.5	20 - 186
OCDF	194	200	97.2	63 - 170		13C-OCDF	80.4	13 - 199
					CRS	37Cl-2,3,7,8-TCDD	98.3	31 - 191

LCL-UCL - Lower control limit - upper control limit

Work Order 2002493 Page 7 of 734

Sample ID: USMPD	OI-012SC-A-01-02-201109					EPA Method 1613I
Project: Gasco	or QEA, LLC Siltronic: US Moorings ov-2020 12:55	Sample Data Matrix: Sediment Sample Size: 13.1 g % Solids: 79.1		Laboratory Data Lab Sample: 2002493-01 QC Batch: B0L0040 Date Analyzed: 15-Dec-20 23:4	Date Received: Date Extracted: 3 Column: ZB-DIC	05-Dec-2020 13:24
Analyte Conc.	(pg/g)	DL EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL Qualifiers
2,3,7,8-TCDD	ND	0.0990		IS 13C-2,3,7,8-TCDD	102	25 - 164
1,2,3,7,8-PeCDD	ND	0.116		13C-1,2,3,7,8-PeCDD	119	25 - 181
1,2,3,4,7,8-HxCDD	ND	0.0800		13C-1,2,3,4,7,8-HxCDD	128	32 - 141
1,2,3,6,7,8-HxCDD	0.852		J	13C-1,2,3,6,7,8-HxCDD	122	28 - 130
1,2,3,7,8,9-HxCDD	0.403		J	13C-1,2,3,7,8,9-HxCDD	118	32 - 141
1,2,3,4,6,7,8-HpCDD	18.6			13C-1,2,3,4,6,7,8-HpCDD	123	23 - 140
OCDD	322		В	13C-OCDD	105	17 - 157
2,3,7,8-TCDF	3.33			13C-2,3,7,8-TCDF	109	24 - 169
1,2,3,7,8-PeCDF	5.07			13C-1,2,3,7,8-PeCDF	126	24 - 185
2,3,4,7,8-PeCDF	3.11			13C-2,3,4,7,8-PeCDF	125	21 - 178
1,2,3,4,7,8-HxCDF	8.73			13C-1,2,3,4,7,8-HxCDF	106	26 - 152
1,2,3,6,7,8-HxCDF	2.34		J	13C-1,2,3,6,7,8-HxCDF	97.8	26 - 123
2,3,4,6,7,8-HxCDF	0.809		J	13C-2,3,4,6,7,8-HxCDF	103	28 - 136
1,2,3,7,8,9-HxCDF	0.334		J	13C-1,2,3,7,8,9-HxCDF	104	29 - 147
1,2,3,4,6,7,8-HpCDF	6.86			13C-1,2,3,4,6,7,8-HpCDF	86.2	28 - 143
1,2,3,4,7,8,9-HpCDF	2.19		J	13C-1,2,3,4,7,8,9-HpCDF	106	26 - 138
OCDF	15.5			13C-OCDF	94.3	17 - 157
				CRS 37C1-2,3,7,8-TCDD	103	35 - 197
				Toxic Equivalent Quotient (TE	Q) Data (pg/g dry v	vt)
				TEQMinWHO2005Dioxin	3.14	
TOTALS						
Total TCDD	0.396	0.589				
Total PeCDD	0.888	1.31				
Total HxCDD	7.97					
Total HpCDD	40.8					
Total TCDF	9.64					
Total PeCDF	15.6					
Total HxCDF	18.2					
Total HpCDF DL - Sample specifc esting	17.7					

EMPC - Estimated maximum possible concentration

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.

Page 8 of 734 Work Order 2002493

Name: Anchor Qi Project: GascoSiltr Date Collected: 09-Nov-20	EA, LLC ronic: US Moorings	Sample Data Matrix: Sample Size: % Solids:	Sediment 13.5 g 75.4		Lab S QC B	Batch: B0L0040 Analyzed: 16-Dec-20 00:27		12-Nov-2020 05-Dec-2020 XIN	
Analyte Conc. (pg/	/g) DI	L EMPC	C Qua	lifiers		Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD N	ND	0.039	8	I	IS	13C-2,3,7,8-TCDD	112	25 - 164	
1,2,3,7,8-PeCDD	ND 0.05	36				13C-1,2,3,7,8-PeCDD	117	25 - 181	
1,2,3,4,7,8-HxCDD N	ND 0.06	525				13C-1,2,3,4,7,8-HxCDD	136	32 - 141	
1,2,3,6,7,8-HxCDD N	ND	0.100)			13C-1,2,3,6,7,8-HxCDD	130	28 - 130	
1,2,3,7,8,9-HxCDD 0	0.102			J		13C-1,2,3,7,8,9-HxCDD	123	32 - 141	
1,2,3,4,6,7,8-HpCDD 2	2.19			J		13C-1,2,3,4,6,7,8-HpCDD	137	23 - 140	
OCDD 2	28.4			В		13C-OCDD	113	17 - 157	
2,3,7,8-TCDF 0	0.354			J		13C-2,3,7,8-TCDF	113	24 - 169	
1,2,3,7,8-PeCDF 0	0.381			J		13C-1,2,3,7,8-PeCDF	131	24 - 185	
2,3,4,7,8-PeCDF	0.209			J		13C-2,3,4,7,8-PeCDF	125	21 - 178	
	0.711			J		13C-1,2,3,4,7,8-HxCDF	114	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.161	I			13C-1,2,3,6,7,8-HxCDF	107	26 - 123	
	ND 0.05	51				13C-2,3,4,6,7,8-HxCDF	105	28 - 136	
	ND	0.058	2			13C-1,2,3,7,8,9-HxCDF	108	29 - 147	
	0.708			J		13C-1,2,3,4,6,7,8-HpCDF	94.8	28 - 143	
-	0.166			J		13C-1,2,3,4,7,8,9-HpCDF	121	26 - 138	
-	.41			J		13C-OCDF	105	17 - 157	
				C		37C1-2,3,7,8-TCDD	107	35 - 197	
					,	Toxic Equivalent Quotient (TEQ) Data (pg/g dry v	vt)	
					-	TEQMinWHO2005Dioxin	0.230		
TOTALS									
Total TCDD 0	0.129	0.212	2						
Total PeCDD N	ND	0.097	3						
Total HxCDD 1	.64	1.74							
Total HpCDD 5	5.30								
Total TCDF 0	0.491	0.890)						
Total PeCDF 1	1.23								
Total HxCDF 1	.08	1.48							
Total HpCDF 1	.71								

EMPC - Estimated maximum possible concentration

Sample ID: USMPDI-012SC-A-02-03-201109

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.

EPA Method 1613B

Page 9 of 734 Work Order 2002493

Sample ID: USMP	PDI-012SC-A-03-04-20110	9				EPA Me	thod 1613B
Project: Gasc	hor QEA, LLC coSiltronic: US Moorings Nov-2020 12:55	Sample Data Matrix: Sediment Sample Size: 13.3 g % Solids: 81.1		Laboratory Data Lab Sample: 2002493-0 QC Batch: B0L0040 Date Analyzed: 16-Dec-20		ived: 12-Nov-2020 cted: 05-Dec-2020 -DIOXIN	
Analyte Conc	c. (pg/g)	DL EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0209		IS 13C-2,3,7,8-TCDD	113	25 - 164	
1,2,3,7,8-PeCDD	0.0549		J	13C-1,2,3,7,8-PeCDD	121	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0298		13C-1,2,3,4,7,8-HxCDD	137	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0820		13C-1,2,3,6,7,8-HxCDD	130	28 - 130	
1,2,3,7,8,9-HxCDD	ND	0.0750		13C-1,2,3,7,8,9-HxCDD	127	32 - 141	
1,2,3,4,6,7,8-HpCDD	1.55		J	13C-1,2,3,4,6,7,8-HpCDD	133	23 - 140	
OCDD	24.9		В	13C-OCDD	102	17 - 157	
2,3,7,8-TCDF	0.215		J	13C-2,3,7,8-TCDF	118	24 - 169	
1,2,3,7,8-PeCDF	0.352		J	13C-1,2,3,7,8-PeCDF	137	24 - 185	
2,3,4,7,8-PeCDF	0.157		J	13C-2,3,4,7,8-PeCDF	137	21 - 178	
1,2,3,4,7,8-HxCDF	0.603		J	13C-1,2,3,4,7,8-HxCDF	114	26 - 152	
1,2,3,6,7,8-HxCDF	0.150		J	13C-1,2,3,6,7,8-HxCDF	104	26 - 123	
2,3,4,6,7,8-HxCDF	0.0568		J	13C-2,3,4,6,7,8-HxCDF	111	28 - 136	
1,2,3,7,8,9-HxCDF	0.0748		J	13C-1,2,3,7,8,9-HxCDF	114	29 - 147	
1,2,3,4,6,7,8-HpCDF	0.492		J	13C-1,2,3,4,6,7,8-HpCDF	88.5	28 - 143	
1,2,3,4,7,8,9-HpCDF	0.188		J	13C-1,2,3,4,7,8,9-HpCDF	113	26 - 138	
OCDF	1.17		J	13C-OCDF	95.4	17 - 157	
				CRS 37Cl-2,3,7,8-TCDD	106	35 - 197	
				Toxic Equivalent Quotien	t (TEQ) Data (pg/g	dry wt)	
				TEQMinWHO2005Dioxin	0.253		
TOTALS							
Total TCDD	0.0289	0.114					
Total PeCDD	0.121	0.173					
Total HxCDD	0.543	1.01					
Total HpCDD	3.98						
Total TCDF	0.487	0.539					
Total PeCDF	0.837	0.949					
Total HxCDF	1.03	1.24					
Total HpCDF	1.22						
DL - Sample specifc es	stimated detection limit			LCL-UCL- Lower control limit - upper control	rol limit		

Work Order 2002493 Page 10 of 734

EMPC - Estimated maximum possible concentration

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: USMP	DI-012SC-A-04-05-201109					EPA Me	thod 1613B
Project: Gasc	nor QEA, LLC coSiltronic: US Moorings Jov-2020 12:55	Sample Data Matrix: Sedime Sample Size: 12.0 g % Solids: 86.7	ent	Laboratory Data Lab Sample: 2002493-04 QC Batch: B0L0040 Date Analyzed: 16-Dec-20 12		ived: 12-Nov-2020 cted: 05-Dec-2020 -DIOXIN	
Analyte Conc	e. (pg/g)	DL EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0739		IS 13C-2,3,7,8-TCDD	117	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0416		13C-1,2,3,7,8-PeCDD	123	25 - 181	
1,2,3,4,7,8-HxCDD	0.167		J	13C-1,2,3,4,7,8-HxCDD	137	32 - 141	
1,2,3,6,7,8-HxCDD	ND	0.0673		13C-1,2,3,6,7,8-HxCDD	130	28 - 130	
1,2,3,7,8,9-HxCDD	0.154		J	13C-1,2,3,7,8,9-HxCDD	128	32 - 141	
1,2,3,4,6,7,8-HpCDD	3.27			13C-1,2,3,4,6,7,8-HpCDD	132	23 - 140	
OCDD	41.3		В	13C-OCDD	110	17 - 157	
2,3,7,8-TCDF	0.451		J	13C-2,3,7,8-TCDF	121	24 - 169	
1,2,3,7,8-PeCDF	0.624		J	13C-1,2,3,7,8-PeCDF	127	24 - 185	
2,3,4,7,8-PeCDF	0.296		J	13C-2,3,4,7,8-PeCDF	134	21 - 178	
1,2,3,4,7,8-HxCDF	1.38		J	13C-1,2,3,4,7,8-HxCDF	114	26 - 152	
1,2,3,6,7,8-HxCDF	0.350		J	13C-1,2,3,6,7,8-HxCDF	103	26 - 123	
2,3,4,6,7,8-HxCDF	0.105		J	13C-2,3,4,6,7,8-HxCDF	112	28 - 136	
1,2,3,7,8,9-HxCDF	0.100		J	13C-1,2,3,7,8,9-HxCDF	114	29 - 147	
1,2,3,4,6,7,8-HpCDF	1.01		J	13C-1,2,3,4,6,7,8-HpCDF	90.4	28 - 143	
1,2,3,4,7,8,9-HpCDF	0.281		J	13C-1,2,3,4,7,8,9-HpCDF	117	26 - 138	
OCDF	1.94		J	13C-OCDF	99.2	17 - 157	
				CRS 37Cl-2,3,7,8-TCDD	110	35 - 197	
				Toxic Equivalent Quotient (T	EQ) Data (pg/g	dry wt)	
				TEQMinWHO2005Dioxin	0.437		
TOTALS							
Total TCDD	0.104	0.178					
Total PeCDD	0.223	0.508					
Total HxCDD	1.36	2.09					
Total HpCDD	7.46						
Total TCDF	1.60	1.63					
Total PeCDF	2.10						
Total HxCDF	2.59	2.68					
Total HpCDF	2.25						
DL - Sample specifc est	stimated detection limit			LCL-UCL- Lower control limit - upper control li	mit		

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.

Page 11 of 734

Work Order 2002493

EMPC - Estimated maximum possible concentration

I-014SC-A-10-11-201109						EPA Me	thod 1613B
Siltronic: US Moorings	Sample Data Matrix: Sample Size: % Solids:	Sediment 18.2 g 55.2	Lab QC	o Sample: 2002493-05 Batch: B0L0040 te Analyzed: 16-Dec-20 13:0	Date Extracted: 0 Column: ZB-DIO	05-Dec-2020 XIN	
(pg/g)	DL EMP	C Qualifier:	S	Labeled Standard	%R	LCL-UCL	Qualifiers
ND	0.40	8	IS	13C-2,3,7,8-TCDD	117	25 - 164	
1.23		J		13C-1,2,3,7,8-PeCDD	124	25 - 181	
2.65				13C-1,2,3,4,7,8-HxCDD	135	32 - 141	
28.1				13C-1,2,3,6,7,8-HxCDD	127	28 - 130	
6.97				13C-1,2,3,7,8,9-HxCDD	127	32 - 141	
2060				13C-1,2,3,4,6,7,8-HpCDD	137	23 - 140	
19000		D, B		13C-OCDD	72.1	17 - 157	D
28.6				13C-2,3,7,8-TCDF	122	24 - 169	
51.3				13C-1,2,3,7,8-PeCDF	122	24 - 185	
36.7				13C-2,3,4,7,8-PeCDF	133	21 - 178	
94.7				13C-1,2,3,4,7,8-HxCDF	110	26 - 152	
26.6				13C-1,2,3,6,7,8-HxCDF	102	26 - 123	
10.6				13C-2,3,4,6,7,8-HxCDF	106	28 - 136	
2.87				13C-1,2,3,7,8,9-HxCDF	109	29 - 147	
157					86.5	28 - 143	
18.0				-	110	26 - 138	
504				-			
			CRS	37C1-2,3,7,8-TCDD	110	35 - 197	
				Toxic Equivalent Quotient (TE	Q) Data (pg/g dry v	vt)	
				TEQMinWHO2005Dioxin	62.1		
13.1	14.2	2					
23.8	27.2	2					
395							
4590							
112	125	P					
263							
286		P					
547							
	1.23 2.65 28.1 6.97 2060 19000 28.6 51.3 36.7 94.7 26.6 10.6 2.87 157 18.0 504	Sample Data Matrix: Sample Size: % Solids: (pg/g) ND 1.23 2.65 28.1 6.97 2060 19000 28.6 51.3 36.7 94.7 26.6 10.6 2.87 157 18.0 504	Sample Data Matrix: Sediment Sample Size: 18.2 g % Solids: 55.2 (pg/g)	Sample Data Matrix: Sediment Sample Size: 18.2 g QC	Sample Data Matrix: Sediment Sample Size: 18.2 g QC Batch: B01,004 or	Sample Data Matrix: Sediment Sample Siltronic: US Moorings Sample Siltronic: US Moorings Sample Size: 18.2 g Sediment Sample Size: 18.2 g Date Analyzed Sediment Sample Size: 18.2 g Date Analyzed Sediment Date Analyzed Sediment Sedim	Sample Data Matrix: Sediment Sample Size 18.2 g QC Batch: B01.0040 Date Received: 12-Nov-2020 14:55 % Solids: 55.2 Date Analyzed: 16-Dec-20 13:00 Column: ZB-DIOXIN T-Dec-20 21:55 T-Dec-20 21:55

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.

Work Order 2002493 Page 12 of 734

Sample ID: USMPD	OI-014SC-A-11-12-201109								EPA Me	thod 1613B
Project: Gasco	or QEA, LLC Siltronic: US Moorings ov-2020 14:55	Sample Data Matrix: Sample Size: % Solids:	Sediment 18.3 g 55.3		Lab QC	Batch: e Analyzed :		Date Received Date Extracted 6 Column: ZB-DI 0 Column: ZB-DI	l: 05-Dec-2020 OXIN	
Analyte Conc.	(pg/g)	DL EMP	С	Qualifiers		Labeled Standa	rd	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	0.523				IS	13C-2,3,7,8-TCI	OD	100	25 - 164	
1,2,3,7,8-PeCDD	1.66			J		13C-1,2,3,7,8-Pe	eCDD	107	25 - 181	
1,2,3,4,7,8-HxCDD	1.57			J		13C-1,2,3,4,7,8-	HxCDD	122	32 - 141	
1,2,3,6,7,8-HxCDD	17.8					13C-1,2,3,6,7,8-	HxCDD	113	28 - 130	
1,2,3,7,8,9-HxCDD	5.27					13C-1,2,3,7,8,9-	HxCDD	114	32 - 141	
1,2,3,4,6,7,8-HpCDD	782					13C-1,2,3,4,6,7,	8-HpCDD	127	23 - 140	
OCDD	7220			D, B		13C-OCDD		94.2	17 - 157	D
2,3,7,8-TCDF	4.21					13C-2,3,7,8-TCI	OF	109	24 - 169	
1,2,3,7,8-PeCDF	3.80					13C-1,2,3,7,8-Pe	eCDF	117	24 - 185	
2,3,4,7,8-PeCDF	13.6					13C-2,3,4,7,8-Pe	eCDF	113	21 - 178	
1,2,3,4,7,8-HxCDF	9.85					13C-1,2,3,4,7,8-	HxCDF	96.6	26 - 152	
1,2,3,6,7,8-HxCDF	11.7					13C-1,2,3,6,7,8-	HxCDF	90.6	26 - 123	
2,3,4,6,7,8-HxCDF	9.34					13C-2,3,4,6,7,8-	HxCDF	93.6	28 - 136	
1,2,3,7,8,9-HxCDF	0.597			J		13C-1,2,3,7,8,9-	HxCDF	94.7	29 - 147	
1,2,3,4,6,7,8-HpCDF	295					13C-1,2,3,4,6,7,	8-HpCDF	80.7	28 - 143	
1,2,3,4,7,8,9-HpCDF	4.13					13C-1,2,3,4,7,8,	9-HpCDF	97.2	26 - 138	
OCDF	223					13C-OCDF		83.6	17 - 157	
					CRS	37Cl-2,3,7,8-TC	DD	93.9	35 - 197	
						Toxic Equivalen	t Quotient (TE	Q) Data (pg/g dry	wt)	
						TEQMinWHO20	005Dioxin	25.5		
TOTALS										
Total TCDD	11.1	11.6	<u></u>							
Total PeCDD	30.1									
Total HxCDD	228									
Total HpCDD	1620									
Total TCDF	78.0	79.5	5	P						
Total PeCDF	194			P						
Total HxCDF	243			P						
Total HpCDF DL - Sample specife estir	595					L- Lower control 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.

Work Order 2002493 Page 13 of 734

Sample ID: USMP	DI-014SC-A-12-13-201109						EPA Me	thod 1613B
Project: Gasc	nor QEA, LLC coSiltronic: US Moorings Iov-2020 14:55	Sample Data Matrix: Sediment Sample Size: 18.1 g % Solids: 56.1		Lab QC	boratory Data 2002493-07 Batch: B0L0040 te Analyzed: 16-Dec-20 14:31		ed: 05-Dec-2020	
Analyte Conc	e. (pg/g)	DL EMPC	Qualifiers		Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.247		IS	13C-2,3,7,8-TCDD	114	25 - 164	
1,2,3,7,8-PeCDD	1.41		J		13C-1,2,3,7,8-PeCDD	126	25 - 181	
1,2,3,4,7,8-HxCDD	0.813		J		13C-1,2,3,4,7,8-HxCDD	140	32 - 141	
1,2,3,6,7,8-HxCDD	11.5				13C-1,2,3,6,7,8-HxCDD	134	28 - 130	Н
1,2,3,7,8,9-HxCDD	2.93				13C-1,2,3,7,8,9-HxCDD	133	32 - 141	
1,2,3,4,6,7,8-HpCDD	176				13C-1,2,3,4,6,7,8-HpCDD	141	23 - 140	Н
OCDD	2310		В		13C-OCDD	122	17 - 157	
2,3,7,8-TCDF	1.24				13C-2,3,7,8-TCDF	118	24 - 169	
1,2,3,7,8-PeCDF	2.18		J		13C-1,2,3,7,8-PeCDF	138	24 - 185	
2,3,4,7,8-PeCDF	16.2				13C-2,3,4,7,8-PeCDF	132	21 - 178	
1,2,3,4,7,8-HxCDF	11.4				13C-1,2,3,4,7,8-HxCDF	112	26 - 152	
1,2,3,6,7,8-HxCDF	43.8				13C-1,2,3,6,7,8-HxCDF	105	26 - 123	
2,3,4,6,7,8-HxCDF	19.2				13C-2,3,4,6,7,8-HxCDF	110	28 - 136	
1,2,3,7,8,9-HxCDF	1.51		J		13C-1,2,3,7,8,9-HxCDF	113	29 - 147	
1,2,3,4,6,7,8-HpCDF	890				13C-1,2,3,4,6,7,8-HpCDF	96.5	28 - 143	
1,2,3,4,7,8,9-HpCDF	6.59				13C-1,2,3,4,7,8,9-HpCDF	112	26 - 138	
OCDF	329				13C-OCDF	103	17 - 157	
				CRS	37Cl-2,3,7,8-TCDD	107	35 - 197	
					Toxic Equivalent Quotient (TEC	Q) Data (pg/g dr	y wt)	
					TEQMinWHO2005Dioxin	27.1		
TOTALS								
Total TCDD	6.68	7.17						
Total PeCDD	21.3	25.2						
Total HxCDD	124							
Total HpCDD	451							
Total TCDF	83.7		P					
Total PeCDF	258		P					
Total HxCDF	668		P					
Total HpCDF DL - Sample specifc est	1690				CL- Lower control limit - upper control limit			

EMPC - Estimated maximum possible concentration

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.

Work Order 2002493 Page 14 of 734

Sample ID: USMPI	DI-014SC-A-13-14-20110	9						EPA Me	thod 1613B
Project: Gasco	nor QEA, LLC oSiltronic: US Moorings ov-2020 14:55	Sample Data Matrix: Sample Siz % Solids:	Sediment		Lab QC	Doratory Data Sample: 2002493-08 Batch: B0L0040 e Analyzed: 16-Dec-20 15:		ed: 12-Nov-2020 red: 05-Dec-2020 DIOXIN	
Analyte Conc.	. (pg/g)	DL E	MPC	Qualifiers		Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0	0461		IS	13C-2,3,7,8-TCDD	105	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0626				13C-1,2,3,7,8-PeCDD	103	25 - 181	
1,2,3,4,7,8-HxCDD	0.0671			J		13C-1,2,3,4,7,8-HxCDD	127	32 - 141	
1,2,3,6,7,8-HxCDD	0.134			J		13C-1,2,3,6,7,8-HxCDD	120	28 - 130	
1,2,3,7,8,9-HxCDD	0.177			J		13C-1,2,3,7,8,9-HxCDD	120	32 - 141	
1,2,3,4,6,7,8-HpCDD	2.04			J		13C-1,2,3,4,6,7,8-HpCDD	120	23 - 140	
OCDD	27.8			В		13C-OCDD	96.9	17 - 157	
2,3,7,8-TCDF	0.118			J		13C-2,3,7,8-TCDF	107	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0390				13C-1,2,3,7,8-PeCDF	120	24 - 185	
2,3,4,7,8-PeCDF	ND	0	0748			13C-2,3,4,7,8-PeCDF	123	21 - 178	
1,2,3,4,7,8-HxCDF	ND	0	0637			13C-1,2,3,4,7,8-HxCDF	102	26 - 152	
1,2,3,6,7,8-HxCDF	0.0927			J		13C-1,2,3,6,7,8-HxCDF	95.0	26 - 123	
2,3,4,6,7,8-HxCDF	0.0670			J		13C-2,3,4,6,7,8-HxCDF	99.7	28 - 136	
1,2,3,7,8,9-HxCDF	0.0663			J		13C-1,2,3,7,8,9-HxCDF	105	29 - 147	
1,2,3,4,6,7,8-HpCDF	1.36			J		13C-1,2,3,4,6,7,8-HpCDF	82.1	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0456				13C-1,2,3,4,7,8,9-HpCDF	99.0	26 - 138	
OCDF	0.816			J		13C-OCDF	84.0	17 - 157	
					CRS	37Cl-2,3,7,8-TCDD	105	35 - 197	
						Toxic Equivalent Quotient (Tl	EQ) Data (pg/g dı	ry wt)	
						TEQMinWHO2005Dioxin	0.115		
TOTALS									
Total TCDD	0.587	(.672						
Total PeCDD	0.496	(.801						
Total HxCDD	2.46								
Total HpCDD	5.06								
Total TCDF	1.68		1.85						
Total PeCDF	0.739		.932						
Total HxCDF	1.20		1.26						
Total HpCDF	2.42								
DL - Sample specifc est	timated detection limit					L- Lower control limit - upper control lim	nit		

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.

Page 15 of 734

Work Order 2002493

EMPC - Estimated maximum possible concentration

Sample ID: USMP	PDI-057SC-A-03-04-201109					EPA Me	thod 1613B
Project: Gaso	hor QEA, LLC coSiltronic: US Moorings Nov-2020 9:30	Sample Data Matrix: Sediment Sample Size: 14.2 g % Solids: 72.6		QC Batch: B0L0		ved: 12-Nov-2020 cted: 05-Dec-2020 -DIOXIN	
Analyte Conc	c. (pg/g)	DL EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.125		IS 13C-2,3,7,8-TCDD	112	25 - 164	
1,2,3,7,8-PeCDD	0.255		J	13C-1,2,3,7,8-PeCDD	119	25 - 181	
1,2,3,4,7,8-HxCDD	0.677		J	13C-1,2,3,4,7,8-HxCI	DD 135	32 - 141	
1,2,3,6,7,8-HxCDD	5.10			13C-1,2,3,6,7,8-HxCI	DD 127	28 - 130	
1,2,3,7,8,9-HxCDD	1.44		J	13C-1,2,3,7,8,9-HxCI	DD 123	32 - 141	
1,2,3,4,6,7,8-HpCDD	406			13С-1,2,3,4,6,7,8-НрС	CDD 134	23 - 140	
OCDD	3380		В	13C-OCDD	118	17 - 157	
2,3,7,8-TCDF	15.1			13C-2,3,7,8-TCDF	111	24 - 169	
1,2,3,7,8-PeCDF	23.1			13C-1,2,3,7,8-PeCDF	126	24 - 185	
2,3,4,7,8-PeCDF	14.7			13C-2,3,4,7,8-PeCDF	120	21 - 178	
1,2,3,4,7,8-HxCDF	34.1			13C-1,2,3,4,7,8-HxCI	OF 110	26 - 152	
1,2,3,6,7,8-HxCDF	8.13			13C-1,2,3,6,7,8-HxCI	OF 101	26 - 123	
2,3,4,6,7,8-HxCDF	2.91			13C-2,3,4,6,7,8-HxCI	OF 101	28 - 136	
1,2,3,7,8,9-HxCDF	1.98		J	13C-1,2,3,7,8,9-HxCI	OF 105	29 - 147	
1,2,3,4,6,7,8-HpCDF	31.6			13С-1,2,3,4,6,7,8-НрС	CDF 89.3	28 - 143	
1,2,3,4,7,8,9-HpCDF	6.83			13С-1,2,3,4,7,8,9-НрС	CDF 111	26 - 138	
OCDF	133			13C-OCDF	100	17 - 157	
				CRS 37Cl-2,3,7,8-TCDD	110	35 - 197	
				Toxic Equivalent Que	otient (TEQ) Data (pg/g	dry wt)	
				TEQMinWHO2005Di	oxin 17.8		
TOTALS							
Total TCDD	2.63	2.98					
Total PeCDD	4.91	5.51					
Total HxCDD	84.3						
Total HpCDD	919						
Total TCDF	44.6	47.6	P				
Total PeCDF	79.5						
Total HxCDF	75.6						
Total HpCDF	115						
DL - Sample specifc es	stimated detection limit			LCL-UCL- Lower control limit - upper			

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.

Page 16 of 734

Work Order 2002493

EMPC - Estimated maximum possible concentration

Sample ID: USMPI	OI-057SC-A-04-05-201109)				EPA Me	thod 16131
Project: Gasco	or QEA, LLC Siltronic: US Moorings ov-2020 9:30	Sample Data Matrix: Sediment Sample Size: 13.6 g % Solids: 75.0		Laboratory Data Lab Sample: 2002493-10 QC Batch: B0L0040 Date Analyzed: 16-Dec-20 10	Date Rece Date Extra 5:47 Column: ZB	cted: 05-Dec-2020	
Analyte Conc.	(pg/g)	DL EMPC	Qualifiers	Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND	0.0355		IS 13C-2,3,7,8-TCDD	115	25 - 164	
1,2,3,7,8-PeCDD	0.105		J	13C-1,2,3,7,8-PeCDD	127	25 - 181	
1,2,3,4,7,8-HxCDD	0.132		J	13C-1,2,3,4,7,8-HxCDD	140	32 - 141	
1,2,3,6,7,8-HxCDD	0.898		J	13C-1,2,3,6,7,8-HxCDD	132	28 - 130	Н
1,2,3,7,8,9-HxCDD	0.344		J	13C-1,2,3,7,8,9-HxCDD	131	32 - 141	
1,2,3,4,6,7,8-HpCDD	48.2			13C-1,2,3,4,6,7,8-HpCDD	141	23 - 140	Н
OCDD	424		В	13C-OCDD	114	17 - 157	
2,3,7,8-TCDF	0.995			13C-2,3,7,8-TCDF	118	24 - 169	
1,2,3,7,8-PeCDF	0.953		J	13C-1,2,3,7,8-PeCDF	129	24 - 185	
2,3,4,7,8-PeCDF	ND	0.913		13C-2,3,4,7,8-PeCDF	123	21 - 178	
1,2,3,4,7,8-HxCDF	1.34		J	13C-1,2,3,4,7,8-HxCDF	112	26 - 152	
1,2,3,6,7,8-HxCDF	0.464		J	13C-1,2,3,6,7,8-HxCDF	104	26 - 123	
2,3,4,6,7,8-HxCDF	0.304		J	13C-2,3,4,6,7,8-HxCDF	113	28 - 136	
1,2,3,7,8,9-HxCDF	0.0664		J	13C-1,2,3,7,8,9-HxCDF	110	29 - 147	
1,2,3,4,6,7,8-HpCDF	5.37			13C-1,2,3,4,6,7,8-HpCDF	91.5	28 - 143	
1,2,3,4,7,8,9-HpCDF	0.387		J	13C-1,2,3,4,7,8,9-HpCDF	113	26 - 138	
OCDF	10.5			13C-OCDF	100	17 - 157	
				CRS 37C1-2,3,7,8-TCDD	113	35 - 197	
				Toxic Equivalent Quotient (ΓΕQ) Data (pg/g	dry wt)	
				TEQMinWHO2005Dioxin	1.26		
TOTALS							
Total TCDD	0.309	0.489					
Total PeCDD	0.859	1.41					
Total HxCDD	11.1						
Total HpCDD	98.8						
Total TCDF	5.27	5.35	P				
Total PeCDF	6.28	7.19					
Total HxCDF	6.72						
Total HpCDF DL - Sample specifc esti	13.9						

Work Order 2002493

EMPC - Estimated maximum possible concentration

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: USMPI	DI-057SC-A-05-06-20110	9						EPA Me	thod 1613B
Project: Gasco	nor QEA, LLC oSiltronic: US Moorings ov-2020 9:30	Sample D Matrix: Sample % Solid	Sediment Size: 12.8 g		Lab QC	boratory Data 2002493-11 Batch: B0L0040 te Analyzed: 16-Dec-20 17:3		ed: 12-Nov-2020 ted: 05-Dec-2020 DIOXIN	
Analyte Conc.	. (pg/g)	DL	EMPC	Qualifiers		Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND		0.0411		IS	13C-2,3,7,8-TCDD	114	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0454				13C-1,2,3,7,8-PeCDD	120	25 - 181	
1,2,3,4,7,8-HxCDD	0.0487			J		13C-1,2,3,4,7,8-HxCDD	139	32 - 141	
1,2,3,6,7,8-HxCDD	0.0839			J		13C-1,2,3,6,7,8-HxCDD	130	28 - 130	
1,2,3,7,8,9-HxCDD	0.136			J		13C-1,2,3,7,8,9-HxCDD	128	32 - 141	
1,2,3,4,6,7,8-HpCDD	1.48			J		13C-1,2,3,4,6,7,8-HpCDD	138	23 - 140	
OCDD	22.8			В		13C-OCDD	116	17 - 157	
2,3,7,8-TCDF	ND	0.0139				13C-2,3,7,8-TCDF	118	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0210				13C-1,2,3,7,8-PeCDF	124	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0181				13C-2,3,4,7,8-PeCDF	124	21 - 178	
1,2,3,4,7,8-HxCDF	ND		0.0538			13C-1,2,3,4,7,8-HxCDF	112	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0242				13C-1,2,3,6,7,8-HxCDF	102	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0262				13C-2,3,4,6,7,8-HxCDF	109	28 - 136	
1,2,3,7,8,9-HxCDF	ND		0.0413			13C-1,2,3,7,8,9-HxCDF	110	29 - 147	
1,2,3,4,6,7,8-HpCDF	0.112			J		13C-1,2,3,4,6,7,8-HpCDF	93.0	28 - 143	
1,2,3,4,7,8,9-HpCDF	ND	0.0339				13C-1,2,3,4,7,8,9-HpCDF	115	26 - 138	
OCDF	0.467			J		13C-OCDF	104	17 - 157	
					CRS	37Cl-2,3,7,8-TCDD	109	35 - 197	
						Toxic Equivalent Quotient (TE	Q) Data (pg/g di	ry wt)	
						TEQMinWHO2005Dioxin	0.0498		
TOTALS									
Total TCDD	0.234		0.275						
Total PeCDD	0.144		0.512						
Total HxCDD	1.18		1.71						
Total HpCDD	3.62								
Total TCDF	0.0247		0.0480						
Total PeCDF	0.0303								
Total HxCDF	ND		0.155						
Total HpCDF	0.359								
DL - Sample specifc est	timated detection limit					CL- Lower control limit - upper control limi	t 		

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.

Page 18 of 734

Work Order 2002493

EMPC - Estimated maximum possible concentration

Sample ID: USMPDI-0	057SC-A-06-07-201109							EPA Met	hod 1613B
Client Data Name: Anchor Q Project: GascoSilts Date Collected: 09-Nov-20	ronic: US Moorings	Sample D Matrix: Sample 3 % Solids	Sediment Size: 13.7 g		Lab QC	Pooratory Data 2002493-12 Batch: B0L0040 e Analyzed: 16-Dec-20 18:15		05-Dec-2020	
Analyte Conc. (pg/	/g)	DL	EMPC	Qualifiers		Labeled Standard	%R	LCL-UCL	Qualifiers
2,3,7,8-TCDD	ND		0.0396		IS	13C-2,3,7,8-TCDD	118	25 - 164	
1,2,3,7,8-PeCDD	ND	0.0479				13C-1,2,3,7,8-PeCDD	126	25 - 181	
1,2,3,4,7,8-HxCDD	ND	0.0321				13C-1,2,3,4,7,8-HxCDD	140	32 - 141	
1,2,3,6,7,8-HxCDD (0.0509			J		13C-1,2,3,6,7,8-HxCDD	132	28 - 130	Н
1,2,3,7,8,9-HxCDD (0.105			J		13C-1,2,3,7,8,9-HxCDD	131	32 - 141	
1,2,3,4,6,7,8-HpCDD (0.891			J		13C-1,2,3,4,6,7,8-HpCDD	136	23 - 140	
OCDD 1	10.0			В		13C-OCDD	112	17 - 157	
2,3,7,8-TCDF	ND	0.0109				13C-2,3,7,8-TCDF	120	24 - 169	
1,2,3,7,8-PeCDF	ND	0.0185				13C-1,2,3,7,8-PeCDF	130	24 - 185	
2,3,4,7,8-PeCDF	ND	0.0194				13C-2,3,4,7,8-PeCDF	129	21 - 178	
1,2,3,4,7,8-HxCDF	0.0461			J		13C-1,2,3,4,7,8-HxCDF	111	26 - 152	
1,2,3,6,7,8-HxCDF	ND	0.0226				13C-1,2,3,6,7,8-HxCDF	104	26 - 123	
2,3,4,6,7,8-HxCDF	ND	0.0242				13C-2,3,4,6,7,8-HxCDF	112	28 - 136	
1,2,3,7,8,9-HxCDF	0.0307			J		13C-1,2,3,7,8,9-HxCDF	112	29 - 147	
1,2,3,4,6,7,8-HpCDF	ND		0.0725			13C-1,2,3,4,6,7,8-HpCDF	91.4	28 - 143	
	ND	0.0336				13C-1,2,3,4,7,8,9-HpCDF	115	26 - 138	
	0.147			J		13C-OCDF	101	17 - 157	
					CRS	37Cl-2,3,7,8-TCDD	111	35 - 197	
						Toxic Equivalent Quotient (TEQ)	Data (pg/g dry v	vt)	
						TEQMinWHO2005Dioxin	0.0352		
TOTALS									
	0.125		0.165						
	ND		0.206						
	0.821		1.23						
1	2.38								
		.0109							
		.0194							
	0.0971								
Total HpCDF 1 DL - Sample specifc estimate	ND		0.143			L- Lower control limit - upper control limit			

EMPC - Estimated maximum possible concentration

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.

Work Order 2002493 Page 19 of 734

DATA QUALIFIERS & ABBREVIATIONS

B This compound was also detected in the method blank

Conc. Concentration

CRS Cleanup Recovery Standard

D Dilution

DL Detection Limit

E The associated compound concentration exceeded the calibration range of the

instrument

H Recovery and/or RPD was outside laboratory acceptance limits

I Chemical Interference

IS Internal Standard

J The amount detected is below the Reporting Limit/LOQ

K EMPC (specific projects only)

LOD Limit of Detection

LOQ Limit of Quantitation

M Estimated Maximum Possible Concentration (CA Region 2 projects only)

MDL Method Detection Limit

NA Not applicable

ND Not Detected

OPR Ongoing Precision and Recovery sample

P The reported concentration may include contribution from chlorinated diphenyl

ether(s).

Q The ion transition ratio is outside of the acceptance criteria.

RL Reporting Limit

TEQ Toxic Equivalency

U Not Detected (specific projects only)

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

Work Order 2002493 Page 20 of 734

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-В
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.

Work Order 2002493 Page 21 of 734

NELAP Accredited Test Methods

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

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

Work Order 2002493 Page 23 of 734



ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID:

VISTA-20201109-165115

POC: * Delaney Peterson (360-715-2707)

Project:

GascoSiltronic: US Moorings

Sample Custodian:

SN

1605 Cornwall Avenue, Bellingham, WA 98225

Client:

NW Natural

2002493 2.5°Cab:

VISTA

								70000 (10 a	.50		
COC Sample Number	Field Sample ID	Sample Type	Matrix	Collecte Date	ed Time	# Containers	Lab QC*	Test Request	Method	TAT**	Preservative
001	USMPDI-012SC-A-01-02-201109	N	SE	11/09/2020	12:55	1					
								Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
002	USMPDI-012SC-A-02-03-201109	N	SE	11/09/2020	12:55	1					1.49
								Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
003	USMPDI-012SC-A-03-04-201109	N	SE	11/09/2020	12:55	1		72			
							_	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
004	USMPDI-012SC-A-04-05-201109	N	SE	11/09/2020	12:55	1					
							_	Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
005	USMPDI-014SC-A-10-11-201109	N	SE	11/09/2020	14:55	1					
								Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
006	USMPDI-014SC-A-11-12-201109	N	SE	11/09/2020	14:55	1					
	·							Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
007	USMPDI-014SC-A-12-13-201109	N	SE	11/09/2020	14:55	1					
								Dioxin/Furans	E1613B	30	4°C
								Total solids (VISTA)	SM2540G	30	4°C
008	USMPDI-014SC-A-13-14-201109	N	SE	11/09/2020	14:55	1					
Com	ment:										
Relin Signat Print N	any Any Any Any Any Any Any Any	m R t		Company	e			Received By Signature Print Name Company	Relinquished By: Signature Print Name Company	Received By: Signature Print Name Company	
Date/T		112/	10 10	:37 Date/Time				Date/Time	Date/Time	Date/Time	



ENVIRONMENTAL SAMPLE CHAIN OF CUSTODY

COC ID:

VISTA-20201109-165115

POC: * Delaney Peterson (360-715-2707)

Project:

GascoSiltronic: US Moorings

Sample Custodian:

SN

1605 Cornwall Avenue, Bellingham, WA 98225

Client:

NW Natural

2002493

Lab:

VISTA

COC Sample Number	Field Sample ID	Sample Type	Matrix	Collecte Date	ed Time	# Containers	Lab QC*	Test Request	Method	TAT**	Preservativ			
008	USMPDI-014SC-A-13-14-201109	N	SE	11/09/2020	14:55	1		The state of the s						
								Dioxin/Furans	E1613B	30	4°C			
								Total solids (VISTA)	SM2540G	30	4°C			
009	USMPDI-057SC-A-03-04-201109	N	SE	11/09/2020	9:30	1								
								Dioxin/Furans	E1613B	30	4°C			
								Total solids (VISTA)	SM2540G	30	4°C			
010	USMPDI-057SC-A-04-05-201109	N	SE	11/09/2020	9:30	1								
	·	•						Dioxin/Furans	E1613B	30	4°C			
								Total solids (VISTA)	SM2540G	30	4°C			
011	USMPDI-057SC-A-05-06-201109	N	SE	11/09/2020	9:30	1								
								Dioxin/Furans	E1613B	30	4°C			
								Total solids (VISTA)	SM2540G	30	4°C			
012	USMPDI-057SC-A-06-07-201109	N	SE	11/09/2020	9:30	1			4					
	<u> </u>		•			•	•	Dioxin/Furans	E1613B	30	4°C			
								Total solids (VISTA)	SM2540G	30	4°C			

Comment:			-		
Relinquished By:	Received By	Relinquished By:	Received By:	Relinquished By:	Received By:
Signature And	Signature Muse With	Signature	Signature	Signature	Signature
Print Name Shy Warwood	William RWight	Print Name	Print Name	Print Name	Print Name
Company Right Company	CompanyVAL	Company	Company	Company	Company
	Date/Time 12/20 10:37	Date/Time	Date/Time	Date/Time	Date/Time



Sample Log-In Checklist

Vista Work Orde	r#: <u> </u>	2002	493				1	Page # _.	1 Stal	of	-
Samples	Date/Time				Initials: Location			ation:	WR-Z		
Arrival:	11/12/	0137		UP	∠)	She	lf/Rack	::A	UiA		
Delivered By:	FedEx UPS On Trac GLS DHL Hand Deliver					Oth	ner				
Preservation:	n: Blue Ice Techni Ice Dry			Ice	No	ne					
Temp °C: 2,5 (uncorrected) Probe used: Y / N Thermome								ter ID:	IR	ئى	
Temp °C: 2	(correc	ted)					1110		ter ib.		
				±.					YES	NO	NA
Shipping Contain	er(s) Intac	t?				**************************************			V		
Shipping Custody	y Seals Int	act?							V		
Airbill	- Trk	# 77	205	19	260	368	<u> </u>		V		
Shipping Docume	entation Pr	esent?				_					
Shipping Contain	er		Vista		Client) Re	etain	Re	eturn	Dist	ose
Chain of Custody	/ Sample	Docume	ntation Pr	ese	ent?				V		
Chain of Custody	/ Sample	Docume	ntation Co	omp	olete?				V	ļ	
Holding Time Acc	ceptable?										
	Date/Tim	ne		In	itials:		Loc	ation:	WR	-2	
Logged In:	11/12	120 1	417	Ч				:: <u>D</u>	21/11/2	H2-	

Comments:

ID.: | R - SLC

Rev No.. 🗈

COC Anomaly/Sample Acceptance Form completed?

Rev Date: 07/16/2020

Page: 1 of 1

CoC/Label Reconciliation Report WO# 2002493

LabNumber	CoC Sample ID	/	Sample Sample Sample Date/Time			Container	Sample BaseMatrix Comments
2002493-01	A USMPDI-012SC-A-01-02-201109	미	09-Nov-20 13	2:55		Amber Glass, 120 mL	Solid
2002493-02	A USMPDI-012SC-A-02-03-201109	国	09-Nov-20 1	2:55	/	Amber Glass, 120 mL	Solid
2002493-03	A USMPDI-012SC-A-03-04-201109	可	09-Nov-20 13	2:55	/	Amber Glass, 120 mL	Solid
2002493-04	A USMPDI-012SC-A-04-05-201109	Φ	09-Nov-20 12	2:55		Amber Glass, 120 mL	Solid
2002493-05	A USMPDI-014SC-A-10-11-201109	回,	09-Nov-20 1	4:55		Amber Glass, 120 mL	Solid
2002493-06	A USMPDI-014SC-A-11-12-201109	Image: section of the	09-Nov-20 1-	4:55		Amber Glass, 120 mL	Solid
2002493-07	A USMPDI-014SC-A-12-13-201109	回	09-Nov-20 1	4:55		Amber Glass, 120 mL	Solid
2002493-08	A USMPDI-014SC-A-13-14-201109	\square	09-Nov-20 14	1:55		Amber Glass, 120 mL	Solid
2002493-09	A USMPDI-057SC-A-03-04-201109	四	09-Nov-20 09	0:30		Amber Glass, 120 mL	Solid
2002493-10	A USMPDI-057SC-A-04-05-201109		09-Nov-20 09	9:30		Amber Glass, 120 mL	Solid
2002493-11	A USMPDI-057SC-A-05-06-201109	0/	09-Nov-20 09	9:30	1	Amber Glass, 120 mL	Solid
2002493-12	A USMPDI-057SC-A-06-07-201109	Ø	09-Nov-20 09	9:30		Amber Glass, 120 mL	Solid

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

	Yes	No	NA	Comments:
Sample Container Intact?				
Sample Custody Seals Intact?			\checkmark	
Adequate Sample Volume?	V			
Container Type Appropriate for Analysis(es)				/
Preservation Documented: Na2S2O3 Trizma None Other			\vee	/
If Chlorinated or Drinking Water Samples, Acceptable Preservation?			/	

Verifed by/Date: 113/20

Printed: 11/12/2020 2:52:47PM 2002493 Page 1 of 1

Work Order 2002493

EXTRACTION INFORMATION

Work Order 2002493 Page 28 of 734

Process Sheet

Workerder: 2002493

Prep Expiration: 2021-11-09

Client: Anchor QEA, LLC

Workorder Due: 10-Dec-20 00:00

TAT: 28

Method: 1613 Full List

Matrix: Solid Client Matrix: Sediment Also run: Percent Solids

Prep Batch: <u>B0L0040</u>

Prep Data Entered:

Date and Initials 12/08/20

Initial Sequence: SOLOO38R

LabSample	ID Reço	on ClientSampleID	Date Received	Location	Comments
2002493-01	AV	USMPDI-012SC-A-01-02-201109	12-Nov-20 10:37	WR-2 H-2	
2002493-02	7 -	USMPDI-012SC-A-02-03-201109	12-Nov-20 10:37	WR-2 H-2	
2002493-03	1	USMPDI-012SC-A-03-04-201109	12-Nov-20 10:37	WR-2 H-2	
2002493-04	1	USMPDI-012SC-A-04-05-201109	12-Nov-20 10:37	WR-2 H-2	
2002493-05	1	USMPDI-014SC-A-10-11-201109	12-Nov-20 10:37	WR-2 H-2	
2002493-06	✓ ✓	USMPDI-014SC-A-11-12-201109	12-Nov-20 10:37	WR-2 H-2	
2002493-07	1	USMPDI-014SC-A-12-13-201109	12-Nov-20 10:37	WR-2 H-2	
2002493-08	V V	USMPDI-014SC-A-13-14-201109	12-Nov-20 10:37	WR-2 H-2	
2002493-09	1	USMPDI-057SC-A-03-04-201109	12-Nov-20 10:37	WR-2 H-2	
2002493-10	14	USMPDI-057SC-A-04-05-201109	12-Nov-20 10:37	WR-2 H-2	
2002493-11	14	USMPDI-057SC-A-05-06-201109	12-Nov-20 10:37	WR-2 H-2	
2002493-12	V1 7	USMPDI-057SC-A-06-07-201109	12-Nov-20 10:37	WR-2 H-2	

WO Comments: 1613: 10g dw

Pre-Prep Check Out: CHT 11/19/20 Pre-Prep Check In: CHT 1119/20 Prep Check Out: 114 Prep Check In: IM

Prep Reconciled Initals/Date: CHT 11/19/20

Spike Reconciled Initals/Date: 111

PREPARATION BENCH SHEET

Matrix: Solid			

Method: 1613 Full List

B0L0040

Chemist:	IM	
----------	----	--

Prep Date/Time: 05-Dec-20 13:24

Prepared using: HRMS - Soxhlet

Column Packer: IM IM 12/07/20 12/08/20 12/07/20 X- 12/07/20 VISTA CRS/PS IS/NS AP ABSG G Sample AA Florisil RS Sample ID Eqv CHEM/WIT CHEM/WIT CHEM/ CHEM/ CHEM/ CHEM/ CHEM/WIT Sox Amt. DATE (g) DATE DATE DATE DATE DATE DATE IM DG 12/06/20 IM DG 12/07/20 B0L0040-BLK1 NA IM DG_1M 12/08/20 12/07/20 1H 12/08/20 IM 12/07/20 12/07/20 (10.00) B0L0040-BS1 (10.00) gray lines 2002493-01 NIA 12.64 13.10 2002493-02 13.46 13.27 2002493-03 2.32 13.31 2002493-04 11.54 12.04 2002493-05 18.24 18.12 brown, yellow, green black 2002493-06 12/07/20 IM 19 18.26 18.07 2002493-07 NIA AIO 17.84 18.09 yellow, black 2002493-08 B 15.47 16.00 2002493-09 B2 13.78 14.16 2002493-10 13.57 13.33 2002493-11 12.75 12.62 grey lines 2002493-12 13.40 13.69 overage, yellow black, green (8 2002582-01 6.77 7.06 Soxhlet Siphoned Bransple formed precipitate while votovapping to ABSG/AA

11 12/07/20

Oslow to clute AA estum ~/ 20% 1M 12/07/20 Date: 1M 12/06/20 Chemist/Date: IM 12/06/20

Vial Transfer

Chemist/Date:

TIM 12/07/20

IS: 20 F 1101, 10 mL (V3)	Cycle Time	APP: SEFUN SOX SDS	
15.			Chemist/Date: IM 12/06
NS: 20 F0107 10ML (4)	Start Date/Time	SOLV: TOL	
113.	12/06/20	ou	Check In:
PS/CRS: 2060701, 10ml (VI)	1409	Other NA	Chemist/Date: 14 12/01
The second secon	C. D. T.	Final Volume(s) 20 ML	Balance ID: HRMS-8
RS: 20H2502, 10ml (V6)	Stop Date/Time	Times votamo(s)	Balance ID. MPM3-8
	0623	C14	
Diox/F CB PAH PEST PBDE HCB	0020		
Comments:			<u> </u>

5 = Sample homogenized in secondary container

6 = Sample clogged during extaction; pipetted and used Nitrogen to assist

7 = Sohxlet approached dryness

2 = Sample bumped on rotovap; lost < 5%
3 = Sample poured through Na2SO4 to remove water
4 = Precipitate present at Final Volume

1 = Sample approached dryness on rotovap

PREPARATION BENCH SHEET

Matrix: Solid

Method: 1613 Full List

B0L0040

Chemist: 1M

Prep Date/Time: 05-Dec-20 13:24

Prepared using: HRMS - Soxhlet

					Column Packer:	AIN	IM 12/07/20	DG-12/07/20	IM 12/08/20	
Sox	VISTA Sample ID	G Eqv	Sample Amt.	IS/NS CHEM/WIT	CRS/PS CHEM/WIT	AP CHEM/	ABSG CHEM/	AA CHEM/	Florisil CHEM/	RS CHEM/WIT
			(g)	DATE	DATE	DATE	DATE	DATE	DATE	DATE
B7	2002582-02	6.89	7.06	IMDG 12/06/20	IM DG 12/07/20	NIA	IM 12/07/20	IM 12/07/20	IM 12/08/20	DG 14 12/08/20
B8	2002582-03	11.71	12.20	T	T	T	lines	T	T	, ,
by	2002582-04	8.99	9.40				brown, rellow			N Company
	2002582-053	13.12	13.37				<u> </u>			
	2002582-06	13.87	14.28				<u> </u>			
		10.49	10.80				black; wellow, brown			
CI	2002582-08 B	7.25	7.67	V	<u> </u>	V	Vorange black	Ą	V	lacksquare

NS: 2060107 10aL (V4) Start Date/Time	APP: SEFUN SOX SDS	Chemist/Date: 1M 12/06/20	Soxhlet Siphoned Chemist/Date:	Notes: A SDS very tow on TOL at 'stop time' in 12/07/20
12/06/20	Other NA	Check In: Chemist/Date: M 12/06/20 Balance ID: HRMS - 8	Vial Transfer	3 IM 12/07/20 3 sample formed precipitate while rotorapping to ABSCI/AA 1M 12/07/20 D) beige and red lines on ABSCI column IM 12/07/20 C) stort to put RB under As column just after eluting m/ 20% HEX/OPM IM 12/07/20

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 extaction; pipetted and used Nitrogen to assist
- 7 = Sohxlet approached dryness

Matrix: Solid Batch: B0L0040

LabNumber	WetWeight (Initial)	% Solids (Extraction Solids)	DryWeight Final	Extracted	Ext By	Spike	SpikeAmount	ClientMatrix	Analysis
2002493-01	13.1 ✓	79.13044	10.3661 / 20	05-Dec-20 13:24	IM	-		Sediment	1613 Full List
2002493-02	13.46 🗸	75.37474	10.1454 20	05-Dec-20 13:24	IM			Sediment	1613 Full List
2002493-03	13.31 🗸	81.14558	10.8005 20	05-Dec-20 13:24	IM			Sediment	1613 Full List
2002493-04	12.04 √	86.68122	10.4364 20	05-Dec-20 13:24	IM			Sediment	1613 Full List
2002493-05	18.24 🗸	55.18072	10.0650 / 20	05-Dec-20 13:24	IM			Sediment	1613 Full List
2002493-06	18.26 ✓	55.34884	10.1067 20	05-Dec-20 13:24	IM			Sediment	1613 Full List
2002493-07	18.09 🗸	56.0606	10.1414 20	05-Dec-20 13:24	IM			Sediment	1613 Full List
2002493-08	16 🗸	64.62715	10.3403 20	05-Dec-20 13:24	IM			Sediment	1613 Full List
2002493-09	14.16 🗸	72.55244	10.2734 20	05-Dec-20 13:24	IM			Sediment	1613 Full List
2002493-10	13.57 ∢	75.04425	10.1835 20	05-Dec-20 13:24	IM			Sediment	1613 Full List
2002493-11	12.75 🗸	79.24529	10.1038 20	05-Dec-20 13:24	IM			Sediment	1613 Full List
2002493-12	13.69 🗸	74.63126	10.2170 20	05-Dec-20 13:24	IM			Sediment	1613 Full List
2002582-01	7.06	73.80515	5.2106 20	05-Dec-20 13:24	IM			Sediment	1613 Full List
2002582-02	7.06	72.61363	5.1265 20	05-Dec-20 13:24	IM			Sediment	1613 Full List
2002582-03	12.2 J	42.71186	5.2108 20	05-Dec-20 13:24	IM			Sediment	1613 Full List
2002582-04	9.4 🗸	55.58699	5.2252 20	05-Dec-20 13:24	IM			Sediment	1613 Full List
2002582-05	13.37 ✓	38.09524	5.0933 20	05-Dec-20 13:24	IM			Sediment	1613 Full List
2002582-06	14.28 🗸	36.05948	5.1493 20	05-Dec-20 13:24	IM			Sediment	1613 Full List
2002582-07	10.8 ✓	47.67081	5.1484 20	05-Dec-20 13:24	IM			Sediment	1613 Full List
2002582-08	7.67	69.00958	5.2930 20	05-Dec-20 13:24	IM			Sediment	1613 Full List
B0L0040-BLK1	10		20	05-Dec-20 13:24	IM				QC
B0L0040-BS1	10		20	05-Dec-20 13:24	IM	20F0107	2 10 ✓	K , 57 =	QC

Printed: 12/8/2020 4:29:36PM Page 1 of 1

Work Order 2002493

Percent Moisture/ Percent Solids

D2216-90

BATCH ID B0K0139

Analyst: CHT ✓	Test Code: %Moist/%Solids	
Analyte:	Units: %	Data Entry Verified by: (Initial and Date)
	0°G+1-5°C	

Inst HRMS-9

Date/Time IN: Date/Time OUT 11/19/20 1204 11/20/20 0839

	В	B C D		E F G			н і к			L	M	N	0	Р		
					Intial and Date:		CHT 11/20/20 Dry Pan and Sample			CHT 11/19/20					CHT 11/19/20	
Particle Size	, Tare Wt. (gms)		Wet Pan and Sample Weight (g)	Dry Sample %Solids Weight (g) RawVal				pH Before	pH After	Acid Added	Sample Homogenized*					
	2002493-01	Α	7	Sample	1.2700 🗸	4.7200	4.0000	2.7300 79.13		DIRT/SOIL	OIE N/A N/A		N/A	N/A	X Z	
	2002493-02	Α	1	Sample	1.2600	5.9300	4.7800 🗸	3.5200	75,37	DIRT/SOIL	N/A	N/A	N/A	N/A	× 7	
	2002493-03	Α		Sample	1.2600	5.4500	4.6600	3.4000	81.15	DIRT/SOIL		N/A	N/A	N/A	x	
	2002493-04	Α		Sample	1.2600	5.8400	5.2300	3.9700	86.68	DIRT/SOIL		N/A	N/A	N/A	x /	
	2002493-05	Α		Sample	1.2900 🗸	5.4400 🗸	3.5800	2.2900	55.18	MUD⊀	N/A	N/A	N/A	N/A	x	
	2002493-06	Α		Sample	1.2700 🖌	5.5700 🗸	3.6500	2.3800	55.35	MUD-	N/A	N/A	N/A	N/A	х	
	2002493-07	Α		Sample	1.2800	6.5600	4.2400	2.9600	56.06	MUD	N/A	N/A	N/A	N/A	x	
	2002493-08	Α		Sample	1.2700	6.5000	4.6500	3.3800	64.63	10.00	N/A	N/A	N/A	N/A	×	
	2002493-09	Α		Sample	1.2800	7.0000	5.4300	4.1500	72.55	MUD	N/A	N/A	N/A	N/A	x	
	2002493-10	A		Sample	1.2700	6.9200	5.5100	4.2400	75.04	10.00	N/A	N/A	N/A	N/A	×	
	2002493-11	Α		Sample	1.2700	5.5100	4.6300	3.3600	79.25	DIRT/SOIL		N/A	N/A	N/A	×	
	2002493-12	Α	<u> </u>	Sample	1.2800 🗸	4.6700	3.8100	2.5300	74.63	DIRT/SOIL	N/A	N/A	N/A	N/A	x V	
					_										_	
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							_								<u> </u>	
												<u>_</u> .				

^{*}Sample homogenized in sample container unless otherwise noted.

BCH_PMOIST_B0K0139.xls

11/20/2020 8:57 AM

Percent Moisture/ Percent Solids

D2216-90

BATCH ID B0K0139

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

Date/Time OUT Inst HRMS-9 1119120 0839 В K CHT 11/19/20 CHT 1/1/9/23 CHT 11/12/20 CHT 11/20/20 Intial and Date: Particle Size SamplD SampType Pan Wet Pan and Sample Dry Pan and Sample Dry Sample %Solids Visual Sample pН pH Acid Tare Wt. (gms) Weight (g) Weight (g) Weight (g) RawVal Inspection Before After Added Homogenized* 4.72 1.27 4.00 Dirt/soil 2002493-01 Sample 1.26 5.93 4.78 2002493-02 Sample 1.26 5.45 4.66 2002493-03 Sample 1,26 5.84 5.23 V 2002493-04 Sample 1.29 5.44 3.58 2002493-05 Sample Mrg 1.27 5.57 3.65 2002493-06 Sample 1.28 6.56 4.24 2002493-07 Sample 6.50 1.27 4.65 2002493-08 Sample 1.28 7.00 5.43 2002493-09 Sample 5.51 1.27 6.92 2002493-10 Sample 1.27 4.63 Div+/soil 5.51 2002493-11 Sample 1.28 4.67 3.81 2002493-12 Sample

^{*}Sample homogenized in sample container unless otherwise noted.

SAMPLE DATA – EPA METHOD 1613

Work Order 2002493 Page 35 of 734

Dataset:

U:\VG12.PRO\Results\201214R1\201214R1_7.qld

Last Altered: Printed:

Monday, December 28, 2020 13:11:34 Pacific Standard Time Monday, December 28, 2020 13:13:41 Pacific Standard Time

HN 12/28/2000

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201214R1_7, Date: 14-Dec-2020, Time: 15:22:36, ID: B0L0040-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	0.980	10.000	26.381		1.001				0.0193	
2	2 1,2,3,7,8-PeCDD			NO	0.932	10.000	31.079		1.001				0.0191	
3	3 1,2,3,4,7,8-HxCDD			NO	1.02	10.000	34.358		1.001				0.0256	ĺ
4	4 1,2,3,6,7,8-HxCDD			NO	0.902	10.000	34.483		1.001				0.0270	
5	5 1,2,3,7,8,9-HxCDD			NO	0.954	10.000	34.734		1.000				0.0280	
6	6 1,2,3,4,6,7,8-HpCDD			NO	0.918	10.000	38.200		1.000				0.0450	1
7	7 OCDD	3.73e2	1.00	NO	0.866	10.000	41.113	41.13	1.000	1.001	0.16189		0.117	0.162
8	8 2,3,7,8-TCDF			NO	0.848	10.000	25.672		1.000				0.0107	
9	9 1,2,3,7,8-PeCDF			NO	0.960	10.000	29.785		1.000				0.0172	1
10	10 2,3,4,7,8-PeCDF			NO	1.07	10.000	30.874		1.001				0.0150	
11	11 1,2,3,4,7,8-HxCDF			NO	0.986	10.000	33.446		1.000				0.0159	J
12	12 1,2,3,6,7,8-HxCDF			NO	1.04	10.000	33.592		1.001				0.0165	
13	13 2,3,4,6,7,8-HxCDF			NO	1.02	10.000	34.253		1.001				0.0190	
14	14 1,2,3,7,8,9-HxCDF			NO	0.991	10.000	35.238		1.000				0.0224	
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.05	10.000	36.814		1.000				0.0398	1
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.18	10.000	38.828		1.000				0.0320	
17	17 OCDF			NO	0.896	10.000	41.406		1.000				0.0331	
18	18 13C-2,3,7,8-TCDD	1.49e6	0.77	NO	1.06	10.000	26.353	26.35	1.030	1.030	193.19	96.6	0.0868	1
19	19 13C-1,2,3,7,8-PeCDD	1.26e6	0.64	NO	0.785	10.000	31.192	31.05	1.219	1.214	219.85	110	0.169	
20	20 13C-1,2,3,4,7,8-HxCDD	8.90e5	1.26	NO	0.621	10.000	34.337	34.34	1.014	1.014	218.21	109	0.380	
21	21 13C-1,2,3,6,7,8-HxCDD	9.98e5	1.27	NO	0.734	10.000	34.459	34.46	1.017	1.017	206.74	103	0.321	
22	22 13C-1,2,3,7,8,9-HxCDD	9.61e5	1.25	NO	0.723	10.000	34.743	34.72	1.026	1.025	202.18	101	0.326	
23	23 13C-1,2,3,4,6,7,8-HpCDD	7.38e5	1.04	NO	0.568	10.000	38.243	38.19	1.129	1.127	197.73	98.9	0.591	
24	24 13C-OCDD	1.06e6	0.87	NO	0.496	10.000	41.180	41.10	1.216	1.213	326.15	81.5	0.510	
25	25 13C-2,3,7,8-TCDF	2.07e6	0. 7 7	NO	0.919	10.000	25.652	25.67	1.003	1.003	203.48	102	0.140	
26	26 13C-1,2,3,7,8-PeCDF	1.85e6	1.59	NO	0.715	10.000	29.903	29.78	1.169	1.164	233.65	117	0.276	
27	27 13C-2,3,4,7,8-PeCDF	1. 7 4e6	1.58	NO	0.689	10.000	30.990	30.85	1.212	1.206	228.80	114	0.287	
28	28 13C-1,2,3,4,7,8-HxCDF	1. 1 4e6	0.51	NO	0.873	10.000	33.442	33.44	0.987	0.987	199.33	99.7	0.408	
29	29 13C-1,2,3,6,7,8-HxCDF	1.13e6	0.51	NO	0.933	10.000	33.571	33.57	0.991	0.991	184.55	92.3	0.382	
30	30 13C-2,3,4,6,7,8-HxCDF	1.06e6	0.51	NO	0.843	10.000	34.238	34.23	1.011	1.011	192.06	96.0	0.422	
31	31 13C-1,2,3,7,8,9-HxCDF	9.73e5	0.50	NO	0.780	10.000	35.238	35.23	1.040	1.040	189.73	94.9	0.457	

Page 36 of 734 Work Order 2002493

Page 2 of 2

Dataset: U:\VG12.PRO\Results\201214R1\201214R1_7.qld

Last Altered: Monday, December 28, 2020 13:11:34 Pacific Standard Time Printed: Monday, December 28, 2020 13:13:41 Pacific Standard Time

Name: 201214R1_7, Date: 14-Dec-2020, Time: 15:22:36, ID: B0L0040-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	7.34e5	0.43	NO	0.726	10.000	36.813	36.80	1.087	1.086	153.58	76.8	0.431	
33	33 13C-1,2,3,4,7,8,9-HpCDF	6.20e5	0.43	NO	0.491	10.000	38.822	38.82	1.146	1.146	191.87	95.9	0.637	
34	34 13C-OCDF	1.17e6	0.87	NO	0.565	10.000	41.396	41.40	1.222	1.222	315.47	78.9	0.362	
35	35 37CI-2,3,7,8-TCDD	6.66e5			1.22	10.000	26.347	26.38	1.030	1.031	75.089	93.9	0.0244	
36	36 13C-1,2,3,4-TCDD	1.46e6	0.79	NO	1.00	10.000	25.640	25.58	1.000	1.000	200.00	100	0.0917	
37	37 13C-1,2,3,4-TCDF	2.21e6	0.78	NO	1.00	10.000	24.130	24.09	1.000	1.000	200.00	100	0.128	
38	38 13C-1,2,3,4,6,9-HxCDF	1.32e6	0.51	NO	1.00	10.000	33.920	33.88	1.000	1.000	200.00	100	0.356	
39	39 Total Tetra-Dioxins				0.980	10.000	24.620		0.000				0.0123	
40	40 Total Penta-Dioxins				0.932	10.000	29.960		0.000				0.00635	
41	41 Total Hexa-Dioxins				0.902	10.000	33.635		0.000				0.0165	
42	42 Total Hepta-Dioxins				0.918	10.000	37.640		0.000				0.0301	
43	43 Total Tetra-Furans				0.848	10.000	23.610		0.000				0.00477	
44	44 1st Func. Penta-Furans				0.960	10.000	26.930		0.000				0.00419	
45	45 Total Penta-Furans				0.960	10.000	29.275		0.000				0.00749	
46	46 Total Hexa-Furans				1.02	10.000	33.555		0.000				0.00920	
47	47 Total Hepta-Furans				1.05	10.000	37.835		0.000				0.0140	

Work Order 2002493 Page 37 of 734

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201214R1\201214R1_7.qld

Last Altered: Printed:

Monday, December 28, 2020 13:11:34 Pacific Standard Time Monday, December 28, 2020 13:13:41 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201214R1_7, Date: 14-Dec-2020, Time: 15:22:36, ID: B0L0040-BLK1 Method Blank 10, Description: Method Blank

Tetra-Dioxins

1000000	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	DŁ
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								

Work Order 2002493 Page 38 of 734

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201214R1\201214R1_7.qld

Last Altered: Monday, December 28, 2020 13:11:34 Pacific Standard Time

Printed: Monday, December 28, 2020 13:13:41 Pacific Standard Time

Name: 201214R1_7, Date: 14-Dec-2020, Time: 15:22:36, ID: B0L0040-BLK1 Method Blank 10, Description: Method Blank

Penta-Furans

Name	RT	m1 Height m2 Height	m1 Resp m2	2 Resp	RA	n/y	Resp	Conc.	EMPC	DL

Page 2 of 2

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									

Work Order 2002493 Page 39 of 734

Dataset: U:\VG12.PR0\Results\201214R1\201214R1_7.qld

Last Altered: Tuesday, December 15, 2020 7:06:24 AM Pacific Standard Time

Printed: Wednesday, December 16, 2020 11:25:40 AM Pacific Standard Time

HIN 12/14/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201214R1_7, Date: 14-Dec-2020, Time: 15:22:36, ID: B0L0040-BLK1 Method Blank 10, Description: Method Blank

	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT Pr	ed.RRT	RRT	Conc.	%Rec	DL	EMPC
1	1 2,3,7,8-TCDD			NO	0.980	10.000	26.381		1.001				0.0193	
2	2 1,2,3,7,8-PeCDD			NO	0.932	10.000	31.079		1.001				0.0191	
3	3 1,2,3,4,7,8-HxCDD			NO	1.02	10.000	34.357		1.001				0.0256	
4	4 1,2,3,6,7,8-HxCDD			NO	0.902	10.000	34.483		1.001				0.0270	
5	5 1,2,3,7,8,9-HxCDD			NO	0.954	10.000	34.735		1.000				0.0280	
6	6 1,2,3,4,6,7,8-HpCDD			NO	0.918	10.000	38.201		1.000				0.0450	
7	7 OCDD			NO	0.866	10.000	41.113		1.000				0.117	
8	8 2,3,7,8-TCDF			NO	0.848	10.000	25.671		1.000				0.0107	
9	9 1,2,3,7,8-PeCDF			NO	0.960	10.000	29.785		1.000				0.0172	
10	10 2,3,4,7,8-PeCDF			NO	1.07	10.000	30.874		1.001				0.0150	
11	11 1,2,3,4,7,8-HxCDF			NO	0.986	10.000	33.446		1.000				0.0159	
12	12 1,2,3,6,7,8-HxCDF			NO	1.04	10.000	33.593		1.001				0.0165	
13	13 2,3,4,6,7,8-HxCDF			NO	1.02	10.000	34.253		1.001				0.0190	
14	14 1,2,3,7,8,9-HxCDF			NO	0.991	10.000	35.237		1.000				0.0224	
15	15 1,2,3,4,6,7,8-HpCDF			NO	1.05	10.000	36.814		1.000				0.0398	
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.18	10.000	38.828		1.000				0.0320	
17	17 OCDF			NO	0.896	10.000	41.406		1.000				0.0331	
18	18 13C-2,3,7,8-TCDD	1.49 e 6	0.77	NO	1.06	10.000	26.353	26.35	1.030	1.030	193.19	96.6	0.0868	
19	19 13C-1,2,3,7,8-PeCDD	1.26 e 6	0.64	NO	0.785	10.000	31.192	31.05	1.219	1.214	219.85	110	0.169	
20	20 13C-1,2,3,4,7,8-HxCDD	8.90e5	1.26	NO	0.621	10.000	34.337	34.34	1.014	1.014	218.21	109	0.380	
21	21 13C-1,2,3,6,7,8-HxCDD	9.98e5	1.27	NO	0.734	10.000	34.459	34.46	1.017	1.017	206.74	103	0.321	
22	22 13C-1,2,3,7,8,9-HxCDD	9.61 e 5	1.25	NO	0.723	10.000	34.743	34.72	1.026	1.025	202.18	101	0.326	
23	23 13C-1,2,3,4,6,7,8-HpCDD	7.38e5	1.04	NO	0.568	10.000	38.243	38.19	1.129	1.127	197.73	98.9	0.591	
24	24 13C-OCDD	1.06e6	0.87	NO	0.496	10.000	41.180	41.10	1.216	1.213	326.15	81.5	0.510	
25	25 13C-2,3,7,8-TCDF	2.07e6	0.77	NO	0.919	10.000	25.652	25.67	1.003	1.003	203.48	102	0.140	
26	26 13C-1,2,3,7,8-PeCDF	1.85 e 6	1.59	NO	0.715	10.000	29.903	29.78	1.169	1.164	233.65	117	0.276	
27	27 13C-2,3,4,7,8-PeCDF	1.74e6	1.58	NO	0.689	10.000	30.990	30.85	1.212	1.206	228.80	114	0.287	
28	28 13C-1,2,3,4,7,8-HxCDF	1.14e6	0.51	NO	0.873	10.000	33.443	33.44 🗸	0.987	0.987	199.33	99.7	0.408	
29	29 13C-1,2,3,6,7,8-HxCDF	1.13e6	0.51	NO	0.933	10.000	33.571	33.57	0.991	0.991	184.55	92.3	0.382	
30	30 13C-2,3,4,6,7,8-HxCDF	1.06e6	0.50	NO	0.843	10.000	34.239	34.23	1.011	1.010	192.06	96.0	0.422	
31	31 13C-1,2,3,7,8,9-HxCDF	9.73e5	0.50	NO	0.780	10.000	35.238	35.23	1.040	1.040	189.73	94.9	0.457	

Work Order 2002493 Page 40 of 734

MassLynx 4.1 SCN815

Page 2 of 2

Dataset: U:\VG12.PRO\Results\201214R1\201214R1_7.qld

Last Altered: Tuesday, December 15, 2020 7:06:24 AM Pacific Standard Time
Printed: Wednesday, December 16, 2020 11:25:40 AM Pacific Standard Time

Name: 201214R1_7, Date: 14-Dec-2020, Time: 15:22:36, ID: B0L0040-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	7.34e5	0.44	NO	0.726	10.000	36.813	36.80	1.087	1.086	153.58	76.8	0.431	
33	33 13C-1,2,3,4,7,8,9-HpCDF	6.20e5	0.43	NO	0.491	10.000	38.822	38.82	1.146	1.146	191.87	95.9	0.637	
34	34 13C-OCDF	1.17e6	0.87	NO	0.565	10.000	41.397	41.40	1.222	1.222	315.47	78.9	0.362	
35	35 37CI-2,3,7,8-TCDD	6.66e5			1.22	10.000	26.348	26.38	1.030	1.031	75.089	93.9	0.0244	
36	36 13C-1,2,3,4-TCDD	1.46e6	0.79	NO	1.00	10.000	25.640	25.58	1.000	1.000	200.00	100	0.0917	
37	37 13C-1,2,3,4-TCDF	2.21e6	0.78	NO	1.00	10.000	24.130	24.09	1,000	1.000	200.00	100	0.128	
38	38 13C-1,2,3,4,6,9-HxCDF	1.32 e 6	0.51	NO	1.00	10.000	33.920	33.88	1.000	1.000	200.00	100	0.356	
39	39 Total Tetra-Dioxins				0.980	10.000	24.620		0.000				0.0123	
40	40 Total Penta-Dioxins				0.932	10.000	29.960		0.000				0.00635	
41	41 Total Hexa-Dioxins				0.902	10.000	33.635		0.000				0.0165	
42	42 Total Hepta-Dioxins				0.918	10.000	37.640		0.000				0.0301	
43	43 Total Tetra-Furans				0.848	10.000	23.610		0.000				0.00477	
44	44 1st Func. Penta-Furans				0.960	10.000	26.930		0.000				0.00419	
45	45 Total Penta-Furans				0.960	10.000	29.275		0.000				0.00749	
46	46 Total Hexa-Furans				1.02	10.000	33.555		0.000				0.00920	
47	47 Total Hepta-Furans				1.05	10.000	37.835		0.000				0.0140	

Work Order 2002493 Page 41 of 734

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201214R1\201214R1_7.qld

Last Altered: Printed:

Tuesday, December 15, 2020 7:06:24 AM Pacific Standard Time Wednesday, December 16, 2020 11:25:40 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201214R1_7, Date: 14-Dec-2020, Time: 15:22:36, ID: B0L0040-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

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 Res	RA	n/y	Resp	Conc.	EMPC	DL
1									

Work Order 2002493 Page 42 of 734

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201214R1\201214R1_7.qld

Last Altered: Printed:

Tuesday, December 15, 2020 7:06:24 AM Pacific Standard Time Wednesday, December 16, 2020 11:25:40 AM Pacific Standard Time

Name: 201214R1_7, Date: 14-Dec-2020, Time: 15:22:36, ID: B0L0040-BLK1 Method Blank 10, Description: Method Blank

Penta-Furans

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

Hexa-Furans

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

Hepta-Furans

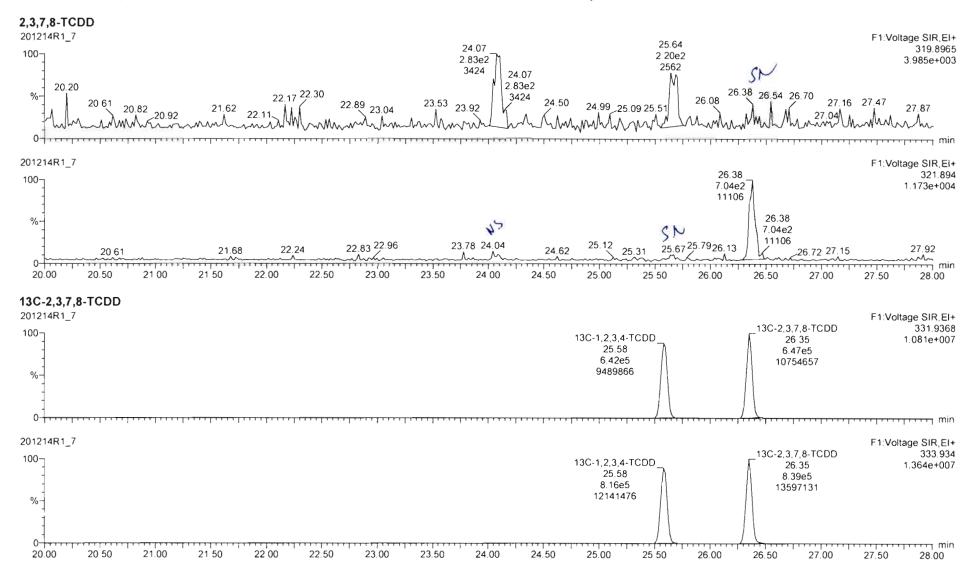
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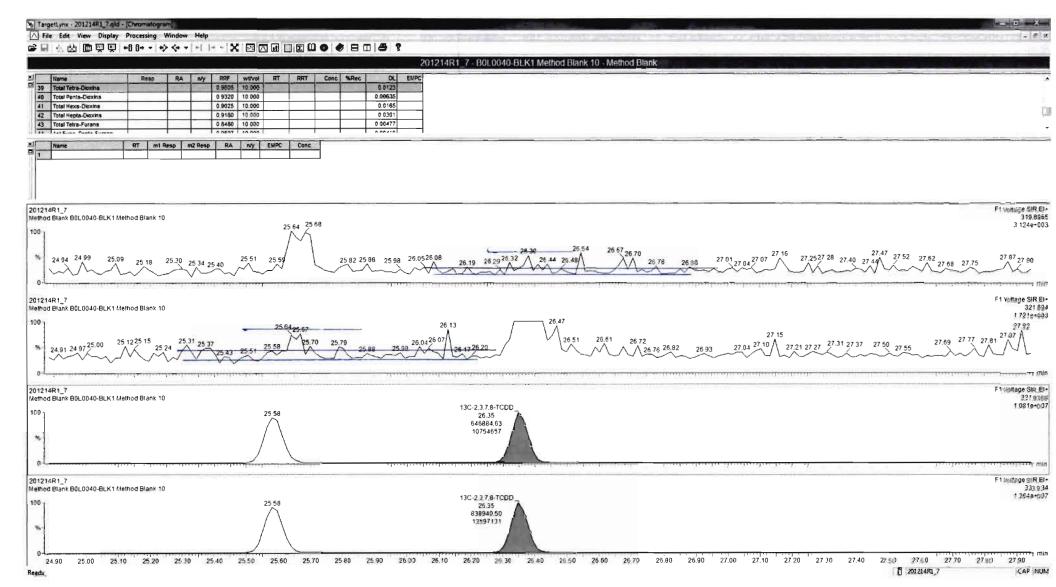
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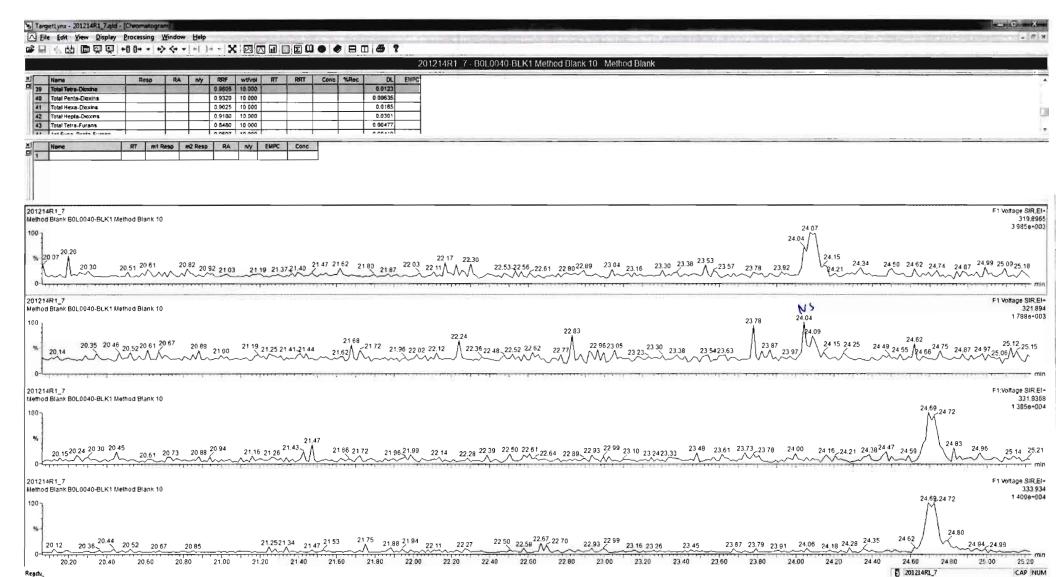
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Tuesday, December 15, 2020 6:59:17 AM Pacific Standard Time Tuesday, December 15, 2020 7:04:33 AM Pacific Standard Time





Work Order 2002493 Page 45 of 734

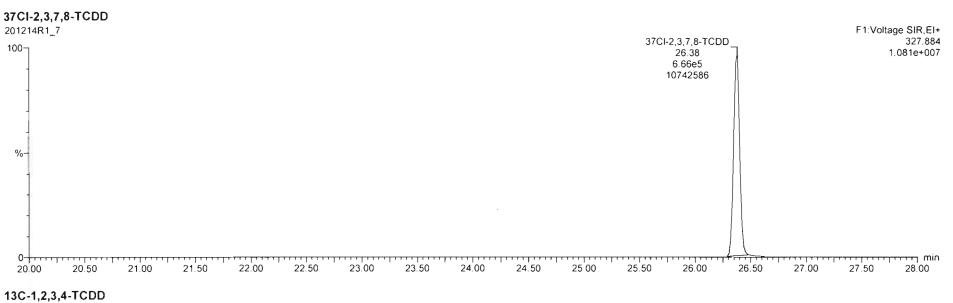


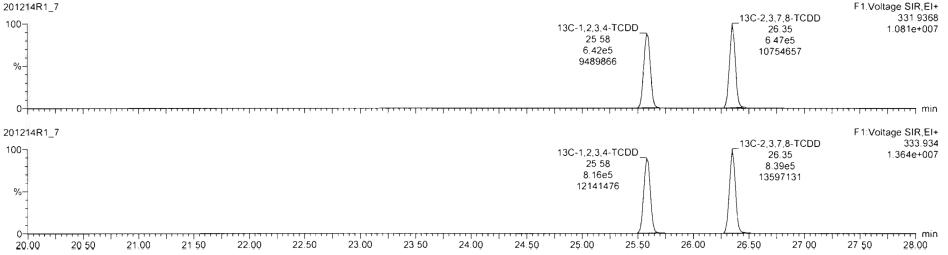
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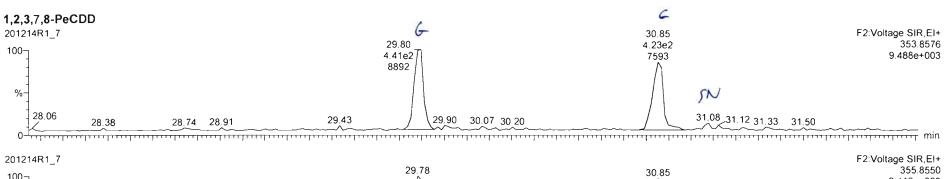
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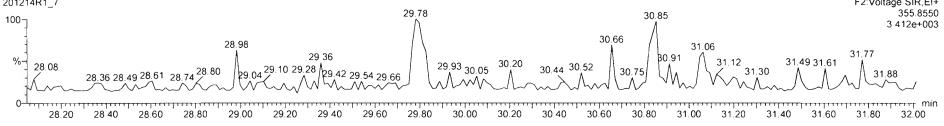


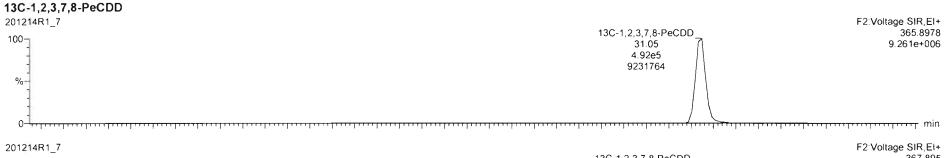


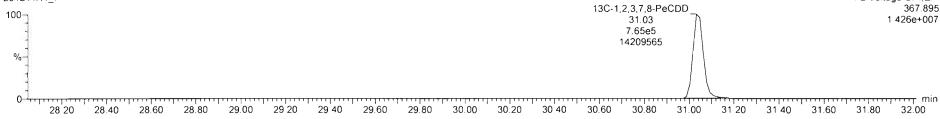
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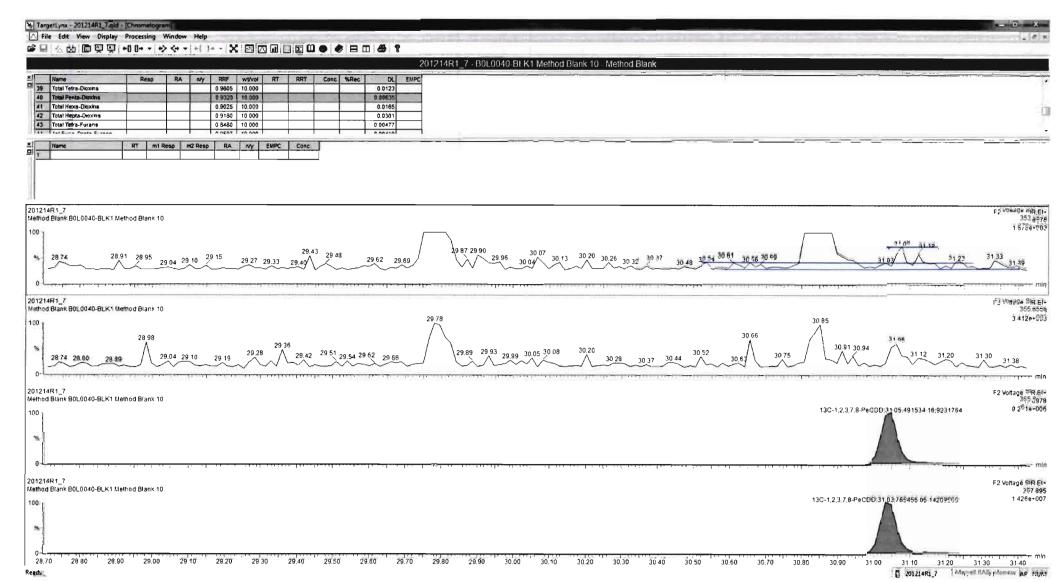
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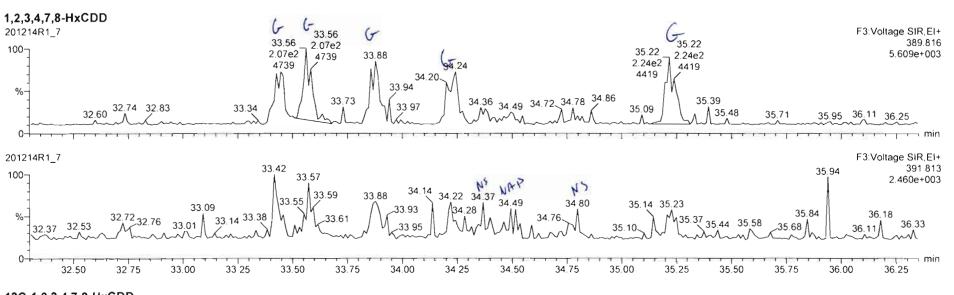


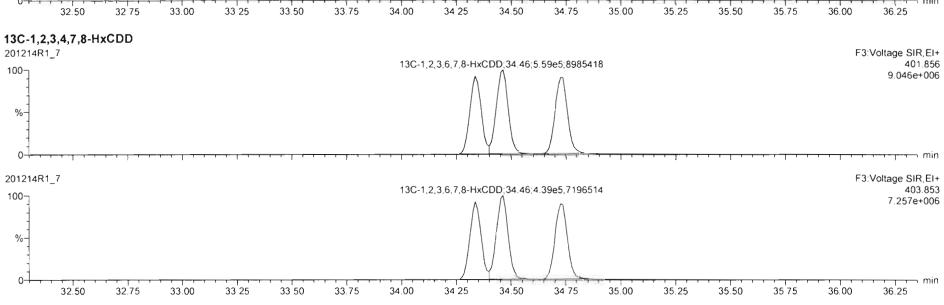


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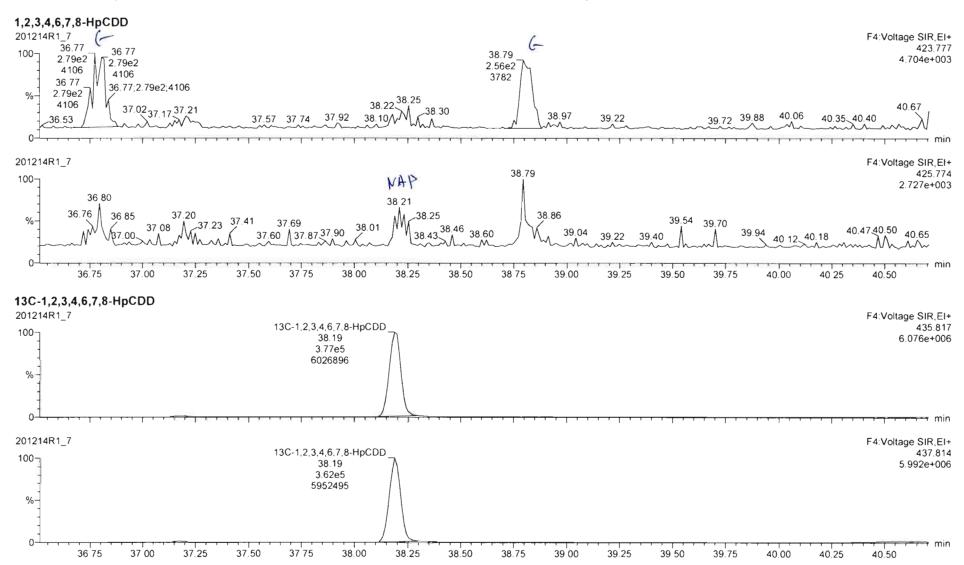
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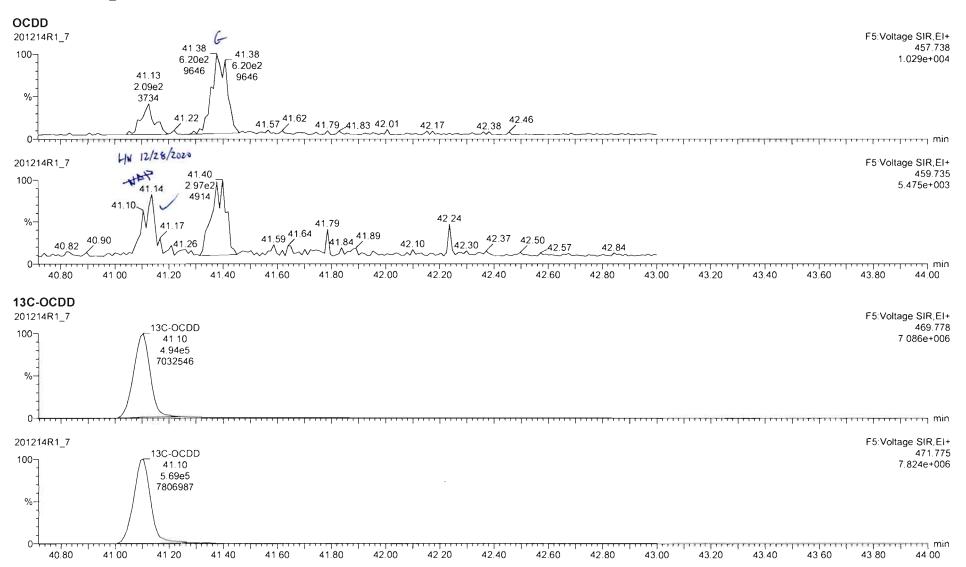
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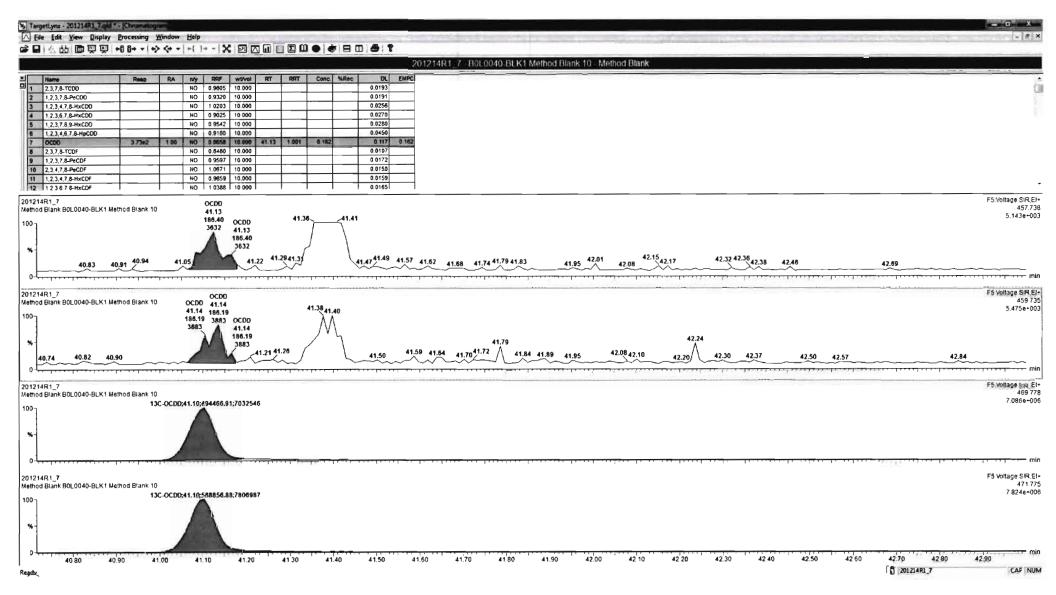


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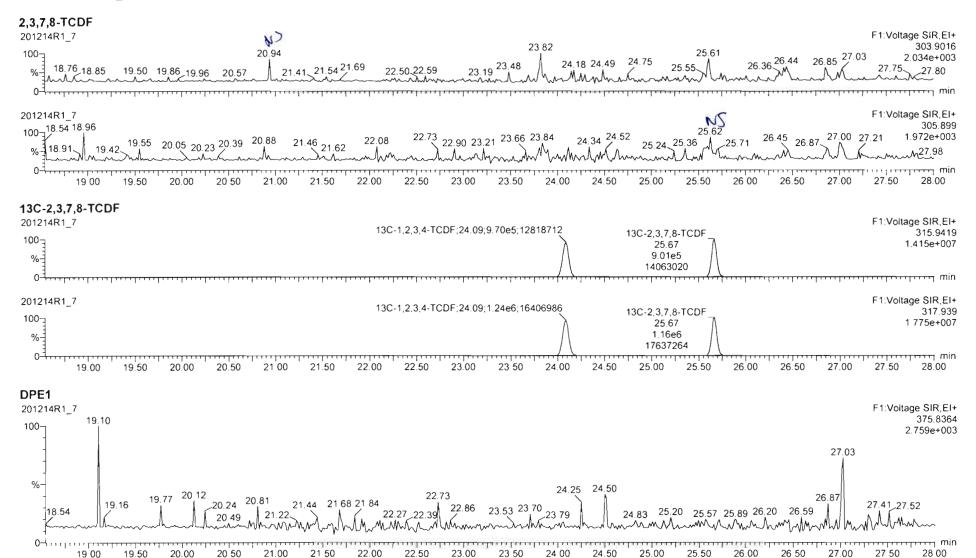


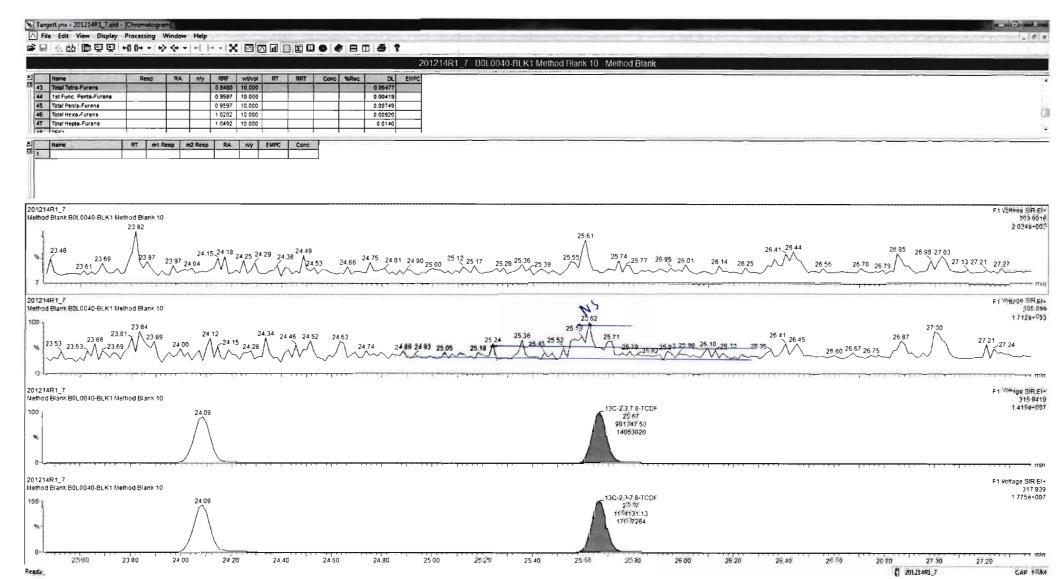
Work Order 2002493 Page 53 of 734

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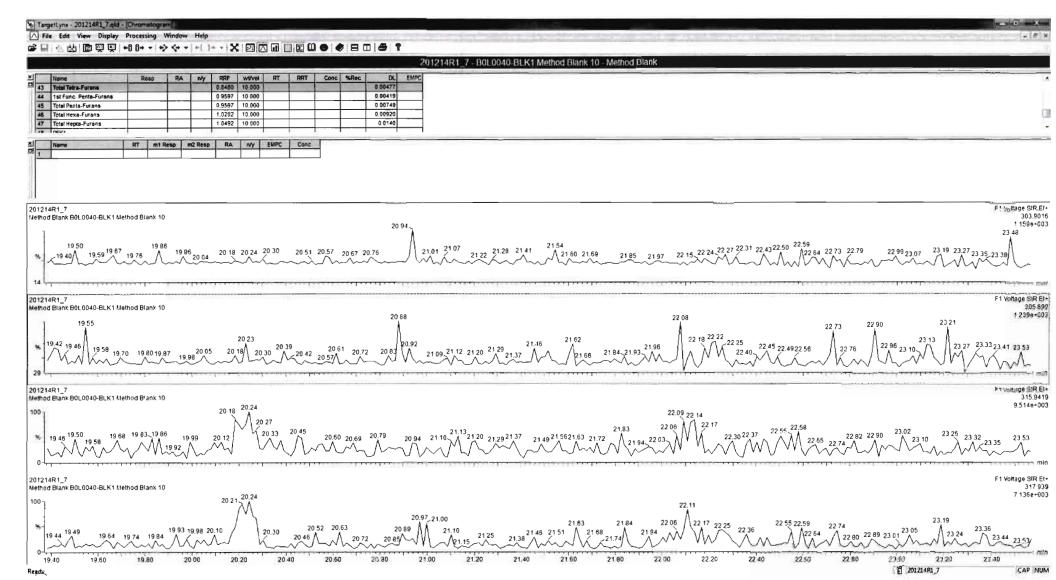
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Work Order 2002493 Page 55 of 734

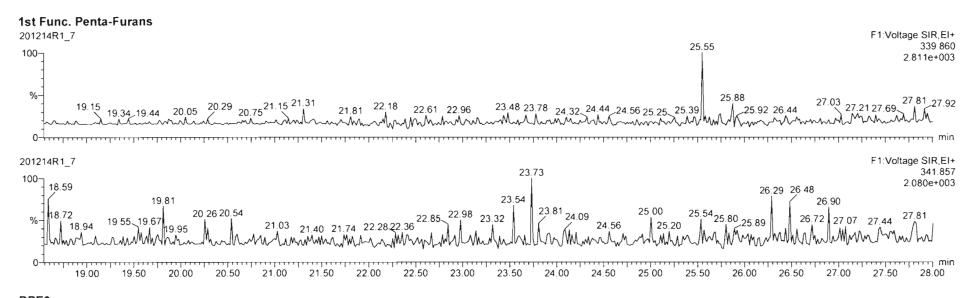


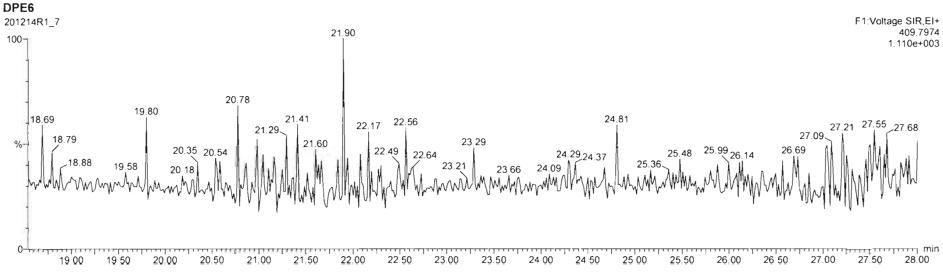
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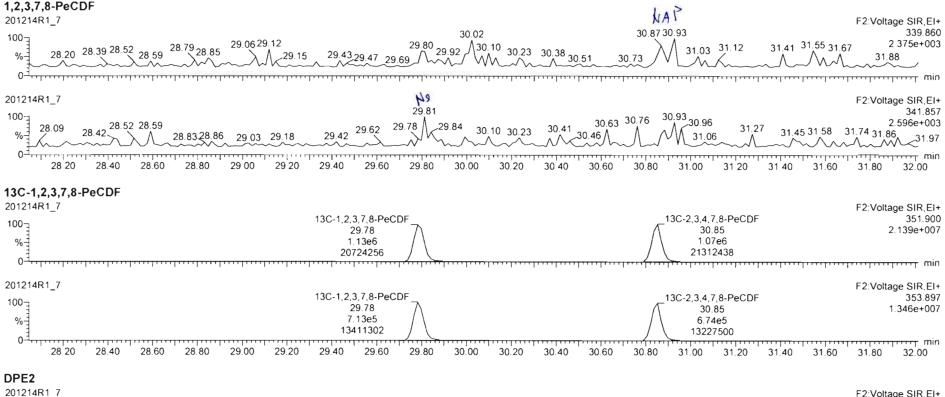
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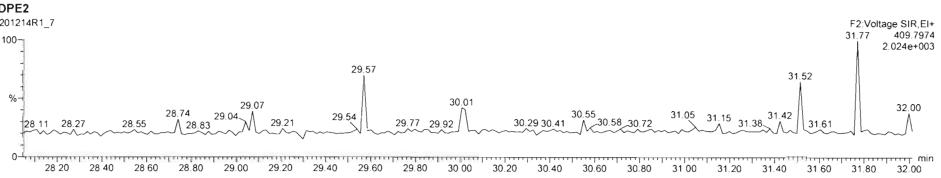




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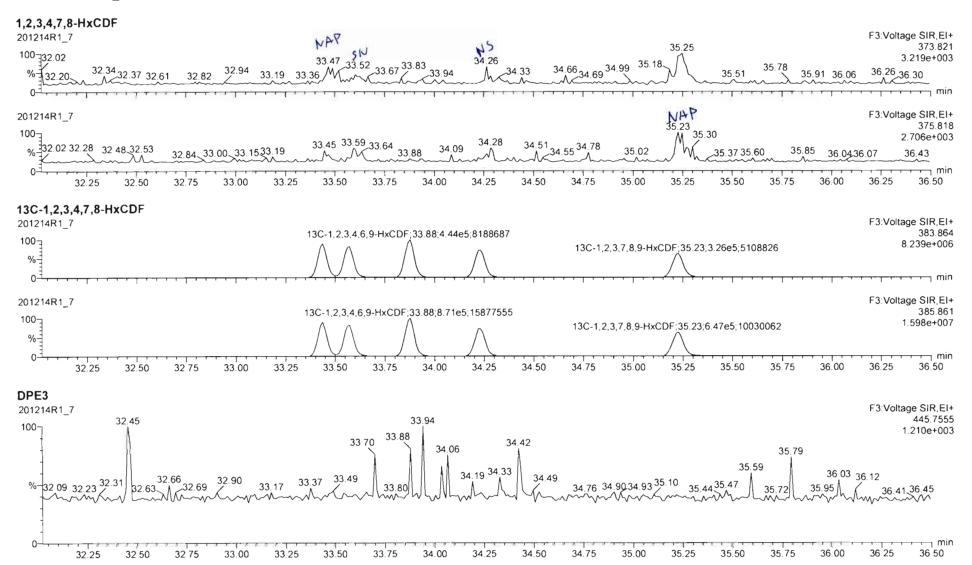


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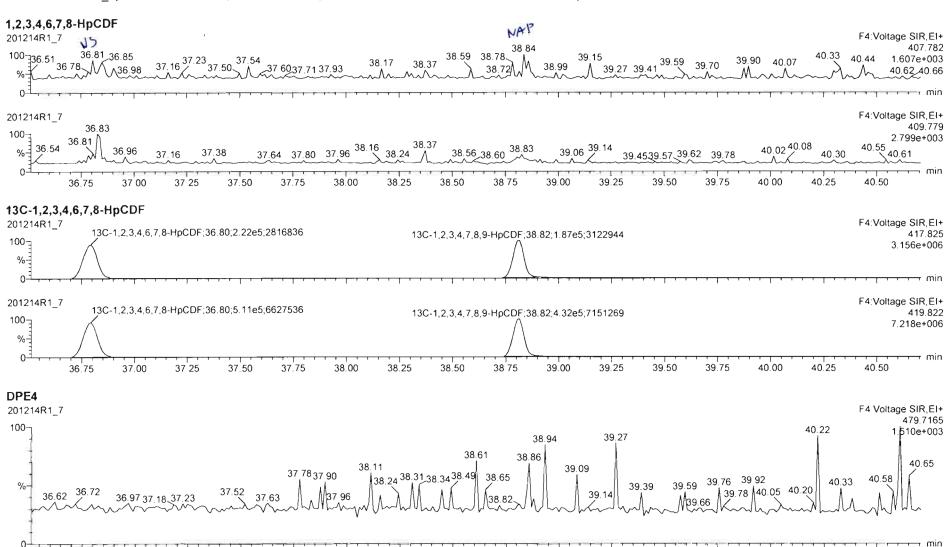


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Tuesday, December 15, 2020 7:04:33 AM Pacific Standard Time

Name: 201214R1 7, Date: 14-Dec-2020, Time: 15:22:36, ID: B0L0040-BLK1 Method Blank 10, Description: Method Blank



36.75

37 00

37 25

37.50

37.75

38 00

38.25

38.50

38.75

39 00

39.25

39 50

40.50

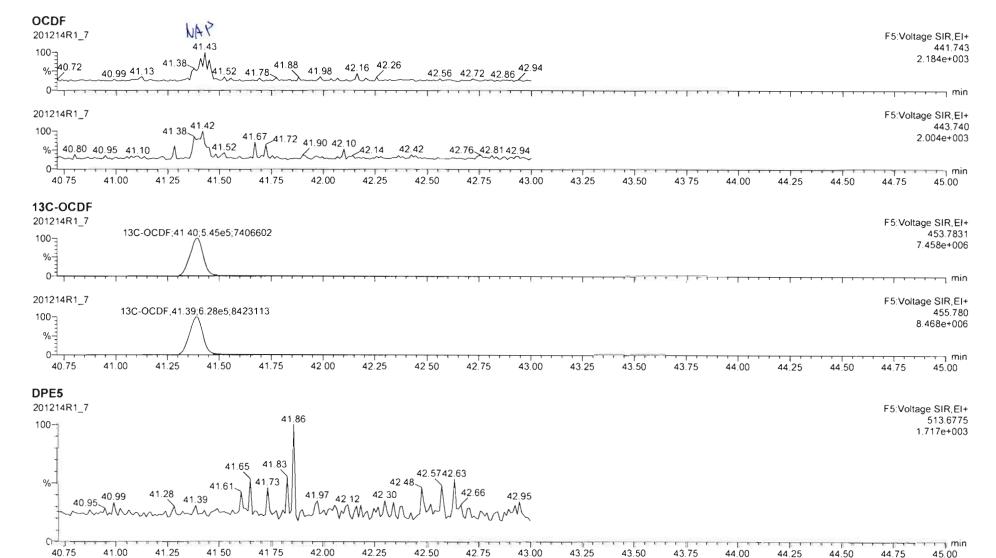
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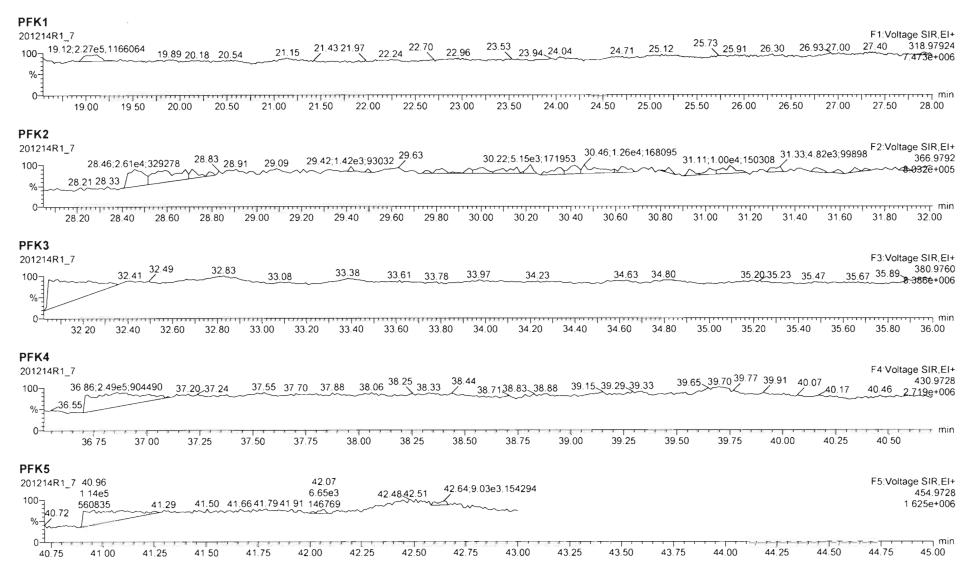
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Tuesday, December 15, 2020 7:04:33 AM Pacific Standard Time



U:\VG12.PRO\Results\201214R1\201214R1_5.qld

Last Altered:

Wednesday, December 16, 2020 10:55:27 AM Pacific Standard Time

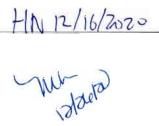
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Wednesday, December 16, 2020 11:10:47 AM Pacific Standard Time

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Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201214R1_5, Date: 14-Dec-2020, Time: 13:49:10, ID: B0L0040-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	1.44e5	0.76	NO	0.980	10.000	26.366	26.36	1.001	1.001	20.283		0.0352	20.3
2	2 1,2,3,7,8-PeCDD	5.98e5	0.62	NO	0.932	10.000	31.064	31.05	1.001	1.000	103.88		0.0835	104
3	3 1,2,3,4,7,8-HxCDD	4.71e5	1.25	NO	1.02	10.000	34.347	34.34	1.001	1.000	102.77		0.121	103
4	4 1,2,3,6,7,8-HxCDD	4.72e5	1.23	NO	0.902	10.000	34.463	34.46	1.001	1.001	100.92		0.131	101
5	5 1,2,3,7,8,9-HxCDD	4.68e5	1.23	NO	0.954	10.000	34.724	34.72	1.000	1.000	99.680		0.131	99.7
6	6 1,2,3,4,6,7,8-HpCDD	3.39e5	1.02	NO	0.918	10.000	38.190	38.19	1.000	1.000	96.863		0.341	96.9
7	7 OCDD	4.75e5	0.88	NO	0.866	10.000	41.092	41.10	1.000	1.000	204.90		0.328	205
8	8 2,3,7,8-TCDF	1.58e5	0.73	NO	0.848	10.000	25.657	25.67	1.000	1.001	18.156		0.0261	18.2
9	9 1,2,3,7,8-PeCDF	8.98e5	1.56	NO	0.960	10.000	29.770	29.78	1.000	1.001	99.572		0.120	99.6
10	10 2,3,4,7,8-PeCDF	9.45e5	1.53	NO	1.07	10.000	30.859	30.85	1.001	1.000	101.03		0.106	101
11	11 1,2,3,4,7,8-HxCDF	5.57e5	1.22	NO	0.986	10.000	33.426	33.44	1.000	1.001	95.597		0.158	95.6
12	12 1,2,3,6,7,8-HxCDF	5.88e5	1.20	NO	1.04	10.000	33.571	33.56	1.001	1.000	95.693		0.148	95.7
13	13 2,3,4,6,7,8-HxCDF	5.41e5	1.21	NO	1.02	10.000	34.232	34.23	1.001	1.001	96.906		0.175	96.9
14	14 1,2,3,7,8,9-HxCDF	4.79e5	1.22	NO	0.991	10.000	35.217	35.23	1.000	1.001	96.031		0.224	96.0
15	15 1,2,3,4,6,7,8-HpCDF	3.94e5	1.01	NO	1.05	10.000	36.803	36.80	1.000	1.000	96.394		0.339	96.4
16	16 1,2,3,4,7,8,9-HpCDF	3.61e5	1.00	NO	1.18	10.000	38.807	38.81	1.000	1.000	95.991		0.277	96.0
17	17 OCDF	5.34e5	0.87	NO	0.896	10.000	41.386	41.39	1.000	1.000	194.33		0.291	194
18	18 13C-2,3,7,8-TCDD	1.45e6	0.78	NO	1.06	10.000	26.353	26.33	1.030	1.029	195.39	97.7	0.104	
19	19 13C-1,2,3,7,8-PeCDD	1.24e6	0.64	NO	0.785	10.000	31.192	31.03	1.219	1.213	224.12	112	0.220	
20	20 13C-1,2,3,4,7,8-HxCDD	8.98e5	1.28	NO	0.621	10.000	34.315	34.33	1.014	1.014	214.49	107	0.364	
21	21 13C-1,2,3,6,7,8-HxCDD	1.04e6	1.27	NO	0.734	10.000	34.437	34.44	1.017	1.017	209.02	105	0.308	
22	22 13C-1,2,3,7,8,9-HxCDD	9.85e5	1.26	NO	0.723	10.000	34.722	34.71	1.026	1.025	201.88	101	0.313	
23	23 13C-1,2,3,4,6,7,8-HpCDD	7.63e5	1.04	NO	0.568	10.000	38.219	38.18	1.129	1.128	199.20	99.6	0.672	
24	24 13C-OCDD	1.07e6	0.89	NO	0.496	10.000	41.154	41.08	1.216	1.214	319.86	80.0	0.560	
25	25 13C-2,3,7,8-TCDF	2.05e6	0.77	NO	0.919	10.000	25.652	25.65	1.003	1.003	200.74	100	0.147	
26	26 13C-1,2,3,7,8-PeCDF	1.88e6	1.61	NO	0.715	10.000	29.903	29.77	1.169	1.164	236.48	118	0.335	
27	27 13C-2,3,4,7,8-PeCDF	1.75e6	1.60	NO	0.689	10.000	30.990	30.84	1.212	1.206	229.08	115	0.347	
28	28 13C-1,2,3,4,7,8-HxCDF	1.18e6	0.50	NO	0.873	10.000	33.422	33.42	0.987	0.987	200.64	100	0.363	
29	29 13C-1,2,3,6,7,8-HxCDF	1.18e6	0.50	NO	0.933	10.000	33.550	33.55	0.991	0.991	187.64	93.8	0.339	
30	30 13C-2,3,4,6,7,8-HxCDF	1.09e6	0.51	NO	0.843	10.000	34.217	34.21	1.011	1.011	192.23	96.1	0.376	
31	31 13C-1,2,3,7,8,9-HxCDF	1.01e6	0.51	NO	0.780	10.000	35.216	35.21	1.040	1.040	191.15	95.6	0.406	

Page 63 of 734 Work Order 2002493

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201214R1\201214R1_5.qld

Last Altered: Wednesday, December 16, 2020 10:55:27 AM Pacific Standard Time Printed: Wednesday, December 16, 2020 11:10:47 AM Pacific Standard Time

Name: 201214R1_5, Date: 14-Dec-2020, Time: 13:49:10, ID: B0L0040-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	7.78e5	0.43	NO	0.726	10.000	36.790	36.78	1.087	1.087	158.77	79.4	0.394	
33	33 13C-1,2,3,4,7,8,9-HpCDF	6.40e5	0.43	NO	0.491	10.000	38.798	38.79	1.146	1.146	193.07	96.5	0.582	
34	34 13C-OCDF	1.23e6	0.90	NO	0.565	10.000	41.371	41.38	1.222	1.222	321.52	80.4	0.319	
35	35 37CI-2,3,7,8-TCDD	6.73e5			1.22	10.000	26.347	26.36	1.030	1.031	78.632	98.3	0.0129	
36	36 13C-1,2,3,4-TCDD	1.41e6	0.79	NO	1.00	10.000	25.640	25.58	1.000	1.000	200.00	100	0.109	
37	37 13C-1,2,3,4-TCDF	2.22e6	0.79	NO	1.00	10.000	24.130	24.07	1.000	1.000	200.00	100	0.135	
38	38 13C-1,2,3,4,6,9-HxCDF	1.35e6	0.51	NO	1.00	10.000	33.920	33.85	1.000	1.000	200.00	100	0.317	

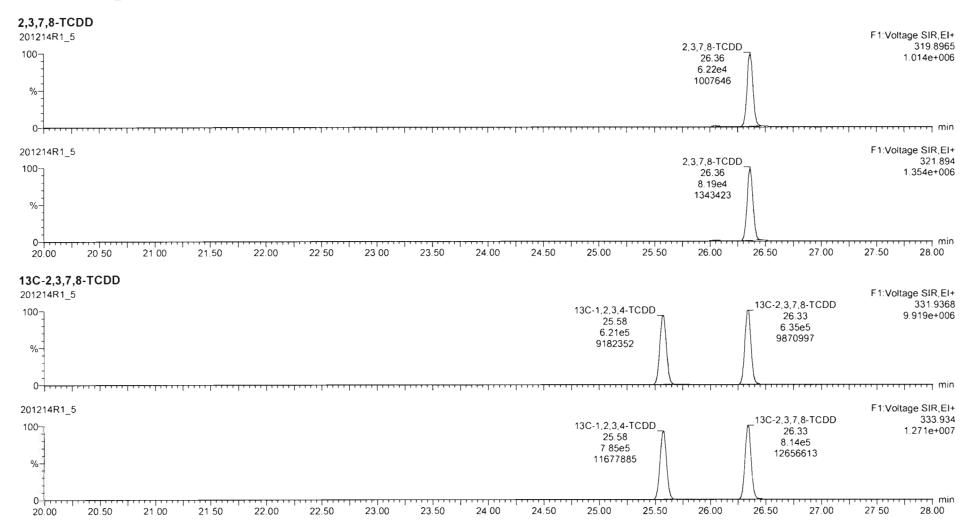
Work Order 2002493 Page 64 of 734

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Last Altered: Printed: Tuesday, December 15, 2020 6:59:17 AM Pacific Standard Time Tuesday, December 15, 2020 7:04:33 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

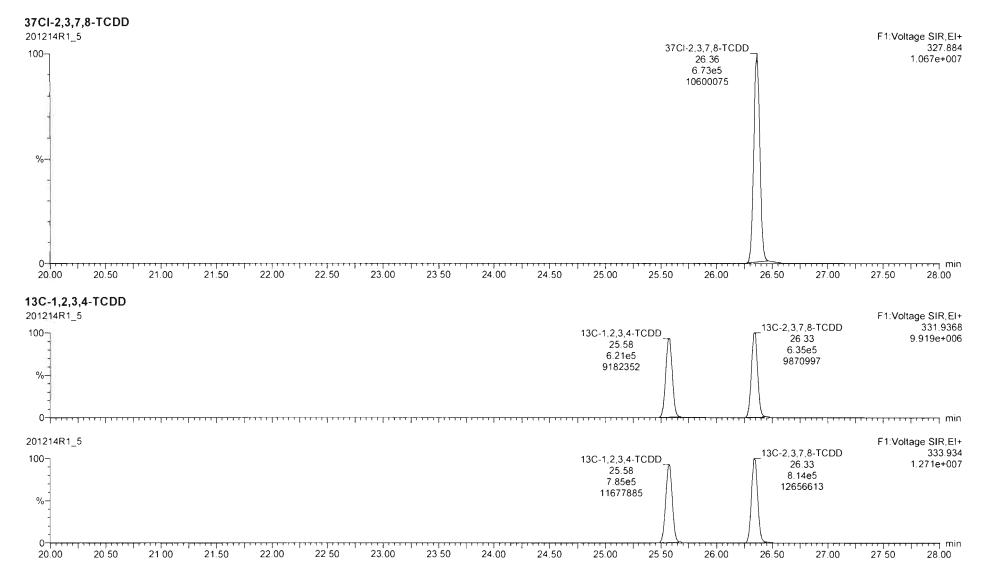
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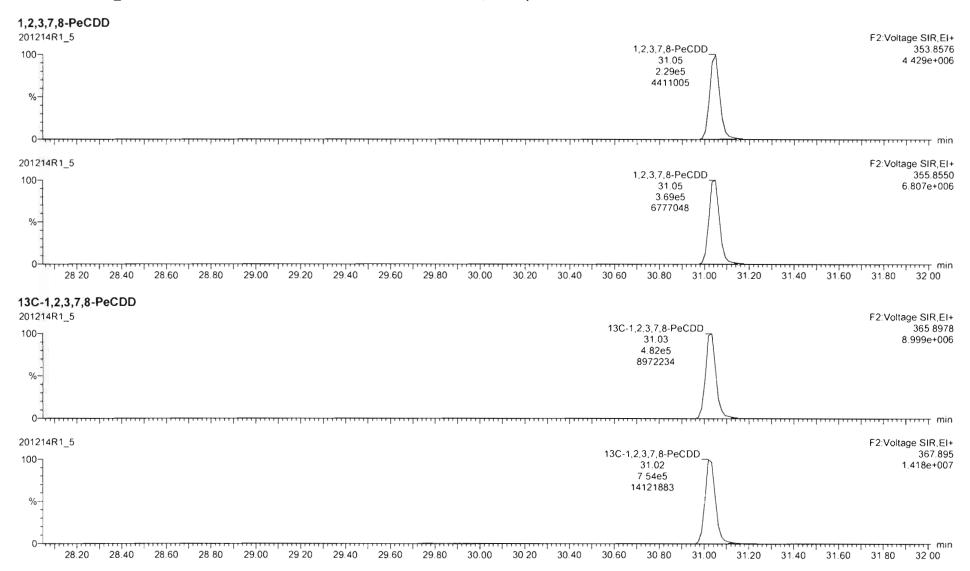
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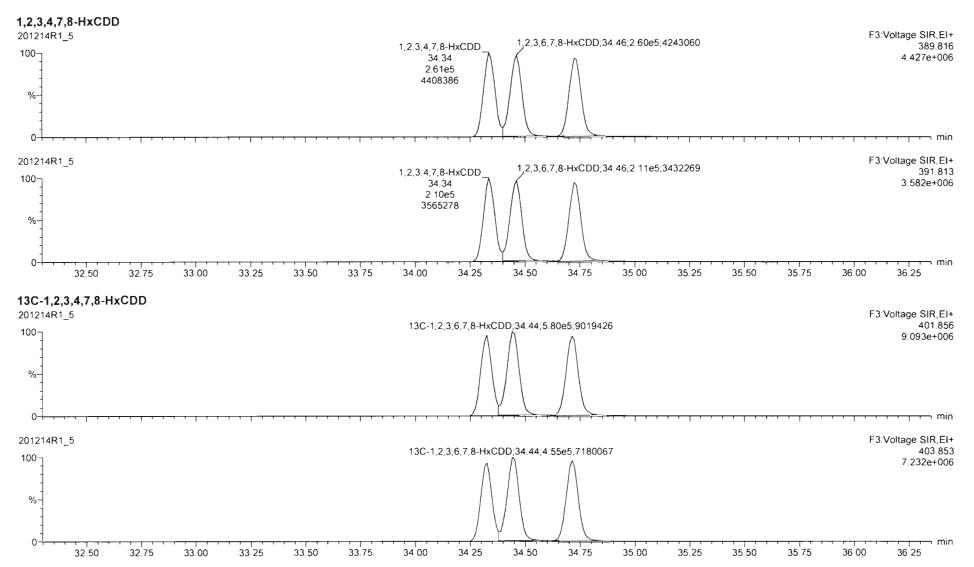
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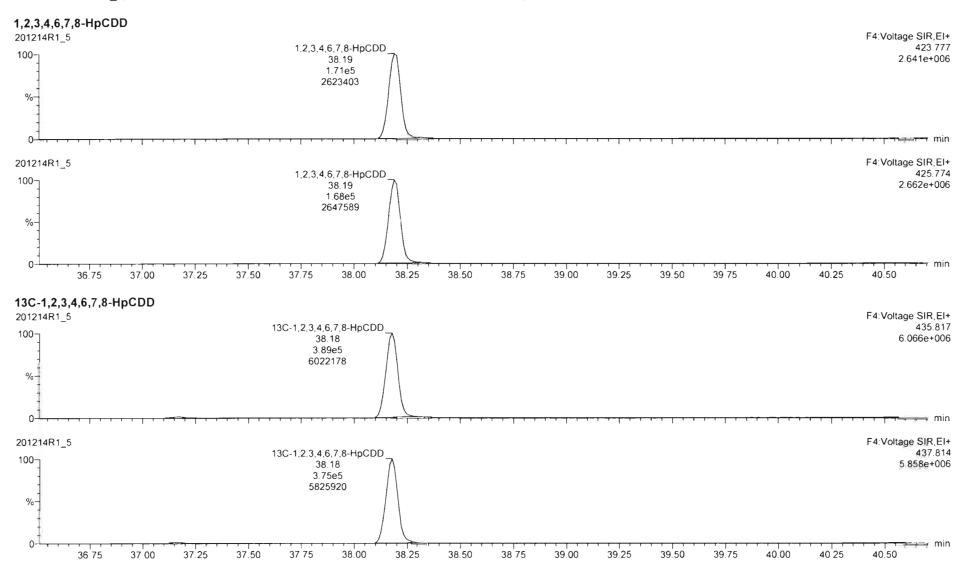
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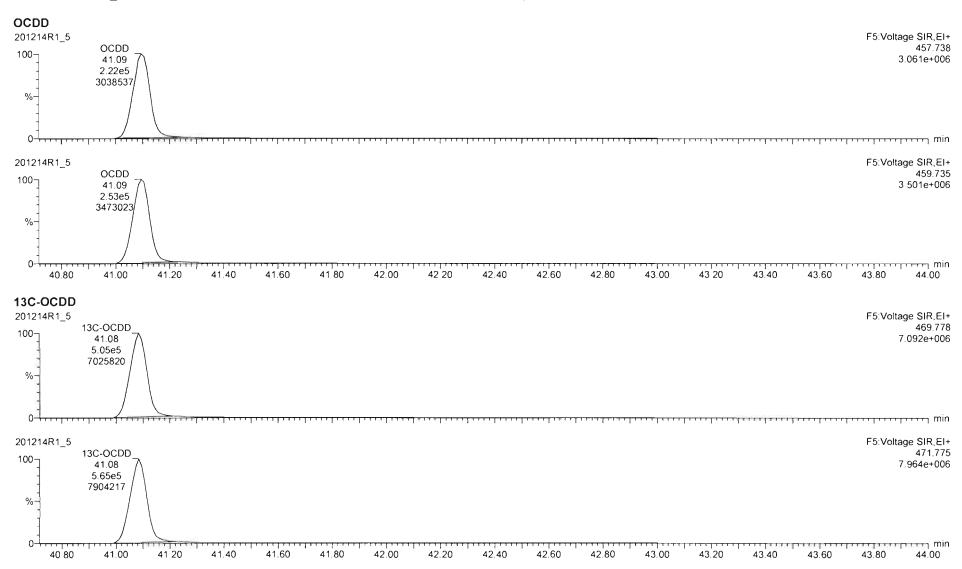
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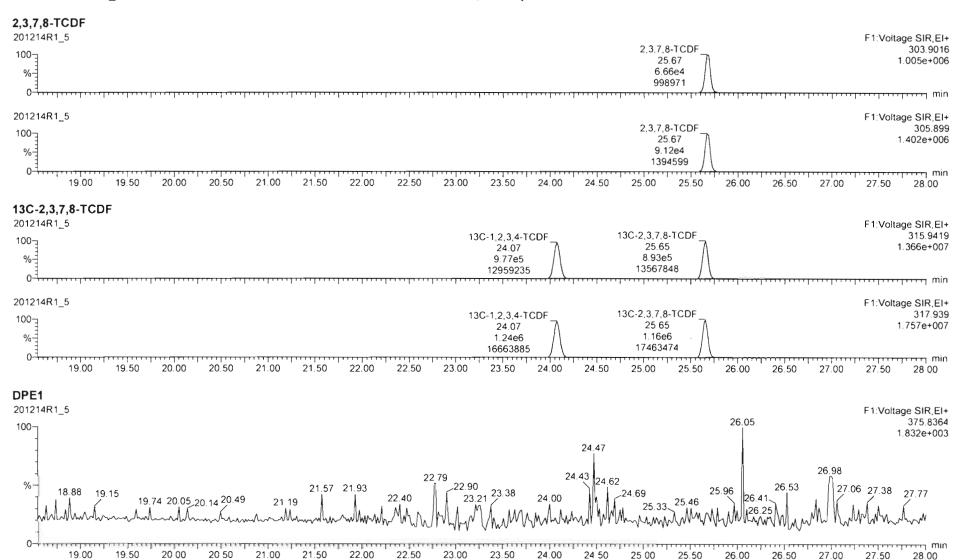
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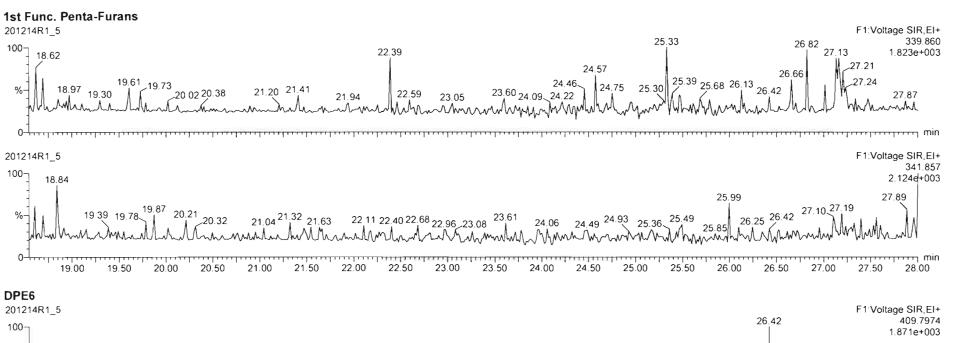
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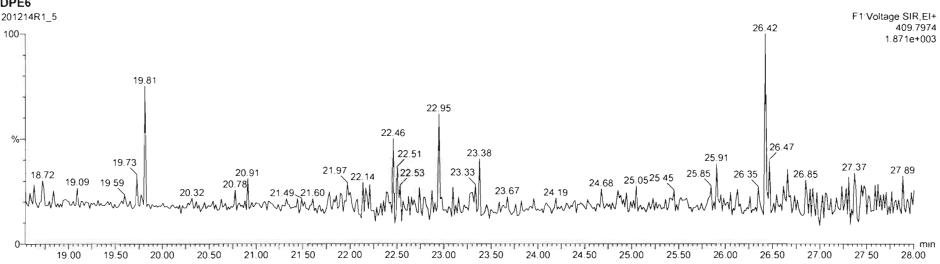


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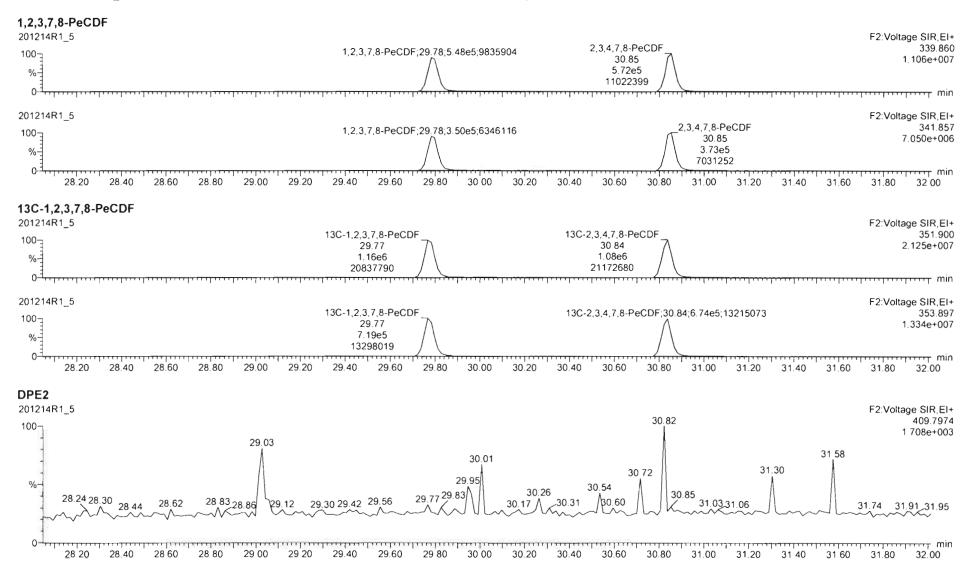
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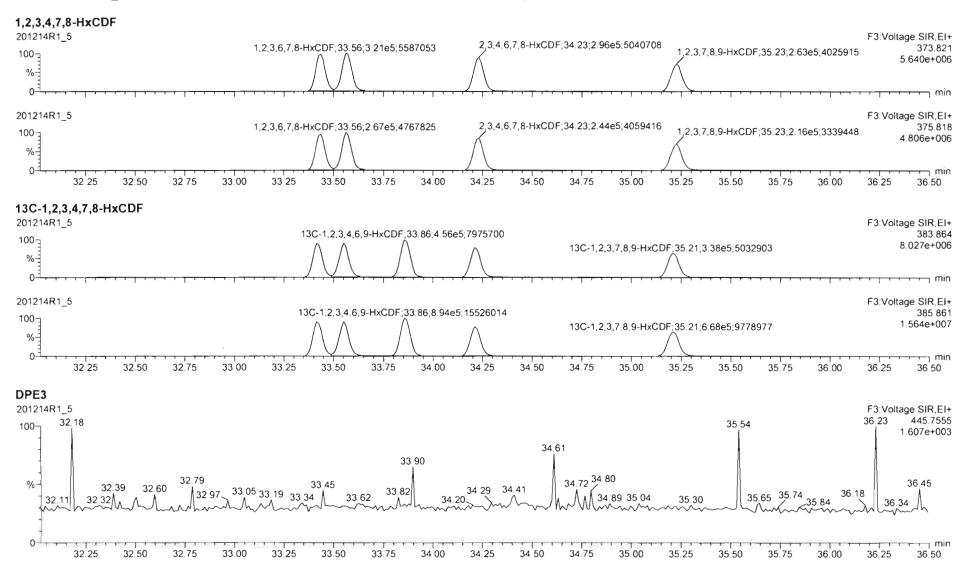
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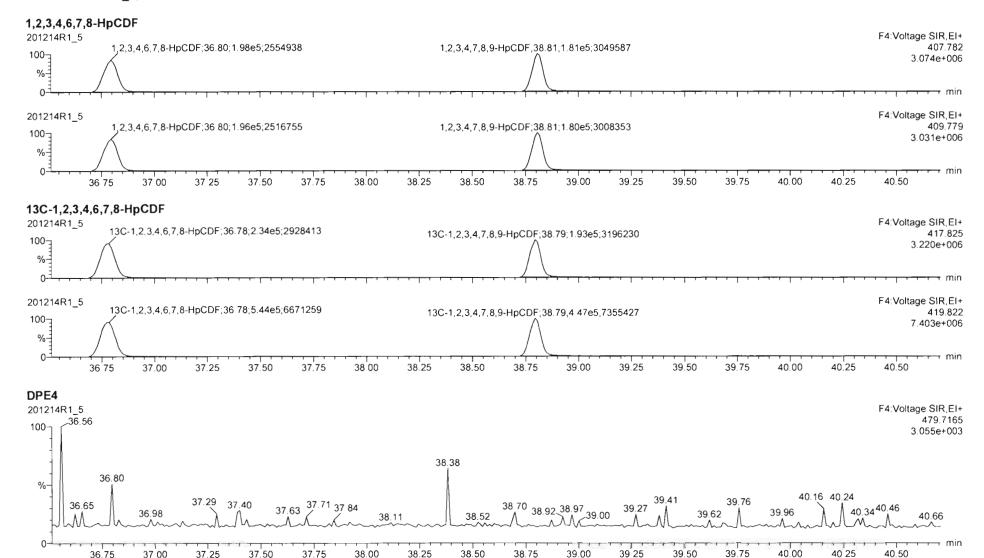
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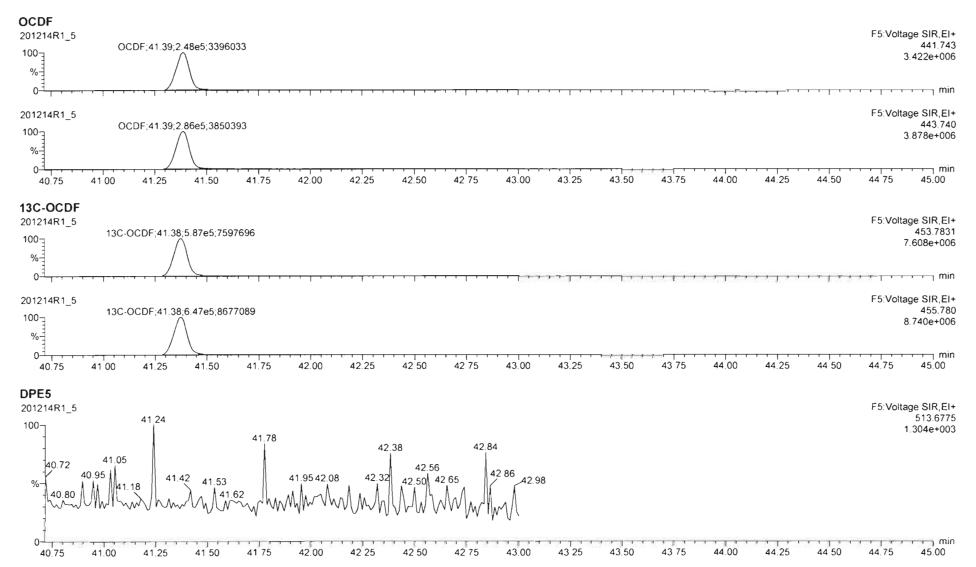
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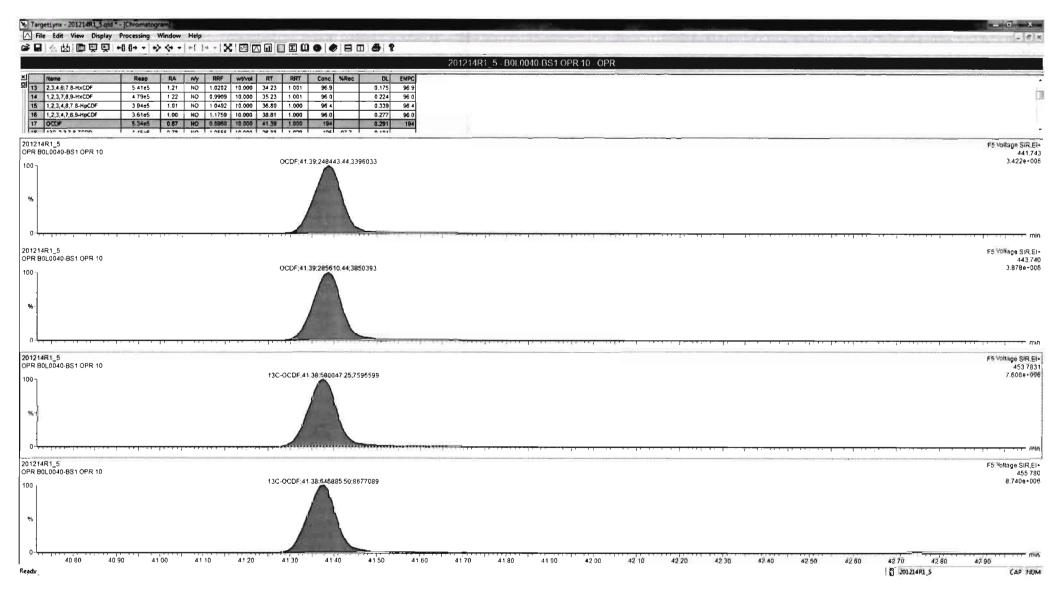
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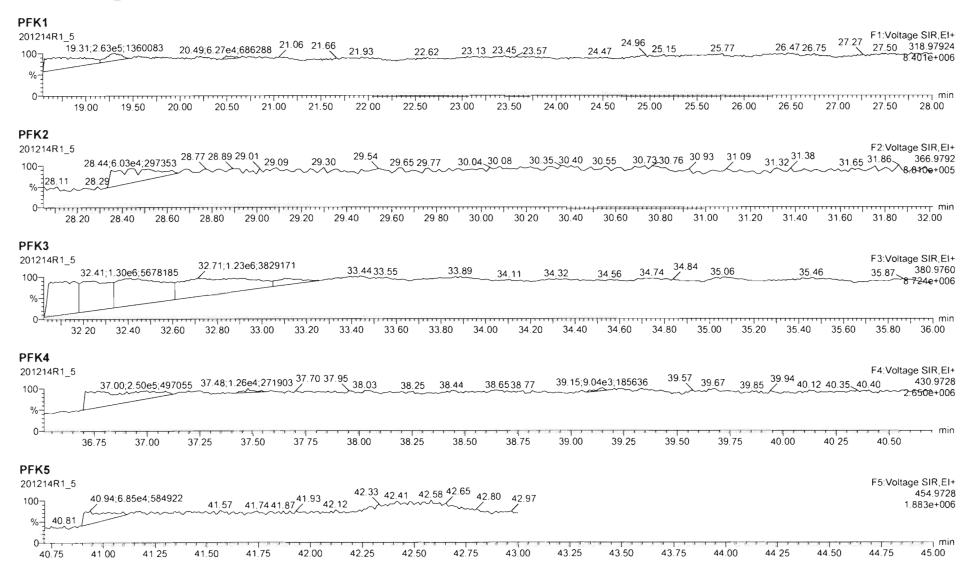




Work Order 2002493 Page 77 of 734

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Last Altered: Printed: Tuesday, December 15, 2020 6:59:17 AM Pacific Standard Time Tuesday, December 15, 2020 7:04:33 AM Pacific Standard Time



U:\VG12.PRO\Results\201215R2\201215R2_10.qld Dataset:

Last Altered: Wednesday, December 16, 2020 2:49:46 PM Pacific Standard Time Printed:

Wednesday, December 16, 2020 2:50:57 PM Pacific Standard Time

HN 12/16/20

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201215R2_10, Date: 15-Dec-2020, Time: 23:43:35, ID: 2002493-01 USMPDI-012SC-A-01-02-201109 13.1, Description: USMPDI-012SC-A-01-02-201109

	# 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	1.29e3	0.32	YES	0.980	10.366	26.381	26.36	1.001	1.001	0.17889		0.03/41	0.0990
2	2 1,2,3,7,8-PeCDD	8.21e2	0.94	YES	0.932	10.366	31.064	31.06	1.001	1.001	0.13226		0.0371	0.116
3	3 1,2,3,4,7,8-HxCDD			NO	1.02	10.366	34.358		1.001				0.0800	
4	4 1,2,3,6,7,8-HxCDD	4.10e3	1.30	NO	0.902	10.366	34.483	34.47	1.001	1.000	0.85219		0.0816	0.852
5	5 1,2,3,7,8,9-HxCDD	1.96e3	1.16	NO	0.954	10.366	34.734	34.76	1.000	1.001	0.40349		0.0807	0.403
6	6 1,2,3,4,6,7,8-HpCDD	7.13e4	1.00	NO	0.918	10.366	38.211	38.22	1.000	1.001	18.620		0.325	18.6
7	7 OCDD	8.67e5	0.87	NO	0.866	10.366	41.134	41.14	1.000	1.000	321.84		0.347	322
8	8 2,3,7,8-TCDF	2.66e4	0.70	NO	0.848	10.366	25.657	25.68	1.000	1.001	3.3250		0.0431	3.33
9	9 1,2,3,7,8-PeCDF	4.12e4	1.57	NO	0.960	10.366	29.785	29.80	1.000	1.001	5.0701		0.0454	5.07
10	10 2,3,4,7,8-PeCDF	2.67e4	1.51	NO	1.07	10.366	30.859	30.85	1.001	1.000	3.1116		0.0419	3.11
11	11 1,2,3,4,7,8-HxCDF	4.75e4	1.23	NO	0.986	10.366	33.446 🖍	33.45	1.000	1.000	8.7271		0.0566	8.73
12	12 1,2,3,6,7,8-HxCDF	1.33e4	1.16	NO	1.04	10.366	33.582	33.58	1.001	1.001	2.3388		0.0580	2.34
13	13 2,3,4,6,7,8-HxCDF	4.29e3	1.28	NO	1.02	10.366	34.243	34.25	1.001	1.001	0.80892		0.0647	0.809
14	14 1,2,3,7,8,9-HxCDF	1.60e3	1.12	NO	0.991	10.366	35.238	35.25	1.000	1.001	0.33398		0.0788	0.334
15	15 1,2,3,4,6,7,8-HpCDF	2.69e4	0.97	NO	1.05	10.366	36.814	36.81	1.000	1.000	6.8562		0.136	6.86
16	16 1,2,3,4,7,8,9-HpCDF	8.06e3	0.96	NO	1.18	10.366	38.839	38.84	1.000	1.000	2.1929		0.114	2.19
17	17 OCDF	4.43e4	0.86	NO	0.896	10.366	41.417	41.43	1.000	1.001	15.529		0.118	15.5
18	18 13C-2,3,7,8-TCDD	1.42e6	0.77	NO	1.06	10.366	26.353	26.35	1.030	1.030	197.60	102	0.0876	
19	19 13C-1,2,3,7,8-PeCDD	1.23e6	0.62	NO	0.785	10.366	31.192	31.03	1.219	1.213	230.33	119	0.163	
20	20 13C-1,2,3,4,7,8-HxCDD	9.17e5	1.27	NO	0.621	10.366	34.337 🐔	34.34	1.014	1.014	247.16	128	0.354	
21	21 13C-1,2,3,6,7,8-HxCDD	1.03e6	1.26	NO	0.734	10.366	34.459 /	34.46	1.017	1.017	234.37	121	0.300	
22	22 13C-1,2,3,7,8,9-HxCDD	9.82e5	1.23	NO	0.723	10.366	34.743 /	34.72	1.026	1.025	227.39	118	0.304	
23	23 13C-1,2,3,4,6,7,8-HpCDD	8.05e5	1.04	NO	0.568	10.366	38.243 /	38.20	1.129	1.128	237.13	123	0.752	ľ
24	24 13C-OCDD	1.20e6	0.90	NO	0.496	10.366	41.180	41.13	1.216	1.214	405.36	105	0.521	
25	25 13C-2,3,7,8-TCDF	1.82e6	0.76	NO	0.919	10.366	25.652	25.65	1.003	1.003	211.12	109	0.156	
26	26 13C-1,2,3,7,8-PeCDF	1.63 e 6	1.55	NO	0.715	10.366	29.903	29.78	1.169	1.164	243.51	126	0.257	
27	27 13C-2,3,4,7,8-PeCDF	1.55e6	1.57	NO	0.689	10.366	30.990	30.84	1.212	1.206	240.61	125	0.267	
28	28 13C-1,2,3,4,7,8-HxCDF	1.06e6	0.50	NO	0.873	10.366	33.442	33.44	0.987	0.987	204.03	106	0.352	
29	29 13C-1,2,3,6,7,8-HxCDF	1.05e6	0.50	NO	0.933	10.366	33.571 🕢	33.56	0.991	0.991	188.70	97.8	0.329	
30	30 13C-2,3,4,6,7,8-HxCDF	1.00e6	0.50	NO	0.843	10.366	34.238	34.22	1.011	1.010	199.00	103	0.365	
31	31 13C-1,2,3,7,8,9-HxCDF	9.30e5	0.50	NO	0.780	10.366	35.238	35.23	1.040	1.040	199.64	103	0.394	

Page 79 of 734 Work Order 2002493

Dataset: U:\VG12.PR0\Results\201215R2\201215R2_10.qld

Last Altered: Wednesday, December 16, 2020 2:49:46 PM Pacific Standard Time Printed: Wednesday, December 16, 2020 2:50:57 PM Pacific Standard Time

Name: 201215R2_10, Date: 15-Dec-2020, Time: 23:43:35, ID: 2002493-01 USMPDI-012SC-A-01-02-201109 13.1, Description: USMPDI-012SC-A-01-02-201109

	# 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	7.22e5	0.43	NO	0.726	10.366	36.813	36.80	1.087	1.086	166.38	86.2	0.450	
33	33 13C-1,2,3,4,7,8,9-HpCDF	6.03e5	0.43	NO	0.491	10.366	38.822	38.83	1.146	1.146	205.37	106	0.665	
34	34 13C-OCDF	1.23e6	0.88	NO	0.565	10.366	41.396	41.41	1.222	1.222	363.74	94.3	0.467	
35	35 37Cl-2,3,7,8-TCDD	6.54e5			1.22	10.366	26.347	26.36	1.030	1.031	79.102	102	0.0226	
36	36 13C-1,2,3,4-TCDD	1.31e6	0.78	NO	1.00	10.366	25.640	25.58	1.000	1.000	192.94	100	0.0925	
37	37 13C-1,2,3,4-TCDF	1.81e6	0.77	NO	1.00	10.366	24.130	24.07	1.000	1.000	192.94	100	0.143	
38	38 13C-1,2,3,4,6,9-HxCDF	1.15e6	0.51	NO	1.00	10.366	33.920	33.88	1.000	1.000	192.94	100	0.307	
39	39 Total Tetra-Dioxins				0.980	10.366	24.620		0.000		0.39641		0.0341	0.589
40	40 Total Penta-Dioxins				0.932	10.366	29.960		0.000		0.88784		0.0371	1.31
41	41 Total Hexa-Dioxins				0.902	10.366	33.635		0.000		7.9678		0.0856	7.97
42	42 Total Hepta-Dioxins				0.918	10.366	37.640		0.000		40.772		0.325	40.8
43	43 Total Tetra-Furans				0.848	10.366	23.610		0.000		9.6361		0.0431	9.64
44	44 1st Func. Penta-Furans				0.960	10.366	26.930		0.000		1.3332		0.0105	1.33
45	45 Total Penta-Furans				0.960	10.366	29.275		0.000		14.253		0.0460	14.3
46	46 Total Hexa-Furans				1.02	10.366	33.555		0.000		18.232		0.0633	18.2
47	47 Total Hepta-Furans				1.05	10.366	37.835		0.000		17.674		0.133	17.7

Work Order 2002493 Page 80 of 734

Dataset: U:\VG12.PRO\Results\201215R2\201215R2_10.qld

Last Altered: Wednesday, December 16, 2020 2:49:46 PM Pacific Standard Time Printed: Wednesday, December 16, 2020 2:50:57 PM Pacific Standard Time

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Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201215R2_10, Date: 15-Dec-2020, Time: 23:43:35, ID: 2002493-01 USMPDI-012SC-A-01-02-201109 13.1, Description: USMPDI-012SC-A-01-02-201109

Tetra-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	22.55	6.072e3	7.008e3	4.380e2	5.061e2	0.87	NO	9.440e2	0.13097	0.13097	0.0341
2	Total Tetra-Dioxins	22.92	2.804e3	3.292e3	2.299e2	2.636e2	0.87	NO	4.935e2	0.068463	0.068463	0.0341
3	Total Tetra-Dioxins	23.45	3.394e3	5.372e3	3.099e2	3.677e2	0.84	NO	0.000e0	0.00000	0.094009	0.0341
4	Total Tetra-Dioxins	24.28	9.118e3	1.142e4	6.325e2	7.874e2	0.80	NO	1.420e3	0.19698	0.19698	0.0341
5	2,3,7,8-TCDD	26.36	6.162e3	1.436e4	3.104e2	9.791e2	0.32	YES	1.289e3	0.00000	0.098987	0.0341

Penta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.80	1.398e4	2.117e4	8.989e2	1.459e3	0.62	NO	2.358e3	0.39721	0.39721	0.0371
2	Total Penta-Dioxins	29.27	8.410e3	1.051e4	4.080e2	5.856e2	0.70	NO	9.936e2	0.16736	0.16736	0.0371
3	Total Penta-Dioxins	29.98	6.701e3	7.858e3	5.404e2	7.377e2	0.73	YES	0.000e0	0.00000	0.20253	0.0371
4	Total Penta-Dioxins	30.26	8.956e3	1.718e4	5.708e2	1.059e3	0.54	NO	1.630e3	0.27459	0.27459	0.0371
5	Total Penta-Dioxins	30.58	2.437e3	4.867e3	1.177e2	1.713e2	0.69	NO	2.890e2	0.048686	0.048686	0.0371
6	1,2,3,7,8-PeCDD	31.06	8.451e3	9.382e3	3.978e2	4.231e2	0.94	YES	8.208e2	0.00000	0.11615	0.0371
7	Total Penta-Dioxins	31.09	1.971e3	3.902e3	9.409e1	1.293e2	0.73	YES	0.000e0	0.00000	0.035498	0.0371
8	Total Penta-Dioxins	31.41	2.898e3	4.657e3	1.374e2	2.547e2	0.54	NO	0.000e0	0.00000	0.066058	0.0371

Hexa-Dioxins

67	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.71	1.488e5	1.260e5	7.377e3	6.020e3	1.23	NO	1.340e4	2.9360	2.9360	0.0856
2	Total Hexa-Dioxins	33.32	1.252e4	1.043e4	6.635e2	5.509e2	1.20	NO	1.214e3	0.26612	0.26612	0.0856
3	Total Hexa-Dioxins	33.60	1.267e5	1.001e5	8.573e3	6.777e3	1.27	NO	1.535e4	3.3638	3.3638	0.0856
4	Total Hexa-Dioxins	33.68	9.533e3	7.837e3	3.788e2	2.884e2	1.31	NO	6.672e2	0.14621	0.14621	0.0856
5	1,2,3,6,7,8-HxCDD	34.47	3.911e4	3.040e4	2.318e3	1.780e3	1.30	NO	4.098e3	0.85219	0.85219	0.0816
6	1,2,3,7,8,9-HxCDD	34.76	1.721e4	1.457e4	1.051e3	9.080e2	1.16	NO	1.959e3	0.40349	0.40349	0.0807

Work Order 2002493 Page 81 of 734

Dataset:

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Last Altered:

Wednesday, December 16, 2020 2:49:46 PM Pacific Standard Time

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Name: 201215R2_10, Date: 15-Dec-2020, Time: 23:43:35, ID: 2002493-01 USMPDI-012SC-A-01-02-201109 13.1, Description: USMPDI-012SC-A-01-02-201109

Hepta-Dioxins

	Mary Line	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1	Total Hepta-Dioxins	37.19	5.663e5	5.311e5	4.302e4	4.178e4	1.03	NO	8.480e4	22.152	22.152	0.325
2	2	1,2,3,4,6,7,8-HpCDD	38.22	5.722e5	5.782e5	3.567e4	3.561e4	1.00	NO	7.128e4	18.620	18.620	0.325

Tetra-Furans

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
Total Tetra-Furans	20.30	2.624e3	3.575e3	1.927e2	2.577e2	0.75	NO	4.504e2	0.056331	0.056331	0.0431
Total Tetra-Furans	20.85	4.035e3	4.129e3	3.038e2	3.632e2	0.84	NO	6.670e2	0.083427	0.083427	0.0431
Total Tetra-Furans	21.65	1.186e4	1.521e4	1.026e3	1.344e3	0.76	NO	2.369e3	0.29634	0.29634	0.0431
Total Tetra-Furans	22.14	8.105e3	8.740e3	6.481e2	7.501e2	0.86	NO	1.398e3	0.17488	0.17488	0.0431
Total Tetra-Furans	22.58	3.394e4	4.639e4	3.187e3	4.214e3	0.76	NO	7.401e3	0.92572	0.92572	0.0431
Total Tetra-Furans	23.05	1.839e4	2.408e4	1.543e3	2.023e3	0.76	NO	3.565e3	0.44594	0.44594	0.0431
Total Tetra-Furans	23.16	2.855e3	3.756e3	2.451e2	3.037e2	0.81	NO	5.487e2	0.068636	0.068636	0.0431
Total Tetra-Furans	23.42	9.191e3	1.219e4	6.758e2	8.295e2	0.81	NO	1.505e3	0.18828	0.18828	0.0431
Total Tetra-Furans	24.18	1.488e4	2.201e4	1.851e3	2.453e3	0.75	NO	4.305e3	0.53843	0.53843	0.0431
Total Tetra-Furans	24.66	1.333e5	1.907e5	1.043e4	1.442e4	0.72	NO	2.485e4	3.1081	3.1081	0.0431
Total Tetra-Furans	25.57	1.467e4	2.088e4	7.699e2	1.120e3	0.69	NO	1.890e3	0.23640	0.23640	0.0431
2,3,7,8-TCDF	25.68	1.675e5	2.421e5	1.094e4	1.565e4	0.70	NO	2.658e4	3.3250	3.3250	0.0431
Total Tetra-Furans	27.56	9.688e3	1.418e4	6.199e2	8.880e2	0.70	NO	1.508e3	0.18860	0.18860	0.0431
	Total Tetra-Furans	Total Tetra-Furans 20.30 Total Tetra-Furans 20.85 Total Tetra-Furans 21.65 Total Tetra-Furans 22.14 Total Tetra-Furans 23.05 Total Tetra-Furans 23.16 Total Tetra-Furans 23.42 Total Tetra-Furans 24.18 Total Tetra-Furans 24.66 Total Tetra-Furans 25.57 2,3,7,8-TCDF 25.68	Total Tetra-Furans 20.30 2.624e3 Total Tetra-Furans 20.85 4.035e3 Total Tetra-Furans 21.65 1.186e4 Total Tetra-Furans 22.14 8.105e3 Total Tetra-Furans 22.58 3.394e4 Total Tetra-Furans 23.05 1.839e4 Total Tetra-Furans 23.16 2.855e3 Total Tetra-Furans 23.42 9.191e3 Total Tetra-Furans 24.18 1.488e4 Total Tetra-Furans 24.66 1.333e5 Total Tetra-Furans 25.57 1.467e4 2,3,7,8-TCDF 25.68 1.675e5	Total Tetra-Furans 20.30 2.624e3 3.575e3 Total Tetra-Furans 20.85 4.035e3 4.129e3 Total Tetra-Furans 21.65 1.186e4 1.521e4 Total Tetra-Furans 22.14 8.105e3 8.740e3 Total Tetra-Furans 22.58 3.394e4 4.639e4 Total Tetra-Furans 23.05 1.839e4 2.408e4 Total Tetra-Furans 23.16 2.855e3 3.756e3 Total Tetra-Furans 23.42 9.191e3 1.219e4 Total Tetra-Furans 24.18 1.488e4 2.201e4 Total Tetra-Furans 24.66 1.333e5 1.907e5 Total Tetra-Furans 25.57 1.467e4 2.088e4 2,3,7,8-TCDF 25.68 1.675e5 2.421e5	Total Tetra-Furans 20.30 2.624e3 3.575e3 1.927e2 Total Tetra-Furans 20.85 4.035e3 4.129e3 3.038e2 Total Tetra-Furans 21.65 1.186e4 1.521e4 1.026e3 Total Tetra-Furans 22.14 8.105e3 8.740e3 6.481e2 Total Tetra-Furans 22.58 3.394e4 4.639e4 3.187e3 Total Tetra-Furans 23.05 1.839e4 2.408e4 1.543e3 Total Tetra-Furans 23.16 2.855e3 3.756e3 2.451e2 Total Tetra-Furans 23.42 9.191e3 1.219e4 6.758e2 Total Tetra-Furans 24.18 1.488e4 2.201e4 1.851e3 Total Tetra-Furans 24.66 1.333e5 1.907e5 1.043e4 Total Tetra-Furans 25.57 1.467e4 2.088e4 7.699e2 2,3,7,8-TCDF 25.68 1.675e5 2.421e5 1.094e4	Total Tetra-Furans 20.30 2.624e3 3.575e3 1.927e2 2.577e2 Total Tetra-Furans 20.85 4.035e3 4.129e3 3.038e2 3.632e2 Total Tetra-Furans 21.65 1.186e4 1.521e4 1.026e3 1.344e3 Total Tetra-Furans 22.14 8.105e3 8.740e3 6.481e2 7.501e2 Total Tetra-Furans 22.58 3.394e4 4.639e4 3.187e3 4.214e3 Total Tetra-Furans 23.05 1.839e4 2.408e4 1.543e3 2.023e3 Total Tetra-Furans 23.16 2.855e3 3.756e3 2.451e2 3.037e2 Total Tetra-Furans 23.42 9.191e3 1.219e4 6.758e2 8.295e2 Total Tetra-Furans 24.18 1.488e4 2.201e4 1.851e3 2.453e3 Total Tetra-Furans 24.66 1.333e5 1.907e5 1.043e4 1.442e4 Total Tetra-Furans 25.57 1.467e4 2.088e4 7.699e2 1.120e3 2,3,7,8-TCDF 25.68 1.675e5	Total Tetra-Furans 20.30 2.624e3 3.575e3 1.927e2 2.577e2 0.75 Total Tetra-Furans 20.85 4.035e3 4.129e3 3.038e2 3.632e2 0.84 Total Tetra-Furans 21.65 1.186e4 1.521e4 1.026e3 1.344e3 0.76 Total Tetra-Furans 22.14 8.105e3 8.740e3 6.481e2 7.501e2 0.86 Total Tetra-Furans 22.58 3.394e4 4.639e4 3.187e3 4.214e3 0.76 Total Tetra-Furans 23.05 1.839e4 2.408e4 1.543e3 2.023e3 0.76 Total Tetra-Furans 23.16 2.855e3 3.756e3 2.451e2 3.037e2 0.81 Total Tetra-Furans 23.42 9.191e3 1.219e4 6.758e2 8.295e2 0.81 Total Tetra-Furans 24.18 1.488e4 2.201e4 1.851e3 2.453e3 0.75 Total Tetra-Furans 24.66 1.333e5 1.907e5 1.043e4 1.442e4 0.72 Total Tetra-Furans	Total Tetra-Furans 20.30 2.624e3 3.575e3 1.927e2 2.577e2 0.75 NO Total Tetra-Furans 20.85 4.035e3 4.129e3 3.038e2 3.632e2 0.84 NO Total Tetra-Furans 21.65 1.186e4 1.521e4 1.026e3 1.344e3 0.76 NO Total Tetra-Furans 22.14 8.105e3 8.740e3 6.481e2 7.501e2 0.86 NO Total Tetra-Furans 22.58 3.394e4 4.639e4 3.187e3 4.214e3 0.76 NO Total Tetra-Furans 23.05 1.839e4 2.408e4 1.543e3 2.023e3 0.76 NO Total Tetra-Furans 23.16 2.855e3 3.756e3 2.451e2 3.037e2 0.81 NO Total Tetra-Furans 23.42 9.191e3 1.219e4 6.758e2 8.295e2 0.81 NO Total Tetra-Furans 24.18 1.488e4 2.201e4 1.851e3 2.453e3 0.75 NO Total Tetra-Furans 24.66 </td <td>Total Tetra-Furans 20.30 2.624e3 3.575e3 1.927e2 2.577e2 0.75 NO 4.504e2 Total Tetra-Furans 20.85 4.035e3 4.129e3 3.038e2 3.632e2 0.84 NO 6.670e2 Total Tetra-Furans 21.65 1.186e4 1.521e4 1.026e3 1.344e3 0.76 NO 2.369e3 Total Tetra-Furans 22.14 8.105e3 8.740e3 6.481e2 7.501e2 0.86 NO 1.398e3 Total Tetra-Furans 22.58 3.394e4 4.639e4 3.187e3 4.214e3 0.76 NO 7.401e3 Total Tetra-Furans 23.05 1.839e4 2.408e4 1.543e3 2.023e3 0.76 NO 3.565e3 Total Tetra-Furans 23.16 2.855e3 3.756e3 2.451e2 3.037e2 0.81 NO 5.487e2 Total Tetra-Furans 23.42 9.191e3 1.219e4 6.758e2 8.295e2 0.81 NO 1.505e3 Total Tetra-Furans 24.66 1.33</td> <td>Total Tetra-Furans 20.30 2.624e3 3.575e3 1.927e2 2.577e2 0.75 NO 4.504e2 0.056331 Total Tetra-Furans 20.85 4.035e3 4.129e3 3.038e2 3.632e2 0.84 NO 6.670e2 0.083427 Total Tetra-Furans 21.65 1.186e4 1.521e4 1.026e3 1.344e3 0.76 NO 2.369e3 0.29634 Total Tetra-Furans 22.14 8.105e3 8.740e3 6.481e2 7.501e2 0.86 NO 1.398e3 0.17488 Total Tetra-Furans 22.58 3.394e4 4.639e4 3.187e3 4.214e3 0.76 NO 7.401e3 0.92572 Total Tetra-Furans 23.05 1.839e4 2.408e4 1.543e3 2.023e3 0.76 NO 3.565e3 0.44594 Total Tetra-Furans 23.16 2.855e3 3.756e3 2.451e2 3.037e2 0.81 NO 5.487e2 0.068636 Total Tetra-Furans 23.42 9.191e3 1.219e4 6.758e2</td> <td>Total Tetra-Furans 20.30 2.624e3 3.575e3 1.927e2 2.577e2 0.75 NO 4.504e2 0.056331 0.056331 Total Tetra-Furans 20.85 4.035e3 4.129e3 3.038e2 3.632e2 0.84 NO 6.670e2 0.083427 0.083427 Total Tetra-Furans 21.65 1.186e4 1.521e4 1.026e3 1.344e3 0.76 NO 2.369e3 0.29634 0.29634 Total Tetra-Furans 22.14 8.105e3 8.740e3 6.481e2 7.501e2 0.86 NO 1.398e3 0.17488 0.17488 Total Tetra-Furans 22.58 3.394e4 4.639e4 3.187e3 4.214e3 0.76 NO 7.401e3 0.92572 0.92572 Total Tetra-Furans 23.05 1.839e4 2.408e4 1.543e3 2.023e3 0.76 NO 7.401e3 0.92572 0.92572 Total Tetra-Furans 23.16 2.855e3 3.756e3 2.451e2 3.037e2 0.81 NO 5.487e2 0.068636 <</td>	Total Tetra-Furans 20.30 2.624e3 3.575e3 1.927e2 2.577e2 0.75 NO 4.504e2 Total Tetra-Furans 20.85 4.035e3 4.129e3 3.038e2 3.632e2 0.84 NO 6.670e2 Total Tetra-Furans 21.65 1.186e4 1.521e4 1.026e3 1.344e3 0.76 NO 2.369e3 Total Tetra-Furans 22.14 8.105e3 8.740e3 6.481e2 7.501e2 0.86 NO 1.398e3 Total Tetra-Furans 22.58 3.394e4 4.639e4 3.187e3 4.214e3 0.76 NO 7.401e3 Total Tetra-Furans 23.05 1.839e4 2.408e4 1.543e3 2.023e3 0.76 NO 3.565e3 Total Tetra-Furans 23.16 2.855e3 3.756e3 2.451e2 3.037e2 0.81 NO 5.487e2 Total Tetra-Furans 23.42 9.191e3 1.219e4 6.758e2 8.295e2 0.81 NO 1.505e3 Total Tetra-Furans 24.66 1.33	Total Tetra-Furans 20.30 2.624e3 3.575e3 1.927e2 2.577e2 0.75 NO 4.504e2 0.056331 Total Tetra-Furans 20.85 4.035e3 4.129e3 3.038e2 3.632e2 0.84 NO 6.670e2 0.083427 Total Tetra-Furans 21.65 1.186e4 1.521e4 1.026e3 1.344e3 0.76 NO 2.369e3 0.29634 Total Tetra-Furans 22.14 8.105e3 8.740e3 6.481e2 7.501e2 0.86 NO 1.398e3 0.17488 Total Tetra-Furans 22.58 3.394e4 4.639e4 3.187e3 4.214e3 0.76 NO 7.401e3 0.92572 Total Tetra-Furans 23.05 1.839e4 2.408e4 1.543e3 2.023e3 0.76 NO 3.565e3 0.44594 Total Tetra-Furans 23.16 2.855e3 3.756e3 2.451e2 3.037e2 0.81 NO 5.487e2 0.068636 Total Tetra-Furans 23.42 9.191e3 1.219e4 6.758e2	Total Tetra-Furans 20.30 2.624e3 3.575e3 1.927e2 2.577e2 0.75 NO 4.504e2 0.056331 0.056331 Total Tetra-Furans 20.85 4.035e3 4.129e3 3.038e2 3.632e2 0.84 NO 6.670e2 0.083427 0.083427 Total Tetra-Furans 21.65 1.186e4 1.521e4 1.026e3 1.344e3 0.76 NO 2.369e3 0.29634 0.29634 Total Tetra-Furans 22.14 8.105e3 8.740e3 6.481e2 7.501e2 0.86 NO 1.398e3 0.17488 0.17488 Total Tetra-Furans 22.58 3.394e4 4.639e4 3.187e3 4.214e3 0.76 NO 7.401e3 0.92572 0.92572 Total Tetra-Furans 23.05 1.839e4 2.408e4 1.543e3 2.023e3 0.76 NO 7.401e3 0.92572 0.92572 Total Tetra-Furans 23.16 2.855e3 3.756e3 2.451e2 3.037e2 0.81 NO 5.487e2 0.068636 <

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	27.18	1.068e5	6.423e4	6.559e3	4.004e3	1.64	NO	1.056e4	1.3332	1.3332	0.0105

Work Order 2002493 Page 82 of 734

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Last Altered: Wednesday, December 16, 2020 2:49:46 PM Pacific Standard Time Printed: Wednesday, December 16, 2020 2:50:57 PM Pacific Standard 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	Total Penta-Furans	28.65	1.084e4	8.031e3	5.981e2	4.148e2	1.44	NO	1.013e3	0.12785	0.12785	0.0460
2	Total Penta-Furans	28.80	2.613e5	1.520e5	1.516e4	9.585e3	1.58	NO	2.475e4	3.1235	3.1235	0.0460
3	Total Penta-Furans	29.43	2.459e4	1.474e4	1.599e3	1.134e3	1.41	NO	2.733e3	0.34490	0.34490	0.0460
4	Total Penta-Furans	29.59	6.780e4	3.511e4	3.228e3	2.097e3	1.54	NO	5.326e3	0.67218	0.67218	0.0460
5	1,2,3,7,8-PeCDF	29.80	4.552e5	3.023e5	2.517e4	1.600e4	1.57	NO	4.117e4	5.0701	5.0701	0.0454
6	Total Penta-Furans	30.05	1.562e5	9.208e4	7.982e3	5.085e3	1.57	NO	1.307e4	1.6493	1.6493	0.0460
7	2,3,4,7,8-PeCDF	30.85	2.972e5	2.032e5	1.607e4	1.066e4	1.51	NO	2.673e4	3.1116	3.1116	0.0419
8	Total Penta-Furans	31.77	1.321e4	1.014e4	7.078e2	5.089e2	1.39	NO	1.217e3	0.15357	0.15357	0.0460

Hexa-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.19	2.852e4	2.628e4	1.542e3	1.266e3	1.22	NO	2.808e3	0.52436	0.52436	0.0633
2	Total Hexa-Furans	32.35	1.251e5	1.010e5	6.177e3	5.054e3	1.22	NO	1.123e4	2.0976	2.0976	0.0633
3	Total Hexa-Furans	32.98	1.372e5	1.136e5	6.868e3	5.692e3	1.21	NO	1.256e4	2.3457	2.3457	0.0633
4	Total Hexa-Furans	33.32	6.430e3	5.675e3	3.366e2	2.904e2	1.16	NO	6.271e2	0.11712	0.11712	0.0633
5	1,2,3,4,7,8-HxCDF	33.45	5.077e5	4.075e5	2.615e4	2.134e4	1.23	NO	4.749e4	8.7271	8.7271	0.0566
6	1,2,3,6,7,8-HxCDF	33.58	1.221e5	1.046e5	7.113e3	6.142e3	1.16	NO	1.326e4	2.3388	2.3388	0.0580
7	2,3,4,6,7,8-HxCDF	34.25	3.786e4	3.145e4	2.408e3	1.880e3	1.28	NO	4.288e3	0.80892	0.80892	0.0647
8	1,2,3,7,8,9-HxCDF	35.25	3.866e4	2.810e4	8.434e2	7.527e2	1.12	NO	1.596e3	0.33398	0.33398	0.0788
9	Total Hexa-Furans	35.26	4.943e4	4.920e4	2.691e3	2.334e3	1.15	NO	5.026e3	0.93857	0.93857	0.0633

Hepta-Furans

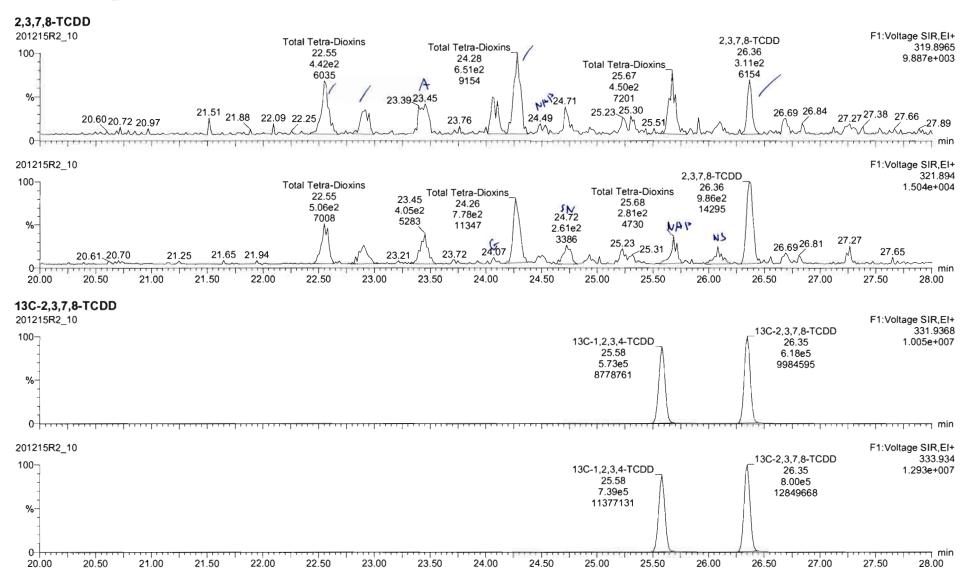
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1	1,2,3,4,6,7,8-HpCDF	36.81	1.870e5	1.872e5	1.327e4	1.366e4	0.97	NO	2.693e4	6.8562	6.8562	0.136
2	Total Hepta-Furans	37.30	5.142e3	4.452e3	2.620e2	2.400e2	1.09	NO	5.020e2	0.13933	0.13933	0.133
3	Total Hepta-Furans	37.53	2.123e5	2.165e5	1.518e4	1.539e4	0.99	NO	3.057e4	8.4858	8.4858	0.133
4	1,2,3,4,7,8,9-HpCDF	38.84	6.567e4	7.342e4	3.940e3	4.116e3	0.96	NO	8.055e3	2.1929	2.1929	0.114

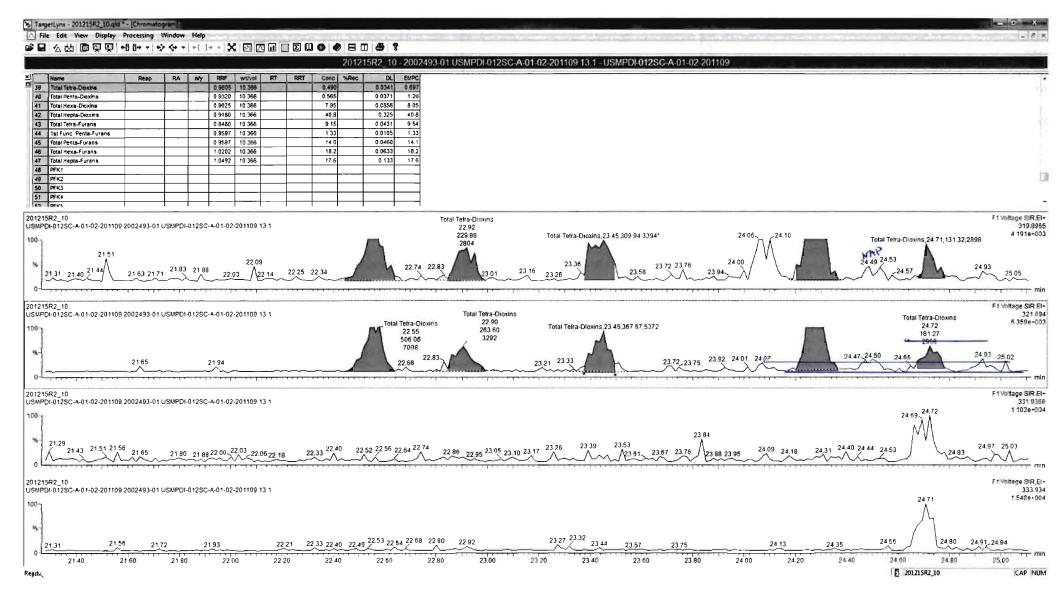
Work Order 2002493 Page 83 of 734

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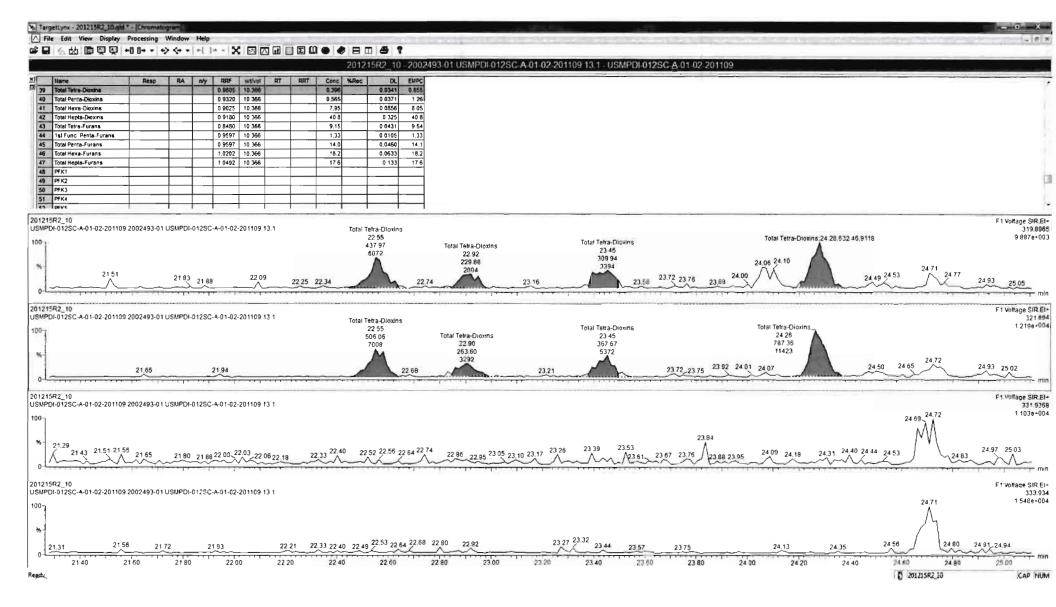
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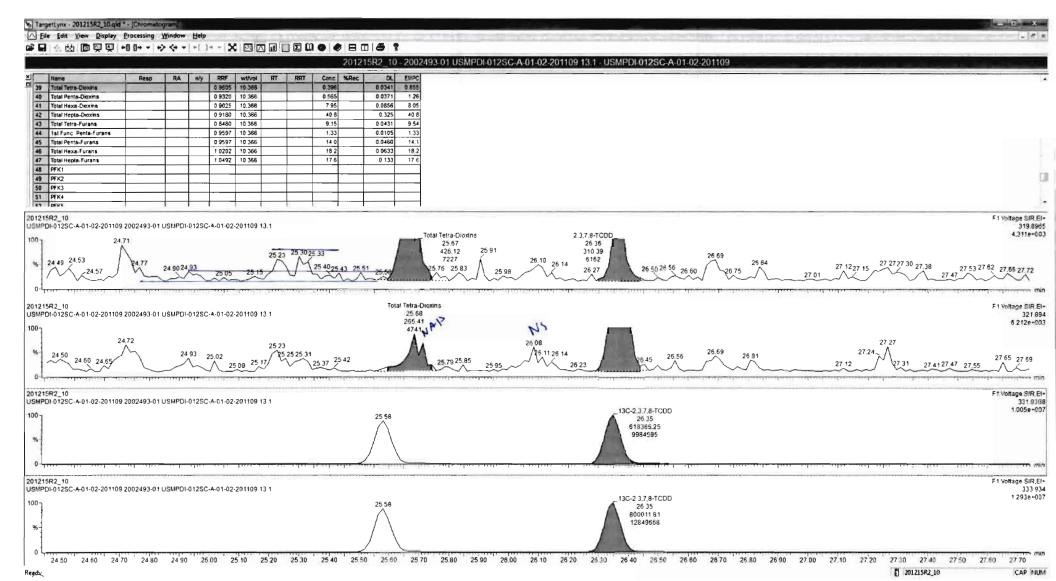




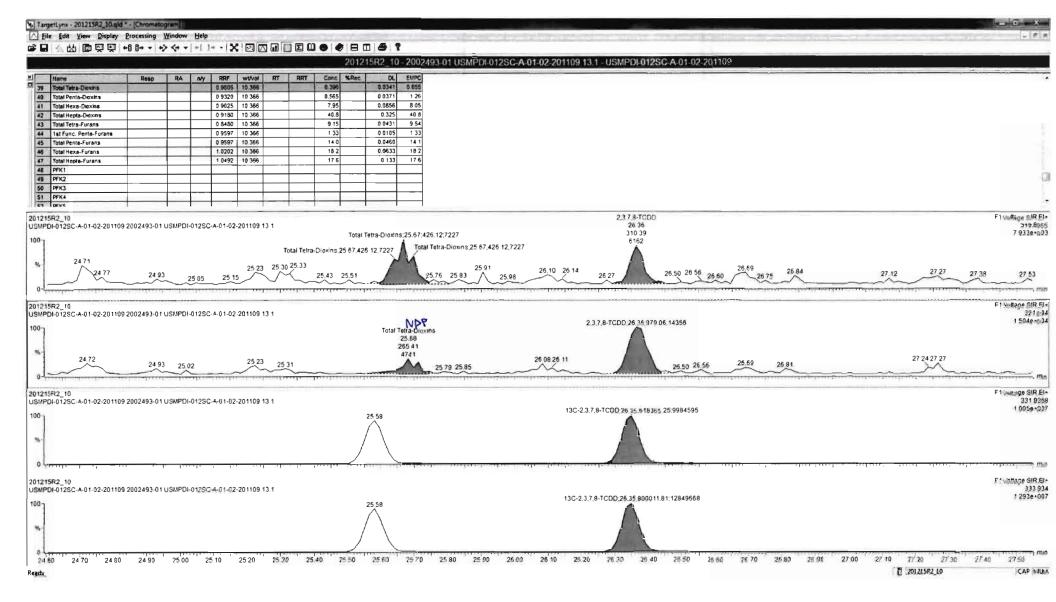
Page 85 of 734



Work Order 2002493 Page 86 of 734



Work Order 2002493 Page 87 of 734

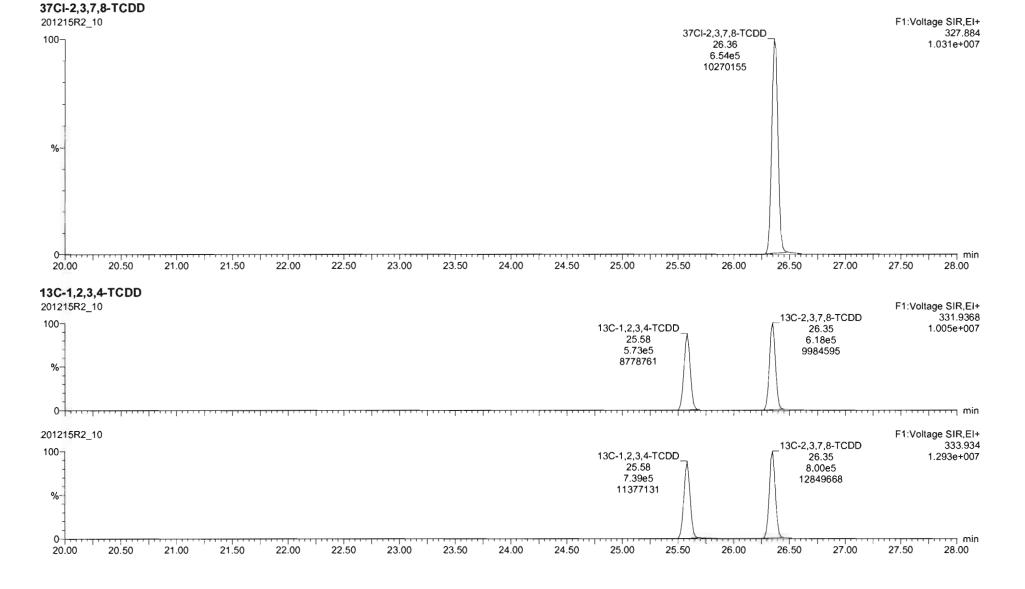


Page 88 of 734

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Last Altered: Wednesday, December 16, 2020 7:04:18 AM Pacific Standard Time Printed: Wednesday, December 16, 2020 7:06:08 AM Pacific Standard Time

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MassLynx 4.1 SCN815

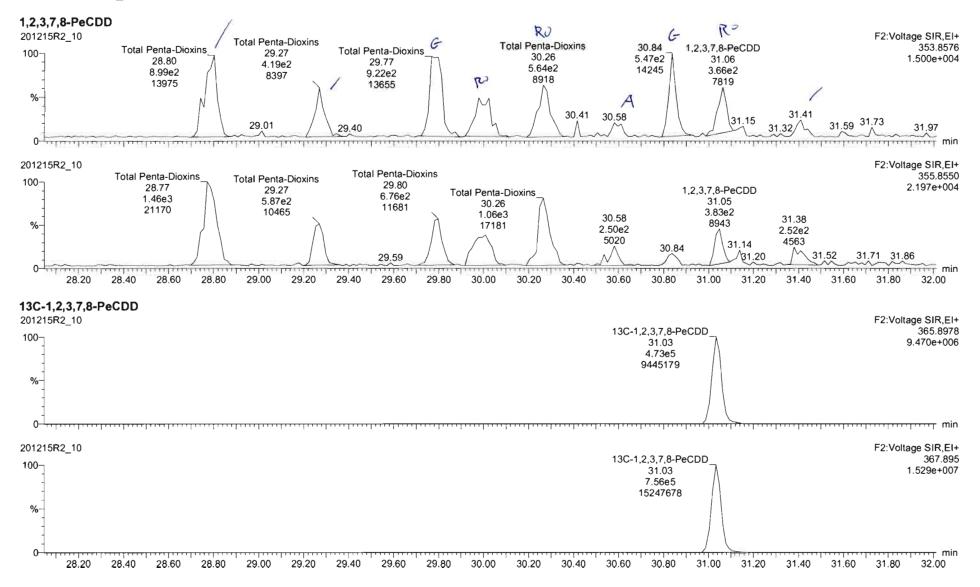
Page 94 of 117

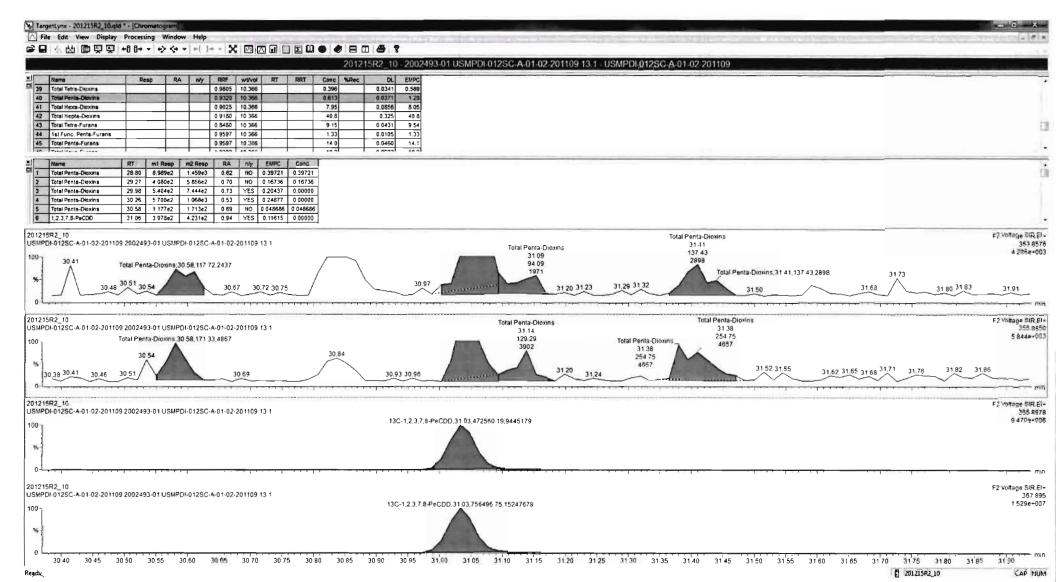
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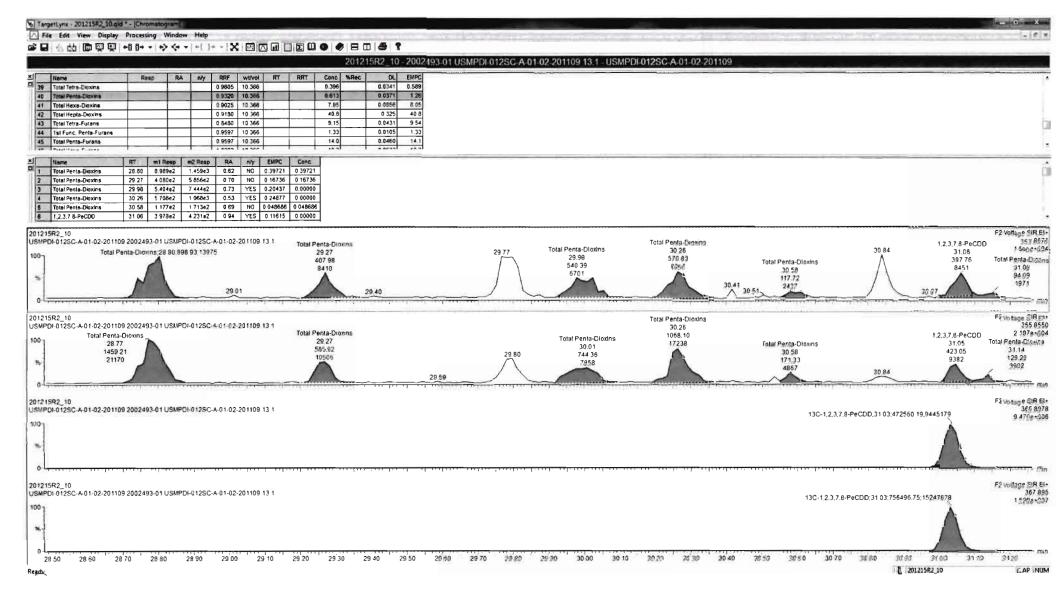
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Work Order 2002493 Page 91 of 734

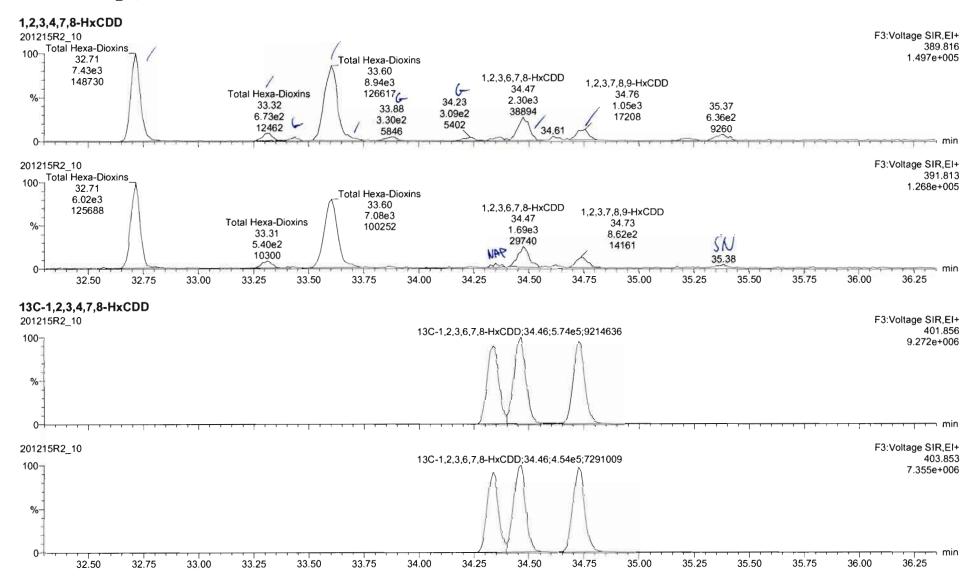


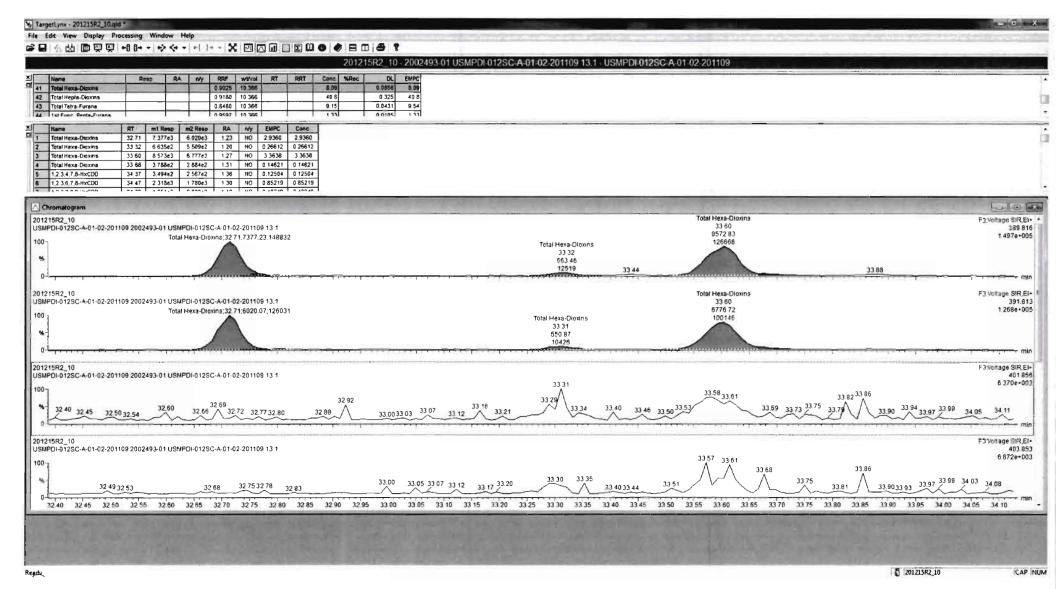
Work Order 2002493 Page 92 of 734

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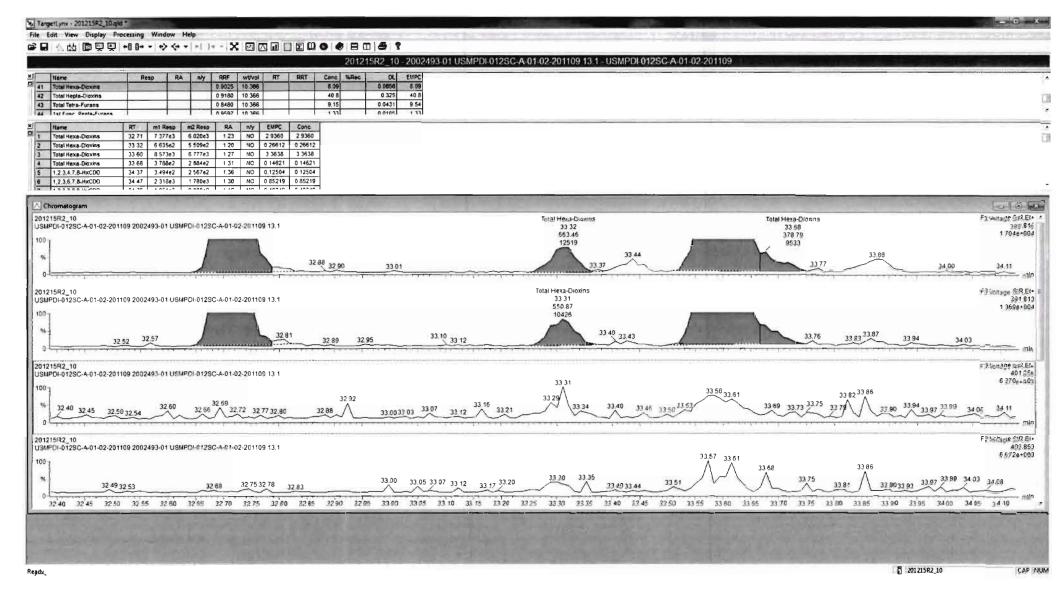
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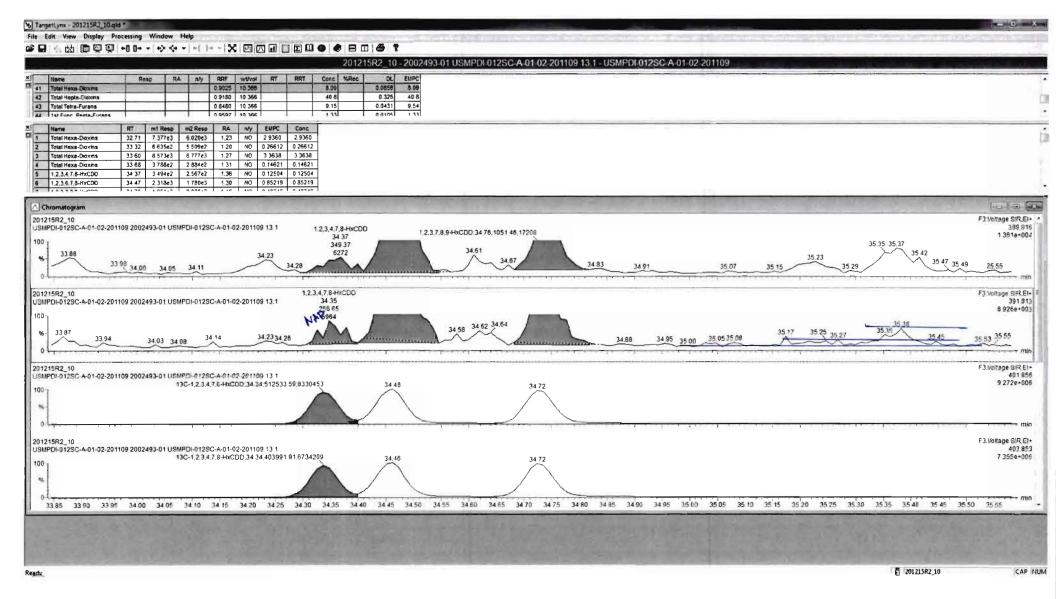




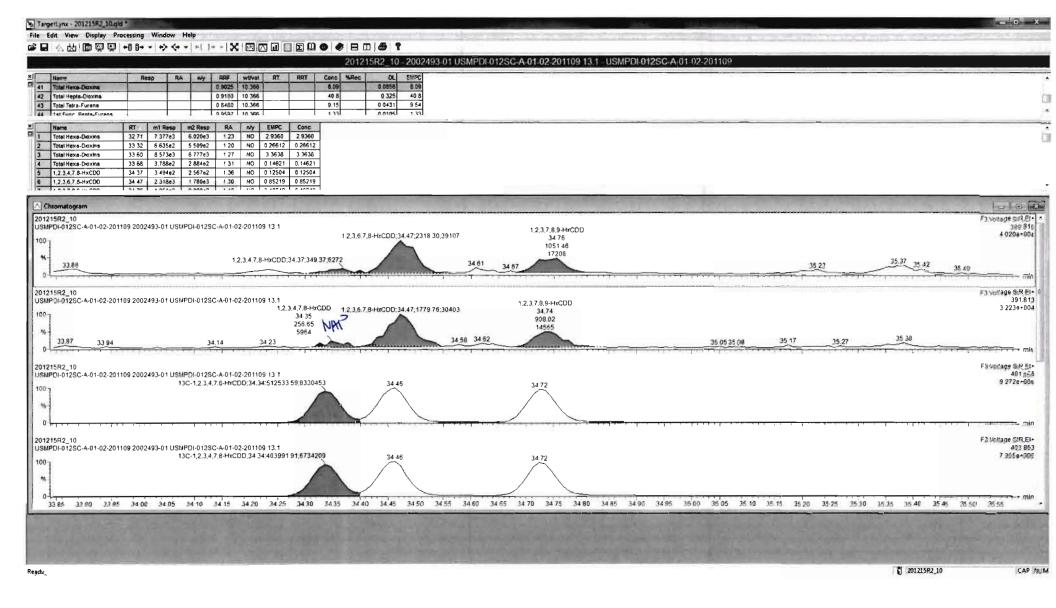
Page 94 of 734



Work Order 2002493 Page 95 of 734



Work Order 2002493 Page 96 of 734

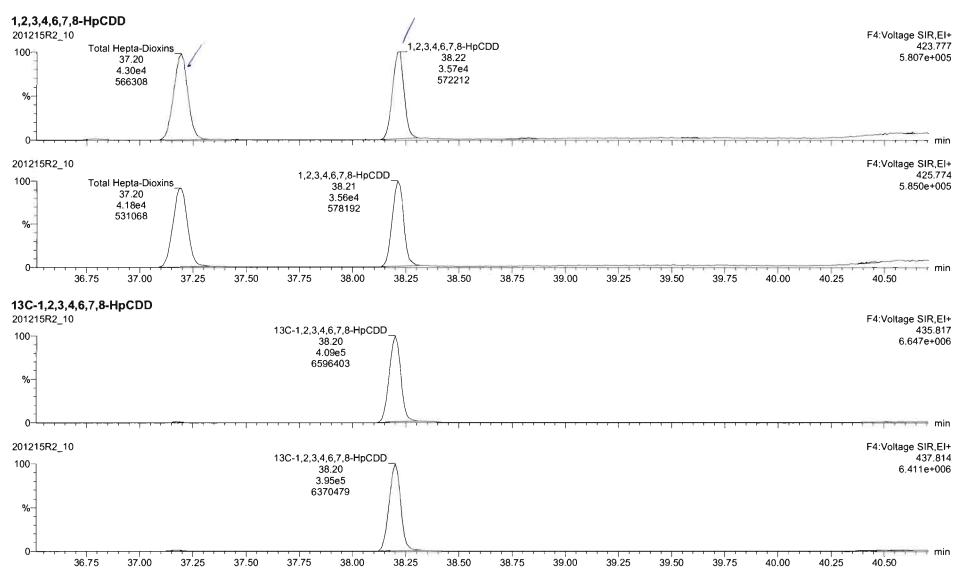


Work Order 2002493 Page 97 of 734

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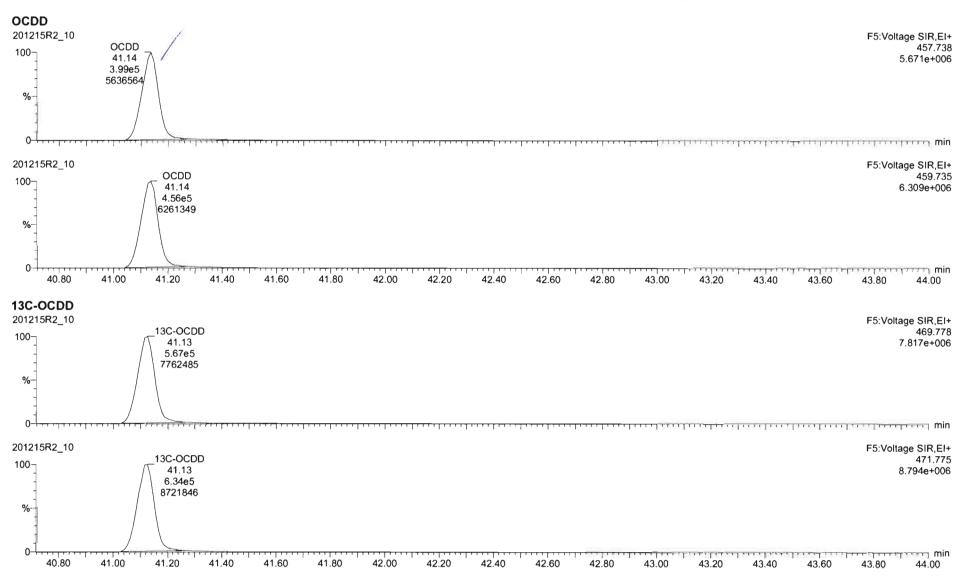
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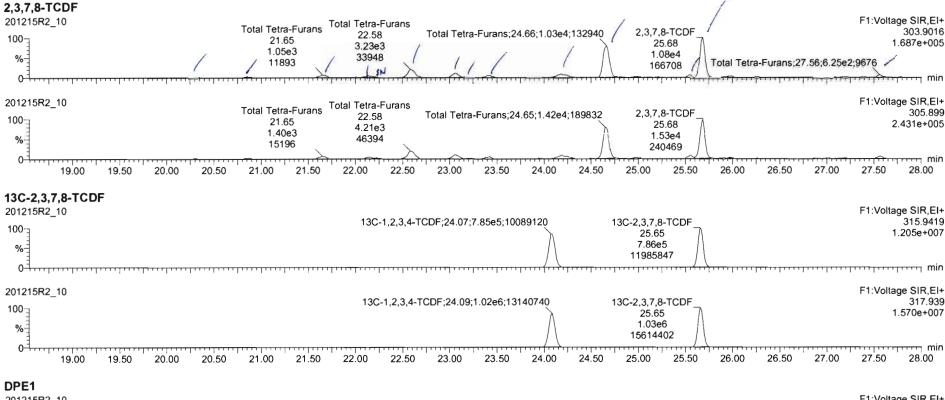
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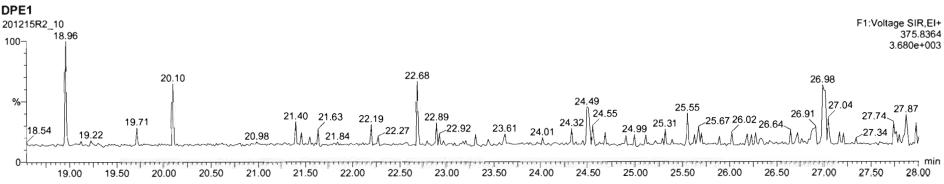


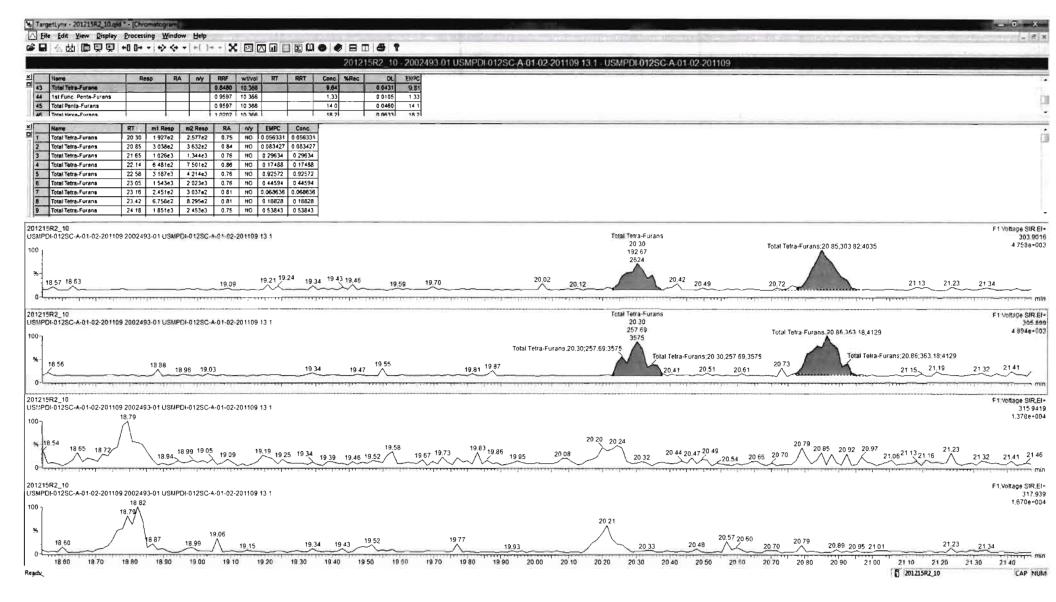
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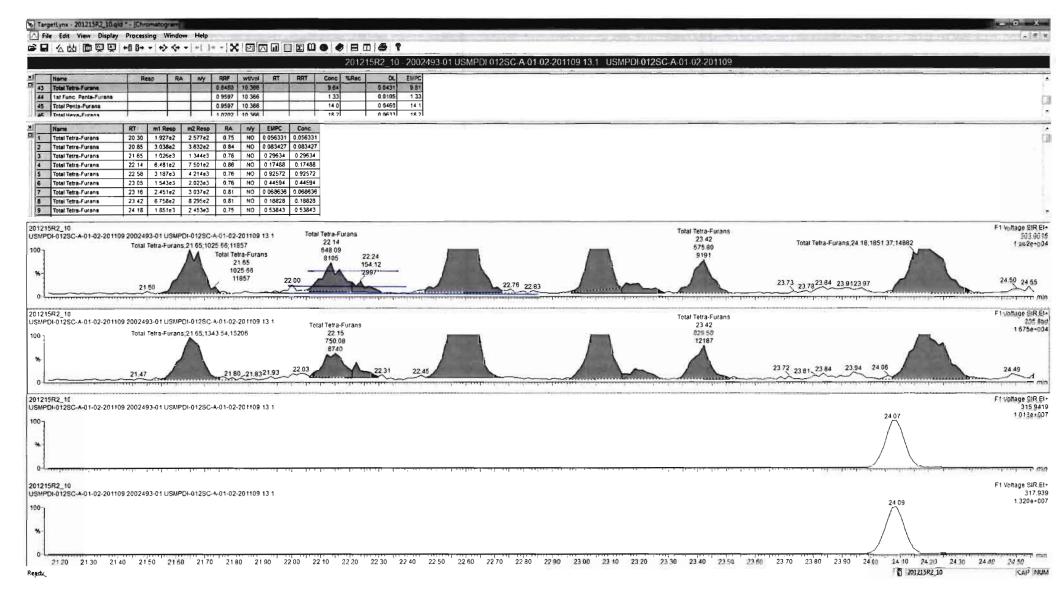




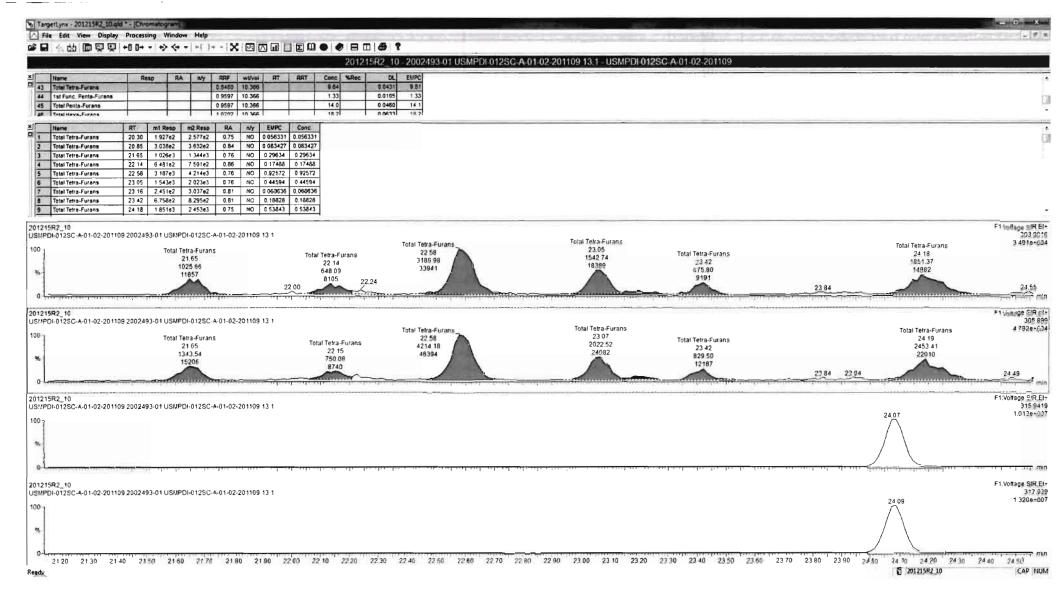




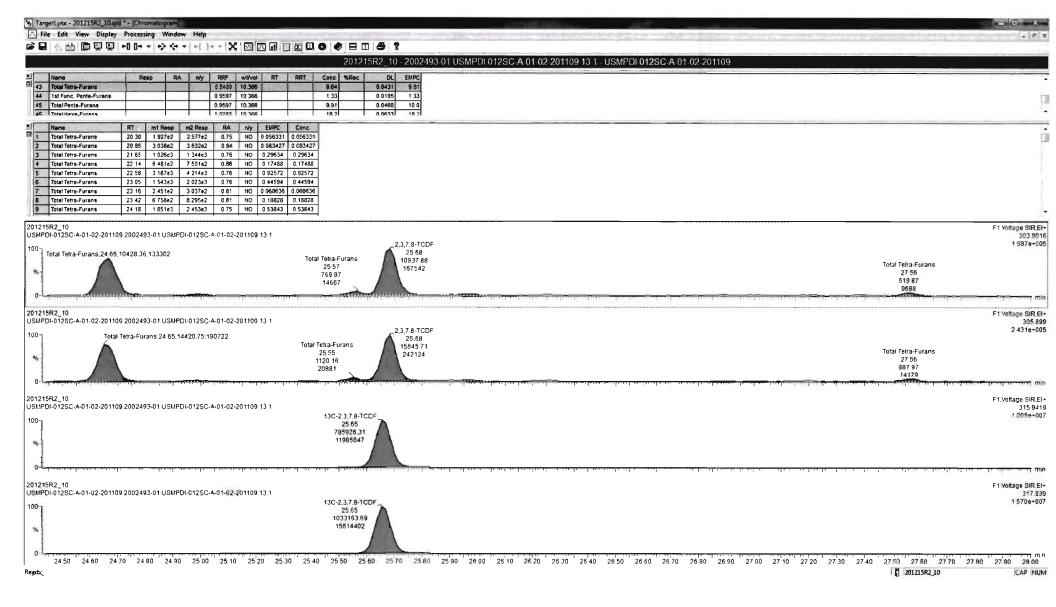
Work Order 2002493 Page 101 of 734



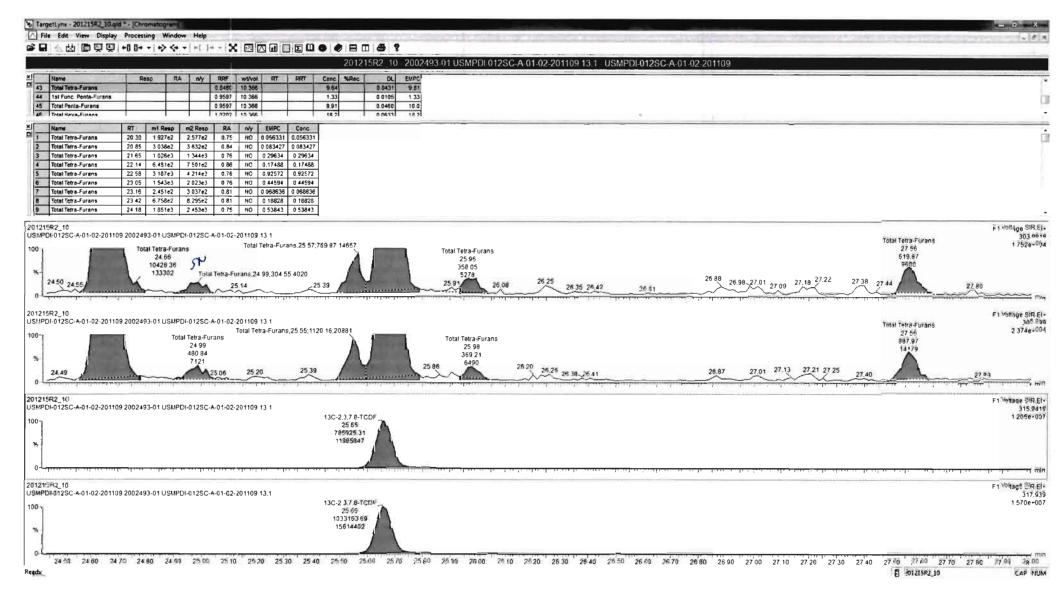
Work Order 2002493 Page 102 of 734



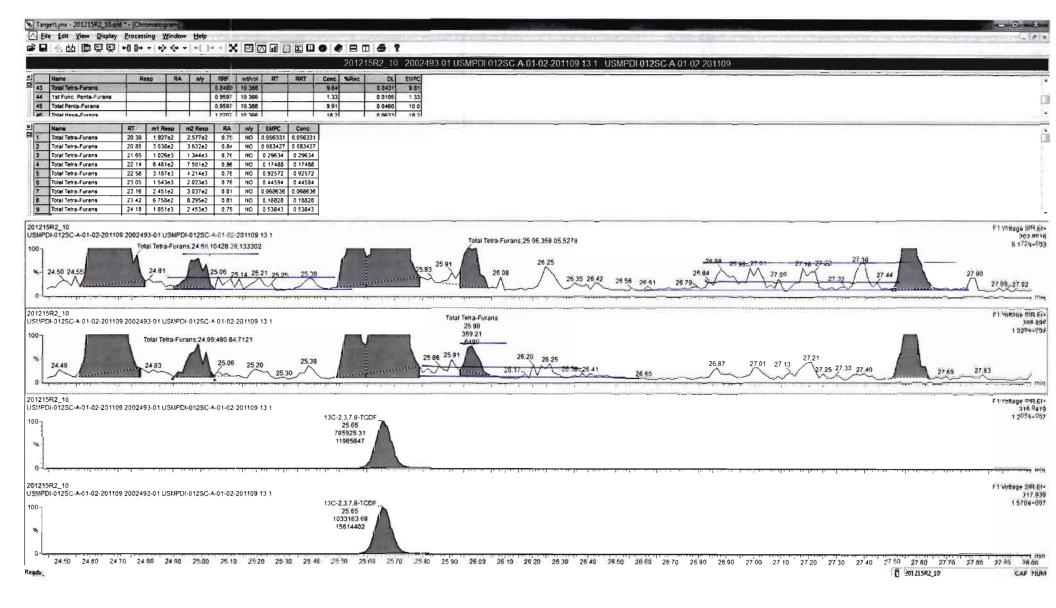
Work Order 2002493 Page 103 of 734



Work Order 2002493 Page 104 of 734



Work Order 2002493 Page 105 of 734

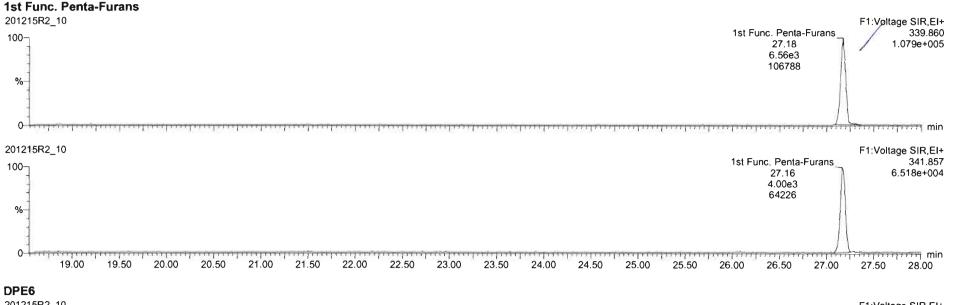


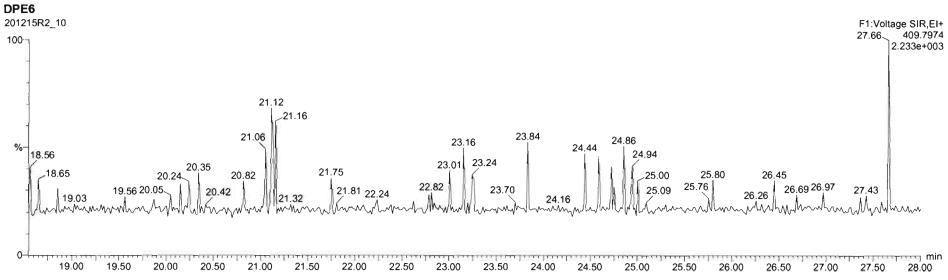
Work Order 2002493 Page 106 of 734

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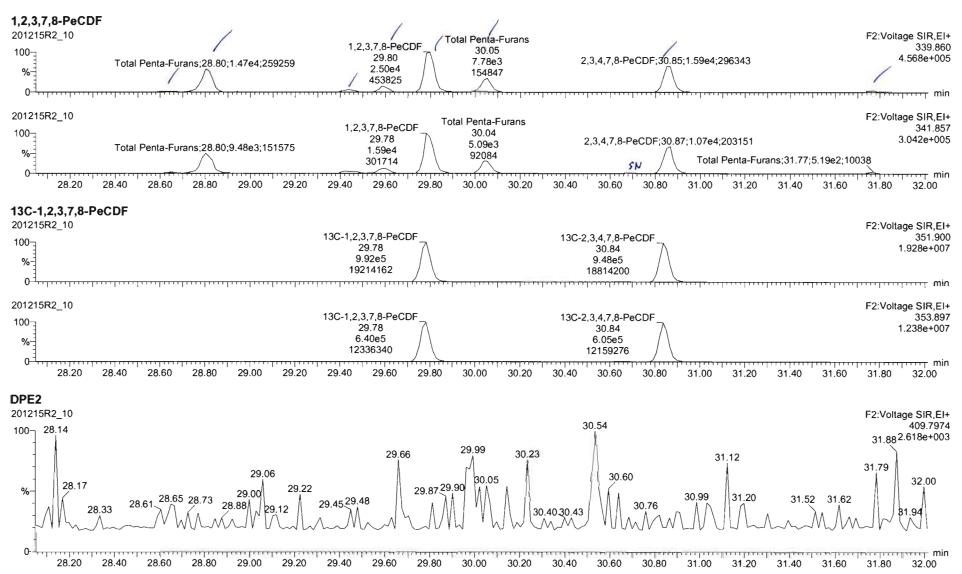


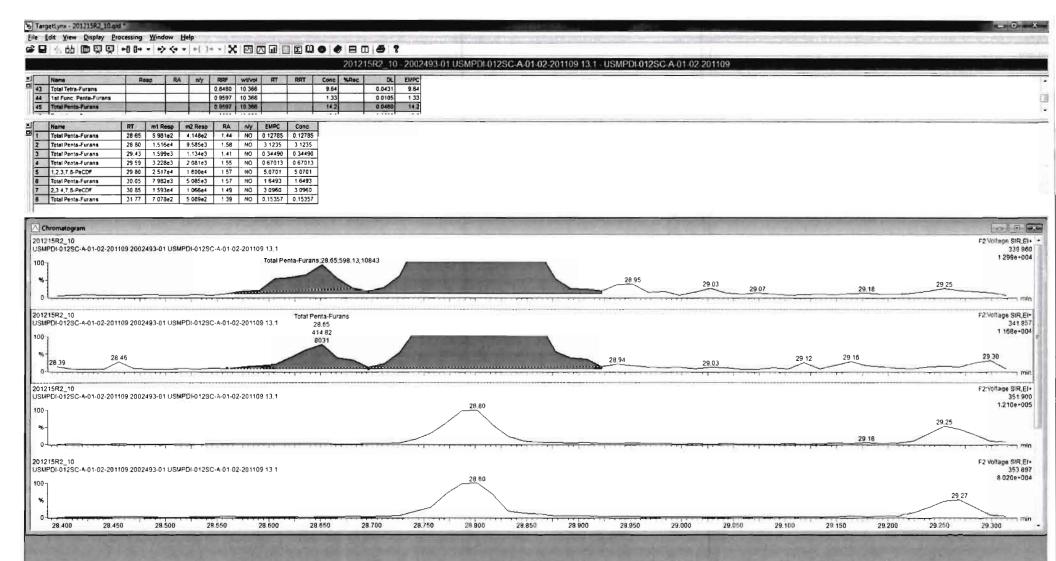
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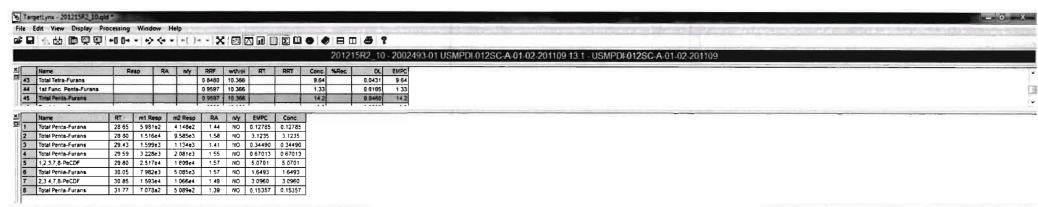


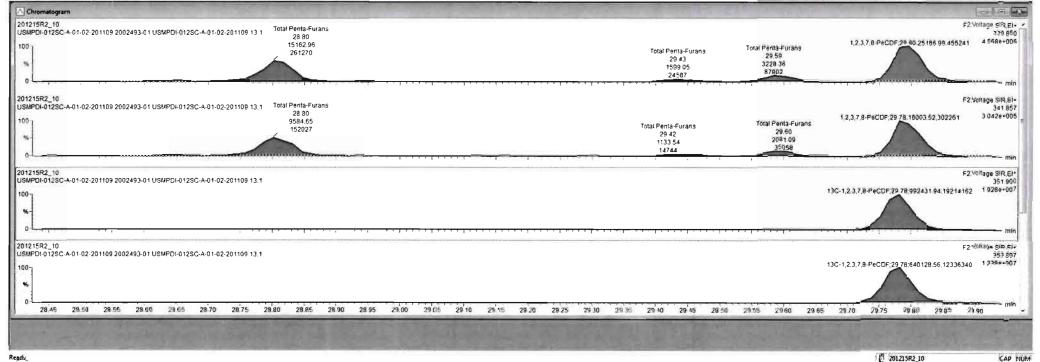
Work Order 2002493 Page 109 of 734

1 201215R2_10

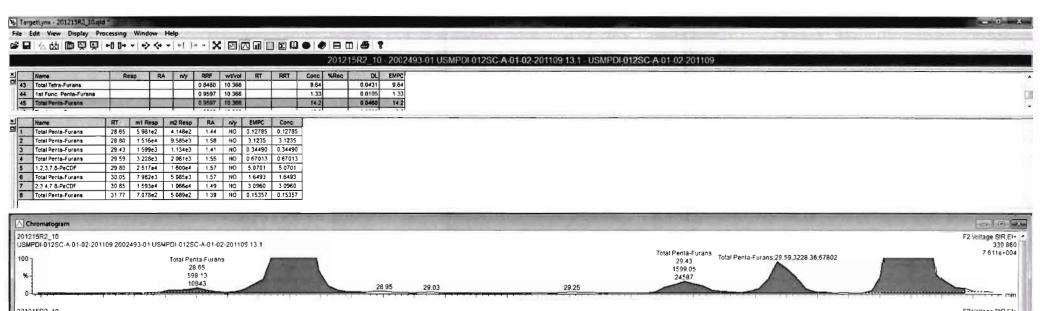
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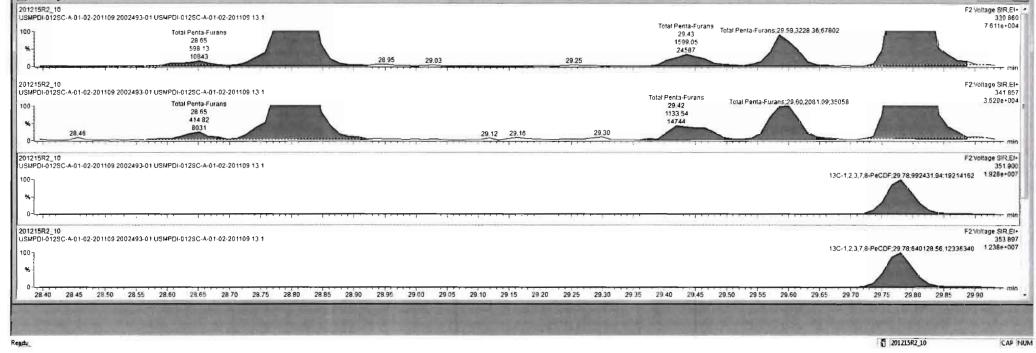
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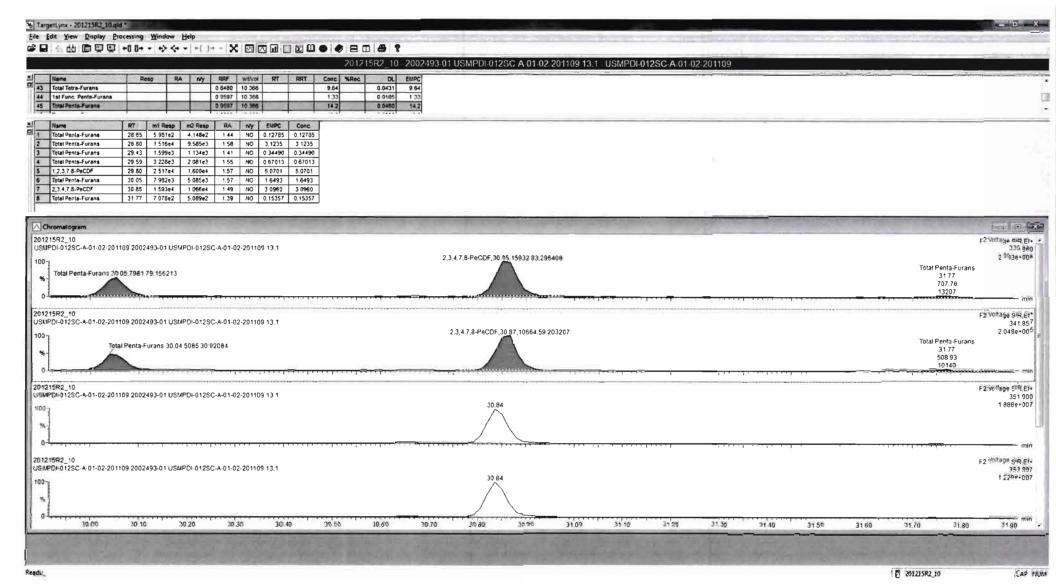


Work Order 2002493 Page 110 of 734

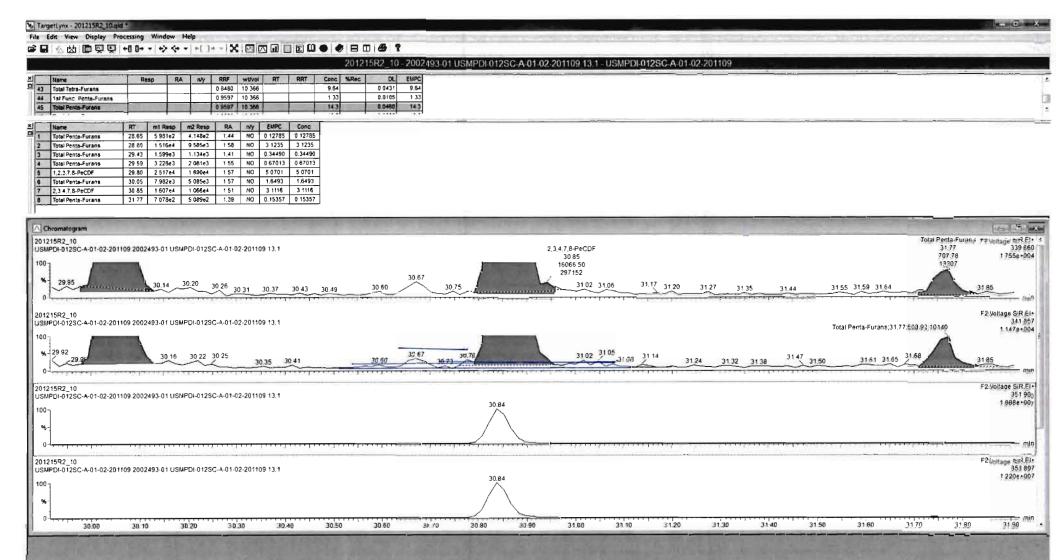




Work Order 2002493 Page 111 of 734



Work Order 2002493 Page 112 of 734



Work Order 2002493 Page 113 of 734

Ready

20.215R2_10

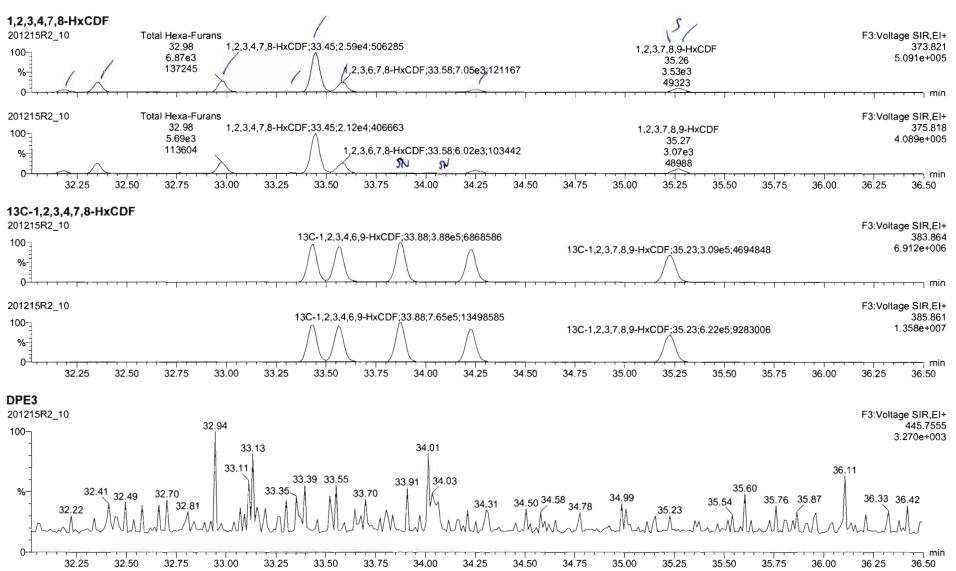
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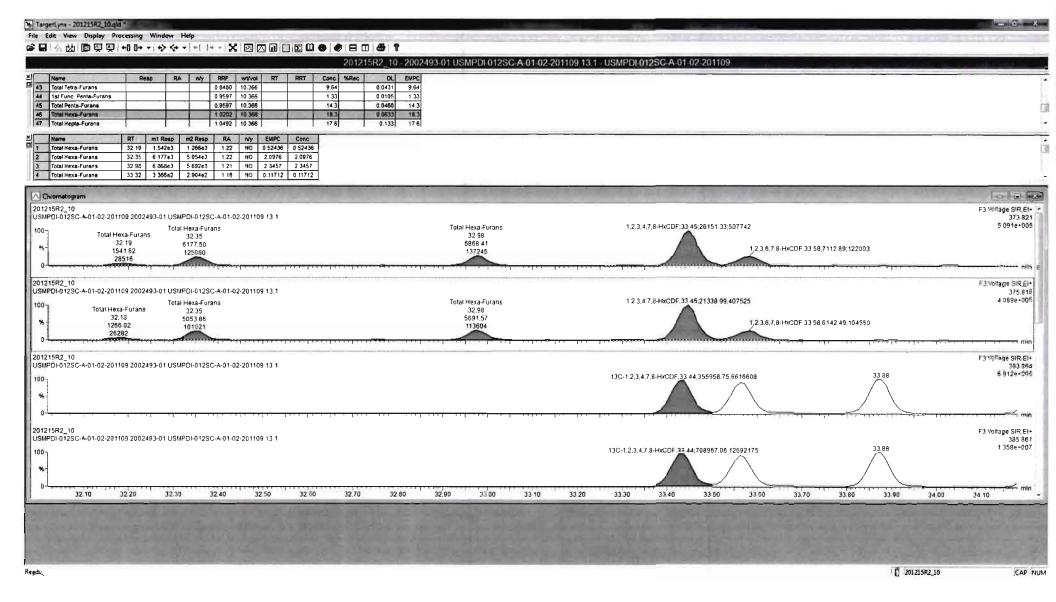
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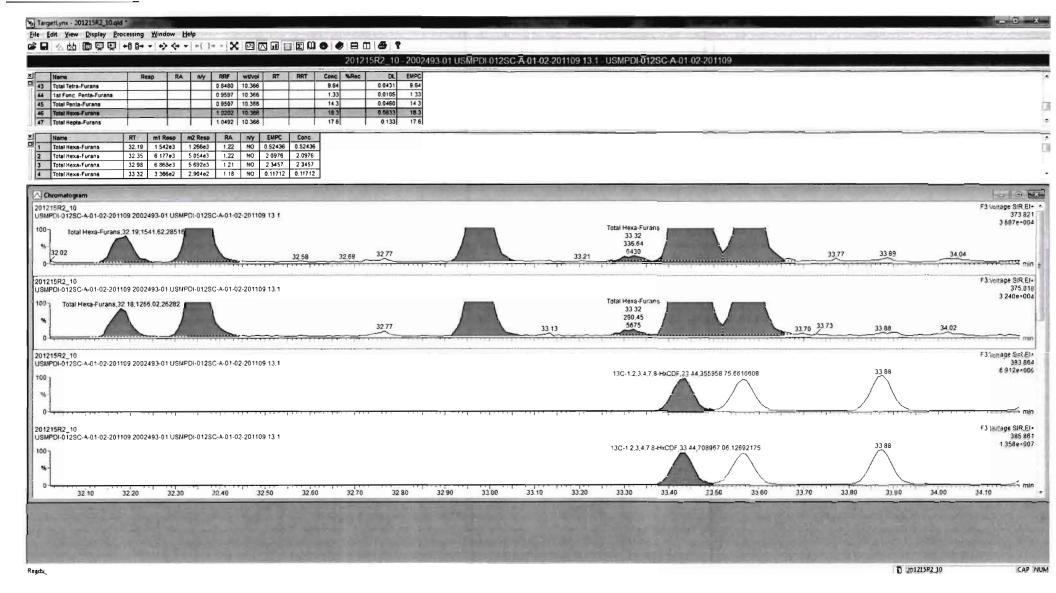
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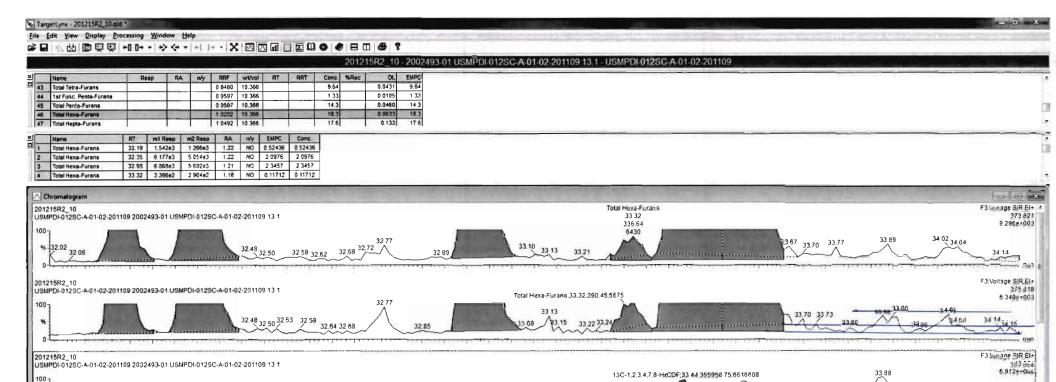




Work Order 2002493 Page 115 of 734



Work Order 2002493 Page 116 of 734



13C-1,2,3,4,7,8-HxCDF 33 44,708967.06,12692175

33 50

33.60

33.70

33 80

33 9 0

34.00

D 201215F2_10

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201215R2 10

Ready

32.10

USMPDI-012SC-A-01-02-201109 2002493-01 USMPDI-012SC-A-01-02-201109 13 1

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33.30

32.20

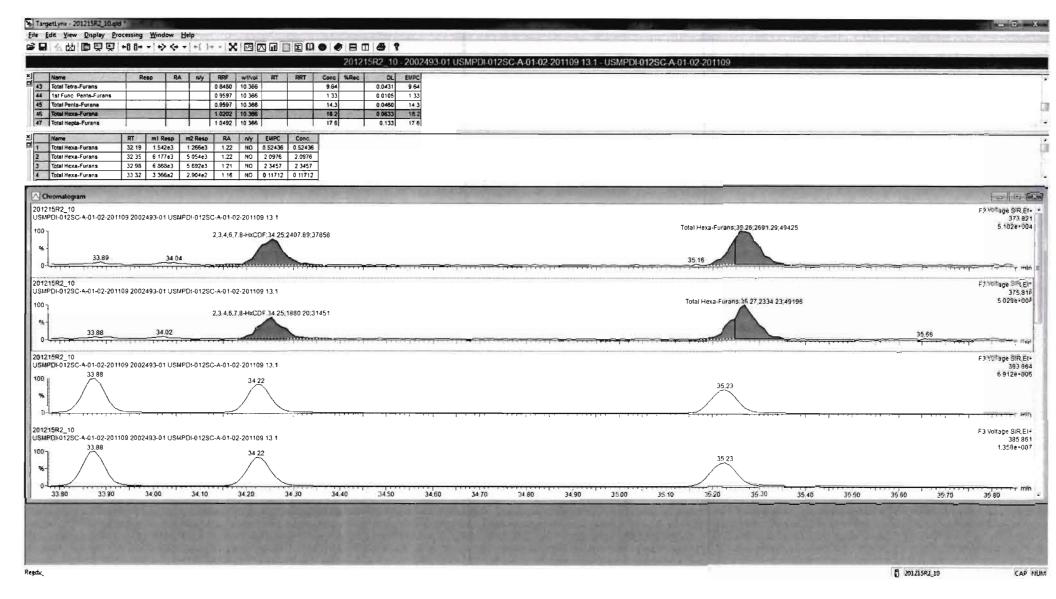
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Work Order 2002493 Page 117 of 734



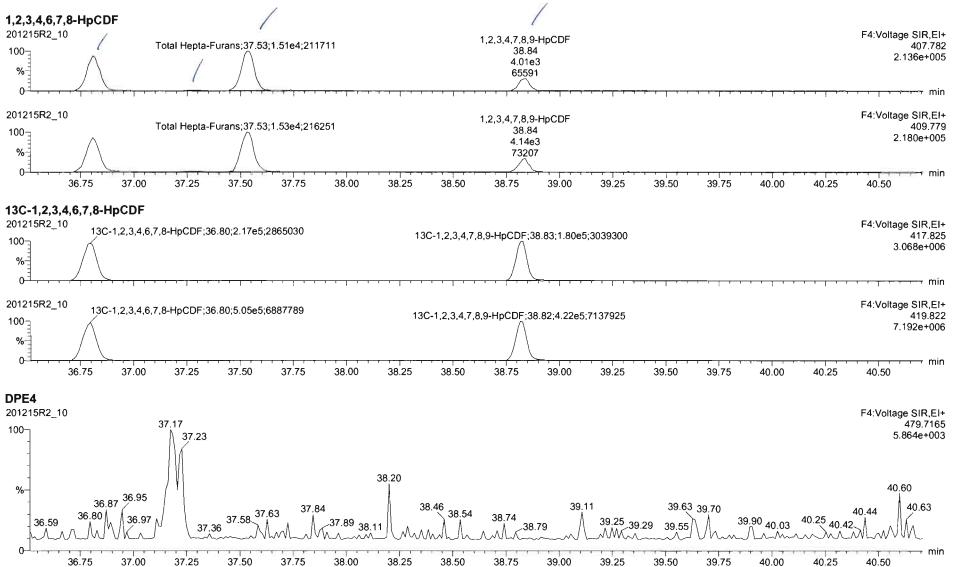
Work Order 2002493 Page 118 of 734

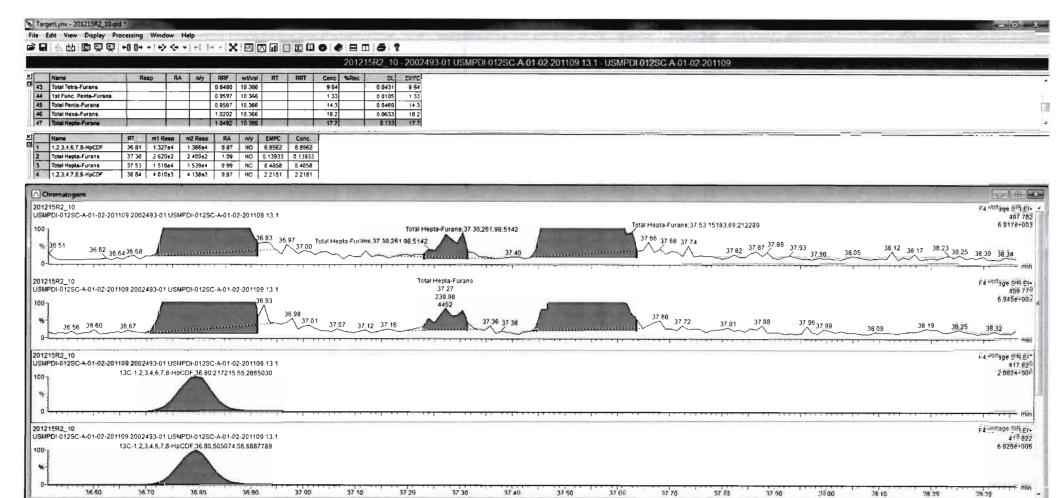
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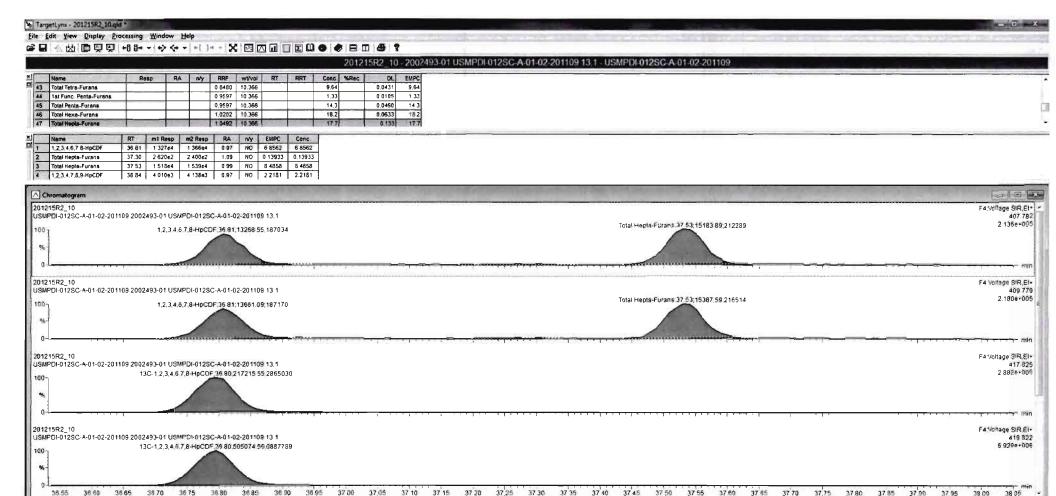


Work Order 2002493 Page 120 of 734

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CAP NUM

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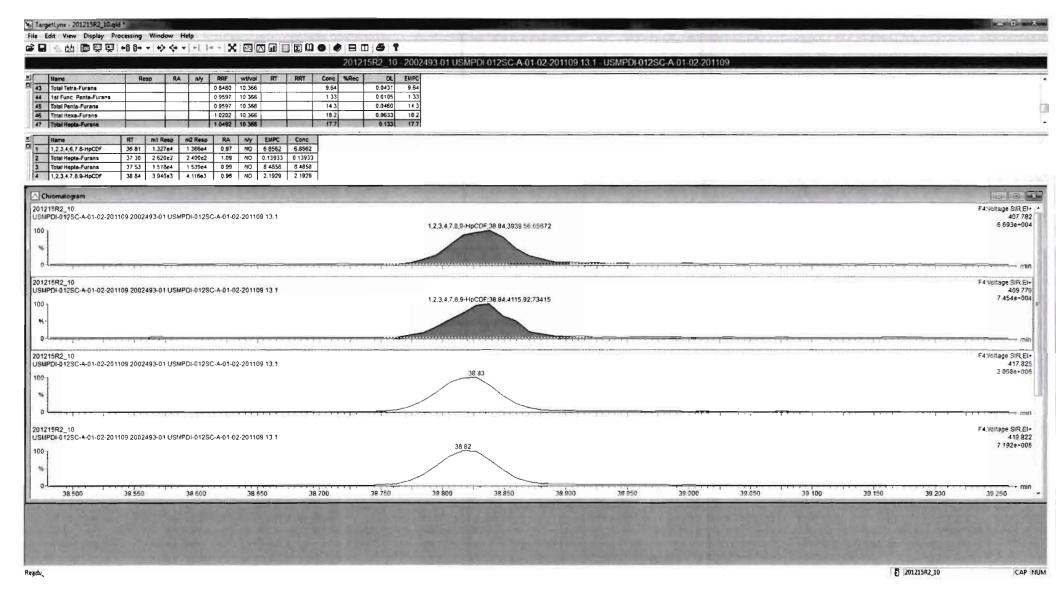


Work Order 2002493 Page 121 of 734

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1 201215R2_10

CAP NUM



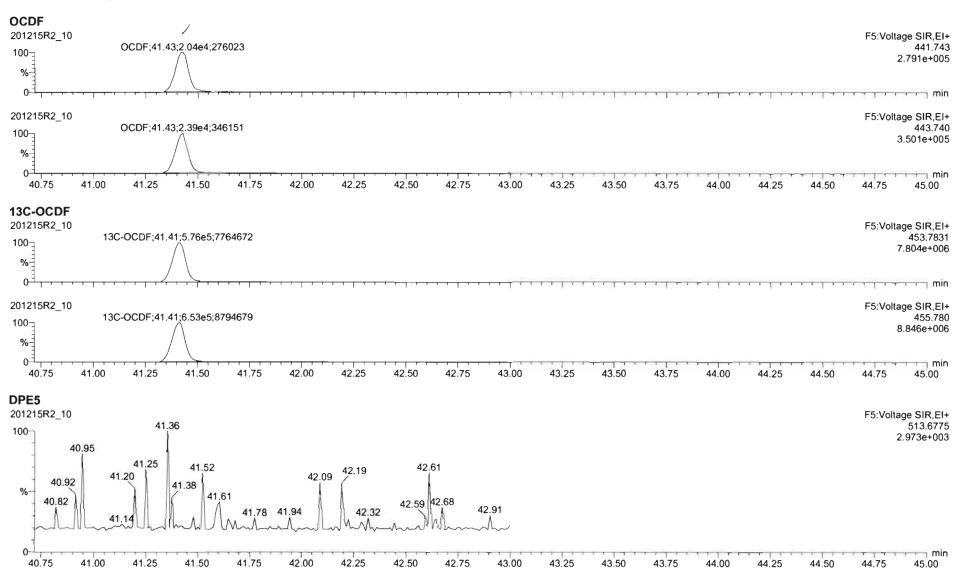
Work Order 2002493 Page 122 of 734

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Name: 201215R2_10, Date: 15-Dec-2020, Time: 23:43:35, ID: 2002493-01 USMPDI-012SC-A-01-02-201109 13.1, Description: USMPDI-012SC-A-01-02-201109

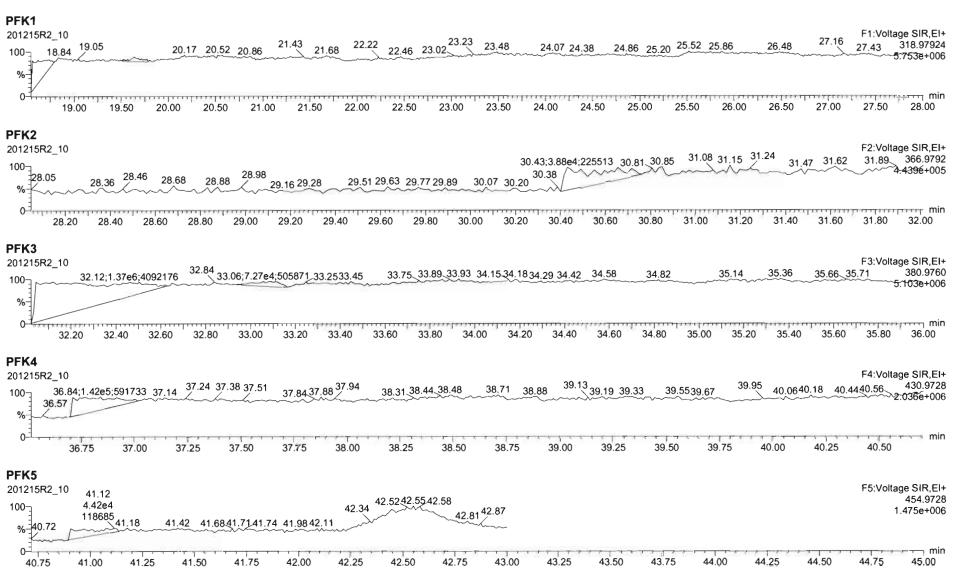


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Page 1 of 2

Dataset:

U:\VG12.PRO\Results\201215R2\201215R2_11.qld

Last Altered: Printed:

Monday, December 28, 2020 13:24:23 Pacific Standard Time Monday, December 28, 2020 13:26:01 Pacific Standard Time

HN 12/28/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32 Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201215R2_11, Date: 16-Dec-2020, Time: 00:27:50, ID: 2002493-02 USMPDI-012SC-A-02-03-201109 13.46, Description: USMPDI-012SC-A-02-03-201109

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1	1 2,3,7,8-TCDD	7.59e2	0.15	YES	0.980	10.145	26.381	26.36	1.001	1.001	0.13920		0.0258	0.0398
2	2 1,2,3,7,8-PeCDD			NO	0.932	10.145	31.064		1.001				0.0536	
3	3 1,2,3,4,7,8-HxCDD			NO	1.02	10.145	34.368		1.001				0.0625	
4	4 1,2,3,6,7,8-HxCDD	4.45e2	0.88	YES	0.902	10.145	34.483	34.49	1.001	1.001	0.11845		0.0686	0.100
5	5 1,2,3,7,8,9-HxCDD	3.77e2	1.25	NO	0.954	10.145	34.745	34.74	1.000	1.000	0.10164		0.0645	0.102
6	6 1,2,3,4,6,7,8-HpCDD	6.82e3	1.02	NO	0.918	10.145	38.222	38.22	1.000	1.000	2.1905		0.112	2.19
7	7 OCDD	6.01e4	0.87	NO	0.866	10.145	41.134	41.15	1.000	1.001	28.422		0.229	28.4
8	8 2,3,7,8-TCDF	2.19e3	0.85	NO	0.848	10.145	25.672	25.68	1.000	1.001	0.35368		0.0264	0.354
9	9 1,2,3,7,8-PeCDF	2.41e3	1.52	NO	0.960	10.145	29.784	29.80	1.000	1.001	0.38132		0.0224	0.381
10	10 2,3,4,7,8-PeCDF	1.36e3	1.53	NO	1.07	10.145	30.859	30.87	1.001	1.001	0.20908		0.0230	0.209
11	11 1,2,3,4,7,8-HxCDF	3.06e3	1.11	NO	0.986	10.145	33.446	33.45	1.000	1.000	0.71090		0.0465	0.711
12	12 1,2,3,6,7,8-HxCDF	8.00e2	1.02	YES	1.04	10.145	33.582	33.58	1.001	1.001	0.17642		0.0488	0.161
13	13 2,3,4,6,7,8-HxCDF			NO	1.02	10.145	34.253		1.001				0.0551	
14	14 1,2,3,7,8,9-HxCDF	2.39e2	0.97	YES	0.991	10.145	35.238	35.24	1.000	1.000	0.065543		0.0830	0.0582
15	15 1,2,3,4,6,7,8-HpCDF	2.24e3	1.04	NO	1.05	10.145	36.824	36.82	1.000	1.000	0.70819		0.0529	0.708
16	16 1,2,3,4,7,8,9-HpCDF	5.10e2	0.97	NO	1.18	10.145	38.839	38.84	1.000	1.000	0.16648		0.0446	0.166
17	17 OCDF	3.27e3	0.86	NO	0.896	10.145	41.427	41.43	1.000	1.000	1.4122		0.0774	1.41
18	18 13C-2,3,7,8-TCDD	1.17e6	0.77	NO	1.06	10.145	26.353	26.35	1.030	1.030	221.56	112	0.128	
19	19 13C-1,2,3,7,8-PeCDD	9.08e5	0.62	NO	0.785	10.145	31.192	31.03	1.219	1.213	230.82	117	0.153	
20	20 13C-1,2,3,4,7,8-HxCDD	7.28e5	1.28	NO	0.621	10.145	34.337	34.35	1.014	1.014	268.24	136	0.456]
21	21 13C-1,2,3,6,7,8-HxCDD	8.21e5	1.25	NO	0.734	10.145	34.459	34.46	1.017	1.017	255.77	130	0.385	
22	22 13C-1,2,3,7,8,9-HxCDD	7.67e5	1.24	NO	0.723	10.145	34.743	34.74	1.026	1.025	242.78	123	0.391	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.68e5	1.04	NO	0.568	10.145	38.243	38.21	1.129	1.128	269.14	137	0.792	1
24	24 13C-OCDD	9.62e5	0.88	NO	0.496	10.145	41.180	41.13	1.216	1.214	443.81	113	0.608	
25	25 13C-2,3,7,8-TCDF	1.44e6	0.76	NO	0.919	10.145	25.652	25.67	1.003	1.003	222.54	113	0.174	ł
26	26 13C-1,2,3,7,8-PeCDF	1.30e6	1.57	NO	0.715	10.145	29.903	29.78	1.169	1.164	257.64	131	0.332	
27	27 13C-2,3,4,7,8-PeCDF	1.20e6	1.56	NO	0.689	10.145	30.990	30.84	1.212	1.206	247.18	125	0.345	
28	28 13C-1,2,3,4,7,8-HxCDF	8.61e5	0.50	NO	0.873	10.145	33.442	33.44	0.987	0.987	225.46	114	0.416	
29	29 13C-1,2,3,6,7,8-HxCDF	8.60e5	0.50	NO	0.933	10.145	33.571	33.56	0.991	0.991	210.78	107	0.389	
30	30 13C-2,3,4,6,7,8-HxCDF	7.64e5	0.50	NO	0.843	10.145	34.238	34.23	1.011	1.011	207.35	105	0.431	
31	31 13C-1,2,3,7,8,9-HxCDF	7.27e5	0.49	NO	0.780	10.145	35.238	35.23	1.040	1.040	213.12	108	0.466	

Page 125 of 734 Work Order 2002493

Dataset: U:\VG12.PRO\Results\201215R2\201215R2_11.qld

Last Altered: Monday, December 28, 2020 13:24:23 Pacific Standard Time Printed: Monday, December 28, 2020 13:26:01 Pacific Standard Time

Name: 201215R2_11, Date: 16-Dec-2020, Time: 00:27:50, ID: 2002493-02 USMPDI-012SC-A-02-03-201109 13.46, Description: USMPDI-012SC-A-02-03-201109

	# 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	5.94e5	0.42	NO	0.726	10.145	36.813	36.81	1.087	1.086	186.88	94.8	0.549	
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.13e5	0.43	NO	0.491	10.145	38.822	38.83	1.146	1.146	238.94	121	0.812	
34	34 13C-OCDF	1.02e6	0.88	NO	0.565	10.145	41.396	41.42	1.222	1.223	411.87	104	0.573	
35	35 37CI-2,3,7,8-TCDD	5.14e5			1.22	10.145	26.347	26.38	1.030	1.031	84.258	107	0.0302	
36	36 13C-1,2,3,4-TCDD	9.88e5	0.78	NO	1.00	10.145	25.640	25.58	1.000	1.000	197.13	100	0.135	
37	37 13C-1,2,3,4-TCDF	1.39e6	0.78	NO	1.00	10.145	24.130	24.09	1.000	1.000	197.13	100	0.160	
38	38 13C-1,2,3,4,6,9-HxCDF	8.62e5	0.51	NO	1.00	10.145	33.920	33.88	1.000	1.000	197.13	100	0.363	
39	39 Total Tetra-Dioxins				0.980	10.145	24.620		0.000		0.12895		0.0258	0.212
40	40 Total Penta-Dioxins				0.932	10.145	29.960		0.000		0.00000		0.0175	0.0973
41	41 Total Hexa-Dioxins				0.902	10.145	33.635		0.000		1.6373		0.0663	1.74
42	42 Total Hepta-Dioxins				0.918	10.145	37.640		0.000		5.3025		0.112	5.30
43	43 Total Tetra-Furans				0.848	10.145	23.610		0.000		0.49140		0.0264	0.890
44	44 1st Func. Penta-Furans				0.960	10.145	26.930		0.000		0.17308		0.0115	0.173
45	45 Total Penta-Furans				0.960	10.145	29.275		0.000		1.0525		0.0239	1.05
46	46 Total Hexa-Furans				1.02	10.145	33.555		0.000		1.0800		0.0518	1.48
47	47 Total Hepta-Furans				1.05	10.145	37.835		0.000		1.7096		0.0516	1.71

Work Order 2002493 Page 126 of 734

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Dataset: U:\VG12.PR0\Results\201215R2\201215R2_11.qld

Last Altered: Monday, December 28, 2020 13:24:23 Pacific Standard Time Printed: Monday, December 28, 2020 13:26:01 Pacific Standard Time

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Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201215R2_11, Date: 16-Dec-2020, Time: 00:27:50, ID: 2002493-02 USMPDI-012SC-A-02-03-201109 13.46, Description: USMPDI-012SC-A-02-03-201109

Tetra-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	24.28	5.446e3	7.043e3	3.230e2	4.286e2	0.75	NO	7.516e2	0.12895	0.12895	0.0258
2	Total Tetra-Dioxins	25.68	3.985e3	2.711e3	2.852e2	1.417e2	2.01	YES	0.000e0	0.00000	0.043029	0.0258
3	2,3,7,8-TCDD	26.36	1.967e3	1.103e4	1.010e2	6.579e2	0.15	YES	7.589e2	0.00000	0.039839	0.0258

Penta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	29.28	4.613e3	4.925e3	2.170e2	2.561e2	0.85	YES	0.000e0	0.00000	0.097288	0.0536

Hexa-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.71	3.317e4	2.801e4	1.796e3	1.505e3	1.19	NO	3.301e3	0.93381	0.93381	0.0663
2	Total Hexa-Dioxins	33.60	1.659e4	1.330e4	1.246e3	8.813e2	1.41	NO	2.127e3	0.60181	0.60181	0.0663
3	1,2,3,6,7,8-HxCDD	34.49	4.837e3	4.483e3	2.089e2	2.363e2	0.88	YES	4.452e2	0.00000	0.10042	0.0606
4	1,2,3,7,8,9-HxCDD	34.74	3.960e3	3.548e3	2.098 e 2	1.677e2	1.25	NO	3.774e2	0.10164	0.10164	0.0645

Hepta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.19	6.399e4	6.779e4	4.844e3	4.841e3	1.00	NO	9.684e3	3.1120	3.1120	0.112
2	1,2,3,4,6,7,8-HpCDD	38.22	5.135e4	5.059e4	3.443e3	3.373e3	1.02	NO	6.816e3	2.1905	2.1905	0.112

Work Order 2002493 Page 127 of 734

Vista Analytical Laboratory

Dataset: U:\VG12.PR0\Results\201215R2\201215R2_11.qld

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Tetra-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	22.59	4.195e3	3.624e3	3.473e2	3.342e2	1.04 YES	0.000e0	0.00000	0.095356	0.0264
2	Total Tetra-Furans	24.20	3.810e3	4.637e3	3.587e2	4.956e2	0.72 NO	8.543e2	0.13771	0.13771	0.0264
3	Total Tetra-Furans	24.66	9.418e3	1.605e4	6.163e2	1.041e3	0.59 YES	0.000e0	0.00000	0.22839	0.0264
4	Total Tetra-Furans	25.55	3.986e3	4.506e3	2.544e2	2.613e2	0.97 YES	0.000e0	0.00000	0.074543	0.0264
5	2,3,7,8-TCDF	25.68	1.396e4	1.738e4	1.010e3	1.184e3	0.85 NO	2.194e3	0.35368	0.35368	0.0264

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	27.18	1.193e4	6.409e3	6.340e2	4.188e2	1.51	NO	1.053e3	0.17308	0.17308	0.0115

Penta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.82	1.632e4	1.033e4	1.201e3	8.463e2	1.42	NO	2.047e3	0.33650	0.33650	0.0239
2	1,2,3,7,8-PeCDF	29.80	2.838e4	2.267e4	1.455e3	9.569e2	1.52	NO	2.412e3	0.38132	0.38132	0.0224
3	Total Penta-Furans	30.04	9.275e3	5.326e3	4.430e2	3.210e2	1.38	NO	7.641e2	0.12561	0.12561	0.0239
4	2,3,4,7,8-PeCDF	30.87	1.846e4	9.927e3	8.209e2	5.373e2	1.53	NO	1.358e3	0.20908	0.20908	0.0230

Hexa-Furans

-	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.18	3.465e3	4.324e3	1.545e2	1.399e2	1.10	NO	2.943e2	0.070808	0.070808	0.0518
2	Total Hexa-Furans	32.36	9.779e3	7.917e3	4.275e2	4.118e2	1.04	YES	0.000e0	0.00000	0.18578	0.0518
3	Total Hexa-Furans	32.98	8.750e3	7.780e3	5.034e2	4.587e2	1.10	NO	9.621e2	0.23145	0.23145	0.0518
4	1,2,3,4,7,8-HxCDF	33.45	2.747e4	2.741e4	1.613e3	1.449e3	1.11	NO	3.062e3	0.71090	0.71090	0.0465
5	1,2,3,6,7,8-HxCDF	33.58	7.099e3	5.530e3	4.040e2	3.959e2	1.02	YES	7.999e2	0.00000	0.16096	0.0468
6	1,2,3,7,8,9-HxCDF	35.24	3.703e3	3.063e3	1.177e2	1.218e2	0.97	YES	2.395e2	0.00000	0.058187	0.0630
7	Total Hexa-Furans	35.27	3.271e3	3.386e3	1.460e2	1.319e2	1.11	NO	2.779e2	0.066845	0.066845	0.0518

Work Order 2002493 Page 128 of 734

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset: U:\VG12.PR0\Results\201215R2\201215R2_11.qld

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Printed: Monday, December 28, 2020 13:26:01 Pacific Standard Time

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Page 3 of 3

Hepta-Furans

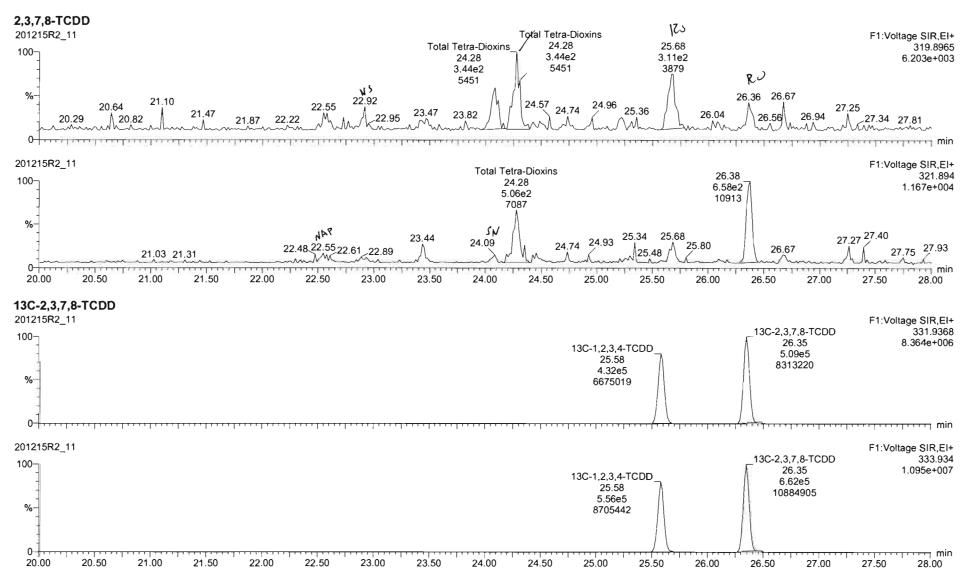
	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.82	1.507e4	1.512e4	1.141e3	1.096e3	1.04	NO	2.238e3	0.70819	0.70819	0.0529
2	Total Hepta-Furans	37.54	1.858e4	1.564e4	1.273e3	1.186e3	1.07	NO	2.459e3	0.83494	0.83494	0.0516
3	1,2,3,4,7,8,9-HpCDF	38.84	4.550e3	5.409e3	2.507e2	2.589e2	0.97	NO	5.096e2	0.16648	0.16648	0.0446

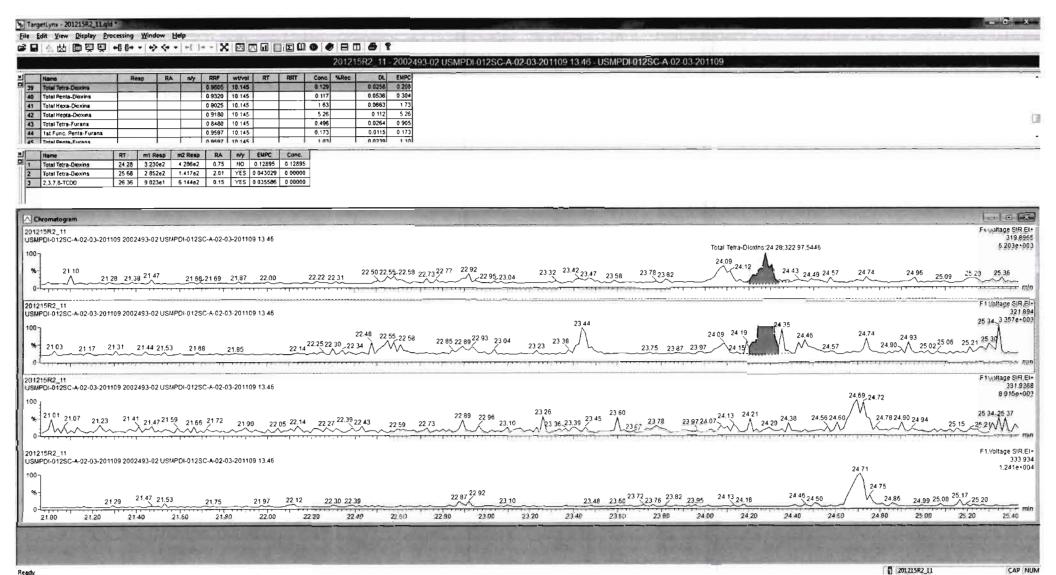
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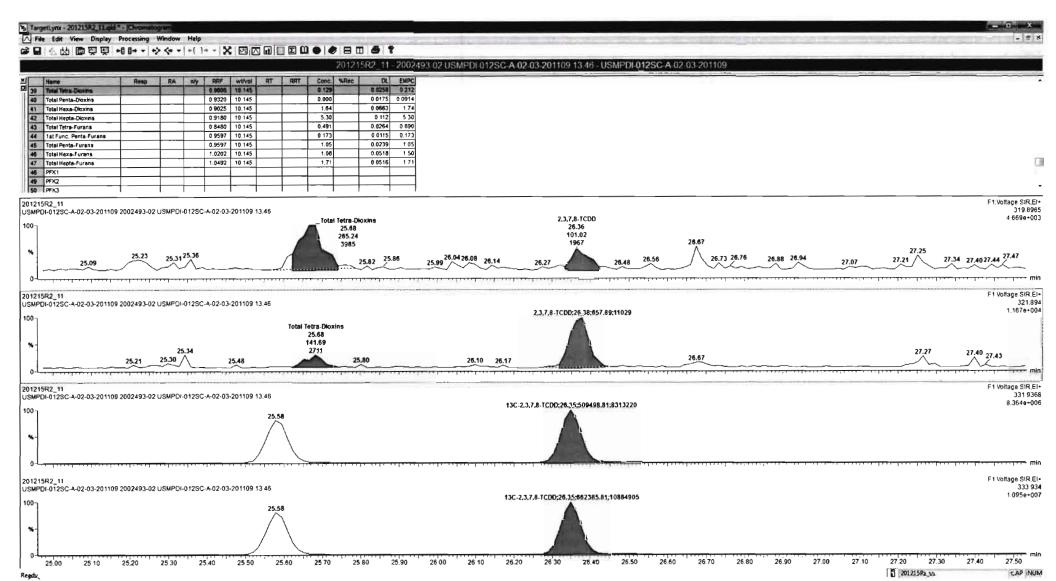
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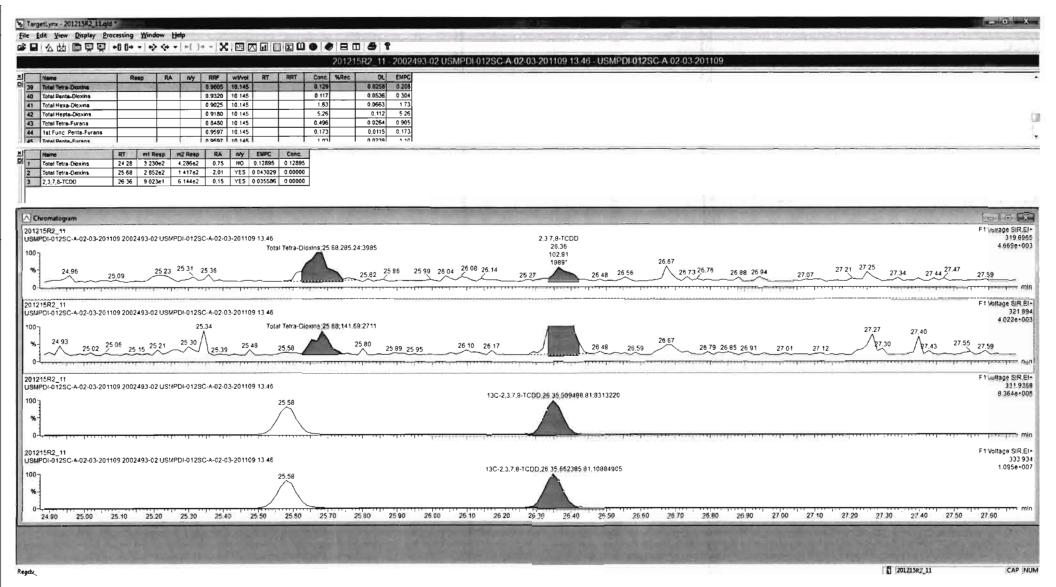




Work Order 2002493 Page 131 of 734



Work Order 2002493 Page 132 of 734



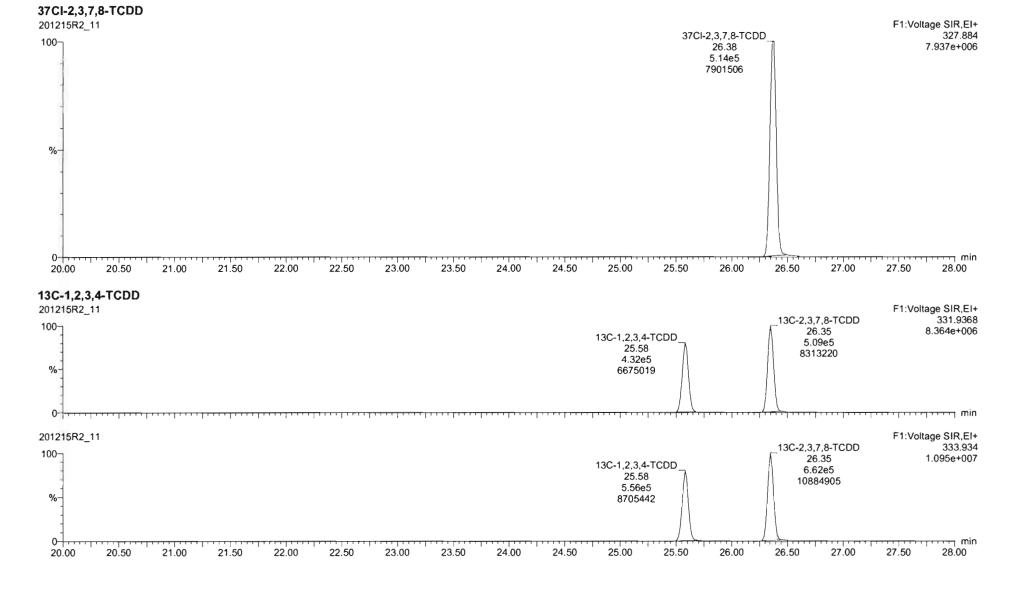
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Vista Analytical Laboratory

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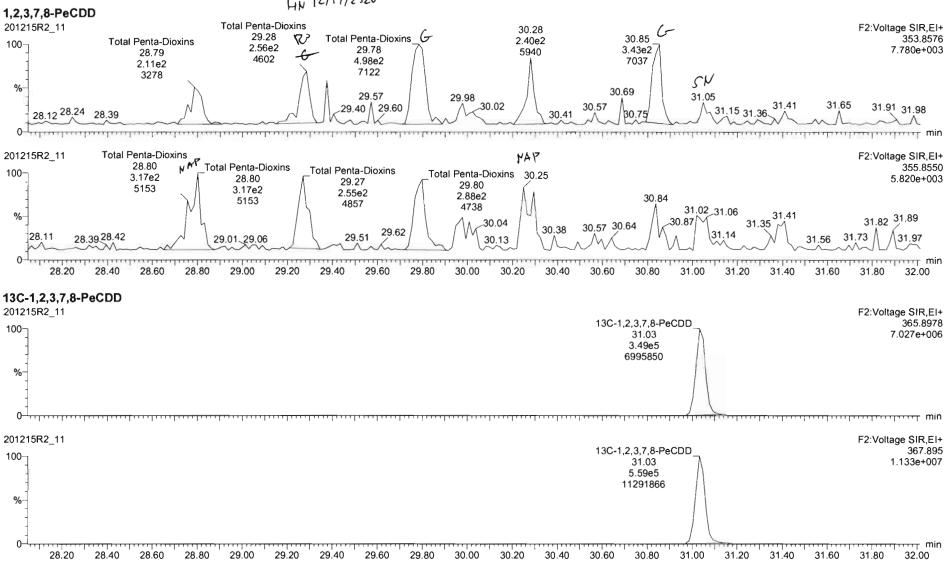


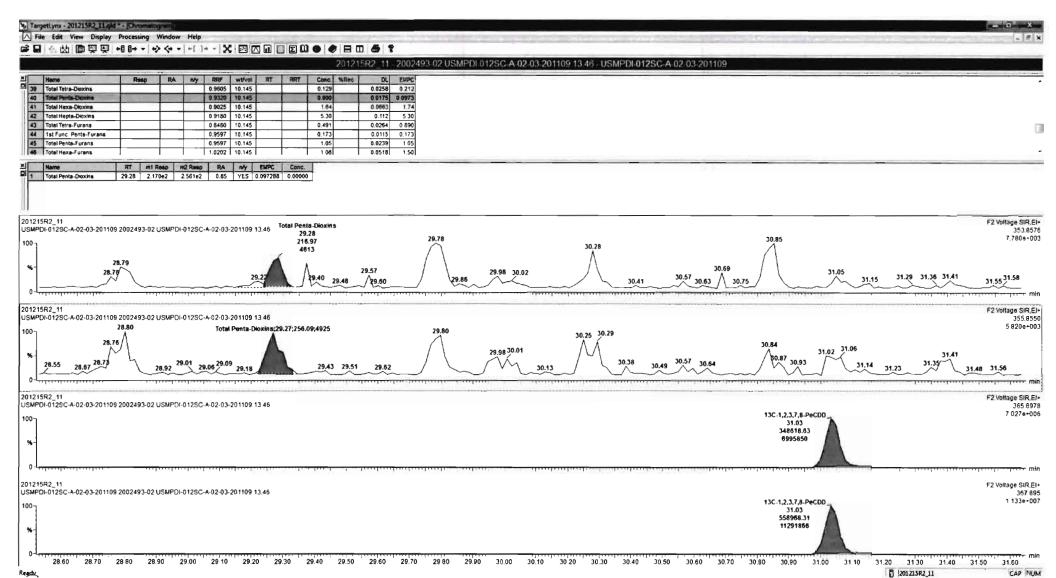
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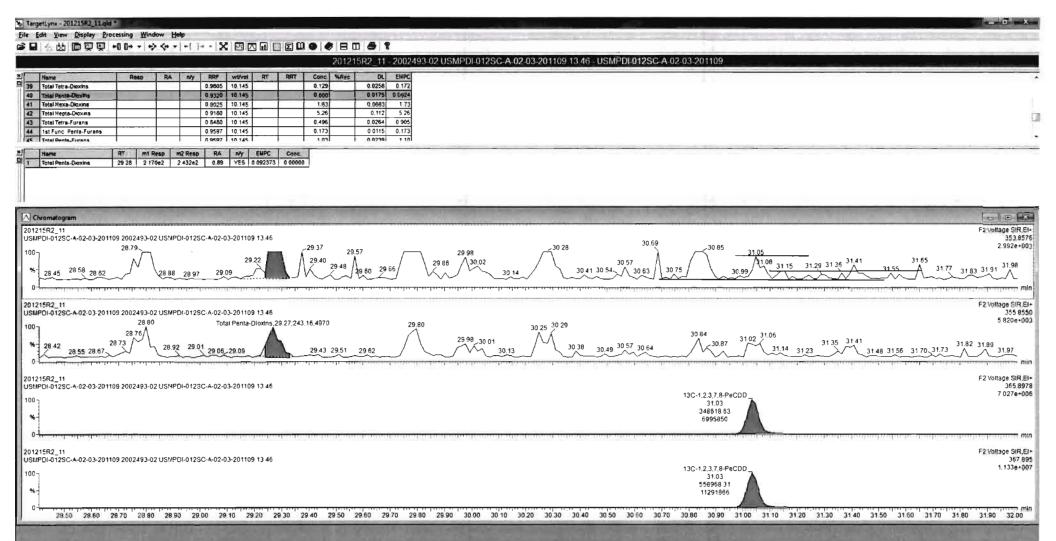
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Work Order 2002493 Page 136 of 734



Work Order 2002493 Page 137 of 734

Ready

201215R2_11

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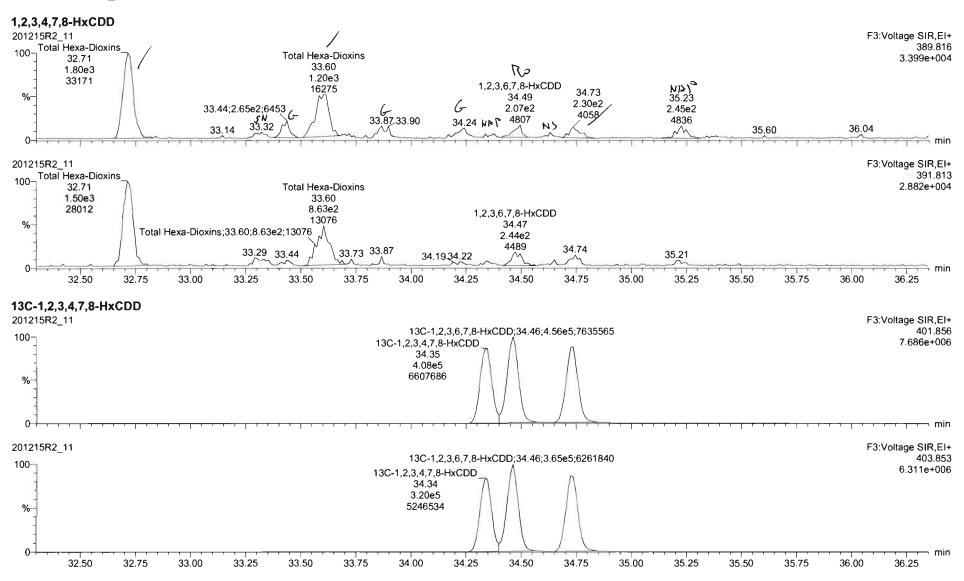
Page 108 of 117

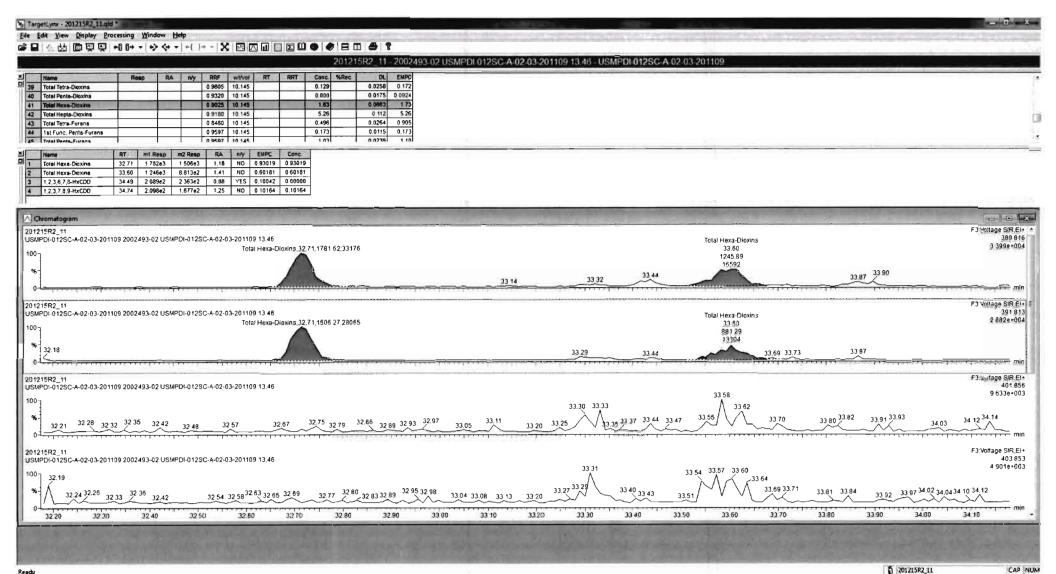
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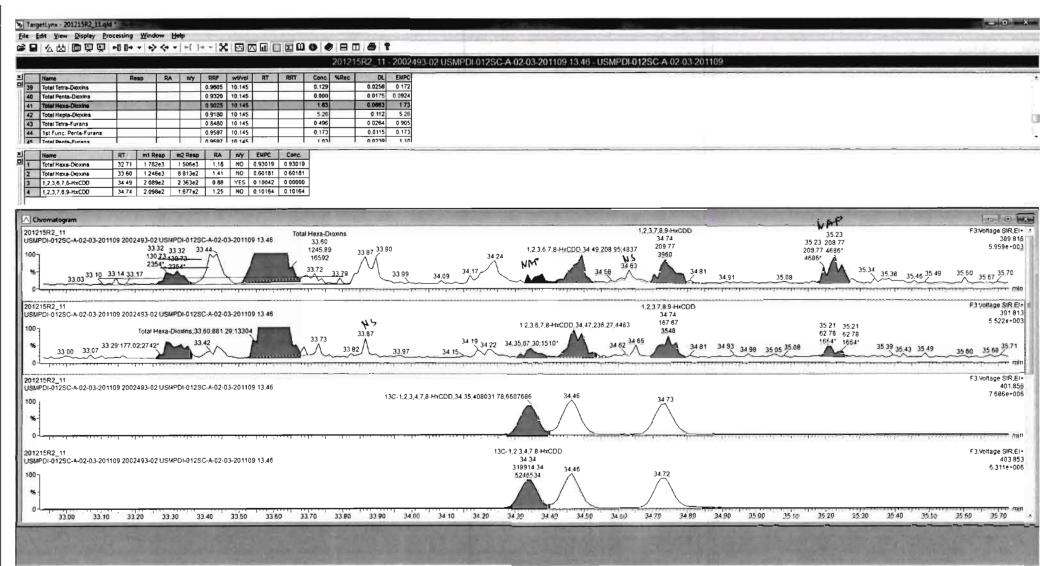
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Work Order 2002493 Page 139 of 734

Ready.



Work Order 2002493 Page 140 of 734

Ready

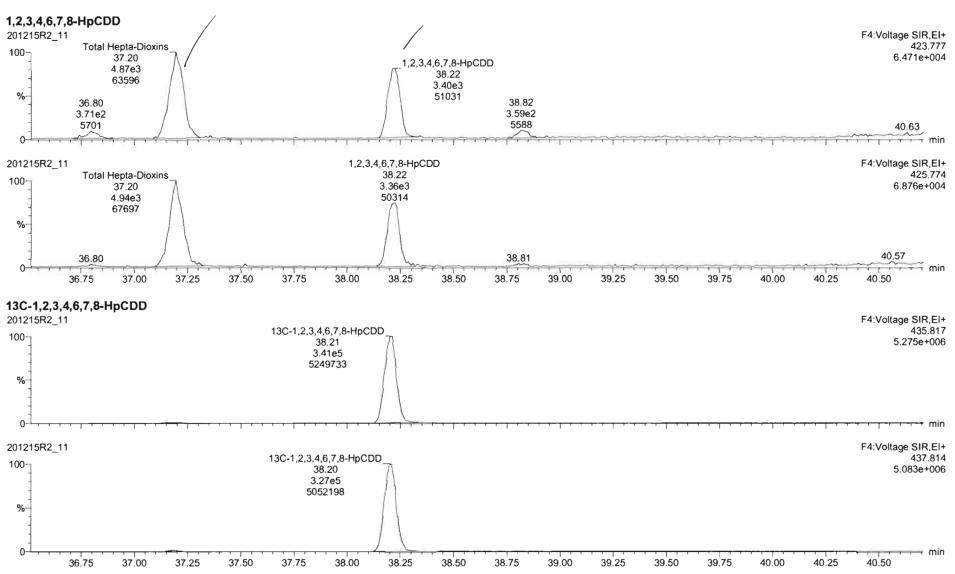
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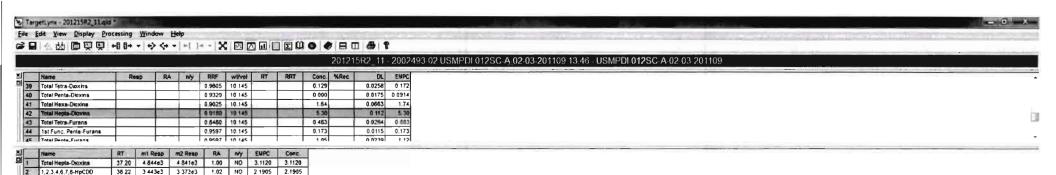
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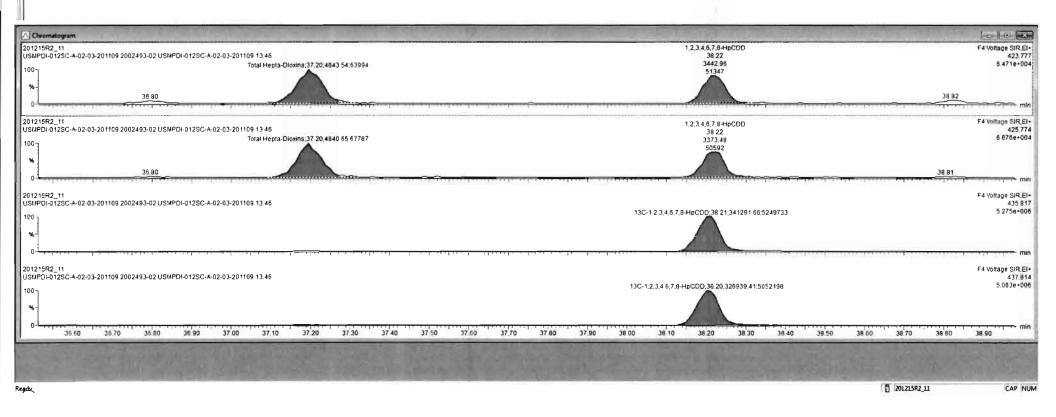
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Work Order 2002493 Page 142 of 734

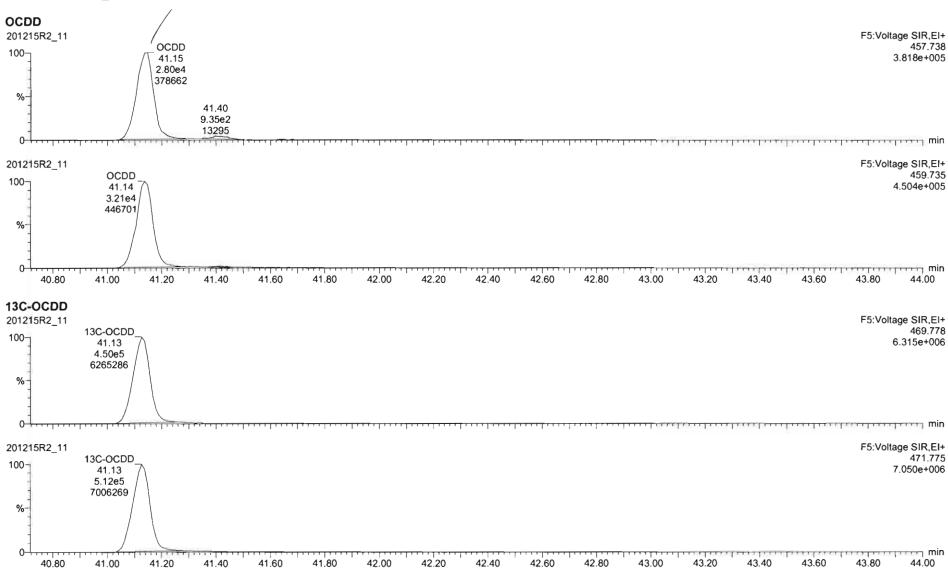
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Work Order 2002493

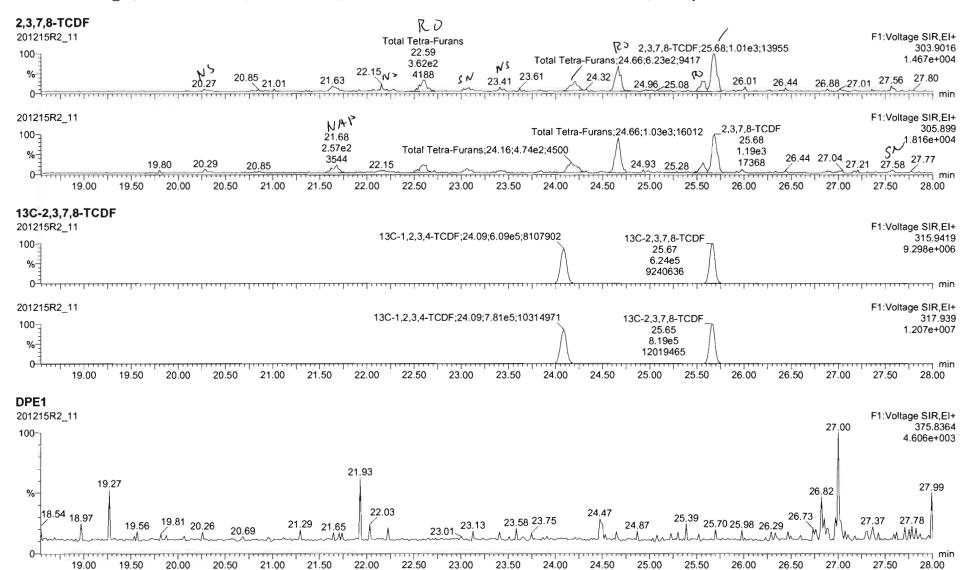
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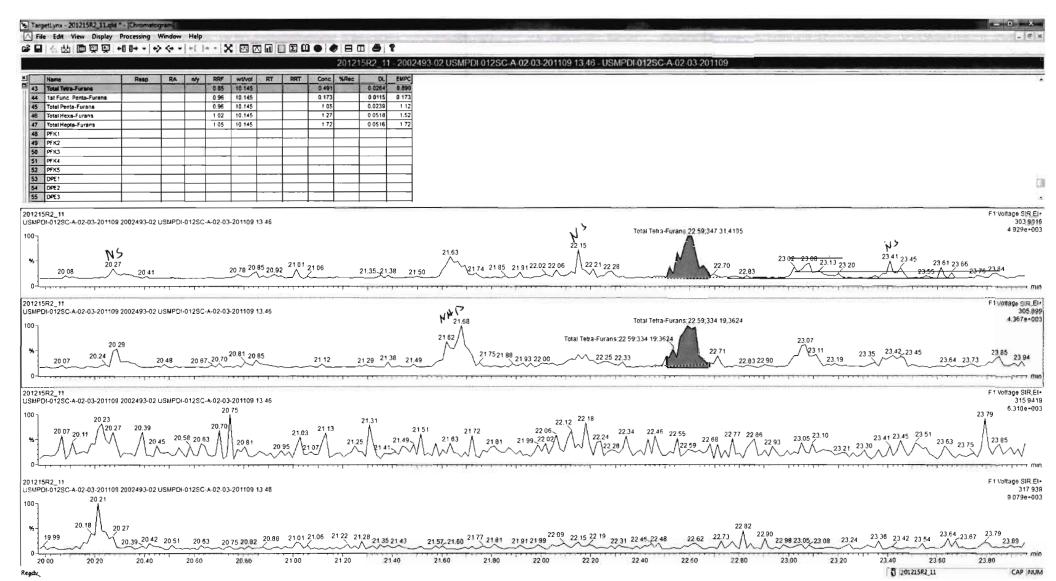
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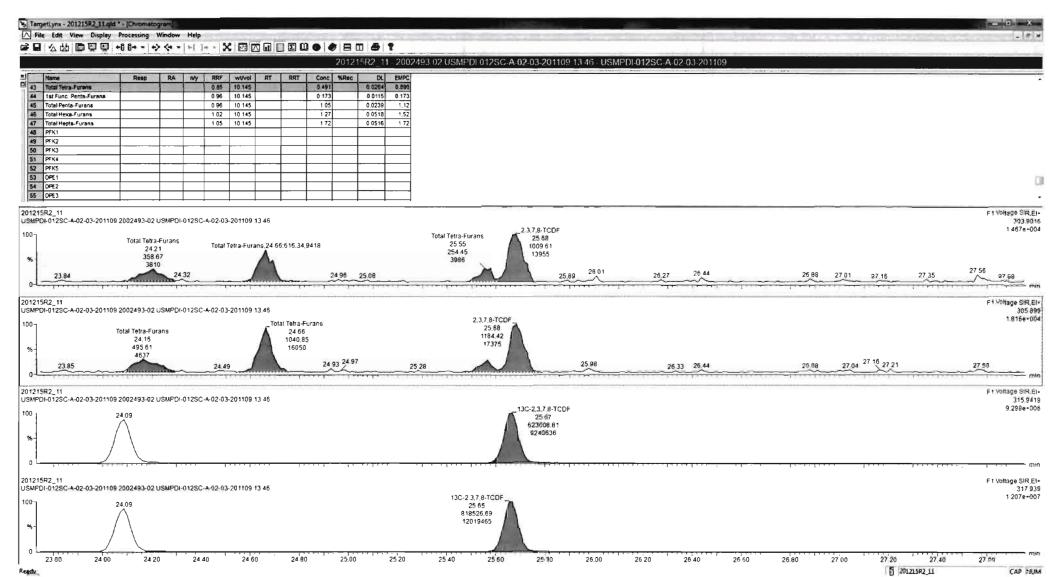
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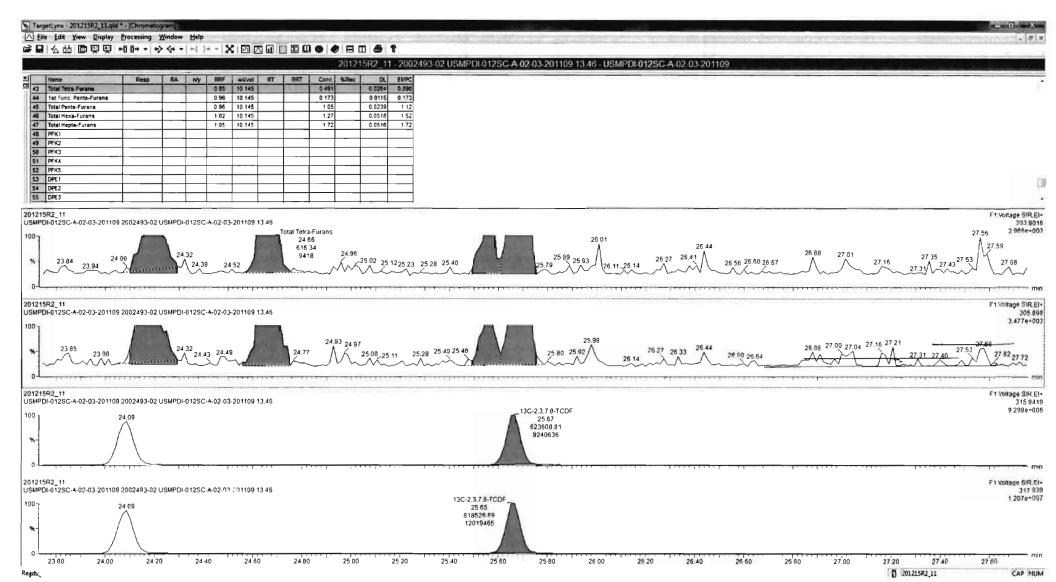




Work Order 2002493 Page 145 of 734



Work Order 2002493 Page 146 of 734



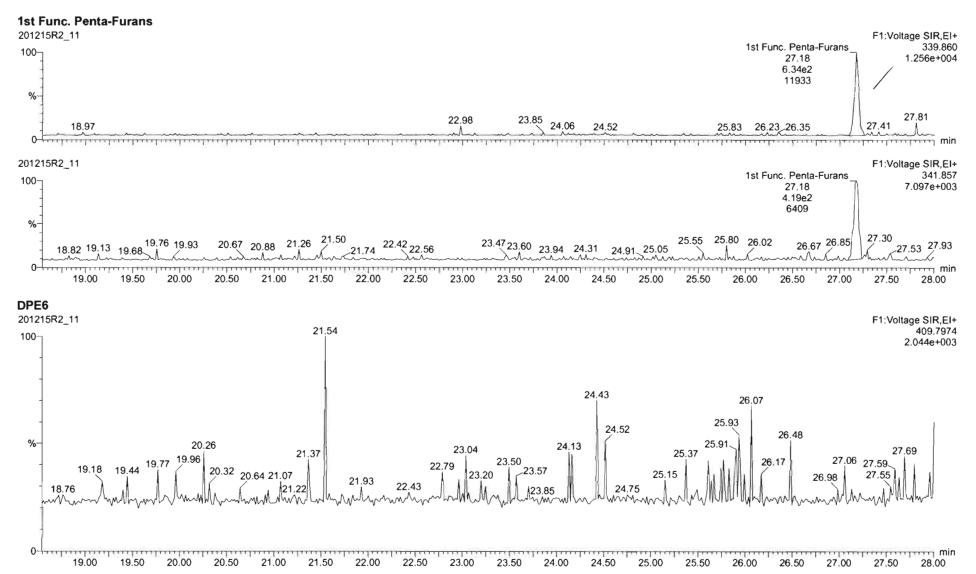
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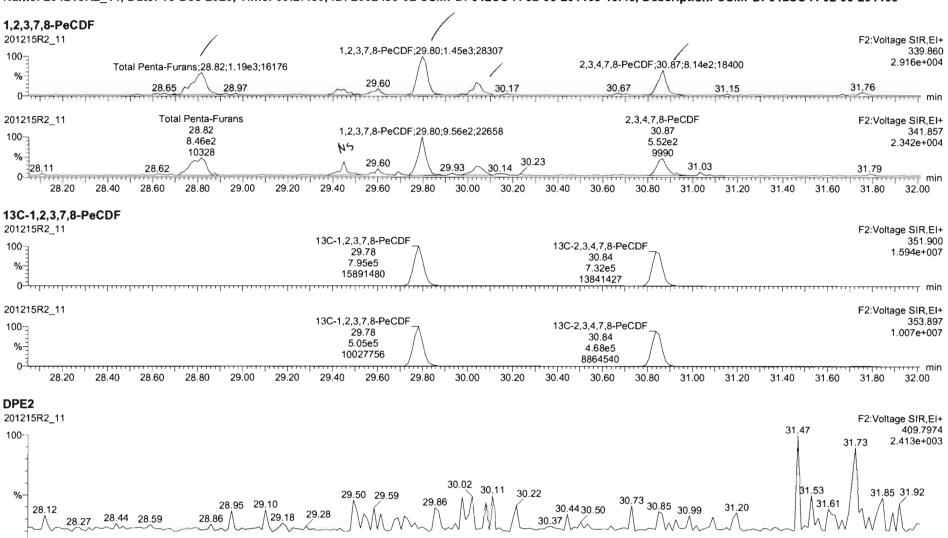


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28.40

28.60

28.80

29.00

29.20

29.40

29.60

29.80

30.00

30.20

30.40

30.60

30.80

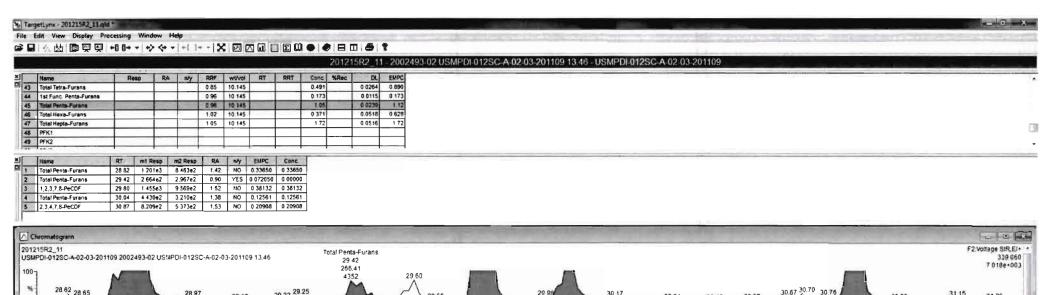
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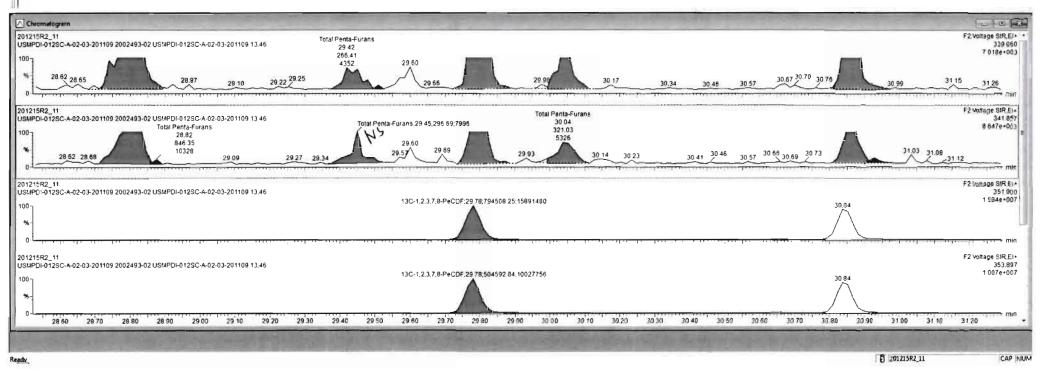
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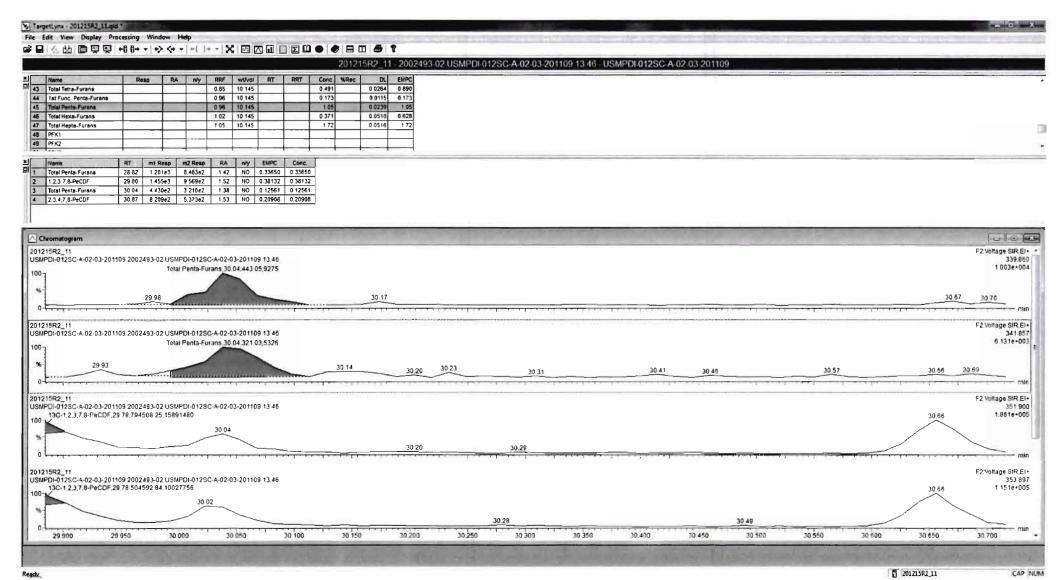
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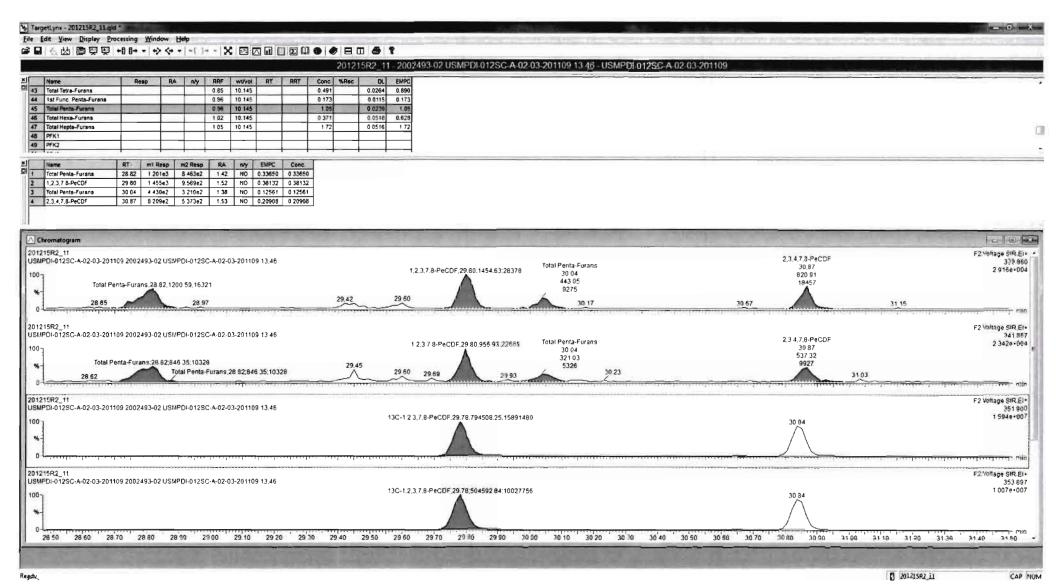




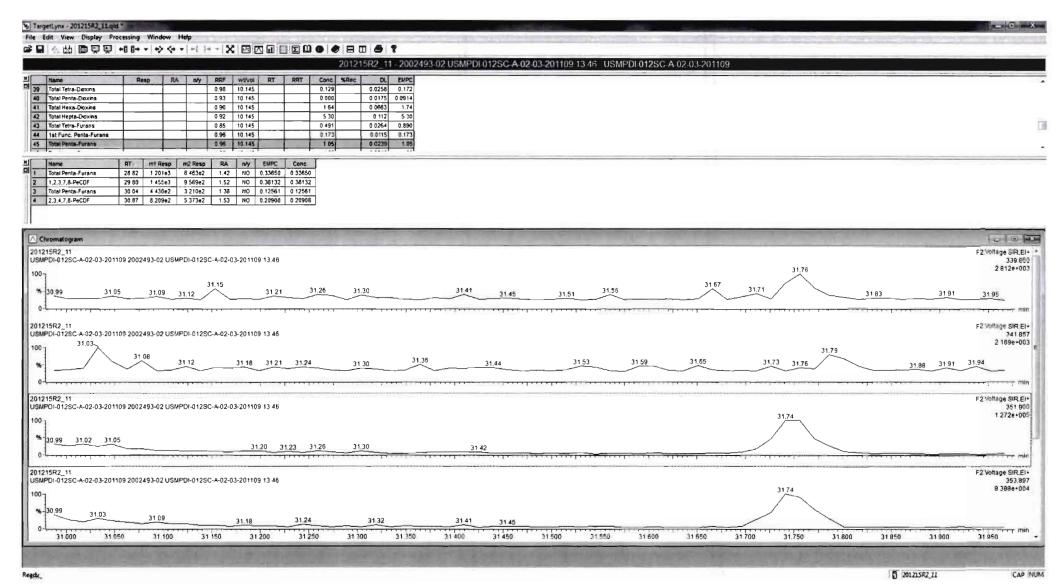
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Work Order 2002493 Page 151 of 734



Work Order 2002493 Page 152 of 734

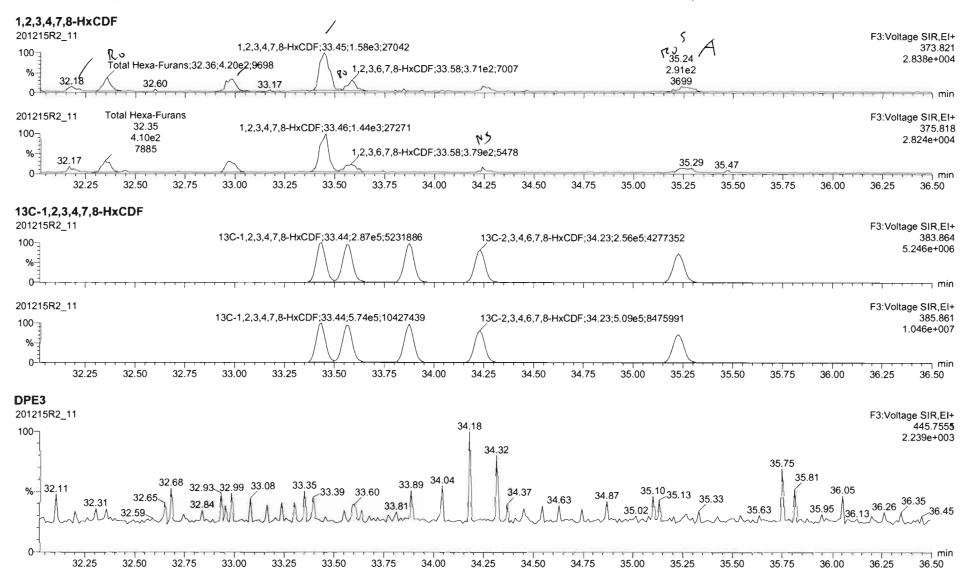


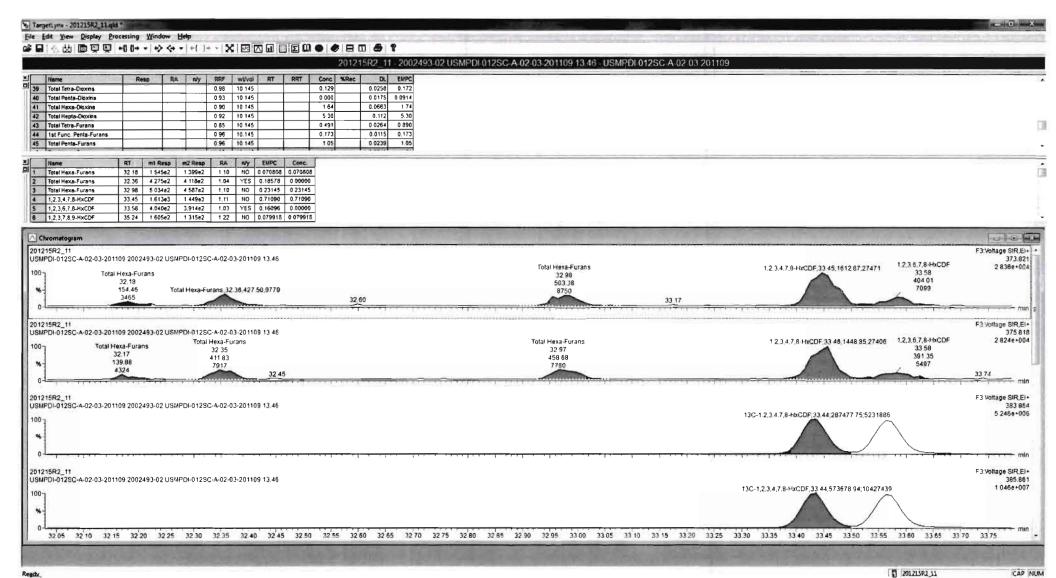
Work Order 2002493 Page 153 of 734

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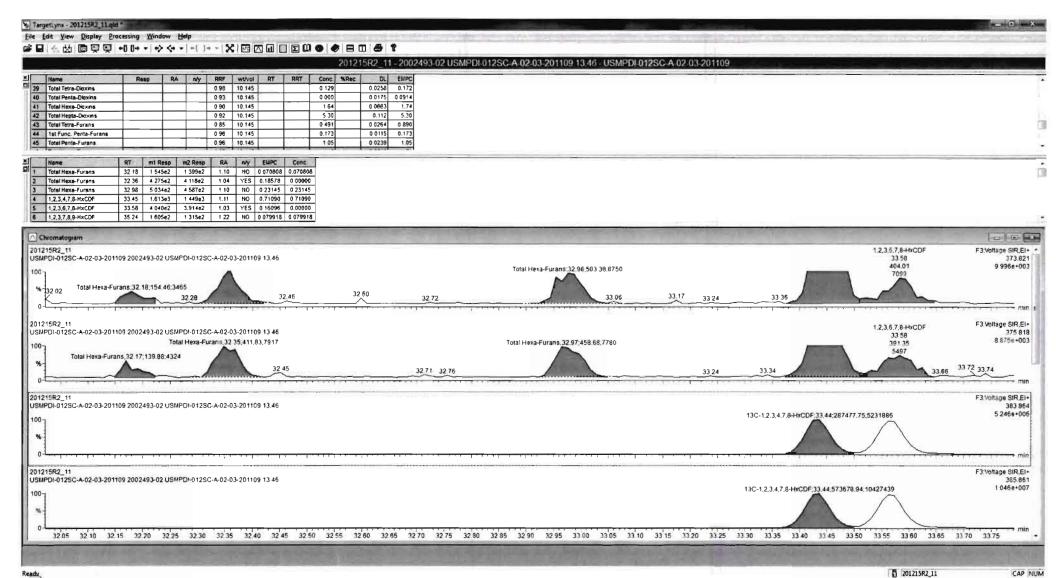
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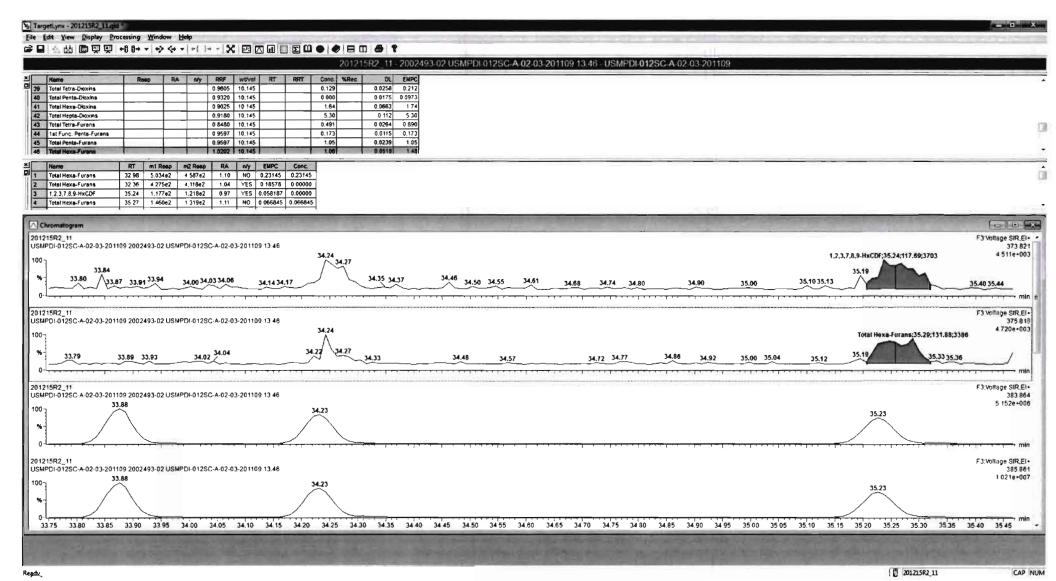




Work Order 2002493 Page 155 of 734



Work Order 2002493 Page 156 of 734

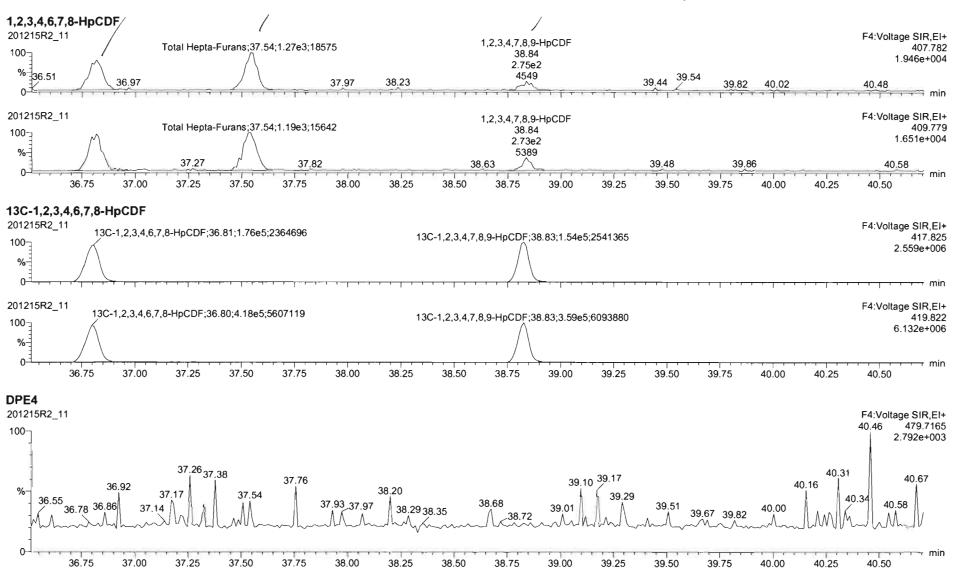


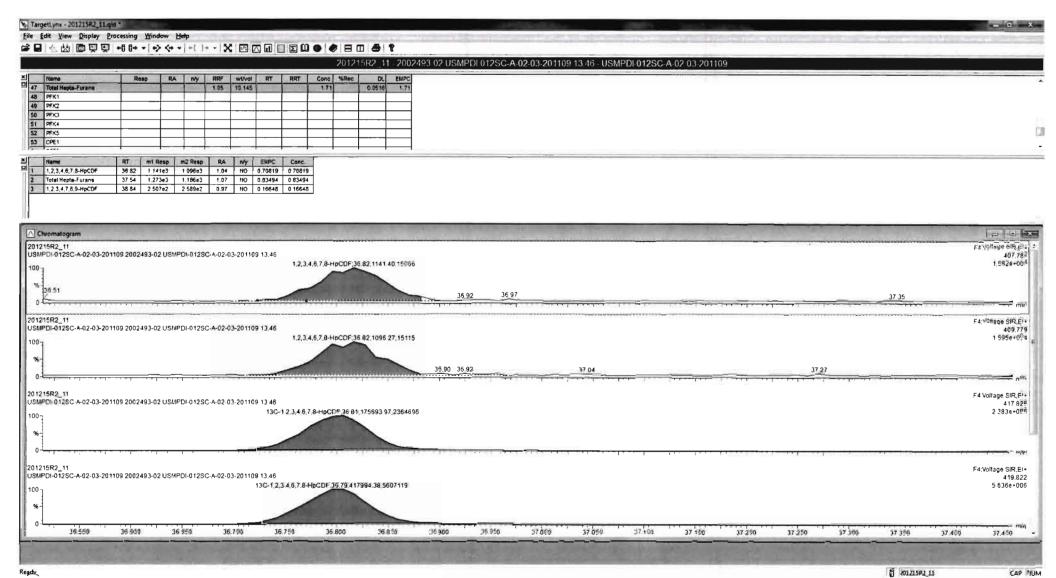
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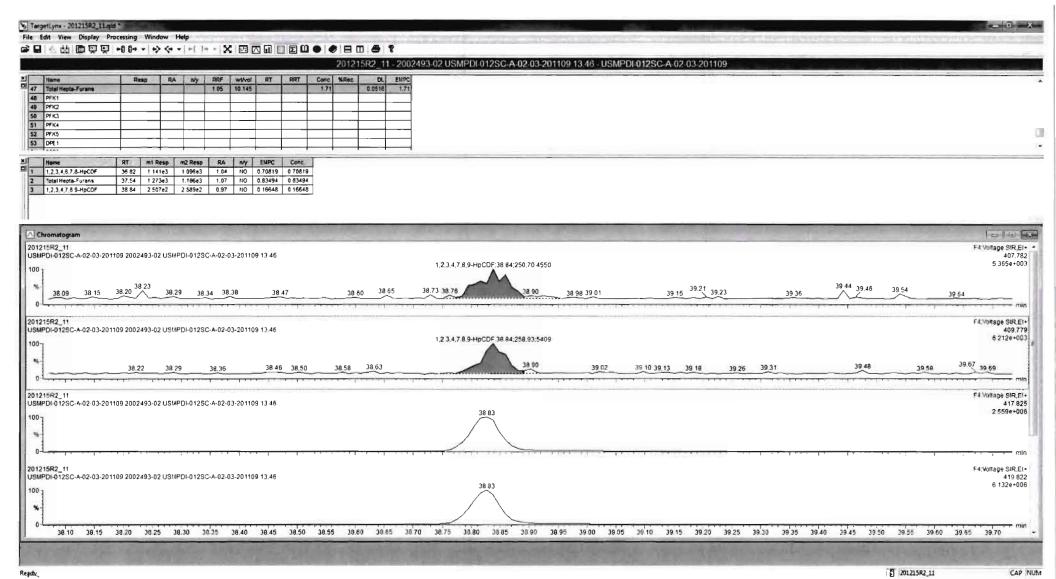
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Work Order 2002493 Page 159 of 734

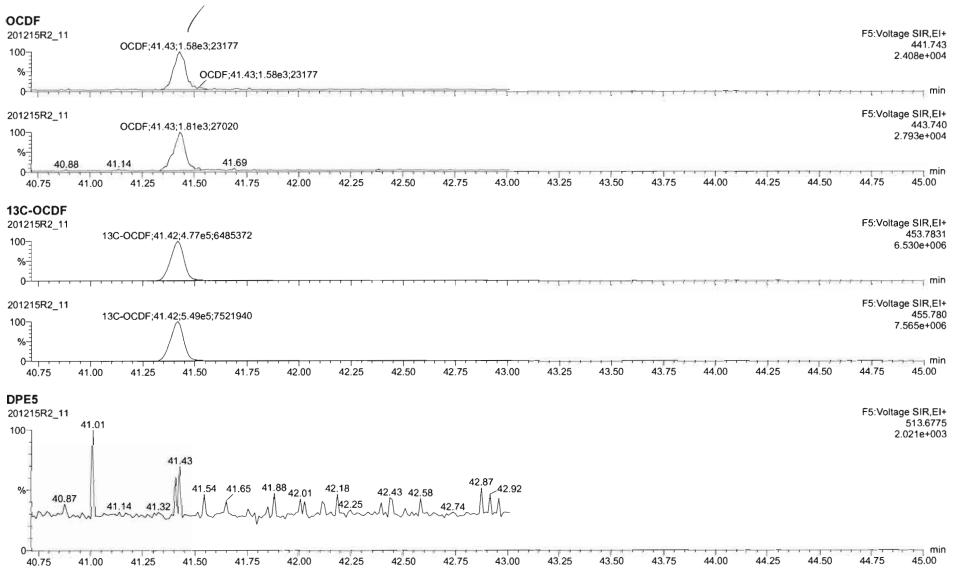


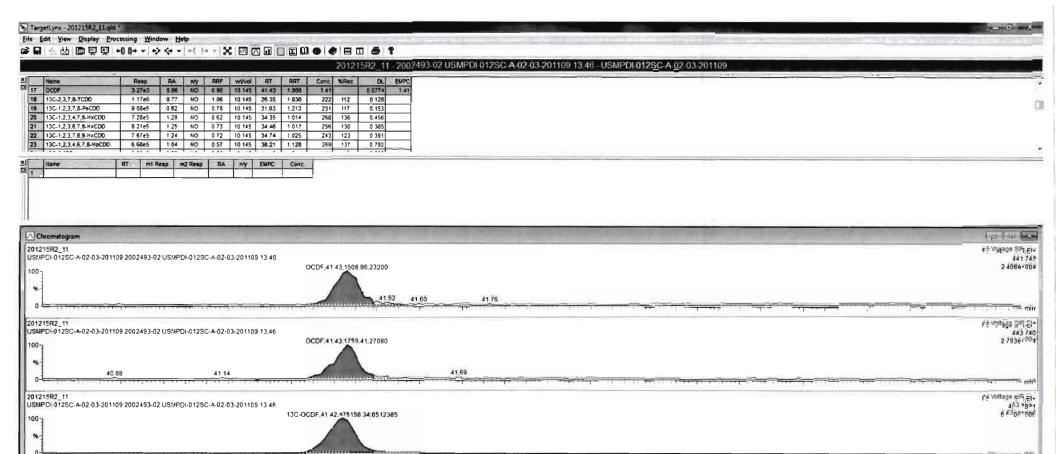
Work Order 2002493 Page 160 of 734

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F5 Voltage SIR EI+

42.89

201215R2_11

42 10

42.70

7.565e-006

43 00

GAP NUM

201215R2_11

40 80

100-

Reacty

USMPDI-012SC-A-02-03-201109 2002493-02 USMPDI-012SC-A-02-03-201109 13.46

41.00

41.10

41.20

41.30

40.90

13C-OCDF 41.42.542257 81:7514277

41,40

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41.60

41.70

41.00

41.90

42.00

42 10

42 20

42 30

12 10

42.50

42.60

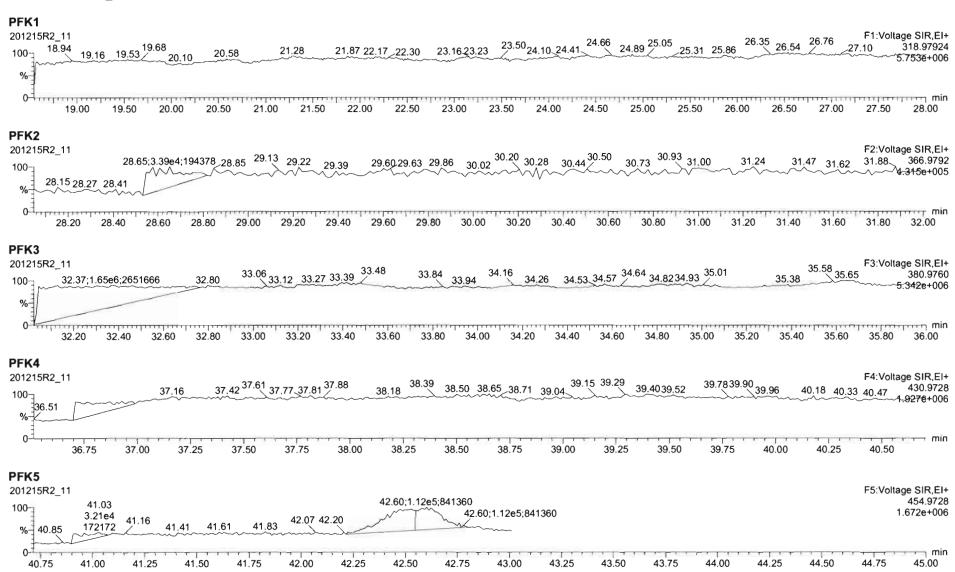
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Last Altered: Printed:

Wednesday, December 16, 2020 7:04:18 AM Pacific Standard Time Wednesday, December 16, 2020 7:06:08 AM Pacific Standard Time

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MassLynx 4.1 SCN815

Page 1 of 2

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Printed: Tuesday, December 22, 2020 11:33:34 AM Pacific Standard Time MN 12/22/2020

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Name: 201216R1_5, Date: 16-Dec-2020, Time: 11:30:00, ID: 2002493-03 USMPDI-012SC-A-03-04-201109 13.31, Description: USMPDI-012SC-A-03-04-201109

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2	2 1,2,3,7,8-PeCDD	2.62e2	0.67	NO	0.932	10.800 🍛	31.064	31.05	1.001	1.000	0.054894		0.0412	0.0549
3	3 1,2,3,4,7,8-HxCDD				1.02	10.800	34.368		1.001				0.0298	ĺ
4	4 1,2,3,6,7,8-HxCDD	3.66e2	0.97	YES	0.902	10.800	34.484	34.47	1.001	1.000	0.091/533		0.9557	0.0815
5	5 1,2,3,7,8,9-HxCDD	3.31e2	1.03	YES	0.954	10.800	34.745	34.76 💉	1.000	1.001	0.081622		0.0549	0.0750
6	6 1,2,3,4,6,7,8-HpCDD	5.00e3	0.92	NO	0.918	10.800	38.212	38.21	1.000	1.000	1.5542		0.125	1.55
7	7 OCDD	5.06e4	0.85	NO	0.866	10.800	41.113	41.12	1.000	1.000	24.884		0.0658	24.9
8	8 2,3,7,8-TCDF	1.45e3	0.75	NO	0.848	10.800	25.672	25.68	1.000	1.001	0.21479		0.0244	0.215
9	9 1,2,3,7,8-PeCDF	2.43e3	1.72	NO	0.960	10.800	29.785	29.80	1.000	1.001	0.35210		0.0244	0.352
10	10 2,3,4,7,8-PeCDF	1.16e3	1.56	NO	1.07	10.800	30.859	30.87	1.001	1.001	0.15702		0.0232	0.157
11	11 1,2,3,4,7,8-HxCDF	2.73e3	1.09	NO	0.986	10.800	33.446	33.45	1.000	1.000	0.60260		0.0243	0.603
12	12 1,2,3,6,7,8-HxCDF	7.06e2	1.15	NO	1.04	10.800	33.592	33.57	1.001	1.000	0.15037		0.0252	0.150
13	13 2,3,4,6,7,8-HxCDF	2.52e2	1.36	NO	1.02	10.800	34.253	34.25	1.001	1.001	0.056750		0.0274	0.0568
14	14 1,2,3,7,8,9-HxCDF	3.06e2	1.29	NO	0.991	10.800	35.238	35.22	1.000	1.000	0.074846		0.0322	0.0748
15	15 1,2,3,4,6,7,8-HpCDF	1.54e3	1.13	NO	1.05	10.800	36.814	36.82	1.000	1.001	0.49219		0.0478	0.492
16	16 1,2,3,4,7,8,9-HpCDF	5.67e2	0.98	NO	1.18	10.800	38.828	38.83	1.000	1.000	0.18769		0.0379	0.188
17	17 OCDF	2.62e3	0.81	NO	0.896	10.800	41.407	41.40	1.000	1.000	1.1686		0.0581	1.17
18	18 13C-2,3,7,8-TCDD	1.19e6	0.78	NO	1.06	10.800	26.353	26.35	1.030	1.030	209.28	113	0.104	
19	19 13C-1,2,3,7,8-PeCDD	9.47e5	0.63	NO	0.785	10.800	31.192	31.03	1.219	1.213	224.29	121	0.192	
20	20 13C-1,2,3,4,7,8-HxCDD	7.30e5	1.27	NO	0.621	10.800	34.337	34.35	1.014	1.014	253.74	137	0.414	
21	21 13C-1,2,3,6,7,8-HxCDD	8.21e5	1.28	NO	0.734	10.800	34.459	34.46	1.017	1.017	241.34	130	0.350	
22	22 13C-1,2,3,7,8,9-HxCDD	7.85e5	1.24	NO	0.723	10.800	34.743	34.74	1.026	1.025	234.39	127	0.356	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.48e5	1.05	NO	0.568	10.800	38.243	38.20	1.129	1.128	246.26	133	0.828	
24	24 13C-OCDD	8.69e5	0.88	NO	0.496	10.800	41.180	41.10	1.216	1.213	378.09	102	0.800	
25	25 13C-2,3,7,8-TCDF	1.47e6	0.77	NO	0.919	10.800	25.652	25.67	1.003	1.003	218.42	118	0.132	
26	26 13C-1,2,3,7,8-PeCDF	1.33e6	1.56	NO	0.715	10.800	29.903	29.78	1.169	1.164	254.18	137	0.424	
27	27 13C-2,3,4,7,8-PeCDF	1.28e6	1.60	NO	0.689	10.800	30.990	30.84	1.212	1.206	253.36	137	0.441	
28	28 13C-1,2,3,4,7,8-HxCDF	8.51e5	0.50	NO	0.873	10.800	33.442	33.44	0.987	0.987	210.16	113	0.427	
29	29 13C-1,2,3,6,7,8-HxCDF	8.36e5	0.50	NO	0.933	10.800	33.571	33.57	0.991	0.991	193.24	104	0.399	
30	30 13C-2,3,4,6,7,8-HxCDF	8.06e5	0.50	NO	0.843	10.800	34.238	34.23	1.011	1.011	206.16	111	0.442	
31	31 13C-1,2,3,7,8,9-HxCDF	7.63e5	0.50	NO	0.780	10.800	35.238	35.23	1.040	1.040	210.93	114	0.478	

Page 164 of 734 Work Order 2002493

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_5.qld

Last Altered: Printed: Tuesday, December 22, 2020 11:30:59 AM Pacific Standard Time Tuesday, December 22, 2020 11:33:34 AM Pacific Standard Time

Name: 201216R1_5, Date: 16-Dec-2020, Time: 11:30:00, ID: 2002493-03 USMPDI-012SC-A-03-04-201109 13.31, Description: USMPDI-012SC-A-03-04-201109

	# 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	5.52e5	0.42	NO	0.726	10.800	36.813	36.80	1.087	1.086	163.86	88.5	0.580	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.76 e 5	0.43	NO	0.491	10.800	38.822	38.82	1.146	1.146	209.05	113	0.857	1
34	34 13C-OCDF	9.26e5	0.88	NO	0.565	10.800	41.396	41.40	1.222	1.222	353.34	95.4	0.560	
35	35 37Cl-2,3,7,8-TCDD	5.12e5			1.22	10.800	26.347	26.36	1.030	1.031	78.174	106	0.0236	
36	36 13C-1,2,3,4-TCDD	9.96e5	0.78	NO	1.00	10.800	25.640	25.58	1.000	1.000	185.18	100	0.110	
37	37 13C-1,2,3,4-TCDF	1.36e6	0.78	NO	1.00	10.800	24.130	24.09	1.000	1.000	185.18	100	0.121	
38	38 13C-1,2,3,4,6,9-HxCDF	8.59e5	0.50	NO	1.00	10.800	33.920	33.88	1.000	1.000	185.18	100	0.373	
39	39 Total Tetra-Dioxins				0.980	10.800	24.620		0.000		0.028855		0.00901	0.114
40	40 Total Penta-Dioxins				0.932	10.800	29.960		0.000		0.12073		0.0412	0.173
41	41 Total Hexa-Dioxins				0.902	10.800	33.635		0.000		0.54294		0.0582	1.01
42	42 Total Hepta-Dioxins				0.918	10.800	37.640		0.000		3.9756		0.125	3.98
43	43 Total Tetra-Furans				0.848	10.800	23.610		0.000		0.48651		0.0244	0.539
44	44 1st Func. Penta-Furans				0.960	10.800	26.930		0.000		0.11009		0.00899	0.110
45	45 Total Penta-Furans				0.960	10.800	29.275		0.000		0.72718		0.0251	0.839
46	46 Total Hexa-Furans				1.02	10.800	33.555		0.000		1.0286		0.0268	1.24
47	47 Total Hepta-Furans				1.05	10.800	37.835		0.000		1.2233		0.0454	1.22

Work Order 2002493 Page 165 of 734

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_5.qld

Last Altered:

Tuesday, December 22, 2020 11:30:59 AM Pacific Standard Time

Printed:

Tuesday, December 22, 2020 11:33:34 AM Pacific Standard Time

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Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201216R1_5, Date: 16-Dec-2020, Time: 11:30:00, ID: 2002493-03 USMPDI-012SC-A-03-04-201109 13.31, Description: USMPDI-012SC-A-03-04-201109

Tetra-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	24.28	2.411e3	3.919e3	1.396e2	2.583e2	0.54	YES	0.000e0	0.00000	0.050992	0.0209
2	Total Tetra-Dioxins	26.69	2.046e3	3.723e3	9.463e1	1.521e2	0.62	YES	0.000e0	0.00000	0.034575	0.00901
3	Total Tetra-Dioxins	27.25	2.153e3	1.663e3	8.354e1	9.800e1	0.85	NO	1.815e2	0.028855	0.028855	0.00901

Penta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.80	2.220e3	2.633e3	1.285e2	1.852e2	0.69	NO	3.137e2	0.065835	0.065835	0.0412
2	Total Penta-Dioxins	29.27	4.389e3	3.486e3	1.368e2	1.524e2	0.90	YES	0.000e0	0.00000	0.052123	0.0412
3	1,2,3,7,8-PeCDD	31.05	2.325e3	3.231e3	1.048e2	1.568e2	0.67	NO	2.615e2	0.054894	0.054894	0.0412

Hexa-Dioxins

	Name	RT	m1 Heigh!	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.71	2.560e4	1.932e4	1.191e3	8.703e2	1.37	NO	2.061e3	0.54294	0.54294	0.0582
2	Total Hexa-Dioxins	33.57	1.449e4	8.288e3	1.010e3	5.293e2	1.91	YES	0.000e0	0.00000	0.31228	0.0582
3	1,2,3,6,7,8-HxCDD	34.47	3.601e3	3.071e3	1.806e2	1.858e2	0.97	YES	3.664e2	0.00000	0.081506	0.0557
4	1,2,3,7,8,9-HxCDD	34.76	3.685e3	3.030e3	1.680e2	1.632e2	1.03	YES	3.311e2	0.00000	0.074973	0.0549

Hepta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.19	5.388e4	5.185e4	3.949e3	3.834e3	1.03	NO	7.782e3	2.4214	2.4214	0.125
2	1,2,3,4,6,7,8-HpCDD	38.21	4.156e4	4.508e4	2.395e3	2.600e3	0.92	NO	4.995e3	1.5542	1.5542	0.125

Work Order 2002493 Page 166 of 734

Page 2 of 3

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201216R1\201216R1_5.qld

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Tetra-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	22.62	1.838e3	3.667e3	1.533e2	2.592e2	0.59	YES	0.000e0	0.00000	0.052306	0.0244
2	Total Tetra-Furans	24.65	8.826e3	1.176e4	6.340e2	8.004e2	0.79	NO	1.434e3	0.21285	0.21285	0.0244
3	Total Tetra-Furans	25.55	2.786e3	3.174e3	1.707e2	2.261e2	0.75	NO	3.968e2	0.058880	0.058880	0.0244
4	2,3,7,8-TCDF	25.68	8.360e3	1.343e4	6.193e2	8.282e2	0.75	NO	1.447e3	0.21479	0.21479	0.0244

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	27.18	8.843e3	4.772e3	4.601e2	2.849e2	1.61	NO	7.450e2	0.11009	0.11009	0.00899

Penta-Furans

100	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.79	6.745e3	6.074e3	2.564e2	2.443e2	1.05	YES	0.000e0	0.00000	0.062345	0.0251
2	Total Penta-Furans	28.82	1.448e4	1.097e4	5.668e2	3.695e2	1.53	NO	9.364e2	0.13837	0.13837	0.0251
3	Total Penta-Furans	29.43	5.107e3	3.274e3	2.046e2	1.848e2	1.11	YES	0.000e0	0.00000	0.049729	0.0251
4	1,2,3,7,8-PeCDF	29.80	2.731e4	1.551e4	1.539e3	8.931e2	1.72	NO	2.432e3	0.35210	0.35210	0.0244
5	Total Penta-Furans	30.05	8.433e3	3.629e3	3.391e2	2.003e2	1.69	NO	5.393e2	0.079695	0.079695	0.0251
6	2,3,4,7,8-PeCDF	30.87	1.226e4	8.486e3	7.046e2	4.527e2	1.56	NO	1.157e3	0.15702	0.15702	0.0232

Hexa-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.19	2.679e3	3.271e3	9.456e1	1.013e2	0.93	YES	0.000e0	0.00000	0.038087	0.0268
2	Total Hexa-Furans	32.35	7.974e3	6.493e3	3.355e2	3.103e2	1.08	NO	6.458e2	0.14400	0.14400	0.0268
3	Total Hexa-Furans	32.98	9.665e3	5.524e3	4.541e2	2.710e2	1.68	YES	0.000e0	0.00000	0.13537	0.0268
4	1,2,3,4,7,8-HxCDF	33.45	2.988e4	2.481e4	1.422e3	1.308e3	1.09	NO	2.731e3	0.60260	0.60260	0.0243
5	1,2,3,6,7,8-HxCDF	33.57	7.086e3	6.588e3	3.778e2	3.278e2	1.15	NO	7.056e2	0.15037	0.15037	0.0252
6	2,3,4,6,7,8-HxCDF	34.25	2.347e3	1.800e3	1.450e2	1.070e2	1.36	NO	2.520e2	0.056750	0.056750	0.0274
7	1,2,3,7,8,9-HxCDF	35.22	3.895e3	3.148e3	1.721e2	1.334e2	1.29	NO	3.055e2	0.074846	0.074846	0.0322
8	Total Hexa-Furans	35.28	2.963e3	3.601e3	8.250e1	1.022e2	0.81	YES	0.000e0	0.00000	0.033231	0.0268

Work Order 2002493 Page 167 of 734

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201216R1\201216R1_5.qld

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Printed: Tuesday, December 22, 2020 11:33:34 AM Pacific Standard Time

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Page 3 of 3

Hepta-Furans

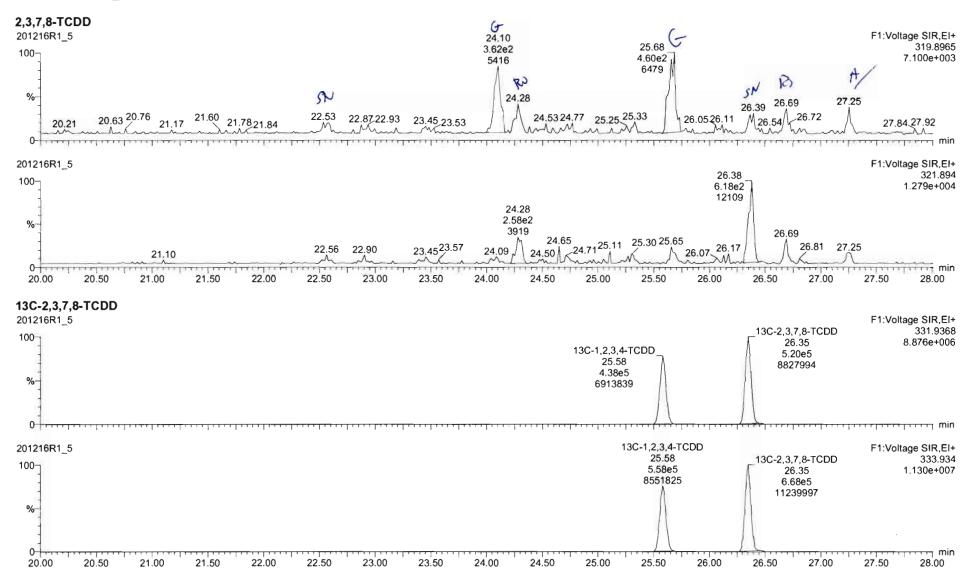
	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.82	1.237e4	1.050e4	8.160e2	7.233e2	1.13	NO	1.539e3	0.49219	0.49219	0.0478
2	Total Hepta-Furans	37.54	1.283e4	1.233e4	7.651e2	8.174e2	0.94	NO	1.583e3	0.54339	0.54339	0.0454
3	1,2,3,4,7,8,9-HpCDF	38.83	6.264e3	5.541e3	2.805e2	2.869e2	0.98	NO	5.674e2	0.18769	0.18769	0.0379

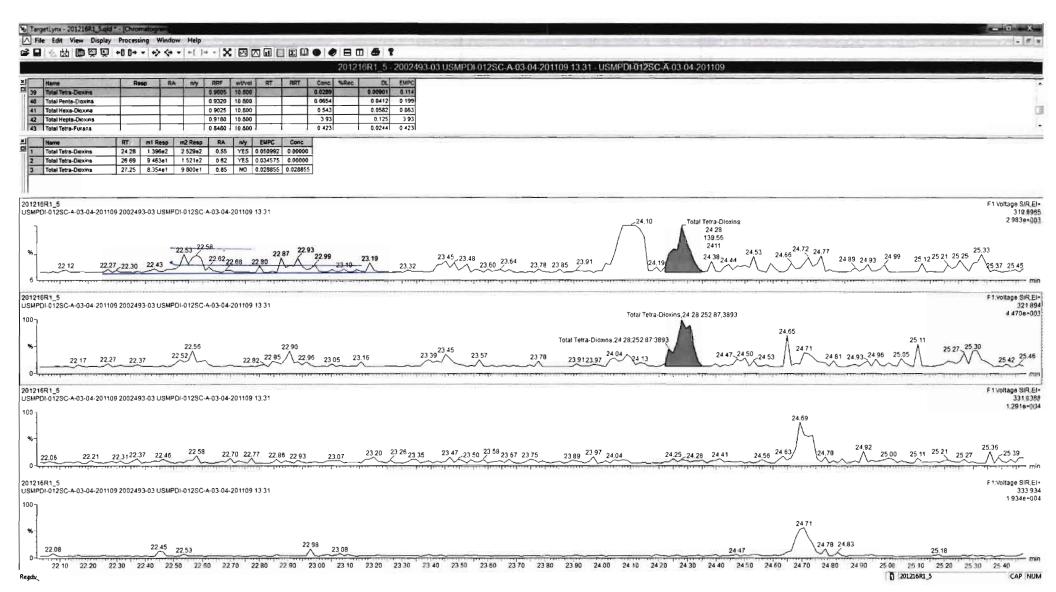
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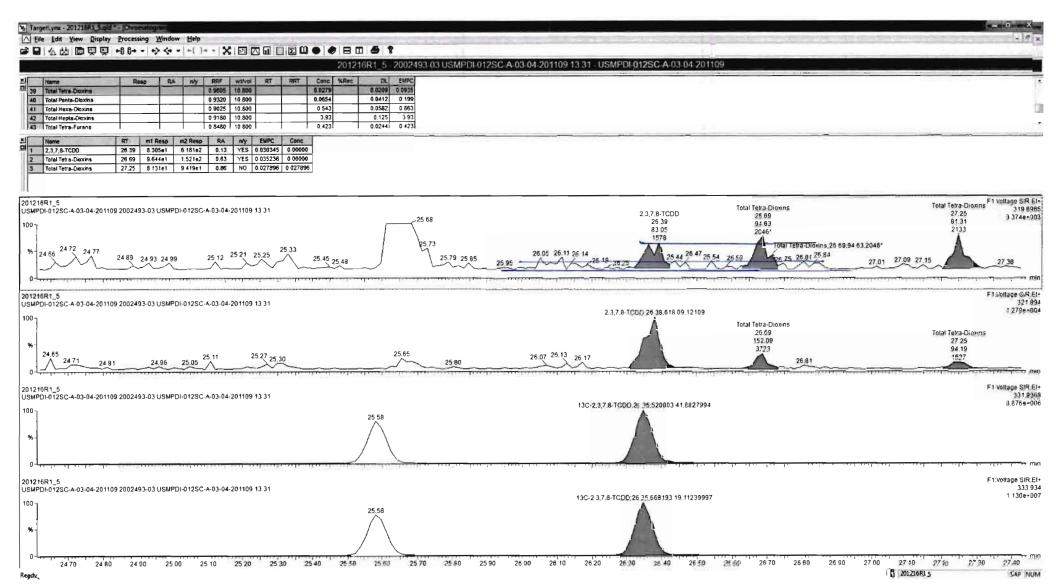
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Work Order 2002493 Page 170 of 734

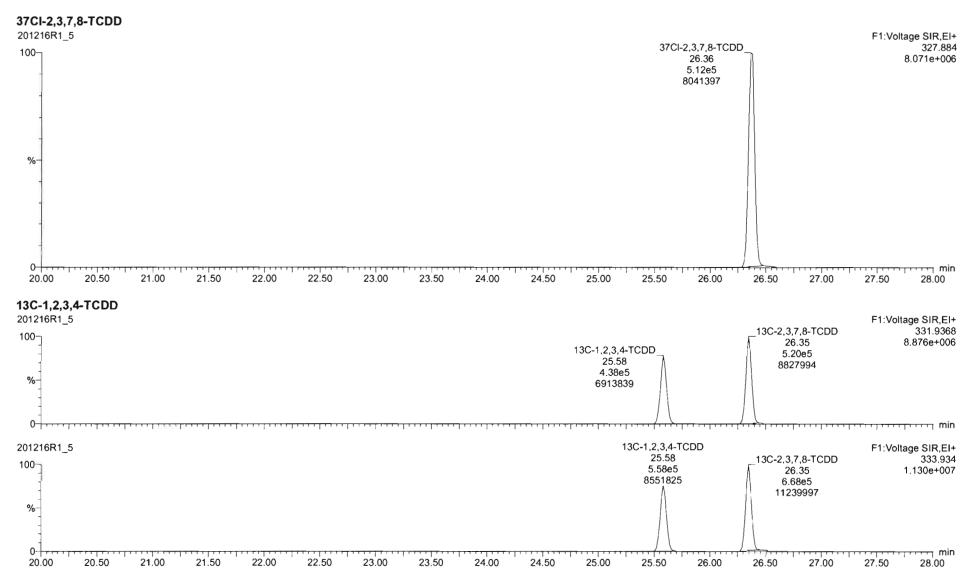


Work Order 2002493 Page 171 of 734

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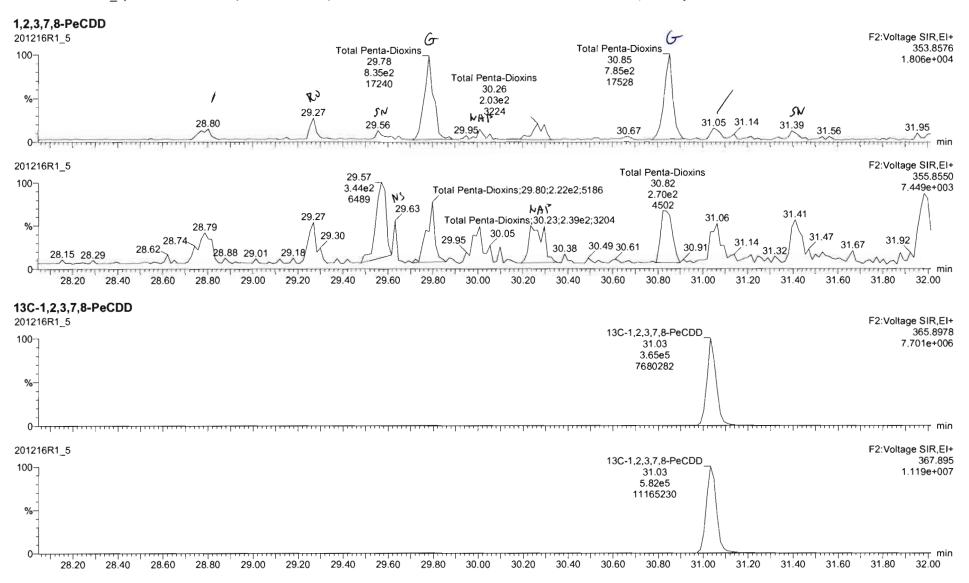


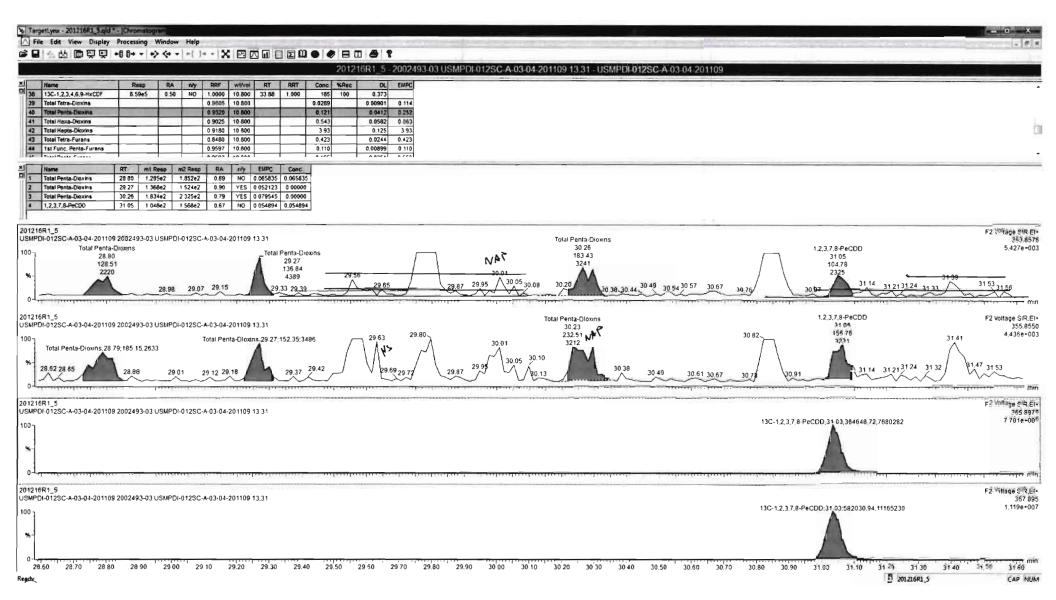
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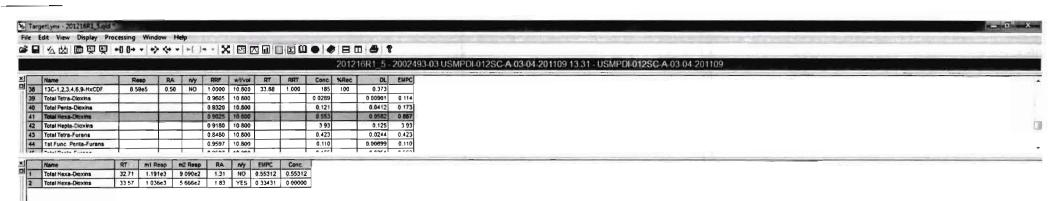
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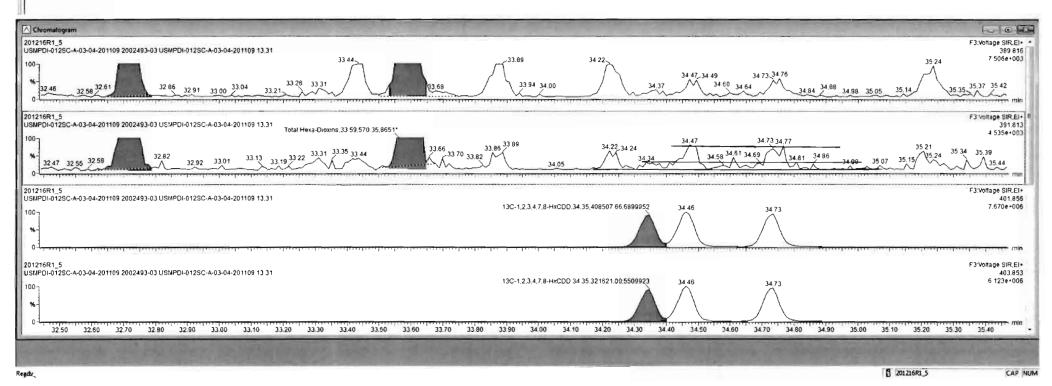
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Work Order 2002493 Page 174 of 734



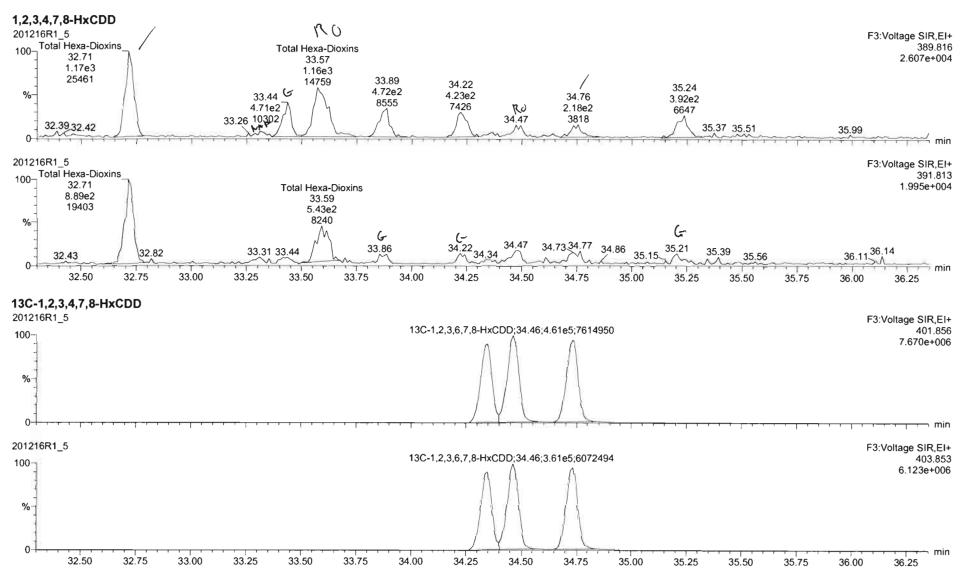


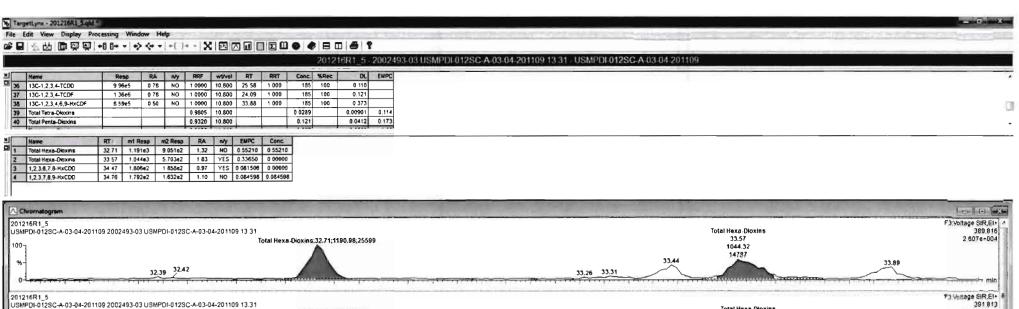
Work Order 2002493 Page 175 of 734

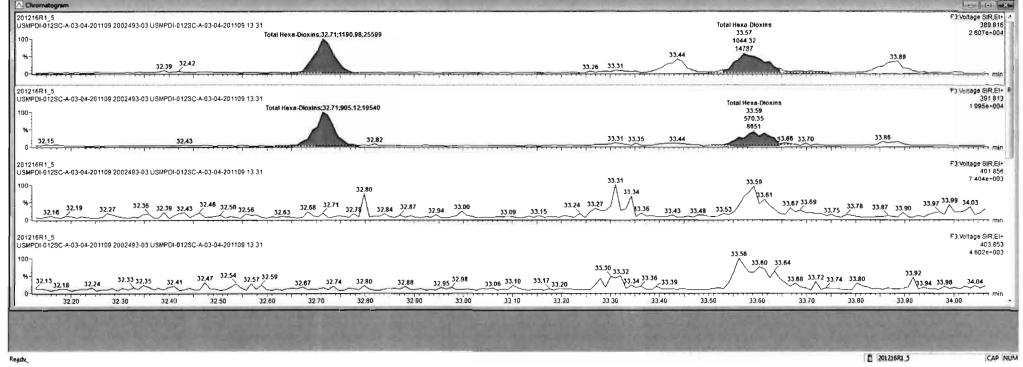
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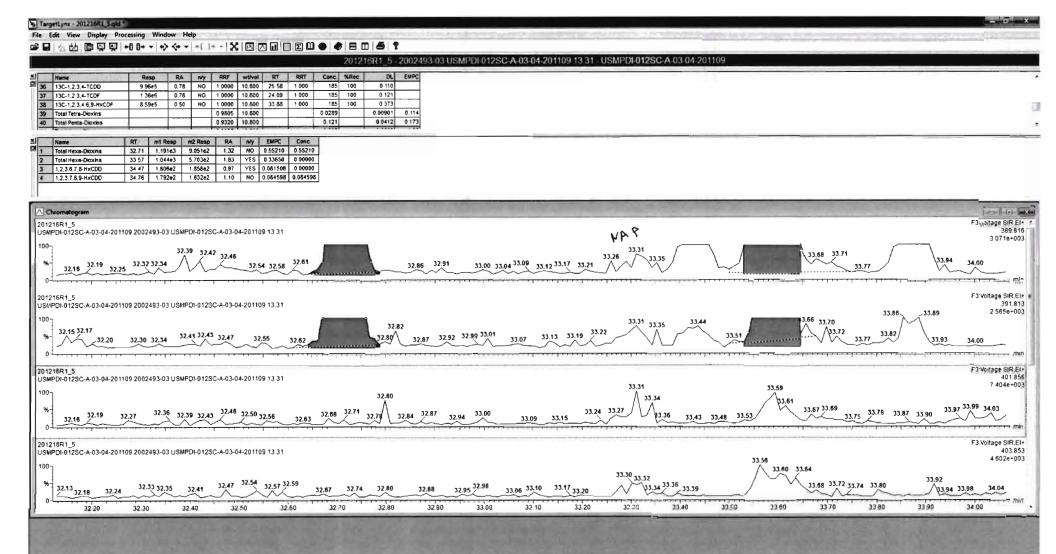
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Work Order 2002493 Page 177 of 734

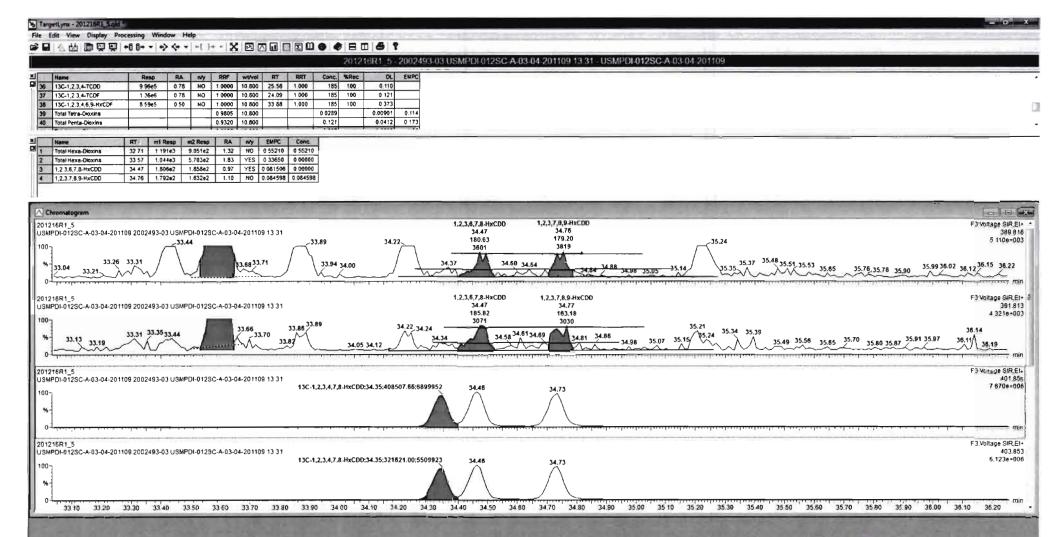


Work Order 2002493 Page 178 of 734

Ready

201216R1_3

CAP NUM



Work Order 2002493 Page 179 of 734

Ready

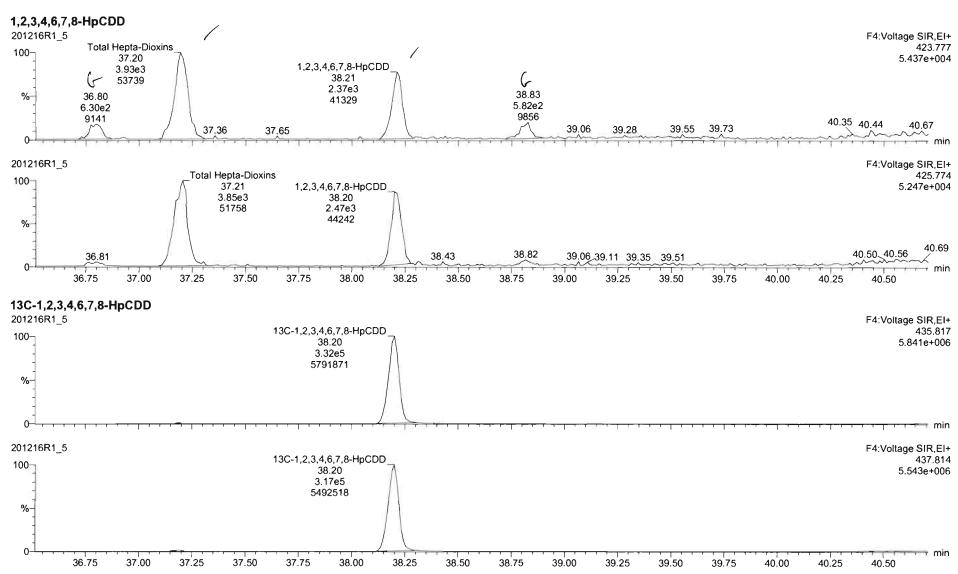
CAP NUM

201216R1_5

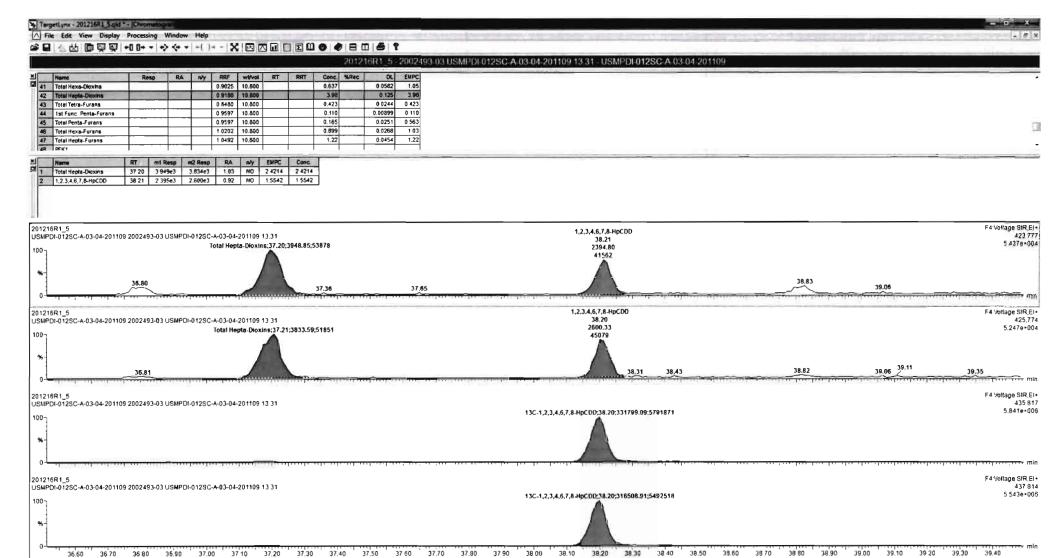
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Last Altered: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time

Name: 201216R1_5, Date: 16-Dec-2020, Time: 11:30:00, ID: 2002493-03 USMPDI-012SC-A-03-04-201109 13.31, Description: USMPDI-012SC-A-03-04-201109



Work Order 2002493



Work Order 2002493 Page 181 of 734

Ready

201216R1_5

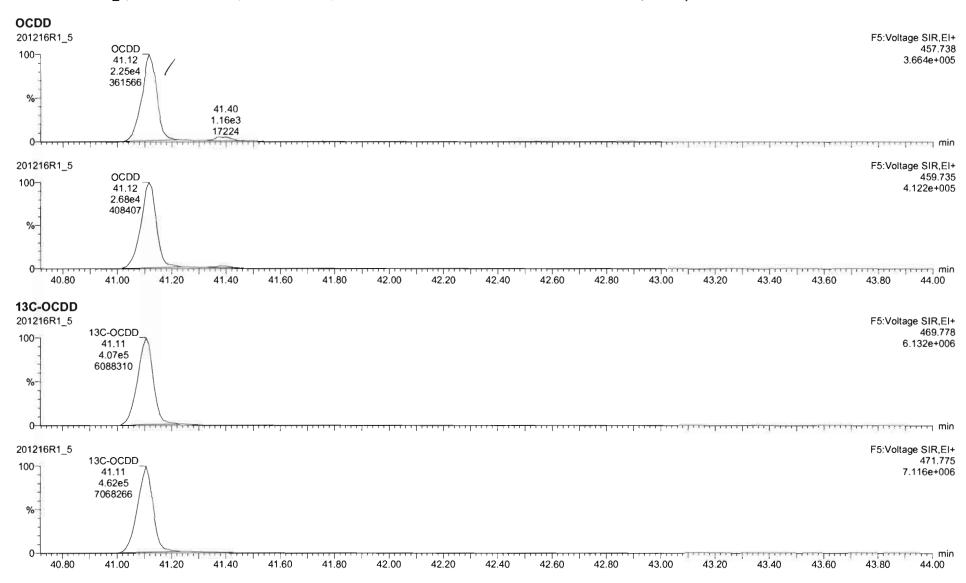
CAP NUM

Vista Analytical Laboratory

Dataset: Untitled

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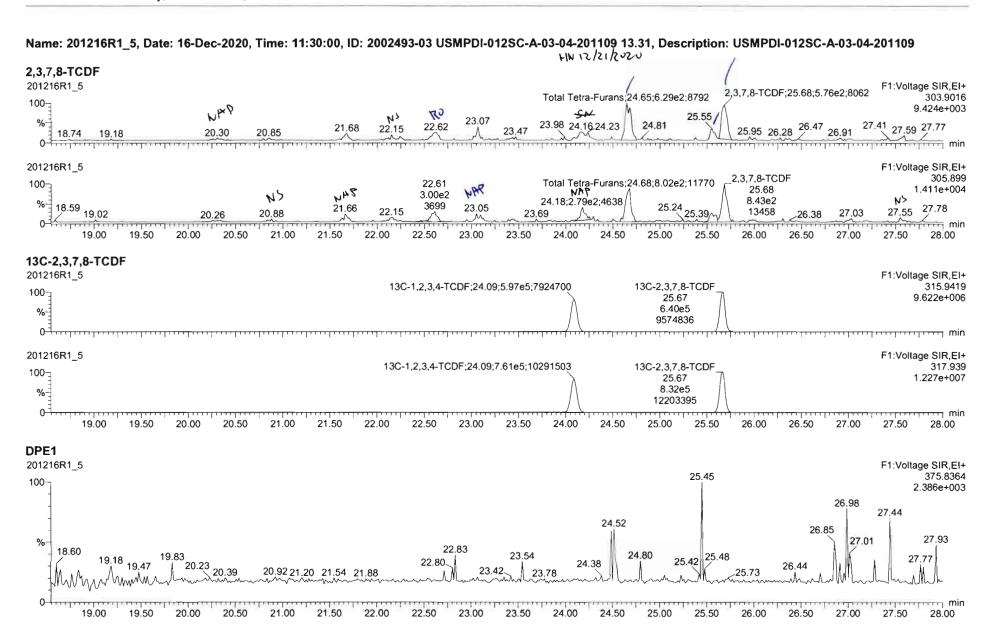
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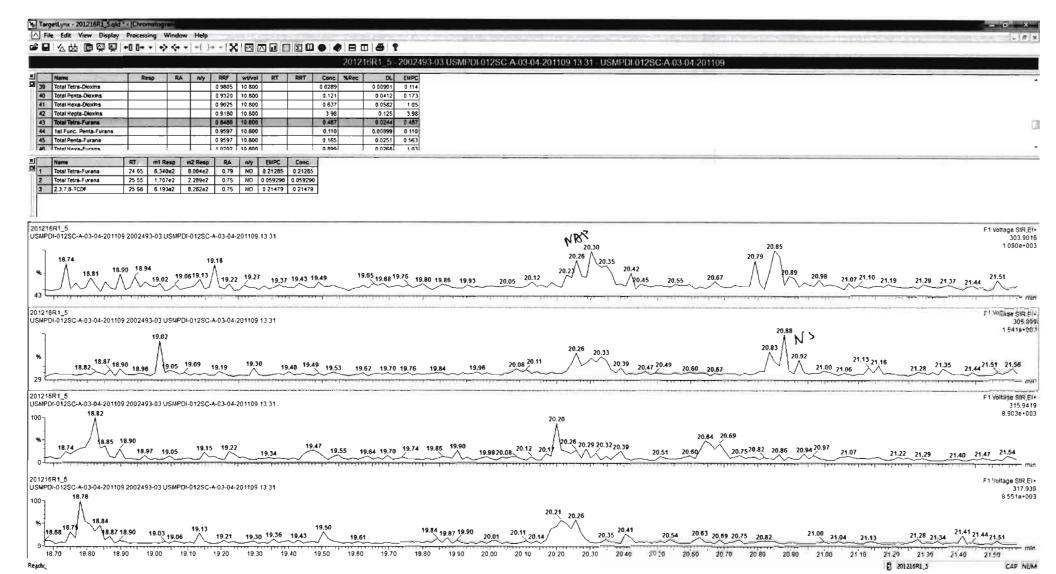


Vista Analytical Laboratory

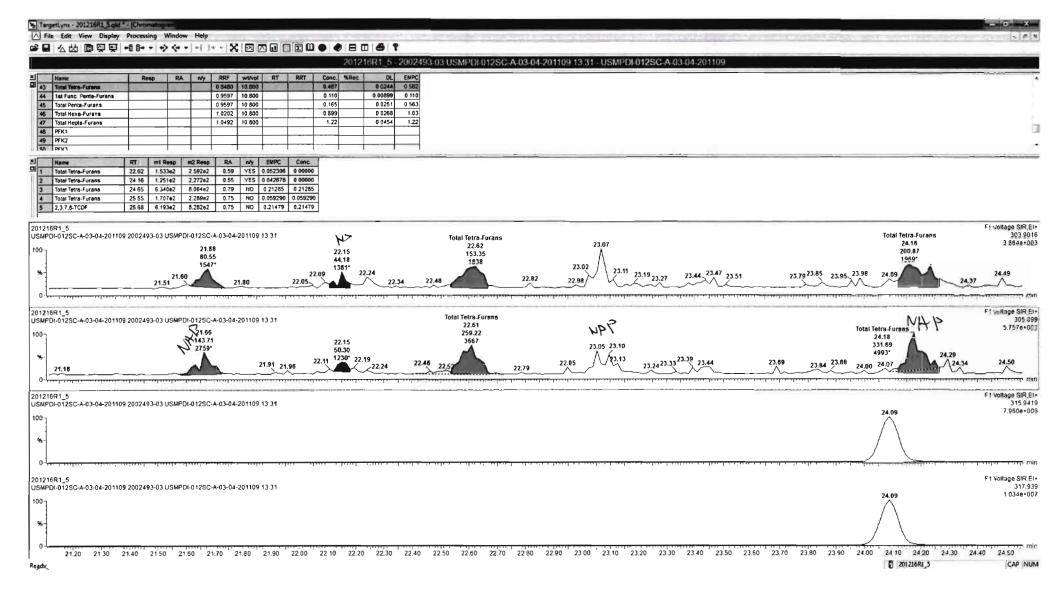
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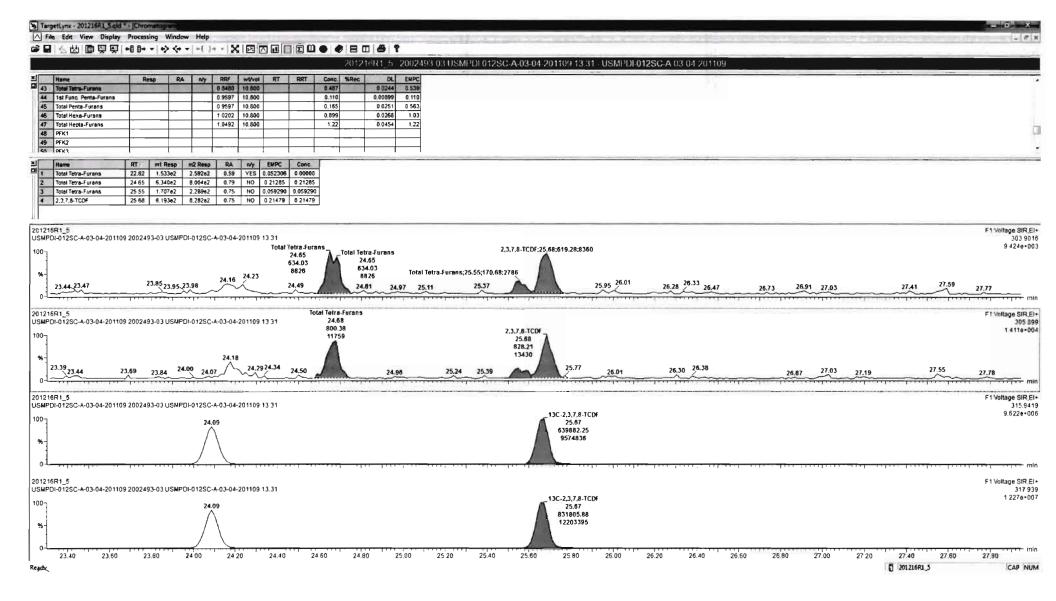




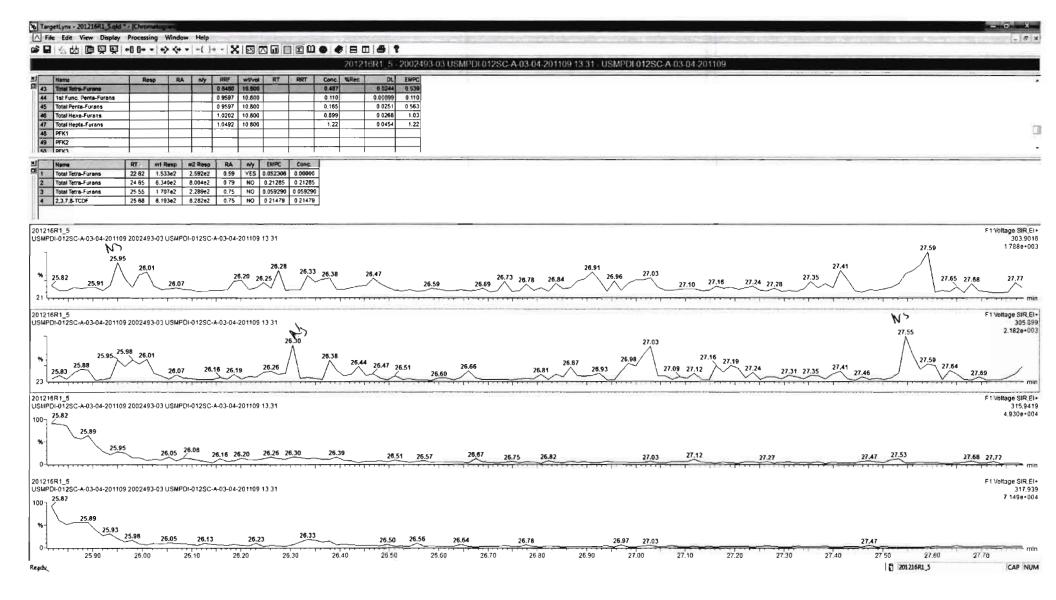
Work Order 2002493 Page 184 of 734



Work Order 2002493 Page 185 of 734



Work Order 2002493 Page 186 of 734

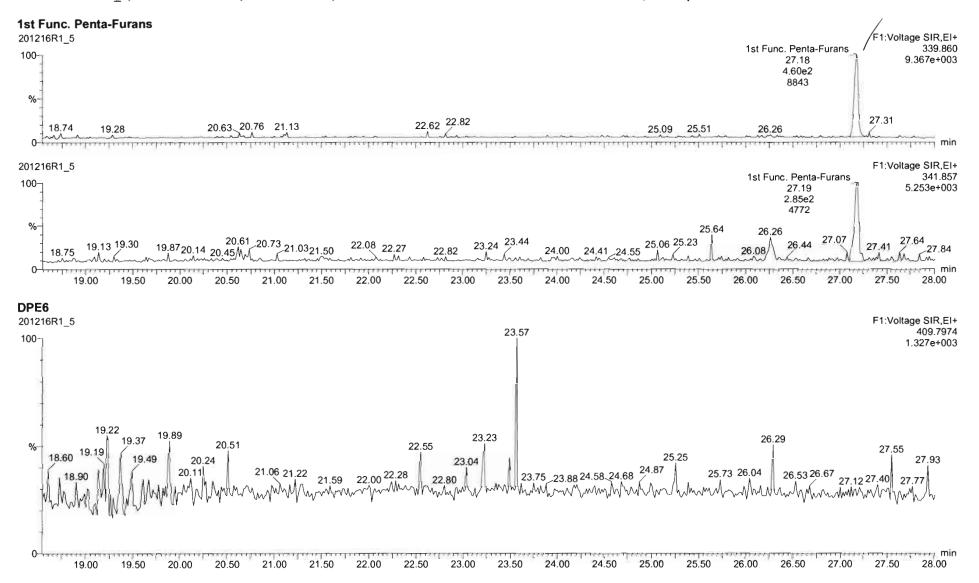


Work Order 2002493 Page 187 of 734

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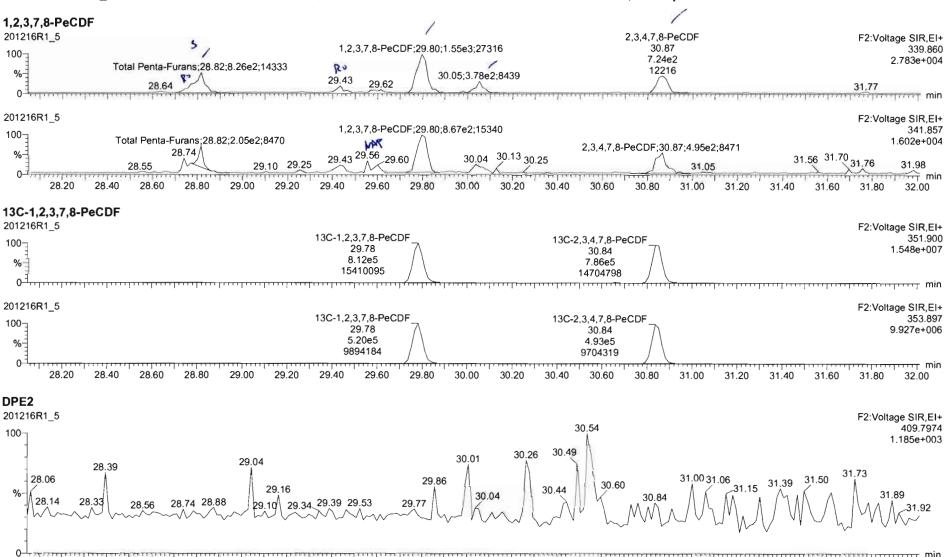
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Last Altered: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Printed: Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time

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Work Order 2002493

28.20

28.40

28.80

28.60

29.00

29.20

29.40

29.60

29.80

30.00

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30.40

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30.80

31.00

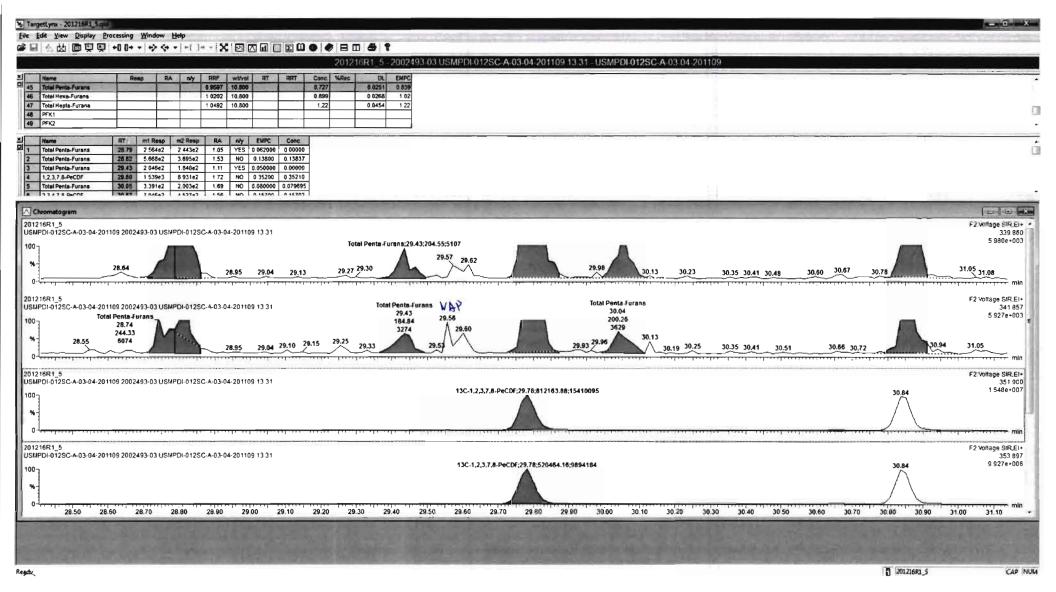
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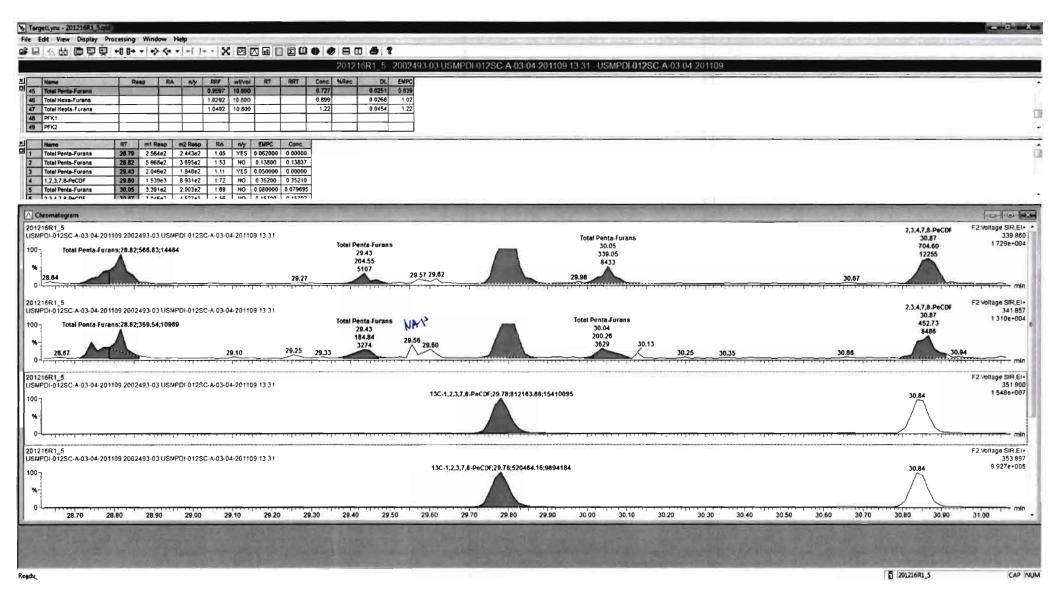
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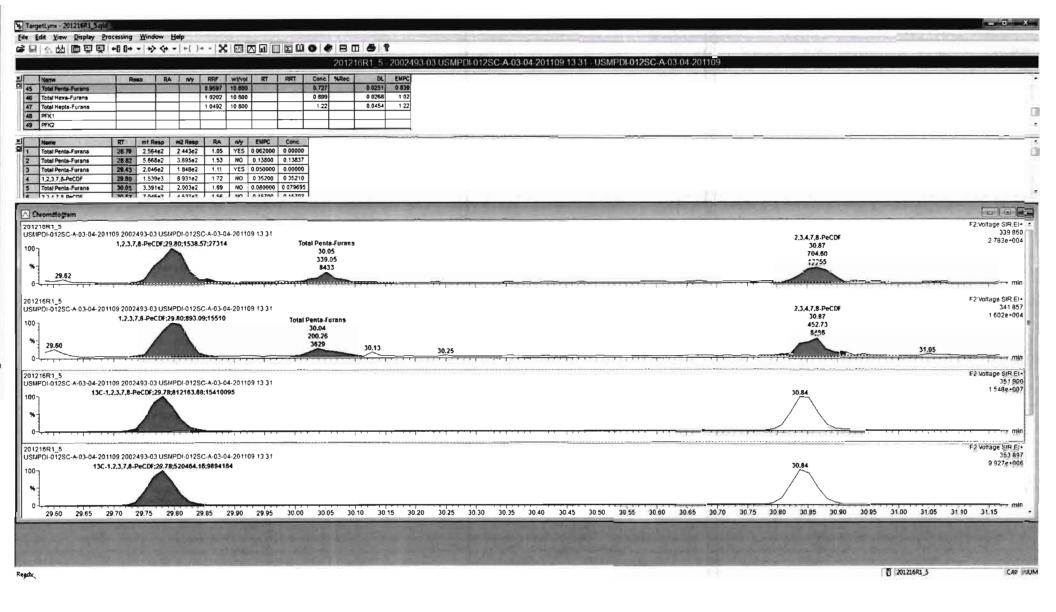
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Work Order 2002493 Page 190 of 734



Work Order 2002493 Page 191 of 734



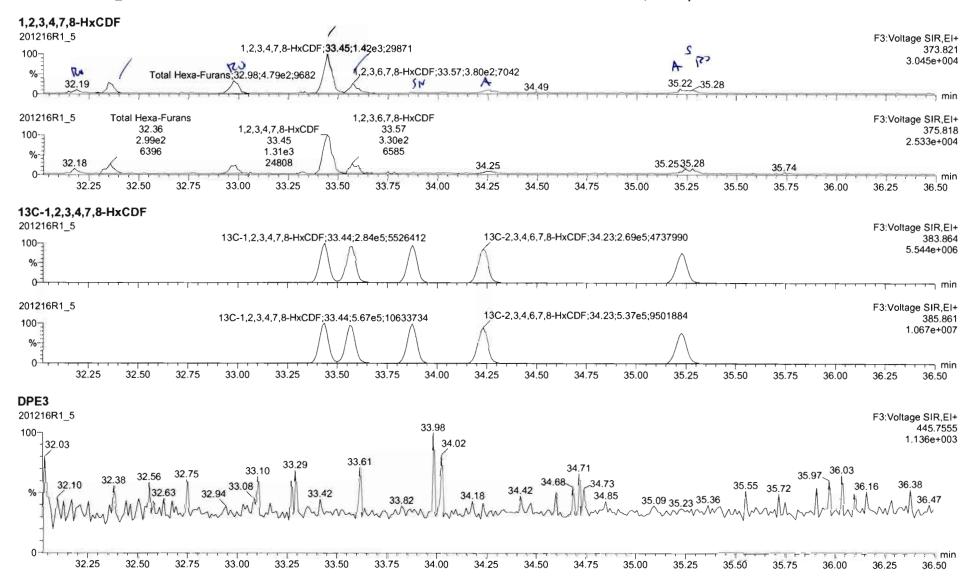
Work Order 2002493 Page 192 of 734

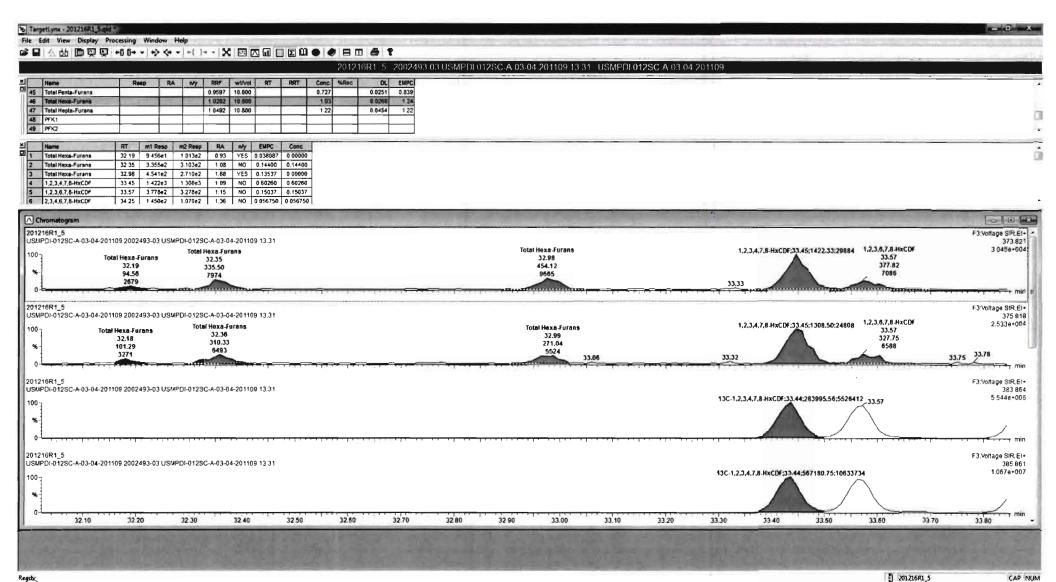
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Last Altered: Thurs
Printed: Thurs

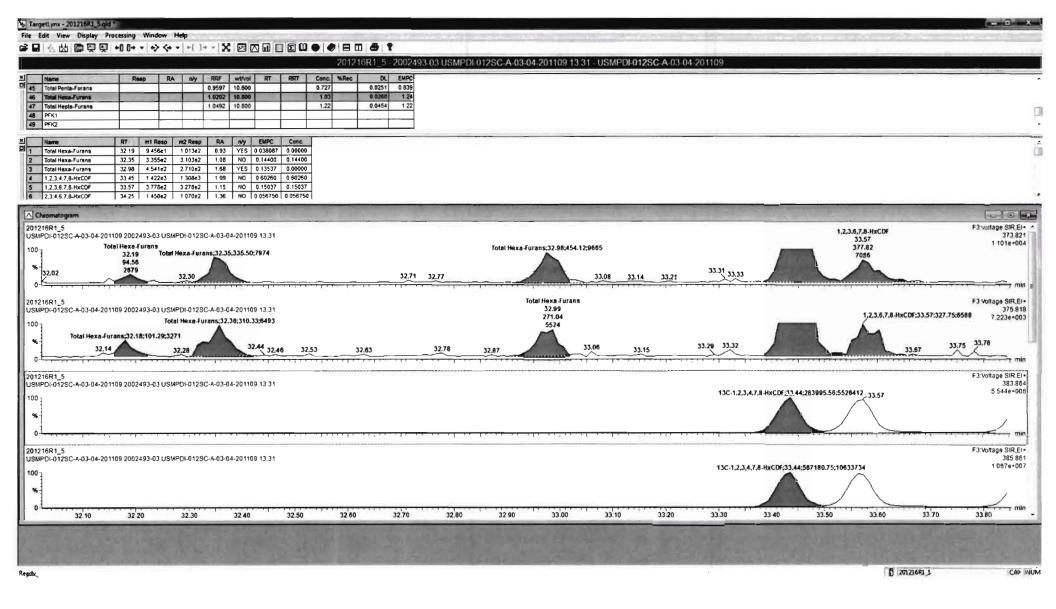
Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time

Name: 201216R1_5, Date: 16-Dec-2020, Time: 11:30:00, ID: 2002493-03 USMPDI-012SC-A-03-04-201109 13.31, Description: USMPDI-012SC-A-03-04-201109

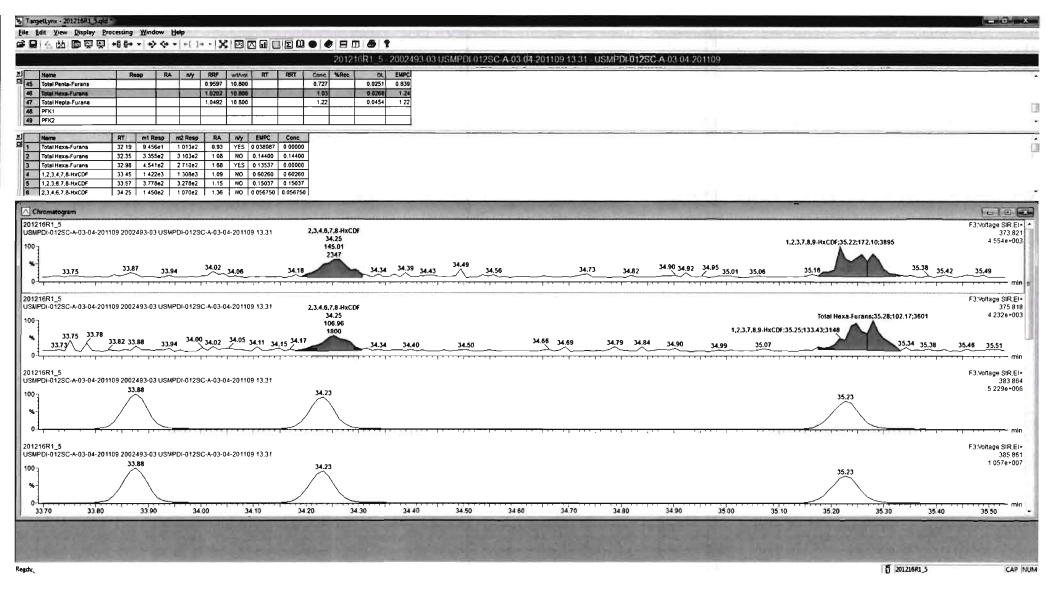




Work Order 2002493 Page 194 of 734



Work Order 2002493 Page 195 of 734

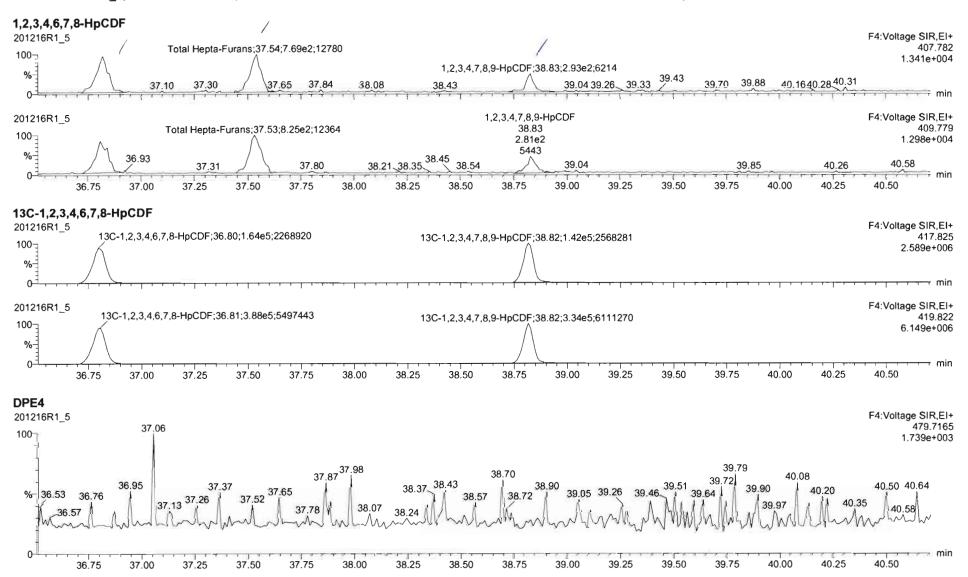


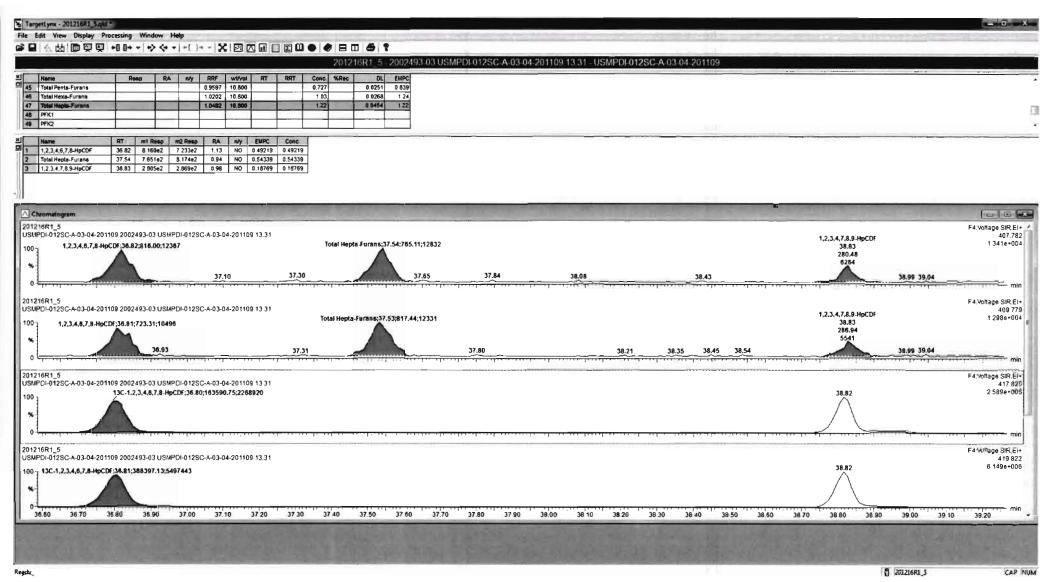
Work Order 2002493 Page 196 of 734

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Last Altered: Printed: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time

Name: 201216R1_5, Date: 16-Dec-2020, Time: 11:30:00, ID: 2002493-03 USMPDI-012SC-A-03-04-201109 13.31, Description: USMPDI-012SC-A-03-04-201109



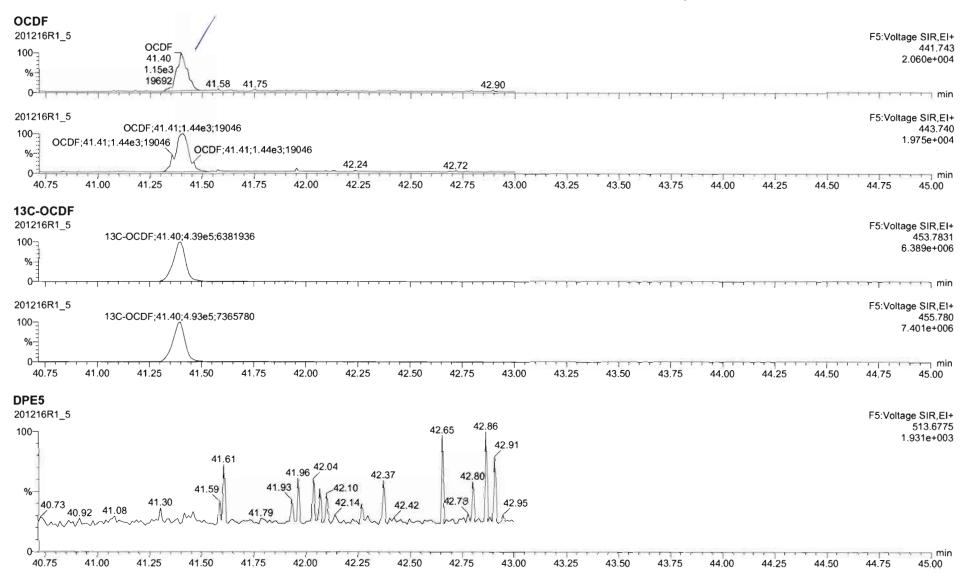


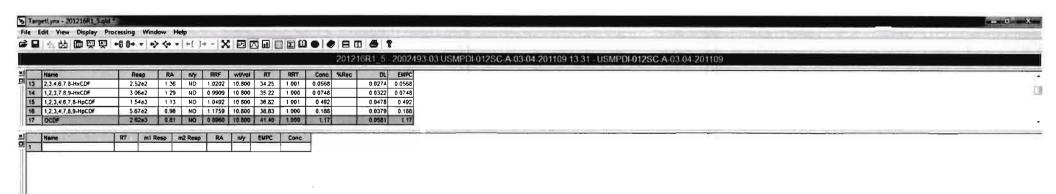
Work Order 2002493 Page 198 of 734

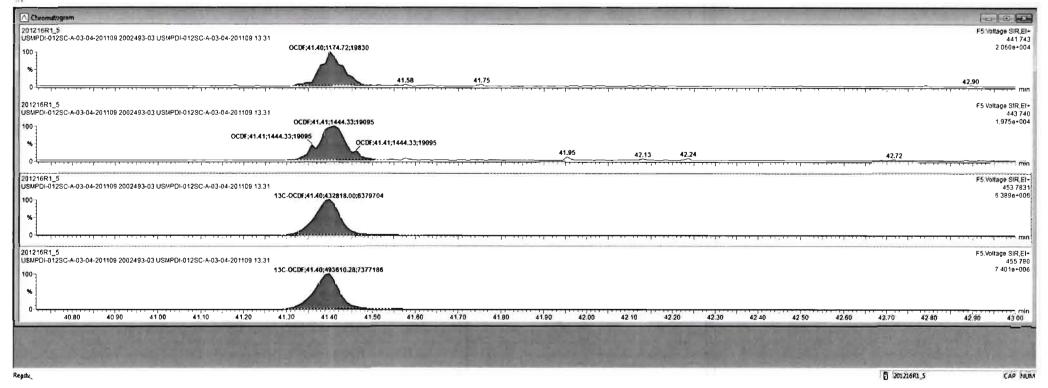
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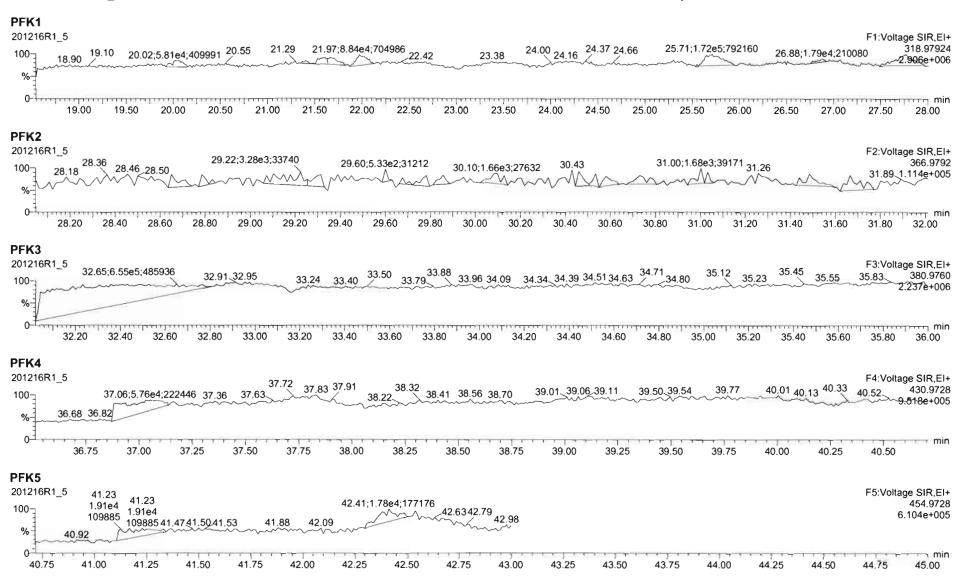
Work Order 2002493 Page 200 of 734

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Last Altered: Printed:

Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time

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Page 1 of 2

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_6.qld

Last Altered: Printed: Monday, December 21, 2020 12:58:39 PM Pacific Standard Time Monday, December 21, 2020 12:59:03 PM Pacific Standard Time

GRB 12/21/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201216R1_6, Date: 16-Dec-2020, Time: 12:15:26, ID: 2002493-04 USMPDI-012SC-A-04-05-201109 12:04, Description: USMPDI-012SC-A-04-05-201109

MANAGE W	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT I	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
120000	1 2,3,7,8-TCDD	9.23e2	0.28	YES	0.980	10.436 🖊	26.381	26.36	1.001	1.001	0.14788		0.0238	0.0739
2	2 1,2,3,7,8-PeCDD			NO	0.932	10.436	31.079		1.001		15.		0.0416	
3	3 1,2,3,4,7,8-HxCDD	6.41e2	1.29	NO	1.02	10.436	34.368	34.46	1.001	1.003	0.16727		0.0643	0.167
4	4 1,2,3,6,7,8-HxCDD			NO	0.902	10.436	34.483		1.001				0.0673	
5	5 1,2,3,7,8,9-HxCDD	6.00e2	1.27	NO	0.954	10.436	34.744	34.76	1.000	1.001	0.15374		0.0657	0.154
6	6 1,2,3,4,6,7,8-HpCDD	9.94e3	1.03	NO	0.918	10.436	38.211	38.21	1.000	1.000	3.2658		0.128	3.27
7	7 OCDD	8.58e4	0.86	NO	0.866	10.436	41.123	41.13	1.000	1.000	41.328		0.288	41.3
8	8 2,3,7,8-TCDF	2.97e3	0.72	NO	0.848	10.436	25.672	25.70	1.000	1.001	0.45112		0.0774	0.451
9	9 1,2,3,7,8-PeCDF	3.79e3	1.76	NO	0.960	10.436	29.784	29.80	1.000	1.001	0.62434		0.0247	0.624
10	10 2,3,4,7,8-PeCDF	2.03e3	1.62	NO	1.07	10.436	30.874	30.87	1.001	1.000	0.29576		0.0206	0.296
11	11 1,2,3,4,7,8-HxCDF	5.98e3	1.18	NO	0.986	10.436	33.446	33.45	1.000	1.000	1.3767		0.0262	1.38
12	12 1,2,3,6,7,8-HxCDF	1.55e3	1.11	NO	1.04	10.436	33.592	33.59	1.001	1.001	0.35012		0.0250	0.350
13	13 2,3,4,6,7,8-HxCDF	4.45e2	1.07	NO	1.02	10.436	34.253	34.24	1.001	1.000	0.10466		0.0271	0.105
14	14 1,2,3,7,8,9-HxCDF	3.89e2	1.19	NO	0.991	10.436	35.248	35.26	1.000	1.001	0.10023		0.0334	0.100
15	15 1,2,3,4,6,7,8-HpCDF	3.06e3	1.00	NO	1.05	10.436	36.813	36.82	1.000	1.001	1.0064		0.0480	1.01
16	16 1.2,3,4,7,8,9-HpCDF	8.41e2	0.96	NO	1.18	10.436	38.828	38.83	1.000	1.000	0.28138		0.0385	0.281
17	17 OCDF	4.31e3	0.89	NO	0.896	10.436	41.416	41.43	1.000	1.001	1.9439		0.0515	1.94
18	18 13C-2,3,7,8-TCDD	1.22e6	0.77	NO	1.06	10.436	26.353	26.35	1.030	1.030	223.89	117	0.0925]
19	19 13C-1,2,3,7,8-PeCDD	9.53 e 5	0.64	NO	0.785	10.436	31.192	31.05	1.219	1.214	234.84	123	0.277	
20	20 13C-1,2,3,4,7,8-HxCDD	7.20e5	1.27	NO	0.621	10.436	34.337	34.35	1.014	1.014	263.10	137	0.369	
21	21 13C-1,2,3,6,7,8-HxCDD	8.09e5	1.26	NO	0.734	10.436	34.459	34.46	1.017	1.017	249.71	130	0.312	
22	22 13C-1,2,3,7,8,9-HxCDD	7.83e5	1.25	NO	0.723	10.436	34.743	34.73	1.026	1.025	245.70	128	0.317	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.35e5	1.06	NO	0.568	10.436	38.243	38.20	1.129	1.128	253.62	132	0.746	
24	24 13C-OCDD	9.20e5	0.90	NO	0.496	10.436	41.180	41.12	1.216	1.214	420.32	110	0.772	
25	25 13C-2,3,7,8-TCDF	1.49e6	0.77	NO	0.919	10.436	25.652	25.67	1.003	1.003	232.06	121	0.145	
26	26 13C-1,2,3,7,8-PeCDF	1.21e6	1.57	NO	0.715	10.436	29.903	29.78	1.169	1.164	243.27	127	0.344	
27	27 13C-2.3,4,7,8-PeCDF	1.23e6	1.56	NO	0.689	10.436	30.990	30.85	1.212	1.206	256.28	134	0.357	
28	28 13C-1,2,3,4,7,8-HxCDF	8.45e5	0.50	NO	0.873	10.436	33.442	33.44	0.987	0.987	219.22	114	0.367	
29	29 13C-1,2,3,6,7,8-HxCDF	8.16e5	0.50	NO	0.933	10.436	33.571	33.57 🗸	0.991	0.991	198.04	103	0.344	
30	30 13C-2,3,4,6,7,8-HxCDF	7.98e5	0.50	NO	0.843	10.436	34.238	34.23	1.011	1.011	214.56	112	0.380	
31	31 13C-1,2,3,7,8,9-HxCDF	7.51e5	0.50	NO	0.780	10.436	35.238	35.24	1.040	1.040	218.25	114	0.411	

Work Order 2002493 Page 202 of 734

MassLynx 4.1 SCN815

Page 2 of 2

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_6.qld

Last Altered: Printed: Monday, December 21, 2020 12:58:39 PM Pacific Standard Time Monday, December 21, 2020 12:59:03 PM Pacific Standard Time

Name: 201216R1_6, Date: 16-Dec-2020, Time: 12:15:26, ID: 2002493-04 USMPDI-012SC-A-04-05-201109 12:04, Description: USMPDI-012SC-A-04-05-201109

12.0	# 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	5.55e5	0.44	NO	0.726	10.436	36.813	36.79	1.087	1.086	173.22	90.4	0.545	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.87e5	0.42	NO	0.491	10.436	38.822	38.82	1.146	1.146	224.87	117	0.806	
34	34 13C-OCDF	9.48e5	0.86	NO	0.565	10.436	41.396	41.41	1.222	1.222	380.19	99.2	0.536	
35	35 37CI-2,3,7,8-TCDD	5.30e5			1.22	10.436	26.347	26.38	1.030	1.031	84.297	110	0.0272	-
36	36 13C-1,2,3,4-TCDD	9.91e5	0.78	NO	1.00	10.436	25.640	25.58	1.000	1.000	191.64	100	0.0977	
37	37 13C-1,2,3,4-TCDF	1.34e6	0.77	NO	1.00	10.436	24.130	24.09	1.000	1.000	191.64	100	0.133	
38	38 13C-1,2,3,4,6,9-HxCDF	8.46e5	0.50	NO	1.00	10.436	33.920	33.88	1.000	1.000	191.64	100	0.321	
39	39 Total Tetra-Dioxins				0.980	10.436	24.620		0.000		0.10374		0.0238	0.178
40	40 Total Penta-Dioxins				0.932	10.436	29.960		0.000		0.22256		0.0416	0.508
41	41 Total Hexa-Dioxins				0.902	10.436	33.635		0.000		1.3592		0.0697	2.09
42	42 Total Hepta-Dioxins				0.918	10.436	37.640		0.000		7.4559		0.128	7.46
43	43 Total Tetra-Furans				0.848	10.436	23.610		0.000		1.5997		0.0774	1.63
44	44 1st Func. Penta-Furans				0.960	10.436	26.930		0.000		0.23175		0.0102	0.232
45	45 Total Penta-Furans				0.960	10.436	29.275		0.000		1.8708		0.0238	1.87
46	46 Total Hexa-Furans				1.02	10.436	33.555		0.000		2.5886		0.0275	2.68
47	47 Total Hepta-Furans				1.05	10.436	37.835		0.000		2.2512		0.0457	2.25

Work Order 2002493 Page 203 of 734

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_6.qld

Last Altered: Printed:

Monday, December 21, 2020 12:58:39 PM Pacific Standard Time Monday, December 21, 2020 12:59:03 PM Pacific Standard Time

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Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201216R1_6, Date: 16-Dec-2020, Time: 12:15:26, ID: 2002493-04 USMPDI-012SC-A-04-05-201109 12:04, Description: USMPDI-012SC-A-04-05-201109

Tetra-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	24.29	3.769e3	6.010e3	2.630e2	3.857e2	0.68	NO	6.487e2	0.10374	0.10374	0.0238
2	2,3,7,8-TCDD	26.36	4.994e3	1.255e4	2.011e2	7.216e2	0.28	YES	9.228e2	0.00000	0.073945	0.0238

Penta-Dioxins

37	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1.00	Total Penta-Dioxins	28.80	2.912e3	6.843e3	2.261e2	3.143e2	0.72	NO	5.404e2	0.11661	0.11661	0.0416
2	Total Penta-Dioxins	29.27	4.265e3	4.939e3	2.033e2	2.877e2	0.71	NO	4.910e2	0.10594	0.10594	0.0416
3	Total Penta-Dioxins	29.78	2.184e4	9.095e3	1.206e3	4.443e2	2.71	YES	0.000e0	0.00000	0.15628	0.0416
4	Total Penta-Dioxins	30.85	1.658e4	4.853e3	8.388e2	3.671e2	2.29	YES	0.000e0	0.00000	0.12911	0.0416

Hexa-Dioxins

ALC: VO.	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1.	Total Hexa-Dioxins	32.71	3.891e4	3.550e4	1.837e3	1.654e3	1.11	NO	3.492e3	0.96187	0.96187	0.0697
2	Total Hexa-Dioxins	33.31	2.903e3	3.130e3	1.555e2	1.217e2	1.28	NO	2.771e2	0.076348	0.076348	0.0697
3	Total Hexa-Dioxins	33.59	2.261e4	1.966e4	1.752e3	1.180e3	1.48	YES	0.000e0	0.00000	0.72837	0.0697
4	1,2,3,4,7,8-HxCDD	34.46	6.493e3	5.950e3	3.619e2	2.796e2	1.29	NO	6.415e2	0.16727	0.16727	0.0643
5	1,2,3,7,8,9-HxCDD	34.76	7.778e3	7.219e3	3.355e2	2.642e2	1.27	NO	5.997e2	0.15374	0.15374	0.0657

Hepta-Dioxins

8.	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	m/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.19	9.587e4	9.630e4	6.395e3	6.356e3	1.01	NO	1.275e4	4.1901	4.1901	0.128
2	1,2,3,4,6,7,8-HpCDD	38.21	1.061e5	1.070e5	5.034e3	4.905e3	1.03	NO	9.939e3	3.2658	3.2658	0.128

Work Order 2002493 Page 204 of 734

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_6.qld

Last Altered: Printed: Monday, December 21, 2020 12:58:39 PM Pacific Standard Time Monday, December 21, 2020 12:59:03 PM Pacific Standard Time

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Page 2 of 3

Tetra-Furans

A LIBERTY	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	21.66	3.816e3	3.963e3	2.696e2	3.608e2	0.75	NO	6.304e2	0.095760	0.095760	0.0774
2	Total Tetra-Furans	22.59	5.914e3	6.882e3	4.647e2	5.868e2	0.79	NO	1.051e3	0.15971	0.15971	0.0774
3	Total Tetra-Furans	23.10	2.672e3	4.298e3	2.151e2	2.522e2	0.85	NO	4.673e2	0.070983	0.070983	0.0774
4	Total Tetra-Furans	23.44	1.635e3	2.505e3	1.076e2	1.288e2	0.84	NO	2.364e2	0.035904	0.035904	0.0774
5	Total Tetra-Furans	24.18	6.233e3	7.710e3	7.318e2	9.344e2	0.78	NO	1.666e3	0.25309	0.25309	0.0774
6	Total Tetra-Furans	24.68	1.692e4	2.227e4	1.086e3	1.482e3	0.73	NO	2.568e3	0.39007	0.39007	0.0774
7	Total Tetra-Furans	25.58	6.135e3	1.072e4	4.028e2	5.393e2	0.75	NO	9.420e2	0.14309	0.14309	0.0774
8	2,3,7,8-TCDF	25.70	1.761e4	2.962e4	1.248e3	1.722e3	0.72	NO	2.970e3	0.45112	0.45112	0.0774
9	Total Tetra-Furans	27.58	1.736e3	4.491e3	7.742e1	1.860e2	0.42	YES	0.000e0	0.00000	0.027034	0.0774

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	27.18	1.628e4	8.121e3	8.805e2	5.380e2	1.64	NO	1.419e3	0.23175	0.23175	0.0102

Penta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.82	2.863e4	2.355e4	2.028e3	1.476e3	1.37	NO	3.504e3	0.57245	0.57245	0.0238
2	Total Penta-Furans	29.43	8.707e3	7.024e3	5.482e2	4.090e2	1.34	NO	9.572e2	0.15638	0.15638	0.0238
3	Total Penta-Furans	29.60	5.327e3	3.661e3	2.525e2	1.849e2	1.37	NO	4.374e2	0.071454	0.071454	0.0238
4	1,2,3,7,8-PeCDF	29.80	4.505e4	2.416e4	2.419e3	1.375e3	1.76	NO	3.794e3	0.62434	0.62434	0.0247
5	Total Penta-Furans	30.05	1.157e4	6.912e3	5.656e2	3.552e2	1.59	NO	9.209e2	0.15044	0.15044	0.0238
6	2,3,4,7,8-PeCDF	30.87	2.308e4	1.633e4	1.255e3	7.725e2	1.62	NO	2.027e3	0.29576	0.29576	0.0206

Work Order 2002493 Page 205 of 734

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_6.qld

Last Altered: Printed: Monday, December 21, 2020 12:58:39 PM Pacific Standard Time Monday, December 21, 2020 12:59:03 PM Pacific Standard Time

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Page 3 of 3

Hexa-Furans

The state of the state of	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.18	5.279e3	5.297e3	2.340e2	1.952e2	1.20	NO	4.292e2	0.10049	0.10049	0.0275
2	Total Hexa-Furans	32.36	1.292e4	1.207e4	5.987e2	5.205e2	1.15	NO	1.119e3	0.26203	0.26203	0.0275
3	Total Hexa-Furans	32.99	1.497e4	1.464e4	7.034e2	5.540e2	1.27	NO	1.257e3	0.29437	0.29437	0.0275
4	1,2,3,4,7,8-HxCDF	33.45	6.282e4	5.217e4	3.234e3	2.749e3	1.18	NO	5.983e3	1.3767	1.3767	0.0262
5	1,2,3,6,7,8-HxCDF	33.59	1.696e4	1.392e4	8.131e2	7.349e2	1.11	NO	1.548e3	0.35012	0.35012	0.0250
6	2,3,4,6,7,8-HxCDF	34.24	3.605e3	4.080e3	2.302e2	2.144e2	1.07	NO	4.447e2	0.10466	0.10466	0.0271
7	1.2,3,7,8,9-HxCDF	35.26	5.705e3	3.994e3	2.116e2	1.777e2	1.19	NO	3.892e2	0.10023	0.10023	0.0334
8	Total Hexa-Furans	35.28	5.688e3	6.330e3	2.160e2	2.169e2	1.00	YES	0.000e0	0.00000	0.091369	0.0275

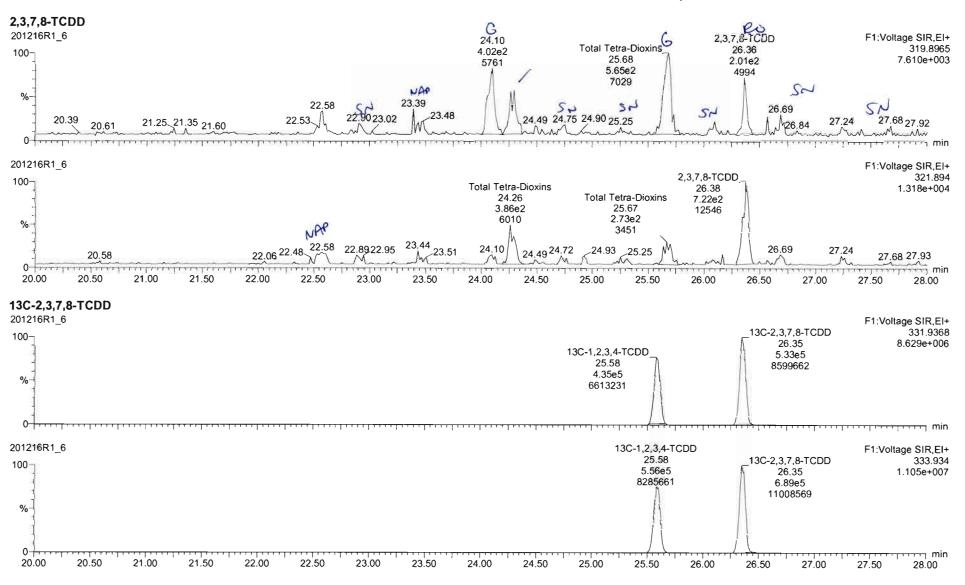
Hepta-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
13,000	1,2,3,4,6,7,8-HpCDF	36.82	2.659e4	2.473e4	1.528e3	1.531e3	1.00	NO	3.059e3	1.0064	1.0064	0.0480
2	Total Hepta-Furans	37.54	2.901e4	2.206e4	1.418e3	1.331e3	1.07	NO	2.749e3	0.96344	0.96344	0.0457
3	1,2,3,4,7,8,9-HpCDF	38.83	1.066e4	8.753e3	4.128e2	4.285e2	0.96	NO	8.413e2	0.28138	0.28138	0.0385

Work Order 2002493 Page 206 of 734

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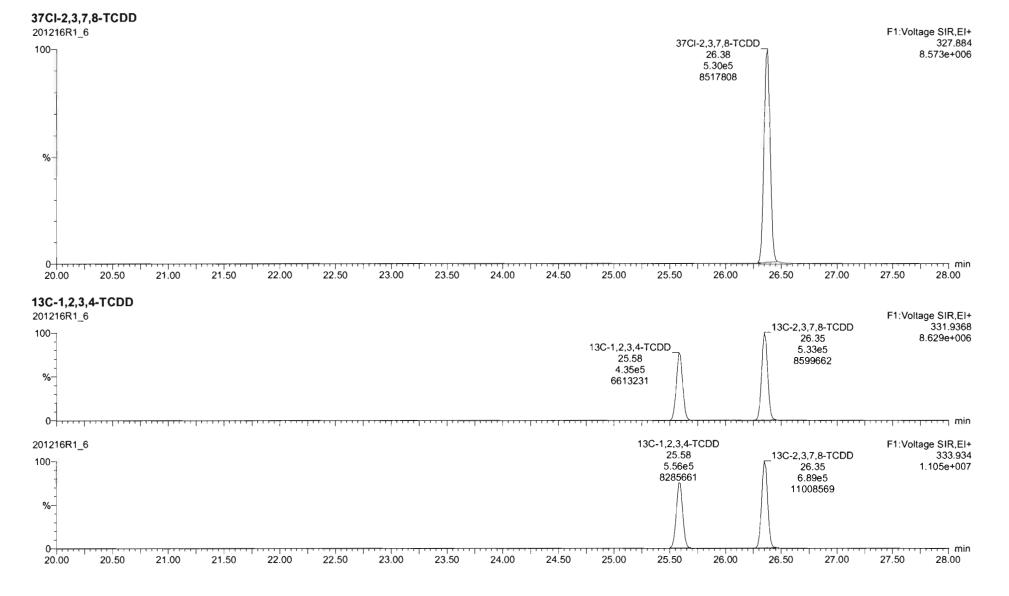
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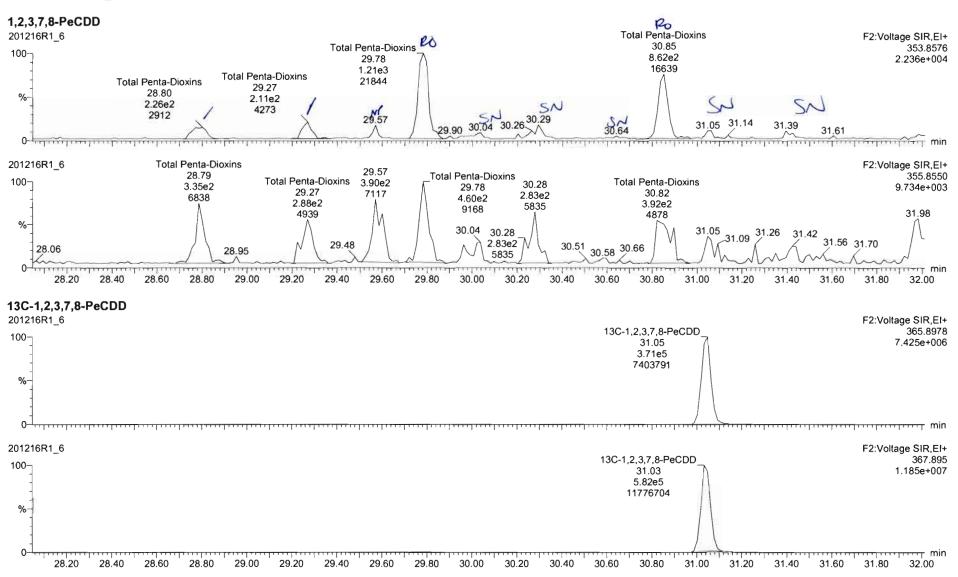
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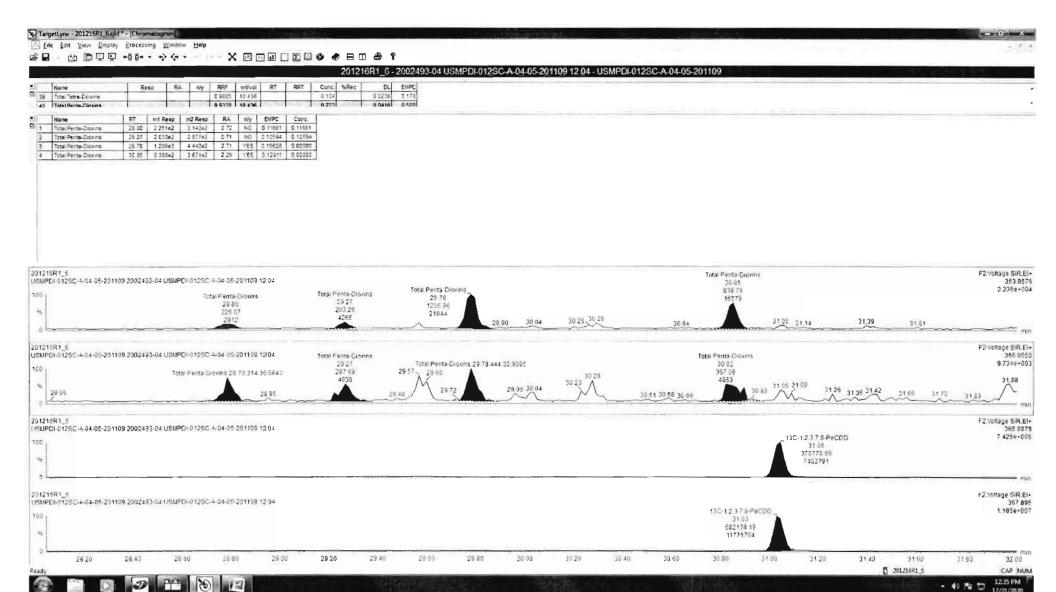


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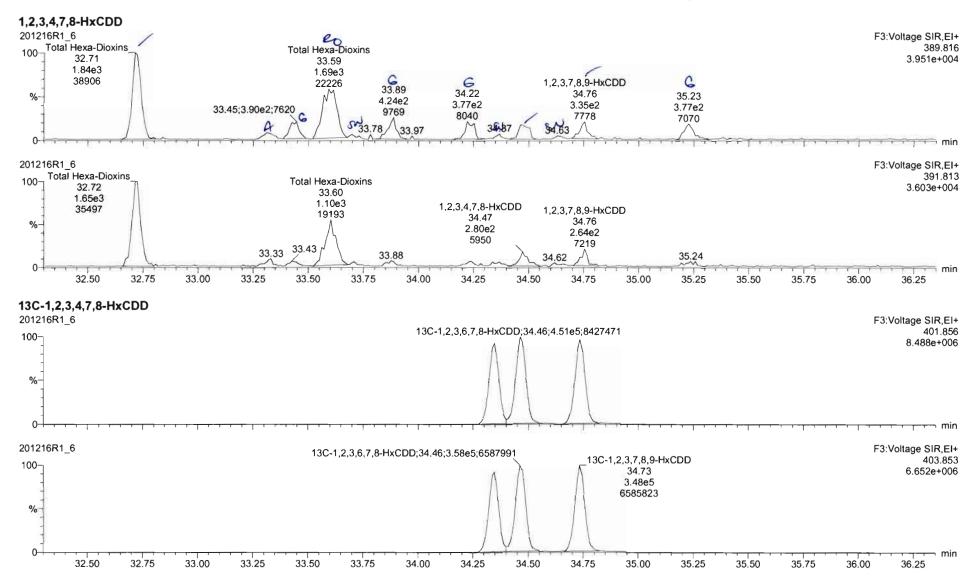


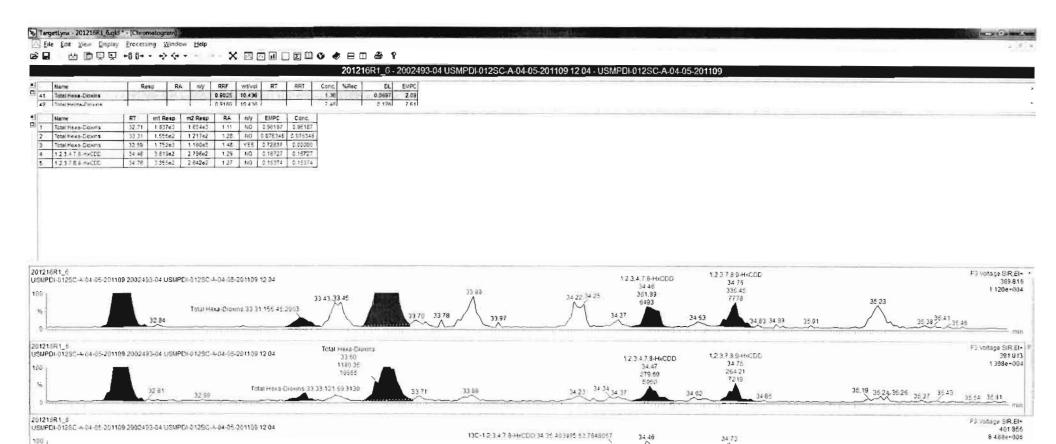


Work Order 2002493 Page 210 of 734

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Last Altered: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Printed: Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time





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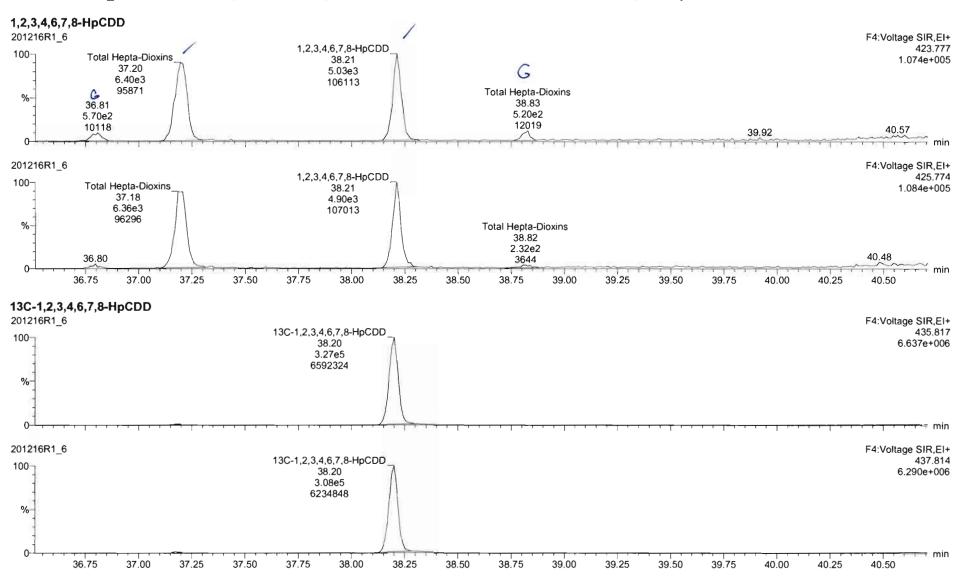
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Work Order 2002493 Page 212 of 734

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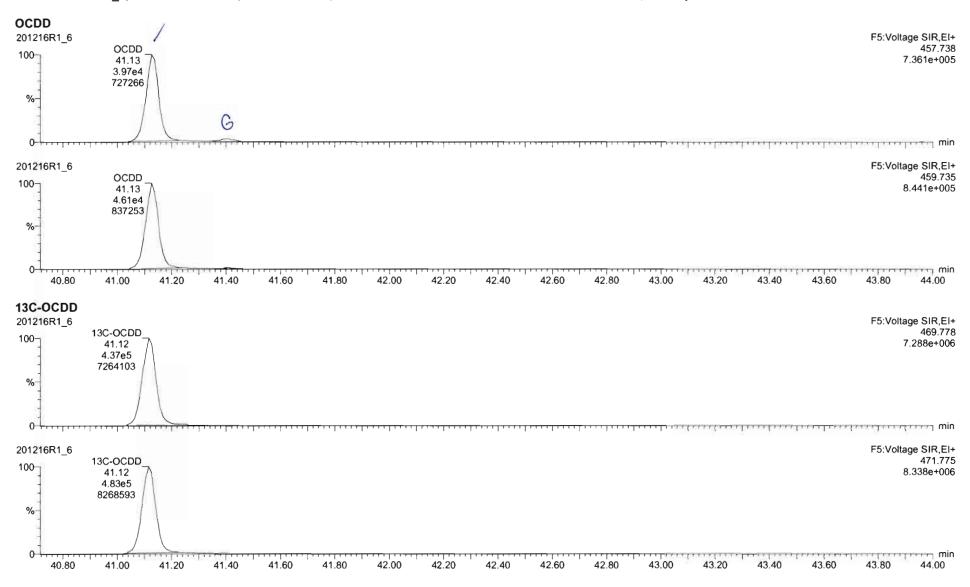


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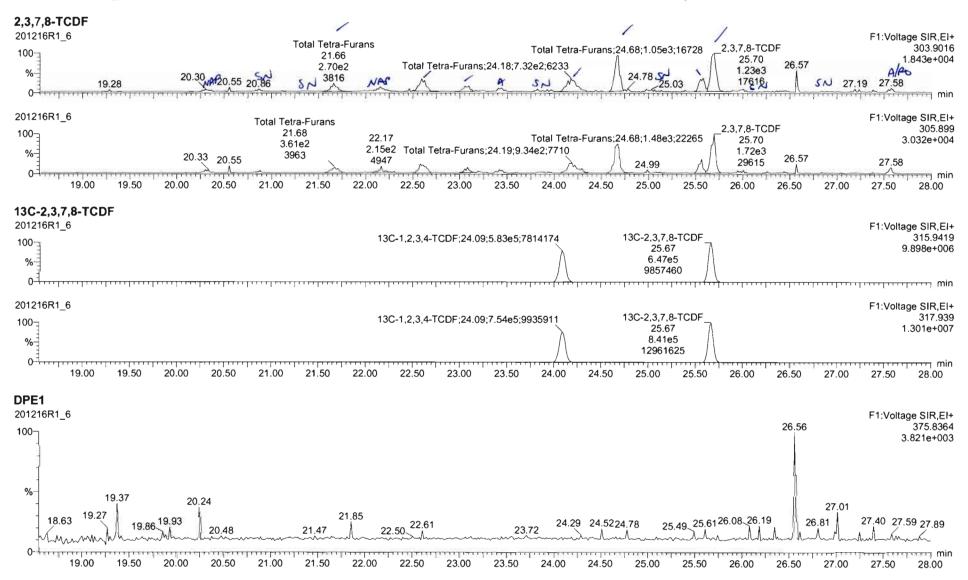
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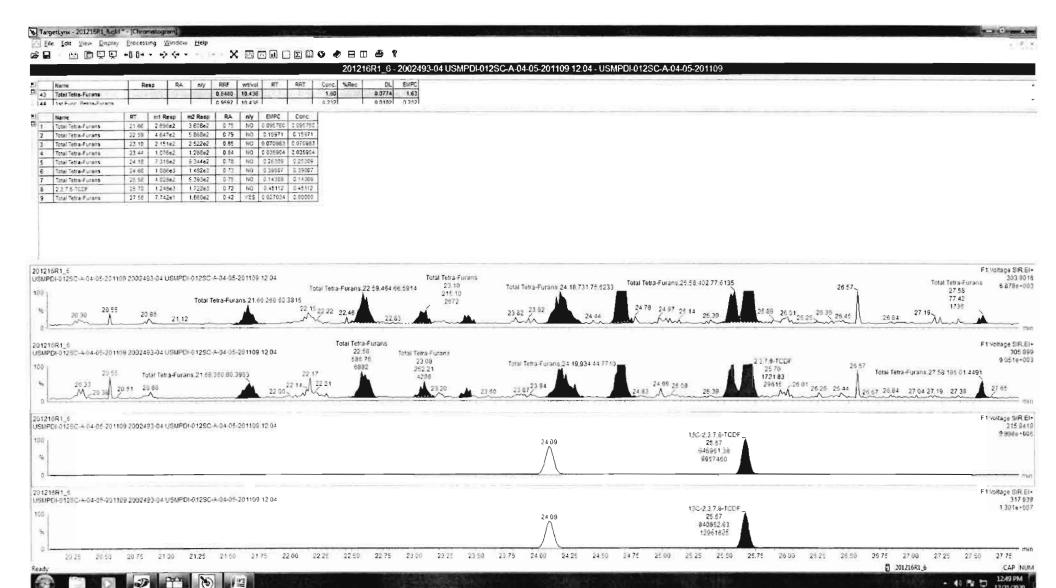
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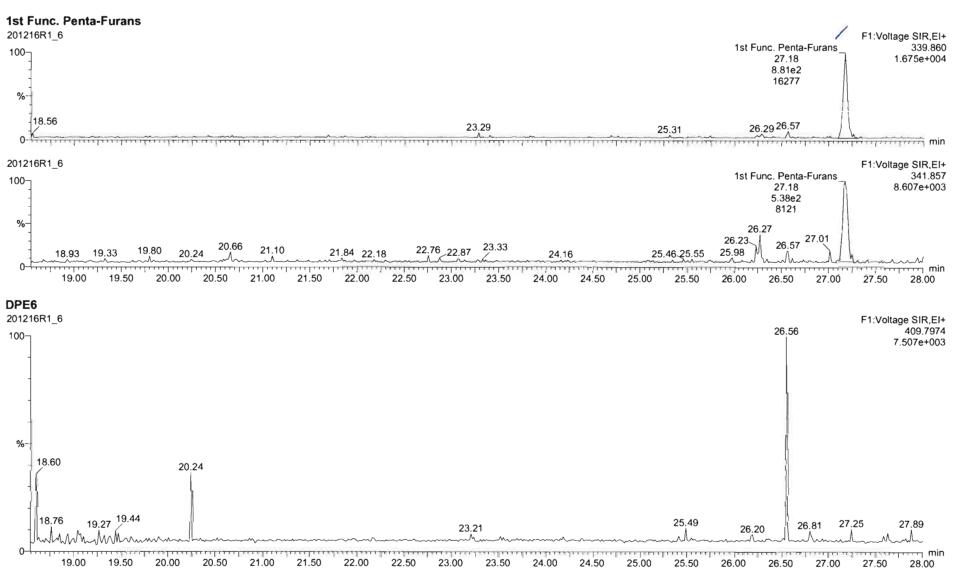


Work Order 2002493 Page 216 of 734

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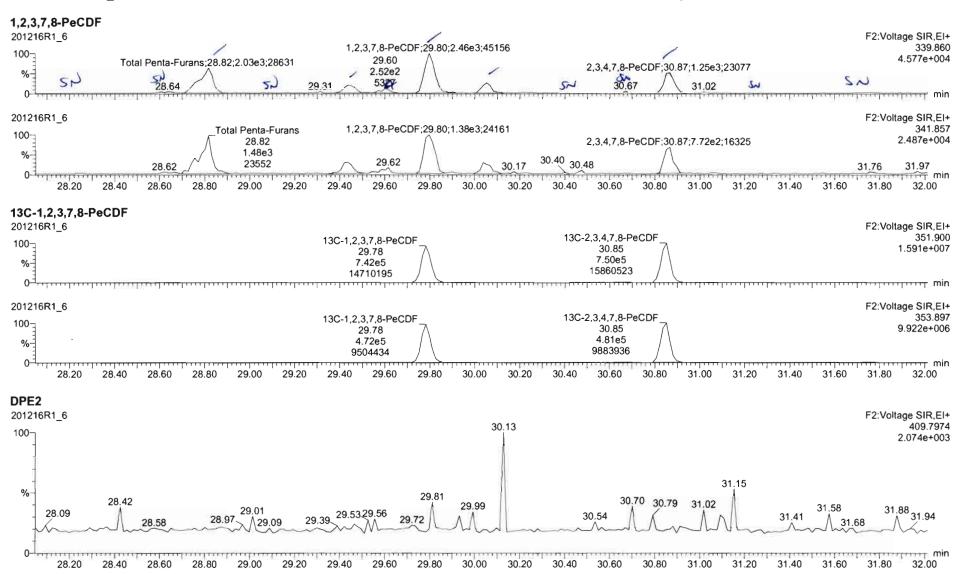


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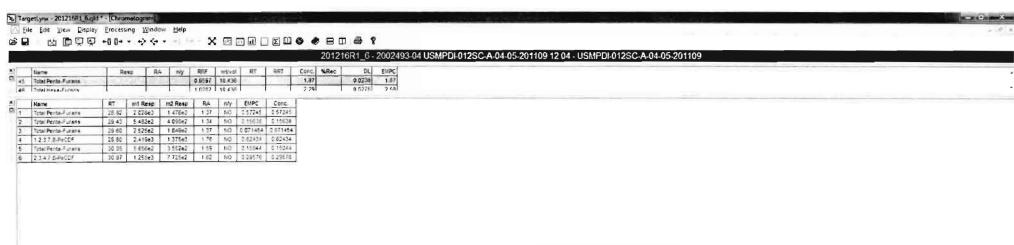
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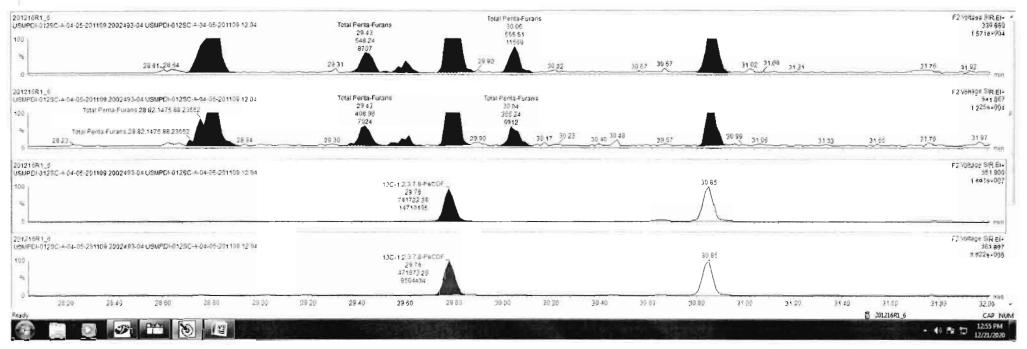
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Work Order 2002493



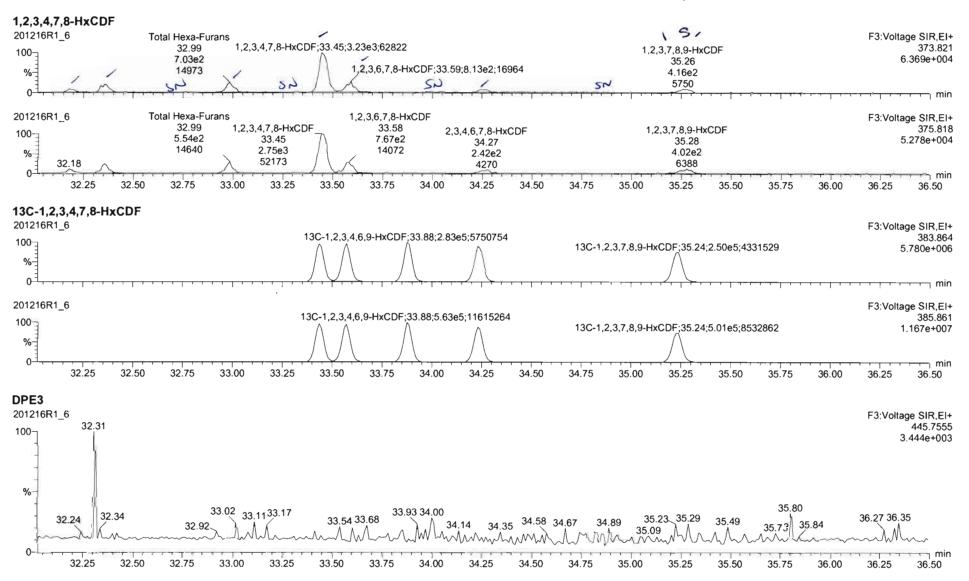


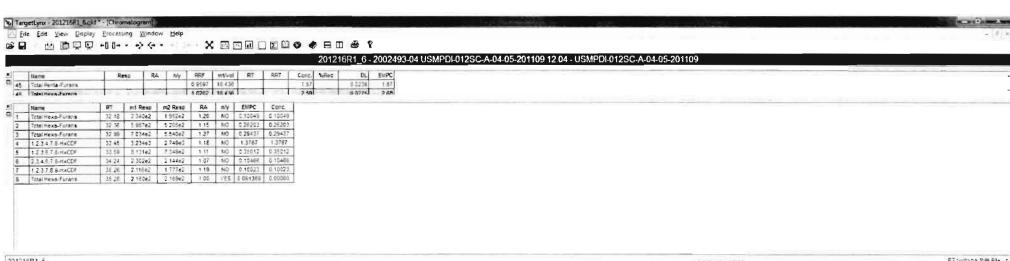
Work Order 2002493 Page 219 of 734

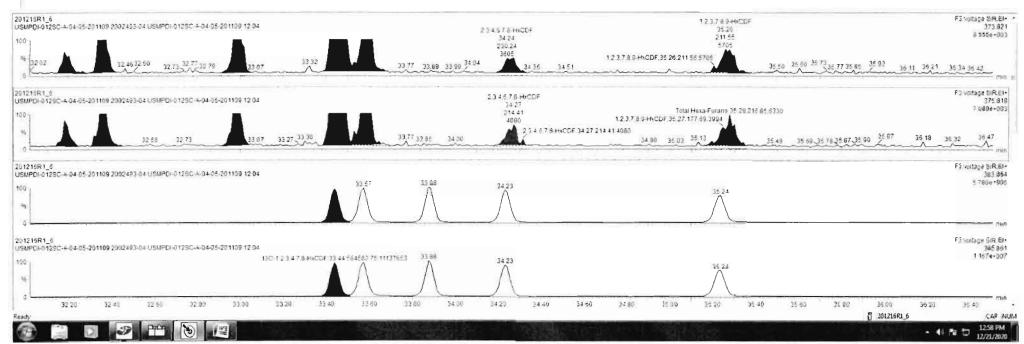
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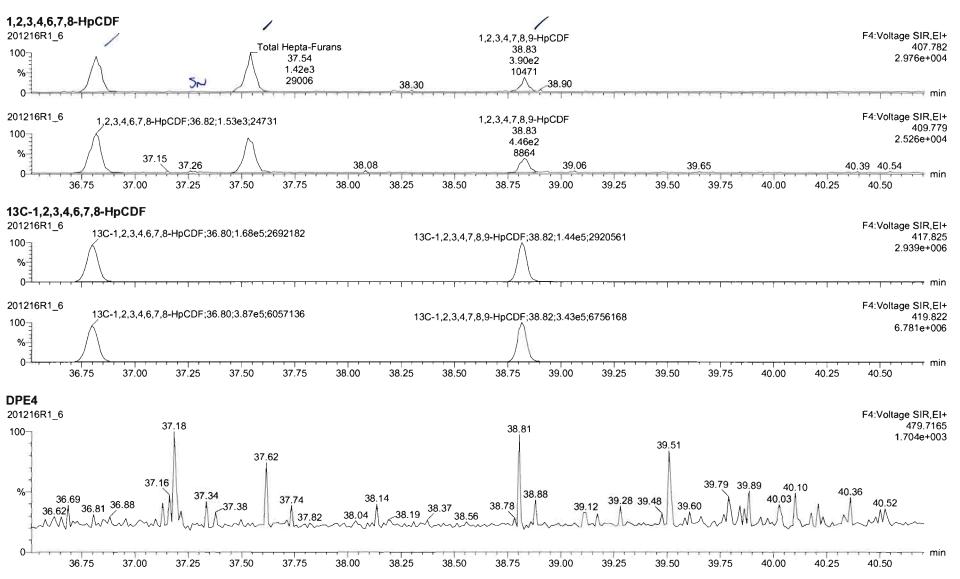


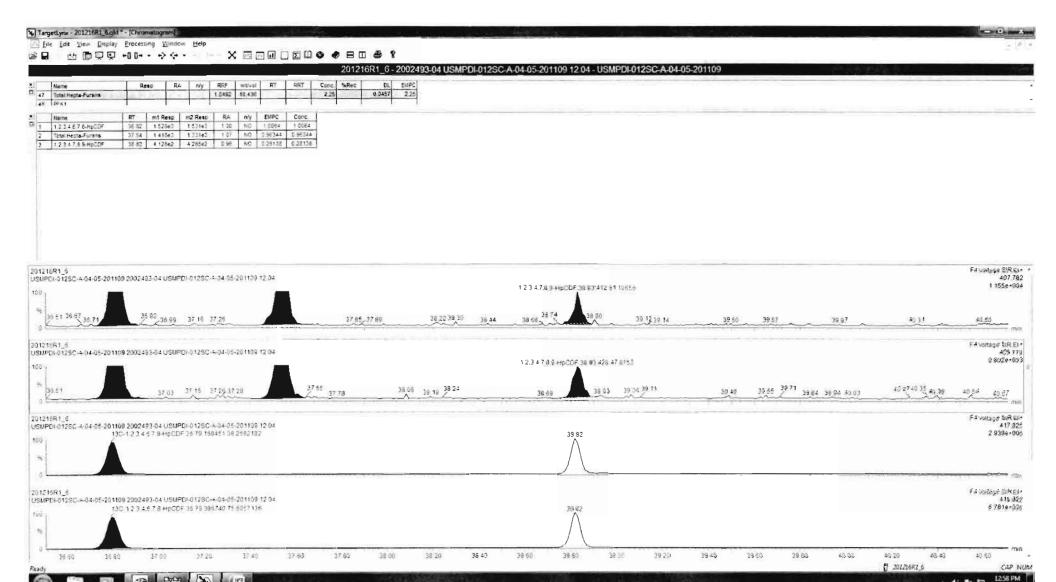
Work Order 2002493 Page 221 of 734

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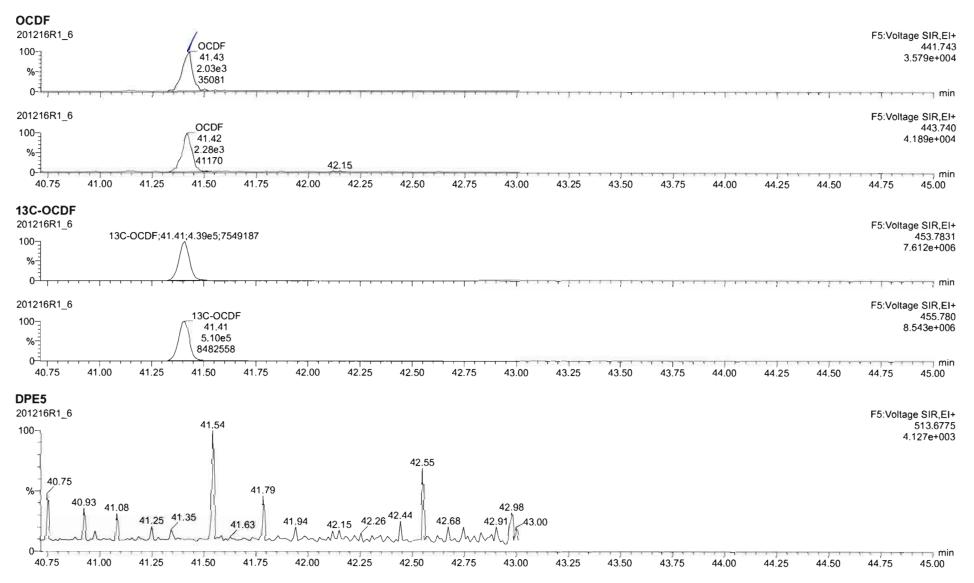
Work Order 2002493 Page 223 of 734

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Last Altered: Printed: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time

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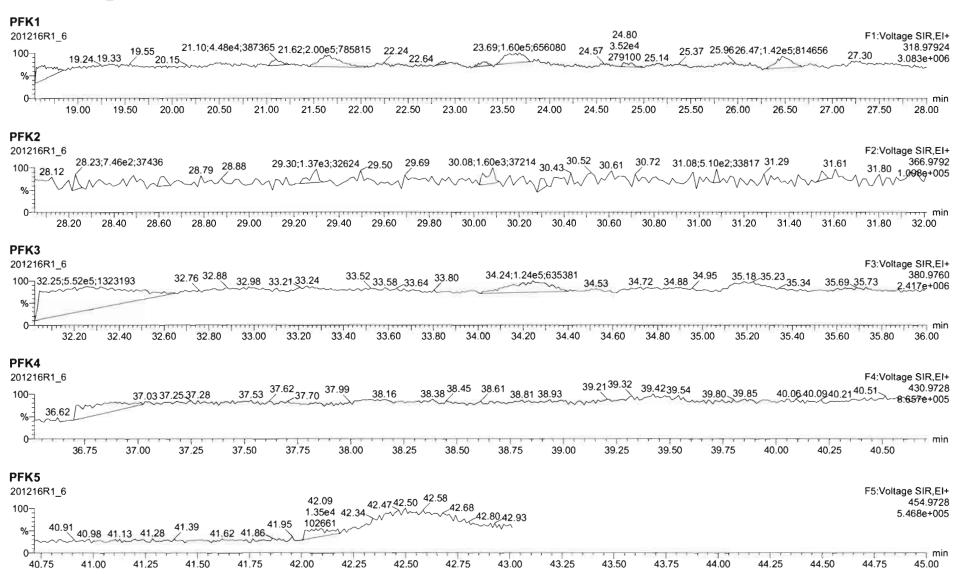
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Work Order 2002493 Page 225 of 734

Page 1 of 2

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_7.qld

Last Altered: Printed: Monday, December 21, 2020 1:37:19 PM Pacific Standard Time Monday, December 21, 2020 1:38:03 PM Pacific Standard Time

GDB 12/21/2020

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Tari A	# Name	ار * Resp	, RA	, n/y	,i_RRF.	T.MVOI T	Pred.RT	_RT(P	red.RRT	RRT		%Rec	DL	EMPC
11	1 2,3,7,8-TCDD	2.95e3	0.59	YES	0.980	10.065	26.381	26.38	1.001	1.001	0.47874		0.0322	0.408
2_4,4,7,76	2 1,2,3,7,8-PeCDD	5.65e3	0.60	NO	0.932	10.065	31.064	31.06	1.001	1.001	1.2269		0.0615	1.23
3	3 1,2,3,4,7,8-HxCDD	9.98e3	1.20	NO	1.02	10.065	34.368	34.36 /	1.001	1.000	2.6522		0.429	2.65
4.7	4 1,2,3,6,7,8-HxCDD	1.04e5	1.24	NO	0.902	10.065	34.483	34.48 /	1.001	1.001	28.107		0.454	28.1
5 30 4	5 1,2,3,7,8,9-HxCDD	2.68e4	1.20	NO	0.954	10.065	34.745	34.74/	1.000	1.000	6.9715		0.436	6.97
6 2	6 1,2,3,4,6,7,8-HpCDD	6.45e6	1.02	NO	0.918	10.065	38.211	38.21	1.000	1.000	2055.8		1.79	2060
7 . 674.13. 3	7 OCDD	3.00e7	0.88	NO	0.866	10.065	41.124	41.14	1.000	1.000	17623 E ★		1.93	17600
8.77.97	8 2,3,7,8-TCDF	1.87e5	0.72	NO	0.848	10.065	25.672	25.68	1.000	1.001	28.566		0.108	28.6
9 7 200	9 1,2,3,7,8-PeCDF	2.96e5	1.54	NO	0.960	10.065	29.799	29.80	1.000	1.000	51.267		0.212	51.3
10: 3	10 2,3,4,7,8-PeCDF	2.47e5	1.51	NO	1.07	10.065	30.859	30.87	1.001	1.001	36.676		0.148	36.7
11	11 1,2,3,4,7,8-HxCDF	3.96e5	1.20	NO	0.986	10.065	33.446	33.45 <	1.000	1.000	94.722		0.175	94.7
1275 5 75	12 1,2,3,6,7,8-HxCDF	1.16e5	1.23	NO	1.04	10.065	33.592	33.58 /	1.001	1.000	26.633		0.173	26.6
13	13 2,3,4,6,7,8-HxCDF	4.25 e 4	1.20	NO	1.02	10.065	34.253	34.25 /	1.001	1.001	10.634		0.191	10.6
14 %	14 1,2,3,7,8,9-HxCDF	1.07e4	1.11	NO	0.991	10.065	35.238	35.26 /	1.000	1.001	2.8724		0.232	2.87
15 4 44 4 4. 4. 4.	15 1,2,3,4,6,7,8-HpCDF	4.55e5	1.00	NO	1.05	10.065	36.824	36.82	1.000	1.000	156.85		0.508	157
16	16 1,2,3,4,7,8,9-HpCDF	5.05e4	0.98	NO	1.18	10.065	38.828	38.83	1.000	1.000	18.009		0.390	18.0
17 2-45 1-24	17 OCDF	9.26e5	0.86	NO	0.896	10.065	41.406	41.42	1.000	1.001	504.00		0.462	504
183	18 13C-2,3,7,8-TCDD	1.25e6	0.77	NO	1.06	10.065	26.353	26.35	1.030	1.030	231.80	117	0.138	
19	19 13C-1,2,3,7,8-PeCDD	9.83e5	0.63	NO	0.785	10.065	31.192	31.03	1.219	1.213	245.98	124	0.173	
20	20 13C-1,2,3,4,7,8-HxCDD	7.33e5	1.28	NO	0.621	10.065	34.337	34.35 /	1.014	1.014	268.49	135	0.430	1
	21 13C-1,2,3,6,7,8-HxCDD	8.16e5	1.27	NO	0.734	10.065	34.459	34.46 /	1.017	1.017	252.66	127	0.364	
22	22 13C-1,2,3,7,8,9-HxCDD	8.02e5	1.24	NO	0.723	10.065	34.743	34.74/	1.026	1.025	252.06	127	0.369	
23:	23 13C-1,2,3,4,6,7,8-HpCDD	6.79e5	1.04	NO	0.568	10.065	38.243	38.20	1.129	1.128	271.88	137	0.604	
24	24 13C-OCDD	7.80e5	0.89	NO	0.496	10.065	41.180	41.12	1.216	1.214	357.64	90.0	0.576	
	25 13C-2,3,7,8-TCDF	1.54e6	0.77	NO	0.919	10.065	25.652	25.67	1.003	1.003	242.55	122	0.171	
	26 13C-1,2,3,7,8-PeCDF	1.20e6	1.57	NO	0.715	10.065	29.903	29.80	1.169	1.165	242.77	122	0.358	
	27 13C-2,3,4,7,8-PeCDF	1.25e6	1.59	NO	0.689	10.065	30.990	30.84	1.212	1.206	263.95	133	0.372	
	28 13C-1,2,3,4,7,8-HxCDF	8.42e5	0.50	NO	0.873	10.065	33.442	33.44 /	0.987	0.987	219.18	110	0.394	
,	29 13C-1,2,3,6,7,8-HxCDF	8.34e5	0.50	NO	0.933	10.065	33.571	33.57 /	0.991	0.991	202.99	102	0.368	
, -	30 13C-2,3,4,6,7,8-HxCDF	7.79e5	0.50	NO	0.843	10.065	34.238	34.23 /	1.011	1.011	210.06	106	0.408	
	31 13C-1,2,3,7,8,9-HxCDF	7.44e5	0.50	NO	0.780	10.065	35.238	35.23 /	1.040	1.040	216.80	109	0.441	

Work Order 2002493 Page 226 of 734

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Last Altered:

Monday, December 21, 2020 1:37:19 PM Pacific Standard Time

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Monday, December 21, 2020 1:38:03 PM Pacific Standard Time

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32	32	13C-1,2,	3,4,6,7,8-HpCDF	5.49e5	0.43	NO	0.726	10.065	36.813	36.81	1.087	1.086	171.87	86.5	0.477		
33	33	13C-1,2,	3,4,7,8,9-HpCDF	4.74e5	0.43	NO	0.491	10.065	38.822	38.82	1.146	1.146	219.17	110	0.705		
34	34	13C-OC	OF .	8.15e5	0.86	NO	0.565	10.065	41.396	41.40	1.222	1.222	327.35	82.4	0.601		
35	35	37CI-2,3,	7,8-TCDD	5.43e5			1.22	10.065	26.347	26.38	1.030	1.031	87.627	110	0.0447		
36	36	13C-1,2,	3,4-TCDD	1.01e6	0.78	NO	1.00	10.065	25.640	25.58	1.000	1.000	198.71	100	0.146		
37	37	13C-1,2,	3,4-TCDF	1.37e6	0.78	NO	1.00	10.065	24.130	24.09	1.000	1.000	198.71	100	0.157	l l	
38	38 (13C-1,2,	3,4,6,9-HxCDF	8.75e5	0.50	NO	1.00	10.065	33.920	33.88	1.000	1.000	198.71	100	0.344		
391	39	Total Tet	ra-Dioxins				0.980	10.065	24.620		0.000		13.051		0.0322	14.2	
407	40	Total Per	nta-Dioxins				0.932	10.065	29.960		0.000		23.758		0.0615	27.2	
41	41	Total He	xa-Dioxins				0.902	10.065	33.635		0.000		394.65		0.466	395	
42	42	Total He	pta-Dioxins				0.918	10.065	37.640		0.000		4589.6		1.79	4590	
43:.	43	Total Tet	ra-Furans				0.848	10.065	23.610		0.000		112.07		0.108	125	,
44, 1	44	1st Func.	. Penta-Furans				0.960	10.065	26.930		0.000		82.905		0.0388	82.9	,
45 %	45	Total Per	nta-Furans				0.960	10.065	29.275		0.000		180.32		0.188	180	
46 2	46	Total He	xa-Furans				1.02	10.065	33.555		0.000		285.95		0.189	286	
477,012	47	Total He	pla-Fu <u>r</u> ans				1.05	10.065	37.835		0.000		546.74		0.475	547	

Work Order 2002493 Page 227 of 734

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_7.qld

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Monday, December 21, 2020 1:37:19 PM Pacific Standard Time Monday, December 21, 2020 1:38:03 PM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201216R1_7, Date: 16-Dec-2020, Time: 13:00:35, ID: 2002493-05 USMPDI-014SC-A-10-11-201109 18.24, Description: USMPDI-014SC-A-10-11-201109

Tetra-Dioxins

Name Name	, RT 1	m1 Height	m2 Height + 1	m1.Resp	m2 Resp] [RA	[n/y;[Resp	Conc	EMPC	DL
1 Total Tetra-Dioxins	22.58	1.645e5	2.263e5	1.504e4	2.002e4	0.75	NO	3.506e4	5.7046	5.7046	0.0322
2 Total Tetra-Dioxins	22.92	3.954 e4	6.424e4	3.770e3	5.187e3	0.73	NO	8.957e3	1.4574	1.4574	0.0322
3 Total Tetra-Dioxins	23.45	1.583e4	2.420e4	1.425e3	1.800e3	0.79	NO	3.225e3	0.52478	0.52478	0.0322
4 Total Tetra-Dioxins	24.28	1.244 e 4	1.638e4	8.791e2	1.148e3	0.77	NO	2.028e3	0.32992	0.32992	0.0322
5 Total Tetra-Dioxins	24.50	3.821e4	5.033e4	3.252e3	4.097e3	0.79	NO	7.349e3	1.1958	1.1958	0.0322
6 Total Tetra-Dioxins	24.74	3.859e4	4.211e4	2.360e3	3.108e3	0.76	NO	5.467e3	0.88964	0.88964	0.0322
7. Total Tetra-Dioxins	24.94	1.134e4	1.790e4	8.509e2	1.258e3	0.68	NO	2.108e3	0.34308	0.34308	0.0322
8 - Total Tetra-Dioxins	25.23	9.762e3	1.330e4	7.870e2	9.186e2	0.86	NO	1.706e3	0.27755	0.27755	0.0322
9 Total Tetra-Dioxins	25.30	1.621 e4	2.570e4	1.134e3	1.545e3	0.73	NO	0.000e0	0.00000	0.43593	0.0322
10 Total Tetra-Dioxins	25.62	8.884e3	9.834e3	4.913e2	6.035e2	0.81	NO	1.095e3	0.17814	0.17814	0.0322
11 Total Tetra-Dioxins	25.70	1.780e4	1.661e4	1.232e3	1.197e3	1.03	YES	0.000e0	0.00000	0.34466	0.0322
12 Total Tetra-Dioxins	25.82	6.055e3	7.662e3	3.736e2	5.315e2	0.70	NO	9.050e2	0.14727	0.14727	0.0322
13 Total Tetra-Dioxins	26.10	3.592e4	5.394e4	3.360e3	4.694e3	0.72	NO	8.054e3	1.3106	1.3106	0.0322
14 2,3,7,8-TCDD	26.38	1.948e4	2.774e4	1.091e3	1.857e3	0.59	YES	2.948e3	0.00000	0.40822	0.0322
15 Total Tetra-Dioxins	26.69	1.539 e4	2.249e4	1.057e3	1.439e3	0.73	NO	2.496e3	0.40618	0.40618	0.0322
16 X Total Tetra-Dioxins	26.82	2.674e3	5.279e3	2.276e2	3.165e2	0.72	NO	5.441e2	0.088531	0.088531	0.0322
17 Total Tetra-Dioxins	27.24	8.758e3	1.119e4	5.649e2	6.508e2	0.87	NO	1.216e3	0.19782	0.19782	0.0322

Work Order 2002493 Page 228 of 734

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U:\VG12.PRO\Results\201216R1\201216R1_7.qld

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Dataset:

Monday, December 21, 2020 1:37:19 PM Pacific Standard Time Monday, December 21, 2020 1:38:03 PM Pacific Standard Time

Name: 201216R1_7, Date: 16-Dec-2020, Time: 13:00:35, ID: 2002493-05 USMPDI-014SC-A-10-11-201109 18.24, Description: USMPDI-014SC-A-10-11-201109

Penta-Dioxins

	Name .	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	, RA	lu/y l	Resp_	L Conc'L	EMPC	DL
17.7	Total Penta-Dioxins	28.80	1.842e5	3.159e5	1.339e4	2.278e4	0.59	NO	3.617e4	7.8490	7.8490	0.0615
2	Total Penta-Dioxins	29.25	4.879e4	9.384e4	2.988e3	4.743e3	0.63	NO	7.731e3	1.6776	1.6776	0.0615
3	Total Penta-Dioxins	29.80	2.199e5	3.765e5	1.100e4	1.652e4	0.67	NO	2.752e4	5.9722	5.9722	0.0615
4,	Total Penta-Dioxins	29.98	6.485e4	1.028e5	2.508e3	3.796e3	0.66	NO	0.000e0	0.00000	1.3679	0.0615
5	Total Penta-Dioxins	30.02	7.367e4	1.124e5	3.836e3	5.830e3	0.66	NO	0.000e0	0.00000	2.0976	0.0615
6	Total Penta-Dioxins	30.28	9.801e4	1.599e5	7.383e3	1.204e4	0.61	NO	1.943e4	4.2159	4.2159	0.0615
7	Total Penta-Dioxins	30.58	3.010e4	5.100e4	1.823e3	2.670e3	0.68	NO	4.493e3	0.97498	0.97498	0.0615
8-,	1,2,3,7,8-PeCDD	31.06	4.527e4	7.087e4	2.116e3	3.538e3	0.60	NO	5.654e3	1.2269	1.2269	0.0615
9	Total Penta-Dioxins	31.14	4.532e4	5.532e4	2.010e3	2.854e3	0.70	NO	4.864e3	1.0555	1.0555	0.0615
10" "4	Total Penta-Dioxins	31.41	2.875e4	4.041e4	1.450e3	2.170e3	0.67	NO	3.620e3	0.78559	0.78559	0.0615

Hexa-Dioxins

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	JERA	n/y !	Resp	Conc: [_	EMPC 1	DL
1 Total Hexa-Dioxins	32.71	6.806e6	5.582e6	3.223e5	2.641e5		NO	5.864e5	164.75	164.75	0.466
Total Hexa-Dioxins	33.31	6.722e5	5.493e5	3.269e4	2.618e4	1.25	NO	5.887e4	16.539	16.539	0.466
3 Total Hexa-Dioxins	33.60	4.452e6	3.604e6	3.087e5	2.522e5	1.22	NO	5.609e5	157.59	157.59	0.466
4 Total Hexa-Dioxins	33.71	3.993e5	3.533e5	2.111e4	1.712e4	1.23	NO	3.823e4	10.740	10.740	0.466
5,1,2,3,4,7,8-HxCDD	34.36	1.186e5	9.407e4	5.439e3	4.546e3	1.20	NO	9.985e3	2.6522	2.6522	0.429
1,2,3,6,7,8-HxCDD	34.48	1.062e6	8.410e5	5.762e4	4.657e4	1.24	NO	1.042e5	28.107	28.107	0.454
7	34.64	2.446e5	2.154e5	1.390e4	1.209e4	1.15	NO	2.599e4	7.3023	7.3023	0.466
8 1.2,3,7,8,9-HxCDD	34.74	2.794e5	2.360e5	1.464e4	1.220e4	1.20	NO	2.684e4	6.9715 .	6.9715	0.436

Hepta-Dioxins

Name 'IS	RT+ 11-	m1 Height	m2 Height	m1 Resp	m2 Resp	[RA]	n/y ' L	Resp	Conc.	EMPC [DL
1 Total Hepta-Dioxins	37.21	6.062e7	5.908e7	4.016e6	3.936e6	1.02	NO	7.952e6	2533.8	2533.8	1.79
2 1,2,3,4,6,7,8-HpCDD	38.21	6.255e7	6.170e7	3.252e6	3.199e6	1.02	NO	6.452e6	2055.8	2055.8	1.79

Work Order 2002493 Page 229 of 734

U:\VG12.PRO\Results\201216R1\201216R1_7.qld

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Name: 201216R1_7, Date: 16-Dec-2020, Time: 13:00:35, ID: 2002493-05 USMPDI-014SC-A-10-11-201109 18:24, Description: USMPDI-014SC-A-10-11-201109

Tetra-Furans

	Name,_		RT	m1 Height	m2 Height;	m1 Resp	m2 Resp	[RA]	lu/y[k	Resp'	Conc'	_EMPC	DL
1	Total Tet	ra-Furans	20.32	1.961e4	2.739e4	1.817e3	2.427e3	0.75	NO	4.244e3	0.64703	0.64703	0.108
2	Total Tet	ra-Furans	20.86	5.335 e4	7.511e4	4.686e3	6.571e3	0.71	NO	1.126e4	1.7163	1.7163	0.108
37	Total Tet	ra-Furans	21.68	3.921e5	5.438e5	3.773e4	5.124e4	0.74	NO	8.897e4	13.564	13.564	0.108
4	Total Tet	ra-Furans	21.90	4.215e3	5.908e3	2.367e2	2.941e2	0.80	NO	5.308e2	0.080930	0.080930	0.108
5	Total Tet	ra-Furans	22.06	1.925e4	2.425e4	1.804e3	2.267e3	0.80	NO	4.071e3	0.62064	0.62064	0.108
6	Total Tet	ra-Furans	22.17	2.326e4	3.483e4	2.537e3	3.403e3	0.75	NO	5.940e3	0.90556	0.90556	0.108
7.	Total Tet	ra-Furans	22.25	2.400e4	3.346e4	1.846e3	2.482e3	0.74	NO	4.327e3	0.65976	0.65976	0.108
88	Total Tet	ra-Furans	22.51	1.720e4	2.419e4	9.113e2	1.303e3	0.70	NO	2.214e3	0.33752	0.33752	0.108
9	Total Tet	ra-Furans	22.61	3.358e5	4.774e5	2.988e4	4.173e4	0.72	NO	7.161e4	10.917	10.917	0.108
10	Total Tet	ra-Furans	23.08	3.309e5	4.590e5	2.828e4	3.824e4	0.74	NO	6.652e4	10.141	10.141	0.108
11	Total Tet	ra-Furans	23.17	1.197 e4	1.999e4	9.751e2	1.305e3	0.75	NO	2.280e3	0.34766	0.34766	0.108
12 1	Total Tet	ra-Furans	23.44	4.487e4	6.354e4	3.811e3	5.051e3	0.75	NO	8.862e3	1.3511	1.3511	0.108
13	Total Tet	ra-Furans	23.82	1.339e4	1.626 e4	9.261e2	1.404e3	0.66	NO	2.330e3	0.35523	0.35523	0.108
14	Total Tet	ra-Furans	23.95	2.710e4	3.814e4	1.953e3	2.633e3	0.74	NO	4.586e3	0.69916	0.69916	0.108
15	Total Tet	ra-Furans	24.19	2.088e5	2.741e5	7.906e3	1.121e4	0.70	NO	0.000e0	0.00000	2.9152	0.108
16	Total Tet	ra-Furans	24.23	3.223e5	4.376e5	2.492e4	3.345e4	0.75	NO	0.000e0	0.00000	8.8996	0.108
17	Total Tet	ra-Furans	24.50	2.579e4	3.959e4	1.850e3	2.719e3	0.68	NO	4.569e3	0.69661	0.69661	0.108
18	Total Tet	ra-Furans	24.66	9.950e5	1.404e6	7.219e4	9.900e4	0.73	NO	1.712e5	26.099	26.099	0.108
19 7 , 1	Total Tet	ra-Furans	24.99	4.473e4	6.213e4	3.216e3	4.383e3	0.73	NO	7.600e3	1.1586	1.1586	0.108
20	Total Tet	ra-Furans	25.09	1.550e4	1.690e4	1.244e3	1.429e3	0.87	NO	2.672e3	0.40744	0.40744	0.108
21	Total Tel	ra-Furans	25.23	5.468e3	7.063e3	3.328e2	4.484e2	0.74	NO	7.813e2	0.11911	0.11911	0.108
22	Total Tet	ra-Furans	25.39	2.123e4	3.318e4	1.430e3	2.159e3	0.66	NO	3.589e3	0.54721	0.54721	0.108
23	Total Tet	ra-Furans	25.55	1.727e5	2.120e5	1.028e4	1.420e4	0.72	NO	2.447e4	3.7314	3.7314	0.108
24 0 7	2,3,7,8-T	CDF	25.68	1.225e6	1.698e6	7.859e4	1.088e5	0.72	NO	1.874e5	28.566	28.566	0.108
25	Total Tet	ra-Furans	25.93	1.929e4	2.517e4	8.622e2	1.177e3	0.73	NO	0.000e0	0.00000	0.31090	0.108
26	Total Tet	ra-Furans	25.99	6.158e4	8.849 e4	4.186e3	5.748e3	0.73	NO	9.934e3	1.5146	1.5146	0.108
27	Total Tet	ra-Furans	26.25	1.13 9e4	1.736e4	7.897e2	1.154e3	0.68	NO	1.943e3	0.29627	0.29627	0.108
28	Total Tet	ra-Furans	26.36	7.576e3	1.068e4	5.455e2	8.228e2	0.66	NO	1.368e3	0.20861	0.20861	0.108
29	Total Tet	ra-Furans	26.87	4.862e4	6.722e4	3.070e3	3.923e3	0.78	NO	6.993e3	1.0662	1.0662	0.108
30	Total Tet	ra-Furans	27.01	6.561e4	8.920e4	3.779e3	5.350e3	0.71	NO	9.128e3	1.3917	1.3917	0.108
31	Total Tet	ra-Furans	27.19	1.000e5	1.361e5	6.247e3	8.509e3	0.73	NO	1.476e4	2.2498	2.2498	0.108
32	Total Tet	ra-Furans	27.38	4.004e4	3.210e4	2.262e3	1.515e3	1.49	YES	0.000e0	0.00000	0.40878	0.108

Work Order 2002493 Page 230 of 734

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_7.qld

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Tetra-Furans

Name Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	[[RA	ſυλ'	Resp	Conc.	_ EMPC \	Ďľ
33 Total Tetra-Furans	27.56	7.506e4	1.132e5	4.553e3	6.452e3	0.71	NO	1.100e4	1.6777	1.6777	0.108

Penta-Furans function 1

Name	L. RT.	m1 Height	m2 Height	m1 Resp	m2 Resp	L'RA! Ln	/yı Resp	[作 Conc.]	EMPC	DL
1 1st Func. Penta-Furans	27.18	5.173e6	3.259e6	3.009e5	1.896e5	1.59 N	NO 4.905e5	82.905	82.905	0.0388

Penta-Furans

N	lame	RTL	m1 Height	m2 Height	m1 Resp	m2 Resp	JIRA (Ju/A j L	Resp_င္	Conc.	EMPC }	DL
1: T	otal Penta-Furans	28.65	1.492e5	9.053e4	8.254e3	5.328e3	1.55	NO	1.358e4	2.2956	2.2956	0.188
2 T	otal Penta-Furans	28.80	2.927e6	1.874e6	1.684e5	1.086e5	1.55	NO	2.770e5	46.820	46.820	0.188
3 T	otal Penta-Furans	29.18	8.823e3	5.524e3	4.219e2	2.594e2	1.63	NO	6.813e2	0.11515	0.11515	0.188
4 T.	otal Penta-Furans	29.24	1.665e4	1.043e4	1.352e3	8.048e2	1.68	NO	2.157e3	0.36456	0.36456	0.188
5 T	otal Penta-Furans	29.43	8.367e5	5.171e5	4.270e4	2.741e4	1.56	NO	7.012e4	11.851	11.851	0.188
6 T	otal Penta-Furans	29.60	3.657e5	2.162e5	1.947e4	1.224e4	1.59	NO	3.171e4	5.3593	5.3593	0.188
7	,2,3,7,8-PeCDF	29.80	3.974e6	2.571e6	1.798e5	1.166e5	1.54	NO	2.964e5	51.267	51.267	0.212
8 T	otal Penta-Furans	29.87	4.143e4	2.844e4	1.527e3	9.487e2	1.61	NO	2.475e3	0.41838	0.41838	0.188
9' T	otal Penta-Furans	30.05	1.598e6	1.015e6	8.206e4	5.176e4	1.59	NO	1.338e5	22.618	22.618	0.188
10 P	otal Penta-Furans	30.60	1.118e4	7.242e3	5.376e2	3.522e2	1.53	NO	8.898e2	0.15040	0.15040	0.188
11 7 T	otal Penta-Furans	30.67	6.518e4	4.524e4	2.900e3	2.136e3	1.36	NO	5.036e3	0.85111	0.85111	0.188
12	,3,4,7,8-PeCDF	30.87	2.847e6	1.891e6	1.484e5	9.844e4	1.51	NO	2.468e5	36.676	36.676	0.148
13 THE T	otal Penta-Furans	31.65	1.257e4	7.544e3	5.601e2	3.594e2	1.56	NO	9.195e2	0.15542	0.15542	0.188
14. n 6 T	otal Penta-Furans	31.77	1.084e5	6.457e4	4.966e3	3.184e3	1.56	NO	8.149e3	1.3774	1.3774	0.188

Work Order 2002493 Page 231 of 734

U:\VG12.PRO\Results\201216R1\201216R1_7.qld

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Hexa-Furans

أستشتاء	Name	RT	m1 Height	m2 Height	m1 Resp	_m2 Resp	JIRA,	lu/y	Resp	Conc.	EMPC	DL DL
1 7	Total Hexa-Furans	32.19	6.130e5	5.039e5	2.811e4	2.299e4	1.22	NO	5.111e4	12.444	12.444	0.189
2	Total Hexa-Furans	32.36	2.387e6	1.978e6	1.089e5	9.084e4	1.20	NO	1.997e5	48.621	48.621	0.189
3	Total Hexa-Furans	32.76	2.826e4	2.342e4	1.466e3	1.247e3	1.18	NO	2.714e3	0.66078	0.66078	0.189
4	Total Hexa-Furans	32.99	3.766e6	3.093e6	1.790e5	1.480e5	1.21	NO	3.270e5	79.615	79.615	0.189
5	Total Hexa-Furans	33.32	6.266e4	4.383e4	2.860e3	2.203e3	1.30	NO	5.063e3	1.2328	1.2328	0.189
6	1,1,2,3,4,7,8-HxCDF	33.45	4.255e6	3.602e6	2.160e5	1.799e5	1.20	NO	3.959e5	94.722	94.722	0.175
7	1,2,3,6,7,8-HxCDF	33.58	1.246e6	1.021e6	6.398e4	5.212e4	1.23	NO	1.161e5	26.633	26.633	0.173
88	Total Hexa-Furans	33.89	2.636e4	2.545e4	1.496e3	1.200e3	1.25	NO	2.696e3	0.65645	0.65645	0.189
9, , , , , , ,	Total Hexa-Furans	34.04	1.318e4	1.311e4	5.912e2	5.377e2	1.10	NO	1.129e3	0.27487	0.27487	0.189
10. 73	2,3,4,6,7,8-HxCDF	34.25	4.129e5	3.359e5	2.325e4	1.930e4	1.20	NO	4.255e4	10.634	10.634	0.191
11	1,2,3,7,8,9-HxCDF	35.26	2.740e5	2.431e5	5.609e3	5.050e3	1.11	NO	1.066e4	2.8724	2.8724	0.232
12	Total Hexa-Furans	35.28	3.709e5	3.053e5	1.717e4	1.398e4	1.23	NO	3.116e4	7.5864	7.5864	0.189

Hepta-Furans

Name	RT /	m1 Height	m2 Height	1	m1 Resp	m2 Resp	, RA	Ju/A ⊤i	_Resp	Conc!	EMPC :	DL
1 1.2.3.4.6.7.8-HpCDF	36.82	3.670e6	3.660e6		2.280e5	2.270e5	1.00	NO	4.551e5	156.85	156.85	0.508
2 Total Hepta-Furans	37.22	3.611e4	3.532e4		4.142e3	3.840e3	1.08	NO	7.982e3	2.9550	2.9550	0.475
3 Total Hepta-Furans	37.54	8.269e6	8.042e6		5.012e5	4.954e5	1.01	NO	9.965e5	368.93	368.93	0.475
4 5 1,2,3,4,7,8,9-HpCDF	38.83	5.204e5	5.228e5		2.503e4	2.545e4	0.98	NO	5.048e4	18.009	18.009	0.390

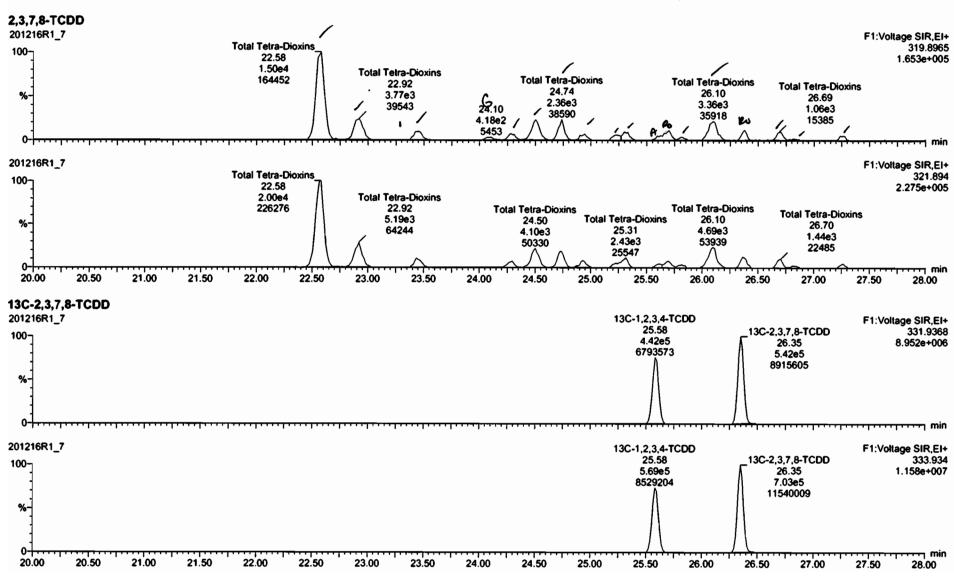
Work Order 2002493 Page 232 of 734

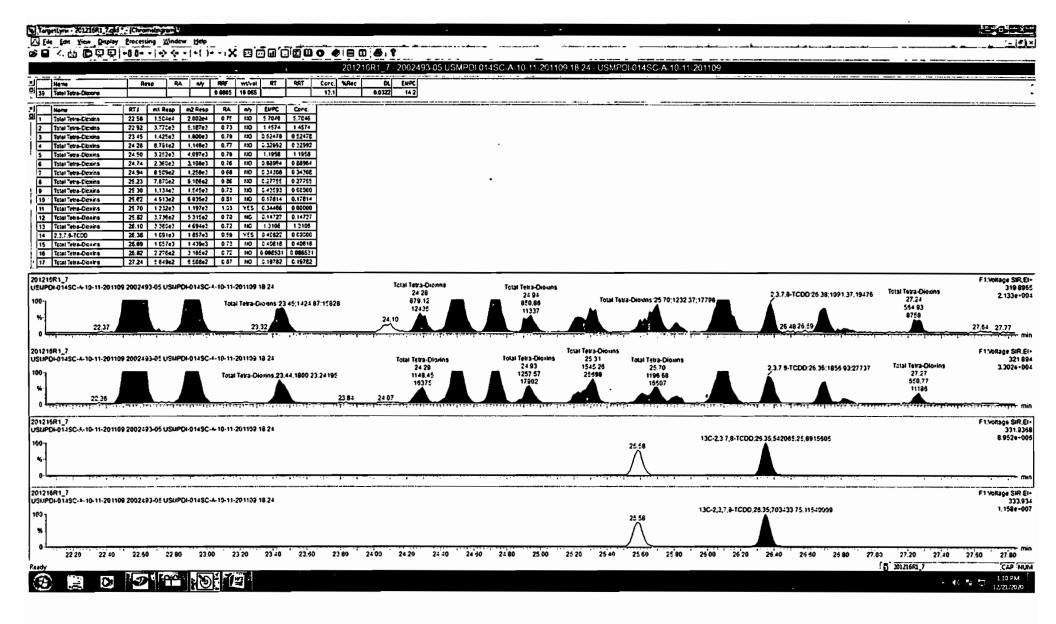
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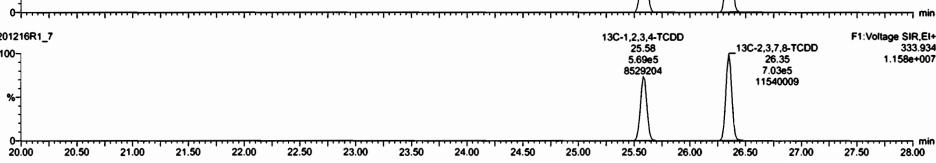
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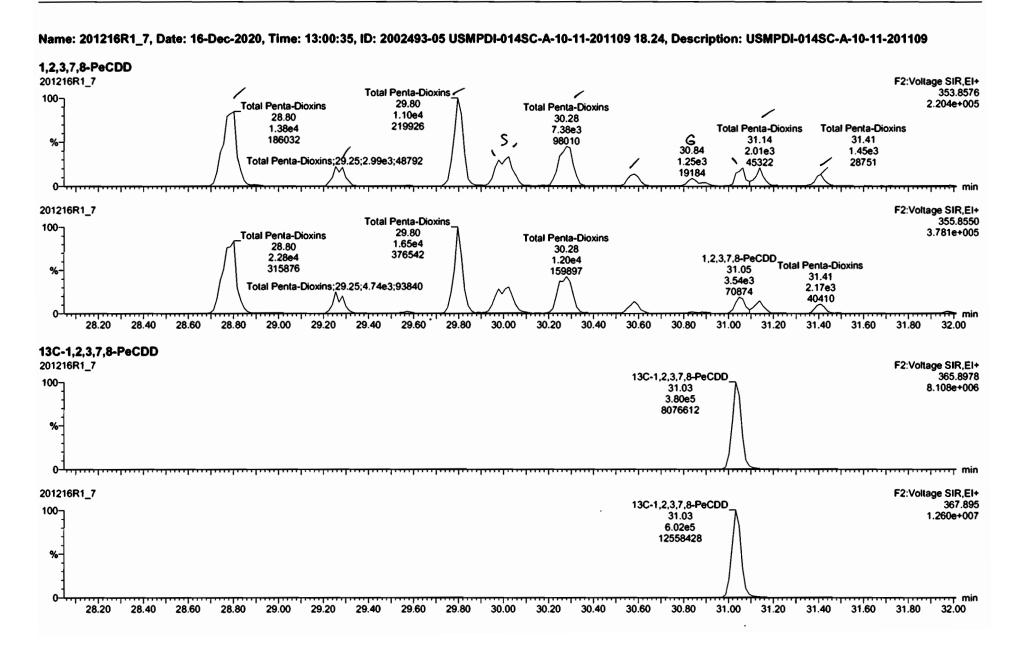
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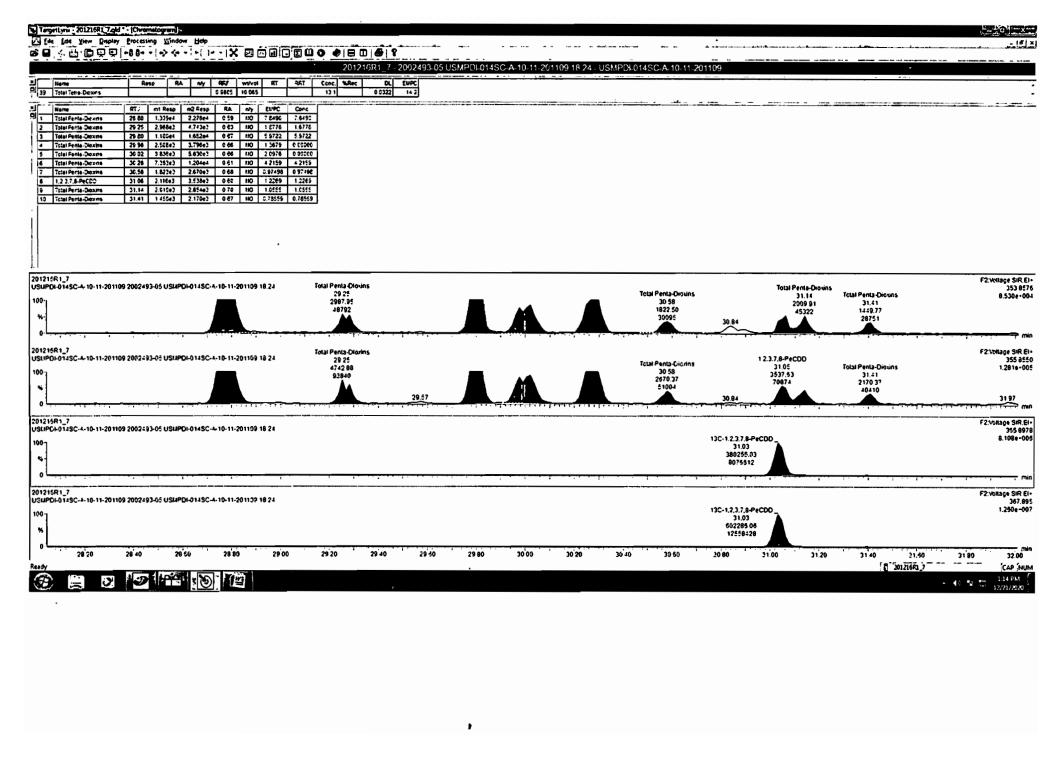


Work Order 2002493 Page 234 of 734





Work Order 2002493 Page 236 of 734

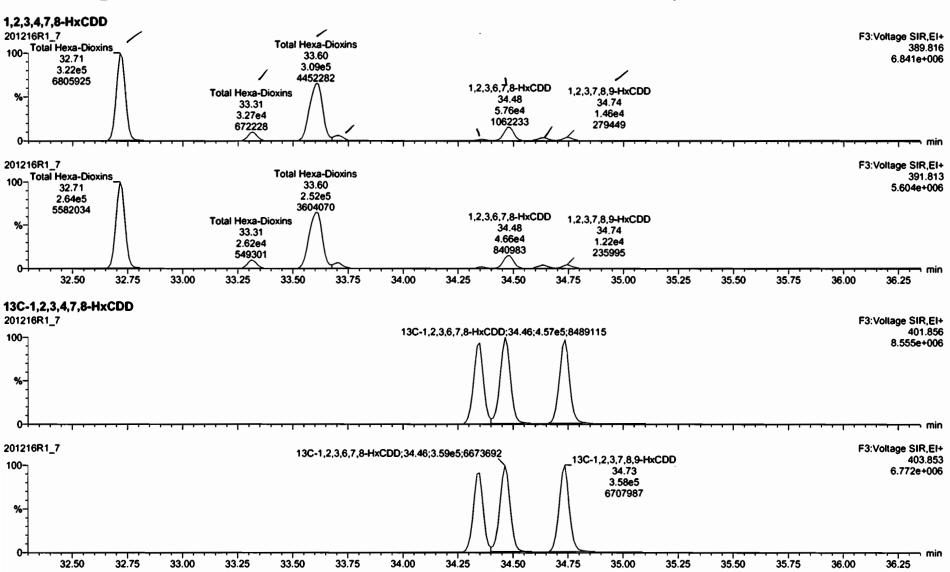


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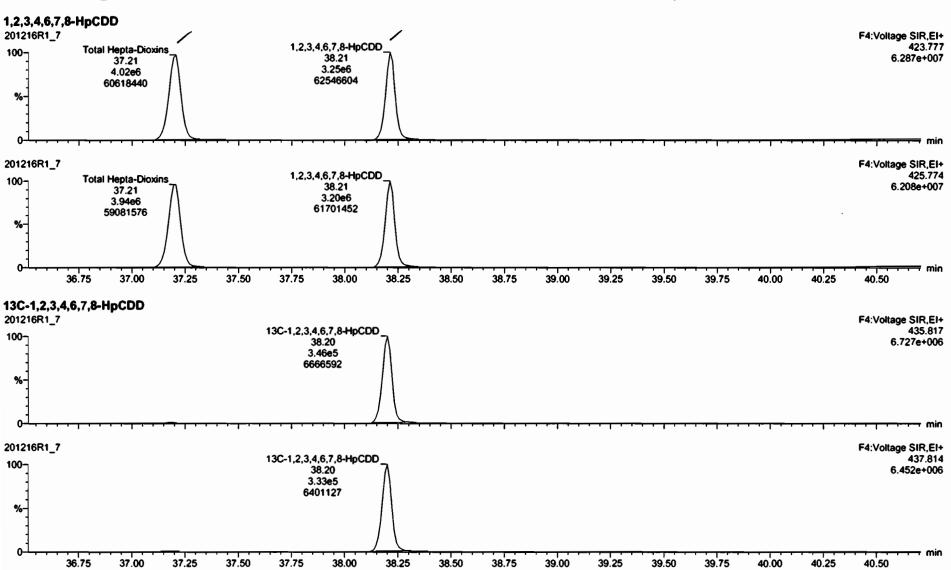
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Work Order 2002493

42.40

42.60

42.80

43.00

43.20

43.40

43.60

43.80

44.00

42.20

41.00

40.80

41.20

41,40

41.60

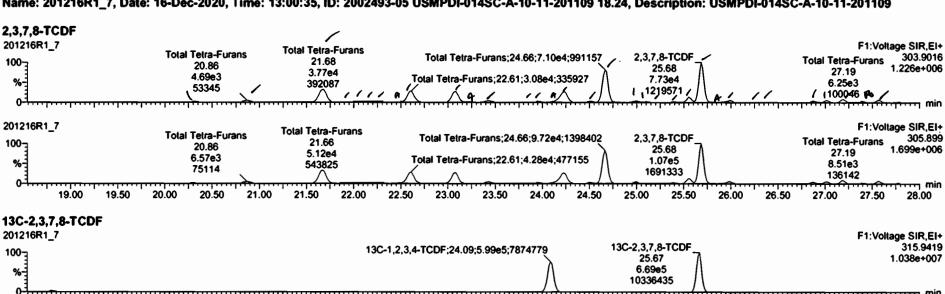
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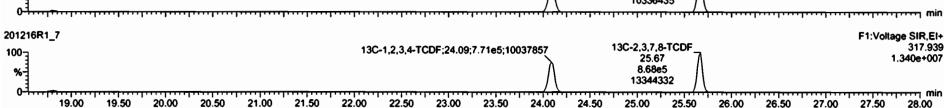
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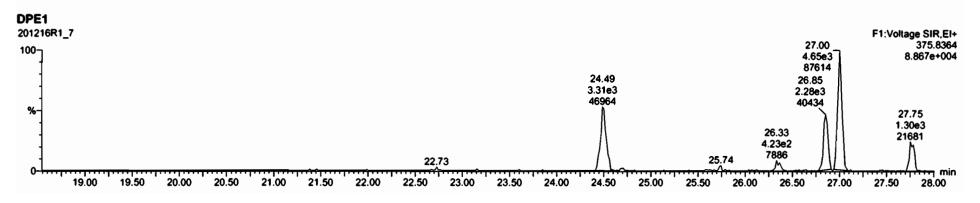
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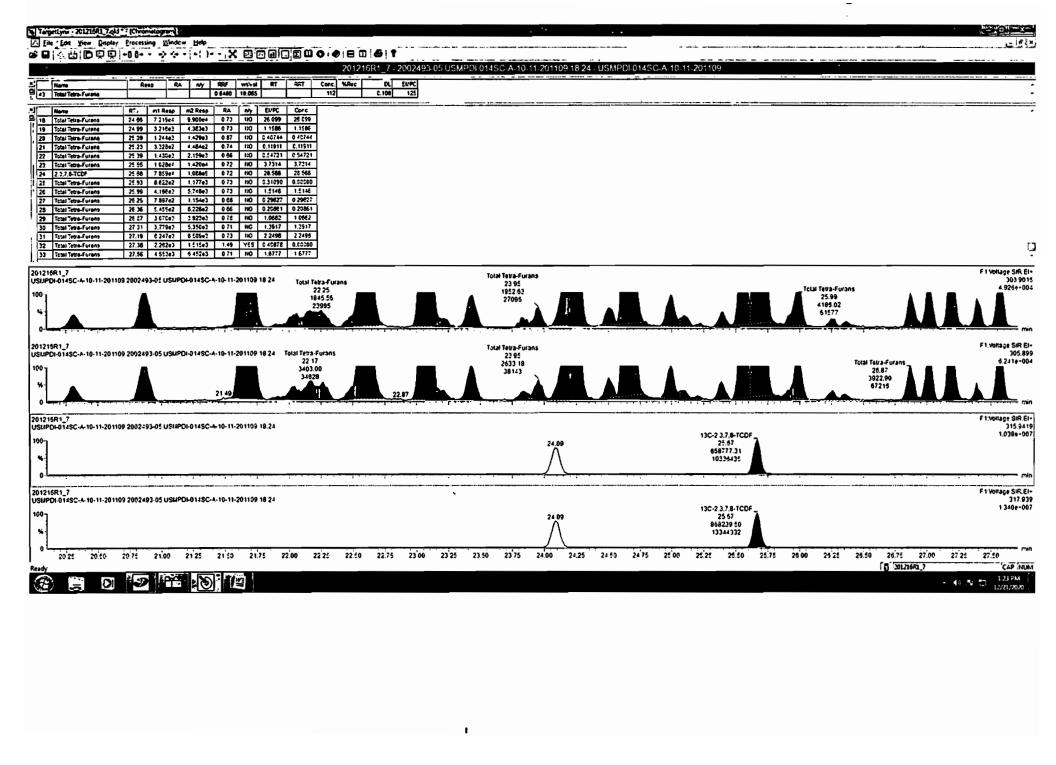
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Name: 201216R1_7, Date: 16-Dec-2020, Time: 13:00:35, ID: 2002493-05 USMPDI-014SC-A-10-11-201109 18.24, Description: USMPDI-014SC-A-10-11-201109









Work Order 2002493 Page 242 of 734

23.50

24.00

24.50

25.00

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26.00

23.00

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min rrr

28.00

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27.00

27.50

30.00

30.20

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30.60

30.80

31.00

31.20

31.60

31.80

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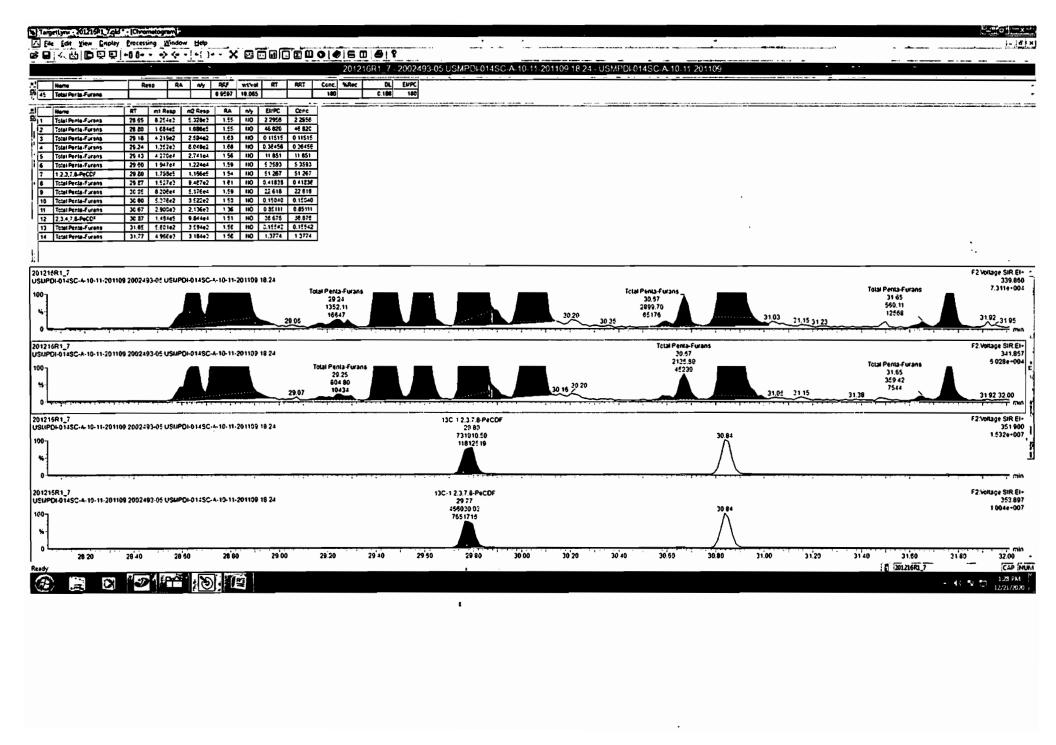
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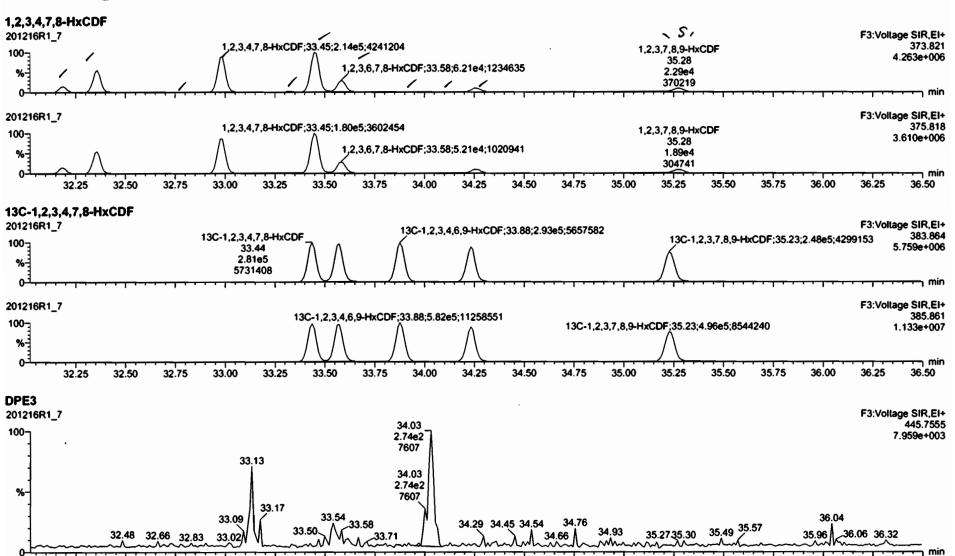
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Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time

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32.25

32.50

32.75

33.00

33.25

33.50

33.75

34.00

34.25

34.50

34.75

35.00

35.25

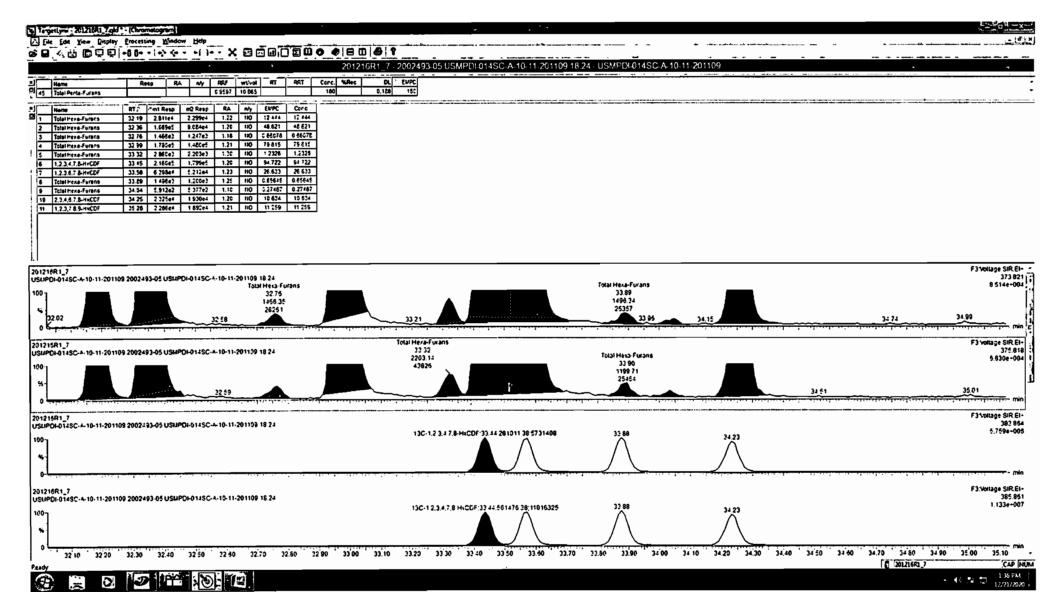
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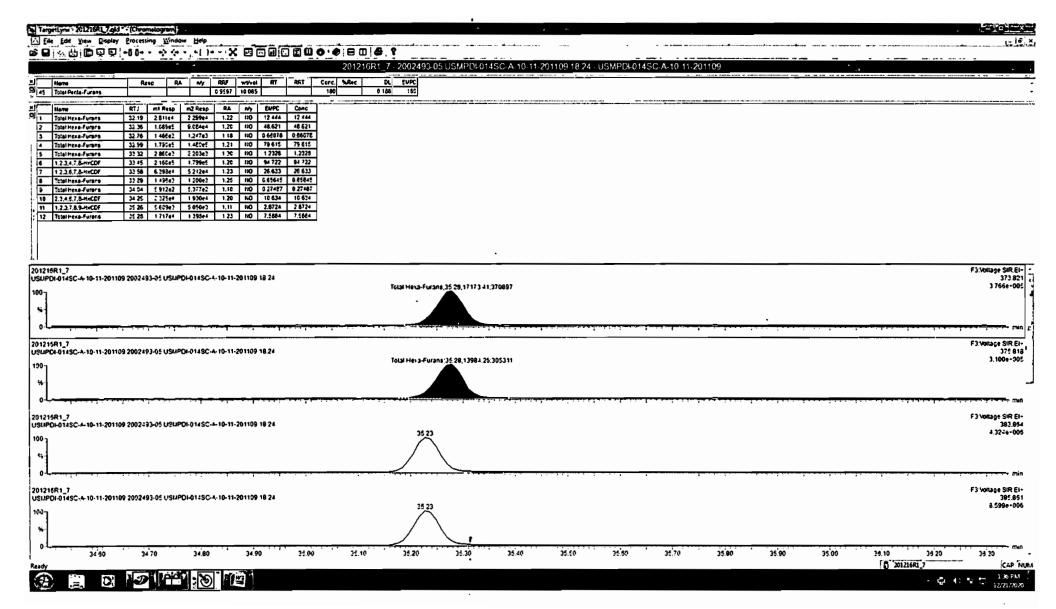
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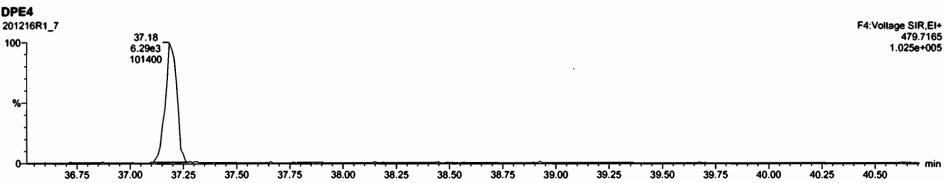
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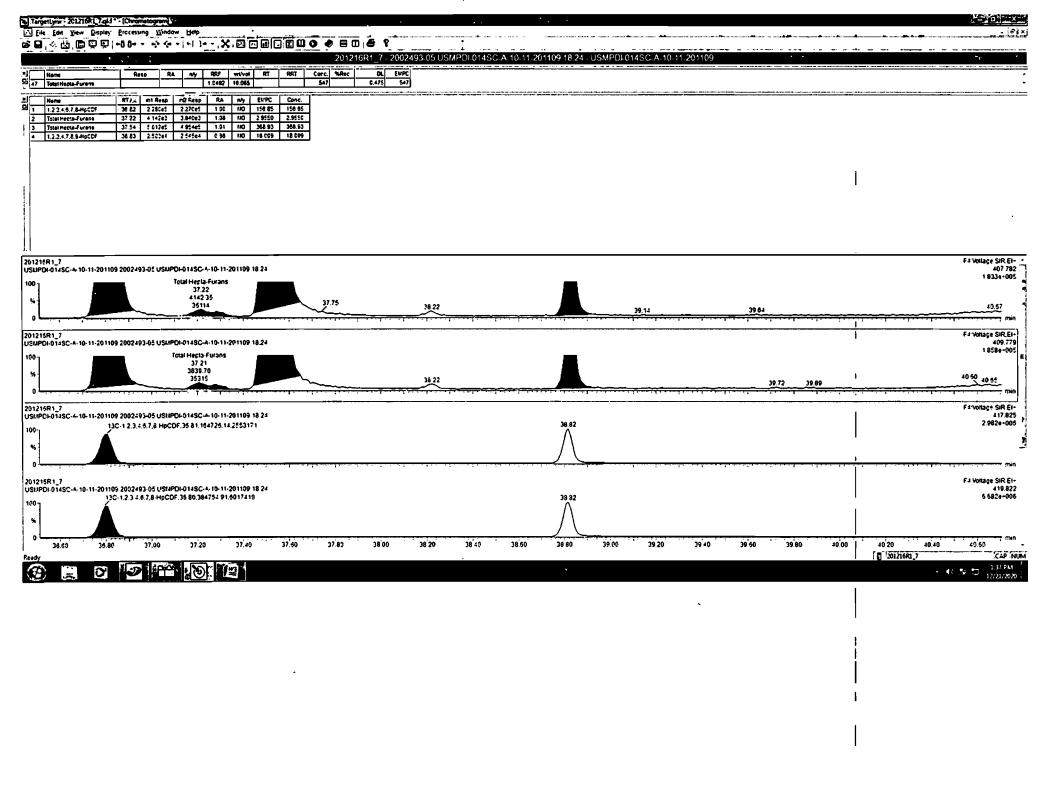


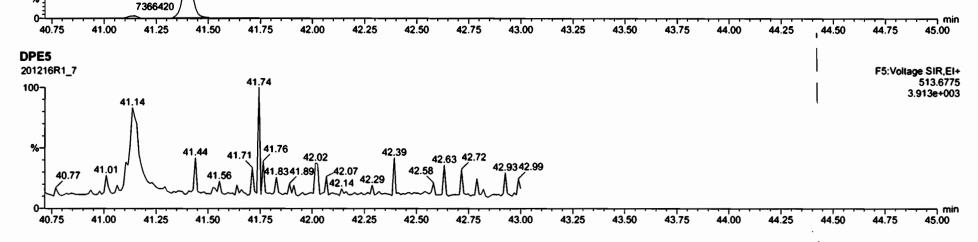
Work Order 2002493 Page 247 of 734

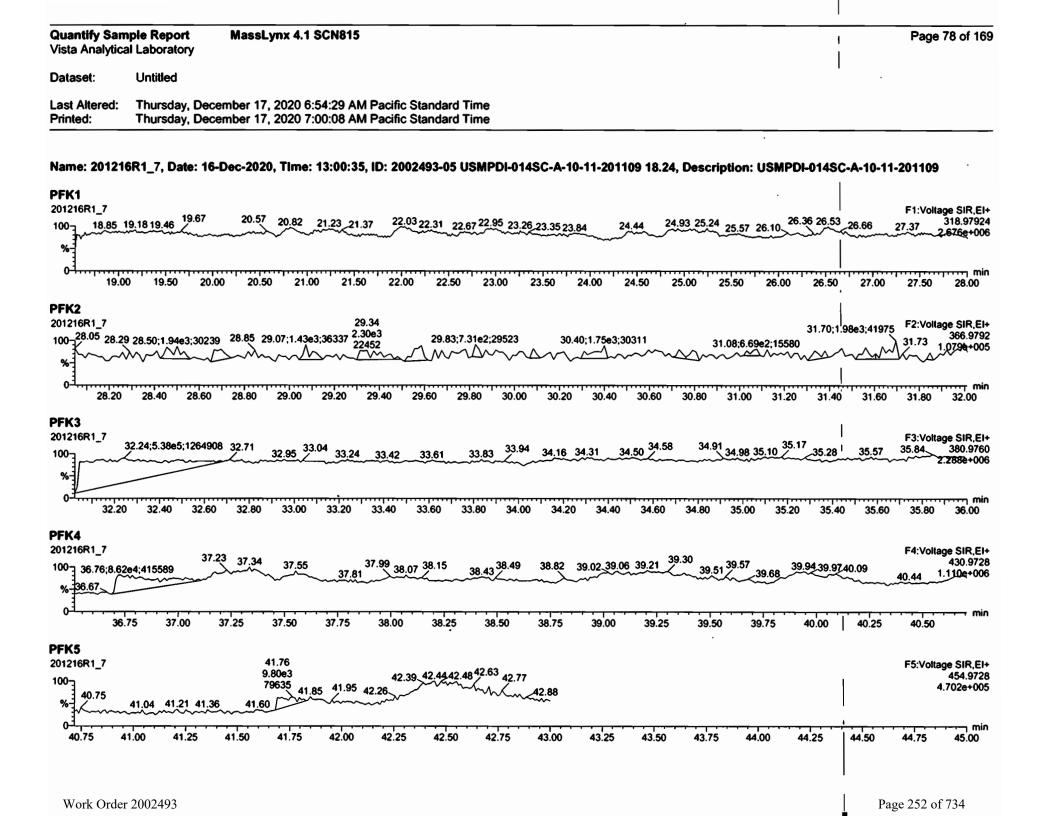


Work Order 2002493 Page 248 of 734









MassLynx 4.1 SCN815

Page 1 of 1

Dataset:

U:\VG12.PRO\Results\201217R4\201217R4_11.qld

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Printed:

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GPB 12/21/2020

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Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

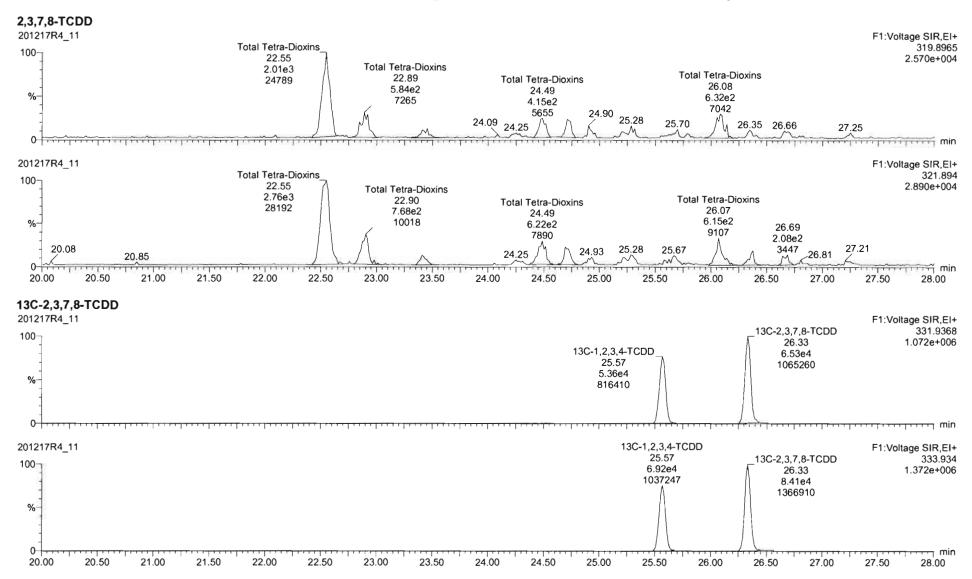
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K-SS-Cal	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
105 000	7 OCDD	3.40e6	0.89	NO	0.866	10.065	41.124	41.13	1.000	1.000	19015		11.2	19000
2	24 13C-OCDD	8.20e4	0.90	NO	0.496	10.065	41.167	41.12	1.216	1.214	286.39	72.1	2.69	
3	35 37CI-2,3,7,8-TCDD	6.69e4			1.22	10.065	26.332	26.35	1.030	1.031	88.965	112	0.236	
4	36 13C-1,2,3,4-TCDD	1.23e5	0.77	NO	1.00	10.065	25.640	25.57	1.000	1.000	198.71	100	0.662	
5	37 13C-1,2,3,4-TCDF	1.84e5	0.76	NO	1.00	10.065	24.130	24.07	1.000	1.000	198.71	100	0.883	
6	38 13C-1,2,3,4,6,9-HxCDF	1.15e5	0.49	NO	1.00	10.065	33.920	33.87	1.000	1.000	198.71	100	1.31	

Work Order 2002493 Page 253 of 734

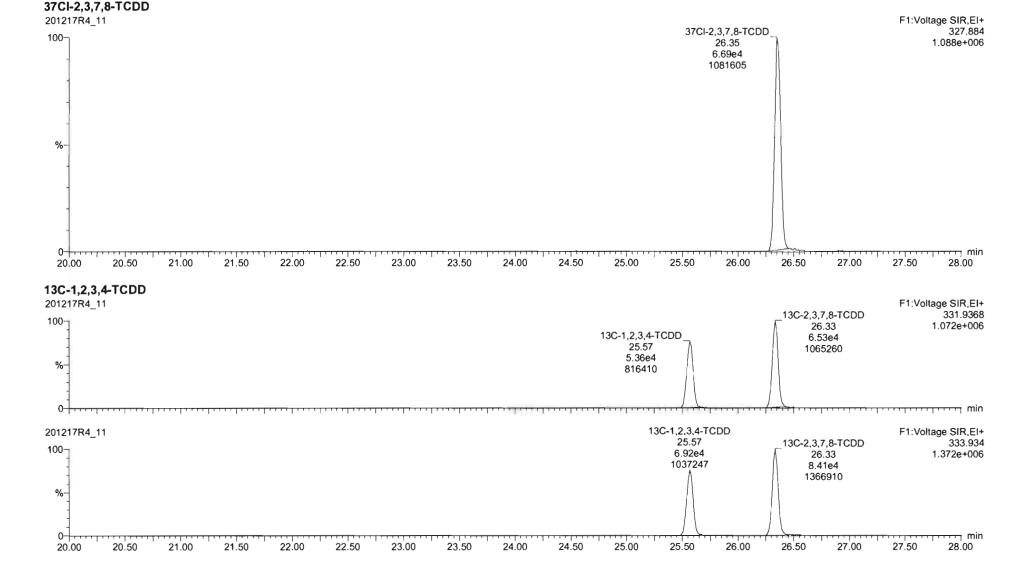
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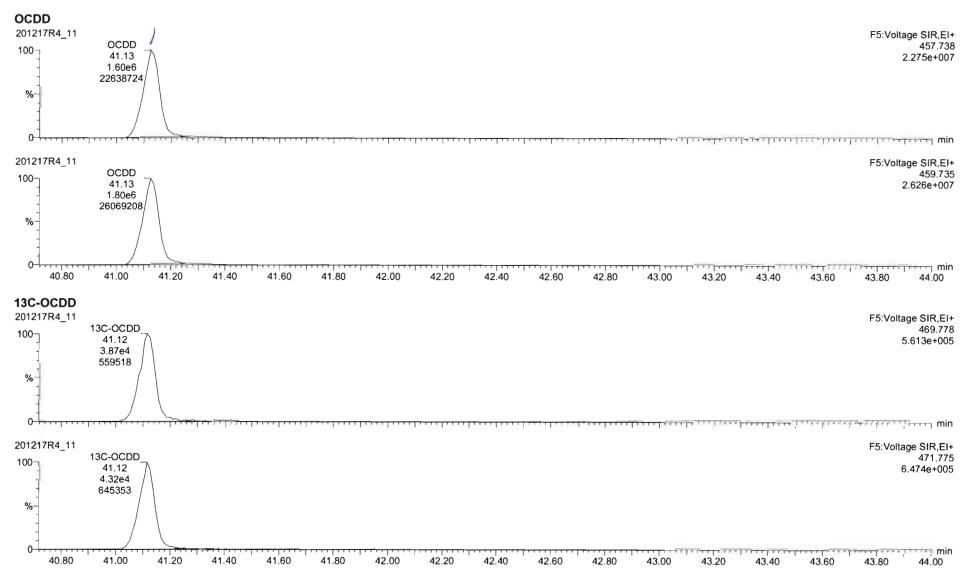
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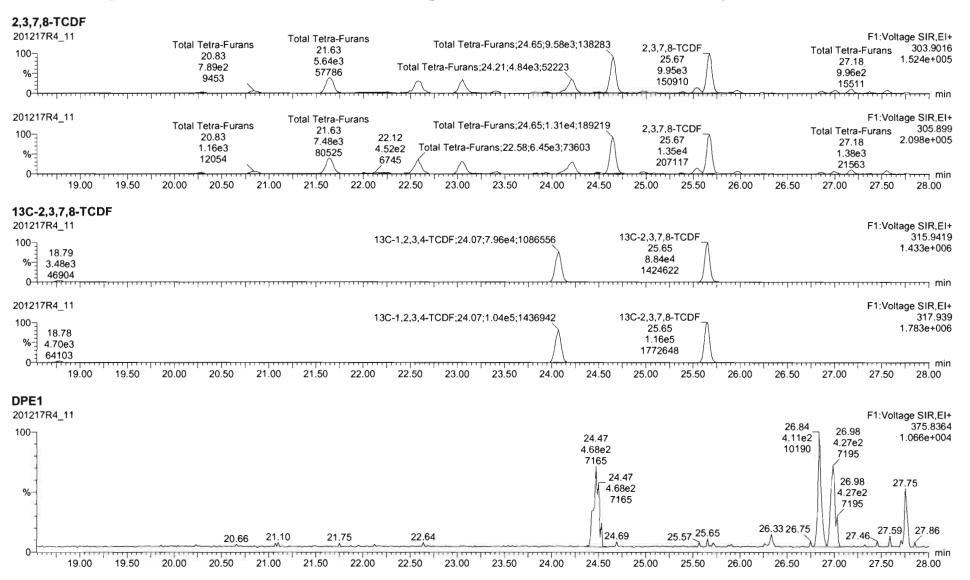
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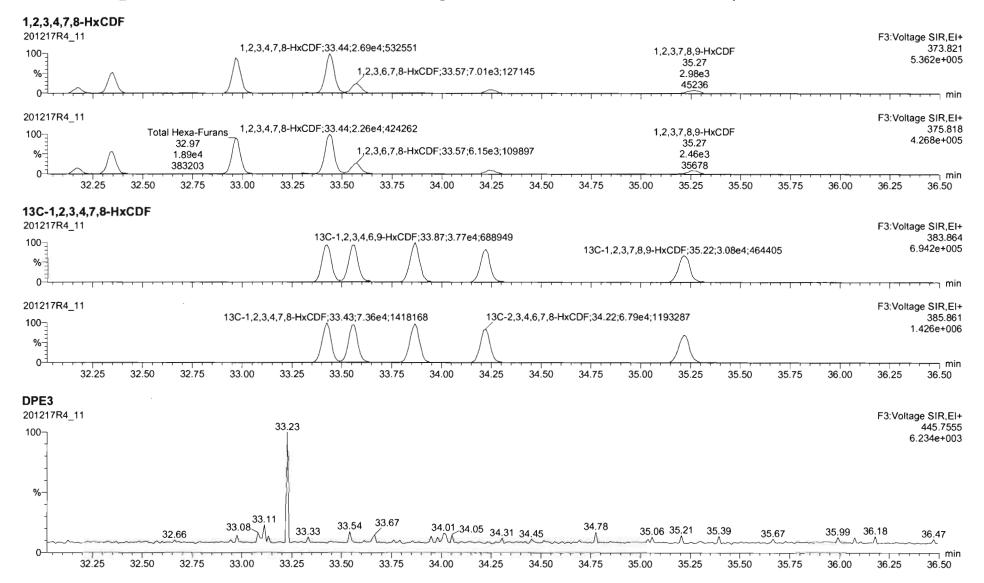
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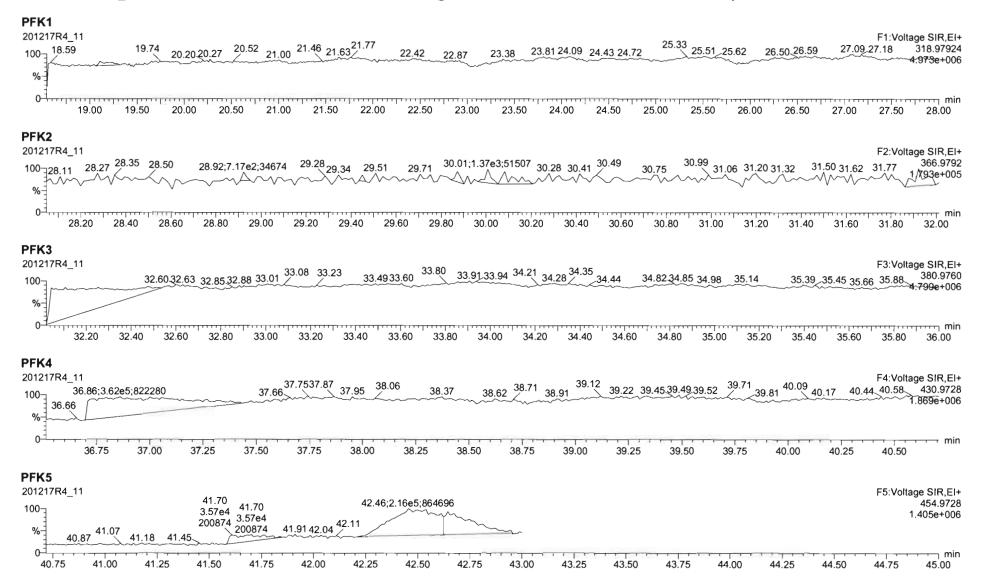
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Work Order 2002493

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Last Altered: Friday, December 18, 2020 7:11:37 AM Pacific Standard Time Printed: Friday, December 18, 2020 7:12:10 AM Pacific Standard Time



MassLynx 4.1 SCN815

Page 1 of 2

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_8.qld

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Printed:

Monday, December 28, 2020 14:15:59 Pacific Standard Time

GRB 12/28/2020

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* seedilation

Name: 201216R1_8, Date: 16-Dec-2020, Time: 13:46:13, ID: 2002493-06 USMPDI-014SC-A-11-12-201109 18.26, Description: USMPDI-014SC-A-11-12-201109

- 1 (FA)	# 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	3.15e3	0.66	NO	0.980	10.107	26.410	26.39	1.001	1.001	0.52344		0.0436	0.523
2	2 1,2,3,7,8-PeCDD	7.54e3	0.59	NO	0.932	10.107	31.094	31.08	1.001	1.000	1.6579		0.0883	1.66
3	3 1,2,3,4,7,8-HxCDD	5.88e3	1.17	NO	1.02	10.107	34.378	34.38	1.001	1.001	1.5690		0.298	1.57
4	4 1,2,3,6,7,8-HxCDD	6.50e4	1.22	NO	0.902	10.107	34.504	34.49	1.001	1.000	17.845		0.323	17.8
5	5 1,2,3,7,8,9-HxCDD	2.02e4	1.27	NO	0.954	10.107	34.755	34.77	1.000	1.001	5.2668		0.295	5.27
6	6 1,2,3,4,6,7,8-HpCDD	2.51e6	1.01	NO	0.918	10.107	38.211	38.22	1.000	1.001	782.36		1.29	782
7	7 OCDD	1.55e7	0.87	NO	0.866	10.107	41.134	41.14	1.000	1.000	6689.9	*	1.63	6690
8	8 2,3,7,8-TCDF	2.68e4	0.74	NO	0.848	10.107	25.687	25.71	1.000	1.001	4.2111		0.0839	4.21
9	9 1,2,3,7,8-PeCDF	2.28e4	1.55	NO	0.960	10.107	29.799	29.81	1.000	1.001	3.8046		0.0902	3.80
10	10 2,3,4,7,8-PeCDF	8.41e4	1.55	NO	1.07	10.107	30.874	30.88	1.001	1.001	13.590		0.0983	13.6
11	11 1,2,3,4,7,8-HxCDF	3.98e4	1.22	NO	0.986	10.107	33.467	33.47	1.000	1.000	9.8518		0.165	9.85
12	12 1,2,3,6,7,8-HxCDF	5.01e4	1.21	NO	1.04	10.107	33.603	33.60	1.001	1.001	11.727		0.161	11.7
13	13 2,3,4,6,7,8-HxCDF	3.66e4	1.25	NO	1.02	10.107	34.263	34.27	1.001	1.001	9.3437		0.190	9.34
14	14 1,2,3,7,8,9-HxCDF	2.12e3	1.06	NO	0.991	10.107	35.258	35.27	1.000	1.001	0.59737		0.217	0.597
15	15 1,2,3,4,6,7,8-HpCDF	8.83e5	1.01	NO	1.05	10.107	36.835	36.83	1.000	1.000	295.17		0.353	295
16	16 1,2,3,4,7,8,9-HpCDF	1.13e4	0.97	NO	1.18	10.107	38.839	38.84	1.000	1.000	4.1331		0.316	4.13
17	17 OCDF	4.58e5	0.84	NO	0.896	10.107	41.427	41.43	1.000	1.000	222.62		0.354	223
18	18 13C-2,3,7,8-TCDD	1.22e6	0.78	NO	1.06	10.107	26.383	26.38	1.030	1.030	198.43	100	0.126	
19	19 13C-1,2,3,7,8-PeCDD	9.66e5	0.64	NO	0.785	10.107	31.229	31.06	1.219	1.213	212.12	107	0.248	
20	20 13C-1,2,3,4,7,8-HxCDD	7.26e5	1.26	NO	0.621	10.107	34.358	34.36	1.014	1.014	240.86	122	0.332	
21	21 13C-1,2,3,6,7,8-HxCDD	7.98e5	1.25	NO	0.734	10.107	34.480	34.48	1.017	1.017	223.79	113	0.281	
22	22 13C-1,2,3,7,8,9-HxCDD	7.95e5	1.25	NO	0.723	10.107	34.765	34.74	1.026	1.025	226.32	114	0.285	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.92e5	1.06	NO	0.568	10.107	38.266	38.20	1.129	1.127	250.98	127	0.630	
24	24 13C-OCDD	1.06e6	0.89	NO	0.496	10.107	41.205	41.13	1.216	1.213	439.65	111 🦕	0.439	
25	25 13C-2.3.7.8-TCDF	1.49e6	0.76	NO	0.919	10.107	25.682	25,68	1.003	1.003	216.55	109	0.124	
26	26 13C-1,2,3,7,8-PeCDF	1.23e6	1.57	NO	0.715	10.107	29.938	29.80	1.169	1.163	230.74	117	0.424	
27	27 13C-2,3,4,7.8-PeCDF	1.15e6	1.54	NO	0.689	10.107	31.027	30.85	1.212	1.205	222.92	113	0.441	
28	28 13C-1,2,3,4,7,8-HxCDF	8.11e5	0.50	NO	0 873	10.107	33.463	33.46	0.987	0.987	191.17	96.6	0.352	
29	29 13C-1,2,3,6,7,8-HxCDF	8.14e5	0.50	NO	0.933	10 107	33.592	33.58	0.991	0.991	179.37	90.6	0.330	
30	30 13C-2,3,4,6,7,8-HxCDF	7.59e5	0.51	NO	0.843	10.107	34.260	34.24	1.011	1.010	185.21	93.6	0.365	
31	31 13C-1,2,3,7,8,9-HxQDF	7.10e5	0.49	NO	0.780	10.107	35.260	35.25	1.040	1 040	187.38	94.7	0.394	

Page 260 of 734 Work Order 2002493

U:\VG12.PRO\Results\201216R1\201216R1_8.qld

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Printed:

Monday, December 28, 2020 14:15:59 Pacific Standard Time

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32	32 13C-1,2,3,4,6,7,8-HpCDF	5.64e5	0.43	NO	0.726	10.107	36.836	36.82	1.087	1.086	159.78	80.7	0.396	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.59e5	0.43	NO	0.491	10.107	38.846	38.83	1.146	1.145	192.39	97.2	0.586	
34	34 13C-OCDF	9.09e5	0.86	NO	0.565	10.107	41.422	41.42	1.222	1.222	330.70	83.6	0.516	
35	35 37Cl-2,3,7,8-TCDD	5.25e5			1.22	10.107	26.378	26.39	1.030	1.031	74.294	93.9	0.0367	
36	36 13C-1,2,3,4-TCDD	1.15e6	0.78	NO	1.00	10.107	25.640	25.61	1.000	1.000	197.89	100	0.133	
37	37 13C-1,2,3,4-TCDF	1.48e6	0.77	NO	1.00	10.107	24.130	24.12	1.000	1.000	197.89	100	0.114	
38	38 13C-1,2,3,4,6,9-HxCDF	9.62e5	0.50	NO	1.00	10.107	33.920	33.90	1.000	1.000	197.89	100	0.308	
39	39 Total Tetra-Dioxins				0.980	10.107	24.620		0.000		11.077		0.0436	11.6
40	40 Total Penta-Dioxins				0.932	10.107	29.960		0.000		30.119		0.0883	30.1
41	41 Total Hexa-Dioxins				0.902	10.107	33.635		0.000		227.55		0.324	228
42	42 Total Hepta-Dioxins				0.918	10.107	37.640		0.000		1624.2		1.29	1620
43	43 Total Tetra-Furans				0.848	10.107	23.610		0.000		77.966		0.0839	79.5
44	44 1st Func. Penta-Furans				0.960	10.107	26.930		0.000		110.61		0.0274	111
45	45 Total Penta-Furans				0.960	10.107	29.275		0.000		83.270		0.0994	83.3
46	46 Total Hexa-Furans				1.02	10.107	33.555		0.000		242.78		0.180	243
47	47 Total Hepta-Furans				1.05	10.107	37.835		0.000		594.73		0.353	595

Work Order 2002493 Page 261 of 734

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_8.qld

Last Altered: Printed: Monday, December 28, 2020 14:15:14 Pacific Standard Time Monday, December 28, 2020 14:15:59 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201216R1_8, Date: 16-Dec-2020, Time: 13:46:13, ID: 2002493-06 USMPDI-014SC-A-11-12-201109 18.26, Description: USMPDI-014SC-A-11-12-201109

Tetra-Dioxins

2022	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 - 1 - 1 - 1	Total Tetra-Dioxins	22.61	8.114e4	1.149e5	6.724e3	9.039e3	0.74	NO	1.576e4	2.6179	2.6179	0.0436
2	Total Tetra-Dioxins	22.95	2.467e4	3.628e4	2.236e3	3.143e3	0.71	NO	5.378e3	0.89319	0.89319	0.0436
3	Total Tetra-Dioxins	23.47	2.092e4	3.124e4	1.776e3	2.375e3	0.75	NO	4.150e3	0.68929	0.68929	0.0436
4	Total Tetra-Dioxins	24.32	1.164e4	1.681e4	7.331e2	1.113e3	0.66	NO	1.846e3	0.30656	0.30656	0.0436
5	Total Tetra-Dioxins	24.53	4.677e4	5.783e4	3.538e3	5.017e3	0.71	NO	8.555e3	1.4208	1.4208	0.0436
6	Total Tetra-Dioxins	24.75	4.261e4	5.452e4	2.897e3	3.602e3	0.80	NO	6.499e3	1.0794	1.0794	0.0436
7	Total Tetra-Dioxins	24.96	1.948e4	2.342e4	1.173e3	1.588e3	0.74	NO	2.762e3	0.45864	0.45864	0.0436
8	Total Tetra-Dioxins	25.25	1.366e4	1.565e4	6.287e2	8.369e2	0.75	NO	1.466e3	0.24340	0.24340	0.0436
9	Total Tetra-Dioxins	25.33	2.653e4	3.916e4	1.847e3	2.393e3	0.77	NO	4.241e3	0.70428	0.70428	0.0436
10	Total Tetra-Dioxins	25.65	4.764e3	4.772e3	2.287e2	3.041e2	0.75	NO	5.327e2	0.088471	0.088471	0.0436
11	Total Tetra-Dioxins	25.71	1.907e4	2.407e4	1.589e3	1.529e3	1.04	YES	0.000e0	0.00000	0.44954	0.0436
12	Total Tetra-Dioxins	25.83	9.380e3	1.077e4	4.924e2	5.955e2	0.83	NO	1.088e3	0.18067	0.18067	0.0436
13	Total Tetra-Dioxins	26.10	2.436e4	3.906e4	2.747e3	3.798e3	0.72	NO	6.545e3	1.0869	1.0869	0.0436
14	2,3,7,8-TCDD	26.39	1.889e4	3.273e4	1.248e3	1.904e3	0.66	NO	3.152e3	0.52344	0.52344	0.0436
15	Total Tetra-Dioxins	26.70	2.658e4	3.097e4	1.407e3	1.857e3	0.76	NO	3.265e3	0.54216	0.54216	0.0436
16	Total Tetra-Dioxins	26.85	6.780e3	6.637e3	3.743e2	3.902e2	0.96	YES	0.000e0	0.00000	0.11469	0.0436
17	Total Tetra-Dioxins	27.28	1.004e4	1.504e4	6.342e2	8.228e2	0.77	NO	1.457e3	0.24198	0.24198	0.0436

Work Order 2002493 Page 262 of 734

Page 2 of 5

Vista Analytical Laboratory

Dataset:

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Last Altered: Printed: Monday, December 28, 2020 14:15:14 Pacific Standard Time Monday, December 28, 2020 14:15:59 Pacific Standard Time

Name: 201216R1_8, Date: 16-Dec-2020, Time: 13:46:13, ID: 2002493-06 USMPDI-014SC-A-11-12-201109 18.26, Description: USMPDI-014SC-A-11-12-201109

Penta-Dioxins

T. T. J. P.	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 3 4 4	Total Penta-Dioxins	28.82	2.343e5	3.711e5	1.827e4	2.891e4	0.63	NO	4.718e4	10.373	10.373	0.0883
2	Total Penta-Dioxins	29.28	5.086e4	8.468e4	2.667e3	3.971e3	0.67	NO	6.638e3	1.4595	1.4595	0.0883
3	Total Penta-Dioxins	29.83	1.591e5	2.674e5	9.541e3	1.607e4	0.59	NO	2.561e4	5.6308	5.6308	0.0883
4	Total Penta-Dioxins	29.99	7.172e4	1.372e5	3.706e3	6.905e3	0.54	NO	1.061e4	2.3331	2.3331	0.0883
5	Total Penta-Dioxins	30.05	7.612e4	1.406e5	3.919e3	7.011e3	0.56	NO	1.093e4	2.4030	2.4030	0.0883
6	Total Penta-Dioxins	30.29	1.088e5	1.558e5	6.729e3	1.105e4	0.61	NO	1.778e4	3.9087	3.9087	0.0883
7	Total Penta-Dioxins	30.61	1.885e4	3.793e4	1.143e3	1.986e3	0.58	NO	3.129e3	0.68787	0.68787	0.0883
8	1,2,3,7,8-PeCDD	31.08	6.095e4	8.839e4	2.803e3	4.738e3	0.59	NO	7.541e3	1.6579	1.6579	0.0883
9	Total Penta-Dioxins	31.15	2.734e4	5.183e4	1.529e3	2.448e3	0.62	NO	3.977e3	0.87433	0.87433	0.0883
10	Total Penta-Dioxins	31.42	2.299e4	3.778e4	1.369e3	2.228e3	0.61	NO	3.597e3	0.79090	0.79090	0.0883

Hexa-Dioxins

1 1 1 1 1 1	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
12.12.2	Total Hexa-Dioxins	32.81	5.567e6	4.539e6	1.650e5	1.360e5	1.21	NO	3.010e5	85.355	85.355	0.324
2	Total Hexa-Dioxins	33.33	5.717e5	4.762e5	2.634e4	2.119e4	1.24	NO	4.753e4	13.479	13.479	0.324
3	Total Hexa-Dioxins	33.63	2.990e6	2.474e6	1.920e5	1.579e5	1.22	NO	3.499e5	99.233	99.233	0.324
4	Total Hexa-Dioxins	33.72	9.781e4	7.922e4	4.187e3	3.258e3	1.29	NO	7.445e3	2.1114	2.1114	0.324
5	1,2,3,4,7,8-HxCDD	34.38	6.106e4	5.416e4	3.167e3	2.709e3	1.17	NO	5.876e3	1.5690	1.5690	0.298
6	1,2,3,6,7,8-HxCDD	34.49	6.797e5	5.708e5	3.570e4	2.927e4	1.22	NO	6.497e4	17.845	17.845	0.323
7	Total Hexa-Dioxins	34.66	9.035e4	7.580e4	5.194e3	4.298e3	1.21	NO	9.492e3	2.6917	2.6917	0.324
8	1,2,3,7,8,9-HxCDD	34.77	2.190e5	1.650e5	1.130e4	8.883e3	1.27	NO	2.019e4	5.2668	5.2668	0.295

Hepta-Dioxins

of the series	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.21	2.057e7	2.050e7	1.360e6	1.344e6	1.01	NO	2.705e6	841.88	841.88	1.29
2	1,2,3,4,6,7,8-HpCDD	38.22	2.458e7	2.392e7	1.264e6	1.249 e 6	1.01	NO	2.513 e 6	782.36	782.36	1.29

Work Order 2002493 Page 263 of 734

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_8.qld

Last Altered: Printed: Monday, December 28, 2020 14:15:14 Pacific Standard Time Monday, December 28, 2020 14:15:59 Pacific Standard Time

Name: 201216R1_8, Date: 16-Dec-2020, Time: 13:46:13, ID: 2002493-06 USMPDI-014SC-A-11-12-201109 18.26, Description: USMPDI-014SC-A-11-12-201109

Tetra-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	20.35	1.623e4	2.547e4	1.457e3	2.100e3	0.69	NO	3.557e3	0.55796	0.55796	0.0839
2	Total Tetra-Furans	20.89	6.168e4	8.149e4	5.813e3	7.686e3	0.76	NO	1.350e4	2.1174	2.1174	0.0839
3	Total Tetra-Furans	21.54	6.740e3	9.262e3	4.716e2	6.293e2	0.75	NO	1.101e3	0.17268	0.17268	0.0839
4	Total Tetra-Furans	21.69	4.561e5	6.222e5	4.244e4	5.799e4	0.73	NO	1.004e5	15.754	15.754	0.0839
5	Total Tetra-Furans	21.96	5.369e3	7.330e3	4.503e2	4.256e2	1.06	YES	0.000e0	0.00000	0.11815	0.0839
6	Total Tetra-Furans	22.08	2.429e4	3.316e4	2.410e3	3.204e3	0.75	NO	5.614e3	0.88067	0.88067	0.0839
7	Total Tetra-Furans	22.22	1.839e4	3.038e4	1.969e3	2.932e3	0.67	NO	4.901e3	0.76875	0.76875	0.0839
8	Total Tetra-Furans	22.31	2.165e4	2.287e4	1.545e3	1.992e3	0.78	NO	3.537e3	0.55486	0.55486	0.0839
9	Total Tetra-Furans	22.56	1.978e4	2.662e4	1.004e3	1.211e3	0.83	NO	2.215e3	0.34741	0.34741	0.0839
10	Total Tetra-Furans	22.64	2.222e5	3.136e5	1.858e4	2.597e4	0.72	NO	4.455e4	6.9874	6.9874	0.0839
11	Total Tetra-Furans	23.11	3.135e5	4.486e5	2.786e4	3.869e4	0.72	NO	6.654e4	10.438	10.438	0.0839
12	Total Tetra-Furans	23.24	1.348e4	1.623e4	9.271e2	9.080e2	1.02	YES	0.000e0	0.00000	0.25210	0.0839
13	Total Tetra-Furans	23.45	2.668e4	3.241e4	2.073e3	2.681e3	0.77	NO	4.754e3	0.74565	0.74565	0.0839
14	Total Tetra-Furans	23.86	1.136e4	1.394e4	7.618e2	9.612e2	0.79	NO	1.723e3	0.27028	0.27028	0.0839
15	Total Tetra-Furans	23.98	3.31 5 e4	4.717e4	2.672e3	3.687e3	0.72	NO	6.360e3	0.99755	0.99755	0.0839
16	Total Tetra-Furans	24.18	3.598e4	5.179e4	2.032e3	2.995e3	0.68	NO	5.027e3	0.78857	0.78857	0.0839
17	Total Tetra-Furans	24.26	3.279e5	4.441e5	2.629e4	3.607e4	0.73	NO	6.236e4	9.7821	9.7821	0.0839
18	Total Tetra-Furans	24.53	8.083e 4	1.113e5	5.708e3	7.796e3	0.73	NO	1.350e4	2.1182	2.1182	0.0839
19	Total Tetra-Furans	24.69	1.426e5	2.031e5	1.103e4	1.471e4	0.75	NO	2.573e4	4.0364	4.0364	0.0839
20	Total Tetra-Furans	25.00	2.160e4	3.177e4	1.400e3	2.105e3	0.67	NO	3.505e3	0.54976	0.54976	0.0839
21	Total Tetra-Furans	25.14	2.000e4	2.951e4	1.581e3	2.229e3	0.71	NO	3.810e3	0.59769	0.59769	0.0839
22	Total Tetra-Furans	25.23	7.463e3	8.736e3	4.202e2	5.424e2	0.77	NO	9.626e2	0.15100	0.15100	0.0839
23	Total Tetra-Furans	25.42	3.058e4	3.870e4	2.021e3	2.534e3	0.80	NO	4.555e3	0.71453	0.71453	0.0839
24	Total Tetra-Furans	25.58	5.578e4	7.949e4	3.928e3	5.166e3	0.76	NO	9.09 4 e3	1.4264	1.4264	0.0839
25	2,3,7,8-TCDF	25.71	1.648e5	2.484e5	1.144e4	1.541e4	0.74	NO	2.685e4	4.2111	4.2111	0.0839
26	Total Tetra-Furans	25.97	1.502e4	1.852e4	8.152e2	9.714e2	0.84	NO	0.000e0	0.00000	0.28025	0.0839
27	Total Tetra-Furans	26.01	3.713e4	4.966e4	2.356e3	3.166e3	0.74	NO	0.000e0	0.00000	0.86617	0.0839
28	Total Tetra-Furans	26.29	6.964e3	1.118e4	4.715e2	6.164e2	0.77	NO	1.088e3	0.17065	0.17065	0.0839
29	Total Tetra-Furans	26.38	2.796e4	4.302e4	1.487e3	2.022e3	0.74	NO	3.509e3	0.55041	0.55041	0.0839
30	Total Tetra-Furans	26.88	2.092e5	2.950e5	1.196e4	1.665e4	0.72	NO	2.860e4	4.4870	4.4870	0.0839
31	Total Tetra-Furans	27.03	2.258e5	3.326e5	1.339e4	1.838e4	0.73	NO	3.177e4	4.9833	4.9833	0.0839
32	Total Tetra-Furans	27.21	1.131e5	1.469e5	6.839e3	9.021e3	0.76	NO	1.586e4	2.4878	2.4878	0.0839

Work Order 2002493 Page 264 of 734

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_8.qld

Last Altered: Printed: Monday, December 28, 2020 14:15:14 Pacific Standard Time Monday, December 28, 2020 14:15:59 Pacific Standard Time

Name: 201216R1_8, Date: 16-Dec-2020, Time: 13:46:13, ID: 2002493-06 USMPDI-014SC-A-11-12-201109 18.26, Description: USMPDI-014SC-A-11-12-201109

Tetra-Furans

edian/	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
33	Total Tetra-Furans	27.59	1.785e4	1.887e4	9.227e2	1.108e3	0.83	NO	2.031e3	0.31852	0.31852	0.0839

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	27.19	6.522e6	4.203e6	3.909e5	2.477e5	1.58	NO	6.386e5	110.61	110.61	0.0274

Penta-Furans

Detroit	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 11 11 11 11 11 11	Total Penta-Furans	28.67	1.549e5	8.601e4	9.931e3	6.207e3	1.60	NO	1.614e4	2.7952	2.7952	0.0994
2	Total Penta-Furans	28.83	1.718e6	1.081e6	1.180e5	7.616e4	1.55	NO	1.942e5	33.637	33.637	0.0994
3	Total Penta-Furans	29.19	2.027e4	1.318e4	8.807e2	5.080e2	1.73	NO	1.389e3	0.24055	0.24055	0.0994
4	Total Penta-Furans	29.28	2.757e4	2.568e4	2.246e3	1.495e3	1.50	NO	3.741e3	0.64791	0.64791	0.0994
5	Total Penta-Furans	29.45	8.758e5	5.762e5	4.848e4	3.079e4	1.57	NO	7.927e4	13.730	13.730	0.0994
6	Total Penta-Furans	29.62	7.465e4	4.035e4	3.956e3	2.366e3	1.67	NO	6.321e3	1.0949	1.0949	0.0994
7 月4月1日	1,2,3,7,8-PeCDF	29.81	2.769e5	1.740e5	1.385e4	8.910e3	1.55	NO	2.276e4	3.8046	3.8046	0.0902
8 65	Total Penta-Furans	30.07	4.130e5	2.707e5	3.831e4	2.457e4	1.56	NO	6.288e4	10.892	10.892	0.0994
9	Total Penta-Furans	30.25	2.276e4	1.640e4	1.148e3	7.675e2	1.50	NO	1.916e3	0.33186	0.33186	0.0994
10	Total Penta-Furans	30.63	1.109e4	6.549e3	3.745e2	2.418e2	1.55	NO	6.163e2	0.10675	0.10675	0.0994
11	Total Penta-Furans	30.69	7.459e4	6.230e4	3.688e3	2.693e3	1.37	NO	6.380e3	1.1052	1.1052	0.0994
12	2,3,4,7,8-PeCDF	30.88	1.033e6	6.856e5	5.105e4	3.304e4	1.55	NO	8.409e4	13.590	13.590	0.0983
13	Total Penta-Furans	31.51	2.650e4	1.614e4	1.099e3	7.717e2	1.42	NO	1.871e3	0.32410	0.32410	0.0994
14	Total Penta-Furans	31.67	5.036e4	2.912e4	2.242e3	1.448e3	1.55	NO	3.690e3	0.63916	0.63916	0.0994
15	Total Penta-Furans	31.79	2.120e4	1.245e4	1.152e3	7.569e2	1.52	NO	1.909e3	0.33064	0.33064	0.0994

Work Order 2002493 Page 265 of 734

Quantify Totals Report MassLynx 4.1 SCN815

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Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_8.qld

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Monday, December 28, 2020 14:15:14 Pacific Standard Time Monday, December 28, 2020 14:15:59 Pacific Standard Time

Name: 201216R1_8, Date: 16-Dec-2020, Time: 13:46:13, ID: 2002493-06 USMPDI-014SC-A-11-12-201109 18.26, Description: USMPDI-014SC-A-11-12-201109

Hexa-Furans

Call Service	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.26	7.965e5	6.327e5	5.638e4	4.680e4	1.20	NO	1.032e5	25.874	25.874	0.180
2	Total Hexa-Furans	32.37	7.587e5	6.171e5	3.902e4	3.203e4	1.22	NO	7.104e4	17.815	17.815	0.180
3	Total Hexa-Furans	32.46	1.736e6	1.424e6	1.158e5	9.476e4	1.22	NO	2.106e5	52.800	52.800	0.180
4	Total Hexa-Furans	32.87	4.722e4	4.382e4	1.669e3	1.573e3	1.06	NO	3.242e3	0.81288	0.81288	0.180
5	Total Hexa-Furans	33.02	5.572e6	4.715e6	2.400e5	1.992e5	1.21	NO	4.392e5	110.14	110.14	0.180
6	Total Hexa-Furans	33.34	5.458e4	4.629e4	2.524e3	2.067e3	1.22	NO	4.591e3	1.1512	1.1512	0.180
7	1,2,3,4,7,8-HxCDF	33.47	4.583e5	3.788e5	2.190e4	1.793e4	1.22	NO	3.983e4	9.8518	9.8518	0.165
8	1,2,3,6,7,8-HxCDF	33.60	5.767e5	4.639e5	2.747e4	2.263e4	1.21	NO	5.009e4	11.727	11.727	0.161
9	Total Hexa-Furans	33.90	2.520e4	1.820e4	1.213e3	8.632e2	1.40	NO	2.076e3	0.52051	0.52051	0.180
10	Total Hexa-Furans	34.05	2.004e4	1.550e4	8.655e2	6.825e2	1.27	NO	1.548e3	0.38819	0.38819	0.180
11	2,3,4,6,7,8-HxCDF	34.27	3.324e5	2.887e5	2.033e4	1.622e4	1.25	NO	3.655e4	9.3437	9.3437	0.190
12	1,2,3,7,8,9-HxCDF	35.27	5.543e4	4.458e4	1.091e3	1.033e3	1.06	NO	2.125e3	0.59737	0.59737	0.217
13	Total Hexa-Furans	35.29	8.537e4	6.493e4	3.973e3	3.032e3	1.31	NO	7.006e3	1.7567	1.7567	0.180

Hepta-Furans

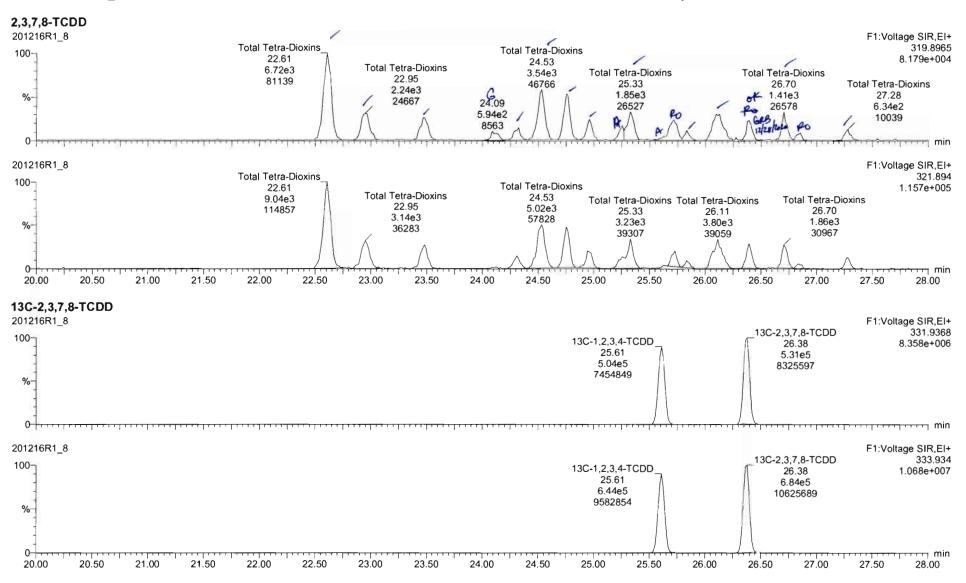
12 /23	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.83	7.222e6	7.167e6	4.439e5	4.389e5	1.01	NO	8.828e5	295.17	295.17	0.353
2	Total Hepta-Furans	37.29	1.782e4	1.809e4	1.971e3	1.935e3	1.02	NO	3.906e3	1.4399	1.4399	0.353
3	Total Hepta-Furans	37.55	6.719e6	6.551e6	4.009e5	3.966e5	1.01	NO	7.975e5	293.99	293.99	0.353
4.	1,2,3,4,7,8,9-HpCDF	38.84	1.187e5	1.164e5	5.548e3	5.729e3	0.97	NO	1.128e4	4.1331	4.1331	0.316

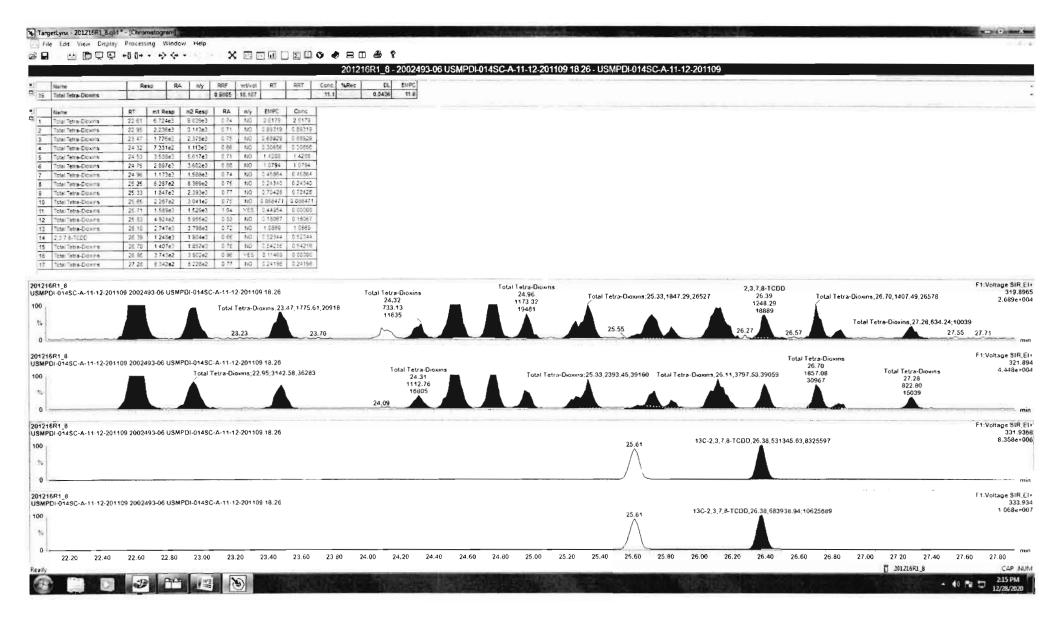
Work Order 2002493 Page 266 of 734

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Last Altered: Thursda Printed: Thursda

Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time



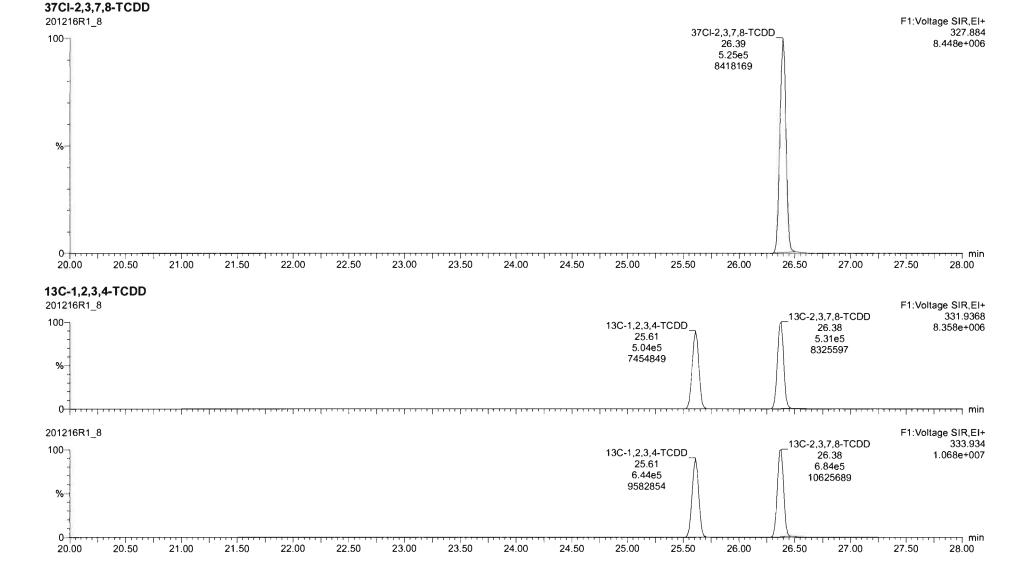


Work Order 2002493 Page 268 of 734

Vista Analytical Laboratory

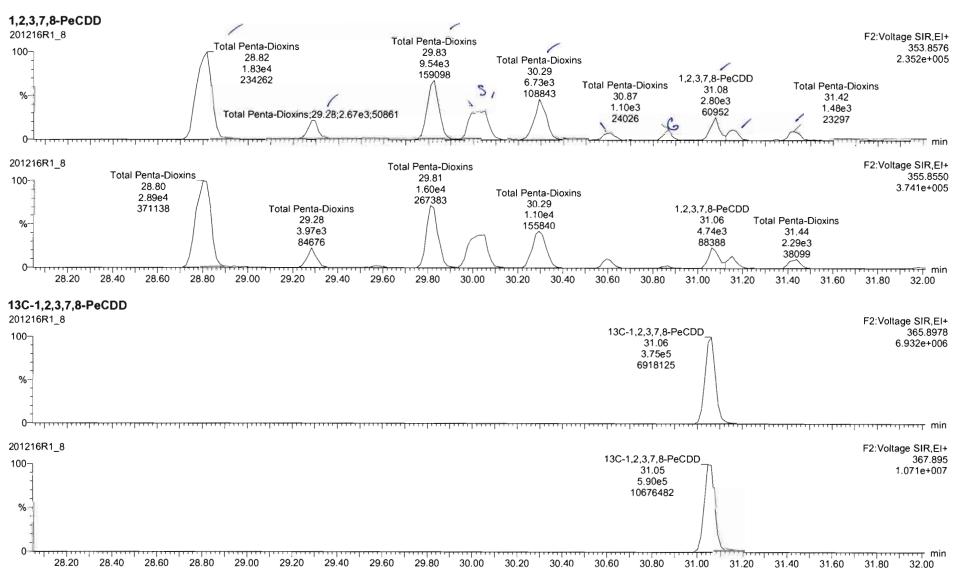
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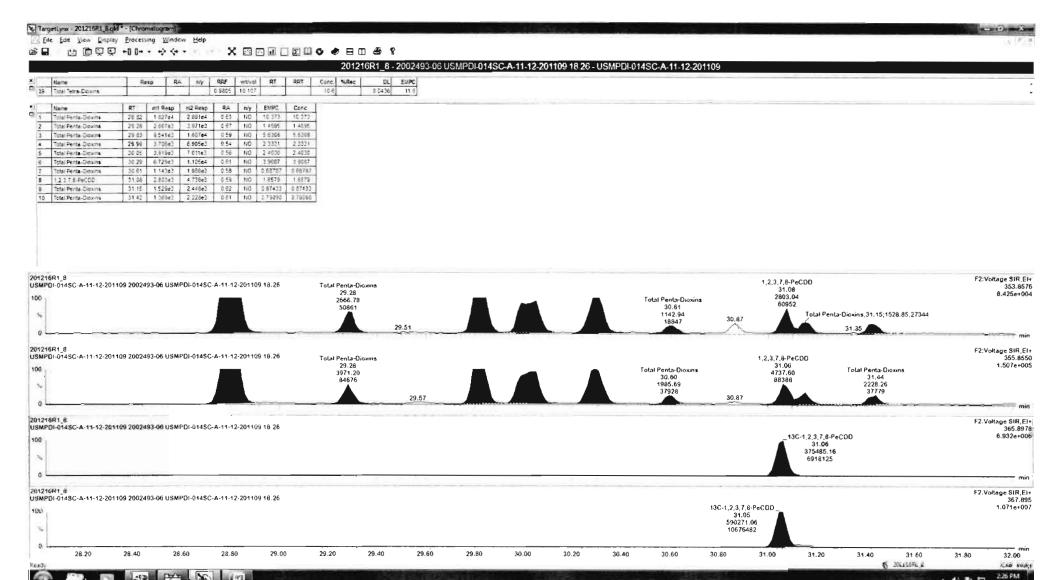
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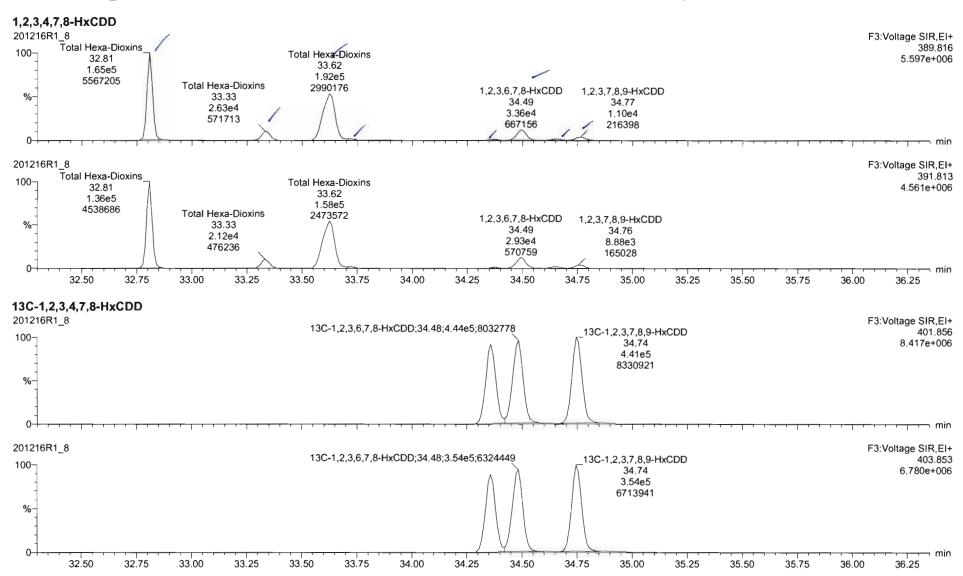


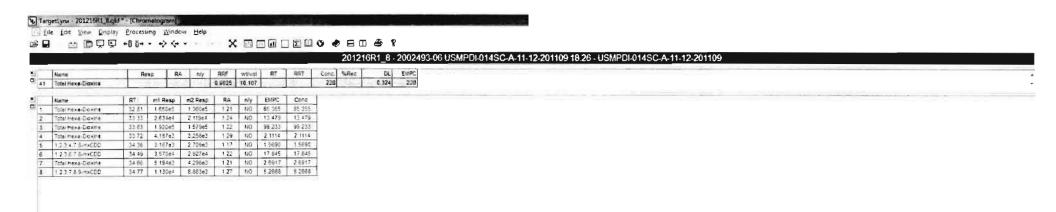
Work Order 2002493 Page 271 of 734

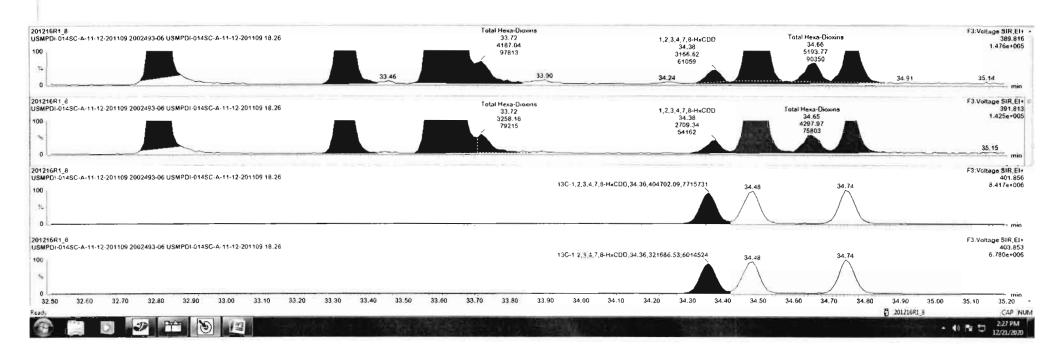
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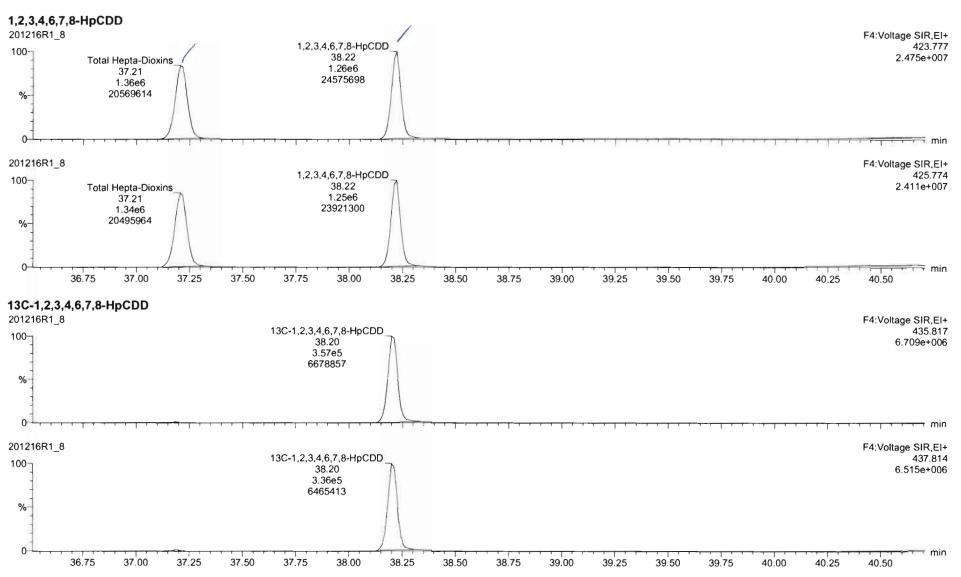


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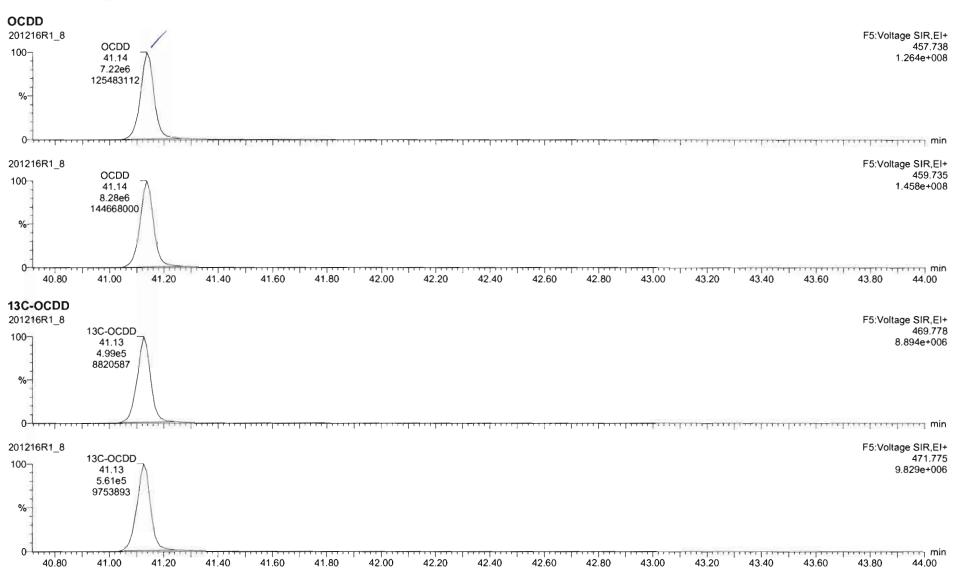
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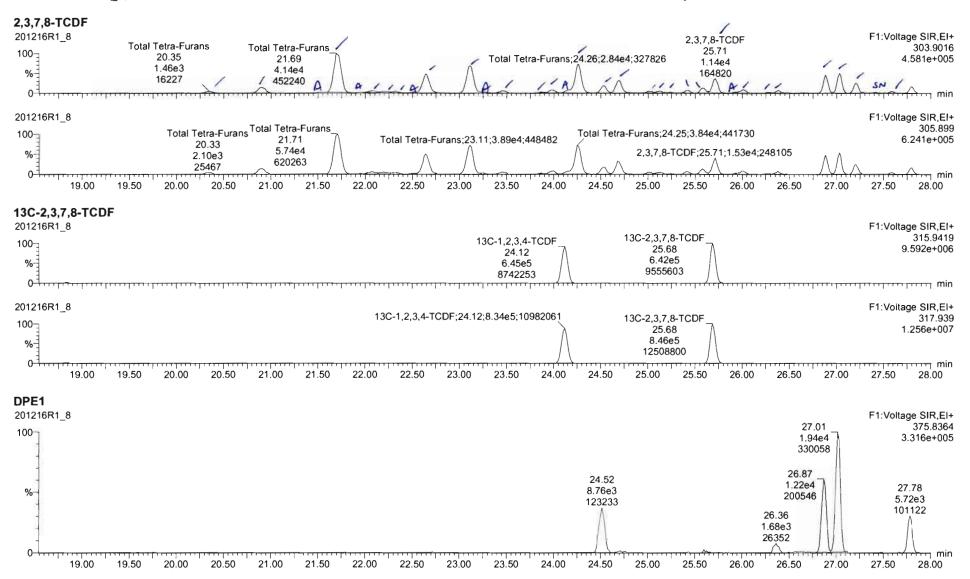
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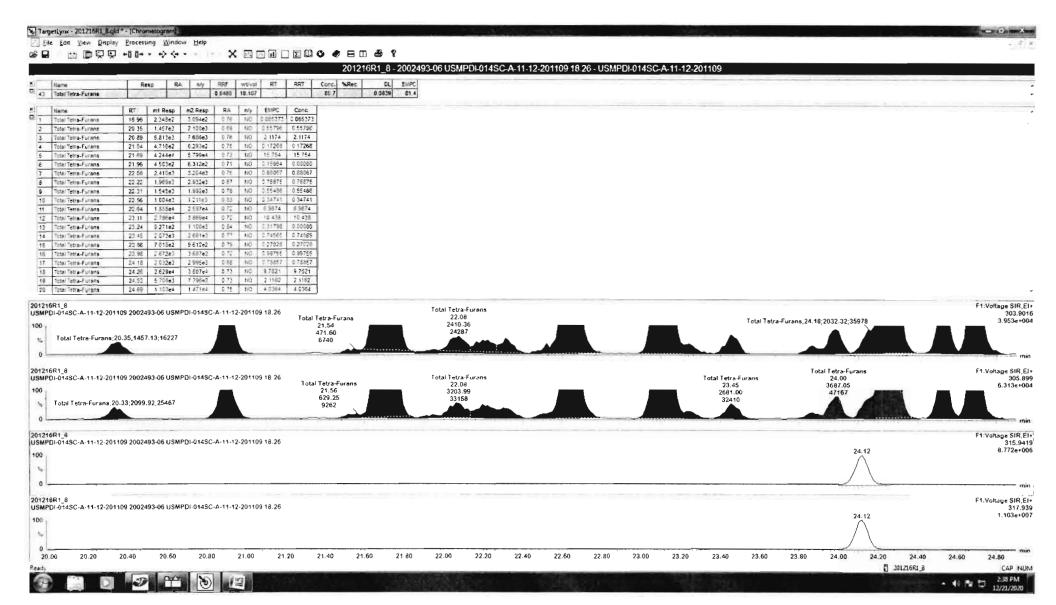
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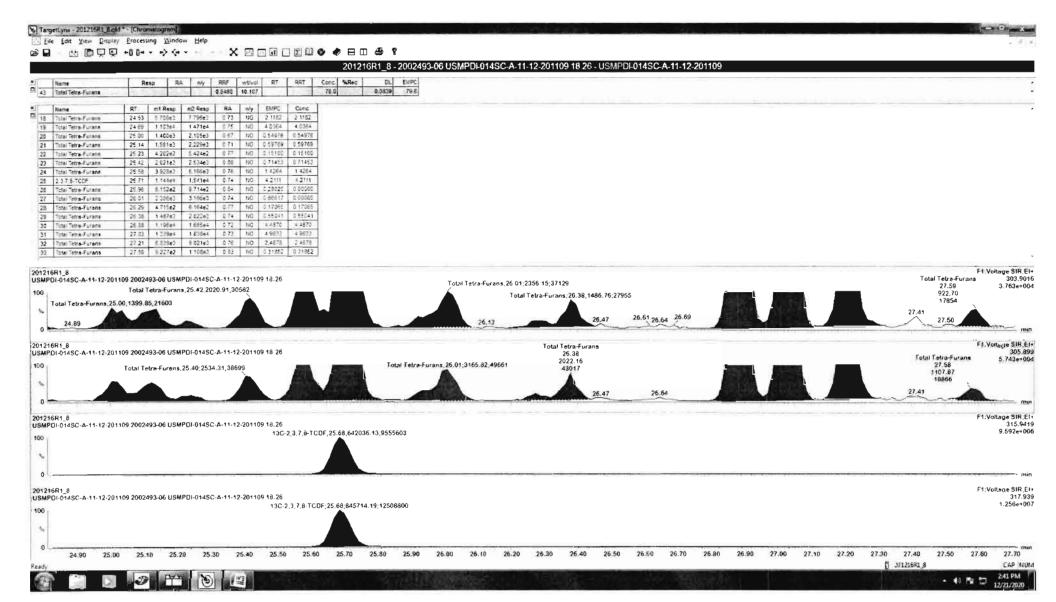
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Last Altered: Printed: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time





Work Order 2002493 Page 277 of 734



Work Order 2002493 Page 278 of 734

26.50

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28.00

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25.43

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19.00

20.83

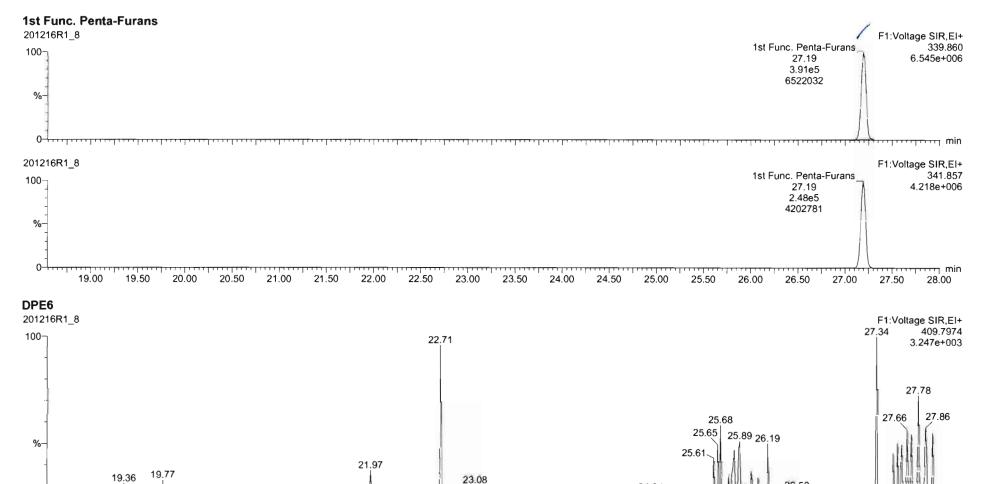
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Name: 201216R1_8, Date: 16-Dec-2020, Time: 13:46:13, ID: 2002493-06 USMPDI-014SC-A-11-12-201109 18.26, Description: USMPDI-014SC-A-11-12-201109



22.80

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23.45 23.75

23.50

24.00

22.33

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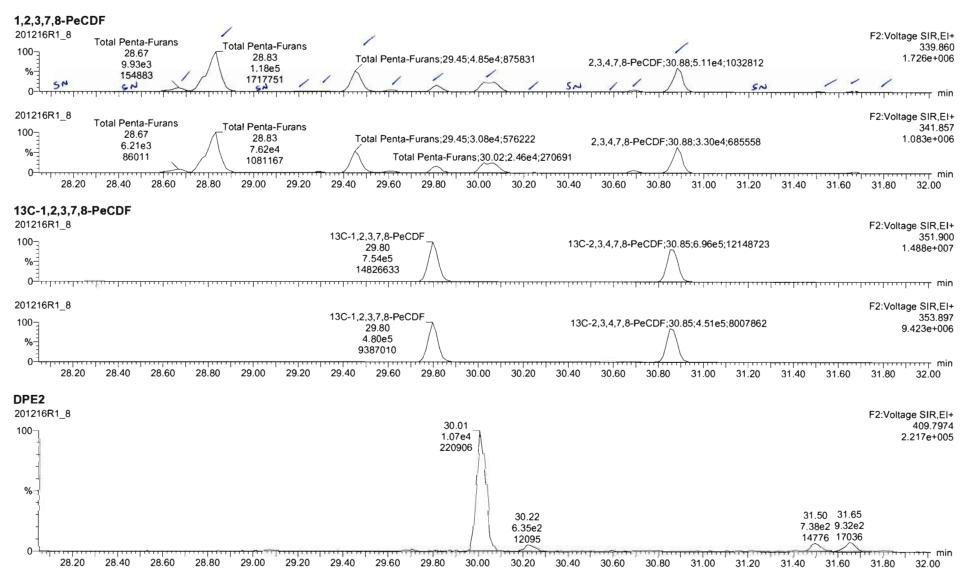
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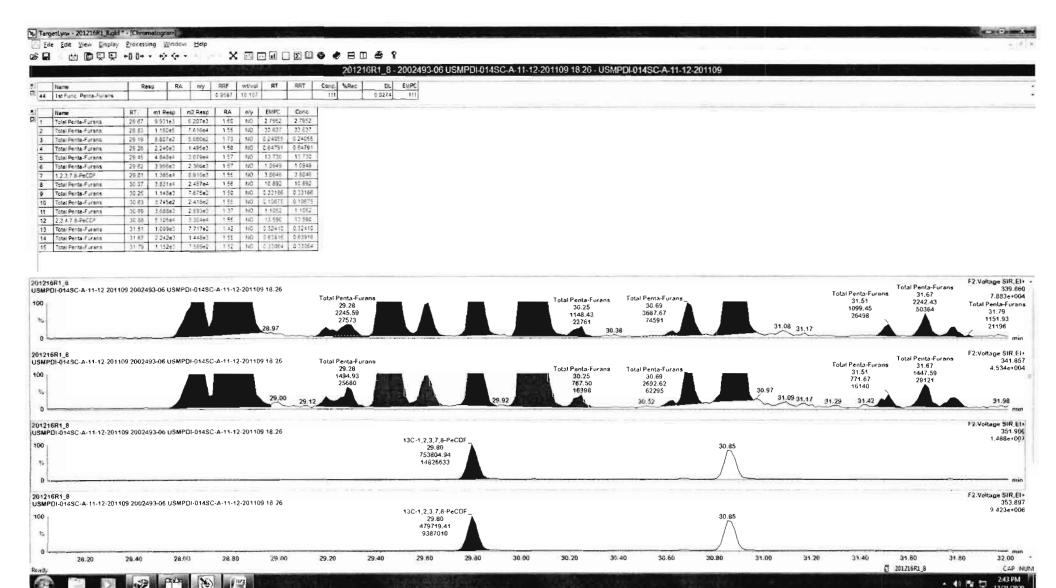
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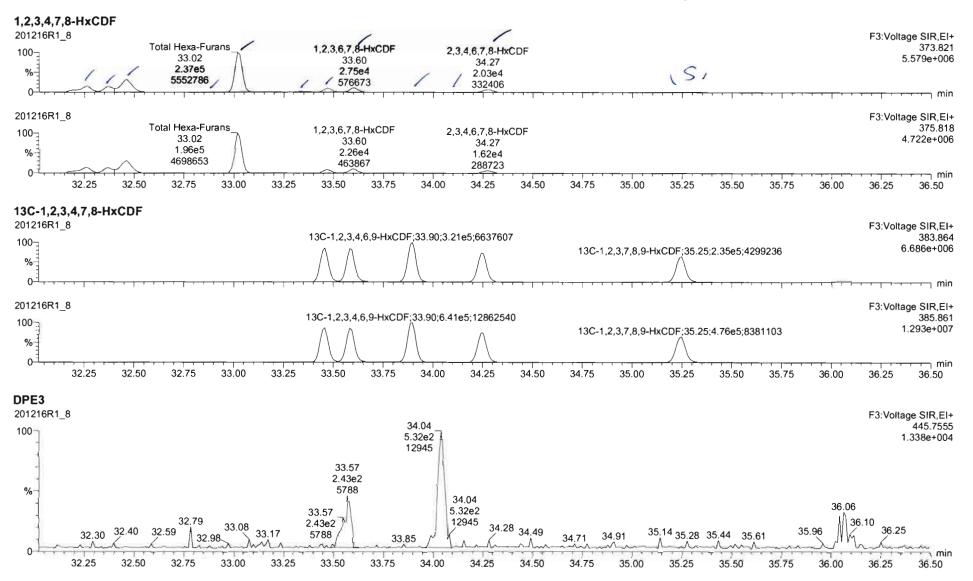


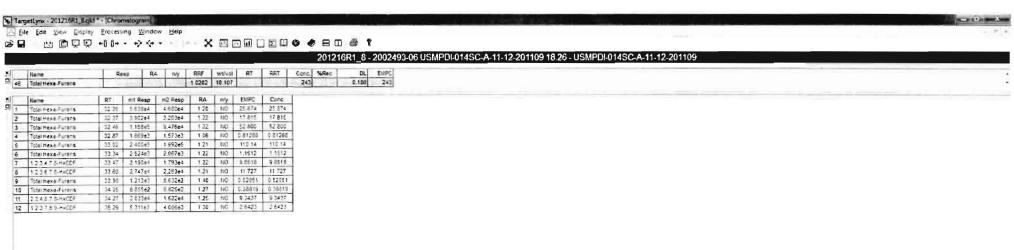
Work Order 2002493 Page 281 of 734

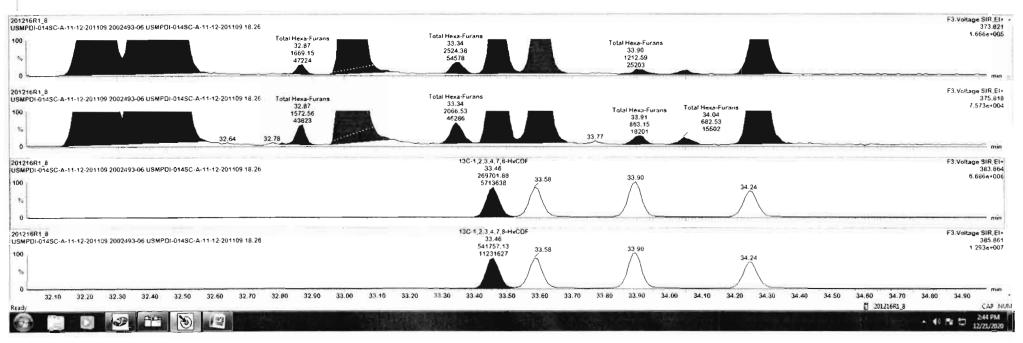
12/21/2020

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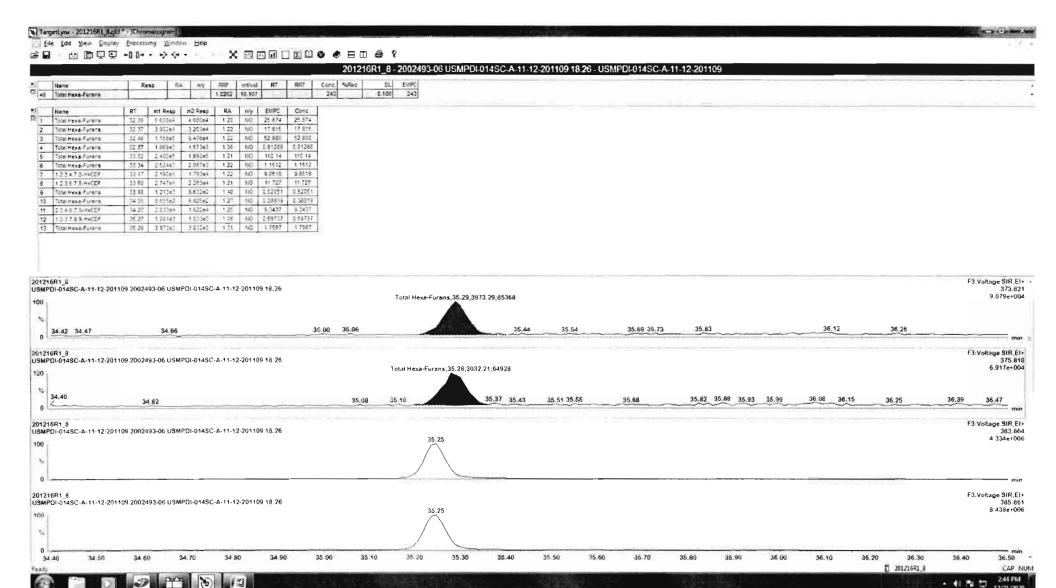
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Work Order 2002493 Page 283 of 734

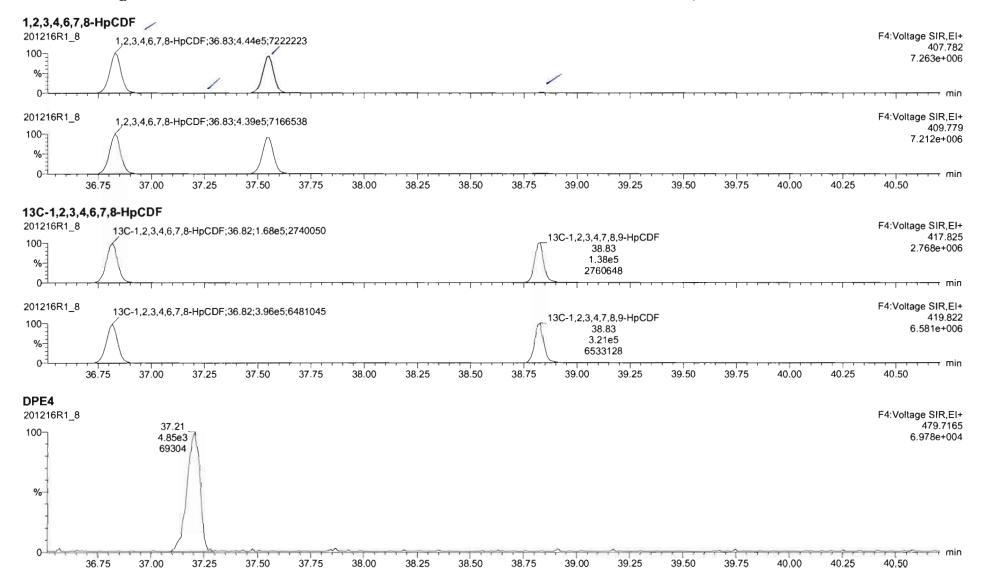


Work Order 2002493 Page 284 of 734

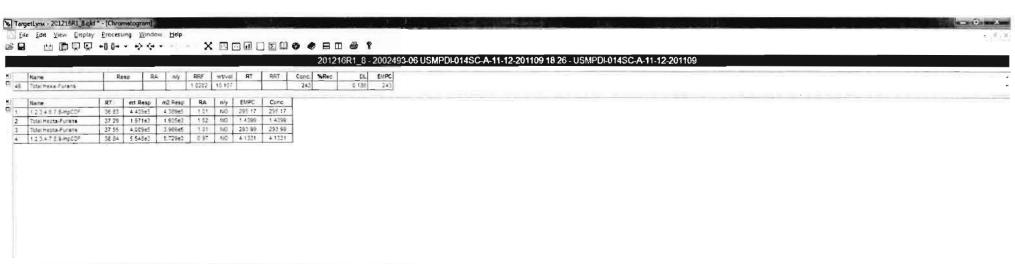
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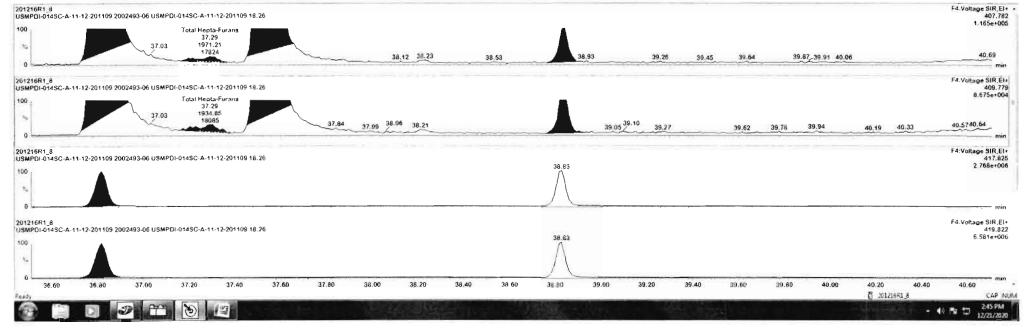
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Name: 201216R1_8, Date: 16-Dec-2020, Time: 13:46:13, ID: 2002493-06 USMPDI-014SC-A-11-12-201109 18.26, Description: USMPDI-014SC-A-11-12-201109



Work Order 2002493

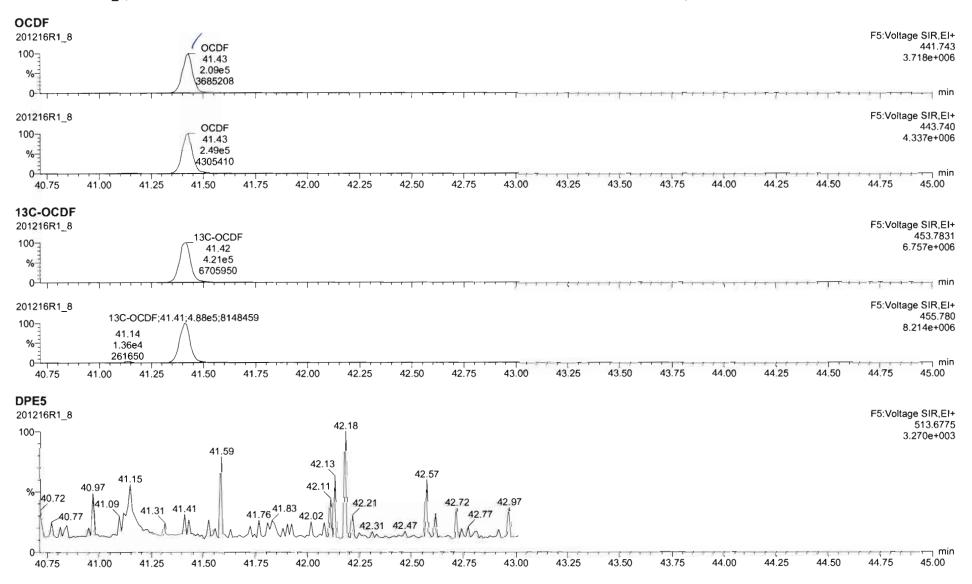




Work Order 2002493 Page 286 of 734

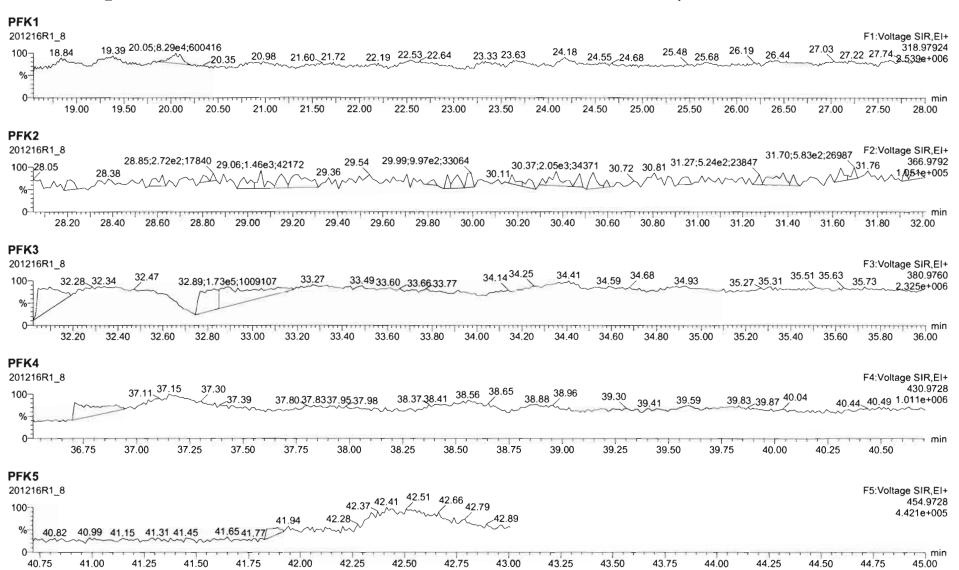
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Last Altered: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Printed: Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time



MassLynx 4.1 SCN815

Page 1 of 1

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U:\VG12.PRO\Results\201217R4\201217R4_12.qld

Last Altered:

Friday, December 18, 2020 7:17:11 AM Pacific Standard Time Monday, December 21, 2020 2:49:37 PM Pacific Standard Time

GPB 12/21/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

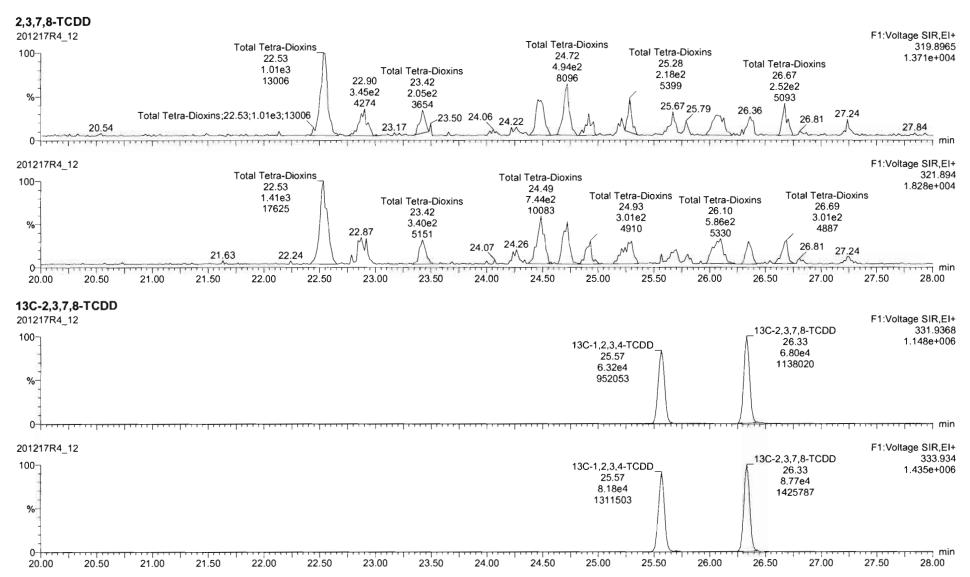
Name: 201217R4_12, Date: 17-Dec-2020, Time: 22:40:14, ID: 2002493-06@10X USMPDI-014SC-A-11-12-201109 18.26, Description: USMPDI-014SC-A-11-12-201109

William S. E. St.	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
120 20 20	7 OCDD	2.01e6	0.87	NO	0.866	10.107	41.124	41.13	1.000	1.000	7219.5		3.62	7220
2	24 13C-OCDD	1.27e5	0.89	NO	0.496	10.107	41.167	41.12	1.216	1.214	372.72	94.2	1.98	
3	35 37CI-2,3,7,8-TCDD	6.88e4			1.22	10.107	26.332	26.35	1.030	1.031	77.168	97.5	0.138	
4	36 13C-1,2,3,4-TCDD	1.45e5	0.77	NO	1.00	10.107	25.640	25.57	1.000	1.000	197.89	100	0.615	
5	37 13C-1,2,3,4-TCDF	2.17e5	0.76	NO	1.00	10.107	24.130	24.07	1.000	1.000	197.89	100	0.709	
6	38 13C-1,2,3,4,6,9-HxCDF	1.36e5	0.48	NO	1.00	10.107	33.920	33.87	1.000	1.000	197.89	100	0.807	

Work Order 2002493 Page 289 of 734

Untitled

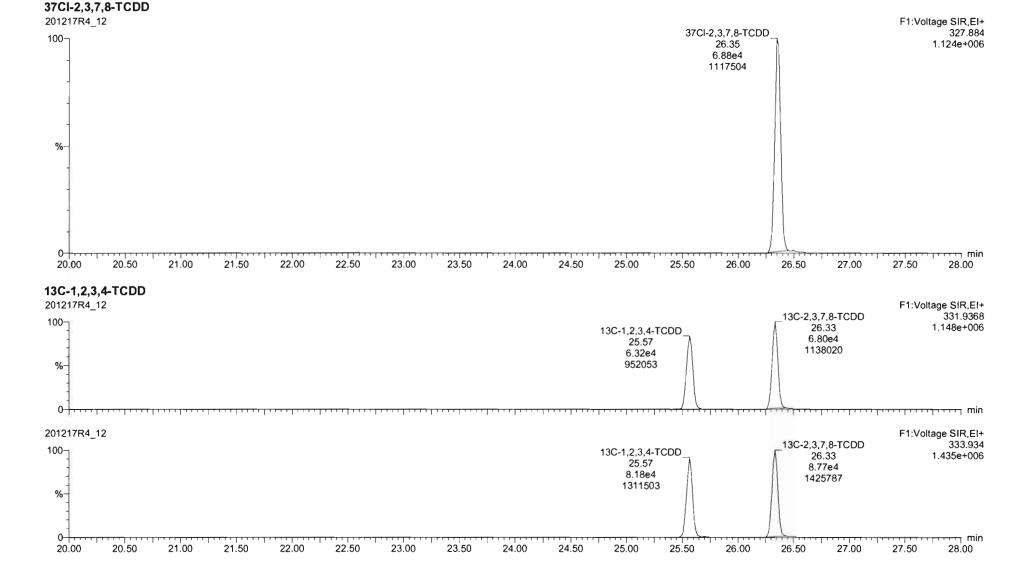
Last Altered: Printed: Friday, December 18, 2020 7:11:37 AM Pacific Standard Time Friday, December 18, 2020 7:12:10 AM Pacific Standard Time



Vista Analytical Laboratory

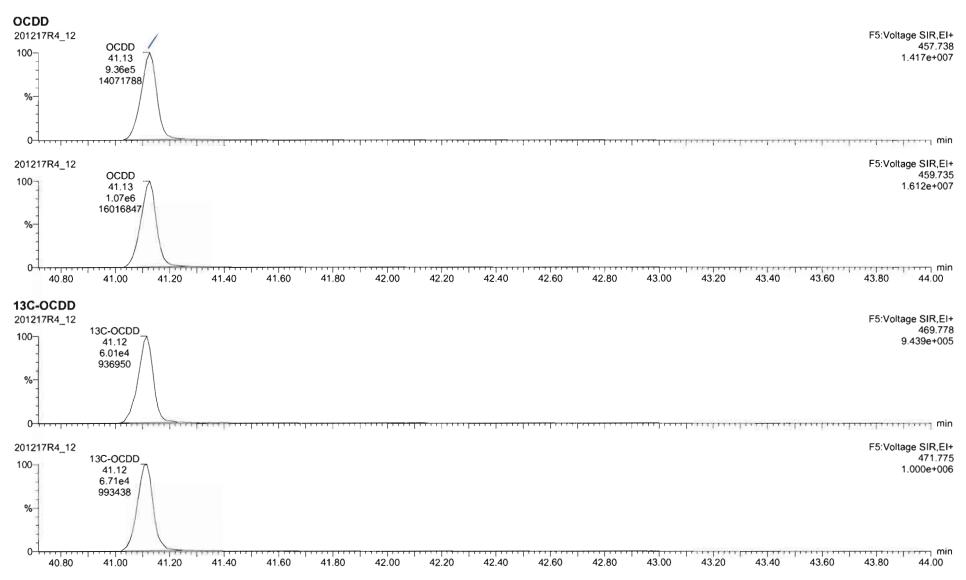
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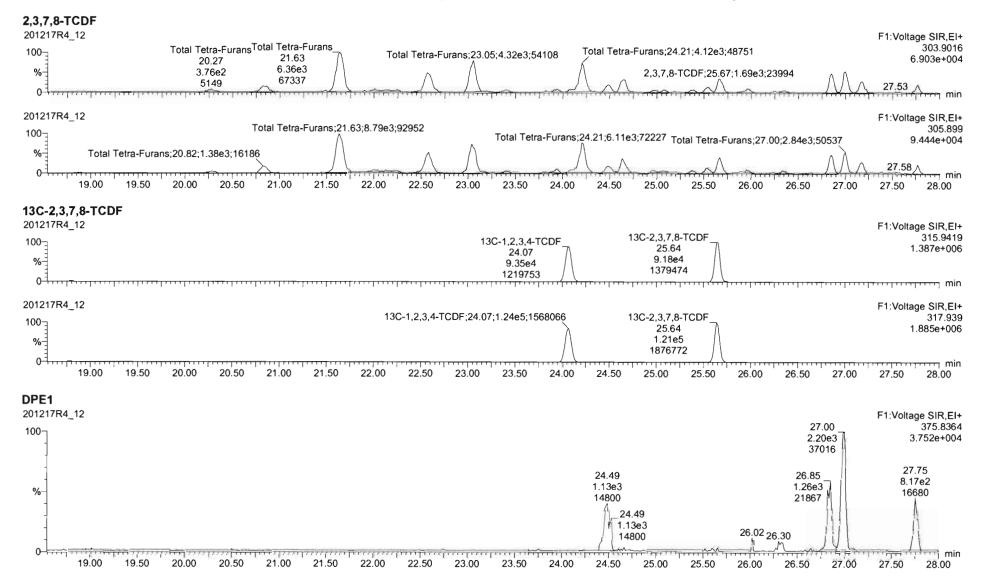
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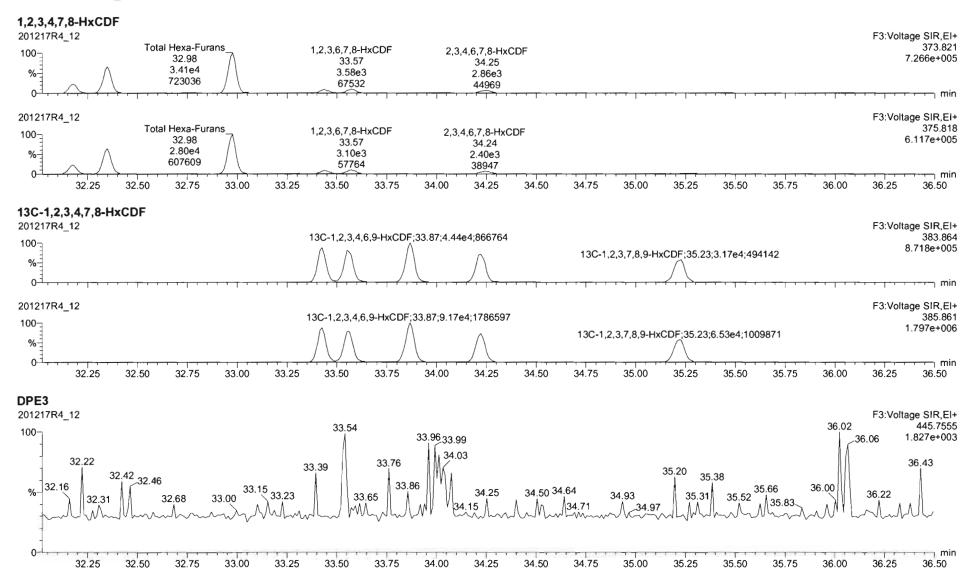
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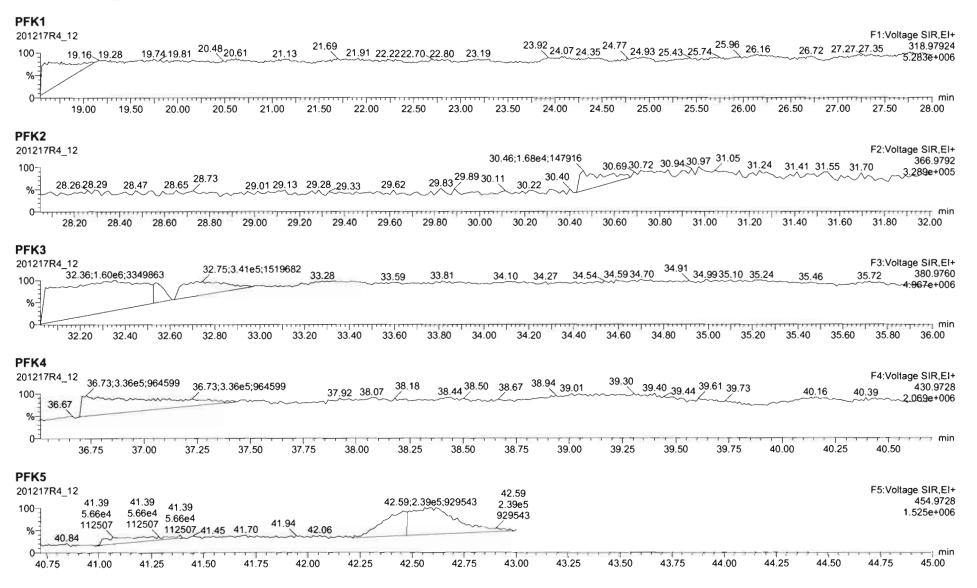
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Last Altered: Friday, December 18, 2020 7:11:37 AM Pacific Standard Time Printed: Friday, December 18, 2020 7:12:10 AM Pacific Standard Time

Name: 201217R4_12, Date: 17-Dec-2020, Time: 22:40:14, ID: 2002493-06@10X USMPDI-014SC-A-11-12-201109 18.26, Description: USMPDI-014SC-A-11-12-201109



Work Order 2002493

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201216R1\201216R1_9.qld

Last Altered: Monday, December 21, 2020 3:16:56 PM Pacific Standard Time Printed: Monday, December 21, 2020 3:17:18 PM Pacific Standard Time

GPB 12/21/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32 Calibration: U:\VG12.PRO\CurveDB\dbDlOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201216R1_9, Date: 16-Dec-2020, Time: 14:31:33, ID: 2002493-07 USMPDI-014SC-A-12-13-201109 18:09, Description: USMPDI-014SC-A-12-13-201109

7 58 12	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec DL	EMPC
1.555	1 2,3,7,8-TCDD	2.22e3	0.45	YES	0.980	10.141 🗸	26.396	26.39	1.001	1.001	0.34857	0.03/8	0.247
2	2 1,2,3,7,8-PeCDD	7.08e3	0.59	NO	0.932	10.141	31.079	31.06	1.001	1.000	1.4147	0.0852	1.41
3	3 1,2,3,4,7,8-HxCDD	3.43e3	1.32	NO	1.02	10.141	34.378	34.37	1.001	1.000	0.81300	0.184	0.813
4	4 1,2,3,6,7,8-HxCDD	4.84e4	1.27	NO	0.902	10.141	34.494	34.49	1.001	1.001	11.489	0.188	11.5
5	5 1,2,3,7,8,9-HxCDD	1.28e4	1.18	NO	0.954	10.141	34.755	34.77	1.000	1.001	2.9337	0.183	2.93
6	6 1,2,3,4,6,7,8-HpCDD	6.14e5	1.02	NO	0.918	10.141	38.222	38.22	1.000	1.000	175.84	0.816	176
7	7 OCDD	5.72e6	0.88	NO	0.866	10.141	41.134	41.14	1.000	1.000	2306.0	0.910	2310
8	8 2,3,7,8-TCDF	8.39e3	0.72	NO	0.848	10.141	25.672	25.70	1.000	1.001	1.2406	0.0751	1.24
9	9 1,2,3,7,8-PeCDF	1.51e4	1.53	NO	0.960	10.141	29.799	29.81	1.000	1.001	2.1792	0.129	2.18
10	10 2,3,4,7,8-PeCDF	1.15e5	1.55	NO	1.07	10.141	30.874	30.88	1.001	1.001	16.227	0.127	16.2
11	11 1,2,3,4,7,8-HxCDF	5.21e4	1.22	NO	0.986	10.141	33.457	33.46	1.000	1.000	11.379	0.329	11.4
12	12 1,2,3,6,7,8-HxCDF	2.11e5	1.23	NO	1.04	10.141	33.603	33.59	1.001	1.000	43.844	0.321	43.8
13	13 2,3,4,6,7,8-HxCDF	8.63e4	1.23	NO	1.02	10.141	34.263	34.27	1.001	1.001	19.155	0.363	19.2
14	14 1,2,3,7,8,9-HxCDF	6.24e3	1.16	NO	0.991	10.141	35.248	35.27	1.000	1.001	1.5088	0.414	1.51
15	15 1,2,3,4,6,7,8-HpCDF	3.11e6	1.01	NO	1.05	10.141	36.824	36.83	1.000	1.001	890.28	0.493	890
16	16 1,2,3,4,7,8,9-HpCDF	2.02e4	0.97	NO	1.18	10.141	38.839	38.84	1.000	1.000	6.5861	0.417	6.59
17	17 OCDF	8.18e5	0.84	NO	0.896	10.141	41.417	41.42	1.000	1.000	328.74	0.385	329
18	18 13C-2,3,7,8-TCDD	1.29e6	0.77	NO	1.06	10.141	26.368	26.36	1.030	1.030	224.52	114 0.130	
19	19 13C-1,2,3,7,8-PeCDD	1.06e6	0.63	NO	0.785	10.141	31.211	31.05	1.219	1.213	248.12	126 0.177	
20	20 13C-1.2,3,4,7,8-HxCDD	8.16e5	1.27	NO	0.621	10.141	34.348	34.36	1.014	1.014	276.87	140 0.374	
21	21 13C-1,2,3,6,7,8-HxCDD	9.20e5	1.25	NO	0.734	10.141	34.470	34.47	1.017	1.017	263.86	134 0.316	
22	22 13C-1,2,3,7,8,9-HxCDD	9.03e5	1.24	NO	0.723	10.141	34.755	34.74	1.026	1.025	263.14	133 0.321	
23	23 13C-1,2,3,4,6,7,8-HpCDD	7.51e5	1.05	NO	0.568	10.141	38.255	38.21	1 129	1.128	278.31	141 0.900	
24	24 13C-OCDD	1.13e6	0.89	NO	0.496	10.141	41.193	41.13	1.216	1.214	479.28	122 0.647	
25	25 13C-2,3,7,8-TCDF	1.57e6	0.77	NO	0.919	10.141	25.667	25.67	1.003	1.003	233.56	118 0.150	
26	26 13C-1,2,3,7,8-PeCDF	1.43e6	1.57	NO	0.715	10.141	29.921	29 80	1.169	1.164	272.19	138 0.339	
27	27 13C-2,3,4,7,8-PeCDF	1.31e6	1.57	NO	0.689	10.141	31.008	30.85	1.212	1.205	259.78	132 0.352	
28	28 13C-1,2,3,4.7,8-HxCDF	9.16e5	0.50	NO	0.873	10.141	33.453	33.45	0.987	0.987	220.78	112 0.364	
29	29 13C-1,2,3,6,7,8-HxCDF	9.16e5	0.50	NO	0.933	10.141	33.582	33.58	0.991	0.991	206.49	105 0.341	
30	30 13C-2,3,4,6.7.8-HxCDF	8.71e5	0.50	NO	0.843	10.141	34.250	34.24 🐇	1.011	1.010	217.35	110 0.378	
31	31 13C-1,2,3,7,8,9-HxCDF	8.23e5	0.51	NO	0.780	10.141	35.249	35.24	1.040	1.040	222.16	113 0.408	

Work Order 2002493 Page 296 of 734

MassLynx 4.1 SCN815

Page 2 of 2

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_9.qld

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Name: 201216R1_9, Date: 16-Dec-2020, Time: 14:31:33, ID: 2002493-07 USMPDI-014SC-A-12-13-201109 18.09, Description: USMPDI-014SC-A-12-13-201109

包裹发表 。	# 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	6.57e5	0.42	NO	0.726	10.141	36.825	36.81	1.087	1.086	190.29	96.5	0.476	
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.14e5	0.43	NO	0.491	10.141	38.835	38.83	1.146	1.146	220.47	112	0.704	
34	34 13C-OCDF	1.10e6	0.89	NO	0.565	10.141	41.410	41.41	1.222	1.222	407.93	103	0.454	
35	35 37CI-2,3,7,8-TCDD	5.57e5			1.22	10.141	26.363	26.38	1.030	1.031	84.067	107	0.109	
36	36 13C-1,2,3,4-TCDD	1.07e6	0.78	NO	1.00	10.141	25.640	25.59	1.000	1.000	197.21	100	0.138	
37	37 13C-1,2,3,4-TCDF	1.44e6	0.78	NO	1.00	10.141	24.130	24.10	1.000	1.000	197.21	100	0.137	
38	38 13C-1,2,3,4,6,9-HxCDF	9.37e5	0.50	NO	1.00	10.141	33.920	33.89	1.000	1.000	197.21	100	0.318	
39	39 Total Tetra-Dioxins				0.980	10.141	24.620		0.000		6.6776		0.0348	7.17
40	40 Total Penta-Dioxins				0.932	10.141	29.960		0.000		21.260		0.0852	25.2
41	41 Total Hexa-Dioxins				0.902	10.141	33.635		0.000		124.41		0.196	124
42	42 Total Hepta-Dioxins				0.918	10.141	37.640		0.000		450.81		0.816	451
43	43 Total Tetra-Furans				0.848	10.141	23.610		0.000		83.676		0.0751	83.7
44	44 1st Func. Penta-Furans				0.960	10.141	26.930		0.000		163.34		0.0268	163
45	45 Total Penta-Furans				0.960	10.141	29.275		0.000		95.055		0.135	95.1
46	46 Total Hexa-Furans				1.02	10.141	33.555		0.000		667.74		0.351	668
47	47 Total Hepta-Furans				1.05	10.141	37.835		0.000		1693.1		0.482	1690

Work Order 2002493 Page 297 of 734

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_9.qld

Last Altered: Printed: Monday, December 21, 2020 3:16:56 PM Pacific Standard Time Monday, December 21, 2020 3:17:18 PM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDlOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201216R1_9, Date: 16-Dec-2020, Time: 14:31:33, ID: 2002493-07 USMPDI-014SC-A-12-13-201109 18:09, Description: USMPDI-014SC-A-12-13-201109

Page 1 of 5

Tetra-Dioxins

CHARLES IN	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	22.58	5.190e4	7.586e4	3.981e3	5.660e3	0.70	NO	9.640e3	1.5037	1.5037	0.0348
2	Total Tetra-Dioxins	22.93	2.237e4	2.979e4	1.941e3	2.645e3	0.73	NO	4.586e3	0.71533	0.71533	0.0348
3	Total Tetra-Dioxins	23.47	2.025e4	2.906e4	1.705e3	2.316e3	0.74	NO	4.021e3	0.62713	0.62713	0.0348
4	Total Tetra-Dioxins	24.31	1.191e4	1.728e4	8.348e2	1.075e3	0.78	NO	1.910e3	0.29790	0.29790	0.0348
5	Total Tetra-Dioxins	24.53	2.665e4	3.827e4	2.167e3	2.702e3	0.80	NO	4.870e3	0.75957	0.75957	0.0348
6	Total Tetra-Dioxins	24.75	3.455e4	5.286e4	2.481e3	3.449e3	0.72	NO	5.930e3	0.92498	0.92498	0.0348
7	Total Tetra-Dioxins	24.94	1.070e4	1.223e4	6.525e2	8.567e2	0.76	NO	1.509e3	0.23540	0.23540	0.0348
8	Total Tetra-Dioxins	25.24	1.273e4	1.599e4	8.493e2	9.827e2	0.86	NO	1.832e3	0.28576	0.28576	0.0348
9	Total Tetra-Dioxins	25.31	1.368e4	2.206e4	9.029e2	1.242e3	0.73	NO	2.145e3	0.33456	0.33456	0.0348
10	Total Tetra-Dioxins	25.65	7.142e3	4.834e3	2.727e2	3.192e2	0.85	NO	5.919e2	0.092323	0.092323	0.0348
11	Total Tetra-Dioxins	25.68	1.319e4	1.038e4	6.933e2	7.689e2	0.90	YES	0.000e0	0.00000	0.21227	0.0348
12	Total Tetra-Dioxins	26.07	1.243e4	1.857e4	1.316e3	1.615e3	0.81	NO	2.930e3	0.45706	0.45706	0.0348
13	2,3,7,8-TCDD	26.39	9.748e3	2.260e4	6.877e2	1.534e3	0.45	YES	2.222e3	0.00000	0.24656	0.0348
14	Total Tetra-Dioxins	26.72	1.209e4	2.075e4	8.694e2	1.199e3	0.73	NO	2.068e3	0.32258	0.32258	0.0348
15	Total Tetra-Dioxins	26.84	1.575e3	2.957e3	8.657e1	1.588e2	0.55	YES	0.000e0	0.00000	0.031041	0.0348
16	Total Tetra-Dioxins	27.28	5.702e3	9.201e3	3.452e2	4.327e2	0.80	NO	7.780e2	0.12135	0.12135	0.0348

Work Order 2002493 Page 298 of 734

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_9.qld

Last Altered: Printed: Monday, December 21, 2020 3:16:56 PM Pacific Standard Time Monday, December 21, 2020 3:17:18 PM Pacific Standard Time

Name: 201216R1_9, Date: 16-Dec-2020, Time: 14:31:33, ID: 2002493-07 USMPDI-014SC-A-12-13-201109 18:09, Description: USMPDI-014SC-A-12-13-201109

Penta-Dioxins

FRE COR	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1550 955	Total Penta-Dioxins	28.80	2.443e5	4.247e5	1.871e4	3.077e4	0.61	NO	4.948e4	9.8840	9.8840	0.0852
2	Total Penta-Dioxins	29.28	3.557e4	5.497e4	1.708e3	3.186e3	0.54	NO	4.893e3	0.97746	0.97746	0.0852
3	Total Penta-Dioxins	29.81	2.000e5	3.184e5	1.020e4	1.504e4	0.68	NO	2.524e4	5.0424	5.0424	0.0852
4	Total Penta-Dioxins	30.01	7.637e4	1.281e5	4.624e3	7.665e3	0.60	NO	0.000e0	0.00000	2.4548	0.0852
5	Total Penta-Dioxins	30.02	6.769e4	1.281e5	2.644e3	4.696e3	0.56	NO	0.000e0	0.00000	1.4661	0.0852
6	Total Penta-Dioxins	30.29	7.229e4	1.104e5	4.863e3	7.578e3	0.64	NO	1.244e4	2.4851	2.4851	0.0852
7	Total Penta-Dioxins	30.60	1.167e4	2.020e4	6.827e2	1.206e3	0.57	NO	1.889e3	0.37732	0.37732	0.0852
8	1,2,3,7,8-PeCDD	31.06	4.639e4	7.806e4	2.631e3	4.451e3	0.59	NO	7.082e3	1.4147	1.4147	0.0852
9	Total Penta-Dioxins	31.15	1.950e4	2.953e4	7.515e2	1.363e3	0.55	NO	2.114e3	0.42232	0.42232	0.0852
10	Total Penta-Dioxins	31.42	2.391e4	3.938e4	1.261e3	2.025e3	0.62	NO	3.286e3	0.65640	0.65640	0.0852

Hexa-Dioxins

State State	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1309/1955	Total Hexa-Dioxins	32.72	2.120e6	1.767e6	9.902e4	8.075e4	1.23	NO	1.798e5	44.642	44.642	0.196
2	Total Hexa-Dioxins	33.32	2.391e5	1.938e5	1.184e4	9.416e3	1.26	NO	2.126e4	5.2787	5.2787	0.196
3	Total Hexa-Dioxins	33.62	2.057e6	1.683e6	1.289e5	1.037e5	1.24	NO	2.326e5	57.756	57.756	0.196
4	Total Hexa-Dioxins	33.70	4.783e4	4.012e4	2.239e3	1.861e3	1.20	NO	4.100e3	1.0182	1.0182	0.196
5	1,2,3,4,7,8-HxCDD	34.37	4.224e4	3.288e4	1.955e3	1.478e3	1.32	NO	3.433e3	0.81300	0.81300	0.184
6	1,2,3,6,7,8-HxCDD	34.49	5.272e5	4.061e5	2.704e4	2.134e4	1.27	NO	4.838e4	11.489	11.489	0.188
7	Total Hexa-Dioxins	34.65	1.630e4	1.893e4	1.004e3	9.394e2	1.07	NO	1.943e3	0.48252	0.48252	0.196
8	1,2,3,7,8,9-HxCDD	34.77	1.343e5	1.100e5	6.934e3	5.890e3	1.18	NO	1.282e4	2.9337	2.9337	0.183

Hepta-Dioxins

.00	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.21	7.717e6	7.557e6	4.830e5	4.779e5	1.01	NO	9.609e5	274.97	274.97	0.816
2	1,2,3,4,6,7,8-HpCDD	38.22	6.259e6	6.106e6	3.099e5	3.046e5	1.02	NO	6.145e5	175.84	175.84	0.816

Work Order 2002493 Page 299 of 734

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201216R1\201216R1_9.qld

Last Altered: Monday, December 21, 2020 3:16:56 PM Pacific Standard Time Printed: Monday, December 21, 2020 3:17:18 PM Pacific Standard Time

Name: 201216R1_9, Date: 16-Dec-2020, Time: 14:31:33, ID: 2002493-07 USMPDI-014SC-A-12-13-201109 18.09, Description: USMPDI-014SC-A-12-13-201109

Tetra-Furans

71 18	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	20.33	3.241e4	4.629e4	3.009e3	3.936e3	0.76	NO	6.945e3	1.0270	1.0270	0.0751
2	Total Tetra-Furans	20.88	9.651 e4	1.214e5	8.427e3	1.121e4	0.75	NO	1.964e4	2.9045	2.9045	0.0751
3	Total Tetra-Furans	21.51	8.970e3	1.100e4	4.487e2	5.769 e 2	0.78	NO	1.026e3	0.15168	0.15168	0.0751
4	Total Tetra-Furans	21.69	6.926e5	9.282e5	6.375e4	8.723e4	0.73	NO	1.510e5	22.328	22.328	0.0751
5	Total Tetra-Furans	21.91	6.581e3	7.670e3	4.731e2	5.395e2	0.88	NO	1.013e3	0.14974	0.14974	0.0751
6	Total Tetra-Furans	22.05	2.502e4	4.473e4	2.613e3	3.622e3	0.72	NO	6.234e3	0.92196	0.92196	0.0751
7	Total Tetra-Furans	22.18	2.349e4	2.870e4	1.944e3	2.458e3	0.79	NO	4.402e3	0.65096	0.65096	0.0751
8	Total Tetra-Furans	22.28	2.227e4	2.908e4	1.948e3	2.956e3	0.66	NO	4.904e3	0.72529	0.72529	0.0751
9	Total Tetra-Furans	22.49	8.379e3	1.047e4	3.679e2	5.574e2	0.66	NO	9.252e2	0.13683	0.13683	0.0751
10	Total Tetra-Furans	22.62	2.643e5	3.648e5	2.354e4	3.259e4	0.72	NO	5.613e4	8.3004	8.3004	0.0751
11	Total Tetra-Furans	23.08	4.159e5	5.897e5	3.481e4	4.739e4	0.73	NO	8.220e4	12.156	12.156	0.0751
12	Total Tetra-Furans	23.19	1.151e4	1.451e4	6.821e2	8.105e2	0.84	NO	1.493e3	0.22074	0.22074	0.0751
13	Total Tetra-Furans	23.44	2.280e4	3.325e4	1.910e3	2.627e3	0.73	NO	4.537e3	0.67097	0.67097	0.0751
14	Total Tetra-Furans	23.88	8.218e3	9.353e3	5.939e2	7.135e2	0.83	NO	1 307e3	0.19335	0.19335	0.0751
15	Total Tetra-Furans	23.98	3.343e4	4.648e4	2.605e3	3.669e3	0.71	NO	6.274e3	0.92789	0.92789	0.0751
16	Total Tetra-Furans	24.13	1.176e4	1.714e4	4.512e2	5.570e2	0.81	NO	1.008e3	0.14910	0.14910	0.0751
17	Total Tetra-Furans	24.25	3.856e5	5.427e5	3.007e4	4.139e4	0.73	NO	7.146e4	10.568	10.568	0.0751
18	Total Tetra-Furans	24.53	1.179e5	1.665e5	8.714e3	1.199e4	0.73	NO	2.070e4	3.0619	3.0619	0.0751
19	Total Tetra-Furans	24.68	6.319e4	9.551e4	4.828e3	6.768e3	0.71	NO	1.160e4	1.7149	1.7149	0.0751
20	Total Tetra-Furans	25.03	1.477e4	1.729e4	9.462e2	1.208e3	0.78	NO	2.154e3	0.31855	0.31855	0.0751
21	Total Tetra-Furans	25.11	2.105e4	1.869e4	1.192e3	1.425e3	0.84	NO	2.617e3	0.38708	0.38708	0.0751
22	Total Tetra-Furans	25.23	1.379e4	1.710e4	9.012e2	1.126e3	0.80	NO	2.027e3	0.29975	0.29975	0.0751
23	Total Tetra-Furans	25.40	2.430e4	3.038e4	1.466e3	2.062e3	0.71	NO	3.529e3	0.52184	0.52184	0.0751
24	Total Tetra-Furans	25.57	4.119e4	5.778e4	2.692e3	3.717e3	0.72	NO	6.409e3	0.94788	0.94788	0.0751
25	2,3,7,8-TCDF	25.70	5.206e4	6.547e4	3.525e3	4.864e3	0.72	NO	8.389e3	1.2406	1.2406	0.0751
26	Total Tetra-Furans	25.93	1.048e4	1.162e4	4.498e2	5.413e2	0.83	NO	9.911e2	0.14658	0.14658	0.0751
27	Total Tetra-Furans	26.01	2.682e4	3.488e4	1.676e3	2.178e3	0.77	NO	3.854e3	0.57001	0.57001	0.0751
28	Total Tetra-Furans	26.27	1.257e4	1.377e4	6.657e2	8.881e2	0.75	NO	1.554e3	0.22979	0.22979	0.0751
29	Total Tetra-Furans	26.38	2.355e4	3.302e4	1.579e3	2.127e3	0.74	NO	3 706e3	0.54805	0.54805	0.0751
30	Total Tetra-Furans	26.88	1.996e5	2.631e5	1. 09 9e4	1.488e4	0.74	NO	2.587e4	3.8256	3.8256	0.0751
31	Total Tetra-Furans	27 03	1.592e5	2.382e5	9.654e3	1.367e4	0.71	NO	2.332e4	3.4492	3.4492	0.0751
32	Total Tetra-Furans	27.21	1.909e5	2.594e5	1.153e4	1.572e4	0.73	NO	2.725e4	4.0293	4.0293	0.0751

Work Order 2002493 Page 300 of 734

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Dataset:

U:\VG12.PR0\Results\201216R1\201216R1_9.qld

Last Altered: Printed: Monday, December 21, 2020 3:16:56 PM Pacific Standard Time Monday, December 21, 2020 3:17:18 PM Pacific Standard Time

Name: 201216R1_9, Date: 16-Dec-2020, Time: 14:31:33, ID: 2002493-07 USMPDI-014SC-A-12-13-201109 18:09, Description: USMPDI-014SC-A-12-13-201109

Tetra-Furans

22/10	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
33	Total Tetra-Furans	27.58	9.753e3	1.215e4	6.406e2	7.266e2	0.88	NO	1.367e3	0.20219	0.20219	0.0751

Penta-Furans function 1

524 (A) 32	Name	RT	m1 Height m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1st Func. Penta-Furans	27.19	1.171e7 7.485e6	6.639e5	4.236e5	1.57	NO	1.088e6	163.34	163.34	0.0268

Penta-Furans

12511 13	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.67	1.728e5	9.946e4	1.025e4	6.842e3	1.50	NO	1.709e4	2.5664	2.5664	0.135
2	Total Penta-Furans	28.82	2.305e6	1.496e6	1.829e5	1.157e5	1.58	NO	2.986e5	44.844	44.844	0.135
3	Total Penta-Furans	29.19	1.553e4	1.083 e4	7.931e2	5.736e2	1.38	NO	1.367e3	0.20527	0.20527	0.135
4	Total Penta-Furans	29.27	3.168e4	1.723e4	1.953e3	1.124e3	1.74	NO	3.078e3	0.46224	0.46224	0.135
5	Total Penta-Furans	29.45	1.269e6	7.695e5	6.591e4	4.135e4	1.59	NO	1.073e5	16.109	16.109	0.135
6	Total Penta-Furans	29.60	7.001e4	4.718e4	3.676e3	2.574e3	1.43	NO	6.250e3	0.93865	0.93865	0.135
7	1,2,3,7,8-PeCDF	29.81	1.882e5	1.124e5	9.136e3	5.986e3	1.53	NO	1.512e4	2.1792	2.1792	0.129
8	Total Penta-Furans	30.05	4.499e5	3.061e5	3.677e4	2.440e4	1.51	NO	6.117e4	9.1874	9.1874	0.135
9	Total Penta-Furans	30.23	4.000e4	2.736e4	1.890e3	1.121e3	1.69	NO	3.011e3	0.45219	0.45219	0.135
10	Total Penta-Furans	30.63	1.006e4	5.812e3	4.670e2	2.822e2	1.65	NO	7.492e2	0.11252	0.11252	0.135
11	Total Penta-Furans	30.69	5.307e4	3.566e4	2.534e3	1.689e3	1.50	NO	4.223e3	0.63424	0.63424	0.135
12	2,3,4,7,8-PeCDF	30.88	1.419e6	9.033e5	6.990e4	4.517e4	1.55	NO	1.151e5	16.227	16.227	0.127
13	Total Penta-Furans	31.50	2.825e4	1.717e4	1.292e3	8.035e2	1.61	NO	2.096e3	0.31478	0.31478	0.135
14	Total Penta-Furans	31.67	5.183e4	3.501e4	2.259e3	1.590e3	1.42	NO	3.849e3	0.57806	0.57806	0.135
15	Total Penta-Furans	31.77	2.481e4	1.585e4	9.324e2	6.862e2	1.36	NO	1.619e3	0.24309	0.24309	0.135

Work Order 2002493 Page 301 of 734

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Hexa-Furans

St. D.W.	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.20	4.175e6	3.404e6	1.978e5	1.630e5	1.21	NO	3.608e5	79.137	79.137	0.351
2	Total Hexa-Furans	32.37	9.525e6	7.876e6	4.467e5	3.709e5	1.20	NO	8.175e5	179.30	179.30	0.351
3	Total Hexa-Furans	32.78	8.893e4	7.664e4	3.914e3	3.491e3	1.12	NO	7.405e3	1.6241	1.6241	0.351
4	Total Hexa-Furans	33.00	1.683e7	1.376e7	8.153e5	6.794e5	1.20	NO	1.495e6	327.81	327.81	0.351
5	Total Hexa-Furans	33.33	2.882e4	2.485e4	1.459e3	1.281e3	1.14	NO	2.740e3	0.60088	0.60088	0.351
6	1,2,3,4,7,8-HxCDF	33.46	5.910e5	5.080e5	2.860e4	2.352e4	1.22	NO	5.212e4	11.379	11.379	0.329
7	1,2,3,6,7,8-HxCDF	33.59	2.372e6	1.936e6	1.168e5	9.471e4	1.23	NO	2.115e5	43.844	43.844	0.321
8	Total Hexa-Furans	33.91	2.079e4	1.306e4	1.099e3	8.299e2	1.32	NO	1.928 e 3	0.42295	0.42295	0.351
9	Total Hexa-Furans	34.05	2.182e4	1.956e4	1.056e3	9.411e2	1.12	NO	1.997e3	0.43799	0.43799	0.351
10	2,3,4,6,7,8-HxCDF	34.27	8.328e5	6.753e5	4.753e4	3.873e4	1.23	NO	8.626e4	19.155	19.155	0.363
11	1,2,3,7,8,9-HxCDF	35.27	1.216e5	1.014e5	3.358e3	2.883e3	1.16	NO	6.241e3	1.5088	1.5088	0.414
12	Total Hexa-Furans	35.29	1. 411e 5	1.235e5	6.235e3	5.247e3	1.19	NO	1.148e4	2.5183	2.5183	0.351

Hepta-Furans

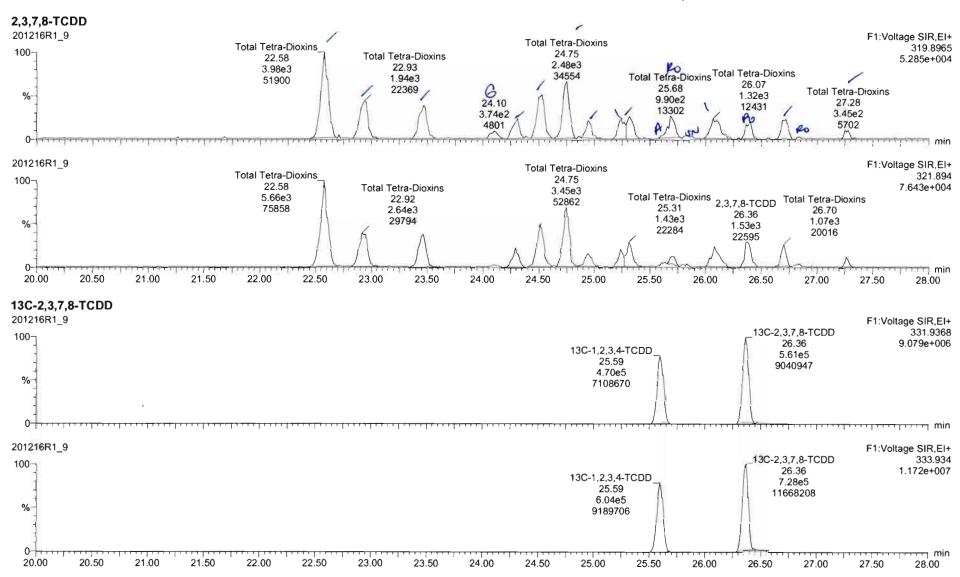
DESERTED.	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.83	2.459e7	2.448e7	1.563e6	1.547e6	1.01	NO	3.111e6	890.28	890.28	0.493
2	Total Hepta-Furans	37.55	2.016e7	1.996e7	1.244e6	1.237e6	1.01	NO	2.481e6	796.22	796.22	0.482
3	1,2,3,4,7,8,9-HpCDF	38.84	1.964e5	2.132e5	9.949e3	1.025e4	0.97	NO	2.020e4	6.5861	6.5861	0.417

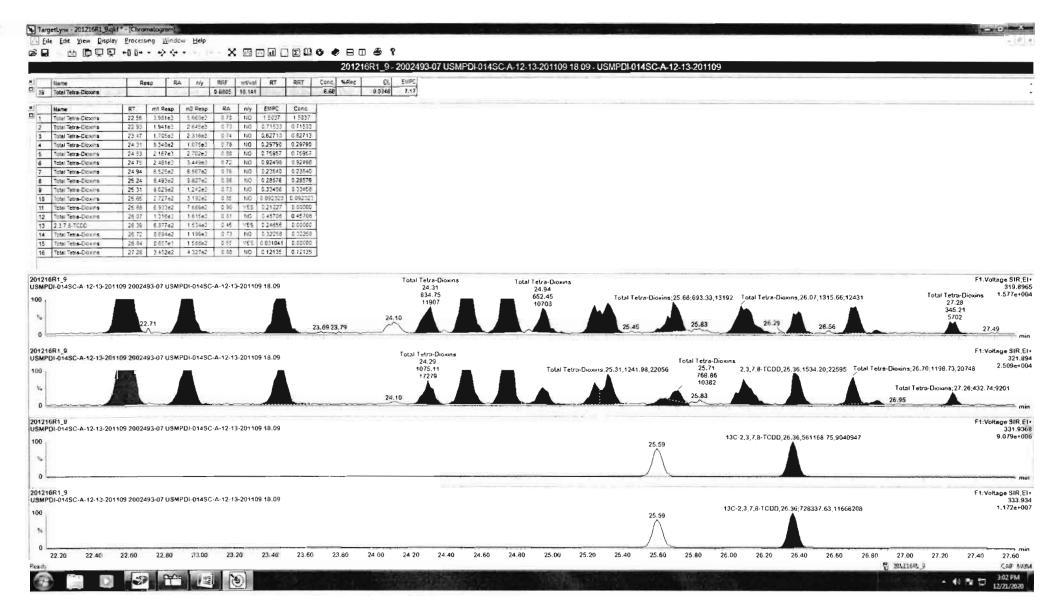
Work Order 2002493 Page 302 of 734

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Name: 201216R1_9, Date: 16-Dec-2020, Time: 14:31:33, ID: 2002493-07 USMPDI-014SC-A-12-13-201109 18:09, Description: USMPDI-014SC-A-12-13-201109





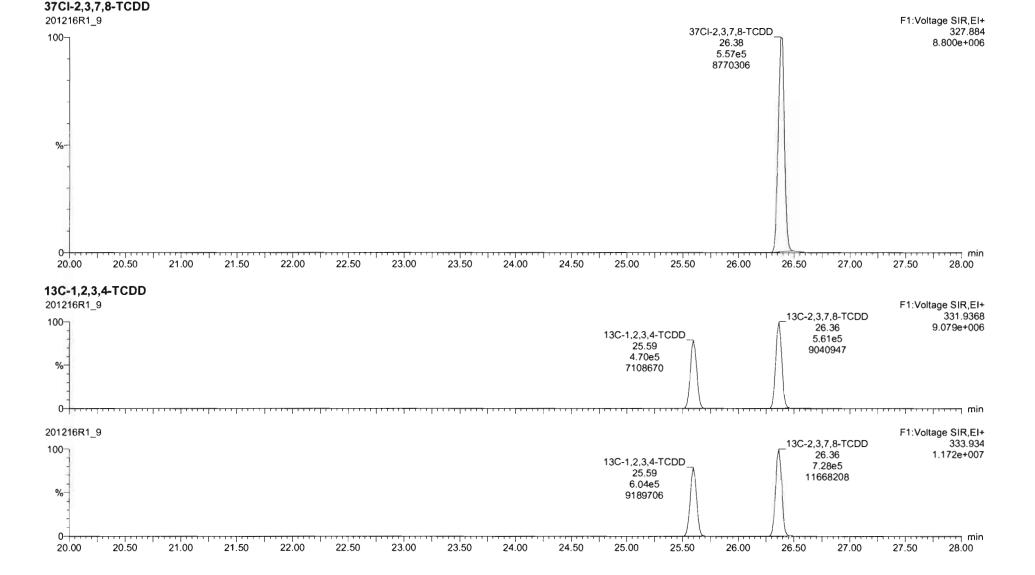
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Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time

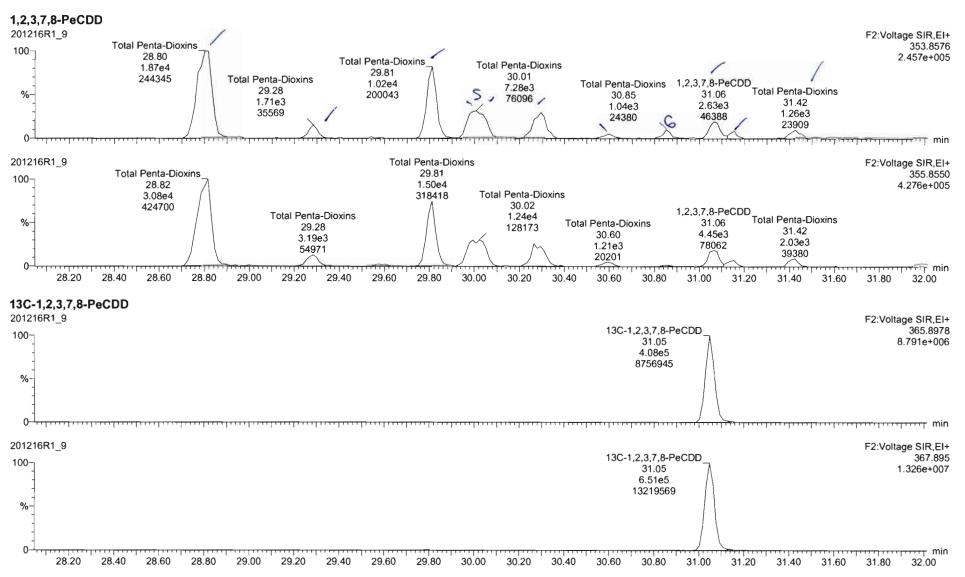
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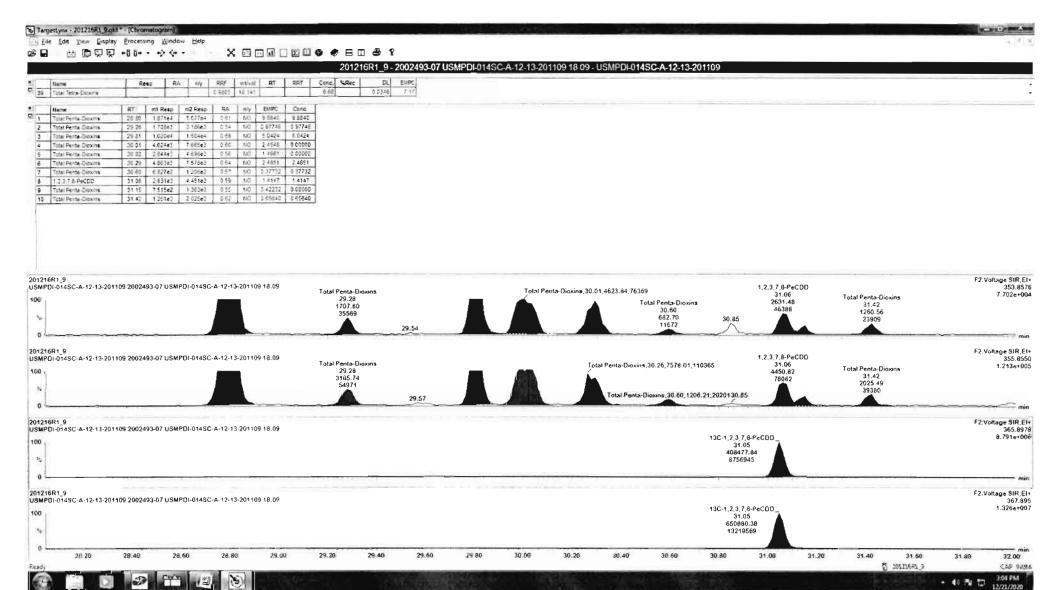


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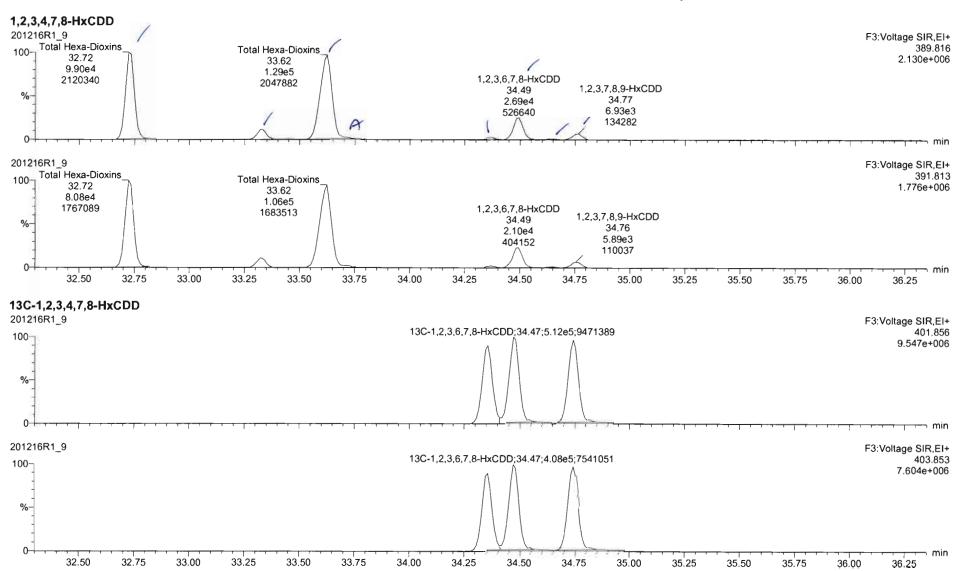


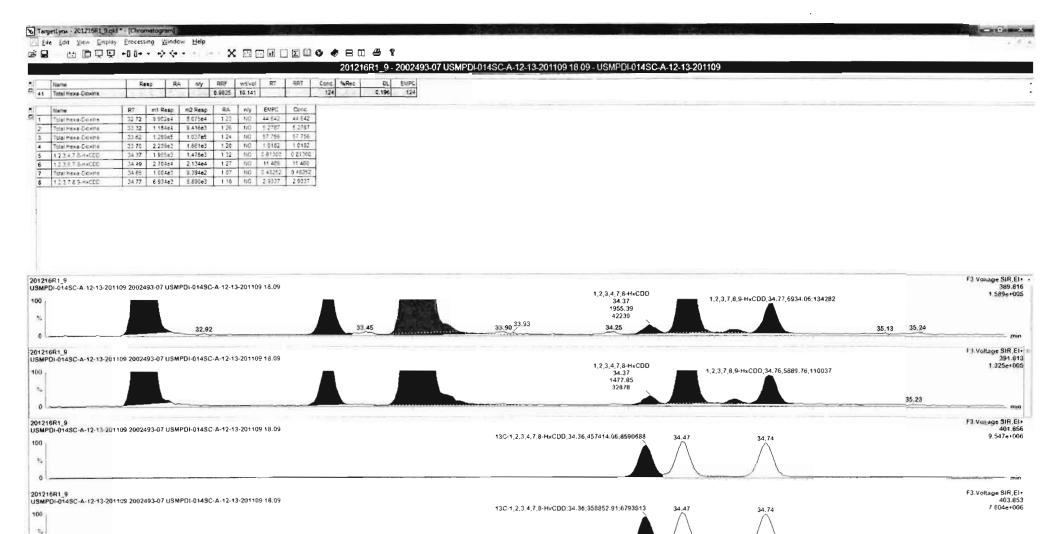
Work Order 2002493 Page 307 of 734

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Work Order 2002493 Page 309 of 734

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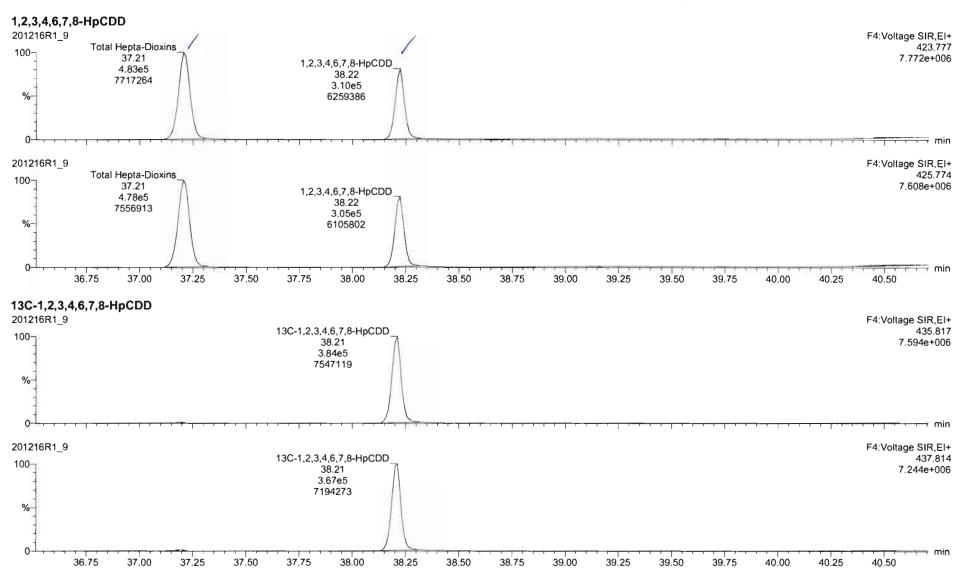
Vista Analytical Laboratory

Dataset:

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Last Altered: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time

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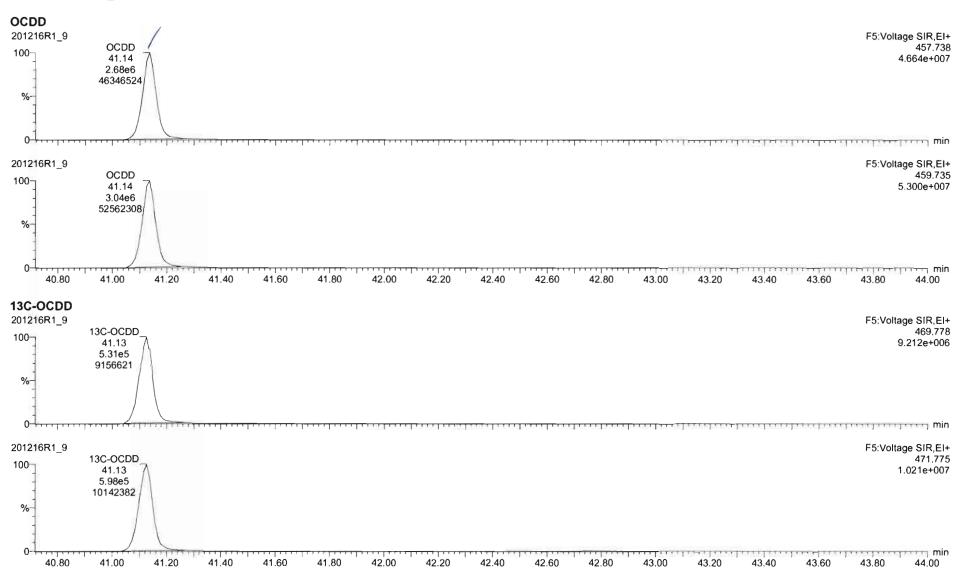


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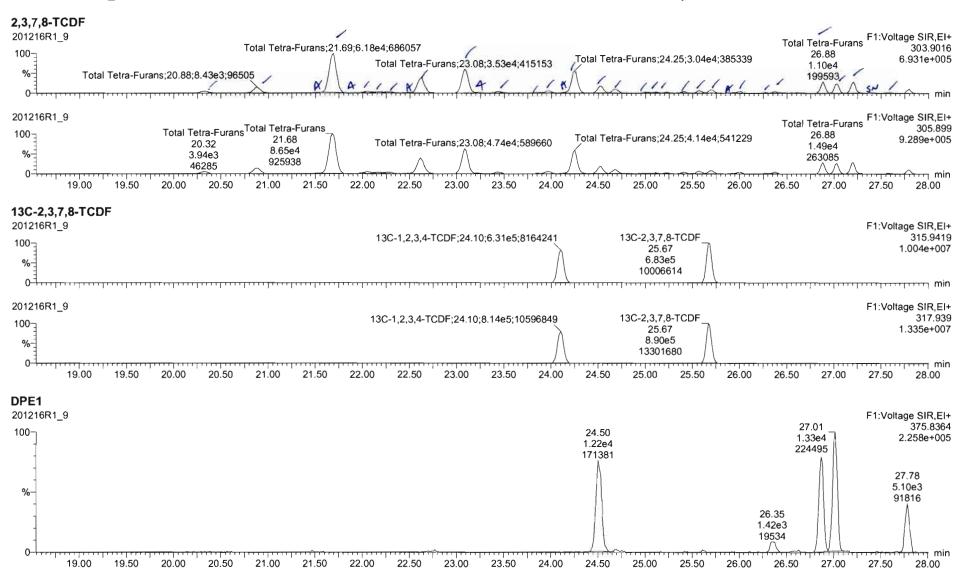
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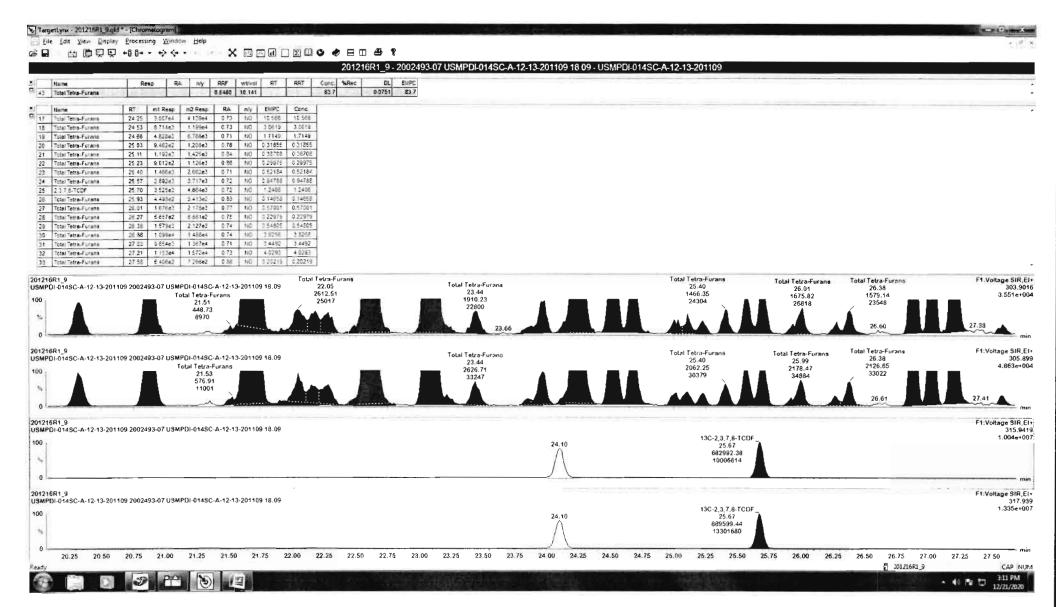


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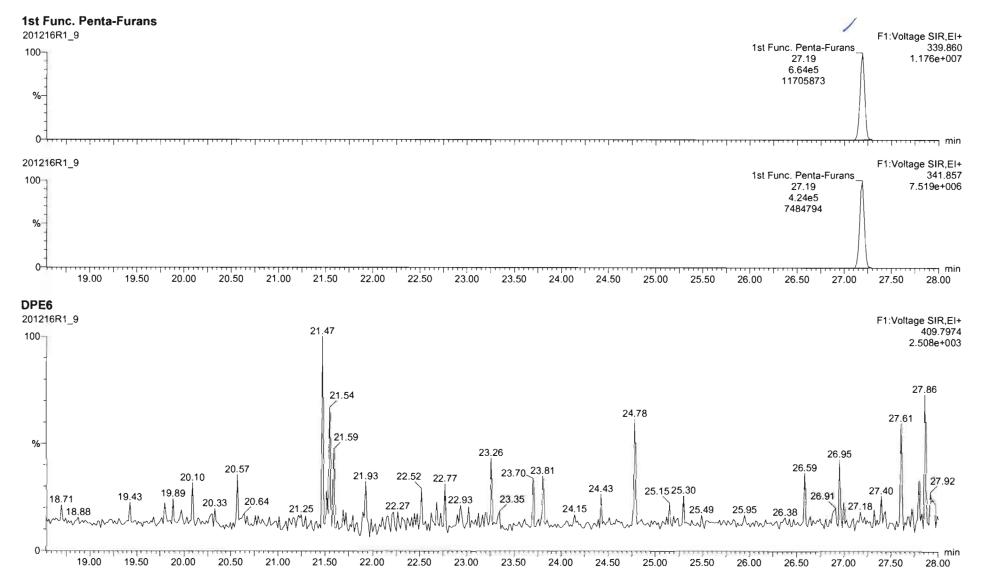
Work Order 2002493 Page 313 of 734

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Last Altered: Thursday
Printed: Thursday

Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time

Name: 201216R1_9, Date: 16-Dec-2020, Time: 14:31:33, ID: 2002493-07 USMPDI-014SC-A-12-13-201109 18:09, Description: USMPDI-014SC-A-12-13-201109



Quantify Sample Report Vista Analytical Laboratory

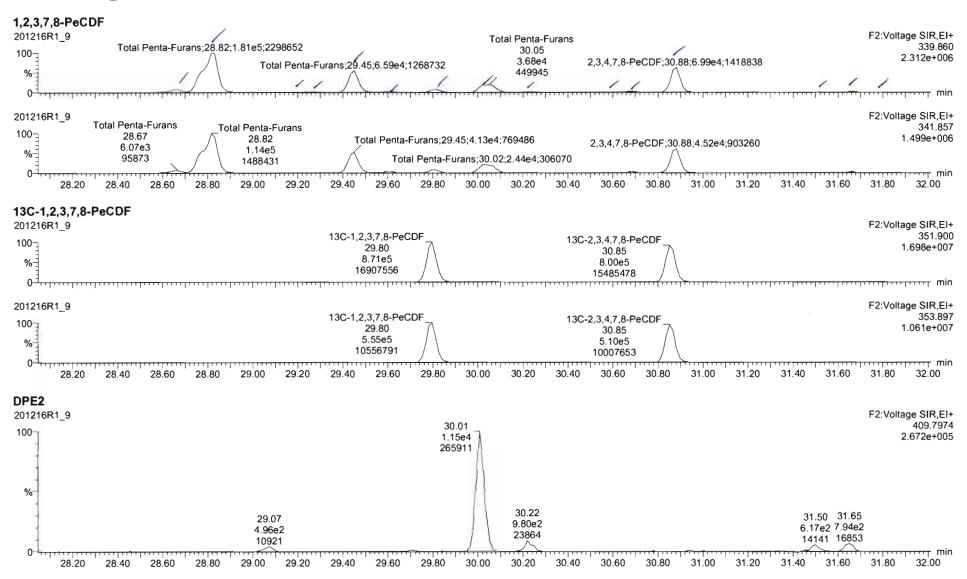
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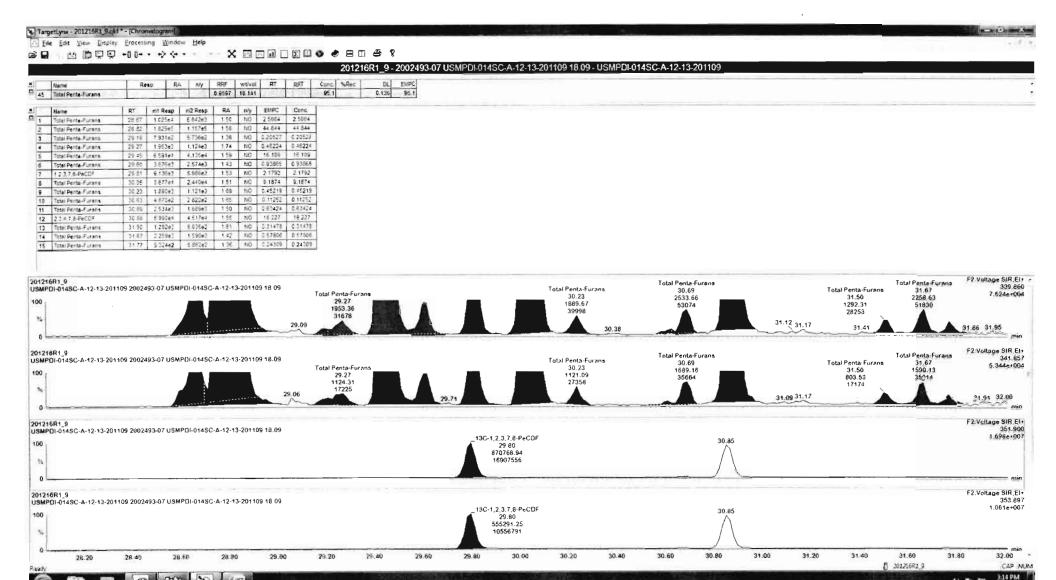
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Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time

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Work Order 2002493 Page 316 of 734

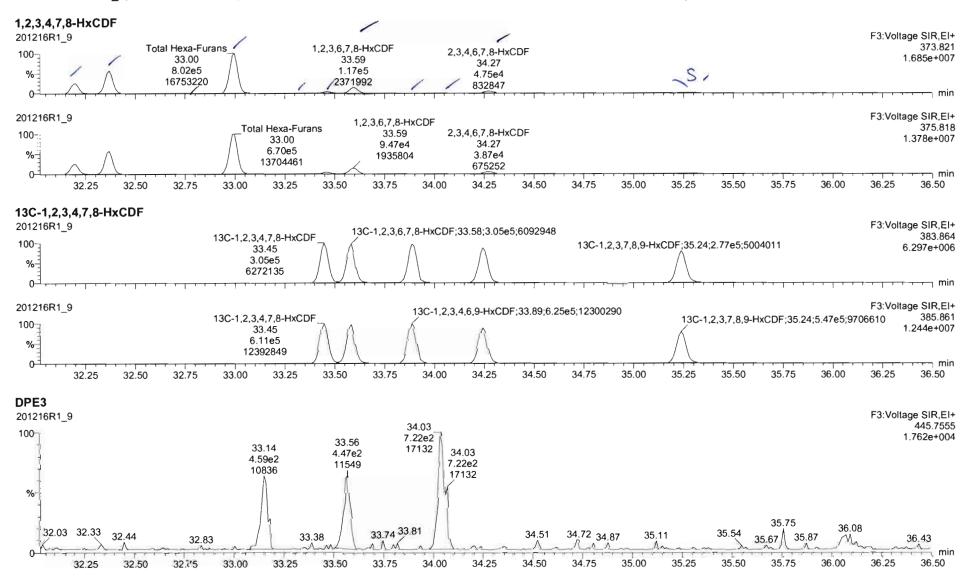
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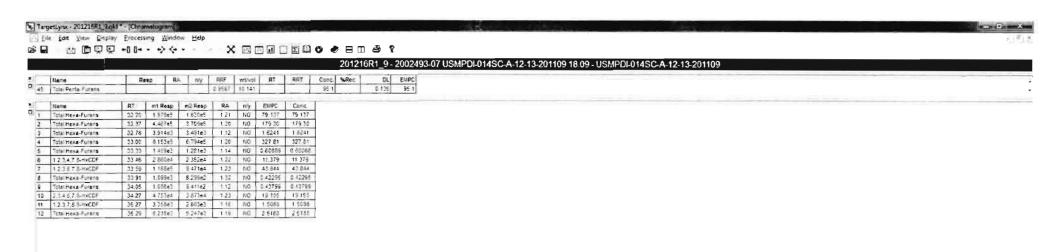
12/21/2020

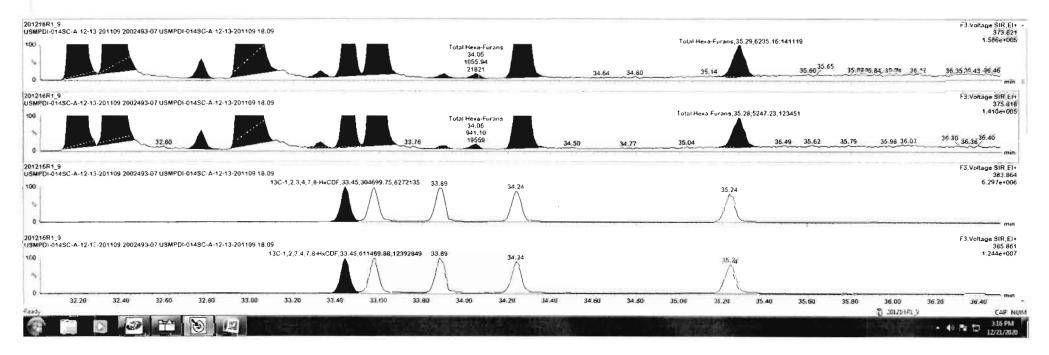
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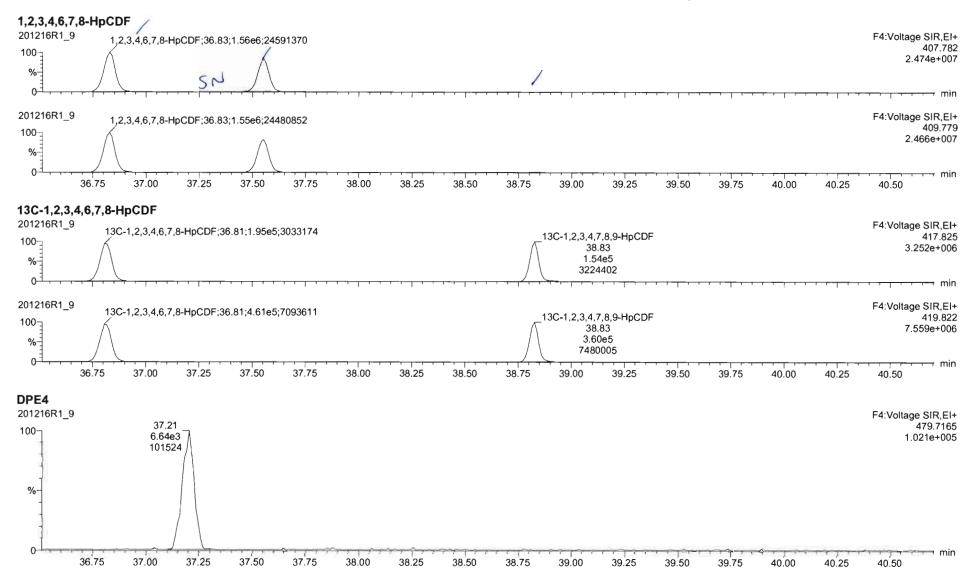
Work Order 2002493 Page 318 of 734

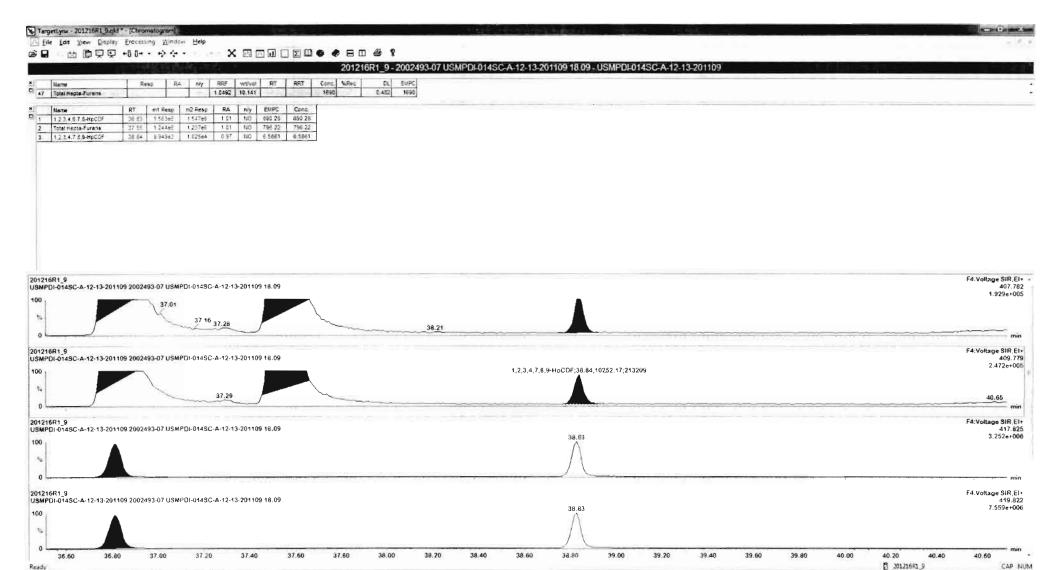
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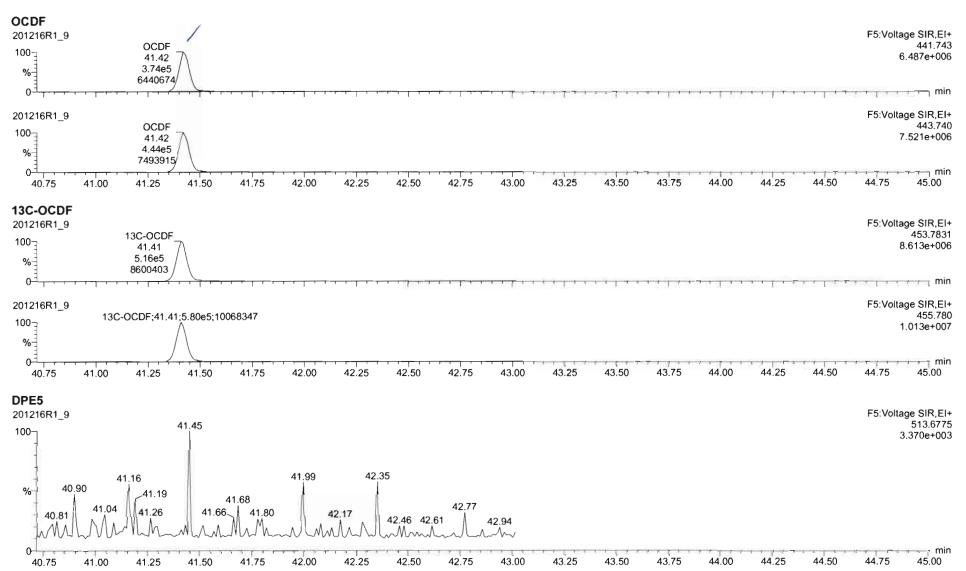
Work Order 2002493 Page 320 of 734

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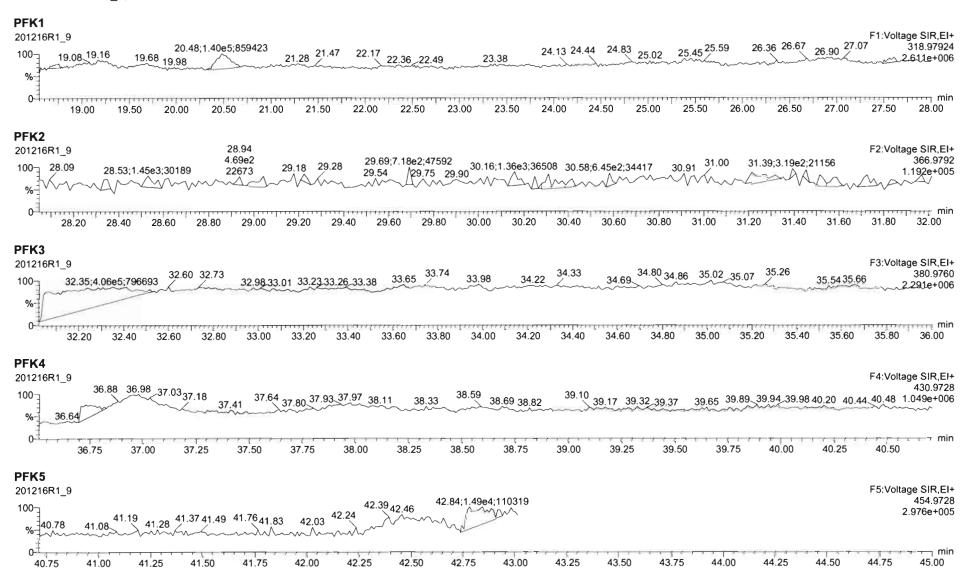
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MassLynx 4.1 SCN815

Page 1 of 2

Vista Analytical Laboratory

Dataset:

Printed:

U:\VG12.PRO\Results\201216R1\201216R1_10.qld

Last Altered:

Tuesday, December 22, 2020 8:02:54 AM Pacific Standard Time Tuesday, December 22, 2020 8:03:41 AM Pacific Standard Time

GPE 12/22/2020

Method: Untitled 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201216R1_10, Date: 16-Dec-2020, Time: 15:17:22, ID: 2002493-08 USMPDI-014SC-A-13-14-201109 16, Description: USMPDI-014SC-A-13-14-201109

THE WAY	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1994/14/14	1 2,3,7,8-TCDD	7.09e2	0.19	YES	0.980	10.340	26.381	26.38	1.001	1.001	0.12408		0.0263	0.0461
2	2 1,2,3,7,8-PeCDD			NO	0.932	10.340	31.064		1.001				0.0626	
3	3 1,2,3,4,7,8-HxCDD	2.48e2	1.39	NO	1.02	10.340	34.368	34.35	1.001	1.000	0.067073		0.0519	0.0671
4	4 1,2,3,6,7,8-HxCDD	4.90e2	1.17	NO	0.902	10.340	34.483	34.46	1.001	1.000	0.13440		0.0541	0.134
5	5 1,2,3,7,8,9-HxCDD	6.72e2	1.21	NO	0.954	10.340	34.745	34.76	1.000	1.001	0.17669		0.0540	0.177
6	6 1,2,3,4,6,7,8-HpCDD	5.89e3	1.08	NO	0.918	10.340	38.211	38.21	1.000	1.000	2.0364		0.121	2.04
7	7 OCDD	5.32e4	0.89	NO	0.866	10.340	41.124	41.13	1.000	1.000	27.789		0.159	27.8
8	8 2,3,7,8-TCDF	7.01e2	0.72	NO	0.848	10.340	25.672	25.70	1.000	1.001	0.11754		0.0463	0.118
9	9 1,2,3,7,8-PeCDF			NO	0.960	10.340	29.785		1.000				0.0390	
10	10 2,3,4,7,8-PeCDF	5.62e2	1.11	YES	1.07	10.340	30.874	30.88	1.001	1.001	0.086549		0.0384	0.0748
11	11 1,2,3,4,7,8-HxCDF	2.96e2	1.58	YES	0.986	10.340	33.446	33.45	1.000	1.000	0.073452		0.0492	0.0637
12	12 1,2,3,6,7,8-HxCDF	3.93e2	1.25	NO	1.04	10.340	33.592	33.57	1.001	1.000	0.092670		0.0475	0.0927
13	13 2,3,4,6,7,8-HxCDF	2.65e2	1.07	NO	1.02	10.340	34.253	34.25	1.001	1.001	0.066972		0.0509	0.0670
14	14 1,2,3,7,8,9-HxCDF	2.47e2	1.27	NO	0.991	10.340	35.238	35.24	1.000	1.000	0.066295		0.0625	0.0663
15	15 1.2.3.4.6.7,8-HpCDF	3.92e3	0.95	NO	1.05	10.340	36.824	36.83	1.000	1.001	1.3606		0.0551	1.36
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.18	10.340	38.828		1.000				0.0456	
17	17 OCDF	1.60e3	0.97	NO	0.896	10.340	41.427	41.43	1.000	1.000	0.81647		0.0594	0.816
18	18 13C-2,3,7,8-TCDD	1.13e6	0.78	NO	1.06	10.340	26.368	26.35	1.030	1.029	203.24	105	0.157	
19.	19 13C-1,2,3,7,8-PeCDD	8.19e5	0.61	NO	0.785	10.340	31.211	31.03	1.219	1.212	198.70	103	0.126	
20	20 13C-1,2,3,4,7,8-HxCDD	7.01e5	1.26	NO	0.621	10.340	34.337	34.35 <	1.014	1.014	244.98	127	0.446	
21	21 13C-1,2,3,6,7,8-HxCDD	7.82e5	1.27	NO	0.734	10.340	34.459	34.46	1.017	1.017	231.10	119	0.377	
22	22 13C-1,2,3,7,8,9-HxCDD	7.71e5	1.25	NO	0.723	10.340	34.743	34.74	1.026	1.025	231.55	120	0.383	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.09e5	1.02	NO	0.568	10.340	38.243	38.20	1.129	1.128	232.87	120	0.714	
24	24 13C-OCDD	8.56e5	0.90	NO	0.496	10.340	41.180	41.12	1.216	1.214	374.70	96.9	0.933	
25	25 13C-2,3,7,8-TCDF	1.36e6	0.77	NO	0.919	10.340	25.667	25.67	1.003	1.003	206.20	107	0.207	
26	26 13C-1,2,3,7,8-PeCDF	1.19e6	1.57	NO	0.715	10.340	29.921	29.78	1.169	1.164	231.64	120	0.260	
27	27 13C-2,3,4,7,8-PeCDF	1 18e6	1.58	NO	0.689	10.340	31.008	30.85	1.212	1.205	237.97	123	0.270	
28	28 13C-1,2,3,4,7,8-HxCDF	7.90e5	0.50	NO	0.873	10.340	33.442	33.44	0.987	0.987	196.38	102	0.328	
29	29 13C-1,2,3,6,7,8-HxCDF	7 90e5	0.51	NO	0.933	10.340	33.571	33.57	0.991	0.991	183.71	95.0	0.307	
30	30 13C-2,3,4,6,7,8-HxCDF	7.49e5	0.50	NO	0.843	10.340	34.238	34.23	1.011	1.011	192.85	99.7	0.340	
31	31 13C-1,2,3,7,8,9-HxCDF	7.26e5	0.51	NO	0.780	10.340	35.238	35.23	1.040	1.040	202.11	104	0.367	

Work Order 2002493 Page 323 of 734

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Last Altered: Printed:

Tuesday, December 22, 2020 8:02:54 AM Pacific Standard Time Tuesday, December 22, 2020 8:03:41 AM Pacific Standard Time

Name: 201216R1_10, Date: 16-Dec-2020, Time: 15:17:22, ID: 2002493-08 USMPDI-014SC-A-13-14-201109 16, Description: USMPDI-014SC-A-13-14-201109

STATE OF	# 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	5.31e5	0.42	NO	0.726	10.340	36.813	36.81	1.087	1.086	158.75	82.1	0.464	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.33e5	0.43	NO	0.491	10.340	38.822	38.82	1.146	1.146	191.47	99.0	0.686	
34	34 13C-OCDF	8.47e5	0.88	NO	0.565	10.340	41.396	41.42	1.222	1.223	324.96	84.0	0.318	
35	35 37CI-2,3,7,8-TCDD	5.19e5			1.22	10.340	26.363	26.38	1.030	1.031	81.227	105	0.0211	
36	36 13C-1,2,3,4-TCDD	1.02e6	0.78	NO	1.00	10.340	25.640	25.59	1.000	1.000	193.42	100	0.165	
37	37 13C-1,2,3,4-TCDF	1.39e6	0.78	NO	1.00	10.340	24.130	24.09	1.000	1.000	193.42	100	0.190	
38	38 13C-1,2,3,4,6,9-HxCDF	8.91e5	0.50	NO	1.00	10.340	33.920	33.88	1.000	1.000	193.42	100	0.286	
39	39 Total Tetra-Dioxins				0.980	10.340	24.620		0.000		0.58707		0.0263	0.672
40	40 Total Penta-Dioxins				0.932	10.340	29.960		0.000		0.49569		0.0626	0.801
41	41 Total Hexa-Dioxins				0.902	10.340	33.635		0.000		2.4562		0.0566	2.46
42	42 Total Hepta-Dioxins				0.918	10.340	37.640		0.000		5.0561		0.121	5.06
43	43 Total Tetra-Furans				0.848	10.340	23.610		0.000		1.6835		0.0463	1.85
44	44 1st Func. Penta-Furans				0.960	10.340	26.930		0.000		0.39694		0.0154	0.397
45	45 Total Penta-Furans				0.960	10.340	29.275		0.000		0.34189		0.0408	0.535
46	46 Total Hexa-Furans				1.02	10.340	33.555		0.000		1.1976		0.0517	1.26
47	47 Total Hepta-Furans				1.05	10.340	37.835		0.000		2.4167		0.0533	2.42

Work Order 2002493 Page 324 of 734

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_10.qld

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Tuesday, December 22, 2020 8:02:54 AM Pacific Standard Time Tuesday, December 22, 2020 8:03:41 AM Pacific Standard Time

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Tetra-Dioxins

TANK THE	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	22.56	4.491e3	5.067e3	3.627e2	4.920e2	0.74	NO	8.547e2	0.14955	0.14955	0.0263
2	Total Tetra-Dioxins	22.92	4.227e3	4.341e3	2.627e2	3.769e2	0.70	NO	6.396e2	0.11192	0.11192	0.0263
3	Total Tetra-Dioxins	24.31	8.204e3	1.018e4	5.414e2	6.391e2	0.85	NO	1.181e3	0.20657	0.20657	0.0263
4	Total Tetra-Dioxins	24.50	2.656e3	1.679e3	1.427e2	1.245e2	1.15	YES	0.000e0	0.00000	0.038571	0.0263
5	Total Tetra-Dioxins	24.74	2.155e3	2.912e3	1.175e2	1.423e2	0.83	NO	2.597e2	0.045449	0.045449	0.0263
6	2,3,7,8-TCDD	26.38	1.868e3	9.817e3	1.146e2	5.946e2	0.19	YES	7.091e2	0.00000	0.046083	0.0263
7	Total Tetra-Dioxins	26.70	2.039e3	3.436e3	9.781e1	1.468e2	0.67	NO	2.446e2	0.042806	0.042806	0.0263
8	Total Tetra-Dioxins	27.25	1.567e3	2.424e3	8.224e1	9.359e1	0.88	NO	1.758e2	0.030768	0.030768	0.0263

Penta-Dioxins

17 HERE 64	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.77	3.642e3	5.105e3	2.503e2	3.868e2	0.65	NO	6.371e2	0.16138	0.16138	0.0626
2	Total Penta-Dioxins	29.25	4.025e3	7.115e3	2.075e2	3.758e2	0.55	NO	5.833e2	0.14775	0.14775	0.0626
3	Total Penta-Dioxins	29.78	2.304e4	9.226e3	1.039e3	4.346e2	2.39	YES	0.000e0	0.00000	0.17942	0.0626
4	Total Penta-Dioxins	30.28	4.748e3	7.935e3	2.602e2	4.763e2	0.55	NO	7.365e2	0.18655	0.18655	0.0626
5	Total Penta-Dioxins	30.84	2.142e4	7.477e3	8.433e2	3.054e2	2.76	YES	0.000e0	0.00000	0.12608	0.0626

Hexa-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1712-19	Total Hexa-Dioxins	32.72	3.437e4	3.368e4	1.784e3	1.477e3	1.21	NO	3.261e3	0.93036	0.93036	0.0566
2	Total Hexa-Dioxins	33.31	8.770e3	7.465e3	4.036e2	3.141e2	1.29	NO	7.177e2	0.20479	0.20479	0.0566
3	Total Hexa-Dioxins	33.59	1.911e4	1.685e4	1.522e3	1.149e3	1.32	NO	2.672e3	0.76227	0.76227	0.0566
4	Total Hexa-Dioxins	33.70	3.550e3	2.659e3	1.779e2	1.264e2	1.41	NO	3.042e2	0.086809	0.086809	0.0566
5	1,2,3,4,7,8-HxCDD	34.35	3.790e3	2.349e3	1.444e2	1.035e2	1.39	NO	2.479e2	0.067073	0.067073	0.0519
6	1,2,3,6,7,8-HxCDD	34.46	4.146e3	4.530e3	2.646e2	2.257e2	1.17	NO	4.902e2	0.13440	0.13440	0.0541
7	Total Hexa-Dioxins	34.69	2.550e3	2.054e3	1.862e2	1.425e2	1.31	NO	3.288e2	0.093804	0.093804	0.0566
8	1,2,3,7,8,9-HxCDD	34.76	8.096e3	6.742e3	3.684e2	3.037e2	1.21	NO	6.721e2	0.17669	0.17669	0.0540

Work Order 2002493 Page 325 of 734

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_10.qld

Last Altered: Printed: Tuesday, December 22, 2020 8:02:54 AM Pacific Standard Time Tuesday, December 22, 2020 8:03:41 AM Pacific Standard Time

Name: 201216R1_10, Date: 16-Dec-2020, Time: 15:17:22, ID: 2002493-08 USMPDI-014SC-A-13-14-201109 16, Description: USMPDI-014SC-A-13-14-201109

Hepta-Dioxins

100 (13)	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1.55	Total Hepta-Dioxins	37.21	6.600e4	6.790e4	4.472e3	4.260e3	1.05	NO	8.732e3	3.0197	3.0197	0.121
2	1,2,3,4,6,7,8-HpCDD	38.21	6.616e4	5.616e4	3.061e3	2.828e3	1.08	NO	5.889e3	2.0364	2.0364	0.121

Tetra-Furans

Section 1	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	20.30	3.366e3	5.278e3	2.521e2	3.355e2	0.75	NO	5.876e2	0.098462	0.098462	0.0463
2	Total Tetra-Furans	20.85	1.833e3	2.178e3	1.065e2	1.596e2	0.67	NO	2.662e2	0.044599	0.044599	0.0463
3	Total Tetra-Furans	21.65	1.169e4	1.440e4	1.099e3	1.289e3	0.85	NO	2.388e3	0.40022	0.40022	0.0463
4	Total Tetra-Furans	22.03	1.628e3	1.796e3	8.715e1	1.042e2	0.84	NO	1.913e2	0.032063	0.032063	0.0463
5	Total Tetra-Furans	22.15	3.024e3	3.670e3	2.204e2	2.810e2	0.78	NO	0.000e0	0.00000	0.084021	0.0463
6	Total Tetra-Furans	22.30	1.881e3	3.230e3	1.308e2	1.919e2	0.68	NO	3.227e2	0.054073	0.054073	0.0463
7/ 1/2	Total Tetra-Furans	22.65	4.332e3	3.788e3	3.861e2	4.833e2	0.80	NO	8.694e2	0.14568	0.14568	0.0463
8	Total Tetra-Furans	23.04	4.360e3	3.358e3	2.543e2	2.937e2	0.87	NO	5.479e2	0.091819	0.091819	0.0463
9	Total Tetra-Furans	23.42	2.207e3	3.071e3	1.166e2	1.775e2	0.66	NO	2.941e2	0.049285	0.049285	0.0463
10	Total Tetra-Furans	23.85	2.177e3	4.697e3	1.366e2	2.056e2	0.66	NO	3.422e2	0.057343	0.057343	0.0463
11	Total Tetra-Furans	23.95	2.282e3	2.285e3	1.628e2	1.907e2	0.85	NO	3.535e2	0.059230	0.059230	0.0463
12	Total Tetra-Furans	24.13	2.286e3	3.259e3	1.531e2	2.223e2	0.69	NO	3.754e2	0.062910	0.062910	0.0463
13	Total Tetra-Furans	24.25	3.346e3	4.474e3	2.723e2	4.067e2	0.67	NO	6.790e2	0.11378	0.11378	0.0463
14	Total Tetra-Furans	24.65	4.676e3	5.369e3	2.872e2	3.656e2	0.79	NO	6.529e2	0.10940	0.10940	0.0463
15	Total Tetra-Furans	24.99	2.251e3	3.951e3	1.486e2	1.763e2	0.84	NO	3.249e2	0.054440	0.054440	0.0463
16	Total Tetra-Furans	25.08	1.551e3	2.831e3	9.801e1	1.461e2	0.67	NO	0.000e0	0.00000	0.040905	0.0463
17	Total Tetra-Furans	25.37	1.980e3	2.199e3	1.176e2	1.496e2	0.79	NO	2.672e2	0.044778	0.044778	0.0463
18	Total Tetra-Furans	25.58	2.153e3	2.517e3	1.218e2	1.512e2	0.81	NO	2.730e2	0.045741	0.045741	0.0463
19	2,3,7,8-TCDF	25.70	4.738e3	5.751e3	2.931e2	4.083e2	0.72	NO	7.014e2	0.11754	0.11754	0.0463
20	Total Tetra-Furans	25.99	2.571e3	4.301e3	2.685e2	3.411e2	0.79	NO	6.096e2	0.10216	0.10216	0.0463
21	Total Tetra-Furans	27.40	4.997e3	3.141e3	2.232e2	1.304e2	1.71	YES	0.000e0	0.00000	0.038665	0.0463

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 27,18	2.472e4	1.557e4	1.421e3	9.096e2	1.56	NO	2.331e3	0.39694	0.39694	0.0154

Work Order 2002493 Page 326 of 734

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_10.qld

Last Altered: Printed:

Tuesday, December 22, 2020 8:02:54 AM Pacific Standard Time Tuesday, December 22, 2020 8:03:41 AM Pacific Standard Time

Name: 201216R1_10, Date: 16-Dec-2020, Time: 15:17:22, ID: 2002493-08 USMPDI-014SC-A-13-14-201109 16, Description: USMPDI-014SC-A-13-14-201109

Penta-Furans

The st	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.64	3.208e3	2.937e3	2.873e2	2.052e2	1.40	NO	4.925e2	0.083881	0.083881	0.0408
2	Total Penta-Furans	28.80	8.334e3	4.826e3	5.667e2	3.808e2	1.49	NO	9.474e2	0.16136	0.16136	0.0408
3	Total Penta-Furans	29.43	5.899e3	5.605e3	3.315e2	2.359e2	1.41	NO	5.675e2	0.096648	0.096648	0.0408
4	Total Penta-Furans	30.05	5.621e3	2.430e3	2.975e2	1.666e2	1.79	YES	0.000e0	0.00000	0.072354	0.0408
5	Total Penta-Furans	30.67	4.153e3	3.178e3	1.633e2	1.366e2	1.20	YES	0.000e0	0.00000	0.045742	0.0408
6	2,3,4,7,8-PeCDF	30.88	5.045e3	4.433e3	2.951e2	2.669e2	1.11	YES	5.620e2	0.00000	0.074768	0.0384

Hexa-Furans

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.19	8.598e3	5.447e3	3.826e2	2.755e2	1.39	NO	6.582e2	0.16331	0.16331	0.0517
2	Total Hexa-Furans	32.35	1.796e4	1.347e4	8.446e2	6.357e2	1.33	NO	1.480e3	0.36732	0.36732	0.0517
3	Total Hexa-Furans	32.99	1.835e4	1.477e4	8.203e2	7.158e2	1.15	NO	1.536e3	0.38117	0.38117	0.0517
4	Total Hexa-Furans	33.33	2.041e3	2.192e3	8.813e1	6.630e1	1.33	NO	1.544e2	0.038319	0.038319	0.0517
5	1,2,3,4,7,8-HxCDF	33.45	2.989e3	2.062e3	1.813e2	1.147e2	1.58	YES	2.959e2	0.00000	0.063744	0.0492
6	1,2,3,6,7,8-HxCDF	33.57	3.350e3	3.125e3	2.185e2	1.748e2	1.25	NO	3.933e2	0.092670	0.092670	0.0475
7	2,3,4,6,7,8-HxCDF	34.25	2.364e3	2.367e3	1.370e2	1.277e2	1.07	NO	2.647e2	0.066972	0.066972	0.0509
8	1,2,3,7,8,9-HxCDF	35.24	3.087e3	2.934e3	1.379e2	1.088e2	1.27	NO	2.467e2	0.066295	0.066295	0.0625
9	Total Hexa-Furans	35.28	2.016e3	1.702e3	4.605e1	4.068e1	1.13	NO	8.673e1	0.021520	0.021520	0.0517

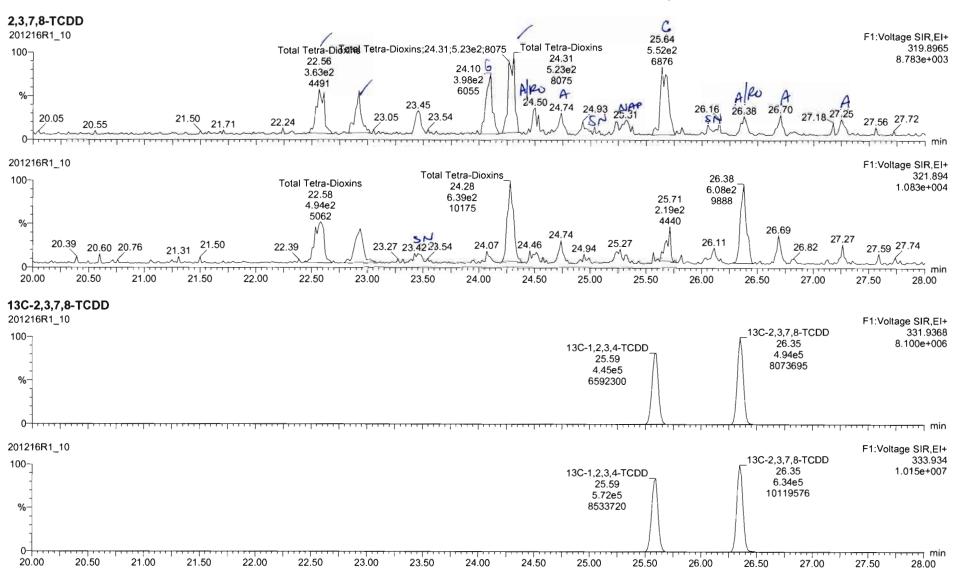
Hepta-Furans

100	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1,434	1,2,3,4,6,7,8-HpCDF	36.83	3.199e4	2.962e4	1.909e3	2.013e3	0.95	NO	3.922e3	1.3606	1.3606	0.0551
2	Total Hepta-Furans	37.53	2.204e4	2.516e4	1.403e3	1.360e3	1.03	NO	2.763e3	1.0561	1.0561	0.0533

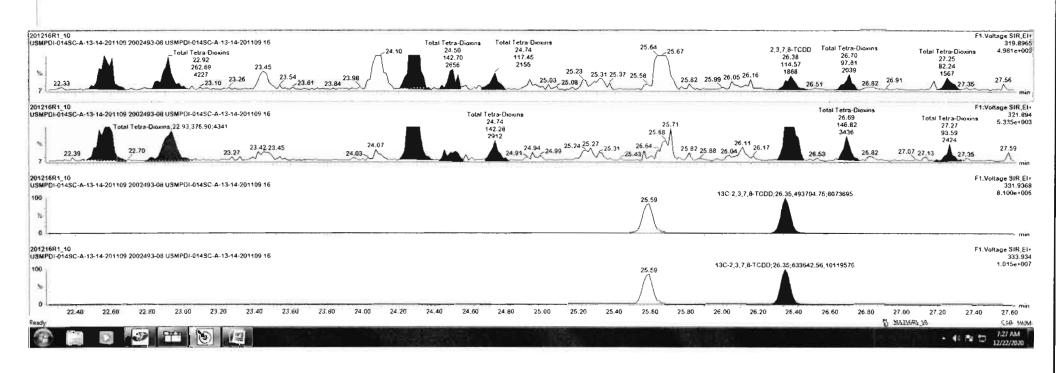
Work Order 2002493 Page 327 of 734

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	Name	Re	150	R4	NY	RRF	wtivol	RT	RRT	Cor
39	Total Tetra-Dicoons		63		1	0.9805	10.340	J. L.	7	0.5
di l	Name	RT	mt Res	рΙ	m2 Resp	RA	n/y	EMPC	Conc	
1	Total Tetra-Dicxins	22.56	3.627e	2	4.920e2	0.74	NO	0 14955	0 14965	
2	Total Tetra-Dioxins	72.92	2 €27 €	2	3.7E9e2	0.70	110	0 11192	0 11192]
3	Total Tetra-Dioxina	24 31	5.414e	2	6.391e2	0.85	- NO	0.20657	0.20657	l
4	Total Tetra-Dicixins	24.50	1.427e	2	1,245e2	1.15	YES	0.036571	0.00000	1
5	Total Tetra-Dioxins	24.74	1.175e	2	1.423e2	0.83	HO	0 045449	0 045449	1
6	2 3.7.5-TCDD	26.38	1.1466	2	5.946e2	0 19	YES	0.046083	0.00000	1
7	Total Tetra-Diexins	28 70	9.781e	1	1.466e2	0.67	NO	C.042806	0 042806	1
8	Total Tetra-Dioxing	27.25	8.2244	1	9.355e1	0.88	110	887000 0	5.030768	



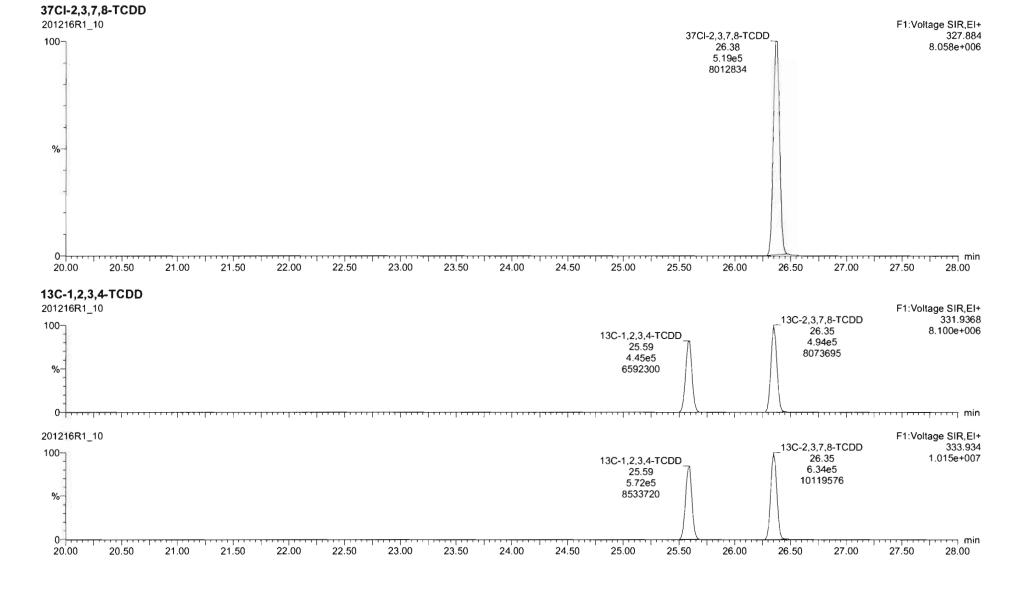
201216R1_10 - 2002493-08 USMPDI-014SC-A-13-14-201109 16 - USMPDI-014SC-A-13-14-201109

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Work Order 2002493 Page 329 of 734

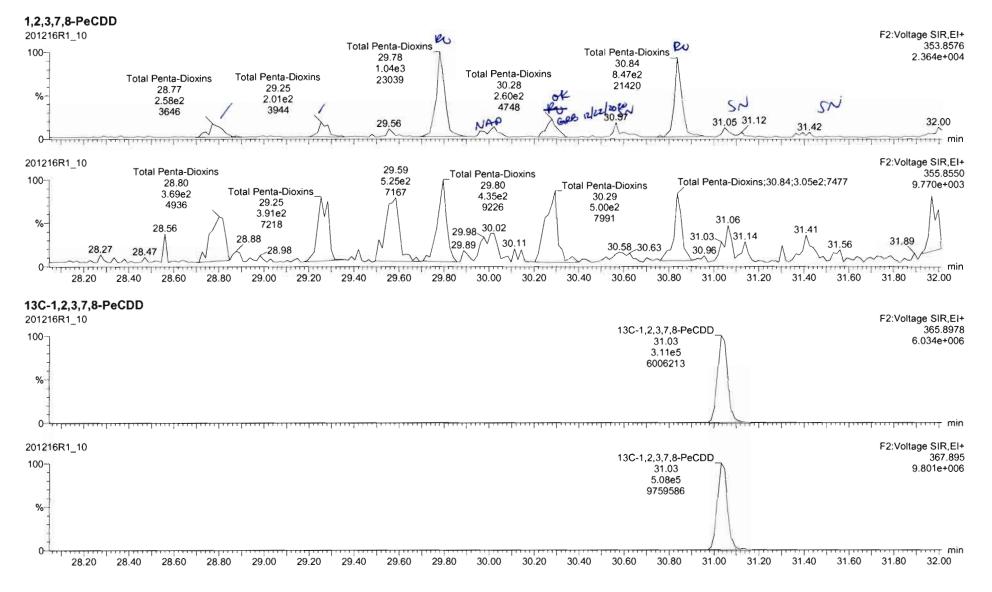
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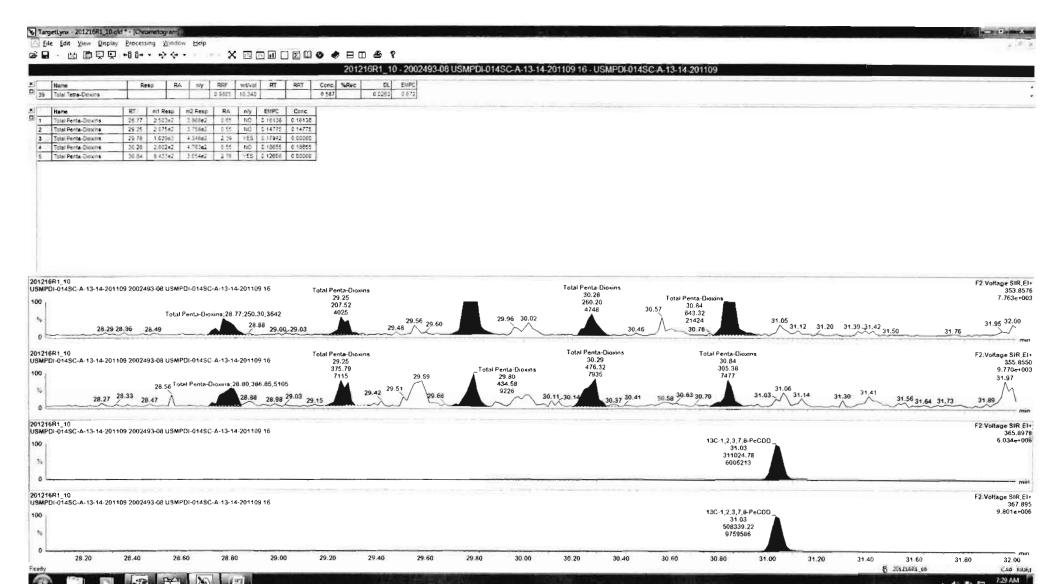
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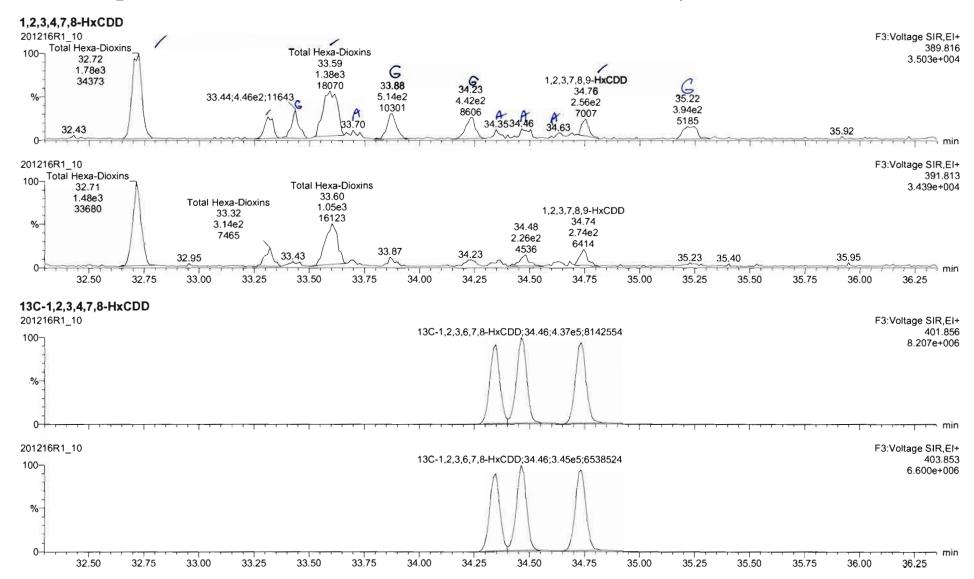


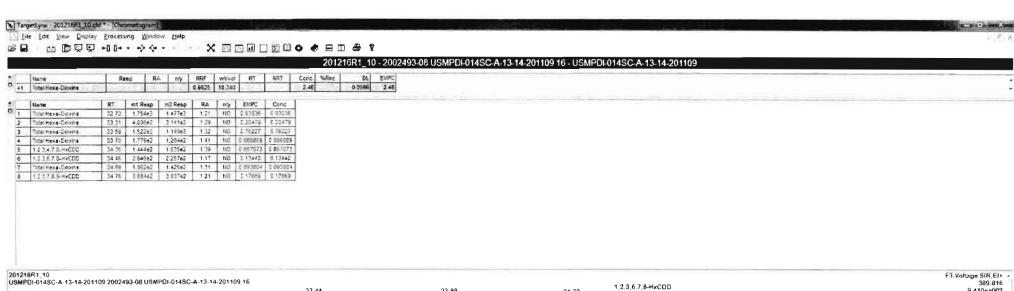
Work Order 2002493 Page 332 of 734

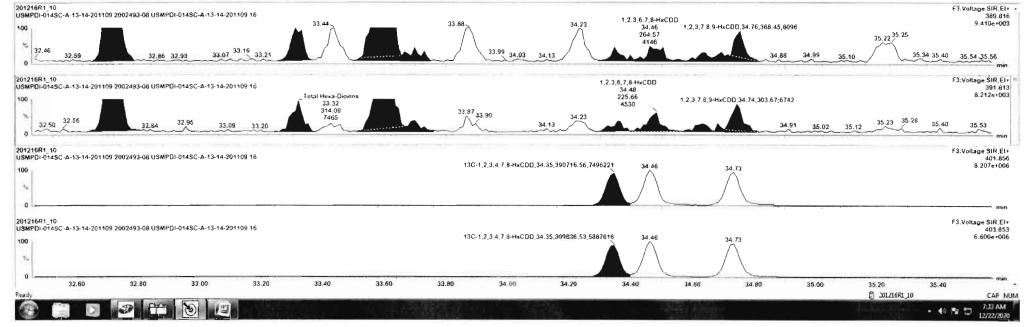
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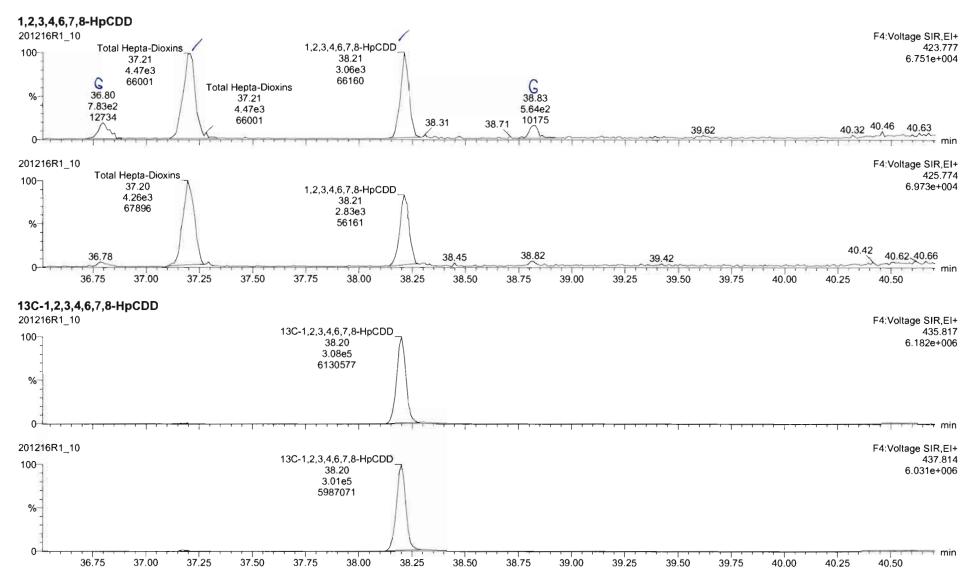




Work Order 2002493 Page 334 of 734

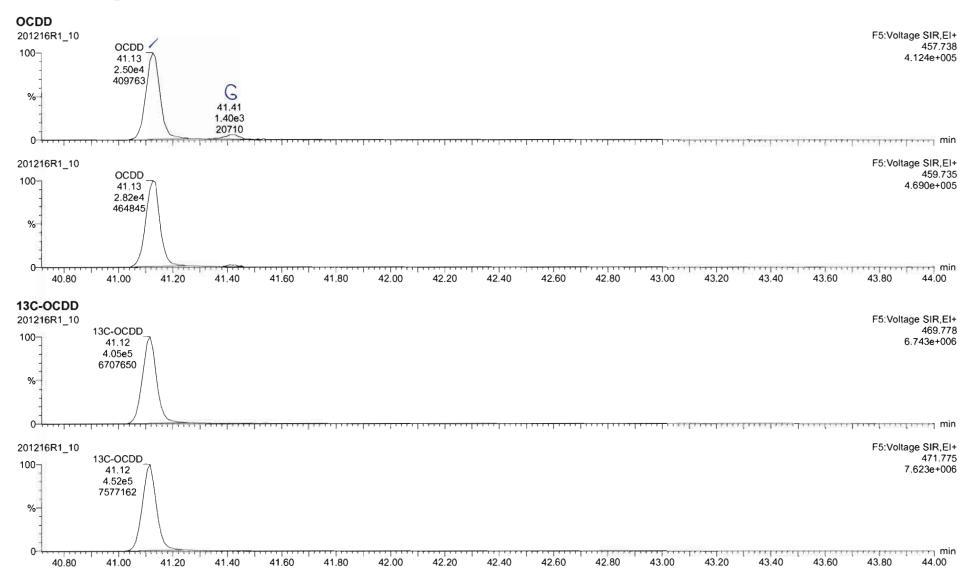
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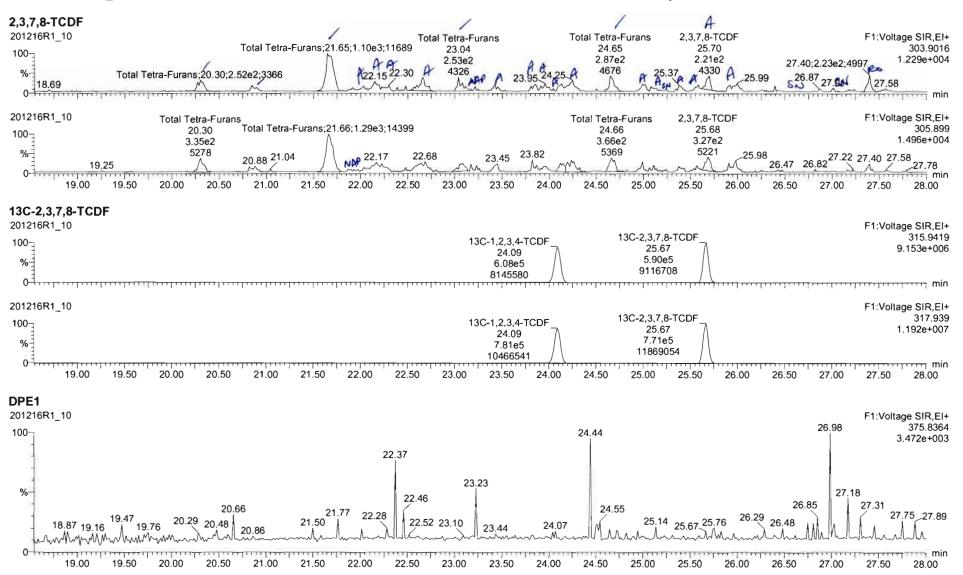
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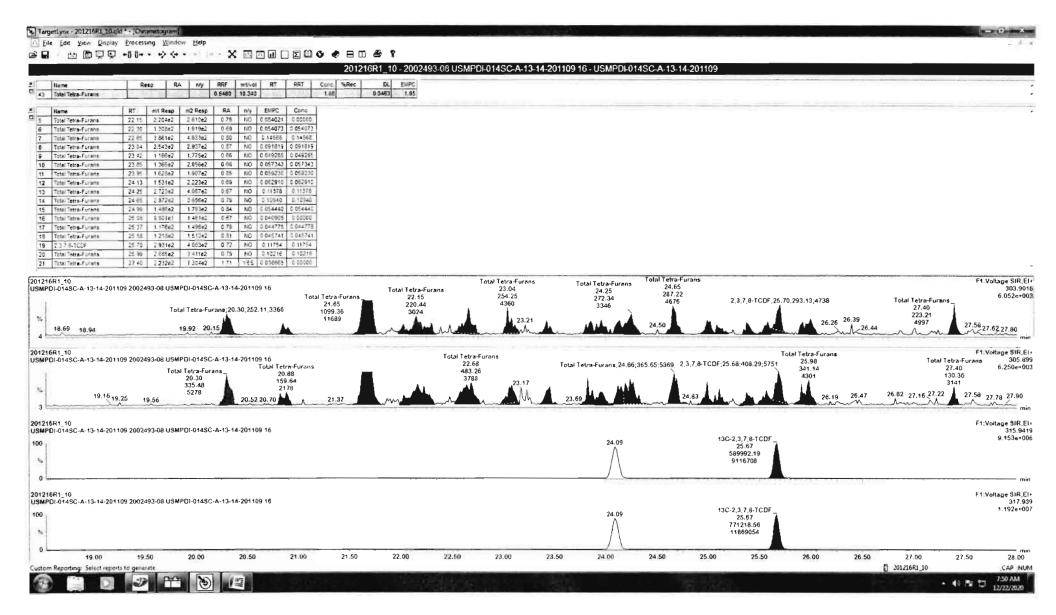
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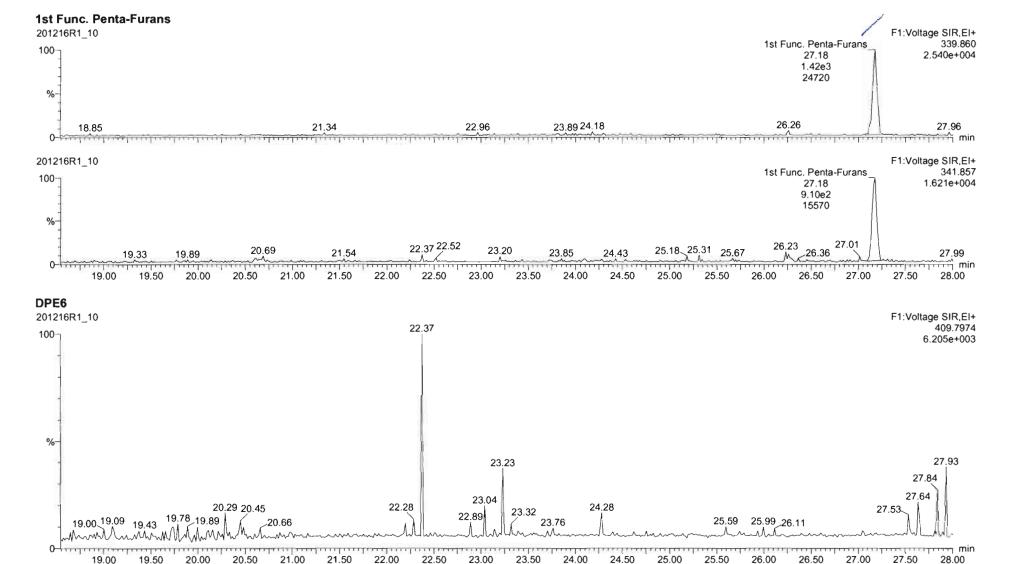




Work Order 2002493 Page 338 of 734

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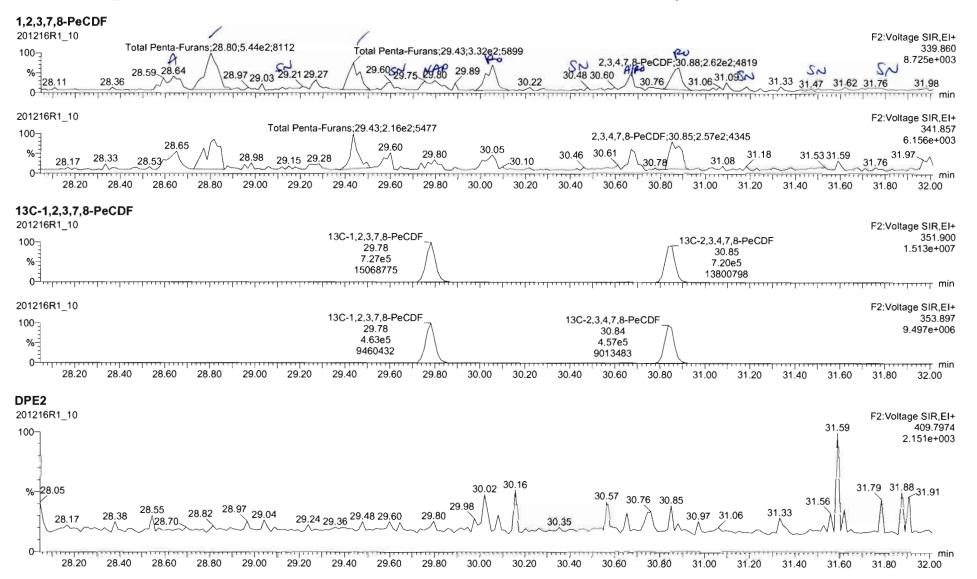
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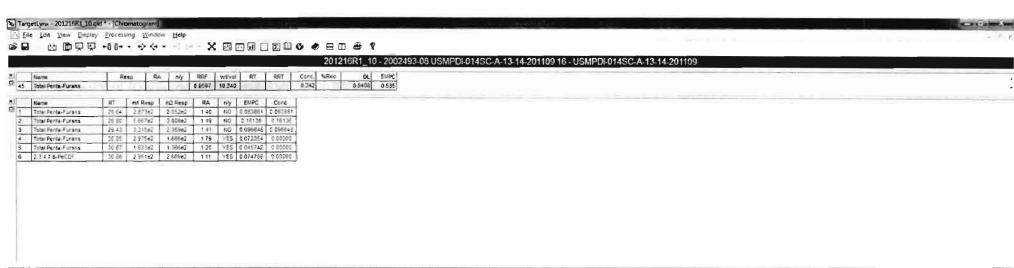


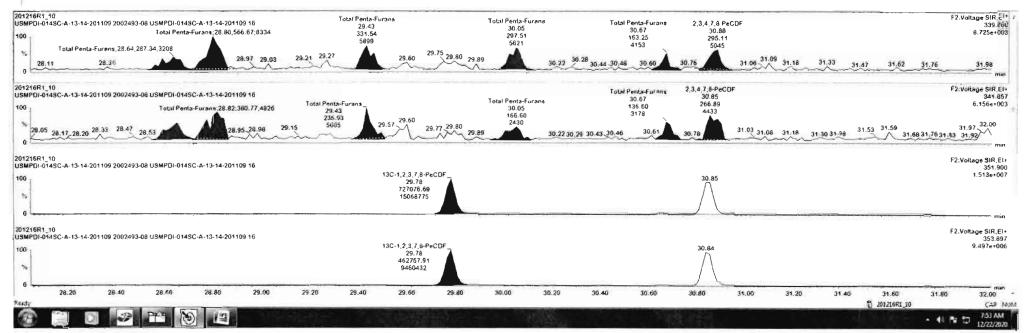
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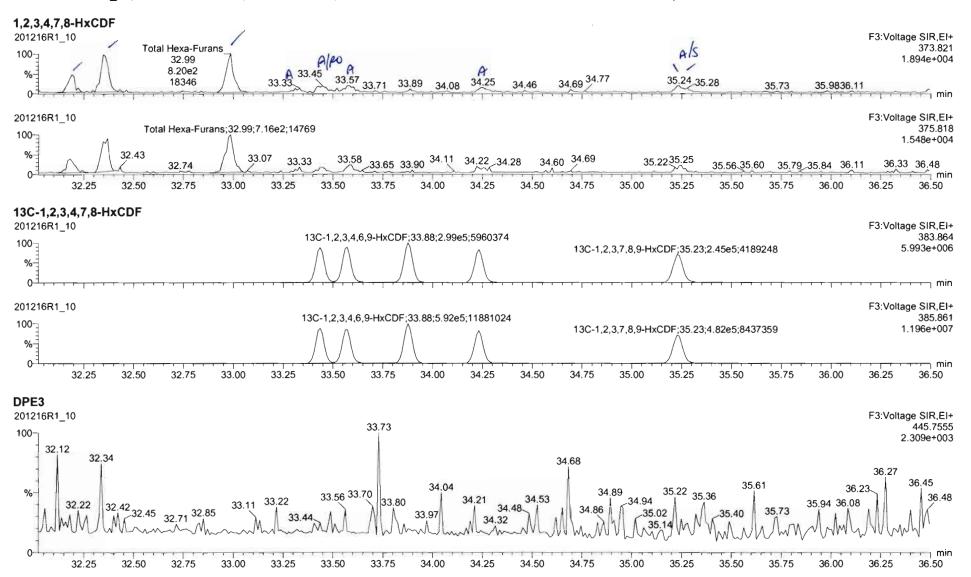


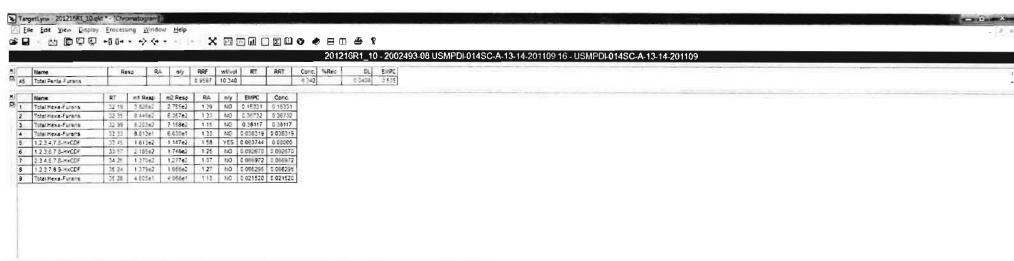
Work Order 2002493 Page 341 of 734

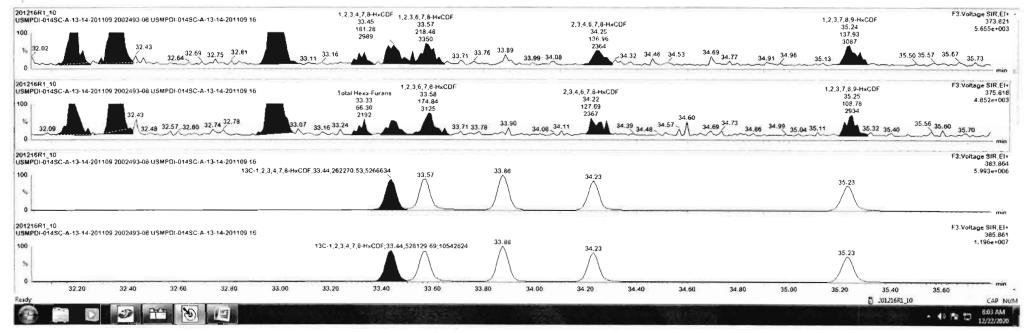
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Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time



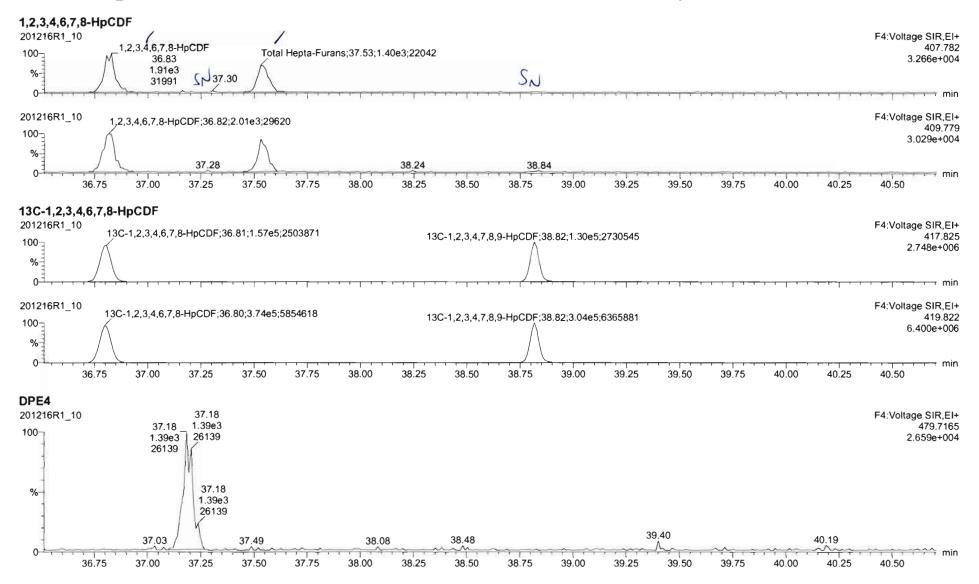




Work Order 2002493 Page 343 of 734

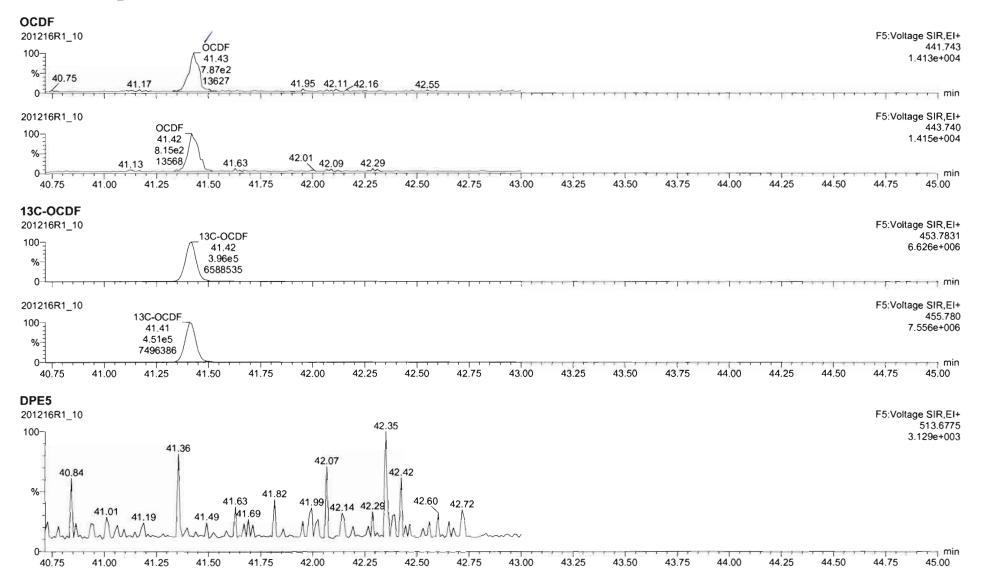
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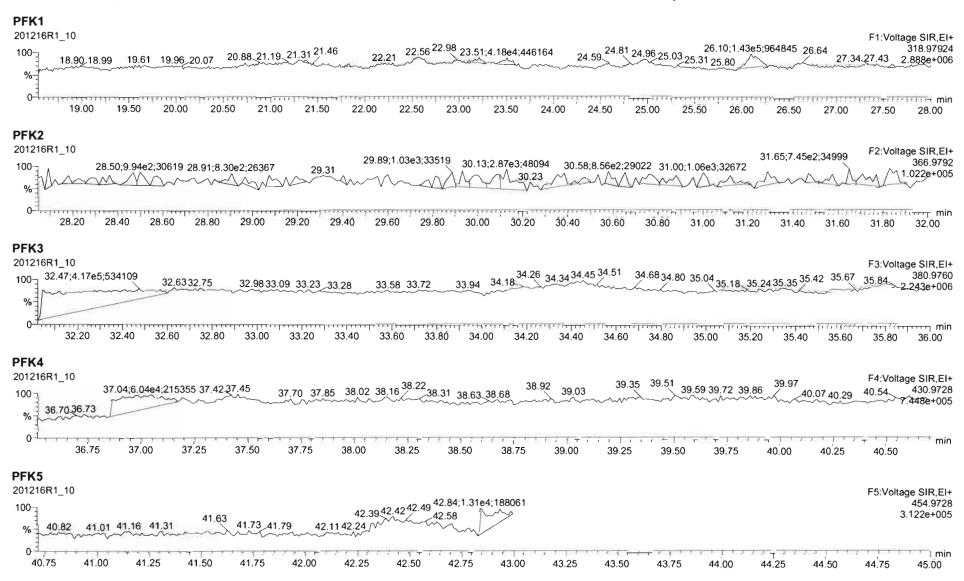
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Page 1 of 2

Dataset:

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Tuesday, December 22, 2020 8:29:04 AM Pacific Standard Time Tuesday, December 22, 2020 8:29:47 AM Pacific Standard Time

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Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201216R1_11, Date: 16-Dec-2020, Time: 16:03:03, ID: 2002493-09 USMPDI-057SC-A-03-04-201109 14.16, Description: USMPDI-057SC-A-03-04-201109

(200 Me) V	# Name	Resp	RA	n/y	RRF	wt/vol Pred	RT	RT	Pred.RRT	RRT	Conc.	%Rec DL	EMPC
1999	1 2,3,7,8-TCDD	1.06e3	0.41	YES	0.980	10.273 26.3	396 2	6.39	1.001	1.001	0.18660	0.0196	0.125
2	2 1,2,3,7,8-PeCDD	1.09e3	0.71	NO	0.932	10.273 31.0	79 3	1.06	1.001	1.000	0.25514	0.0788	0.255
3 123 200	3 1,2,3,4,7,8-HxCDD	2.46e3	1.21	NO	1.02	10.273 34.3	379 3	4.38	1.001	1.001	0.67735	0.242	0.677
4 4 1 1 5 0 5	4 1,2,3,6,7,8-H×CDD	1.82e4	1.23	NO	0.902	10.273 34.4	194 3	84.49	1.001	1.001	5.0981	0.253	5.10
5	5 1,2,3,7,8,9-HxCDD	5.20e3	1.34	NO	0.954	10.273 34.	755 3	34.77	1.000	1.001	1.4393	0.253	1.44
6	6 1,2,3,4,6,7,8-HpCDD	1.21e6	1.01	NO	0.918	10.273 38.2	222 3	88.22	1.000	1.000	406.41	1.03	406
7	7 OCDD	7.27e6	0.87	NO	0.866	10.273 41.	24 4	1.14	1.000	1.001	3378.7	0.919	3380
8	8 2,3,7,8-TCDF	8.84e4	0.74	NO	0.848	10.273 25.6	572 2	5.70	1.000	1.001	15.113	0.0630	15.1
9	9 1,2,3,7,8-PeCDF	1.36e5	1.52	NO	0.960	10.273 29.	785 2	9.80	1.000	1.000	23.071	0.112	23.1
10	10 2,3,4,7,8-PeCDF	8.78e4	1.60	NO	1.07	10.273 30.8	374 3	80.87	1.001	1.000	14.682	0.101	14.7
11 15 45	11 1,2,3,4,7,8-HxCDF	1.38e5	1.21	NO	0.986	10.273 33.4	47 3	33.46 ×	1.000	1.001	34.133	0.103	34.1
12	12 1,2,3,6,7,8-HxCDF	3.40e4	1.24	NO	1.04	10.273 33.	592 3	33.59 /	1.001	1.001	8.1270	0.0958	8.13
13	13 2,3,4,6,7,8-HxCDF	1.08e4	1.21	NO	1.02	10.273 34.3	264 3	34.27	1.001	1.001	2.9115	0.117	2.91
14	14 1,2,3,7,8,9-HxCDF	6.82e3	1.24	NO	0.991	10.273 35.3	248 3	35.28	1.000	1.001	1.9775	0.136	1.98
15	15 1,2,3,4,6,7,8-HpCDF	9.16e4	1.01	NO	1.05	10.273 36.8	335 3	86.83	1.000	1.000	31.633	0.269	31.6
16	16 1,2,3,4,7,8,9-HpCDF	1.86e4	0.99	NO	1.18	10.273 38.	339	88.84	1.000	1.000	6.8294	0.218	6.83
17	17 OCDF	2.88e5	0.86	NO	0.896	10.273 41.	17 4	11 42	1.000	1.000	133.35	0.260	133
18	18 13C-2,3,7,8-TCDD	1.13e6	0.77	NO	1.06	10.273 26.3	368 2	26.36	1.030	1.030	217.83	112 0.122	
19	19 13C-1,2,3,7,8-PeCDD	8.91e5	0.63	NO	0.785	10.273 31.	211 3	31.05	1.219	1.213	232.13	119 0.240	
20	20 13C-1,2,3,4,7,8-HxCDD	6.94e5	1.27	NO	0.621	10.273 34.3	348 3	34.36	1.014	1.014	262.90	135 0.495	
21	21 13C-1,2,3,6,7,8-HxCDD	7.71e5	1.27	NO	0.734	10.273 34.	1 70 3	34.47 ×	1.017	1.017	247.04	127 0.418	
22	22 13C-1,2,3,7,8,9-HxCDD	7.37e5	1.24	NO	0.723	10.273 34.	755 3	34.74	1.026	1.025	239.79	123 0.425	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.31e5	1 04	NO	0.568	10.273 38.	255 3	38 21	1.129	1.128	261.16	134 0.766	
24	24 13C-OCDD	9.67e5	0.88	NO	0.496	10.273 41.	193 4	1.12	1.216	1.213	458.74	118 0.685	
25	25 13C-2,3,7,8-TCDF	1.34e6	0.77	NO	0.919	10.273 25.	667 2	25.67	1.003	1.003	215.19	111 0.164	
26	26 13C-1,2,3,7,8-PeCDF	1.19 e 6	1.58	NO	0.715	10.273 29.	921 2	29.78	1.169	1.164	245.55	126 0.186	
27	27 13C-2.3,4 7,8-PeCDF	1.09e6	1 56	NO	0.689	10.273 31.	008 3	30.85	1.212	1.205	233 41	120 0.193	
28	28 13C-1,2,3,4,7,8-HxCDF	7.97e5	0.50	NO	0.873	10.273 33.	453 3	33.44	0.987	0.987	214.62	110 0.384	
29	29 13C-1,2,3,6,7,8-HxCDF	7.84e5	0.50	NO	0.933	10.273 33.	582 3	33.57 /	0.991	0.991	197.41	101 0.360	
30	30 13C-2,3,4,6,7,8-HxCDF	7.06e5	0.50	NO	0.843	10.273 34.	250 3	34.24	1.011	1.011	196.94	101 0.398	
31	31 13C-1,2,3,7,8,9-HxCDF	6.77e5	0.50	NO	0.780	10.273 35.	249 3	35 24 /	1.040	1.040	204.21	105 0.430	

Work Order 2002493 Page 347 of 734

Dataset:

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Tuesday, December 22, 2020 8:29:04 AM Pacific Standard Time Tuesday, December 22, 2020 8:29:47 AM Pacific Standard Time

Name: 201216R1_11, Date: 16-Dec-2020, Time: 16:03:03, ID: 2002493-09 USMPDI-057SC-A-03-04-201109 14.16, Description: USMPDI-057SC-A-03-04-201109

32000	# 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-H pC DF	5.37e5	0.43	NO	0.726	10.273	36.825	36.82	1.087	1.086	173.82	89.3	0.503	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.51e5	0.43	NO	0.491	10.273	38.835	38.83	1.146	1.146	215.73	111	0.744	
34	34 13C-OCDF	9.40e5	0.87	NO	0.565	10.273	41.410	41.41	1.222	1.222	390.85	100	0.342	
35	35 37CI-2,3,7,8-TCDD	5.08e5			1.22	10.273	26.363	26.38	1.030	1.031	85.250	109	0.0224	
36	36 13C-1,2,3,4-TCDD	9.53e5	0.77	NO	1.00	10.273	25.640	25.59	1.000	1.000	194.68	100	0.129	
37	37 13C-1,2,3,4-TCDF	1.32e6	0.78	NO	1.00	10.273	24.130	24.10	1.000	1.000	194.68	100	0.150	
38	38 13C-1,2,3,4,6,9-HxCDF	8.28e5	0.49	NO	1.00	10.273	33.920	33.89	1.000	1.000	194.68	100	0.336	
39	39 Total Tetra-Dioxins				0.980	10.273	24.620		0.000		2.6278		0.0196	2.98
40	40 Total Penta-Dioxins				0.932	10.273	29.960		0.000		4.9118		0.0788	5.51
41	41 Total Hexa-Dioxins				0.902	10.273	33.635		0.000		84.320		0.264	84.3
42	42 Total Hepta-Dioxins				0.918	10.273	37.640		0.000		918.74		1.03	919
43	43 Total Tetra-Furans				0.848	10.273	23.610		0.000		44.583		0.0630	47.6
44	44 1st Func. Penta-Furans				0.960	10.273	26.930		0.000		12.429		0.0222	12.4
45	45 Total Penta-Furans				0.960	10.273	29.275		0.000		67.070		0.112	67.1
46	46 Total Hexa-Furans				1.02	10.273	33.555		0.000		75.583		0.110	75.6
47	47 Total Hepta-Furans				1.05	10.273	37.835		0.000		114.73		0.258	115

Work Order 2002493 Page 348 of 734

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_11.qld

Last Altered: Printed:

Tuesday, December 22, 2020 8:29:04 AM Pacific Standard Time Tuesday, December 22, 2020 8:29:47 AM Pacific Standard Time

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Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201216R1_11, Date: 16-Dec-2020, Time: 16:03:03, ID: 2002493-09 USMPDI-057SC-A-03-04-201109 14.16, Description: USMPDI-057SC-A-03-04-201109

Tetra-Dioxins

THE PARTY.	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	22.58	3.304e4	4.944e4	3.032e3	3.911e3	0.78	NO	6.943e3	1.2251	1.2251	0.0196
2	Total Tetra-Dioxins	22.93	5.266e3	8.995e3	4.662e2	6.236e2	0.75	NO	1.090e3	0.19232	0.19232	0.0196
3	Total Tetra-Dioxins	23.44	3.994e3	4.931e3	3.452e2	4.543e2	0.76	NO	7.995e2	0.14108	0.14108	0.0196
4	Total Tetra-Dioxins	24.31	3.439e3	4.777e3	2.152e2	3.247e2	0.66	NO	5.398e2	0.095263	0.095263	0.0196
5	Total Tetra-Dioxins	24.53	6.968e3	8.074e3	5.209e2	6.711e2	0.78	NO	1.192e3	0.21033	0.21033	0.0196
6	Total Tetra-Dioxins	24.72	8.526e3	6.217e3	4.519e2	5.154e2	0.88	NO	9.673e2	0.17069	0.17069	0.0196
7	Total Tetra-Dioxins	24.96	2.425e3	3.559e3	1.575e2	2.182e2	0.72	NO	3.757e2	0.066298	0.066298	0.0196
8	Total Tetra-Dioxins	25.25	2.714e3	5.371e3	1.763e2	2.710e2	0.65	YES	0.000e0	0.00000	0.071534	0.0196
9	Total Tetra-Dioxins	25.30	4.142e3	4.330e3	2.076e2	2.506e2	0.83	NO	4.582e2	0.080863	0.080863	0.0196
10	Total Tetra-Dioxins	25.71	7.540e3	6.349e3	7.584e2	5.109e2	1.48	YES	0.000e0	0.00000	0.15957	0.0196
11	Total Tetra-Dioxins	25.82	2.088e3	1.883e3	1.030e2	1.208e2	0.85	NO	2.237e2	0.039480	0.039480	0.0196
12	Total Tetra-Dioxins	26.08	7.202e3	1.084e4	6.928e2	8.279e2	0.84	NO	1.521e3	0.26834	0.26834	0.0196
13	2,3,7,8-TCDD	26.39	4.995e3	1.435e4	3.089e2	7.486e2	0.41	YES	1.057e3	0.00000	0.12529	0.0196
14	Total Tetra-Dioxins	26.67	3.020e3	5.729e3	2.171e2	2.854e2	0.76	NO	5.024e2	0.088662	0.088662	0.0196
15	Total Tetra-Dioxins	27.27	3.050e3	2.310e3	1.275e2	1.522e2	0.84	NO	2.797e2	0.049364	0.049364	0.0196

Penta-Dioxins

110	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1. 25 113	Total Penta-Dioxins	28.80	2.943e4	5.515e4	2.415e3	4.103e3	0.59	NO	6.519e3	1.5277	1.5277	0.0788
2	Total Penta-Dioxins	29.28	1.717e4	2.889e4	9.472e2	1.565e3	0.61	NO	2.513e3	0.58883	0.58883	0.0788
3	Total Penta-Dioxins	29.80	4.650e4	5.720e4	2.104e3	2.918e3	0.72	NO	5.022e3	1.1770	1.1770	0.0788
4	Total Penta-Dioxins	29.99	1.451e4	1.866e4	6.054e2	8.979e2	0.67	NO	0.000e0	0.00000	0.35231	0.0788
5	Total Penta-Dioxins	30.04	1.155e4	2.191e4	5.089e2	8.293e2	0.61	NO	1.338e3	0.31362	0.31362	0.0788
6	Total Penta-Dioxins	30.28	1.916e4	3.036e4	1.244e3	2.052e3	0.61	NO	3.296e3	0.77245	0.77245	0.0788
7	Total Penta-Dioxins	30.60	3.693e3	8.061e3	2.175e2	3.699e2	0.59	NO	5.873e2	0.13765	0.13765	0.0788
8	1,2,3,7,8-PeCDD	31.06	1.181e4	1.150e4	4.535e2	6.352e2	0.71	NO	1.089e3	0.25514	0.25514	0.0788
9	Total Penta-Dioxins	31.14	1.028e4	9.359e3	4.796e2	6.332e2	0.76	YES	0.000e0	0.00000	0.24190	0.0788
10	Total Penta-Dioxins	31.41	6.277e3	6.535e3	2.153e2	3.796e2	0.57	NO	5.948e2	0.13941	0.13941	0.0788

Work Order 2002493 Page 349 of 734

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_11.qld

Last Altered:

Tuesday, December 22, 2020 8:29:04 AM Pacific Standard Time

Printed: Tuesday, December 22, 2020 8:29:47 AM Pacific Standard Time

Name: 201216R1_11, Date: 16-Dec-2020, Time: 16:03:03, ID: 2002493-09 USMPDI-057SC-A-03-04-201109 14.16, Description: USMPDI-057SC-A-03-04-201109

Page 2 of 5

Hexa-Dioxins

57 (7 March	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
15-15000	Total Hexa-Dioxins	32.72	1.573e6	1.273e6	7.151e4	5.791e4	1.23	NO	1.294e5	38.037	38.037	0.264
2	Total Hexa-Dioxins	33.32	1.543e5	1.198e5	7.202e3	5.811e3	1.24	NO	1.301e4	3.8242	3.8242	0.264
3	Total Hexa-Dioxins	33.61	8.072e5	6.819e5	5.724e4	4.666e4	1.23	NO	1.039e5	30.533	30.533	0.264
4	Total Hexa-Dioxins	33.72	1.039e5	8.867e4	5.381e3	4.627e3	1.16	NO	1.001e4	2.9413	2.9413	0.264
5	1,2,3,4,7,8-HxCDD	34.38	2.465e4	2.304e4	1.347e3	1.116e3	1.21	NO	2.463e3	0.67735	0.67735	0.242
6	1,2,3,6,7,8-HxCDD	34.49	1.868e5	1.559e5	1.004e4	8.183e3	1.23	NO	1.823e4	5.0981	5.0981	0.253
7 5 5 115	Total Hexa-Dioxins	34.65	6.180e4	4.632e4	3.422e3	2.601e3	1.32	NO	6.023e3	1.7700	1.7700	0.264
8	1.2,3,7,8,9-HxCDD	34.77	5.511e4	4.094e4	2.973e3	2.226e3	1.34	NO	5.199e3	1.4393	1.4393	0.253

Hepta-Dioxins

35 3773	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
Transfer of	Total Hepta-Dioxins	37.21	1.171e7	1.159e7	7.664e5	7.571e5	1.01	NO	1.523e6	512.32	512.32	1.03
2	1,2,3,4,6,7,8-HpCDD	38.22	1.191e7	1. 179e7	6.085e5	6.000e5	1.01	NO	1.209e6	406.41	406.41	1.03

Work Order 2002493 Page 350 of 734

Vista Analytical Laboratory

Dataset:

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Last Altered: Printed:

Tuesday, December 22, 2020 8:29:04 AM Pacific Standard Time Tuesday, December 22, 2020 8:29:47 AM Pacific Standard Time

Name: 201216R1_11, Date: 16-Dec-2020, Time: 16:03:03, ID: 2002493-09 USMPDI-057SC-A-03-04-201109 14.16, Description: USMPDI-057SC-A-03-04-201109

Tetra-Furans

15.	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	20.32	3.474e3	4.337e3	2.802e2	3.707e2	0.76	NO	6.509e2	0.11128	0.11128	0.0630
2	Total Tetra-Furans	20.89	9.342e3	1.290e4	8.320e2	1.125e3	0.74	NO	1.957e3	0.33461	0.33461	0.0630
3	Total Tetra-Furans	21.71	4.778e4	6.148e4	4.677e3	5.766e3	0.81	NO	1.044e4	1.7852	1.7852	0.0630
4	Total Tetra-Furans	22.06	4.434e3	4.839e3	3.503e2	4.136e2	0.85	NO	7.640e2	0.13060	0.13060	0.0630
5	Total Tetra-Furans	22.15	9.353e3	1.293e4	9.642e2	1.278e3	0.75	NO	2.243e3	0.38335	0.38335	0.0630
6	Total Tetra-Furans	22.30	7.821e3	9.692e3	5.313e2	6.579e2	0.81	NO	1.189e3	0.20330	0.20330	0.0630
7	Total Tetra-Furans	22.52	8.342e3	9.276e3	3.984e2	4.558e2	0.87	NO	8.542e2	0.14602	0.14602	0.0630
8	Total Tetra-Furans	22.61	1.114e5	1.549e5	1.005e4	1.399e4	0.72	NO	2.404e4	4.1098	4.1098	0.0630
9	Total Tetra-Furans	23.10	6.611e4	8.673e4	5.597e3	7.710e3	0.73	NO	1.331e4	2.2748	2.2748	0.0630
10	Total Tetra-Furans	23.23	4.750e3	6.981e3	3.333e2	3.831e2	0.87	NO	7.165e2	0.12248	0.12248	0.0630
11	Total Tetra-Furans	23.44	1.997e4	2.356e4	1.368e3	1.728e3	0.79	NO	3.096e3	0.52931	0.52931	0.0630
12	Total Tetra-Furans	23.87	5.359e3	7.042e3	3.751e2	4.763e2	0.79	NO	8.514e2	0.14554	0.14554	0.0630
13	Total Tetra-Furans	23.98	3.828e3	5.348e3	2.628e2	3.049e2	0.86	NO	5.677e2	0.097047	0.097047	0.0630
14	Total Tetra-Furans	24.19	4.824e4	7.173e4	2.456e3	3.596e3	0.68	NO	0.000e0	0.00000	1.0347	0.0630
15	Total Tetra-Furans	24.23	5.292e4	7.912e4	4.061e3	5.698e3	0.71	NO	0.000e0	0.00000	1.6682	0.0630
16	Total Tetra-Furans	24.53	7.452e3	1.300e4	4.940e2	6.539e2	0.76	NO	1.148e3	0.19622	0.19622	0.0630 .
17	Total Tetra-Furans	24.68	4.765e5	6.573e5	3.394e4	4.648e4	0.73	NO	8.043e4	13.749	13.749	0.0630
18	Total Tetra-Furans	25.00	1.908e4	2.535e4	1.155e3	1.555e3	0.74	NO	2.710e3	0.46327	0.46327	0.0630
19	Total Tetra-Furans	25.40	5.265e3	7.611e3	3.969e2	5.178e2	0.77	NO	9.147e2	0.15637	0.15637	0.0630
20	Total Tetra-Furans	25.57	6.207e4	8.067e4	3.519e3	5.104e3	0.69	NO	8.623e3	1.4740	1.4740	0.0630
21	2.3,7,8-TCDF	25.70	6.016e5	8.204e5	3.758e4	5.083e4	0.74	NO	8.841e4	15.113	15.113	0.0630
22	Total Tetra-Furans	25.98	2.184e4	2.986e4	1.499e3	1.997e3	0.75	NO	3.497e3	0.59773	0.59773	0.0630
23	Total Tetra-Furans	26.26	5.253e3	1.024e4	3.735e2	5.556e2	0.67	NO	9.291e2	0.15883	0.15883	0.0630
24	Total Tetra-Furans	26.36	3.347e3	5.058e3	2.296e2	3.057e2	0.75	NO	5.353e2	0.091508	0.091508	0.0630
25	Total Tetra-Furans	26.88	1.470e4	1.936e4	1.060e3	1.257e3	0.84	NO	2.317e3	0.39601	0.39601	0.0630
26	Total Tetra-Furans	27.03	2.221e4	3.019e4	1.420e3	1.865e3	0.76	NO	3.284e3	0.56147	0.56147	0.0630
27	Total Tetra-Furans	27.19	1.541e4	2.352e4	1.018e3	1.400e3	0.73	NO	2.417e3	0.41326	0.41326	0.0630
28	Total Tetra-Furans	27.40	3.046e4	1.684e4	1.750e3	9.882e2	1.77	YES	0.000e0	0.00000	0.29900	0.0630
29	Total Tetra-Furans	27.58	3.704e4	4.915e4	2.085e3	2.822e3	0.74	NO	4.907e3	0.83877	0.83877	0.0630

Work Order 2002493 Page 351 of 734

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_11.qld

Last Altered:

Tuesday, December 22, 2020 8:29:04 AM Pacific Standard Time Tuesday, December 22, 2020 8:29:47 AM Pacific Standard Time

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Name: 201216R1_11, Date: 16-Dec-2020, Time: 16:03:03, ID: 2002493-09 USMPDI-057SC-A-03-04-201109 14.16, Description: USMPDI-057SC-A-03-04-201109

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	27.19	7.225e5	4.389e5	4.306e4	2.690e4	1.60	NO	6.996e4	12.429	12.429	0.0222

Penta-Furans

120 10	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1,355,358	Total Penta-Furans	28.67	2.066e4	1.409e4	1.514e3	1.030e3	1.47	NO	2.544e3	0.45197	0.45197	0.112
2	Total Penta-Furans	28.82	8.302e5	5.388e5	4.866e4	3.108e4	1.57	NO	7.974e4	14.166	14.166	0.112
3	Total Penta-Furans	29.45	1.050e5	7.061e4	6.217e3	4.141e3	1.50	NO	1.036e4	1.8401	1.8401	0.112
4	Total Penta-Furans	29.60	1.854e5	1.284e5	9.365e3	6.229e3	1.50	NO	1.559e4	2.7704	2.7704	0.112
5	1,2,3,7,8-PeCDF	29.80	1.578e6	1.075e6	8.183e4	5.378e4	1.52	NO	1.356e5	23.071	23.071	0.112
6	Total Penta-Furans	29.87	2.710e4	2.022e4	9.927e2	7.436e2	1.33	NO	1.736e3	0.30846	0.30846	0.112
7	Total Penta-Furans	30.05	5.503e5	3.607e5	2.989e4	1.950e4	1.53	NO	4.939e4	8.7741	8.7741	0.112
8	Total Penta-Furans	30.69	1.418e4	8.105e3	6.322e2	3.823e2	1.65	NO	1.015e3	0.18024	0.18024	0.112
9	2,3,4,7,8-PeCDF	30.87	1.058e6	6.662e5	5.399e4	3.384e4	1.60	NO	8.783e4	14.682	14.682	0.101
10	Total Penta-Furans	31.76	4.653e4	2.890e4	2.904e3	1.738e3	1.67	NO	4.643e3	0.82477	0.82477	0.112

Hexa-Furans

75.3	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1568 3	Total Hexa-Furans	32.19	9.038e4	7.928e4	4.372e3	3.507e3	1.25	NO	7.879e3	2.0288	2.0288	0.110
2	Total Hexa-Furans	32.36	4.358e5	3.635e5	1.965e4	1.503e4	1.31	NO	3.468e4	8.9291	8.9291	0.110
3	Total Hexa-Furans	32.77	7.535e3	6.065e3	3.683e2	2.779e2	1.33	NO	6.462e2	0.16639	0.16639	0.110
4	Total Hexa-Furans	32.99	6.248e5	5.372e5	2.971e4	2.438e4	1.22	NO	5.409e4	13.927	13.927	0.110
5	Total Hexa-Furans	33.33	1.783e4	1.294e4	8.575e2	6.468e2	1.33	NO	1.504e3	0.38736	0.38736	0.110
6	1,2,3,4,7,8-HxCDF	33.46	1.498e6	1.245e6	7.545e4	6.236e4	1.21	NO	1.378e5	34.133	34.133	0.103
7	1,2,3,6,7,8-HxCDF	33.59	3.857e5	3.014e5	1.882e4	1.516e4	1.24	NO	3.399e4	8.1270	8.1270	0.0958
8	Total Hexa-Furans	33.91	1.254e4	8.949e3	6.412e2	4.666e2	1.37	NO	1.108e3	0.28524	0.28524	0.110
9	Total Hexa-Furans	34.04	6.758e3	6.054e3	3.513e2	3.038e2	1.16	NO	6.551e2	0.16869	0.16869	0.110
10	2,3,4,6,7,8-HxCDF	34.27	1.058e5	8.450e4	5.890e3	4.883e3	1.21	NO	1.077e4	2.9115	2.9115	0.117
11	1,2,3,7,8,9-HxCDF	35.28	1.363e5	1.150e5	3.781e3	3.038e3	1.24	NO	6.818e3	1.9775	1.9775	0.136
12	Total Hexa-Furans	35.29	1.572e5	1.158e5	5.539e3	4.326e3	1.28	NO	9.865e3	2.5401	2.5401	0.110

Work Order 2002493 Page 352 of 734

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_11.qld

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Page 5 of 5

Hepta-Furans

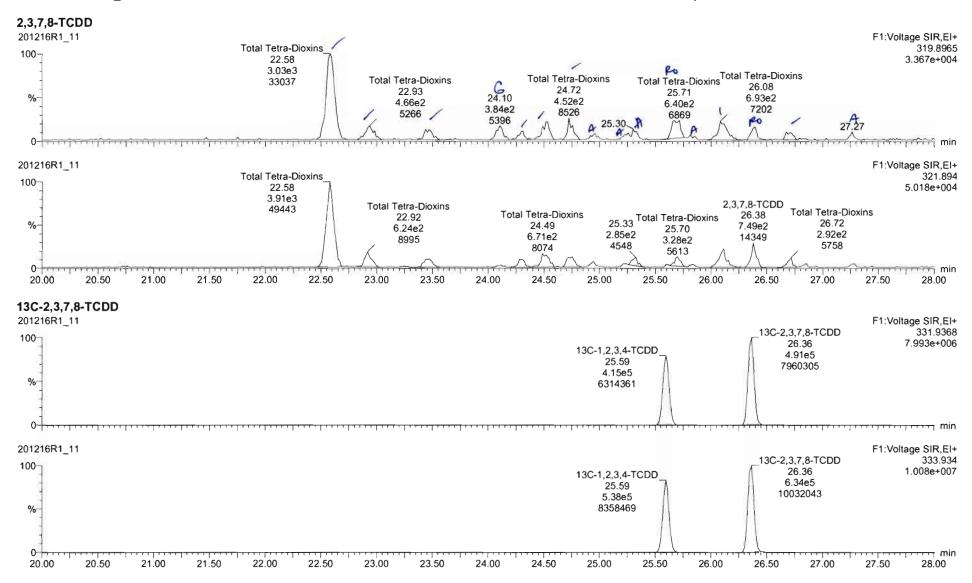
	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.83	7.636e5	7.579e5	4.609e4	4.547e4	1.01	NO	9.155e4	31.633	31.633	0.269
2	Total Hepta-Furans	37.23	1.070e4	1.143e4	1.065e3	1.014e3	1.05	NO	2.079e3	0.78120	0.78120	0.258
3	Total Hepta-Furans	37.55	1.741e6	1.675e6	1.012e5	9.969e4	1.02	NO	2.009e5	75.483	75.483	0.258
4	1,2,3,4,7,8,9-HpCDF	38.84	1.914e5	2.052e5	9.233e3	9.354e3	0.99	NO	1.859e4	6.8294	6.8294	0.218

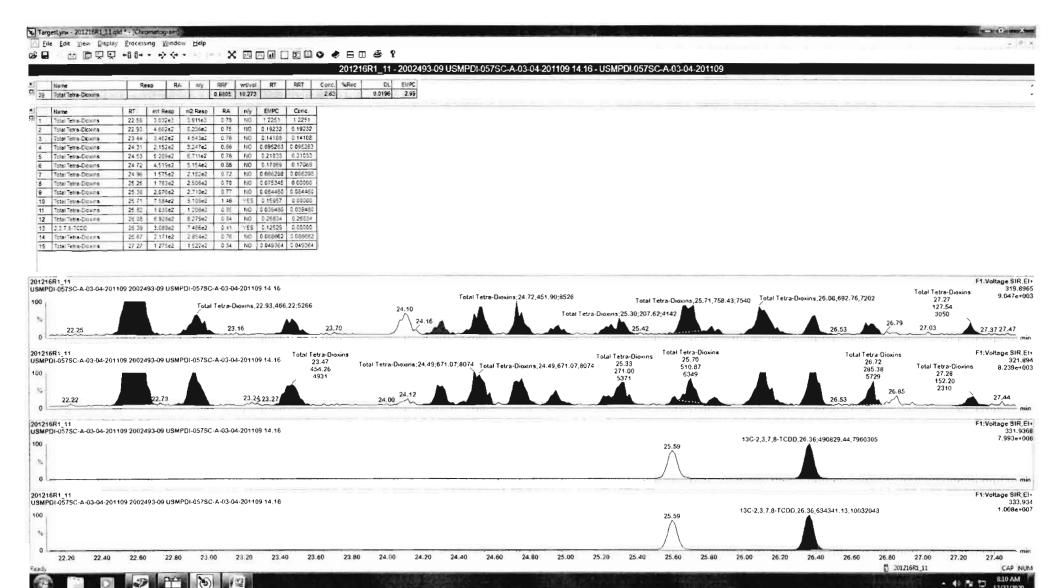
Work Order 2002493 Page 353 of 734

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Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Last Altered: Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time Printed:

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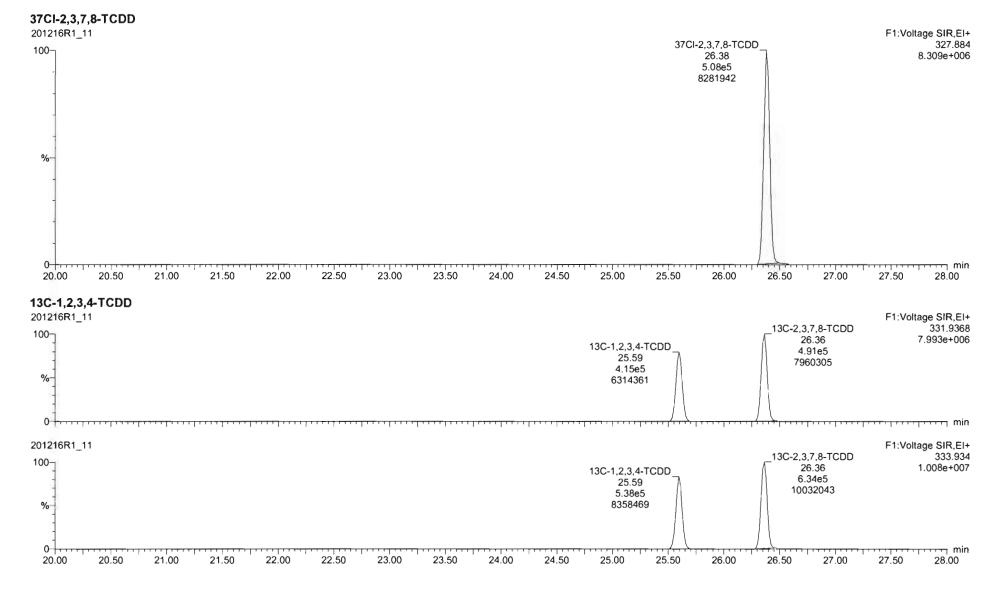


Work Order 2002493 Page 355 of 734

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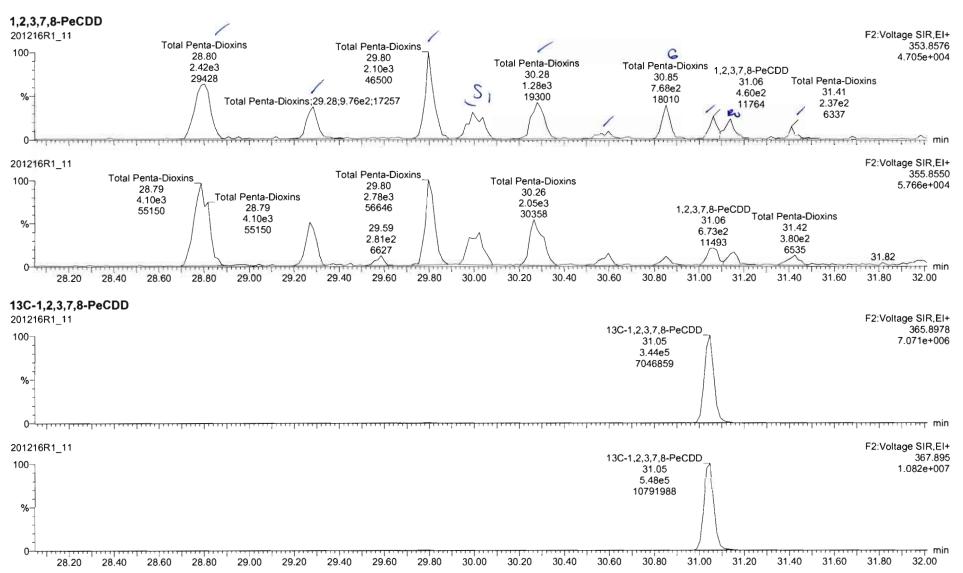
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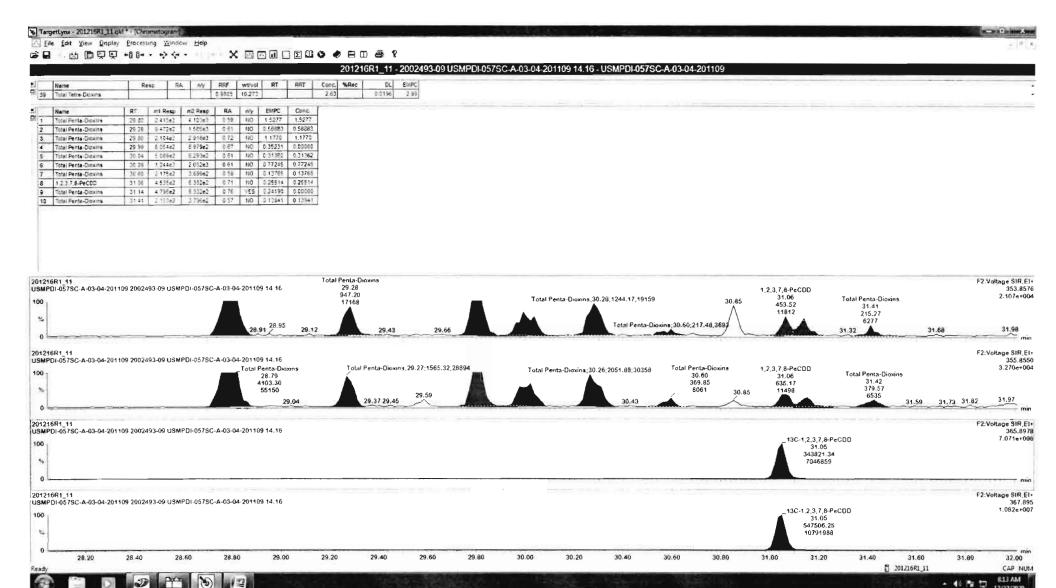


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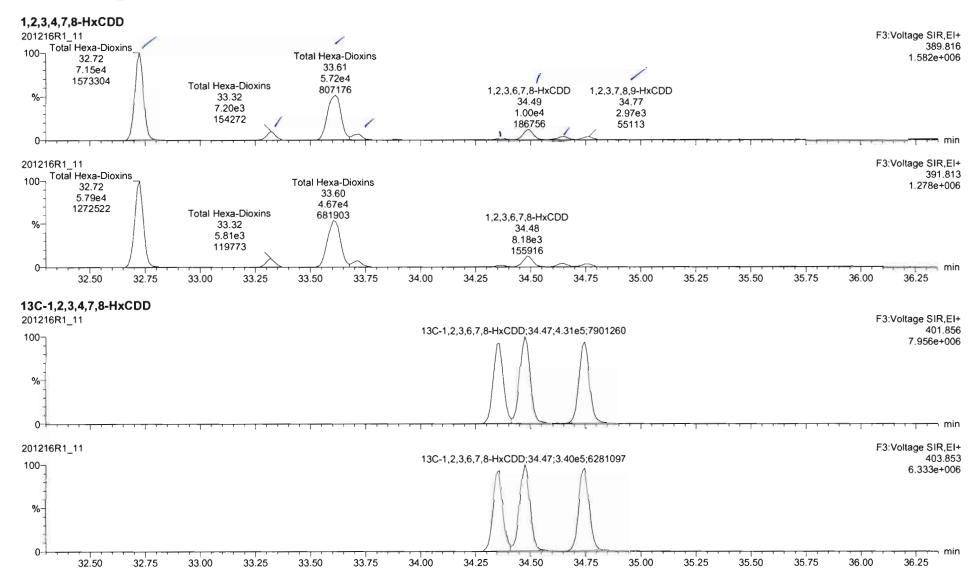


Work Order 2002493 Page 358 of 734

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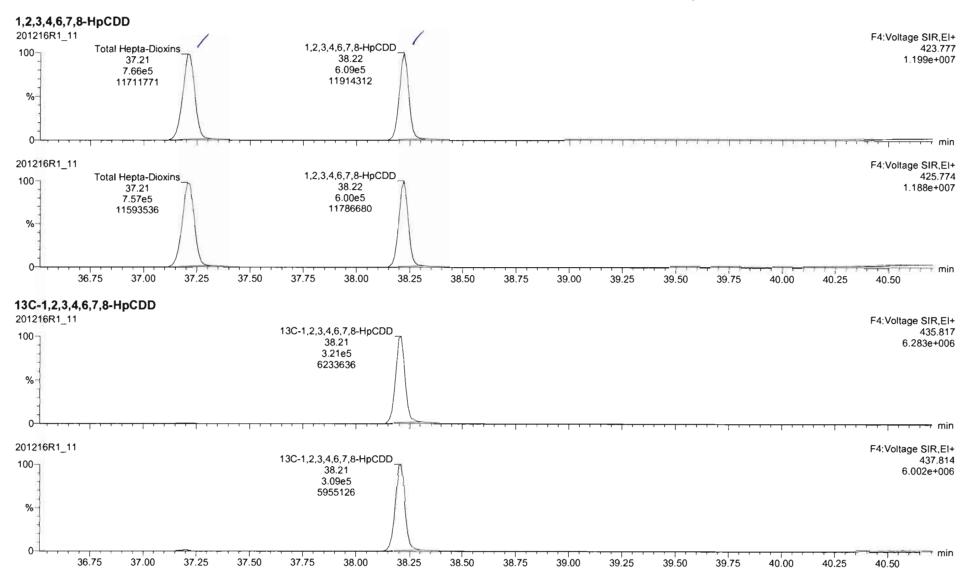
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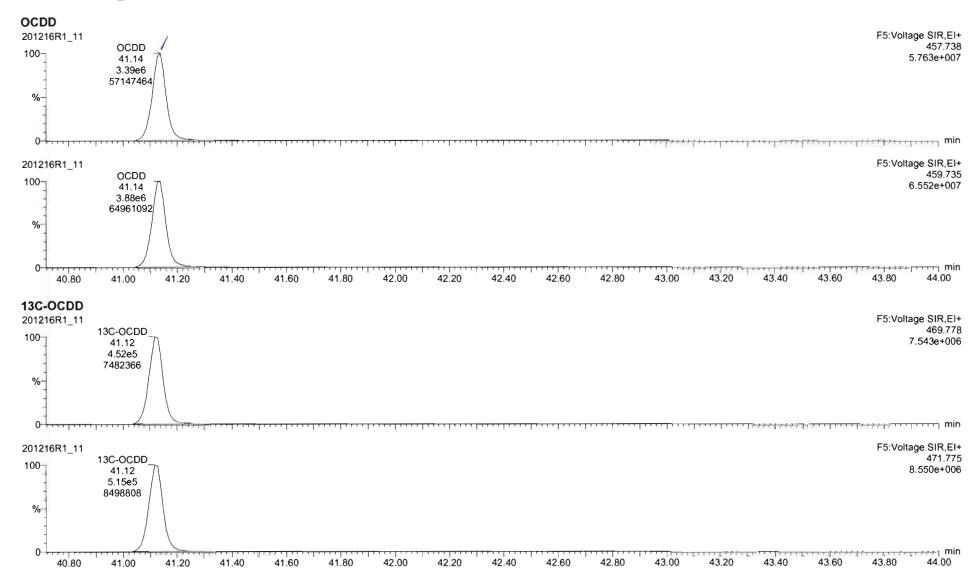


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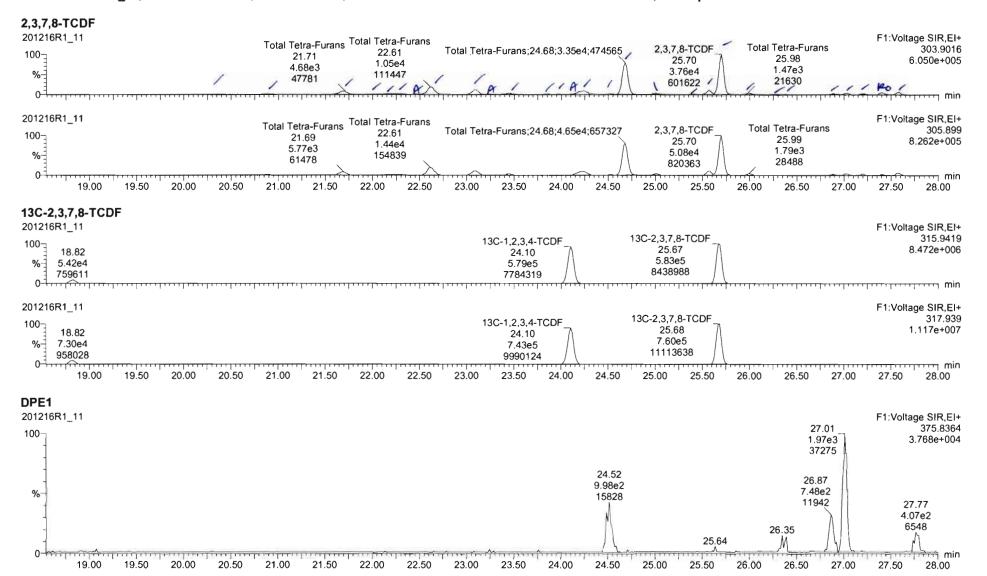


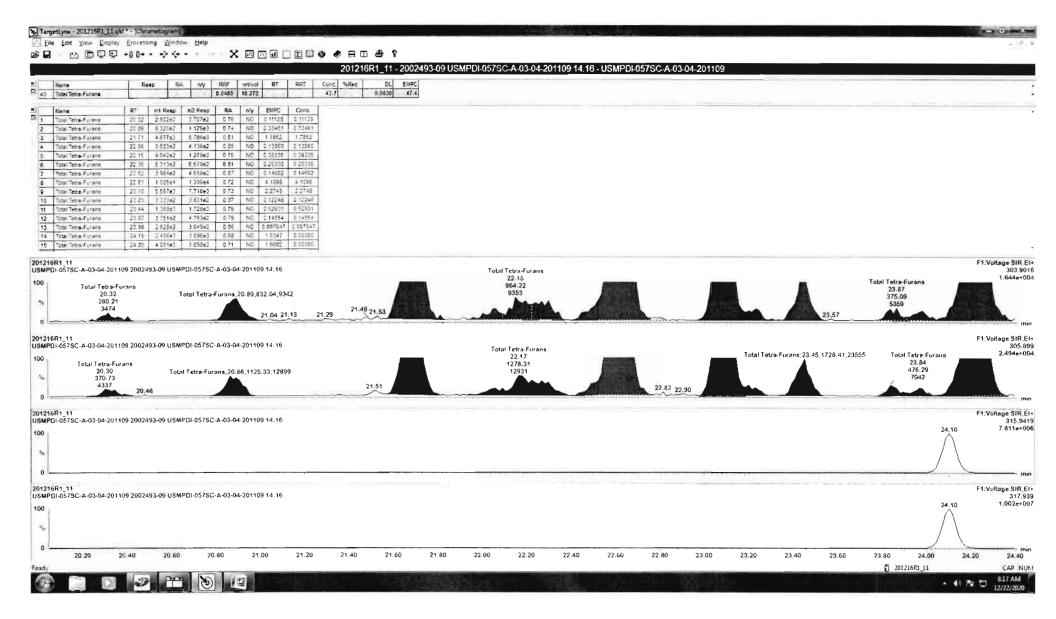
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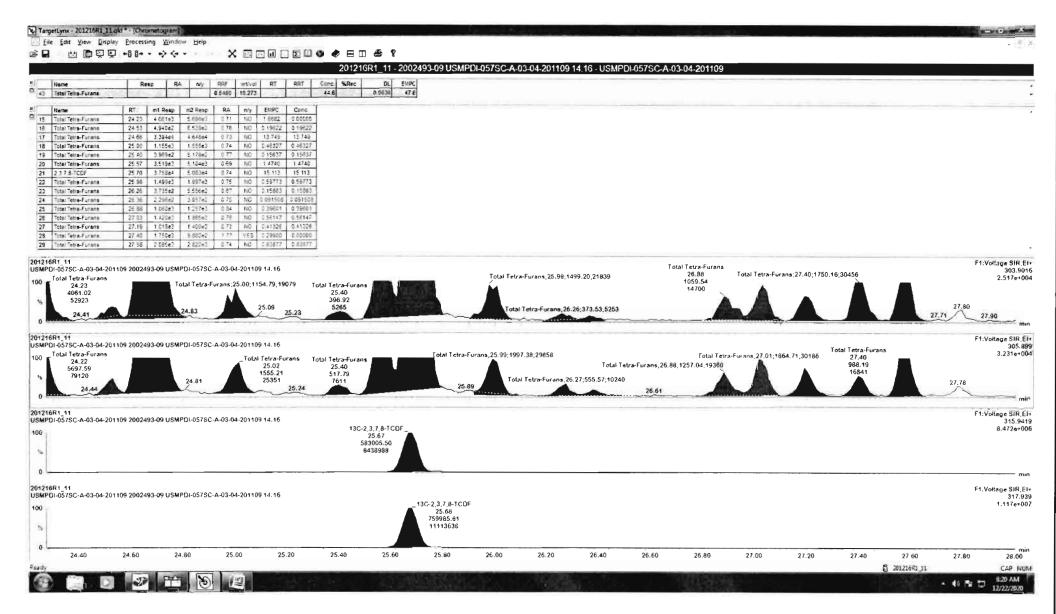
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Work Order 2002493 Page 363 of 734



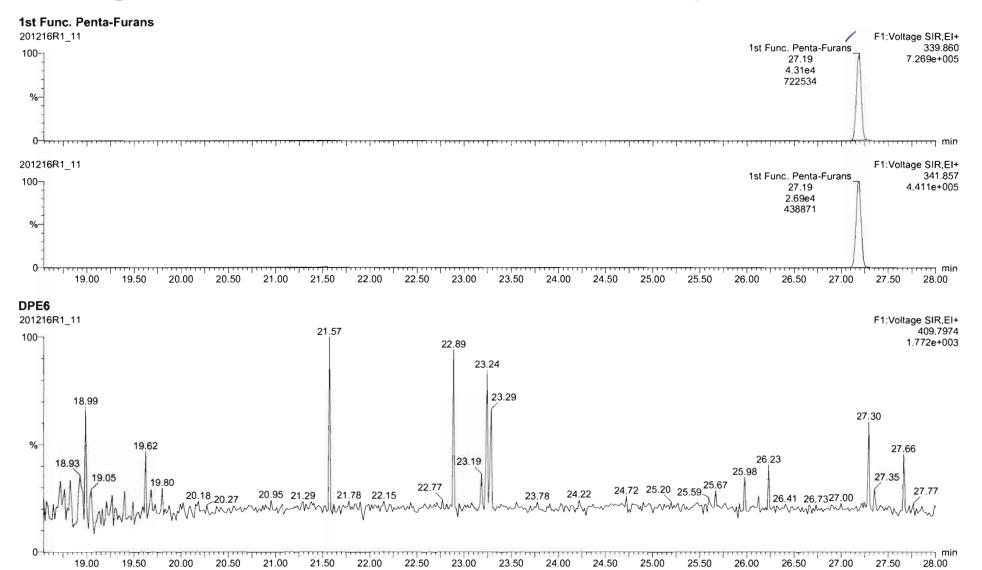
Work Order 2002493 Page 364 of 734

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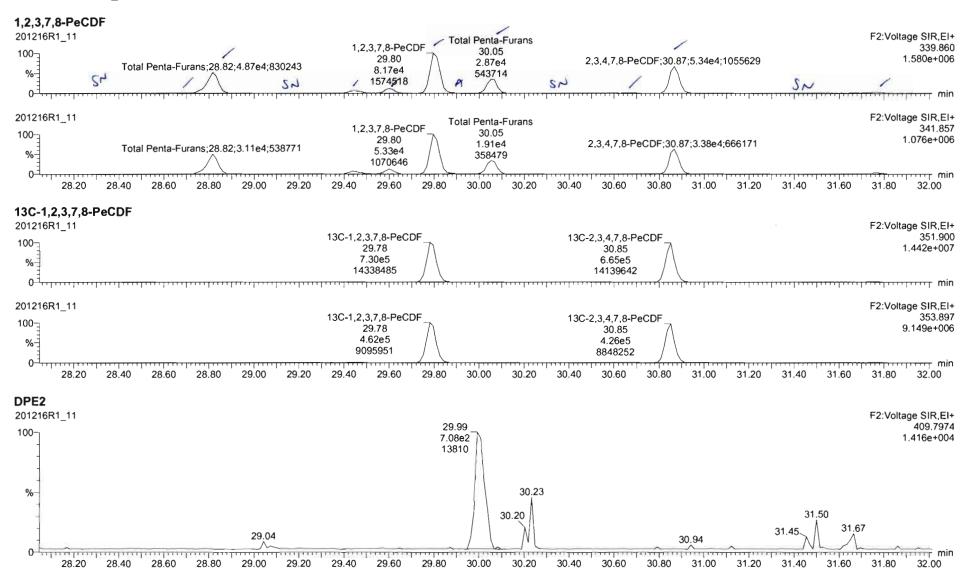
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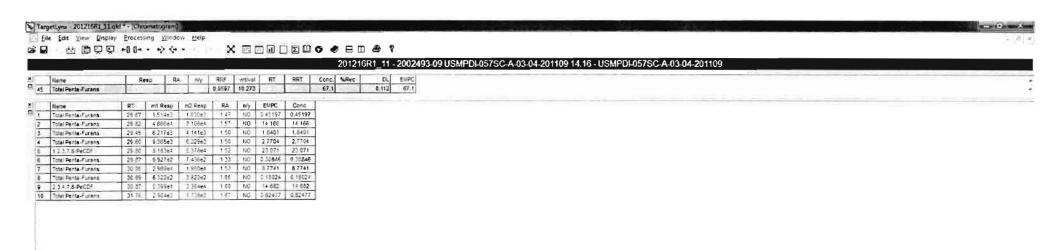


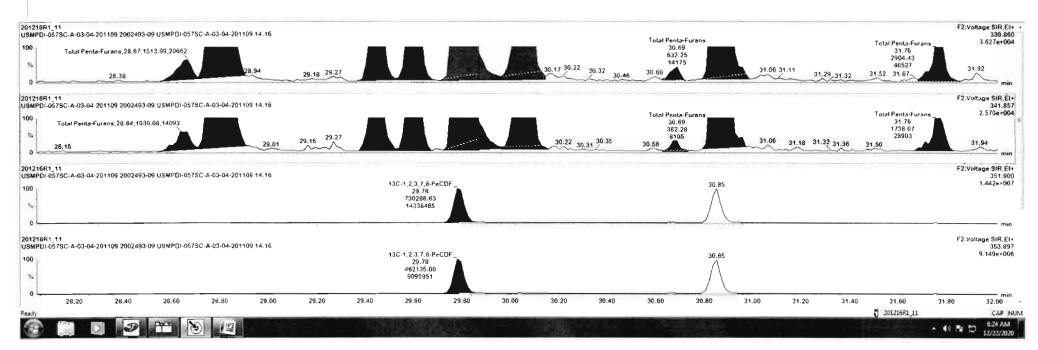
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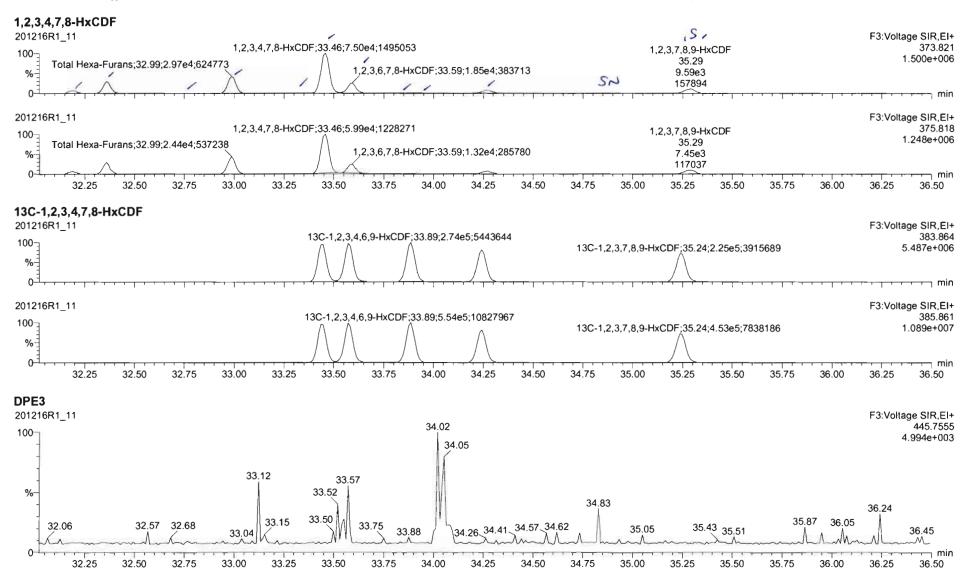


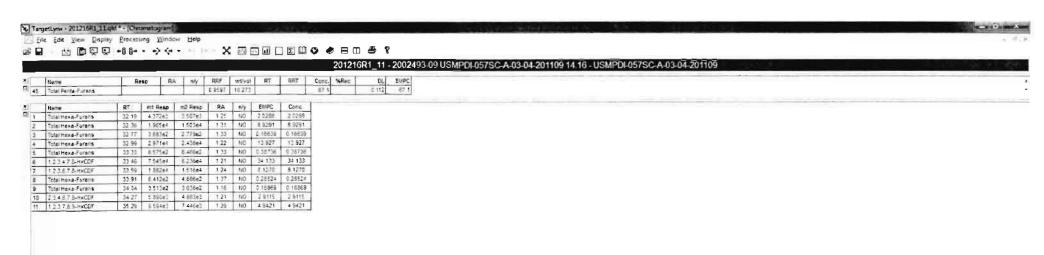
Work Order 2002493 Page 367 of 734

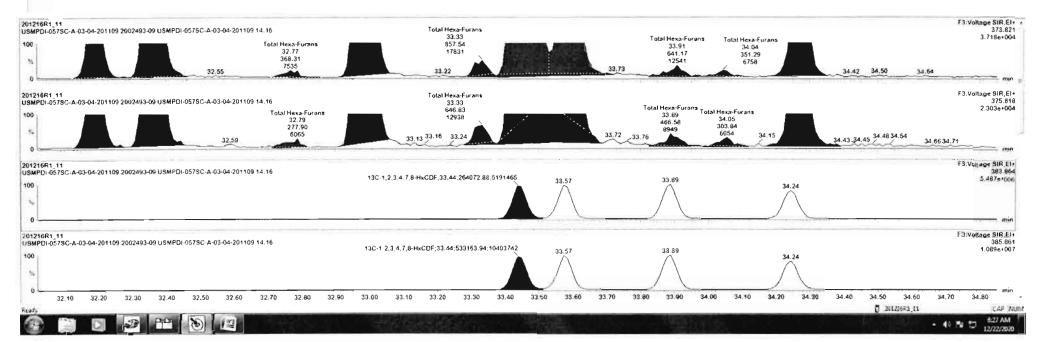
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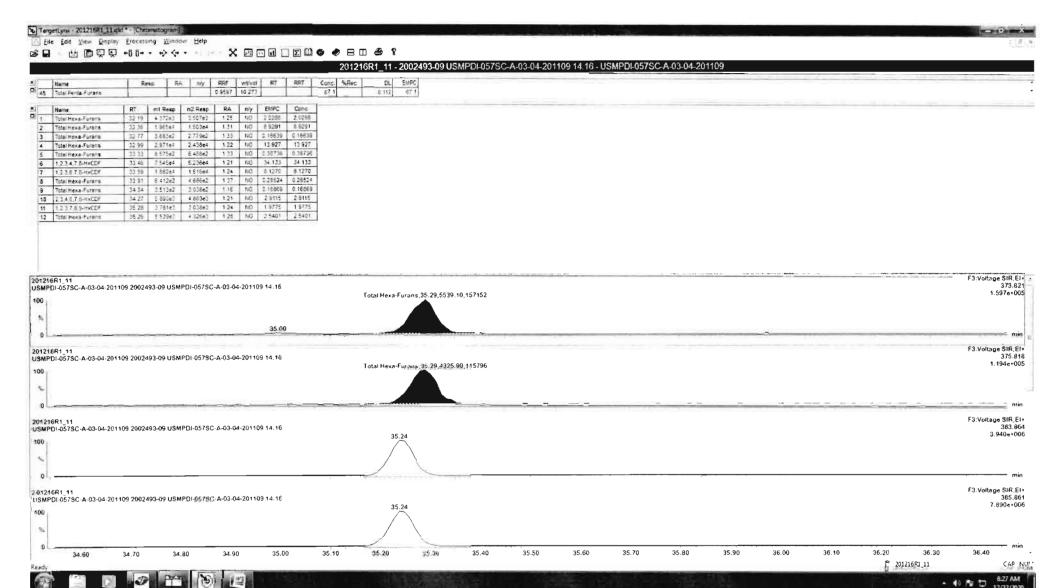
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Work Order 2002493 Page 369 of 734



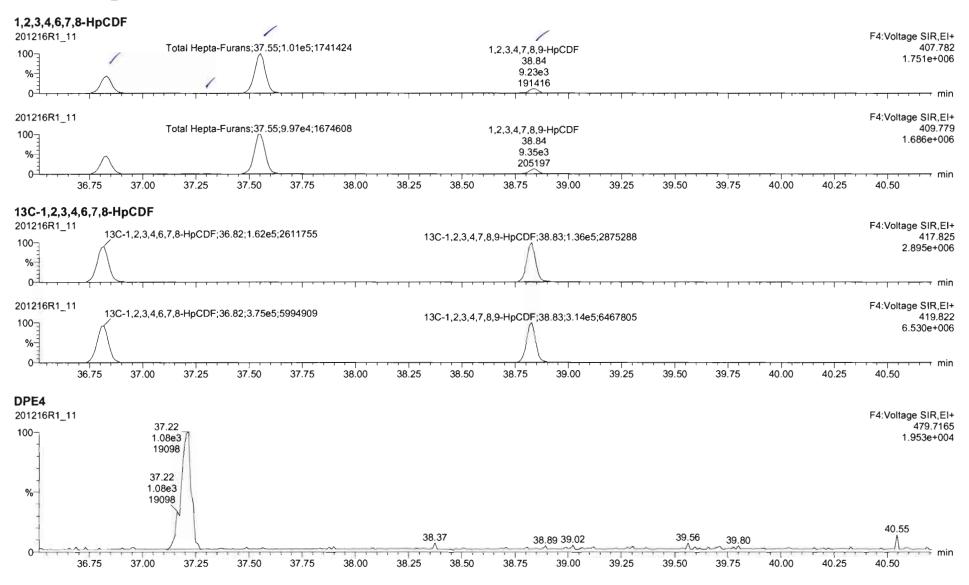
Work Order 2002493 Page 370 of 734

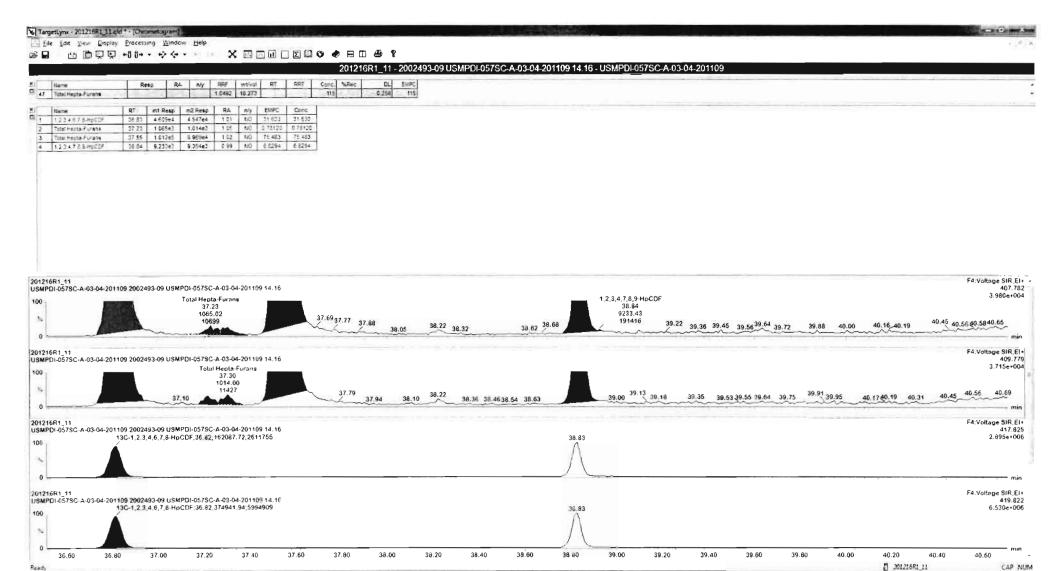
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Work Order 2002493 Page 372 of 734

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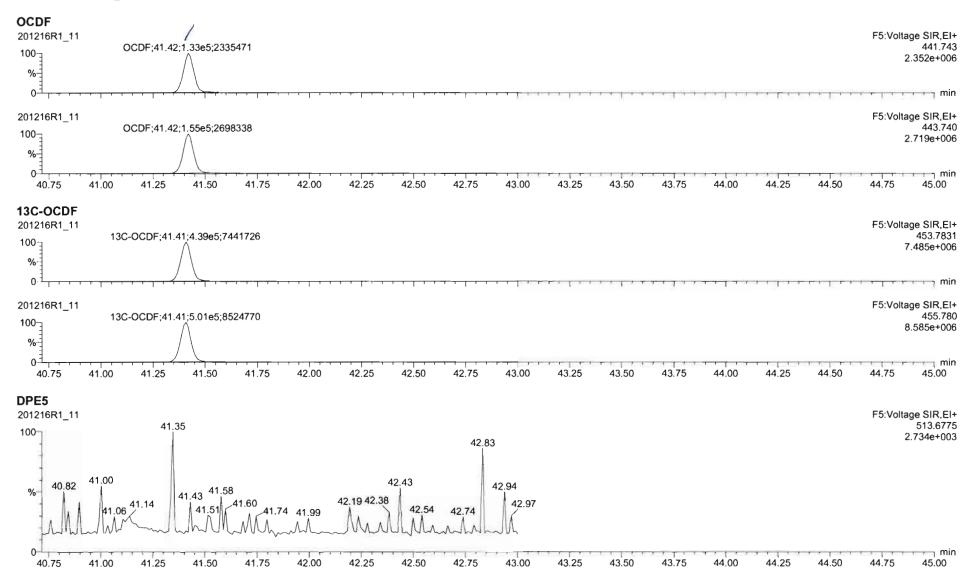
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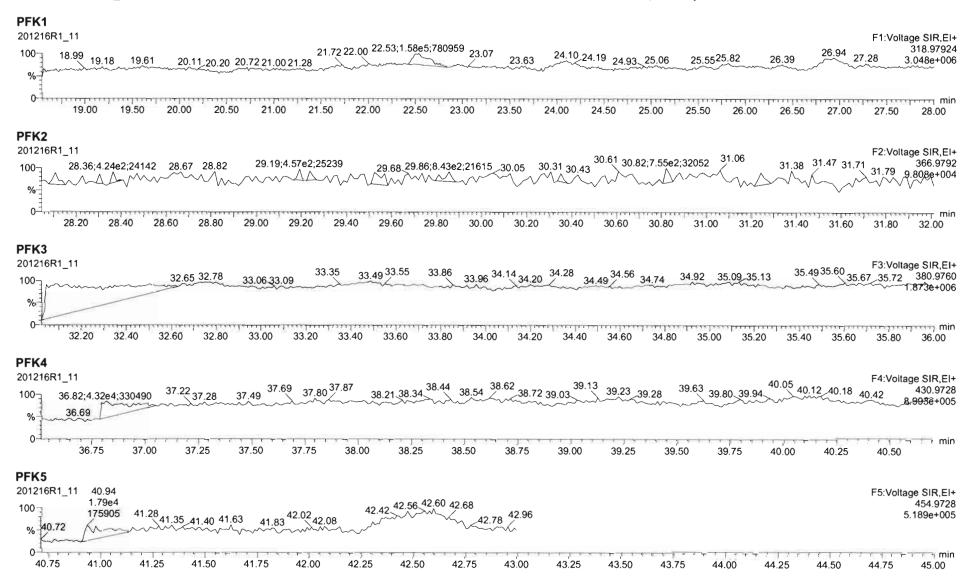
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Page 1 of 2

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_12.qld

Last Altered:

Tuesday, December 22, 2020 9:05:03 AM Pacific Standard Time

Printed:

Tuesday, December 22, 2020 9:09:33 AM Pacific Standard Time

GRB 12/22/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201216R1_12, Date: 16-Dec-2020, Time: 16:47:18, ID: 2002493-10 USMPDI-057SC-A-04-05-201109 13.57, Description: USMPDI-057SC-A-04-05-201109

SAMP AR	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
1 5 15	1 2,3,7,8-TCDD			NO	0.980	10.184	26.381		1.001				0.0355	
2	2 1,2,3,7,8-PeCDD	4.80e2	0.64	NO	0.932	10.184	31.079	31.05	1.001	1,000	0.10535		0.0541	0.105
3	3 1,2,3,4,7,8-HxCDD	4.94e2	1.37	NO	1.02	10.184	34.378	34.37	1.001	1.000	0.13246		0.101	0.132
4	4 1,2,3,6,7,8-HxCDD	3.31e3	1.24	NO	0.902	10.184	34.494	34.49 /	1.001	1.001	0.89762		0.100	0.898
5	5 1,2,3,7,8,9-HxCDD	1.31e3	1.27	NO	0.954	10.184	34.755	34.76	1.000	1.000	0.34424		0.101	0.344
6	6 1,2,3,4,6,7,8-HpCDD	1.49e5	1.02	NO	0.918	10.184	38.222	38.22	1.000	1.000	48.163		0.384	48.2
7	7 OCDD	8.78e5	0.87	NO	0.866	10.184	41.134	41.14	1.000	1.000	424.21		0.424	424
8	8 2,3,7,8-TCDF	6.05e3	0.73	NO	0.848	10.184	25.672	25.70	1.000	1.001	0.99498		0.0642	0.995
9	9 1,2,3,7,8-PeCDF	5.60e3	1.44	NO	0.960	10.184	29.784	29.81	1.000	1.001	0.95291		0.0637	0.953
10	10 2,3,4,7,8-PeCDF	5.92e3	1.27	YES	1.07	10.184	30.874	30.87	1.001	1.000	0.99246		0.0528	0.913
11	11 1,2,3,4,7,8-HxCDF	5.43e3	1.17	NO	0.986	10.184	33.457	33.46	1.000	1.000	1.3350		0.0508	1.34
12	12 1,2,3,6,7,8-HxCDF	1.98e3	1.18	NO	1.04	10.184	33.592	33.59	1.001	1.001	0.46404		0.0488	0.464
13	13 2,3,4,6,7,8-HxCDF	1.24e3	1.32	NO	1.02	10.184	34.263	34.27	1.001	1.001	0.30386		0.0527	0.304
14	14 1,2,3,7,8,9-HxCDF	2.39e2	1.08	NO	0.991	10.184	35.258	35.26	1.000	1.000	0.066371		0.0672	0.0664
15	15 1.2,3,4,6,7,8-HpCDF	1.58e4	1.02	NO	1.05	10.184	36.835	36.83	1.000	1.000	5.3658		0.0947	5.37
16	16 1,2,3,4,7,8,9-HpCDF	1.06e3	1.14	NO	1.18	10.184	38.839	38.85	1.000	1.001	0.38661		0.0794	0.387
17	17 OCDF	2.25e4	0.84	NO	0.896	10.184	41.416	41.42	1.000	1.000	10.520		0.0794	10.5
18	18 13C-2,3,7,8-TCDD	1.17e6	0.77	NO	1.06	10.184	26.368	26.35	1.030	1.029	226.05	115	0.0995	
19	19 13C-1,2,3,7,8-PeCDD	9.60e5	0.63	NO	0.785	10.184	31.211	31.05	1.219	1.213	250.06	127	0.178	
20	20 13C-1,2,3,4,7,8-HxCDD	7.18e5	1.27	NO	0.621	10.184	34.347	34.36	1.014	1.014	274.35	140	0.363	
21	21 13C-1,2,3,6,7,8-HxCDD	8.03e5	1.27	NO	0.734	10.184	34.469	34.47 /	1.017	1.017	259.70	132	0.307	
22	22 13C-1,2,3,7,8,9-HxCDD	7 83e5	1.25	NO	0.723	10.184	34.753	34.74	1.026	1.025	256.97	131	0.311	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.63e5	1.05	NO	0.568	10.184	38.254	38.21	1.129	1.128	277.08	141	0.846	
24	24 13C-OCDD	9.39e5	0.93	NO	0.496	10.184	41.192	41.13	1.216	1.214	449.20	114	0.454	
25	25 13C-2,3,7,8-TCDF	1.41e6	0.76	NO	0.919	10.184	25.667	25.67	1.003	1.003	230.95	118	0.142	
26	= 26 13C-1,2,3,7,8-PeCDF	1.20e6	1.55	NO	0.715	10.184	29.921	29.78	1.169	1.164	253.52	129	0.361	
27	27 13C-2,3,4,7,8-PeCDF	1.10e6	1.57	NO	0.689	10.184	31.008	30.85	1.212	1.205	240.64	123	0.375	
28	28 13C-1,2,3,4,7,8-HxCDF	8.11e5	0.49	NO	0.873	10.184	33.452	33.45	0.987	0.987	220.18	112	0.398	
29	29 13C-1,2,3,6,7,8-HxCDF	8.05e5	0.50	NO	0.933	10.184	33.581	33.57 /	0.991	0.991	204.63	104	0.373	
30	30 13C-2,3,4,6,7,8-HxCDF	7.85e5	0.50	NO	0.843	10.184	34.249	34.24 /	1.011	1.011	221.07	113	0.413	
31	31 13C-1,2,3,7,8,9-HxCDF	7.12e5	0.50	NO	0.780	10.184	35.248	35.25	1.040	1.040	216.71	110	0.446	

Work Order 2002493 Page 375 of 734

U:\VG12.PRO\Results\201216R1\201216R1_12.qld

Last Altered:

Tuesday, December 22, 2020 9:05:03 AM Pacific Standard Time

Printed:

Tuesday, December 22, 2020 9:09:33 AM Pacific Standard Time

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32	32 13C-1,2,3,4,6,7,8-HpCDF	5.50e5	0.42	NO	0.726	10.184	36.824	36.82	1.087	1.086	179.66	91.5	0.479	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.60e5	0.43	NO	0.491	10.184	38.833	38.83	1.146	1.146	222.06	113	0.708	
34	34 13C-OCDF	9.38e5	0.90	NO	0.565	10.184	41.409	41.41	1.222	1.222	393.78	100	0.431	1
35	35 37CI-2,3,7,8-TCDD	5.28e5			1.22	10.184	26.363	26.38	1.030	1.031	88.592	113	0.0380	
36	36 13C-1,2,3,4-TCDD	9.61e5	0.77	NO	1.00	10.184	25.640	25.59	1.000	1.000	196.40	100	0.105	
37	37 13C-1,2,3,4-TCDF	1.30e6	0.77	NO	1.00	10.184	24.130	24.09	1.000	1.000	196.40	100	0.130	
38	38 13C-1,2,3,4,6,9-HxCDF	8.28e5	0.50	NO	1.00	10.184	33.920	33.89	1.000	1.000	196.40	100	0.348	
39	39 Total Tetra-Dioxins				0.980	10.184	24.620		0.000		0.30918		0.0355	0.489
40	40 Total Penta-Dioxins				0.932	10.184	29.960		0.000		0.85883		0.0541	1.41
41	41 Total Hexa-Dioxins				0.902	10.184	33.635		0.000		11.078		0.107	11.1
42	42 Total Hepta-Dioxins				0.918	10.184	37.640		0.000		98.785		0.384	98.8
43	43 Total Tetra-Furans				0.848	10.184	23.610		0.000		5.2730		0.0642	5.35
44	44 1st Func. Penta-Furans				0.960	10.184	26.930		0.000		2.8314		0.0163	2.83
45	45 Total Penta-Furans				0.960	10.184	29.275		0.000		3.4489		0.0613	4.36
46	46 Total Hexa-Furans				1.02	10.184	33.555		0.000		6.7166		0.0539	6.72
47	47 Total Hepta-Furans				1.05	10.184	37.835		0.000		13.868		0.0921	13.9

Work Order 2002493 Page 376 of 734

Page 1 of 3

Vista Analytical Laboratory

Dataset: U:\VG12.PR0\Results\201216R1\201216R1_12.qld

Last Altered: Tuesday, December 22, 2020 9:05:03 AM Pacific Standard Time Printed: Tuesday, December 22, 2020 9:09:33 AM Pacific Standard Time

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Name: 201216R1_12, Date: 16-Dec-2020, Time: 16:47:18, ID: 2002493-10 USMPDI-057SC-A-04-05-201109 13.57, Description: USMPDI-057SC-A-04-05-201109

Tetra-Dioxins

O TRAINE	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 Tomas	Total Tetra-Dioxins	22.59	7.119e3	7.560e3	6.586e2	5.935e2	1.11	YES	0.000e0	0.00000	0.18019	0.0355
2	Total Tetra-Dioxins	22.92	4.469e3	3.867e3	2.777e2	3.287e2	0.84	NO	6.064e2	0.10401	0.10401	0.0355
3	Total Tetra-Dioxins	23.44	1.775e3	1.571e3	9.701e1	1.193e2	0.81	NO	2.163e2	0.037098	0.037098	0.0355
4	Total Tetra-Dioxins	24.29	4.475e3	5.175e3	2.706e2	3.907e2	0.69	NO	6.612e2	0.11343	0.11343	0.0355
5	Total Tetra-Dioxins	24.75	1.920e3	3.306e3	1.359e2	1.826e2	0.74	NO	3.186e2	0.054647	0.054647	0.0355

Penta-Dioxins

01341	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Dioxins	28.80	1.056e4	1.068e4	6.452e2	8.918e2	0.72	NO	1.537e3	0.33728	0.33728	0.0541
2	Total Penta-Dioxins	29.28	5.894e3	8.987e3	2.880e2	4.384e2	0.66	NO	7.264e2	0.15940	0.15940	0.0541
3	Total Penta-Dioxins	29.78	2.805e4	1.545e4	1.492e3	1.005e3	1.48	YES	0.000e0	0.00000	0.35938	0.0541
4	Total Penta-Dioxins	29.99	3.611e3	7.326e3	2.272e2	3.522e2	0.65	NO	0.000e0	0.00000	0.12714	0.0541
5	Total Penta-Dioxins	30.04	2.763e3	7.431e3	1.065e2	2.269e2	0.47	YES	0.000e0	0.00000	0.060446	0.0541
6	Total Penta-Dioxins	30.26	5.866e3	1.269e4	3.936e2	5.648e2	0.70	NO	9.584e2	0.21031	0.21031	0.0541
7	1,2,3,7,8-PeCDD	31.05	4.321e3	5.679e3	1.878e2	2.923e2	0.64	NO	4.801e2	0.10535	0.10535	0.0541
8	Total Penta-Dioxins	31.14	2.922e3	2.750e3	8.710e1	1.248e2	0.70	NO	2.119e2	0.046497	0.046497	0.0541

Hexa-Dioxins

The same of	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1 inter-	Total Hexa-Dioxins	32.72	1.893e5	1.339e5	8.249e3	6.506e3	1.27	NO	1.476e4	4.1815	4.1815	0.107
2	Total Hexa-Dioxins	33.32	2.306e4	1.833e4	1.060e3	8.845e2	1.20	NO	1.945e3	0.55109	0.55109	0.107
3	Total Hexa-Dioxins	33.61	1.310e5	1.039e5	9.044e3	6.996e3	1.29	NO	1.604e4	4.5457	4.5457	0.107
4	Total Hexa-Dioxins	33.71	7.495e3	7.024e3	3.414e2	2.882e2	1.18	NO	6.296e2	0.17844	0.17844	0.107
5	1,2,3,4,7,8-HxCDD	34.37	7.355e3	5.265e3	2.853e2	2.085e2	1.37	NO	4.938e2	0.13246	0.13246	0.101
6	1,2,3,6,7,8-HxCDD	34.49	3.610e4	2.962e4	1.836e3	1.478e3	1.24	NO	3.314e3	0.89762	0.89762	0.100
7	Total Hexa-Dioxins	34.64	8.458e3	7.792e3	4.904e2	3.792e2	1.29	NO	8.696e2	0.24644	0.24644	0.107
8	1,2,3,7,8,9-HxCDD	34.76	1.543e4	1.054e4	7.322e2	5.769e2	1.27	NO	1.309e3	0.34424	0.34424	0.101

Work Order 2002493 Page 377 of 734

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_12.qld

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Tuesday, December 22, 2020 9:05:03 AM Pacific Standard Time Tuesday, December 22, 2020 9:09:33 AM Pacific Standard Time

Name: 201216R1_12, Date: 16-Dec-2020, Time: 16:47:18, ID: 2002493-10 USMPDI-057SC-A-04-05-201109 13.57, Description: USMPDI-057SC-A-04-05-201109

Hepta-Dioxins

	Name	RT	m1 Height	m2 Height	913	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.21	1.260e6	1.270e6		7.783e4	7.906e4	0.98	NO	1.569e5	50.622	50.622	0.384
2	1,2,3,4,6,7,8-HpCDD	38.22	1.523e6	1.480e6		7.534e4	7.393e4	1.02	NO	1.493e5	48.163	48.163	0.384

Tetra-Furans

100	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Furans	20.32	2.818e3	3.936e3	1.986e2	2.869e2	0.69	NO	4.855e2	0.079897	0.079897	0.0642
2	Total Tetra-Furans	20.88	2.988e3	3.017e3	2.235e2	2.625e2	0.85	NO	4.860e2	0.079976	0.079976	0.0642
3	Total Tetra-Furans	21.68	1.687e4	2.213e4	1.525e3	2.008e3	0.76	NO	3.534e3	0.58150	0.58150	0.0642
4	Total Tetra-Furans	22.62	1.457e4	1.854e4	1.271e3	1.774e3	0.72	NO	3.045e3	0.50107	0.50107	0.0642
5	Total Tetra-Furans	23.08	1.481e4	1.557e4	1.063e3	1.362e3	0.78	NO	2.425e3	0.39912	0.39912	0.0642
6	Total Tetra-Furans	23.20	1.417e3	1.156e3	1.151e2	8.427e1	1.37	YES	0.000e0	0.00000	0.024546	0.0642
7	Total Tetra-Furans	23.44	2.733e3	3.032e3	1.859e2	2.465e2	0.75	NO	4.324e2	0.071150	0.071150	0.0642
8	Total Tetra-Furans	23.84	2.294e3	2.416e3	1.287e2	1.846e2	0.70	NO	3.133e2	0.051562	0.051562	0.0642
9	Total Tetra-Furans	23.97	2.882e3	2.878e3	1.423e2	1.699e2	0.84	NO	3.122e2	0.051384	0.051384	0.0642
10	Total Tetra-Furans	24.16	6.933e3	8.368e3	4.554e2	5.650e2	0.81	NO	1.020e3	0.16793	0.16793	0.0642
11	Total Tetra-Furans	24.23	9.438e3	1.647e4	7.519e2	1.125e3	0.67	NO	1.877e3	0.30888	0.30888	0.0642
12	Total Tetra-Furans	24.52	1.979e3	2.662e3	1.285e2	1.848e2	0.70	NO	3.133e2	0.051555	0.051555	0.0642
13	Total Tetra-Furans	24.68	3.812e4	4.601e4	2.692e3	3.427e3	0.79	NO	6.119e3	1.0069	1.0069	0.0642
14	Total Tetra-Furans	25.00	4.226e3	3.756e3	2.488e2	2.816e2	0.88	NO	5.304e2	0.087293	0.087293	0.0642
15	Total Tetra-Furans	25.43	2.208e3	2.928e3	1.257e2	1.490e2	0.84	NO	2.747e2	0.045210	0.045210	0.0642
16	Total Tetra-Furans	25.57	8.564e3	1.151e4	5.883e2	8.075e2	0.73	NO	1.396e3	0.22969	0.22969	0.0642
17	2,3,7,8-TCDF	25.70	3.800e4	5.077e4	2.552e3	3.495e3	0.73	NO	6.046e3	0.99498	0.99498	0.0642
18	Total Tetra-Furans	25.93	1.519e3	1.484e3	8.398e1	9.678e1	0.87	NO	1.808e2	0.029747	0.029747	0.0642
19	Total Tetra-Furans	25.98	3.746e3	4.630e3	2.634e2	3.446e2	0.76	NO	6.080e2	0.10006	0.10006	0.0642
20	Total Tetra-Furans	26.87	3.860e3	4.403e3	2.039e2	2.782e2	0.73	NO	4.821e2	0.079339	0.079339	0.0642
21	Total Tetra-Furans	27.01	6.124e3	1.173e4	3.989e2	5.938e2	0.67	NO	9.926e2	0.16335	0.16335	0.0642
22	Total Tetra-Furans	27.21	4.062e3	5.839e3	2.584e2	3.800e2	0.68	NO	6.385e2	0.10507	0.10507	0.0642
23	Total Tetra-Furans	27.40	6.325e3	3.677e3	3.398e2	1.723e2	1.97	YES	0.000e0	0.00000	0.050176	0.0642
24	Total Tetra-Furans	27.56	5.005e3	5.502e3	2.445e2	2.861e2	0.85	NO	5.306e2	0.087321	0.087321	0.0642

Work Order 2002493 Page 378 of 734

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_12.qid

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Name: 201216R1_12, Date: 16-Dec-2020, Time: 16:47:18, ID: 2002493-10 USMPDI-057SC-A-04-05-201109 13.57, Description: USMPDI-057SC-A-04-05-201109

Penta-Furans function 1

- 文而引起。	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
100000	1st Func. Penta-Furans	27.18	1.649e5	1.066e5	9.802e3	6.114e3	1.60	NO	1.592e4	2.8314	2.8314	0.0163

Penta-Furans

1357.32	Name	RT	m1 Height	m2 Height	50.	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Penta-Furans	28.65	7.117e3	3.093e3		3.202e2	2.369e2	1.35	NO	5.571e2	0.099111	0.099111	0.0613
2	Total Penta-Furans	28.82	5.570e4	3.782e4		3.774e3	2.662e3	1.42	NO	6.436e3	1.1449	1.1449	0.0613
3	Total Penta-Furans	29.43	2.199e4	1.786e4		1.434e3	9.160e2	1.57	NO	2.350e3	0.41801	0.41801	0.0613
4	Total Penta-Furans	29.62	1.141e4	9.091e3		7.092e2	5.276e2	1.34	NO	1.237e3	0.22001	0.22001	0.0613
5	1,2,3,7,8-PeCDF	29.81	6.134e4	4.516e4		3.302e3	2.296e3	1.44	NO	5.598e3	0.95291	0.95291	0.0637
6	Total Penta-Furans	30.05	3.444e4	2.399e4		1.986e3	1.465e3	1.36	NO	3.451e3	0.61397	0.61397	0.0613
7	2.3,4,7,8-PeCDF	30.87	6.126e4	4.597e4		3.312e3	2.613e3	1.27	YES	5.925e3	0.00000	0.91260	0.0528

Hexa-Furans

DUE TO	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Furans	32.19	2.329e4	2.204e4	1.099e3	9.613e2	1.14	NO	2.060e3	0.50951	0.50951	0.0539
2	Total Hexa-Furans	32.36	7.724e4	6.986e4	3.603e3	3.129e3	1.15	NO	6.733e3	1.6652	1.6652	0.0539
3	Total Hexa-Furans	33.00	9.936e4	7.940e4	4.730e3	3.936e3	1.20	NO	8.666e3	2.1434	2.1434	0.0539
4	1,2,3,4,7,8-HxCDF	33.46	6.084e4	5.158e4	2.934e3	2.498e3	1,17	NO	5.432e3	1.3350	1.3350	0.0508
5	1,2,3,6,7,8-HxCDF	33.59	2.049e4	1.914e4	1.068e3	9.076e2	1.18	NO	1.976e3	0.46404	0.46404	0.0488
6	2,3,4,6,7,8-HxCDF	34.27	1.434e4	9.083e3	7.059e2	5.339e2	1.32	NO	1.240e3	0.30386	0.30386	0.0527
7	1,2,3,7,8,9-HxCDF	35.26	7.372e3	4.016e3	1.236e2	1.149e2	1.08	NO	2.386e2	0.066371	0.066371	0.0672
8	Total Hexa-Furans	35.27	1.006e4	7.918e3	5.419e2	3.850e2	1.41	NO	9.269e2	0.22924	0.22924	0.0539

Hepta-Furans

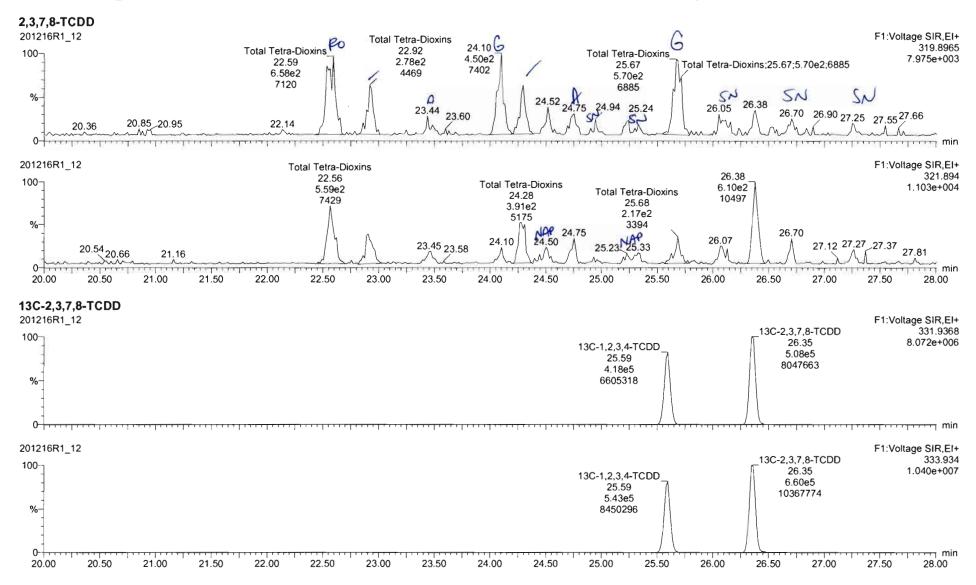
100	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1,2,3,4,6,7,8-HpCDF	36.83	1.276e5	1.284e5	7.969e3	7.799e3	1.02	NO	1.577e4	5.3658	5.3658	0.0947
2	Total Hepta-Furans	37.55	1.798e5	1.901e5	1.085e4	1.104e4	0.98	NO	2.189e4	8.1158	8.1158	0.0921
3	1,2,3,4,7,8,9-HpCDF	38.85	1.171e4	9.442e3	5.676e2	4.964e2	1.14	NO	1.064e3	0.38661	0.38661	0.0794

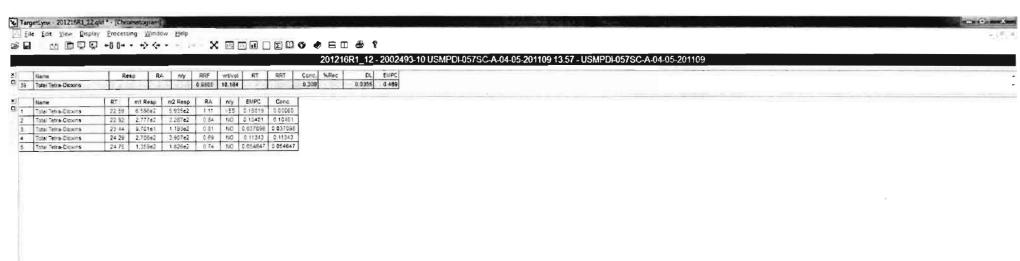
Work Order 2002493 Page 379 of 734

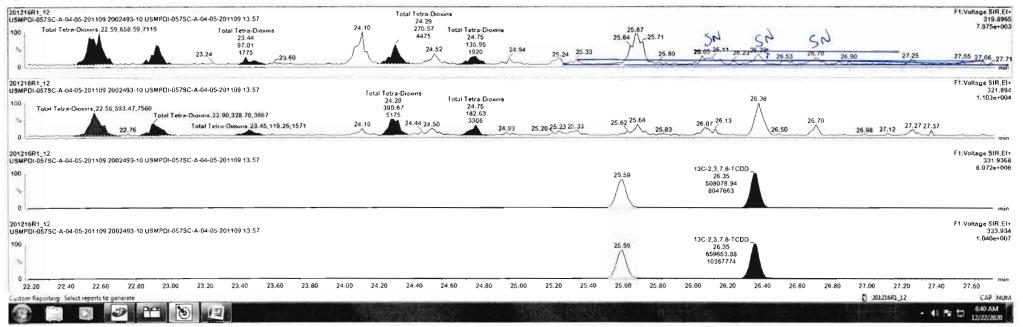
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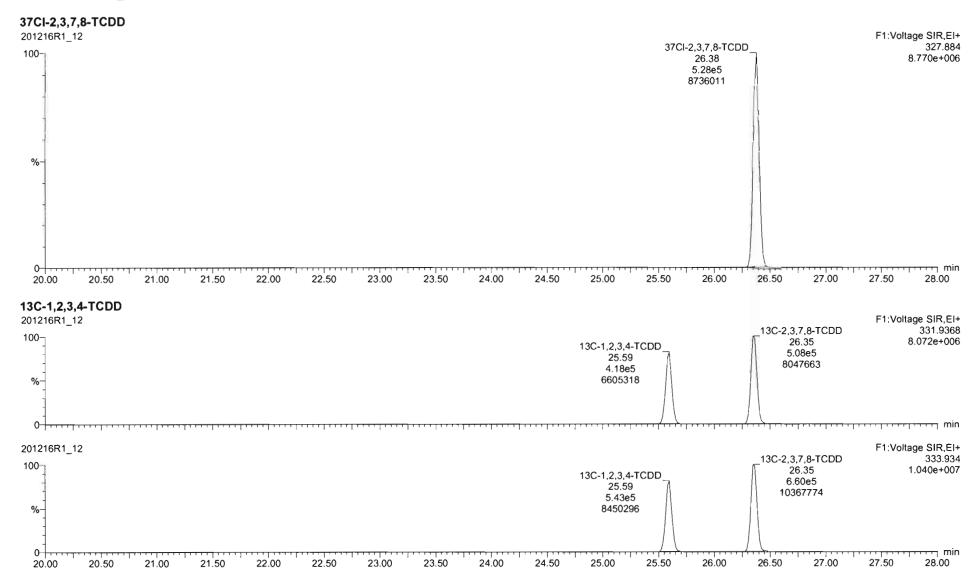
Work Order 2002493 Page 381 of 734

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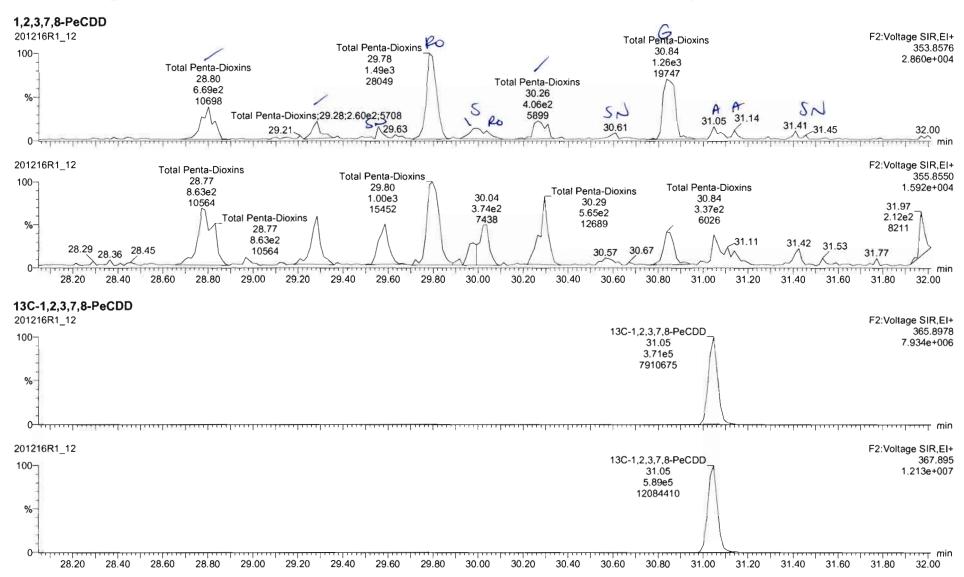
Page 382 of 734

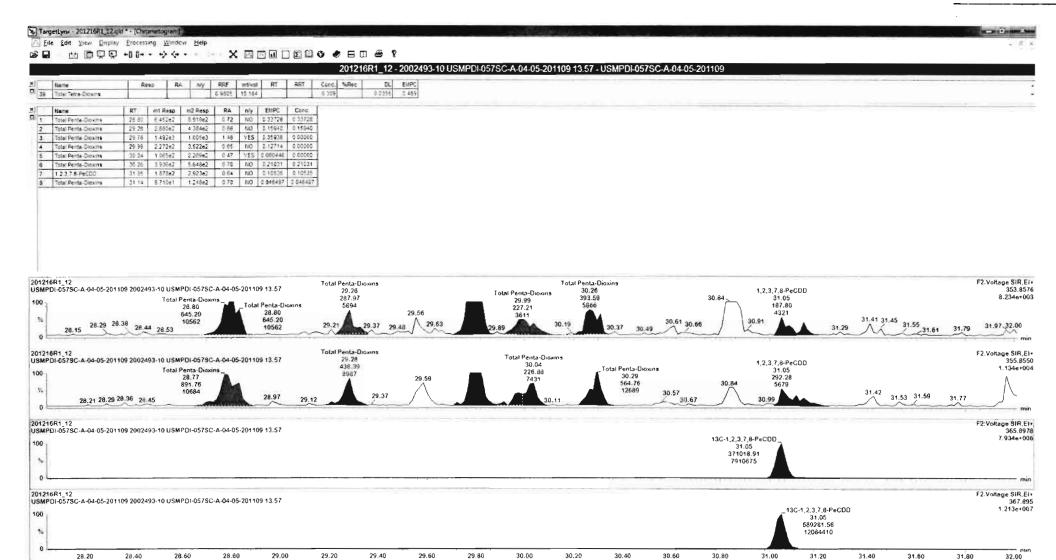
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Work Order 2002493 Page 384 of 734

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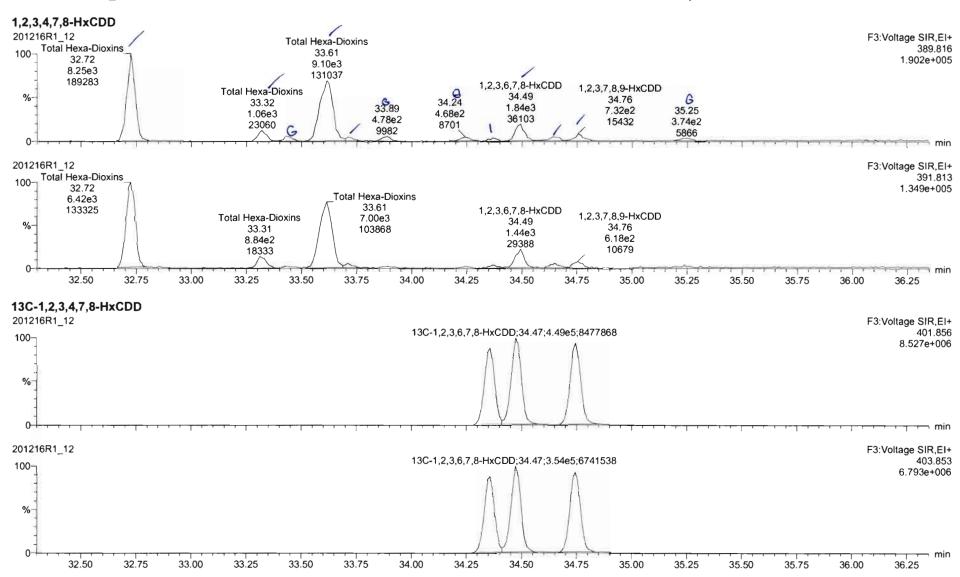
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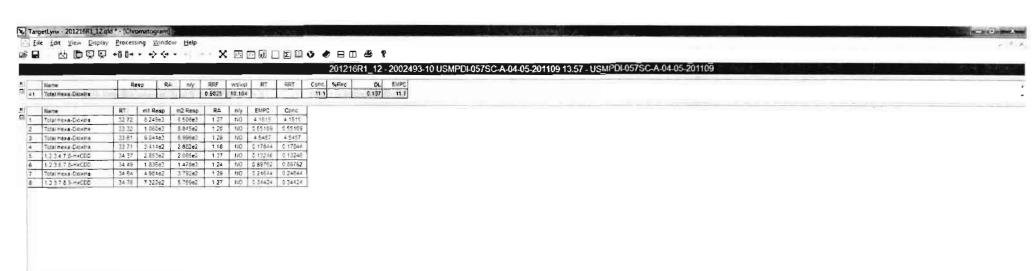
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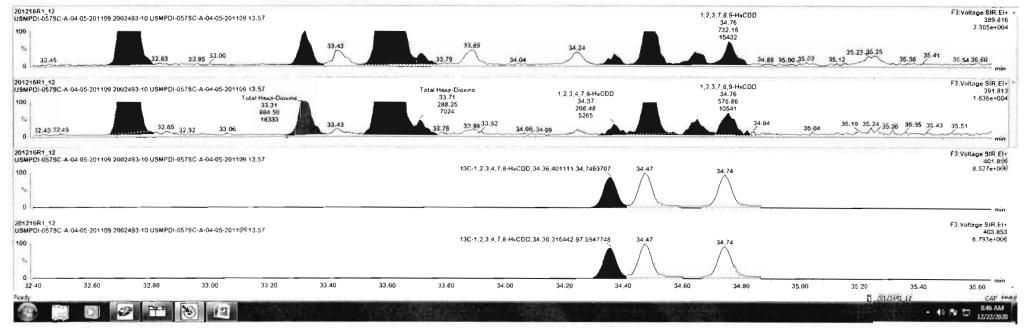
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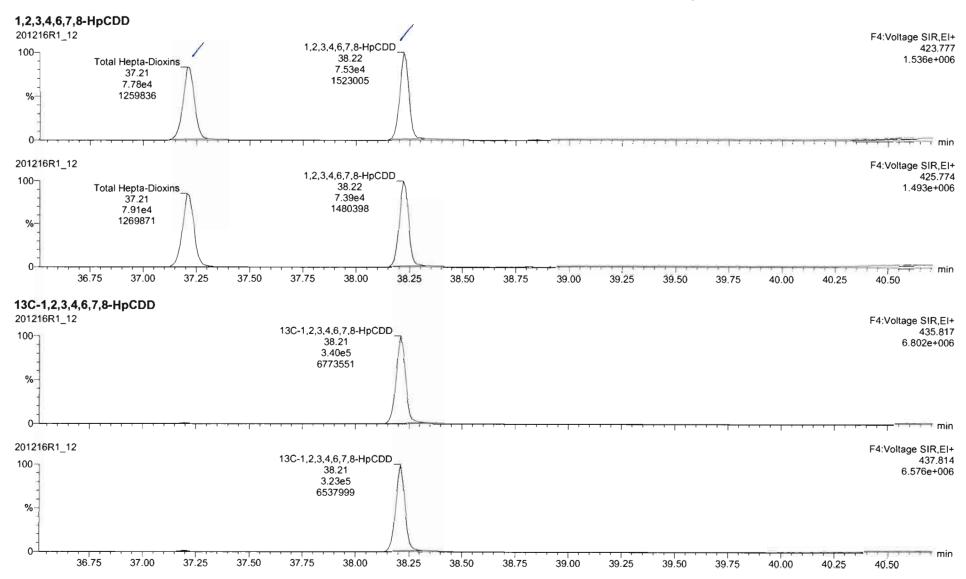


Work Order 2002493 Page 386 of 734

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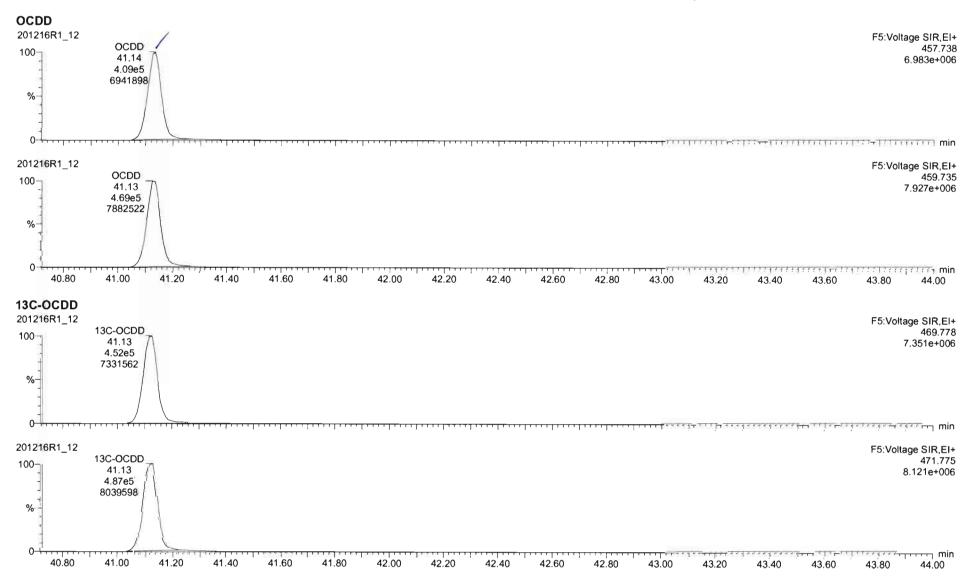
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Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time

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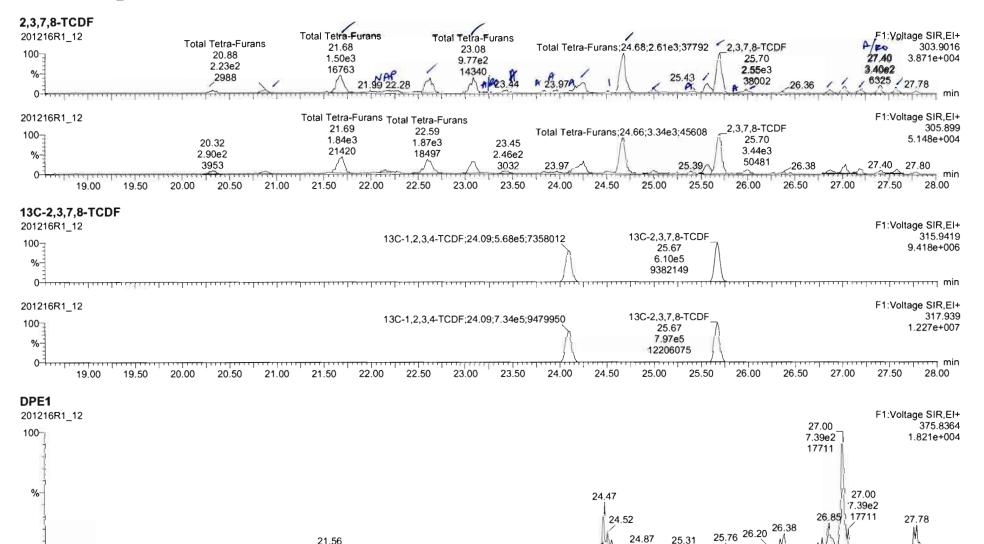
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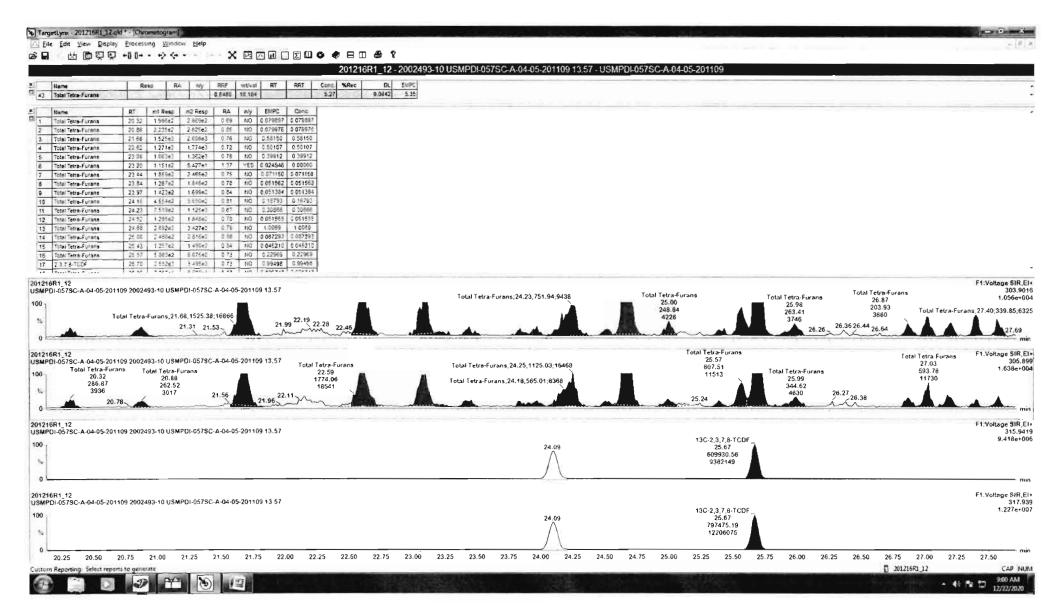
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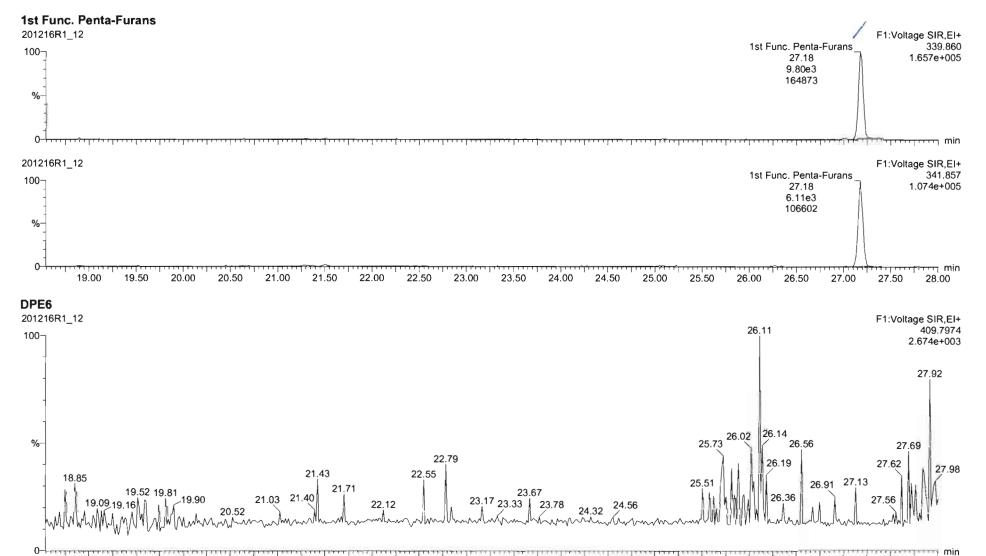
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Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time

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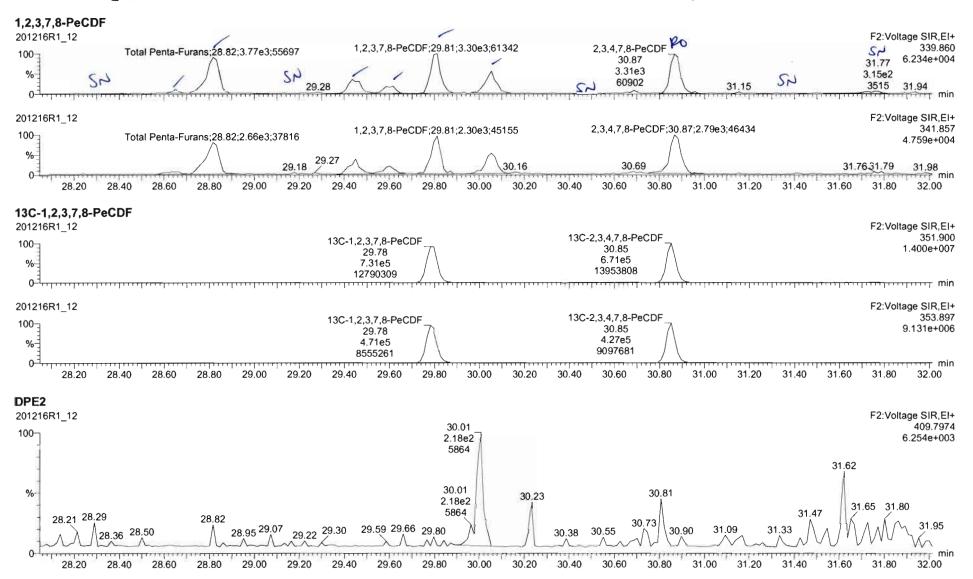
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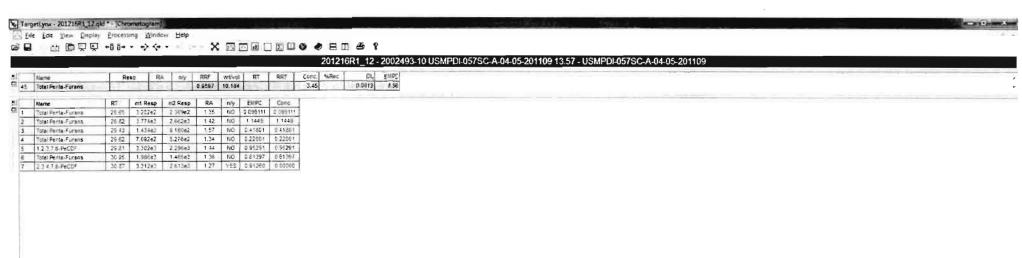
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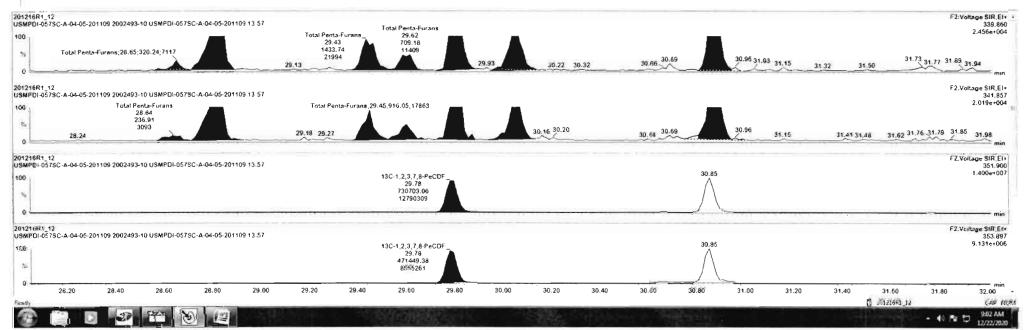
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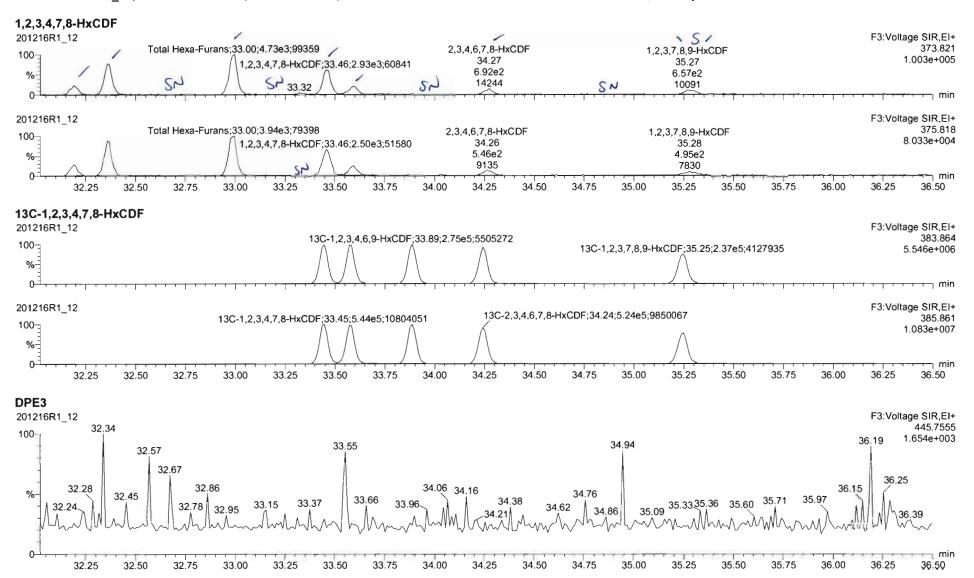
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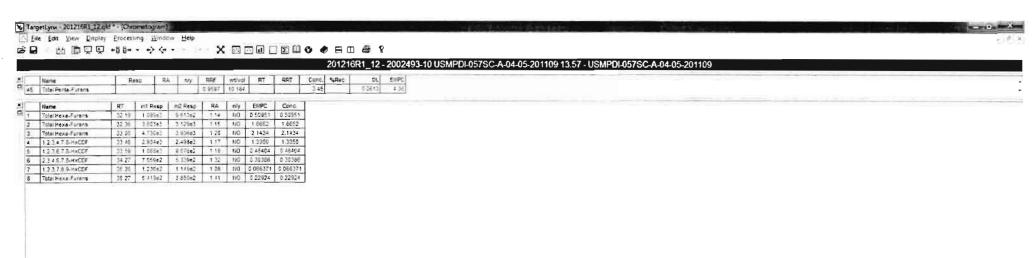
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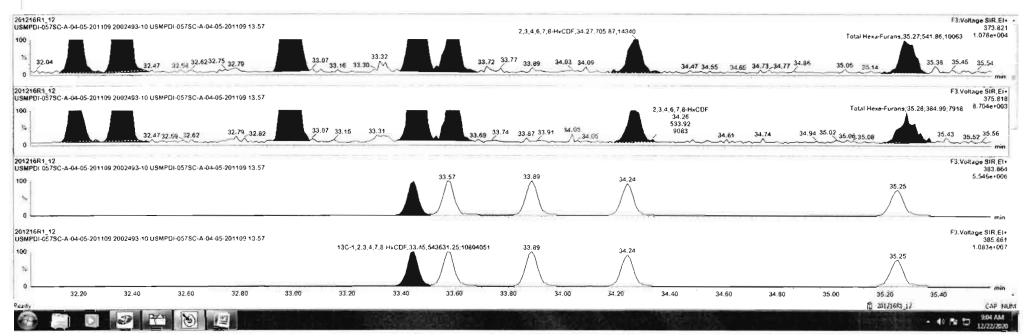
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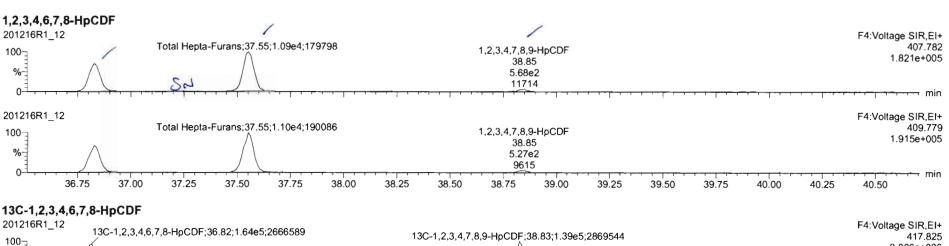
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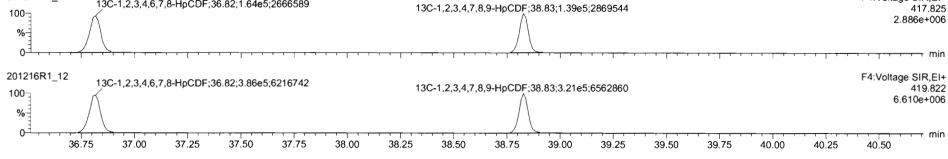
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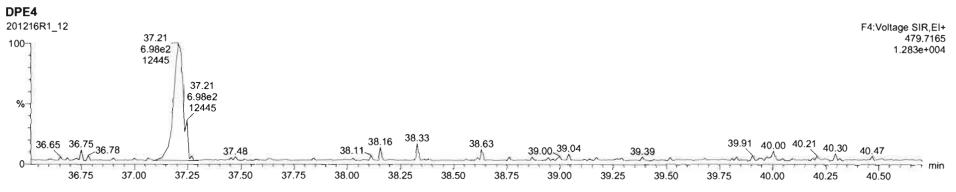
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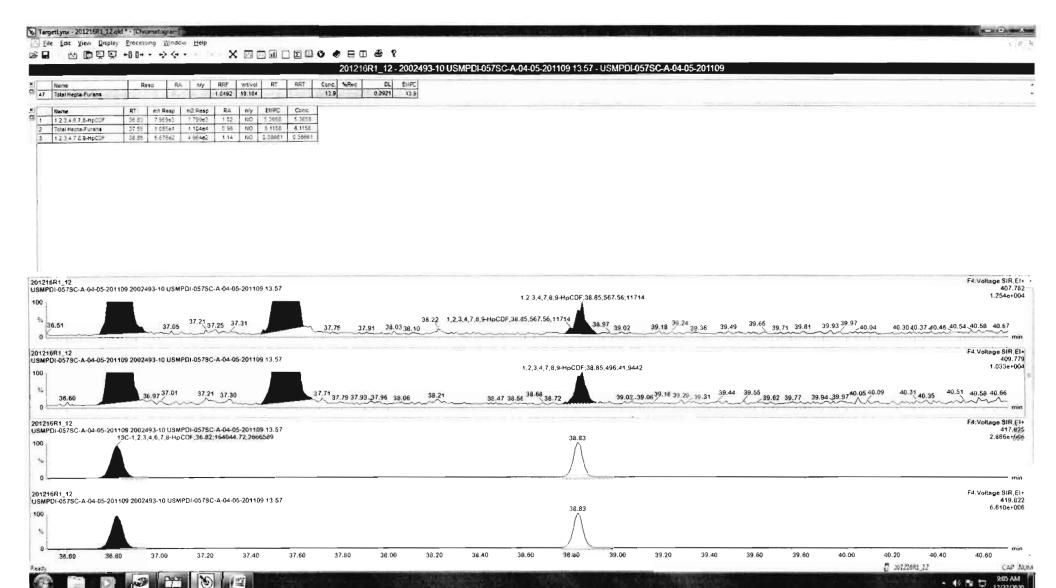
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Work Order 2002493 Page 397 of 734

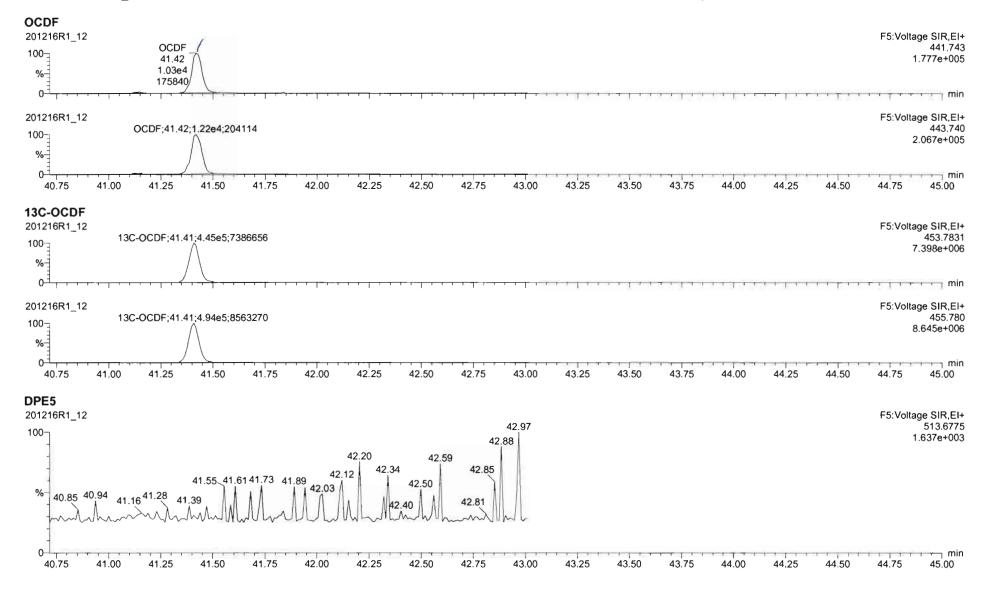
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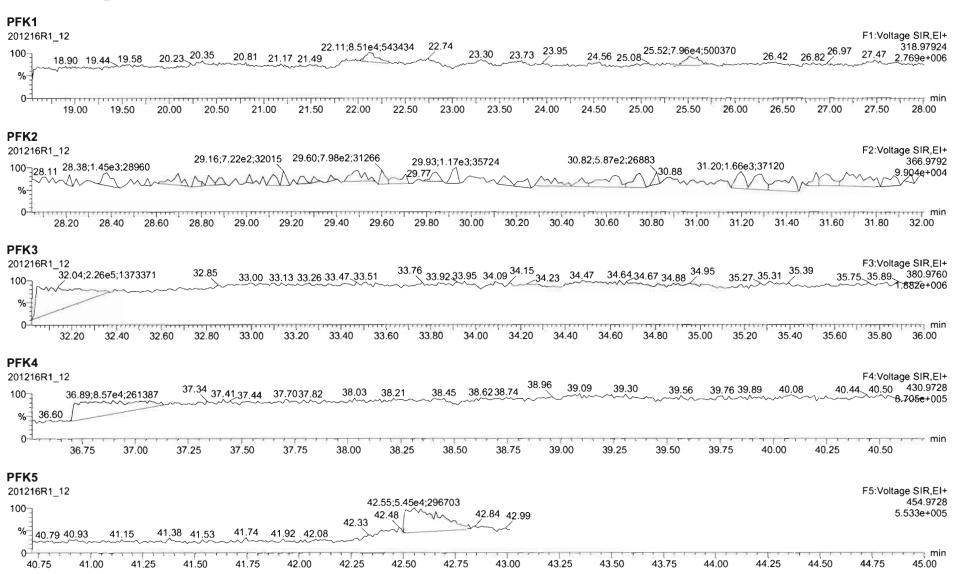
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Quantify Sample Report

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Name: 201216R1_12, Date: 16-Dec-2020, Time: 16:47:18, ID: 2002493-10 USMPDI-057SC-A-04-05-201109 13.57, Description: USMPDI-057SC-A-04-05-201109



Work Order 2002493

Page 1 of 2

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_13.qld

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Method: Untitled 11 Dec 2020 08:35:32

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Name: 201216R1_13, Date: 16-Dec-2020, Time: 17:31:33, ID: 2002493-11 USMPDI-057SC-A-05-06-201109 12.75, Description: USMPDI-057SC-A-05-06-201109

MARKE !	# 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	6.91e2	0.18	YES	0.980	10.104 🗸	26.381	26.36	1.001	1.001	0.11827	0	.0268	0.0411
2	2 1,2,3.7,8-PeCDD			NO	0.932	10.104	31.064		1.001			0	.0454	1
3	3 1,2,3,4,7,8-HxCDD	1.78e2	1.25	NO	1.02	10.104	34.358	34.35	1.001	1.000	0.048724	0	.0490	0.0487
4	4 1,2,3,6,7,8-HxCDD	2.98e2	1.42	NO	0.902	10.104	34.484	34.46	1.001	1.000	0.083943	0	.0515	0.0839
5	5 1,2,3,7,8,9-HxCDD	4.98e2	1.29	NO	0.954	10.104	34.745	34.73	1.000	1.000	0.13596	0	.0511	0.136
6	6 1,2,3,4,6,7,8-HpCDD	4.40e3	0.94	NO	0.918	10.104	38.211	38.20	1.000	1.000	1.4818		0.110	1.48
7	7 OCDD	4.70e4	0.89	NO	0.866	10.104	41.113	41.13	1.000	1.001	22.804	(0.140	22.8
8	8 2,3,7,8-TCDF			NO	0.848	10.104	25.672		1.000			0	.0139	
9	9 1,2,3,7,8-PeCDF			NO	0.960	10.104	29.785		1.000			0	.0210	l
10	10 2,3,4,7,8-PeCDF			NO	1.07	10.104	30.859		1.001			0	.0181	
11	11 1,2,3,4,7,8-HxCDF	2.33e2	1.04	YES	0.986	10.104	33.447	33.45	1.000	1.000	0.058420	0	.0139	0.0538
12	12 1,2,3,6,7,8-HxCDF			NO	1.04	10.104	33.593		1.001			0	0242	
13	13 2,3,4,6,7,8-HxCDF			NO	1.02	10.104	34.253		1.001			0	0262	
14	14 1,2,3,7,8,9-HxCDF	1.74e2	1.69	YES	0.991	10.104	35.238	35.25	1.000	1.001	0.049494	0	.0177	0.0413
15	15 1,2,3,4,6,7,8-HpCDF	3.28e2	0.91	NO	1.05	10.104	36.814	36.81	1.000	1.000	0.11162	0	.0403	0.112
16	16 1.2.3.4,7,8,9-HpCDF			NO	1.18	10.104	38.828		1.000			0	0339	
17	17 OCDF	1.02e3	0.84	NO	0.896	10.104	41.406	41.40	1.000	1.000	0.46678	0	.0587	0.467
18	18 13C-2,3.7,8-TCDD	1.18e6	0.78	NO	1.06	10.104	26.353	26.35	1.030	1.030	225.11	114	0.125	
19	19 13C-1,2,3,7,8-PeCDD	9.21e5	0.61	NO	0.785	10.104	31.192	31.03	1.219	1.213	236.65	120	0.190	
20	20 13C-1,2,3,4,7,8-HxCDD	7.09e5	1.27	NO	0.621	10.104	34.337	34.34	1.014	1.014	275.70	139	0.392	
21	21 13C-1,2,3,6,7,8-HxCDD	7.80e5	1.26	NO	0.734	10.104	34.459	34.46	. 1.017	1.017	256.43	130	0.331	
22	22 13C-1,2,3,7,8,9-HxCDD	7.60e5	1.24	NO	0.723	10.104	34.743	34.74	1.026	1.025	253.73	128	0.336	
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.41e5	1.03	NO	0.568	10.104	38.243	38.20	1.129	1.128	272.40	138	0.839	
24	24 13C-OCDD	9.42e5	0.90	NO	0.496	10.104	41.180	41.10	1.216	1.213	458.31	116	0.567	
25	25 13C-2,3,7,8-TCDF	1.45e6	0.76	NO	0.919	10.104	25.652	25.67	1.003	1.003	232.85	118	0.139	
26	26 13C-1,2,3,7,8-PeCDF	1.19e6	1.58	NO	0.715	10.104	29.903	29.78	1.169	1.164	244.88	124	0.324	
27	27 13C-2,3,4,7,8-PeCDF	1.15e6	1.56	NO	0.689	10.104	30 990	30.84	1.212	1.206	245.87	124	0.337	
28	28 13C-1.2,3,4,7,8-HxCDF	8.01e5	0.49	NO	0.873	10.104	33.442	33.44	. 0.987	0.987	221.41	112	0.365	
29	29 13C-1,2,3,6,7,8-HxCDF	7.83e5	0.50	NO	0.933	10.104	33.571	33.57	0.991	0.991	202.33	102	0.342	
30	30 13C-2,3,4,6,7,8-HxCDF	7.52e5	0.51	NO	0.843	10.104	34.238	34.23	1.011	1.011	215.17	109	0.378	
31	31 13C-1.2,3,7,8,9-HxCDF	7.02e5	0.50	NO	0.780	10.104	35.238	35.23	1.040	1.040	217.33	110	0.409	

Work Order 2002493 Page 400 of 734

Vista Analytical Laboratory

Dataset: U:\VG12.PR0\Results\201216R1\201216R1_13.qld

Last Altered: Tuesday, December 22, 2020 9:25:11 AM Pacific Standard Time Printed: Tuesday, December 22, 2020 9:25:29 AM Pacific Standard Time

Name: 201216R1_13, Date: 16-Dec-2020, Time: 17:31:33, ID: 2002493-11 USMPDI-057SC-A-05-06-201109 12.75, Description: USMPDI-057SC-A-05-06-201109

John Ton	# 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	5.54e5	0.43	NO	0.726	10.104	36.813	36.80	1.087	1.086	184.03	93.0	0.550	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.62e5	0.43	NO	0.491	10.104	38.822	38.82	1.146	1.146	226.99	115	0.814	
34	34 13C-OCDF	9.62e5	0.88	NO	0.565	10.104	41.396	41.40	1.222	1.222	410.80	104	0.441	
35	35 37CI-2,3,7,8-TCDD	5.19e5			1.22	10.104	26.347	26.36	1.030	1.031	85.956	109	0.0237	
36	36 13C-1,2,3,4-TCDD	9.82e5	0.78	NO	1.00	10.104	25.640	25.58	1.000	1.000	197.95	100	0.132	
37	37 13C-1,2,3,4-TCDF	1.34e6	0.77	NO	1.00	10.104	24.130	24.09	1.000	1.000	197.95	100	0.128	
38	38 13C-1,2,3,4,6,9-HxCDF	8.20e5	0.50	NO	1.00	10.104	33.920	33.88	1.000	1.000	197.95	100	0.319	
39	39 Total Tetra-Dioxins				0.980	10.104	24.620		0.000		0.23354		0.0268	0.275
40	40 Total Penta-Dioxins				0.932	10.104	29.960		0.000		0.14446		0.0454	0.512
41	41 Total Hexa-Dioxins				0.902	10.104	33.635		0.000		1.1770		0.0536	1.71
42	42 Total Hepta-Dioxins				0.918	10.104	37.640		0.000		3.6241		0.110	3.62
43	43 Total Tetra-Furans				0.848	10.104	23.610		0.000		0.024677		0.00608	0.0480
44	44 1st Func. Penta-Furans				0.960	10.104	26.930		0.000		0.030320		0.00408	0.0303
45	45 Total Penta-Furans				0.960	10.104	29.275		0.000				0.00859	
46	46 Total Hexa-Furans				1.02	10.104	33.555		0.000		0.00000		0.0147	0.155
47	47 Total Hepta-Furans				1.05	10.104	37.835		0.000		0.35922		0.0393	0.359

Work Order 2002493 Page 401 of 734

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset: U:\VG1

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Page 1 of 2

Tetra-Dioxins

-Argul our	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	24.29	8.639e3	1.021e4	5.975e2	7.663e2	0.78	NO	1.364e3	0.23354	0.23354	0.0268
2	2,3,7,8-TCDD	26.36	1.997e3	1.025e4	1.045e2	5.862e2	0.18	YES	6.907e2	0.00000	0.041128	0.0268

Penta-Dioxins

1000	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
10001000	Total Penta-Dioxins	28.80	5.417e3	3.732e3	1.905e2	2.713e2	0.70	NO	0.000e0	0.00000	0.10646	0.0454
2	Total Penta-Dioxins	29.28	5.973e3	6.459e3	2.487e2	3.779e2	0.66	NO	6.266e2	0.14446	0.14446	0.0454
3	Total Penta-Dioxins	29.78	2.607e4	7.140e3	1.151e3	4.207e2	2.74	YES	0.000e0	0.00000	0.15808	0.0454
4	Total Penta-Dioxins	30.85	1.762e4	5.845e3	9.141e2	2.750e2	3.32	YES	0.000e0	0.00000	0.10334	0.0454

Hexa-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.72	3.082e4	2.772e4	1.389e3	1.225e3	1.13	NO	2.614e3	0.76501	0.76501	0.0536
2	Total Hexa-Dioxins	33.30	2.319e3	2.879e3	1.306e2	1.201e2	1.09	NO	2.507e2	0.073374	0.073374	0.0536
3	Total Hexa-Dioxins	33.58	2.020e4	1.036e4	1.256e3	8.170e2	1.54	YES	0.000e0	0.00000	0.53559	0.0536
4	1,2,3,4,7,8-HxCDD	34.35	2.801e3	1.680e3	9.901e1	7.900e1	1.25	NO	1.780e2	0.048724	0.048724	0.0490
5	1,2,3,6,7,8-HxCDD	34.46	3.276e3	2.358e3	1.749e2	1.236e2	1.42	NO	2.985e2	0.083943	0.083943	0.0515
6	Total Hexa-Dioxins	34.63	2.101e3	3.159e3	1.233e2	1.158e2	1.07	NO	2.391e2	0.069975	0.069975	0.0536
7	1,2,3,7,8,9-HxCDD	34.73	6.149e3	5.359e3	2.805e2	2.173e2	1.29	NO	4.979e2	0.13596	0.13596	0.0511

Hepta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.19	4.941e4	4.858e4	3.200e3	3.166e3	1.01	NO	6.366e3	2.1423	2.1423	0.110
2	1.2,3.4,6,7,8-HpCDD	38.20	4.386e4	5.173e4	2.129e3	2.274e3	0.94	NO	4.403e3	1.4818	1.4818	0.110

Work Order 2002493 Page 402 of 734

Vista Analytical Laboratory

Dataset:

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Last Altered: Printed:

Tuesday, December 22, 2020 9:25:11 AM Pacific Standard Time Tuesday, December 22, 2020 9:25:29 AM Pacific Standard Time

Name: 201216R1_13, Date: 16-Dec-2020, Time: 17:31:33, ID: 2002493-11 USMPDI-057SC-A-05-06-201109 12.75, Description: USMPDI-057SC-A-05-06-201109

Tetra-Furans

1000	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
100000000	Total Tetra-Furans	21.68	1.061e3	1.121e3	7.685e1	8.208e1	0.94	YES	0.000e0	0.00000	0.023354	0.00608
2	Total Tetra-Furans	24.65	1.248e3	1.199e3	6.287e1	9.064e1	0.69	NO	1.535e2	0.024677	0.024677	0.00608

Penta-Furans function 1

107	Name	RT	m1 Height m2	Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	1st Func. Penta-Furans	27.18	2.036e3 1.3	324e3	9.983e1	7.193e1	1.39	NO	1.718e2	0.030320	0.030320	0.00408

Penta-Furans

Name	RT	m1 Height m2 Height	m1 Resp m2 Re	sp RA	n/y	Resp	Conc.	EMPC	DL
(Control of the cont									

Hexa-Furans

Section S	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
13002-547	Total Hexa-Furans	32.36	1.646e3	1.616e3	5.732e1	5.824e1	0.98	YES	0.000e0	0.00000	0.026458	0.0147
2	Total Hexa-Furans	33.00	1.664e3	2.102e3	7.264e1	8.735e1	0.83	YES	0.000e0	0.00000	0.033527	0.0147
3	1,2,3,4,7,8-HxCDF	33.45	2.544e3	3.447e3	1.189e2	1.143e2	1.04	YES	2.331e2	0.00000	0.053806	0.0139
4	1,2,3,7,8,9-HxCDF	35.25	2.483e3	1.786e3	1.092e2	6.476e1	1.69	YES	1.740e2	0.00000	0.041262	0.0177

Hepta-Furans

APRESE	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	36.81	2.168e3	2.780e3	1.565e2	1.712e2	0.91	NO	3.277e2	0.11162	0.11162	0.0403
2	Total Hepta-Furans	37.55	5.772e3	6.044e3	3.427e2	3.238e2	1.06	NO	6.665e2	0.24760	0.24760	0.0393

Work Order 2002493 Page 403 of 734

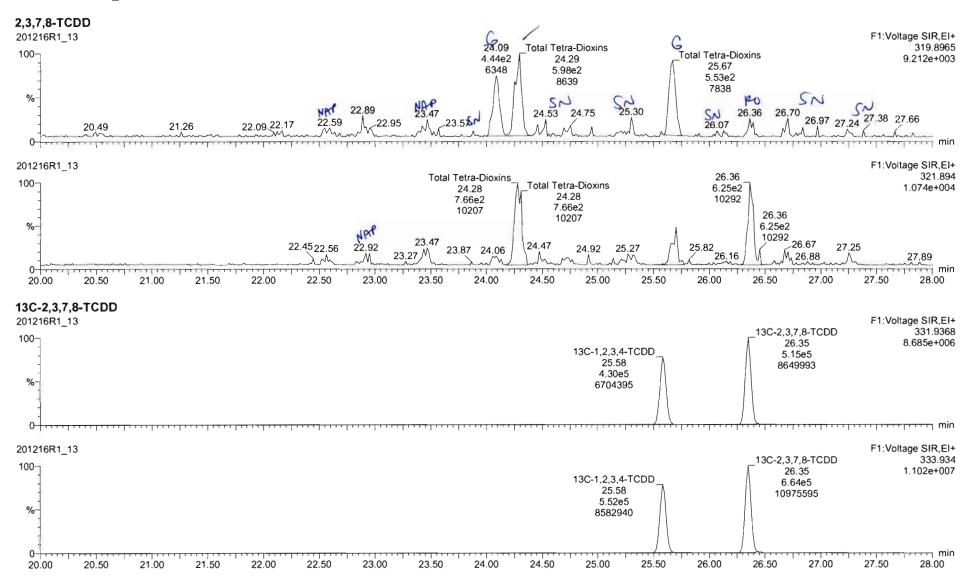
Page 404 of 734

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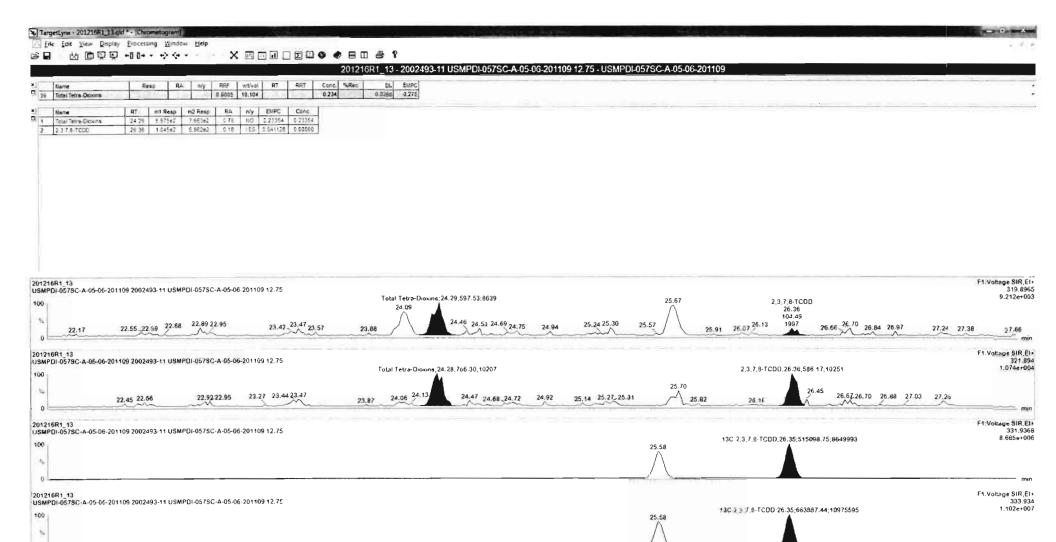
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Name: 201216R1_13, Date: 16-Dec-2020, Time: 17:31:33, ID: 2002493-11 USMPDI-057SC-A-05-06-201109 12.75, Description: USMPDI-057SC-A-05-06-201109



Work Order 2002493



Work Order 2002493 Page 405 of 734

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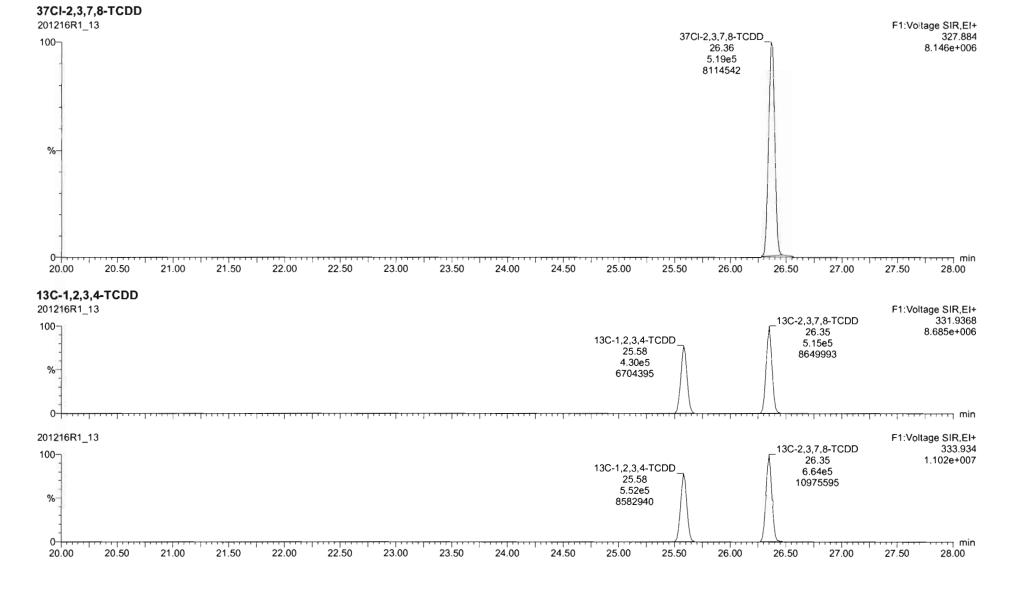
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Vista Analytical Laboratory

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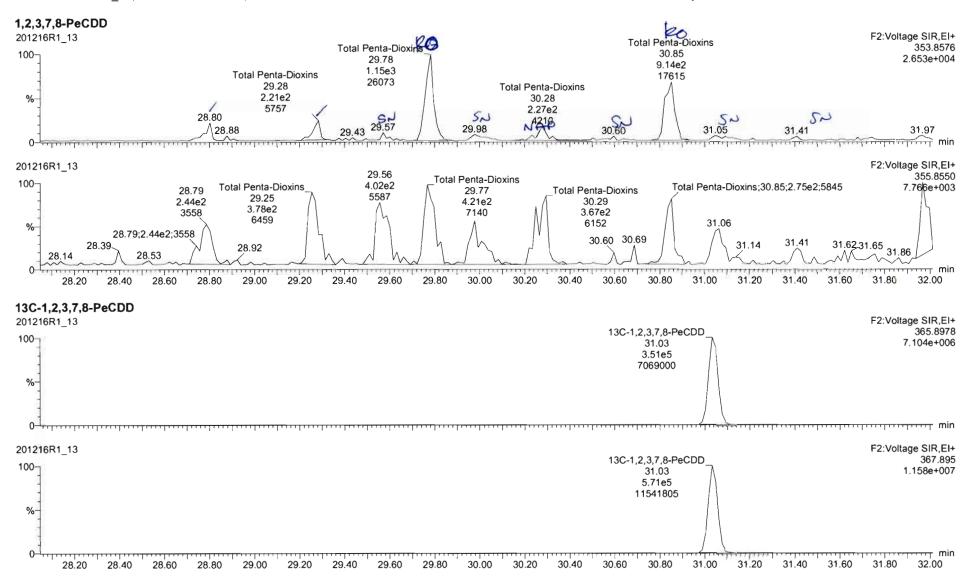


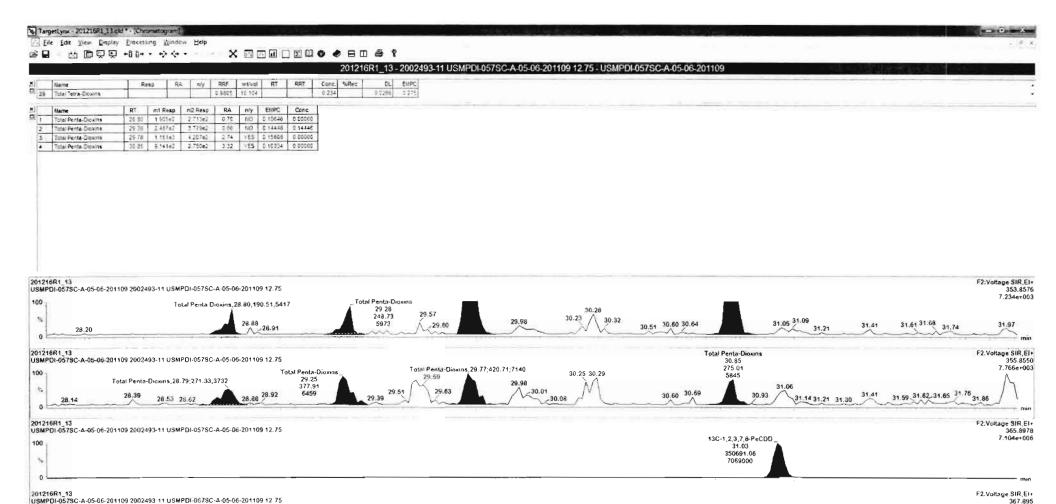
Quantify Sample Report Vista Analytical Laboratory

Dataset:

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Last Altered: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time





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13C-1,2,3,7,6-PeCDD

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· 40 12 13

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CAP NUM 9:15 AM

Work Order 2002493 Page 408 of 734

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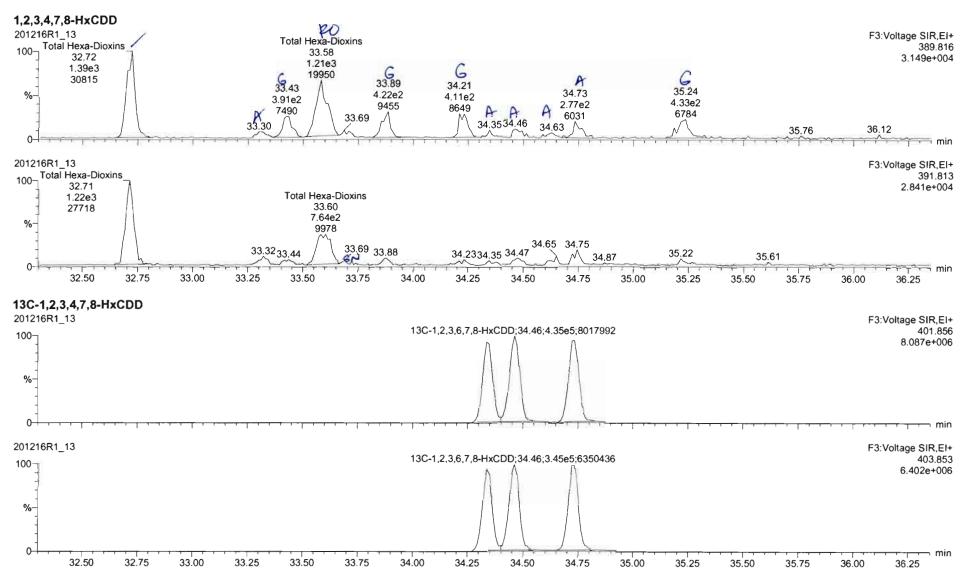
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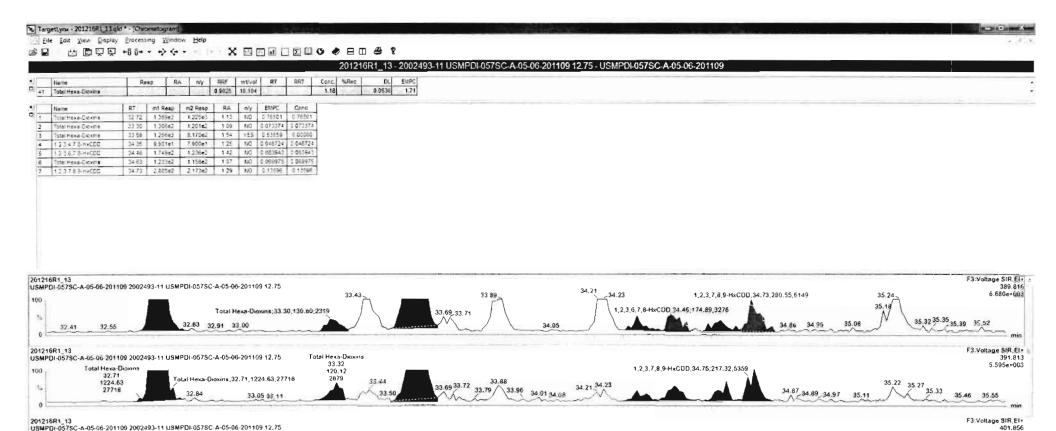
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Last Altered: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Printed: Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time





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USMPDI-057SC-A-05-06-201109 2002493-11 USMPDI-057SC-A-05-06-201109 12.75

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CAP NUM 9:17 AM

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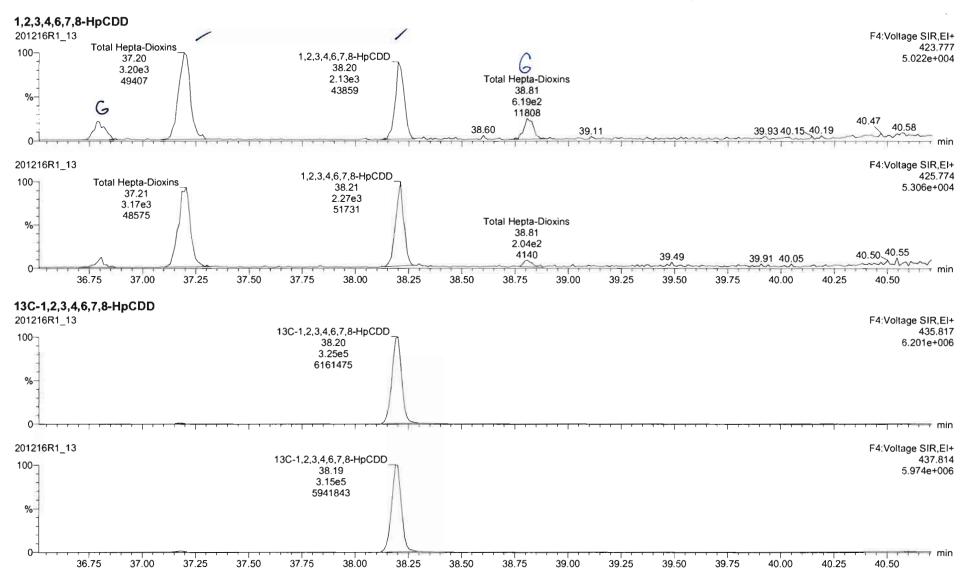
F3.Voltage SIR,EI+

Work Order 2002493 Page 410 of 734

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Last Altered: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time

Name: 201216R1_13, Date: 16-Dec-2020, Time: 17:31:33, ID: 2002493-11 USMPDI-057SC-A-05-06-201109 12.75, Description: USMPDI-057SC-A-05-06-201109

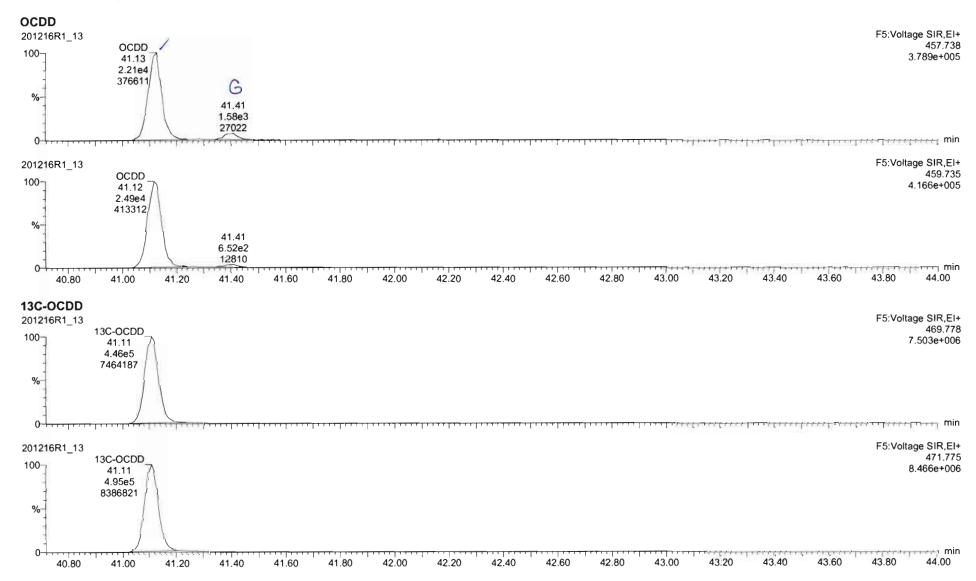


Work Order 2002493

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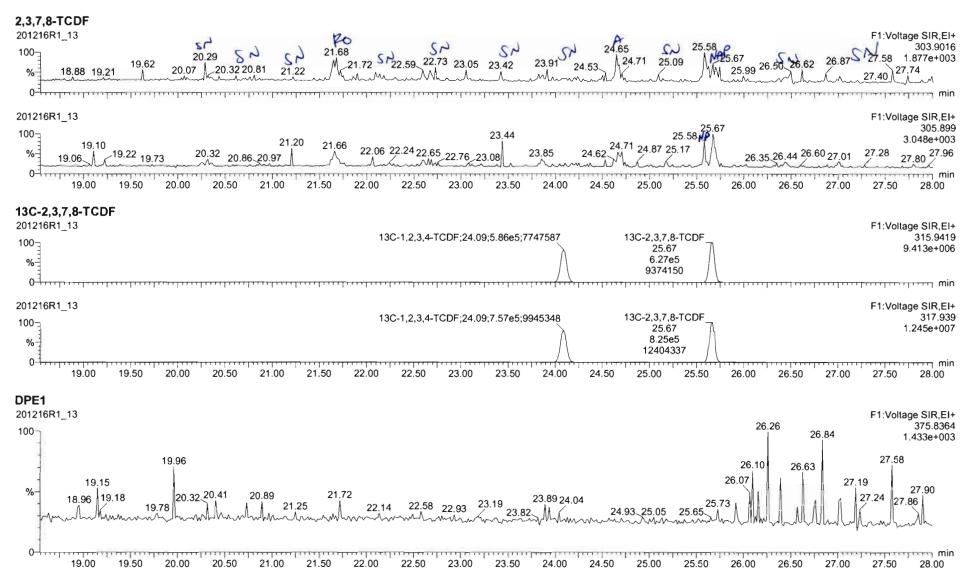
Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time

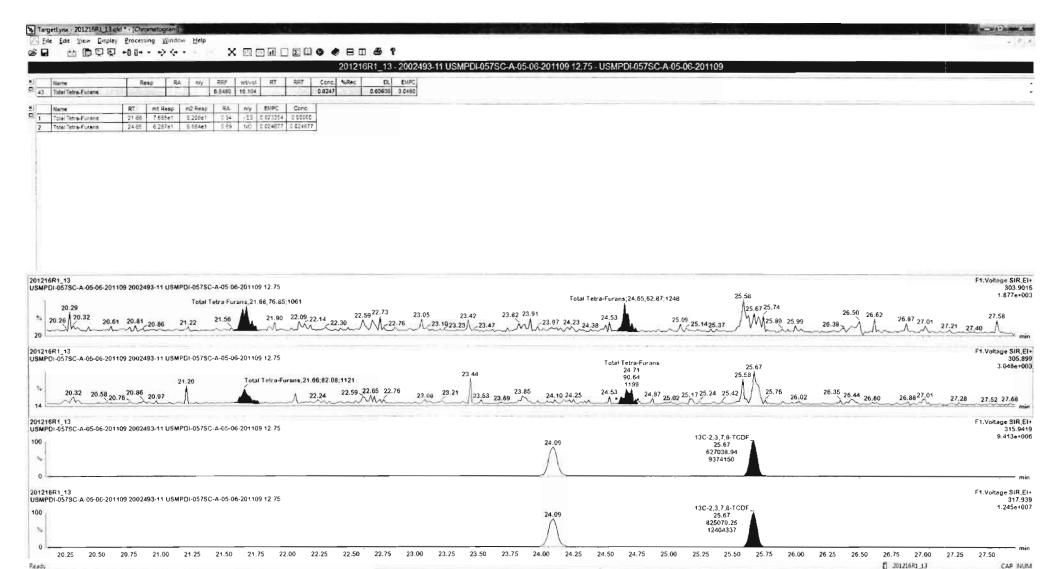


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Last Altered: Printed:

Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time





Work Order 2002493 Page 414 of 734

9:20 AM

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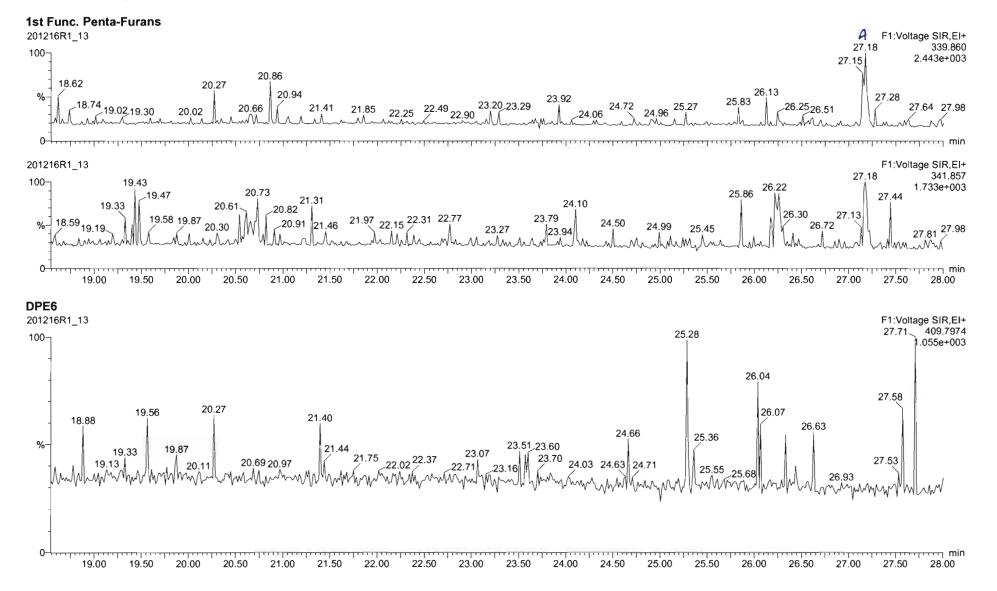
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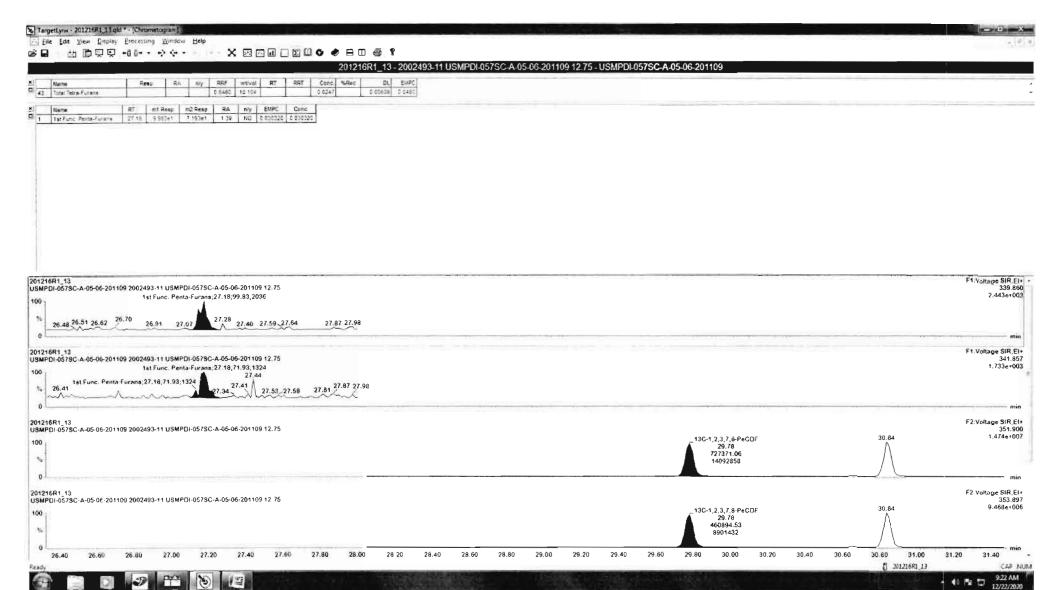
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Last Altered: Printed:

Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time

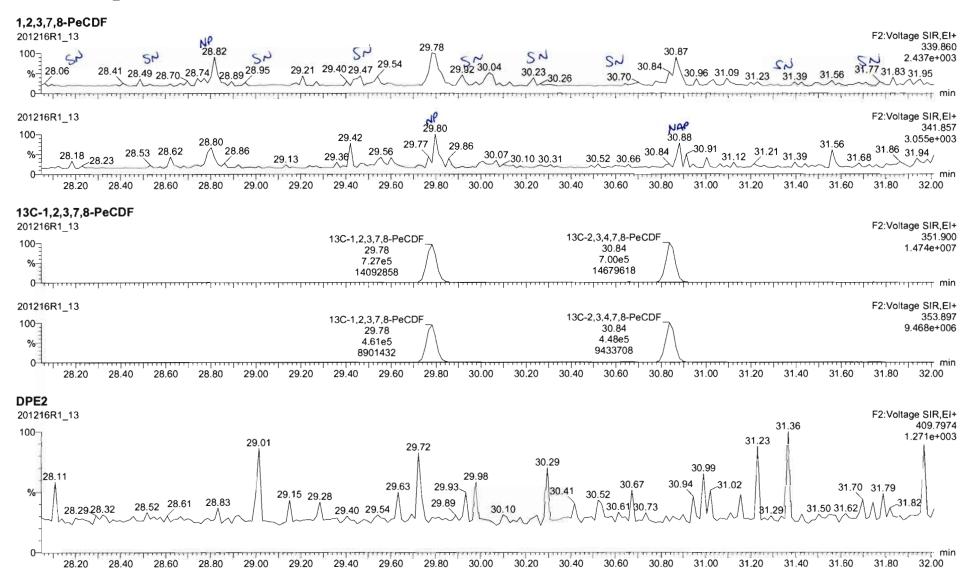




Work Order 2002493 Page 416 of 734

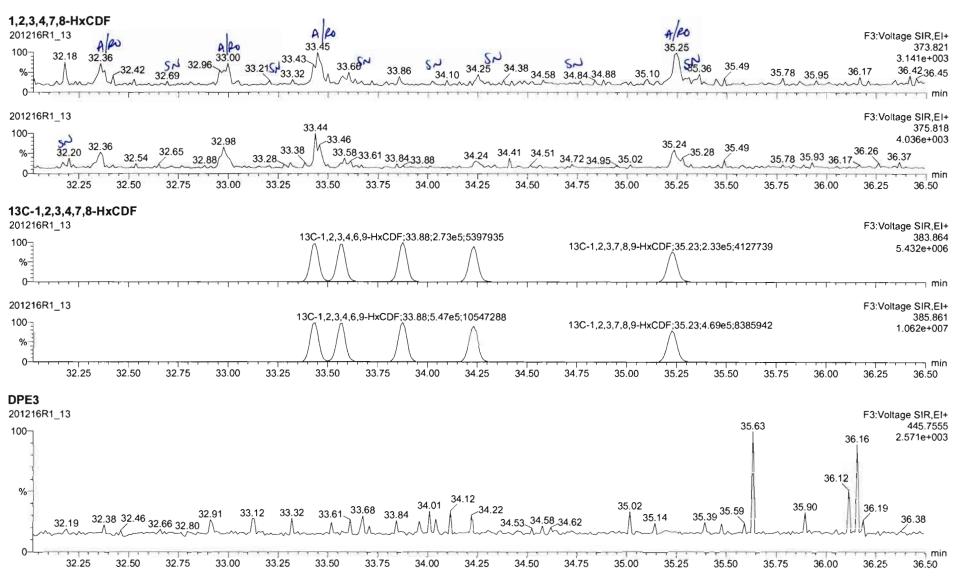
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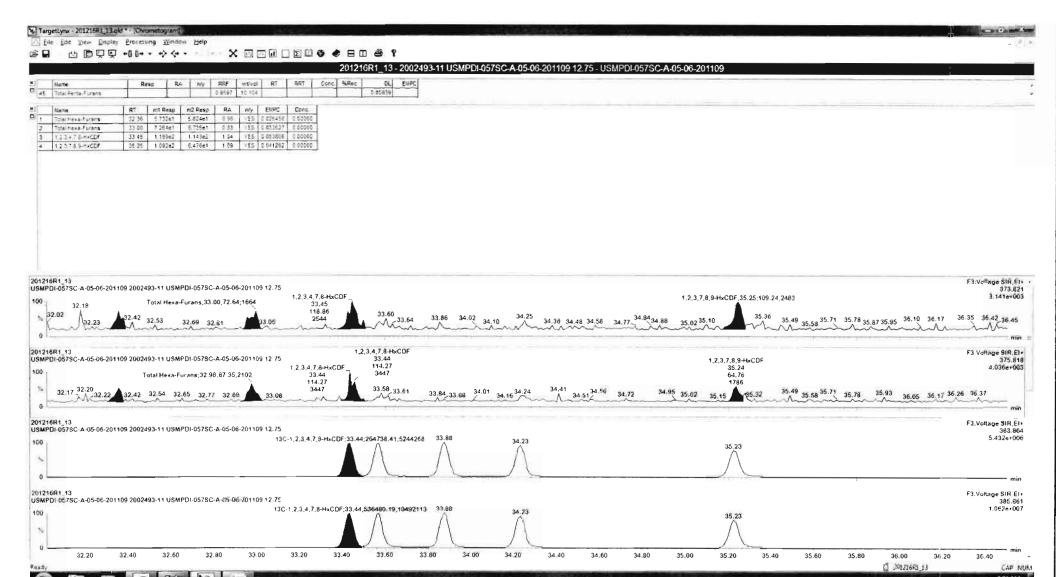
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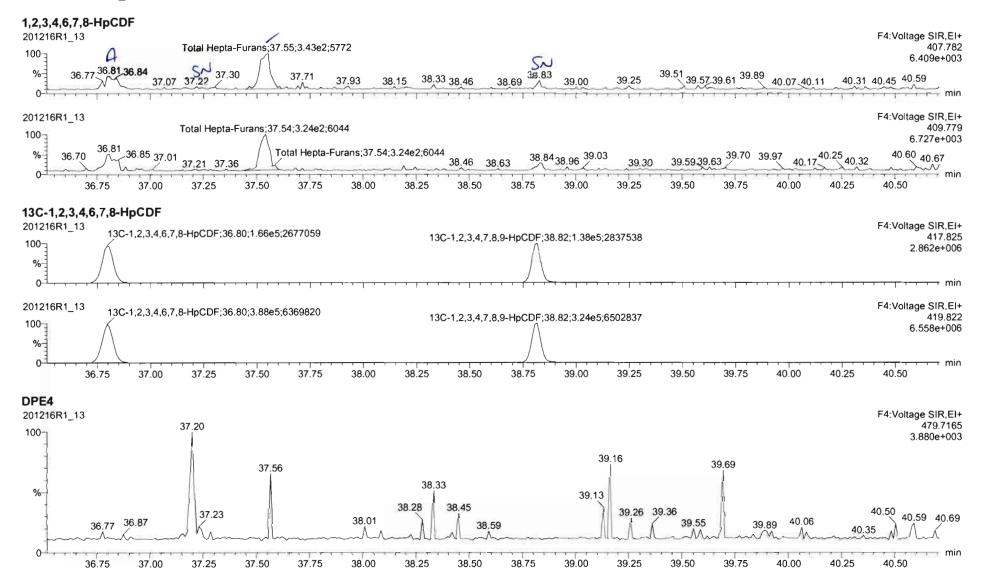
Work Order 2002493 Page 419 of 734

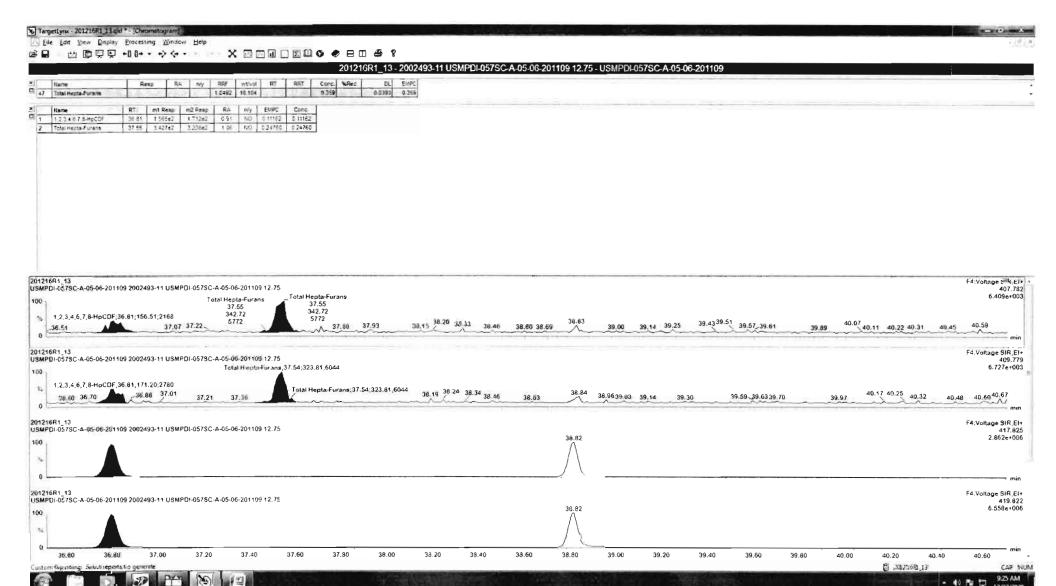
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Last Altered: Printed:

Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time





Work Order 2002493 Page 421 of 734

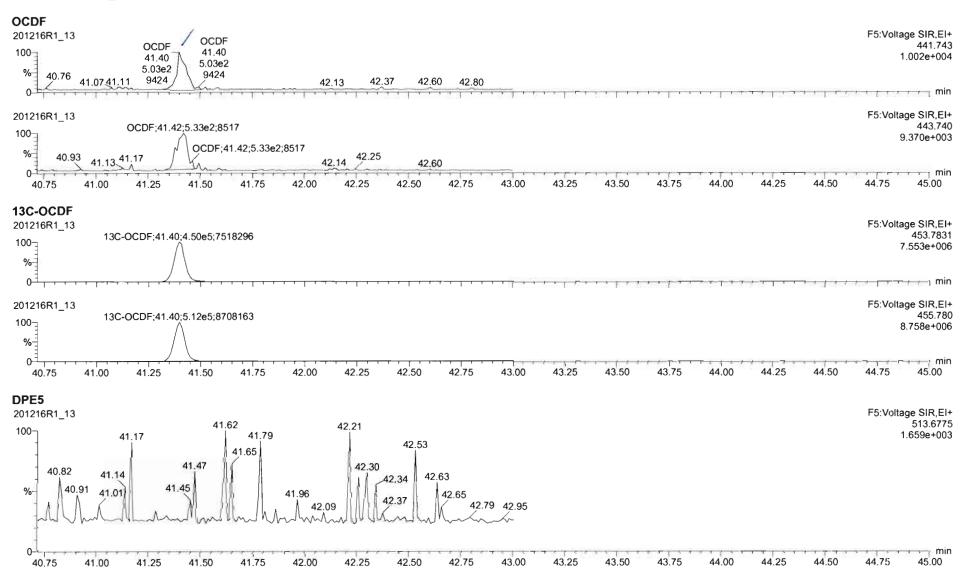
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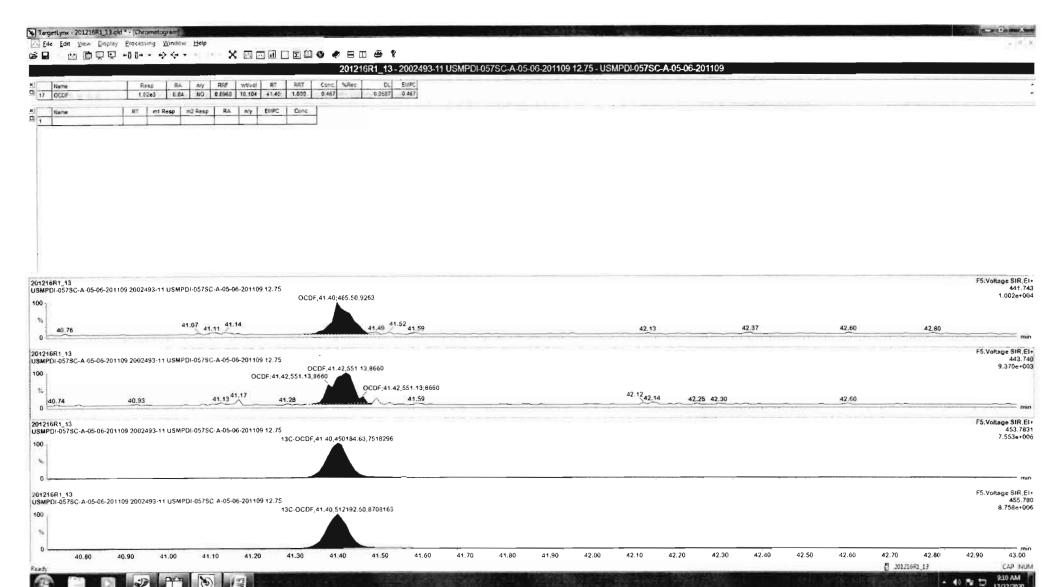
Quantify Sample Report Vista Analytical Laboratory MassLynx 4.1 SCN815

Dataset:

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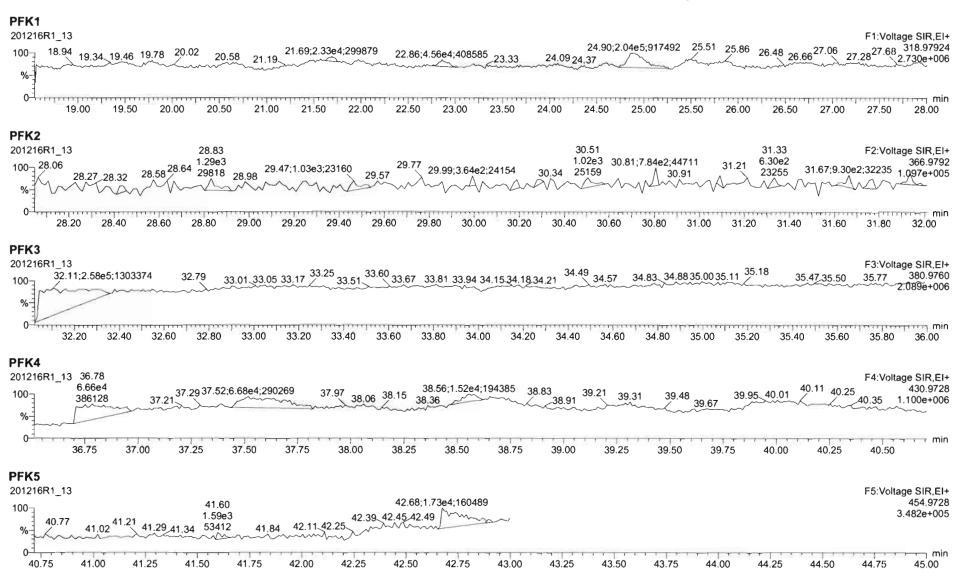




Work Order 2002493 Page 423 of 734

Dataset: Untitled

Last Altered: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Printed: Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time



MassLynx 4.1 SCN815

Page 1 of 2

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_14.qld

Last Altered: Printed:

Tuesday, December 22, 2020 9:41:23 AM Pacific Standard Time Tuesday, December 22, 2020 9:41:49 AM Pacific Standard Time

GRB 12/22/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201216R1_14, Date: 16-Dec-2020, Time: 18:15:49, ID: 2002493-12 USMPDI-057SC-A-06-07-201109 13.69, Description: USMPDI-057SC-A-06-07-201109

33793450	# Name	Resp	RA	n/y	RRF	wt/vol	Pred.RT	RT	Pred.RRT	RRT	Conc.	%Rec	DL	EMPC
Place was	1 2,3,7,8-TCDD	8.69e2	0.15	YES	0.980	10.217	26.381	26.36	1.001	1.001	0.13512		0.0142	0.0396
2	2 1,2,3,7,8-PeCDD			NO	0.932	10.217	31.079		1.001				0.0479	
3	3 1,2,3,4,7,8-HxCDD			NO	1.02	10.217	34.368		1.001				0.0321	
4	4 1,2,3,6,7,8-HxCDD	1.98e2	1.24	NO	0.902	10.217	34.483	34.50	1.001	1.001	0.050852		0.0341	0.0509
5	5 1,2,3,7,8,9-HxCDD	4.23e2	1.26	NO	0.954	10.217	34.745	34.74	1.000	1.000	0.10521		0.0327	0.105
6	6 1,2,3,4,6,7,8-HpCDD	2.81e3	0.92	NO	0.918	10.217	38.211	38.20	1.000	1.000	0.89079		0.0652	0.891
7	7 OCDD	2.15e4	0.90	NO	0.866	10.217	41.124	41.13	1.000	1.000	10.026		0.198	10.0
8	8 2,3,7,8-TCDF			NO	0.848	10.217	25.672		1.000				0.0109	
9	9 1,2,3,7,8-PeCDF			NO	0.960	10.217	29.785		1.000				0.0185	
10	10 2,3,4,7,8-PeCDF			NO	1.07	10.217	30.874		1.001				0.0194	
11	11 1,2,3,4,7,8-HxCDF	1.97e2	1.39	NO	0.986	10.217	33.447	33.45	1.000	1.000	0.046141	0	.00998	0.0461
12	12 1,2,3,6,7,8-HxCDF			NO	1.04	10.217	33.592		1.001				0.0226	
13	13 2,3,4,6,7,8-HxCDF			NO	1.02	10.217	34.253		1.001				0.0242	
14	14 1,2,3,7,8,9-HxCDF	1.18e2	1.39	NO	0.991	10.217	35.248	35.25	1.000	1.000	0.030664		0.0126	0.0307
15	15 1,2,3,4,6,7,8-HpCDF	2.50e2	0.85	YES	1.05	10.217	36.824	36.81	1.000	1.000	0.080476		0.0203	0.0725
16	16 1,2,3,4,7,8,9-HpCDF			NO	1.18	10.217	38.828		1.000				0.0336	
17	17 OCDF	3.34e2	0.86	NO	0.896	10.217	41.417	41.42	1.000	1.000	0.14698		0.0594	0.147
18	18 13C-2,3,7,8-TCDD	1.28e6	0.78	NO	1.06	10.217	26.353	26.35	1.030	1.030	230.98	118	0.108	
19	19 13C-1,2,3,7,8-PeCDD	1.02e6	0.63	NO	0.785	10.217	31.192	31.05	1.219	1.214	247.27	126	0.161	
20	20 13C-1,2,3,4,7,8-HxCDD	7.57e5	1.27	NO	0.621	10.217	34.337	34.35	1.014	1.014	273.68	140	0.345	
21	21 13C-1,2,3,6,7,8-HxCDD	8.43e5	1.27	NO	0.734	10.217	34.459	34.46	1.017	1.017	257.77	132	0.291	
22	22 13C-1,2,3,7,8,9-HxCDD	8.24e5	1.23	NO	0.723	10.217	34.743	34.74	1.026	1.025	256.04	131	0.296	[
23	23 13C-1,2,3,4,6,7,8-HpCDD	6 72e5	1.05	NO	0.568	10.217	38.243	38.20	1.129	1.128	265.62	136	0.698	
24	24 13C-OCDD	9.69e5	0.89	NO	0.496	10.217	41.180	41.12	1.216	1.214	438.46	112	0.502	
25	25 13C-2.3,7,8-TCDF	1.54e6	0.76	NO	0.919	10.217	25.652	25.67	1.003	1.003	234.37	120	0.145	
26	26 13C-1,2,3,7,8-PeCDF	1.30e6	1.57	NO	0.715	10.217	29.903	29.78	1.169	1.164	254.57	130	0.285	
27	27 13C-2,3,4,7,8-PeCDF	1.24e6	1.58	NO	0.689	10.217	30.990	30.85	1.212	1.206	252.41	129	0.296	
28	28 13C-1.2,3,4,7,8-HxCDF	8.46e5	0.50	NO	0.873	10.217	33.442	33.44 7	0.987	0.987	217.50	111	0.385	
29	29 13C-1,2,3,6,7,8-HxCDF	8.46e5	0.51	NO	0.933	10.217	33.571	33.57	0.991	0.991	203.48	104	0.360	
30	30 13C-2,3,4,6,7,8-HxCDF	8.20e5	0.50	NO	0.843	10 217	34.238	34.23	1.011	1.011	218.24	111	0.399	
31	31_13C-1.2.3,7,8,9-HxCDF	7.60e5	0.50	NO	0.780	10.217	35.238	35.24	1.040	1.040	218.69	112	0.431	

Work Order 2002493 Page 425 of 734

U:\VG12.PRO\Results\201216R1\201216R1_14.qld

Last Altered:

Tuesday, December 22, 2020 9:41:23 AM Pacific Standard Time

Printed:

Tuesday, December 22, 2020 9:41:49 AM Pacific Standard Time

Name: 201216R1_14, Date: 16-Dec-2020, Time: 18:15:49, ID: 2002493-12 USMPDI-057SC-A-06-07-201109 13.69, Description: USMPDI-057SC-A-06-07-201109

8 A FE	# 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	5.79e5	0.43	NO	0.726	10.217	36.813	36.81	1.087	1.086	178.92	91.4	0.498	
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.94e5	0.43	NO	0.491	10.217	38.822	38.82	1.146	1.146	225.90	115	0.736	
34	34 13C-OCDF	9.94e5	0.87	NO	0.565	10.217	41.396	41.41	1.222	1.222	394.41	101	0.401	
35	35 37CI-2,3,7,8-TCDD	5.54e5			1.22	10.217	26.347	26.38	1.030	1.031	86.562	111	0.0490	
36	36 13C-1,2,3,4-TCDD	1.03e6	0.78	NO	1.00	10.217	25.640	25.58	1.000	1.000	195.75	100	0.114	
37	37 13C-1,2,3,4-TCDF	1.40e6	0.78	NO	1.00	10.217	24.130	24.09	1.000	1.000	195.75	100	0.133	
38	38 13C-1,2,3,4,6,9-HxCDF	8.72e5	0.50	NO	1.00	10.217	33.920	33.88	1.000	1.000	195.75	100	0.336	
39	39 Total Tetra-Dioxins				0.980	10.217	24.620		0.000		0.12541		0.0142	0.165
40	40 Total Penta-Dioxins				0.932	10.217	29.960		0.000		0.00000		0.0228	0.206
41	41 Total Hexa-Dioxins				0.902	10.217	33.635		0.000		0.82073		0.0350	1.23
42	42 Total Hepta-Dioxins				0.918	10.217	37.640		0.000		2.3803		0.0652	2.38
43	43 Total Tetra-Furans				0.848	10.217	23.610		0.000				0.00491	
44	44 1st Func. Penta-Furans				0.960	10.217	26.930		0.000				0.00303	
45	45 Total Penta-Furans				0.960	10.217	29.275		0.000				0.0121	
46	46 Total Hexa-Furans				1.02	10.217	33.555		0.000		0.097118		0.0106	0.0971
47	47 Total Hepta-Furans				1.05	10.217	37.835		0.000		0.00000		0.0195	0.143

Work Order 2002493 Page 426 of 734

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_14.qld

Last Altered: Printed: Tuesday, December 22, 2020 9:41:23 AM Pacific Standard Time Tuesday, December 22, 2020 9:41:49 AM Pacific Standard Time

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Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201216R1_14, Date: 16-Dec-2020, Time: 18:15:49, ID: 2002493-12 USMPDI-057SC-A-06-07-201109 13.69, Description: USMPDI-057SC-A-06-07-201109

Tetra-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Tetra-Dioxins	24.29	4.852e3	6.439e3	3.472e2	4.589e2	0.76	NO	8.061e2	0.12541	0.12541	0.0142
2	2,3,7,8-TCDD	26.36	2.507e3	1.227e4	1.106e2	7.579e2	0.15	YES	8.685e2	0.00000	0.039569	0.0142

Penta-Dioxins

SHISE	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1.	Total Penta-Dioxins	29.78	1.551e4	5.409e3	8.725e2	3.037e2	2.87	YES	0.000e0	0.00000	0.10182	0.0479
2	Total Penta-Dioxins	30.84	2.382e4	6.058e3	1.189e3	3.094e2	3.84	YES	0.000e0	0.00000	0.10373	0.0479

Hexa-Dioxins

5,417.5	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
1	Total Hexa-Dioxins	32.72	2.680e4	2.406e4	1.218e3	1 064e3	1.14	NO	2.282e3	0.61245	0.61245	0.0350
2	Total Hexa-Dioxins	33.32	3.082e3	2.239e3	1.121e2	8.244e1	1.36	NO	1.945e2	0.052215	0.052215	0.0350
3	Total Hexa-Dioxins	33.59	1.674e4	8.792e3	1.182e3	6.870e2	1.72	YES	0.000e0	0.00000	0.41310	0.0350
4	1,2,3,6,7,8-HxCDD	34.50	2.159e3	1.900e3	1.095e2	8.816e1	1.24	NO	1.976e2	0.050852	0.050852	0.0341
5	1,2,3,7,8,9-HxCDD	34.74	4.495e3	4.033e3	2.356e2	1.872e2	1.26	NO	4.228e2	0.10521	0.10521	0.0327

Hepta-Dioxins

	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA.	n/y	Resp	Conc.	EMPC	DL
1	Total Hepta-Dioxins	37.21	4.067e4	3.473e4	2.307e3	2.386e3	0.97	NO	4.694e3	1.4896	1.4896	0.0652
2	1,2,3,4,6,7,8-HpCDD	38.20	2.576e4	3.094e4	1.341e3	1.466e3	0.92	NO	2.807e3	0.89079	0.89079	0.0652

Tetra-Furans

Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
10000000											

Work Order 2002493 Page 427 of 734

Quantify Totals Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_14.qld

Last Altered: Printed: Tuesday, December 22, 2020 9:41:23 AM Pacific Standard Time Tuesday, December 22, 2020 9:41:49 AM Pacific Standard Time

Name: 201216R1_14, Date: 16-Dec-2020, Time: 18:15:49, ID: 2002493-12 USMPDI-057SC-A-06-07-201109 13.69, Description: USMPDI-057SC-A-06-07-201109

Penta-Furans function 1

Name	RT	m1 Height m2 Height	m1 Resp m2 Resp	RA n/y	Resp	Conc.	EMPC	DL
1 - 100 (0) -								

Penta-Furans

Name	100	AUGUS	RT	m1 Height m2 Height	m1 Resp	m2 Resp	RA n/y	Resp	Conc.	EMPC	DL
1,4800000000											

Hexa-Furans

275.578	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
15000	1,2,3,4,7,8-HxCDF	33.45	2.683e3	2.096e3	1.144e2	8.228e1	1.39	NO	1.967e2	0.046141	0.046141	0.00998
2	1,2,3,7,8,9-HxCDF	35.25	1.964e3	1.324e3	6.853e1	4.943e1	1.39	NO	1.180e2	0.030664	0.030664	0.0126
3	Total Hexa-Furans	35.26	1.791e3	1.406e3	4.570e1	4.091e1	1.12	NO	8.661e1	0.020313	0.020313	0.0106

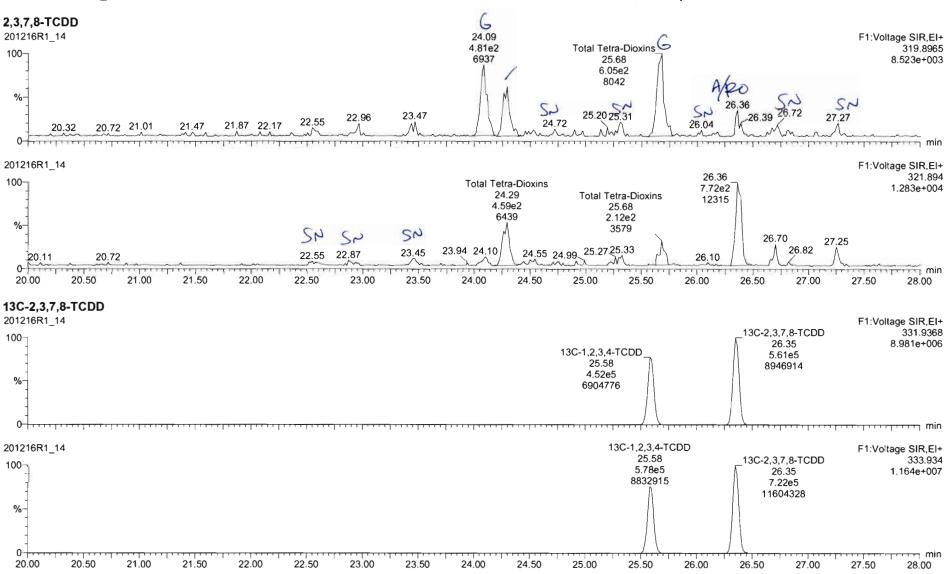
Hepta-Furans

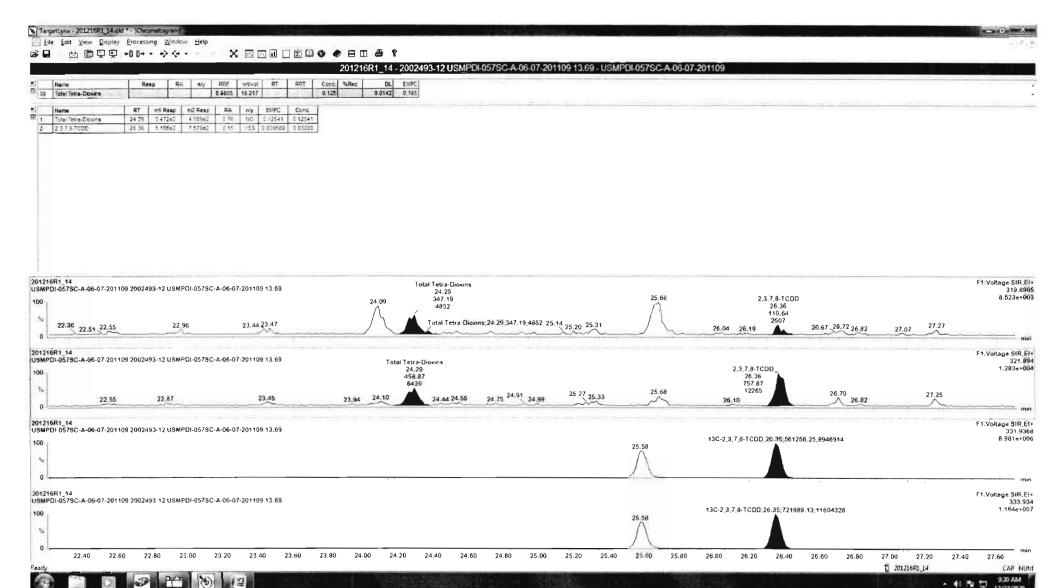
THE RESERVE	Name	RT	m1 Height	m2 Height	m1 Resp	m2 Resp	RA	n/y	Resp	Conc.	EMPC	DL
15 15 00 6	1,2,3,4,6,7,8-HpCDF	36.81	2.425e3	2.386e3	1.147e2	1.351e2	0.85	YES	2.498e2	0.00000	0.072480	0.0203
2	Total Hepta-Furans	37.54	1.752e3	3.125e3	1.038e2	1.448e2	0.72	YES	0.000e0	0.00000	0.070787	0.0195

Work Order 2002493 Page 428 of 734

Untitled

Last Altered: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Printed: Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time





Work Order 2002493 Page 430 of 734

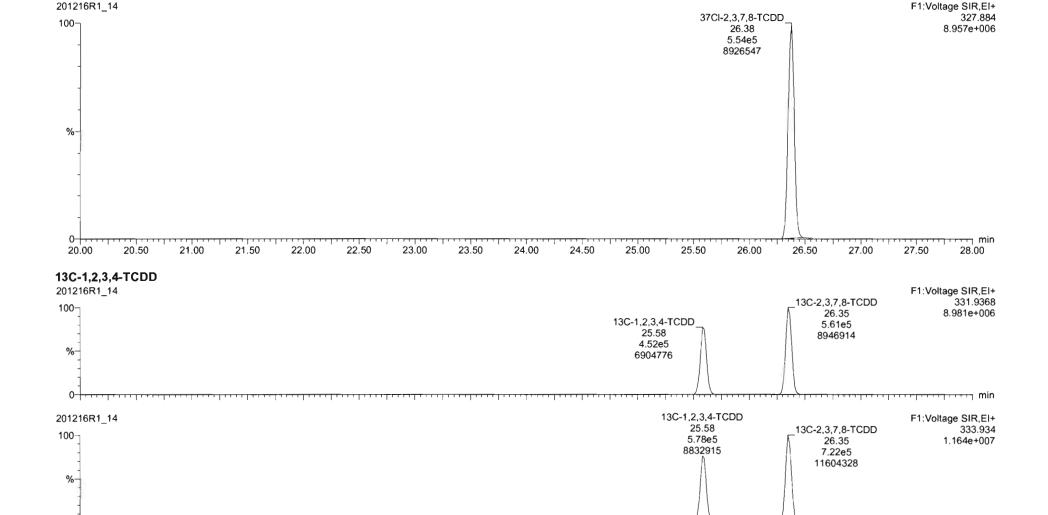
Untitled

Last Altered: Printed:

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

Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time

Name: 201216R1_14, Date: 16-Dec-2020, Time: 18:15:49, ID: 2002493-12 USMPDI-057SC-A-06-07-201109 13.69, Description: USMPDI-057SC-A-06-07-201109



24.00

23.50

24.50

25.00

25.50

26.00

26.50

27.00

20.50

21.00

21.50

22.00

22.50

23.00

20.00

27.50

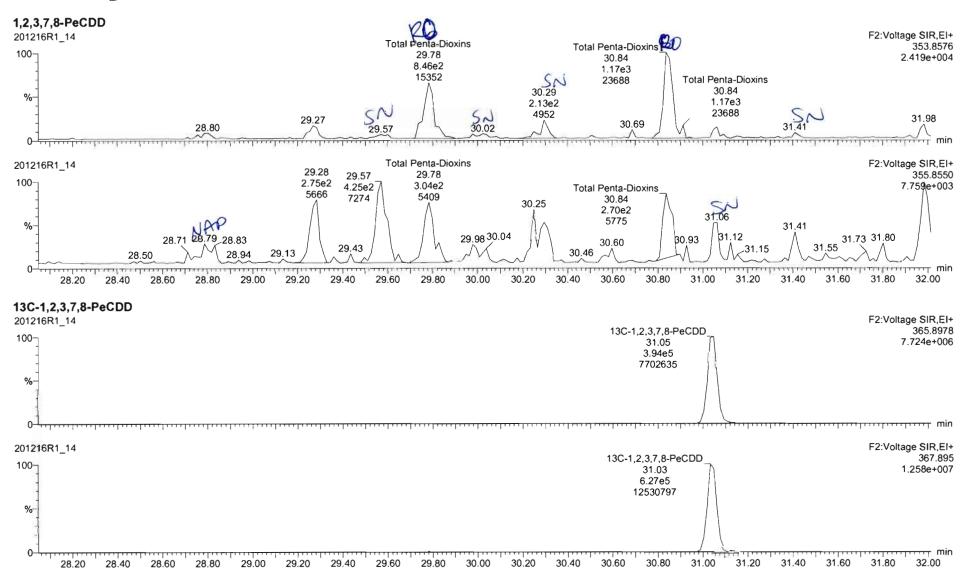
min min

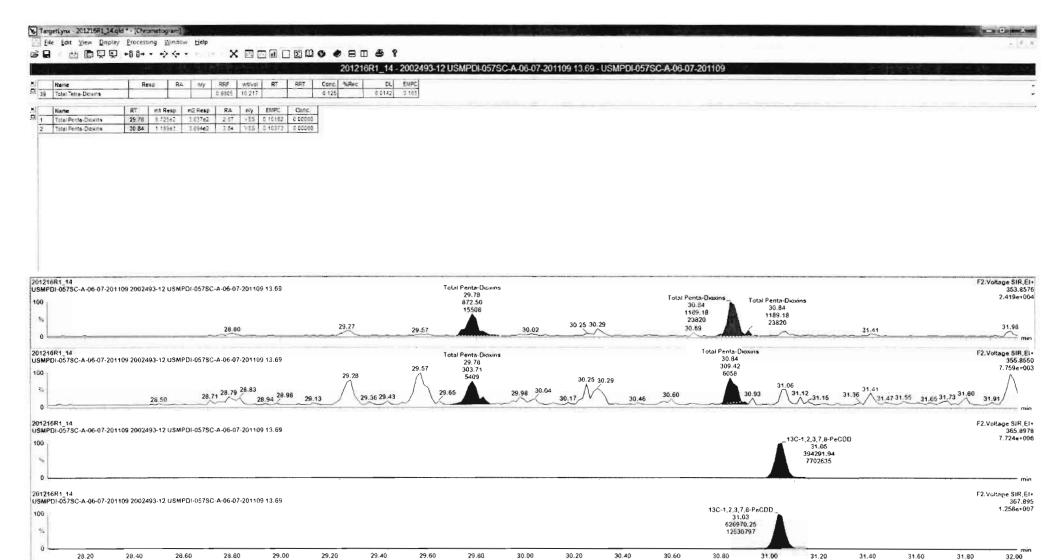
28.00

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Last Altered: Printed:

Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time





Work Order 2002493 Page 433 of 734

5 201216F1_14

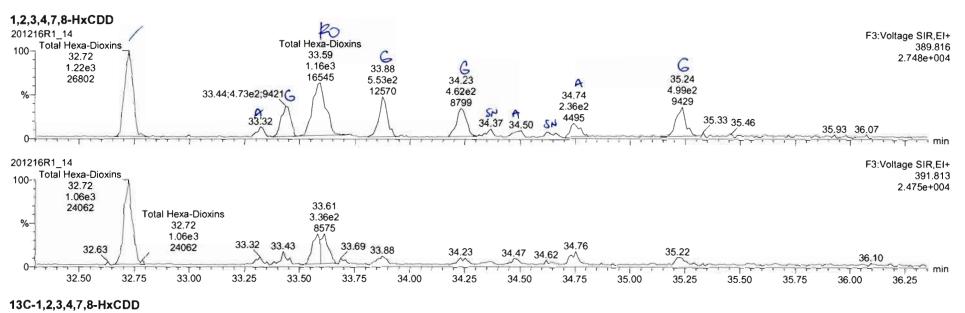
CAP NUM 9:31 AM

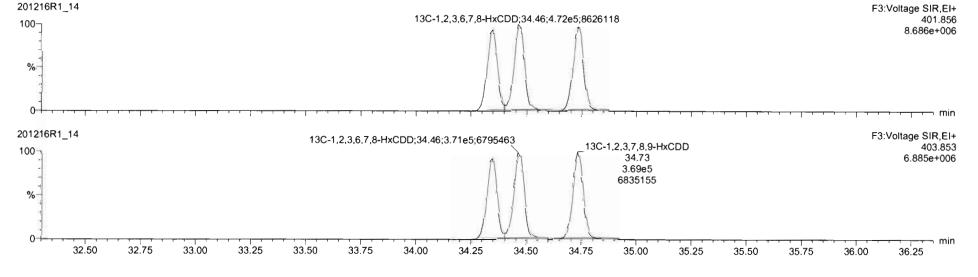
· 40 19 10

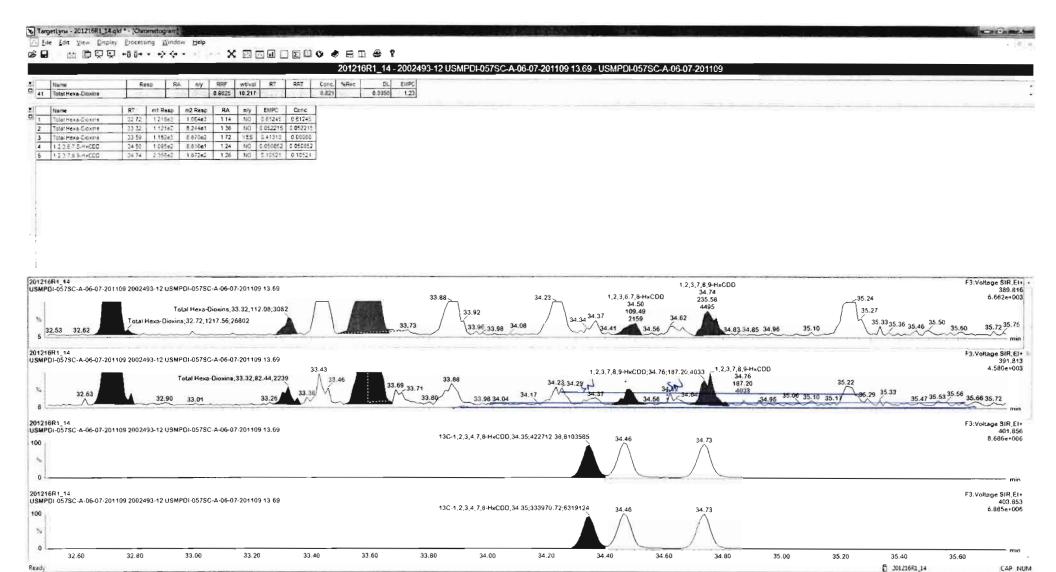
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Last Altered: Printed:

Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time





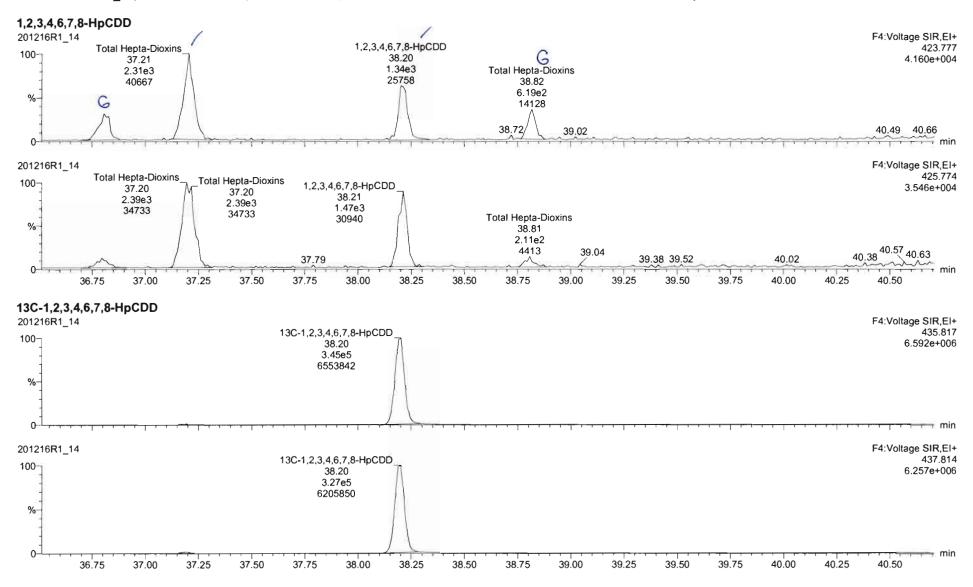


Work Order 2002493 Page 435 of 734

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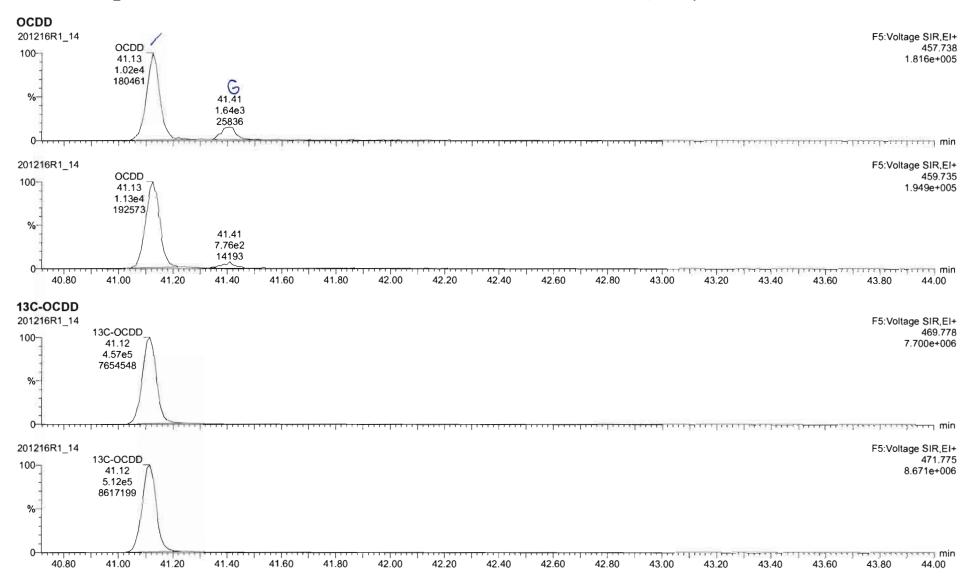
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Last Altered: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Printed: Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time



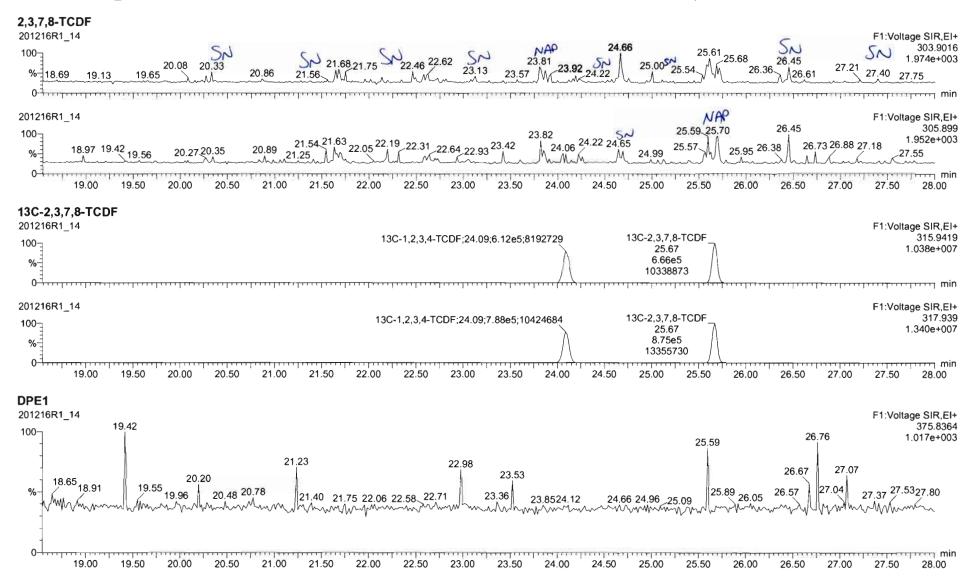
Dataset: Untitled

Last Altered: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Printed: Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time



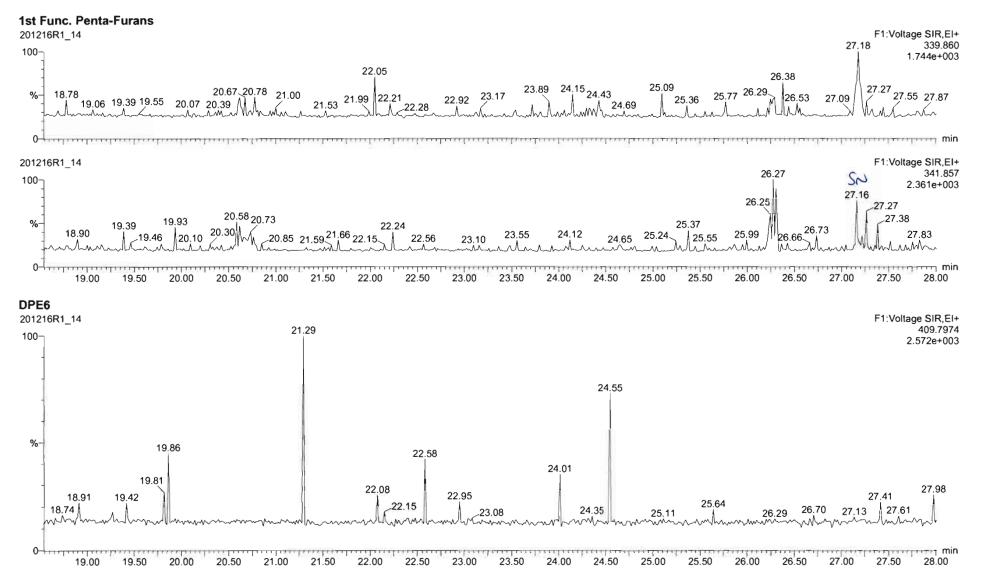
Untitled

Last Altered: Printed: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time



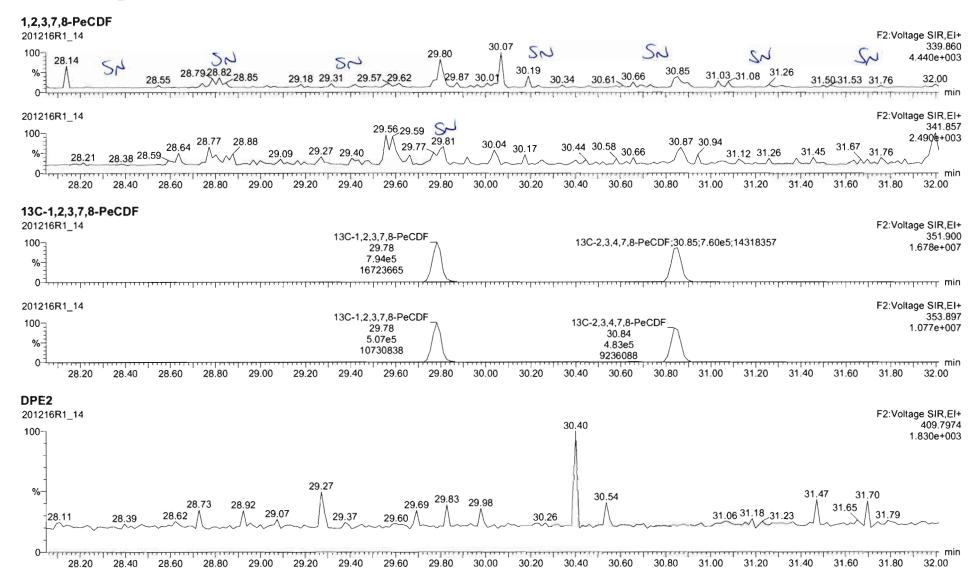
Untitled

Last Altered: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time



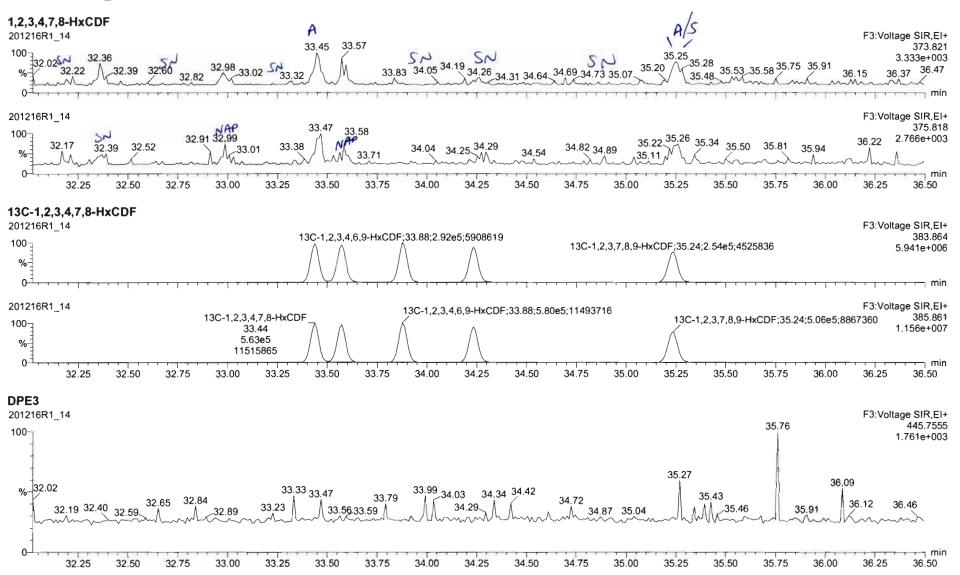
Untitled

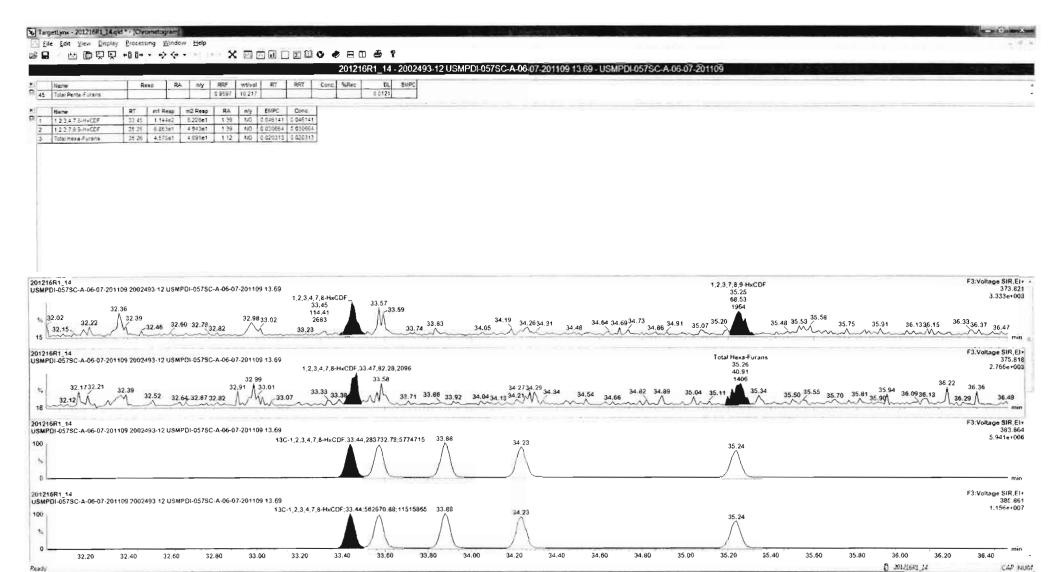
Last Altered: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Printed: Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time



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Last Altered: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Printed: Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time





Work Order 2002493 Page 442 of 734

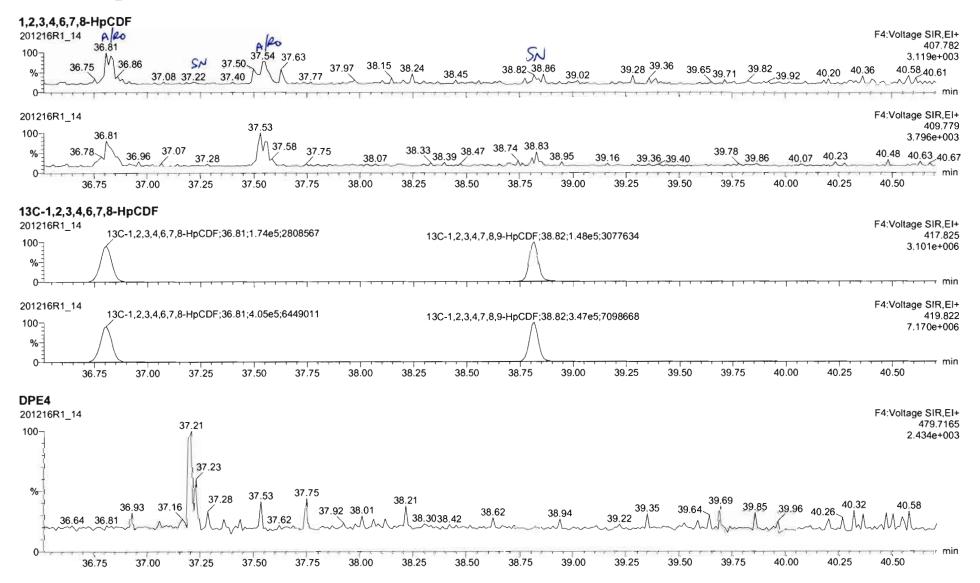
9:40 AM

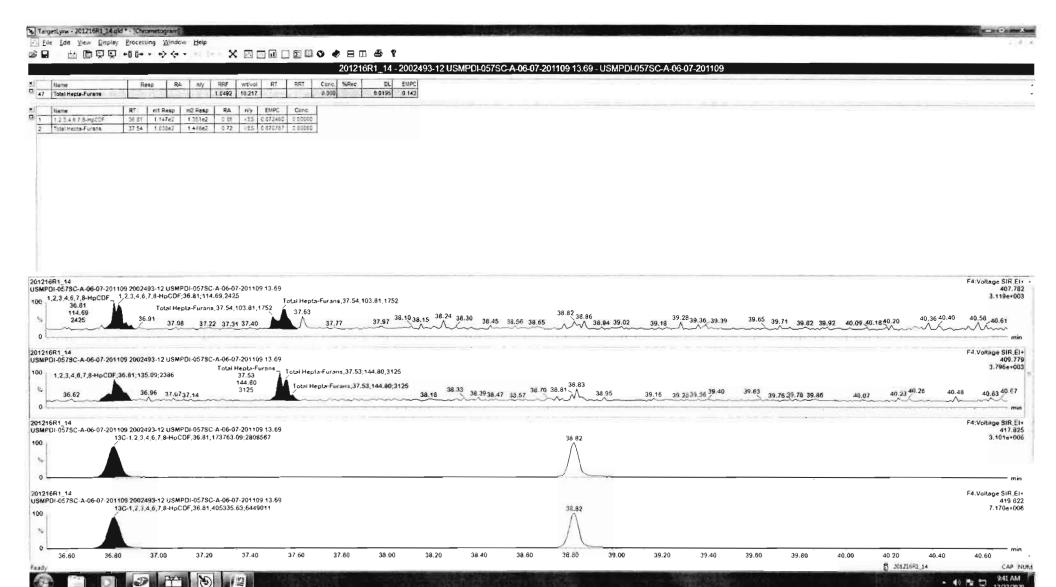
- 40 円寸

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Last Altered: Printed:

Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time



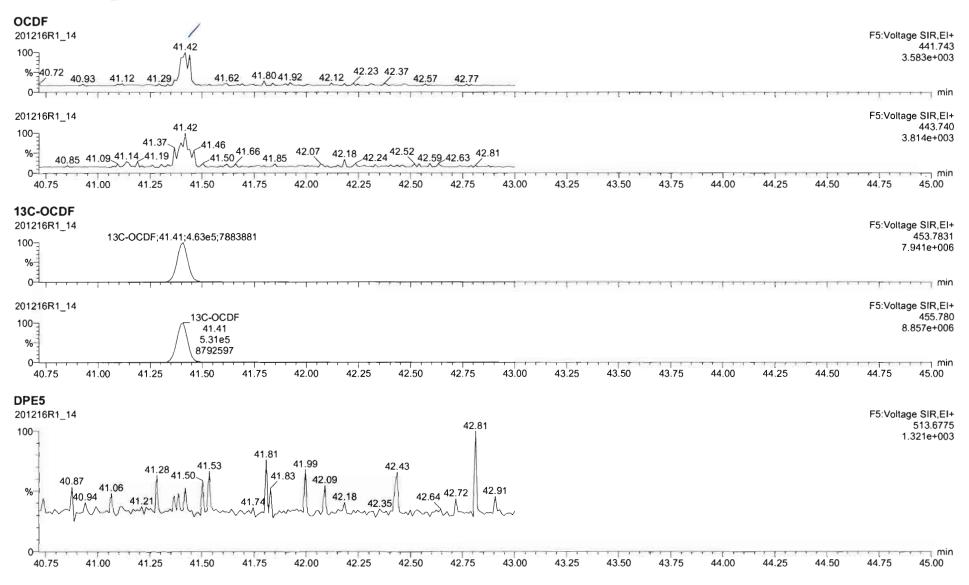


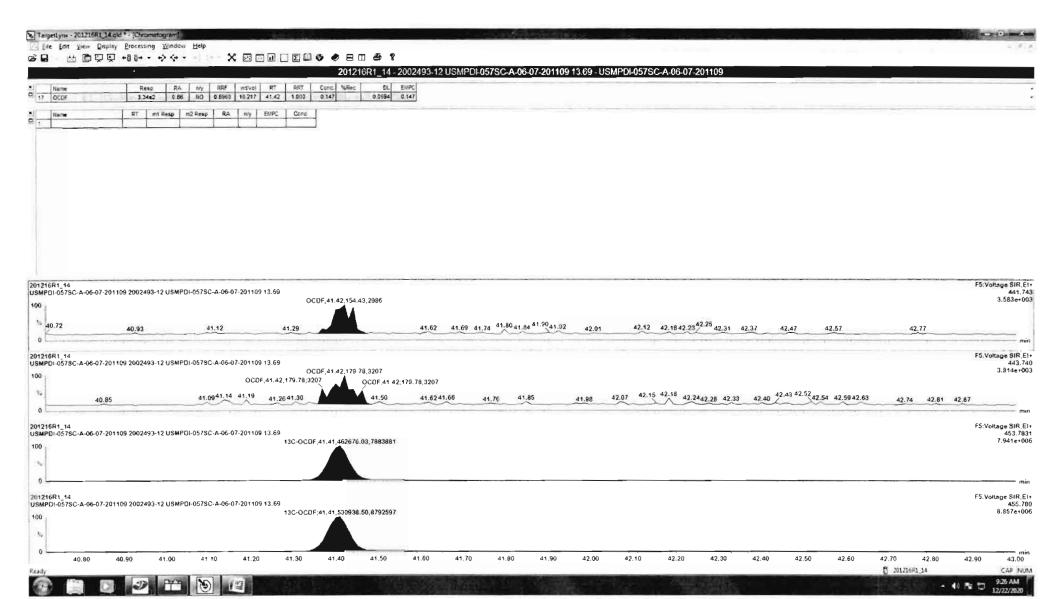
Work Order 2002493 Page 444 of 734

Untitled

Last Altered: Printed:

Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time

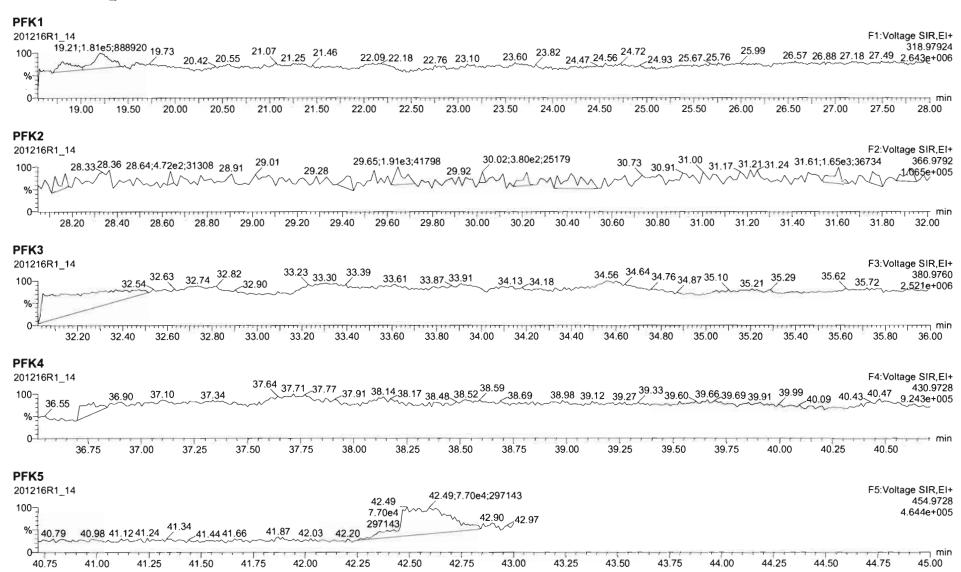




Work Order 2002493 Page 446 of 734

Untitled

Last Altered: Printed: Thursday, December 17, 2020 6:54:29 AM Pacific Standard Time Thursday, December 17, 2020 7:00:08 AM Pacific Standard Time



CONTINUING CALIBRATION

Work Order 2002493 Page 448 of 734

...... JALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Salbration ID: ST2012"14R1_2	_	R	eviewed By: GPB 12/15/2020		Ā.
End Calibration ID:NA			Initials & Date		
Liiu Gailbiation ID.	Beg.	End	ħ	Beg.	<u>End</u>
ion abundance within QC limits?	V	MA	Mass resolution ≥	~	- V
Concentrations within criteria?	>	Ф	□ 5k □ 6-8K □ 8K ☑ 10K 1614 1699 429 1613/1668/8280		
TCDD/TCDF Valleys <25%	Y	ф	Intergrated peaks display correctly?	V	NA
First and last eluters present?	1	ф	GC Break <20%		
Retention Times within criteria?	7	Ф	8280 CS1 End Standard:		
Verification Std. named correctly?		ф	- Ratios within limits, S/N <2.5Å, CS1 within 12 hours		NA
(ST-Year-Month-Day-VG ID)					
Forms signed and dated?	1		Comments:		
Correct ICAL referenced?	HIN				Α.,
Run Log:			**		
- Correct instrument listed?			4		
Samples within 12 hour clock?Bottle position verfied?	Y	N			

ID: LR - HCSRC

Rev. No.: 0 Rev. Date: 06/06/2017

Page: 1 of 1

MassLynx 4.1 SCN815

Page 1 of 2

Dataset:

U:\VG12.PRO\Results\201214R1\201214R1_2.qld

Last Altered:

Monday, December 14, 2020 12:09:46 Pacific Standard Time

Printed:

Monday, December 14, 2020 12:20:55 Pacific Standard Time

GPB 12/15/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201214R1_2, Date: 14-Dec-2020, Time: 11:24:15, ID: ST201214R1_2 1613 CS3 20L0301, Description: 1613 CS3 20L0301

48.8	# Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
1	1 2,3,7,8-TCDD	1.27e5	1.26e6	0.77	NO	0.980	26.38	26.38	NO	1.001	1.001	10.271	103	NO
2	2 1,2,3,7,8-PeCDD	4.85e5	9.68e5	0.62	NO	0.932	31.06	31.05	NO	1.001	1.000	53.732	107	NO
3	3 1,2,3,4,7,8-HxCDD	4.10e5	7.69e5	1.24	NO	1.02	34.36	34.36	NO	1.001	1.001	52.228	104	NO
4	4 1,2,3,6,7,8-HxCDD	4.19e5	8.78e5	1.23	NO	0.902	34.48	34.47	NO	1.001	1.000	52.902	106	NO
5	5 1,2,3,7,8,9-HxCDD	4.12e5	8.51e5	1.23	NO	0.954	34.74	34.74	NO	1.000	1.000	50.742	101	NO
6	6 1,2,3,4,6,7,8-HpCDD	3.17e5	6.97e5	1.03	NO	0.918	38.20	38.20	NO	1.000	1.000	49.520	99.0	NO
7	7 OCDD	5.02e5	1.09e6	0.88	NO	0.866	41.10	41.10	NO	1.000	1.000	106.32	106	NO
8	8 2,3,7,8-TCDF	1.42e5	1.77e6	0.74	NO	0.848	25.67	25.68	NO	1.000	1.001	9.4613	94.6	NO
9	9 1,2,3,7,8-PeCDF	7.35e5	1.46e6	1.55	NO	0.960	29.78	29.80	NO	1.000	1.000	52.529	105	NO
10	10 2,3,4,7,8-PeCDF	7.53e5	1.36e6	1.52	NO	1.07	30.86	30.85	NO	1.001	1.000	51.840	104	NO
11	11 1,2,3,4,7,8-HxCDF	4.79e5	9.93e5	1.21	NO	0.986	33.44	33.45	NO	1.000	1.001	48.986	98.0	NO
12	12 1,2,3,6,7,8-HxCDF	5.12e5	9.95e5	1.21	NO	1.04	33.58	33.58	NO	1.001	1.001	49.544	99.1	NO
13	13 2,3,4,6,7,8-HxCDF	4.73e5	9.34e5	1.23	NO	1.02	34.25	34.24	NO	1.001	1.000	49.707	99.4	NO
14	14 1,2,3,7,8,9-HxCDF	4.54e5	9.23e5	1.24	NO	0.991	35.24	35.25	NO	1.000	1.001	49.674	99.3	NO
15	15 1,2,3,4,6,7,8-HpCDF	3.67e5	7.01e5	1.01	NO	1.05	36.81	36.82	NO	1.000	1.001	49.825	99.6	NO
16	16 1,2,3,4,7,8,9-HpCDF	3.32e5	5.66e5	1.01	NO	1.18	38.82	38.82	NO	1.000	1.000	49.839	99.7	NO
17	17 OCDF	5.54e5	1.23e6	0.87	NO	0.896	41.38	41.39	NO	1.000	1.000	100.54	101	NO
18	18 13C-2,3,7,8-TCDD	1.26e6	1.18e6	0.79	NO	1.06	26.35	26.35	NO	1.030	1.030	101.23	101	NO
19	19 13 C -1,2,3,7,8-PeCDD	9.68e5	1.18e6	0.63	NO	0.785	31.19	31.03	NO	1.219	1.213	104.90	105	NO
20	20 13C-1,2,3,4,7,8-HxCDD	7.69e5	1.10e6	1.29	NO	0.621	34.34	34.34	NO	1.014	1.014	112.32	112	NO
21	21 13C-1,2,3,6,7,8-HxCDD	8.78e5	1.10e6	1.25	NO	0.734	34.46	34.46	NO	1.017	1.017	108.34	108	NO
22	22 13C-1,2,3,7,8,9-HxCDD	8.51e5	1.10e6	1.27	NO	0.723	34.74	34.73	NO	1.026	1.025	106.69	107	NO
23	23 13C-1,2,3,4,6,7,8-HpCDD	6.97e5	1.10e6	1.04	NO	0.568	38.24	38.19	NO	1.129	1.127	111.25	111	NO
24	24 13C-OCDD	1.09e6	1.10e6	0.90	NO	0.496	41.18	41.09	NO	1.216	1.213	199.47	99.7	NO
25	25 13C-2,3,7,8-TCDF	1.77e6	1.87e6	0.77	NO	0.919	25.65	25.67	NO	1.003	1.003	102.83	103	NO
26	26 13C-1,2,3,7,8-PeCDF	1.46e6	1.87e6	1.59	NO	0.715	29.90	29.78	NO	1.169	1.164	109.00	109	NO
27	27 13C-2,3,4,7,8-PeCDF	1.36e6	1.87e6	1.58	NO	0.689	30.99	30.84	NO	1.212	1.206	105.79	106	NO
28	28 13C-1,2,3,4,7,8-HxCDF	9.93e5	1.10e6	0.50	NO	0.873	33.44	33.43	NO	0.987	0.987	102.95	103	NO
29	29 13C-1,2,3,6,7,8-HxCDF	9.95e5	1.10e6	0.51	NO	0.933	33.57	33.56	NO	0.991	0.991	96.583	96.6	NO
30	30 13C-2,3,4,6,7,8-HxCDF	9.34e5	1.10e6	0.51	NO	0.843	34.24	34.23	NO	1.011	1.010	100.33	100	NO
31	31 13C-1,2,3,7,8,9-HxCDF	9.23e5	1.10e6	0.51	NO	0.780	35.24	35.23	NO	1.040	1.040	107.16	107	NO

Work Order 2002493 Page 450 of 734

Quantify Sample Summary Report

MassLynx 4.1 SCN815

Page 2 of 2

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201214R1\201214R1_2.qld

Last Altered: Printed:

Monday, December 14, 2020 12:09:46 Pacific Standard Time Monday, December 14, 2020 12:20:55 Pacific Standard Time

Name: 201214R1_2, Date: 14-Dec-2020, Time: 11:24:15, ID: ST201214R1_2 1613 CS3 20L0301, Description: 1613 CS3 20L0301

100	# Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
32	32 13C-1,2,3,4,6,7,8-HpCDF	7.01e5	1.10e6	0.42	NO	0.726	36.81	36.79	NO	1.087	1.086	87.439	87.4	NO
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.66e5	1.10e6	0.43	NO	0.491	38.82	38.81	NO	1.146	1.145	104.38	104	NO
34	34 13C-OCDF	1.23e6	1.10e6	0.87	NO	0.565	41.40	41.38	NO	1.222	1.221	197.00	98.5	NO
35	35 37Cl-2,3,7,8-TCDD	1.59e5	1.18e6			1.22	26.35	26.38	NO	1.030	1.031	11.077	111	NO
36	36 13C-1,2,3,4-TCDD	1.18e6	1.18e6	0.80	NO	1.00	25.64	25.58	NO	1.000	1.000	100.00	100	NO
37	37 13C-1,2,3,4-TCDF	1.87e6	1.87e6	0.79	NO	1.00	24.13	24.09	NO	1.000	1.000	100.00	100	NO
38	38 13C-1,2,3,4,6,9-HxCDF	1.10e6	1.10e6	0.51	NO	1.00	33.92	33.88	NO	1.000	1.000	100.00	100	YES OK

Work Order 2002493 Page 451 of 734

Untitled

Last Altered:

Tuesday, December 15, 2020 6:52:02 AM Pacific Standard Time

Printed:

Tuesday, December 15, 2020 6:53:09 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

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

_		Name	ID	Acq.Date	Acq.Time
1		201214R1_1	ST201214R1_1 1613 CS3 20L0301	14-Dec-20	10:05:30
2		201214R1_2	ST201214R1_2 1613 CS3 20L0301	14-Dec-20	11:24:15
3		201214R1_3	SOLVENT BLANK	14-Dec-20	12:12:55
4		201214R1_4	SOLVENT BLANK	14-Dec-20	13:02:53
5		201214R1_5	B0L0040-BS1 OPR 10	14-Dec-20	13:49:10
6	\widehat{A}	201214R1_6			
7	$\overline{}$	201214R1_7	B0L0040-BLK1 Method Blank 10	14-Dec-20	15:22:36
8		201214R1_8	2002431-06@10X USMPDI-044SC-A-10-11-2	14-Dec-20	16:09:29
9		201214R1_9	$2002434\text{-}10 \; \text{USMPDI-}056\text{SC-A-}01\text{-}02\text{-}201107 \; \dots \\$	14-Dec-20	16:53:43
10		201214R1_10	$2002434\text{-}13 \; USMPDI\text{-}056SC\text{-}A\text{-}04\text{-}05\text{-}201107 \; \dots \\$	14-Dec-20	17:37:57
11		201214R1_11	B0L0034-DUP1 Duplicate 16.99	14-Dec-20	18:22:12
12		201214R1_12	B0L0034-DUP2 Duplicate 17.17	14-Dec-20	19:06:26
13		201214R1_13	2002435-01 USMPDI-013SC-A-01-02-201108	14-Dec-20	19:50:42
14		201214R1_14	2002435-02 USMPDI-013SC-A-02-03-201108	14-Dec-20	20:34:57

A) Instrument passed, allowed solvent blank (CH) to go through GC cycle, no dutu acquired HNI 12/15/2020

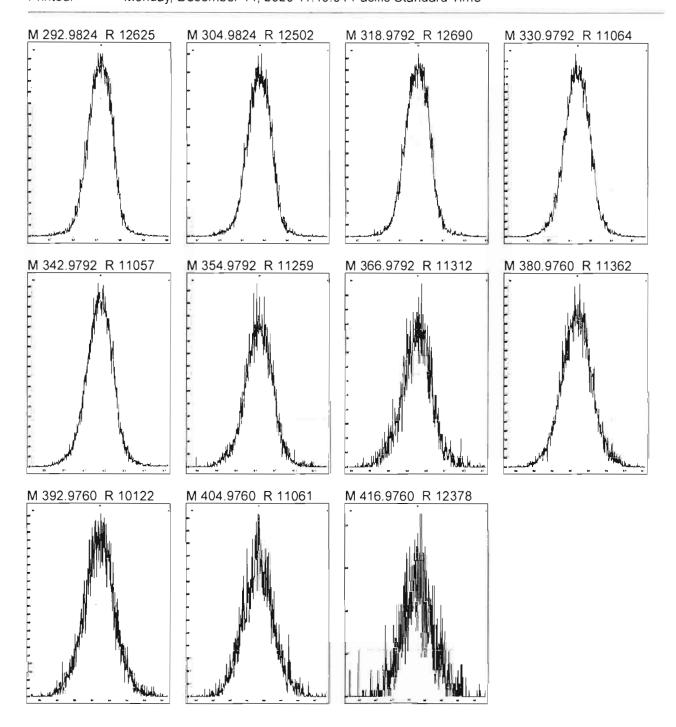
Work Order 2002493 Page 452 of 734

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed:

Monday, December 14, 2020 11:19:04 Pacific Standard Time



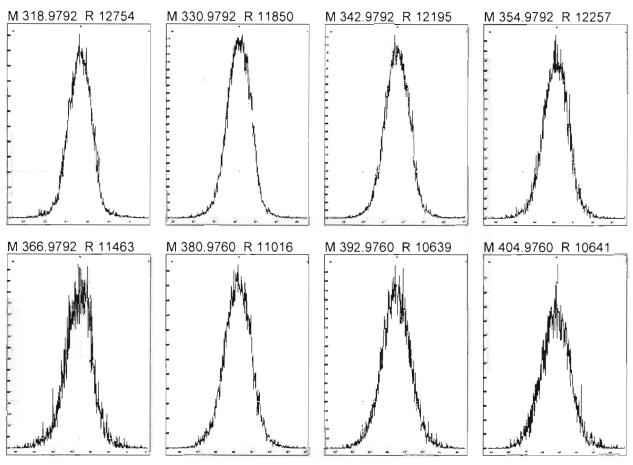
Work Order 2002493 Page 453 of 734

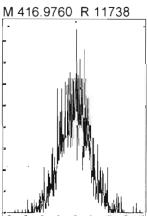
File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed:

Monday, December 14, 2020 11:20:11 Pacific Standard Time

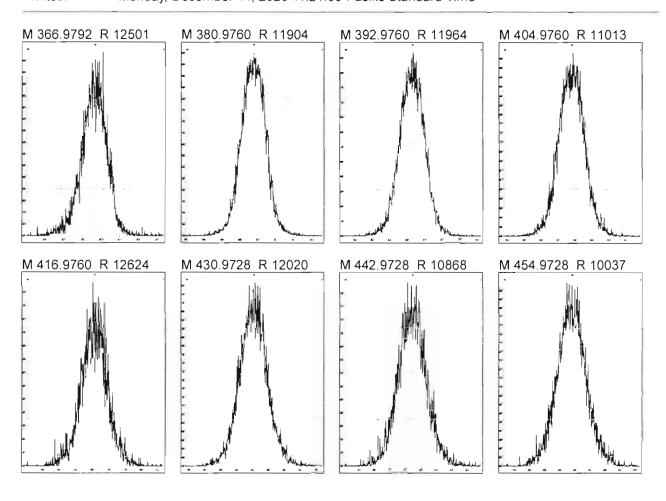




Work Order 2002493 Page 454 of 734

File: Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed: Monday, December 14, 2020 11:21:09 Pacific Standard Time



Work Order 2002493 Page 455 of 734

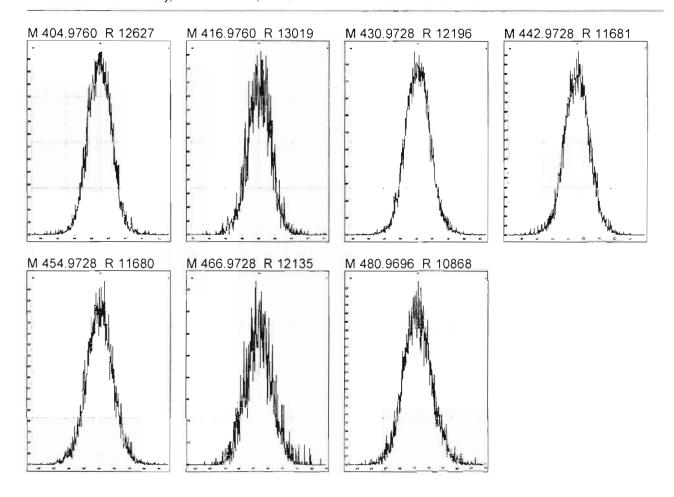
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 4 @ 200 (ppm)

Printed:

Monday, December 14, 2020 11:22:03 Pacific Standard Time



Work Order 2002493 Page 456 of 734

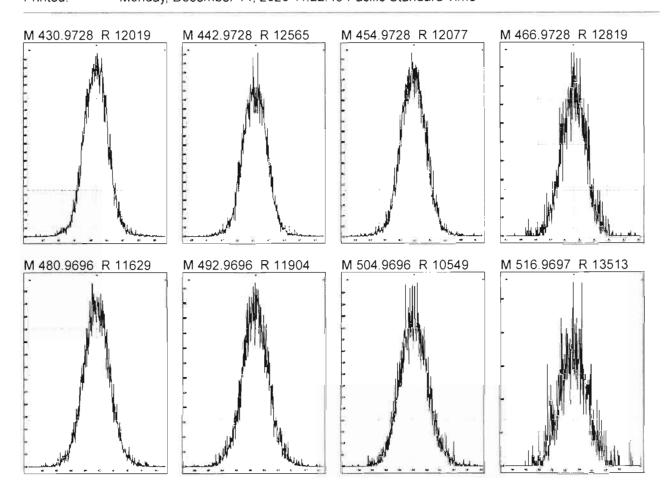
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed:

Monday, December 14, 2020 11:22:48 Pacific Standard Time



Work Order 2002493 Page 457 of 734

Dataset: U:\VG12.PRO\Results\201214R1\201214R1_CPSM.qld

Last Altered: Monday, December 14, 2020 12:15:08 Pacific Standard Time Printed: Monday, December 14, 2020 12:15:48 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 11 Dec 2020 14:14:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201214R1_2, Date: 14-Dec-2020, Time: 11:24:15, ID: ST201214R1_2 1613 CS3 20L0301, Description: 1613 CS3 20L0301

A STATE OF THE PARTY OF THE PAR	# Name	RT
1	1 1,3,6,8-TCDD (First)	22.56
2	2 1,2,8,9-TCDD (Last)	27.27
3	3 1,2,4,7,9-PeCDD (First)	28.79
4	4 1,2,3,8,9-PeCDD (Last)	31.41
5	5 1,2,4,6,7,9-HxCDD (First)	32.71
6	6 1,2,3,7,8,9-HxCDD (Last)	34.74
7	7 1,2,3,4,6,7,9-HpCDD (First)	37.20
8	8 1,2,3,4,6,7,8-HpCDD (Last)	38.20
9	9 1,3,6,8-TCDF (First)	20.30
10	10 1,2,8,9-TCDF (Last)	27.56
11	11 1,3,4,6,8-PeCDF (First)	27.13
12	12 1,2,3,8,9-PeCDF (Last)	31.76
13	13 1,2,3,4,6,8-HxCDF (First)	32.18
14	14 1,2,3,7,8,9-HxCDF (Last)	35.25
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.82
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.82

Work Order 2002493 Page 458 of 734

Page 1 of 2

Vista Analytical Laboratory VG-11

Dataset: U:\VG12.PRO\Results\201214R1\201214R1_CPSM.qld

Last Altered: Monday, December 14, 2020 12:15:08 Pacific Standard Time Printed: Monday, December 14, 2020 12:15:48 Pacific Standard Time

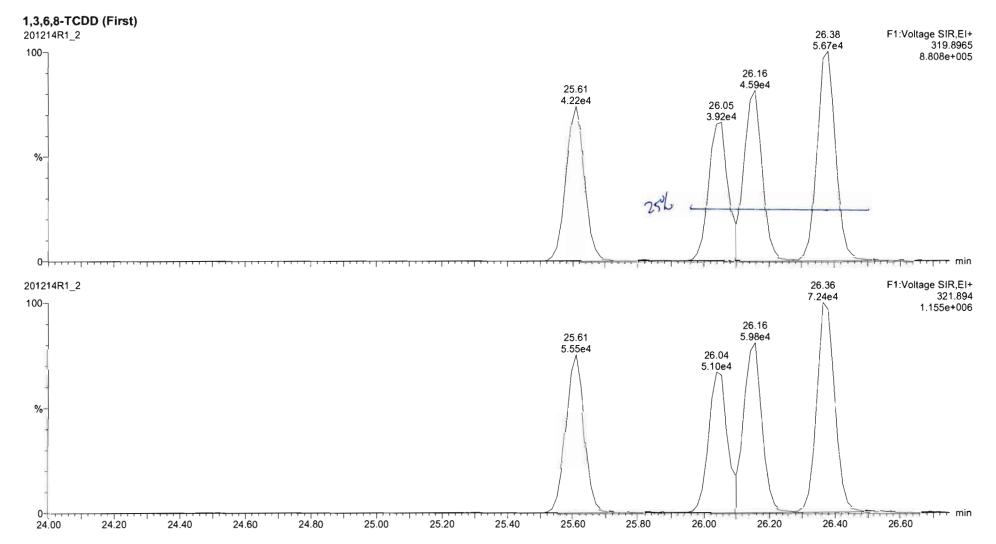
FIN 12/14/232

GPB 12/15/2020

Method: U:\VG12.PRO\MethDB\CPSM.mdb 11 Dec 2020 14:14:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201214R1_2, Date: 14-Dec-2020, Time: 11:24:15, ID: ST201214R1_2 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002493

Page 459 of 734

Quantify Sample Report

MassLynx 4.1 SCN815

Page 2 of 2

Vista Analytical Laboratory VG-11

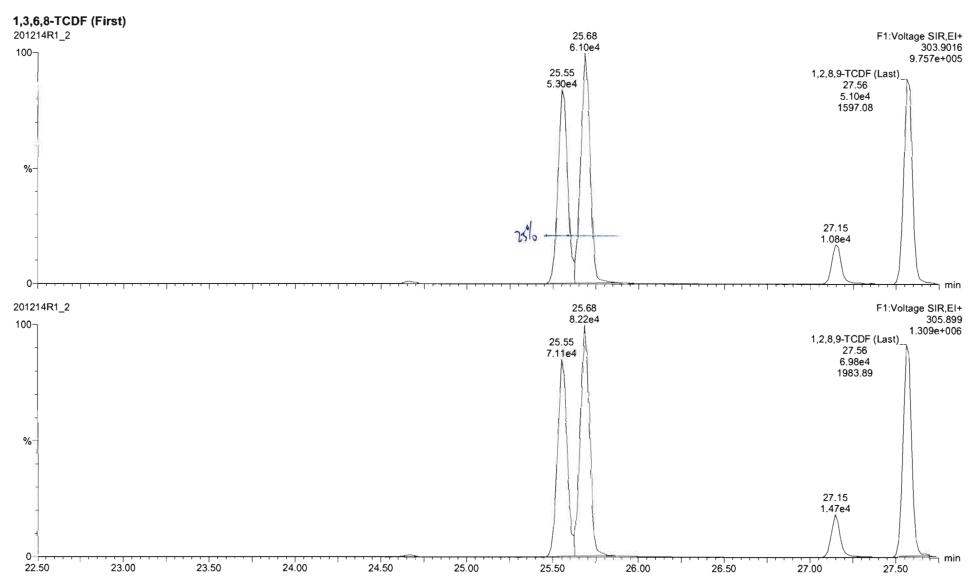
Dataset: U:\VG12.PRO\Results\201214R1\201214R1_CPSM.qld

Last Altered: Monday, December 14, 2020 12:15:08 Pacific Standard Time

Printed: Monday, December 14, 2020 12:15:48 Pacific Standard Time

LIN 12/14/2020 GPB 12/15/2020

Name: 201214R1_2, Date: 14-Dec-2020, Time: 11:24:15, ID: ST201214R1_2 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002493

Page 460 of 734

Dataset:

U:\VG12.PRO\Results\201214R1\201214R1_2.qld

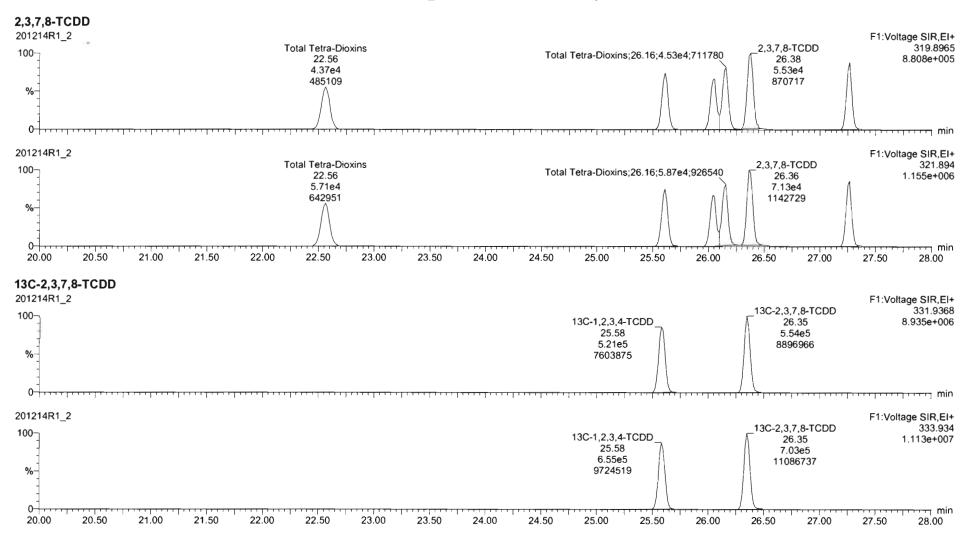
Last Altered: Printed:

Monday, December 14, 2020 12:09:46 Pacific Standard Time Monday, December 14, 2020 12:14:47 Pacific Standard Time

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Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN 1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

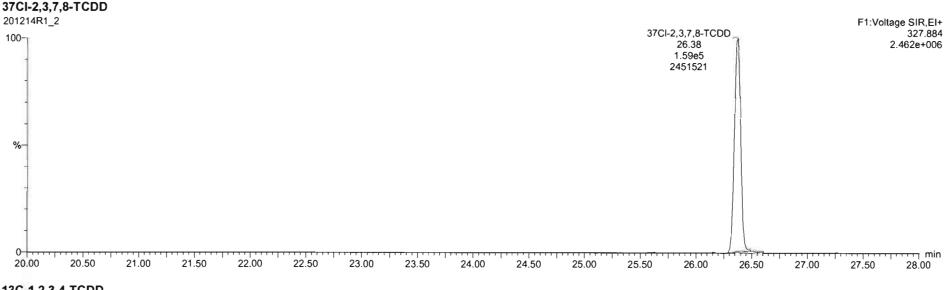
Name: 201214R1_2, Date: 14-Dec-2020, Time: 11:24:15, ID: ST201214R1_2 1613 CS3 20L0301, Description: 1613 CS3 20L0301

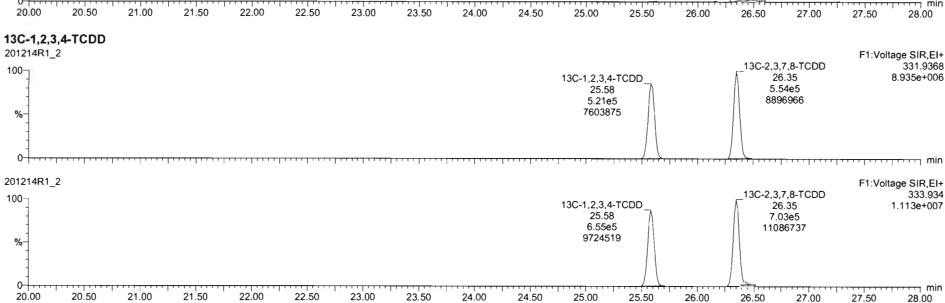


Dataset: U:\VG12.PRO\Results\201214R1\201214R1_2.qld

Last Altered: Monday, December 14, 2020 12:09:46 Pacific Standard Time Printed: Monday, December 14, 2020 12:14:47 Pacific Standard Time

Name: 201214R1_2, Date: 14-Dec-2020, Time: 11:24:15, ID: ST201214R1_2 1613 CS3 20L0301, Description: 1613 CS3 20L0301





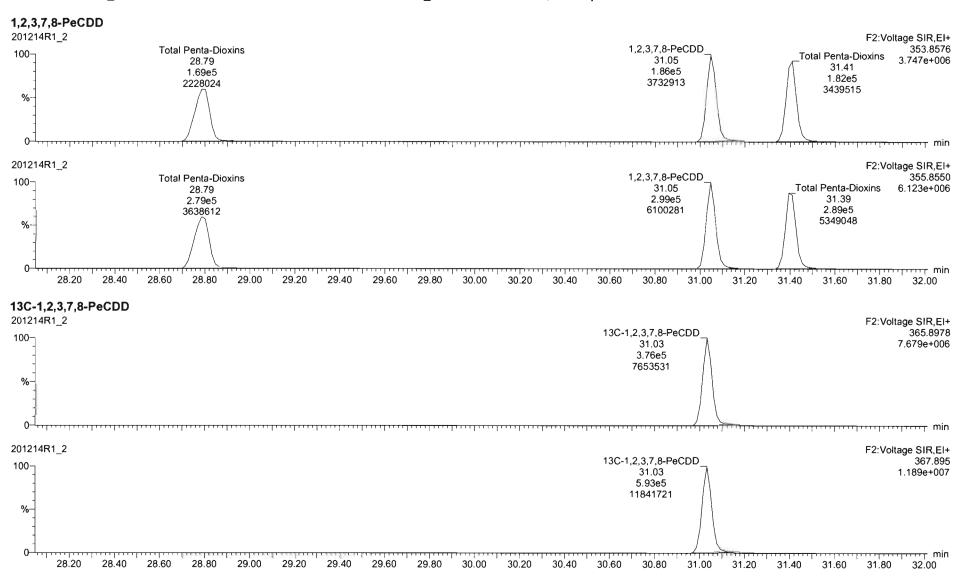
Work Order 2002493 Page 462 of 734

Dataset:

U:\VG12.PRO\Results\201214R1\201214R1_2.qld

Last Altered: Monday, December 14, 2020 12:09:46 Pacific Standard Time Printed: Monday, December 14, 2020 12:14:47 Pacific Standard Time

Name: 201214R1_2, Date: 14-Dec-2020, Time: 11:24:15, ID: ST201214R1_2 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002493

Quantify Sample Report

MassLynx 4.1 SCN815

Vista Analytical Laboratory

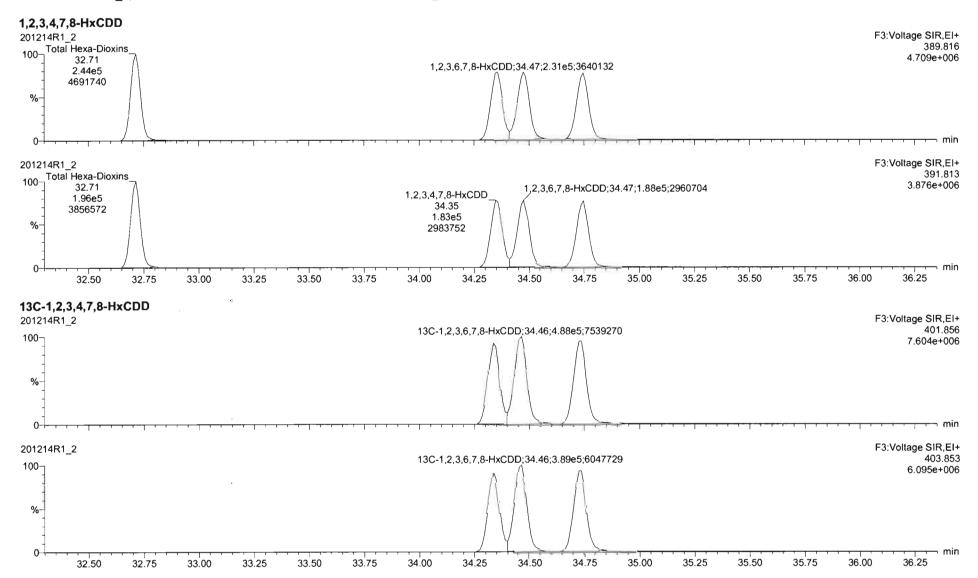
Dataset:

U:\VG12.PRO\Results\201214R1\201214R1_2.qld

Last Altered: Printed:

Monday, December 14, 2020 12:09:46 Pacific Standard Time Monday, December 14, 2020 12:14:47 Pacific Standard Time

Name: 201214R1_2, Date: 14-Dec-2020, Time: 11:24:15, ID: ST201214R1_2 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Quantify Sample Report

MassLynx 4.1 SCN815

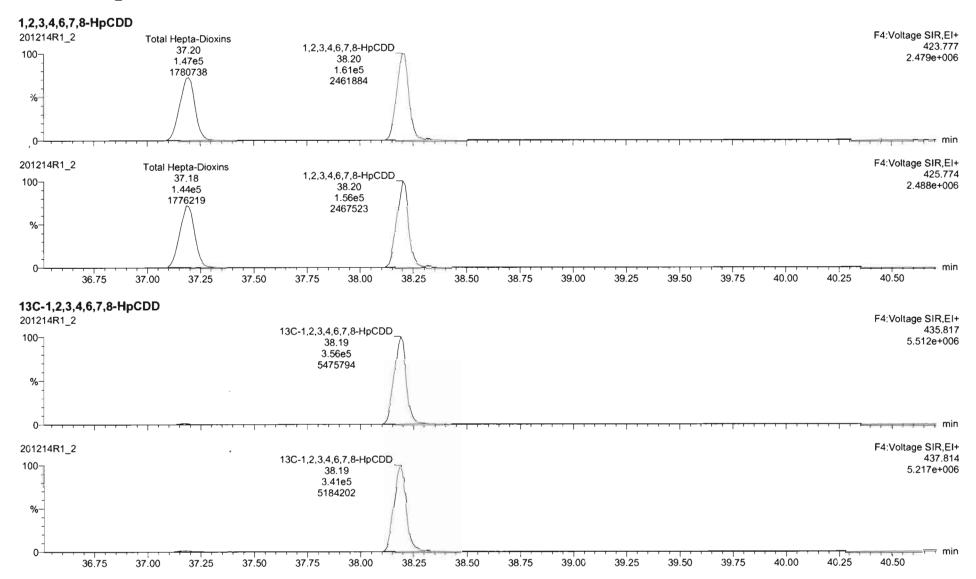
Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201214R1\201214R1_2.qld

Last Altered: Printed: Monday, December 14, 2020 12:09:46 Pacific Standard Time Monday, December 14, 2020 12:14:47 Pacific Standard Time

Name: 201214R1_2, Date: 14-Dec-2020, Time: 11:24:15, ID: ST201214R1_2 1613 CS3 20L0301, Description: 1613 CS3 20L0301



MassLynx 4.1 SCN815

Page 6 of 13

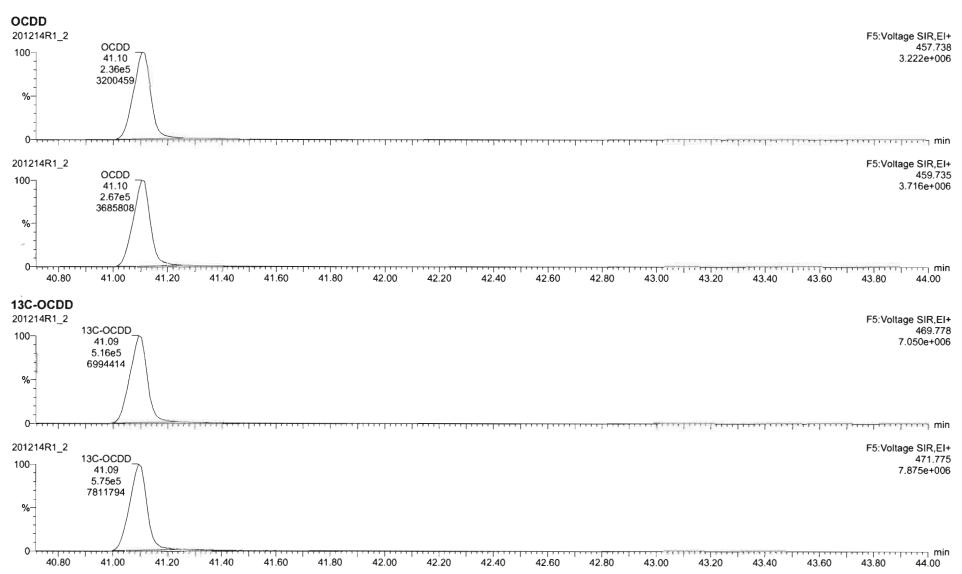
Dataset:

U:\VG12.PRO\Results\201214R1\201214R1_2.qld

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Monday, December 14, 2020 12:09:46 Pacific Standard Time Monday, December 14, 2020 12:14:47 Pacific Standard Time

Name: 201214R1_2, Date: 14-Dec-2020, Time: 11:24:15, ID: ST201214R1_2 1613 CS3 20L0301, Description: 1613 CS3 20L0301

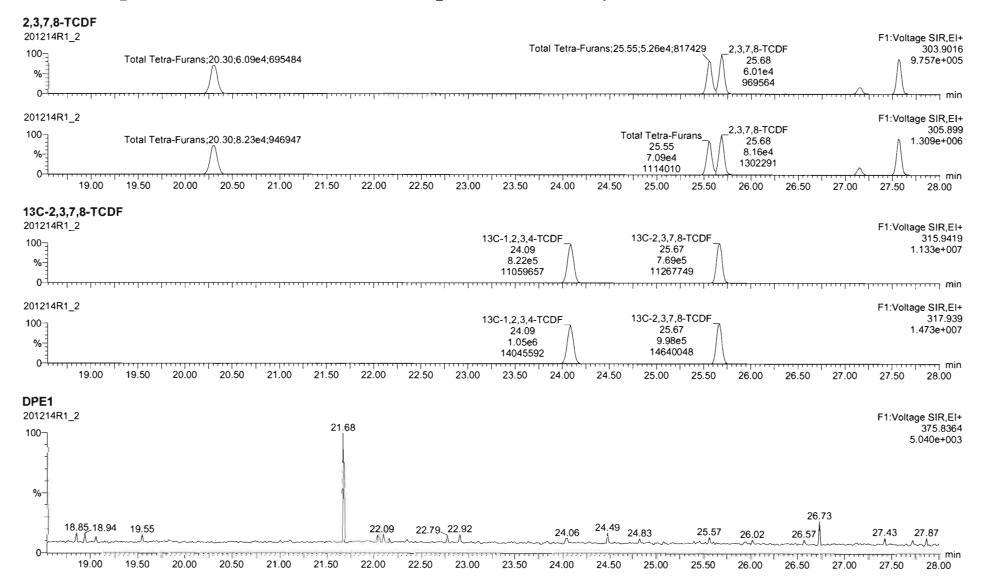


Work Order 2002493

U:\VG12.PRO\Results\201214R1\201214R1 2.qld

Last Altered: Printed: Monday, December 14, 2020 12:09:46 Pacific Standard Time Monday, December 14, 2020 12:14:47 Pacific Standard Time

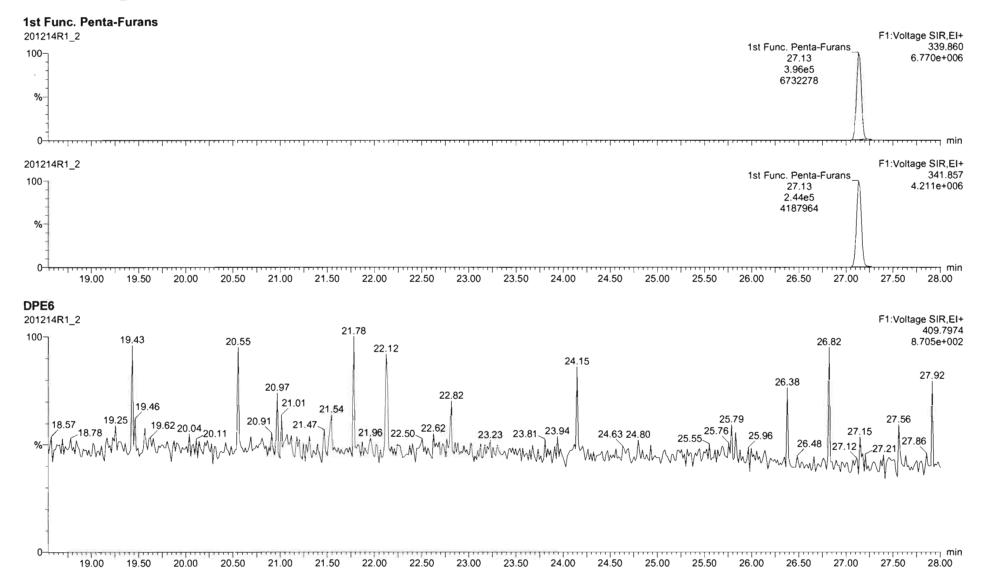
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Dataset: U:\VG12.PRO\Results\201214R1\201214R1_2.qld

Last Altered: Monday, December 14, 2020 12:09:46 Pacific Standard Time Printed: Monday, December 14, 2020 12:14:47 Pacific Standard Time

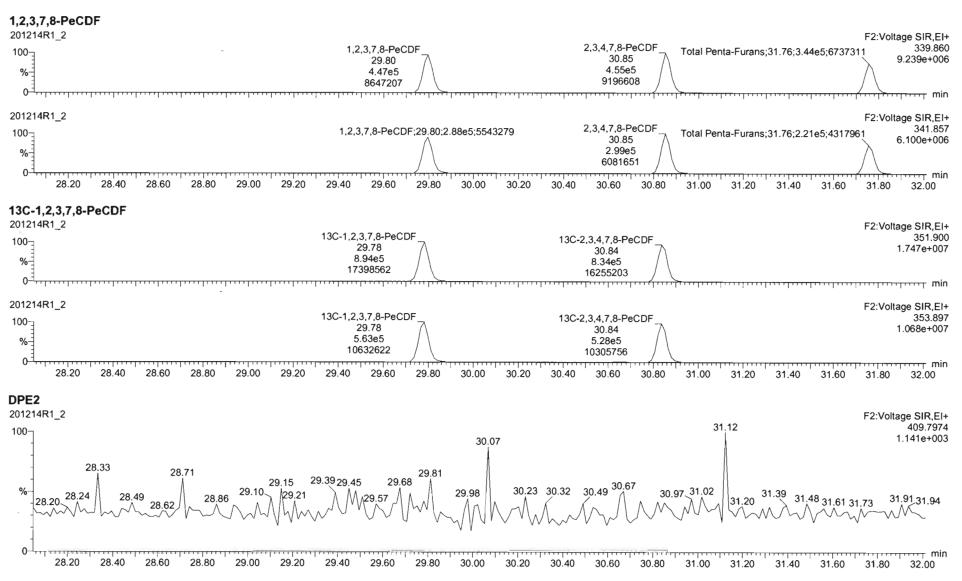
Name: 201214R1_2, Date: 14-Dec-2020, Time: 11:24:15, ID: ST201214R1_2 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Quantify Sample Report Vista Analytical Laboratory

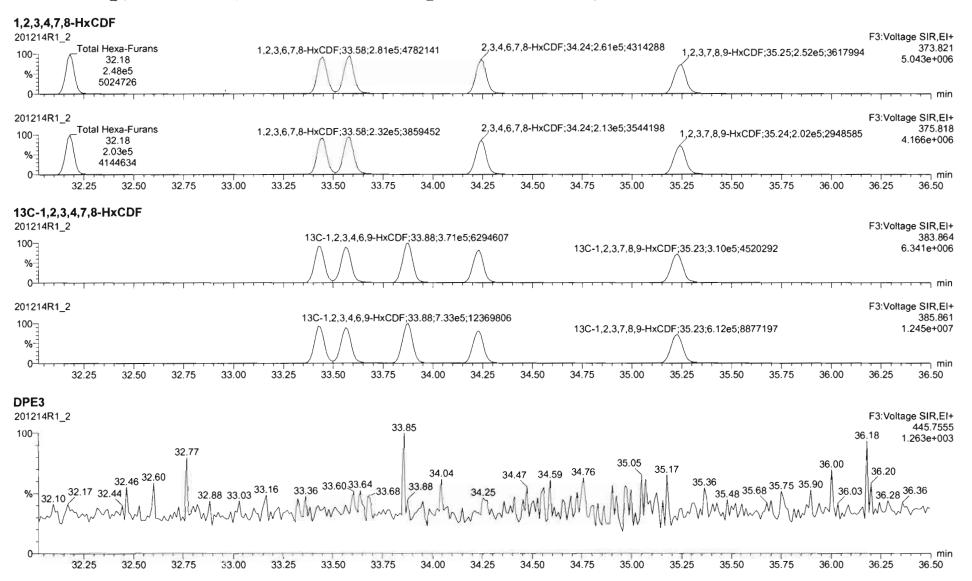
U:\VG12.PRO\Results\201214R1\201214R1_2.qld Dataset:

Monday, December 14, 2020 12:09:46 Pacific Standard Time Last Altered: Printed: Monday, December 14, 2020 12:14:47 Pacific Standard Time



Dataset: U:\VG12.PRO\Results\201214R1\201214R1_2.qld

Last Altered: Monday, December 14, 2020 12:09:46 Pacific Standard Time Printed: Monday, December 14, 2020 12:14:47 Pacific Standard Time

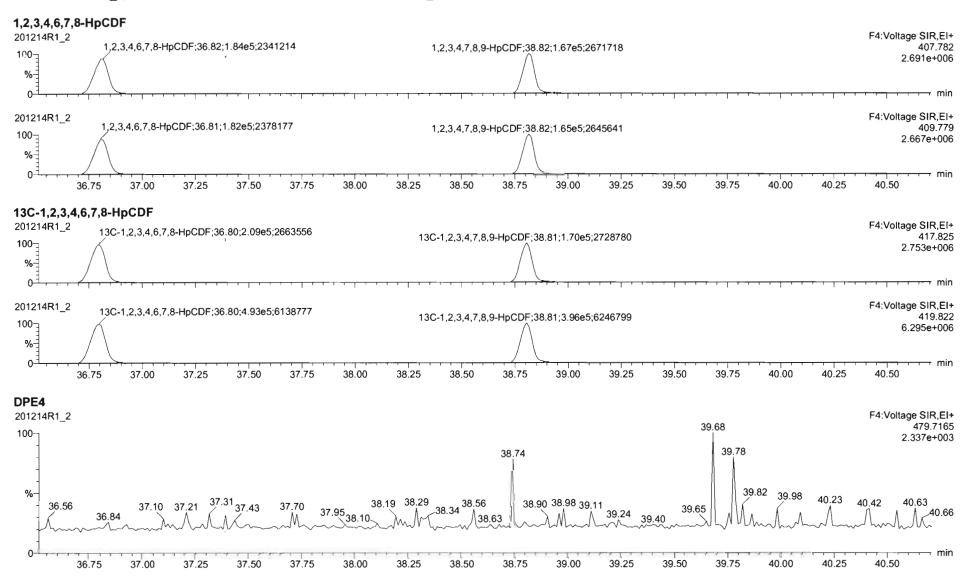


Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201214R1\201214R1_2.qld

Last Altered: Monday, December 14, 2020 12:09:46 Pacific Standard Time Printed: Monday, December 14, 2020 12:14:47 Pacific Standard Time

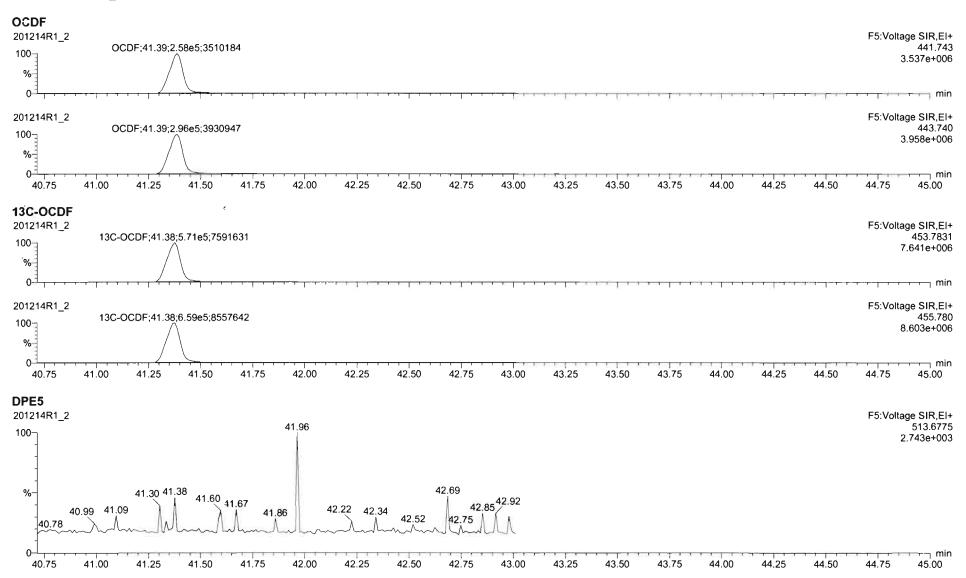
MassLynx 4.1 SCN815



Quantify Sample Report Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201214R1\201214R1_2.qld

Last Altered: Monday, December 14, 2020 12:09:46 Pacific Standard Time Printed: Monday, December 14, 2020 12:14:47 Pacific Standard Time

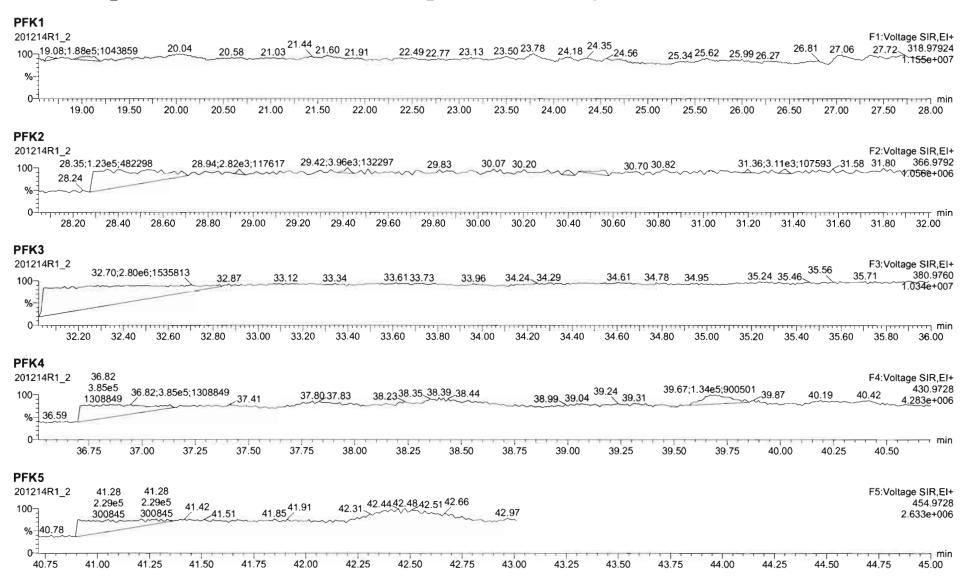


Quantify Sample Report Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201214R1\201214R1_2.qld

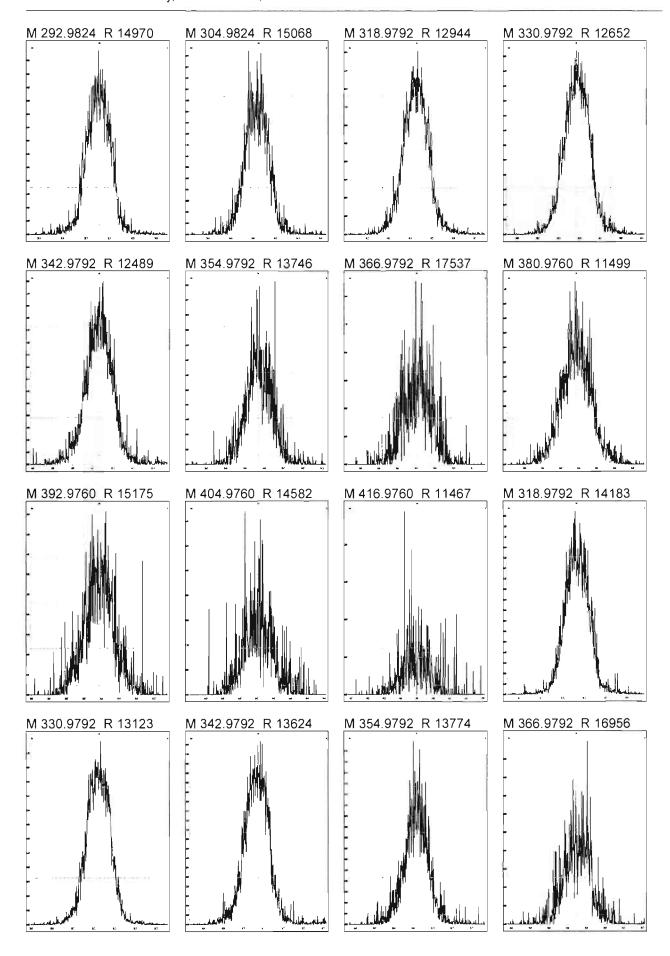
Last Altered: Monday, December 14, 2020 12:09:46 Pacific Standard Time Monday, December 14, 2020 12:14:47 Pacific Standard Time

Name: 201214R1_2, Date: 14-Dec-2020, Time: 11:24:15, ID: ST201214R1_2 1613 CS3 20L0301, Description: 1613 CS3 20L0301



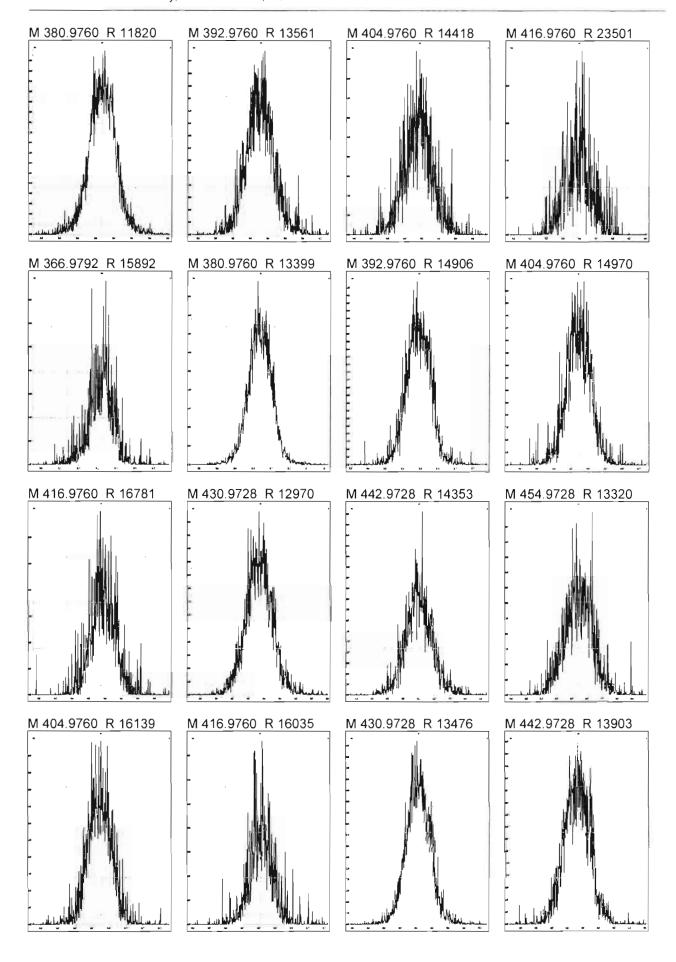
Page 13 of 13

Tuesday, December 15, 2020 07:00:00 Pacific Standard Time



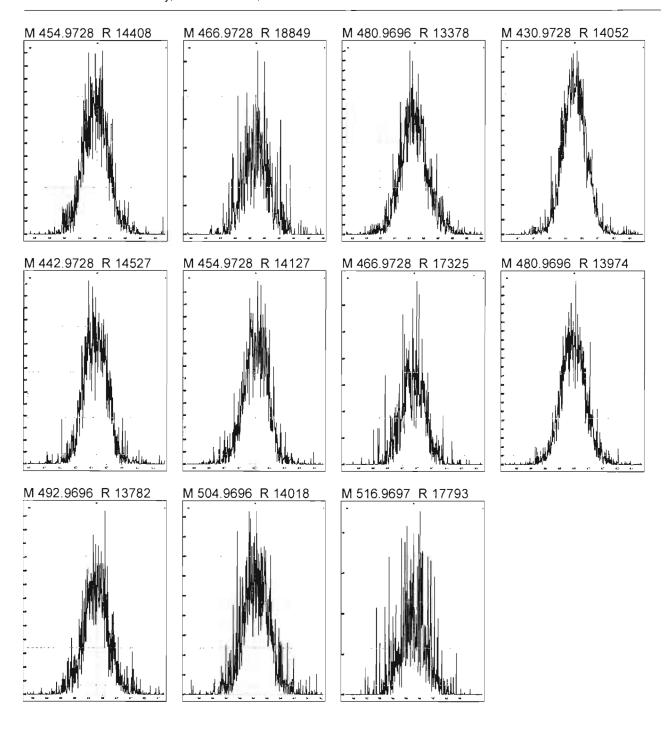
Work Order 2002493 Page 474 of 734

Tuesday, December 15, 2020 07:00:00 Pacific Standard Time



Work Order 2002493 Page 475 of 734

Tuesday, December 15, 2020 07:00:00 Pacific Standard Time



Work Order 2002493 Page 476 of 734

...... VALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Salbration ID: <u>\$7.2012</u> 5"R2_			Reviewed By: GPB 12/16/2020	
End Calibration ID:NA	 .		Initials & Date	•
	Beg.	End	To a second seco	Beg. End
Ion abundance within QC limits?		MA	Mass resolution >	
Concentrations within criteria?	Image: Control of the	中	□ 5k □ 6-8K □ 8K № 10K 1614 1699 429 1613/1668/8280	
TCDD/TCDF Vaileys <25%		中	Intergrated peaks display correctly?	AN
First and last eluters present?		Ф	GC Break <20%	
Retention Times within criteria?	V	Ф	8280 CS1 End Standard:	
Verification Std. named correctly?	\checkmark	Ф	- Ratios within limits, S/N <2.5,4, CS1 within 12 hours	Au
(ST-Year-Month-Day-VG ID)				
Forms signed and dated?	V	中	Comments:	
Correct ICAL referenced?	FIN			κ.
Run Log:	1		15	<i>3</i>
- Correct Instrument listed?				•
- Samples within 12 hour clock?	Y	N		
- Bottle position verfied?	FIN			

ID: LR - HCSRC

Rev. No.: 0 Rev. Date: 06/06/2017

Page: 1 of 1

Page 1 of 2

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Dataset: U:\VG12.PRO\Results\201215R2\201215R2_2.qld

Last Altered: Wednesday, December 16, 2020 7:02:10 AM Pacific Standard Time

Printed: Wednesday, December 16, 2020 8:43:34 AM Pacific Standard Time

HN 12/16/2020 GPB 12/16/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDlOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201215R2_2, Date: 15-Dec-2020, Time: 17:49:34, ID: ST201215R2_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

-	# 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	9.24e4	1.02e6	0.75	NO	0.980	26.37	26.36	NO	1.001	1.001	9.2713	92.7	NO
2	2 1,2,3,7,8-PeCDD	3.63e5	7.89e5	0.63	NO	0.932	31.05	31.03	NO	1.001	1.000	49.405	98.8	NO
3	3 1,2,3,4,7,8-HxCDD	2.93e5	5.61e5	1.23	NO	1.02	34.35	34.34	NO	1.001	1.000	51.256	103	NO
4	4 1,2,3,6,7,8-HxCDD	2.89e5	6.54e5	1.23	NO	0.902	34.47	34.46	NO	1.001	1.000	48.967	97.9	NO
5	5 1,2,3,7,8,9-HxCDD	2.93e5	6.39e5	1.22	NO	0.954	34.72	34.74	NO	1.000	1.001	48.046	96.1	NO
6	6 1,2,3,4,6,7,8-HpCDD	2.23e5	5.16e5	1.01	NO	0.918	38.19	38.19	NO	1.000	1.000	47.018	94.0	NO
7	7 OCDD	3.90e5	8.97e5	0.87	NO	0.866	41.09	41.10	NO	1.000	1.000	100.43	100	NO
8	8 2,3,7,8-TCDF	9.50e4	1.28e6	0.73	NO	0.848	25.66	25.67	NO	1.000	1.001	8.7235	87.2	NO
9	9 1,2,3,7,8-PeCDF	4.99e5	1.07e6	1.55	NO	0.960	29.77	29.78	NO	1.000	1.000	48.380	96.8	NO
10	10 2,3,4,7,8-PeCDF	5.14e5	9.94e5	1.53	NO	1.07	30.86	30.84	NO	1.001	1.000	48.412	96.8	NO
11	11 1,2,3,4,7,8-HxCDF	3.21e5	6.84e5	1.21	NO	0.986	33.43	33.44	NO	1.000	1.001	47.611	95.2	NO
12	12 1,2,3,6,7,8-HxCDF	3.37e5	6.78e5	1.22	NO	1.04	33.57	33.56	NO	1.001	1.000	47.907	95.8	NO
13	13 2,3,4,6,7,8-HxCDF	3.18e5	6.48e5	1.23	NO	1.02	34.23	34.23	NO	1.001	1.001	48.053	96.1	NO
14	14 1,2,3,7,8,9-HxCDF	2.73e5	5.75e5	1.22	NO	0.991	35.23	35.23	NO	1.000	1.000	47.936	95.9	NO
15	15 1,2,3,4,6,7,8-HpCDF	2.41e5	4.78e5	1.00	NO	1.05	36.80	36.80	NO	1.000	1.000	48.078	96.2	NO
16	16 1,2,3,4,7,8,9-HpCDF	2.33e5	4.07e5	1.00	NO	1.18	38.81	38.81	NO	1.000	1.000	48.626	97.3	NO
17	17 OCDF	3.94e5	9.05e5	0.87	NO	0.896	41.39	41.39	NO	1.000	1.000	97.235	97.2	NO
18	18 13C-2,3,7,8-TCDD	1.02e6	9.44e5	0.76	NO	1.06	26.34	26.33	NO	1.030	1.030	101.93	102	NO
19	19 13C-1,2,3,7,8-PeCDD	7.89e5	9.44e5	0.63	NO	0.785	31.17	31.02	NO	1.219	1.213	106.46	106	NO
20	20 13C-1,2,3,4,7,8-HxCDD	5.61e5	7.74e5	1.27	NO	0.621	34.32	34.33	NO	1.014	1.014	116.66	117	NO
21	21 13C-1,2,3,6,7,8-HxCDD	6.54e5	7.74e5	1.27	NO	0.734	34.44	34.45	NO	1.017	1.018	115.13	115	NO
22	22 13C-1,2,3,7,8,9-HxCDD	6.39e5	7.74e5	1.26	NO	0.723	34.72	34.71	NO	1.026	1.025	114.26	114	NO
23	23 13C-1,2,3,4,6,7,8-HpCDD	5.16e5	7.74e5	1.04	NO	0.568	38.22	38.18	NO	1.129	1.128	117.43	117	NO
24	24 13C-OCDD	8.97e5	7.74e5	0.89	NO	0.496	41.15	41.08	NO	1.216	1.214	233.52	117	NO
25	25 13C-2,3,7,8-TCDF	1.28e6	1.30e6	0.76	NO	0.919	25.64	25.65	NO	1.003	1.003	107.11	107	NO
26	26 13C-1,2,3,7,8-PeCDF	1.07e6	1.30e6	1.55	NO	0.715	29.89	29.77	NO	1.169	1.164	115.19	115	NO
27	27 13C-2,3,4,7,8-PeCDF	9.94e5	1.30e6	1.59	NO	0.689	30.97	30.84	NO	1.212	1.206	110.71	111	NO
28	28 13C-1,2,3,4,7,8-HxCDF	6.84e5	7.74e5	0.49	NO	0.873	33.42	33.42	NO	0.987	0.987	101.21	101	NO
29	29 13C-1,2,3,6,7,8-HxCDF	6.78e5	7.74e5	0.51	NO	0.933	33.55	33.55	NO	0.991	0.991	93.788	93.8	NO
30	30 13C-2,3,4,6,7,8-HxCDF	6.48e5	7.74e5	0.50	NO	0.843	34.22	34.21	NO	1.011	1.010	99.333	99.3	NO
31	31 13C-1,2,3,7,8,9-HxCDF	5.75e5	7.74e5	0.51	NO	0.780	35.22	35.22	NO	1.040	1.040	95.269	95.3	NO

Work Order 2002493 Page 478 of 734

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201215R2\201215R2_2.qld

Last Altered: Wednesday, December 16, 2020 7:02:10 AM Pacific Standard Time Wednesday, December 16, 2020 8:43:34 AM Pacific Standard Time

Name: 201215R2_2, Date: 15-Dec-2020, Time: 17:49:34, ID: ST201215R2_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

	# 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	4.78e5	7.74e5	0.42	NO	0.726	36.79	36.78	NO	1.087	1.087	84.936	84.9	NO
33	33 13C-1,2,3,4,7,8,9-HpCDF	4.07e5	7.74e5	0.43	NO	0.491	38.80	38.79	NO	1.146	1.146	107.04	107	NO
34	34 13C-OCDF	9.05e5	7.74e5	0.87	NO	0.565	41.37	41.38	NO	1.222	1.222	206.81	103	NO
35	35 37Cl-2,3,7,8-TCDD	1.22e5	9.44e5			1.22	26.33	26.36	NO	1.030	1.031	10.599	106	NO
36	36 13C-1,2,3,4-TCDD	9.44e5	9.44e5	0.77	NO	1.00	25.64	25.57	NO	1.000	1.000	100.00	100	NO
37	37 13C-1,2,3,4-TCDF	1.30e6	1.30e6	0.77	NO	1.00	24.13	24.07	NO	1.000	1.000	100.00	100	NO
38	38 13C-1,2,3,4,6,9-HxCDF	7.74e5	7.74e5	0.50	NO	1.00	33.92	33.85	NO	1.000	1.000	100.00	100	YES OK

Work Order 2002493 Page 479 of 734

Page 1 of 1

Dataset:

Untitled

Last Altered: Printed:

Wednesday, December 16, 2020 6:57:06 AM Pacific Standard Time Wednesday, December 16, 2020 6:57:13 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32 Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

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

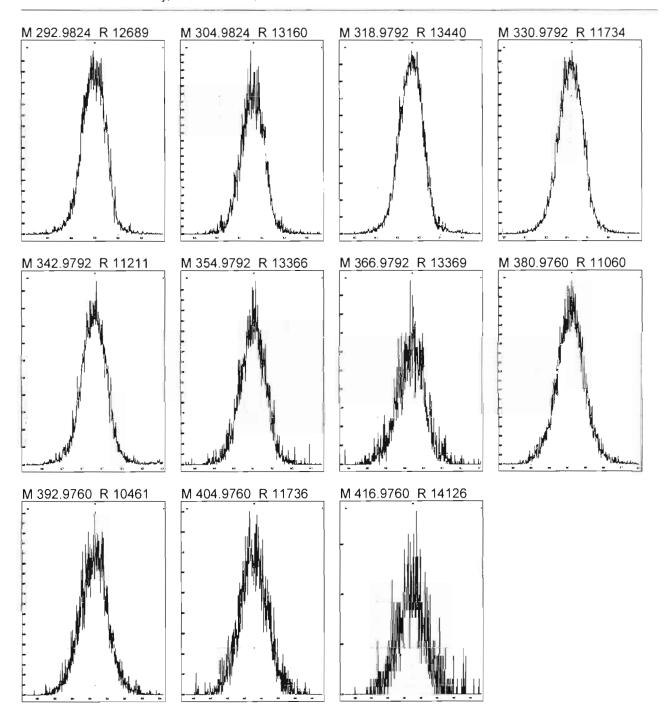
		Name	ID	Acq.Date	Acq.Time
1		201215R2_1	SOLVENT BLANK	15-Dec-20	17:05:18
2		201215R2_2	ST201215R2_1 1613 CS3 20L0301	15-Dec-20	17:49:34
3		201215R2_3	2002435-12 USMPDI-022SC-A-04-05-201108	. 15-Dec-20	18:33:52
4		201215R2_4	2002435-13 USMPDI-022SC-A-05-06-201108	. 15-Dec-20	19:18:07
5		201215R2_5	2002535-01 USMPDI-009SC-A-03-04-201112	. 15-Dec-20	20:02:21
6		201215R2_6	2002535-02 USMPDI-009SC-A-04-05-201112	. 15-Dec-20	20:46:37
7		201215R2_7	2002535-03 USMPDI-009SC-A-05-06-201112	. 15-Dec-20	21:30:52
8		201215R2_8	2002535-04 USMPDI-009SC-A-06-07-201112	. 15-Dec-20	22:15:06
9		201215R2_9	2002535-05 USMPDI-1009SC-A-04-05-20111	15-Dec-20	22:59:21
10		201215R2_10	2002493-01 USMPDI-012SC-A-01-02-201109	. 15-Dec-20	23:43:35
11	(Ā)	201215R2_11	2002493-02 USMPDI-012SC-A-02-03-201109	. 16-Dec-20	00:27:50

@ Instrument paused end rez check manually processed HN 12/16/2020

Work Order 2002493 Page 480 of 734

File: Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed: Tuesday, December 15, 2020 16:56:12 Pacific Standard Time



Work Order 2002493 Page 481 of 734

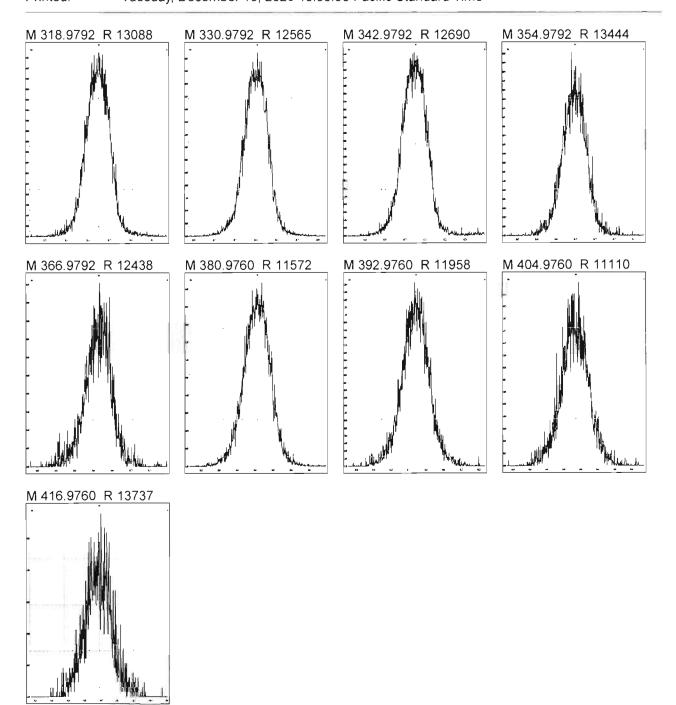
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed:

Tuesday, December 15, 2020 16:56:56 Pacific Standard Time



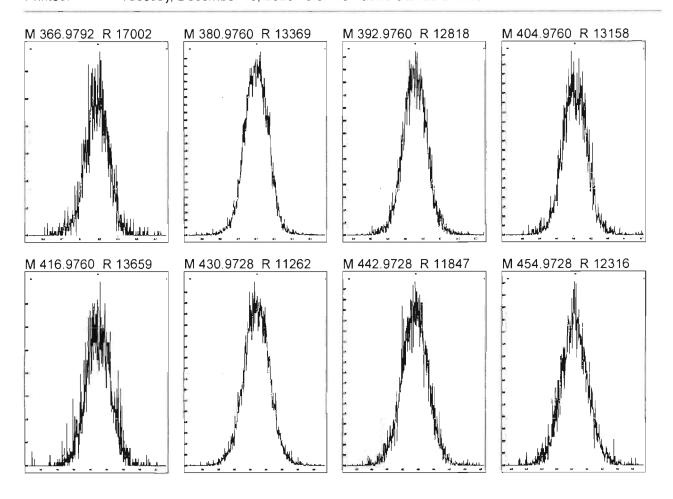
Work Order 2002493 Page 482 of 734

Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed: Tuesday, December 15, 2020 16:57:40 Pacific Standard Time



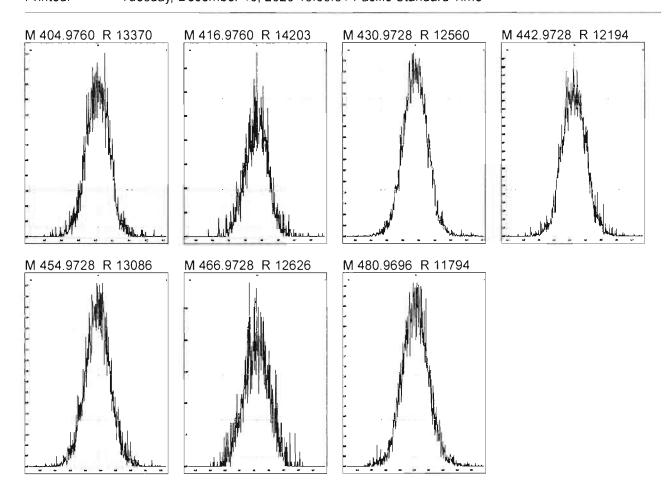
Work Order 2002493 Page 483 of 734

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 4 @ 200 (ppm)

Printed:

Tuesday, December 15, 2020 16:58:31 Pacific Standard Time



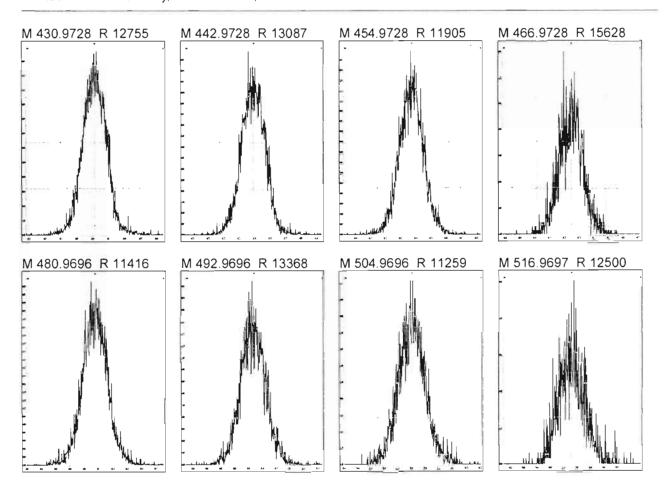
Work Order 2002493 Page 484 of 734

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed:

Tuesday, December 15, 2020 16:59:22 Pacific Standard Time



Work Order 2002493 Page 485 of 734

MassLynx 4.1 SCN815

Page 1 of 1

Dataset: Untitled

Last Altered: Wednesday, December 16, 2020 7:09:30 AM Pacific Standard Time Printed: Wednesday, December 16, 2020 7:09:42 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 11 Dec 2020 14:14:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201215R2_2, Date: 15-Dec-2020, Time: 17:49:34, ID: ST201215R2_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

	# Name	RT
1	1 1,3,6,8-TCDD (First)	22.55
2	2 1,2,8,9-TCDD (Last)	27.25
3	3 1,2,4,7,9-PeCDD (First)	28.79
4	4 1,2,3,8,9-PeCDD (Last)	31.39
5	5 1,2,4,6,7,9-HxCDD (First)	32.70
6	6 1,2,3,7,8,9-HxCDD (Last)	34.73
7	7 1,2,3,4,6,7,9-HpCDD (First)	37.17
8	8 1,2,3,4,6,7,8-HpCDD (Last)	38.19
9	9 1,3,6,8-TCDF (First)	20.29
10	10 1,2,8,9-TCDF (Last)	27.56
11	11 1,3,4,6,8-PeCDF (First)	27.13
12	12 1,2,3,8,9-PeCDF (Last)	31.76
13	13 1,2,3,4,6,8-HxCDF (First)	32.17
14	14 1,2,3,7,8,9-HxCDF (Last)	35.23
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.80
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.81

Work Order 2002493 Page 486 of 734

MassLynx 4.1 SCN815

Page 1 of 2

Vista Analytical Laboratory VG-11

Dataset:

Untitled

Last Altered: Printed:

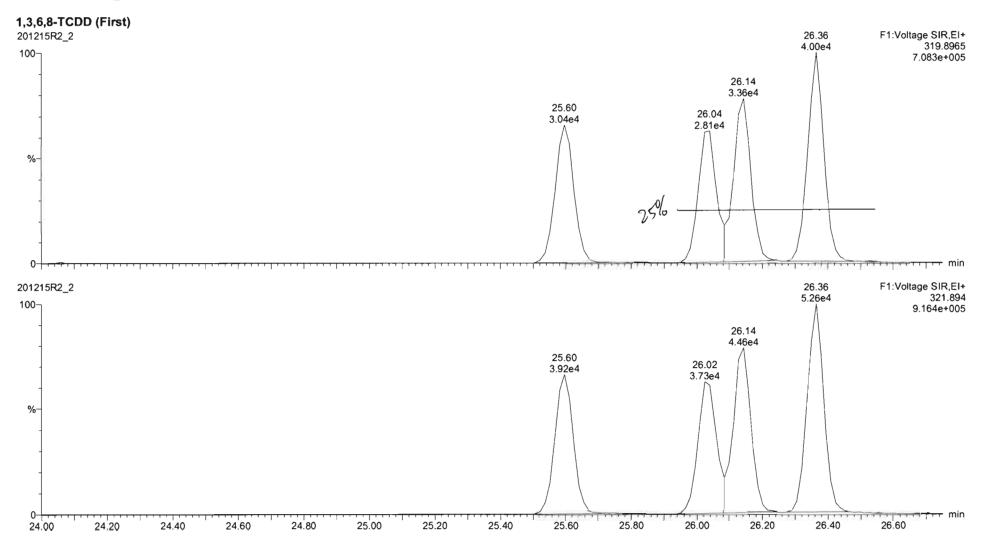
Wednesday, December 16, 2020 7:09:30 AM Pacific Standard Time Wednesday, December 16, 2020 7:09:42 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 11 Dec 2020 14:14:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

HN 12/16/2020 GPB 12/16/2020

Name: 201215R2_2, Date: 15-Dec-2020, Time: 17:49:34, ID: ST201215R2_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002493

Page 487 of 734

MassLynx 4.1 SCN815

Page 2 of 2

Vista Analytical Laboratory VG-11

Dataset:

Untitled

Last Altered: Printed:

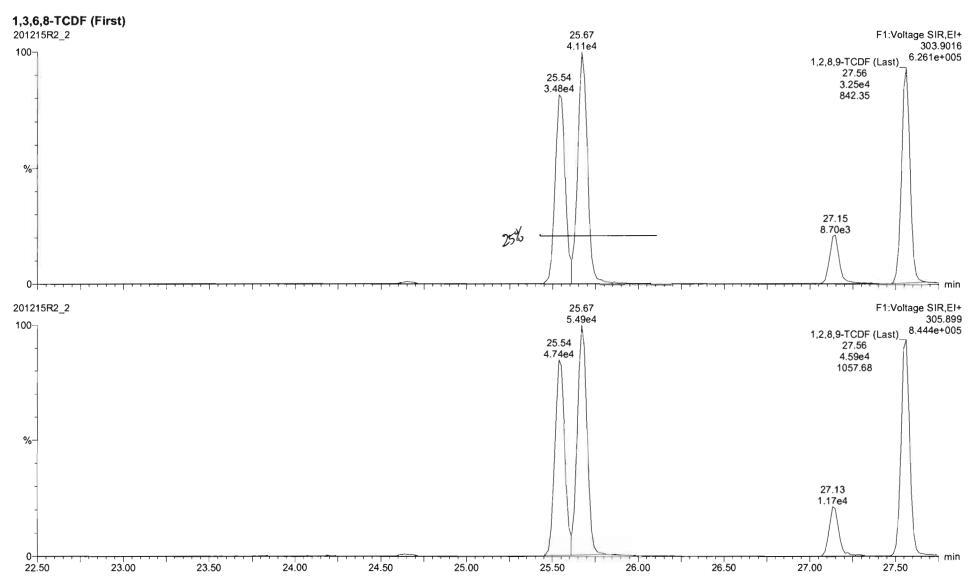
Wednesday, December 16, 2020 7:09:30 AM Pacific Standard Time

Wednesday, December 16, 2020 7:09:42 AM Pacific Standard Time

FIN 12/16/2020

GRB 12/16/2020

Name: 201215R2_2, Date: 15-Dec-2020, Time: 17:49:34, ID: ST201215R2_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002493

Page 488 of 734

Page 1 of 13

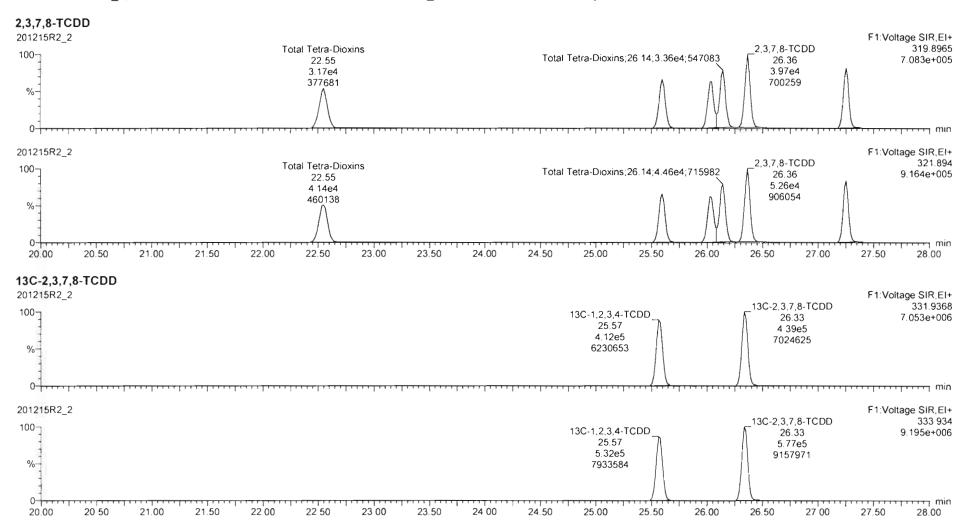
Dataset:

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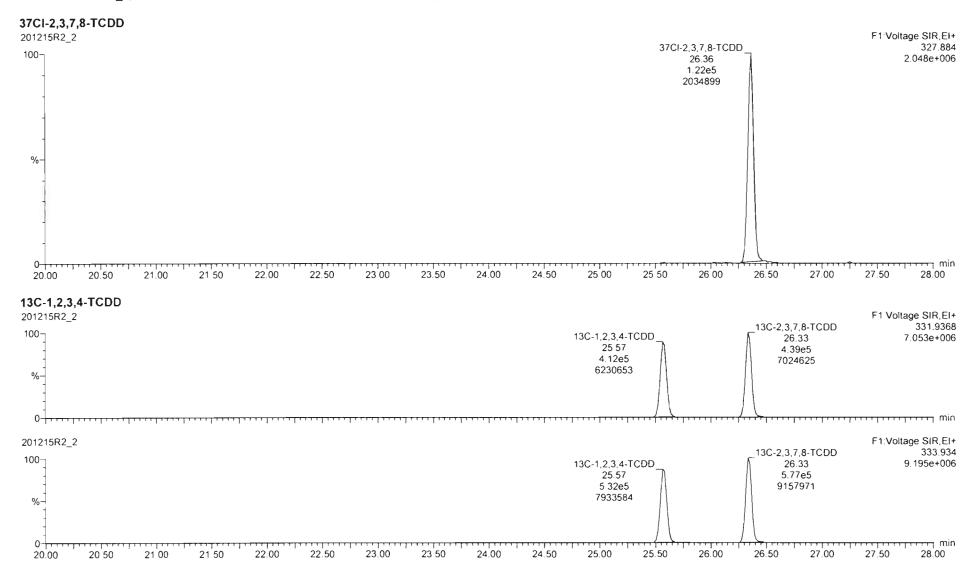
Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07



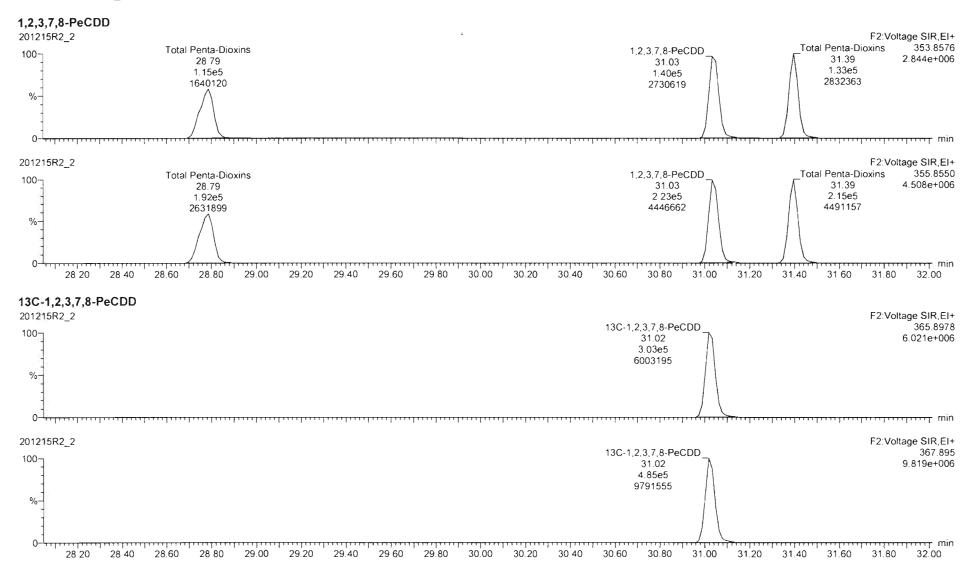
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Untitled

Last Altered: Printed: Wednesday, December 16, 2020 7:03:00 AM Pacific Standard Time Wednesday, December 16, 2020 7:03:15 AM Pacific Standard Time



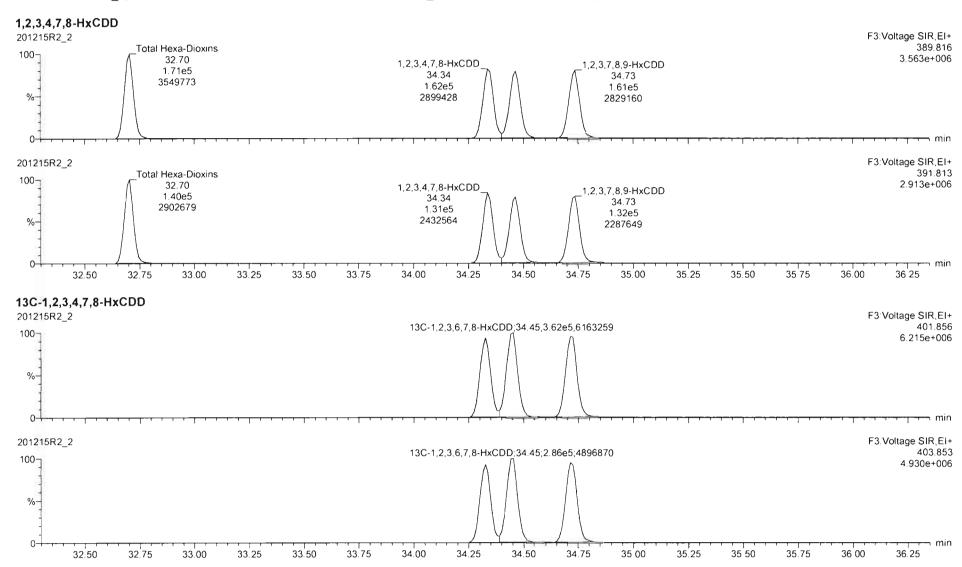
Page 4 of 13

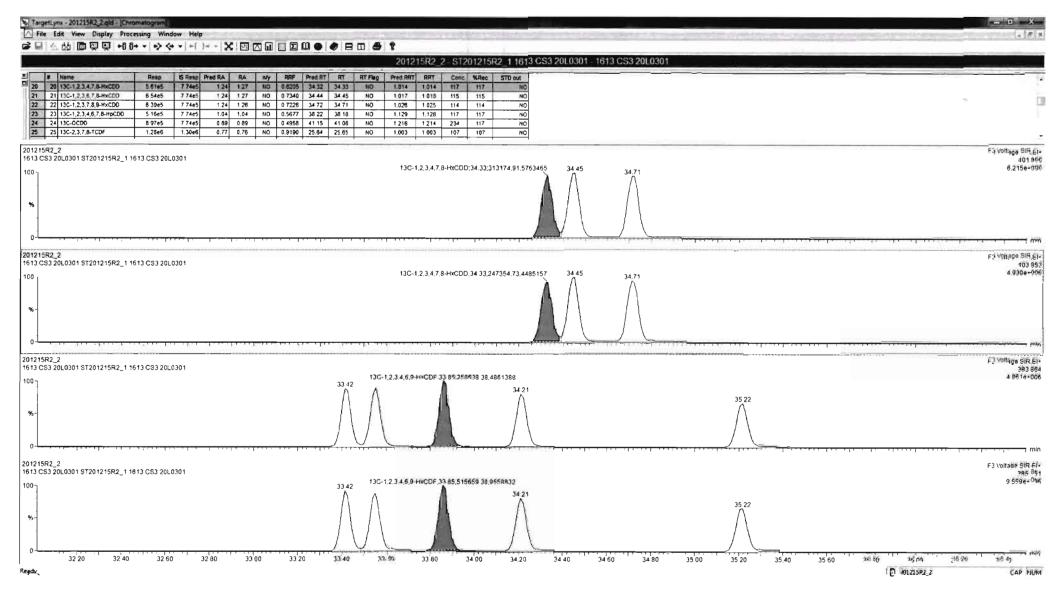
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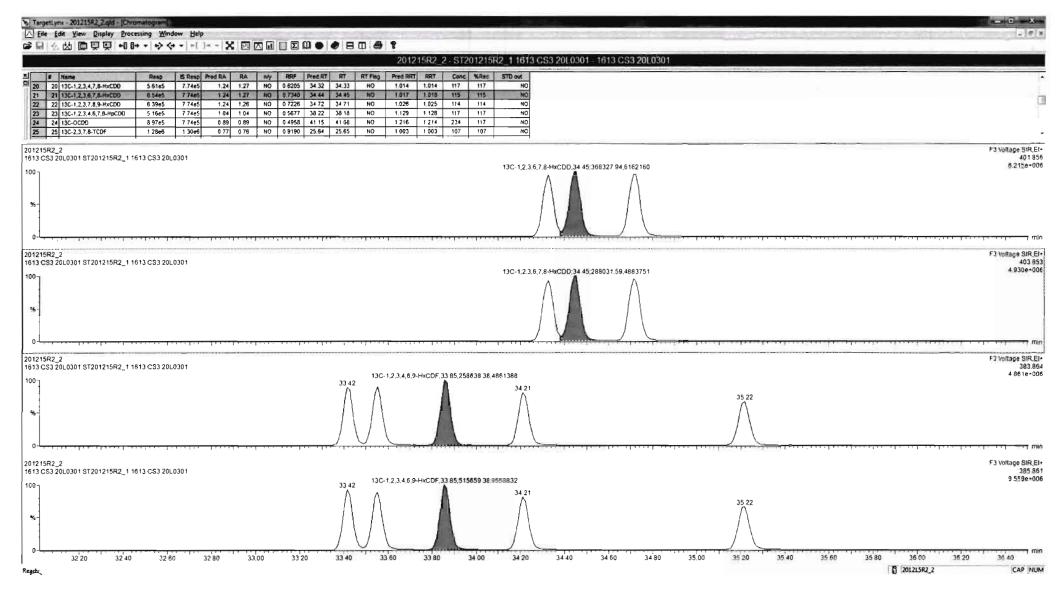
Last Altered: Printed:

Wednesday, December 16, 2020 7:03:00 AM Pacific Standard Time Wednesday, December 16, 2020 7:03:15 AM Pacific Standard Time





Work Order 2002493 Page 493 of 734



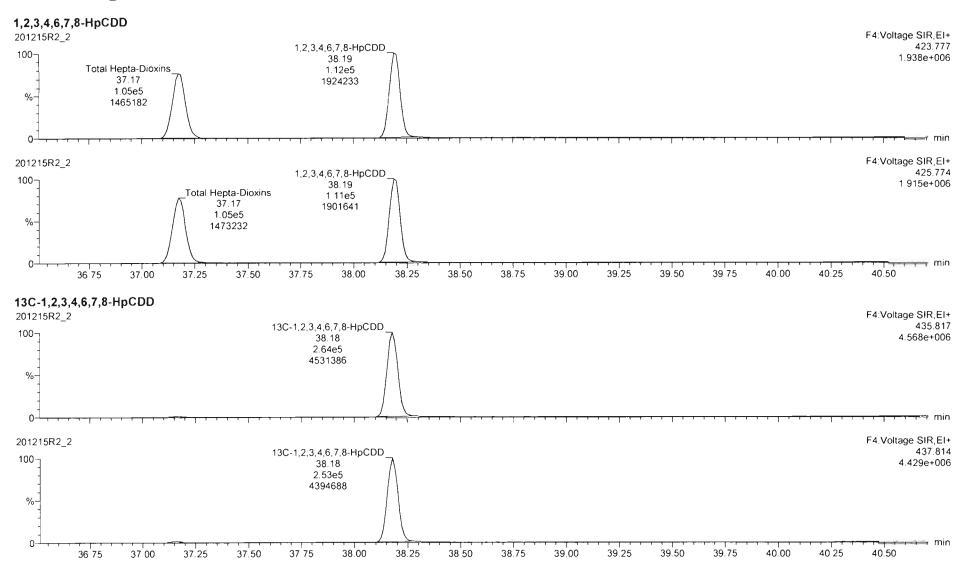
Work Order 2002493 Page 494 of 734

Untitled

Last Altered: Printed:

Wednesday, December 16, 2020 7:03:00 AM Pacific Standard Time

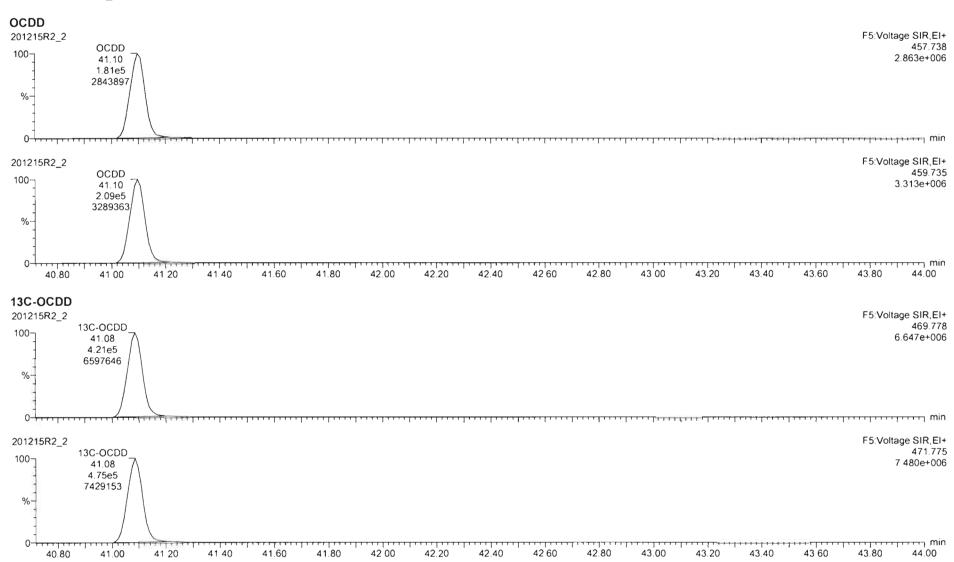
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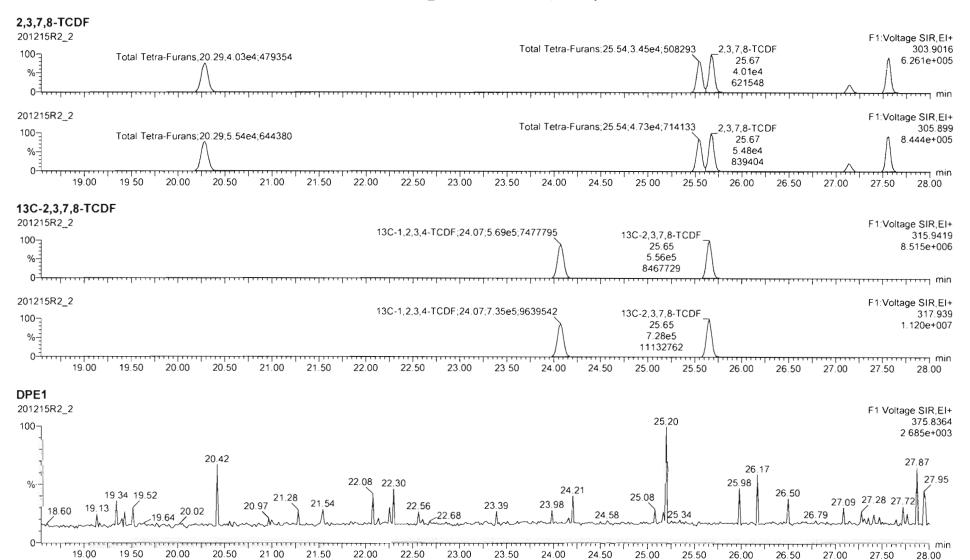
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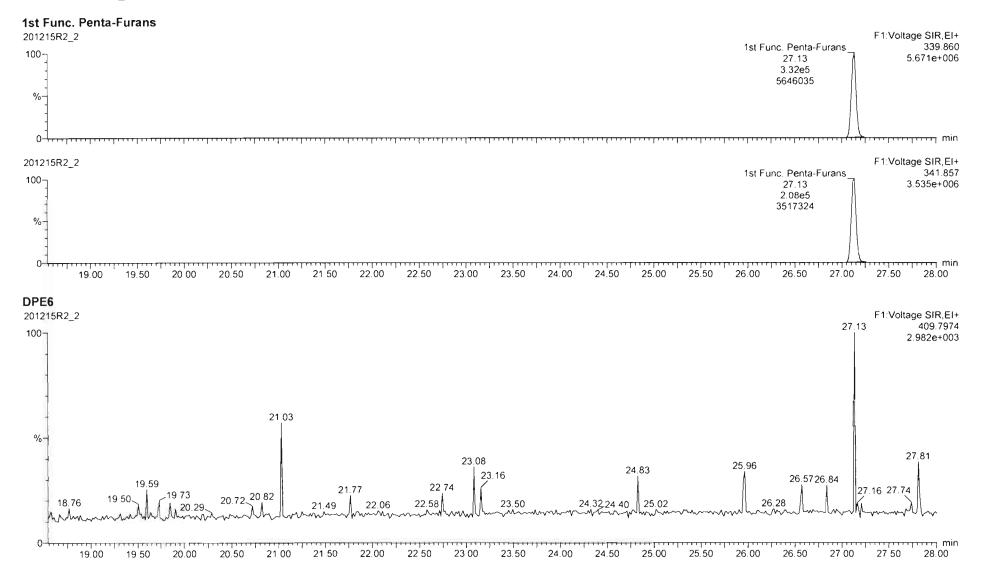
Wednesday, December 16, 2020 7:03:00 AM Pacific Standard Time Wednesday, December 16, 2020 7:03:15 AM Pacific Standard Time



Untitled

Last Altered: Printed:

Wednesday, December 16, 2020 7:03:00 AM Pacific Standard Time Wednesday, December 16, 2020 7:03:15 AM Pacific Standard Time



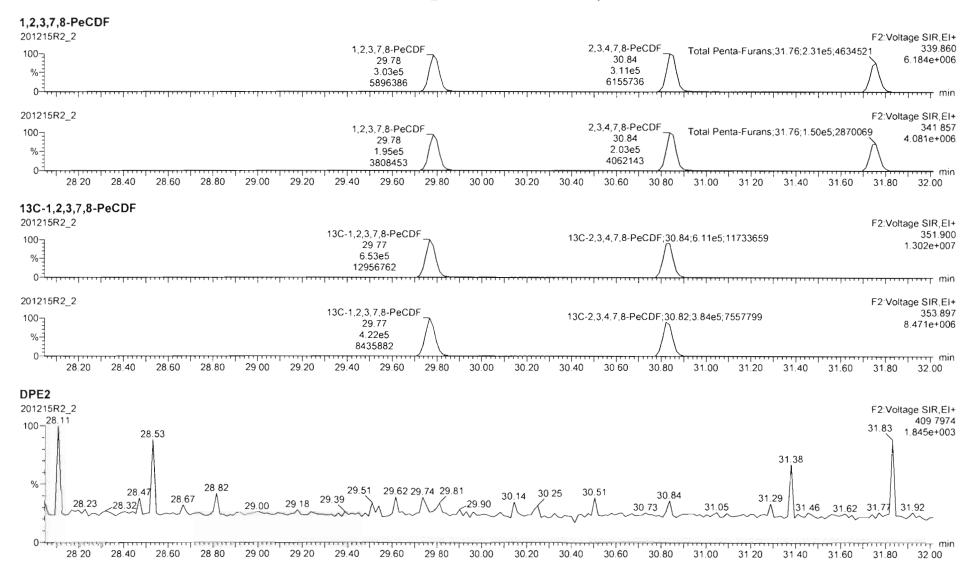
Page 9 of 13

Dataset:

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Last Altered: Printed: Wednesday, December 16, 2020 7:03:00 AM Pacific Standard Time

Wednesday, December 16, 2020 7:03:15 AM Pacific Standard Time

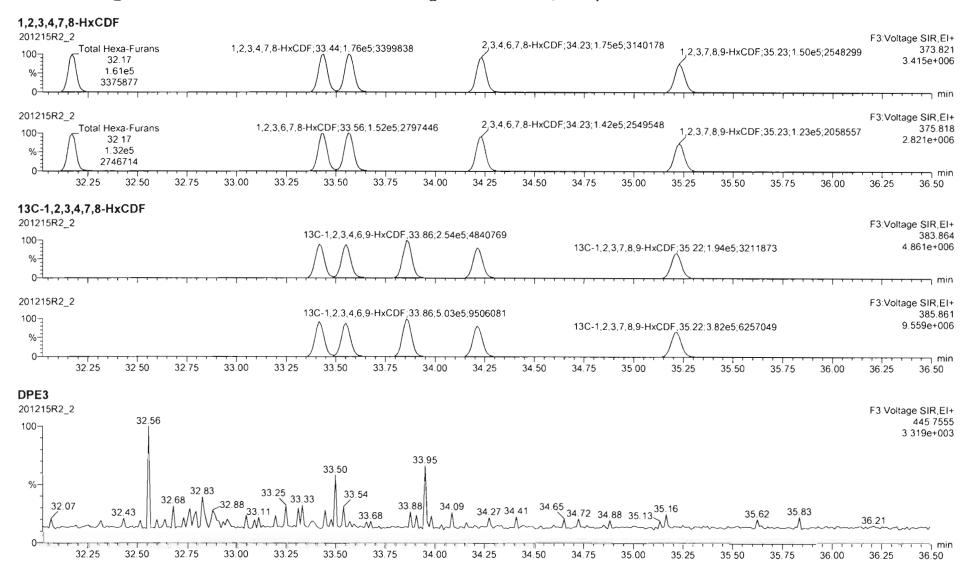


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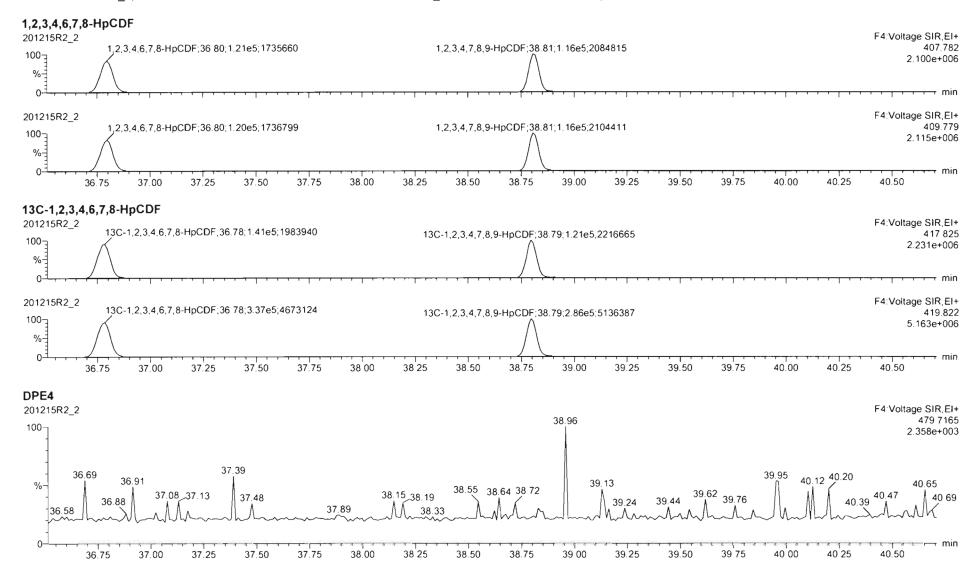
Wednesday, December 16, 2020 7:03:00 AM Pacific Standard Time

Wednesday, December 16, 2020 7:03:15 AM Pacific Standard Time



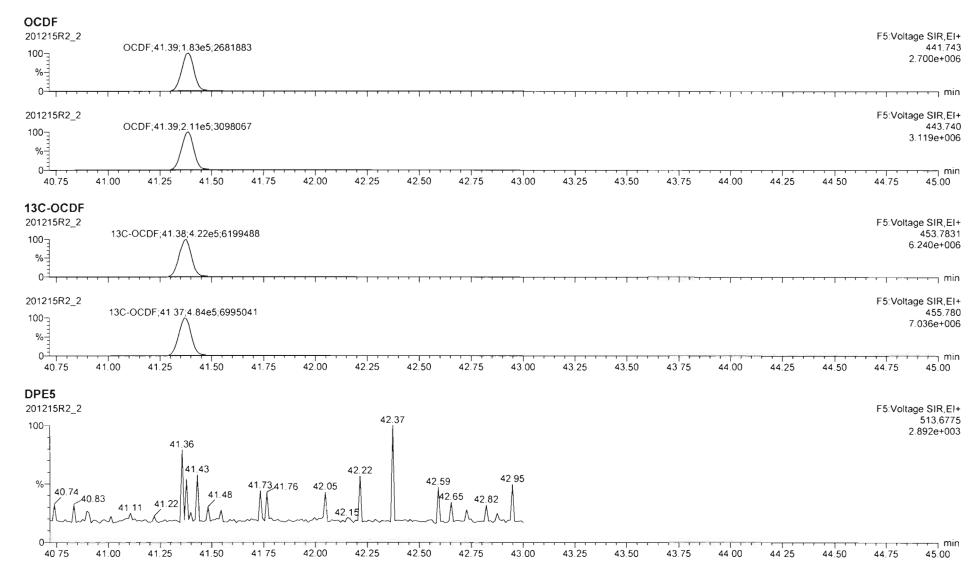
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Last Altered: Printed: Wednesday, December 16, 2020 7:03:00 AM Pacific Standard Time Wednesday, December 16, 2020 7:03:15 AM Pacific Standard Time



Untitled

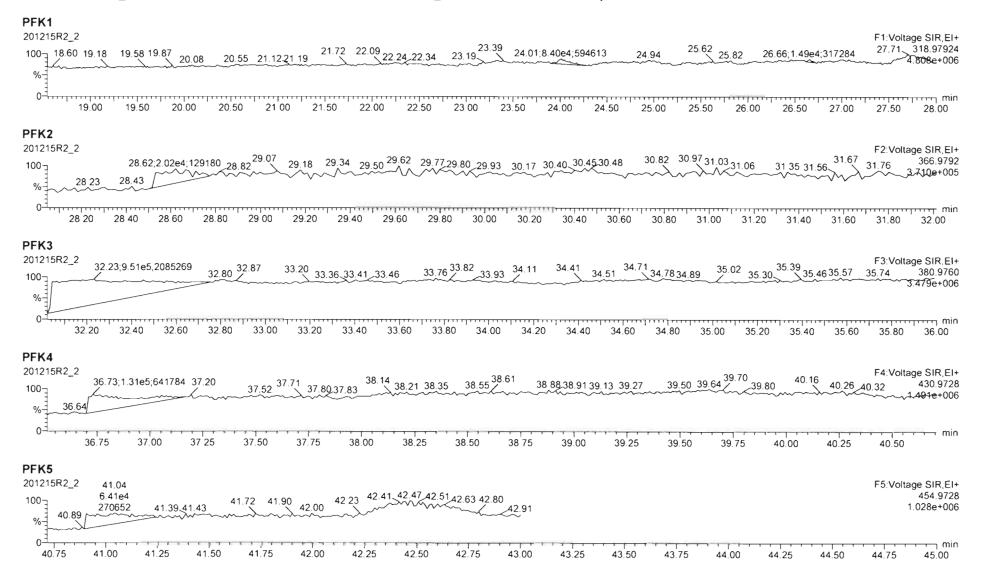
Last Altered: Printed: Wednesday, December 16, 2020 7:03:00 AM Pacific Standard Time Wednesday, December 16, 2020 7:03:15 AM Pacific Standard Time



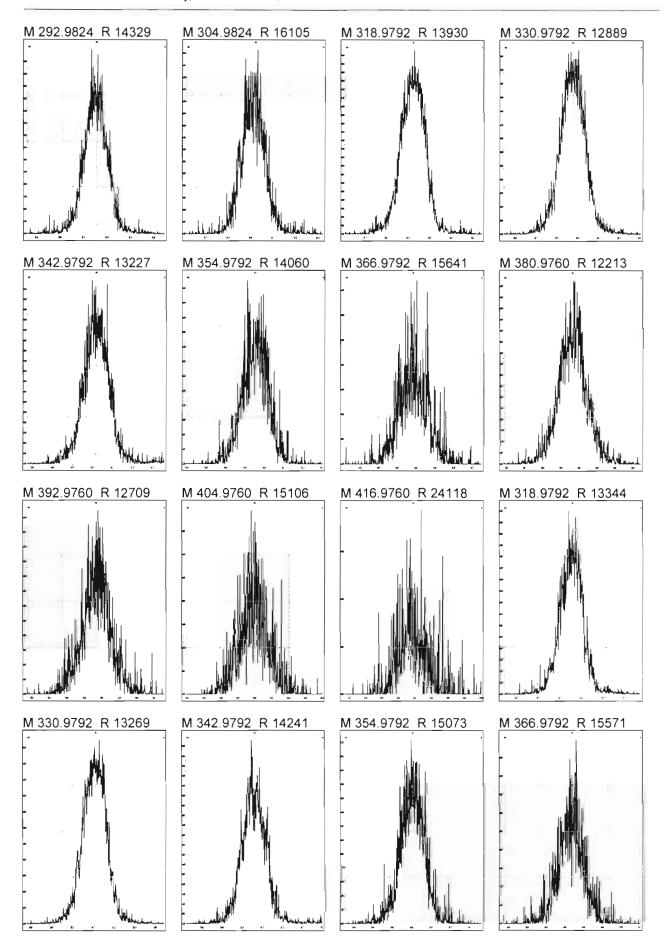
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Last Altered: Printed:

Wednesday, December 16, 2020 7:03:00 AM Pacific Standard Time Wednesday, December 16, 2020 7:03:15 AM Pacific Standard Time



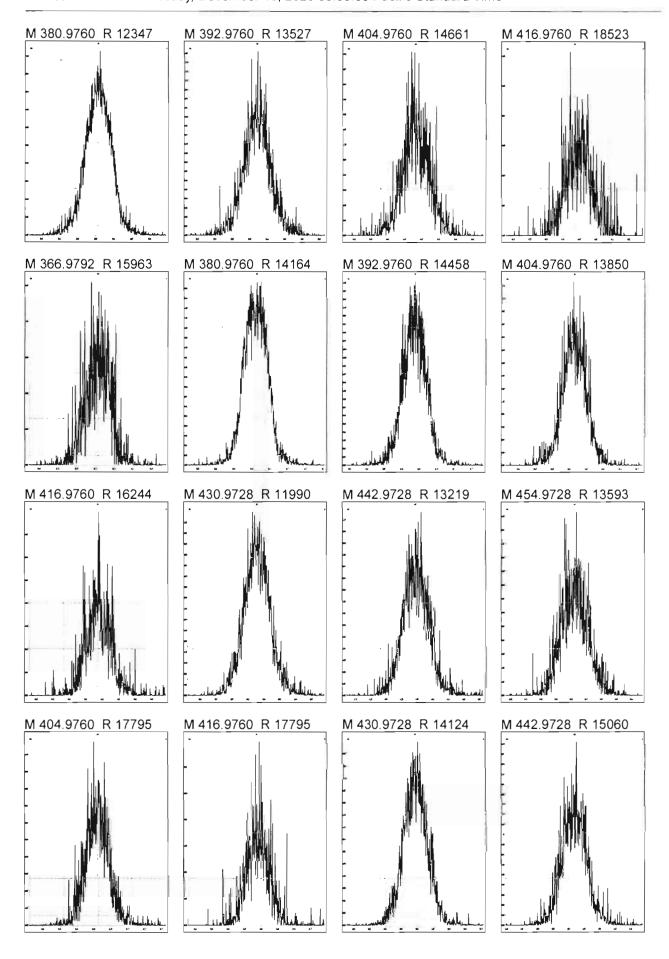
Wednesday, December 16, 2020 06:55:53 Pacific Standard Time



Work Order 2002493 Page 504 of 734

Printed:

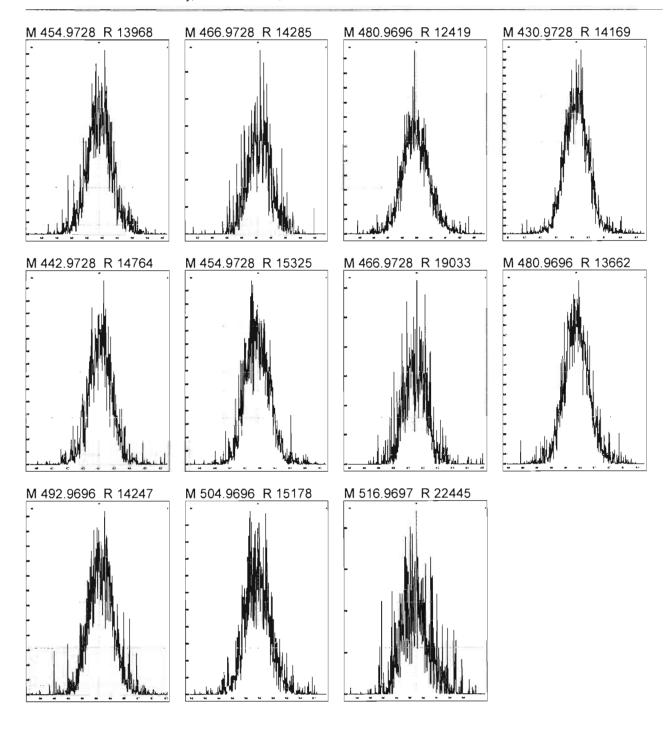
Wednesday, December 16, 2020 06:55:53 Pacific Standard Time



Work Order 2002493 Page 505 of 734

Printed:

Wednesday, December 16, 2020 06:55:53 Pacific Standard Time



Work Order 2002493 Page 506 of 734

...... SALIBRATION STANDARDS REVIEW CHECKLIST

Beg. Calbration ID: 57201216R1_1			Reviewed By:	
End Calibration ID:NA	_		initials & Date	
	Beg.	End	ř <u>.</u> s	Beg. End
Ion abundance within QC limits?		NA	Mass resolution ≥	J J
Concentrations within criteria?	Ø	中	□ 5k □ 6-8K □ 8K □ 1 0K 1614 1699 429 1613/1668/8280	
TCDD/TCDF Vaileys <25%	V		intergrated peaks display correctly?	VA VA
First and last eluters present?			GC Break <20%	
Retention Times within criteriá?		Ф	8280 CS1 End Standard:	
Verification Std. named correctly?	abla	中	- Ratios within limits, S/N <2.54, CS1 within 12 hours	AN
(ST-Year-Month-Day-VG ID)			· · · · · · · · · · · · · · · · · · ·	
Forms signed and dated?	V	中	Comments:	
Correct ICAL referenced?	HN			Α
Run Log:			.,	
- Correct instrument listed?				*
- Samples within 12 hour clock?	Y	N		
- Bottle position verfied?	HN	,		

ID: LR - HCSRC

Rev. No.: 0 Rev. Date: 06/06/2017

Page: 1 of 1

MassLynx 4.1 SCN815

Page 1 of 2

Dataset: U:\VG12.PRO\Results\201216R1\201216R1_1.qld

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FIN 12/16/2020 GPE 12/18/2020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201216R1_1, Date: 16-Dec-2020, Time: 08:12:18, ID: ST201216R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

	# 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	6.14e4	6.98e5	0.75	NO	0.980	26.38	26.36	NO	1.001	1.001	8.9783	89.8	NO
2	2 1,2,3,7,8-PeCDD	2.25e5	4.90e5	0.60	NO	0.932	31.06	31.05	NO	1.001	1.000	49.250	98.5	NO
3	3 1,2,3,4,7,8-HxCDD	1.97e5	3.77e5	1.23	NO	1.02	34.36	34.35	NO	1.001	1.000	51.186	102	NO
4	4 1,2,3,6,7,8-HxCDD	1.98e5	4.39e5	1.24	NO	0.902	34.47	34.46	NO	1.001	1.000	49.964	99.9	NO
5	5 1,2,3,7,8,9-HxCDD	1.99e5	4.27e5	1.22	NO	0.954	34.73	34.73	NO	1.000	1.000	48.801	97.6	NO
6	6 1,2,3,4,6,7,8-HpCDD	1.49e5	3.52e5	1.03	NO	0.918	38.20	38.20	NO	1.000	1.000	46.205	92.4	NO
7	7 OCDD	2.55e5	5.86e5	0.84	NO	0.866	41.10	41.10	NO	1.000	1.000	100.32	100	NO
8	8 2,3,7,8-TCDF	5.94e4	8.28e5	0.73	NO	0.848	25.66	25.67	NO	1.000	1.001	8.4520	84.5	NO
9	9 1,2,3,7,8-PeCDF	3.11e5	6.79e5	1.55	NO	0.960	29.78	29.80	NO	1.000	1.001	47.775	95.6	NO
10	10 2,3,4,7,8-PeCDF	3.07e5	6.22e5	1.53	NO	1.07	30.86	30.85	NO	1.001	1.000	46.245	92.5	NO
11	11 1,2,3,4,7,8-HxCDF	2.11e5	4.55e5	1.21	NO	0.986	33.44	33.44	NO	1.000	1.000	47.080	94.2	NO
12	12 1,2,3,6,7,8-HxCDF	2.26e5	4.61e5	1.22	NO	1.04	33.58	33.57	NO	1.001	1.000	47.226	94.5	NO
13	13 2,3,4,6,7,8-HxCDF	2.09e5	4.33e5	1.21	NO	1.02	34.24	34.24	NO	1.001	1.001	47.403	94.8	NO
14	14 1,2,3,7,8,9-HxCDF	1.82e5	3.89e5	1.22	NO	0.991	35.23	35.24	NO	1.000	1.001	47.243	94.5	NO
15	15 1,2,3,4,6,7,8-HpCDF	1.59e5	3.18e5	1.00	NO	1.05	36.80	36.80	NO	1.000	1.000	47.779	95.6	NO
16	16 1,2,3,4,7,8,9-HpCDF	1.44e5	2.54e5	1.00	NO	1.18	38.82	38.82	NO	1.000	1.000	48.310	96.6	NO
17	17 OCDF	2.60e5	6.01e5	0.88	NO	0.896	41.40	41.40	NO	1.000	1.000	96.739	96.7	NO
18	18 13C-2,3,7,8-TCDD	6.98e5	6.11e5	0.77	NO	1.06	26.35	26.35	NO	1.030	1.030	108.14	108	NO
19	19 13C-1,2,3,7,8-PeCDD	4.90e5	6.11e5	0.63	NO	0.785	31.19	31.03	NO	1.219	1.213	102.12	102	NO
20	20 13C-1,2,3,4,7,8-HxCDD	3.77e5	5.20e5	1.27	NO	0.621	34.33	34.34	NO	1.014	1.014	116.74	117	NO
21	21 13C-1,2,3,6,7,8-HxCDD	4.39e5	5.20e5	1.28	NO	0.734	34.45	34.45	NO	1.017	1.017	114.92	115	NO
22	22 13C-1,2,3,7,8,9-HxCDD	4.27e5	5.20e5	1.26	NO	0.723	34.73	34.72	NO	1.026	1.025	113.58	114	NO
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.52e5	5.20e5	1.01	NO	0.568	38.23	38.19	NO	1.129	1.128	119.13	119	NO
24	24 13C-OCDD	5.86e5	5.20e5	0.93	NO	0.496	41.17	41.09	NO	1.216	1.213	227.07	114	NO
25	25 13C-2,3,7,8-TCDF	8.28e5	8.55e5	0.75	NO	0.919	25.65	25.65	NO	1.003	1.003	105.42	105	NO
26	26 13C-1,2,3,7,8-PeCDF	6.79e5	8.55e5	1.53	NO	0.715	29.90	29.78	NO	1.169	1.164	111.12	111	NO
27	27 13C-2,3,4,7,8-PeCDF	6.22e5	8.55e5	1.57	NO	0.689	30.99	30.84	NO	1.212	1.205	105.76	106	NO
28	28 13C-1,2,3,4,7,8-HxCDF	4.55e5	5.20e5	0.49	NO	0.873	33.43	33.43	NO	0.987	0.987	100.08	100	NO
29	29 13C-1,2,3,6,7,8-HxCDF	4.61e5	5.20e5	0.51	NO	0.933	33.56	33.56	NO	0.991	0.991	94.942	94.9	NO
30	30 13C-2,3,4,6,7,8-HxCDF	4.33e5	5.20e5	0.50	NO	0.843	34.23	34.22	NO	1.011	1.011	98.608	98.6	NO
31	31 13C-1,2,3,7,8,9-HxCDF	3.89e5	5.20e5	0.50	NO	0.780	35.23	35.22	NO	1.040	1.040	95.925	95.9	NO

Work Order 2002493 Page 508 of 734

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201216R1\201216R1_1.qld

Last Altered: Wednesday, December 16, 2020 9:06:01 AM Pacific Standard Time Wednesday, December 16, 2020 9:37:24 AM Pacific Standard Time

Name: 201216R1_1, Date: 16-Dec-2020, Time: 08:12:18, ID: ST201216R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

	# 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	3.18e5	5.20e5	0.41	NO	0.726	36.80	36.78	NO	1.087	1.086	84.112	84.1	NO
33	33 13C-1,2,3,4,7,8,9-HpCDF	2.54e5	5.20e5	0.42	NO	0.491	38.81	38.81	NO	1.146	1.146	99.237	99.2	NO
34	34 13C-OCDF	6.01e5	5.20e5	0.87	NO	0.565	41.38	41.39	NO	1.222	1.222	204.13	102	NO
35	35 37CI-2,3,7,8-TCDD	8.38e4	6.11e5			1.22	26.35	26.36	NO	1.030	1.031	11.269	113	NO
36	36 13C-1,2,3,4-TCDD	6.11e5	6.11e5	0.77	NO	1.00	25.64	25.58	NO	1.000	1.000	100.00	100	NO
37	37 13C-1,2,3,4-TCDF	8.55e5	8.55e5	0.78	NO	1.00	24.13	24.07	NO	1.000	1.000	100.00	100	NO
38	38 13C-1,2,3,4,6,9-HxCDF	5.20e5	5.20e5	0.49	NO	1.00	33.92	33.87	NO	1.000	1.000	100.00	100	YES D

Work Order 2002493 Page 509 of 734

Vista Analytical Laboratory VG-11

Dataset:

Untitled

Last Altered: Printed:

Thursday, December 17, 2020 2:57:39 PM Pacific Standard Time Thursday, December 17, 2020 3:06:08 PM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32 Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

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

	Name	ID	Acq.Date	Acq.Time
1	201216R1_1	ST201216R1_1 1613 CS3 20L0301	16-Dec-20	08:12:18
2	201216R1_2	B0L0004-BS1 OPR 1	16-Dec-20	09:03:16
3	201216R1_3	SOLVENT BLANK	16-Dec-20	10:00:23
4	201216R1_4	B0L0004-BLK1 Method Blank 1	16-Dec-20	10:44:59
5	201216R1_5	2002493-03 USMPDI-012SC-A-03-04-201109	16-Dec-20	11:30:00
6	201216R1_6	2002493-04 USMPDI-012SC-A-04-05-201109	16-Dec-20	12:15:26
7	201216R1_7	2002493-05 USMPDI-014SC-A-10-11-201109	16-Dec-20	13:00:35
8	201216R1_8	2002493-06 USMPDI-014SC-A-11-12-201109	16-Dec-20	13:46:13
9	201216R1_9	2002493-07 USMPDI-014SC-A-12-13-201109	16-Dec-20	14:31:33
10	201216R1_10	2002493-08 USMPDI-014SC-A-13-14-201109	16-Dec-20	15:17:22
11	201216R1_11	2002493-09 USMPDI-057SC-A-03-04-201109	16-Dec-20	16:03:03
12	201216R1_12	2002493-10 USMPDI-057SC-A-04-05-201109	16-Dec-20	16:47:18
13	201216R1_13	2002493-11 USMPDI-057SC-A-05-06-201109	16-Dec-20	17:31:33
14	201216R1_14	2002493-12 USMPDI-057SC-A-06-07-201109	16-Dec-20	18:15:49

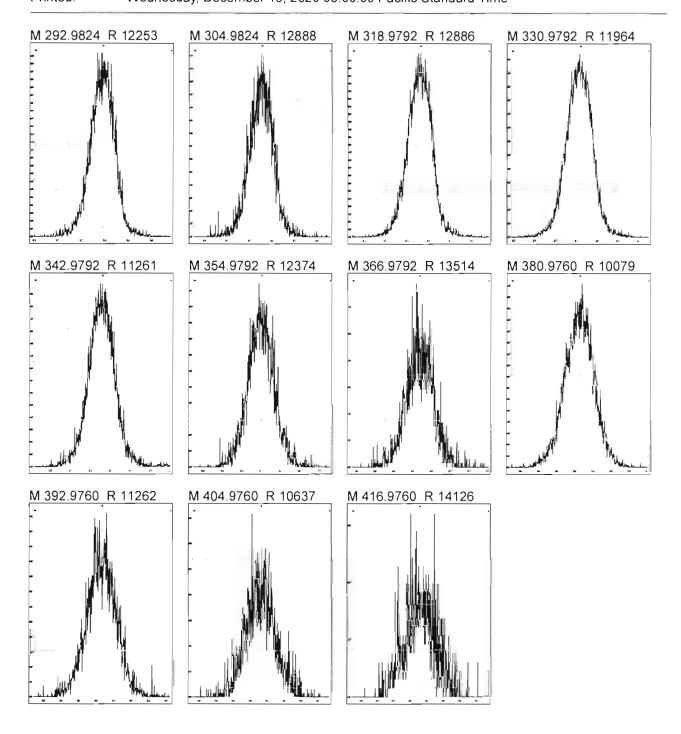
Work Order 2002493 Page 510 of 734

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed:

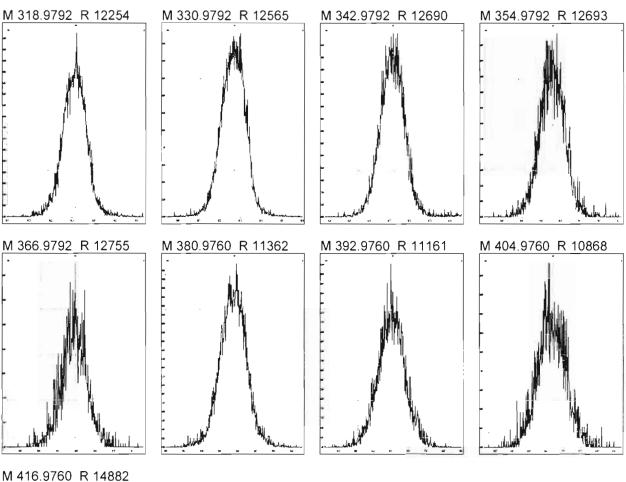
Wednesday, December 16, 2020 08:00:09 Pacific Standard Time

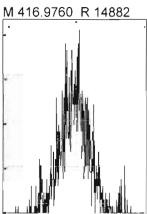


Work Order 2002493 Page 511 of 734

File: Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed: Wednesday, December 16, 2020 08:02:15 Pacific Standard Time





Work Order 2002493 Page 512 of 734

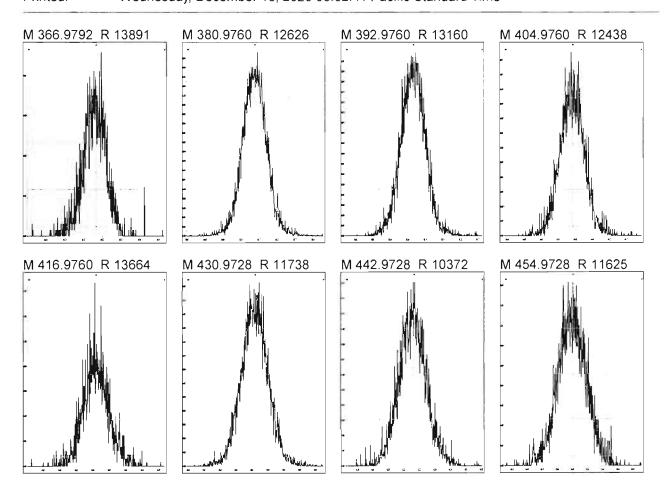
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed:

Wednesday, December 16, 2020 08:02:41 Pacific Standard Time



Work Order 2002493 Page 513 of 734

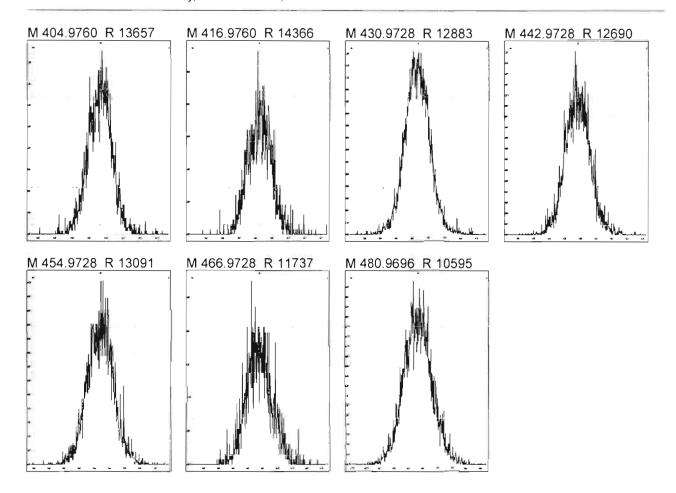
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 4 @ 200 (ppm)

Printed:

Wednesday, December 16, 2020 08:03:07 Pacific Standard Time



Work Order 2002493 Page 514 of 734

MassLynx 4.1 SCN815

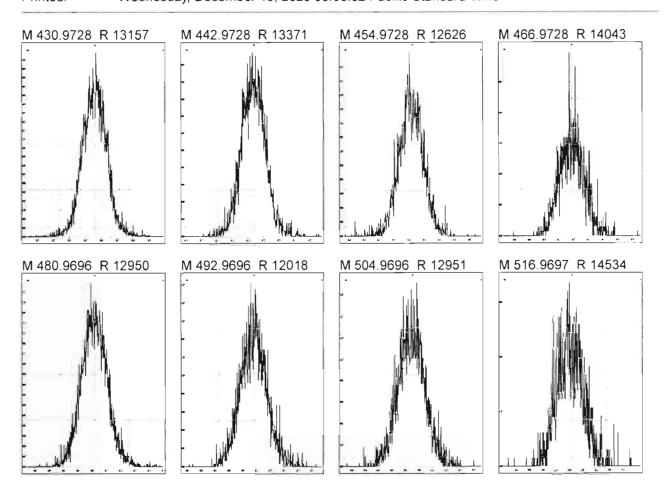
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed:

Wednesday, December 16, 2020 08:03:32 Pacific Standard Time



Work Order 2002493 Page 515 of 734

Dataset: U:\VG12.PRO\Results\201216R1\201216R1_CPSM.qld

Last Altered: Wednesday, December 16, 2020 9:39:38 AM Pacific Standard Time Printed: Wednesday, December 16, 2020 9:41:12 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 11 Dec 2020 14:14:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201216R1_1, Date: 16-Dec-2020, Time: 08:12:18, ID: ST201216R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

	# Name	RT
1	1 1,3,6,8-TCDD (First)	22.53
2	2 1,2,8,9-TCDD (Last)	27.27
3	3 1,2,4,7,9-PeCDD (First)	28.80
4	4 1,2,3,8,9-PeCDD (Last)	31.41
5	5 1,2,4,6,7,9-HxCDD (First)	32.71
6	6 1,2,3,7,8,9-HxCDD (Last)	34.73
7	7 1,2,3,4,6,7,9-HpCDD (First)	37.18
8	8 1,2,3,4,6,7,8-HpCDD (Last)	38.20
9	9 1,3,6,8-TCDF (First)	20.27
10	10 1,2,8,9-TCDF (Last)	27.56
11	11 1,3,4,6,8-PeCDF (First)	27.13
12	12 1,2,3,8,9-PeCDF (Last)	31.76
13	13 1,2,3,4,6,8-HxCDF (First)	32.18
14	14 1,2,3,7,8,9-HxCDF (Last)	35.24
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.80
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.82

Work Order 2002493 Page 516 of 734

Quantify Sample Report MassLynx 4.1 SCN815

Page 1 of 2

Vista Analytical Laboratory VG-11

Dataset: U:\VG12.PRO\Results\201216R1\201216R1_CPSM.qld

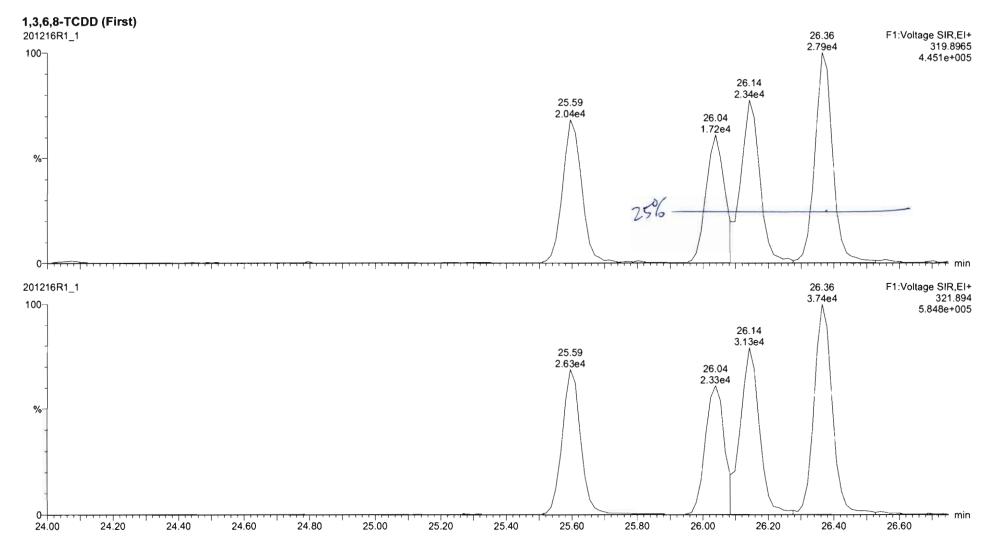
Last Altered: Wednesday, December 16, 2020 9:39:38 AM Pacific Standard Time Printed: Wednesday, December 16, 2020 9:41:12 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 11 Dec 2020 14:14:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

HN 12/16/2020 GRB 12/18/2020

Name: 201216R1_1, Date: 16-Dec-2020, Time: 08:12:18, ID: ST201216R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002493 Page 517 of 734

Quantify Sample Report

MassLynx 4.1 SCN815

Page 2 of 2

Vista Analytical Laboratory VG-11

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_CPSM.qld

Last Altered:

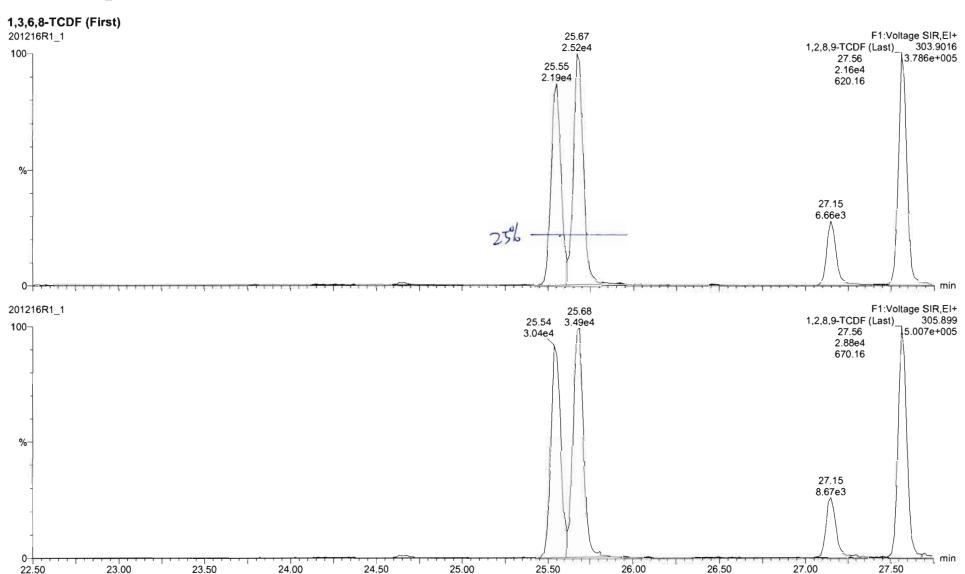
Wednesday, December 16, 2020 9:39:38 AM Pacific Standard Time

Printed:

Wednesday, December 16, 2020 9:41:12 AM Pacific Standard Time

FIN 12/16/2020 GRB 12/18/2020

Name: 201216R1_1, Date: 16-Dec-2020, Time: 08:12:18, ID: ST201216R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_1.qld

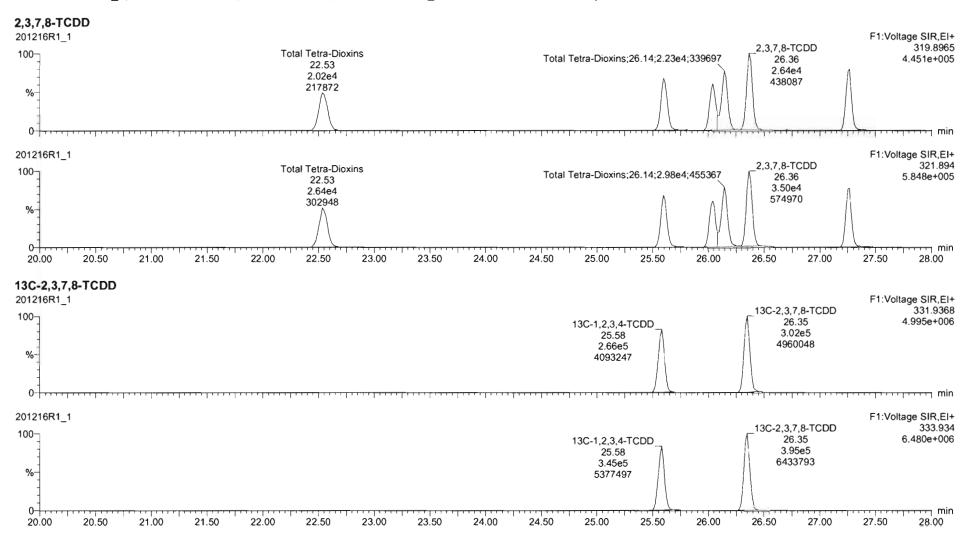
Last Altered: Printed:

Wednesday, December 16, 2020 9:06:01 AM Pacific Standard Time Wednesday, December 16, 2020 9:36:50 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN 1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201216R1_1, Date: 16-Dec-2020, Time: 08:12:18, ID: ST201216R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Vista Analytical Laboratory

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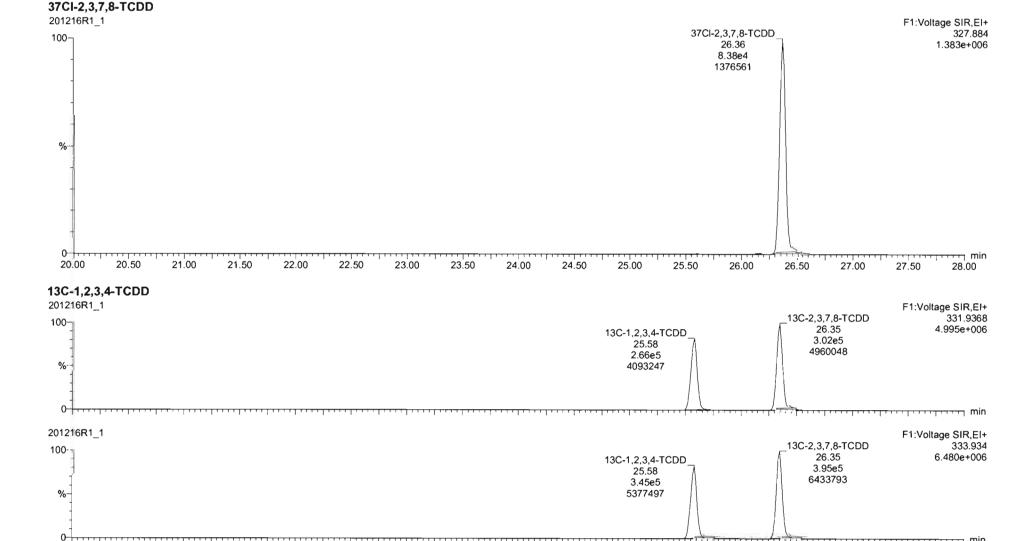
23.50

Page 2 of 13

Dataset: U:\VG12.PRO\Results\201216R1\201216R1_1.qld

Last Altered: Wednesday, December 16, 2020 9:06:01 AM Pacific Standard Time Printed: Wednesday, December 16, 2020 9:36:50 AM Pacific Standard Time

Name: 201216R1_1, Date: 16-Dec-2020, Time: 08:12:18, ID: ST201216R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002493 Page 520 of 734

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Quantify Sample Report Vista Analytical Laboratory

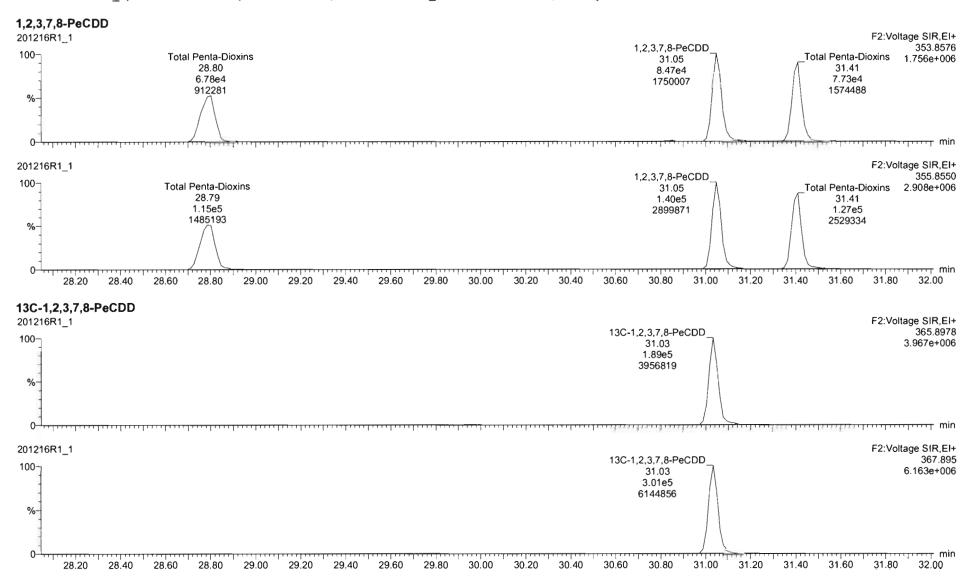
Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_1.qld

Last Altered: Printed:

Wednesday, December 16, 2020 9:06:01 AM Pacific Standard Time Wednesday, December 16, 2020 9:36:50 AM Pacific Standard Time

Name: 201216R1_1, Date: 16-Dec-2020, Time: 08:12:18, ID: ST201216R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002493 Page 521 of 734

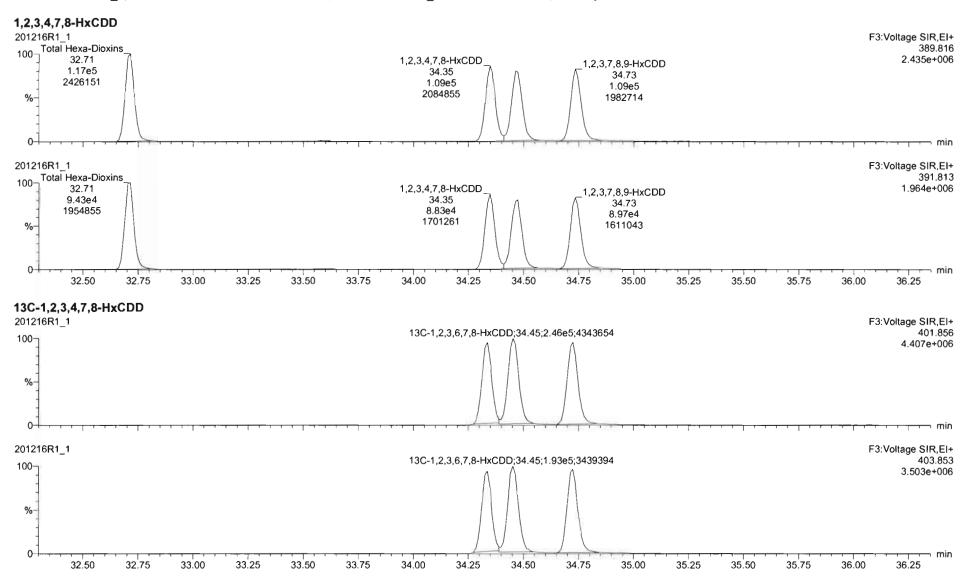
Quantify Sample Report Vista Analytical Laboratory

Page 4 of 13

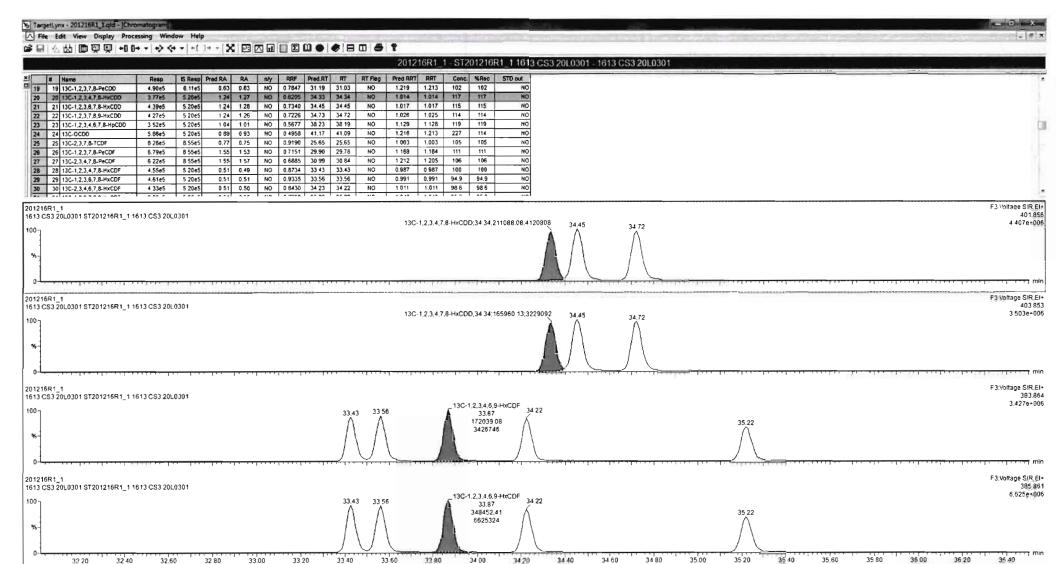
Dataset: U:\VG12.PRO\Results\201216R1\201216R1_1.qld

Last Altered: Wednesday, December 16, 2020 9:06:01 AM Pacific Standard Time Printed: Wednesday, December 16, 2020 9:36:50 AM Pacific Standard Time

Name: 201216R1_1, Date: 16-Dec-2020, Time: 08:12:18, ID: ST201216R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002493

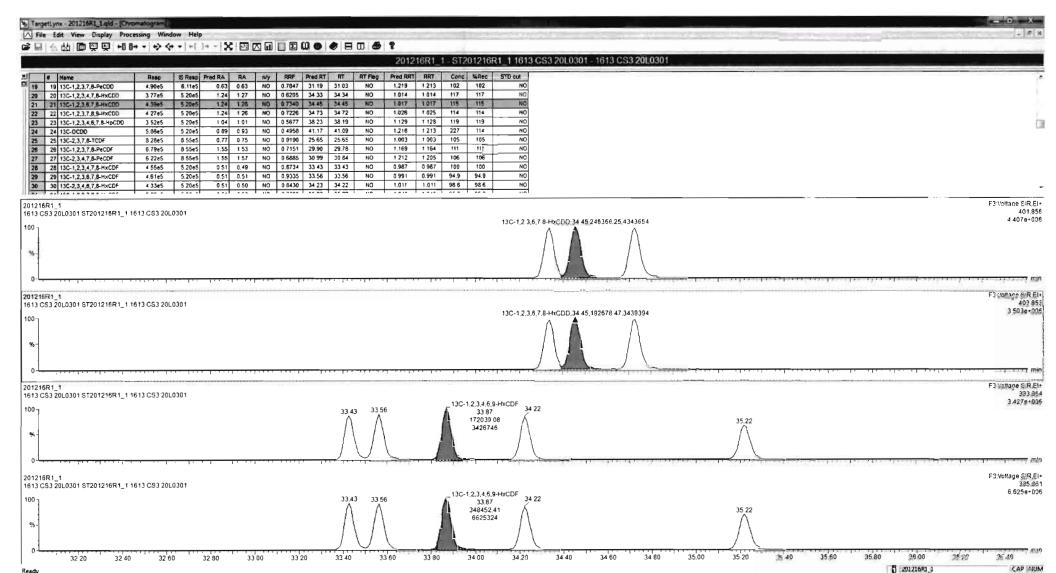


Work Order 2002493 Page 523 of 734

Ready

201216R1_1

KMP NUM



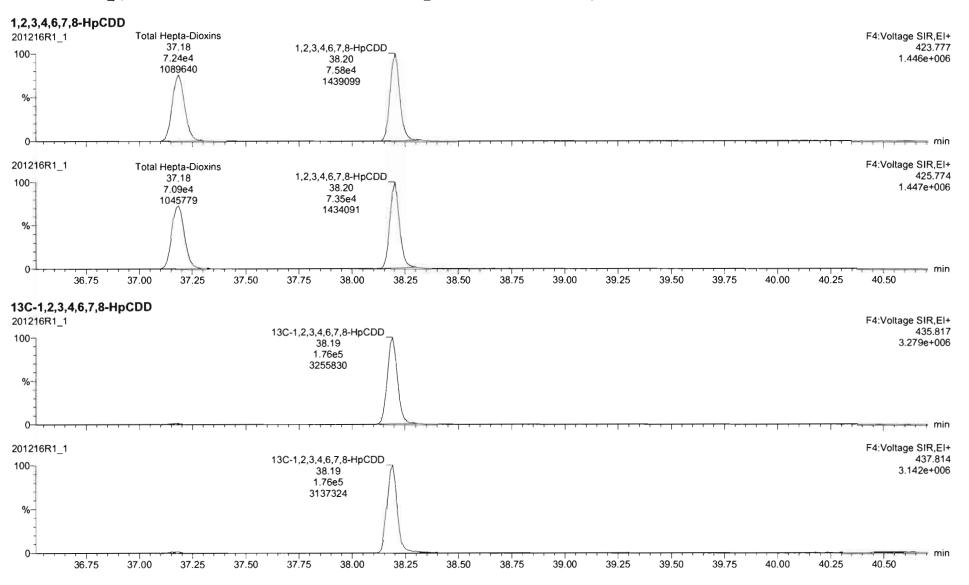
Work Order 2002493 Page 524 of 734

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Dataset: U:\VG12.PRO\Results\201216R1\201216R1 1.qld

Last Altered: Wednesday, December 16, 2020 9:06:01 AM Pacific Standard Time Wednesday, December 16, 2020 9:36:50 AM Pacific Standard Time

Name: 201216R1_1, Date: 16-Dec-2020, Time: 08:12:18, ID: ST201216R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002493 Page 525 of 734

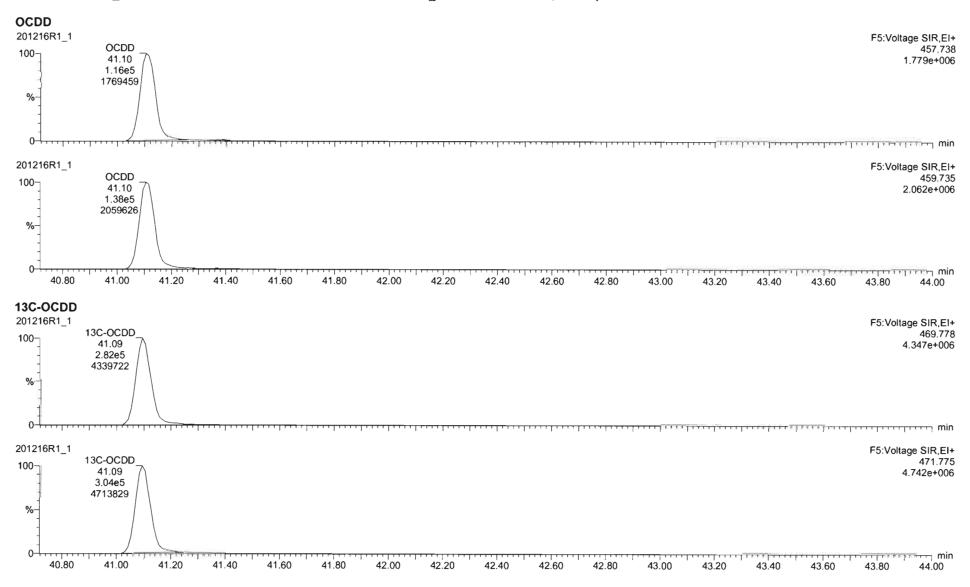
Page 6 of 13

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201216R1\201216R1_1.qld

Last Altered: Wednesday, December 16, 2020 9:06:01 AM Pacific Standard Time Printed: Wednesday, December 16, 2020 9:36:50 AM Pacific Standard Time

Name: 201216R1_1, Date: 16-Dec-2020, Time: 08:12:18, ID: ST201216R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



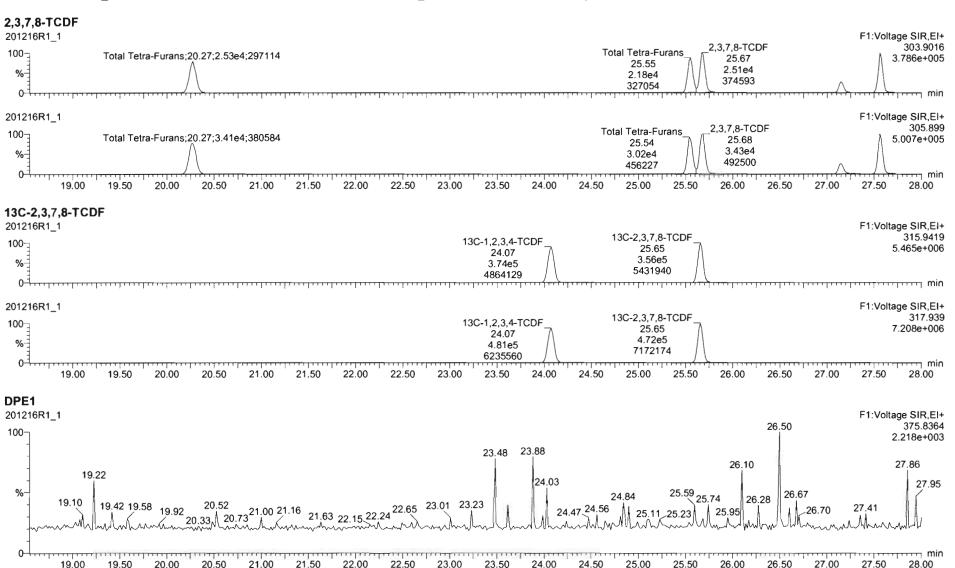
Work Order 2002493 Page 526 of 734

Dataset:

U:\VG12.PRO\Results\201216R1\201216R1_1.qld

Last Altered: Printed: Wednesday, December 16, 2020 9:06:01 AM Pacific Standard Time Wednesday, December 16, 2020 9:36:50 AM Pacific Standard Time

Name: 201216R1_1, Date: 16-Dec-2020, Time: 08:12:18, ID: ST201216R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

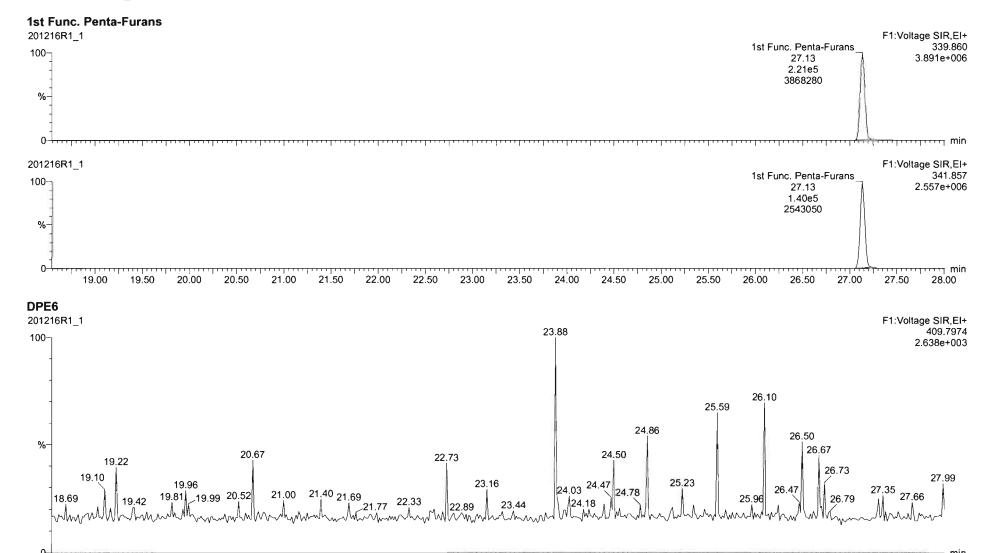


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Dataset: U:\VG12.PRO\Results\201216R1\201216R1_1.qld

Last Altered: Wednesday, December 16, 2020 9:06:01 AM Pacific Standard Time Printed: Wednesday, December 16, 2020 9:36:50 AM Pacific Standard Time

Name: 201216R1_1, Date: 16-Dec-2020, Time: 08:12:18, ID: ST201216R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



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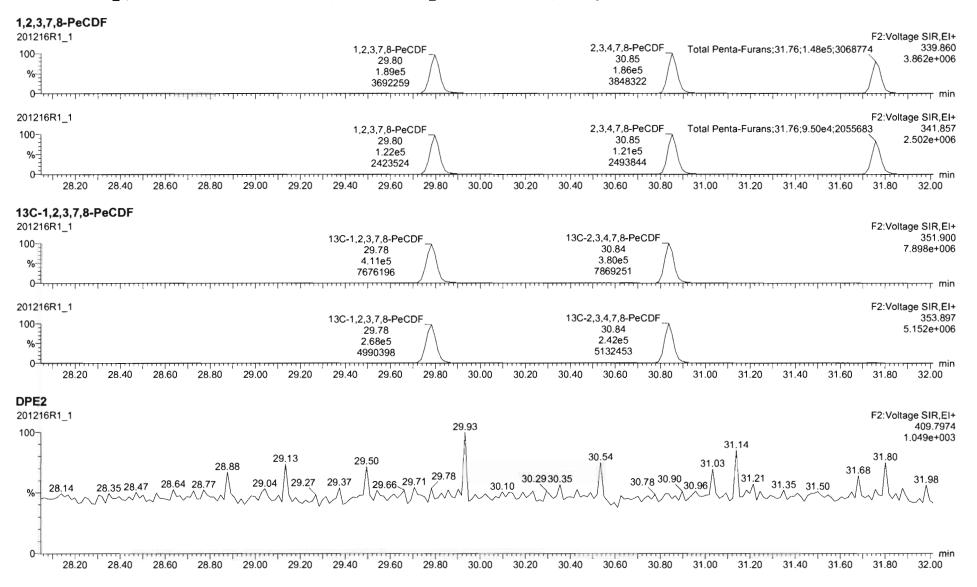
28.00

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201216R1\201216R1_1.qld

Last Altered: Wednesday, December 16, 2020 9:06:01 AM Pacific Standard Time Printed: Wednesday, December 16, 2020 9:36:50 AM Pacific Standard Time

Name: 201216R1_1, Date: 16-Dec-2020, Time: 08:12:18, ID: ST201216R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002493 Page 529 of 734

Quantify Sample Report

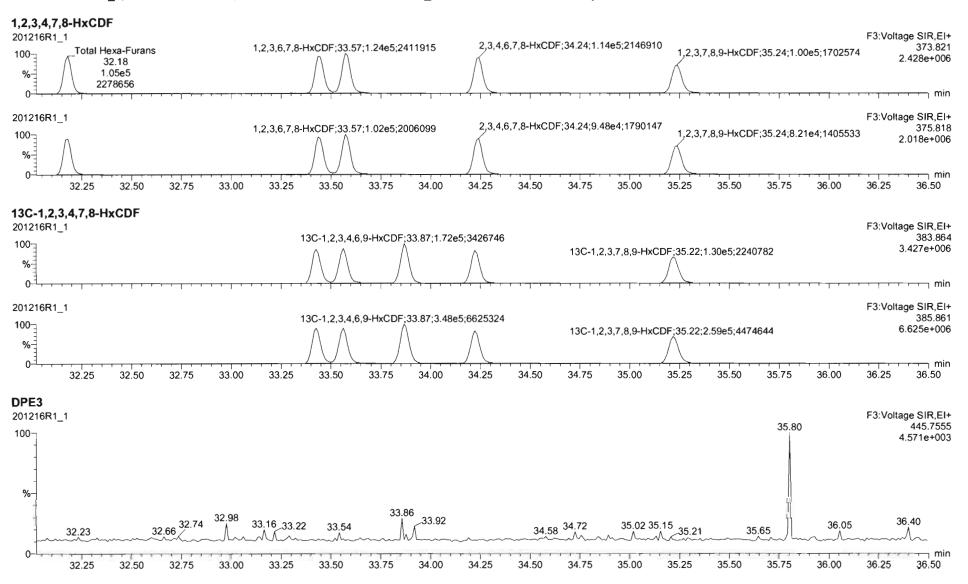
Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201216R1\201216R1_1.qld

Wednesday, December 16, 2020 9:06:01 AM Pacific Standard Time Last Altered: Wednesday, December 16, 2020 9:36:50 AM Pacific Standard Time Printed:

MassLynx 4.1 SCN815

Name: 201216R1_1, Date: 16-Dec-2020, Time: 08:12:18, ID: ST201216R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

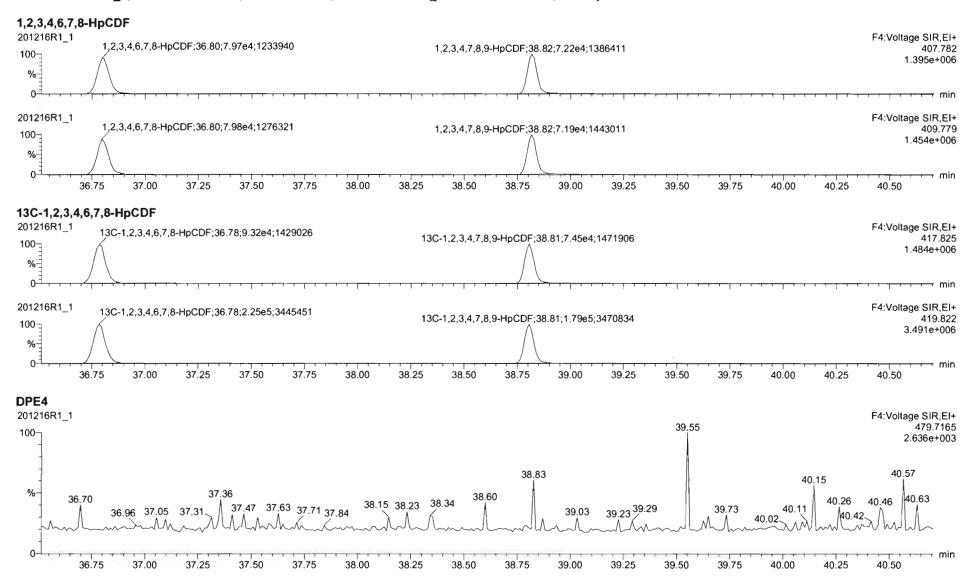


Quantify Sample Report Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201216R1\201216R1_1.qld

Last Altered: Wednesday, December 16, 2020 9:06:01 AM Pacific Standard Time Printed: Wednesday, December 16, 2020 9:36:50 AM Pacific Standard Time

Name: 201216R1 1, Date: 16-Dec-2020, Time: 08:12:18, ID: ST201216R1 1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



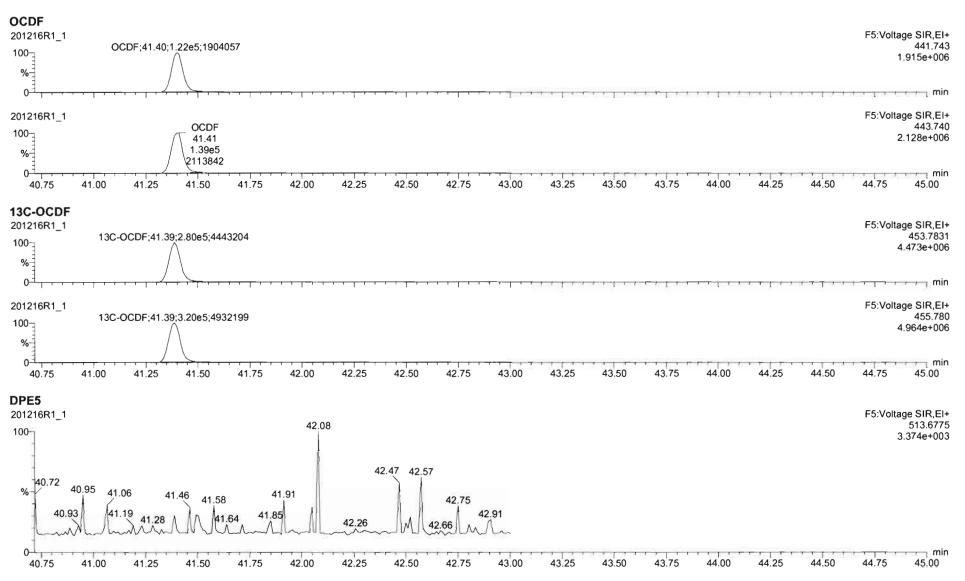
Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201216R1\201216R1_1.qld

Wednesday, December 16, 2020 9:06:01 AM Pacific Standard Time Last Altered: Wednesday, December 16, 2020 9:36:50 AM Pacific Standard Time Printed:

MassLynx 4.1 SCN815

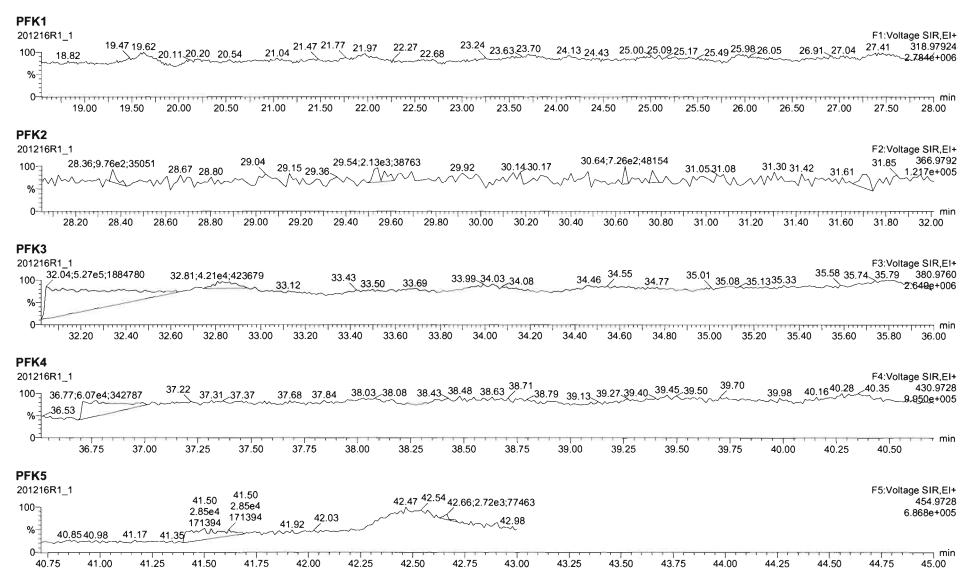
Name: 201216R1_1, Date: 16-Dec-2020, Time: 08:12:18, ID: ST201216R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Dataset: U:\VG12.PRO\Results\201216R1\201216R1_1.qld

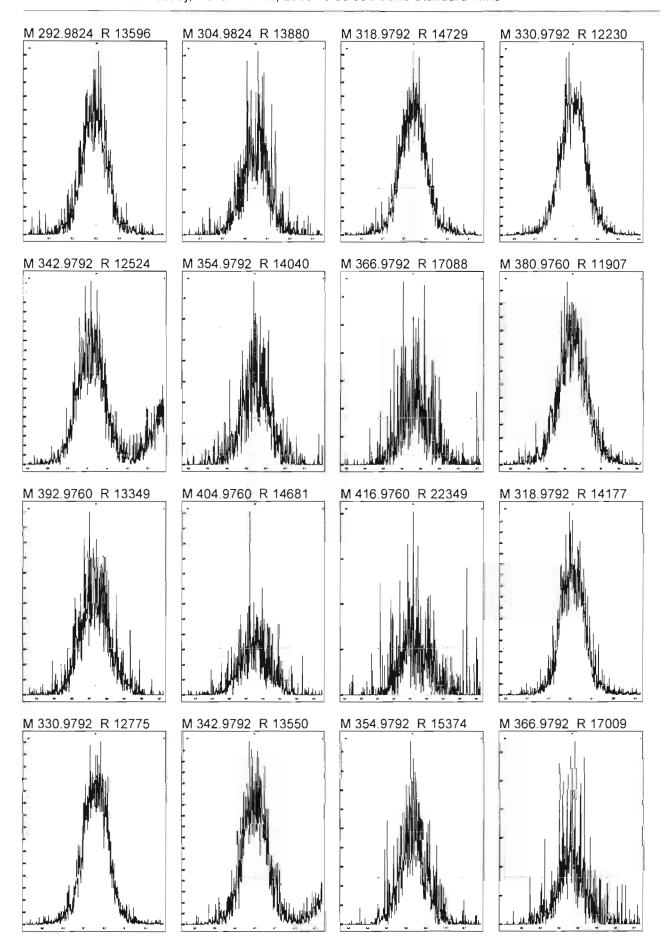
Last Altered: Wednesday, December 16, 2020 9:06:01 AM Pacific Standard Time Printed: Wednesday, December 16, 2020 9:36:50 AM Pacific Standard Time

Name: 201216R1_1, Date: 16-Dec-2020, Time: 08:12:18, ID: ST201216R1_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Printed:

Wednesday, December 16, 2020 19:08:59 Pacific Standard Time

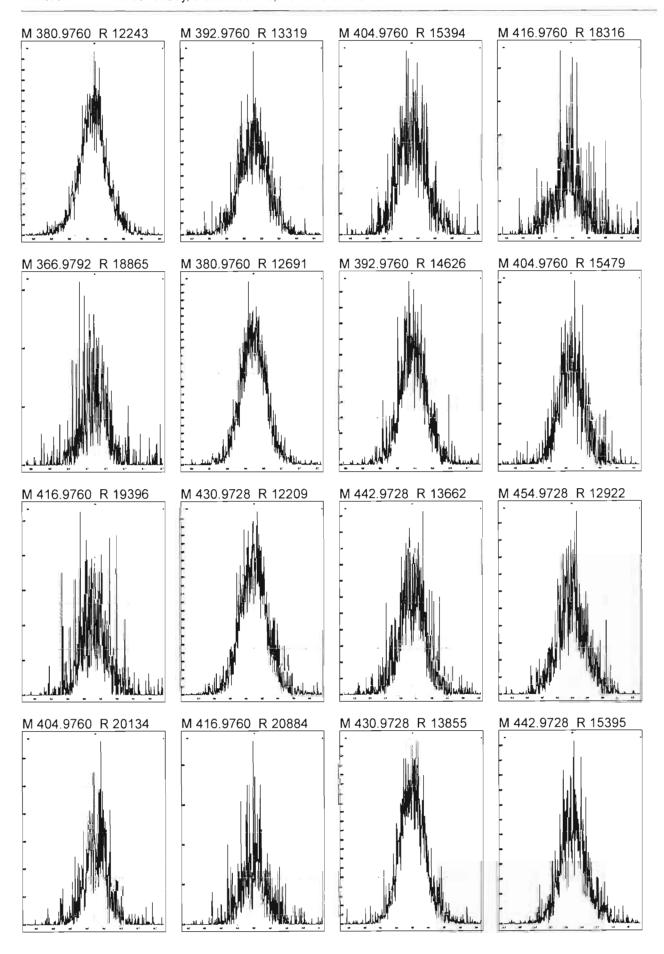


Work Order 2002493 Page 534 of 734

Page 2 of 3

Printed:

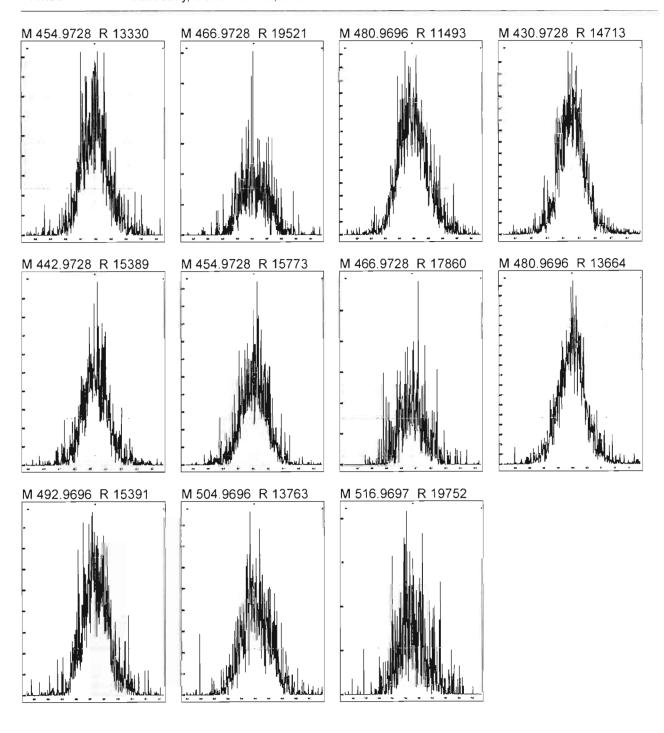
Wednesday, December 16, 2020 19:08:59 Pacific Standard Time



Work Order 2002493 Page 535 of 734

Printed:

Wednesday, December 16, 2020 19:08:59 Pacific Standard Time



Work Order 2002493 Page 536 of 734

LIBRALIUN STANDARDS REVIEW CHECKLIST Reviewed By: Initials & Date End Calibration ID: ST 2012 17 RS End Beg. Beg. Mass resolution > ion abundance within QC limits? □ 5k □ 6-8K □ 8K 10/10K **Concentrations within criteria?** 1614 1699 429 1613/1668/8280 Intergrated peaks display correctly? TCDD/TCDF Valleys <25% First and last eluters present? GC Break <20% Retention Times within criteria? 8280 CS1 End Standard: - Ratios within limits, S/N <2.5∰, CS1 **Verification Std. named correctly?** within 12 hours (ST-Year-Month-Day-VG ID) **Comments:** Forms signed and dated? Correct ICAL referenced? Run Log:

ID: LR - HCSRC

Rev. No.: 0 Rev. Date: 06/06/2017

Ν

Page: 1 of 1

Bottle position verfied?

- Correct instrument listed?

- Samples within 12 hour clock?

Page 1 of 2

Dataset: U:\VG12.PRO\Results\201217R4\201217R4_1.qld

Last Altered: Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Printed: Thursday, December 17, 2020 3:19:36 PM Pacific Standard Time

1N 12/17/7020

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32 Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

	# Name	Resp	IS Resp	RA	n/y	RRF	Pred.RT	RT	RT Flag	Pred.RRT	RRT	Conc.	%Rec	STD out
1	1 2,3,7,8-TCDD	1.29e5	1.28e6	0.77	NO	0.980	26.41	26.39	NO	1.001	1.001	10.234	102	NO
2	2 1,2,3,7,8-PeCDD	4.75e5	9.81e5	0.62	NO	0.932	31.08	31.06	NO	1.001	1.000	52.022	104	NO
3	3 1,2,3,4,7,8-HxCDD	4.13e5	7.85e5	1.23	NO	1.02	34.37	34.37	NO	1.001	1.001	51.614	103	NO
4	4 1,2,3,6,7,8-HxCDD	4.11e5	8.96e5	1.24	NO	0.902	34.49	34.48	NO	1.001	1.000	50.877	102	NO
5	5 1,2,3,7,8,9-HxCDD	4.10e5	8.56e5	1.23	NO	0.954	34.76	34.76	NO	1.000	1.000	50.250	100	NO
6	6 1,2,3,4,6,7,8-HpCDD	3.13e5	7.02e5	1.03	NO	0.918	38.21	38.22	NO	1.000	1.001	48.678	97.4	NO
7	7 OCDD	5.26e5	1.17e6	0.86	NO	0.866	41.12	41.13	NO	1.000	1.000	104.12	104	NO
8	8 2,3,7,8-TCDF	1.42e5	1.77e6	0.74	NO	0.848	25.69	25.71	NO	1.000	1.001	9.4972	95.0	NO
9	9 1,2,3,7,8-PeCDF	7.10e5	1.45e6	1.54	NO	0.960	29.80	29.81	NO	1.000	1.001	50.884	102	NO
10	10 2,3,4,7,8-PeCDF	6.94e5	1.30e6	1.55	NO	1.07	30.87	30.87	NO	1.001	1.000	50.066	100	NO
11	11 1,2,3,4,7,8-HxCDF	4.67e5	9.73e5	1.21	NO	0.986	33.46	33.46	NO	1.000	1.000	48.657	97.3	NO
12	12 1,2,3,6,7,8-HxCDF	4.97e5	9.80e5	1.21	NO	1.04	33.59	33.59	NO	1.001	1.001	48.803	97.6	NO
13	13 2,3,4,6,7,8-HxCDF	4.56e5	9.21e5	1.21	NO	1.02	34.26	34.25	NO	1.001	1.000	48.500	97.0	NO
14	14 1,2,3,7,8,9-HxCDF	4.12e5	8.47e5	1.21	NO	0.991	35.25	35.26	NO	1.000	1.001	49.081	98.2	NO
15	15 1,2,3,4,6,7,8-HpCDF	3.45e5	6.68e5	1.00	NO	1.05	36.83	36.83	NO	1.000	1.001	49.148	98.3	NO
16	16 1,2,3,4,7,8,9-HpCDF	3.29e5	5.70e5	1.00	NO	1.18	38.84	38.84	NO	1.000	1.000	49.089	98.2	NO
17	17 OCDF	5.55e5	1.24e6	0.87	NO	0.896	41.42	41.42	NO	1.000	1.000	99.726	99.7	NO
18	18 13C-2,3,7,8-TCDD	1.28e6	1.22e6	0.78	NO	1.06	26.38	26.38	NO	1.030	1.030	99.826	99.8	NO
19	19 13C-1,2,3,7,8-PeCDD	9.81e5	1.22e6	0.65	NO	0.785	31.23	31.05	NO	1.219	1.212	102.72	103	NO
20	20 13C-1,2,3,4,7,8-HxCDD	7.85e5	1.09e6	1.27	NO	0.621	34.35	34.35	NO	1.014	1.014	116.40	116	NO
21	21 13C-1,2,3,6,7,8-HxCDD	8.96e5	1.09e6	1.26	NO	0.734	34.47	34.47	NO	1.017	1.017	112.27	112	NO
22	22 13C-1,2,3,7,8,9-HxCDD	8.56e5	1.09e6	1.25	NO	0.723	34.75	34.74	NO	1.026	1.025	108.97	109	NO
23	23 13C-1,2,3,4,6,7,8-HpCDD	7.02e5	1.09e6	1.06	NO	0.568	38.26	38.20	NO	1.129	1.127	113.67	114	NO
24	24 13C-OCDD	1.17e6	1.0 9 e6	0.90	NO	0.496	41.19	41.12	NO	1.216	1.213	216.36	108	NO
25	25 13C-2,3,7,8-TCDF	1.77e6	1.85e6	0.78	NO	0.919	25.68	25.68	NO	1.003	1.003	103.67	104	NO
26	26 13C-1,2,3,7,8-PeCDF	1.45e6	1.85e6	1.56	NO	0.715	29.94	29.80	NO	1.169	1.163	109.76	110	NO
27	27 13C-2,3,4,7,8-PeCDF	1.30e6	1.85e6	1.56	NO	0.689	31.03	30.85	NO	1.212	1.205	101.75	102	NO
28	28 13C-1,2,3,4,7,8-HxCDF	9.73e5	1.09e6	0.51	NO	0.873	33.45	33.45	NO	0.987	0.987	102.46	102	NO
29	29 13C-1,2,3,6,7,8-HxCDF	9.80e5	1.09e6	0.51	NO	0.933	33.58	33.57	NO	0.991	0.991	96.618	96.6	NO
30	30 13C-2,3,4,6,7,8-HxCDF	9.21e5	1.09e6	0.51	NO	0.843	34.25	34.24	NO	1.011	1.011	100.51	101	NO
31	31 13C-1,2,3,7,8,9-HxCDF	8.47e5	1.09e6	0.51	NO	0.780	35.25	35.24	NO	1.040	1.040	99.864	9 9.9	NO

Work Order 2002493 Page 538 of 734

U:\VG12.PRO\Results\201217R4\201217R4_1.qld Dataset:

Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Last Altered: Thursday, December 17, 2020 3:19:36 PM Pacific Standard Time Printed:

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

	# 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	6.68e5	1.09e6	0.42	NO	0.726	36.83	36.81	NO	1.087	1.086	84.613	84.6	NO
33	33 13C-1,2,3,4,7,8,9-HpCDF	5.70e5	1.09e6	0.42	NO	0.491	38.83	38.83	NO	1.146	1.146	106.78	107	NO
34	34 13C-OCDF	1.24e6	1.09e6	0.87	NO	0.565	41.41	41.41	NO	1.222	1.222	202.18	101	NO
35	35 37Cl-2,3,7,8-TCDD	1.64e5	1.22e6			1.22	26.38	26.39	NO	1.030	1.031	11.066	111	NO
36	36 13C-1,2,3,4-TCDD	1.22e6	1.22e6	0.79	NO	1.00	25.64	25.61	NO	1.000	1.000	100.00	100	NO
37	37 13C-1,2,3,4-TCDF	1.8 5e 6	1.85 e6	0.78	NO	1.00	24.13	24.12	NO	1.000	1.000	100.00	100	NO
38	38 13C-1,2,3,4,6,9-HxCDF	1.09e6	1.09e6	0.51	NO	1.00	33.92	33.89	NO	1.000	1.000	100.00	100	YES OK

Work Order 2002493 Page 539 of 734 MassLynx 4.1 SCN815

Page 1 of 1

Dataset: Untitled

Last Altered: Friday, December 18, 2020 8:09:54 AM Pacific Standard Time Friday, December 18, 2020 8:10:19 AM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32 Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

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

		Name	ID	Acq.Date	Acq.Time
1		201217R4_1	ST201217R4_1 1613 CS3 20L0301	17-Dec-20	14:26:46
2		201217R4_2	B0L0082-BS1 OPR 10	17-Dec-20	15:13:49
3		201217R4_3	SOLVENT BLANK	17-Dec-20	16:01:58
4		201217R4_4	B0L0082-BLK1 Method Blank 10	17-Dec-20	16:46:12
5		201217R4_5	HRMS-201216-02 HEXANE EA350-US	17-Dec-20	17:30:27
6		201217R4_6	HRMS-201216-03 DCM EA237-US	17-Dec-20	18:14:44
7		201217R4_7	2002582-08 NCPDI-077SG-201119 7.67	17-Dec-20	18:58:58
8		201217R4_8	2002582-07 NCPDI-076SG-201119 10.8	17-Dec-20	19:43:13
9		201217R4_9	2002582-06 NCPDI-075SG-201119 14.28	17-Dec-20	20:27:29
10		201217R4_10	2002582-05 NCPDI-074SG-201119 13.37	17-Dec-20	21:11:44
11		201217R4_11	2002493-05@10X USMPDI-014SC-A-10-11-2	17-Dec-20	21:55:59
12	- 1	201217R4_12	2002493-06@10X USMPDI-014SC-A-11-12-2	17-Dec-20	22:40:14
13	(A)	201217R4_13			
14	Ť	201217R4_14			
15		201217R4_15			
16	Van B	201217R4_16			
17		201217R4_17			
18	II.	201217R5_1			
19		201217R5_2	ST201217R5_1 1613 CS3 20L0301	18-Dec-20	07:08:19

(A) Instrument paused, and resolution check manually processed, injected and standard. HN 12/18/2020

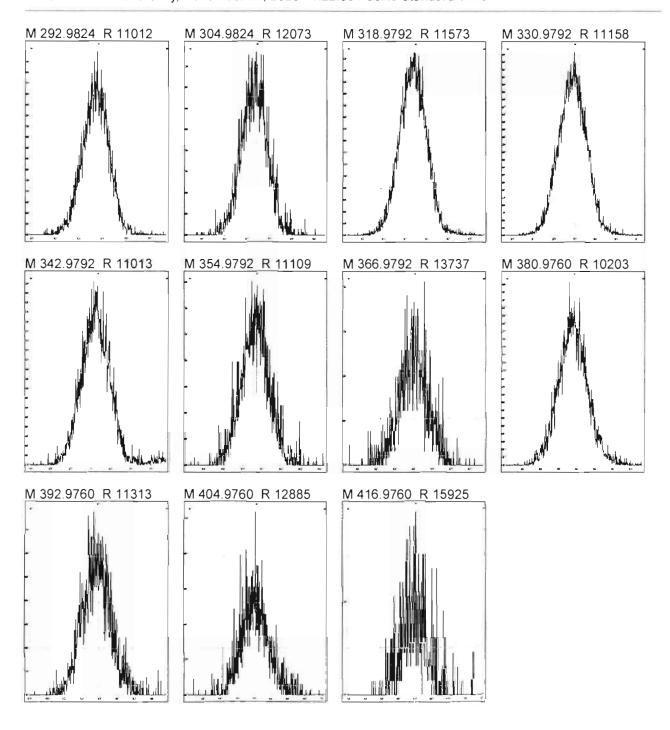
Work Order 2002493 Page 540 of 734

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 1 @ 200 (ppm)

Printed:

Thursday, December 17, 2020 14:22:35 Pacific Standard Time



Work Order 2002493 Page 541 of 734

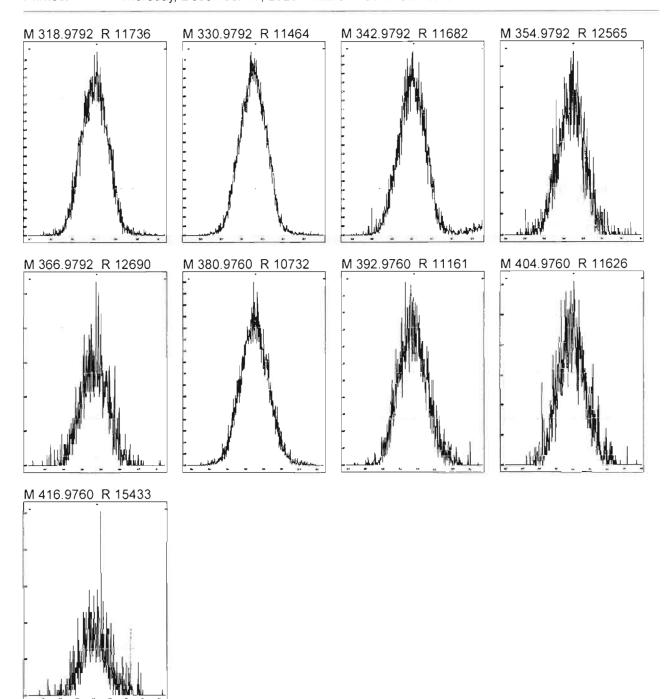
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 2 @ 200 (ppm)

Printed:

Thursday, December 17, 2020 14:22:57 Pacific Standard Time



Work Order 2002493 Page 542 of 734

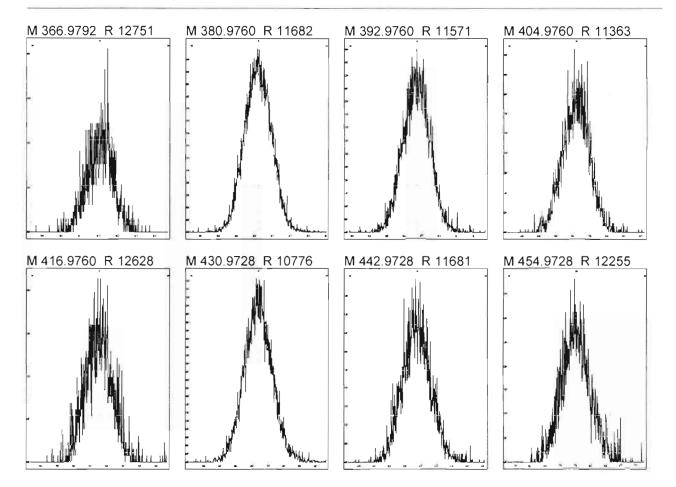
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 3 @ 200 (ppm)

Printed:

Thursday, December 17, 2020 14:23:27 Pacific Standard Time



Work Order 2002493 Page 543 of 734

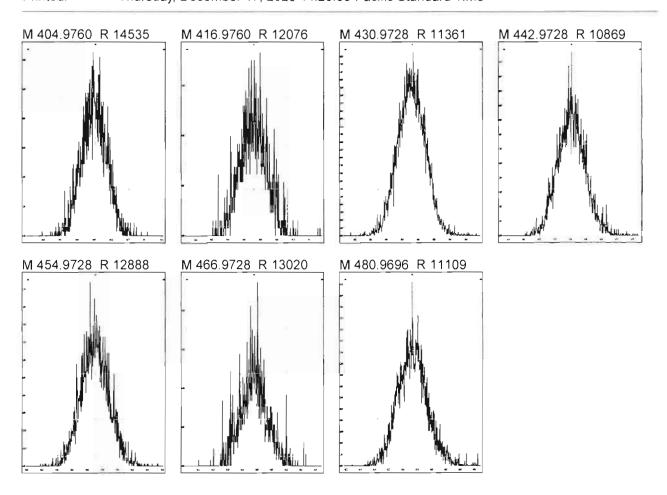
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 4 @ 200 (ppm)

Printed:

Thursday, December 17, 2020 14:23:53 Pacific Standard Time



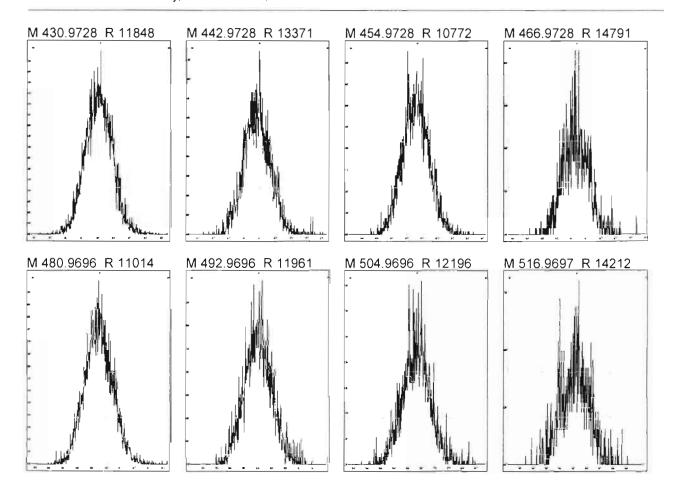
Work Order 2002493 Page 544 of 734

File:

Experiment: OCDD_DIOXIN.exp Reference: Pfk.ref Function: 5 @ 200 (ppm)

Printed:

Thursday, December 17, 2020 14:24:09 Pacific Standard Time



Work Order 2002493 Page 545 of 734

MassLynx 4.1 SCN815

Page 1 of 1

Vista Analytical Laboratory VG-11

Dataset: U:\VG12.PRO\Results\201217R4\201217R4_CPSM.qld

Last Altered: Thursday, December 17, 2020 3:14:47 PM Pacific Standard Time Printed: Thursday, December 17, 2020 3:15:35 PM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 11 Dec 2020 14:14:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

1	# Name	RT
1	1 1,3,6,8-TCDD (First)	22.59
2	2 1,2,8,9-TCDD (Last)	27.28
3	3 1,2,4,7,9-PeCDD (First)	28.82
4	4 1,2,3,8,9-PeCDD (Last)	31.42
5	5 1,2,4,6,7,9-HxCDD (First)	32.72
6	6 1,2,3,7,8,9-HxCDD (Last)	34.76
7	7 1,2,3,4,6,7,9-HpCDD (First)	37.21
8	8 1,2,3,4,6,7,8-HpCDD (Last)	38.22
9	9 1,3,6,8-TCDF (First)	20.33
10	10 1,2,8,9-TCDF (Last)	27.59
11	11 1,3,4,6,8-PeCDF (First)	27.16
12	12 1,2,3,8,9-PeCDF (Last)	31.77
13	13 1,2,3,4,6,8-HxCDF (First)	32.19
14	14 1,2,3,7,8,9-HxCDF (Last)	35.26
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.83
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.84

Work Order 2002493 Page 546 of 734

MassLynx 4.1 SCN815

Vista Analytical Laboratory VG-11

Dataset:

U:\VG12.PRO\Results\201217R4\201217R4_CPSM.qld

Last Altered:

Thursday, December 17, 2020 3:14:47 PM Pacific Standard Time

Printed:

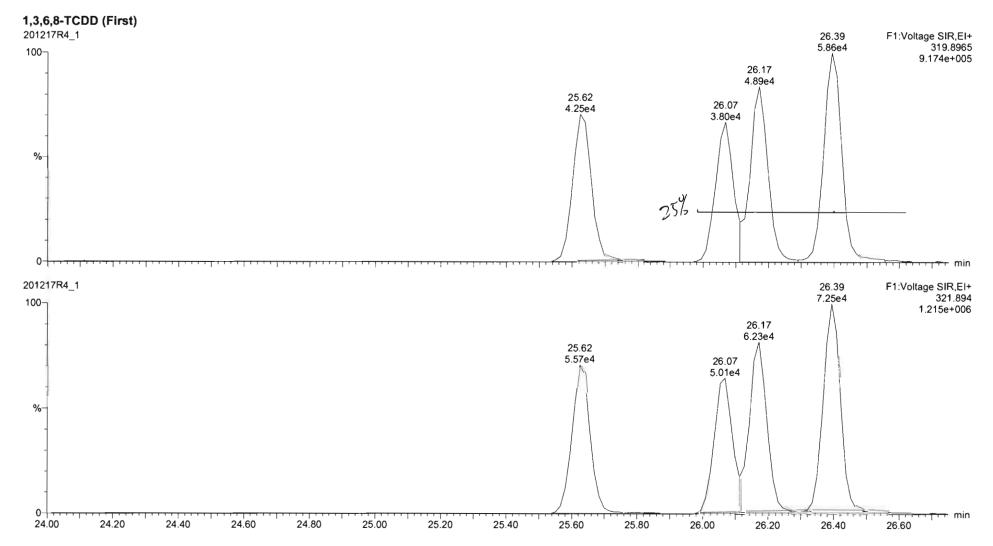
Thursday, December 17, 2020 3:15:35 PM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\CPSM.mdb 11 Dec 2020 14:14:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

FIN 12/17/2020 GPB 12/18/2020

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002493

Page 547 of 734

Quantify Sample Report MassLynx 4.1 SCN815 Page 2 of 2

Vista Analytical Laboratory VG-11

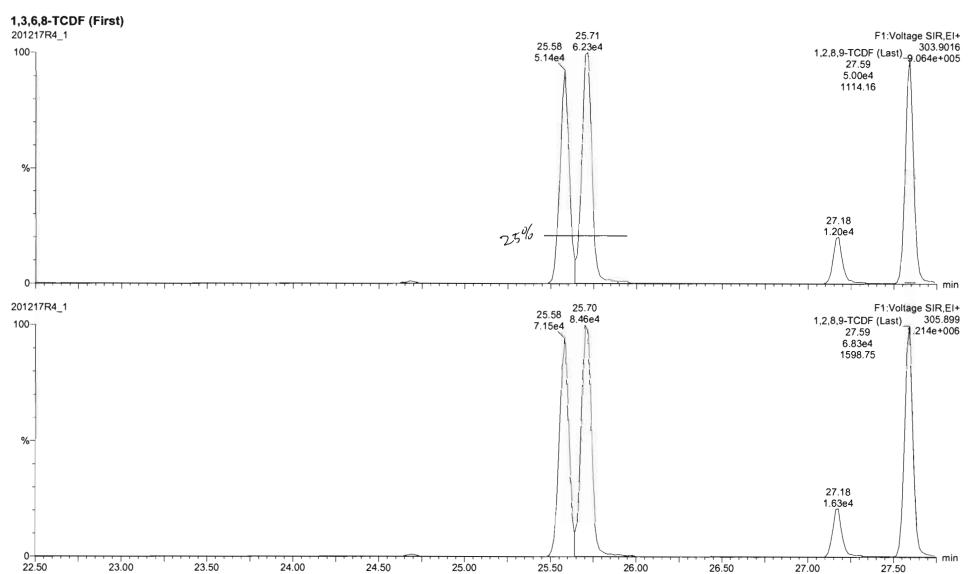
U:\VG12.PRO\Results\201217R4\201217R4_CPSM.qld Dataset:

Last Altered: Thursday, December 17, 2020 3:14:47 PM Pacific Standard Time Printed:

Thursday, December 17, 2020 3:15:35 PM Pacific Standard Time

HIN 12/17/2020 GPA 12/18/2020

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002493

Page 548 of 734

Vista Analytical Laboratory

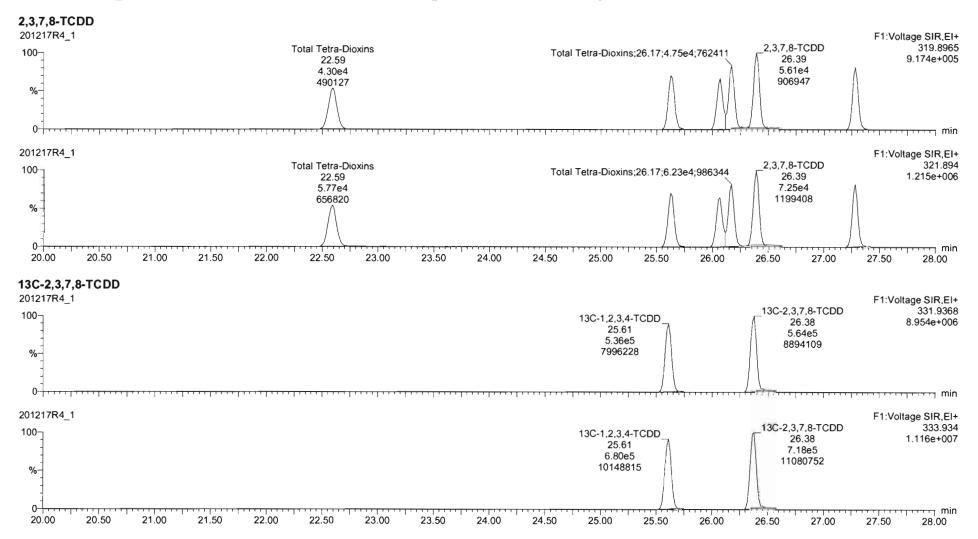
Dataset: U:\VG12.PRO\Results\201217R4\201217R4_1.qld

Last Altered: Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Printed: Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-12-11-20.mdb 11 Dec 2020 08:35:32

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002493 Page 549 of 734

MassLynx 4.1 SCN815

Vista Analytical Laboratory

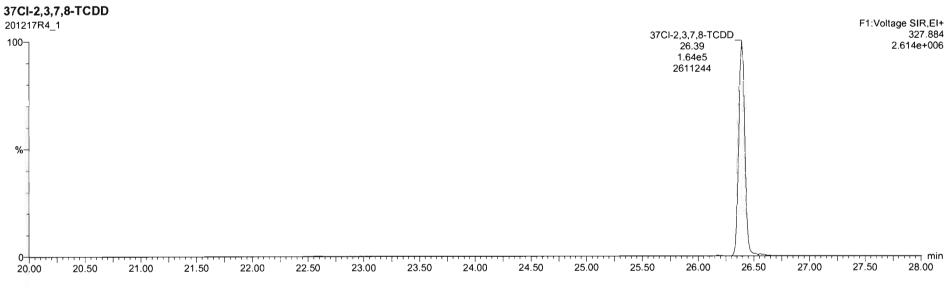
Dataset:

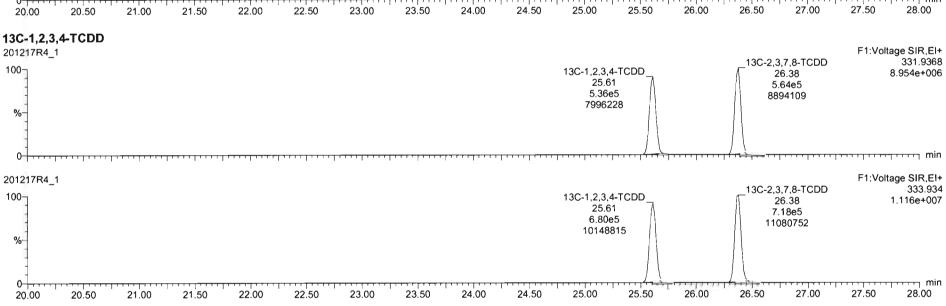
U:\VG12.PRO\Results\201217R4\201217R4_1.qld

Last Altered: Printed:

Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301





Work Order 2002493

MassLynx 4.1 SCN815

Vista Analytical Laboratory

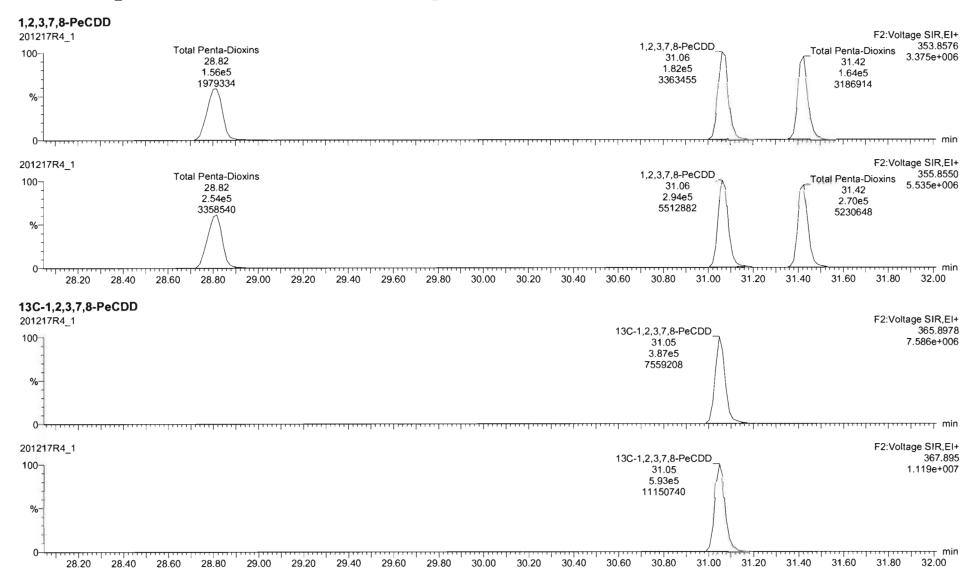
Dataset:

U:\VG12.PRO\Results\201217R4\201217R4 1.qld

Last Altered: Printed:

Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

Name: 201217R4 1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



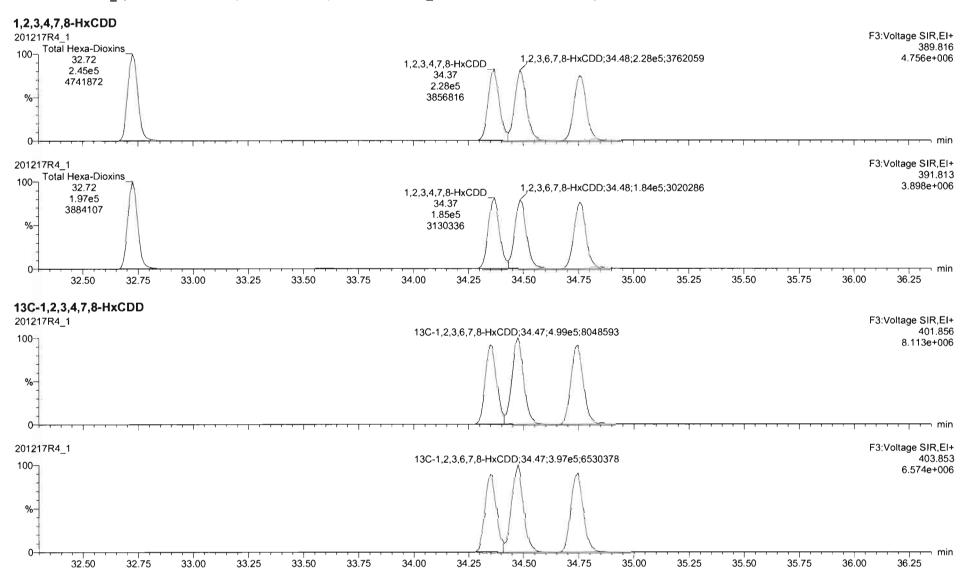
MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201217R4\201217R4_1.qld

Last Altered: Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

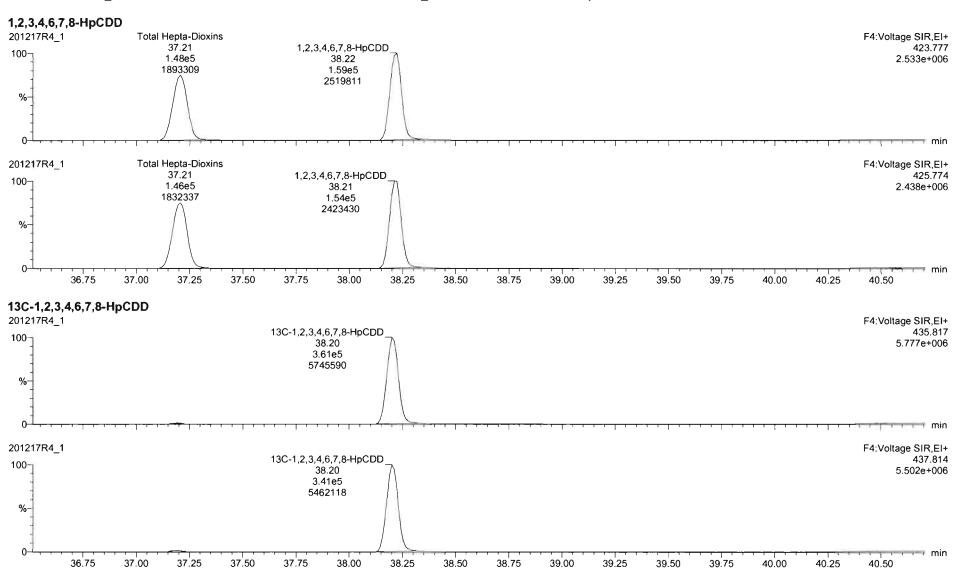


Work Order 2002493

Dataset: U:\VG12.PRO\Results\201217R4\201217R4_1.qld

Last Altered: Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Printed: Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002493 Page 553 of 734

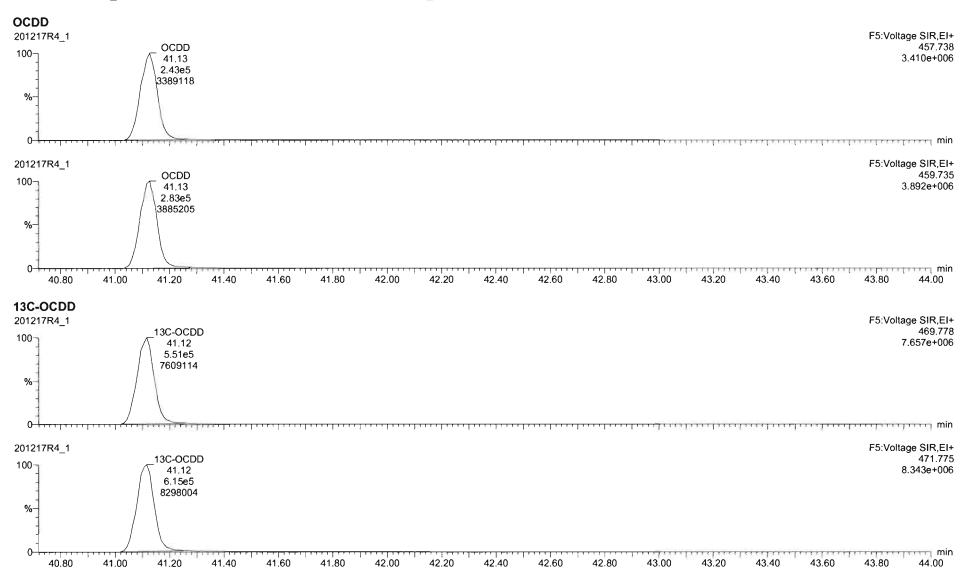
Dataset:

U:\VG12.PRO\Results\201217R4\201217R4_1.qld

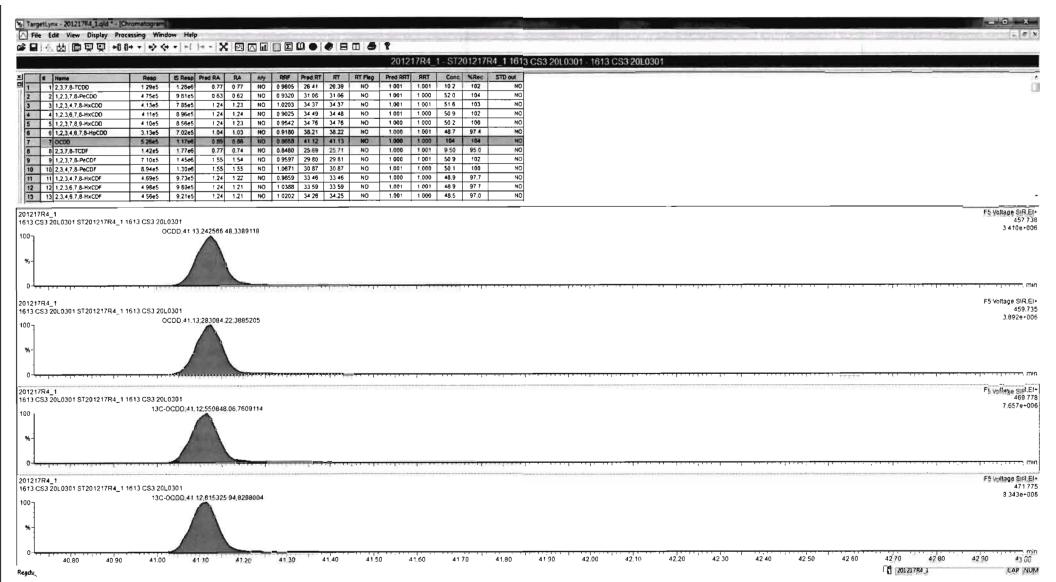
Last Altered: Printed:

Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

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Work Order 2002493

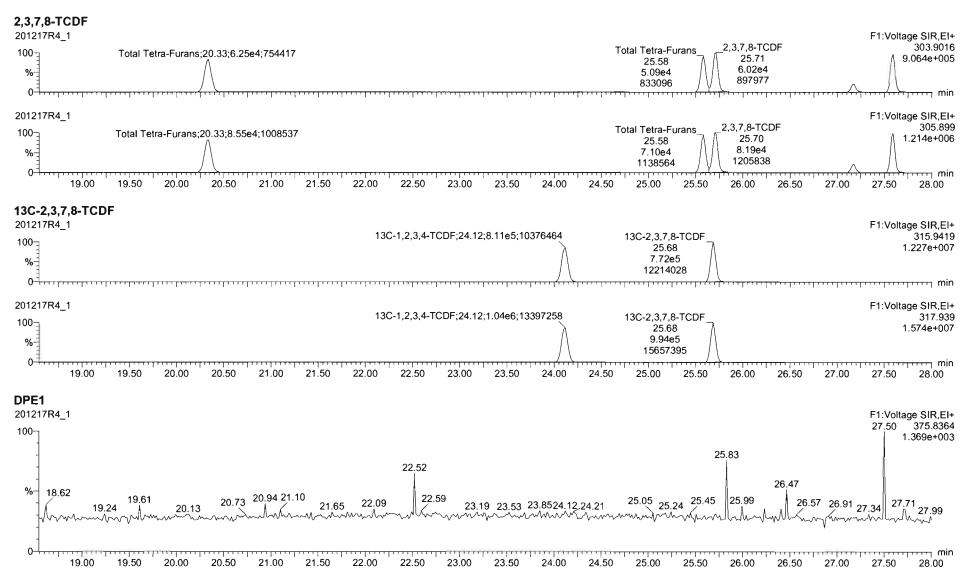


Work Order 2002493 Page 555 of 734

Dataset: U:\VG12.PRO\Results\201217R4\201217R4 1.qld

Last Altered: Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Printed: Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

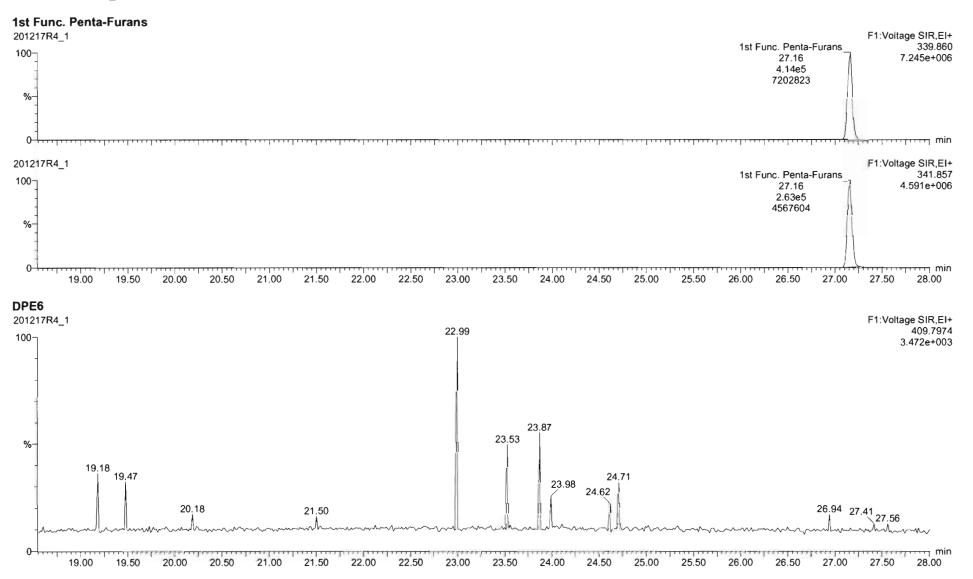


Dataset:

U:\VG12.PRO\Results\201217R4\201217R4_1.qld

Last Altered: Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time Printed:

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



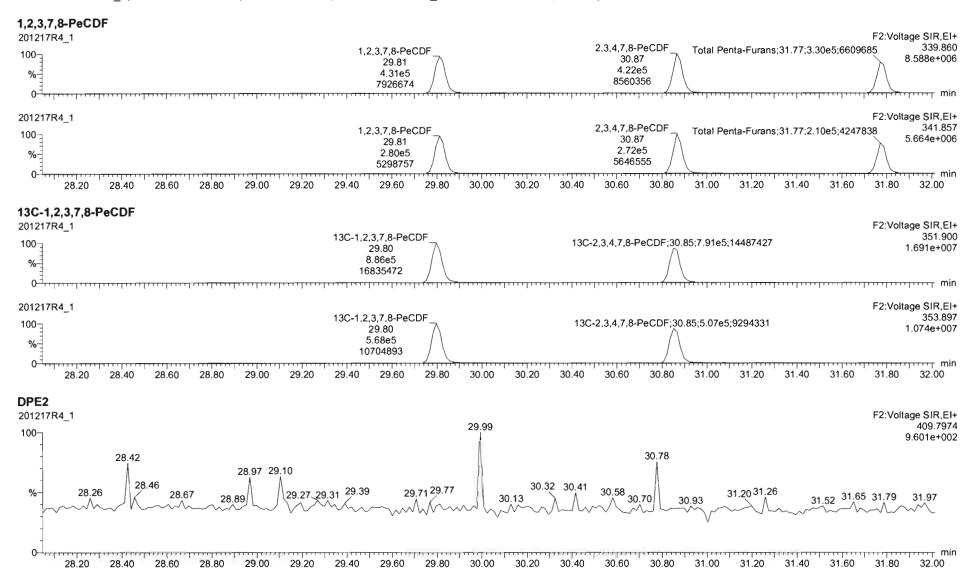
Work Order 2002493

Dataset: U:\VG12.PRO\Results\201217R4\201217R4_1.qld

Last Allered. Thursday December 17, 2020 2:19:46 DM Decific S

Last Altered: Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Printed: Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

Name: 201217R4 1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

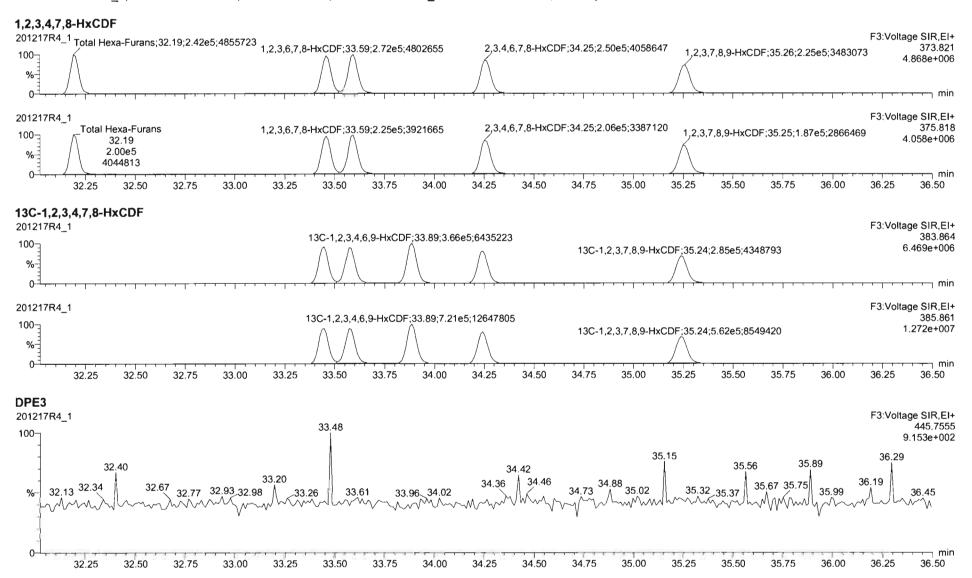


Vista Analytical Laboratory

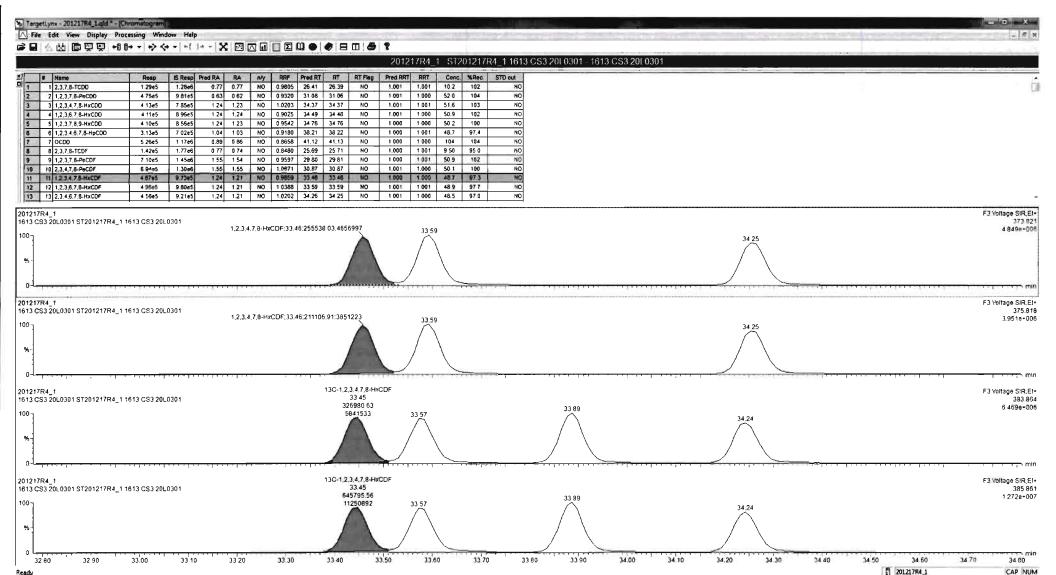
Dataset: U:\VG12.PRO\Results\201217R4\201217R4_1.qld

Last Altered: Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Printed: Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

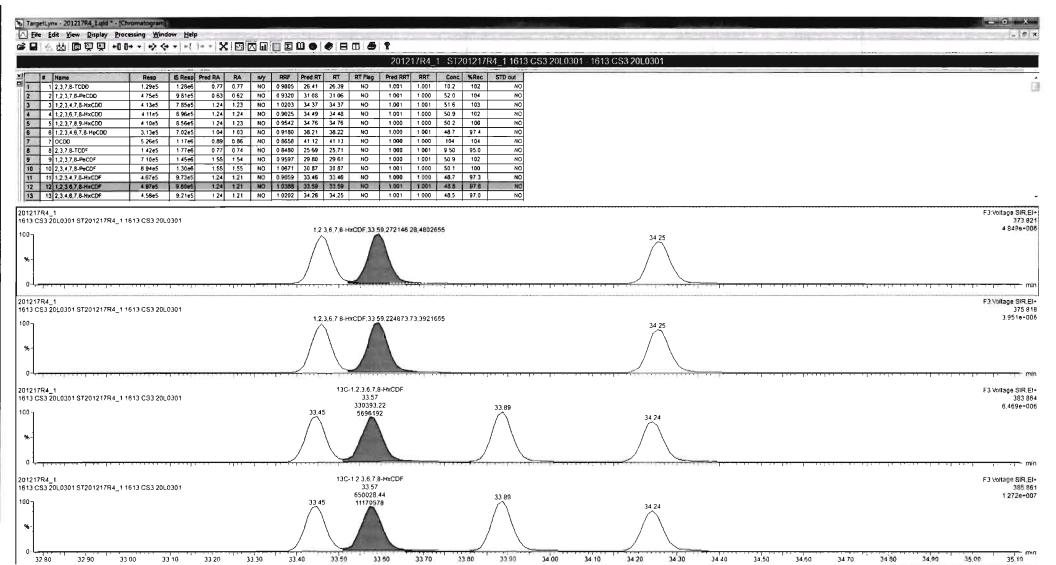
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Work Order 2002493



Work Order 2002493 Page 560 of 734



Work Order 2002493 Page 561 of 734

Ready

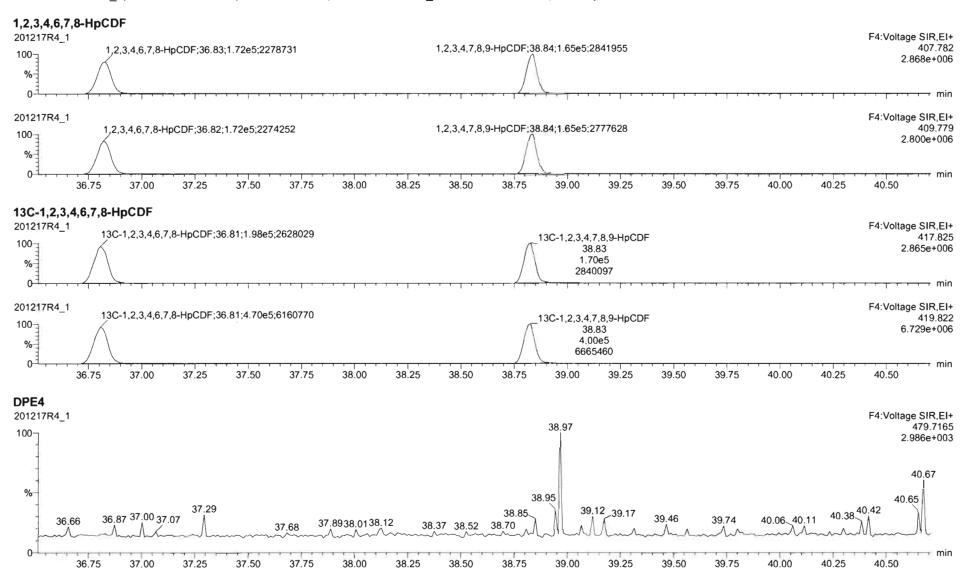
201217R4_1

CAP NUM

Dataset: U:\VG12.PRO\Results\201217R4\201217R4_1.qld

Last Altered: Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

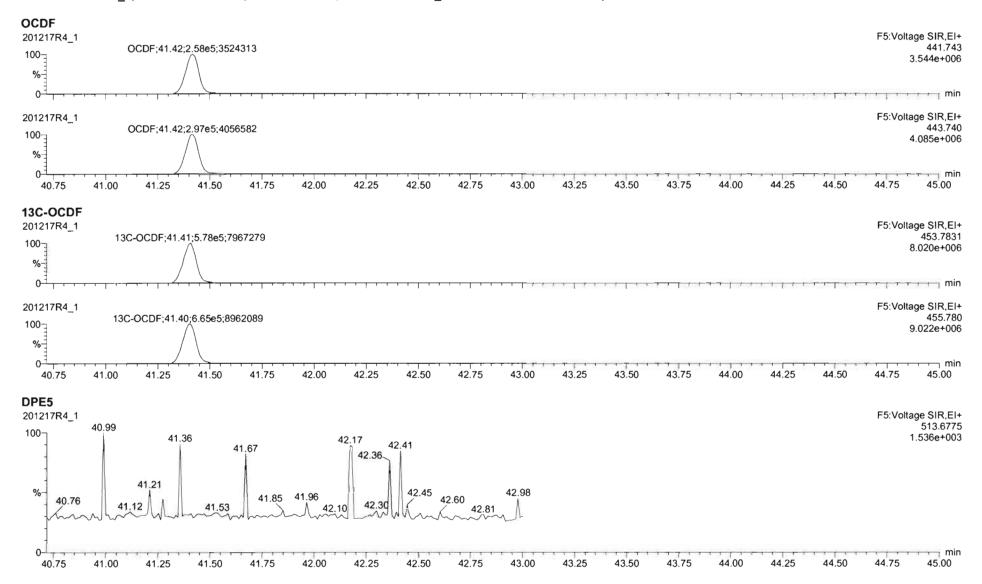
Name: 201217R4 1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Dataset: U:\VG12.PRO\Results\201217R4\201217R4_1.qld

Last Altered: Thursday, December 17, 2020 3:18:46 PM Pacific Standard Time Thursday, December 17, 2020 3:19:48 PM Pacific Standard Time

Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301

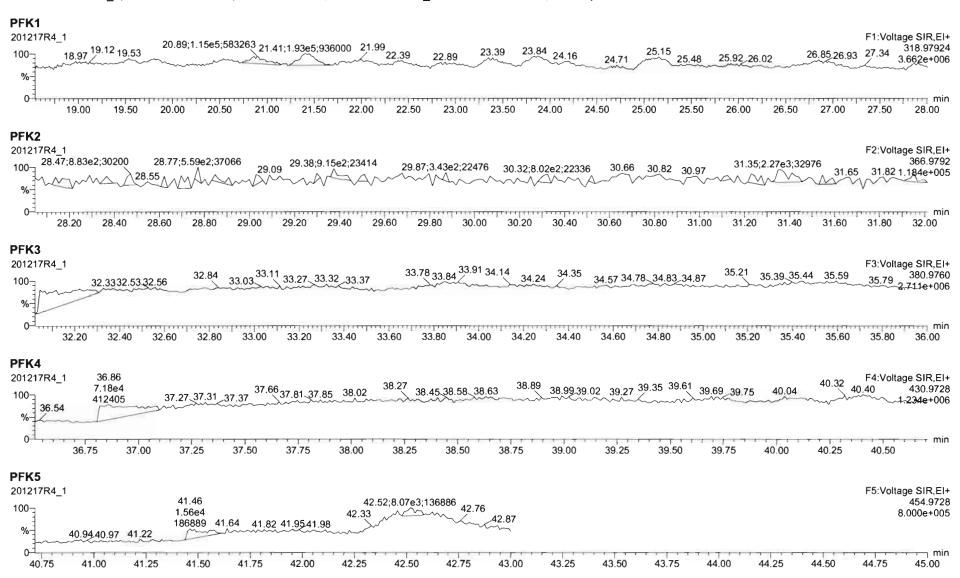


Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201217R4\201217R4_1.qld

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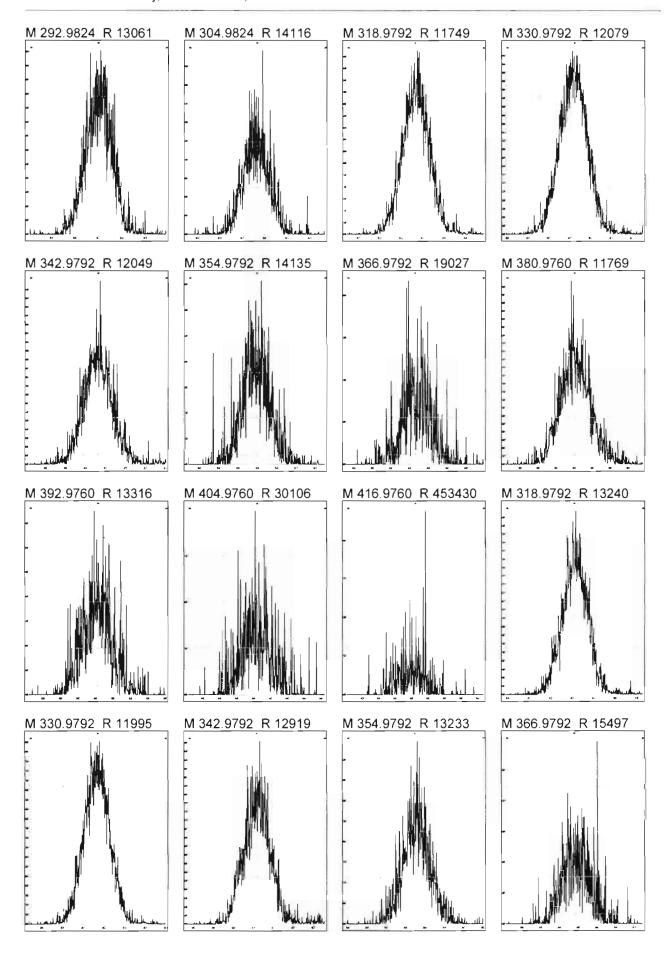
Name: 201217R4_1, Date: 17-Dec-2020, Time: 14:26:46, ID: ST201217R4_1 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002493 Page 564 of 734

Printed:

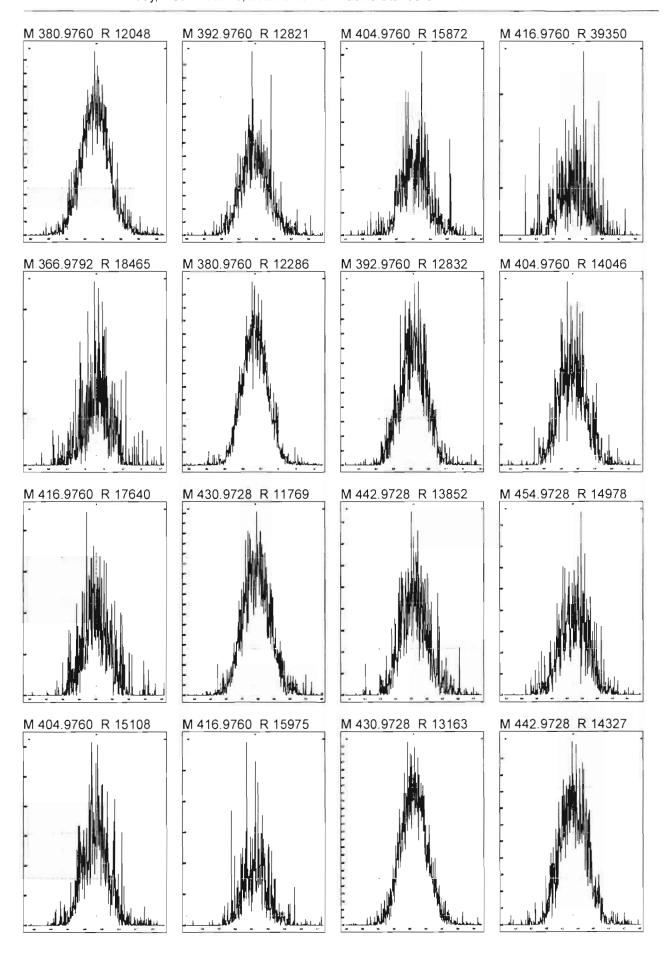
Friday, December 18, 2020 07:04:34 Pacific Standard Time



Work Order 2002493 Page 565 of 734

Printed:

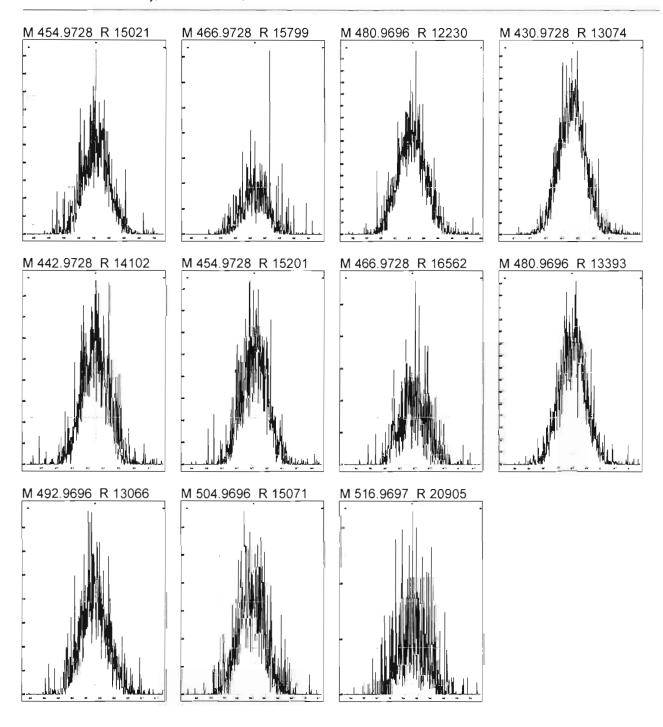
Friday, December 18, 2020 07:04:34 Pacific Standard Time



Work Order 2002493 Page 566 of 734

Printed:

Friday, December 18, 2020 07:04:34 Pacific Standard Time



Work Order 2002493 Page 567 of 734

INITIAL CALIBRATION

Work Order 2002493 Page 568 of 734

Quantify Compound Summary Report MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered:

Friday, December 04, 2020 11:36:07 Pacific Standard Time

Printed:

Friday, December 04, 2020 11:37:44 Pacific Standard Time

1-IN 12/04/2020 GRB 12/08/2020

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

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

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

Response Factor: 0.980478

RRF SD: 0.0566851, Relative SD: 5.78138

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

Curve type: RF

7 5	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	0.250	0.69	NO	25.98	1.000	1.86e3	7.27e5	0.261	4.5	1.02	MM
2	201203R2_2	0.500	0.81	NO	26.01	1.001	3.43e3	7.75e5	0.452	-9.6	0.886	MM
3	201203R2_3	2.00	0.78	NO	25.99	1.001	1.58e4	8.00e5	2.01	0.5	0.985	bb
4	201203R2_4	40.0	0.78	NO	25.99	1.001	3.98e5	9.54e5	42.5	6.4	1.04	bb
5	201203R2_5	300	0.78	NO	25.99	1.001	2.86e6	1.00e6	290	-3.3	0.948	bb
6	201203R2_6	10.0	0.77	NO	25.98	1.001	8.33e4	8.36e5	10.2	1.6	0.997	bb

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

Response Factor: 0.931961

RRF SD: 0.0759604, Relative SD: 8.1506

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

Curve type: RF

TO STATE	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	1.25	0.56	NO	30.74	1.000	6.50e3	5.16e5	1.35	8.2	1.01	MM
2	201203R2_2	2.50	0.57	NO	30.76	1.001	1.18e4	5.51e5	2.29	-8.3	0.854	MM
3	201203R2_3	10.0	0.62	NO	30.74	1.000	5.55 e 4	5.88e5	10.1	1.3	0.944	MM
4	201203R2_4	200	0.62	NO	30.74	1.000	1.39e6	7.22e5	207	3.6	0.965	bb
5	201203R2_5	1500	0.63	NO	30.74	1.000	1.02e7	8.24e5	1330	-11.6	0.824	bb
6	201203R2_6	50.0	0.61	NO	30.73	1.000	2.93e5	5.89e5	53.4	6.8	0.996	bb

Work Order 2002493 Page 569 of 734

Page 2 of 16

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Printed:

Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

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

Response Factor: 1.02027

RRF SD: 0.089298, Relative SD: 8.75242

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	201203R2_1	1.25	1.21	NO	34.05	1.001	4.47e3	3.55e5	1.23	-1.2	1.01	MM
2	201203R2_2	2.50	1.23	NO	34.06	1.001	8.64e3	3.81e5	2.22	-11.0	0.908	bd
3	201203R2_3	10.0	1.22	NO	34.05	1.001	4.12e4	4.06e5	9.96	-0.4	1.02	bd
4	201203R2_4	200	1.26	NO	34.05	1.000	1.17e6	5.28e5	217	8.5	1.11	bd
5	201203R2_5	1500	1.25	NO	34.04	1.000	9.00e6	6.35e5	1390	-7.4	0.945	bd
6	201203R2_6	50.0	1.23	NO	34.04	1.000	2.42e5	4.26e5	55.8	11.6	1.14	bd

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

Response Factor: 0.902494

RRF SD: 0.0671114, Relative SD: 7.43621

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

Curve type: RF

al way	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	1.25	1.19	NO	34.17	1.000	5.01e3	4.26e5	1.30	4.0	0.939	db
2	201203R2_2	2.50	1.17	NO	34.19	1.001	9.36e3	4.55e5	2.28	-8.8	0.823	MM
3	201203R2_3	10.0	1.32	NO	34.17	1.001	4.48e4	4.87e5	10.2	2.0	0.921	db
4	201203R2_4	200	1.26	NO	34.17	1.000	1.18e6	6.16e5	213	6.6	0.962	db
5	201203R2_5	1500	1.25	NO	34.17	1.001	8.88e6	7.28e5	1350	-9.9	0.813	db
6	201203R2_6	50.0	1.24	NO	34.16	1.000	2.46e5	5.13e5	53.0	6.1	0.957	db

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

Response Factor: 0.954157

RRF SD: 0.0657355, Relative SD: 6.88938

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	201203R2_1	1.25	1.32	NO	34.44	1.001	5.15e3	4.19e5	1.29	3.0	0.983	bb
2	201203R2_2	2.50	1.24	NO	34.44	1.000	1.00e4	4.56e5	2.30	-8.0	0.878	bb

Work Order 2002493 Page 570 of 734

Page 3 of 16

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Printed:

Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

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

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	201203R2_3	10.0	1.23	NO	34.44	1.001	4.69e4	4.87e5	10.1	0.9	0.963	bb
4	201203R2_4	200	1.24	NO	34.44	1.000	1.20e6	5.99e5	210	4.8	1.00	bb
5	201203R2_5	1500	1.24	NO	34.43	1.000	9.22e6	7.06e5	1370	-8.7	0.871	bb
6	201203R2_6	50.0	1.26	NO	34.43	1.000	2.61e5	5.07e5	54.0	8.0	1.03	MM

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

Response Factor: 0.918023

Ri.F SD: 0.0609394, Relative SD: 6.63811

Response type: Internal Std (Ref 23), Area * (IS Conc. / IS Area)

Curve type: RF

4.4	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	1.25	1.05	NO	37.91	1.000	3.95e3	3.21e5	1.34	7.2	0.984	MM
2	201203R2_2	2.50	1.06	NO	37.92	1.000	7.18e3	3.37e5	2.32	-7.2	0.852	MM
3	201203R2_3	10.0	1.06	NO	37.92	1.001	3.39e4	3.72e5	9.91	-0.9	0.910	MM
4	201203R2_4	200	1.03	NO	37.92	1.000	9.39e5	4.93e5	208	3.8	0.953	bb
5	201203R2_5	1500	1.04	NO	37.91	1.001	7.38e6	5.85e5	1370	-8.5	0.840	bb
6	201203R2_6	50.0	1.02	NO	37.91	1.001	1.90e5	3.92e5	52.8	5.5	0.969	bb

Compound name: OCDD Response Factor: 0.865808

RRF SD: 0.07035, Relative SD: 8.12536

Response type: Internal Std (Ref 24), Area * (IS Conc. / IS Area)

Curve type: RF

36 4	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	2.50	0.83	NO	40.81	1.000	6.00e3	5.55e5	2.50	-0.1	0.865	bb
2	201203R2_2	5.00	0.89	NO	40.83	1.000	1.11e4	5.80e5	4.43	-11.4	0.767	MM
3	201203R2_3	20.0	0.84	NO	40.81	1.000	5.89e4	6.66e5	20.4	2.1	0.884	bb
4	201203R2_4	400	0.88	NO	40.81	1.000	1.59e6	8.50e5	432	7.9	0.935	bb
5	201203R2_5	3000	0.89	NO	40.81	1.000	1.27e7	1.06e6	2780	-7.4	0.802	bb
6	201203R2_6	100	0.88	NO	40.81	1.000	3.12e5	6.62e5	109	8.9	0.942	bb

Page 571 of 734 Work Order 2002493

MassLynx 4.1 SCN815

Vista Analytical Laboratory

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld Dataset:

Last Altered: Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time Printed:

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

Response Factor: 0.847967

RRF SD: 0.0725275, Relative SD: 8.5531

Response type: Internal Std (Ref 25), Area * (IS Conc. / IS Area)

Curve type: RF

1 = =	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	0.250	0.73	NO	25.31	1.001	2.48 e 3	1.07 e 6	0.272	8.9	0.923	MM
2	201203R2_2	0.500	0.83	NO	25.30	1.001	4.29e3	1.14e6	0.442	-11.5	0.750	MM
3	201203R2_3	2.00	0.75	NO	25.30	1.001	1.90e4	1.17e6	1.92	-4.0	0.814	bb
4	201203R2_4	40.0	0.76	NO	25.30	1.001	4.93e5	1.37e6	42.3	5.8	0.897	MM
5	201203R2_5	300	0.76	NO	25.30	1.001	3.37e6	1.42e6	279	-6.8	0.790	bb
6	201203R2_6	10.0	0.75	NO	25.30	1.001	1.10e5	1.21e6	10.8	7.7	0.913	db

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

Response Factor: 0.959665

RRF SD: 0.0738522, Relative SD: 7.69562

Response type: Internal Std (Ref 26), Area * (IS Conc. / IS Area)

Curve type: RF

STEELS.	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	1.25	1.56	NO	29.48	1.000	9.71e3	7.88e5	1.28	2.7	0.986	MM
2	201203R2_2	2.50	1.59	NO	29.49	1.000	1.84 e 4	8.48e5	2.26	-9.7	0.867	MM
3	201203R2_3	10.0	1.63	NO	29.48	1.000	8.91e4	9.03e5	10.3	2.8	0.986	bb
4	201203R2_4	200	1.57	NO	29.48	1.000	2.24e6	1.11e6	211	5.4	1.01	bb
5	201203R2_5	1500	1.57	NO	29.48	1.000	1.56e7	1.19e6	1360	-9.5	0.869	bb
6	201203R2_6	50.0	1.61	NO	29.46	1.000	4.70e5	9.04e5	54.1	8.3	1.04	bb

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

Response Factor: 1.06715

RRF SD: 0.100434, Relative SD: 9.41144

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	201203R2_1	1.25	1.52	NO	30.55	1.000	1.08e4	7.63e5	1.32	6.0	1.13	bb
2	201203R2_2	2.50	1.59	NO	30.55	1.000	1.87e4	8.14e5	2.16	-13.7	0.921	ММ

Page 572 of 734 Work Order 2002493

Page 4 of 16

Page 5 of 16

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered:

Printed:

Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

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	201203R2_3	10.0	1.63	NO	30.55	1.000	9.54e4	8.55e5	10.5	4.5	1.12	MM
4	201203R2_4	200	1.56	NO	30.55	1.000	2.37e6	1.06e6	208	4.2	1.11	bb
5	201203R2_5	1500	1.55	NO	30.55	1.000	1.67e7	1.16e6	1350	-10.0	0.961	bb
6	201203R2_6	50.0	1.56	NO	30.53	1.000	5.09e5	8.75e5	54.5	9.0	1.16	bb

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

Response Factor: 0.9859

RRF SD: 0.0865731, Relative SD: 8.78113

Response type: Internal Std (Ref 28), Area * (IS Conc. / IS Area)

Curve type: RF

1000	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	1.25	1.29	NO	33.15	1.001	6.18e3	5.15e5	1.22	-2.7	0.959	bd
2	201203R2_2	2.50	1.18	NO	33.16	1.001	1.20e4	5.49e5	2.21	-11.6	0.872	bd
3	201203R2_3	10.0	1.26	NO	33.15	1.000	6.08e4	5.80e5	10.6	6.4	1.05	bd
4	201203R2_4	200	1.23	NO	33.16	1.001	1.55e6	7.36e5	213	6.5	1.05	bd
5	201203R2_5	1500	1.23	NO	33.15	1.001	1.15e7	8.47e5	1380	-8.3	0.904	bd
6	201203R2_6	50.0	1.23	NO	33.15	1.001	3.29e5	6.08e5	54.8	9.6	1.08	b d

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

Response Factor: 1.03876

RRF SD: 0.0872692, Relative SD: 8.40126

Response type: Internal Std (Ref 29), Area * (IS Conc. / IS Area)

Curve type: RF

Art.		,										
100	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	1.25	1.27	NO	33.29	1.001	7.32e3	5.47e5	1.29	3.1	1.07	MM
2	201203R2_2	2.50	1.22	NO	33.29	1.000	1.37e4	5.90e5	2.23	-10.8	0.927	MM
3	201203R2_3	10.0	1.27	NO	33.29	1.001	6.64e4	6.28e5	10.2	1.9	1.06	db
4	201203R2_4	200	1.22	NO	33.29	1.000	1.74e6	7.93e5	211	5.7	1.10	db
5	201203R2_5	1500	1.24	NO	33.28	1.000	1.26e7	8.97e5	1350	-9.7	0.938	db
6	201203R2_6	50.0	1.24	NO	33.28	1.001	3.68e5	6.44e5	54.9	9.9	1.14	db

Work Order 2002493 Page 573 of 734

Page 6 of 16

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Printed:

Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

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

Response Factor: 1.02016

RRF SD: 0.0860672, Relative SD: 8.43661

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	201203R2_1	1.25	1.25	NO	33.95	1.001	6.57e3	4.91e5	1.31	5.0	1.07	MM
2	201203R2_2	2.50	1.22	NO	33.96	1.001	1.17e4	5.25e5	2.19	-12.3	0.895	MM
3	201203R2_3	10.0	1.26	NO	33.95	1.001	5.87e4	5.65 e 5	10.2	1.8	1.04	bb
4	201203R2_4	200	1.23	NO	33.95	1.001	1.54e6	7.08e5	213	6.6	1.09	bb
5	201203R2_5	1500	1.22	NO	33.94	1.000	1.14e7	8.16e5	1370	-8.7	0.932	bb
6	201203R2_6	50.0	1.25	NO	33.94	1.001	3.27e5	5.97 e 5	53.8	7.6	1.10	bb

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

Response Factor: 0.99094

RRF SD: 0.0846908, Relative SD: 8.54651

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	201203R2_1	1.25	1.26	NO	34.94	1.001	5.61e3	4.28e5	1.32	5.8	1.05	MM
2	201203R2_2	2.50	1.32	NO	34.94	1.000	1.03e4	4.73e5	2.19	-12.6	0.867	bb
3	201203R2_3	10.0	1.25	NO	34.94	1.001	5.03e4	5.05e5	10.1	0.6	0.997	MM
4	201203R2_4	200	1.25	NO	34.93	1.000	1.43e6	6.76e5	213	6.7	1.06	bb
5	201203R2_5	1500	1.23	NO	34.92	1.000	1.09e7	7.99e5	1380	-8.3	0.909	bb
6	201203R2_6	50.0	1.25	NO	34.92	1.000	2.95e5	5.53e5	53.9	7.7	1.07	MM

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

Response Factor: 1.04917

RRF SD: 0.0785065, Relative SD: 7.48269

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	201203R2_1	1.25	1.07	NO	36.49	1.000	5.72e3	4.27e5	1.28	2.1	1.07	MM
2	201203R2_2	2.50	0.94	NO	36.50	1.000	1.06e4	4.51e5	2.24	-10.4	0.940	bb

Work Order 2002493 Page 574 of 734

Quantify Compound Summary Report
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MassLynx 4.1 SCN815

Page 7 of 16

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Printed: Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

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

200	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	201203R2_3	10.0	0.98	NO	36.49	1.000	5.28e4	4.95e5	10.2	1.6	1.07	bb
4	201203R2_4	200	1.01	NO	36.50	1.000	1.36e6	6.02e5	215	7.7	1.13	bb
5	201203R2_5	1500	1.02	NO	36.49	1.001	1.02e7	7.02e5	1380	-7.8	0.967	bb
6	201203R2_6	50.0	1.02	NO	36.47	1.000	2.86e5	5.12e5	53.3	6.7	1.12	bb

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

Response Factor: 1.17589

RRF SD: 0.0886789, Relative SD: 7.54143

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	201203R2_1	1.25	0.89	NO	38.55	1.000	4.14e3	2.76e5	1.28	2.3	1.20	MM
2	201203R2_2	2.50	1.00	NO	38.55	1.000	7.84e3	2.93e5	2.27	-9.1	1.07	MM
3	201203R2_3	10.0	0.99	NO	38.55	1.001	3.75e4	3.22e5	9.90	-1.0	1.16	bb
4	201203R2_4	200	1.02	NO	38.54	1.001	1.06e6	4.21e5	214	7.1	1.26	bb
5	201203R2_5	1500	1.02	NO	38.53	1.000	8.34e6	5.15e5	1380	-8.2	1.08	bb
6	201203R2_6	50.0	1.03	NO	38.54	1.000	2.15e5	3.36e5	54.4	8.8	1.28	bb

Compound name: OCDF Response Factor: 0.895953

RRF SD: 0.0701579, Relative SD: 7.83054

Response type: Internal Std (Ref 34), Area * (IS Conc. / IS Area)

Crove type: RF

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	2.50	0.93	NO	41.09	1.000	7.18e3	6.13e5	2.61	4.6	0.937	MM
2	201203R2_2	5.00	0.90	NO	41.11	1.000	1.32e4	6.61e5	4.46	-10.7	0.800	MM
3	201203R2_3	20.0	0.86	NO	41.10	1.000	6.64e4	7.40e5	20.0	0.2	0.898	bb
4	201203R2_4	400	0.89	NO	41.09	1.000	1.89e6	9.93e5	425	6.3	0.952	MM
5	201203R2_5	3000	0.89	NO	41.09	1.000	1.50e7	1.22e6	2750	-8.3	0.822	bb
6	201203R2_6	100	0.88	NO	41.09	1.000	3.70e5	7.64e5	108	7.9	0.967	bb

Work Order 2002493 Page 575 of 734

Page 8 of 16

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Printed: Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

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

Response Factor: 1.05554

RRF SD: 0.132152, Relative SD: 12.5199

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

Curve type: RF

81	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	0.77	NO	25.98	1.031	7.27e5	7.80e5	88.4	-11.6	0.933	bb
2	201203R2_2	100	0.76	NO	25.98	1.031	7.75e5	8.11e5	90.5	-9.5	0.955	bb
3	201203R2_3	100	0.77	NO	25.98	1.031	8.00e5	8.35e5	90.8	-9.2	0.958	bb
4	201203R2_4	100	0.79	NO	25.98	1.031	9.54 e 5	8.19e5	110	10.3	1.16	bb
5	201203R2_5	100	0.78	NO	25.98	1.031	1.00e6	7.99e5	119	19.2	1.26	bb
6	201203R2_6	100	0.78	NO	25.97	1.031	8.36e5	7.85e5	101	0.9	1.07	bb

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

Response Factor: 0.784679

RRF SD: 0.1443, Relative SD: 18.3896

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	201203R2_1	100	0.62	NO	30.73	1.219	5.16e5	7.80e5	84.3	-15.7	0.662	bb
2	201203R2_2	100	0.63	NO	30.73	1.219	5.51 e 5	8.11e5	86.6	-13.4	0.679	bb
3	201203R2_3	100	0.62	NO	30.73	1.219	5.88e5	8.35e5	89.8	-10.2	0.704	bb
4	201203R2_4	100	0.63	NO	30.73	1.219	7.22e5	8.19e5	112	12.4	0.882	bb
5	201203R2_5	100	0.63	NO	30.73	1.219	8.24e5	7.99e5	131	31.4	1.03	bb
6	201203R2_6	100	0.64	NO	30.71	1.219	5.89e5	7.85e5	95.6	-4.4	0.750	bb

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

Response Factor: 0.620541

RRF SD: 0.0984404, Relative SD: 15.8637

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	201203R2_1	100	1.26	NO	34.03	1.014	3.55e5	6.41 e 5	89.2	-10.8	0.553	bđ
2	201203R2_2	100	1.27	NO	34.04	1.014	3.81e5	6.94 e 5	88.5	-11.5	0.549	bđ

Work Order 2002493 Page 576 of 734

Quantify Compound Summary Report

MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

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Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

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

To a	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	201203R2_3	100	1.27	NO	34.03	1.014	4.06e5	7.47e5	87.6	-12.4	0.544	bd
4	201203R2_4	100	1.30	NO	34.04	1.014	5.28e5	7.82e5	109	8.9	0.676	bd
5	201203R2_5	100	1.28	NO	34.03	1.013	6.35e5	8.01e5	128	27.7	0.793	bd
6	201203R2_6	100	1.28	NO	34.03	1.014	4.26e5	6.99e5	98.1	-1.9	0.609	bd

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

Response Factor: 0.734012

RRF SD: 0.101028, Relative SD: 13.7638

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

Curve type: RF

The same	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	1.29	NO	34.16	1.018	4.26e5	6.41e5	90.7	-9.3	0.665	db
21.	201203R2_2	100	1.28	NO	34.16	1.017	4.55e5	6.94e5	89.4	-10.6	0.656	db
3	201203R2_3	100	1.28	NO	34.15	1.017	4.87e5	7.47e5	88.8	-11.2	0.651	db
4	201203R2_4	100	1.27	NO	34.16	1.017	6.16e5	7.82e5	107	7.3	0.788	db
5	201203R2_5	100	1.27	NO	34.15	1.017	7.28e5	8.01e5	124	23.8	0.909	db
6	201203R2_6	100	1.26	NO	34.15	1.017	5.13e5	6.99e5	100	0.1	0.735	db

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

Response Factor: 0.72265

RRF SD: 0.0908822, Relative SD: 12.5762

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

Curve type: RF

100	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	1.25	NO	34.42	1.025	4.19e5	6.41e5	90.4	-9.6	0.653	bd
2	201203R2_2	100	1.26	NO	34.43	1.025	4.56e5	6.94e5	91.0	-9.0	0.657	bb
3	201203R2_3	100	1.26	NO	34.42	1.025	4.87e5	7.47e5	90.2	-9.8	0.652	MM
4	201203R2_4	100 .	1.24	NO	34.43	1.025	5.99e5	7.82e5	106	6.1	0.766	bb
5	201203R2_5	100	1.26	NO	34.42	1.025	7.06e5	8.01e5	122	22.0	0.882	bb
6	201203R2_6	100 ,	1.25	NO	34.42	1.025	5.07e5	6.99e5	100	0.3	0.725	bb

Work Order 2002493 Page 577 of 734

Page 10 of 16

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Last Altered: Printed: Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

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

Response Factor: 0.567736

RRF SD: 0.0966968, Relative SD: 17.032

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	201203R2_1	100	1.06	NO	37.90	1.129	3.21e5	6.41e5	88.2	-11.8	0.501	MM
2	201203R2_2	100	1.05	NO	37.91	1.129	3.37e5	6.94e5	85.5	-14.5	0.485	bb
3	201203R2_3	100	1.06	NO	37.90	1.129	3.72e5	7.47e5	87.8	-12.2	0.498	MM
4	201203R2_4	100	1.04	NO	37.91	1.129	4.93e5	7.82e5	111	11.0	0.630	bb
5	201203R2_5	100	1.05	NO	37.89	1.128	5.85e5	8.01e5	129	28.8	0.731	bb
6	201203R2_6	100	t 1.06	NO	37.89	1.129	3.92e5	6.99e5	98.7	-1.3	0.561	bb

Compound name: 13C-OCDD

Response Factor: 0.49583

RRF SD: 0.0921522, Relative SD: 18.5854

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

Curve type: RF

100	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	200	0.89	NO	40.80	1.215	5.55 e 5	6.41e5	175	-12.7	0.433	MM
2	201203R2_2	200	0.88	NO	40.81	1.215	5.80e5	6.94e5	169	-15.7	0.418	MM
3	201203R2_3	200	0.91	NO	40.80	1.215	6.66e5	7.47e5	180	-10.0	0.446	bd
4	201203R2_4	200	0.89	NO	40.80	1.215	8.50e5	7.82e5	219	9.7	0.544	bb
15	201203R2_5	200	0.89	NO	40.80	1.215	1.06e6	8.01e5	267	33.3	0.661	bb
16	201203R2_6	200	0.89	NO	40.80	1.215	6.62e5	6.99e5	191	-4.5	0.474	bb

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

Response Factor: 0.919039

RkF SD: 0.110551, Relative SD: 12.029

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

Curve type: RF

3	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	0.78	NO	25.28	1.003	1.07e6	1.32 e 6	88.7	-11.3	0.815	bb
2	201203R2_2	100	0.79	NO	25.28	1.003	1.14e6	1.36e6	91.6	-8.4	0.842	bb

Work Order 2002493 Page 578 of 734

Page 11 of 16

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Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

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

3 11 5	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	201203R2_3	100	0.76	NO	25.28	1.003	1.17e6	1.40 e 6	90.7	-9.3	0.834	bb
4	201203R2_4	100	0.79	NO	25.28	1.003	1.37e6	1.36e6	110	9.9	1.01	bb
5	201203R2_5	100	0.77	NO	25.28	1.003	1.42e6	1.31e6	118	18.5	1.09	bb
6 .	201203R2_6	100	0.77	NO	25.27	1.003	1.21e6	1.30e6	101	0.7	0.925	bb

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

Response Factor: 0.715118

RRF SD: 0.124185, Relative SD: 17.3657

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

Curve type: RF

42	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	1.62	NO	29.46	1.169	7.88e5	1.32e6	83.6	-16.4	0.598	MM
2	201203R2_2	100	1.60	NO	29.48	1.169	8.48e5	1.36e6	87.3	-12.7	0.624	bb
3	201203R2_3	100	1.61	NO	29.46	1.169	9.03e5	1.40e6	90.3	-9.7	0.646	bb
4	201203R2_4	100	1.57	NO	29.48	1.169	1.11e6	1.36e6	114	13.8	0.814	bb
5	201203R2_5	100	1.59	NO	29.46	1.169	1.19e6	1.31e6	128	28.0	0.915	рр
6	201203R2_6	100	1.63	NO	29.46	1.169	9.04e5	1.30e6	97.0	-3.0	0.694	bb

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

Response Factor: 0.688531

RRF SD: 0.122291, Relative SD: 17.7611

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	201203R2_1	100	1.62	NO	30.53	1.211	7.63e5	1.32e6	84.1	-15.9	0.579	bb
2	201203R2_2	100	1.59	NO	30.53	1.211	8.14e5	1.36e6	87.1	-12.9	0.599	MM
3	201203R2_3	100	1.60	NO	30.53	1.212	8.55e5	1.40e6	88.8	-11.2	0.611	bb
4	201203R2_4	100	1.59	NO	30.53	1.211	1.06e6	1.36e6	114	13.6	0.782	bb
5	201203R2_5	100	1.59	NO	30.53	1.212	1.16e6	1.31e6	129	29.0	0.888	bb
6	201203R2_6	100	1.63	NO	30.52	1.211	8.75e5	1.30e6	97.5	-2.5	0.671	bb

Work Order 2002493 Page 579 of 734

Dataset:

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Last Altered: Printed:

Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

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

Response Factor: 0.873401

RRF SD: 0.109302, Relative SD: 12.5145

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

Curve type: RF

0 1 - 0	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	0.51	NO	33.13	0.987	5.15e5	6.41e5	92.0	-8.0	0.804	bd
2	201203R2_2	100	0.51	NO	33.14	0.987	5.49e5	6.94e5	90.7	-9.3	0.792	bd
3	201203R2_3	100	0.50	NO	33.14	0.987	5.80e5	7.47e5	88.8	-11.2	0.776	bd
4	201203R2_4	100	0.51	NO	33.14	0.987	7.36e5	7.82e5	108	7.8	0.941	bd
5	201203R2_5	100	0.51	NO	33.13	0.987	8.47e5	8.01e5	121	21.1	1.06	bd
6	201203R2_6	100	0.50	NO	33.13	0.987	6.08e5	6.99e5	99.6	-0.4	0.870	bd

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

Rusponse Factor: 0.933484

RRF SD: 0.112711, Relative SD: 12.0743

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

Curve type: RF

		٠,										
14	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	0.50	NO	33.27	0.991	5.47e5	6.41e5	91.4	-8.6	0.854	db
2	201203R2_2	100	0.52	NO	33.28	0.991	5.90e5	6.94e5	91.0	-9.0	0.850	MM
3	201203R2_3	100	0.51	NO	33.27	0.991	6.28e5	7.47 e 5	90.0	-10.0	0.841	ďb
4	201203R2_4	100	0.50	NO	33.28	0.991	7.93 e 5	7.82e5	109	8.7	1.01	db
5	201203R2_5	100	0.51	NO	33.27	0.991	8.97e5	8.01e5	120	20.0	1.12	db
6	201203R2_6	100	0.50	NO	33.26	0.991	6.44e5	6.99e5	98.8	-1.2	0.922	db

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

Response Factor: 0.843038

RRF SD: 0.105848, Relative SD: 12.5555

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

Curve type: RF

14.74	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100 .	0.50	NO	33.93	1.011	4.91e5	6.41e5	90.9	-9.1	0.766	MM
2	201203R2_2	100	0.50	NO	33.94	1.011	5.25 e 5	6.94e5	89.8	-10.2	0.757	ММ

Work Order 2002493 Page 580 of 734

Page 13 of 16

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Printed:

Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard 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	201203R2_3	100	0.51	NO	33.93	1.011	5.65e5	7.47e5	89.7	-10.3	0.756	bb
4	201203R2_4	100	0.51	NO	33.93	1.010	7.08e5	7.82e5	107	7.5	0.906	рр
5	201203R2_5	100	0.51	NO	33.93	1.010	8.16e5	8.01e5	121	20.9	1.02	bb
6	201203R2_6	100	0.51	NO	33.92	1.010	5.97e5	6.99e5	101	1.2	0.853	bb

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

Response Factor: 0.7799

RRF SD: 0.132819, Relative SD: 17.0303

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	201203R2_1	100	0.51	NO	34.92	1.040	4.28e5	6.41e5	85.6	-14.4	0.667	MM
2	201203R2_2	100	0.50	NO	34.93	1.040	4.73e5	6.94e5	87.5	-12.5	0.682	MM
3	201203R2_3	100	0.52	NO	34.92	1.040	5.05e5	7.47e5	86.6	-13.4	0.676	MM
4	201203R2_4	100	0.52	NO	34.92	1.040	6.76e5	7.82e5	111	10.9	0.865	MM
5	201203R2_5	100	0.51	NO	34.91	1.040	7.99e5	8.01e5	128	28.0	0.998	bb
6	201203R2_6	100	0.49	NO	34.91	1.040	5.53e5	6.99e5	101	1.4	0.791	bb

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

Response Factor: 0.726456

R F SD: 0.0871718, Relative SD: 11.9.96

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

Curve type: RF

1000	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	0.42	NO	36.48	1.087	4.27e5	6.41e5	91.8	-8.2	0.667	bb
2	201203R2_2	100	0.42	NO	36.49	1.087	4.51e5	6.94e5	89.6	-10.4	0.651	bb
3	201203R2_3	100	0.43	NO	36.47	1.087	4.95 e 5	7.47e5	91.2	-8.8	0.663	bb
4	201203R2_4	100	0.42	NO	36.49	1.087	6.02 e 5	7.82e5	106	6.0	0.770	bb
5	201203R2_5	100	0.43	NO	36.47	1.086	7.02e5	8.01e5	121	20.7	0.877	bb
6	201203R2_6	100	0.43	NO	36.47	1.086	5.12e5	6.99e5	101	0.7	0.732	bb

Work Order 2002493 Page 581 of 734

Page 14 of 16

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Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Lest Altered: Printed: Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

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

Response Factor: 0.49111

RRF SD: 0.0867845, Relative SD: 17.6711

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

C rve type: RF

11 21 24	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	0.42	NO	38.53	1.148	2.76e5	6.41e5	87.5	-12.5	0.430	MM
2	201203R2_2	100	0.42	NO	38.54	1.148	2.93e5	6.94e5	86.1	-13.9	0.423	bb
3	201203R2_3	100	0.40	NO	38.53	1.148	3.22e5	7.47e5	87.7	-12.3	0.431	bb
4	201203R2_4	100	0.42	NO	38.52	1.147	4.21e5	7.82e5	110	9.8	0.539	bb
5	201203R2_5	100	0.42	NO	38.52	1.147	5.15e5	8.01e5	131	31.0	0.643	bb
6	201203R2_6	100	0.42	NO	38.53	1.148	3.36e5	6.99e5	97.9	-2.1	0.481	bb

Compound name: 13C-OCDF

Response Factor: 0.565418

RRF SD: 0.112698, Relative SD: 19.9318

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

Curve type: RF

a a	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	200	0.87	NO	41.09	1.224	6.13 e 5	6.41e5	169	-15.4	0.478	MM
2	201203R2_2	200	0.89	NO	41.10	1.224	6.61 e 5	6.94e5	169	-15.7	0.477	MM
3	201203R2_3	200	0.89	NO	41.08	1.224	7.40e5	7.47e5	175	-12.4	0.495	bb
4 :	201203R2_4	200	0.89	NO	41.08	1.223	9.93 e 5	7.82e5	225	12.4	0.636	MM
5	201203R2_5	200	0.88	NO	41.07	1.223	1.22e6	8.01e5	269	34.4	0.760	bb
6	201203R2_6	200	0.87	NO	41.08	1.224	7.64e5	6.99e5	193	-3.3	0.547	bb



Compound name: 37CI-2,3,7,8-TCDD

Response Factor: 1.21674

RRF SD: 0.217315, Relative SD: 17.8605

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

Curve type: RF

140	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
	201203R2_1	0.250			26.01	1.032	2.03e3	7.80e5	0.214	-14.5	1.04	bb
2	201203R2_2	0.500	b)		26.01	1.032	4.12e3	8.11e5	0.418	-16.4	1.02	bb

Work Order 2002493 Page 582 of 734

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Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Printed:

Friday, December 04, 2020 11:36:07 Pacific Standard Time Friday, December 04, 2020 11:37:44 Pacific Standard Time

Compound name: 37CI-2,3,7,8-TCDD

	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
3	201203R2_3	2.00			25.99	1.032	1.69e4	8.35e5	1.66	-16.8	1.01	bb
4	201203R2_4	40.0			25.99	1.031	4.66 e 5	8.19e5	46.8	16.9	1.42	bb
5	201203R2_5	200			25.99	1.032	2.36 e 6	7.99e5	243	21.5	1.48	bb
6	201203R2_6	10.0			25.98	1.031	1.04e5	7.85e5	10.9	9.3	1.33	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

F.)		ra ra										
	Name	Std. Conc ,	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	0.79	NO	25.21	1.000	7.80e5	7.80 e 5	100	0.0	1.00	bb
2	201203R2_2	100	0.78	NO	25.21	1.000	8.11e5	8.11e5	100	0.0	1.00	bb
3	201203R2_3	100 ,	0.78	NO	25.20	1.000	8.35e5	8.35e5	100	0.0	1.00	bb
4	201203R2_4	100	0.77	NO	25.21	1.000	8.19e5	8.19e5	100	0.0	1.00	bb
5	201203R2_5	100	0.77	NO	25.20	1.000	7.99 e 5	7.99e5	100	0.0	1.00	bb
6	201203R2_6	100	0.79	NO	25.20	1.000	7.85e5	7.85e5	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	201203R2_1	100	0.79	NO	23.69	1.000	1.32e6	1.32e6	100	0.0	1.00	bb
2	201203R2_2	100	0.78	NO	23.69	1.000	1.36e6	1.36e6	100	0.0	1.00	bb
3	201203R2_3	100	0.79	NO	23.67	1.000	1.40 e 6	1.40e6	100	0.0	1.00	bb
4	201203R2_4	100	0.78	NO	23.67	1.000	1.36e6	1.36e6	100	0.0	1.00	bb
5	201203R2_5	100	0.79	NO	23.69	1.000	1.31e6	1.31e6	100	0.0	1.00	bb
6	201203R2_6	100	0.79	NO	23.66	1.000	1.30e6	1.30e6	100	0.0	1.00	bb

Work Order 2002493 Page 583 of 734

Quantify Compound Summary Report MassLynx 4.1 SCN815 Page 16 of 16

Vi∴ta Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Friday, December 04, 2020 11:36:07 Pacific Standard Time Printed: Friday, December 04, 2020 11:37:44 Pacific Standard 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

17.00	Name	Std. Conc	RA	n/y	RT	RRT	Resp	IS Resp	Conc.	%Dev	RRF	X = dropped
1	201203R2_1	100	0.50	NO	33.57	1.000	6.41e5	6.41e5	100	0.0	1.00	bb
2	201203R2_2	100	0.52	NO	33.58	1.000	6.94 e 5	6.94e5	100	0.0	1.00	bb
3	201203R2_3	100	0.51	NO	33.57	1.000	7.47e5	7.47e5	100	0.0	1.00	bb
4	201203R2_4	100	0.51	NO	33.58	1.000	7.82 e 5	7.82e5	100	0.0	1.00	bb
5	201203R2_5	100	0.51	NO	33.58	1.000	8.01e5	8.01e5	100	0.0	1.00	bb
6	201203R2_6	100	0.50	NO	33.57	1.000	6.99 e 5	6.99 e 5	100	0.0	1.00	bb

Work Order 2002493 Page 584 of 734

Dataset:

Untitled

Last Altered:

Friday, December 04, 2020 12:05:28 Pacific Standard Time

Printed: Friday, December 04, 2020 12:05:43 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-11-11-20.mdb 12 Nov 2020 07:51:39 Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

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

	Name	ID	Acq.Date	Acq.Time
1	201203R2_1	ST201203R2_1 1613 CS0 20K1901	03-Dec-20	10:36:45
2	201203R2_2	ST201203R2_2 1613 CS1 20K1902	03-Dec-20	11:28:04
3	201203R2_3	ST201203R2_3 1613 CS2 20K1903	03-Dec-20	12:14:40
4	201203R2_4	ST201203R2_4 1613 CS4 20L0302	03-Dec-20	13:00:37
5	201203R2_5	ST201203R2_5 1613 CS5 20L0303	03-Dec-20	13:47:04
6	201203R2_6	ST201203R2_6 1613 CS3 20L0301	03-Dec-20	14:35:05
7	201203R2_7	SOLVENT BLANK	03-Dec-20	15:21:59
8	201203R2_8	SS201203R2_1 1613 SSS 20K1907	03-Dec-20	16:09:07
9	201203R2_9	SOLVENT BLANK	03-Dec-20	17:02:58
10	201203R2_10	2002458-01 GW-1212 0.93004	03-Dec-20	17:47:52
11	201203R2_11	2002458-02 GW-1213 0.92278	03-Dec-20	18:32:46
12	201203R2_12	2002458-03 GW-1246 0.9578	03-Dec-20	19:17:40
13	201203R2_13	2002459-01 GW-1223 0.93891	03-Dec-20	20:02:33
14	201203R2_14	2002459-02 GW-1224 0.94848	03-Dec-20	20:47:27
15	201203R2_15	2002459-03 GW-1215 0.95546	03-Dec-20	21:32:21
16	201203R2_16	2002459-04 GW-1216 0.935	03-Dec-20	22:17:16
17	201203R2_17 (A)			
18	201203R2_18 T			
19	201203R2_19			
20	201203R2_20	SOLVENT BLANK	04-Dec-20	07:52:29
21	201203R2_21	ST201203R2_7 1613 CS3 20L0301	04-Dec-20	08:38:31

(A) Oven door open, run pawed LIN 12/04/2020

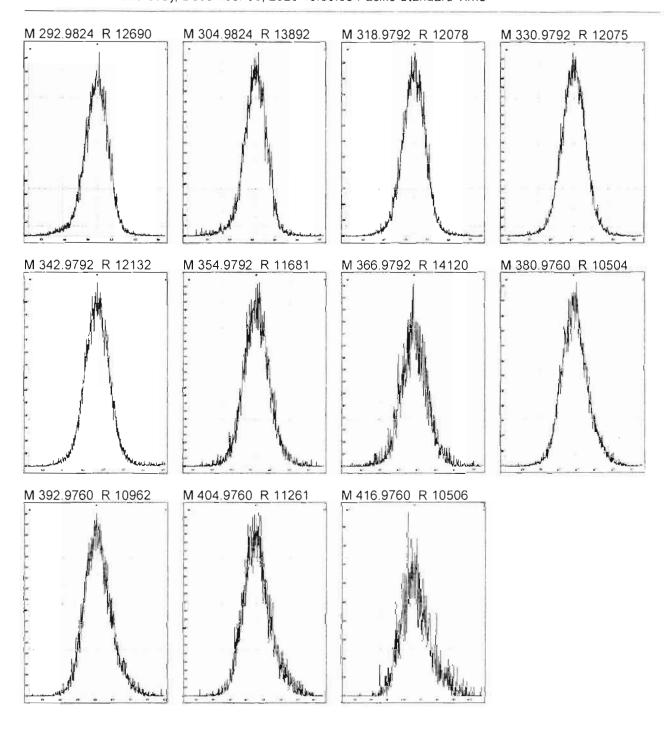
Work Order 2002493 Page 585 of 734

File:

Experiment: OCDD_DIOXIN.exp Reference: pfk.ref Function: 1 @ 200 (ppm)

Printed:

Thursday, December 03, 2020 10:30:53 Pacific Standard Time



Work Order 2002493 Page 586 of 734

MassLynx 4.1 SCN815

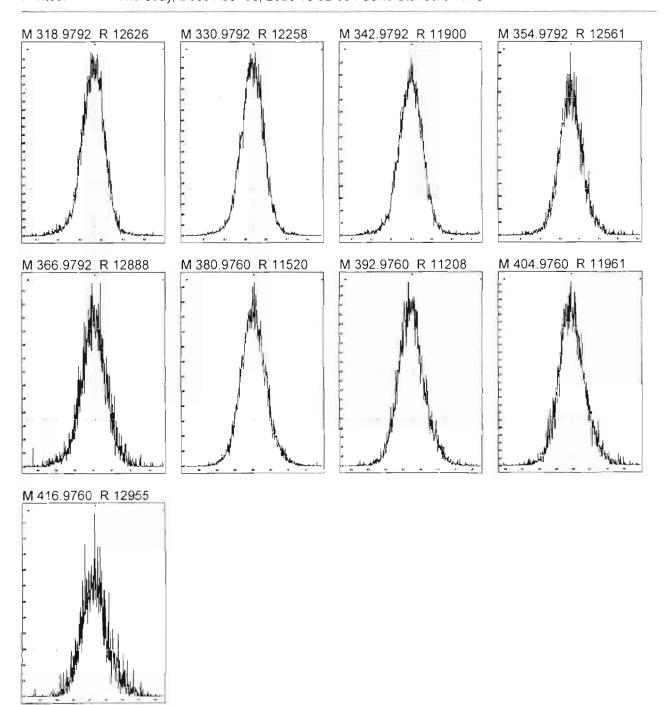
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: pfk.ref Function: 2 @ 200 (ppm)

Printed:

Thursday, December 03, 2020 10:32:05 Pacific Standard Time



Work Order 2002493 Page 587 of 734

MassLynx 4.1 SCN815

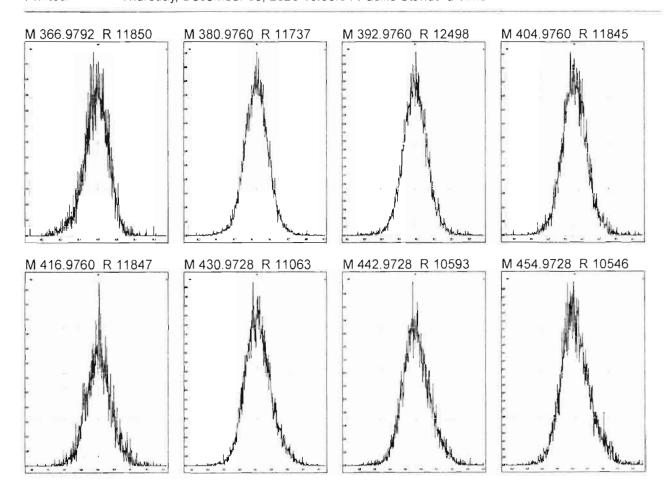
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: pfk.ref Function: 3 @ 200 (ppm)

Printed:

Thursday, December 03, 2020 10:33:04 Pacific Standard Time



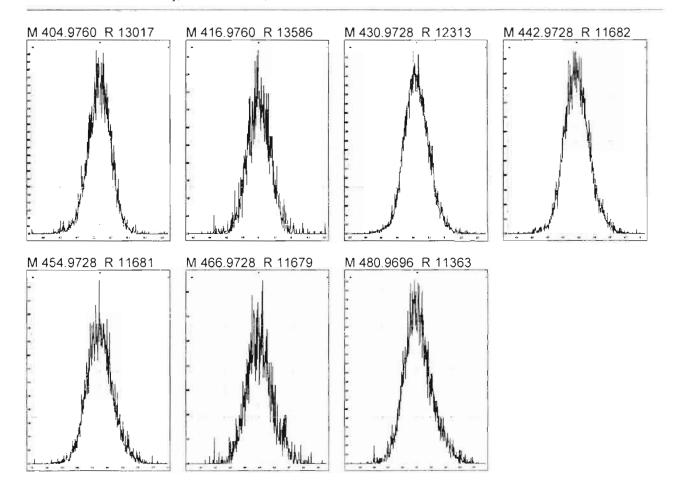
Work Order 2002493 Page 588 of 734

File:

Experiment: OCDD_DIOXIN.exp Reference: pfk.ref Function: 4 @ 200 (ppm)

Printed:

Thursday, December 03, 2020 10:33:57 Pacific Standard Time



Work Order 2002493 Page 589 of 734

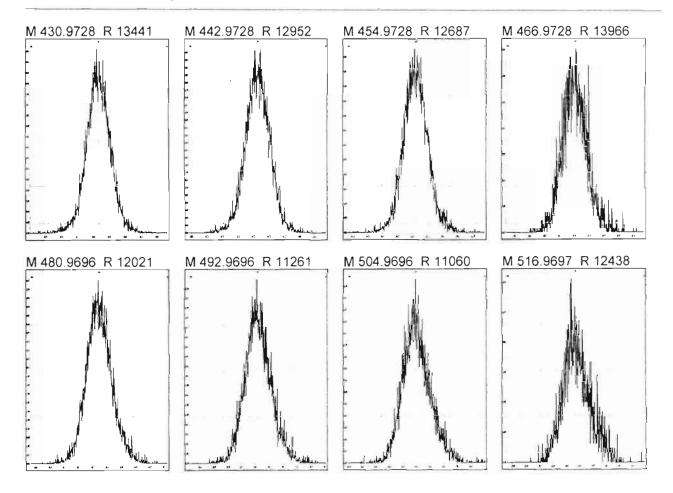
Page 1 of 1

File:

Experiment: OCDD_DIOXIN.exp Reference: pfk.ref Function: 5 @ 200 (ppm)

Printed:

Thursday, December 03, 2020 10:34:39 Pacific Standard Time



Work Order 2002493 Page 590 of 734

Vista Analytical Laboratory VG-11

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CPSM.qld

Last Altered: Friday, December 04, 2020 12:03:49 Pacific Standard Time Printed: Friday, December 04, 2020 12:04:34 Pacific Standard Time

Method: Untitled 10 Nov 2020 10:04:22

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201203R2_6, Date: 03-Dec-2020, Time: 14:35:05, ID: ST201203R2_6 1613 CS3 20L0301, Description: 1613 CS3 20L0301

1	# Name	RT
1	1 1,3,6,8-TCDD (First)	22.09
2	2 1,2,8,9-TCDD (Last)	26.90
3	3 1,2,4,7,9-PeCDD (First)	28.47
4	4 1,2,3,8,9-PeCDD (Last)	31.09
5	5 1,2,4,6,7,9-HxCDD (First)	32.42
6	6 1,2,3,7,8,9-HxCDD (Last)	34.43
7	7 1,2,3,4,6,7,9-HpCDD (First)	36.85
8	8 1,2,3,4,6,7,8-HpCDD (Last)	37.91
9	9 1,3,6,8-TCDF (First)	19.89
10	10 1,2,8,9-TCDF (Last)	27.21
11	11 1,3,4,6,8-PeCDF (First)	26.78
12	12 1,2,3,8,9-PeCDF (Last)	31.47
13	13 1,2,3,4,6,8-HxCDF (First)	31.90
14	14 1,2,3,7,8,9-HxCDF (Last)	34.92
15	15 1,2,3,4,6,7,8-HpCDF (First)	36.48
16	16 1,2,3,4,7,8,9-HpCDF (Last)	38.54

Work Order 2002493 Page 591 of 734

MassLynx 4.1 SCN815

Page 1 of 2

Vista Analytical Laboratory VG-11

Dataset:

Untitled

Last Altered: Printed:

Friday, December 04, 2020 12:14:23 Pacific Standard Time

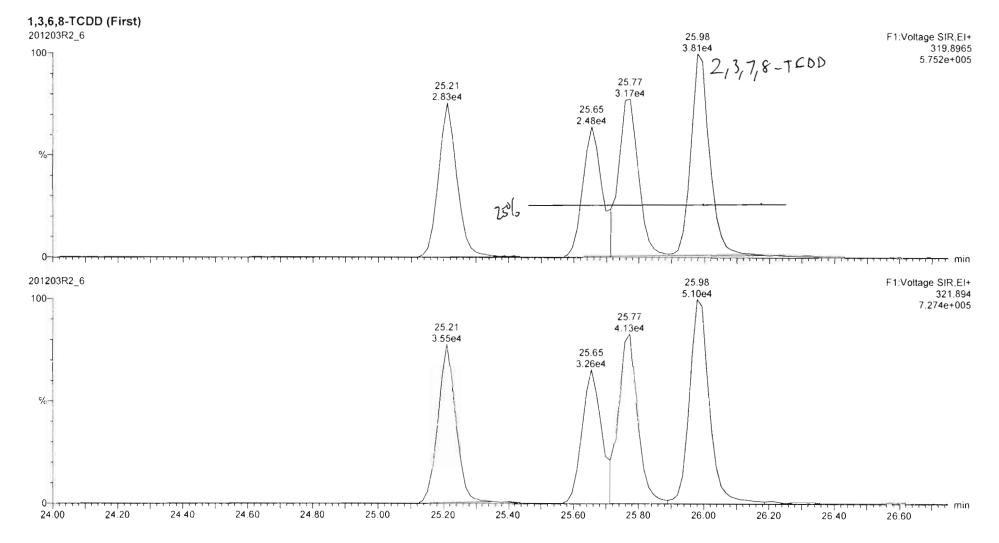
Friday, December 04, 2020 12:21:02 Pacific Standard Time

HN 12/04/2020

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

Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201203R2_6, Date: 03-Dec-2020, Time: 14:35:05, ID: ST201203R2_6 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Work Order 2002493

Page 592 of 734

Vista Analytical Laboratory VG-11

Dataset:

Untitled

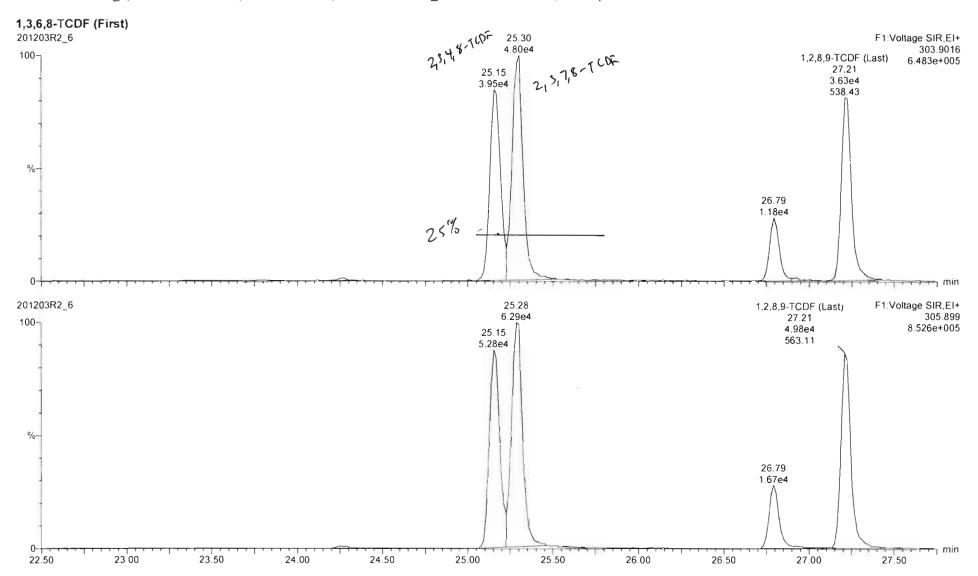
Last Altered:

Friday, December 04, 2020 12:14:23 Pacific Standard Time

Printed: Friday, December 04, 2020 12:21:02 Pacific Standard Time

HIN 12/04/2020

Name: 201203R2 6, Date: 03-Dec-2020, Time: 14:35:05, ID: ST201203R2 6 1613 CS3 20L0301, Description: 1613 CS3 20L0301



Page 1 of 78

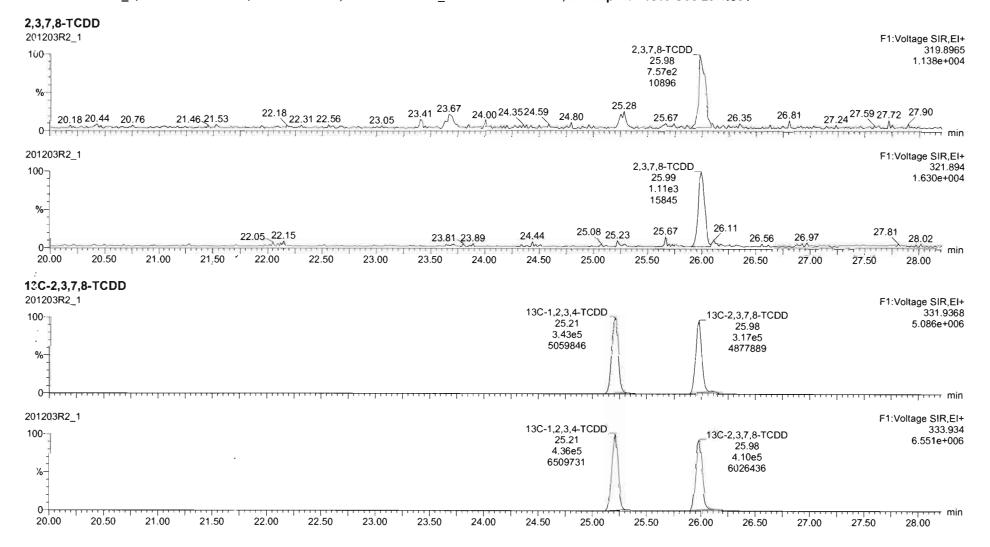
Quantify Sample Report Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

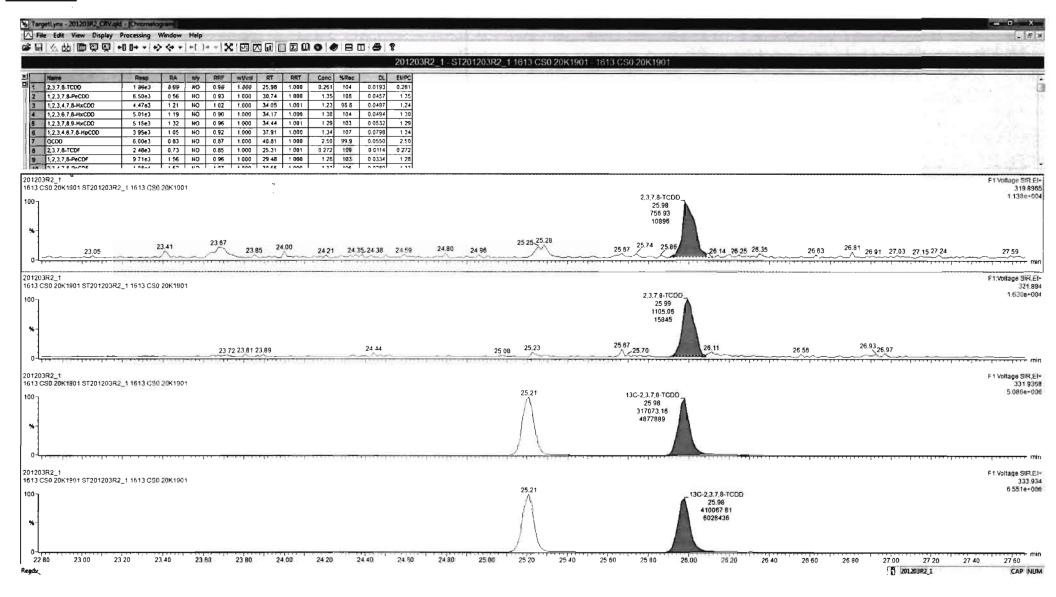
Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

Method: U:\VG12.PRO\MethDB\1613rrt-11-11-20.mdb 12 Nov 2020 07:51:39 Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN 1613vg12-12-03-20.cdb 04 Dec 2020 08:58:11

Name: 201203R2_1, Date: 03-Dec-2020, Time: 10:36:45, ID: ST201203R2 1 1613 CS0 20K1901, Description: 1613 CS0 20K1901



Work Order 2002493 Page 594 of 734



Work Order 2002493 Page 595 of 734

Quantify Sample Report

MassLynx 4.1 SCN815

Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

Name: 201203R2_1, Date: 03-Dec-2020, Time: 10:36:45, ID: ST201203R2_1 1613 CS0 20K1901, Description: 1613 CS0 20K1901

23.00

22.50

23.50

24.00

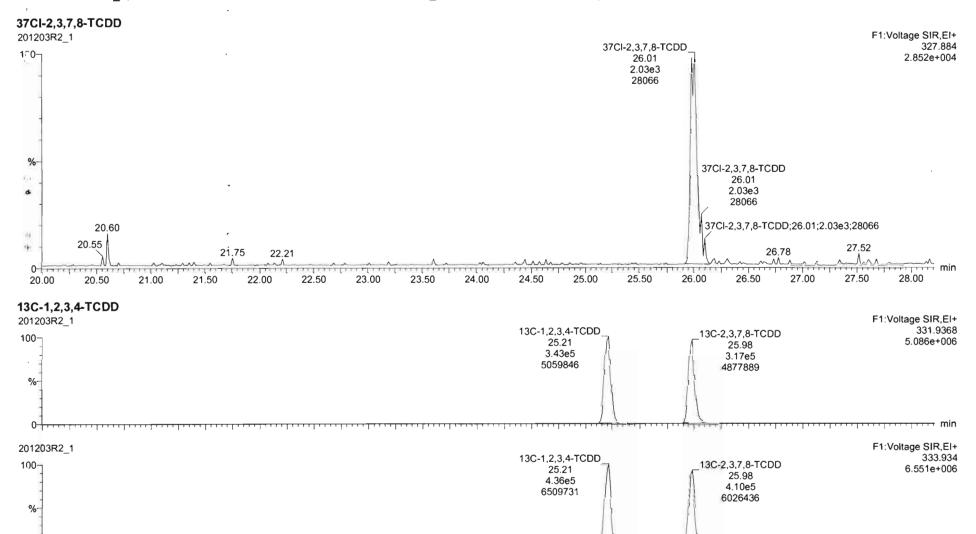
24.50

25.00

25.50

26.00

26.50



20.50

21.00

21.50

22.00

20.00

27.50

27.00

···· min

28.00

Vista Analytical Laboratory

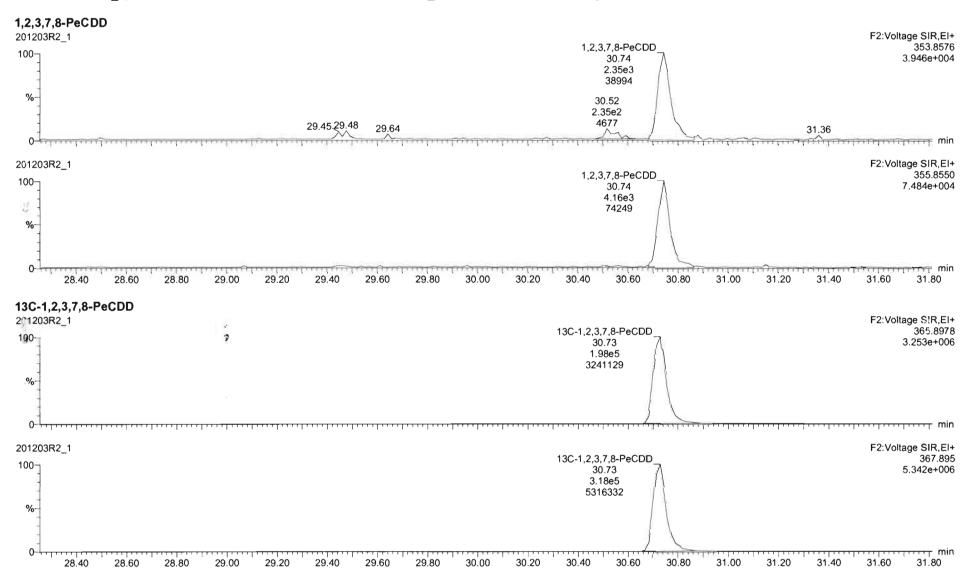
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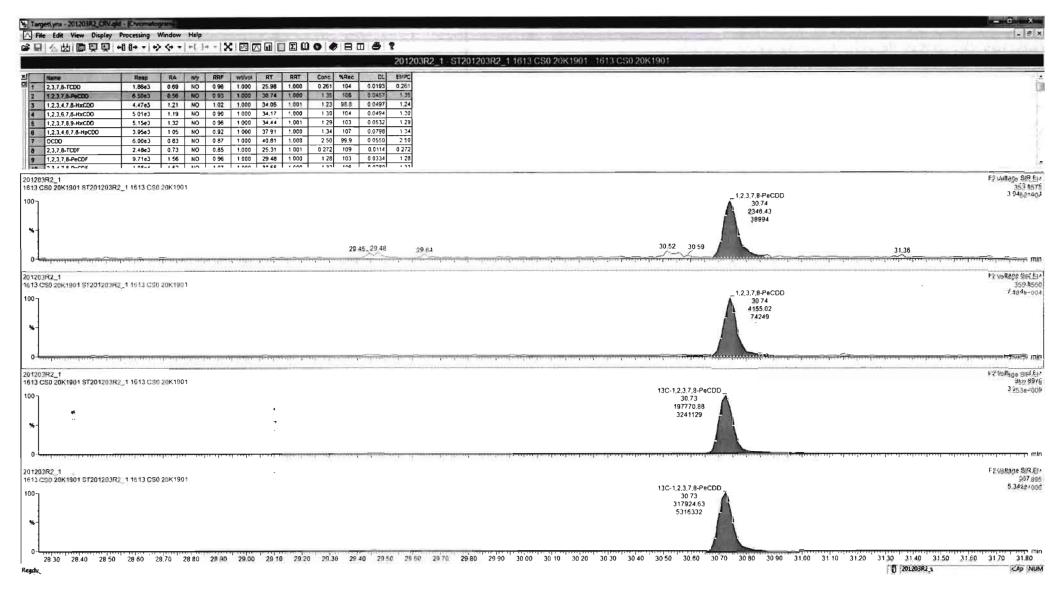
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Last Altered: Printed:

Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

Name: 201203R2 1, Date: 03-Dec-2020, Time: 10:36:45, ID: ST201203R2_1 1613 CS0 20K1901, Description: 1613 CS0 20K1901





Work Order 2002493 Page 598 of 734

Quantify Sample Report

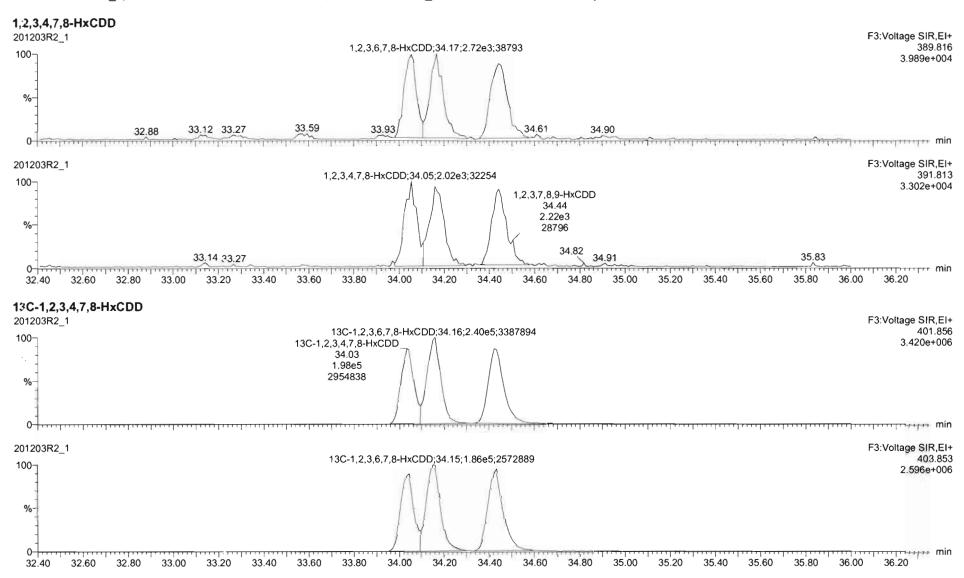
MassLynx 4.1 SCN815

Vista Analytical Laboratory

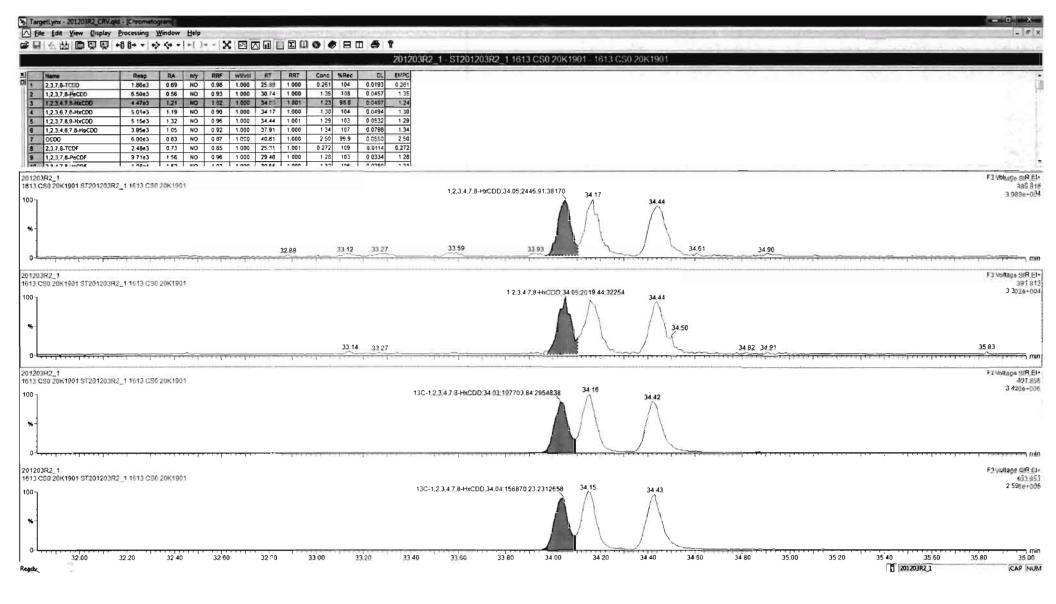
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Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

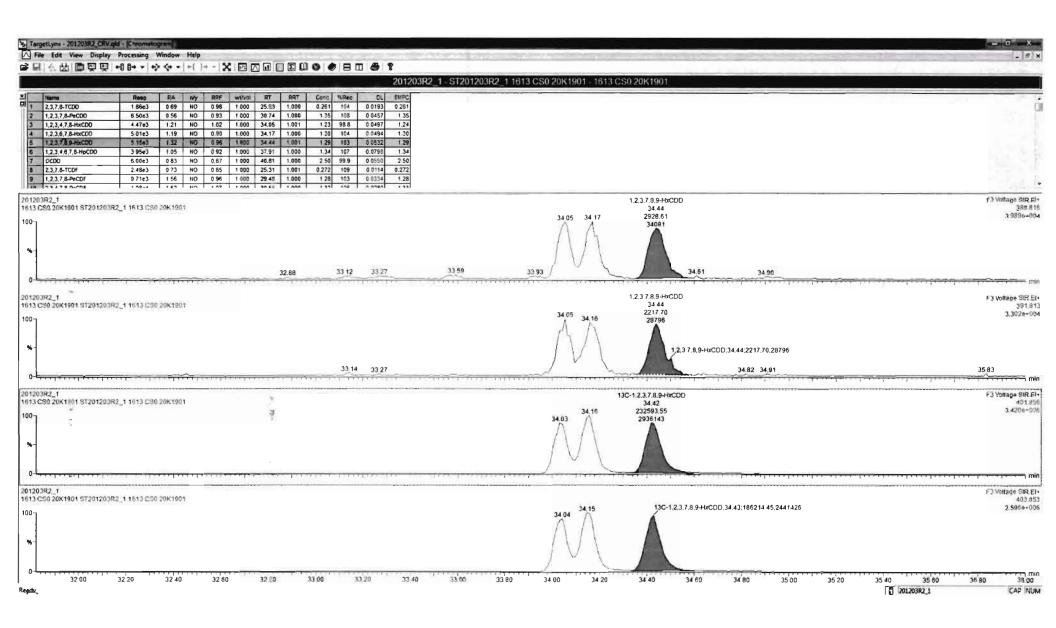
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Work Order 2002493



Work Order 2002493 Page 600 of 734



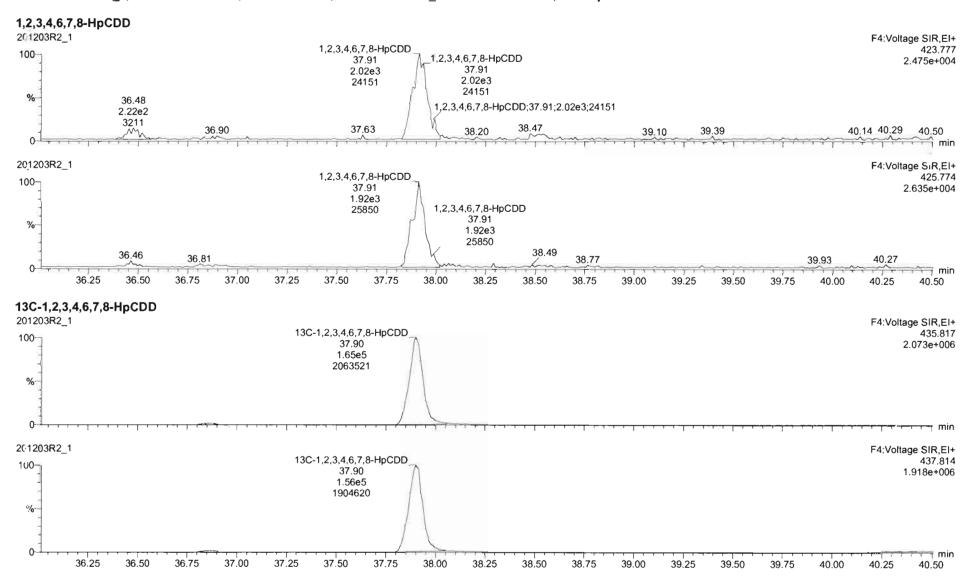
Work Order 2002493 Page 601 of 734

Vista Arialytical Laborat

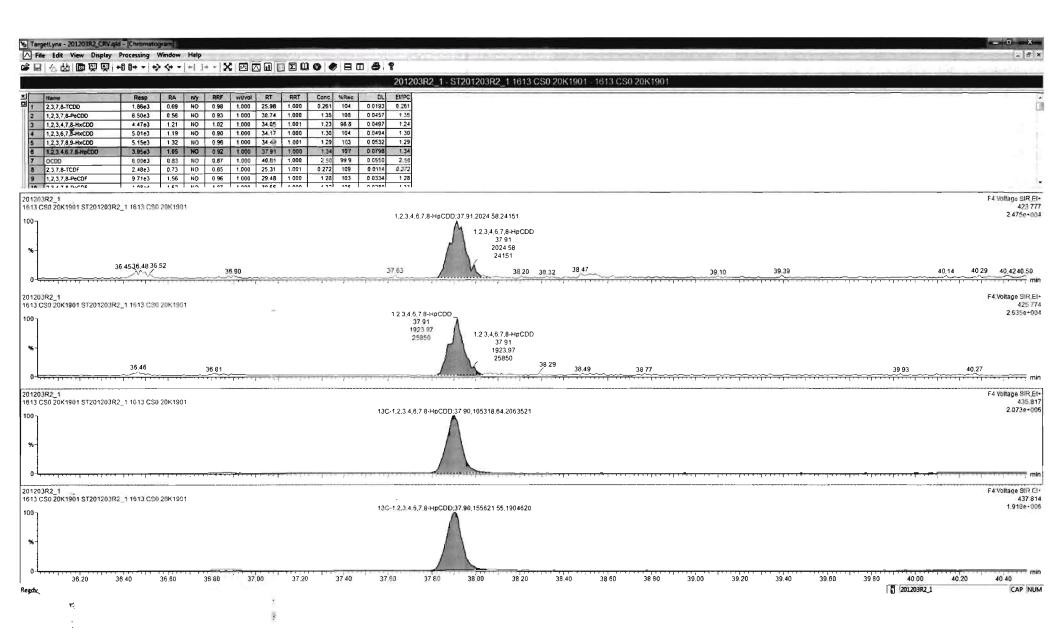
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Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Printed: Friday, December 04, 2020 09:59:16 Pacific Standard Time

Name: 201203R2_1, Date: 03-Dec-2020, Time: 10:36:45, ID: ST201203R2_1 1613 CS0 20K1901, Description: 1613 CS0 20K1901



Work Order 2002493



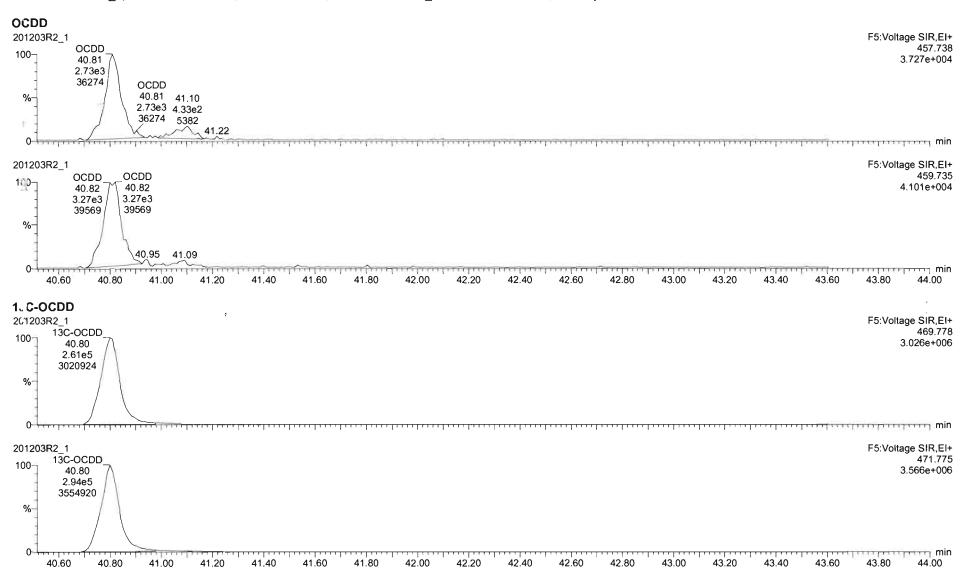
Work Order 2002493 Page 603 of 734

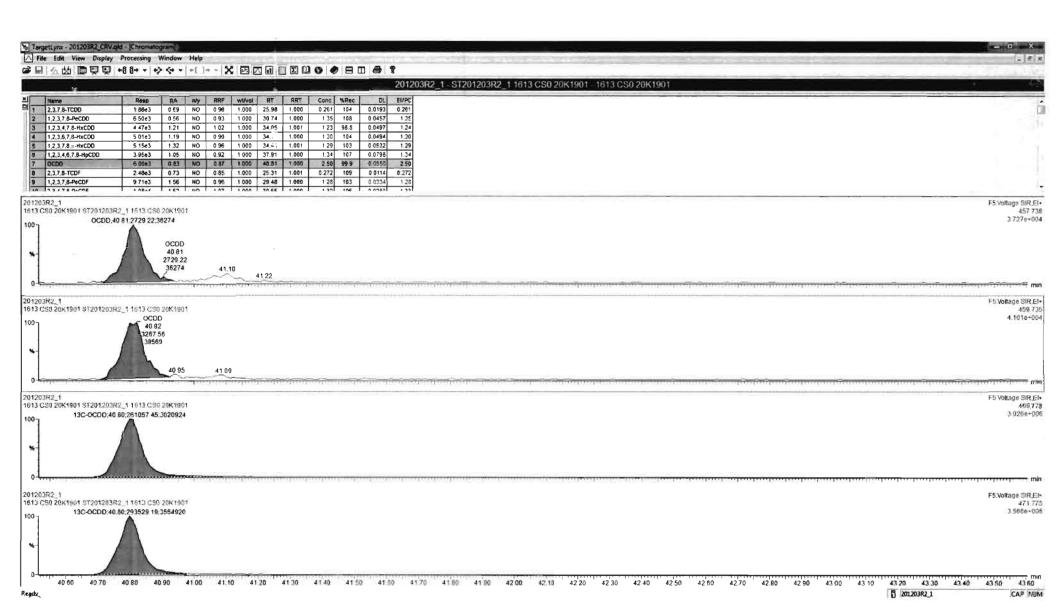
Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

Name: 201203R2 1, Date: 03-Dec-2020, Time: 10:36:45, ID: ST201203R2_1 1613 CS0 20K1901, Description: 1613 CS0 20K1901





Work Order 2002493 Page 605 of 734

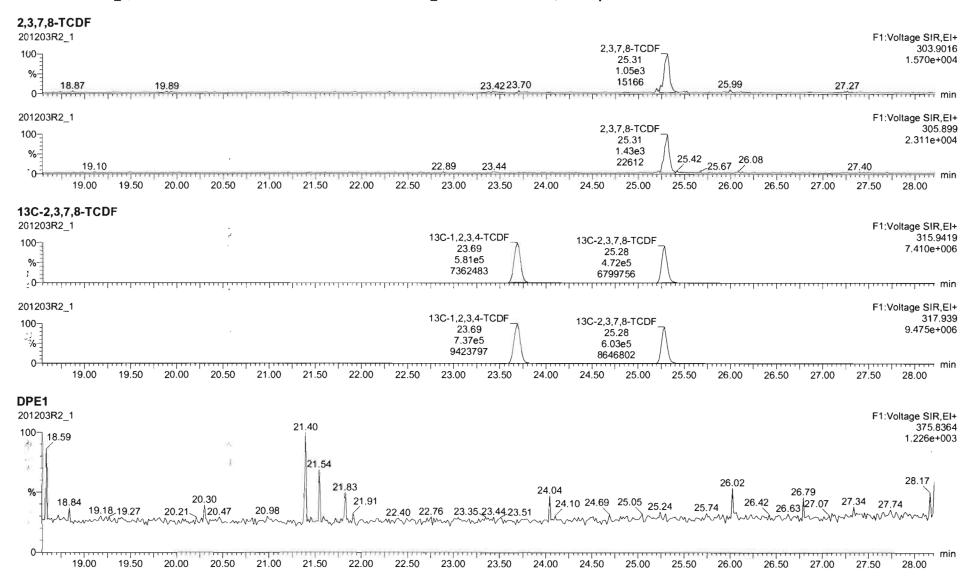
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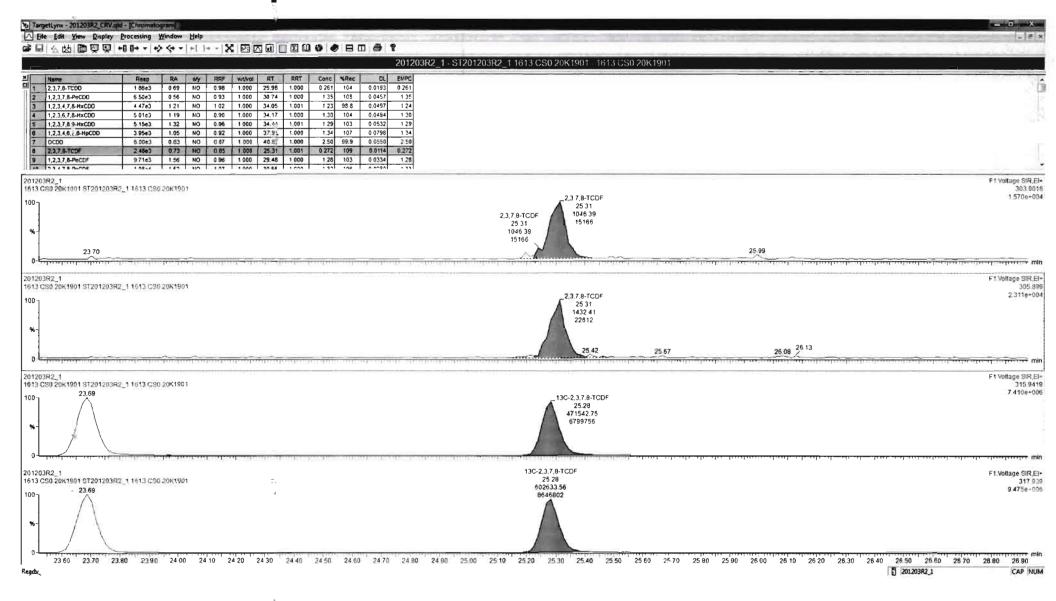
Vista Analytical Laboratory

U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Printed: Friday, December 04, 2020 09:59:16 Pacific Standard Time

Name: 201203R2_1, Date: 03-Dec-2020, Time: 10:36:45, ID: ST201203R2_1 1613 CS0 20K1901, Description: 1613 CS0 20K1901



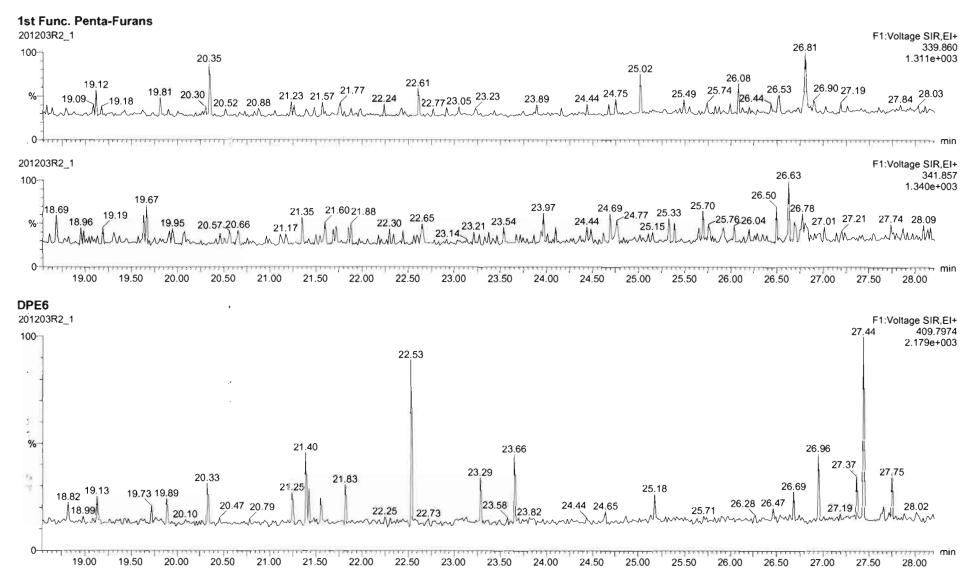


Work Order 2002493 Page 607 of 734

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Printed: Friday, December 04, 2020 09:59:16 Pacific Standard Time

Name: 201203R2 1, Date: 03-Dec-2020, Time: 10:36:45, ID: ST201203R2 1 1613 CS0 20K1901, Description: 1613 CS0 20K1901



Quantify Sample Report Vista Analytical Laboratory MassLynx 4.1 SCN815

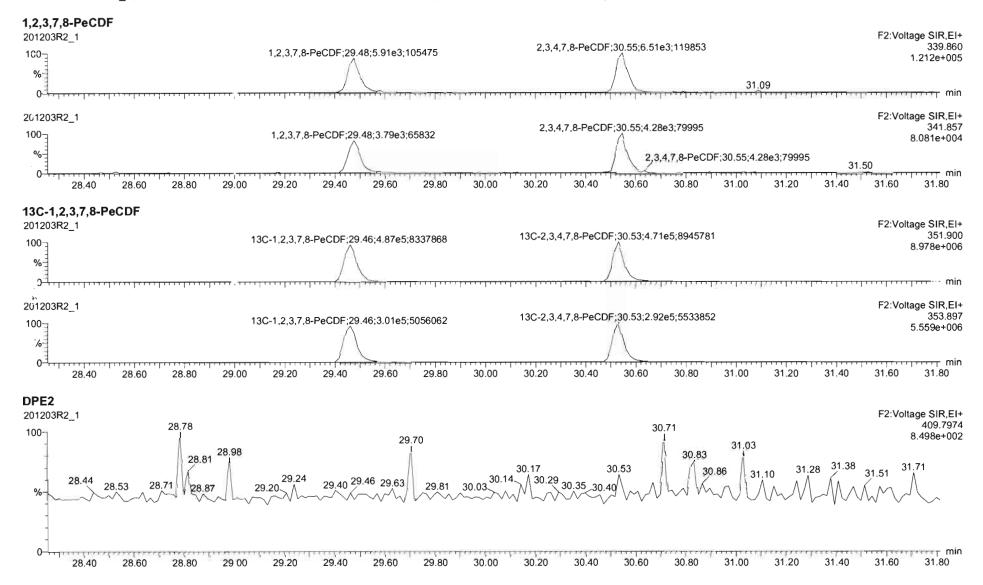
Vista Analytical Laborate

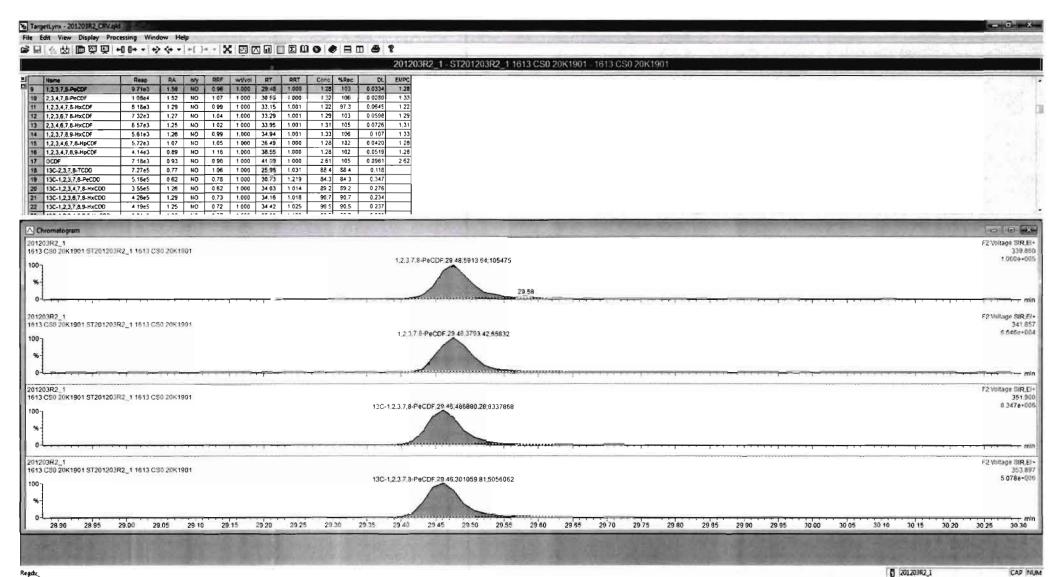
Dataset:

U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

Last Altered: Printed: Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

Name: 201203R2 1, Date: 03-Dec-2020, Time: 10:36:45, ID: ST201203R2_1 1613 CS0 20K1901, Description: 1613 CS0 20K1901





Work Order 2002493 Page 610 of 734

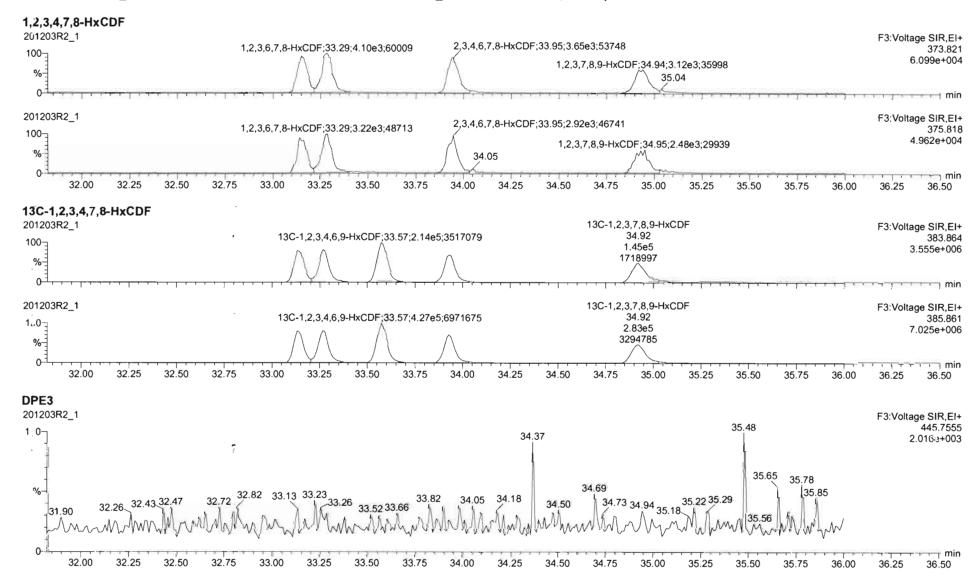
Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

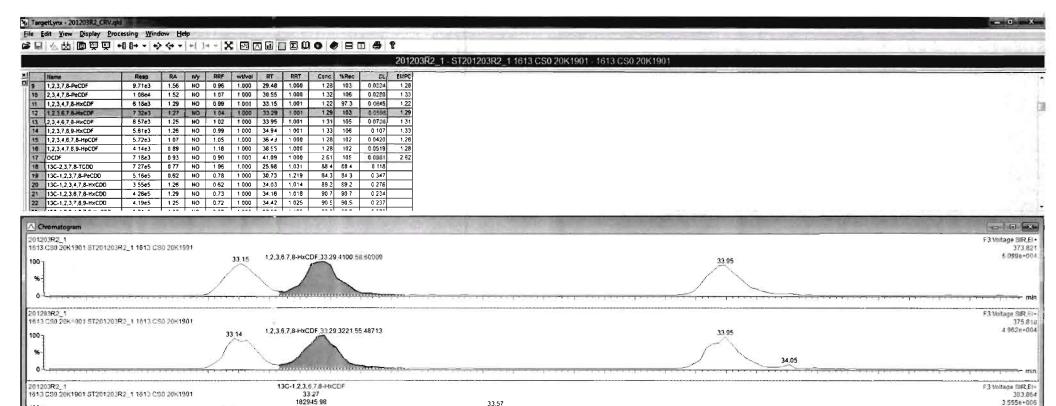
Last Altered: Printed:

Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

Name: 201203R2_1, Date: 03-Dec-2020, Time: 10:36:45, ID: ST201203R2_1 1613 CS0 20K1901, Description: 1613 CS0 20K1901



Work Order 2002493



33.57

33.55 33.60

33.65

33 70 33 75 33 80

33.93

33.93

33.90 33.95

34 00 34 05

34 10

34.20

34 15

34.25

201.203R2_1

33 85

F3 Voltage SIRLEI+

34.40

34.35

34.30

385,861

CAP NUM

7 025e+006

33.13

33.13

33.15

33.20

33 10

33.05

201203R2_1

Ready

1613 CS0 20K1901 ST201203R2_1 1613 CS0 20K1901

2995258

13C-1.2,3,6,7,8-HxCDF

33 27

364136 00

5641326

33 25 33 30

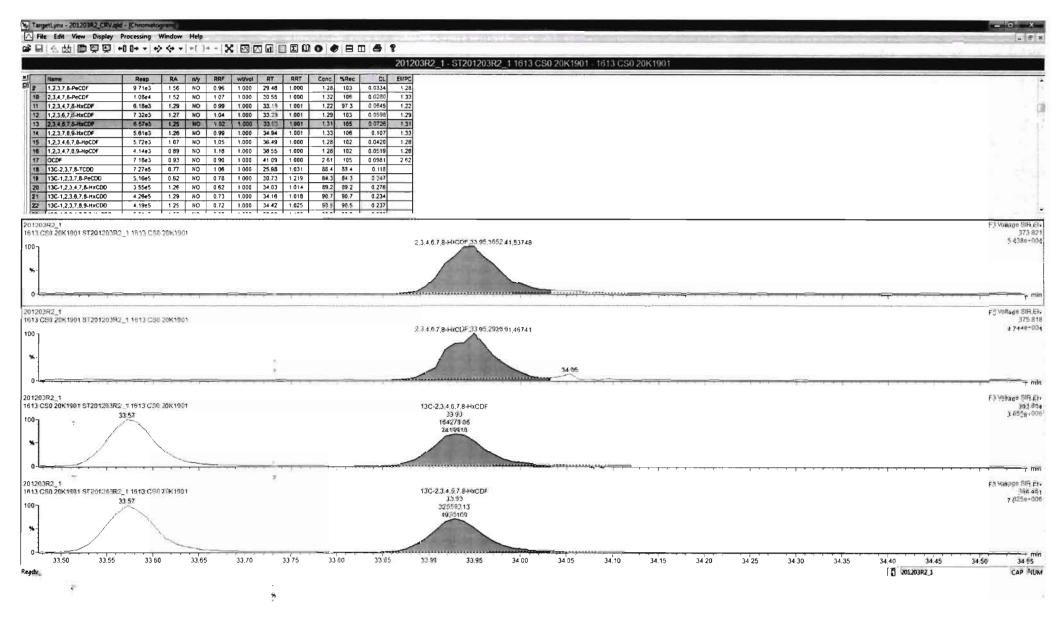
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33 40

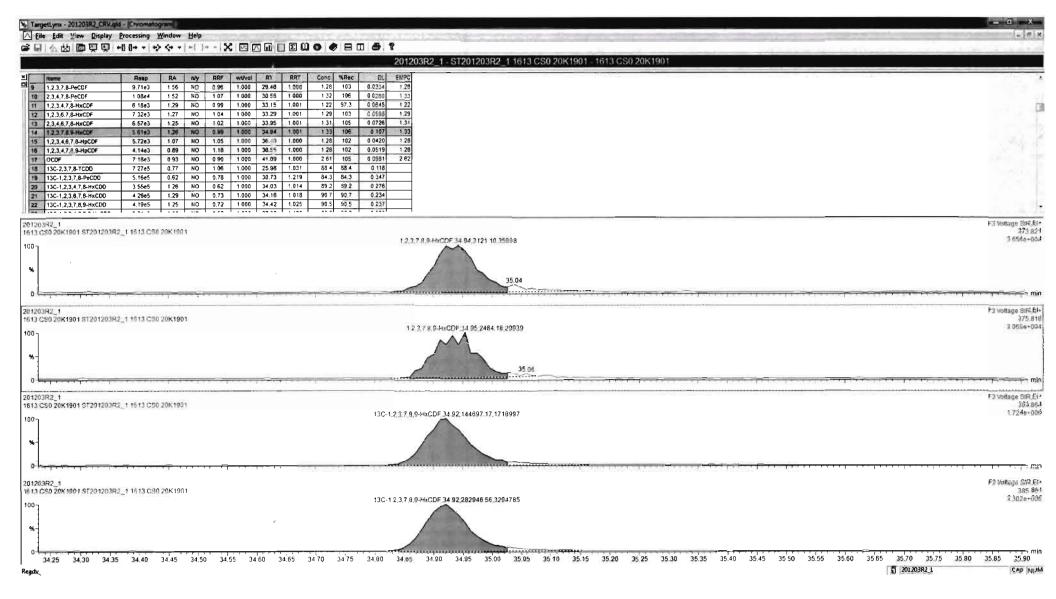
33 45

33.50

Work Order 2002493 Page 612 of 734



Work Order 2002493 Page 613 of 734

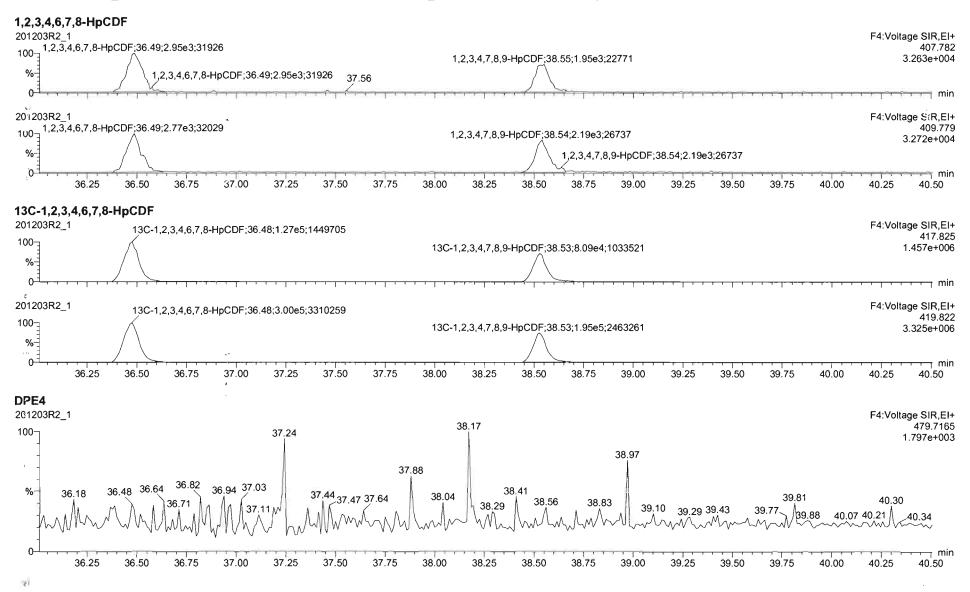


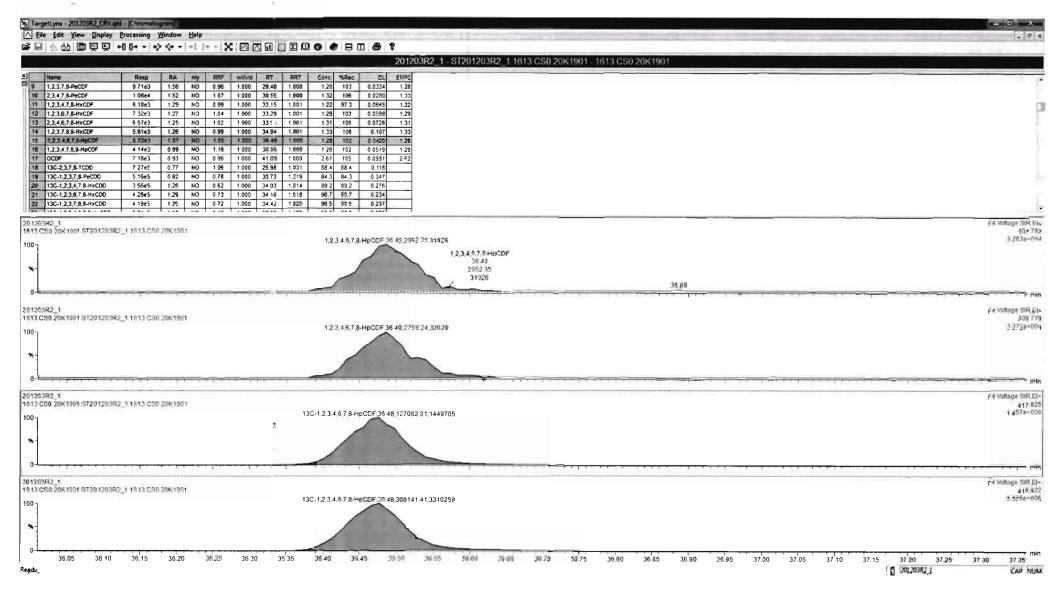
Work Order 2002493 Page 614 of 734

Dataset: U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

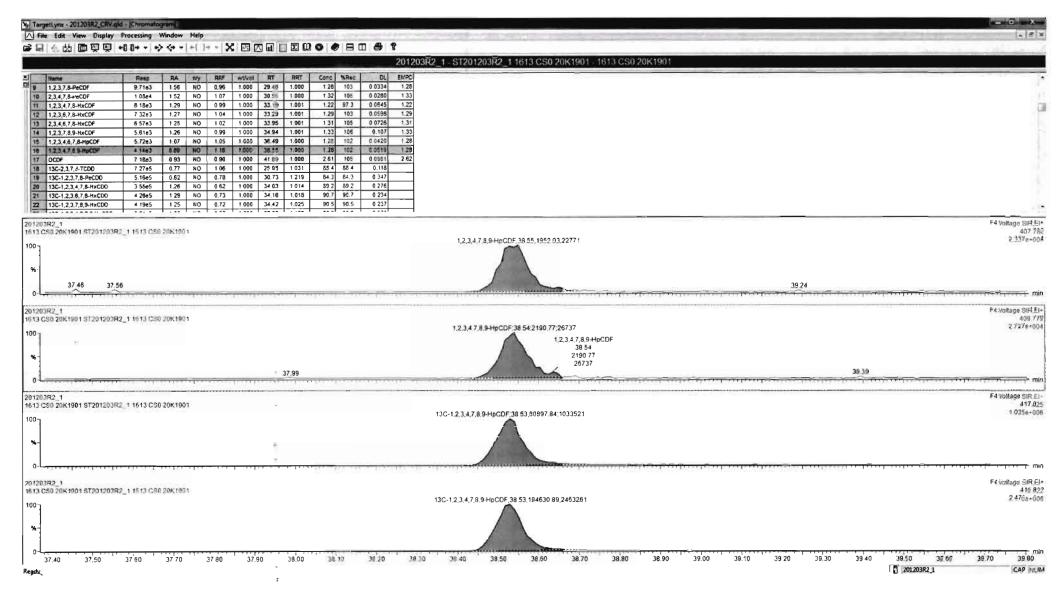
Dataset. U.IVG12.PKO/Results/201203R2/201203R2_CKV.ql

Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time





Work Order 2002493 Page 616 of 734

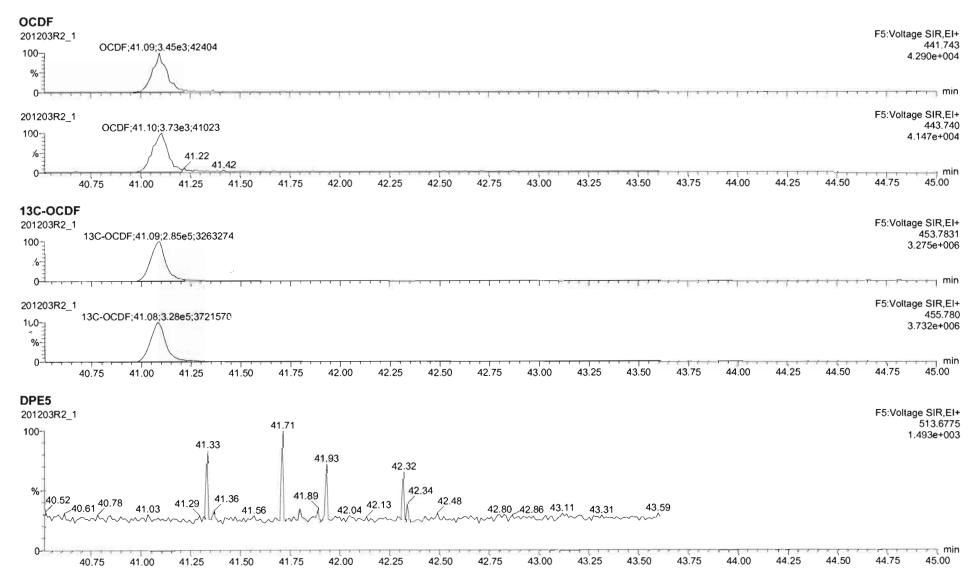


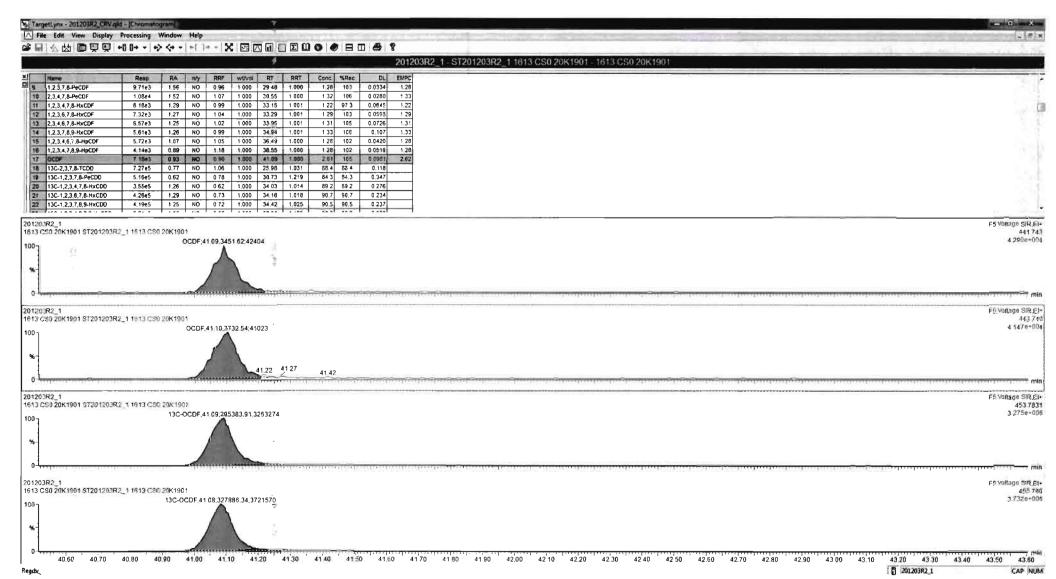
Work Order 2002493 Page 617 of 734

Quantify Sample Report Vista Analytical Laboratory MassLynx 4.1 SCN815

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time





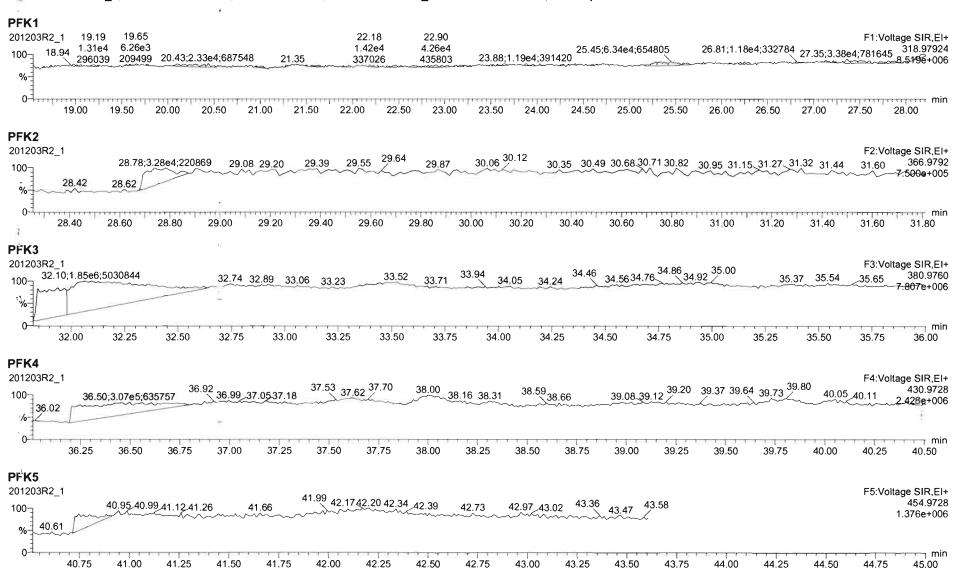
Work Order 2002493 Page 619 of 734

Quantify Sample Report Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Lest Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

Name: 201203R2 1, Date: 03-Dec-2020, Time: 10:36:45, ID: ST201203R2 1 1613 CS0 20K1901, Description: 1613 CS0 20K1901



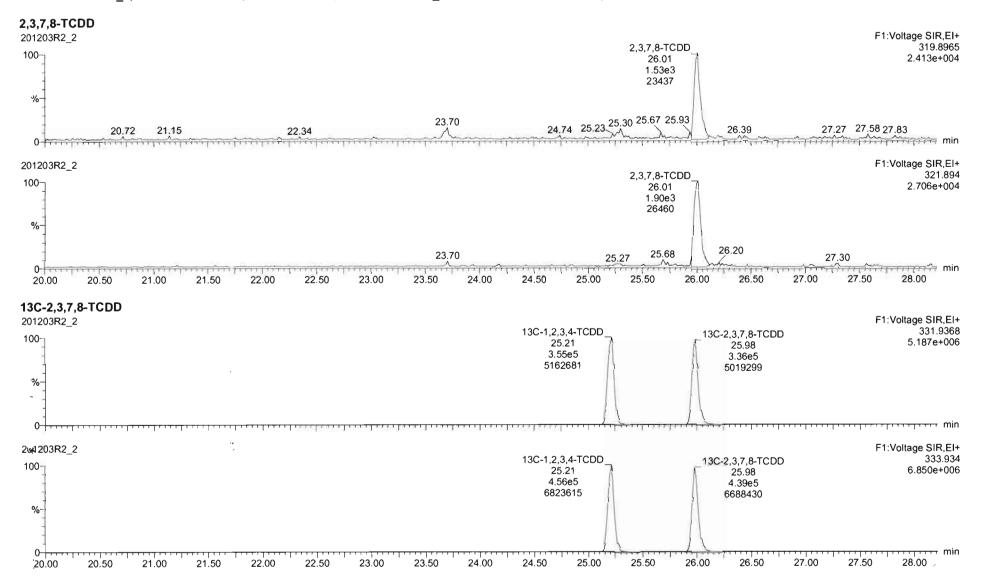
Vista Analytical Laboratory

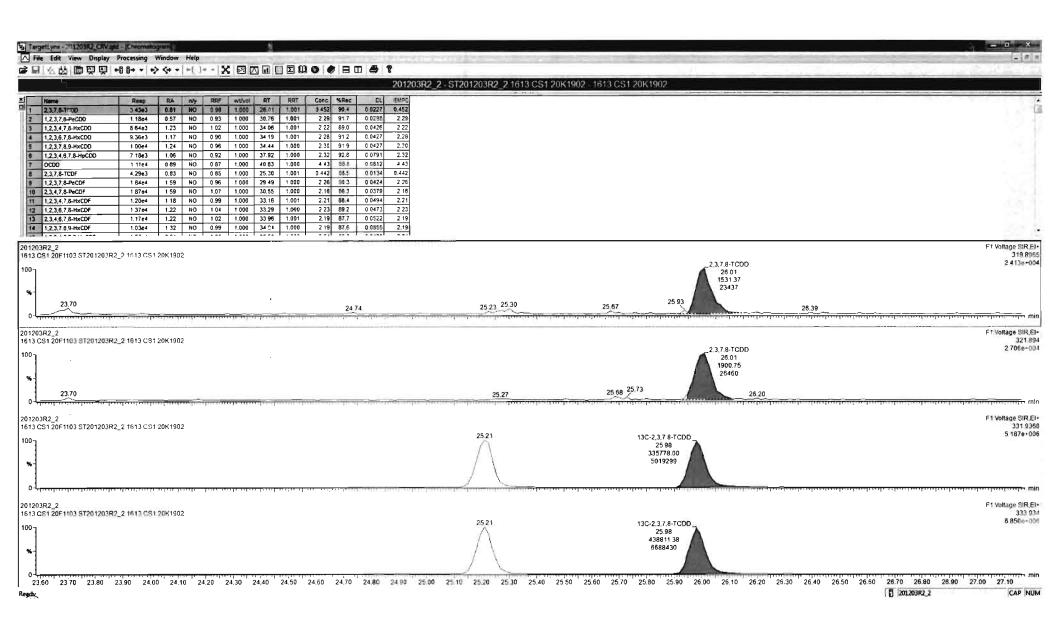
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Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time





Work Order 2002493 Page 622 of 734

Quantify Sample Report Vista Analytical Laboratory

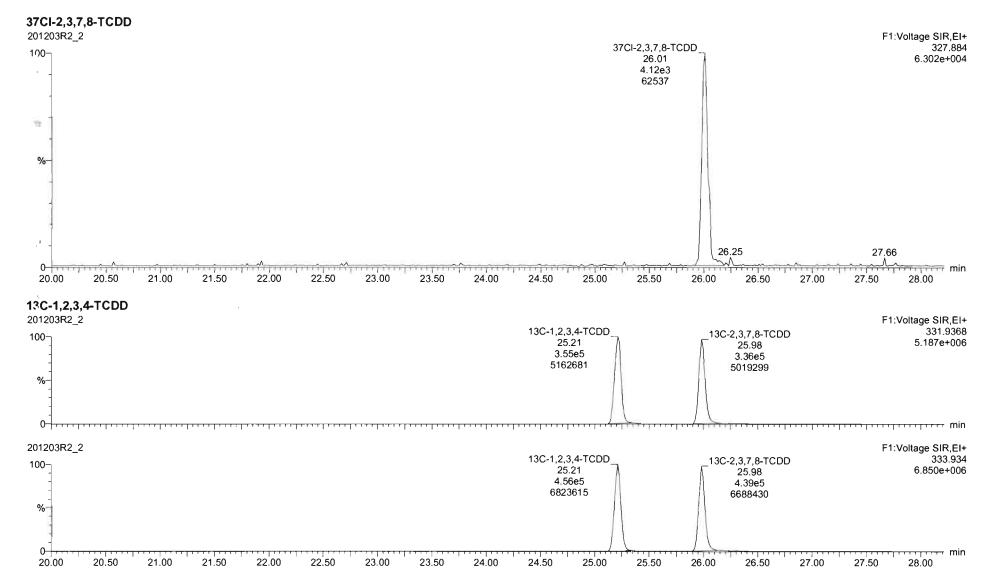
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Name: 201203R2_2, Date: 03-Dec-2020, Time: 11:28:04, ID: ST201203R2_2 1613 CS1 20K1902, Description: 1613 CS1 20F1103



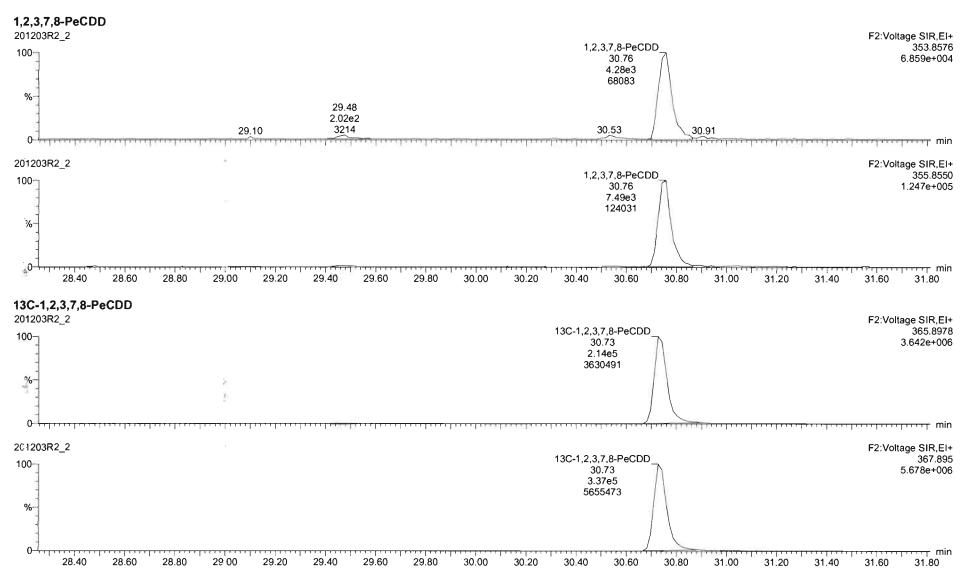
Work Order 2002493

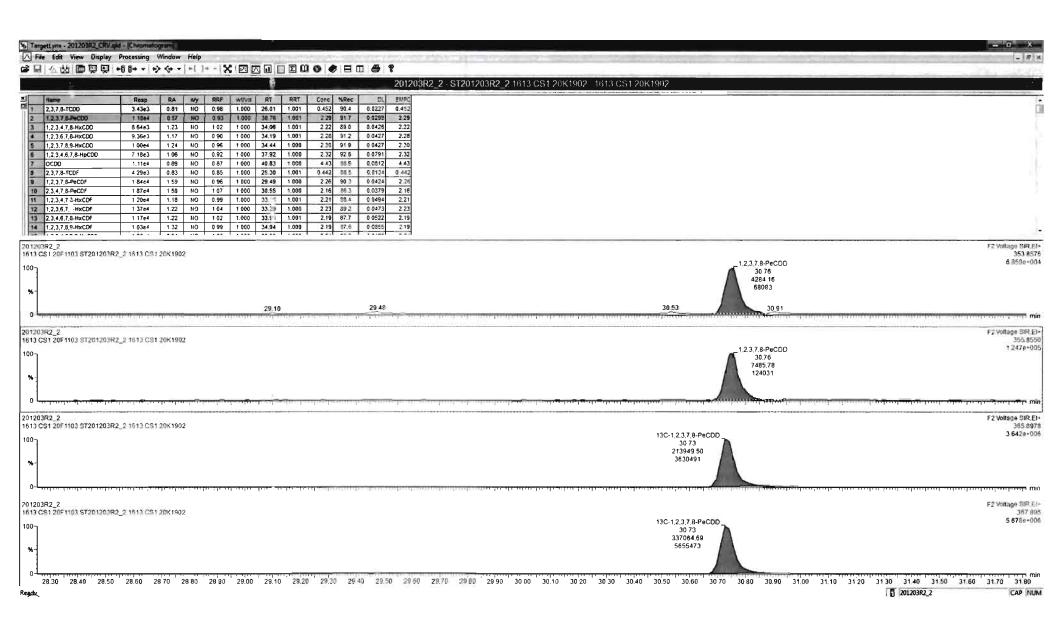
Quantify Sample Report Vista Analytical Laboratory

Dataset:

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Work Order 2002493 Page 625 of 734

Quantify Sample Report

Massilynx 4.1 SCN815

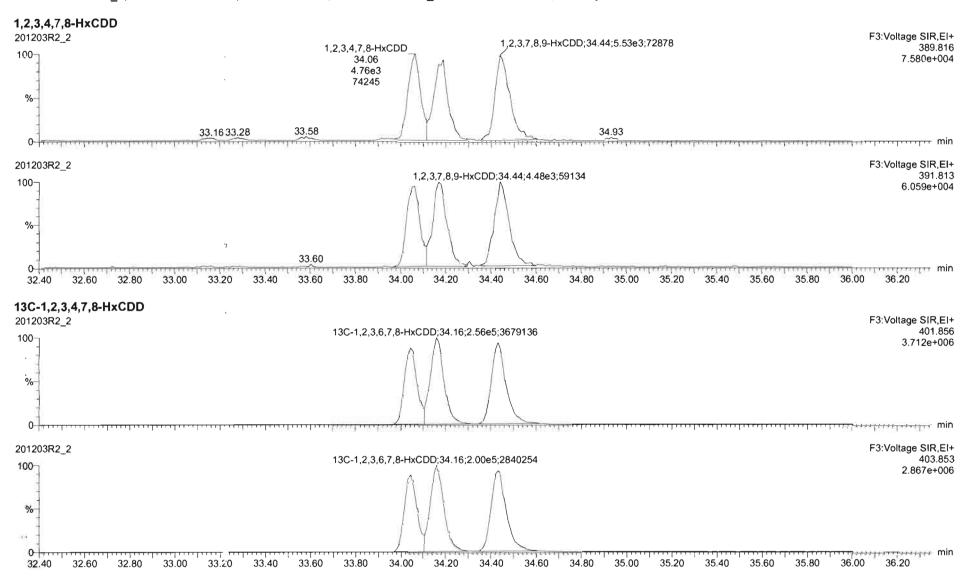
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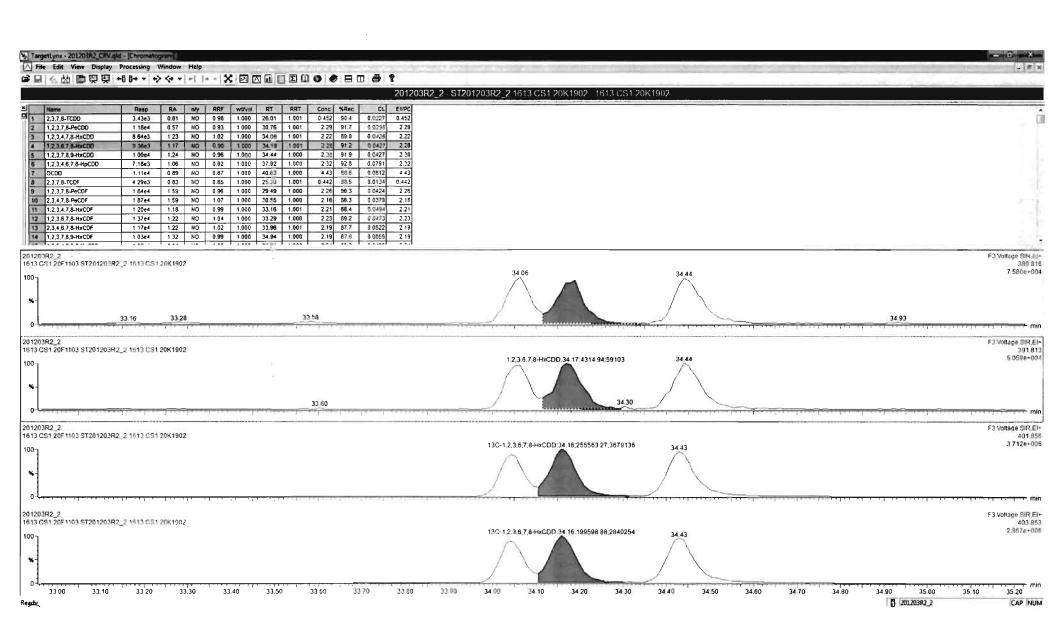
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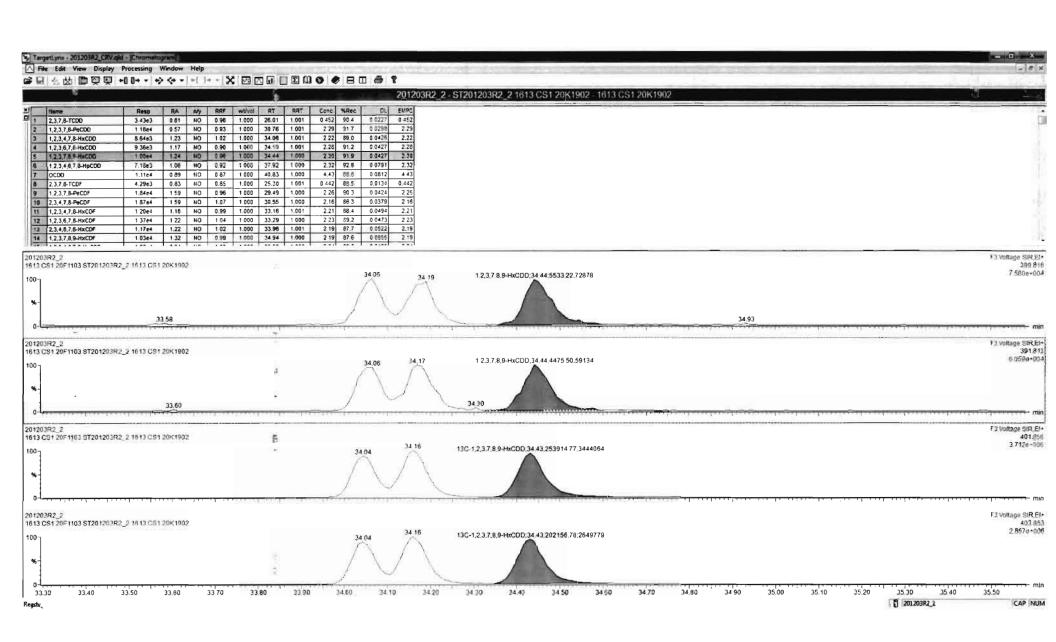
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Work Order 2002493 Page 627 of 734



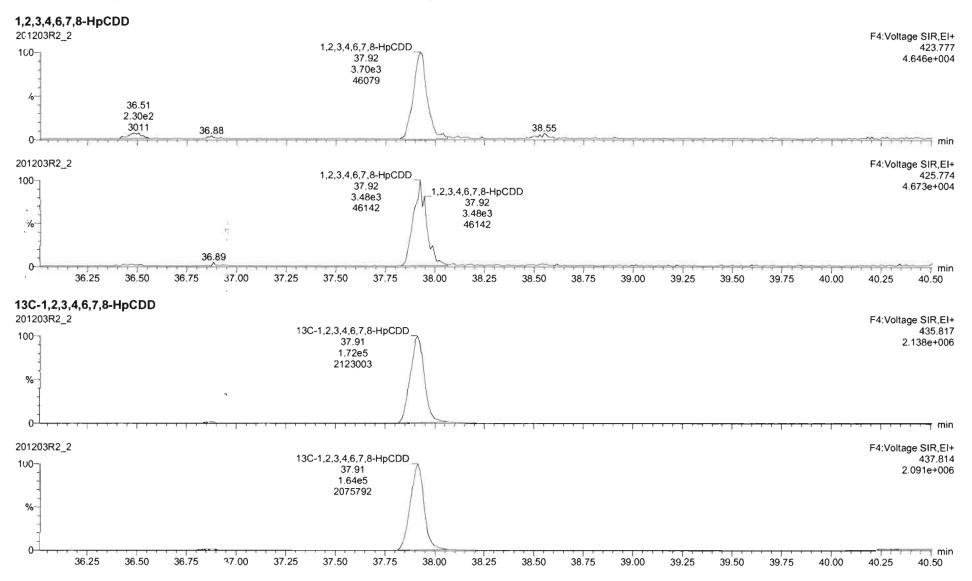
Work Order 2002493 Page 628 of 734

Quantify Sample Report Vista Analytical Laboratory

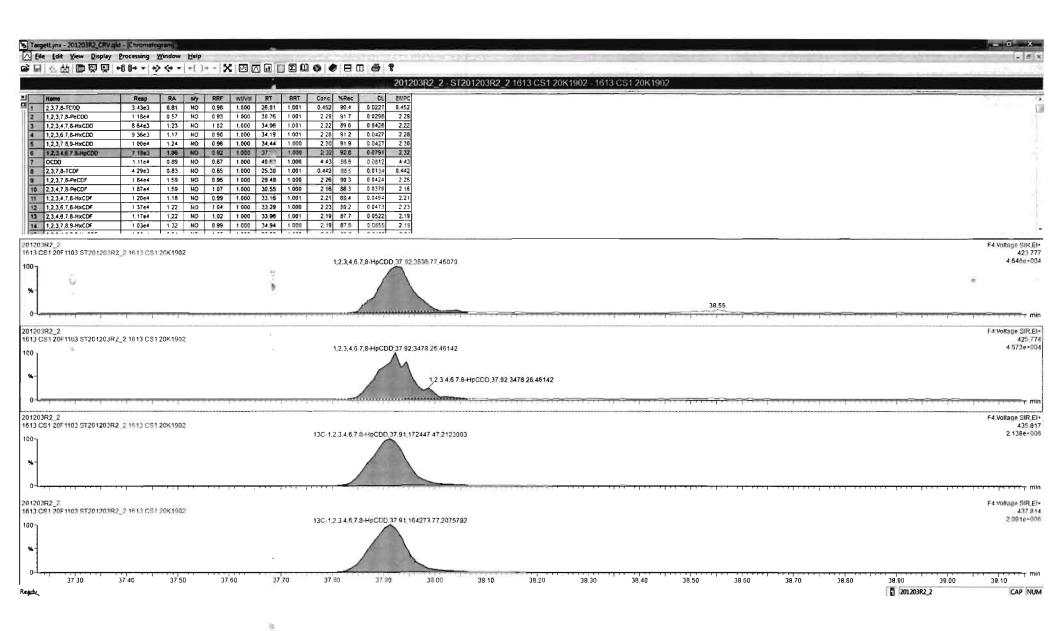
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Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time Printed:

Name: 201203R2_2, Date: 03-Dec-2020, Time: 11:28:04, ID: ST201203R2_2 1613 CS1 20K1902, Description: 1613 CS1 20F1103



Work Order 2002493

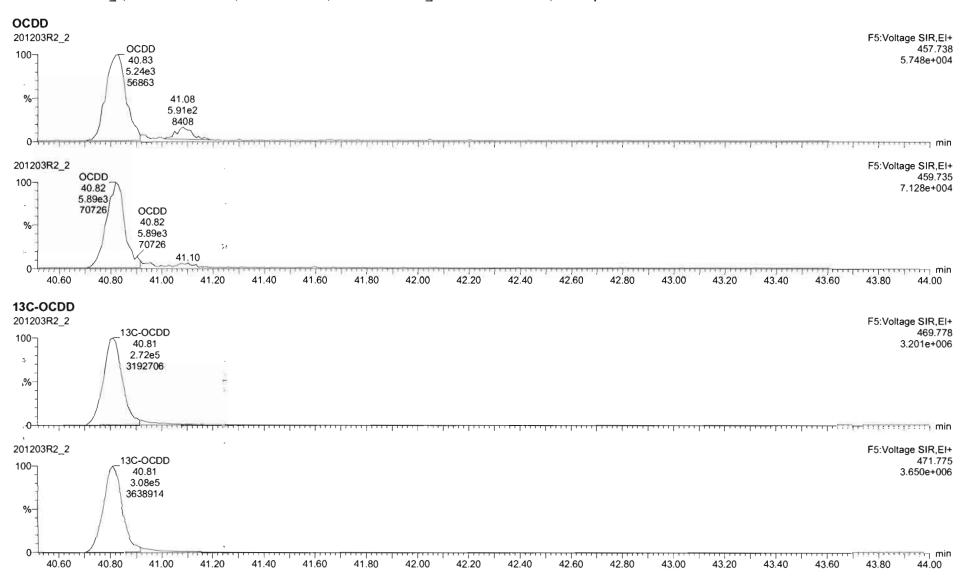


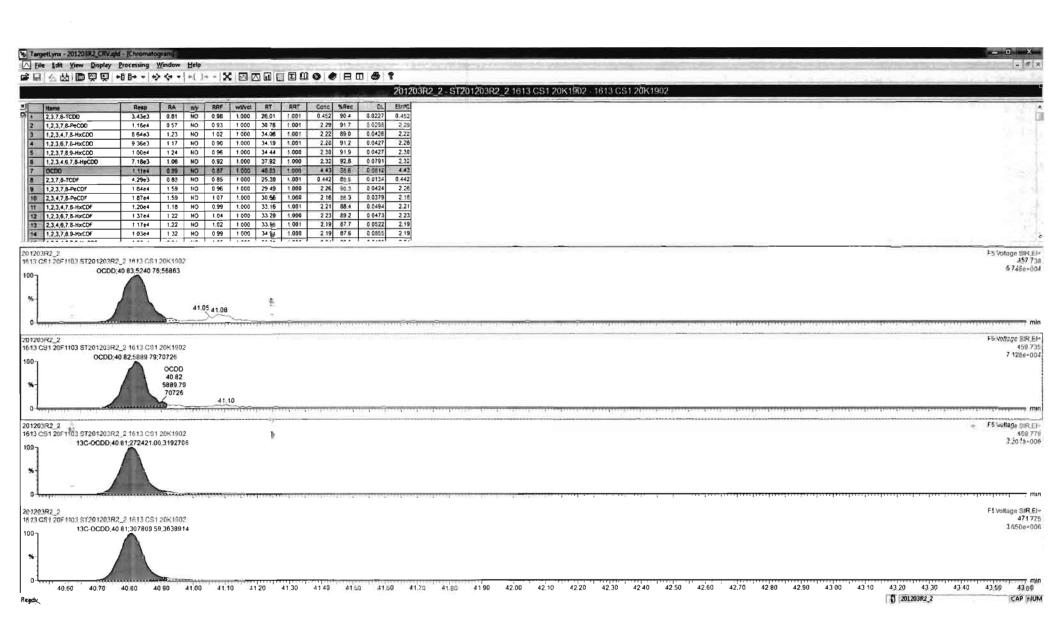
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Work Order 2002493 Page 632 of 734

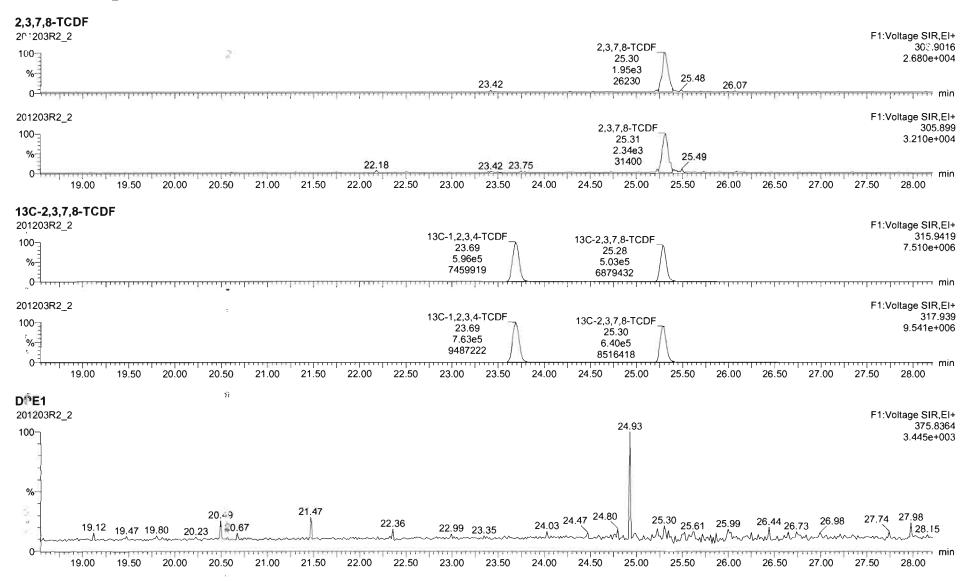
Quantify Sample Report MassLynx 4.1 SCN815

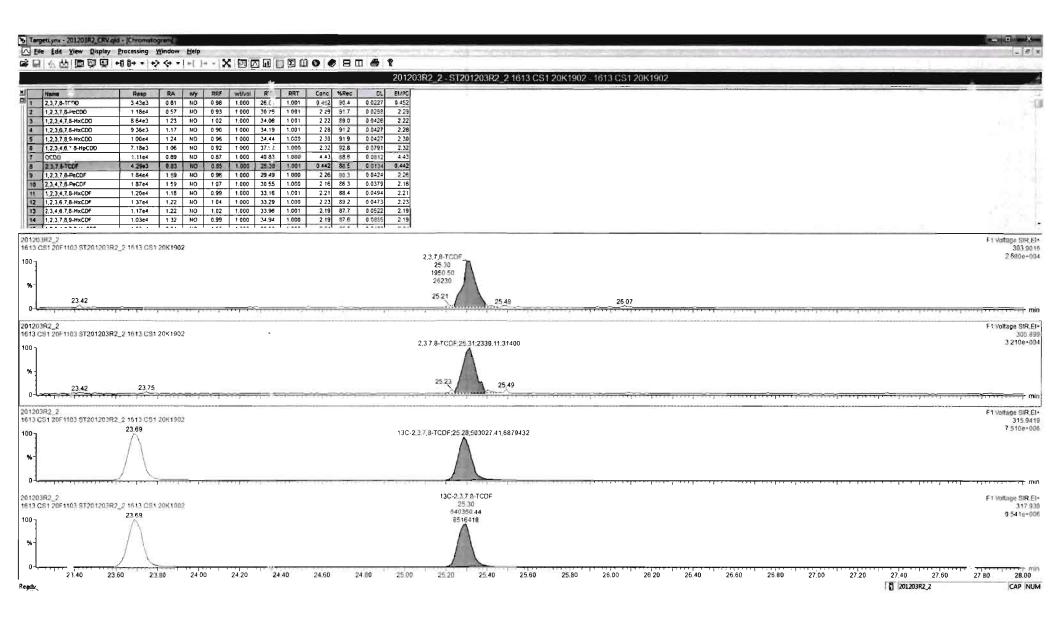
Vista Analytical Laboratory

Dataset: U:\V0

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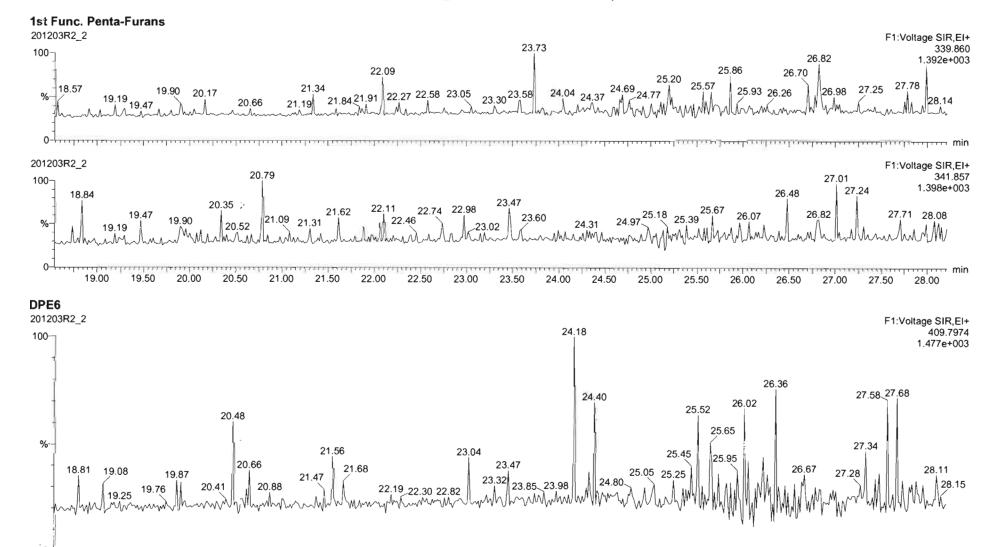
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Last Altered: Printed:

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Name: 201203R2_2, Date: 03-Dec-2020, Time: 11:28:04, ID: ST201203R2_2 1613 CS1 20K1902, Description: 1613 CS1 20F1103



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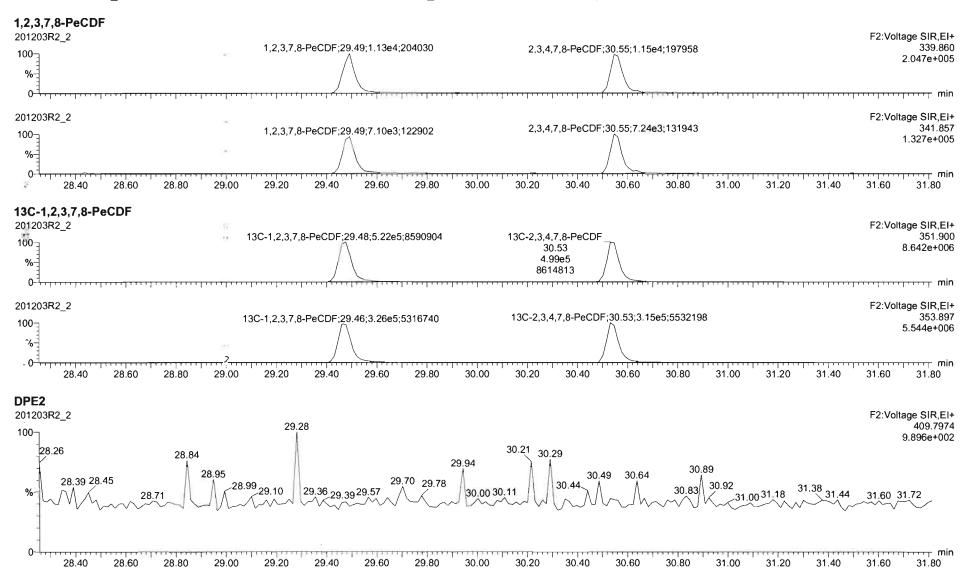
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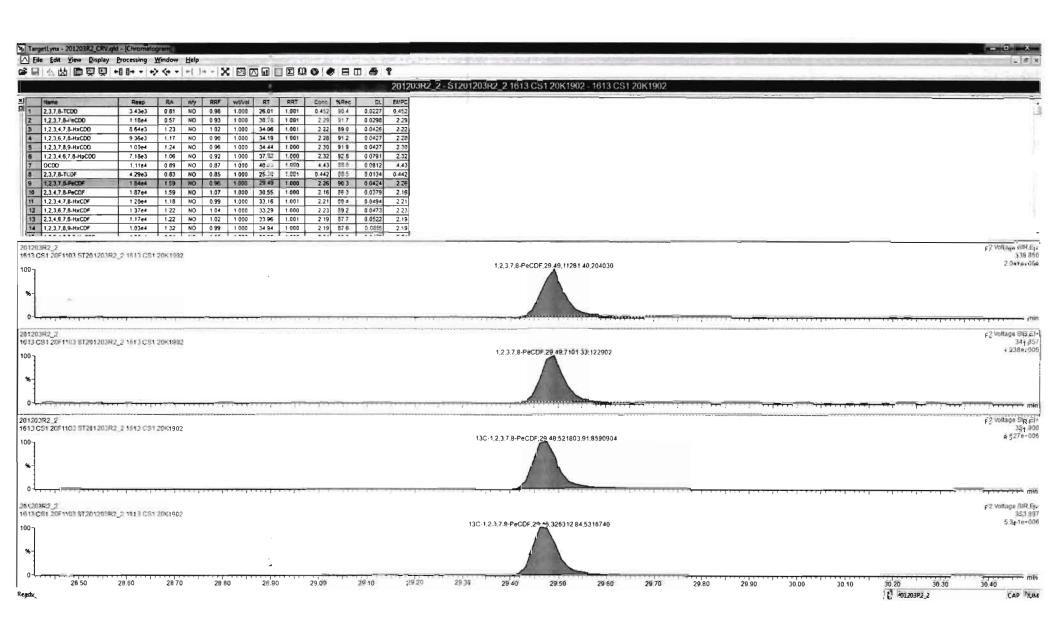
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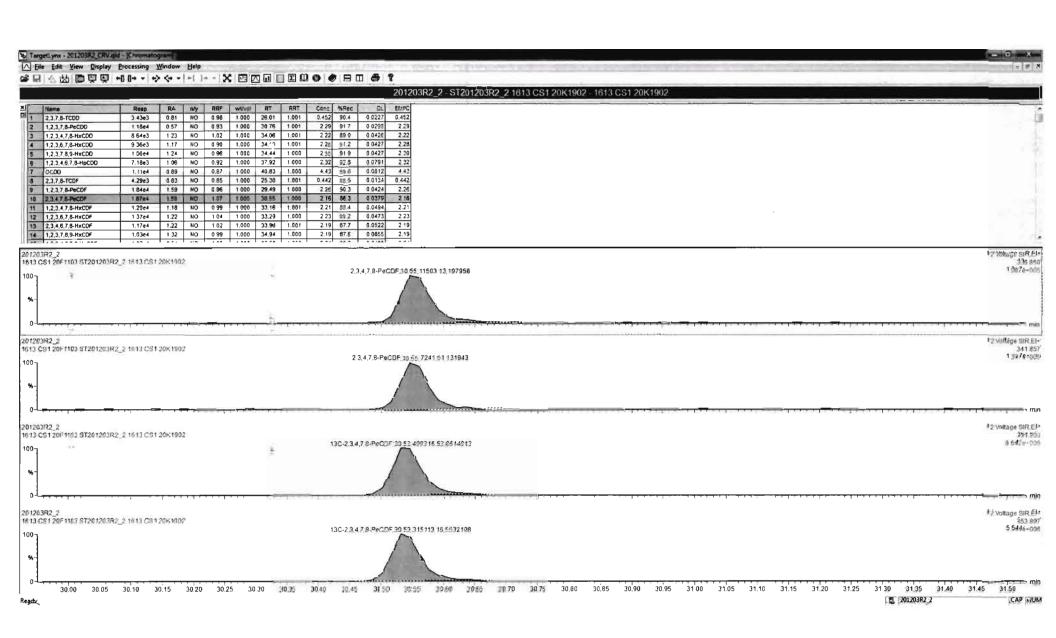


Work Order 2002493



Work Order 2002493

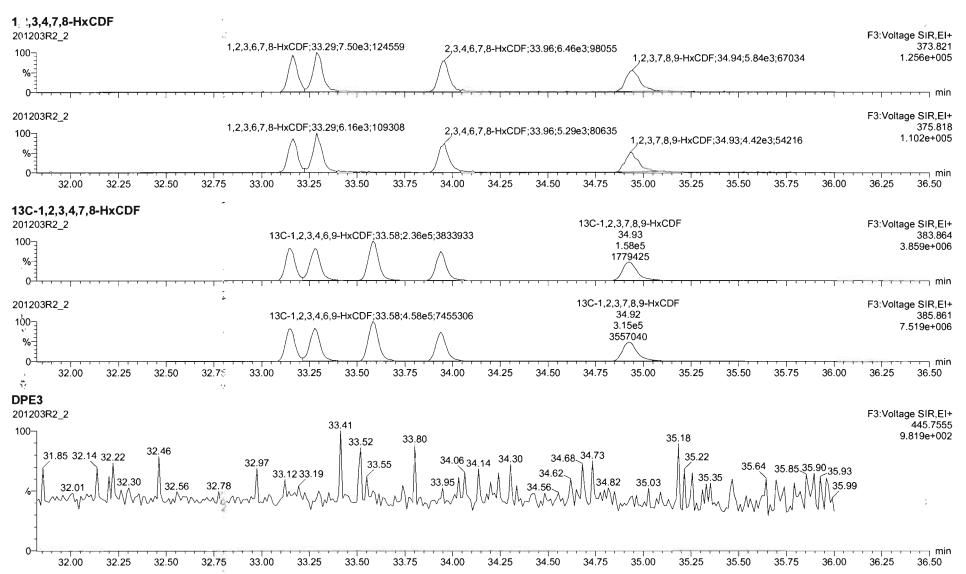
Page 637 of 734

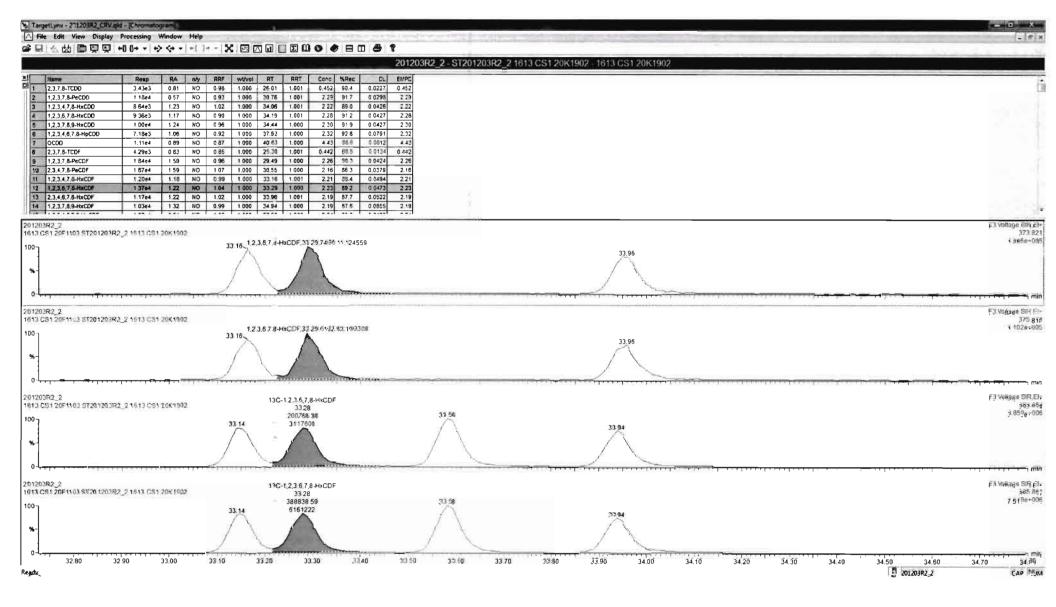


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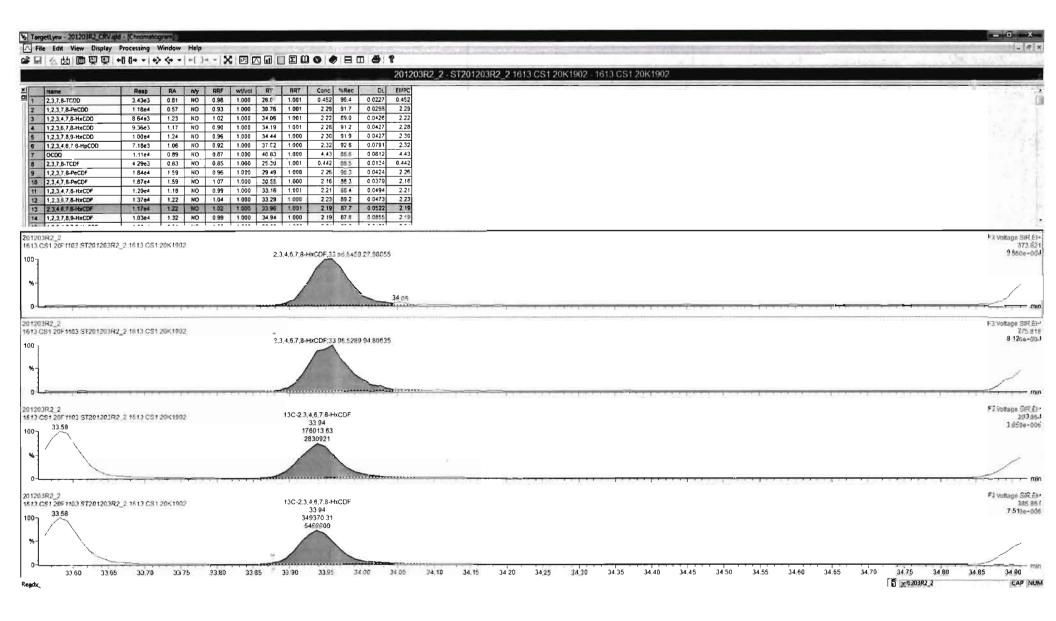
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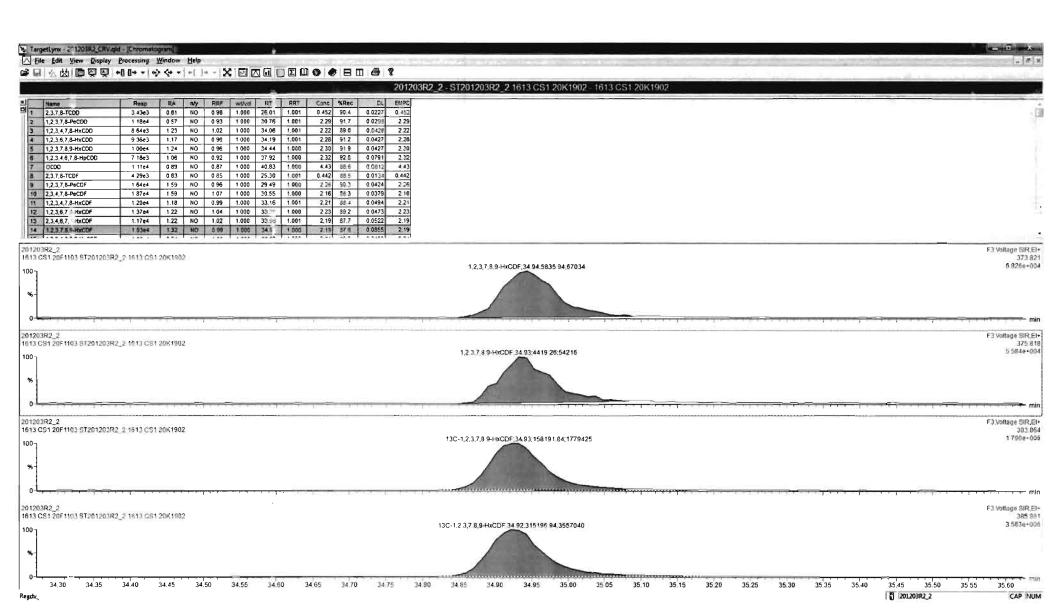




Work Order 2002493 Page 640 of 734



Work Order 2002493 Page 641 of 734

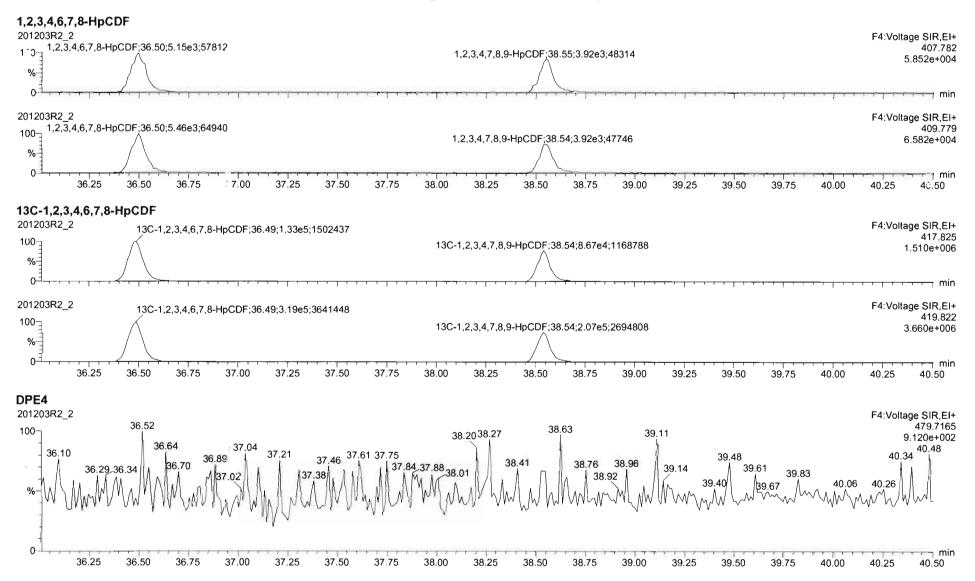


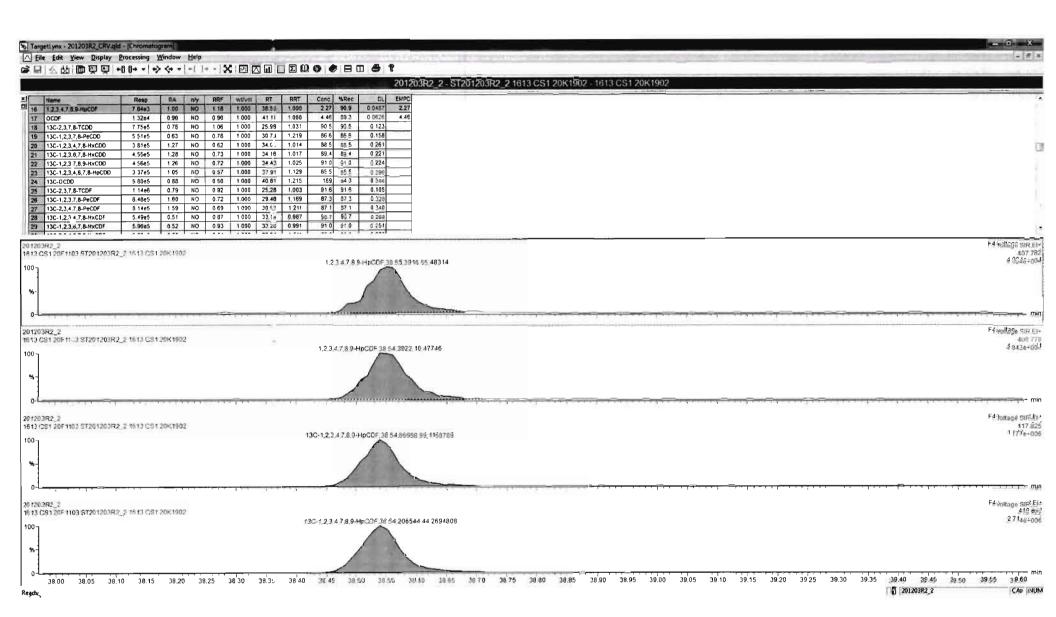
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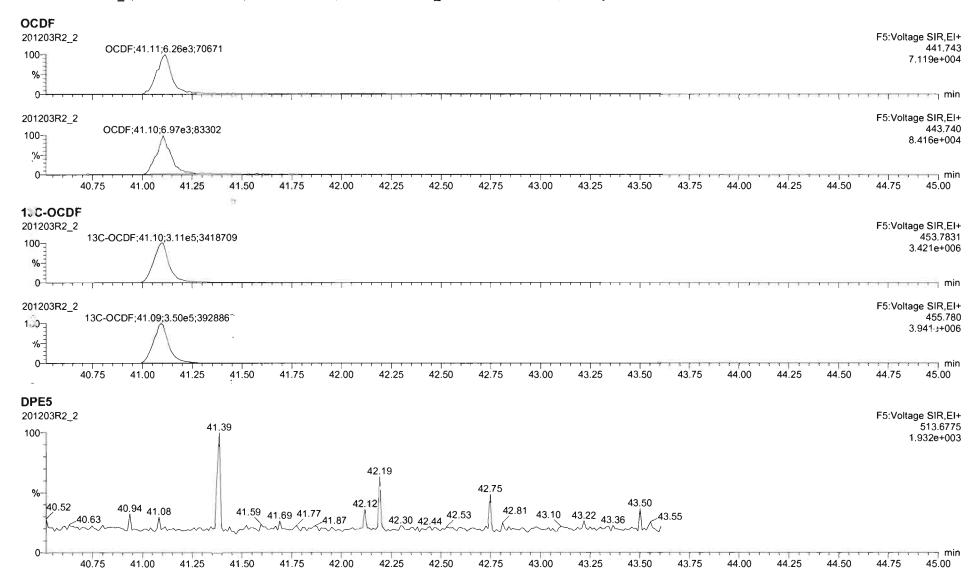


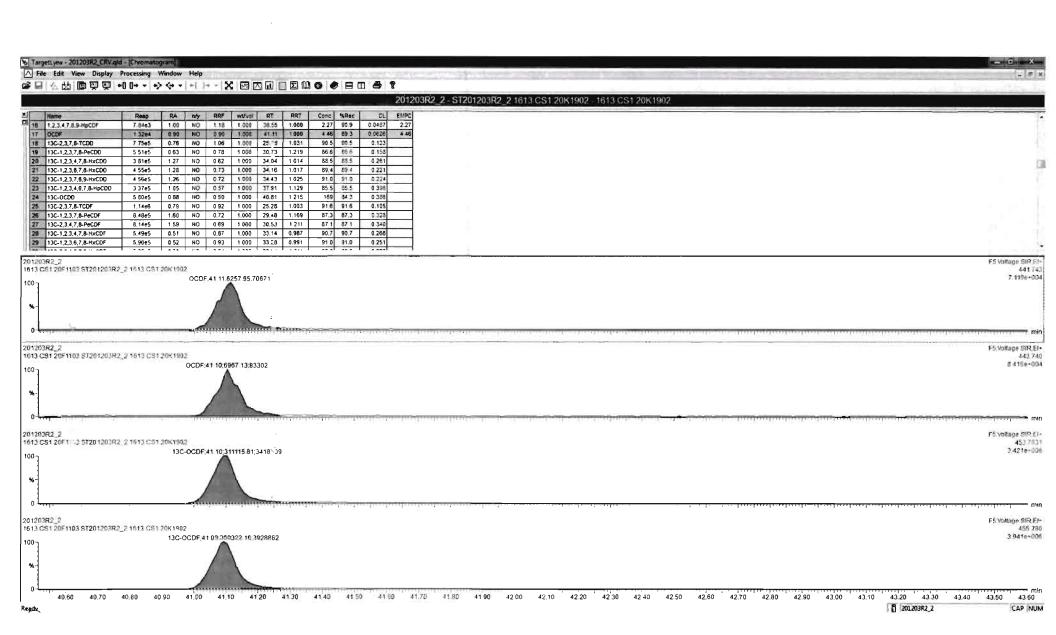
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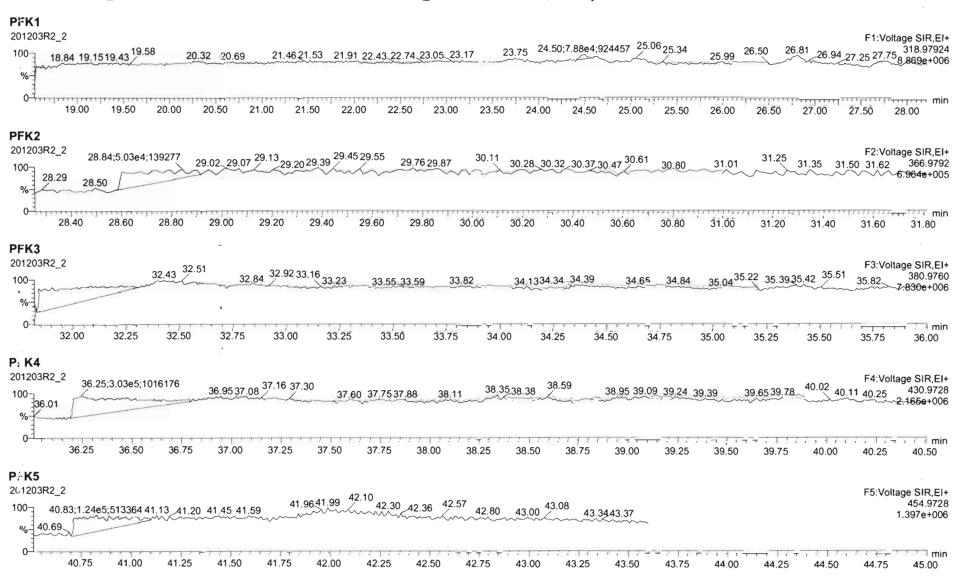


Work Order 2002493 Page 646 of 734

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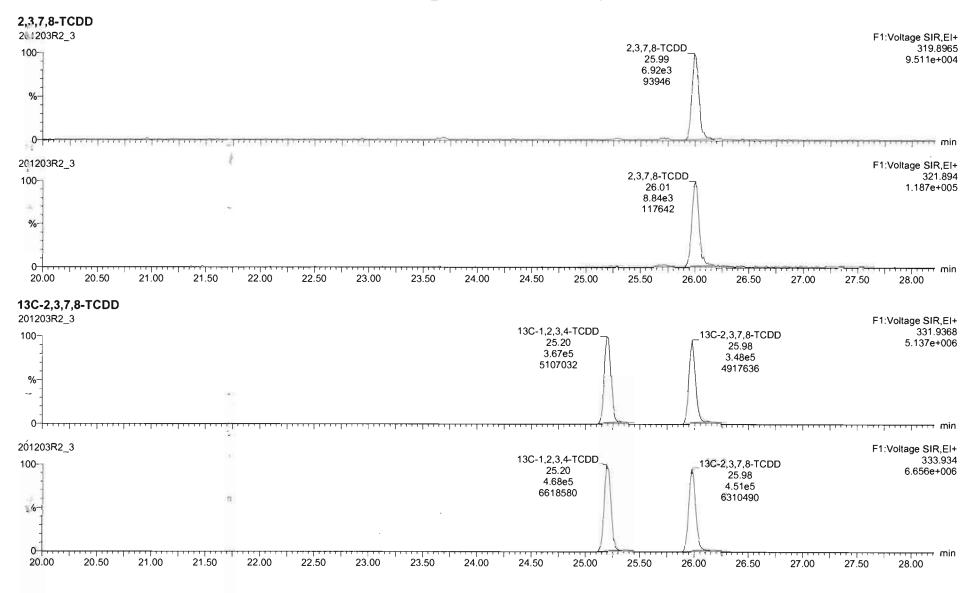
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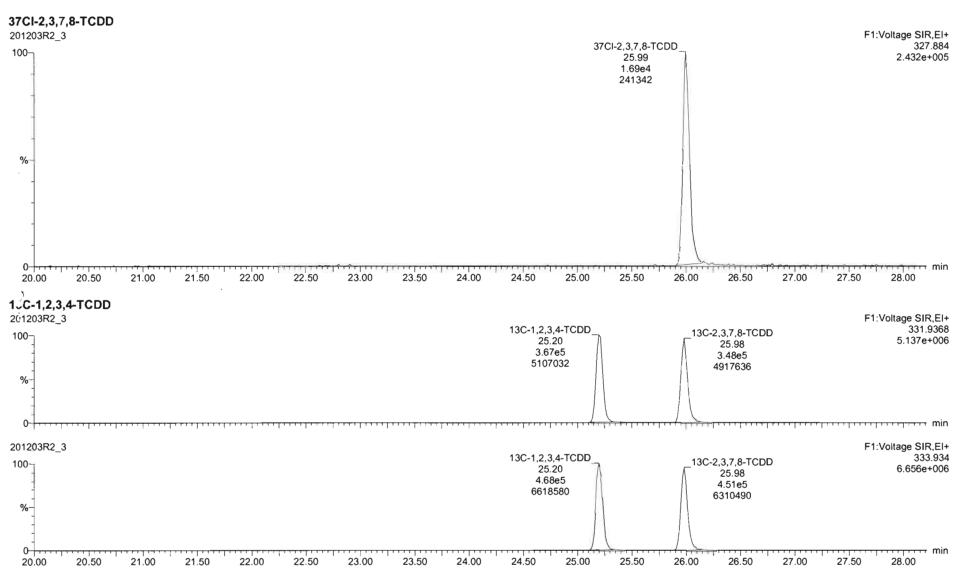
Quantify Sample Report Vista Analytical Laboratory

Dataset:

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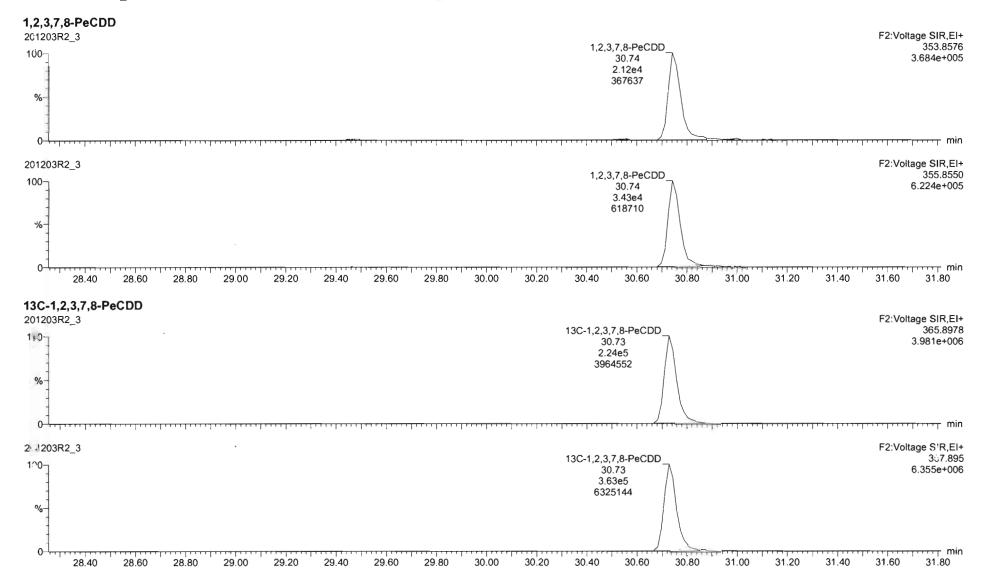
Q antify Sample Report Vista Analytical Laboratory MassLynx 4.1 SCN815

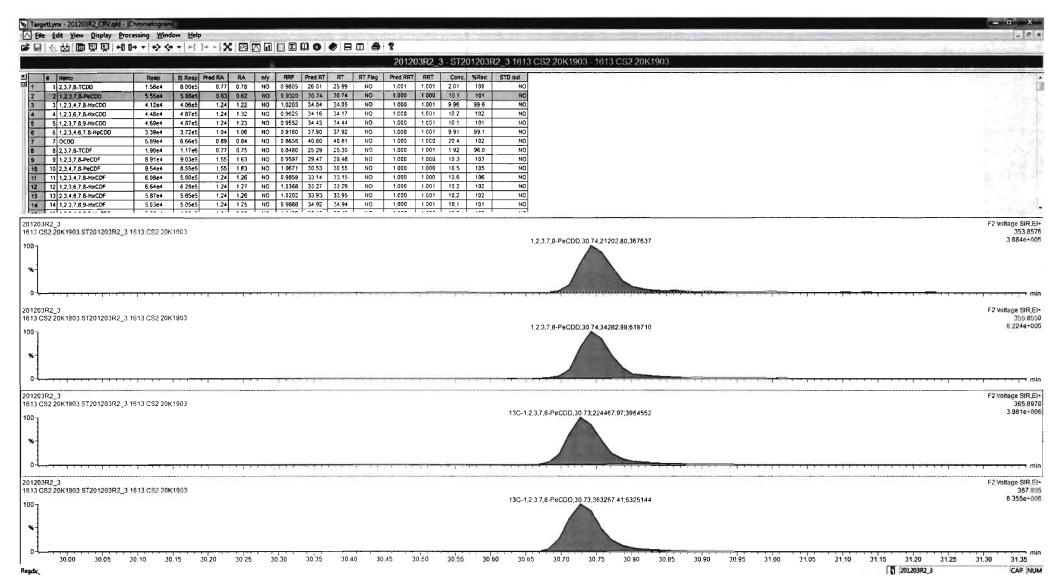
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Dataset:

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Last Altered: Printed: Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time





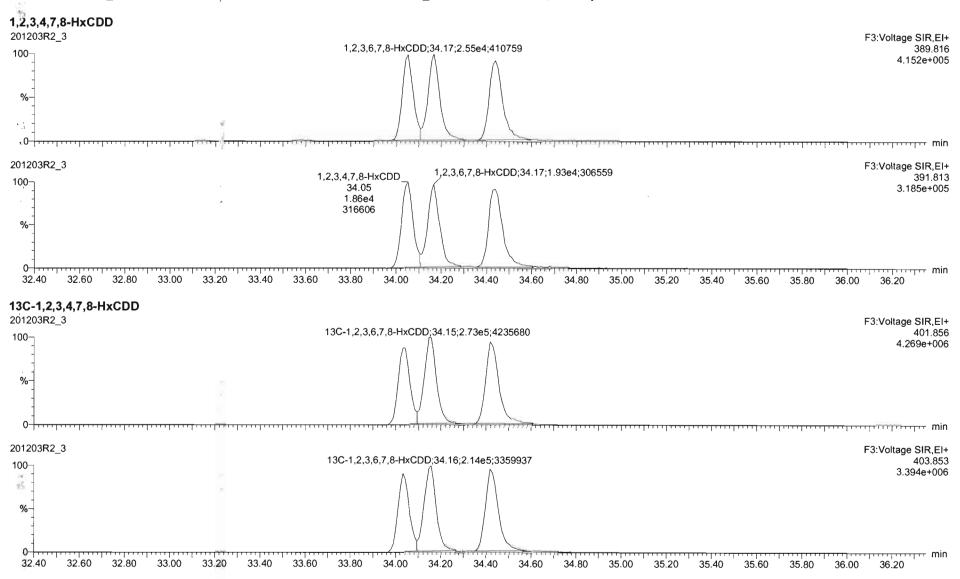
Work Order 2002493 Page 651 of 734

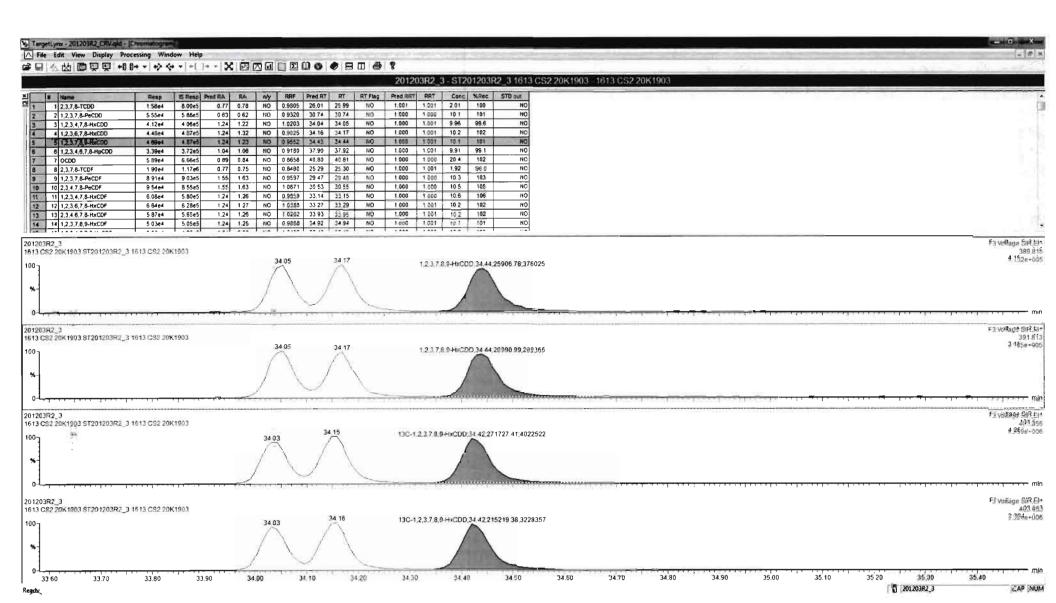
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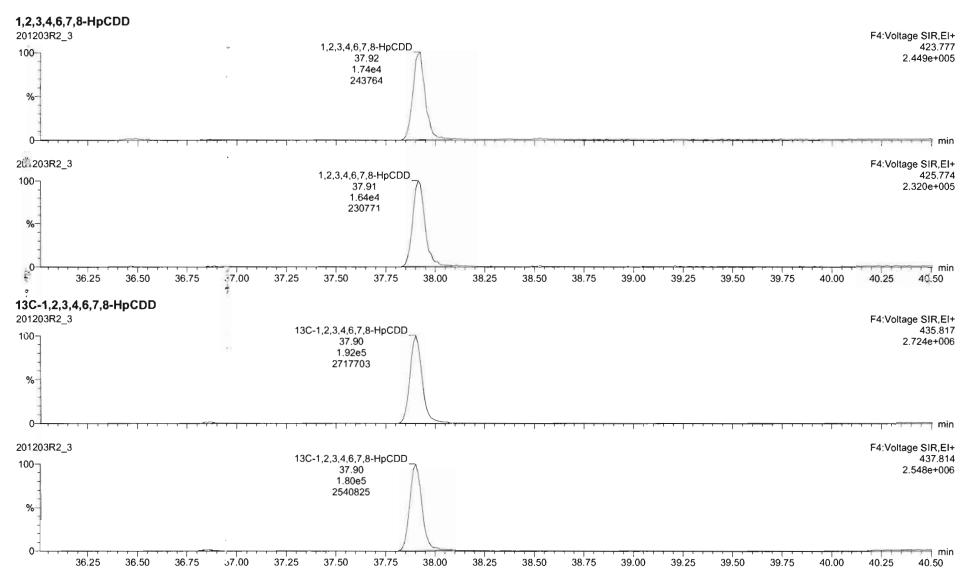


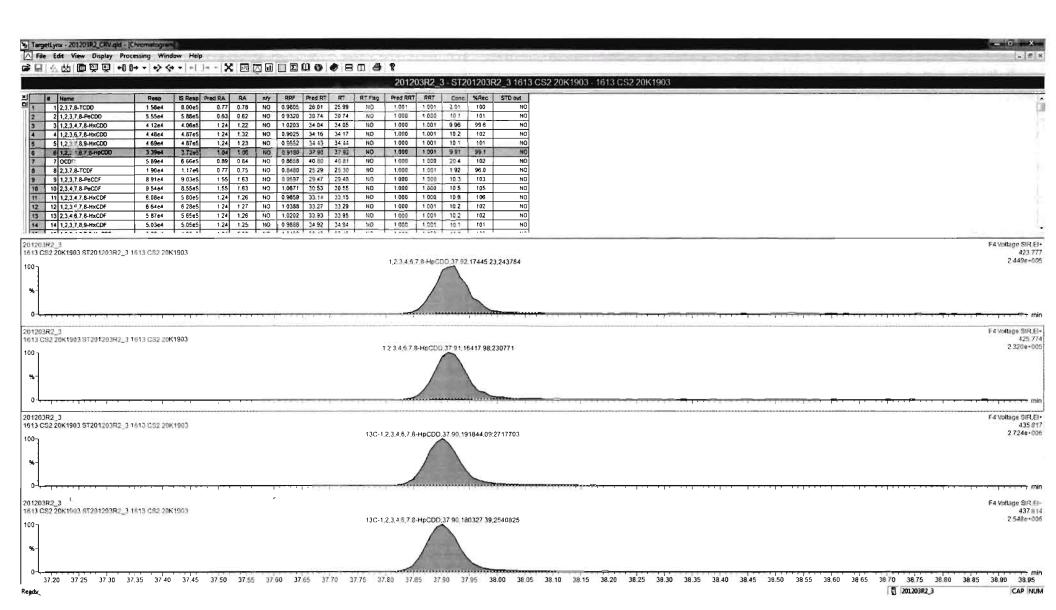


Work Order 2002493 Page 653 of 734

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Printed: Friday, December 04, 2020 09:59:16 Pacific Standard Time





Work Order 2002493 Page 655 of 734

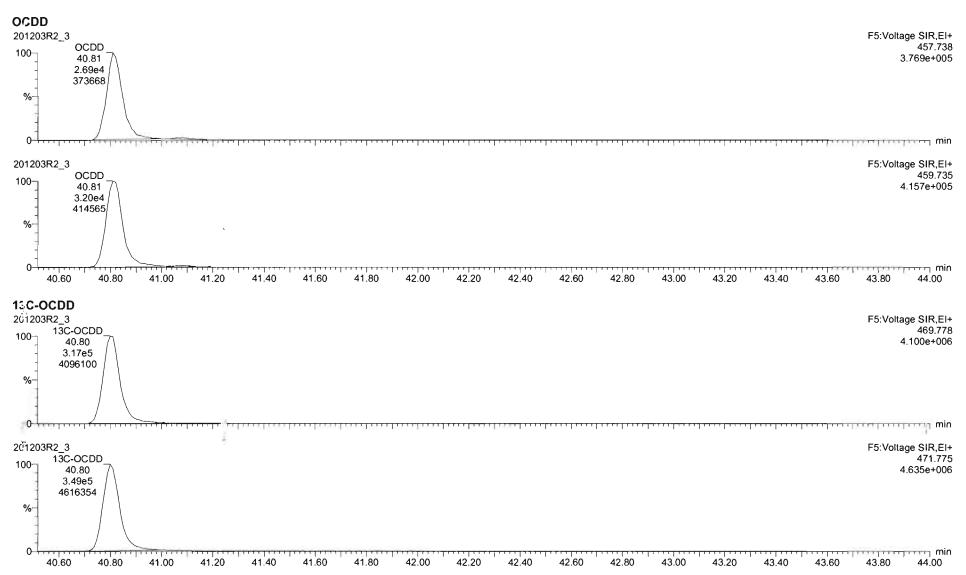
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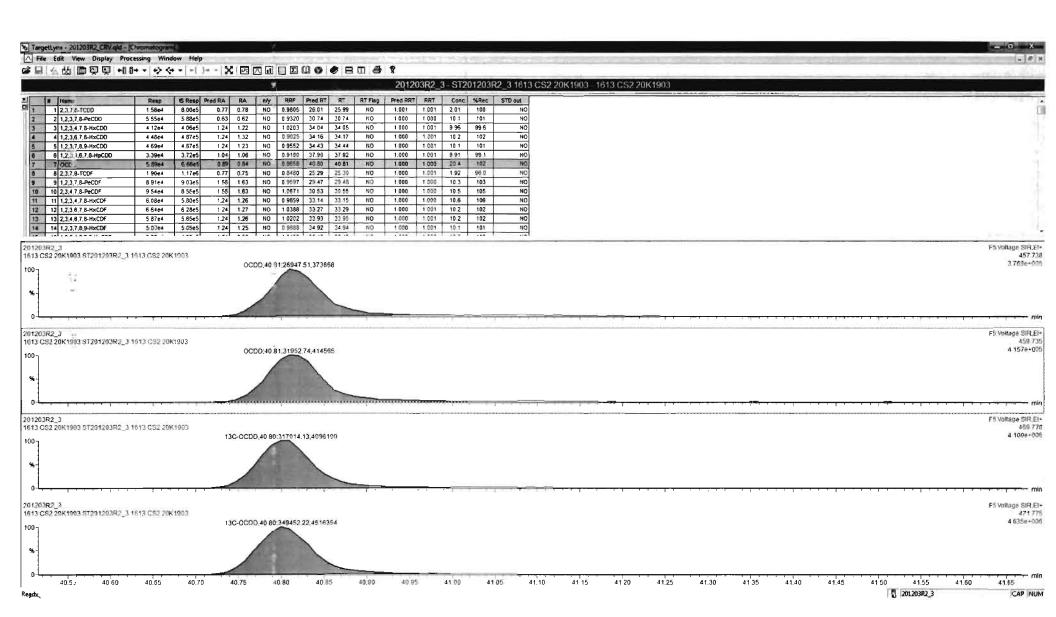
Vista Analytical Laboratory

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Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

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Work Order 2002493 Page 657 of 734

Quantify Sample Report

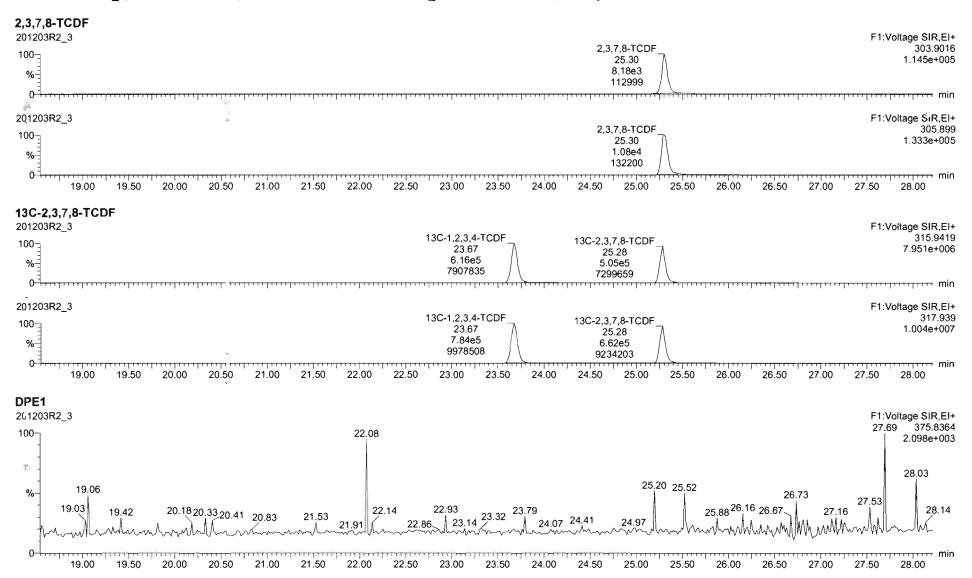
Vista Analytical Laboratory

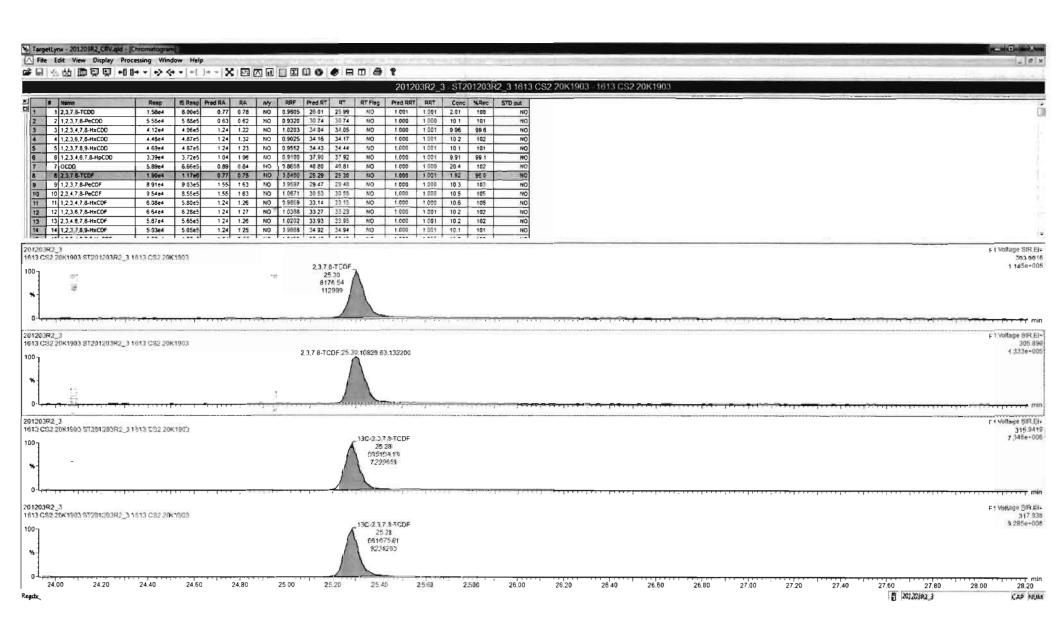
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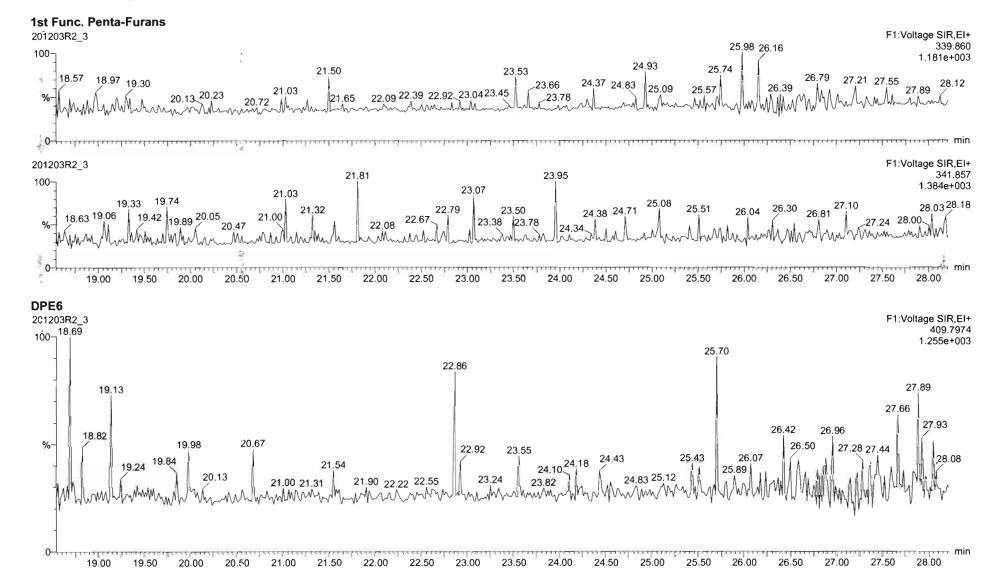




Work Order 2002493 Page 659 of 734

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

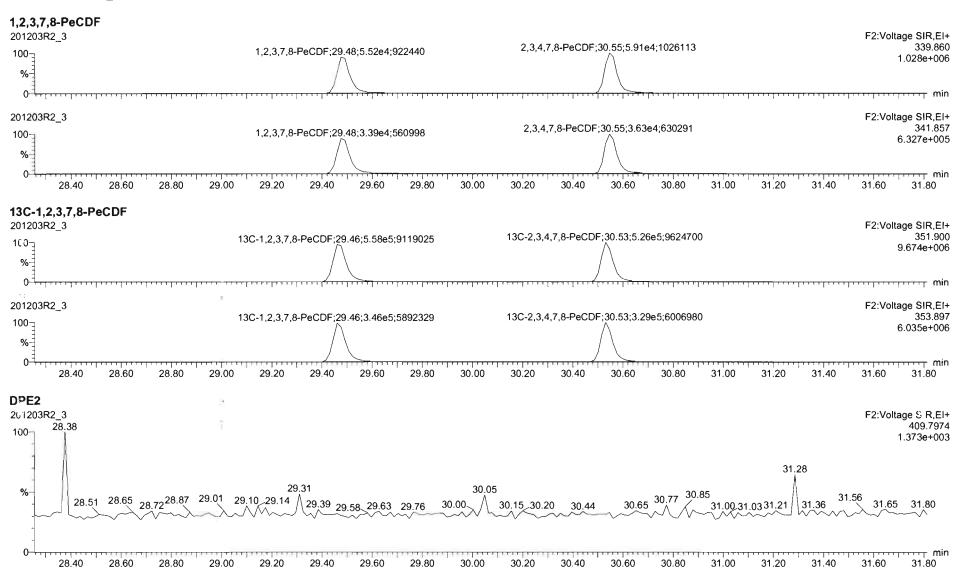
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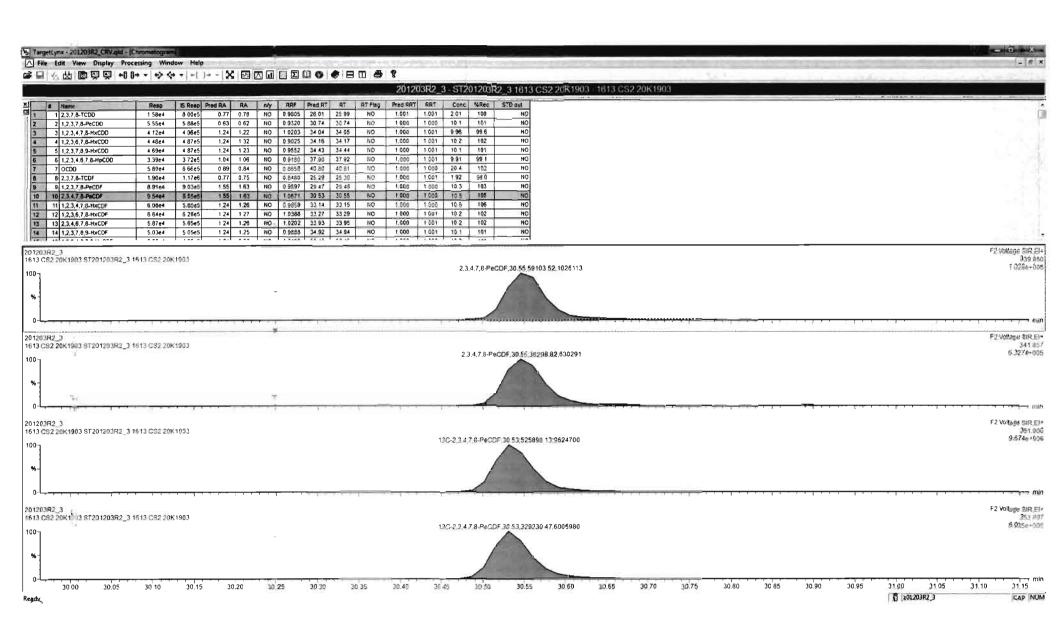


Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

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Work Order 2002493 Page 662 of 734

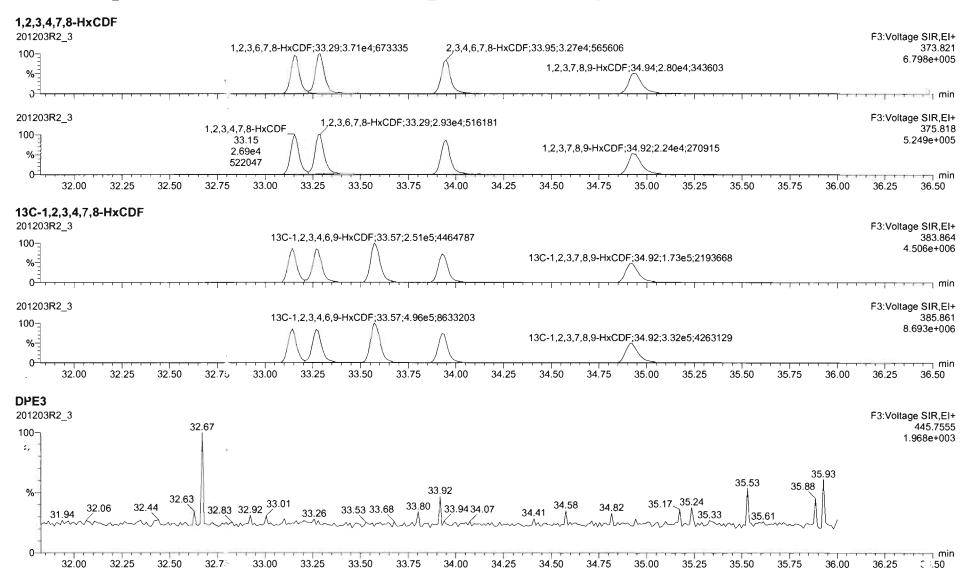
Quantify Sample Report Vista Analytical Laboratory

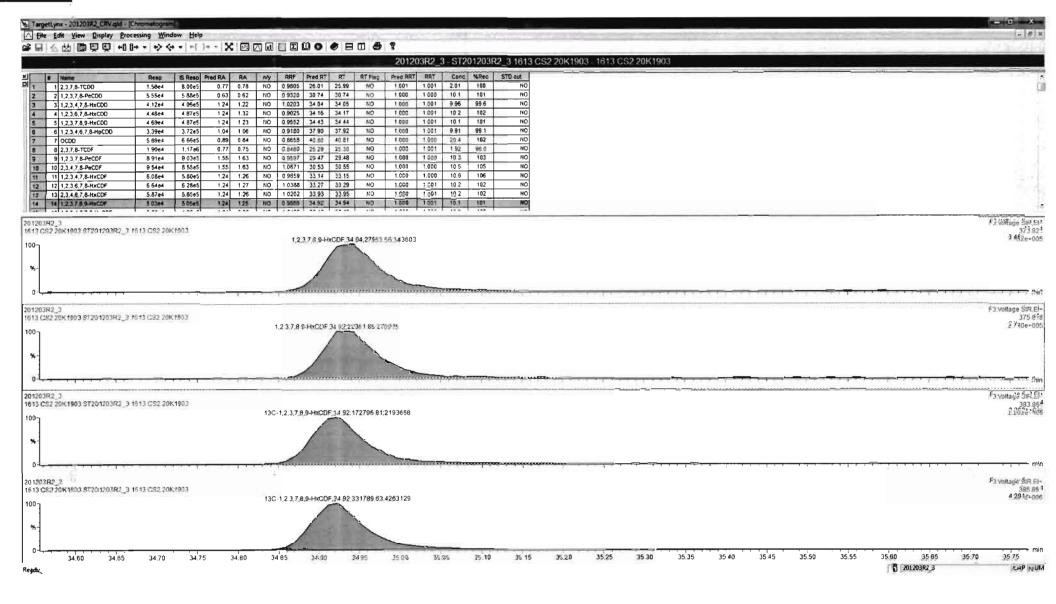
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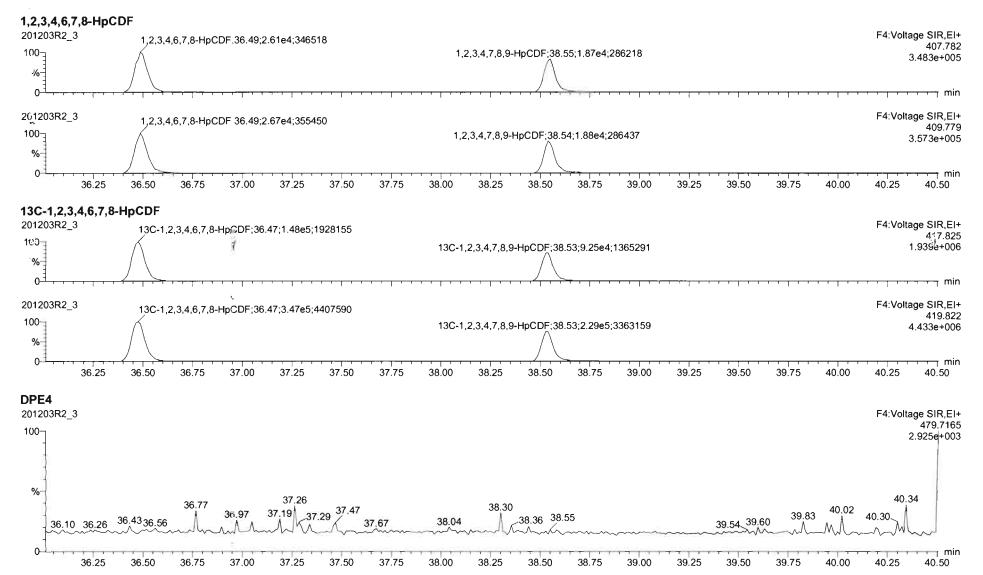
Work Order 2002493 Page 664 of 734

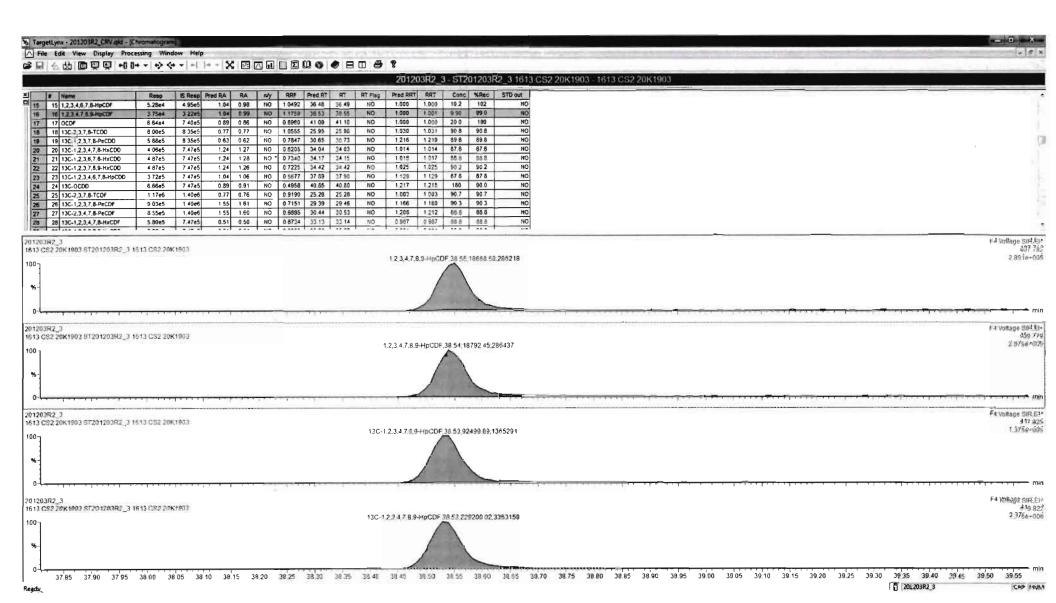
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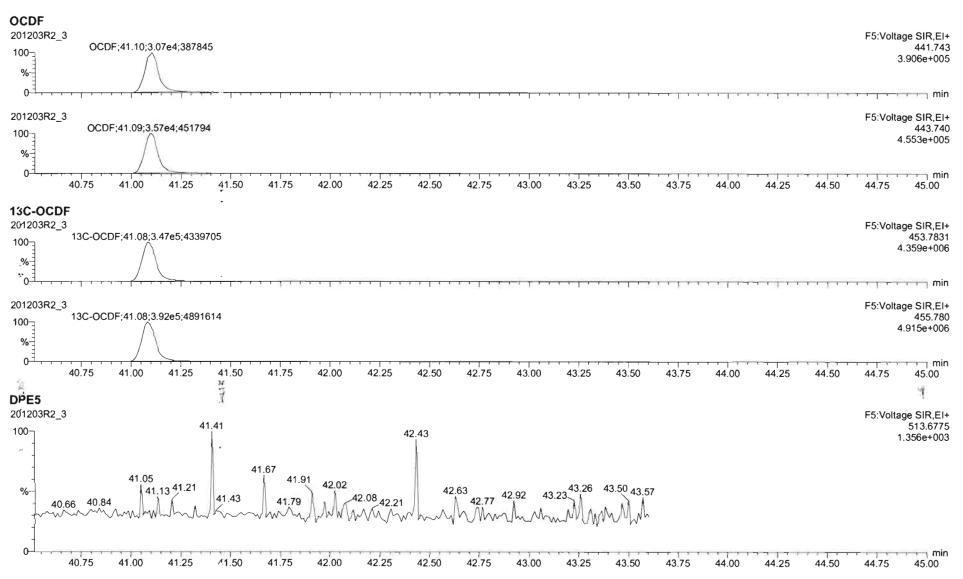


Work Order 2002493 Page 666 of 734

Vista Analytical Laboratory

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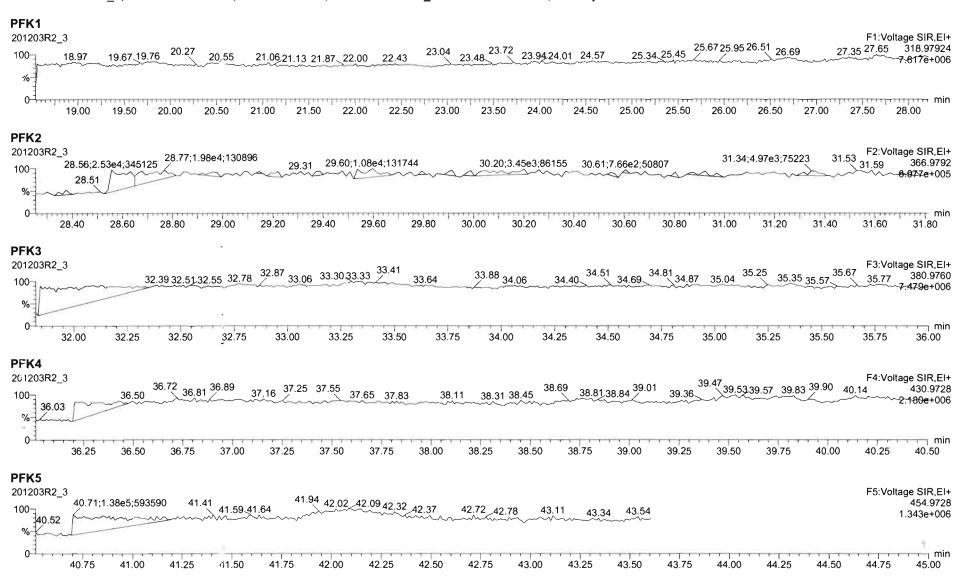
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Vista Analytical Laboratory

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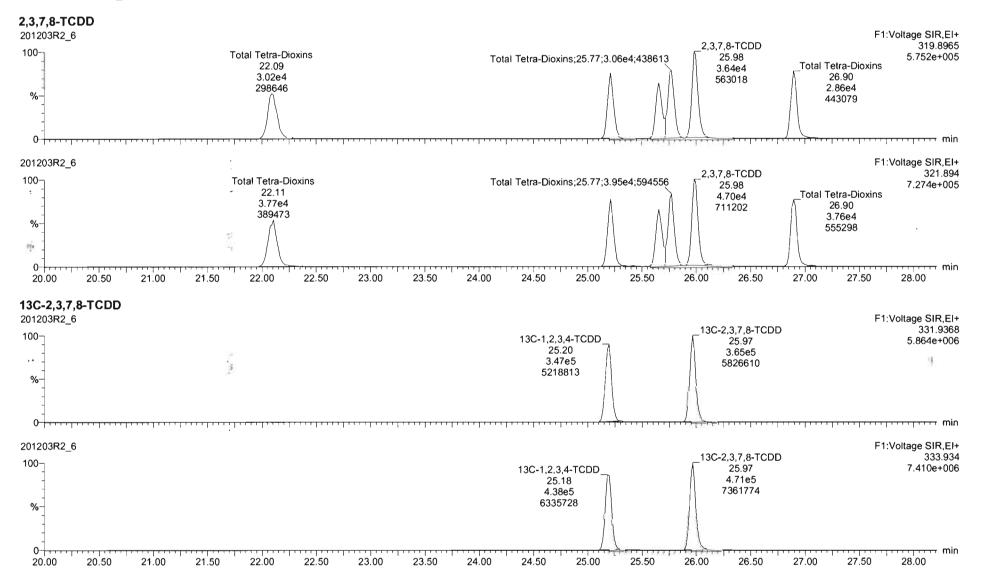
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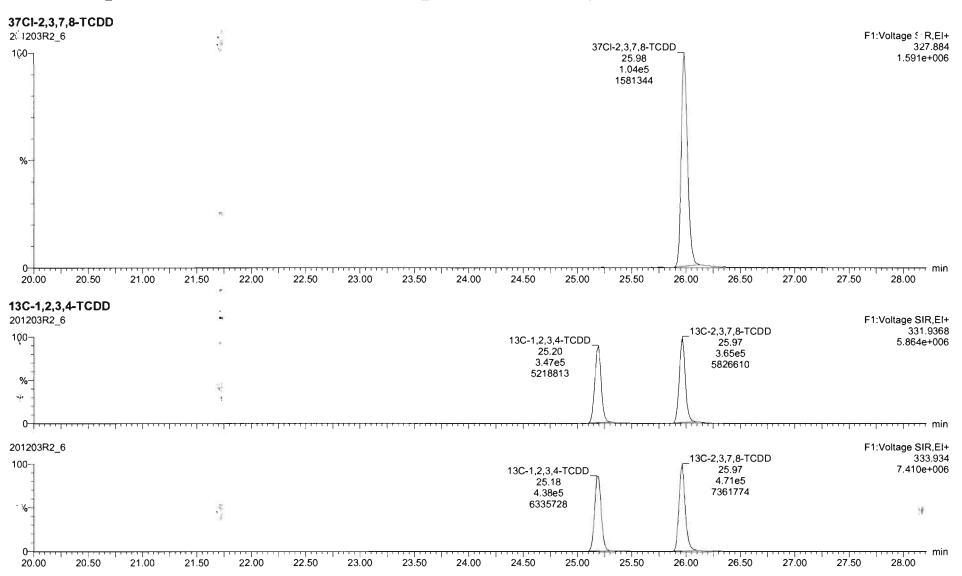
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Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time



Quantify Sample Report

MassLynx 4.1 SCN815

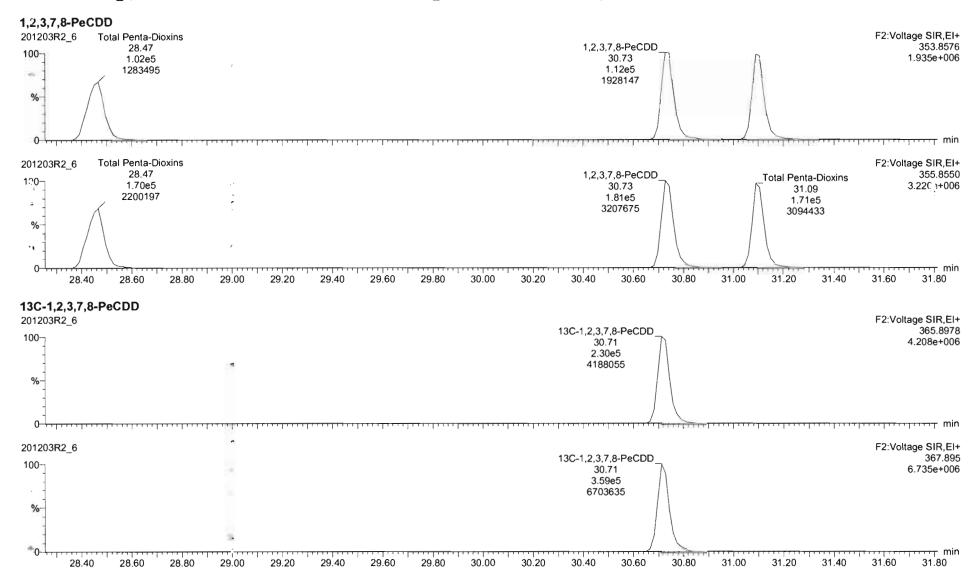
Vista Analytical Laboratory

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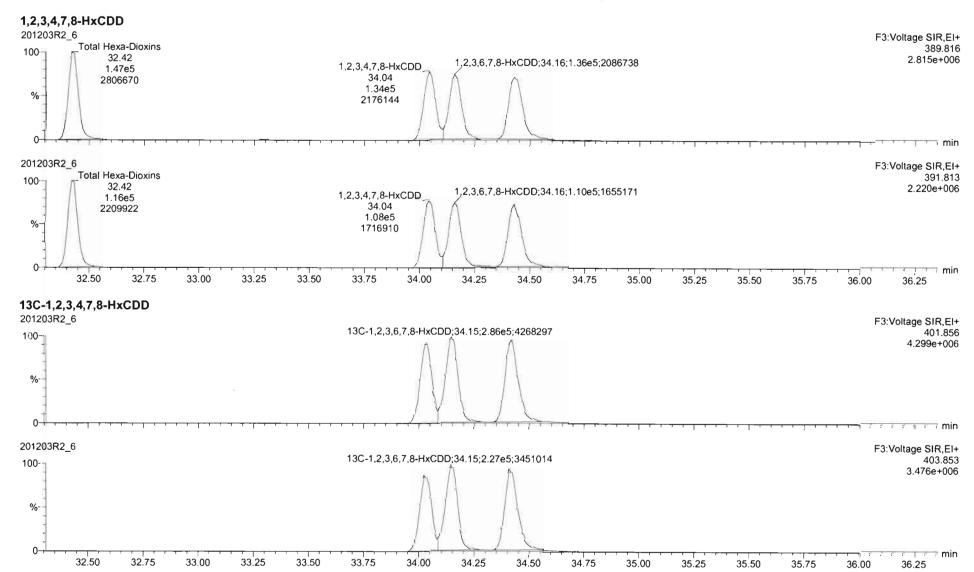


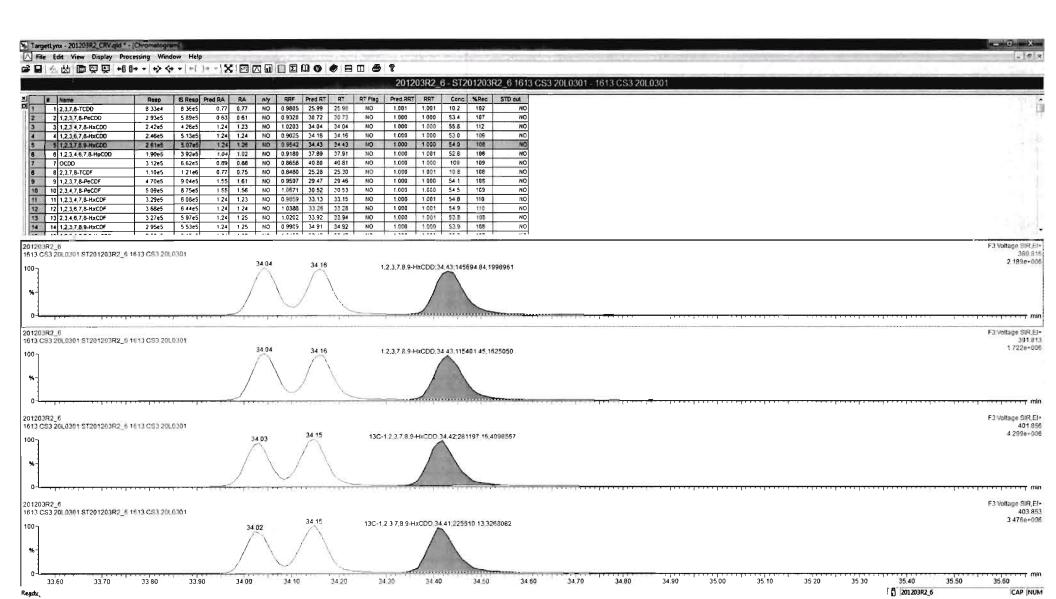
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Work Order 2002493 Page 673 of 734

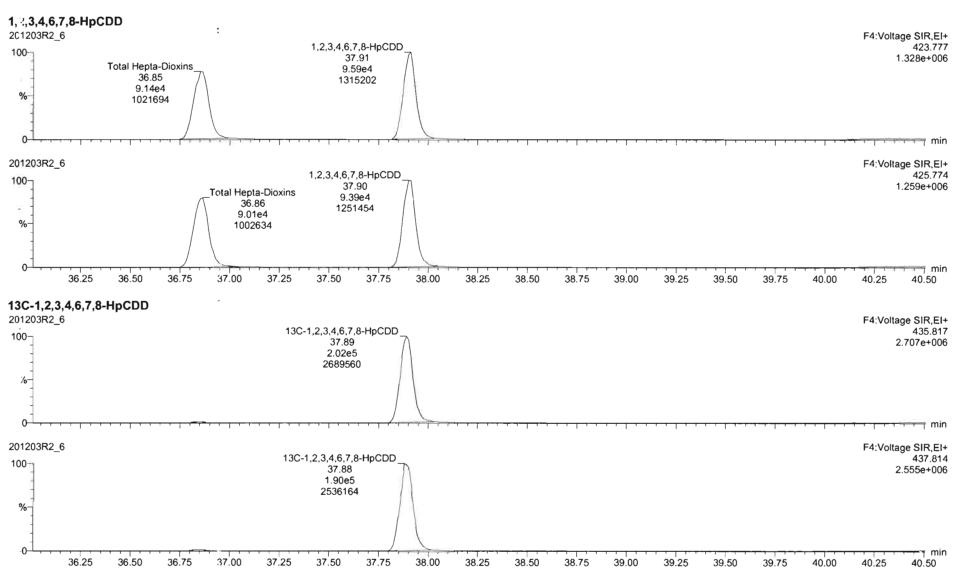
Vista Analytical Laboratory

D: taset:

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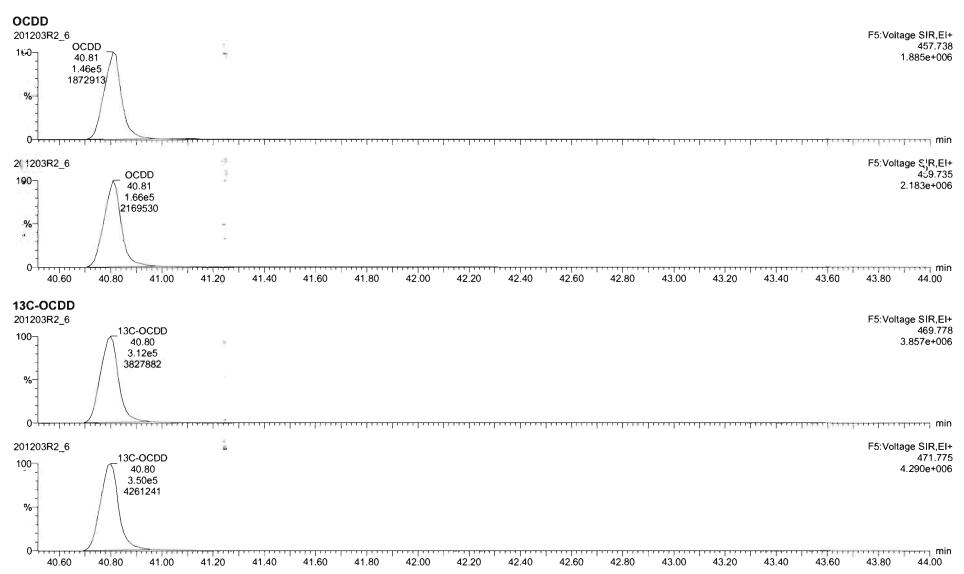
Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time



Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

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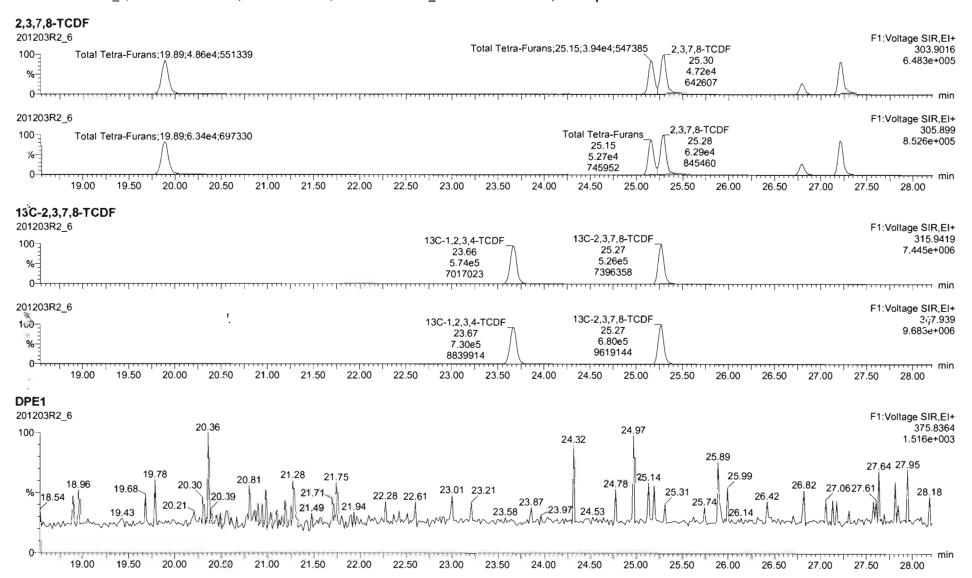


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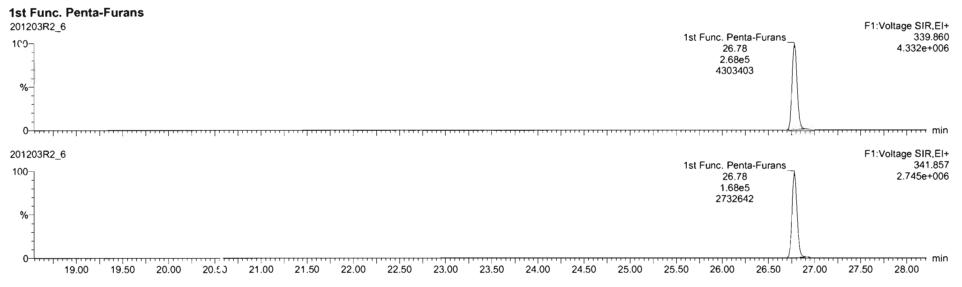
Page 73 of 78

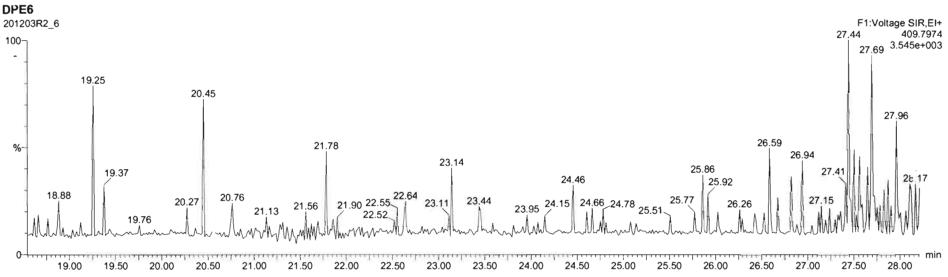
Vista Analytical Laboratory

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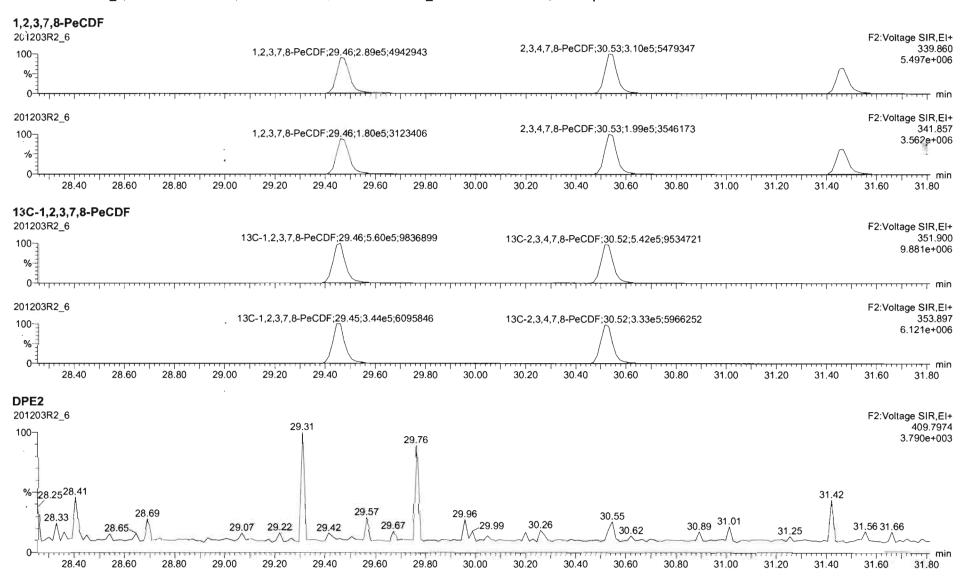




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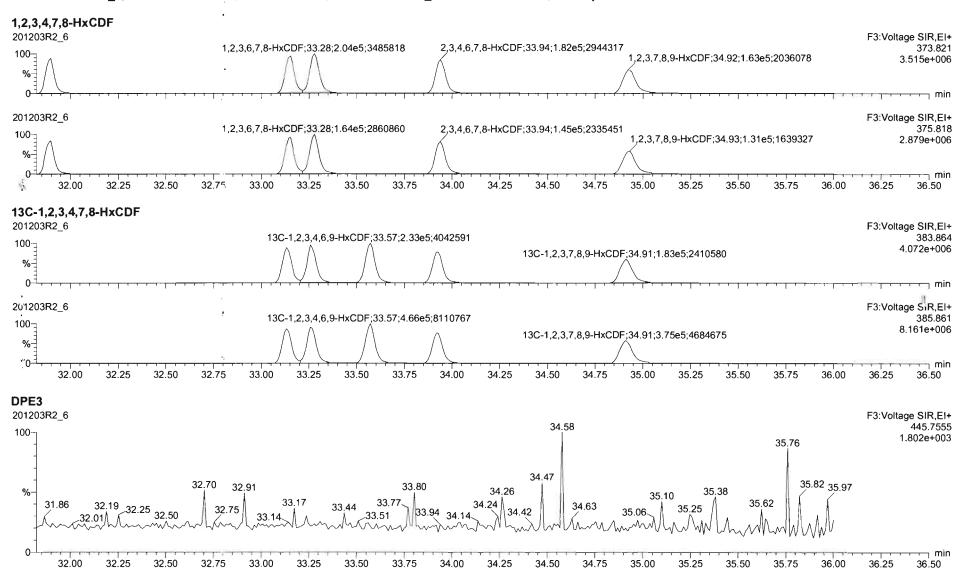
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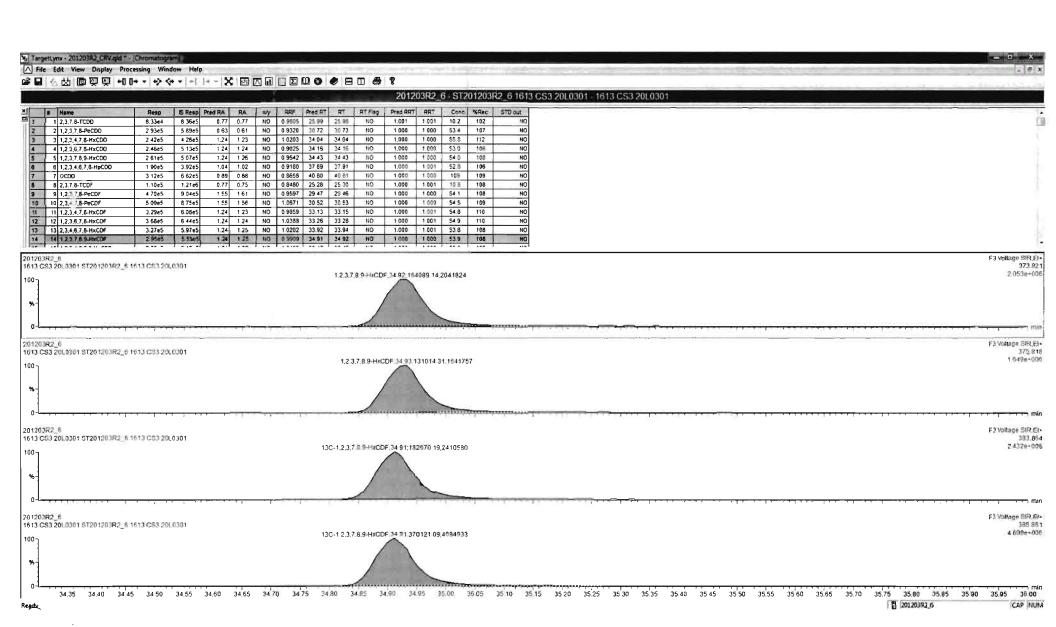


Quantify Sample Report Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Printed: Friday, December 04, 2020 09:59:16 Pacific Standard Time





Work Order 2002493 Page 680 of 734

Mass!_ynx 4.1 SCN815

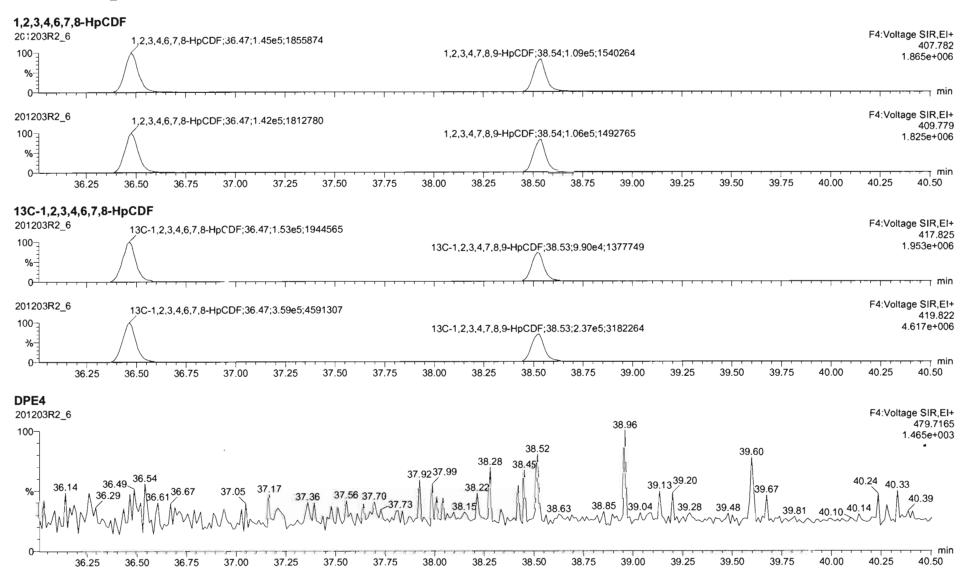
Vista Analytical Laboratory

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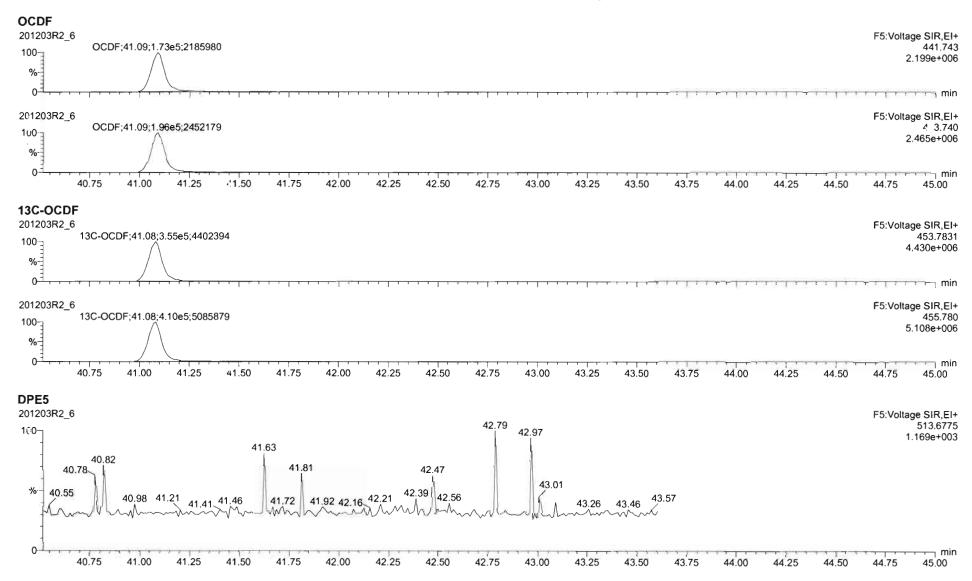
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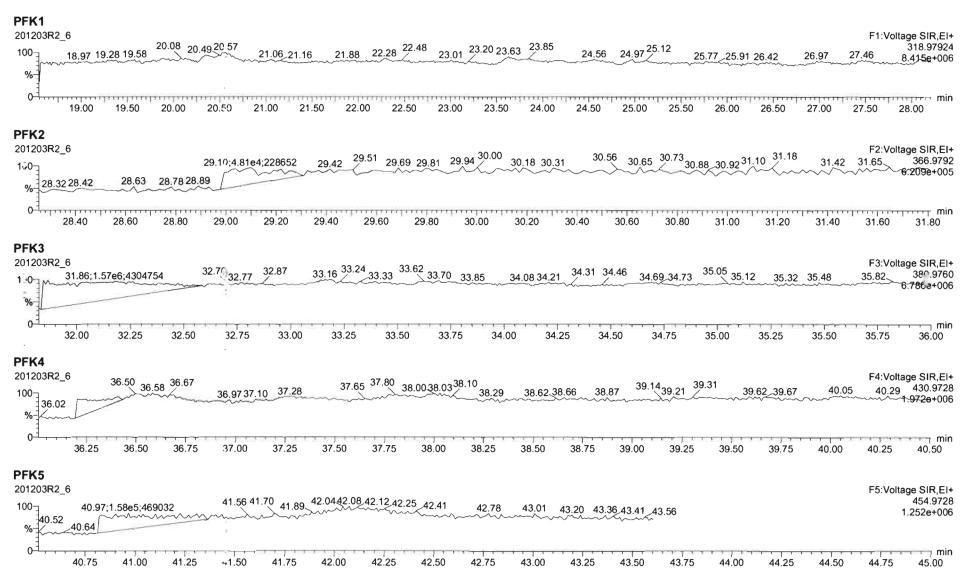
Quantify Sample Report Vista Analytical Laboratory

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Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time



Quantify Sample Report

MassLynx 4.1 SCN815

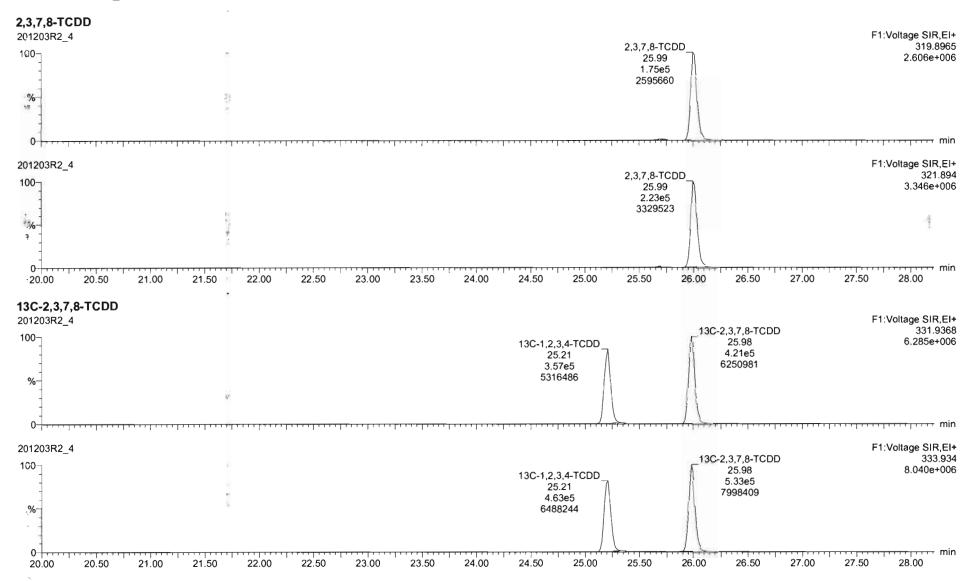
Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: Printed:

Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time



Quantify Sample Report Vista Analytical Laboratory

Page 41 of 78

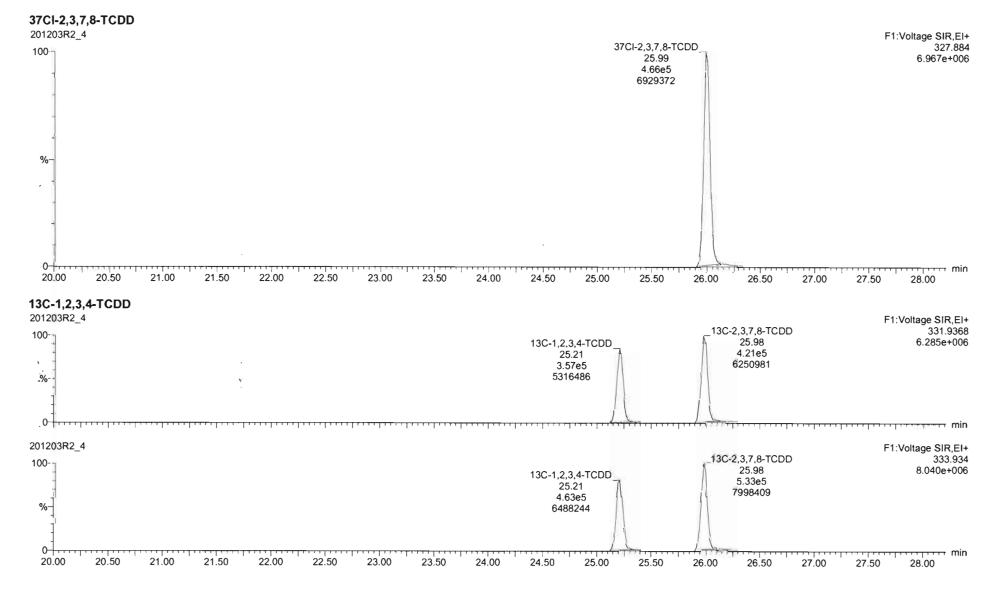
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Last Altered: Printed:

Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

Name: 201203R2_4, Date: 03-Dec-2020, Time: 13:00:37, ID: ST201203R2_4 1613 CS4 20L0302, Description: 1613 CS4 20L0302



Work Order 2002493

Quantify Sample Report

MassLynx 4.1 SCN815

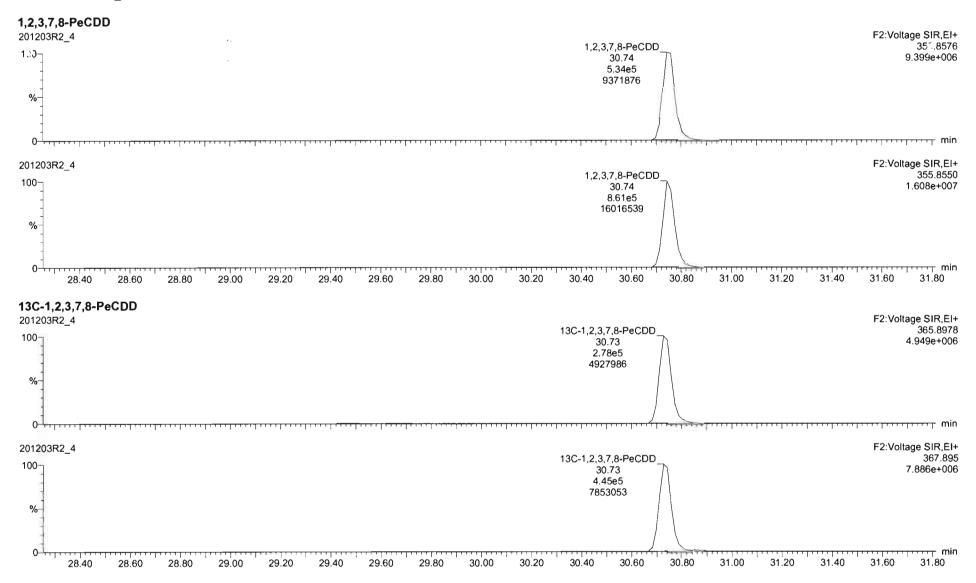
Vista Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Lest Altered: Printed:

Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time



Quantify Sample Report

MassLynx 4.1 SCN815

Vista Analytical Laboratory

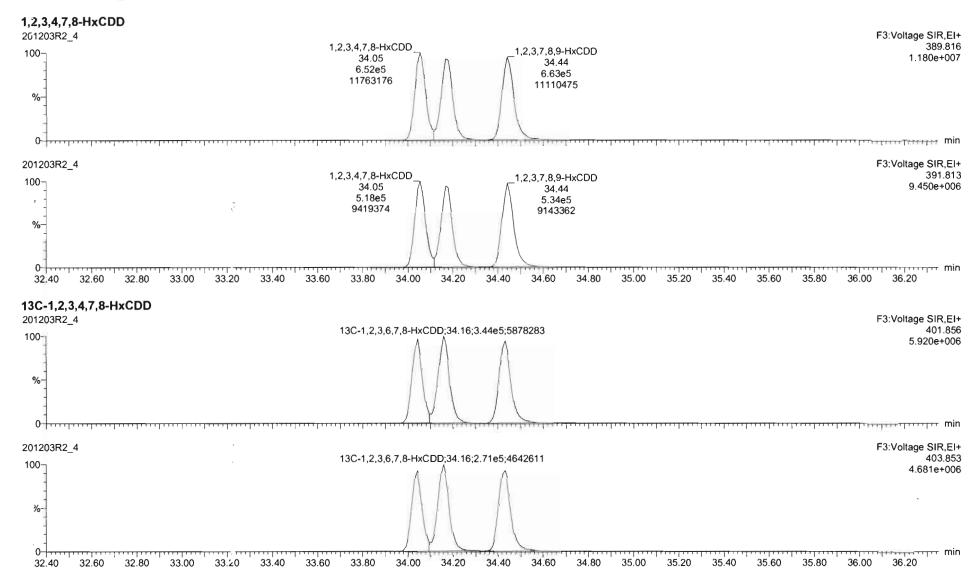
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Last Altered: Printed:

Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

Name: 201203R2_4, Date: 03-Dec-2020, Time: 13:00:37, ID: ST201203R2_4 1613 CS4 20L0302, Description: 1613 CS4 20L0302

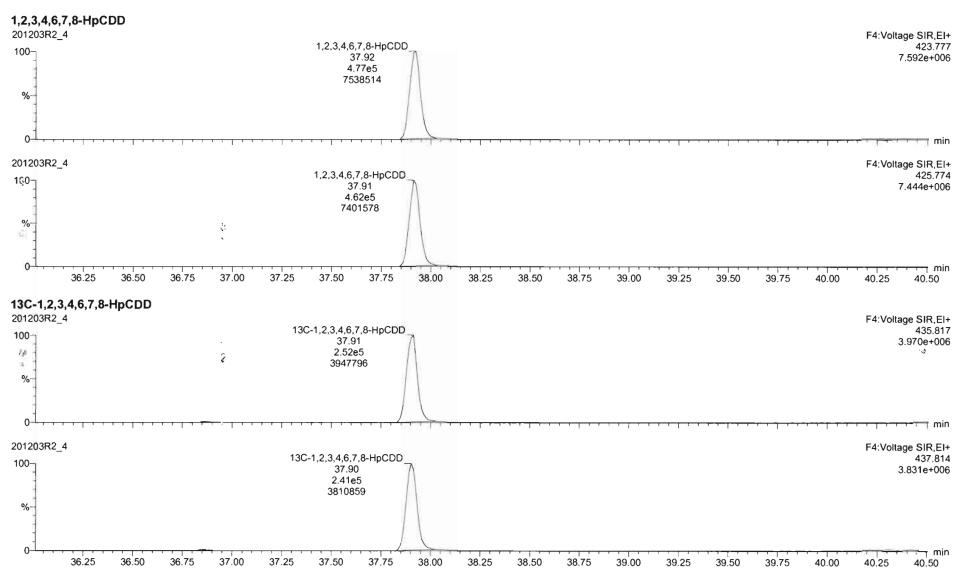


Work Order 2002493

V.sta Analytical Laboratory

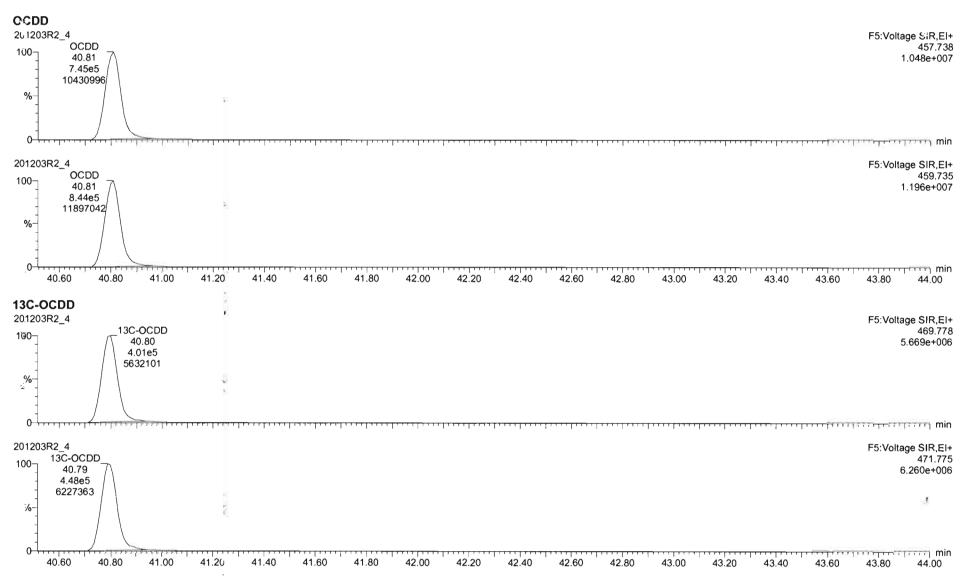
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Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Printed: Friday, December 04, 2020 09:59:16 Pacific Standard Time



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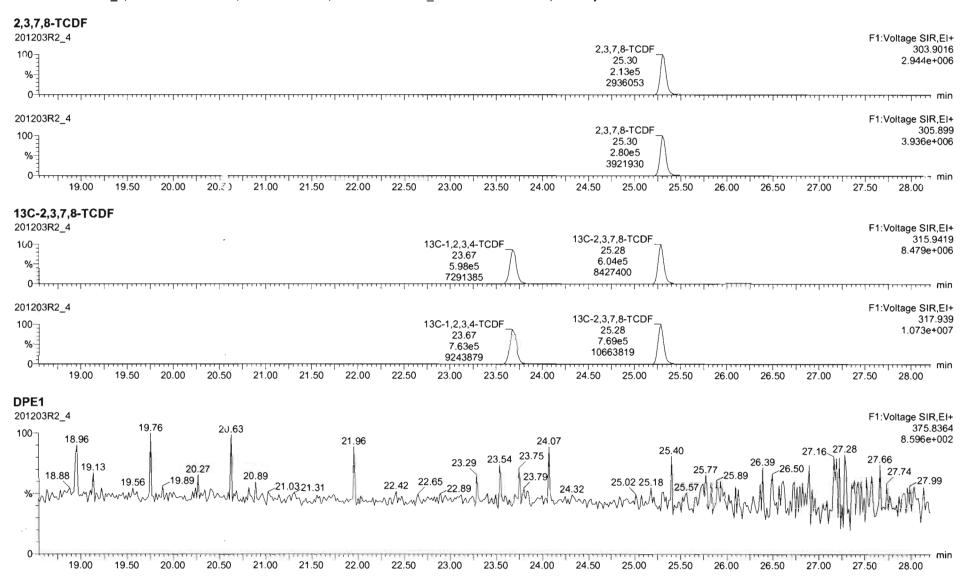
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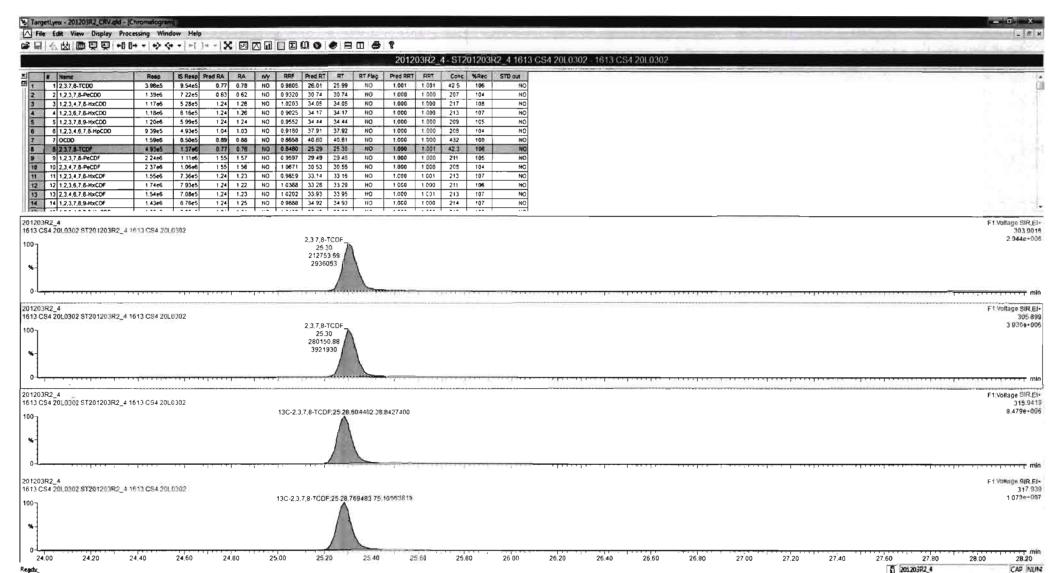


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Last Altered: Printed:

Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

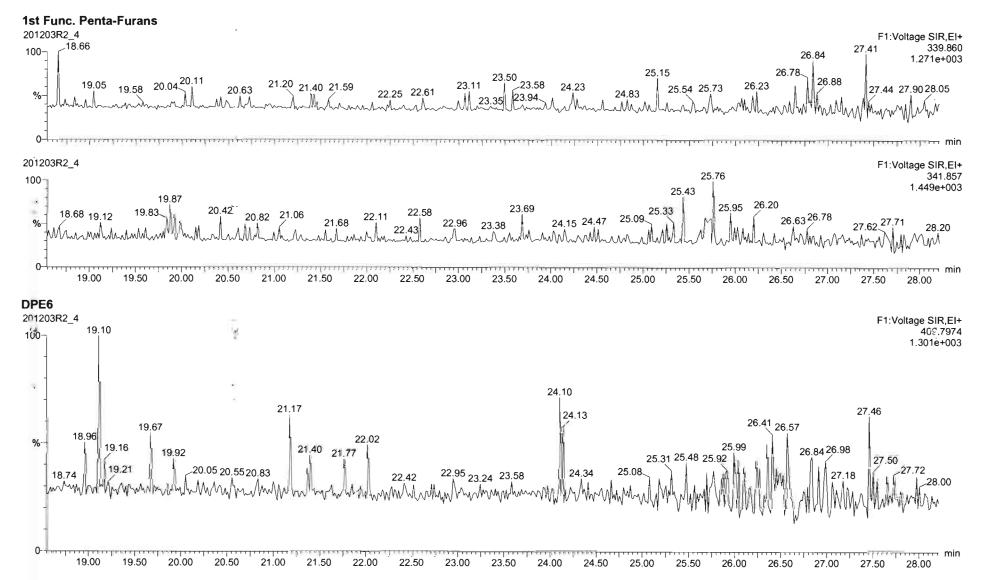




Work Order 2002493 Page 691 of 734

U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

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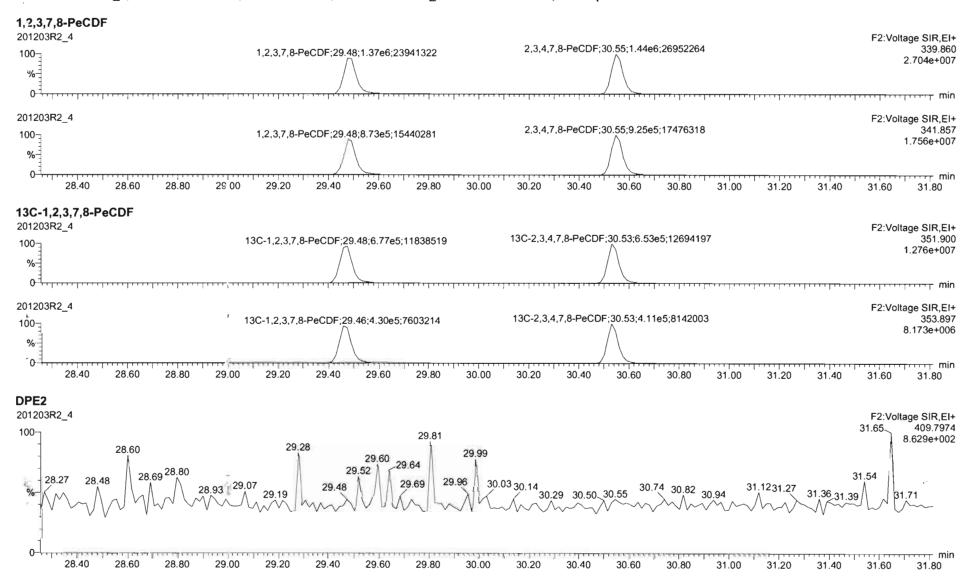


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Last Altered: Printed:

Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

Name: 201203R2 4, Date: 03-Dec-2020, Time: 13:00:37, ID: ST201203R2 4 1613 CS4 20L0302, Description: 1613 CS4 20L0302



Work Order 2002493

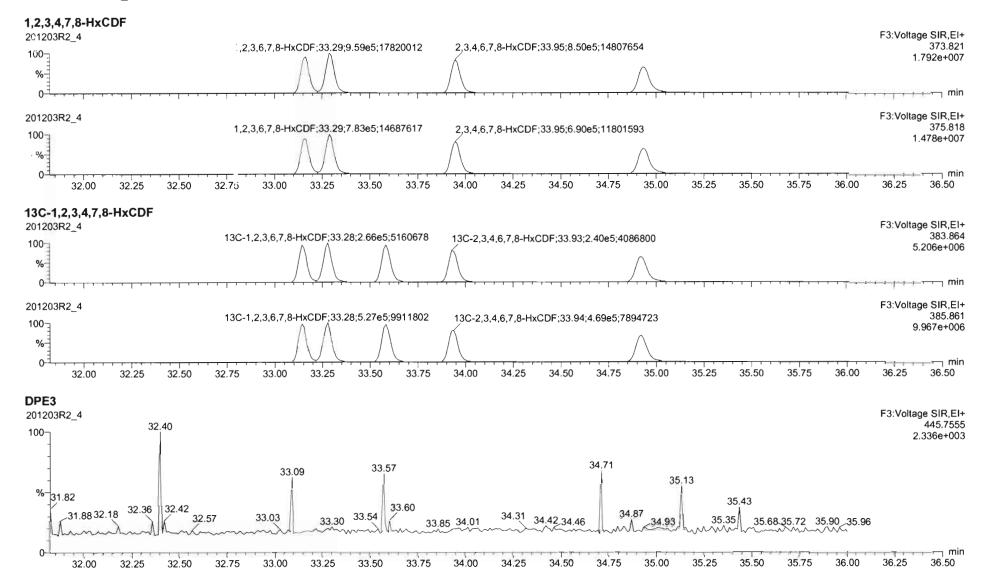
Quantify Sample Report Vista Analytical Laboratory MassLynx 4.1 SCN815

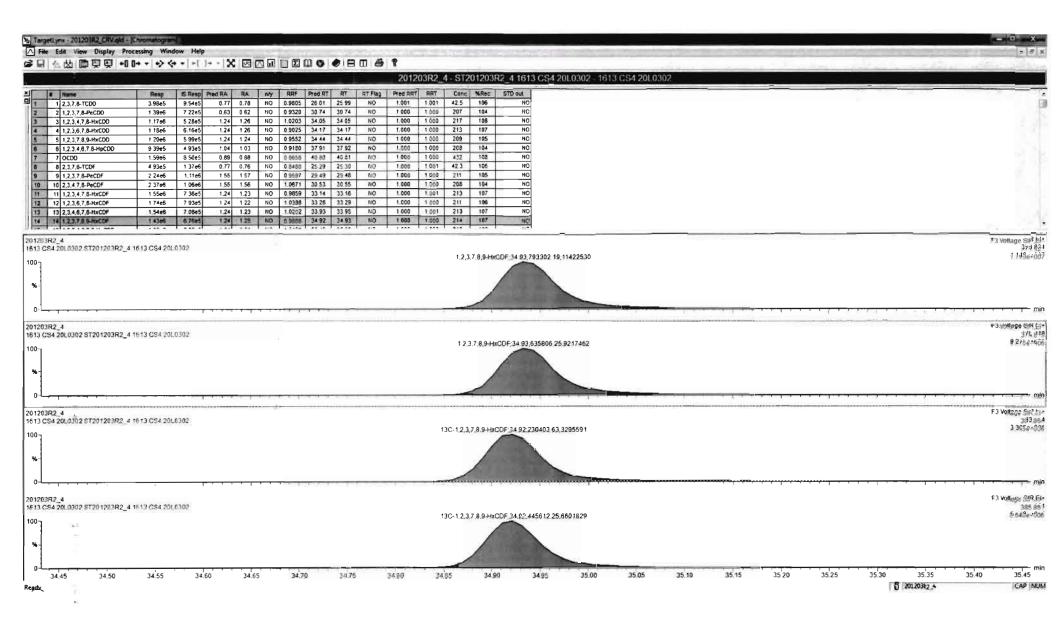
Vista Analytical Laborato

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

Last Altered: Printed: Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

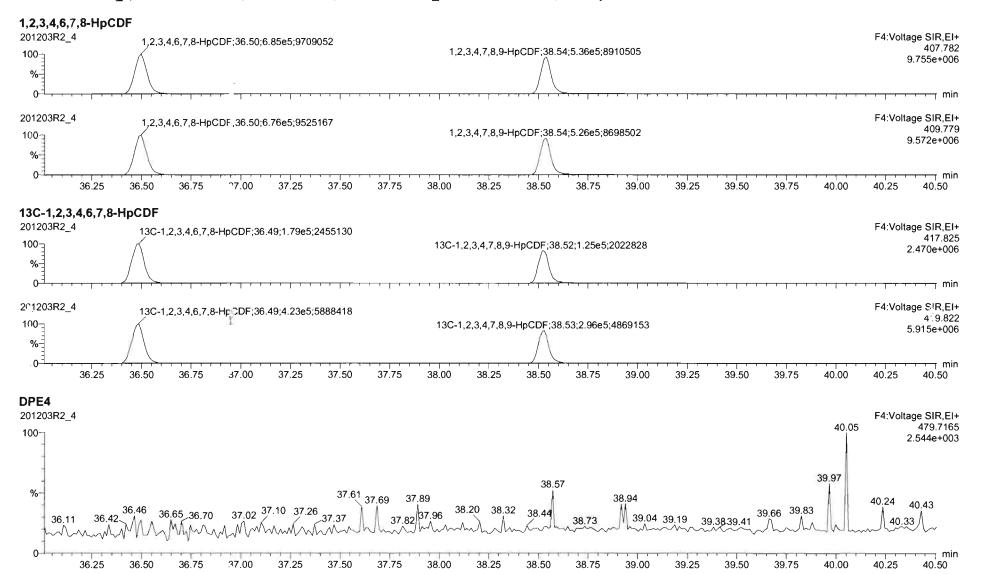




Work Order 2002493 Page 695 of 734

U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

Last Altered: Printed: Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

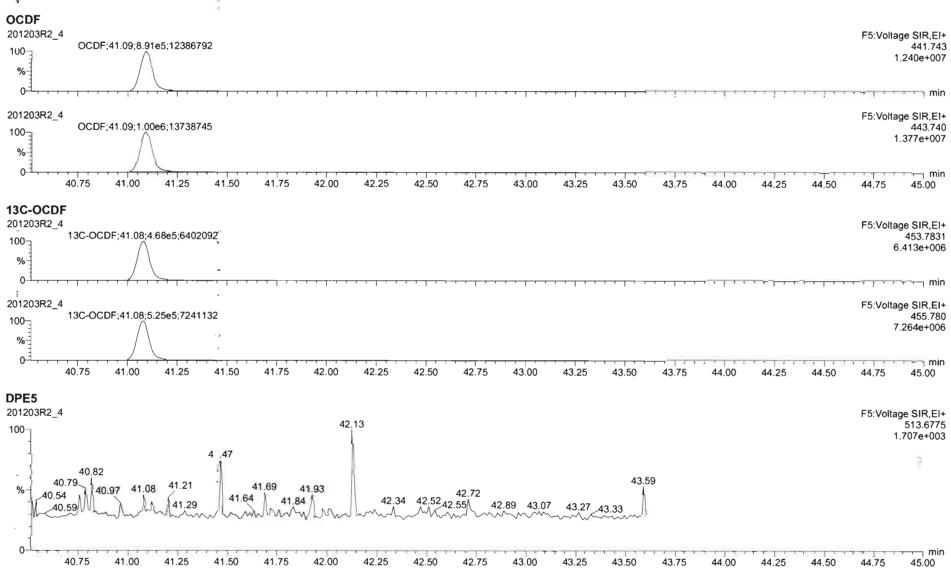


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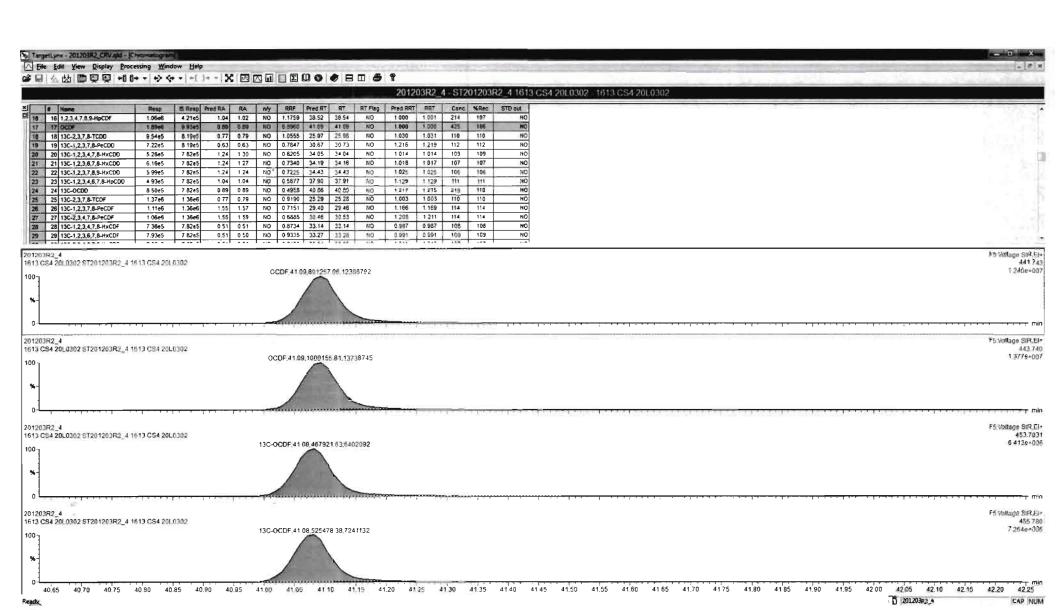
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Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time





Work Order 2002493

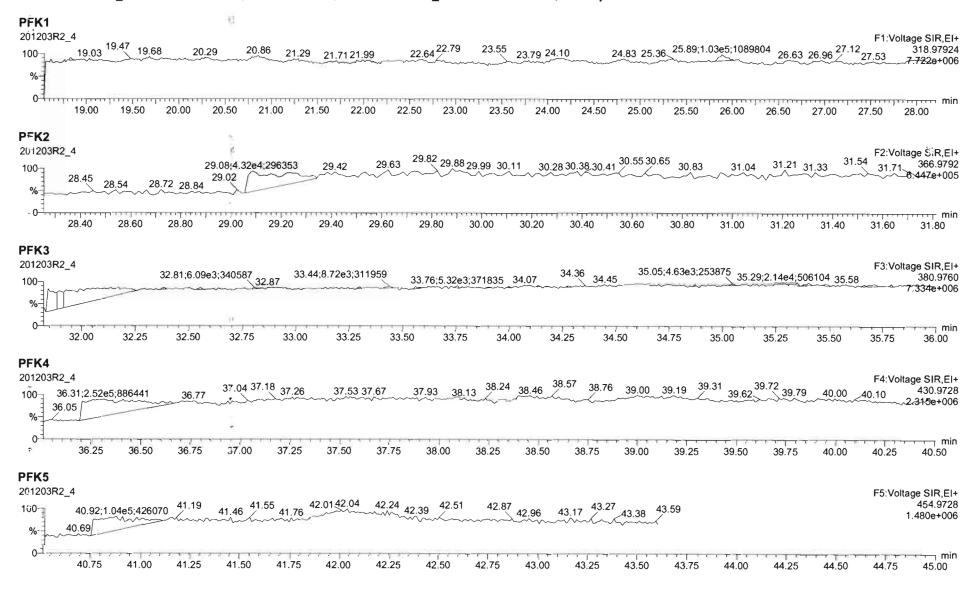


Work Order 2002493 Page 698 of 734

U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

Last Altered: Printed:

Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time



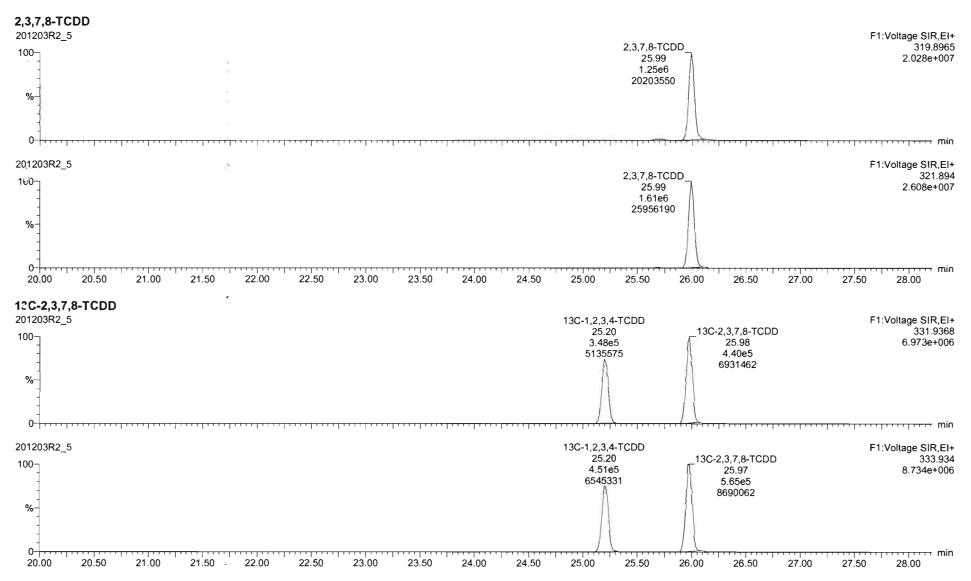
Viota Analytical Laboratory

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

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Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

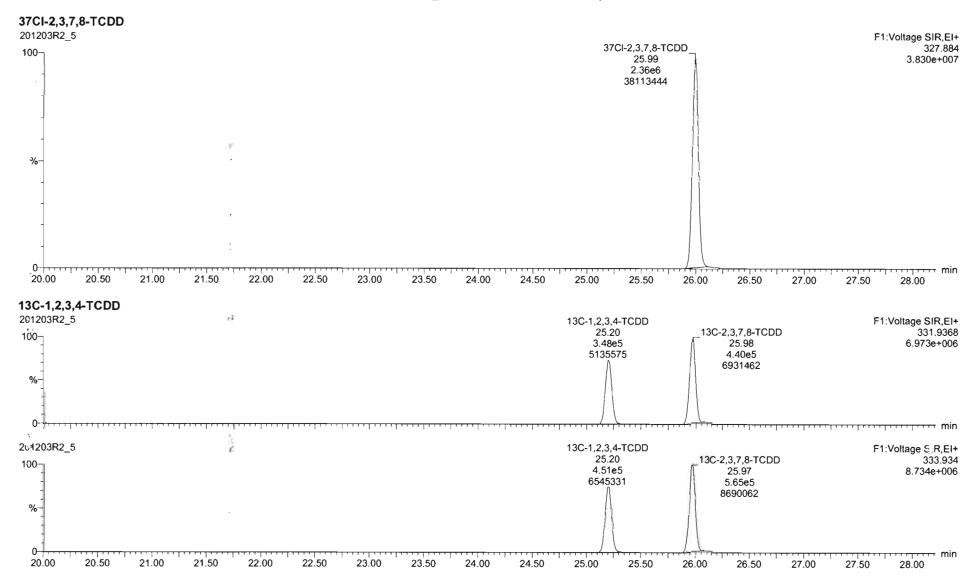


U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

12

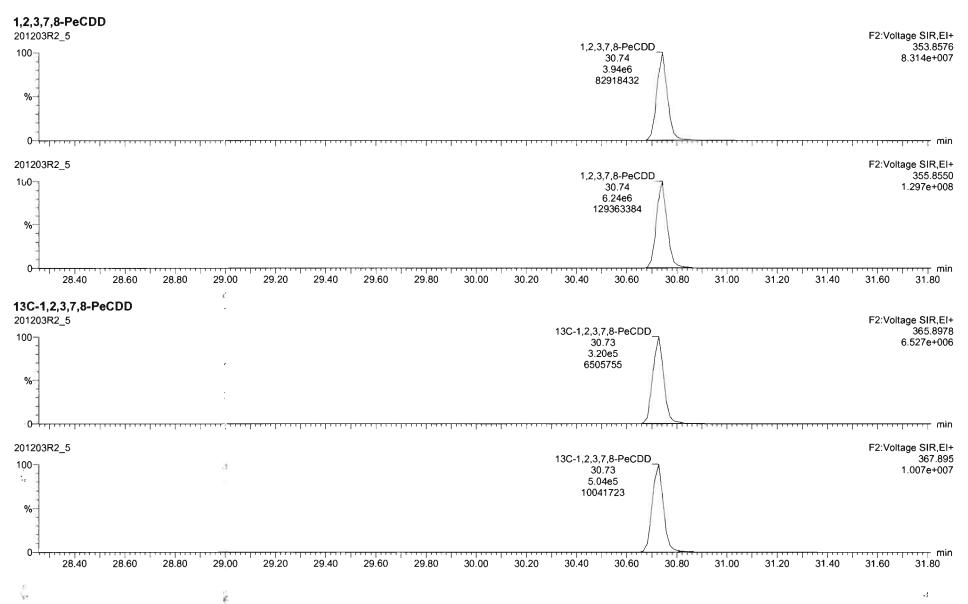
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Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time



Dataset: U:\VG12.PRO\Results\201203R2\201203R2 CRV.gld

Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

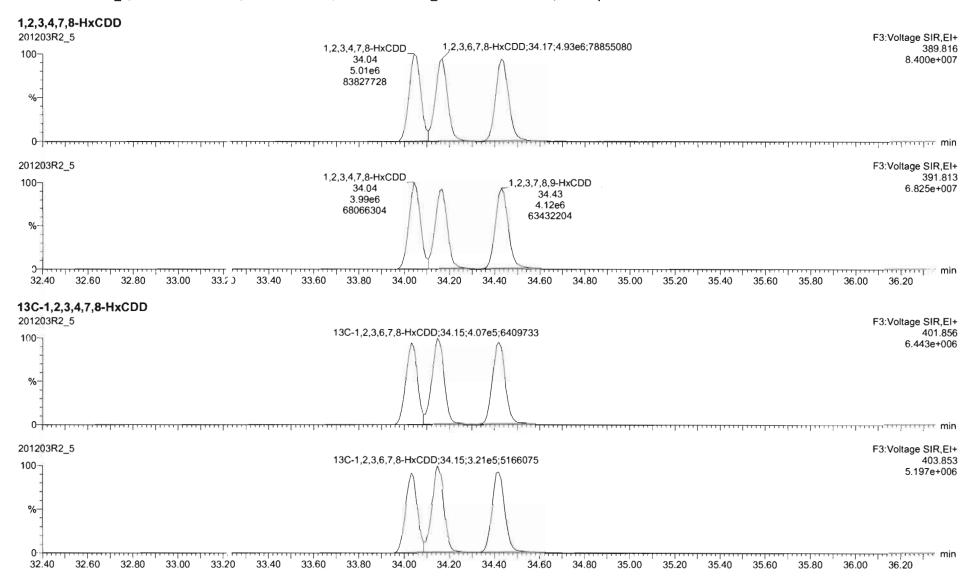


Quantify Sample Report Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

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Name: 201203R2_5, Date: 03-Dec-2020, Time: 13:47:04, ID: ST201203R2_5 1613 CS5 20L0303, Description: 1613 CS5 20L0303



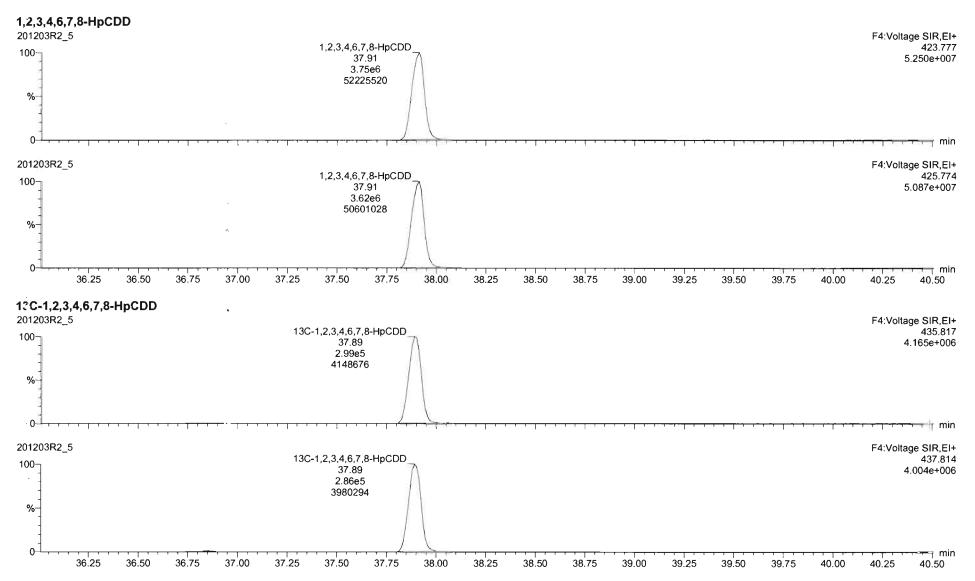
Work Order 2002493 Page 703 of 734

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

Last Altered: P inted:

Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time

Name: 201203R2_5, Date: 03-Dec-2020, Time: 13:47:04, ID: ST201203R2_5 1613 CS5 20L0303, Description: 1613 CS5 20L0303

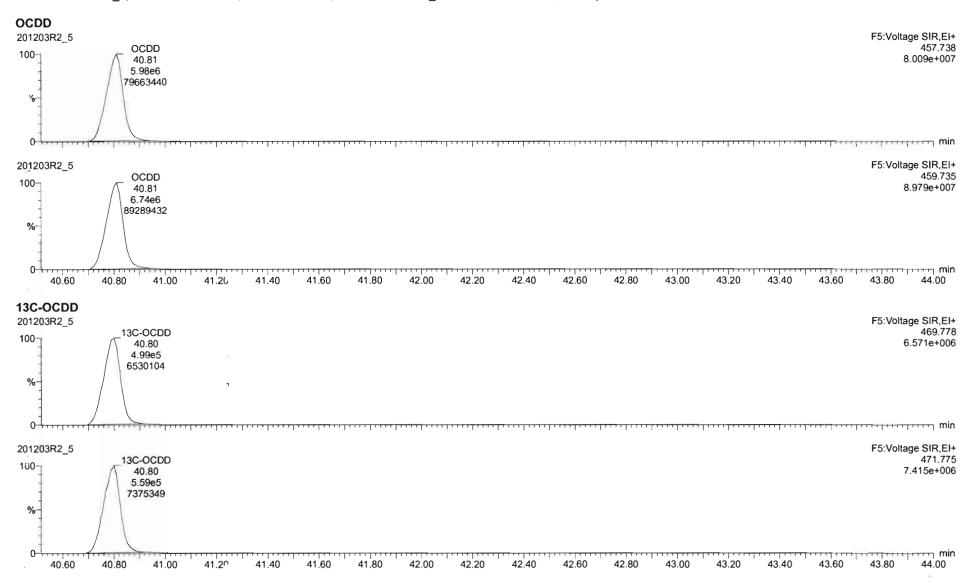


Work Order 2002493

Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\?01203R2\201203R2_CRV.qld

Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Printed: Friday, December 04, 2020 09:59:16 Pacific Standard Time



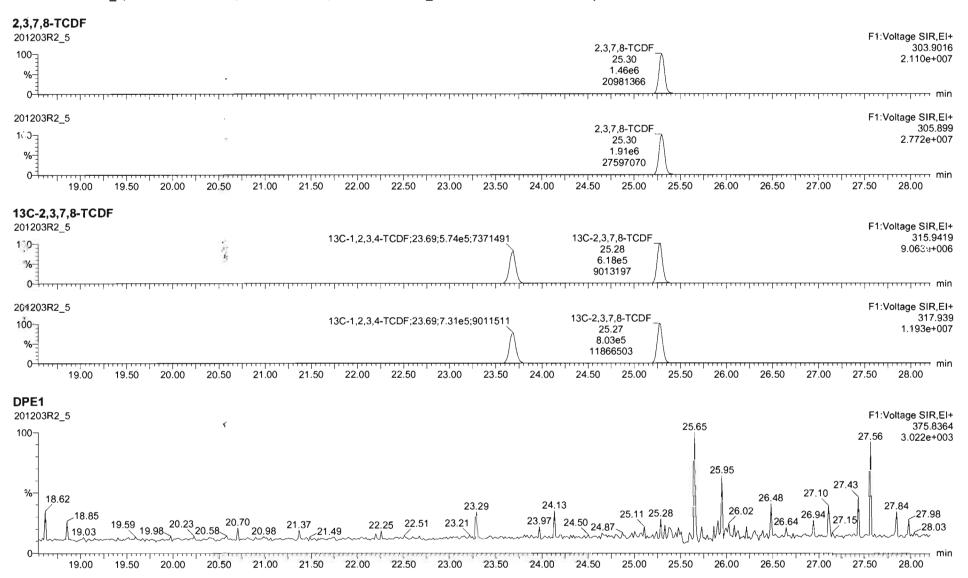
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Dataset:

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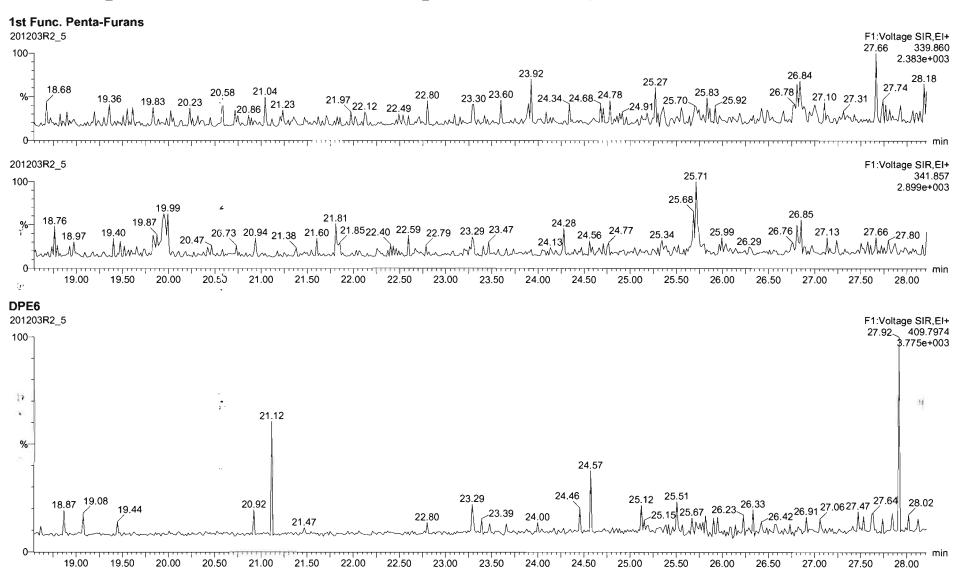
Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time



U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

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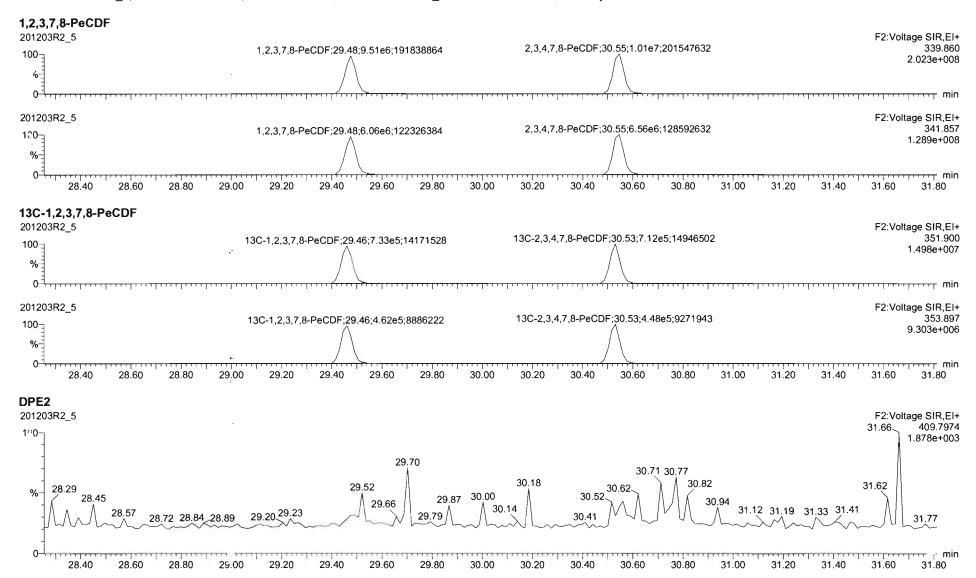
Friday, December 04, 2 320 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time



U:\VG12.PRO\Results\201203R2\201203R2 CRV.qld

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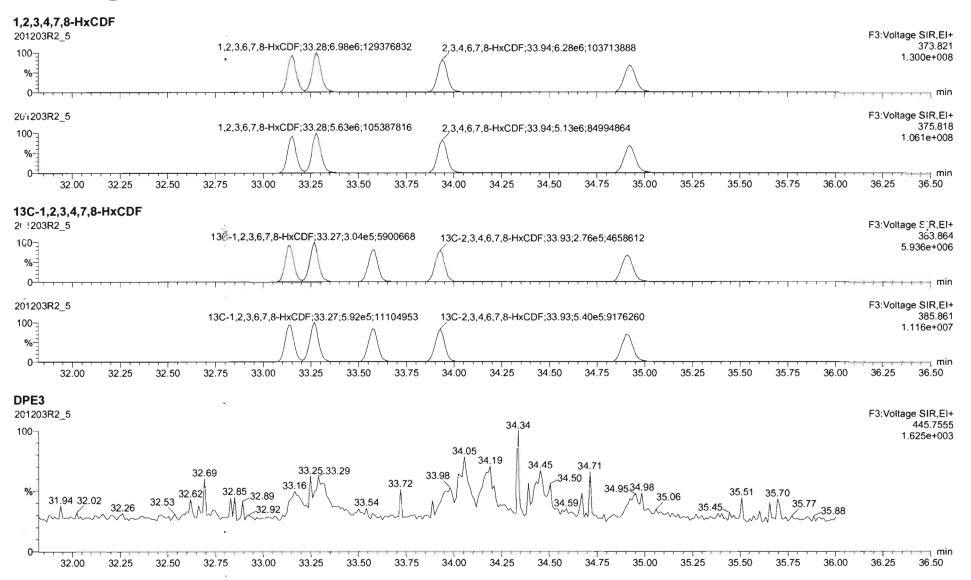
Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time



Quantify Sample Report Vista Analytical Laboratory

U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld Dataset:

Last Altered: Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time Printed:

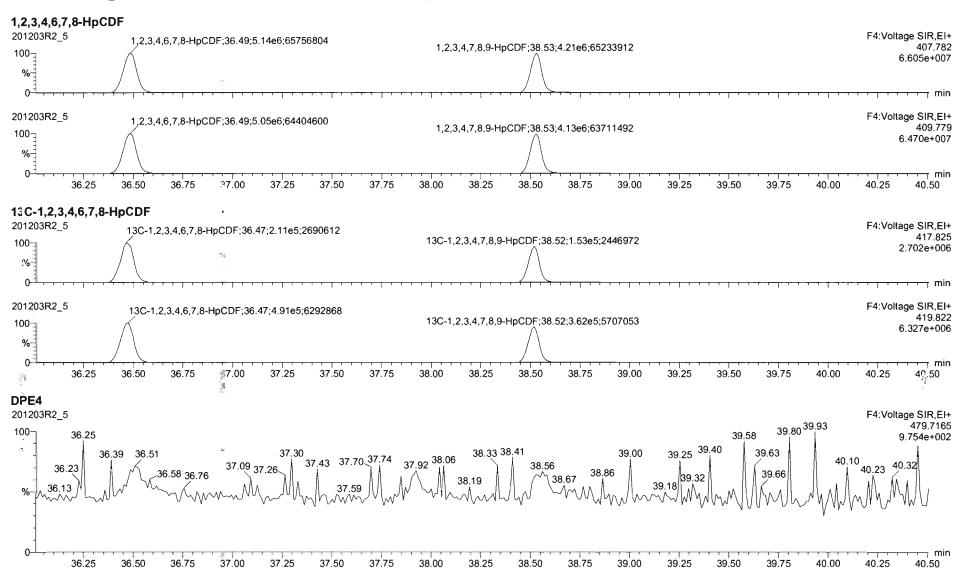


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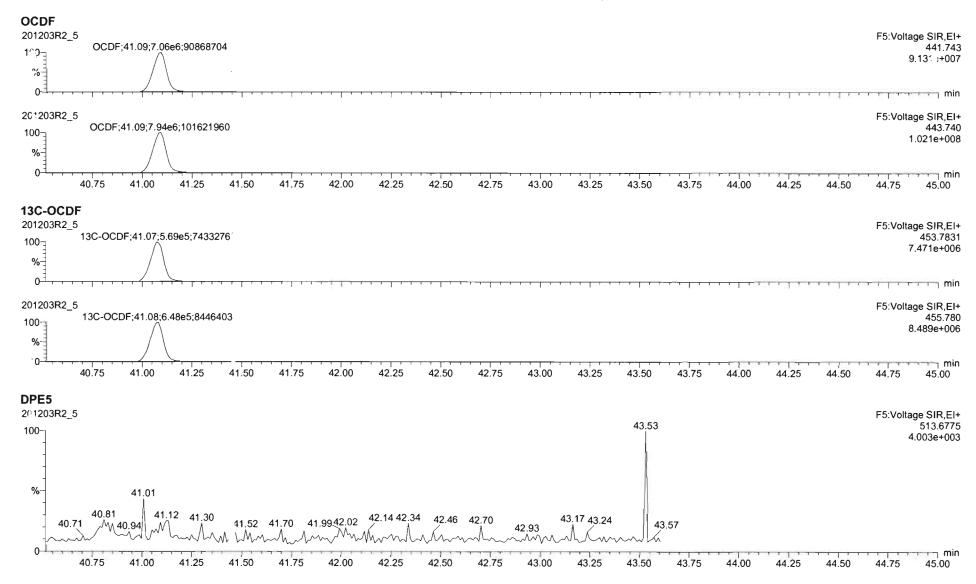
Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time



U:\VG12.PRO\Results\201203R2\201203R2_CRV.qld

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Friday, December 04, 2020 08:58:11 Pacific Standard Time Friday, December 04, 2020 09:59:16 Pacific Standard Time



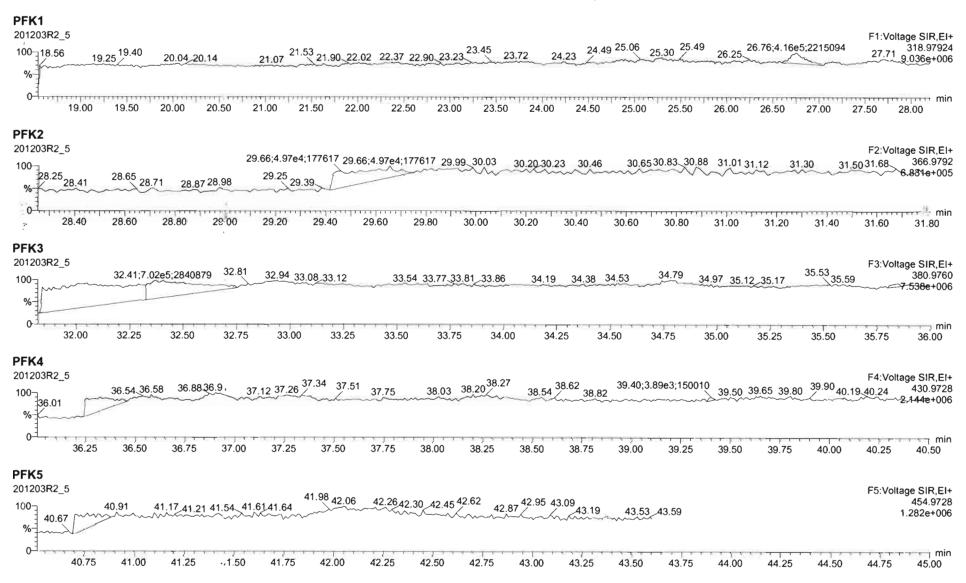
Quantify Sample Report Vista Analytical Laboratory

Dataset:

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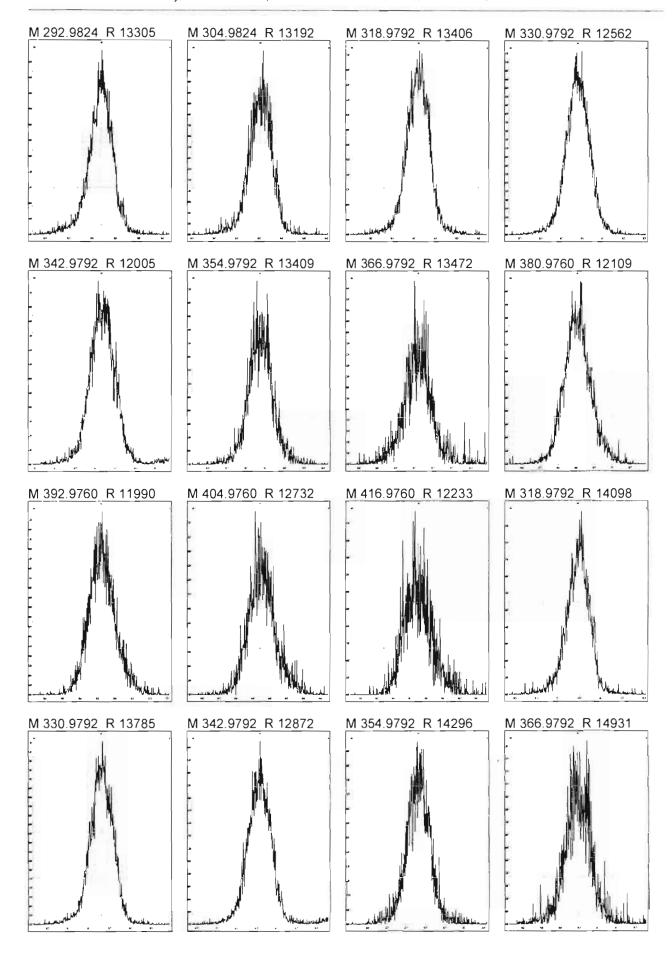
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Printed:

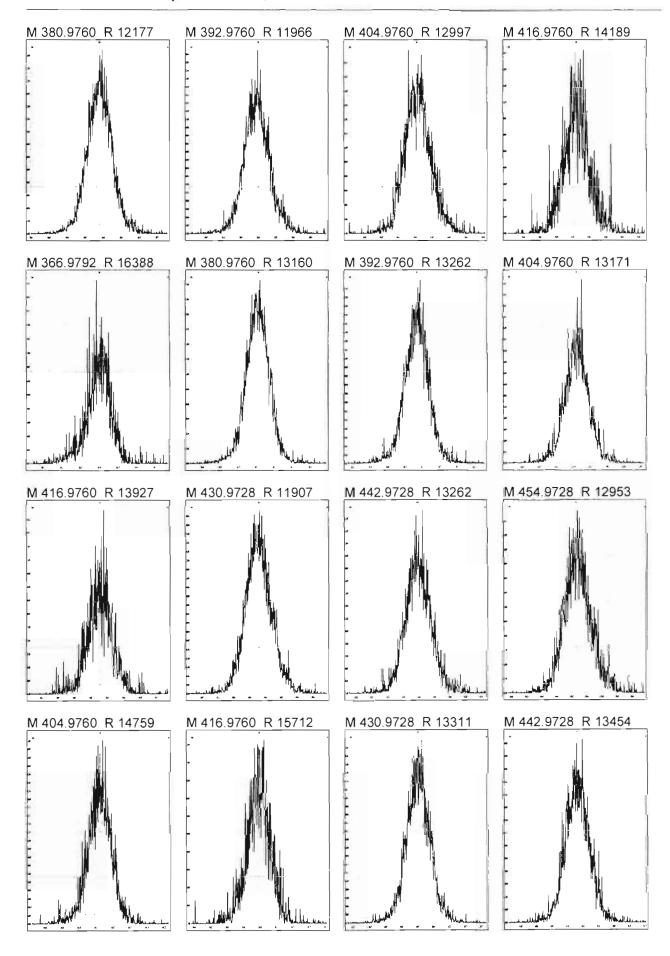
Thursday, December 03, 2020 17:02:52 Pacific Standard Time



Work Order 2002493 Page 713 of 734

Printed:

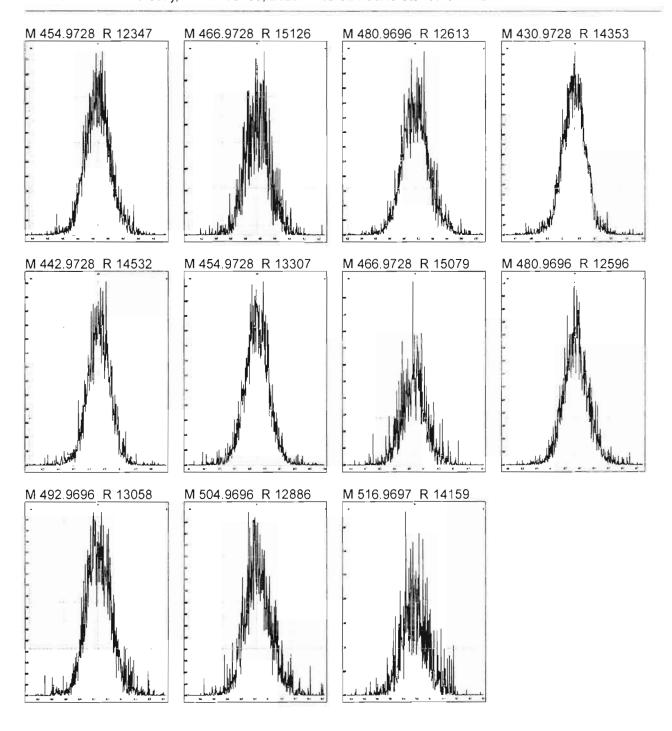
Thursday, December 03, 2020 17:02:52 Pacific Standard Time



Work Order 2002493 Page 714 of 734

Printed:

Thursday, December 03, 2020 17:02:52 Pacific Standard Time



Work Order 2002493 Page 715 of 734

MassLynx 4.1 SCN815

Page 1 of 2

Dataset:

U:\VG12.PRO\Results\201203R2\201203R2_8.qld

Last Altered: Printed:

19

Friday, December 04, 2020 11:51:09 Pacific Standard Time Friday, December 04, 2020 11:57:34 Pacific Standard Time

HN 12/04/2020 GRB 12/08/2020

Method: U:\VG12.PRO\MethDB\1613rrt-11-11-20.mdb 12 Nov 2020 07:51:39 Calibration: U:\VG12.PRO\CurveDB\dbDIOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201203R2_8, Date: 03-Dec-2020, Time: 16:09:07, ID: SS201203R2_1 1613 SSS 20K1907, Description: 1613 SSS 20K1907

	# 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	8.12e4	0.75	NO	0.980	1.000	26.008	26.01	1.001	1.001	11.221	112 50-	150% 0.0338	11.2
2	2 1,2,3,7,8-PeCDD	2.78e5	0.63	NO	0.932	1.000	30.751	30.76	1.000	1.000	57.143	114	0.109	57.1
3	3 1,2,3,4,7,8-HxCDD	2.27e5	1.26	NO	1.02	1.000	34.053	34.05	1.000	1.000	57.544	115	0.126	57.5
4	4 1,2,3,6,7,8-HxCDD	2.58e5	1.25	NO	0.902	1.000	34.168	34.18	1.000	1.001	62.459	125	0.119	62.5
5	5 1,2,3,7,8,9-HxCDD	2.43e5	1.27	NO	0.954	1.000	34.440	34.45	1.000	1.001	58.002	116	0.129	58.0
6	6 1,2,3,4,6,7,8-HpCDD	1.75e5	1.04	NO	0.918	1.000	37.902	37.91	1.000	1.000	54.920	110	0.206	54.9
7	7 OCDD .	3.13e5	0.90	NO	0.866	1.000	40.810	40.81	1.000	1.000	123.69	124	0.226	124
8	8 2,3,7,8-TCDF	1.01e5	0.74	NO	0.848	1.000	25.292	25.30	1.000	1.001	10.949	109	0.0323	10.9
9	9 1,2,3,7,8-PeCDF	4.31e5	1.59	NO	0.960	1.000	29.485	29.49	1.000	1.001	55.891	112	0.145	55.9
10	10 2,3,4,7,8-PeCDF	5.03e5	1.62	NO	1.07	1.000	30.546	30.56	1.000	1.000	61.255	123	0.126	61.3
11	11 1,2,3,4,7,8-HxCDF	3.21e5	1.24	NO	0.986	1.000	33.153	33.16	1.000	1.000	61.557	123	0.127	61.6
12	12 1,2,3,6,7,8-HxCDF	3.50e5	1.24	NO	1.04	1.000	33.278	33.30	1.000	1.001	58.959	118	0.121	59.0
13	13 2,3,4,6,7,8-HxCDF	3.27e5	1.24	NO	1.02	1.000	33.941	33.95	1.000	1.000	61.252	123	0.143	61.3
14	14 1,2,3,7,8,9-HxCDF	2.66e5	1.23	NO	0.991	1.000	34.922	34.94	1.000	1.001	57.127	114	0.209	57.1
15	15 1,2,3,4,6,7,8-HpCDF	2.70e5	1.01	NO	1.05	1.000	36.490	36.50	1.000	1.00 0	60.349	121	0.233	60.3
16	16 1,2,3,4,7,8,9-HpCDF	1.98e5	1.01	NO	1.18	1.000	38.528	38.54	1.000	1.000	57.224	114	0.2 6 2	57.2
17	17 OCDF	3.54e5	0.90	NO	0.896	1.000	41.100	41.10	1.000	1.000	118.85	119 `	У 0.359	119
18	18 13C-2,3,7,8-TCDD	7.38e5	0.78	NO	1.06	1.000	25.952	25.98	1.030	1.031	101.50	102	0.148	
19	19 13C-1,2,3,7,8-PeCDD	5.22e5	0.62	NO	0.785	1.000	30.648	30.74	1.216	1.220	96.571	96.6	0.135	
20	20 13C-1,2,3,4,7,8-HxCDD	3.8 7 e5	1.28	NO	0.621	1.000	34.048	34.04	1.014	1.014	103.46	103	0.285	
21	21 13C-1,2,3,6,7,8-HxCDD	4.58e5	1.29	NO	0.734	1.000	34.186	34.16	1.018	1.017	103.62	104	0.241	
22	22 13C-1,2,3,7,8,9-HxCDD	4.38e5	1.28	NO	0.723	1.000	34.428	34.43	1.025	1.025	100.66	101	0.245	
23	23 13C-1,2,3,4,6,7,8-HpCDD	3.48e5	1.06	NO	0.568	1.000	37.904	37.90	1.129	1.129	101.76	102	0.392	
24	24 13C-OCDD	5.85e5	0.90	NO	0.496	1.000	40.862	40.81	1.217	1.215	195.89	97.9	0.404	
25	25 13C-2,3,7,8-TCDF	1.08e6	0.78	NO	0.919	1.000	25.276	25.28	1.003	1.004	103.53	104	0.146	
26	26 13C-1,2,3,7,8-PeCDF	8.04e5	1.61	NO	0.715	1.000	29.386	29.48	1.166	1.170	98.865	98.9	0.247	
27	27 13C-2,3,4,7,8-PeCDF	7.69e5	1.59	NO	0.689	1.000	30.439	30.55	1.208	1.212	98.136	98.1	0.256	
28	28 13C-1,2,3,4,7,8-HxCDF	5.30e5	0.51	NO	0.873	1.000	33.142	33.15	0.987	0.987	100.67	101	0.314	
29	29 13C-1,2,3,6,7,8-HxCDF	5.72e5	0.51	NO	0.933	1.000	33.273	3 3 .28	0.991	0.991	101.77	102	0.294	
30	30 13C-2,3,4,6,7,8-HxCDF	5.23e5	0.51	NO	0.843	1.000	33.941	33.94	1.011	1,011	102.97	103	0.326	
31	31_13C-1,2,3,7,8,9-HxCDF	4.69e5	0.51	NO	0.780	1.000	34.935	34.92	1.040	1:040	99.930	99.9	0.352	

Work Order 2002493 Page 716 of 734 Vista Analytical Laboratory

Dataset: U:\VG12.PRO\Results\201203R2\201203R2_8.qld

Last Altered: Friday, December 04, 2020 11:51:09 Pacific Standard Time Friday, December 04, 2020 11:57:34 Pacific Standard Time

Name: 201203R2_8, Date: 03-Dec-2020, Time: 16:09:07, ID: SS201203R2_1 1613 SSS 20K1907, Description: 1613 SSS 20K1907

2000	# 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	4.26e5	0.42	NO	0.726	1.000	36.500	36.49	1.087	1.086	97.268	97.3	0.265	
5.; 34	33 13C-1,2,3,4,7,8,9-HpCDF	2.94e5	0.42	NO	0.491	1.000	38.532	38.53	1.147	1.147	99.221	99.2	0.391	
34	34 13C-OCDF	6.65e5	0.87	NO	0.565	1.000	41.144	41.09	1.225	1.224	195.35	97.7	0.348	
35	35 37CI-2,3,7,8-TCDD	9.13e4			1.22	1.000	25.952	25.99	1.030	1.032	10.891	109	0.0217	
36	36 13C-1,2,3,4-TCDD	6.89e5	0.77	NO	1.00	1.000	25.370	25.20	1.000	1.000	100.00	100	0.157	
37	37 13C-1,2,3,4-TCDF	1.14e6	0.78	NO	1.00	1.000	23.870	23.67	1.000	1.000	100.00	100	0.134	
38	38 13C-1,2,3,4,6,9-HxCDF	6.02e5	0.51	NO	1.00	1.000	33.710	33.58	1.000	1.000	100.00	100	0.274	

Work Order 2002493 Page 717 of 734

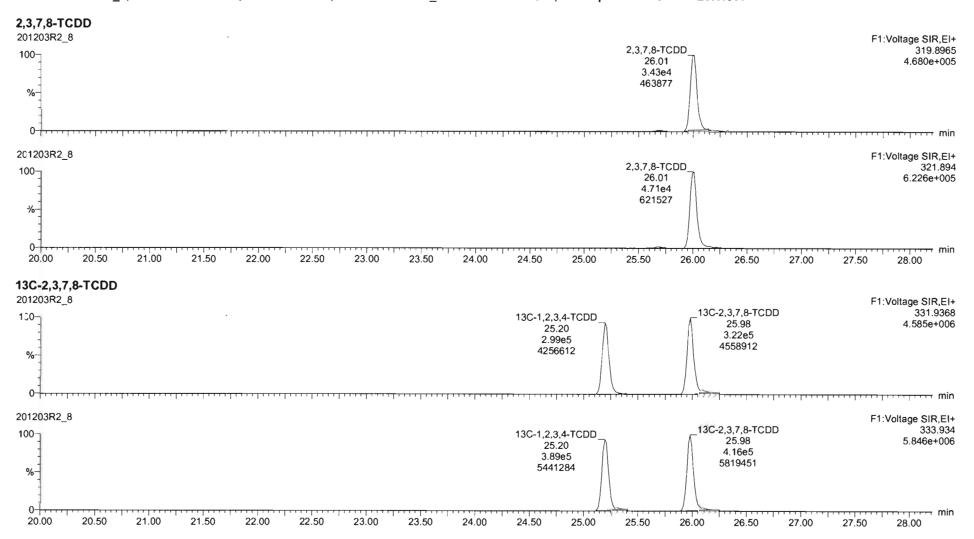
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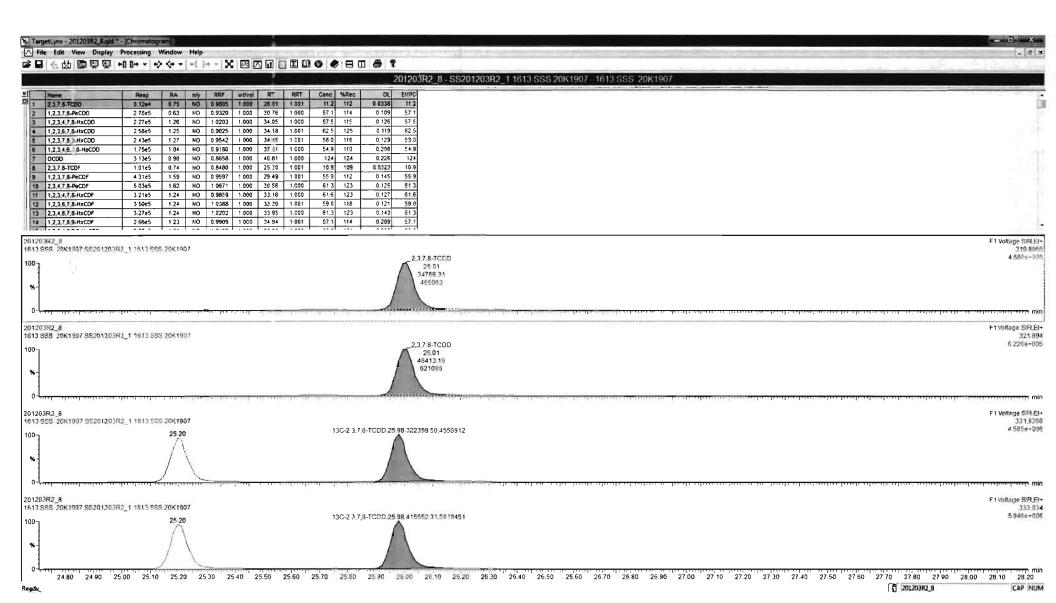
Last Altered: Friday, December 04, 2020 11:47:08 Pacific Standard Time Friday, December 04, 2020 11:48:25 Pacific Standard Time

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

Calibration: U:\VG12.PRO\CurveDB\dbDlOXIN_1613vg12-12-03-20.cdb 04 Dec 2020 11:36:07

Name: 201203R2_8, Date: 03-Dec-2020, Time: 16:09:07, ID: SS201203R2_1 1613 SSS 20K1907, Description: 1613 SSS 20K1907





Work Order 2002493 Page 719 of 734

Quantify Sample Report Vista Analytical Laboratory

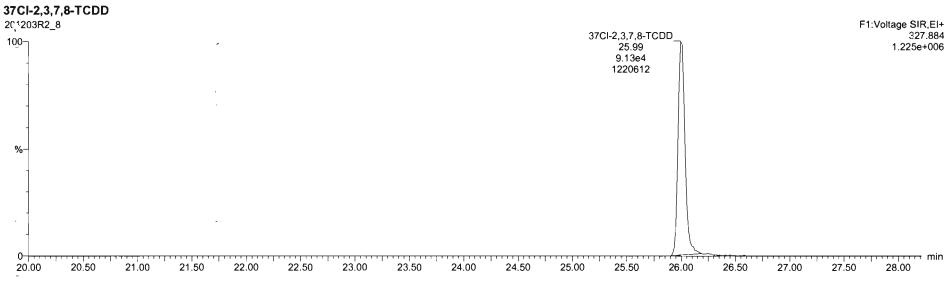
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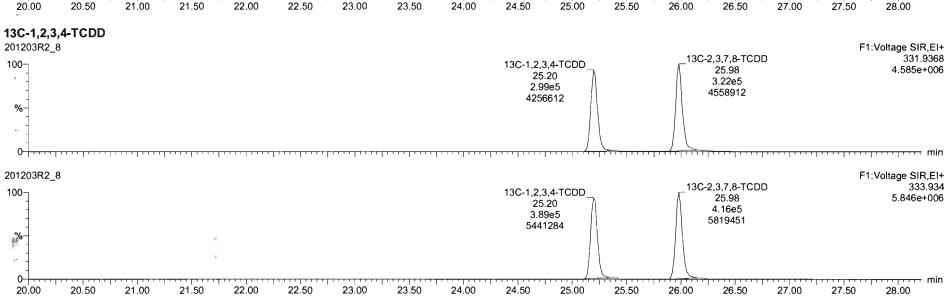
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Friday, December 04, 2020 11:47:08 Pacific Standard Time Friday, December 04, 2020 11:48:25 Pacific Standard Time

Name: 201203R2_8, Date: 03-Dec-2020, Time: 16:09:07, ID: SS201203R2_1 1613 SSS 20K1907, Description: 1613 SSS 20K1907



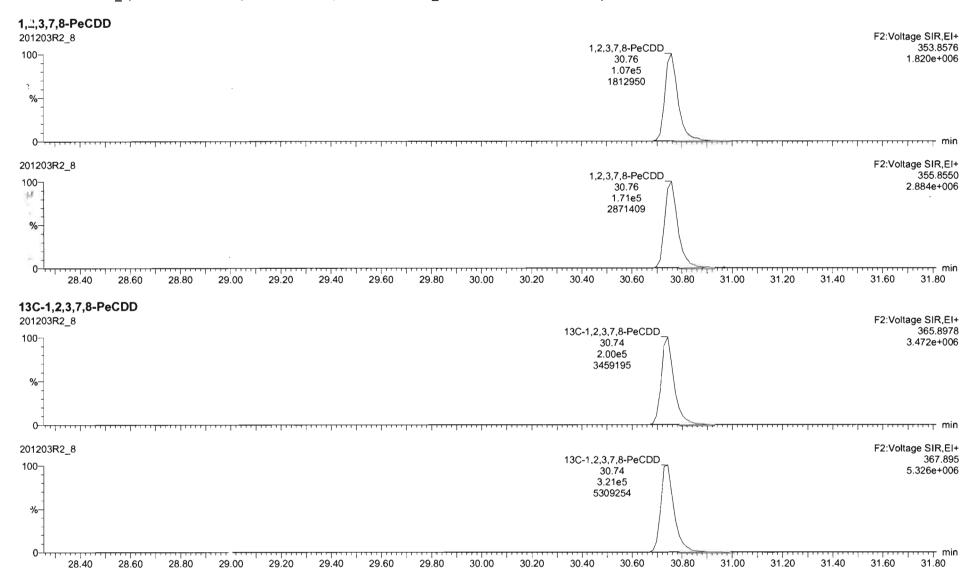


Quantify Sample Report Vista Analytical Laboratory

Dataset:

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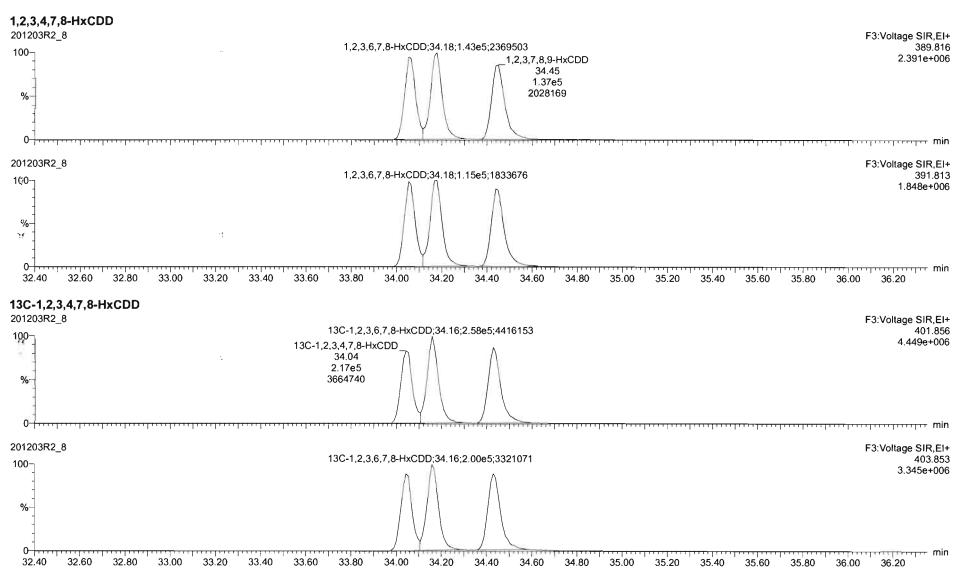


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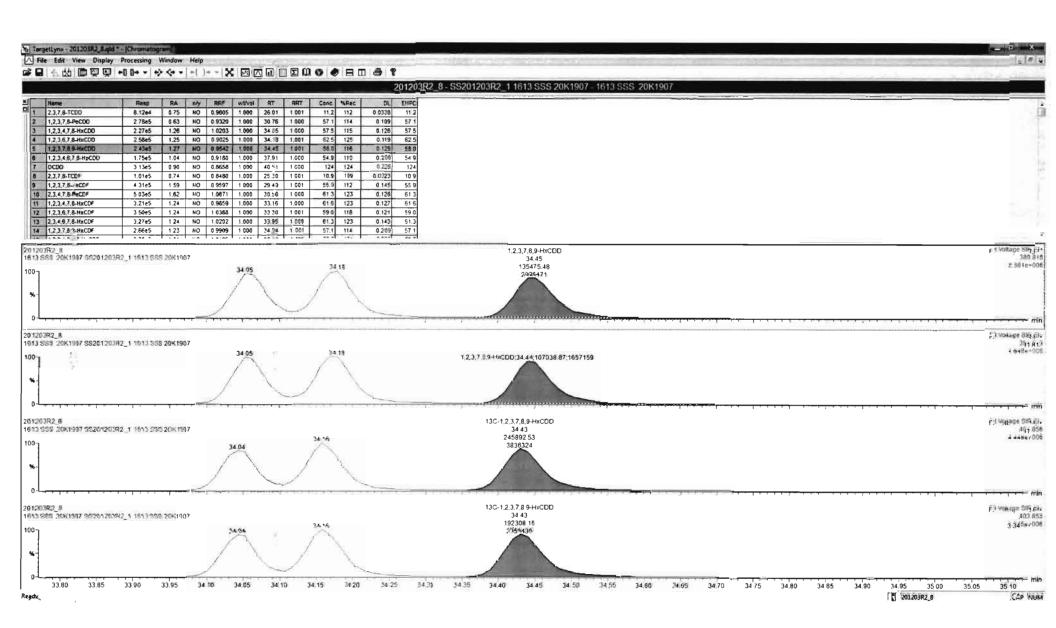
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Name: 201203R2_8, Date: 03-Dec-2020, Time: 16:09:07, ID: SS201203R2_1 1613 SSS 20K1907, Description: 1613 SSS 20K1907



Work Order 2002493



Work Order 2002493 Page 723 of 734

Vista Analytical Laboratory

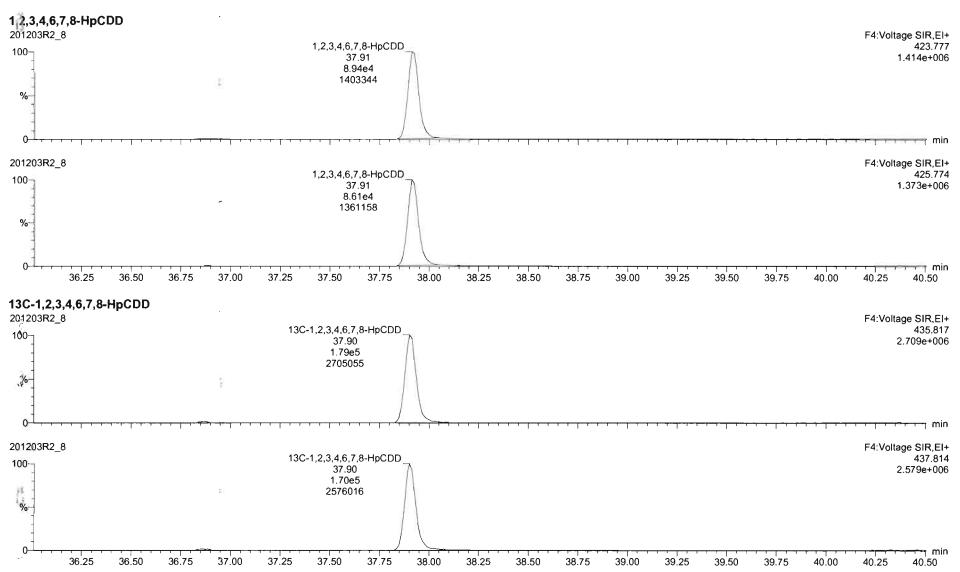
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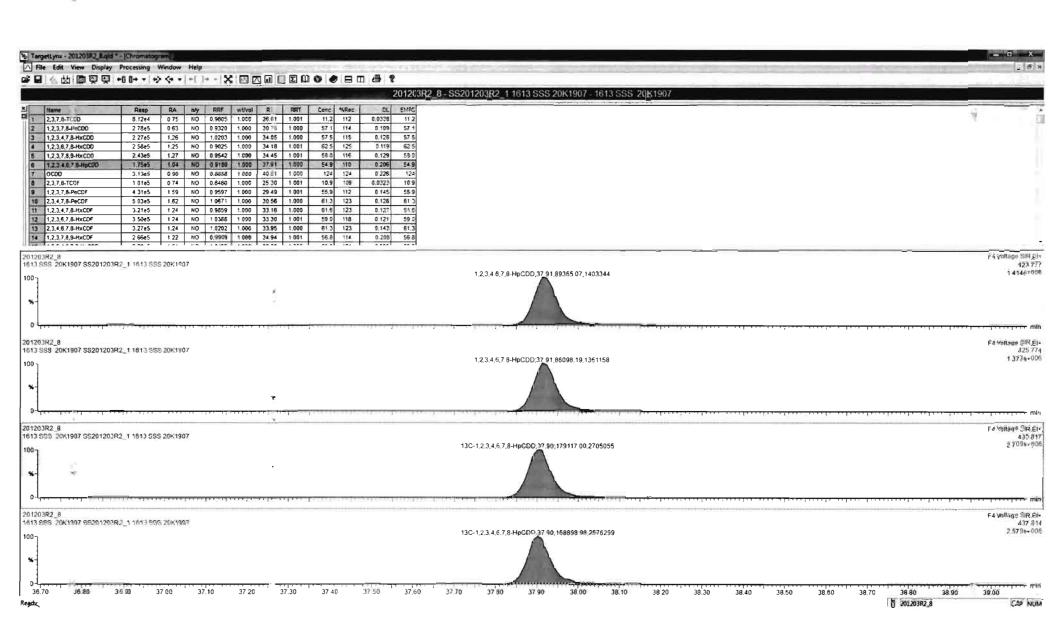
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Friday, December 04, 2020 11:47:08 Pacific Standard Time Friday, December 04, 2020 11:48:25 Pacific Standard Time

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Work Order 2002493

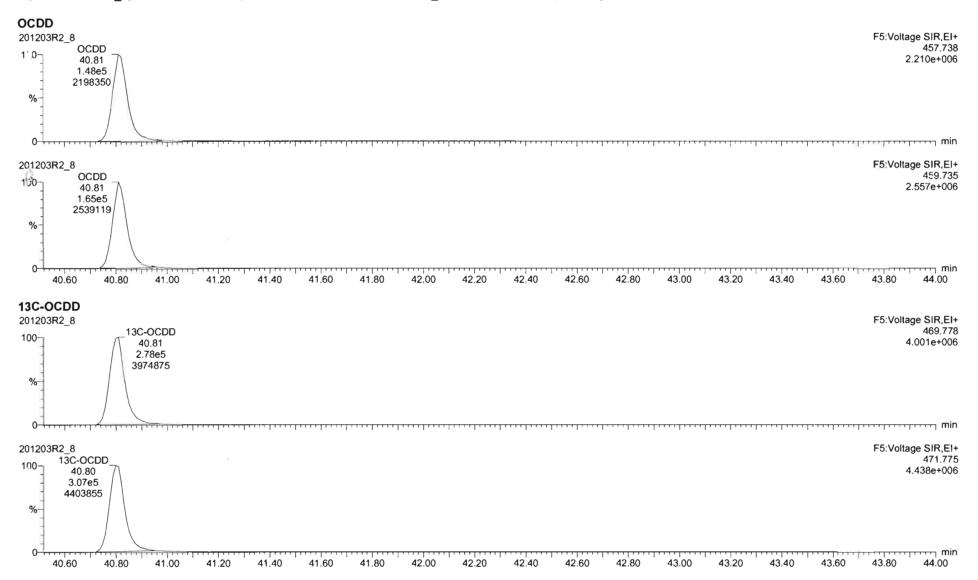


Work Order 2002493 Page 725 of 734

Quantify Sample Report Vista Analytical Laboratory

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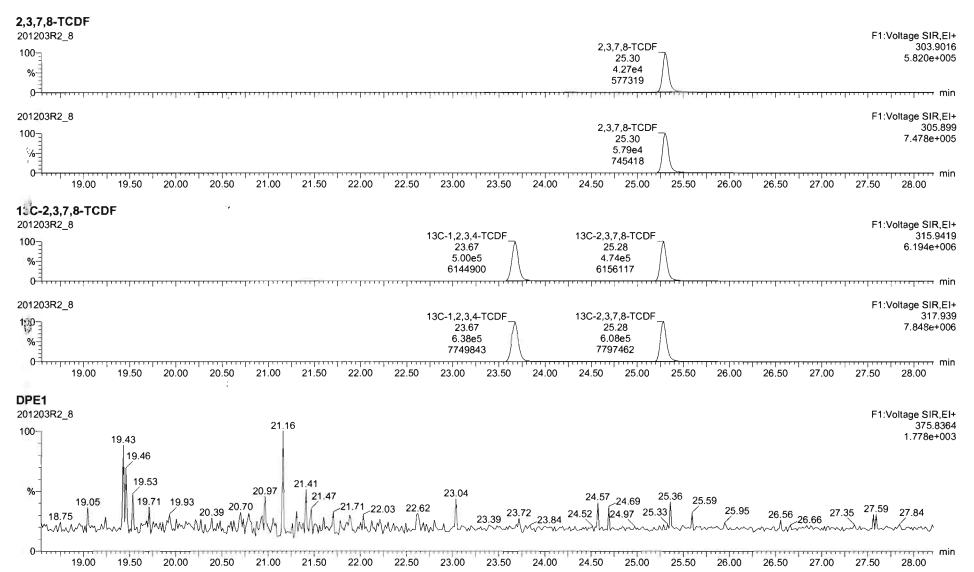
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Friday, December 04, 2020 11:47:08 Pacific Standard Time Friday, December 04, 2020 11:48:25 Pacific Standard Time

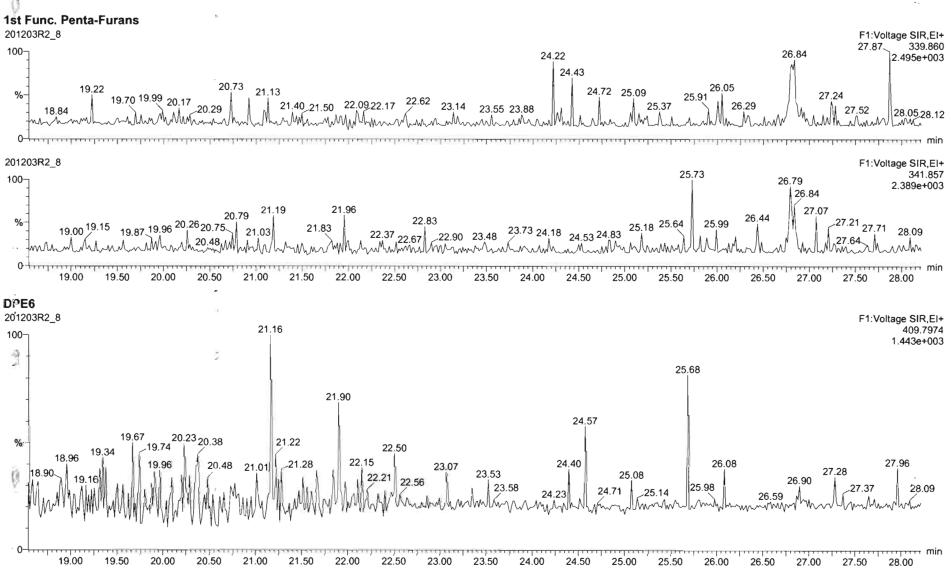


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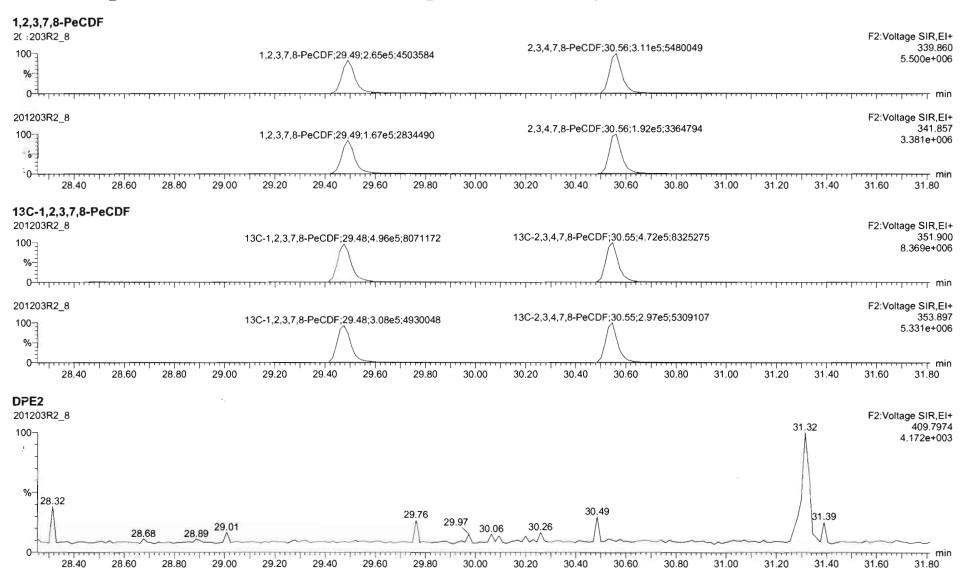
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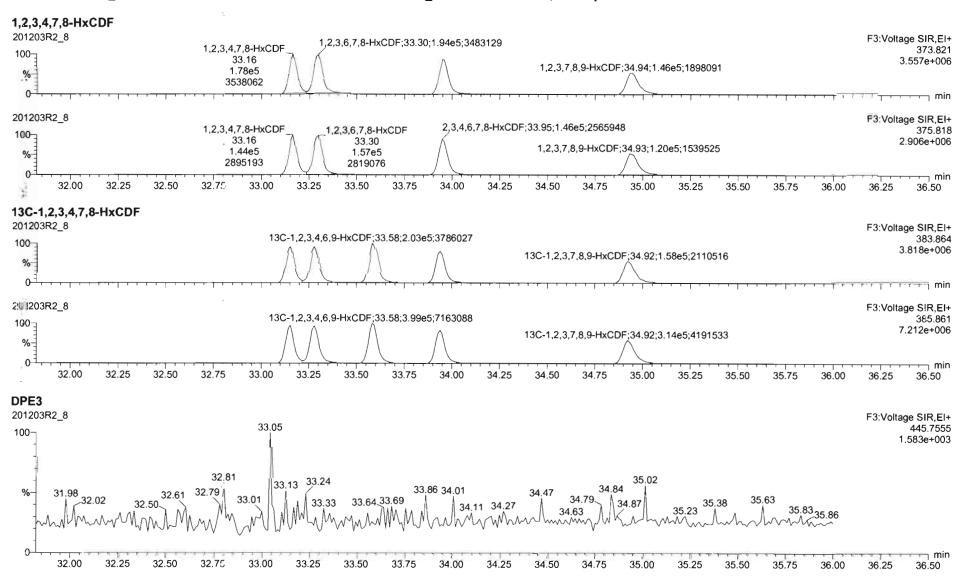
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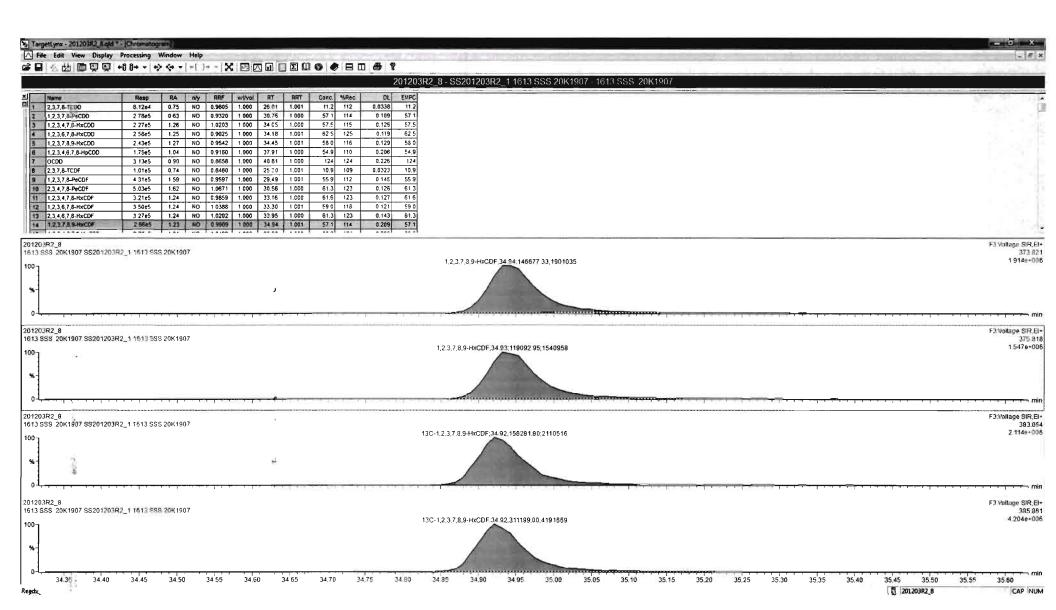


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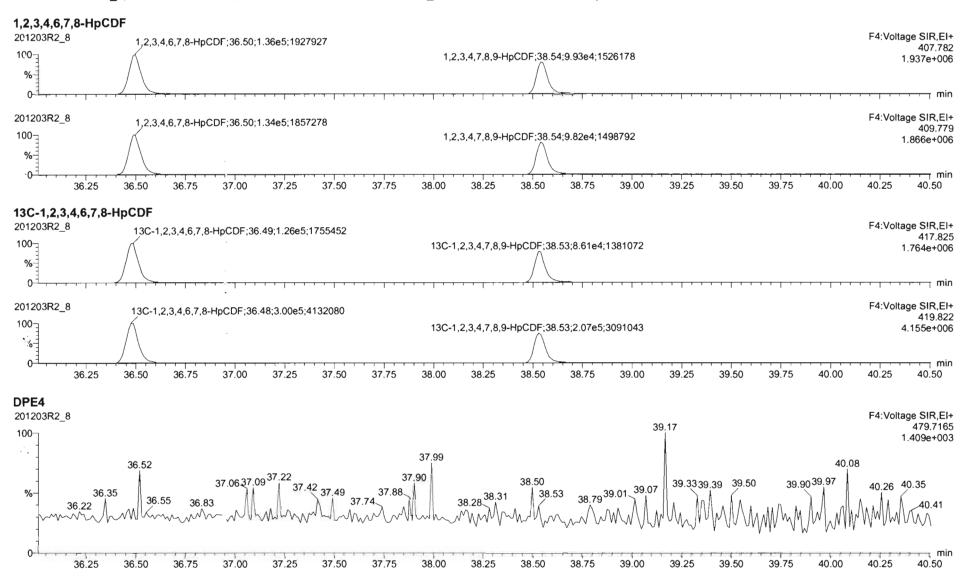


Work Order 2002493 Page 731 of 734

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Last Altered: Printed:

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Quantify Sample Report

MassLynx 4.1 SCN815

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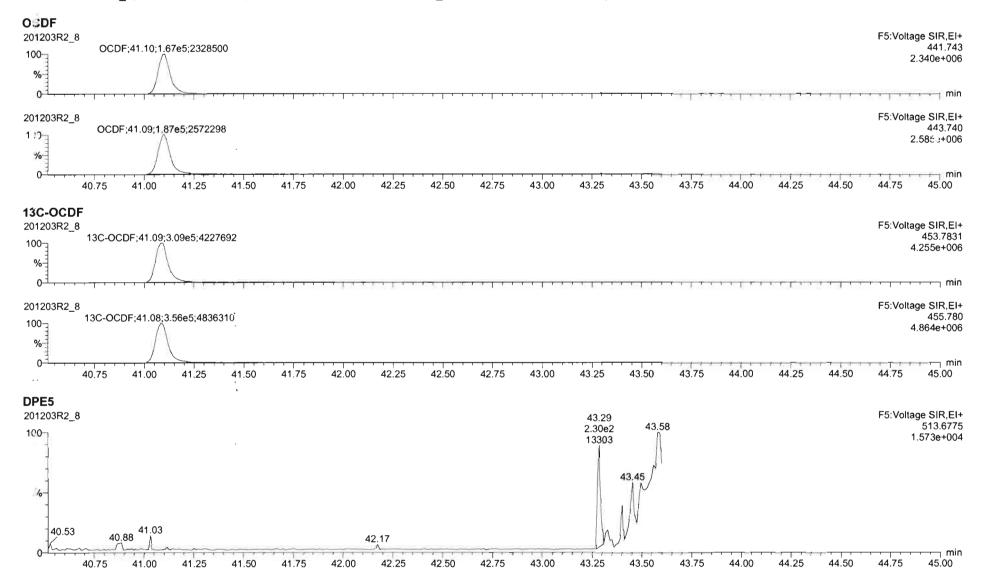
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Name: 201203R2_8, Date: 03-Dec-2020, Time: 16:09:07, ID: SS201203R2_1 1613 SSS 20K1907, Description: 1613 SSS 20K1907



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Dataset: U:\VG12.PRO\Results\201203R2\201203R2_8.qld

Last Altered: Friday, December 04, 2020 11:47:08 Pacific Standard Time Printed: Friday, December 04, 2020 11:48:25 Pacific Standard Time

