

Date : 16-MAY-2017 18:52

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-01

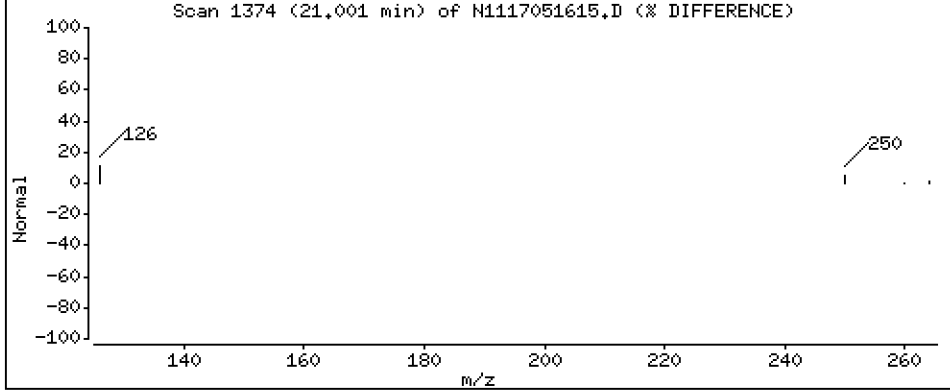
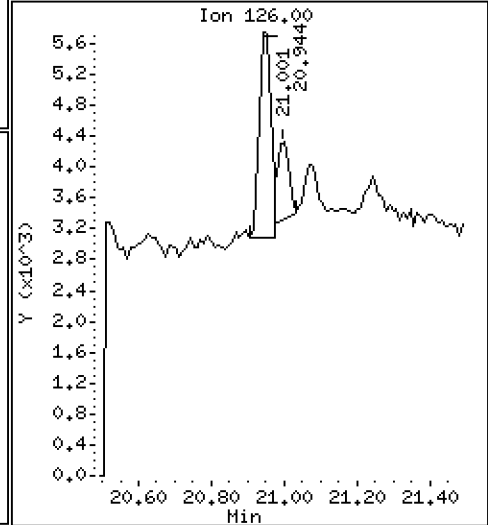
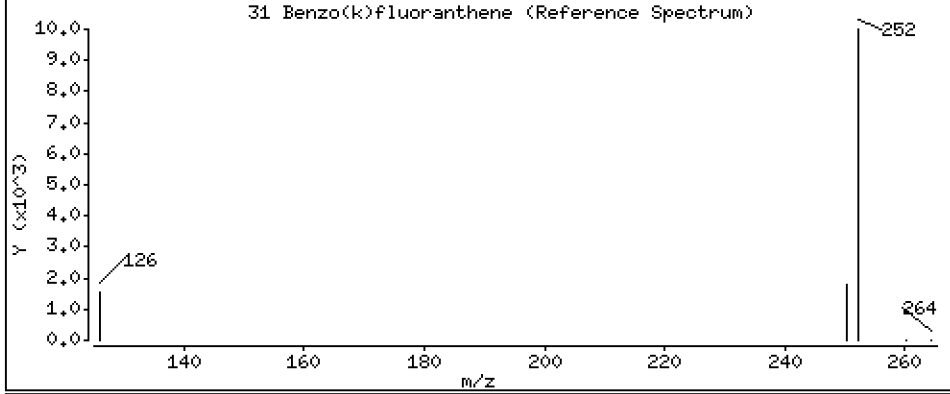
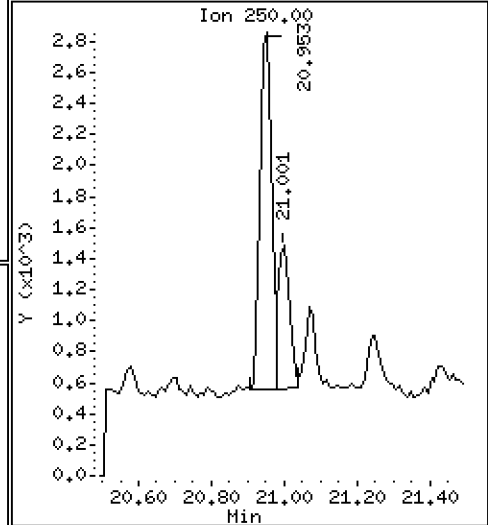
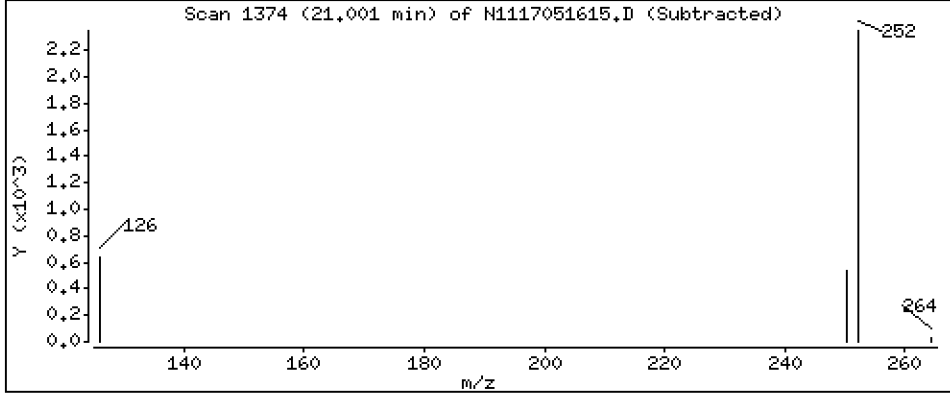
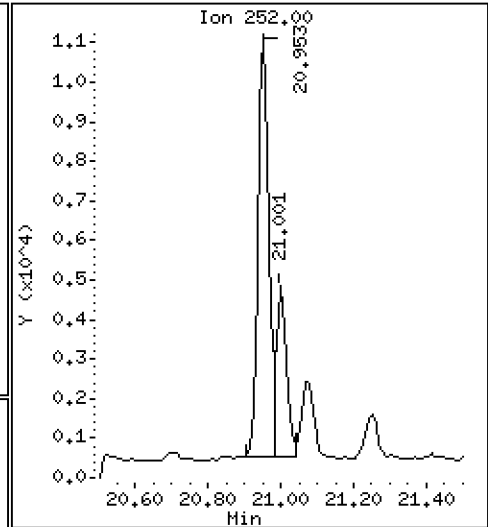
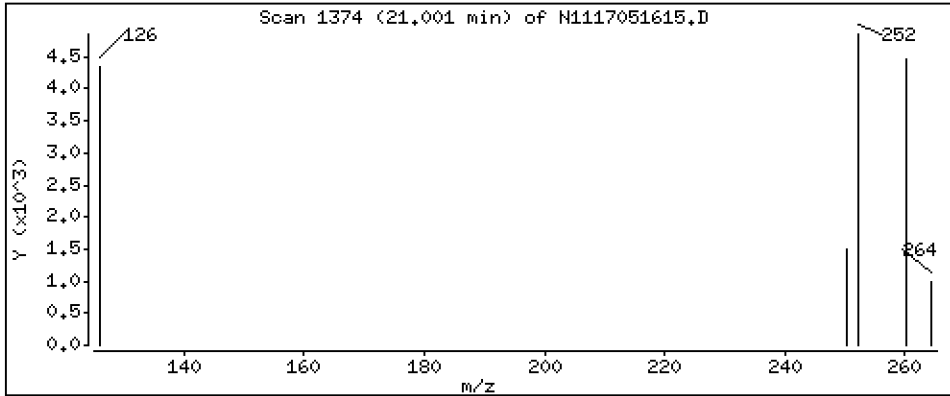
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 Benzo(k)fluoranthene

Concentration: 6,22 ng/mL



Date : 16-MAY-2017 18:52

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-01

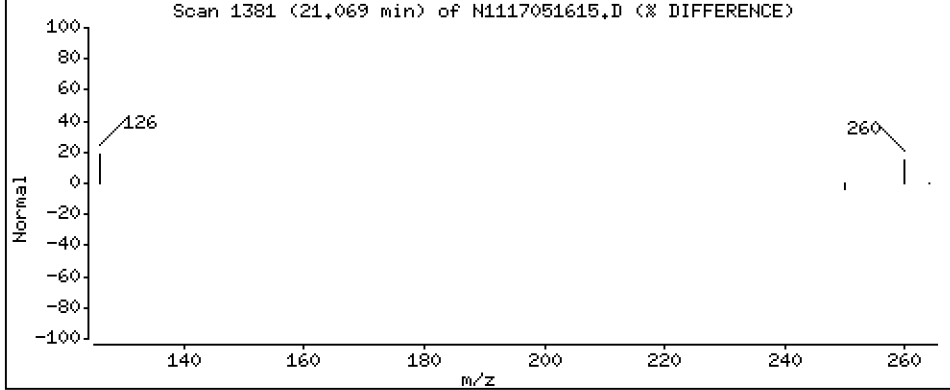
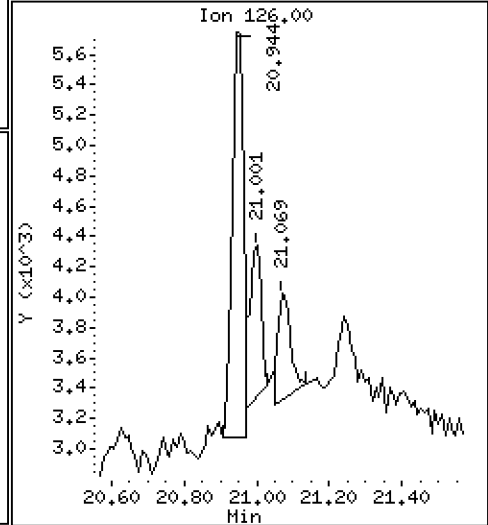
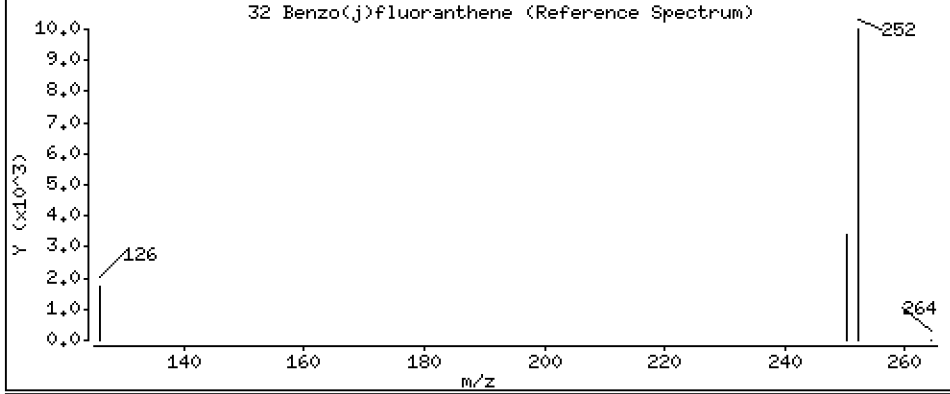
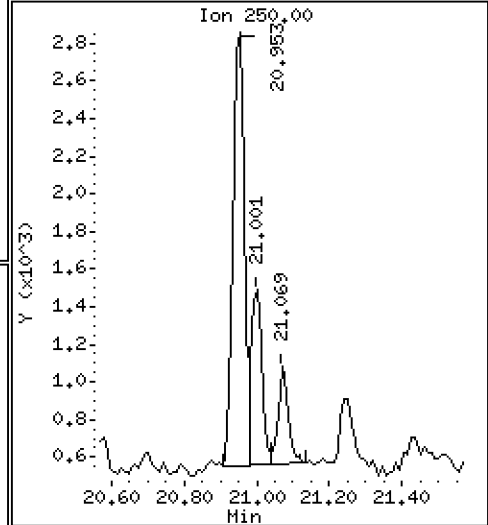
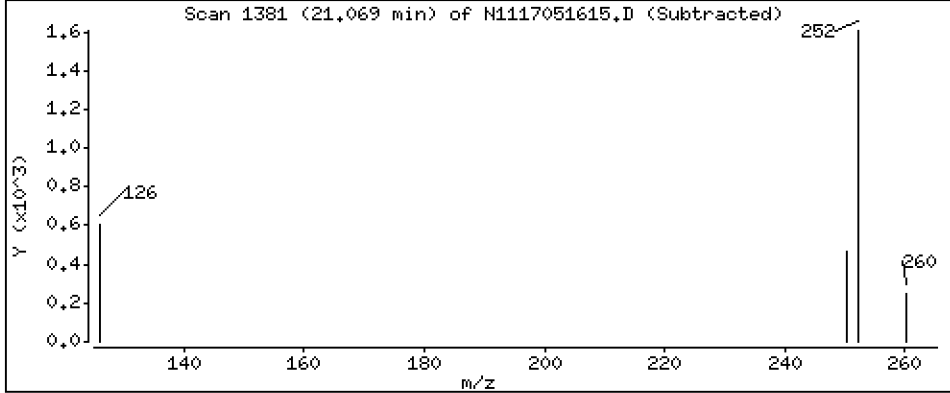
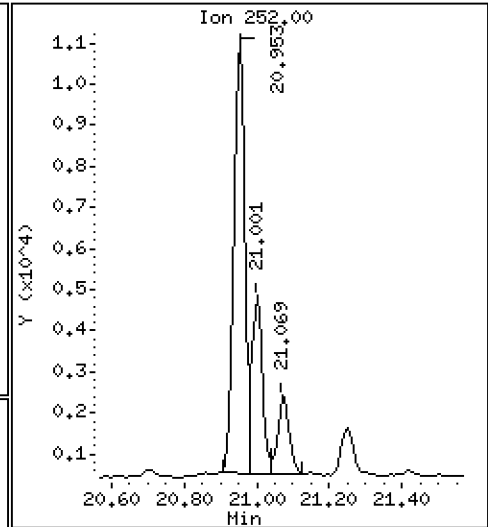
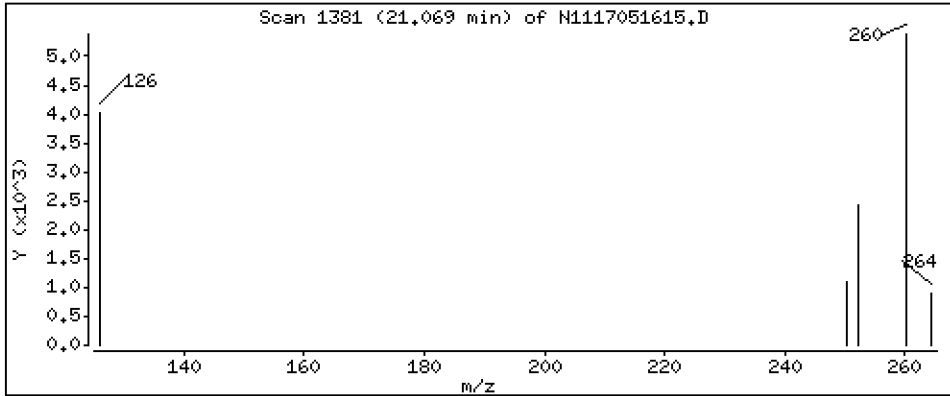
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

32 Benzo(j)fluoranthene

Concentration: 3,16 ng/mL



Date : 16-MAY-2017 18:52

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-01

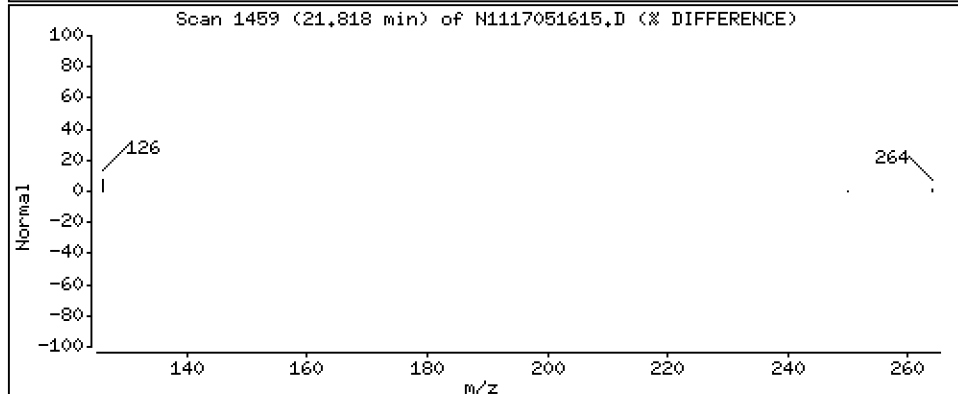
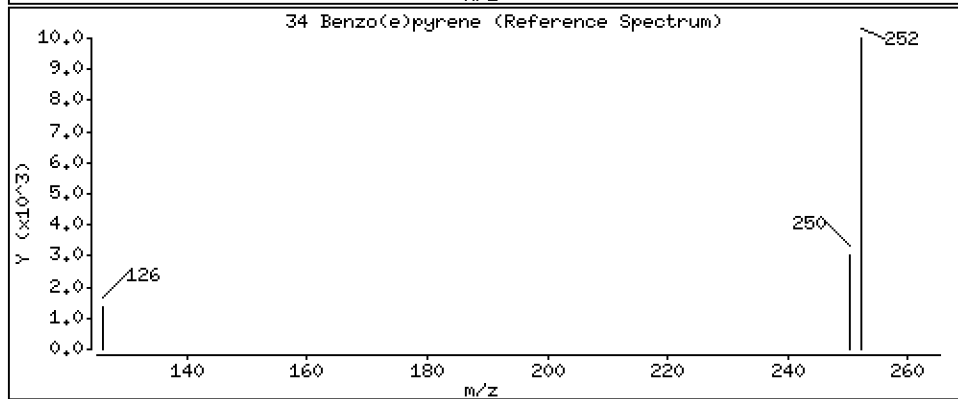
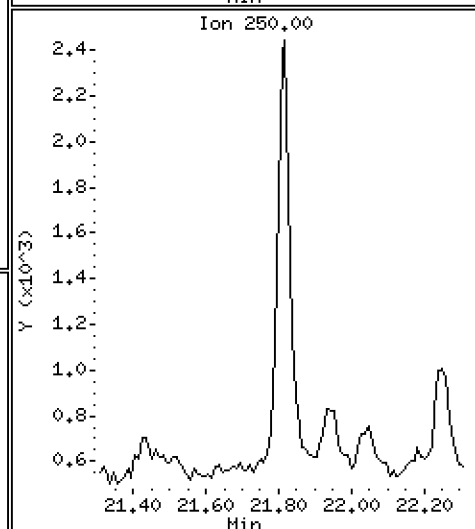
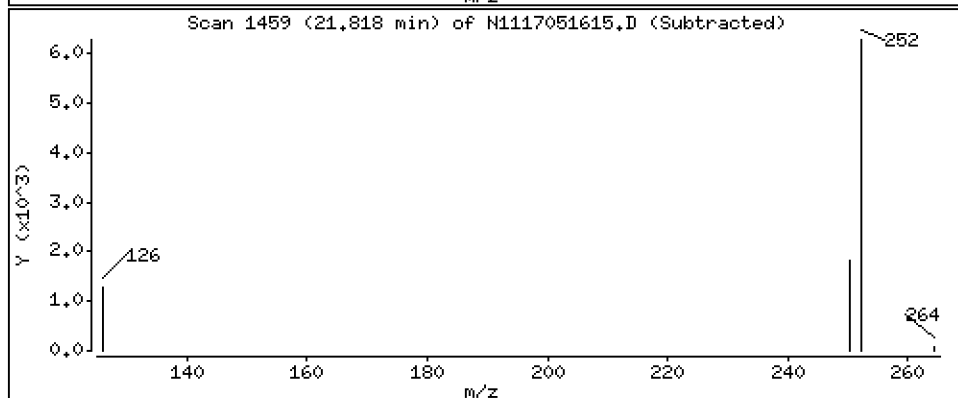
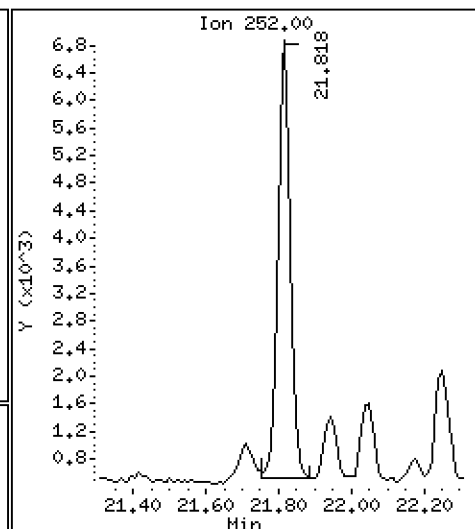
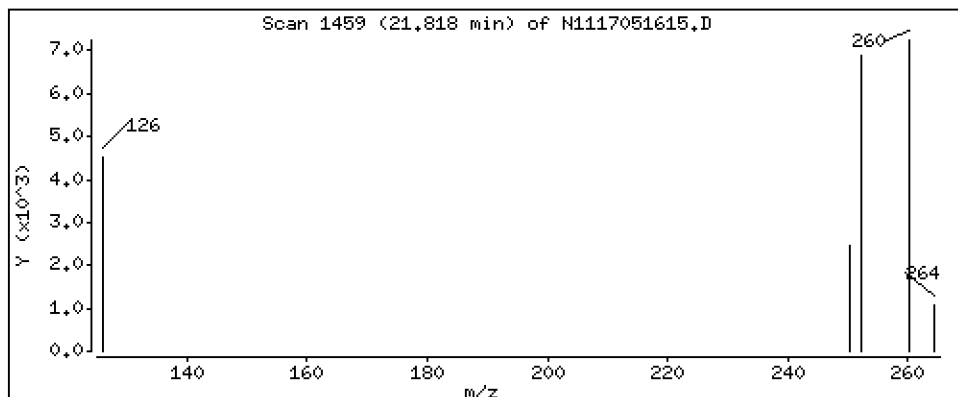
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

34 Benzo(e)pyrene

Concentration: 11,2 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170516.b\N1117051615.D
 Lab Smp Id: 17E0012-01
 Inj Date : 16-MAY-2017 18:52 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : 17E0012-01
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20170516.b\LOWSIM.m
 Meth Date : 17-May-2017 08:15 nt11.i Quant Type: ISTD
 Cal Date : 05-MAY-2017 14:47 Cal File: 17050508.D
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: allpna.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		8.491	8.500	(1.000)	479195	200.000	
2 Naphthalene	128		8.527	8.536	(1.004)	19325	7.50405	7.50
3 Benzo(b)thiophene	134		Compound Not Detected.					
\$ 4 2-Methylnaphthalene-d10	152		9.477	9.477	(1.116)	357285	173.987	174
5 2-Methylnaphthalene	142		9.529	9.540	(1.122)	13144	5.53349	5.53
6 1-Methylnaphthalene	142		9.792	9.792	(1.153)	6939	3.02071	3.02
7 2-Chloronaphthalene	162		Compound Not Detected.					
8 Biphenyl	154		Compound Not Detected.					
9 2,6-Dimethylnaphthalene	156		Compound Not Detected.					
10 Acenaphthylene	152		Compound Not Detected.					
* 11 Acenaphthene-d10	164		11.528	11.528	(1.000)	199541	200.000	
12 Acenaphthene	153		11.591	11.591	(1.005)	4827	3.15618	3.16 (M)
13 Dibenzofuran	168		11.797	11.797	(1.023)	7945	3.76521	3.77
14 2,3,5-Trimethylnaphthalene	170		Compound Not Detected.					
\$ 15 Fluorene-d10	174		Compound Not Detected.					
16 Fluorene	166		12.429	12.429	(1.078)	8112	4.92973	4.93
17 Dibenzothiophene	184		Compound Not Detected.					
* 18 Phenanthrene-d10	188		14.220	14.220	(1.000)	317212	200.000	
19 Phenanthrene	178		14.262	14.262	(1.003)	50683	21.4637	21.5
\$ 20 Anthracene-d10	188		Compound Not Detected.					
21 Anthracene	178		14.325	14.325	(1.007)	12438	5.34657	5.35
22 Carbazole	167		Compound Not Detected.					
23 1-Methylphenanthrene	192		Compound Not Detected.					
\$ 24 Fluoranthene-d10	212		16.338	16.338	(1.149)	324650	216.494	216
25 Fluoranthene	202		16.367	16.367	(1.151)	158430	69.8156	69.8
26 Pyrene	202		16.876	16.876	(0.889)	71473	41.2613	41.3
27 Benzo(a)anthracene	228		18.892	18.892	(0.995)	18249	13.3938	13.4
* 28 Chrysene-d12	240		18.991	18.983	(1.000)	191337	200.000	
29 Chrysene	228		19.025	19.033	(1.002)	47705	33.9251	33.9
30 Benzo(b)fluoranthene	252		20.953	20.943	(0.945)	22406	15.0554	15.1
31 Benzo(k)fluoranthene	252		21.001	21.001	(0.947)	9179	6.22156	6.22
32 Benzo(j)fluoranthene	252		21.068	21.068	(0.950)	4372	3.16270	3.16
\$ 33 Benzo(e)pyrene-d12	264		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
							ON-COLUMN (ng/mL)	FINAL (ng/mL)	
34 Benzo(e)pyrene	252		21.818	21.808	(0.984)	15468	11.1806	11.2	
35 Benzo(a)pyrene	252		Compound Not Detected.						
* 36 Perylene-d12	264		22.173	22.173	(1.000)	238167	200.000		
37 Perylene	252		Compound Not Detected.						
§ 38 Dibenzo(a,h)anthracene-d14	292		25.016	25.016	(1.128)	207331	233.373	233	
39 Dibenzo(a,h)anthracene	278		Compound Not Detected.						
40 Indeno(1,2,3-cd)pyrene	276		Compound Not Detected.						
41 Benzo(g,h,i)perylene	276		Compound Not Detected.						

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 16-MAY-2017
 Lab File ID: N1117051615.D Calibration Time: 10:47
 Lab Smp Id: 17E0012-01
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20170516.b\LOWSIM.m
 Misc Info:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	371325	185663	742650	479195	29.05
11 Acenaphthene-d10	154428	77214	308856	199541	29.21
18 Phenanthrene-d10	256956	128478	513912	317212	23.45
28 Chrysene-d12	208629	104315	417258	191337	-8.29
36 Perylene-d12	225431	112716	450862	238167	5.65

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	8.50	8.00	9.00	8.49	-0.11
11 Acenaphthene-d10	11.53	11.03	12.03	11.53	0.00
18 Phenanthrene-d10	14.22	13.72	14.72	14.22	0.00
28 Chrysene-d12	18.98	18.48	19.48	18.99	0.04
36 Perylene-d12	22.17	21.67	22.67	22.17	0.00

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

REVIEW SUMMARY FOR FILE - N1117051615.D

Lab ID: 17E0012-01
nt11.i, 20170516.b\LOWSIM.m, 16-MAY-2017 18:52

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT CCV RRT DELTA COMPOUND

NONE

On Column LOD for nt11.i, 20170516.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 6.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

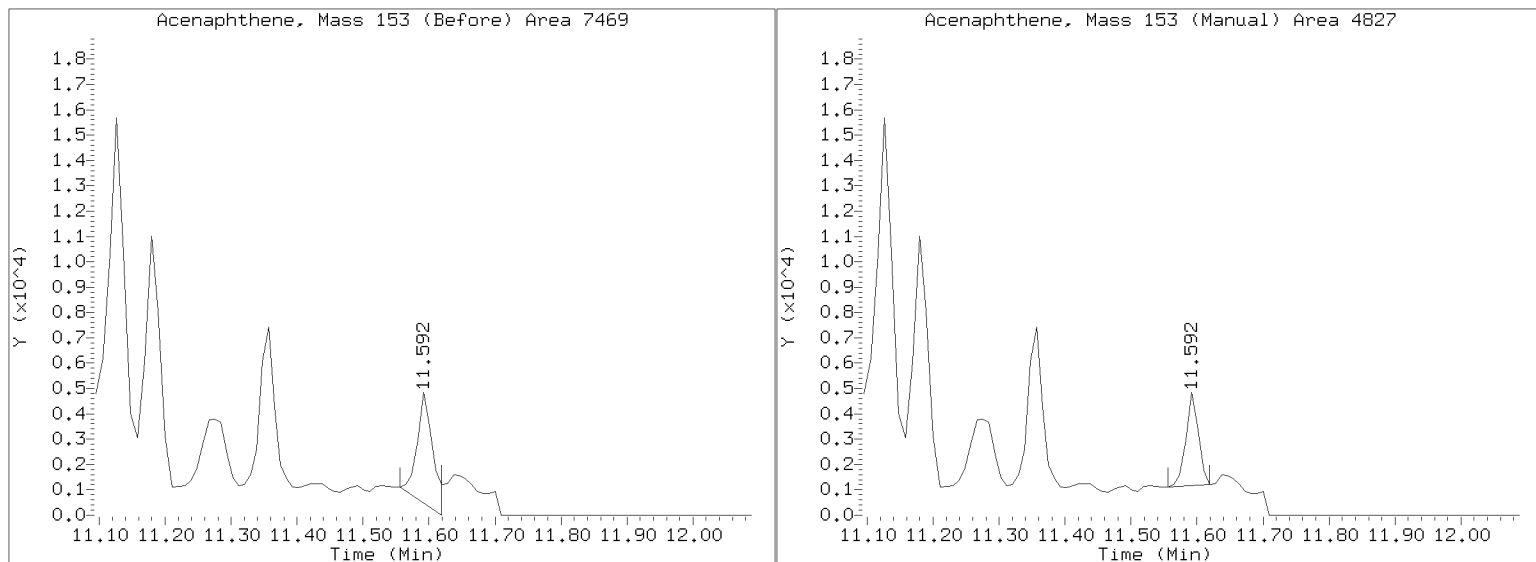
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20170516.b/N1117051615.D

Injection Date: 16-MAY-2017 18:52

Lab ID:17E0012-01 Client ID:

Report Date: 05/17/2017 08:15





Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>17E0012</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Port Gamble Shellfish Monitoring</u>
Matrix:	<u>Tissue</u>	Laboratory ID:	<u>17E0012-02</u>
Sampled:	<u>04/27/17 12:45</u>	Prepared:	<u>05/09/17 13:50</u>
Solids:		Preparation:	<u>EPA 3550C-Mod (Ultrasonic)</u>
Batch:	<u>BFE0160</u>	Sequence:	<u>SFE0208</u>
Instrument:	<u>NT11</u>	Column:	<u>RXi-17Sil-MS</u>
		File ID:	<u>N1117051616.D</u>
		Analyzed:	<u>05/16/17 19:28</u>
		Initial/Final:	<u>10.31 g / 0.5 mL</u>
		Calibration:	<u>AE00020</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.58	U	0.48	0.58
91-57-6	2-Methylnaphthalene	1	0.48	U	0.48	0.48
208-96-8	Acenaphthylene	1	0.48	U	0.48	0.48
83-32-9	Acenaphthene	1	0.48	U	0.48	0.48
86-73-7	Fluorene	1	0.48	U	0.48	0.48
85-01-8	Phenanthrene	1	0.48	U	0.48	0.48
120-12-7	Anthracene	1	0.48	U	0.48	0.48
206-44-0	Fluoranthene	1	0.64		0.48	0.48
129-00-0	Pyrene	1	0.48	U	0.48	0.48
56-55-3	Benzo(a)anthracene	1	0.48	U	0.48	0.48
218-01-9	Chrysene	1	0.48	U	0.48	0.48
205-99-2	Benzo(b)fluoranthene	1	0.48	U	0.48	0.48
207-08-9	Benzo(k)fluoranthene	1	0.48	U	0.48	0.48
50-32-8	Benzo(a)pyrene	1	0.48	U	0.48	0.48
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.48	U	0.48	0.48
53-70-3	Dibenzo(a,h)anthracene	1	0.48	U	0.48	0.48
191-24-2	Benzo(g,h,i)perylene	1	0.48	U	0.48	0.48
1985-5-0	Perylene	1	0.48	U	0.48	0.48
197-97-2	Benzo(e)pyrene	1	0.48	U	0.48	0.48

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.549	8.20	56.4	30 - 160	
Dibenzo[a,h]anthracene-d14	14.549	10.3	71.0	30 - 160	
Fluoranthene-d10	14.549	10.6	72.6	30 - 160	

Data File: \\target\share\chem3\nt11.1\20170516.6\NH117051616.D

Date: 16-May-2017 19:28

Client ID:

Sample Info: 17E0012-02

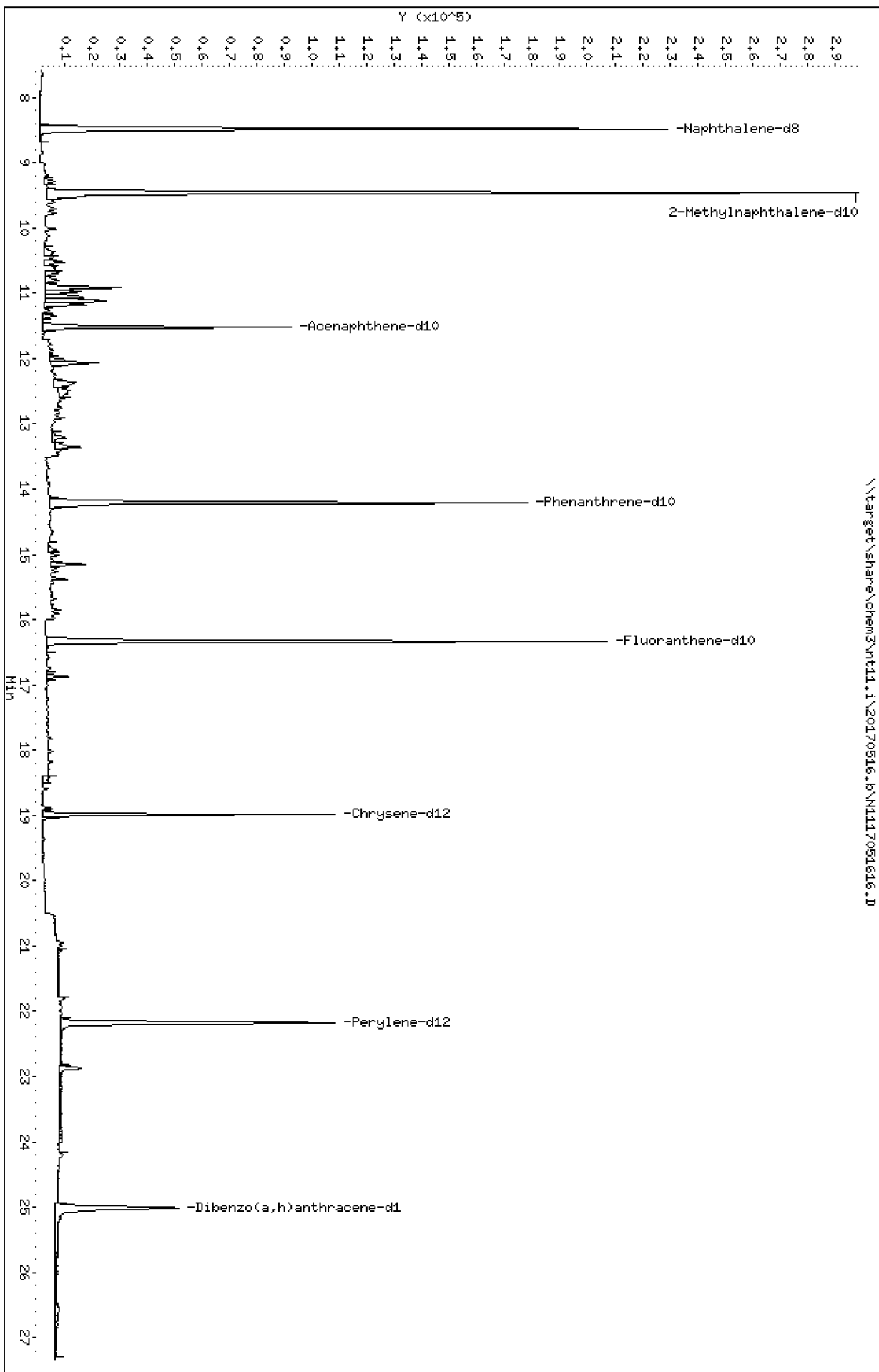
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

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Date : 16-MAY-2017 19:28

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-02

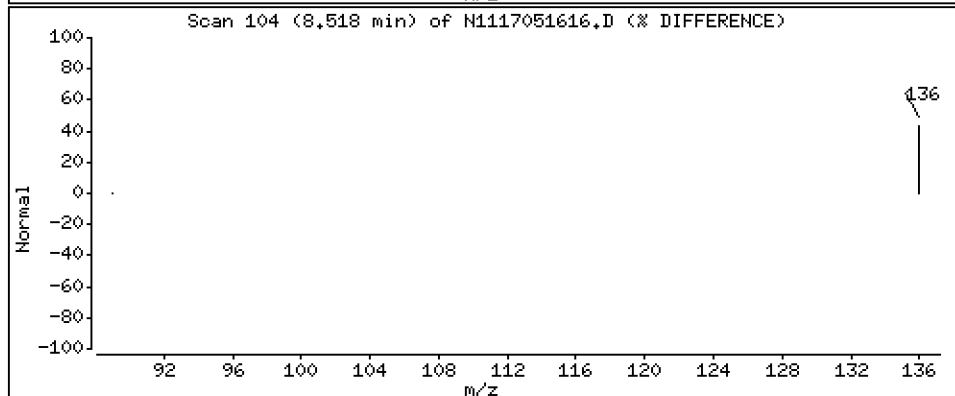
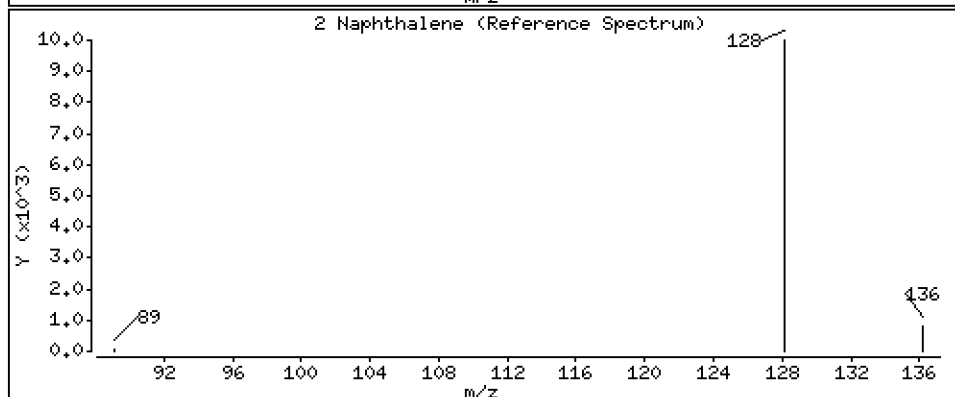
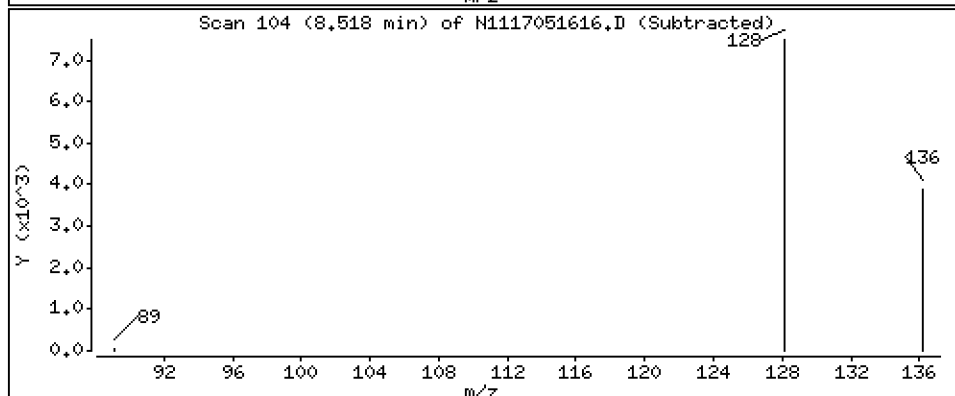
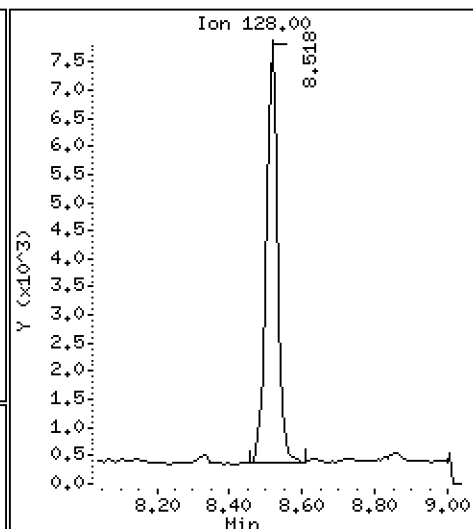
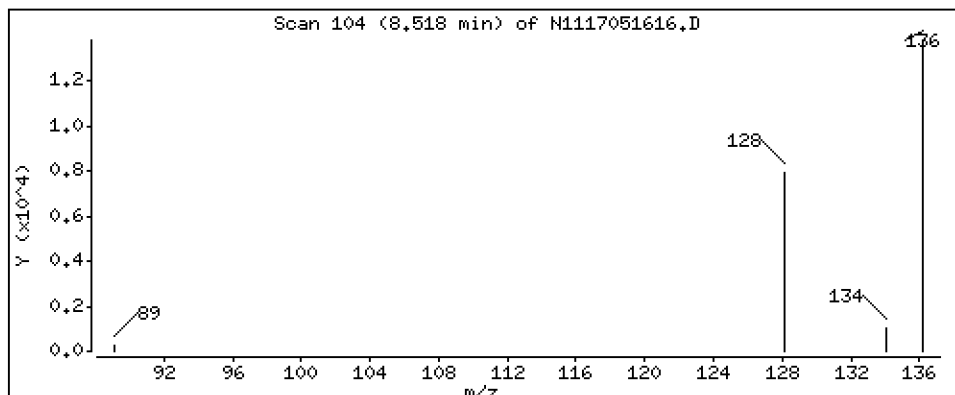
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 6,46 ng/mL



Date : 16-MAY-2017 19:28

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-02

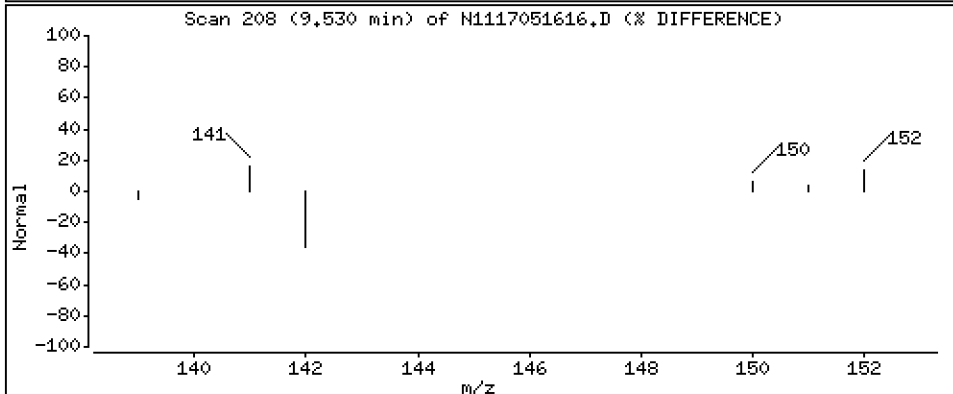
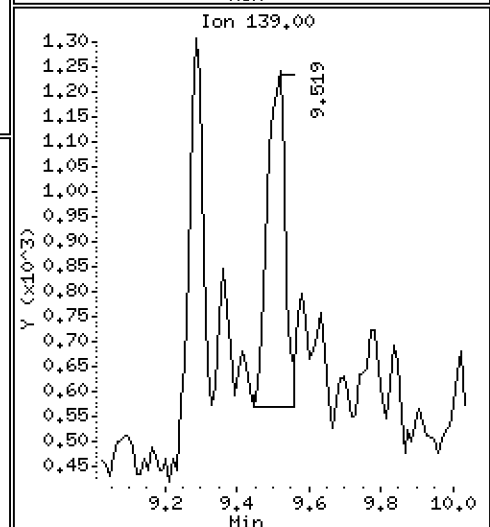
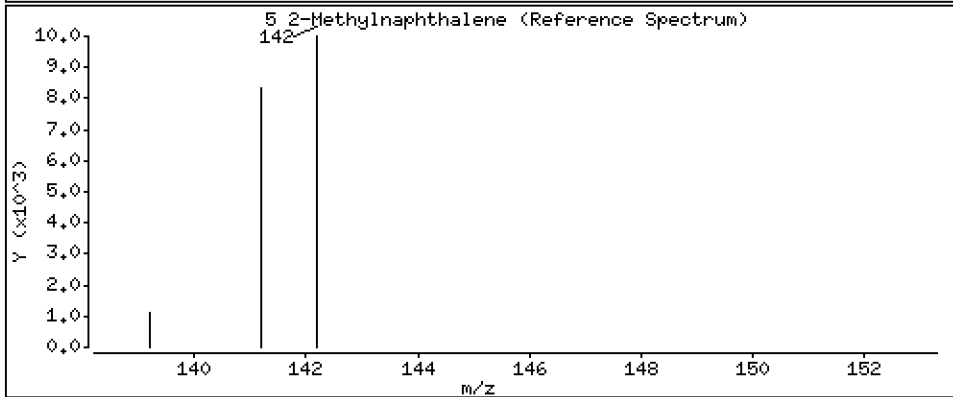
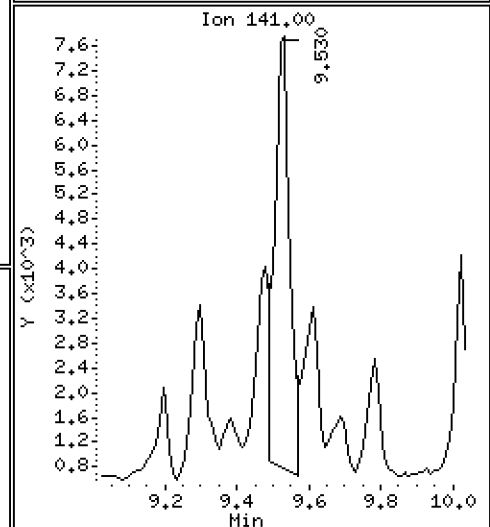
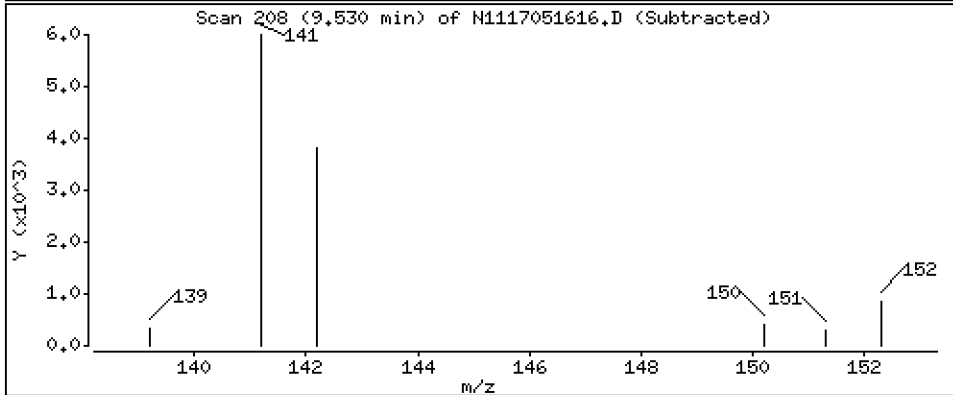
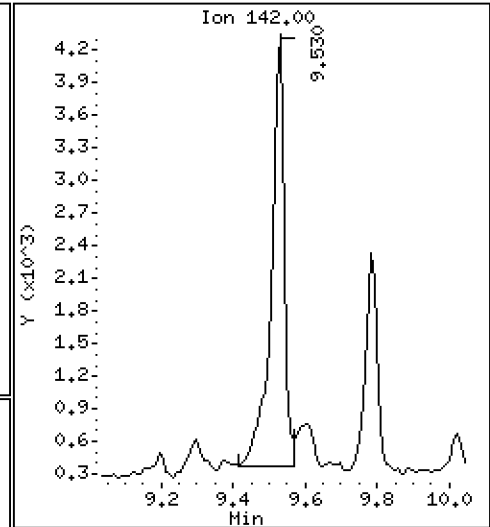
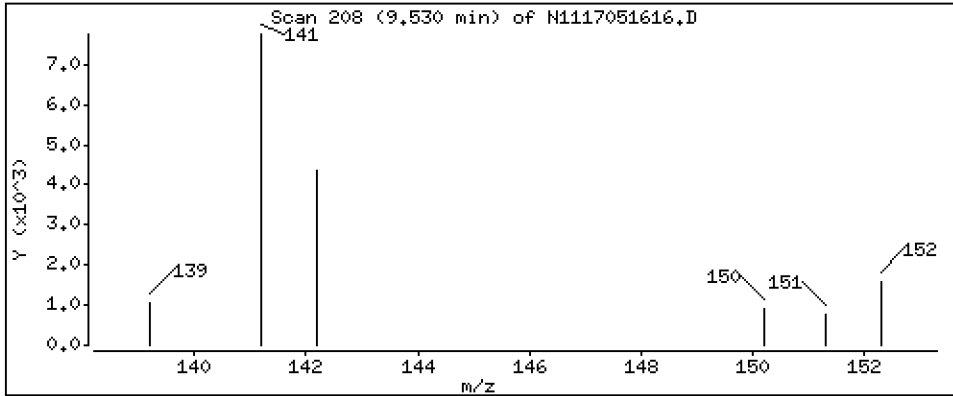
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

5-2-Methylnaphthalene

Concentration: 4.58 ng/mL



Date : 16-MAY-2017 19:28

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-02

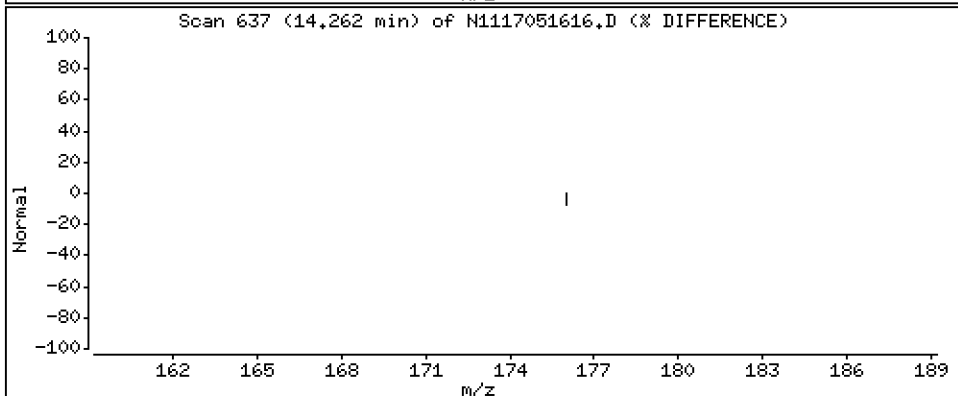
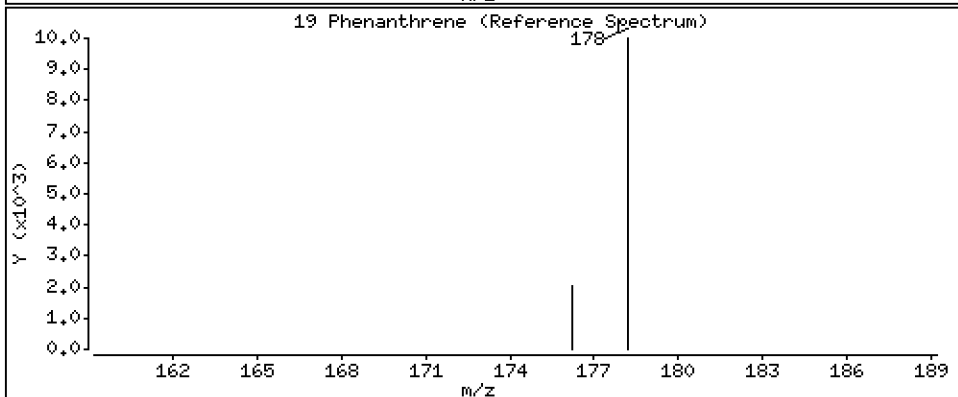
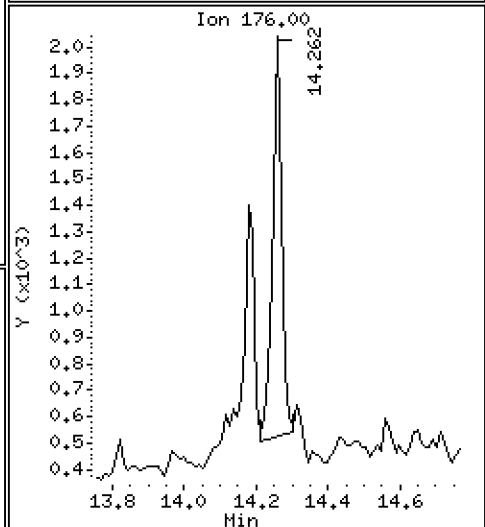
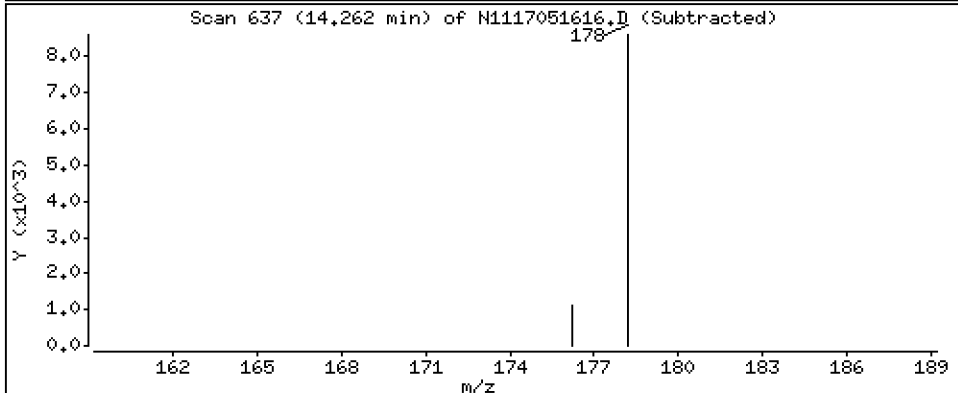
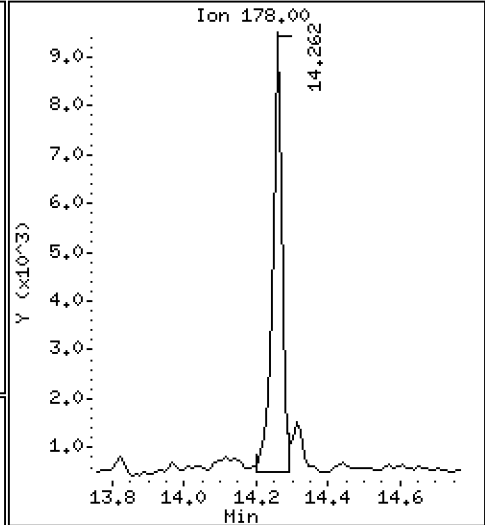
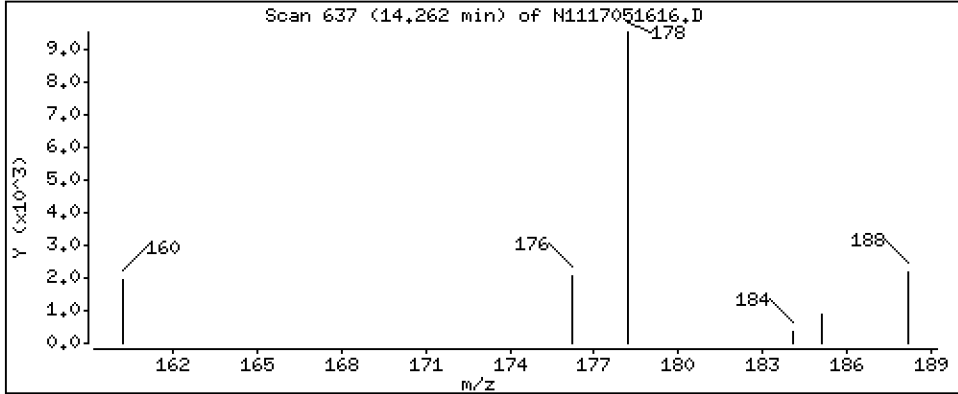
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

Concentration: 8,20 ng/mL

19 Phenanthrene



Date : 16-MAY-2017 19:28

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-02

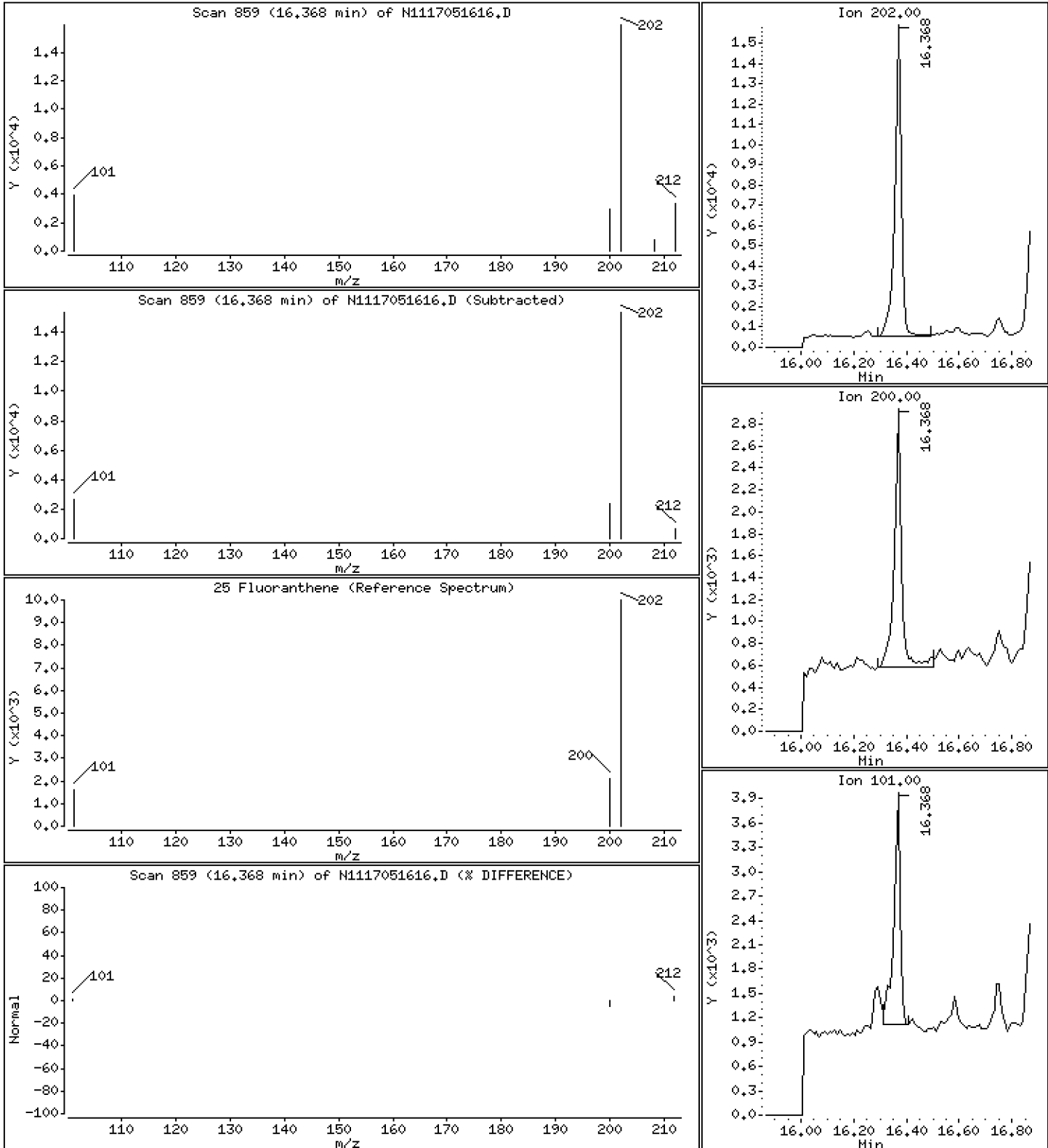
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

25 Fluoranthene

Concentration: 13,1 ng/mL



Date : 16-MAY-2017 19:28

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-02

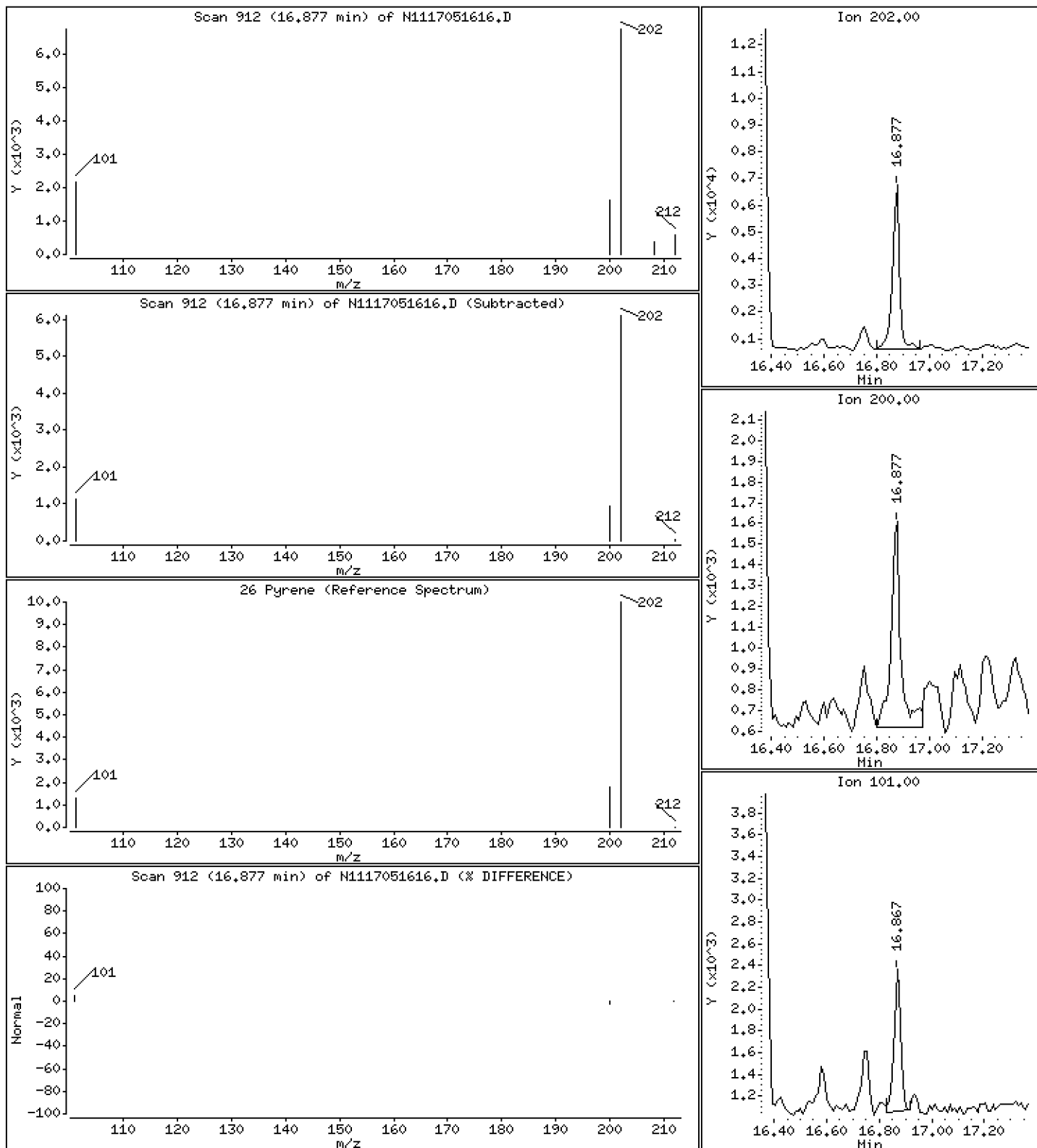
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Pyrene

Concentration: 7,44 ng/mL



Date : 16-MAY-2017 19:28

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-02

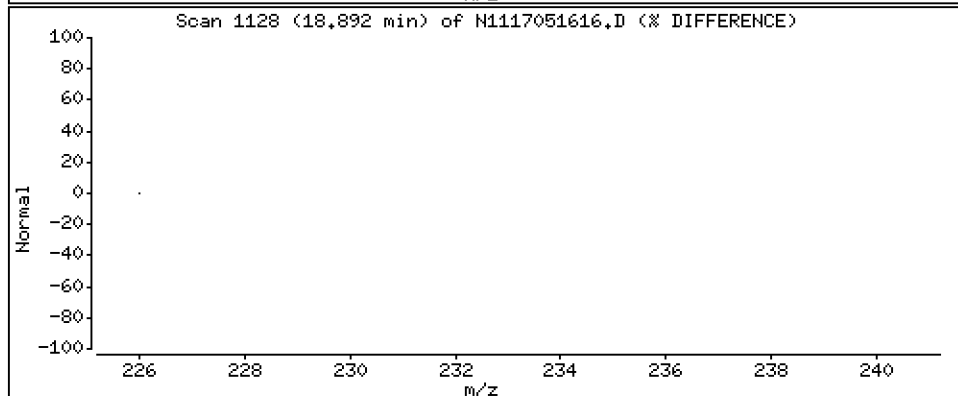
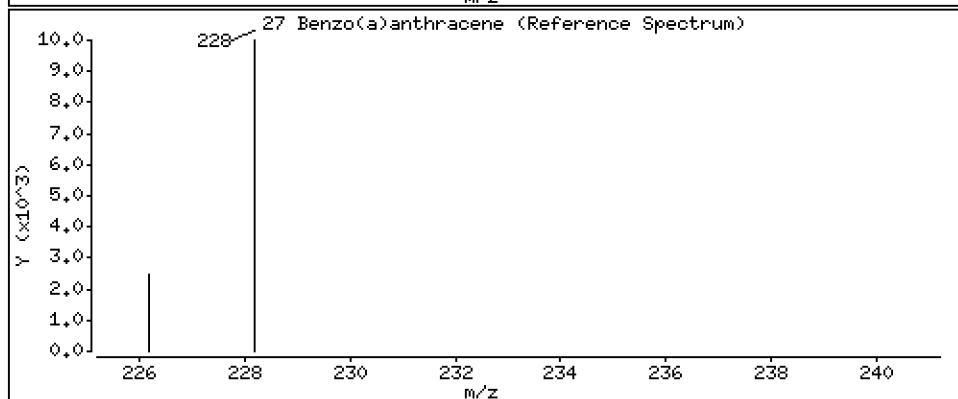
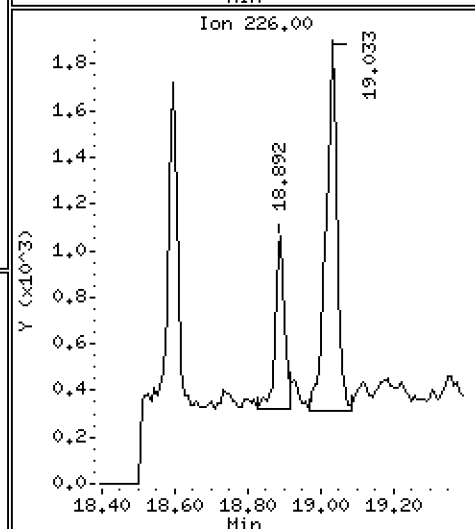
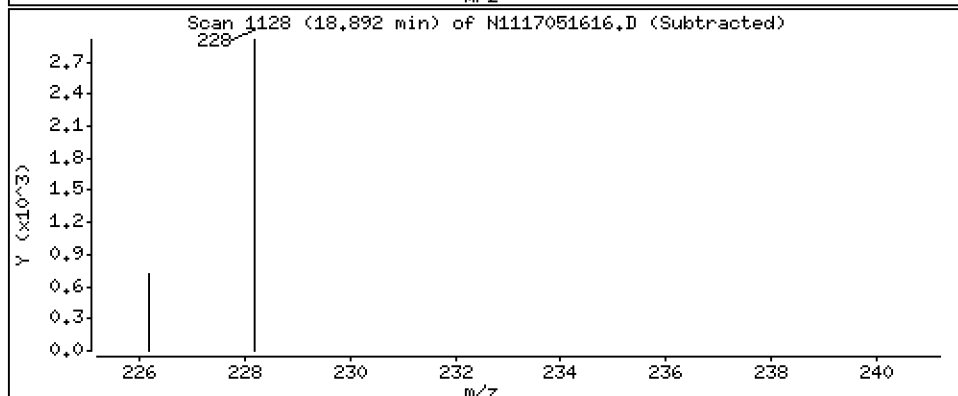
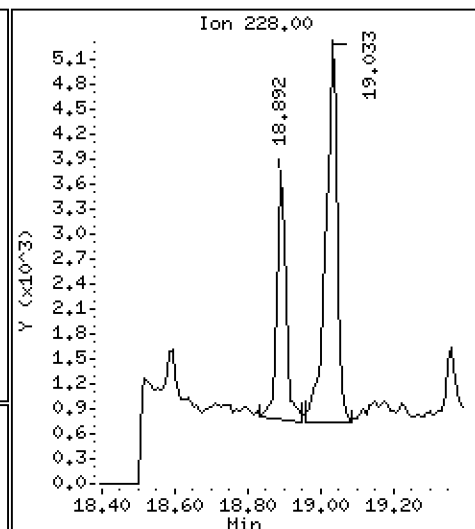
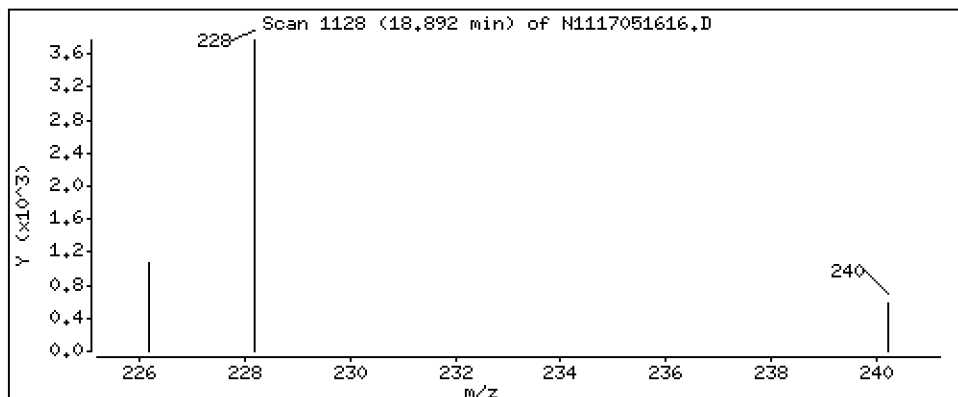
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)anthracene

Concentration: 4,09 ng/mL



Date : 16-MAY-2017 19:28

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-02

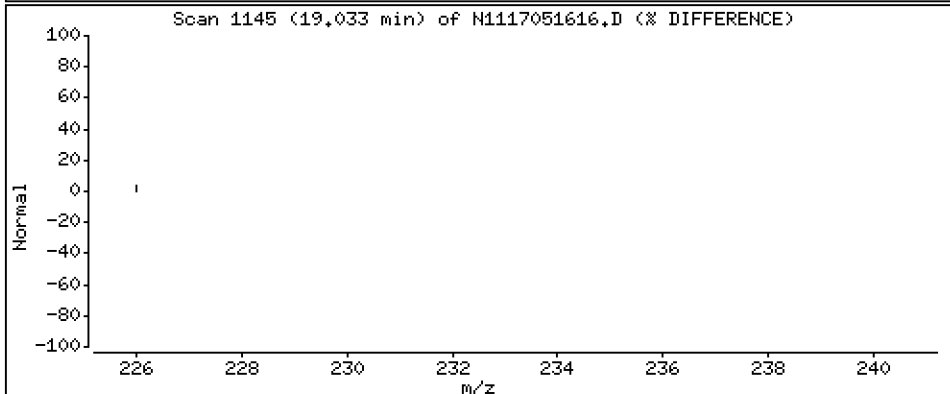
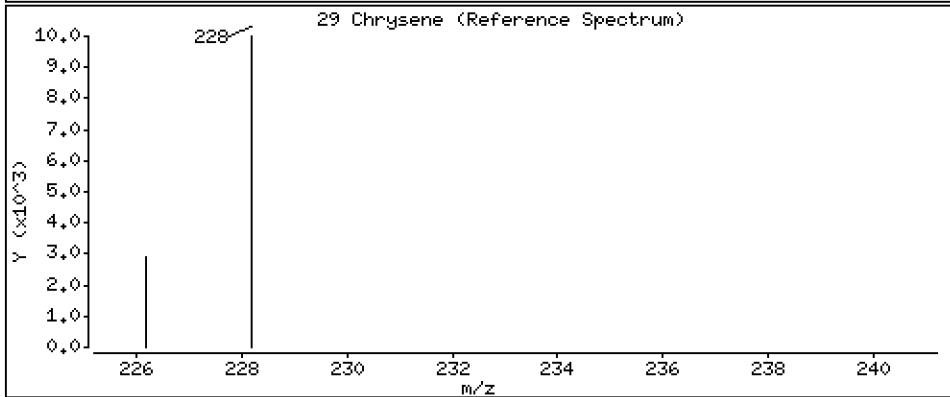
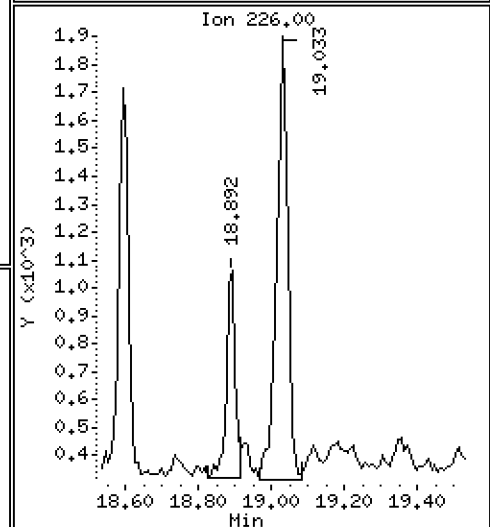
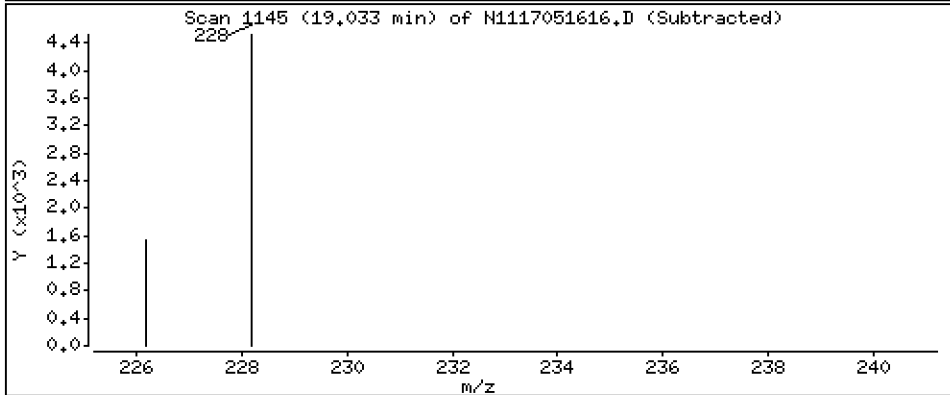
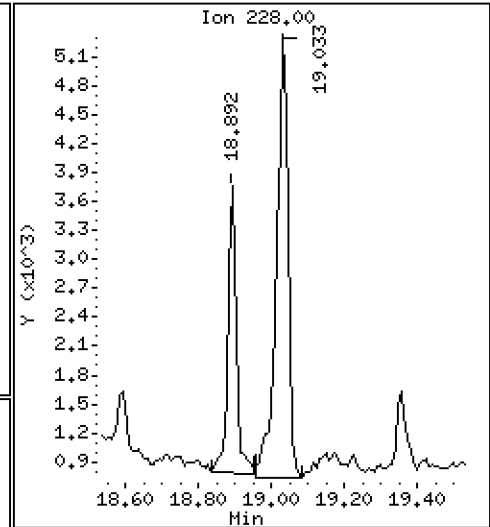
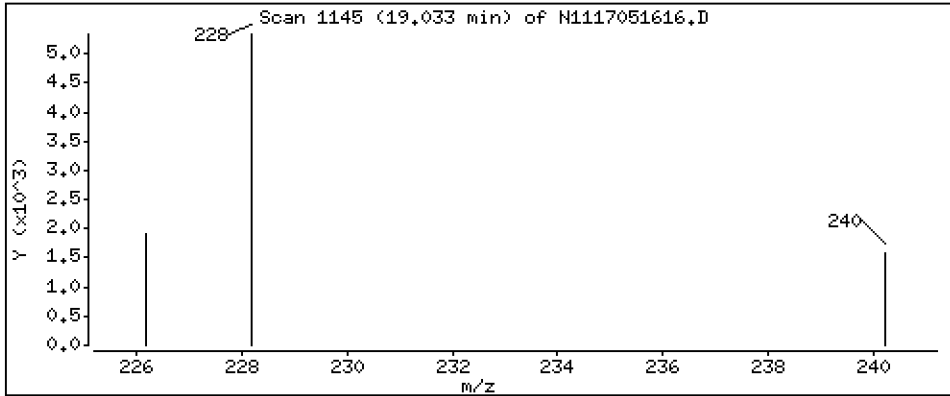
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 Chrysene

Concentration: 7,78 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170516.b\N1117051616.D
 Lab Smp Id: 17E0012-02
 Inj Date : 16-MAY-2017 19:28 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : 17E0012-02
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20170516.b\LOWSIM.m
 Meth Date : 17-May-2017 08:15 nt11.i Quant Type: ISTD
 Cal Date : 05-MAY-2017 14:47 Cal File: 17050508.D
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: allpna.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		8.481	8.500	(1.000)	455728	200.000	
2 Naphthalene	128		8.518	8.536	(1.004)	15824	6.46099	6.46
3 Benzo(b)thiophene	134		Compound Not Detected.					
\$ 4 2-Methylnaphthalene-d10	152		9.466	9.477	(1.116)	330189	169.071	169
5 2-Methylnaphthalene	142		9.529	9.540	(1.124)	10338	4.57630	4.58
6 1-Methylnaphthalene	142		Compound Not Detected.					
7 2-Chloronaphthalene	162		Compound Not Detected.					
8 Biphenyl	154		Compound Not Detected.					
9 2,6-Dimethylnaphthalene	156		Compound Not Detected.					
10 Acenaphthylene	152		Compound Not Detected.					
* 11 Acenaphthene-d10	164		11.519	11.528	(1.000)	191818	200.000	
12 Acenaphthene	153		Compound Not Detected.					
13 Dibenzofuran	168		Compound Not Detected.					
14 2,3,5-Trimethylnaphthalene	170		Compound Not Detected.					
\$ 15 Fluorene-d10	174		Compound Not Detected.					
16 Fluorene	166		Compound Not Detected.					
17 Dibenzothiophene	184		Compound Not Detected.					
* 18 Phenanthrene-d10	188		14.220	14.220	(1.000)	301258	200.000	
19 Phenanthrene	178		14.262	14.262	(1.003)	18391	8.20083	8.20
\$ 20 Anthracene-d10	188		Compound Not Detected.					
21 Anthracene	178		Compound Not Detected.					
22 Carbazole	167		Compound Not Detected.					
23 1-Methylphenanthrene	192		Compound Not Detected.					
\$ 24 Fluoranthene-d10	212		16.338	16.338	(1.149)	310094	217.738	218
25 Fluoranthene	202		16.367	16.367	(1.151)	28276	13.1203	13.1
26 Pyrene	202		16.876	16.876	(0.889)	11941	7.44467	7.44
27 Benzo(a)anthracene	228		18.892	18.892	(0.995)	5158	4.08836	4.09
* 28 Chrysene-d12	240		18.983	18.983	(1.000)	177172	200.000	
29 Chrysene	228		19.033	19.033	(1.003)	10134	7.78291	7.78
30 Benzo(b)fluoranthene	252		Compound Not Detected.					
31 Benzo(k)fluoranthene	252		Compound Not Detected.					
32 Benzo(j)fluoranthene	252		Compound Not Detected.					
\$ 33 Benzo(e)pyrene-d12	264		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
34 Benzo(e)pyrene	252							
35 Benzo(a)pyrene	252							
* 36 Perylene-d12	264		22.173	22.173	(1.000)	219426	200.000	
37 Perylene	252							
§ 38 Dibenzo(a,h)anthracene-d14	292		25.016	25.016	(1.128)	174402	213.074	213
39 Dibenzo(a,h)anthracene	278							
40 Indeno(1,2,3-cd)pyrene	276							
41 Benzo(g,h,i)perylene	276							

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 16-MAY-2017
 Lab File ID: N1117051616.D Calibration Time: 10:47
 Lab Smp Id: 17E0012-02
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20170516.b\LOWSIM.m
 Misc Info:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	371325	185663	742650	455728	22.73
11 Acenaphthene-d10	154428	77214	308856	191818	24.21
18 Phenanthrene-d10	256956	128478	513912	301258	17.24
28 Chrysene-d12	208629	104315	417258	177172	-15.08
36 Perylene-d12	225431	112716	450862	219426	-2.66

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	8.50	8.00	9.00	8.48	-0.21
11 Acenaphthene-d10	11.53	11.03	12.03	11.52	-0.08
18 Phenanthrene-d10	14.22	13.72	14.72	14.22	-0.00
28 Chrysene-d12	18.98	18.48	19.48	18.98	-0.00
36 Perylene-d12	22.17	21.67	22.67	22.17	-0.00

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

REVIEW SUMMARY FOR FILE - N1117051616.D

Lab ID: 17E0012-02
nt11.i, 20170516.b\LOWSIM.m, 16-MAY-2017 19:28

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT CCV RRT DELTA COMPOUND

NONE

On Column LOD for nt11.i, 20170516.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 6.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory: Analytical Resources, Inc. SDG: 17E0012
Client: Anchor QEA, LLC Project: Port Gamble Shellfish Monitoring
Matrix: Tissue Laboratory ID: 17E0012-03 File ID: N1117051617.D
Sampled: 04/27/17 13:30 Prepared: 05/09/17 13:50 Analyzed: 05/16/17 20:04
Solids: Preparation: EPA 3550C-Mod (Ultrasonic) Initial/Final: 10.05 g / 0.5 mL
Batch: BFE0160 Sequence: SFE0208 Calibration: AE00020
Instrument: NT11 Column: RXi-17Sil-MS

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.60	U	0.50	0.60
91-57-6	2-Methylnaphthalene	1	0.50	U	0.50	0.50
208-96-8	Acenaphthylene	1	0.50	U	0.50	0.50
83-32-9	Acenaphthene	1	0.50	U	0.50	0.50
86-73-7	Fluorene	1	0.50	U	0.50	0.50
85-01-8	Phenanthrene	1	0.79		0.50	0.50
120-12-7	Anthracene	1	0.50	U	0.50	0.50
206-44-0	Fluoranthene	1	1.36		0.50	0.50
129-00-0	Pyrene	1	0.93		0.50	0.50
56-55-3	Benzo(a)anthracene	1	0.50	U	0.50	0.50
218-01-9	Chrysene	1	0.50		0.50	0.50
205-99-2	Benzo(b)fluoranthene	1	0.50	U	0.50	0.50
207-08-9	Benzo(k)fluoranthene	1	0.50	U	0.50	0.50
50-32-8	Benzo(a)pyrene	1	0.50	U	0.50	0.50
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.50	U	0.50	0.50
53-70-3	Dibenzo(a,h)anthracene	1	0.50	U	0.50	0.50
191-24-2	Benzo(g,h,i)perylene	1	0.50	U	0.50	0.50
1985-5-0	Perylene	1	0.50	U	0.50	0.50
197-97-2	Benzo(e)pyrene	1	0.50	U	0.50	0.50

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.925	8.82	59.1	30 - 160	
Dibenzo[a,h]anthracene-d14	14.925	11.8	79.1	30 - 160	
Fluoranthene-d10	14.925	11.4	76.1	30 - 160	

Data File: \\target\share\chem3\nt11.1\20170516.6\N1117051617.D

Date: 16-May-2017 20:04

Client ID:

Sample Info: 17E0012-03

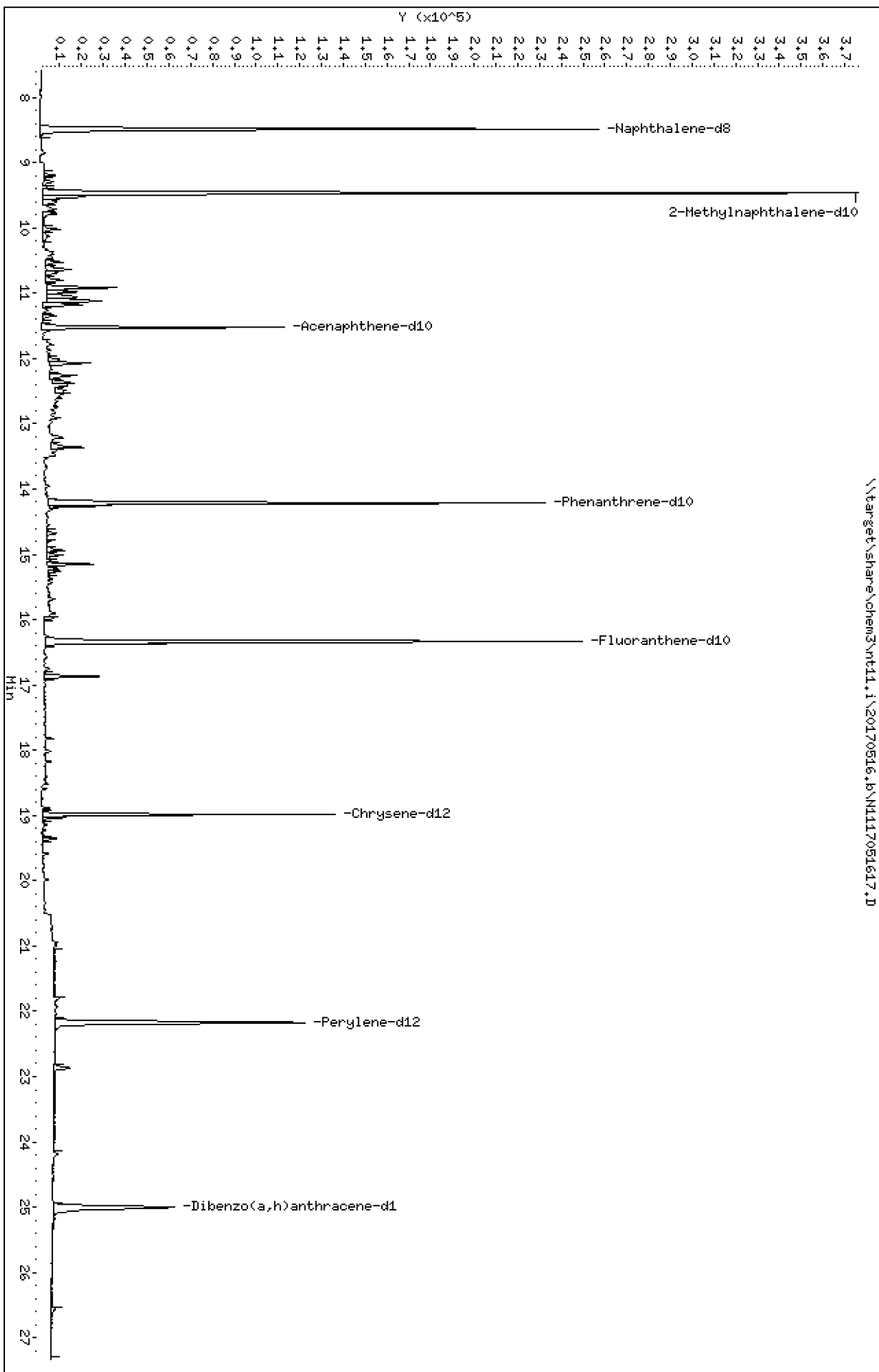
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt11.1\20170516.6\N1117051617.D



Date : 16-MAY-2017 20:04

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-03

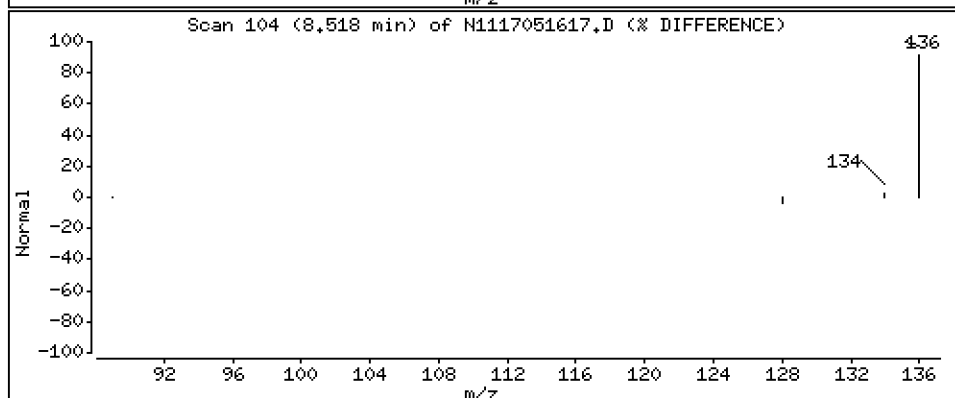
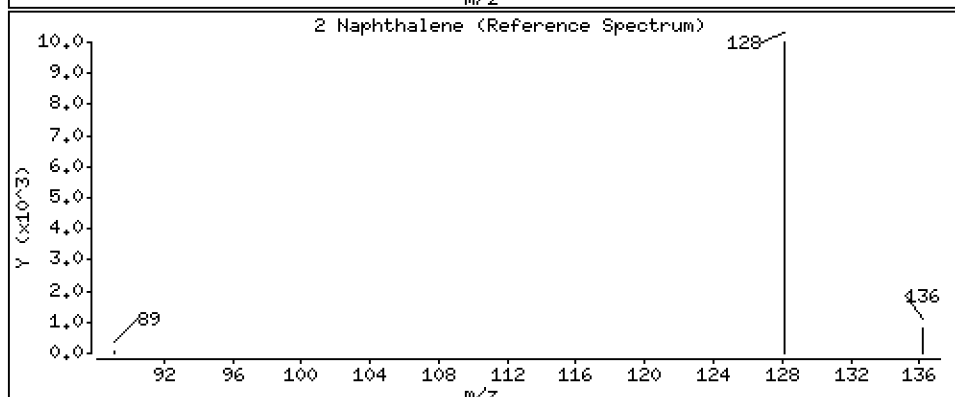
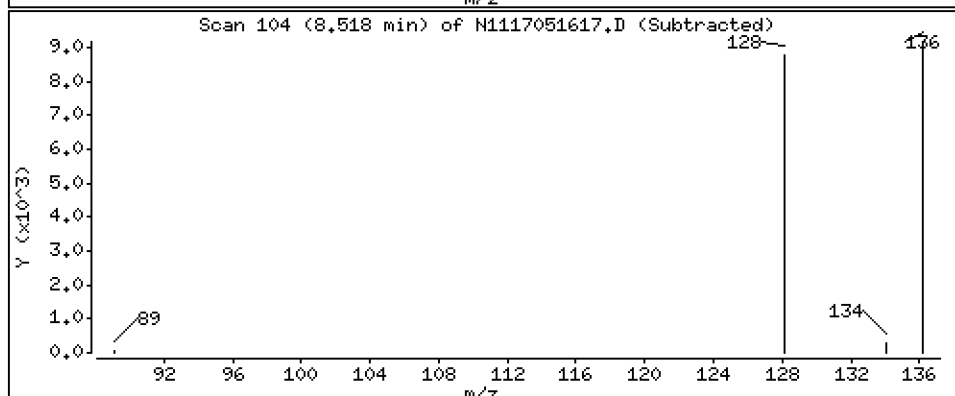
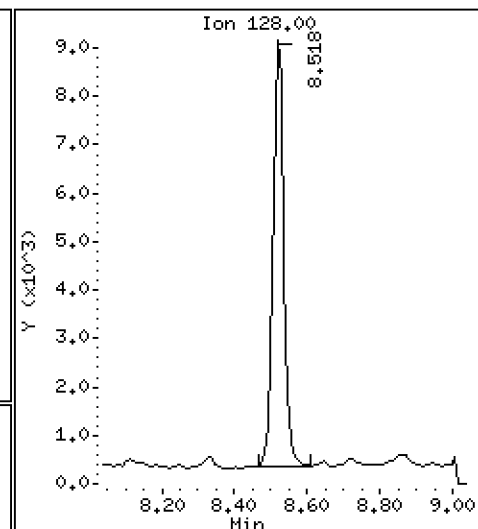
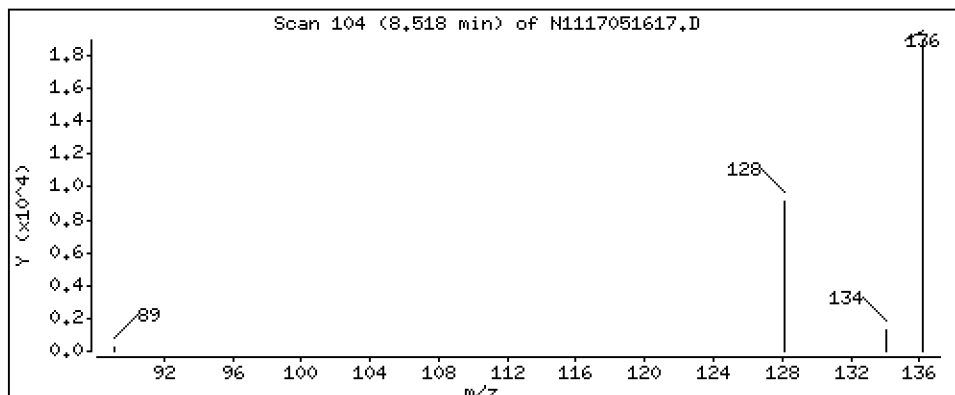
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 6,72 ng/mL



Date : 16-MAY-2017 20:04

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-03

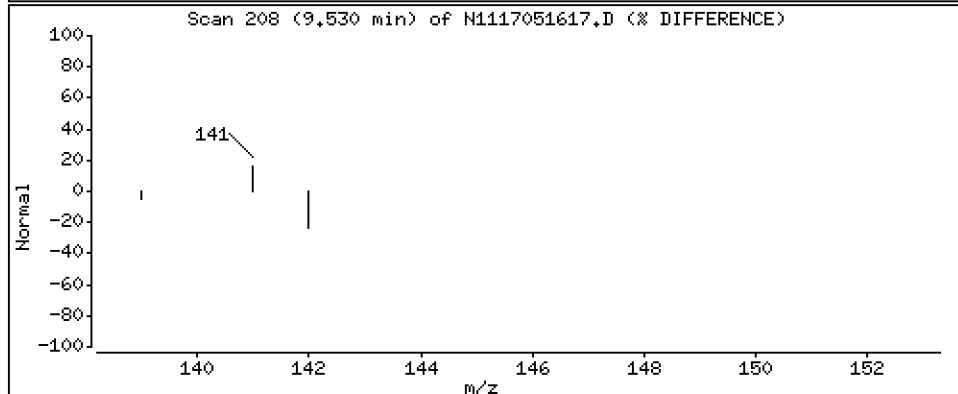
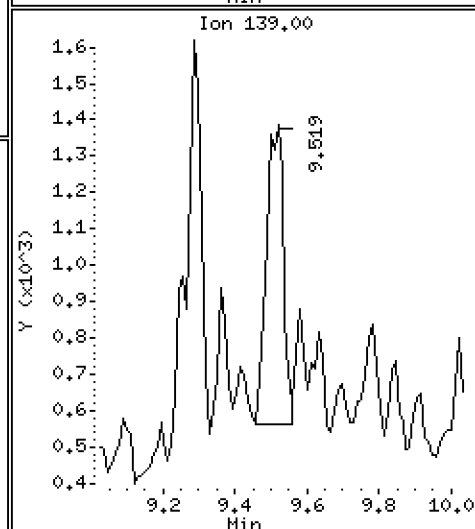
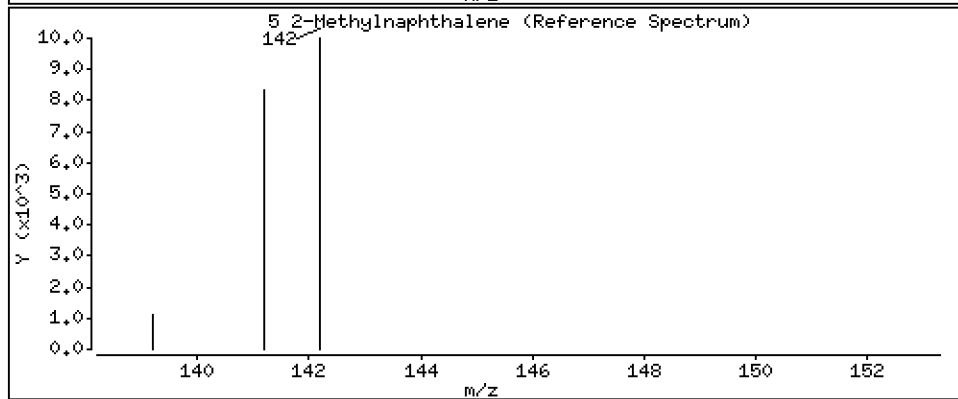
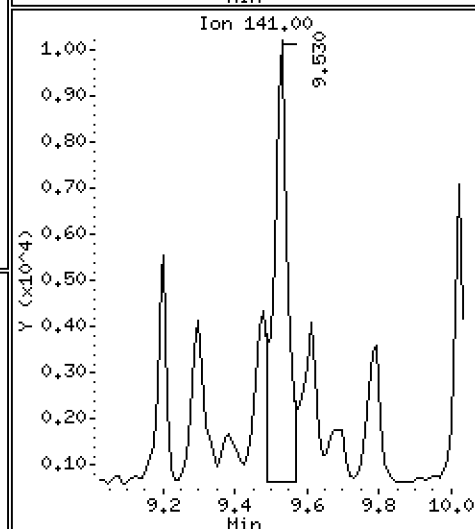
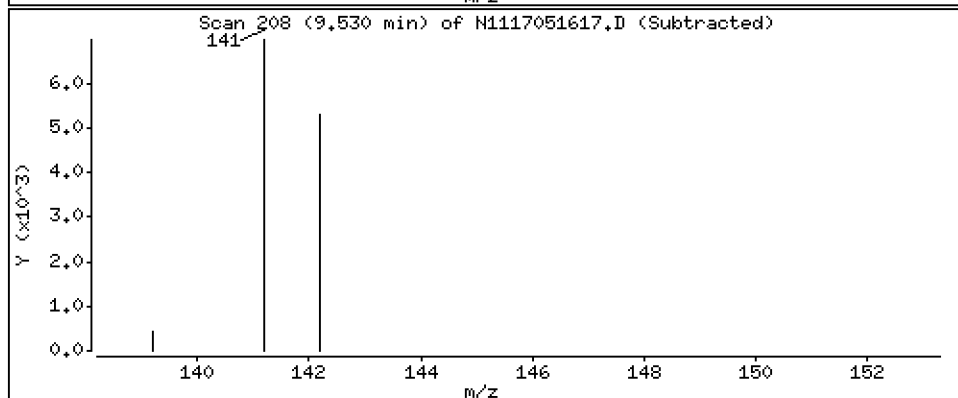
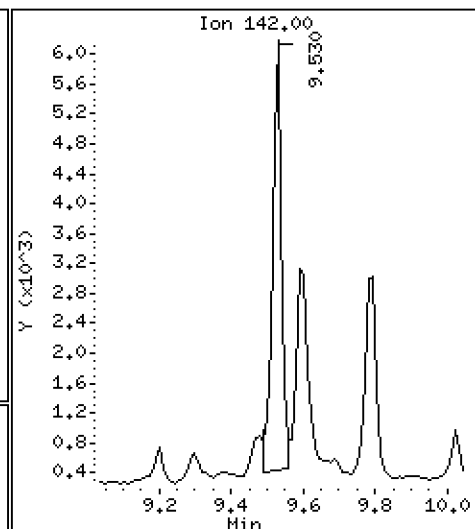
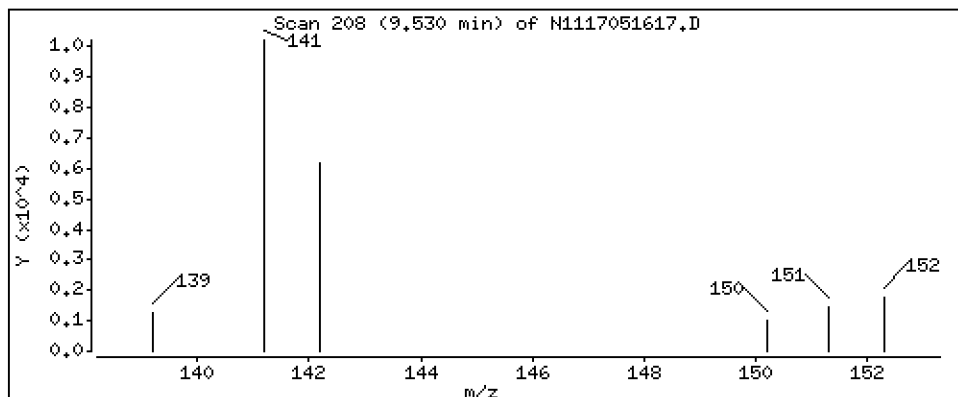
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

5-2-Methylnaphthalene

Concentration: 4,67 ng/mL



Date : 16-MAY-2017 20:04

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-03

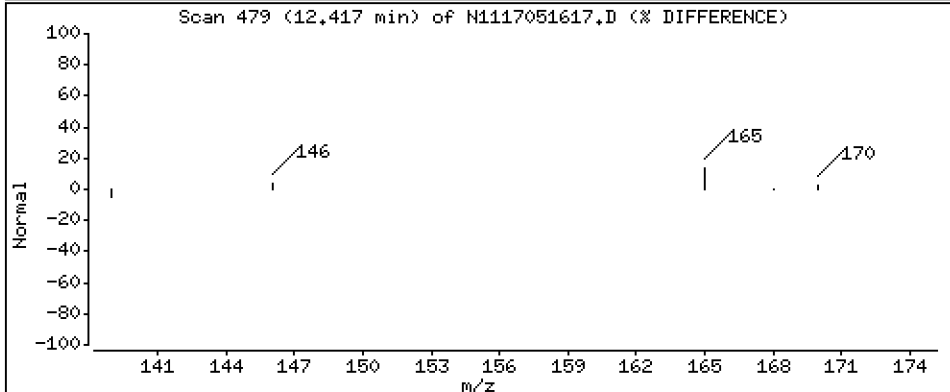
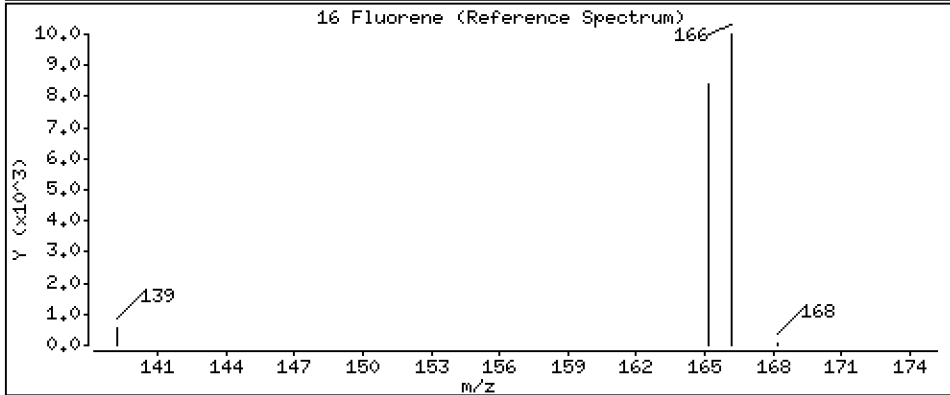
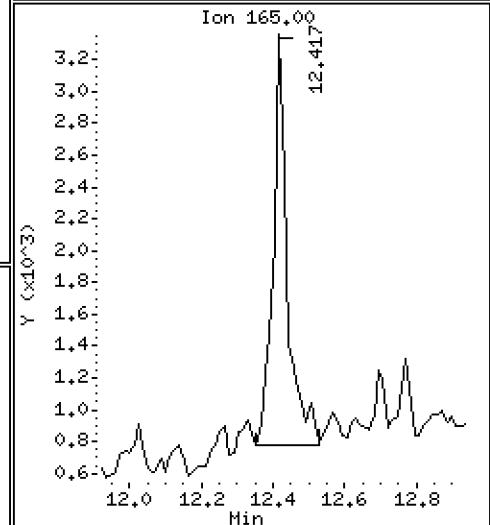
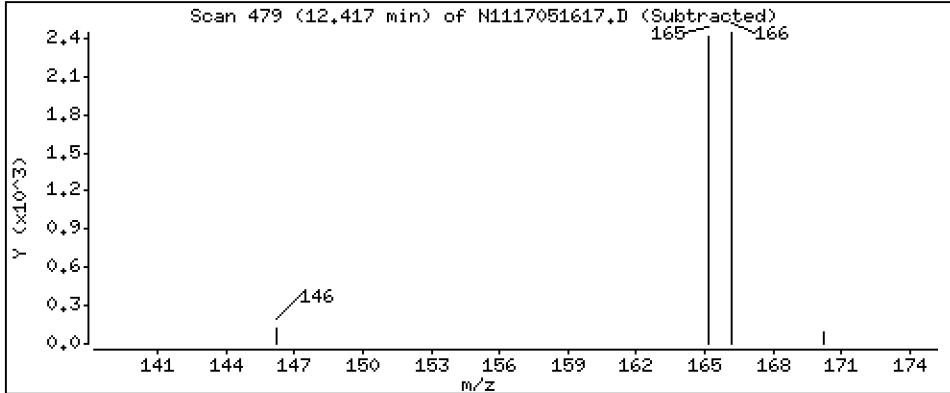
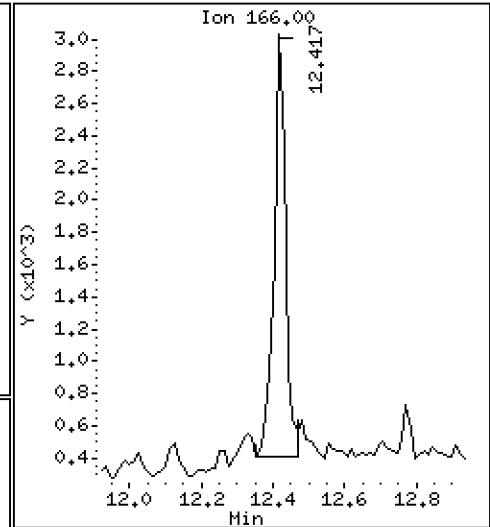
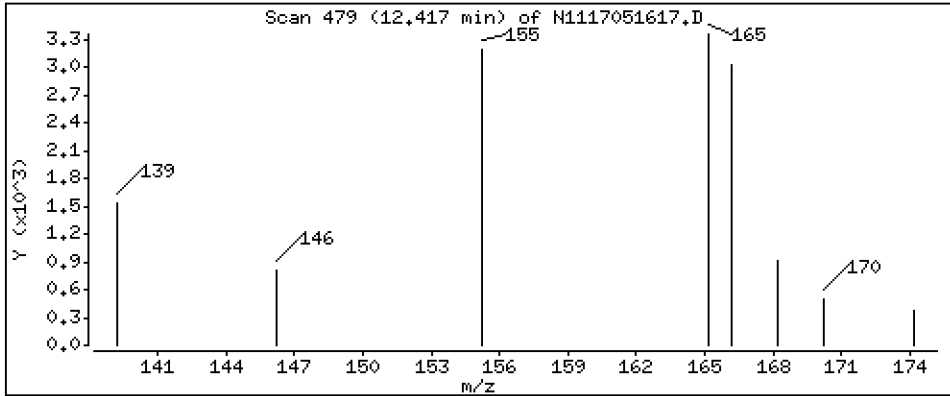
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 Fluorene

Concentration: 3,39 ng/mL



Date : 16-MAY-2017 20:04

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-03

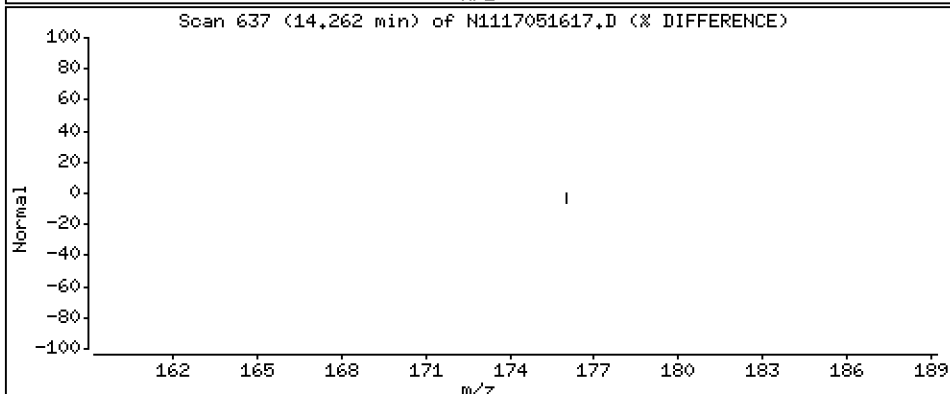
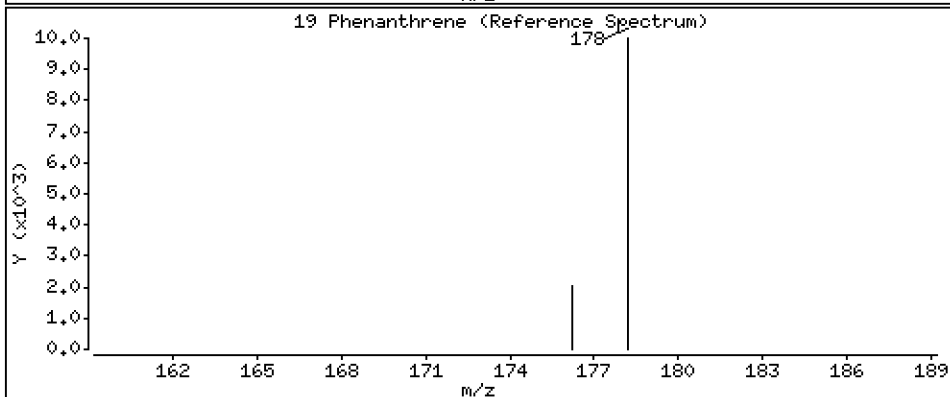
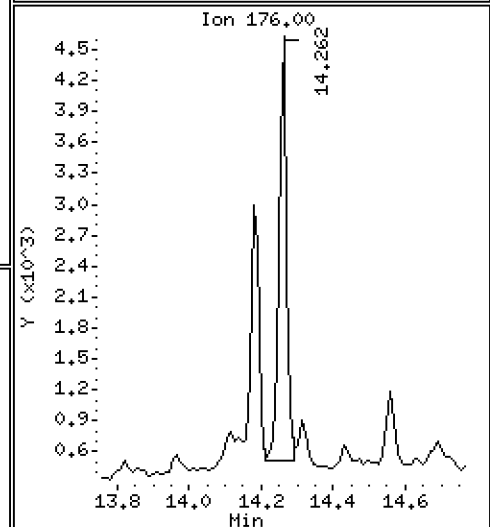
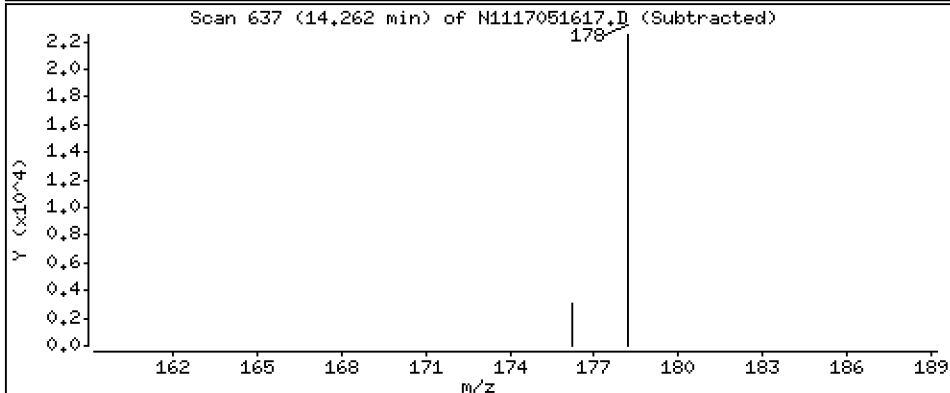
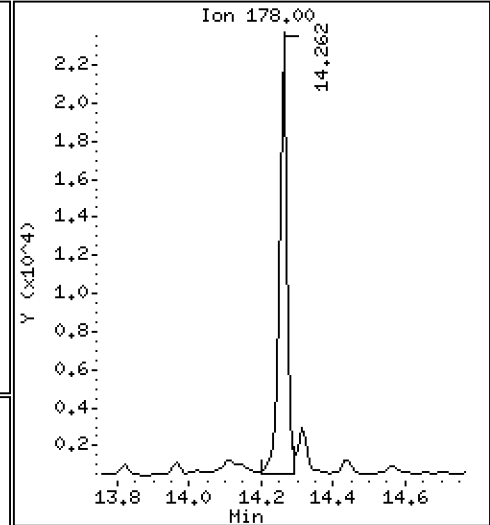
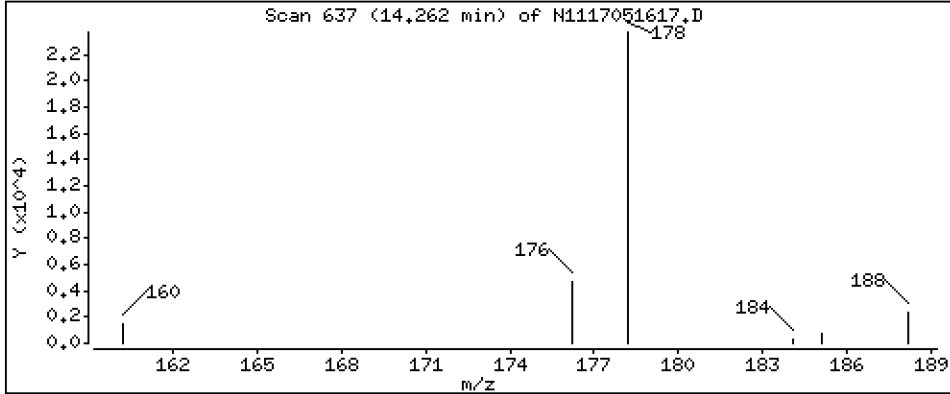
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 Phenanthrene

Concentration: 15,9 ng/mL



Date : 16-MAY-2017 20:04

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-03

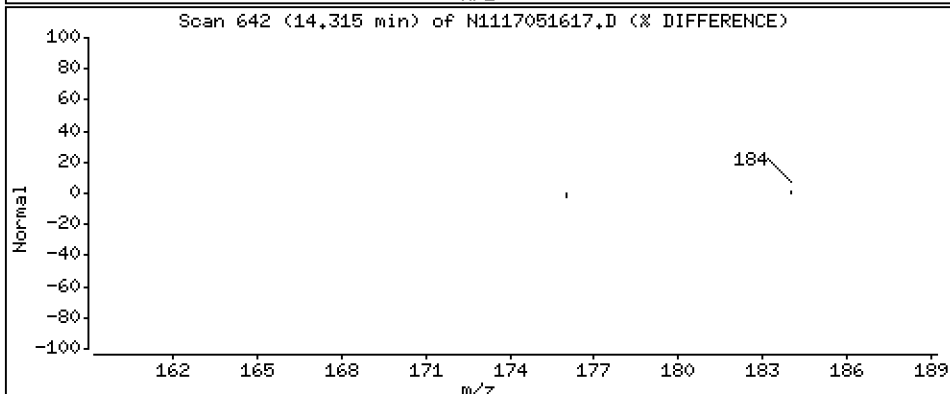
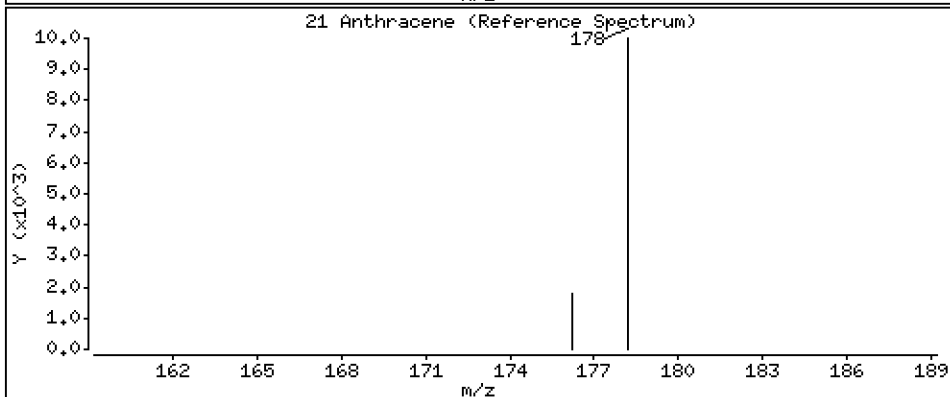
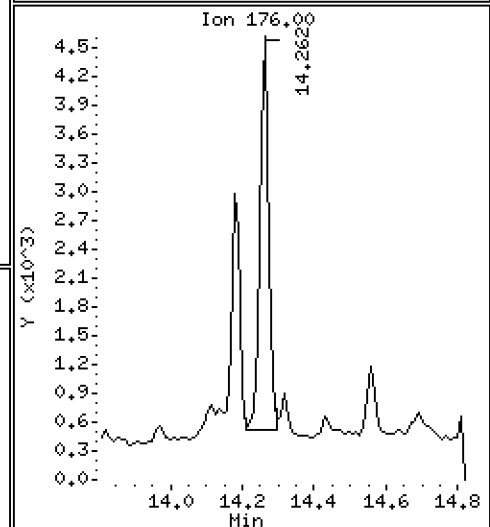
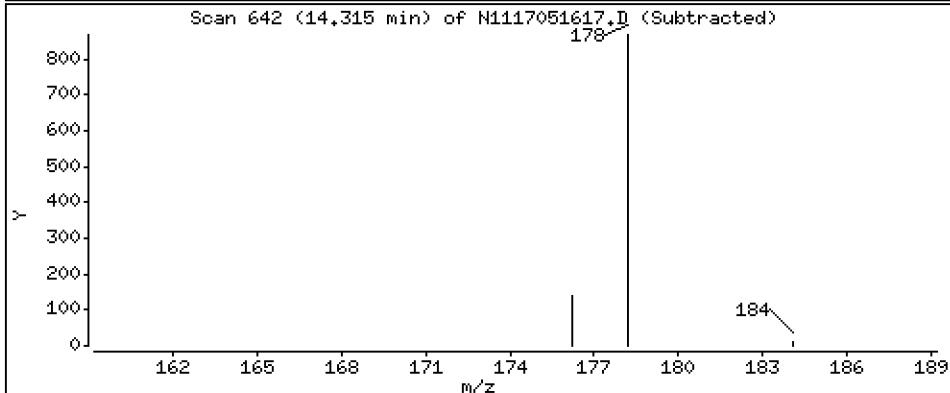
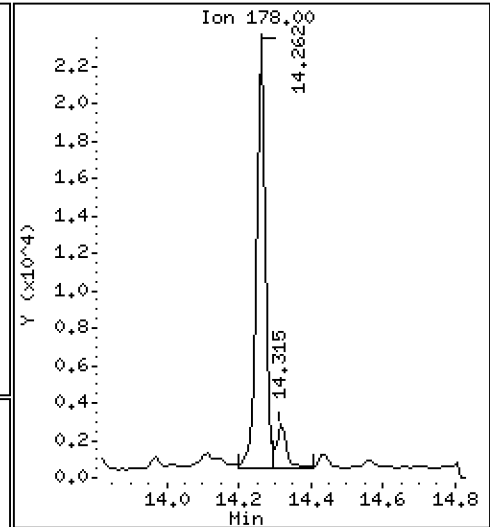
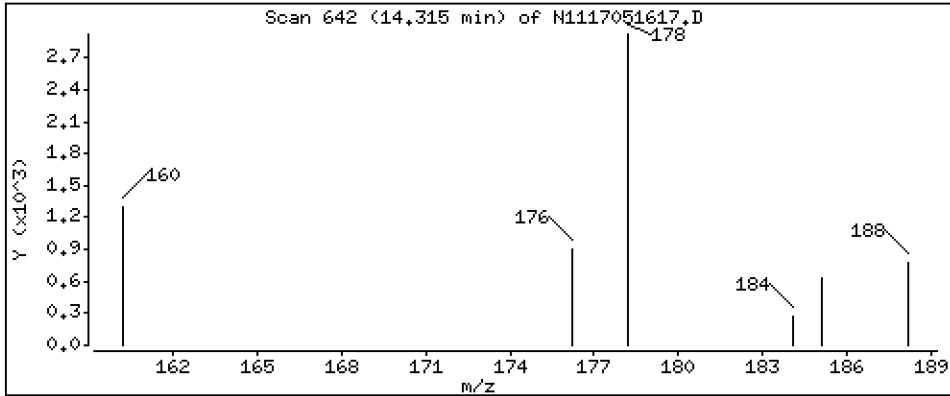
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

21 Anthracene

Concentration: 2,04 ng/mL



Date : 16-MAY-2017 20:04

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-03

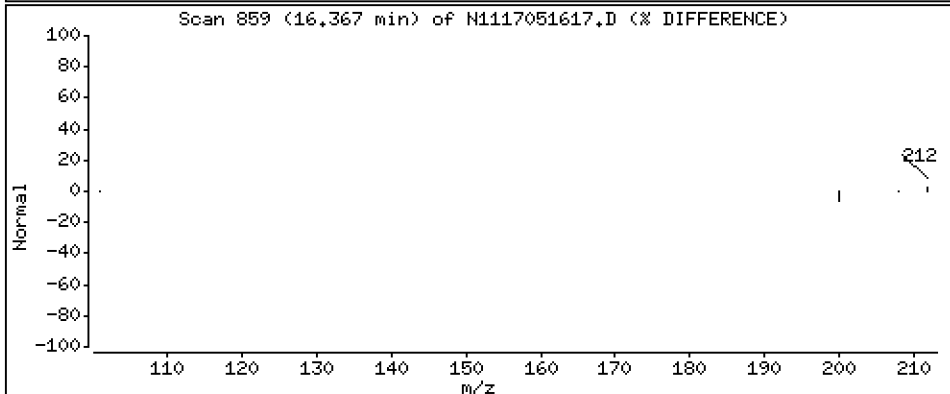
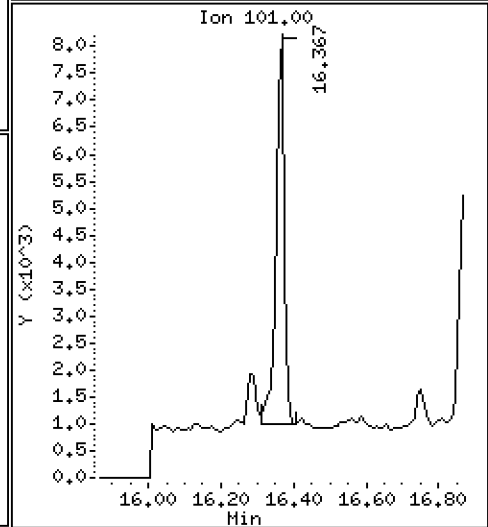
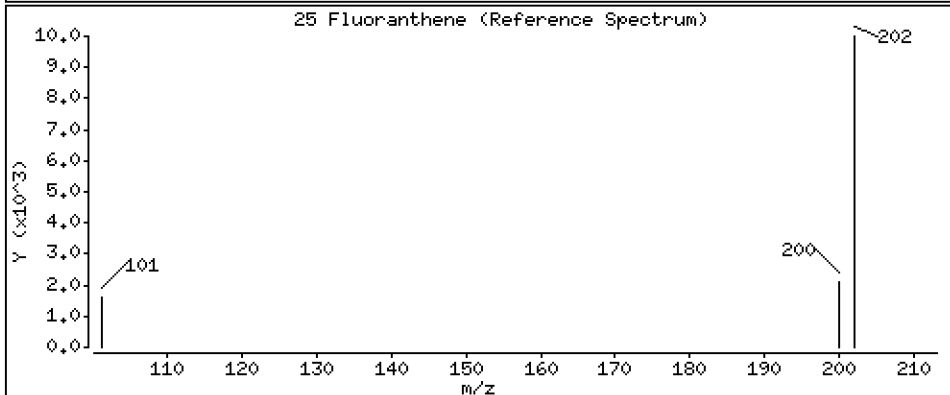
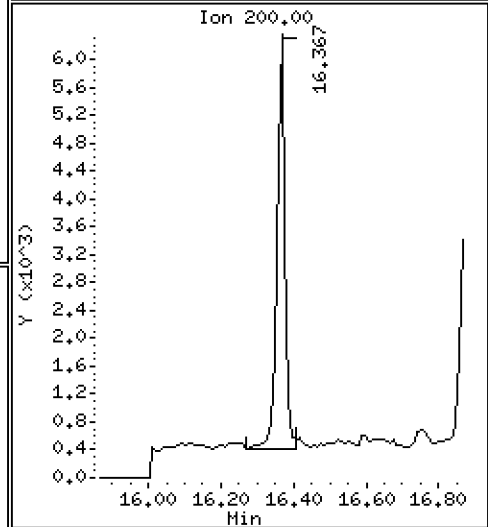
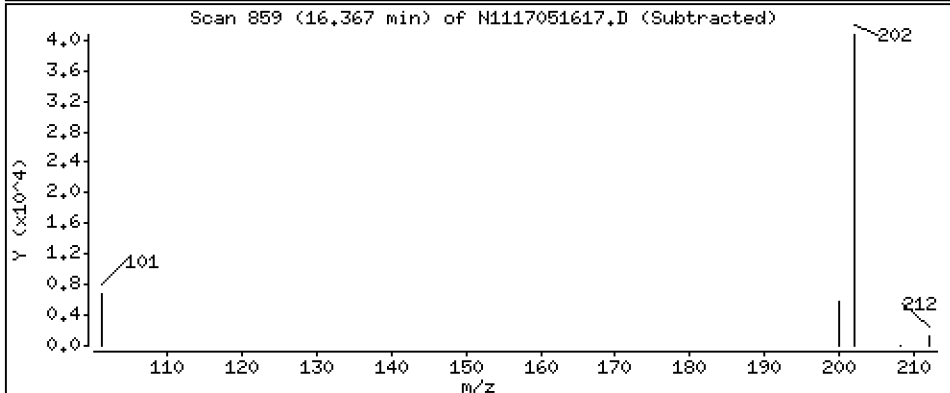
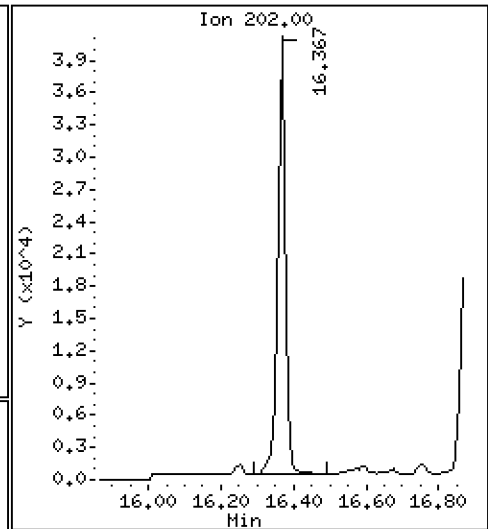
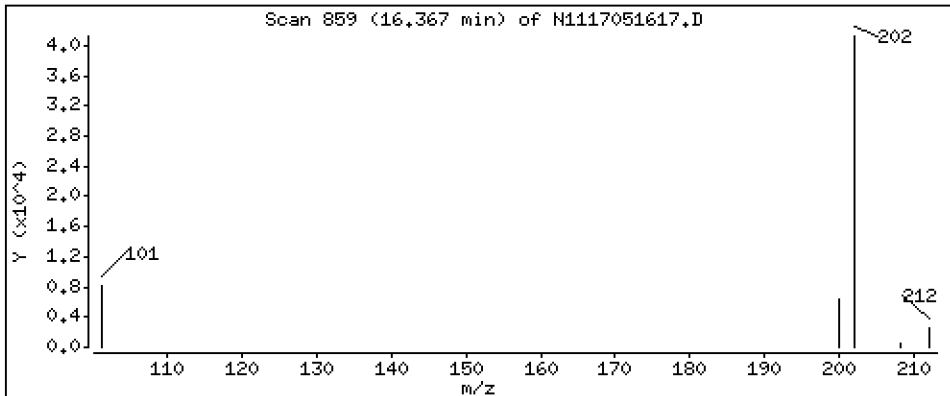
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

25 Fluoranthene

Concentration: 27,3 ng/mL



Date : 16-MAY-2017 20:04

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-03

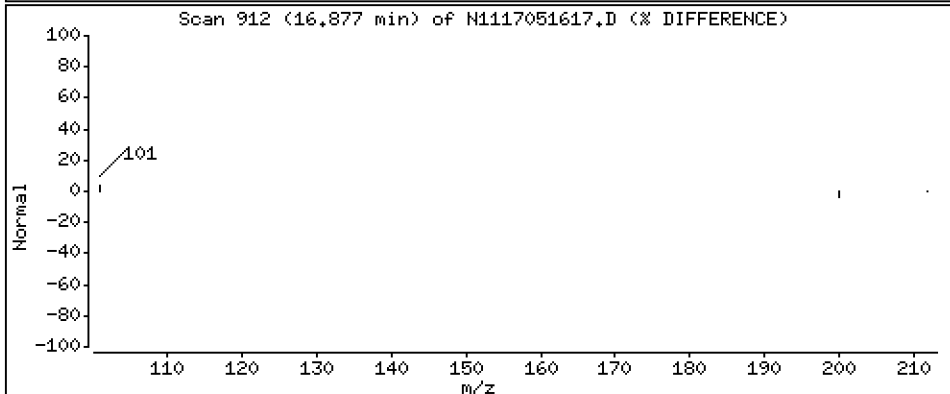
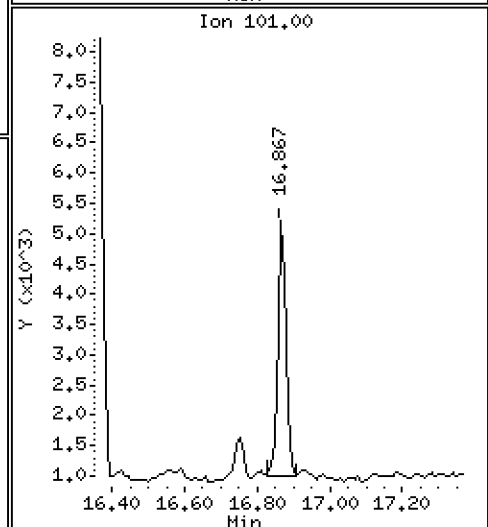
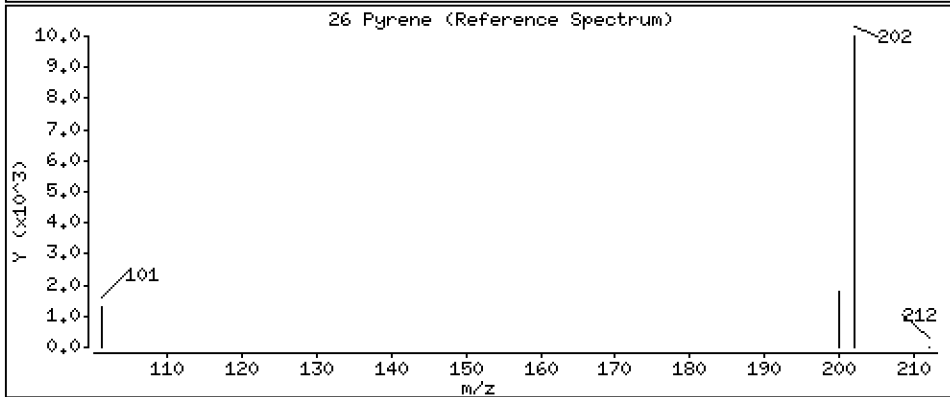
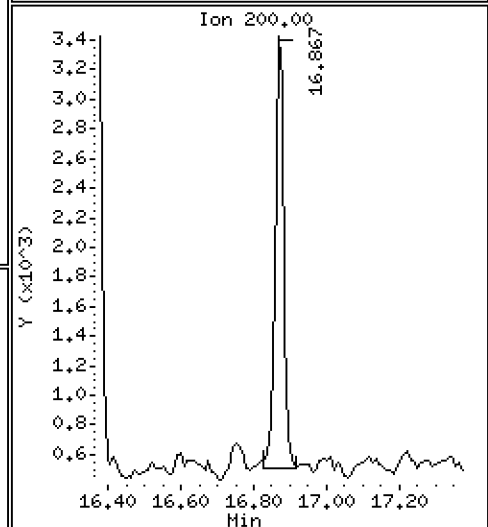
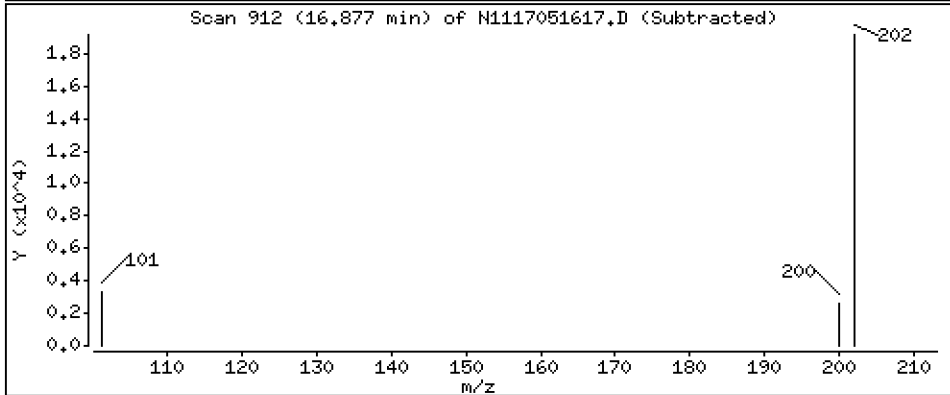
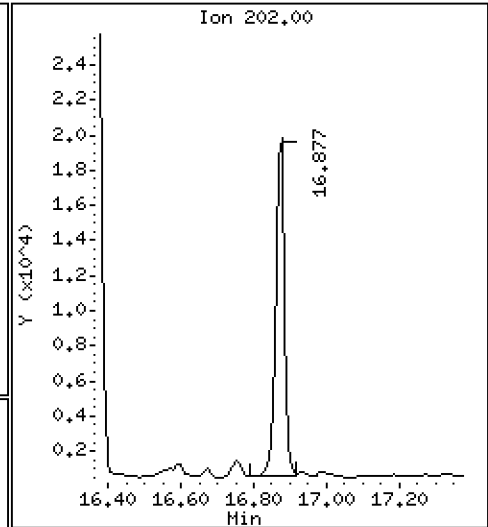
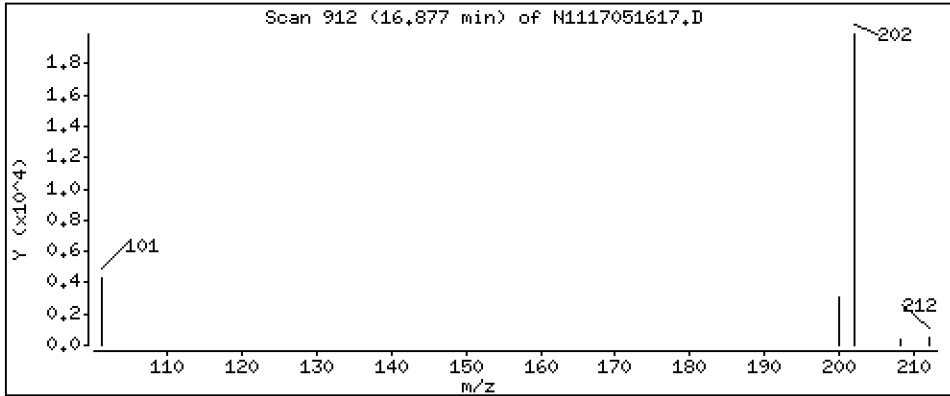
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Pyrene

Concentration: 18,7 ng/mL



Date : 16-MAY-2017 20:04

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-03

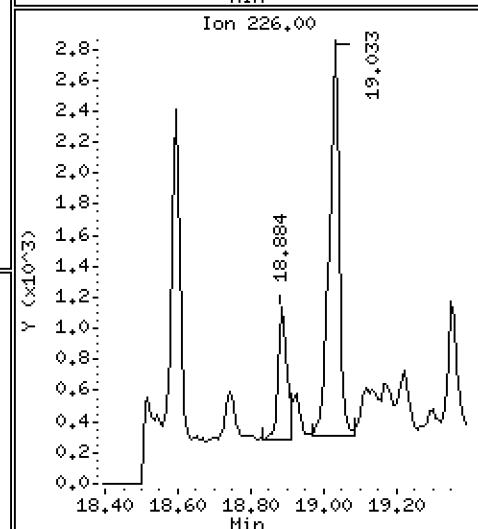
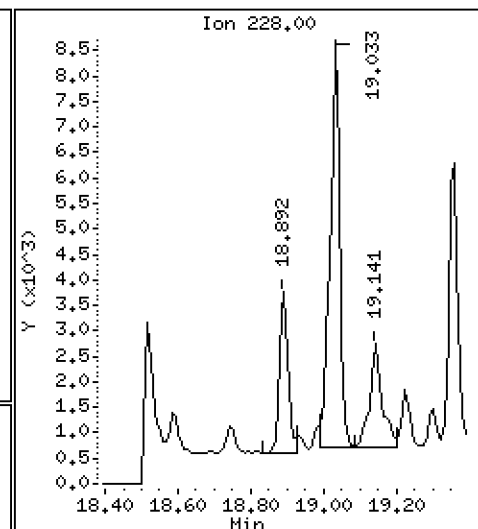
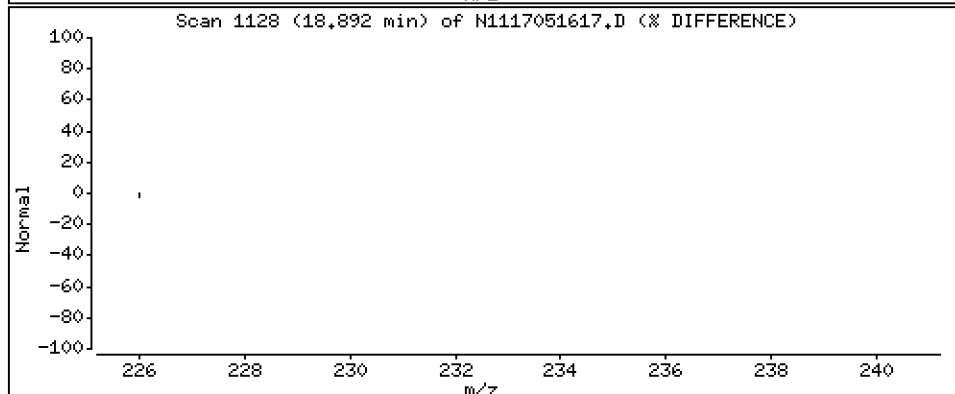
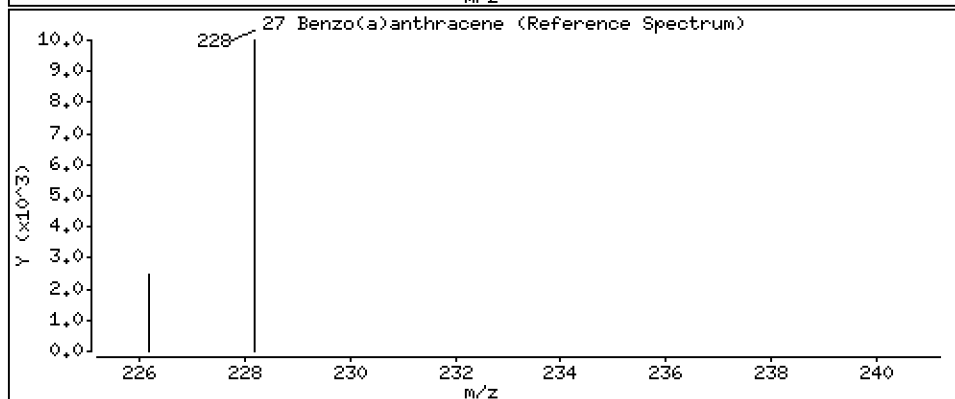
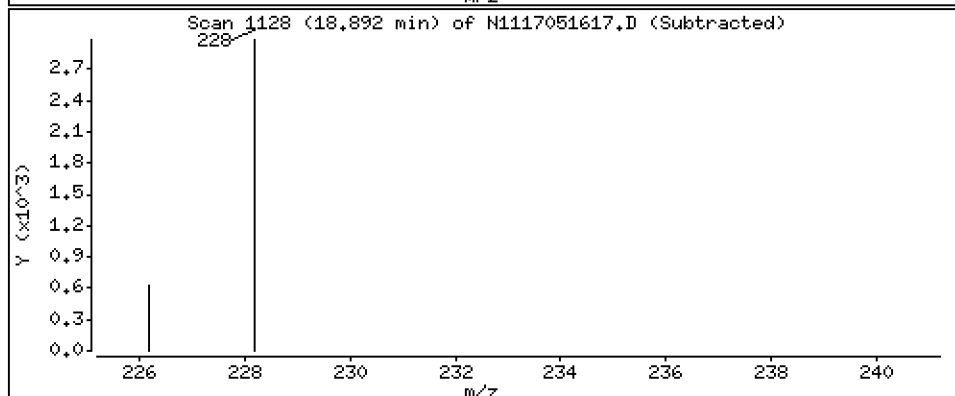
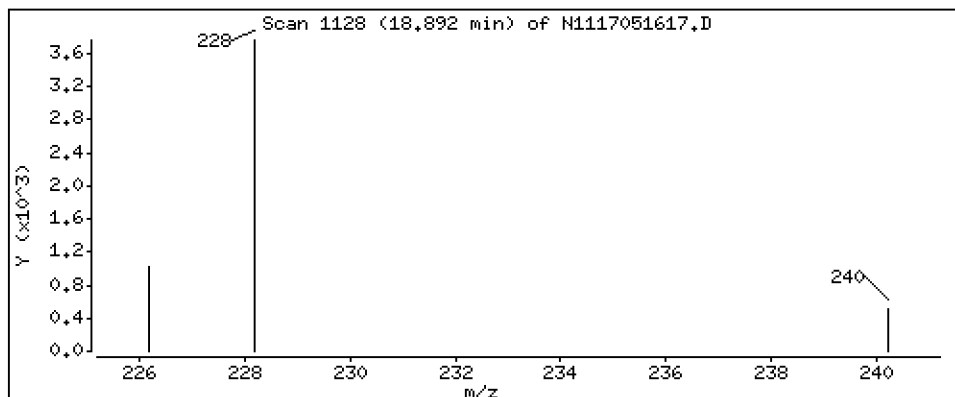
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)anthracene

Concentration: 3,70 ng/mL



Date : 16-MAY-2017 20:04

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-03

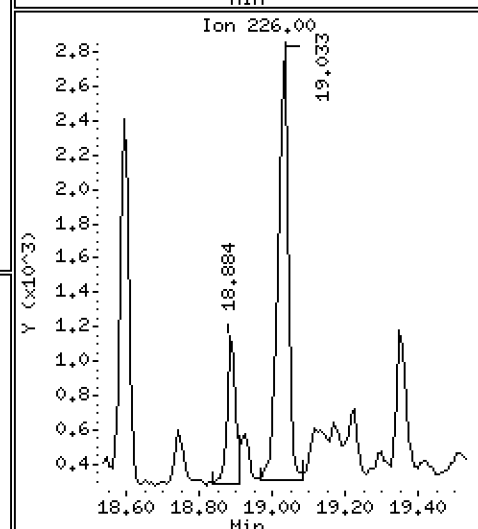
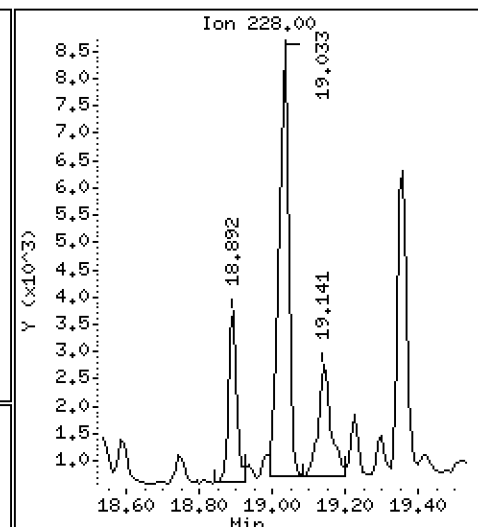
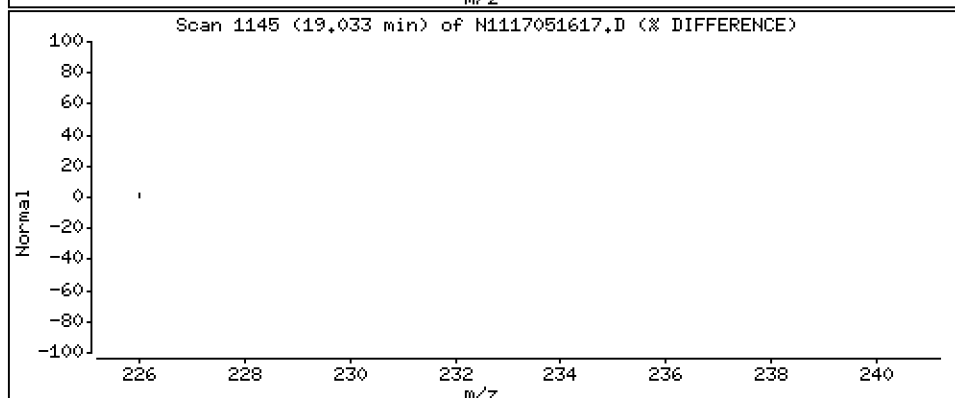
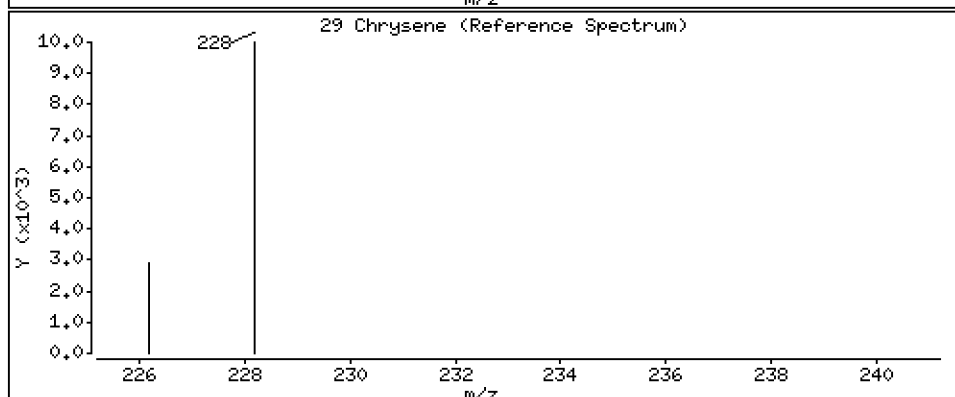
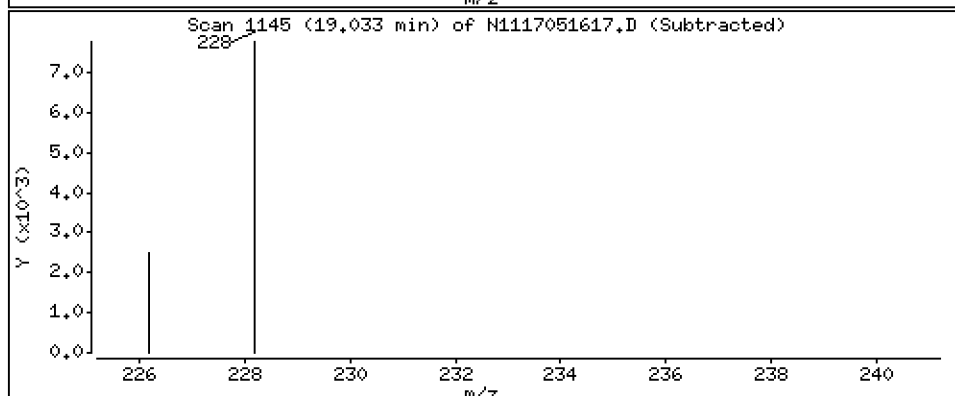
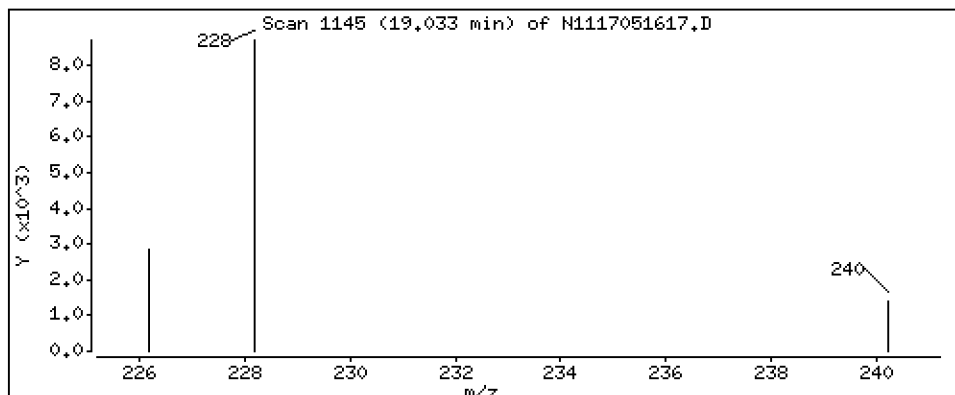
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 Chrysene

Concentration: 10,1 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170516.b\N1117051617.D
 Lab Smp Id: 17E0012-03
 Inj Date : 16-MAY-2017 20:04 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : 17E0012-03
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20170516.b\LOWSIM.m
 Meth Date : 17-May-2017 08:15 nt11.i Quant Type: ISTD
 Cal Date : 05-MAY-2017 14:47 Cal File: 17050508.D
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: allpna.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		8.481	8.500	(1.000)	489039	200.000	
2 Naphthalene	128		8.517	8.536	(1.004)	17652	6.71644	6.72
3 Benzo(b)thiophene	134		Compound Not Detected.					
\$ 4 2-Methylnaphthalene-d10	152		9.466	9.477	(1.116)	371467	177.252	177
5 2-Methylnaphthalene	142		9.529	9.540	(1.124)	11330	4.67380	4.67
6 1-Methylnaphthalene	142		Compound Not Detected.					
7 2-Chloronaphthalene	162		Compound Not Detected.					
8 Biphenyl	154		Compound Not Detected.					
9 2,6-Dimethylnaphthalene	156		Compound Not Detected.					
10 Acenaphthylene	152		Compound Not Detected.					
* 11 Acenaphthene-d10	164		11.528	11.528	(1.000)	204981	200.000	
12 Acenaphthene	153		Compound Not Detected.					
13 Dibenzofuran	168		Compound Not Detected.					
14 2,3,5-Trimethylnaphthalene	170		Compound Not Detected.					
\$ 15 Fluorene-d10	174		Compound Not Detected.					
16 Fluorene	166		12.416	12.429	(1.077)	5729	3.38916	3.39
17 Dibenzothiophene	184		Compound Not Detected.					
* 18 Phenanthrene-d10	188		14.220	14.220	(1.000)	323865	200.000	
19 Phenanthrene	178		14.262	14.262	(1.003)	38424	15.9378	15.9
\$ 20 Anthracene-d10	188		Compound Not Detected.					
21 Anthracene	178		14.314	14.325	(1.007)	4857	2.04493	2.04
22 Carbazole	167		Compound Not Detected.					
23 1-Methylphenanthrene	192		Compound Not Detected.					
\$ 24 Fluoranthene-d10	212		16.338	16.338	(1.149)	349516	228.288	228
25 Fluoranthene	202		16.367	16.367	(1.151)	63306	27.3241	27.3
26 Pyrene	202		16.876	16.876	(0.889)	33459	18.6851	18.7
27 Benzo(a)anthracene	228		18.891	18.892	(0.995)	5214	3.70183	3.70
* 28 Chrysene-d12	240		18.983	18.983	(1.000)	197796	200.000	
29 Chrysene	228		19.033	19.033	(1.003)	14621	10.0581	10.1
30 Benzo(b)fluoranthene	252		Compound Not Detected.					
31 Benzo(k)fluoranthene	252		Compound Not Detected.					
32 Benzo(j)fluoranthene	252		Compound Not Detected.					
\$ 33 Benzo(e)pyrene-d12	264		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
34 Benzo(e)pyrene	252							
35 Benzo(a)pyrene	252							
* 36 Perylene-d12	264		22.173	22.173	(1.000)	248001	200.000	
37 Perylene	252							
§ 38 Dibenzo(a,h)anthracene-d14	292		25.005	25.016	(1.128)	219488	237.260	237
39 Dibenzo(a,h)anthracene	278							
40 Indeno(1,2,3-cd)pyrene	276							
41 Benzo(g,h,i)perylene	276							

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 16-MAY-2017
 Lab File ID: N1117051617.D Calibration Time: 10:47
 Lab Smp Id: 17E0012-03
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20170516.b\LOWSIM.m
 Misc Info:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	371325	185663	742650	489039	31.70
11 Acenaphthene-d10	154428	77214	308856	204981	32.74
18 Phenanthrene-d10	256956	128478	513912	323865	26.04
28 Chrysene-d12	208629	104315	417258	197796	-5.19
36 Perylene-d12	225431	112716	450862	248001	10.01

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	8.50	8.00	9.00	8.48	-0.22
11 Acenaphthene-d10	11.53	11.03	12.03	11.53	-0.00
18 Phenanthrene-d10	14.22	13.72	14.72	14.22	-0.00
28 Chrysene-d12	18.98	18.48	19.48	18.98	-0.00
36 Perylene-d12	22.17	21.67	22.67	22.17	-0.00

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

REVIEW SUMMARY FOR FILE - N1117051617.D

Lab ID: 17E0012-03

nt11.i, 20170516.b\LOWSIM.m, 16-MAY-2017 20:04

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT CCV RRT DELTA COMPOUND

NONE

On Column LOD for nt11.i, 20170516.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 6.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>17E0012</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Port Gamble Shellfish Monitoring</u>
Matrix:	<u>Tissue</u>	Laboratory ID:	<u>17E0012-04</u>
Sampled:	<u>04/27/17 12:00</u>	Prepared:	<u>05/09/17 13:50</u>
Solids:		Preparation:	<u>EPA 3550C-Mod (Ultrasonic)</u>
Batch:	<u>BFE0160</u>	Sequence:	<u>SFE0208</u>
Instrument:	<u>NT11</u>	Column:	<u>RXi-17Sil-MS</u>
		File ID:	<u>N1117051618.D</u>
		Analyzed:	<u>05/16/17 20:40</u>
		Initial/Final:	<u>10.24 g / 0.5 mL</u>
		Calibration:	<u>AE00020</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.59	U	0.49	0.59
91-57-6	2-Methylnaphthalene	1	0.49	U	0.49	0.49
208-96-8	Acenaphthylene	1	0.49	U	0.49	0.49
83-32-9	Acenaphthene	1	0.49	U	0.49	0.49
86-73-7	Fluorene	1	0.49	U	0.49	0.49
85-01-8	Phenanthrene	1	0.59		0.49	0.49
120-12-7	Anthracene	1	0.49	U	0.49	0.49
206-44-0	Fluoranthene	1	0.93		0.49	0.49
129-00-0	Pyrene	1	0.56		0.49	0.49
56-55-3	Benzo(a)anthracene	1	0.78		0.49	0.49
218-01-9	Chrysene	1	0.83		0.49	0.49
205-99-2	Benzo(b)fluoranthene	1	0.49	U	0.49	0.49
207-08-9	Benzo(k)fluoranthene	1	0.49	U	0.49	0.49
50-32-8	Benzo(a)pyrene	1	0.49	U	0.49	0.49
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.49	U	0.49	0.49
53-70-3	Dibenzo(a,h)anthracene	1	0.49	U	0.49	0.49
191-24-2	Benzo(g,h,i)perylene	1	0.49	U	0.49	0.49
1985-5-0	Perylene	1	0.49	U	0.49	0.49
197-97-2	Benzo(e)pyrene	1	0.49	U	0.49	0.49

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.648	8.09	55.3	30 - 160	
Dibenzo[a,h]anthracene-d14	14.648	10.4	71.2	30 - 160	
Fluoranthene-d10	14.648	10.1	69.3	30 - 160	

Data File: \\target\share\chem3\nt11.1\20170516.6\N1117051618.D

Date: 16-May-2017 20:40

Client ID:

Sample Info: 17E0012-04

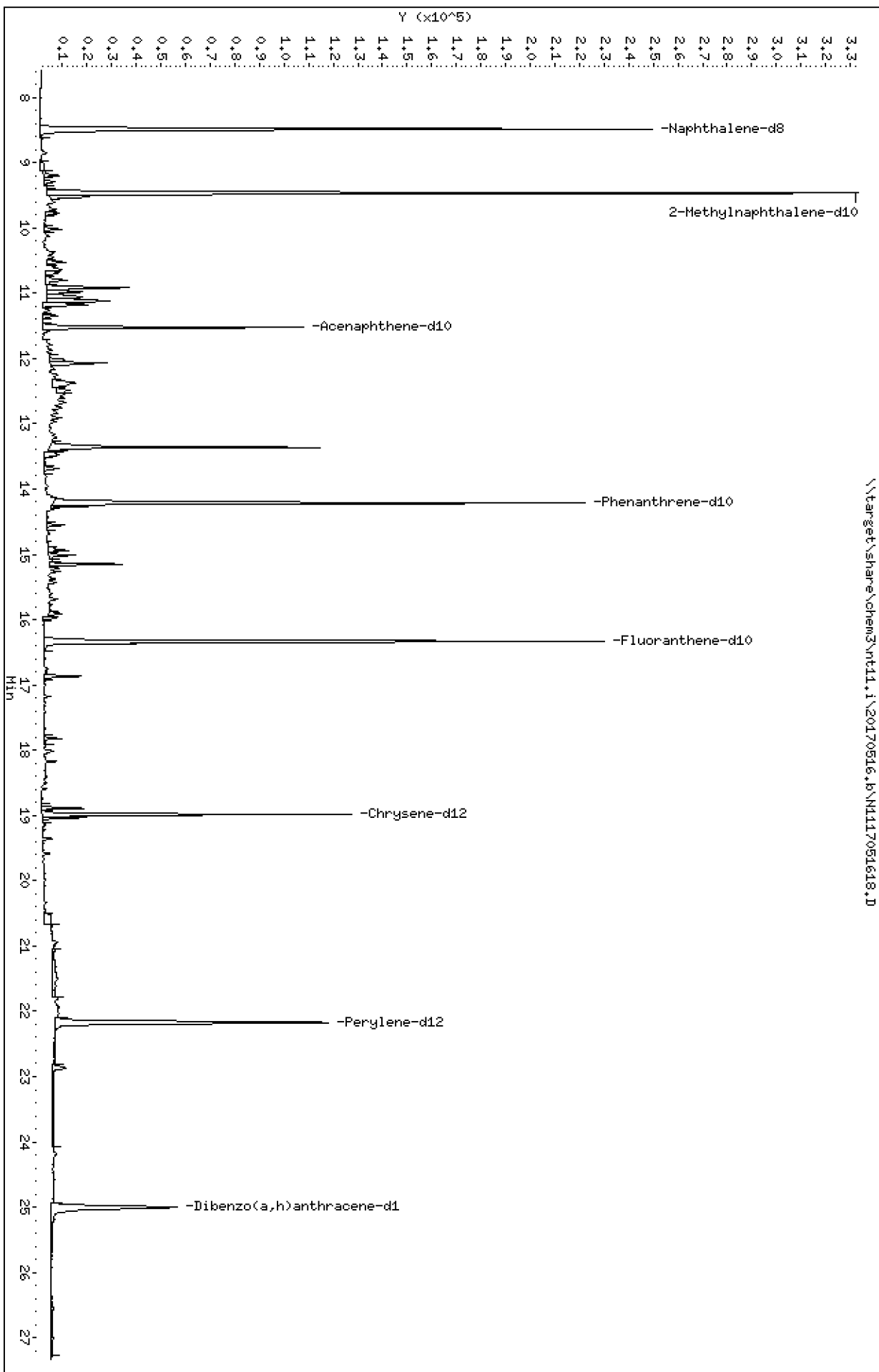
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt11.1\20170516.6\N1117051618.D



Date : 16-MAY-2017 20:40

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-04

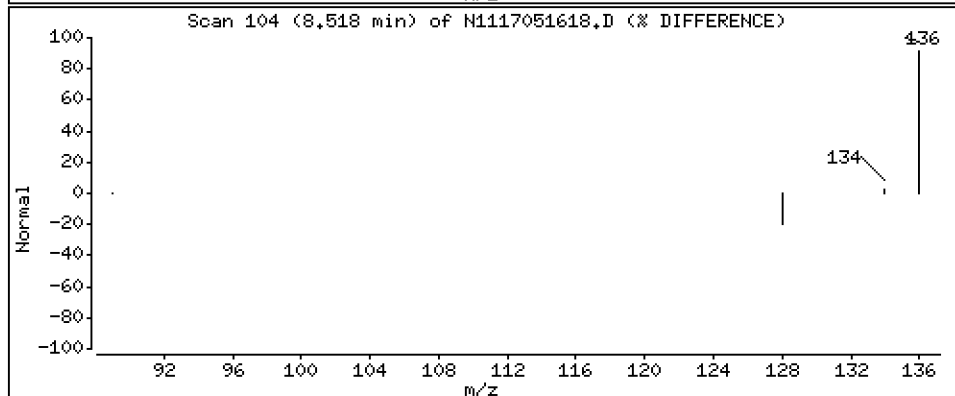
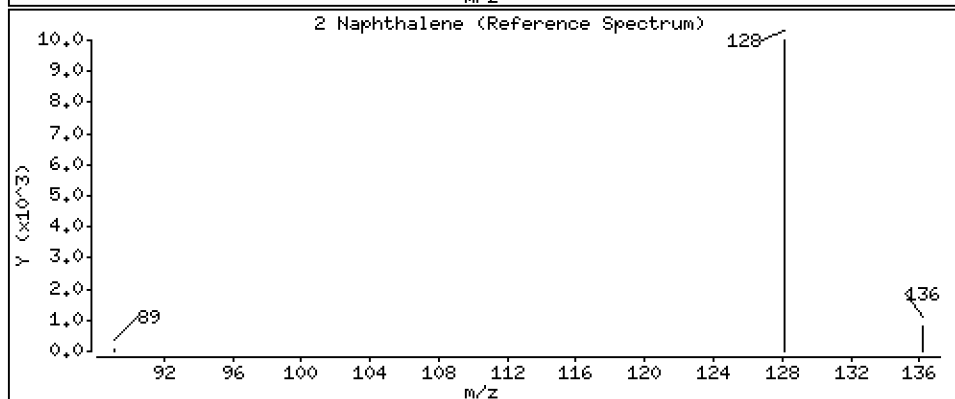
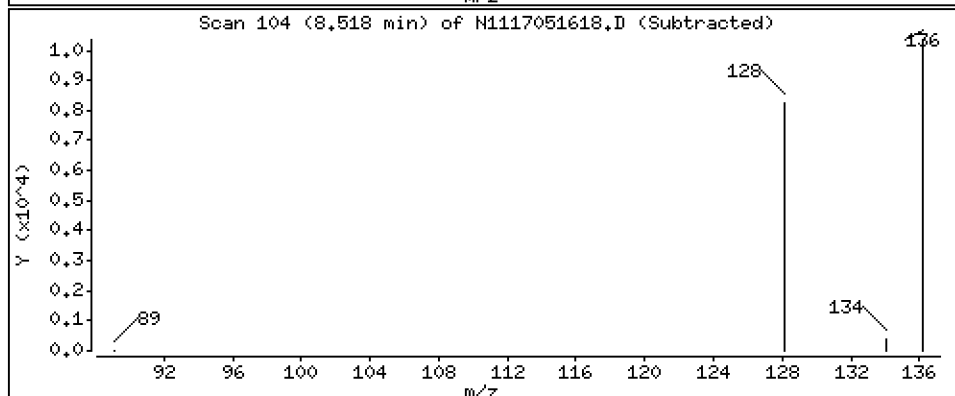
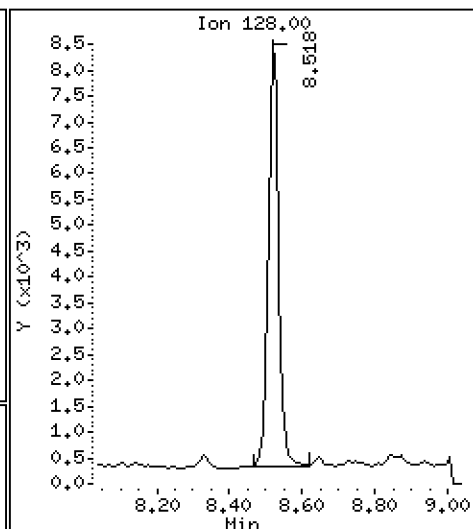
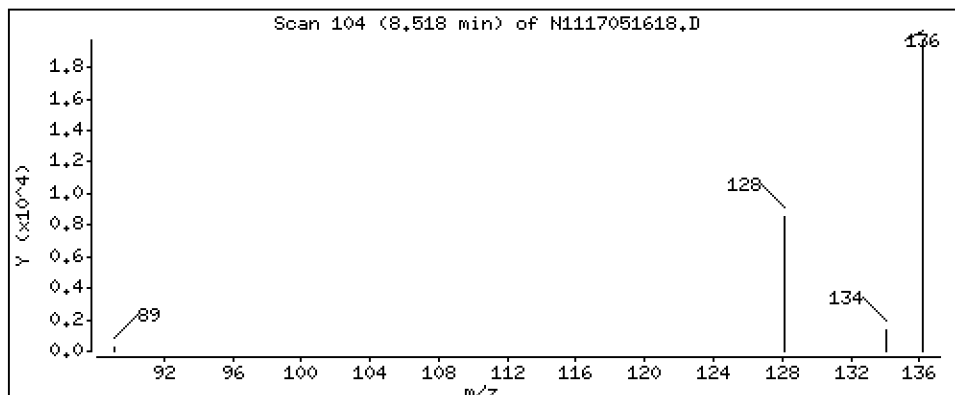
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 6,25 ng/mL



Date : 16-MAY-2017 20:40

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-04

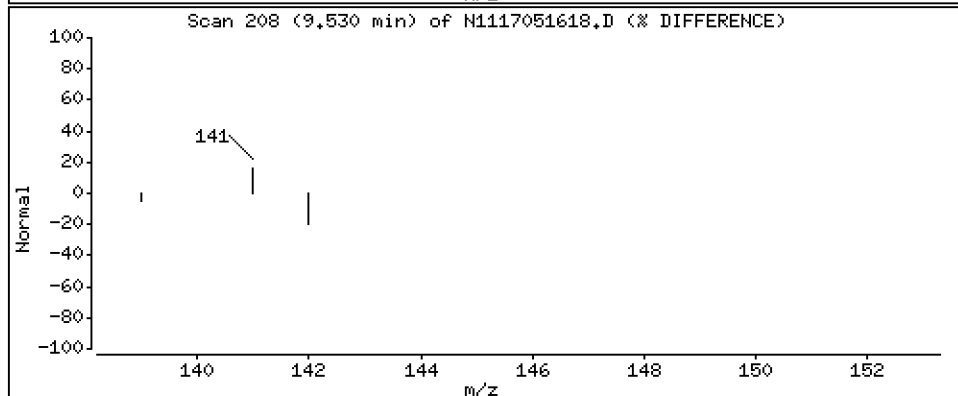
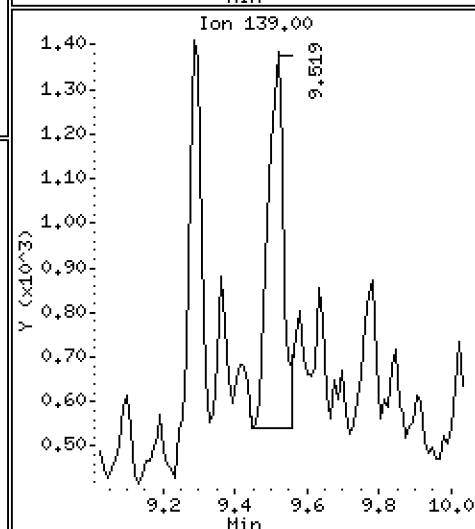
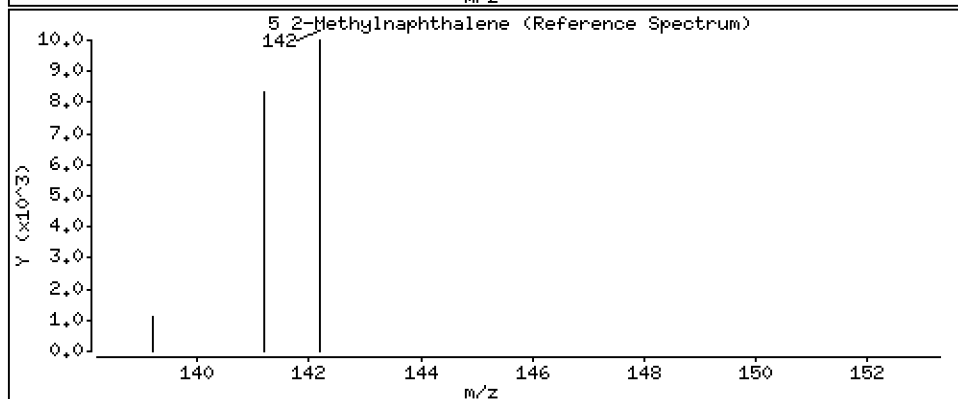
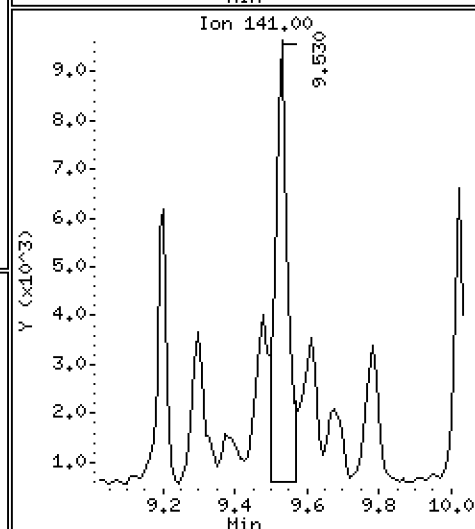
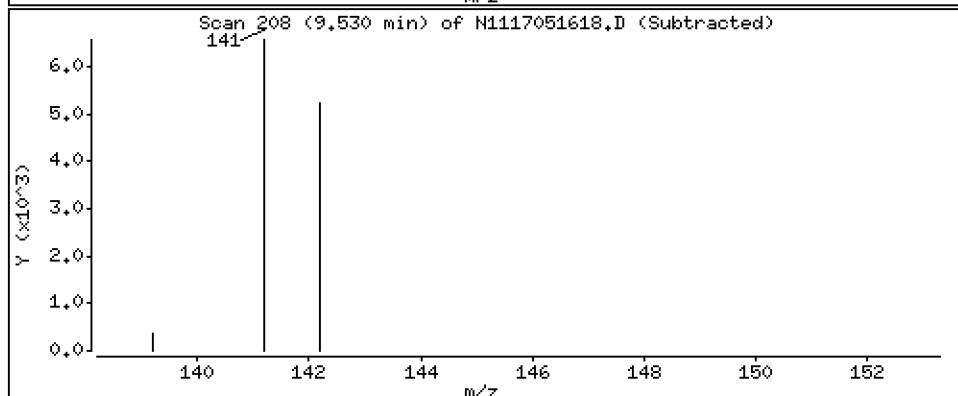
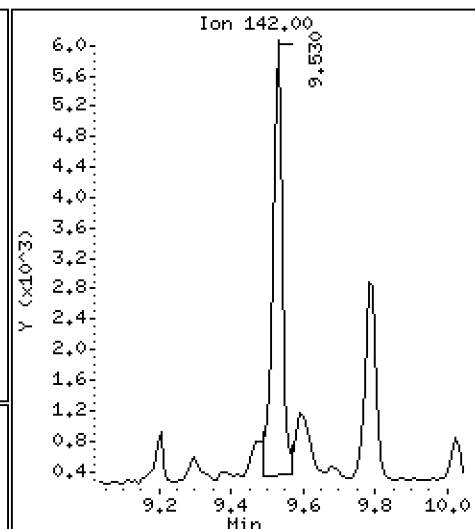
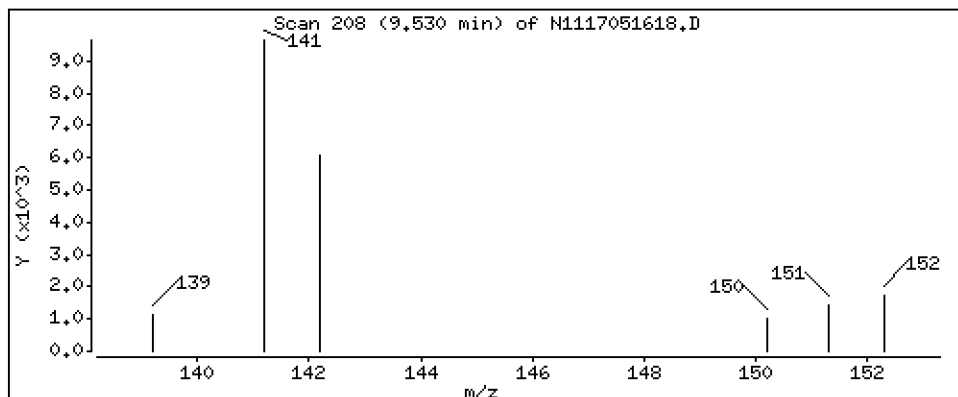
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

5-2-Methylnaphthalene

Concentration: 4,79 ng/mL



Date : 16-MAY-2017 20:40

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-04

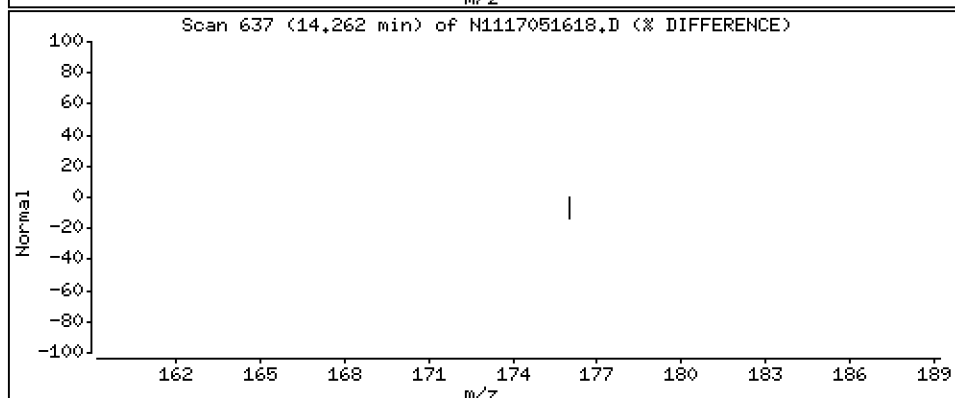
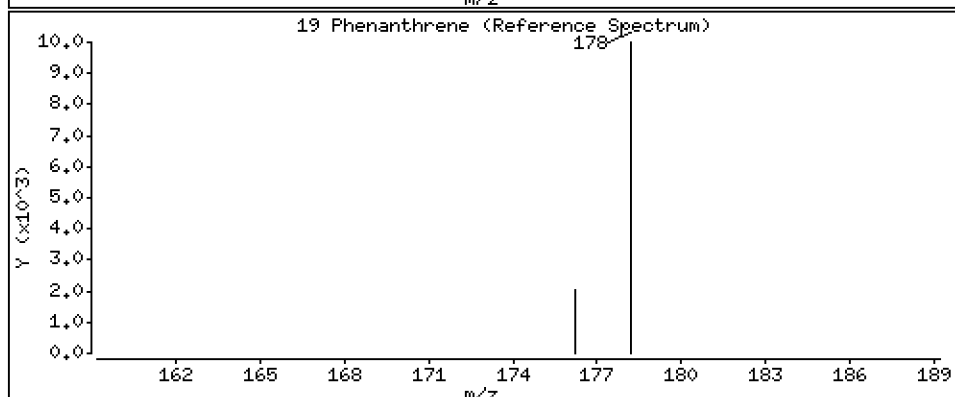
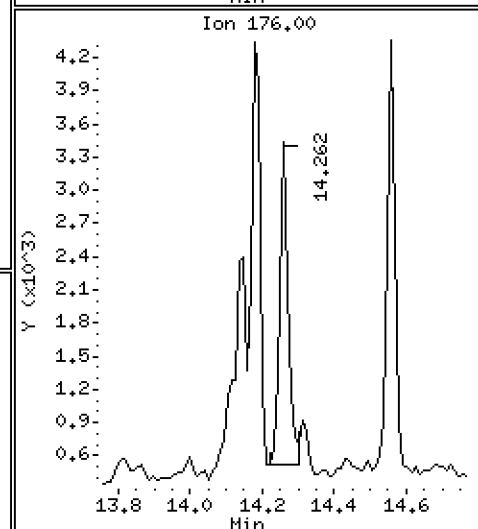
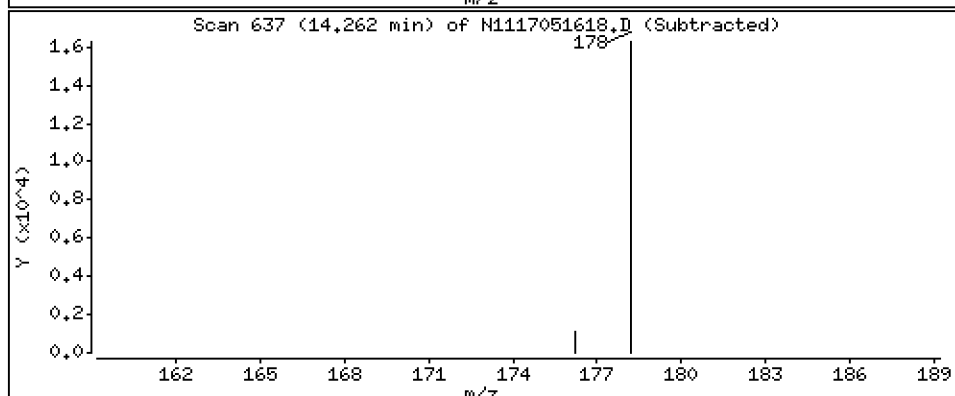
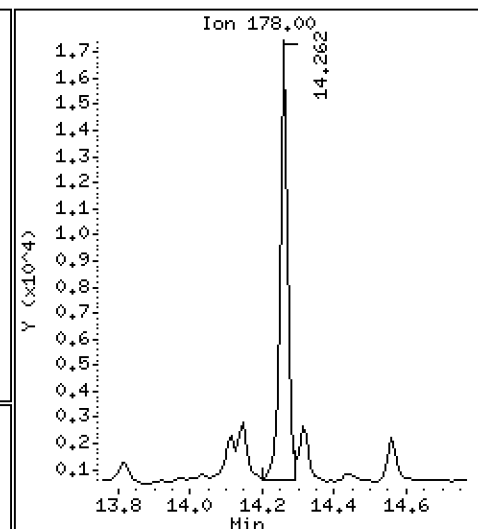
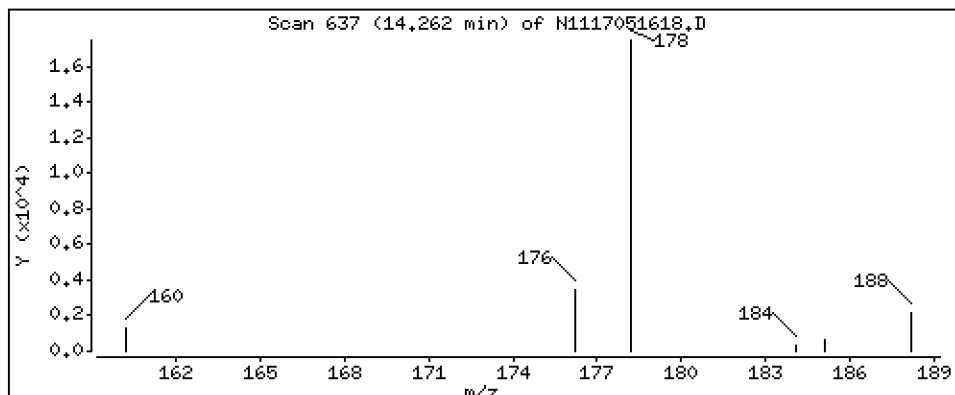
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

19 Phenanthrene

Concentration: 12.1 ng/mL



Date : 16-MAY-2017 20:40

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-04

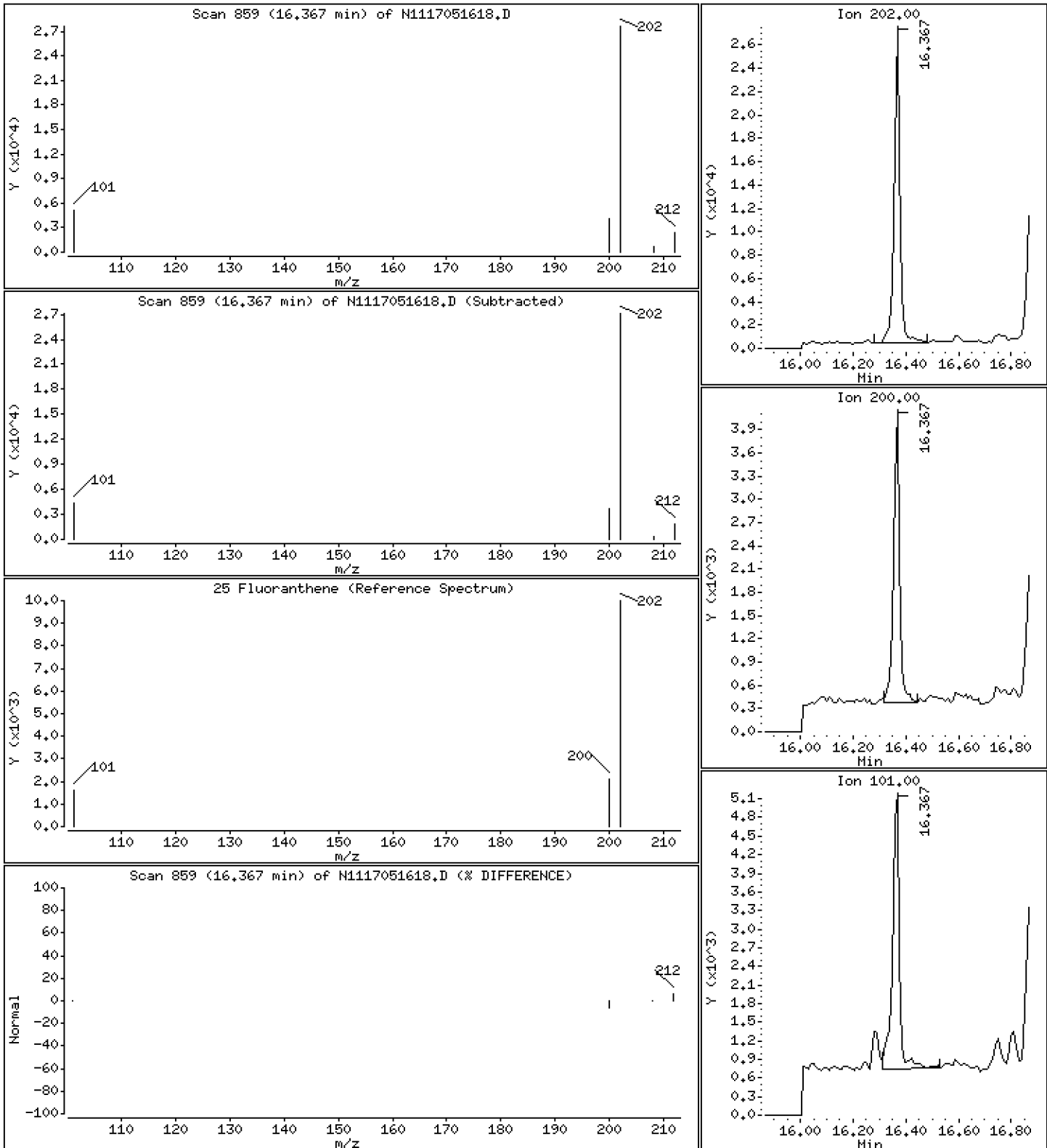
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

25 Fluoranthene

Concentration: 19,1 ng/mL



Date : 16-MAY-2017 20:40

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-04

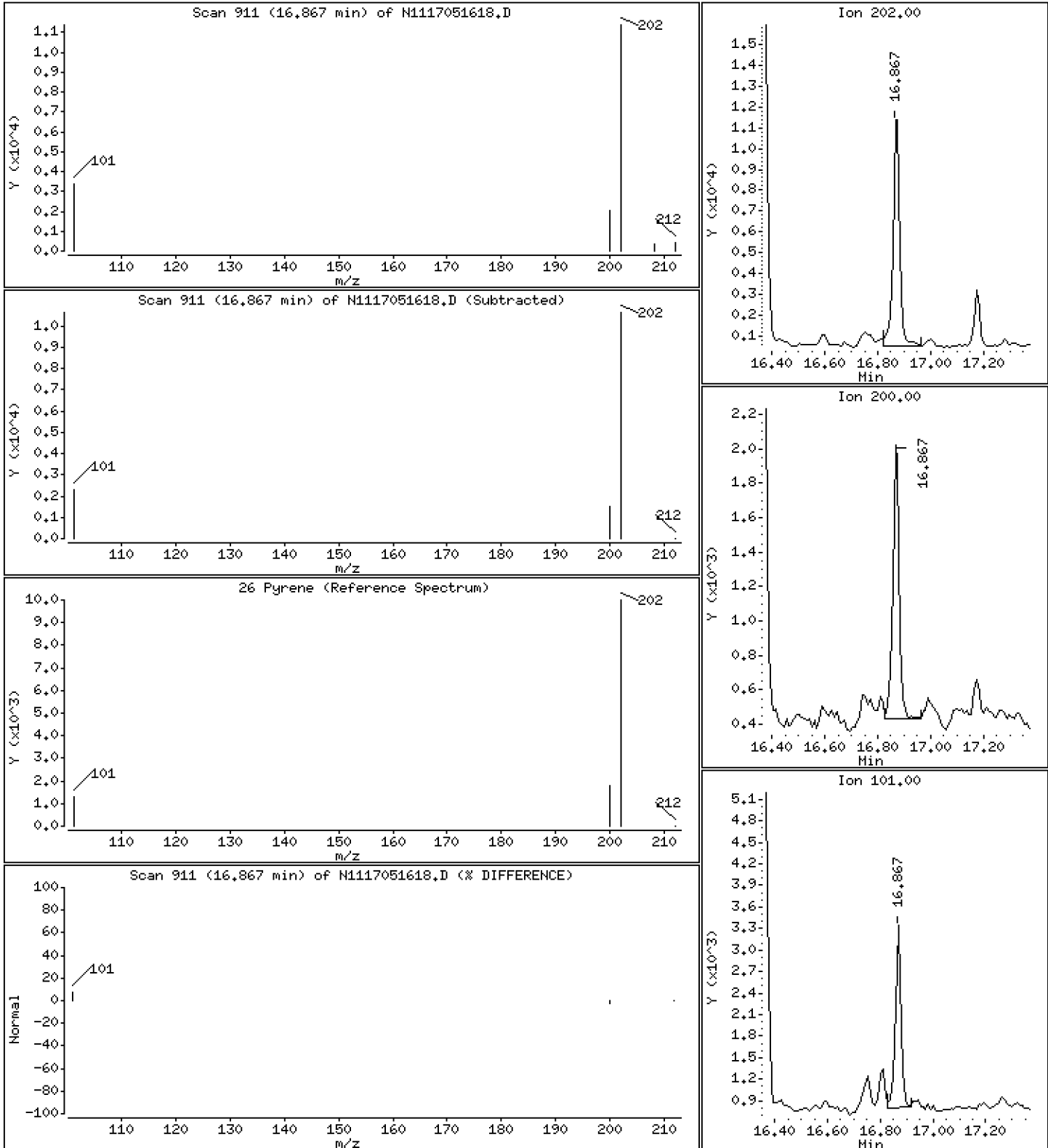
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Pyrene

Concentration: 11,4 ng/mL



Date : 16-MAY-2017 20:40

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-04

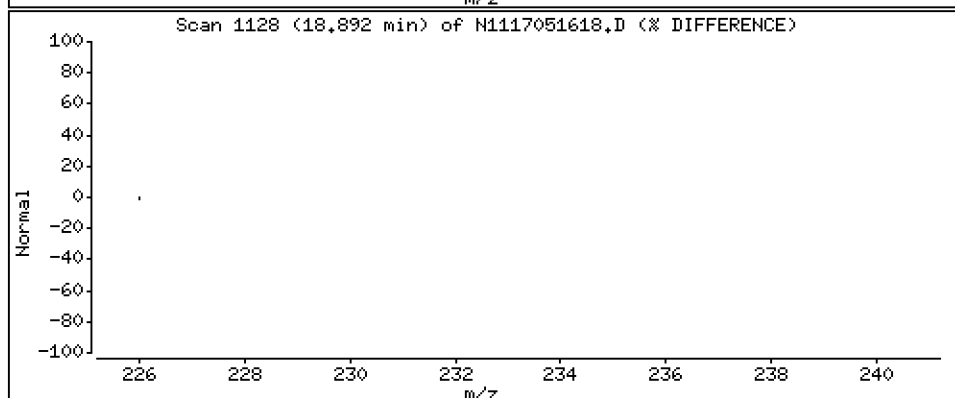
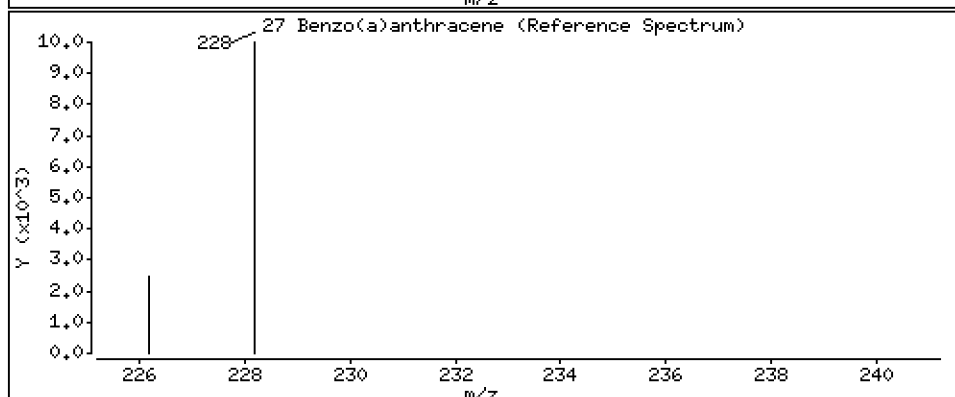
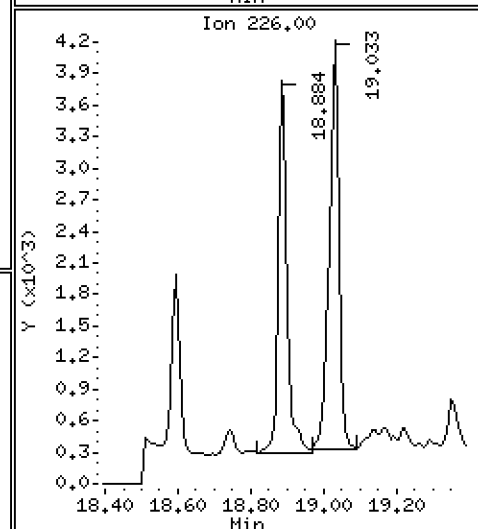
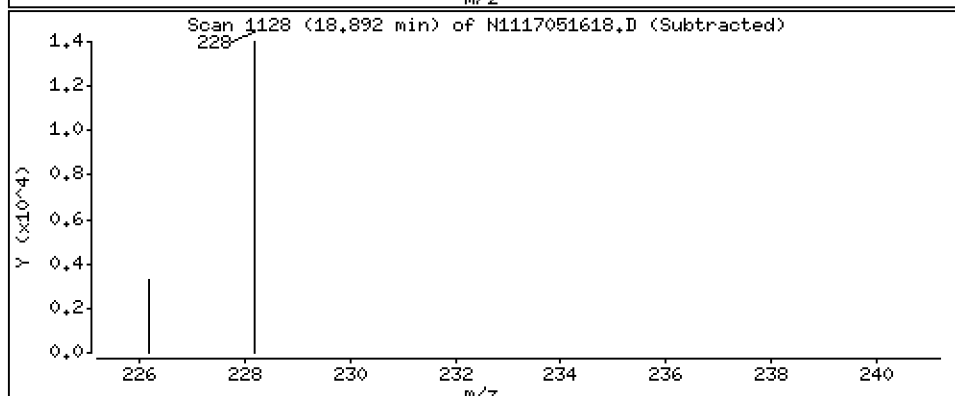
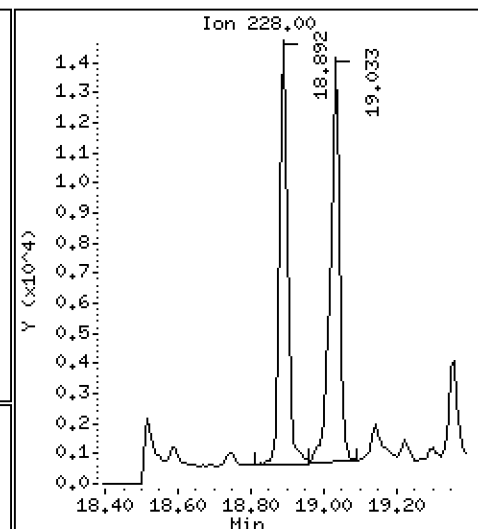
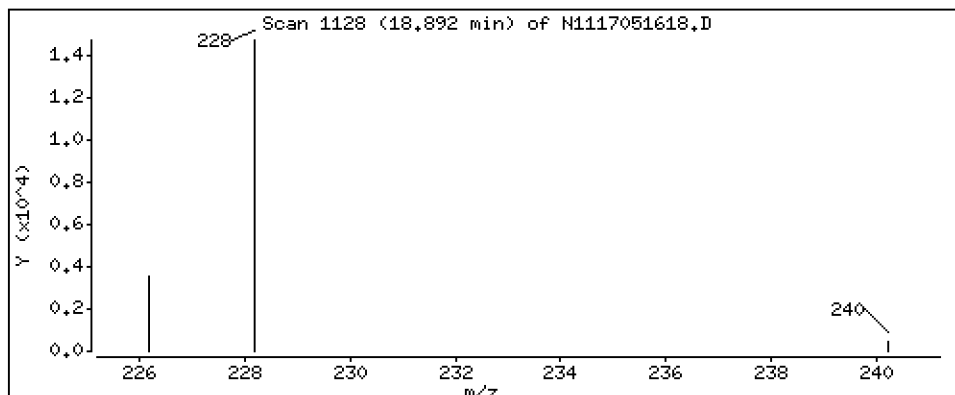
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)anthracene

Concentration: 16,0 ng/mL



Date : 16-MAY-2017 20:40

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-04

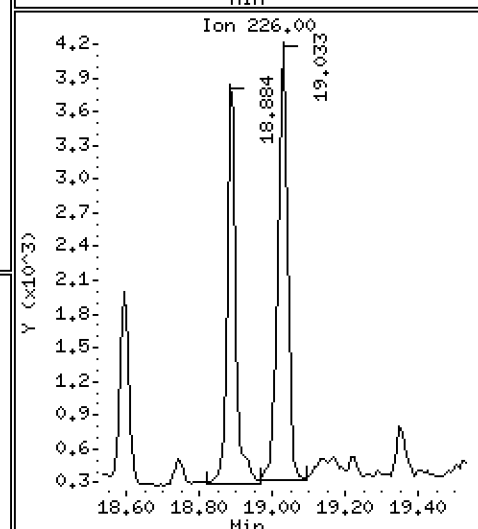
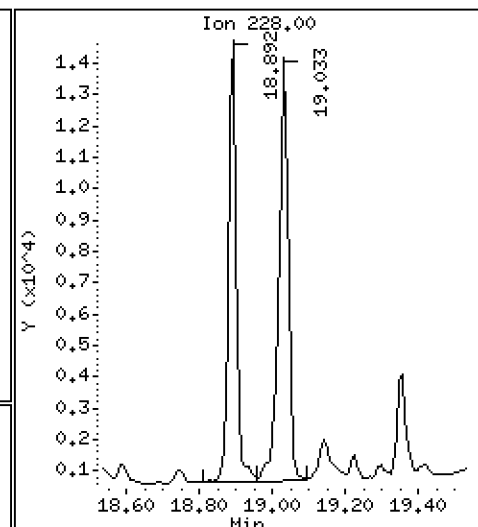
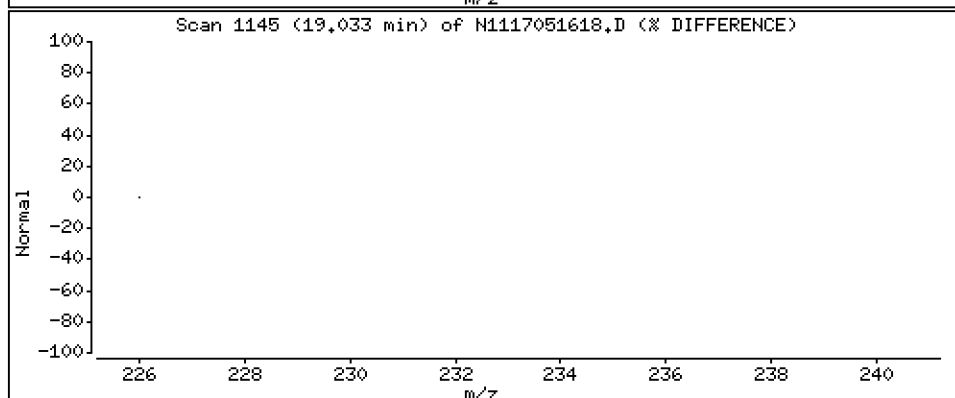
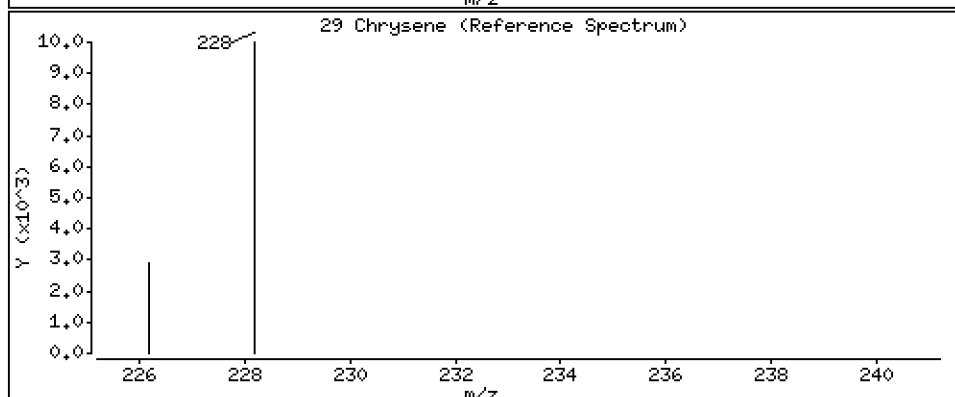
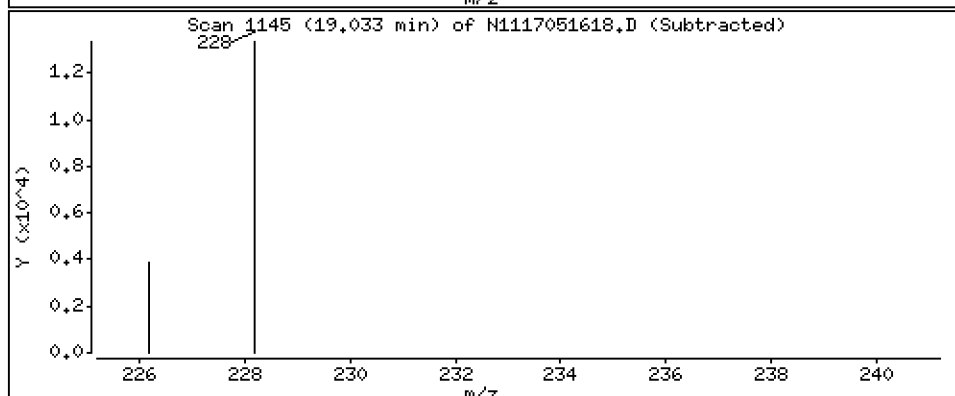
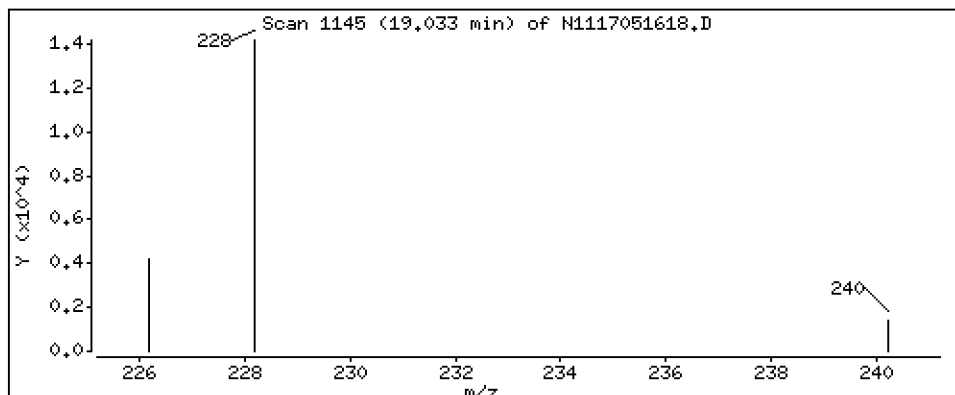
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 Chrysene

Concentration: 16,9 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170516.b\N1117051618.D
 Lab Smp Id: 17E0012-04
 Inj Date : 16-MAY-2017 20:40 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : 17E0012-04
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20170516.b\LOWSIM.m
 Meth Date : 17-May-2017 08:15 nt11.i Quant Type: ISTD
 Cal Date : 05-MAY-2017 14:47 Cal File: 17050508.D
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: allpna.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		8.490	8.500	(1.000)	468496	200.000	
2 Naphthalene	128		8.517	8.536	(1.003)	15731	6.24797	6.25
3 Benzo(b)thiophene	134		Compound Not Detected.					
\$ 4 2-Methylnaphthalene-d10	152		9.466	9.477	(1.115)	332793	165.761	166
5 2-Methylnaphthalene	142		9.529	9.540	(1.122)	11124	4.79004	4.79
6 1-Methylnaphthalene	142		Compound Not Detected.					
7 2-Chloronaphthalene	162		Compound Not Detected.					
8 Biphenyl	154		Compound Not Detected.					
9 2,6-Dimethylnaphthalene	156		Compound Not Detected.					
10 Acenaphthylene	152		Compound Not Detected.					
* 11 Acenaphthene-d10	164		11.528	11.528	(1.000)	197318	200.000	
12 Acenaphthene	153		Compound Not Detected.					
13 Dibenzofuran	168		Compound Not Detected.					
14 2,3,5-Trimethylnaphthalene	170		Compound Not Detected.					
\$ 15 Fluorene-d10	174		Compound Not Detected.					
16 Fluorene	166		Compound Not Detected.					
17 Dibenzothiophene	184		Compound Not Detected.					
* 18 Phenanthrene-d10	188		14.220	14.220	(1.000)	315731	200.000	
19 Phenanthrene	178		14.262	14.262	(1.003)	28368	12.0699	12.1
\$ 20 Anthracene-d10	188		Compound Not Detected.					
21 Anthracene	178		Compound Not Detected.					
22 Carbazole	167		Compound Not Detected.					
23 1-Methylphenanthrene	192		Compound Not Detected.					
\$ 24 Fluoranthene-d10	212		16.329	16.338	(1.148)	310239	207.854	208
25 Fluoranthene	202		16.367	16.367	(1.151)	43152	19.1051	19.1
26 Pyrene	202		16.867	16.876	(0.889)	20210	11.4112	11.4
27 Benzo(a)anthracene	228		18.891	18.892	(0.995)	22254	15.9749	16.0
* 28 Chrysene-d12	240		18.983	18.983	(1.000)	195629	200.000	
29 Chrysene	228		19.033	19.033	(1.003)	24341	16.9302	16.9
30 Benzo(b)fluoranthene	252		Compound Not Detected.					
31 Benzo(k)fluoranthene	252		Compound Not Detected.					
32 Benzo(j)fluoranthene	252		Compound Not Detected.					
\$ 33 Benzo(e)pyrene-d12	264		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
34 Benzo(e)pyrene	252							
35 Benzo(a)pyrene	252							
* 36 Perylene-d12	264		22.173	22.173	(1.000)	243397	200.000	
37 Perylene	252							
§ 38 Dibenzo(a,h)anthracene-d14	292		25.005	25.016	(1.128)	193843	213.502	214
39 Dibenzo(a,h)anthracene	278							
40 Indeno(1,2,3-cd)pyrene	276							
41 Benzo(g,h,i)perylene	276							

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 16-MAY-2017
 Lab File ID: N1117051618.D Calibration Time: 10:47
 Lab Smp Id: 17E0012-04
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20170516.b\LOWSIM.m
 Misc Info:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	371325	185663	742650	468496	26.17
11 Acenaphthene-d10	154428	77214	308856	197318	27.77
18 Phenanthrene-d10	256956	128478	513912	315731	22.87
28 Chrysene-d12	208629	104315	417258	195629	-6.23
36 Perylene-d12	225431	112716	450862	243397	7.97

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	8.50	8.00	9.00	8.49	-0.11
11 Acenaphthene-d10	11.53	11.03	12.03	11.53	-0.00
18 Phenanthrene-d10	14.22	13.72	14.72	14.22	-0.00
28 Chrysene-d12	18.98	18.48	19.48	18.98	-0.00
36 Perylene-d12	22.17	21.67	22.67	22.17	-0.00

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

REVIEW SUMMARY FOR FILE - N1117051618.D

Lab ID: 17E0012-04
nt11.i, 20170516.b\LOWSIM.m, 16-MAY-2017 20:40

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT CCV RRT DELTA COMPOUND

NONE

On Column LOD for nt11.i, 20170516.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 6.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory: Analytical Resources, Inc. SDG: 17E0012
 Client: Anchor QEA, LLC Project: Port Gamble Shellfish Monitoring
 Matrix: Tissue Laboratory ID: 17E0012-05 File ID: N1117051619.D
 Sampled: 04/28/17 13:30 Prepared: 05/09/17 13:50 Analyzed: 05/16/17 21:16
 Solids: Preparation: EPA 3550C-Mod (Ultrasonic Initial/Final: 10.13 g / 0.5 mL
 Batch: BFE0160 Sequence: SFE0208 Calibration: AE00020
 Instrument: NT11 Column: RXi-17Sil-MS

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.59	U	0.49	0.59
91-57-6	2-Methylnaphthalene	1	0.49	U	0.49	0.49
208-96-8	Acenaphthylene	1	0.49	U	0.49	0.49
83-32-9	Acenaphthene	1	0.49	U	0.49	0.49
86-73-7	Fluorene	1	0.49	U	0.49	0.49
85-01-8	Phenanthrene	1	0.49	U	0.49	0.49
120-12-7	Anthracene	1	0.49	U	0.49	0.49
206-44-0	Fluoranthene	1	0.49	U	0.49	0.49
129-00-0	Pyrene	1	0.49	U	0.49	0.49
56-55-3	Benzo(a)anthracene	1	0.49	U	0.49	0.49
218-01-9	Chrysene	1	0.49	U	0.49	0.49
205-99-2	Benzo(b)fluoranthene	1	0.49	U	0.49	0.49
207-08-9	Benzo(k)fluoranthene	1	0.49	U	0.49	0.49
50-32-8	Benzo(a)pyrene	1	0.49	U	0.49	0.49
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.49	U	0.49	0.49
53-70-3	Dibenzo(a,h)anthracene	1	0.49	U	0.49	0.49
191-24-2	Benzo(g,h,i)perylene	1	0.49	U	0.49	0.49
1985-5-0	Perylene	1	0.49	U	0.49	0.49
197-97-2	Benzo(e)pyrene	1	0.49	U	0.49	0.49

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.808	8.84	59.7	30 - 160	
Dibenzo[a,h]anthracene-d14	14.808	11.0	74.5	30 - 160	
Fluoranthene-d10	14.808	10.9	73.4	30 - 160	

Data File: \\target\share\chem3\nt11.1\20170516.6\N1117051619.D

Date : 16-May-2017 21:16

Client ID:

Sample Info: 17E0012-05

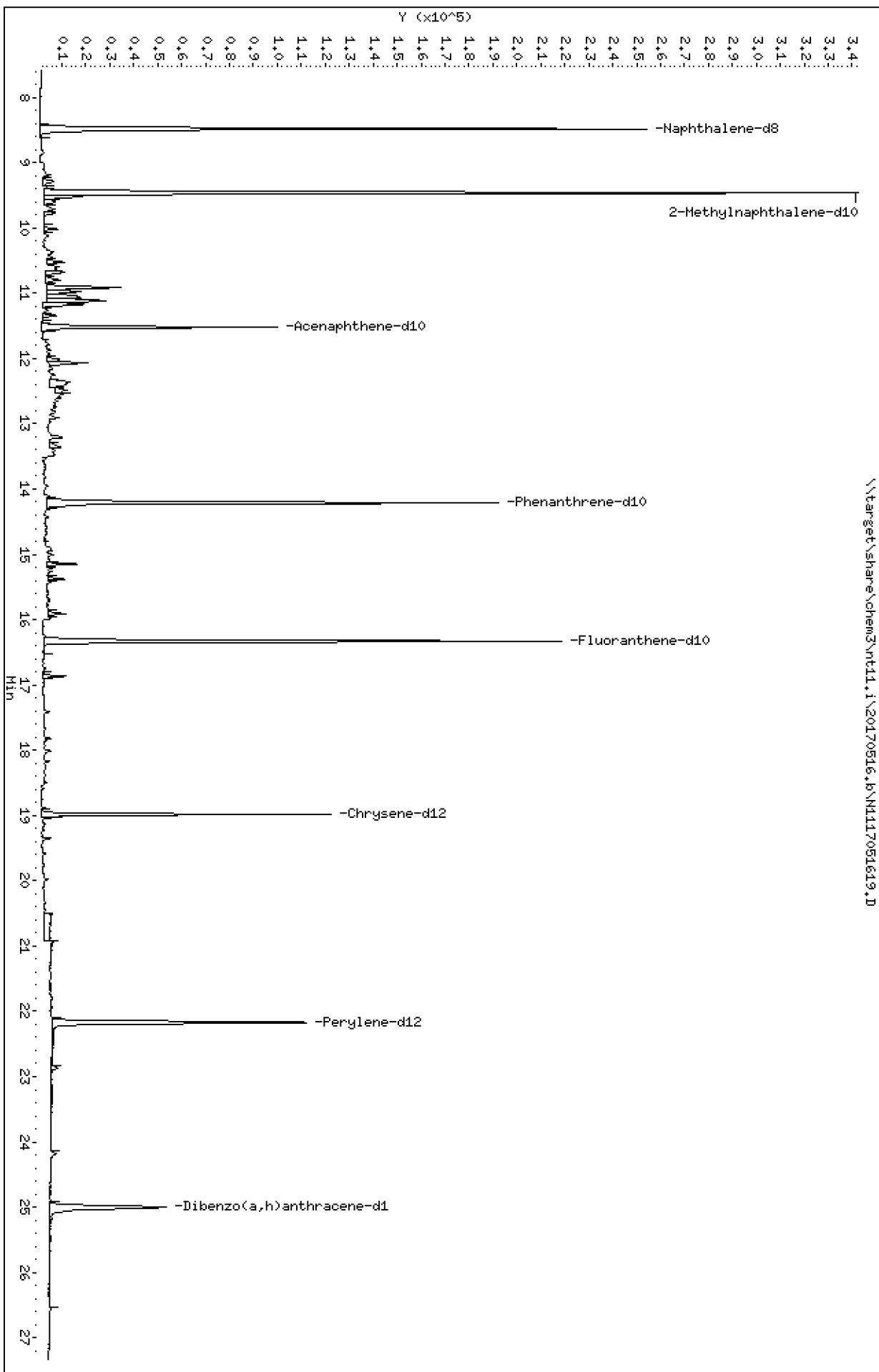
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 16-MAY-2017 21:16

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-05

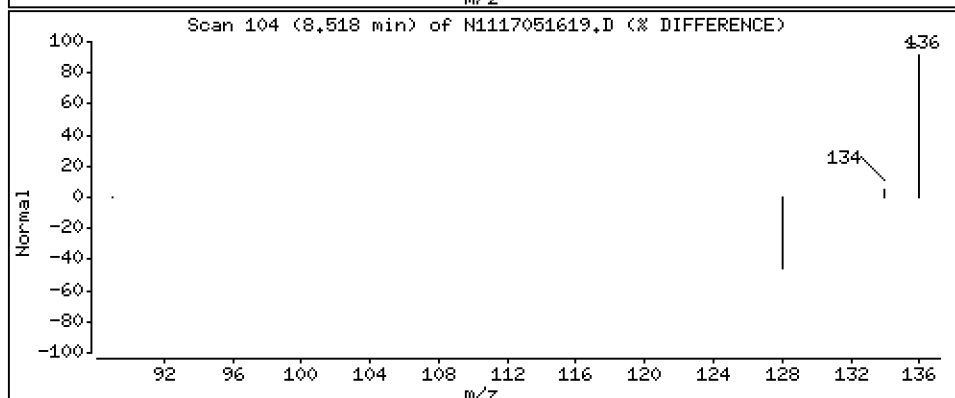
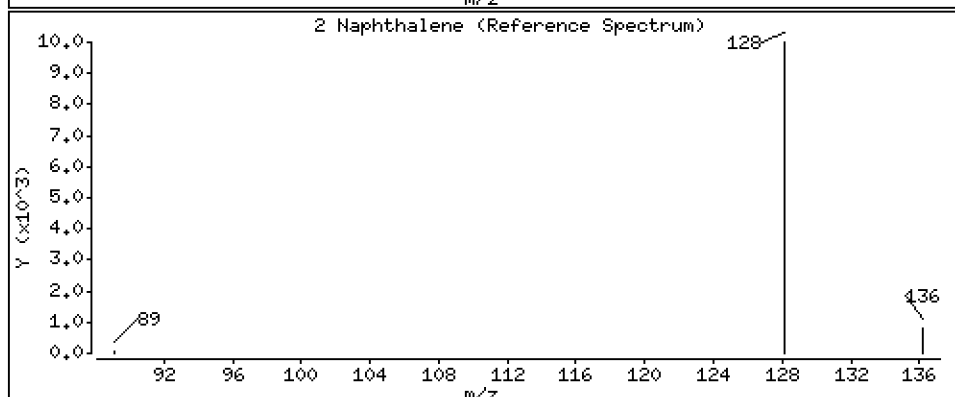
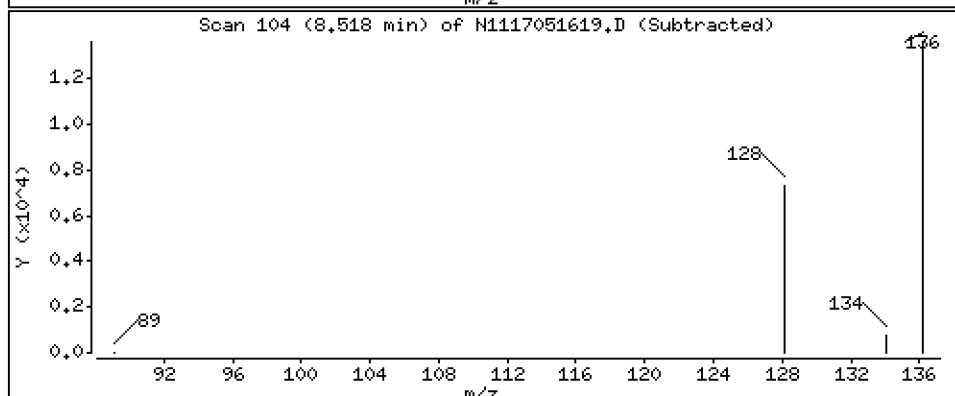
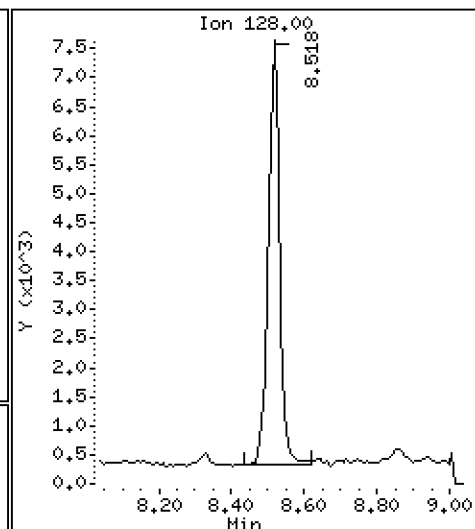
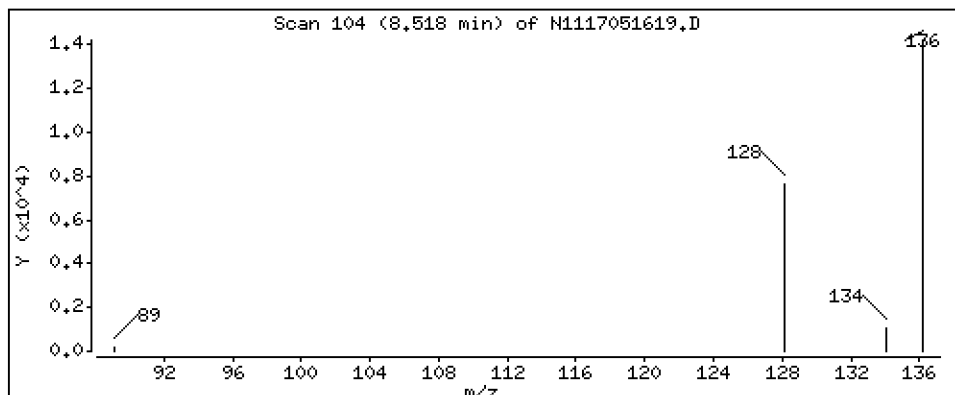
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 6,12 ng/mL



Date : 16-MAY-2017 21:16

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-05

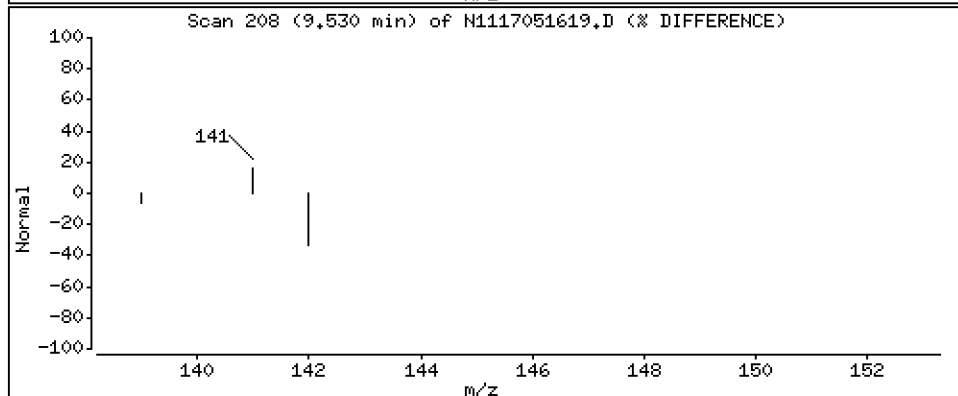
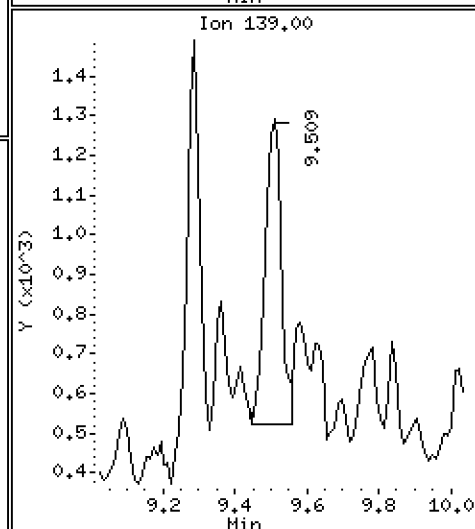
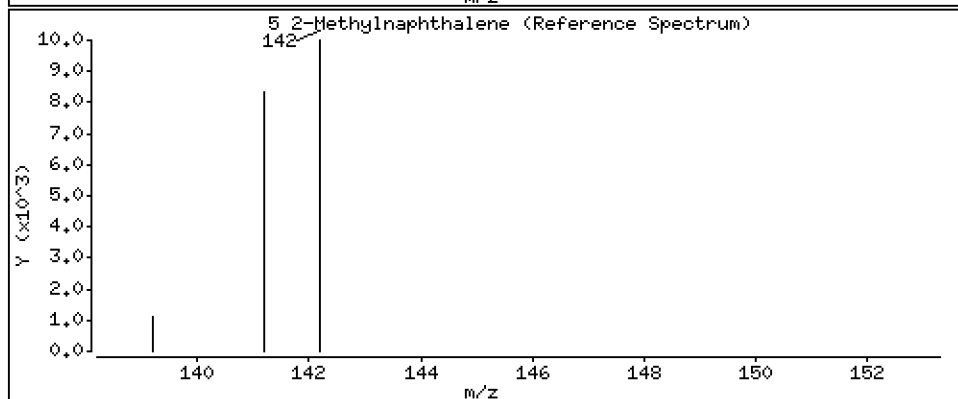
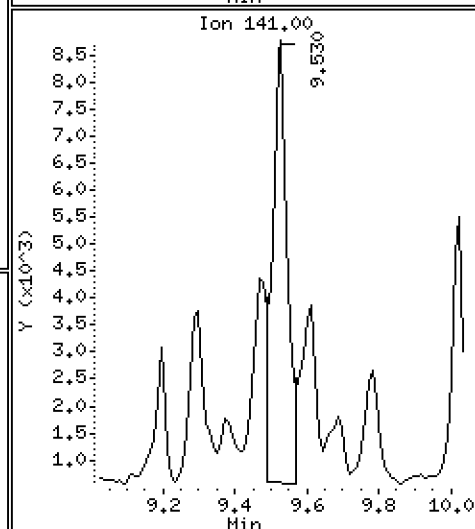
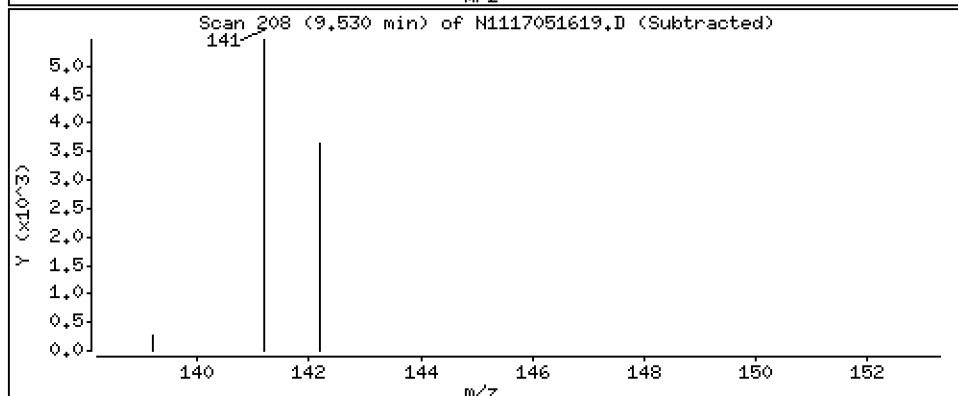
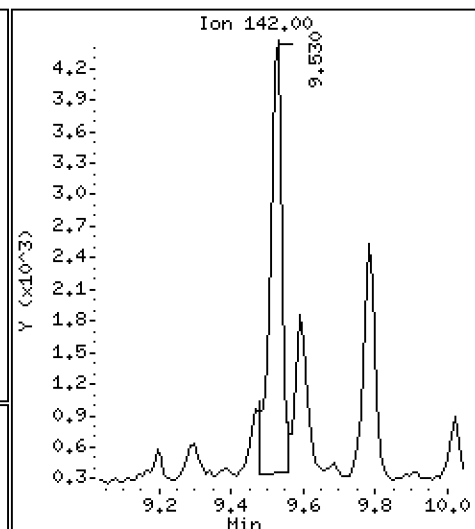
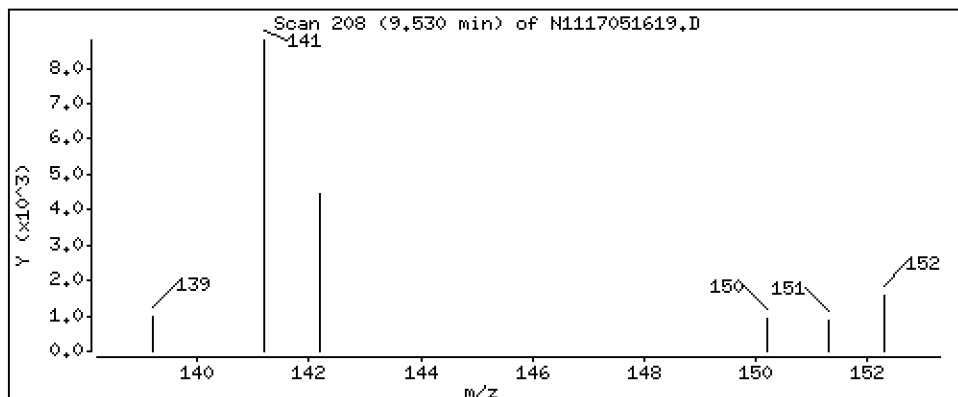
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

5-2-Methylnaphthalene

Concentration: 4,24 ng/mL



Date : 16-MAY-2017 21:16

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-05

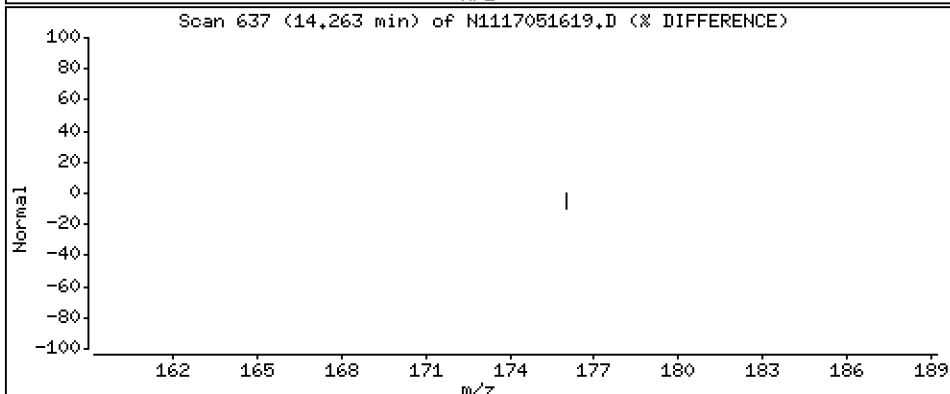
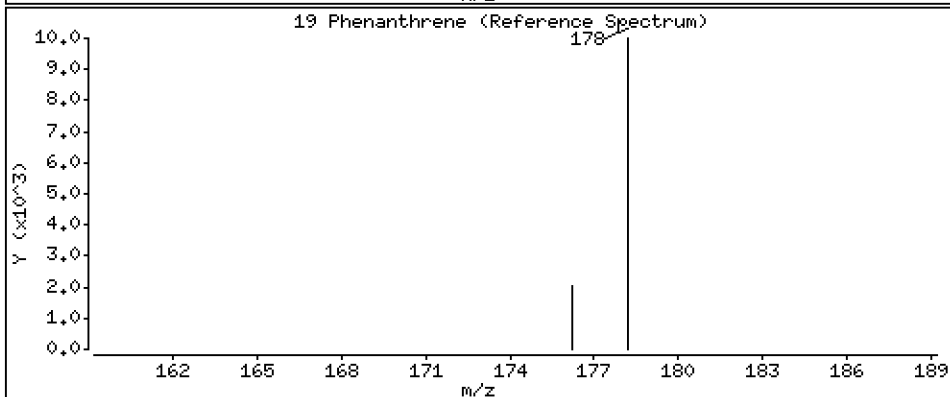
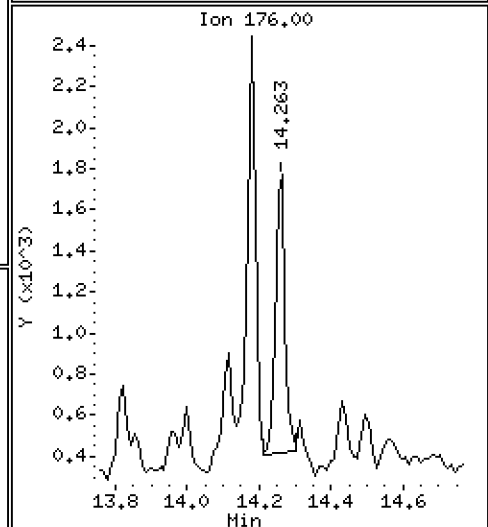
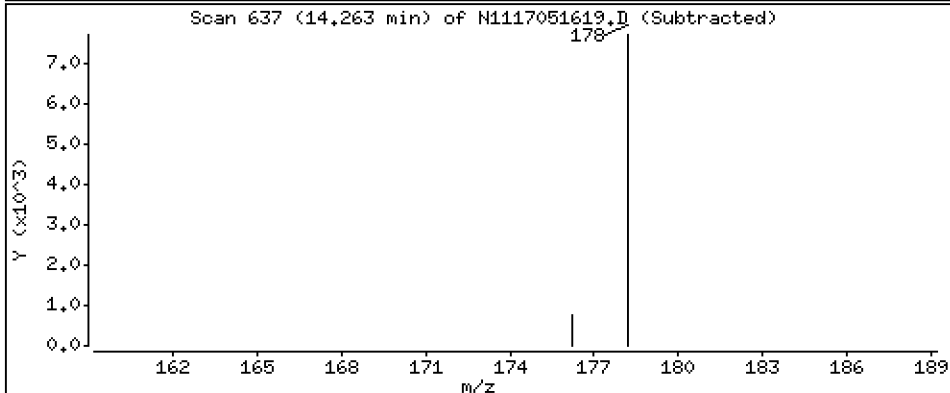
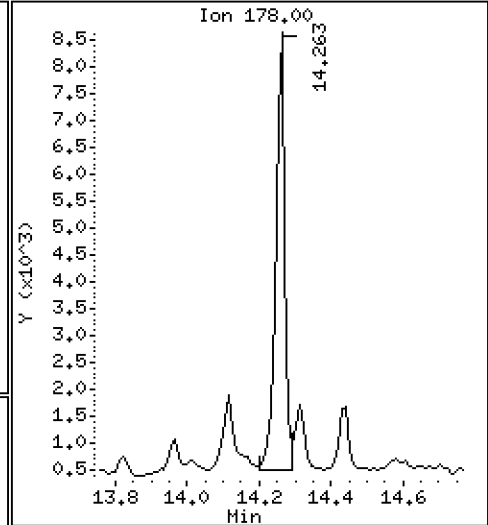
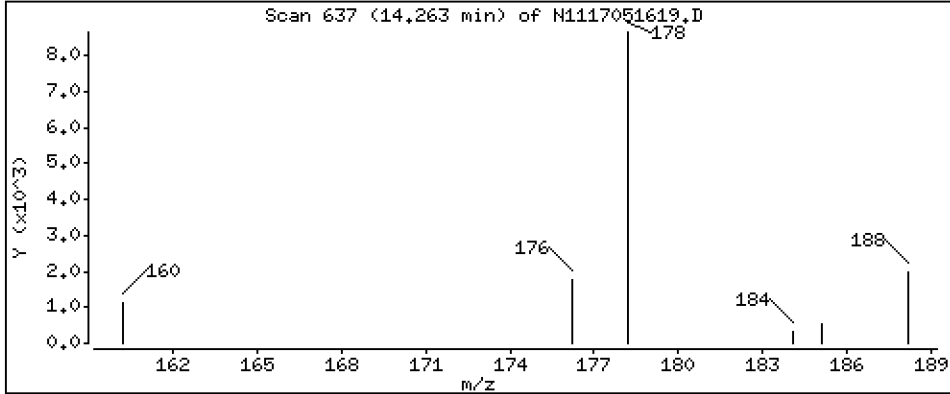
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 Phenanthrene

Concentration: 6,83 ng/mL



Date : 16-MAY-2017 21:16

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-05

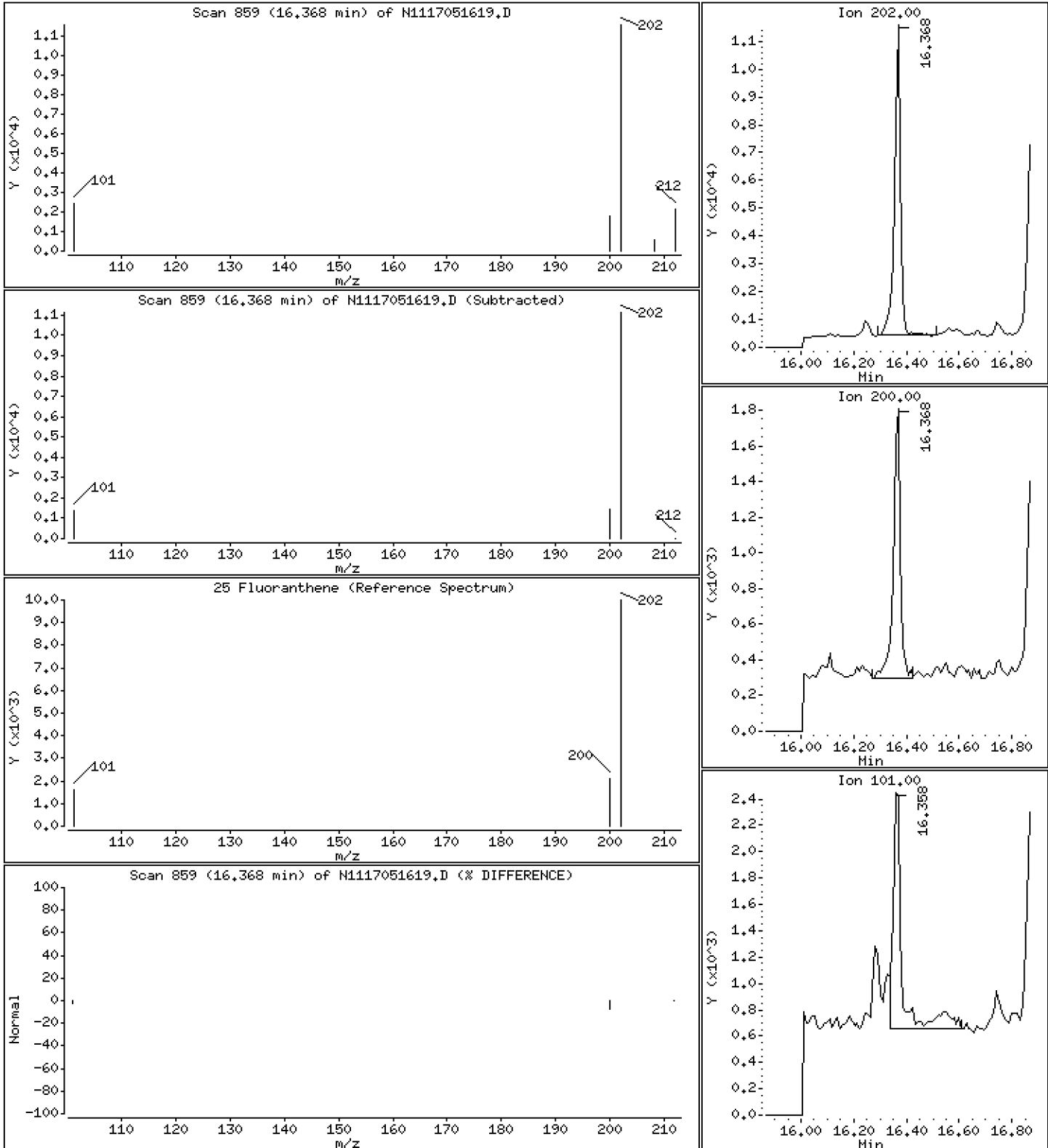
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

25 Fluoranthene

Concentration: 8,23 ng/mL



Date : 16-MAY-2017 21:16

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-05

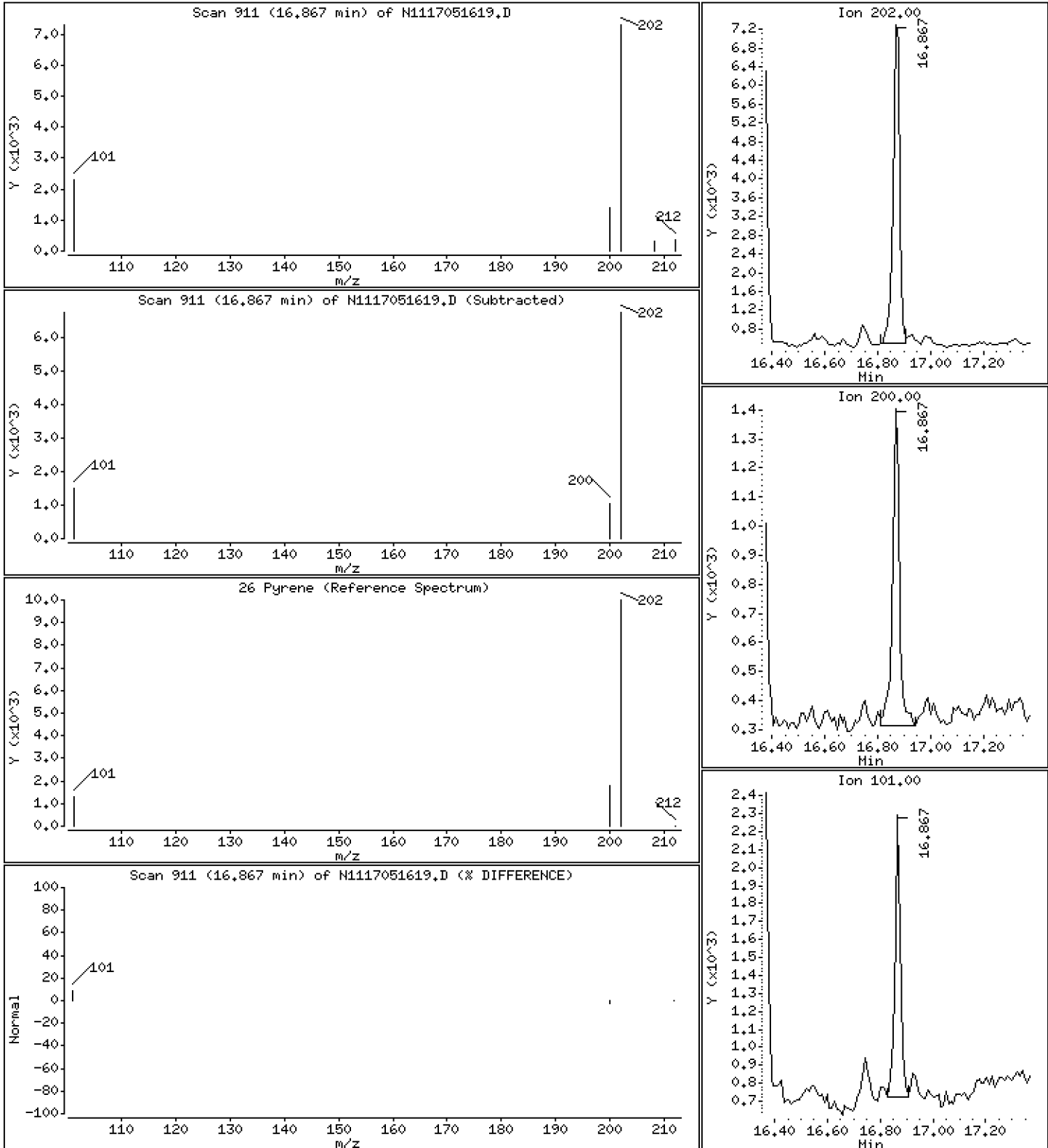
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Pyrene

Concentration: 7,15 ng/mL



Date : 16-MAY-2017 21:16

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-05

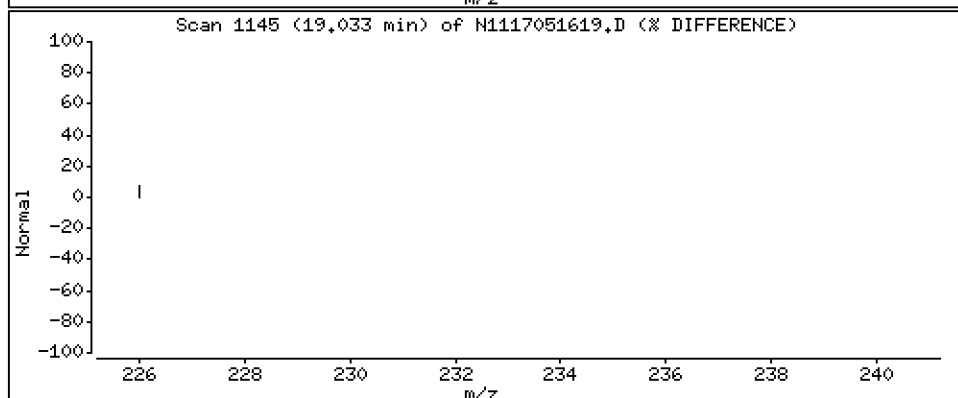
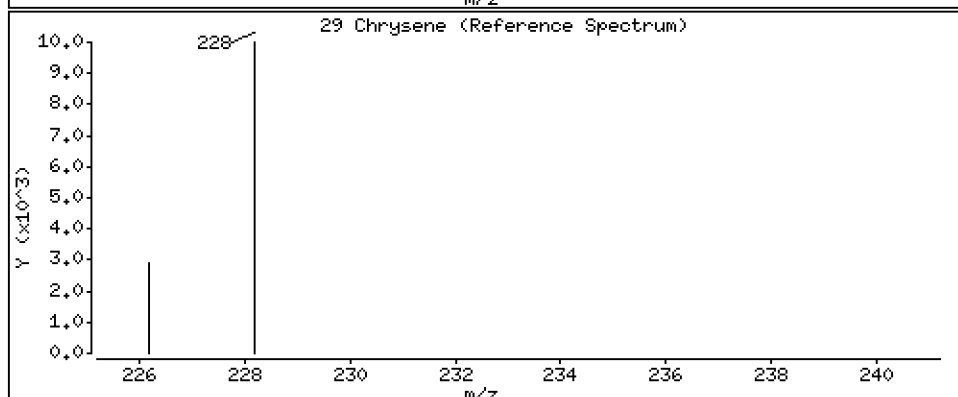
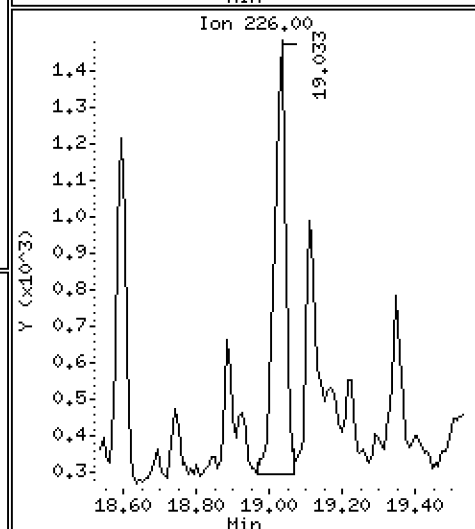
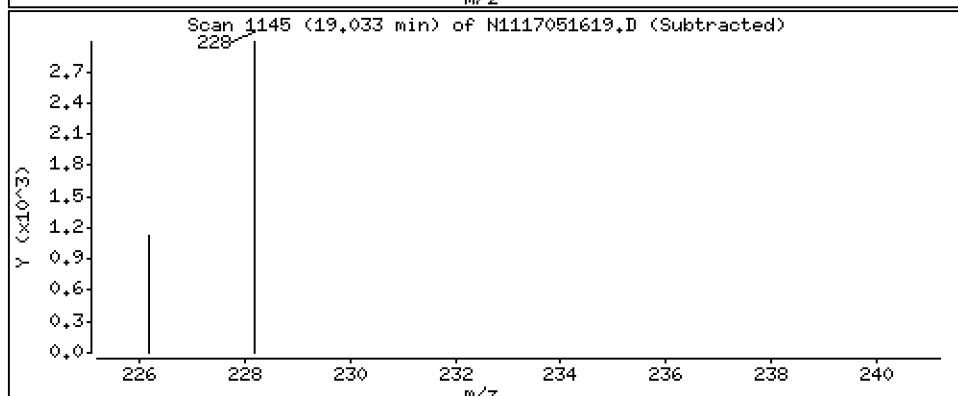
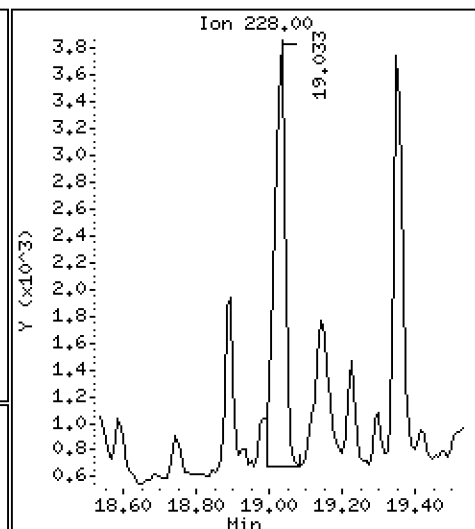
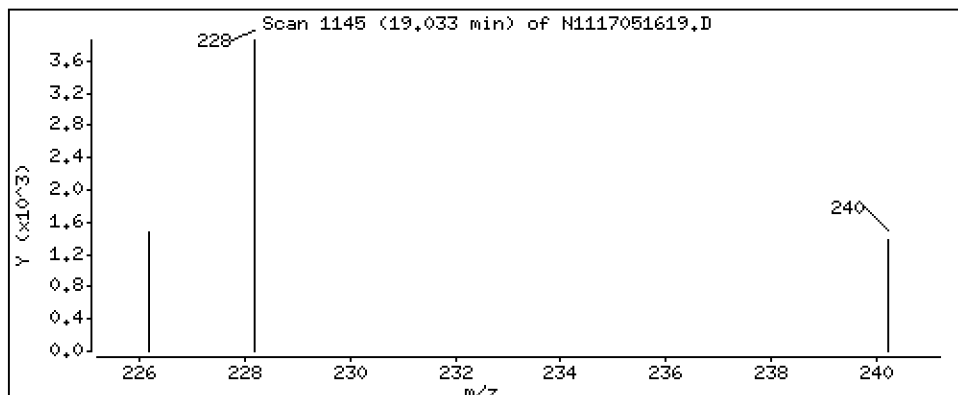
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 Chrysene

Concentration: 4,74 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170516.b\N1117051619.D
 Lab Smp Id: 17E0012-05
 Inj Date : 16-MAY-2017 21:16 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : 17E0012-05
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20170516.b\LOWSIM.m
 Meth Date : 17-May-2017 08:15 nt11.i Quant Type: ISTD
 Cal Date : 05-MAY-2017 14:47 Cal File: 17050508.D
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: allpna.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		8.481	8.500	(1.000)	467644	200.000	
2 Naphthalene	128		8.518	8.536	(1.004)	15370	6.11571	6.12
3 Benzo(b)thiophene	134		Compound Not Detected.					
\$ 4 2-Methylnaphthalene-d10	152		9.466	9.477	(1.116)	358895	179.088	179
5 2-Methylnaphthalene	142		9.529	9.540	(1.124)	9819	4.23580	4.24
6 1-Methylnaphthalene	142		Compound Not Detected.					
7 2-Chloronaphthalene	162		Compound Not Detected.					
8 Biphenyl	154		Compound Not Detected.					
9 2,6-Dimethylnaphthalene	156		Compound Not Detected.					
10 Acenaphthylene	152		Compound Not Detected.					
* 11 Acenaphthene-d10	164		11.519	11.528	(1.000)	199402	200.000	
12 Acenaphthene	153		Compound Not Detected.					
13 Dibenzofuran	168		Compound Not Detected.					
14 2,3,5-Trimethylnaphthalene	170		Compound Not Detected.					
\$ 15 Fluorene-d10	174		Compound Not Detected.					
16 Fluorene	166		Compound Not Detected.					
17 Dibenzothiophene	184		Compound Not Detected.					
* 18 Phenanthrene-d10	188		14.220	14.220	(1.000)	309247	200.000	
19 Phenanthrene	178		14.262	14.262	(1.003)	15729	6.83261	6.83
\$ 20 Anthracene-d10	188		Compound Not Detected.					
21 Anthracene	178		Compound Not Detected.					
22 Carbazole	167		Compound Not Detected.					
23 1-Methylphenanthrene	192		Compound Not Detected.					
\$ 24 Fluoranthene-d10	212		16.329	16.338	(1.148)	321855	220.158	220
25 Fluoranthene	202		16.367	16.367	(1.151)	18214	8.23313	8.23
26 Pyrene	202		16.867	16.876	(0.889)	12008	7.15365	7.15
27 Benzo(a)anthracene	228		Compound Not Detected.					
* 28 Chrysene-d12	240		18.983	18.983	(1.000)	185414	200.000	
29 Chrysene	228		19.033	19.033	(1.003)	6463	4.74294	4.74
30 Benzo(b)fluoranthene	252		Compound Not Detected.					
31 Benzo(k)fluoranthene	252		Compound Not Detected.					
32 Benzo(j)fluoranthene	252		Compound Not Detected.					
\$ 33 Benzo(e)pyrene-d12	264		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
34 Benzo(e)pyrene	252							
35 Benzo(a)pyrene	252							
* 36 Perylene-d12	264		22.173	22.173	(1.000)	232036	200.000	
37 Perylene	252							
§ 38 Dibenzo(a,h)anthracene-d14	292		25.005	25.016	(1.128)	193423	223.471	223
39 Dibenzo(a,h)anthracene	278							
40 Indeno(1,2,3-cd)pyrene	276							
41 Benzo(g,h,i)perylene	276							

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 16-MAY-2017
 Lab File ID: N1117051619.D Calibration Time: 10:47
 Lab Smp Id: 17E0012-05
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20170516.b\LOWSIM.m
 Misc Info:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	371325	185663	742650	467644	25.94
11 Acenaphthene-d10	154428	77214	308856	199402	29.12
18 Phenanthrene-d10	256956	128478	513912	309247	20.35
28 Chrysene-d12	208629	104315	417258	185414	-11.13
36 Perylene-d12	225431	112716	450862	232036	2.93

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	8.50	8.00	9.00	8.48	-0.21
11 Acenaphthene-d10	11.53	11.03	12.03	11.52	-0.08
18 Phenanthrene-d10	14.22	13.72	14.72	14.22	-0.00
28 Chrysene-d12	18.98	18.48	19.48	18.98	-0.00
36 Perylene-d12	22.17	21.67	22.67	22.17	-0.00

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

REVIEW SUMMARY FOR FILE - N1117051619.D

Lab ID: 17E0012-05
nt11.i, 20170516.b\LOWSIM.m, 16-MAY-2017 21:16

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT CCV RRT DELTA COMPOUND

NONE

On Column LOD for nt11.i, 20170516.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 6.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000



Form I
ORGANIC ANALYSIS DATA SHEET
EPA 8270D-SIM
Polynuclear Aromatic Hydrocarbons - low level

Laboratory: Analytical Resources, Inc. SDG: 17E0012
Client: Anchor QEA, LLC Project: Port Gamble Shellfish Monitoring
Matrix: Tissue Laboratory ID: 17E0012-06 File ID: N1117051620.D
Sampled: 04/27/17 12:30 Prepared: 05/09/17 13:50 Analyzed: 05/16/17 21:53
Solids: Preparation: EPA 3550C-Mod (Ultrasonic) Initial/Final: 10.05 g / 0.5 mL
Batch: BFE0160 Sequence: SFE0208 Calibration: AE00020
Instrument: NT11 Column: RXi-17Sil-MS

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.60	U	0.50	0.60
91-57-6	2-Methylnaphthalene	1	0.50	U	0.50	0.50
208-96-8	Acenaphthylene	1	0.50	U	0.50	0.50
83-32-9	Acenaphthene	1	0.50	U	0.50	0.50
86-73-7	Fluorene	1	0.50	U	0.50	0.50
85-01-8	Phenanthrene	1	0.69		0.50	0.50
120-12-7	Anthracene	1	0.50	U	0.50	0.50
206-44-0	Fluoranthene	1	0.68		0.50	0.50
129-00-0	Pyrene	1	0.50	U	0.50	0.50
56-55-3	Benzo(a)anthracene	1	0.50	U	0.50	0.50
218-01-9	Chrysene	1	0.55		0.50	0.50
205-99-2	Benzo(b)fluoranthene	1	0.50	U	0.50	0.50
207-08-9	Benzo(k)fluoranthene	1	0.50	U	0.50	0.50
50-32-8	Benzo(a)pyrene	1	0.50	U	0.50	0.50
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.50	U	0.50	0.50
53-70-3	Dibenzo(a,h)anthracene	1	0.50	U	0.50	0.50
191-24-2	Benzo(g,h,i)perylene	1	0.50	U	0.50	0.50
1985-5-0	Perylene	1	0.50	U	0.50	0.50
197-97-2	Benzo(e)pyrene	1	0.50	U	0.50	0.50

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.925	8.66	58.0	30 - 160	
Dibenzo[a,h]anthracene-d14	14.925	10.7	71.5	30 - 160	
Fluoranthene-d10	14.925	10.8	72.2	30 - 160	

Data File: \\target\share\chem3\nt11.1\20170516.6\N1117051620.D

Date: 16-May-2017 21:53

Client ID:

Sample Info: 17E0012-06

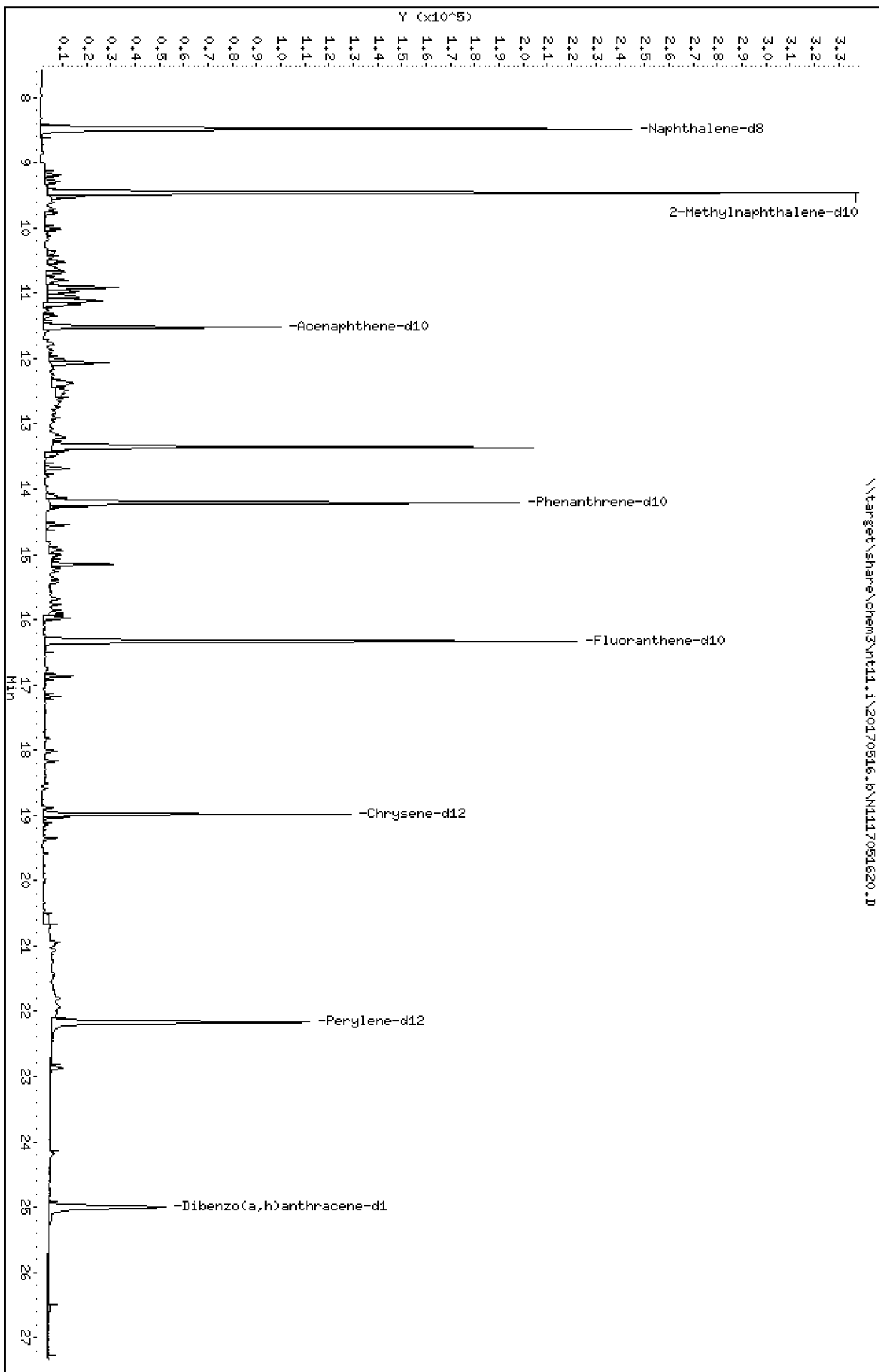
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt11.1\20170516.6\N1117051620.D



Date : 16-MAY-2017 21:53

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-06

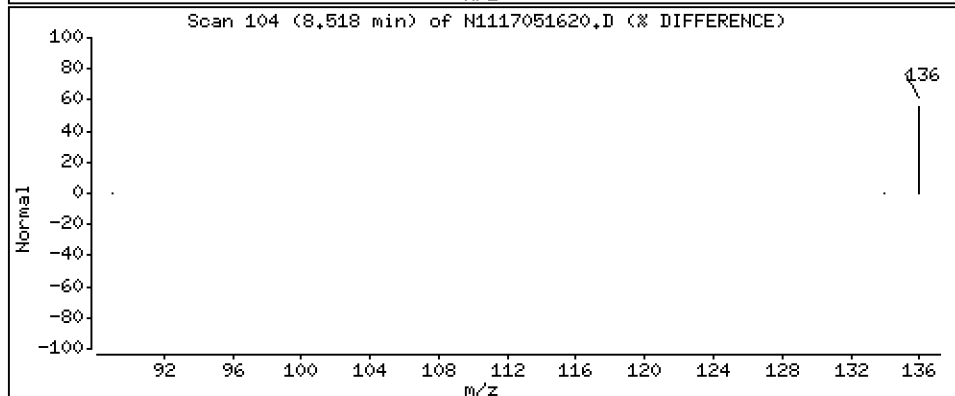
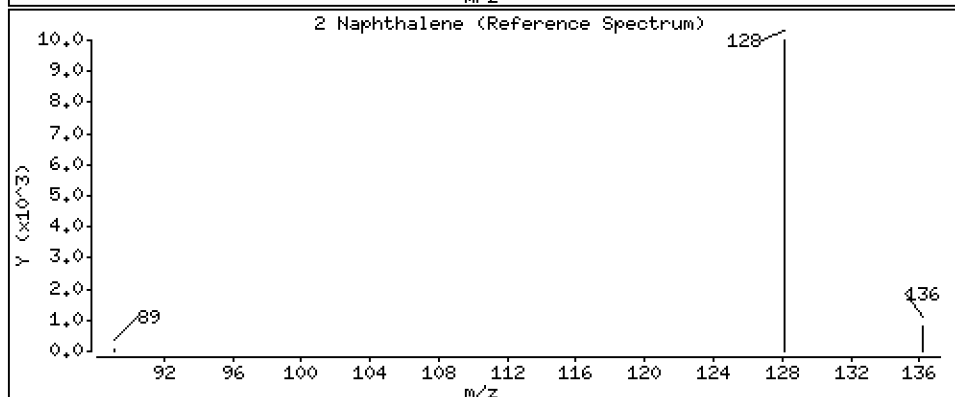
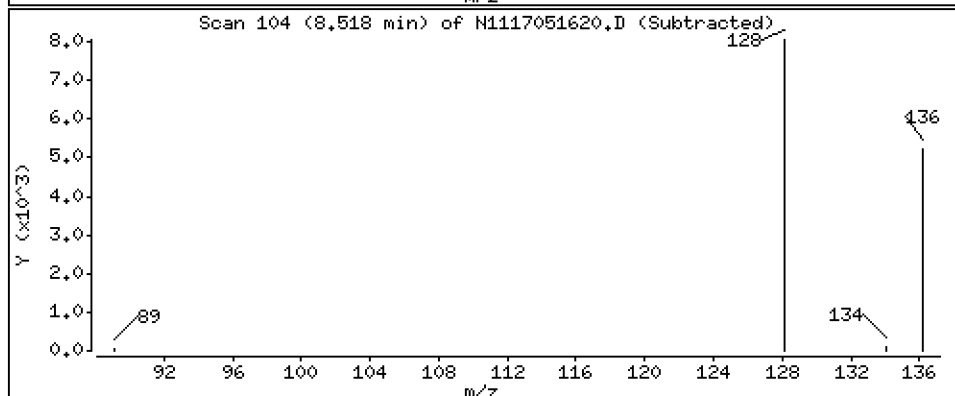
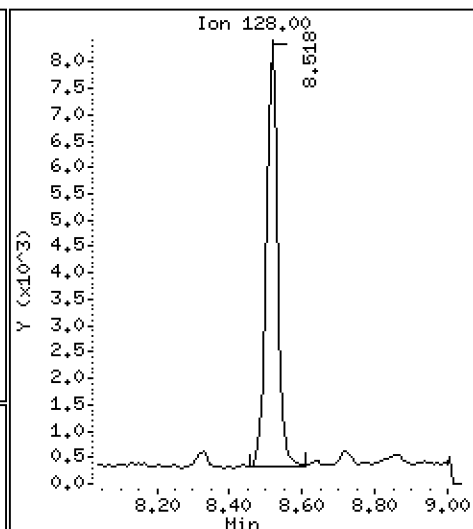
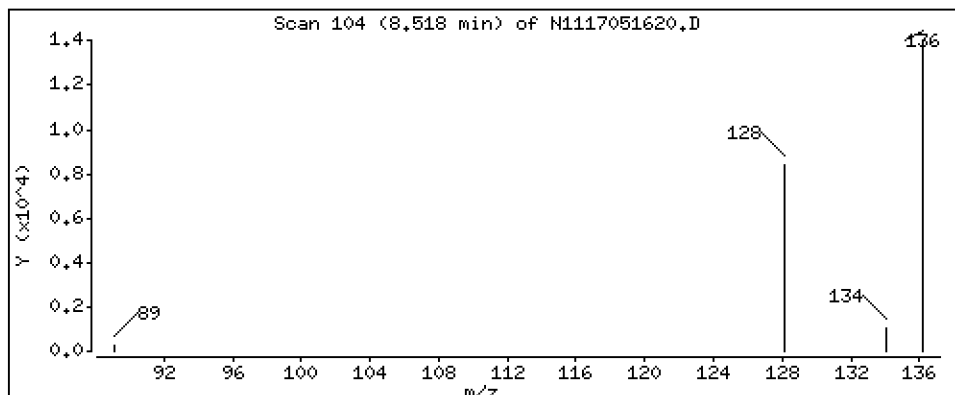
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 6,59 ng/mL



Date : 16-MAY-2017 21:53

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-06

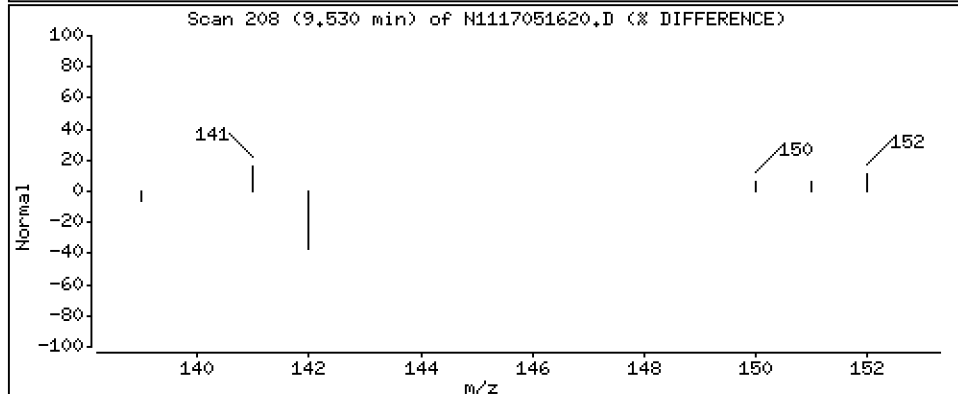
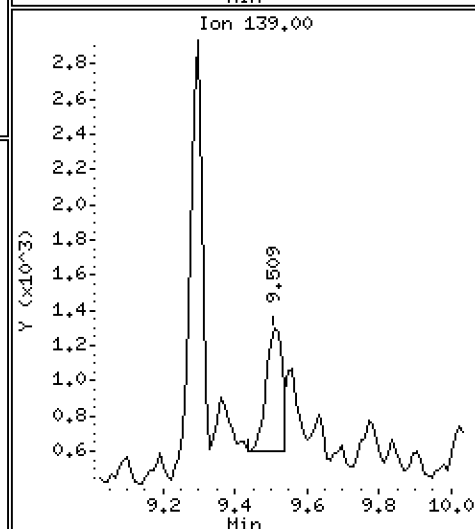
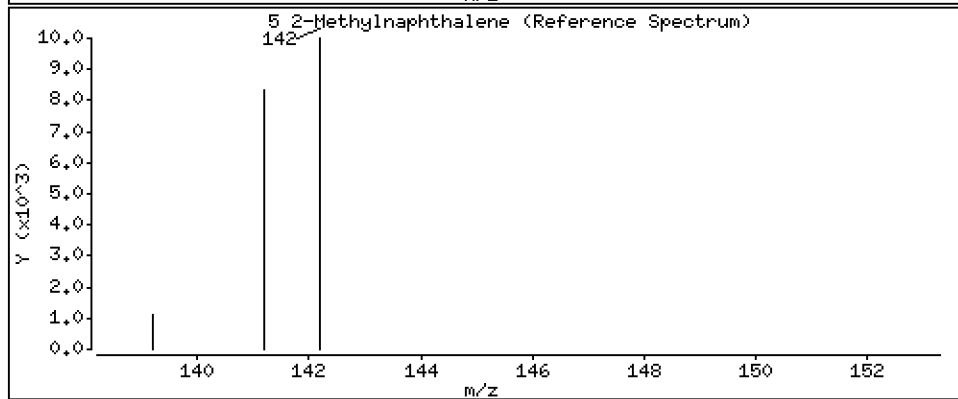
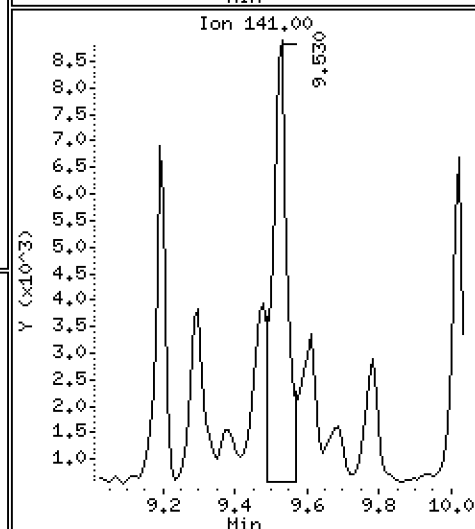
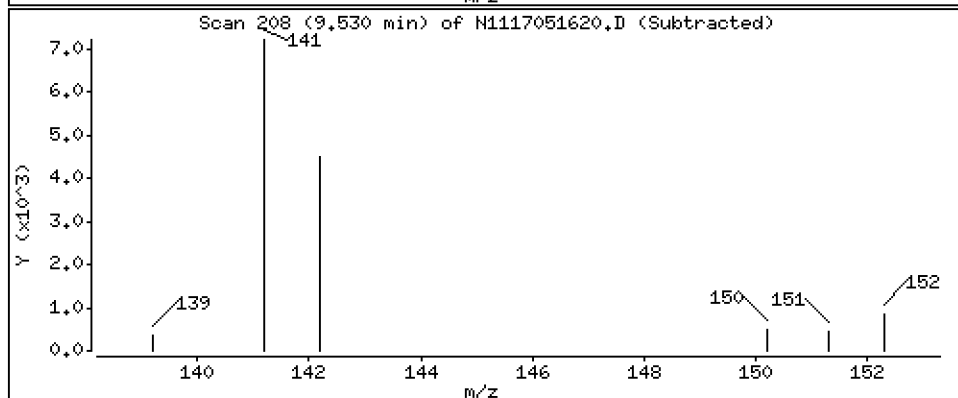
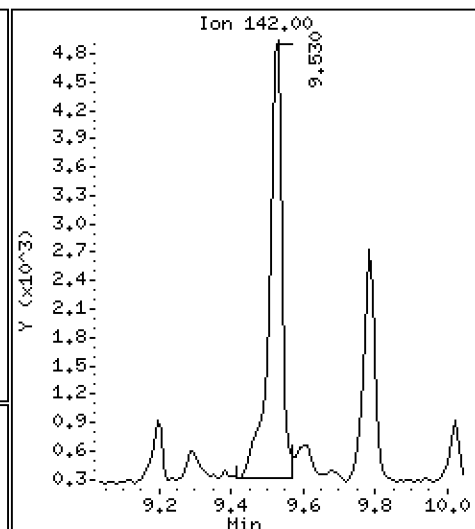
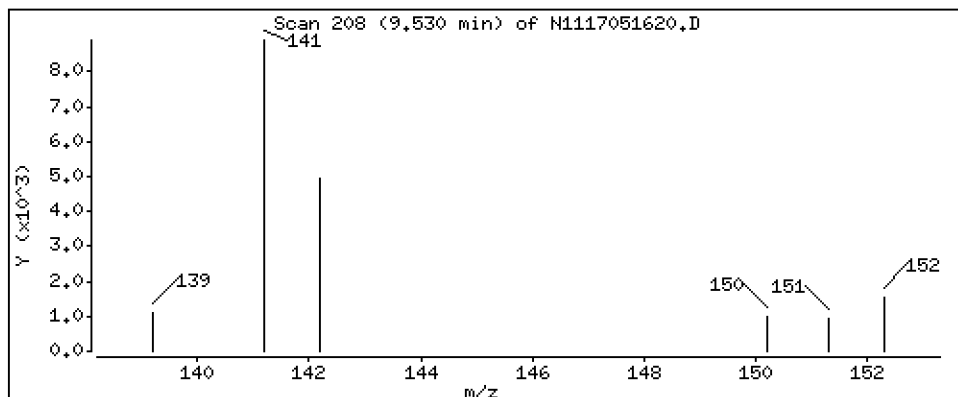
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

5-2-Methylnaphthalene

Concentration: 5,03 ng/mL



Date : 16-MAY-2017 21:53

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-06

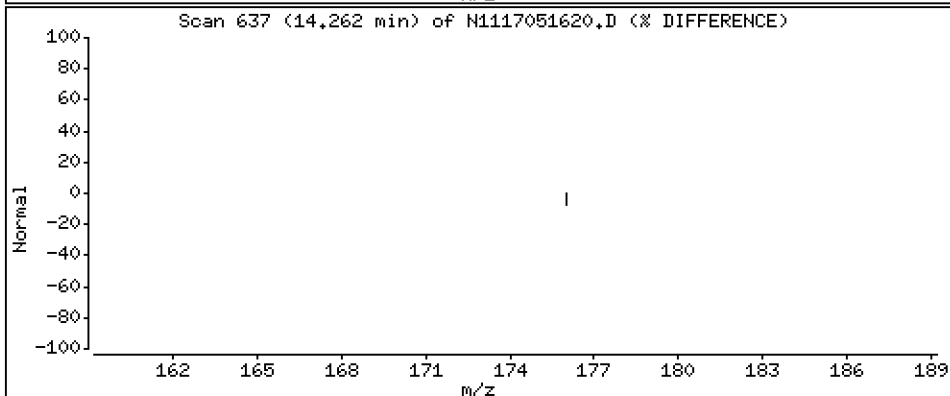
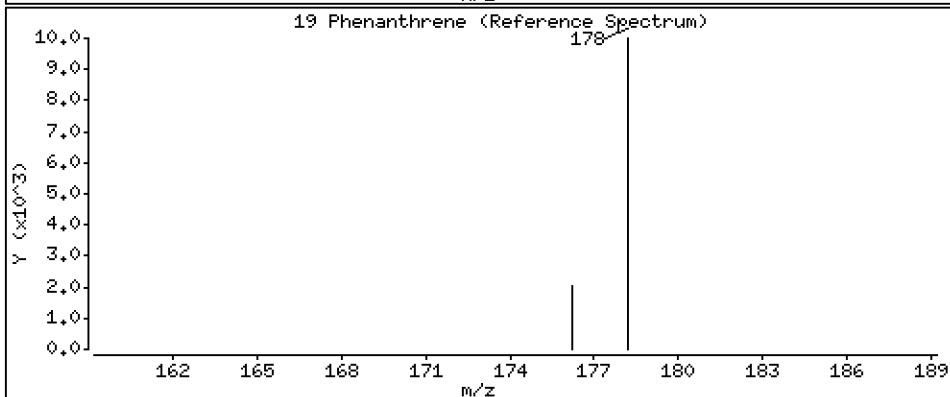
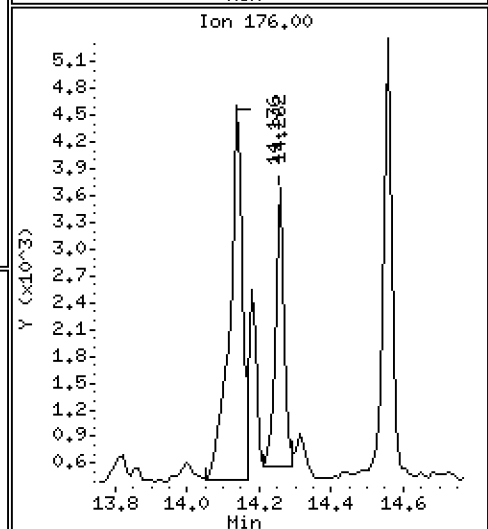
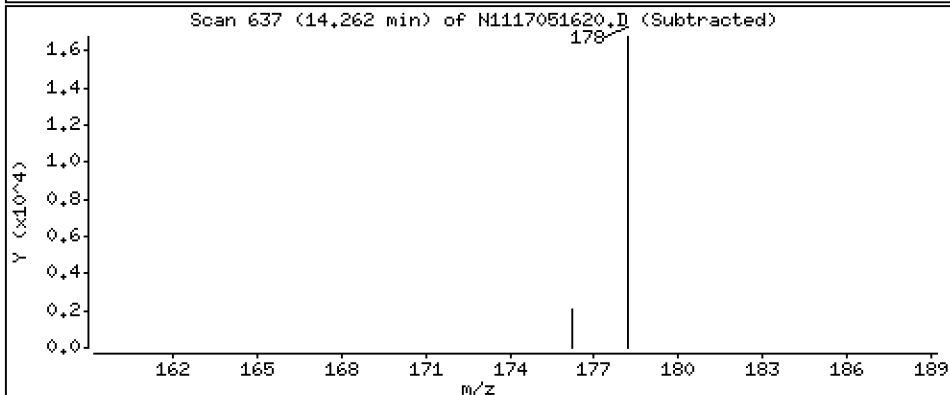
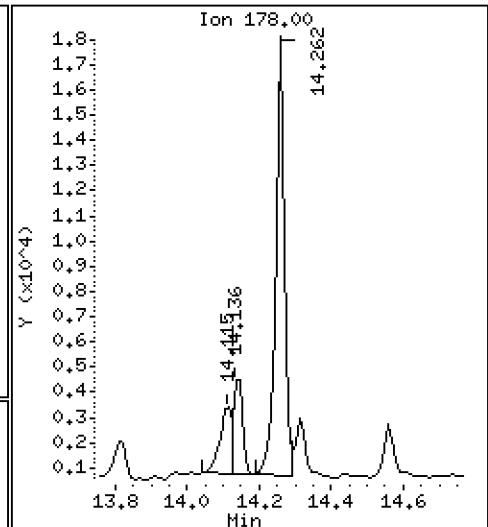
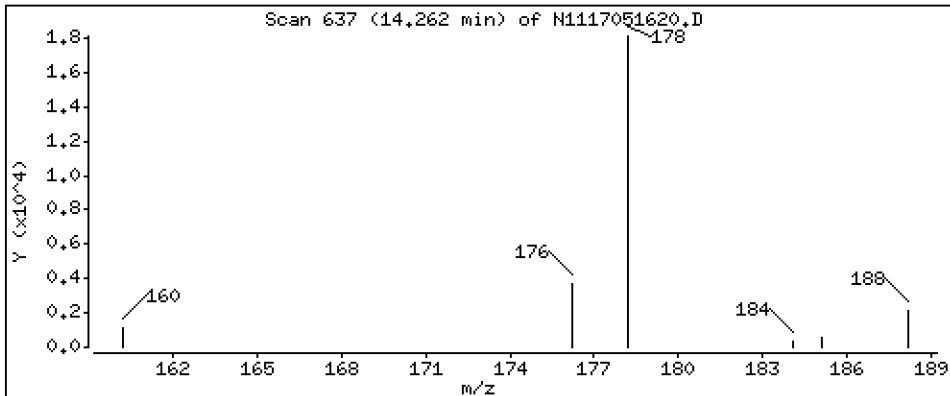
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 Phenanthrene

Concentration: 13,9 ng/mL



Date : 16-MAY-2017 21:53

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-06

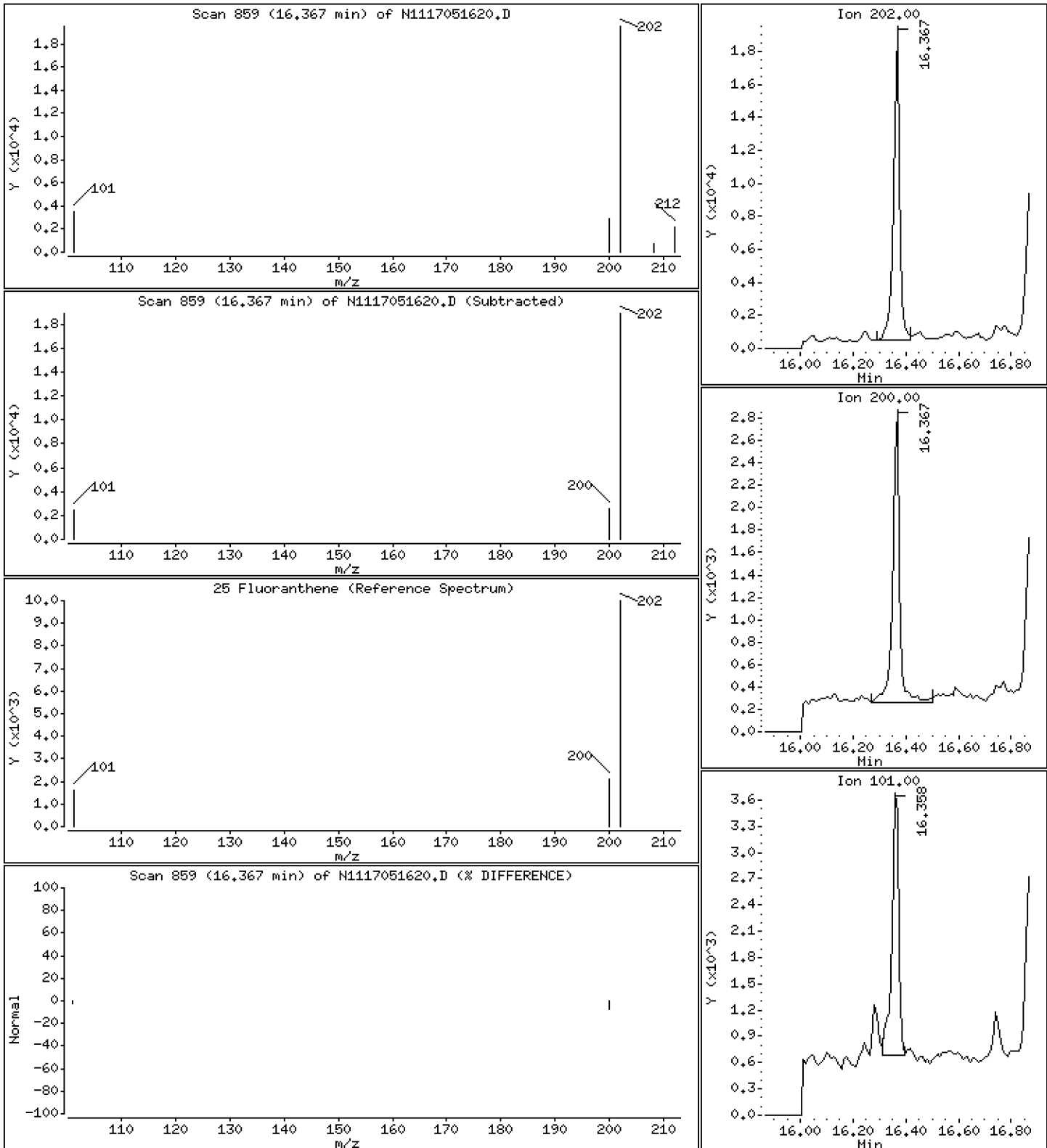
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

25 Fluoranthene

Concentration: 13,6 ng/mL



Date : 16-MAY-2017 21:53

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-06

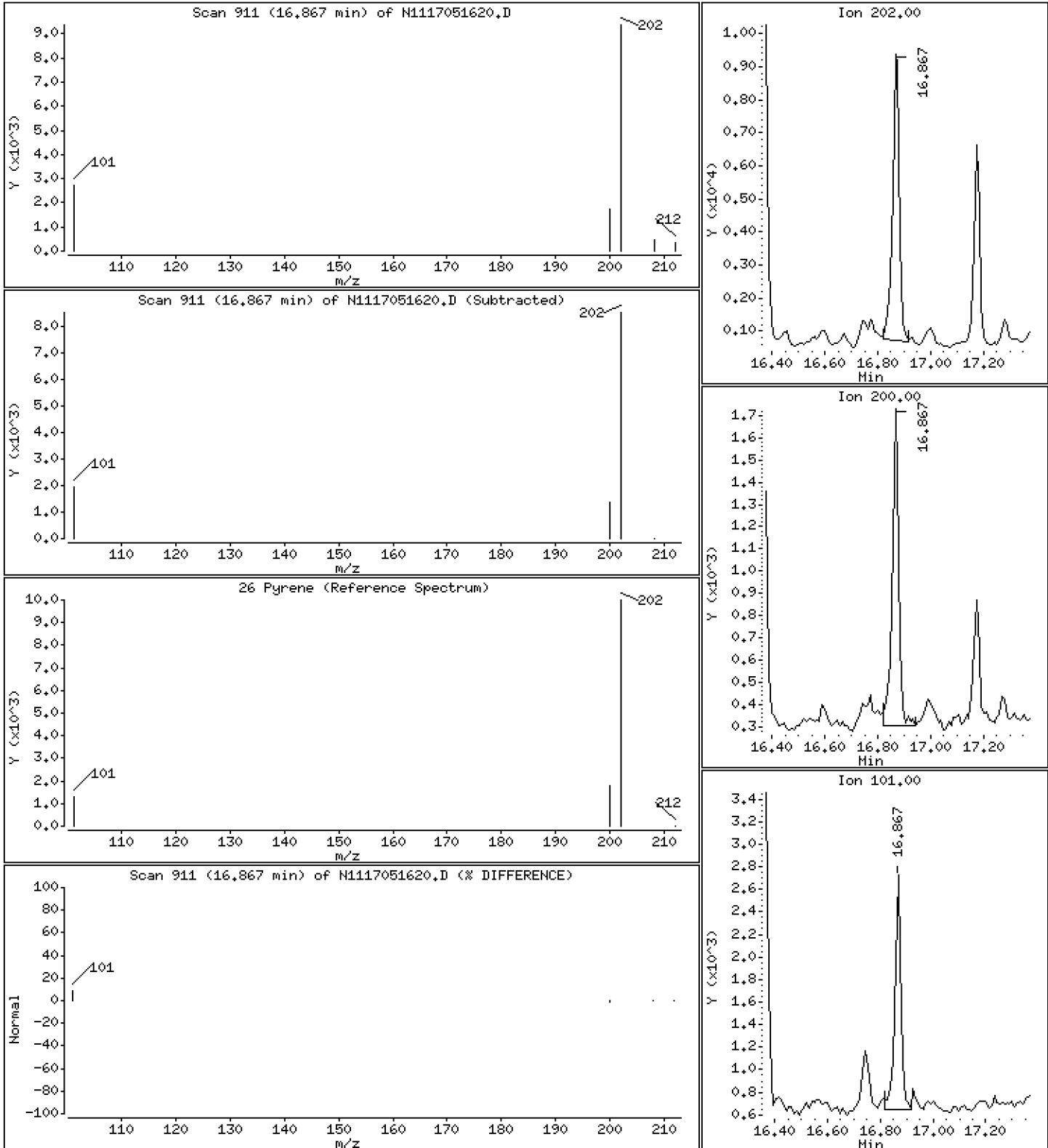
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Pyrene

Concentration: 9,26 ng/mL



Date : 16-MAY-2017 21:53

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-06

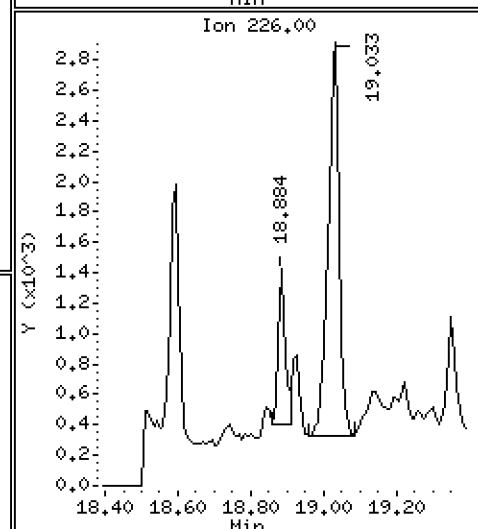
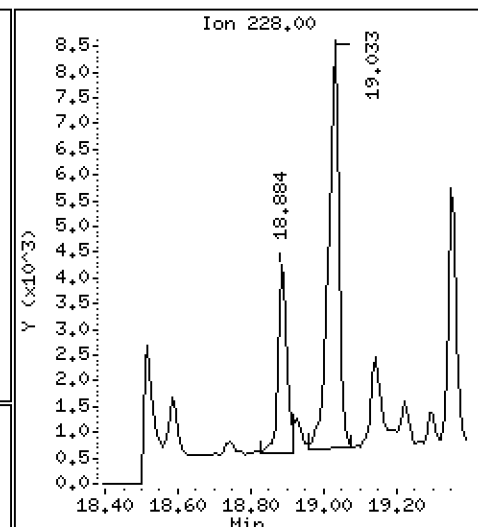
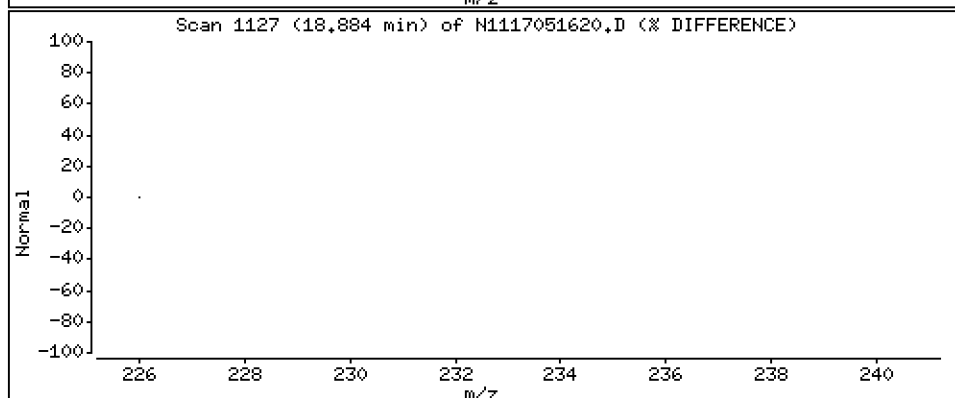
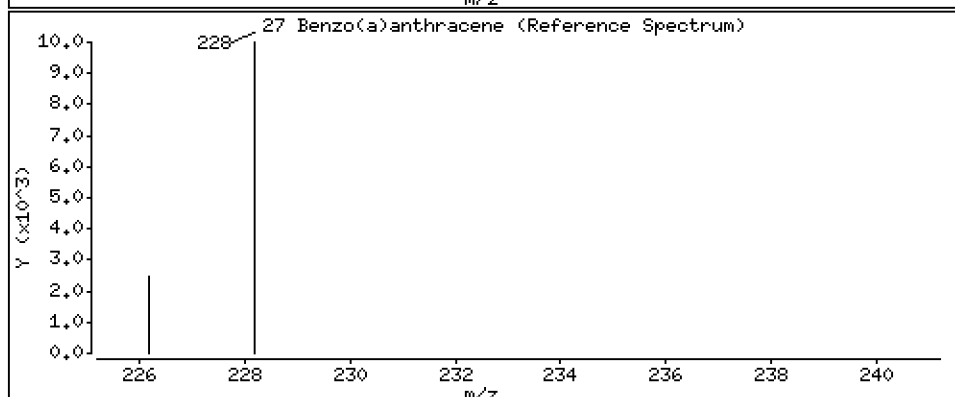
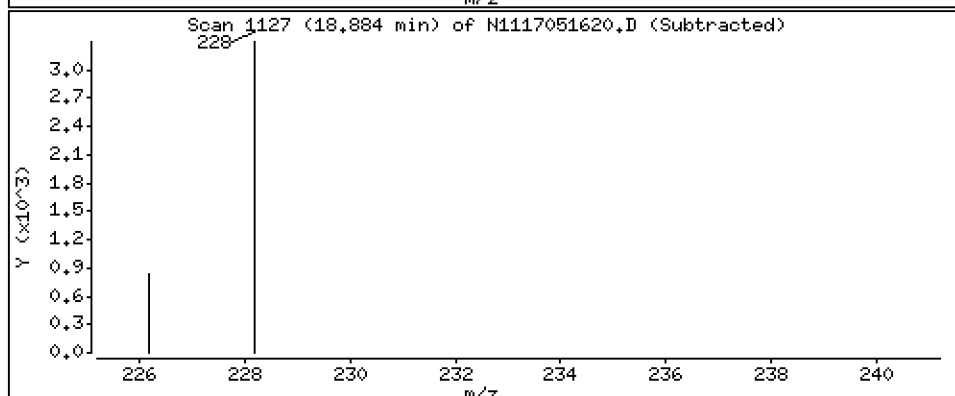
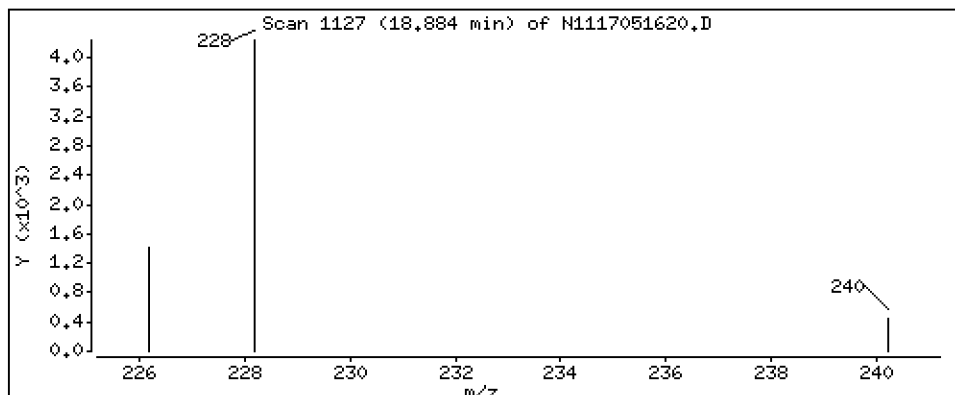
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)anthracene

Concentration: 4,49 ng/mL



Date : 16-MAY-2017 21:53

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-06

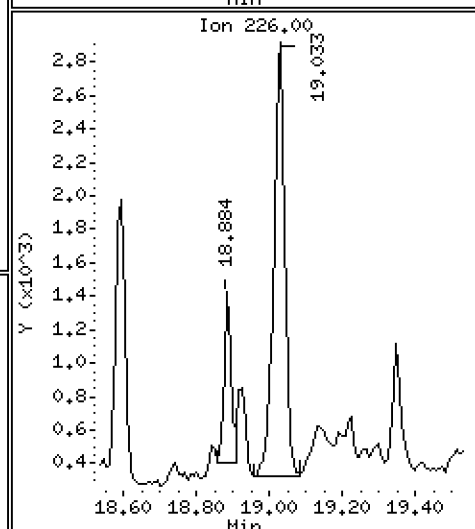
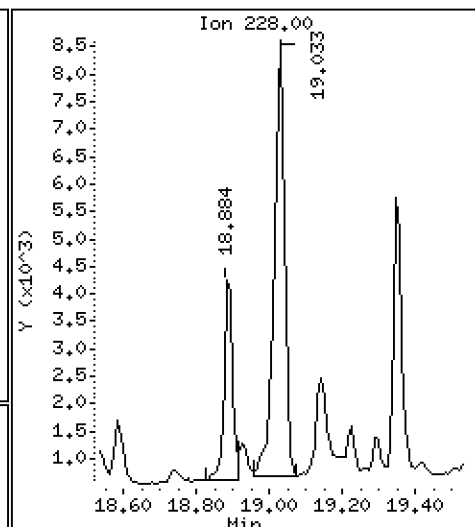
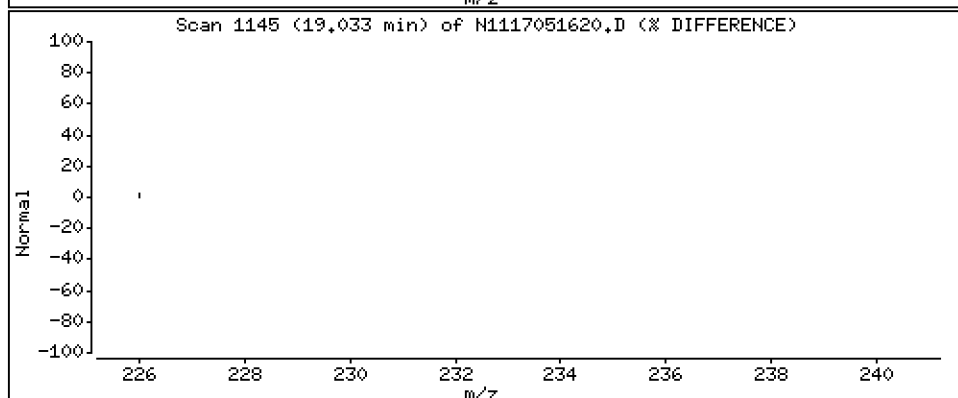
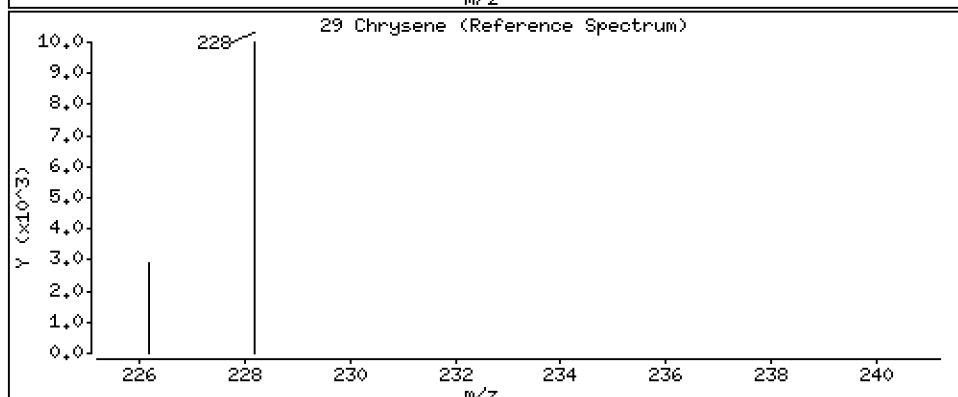
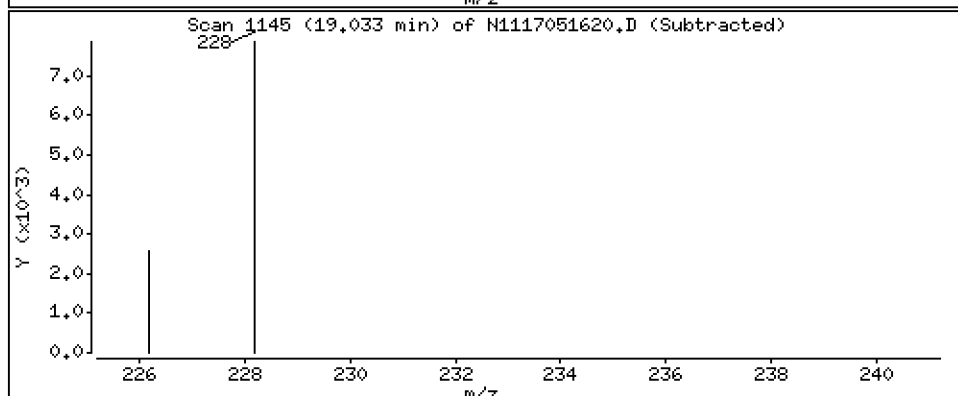
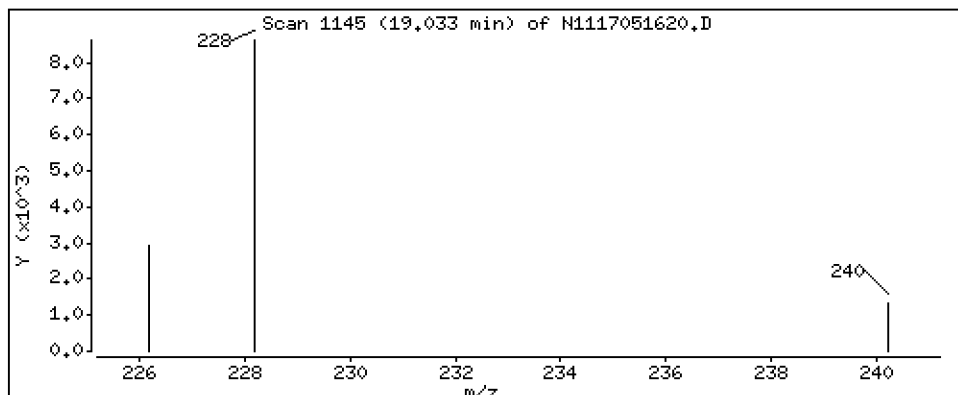
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 Chrysene

Concentration: 11,1 ng/mL



Date : 16-MAY-2017 21:53

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-06

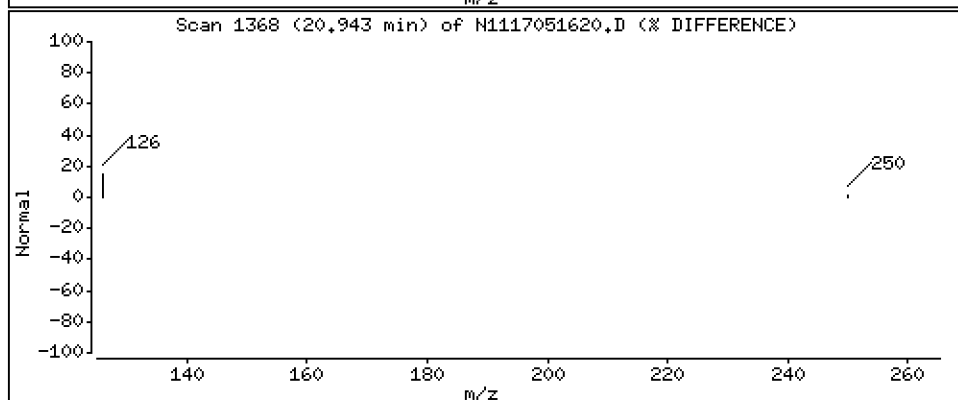
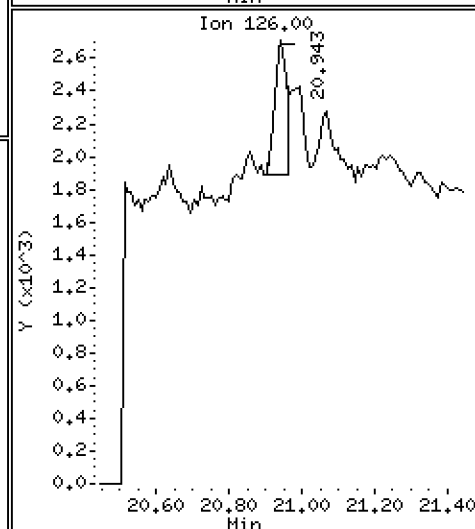
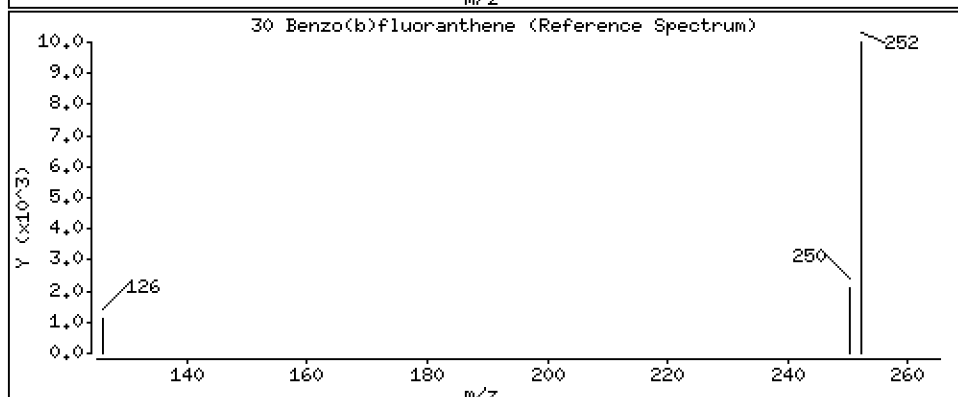
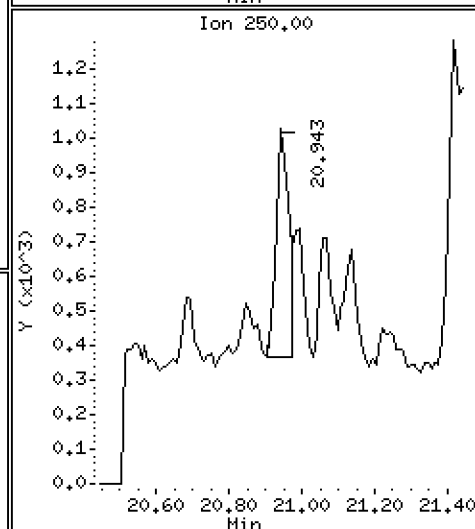
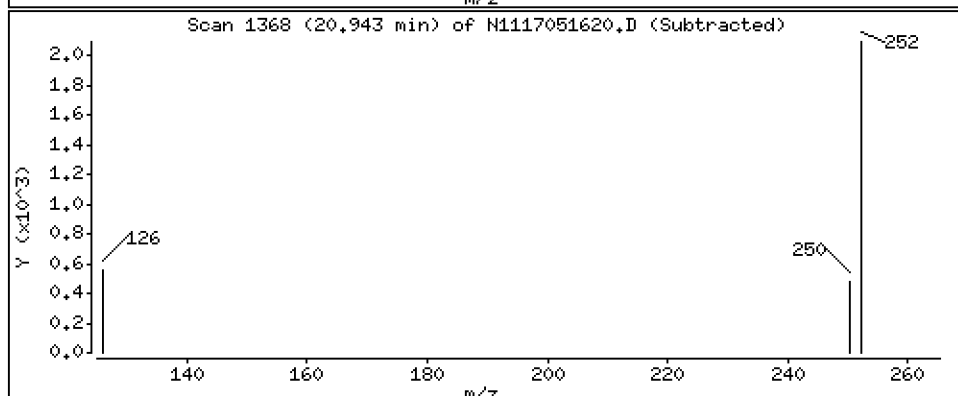
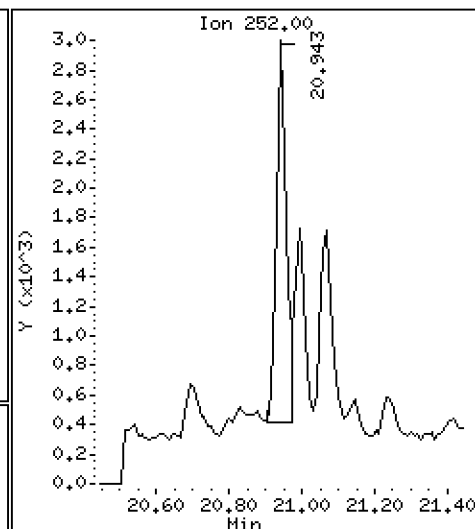
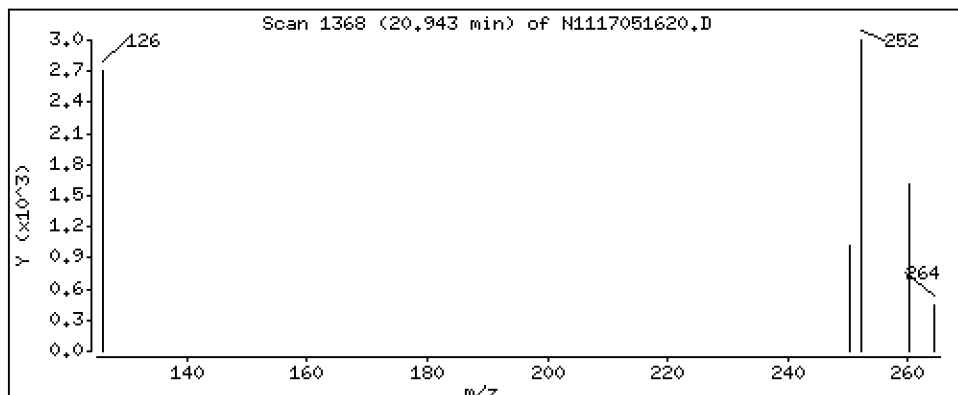
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Benzo(b)fluoranthene

Concentration: 3,48 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170516.b\N1117051620.D
 Lab Smp Id: 17E0012-06
 Inj Date : 16-MAY-2017 21:53 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : 17E0012-06
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20170516.b\LOWSIM.m
 Meth Date : 17-May-2017 08:15 nt11.i Quant Type: ISTD
 Cal Date : 05-MAY-2017 14:47 Cal File: 17050508.D
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: allpna.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		8.481	8.500	(1.000)	476842	200.000	
2 Naphthalene	128		8.517	8.536	(1.004)	16884	6.58854	6.59
3 Benzo(b)thiophene	134		Compound Not Detected.					
\$ 4 2-Methylnaphthalene-d10	152		9.466	9.477	(1.116)	355652	174.046	174
5 2-Methylnaphthalene	142		9.529	9.540	(1.124)	11879	5.02561	5.03
6 1-Methylnaphthalene	142		Compound Not Detected.					
7 2-Chloronaphthalene	162		Compound Not Detected.					
8 Biphenyl	154		Compound Not Detected.					
9 2,6-Dimethylnaphthalene	156		Compound Not Detected.					
10 Acenaphthylene	152		Compound Not Detected.					
* 11 Acenaphthene-d10	164		11.519	11.528	(1.000)	204374	200.000	
12 Acenaphthene	153		Compound Not Detected.					
13 Dibenzofuran	168		Compound Not Detected.					
14 2,3,5-Trimethylnaphthalene	170		Compound Not Detected.					
\$ 15 Fluorene-d10	174		Compound Not Detected.					
16 Fluorene	166		Compound Not Detected.					
17 Dibenzothiophene	184		Compound Not Detected.					
* 18 Phenanthrene-d10	188		14.220	14.220	(1.000)	322346	200.000	
19 Phenanthrene	178		14.262	14.262	(1.003)	33460	13.9442	13.9
\$ 20 Anthracene-d10	188		Compound Not Detected.					
21 Anthracene	178		Compound Not Detected.					
22 Carbazole	167		Compound Not Detected.					
23 1-Methylphenanthrene	192		Compound Not Detected.					
\$ 24 Fluoranthene-d10	212		16.329	16.338	(1.148)	330174	216.671	217
25 Fluoranthene	202		16.367	16.367	(1.151)	31360	13.5994	13.6
26 Pyrene	202		16.867	16.876	(0.889)	16242	9.25503	9.26
27 Benzo(a)anthracene	228		18.883	18.892	(0.995)	6199	4.49080	4.49
* 28 Chrysene-d12	240		18.983	18.983	(1.000)	193848	200.000	
29 Chrysene	228		19.033	19.033	(1.003)	15804	11.0933	11.1
30 Benzo(b)fluoranthene	252		20.943	20.943	(0.945)	5138	3.48112	3.48
31 Benzo(k)fluoranthene	252		Compound Not Detected.					
32 Benzo(j)fluoranthene	252		Compound Not Detected.					
\$ 33 Benzo(e)pyrene-d12	264		Compound Not Detected.					

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
34 Benzo(e)pyrene	252							
35 Benzo(a)pyrene	252							
* 36 Perylene-d12	264		22.163	22.173	(1.000)	236203	200.000	
37 Perylene	252							
§ 38 Dibenzo(a,h)anthracene-d14	292		25.005	25.016	(1.128)	189042	214.556	215
39 Dibenzo(a,h)anthracene	278							
40 Indeno(1,2,3-cd)pyrene	276							
41 Benzo(g,h,i)perylene	276							

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 16-MAY-2017
 Lab File ID: N1117051620.D Calibration Time: 10:47
 Lab Smp Id: 17E0012-06
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20170516.b\LOWSIM.m
 Misc Info:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	371325	185663	742650	476842	28.42
11 Acenaphthene-d10	154428	77214	308856	204374	32.34
18 Phenanthrene-d10	256956	128478	513912	322346	25.45
28 Chrysene-d12	208629	104315	417258	193848	-7.08
36 Perylene-d12	225431	112716	450862	236203	4.78

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	8.50	8.00	9.00	8.48	-0.22
11 Acenaphthene-d10	11.53	11.03	12.03	11.52	-0.08
18 Phenanthrene-d10	14.22	13.72	14.72	14.22	-0.00
28 Chrysene-d12	18.98	18.48	19.48	18.98	-0.00
36 Perylene-d12	22.17	21.67	22.67	22.16	-0.04

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

REVIEW SUMMARY FOR FILE - N1117051620.D

Lab ID: 17E0012-06
nt11.i, 20170516.b\LOWSIM.m, 16-MAY-2017 21:53

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT CCV RRT DELTA COMPOUND

NONE

On Column LOD for nt11.i, 20170516.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 6.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000



PREPARATION BATCH SUMMARY
EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 17E0012

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Batch: BFE0160

Batch Matrix: Tissue

Preparation: EPA 3550C-Mod (Ultrasonic)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PG-PJ-OYS-COC-170427	17E0012-01	N1117051615.D	05/09/17 13:50	
PG-PJ-COC-COC-170427	17E0012-02	N1117051616.D	05/09/17 13:50	
PG-PJ-LTN-COC-170427	17E0012-03	N1117051617.D	05/09/17 13:50	
PG-PJ-MAN-COC-170427	17E0012-04	N1117051618.D	05/09/17 13:50	
PG-PJ-HC-COC-170428	17E0012-05	N1117051619.D	05/09/17 13:50	
PG-PJ-MUS-COC-170427	17E0012-06	N1117051620.D	05/09/17 13:50	
Blank	BFE0160-BLK1	N1117051603.D	05/09/17 13:50	
LCS	BFE0160-BS1	N1117051604.D	05/09/17 13:50	



Batch: BFE0160

Prepared using: EPA 3550C-Mod (Ultrasonic)
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) in Tissue (Version:PG List)

Matrix: Tissue Date Prepared: 05/08/17 Balance ID: B139297042 Set Up By: JW

Analysis: 8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)

Lab Number & Container	Initial (g)		(REQ) GPC (1:1) #2	(REQ) Silica Gel C/U (1:1) EPH Aro	Final Effective Vol (mL)	Vol to Lab	Extraction Comments
	Target Wet: 10 (Wet)	Actual					
17D0421-01 A	(10.000)	<u>10.04</u>	(1:1)	(1:1)	0.5	0.5	
17D0421-02 A	(10.000)	<u>10.00</u>	(1:1)	(1:1)	0.5	0.5	
17D0421-03 A	(10.000)	<u>10.05</u>	(1:1)	(1:1)	0.5	0.5	
17D0421-04 A	(10.000)	<u>10.12</u>	(1:1)	(1:1)	0.5	0.5	
17D0421-05 A	(10.000)	<u>10.07</u>	(1:1)	(1:1)	0.5	0.5	
17D0421-06 A	(10.000)	<u>10.06</u>	(1:1)	(1:1)	0.5	0.5	
17D0421-07 A	(10.000)	<u>10.18</u>	(1:1)	(1:1)	0.5	0.5	
17D0421-08 A	(10.000)	<u>10.14</u>	(1:1)	(1:1)	0.5	0.5	
17D0421-09 A	(10.000)	<u>10.25</u>	(1:1)	(1:1)	0.5	0.5	
17D0421-10 A	(10.000)	<u>10.06</u>	(1:1)	(1:1)	0.5	0.5	
17E0012-01 A	(10.000)	<u>10.21</u>	(1:1)	(1:1)	0.5	0.5	
17E0012-02 A	(10.000)	<u>10.31</u>	(1:1)	(1:1)	0.5	0.5	
17E0012-03 A	(10.000)	<u>10.05</u>	(1:1)	(1:1)	0.5	0.5	
17E0012-04 A	(10.000)	<u>10.24</u>	(1:1)	(1:1)	0.5	0.5	
17E0012-05 A	(10.000)	<u>10.13</u>	(1:1)	(1:1)	0.5	0.5	
17E0012-06 A	(10.000)	<u>10.05</u>	(1:1)	(1:1)	0.5	0.5	

Batch QC

Lab Number	Initial (g)		(REQ) GPC (1:1) #2	(REQ) Silica Gel C/U (1:1) EPH Aro	Final Effective Vol (mL)	Vol to Lab	Extraction Comments
	Target Wet: 10 (Wet)	Actual					
BFE0160-BLK1	(10.000)	<u>10.00</u>	(1:1)	(1:1)	0.5	0.5	
BFE0160-BS1	(10.000)	<u>10.00</u>	(1:1)	(1:1)	0.5	0.5	

Client ID verified By [Signature] Date 05/08/17

Preparation Reviewed By [Signature] Date 5/12/17

Extraction Date and Time 05/09/17 13:54



Prep Steps	Reagents Used	Surrogates & Spike Standards Used															
Tissuemizing <i>df</i> 05/09/17 Analyst/Date	Station/Reagent TissueMizing Analyst: <i>df</i> Date: 05/09/17	<table border="1"> <thead> <tr> <th>Type</th> <th>Standard ID</th> <th>Vol uL</th> <th>Analyst</th> <th>Witness</th> </tr> </thead> <tbody> <tr> <td>Surrogate</td> <td>1 E006470 Exp: 11/09/2017</td> <td>100uL</td> <td><i>df</i></td> <td>CT</td> </tr> <tr> <td>Spike</td> <td>18 E006379 Exp: 11/09/2017</td> <td>100uL</td> <td><i>df</i></td> <td>CF</td> </tr> </tbody> </table>	Type	Standard ID	Vol uL	Analyst	Witness	Surrogate	1 E006470 Exp: 11/09/2017	100uL	<i>df</i>	CT	Spike	18 E006379 Exp: 11/09/2017	100uL	<i>df</i>	CF
Type	Standard ID	Vol uL	Analyst	Witness													
Surrogate	1 E006470 Exp: 11/09/2017	100uL	<i>df</i>	CT													
Spike	18 E006379 Exp: 11/09/2017	100uL	<i>df</i>	CF													
KD Pre GPC-80-85°C-100°C 1 2 3 4 5 6 AI 5/10/17 Analyst/Date	Neutral Glasswool F001166 Anhydrous Sodium Sulfate F0033342 Methylene Chloride F003880 1:1 Methylene Chloride/Acetone F004154	1.5/7.5µg/mL 1.5/7.5µg/mL (V) indicates a virtual standard combining two or more physical standards. In these cases the Standard ID refers to the virtual standard, not the parent standards. If a Standard ID is missing, but should be present, check the standard definition in Element LIMS to be sure Standard Info 6 has the correct letter or number designator matching the vial designator in the Standard ID column. If it is correct, check the batch and bench sheet in Element LIMS to be sure the correct standards are selected for surrogate(s) and spike(s).															
TurboVap Pre GPC 1 2 3 4 5 SP 5/11/17 Analyst/Date	Pre GPC KD Analyst: AI Date: 5/10/17 Methylene Chloride F003880 GPC Filter Prep Analyst: SP Date: 5/11/17 Methylene Chloride F003880																
GPC Filter SP 5/11/17 Analyst/Date	GPC Analyst: <i>ww</i> Date: 5/11/17 Methylene Chloride F003880																
GPC <i>ww</i> 5/11/17 Analyst/Date	Post GPC KD Analyst: <i>df</i> Date: 05/12/17 Methylene Chloride F003880																
KD 80 - 85°C Hexane Exchange (2 X 20 mL) 100°C 1 2 3 4 5 6 SP 05/12/17 Analyst/Date	Hexane F003179 Vialing Analyst: SP Date: 5/12/17 0% Silica Gel E007164 / F003524 Pentane E006958 Hexane F003179 Methylene Chloride F003880 60:40 Pentane/Methylene Chloride F004324 Neutral Glasswool F001166 Neutral Sodium Sulfate F003542																
TurboVap Pre Silica Gel Clean 1 2 3 4 5 SP 5/12/17 Analyst/Date																	
TurboVap Post Silica Gel Clean 1 2 3 4 5 SP 5/12/17 Analyst/Date																	



Batch: BFE0160

Prepared using: EPA 3550C-Mod (Ultrasonic)
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) in Tissue (Version:PG List)

Prep Instructions	
<p>SPECIAL INSTRUCTIONS:</p> <ol style="list-style-type: none">1. Weigh into samples 250mL Centrifuge bottle(s).2. Add surr/spike.3. Add 1:1 DCM/Acetone4. Add Sodium Sulfate just before tissuemizing5. Tissuemize 2X with 1:1 DCM/Acetone, then 1x with DCM for 1 min each.6. Collect samples into 500mL flask (sodium sulfate in flask) with funnel and glasswool.7. KD using DCM to 5mL at 80°C 100°C8. TurboVap for GPC 1:19. Post GPC KD at 80°C.10. Exchange to Hexane (2X with 20mL) at 100°C.11. TurboVap extract to 2mL in Hexane.12. Silica Clean-up =REQ. Collect EPH Aromatic fraction only.13. TurboVap to 0.5 mL <p>A. Need Total Solids Y <input checked="" type="checkbox"/> N</p> <p>B. Freeze Y <input checked="" type="checkbox"/> N</p>	



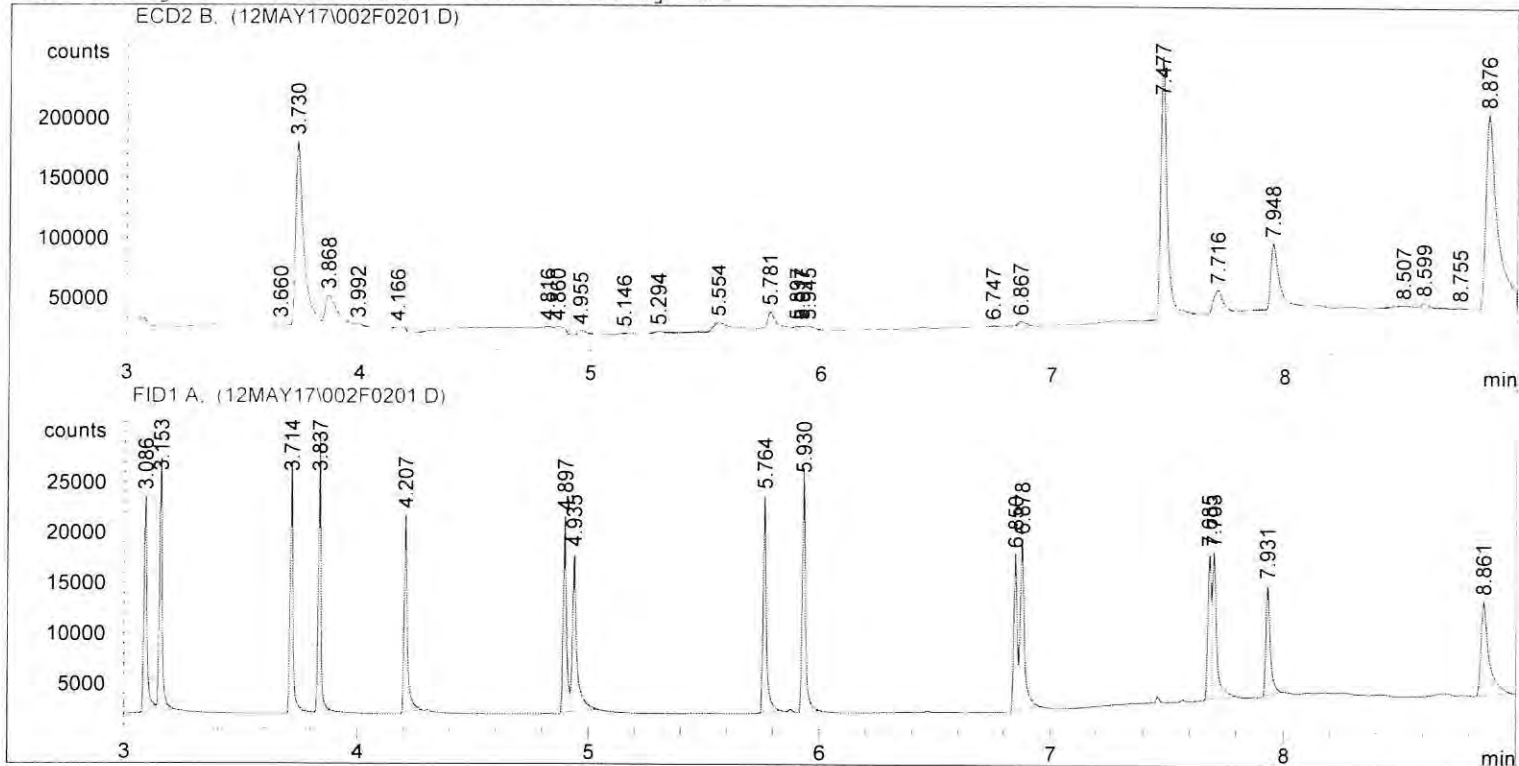
Extraction Parameter: LL SIM PNA

Element Batch: BFE0160 Work Order(s): 17D0421, 17E0012

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)=	
<input type="checkbox"/> Standing Water Decanted (Not shared)=	
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input checked="" type="checkbox"/> Other (Details)= ^{17D0421} oyster = φ1, cockle = φ2, φ3, oyster = φ4, cockle = φ5, little cockle = φ6, manila clams = φ7, geo-coc = φ8, muscle = φ9, cockle #1 φ (17E0012) oyster = φ1, cockle = φ2, little cockle #3, manila clams #4.	17D0421 / 5/10/17
Aqueous: Horse clams = φ5, muscle = φ6.	
<input type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input type="checkbox"/> Emulsions (%)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Other (Details)= dry drying column used @ ^{pre-GPC} KD on 17D0421 ^{17E0012}	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
drying column used @ pre-GPC KD on 17D0421-10	AI 5/10/17
17D0421-10 was clear and tan tan after drying	↓
column & after pre-GPC KD became very cloudy & tan	
Centrifuged 17D0421-10 prior to filtering for GPC	SP 5/10/17
<input checked="" type="checkbox"/> Share Samples Y/N	Y φ5/φ8/17
<input checked="" type="checkbox"/> Multiple Jars Y/N 17E0421 = φ8 x 4	Y φ5/φ8/17
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	


```

Injection Date   : 5/12/2017 4:53:39 PM      Seq. Line   :    2
Sample Name     : PNA STD 10PPM             Location    : Vial 2
Acq. Operator  : WW                        Inj        :    1
                                                Inj Volume  : 1 µl
Sequence File   : C:\HPCHEM\1\SEQUENCE\12MAY17.S
Method          : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed    : 3/28/2017 5:35:36 PM by ACS
    
```



Area Percent Report

```

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

Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area
1	2.598	BP	0.0249	8915.45898	6993.49023	0.43308
2	3.660	BV	0.0497	8549.39160	2231.21118	0.41530
3	3.730	VV	0.0363	3.88164e5	1.54611e5	18.85573
4	3.868	VV	0.0546	1.00565e5	2.63250e4	4.88514
5	3.992	VB	0.0347	6290.50537	2557.20703	0.30557
6	4.166	BP	0.0545	1.08581e4	2508.72681	0.52745
7	4.816	VV	0.2880	1.70156e5	7038.99316	8.26565
8	4.860	VP	0.0415	2.13300e4	7013.88086	1.03614
9	4.955	VB	0.0419	1.11226e4	3833.29028	0.54030
10	5.146	PB	0.0449	3369.51074	1038.36487	0.16368
11	5.294	BV	0.0639	9796.11621	1974.94141	0.47586
12	5.554	VV	0.1081	6.81565e4	8359.62988	3.31082
13	5.781	VV	0.0462	5.67684e4	1.64655e4	2.75763
14	5.897	VV	0.0231	5970.27344	3868.49707	0.29002
15	5.917	VV	0.0216	6091.49512	4027.58618	0.29591
16	5.945	VV	0.0408	1.12999e4	3902.76099	0.54891
17	6.747	BV	0.0433	3403.39917	1064.64185	0.16533

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
18	6.867	VP	0.0419	1.26262e4	4108.35693	0.61334
19	7.477	VB	0.0265	4.00177e5	2.17182e5	19.43928
20	7.716	BP	0.0400	5.18456e4	1.83020e4	2.51849
21	7.948	VB	0.0348	1.27146e5	5.32782e4	6.17635
22	8.507	VV	0.0949	1.86498e4	2342.52441	0.90595
23	8.599	VV	0.0501	1.84128e4	4979.53516	0.89443
24	8.755	VP	0.0524	4589.78223	1130.15613	0.22296
25	8.876	VBA	0.0468	5.34344e5	1.60792e5	25.95669

Totals : 2.05860e6 7.15930e5

Results obtained with enhanced integrator!

Signal 2: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	2.623	PB	0.0149	2.07293e4	2.03058e4	6.62350
2	3.086	BV	0.0137	1.96250e4	2.13906e4	6.27065
3	3.153	VB	0.0131	2.16383e4	2.51046e4	6.91395
4	3.714	BB	0.0127	2.07037e4	2.48299e4	6.61533
5	3.837	BB	0.0121	2.16081e4	2.75811e4	6.90431
6	4.207	BB	0.0146	1.95126e4	1.96113e4	6.23474
7	4.897	BV	0.0137	1.77453e4	1.94354e4	5.67006
8	4.935	VB	0.0194	2.07453e4	1.57532e4	6.62863
9	5.764	BB	0.0143	2.08334e4	2.15027e4	6.65678
10	5.930	VB	0.0143	2.35892e4	2.42740e4	7.53733
11	6.850	BV	0.0153	1.50884e4	1.55376e4	4.82110
12	6.878	VB	0.0187	2.11723e4	1.68395e4	6.76505
13	7.685	BV	0.0141	1.38940e4	1.45612e4	4.43946
14	7.703	VB	0.0200	1.99679e4	1.45867e4	6.38022
15	7.931	PB	0.0192	1.42577e4	1.09245e4	4.55567
16	8.861	PB	0.0333	2.18551e4	9348.62012	6.98322

Totals : 3.12966e5 3.01587e5

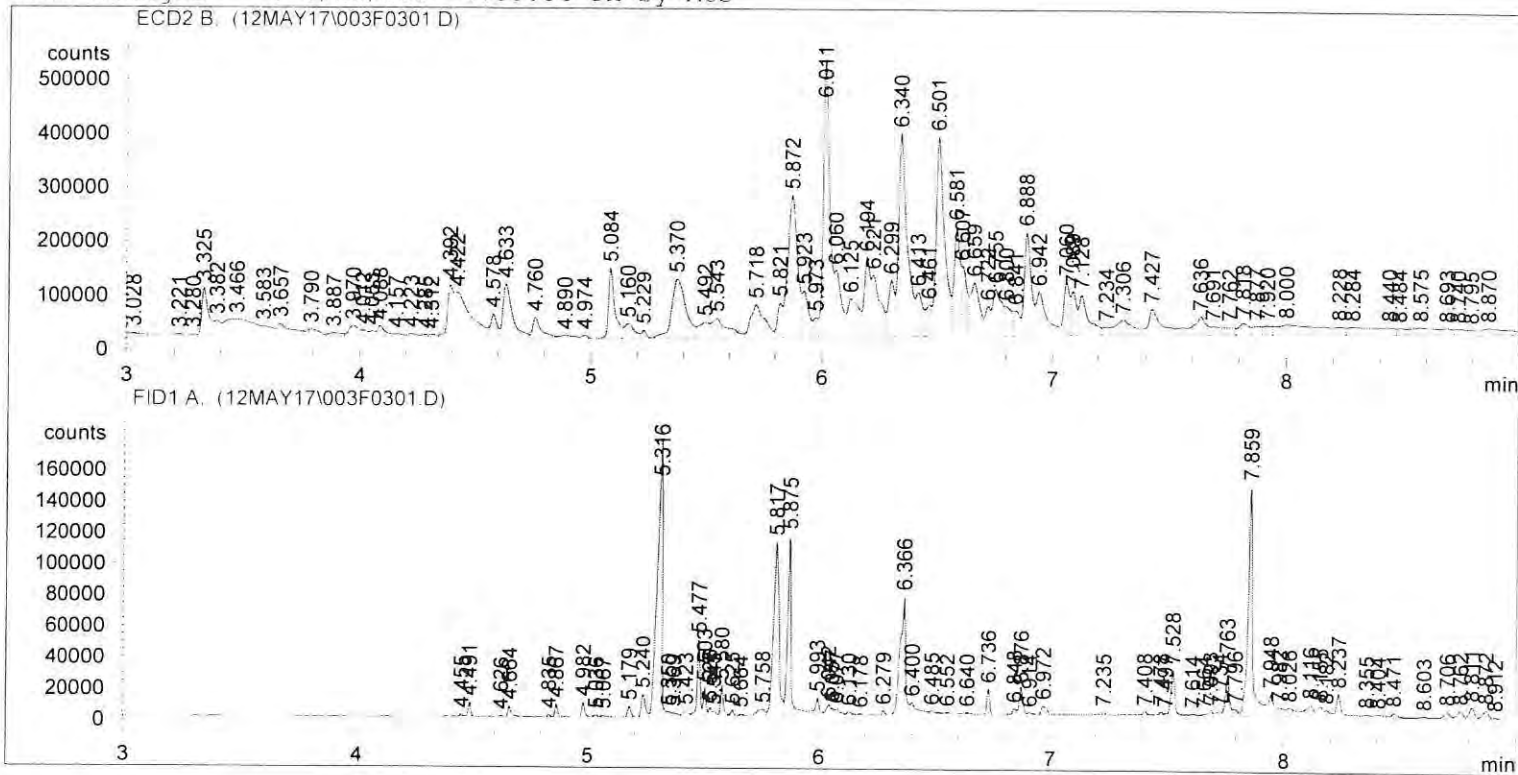
Results obtained with enhanced integrator!

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

```

Injection Date : 5/12/2017 5:07:01 PM      Seq. Line : 3
Sample Name    : 17D0421-10 Post           Location  : Vial 3
Acq. Operator  : WW                       Inj      : 1
                                                Inj Volume: 1 µl

Sequence File  : C:\HPCHEM\1\SEQUENCE\12MAY17.S
Method        : C:\HPCHEM\1\METHODS\SCREEN.M
Last changed  : 3/28/2017 5:35:36 PM by ACS
    
```



Area Percent Report

```

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

Signal 1: ECD2 B,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area %
1	2.056	BV	0.0296	4772.89502	2361.88257	0.03605
2	2.111	VP	0.0232	6948.52490	4442.38916	0.05248
3	2.236	VV	0.0298	1.60848e4	8215.77441	0.12148
4	2.346	VP	0.0508	8092.25342	2105.06958	0.06111
5	2.605	VV	0.0522	2.84673e4	9177.55371	0.21499
6	2.696	VV	0.0537	2.41170e4	6159.59277	0.18214
7	2.728	VV	0.0416	1.41755e4	5677.47021	0.10706
8	2.789	VV	0.0438	3.65223e4	1.12723e4	0.27582
9	2.918	VV	0.0387	1.12705e4	4288.92041	0.08512
10	3.028	VP	0.0498	1.05669e4	2811.93921	0.07980
11	3.221	VV	0.0480	7971.90967	2267.29883	0.06021
12	3.280	VV	0.0287	3745.34009	1927.97900	0.02829
13	3.325	VV	0.0282	1.76688e5	8.87213e4	1.33438
14	3.382	VV	0.0251	5.02803e4	2.77588e4	0.37973
15	3.466	VV	0.1091	2.65583e5	3.00641e4	2.00573
16	3.583	VV	0.0437	5.95989e4	1.79819e4	0.45010
17	3.657	VV	0.0562	1.01260e5	2.30691e4	0.76474

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area
18	3.790	VV	0.0513	4.85267e4	1.27903e4	0.36648
19	3.887	VV	0.0508	2.57443e4	6553.99268	0.19443
20	3.970	VV	0.0479	6.11771e4	1.98594e4	0.46202
21	4.012	VV	0.0229	1.83000e4	1.19086e4	0.13821
22	4.053	VV	0.0243	1.76618e4	1.06859e4	0.13339
23	4.088	VV	0.0347	5.01206e4	2.03432e4	0.37852
24	4.157	VV	0.0474	1.69601e4	5440.45117	0.12809
25	4.223	VV	0.0334	1.51904e4	6241.43311	0.11472
26	4.285	VV	0.0286	9117.12305	4697.02979	0.06885
27	4.312	VV	0.0392	1.25333e4	4836.35205	0.09465
28	4.392	VV	0.0265	1.79925e5	9.77743e4	1.35883
29	4.422	VV	0.0626	3.88613e5	8.30887e4	2.93488
30	4.578	VV	0.0283	8.54796e4	4.47117e4	0.64556
31	4.633	VV	0.0413	2.83221e5	9.93084e4	2.13894
32	4.760	VV	0.0354	1.00985e5	3.87690e4	0.76266
33	4.890	VV	0.0555	2.51795e4	5937.68506	0.19016
34	4.974	VP	0.0251	1.11148e4	6439.14551	0.08394
35	5.084	VV	0.0280	2.56334e5	1.29792e5	1.93588
36	5.160	VV	0.0431	8.28972e4	2.75744e4	0.62606
37	5.229	VV	0.0236	2.42162e4	1.52041e4	0.18289
38	5.370	VV	0.0601	4.68693e5	1.09200e5	3.53966
39	5.492	VV	0.0426	9.14698e4	2.91371e4	0.69080
40	5.543	VV	0.0647	1.83911e5	3.65808e4	1.38893
41	5.718	VV	0.0562	2.57905e5	6.11391e4	1.94774
42	5.821	VV	0.0222	9.43611e4	6.40847e4	0.71263
43	5.872	VV	0.0417	7.57198e5	2.62323e5	5.71850
44	5.923	VV	0.0269	1.61513e5	8.58496e4	1.21977
45	5.973	VV	0.0201	5.05842e4	3.65663e4	0.38202
46	6.011	VV	0.0279	1.01046e6	5.15539e5	7.63118
47	6.060	VV	0.0310	2.63854e5	1.23357e5	1.99267
48	6.125	VV	0.0430	2.32859e5	7.14357e4	1.75859
49	6.194	VV	0.0257	2.60194e5	1.46849e5	1.96503
50	6.221	VV	0.0371	3.04541e5	1.14078e5	2.29995
51	6.299	VV	0.0268	1.87095e5	1.05161e5	1.41298
52	6.340	VV	0.0362	9.45035e5	3.76952e5	7.13709
53	6.413	VV	0.0302	1.70925e5	8.24812e4	1.29086
54	6.461	VV	0.0227	9.44638e4	5.90127e4	0.71341
55	6.501	VV	0.0375	9.67371e5	3.69980e5	7.30577
56	6.581	VV	0.0274	3.90851e5	2.03663e5	2.95178
57	6.607	VV	0.0258	1.99885e5	1.29089e5	1.50957
58	6.659	VV	0.0402	2.91038e5	9.91467e4	2.19797
59	6.722	VV	0.0233	8.77037e4	5.58140e4	0.66236
60	6.755	VV	0.0379	2.45592e5	8.71754e4	1.85476
61	6.800	VV	0.0317	1.04653e5	5.49370e4	0.79036
62	6.841	VV	0.0273	8.61389e4	4.72567e4	0.65054
63	6.888	VV	0.0303	4.01000e5	1.92198e5	3.02843
64	6.942	VV	0.0424	2.54696e5	8.16572e4	1.92351
65	7.060	VV	0.0270	1.78689e5	9.90485e4	1.34949
66	7.089	VV	0.0247	1.38000e5	8.15630e4	1.04220
67	7.128	VV	0.0410	2.23941e5	7.46469e4	1.69125
68	7.234	VV	0.0269	2.94114e4	1.56806e4	0.22212
69	7.306	VV	0.0722	1.67451e5	2.90543e4	1.26462
70	7.427	VV	0.0495	1.80283e5	4.83930e4	1.36153
71	7.636	VV	0.0641	1.70903e5	3.43038e4	1.29069
72	7.691	VV	0.0379	4.43214e4	1.61943e4	0.33472
73	7.762	VV	0.0477	4.93248e4	1.41316e4	0.37251
74	7.818	VV	0.0430	6.86924e4	2.22695e4	0.51878
75	7.877	VV	0.0365	4.28740e4	1.63895e4	0.32379
76	7.920	VV	0.0363	4.42882e4	1.70362e4	0.33447
77	8.000	VV	0.1560	2.49612e5	1.92899e4	1.88512
78	8.228	VV	0.0451	5.11324e4	1.52679e4	0.38616
79	8.284	VV	0.0716	7.93508e4	1.45543e4	0.59927
80	8.440	VV	0.0861	9.01874e4	1.33071e4	0.68111
81	8.484	VV	0.0390	3.49605e4	1.23753e4	0.26403
82	8.575	VV	0.0996	1.07575e5	1.35603e4	0.81243

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area
83	8.693	VV	0.0421	3.54110e4	1.17588e4	0.26743
84	8.740	VV	0.0462	3.46555e4	1.05922e4	0.26172
85	8.795	VV	0.0378	2.34809e4	8895.72363	0.17733
86	8.870	VBA	0.1043	9.32190e4	1.15289e4	0.70401

Totals : 1.32412e7 5.10076e6

Results obtained with enhanced integrator!

Signal 2: FID1 A,

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area
1	4.455	VV	0.0139	1758.77673	1887.62952	0.12030
2	4.491	VB	0.0124	7764.09131	9610.84375	0.53106
3	4.626	VV	0.0174	1207.53381	975.34460	0.08259
4	4.664	VB	0.0158	7915.05859	7187.18311	0.54139
5	4.835	VV	0.0145	1594.30798	1767.74255	0.10905
6	4.867	VV	0.0124	6866.81836	8550.76074	0.46969
7	4.982	PV	0.0137	8759.79590	9529.20215	0.59917
8	5.036	VV	0.0180	1928.75781	1602.79321	0.13193
9	5.067	VV	0.0156	1527.23779	1417.92505	0.10446
10	5.179	VV	0.0160	6992.56934	6819.19824	0.47829
11	5.240	VV	0.0210	1.99085e4	1.45219e4	1.36173
12	5.316	VV	0.0215	2.55171e5	1.80646e5	17.45359
13	5.350	VV	0.0157	3011.41235	3205.47144	0.20598
14	5.369	VV	0.0230	4267.48486	2490.59912	0.29189
15	5.423	VV	0.0232	5692.27979	3654.96216	0.38935
16	5.477	VV	0.0129	4.18493e4	4.93472e4	2.86247
17	5.503	VV	0.0120	1.43379e4	1.85659e4	0.98071
18	5.526	VV	0.0130	4874.99072	5672.21875	0.33345
19	5.545	VV	0.0168	3537.67480	3504.73779	0.24198
20	5.580	VV	0.0132	1.70354e4	1.95682e4	1.16521
21	5.625	VV	0.0137	3485.03271	3796.82617	0.23837
22	5.664	VV	0.0211	1887.42847	1289.73474	0.12910
23	5.758	VV	0.0318	1.01864e4	4272.88184	0.69674
24	5.817	VV	0.0226	1.86505e5	1.11259e5	12.75686
25	5.875	VV	0.0182	1.25693e5	1.15230e5	8.59732
26	5.993	VV	0.0204	1.63164e4	1.09291e4	1.11604
27	6.042	VV	0.0165	8333.66309	7208.77734	0.57002
28	6.057	VV	0.0131	3676.73535	4690.86768	0.25149
29	6.077	VV	0.0232	6369.97559	3860.70630	0.43570
30	6.130	VV	0.0193	3022.16650	2160.17188	0.20671
31	6.178	VP	0.0205	991.60425	805.11884	0.06783
32	6.279	VV	0.0144	2260.09619	2536.61548	0.15459
33	6.366	VV	0.0216	1.19532e5	7.51615e4	8.17591
34	6.400	VV	0.0276	1.61926e4	7668.52051	1.10756
35	6.485	VB	0.0349	4366.68750	2082.84399	0.29868
36	6.552	BB	0.0263	1792.18738	895.84509	0.12258
37	6.640	BP	0.0173	1154.68591	882.94940	0.07898
38	6.736	PB	0.0130	1.41677e4	1.65196e4	0.96907
39	6.848	PV	0.0165	4518.94678	3909.25073	0.30909
40	6.876	VV	0.0181	1.83298e4	1.63772e4	1.25375
41	6.914	VV	0.0226	2029.75818	1210.65186	0.13883
42	6.972	VV	0.0200	8324.02344	5717.65723	0.56936
43	7.235	VB	0.0126	1391.41052	1698.32605	0.09517
44	7.408	VV	0.0269	4770.99609	2426.70410	0.32633
45	7.478	VV	0.0154	2410.33179	2259.20752	0.16487
46	7.497	VV	0.0105	977.33160	1338.32080	0.06685
47	7.528	VV	0.0180	3.46068e4	2.87725e4	2.36709
48	7.614	VV	0.0362	3511.36401	1232.90845	0.24018
49	7.664	VV	0.0211	1757.37695	1159.88208	0.12020
50	7.693	VV	0.0202	5189.94189	3742.81299	0.35499
51	7.734	VV	0.0217	4528.81689	2880.78442	0.30977

Peak #	RetTime [min]	Type	Width [min]	Area counts*s	Height [counts]	Area
52	7.763	VV	0.0184	3.10725e4	2.52038e4	2.12535
53	7.796	VV	0.0186	5588.35010	4453.65869	0.38224
54	7.859	VV	0.0189	2.01570e5	1.47582e5	13.78731
55	7.948	VV	0.0290	3.04248e4	1.42186e4	2.08104
56	7.982	VV	0.0263	1.11818e4	5589.43799	0.76483
57	8.026	VV	0.0341	1.49188e4	5604.85596	1.02044
58	8.116	VV	0.0371	2.18248e4	7462.06641	1.49280
59	8.155	VV	0.0235	1.12819e4	6741.02002	0.77168
60	8.182	VV	0.0223	6874.98047	4394.96436	0.47025
61	8.237	VB	0.0273	2.85384e4	1.49181e4	1.95201
62	8.355	BV	0.0379	5455.81836	1996.66174	0.37318
63	8.404	VV	0.0430	6344.92529	1851.98450	0.43399
64	8.471	VV	0.0367	8827.58398	3149.46045	0.60380
65	8.603	VV	0.0443	3678.69678	1064.96326	0.25162
66	8.706	VV	0.0287	8232.95703	4225.47803	0.56313
67	8.762	VV	0.0275	8969.45898	4861.86328	0.61351
68	8.811	VV	0.0257	1.20788e4	7148.80664	0.82618
69	8.872	VV	0.0262	9444.31543	5467.78174	0.64599
70	8.912	VP	0.0250	1408.37952	819.90094	0.09633

Totals : 1.46200e6 1.06126e6

Results obtained with enhanced integrator!

*** End of Report ***

BFE0160 17D0421/17E0012 LL Sim PNA

Date:2017-05-11,1:29:44 PM

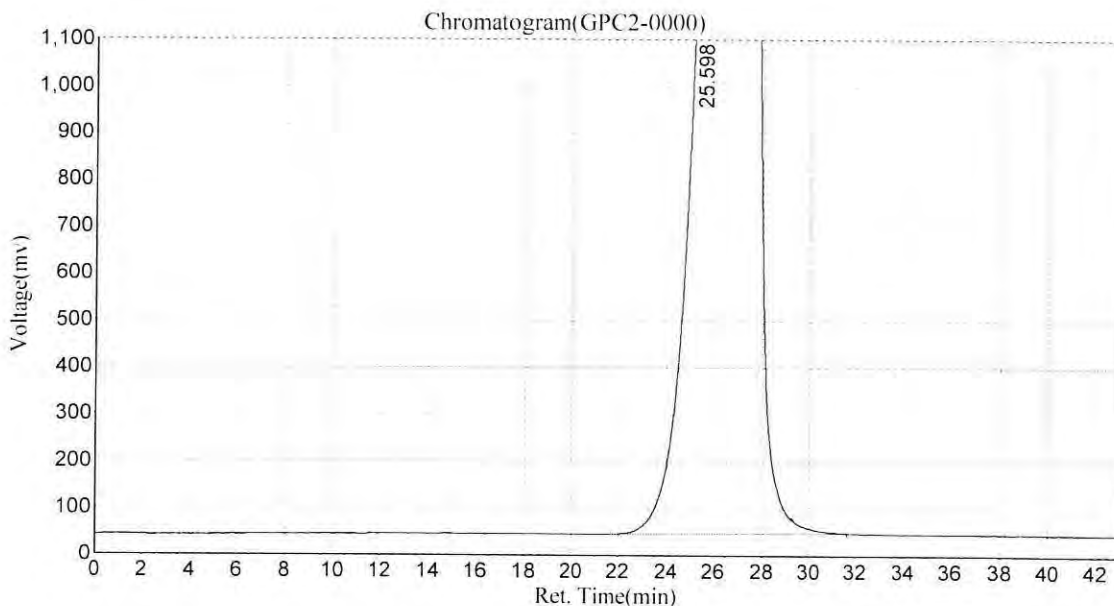
Data File:c:\n2000\data3\051117b\GPC2-0000

Method File:C:\N2000\GPC2_LL-Sim.mtd

BLK

Analyst : WW

Date/Time2017-05-11,1:29:45 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		25.598	1443508.250	289103072.000	100.0000
Total			1443508.250	289103072.000	100.000

Ingredient Table

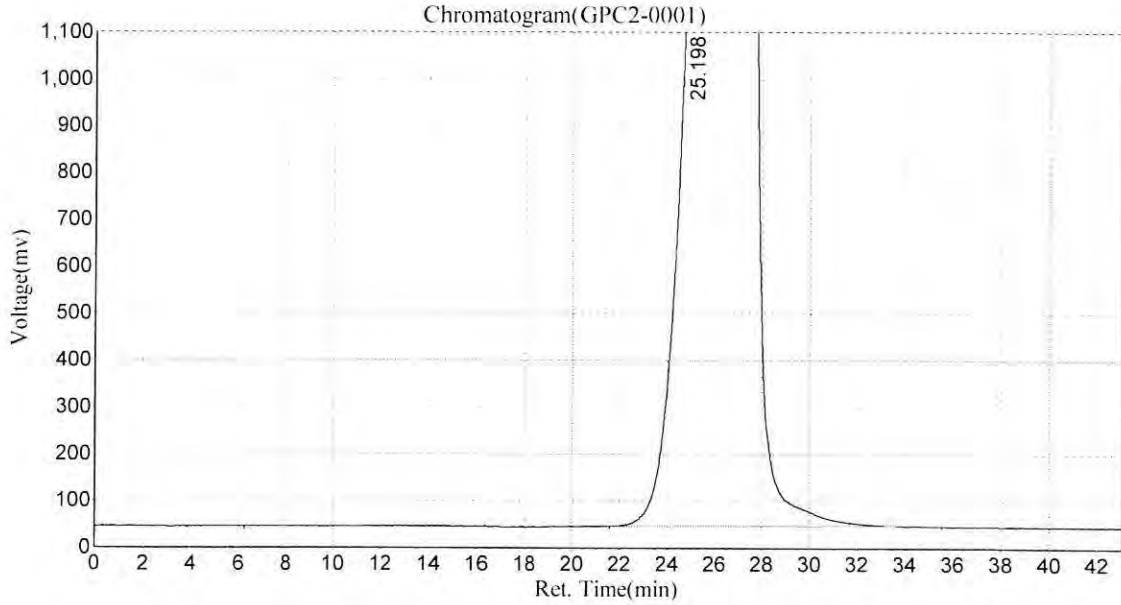
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	16.500	0.010	0.00E+000	0.00E+000	0.0000
2	Dump BAN	39.000	0.010	0.00E+000	0.00E+000	0.0000

BFE0160 17D0421/17E0012 LL Sim PNA

Date:2017-05-11,2:14:28 PM
 Data File:c:\n2000\data3\051117b\GPC2-0001
 Method File:C:\N2000\GPC2_LL-Sim.mtd

-BS

Analyst : WW
 Date/Time2017-05-11,2:14:29 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		25.198	1443312.000	320289376.000	100.0000
Total			1443312.000	320289376.000	100.000

Ingredient Table

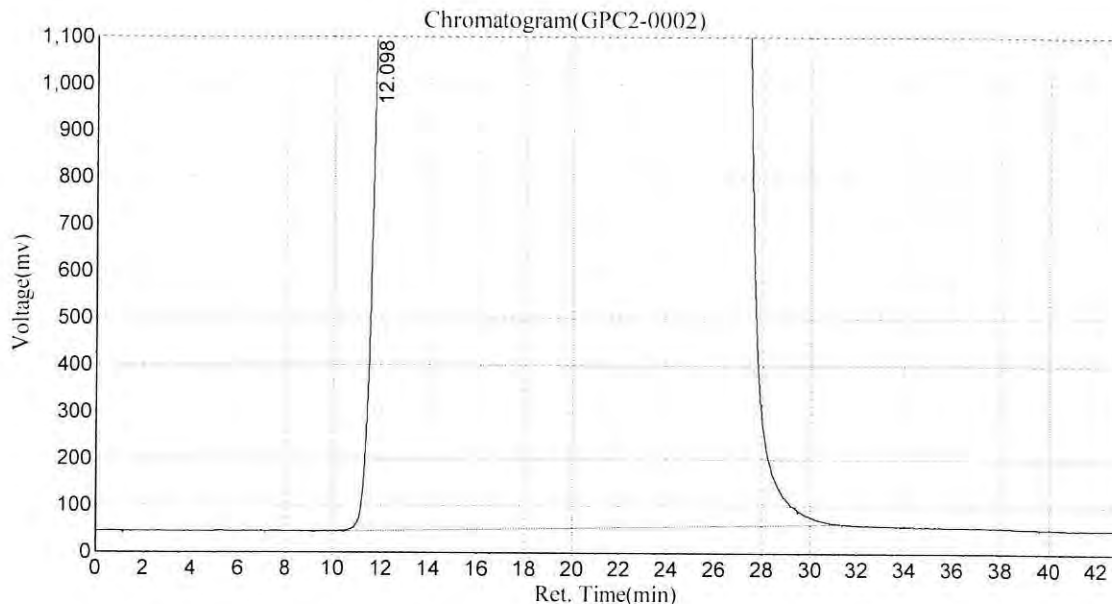
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	16.500	0.010	0.00E+000	0.00E+000	0.0000
2	Dump BAN	39.000	0.010	0.00E+000	0.00E+000	0.0000

BFE0160 17D0421/17E0012 LL Sim PNA

Date:2017-05-11,2:59:12 PM
 Data File:c:\n2000\data3\051117b\GPC2-0002
 Method File:C:\N2000\GPC2_LL-Sim.mtd

Handwritten mark: a circle with a vertical line through it.

Analyst : WW
 Date/Time2017-05-11,2:59:12 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		12.098	1442863.500	1386491520.000	100.0000
Total			1442863.500	1386491520.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	16.500	0.010	0.00E+000	0.00E+000	0.0000
2	Dump BAN	39.000	0.010	0.00E+000	0.00E+000	0.0000

BFE0160 17D0421/17E0012 LL Sim PNA

Date:2017-05-11,3:43:55 PM

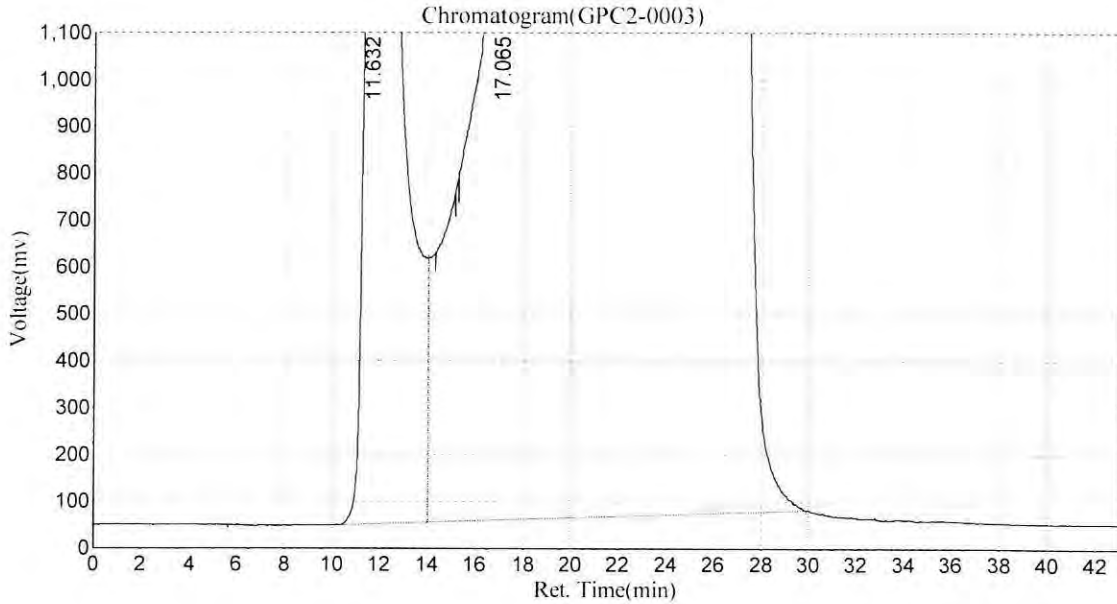
Data File:c:\n2000\data3\051117b\GPC2-0003

Method File:C:\N2000\GPC2_LL-Sim.mtd

-02

Analyst : WW

Date/Time2017-05-11,3:43:56 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		11.632	1437140.750	186032704.000	14.8383
2		17.065	1428209.125	1067703552.000	85.1617
Total			2865349.875	1253736256.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	16.500	0.010	0.00E+000	0.00E+000	0.0000
2	Dump BAN	39.000	0.010	0.00E+000	0.00E+000	0.0000

BFE0160 17D0421/17E0012 LL Sim PNA

Date:2017-05-11,4:28:37 PM

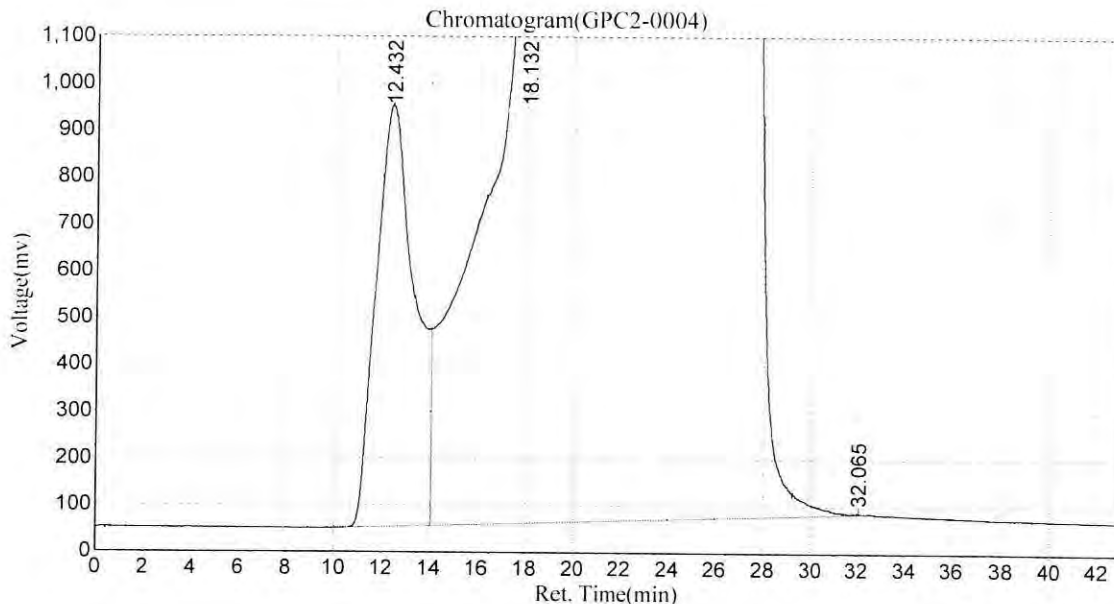
Data File:c:\n2000\data3\051117b\GPC2-0004

Method File:C:\N2000\GPC2_LL-Sim.mtd

Analyst : WW

Date/Time2017-05-11,4:28:38 PM

03



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		12.432	900649.125	101476608.000	8.9673
2		18.132	1427567.000	1029969856.000	91.0161
3		32.065	6162.251	188695.484	0.0167
Total			2334378.376	1131635159.484	100.000

Ingredient Table

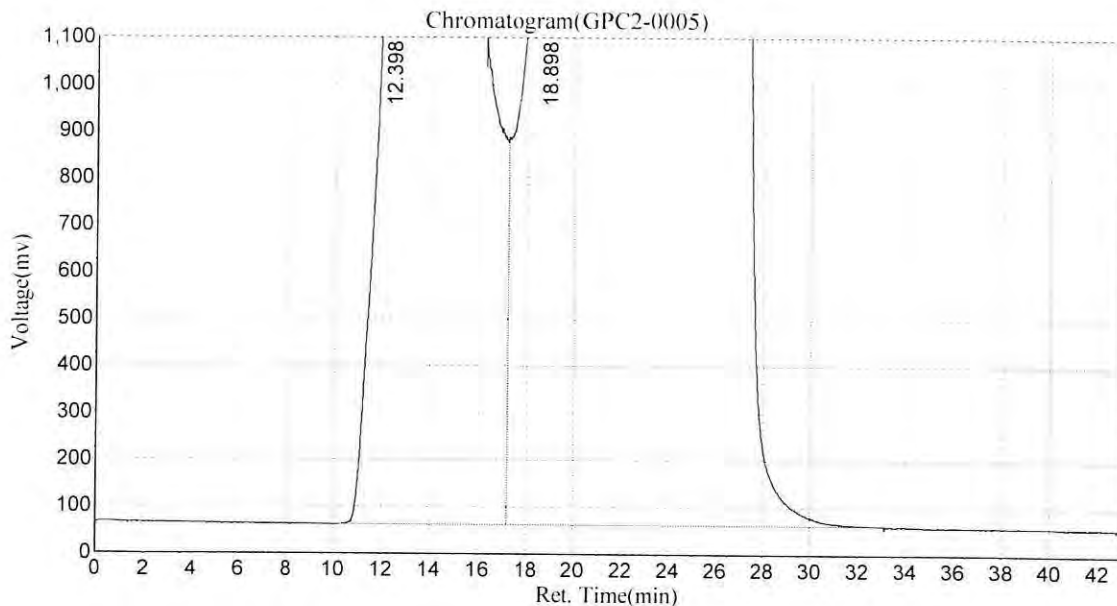
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	16.500	0.010	0.00E+000	0.00E+000	0.0000
2	Dump BAN	39.000	0.010	0.00E+000	0.00E+000	0.0000

BFE0160 17D0421/17E0012 LL Sim PNA

Date:2017-05-11,5:13:18 PM
 Data File:c:\n2000\data3\051117b\GPC2-0005
 Method File:C:\N2000\GPC2_LL-Sim.mtd

Analyst : WW
 Date/Time2017-05-11,5:13:19 PM

-04



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		12.398	1427524.500	443720608.000	34.4237
2		18.898	1317098.375	845277376.000	65.5763
Total			2744622.875	1288997984.000	100.000

Ingredient Table

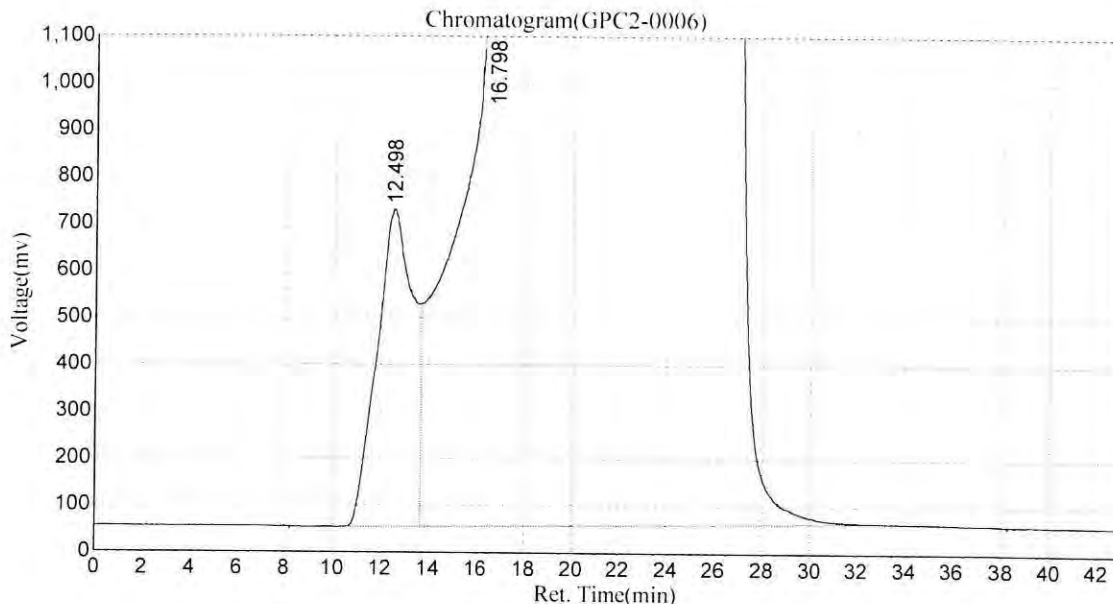
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	16.500	0.010	0.00E+000	0.00E+000	0.0000
2	Dump BAN	39.000	0.010	0.00E+000	0.00E+000	0.0000

BFE0160 17D0421/17E0012-LL Sim PNA

Date:2017-05-11,5:58:00 PM
 Data File:c:\n2000\data3\051117b\GPC2-0006
 Method File:C:\N2000\GPC2_LL-Sim.mtd

OS

Analyst : WW
 Date/Time:2017-05-11,5:58:01 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		12.498	675331.375	71498648.000	6.3695
2		16.798	1432324.500	1051021504.000	93.6305
Total			2107655.875	1122520152.000	100.000

Ingredient Table

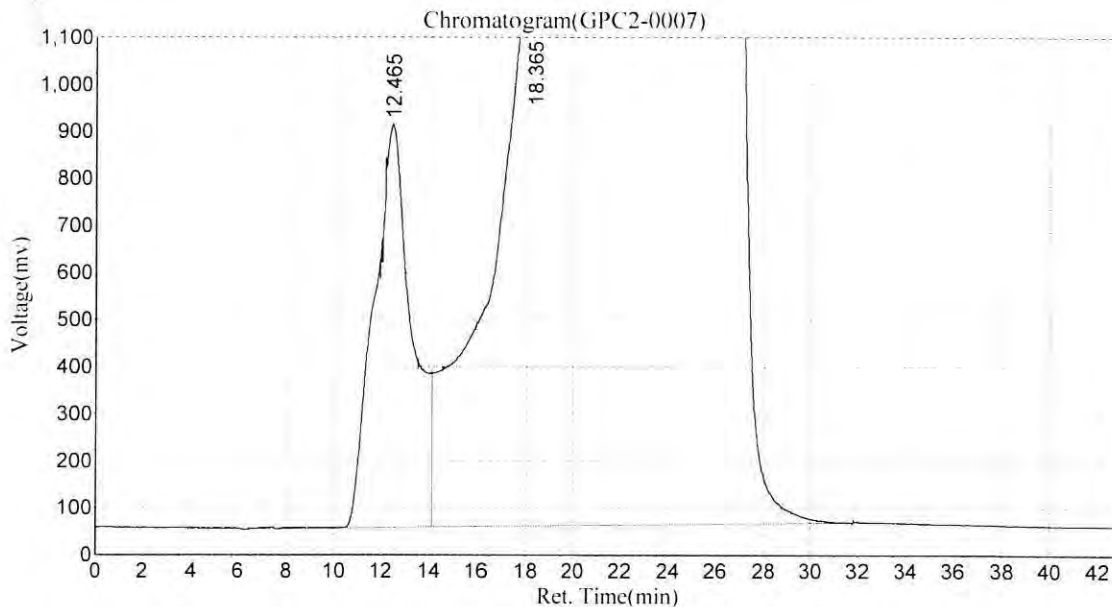
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	16.500	0.010	0.00E+000	0.00E+000	0.0000
2	Dump BAN	39.000	0.010	0.00E+000	0.00E+000	0.0000

BFE0160 17D0421/17E0012 LL Sim PNA

Date:2017-05-11,6:42:43 PM
 Data File:c:\n2000\data3\051117b\GPC2-0007
 Method File:C:\N2000\GPC2_LL-Sim.mtd

φb

Analyst : WW
 Date/Time2017-05-11,6:42:44 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		12.465	855682.375	94523784.000	9.1965
2		18.365	1427315.125	933301184.000	90.8035
Total			2282997.500	1027824968.000	100.000

Ingredient Table

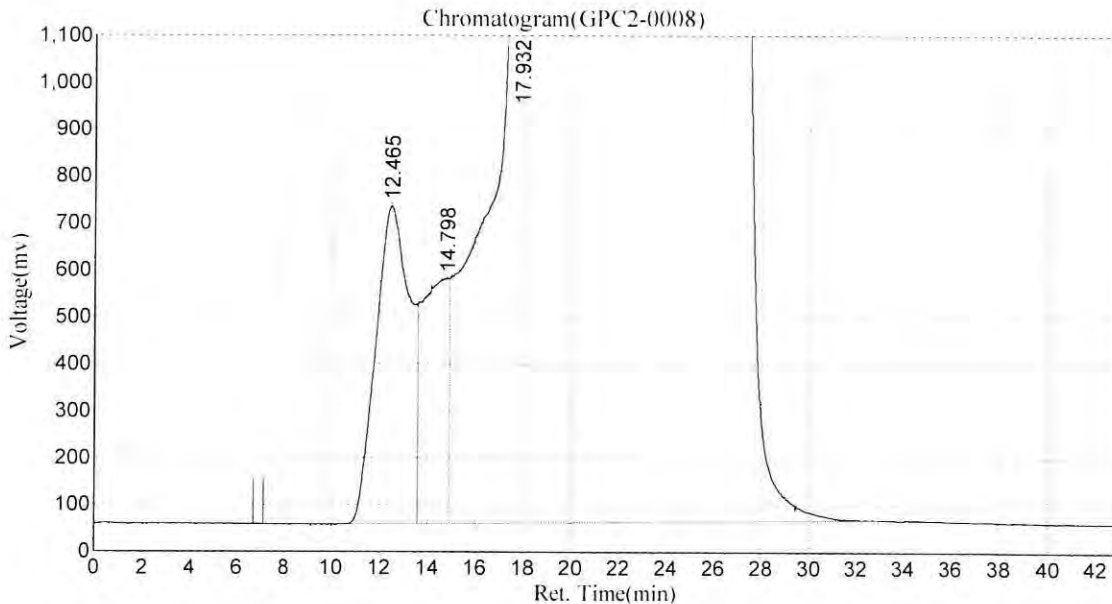
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	16.500	0.010	0.00E+000	0.00E+000	0.0000
2	Dump BAN	39.000	0.010	0.00E+000	0.00E+000	0.0000

BFE0160 17D0421/17E0012 LL Sim PNA

Date:2017-05-11,7:27:27 PM
 Data File:c:\n2000\data3\051117b\GPC2-0008
 Method File:C:\N2000\GPC2_LL-Sim.mtd

07

Analyst : WW
 Date/Time:2017-05-11,7:27:28 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		12.465	677227.500	67930760.000	6.2048
2		14.798	523627.219	39107892.000	3.5721
3		17.932	1428515.250	987762368.000	90.2230
Total			2629369.969	1094801020.000	100.000

Ingredient Table

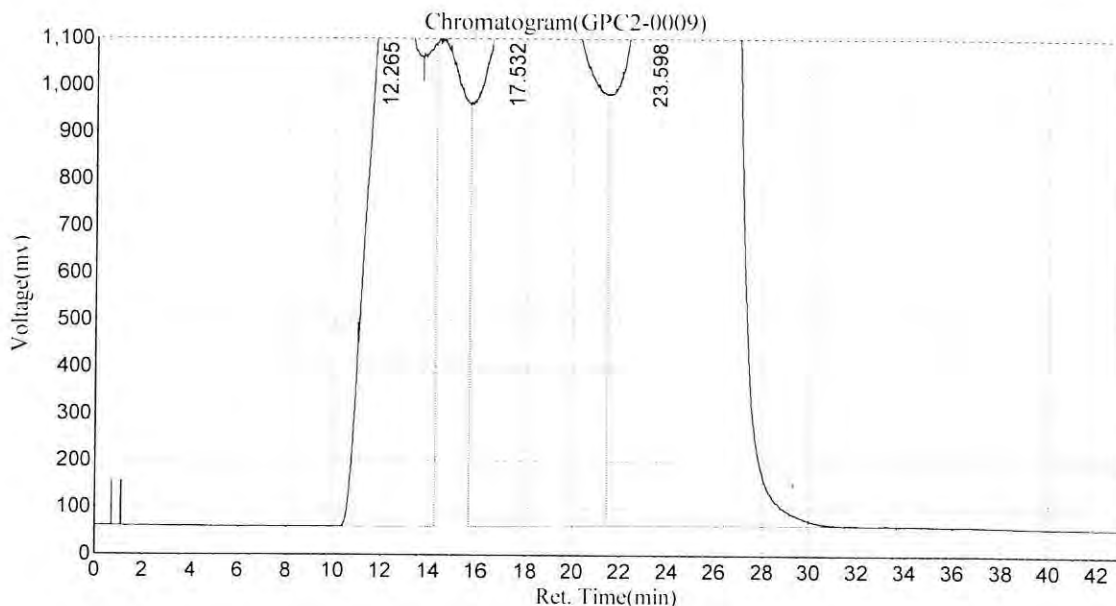
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	16.500	0.010	0.00E+000	0.00E+000	0.0000
2	Dump BAN	39.000	0.010	0.00E+000	0.00E+000	0.0000

BFE0160 17D0421/17E0012 LL Sim PNA

Date:2017-05-11,8:12:10 PM
 Data File:c:\n2000\data3\051117b\GPC2-0009
 Method File:C:\N2000\GPC2_LL-Sim.mtd

08

Analyst : WW
 Date/Time2017-05-11,8:12:11 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		12.265	1429920.000	218348432.000	19.8322
2		17.532	1428606.375	415315296.000	37.7223
3		23.598	1427093.125	467317152.000	42.4455
Total			4285619.500	1100980880.000	100.000

Ingredient Table

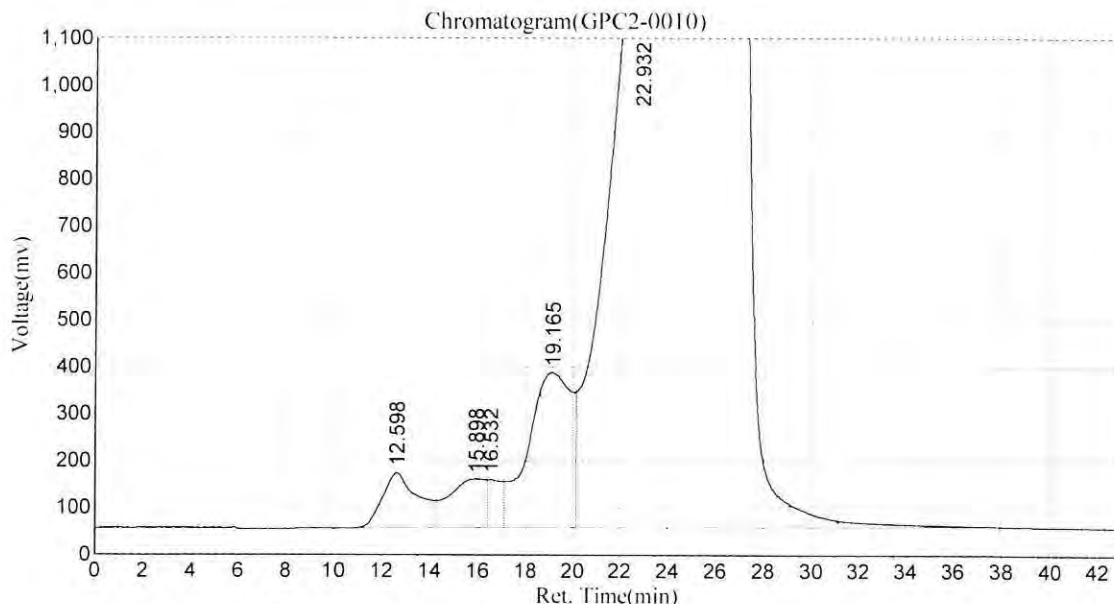
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	16.500	0.010	0.00E+000	0.00E+000	0.0000
2	Dump BAN	39.000	0.010	0.00E+000	0.00E+000	0.0000

BFE0160 17D0421/17E0012 LL Sim PNA

Date:2017-05-11,8:56:53 PM
 Data File:c:\n2000\data3\051117b\GPC2-0010
 Method File:C:\N2000\GPC2_LL-Sim.mtd

-09

Analyst : WW
 Date/Time2017-05-11,8:56:54 PM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		12.598	118226.297	12435597.000	2.0323
2		15.898	104841.680	11085315.000	1.8116
3		16.532	102875.102	4439665.000	0.7256
4		19.165	330709.000	41919776.000	6.8509
5		22.932	1430957.375	542011264.000	88.5796
Total			2087609.453	611891617.000	100.000

Ingredient Table

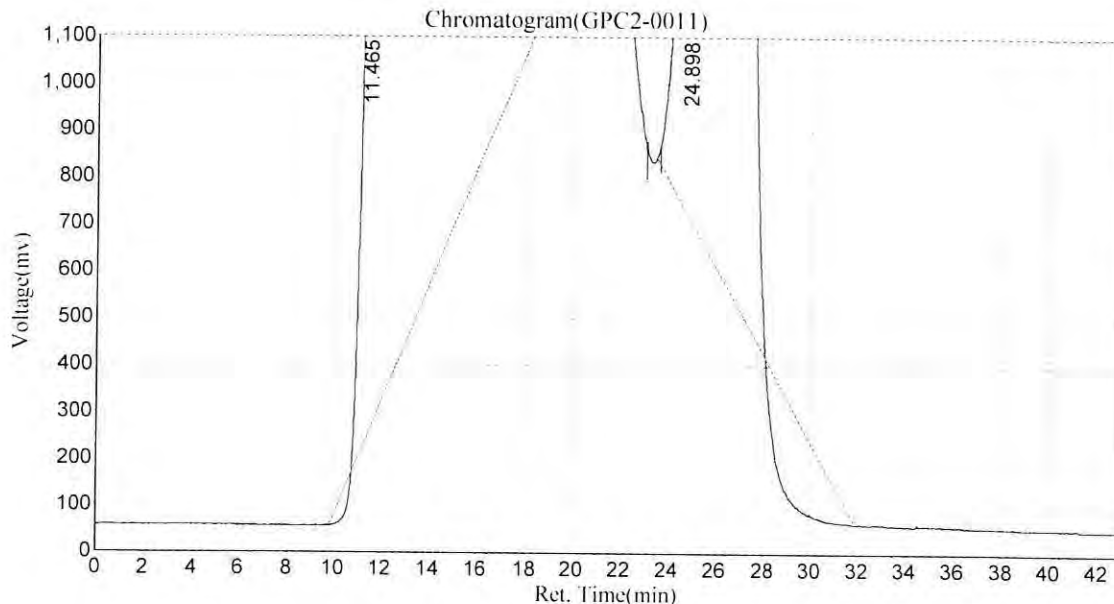
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	16.500	0.010	0.00E+000	0.00E+000	0.0000
2	Dump BAN	39.000	0.010	0.00E+000	0.00E+000	0.0000

BFE0160 17D0421/17E0012 LL Sim PNA

Date:2017-05-11,9:41:37 PM
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 Method File:C:\N2000\GPC2_LL-Sim.mtd

Analyst : WW
 Date/Time2017-05-11,9:41:38 PM

10



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		11.465	1231188.000	397499840.000	71.2879
2		24.898	778092.813	160097792.000	28.7121
Total			2009280.813	557597632.000	100.000

Ingredient Table

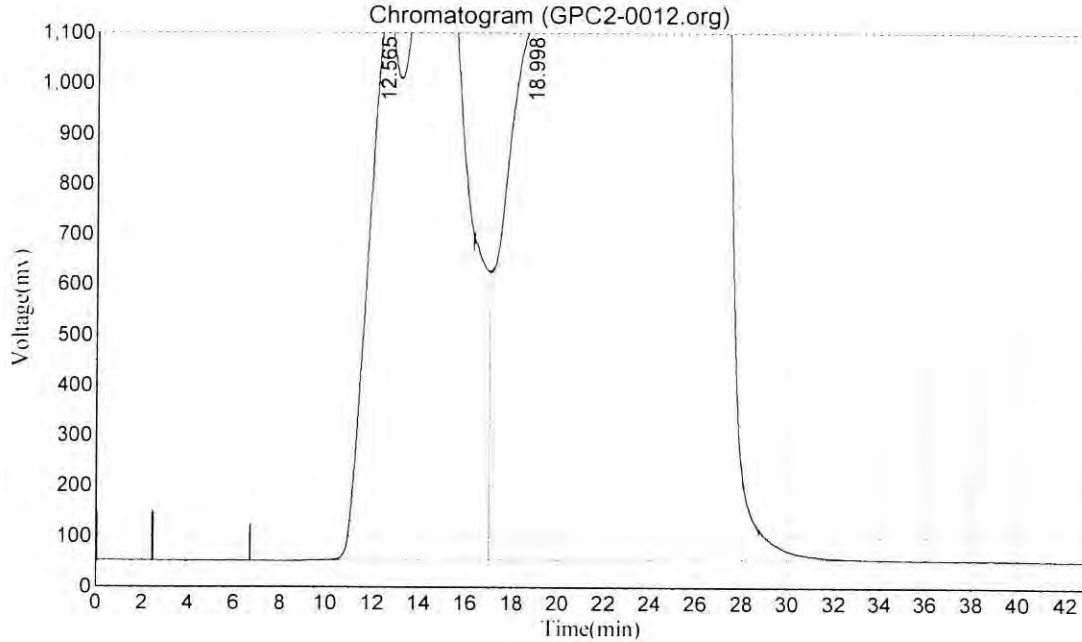
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	16.500	0.010	0.00E+000	0.00E+000	0.0000
2	Dump BAN	39.000	0.010	0.00E+000	0.00E+000	0.0000

BFE0160 17D0421/17E0012 LL Sim PNA

Date/Time: 2017-05-11,10:26:17 PM
 Data File: C:\N2000\data3\051117b\GPC2-0012.org
 Method File: C:\N2000\GPC2_LL-Sim.mtd

Analyst: WW
 Date/Time: 2017-05-12,11:05:03 AM

0/



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc.
1		12.565	1102263.375	341384576.000	29.8018
2		18.998	1059764.500	804130688.000	70.1982
Total			2162027.875	1145515264.000	100.0000

Ingredient table

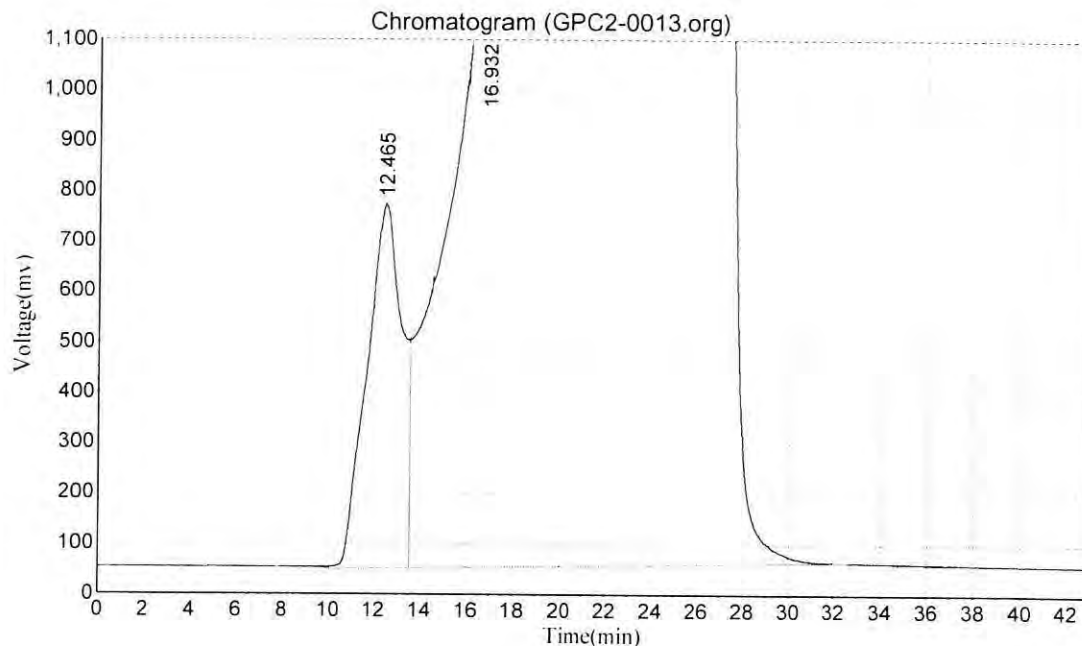
No.	Peak ID	Ret. Time	Peak Width	Factor 1	Factor 2	ISTD Wt.
1	Collect BAN	16.500	0.010	0.00E+000	0.00E+000	0.0000
2	Dump BAN	39.000	0.010	0.00E+000	0.00E+000	0.0000

BFE0160 17D0421/17E0012 LL Sim PNA

Date/Time: 2017-05-11,11:11:01 PM
 Data File: C:\N2000\data3\051117b\GPC2-0013.org
 Method File: C:\N2000\GPC2_LL-Sim.mtd

92

Analyst: WW
 Date/Time: 2017-05-12,11:05:18 AM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc.
1		12.465	719246.750	76196504.000	6.5078
2		16.932	1433136.000	1094650112.000	93.4922
Total			2152382.750	1170846616.000	100.0000

Ingredient table

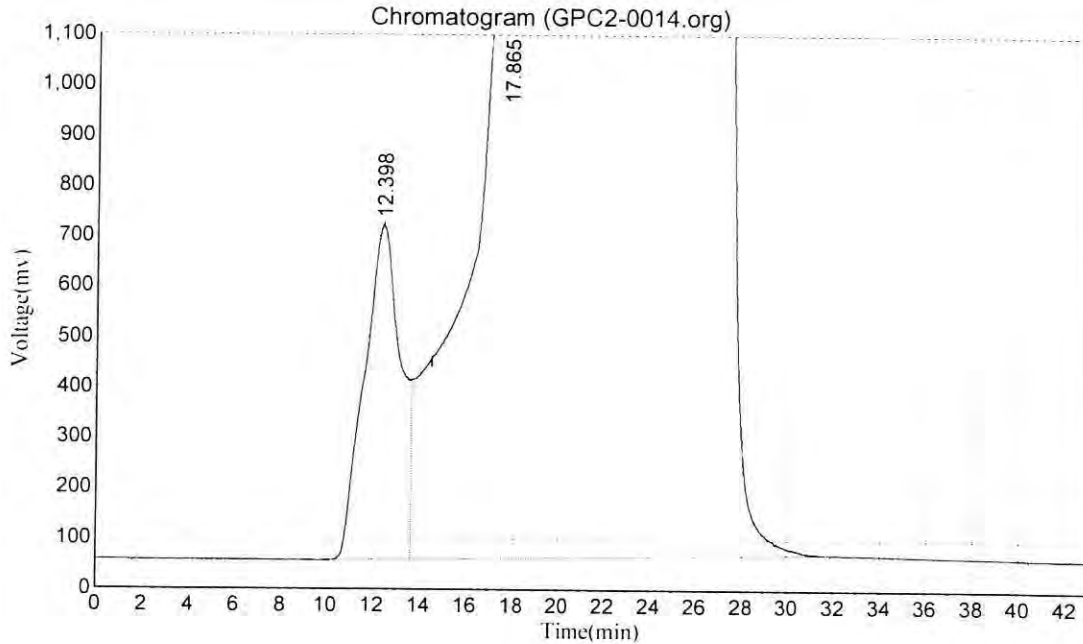
No.	Peak ID	Ret. Time	Peak Width	Factor 1	Factor 2	ISTD Wt.
1	Collect BAN	16.500	0.010	0.00E+000	0.00E+000	0.0000
2	Dump BAN	39.000	0.010	0.00E+000	0.00E+000	0.0000

BFE0160 17D0421/17E0012 LL Sim PNA

Date/Time: 2017-05-11, 11:55:44 PM
 Data File: C:\N2000\data3\051117b\GPC2-0014.org
 Method File: C:\N2000\GPC2_LL-Sim.mtd

OS

Analyst: WW
 Date/Time: 2017-05-12, 11:05:41 AM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc.
1		12.398	667369.125	70633456.000	6.5167
2		17.865	1427328.375	1013245504.000	93.4833
Total			2094697.500	1083878960.000	100.0000

Ingredient table

No.	Peak ID	Ret. Time	Peak Width	Factor 1	Factor 2	ISTD Wt.
1	Collect BAN	16.500	0.010	0.00E+000	0.00E+000	0.0000
2	Dump BAN	39.000	0.010	0.00E+000	0.00E+000	0.0000

BFE0160-17D0421/17E0012 LL Sim PNA

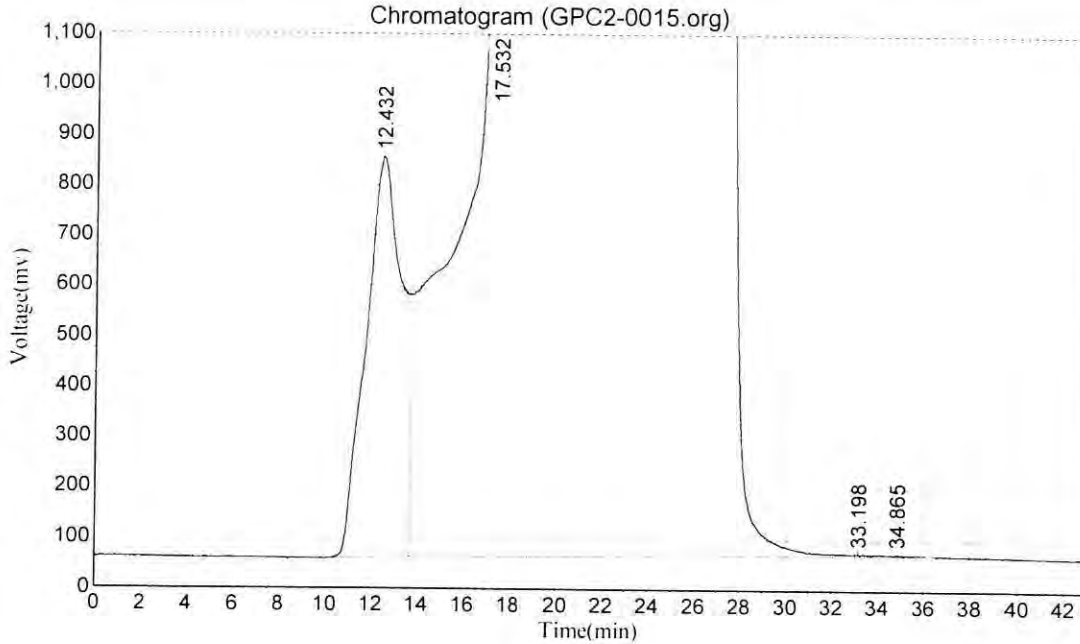
Date/Time: 2017-05-12, 12:40:27 AM

Data File: C:\N2000\data3\051117b\GPC2-0015.org - 04

Method File: C:\N2000\GPC2_LL-Sim.mtd

Analyst: WW

Date/Time: 2017-05-12, 11:06:16 AM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc.
1		12.432	794252.188	87831920.000	7.6660
2		17.532	1426839.250	1057513152.000	92.3001
3		33.198	4973.271	188943.375	0.0165
4		34.865	3216.844	199166.234	0.0174
Total			2229281.552	1145733181.609	100.0000

Ingredient table

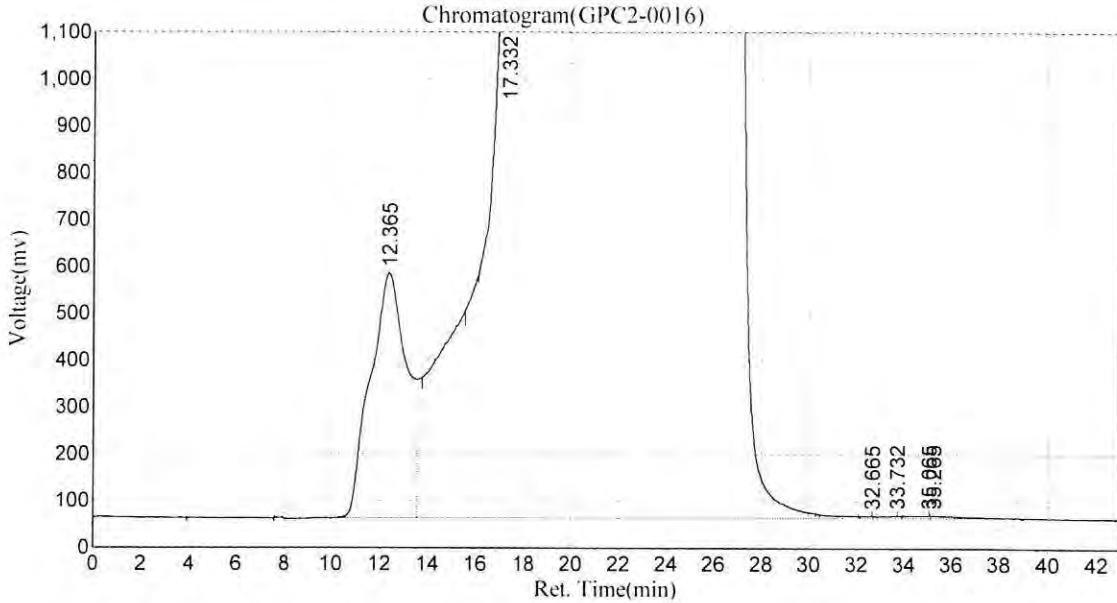
No.	Peak ID	Ret. Time	Peak Width	Factor 1	Factor 2	ISTD Wt.
1	Collect BAN	16.500	0.010	0.00E+000	0.00E+000	0.0000
2	Dump BAN	39.000	0.010	0.00E+000	0.00E+000	0.0000

BFE0160 17D0421/17E0012 LL Sim PNA

Date:2017-05-12,1:25:11 AM
 Data File:c:\n2000\data3\051117b\GPC2-0016
 Method File:C:\N2000\GPC2_LL-Sim.mtd

45

Analyst : WW
 Date/Time:2017-05-12,1:25:11 AM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		12.365	524013.375	55453816.000	5.2828
2		17.332	1426847.375	992938048.000	94.5918
3		32.665	4843.025	186415.297	0.0178
4		33.732	5063.830	299451.000	0.0285
5		35.065	5480.585	375614.813	0.0358
6		35.265	5468.799	454726.063	0.0433
Total			1971716.989	1049708071.172	100.000

Ingredient Table

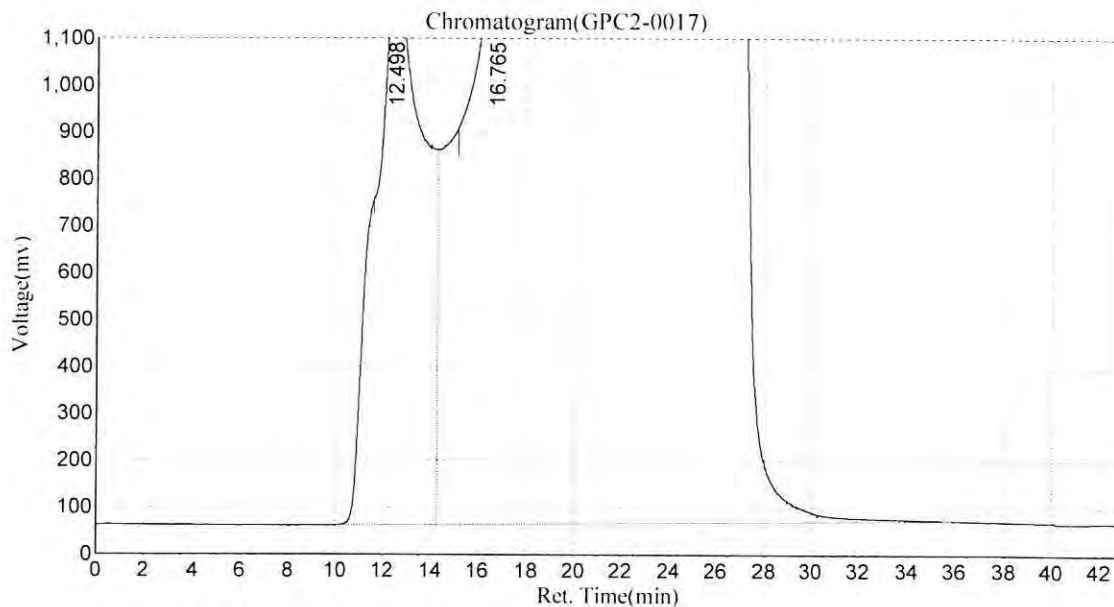
No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	16.500	0.010	0.00E+000	0.00E+000	0.0000
2	Dump BAN	39.000	0.010	0.00E+000	0.00E+000	0.0000

BFE0160 17D0421/17E0012 LL Sim PNA

Date:2017-05-12,2:09:55 AM
 Data File:c:\n2000\data3\051117b\GPC2-0017
 Method File:C:\N2000\GPC2_LL-Sim.mtd

06

Analyst : WW
 Date/Time 2017-05-12,2:09:56 AM



Results

Peak No.	Peak ID	Ret Time	Height	Area	Conc
1		12.498	1225022.000	171162864.000	13.8155
2		16.765	1424538.250	1067753472.000	86.1845
Total			2649560.250	1238916336.000	100.000

Ingredient Table

No	Peak ID	Ret Time	Peak Width	Factor1	Factor2	ISTD Wt.
1	Collect BAN	16.500	0.010	0.00E+000	0.00E+000	0.0000
2	Dump BAN	39.000	0.010	0.00E+000	0.00E+000	0.0000



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, Inc.
Client: Anchor QEA, LLC
Cleanup Batch: CFE0093
Cleanup Method: EPA 3640A GPC Cleanup

SDG: 17E0012
Project: Port Gamble Shellfish Monitoring
Cleanup Type: GPC
Analysis: EPA 8270D-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
PG-PJ-COC-COC-170427	17E0012-02	N1117051616.D	05/11/2017	
PG-PJ-OYS-COC-170427	17E0012-01	N1117051615.D	05/11/2017	
PG-PJ-MUS-COC-170427	17E0012-06	N1117051620.D	05/11/2017	
PG-PJ-MAN-COC-170427	17E0012-04	N1117051618.D	05/11/2017	
PG-PJ-LTN-COC-170427	17E0012-03	N1117051617.D	05/11/2017	
PG-PJ-HC-COC-170428	17E0012-05	N1117051619.D	05/11/2017	



CLEANUP BENCH SHEET

CFE0093

Printed: 5/12/2017 3:46:12PM

Cleanup using: Organics - EPA 3640A GPC Cleanup

Matrix: Tissue

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
17E0012-06	A	PG-PJ-AUS-COC-170427	A 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	5/12/2017	SDP	
17E0012-05	A	PG-PJ-HC-COC-170428	A 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	5/12/2017	SDP	
17E0012-04	A	PG-PJ-MAN-COC-170427	A 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	5/12/2017	SDP	
17E0012-03	A	PG-PJ-LTN-COC-170427	A 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	5/12/2017	SDP	
17E0012-02	A	PG-PJ-COC-COC-170427	A 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	5/12/2017	SDP	
17E0012-01	A	PG-PJ-OYS-COC-170427	A 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	5/12/2017	SDP	
17D0421-10	A	PG-SMA3-DJNH-COC-170426	A 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	5/12/2017	SDP	
17D0421-09	A	PG-SMA3-DJNH-COC-170426	A 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	5/12/2017	SDP	
17D0421-08	A	PG-SMA3-GEO-COC-170426	A 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	5/12/2017	SDP	
17D0421-07	A	PG-WS-MAN-COC-170424	A 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	5/12/2017	SDP	
17D0421-06	A	PG-WS-LTN-COC-170424	A 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	5/12/2017	SDP	
17D0421-05	A	PG-WS-COC-COC-170425	A 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	5/12/2017	SDP	
17D0421-04	A	PG-WS-OYS-COC-170424	A 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	5/12/2017	SDP	
17D0421-03	A	PG-GP-LTN-COC-170424	A 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	5/12/2017	SDP	
17D0421-02	A	PG-GP-COC-COC-170424	A 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	5/12/2017	SDP	
17D0421-01	A	PG-GP-OYS-COC-170424	A 01	0.5	0.5	70D-SIM PAH Low (0.01 ug/L - 0.5 ug/	5/12/2017	SDP	
BFE0160-B51	-	LCS	-	0.5	0.5	-	5/12/2017	SDP	
BFE0160-BLK1	-	Blank	-	0.5	0.5	-	5/12/2017	SDP	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, Inc.

SDG: 17E0012

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Cleanup Batch: CFE0094

Cleanup Type: Silica Gel

Cleanup Method: EPA 3630C Silica Gel Cleanup

Analysis: EPA 8270D-SIM

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
PG-PJ-OYS-COC-170427	17E0012-01	N1117051615.D	05/12/2017	
PG-PJ-COC-COC-170427	17E0012-02	N1117051616.D	05/12/2017	
PG-PJ-HC-COC-170428	17E0012-05	N1117051619.D	05/12/2017	
PG-PJ-LTN-COC-170427	17E0012-03	N1117051617.D	05/12/2017	
PG-PJ-MUS-COC-170427	17E0012-06	N1117051620.D	05/12/2017	
PG-PJ-MAN-COC-170427	17E0012-04	N1117051618.D	05/12/2017	

Form I
METHOD BLANK DATA SHEET
EPA 8270D-SIM

Blank

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>17E0012</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Port Gamble Shellfish Monitoring</u>
Matrix: <u>Tissue</u>	Laboratory ID: <u>BFE0160-BLK1</u>
Sampled: <u>N/A</u>	File ID: <u>N1117051603.D</u>
Solids:	Prepared: <u>05/09/17 13:50</u>
Batch: <u>BFE0160</u>	Analyzed: <u>05/16/17 11:35</u>
Instrument: <u>NT11</u>	Preparation: <u>EPA 3550C-Mod (Ultrasonic)</u>
	Initial/Final: <u>10 g / 0.5 mL</u>
	Sequence: <u>SFE0208</u>
	Calibration: <u>AE00020</u>
	Column: <u>RXi-17Sil-MS</u>

CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.60	U	0.50	0.60
91-57-6	2-Methylnaphthalene	1	0.50	U	0.50	0.50
208-96-8	Acenaphthylene	1	0.50	U	0.50	0.50
83-32-9	Acenaphthene	1	0.50	U	0.50	0.50
86-73-7	Fluorene	1	0.50	U	0.50	0.50
85-01-8	Phenanthrene	1	0.50	U	0.50	0.50
120-12-7	Anthracene	1	0.50	U	0.50	0.50
206-44-0	Fluoranthene	1	0.50	U	0.50	0.50
129-00-0	Pyrene	1	0.50	U	0.50	0.50
56-55-3	Benzo(a)anthracene	1	0.50	U	0.50	0.50
218-01-9	Chrysene	1	0.50	U	0.50	0.50
205-99-2	Benzo(b)fluoranthene	1	0.50	U	0.50	0.50
207-08-9	Benzo(k)fluoranthene	1	0.50	U	0.50	0.50
50-32-8	Benzo(a)pyrene	1	0.50	U	0.50	0.50
193-39-5	Indeno(1,2,3-cd)pyrene	1	0.50	U	0.50	0.50
53-70-3	Dibenzo(a,h)anthracene	1	0.50	U	0.50	0.50
191-24-2	Benzo(g,h,i)perylene	1	0.50	U	0.50	0.50
1985-5-0	Perylene	1	0.50	U	0.50	0.50
197-97-2	Benzo(e)pyrene	1	0.50	U	0.50	0.50

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	15.000	7.91	52.7	30 - 160	
Dibenzo[a,h]anthracene-d14	15.000	10.9	72.8	30 - 160	
Fluoranthene-d10	15.000	11.7	77.7	30 - 160	

Data File: \\target\share\chem3\nt11.1\20170516.6\N1117051603.D

Date: 16-May-2017 11:35

Client ID:

Sample Info: BFE0160-BLK1

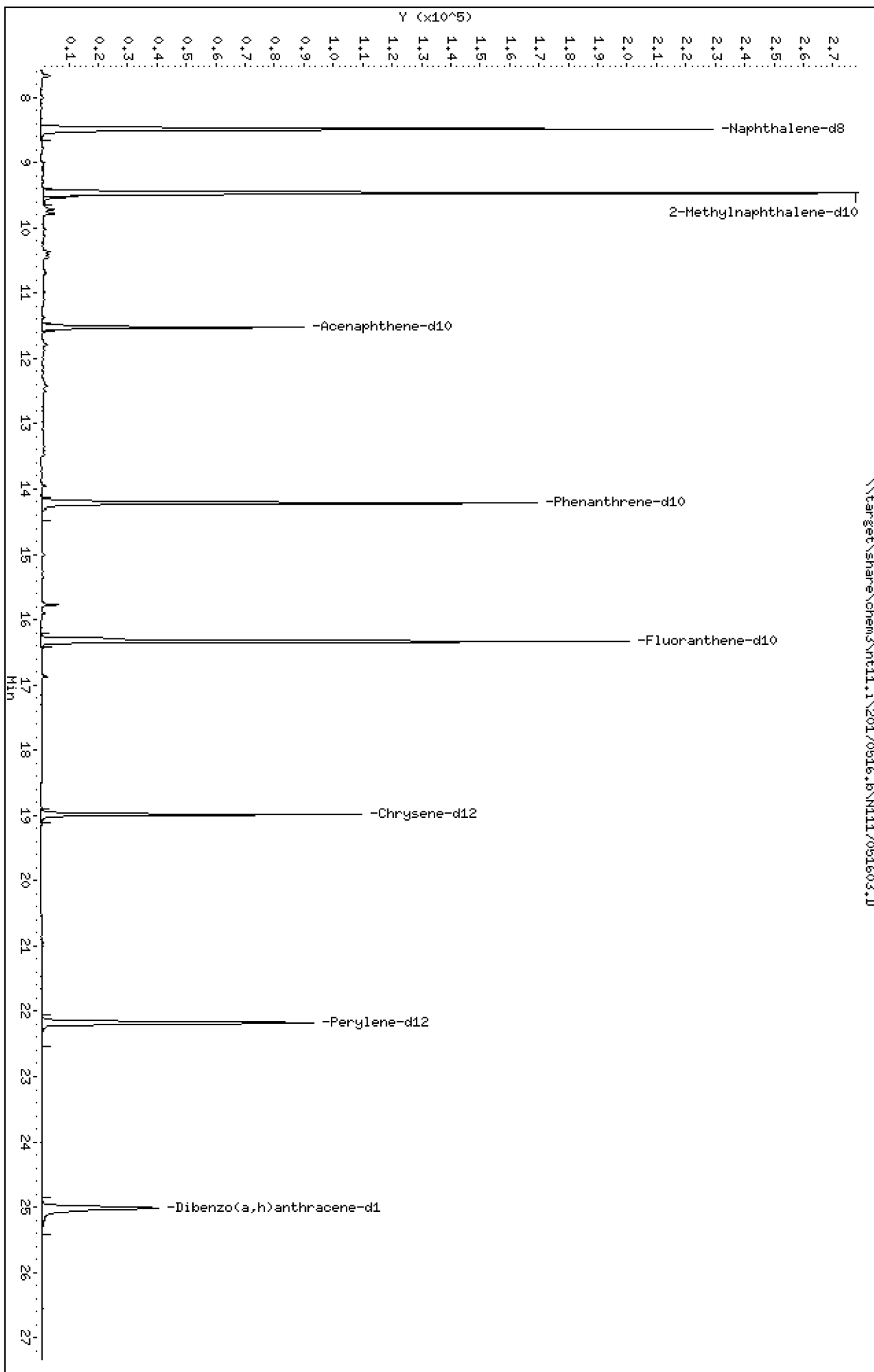
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170516.b\N1117051603.D
 Lab Smp Id: BFE0160-BLK1
 Inj Date : 16-MAY-2017 11:35 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : BFE0160-BLK1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20170516.b\LOWSIM.m
 Meth Date : 17-May-2017 08:15 nt11.i Quant Type: ISTD
 Cal Date : 05-MAY-2017 14:47 Cal File: 17050508.D
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: allpna.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		8.491	8.500	(1.000)	447653	200.000	
2 Naphthalene	128		Compound Not Detected.					
3 Benzo(b)thiophene	134		Compound Not Detected.					
\$ 4 2-Methylnaphthalene-d10	152		9.467	9.477	(1.115)	303354	158.133	158
5 2-Methylnaphthalene	142		Compound Not Detected.					
6 1-Methylnaphthalene	142		Compound Not Detected.					
7 2-Chloronaphthalene	162		Compound Not Detected.					
8 Biphenyl	154		Compound Not Detected.					
9 2,6-Dimethylnaphthalene	156		Compound Not Detected.					
10 Acenaphthylene	152		Compound Not Detected.					
* 11 Acenaphthene-d10	164		11.528	11.528	(1.000)	173441	200.000	
12 Acenaphthene	153		Compound Not Detected.					
13 Dibenzofuran	168		Compound Not Detected.					
14 2,3,5-Trimethylnaphthalene	170		Compound Not Detected.					
\$ 15 Fluorene-d10	174		Compound Not Detected.					
16 Fluorene	166		Compound Not Detected.					
17 Dibenzothiophene	184		Compound Not Detected.					
* 18 Phenanthrene-d10	188		14.220	14.220	(1.000)	275907	200.000	
19 Phenanthrene	178		Compound Not Detected.					
\$ 20 Anthracene-d10	188		Compound Not Detected.					
21 Anthracene	178		Compound Not Detected.					
22 Carbazole	167		Compound Not Detected.					
23 1-Methylphenanthrene	192		Compound Not Detected.					
\$ 24 Fluoranthene-d10	212		16.339	16.338	(1.149)	304127	233.170	233
25 Fluoranthene	202		Compound Not Detected.					
26 Pyrene	202		Compound Not Detected.					
27 Benzo(a)anthracene	228		Compound Not Detected.					
* 28 Chrysene-d12	240		18.983	18.983	(1.000)	182854	200.000	
29 Chrysene	228		Compound Not Detected.					
30 Benzo(b)fluoranthene	252		Compound Not Detected.					
31 Benzo(k)fluoranthene	252		Compound Not Detected.					
32 Benzo(j)fluoranthene	252		Compound Not Detected.					
\$ 33 Benzo(e)pyrene-d12	264		Compound Not Detected.					

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/mL)	FINAL (ng/mL)
34 Benzo(e)pyrene	252				Compound Not Detected.		
35 Benzo(a)pyrene	252				Compound Not Detected.		
* 36 Perylene-d12	264	22.173	22.173	(1.000)	206286	200.000	
37 Perylene	252				Compound Not Detected.		
§ 38 Dibenzo(a,h)anthracene-d14	292	25.016	25.016	(1.128)	168095	218.450	218
39 Dibenzo(a,h)anthracene	278				Compound Not Detected.		
40 Indeno(1,2,3-cd)pyrene	276				Compound Not Detected.		
41 Benzo(g,h,i)perylene	276				Compound Not Detected.		

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 16-MAY-2017
 Lab File ID: N1117051603.D Calibration Time: 10:47
 Lab Smp Id: BFE0160-BLK1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20170516.b\LOWSIM.m
 Misc Info:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	371325	185663	742650	447653	20.56
11 Acenaphthene-d10	154428	77214	308856	173441	12.31
18 Phenanthrene-d10	256956	128478	513912	275907	7.38
28 Chrysene-d12	208629	104315	417258	182854	-12.35
36 Perylene-d12	225431	112716	450862	206286	-8.49

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	8.50	8.00	9.00	8.49	-0.10
11 Acenaphthene-d10	11.53	11.03	12.03	11.53	0.00
18 Phenanthrene-d10	14.22	13.72	14.72	14.22	0.00
28 Chrysene-d12	18.98	18.48	19.48	18.98	0.00
36 Perylene-d12	22.17	21.67	22.67	22.17	0.00

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

REVIEW SUMMARY FOR FILE - N1117051603.D

Lab ID: BFE0160-BLK1
nt11.i, 20170516.b\LOWSIM.m, 16-MAY-2017 11:35

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT CCV RRT DELTA COMPOUND

NONE

On Column LOD for nt11.i, 20170516.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 6.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000



LCS / LCS DUPLICATE RECOVERY
EPA 8270D-SIM

Laboratory: Analytical Resources, Inc. SDG: 17E0012
 Client: Anchor QEA, LLC Project: Port Gamble Shellfish Monitoring
 Matrix: Tissue Analyzed: 05/16/17 12:11
 Batch: BFE0160 Laboratory ID: BFE0160-BS1
 Preparation: EPA 3550C-Mod (Ultrasonic) Sequence Name: LCS
 Initial/Final: 10 g / 0.5 mL

COMPOUND	SPIKE ADDED (ug/kg)	LCS CONCENTRATION (ug/kg)	Q	LCS % REC. #	QC LIMITS REC.
Naphthalene	15.0	7.77		51.8	30 - 160
2-Methylnaphthalene	15.0	7.76		51.8	30 - 160
Acenaphthylene	15.0	8.06		53.7	30 - 160
Acenaphthene	15.0	8.77		58.5	30 - 160
Fluorene	15.0	8.91		59.4	30 - 160
Phenanthrene	15.0	9.89		65.9	30 - 160
Anthracene	15.0	8.27		55.1	30 - 160
Fluoranthene	15.0	11.3		75.3	30 - 160
Pyrene	15.0	13.3		88.6	30 - 160
Benzo(a)anthracene	15.0	12.3		82.0	30 - 160
Chrysene	15.0	13.1		87.5	30 - 160
Benzo(b)fluoranthene	15.0	12.1		80.5	30 - 160
Benzo(k)fluoranthene	15.0	11.9		79.0	30 - 160
Benzo(a)pyrene	15.0	8.77		58.5	30 - 160
Indeno(1,2,3-cd)pyrene	15.0	11.6		77.5	30 - 160
Dibenzo(a,h)anthracene	15.0	11.3		75.6	30 - 160
Benzo(g,h,i)perylene	15.0	11.4		75.7	30 - 160
Perylene	15.0	9.15		61.0	30 - 160
Benzo(e)pyrene	15.0	11.5		76.7	30 - 160

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt11.1\20170516.6\N1117051604.D

Date: 16-May-2017 12:11

Client ID:

Sample Info: BFE0160-BS1

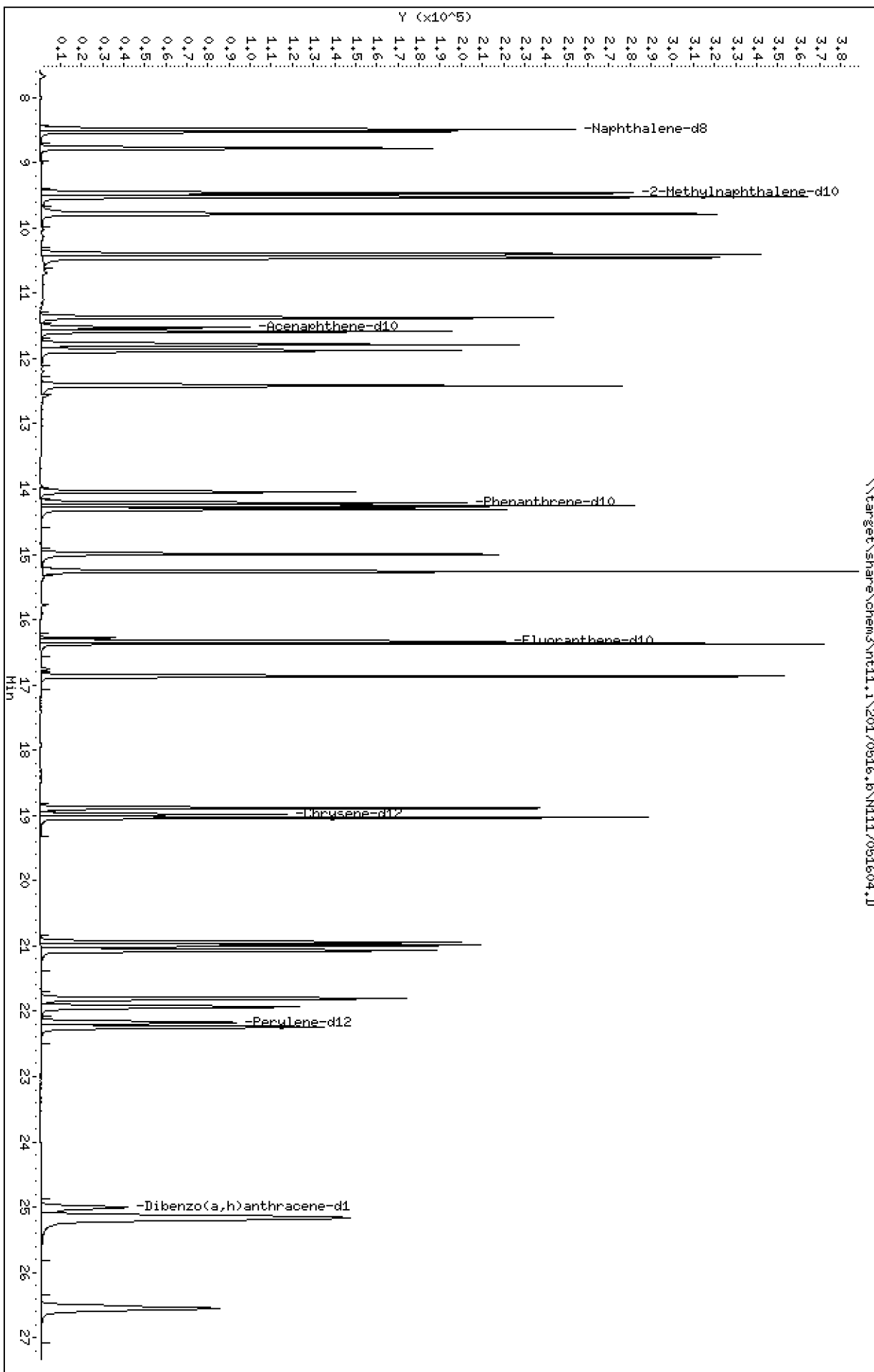
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

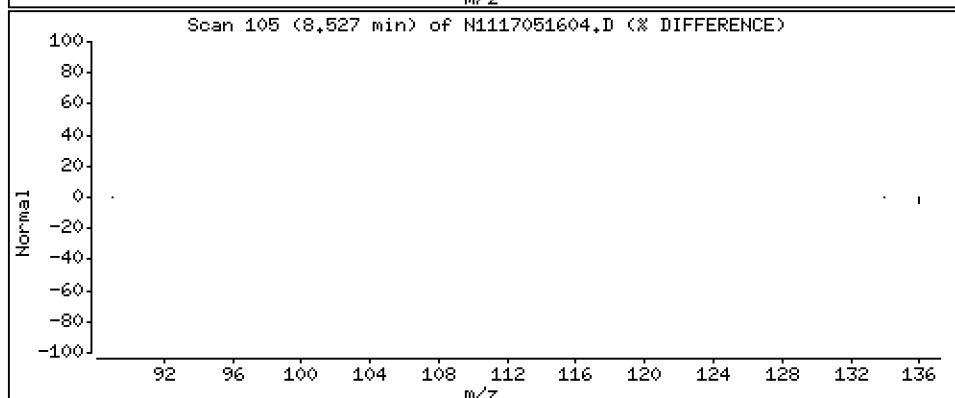
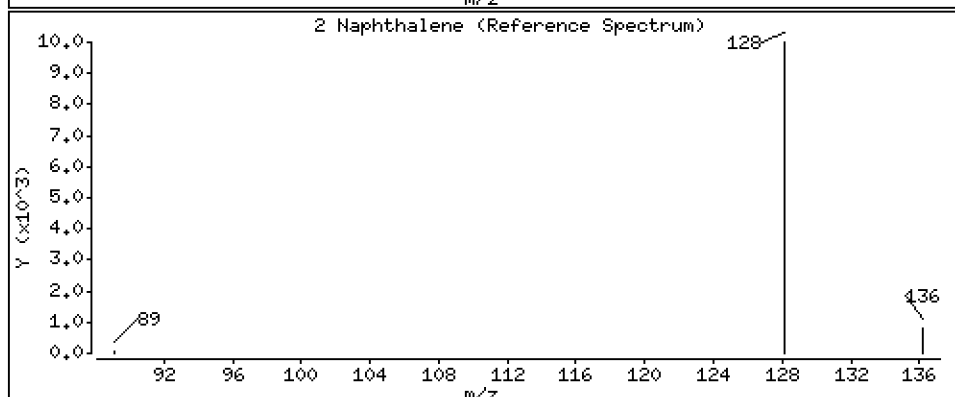
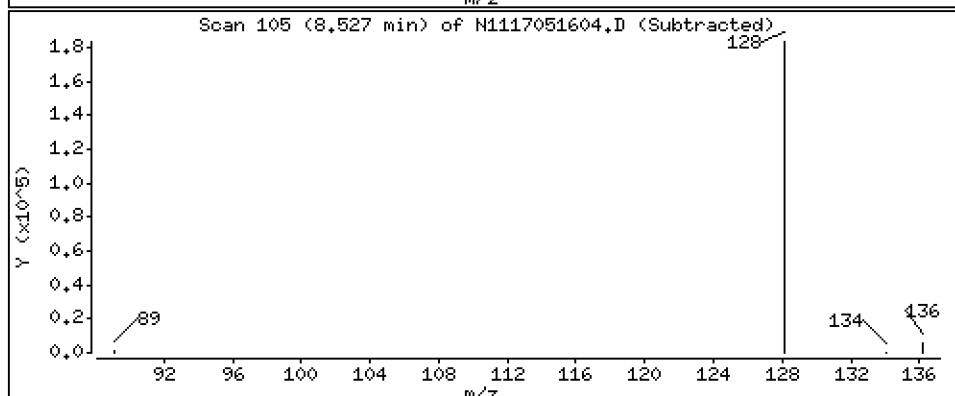
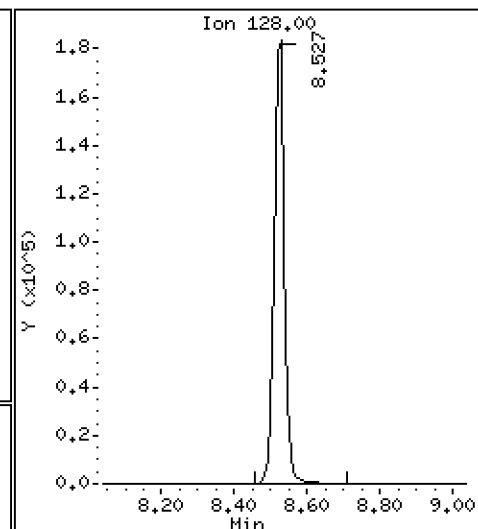
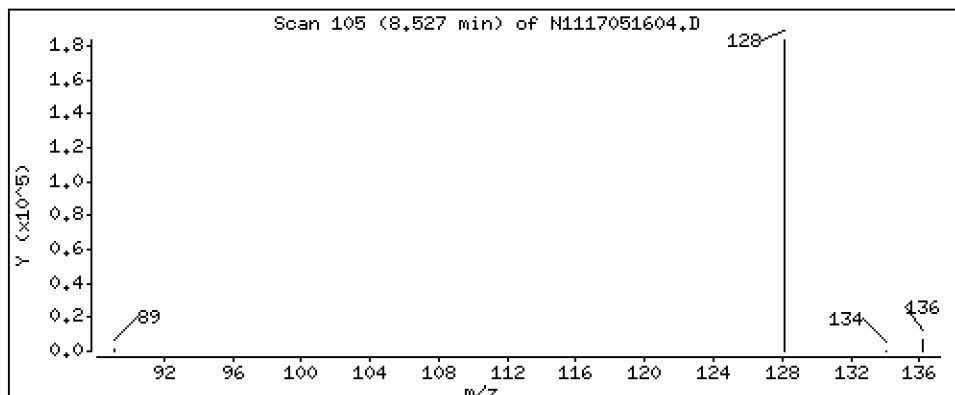
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 155 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

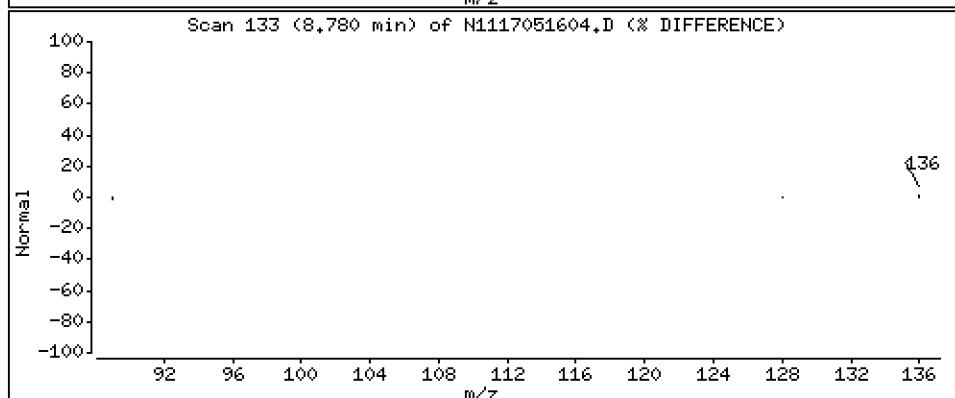
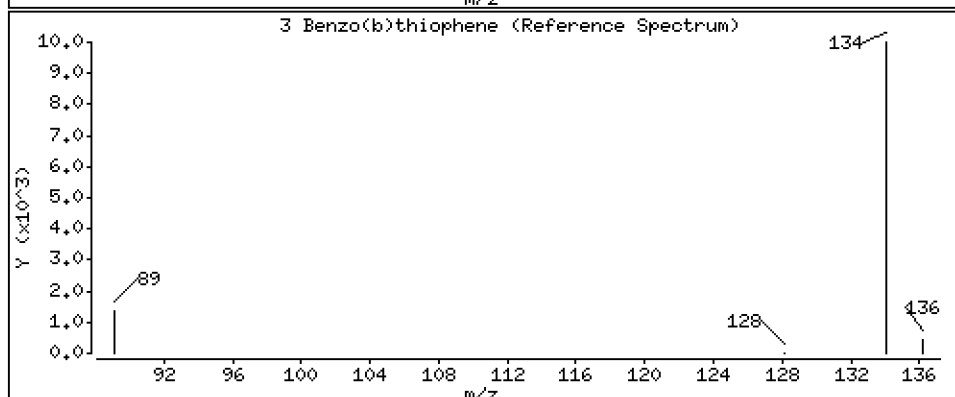
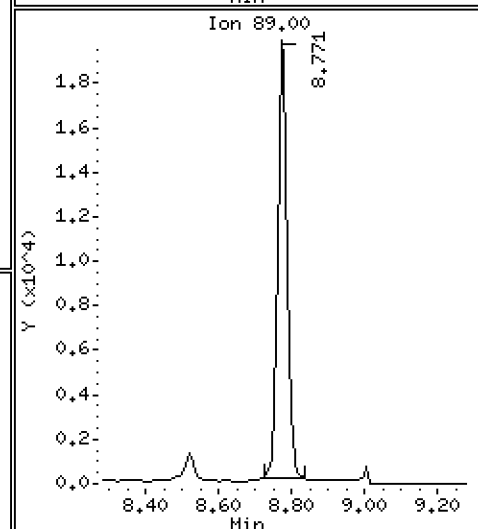
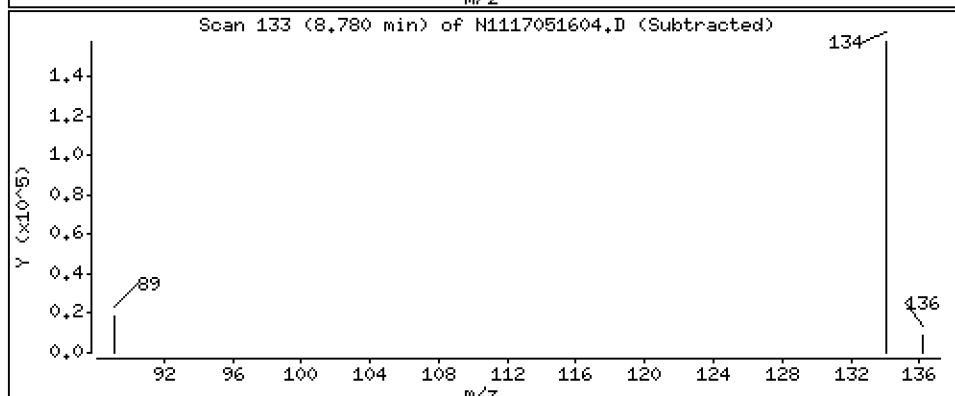
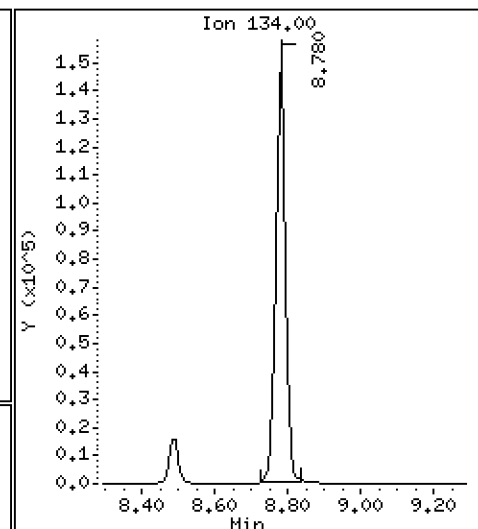
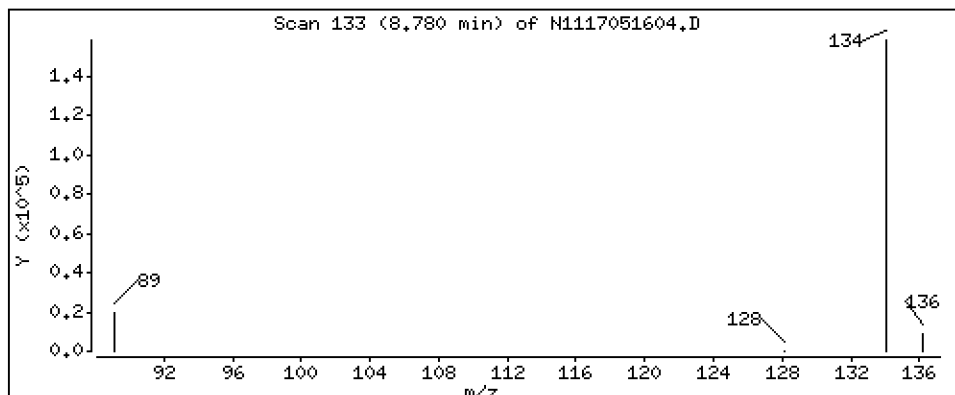
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

3 Benzo(b)thiophene

Concentration: 156 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

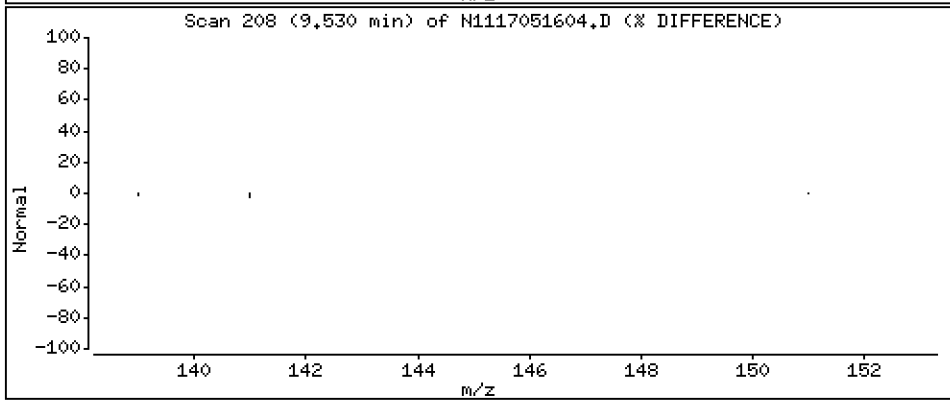
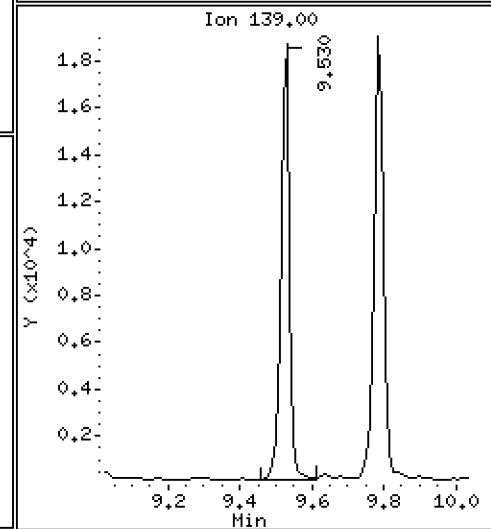
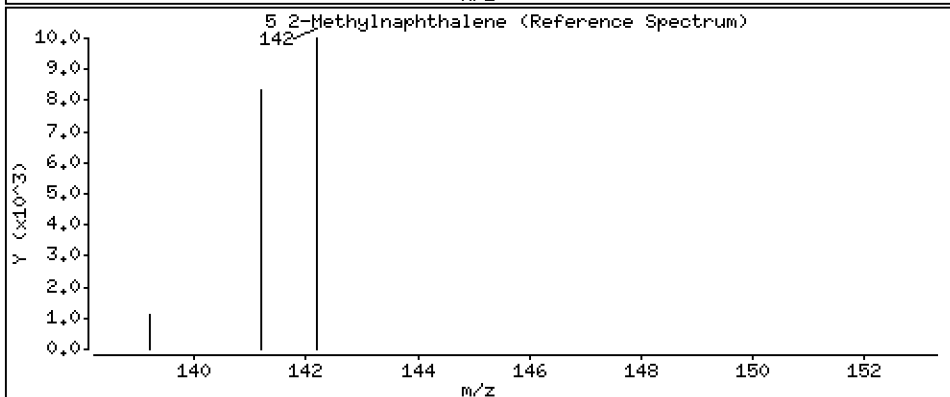
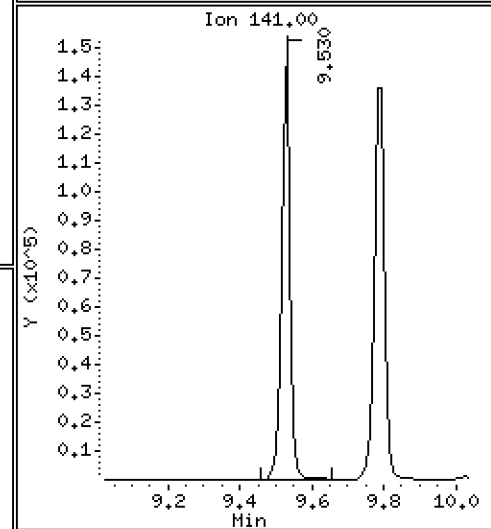
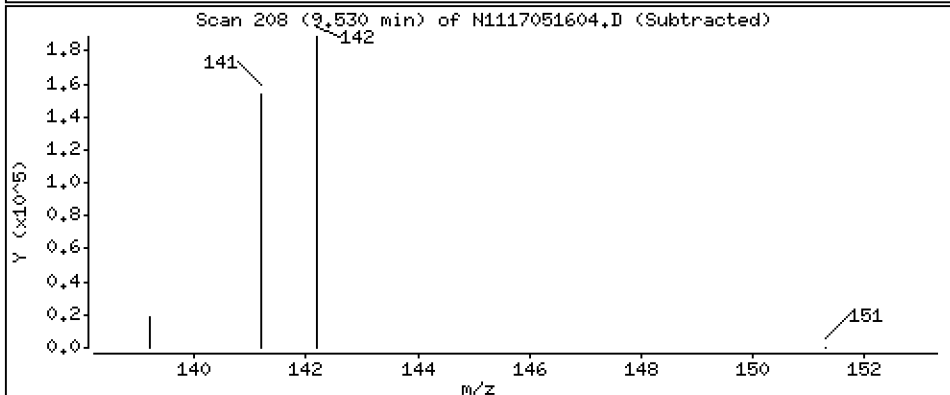
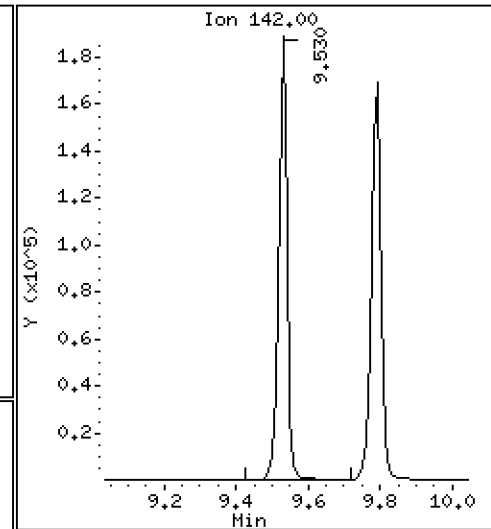
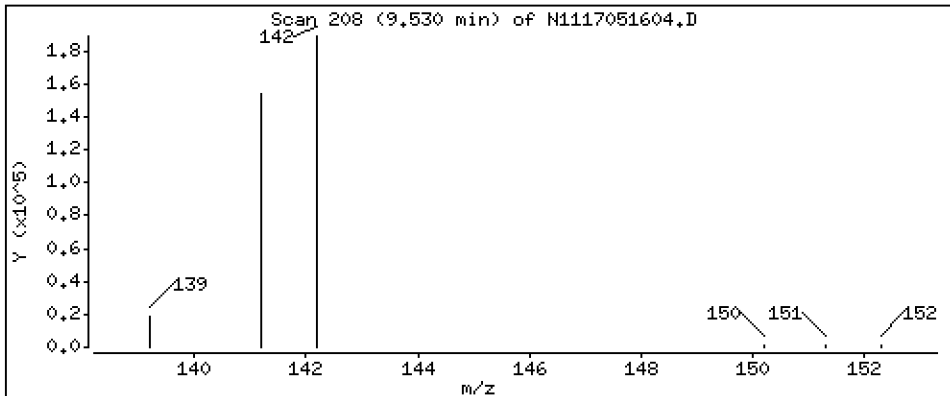
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

5 2-Methylnaphthalene

Concentration: 155 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

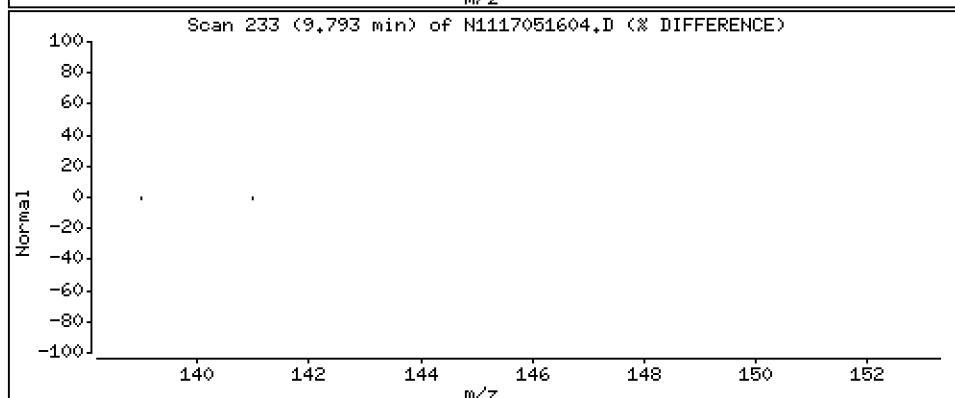
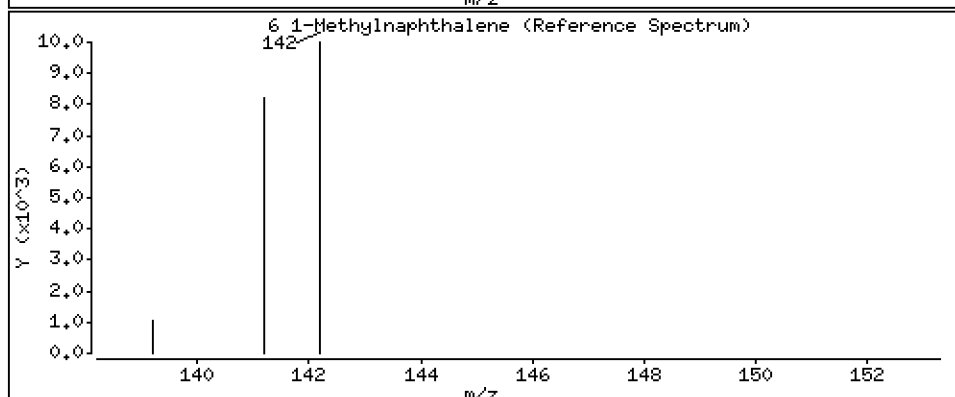
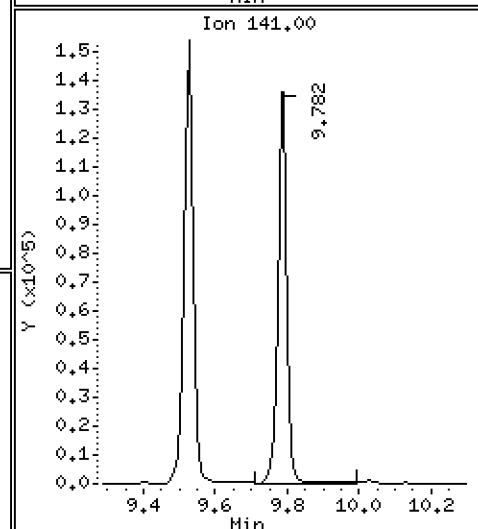
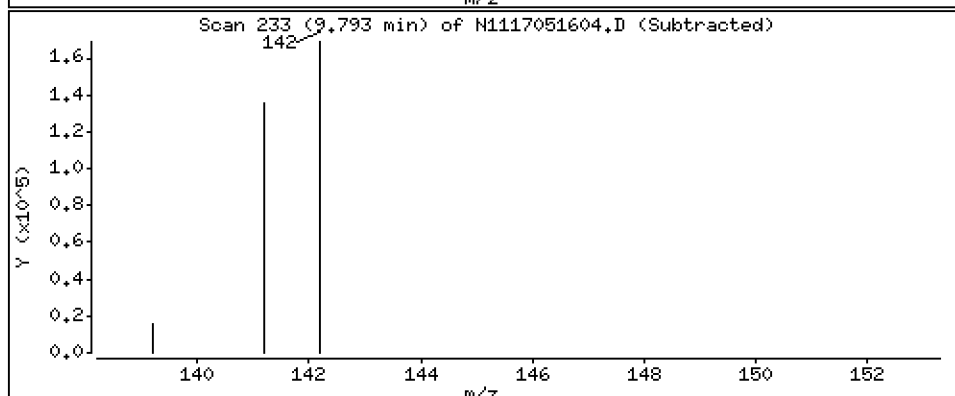
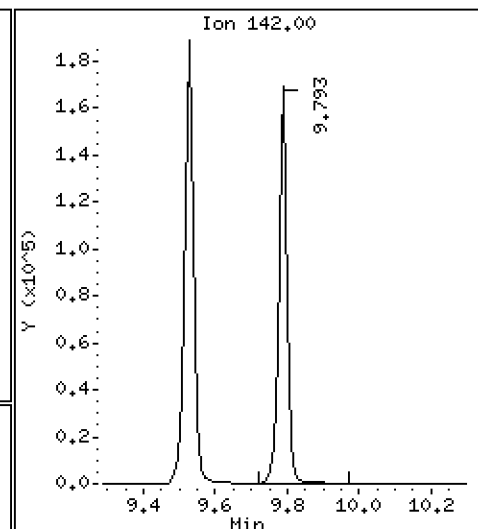
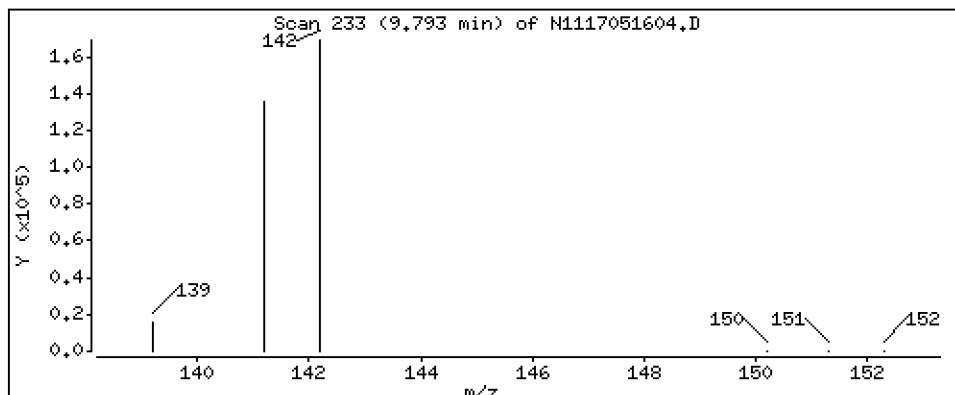
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

6 1-Methylnaphthalene

Concentration: 154 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

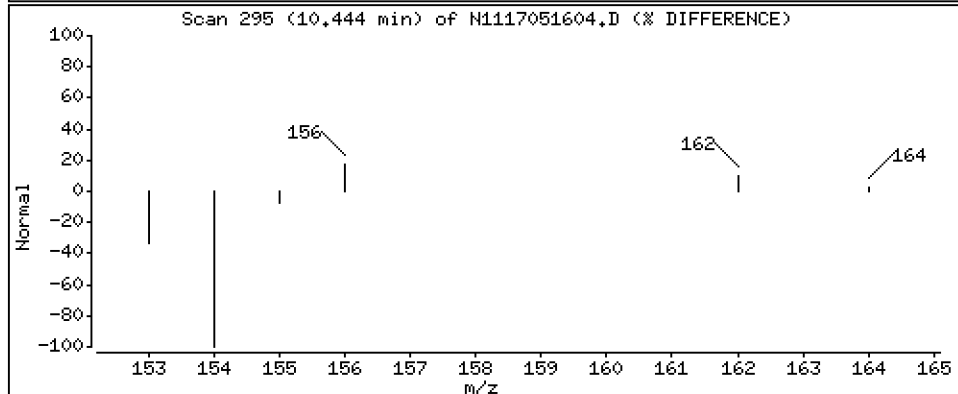
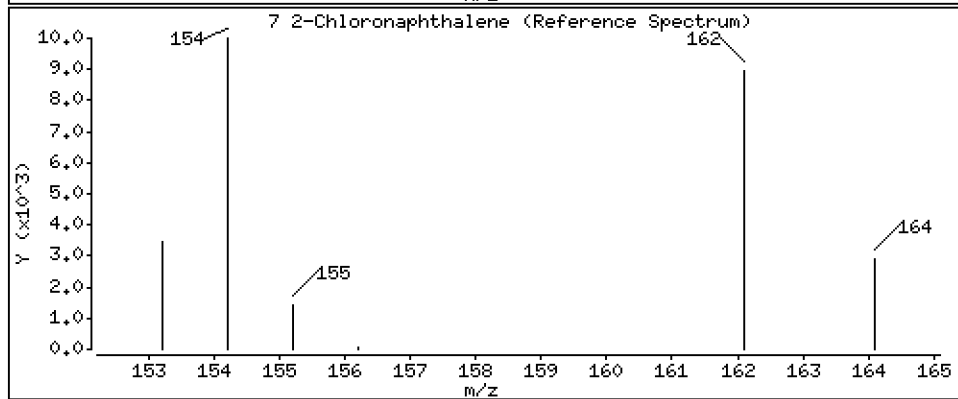
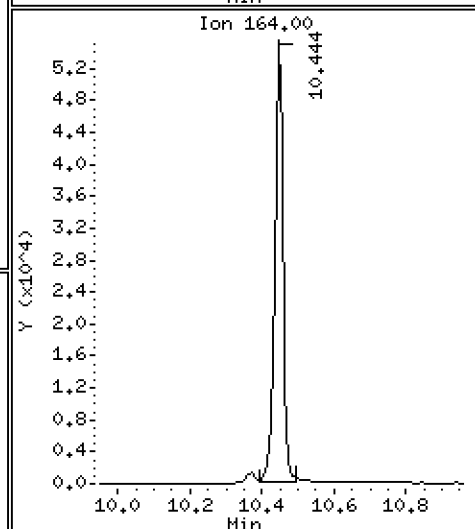
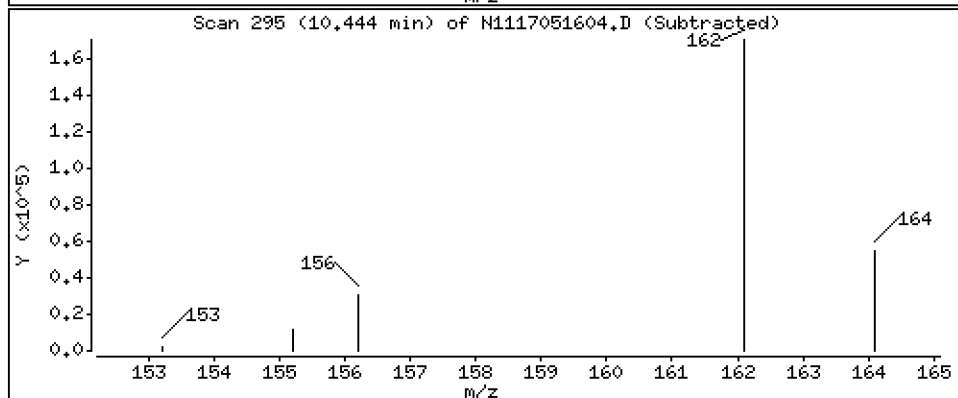
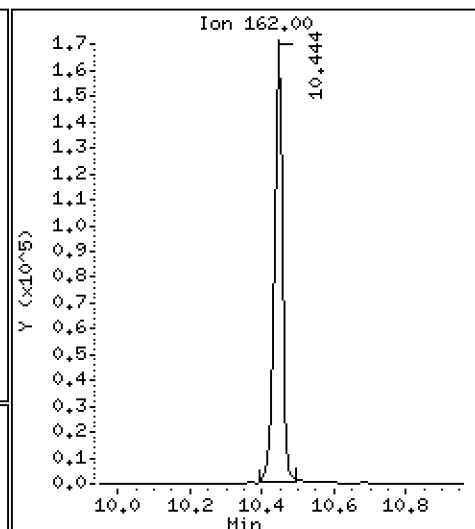
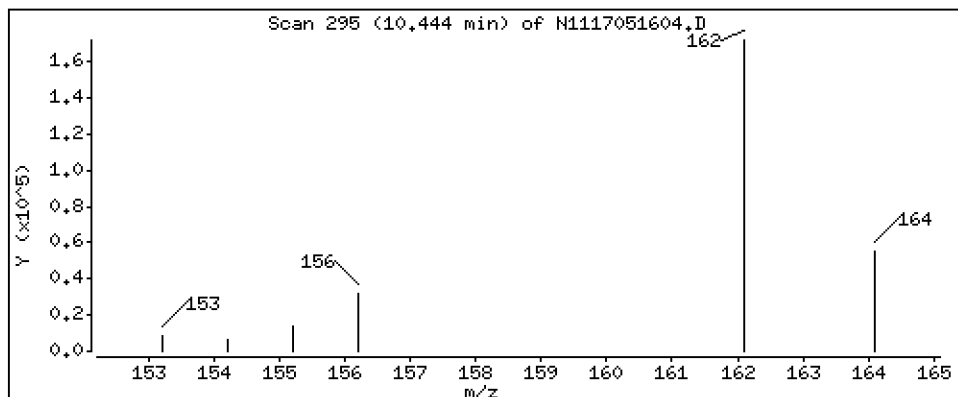
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 2-Chloronaphthalene

Concentration: 162 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

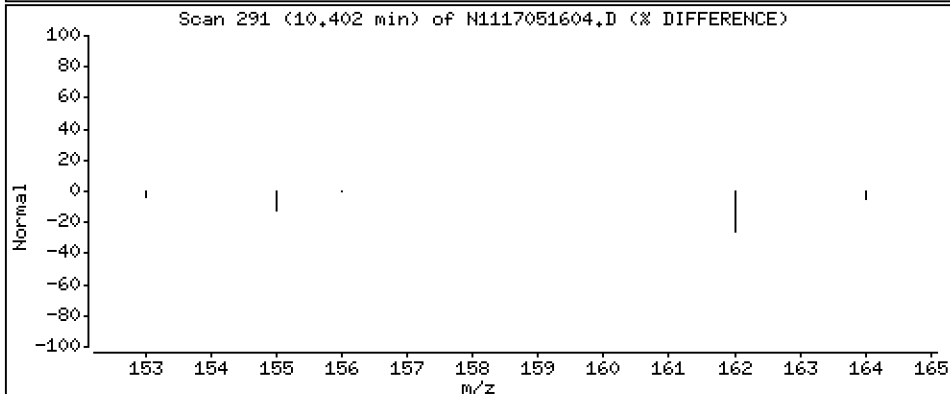
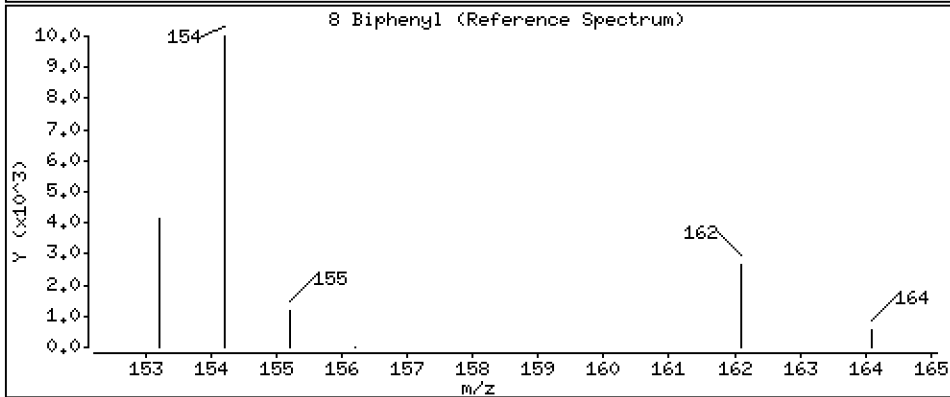
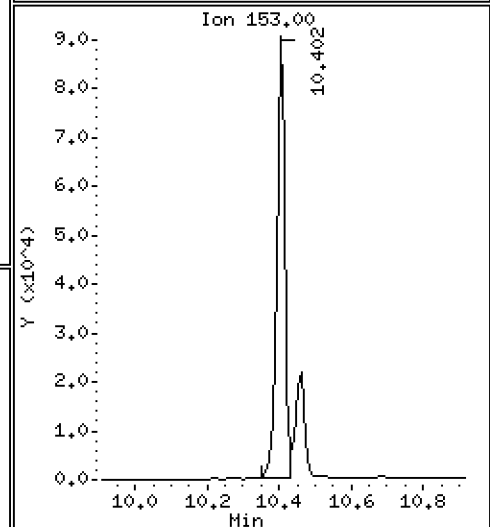
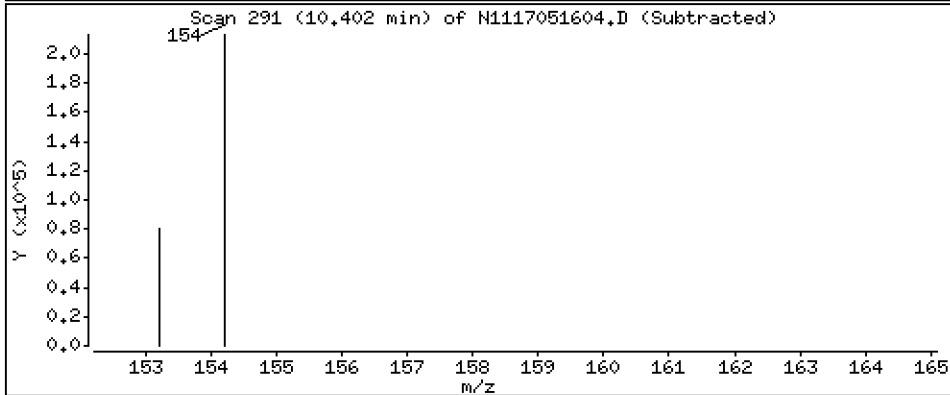
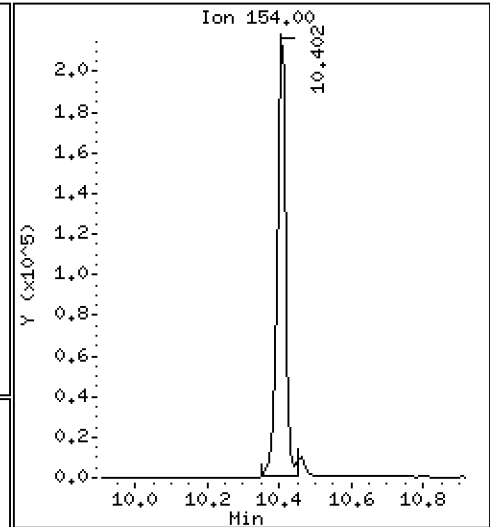
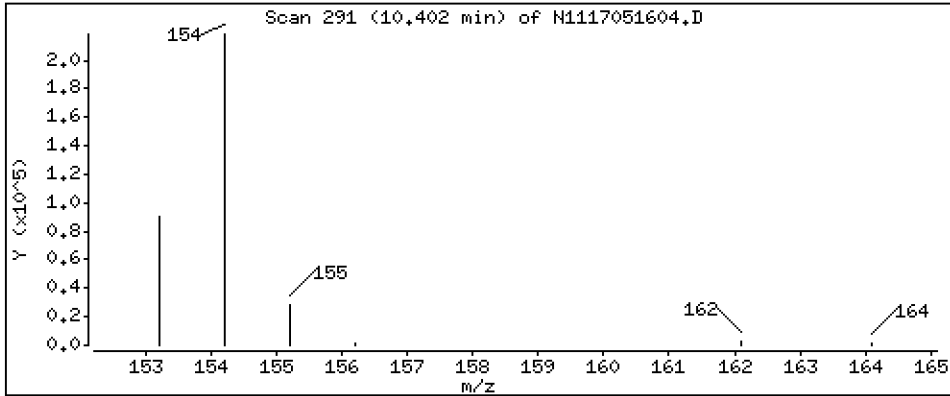
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

8 Biphenyl

Concentration: 151 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

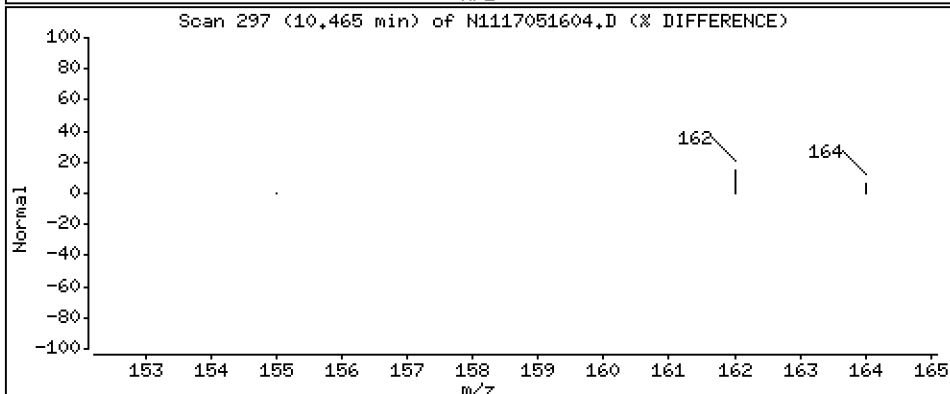
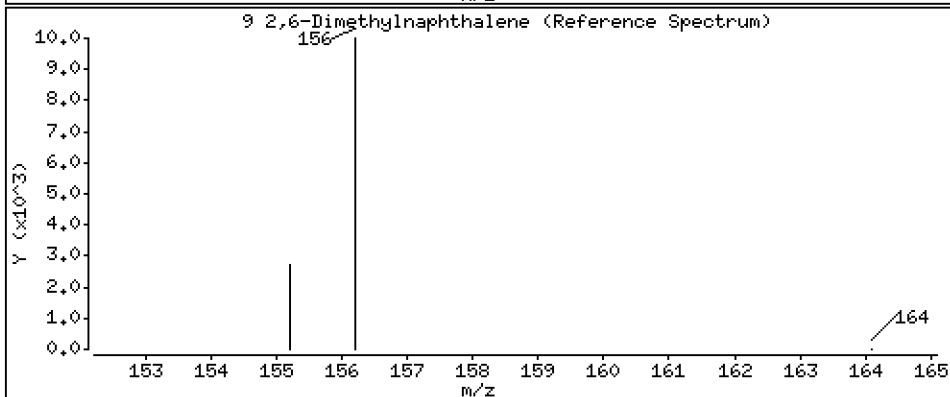
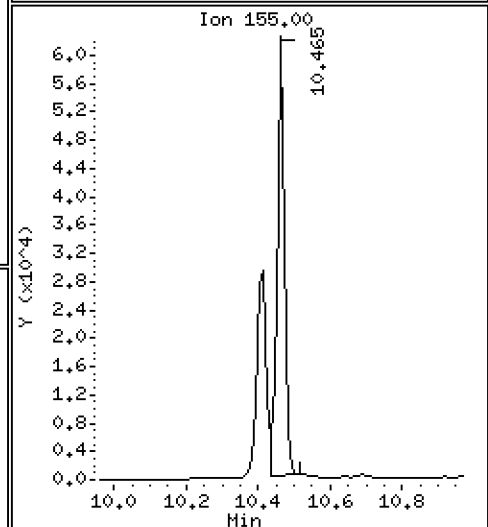
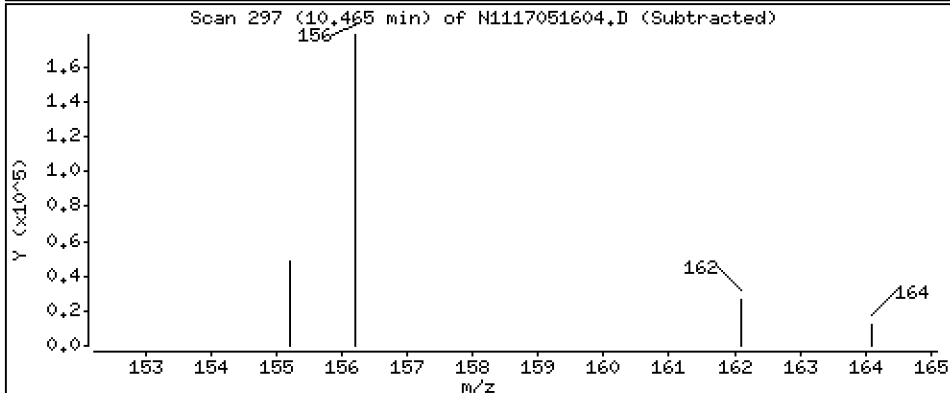
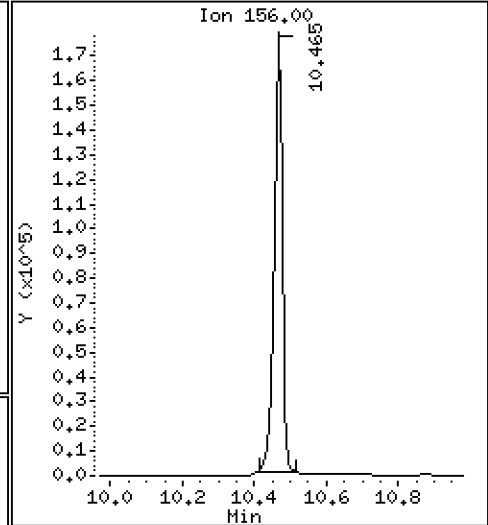
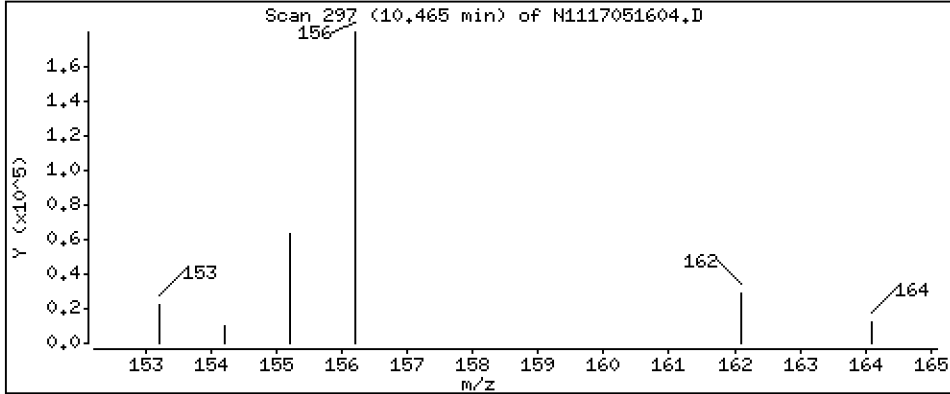
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

9,2,6-Dimethylnaphthalene

Concentration: 161 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

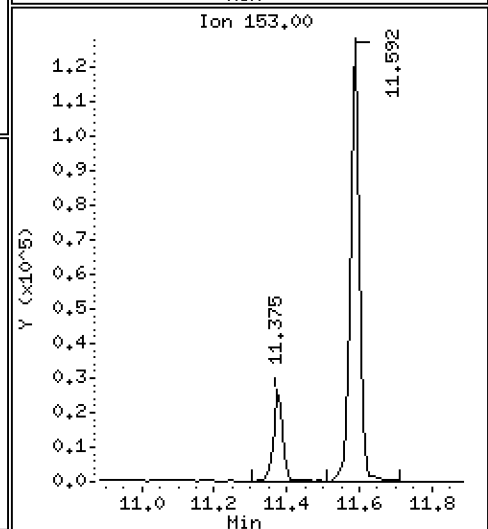
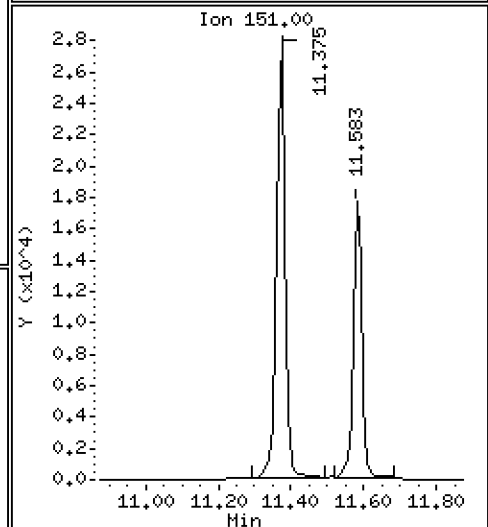
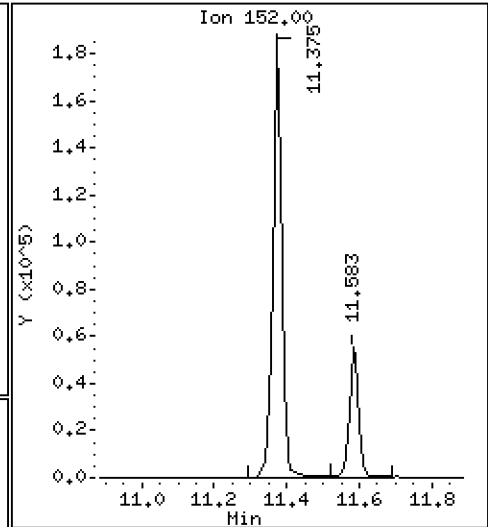
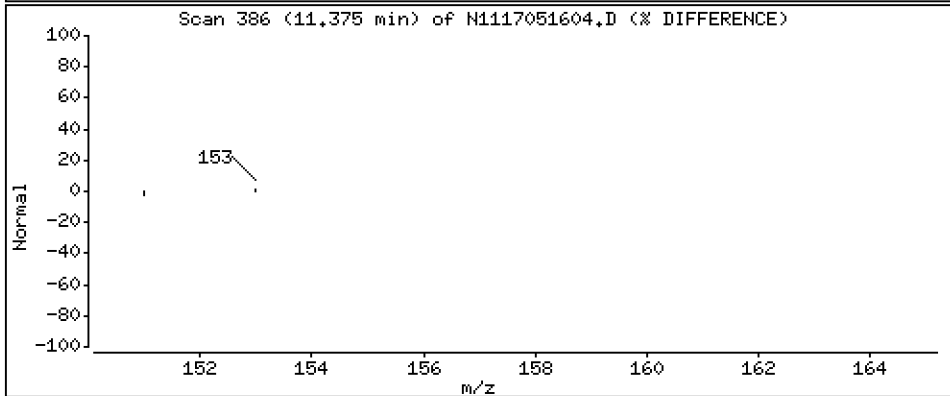
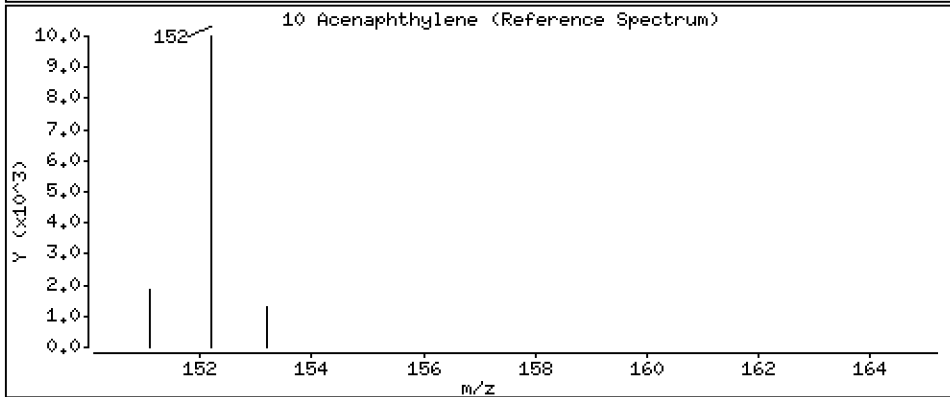
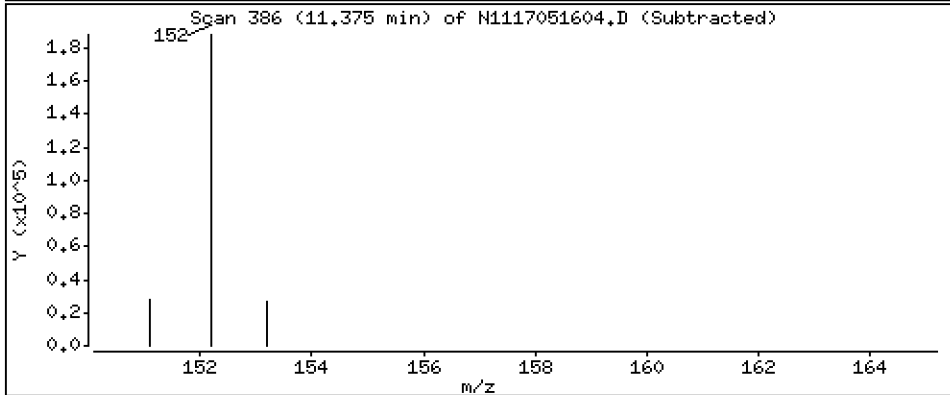
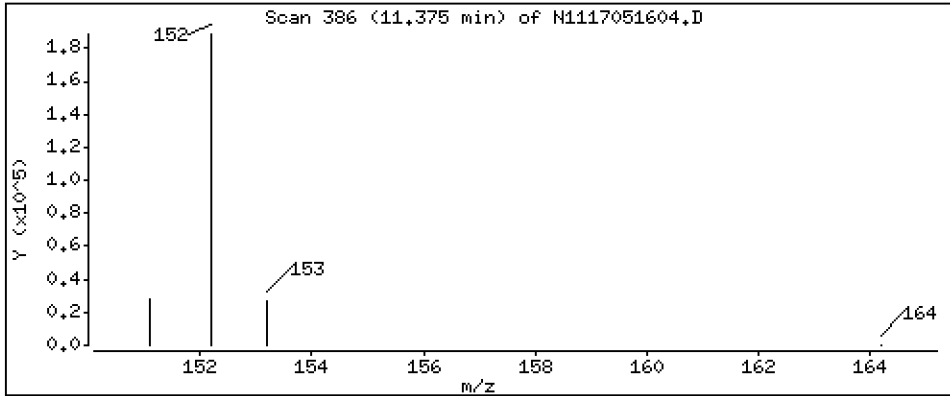
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

10 Acenaphthylene

Concentration: 161 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

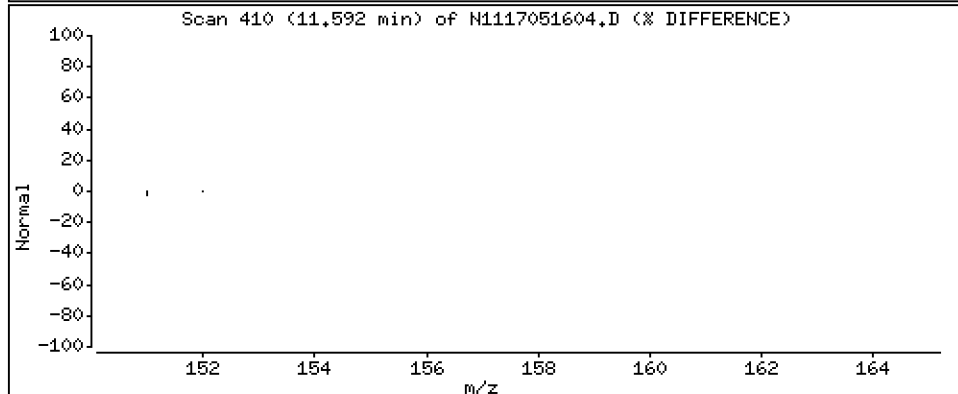
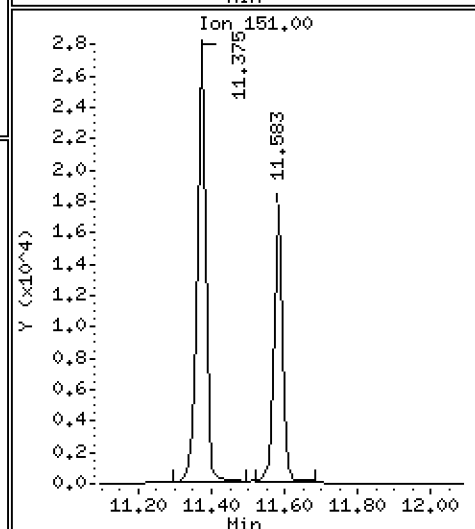
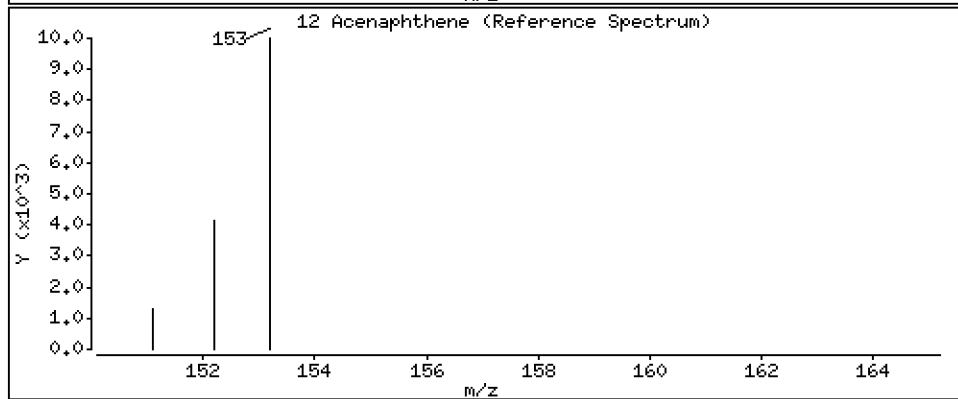
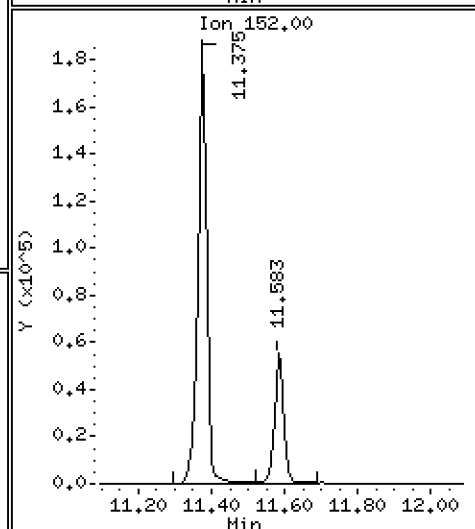
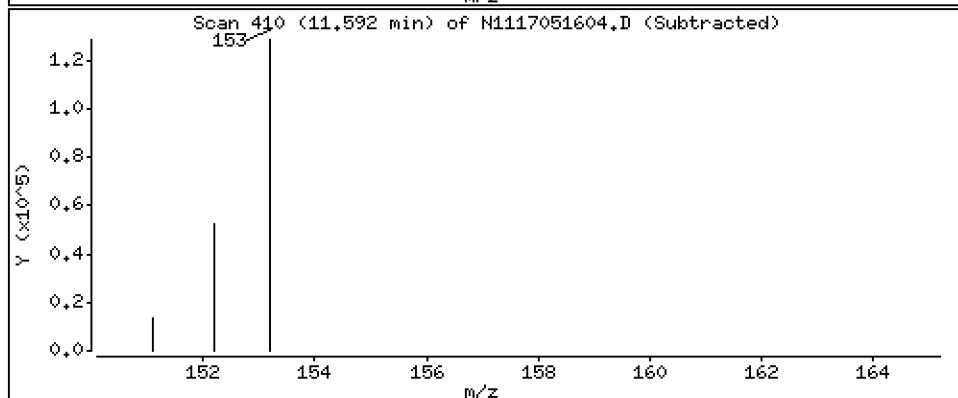
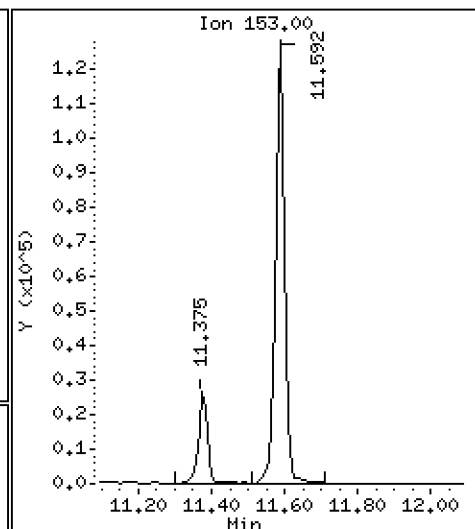
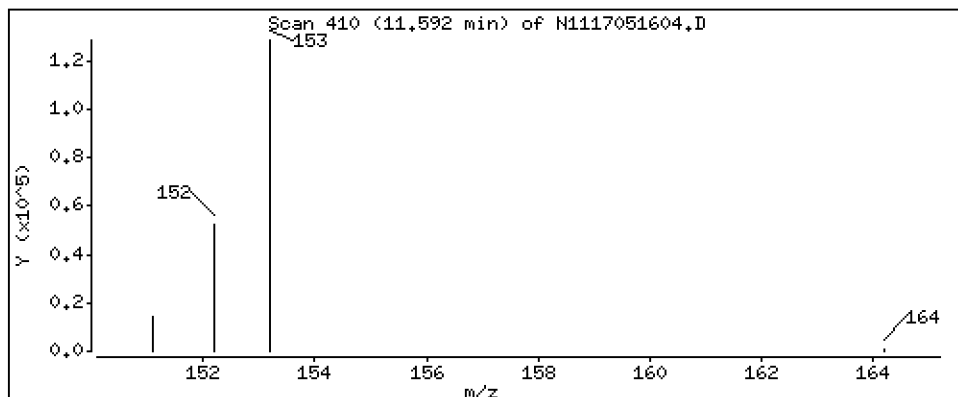
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

12 Acenaphthene

Concentration: 175 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

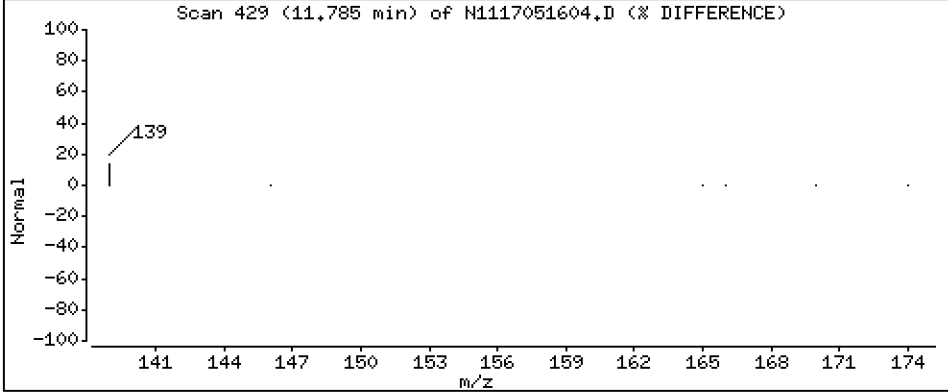
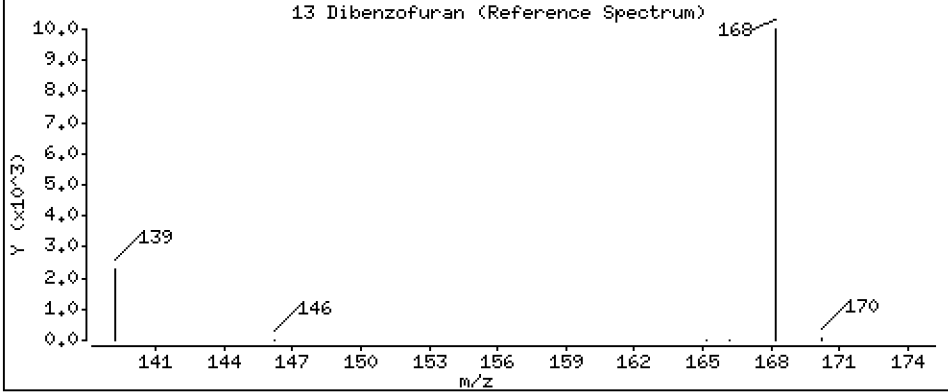
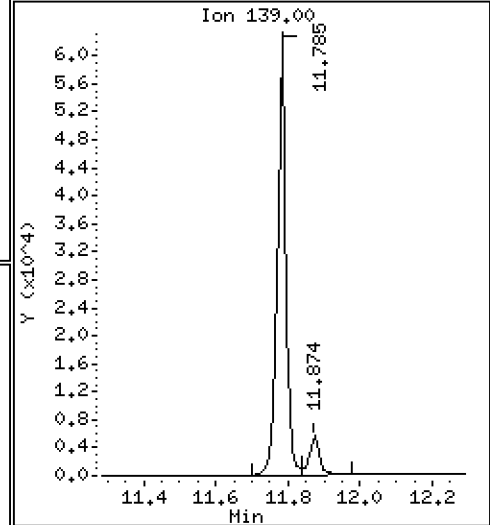
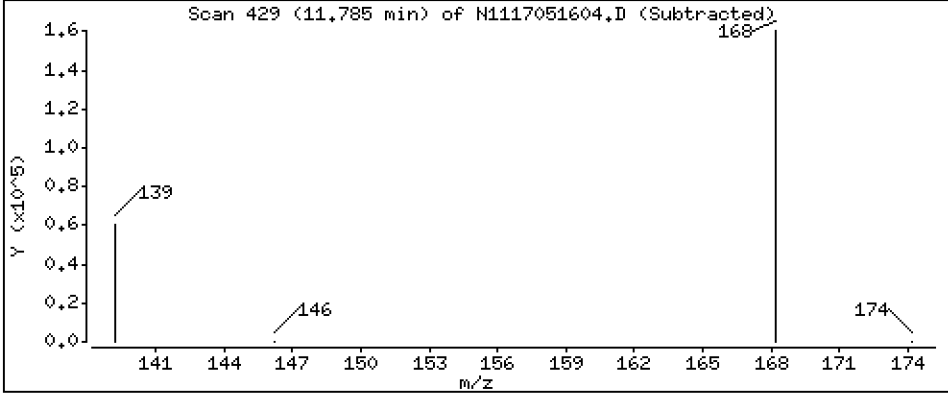
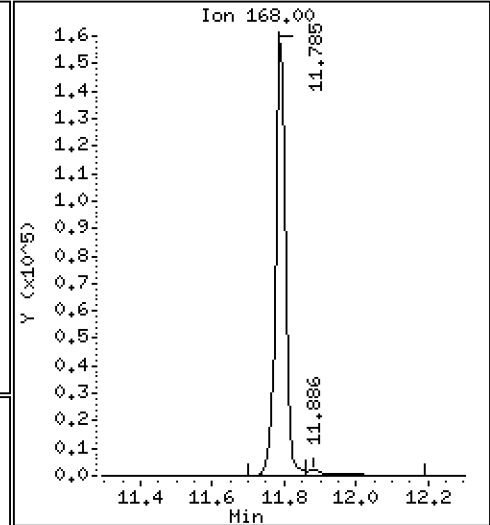
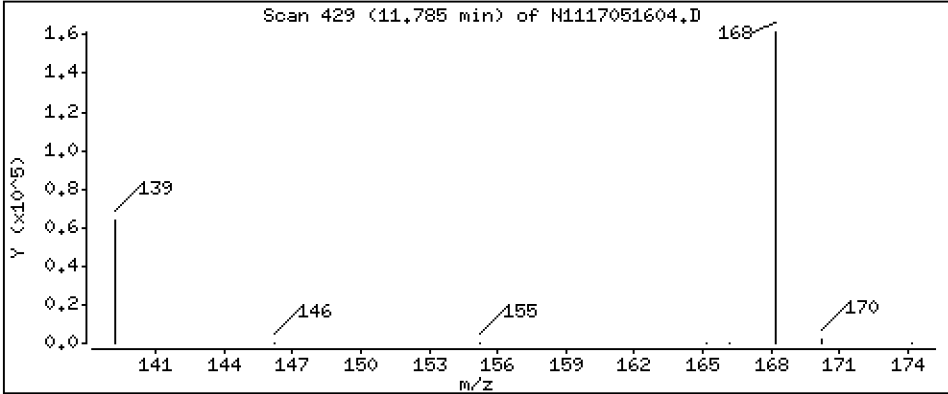
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

13 Dibenzofuran

Concentration: 175 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

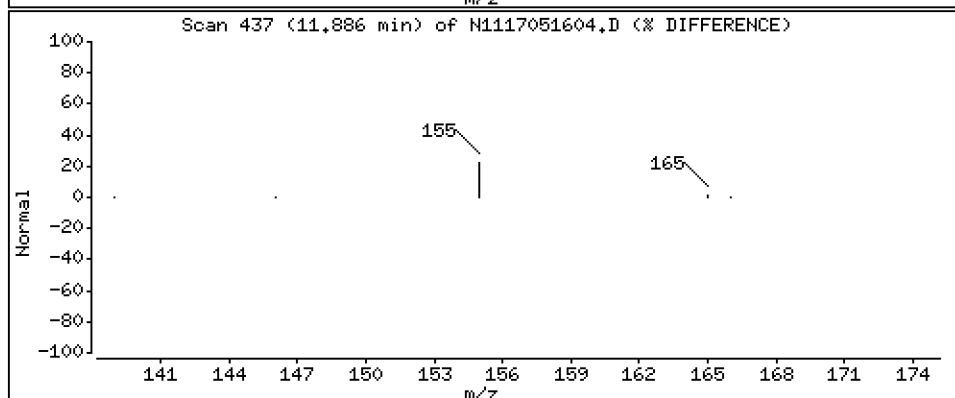
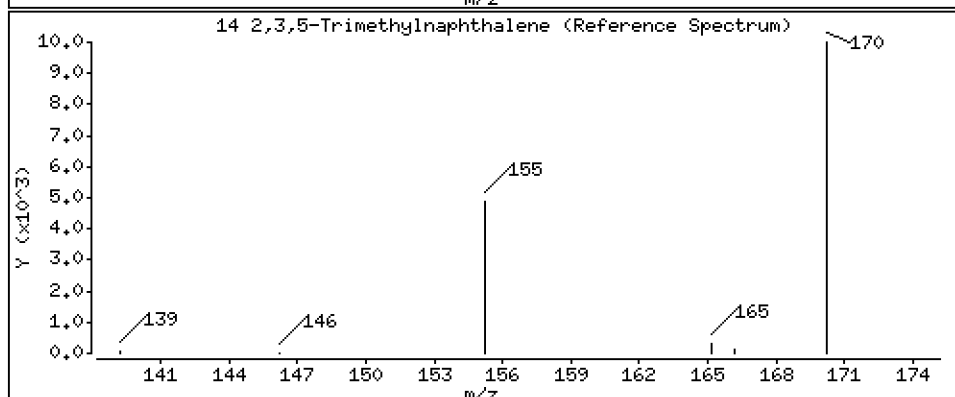
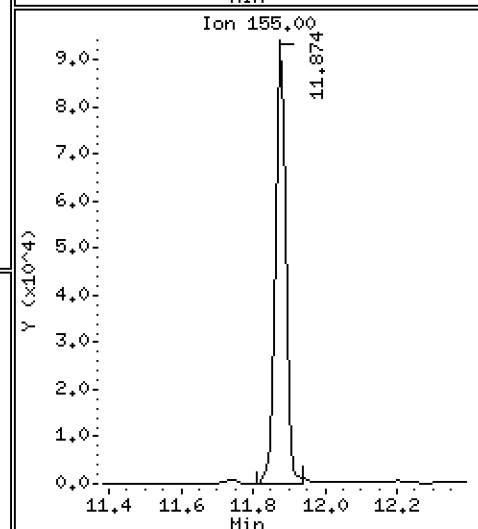
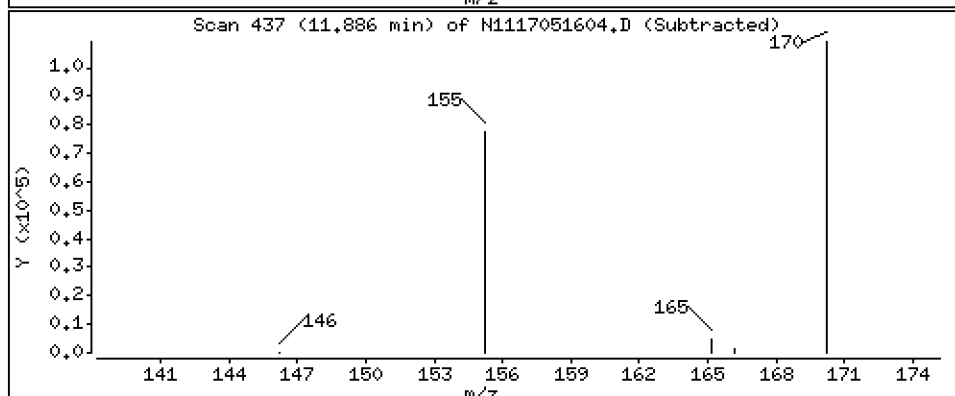
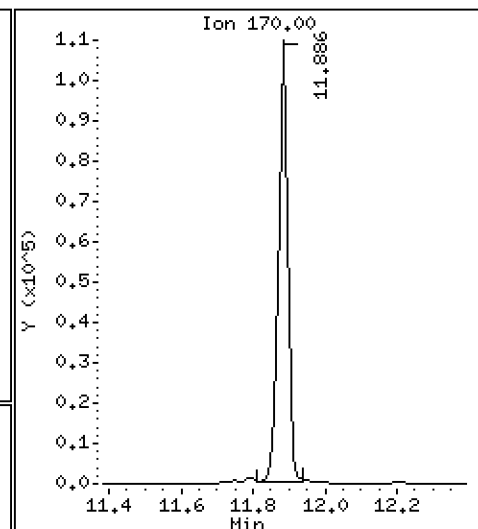
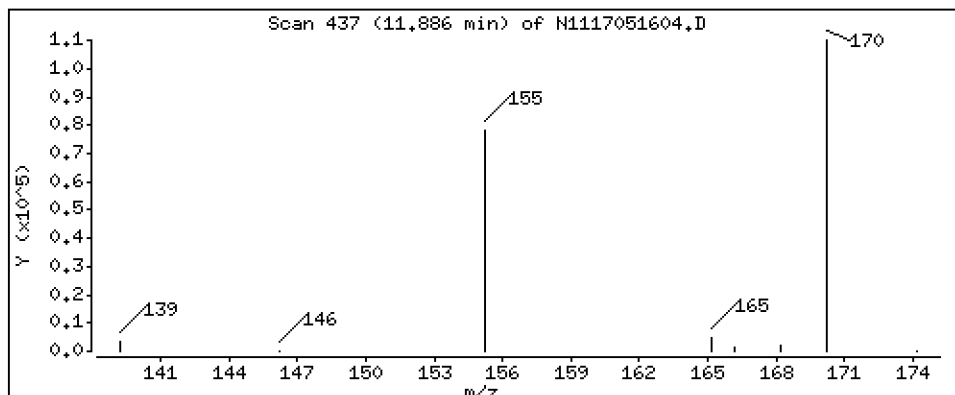
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

14 2,3,5-Trimethylnaphthalene

Concentration: 186 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

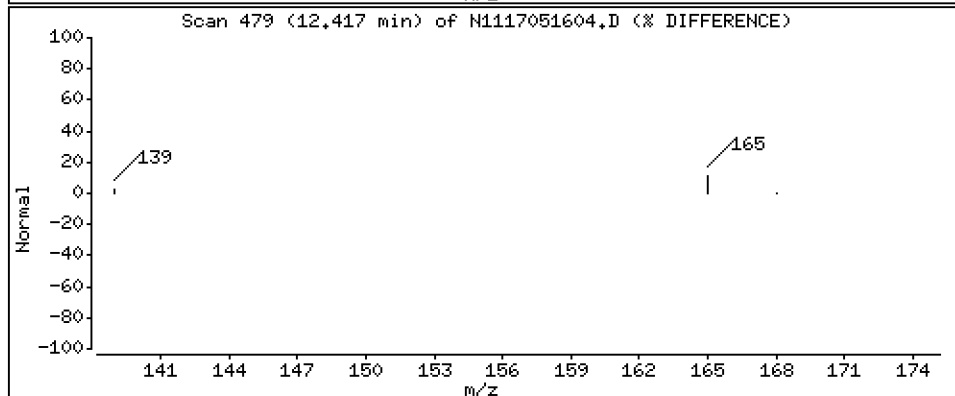
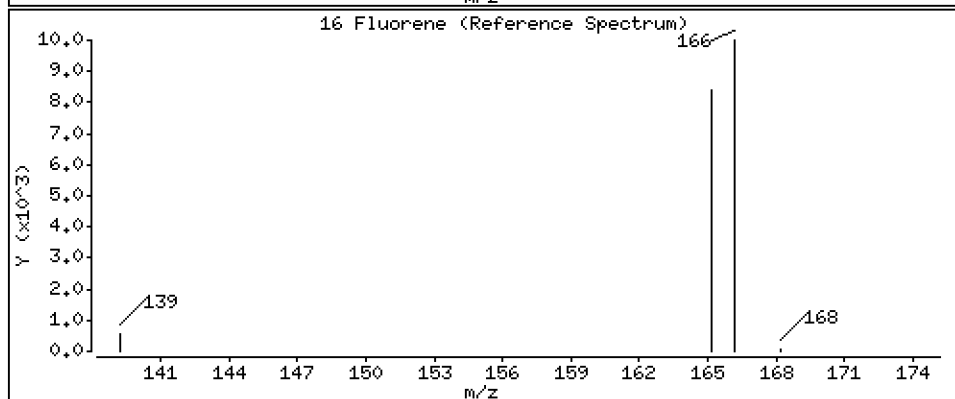
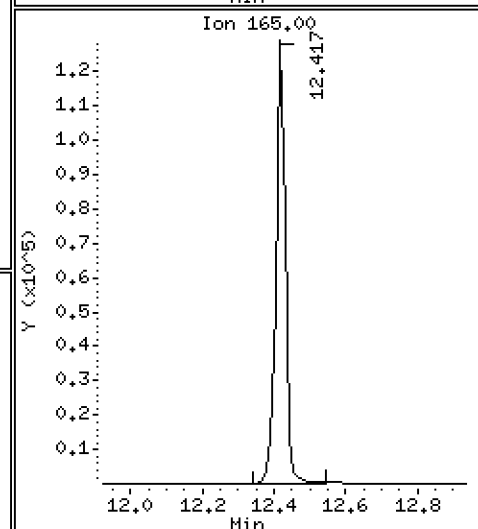
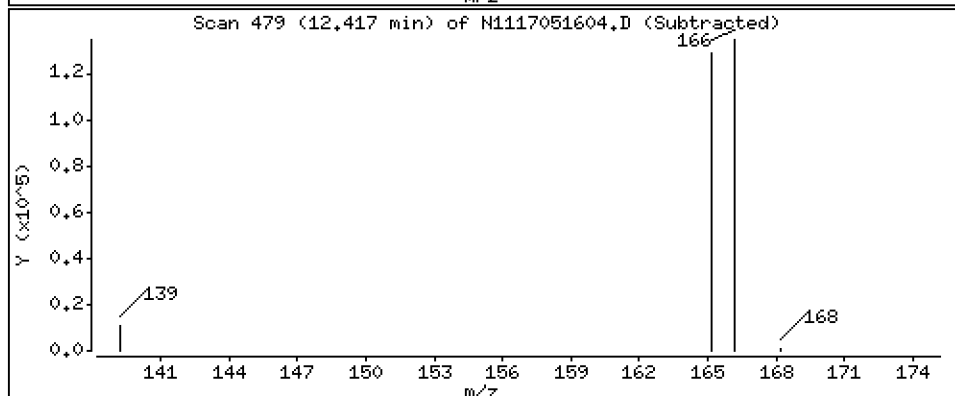
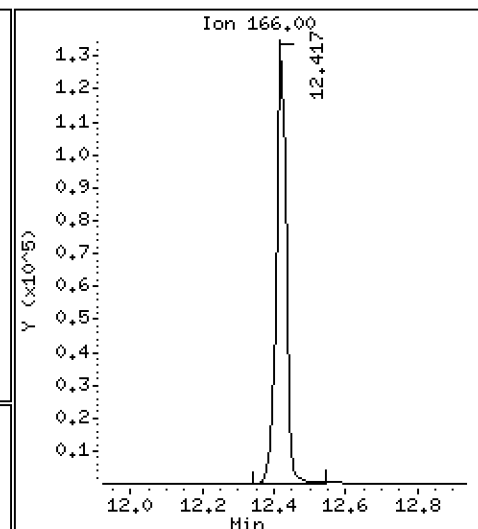
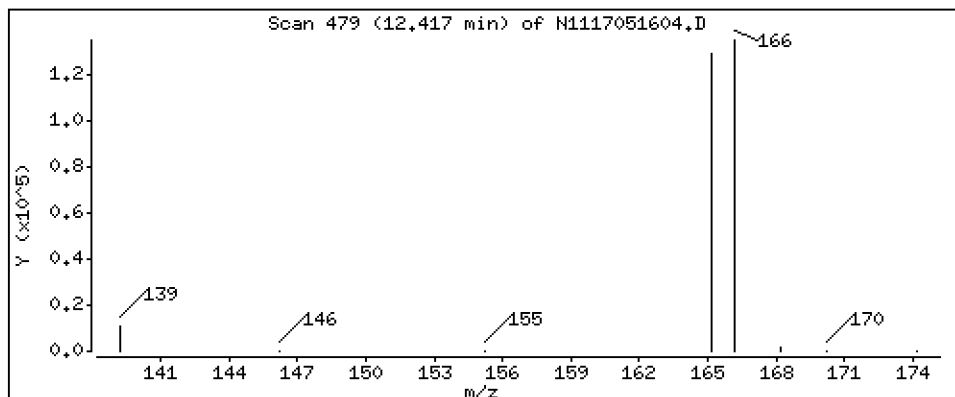
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 Fluorene

Concentration: 178 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

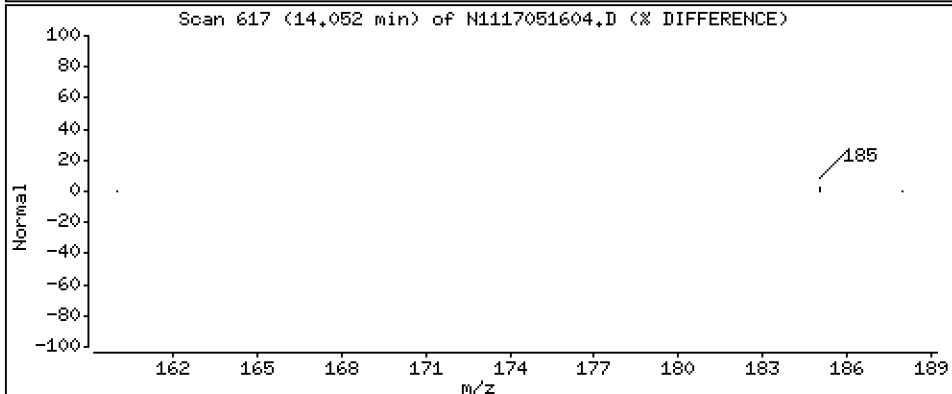
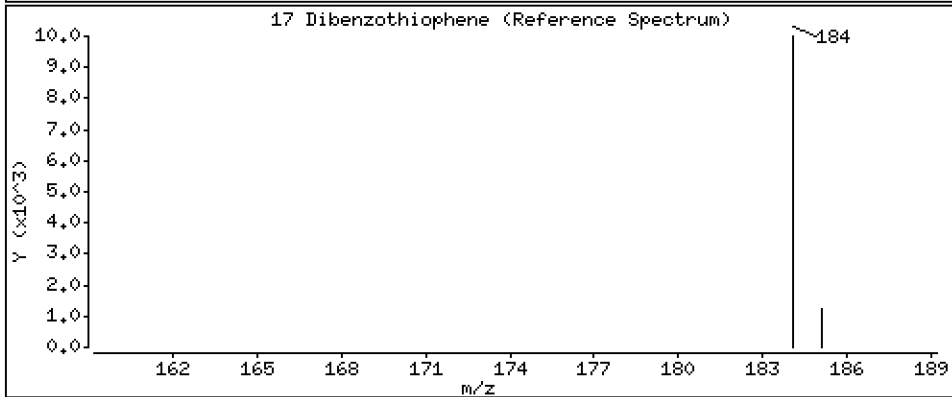
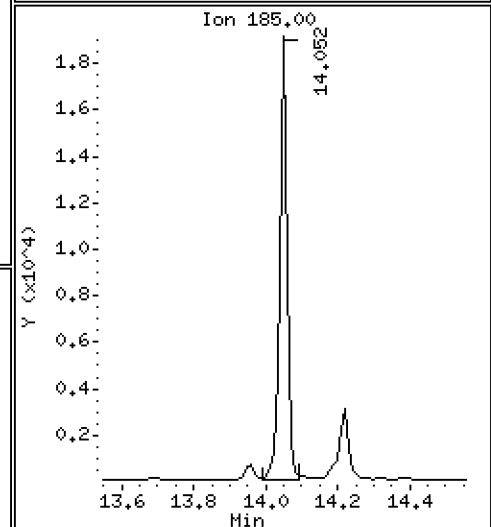
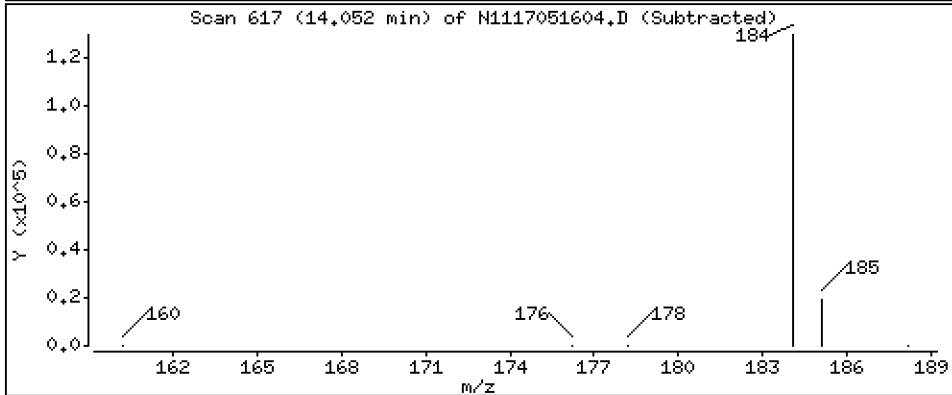
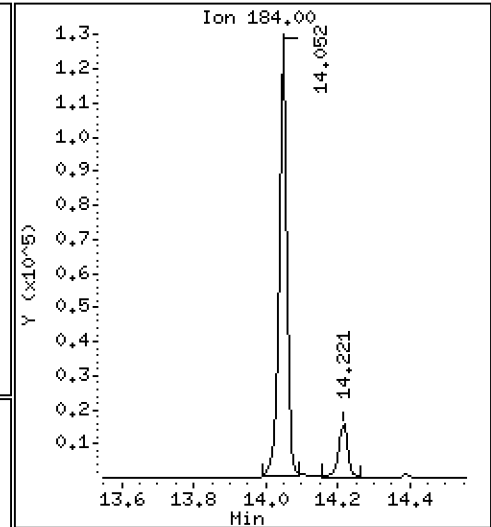
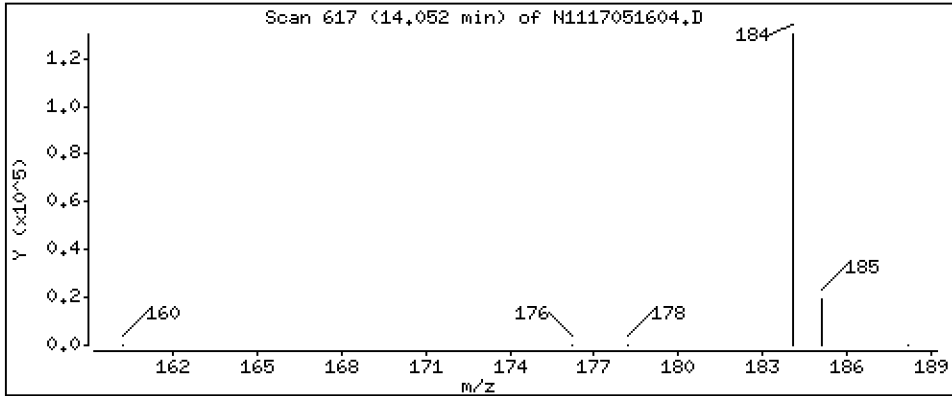
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

17 Dibenzothiophene

Concentration: 160 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

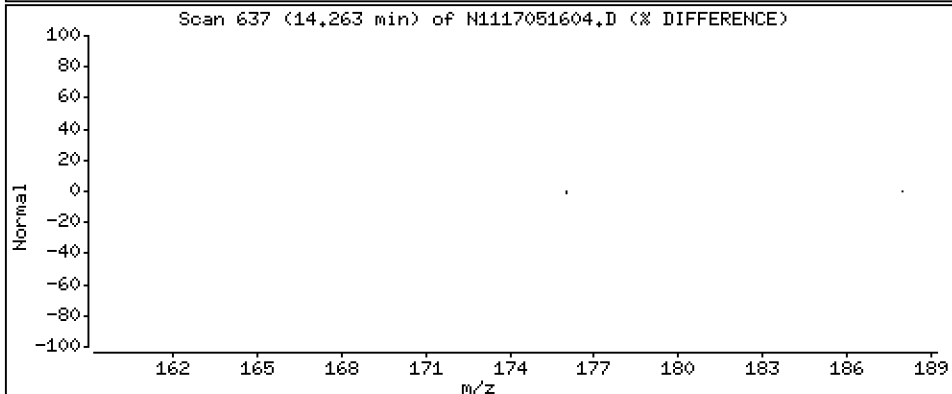
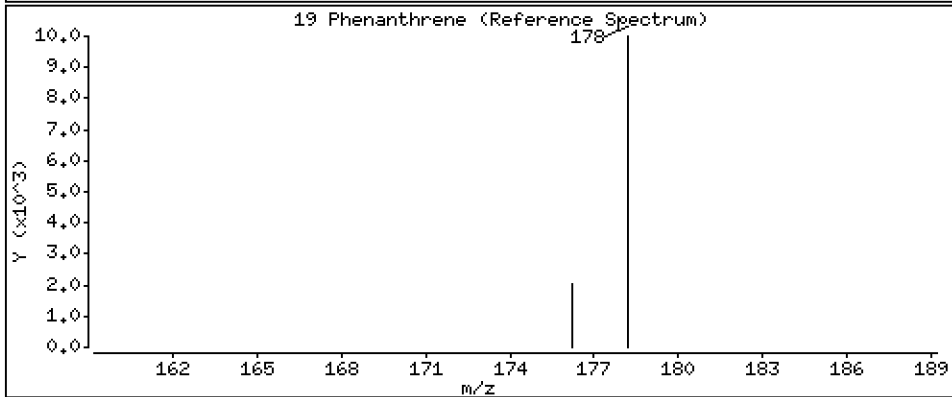
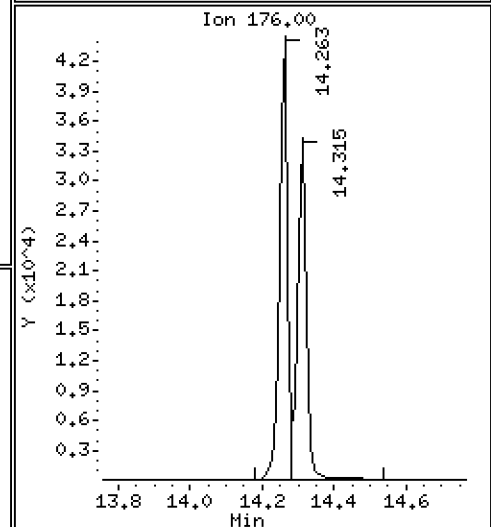
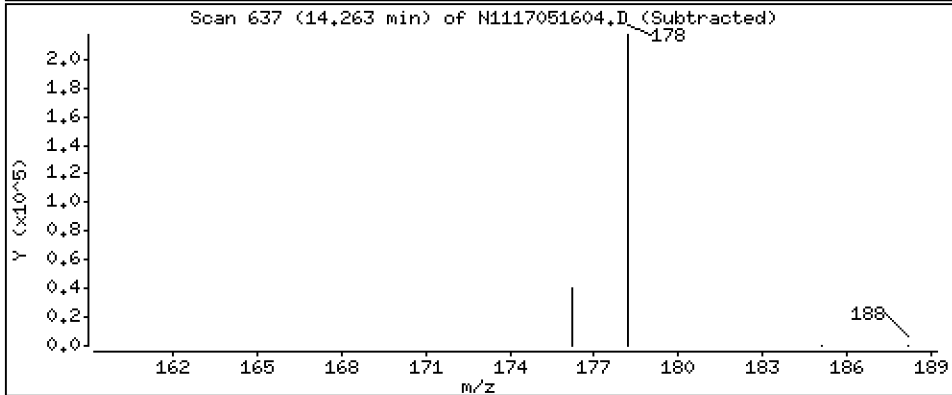
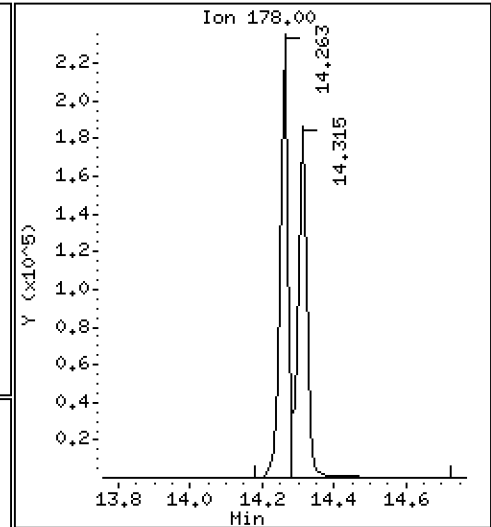
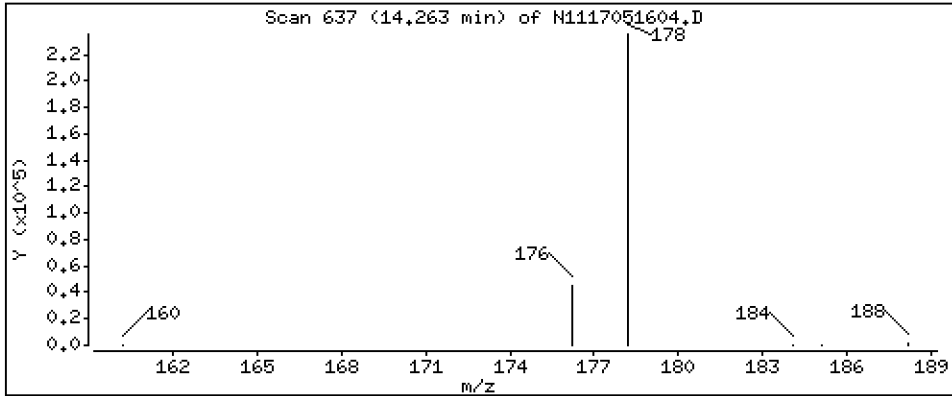
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0.25

19 Phenanthrene

Concentration: 198 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

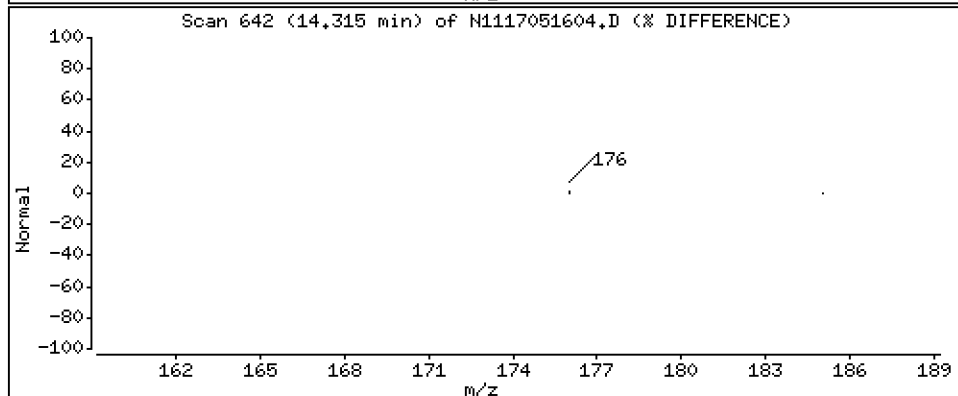
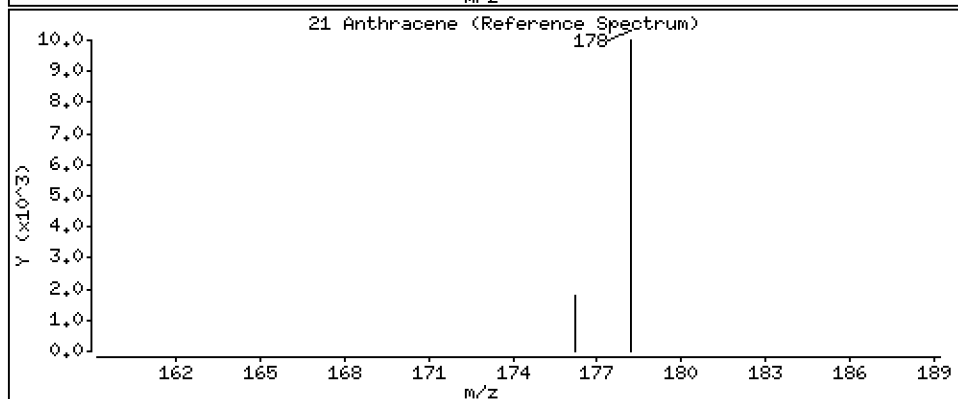
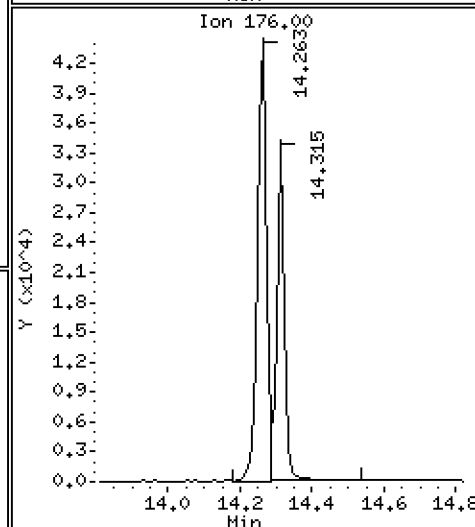
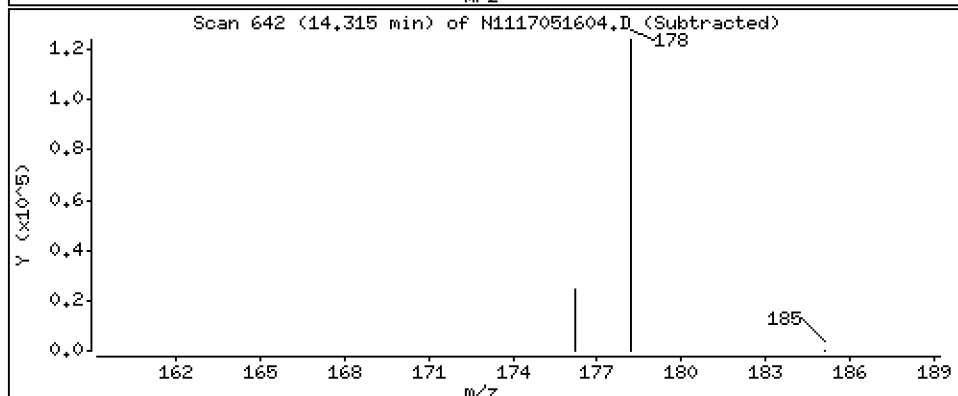
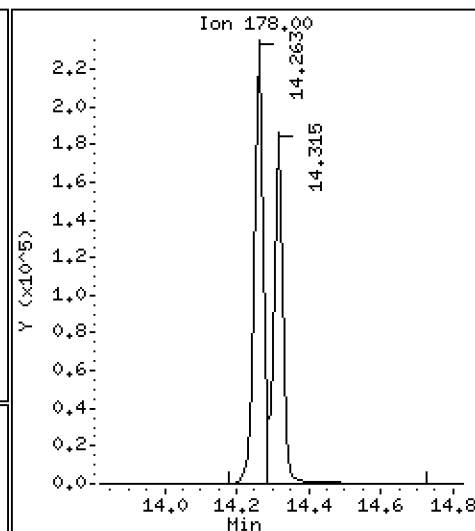
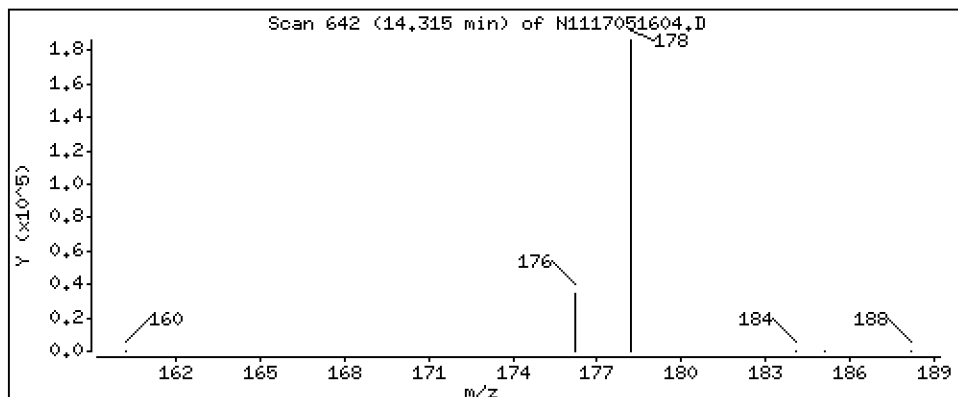
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

21 Anthracene

Concentration: 165 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

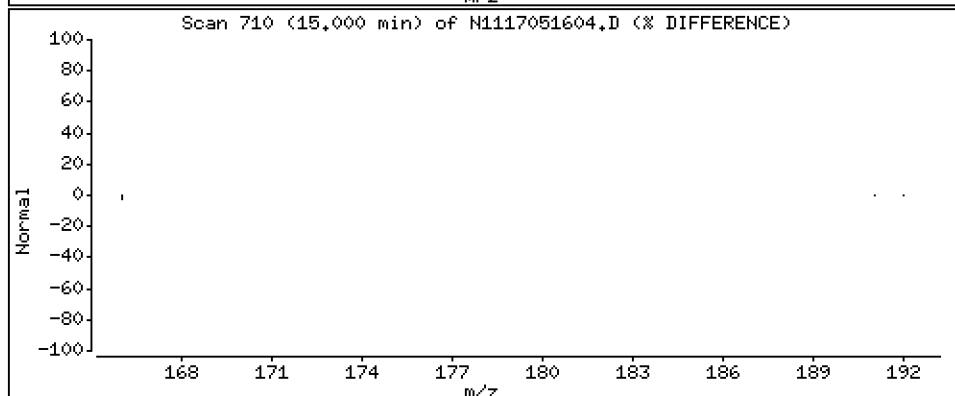
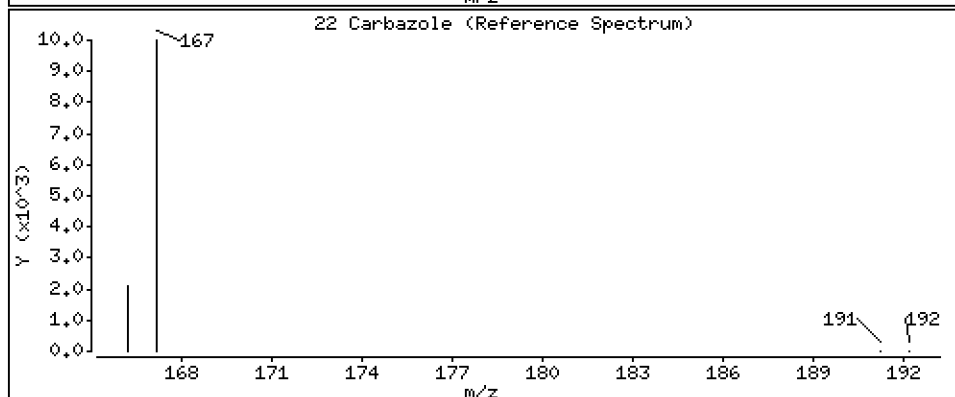
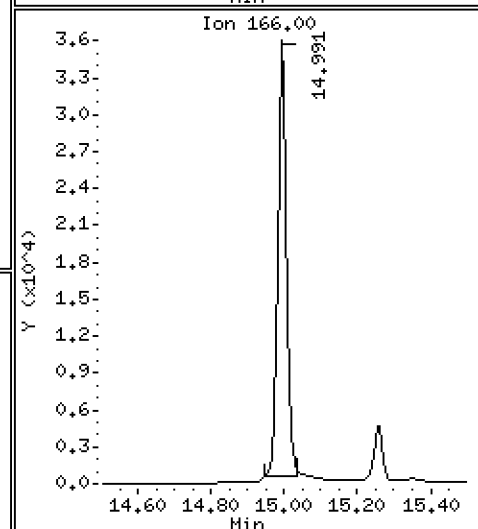
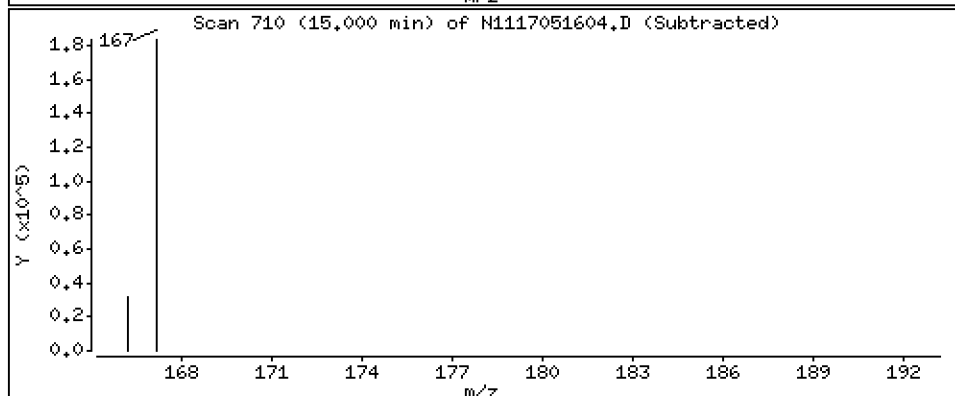
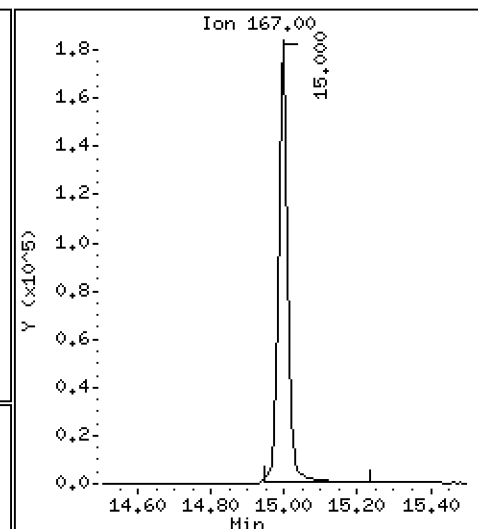
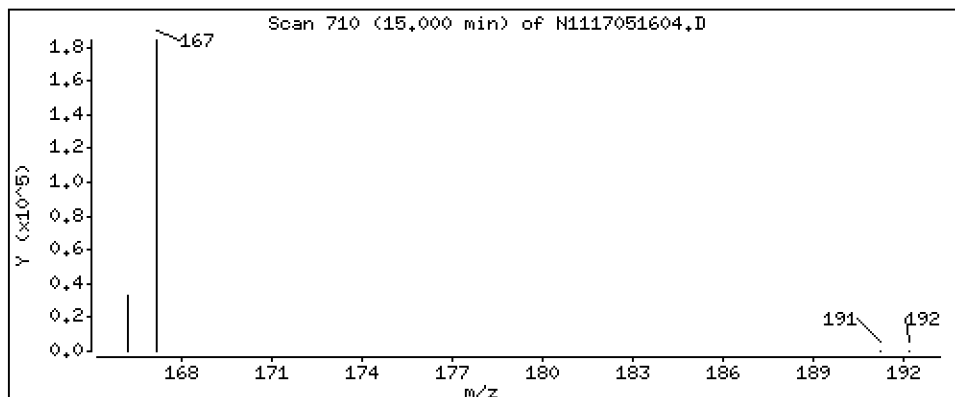
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Carbazole

Concentration: 142 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

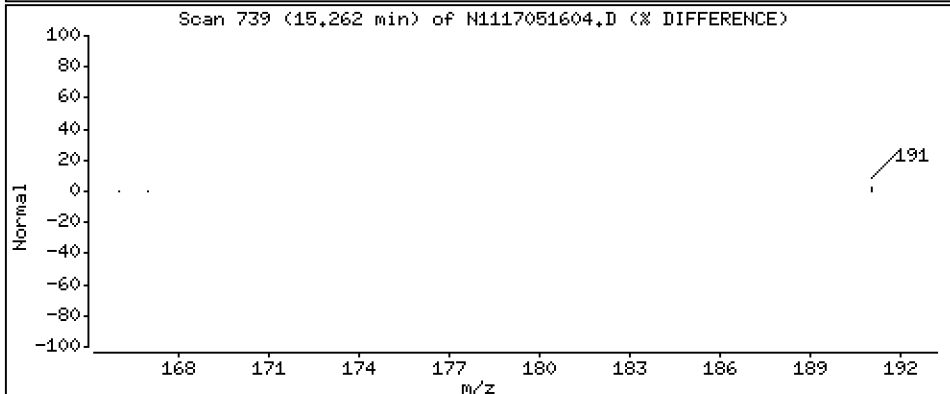
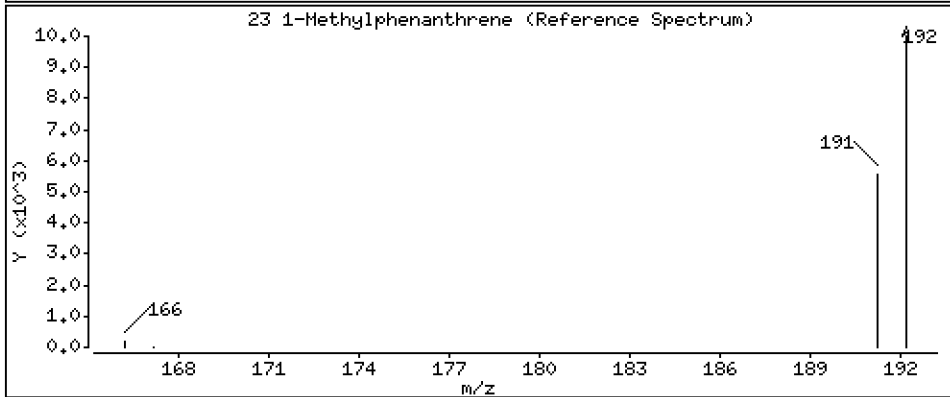
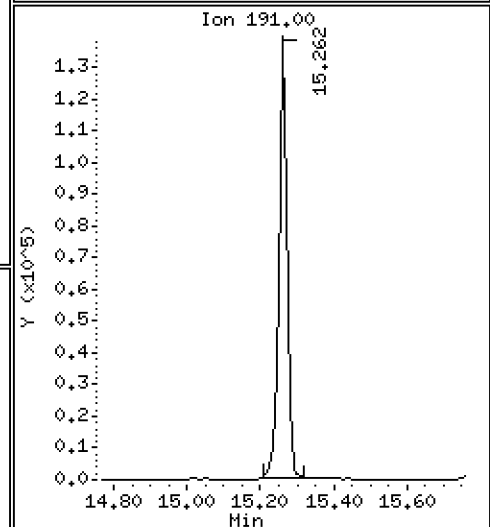
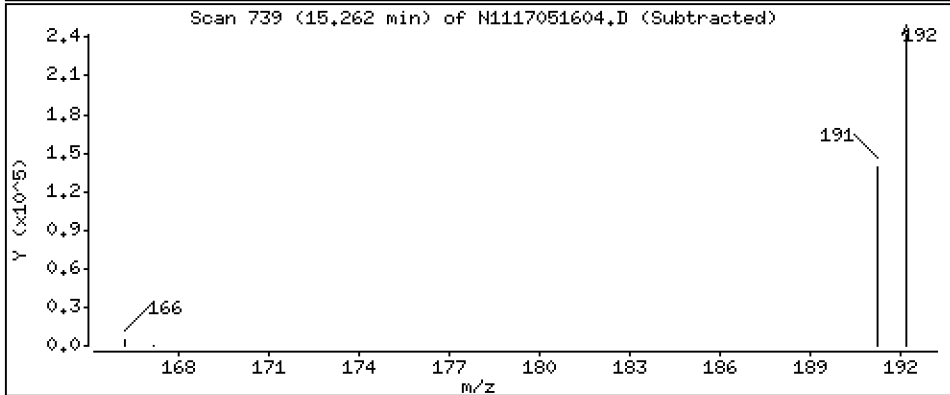
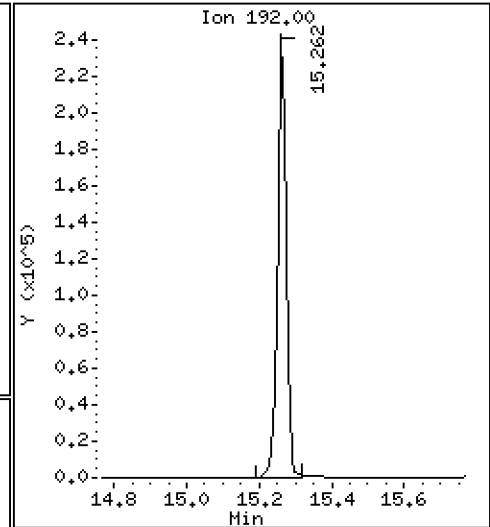
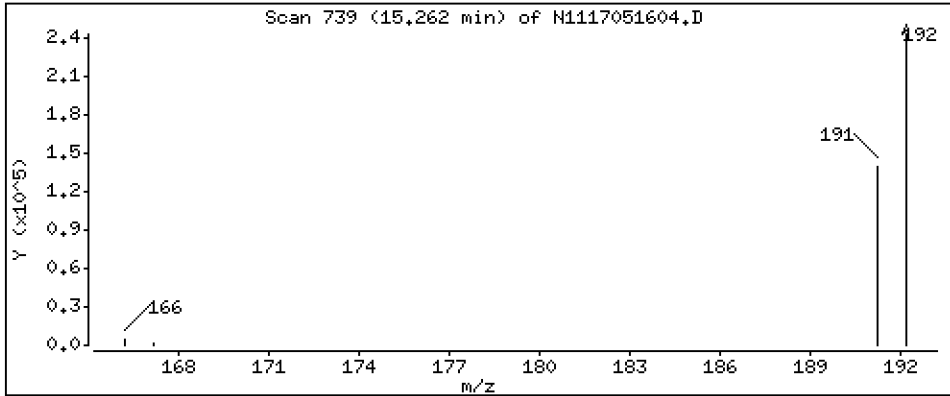
Operator: VTS

Column phase: Rxi-17Si11 MS

Column diameter: 0,25

23 1-Methylphenanthrene

Concentration: 218 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

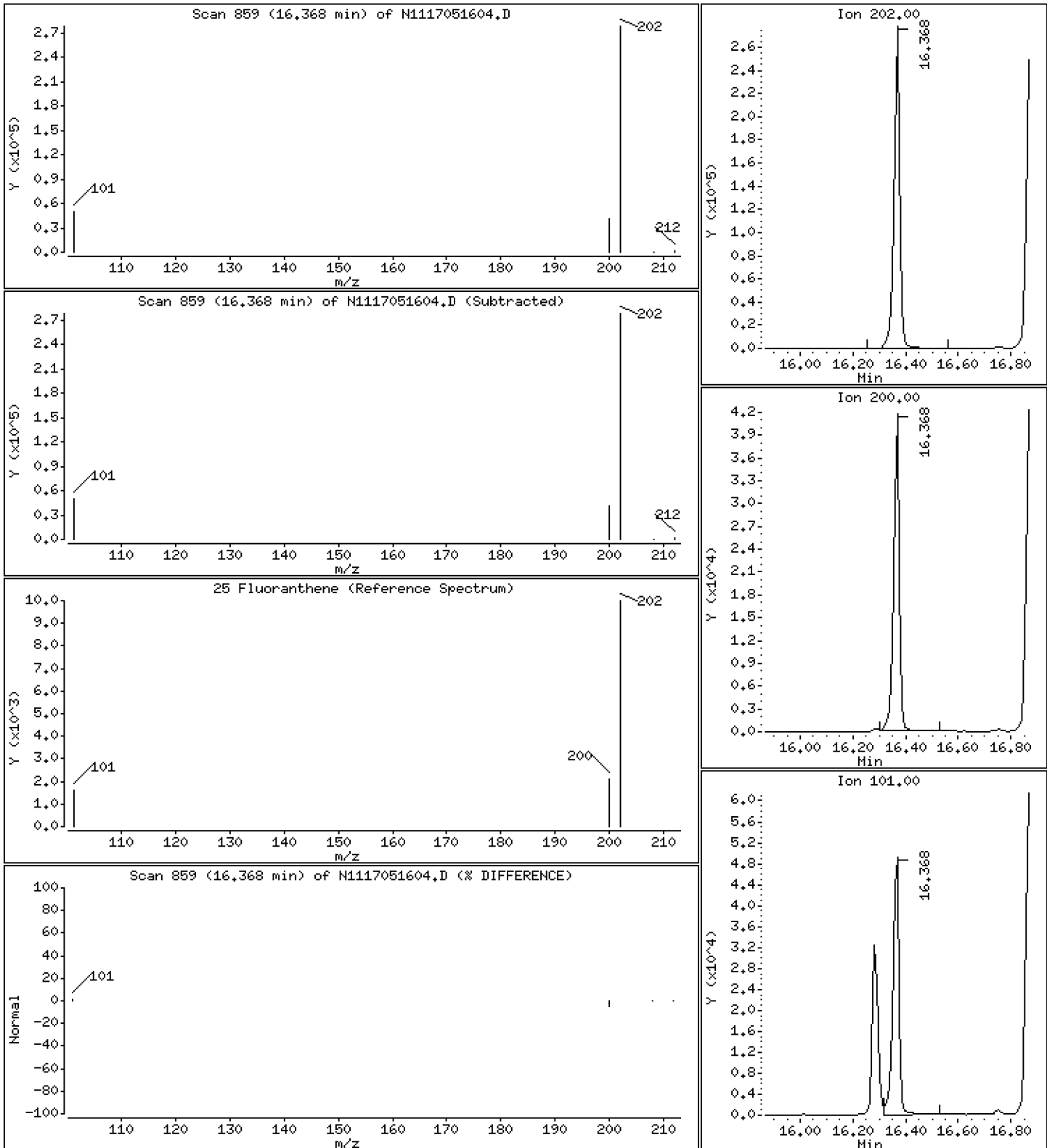
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

25 Fluoranthene

Concentration: 226 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

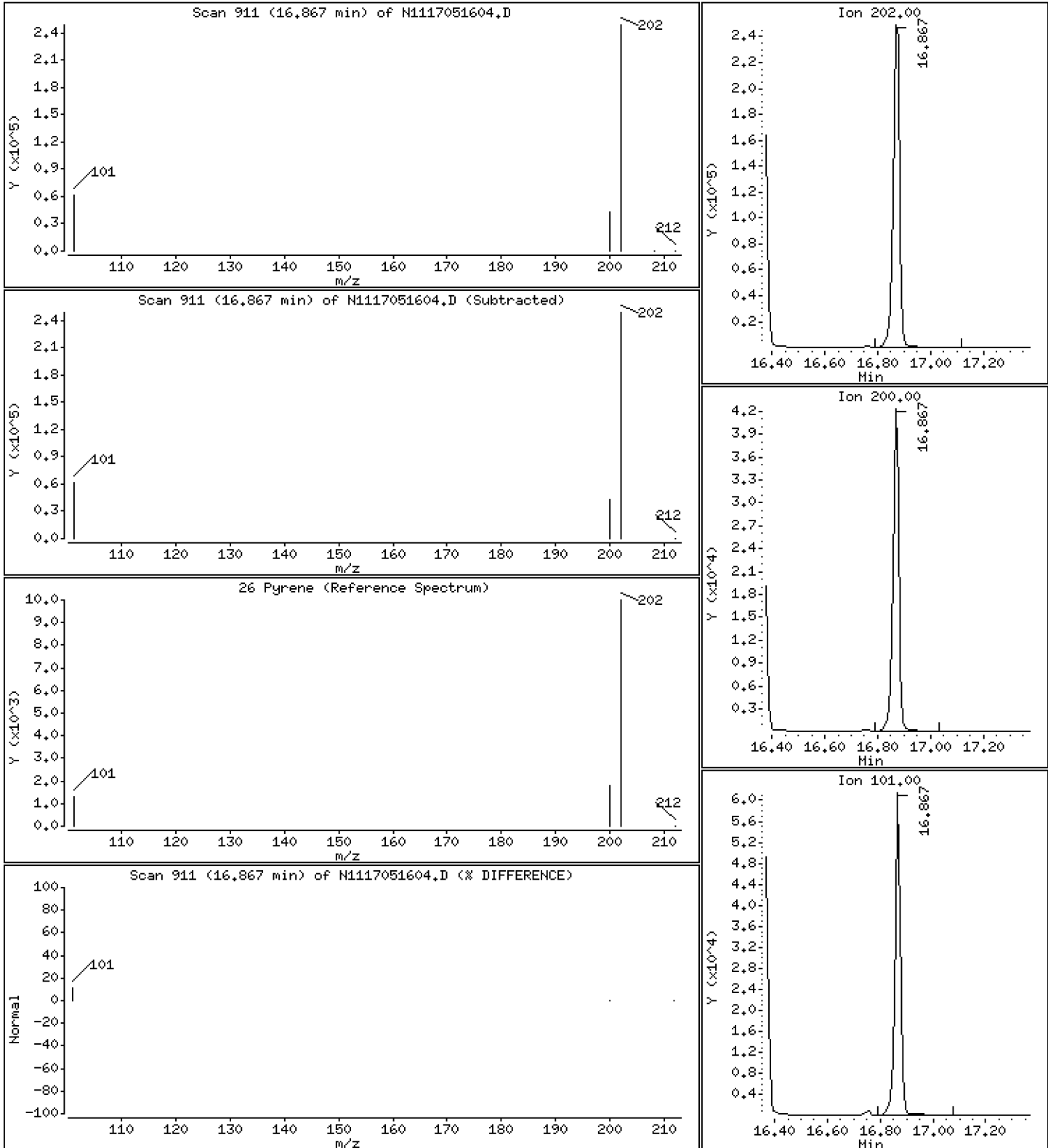
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Pyrene

Concentration: 266 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

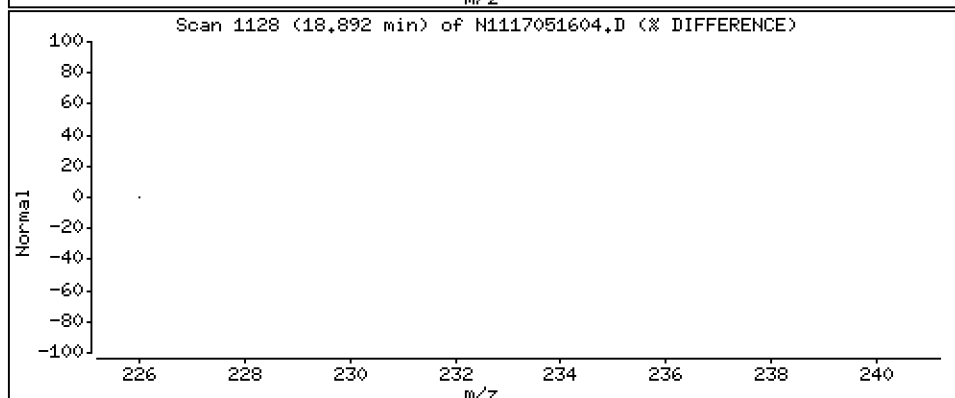
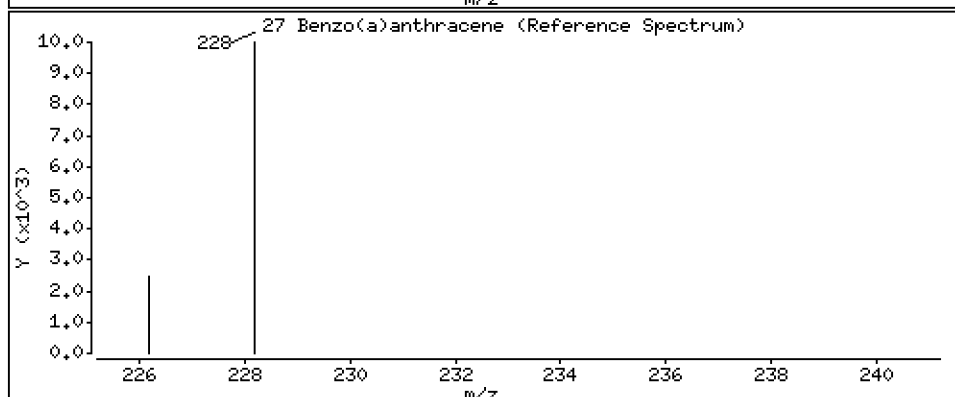
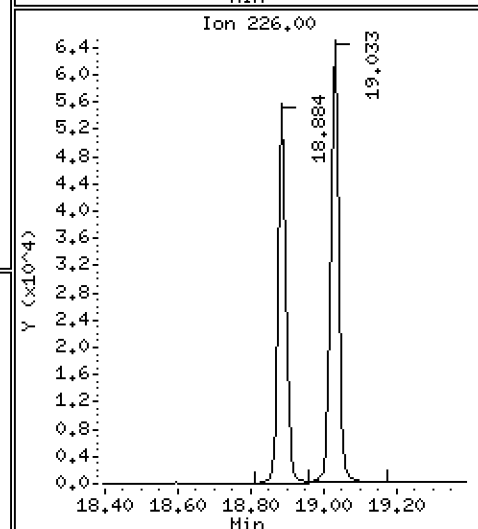
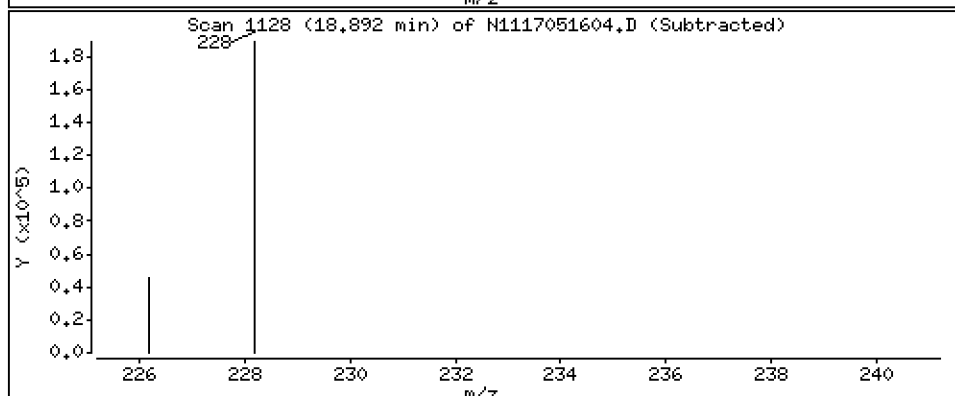
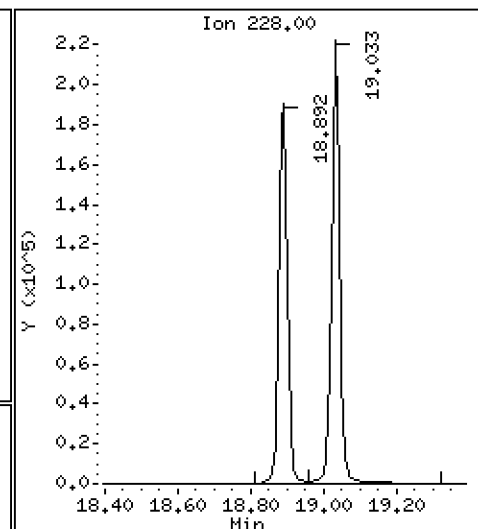
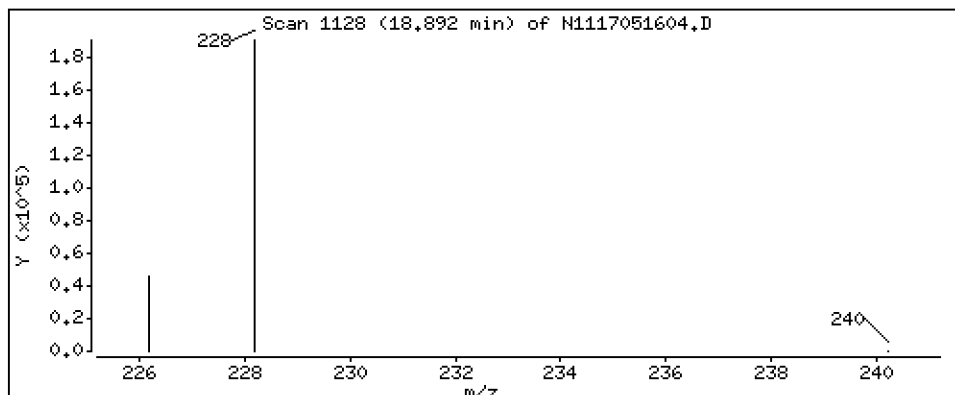
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)anthracene

Concentration: 246 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

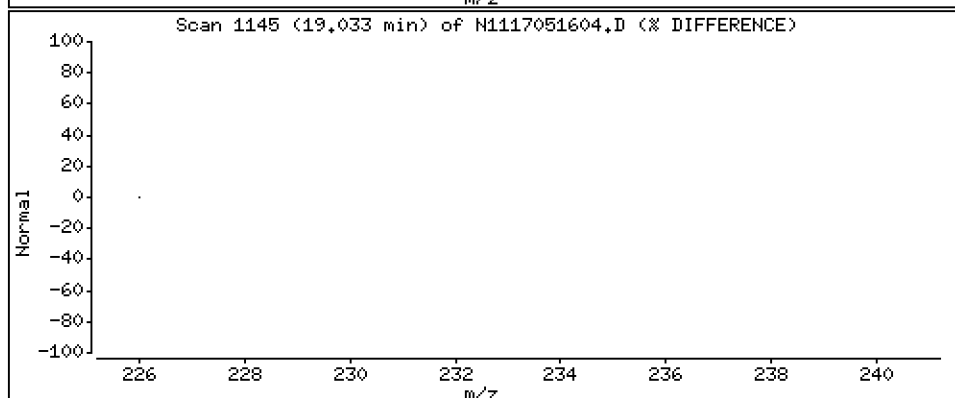
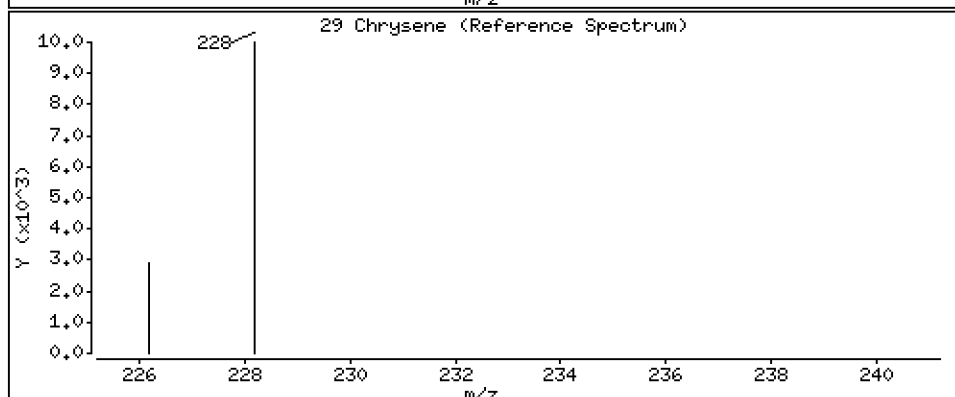
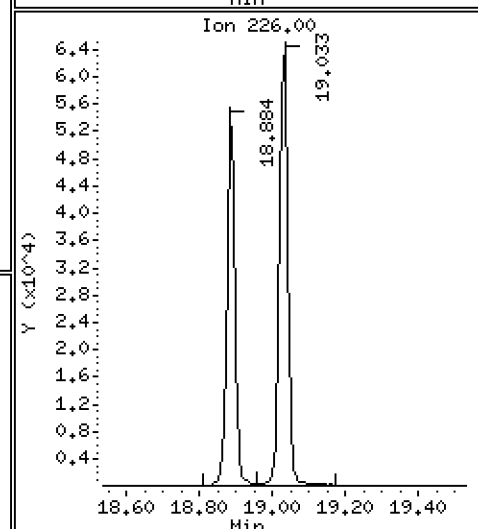
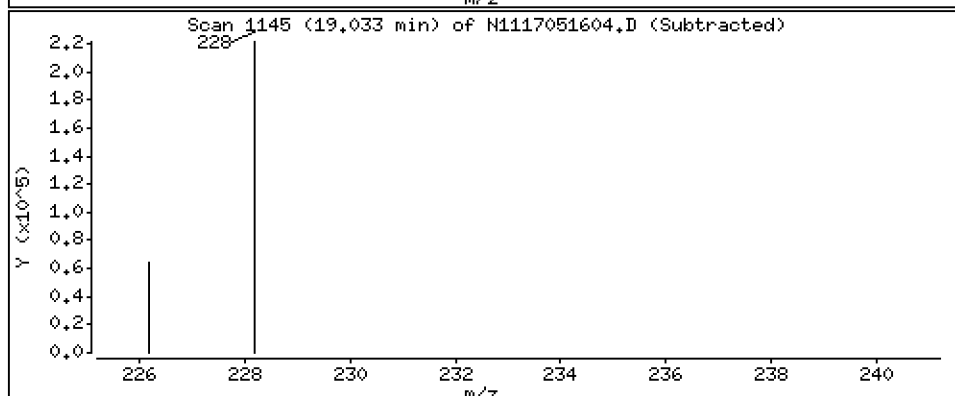
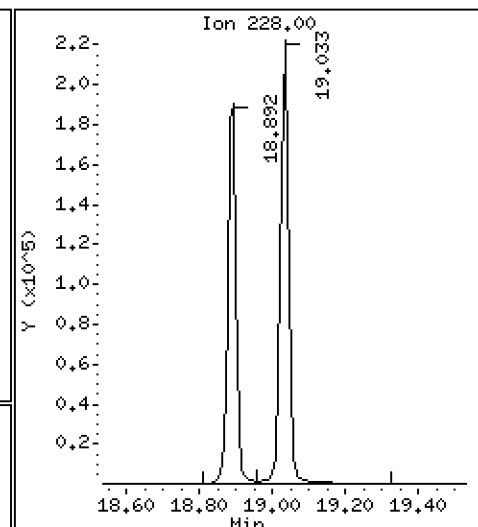
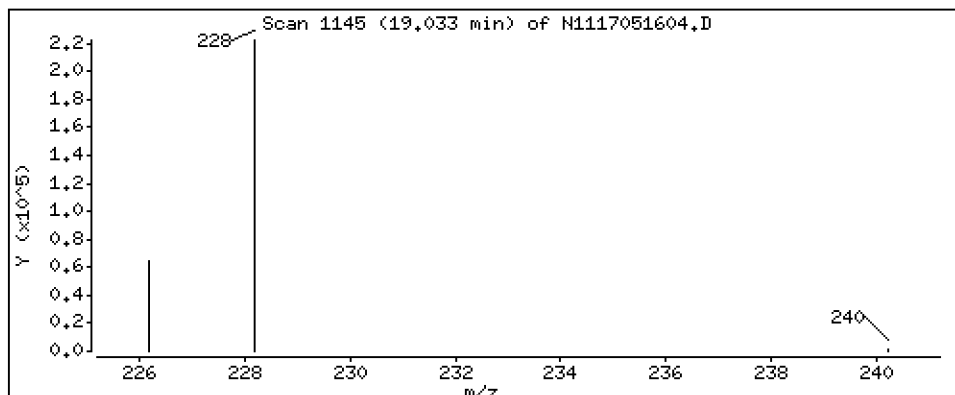
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 Chrysene

Concentration: 262 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

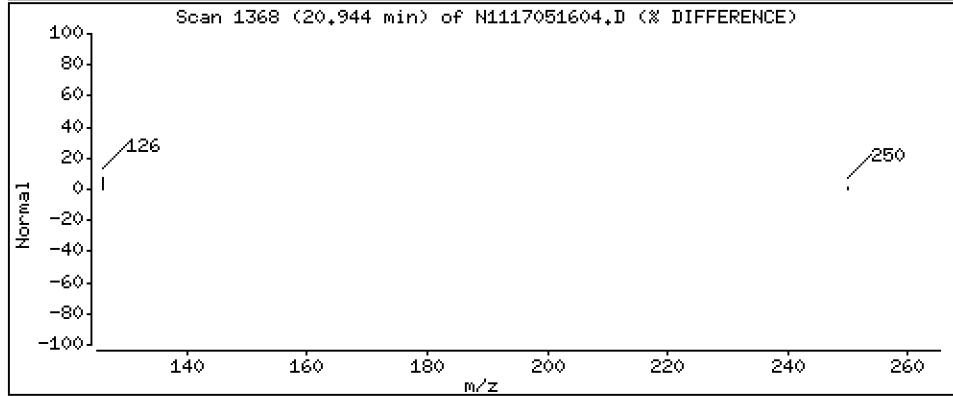
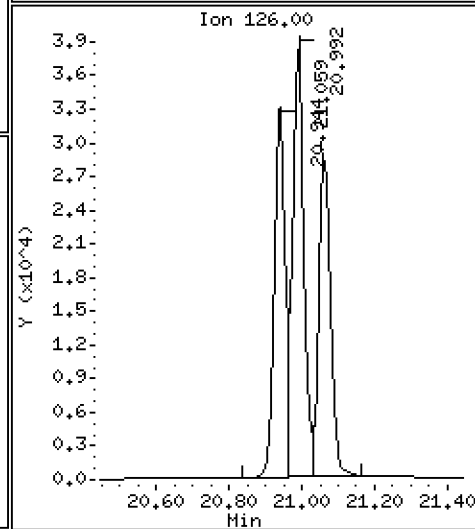
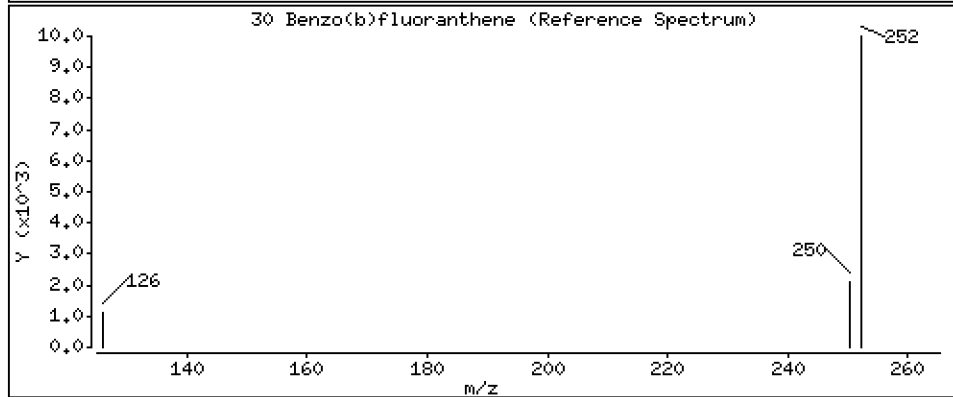
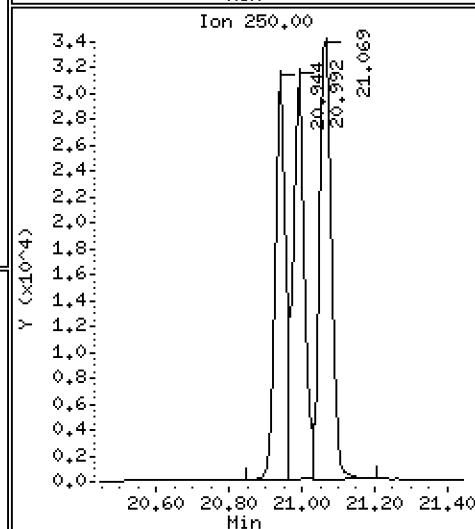
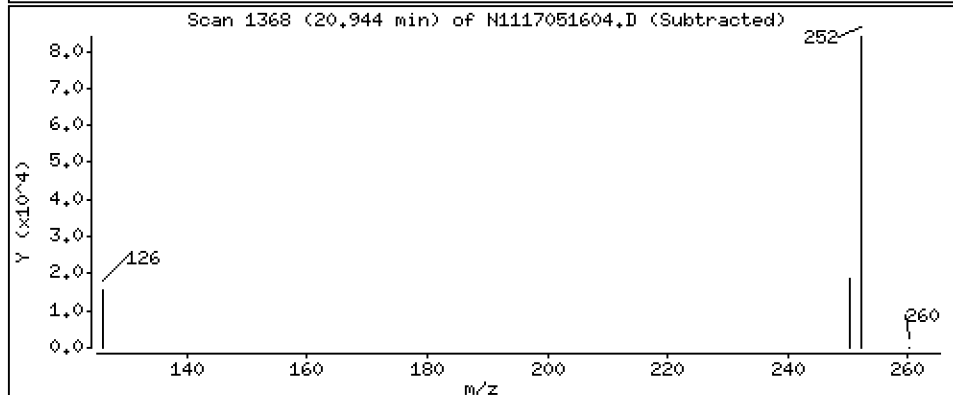
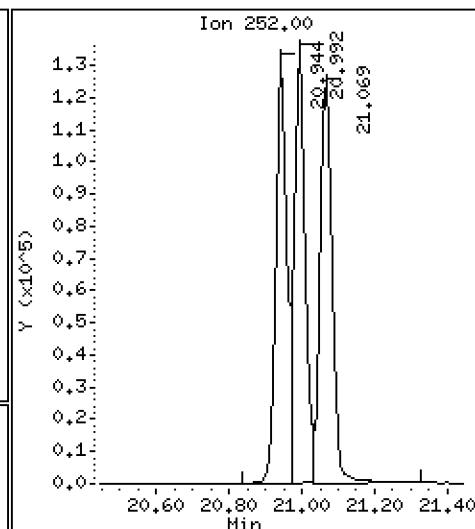
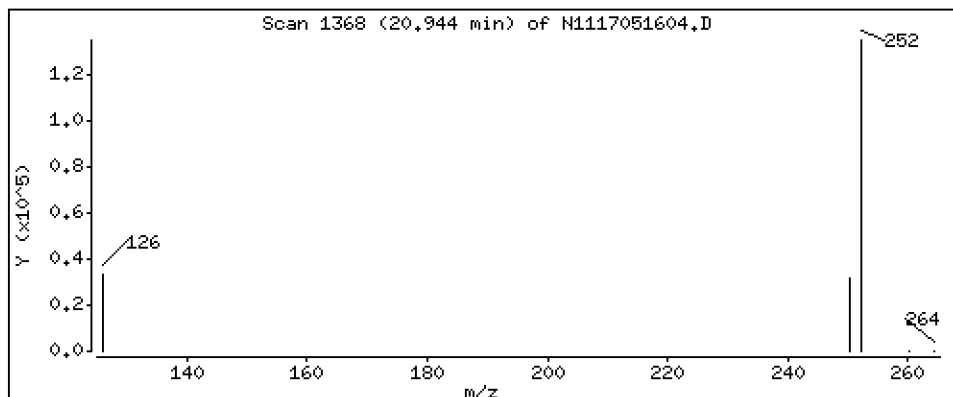
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Benzo(b)fluoranthene

Concentration: 242 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

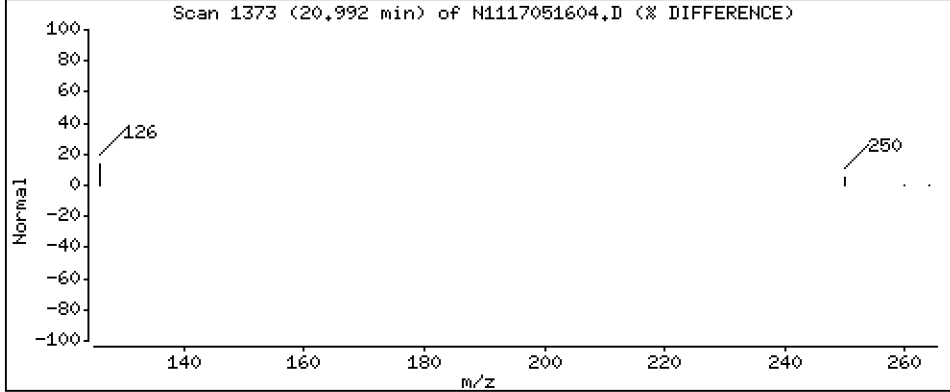
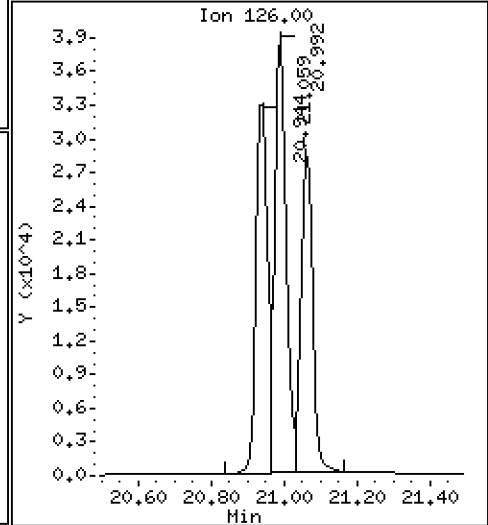
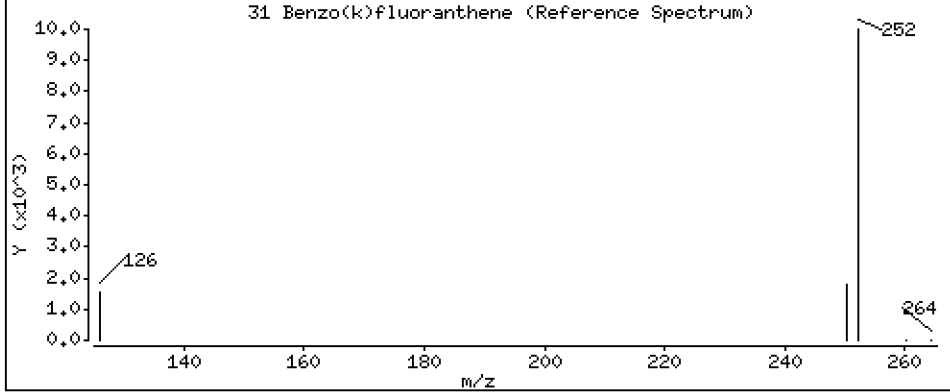
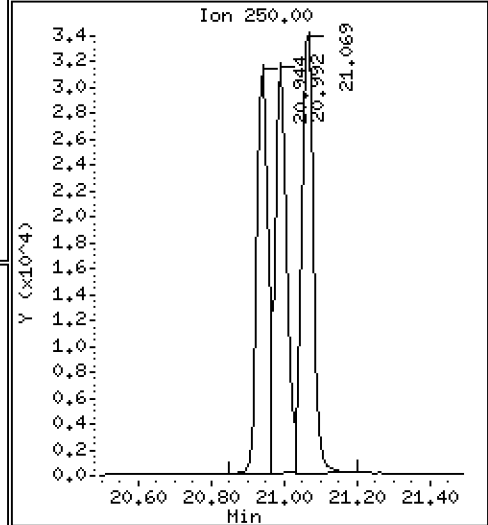
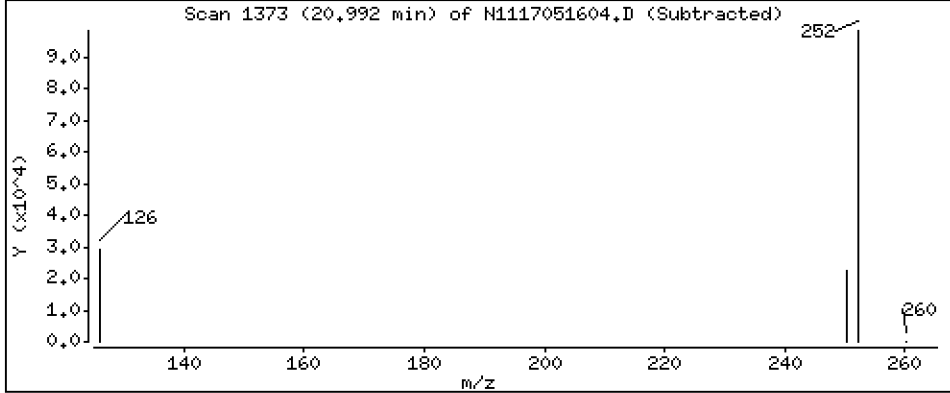
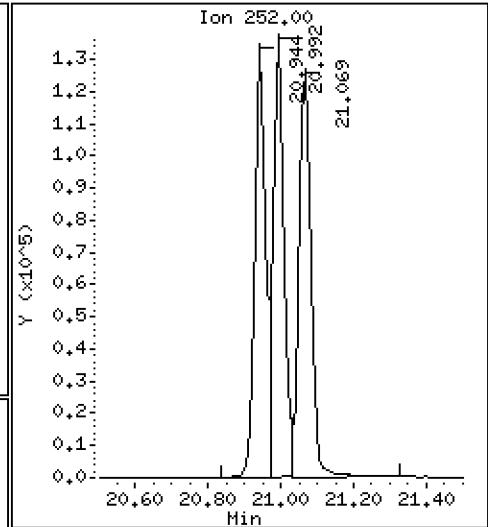
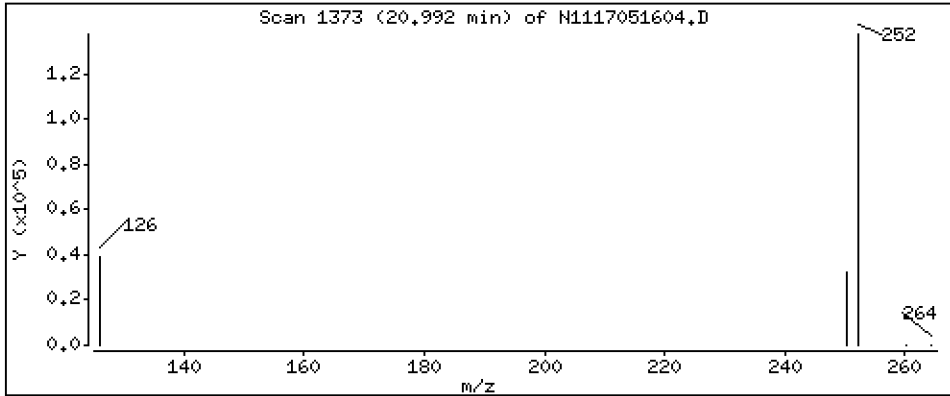
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 Benzo(k)fluoranthene

Concentration: 237 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

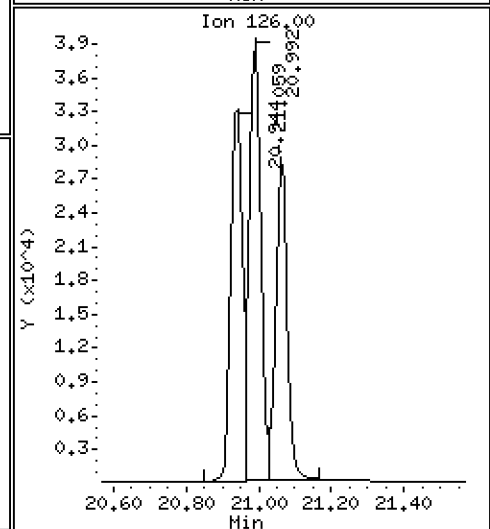
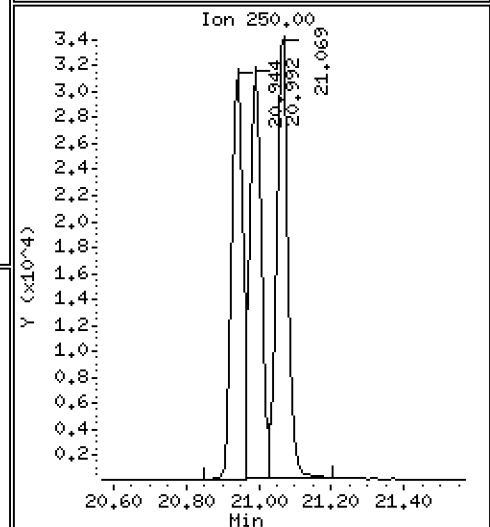
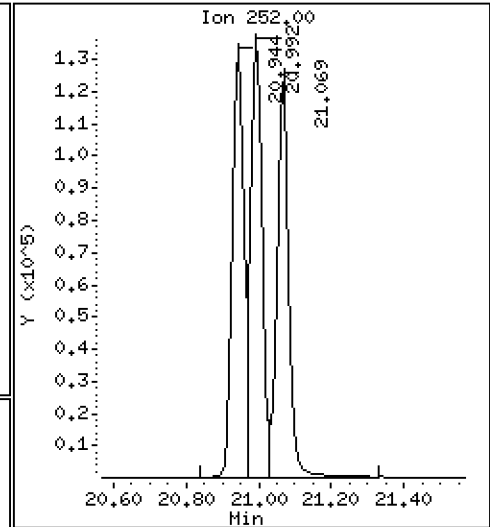
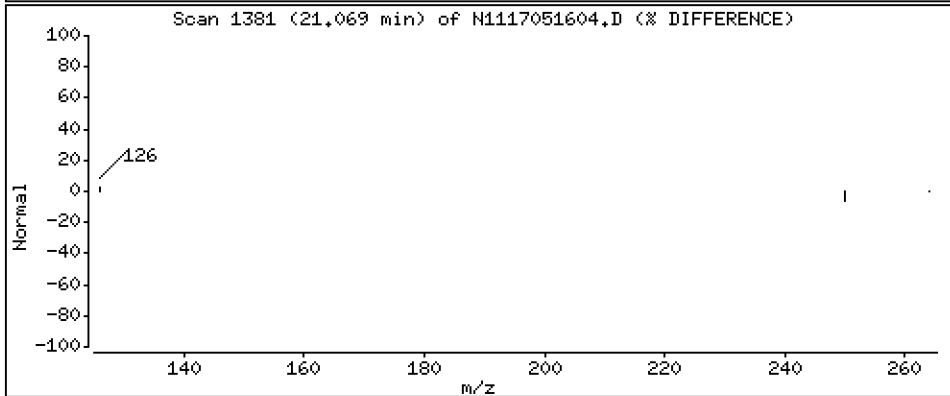
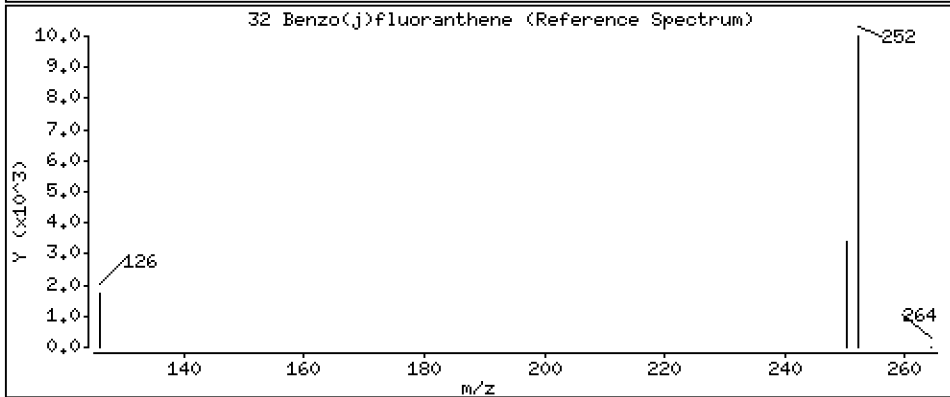
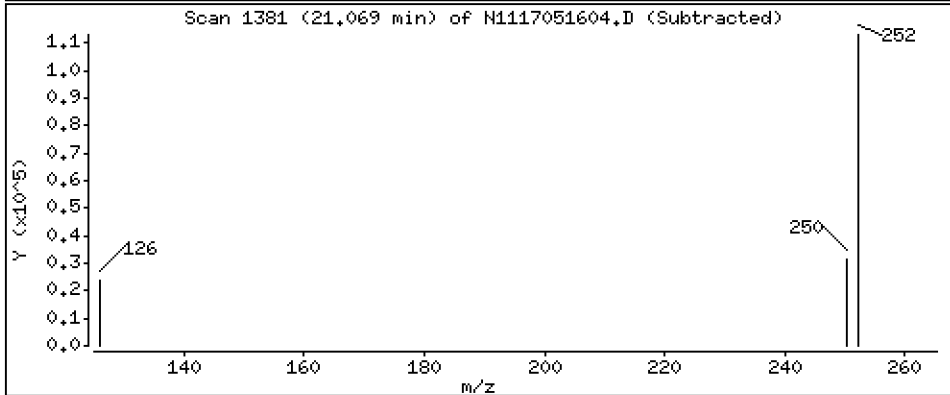
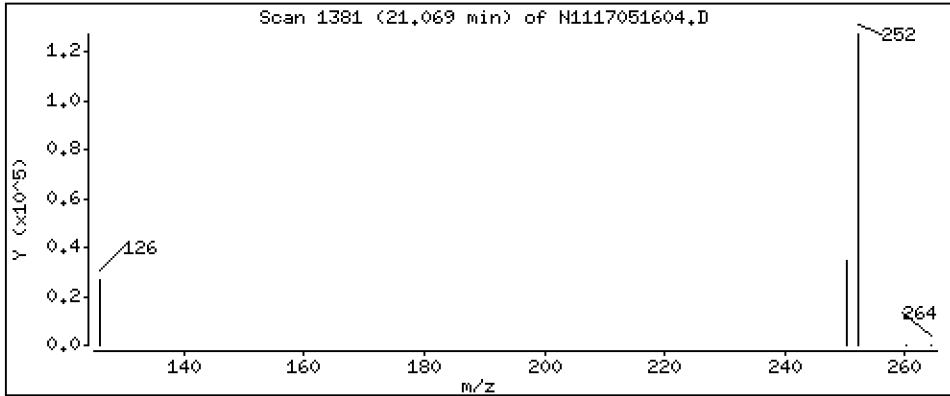
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

32 Benzo(j)fluoranthene

Concentration: 244 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

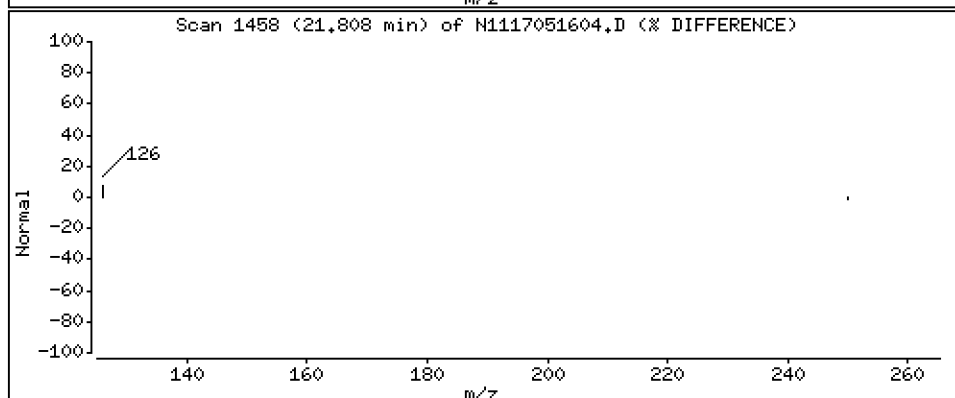
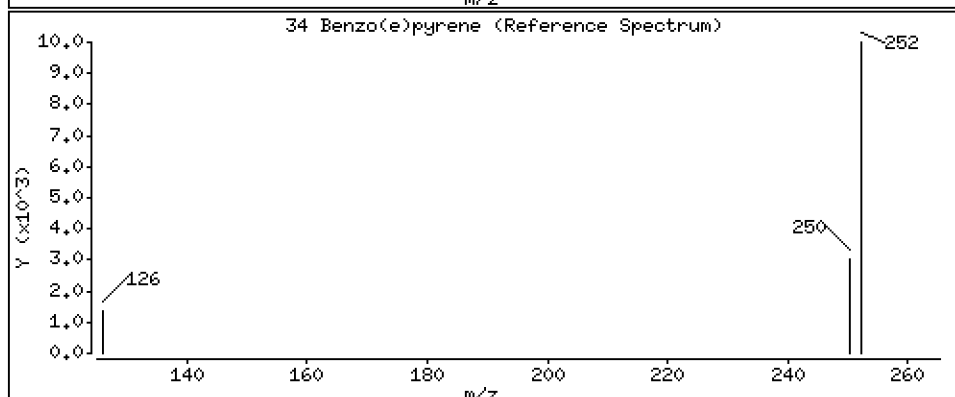
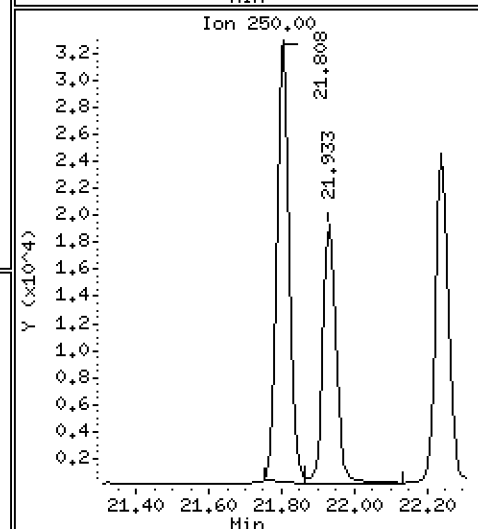
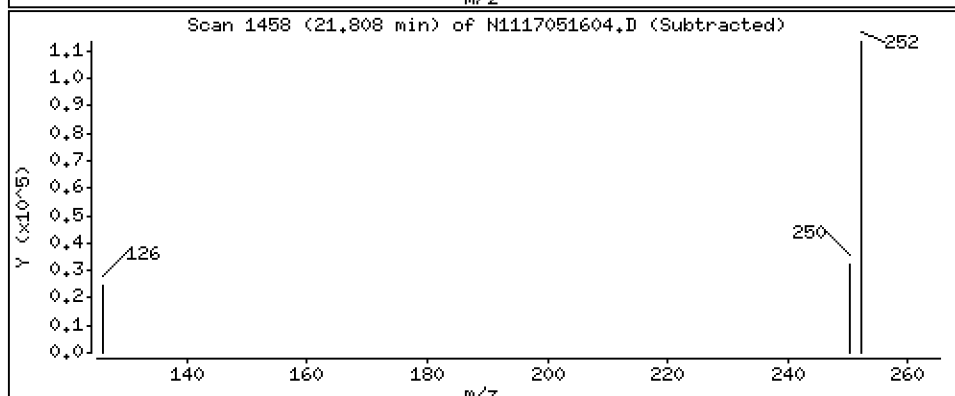
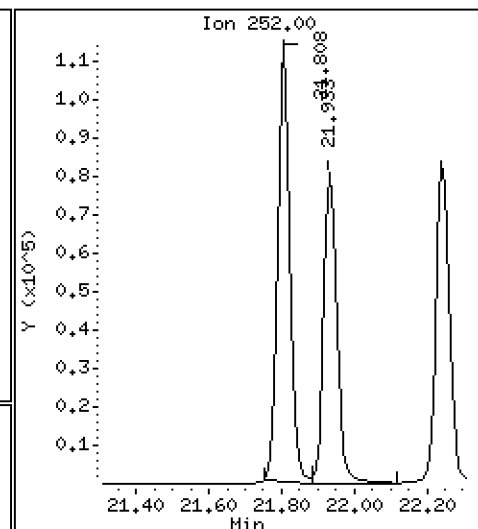
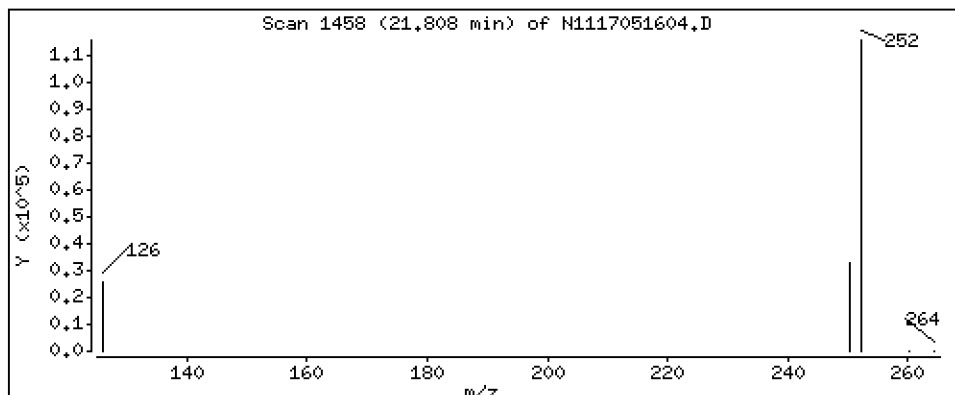
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

34 Benzo(e)pyrene

Concentration: 230 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

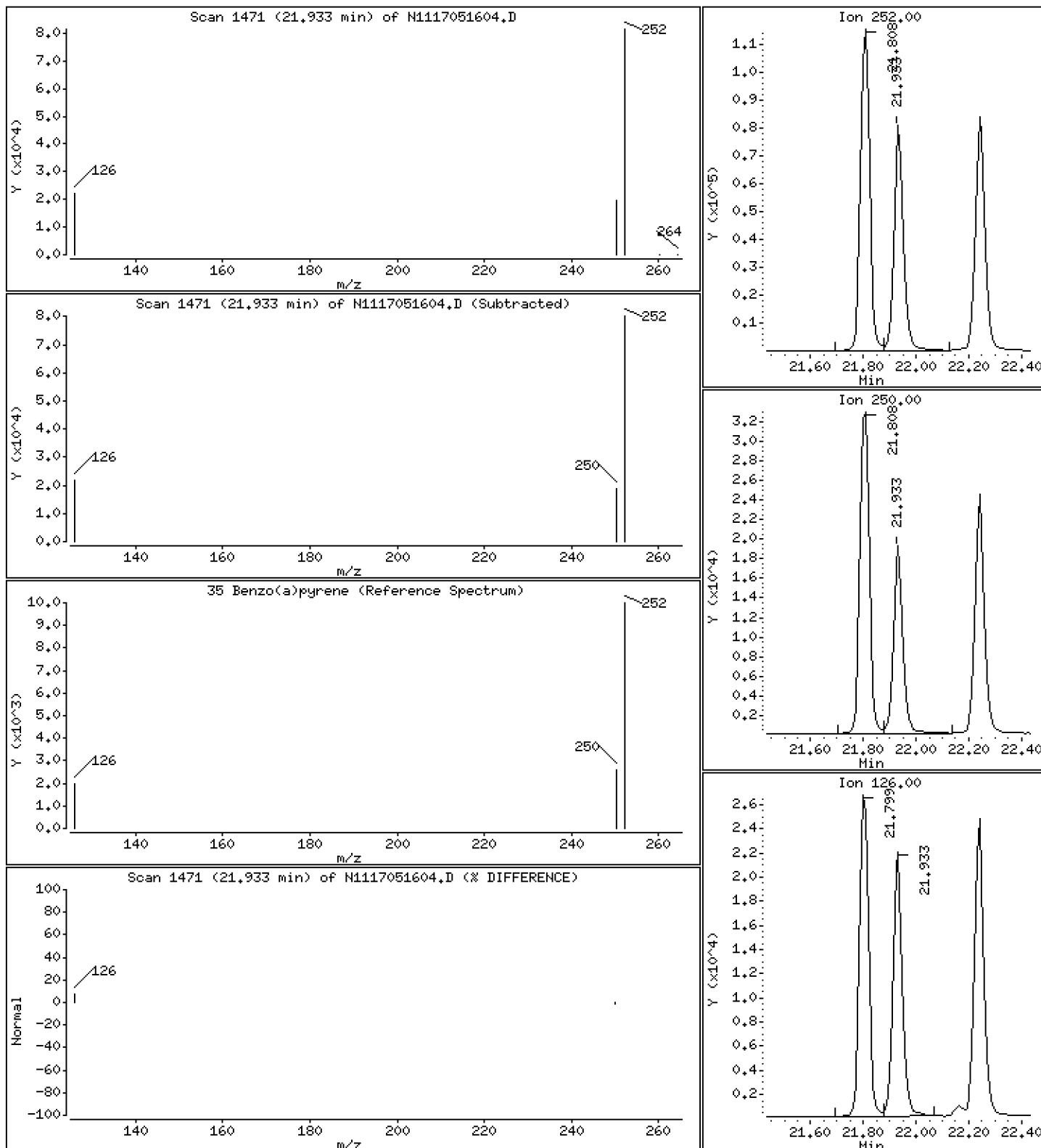
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

35 Benzo(a)pyrene

Concentration: 175 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

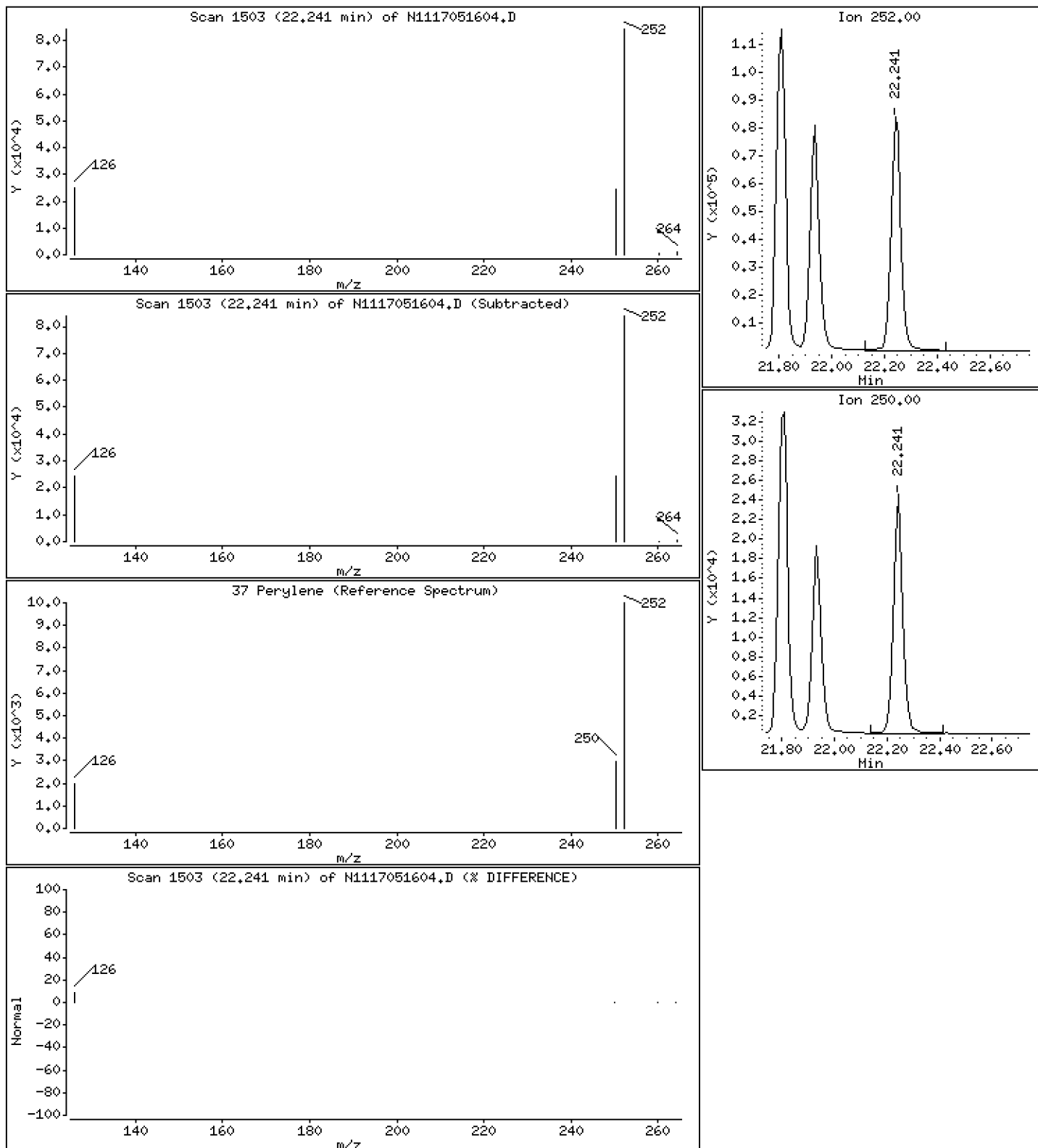
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

37 Perylene

Concentration: 183 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

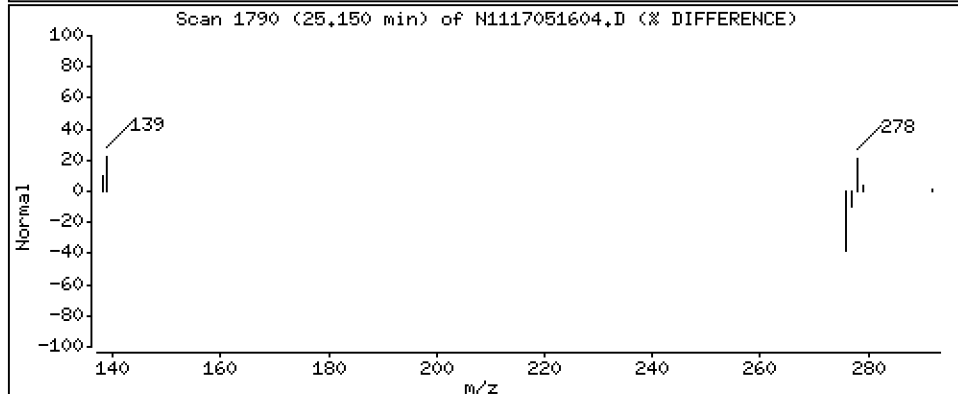
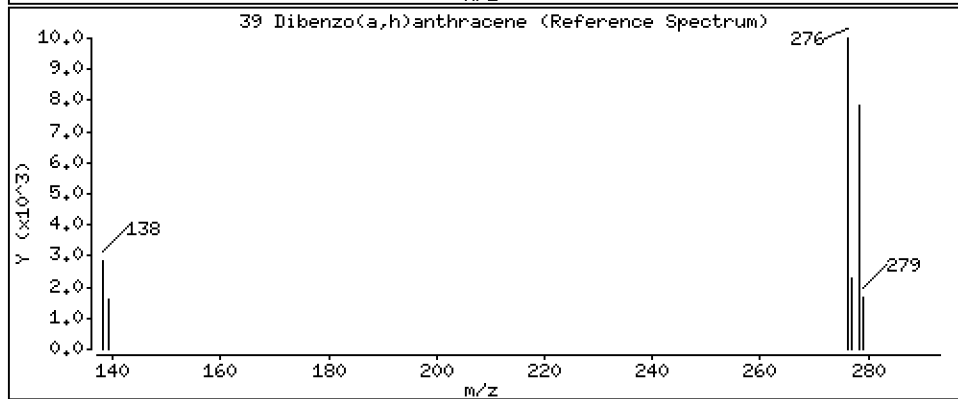
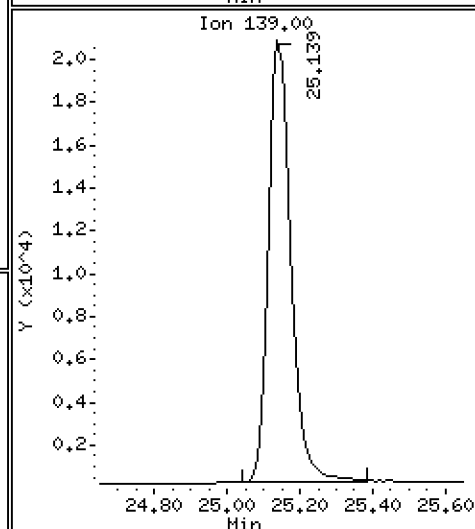
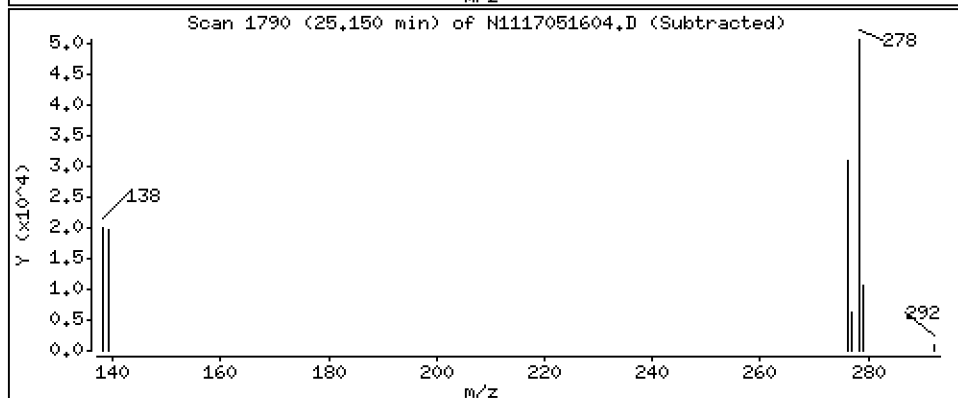
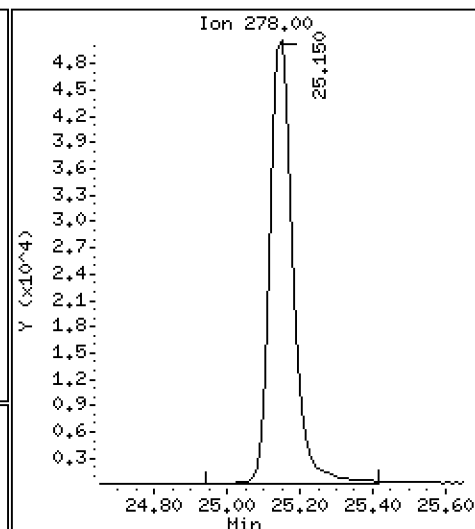
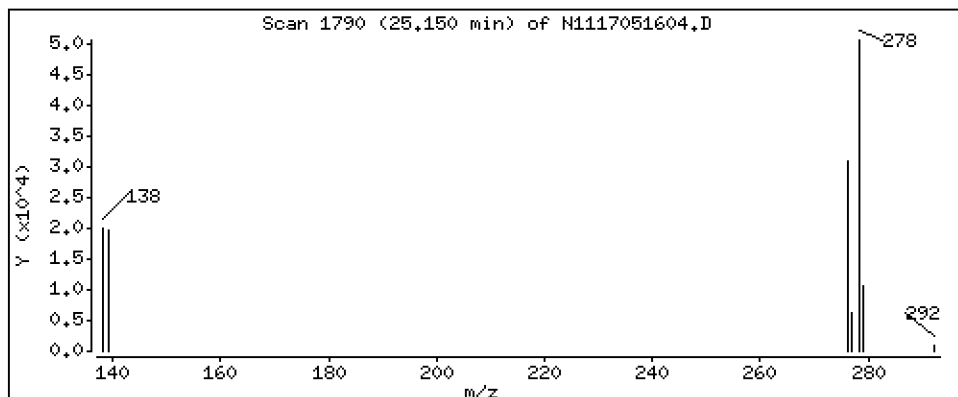
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

39 Dibenzo(a,h)anthracene

Concentration: 227 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

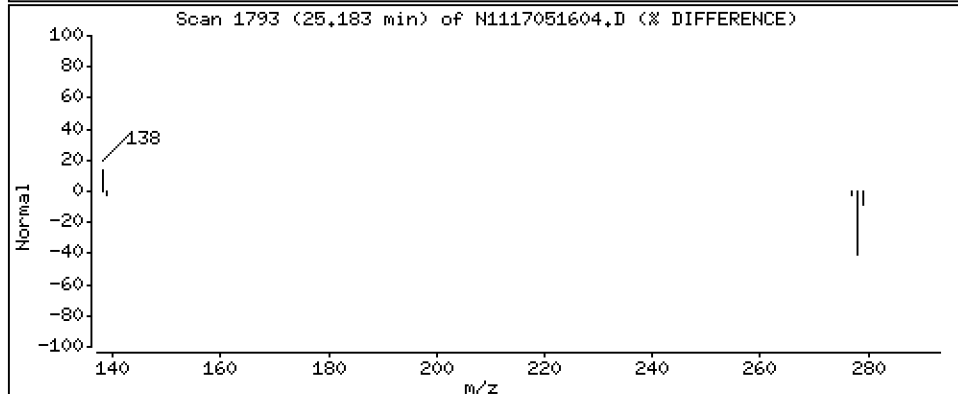
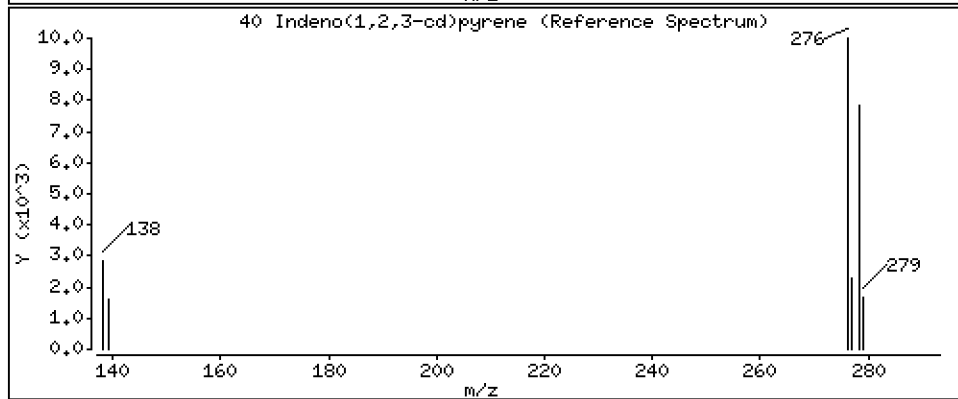
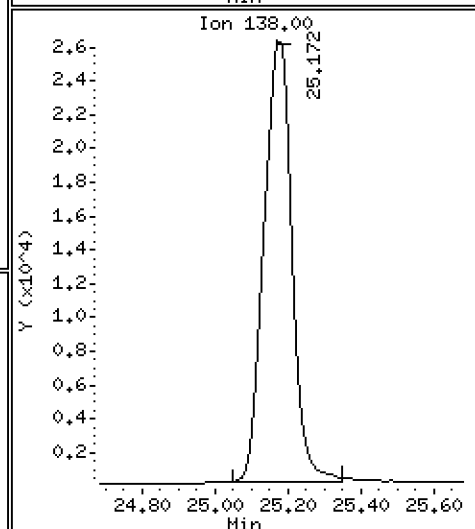
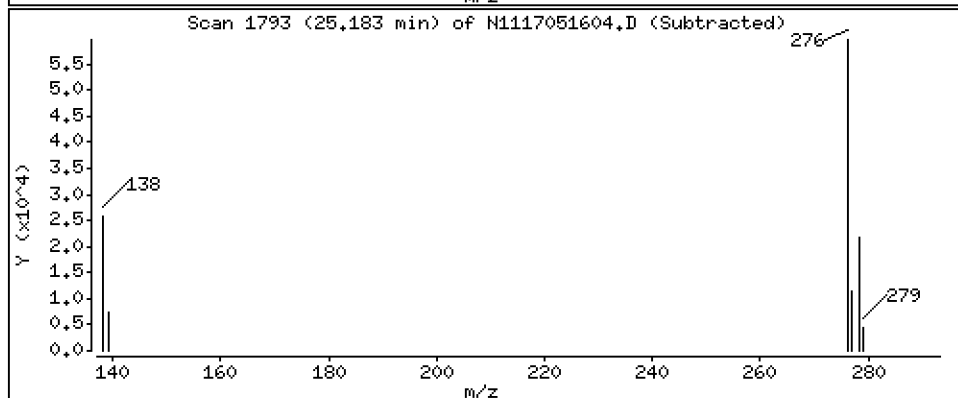
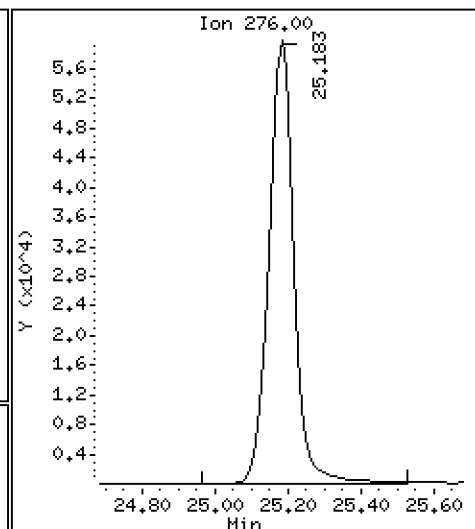
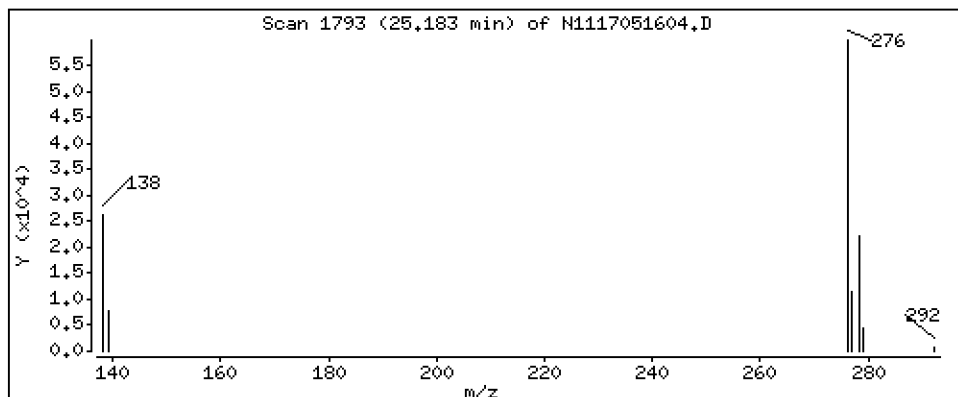
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

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

Concentration: 233 ng/mL



Date : 16-MAY-2017 12:11

Client ID:

Instrument: nt11.i

Sample Info: BFE0160-BS1

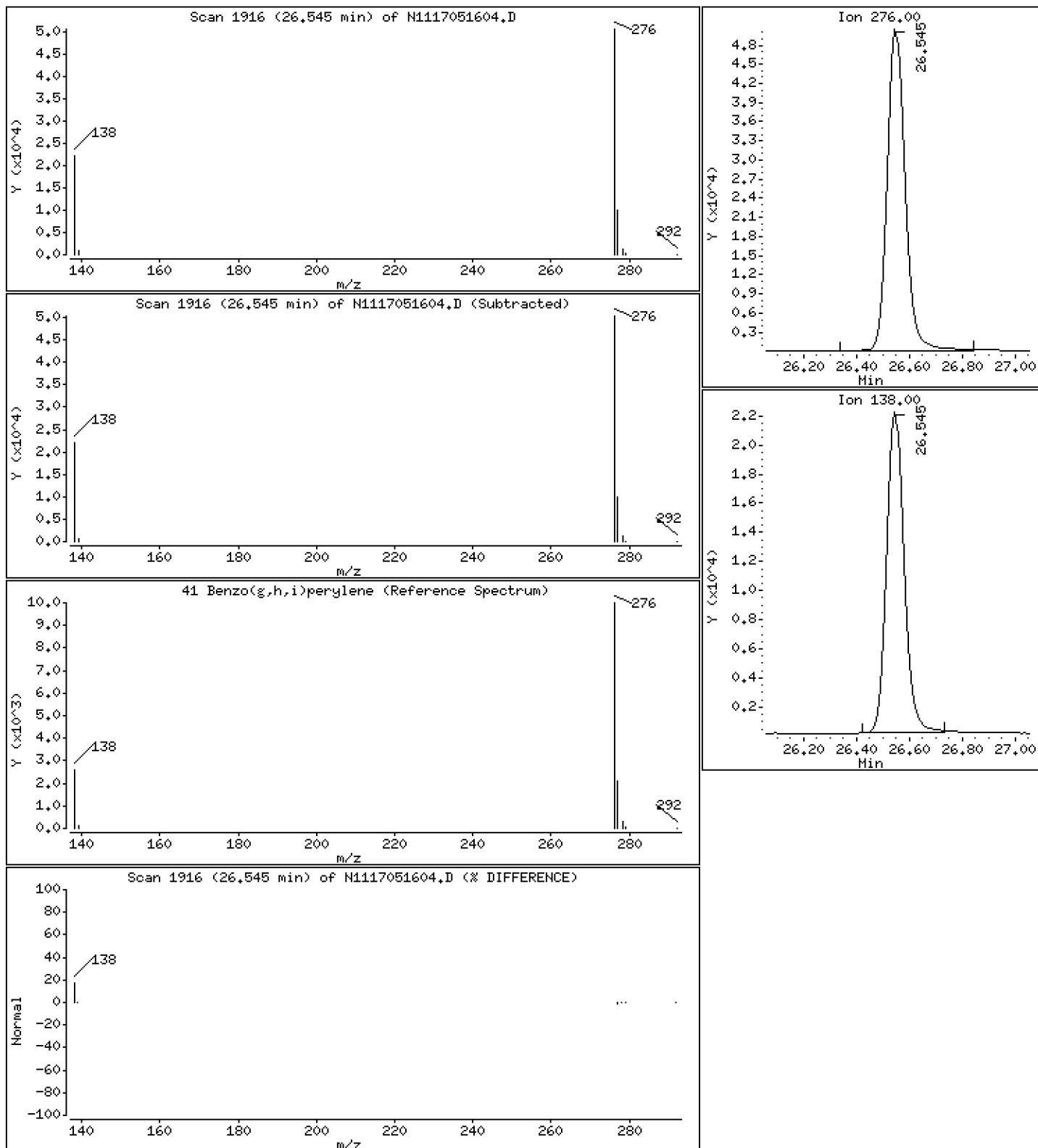
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

41 Benzo(g,h,i)perylene

Concentration: 227 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170516.b\N1117051604.D
 Lab Smp Id: BFE0160-BS1
 Inj Date : 16-MAY-2017 12:11 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : BFE0160-BS1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20170516.b\LOWSIM.m
 Meth Date : 17-May-2017 08:15 nt11.i Quant Type: ISTD
 Cal Date : 05-MAY-2017 14:47 Cal File: 17050508.D
 Als bottle: 1
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: allpna.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		8.491	8.500	(1.000)	418761	200.000	
2 Naphthalene	128		8.527	8.536	(1.004)	349521	155.309	155
3 Benzo(b)thiophene	134		8.780	8.789	(1.034)	275318	155.921	156
\$ 4 2-Methylnaphthalene-d10	152		9.477	9.477	(1.116)	272966	152.109	152
5 2-Methylnaphthalene	142		9.529	9.540	(1.122)	322299	155.266	155
6 1-Methylnaphthalene	142		9.792	9.792	(1.153)	309787	154.320	154
7 2-Chloronaphthalene	162		10.443	10.454	(0.906)	283715	162.052	162
8 Biphenyl	154		10.401	10.412	(0.902)	396477	151.246	151
9 2,6-Dimethylnaphthalene	156		10.464	10.475	(0.908)	296606	161.463	161
10 Acenaphthylene	152		11.374	11.383	(0.987)	318297	161.205	161
* 11 Acenaphthene-d10	164		11.528	11.528	(1.000)	168457	200.000	
12 Acenaphthene	153		11.591	11.591	(1.005)	226459	175.395	175
13 Dibenzofuran	168		11.785	11.797	(1.022)	311725	174.989	175
14 2,3,5-Trimethylnaphthalene	170		11.886	11.886	(1.031)	188217	186.488	186
\$ 15 Fluorene-d10	174		Compound Not Detected.					
16 Fluorene	166		12.417	12.429	(1.077)	247493	178.156	178
17 Dibenzothiophene	184		14.052	14.052	(0.988)	222427	159.681	160
* 18 Phenanthrene-d10	188		14.220	14.220	(1.000)	269247	200.000	
19 Phenanthrene	178		14.262	14.262	(1.003)	396420	197.786	198
\$ 20 Anthracene-d10	188		Compound Not Detected.					
21 Anthracene	178		14.315	14.325	(1.007)	326671	165.438	165
22 Carbazole	167		15.000	15.000	(1.055)	325876	141.784	142
23 1-Methylphenanthrene	192		15.262	15.271	(1.073)	395614	217.951	218
\$ 24 Fluoranthene-d10	212		16.329	16.338	(1.148)	294475	231.354	231
25 Fluoranthene	202		16.367	16.367	(1.151)	434896	225.787	226
26 Pyrene	202		16.867	16.876	(0.889)	430725	265.810	266
27 Benzo(a)anthracene	228		18.892	18.892	(0.995)	313478	245.947	246
* 28 Chrysene-d12	240		18.983	18.983	(1.000)	178990	200.000	
29 Chrysene	228		19.033	19.033	(1.003)	345269	262.473	262
30 Benzo(b)fluoranthene	252		20.943	20.943	(0.945)	306491	241.603	242
31 Benzo(k)fluoranthene	252		20.991	21.001	(0.947)	298217	237.133	237
32 Benzo(j)fluoranthene	252		21.068	21.068	(0.950)	287611	244.084	244
\$ 33 Benzo(e)pyrene-d12	264		Compound Not Detected.					

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
						ON-COLUMN (ng/mL)	FINAL (ng/mL)
34 Benzo(e)pyrene	252	21.808	21.808	(0.984)	271450	230.184	230
35 Benzo(a)pyrene	252	21.933	21.933	(0.989)	201351	175.461	175
* 36 Perylene-d12	264	22.173	22.173	(1.000)	203014	200.000	
37 Perylene	252	22.240	22.250	(1.003)	216423	183.029	183
§ 38 Dibenzo(a,h)anthracene-d14	292	25.005	25.016	(1.128)	169992	224.476	224
39 Dibenzo(a,h)anthracene	278	25.149	25.149	(1.134)	219877	226.708	227
40 Indeno(1,2,3-cd)pyrene	276	25.182	25.182	(1.136)	281542	232.586	233
41 Benzo(g,h,i)perylene	276	26.545	26.556	(1.197)	235265	227.203	227

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 16-MAY-2017
 Lab File ID: N1117051604.D Calibration Time: 10:47
 Lab Smp Id: BFE0160-BS1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20170516.b\LOWSIM.m
 Misc Info:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	371325	185663	742650	418761	12.77
11 Acenaphthene-d10	154428	77214	308856	168457	9.08
18 Phenanthrene-d10	256956	128478	513912	269247	4.78
28 Chrysene-d12	208629	104315	417258	178990	-14.21
36 Perylene-d12	225431	112716	450862	203014	-9.94

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	8.50	8.00	9.00	8.49	-0.11
11 Acenaphthene-d10	11.53	11.03	12.03	11.53	0.00
18 Phenanthrene-d10	14.22	13.72	14.72	14.22	0.00
28 Chrysene-d12	18.98	18.48	19.48	18.98	0.00
36 Perylene-d12	22.17	21.67	22.67	22.17	0.00

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

REVIEW SUMMARY FOR FILE - N1117051604.D

Lab ID: BFE0160-BS1
nt11.i, 20170516.b\LOWSIM.m, 16-MAY-2017 12:11

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

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

NONE

On Column LOD for nt11.i, 20170516.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 6.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000



**MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270D-SIM**

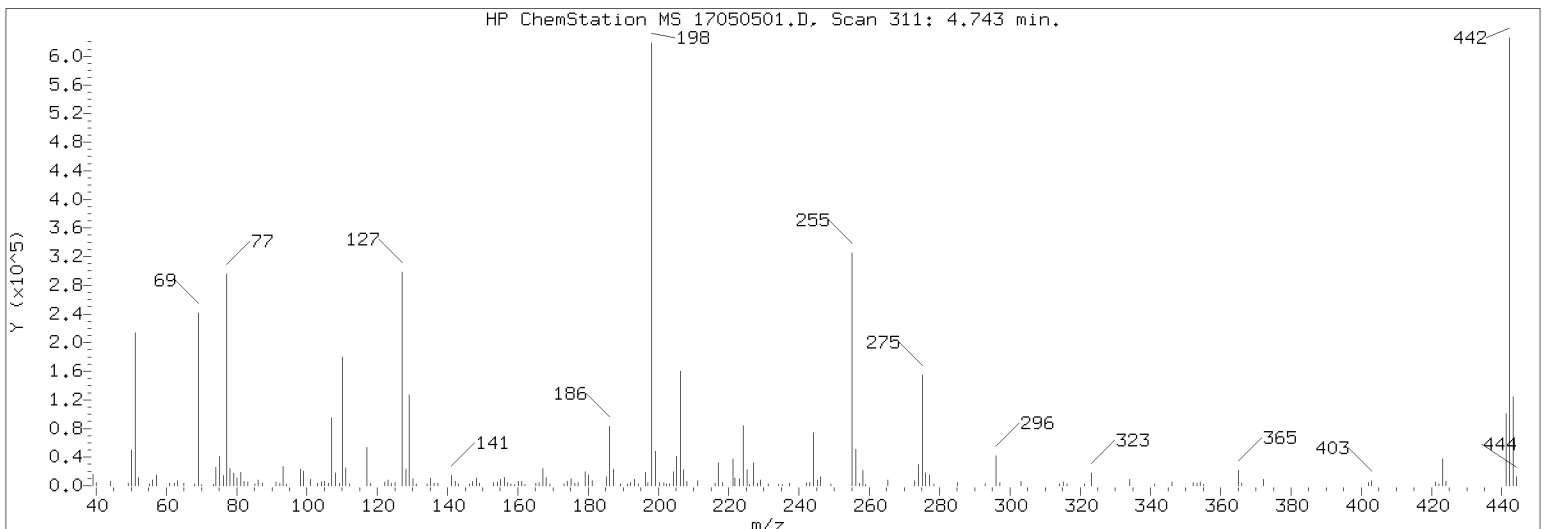
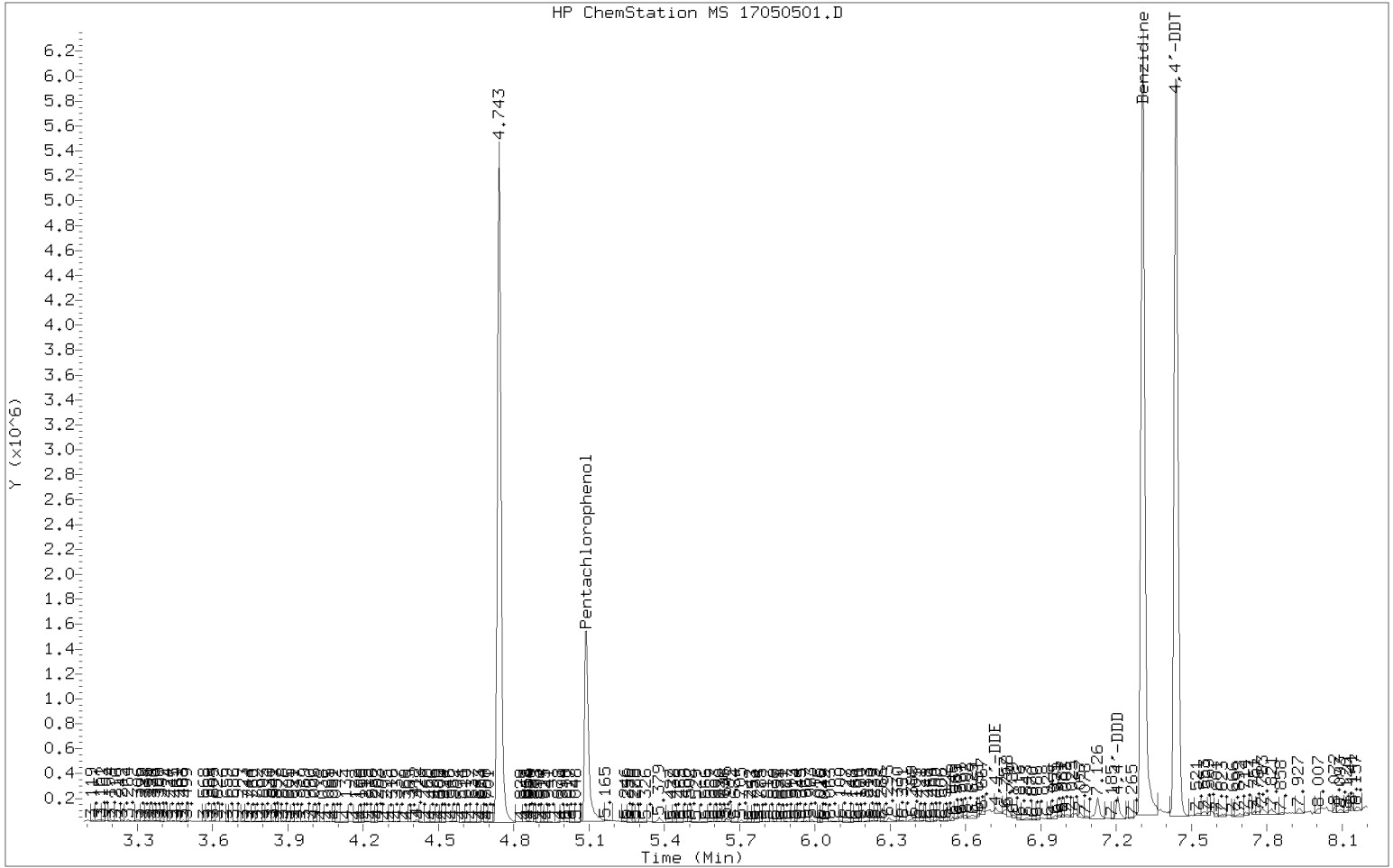
Laboratory: Analytical Resources, Inc. SDG: 17E0012
 Client: Anchor QEA, LLC Project: Port Gamble Shellfish Monitoring
 Lab File ID: 17050501.D Injection Date: 05/05/17
 Instrument ID: NT11 Injection Time: 10:50
 Sequence: SFE0059 Lab Sample ID: SFE0059-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10 - 80% of 198	35.2	PASS
68	Less than 2% of 69	0.834	PASS
69	Less than 100% of 198	39.2	PASS
70	Less than 2% of 69	0.344	PASS
127	10 - 80% of 198	49.5	PASS
197	Less than 2% of 198	0.481	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	7.91	PASS
275	10 - 60% of 198	23.8	PASS
365	1 - 100% of 198	3.23	PASS
441	0.1 - 24% of 442	15.6	PASS
442	50 - 200% of 198	96.3	PASS
443	15 - 24% of 442	19.3	PASS

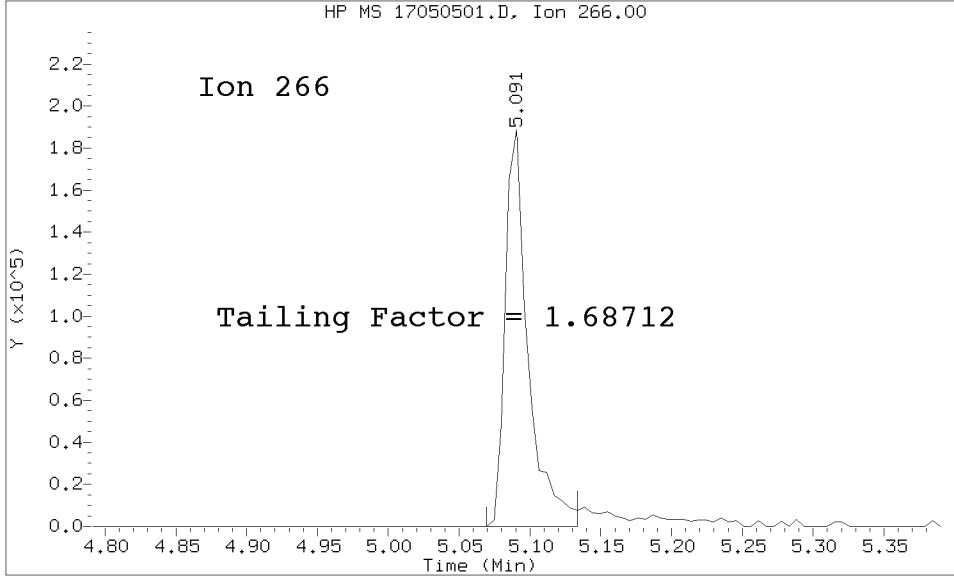
Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SFE0059-TUN1	17050501.D	05/05/2017	10:50
Cal Standard	SFE0059-CAL4	17050503.D	05/05/2017	11:47
Initial Cal Check	SFE0059-ICV1	17050503ICV.D	05/05/2017	11:47
Cal Standard	SFE0059-CAL6	17050504.D	05/05/2017	12:23
Cal Standard	SFE0059-CAL1	17050505.D	05/05/2017	12:59
Cal Standard	SFE0059-CAL5	17050506.D	05/05/2017	13:35
Cal Standard	SFE0059-CAL2	17050507.D	05/05/2017	14:11
Cal Standard	SFE0059-CAL3	17050508.D	05/05/2017	14:47
Secondary Cal Check	SFE0059-SCV1	17050509.D	05/05/2017	15:23
Blank	BFD0748-BLK1	17050510.D	05/05/2017	15:59
LCS	BFD0748-BS1	17050511.D	05/05/2017	16:36
MRL Check	BFD0748-MRL1	17050512.D	05/05/2017	17:12
MRL Check	BFD0748-MRL2	17050513.D	05/05/2017	17:47
ZZZZZ	17D0423-16	17050514.D	05/05/2017	18:24
ZZZZZ	17D0423-17	17050515.D	05/05/2017	19:00
ZZZZZ	17D0423-18	17050516.D	05/05/2017	19:37
Blank	BFE0047-BLK1	17050517.D	05/05/2017	20:13
LCS	BFE0047-BS1	17050518.D	05/05/2017	20:49
ZZZZZ	17D0446-01	17050519.D	05/05/2017	21:25
ZZZZZ	17D0446-02	17050520.D	05/05/2017	22:01
ZZZZZ	17D0446-03	17050521.D	05/05/2017	22:37
Calibration Check	SFE0059-CCV1	17050525.D	05/06/2017	1:01

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20170505.b/17050501.D/17050501.D
Method Used: \20170505.b\DFTPP.m Inst: nt11
Injection Date: 05-MAY-2017 10:50 Operator: VTS
Sample Info: SFE0059-TUN1 SFE0059-TUN1
Report Date: 05/06/2017 09:58



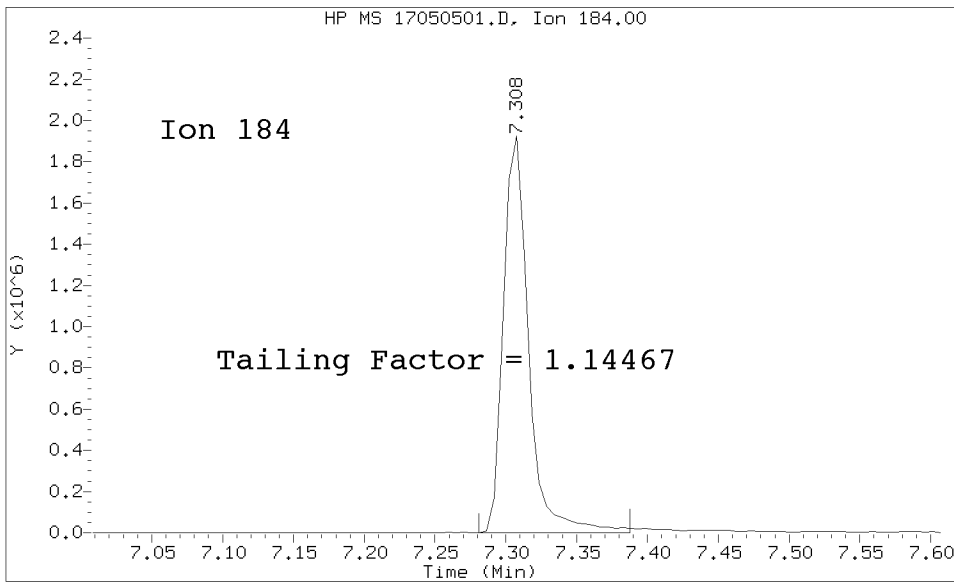
Datafile Analyzed: /20170505.b/17050501.D/17050501.D
Method Used: \20170505.b\DFTPP.m\sw846ddt.m Inst: nt11
Injection Date: 05-MAY-2017 10:50 Operator: VTS
Sample Info: SFE0059-TUN1
Report Date: 05/06/2017 09:58



Pentachlorophenol

=====
Exp. RT = 5.091
Found RT = 5.091

Tail Factor = 1.687 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 7.308
Found RT = 7.308

Tail Factor = 1.145 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.6871239	2.000	PASS
Benzidine	1.1446674	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1104241			N/A
4,4-DDE	4926	0.4	20.0	PASS
4,4-DDD	42304	3.7	20.0	PASS
4,4-DDD + DDE	47230	4.1	20.0	PASS

Tuning Sample, nt11.i/20170505.b/17050501.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	35.22
68	Less than 2.00% of mass 69	0.33 (0.83)
69	Mass 69 relative abundance	39.19
70	Less than 2.00% of mass 69	0.13 (0.34)
127	10.00 - 80.00% of mass 198	49.49
197	Less than 2.00% of mass 198	0.48
199	5.00 - 9.00% of mass 198	7.91
275	10.00 - 60.00% of mass 198	23.81
365	Greater than 1.00% of mass 198	3.23
441	0.01 - 24.00% of mass 442	14.99 (15.57)
442	50.00 - 200.00% of mass 198	96.27
443	15.00 - 24.00% of mass 442	18.55 (19.26)

Data File: 17050501.D
 Spectrum: Avg. Scans 310-312 (4.74), Background Scan 304
 Location of Maximum: 198.00
 Number of points: 193

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	1236	112.00	1566	185.00	9149	257.00	2989
39.00	13436	116.00	1914	186.00	66424	258.00	15186
40.00	258	117.00	39216	187.00	18264	259.00	1427
41.00	906	118.00	2387	188.00	1142	265.00	5188
49.00	2138	122.00	5113	189.00	2689	273.00	6560
50.00	43416	123.00	6236	191.00	1471	274.00	24888
51.00	178304	124.00	1797	192.00	4349	275.00	120552
52.00	10100	125.00	2821	193.00	5762	276.00	16528
56.00	5698	127.00	250560	194.00	1508	277.00	9944
57.00	13478	128.00	19920	196.00	12613	278.00	1529
61.00	3454	129.00	97792	197.00	2434	285.00	2523
62.00	3257	130.00	7940	198.00	506304	293.00	1663
63.00	6540	131.00	2768	199.00	40064	296.00	32816
65.00	4109	134.00	2079	200.00	2916	297.00	4226
68.00	1654	135.00	8147	201.00	2227	303.00	4798
69.00	198400	136.00	3427	202.00	945	314.00	1837
70.00	683	137.00	2044	203.00	2577	315.00	3640
73.00	679	141.00	11103	204.00	15838	316.00	1031
74.00	20576	142.00	3708	205.00	29584	321.00	776
75.00	34608	143.00	2791	206.00	124104	323.00	13214
76.00	11304	146.00	1990	207.00	17288	324.00	704
77.00	250112	147.00	4855	208.00	5163	327.00	695
78.00	19752	148.00	11069	210.00	677	334.00	7921
79.00	14456	149.00	2481	211.00	5281	335.00	1639
80.00	11811	151.00	776	216.00	2375	341.00	1617
81.00	16536	153.00	3696	217.00	27072	346.00	2667
82.00	3382	154.00	3383	218.00	3669	352.00	4270
83.00	5555	155.00	6161	221.00	29824	353.00	2609
84.00	1086	156.00	8697	222.00	5540	354.00	4034
85.00	2102	157.00	3255	223.00	7501	355.00	723
86.00	5970	158.00	1917	224.00	68744	365.00	16343
87.00	1943	159.00	734	225.00	16744	366.00	2987
91.00	3232	160.00	4019	226.00	684	372.00	6405
92.00	2844	161.00	5433	227.00	26128	373.00	1245
93.00	23848	162.00	743	228.00	2874	383.00	959
94.00	2045	165.00	3319	229.00	4525	390.00	728
95.00	809	166.00	2515	231.00	2523	402.00	2432
98.00	17616	167.00	19352	234.00	695	403.00	5273
99.00	16287	168.00	9450	235.00	1433	421.00	3849
101.00	7969	169.00	1465	237.00	1882	422.00	3513
103.00	3484	172.00	1086	242.00	3299	423.00	27408
104.00	4978	173.00	2147	243.00	3672	424.00	5324
105.00	5375	174.00	4567	244.00	54952	441.00	75904
106.00	1794	175.00	8703	245.00	8167	442.00	487424
107.00	77152	176.00	2935	246.00	8890	443.00	93896
108.00	14163	177.00	3648	247.00	907	444.00	9310
109.00	3586	179.00	16520	249.00	819		
110.00	152640	180.00	12862	255.00	260544		
111.00	20944	181.00	5140	256.00	38776		

+-----+-----+-----+-----+



**MASS SPECTROMETER
INSTRUMENT PERFORMANCE CHECK
EPA 8270D-SIM**

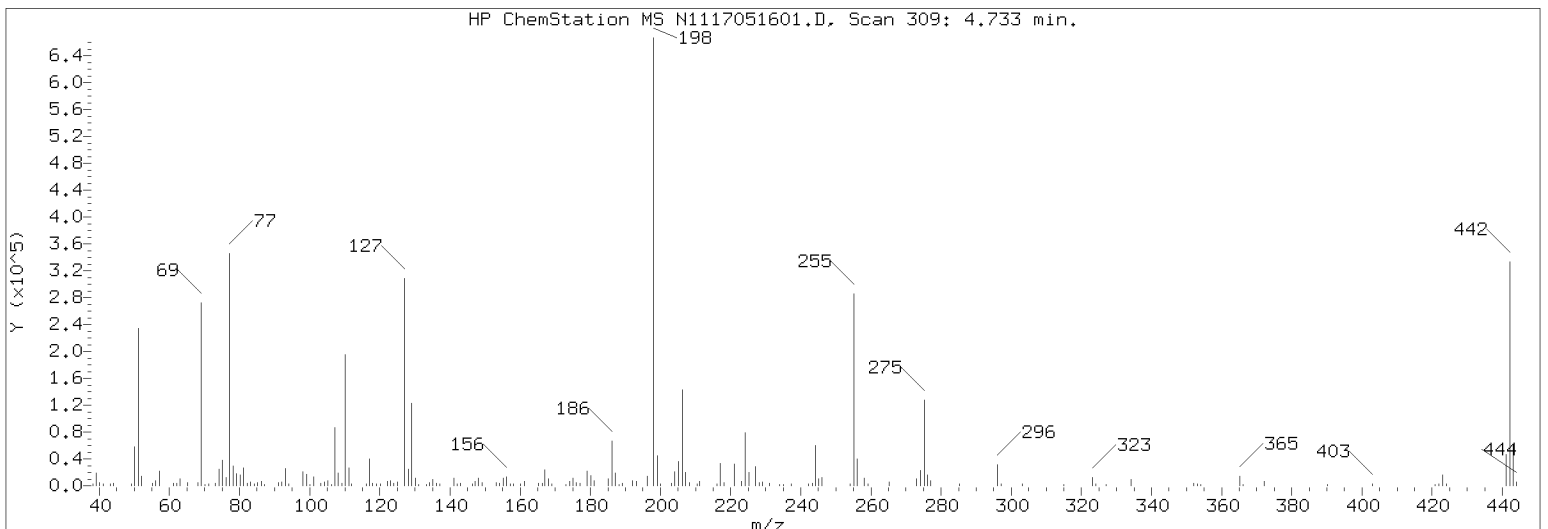
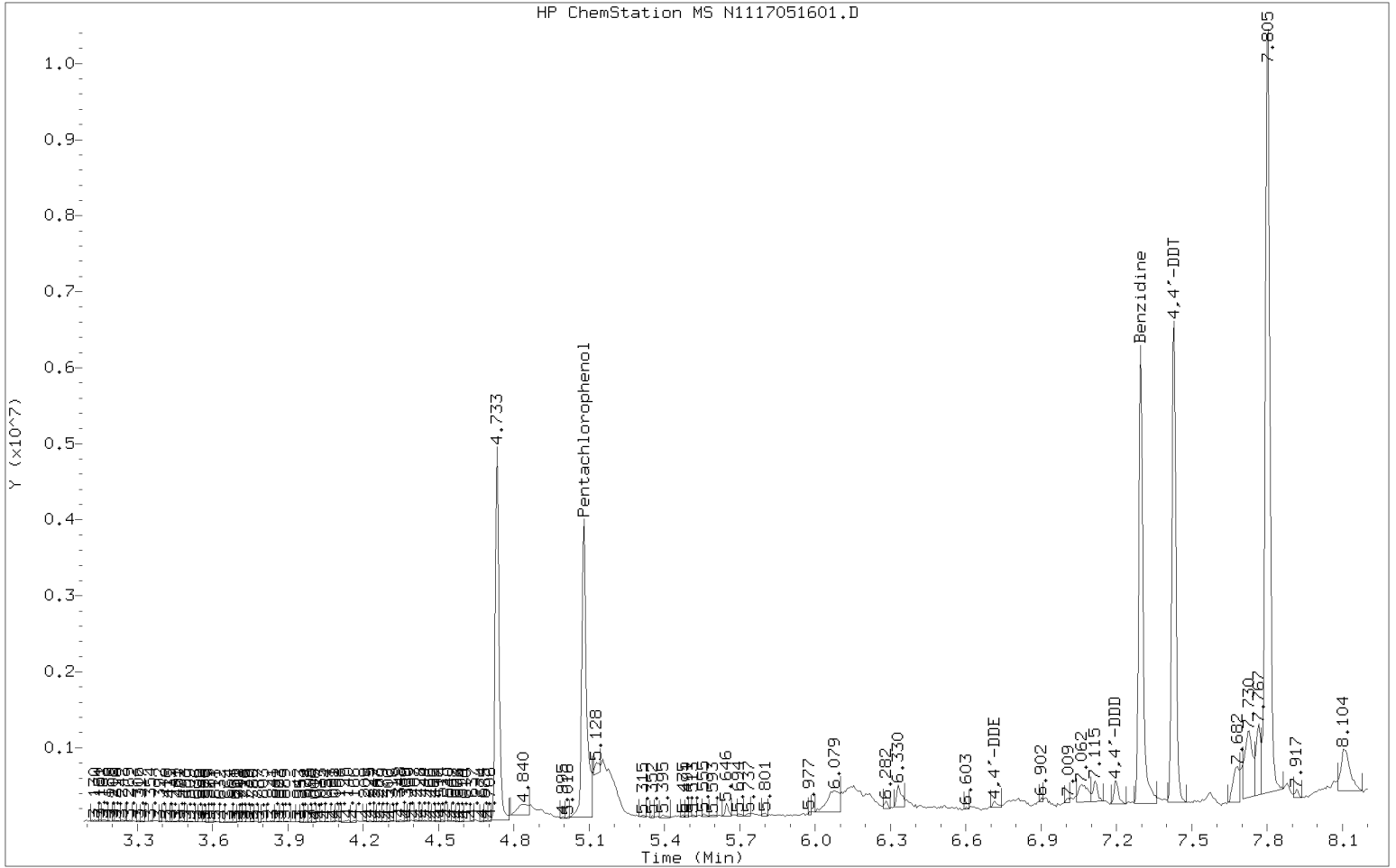
Laboratory: Analytical Resources, Inc. SDG: 17E0012
 Client: Anchor QEA, LLC Project: Port Gamble Shellfish Monitoring
 Lab File ID: N1117051601.D Injection Date: 05/16/17
 Instrument ID: NT11 Injection Time: 10:27
 Sequence: SFE0208 Lab Sample ID: SFE0208-TUN1

m/z	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE	
51	10 - 80% of 198	36.8	PASS
68	Less than 2% of 69	1.9	PASS
69	Less than 100% of 198	39.6	PASS
70	Less than 2% of 69	1.05	PASS
127	10 - 80% of 198	47.3	PASS
197	Less than 2% of 198	0	PASS
198	Base peak, 100% relative abundance	100	PASS
199	5 - 9% of 198	7.29	PASS
275	10 - 60% of 198	19.7	PASS
365	1 - 100% of 198	2.09	PASS
441	0.1 - 24% of 442	15	PASS
442	50 - 200% of 198	52	PASS
443	15 - 24% of 442	18.9	PASS

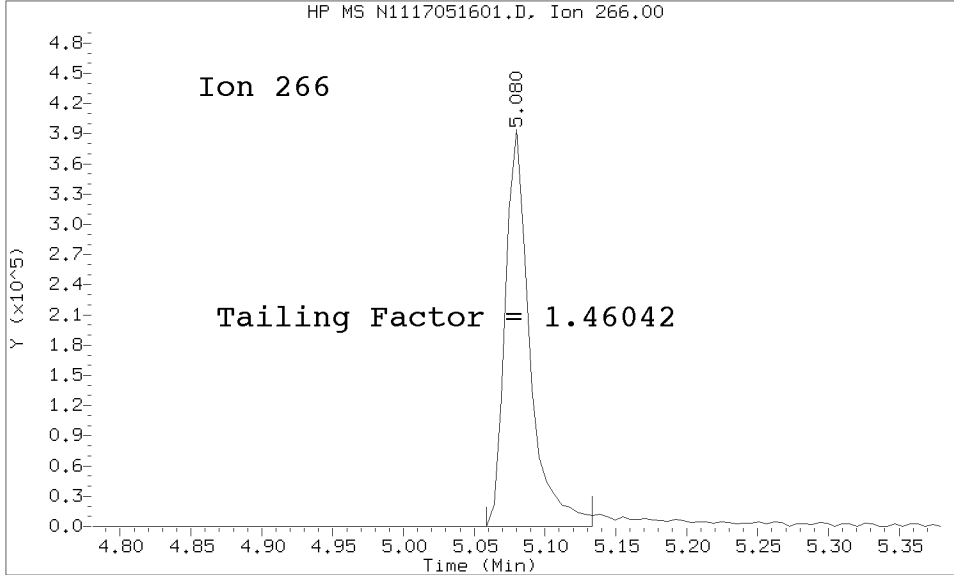
Client Sample ID	Lab Sample ID	Lab File ID	Date Analyzed	Time Analyzed
MS Tune	SFE0208-TUN1	N1117051601.D	05/16/2017	10:27
Initial Cal Check	SFE0208-ICV1	N1117051602.D	05/16/2017	10:47
Blank	BFE0160-BLK1	N1117051603.D	05/16/2017	11:35
LCS	BFE0160-BS1	N1117051604.D	05/16/2017	12:11
ZZZZZ	17D0421-01	N1117051605.D	05/16/2017	12:48
ZZZZZ	17D0421-02	N1117051606.D	05/16/2017	13:24
ZZZZZ	17D0421-04	N1117051608.D	05/16/2017	14:36
ZZZZZ	17D0421-05	N1117051609.D	05/16/2017	15:13
ZZZZZ	17D0421-06	N1117051610.D	05/16/2017	15:49
ZZZZZ	17D0421-07	N1117051611.D	05/16/2017	16:26
ZZZZZ	17D0421-08	N1117051612.D	05/16/2017	17:02
ZZZZZ	17D0421-09	N1117051613.D	05/16/2017	17:39
ZZZZZ	17D0421-10	N1117051614.D	05/16/2017	18:15
PG-PJ-OYS-COC-170427	17E0012-01	N1117051615.D	05/16/2017	18:52
PG-PJ-COC-COC-170427	17E0012-02	N1117051616.D	05/16/2017	19:28
PG-PJ-LTN-COC-170427	17E0012-03	N1117051617.D	05/16/2017	20:04
PG-PJ-MAN-COC-170427	17E0012-04	N1117051618.D	05/16/2017	20:40
PG-PJ-HC-COC-170428	17E0012-05	N1117051619.D	05/16/2017	21:16
PG-PJ-MUS-COC-170427	17E0012-06	N1117051620.D	05/16/2017	21:53
Calibration Check	SFE0208-CCV1	N1117051621.D	05/16/2017	22:29

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20170516.b/N1117051601.D/N1117051601.D
 Method Used: \20170516.b\DFTPP.m Inst: nt11
 Injection Date: 16-MAY-2017 10:27 Operator: VTS
 Sample Info: SFE0208-TUN1 SFE0208-TUN1
 Report Date: 05/17/2017 08:14



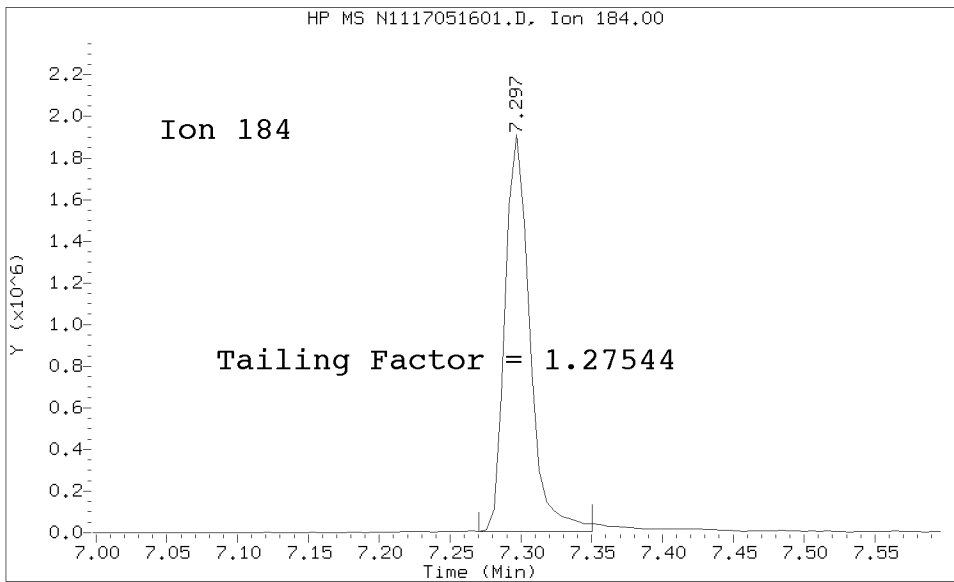
Datafile Analyzed: /20170516.b/N1117051601.D/N1117051601.D
Method Used: \20170516.b\DFTPP.m\sw846ddt.m Inst: nt11
Injection Date: 16-MAY-2017 10:27 Operator: VTS
Sample Info: SFE0208-TUN1
Report Date: 05/17/2017 08:14



Pentachlorophenol

=====
Exp. RT = 5.080
Found RT = 5.080

Tail Factor = 1.460 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 7.297
Found RT = 7.297

Tail Factor = 1.275 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.4604236	2.000	PASS
Benzidine	1.2754425	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1212204			N/A
4,4-DDE	6820	0.6	20.0	PASS
4,4-DDD	57000	4.5	20.0	PASS
4,4-DDD + DDE	63820	5.0	20.0	PASS

Tuning Sample, nt11.i/20170516.b/N1117051601.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	36.77
68	Less than 2.00% of mass 69	0.75 (1.90)
69	Mass 69 relative abundance	39.57
70	Less than 2.00% of mass 69	0.42 (1.05)
127	10.00 - 80.00% of mass 198	47.34
197	Less than 2.00% of mass 198	0.00
199	5.00 - 9.00% of mass 198	7.29
275	10.00 - 60.00% of mass 198	19.72
365	Greater than 1.00% of mass 198	2.09
441	0.01 - 24.00% of mass 442	7.79 (14.99)
442	50.00 - 200.00% of mass 198	51.96
443	15.00 - 24.00% of mass 442	9.80 (18.85)

Data File: N1117051601.D
Spectrum: Avg. Scans 308-310 (4.73), Background Scan 302
Location of Maximum: 198.00
Number of points: 186

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	940	104.00	5185	168.00	8236	237.00	1565
39.00	14278	105.00	6274	169.00	1032	242.00	1021
41.00	3284	106.00	1703	173.00	685	243.00	3702
43.00	675	107.00	75328	174.00	3828	244.00	47192
44.00	133	108.00	13993	175.00	8719	245.00	7894
49.00	8	109.00	2076	176.00	2732	246.00	7943
50.00	45336	110.00	160576	177.00	3164	249.00	909
51.00	201088	111.00	22496	178.00	749	254.00	839
52.00	12412	112.00	2261	179.00	15378	255.00	232512
56.00	7445	116.00	2438	180.00	11871	256.00	34856
57.00	17456	117.00	33336	181.00	6839	257.00	1141
61.00	1165	118.00	2739	185.00	7350	258.00	10606
62.00	3752	119.00	814	186.00	58216	259.00	943
63.00	7827	120.00	1536	187.00	15624	265.00	4285
65.00	5159	122.00	5201	188.00	697	273.00	8011
67.00	948	123.00	6620	189.00	3286	274.00	19840
68.00	4114	124.00	3558	192.00	4878	275.00	107832
69.00	216384	125.00	4072	193.00	5043	276.00	13737
70.00	2282	127.00	258880	196.00	13263	277.00	7306
71.00	631	128.00	20056	198.00	546880	285.00	825
73.00	2609	129.00	98144	199.00	39880	296.00	25752
74.00	17544	130.00	7984	200.00	2689	297.00	3203
75.00	31680	131.00	735	201.00	985	303.00	2261
76.00	11476	133.00	743	203.00	3014	315.00	2663
77.00	278464	134.00	2912	204.00	15925	323.00	9410
78.00	23720	135.00	7826	205.00	28824	324.00	1760
79.00	15698	136.00	3137	206.00	115384	327.00	752
80.00	12996	137.00	3862	207.00	15135	334.00	6140
81.00	17616	141.00	9094	208.00	2393	352.00	2028
82.00	4333	142.00	2987	210.00	1568	353.00	1772
83.00	6661	143.00	2331	211.00	6560	354.00	2009
84.00	2952	146.00	840	216.00	1759	365.00	11420
85.00	4106	147.00	6315	217.00	28336	366.00	790
86.00	4933	148.00	9450	218.00	3147	372.00	5171
87.00	770	149.00	1355	221.00	28888	390.00	734
91.00	5236	153.00	3845	222.00	1489	402.00	1022
92.00	4489	154.00	2944	223.00	6526	403.00	1034
93.00	23368	155.00	7084	224.00	65192	421.00	1733
94.00	893	156.00	9858	225.00	15294	422.00	2187
95.00	1472	157.00	2620	226.00	934	423.00	16092
96.00	1688	158.00	1797	227.00	23944	424.00	2643
97.00	1598	159.00	685	228.00	3945	441.00	42584
98.00	15952	160.00	2743	229.00	4499	442.00	284160
99.00	14856	161.00	5395	230.00	901	443.00	53568
100.00	704	165.00	3664	231.00	1333	444.00	4980
101.00	10798	166.00	3517	234.00	2191		
103.00	2422	167.00	19512	235.00	680		



INITIAL CALIBRATION DATA

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17E0012
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Calibration:	AE00020	Instrument:	NT11
Calibration Date:	05/05/2017 8:30	Column (1):	RXi-17Sil-MS

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Naphthalene	10	1.274122	50	1.100657	100	1.094966	250	1.045807	500	1.023598	1000	0.9098557
2-Methylnaphthalene	10	1.015755	50	1.006029	100	1.021695	250	0.999114	500	1.009049	1000	0.8967208
Acenaphthylene	10	2.431881	50	2.448542	100	2.371175	250	2.382418	500	2.33708	1000	2.094076
Acenaphthene	10	1.582118	50	1.623432	100	1.537628	250	1.540689	500	1.531173	1000	1.382351
Dibenzofuran	10	2.235221	50	2.364219	100	2.131879	250	2.093082	500	2.040318	1000	1.825051
Fluorene	10	1.724774	50	1.698597	100	1.617924	250	1.671205	500	1.670751	1000	1.512614
Phenanthrene	10	1.631909	50	1.589761	100	1.547401	250	1.51394	500	1.443183	1000	1.206656
Anthracene	10	1.652962	50	1.612518	100	1.551481	250	1.42831	500	1.374943	1000	1.180274
Fluoranthene	10	1.535014	50	1.520826	100	1.477155	250	1.471418	500	1.397962	1000	1.182151
Pyrene	10	1.924089	50	1.841102	100	1.860547	250	1.793557	500	1.824364	1000	1.620138
Benzo(a)anthracene	10	1.497944	50	1.417604	100	1.430899	250	1.421935	500	1.454741	1000	1.321994
Chrysene	10	1.530896	50	1.466773	100	1.527024	250	1.464422	500	1.494164	1000	1.335832
Benzo(b)fluoranthene	10	1.268507	50	1.27738	100	1.272407	250	1.221046	500	1.285684	1000	1.173425
Benzo(k)fluoranthene	10	1.245794	50	1.247834	100	1.241444	250	1.232125	500	1.280857	1000	1.18549
Carbazole	10	1.955822	50	1.825754	100	1.779481	250	1.674802	500	1.607475	1000	1.40033
Benzo(j)fluoranthene	10	1.156154	50	1.182796	100	1.182454	250	1.139872	500	1.200627	1000	1.103103
Benzo(a)pyrene	10	1.114933	50	1.14257	100	1.119531	250	1.136727	500	1.172167	1000	1.09717
Indeno(1,2,3-cd)pyrene	10	1.146433	50	1.171388	100	1.171446	250	1.189398	500	1.262094	1000	1.214333
Dibenzo(a,h)anthracene	10	0.8928438	50	0.9334943	100	0.9399036	250	0.958083	500	1.025754	1000	0.9827302
Benzo(g,h,i)perylene	10	1.034921	50	1.014395	100	1.005117	250	0.9980988	500	1.060725	1000	1.007411
1-Methylnaphthalene	10	0.977237	50	0.9831304	100	0.9865846	250	0.9613077	500	0.9726698	1000	0.8715699
Perylene	10	1.175409	50	1.173979	100	1.163744	250	1.155536	500	1.199824	1000	1.120878
Benzo(e)pyrene	10	1.169895	50	1.175862	100	1.170209	250	1.144272	500	1.198098	1000	1.112254
Benzofluoranthenes, Total	30	1.223485	150	1.236003	300	1.232102	750	1.197681	1500	1.255722	3000	1.154006
2-Chloronaphthalene	10	2.209972	50	2.043977	100	2.125764	250	2.132313	500	2.089152	1000	1.870352
2-Methylnaphthalene-d10	10	0.8777971	50	0.8675566	100	0.8802805	250	0.8570411	500	0.872608	1000	0.7871411
Dibenzo[a,h]anthracene-d14	10	0.717397	50	0.7439546	100	0.7380298	250	0.7420488	500	0.7887874	1000	0.7460215
Fluoranthene-d10	10	0.9719926	50	0.9882345	100	0.9569383	250	0.9734025	500	0.9452508	1000	0.8370351



INITIAL CALIBRATION DATA

EPA 8270D-SIM

Laboratory:	Analytical Resources, Inc.	SDG:	17E0012
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Calibration:	AE00020	Instrument:	NT11
Calibration Date:	05/05/2017 8:30	Column (1):	RXi-17Sil-MS

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
Naphthalene	1.074834	11.1			RSD (20)	
2-Methylnaphthalene	0.9913938	4.7			RSD (20)	
Acenaphthylene	2.344195	5.5			RSD (20)	
Acenaphthene	1.532899	5.3			RSD (20)	
Dibenzofuran	2.114962	8.6			RSD (20)	
Fluorene	1.649311	4.6			RSD (20)	
Phenanthrene	1.488808	10.2			RSD (20)	
Anthracene	1.466748	12.0			RSD (20)	
Fluoranthene	1.430754	9.1			RSD (20)	
Pyrene	1.810633	5.7			RSD (20)	
Benzo(a)anthracene	1.424186	4.1			RSD (20)	
Chrysene	1.469852	4.9			RSD (20)	
Benzo(b)fluoranthene	1.249741	3.5			RSD (20)	
Benzo(k)fluoranthene	1.238924	2.5			RSD (20)	
Carbazole	1.707277	11.3			RSD (20)	
Benzo(j)fluoranthene	1.160834	3.1			RSD (20)	
Benzo(a)pyrene	1.130516	2.3			RSD (20)	
Indeno(1,2,3-cd)pyrene	1.192515	3.4			RSD (20)	
Dibenzo(a,h)anthracene	0.9554681	4.8			RSD (20)	
Benzo(g,h,i)perylene	1.020111	2.3			RSD (20)	
1-Methylnaphthalene	0.9587499	4.5			RSD (20)	
Perylene	1.164895	2.3			RSD (20)	
Benzo(e)pyrene	1.161765	2.6			RSD (20)	
Benzofluoranthenes, Total	1.2165	3.0			RSD (20)	
2-Chloronaphthalene	2.078588	5.6			RSD (20)	
2-Methylnaphthalene-d10	0.8570707	4.1			RSD (20)	
Dibenzo[a,h]anthracene-d14	0.7460398	3.1			RSD (20)	
Fluoranthene-d10	0.9454756	5.8			RSD (20)	



ANALYSIS SEQUENCE

SFE0059

Instrument: NT11 Element Column ID: E006481
Calibration ID: AE00020 Tune File: 170505.U
EM Voltage: 2071

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	
SFE0059-TUN1	DFTPP	QC		1	E007446		
SFE0059-CAL4	Cal Standard	QC		2	E006577	F004122	
SFE0059-CAL6	Cal Standard	QC		3	E006579	F004122	
SFE0059-CAL1	Cal Standard	QC		4	E006574	F004122	
SFE0059-CAL5	Cal Standard	QC		5	E006578	F004122	
SFE0059-CAL2	Cal Standard	QC		6	E006575	F004122	
SFE0059-CAL3	Cal Standard	QC		7	E006576	F004122	
SFE0059-SCV1	SIMPNA SCV	QC		8	F004123	F004122	
SFE0059-ICV1	Initial Cal Check	QC		9	E006577	F004122	
BFD0748-BLK1	Blank	QC		10		F004122	
BFD0748-BS1	LCS	QC		11		F004122	
BFD0748-MRL1	MRL	QC		12		F004122	
BFD0748-MRL2	LOD	QC		13		F004122	
17D0423-16	MW-9S-042617	SIM PAH Low (0.01 ug/L - 0.	D 01	14		F004122	
17D0423-17	MW-9D-042617	SIM PAH Low (0.01 ug/L - 0.	D 01	15		F004122	
17D0423-18	MW-16S-042617	SIM PAH Low (0.01 ug/L - 0.	D 01	16		F004122	
BFE0047-BLK1	Blank	QC		17		F004122	
BFE0047-BS1	LCS	QC		18		F004122	
17D0446-01	MAF-MW-BG-01-20170426	SIM PAH Low (0.01 ug/L - 0.	E 01	19		F004122	
17D0446-02	MAF-MW-P-01-20170426	SIM PAH Low (0.01 ug/L - 0.	E 01	20		F004122	
17D0446-03	MAF-MW-P-02-20170427	SIM PAH Low (0.01 ug/L - 0.	E 01	21		F004122	
SFE0059-CCV1	SIM PAH 250	QC		22	E006577	F004122	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170505.b

Time	Filename	LabID	ClientId	DF	1	INO	ISTDS	FOUND							
1	1050	17050501.D	SFE0059-TUN1		1	INO	ISTDS	FOUND							
2	1110	17050502.D	E002858		1	8.50	340246	11.54	150664	14.23	261399	18.99	200906	22.18	222794
3	1147	17050503.D	SFE0059-CAL4		1	8.50	371325	11.54	154428	14.23	256956	18.99	208629	22.18	225431
4	1147	17050503ICV.D	SFE0059-CAL4		1	8.50	371325	11.54	154428	14.23	256956	18.99	208629	22.18	225431
5	1223	17050504.D	SFE0059-CAL6		1	8.50	371198	11.54	162579	14.23	285659	18.99	210433	22.18	228317
6	1259	17050505.D	SFE0059-CAL1		1	8.50	362430	11.54	142581	14.23	236545	18.99	197257	22.18	213968
7	1335	17050506.D	SFE0059-CAL5		1	8.50	361073	11.54	156339	14.23	261454	18.99	200348	22.18	216363
8	1411	17050507.D	SFE0059-CAL2		1	8.50	358455	11.54	145440	14.23	240109	18.99	202079	22.18	214583
9	1447	17050508.D	SFE0059-CAL3		1	8.50	353401	11.54	145861	14.23	238193	18.99	190128	22.18	206951
10	1523	17050509.D	SFE0059-SCV1		1	8.50	353470	11.54	145863	14.23	234202	18.99	189686	22.18	205114
11	1559	17050510.D	BFD0748-BLK1		1	8.50	364557	11.54	148171	14.23	246765	18.99	186603	22.18	207414
12	1636	17050511.D	BFD0748-BS1		1	8.50	365532	11.53	155718	14.23	252417	18.99	193816	22.18	211193
13	1712	17050512.D	BFD0748-MRL1		1	8.50	357350	11.54	145354	14.23	240503	18.99	183698	22.18	200322
14	1747	17050513.D	BFD0748-MRL2		1	8.50	350679	11.54	143948	14.23	232075	18.99	177031	22.18	192510
15	1824	17050514.D	17D0423-16		1	8.50	387471	11.54	166801	14.23	289100	18.99	204827	22.18	235384
16	1900	17050515.D	17D0423-17		1	8.50	413815	11.54	176102	14.23	305918	18.99	209895	22.18	234789
17	1937	17050516.D	17D0423-18		1	8.50	403371	11.54	206745	14.23	310361	18.99	214026	22.18	234242
18	1013	17050517.D	BFE0047-BLK1		1	8.50	370404	11.54	153131	14.23	252409	18.99	195024	22.18	215991
19	049	17050518.D	BFE0047-BS1		1	8.50	360144	11.53	157816	14.22	252225	18.99	197830	22.18	212024
20	2125	17050519.D	17D0446-01		1	8.50	357142	11.53	148433	14.23	244374	18.99	186556	22.18	203965

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170505.b

Time	Filename	LabID	ClientID	DF										
21	17050520.D	17D0446-02		1	8.50	357524	11.53	152177	14.22	242039	18.99	185139	22.18	203351
22	17050521.D	17D0446-03		1	8.50	355615	11.53	153966	14.23	245258	18.99	184548	22.18	200894
23	17050522.D	17D0446-04		1	8.50	362660	11.53	155980	14.23	248223	18.99	188543	22.18	206338
24	17050523.D	17D0446-05		1	8.50	385285	11.53	161144	14.22	261837	18.99	190982	22.17	209035
25	17050524.D	17D0446-06		1	8.50	363805	11.53	156031	14.22	249360	18.99	185091	22.17	201965
26	17050525.D	SFE0059-CCV1		1	8.50	371666	11.53	155991	14.22	252744	18.99	203647	22.17	218913

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170505.b

ARI Job No.: SFE0 Method: DFPP.m Instrument: nt11.i Date: 05-MAY-2017

Time Filename LabID ClientId DF Manually Integrated Compounds

1050	17050501.D	SFE0059-TUN1		1	NO MANUAL INTEGRATION
1110	17050502.D	E002858		1	NO MANUAL INTEGRATION
1147	17050503.D	SFE0059-CAL4		1	NO MANUAL INTEGRATION
1147	17050503ICV.D	SFE0059-CAL4		1	NO MANUAL INTEGRATION
1223	17050504.D	SFE0059-CAL6		1	NO MANUAL INTEGRATION
1259	17050505.D	SFE0059-CAL1		1	2-Chloronaphthalene, 2,3,5-Trimethylnaphthalene, Anthracene-d10, Fluorene-d10,
1335	17050506.D	SFE0059-CAL5		1	NO MANUAL INTEGRATION
1411	17050507.D	SFE0059-CAL2		1	Biphenyl,
1447	17050508.D	SFE0059-CAL3		1	NO MANUAL INTEGRATION
1523	17050509.D	SFE0059-SCV1		1	NO MANUAL INTEGRATION
1559	17050510.D	BFD0748-BLK1		1	NO MANUAL INTEGRATION
1636	17050511.D	BFD0748-BS1		1	NO MANUAL INTEGRATION
1712	17050512.D	BFD0748-MRL1		1	Benzo(e)pyrene, 2,3,5-Trimethylnaphthalene,
1747	17050513.D	BFD0748-MRL2		1	Naphthalene, Benzo(e)pyrene, Benzo(b)thiophene, 2-Chloronaphthalene, 2,6-Dimethylnaphthalene, 2,3,5-Trimethylnaphthalene, 1-Methylphenanthrene, Dibenzothiophene, Carbazole,
1824	17050514.D	17D0423-16		1	Acenaphthylene, Benzo(a)anthracene, Acenaphthene-d10, 2-Chloronaphthalene, 2,3,5-Trimethylnaphthalene,
1908	17050515.D	17D0423-17		1	Acenaphthylene, Acenaphthene-d10, 2-Chloronaphthalene, 2,3,5-Trimethylnaphthalene,
1932	17050516.D	17D0423-18		1	Acenaphthylene, 1-Methylnaphthalene, 2,3,5-Trimethylnaphthalene,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170505.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2013	17050517.D	BFE0047-BLK1	1	NO	NO MANUAL INTEGRATION
2049	17050518.D	BFE0047-BS1	1	NO	NO MANUAL INTEGRATION
2125	17050519.D	17D0446-01	1	NO	NO MANUAL INTEGRATION
2201	17050520.D	17D0446-02	1	NO	NO MANUAL INTEGRATION
2237	17050521.D	17D0446-03	1	NO	NO MANUAL INTEGRATION
2313	17050522.D	17D0446-04	1	NO	NO MANUAL INTEGRATION
2349	17050523.D	17D0446-05	1	NO	NO MANUAL INTEGRATION
0025	17050524.D	17D0446-06	1	Acenaphthene,	
0101	17050525.D	SFE0059-CCV1	1	NO	NO MANUAL INTEGRATION

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2017 11:47
 End Cal Date : 05-MAY-2017 14:47
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt11.i\20170505.b\lowsim.m
 Last Edit : 06-May-2017 07:03 nt11.i
 Curve Type : Average

Calibration File Names:

Level 1: \\target\share\chem3\nt11.i\20170505.b\17050505.D
 Level 2: \\target\share\chem3\nt11.i\20170505.b\17050507.D
 Level 3: \\target\share\chem3\nt11.i\20170505.b\17050508.D
 Level 4: \\target\share\chem3\nt11.i\20170505.b\17050503.D
 Level 5: \\target\share\chem3\nt11.i\20170505.b\17050506.D
 Level 6: \\target\share\chem3\nt11.i\20170505.b\17050504.D

Compound	10.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
2 Naphthalene	1.27412	1.10066	1.09497	1.04581	1.02360	0.90986	1.07483	11.124
3 Benzo(b) thiophene	0.88332	0.81753	0.85664	0.87378	0.85371	0.77497	0.84332	4.787
5 2-Methylnaphthalene	1.01575	1.00603	1.02169	0.99911	1.00905	0.89672	0.99139	4.744
6 1-Methylnaphthalene	0.97724	0.98313	0.98658	0.96131	0.97267	0.87157	0.95875	4.549
7 2-Chloronaphthalene	2.20997	2.04398	2.12576	2.13231	2.08915	1.87035	2.07859	5.571
8 Biphenyl	3.68282	3.03487	3.93373	2.83481	2.74804	2.43921	3.11225	18.564
9 2,6-Dimethylnaphthalene	2.26131	2.09549	2.31741	2.21828	2.20068	1.99259	2.18096	5.412
10 Acenaphthylene	2.43188	2.44854	2.37118	2.38242	2.33708	2.09408	2.34420	5.509
12 Acenaphthene	1.58212	1.62343	1.53763	1.54069	1.53117	1.38235	1.53290	5.329
13 Dibenzofuran	2.23522	2.36422	2.13188	2.09308	2.04032	1.82505	2.11496	8.641
14 2,3,5-Trimethylnaphthalene	1.17309	1.18086	1.17096	1.25135	1.24500	1.16825	1.19825	3.251
16 Fluorene	1.72477	1.69860	1.61792	1.67120	1.67075	1.51261	1.64931	4.596
17 Dibenzothiophene	1.07844	1.08274	1.05659	1.06044	1.03160	0.89839	1.03470	6.689
19 Phenanthrene	1.63191	1.58976	1.54740	1.51394	1.44318	1.20666	1.48881	10.249
21 Anthracene	1.65296	1.61252	1.55148	1.42831	1.37494	1.18027	1.46675	12.007
22 Carbazole	1.95582	1.82575	1.77948	1.67480	1.60748	1.40033	1.70728	11.305
23 1-Methylphenanthrene	1.38688	1.38149	1.36630	1.41231	1.37240	1.17051	1.34831	6.567
25 Fluoranthene	1.53501	1.52083	1.47716	1.47142	1.39796	1.18215	1.43075	9.149
26 Pyrene	1.92409	1.84110	1.86055	1.79356	1.82436	1.62014	1.81063	5.689
27 Benzo(a)anthracene	1.49794	1.41760	1.43090	1.42193	1.45474	1.32199	1.42419	4.083
29 Chrysene	1.53090	1.46677	1.52702	1.46442	1.49416	1.33583	1.46985	4.867
30 Benzo(b)fluoranthene	1.26851	1.27738	1.27241	1.22105	1.28568	1.17342	1.24974	3.501
31 Benzo(k)fluoranthene	1.24579	1.24783	1.24144	1.23213	1.28086	1.18549	1.23892	2.499
32 Benzo(j)fluoranthene	1.15615	1.18280	1.18245	1.13987	1.20063	1.10310	1.16083	3.064
34 Benzo(e)pyrene	1.16989	1.17586	1.17021	1.14427	1.19810	1.11225	1.16177	2.557
35 Benzo(a)pyrene	1.11493	1.14257	1.11953	1.13673	1.17217	1.09717	1.13052	2.305
37 Perylene	1.17541	1.17398	1.16374	1.15554	1.19982	1.12088	1.16490	2.252
39 Dibenzo(a,h)anthracene	0.89284	0.93349	0.93990	0.95808	1.02575	0.98273	0.95547	4.759

ARI Labs, Inc.

INITIAL CALIBRATION DATA

Start Cal Date : 05-MAY-2017 11:47
 End Cal Date : 05-MAY-2017 14:47
 Quant Method : ISTD
 Origin : Disabled
 Target Version : 4.14
 Integrator : HP RTE
 Method file : \\target\share\chem3\nt11.i\20170505.b\lowsim.m
 Last Edit : 06-May-2017 07:03 nt11.i
 Curve Type : Average

Compound	10.000 Level 1	50.000 Level 2	100.000 Level 3	250.000 Level 4	500.000 Level 5	1000.000 Level 6	RRF	% RSD
40 Indeno(1,2,3-cd)pyrene	1.14643	1.17139	1.17145	1.18940	1.26209	1.21433	1.19252	3.425
41 Benzo(g,h,i)perylene	1.03492	1.01440	1.00512	0.99810	1.06072	1.00741	1.02011	2.308
\$ 4 2-Methylnaphthalene-d10	0.87780	0.86756	0.88028	0.85704	0.87261	0.78714	0.85707	4.112
\$ 15 Fluorene-d10	1.02805	0.99673	0.94968	0.99874	0.98136	0.93819	0.98213	3.402
\$ 20 Anthracene-d10	1.13264	1.13937	1.03512	1.03159	0.98821	0.86566	1.03210	9.809
\$ 24 Fluoranthene-d10	0.97199	0.98823	0.95694	0.97340	0.94525	0.83704	0.94548	5.832
\$ 33 Benzo(e)pyrene-d12	1.07558	1.06760	1.05374	1.02296	1.07344	0.98827	1.04693	3.312
\$ 38 Dibenzo(a,h)anthracene-d14	0.71740	0.74395	0.73803	0.74205	0.78879	0.74602	0.74604	3.133



Calibration Report

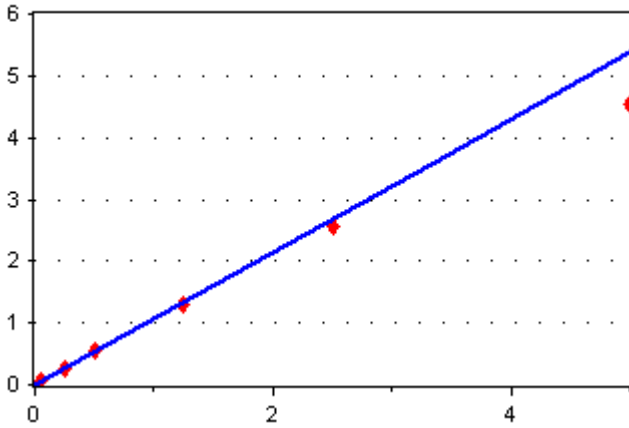
Instrument: NT11
Calibration ID: AE00020

Calibration Date: 05-May-2017 08:30 By VTS
Last Edit Date: 06-May-2017 10:53 By VTS

8270D-SIM PAH Low (0.0

Naphthalene

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Naphthalene



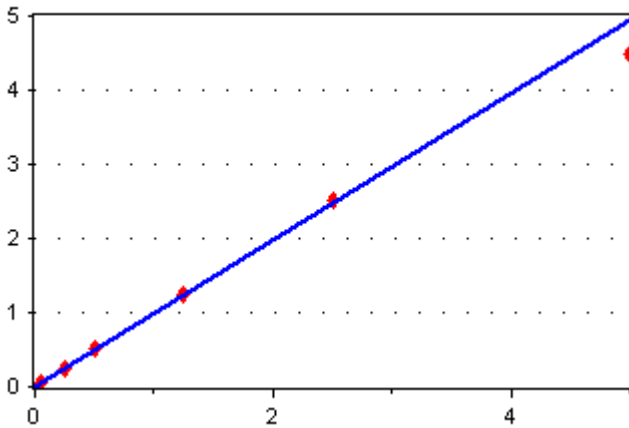
Average RF

RF RSD: 11.12361

[Conc] = 1.074834 * [Response]

2-Methylnaphthalene

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - 2-Methylnaphthalene



Average RF

RF RSD: 4.744022

[Conc] = 0.9913938 * [Response]

Acenaphthylene



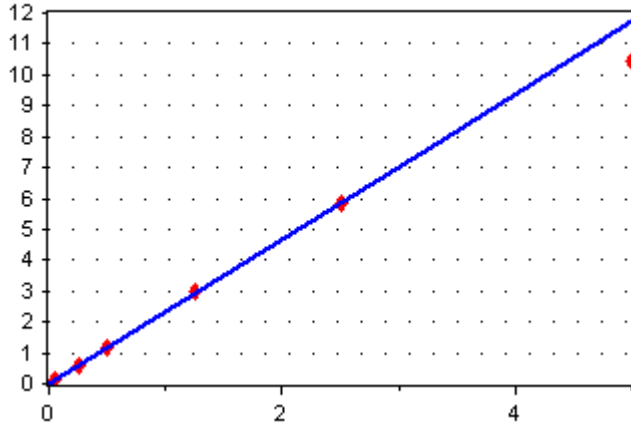
Calibration Report

Instrument: NT11
Calibration ID: AE00020

Calibration Date: 05-May-2017 08:30 By VTS
Last Edit Date: 06-May-2017 10:53 By VTS

8270D-SIM PAH Low (0.0)

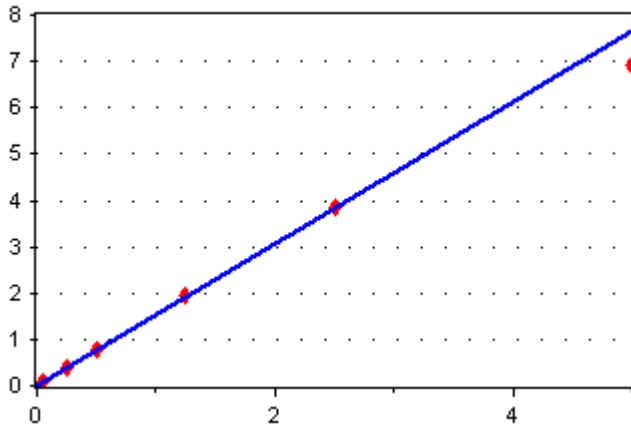
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Acenaphthylene



Average RF
RF RSD: 5.508622
[Conc] = 2.344195 * [Response]

Acenaphthene

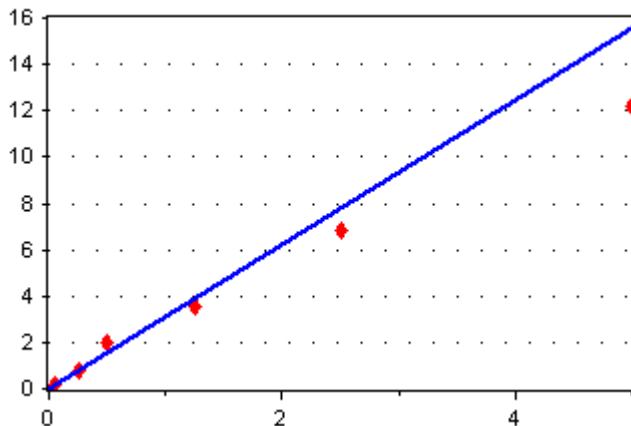
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Acenaphthene



Average RF
RF RSD: 5.329377
[Conc] = 1.532899 * [Response]

Biphenyl

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Biphenyl



Average RF
RF RSD: 18.56373
[Conc] = 3.112247 * [Response]



Calibration Report

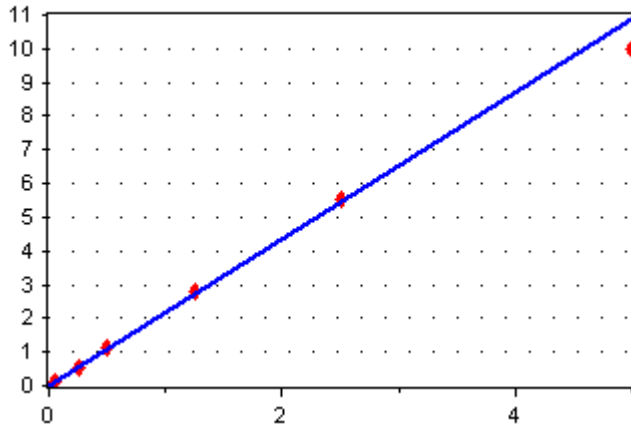
Instrument: NT11
Calibration ID: AE00020

Calibration Date: 05-May-2017 08:30 By VTS
Last Edit Date: 06-May-2017 10:53 By VTS

8270D-SIM PAH Low (0.0

2,6-Dimethylnaphthalene

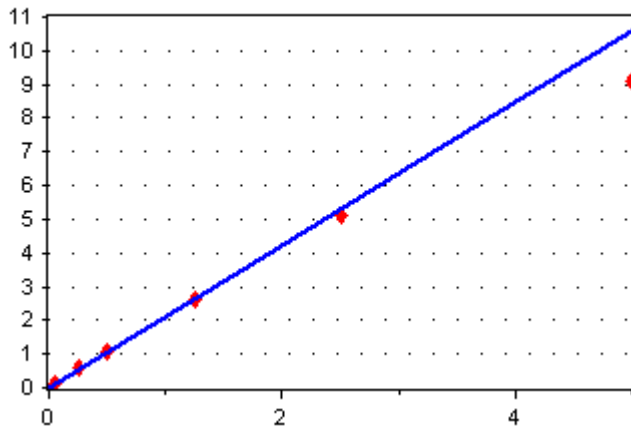
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - 2,6-Dimethylnaphtha



Average RF
RF RSD: 5.411539
[Conc] = 2.18096 * [Response]

Dibenzofuran

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Dibenzofuran



Average RF
RF RSD: 8.640523
[Conc] = 2.114962 * [Response]

Fluorene



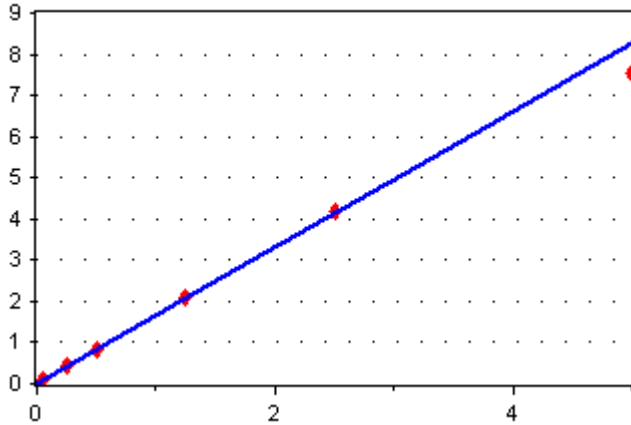
Calibration Report

Instrument: NT11
Calibration ID: AE00020

Calibration Date: 05-May-2017 08:30 By VTS
Last Edit Date: 06-May-2017 10:53 By VTS

8270D-SIM PAH Low (0.0

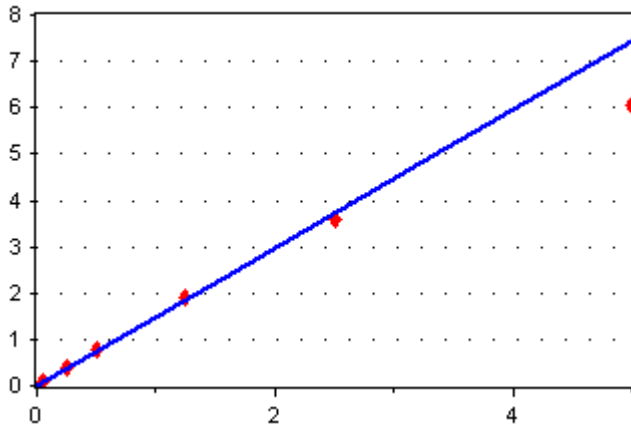
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Fluorene



Average RF
RF RSD: 4.596303
[Conc] = 1.649311 * [Response]

Phenanthrene

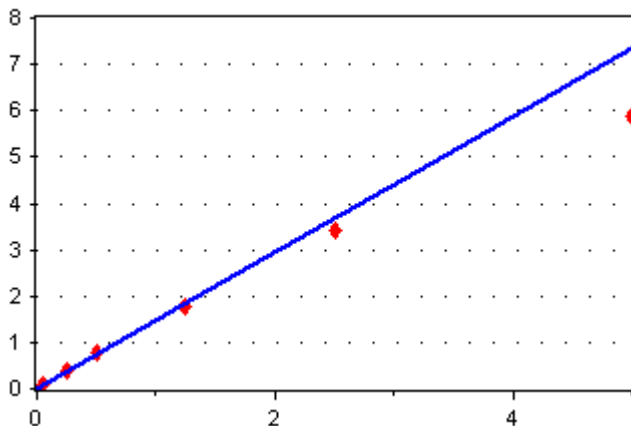
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Phenanthrene



Average RF
RF RSD: 10.24945
[Conc] = 1.488808 * [Response]

Anthracene

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Anthracene



Average RF
RF RSD: 12.00698
[Conc] = 1.466748 * [Response]



Calibration Report

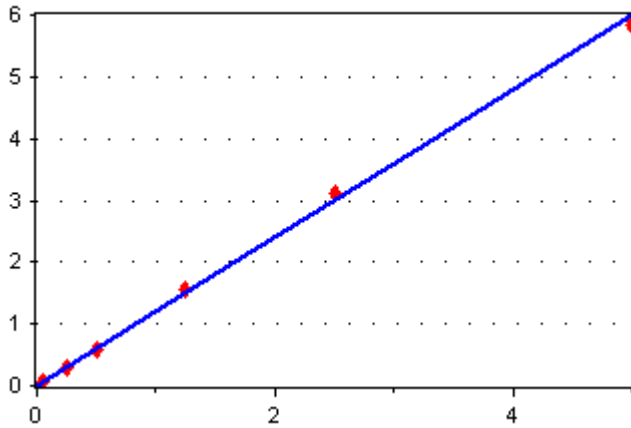
Instrument: NT11
Calibration ID: AE00020

Calibration Date: 05-May-2017 08:30 By VTS
Last Edit Date: 06-May-2017 10:53 By VTS

8270D-SIM PAH Low (0.0

2,3,5-Trimethylnaphthalene

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - 2,3,5-Trimethylnaphthe



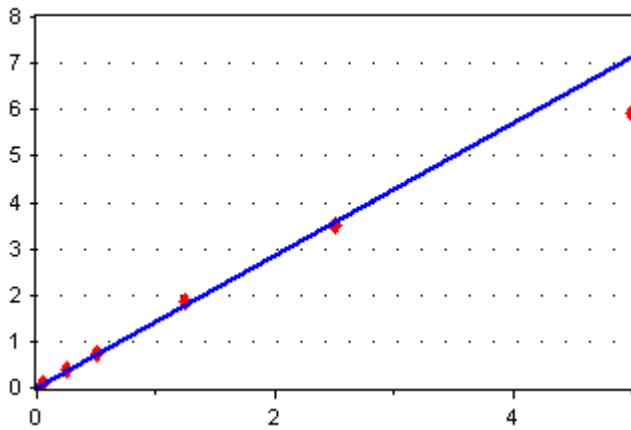
Average RF

RF RSD: 3.250529

$$[\text{Conc}] = 1.198253 * [\text{Response}]$$

Fluoranthene

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Fluoranthene



Average RF

RF RSD: 9.148733

$$[\text{Conc}] = 1.430754 * [\text{Response}]$$

Pyrene



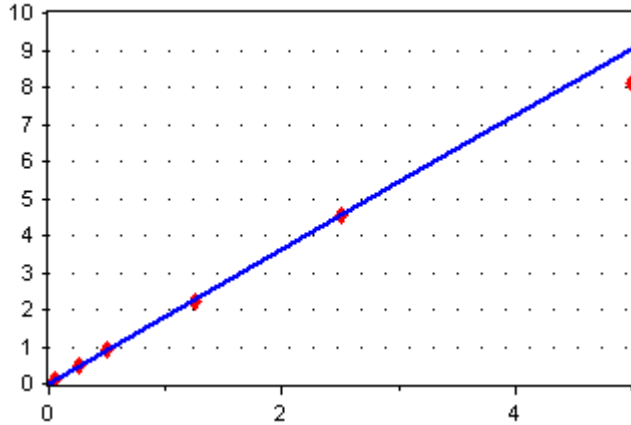
Calibration Report

Instrument: NT11
Calibration ID: AE00020

Calibration Date: 05-May-2017 08:30 By VTS
Last Edit Date: 06-May-2017 10:53 By VTS

8270D-SIM PAH Low (0.0

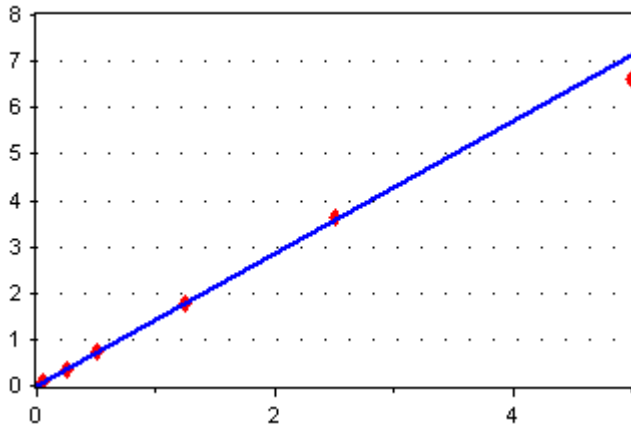
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Pyrene



Average RF
RF RSD: 5.689456
[Conc] = 1.810633 * [Response]

Benzo(a)anthracene

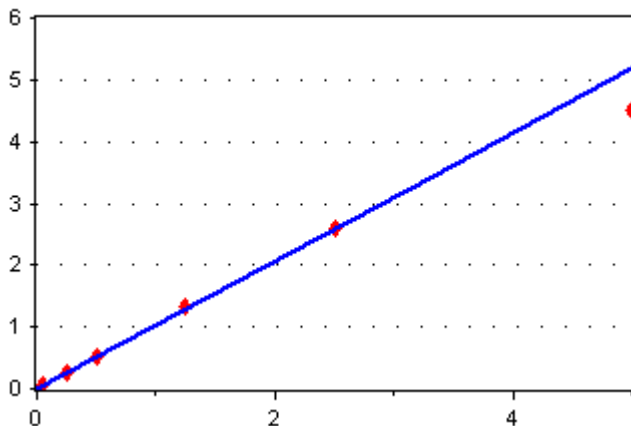
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Benzo(a)anthracene



Average RF
RF RSD: 4.083461
[Conc] = 1.424186 * [Response]

Dibenzothiophene

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Dibenzothiophene



Average RF
RF RSD: 6.689312
[Conc] = 1.034701 * [Response]



Calibration Report

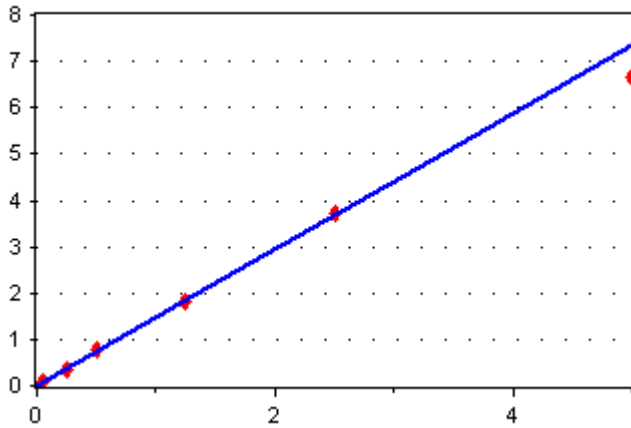
Instrument: NT11
Calibration ID: AE00020

Calibration Date: 05-May-2017 08:30 By VTS
Last Edit Date: 06-May-2017 10:53 By VTS

8270D-SIM PAH Low (0.0

Chrysene

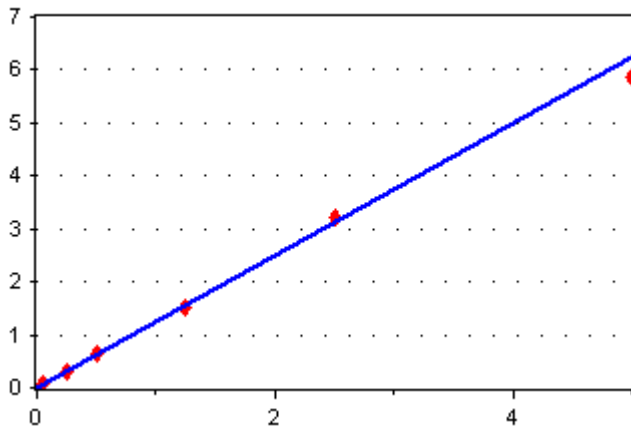
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Chrysene



Average RF
RF RSD: 4.866836
[Conc] = 1.469852 * [Response]

Benzo(b)fluoranthene

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Benzo(b)fluoranthene



Average RF
RF RSD: 3.500541
[Conc] = 1.249741 * [Response]

Benzo(k)fluoranthene



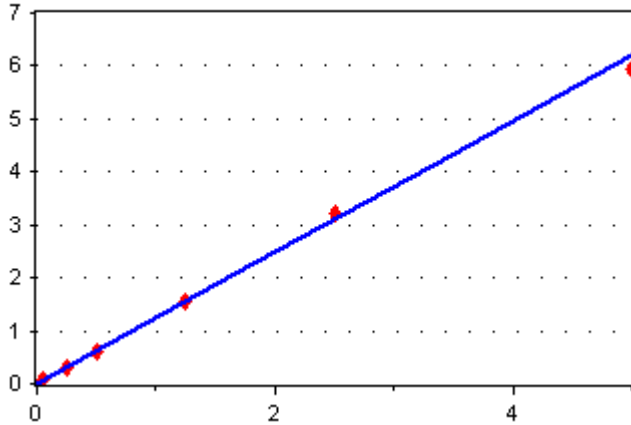
Calibration Report

Instrument: NT11
Calibration ID: AE00020

Calibration Date: 05-May-2017 08:30 By VTS
Last Edit Date: 06-May-2017 10:53 By VTS

8270D-SIM PAH Low (0.0)

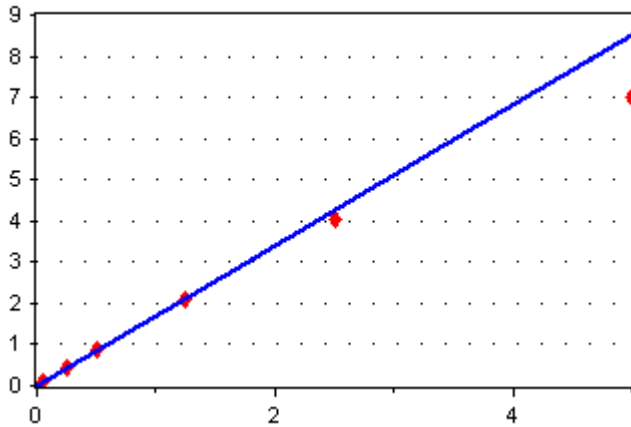
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Benzo(k)fluoranthene



Average RF
RF RSD: 2.498962
[Conc] = 1.238924 * [Response]

Carbazole

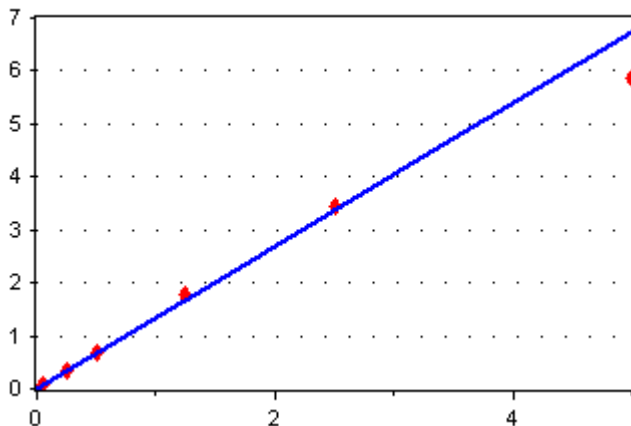
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Carbazole



Average RF
RF RSD: 11.30489
[Conc] = 1.707277 * [Response]

1-Methylphenanthrene

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - 1-Methylphenanthrene



Average RF
RF RSD: 6.566957
[Conc] = 1.348315 * [Response]



Calibration Report

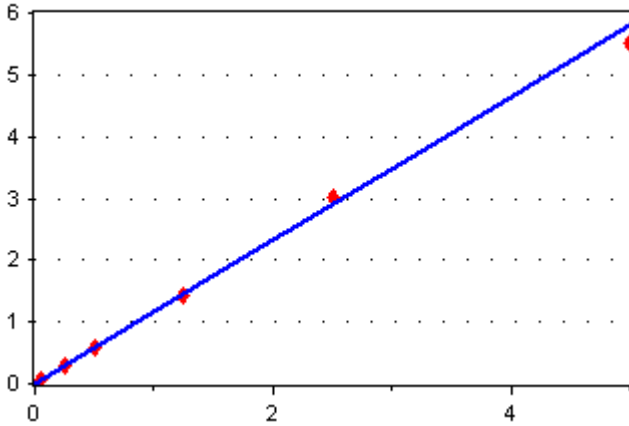
Instrument: NT11
Calibration ID: AE00020

Calibration Date: 05-May-2017 08:30 By VTS
Last Edit Date: 06-May-2017 10:53 By VTS

8270D-SIM PAH Low (0.0

Benzo(j)fluoranthene

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Benzo(j)fluoranthene



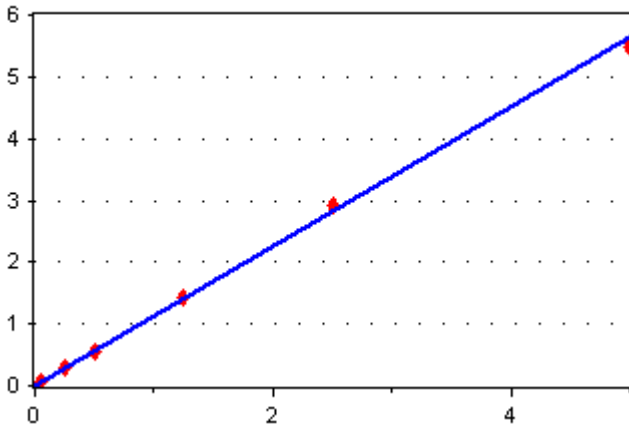
Average RF

RF RSD: 3.06448

$$[\text{Conc}] = 1.160834 * [\text{Response}]$$

Benzo(a)pyrene

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Benzo(a)pyrene



Average RF

RF RSD: 2.304673

$$[\text{Conc}] = 1.130516 * [\text{Response}]$$

Indeno(1,2,3-cd)pyrene



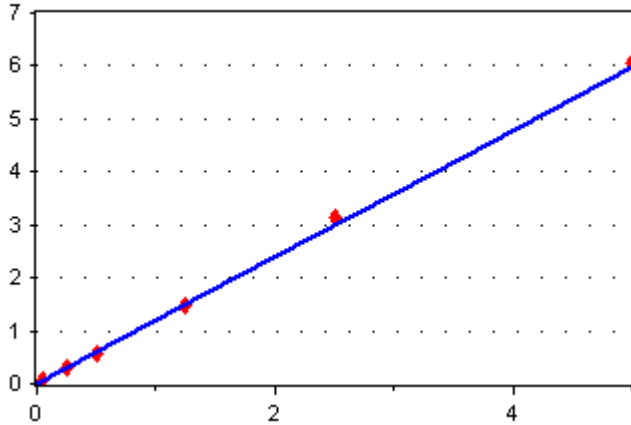
Calibration Report

Instrument: NT11
Calibration ID: AE00020

Calibration Date: 05-May-2017 08:30 By VTS
Last Edit Date: 06-May-2017 10:53 By VTS

8270D-SIM PAH Low (0.0)

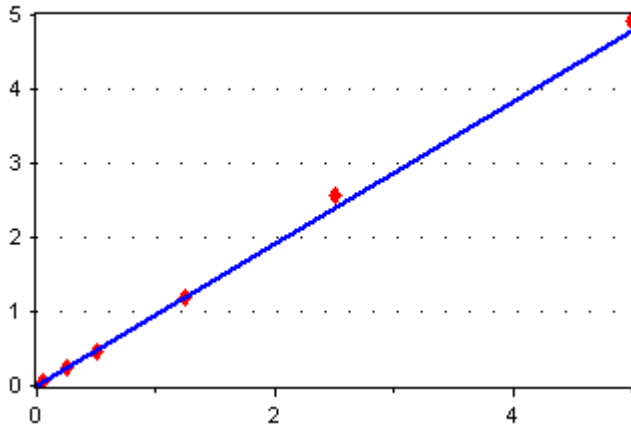
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Indeno(1,2,3-cd)pyrene



Average RF
RF RSD: 3.424947
[Conc] = 1.192515 * [Response]

Dibenzo(a,h)anthracene

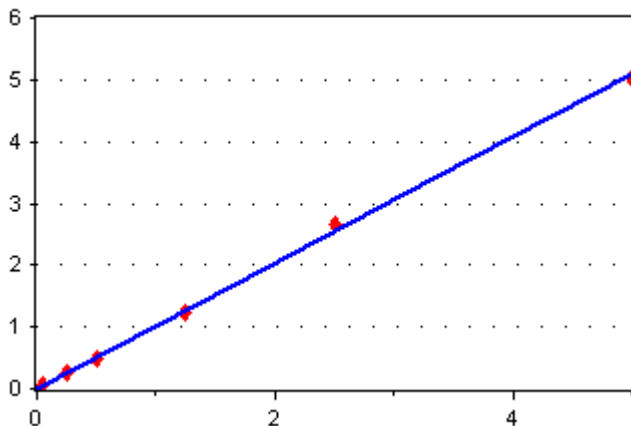
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Dibenzo(a,h)anthracene



Average RF
RF RSD: 4.758812
[Conc] = 0.9554681 * [Response]

Benzo(g,h,i)perylene

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Benzo(g,h,i)perylene



Average RF
RF RSD: 2.308245
[Conc] = 1.020111 * [Response]



Calibration Report

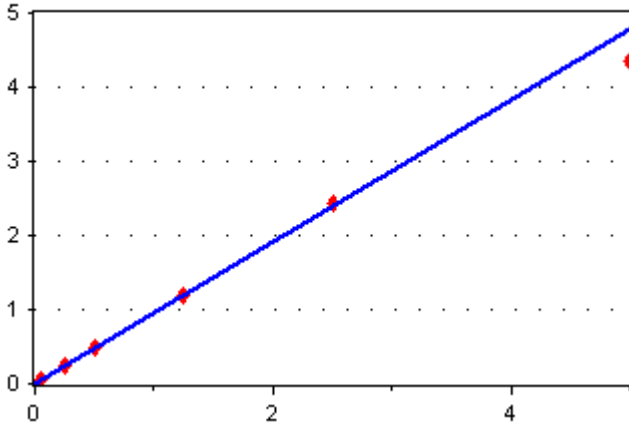
Instrument: NT11
Calibration ID: AE00020

Calibration Date: 05-May-2017 08:30 By VTS
Last Edit Date: 06-May-2017 10:53 By VTS

8270D-SIM PAH Low (0.0

1-Methylnaphthalene

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - 1-Methylnaphthalene



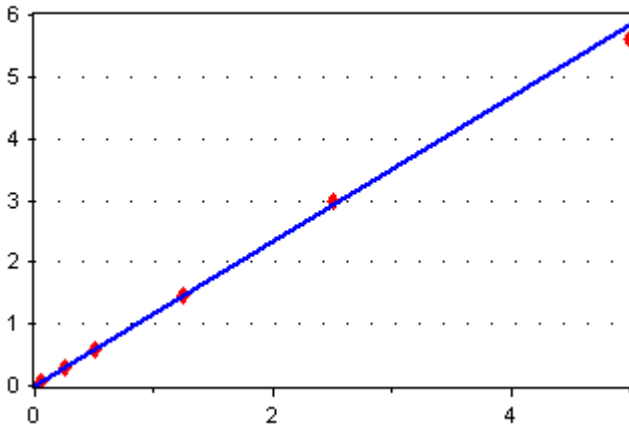
Average RF

RF RSD: 4.549215

[Conc] = 0.9587499 * [Response]

Perylene

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Perylene



Average RF

RF RSD: 2.25151

[Conc] = 1.164895 * [Response]

Benzo(e)pyrene



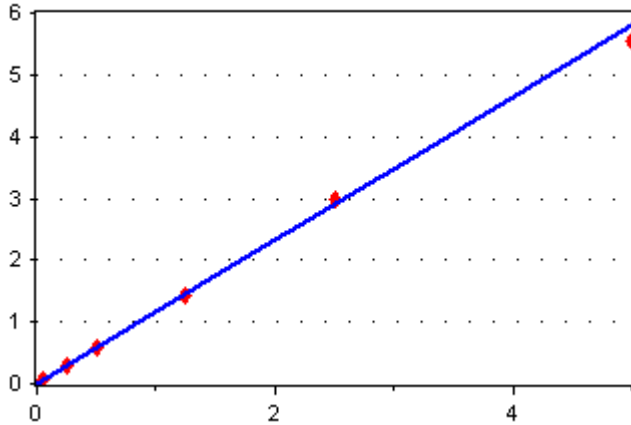
Calibration Report

Instrument: NT11
Calibration ID: AE00020

Calibration Date: 05-May-2017 08:30 By VTS
Last Edit Date: 06-May-2017 10:53 By VTS

8270D-SIM PAH Low (0.0

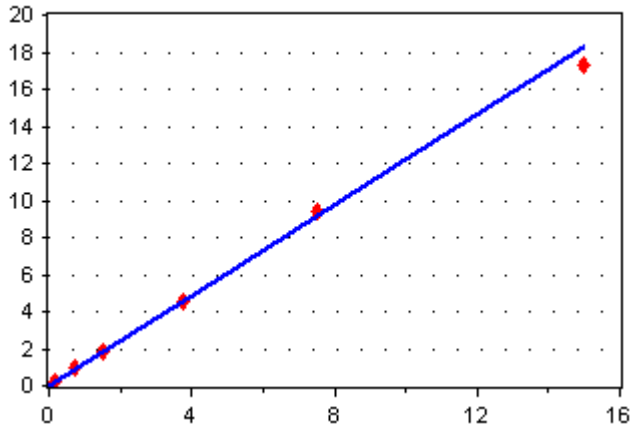
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Benzo(e)pyrene



Average RF
RF RSD: 2.557359
[Conc] = 1.161765 * [Response]

Benzofluoranthenes, Total

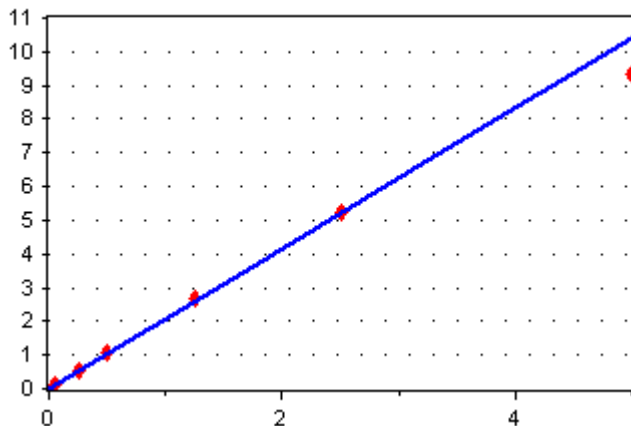
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Benzofluoranthenes, 1



Average RF
RF RSD: 2.957202
[Conc] = 1.2165 * [Response]

2-Chloronaphthalene

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - 2-Chloronaphthalene



Average RF
RF RSD: 5.570973
[Conc] = 2.078588 * [Response]



Calibration Report

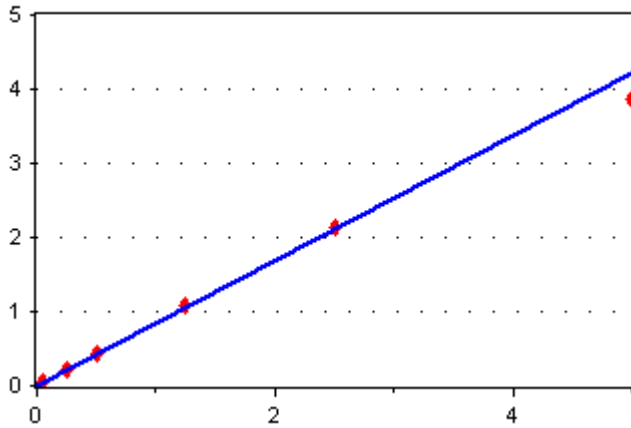
Instrument: NT11
Calibration ID: AE00020

Calibration Date: 05-May-2017 08:30 By VTS
Last Edit Date: 06-May-2017 10:53 By VTS

8270D-SIM PAH Low (0.0

Benzo(b)thiophene

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Benzo(b)thiophene



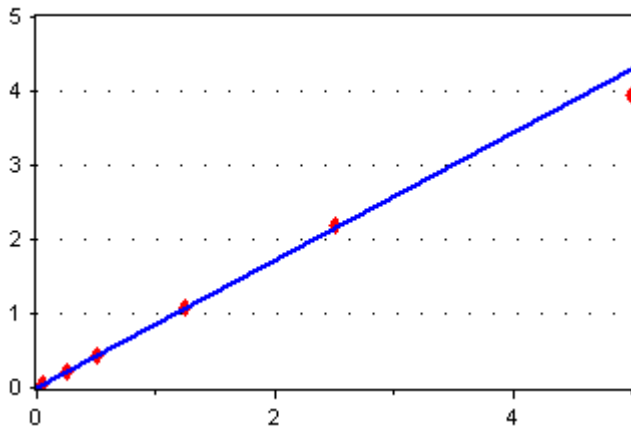
Average RF

RF RSD: 4.787422

[Conc] = 0.843323 * [Response]

2-Methylnaphthalene-d10

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - 2-Methylnaphthalene-



Average RF

RF RSD: 4.111869

[Conc] = 0.8570707 * [Response]

Dibenzo[a,h]anthracene-d14



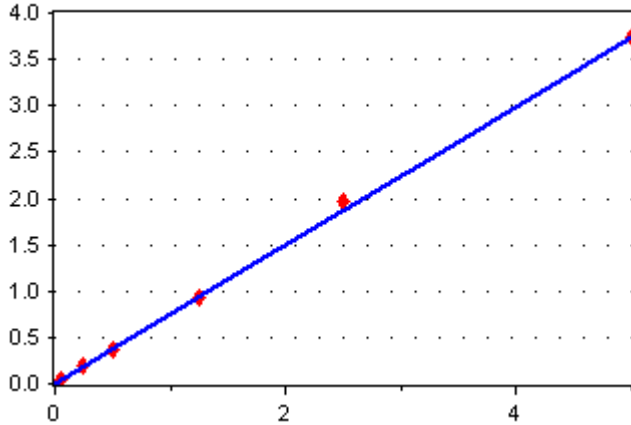
Calibration Report

Instrument: NT11
Calibration ID: AE00020

Calibration Date: 05-May-2017 08:30 By VTS
Last Edit Date: 06-May-2017 10:53 By VTS

8270D-SIM PAH Low (0.0

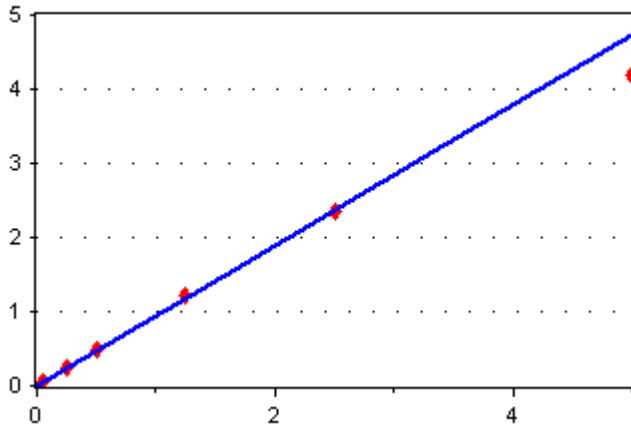
270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Dibenzo[a,h]anthracene



Average RF
RF RSD: 3.133339
[Conc] = 0.7460398 * [Response]

Fluoranthene-d10

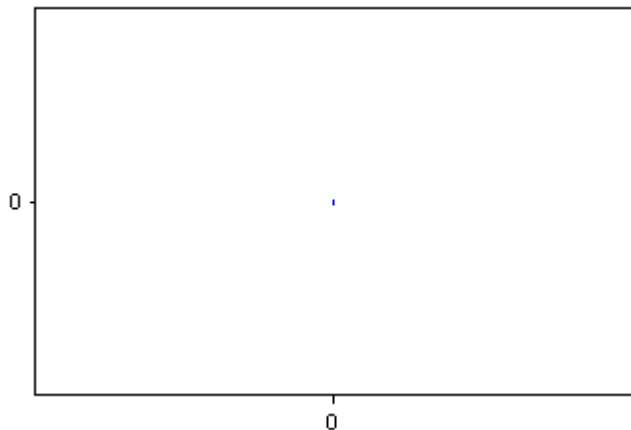
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Fluoranthene-d10



Average RF
RF RSD: 5.831994
[Conc] = 0.9454756 * [Response]

Naphthalene-d8

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Naphthalene-d8



Average RF
RF RSD:
[Conc] = * [Response]



Calibration Report

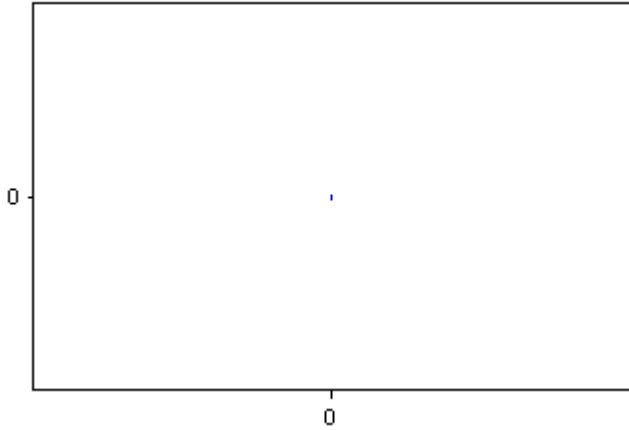
Instrument: NT11
Calibration ID: AE00020

Calibration Date: 05-May-2017 08:30 By VTS
Last Edit Date: 06-May-2017 10:53 By VTS

8270D-SIM PAH Low (0.0

Acenaphthene-d10

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Acenaphthene-d10



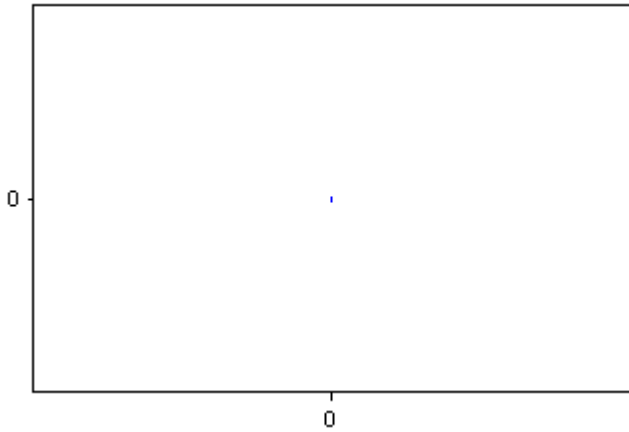
Average RF

RF RSD:

[Conc] = * [Response]

Phenanthrene-d10

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Phenanthrene-d10



Average RF

RF RSD:

[Conc] = * [Response]

Chrysene-d12



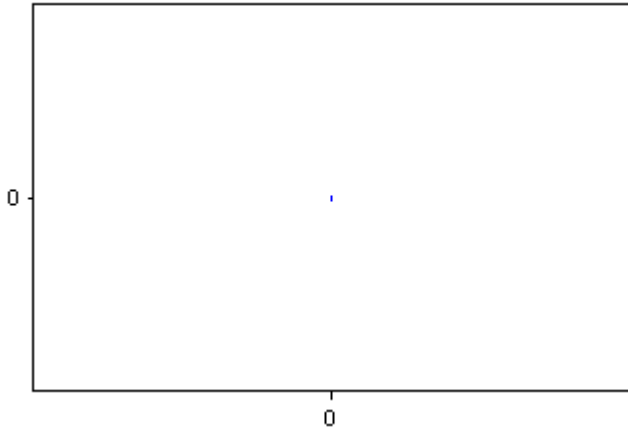
Calibration Report

Instrument: NT11
Calibration ID: AE00020

Calibration Date: 05-May-2017 08:30 By VTS
Last Edit Date: 06-May-2017 10:53 By VTS

8270D-SIM PAH Low (0.0

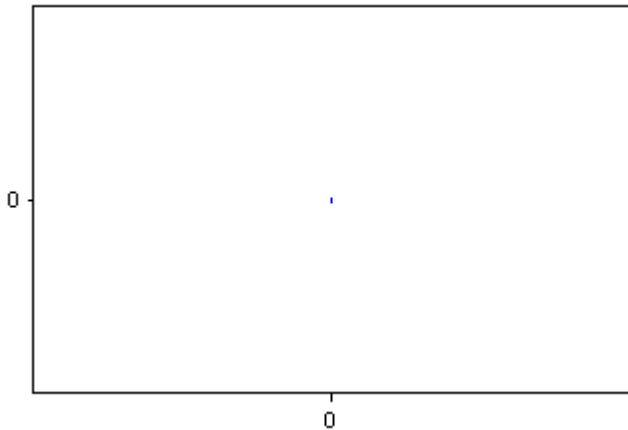
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Chrysene-d12



Average RF
RF RSD:
[Conc] = * [Response]

Perylene-d12

8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg) - Perylene-d12



Average RF
RF RSD:
[Conc] = * [Response]

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt11.i\20170505.b\LOWSIM.m
Batch File: \\target\share\chem3\nt11.i\20170505.b
Inst ID: nt11.i

ID: RT01 RT02 RT03 RT04
FILENAME: 17050503 17050506 17050507 17050508
INJ. DATE: 05-MAY-2017 05-MAY-2017 05-MAY-2017 05-MAY-2017
INJ. TIME: 11:47 13:35 14:11 14:47

Compound	RT01	RT02	RT03	RT04	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 1 Naphthalene-d8	8.500	8.500	8.500	8.500	8.500	8.250-8.750	8.500	0.000
1 Naphthalene	8.536	8.536	8.536	8.536	8.536	8.286-8.786	8.536	0.000
3 Benzo(b)thiophene	8.789	8.789	8.789	8.789	8.789	8.539-9.039	8.789	0.000
§ 4 2-Methylnaphthalene-d1	9.477	9.477	9.477	9.477	9.477	9.227-9.727	9.477	0.000
5 2-Methylnaphthalene	9.540	9.540	9.540	9.540	9.540	9.290-9.790	9.540	0.000
6 1-Methylnaphthalene	9.803	9.792	9.803	9.792	9.803	9.553-10.053	9.798	0.006
7 2-Chloronaphthalene	10.454	10.454	10.454	10.454	10.454	10.204-10.704	10.454	0.000
8 Biphenyl	10.412	10.412	10.412	10.412	10.412	10.162-10.662	10.412	0.000
9 2,6-Dimethylnaphthalen	10.475	10.475	10.475	10.475	10.475	10.225-10.725	10.475	0.000
10 Acenaphthylene	11.384	11.384	11.384	11.384	11.384	11.134-11.634	11.384	0.000
* 11 Acenaphthene-d10	11.537	11.537	11.538	11.537	11.537	11.287-11.787	11.537	0.000
12 Acenaphthene	11.601	11.601	11.601	11.592	11.601	11.351-11.851	11.598	0.004
13 Dibenzofuran	11.798	11.798	11.798	11.798	11.798	11.548-12.048	11.798	0.000
14 2,3,5-Trimethylnaphtha	11.899	11.886	11.886	11.886	11.899	11.649-12.149	11.889	0.006
§ 15 Fluorene-d10	12.379	12.366	12.379	12.366	12.379	12.129-12.629	12.373	0.007
16 Fluorene	12.429	12.429	12.430	12.430	12.430	12.179-12.679	12.430	0.000
17 Dibenzothiophene	14.052	14.052	14.052	14.052	14.052	13.802-14.302	14.052	0.000

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

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt11.i\20170505.b\LOWSIM.m
Batch File: \\target\share\chem3\nt11.i\20170505.b
Inst ID: nt11.i

Compound	RT01	RT02	RT03	RT04	EXPEC RT1	RT WINDOW	AVG RT	STD DEV1
* 18 Phenanthrene-d10	14.231	14.231	14.231	14.231	14.231	13.981-14.481	14.231	0.000
19 Phenanthrene	14.273	14.273	14.273	14.273	14.273	14.023-14.523	14.273	0.000
\$ 20 Anthracene-d10	14.294	14.294	14.294	14.294	14.294	14.044-14.544	14.294	0.000
21 Anthracene	14.325	14.325	14.326	14.326	14.326	14.075-14.575	14.325	0.000
22 Carbazole	15.000	15.000	15.000	15.000	15.000	14.750-15.250	15.000	0.000
23 1-Methylphenanthrene	15.271	15.271	15.271	15.271	15.271	15.021-15.521	15.271	0.000
\$ 24 Fluoranthene-d10	16.339	16.339	16.339	16.339	16.339	16.089-16.589	16.339	0.000
25 Fluoranthene	16.377	16.377	16.377	16.377	16.377	16.127-16.627	16.377	0.000
26 Pyrene	16.877	16.877	16.877	16.877	16.877	16.627-17.127	16.877	0.000
27 Benzo(a)anthracene	18.900	18.900	18.892	18.892	18.900	18.650-19.150	18.896	0.005
* 28 Chrysene-d12	18.992	18.992	18.992	18.992	18.992	18.742-19.242	18.992	0.000
29 Chrysene	19.041	19.041	19.042	19.042	19.041	18.791-19.291	19.041	0.000
30 Benzo(b)fluoranthene	20.953	20.953	20.953	20.953	20.953	20.703-21.203	20.953	0.000
31 Benzo(k)fluoranthene	21.011	21.001	21.001	21.011	21.011	20.761-21.261	21.004	0.005
32 Benzo(j)fluoranthene	21.078	21.078	21.078	21.078	21.078	20.828-21.328	21.078	0.000
\$ 33 Benzo(e)pyrene-d12	21.751	21.751	21.741	21.741	21.751	21.501-22.001	21.746	0.005
34 Benzo(e)pyrene	21.818	21.818	21.818	21.818	21.818	21.568-22.068	21.818	0.000
35 Benzo(a)pyrene	21.952	21.943	21.943	21.943	21.952	21.702-22.202	21.945	0.005
* 36 Perylene-d12	22.183	22.183	22.183	22.183	22.183	21.933-22.433	22.183	0.000
37 Perylene	22.260	22.260	22.260	22.260	22.260	22.010-22.510	22.260	0.000
\$ 38 Dibenzo(a,h)anthracene	25.028	25.028	25.028	25.028	25.028	24.778-25.278	25.028	0.000
39 Dibenzo(a,h)anthracene	25.172	25.160	25.172	25.161	25.172	24.922-25.422	25.166	0.006

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt11.i\20170505.b\LOWSIM.m
Batch File: \\target\share\chem3\nt11.i\20170505.b
Inst ID: nt11.i

Compound	RT01	RT02	RT03	RT04	EXPEC RT1	RT WINDOW	AVG RT	STD DEV
40 Indeno(1,2,3-cd)pyrene	25.205	25.205	25.205	25.194	25.205	24.955-25.455	25.202	0.006
41 Benzo(g,h,i)perylene	26.567	26.578	26.567	26.567	26.567	26.317-26.817	26.570	0.005

ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt11.i\20170505.b\lowsim.m
Batch File: \\target\share\chem3\nt11.i\20170505.b
Inst ID: nt11.i

ID:	RT01	RT02	EXPEC RT	RT WINDOW	AVG RT	STD DEV
FILENAME:	17050504	17050505				
INJ. DATE:	05-MAY-2017	05-MAY-2017				
INJ. TIME:	12:23	12:59				
Compound	RT01	RT02	EXPEC RT	RT WINDOW	AVG RT	STD DEV
* 1 Naphthalene-d8	8.500	8.500	8.500	8.250-8.750	8.500	0.000
1 Naphthalene	8.536	8.536	8.536	8.286-8.786	8.536	0.000
3 Benzo(b)thiophene	8.789	8.789	8.789	8.539-9.039	8.789	0.000
§ 4 2-Methylnaphthalene-d1	9.477	9.488	9.477	9.227-9.727	9.482	0.007
5 2-Methylnaphthalene	9.540	9.540	9.540	9.290-9.790	9.540	0.000
6 1-Methylnaphthalene	9.803	9.803	9.803	9.553-10.053	9.803	0.000
7 2-Chloronaphthalene	10.454	10.454	10.454	10.204-10.704	10.454	0.000
8 Biphenyl	10.412	10.412	10.412	10.162-10.662	10.412	0.000
9 2,6-Dimethylnaphthalen	10.475	10.475	10.475	10.225-10.725	10.475	0.000
10 Acenaphthylene	11.384	11.384	11.384	11.134-11.634	11.384	0.000
* 11 Acenaphthene-d10	11.537	11.537	11.537	11.287-11.787	11.537	0.000
12 Acenaphthene	11.601	11.601	11.601	11.351-11.851	11.601	0.000
13 Dibenzofuran	11.798	11.797	11.798	11.548-12.048	11.798	0.000
14 2,3,5-Trimethylnaphtha	11.899	11.899	11.899	11.649-12.149	11.899	0.000
15 Fluorene-d10	12.379	12.379	12.379	12.129-12.629	12.379	0.000
16 Fluorene	12.430	12.429	12.429	12.179-12.679	12.429	0.000
17 Dibenzothiophene	14.052	14.052	14.052	13.802-14.302	14.052	0.000
* 18 Phenanthrene-d10	14.231	14.231	14.231	13.981-14.481	14.231	0.000
19 Phenanthrene	14.273	14.273	14.273	14.023-14.523	14.273	0.000
§ 20 Anthracene-d10	14.294	14.294	14.294	14.044-14.544	14.294	0.000

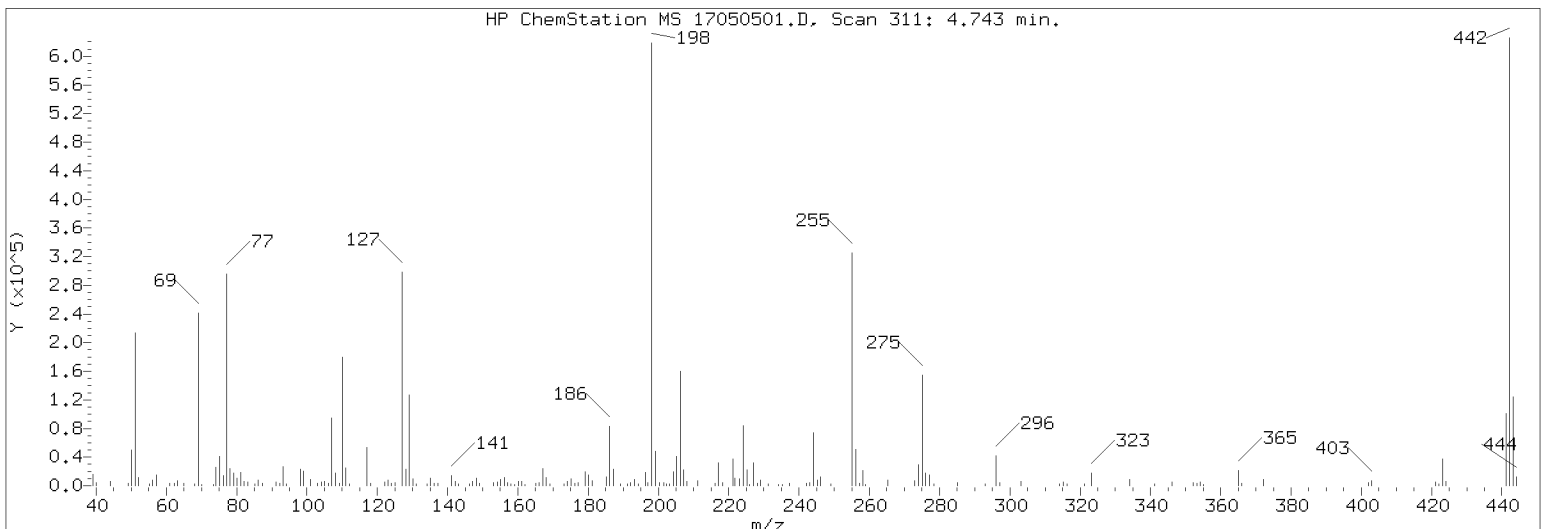
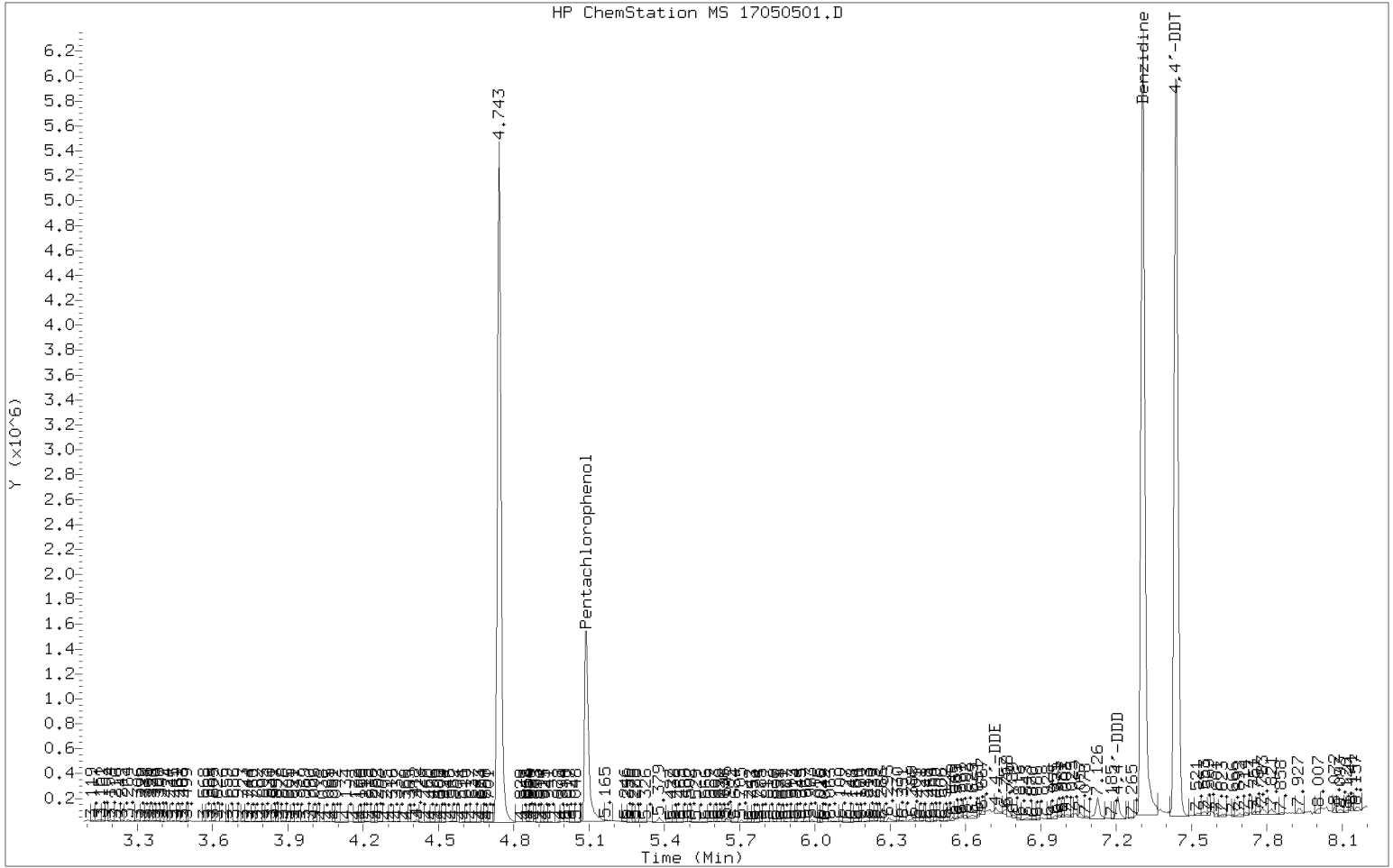
ARI Labs, Inc.
RETENTION TIME SUMMARY REPORT

Method File: \\target\share\chem3\nt11.i\20170505.b\lowsim.m
Batch File: \\target\share\chem3\nt11.i\20170505.b
Inst ID: nt11.i

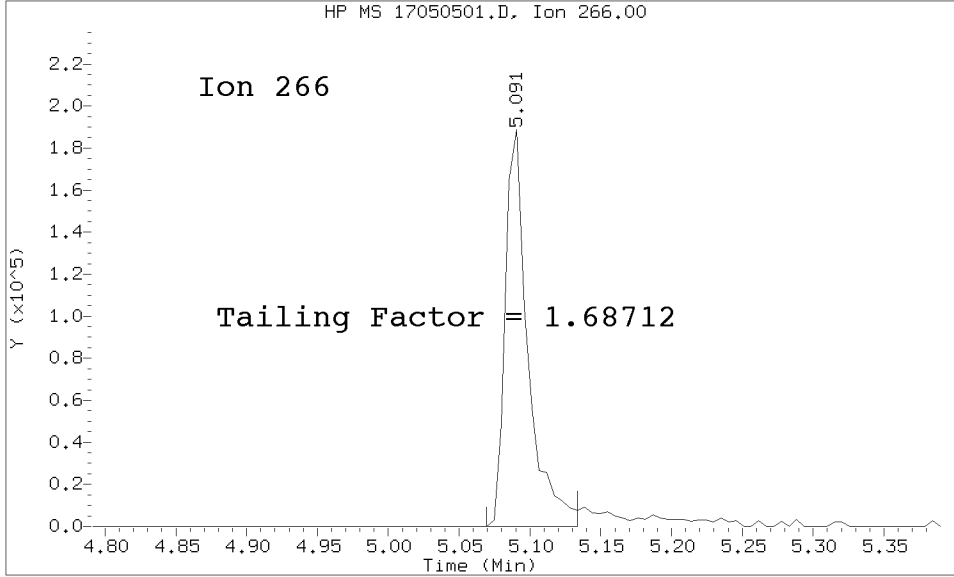
Compound	RT01	RT02	EXPEC RT1	RT WINDOW	AVG RT	STD DEV
21 Anthracene	14.325	14.325	14.325	14.075-14.575	14.325	0.000
22 Carbazole	15.000	15.009	15.000	14.750-15.250	15.004	0.006
23 1-Methylphenanthrene	15.271	15.271	15.271	15.021-15.521	15.271	0.000
24 Fluoranthene-d10	16.339	16.339	16.339	16.089-16.589	16.339	0.000
25 Fluoranthene	16.377	16.377	16.377	16.127-16.627	16.377	0.000
26 Pyrene	16.877	16.877	16.877	16.627-17.127	16.877	0.000
27 Benzo(a)anthracene	18.900	18.900	18.900	18.650-19.150	18.900	0.000
* 28 Chrysene-d12	18.992	18.992	18.992	18.742-19.242	18.992	0.000
29 Chrysene	19.041	19.041	19.041	18.791-19.291	19.041	0.000
30 Benzo(b)fluoranthene	20.953	20.953	20.953	20.703-21.203	20.953	0.000
31 Benzo(k)fluoranthene	21.011	21.011	21.011	20.761-21.261	21.006	0.007
32 Benzo(j)fluoranthene	21.078	21.078	21.078	20.828-21.328	21.078	0.000
33 Benzo(e)pyrene-d12	21.751	21.741	21.751	21.501-22.001	21.746	0.007
34 Benzo(e)pyrene	21.818	21.818	21.818	21.568-22.068	21.818	0.000
35 Benzo(a)pyrene	21.952	21.943	21.952	21.702-22.202	21.948	0.007
* 36 Perylene-d12	22.183	22.183	22.183	21.933-22.433	22.183	0.000
37 Perylene	22.260	22.260	22.260	22.010-22.510	22.260	0.000
38 Dibenzo(a,h)anthracene	25.028	25.028	25.028	24.778-25.278	25.028	0.000
39 Dibenzo(a,h)anthracene	25.172	25.172	25.172	24.922-25.422	25.172	0.000
40 Indeno(1,2,3-cd)pyrene	25.205	25.205	25.205	24.955-25.455	25.205	0.000
41 Benzo(g,h,i)perylene	26.578	26.567	26.567	26.317-26.817	26.573	0.008

DFTPP TAILING FACTOR AND BREAKDOWN GRAPHIC REPORT

Datafile Analyzed: /20170505.b/17050501.D/17050501.D
Method Used: \20170505.b\DFTPP.m Inst: nt11
Injection Date: 05-MAY-2017 10:50 Operator: VTS
Sample Info: SFE0059-TUN1 SFE0059-TUN1
Report Date: 05/06/2017 09:58



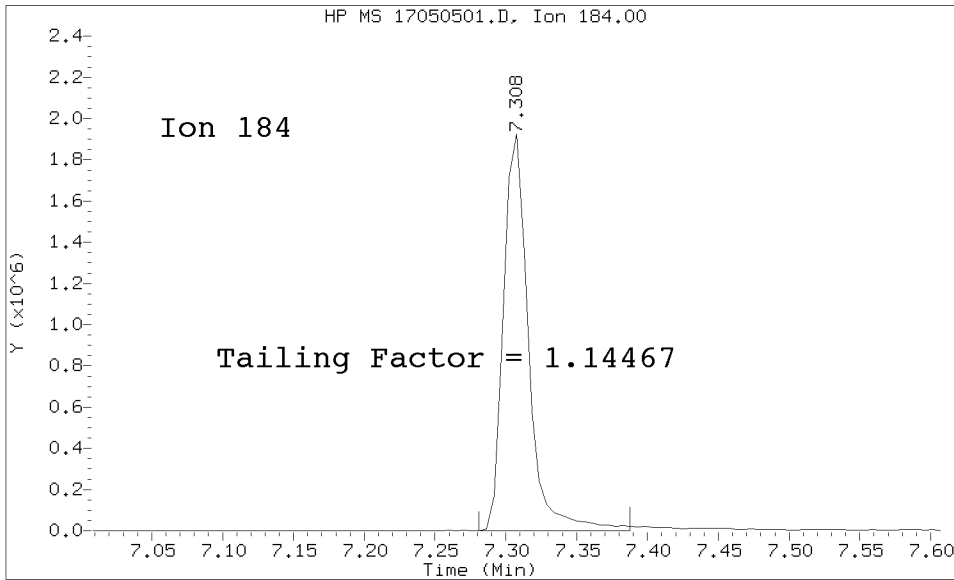
Datafile Analyzed: /20170505.b/17050501.D/17050501.D
Method Used: \20170505.b\DFTPP.m\sw846ddt.m Inst: nt11
Injection Date: 05-MAY-2017 10:50 Operator: VTS
Sample Info: SFE0059-TUN1
Report Date: 05/06/2017 09:58



Pentachlorophenol

=====
Exp. RT = 5.091
Found RT = 5.091

Tail Factor = 1.687 Maximum Allowed = 2.0



Benzidine

=====
Exp. RT = 7.308
Found RT = 7.308

Tail Factor = 1.145 Maximum Allowed = 2.0

8270 TAILING FACTOR/BREAKDOWN SUMMARY RESULTS

TAILING ANALYSIS SUMMARY

Compound	Tail Factor	Max Allowed	Test
Pentachlorophenol	1.6871239	2.000	PASS
Benzidine	1.1446674	2.000	PASS

DDT DEGRADATION BREAKDOWN ANALYSIS SUMMARY

Compound	Response	%Breakdown	Max Allowed	Test
4,4-DDT	1104241			N/A
4,4-DDE	4926	0.4	20.0	PASS
4,4-DDD	42304	3.7	20.0	PASS
4,4-DDD + DDE	47230	4.1	20.0	PASS

Tuning Sample, nt11.i/20170505.b/17050501.D, *** PASSED ***

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
198	Base Peak, 100% relative abundance	100.00
51	10.00 - 80.00% of mass 198	35.22
68	Less than 2.00% of mass 69	0.33 (0.83)
69	Mass 69 relative abundance	39.19
70	Less than 2.00% of mass 69	0.13 (0.34)
127	10.00 - 80.00% of mass 198	49.49
197	Less than 2.00% of mass 198	0.48
199	5.00 - 9.00% of mass 198	7.91
275	10.00 - 60.00% of mass 198	23.81
365	Greater than 1.00% of mass 198	3.23
441	0.01 - 24.00% of mass 442	14.99 (15.57)
442	50.00 - 200.00% of mass 198	96.27
443	15.00 - 24.00% of mass 442	18.55 (19.26)

Data File: 17050501.D
 Spectrum: Avg. Scans 310-312 (4.74), Background Scan 304
 Location of Maximum: 198.00
 Number of points: 193

m/z	Y	m/z	Y	m/z	Y	m/z	Y
38.00	1236	112.00	1566	185.00	9149	257.00	2989
39.00	13436	116.00	1914	186.00	66424	258.00	15186
40.00	258	117.00	39216	187.00	18264	259.00	1427
41.00	906	118.00	2387	188.00	1142	265.00	5188
49.00	2138	122.00	5113	189.00	2689	273.00	6560
50.00	43416	123.00	6236	191.00	1471	274.00	24888
51.00	178304	124.00	1797	192.00	4349	275.00	120552
52.00	10100	125.00	2821	193.00	5762	276.00	16528
56.00	5698	127.00	250560	194.00	1508	277.00	9944
57.00	13478	128.00	19920	196.00	12613	278.00	1529
61.00	3454	129.00	97792	197.00	2434	285.00	2523
62.00	3257	130.00	7940	198.00	506304	293.00	1663
63.00	6540	131.00	2768	199.00	40064	296.00	32816
65.00	4109	134.00	2079	200.00	2916	297.00	4226
68.00	1654	135.00	8147	201.00	2227	303.00	4798
69.00	198400	136.00	3427	202.00	945	314.00	1837
70.00	683	137.00	2044	203.00	2577	315.00	3640
73.00	679	141.00	11103	204.00	15838	316.00	1031
74.00	20576	142.00	3708	205.00	29584	321.00	776
75.00	34608	143.00	2791	206.00	124104	323.00	13214
76.00	11304	146.00	1990	207.00	17288	324.00	704
77.00	250112	147.00	4855	208.00	5163	327.00	695
78.00	19752	148.00	11069	210.00	677	334.00	7921
79.00	14456	149.00	2481	211.00	5281	335.00	1639
80.00	11811	151.00	776	216.00	2375	341.00	1617
81.00	16536	153.00	3696	217.00	27072	346.00	2667
82.00	3382	154.00	3383	218.00	3669	352.00	4270
83.00	5555	155.00	6161	221.00	29824	353.00	2609
84.00	1086	156.00	8697	222.00	5540	354.00	4034
85.00	2102	157.00	3255	223.00	7501	355.00	723
86.00	5970	158.00	1917	224.00	68744	365.00	16343
87.00	1943	159.00	734	225.00	16744	366.00	2987
91.00	3232	160.00	4019	226.00	684	372.00	6405
92.00	2844	161.00	5433	227.00	26128	373.00	1245
93.00	23848	162.00	743	228.00	2874	383.00	959
94.00	2045	165.00	3319	229.00	4525	390.00	728
95.00	809	166.00	2515	231.00	2523	402.00	2432
98.00	17616	167.00	19352	234.00	695	403.00	5273
99.00	16287	168.00	9450	235.00	1433	421.00	3849
101.00	7969	169.00	1465	237.00	1882	422.00	3513
103.00	3484	172.00	1086	242.00	3299	423.00	27408
104.00	4978	173.00	2147	243.00	3672	424.00	5324
105.00	5375	174.00	4567	244.00	54952	441.00	75904
106.00	1794	175.00	8703	245.00	8167	442.00	487424
107.00	77152	176.00	2935	246.00	8890	443.00	93896
108.00	14163	177.00	3648	247.00	907	444.00	9310
109.00	3586	179.00	16520	249.00	819		
110.00	152640	180.00	12862	255.00	260544		
111.00	20944	181.00	5140	256.00	38776		

+-----+-----+-----+-----+

Data File: \\target\share\chem3\nt11.1\20170505.16\17050503.D

Date : 05-May-2017 11:47

Client ID:

Sample Info: SFE0059-CAL4

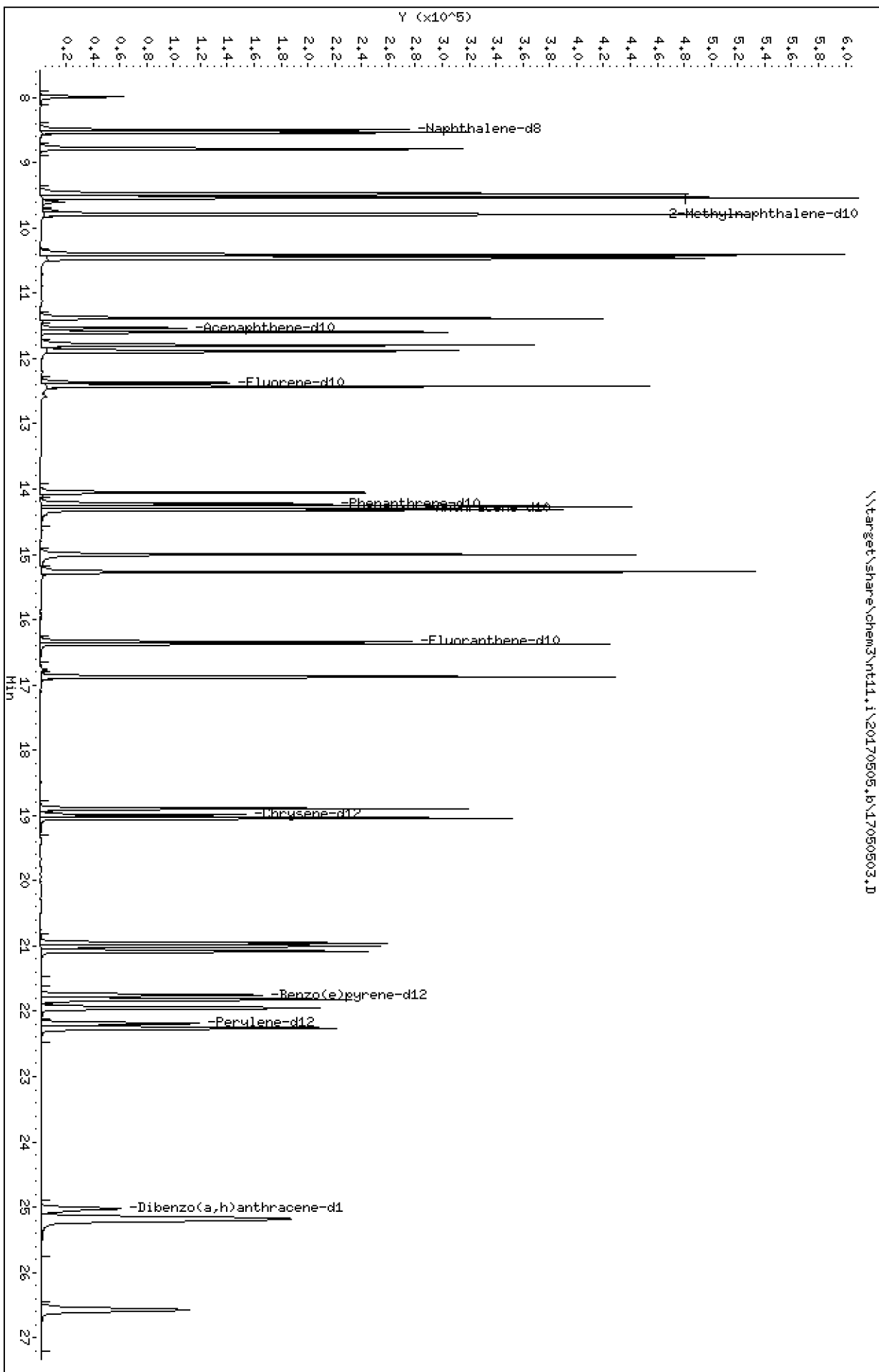
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170505.b\17050503.D

Lab Smp Id: SFE0059-CAL4

Inj Date : 05-MAY-2017 11:47

MS Autotune Date: 15-JAN-2015 16:59

Operator : VTS

Inst ID: nt11.i

Smp Info : SFE0059-CAL4

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20170505.b\LOWSIM.m

Meth Date : 06-May-2017 08:49 nt11.i

Quant Type: ISTD

Cal Date : 05-MAY-2017 14:47

Cal File: 17050508.D

Als bottle: 1

Calibration Sample, Level: 4

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: allpna.sub

Target Version: 4.14

Processing Host: VANS

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 1 Naphthalene-d8	136	8.499	8.499	(1.000)	371325	200.000	
2 Naphthalene	128	8.536	8.536	(1.004)	485418	250.000	243
3 Benzo(b)thiophene	134	8.789	8.789	(1.034)	405571	250.000	259
\$ 4 2-Methylnaphthalene-d10	152	9.477	9.477	(1.115)	397801	250.000	250
5 2-Methylnaphthalene	142	9.540	9.540	(1.122)	463745	250.000	252
6 1-Methylnaphthalene	142	9.802	9.802	(1.153)	446197	250.000	251
7 2-Chloronaphthalene	162	10.454	10.454	(0.906)	411611	250.000	256
8 Biphenyl	154	10.412	10.412	(0.902)	547218	250.000	228 (H)
9 2,6-Dimethylnaphthalene	156	10.475	10.475	(0.908)	428206	250.000	254
10 Acenaphthylene	152	11.383	11.383	(0.987)	459890	250.000	254
* 11 Acenaphthene-d10	164	11.537	11.537	(1.000)	154428	200.000	
12 Acenaphthene	153	11.600	11.600	(1.005)	297407	250.000	251
13 Dibenzofuran	168	11.797	11.797	(1.023)	404038	250.000	247
14 2,3,5-Trimethylnaphthalene	170	11.898	11.898	(1.031)	241555	250.000	261
\$ 15 Fluorene-d10	174	12.378	12.378	(1.073)	192792	250.000	254
16 Fluorene	166	12.429	12.429	(1.077)	322601	250.000	253
17 Dibenzothiophene	184	14.052	14.052	(0.987)	340607	250.000	256
* 18 Phenanthrene-d10	188	14.230	14.230	(1.000)	256956	200.000	
19 Phenanthrene	178	14.272	14.272	(1.003)	486270	250.000	254
\$ 20 Anthracene-d10	188	14.293	14.293	(1.004)	331343	250.000	250
21 Anthracene	178	14.325	14.325	(1.007)	458766	250.000	243
22 Carbazole	167	14.999	14.999	(1.054)	537938	250.000	245
23 1-Methylphenanthrene	192	15.271	15.271	(1.073)	453626	250.000	262
\$ 24 Fluoranthene-d10	212	16.338	16.338	(1.148)	312652	250.000	257
25 Fluoranthene	202	16.377	16.377	(1.151)	472612	250.000	257
26 Pyrene	202	16.876	16.876	(0.889)	467735	250.000	248
27 Benzo(a)anthracene	228	18.900	18.900	(0.995)	370821	250.000	250
* 28 Chrysene-d12	240	18.991	18.991	(1.000)	208629	200.000	
29 Chrysene	228	19.041	19.041	(1.003)	381901	250.000	249
30 Benzo(b)fluoranthene	252	20.953	20.953	(0.945)	344077	250.000	244 (H)
31 Benzo(k)fluoranthene	252	21.010	21.010	(0.947)	347199	250.000	249 (H)
32 Benzo(j)fluoranthene	252	21.077	21.077	(0.950)	321203	250.000	245
\$ 33 Benzo(e)pyrene-d12	264	21.750	21.750	(0.981)	288259	250.000	244

Compounds	QUANT SIG							AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)	
=====	=====		=====	=====	=====	=====	=====	=====	
34 Benzo(e)pyrene	252		21.817	21.817	(0.984)	322443	250.000	246	
35 Benzo(a)pyrene	252		21.952	21.952	(0.990)	320317	250.000	251	
* 36 Perylene-d12	264		22.182	22.182	(1.000)	225431	200.000		
37 Perylene	252		22.259	22.259	(1.003)	325617	250.000	248	
§ 38 Dibenzo(a,h)anthracene-d14	292		25.027	25.027	(1.128)	209101	250.000	249	
39 Dibenzo(a,h)anthracene	278		25.171	25.171	(1.135)	269977	250.000	251	
40 Indeno(1,2,3-cd)pyrene	276		25.204	25.204	(1.136)	335159	250.000	249	
41 Benzo(g,h,i)perylene	276		26.567	26.567	(1.198)	281253	250.000	245	

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 17050503.D
 Lab Smp Id: SFE0059-CAL4
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20170505.b\LOWSIM.m
 Misc Info:

Calibration Date: 05-MAY-2017
 Calibration Time: 11:47
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	371325	185663	742650	371325	0.00
11 Acenaphthene-d10	154428	77214	308856	154428	0.00
18 Phenanthrene-d10	256956	128478	513912	256956	0.00
28 Chrysene-d12	208629	104315	417258	208629	0.00
36 Perylene-d12	225431	112716	450862	225431	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	8.50	8.00	9.00	8.50	0.00
11 Acenaphthene-d10	11.54	11.04	12.04	11.54	0.00
18 Phenanthrene-d10	14.23	13.73	14.73	14.23	0.00
28 Chrysene-d12	18.99	18.49	19.49	18.99	0.00
36 Perylene-d12	22.18	21.68	22.68	22.18	0.00

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

REVIEW SUMMARY FOR FILE - 17050503.D

Lab ID: SFE0059-CAL4

nt11.i, 20170505.b\LOWSIM.m, 05-MAY-2017 11:47

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT CCV RRT DELTA COMPOUND

NONE

On Column LOD for nt11.i, 20170505.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

Instrument: nt11.i Date: 05-MAY-2017 Method: 20170505.b\LOWSIM.m

INITIAL CAL:

Compound	%RSD or R ²
Naphthalene	ND
2-Methylnaphthalene	ND
Acenaphthylene	ND
Acenaphthene	ND
Dibenzofuran	ND
Fluorene	ND
Phenanthrene	ND
Anthracene	ND
Fluoranthene	ND
Pyrene	ND
Benzo(a)anthracene	ND
Chrysene	ND
Benzo(b)fluoranthene	ND
Benzo(k)fluoranthene	ND
Benzo(j)fluoranthene	ND
Benzo(a)pyrene	ND
Indeno(1,2,3-cd)pyrene	ND
Dibenzo(a,h)anthracene	ND
Benzo(g,h,i)perylene	ND
1-Methylnaphthalene	ND
Perylene	ND
Benzo(e)pyrene	ND
Benzo(b)thiophene	ND
2-Chloronaphthalene	ND
2,6-Dimethylnaphthalene	ND
2,3,5-Trimethylnaphthalene	ND
1-Methylphenanthrene	ND
Dibenzothiophene	ND
Carbazole	ND
Biphenyl	ND
2-Methylnaphthalene-d10	ND
Dibenzo(a,h)anthracene-d14	ND
Fluoranthene-d10	ND
Anthracene-d10	ND
Benzo(e)pyrene-d12	ND
Fluorene-d10	ND

ICV CAL: 17050503.D 05-MAY-2017 11:47

Compound	%D
NO Q-FLAGS	

Data File: \\target\share\chem3\nt11.1\20170505.16\17050504.D

Date: 05-May-2017 12:23

Client ID:

Sample Info: SFE0059-CAL6

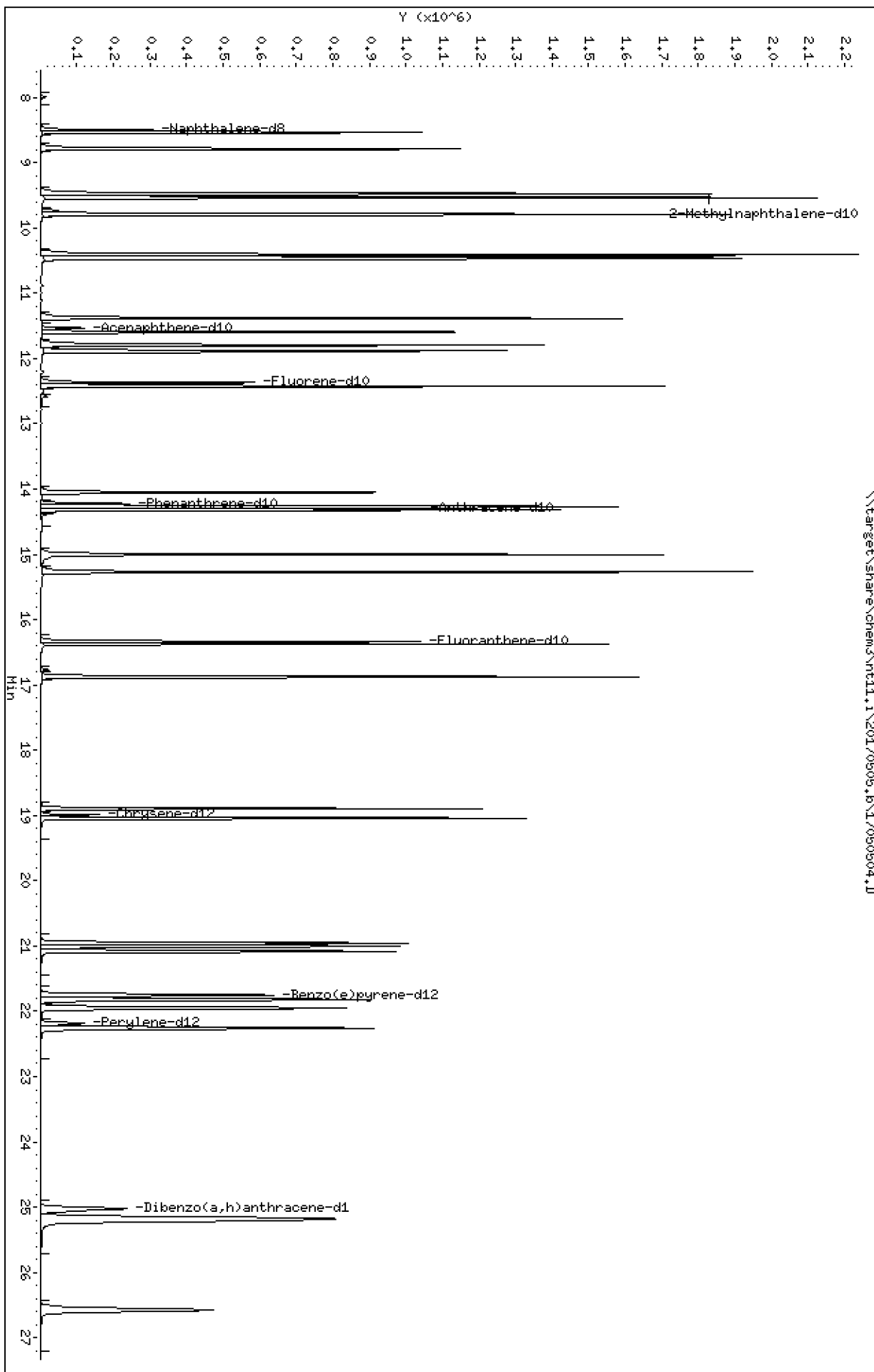
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170505.b\17050504.D

Lab Smp Id: SFE0059-CAL6

Inj Date : 05-MAY-2017 12:23

MS Autotune Date: 15-JAN-2015 16:59

Operator : VTS

Inst ID: nt11.i

Smp Info : SFE0059-CAL6

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20170505.b\lowsim.m

Meth Date : 06-May-2017 08:49 nt11.i

Quant Type: ISTD

Cal Date : 05-MAY-2017 14:47

Cal File: 17050508.D

Als bottle: 4

Calibration Sample, Level: 6

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: allpna.sub

Target Version: 4.14

Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 1 Naphthalene-d8	136		8.499	8.499	(1.000)	371198	200.000	
2 Naphthalene	128		8.536	8.536	(1.004)	1688683	1000.00	847
3 Benzo(b)thiophene	134		8.789	8.789	(1.034)	1438329	1000.00	919
\$ 4 2-Methylnaphthalene-d10	152		9.477	9.477	(1.115)	1460926	1000.00	918
5 2-Methylnaphthalene	142		9.540	9.540	(1.122)	1664305	1000.00	905
6 1-Methylnaphthalene	142		9.802	9.802	(1.153)	1617625	1000.00	909
7 2-Chloronaphthalene	162		10.454	10.454	(0.906)	1520400	1000.00	900
8 Biphenyl	154		10.412	10.412	(0.902)	1982824	1000.00	784
9 2,6-Dimethylnaphthalene	156		10.475	10.475	(0.908)	1619763	1000.00	914
10 Acenaphthylene	152		11.383	11.383	(0.987)	1702264	1000.00	893
* 11 Acenaphthene-d10	164		11.537	11.537	(1.000)	162579	200.000	
12 Acenaphthene	153		11.600	11.600	(1.005)	1123706	1000.00	902
13 Dibenzofuran	168		11.797	11.797	(1.023)	1483575	1000.00	863
14 2,3,5-Trimethylnaphthalene	170		11.898	11.898	(1.031)	949668	1000.00	975
\$ 15 Fluorene-d10	174		12.378	12.378	(1.073)	762650	1000.00	955
16 Fluorene	166		12.429	12.429	(1.077)	1229596	1000.00	917
17 Dibenzothiophene	184		14.052	14.052	(0.987)	1283164	1000.00	868
* 18 Phenanthrene-d10	188		14.230	14.230	(1.000)	285659	200.000	
19 Phenanthrene	178		14.272	14.272	(1.003)	1723461	1000.00	810
\$ 20 Anthracene-d10	188		14.293	14.293	(1.004)	1236422	1000.00	839
21 Anthracene	178		14.325	14.325	(1.007)	1685780	1000.00	805
22 Carbazole	167		14.999	14.999	(1.054)	2000084	1000.00	820
23 1-Methylphenanthrene	192		15.271	15.271	(1.073)	1671839	1000.00	868
\$ 24 Fluoranthene-d10	212		16.338	16.338	(1.148)	1195533	1000.00	885
25 Fluoranthene	202		16.377	16.377	(1.151)	1688461	1000.00	826
26 Pyrene	202		16.876	16.876	(0.889)	1704652	1000.00	895
27 Benzo(a)anthracene	228		18.900	18.900	(0.995)	1390956	1000.00	928
* 28 Chrysene-d12	240		18.991	18.991	(1.000)	210433	200.000	
29 Chrysene	228		19.041	19.041	(1.003)	1405516	1000.00	909
30 Benzo(b)fluoranthene	252		20.953	20.953	(0.945)	1339564	1000.00	939
31 Benzo(k)fluoranthene	252		21.010	21.010	(0.947)	1353338	1000.00	957
32 Benzo(j)fluoranthene	252		21.077	21.077	(0.950)	1259286	1000.00	950
\$ 33 Benzo(e)pyrene-d12	264		21.750	21.750	(0.981)	1128196	1000.00	944

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
34 Benzo(e)pyrene	252	21.817	21.817	(0.984)	1269733	1000.00	957
35 Benzo(a)pyrene	252	21.952	21.952	(0.990)	1252513	1000.00	971
* 36 Perylene-d12	264	22.182	22.182	(1.000)	228317	200.000	
37 Perylene	252	22.259	22.259	(1.003)	1279578	1000.00	962
§ 38 Dibenzo(a,h)anthracene-d14	292	25.027	25.027	(1.128)	851647	1000.00	1000
39 Dibenzo(a,h)anthracene	278	25.171	25.171	(1.135)	1121870	1000.00	1030
40 Indeno(1,2,3-cd)pyrene	276	25.204	25.204	(1.136)	1386264	1000.00	1020
41 Benzo(g,h,i)perylene	276	26.578	26.567	(1.198)	1150045	1000.00	988

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 17050504.D
 Lab Smp Id: SFE0059-CAL6
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20170505.b\lowsim.m
 Misc Info:

Calibration Date: 05-MAY-2017
 Calibration Time: 11:47
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	371325	185663	742650	371198	-0.03
11 Acenaphthene-d10	154428	77214	308856	162579	5.28
18 Phenanthrene-d10	256956	128478	513912	285659	11.17
28 Chrysene-d12	208629	104315	417258	210433	0.86
36 Perylene-d12	225431	112716	450862	228317	1.28

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	8.50	8.00	9.00	8.50	0.00
11 Acenaphthene-d10	11.54	11.04	12.04	11.54	0.00
18 Phenanthrene-d10	14.23	13.73	14.73	14.23	0.00
28 Chrysene-d12	18.99	18.49	19.49	18.99	0.00
36 Perylene-d12	22.18	21.68	22.68	22.18	0.00

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

REVIEW SUMMARY FOR FILE - 17050504.D

Lab ID: SFE0059-CAL6

nt11.i, 20170505.b\lowsim.m, 05-MAY-2017 12:23

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

On Column LOD for nt11.i, 20170505.b\lowsim.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

Data File: \\target\share\chem3\nt11.1\20170505.16\17050505.D

Date: 05-May-2017 12:59

Client ID:

Sample Info: SFE0059-CAL1

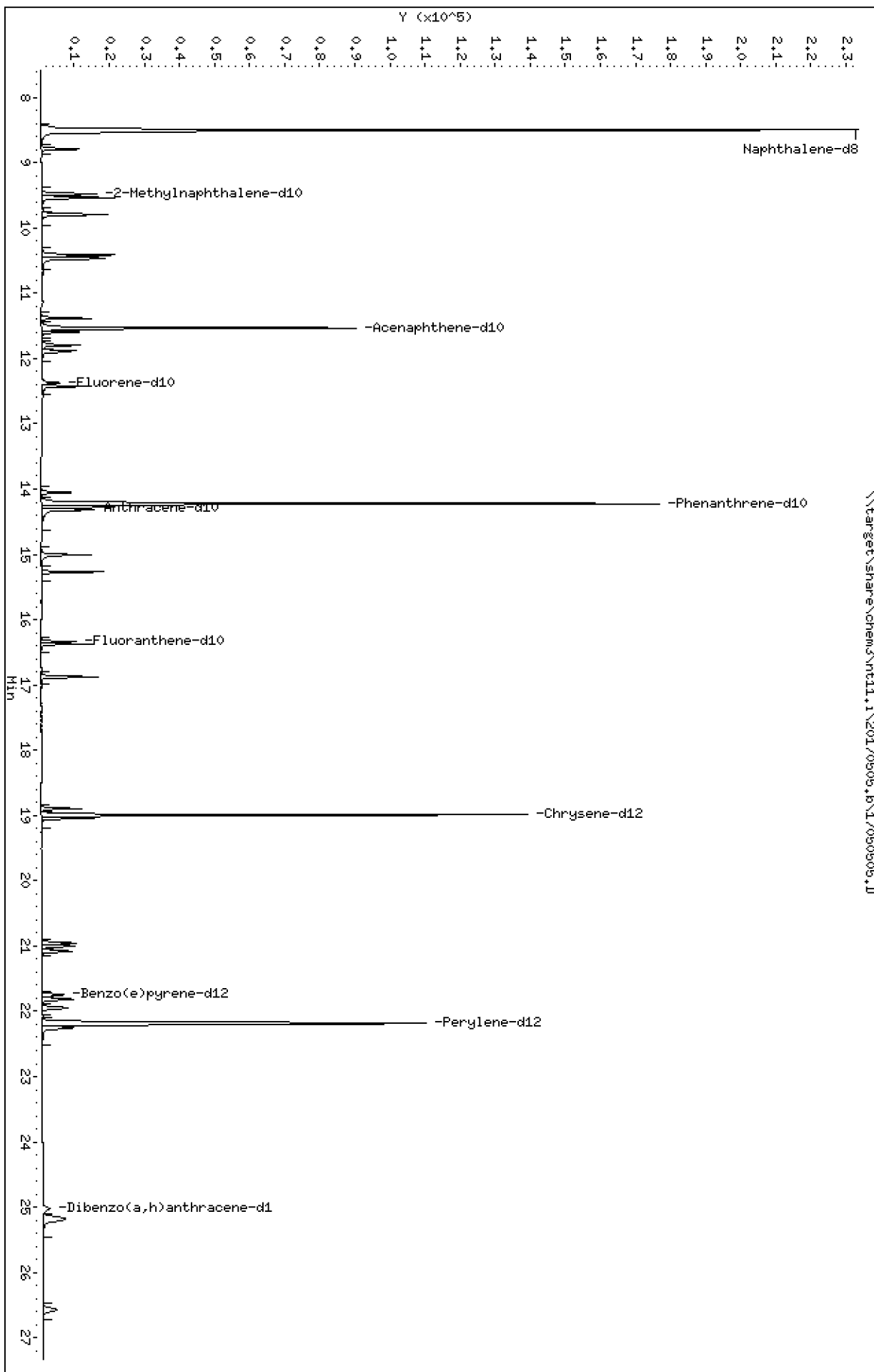
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

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ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170505.b\17050505.D

Lab Smp Id: SFE0059-CAL1

Inj Date : 05-MAY-2017 12:59

MS Autotune Date: 15-JAN-2015 16:59

Operator : VTS

Inst ID: nt11.i

Smp Info : SFE0059-CAL1

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20170505.b\lowsim.m

Meth Date : 06-May-2017 08:49 nt11.i

Quant Type: ISTD

Cal Date : 05-MAY-2017 14:47

Cal File: 17050508.D

Als bottle: 5

Calibration Sample, Level: 1

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: allpna.sub

Target Version: 4.14

Processing Host: VANS

Compounds	QUANT	SIG	AMOUNTS				CAL-AMT (ng/mL)	ON-COL (ng/mL)
			MASS	RT	EXP RT	REL RT		
* 1 Naphthalene-d8	136		8.499	8.499	(1.000)	362430	200.000	
2 Naphthalene	128		8.535	8.536	(1.004)	23089	10.0000	11.9
3 Benzo(b)thiophene	134		8.789	8.789	(1.034)	16007	10.0000	10.5
\$ 4 2-Methylnaphthalene-d10	152		9.487	9.477	(1.116)	15907	10.0000	10.2
5 2-Methylnaphthalene	142		9.540	9.540	(1.122)	18407	10.0000	10.2
6 1-Methylnaphthalene	142		9.802	9.802	(1.153)	17709	10.0000	10.2
7 2-Chloronaphthalene	162		10.454	10.454	(0.906)	15755	10.0000	10.6 (M)
8 Biphenyl	154		10.412	10.412	(0.902)	26255	10.0000	11.8
9 2,6-Dimethylnaphthalene	156		10.475	10.475	(0.908)	16121	10.0000	10.4
10 Acenaphthylene	152		11.383	11.383	(0.987)	17337	10.0000	10.4
* 11 Acenaphthene-d10	164		11.537	11.537	(1.000)	142581	200.000	
12 Acenaphthene	153		11.600	11.600	(1.005)	11279	10.0000	10.3
13 Dibenzofuran	168		11.797	11.797	(1.023)	15935	10.0000	10.6
14 2,3,5-Trimethylnaphthalene	170		11.898	11.898	(1.031)	8363	10.0000	9.79 (M)
\$ 15 Fluorene-d10	174		12.378	12.378	(1.073)	7329	10.0000	10.5 (M)
16 Fluorene	166		12.429	12.429	(1.077)	12296	10.0000	10.5
17 Dibenzothiophene	184		14.052	14.052	(0.987)	12755	10.0000	10.4
* 18 Phenanthrene-d10	188		14.230	14.230	(1.000)	236545	200.000	
19 Phenanthrene	178		14.272	14.272	(1.003)	19301	10.0000	11.0
\$ 20 Anthracene-d10	188		14.293	14.293	(1.004)	13396	10.0000	11.0 (M)
21 Anthracene	178		14.325	14.325	(1.007)	19550	10.0000	11.3
22 Carbazole	167		15.008	14.999	(1.055)	23132	10.0000	11.5
23 1-Methylphenanthrene	192		15.270	15.271	(1.073)	16403	10.0000	10.3
\$ 24 Fluoranthene-d10	212		16.338	16.338	(1.148)	11496	10.0000	10.3
25 Fluoranthene	202		16.377	16.377	(1.151)	18155	10.0000	10.7
26 Pyrene	202		16.876	16.876	(0.889)	18977	10.0000	10.6
27 Benzo(a)anthracene	228		18.900	18.900	(0.995)	14774	10.0000	10.5
* 28 Chrysene-d12	240		18.991	18.991	(1.000)	197257	200.000	
29 Chrysene	228		19.041	19.041	(1.003)	15099	10.0000	10.4
30 Benzo(b)fluoranthene	252		20.952	20.953	(0.945)	13571	10.0000	10.2
31 Benzo(k)fluoranthene	252		21.001	21.010	(0.947)	13328	10.0000	10.1
32 Benzo(j)fluoranthene	252		21.077	21.077	(0.950)	12369	10.0000	9.96
\$ 33 Benzo(e)pyrene-d12	264		21.740	21.750	(0.980)	11507	10.0000	10.3

Compounds	QUANT SIG							AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT	ON-COL		
=====	=====	=====	=====	=====	=====	=====	=====		
34 Benzo(e)pyrene	252	21.817	21.817	(0.984)	12516	10.0000	10.1		
35 Benzo(a)pyrene	252	21.942	21.952	(0.989)	11928	10.0000	9.86		
* 36 Perylene-d12	264	22.182	22.182	(1.000)	213968	200.000			
37 Perylene	252	22.259	22.259	(1.003)	12575	10.0000	10.1		
§ 38 Dibenzo(a,h)anthracene-d14	292	25.027	25.027	(1.128)	7675	10.0000	9.62		
39 Dibenzo(a,h)anthracene	278	25.171	25.171	(1.135)	9552	10.0000	9.34		
40 Indeno(1,2,3-cd)pyrene	276	25.204	25.204	(1.136)	12265	10.0000	9.61		
41 Benzo(g,h,i)perylene	276	26.567	26.567	(1.198)	11072	10.0000	10.1		

QC Flag Legend

M - Compound response manually integrated.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 17050505.D
 Lab Smp Id: SFE0059-CAL1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20170505.b\lowsim.m
 Misc Info:

Calibration Date: 05-MAY-2017
 Calibration Time: 11:47
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	371325	185663	742650	362430	-2.40
11 Acenaphthene-d10	154428	77214	308856	142581	-7.67
18 Phenanthrene-d10	256956	128478	513912	236545	-7.94
28 Chrysene-d12	208629	104315	417258	197257	-5.45
36 Perylene-d12	225431	112716	450862	213968	-5.08

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	8.50	8.00	9.00	8.50	-0.00
11 Acenaphthene-d10	11.54	11.04	12.04	11.54	-0.00
18 Phenanthrene-d10	14.23	13.73	14.73	14.23	-0.00
28 Chrysene-d12	18.99	18.49	19.49	18.99	-0.00
36 Perylene-d12	22.18	21.68	22.68	22.18	-0.00

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

REVIEW SUMMARY FOR FILE - 17050505.D

Lab ID: SFE0059-CAL1

nt11.i, 20170505.b\lowsim.m, 05-MAY-2017 12:59

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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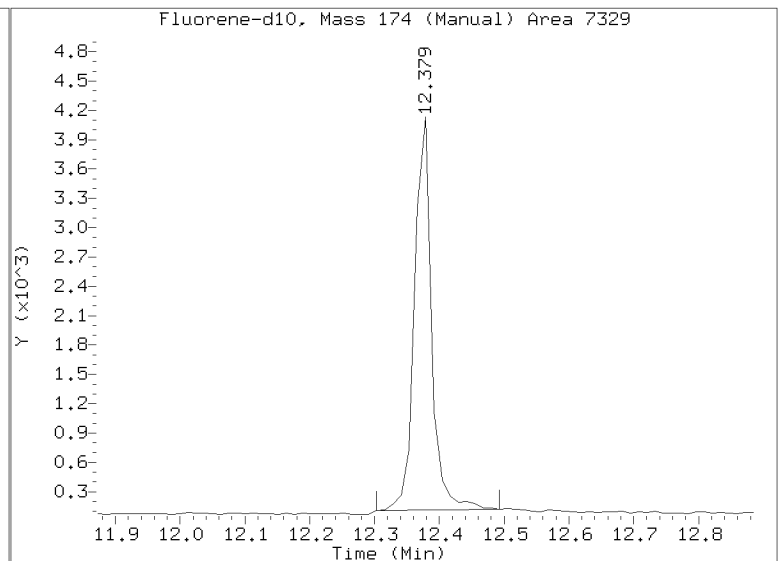
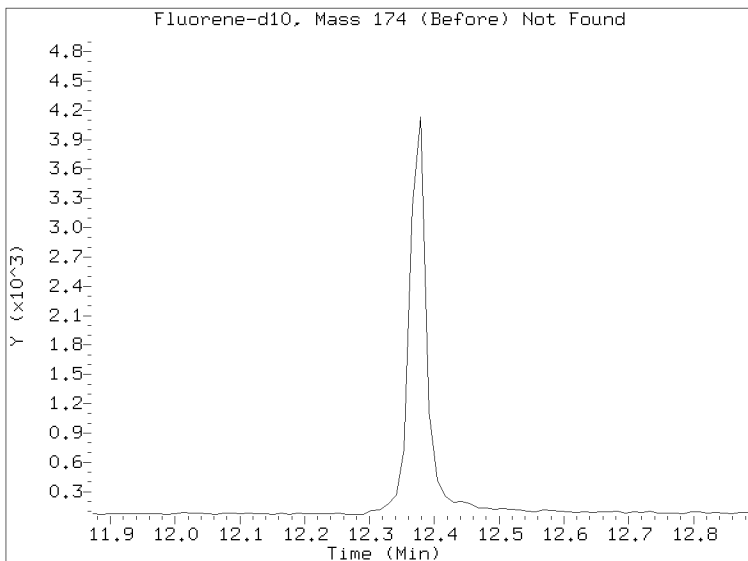
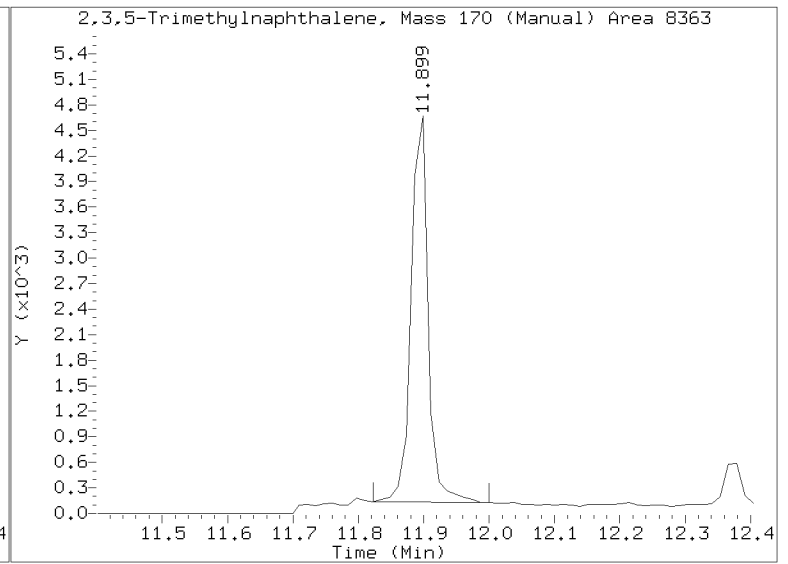
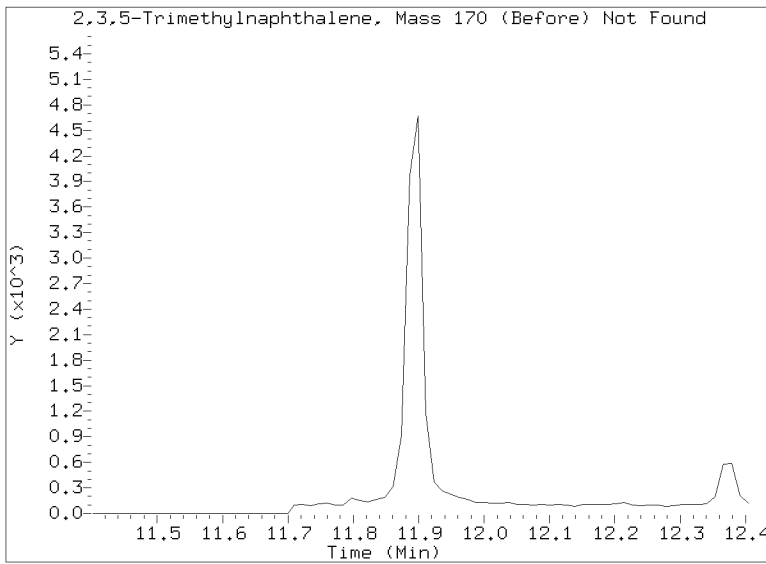
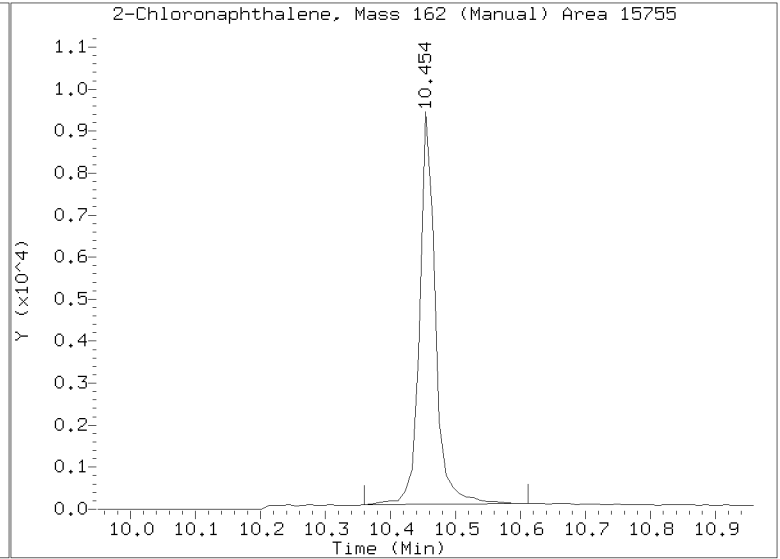
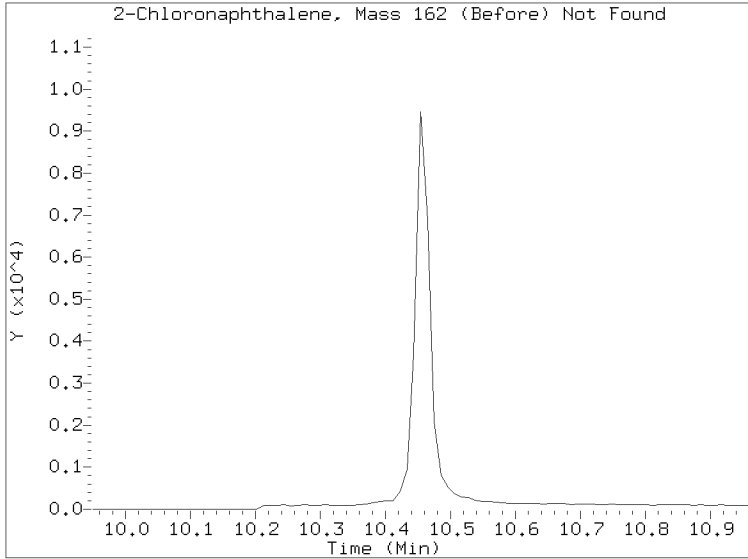
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On Column LOD for nt11.i, 20170505.b\lowsim.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20170505.b/17050505.D
Injection Date: 05-MAY-2017 12:59
Lab ID: SFE0059-CAL1 Client ID:
Report Date: 05/06/2017 08:49



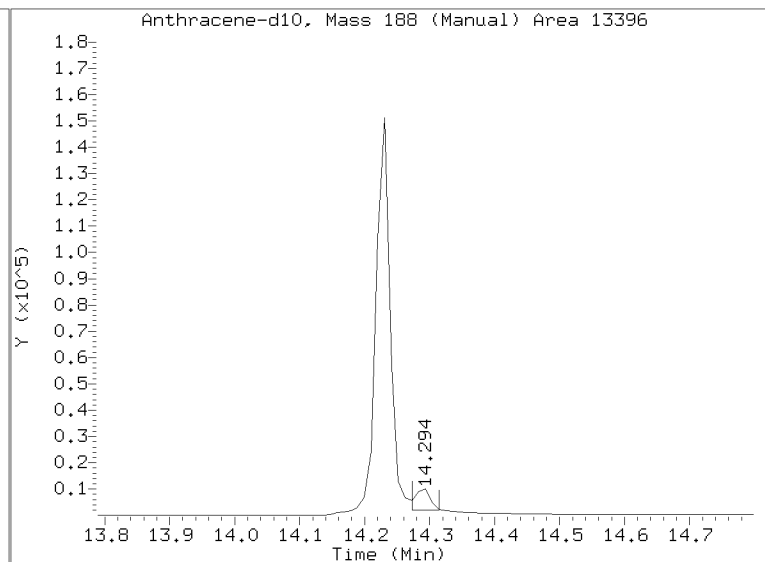
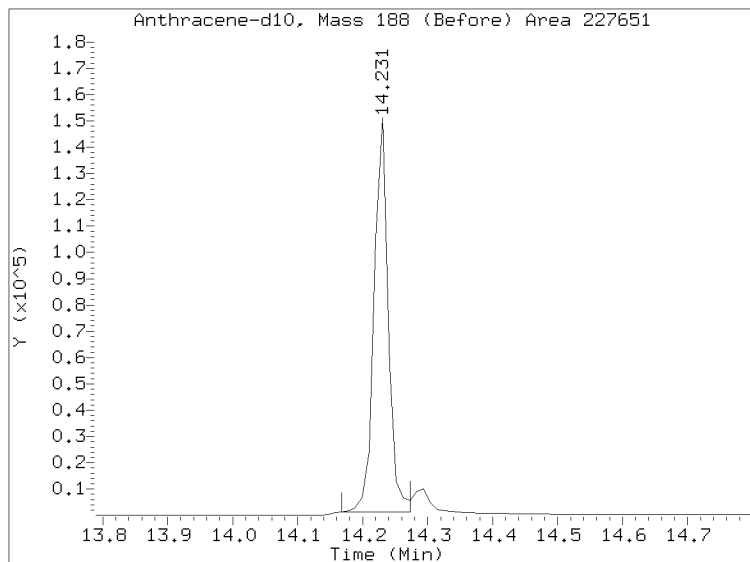
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20170505.b/17050505.D

Injection Date: 05-MAY-2017 12:59

Lab ID: SFE0059-CAL1 Client ID:

Report Date: 05/06/2017 08:49



Data File: \\target\share\chem3\nt11.1\20170505.16\17050506.D

Date : 05-May-2017 13:35

Client ID:

Sample Info: SFE0059-CALS

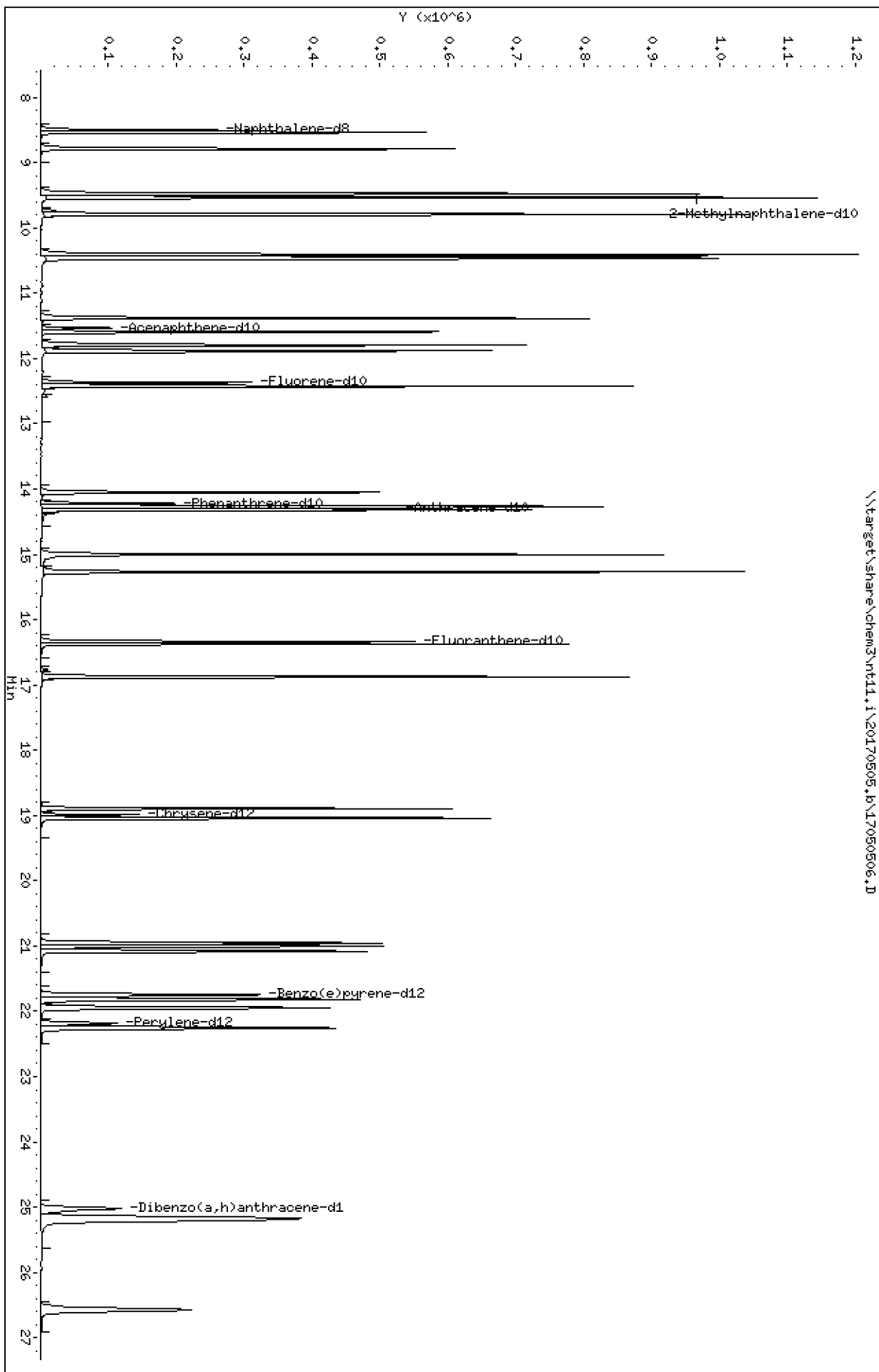
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170505.b\17050506.D

Lab Smp Id: SFE0059-CAL5

Inj Date : 05-MAY-2017 13:35

MS Autotune Date: 15-JAN-2015 16:59

Operator : VTS

Inst ID: nt11.i

Smp Info : SFE0059-CAL5

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20170505.b\LOWSIM.m

Meth Date : 06-May-2017 08:49 nt11.i

Quant Type: ISTD

Cal Date : 05-MAY-2017 14:47

Cal File: 17050508.D

Als bottle: 1

Calibration Sample, Level: 5

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: allpna.sub

Target Version: 4.14

Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	AMOUNTS	
							CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 1 Naphthalene-d8	136		8.499	8.499	(1.000)	361073	200.000	
2 Naphthalene	128		8.536	8.536	(1.004)	923984	500.000	476
3 Benzo(b)thiophene	134		8.789	8.789	(1.034)	770628	500.000	506
\$ 4 2-Methylnaphthalene-d10	152		9.477	9.477	(1.115)	787688	500.000	509
5 2-Methylnaphthalene	142		9.540	9.540	(1.122)	910851	500.000	509
6 1-Methylnaphthalene	142		9.792	9.802	(1.152)	878012	500.000	507
7 2-Chloronaphthalene	162		10.454	10.454	(0.906)	816540	500.000	503
8 Biphenyl	154		10.412	10.412	(0.902)	1074063	500.000	441
9 2,6-Dimethylnaphthalene	156		10.475	10.475	(0.908)	860130	500.000	505
10 Acenaphthylene	152		11.383	11.383	(0.987)	913442	500.000	498
* 11 Acenaphthene-d10	164		11.537	11.537	(1.000)	156339	200.000	
12 Acenaphthene	153		11.600	11.600	(1.005)	598455	500.000	499
13 Dibenzofuran	168		11.797	11.797	(1.023)	797453	500.000	482
14 2,3,5-Trimethylnaphthalene	170		11.886	11.898	(1.030)	486605	500.000	520
\$ 15 Fluorene-d10	174		12.366	12.378	(1.072)	383564	500.000	500
16 Fluorene	166		12.429	12.429	(1.077)	653009	500.000	506
17 Dibenzothiophene	184		14.052	14.052	(0.987)	674293	500.000	499
* 18 Phenanthrene-d10	188		14.230	14.230	(1.000)	261454	200.000	
19 Phenanthrene	178		14.272	14.272	(1.003)	943315	500.000	485
\$ 20 Anthracene-d10	188		14.293	14.293	(1.004)	645929	500.000	479
21 Anthracene	178		14.325	14.325	(1.007)	898711	500.000	469
22 Carbazole	167		14.999	14.999	(1.054)	1050702	500.000	471
23 1-Methylphenanthrene	192		15.271	15.271	(1.073)	897050	500.000	509
\$ 24 Fluoranthene-d10	212		16.338	16.338	(1.148)	617849	500.000	500
25 Fluoranthene	202		16.377	16.377	(1.151)	913757	500.000	489
26 Pyrene	202		16.876	16.876	(0.889)	913769	500.000	504
27 Benzo(a)anthracene	228		18.900	18.900	(0.995)	728636	500.000	511
* 28 Chrysene-d12	240		18.991	18.991	(1.000)	200348	200.000	
29 Chrysene	228		19.041	19.041	(1.003)	748382	500.000	508
30 Benzo(b)fluoranthene	252		20.953	20.953	(0.945)	695436	500.000	514
31 Benzo(k)fluoranthene	252		21.001	21.010	(0.947)	692825	500.000	517
32 Benzo(j)fluoranthene	252		21.077	21.077	(0.950)	649428	500.000	517
\$ 33 Benzo(e)pyrene-d12	264		21.750	21.750	(0.981)	580631	500.000	513

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
===== 34 Benzo(e)pyrene	252	21.817	21.817	(0.984)	648060	500.000	516
35 Benzo(a)pyrene	252	21.942	21.952	(0.989)	634034	500.000	518
* 36 Perylene-d12	264	22.182	22.182	(1.000)	216363	200.000	
37 Perylene	252	22.259	22.259	(1.003)	648994	500.000	515
§ 38 Dibenzo(a,h)anthracene-d14	292	25.027	25.027	(1.128)	426661	500.000	529
39 Dibenzo(a,h)anthracene	278	25.160	25.171	(1.134)	554838	500.000	537
40 Indeno(1,2,3-cd)pyrene	276	25.204	25.204	(1.136)	682676	500.000	529
41 Benzo(g,h,i)perylene	276	26.578	26.567	(1.198)	573754	500.000	520

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 17050506.D
 Lab Smp Id: SFE0059-CAL5
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20170505.b\LOWSIM.m
 Misc Info:

Calibration Date: 05-MAY-2017
 Calibration Time: 11:47
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	371325	185663	742650	361073	-2.76
11 Acenaphthene-d10	154428	77214	308856	156339	1.24
18 Phenanthrene-d10	256956	128478	513912	261454	1.75
28 Chrysene-d12	208629	104315	417258	200348	-3.97
36 Perylene-d12	225431	112716	450862	216363	-4.02

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	8.50	8.00	9.00	8.50	0.00
11 Acenaphthene-d10	11.54	11.04	12.04	11.54	-0.00
18 Phenanthrene-d10	14.23	13.73	14.73	14.23	0.00
28 Chrysene-d12	18.99	18.49	19.49	18.99	-0.00
36 Perylene-d12	22.18	21.68	22.68	22.18	-0.00

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

REVIEW SUMMARY FOR FILE - 17050506.D

Lab ID: SFE0059-CAL5

nt11.i, 20170505.b\LOWSIM.m, 05-MAY-2017 13:35

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT	CCV	RRT	DELTA	COMPOUND
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NONE

On Column LOD for nt11.i, 20170505.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

Data File: \\target\share\chem3\nt11.1\20170505.16\17050507.D

Date : 05-May-2017 14:11

Client ID:

Sample Info: SFE0059-CAL2

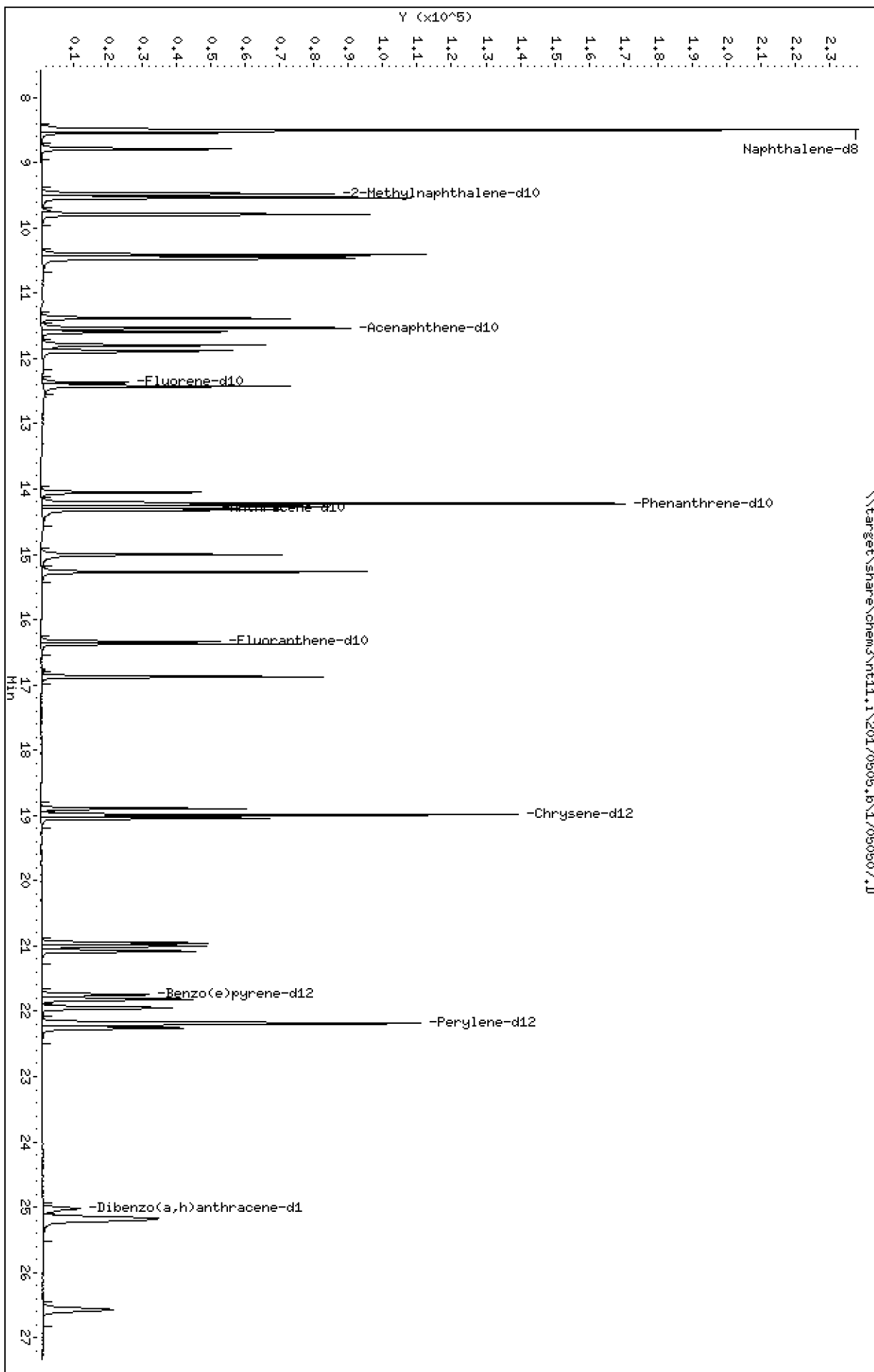
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170505.b\17050507.D

Lab Smp Id: SFE0059-CAL2

Inj Date : 05-MAY-2017 14:11

MS Autotune Date: 15-JAN-2015 16:59

Operator : VTS

Inst ID: nt11.i

Smp Info : SFE0059-CAL2

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20170505.b\LOWSIM.m

Meth Date : 06-May-2017 08:49 nt11.i

Quant Type: ISTD

Cal Date : 05-MAY-2017 14:47

Cal File: 17050508.D

Als bottle: 1

Calibration Sample, Level: 2

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: allpna.sub

Target Version: 4.14

Processing Host: VANS

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 1 Naphthalene-d8	136	8.500	8.499	(1.000)	358455	200.000	
2 Naphthalene	128	8.536	8.536	(1.004)	98634	50.0000	51.2
3 Benzo(b)thiophene	134	8.789	8.789	(1.034)	73262	50.0000	48.5
\$ 4 2-Methylnaphthalene-d10	152	9.477	9.477	(1.115)	77745	50.0000	50.6
5 2-Methylnaphthalene	142	9.540	9.540	(1.122)	90154	50.0000	50.7
6 1-Methylnaphthalene	142	9.803	9.802	(1.153)	88102	50.0000	51.3
7 2-Chloronaphthalene	162	10.454	10.454	(0.906)	74319	50.0000	49.2
8 Biphenyl	154	10.412	10.412	(0.902)	110348	50.0000	48.8 (M)
9 2,6-Dimethylnaphthalene	156	10.475	10.475	(0.908)	76192	50.0000	48.0
10 Acenaphthylene	152	11.383	11.383	(0.987)	89029	50.0000	52.2
* 11 Acenaphthene-d10	164	11.537	11.537	(1.000)	145440	200.000	
12 Acenaphthene	153	11.600	11.600	(1.005)	59028	50.0000	53.0
13 Dibenzofuran	168	11.797	11.797	(1.023)	85963	50.0000	55.9
14 2,3,5-Trimethylnaphthalene	170	11.886	11.898	(1.030)	42936	50.0000	49.3
\$ 15 Fluorene-d10	174	12.379	12.378	(1.073)	36241	50.0000	50.7
16 Fluorene	166	12.429	12.429	(1.077)	61761	50.0000	51.5
17 Dibenzothiophene	184	14.052	14.052	(0.987)	64994	50.0000	52.3
* 18 Phenanthrene-d10	188	14.230	14.230	(1.000)	240109	200.000	
19 Phenanthrene	178	14.273	14.272	(1.003)	95429	50.0000	53.4
\$ 20 Anthracene-d10	188	14.294	14.293	(1.004)	68393	50.0000	55.2
21 Anthracene	178	14.325	14.325	(1.007)	96795	50.0000	55.0
22 Carbazole	167	15.000	14.999	(1.054)	109595	50.0000	53.5
23 1-Methylphenanthrene	192	15.271	15.271	(1.073)	82927	50.0000	51.2
\$ 24 Fluoranthene-d10	212	16.338	16.338	(1.148)	59321	50.0000	52.3
25 Fluoranthene	202	16.377	16.377	(1.151)	91291	50.0000	53.1
26 Pyrene	202	16.876	16.876	(0.889)	93012	50.0000	50.8
27 Benzo(a)anthracene	228	18.892	18.900	(0.995)	71617	50.0000	49.8
* 28 Chrysene-d12	240	18.991	18.991	(1.000)	202079	200.000	
29 Chrysene	228	19.041	19.041	(1.003)	74101	50.0000	49.9
30 Benzo(b)fluoranthene	252	20.953	20.953	(0.945)	68526	50.0000	51.1
31 Benzo(k)fluoranthene	252	21.001	21.010	(0.947)	66941	50.0000	50.4
32 Benzo(j)fluoranthene	252	21.078	21.077	(0.950)	63452	50.0000	50.9
\$ 33 Benzo(e)pyrene-d12	264	21.741	21.750	(0.980)	57272	50.0000	51.0

Compounds	QUANT SIG							AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)		
===== 34 Benzo(e)pyrene	252	21.817	21.817	(0.984)	63080	50.0000	50.6		
35 Benzo(a)pyrene	252	21.942	21.952	(0.989)	61294	50.0000	50.5		
* 36 Perylene-d12	264	22.183	22.182	(1.000)	214583	200.000			
37 Perylene	252	22.259	22.259	(1.003)	62979	50.0000	50.4		
§ 38 Dibenzo(a,h)anthracene-d14	292	25.027	25.027	(1.128)	39910	50.0000	49.9		
39 Dibenzo(a,h)anthracene	278	25.171	25.171	(1.135)	50078	50.0000	48.9		
40 Indeno(1,2,3-cd)pyrene	276	25.204	25.204	(1.136)	62840	50.0000	49.1		
41 Benzo(g,h,i)perylene	276	26.567	26.567	(1.198)	54418	50.0000	49.7		

QC Flag Legend

M - Compound response manually integrated.

Report Date: 06-May-2017 08:49

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
AREA AND RT SUMMARY

Instrument ID: nt11.i

Calibration Date: 05-MAY-2017

Lab File ID: 17050507.D

Calibration Time: 11:47

Lab Smp Id: SFE0059-CAL2

Analysis Type: SV

Level:

Quant Type: ISTD

Sample Type:

Operator: VTS

Method File: \\target\share\chem3\nt11.i\20170505.b\LOWSIM.m

Misc Info:

Test Mode:

Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	371325	185663	742650	358455	-3.47
11 Acenaphthene-d10	154428	77214	308856	145440	-5.82
18 Phenanthrene-d10	256956	128478	513912	240109	-6.56
28 Chrysene-d12	208629	104315	417258	202079	-3.14
36 Perylene-d12	225431	112716	450862	214583	-4.81

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	8.50	8.00	9.00	8.50	0.00
11 Acenaphthene-d10	11.54	11.04	12.04	11.54	0.00
18 Phenanthrene-d10	14.23	13.73	14.73	14.23	0.00
28 Chrysene-d12	18.99	18.49	19.49	18.99	0.00
36 Perylene-d12	22.18	21.68	22.68	22.18	0.00

AREA UPPER LIMIT = +100% of internal standard area.

AREA LOWER LIMIT = - 50% of internal standard area.

RT UPPER LIMIT = + 0.50 minutes of internal standard RT.

RT LOWER LIMIT = - 0.50 minutes of internal standard RT.

REVIEW SUMMARY FOR FILE - 17050507.D

Lab ID: SFE0059-CAL2

nt11.i, 20170505.b\LOWSIM.m, 05-MAY-2017 14:11

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT CCV RRT DELTA COMPOUND

NONE

On Column LOD for nt11.i, 20170505.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

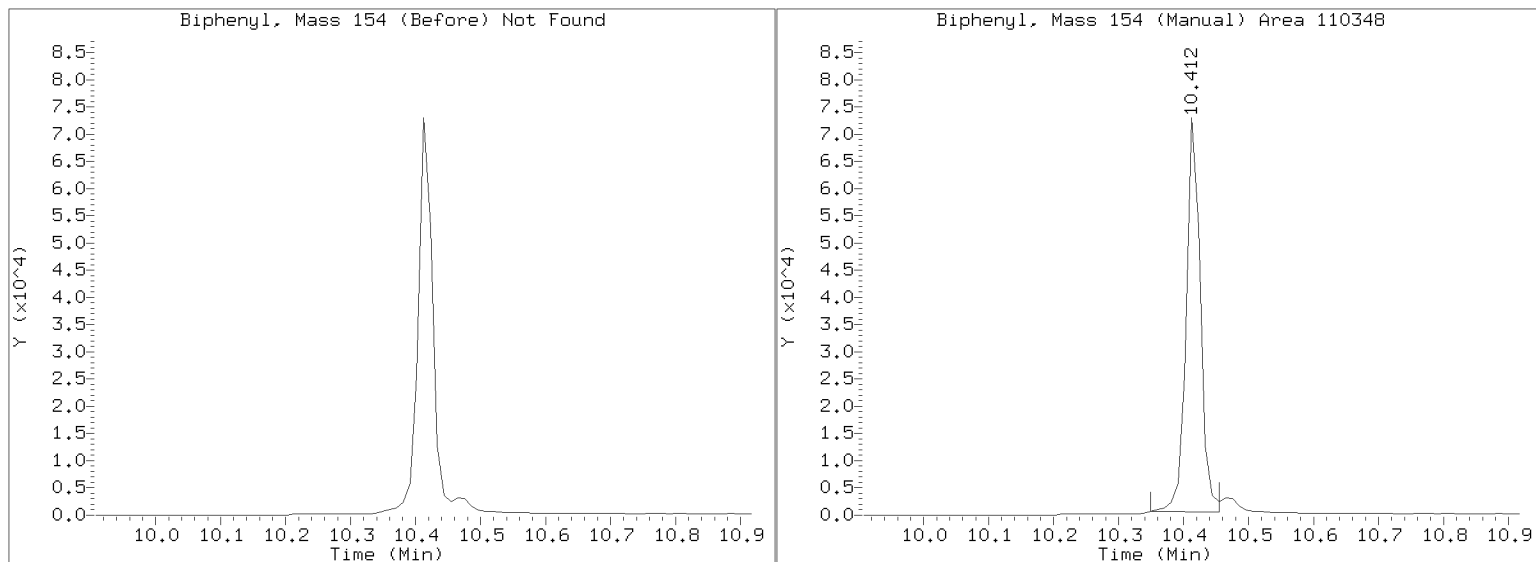
Quant Ion Manual Peak Adjustment Report

Datafile: //target/share/chem3/nt11.i/20170505.b/17050507.D

Injection Date: 05-MAY-2017 14:11

Lab ID: SFE0059-CAL2 Client ID:

Report Date: 05/06/2017 08:49



Data File: \\target\share\chem3\nt11.1\20170505.16\17050508.D

Date : 05-May-2017 14:47

Client ID:

Sample Info: SFE0059-CAL3

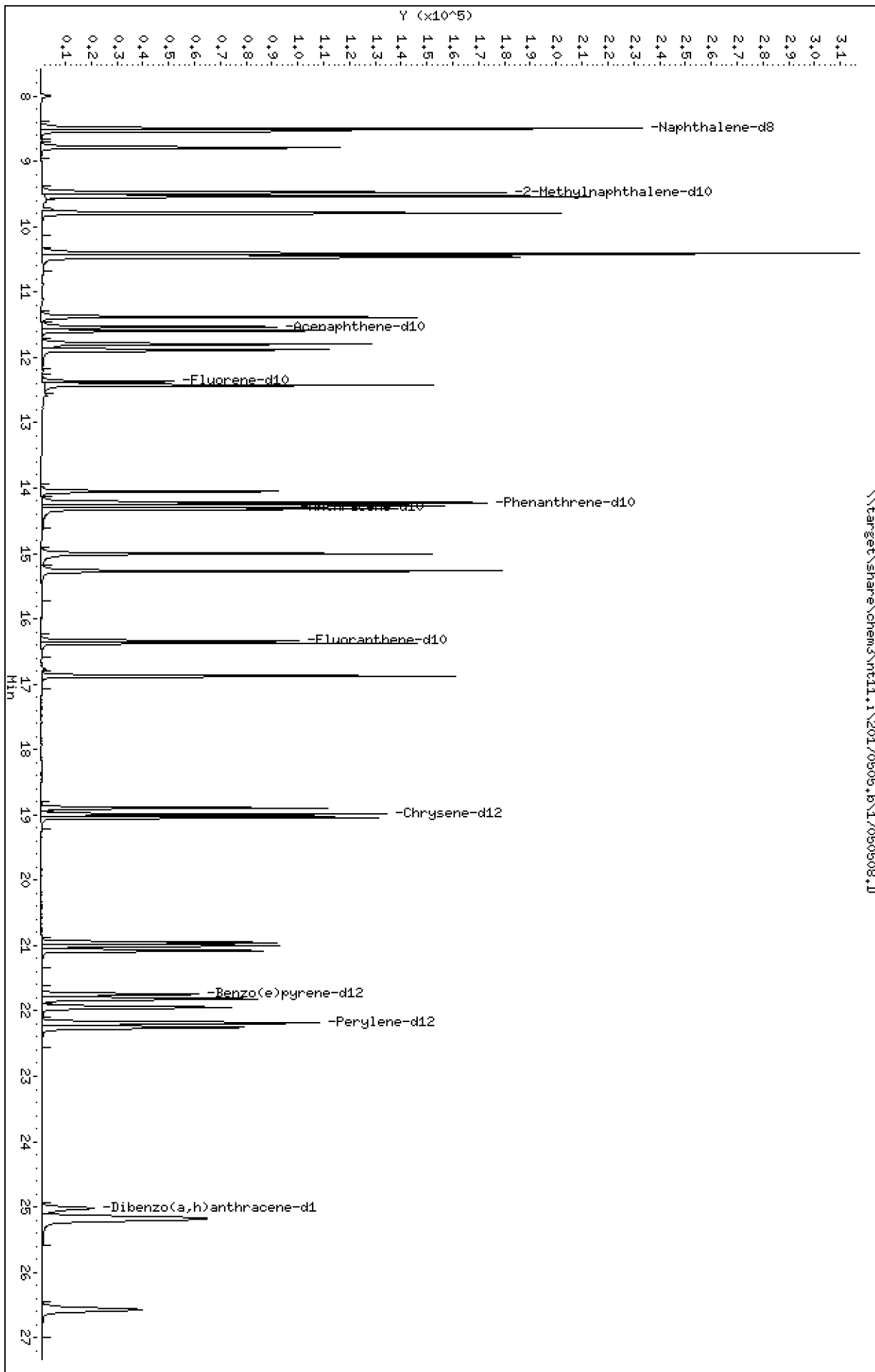
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

\\target\share\chem3\nt11.1\20170505.16\17050508.D



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170505.b\17050508.D

Lab Smp Id: SFE0059-CAL3

Inj Date : 05-MAY-2017 14:47

MS Autotune Date: 15-JAN-2015 16:59

Operator : VTS

Inst ID: nt11.i

Smp Info : SFE0059-CAL3

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20170505.b\LOWSIM.m

Meth Date : 06-May-2017 08:49 nt11.i

Quant Type: ISTD

Cal Date : 05-MAY-2017 14:47

Cal File: 17050508.D

Als bottle: 1

Calibration Sample, Level: 3

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: allpna.sub

Target Version: 4.14

Processing Host: VANS

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 1 Naphthalene-d8	136	8.499	8.499	(1.000)	353401	200.000	
2 Naphthalene	128	8.536	8.536	(1.004)	193481	100.000	102
3 Benzo(b)thiophene	134	8.789	8.789	(1.034)	151368	100.000	102
\$ 4 2-Methylnaphthalene-d10	152	9.477	9.477	(1.115)	155546	100.000	103
5 2-Methylnaphthalene	142	9.540	9.540	(1.122)	180534	100.000	103
6 1-Methylnaphthalene	142	9.792	9.802	(1.152)	174330	100.000	103
7 2-Chloronaphthalene	162	10.454	10.454	(0.906)	155033	100.000	102
8 Biphenyl	154	10.412	10.412	(0.902)	286889	100.000	126
9 2,6-Dimethylnaphthalene	156	10.475	10.475	(0.908)	169010	100.000	106
10 Acenaphthylene	152	11.383	11.383	(0.987)	172931	100.000	101
* 11 Acenaphthene-d10	164	11.537	11.537	(1.000)	145861	200.000	
12 Acenaphthene	153	11.591	11.600	(1.005)	112140	100.000	100
13 Dibenzofuran	168	11.797	11.797	(1.023)	155479	100.000	101
14 2,3,5-Trimethylnaphthalene	170	11.886	11.898	(1.030)	85399	100.000	97.7
\$ 15 Fluorene-d10	174	12.366	12.378	(1.072)	69261	100.000	96.7
16 Fluorene	166	12.429	12.429	(1.077)	117996	100.000	98.1
17 Dibenzothiophene	184	14.052	14.052	(0.987)	125836	100.000	102
* 18 Phenanthrene-d10	188	14.230	14.230	(1.000)	238193	200.000	
19 Phenanthrene	178	14.272	14.272	(1.003)	184290	100.000	104
\$ 20 Anthracene-d10	188	14.293	14.293	(1.004)	123279	100.000	100
21 Anthracene	178	14.325	14.325	(1.007)	184776	100.000	106
22 Carbazole	167	15.000	14.999	(1.054)	211930	100.000	104
23 1-Methylphenanthrene	192	15.271	15.271	(1.073)	162721	100.000	101
\$ 24 Fluoranthene-d10	212	16.338	16.338	(1.148)	113968	100.000	101
25 Fluoranthene	202	16.377	16.377	(1.151)	175924	100.000	103
26 Pyrene	202	16.876	16.876	(0.889)	176871	100.000	103
27 Benzo(a)anthracene	228	18.892	18.900	(0.995)	136027	100.000	100
* 28 Chrysene-d12	240	18.991	18.991	(1.000)	190128	200.000	
29 Chrysene	228	19.041	19.041	(1.003)	145165	100.000	104
30 Benzo(b)fluoranthene	252	20.953	20.953	(0.945)	131663	100.000	102
31 Benzo(k)fluoranthene	252	21.001	21.010	(0.947)	128459	100.000	100
32 Benzo(j)fluoranthene	252	21.078	21.077	(0.950)	122355	100.000	102
\$ 33 Benzo(e)pyrene-d12	264	21.741	21.750	(0.980)	109036	100.000	101

Compounds	QUANT SIG							AMOUNTS	
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)		
=====	=====	=====	=====	=====	=====	=====	=====		
34 Benzo(e)pyrene	252	21.817	21.817	(0.984)	121088	100.000	101		
35 Benzo(a)pyrene	252	21.942	21.952	(0.989)	115844	100.000	99.0		
* 36 Perylene-d12	264	22.183	22.182	(1.000)	206951	200.000			
37 Perylene	252	22.259	22.259	(1.003)	120419	100.000	99.9		
§ 38 Dibenzo(a,h)anthracene-d14	292	25.027	25.027	(1.128)	76368	100.000	98.9		
39 Dibenzo(a,h)anthracene	278	25.160	25.171	(1.134)	97257	100.000	98.4		
40 Indeno(1,2,3-cd)pyrene	276	25.193	25.204	(1.136)	121216	100.000	98.2		
41 Benzo(g,h,i)perylene	276	26.567	26.567	(1.198)	104005	100.000	98.5		

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 17050508.D
 Lab Smp Id: SFE0059-CAL3
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20170505.b\LOWSIM.m
 Misc Info:

Calibration Date: 05-MAY-2017
 Calibration Time: 11:47
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	371325	185663	742650	353401	-4.83
11 Acenaphthene-d10	154428	77214	308856	145861	-5.55
18 Phenanthrene-d10	256956	128478	513912	238193	-7.30
28 Chrysene-d12	208629	104315	417258	190128	-8.87
36 Perylene-d12	225431	112716	450862	206951	-8.20

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	8.50	8.00	9.00	8.50	0.00
11 Acenaphthene-d10	11.54	11.04	12.04	11.54	0.00
18 Phenanthrene-d10	14.23	13.73	14.73	14.23	0.00
28 Chrysene-d12	18.99	18.49	19.49	18.99	0.00
36 Perylene-d12	22.18	21.68	22.68	22.18	0.00

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

REVIEW SUMMARY FOR FILE - 17050508.D

Lab ID: SFE0059-CAL3
nt11.i, 20170505.b\LOWSIM.m, 05-MAY-2017 14:47

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

RRT CHECK

RRT CCV RRT DELTA COMPOUND

NONE

On Column LOD for nt11.i, 20170505.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

Data File: \\target\share\chem3\nt11.1\20170505.16\17050509.D

Date: 05-May-2017 15:23

Client ID:

Sample Info: SFE0059-SCW1

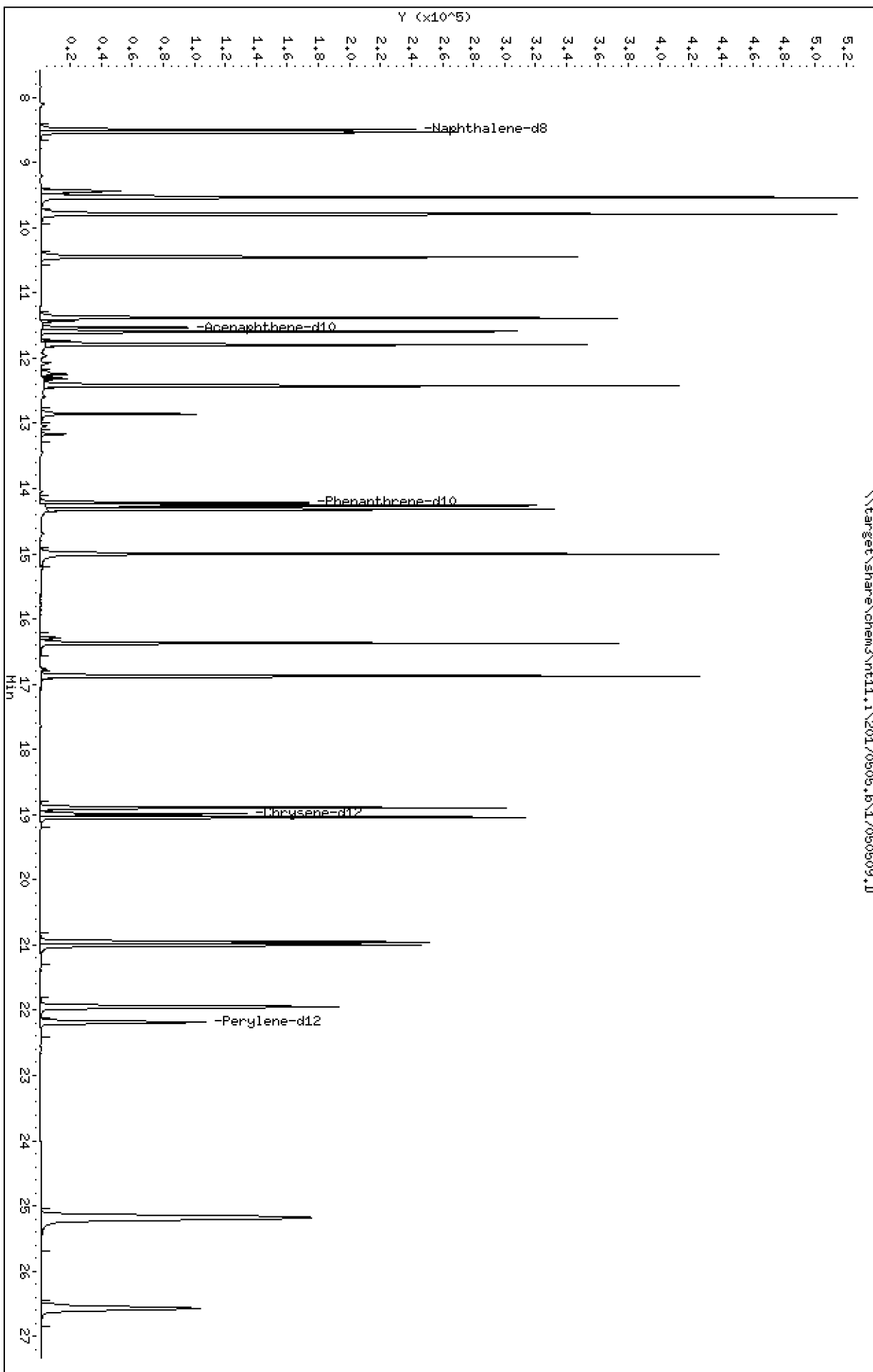
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

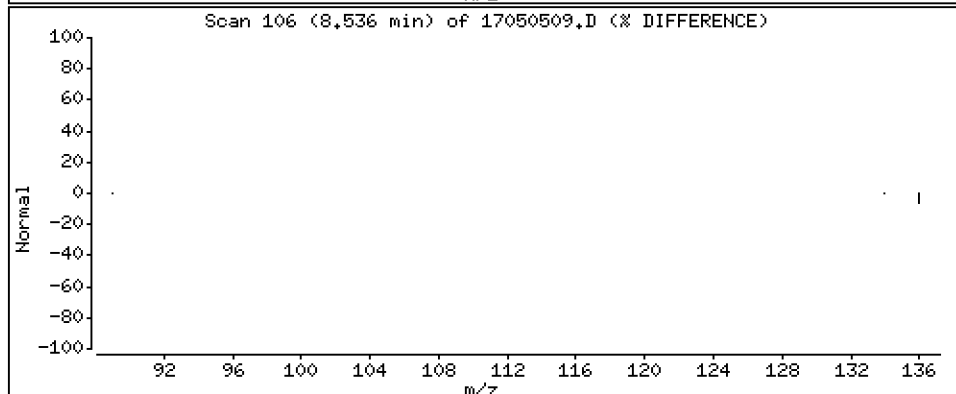
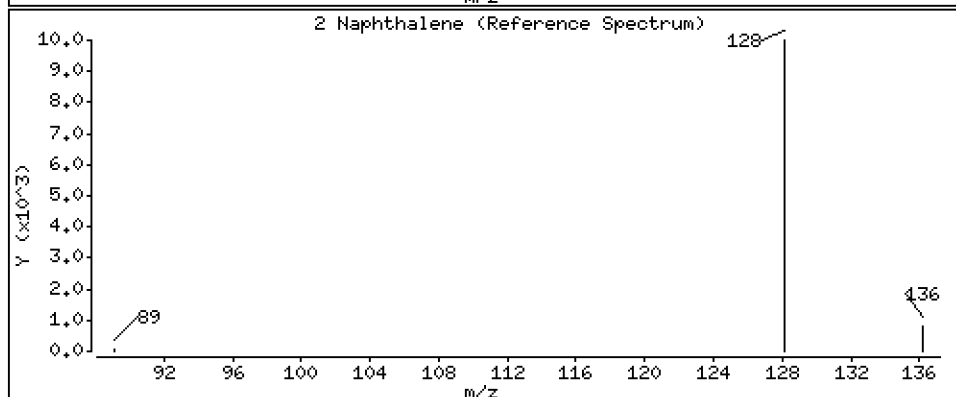
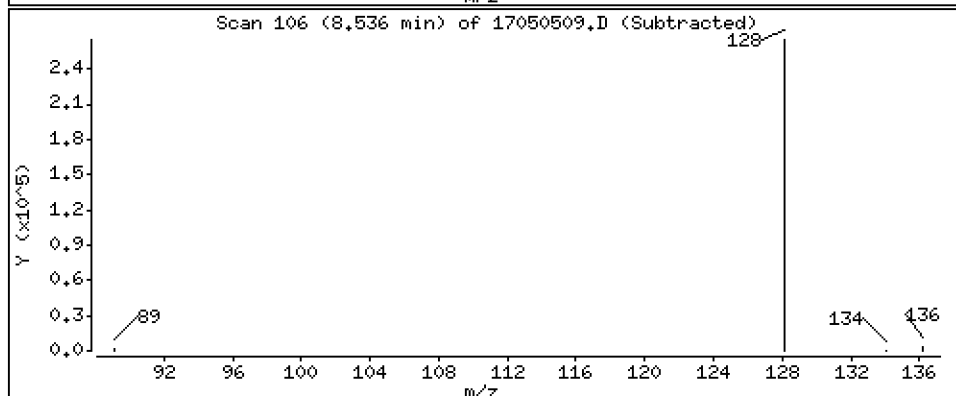
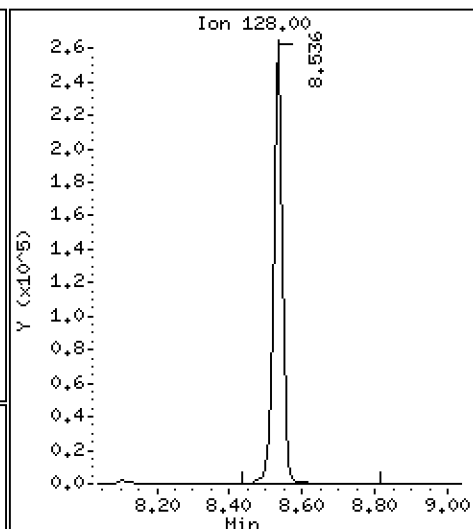
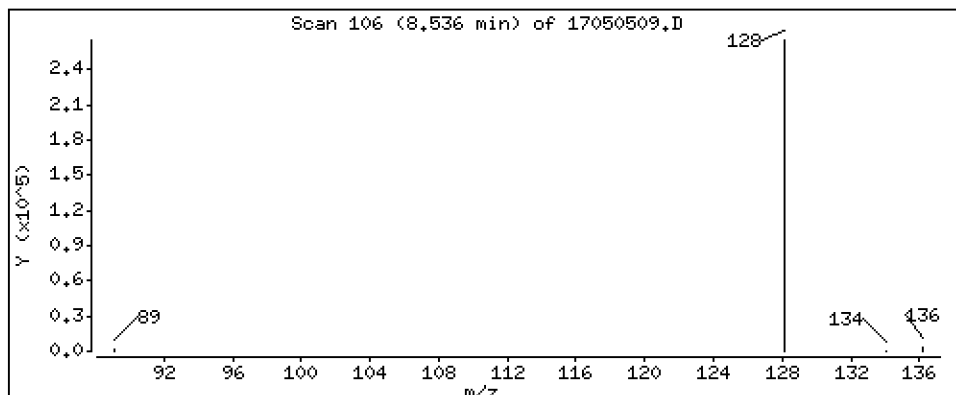
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 240 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

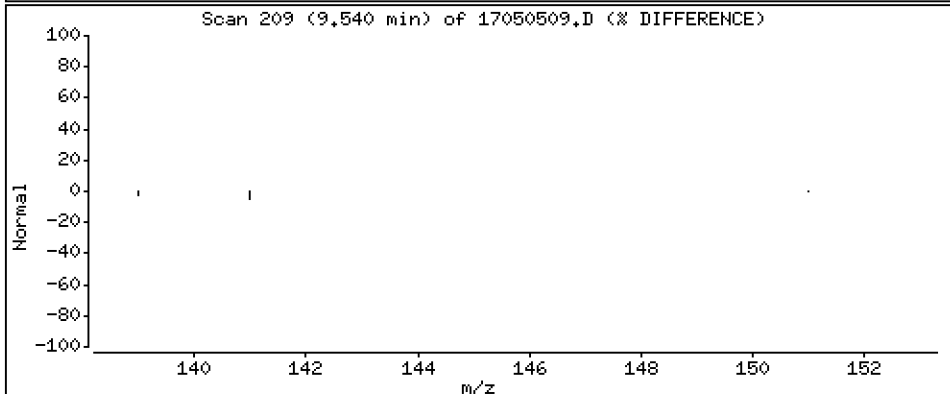
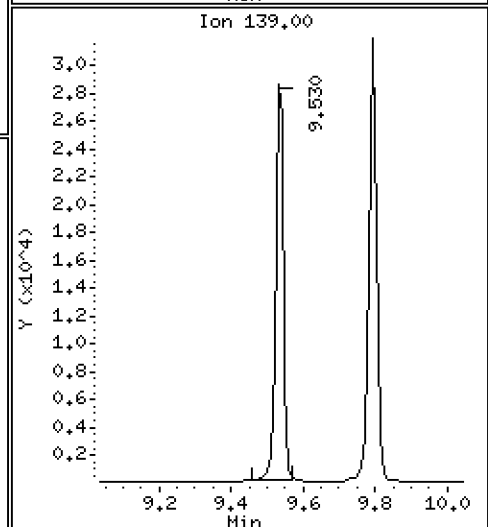
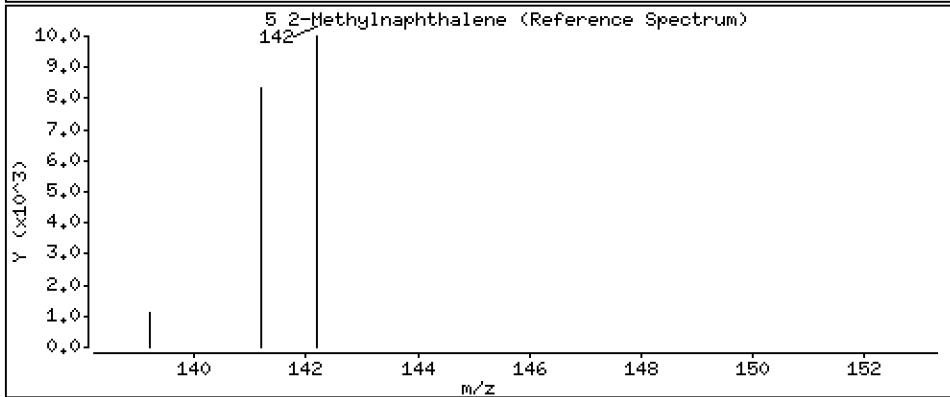
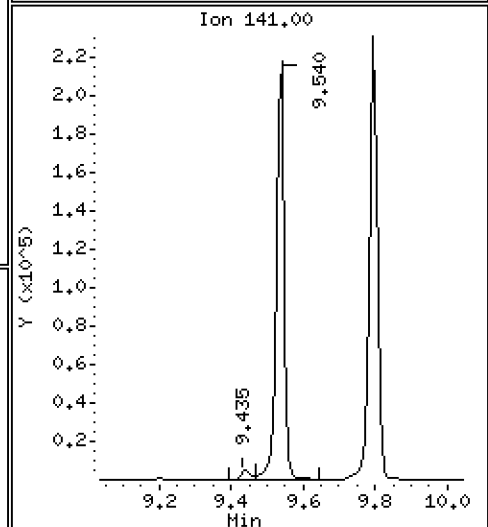
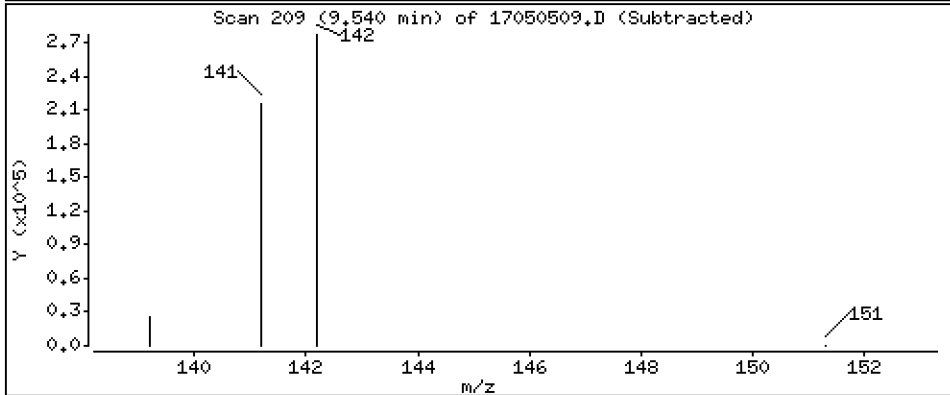
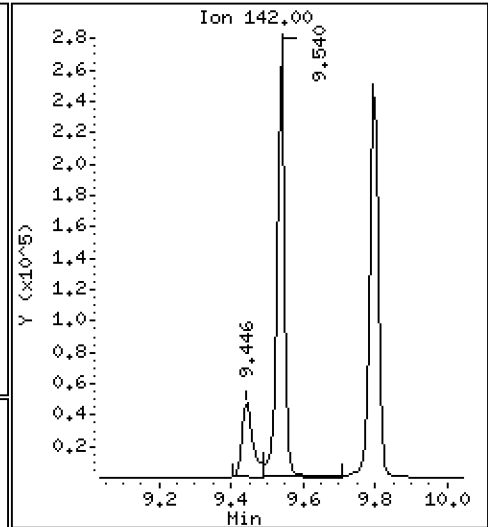
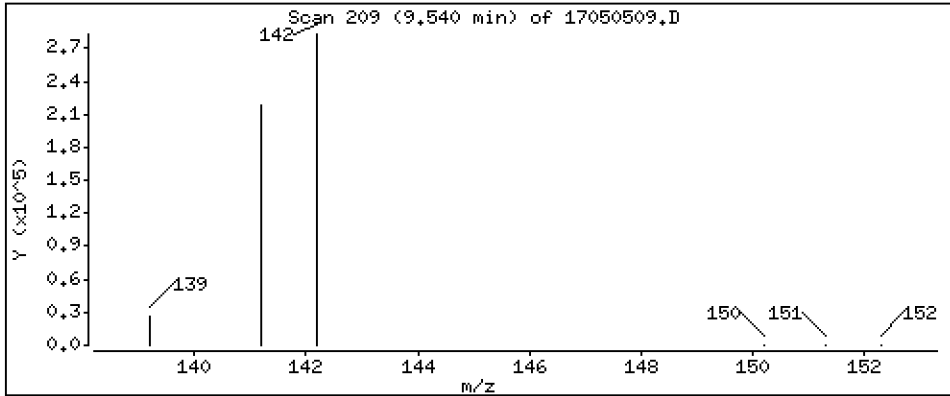
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

5 2-Methylnaphthalene

Concentration: 257 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

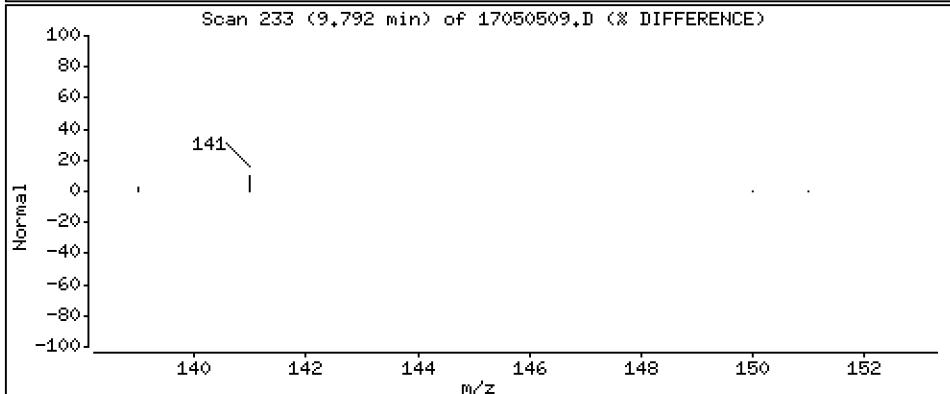
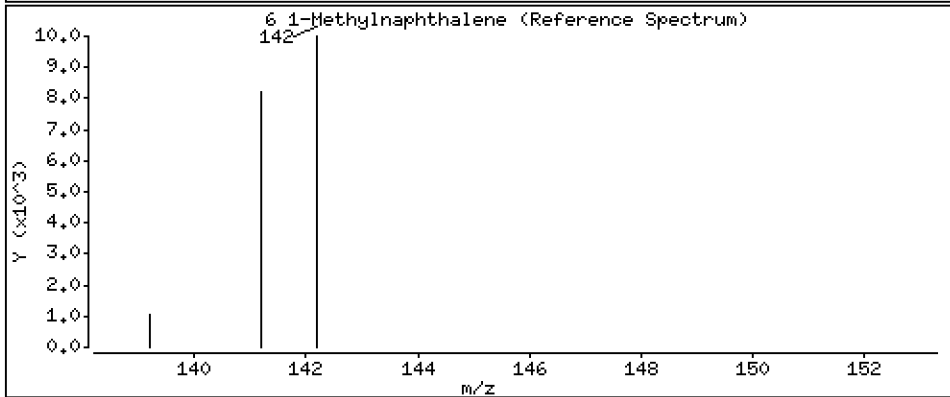
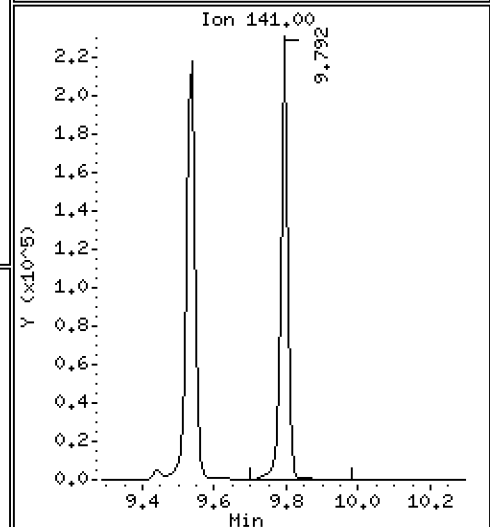
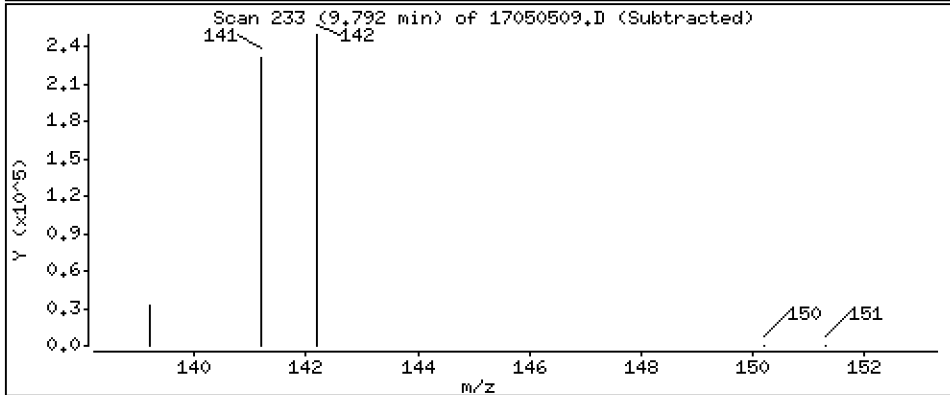
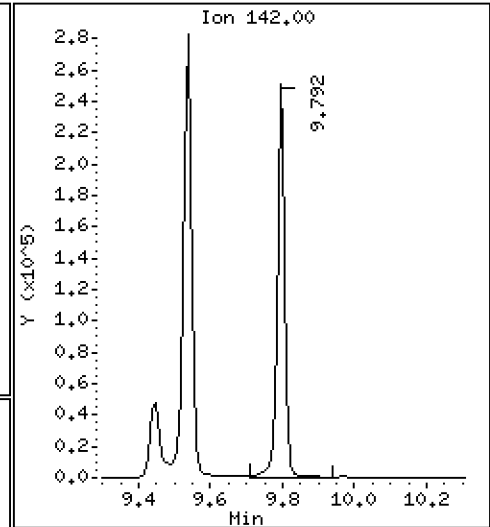
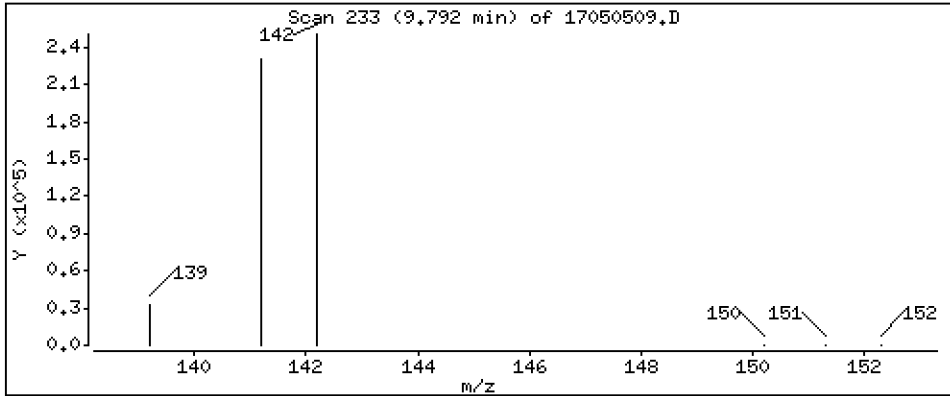
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

6-1-Methylnaphthalene

Concentration: 247 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

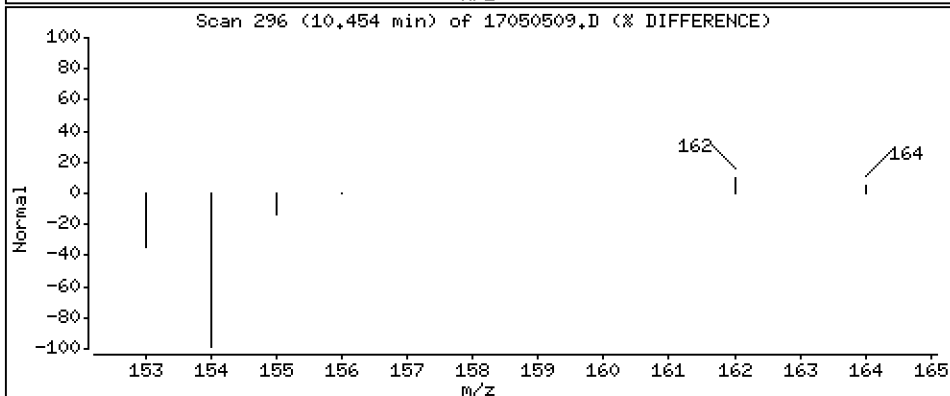
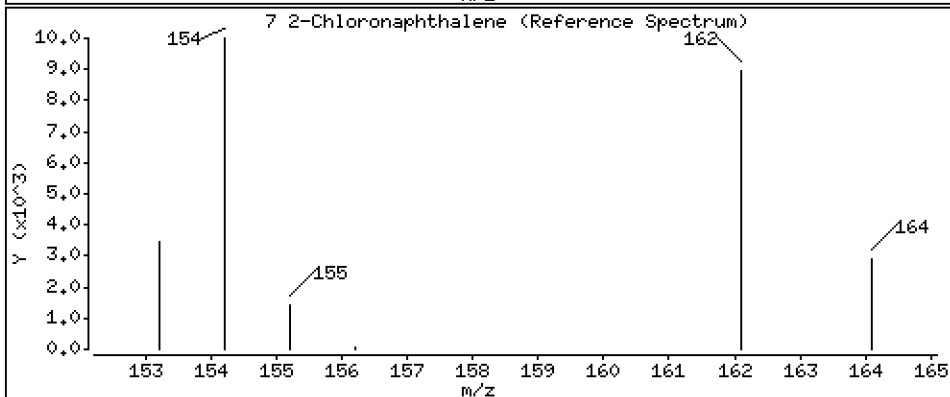
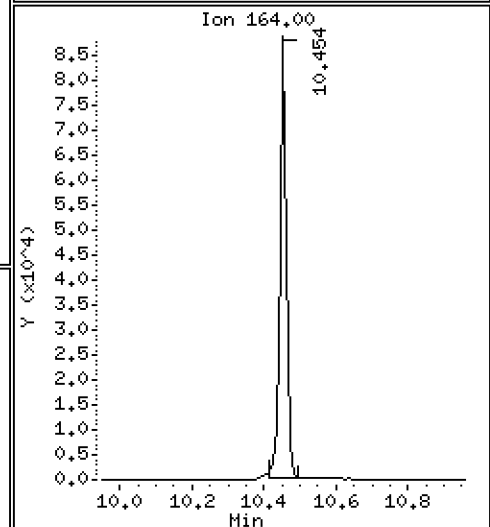
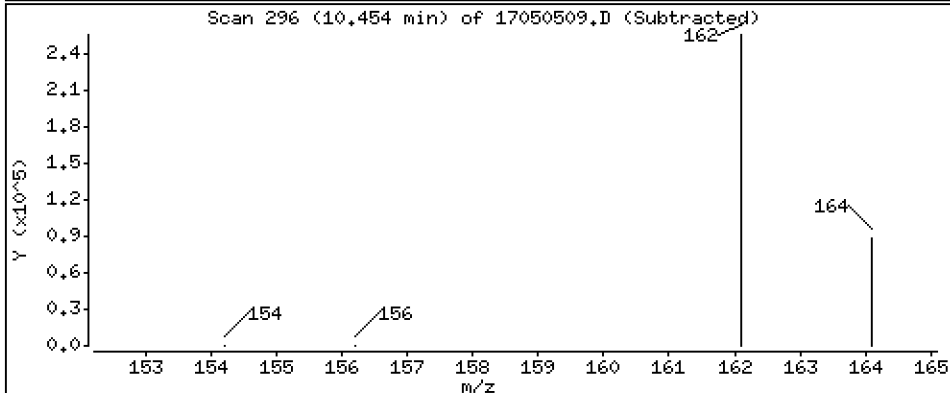
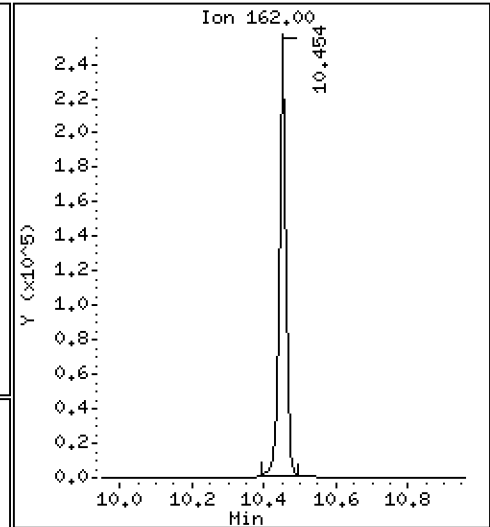
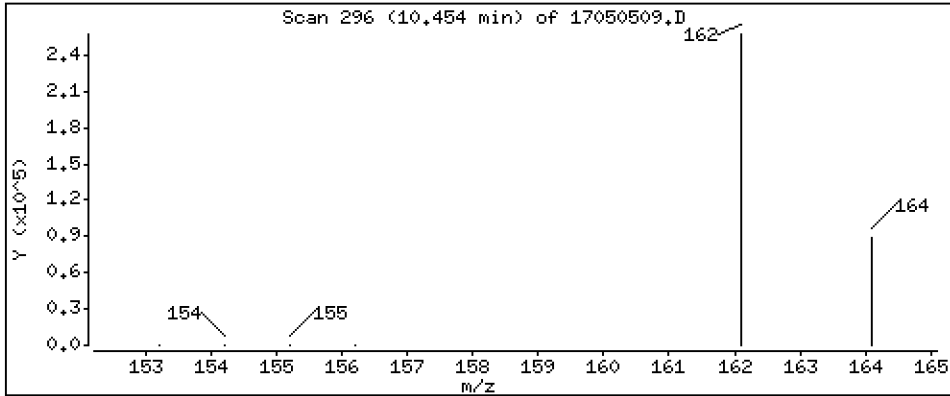
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 2-Chloronaphthalene

Concentration: 246 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

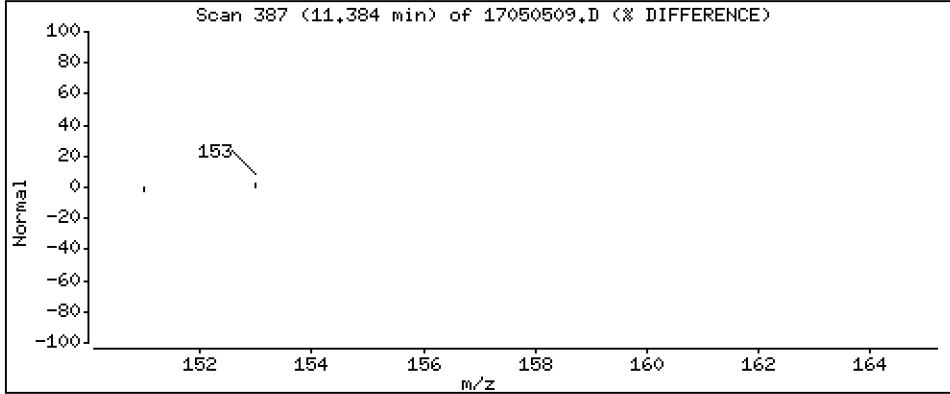
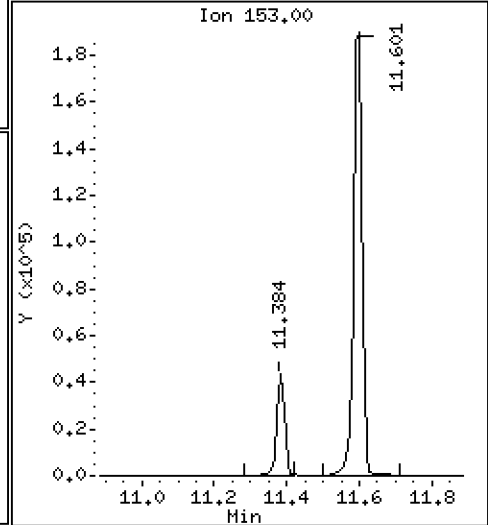
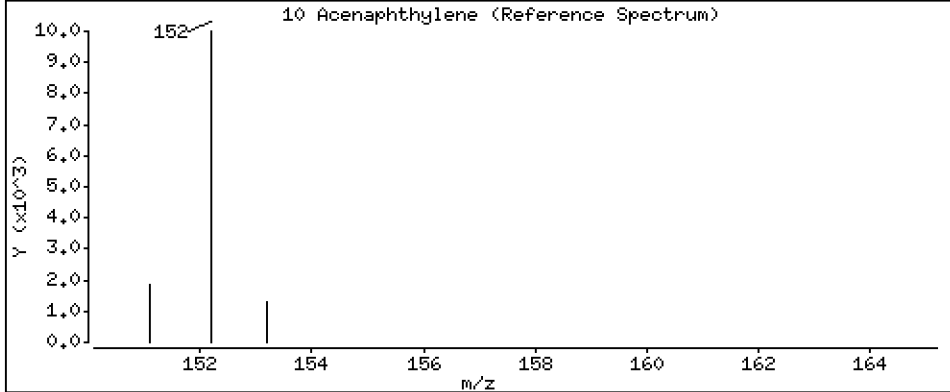
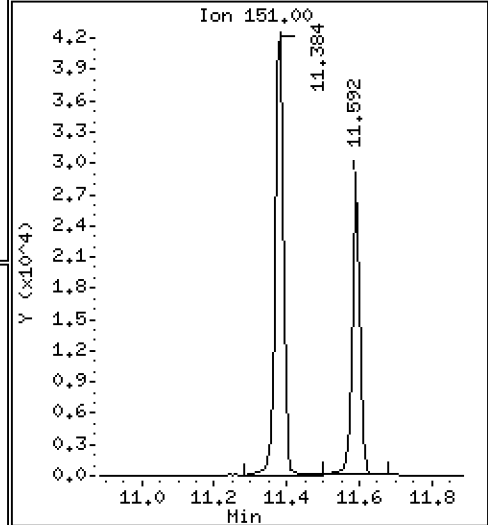
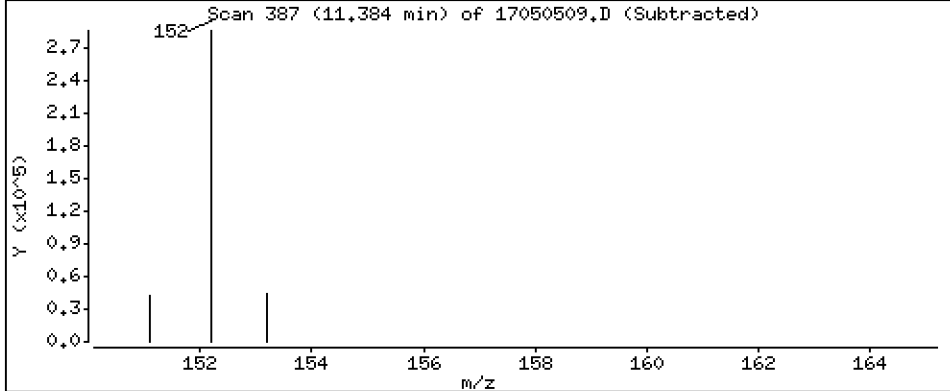
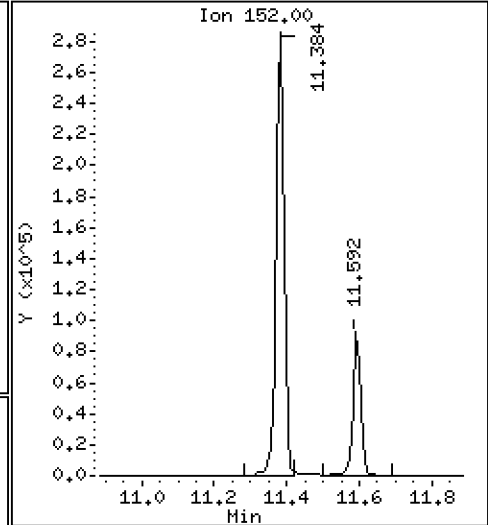
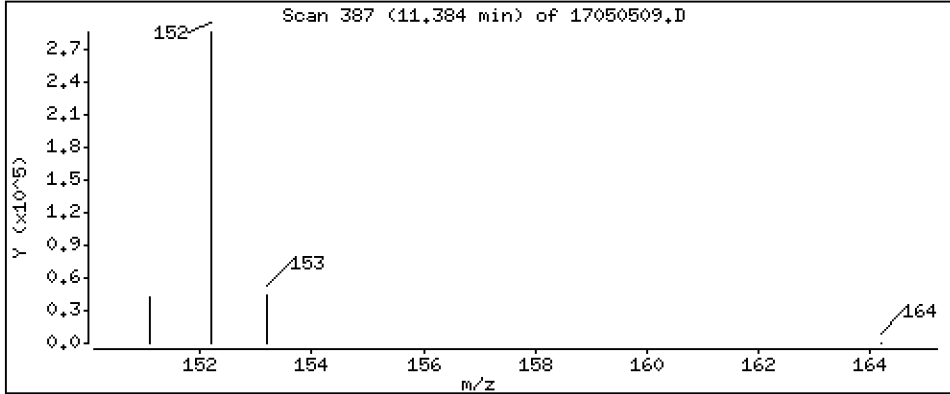
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

Concentration: 247 ng/mL

10 Acenaphthylene



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

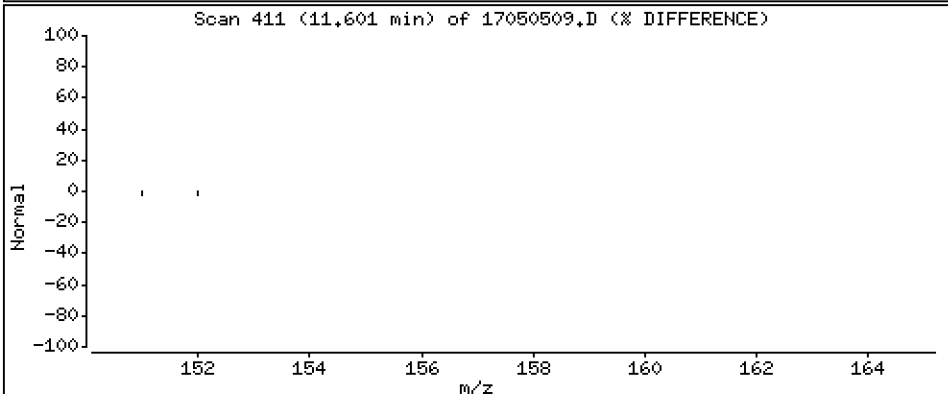
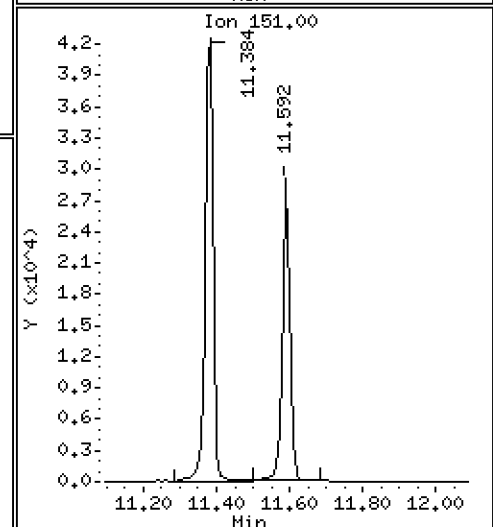
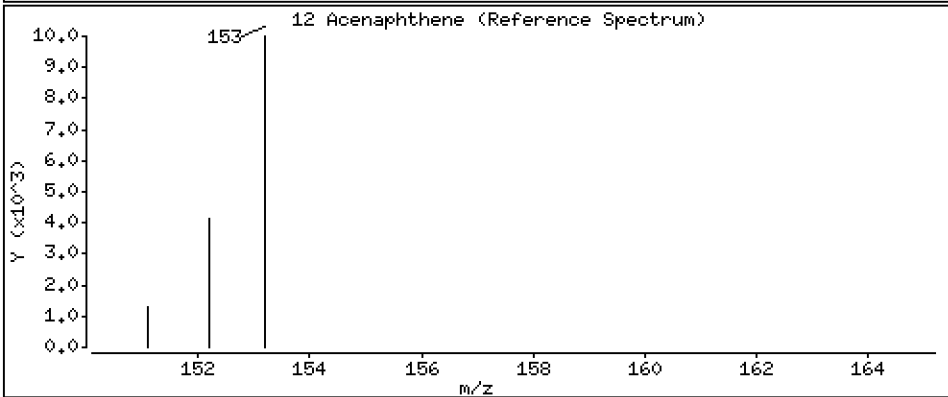
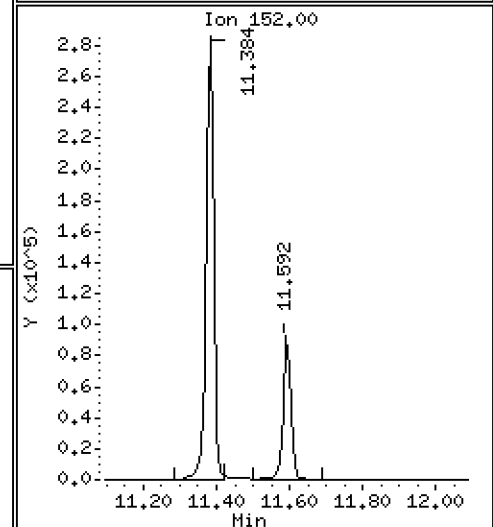
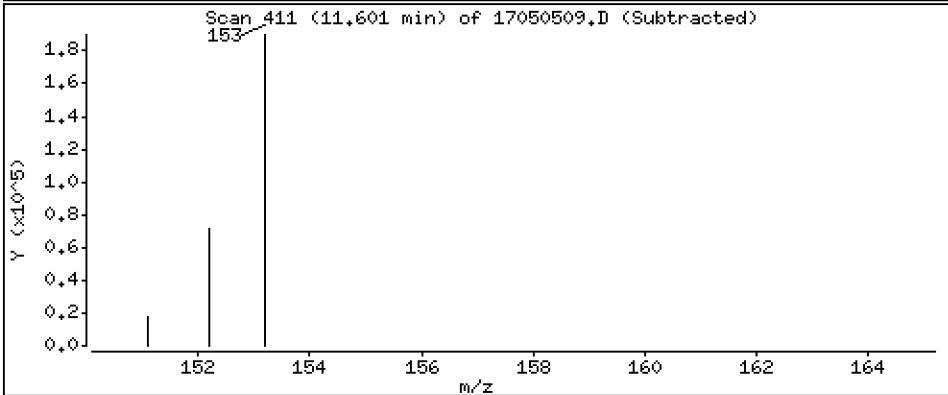
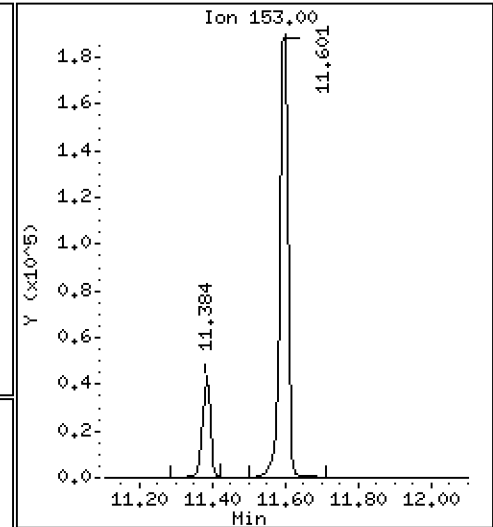
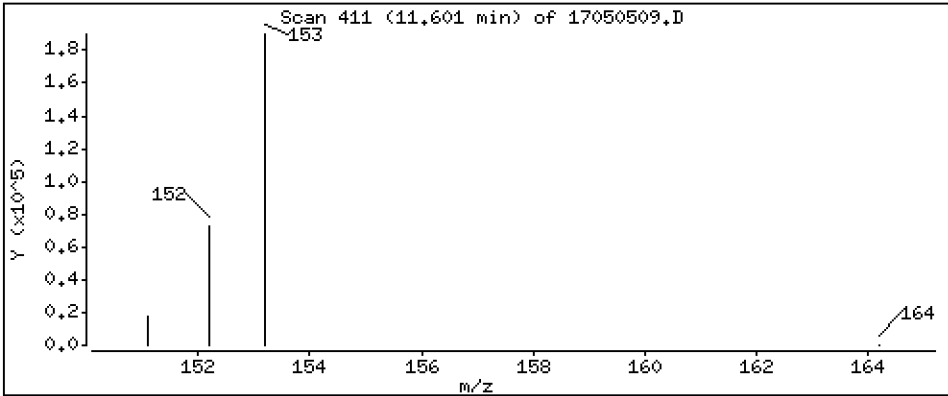
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

12 Acenaphthene

Concentration: 277 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

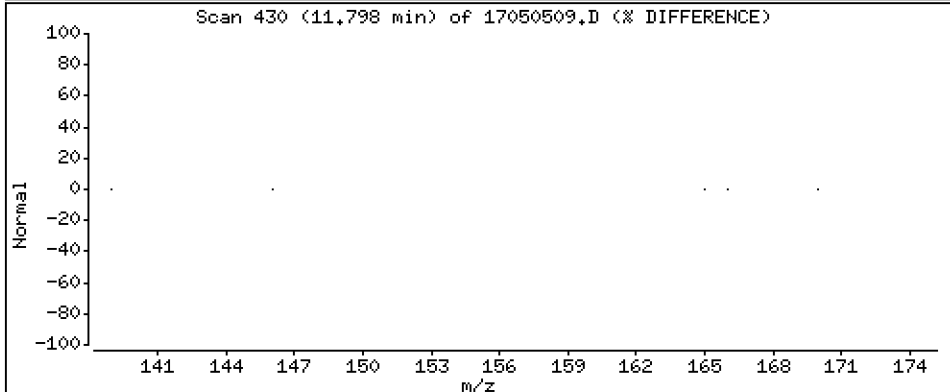
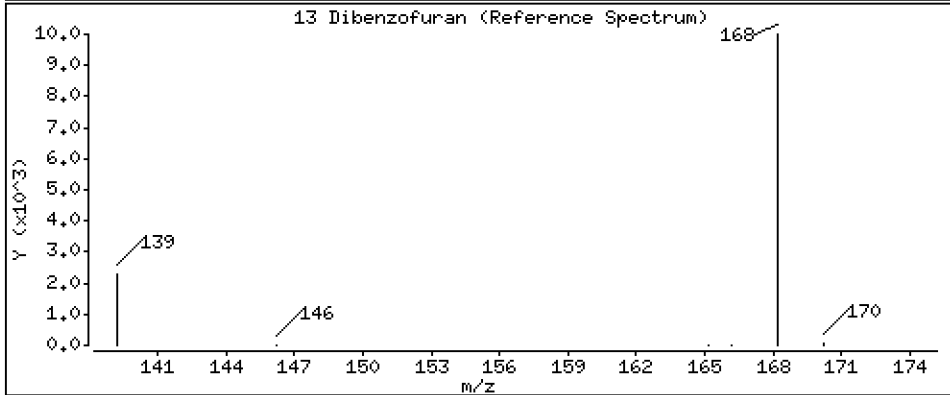
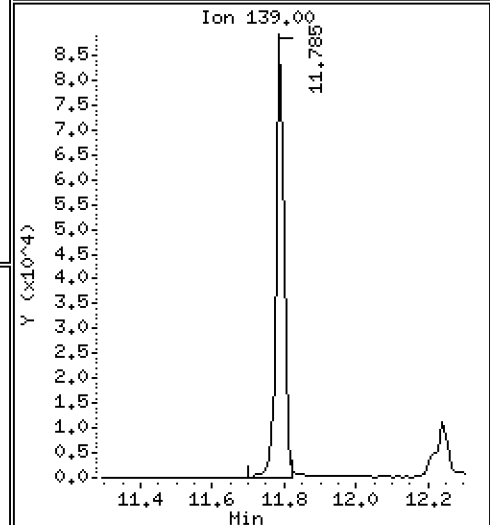
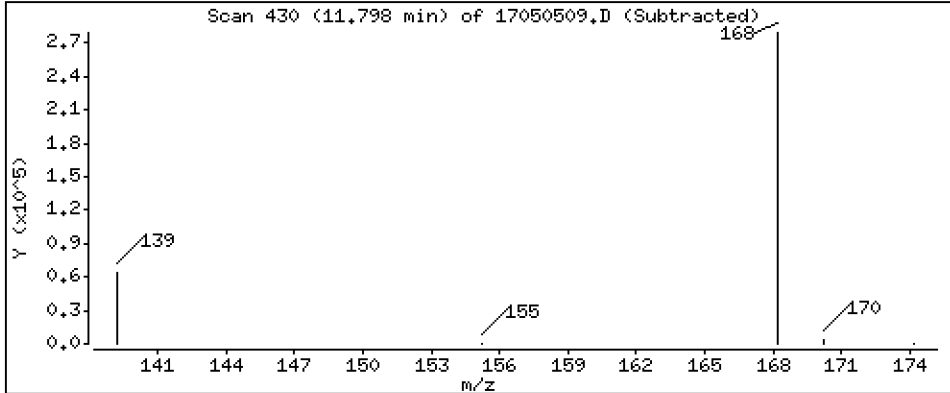
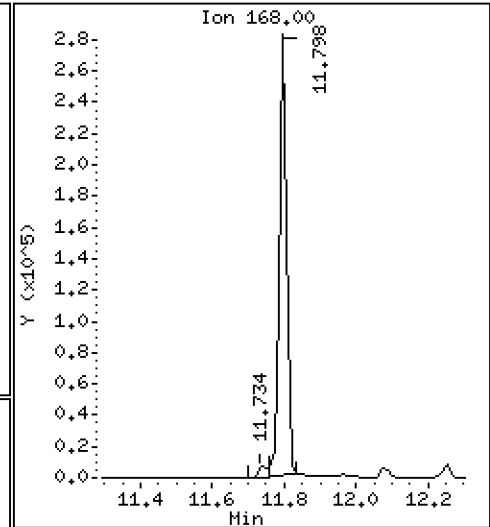
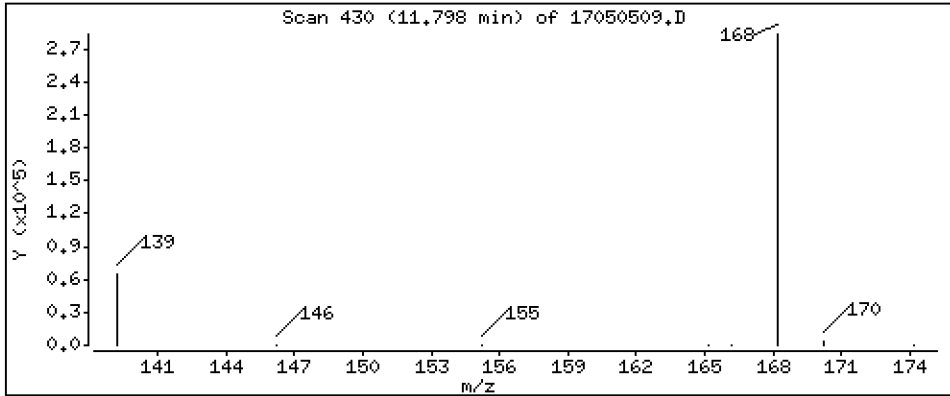
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

13 Dibenzofuran

Concentration: 253 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

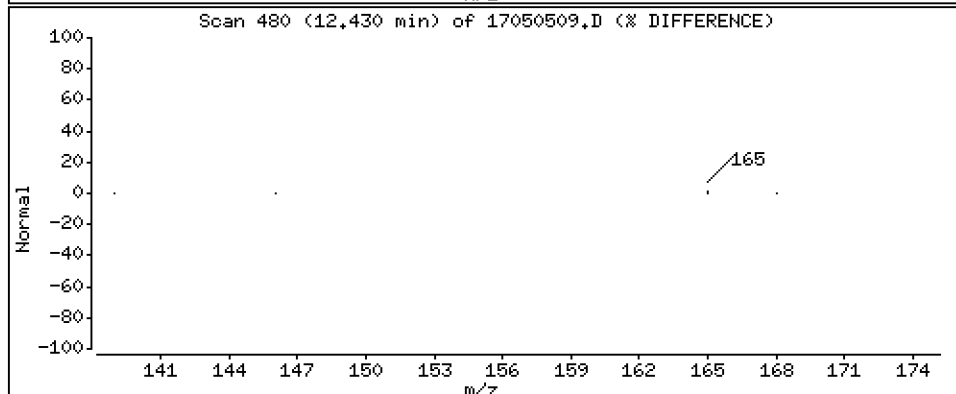
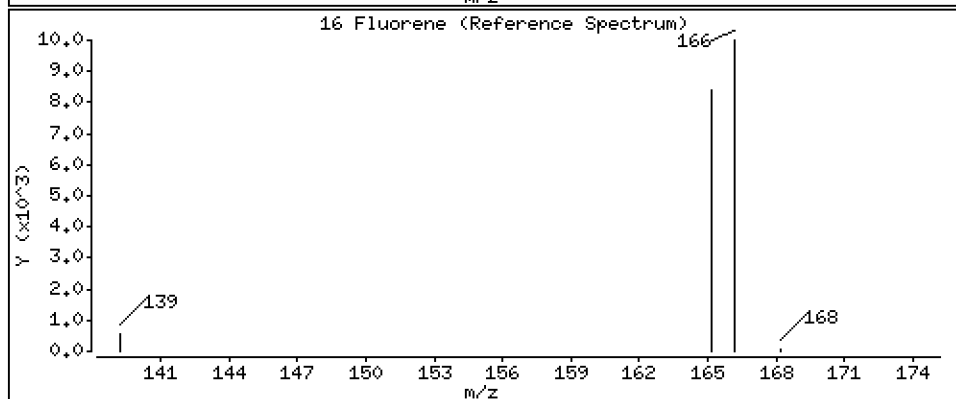
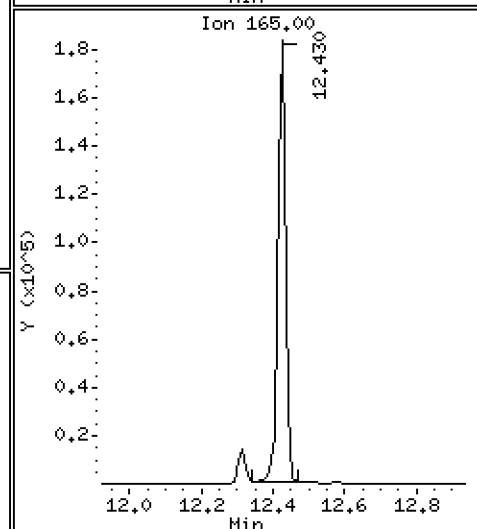
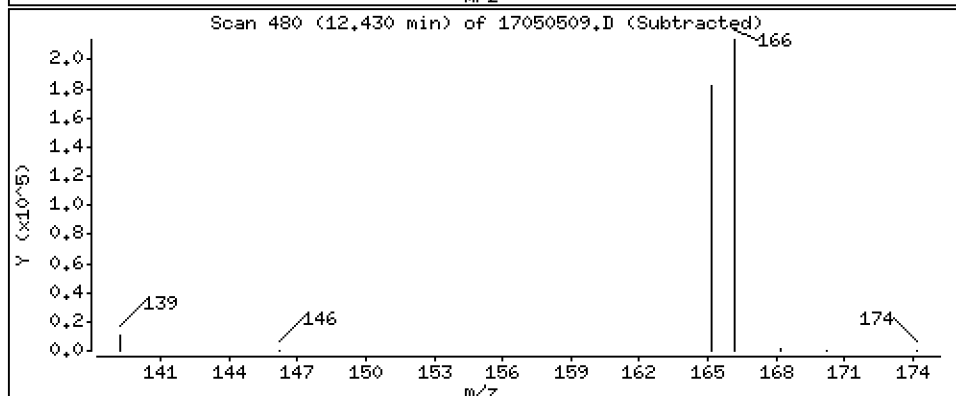
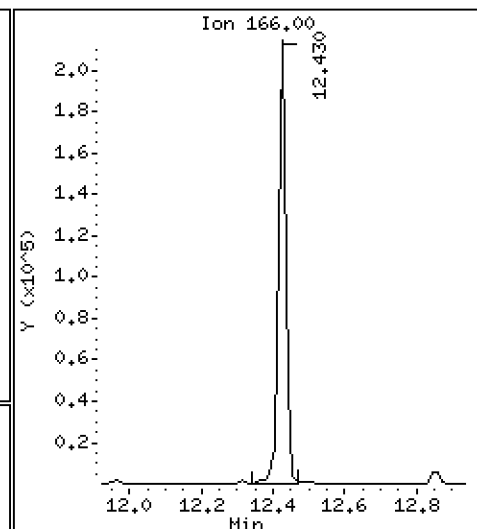
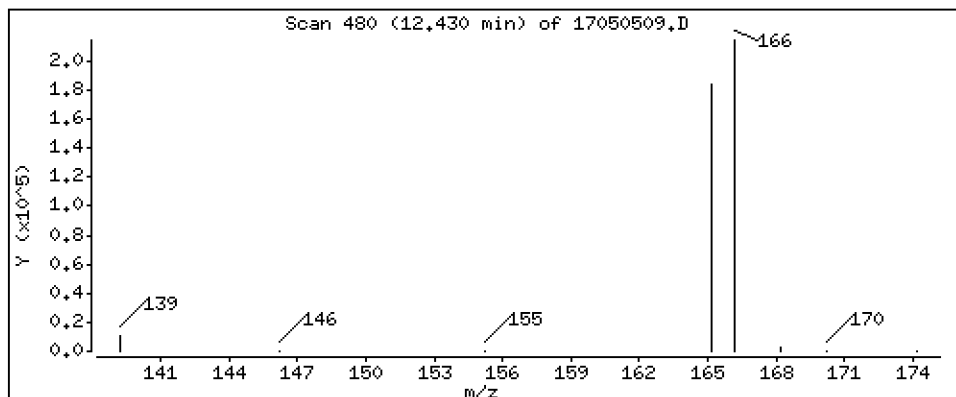
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 Fluorene

Concentration: 257 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

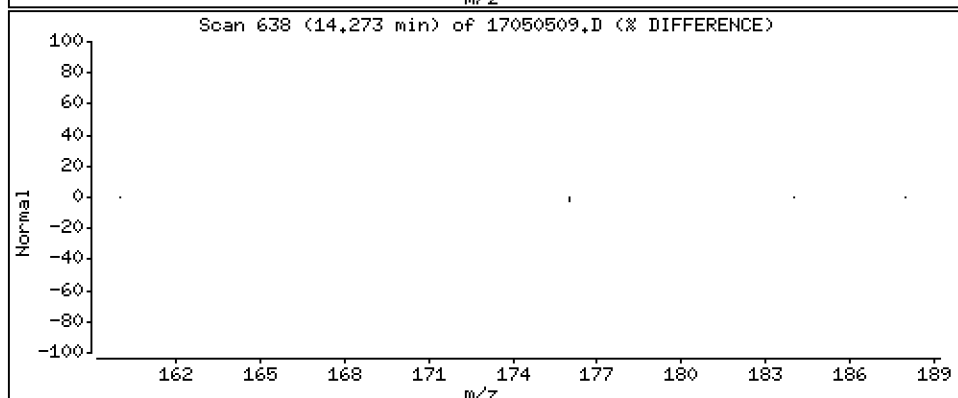
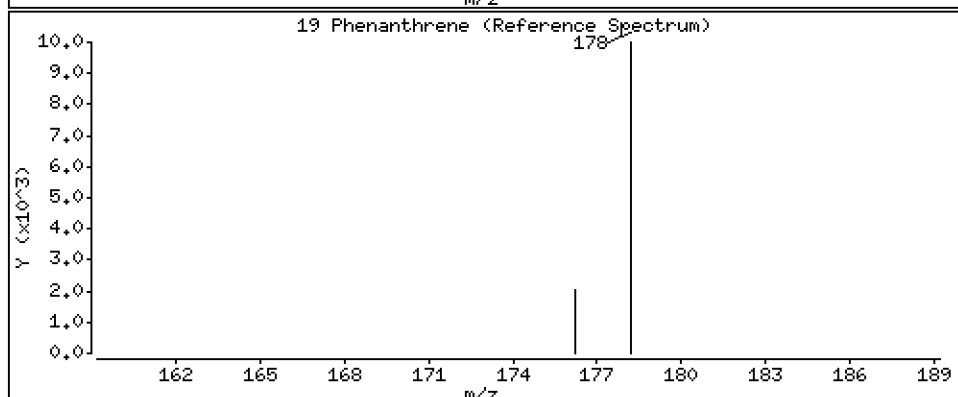
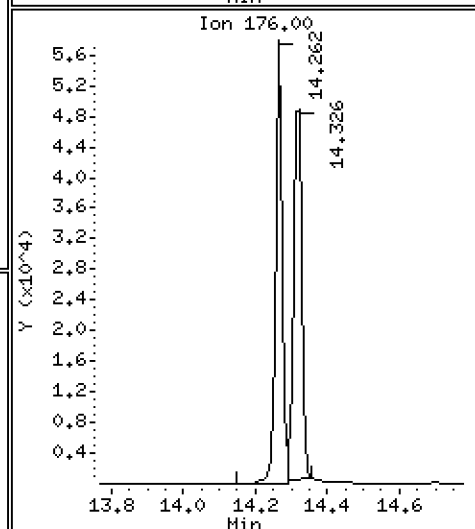
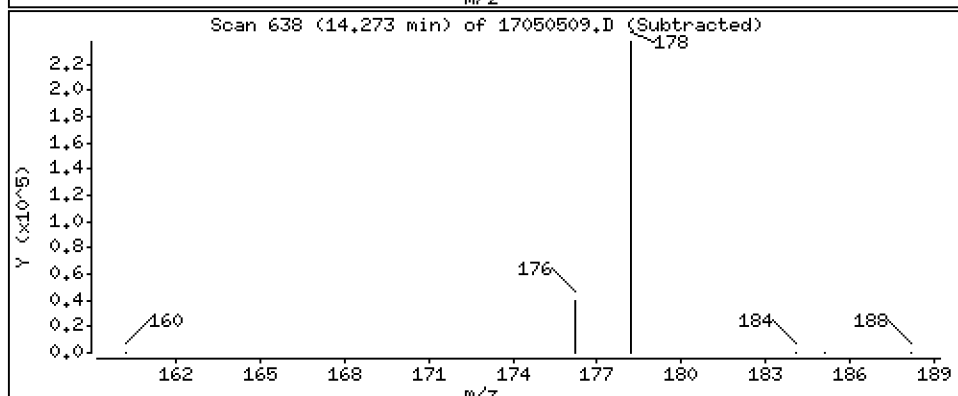
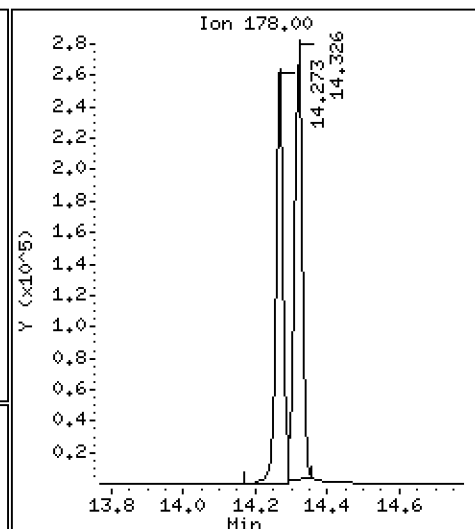
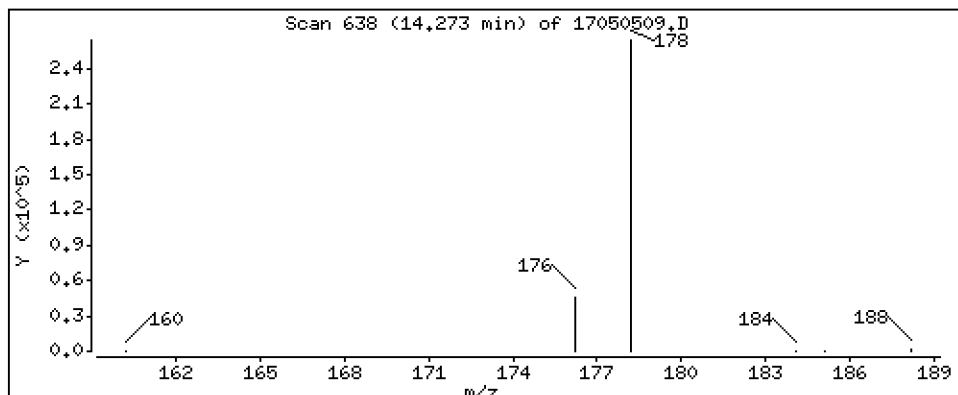
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 Phenanthrene

Concentration: 256 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

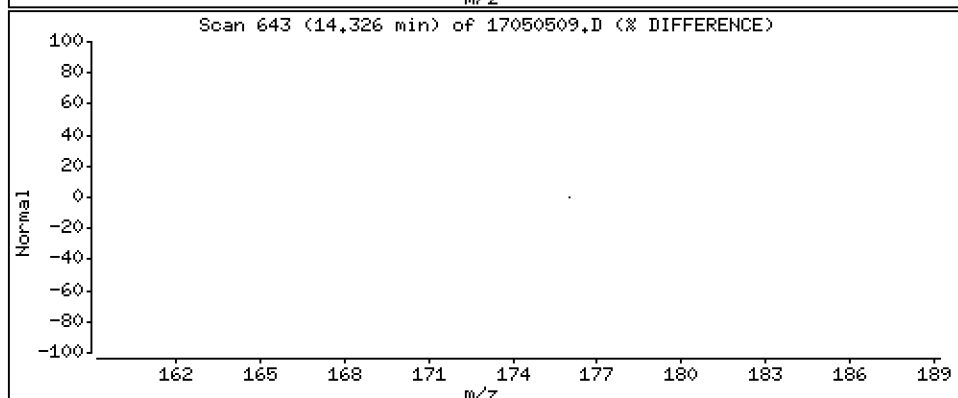
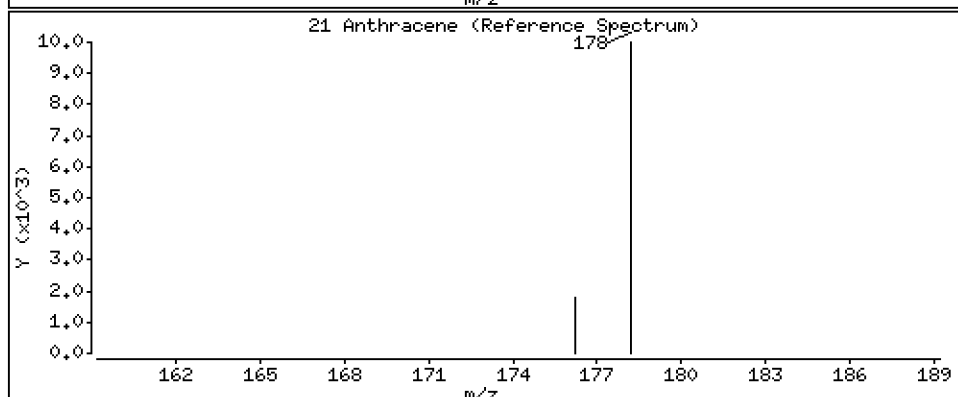
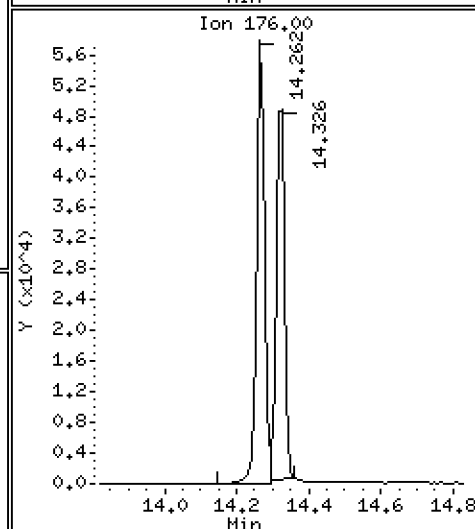
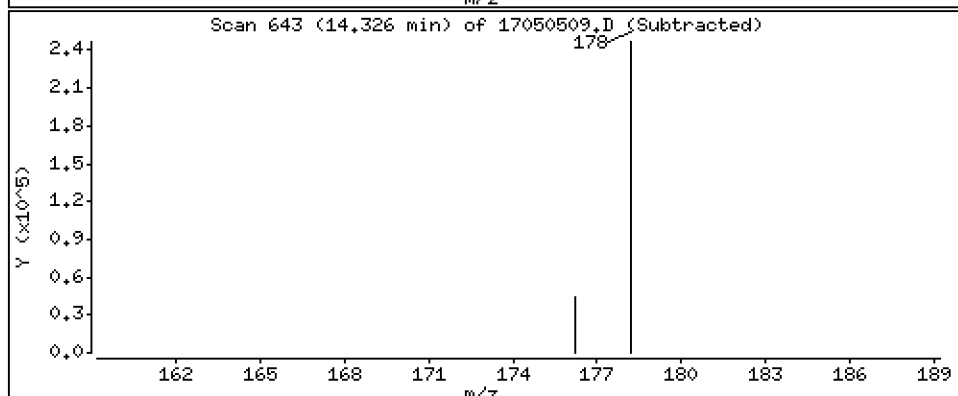
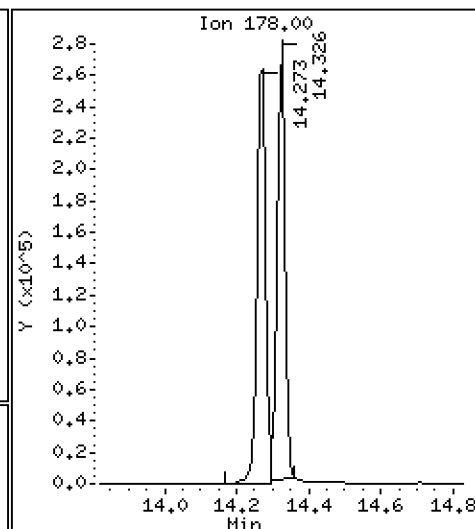
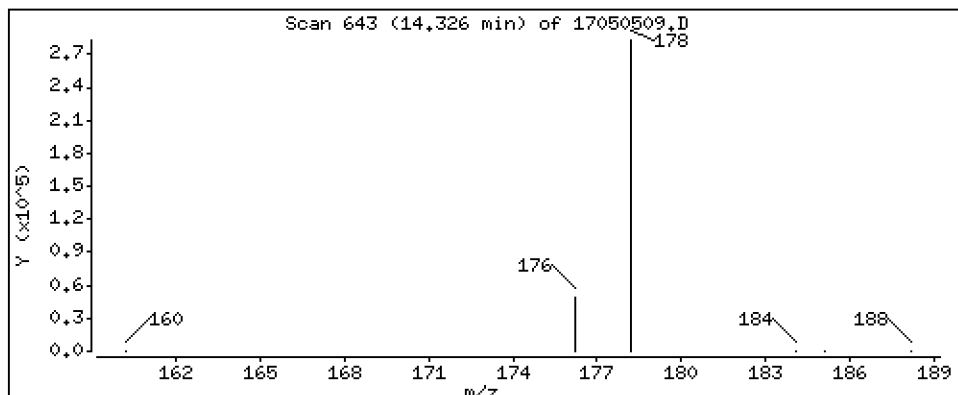
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

21 Anthracene

Concentration: 240 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

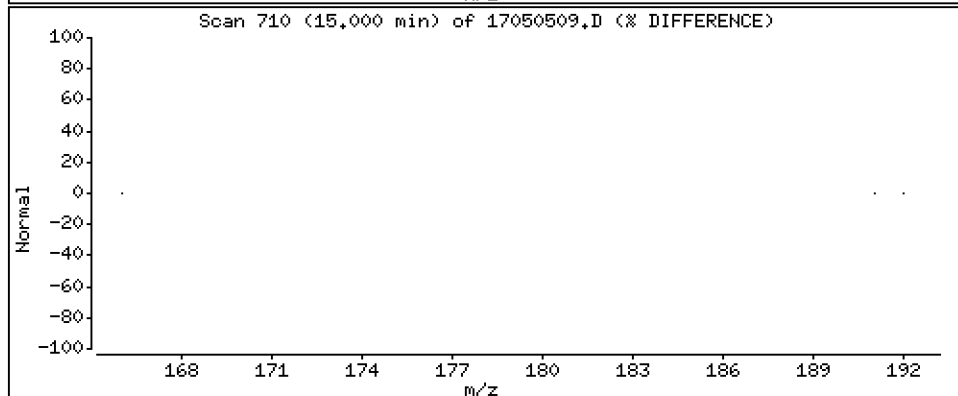
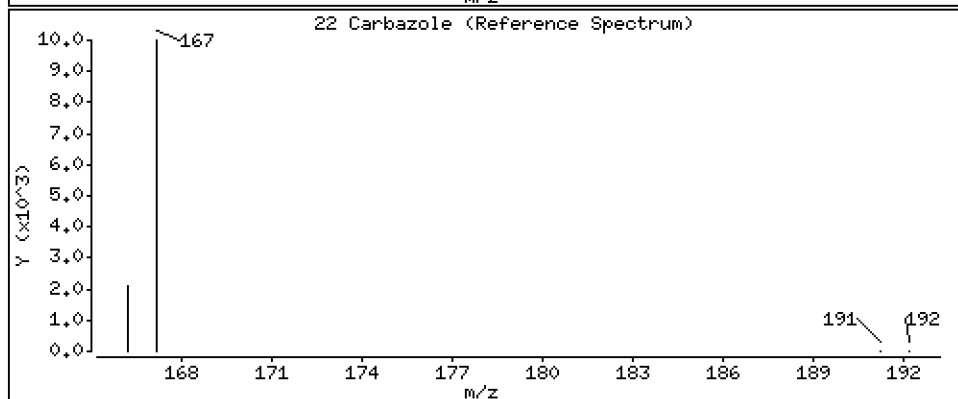
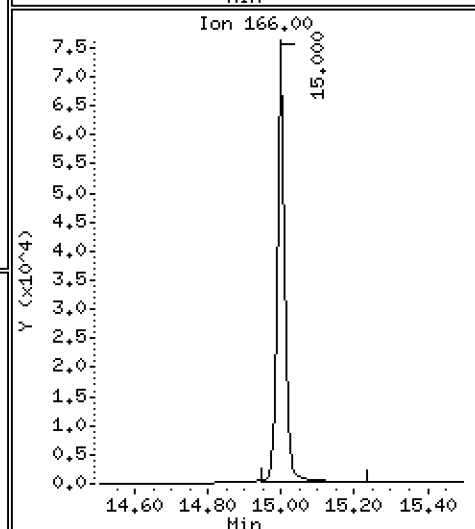
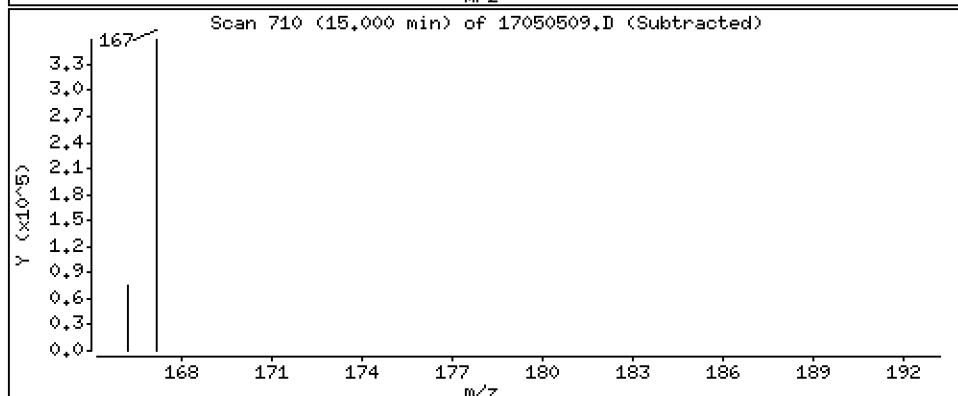
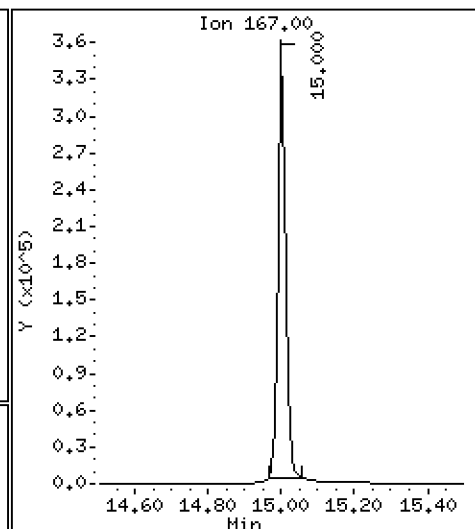
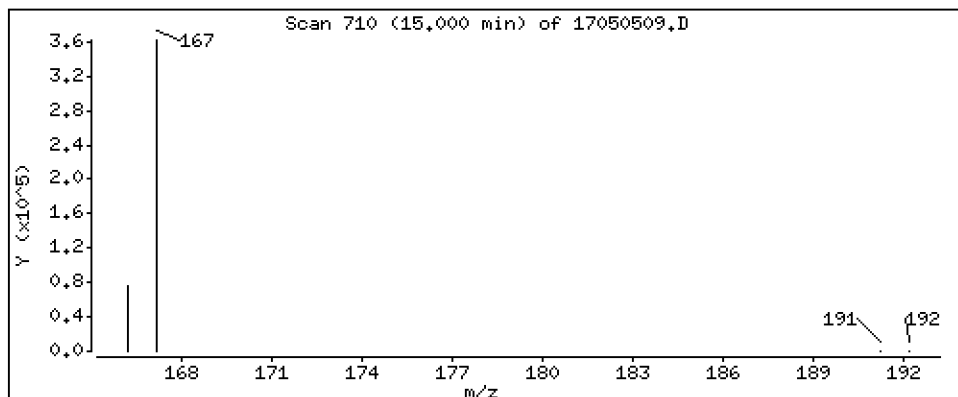
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Carbazole

Concentration: 252 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

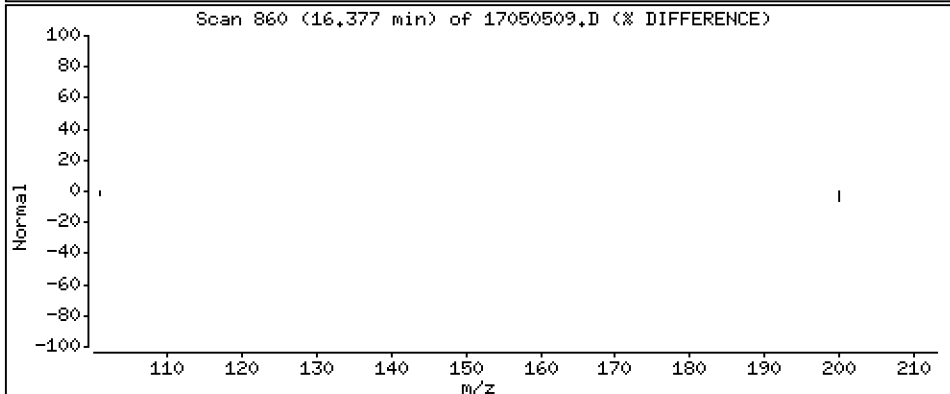
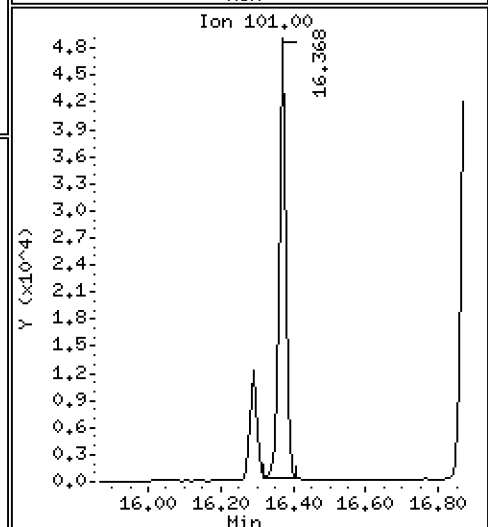
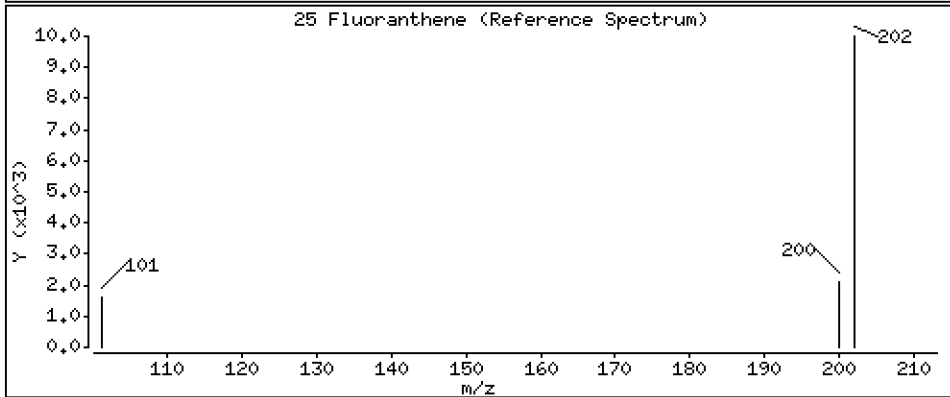
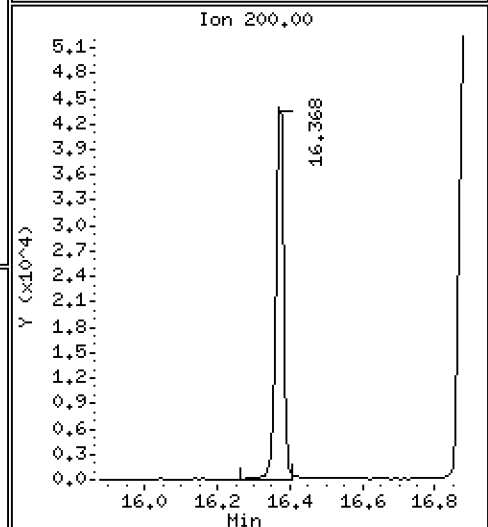
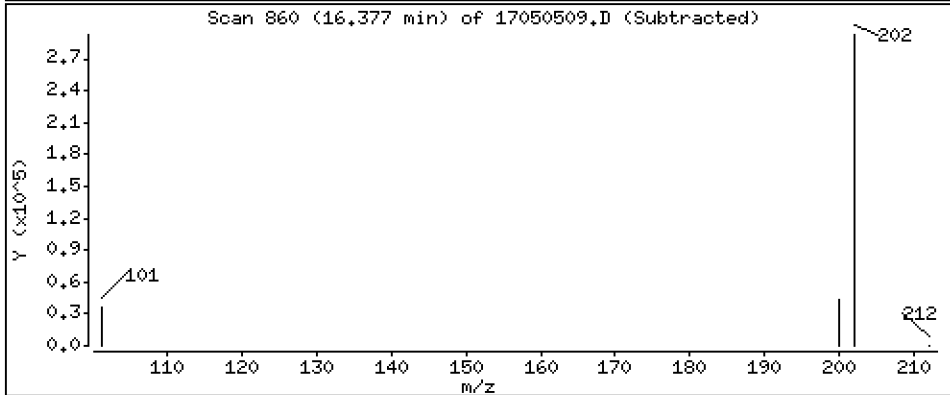
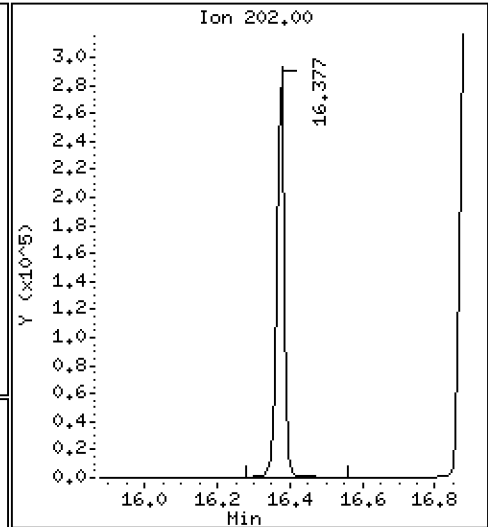
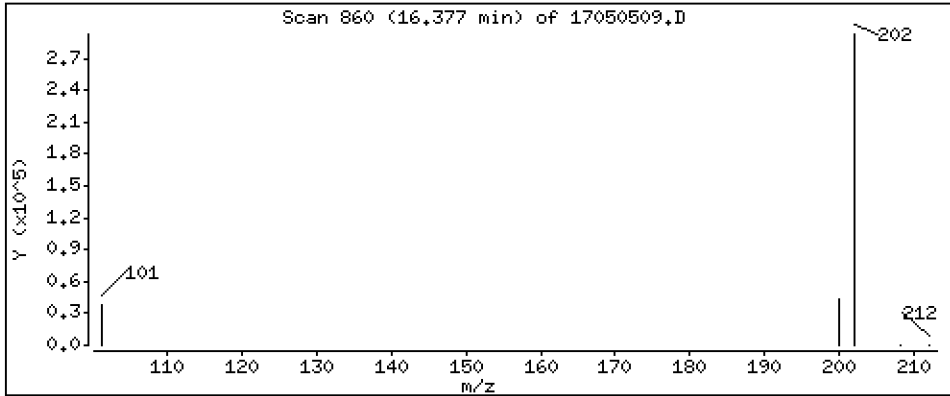
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

25 Fluoranthene

Concentration: 262 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

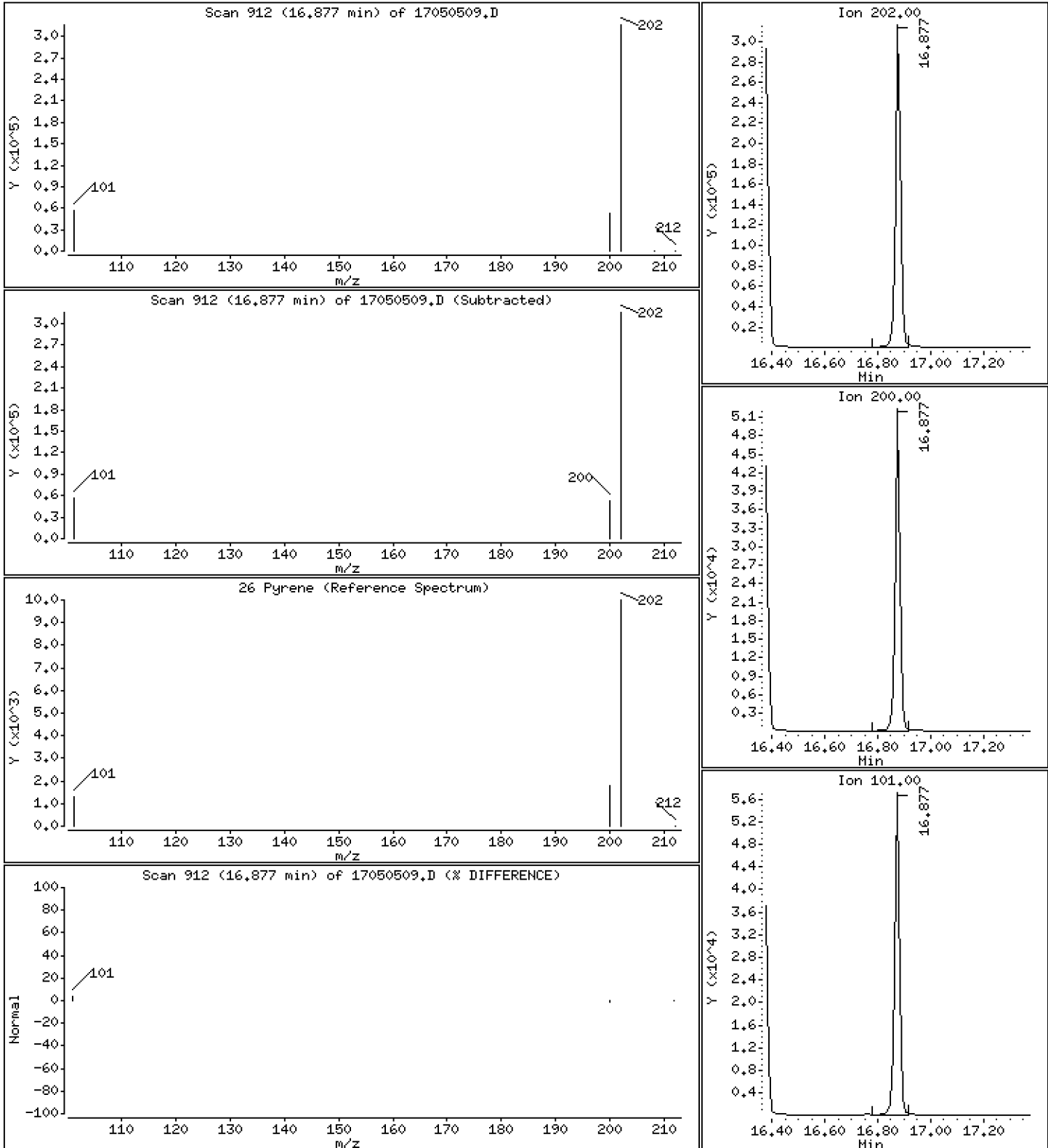
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Pyrene

Concentration: 255 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

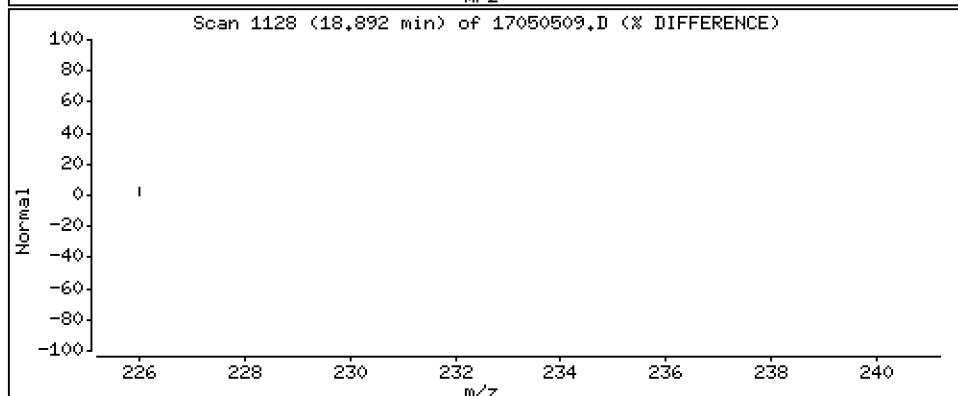
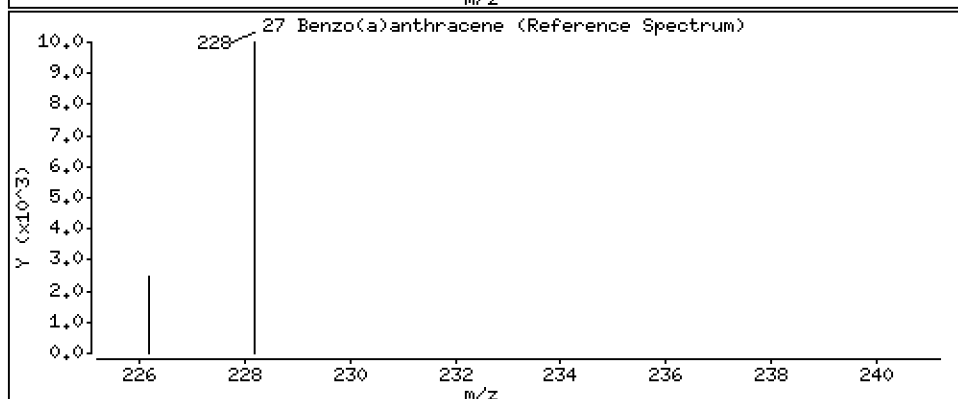
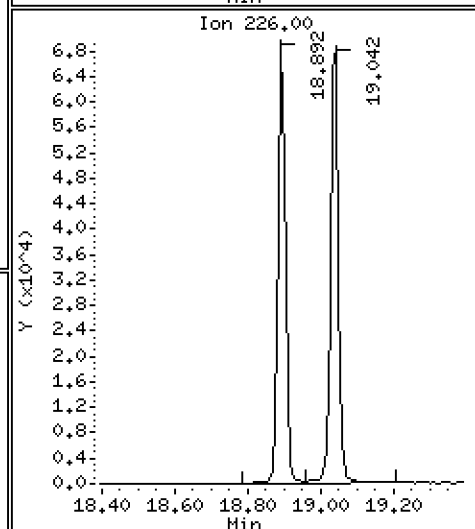
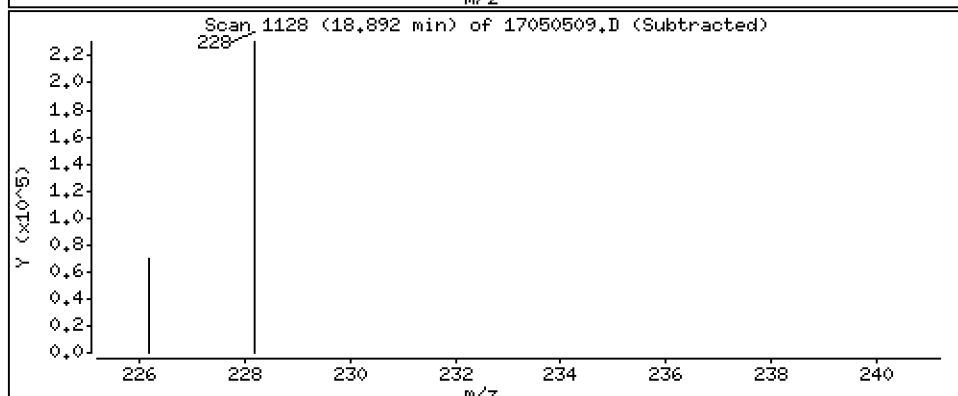
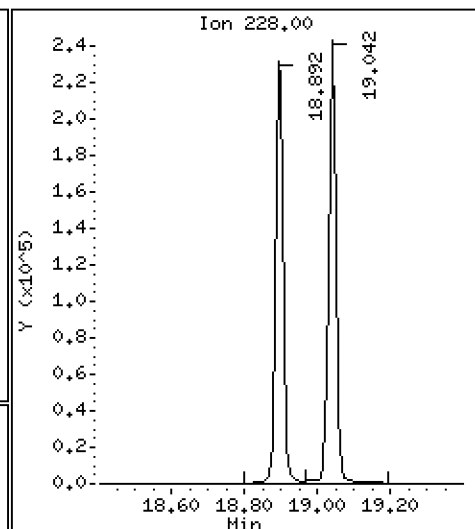
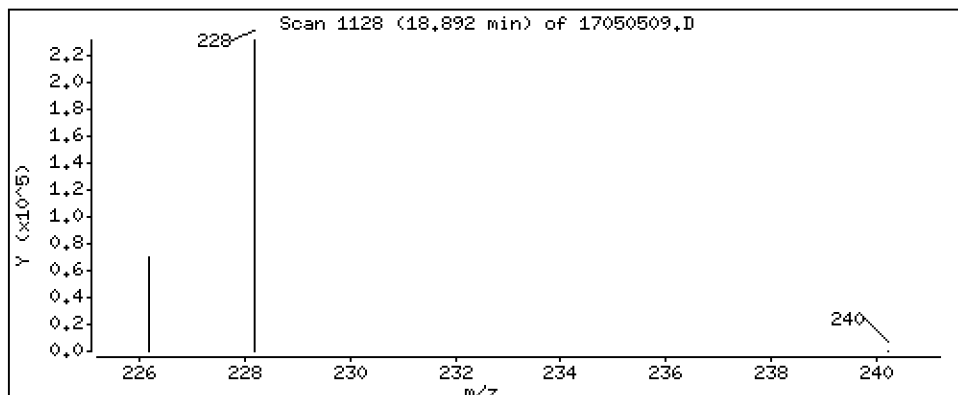
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)anthracene

Concentration: 261 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

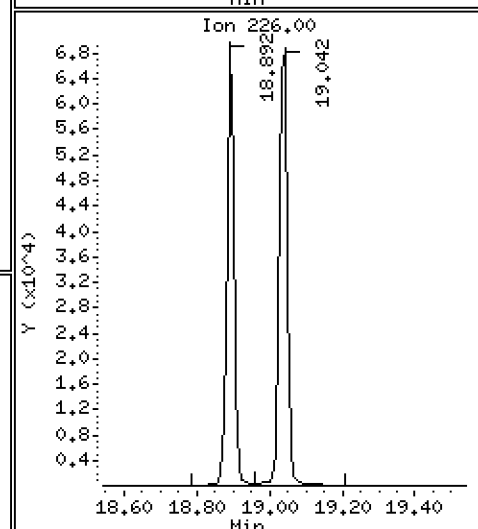
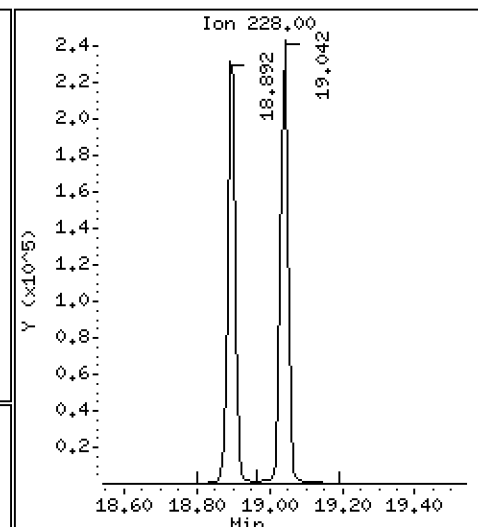
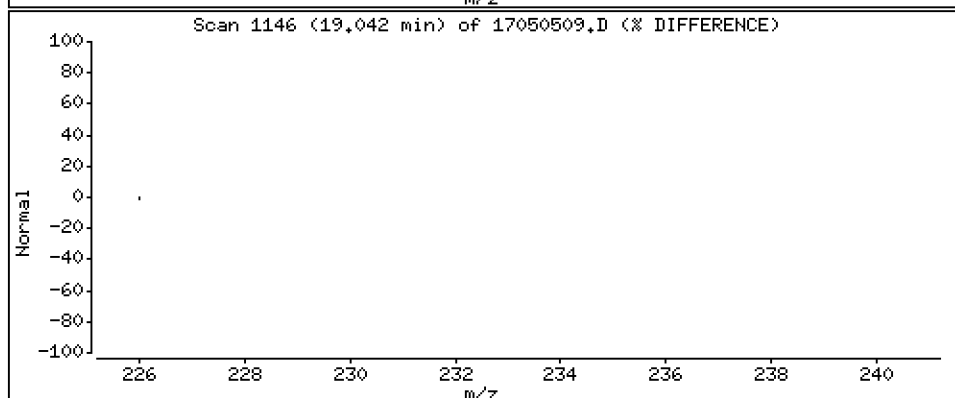
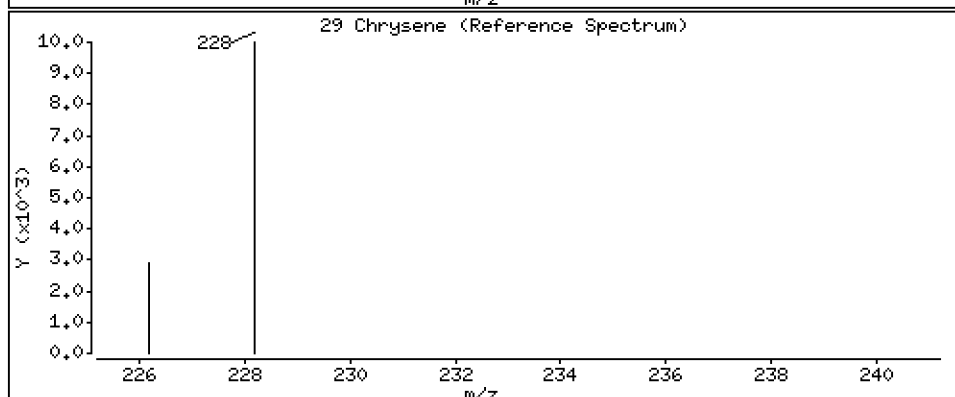
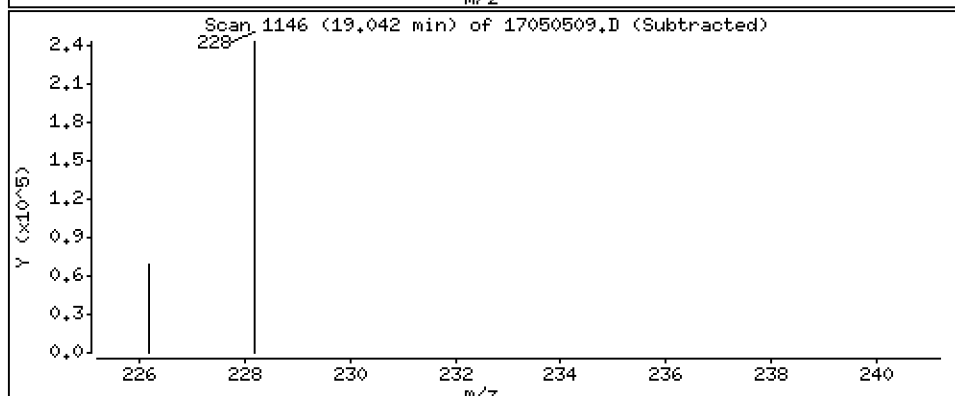
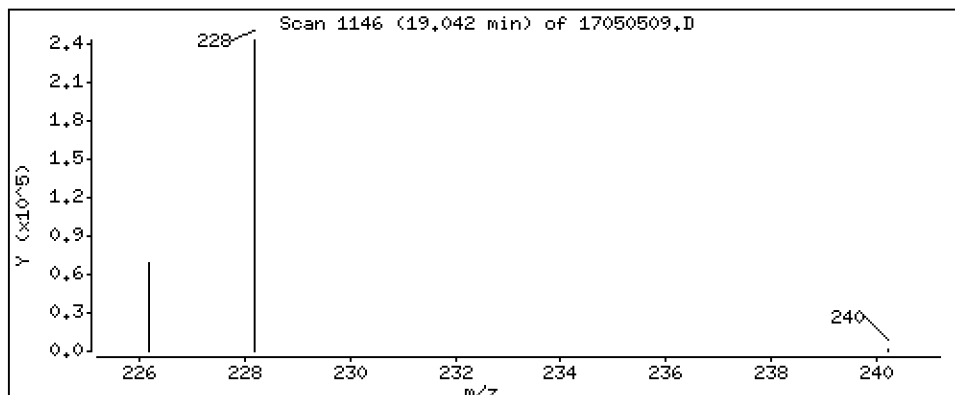
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 Chrysene

Concentration: 250 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

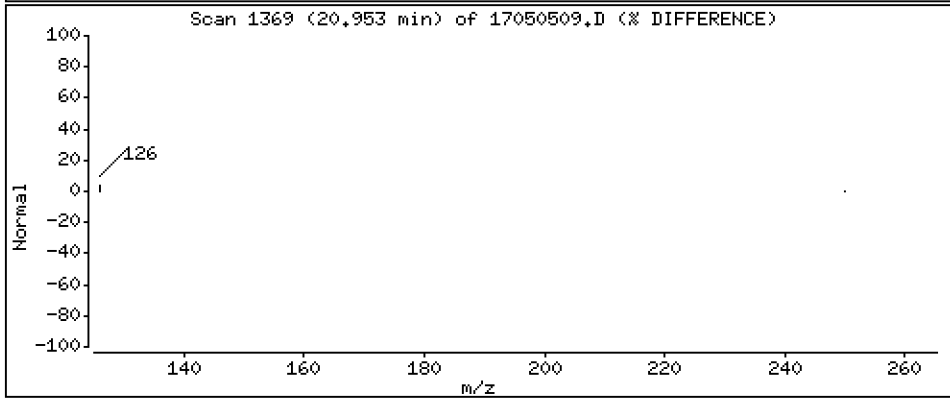
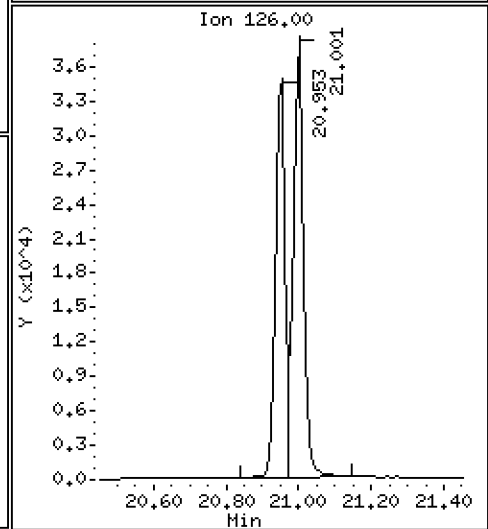
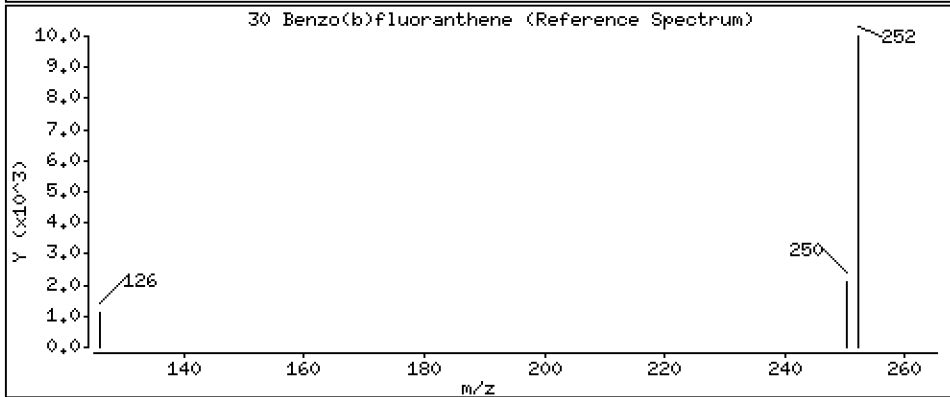
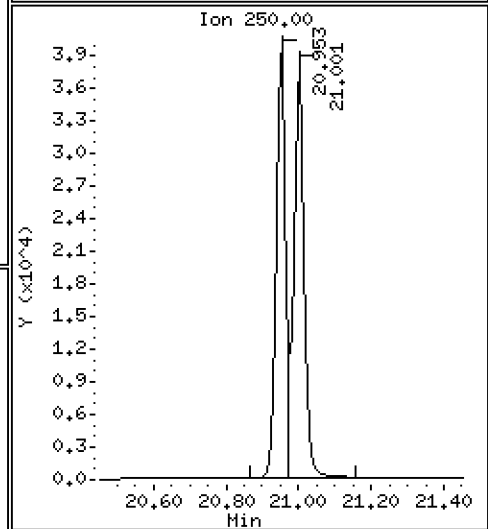
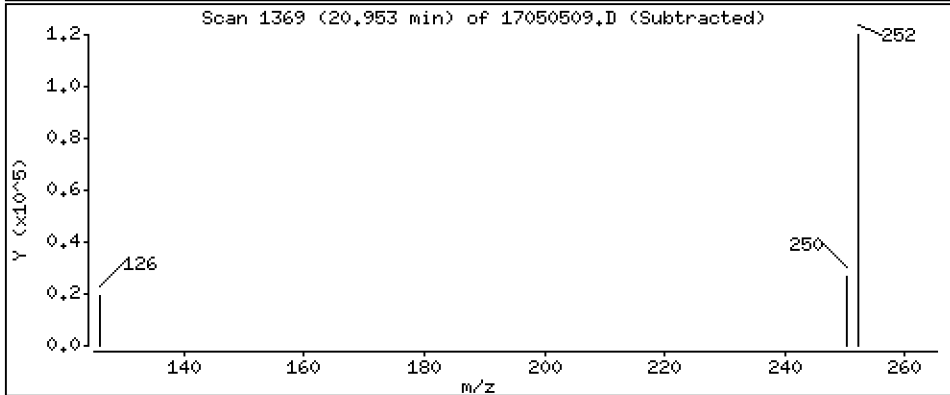
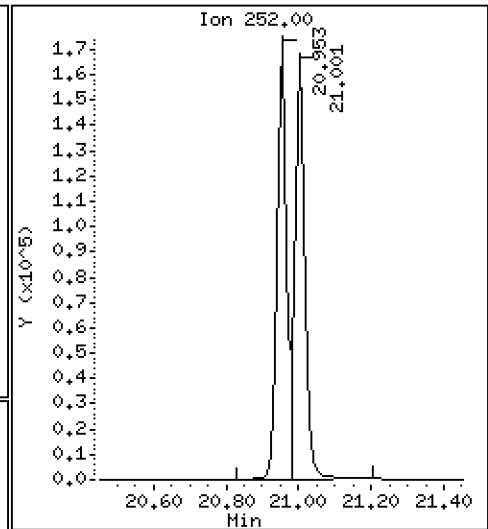
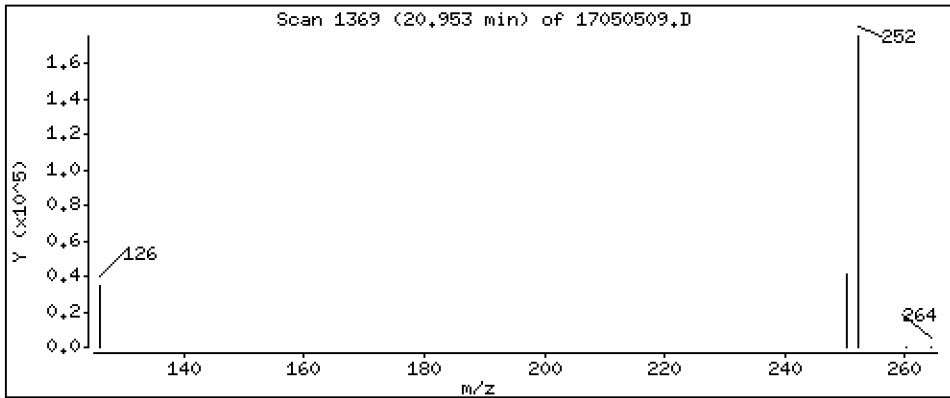
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Benzo(b)fluoranthene

Concentration: 268 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

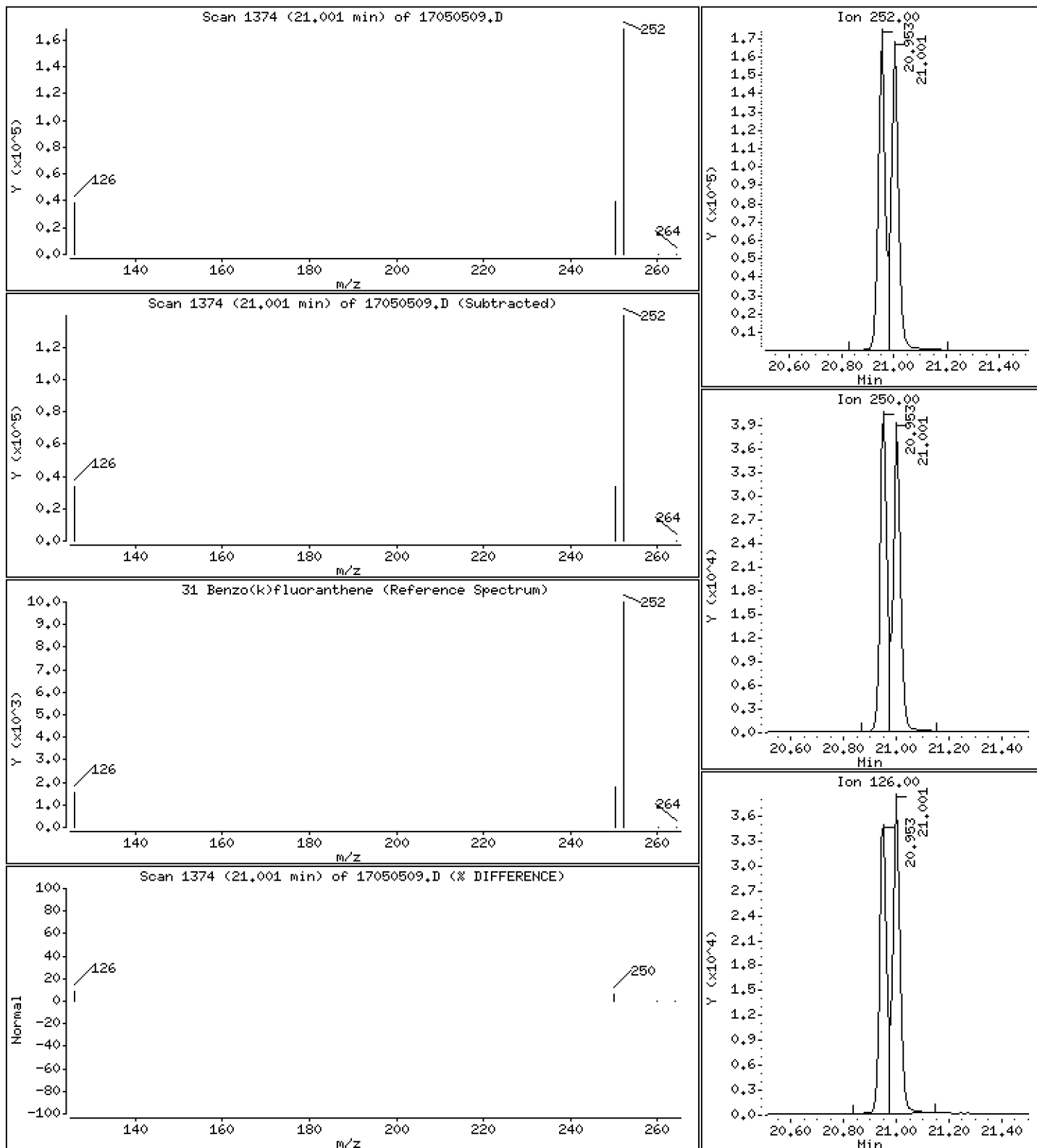
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 Benzo(k)fluoranthene

Concentration: 264 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

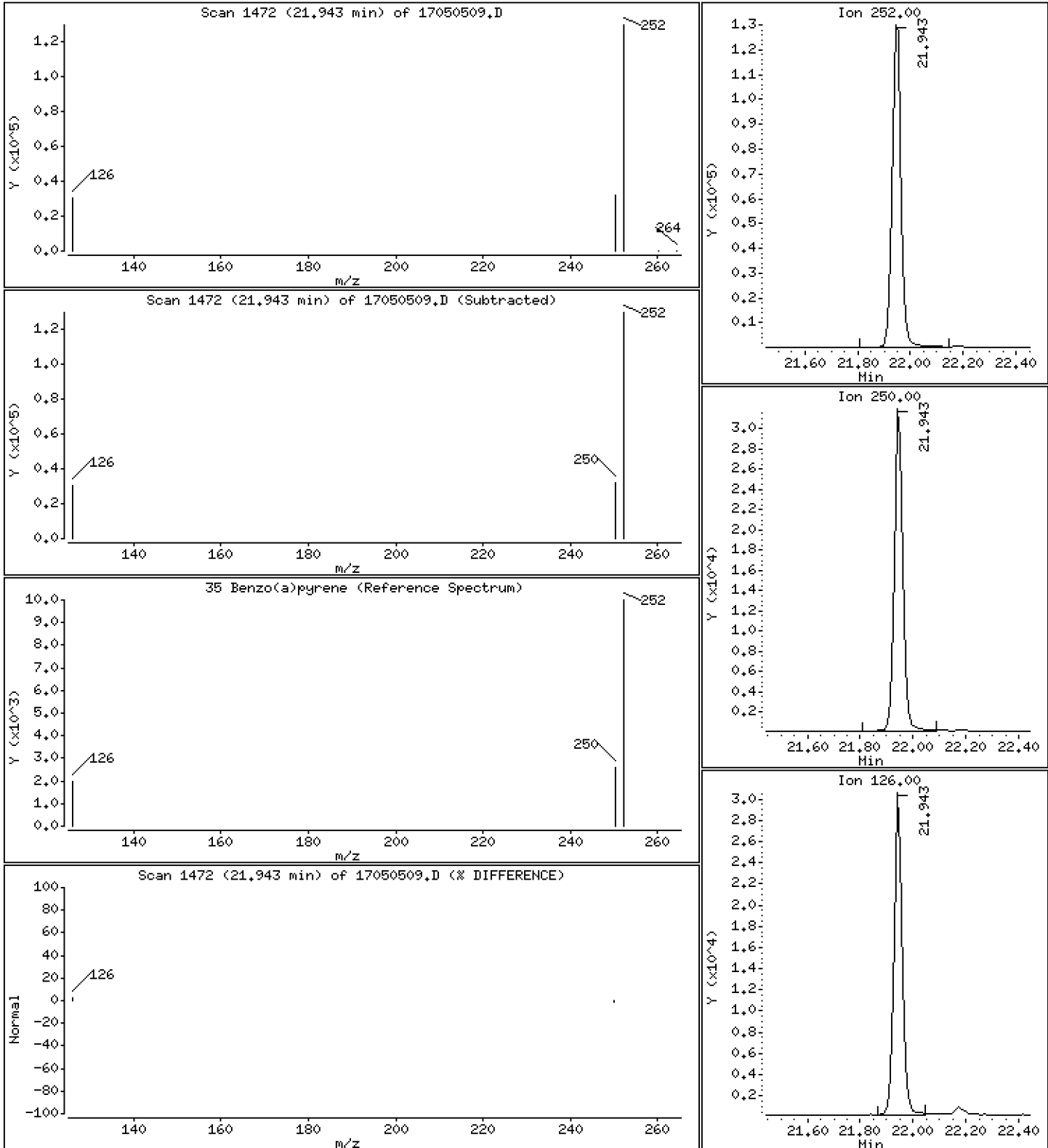
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

35 Benzo(a)pyrene

Concentration: 265 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

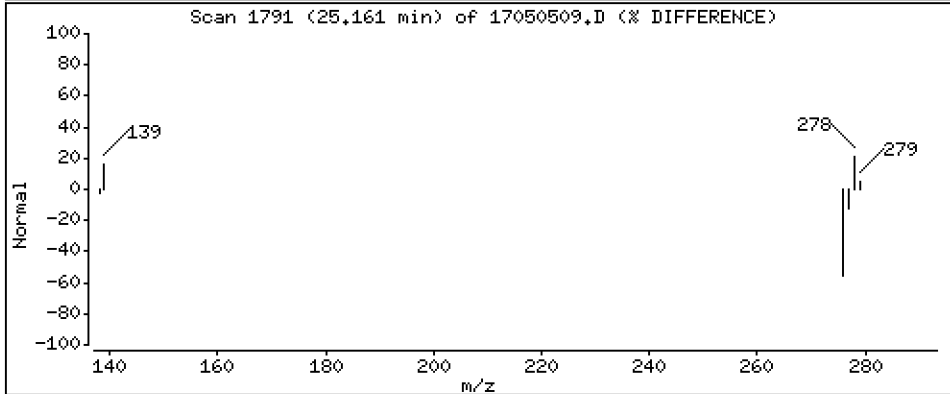
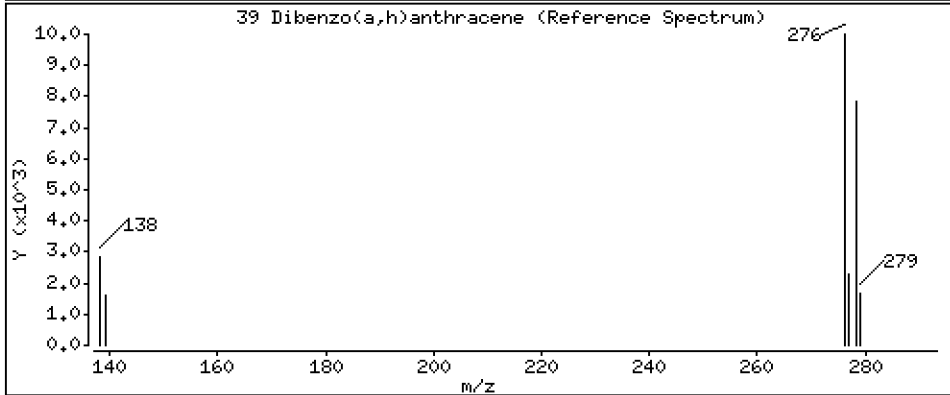
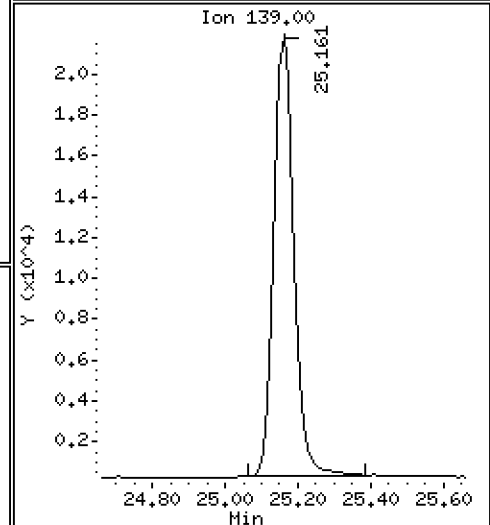
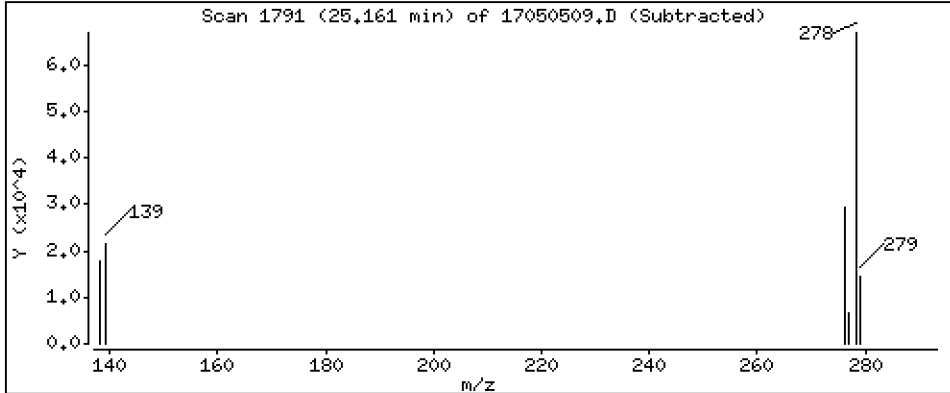
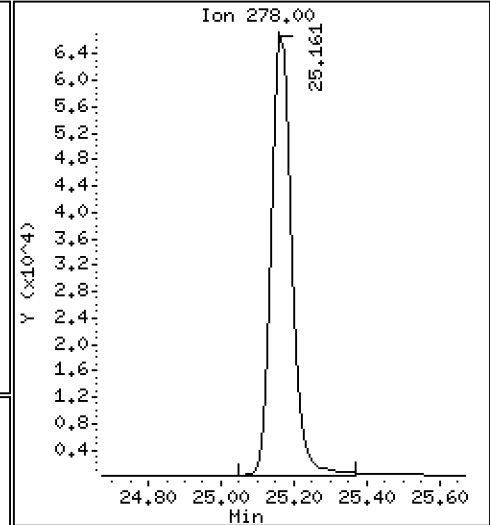
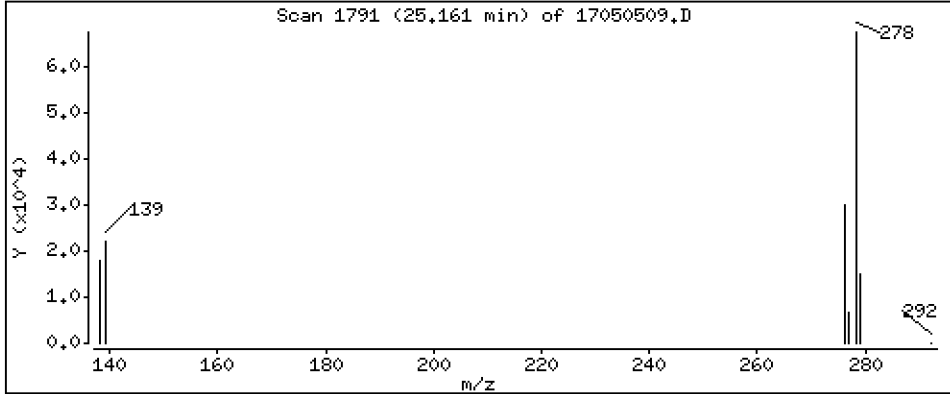
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

39 Dibenzo(a,h)anthracene

Concentration: 260 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

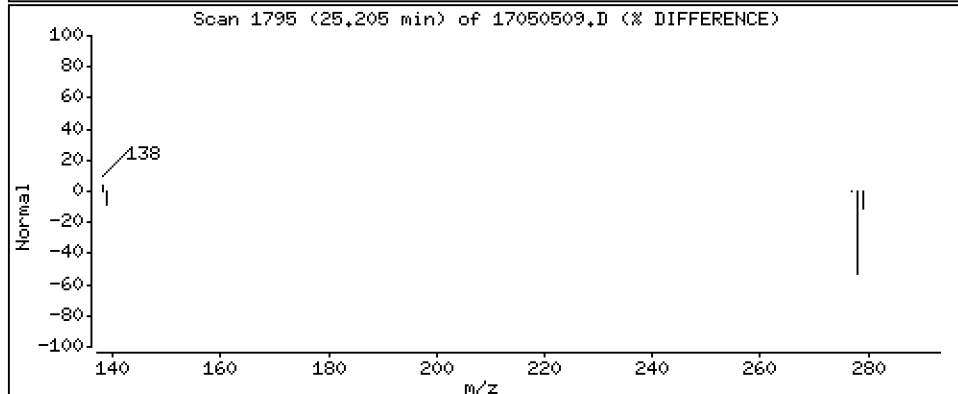
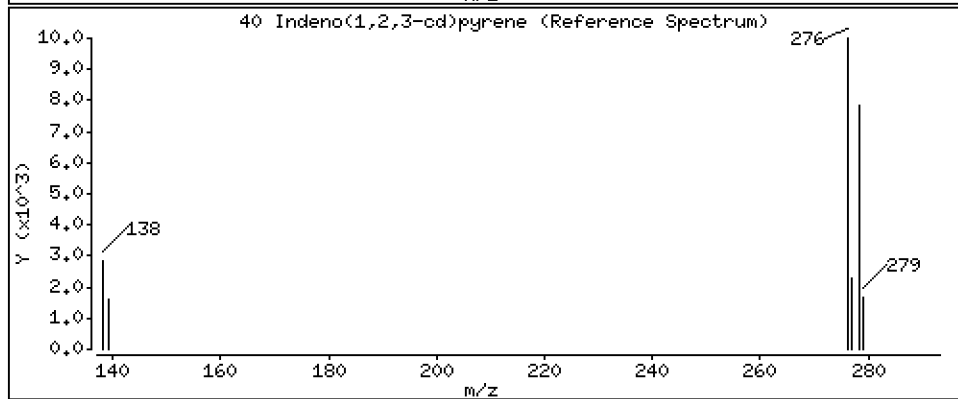
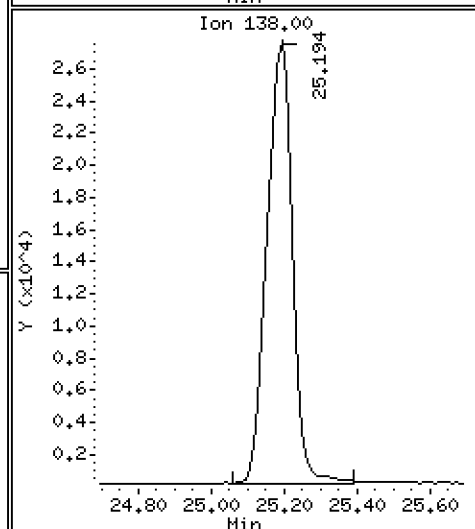
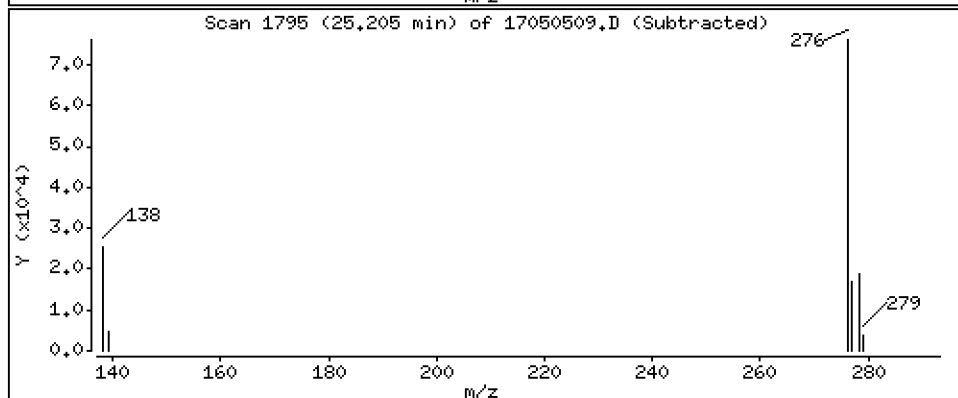
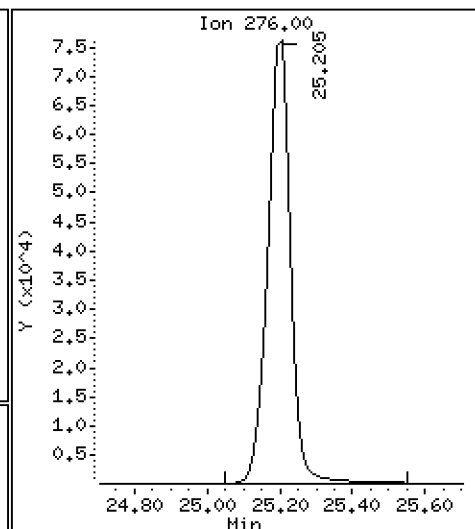
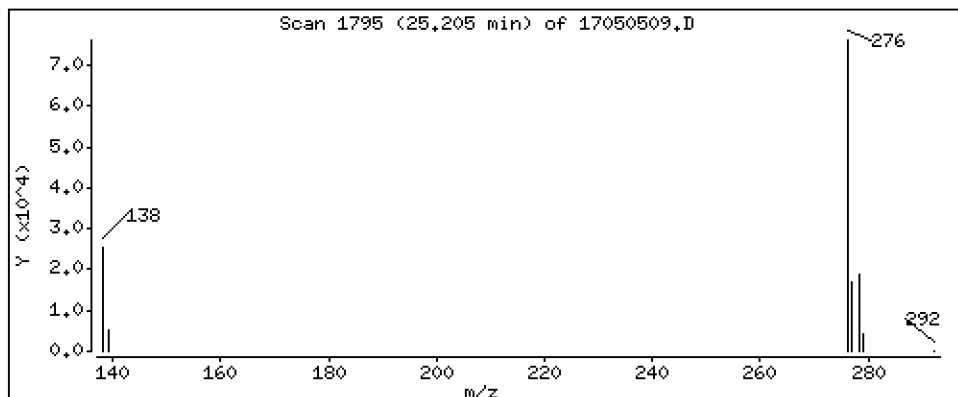
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

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

Concentration: 264 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

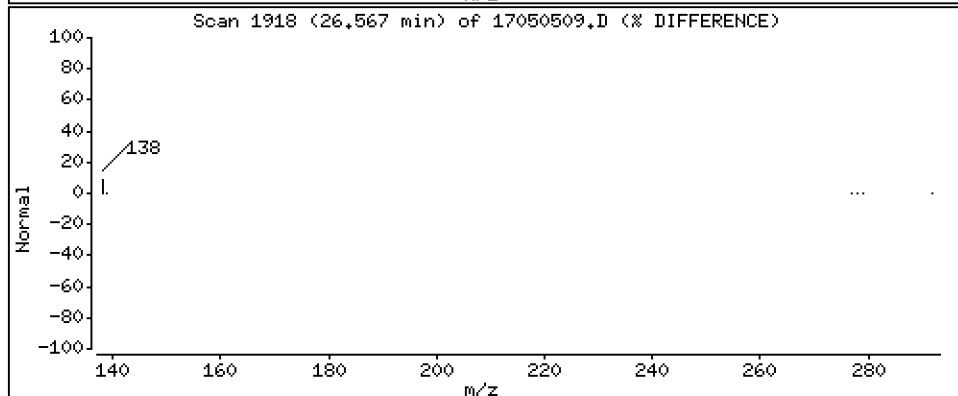
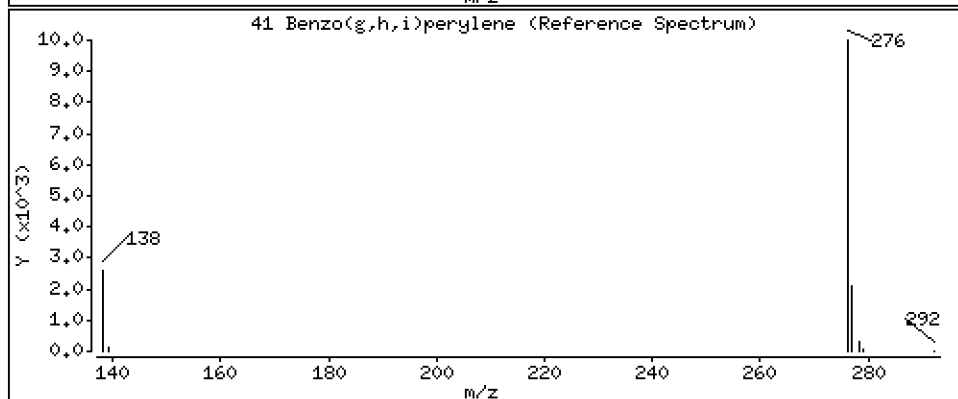
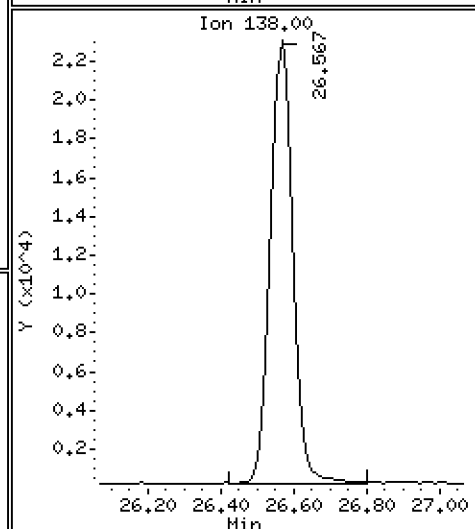
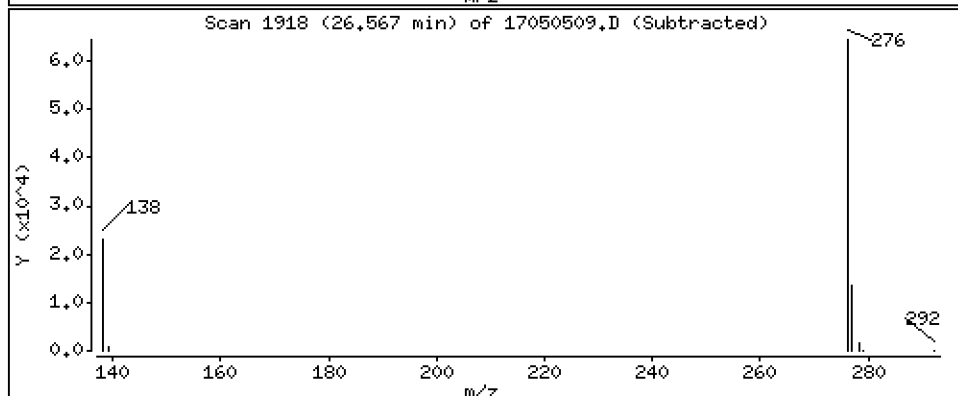
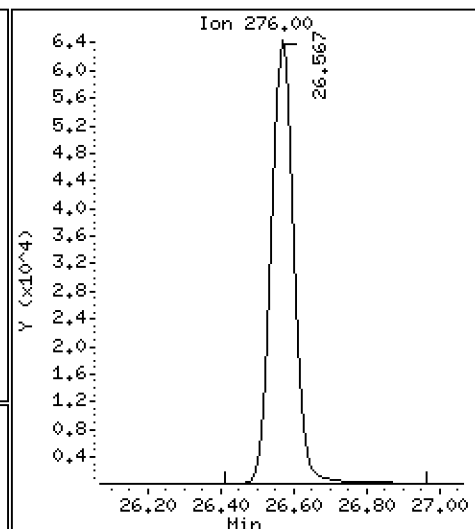
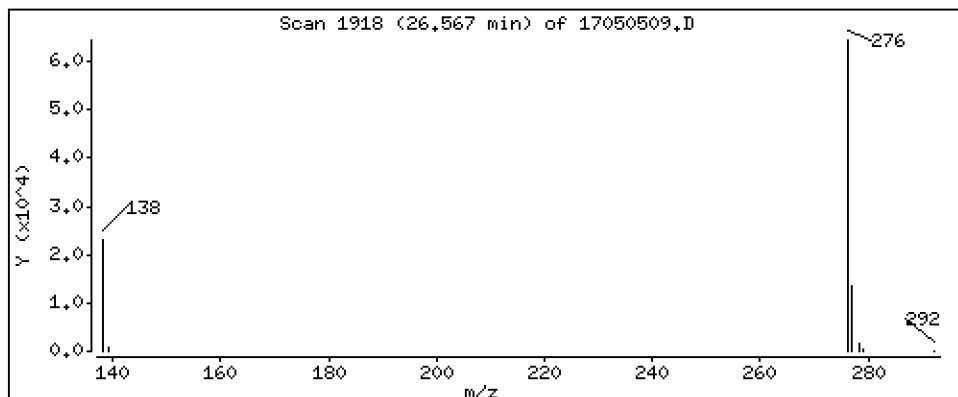
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

41 Benzo(g,h,i)perylene

Concentration: 262 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170505.b\17050509.D

Lab Smp Id: SFE0059-SCV1

Inj Date : 05-MAY-2017 15:23

MS Autotune Date: 15-JAN-2015 16:59

Operator : VTS

Inst ID: nt11.i

Smp Info : SFE0059-SCV1

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20170505.b\LOWSIM.m

Meth Date : 06-May-2017 08:49 nt11.i

Quant Type: ISTD

Cal Date : 05-MAY-2017 14:47

Cal File: 17050508.D

Als bottle: 1

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: allpna.sub

Target Version: 4.14

Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		8.499	8.499	(1.000)	353470	200.000	
2 Naphthalene	128		8.536	8.536	(1.004)	456586	240.358	240
3 Benzo(b)thiophene	134		Compound Not Detected.					
\$ 4 2-Methylnaphthalene-d10	152		Compound Not Detected.					
5 2-Methylnaphthalene	142		9.540	9.540	(1.122)	450543	257.139	257
6 1-Methylnaphthalene	142		9.792	9.802	(1.152)	418203	246.808	247
7 2-Chloronaphthalene	162		10.454	10.454	(0.906)	373488	246.373	246
8 Biphenyl	154		Compound Not Detected.					
9 2,6-Dimethylnaphthalene	156		Compound Not Detected.					
10 Acenaphthylene	152		11.383	11.383	(0.987)	422022	246.846	247
* 11 Acenaphthene-d10	164		11.537	11.537	(1.000)	145863	200.000	
12 Acenaphthene	153		11.600	11.600	(1.005)	309187	276.562	277
13 Dibenzofuran	168		11.797	11.797	(1.023)	389481	252.504	253
14 2,3,5-Trimethylnaphthalene	170		Compound Not Detected.					
\$ 15 Fluorene-d10	174		Compound Not Detected.					
16 Fluorene	166		12.429	12.429	(1.077)	309438	257.250	257
17 Dibenzothiophene	184		Compound Not Detected.					
* 18 Phenanthrene-d10	188		14.230	14.230	(1.000)	234202	200.000	
19 Phenanthrene	178		14.272	14.272	(1.003)	446151	255.907	256
\$ 20 Anthracene-d10	188		Compound Not Detected.					
21 Anthracene	178		14.325	14.325	(1.007)	412225	240.004	240
22 Carbazole	167		15.000	14.999	(1.054)	504276	252.234	252
23 1-Methylphenanthrene	192		Compound Not Detected.					
\$ 24 Fluoranthene-d10	212		Compound Not Detected.					
25 Fluoranthene	202		16.377	16.377	(1.151)	439149	262.112	262
26 Pyrene	202		16.876	16.876	(0.889)	438217	255.184	255
27 Benzo(a)anthracene	228		18.892	18.900	(0.995)	352034	260.623	261
* 28 Chrysene-d12	240		18.991	18.991	(1.000)	189686	200.000	
29 Chrysene	228		19.041	19.041	(1.003)	348116	249.715	250
30 Benzo(b)fluoranthene	252		20.953	20.953	(0.945)	342991	267.607	268
31 Benzo(k)fluoranthene	252		21.001	21.010	(0.947)	335630	264.150	264
32 Benzo(j)fluoranthene	252		Compound Not Detected.					
\$ 33 Benzo(e)pyrene-d12	264		Compound Not Detected.					

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ng/mL)	FINAL (ng/mL)	
=====	=====	=====	=====	=====	=====	=====	=====	
34 Benzo(e)pyrene	252	Compound Not Detected.						
35 Benzo(a)pyrene	252	21.942	21.952	(0.989)	306973	264.763	265	
* 36 Perylene-d12	264	22.183	22.182	(1.000)	205114	200.000		
37 Perylene	252	Compound Not Detected.						
§ 38 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.						
39 Dibenzo(a,h)anthracene	278	25.160	25.171	(1.134)	254355	259.573	260	
40 Indeno(1,2,3-cd)pyrene	276	25.204	25.204	(1.136)	323142	264.219	264	
41 Benzo(g,h,i)perylene	276	26.567	26.567	(1.198)	273990	261.892	262	

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 17050509.D
 Lab Smp Id: SFE0059-SCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20170505.b\LOWSIM.m
 Misc Info:

Calibration Date: 05-MAY-2017
 Calibration Time: 11:47
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	371325	185663	742650	353470	-4.81
11 Acenaphthene-d10	154428	77214	308856	145863	-5.55
18 Phenanthrene-d10	256956	128478	513912	234202	-8.86
28 Chrysene-d12	208629	104315	417258	189686	-9.08
36 Perylene-d12	225431	112716	450862	205114	-9.01

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	8.50	8.00	9.00	8.50	0.00
11 Acenaphthene-d10	11.54	11.04	12.04	11.54	0.00
18 Phenanthrene-d10	14.23	13.73	14.73	14.23	0.00
28 Chrysene-d12	18.99	18.49	19.49	18.99	0.00
36 Perylene-d12	22.18	21.68	22.68	22.18	0.00

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

REVIEW SUMMARY FOR FILE - 17050509.D

Lab ID: SFE0059-SCV1
nt11.i, 20170505.b\LOWSIM.m, 05-MAY-2017 15:23

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

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

RRT CHECK

RRT CCV RRT DELTA COMPOUND

NONE

On Column LOD for nt11.i, 20170505.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000



SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 17E0012

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Calibration: AE00020

Laboratory ID: SFE0059-SCV1

Sequence: SFE0059

Sequence Name: SIMPNA SCV

Standard ID: F004123

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Naphthalene	250.00	240	-3.9	20.00
2-Methylnaphthalene	250.00	257	2.9	20.00
Acenaphthylene	250.00	247	-1.3	20.00
Acenaphthene	250.00	277	10.6	20.00
Dibenzofuran	250.00	253	1.0	20.00
Fluorene	250.00	257	2.9	20.00
Phenanthrene	250.00	256	2.4	20.00
Anthracene	250.00	240	-4.0	20.00
Fluoranthene	250.00	262	4.8	20.00
Pyrene	250.00	255	2.1	20.00
Benzo(a)anthracene	250.00	261	4.2	20.00
Chrysene	250.00	250	-0.1	20.00
Benzo(b)fluoranthene	250.00	268	7.0	20.00
Benzo(k)fluoranthene	250.00	264	5.7	20.00
Carbazole	250.00	252	0.9	
Benzo(a)pyrene	250.00	265	5.9	20.00
Indeno(1,2,3-cd)pyrene	250.00	264	5.7	20.00
Dibenzo(a,h)anthracene	250.00	260	3.8	20.00
Benzo(g,h,i)perylene	250.00	262	4.8	20.00
1-Methylnaphthalene	250.00	247	-1.3	20.00
Benzo(a)fluoranthenes, Total	500.00	532	6.4	
2-Chloronaphthalene	250.00	246	-1.5	20.00

* Indicates values outside of QC limits

Data File: \\target\share\chem3\nt11.1\20170505.16\17050509.D

Date : 05-May-2017 15:23

Client ID:

Sample Info: SFE0059-SCW1

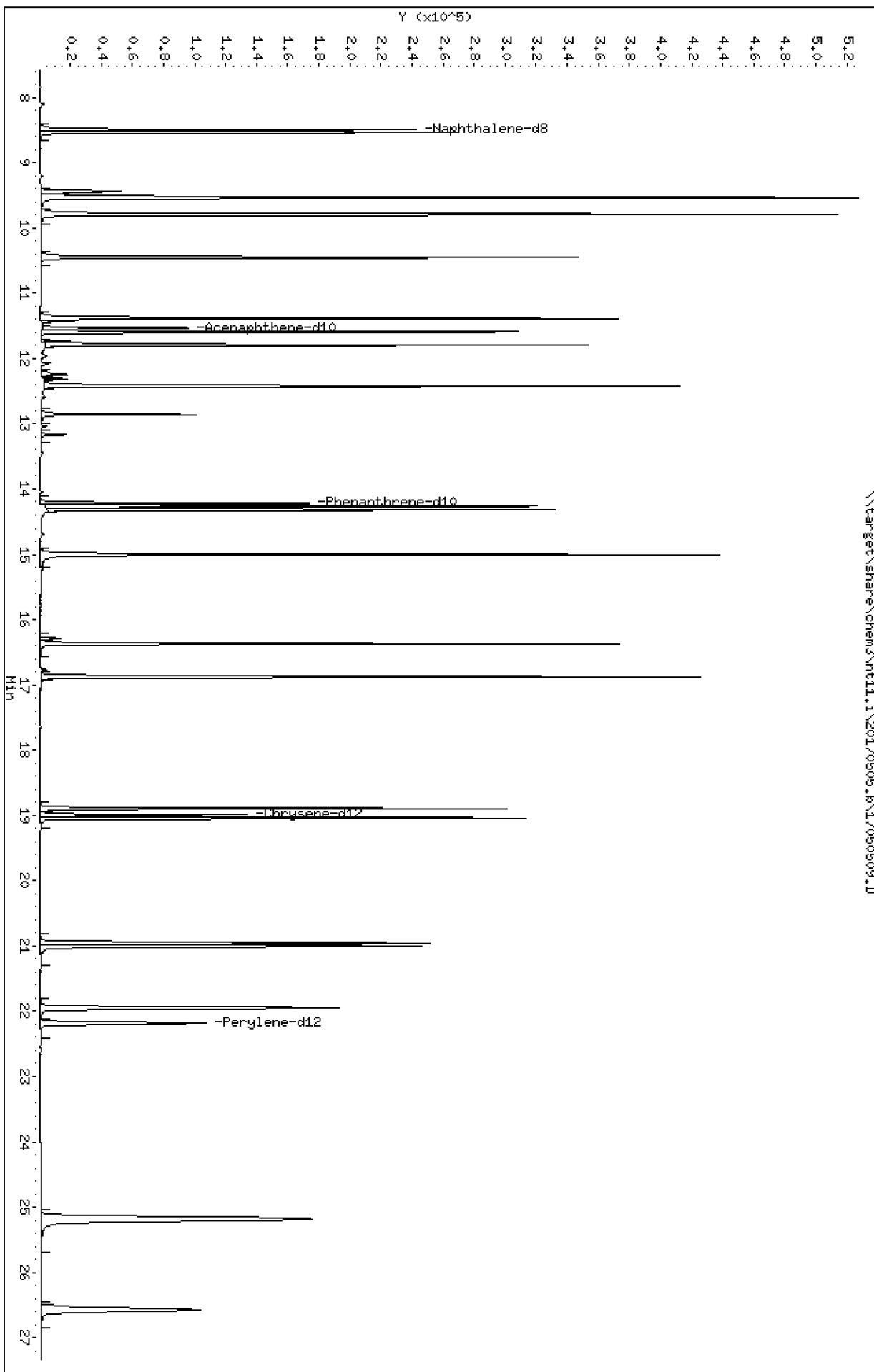
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

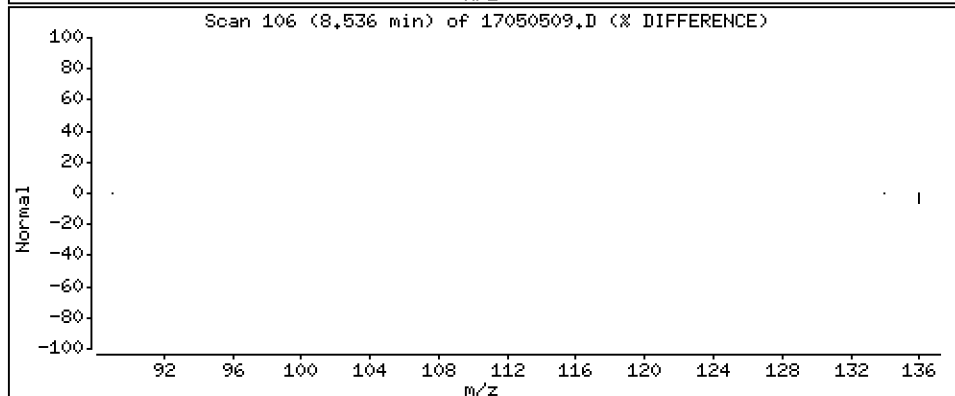
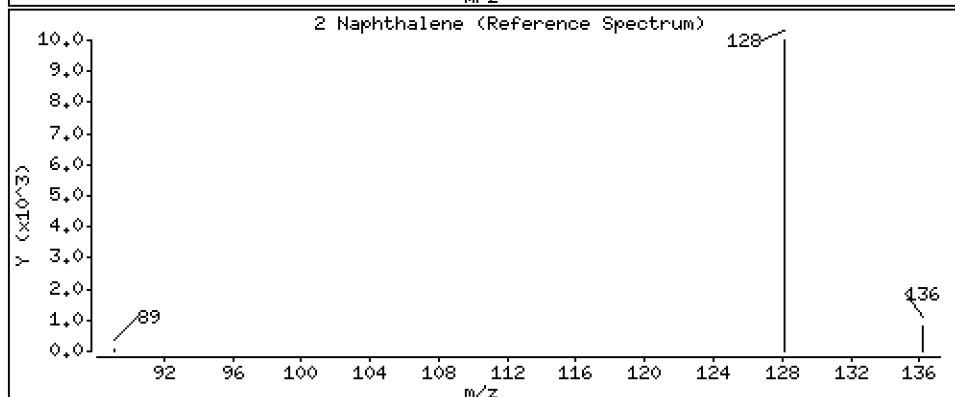
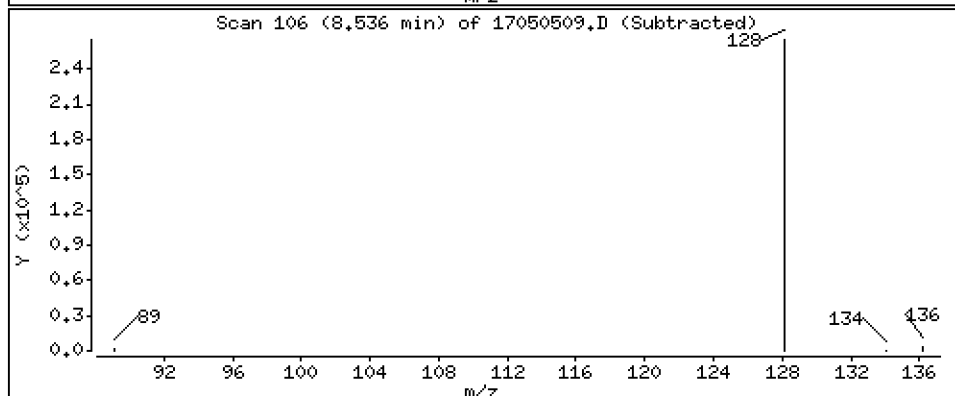
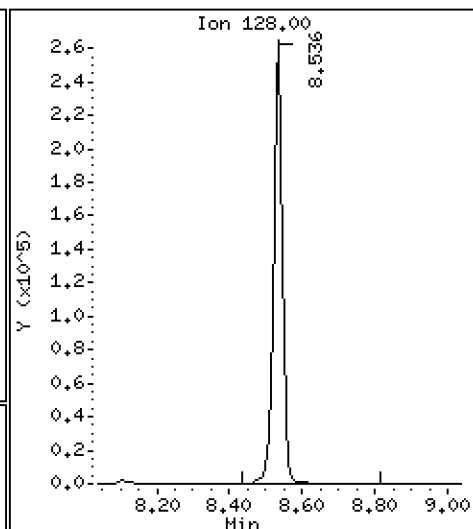
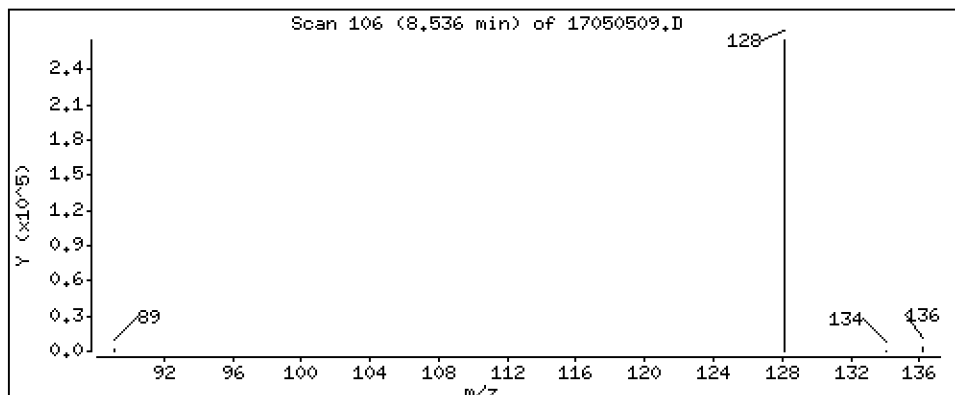
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 240 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

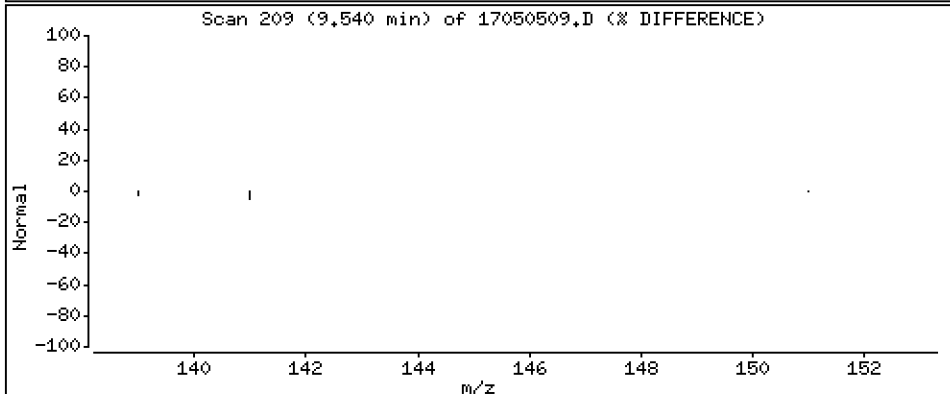
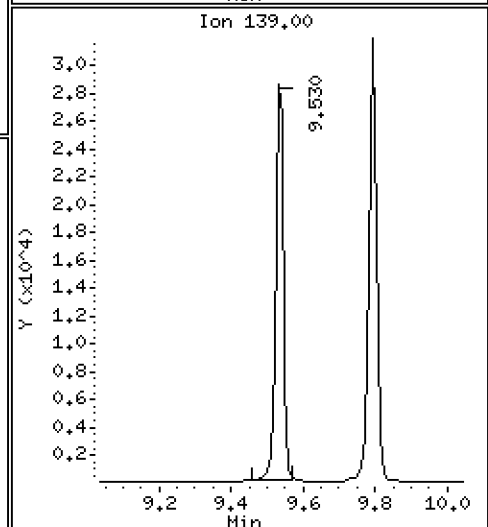
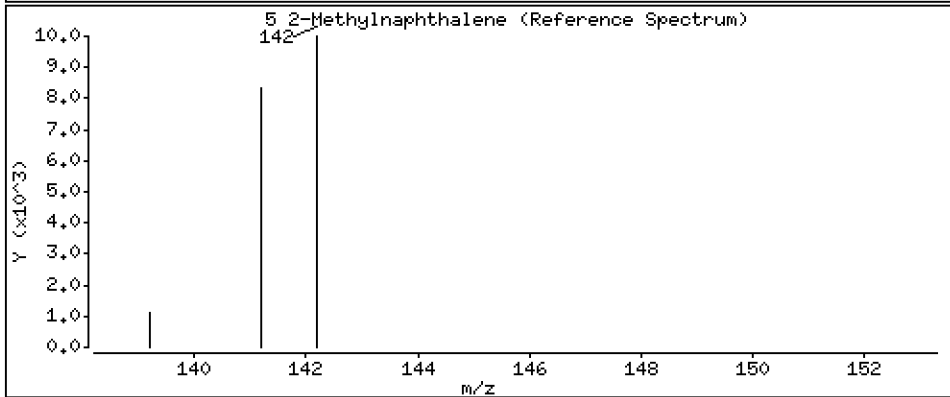
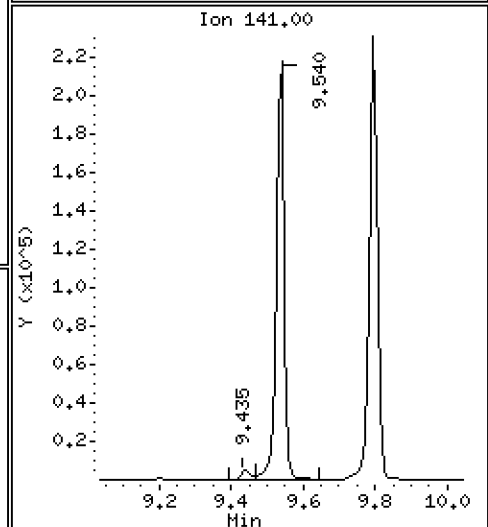
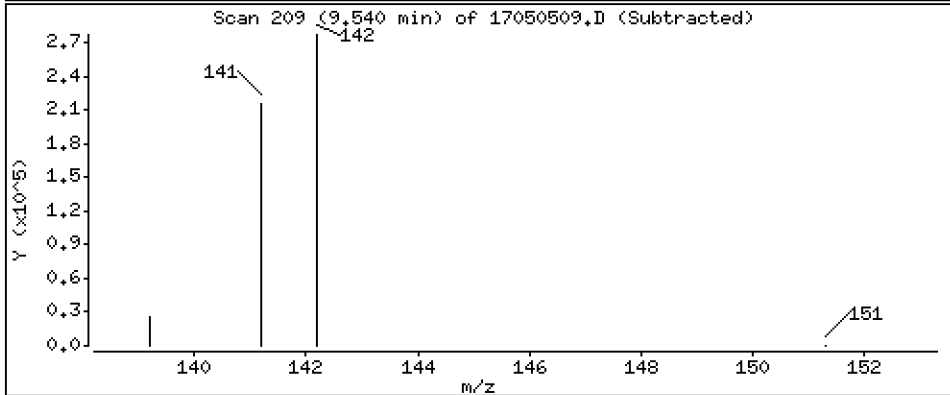
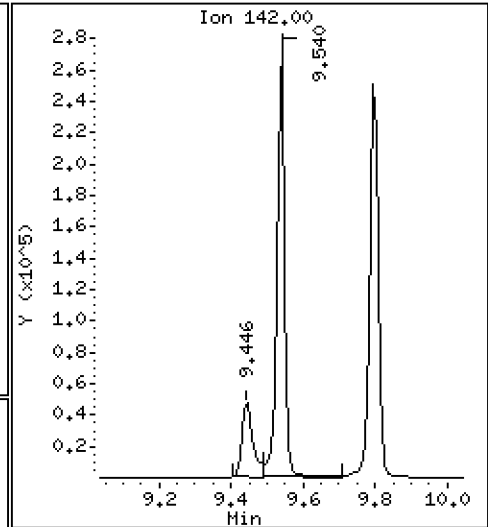
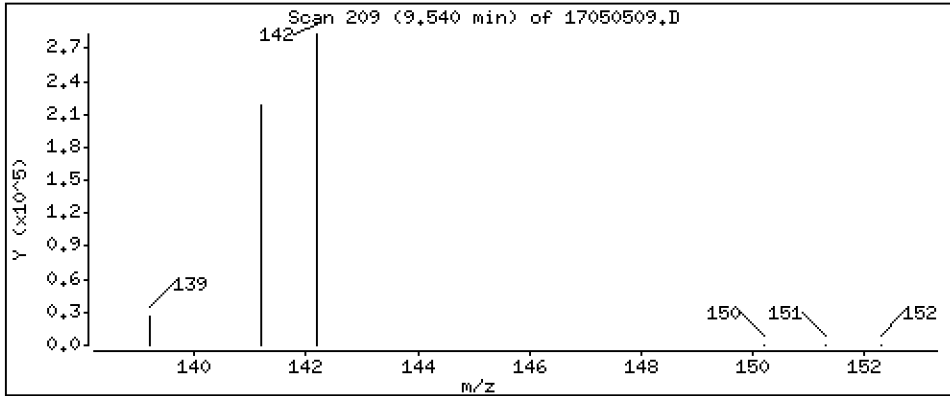
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

5 2-Methylnaphthalene

Concentration: 257 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

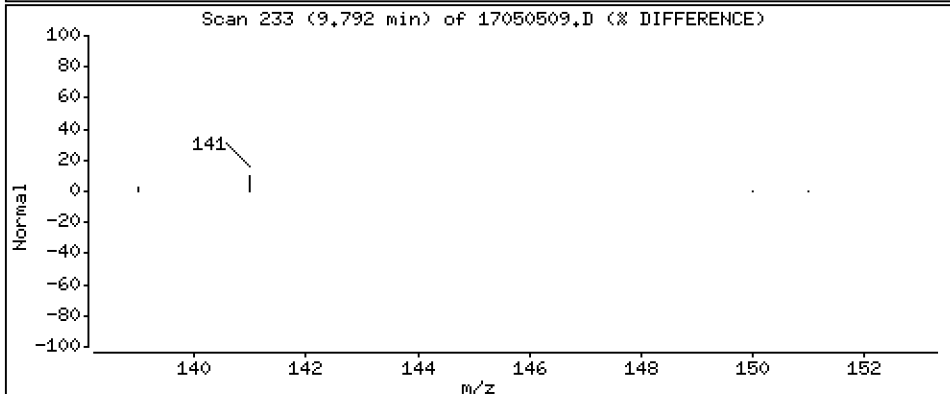
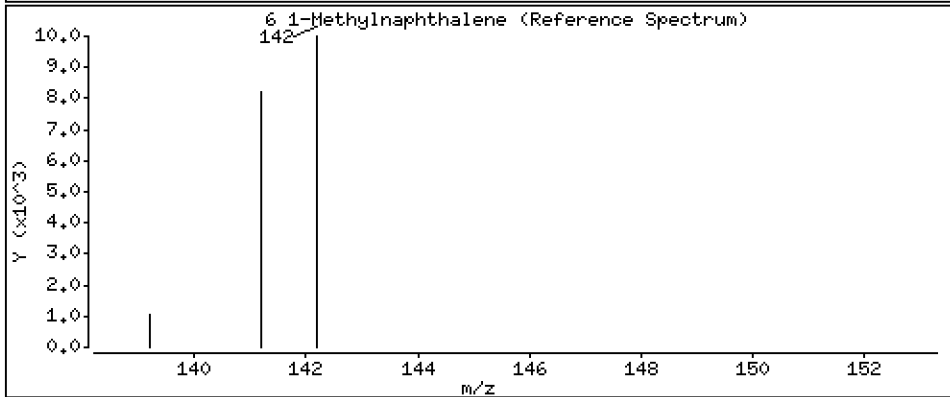
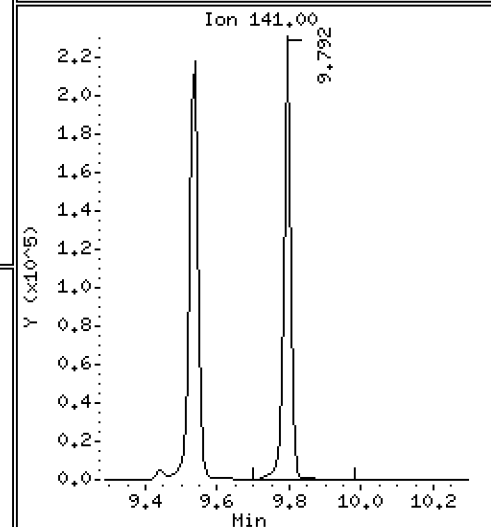
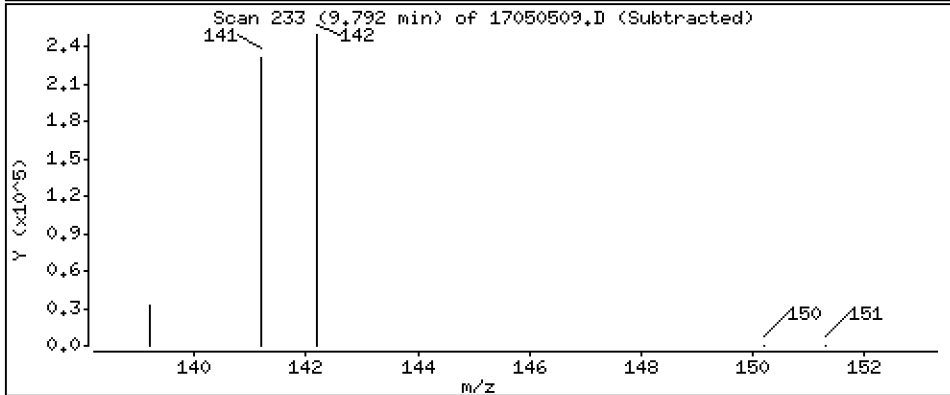
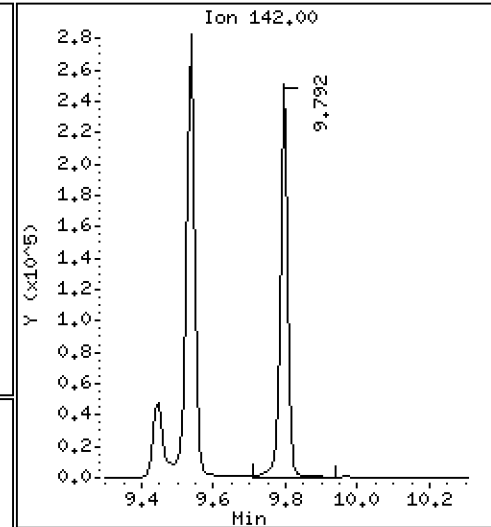
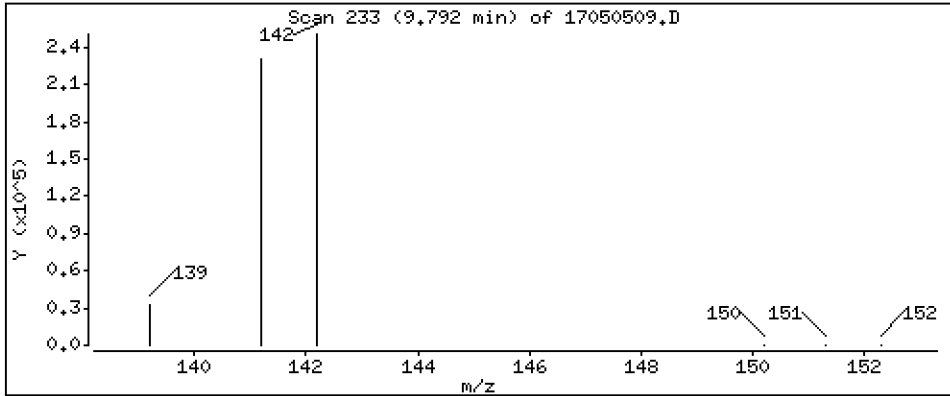
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

6-1-Methylnaphthalene

Concentration: 247 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

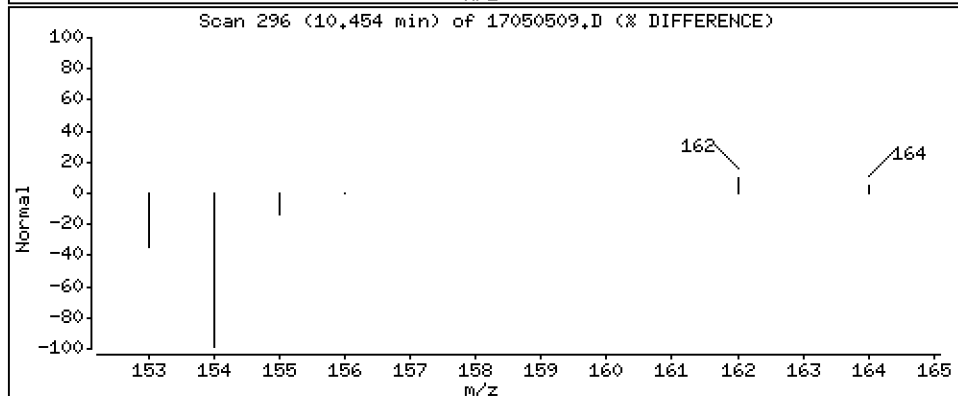
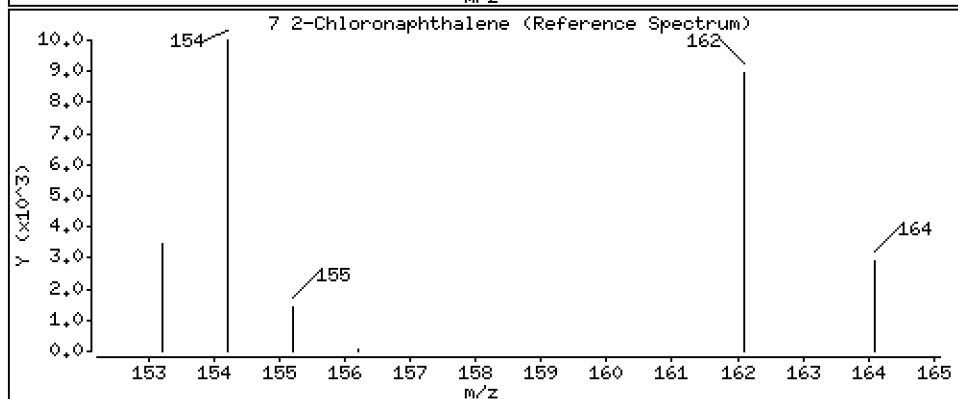
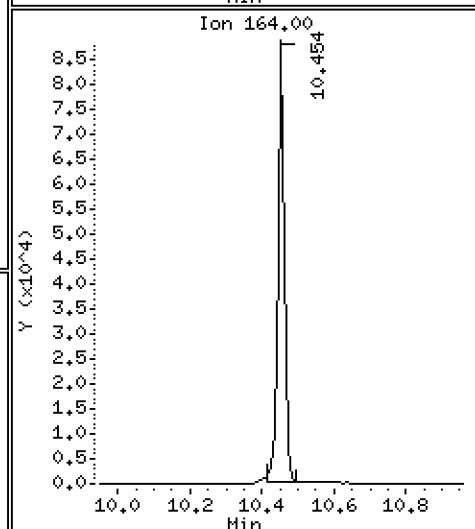
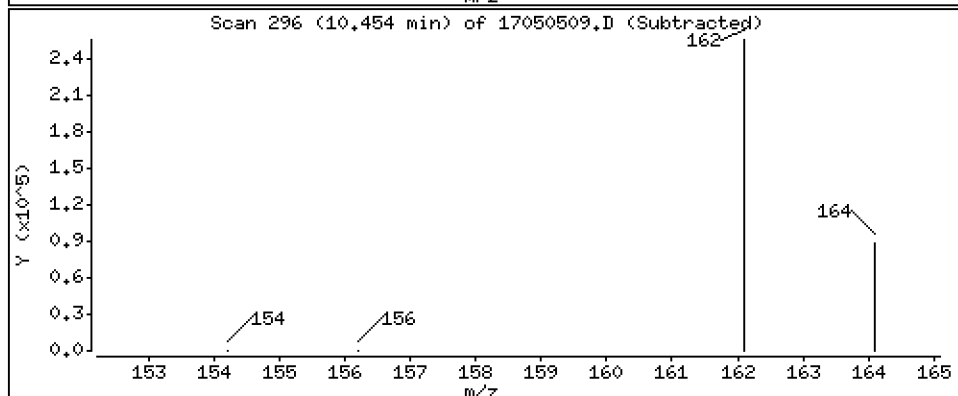
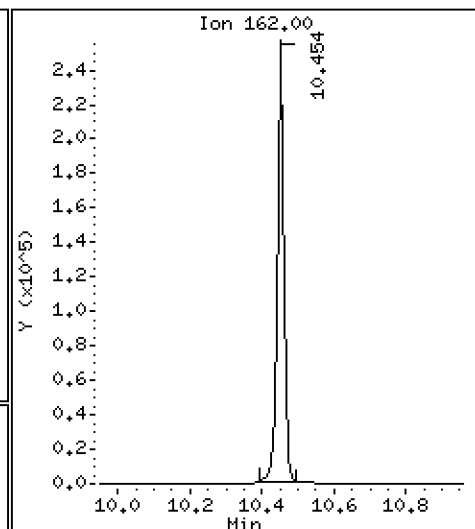
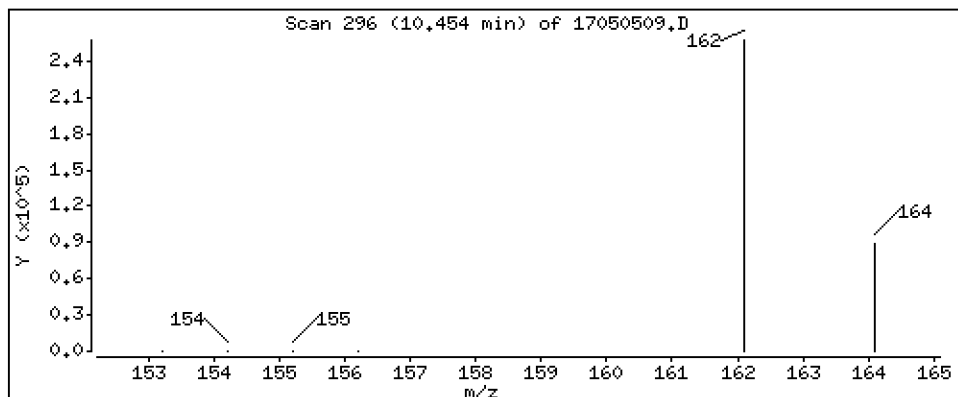
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 2-Chloronaphthalene

Concentration: 246 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

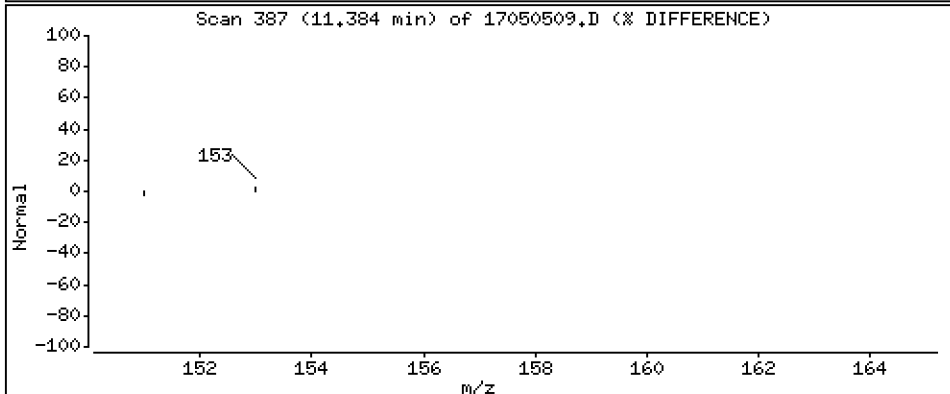
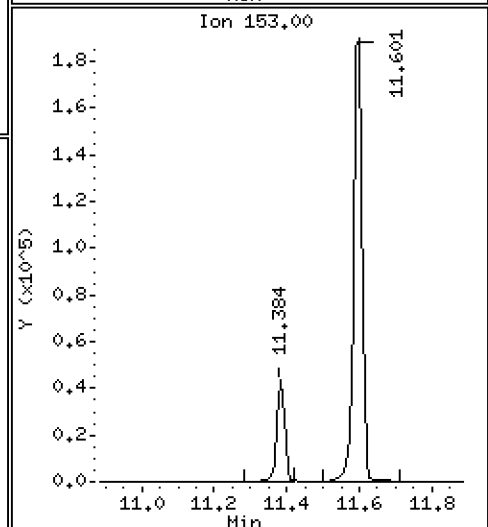
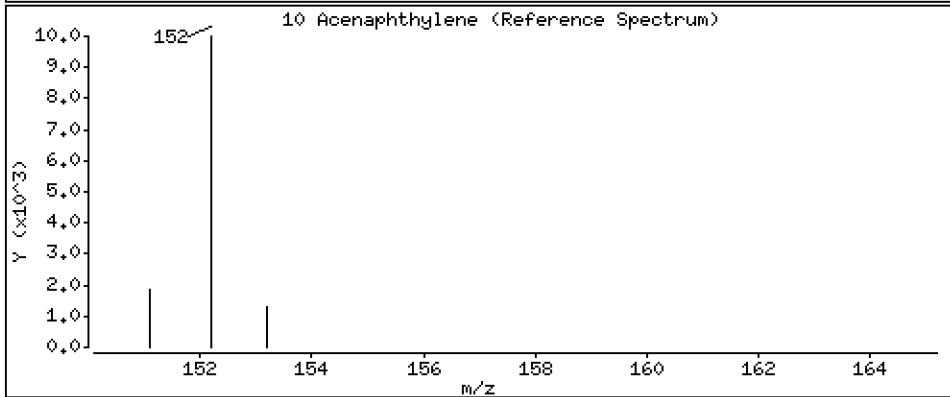
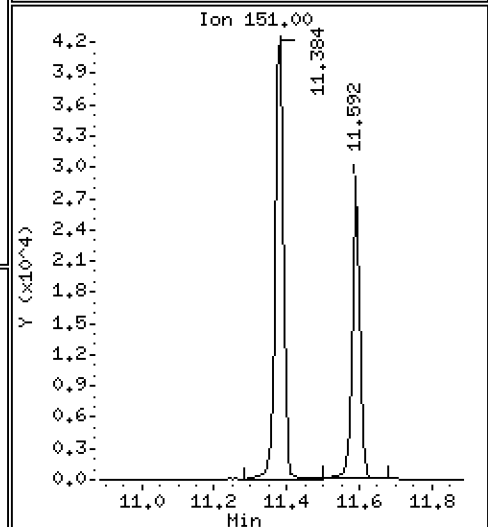
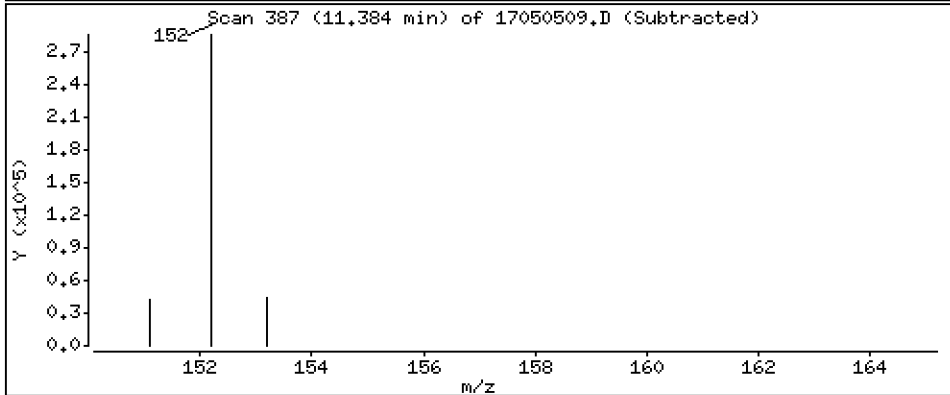
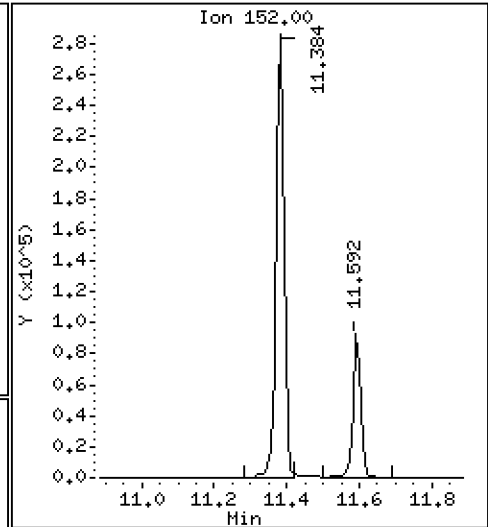
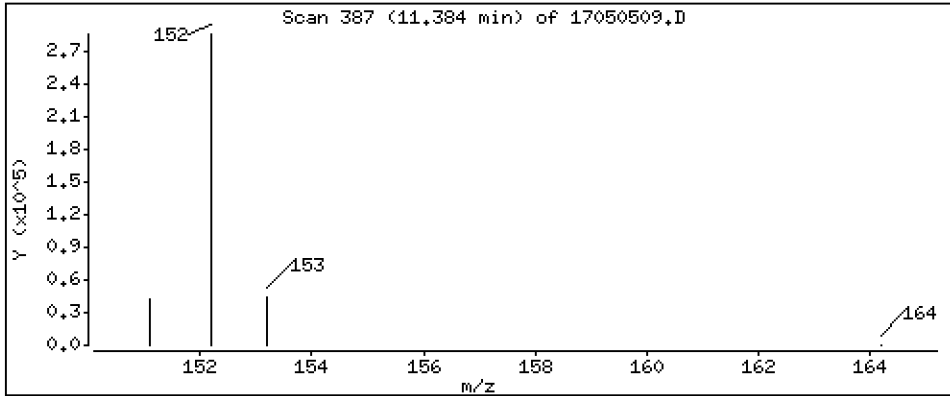
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

10 Acenaphthylene

Concentration: 247 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

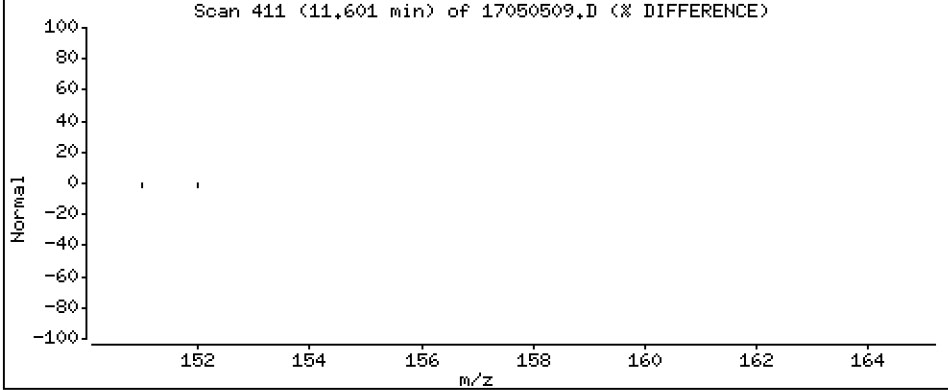
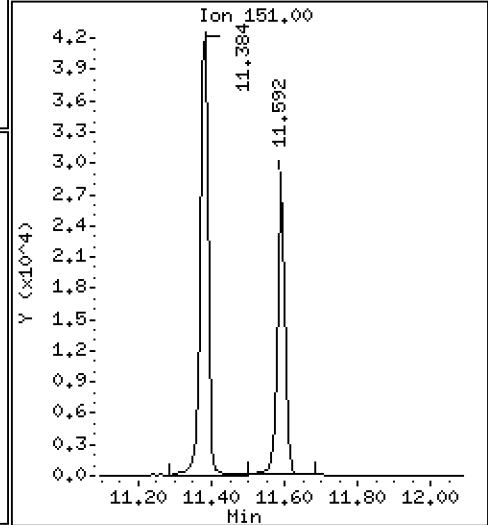
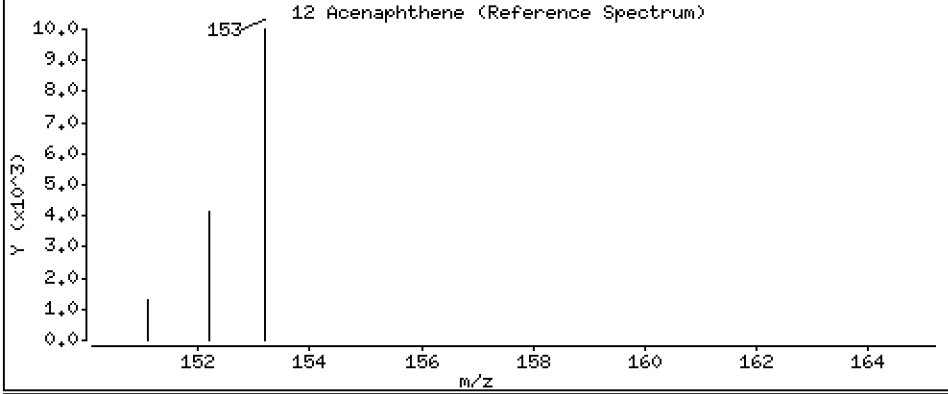
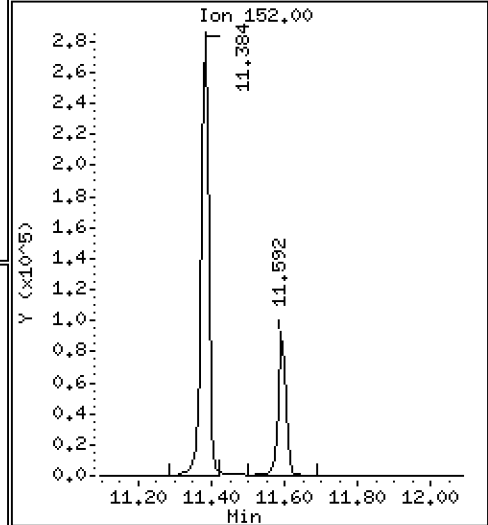
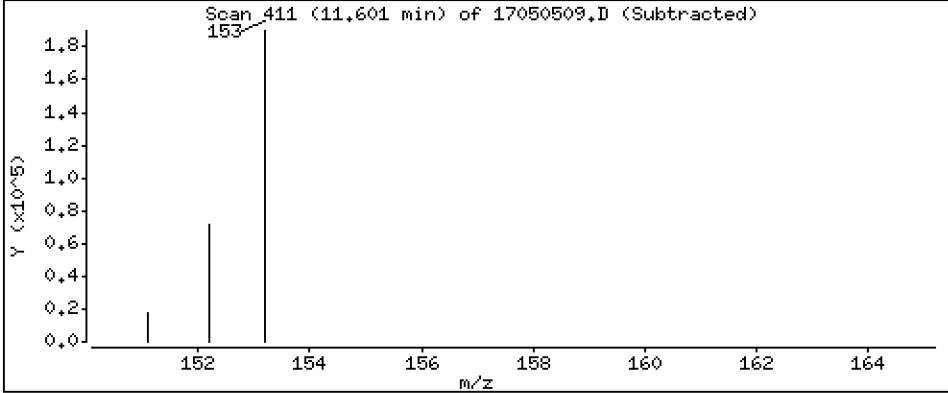
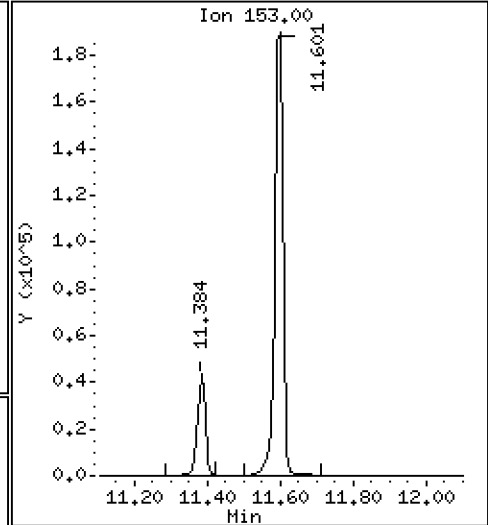
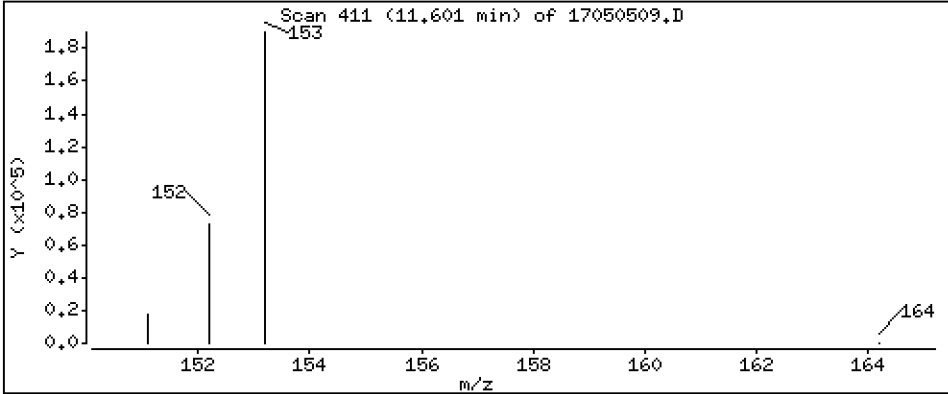
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

12 Acenaphthene

Concentration: 277 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

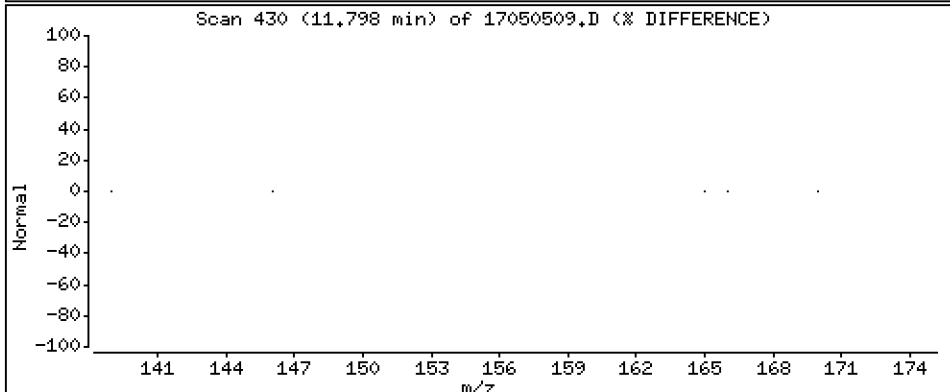
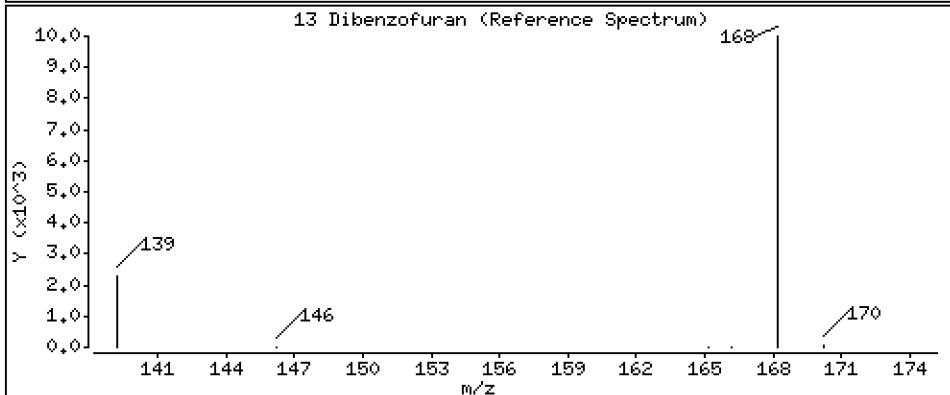
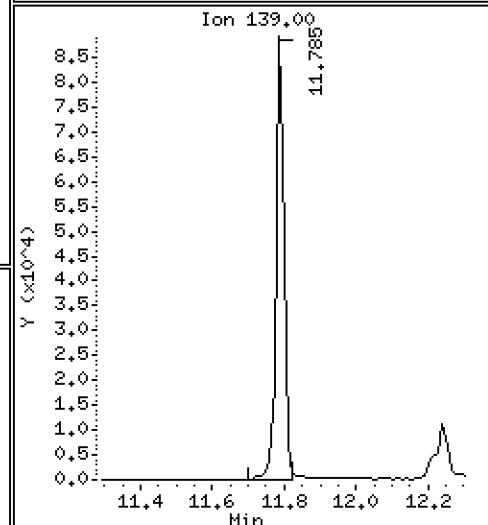
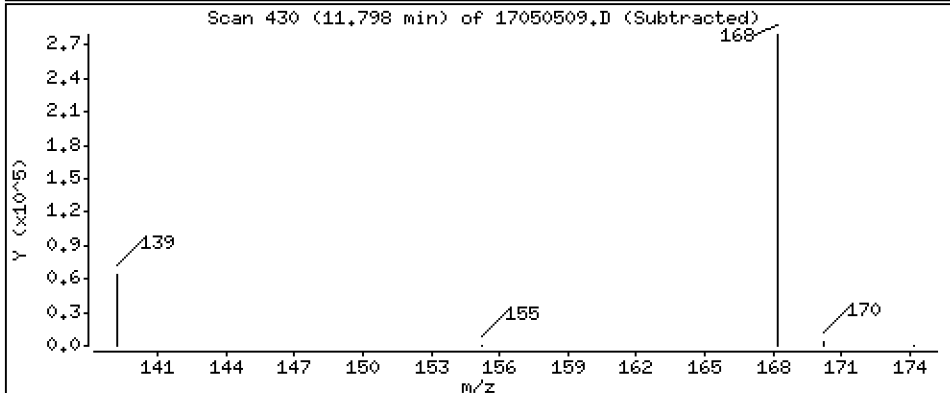
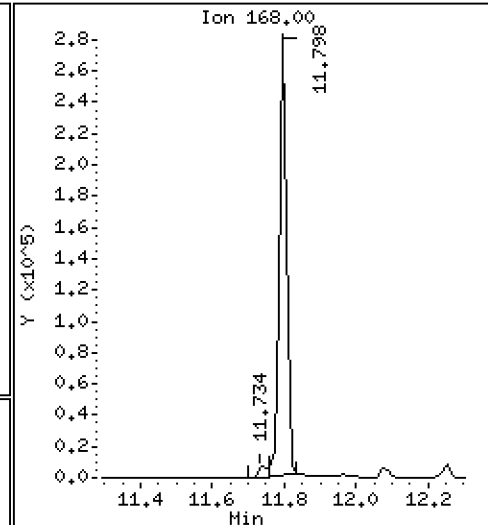
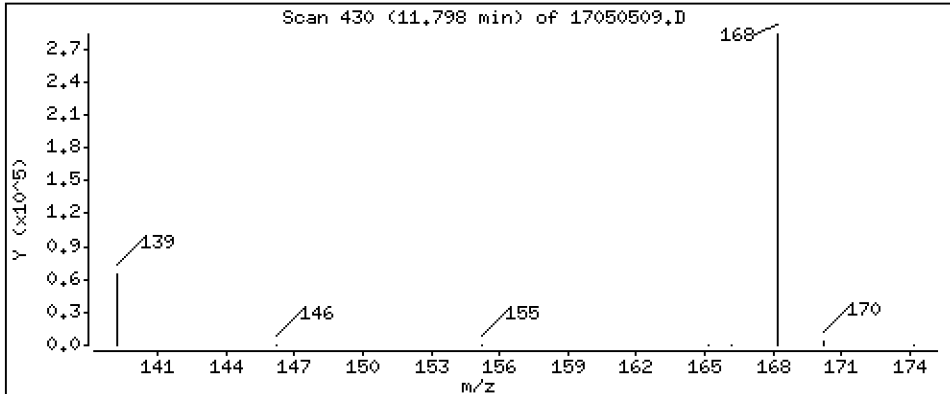
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

13 Dibenzofuran

Concentration: 253 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

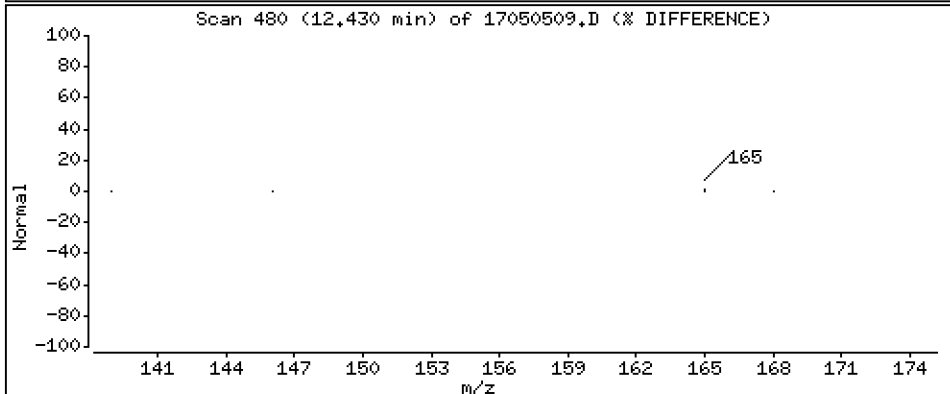
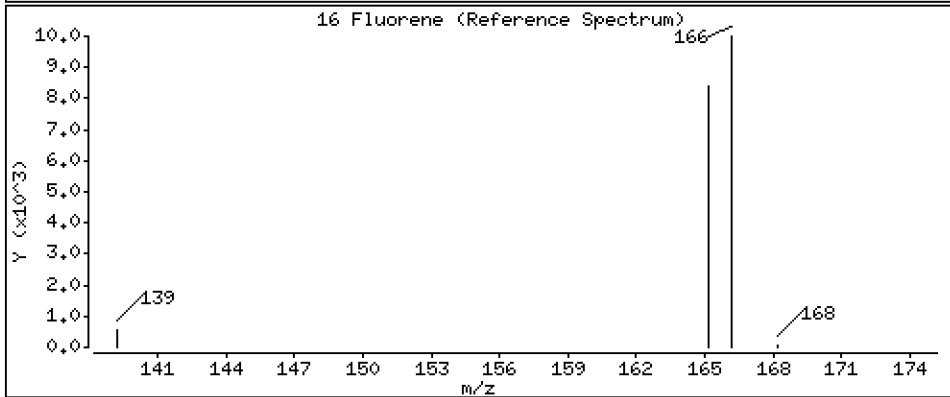
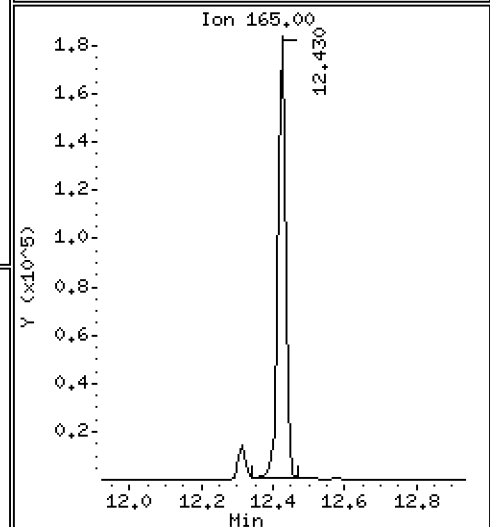
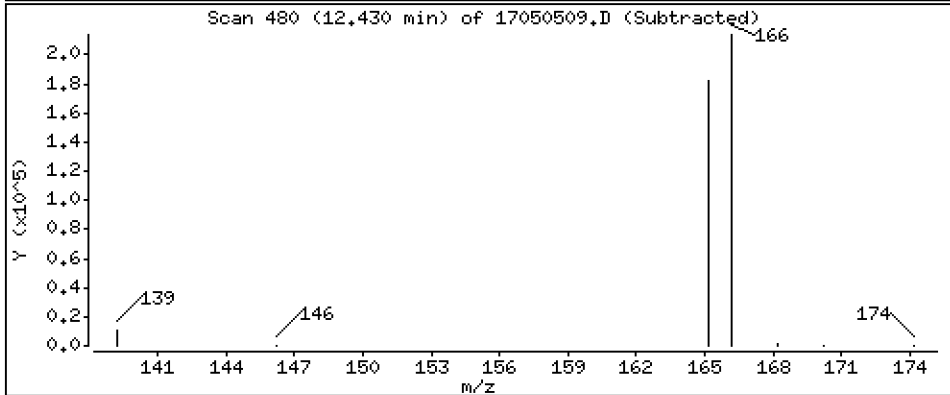
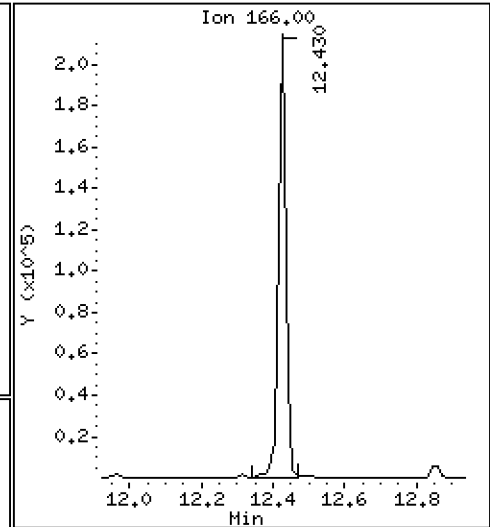
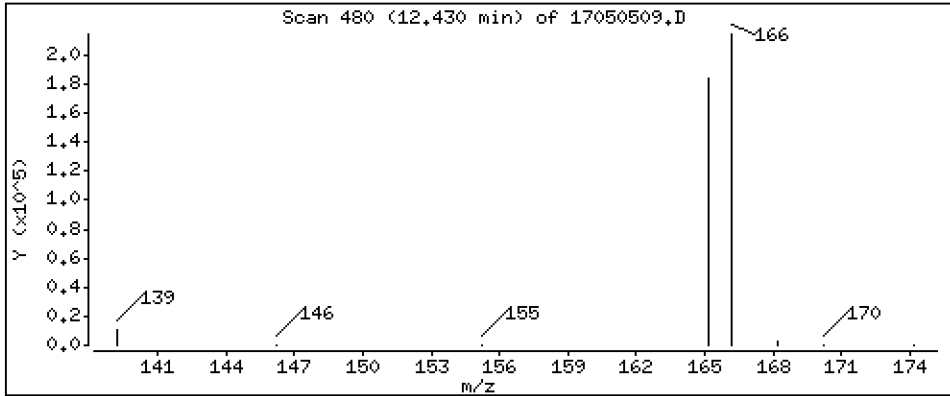
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 Fluorene

Concentration: 257 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

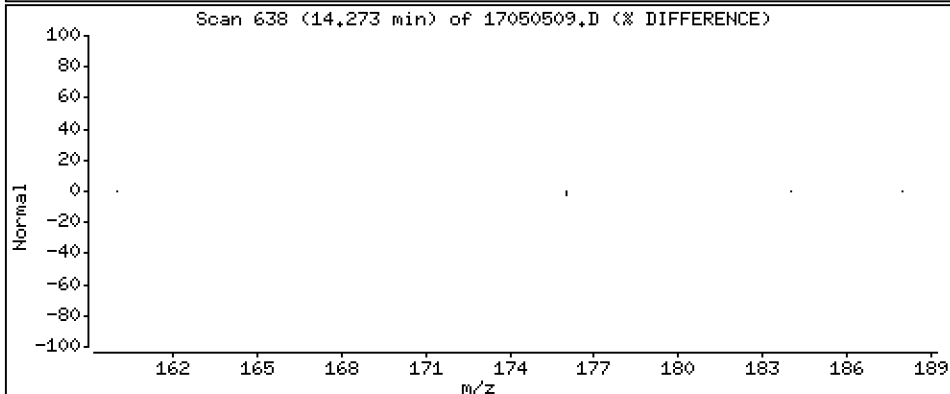
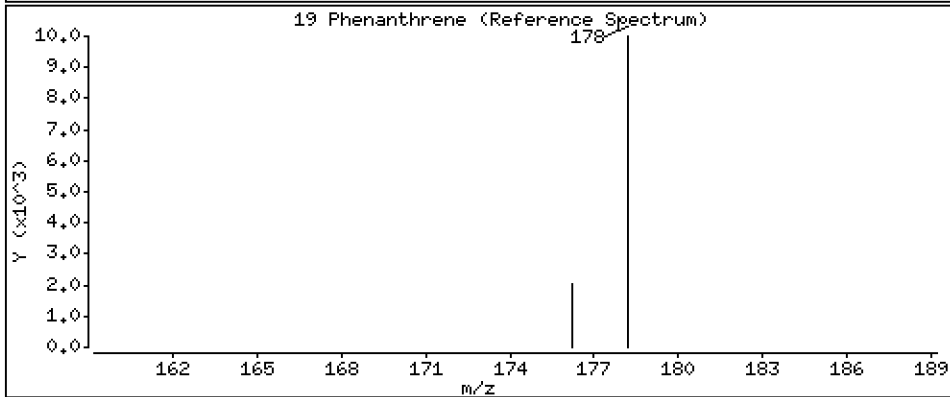
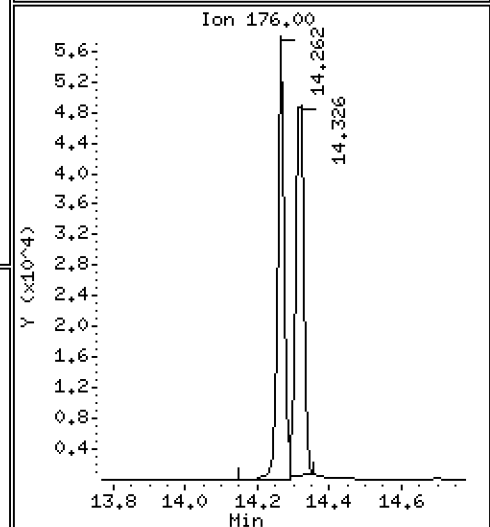
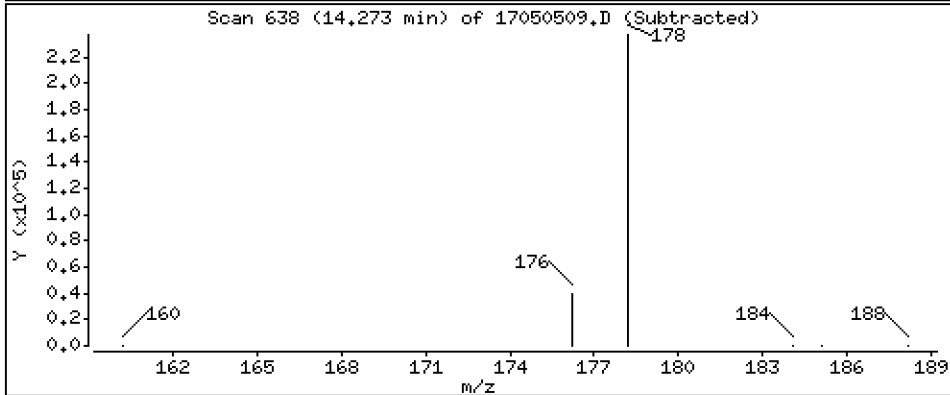
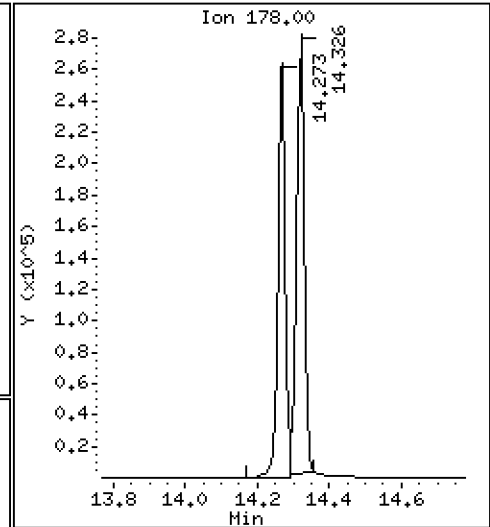
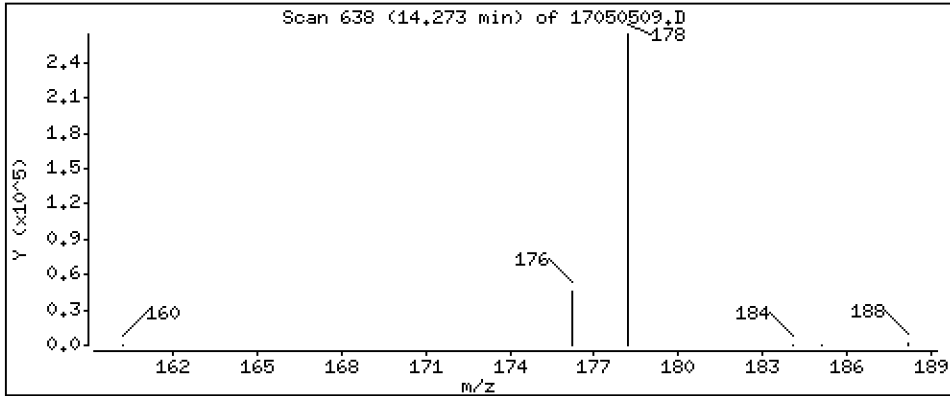
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 Phenanthrene

Concentration: 256 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

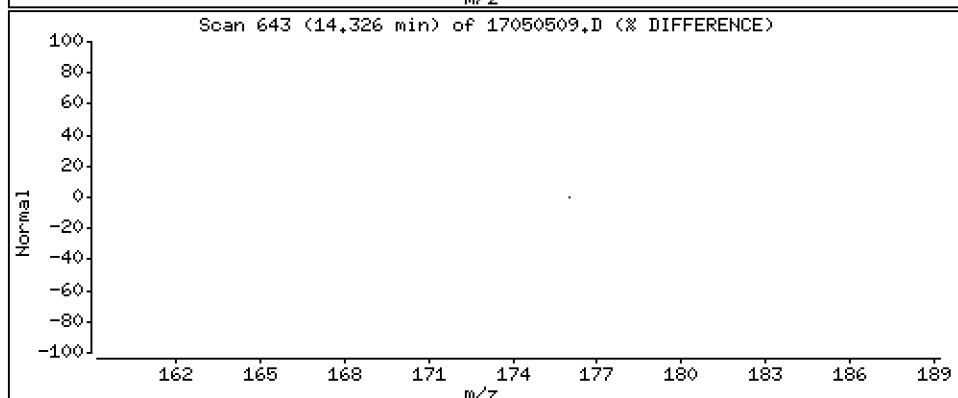
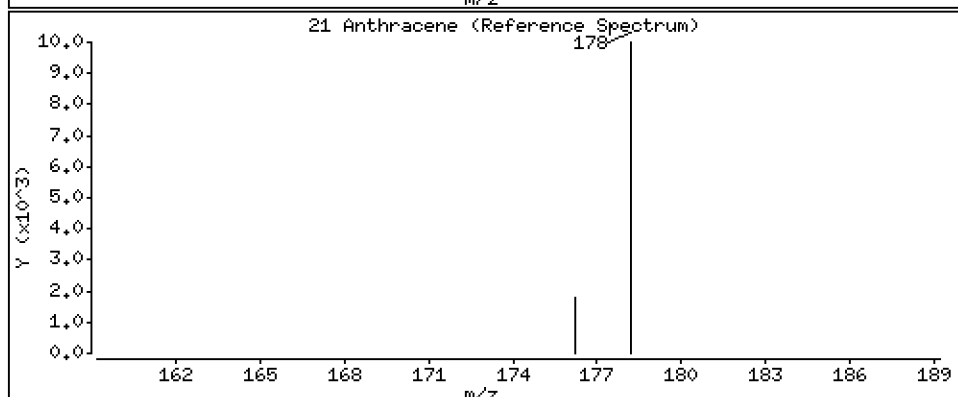
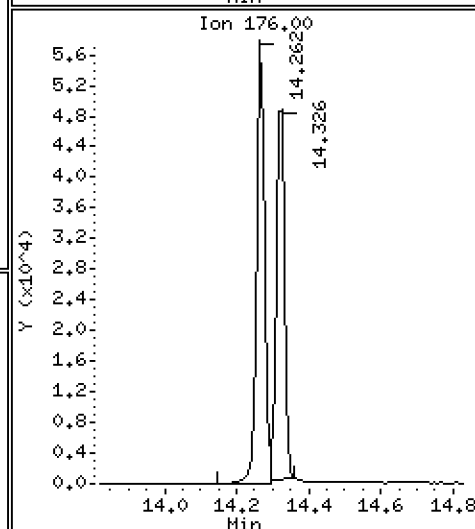
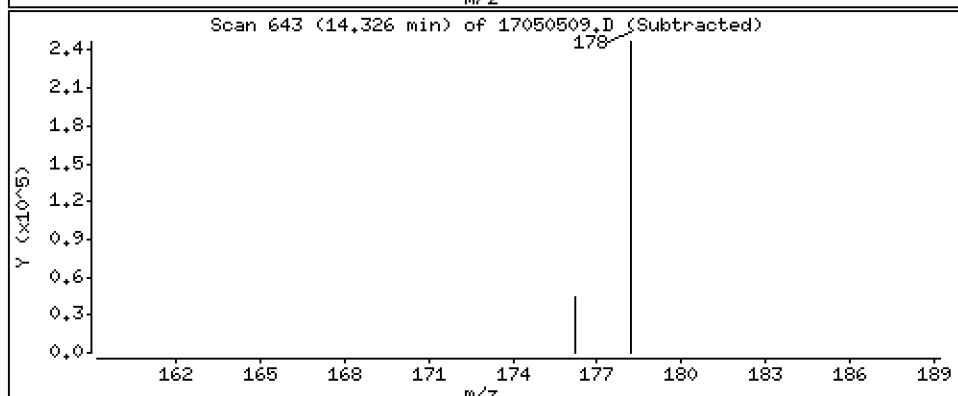
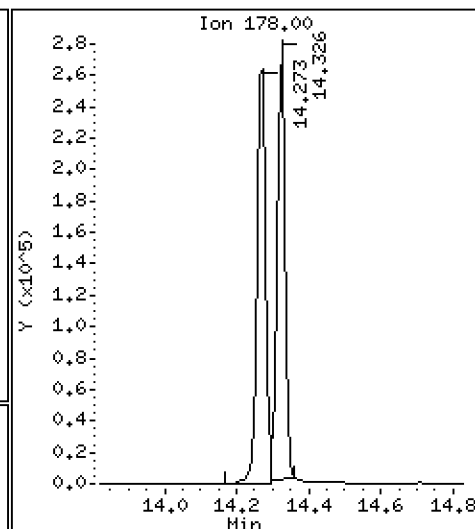
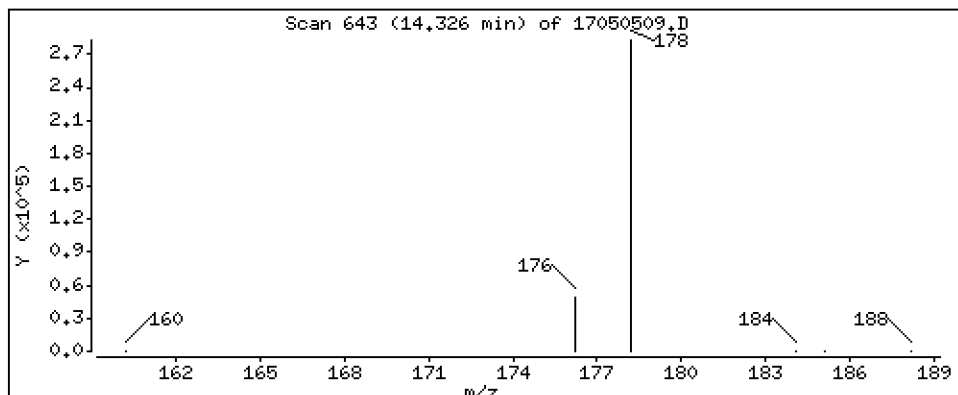
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

21 Anthracene

Concentration: 240 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

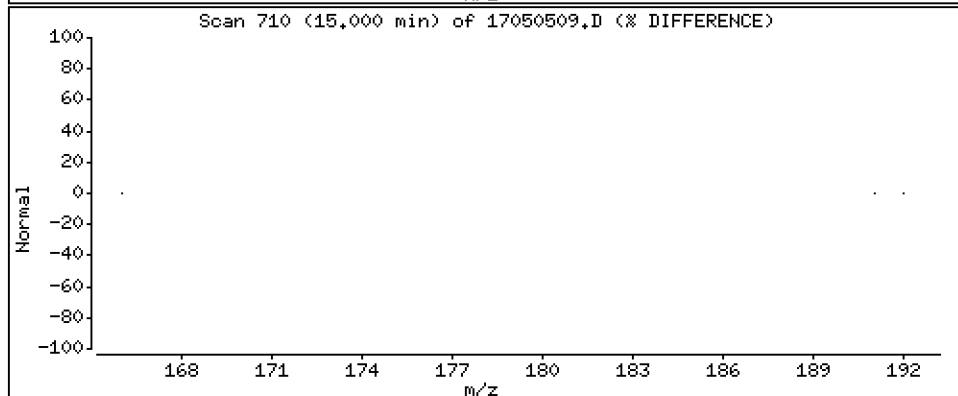
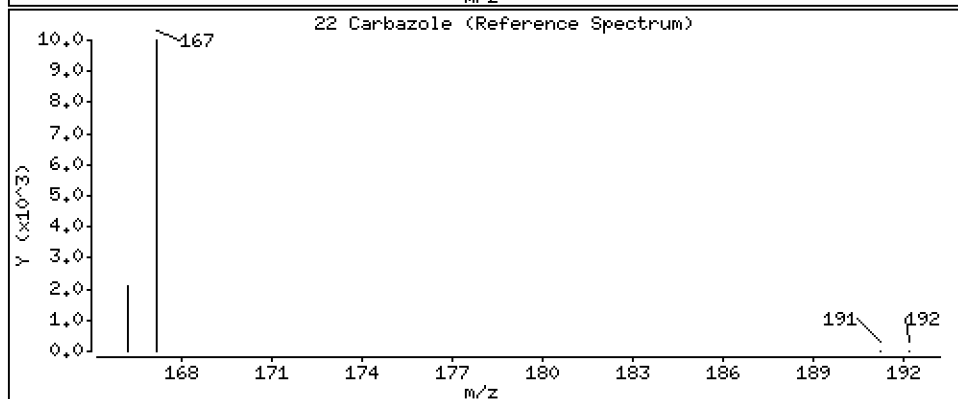
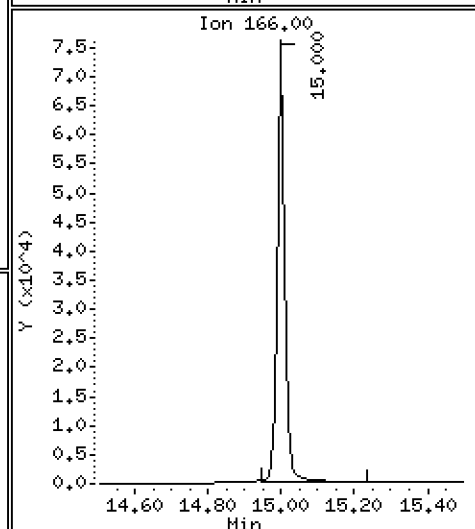
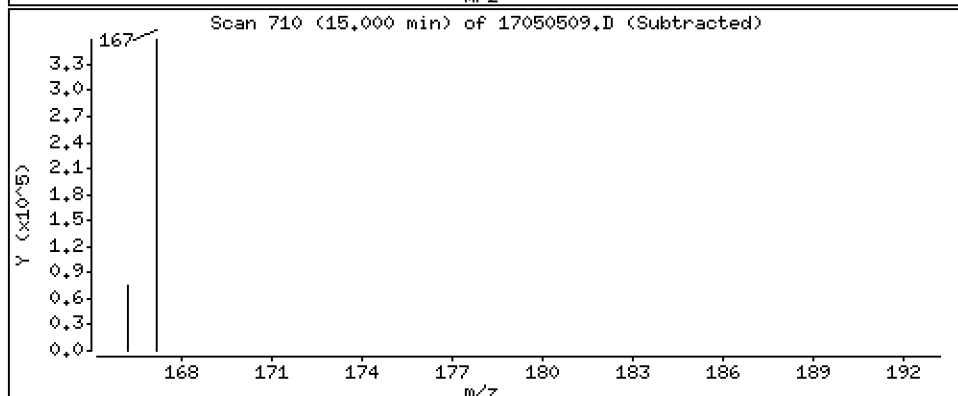
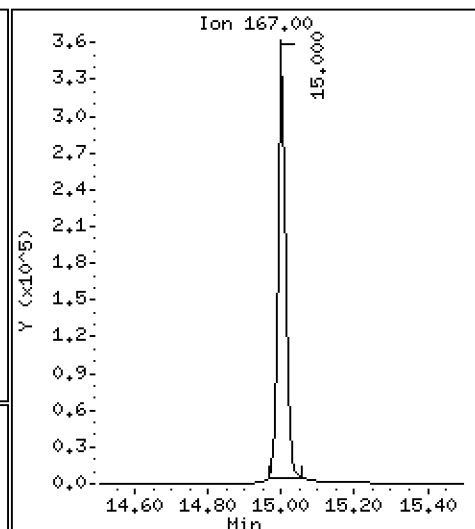
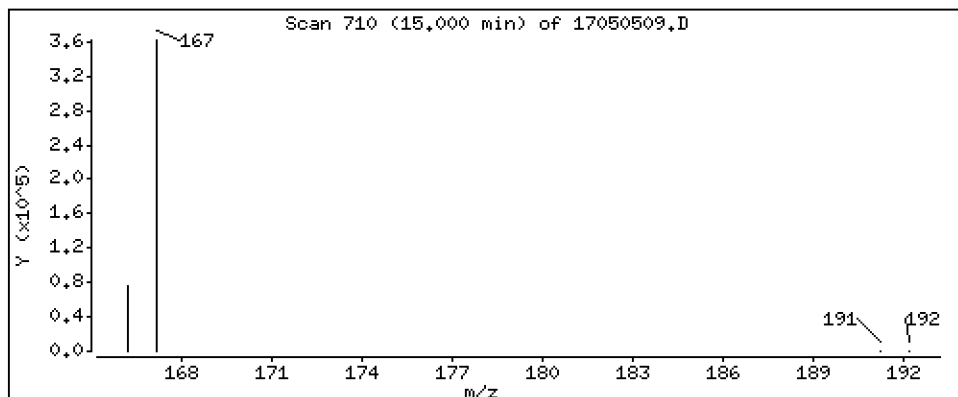
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Carbazole

Concentration: 252 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

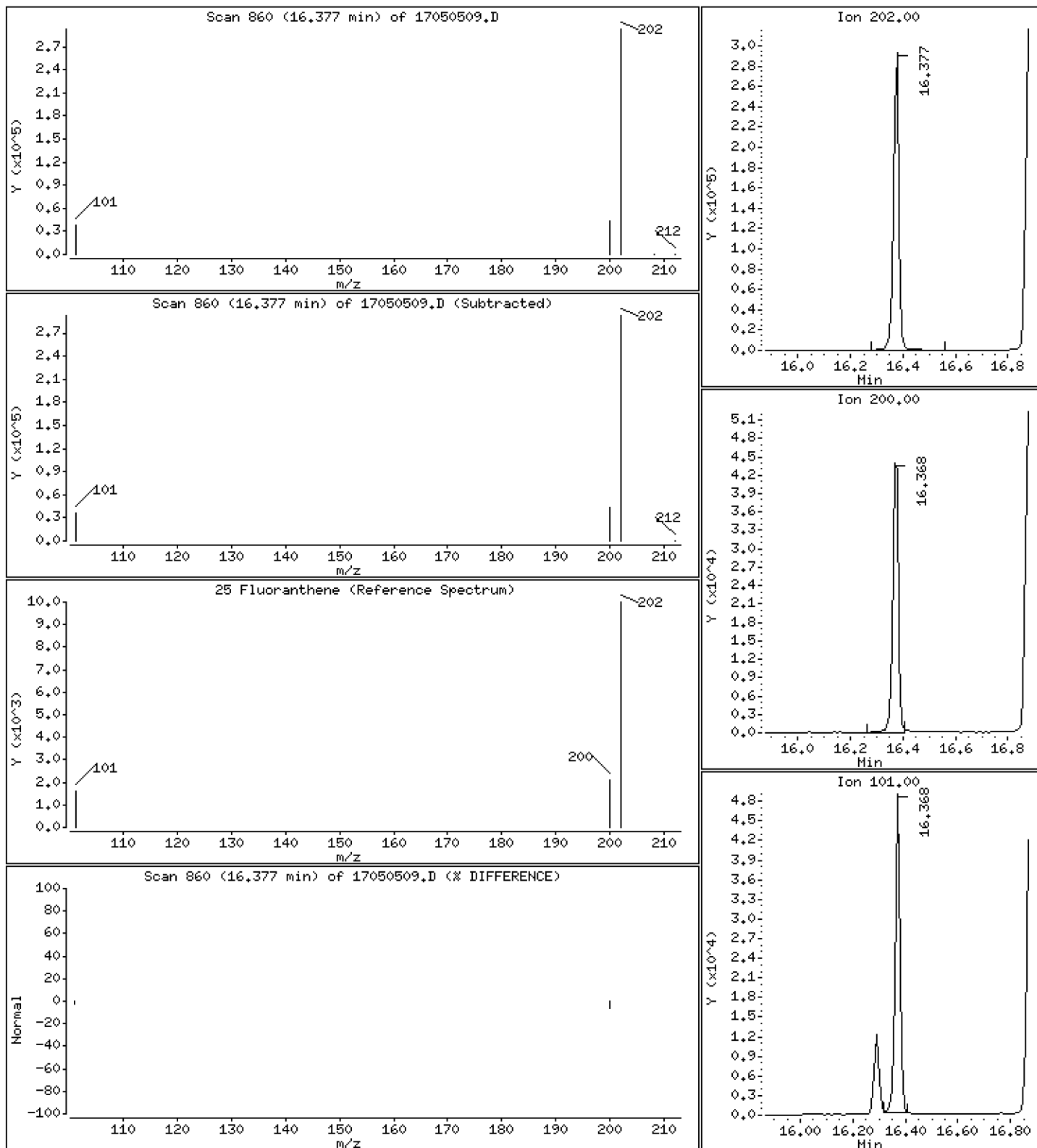
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

25 Fluoranthene

Concentration: 262 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

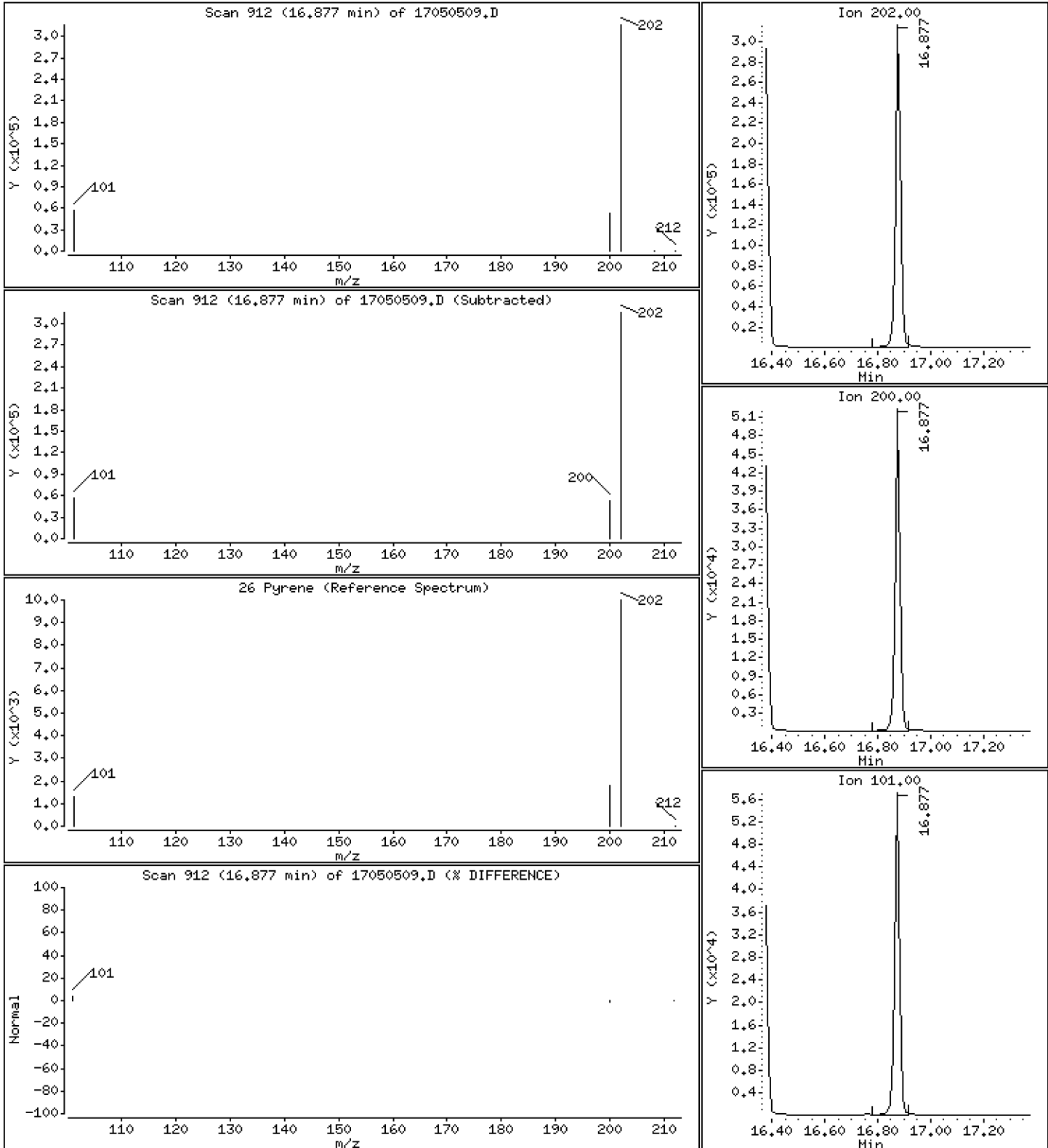
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Pyrene

Concentration: 255 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

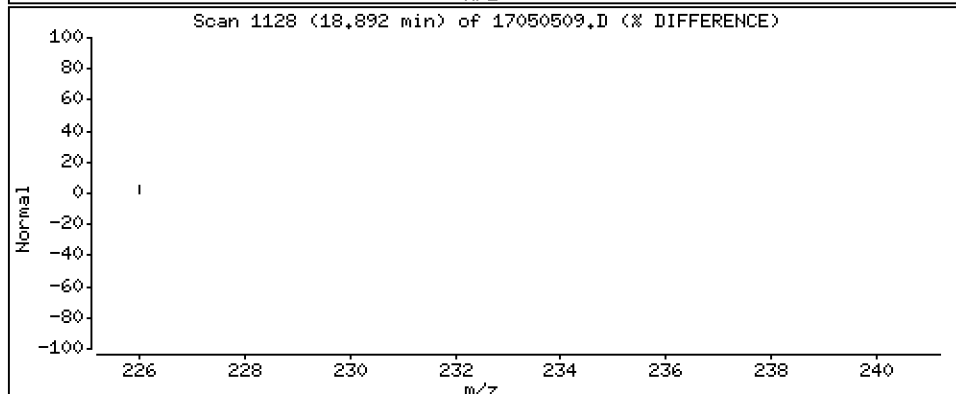
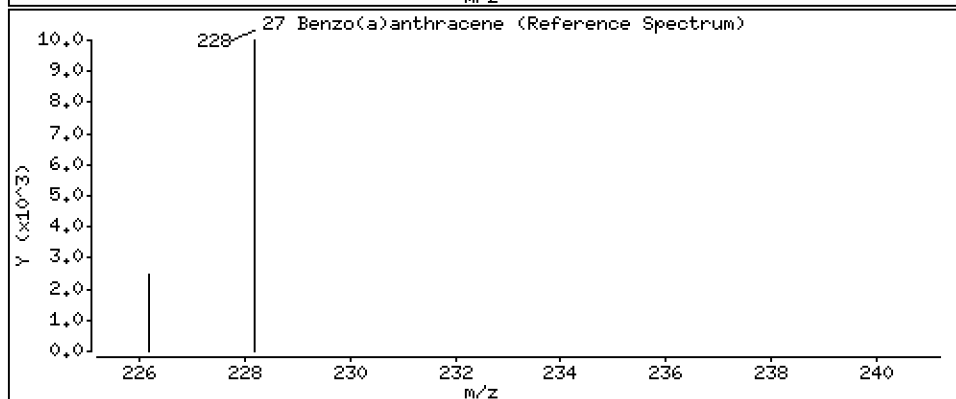
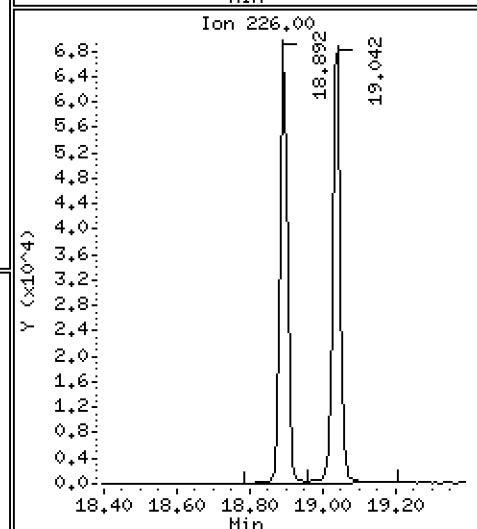
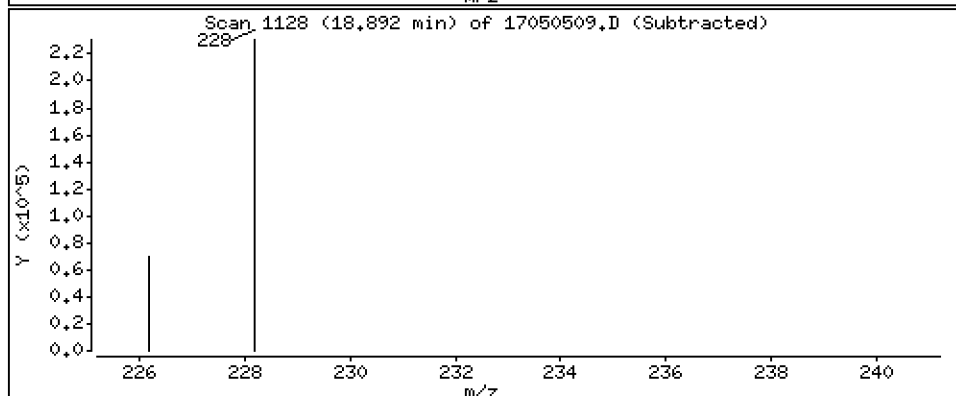
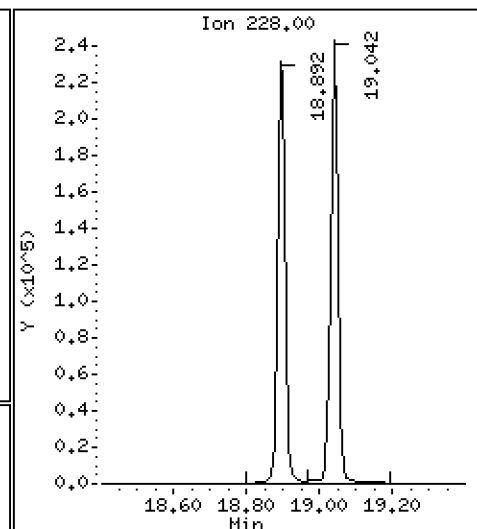
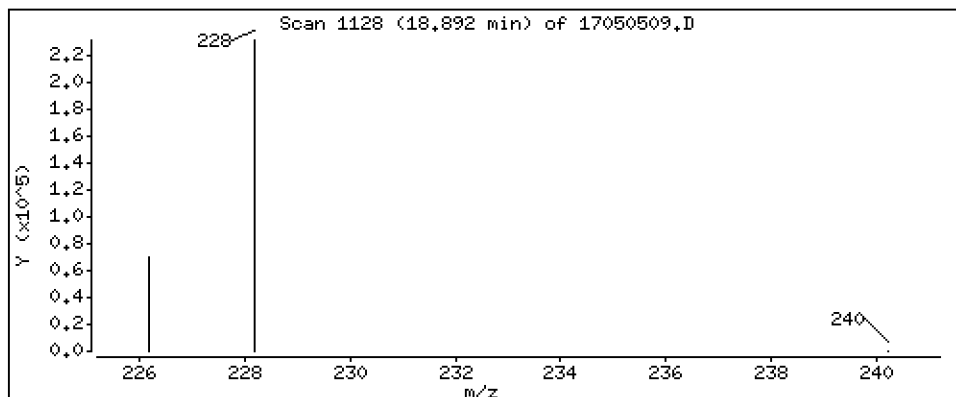
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)anthracene

Concentration: 261 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

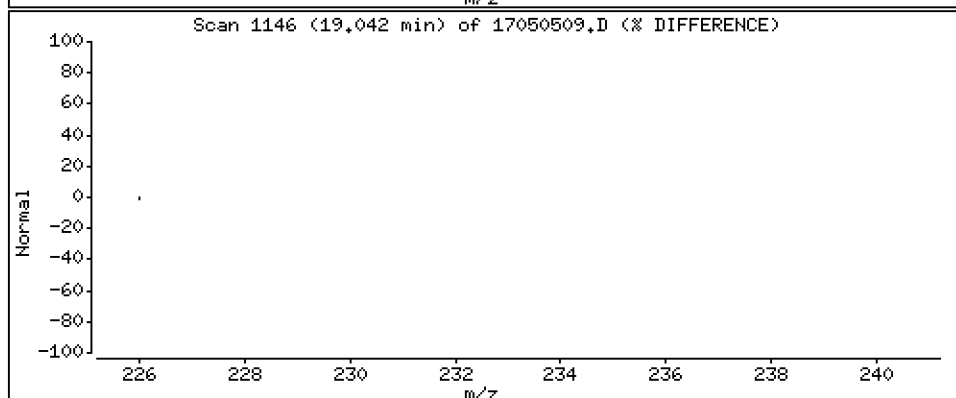
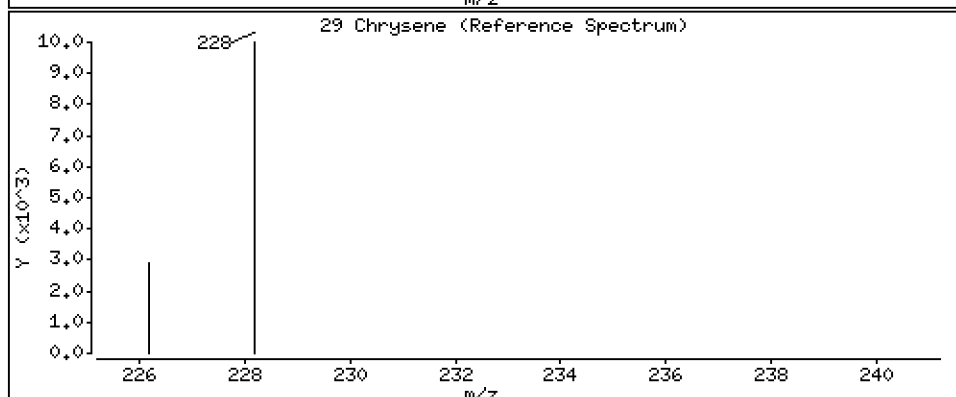
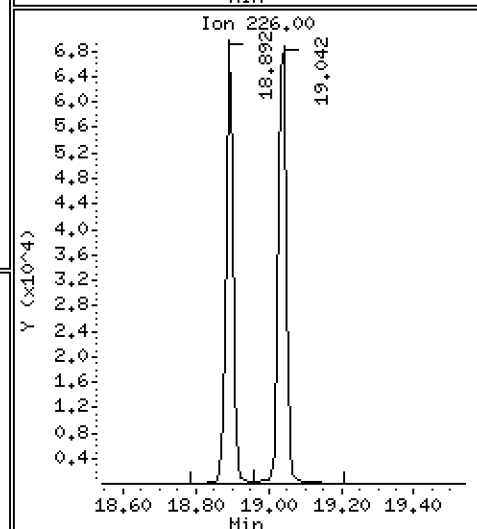
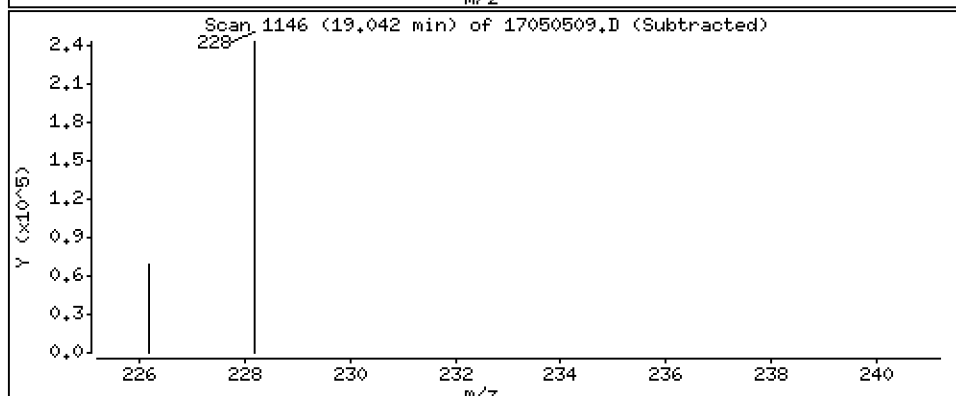
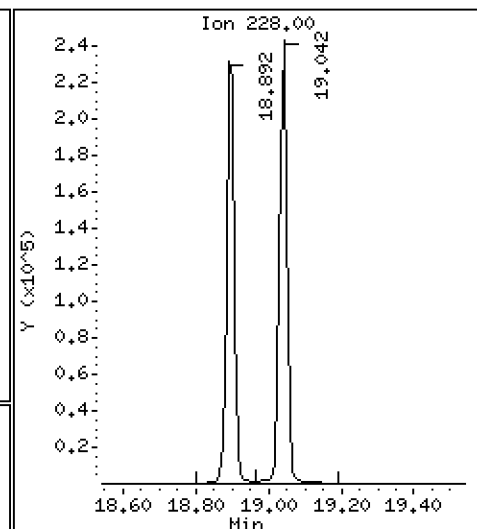
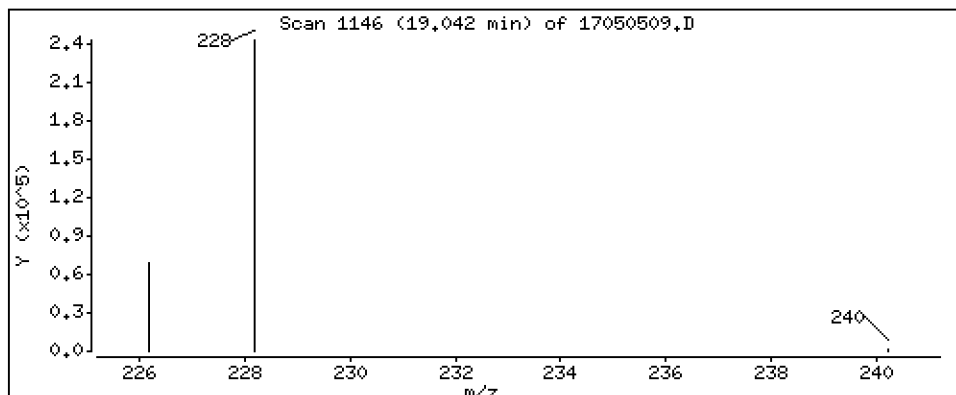
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 Chrysene

Concentration: 250 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

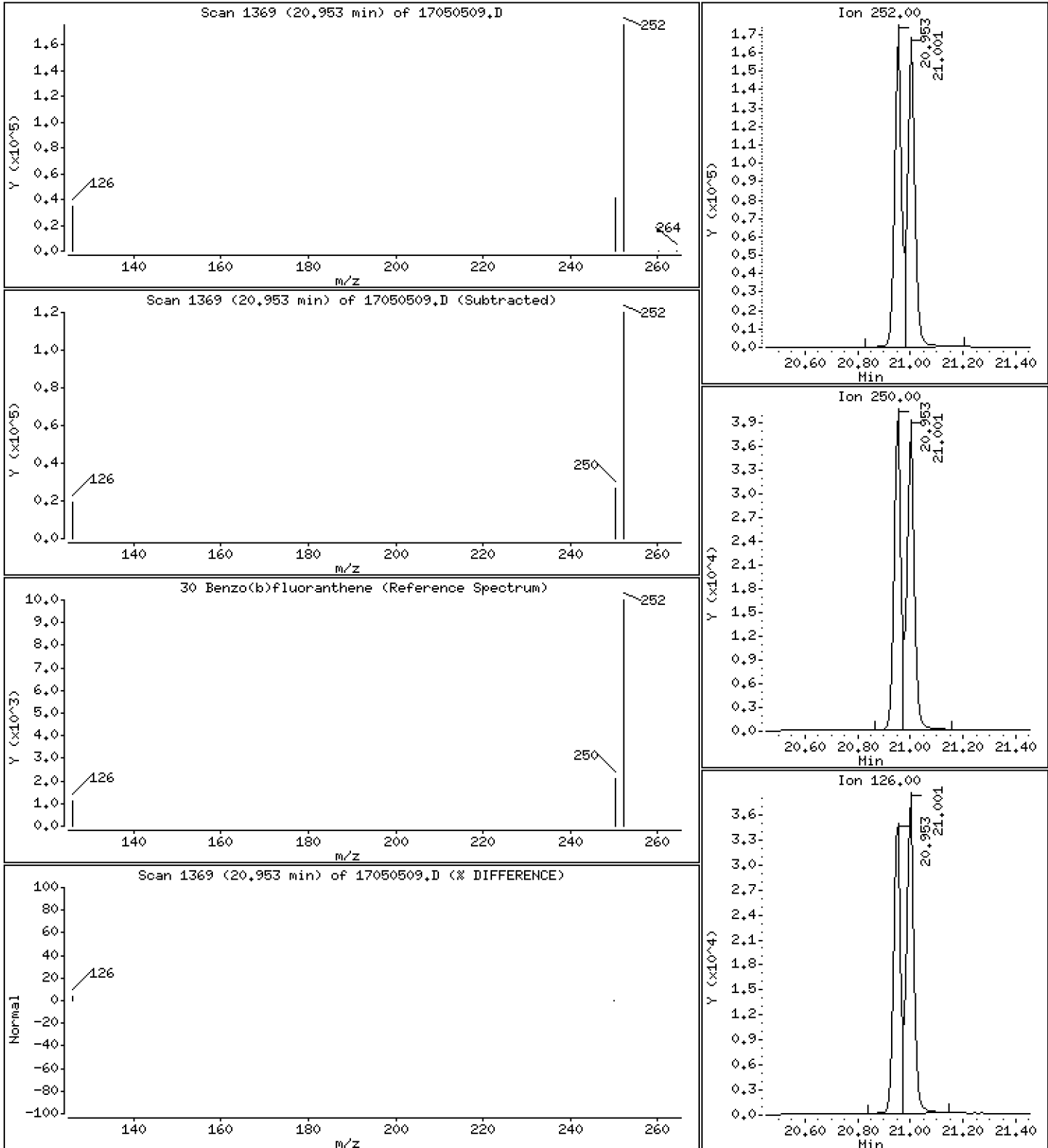
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Benzo(b)fluoranthene

Concentration: 268 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

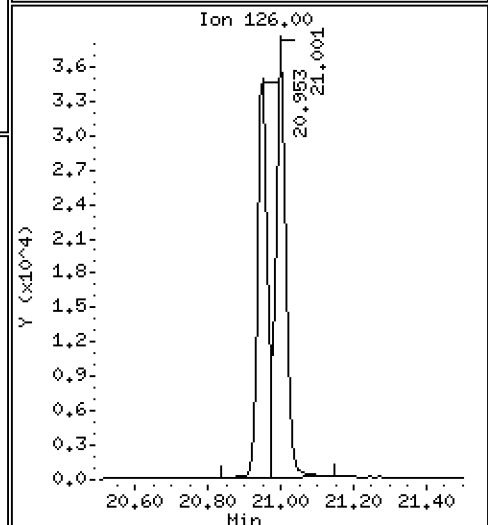
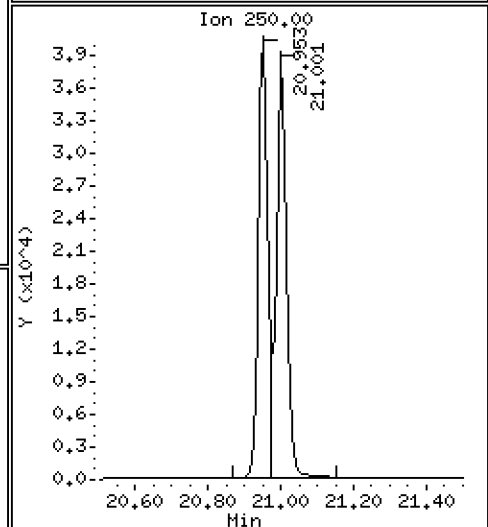
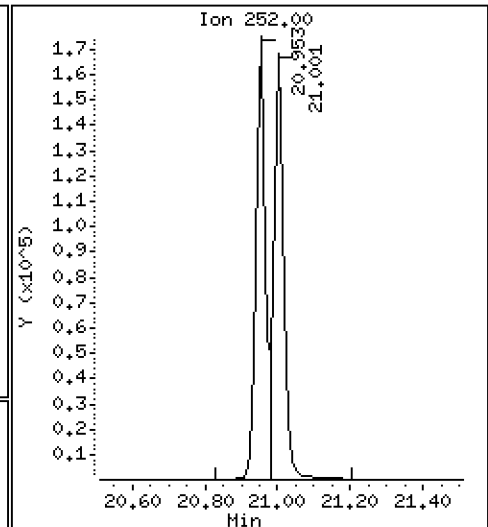
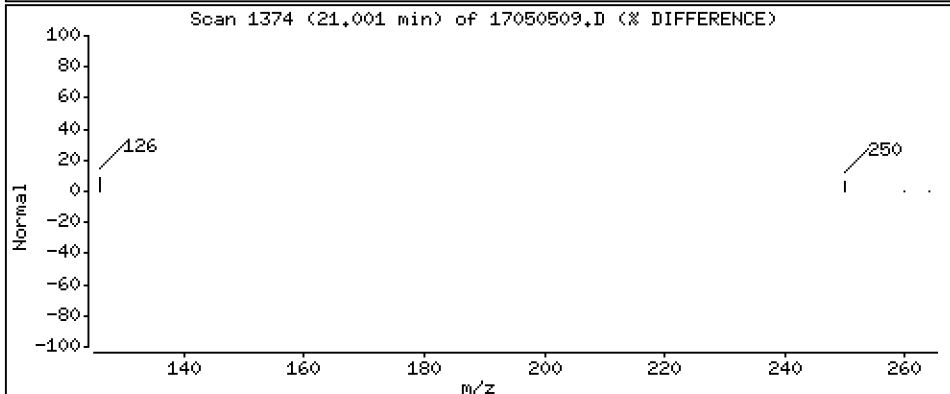
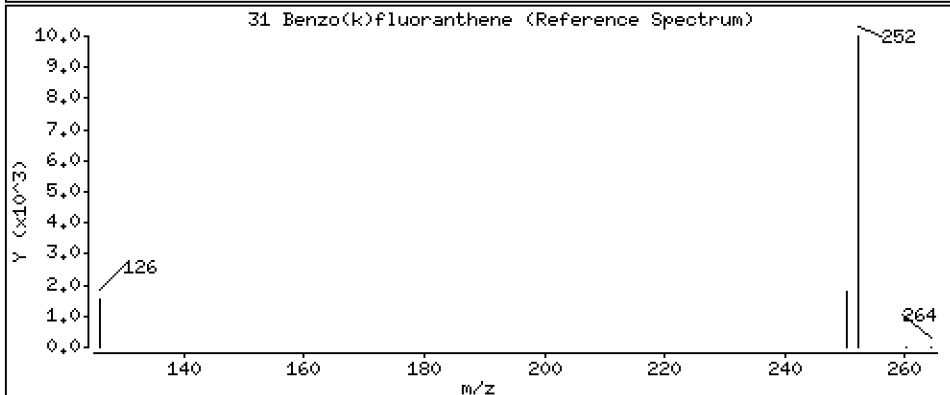
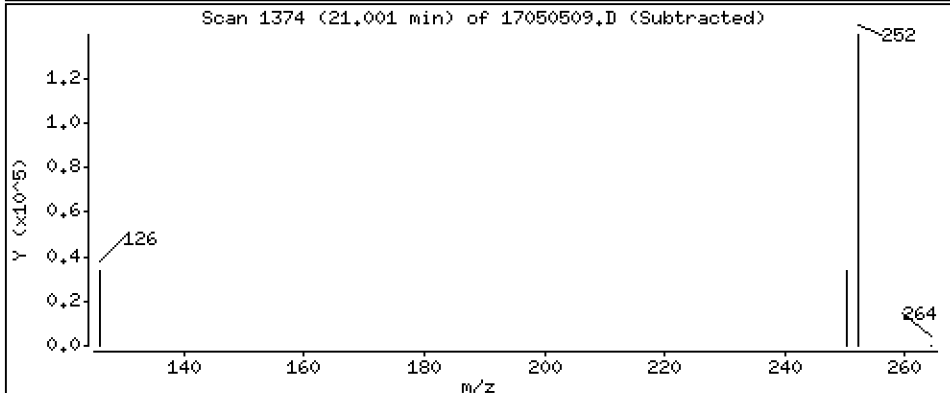
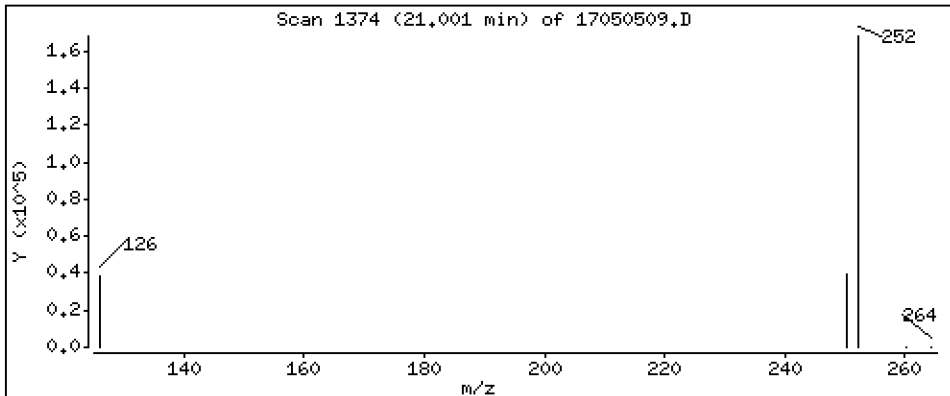
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 Benzo(k)fluoranthene

Concentration: 264 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

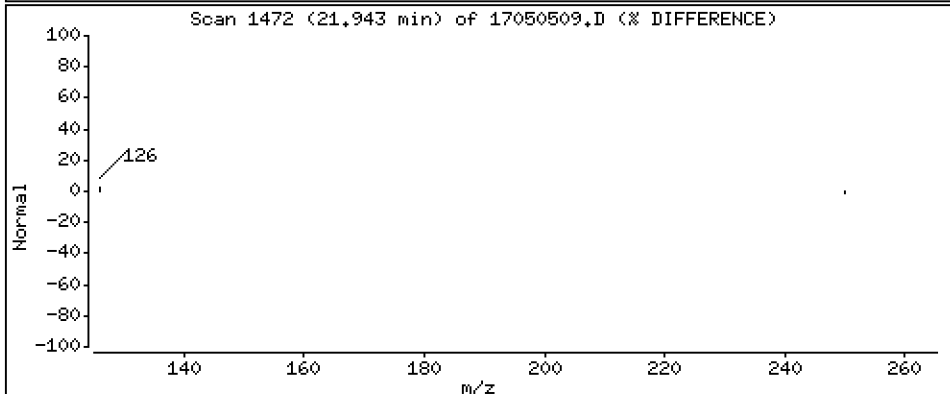
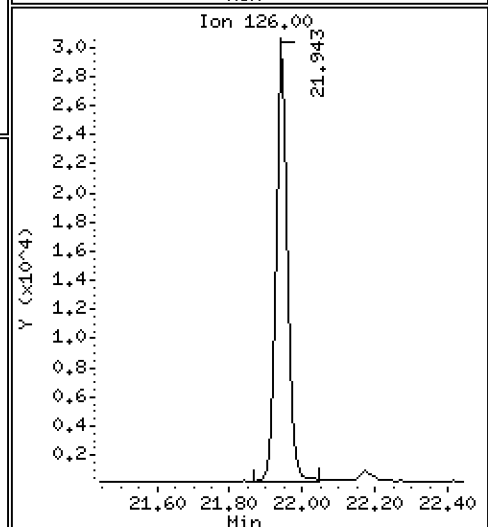
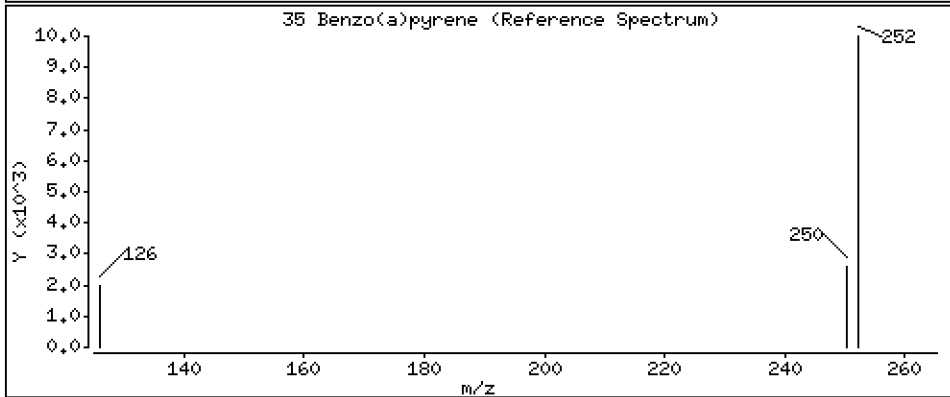
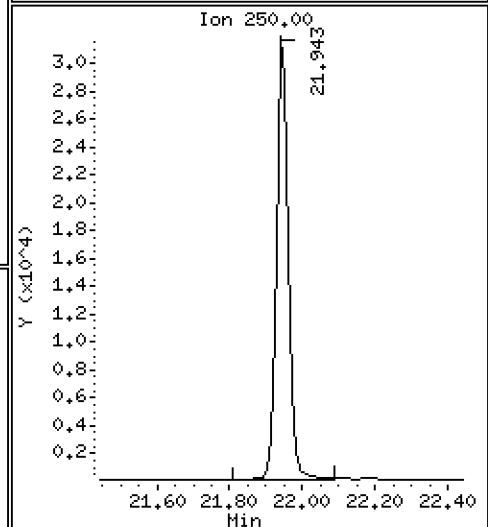
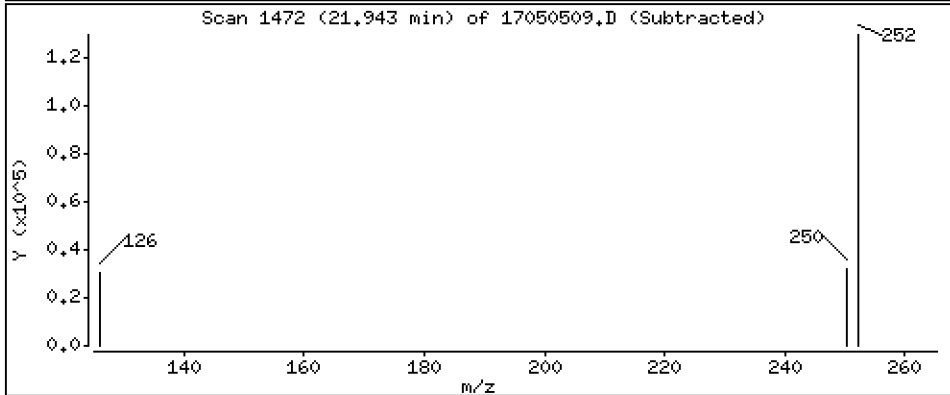
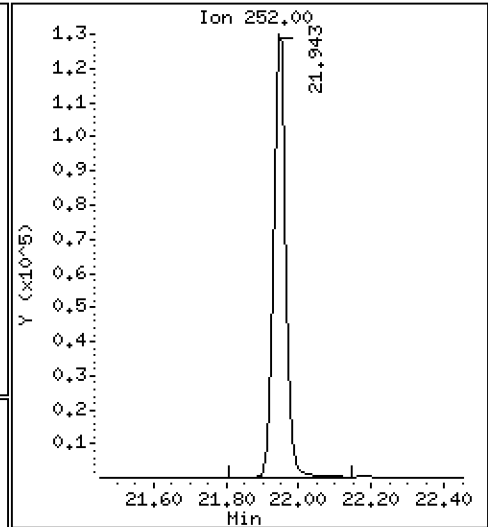
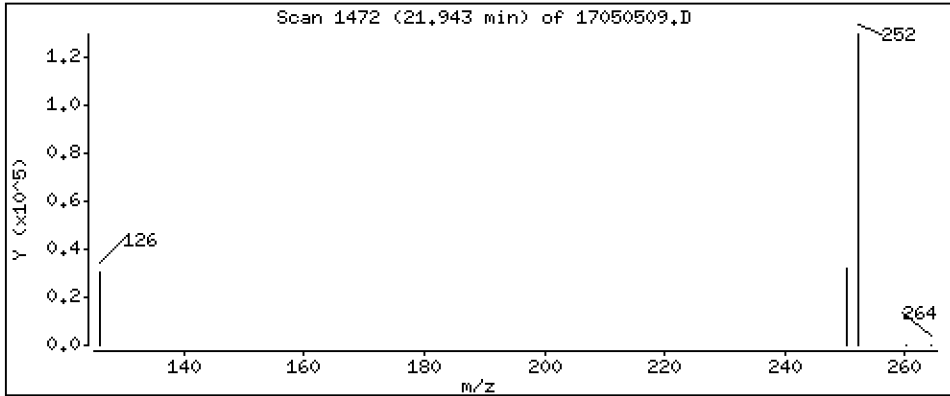
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

35 Benzo(a)pyrene

Concentration: 265 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

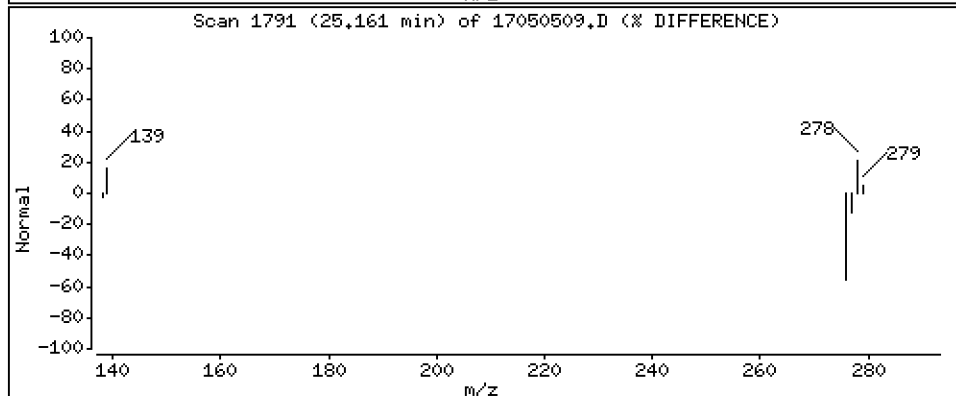
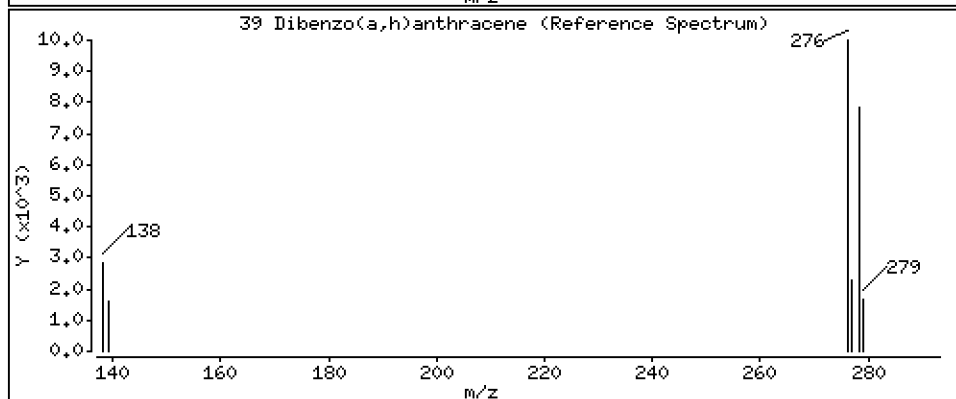
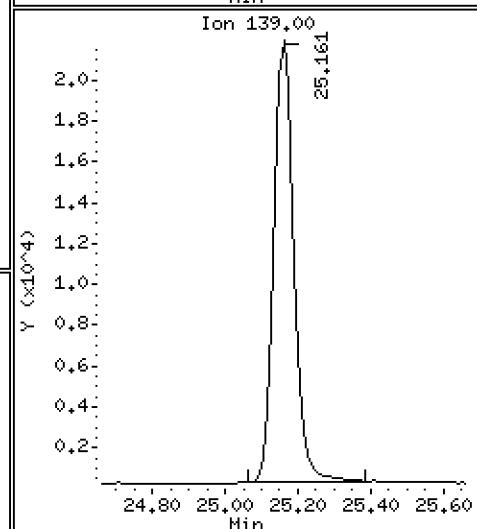
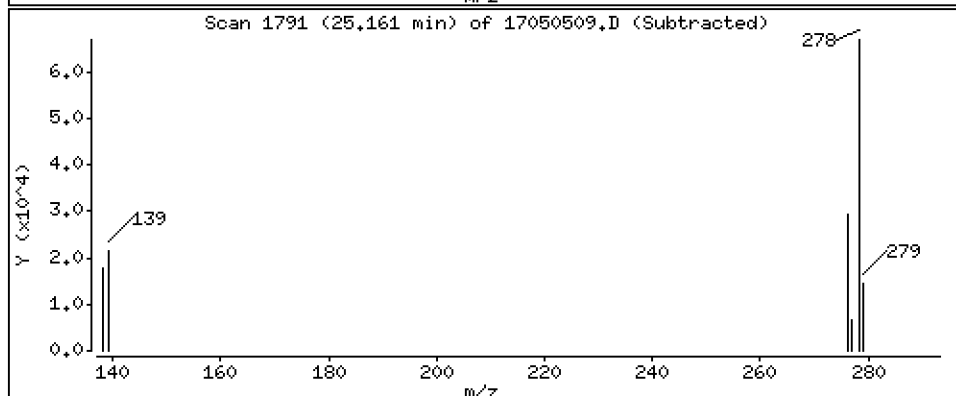
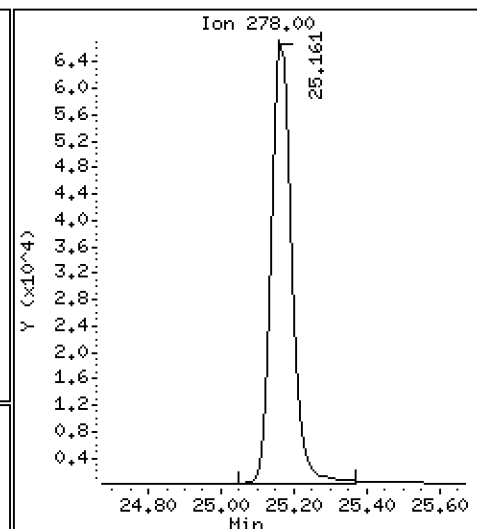
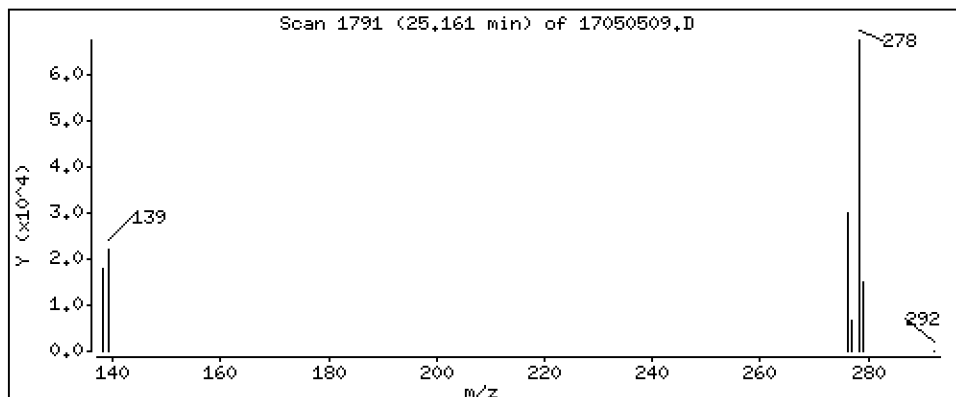
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

39 Dibenzo(a,h)anthracene

Concentration: 260 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

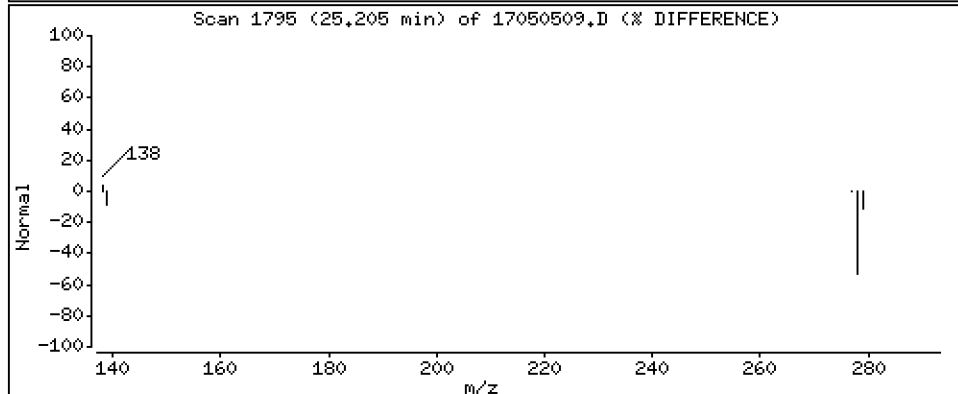
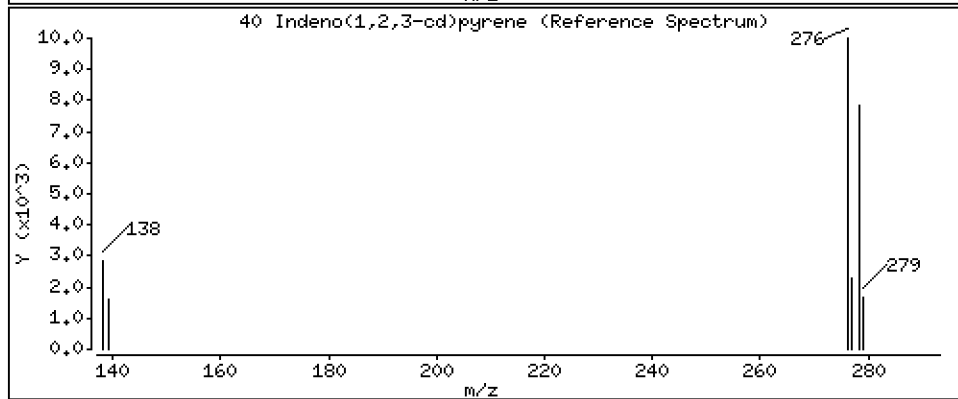
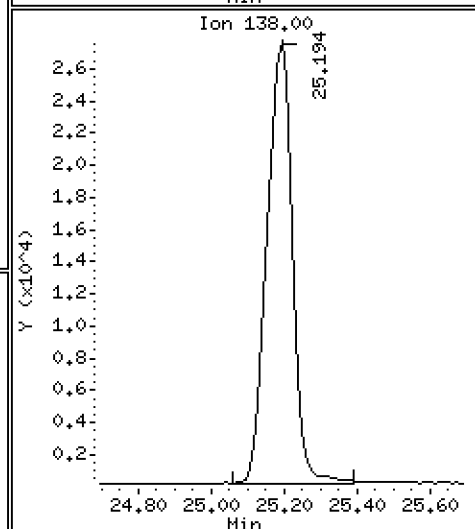
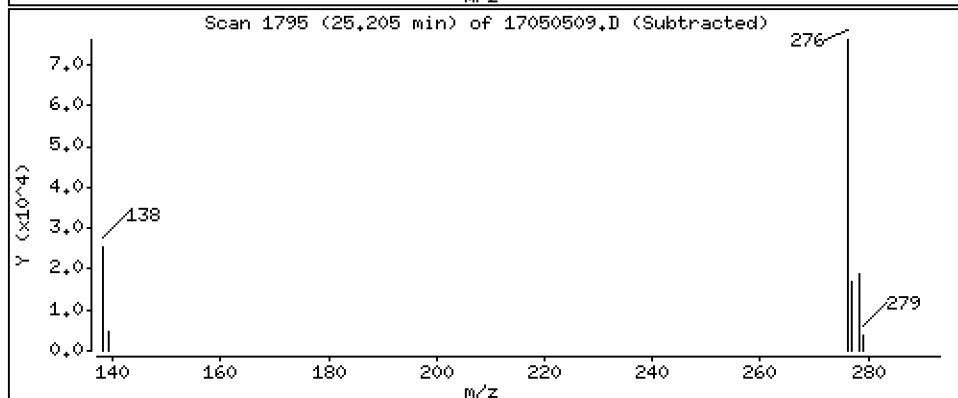
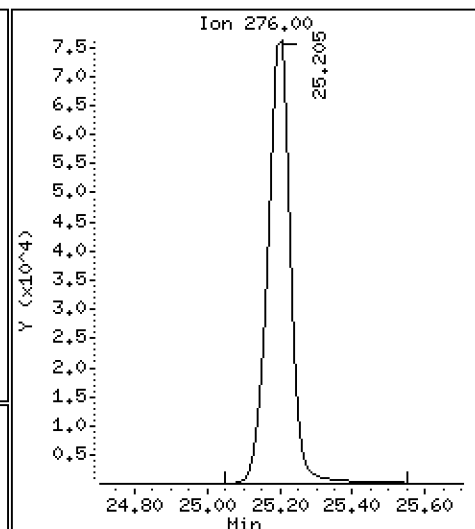
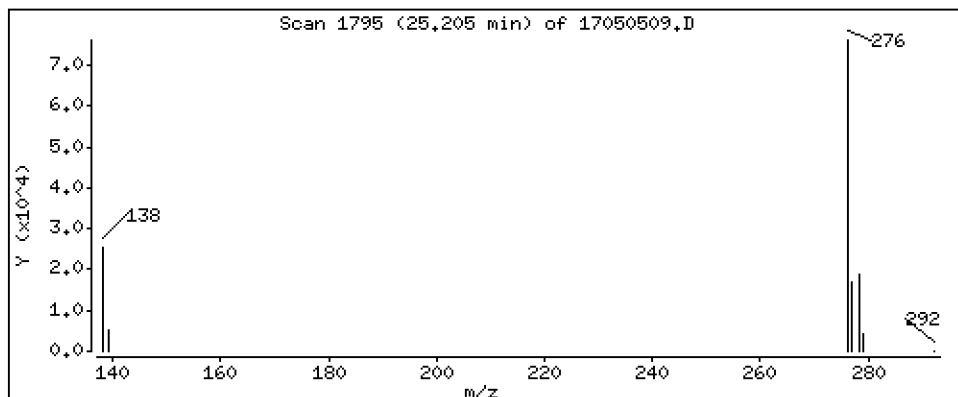
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

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

Concentration: 264 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

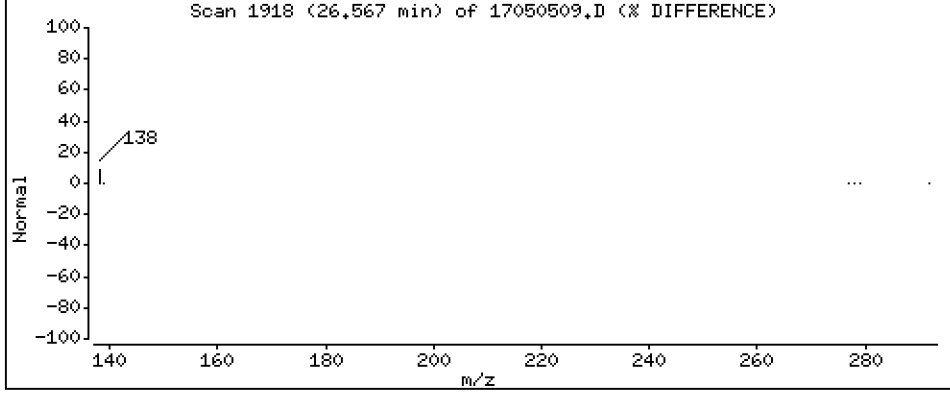
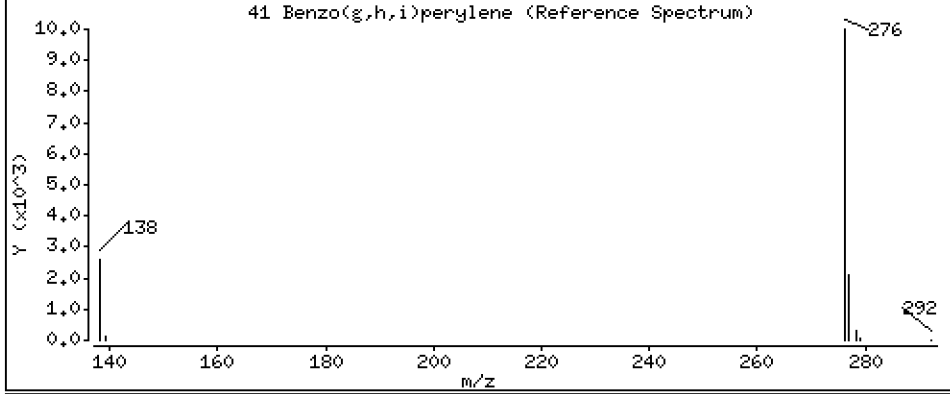
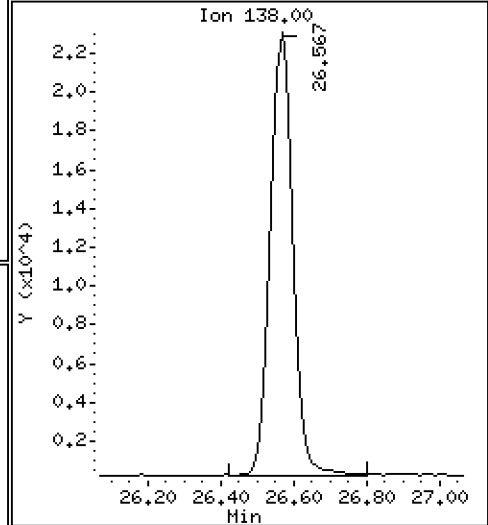
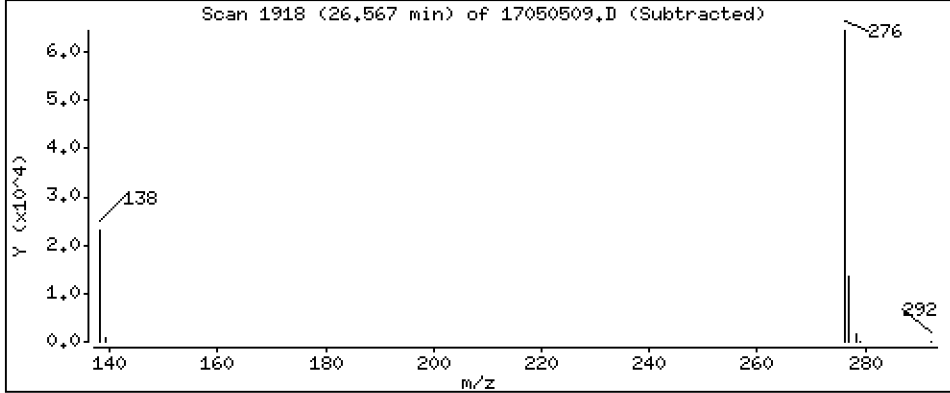
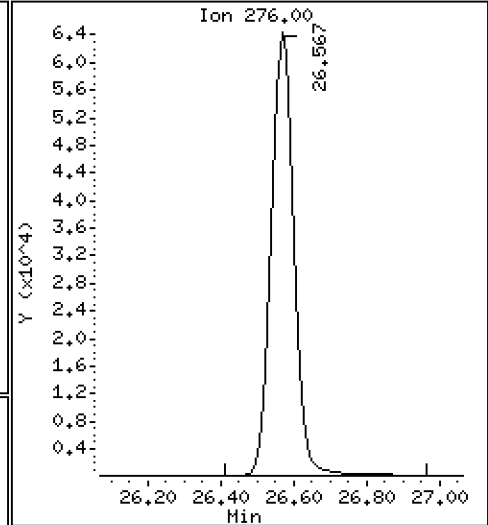
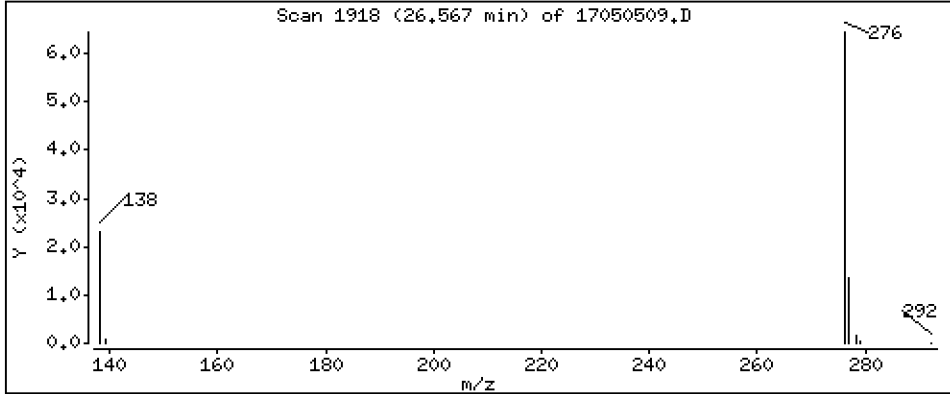
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

41 Benzo(g,h,i)perylene

Concentration: 262 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170505.b\17050509.D

Lab Smp Id: SFE0059-SCV1

Inj Date : 05-MAY-2017 15:23

MS Autotune Date: 15-JAN-2015 16:59

Operator : VTS

Inst ID: nt11.i

Smp Info : SFE0059-SCV1

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20170505.b\LOWSIM.m

Meth Date : 06-May-2017 08:49 nt11.i

Quant Type: ISTD

Cal Date : 05-MAY-2017 14:47

Cal File: 17050508.D

Als bottle: 1

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: allpna.sub

Target Version: 4.14

Processing Host: VANS

Compounds	QUANT	SIG	CONCENTRATIONS					
			MASS	RT	EXP RT	REL RT	RESPONSE	ON-COLUMN (ng/mL)
* 1 Naphthalene-d8	136		8.499	8.499	(1.000)	353470	200.000	
2 Naphthalene	128		8.536	8.536	(1.004)	456586	240.358	240
3 Benzo(b)thiophene	134		Compound Not Detected.					
\$ 4 2-Methylnaphthalene-d10	152		Compound Not Detected.					
5 2-Methylnaphthalene	142		9.540	9.540	(1.122)	450543	257.139	257
6 1-Methylnaphthalene	142		9.792	9.802	(1.152)	418203	246.808	247
7 2-Chloronaphthalene	162		10.454	10.454	(0.906)	373488	246.373	246
8 Biphenyl	154		Compound Not Detected.					
9 2,6-Dimethylnaphthalene	156		Compound Not Detected.					
10 Acenaphthylene	152		11.383	11.383	(0.987)	422022	246.846	247
* 11 Acenaphthene-d10	164		11.537	11.537	(1.000)	145863	200.000	
12 Acenaphthene	153		11.600	11.600	(1.005)	309187	276.562	277
13 Dibenzofuran	168		11.797	11.797	(1.023)	389481	252.504	253
14 2,3,5-Trimethylnaphthalene	170		Compound Not Detected.					
\$ 15 Fluorene-d10	174		Compound Not Detected.					
16 Fluorene	166		12.429	12.429	(1.077)	309438	257.250	257
17 Dibenzothiophene	184		Compound Not Detected.					
* 18 Phenanthrene-d10	188		14.230	14.230	(1.000)	234202	200.000	
19 Phenanthrene	178		14.272	14.272	(1.003)	446151	255.907	256
\$ 20 Anthracene-d10	188		Compound Not Detected.					
21 Anthracene	178		14.325	14.325	(1.007)	412225	240.004	240
22 Carbazole	167		15.000	14.999	(1.054)	504276	252.234	252
23 1-Methylphenanthrene	192		Compound Not Detected.					
\$ 24 Fluoranthene-d10	212		Compound Not Detected.					
25 Fluoranthene	202		16.377	16.377	(1.151)	439149	262.112	262
26 Pyrene	202		16.876	16.876	(0.889)	438217	255.184	255
27 Benzo(a)anthracene	228		18.892	18.900	(0.995)	352034	260.623	261
* 28 Chrysene-d12	240		18.991	18.991	(1.000)	189686	200.000	
29 Chrysene	228		19.041	19.041	(1.003)	348116	249.715	250
30 Benzo(b)fluoranthene	252		20.953	20.953	(0.945)	342991	267.607	268
31 Benzo(k)fluoranthene	252		21.001	21.010	(0.947)	335630	264.150	264
32 Benzo(j)fluoranthene	252		Compound Not Detected.					
\$ 33 Benzo(e)pyrene-d12	264		Compound Not Detected.					

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ng/mL)	FINAL (ng/mL)	
=====	=====	=====	=====	=====	=====	=====	=====	
34 Benzo(e)pyrene	252	Compound Not Detected.						
35 Benzo(a)pyrene	252	21.942	21.952	(0.989)	306973	264.763	265	
* 36 Perylene-d12	264	22.183	22.182	(1.000)	205114	200.000		
37 Perylene	252	Compound Not Detected.						
§ 38 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.						
39 Dibenzo(a,h)anthracene	278	25.160	25.171	(1.134)	254355	259.573	260	
40 Indeno(1,2,3-cd)pyrene	276	25.204	25.204	(1.136)	323142	264.219	264	
41 Benzo(g,h,i)perylene	276	26.567	26.567	(1.198)	273990	261.892	262	

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 17050509.D
 Lab Smp Id: SFE0059-SCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20170505.b\LOWSIM.m
 Misc Info:

Calibration Date: 05-MAY-2017
 Calibration Time: 11:47
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	371325	185663	742650	353470	-4.81
11 Acenaphthene-d10	154428	77214	308856	145863	-5.55
18 Phenanthrene-d10	256956	128478	513912	234202	-8.86
28 Chrysene-d12	208629	104315	417258	189686	-9.08
36 Perylene-d12	225431	112716	450862	205114	-9.01

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	8.50	8.00	9.00	8.50	0.00
11 Acenaphthene-d10	11.54	11.04	12.04	11.54	0.00
18 Phenanthrene-d10	14.23	13.73	14.73	14.23	0.00
28 Chrysene-d12	18.99	18.49	19.49	18.99	0.00
36 Perylene-d12	22.18	21.68	22.68	22.18	0.00

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

REVIEW SUMMARY FOR FILE - 17050509.D

Lab ID: SFE0059-SCV1
nt11.i, 20170505.b\LOWSIM.m, 05-MAY-2017 15:23

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

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

RRT CHECK

RRT CCV RRT DELTA COMPOUND

NONE

On Column LOD for nt11.i, 20170505.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000



SECOND-SOURCE CALIBRATION VERIFICATION

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 17E0012

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Calibration: AE00020

Laboratory ID: SFE0059-SCV1

Sequence: SFE0059

Standard ID: F004123

ANALYTE	EXPECTED (ng/mL)	FOUND (ng/mL)	% DRIFT	QC LIMIT
Naphthalene	250.00	240	-3.9	20.00
2-Methylnaphthalene	250.00	257	2.9	20.00
Acenaphthylene	250.00	247	-1.3	20.00
Acenaphthene	250.00	277	10.6	20.00
Dibenzofuran	250.00	253	1.0	20.00
Fluorene	250.00	257	2.9	20.00
Phenanthrene	250.00	256	2.4	20.00
Anthracene	250.00	240	-4.0	20.00
Fluoranthene	250.00	262	4.8	20.00
Pyrene	250.00	255	2.1	20.00
Benzo(a)anthracene	250.00	261	4.2	20.00
Chrysene	250.00	250	-0.1	20.00
Benzo(b)fluoranthene	250.00	268	7.0	20.00
Benzo(k)fluoranthene	250.00	264	5.7	20.00
Carbazole	250.00	252	0.9	
Benzo(a)pyrene	250.00	265	5.9	20.00
Indeno(1,2,3-cd)pyrene	250.00	264	5.7	20.00
Dibenzo(a,h)anthracene	250.00	260	3.8	20.00
Benzo(g,h,i)perylene	250.00	262	4.8	20.00
1-Methylnaphthalene	250.00	247	-1.3	20.00
Benzo(a)fluoranthenes, Total	500.00	532	6.4	
2-Chloronaphthalene	250.00	246	-1.5	20.00

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.1\20170505.16\17050509.D

Date: 05-May-2017 15:23

Client ID:

Sample Info: SFE0059-SCW1

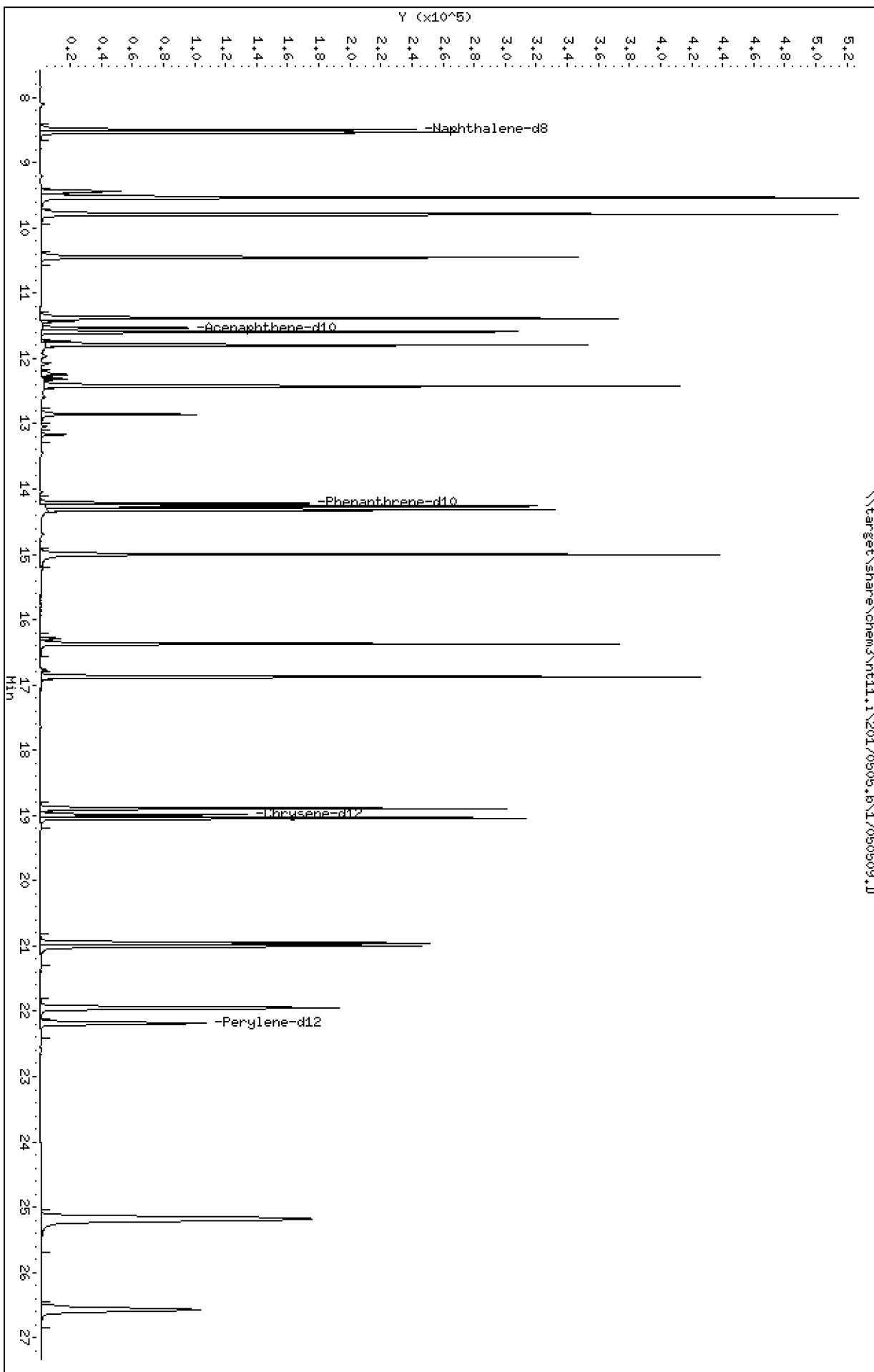
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

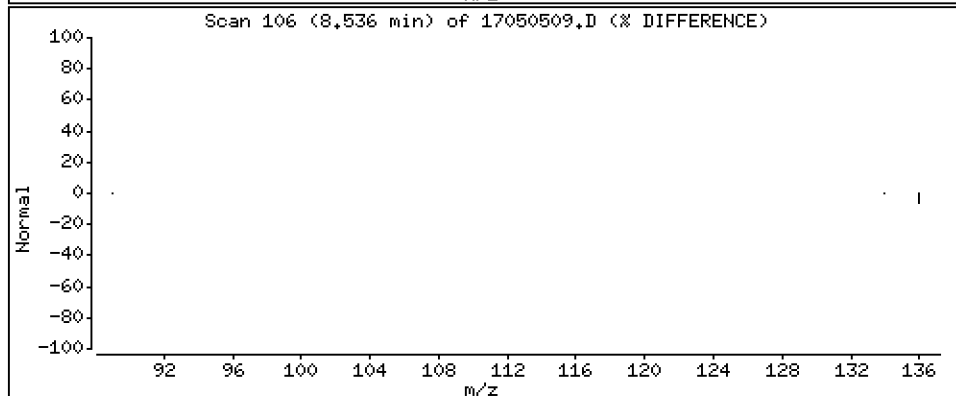
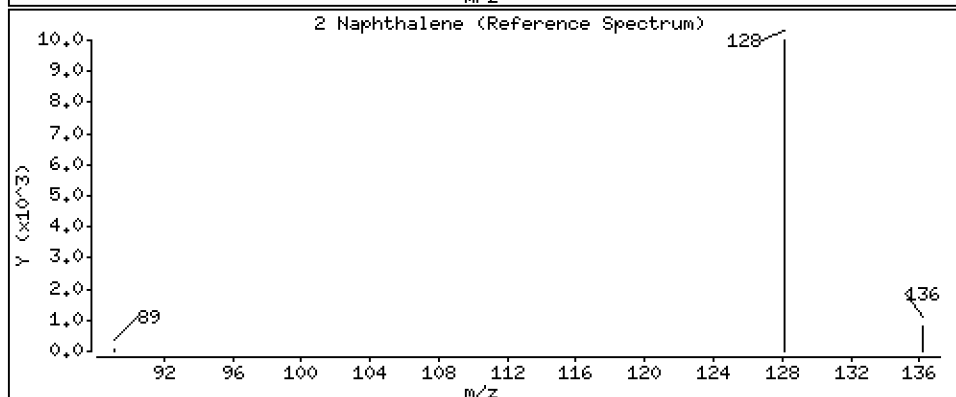
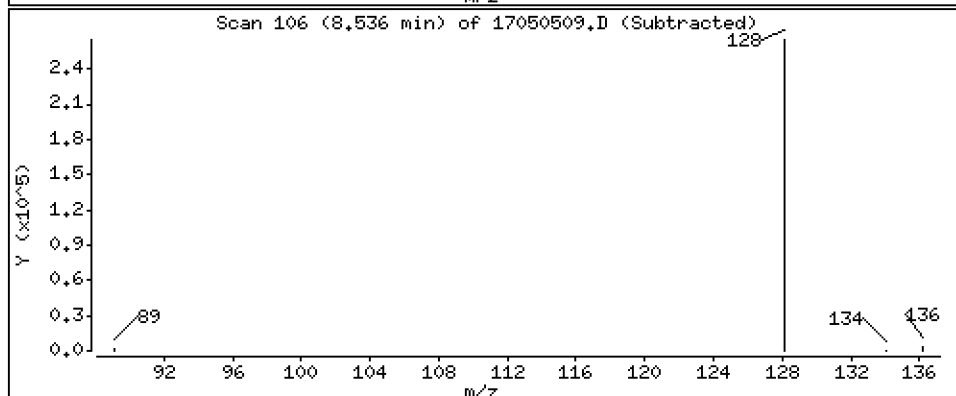
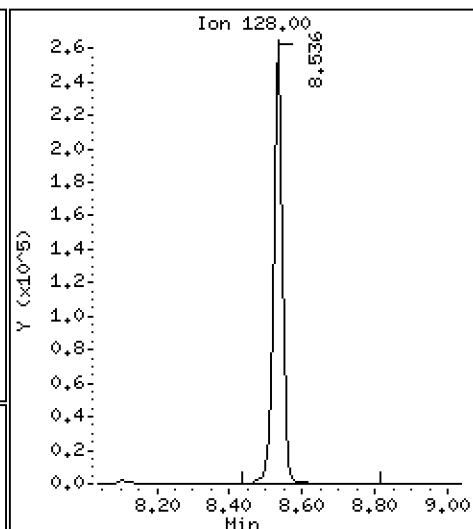
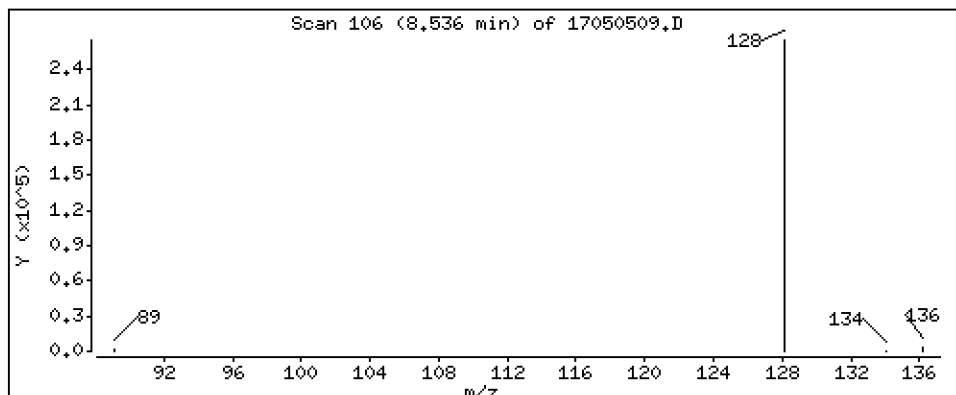
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

2 Naphthalene

Concentration: 240 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

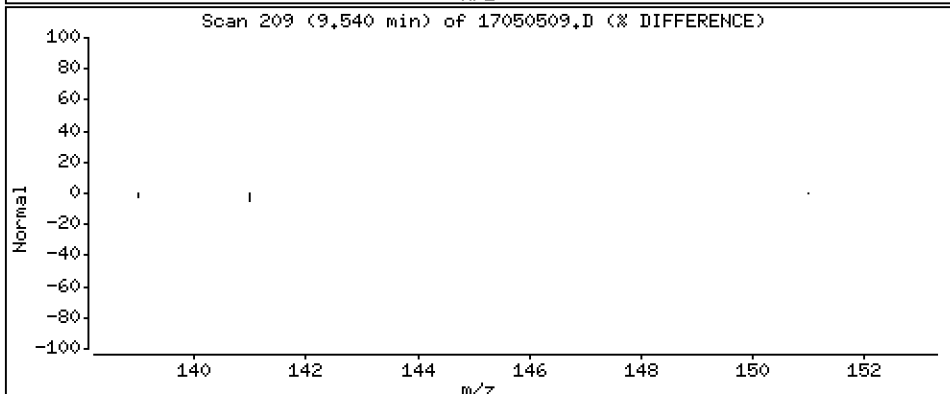
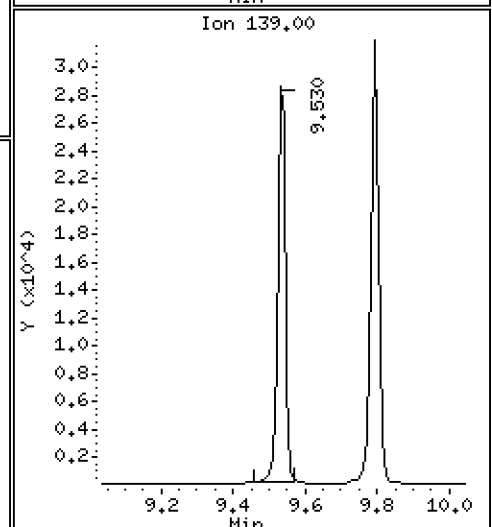
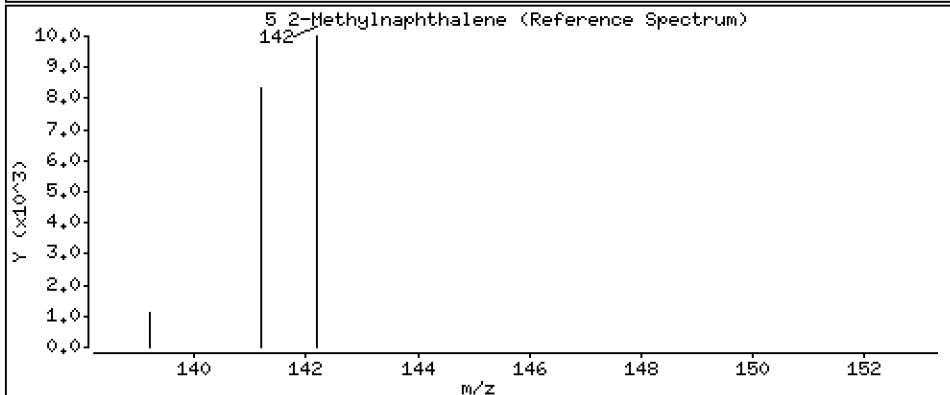
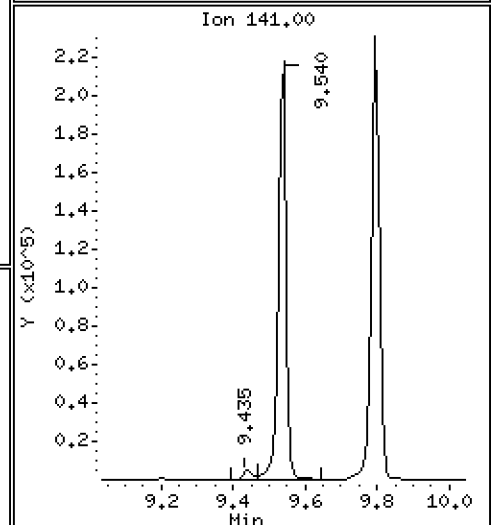
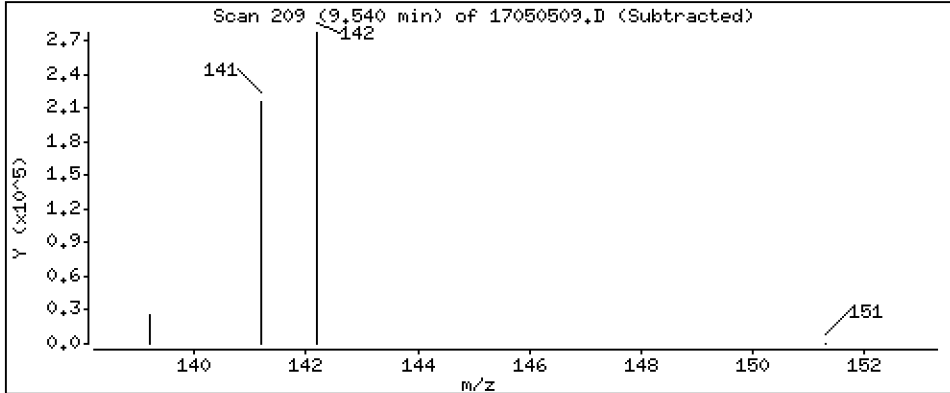
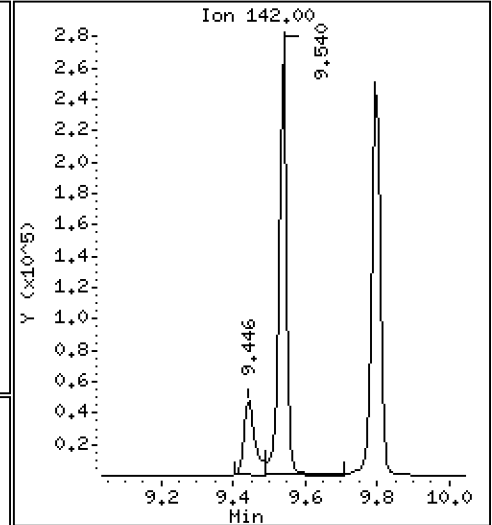
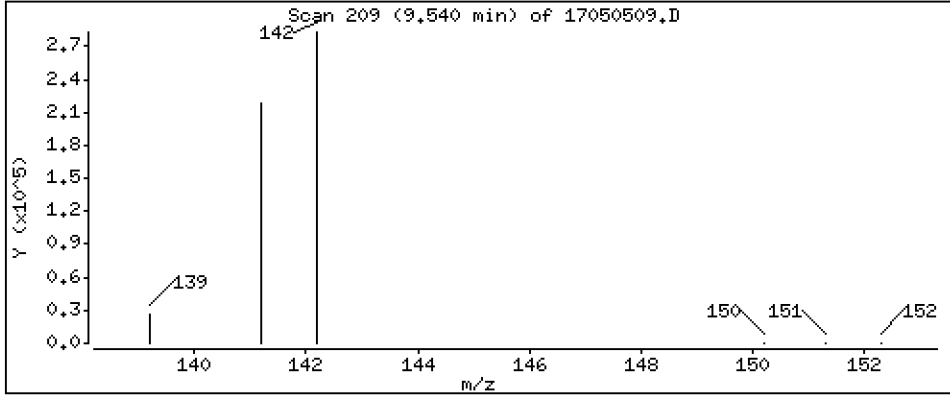
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

5 2-Methylnaphthalene

Concentration: 257 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

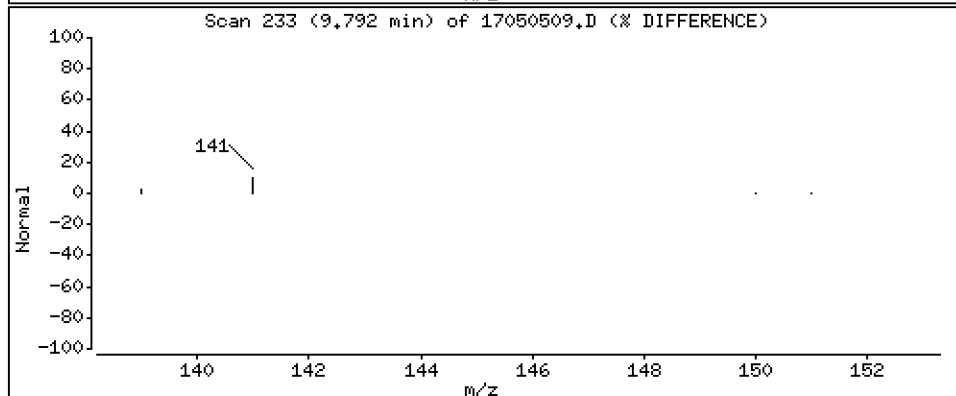
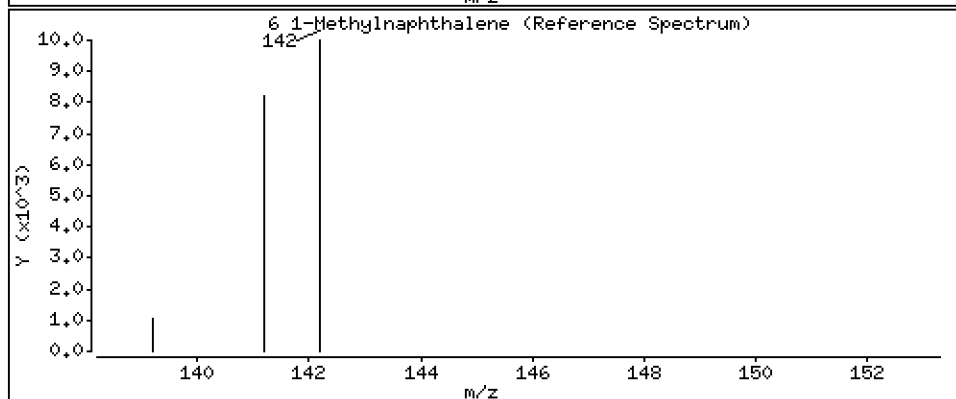
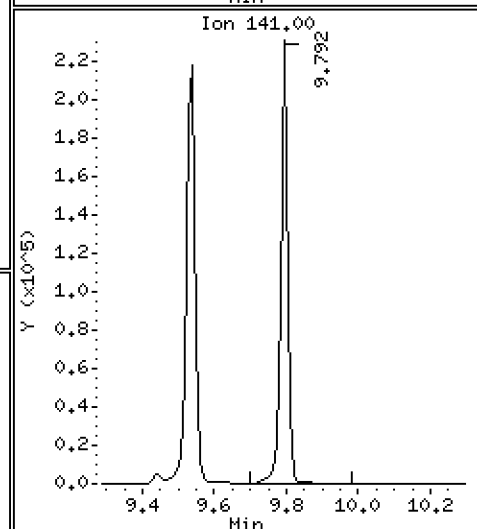
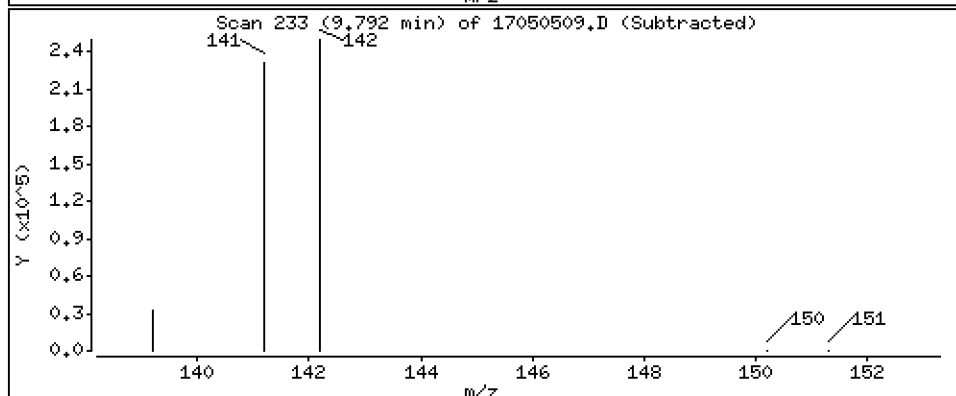
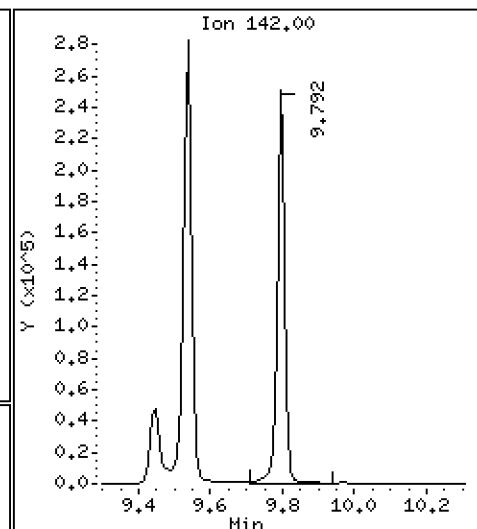
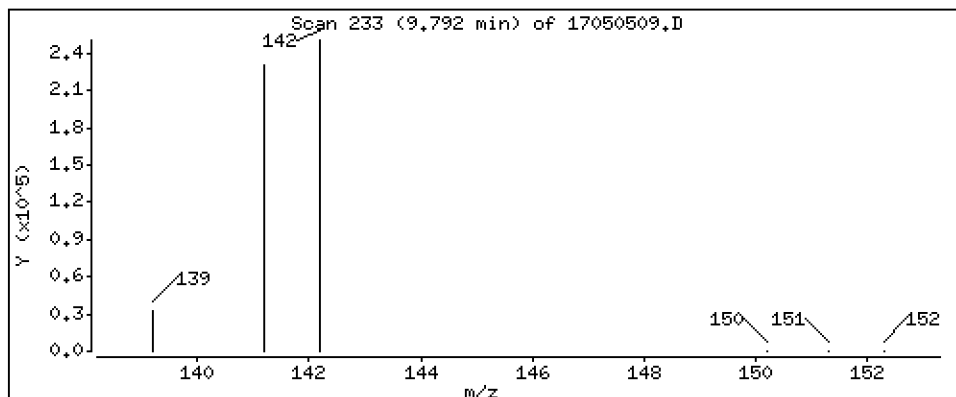
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

6-1-Methylnaphthalene

Concentration: 247 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

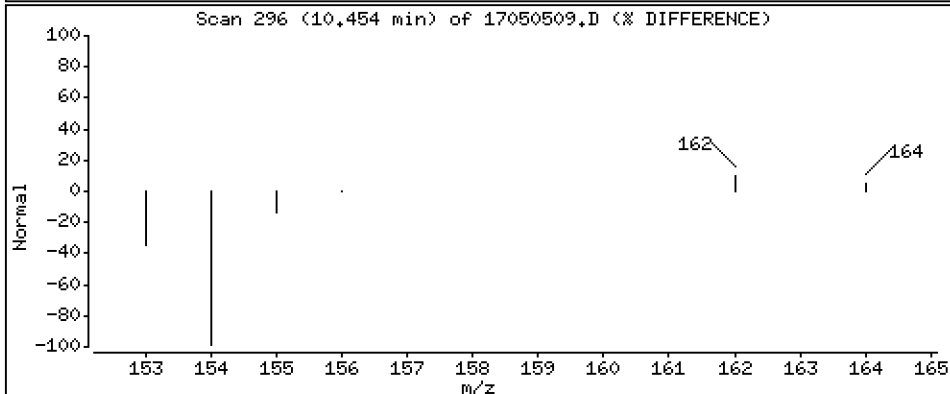
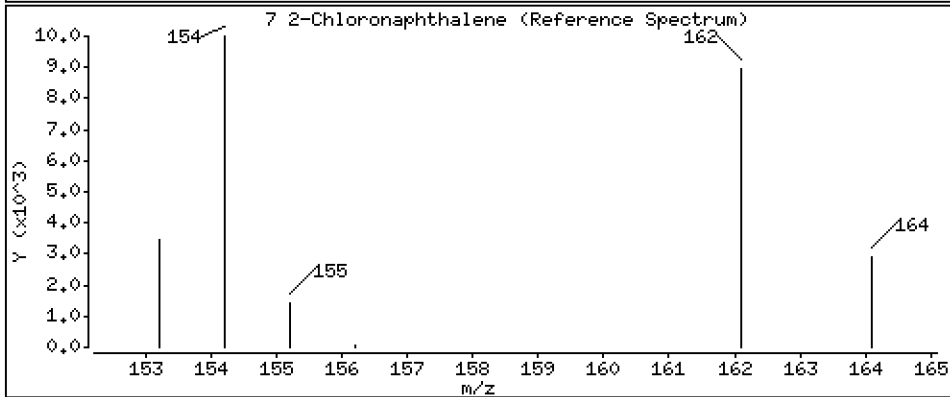
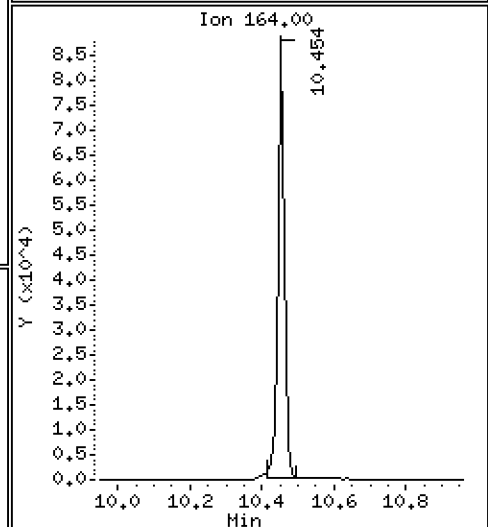
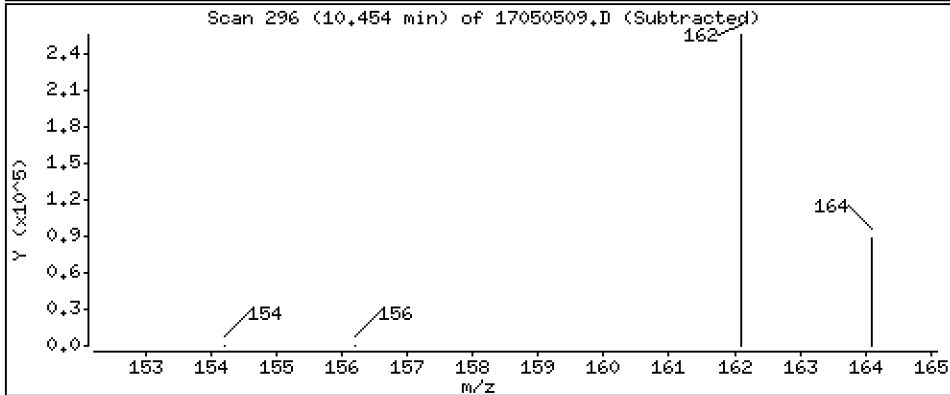
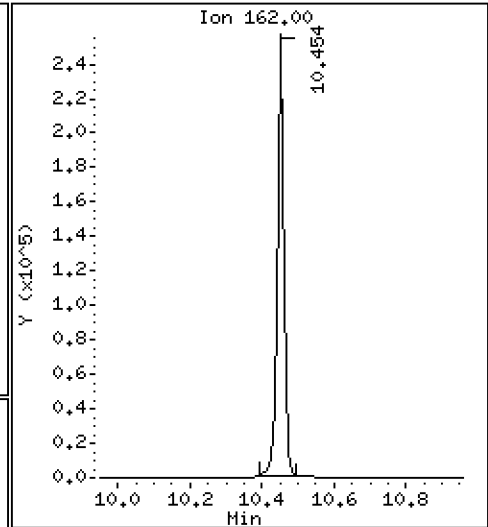
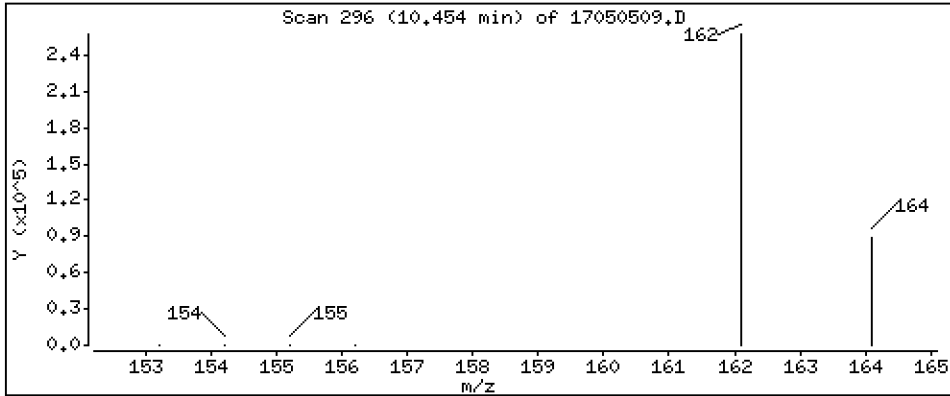
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

7 2-Chloronaphthalene

Concentration: 246 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

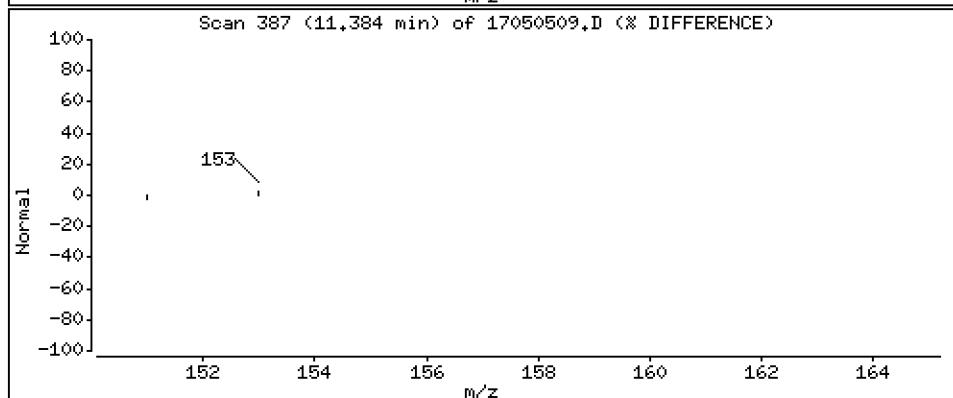
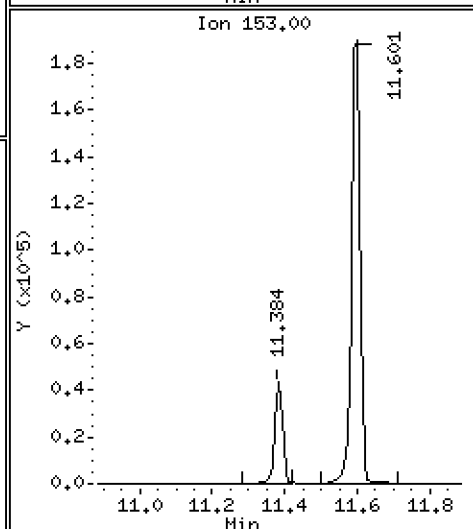
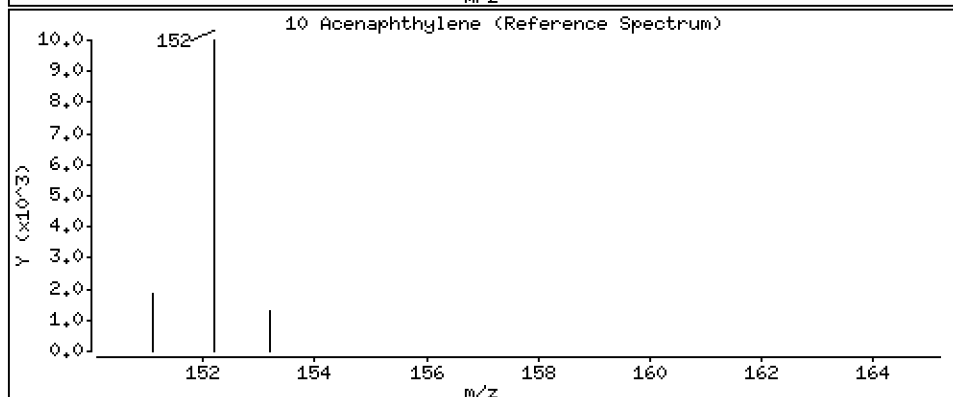
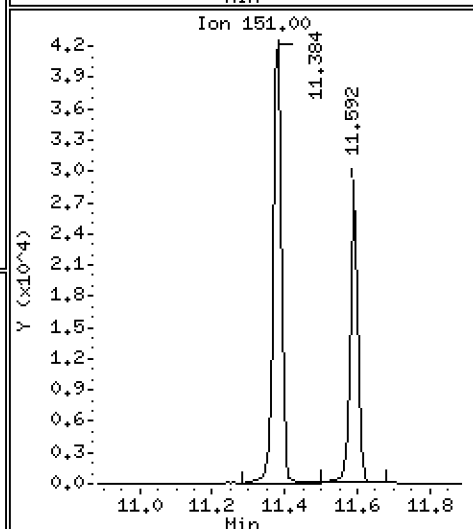
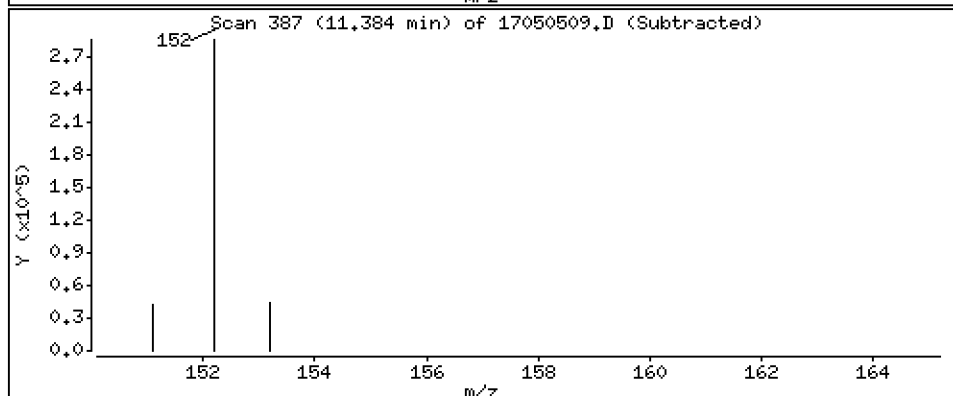
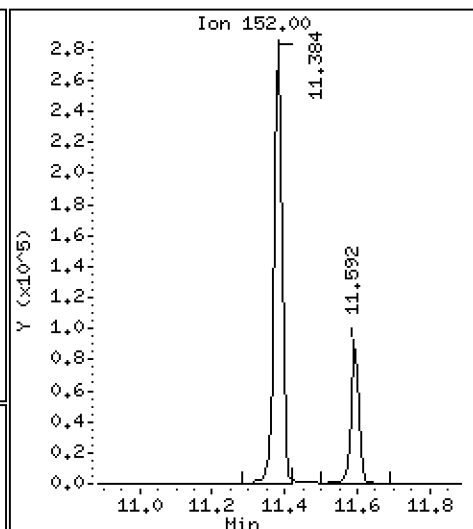
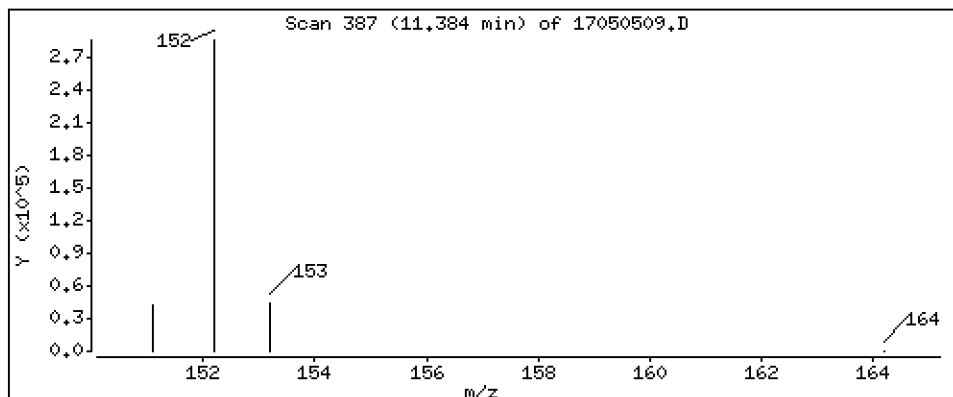
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

10 Acenaphthylene

Concentration: 247 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

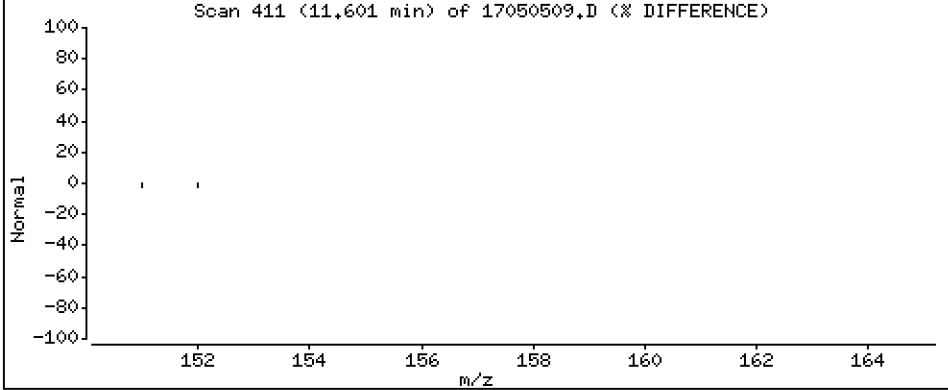
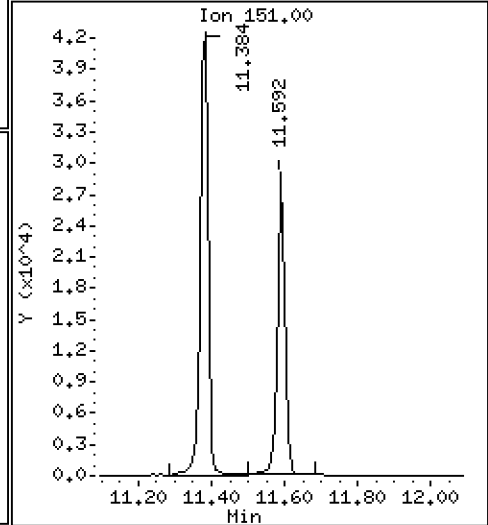
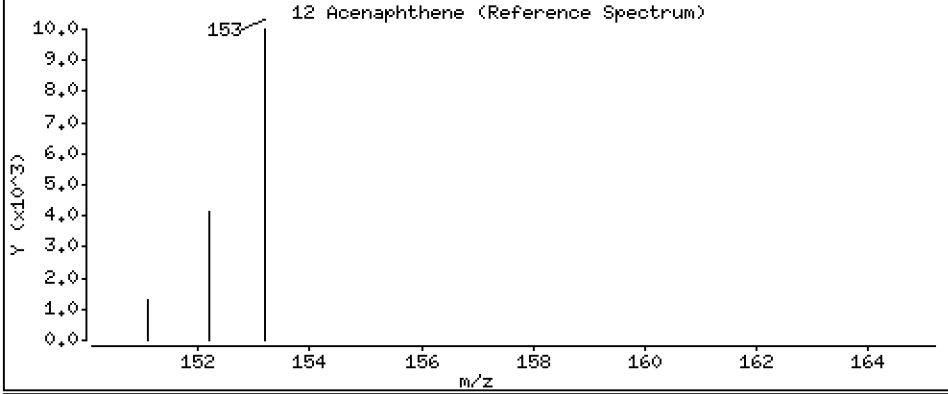
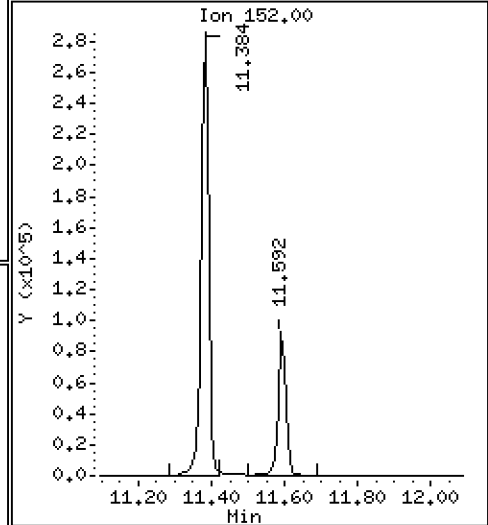
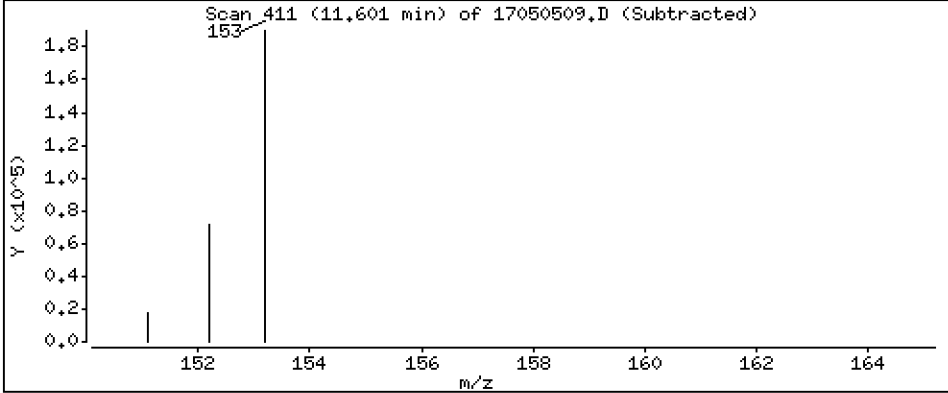
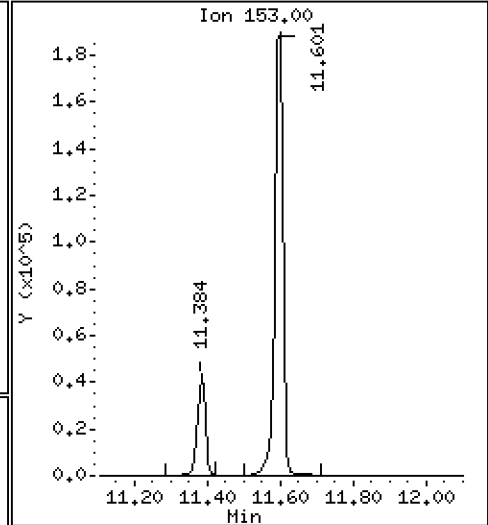
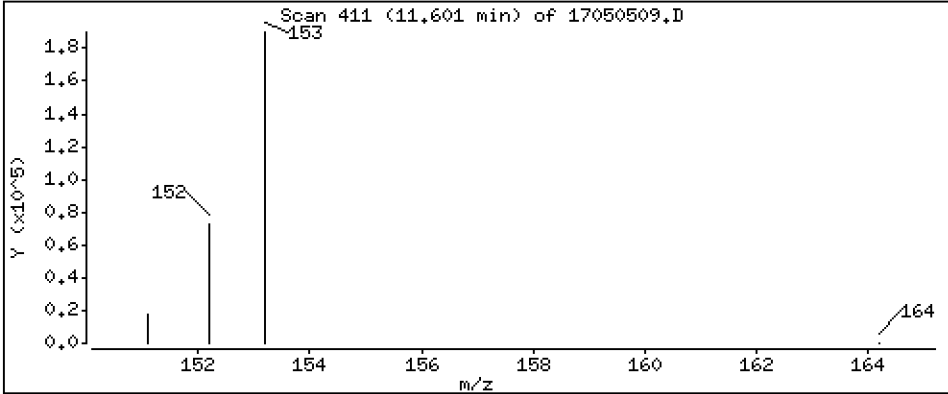
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0.25

12 Acenaphthene

Concentration: 277 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

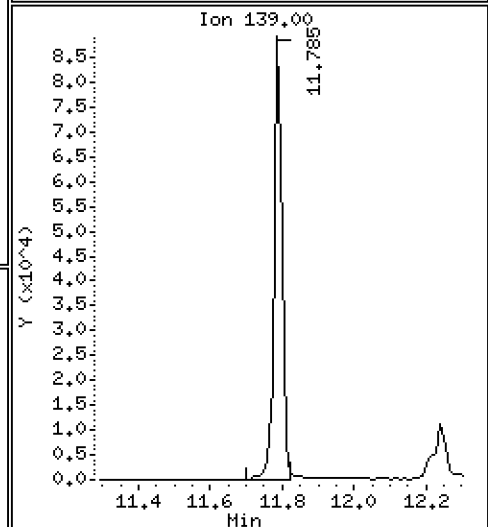
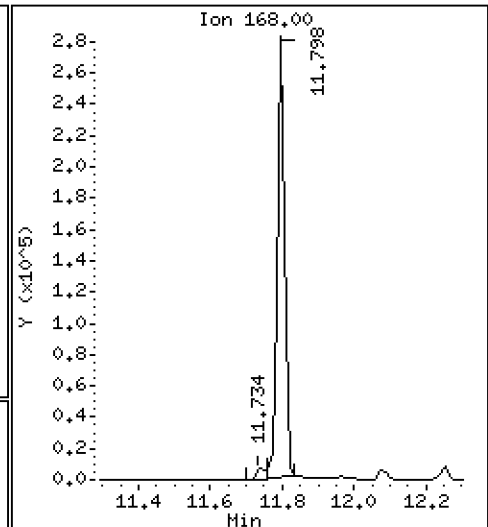
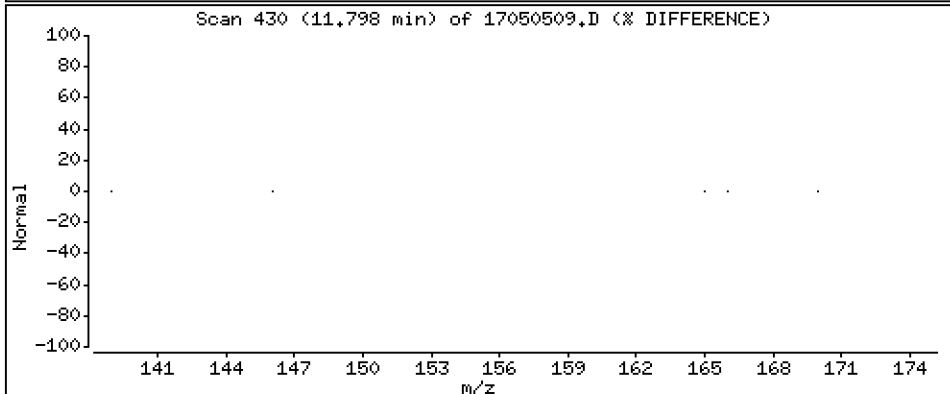
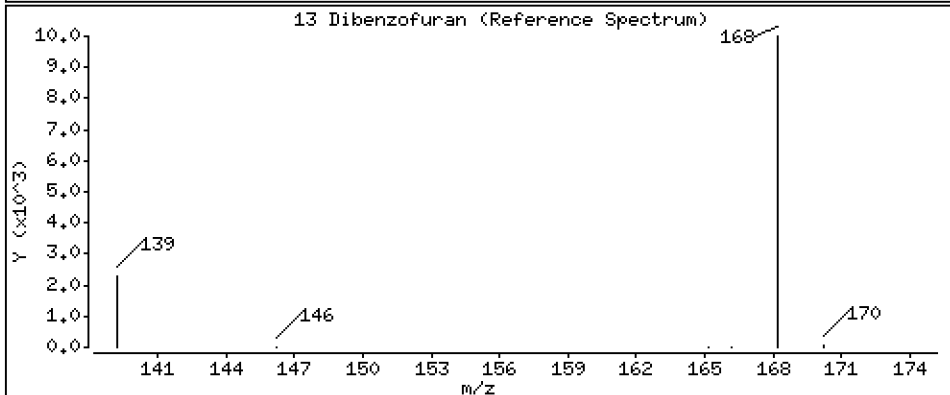
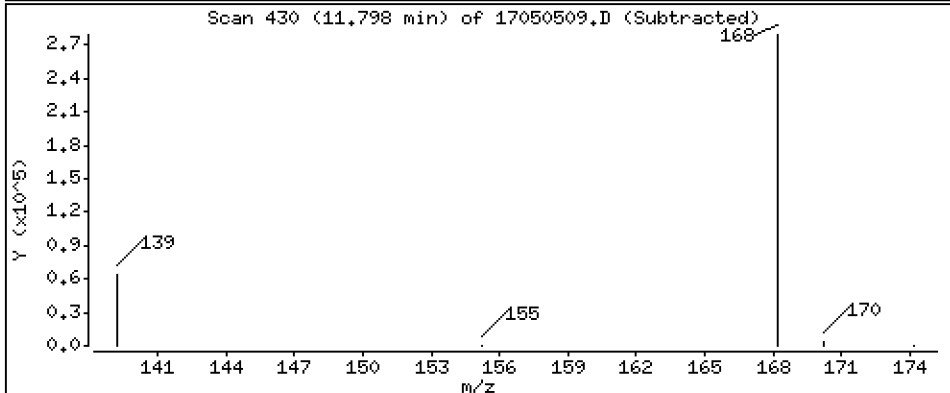
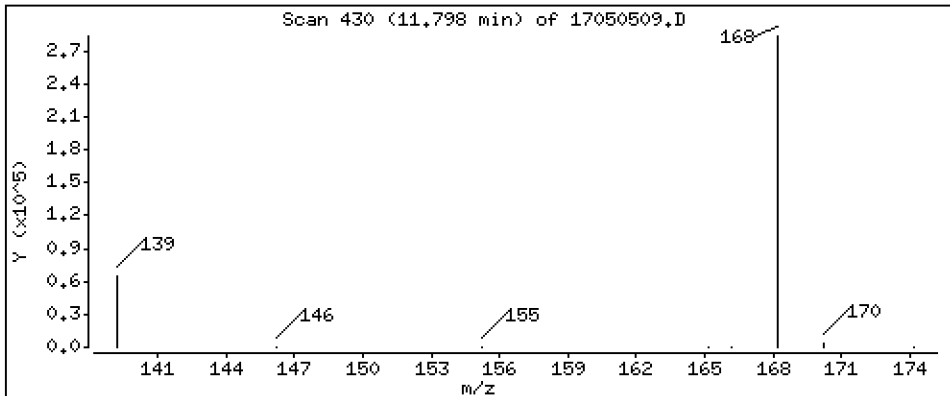
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

13 Dibenzofuran

Concentration: 253 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

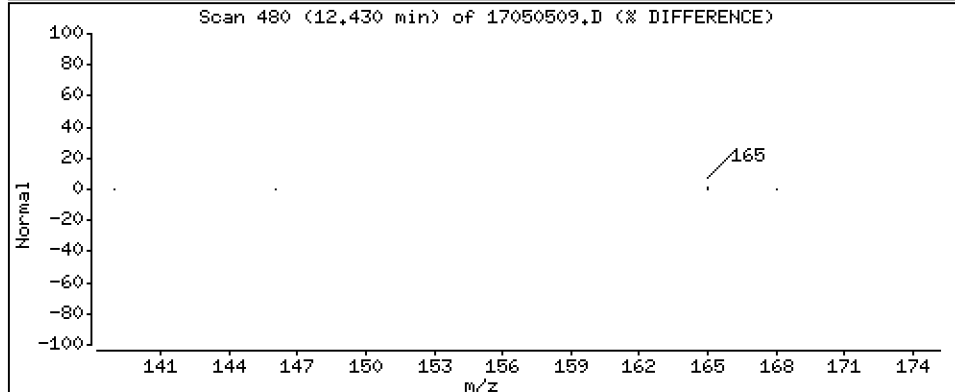
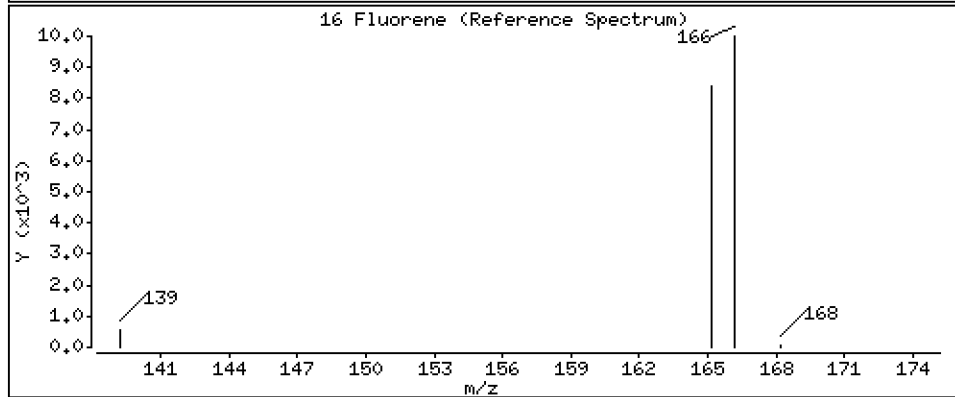
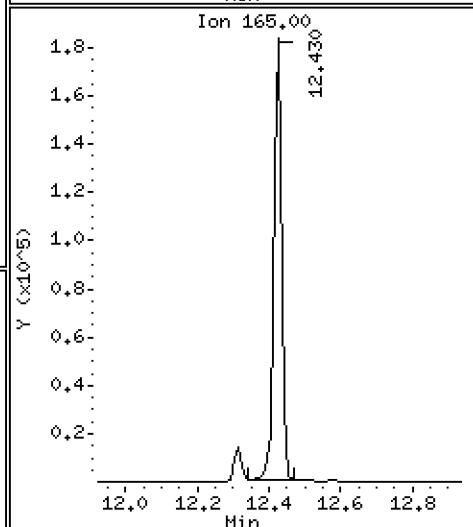
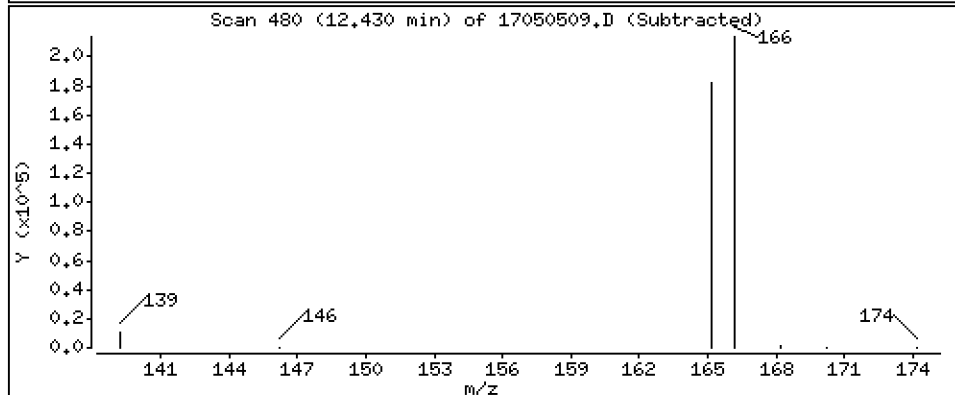
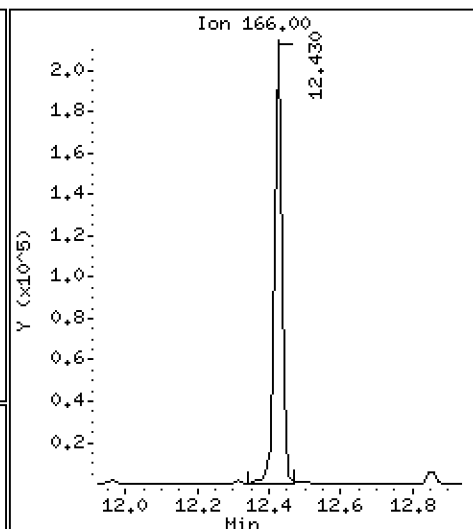
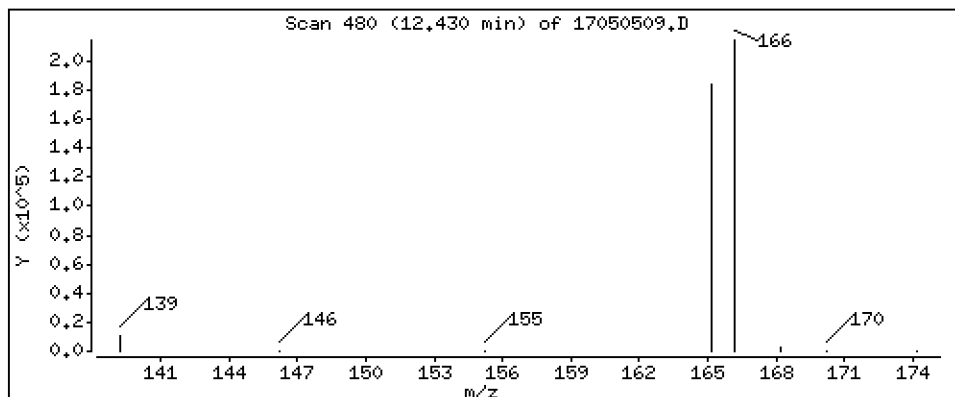
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

16 Fluorene

Concentration: 257 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

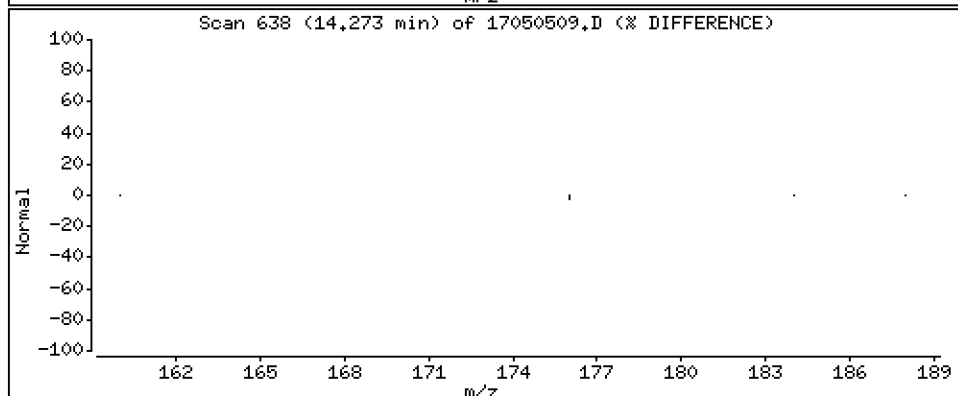
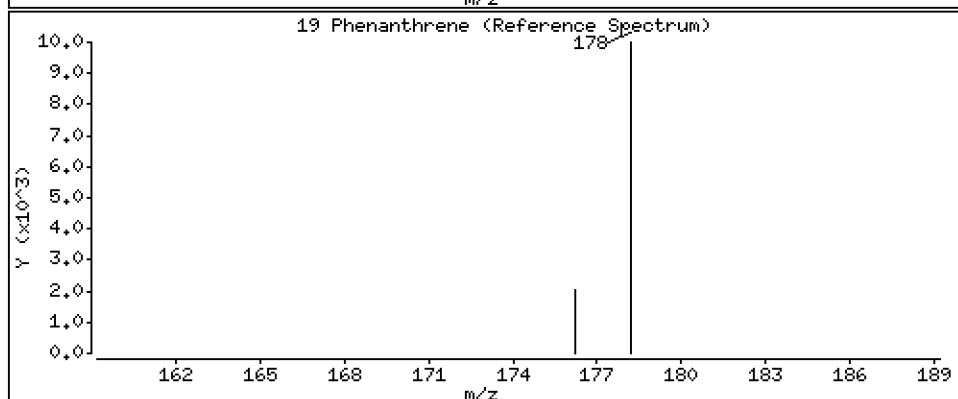
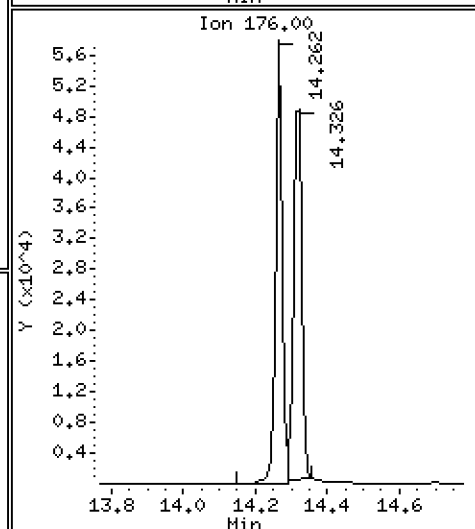
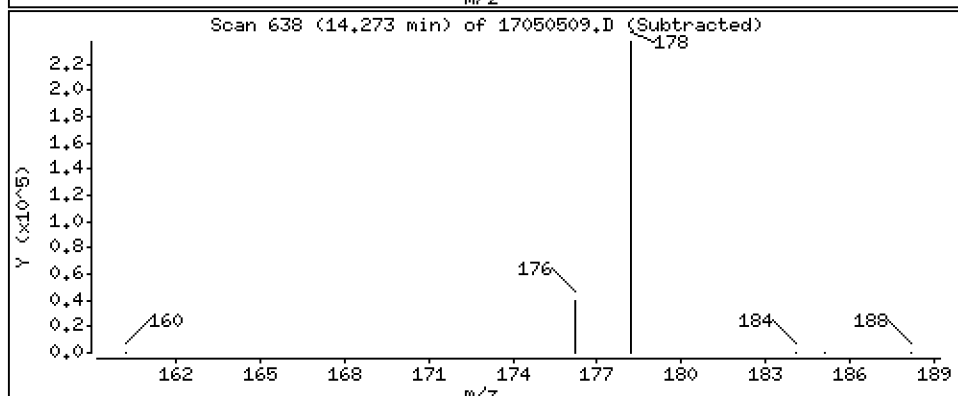
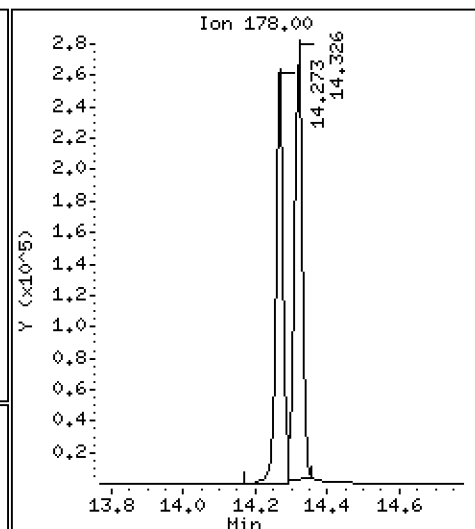
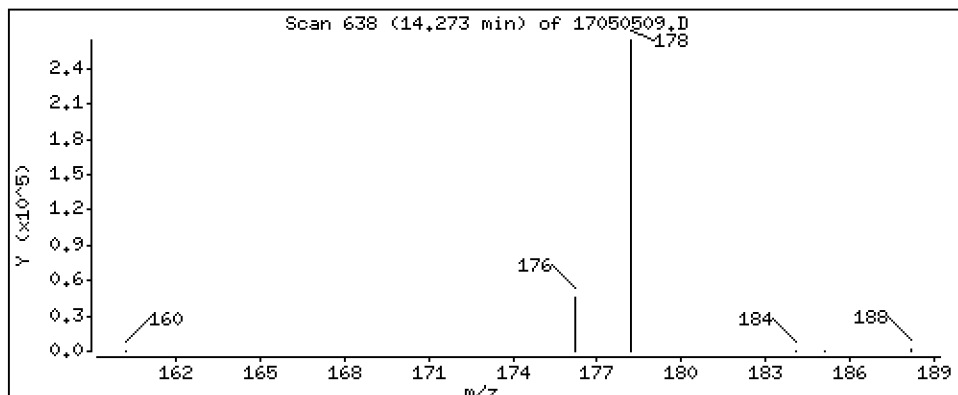
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

19 Phenanthrene

Concentration: 256 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

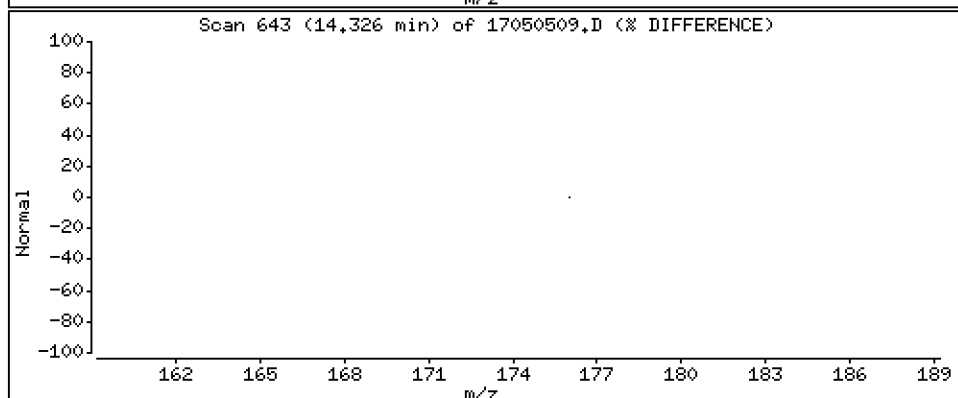
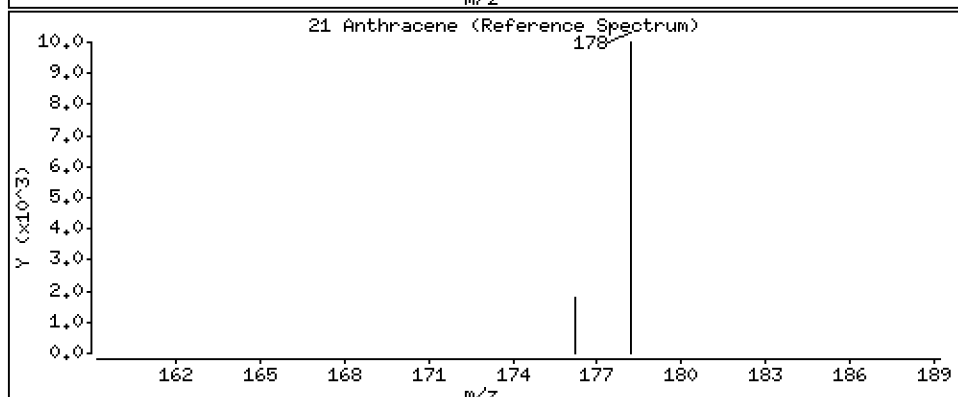
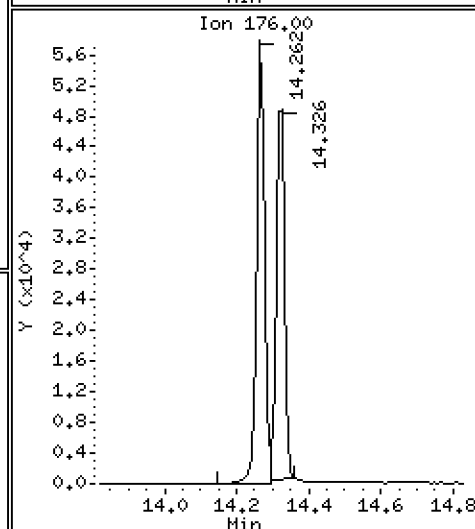
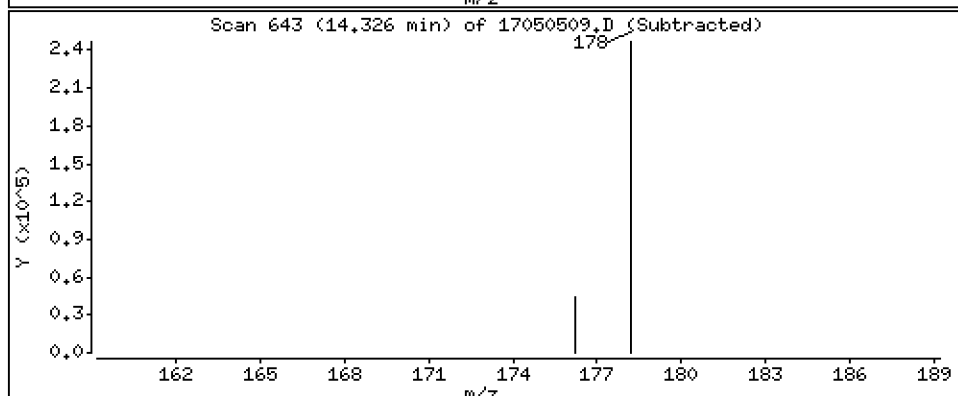
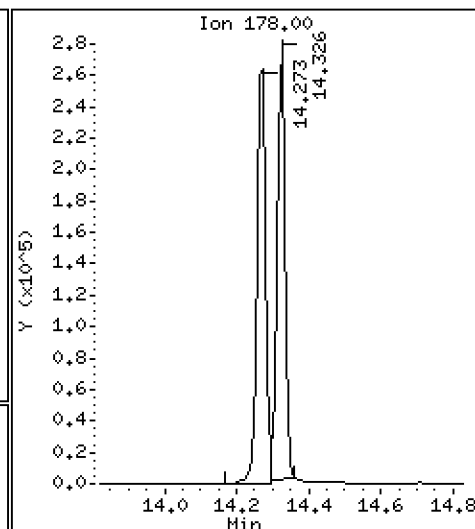
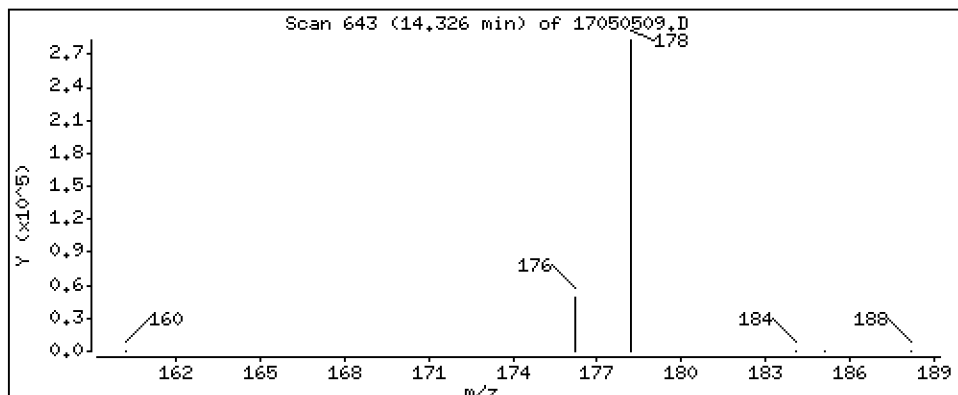
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

21 Anthracene

Concentration: 240 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

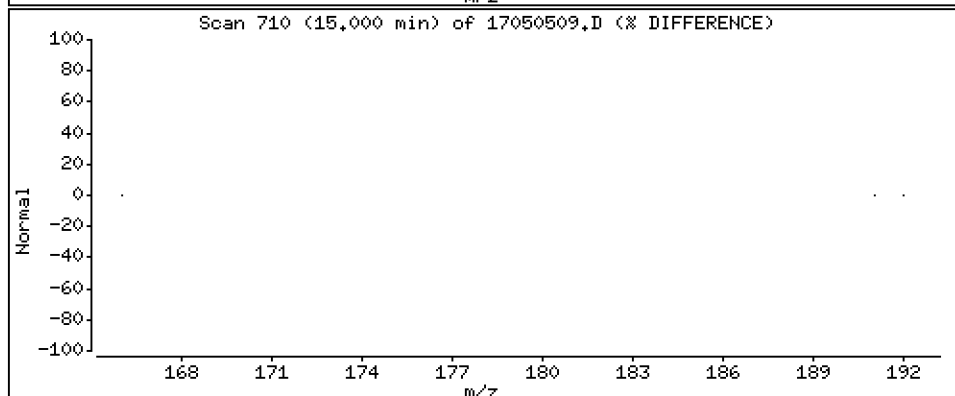
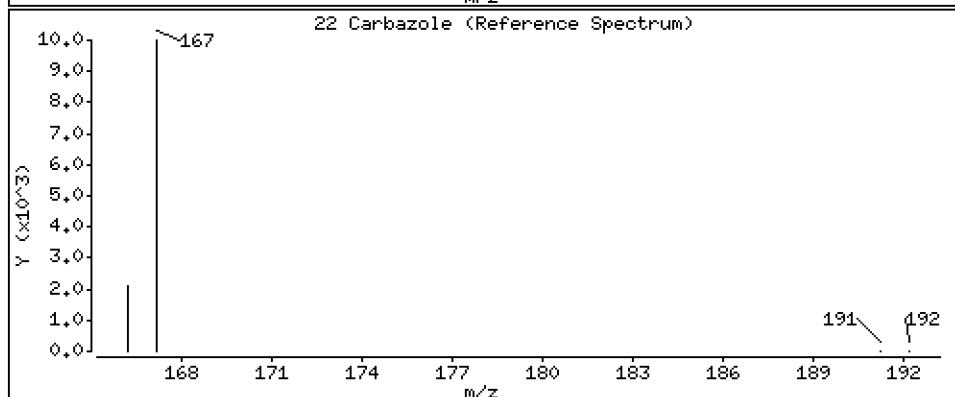
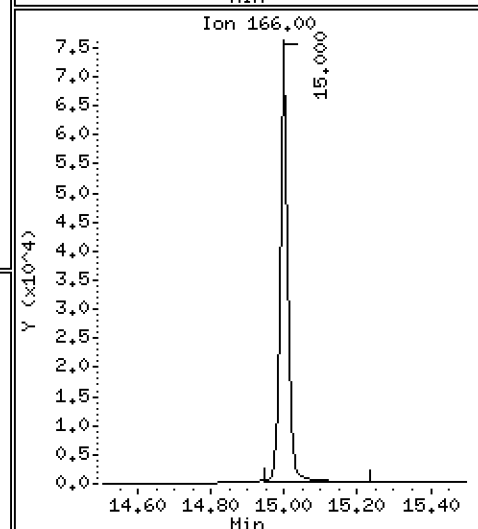
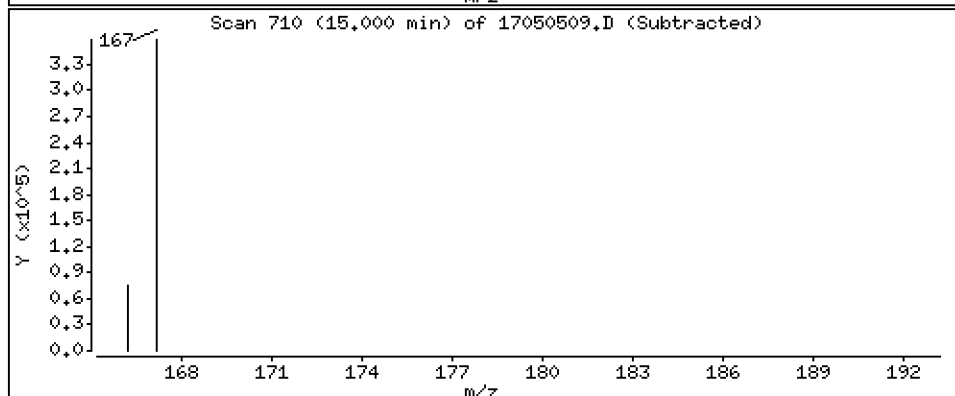
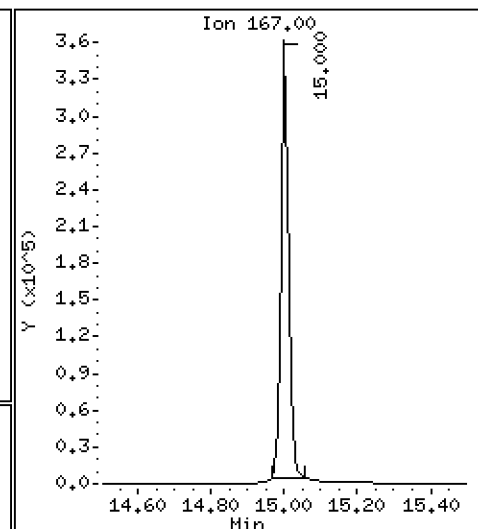
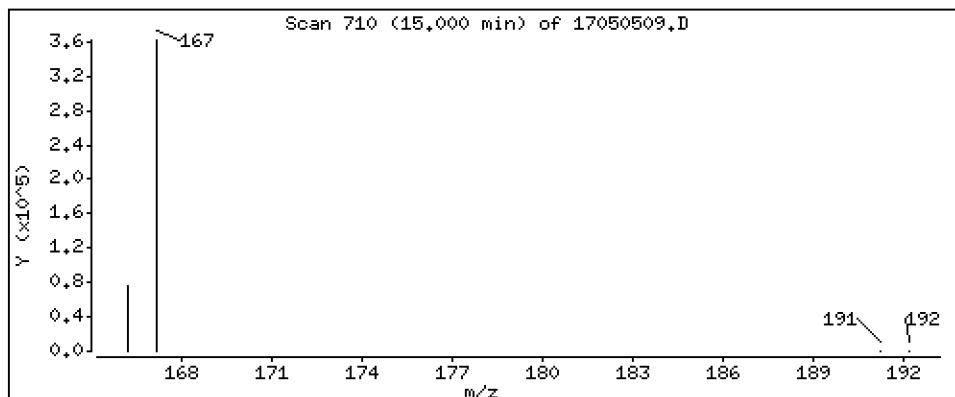
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

22 Carbazole

Concentration: 252 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

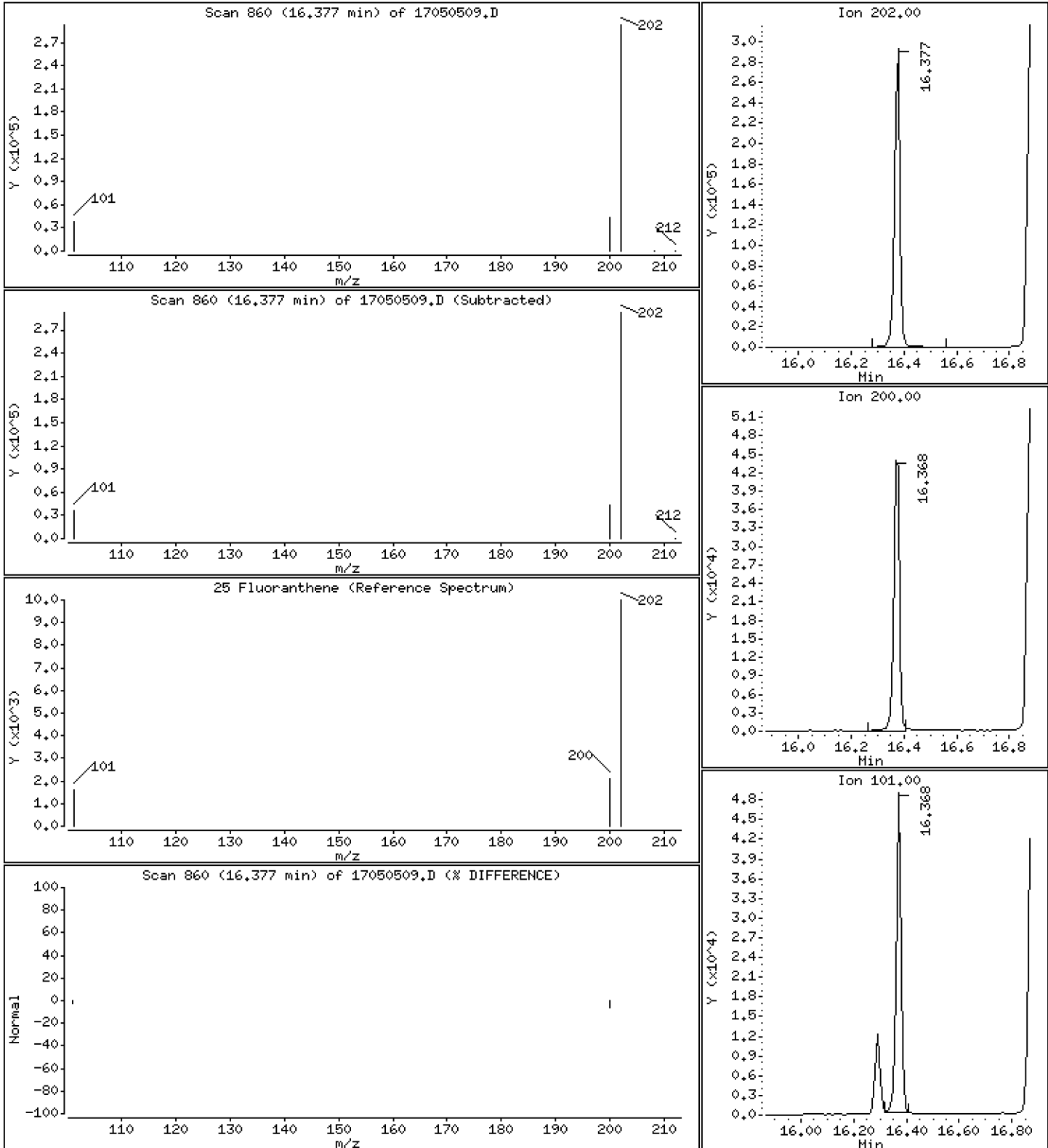
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

25 Fluoranthene

Concentration: 262 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

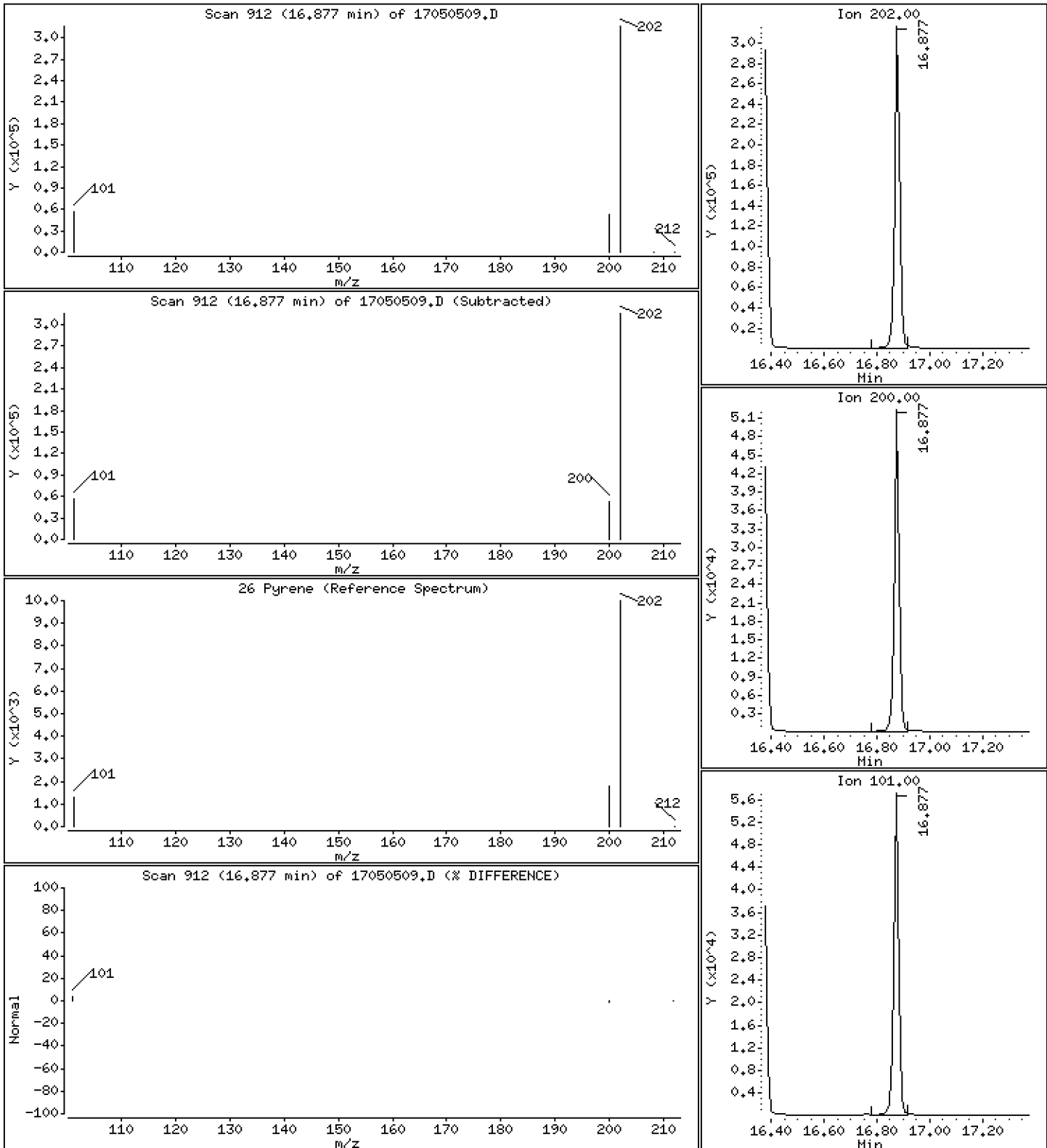
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

26 Pyrene

Concentration: 255 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

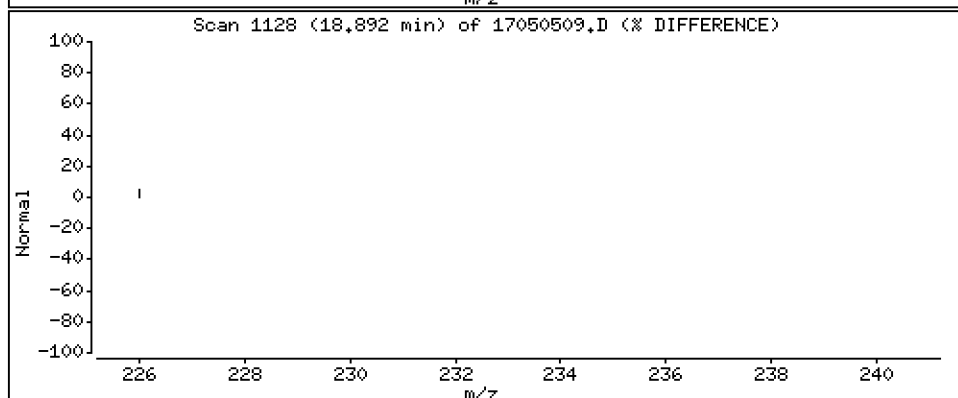
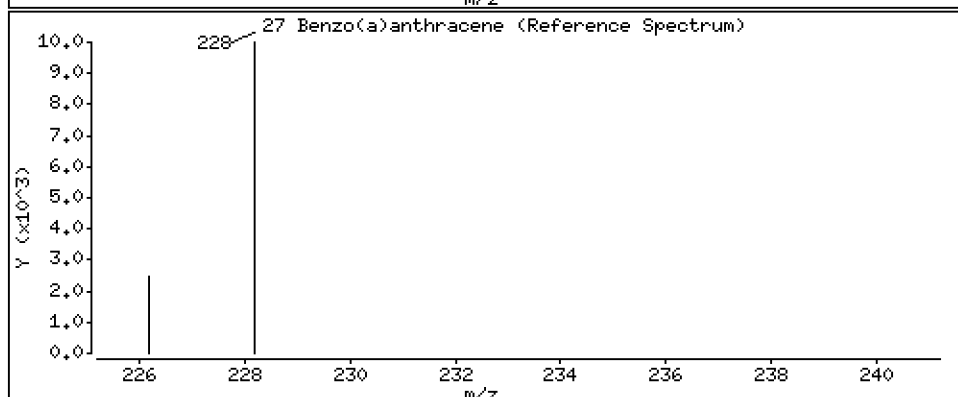
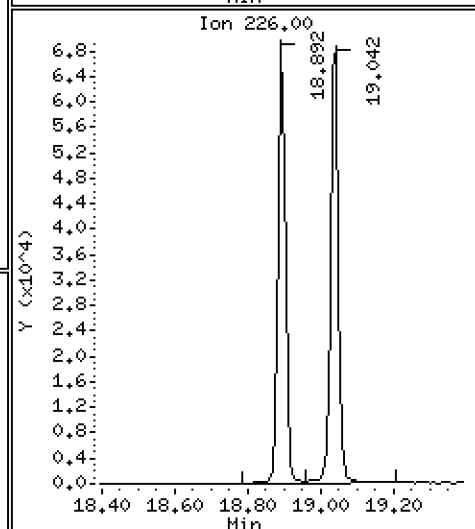
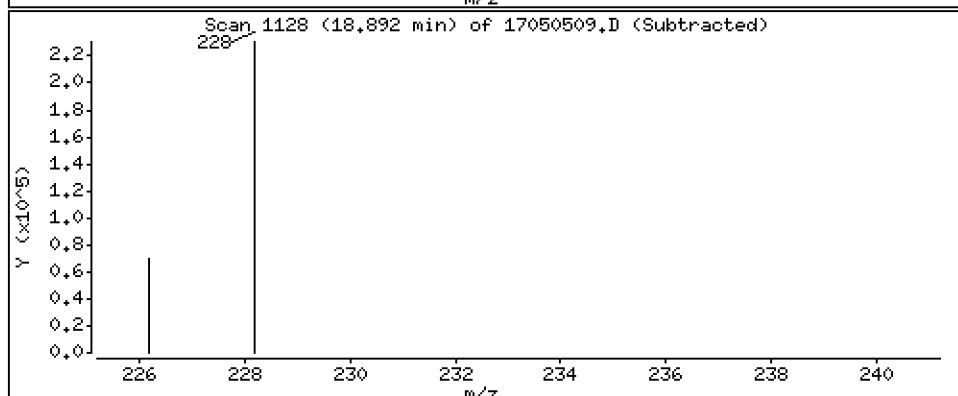
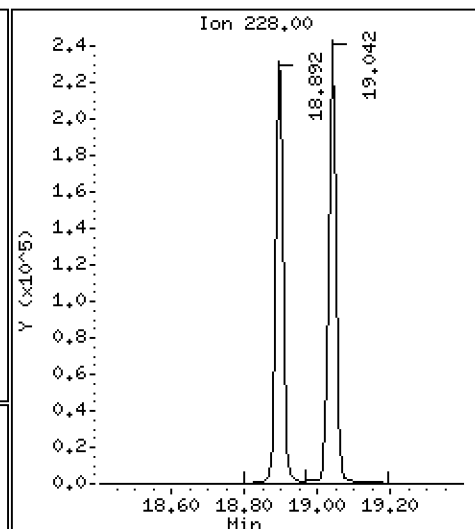
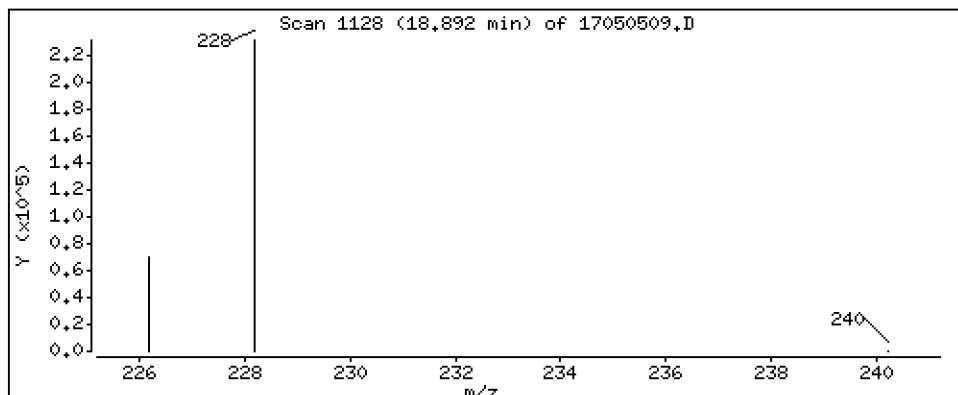
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

27 Benzo(a)anthracene

Concentration: 261 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

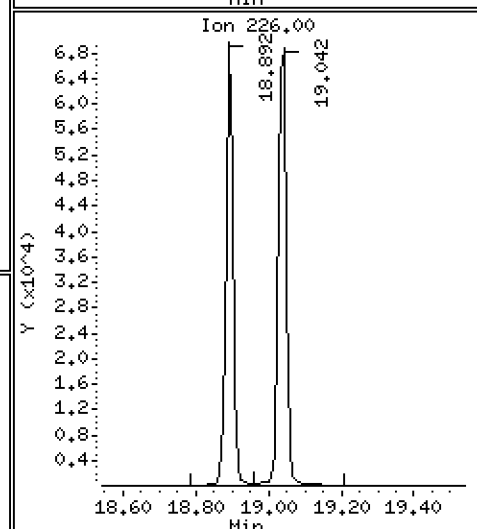
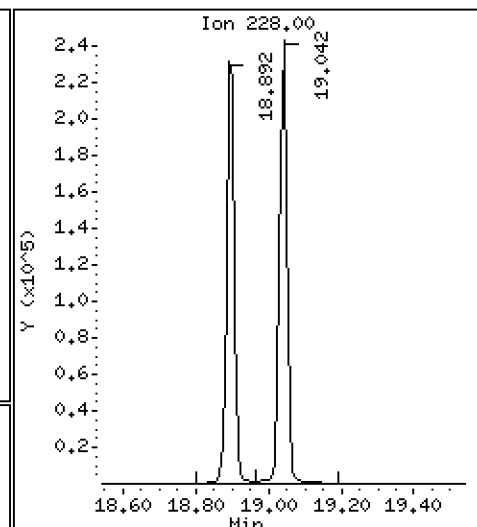
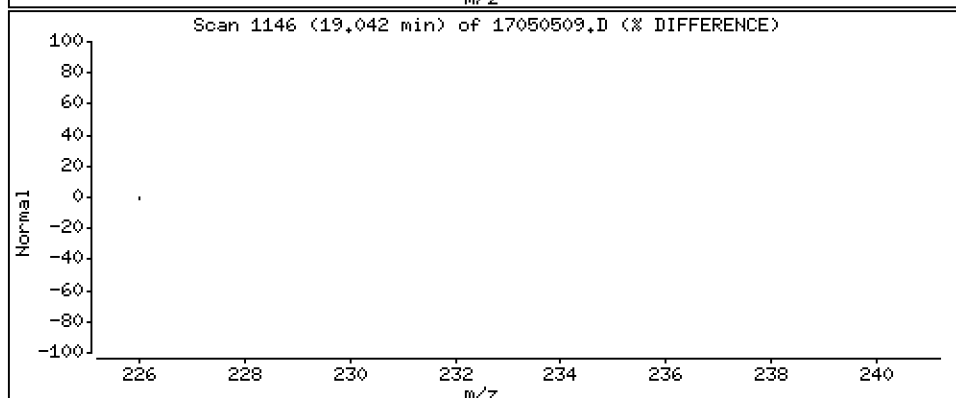
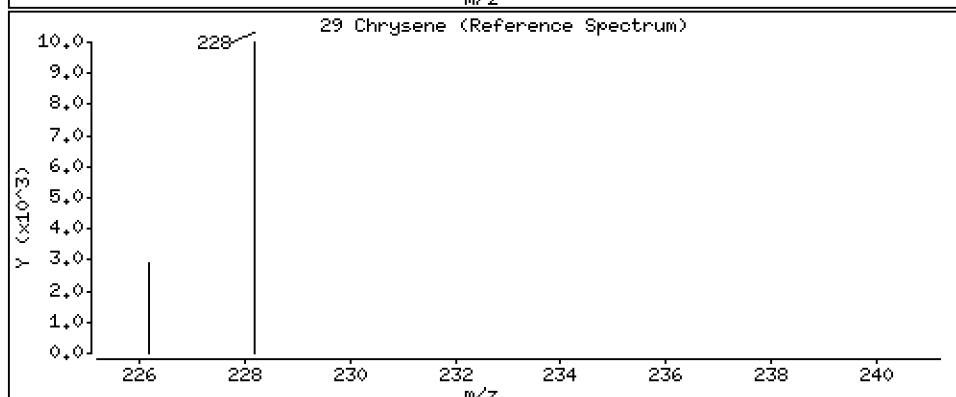
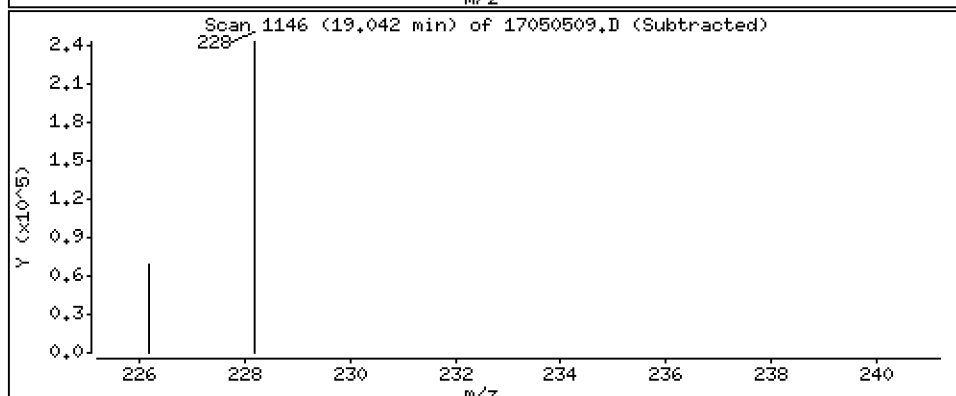
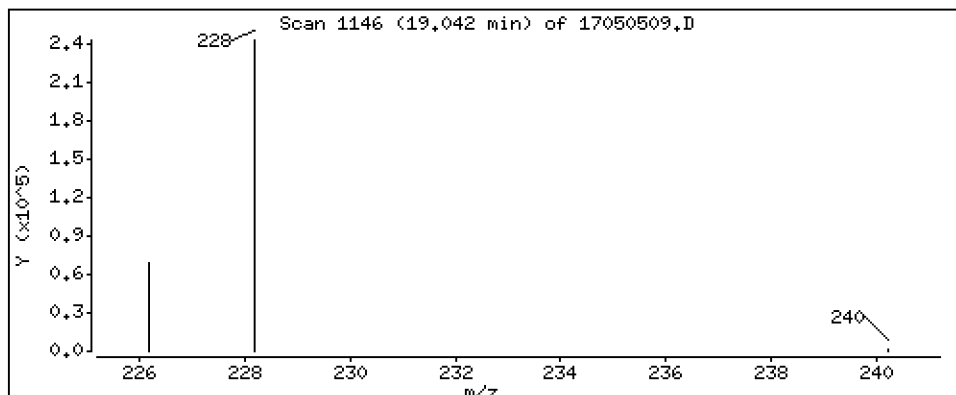
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

29 Chrysene

Concentration: 250 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

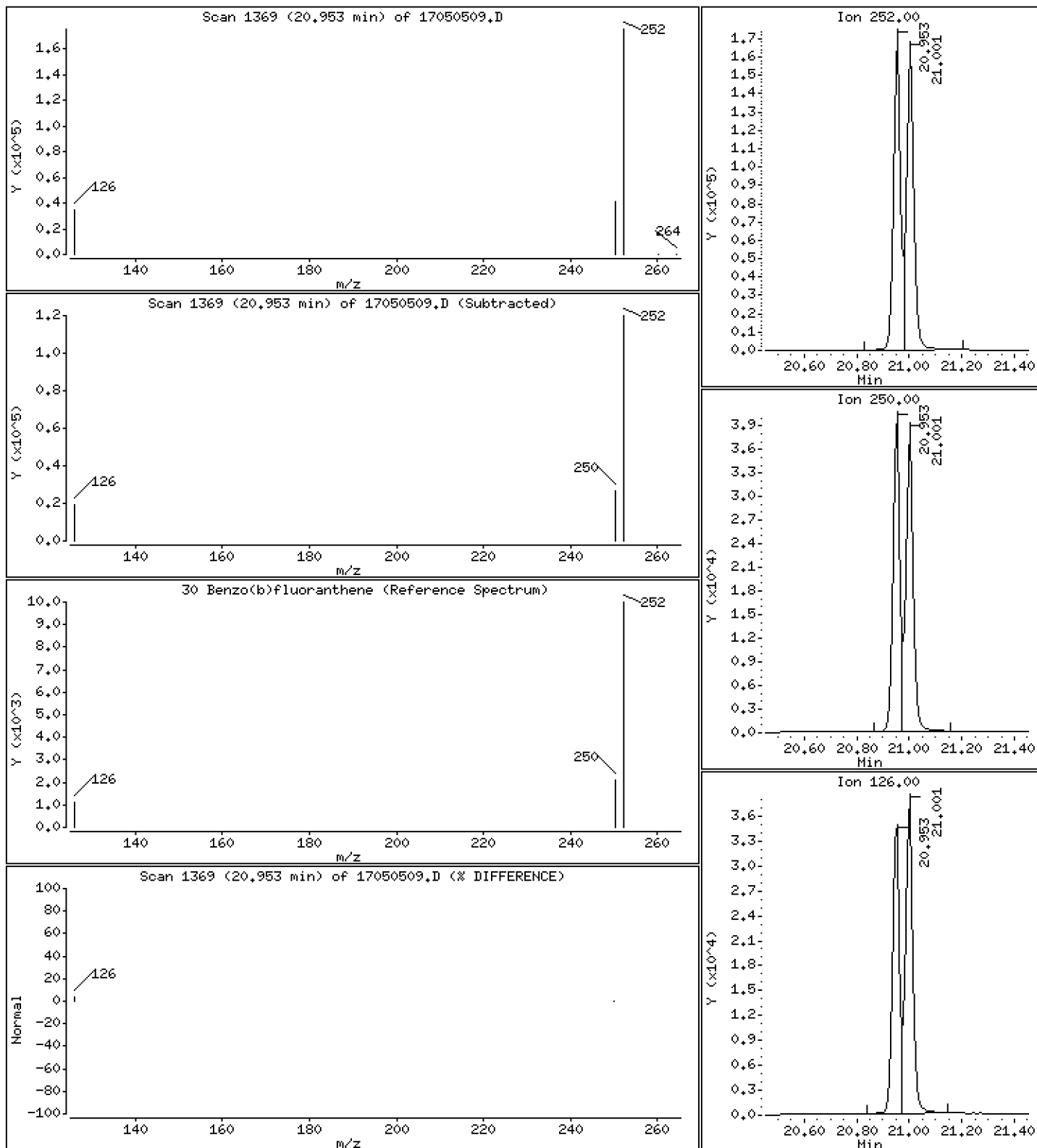
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

30 Benzo(b)fluoranthene

Concentration: 268 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

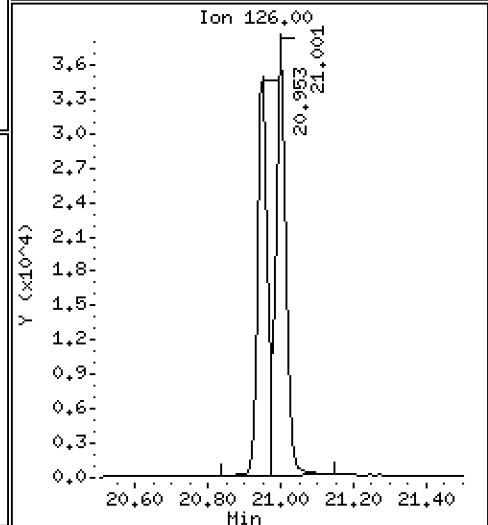
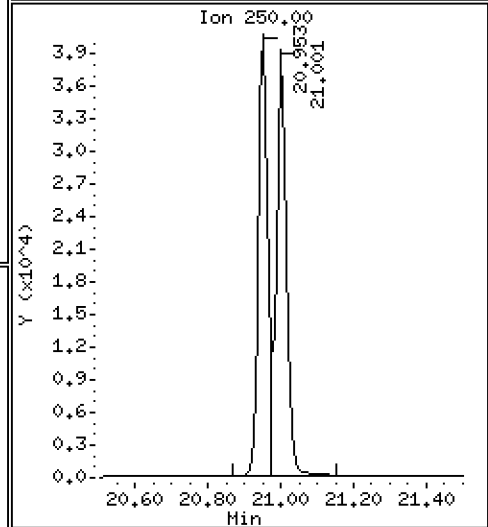
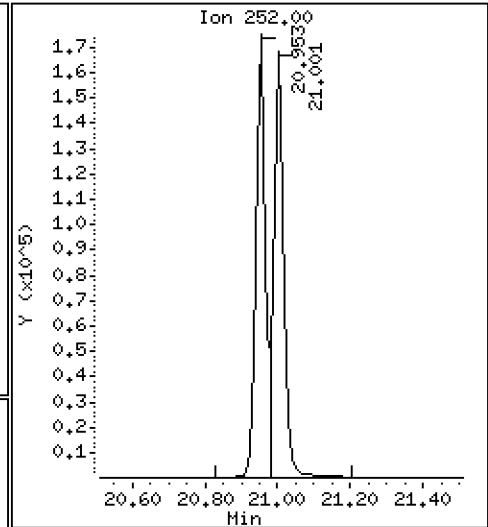
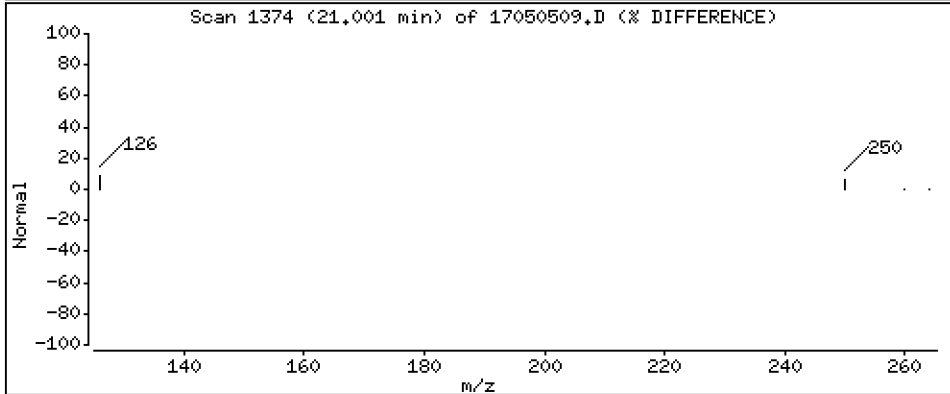
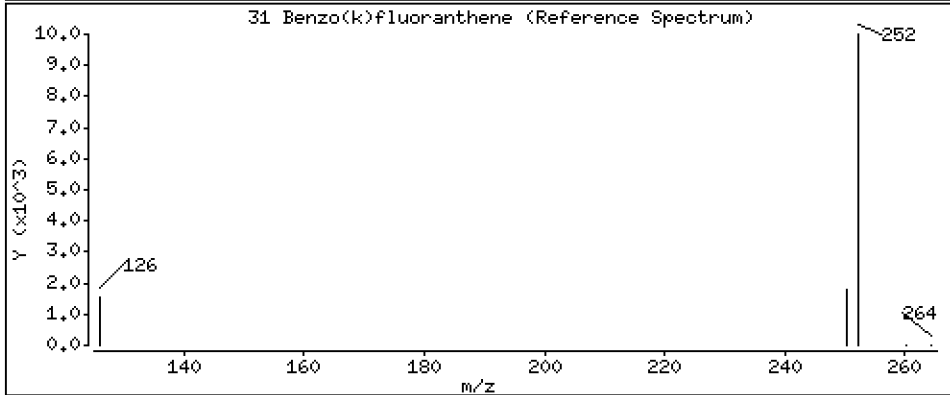
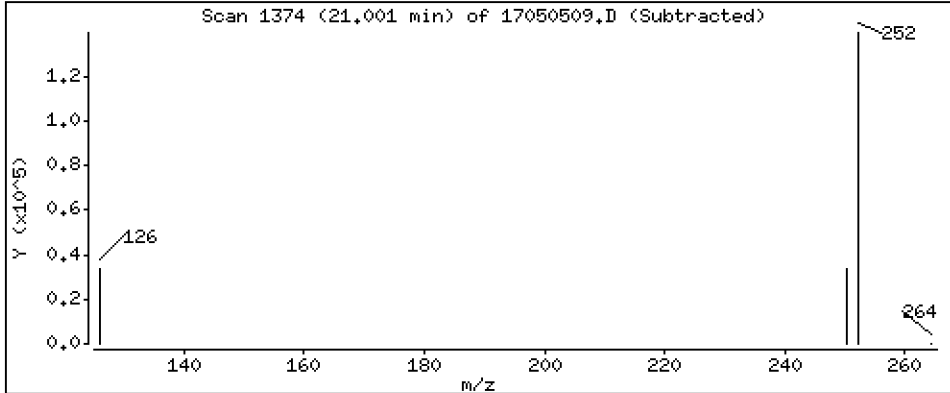
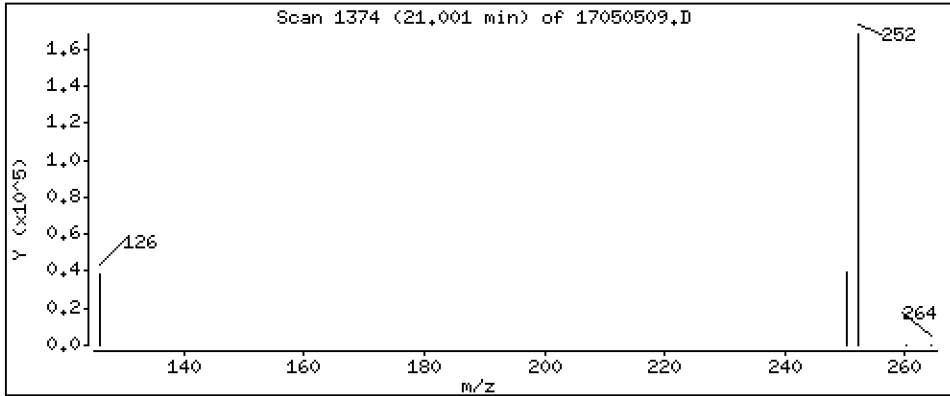
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

31 Benzo(k)fluoranthene

Concentration: 264 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

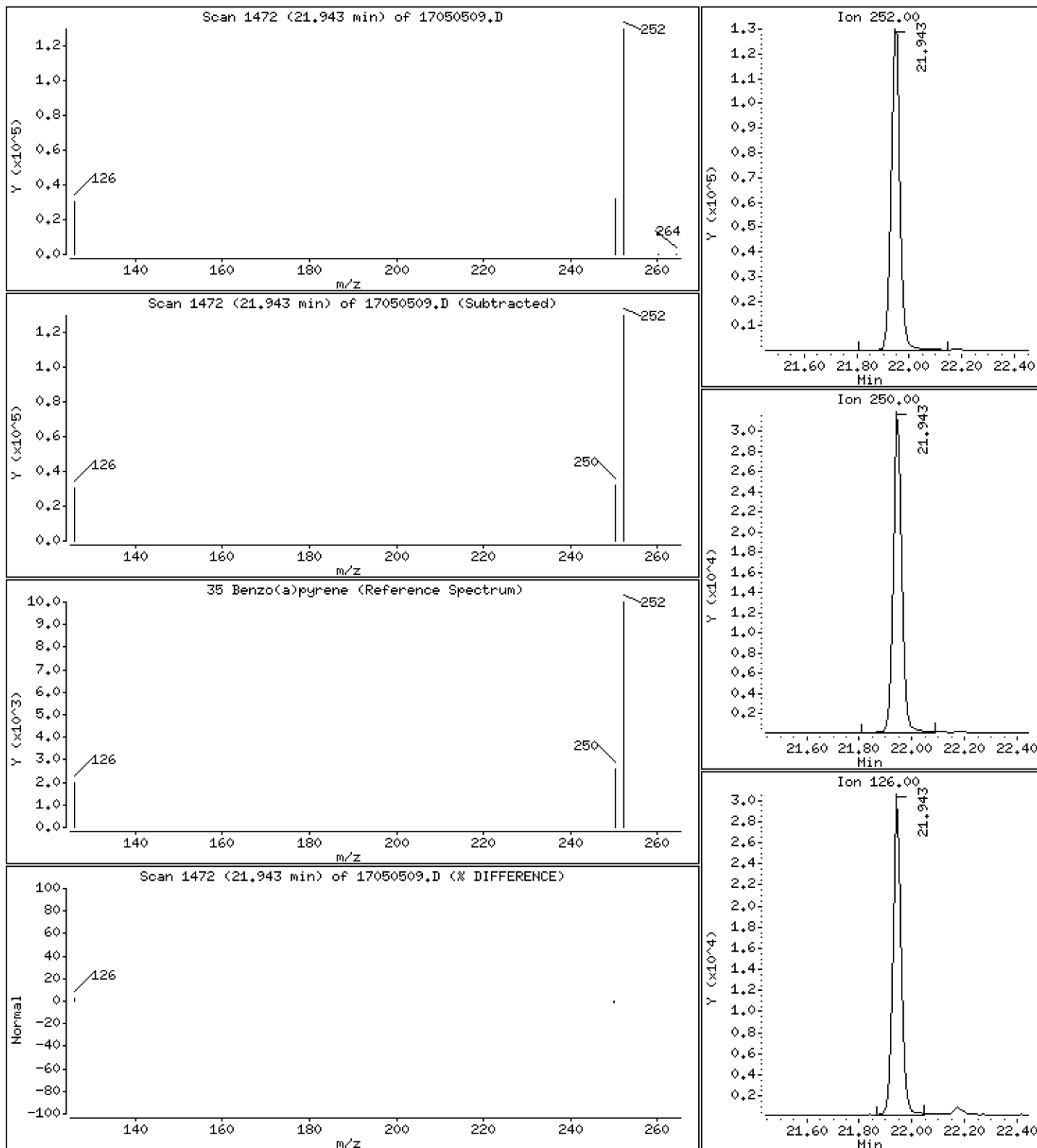
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

35 Benzo(a)pyrene

Concentration: 265 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

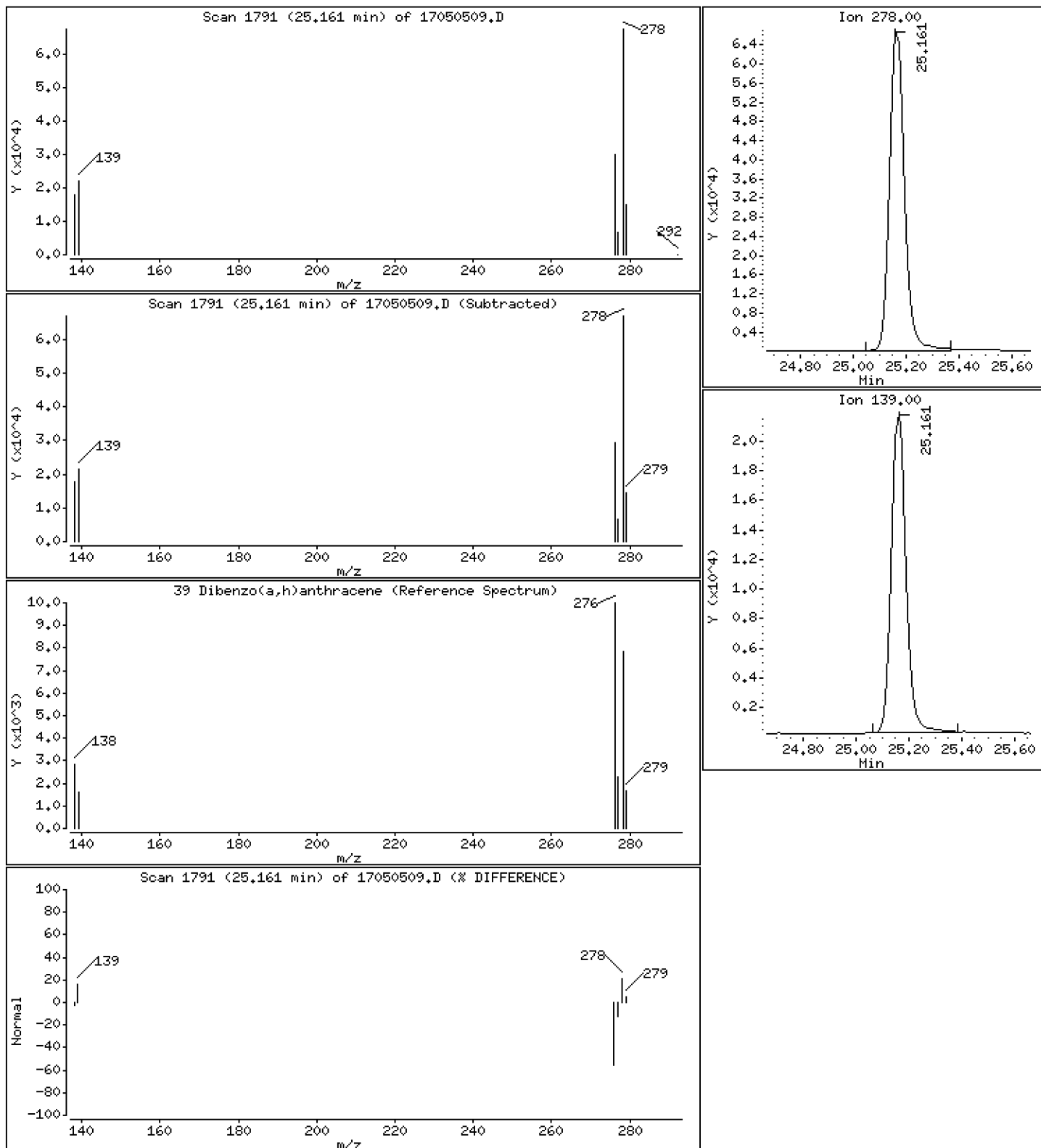
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

39 Dibenzo(a,h)anthracene

Concentration: 260 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

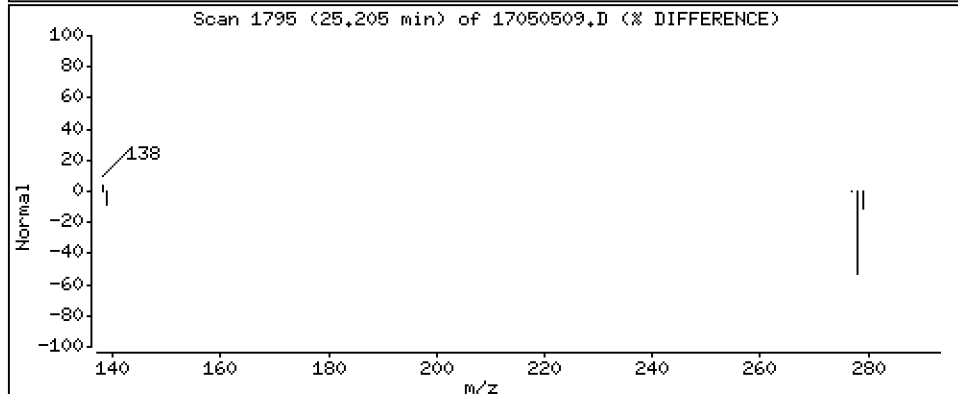
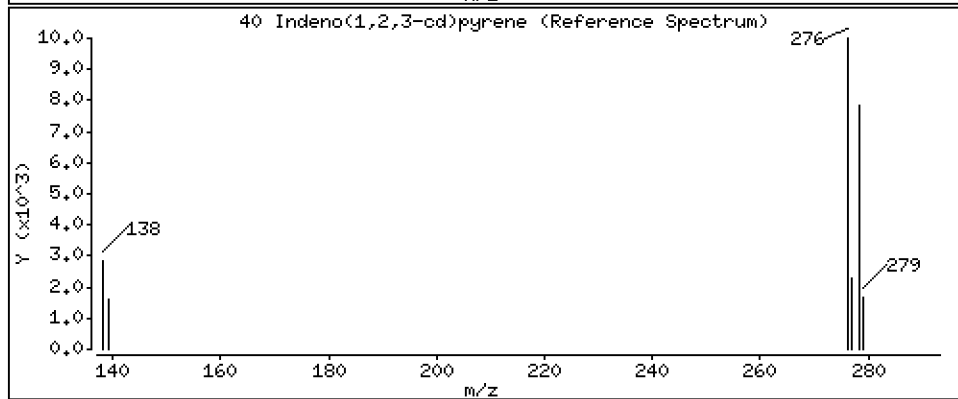
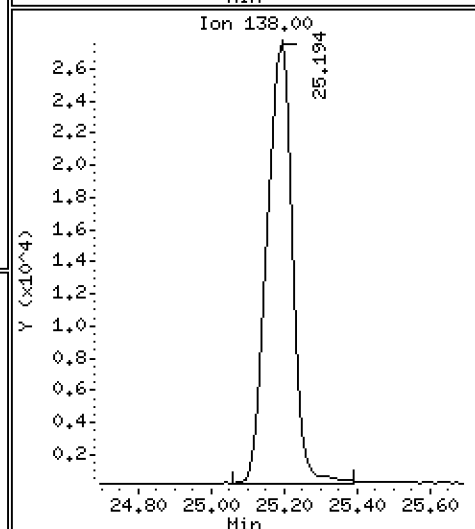
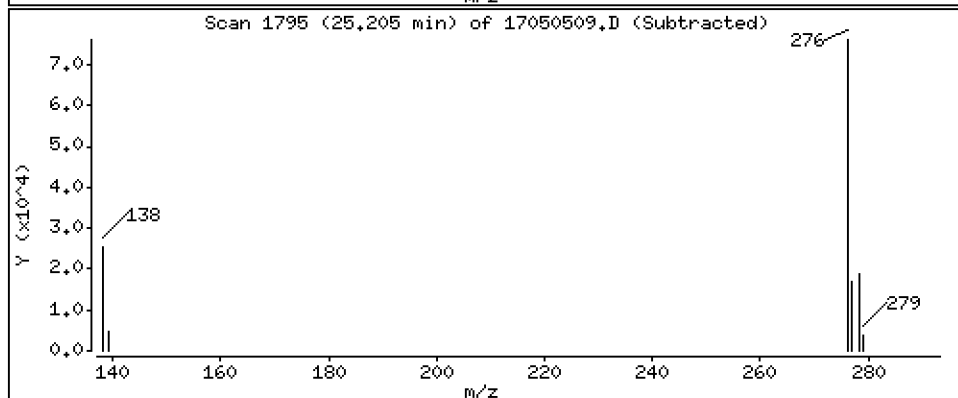
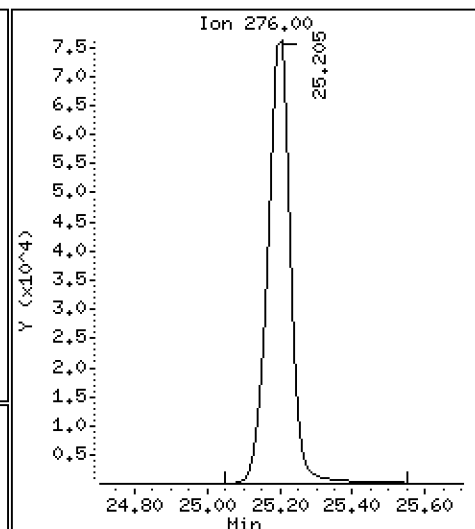
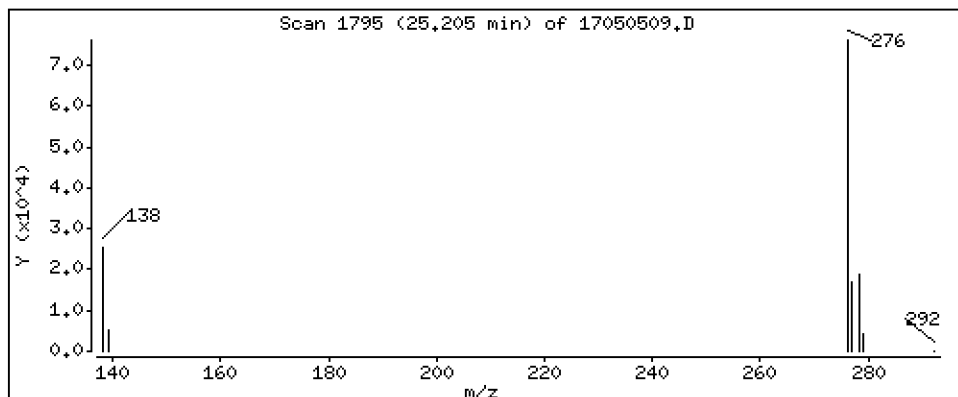
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

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

Concentration: 264 ng/mL



Date : 05-MAY-2017 15:23

Client ID:

Instrument: nt11.i

Sample Info: SFE0059-SCV1

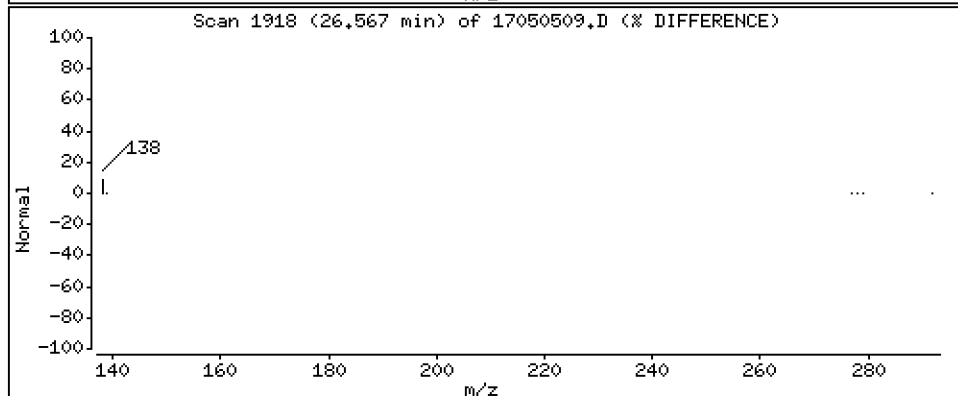
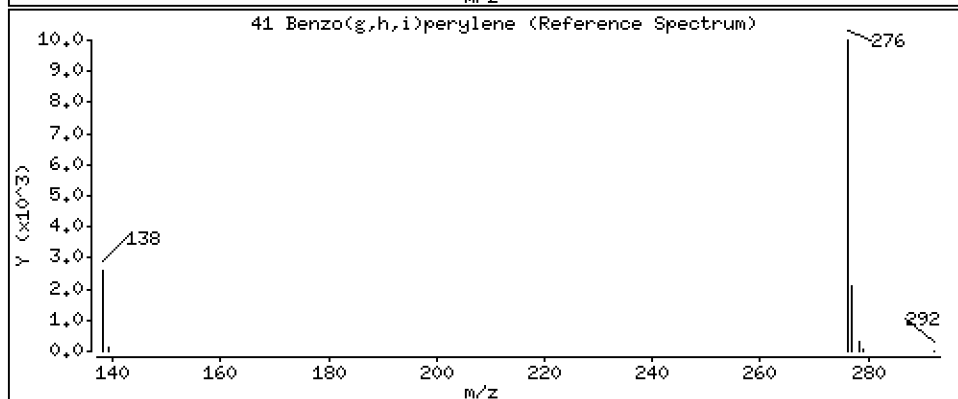
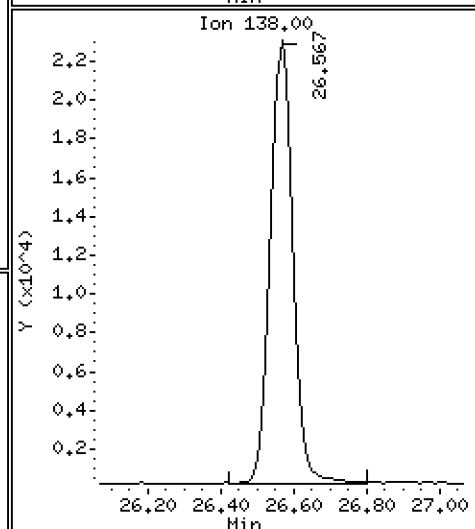
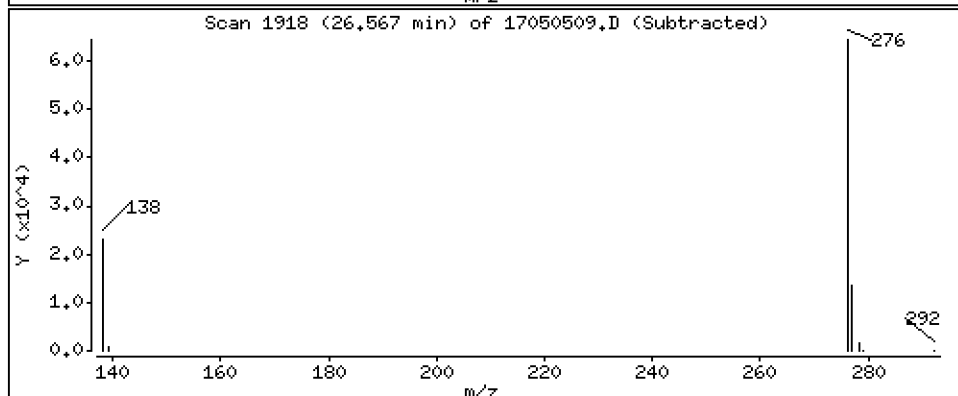
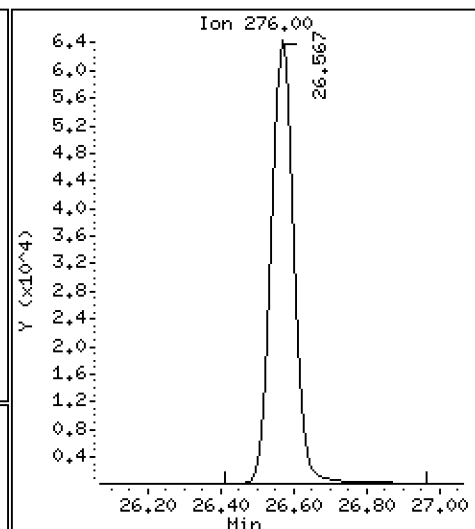
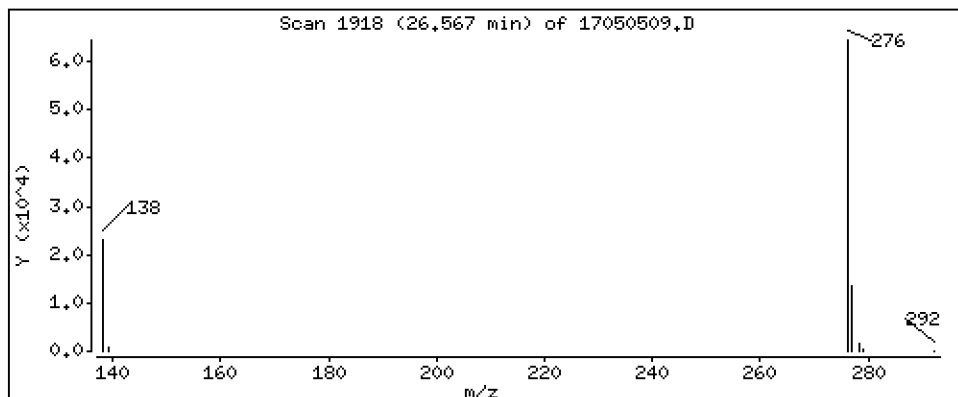
Operator: VTS

Column phase: Rxi-17Sil MS

Column diameter: 0,25

41 Benzo(g,h,i)perylene

Concentration: 262 ng/mL



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170505.b\17050509.D

Lab Smp Id: SFE0059-SCV1

Inj Date : 05-MAY-2017 15:23

MS Autotune Date: 15-JAN-2015 16:59

Operator : VTS

Inst ID: nt11.i

Smp Info : SFE0059-SCV1

Misc Info :

Comment :

Method : \\target\share\chem3\nt11.i\20170505.b\LOWSIM.m

Meth Date : 06-May-2017 08:49 nt11.i

Quant Type: ISTD

Cal Date : 05-MAY-2017 14:47

Cal File: 17050508.D

Als bottle: 1

Dil Factor: 1.00000

Integrator: HP RTE

Compound Sublist: allpna.sub

Target Version: 4.14

Processing Host: VANS

Compounds	QUANT	SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS	
							ON-COLUMN (ng/mL)	FINAL (ng/mL)
* 1 Naphthalene-d8	136		8.499	8.499	(1.000)	353470	200.000	
2 Naphthalene	128		8.536	8.536	(1.004)	456586	240.358	240
3 Benzo(b)thiophene	134		Compound Not Detected.					
\$ 4 2-Methylnaphthalene-d10	152		Compound Not Detected.					
5 2-Methylnaphthalene	142		9.540	9.540	(1.122)	450543	257.139	257
6 1-Methylnaphthalene	142		9.792	9.802	(1.152)	418203	246.808	247
7 2-Chloronaphthalene	162		10.454	10.454	(0.906)	373488	246.373	246
8 Biphenyl	154		Compound Not Detected.					
9 2,6-Dimethylnaphthalene	156		Compound Not Detected.					
10 Acenaphthylene	152		11.383	11.383	(0.987)	422022	246.846	247
* 11 Acenaphthene-d10	164		11.537	11.537	(1.000)	145863	200.000	
12 Acenaphthene	153		11.600	11.600	(1.005)	309187	276.562	277
13 Dibenzofuran	168		11.797	11.797	(1.023)	389481	252.504	253
14 2,3,5-Trimethylnaphthalene	170		Compound Not Detected.					
\$ 15 Fluorene-d10	174		Compound Not Detected.					
16 Fluorene	166		12.429	12.429	(1.077)	309438	257.250	257
17 Dibenzothiophene	184		Compound Not Detected.					
* 18 Phenanthrene-d10	188		14.230	14.230	(1.000)	234202	200.000	
19 Phenanthrene	178		14.272	14.272	(1.003)	446151	255.907	256
\$ 20 Anthracene-d10	188		Compound Not Detected.					
21 Anthracene	178		14.325	14.325	(1.007)	412225	240.004	240
22 Carbazole	167		15.000	14.999	(1.054)	504276	252.234	252
23 1-Methylphenanthrene	192		Compound Not Detected.					
\$ 24 Fluoranthene-d10	212		Compound Not Detected.					
25 Fluoranthene	202		16.377	16.377	(1.151)	439149	262.112	262
26 Pyrene	202		16.876	16.876	(0.889)	438217	255.184	255
27 Benzo(a)anthracene	228		18.892	18.900	(0.995)	352034	260.623	261
* 28 Chrysene-d12	240		18.991	18.991	(1.000)	189686	200.000	
29 Chrysene	228		19.041	19.041	(1.003)	348116	249.715	250
30 Benzo(b)fluoranthene	252		20.953	20.953	(0.945)	342991	267.607	268
31 Benzo(k)fluoranthene	252		21.001	21.010	(0.947)	335630	264.150	264
32 Benzo(j)fluoranthene	252		Compound Not Detected.					
\$ 33 Benzo(e)pyrene-d12	264		Compound Not Detected.					

Compounds	QUANT SIG	RT	EXP RT	REL RT	RESPONSE	CONCENTRATIONS		
						ON-COLUMN (ng/mL)	FINAL (ng/mL)	
=====	=====	=====	=====	=====	=====	=====	=====	
34 Benzo(e)pyrene	252	Compound Not Detected.						
35 Benzo(a)pyrene	252	21.942	21.952	(0.989)	306973	264.763	265	
* 36 Perylene-d12	264	22.183	22.182	(1.000)	205114	200.000		
37 Perylene	252	Compound Not Detected.						
§ 38 Dibenzo(a,h)anthracene-d14	292	Compound Not Detected.						
39 Dibenzo(a,h)anthracene	278	25.160	25.171	(1.134)	254355	259.573	260	
40 Indeno(1,2,3-cd)pyrene	276	25.204	25.204	(1.136)	323142	264.219	264	
41 Benzo(g,h,i)perylene	276	26.567	26.567	(1.198)	273990	261.892	262	

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i
 Lab File ID: 17050509.D
 Lab Smp Id: SFE0059-SCV1
 Analysis Type: SV
 Quant Type: ISTD
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20170505.b\LOWSIM.m
 Misc Info:

Calibration Date: 05-MAY-2017
 Calibration Time: 11:47
 Level:
 Sample Type:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	371325	185663	742650	353470	-4.81
11 Acenaphthene-d10	154428	77214	308856	145863	-5.55
18 Phenanthrene-d10	256956	128478	513912	234202	-8.86
28 Chrysene-d12	208629	104315	417258	189686	-9.08
36 Perylene-d12	225431	112716	450862	205114	-9.01

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	8.50	8.00	9.00	8.50	0.00
11 Acenaphthene-d10	11.54	11.04	12.04	11.54	0.00
18 Phenanthrene-d10	14.23	13.73	14.73	14.23	0.00
28 Chrysene-d12	18.99	18.49	19.49	18.99	0.00
36 Perylene-d12	22.18	21.68	22.68	22.18	0.00

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

REVIEW SUMMARY FOR FILE - 17050509.D

Lab ID: SFE0059-SCV1
nt11.i, 20170505.b\LOWSIM.m, 05-MAY-2017 15:23

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

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

RRT CHECK

RRT CCV RRT DELTA COMPOUND

NONE

On Column LOD for nt11.i, 20170505.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000



INITIAL CALIBRATION CHECK EPA 8270D-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>17E0012</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Port Gamble Shellfish Monitoring</u>
Instrument ID: <u>NT11</u>	Calibration: <u>AE00020</u>
Lab File ID: <u>N1117051602.D</u>	Calibration Date: <u>05/05/17 08:30</u>
Sequence: <u>SFE0208</u>	Injection Date: <u>05/16/17</u>
Lab Sample ID: <u>SFE0208-ICV1</u>	Injection Time: <u>10:47</u>
Sequence Name: <u>Initial Cal Check</u>	

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Naphthalene	A	250.00	241	1.0748340	1.0364360		-3.6	20
2-Methylnaphthalene	A	250.00	233	0.9913938	0.9248936		-6.8	20
Acenaphthylene	A	250.00	261	2.3441950	2.4440530		4.4	20
Acenaphthene	A	250.00	257	1.5328990	1.5750840		2.8	20
Fluorene	A	250.00	246	1.6493110	1.6246610		-1.6	20
Phenanthrene	A	250.00	267	1.4888080	1.5900740		6.8	20
Anthracene	A	250.00	284	1.4667480	1.6679760		13.6	20
Fluoranthene	A	250.00	268	1.4307540	1.5322060		7.2	20
Pyrene	A	250.00	288	1.8106330	2.0823690		15.2	20
Benzo(a)anthracene	A	250.00	283	1.4241860	1.6137920		13.2	20
Chrysene	A	250.00	277	1.4698520	1.6287720		10.8	20
Benzo(b)fluoranthene	A	250.00	244	1.2497410	1.2176130		-2.4	20
Benzo(k)fluoranthene	A	250.00	254	1.2389240	1.2612050		1.6	20
Benzo(e)pyrene	A	250.00	249	1.1617650	1.1567270		-0.4	20
Benzo(a)pyrene	A	250.00	253	1.1305160	1.1462190		1.2	20
Indeno(1,2,3-cd)pyrene	A	250.00	241	1.1925150	1.1511490		-3.6	20
Dibenzo(a,h)anthracene	A	250.00	241	0.9554681	0.9208197		-3.6	20
Benzo(g,h,i)perylene	A	250.00	236	1.0201110	0.9611628		-5.6	20
Perylene	A	250.00	252	1.1648950	1.1722490		0.8	20
2-Methylnaphthalene-d10	A	250.00	235	0.8570707	0.8062469		-6.0	20
Dibenzo[a,h]anthracene-d14	A	250.00	230	0.7460398	0.6868588		-8.0	20
Fluoranthene-d10	A	250.00	251	0.9454756	0.9496133		0.4	20

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.1\20170516.6\N1117051602.D

Date : 16-May-2017 10:47

Client ID:

Sample Info: SFE0208-ICW1

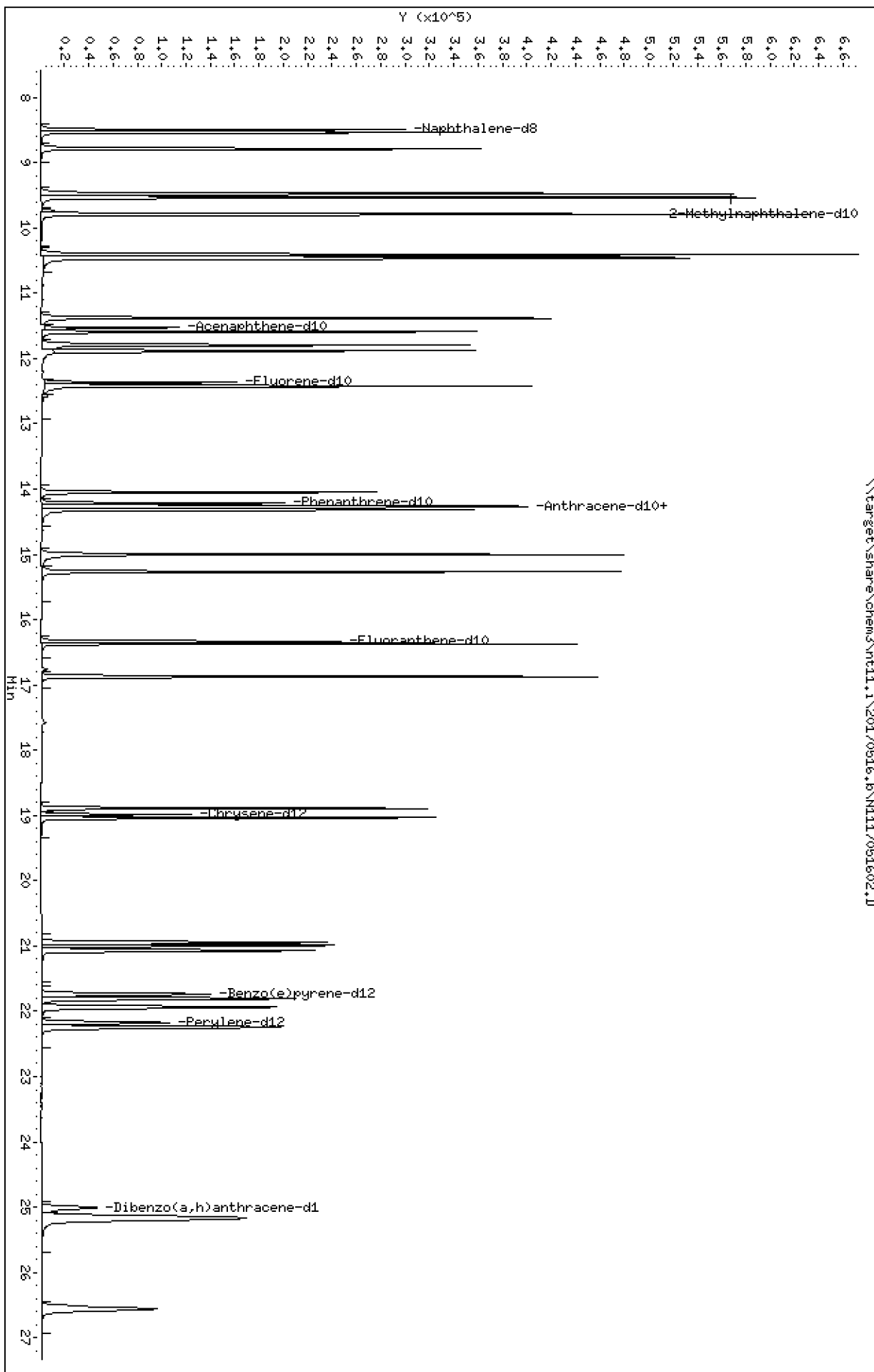
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

Page 1



ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170516.b\N1117051602.D
 Lab Smp Id: SFE0208-ICV1
 Inj Date : 16-MAY-2017 10:47 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : SFE0208-ICV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20170516.b\LOWSIM.m
 Meth Date : 17-May-2017 08:15 nt11.i Quant Type: ISTD
 Cal Date : 05-MAY-2017 14:47 Cal File: 17050508.D
 Als bottle: 1 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: allpna.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 1 Naphthalene-d8	136	8.500	8.500	(1.000)	423503	200.000	
2 Naphthalene	128	8.536	8.536	(1.004)	548667	250.000	241
3 Benzo(b)thiophene	134	8.789	8.789	(1.034)	443408	250.000	248
\$ 4 2-Methylnaphthalene-d10	152	9.477	9.477	(1.115)	426810	250.000	235
5 2-Methylnaphthalene	142	9.540	9.540	(1.122)	489619	250.000	233
6 1-Methylnaphthalene	142	9.792	9.792	(1.152)	479938	250.000	236
7 2-Chloronaphthalene	162	10.454	10.454	(0.907)	431727	250.000	249
8 Biphenyl	154	10.412	10.412	(0.903)	562711	250.000	217
9 2,6-Dimethylnaphthalene	156	10.475	10.475	(0.909)	438769	250.000	241
10 Acenaphthylene	152	11.383	11.383	(0.987)	509197	250.000	261
* 11 Acenaphthene-d10	164	11.528	11.528	(1.000)	166673	200.000	
12 Acenaphthene	153	11.591	11.591	(1.005)	328155	250.000	257
13 Dibenzofuran	168	11.797	11.797	(1.023)	422792	250.000	240
14 2,3,5-Trimethylnaphthalene	170	11.886	11.886	(1.031)	244848	250.000	245
\$ 15 Fluorene-d10	174	12.366	12.366	(1.073)	198604	250.000	243
16 Fluorene	166	12.429	12.429	(1.078)	338484	250.000	246
17 Dibenzothiophene	184	14.052	14.052	(0.988)	335365	250.000	263
* 18 Phenanthrene-d10	188	14.220	14.220	(1.000)	246299	200.000	
19 Phenanthrene	178	14.262	14.262	(1.003)	489542	250.000	267
\$ 20 Anthracene-d10	188	14.283	14.283	(1.004)	328359	250.000	258
21 Anthracene	178	14.325	14.325	(1.007)	513526	250.000	284
22 Carbazole	167	15.000	15.000	(1.055)	594678	250.000	283
23 1-Methylphenanthrene	192	15.271	15.271	(1.074)	445827	250.000	268
\$ 24 Fluoranthene-d10	212	16.338	16.338	(1.149)	292361	250.000	251
25 Fluoranthene	202	16.367	16.367	(1.151)	471726	250.000	268
26 Pyrene	202	16.876	16.876	(0.889)	476511	250.000	288
27 Benzo(a)anthracene	228	18.892	18.892	(0.995)	369286	250.000	283
* 28 Chrysene-d12	240	18.983	18.983	(1.000)	183065	200.000	
29 Chrysene	228	19.033	19.033	(1.003)	372714	250.000	277
30 Benzo(b)fluoranthene	252	20.943	20.943	(0.945)	325235	250.000	244
31 Benzo(k)fluoranthene	252	21.001	21.001	(0.947)	336879	250.000	254
32 Benzo(j)fluoranthene	252	21.068	21.068	(0.950)	313315	250.000	253
\$ 33 Benzo(e)pyrene-d12	264	21.731	21.731	(0.980)	275481	250.000	246

Compounds	QUANT SIG		AMOUNTS				
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
34 Benzo(e)pyrene	252	21.808	21.808	(0.984)	308972	250.000	249
35 Benzo(a)pyrene	252	21.933	21.933	(0.989)	306165	250.000	253
* 36 Perylene-d12	264	22.173	22.173	(1.000)	213687	200.000	
37 Perylene	252	22.250	22.250	(1.003)	313118	250.000	252
§ 38 Dibenzo(a,h)anthracene-d14	292	25.016	25.016	(1.128)	183466	250.000	230
39 Dibenzo(a,h)anthracene	278	25.149	25.149	(1.134)	245959	250.000	241
40 Indeno(1,2,3-cd)pyrene	276	25.182	25.182	(1.136)	307482	250.000	241
41 Benzo(g,h,i)perylene	276	26.556	26.556	(1.198)	256735	250.000	236

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 05-MAY-2017
 Lab File ID: N1117051602.D Calibration Time: 11:47
 Lab Smp Id: SFE0208-ICV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20170516.b\LOWSIM.m
 Misc Info:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	371325	185663	742650	423503	14.05
11 Acenaphthene-d10	154428	77214	308856	166673	7.93
18 Phenanthrene-d10	256956	128478	513912	246299	-4.15
28 Chrysene-d12	208629	104315	417258	183065	-12.25
36 Perylene-d12	225431	112716	450862	213687	-5.21

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	8.50	8.00	9.00	8.50	0.00
11 Acenaphthene-d10	11.53	11.03	12.03	11.53	0.00
18 Phenanthrene-d10	14.22	13.72	14.72	14.22	0.00
28 Chrysene-d12	18.98	18.48	19.48	18.98	0.00
36 Perylene-d12	22.17	21.67	22.67	22.17	0.00

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

REVIEW SUMMARY FOR FILE - N1117051602.D

Lab ID: SFE0208-ICV1
nt11.i, 20170516.b\LOWSIM.m, 16-MAY-2017 10:47

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

On Column LOD for nt11.i, 20170516.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 6.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170516.b

Instrument: nt11.i Date: 16-MAY-2017 Method: 20170516.b\LOWSIM.m

INITIAL CAL: 05-MAY-2017

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: N1117051602.D 16-MAY-2017 10:47

Compound	%D

NO Q-FLAGS	



INITIAL CALIBRATION CHECK EPA 8270D-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>17E0012</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Port Gamble Shellfish Monitoring</u>
Instrument ID: <u>NT11</u>	Calibration: <u>AE00020</u>
Lab File ID: <u>17050503ICV.D</u>	Calibration Date: <u>05/05/17 08:30</u>
Sequence: <u>SFE0059</u>	Injection Date: <u>05/05/17</u>
Lab Sample ID: <u>SFE0059-ICV1</u>	Injection Time: <u>11:47</u>
Sequence Name: <u>Initial Cal Check</u>	

COMPOUND	TYPE	CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
		STD	ICV	ICAL	ICV	MIN	ICV	LIMIT
Naphthalene	A	250.00	243	1.0748340	1.0458070		-2.8	20
2-Methylnaphthalene	A	250.00	252	0.9913938	0.9991140		0.8	20
1-Methylnaphthalene	A	250.00	251	0.9587499	0.9613077		0.4	20
2-Chloronaphthalene	A	250.00	256	2.0785880	2.1323130		2.4	20
Acenaphthylene	A	250.00	254	2.3441950	2.3824180		1.6	20
Acenaphthene	A	250.00	251	1.5328990	1.5406900		0.4	20
Dibenzofuran	A	250.00	247	2.1149620	2.0930820		-1.2	20
Fluorene	A	250.00	253	1.6493110	1.6712050		1.2	20
Phenanthrene	A	250.00	254	1.4888080	1.5139400		1.6	20
Anthracene	A	250.00	243	1.4667480	1.4283100		-2.8	20
Carbazole	A	250.00	245	1.7072770	1.6748020		-2.0	20
Fluoranthene	A	250.00	257	1.4307540	1.4714180		2.8	20
Pyrene	A	250.00	248	1.8106330	1.7935570		-0.8	20
Benzo(a)anthracene	A	250.00	250	1.4241860	1.4219350		0.0	20
Chrysene	A	250.00	249	1.4698520	1.4644220		-0.4	20
Benzo(b)fluoranthene	A	250.00	244	1.2497410	1.2210460		-2.4	20
Benzo(k)fluoranthene	A	250.00	249	1.2389240	1.2321250		-0.4	20
Benzo(j)fluoranthene	A	250.00	245	1.1608340	1.1398720		-2.0	20
Benzofluoranthenes, Total	A	750.00	738	1.2165	1.1976810		-1.6	20
Benzo(a)pyrene	A	250.00	251	1.1305160	1.1367270		0.4	20
Perylene	A	250.00	248	1.1648950	1.1555360		-0.8	20
Indeno(1,2,3-cd)pyrene	A	250.00	249	1.1925150	1.1893980		-0.4	20
Dibenzo(a,h)anthracene	A	250.00	251	0.9554681	0.9580830		0.4	20
Benzo(g,h,i)perylene	A	250.00	245	1.0201110	0.9980988		-2.0	20
2-Methylnaphthalene-d10	A	250.00	250	0.8570707	0.8570411		0.0	20
Dibenzo[a,h]anthracene-d14	A	250.00	249	0.7460398	0.7420488		-0.4	20
Fluoranthene-d10	A	250.00	257	0.9454756	0.9734025		2.8	20

* Values outside of QC limits

Data File: \\target\share\chem3\nt11.1\20170505 JB\17050503ICW.D

Date : 05-May-2017 11:47

Client ID:

Sample Info: SFE0059-ICW1

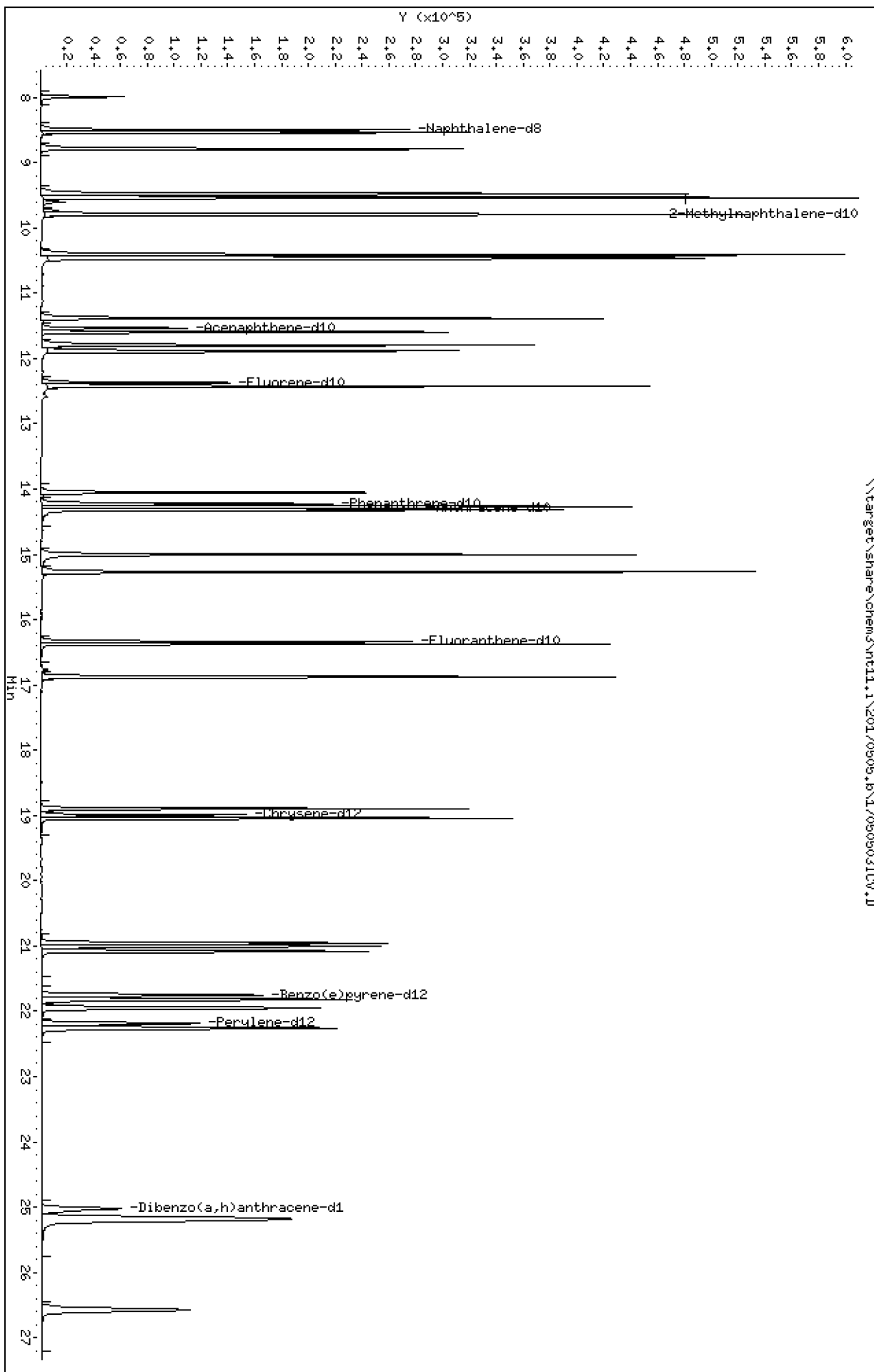
Column phase: Rxi-17S11 MS

Instrument: nt11.1

Operator: VTS

Column diameter: 0.25

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ARI Labs, Inc.

LOW LEVEL PNAs BY SW8270D-SIM

Data file : \\target\share\chem3\nt11.i\20170505.b\17050503ICV.D
 Lab Smp Id: SFE0059-ICV1
 Inj Date : 05-MAY-2017 11:47 MS Autotune Date: 15-JAN-2015 16:59
 Operator : VTS Inst ID: nt11.i
 Smp Info : SFE0059-ICV1
 Misc Info :
 Comment :
 Method : \\target\share\chem3\nt11.i\20170505.b\LOWSIM.m
 Meth Date : 06-May-2017 08:49 nt11.i Quant Type: ISTD
 Cal Date : 05-MAY-2017 14:47 Cal File: 17050508.D
 Als bottle: 1 Continuing Calibration Sample
 Dil Factor: 1.00000
 Integrator: HP RTE Compound Sublist: allpna.sub
 Target Version: 4.14
 Processing Host: VANS

Compounds	QUANT SIG			AMOUNTS			
	MASS	RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)
* 1 Naphthalene-d8	136	8.499	8.499	(1.000)	371325	200.000	
2 Naphthalene	128	8.536	8.536	(1.004)	485418	250.000	243
3 Benzo(b)thiophene	134	8.789	8.789	(1.034)	405571	250.000	259
\$ 4 2-Methylnaphthalene-d10	152	9.477	9.477	(1.115)	397801	250.000	250
5 2-Methylnaphthalene	142	9.540	9.540	(1.122)	463745	250.000	252
6 1-Methylnaphthalene	142	9.802	9.802	(1.153)	446197	250.000	251
7 2-Chloronaphthalene	162	10.454	10.454	(0.906)	411611	250.000	256
8 Biphenyl	154	10.412	10.412	(0.902)	547218	250.000	228 (H)
9 2,6-Dimethylnaphthalene	156	10.475	10.475	(0.908)	428206	250.000	254
10 Acenaphthylene	152	11.383	11.383	(0.987)	459890	250.000	254
* 11 Acenaphthene-d10	164	11.537	11.537	(1.000)	154428	200.000	
12 Acenaphthene	153	11.600	11.600	(1.005)	297407	250.000	251
13 Dibenzofuran	168	11.797	11.797	(1.023)	404038	250.000	247
14 2,3,5-Trimethylnaphthalene	170	11.898	11.898	(1.031)	241555	250.000	261
\$ 15 Fluorene-d10	174	12.378	12.378	(1.073)	192792	250.000	254
16 Fluorene	166	12.429	12.429	(1.077)	322601	250.000	253
17 Dibenzothiophene	184	14.052	14.052	(0.987)	340607	250.000	256
* 18 Phenanthrene-d10	188	14.230	14.230	(1.000)	256956	200.000	
19 Phenanthrene	178	14.272	14.272	(1.003)	486270	250.000	254
\$ 20 Anthracene-d10	188	14.293	14.293	(1.004)	331343	250.000	250
21 Anthracene	178	14.325	14.325	(1.007)	458766	250.000	243
22 Carbazole	167	14.999	14.999	(1.054)	537938	250.000	245
23 1-Methylphenanthrene	192	15.271	15.271	(1.073)	453626	250.000	262
\$ 24 Fluoranthene-d10	212	16.338	16.338	(1.148)	312652	250.000	257
25 Fluoranthene	202	16.377	16.377	(1.151)	472612	250.000	257
26 Pyrene	202	16.876	16.876	(0.889)	467735	250.000	248
27 Benzo(a)anthracene	228	18.900	18.900	(0.995)	370821	250.000	250
* 28 Chrysene-d12	240	18.991	18.991	(1.000)	208629	200.000	
29 Chrysene	228	19.041	19.041	(1.003)	381901	250.000	249
30 Benzo(b)fluoranthene	252	20.953	20.953	(0.945)	344077	250.000	244 (H)
31 Benzo(k)fluoranthene	252	21.010	21.010	(0.947)	347199	250.000	249 (H)
32 Benzo(j)fluoranthene	252	21.077	21.077	(0.950)	321203	250.000	245
\$ 33 Benzo(e)pyrene-d12	264	21.750	21.750	(0.981)	288259	250.000	244

Compounds	QUANT SIG							AMOUNTS	
	MASS		RT	EXP RT	REL RT	RESPONSE	CAL-AMT (ng/mL)	ON-COL (ng/mL)	
=====	=====		=====	=====	=====	=====	=====	=====	
34 Benzo(e)pyrene	252		21.817	21.817	(0.984)	322443	250.000	246	
35 Benzo(a)pyrene	252		21.952	21.952	(0.990)	320317	250.000	251	
* 36 Perylene-d12	264		22.182	22.182	(1.000)	225431	200.000		
37 Perylene	252		22.259	22.259	(1.003)	325617	250.000	248	
§ 38 Dibenzo(a,h)anthracene-d14	292		25.027	25.027	(1.128)	209101	250.000	249	
39 Dibenzo(a,h)anthracene	278		25.171	25.171	(1.135)	269977	250.000	251	
40 Indeno(1,2,3-cd)pyrene	276		25.204	25.204	(1.136)	335159	250.000	249	
41 Benzo(g,h,i)perylene	276		26.567	26.567	(1.198)	281253	250.000	245	

QC Flag Legend

H - Operator selected an alternate compound hit.

ARI Labs, Inc.

INTERNAL STANDARD COMPOUNDS
 AREA AND RT SUMMARY

Instrument ID: nt11.i Calibration Date: 05-MAY-2017
 Lab File ID: 17050503ICV.D Calibration Time: 11:47
 Lab Smp Id: SFE0059-ICV1
 Analysis Type: SV Level:
 Quant Type: ISTD Sample Type:
 Operator: VTS
 Method File: \\target\share\chem3\nt11.i\20170505.b\LOWSIM.m
 Misc Info:

Test Mode:
 Use Initial Calibration Level 4.

COMPOUND	STANDARD	AREA LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	371325	185663	742650	371325	0.00
11 Acenaphthene-d10	154428	77214	308856	154428	0.00
18 Phenanthrene-d10	256956	128478	513912	256956	0.00
28 Chrysene-d12	208629	104315	417258	208629	0.00
36 Perylene-d12	225431	112716	450862	225431	0.00

COMPOUND	STANDARD	RT LIMIT		SAMPLE	%DIFF
		LOWER	UPPER		
1 Naphthalene-d8	8.50	8.00	9.00	8.50	0.00
11 Acenaphthene-d10	11.54	11.04	12.04	11.54	0.00
18 Phenanthrene-d10	14.23	13.73	14.73	14.23	0.00
28 Chrysene-d12	18.99	18.49	19.49	18.99	0.00
36 Perylene-d12	22.18	21.68	22.68	22.18	0.00

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

REVIEW SUMMARY FOR FILE - 17050503ICV.D

Lab ID: SFE0059-ICV1
nt11.i, 20170505.b\LOWSIM.m, 05-MAY-2017 11:47

RT CO-ELUTION COMPOUNDS

NO CO-ELUTIONS

Quant Method: ICAL

On Column LOD for nt11.i, 20170505.b\LOWSIM.m, allpna.sub = 3.0000

Exception: Naphthalene 7.0000
Exception: Phenanthrene 2.5000
Exception: Anthracene 2.0000
Exception: Pyrene 4.0000
Exception: Benzo(j)fluoranthene 2.5000
Exception: Benzo(a)pyrene 2.0000
Exception: Perylene 3.5000
Exception: Benzo(e)pyrene 2.0000
Exception: Benzo(b)thiophene 2.0000
Exception: 2-Chloronaphthalene 2.0000
Exception: 2,6-Dimethylnaphthalene 2.0000
Exception: 2,3,5-Trimethylnaphthalene 2.0000
Exception: 1-Methylphenanthrene 2.0000
Exception: Dibenzothiophene 2.0000
Exception: Carbazole 2.0000
Exception: Biphenyl 2.0000
Exception: 2-Methylnaphthalene-d10 (Surr) 0.1000
Exception: Dibenzo(a,h)anthracene-d14 (Surr) 0.1000
Exception: Fluoranthene-d10 (Surr) 0.1000
Exception: Anthracene-d10 (Surr) 0.1000
Exception: Benzo(e)pyrene-d12 (Surr) 0.1000
Exception: Fluorene-d10 (Surr) 0.1000

Q-FLAG SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170505.b

Instrument: nt11.i Date: 05-MAY-2017 Method: 20170505.b\LOWSIM.m

INITIAL CAL: 05-MAY-2017

Compound	%RSD or R ²

NO Q-FLAGS	

ICV CAL: 17050503ICV.D 05-MAY-2017 11:47

Compound	%D

NO Q-FLAGS	



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 17E0012

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Sequence: SFE0208

Instrument: NT11

Calibration: AE00020

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
DFTPP	SFE0208-TUN1	N1117051601.D	Tissue	05/16/17 10:27
Initial Cal Check	SFE0208-ICV1	N1117051602.D	Tissue	05/16/17 10:47
Blank	BFE0160-BLK1	N1117051603.D	Tissue	05/16/17 11:35
LCS	BFE0160-BS1	N1117051604.D	Tissue	05/16/17 12:11
ZZZZZ	17D0421-01	N1117051605.D	Tissue	05/16/17 12:48
ZZZZZ	17D0421-02	N1117051606.D	Tissue	05/16/17 13:24
ZZZZZ	17D0421-04	N1117051608.D	Tissue	05/16/17 14:36
ZZZZZ	17D0421-05	N1117051609.D	Tissue	05/16/17 15:13
ZZZZZ	17D0421-06	N1117051610.D	Tissue	05/16/17 15:49
ZZZZZ	17D0421-07	N1117051611.D	Tissue	05/16/17 16:26
ZZZZZ	17D0421-08	N1117051612.D	Tissue	05/16/17 17:02
ZZZZZ	17D0421-09	N1117051613.D	Tissue	05/16/17 17:39
ZZZZZ	17D0421-10	N1117051614.D	Tissue	05/16/17 18:15
PG-PJ-OYS-COC-170427	17E0012-01	N1117051615.D	Tissue	05/16/17 18:52
PG-PJ-COC-COC-170427	17E0012-02	N1117051616.D	Tissue	05/16/17 19:28
PG-PJ-LTN-COC-170427	17E0012-03	N1117051617.D	Tissue	05/16/17 20:04
PG-PJ-MAN-COC-170427	17E0012-04	N1117051618.D	Tissue	05/16/17 20:40
PG-PJ-HC-COC-170428	17E0012-05	N1117051619.D	Tissue	05/16/17 21:16
PG-PJ-MUS-COC-170427	17E0012-06	N1117051620.D	Tissue	05/16/17 21:53
SIM PAH 250	SFE0208-CCV1	N1117051621.D	Tissue	05/16/17 22:29

Port Gamble Shellfish Monitoring**17E0012**

<u>Analysis</u>	<u>Matrix</u>	<u>Method</u>
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)	Tissue	EPA 8270D-SIM

Checklist: Analyst Checklist-SVOA

#	Checklist Item	Response	Analyst Initials	Date
1	DFTPP abundance and time criteria met	YES	VTS	05/17/2017
2	DDT Breakdown <20% and Peak Tailing <=2	YES	VTS	05/17/2017
3	ICV/CCV Meets %D	YES	VTS	05/17/2017
4	ICAL/ICV/CCV Q Flag - NONE required	YES	VTS	05/17/2017
5	Internal Standard areas within 50-200%	YES	VTS	05/17/2017
6	Retention times within windows and Coelution summary checked	YES	VTS	05/17/2017
7	Manual integrations include summary and before/after pictures	YES	VTS	05/17/2017
8	Project specific requirements have been met	YES	VTS	05/17/2017
9	Sample dilution factors have been correctly applied	NA	VTS	05/17/2017
10	AUTOCHECK: Blank checked for exceedance of criteria	YES *	VTS	05/17/2017
11	AUTOCHECK: Check blank spike recovery	YES *	VTS	05/17/2017
12	AUTOCHECK: Check blank spike/blank spike duplicate RPD. If exceeded include outliers in exception report.	NA *	VTS	05/17/2017
13	AUTOCHECK: Compounds in method designated as blank spike compounds are present	YES *	VTS	05/17/2017
14	AUTOCHECK: Check %RPD between sample and sample duplicate	NA *	VTS	05/17/2017
15	AUTOCHECK: Matrix spike recoveries within limits	NA *	VTS	05/17/2017
16	AUTOCHECK: Matrix spike/matrix spike duplicate RPD within limits	NA *	VTS	05/17/2017
17	AUTOCHECK: List of compounds listed as spiked are present	NA *	VTS	05/17/2017
18	AUTOCHECK: Check SRM limits for exceedance	NA *	VTS	05/17/2017
19	AUTOCHECK: Check Surrogate recoveries	YES *	VTS	05/17/2017
20	AUTOCHECK: Checks Surrogate spike list against Analysis	YES *	VTS	05/17/2017
21	Analyst checklist completed (PEER)	YES	MW	05/17/2017
22	Data is locked and Status is Analyzed (PEER)	YES	MW	05/17/2017
23	Data file, Calibration, Sequence, Batch, and Cleanup PDF's are attached (PEER)	YES	MW	05/17/2017
24	Color warnings have been addressed and (or) qualified (PEER)	YES	MW	05/17/2017
25	Qualifiers have been correctly added (PEER)	YES	MW	05/17/2017
26	Checklist completed and status is peer reviewed (REVIEWER)	NO	MW	05/17/2017
	Comments: <i>EXCEPTION REPORT REQUIRED</i>			
27	Dilutions are linear (50-200%) and appropriate (REVIEWER)	NA	MW	05/17/2017

* = Indicates Automated Response from Element DataSyst

Port Gamble Shellfish Monitoring

17E0012

<u>Analysis</u>	<u>Matrix</u>	<u>Method</u>
8270D-SIM PAH Low (0.01 ug/L - 0.5 ug/kg)	Tissue	EPA 8270D-SIM

Checklist: Analyst Checklist-SVOA

#	Checklist Item	Response	Analyst Initials	Date
28	All requested samples have been reported (REVIEWER)	YES	MW	05/17/2017
29	Color warnings have been addressed, narrated and (or) qualified (REVIEWER)	YES	MW	05/17/2017
30	List of samples in this sequence that will require additional runs-verify reshot created (ANALYST) Comments: <i>Sample 17D0421-03 was mis-injected. Rerun with next queue.</i>	YES	VTS	05/17/2017
31	List of samples in this sequence that are re-analysis or dilutions of samples (ANALYST)	NA	VTS	05/17/2017
32	Additional Notes (ANALYST, PEER, and REVIEWER)	NA	VTS	05/17/2017



ANALYSIS SEQUENCE

SFE0208

Instrument: NT11 Element Column ID: E006481
Calibration ID: AE00020 Tune File: 170505.U
EM Voltage: 2106

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	
SFE0208-TUN1	DFTPP	QC		1	E007446		
SFE0208-ICV1	Initial Cal Check	QC		2	E006577	F004122	
BFE0160-BLK1	Blank	QC		3		F004122	
BFE0160-BS1	LCS	QC		4		F004122	
17D0421-01	PG-GP-OYS-COC-170424	SIM PAH Low (0.01 ug/L - 0.	A 01	5		F004122	
17D0421-02	PG-GP-COC-COC-170424	SIM PAH Low (0.01 ug/L - 0.	A 01	6		F004122	
17D0421-04	PG-WS-OYS-COC-170424	SIM PAH Low (0.01 ug/L - 0.	A 01	7		F004122	
17D0421-05	PG-WS-COC-COC-170425	SIM PAH Low (0.01 ug/L - 0.	A 01	8		F004122	
17D0421-06	PG-WS-LTN-COC-170424	SIM PAH Low (0.01 ug/L - 0.	A 01	9		F004122	
17D0421-07	PG-WS-MAN-COC-170424	SIM PAH Low (0.01 ug/L - 0.	A 01	10		F004122	
17D0421-08	PG-SMA3-GEO-COC-170426	SIM PAH Low (0.01 ug/L - 0.	A 01	11		F004122	
17D0421-09	PG-SMA3-DUNM-COC-170426	SIM PAH Low (0.01 ug/L - 0.	A 01	12		F004122	
17D0421-10	PG-SMA3-DUNH-COC-170426	SIM PAH Low (0.01 ug/L - 0.	A 01	13		F004122	
17E0012-01	PG-PJ-OYS-COC-170427	SIM PAH Low (0.01 ug/L - 0.	A 01	14		F004122	
17E0012-02	PG-PJ-COC-COC-170427	SIM PAH Low (0.01 ug/L - 0.	A 01	15		F004122	
17E0012-03	PG-PJ-LTN-COC-170427	SIM PAH Low (0.01 ug/L - 0.	A 01	16		F004122	
17E0012-04	PG-PJ-MAN-COC-170427	SIM PAH Low (0.01 ug/L - 0.	A 01	17		F004122	
17E0012-05	PG-PJ-HC-COC-170428	SIM PAH Low (0.01 ug/L - 0.	A 01	18		F004122	
17E0012-06	PG-PJ-MUS-COC-170427	SIM PAH Low (0.01 ug/L - 0.	A 01	19		F004122	
SFE0208-CCV1	SIM PAH 250	QC		20	E006577	F004122	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170516.b

Time	Filename	LabID	ClientID	DF	1 NO ISTDs FOUND											
1	1027	N1117051601.D	SFE0208-TUN1		1	8.50	423503	11.53	166673	14.22	246299	18.98	183065	22.17	213687	
2	1047	N1117051602.D	SFE0208-ICV1		1	8.49	47653	11.53	173441	14.22	275907	18.98	182854	22.17	206286	
3	1135	N1117051603.D	BFE0160-BLK1		1	8.49	418761	11.53	168457	14.22	269247	18.98	178990	22.17	203014	
4	1211	N1117051604.D	BFE0160-RS1		1	8.48	438404	11.52	178201	14.22	271028	18.98	173174	22.17	237101	
5	1248	N1117051605.D	17D0421-01		1	8.49	437443	11.53	181755	14.22	283234	18.98	167446	22.17	208070	
6	1324	N1117051606.D	17D0421-02		1	8.48	436687	11.53	181820	14.22	276664	18.98	182183	22.17	244648	
7	1400	N1117051607.D	17D0421-03		1	8.48	436733	11.52	183301	14.22	296284	18.98	180048	22.17	222382	
8	1436	N1117051608.D	17D0421-04		1	8.48	441679	11.52	180539	14.22	283851	18.98	169084	22.17	210132	
9	1513	N1117051609.D	17D0421-05		1	8.48	456040	11.53	191367	14.22	296883	18.98	181253	22.17	232662	
10	1549	N1117051610.D	17D0421-06		1	8.48	453794	11.52	190580	14.22	292764	18.98	178528	22.17	234260	
11	1626	N1117051611.D	17D0421-07		1	8.48	457636	11.53	192940	14.22	297733	18.98	180124	22.17	227858	
12	1702	N1117051612.D	17D0421-08		1	8.48	464123	11.53	192309	14.22	301685	18.99	212715	22.17	275692	
13	1739	N1117051613.D	17D0421-09		1	8.49	479195	11.53	199541	14.22	317212	18.99	191337	22.17	238167	
14	1815	N1117051614.D	17D0421-10		1	8.48	455728	11.52	191818	14.22	301258	18.98	177172	22.17	219426	
15	1852	N1117051615.D	17E0012-01		1	8.48	489039	11.53	204981	14.22	323865	18.98	197796	22.17	248001	
16	1928	N1117051616.D	17E0012-02		1	8.49	468496	11.53	197318	14.22	315731	18.98	195629	22.17	243397	
17	2004	N1117051617.D	17E0012-03		1	8.48	467644	11.52	199402	14.22	309247	18.98	185414	22.17	232036	
18	2040	N1117051618.D	17E0012-04		1	8.48	476842	11.52	204374	14.22	322346	18.98	193848	22.16	236203	
19	2116	N1117051619.D	17E0012-05		1	8.48	476842	11.52	204374	14.22	322346	18.98	193848	22.16	236203	
20	2153	N1117051620.D	17E0012-06		1	8.48	476842	11.52	204374	14.22	322346	18.98	193848	22.16	236203	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170516.b

Time	Filename	LabID	ClientID	DF										
21	2229	N117051621.D	SFE0208-CCV1	1	8.50	460642	11.53	189329	14.22	292237	18.98	221244	22.16	264364

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170516.b

ARI Job No.: SFE0 Method: DFTPP.m Instrument: nt11.i Date: 16-MAY-2017

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
1027	N1117051601.D	SFE0208-TUN1		1	NO MANUAL INTEGRATION
1047	N1117051602.D	SFE0208-ICV1		1	NO MANUAL INTEGRATION
1135	N1117051603.D	BFE0160-BLK1		1	NO MANUAL INTEGRATION
1211	N1117051604.D	BFE0160-BS1		1	NO MANUAL INTEGRATION
1248	N1117051605.D	17D0421-01		1	Acenaphthene,
1324	N1117051606.D	17D0421-02		1	NO MANUAL INTEGRATION
1400	N1117051607.D	17D0421-03		1	NO MANUAL INTEGRATION
1436	N1117051608.D	17D0421-04		1	Acenaphthene, Acenaphthene-d10,
1513	N1117051609.D	17D0421-05		1	NO MANUAL INTEGRATION
1549	N1117051610.D	17D0421-06		1	NO MANUAL INTEGRATION
1626	N1117051611.D	17D0421-07		1	NO MANUAL INTEGRATION
1702	N1117051612.D	17D0421-08		1	NO MANUAL INTEGRATION
1739	N1117051613.D	17D0421-09		1	NO MANUAL INTEGRATION
1815	N1117051614.D	17D0421-10		1	Acenaphthylene, Acenaphthene,
1852	N1117051615.D	17E0012-01		1	Acenaphthene,
1928	N1117051616.D	17E0012-02		1	NO MANUAL INTEGRATION
2004	N1117051617.D	17E0012-03		1	NO MANUAL INTEGRATION

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170516.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2040	N1117051618.D	17E0012-04		1	NO MANUAL INTEGRATION
2116	N1117051619.D	17E0012-05		1	NO MANUAL INTEGRATION
2153	N1117051620.D	17E0012-06		1	NO MANUAL INTEGRATION
2229	N1117051621.D	SFE0208-CCV1		1	NO MANUAL INTEGRATION



ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 17E0012

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Sequence: SFE0059

Instrument: NT11

Calibration: AE00020

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
DFTPP	SFE0059-TUN1	17050501.D	Water	05/05/17 10:50
Cal Standard	SFE0059-CAL4	17050503.D	Water	05/05/17 11:47
Initial Cal Check	SFE0059-ICV1	17050503ICV.D	Water	05/05/17 11:47
Cal Standard	SFE0059-CAL6	17050504.D	Water	05/05/17 12:23
Cal Standard	SFE0059-CAL1	17050505.D	Water	05/05/17 12:59
Cal Standard	SFE0059-CAL5	17050506.D	Water	05/05/17 13:35
Cal Standard	SFE0059-CAL2	17050507.D	Water	05/05/17 14:11
Cal Standard	SFE0059-CAL3	17050508.D	Water	05/05/17 14:47
SIMPNA SCV	SFE0059-SCV1	17050509.D	Water	05/05/17 15:23
ZZZZZ	BFD0748-BLK1	17050510.D	Water	05/05/17 15:59
ZZZZZ	BFD0748-BS1	17050511.D	Water	05/05/17 16:36
ZZZZZ	BFD0748-MRL1	17050512.D	Water	05/05/17 17:12
ZZZZZ	BFD0748-MRL2	17050513.D	Water	05/05/17 17:47
ZZZZZ	17D0423-16	17050514.D	Water	05/05/17 18:24
ZZZZZ	17D0423-17	17050515.D	Water	05/05/17 19:00
ZZZZZ	17D0423-18	17050516.D	Water	05/05/17 19:37
ZZZZZ	BFE0047-BLK1	17050517.D	Water	05/05/17 20:13
ZZZZZ	BFE0047-BS1	17050518.D	Water	05/05/17 20:49
ZZZZZ	17D0446-01	17050519.D	Water	05/05/17 21:25
ZZZZZ	17D0446-02	17050520.D	Water	05/05/17 22:01
ZZZZZ	17D0446-03	17050521.D	Water	05/05/17 22:37
SIM PAH 250	SFE0059-CCV1	17050525.D	Water	05/06/17 01:01



ANALYSIS SEQUENCE

SFE0059

Instrument: NT11 Element Column ID: E006481
Calibration ID: AE00020 Tune File: 170505.U
EM Voltage: 2071

Lab Number	Sample Name	Analysis	Container	Order	STD ID	ISTD ID	
SFE0059-TUN1	DFTPP	QC		1	E007446		
SFE0059-CAL4	Cal Standard	QC		2	E006577	F004122	
SFE0059-CAL6	Cal Standard	QC		3	E006579	F004122	
SFE0059-CAL1	Cal Standard	QC		4	E006574	F004122	
SFE0059-CAL5	Cal Standard	QC		5	E006578	F004122	
SFE0059-CAL2	Cal Standard	QC		6	E006575	F004122	
SFE0059-CAL3	Cal Standard	QC		7	E006576	F004122	
SFE0059-SCV1	SIMPNA SCV	QC		8	F004123	F004122	
SFE0059-ICV1	Initial Cal Check	QC		9	E006577	F004122	
BFD0748-BLK1	Blank	QC		10		F004122	
BFD0748-BS1	LCS	QC		11		F004122	
BFD0748-MRL1	MRL	QC		12		F004122	
BFD0748-MRL2	LOD	QC		13		F004122	
17D0423-16	MW-9S-042617	SIM PAH Low (0.01 ug/L - 0.	D 01	14		F004122	
17D0423-17	MW-9D-042617	SIM PAH Low (0.01 ug/L - 0.	D 01	15		F004122	
17D0423-18	MW-16S-042617	SIM PAH Low (0.01 ug/L - 0.	D 01	16		F004122	
BFE0047-BLK1	Blank	QC		17		F004122	
BFE0047-BS1	LCS	QC		18		F004122	
17D0446-01	MAF-MW-BG-01-20170426	SIM PAH Low (0.01 ug/L - 0.	E 01	19		F004122	
17D0446-02	MAF-MW-P-01-20170426	SIM PAH Low (0.01 ug/L - 0.	E 01	20		F004122	
17D0446-03	MAF-MW-P-02-20170427	SIM PAH Low (0.01 ug/L - 0.	E 01	21		F004122	
SFE0059-CCV1	SIM PAH 250	QC		22	E006577	F004122	

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170505.b

Time	Filename	LabID	ClientId	DF	1	INO	ISTDS	FOUND							
1	1050	17050501.D	SFE0059-TUN1		1	INO	ISTDS	FOUND							
2	1110	17050502.D	E002858		1	8.50	340246	11.54	150664	14.23	261399	18.99	200906	22.18	222794
3	1147	17050503.D	SFE0059-CAL4		1	8.50	371325	11.54	154428	14.23	256956	18.99	208629	22.18	225431
4	1147	17050503ICV.D	SFE0059-CAL4		1	8.50	371325	11.54	154428	14.23	256956	18.99	208629	22.18	225431
5	1223	17050504.D	SFE0059-CAL6		1	8.50	371198	11.54	162579	14.23	285659	18.99	210433	22.18	228317
6	1259	17050505.D	SFE0059-CAL1		1	8.50	362430	11.54	142581	14.23	236545	18.99	197257	22.18	213968
7	1335	17050506.D	SFE0059-CAL5		1	8.50	361073	11.54	156339	14.23	261454	18.99	200348	22.18	216363
8	1411	17050507.D	SFE0059-CAL2		1	8.50	358455	11.54	145440	14.23	240109	18.99	202079	22.18	214583
9	1447	17050508.D	SFE0059-CAL3		1	8.50	353401	11.54	145861	14.23	238193	18.99	190128	22.18	206951
10	1523	17050509.D	SFE0059-SCV1		1	8.50	353470	11.54	145863	14.23	234202	18.99	189686	22.18	205114
11	1559	17050510.D	BFD0748-BLK1		1	8.50	364557	11.54	148171	14.23	246765	18.99	186603	22.18	207414
12	1636	17050511.D	BFD0748-BS1		1	8.50	365532	11.53	155718	14.23	252417	18.99	193816	22.18	211193
13	1712	17050512.D	BFD0748-MRL1		1	8.50	357350	11.54	145354	14.23	240503	18.99	183698	22.18	200322
14	1747	17050513.D	BFD0748-MRL2		1	8.50	350679	11.54	143948	14.23	232075	18.99	177031	22.18	192510
15	1824	17050514.D	17D0423-16		1	8.50	387471	11.54	166801	14.23	289100	18.99	204827	22.18	235384
16	1900	17050515.D	17D0423-17		1	8.50	413815	11.54	176102	14.23	305918	18.99	209895	22.18	234789
17	1937	17050516.D	17D0423-18		1	8.50	403371	11.54	206745	14.23	310361	18.99	214026	22.18	234242
18	2013	17050517.D	BFE0047-BLK1		1	8.50	370404	11.54	153131	14.23	252409	18.99	195024	22.18	215991
19	2049	17050518.D	BFE0047-BS1		1	8.50	360144	11.53	157816	14.22	252225	18.99	197830	22.18	212024
20	2125	17050519.D	17D0446-01		1	8.50	357142	11.53	148433	14.23	244374	18.99	186556	22.18	203965

INTERNAL STANDARD SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170505.b

Time	Filename	LabID	ClientID	DF										
21	17050520.D	17D0446-02		1	8.50	357524	11.53	152177	14.22	242039	18.99	185139	22.18	203351
22	17050521.D	17D0446-03		1	8.50	355615	11.53	153966	14.23	245258	18.99	184548	22.18	200894
23	17050522.D	17D0446-04		1	8.50	362660	11.53	155980	14.23	248223	18.99	188543	22.18	206338
24	17050523.D	17D0446-05		1	8.50	385285	11.53	161144	14.22	261837	18.99	190982	22.17	209035
25	17050524.D	17D0446-06		1	8.50	363805	11.53	156031	14.22	249360	18.99	185091	22.17	201965
26	17050525.D	SFE0059-CCV1		1	8.50	371666	11.53	155991	14.22	252744	18.99	203647	22.17	218913

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170505.b

ARI Job No.: SFE0 Method: DFPP.m Instrument: nt11.i Date: 05-MAY-2017

Time Filename LabID ClientId DF Manually Integrated Compounds

1050	17050501.D	SFE0059-TUN1		1	NO MANUAL INTEGRATION
1110	17050502.D	E002858		1	NO MANUAL INTEGRATION
1147	17050503.D	SFE0059-CAL4		1	NO MANUAL INTEGRATION
1147	17050503ICV.D	SFE0059-CAL4		1	NO MANUAL INTEGRATION
1223	17050504.D	SFE0059-CAL6		1	NO MANUAL INTEGRATION
1259	17050505.D	SFE0059-CAL1		1	2-Chloronaphthalene, 2,3,5-Trimethylnaphthalene, Anthracene-d10, Fluorene-d10,
1335	17050506.D	SFE0059-CAL5		1	NO MANUAL INTEGRATION
1411	17050507.D	SFE0059-CAL2		1	Biphenyl,
1447	17050508.D	SFE0059-CAL3		1	NO MANUAL INTEGRATION
1523	17050509.D	SFE0059-SCV1		1	NO MANUAL INTEGRATION
1559	17050510.D	BFD0748-BLK1		1	NO MANUAL INTEGRATION
1636	17050511.D	BFD0748-BS1		1	NO MANUAL INTEGRATION
1712	17050512.D	BFD0748-MRL1		1	Benzo(e)pyrene, 2,3,5-Trimethylnaphthalene,
1747	17050513.D	BFD0748-MRL2		1	Naphthalene, Benzo(e)pyrene, Benzo(b)thiophene, 2-Chloronaphthalene, 2,6-Dimethylnaphthalene, 2,3,5-Trimethylnaphthalene, 1-Methylphenanthrene, Dibenzothiophene, Carbazole,
1824	17050514.D	17D0423-16		1	Acenaphthylene, Benzo(a)anthracene, Acenaphthene-d10, 2-Chloronaphthalene, 2,3,5-Trimethylnaphthalene,
1906	17050515.D	17D0423-17		1	Acenaphthylene, Acenaphthene-d10, 2-Chloronaphthalene, 2,3,5-Trimethylnaphthalene,
1932	17050516.D	17D0423-18		1	Acenaphthylene, 1-Methylnaphthalene, 2,3,5-Trimethylnaphthalene,

MANUAL INTEGRATION SUMMARY FOR DATABATCH - \\target\share\chem3\nt11.i\20170505.b

Time	Filename	LabID	ClientId	DF	Manually Integrated Compounds
2013	17050517.D	BFE0047-BLK1	1	NO	NO MANUAL INTEGRATION
2049	17050518.D	BFE0047-BS1	1	NO	NO MANUAL INTEGRATION
2125	17050519.D	17D0446-01	1	NO	NO MANUAL INTEGRATION
2201	17050520.D	17D0446-02	1	NO	NO MANUAL INTEGRATION
2237	17050521.D	17D0446-03	1	NO	NO MANUAL INTEGRATION
2313	17050522.D	17D0446-04	1	NO	NO MANUAL INTEGRATION
2349	17050523.D	17D0446-05	1	NO	NO MANUAL INTEGRATION
0025	17050524.D	17D0446-06	1	Acenaphthene,	
0101	17050525.D	SFE0059-CCV1	1	NO	NO MANUAL INTEGRATION



SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG/WO:	<u>17E0012</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Port Gamble Shellfish Monitoring</u>
Sequence:	<u>SFE0059</u>	Instrument:	<u>NT11</u>
Calibration:	<u>AE00020</u>	Calibration Date:	<u>05/05/2017</u>

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SFE0059-ICV1 (Water)		Lab File ID: 17050503ICV.D				Analyzed: 05/05/17 11:47		
2-Methylnaphthalene-d10	250.00	100	80 - 120	9.477	9.478667	-0.0017	N/A	
Dibenzo[a,h]anthracene-d14	250.00	99.6	80 - 120	25.027	25.027	0.0000	N/A	
Fluoranthene-d10	250.00	103	80 - 120	16.338	16.338	0.0000	N/A	



SURROGATE RECOVERY AND RT SUMMARY
EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.
Client: Anchor QEA, LLC
Sequence: SFE0208
Calibration: AE00020

SDG/WO: 17E0012
Project: Port Gamble Shellfish Monitoring
Instrument: NT11
Calibration Date: 05/05/2017

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
SFE0208-ICV1 (Tissue) Lab File ID: N1117051602.D Analyzed: 05/16/17 10:47								
2-Methylnaphthalene-d10	250.00	94.0	80 - 120	9.477	9.478667	-0.0017	N/A	
Dibenzo[a,h]anthracene-d14	250.00	92.0	80 - 120	25.016	25.027	-0.0110	N/A	
Fluoranthene-d10	250.00	100	80 - 120	16.338	16.338	0.0000	N/A	
BFE0160-BLK1 (Tissue) Lab File ID: N1117051603.D Analyzed: 05/16/17 11:35								
2-Methylnaphthalene-d10	15.000	52.7	30 - 160	9.467	9.478667	-0.0117	N/A	
Dibenzo[a,h]anthracene-d14	15.000	72.8	30 - 160	25.016	25.027	-0.0110	N/A	
Fluoranthene-d10	15.000	77.7	30 - 160	16.339	16.338	0.0010	N/A	
BFE0160-BS1 (Tissue) Lab File ID: N1117051604.D Analyzed: 05/16/17 12:11								
2-Methylnaphthalene-d10	15.000	50.7	30 - 160	9.477	9.478667	-0.0017	N/A	
Dibenzo[a,h]anthracene-d14	15.000	74.8	30 - 160	25.005	25.027	-0.0220	N/A	
Fluoranthene-d10	15.000	77.1	30 - 160	16.329	16.338	-0.0090	N/A	
17E0012-01 (Tissue) Lab File ID: N1117051615.D Analyzed: 05/16/17 18:52								
2-Methylnaphthalene-d10	14.634	58.0	30 - 160	9.477	9.478667	-0.0017	N/A	
Dibenzo[a,h]anthracene-d14	14.634	77.8	30 - 160	25.016	25.027	-0.0110	N/A	
Fluoranthene-d10	14.634	72.2	30 - 160	16.338	16.338	0.0000	N/A	
17E0012-02 (Tissue) Lab File ID: N1117051616.D Analyzed: 05/16/17 19:28								
2-Methylnaphthalene-d10	14.549	56.4	30 - 160	9.466	9.478667	-0.0127	N/A	
Dibenzo[a,h]anthracene-d14	14.549	71.0	30 - 160	25.016	25.027	-0.0110	N/A	
Fluoranthene-d10	14.549	72.6	30 - 160	16.338	16.338	0.0000	N/A	
17E0012-03 (Tissue) Lab File ID: N1117051617.D Analyzed: 05/16/17 20:04								
2-Methylnaphthalene-d10	14.925	59.1	30 - 160	9.466	9.478667	-0.0127	N/A	
Dibenzo[a,h]anthracene-d14	14.925	79.1	30 - 160	25.005	25.027	-0.0220	N/A	
Fluoranthene-d10	14.925	76.1	30 - 160	16.338	16.338	0.0000	N/A	
17E0012-04 (Tissue) Lab File ID: N1117051618.D Analyzed: 05/16/17 20:40								
2-Methylnaphthalene-d10	14.648	55.3	30 - 160	9.466	9.478667	-0.0127	N/A	
Dibenzo[a,h]anthracene-d14	14.648	71.2	30 - 160	25.005	25.027	-0.0220	N/A	
Fluoranthene-d10	14.648	69.3	30 - 160	16.329	16.338	-0.0090	N/A	



SURROGATE RECOVERY AND RT SUMMARY

EPA 8270D-SIM

Laboratory: <u>Analytical Resources, Inc.</u>	SDG/WO: <u>17E0012</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Port Gamble Shellfish Monitoring</u>
Sequence: <u>SFE0208</u>	Instrument: <u>NT11</u>
Calibration: <u>AE00020</u>	Calibration Date: <u>05/05/2017</u>

Surrogate Compound	Spike Level ug/kg	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
17E0012-05 (Tissue)		Lab File ID: N1117051619.D				Analyzed: 05/16/17 21:16		
2-Methylnaphthalene-d10	14.808	59.7	30 - 160	9.466	9.478667	-0.0127	N/A	
Dibenzo[a,h]anthracene-d14	14.808	74.5	30 - 160	25.005	25.027	-0.0220	N/A	
Fluoranthene-d10	14.808	73.4	30 - 160	16.329	16.338	-0.0090	N/A	
17E0012-06 (Tissue)		Lab File ID: N1117051620.D				Analyzed: 05/16/17 21:53		
2-Methylnaphthalene-d10	14.925	58.0	30 - 160	9.466	9.478667	-0.0127	N/A	
Dibenzo[a,h]anthracene-d14	14.925	71.5	30 - 160	25.005	25.027	-0.0220	N/A	
Fluoranthene-d10	14.925	72.2	30 - 160	16.329	16.338	-0.0090	N/A	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 17E0012

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Sequence: SFE0059

Instrument: NT11

Calibration: AE00020

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SFE0059-ICV1)		(Water)	Lab File ID: 17050503ICV.D			Analyzed: 05/05/17 11:47			
Naphthalene-d8	371325	8.499	371325	8.499	100	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	154428	11.537	154428	11.537	100	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	256956	14.23	256956	14.23	100	50 - 200	0.0000	+/-0.50	
Chrysene-d12	208629	18.991	208629	18.991	100	50 - 200	0.0000	+/-0.50	
Perylene-d12	225431	22.182	225431	22.182	100	50 - 200	0.0000	+/-0.50	
Secondary Cal Check (SFE0059-SCV1)		(Water)	Lab File ID: 17050509.D			Analyzed: 05/05/17 15:23			
Naphthalene-d8	353470	8.499	371325	8.499	95	50 - 200	0.0000	+/-0.50	
Acenaphthene-d10	145863	11.537	154428	11.537	94	50 - 200	0.0000	+/-0.50	
Phenanthrene-d10	234202	14.23	256956	14.23	91	50 - 200	0.0000	+/-0.50	
Chrysene-d12	189686	18.991	208629	18.991	91	50 - 200	0.0000	+/-0.50	
Perylene-d12	205114	22.183	225431	22.182	91	50 - 200	-0.0010	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 17E0012

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Sequence: SFE0208

Instrument: NT11

Calibration: AE00020

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
Initial Cal Check (SFE0208-ICV1)		(Tissue)	Lab File ID: N1117051602.D			Analyzed: 05/16/17 10:47			
Naphthalene-d8	423503	8.5	371325	8.499	114	50 - 200	-0.0010	+/-0.50	
Acenaphthene-d10	166673	11.528	154428	11.537	108	50 - 200	0.0090	+/-0.50	
Phenanthrene-d10	246299	14.22	256956	14.23	96	50 - 200	0.0100	+/-0.50	
Chrysene-d12	183065	18.983	208629	18.991	88	50 - 200	0.0080	+/-0.50	
Perylene-d12	213687	22.173	225431	22.182	95	50 - 200	0.0090	+/-0.50	
Blank (BFE0160-BLK1)		(Tissue)	Lab File ID: N1117051603.D			Analyzed: 05/16/17 11:35			
Naphthalene-d8	447653	8.491	371325	8.499	121	50 - 200	0.0080	+/-0.50	
Acenaphthene-d10	173441	11.528	154428	11.537	112	50 - 200	0.0090	+/-0.50	
Phenanthrene-d10	275907	14.22	256956	14.23	107	50 - 200	0.0100	+/-0.50	
Chrysene-d12	182854	18.983	208629	18.991	88	50 - 200	0.0080	+/-0.50	
Perylene-d12	206286	22.173	225431	22.182	92	50 - 200	0.0090	+/-0.50	
LCS (BFE0160-BS1)		(Tissue)	Lab File ID: N1117051604.D			Analyzed: 05/16/17 12:11			
Naphthalene-d8	418761	8.491	371325	8.499	113	50 - 200	0.0080	+/-0.50	
Acenaphthene-d10	168457	11.528	154428	11.537	109	50 - 200	0.0090	+/-0.50	
Phenanthrene-d10	269247	14.22	256956	14.23	105	50 - 200	0.0100	+/-0.50	
Chrysene-d12	178990	18.983	208629	18.991	86	50 - 200	0.0080	+/-0.50	
Perylene-d12	203014	22.173	225431	22.182	90	50 - 200	0.0090	+/-0.50	
PG-PJ-OYS-COC-170427 (17E0012-01)		(Tissue)	Lab File ID: N1117051615.D			Analyzed: 05/16/17 18:52			
Naphthalene-d8	479195	8.491	371325	8.499	129	50 - 200	0.0080	+/-0.50	
Acenaphthene-d10	199541	11.528	154428	11.537	129	50 - 200	0.0090	+/-0.50	
Phenanthrene-d10	317212	14.22	256956	14.23	123	50 - 200	0.0100	+/-0.50	
Chrysene-d12	191337	18.991	208629	18.991	92	50 - 200	0.0000	+/-0.50	
Perylene-d12	238167	22.173	225431	22.182	106	50 - 200	0.0090	+/-0.50	
PG-PJ-COC-COC-170427 (17E0012-02)		(Tissue)	Lab File ID: N1117051616.D			Analyzed: 05/16/17 19:28			
Naphthalene-d8	455728	8.481	371325	8.499	123	50 - 200	0.0180	+/-0.50	
Acenaphthene-d10	191818	11.519	154428	11.537	124	50 - 200	0.0180	+/-0.50	
Phenanthrene-d10	301258	14.22	256956	14.23	117	50 - 200	0.0100	+/-0.50	
Chrysene-d12	177172	18.983	208629	18.991	85	50 - 200	0.0080	+/-0.50	
Perylene-d12	219426	22.173	225431	22.182	97	50 - 200	0.0090	+/-0.50	



INTERNAL STANDARD AREA AND RT SUMMARY
EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 17E0012

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Sequence: SFE0208

Instrument: NT11

Calibration: AE00020

Internal Standard	Response	RT	Reference Response	Reference RT	Area %	Area % Limits	RT Diff	RT Diff Limit	Q
PG-PJ-LTN-COC-170427 (17E0012-03)		(Tissue)	Lab File ID: N1117051617.D			Analyzed: 05/16/17 20:04			
Naphthalene-d8	489039	8.481	371325	8.499	132	50 - 200	0.0180	+/-0.50	
Acenaphthene-d10	204981	11.528	154428	11.537	133	50 - 200	0.0090	+/-0.50	
Phenanthrene-d10	323865	14.22	256956	14.23	126	50 - 200	0.0100	+/-0.50	
Chrysene-d12	197796	18.983	208629	18.991	95	50 - 200	0.0080	+/-0.50	
Perylene-d12	248001	22.173	225431	22.182	110	50 - 200	0.0090	+/-0.50	
PG-PJ-MAN-COC-170427 (17E0012-04)		(Tissue)	Lab File ID: N1117051618.D			Analyzed: 05/16/17 20:40			
Naphthalene-d8	468496	8.49	371325	8.499	126	50 - 200	0.0090	+/-0.50	
Acenaphthene-d10	197318	11.528	154428	11.537	128	50 - 200	0.0090	+/-0.50	
Phenanthrene-d10	315731	14.22	256956	14.23	123	50 - 200	0.0100	+/-0.50	
Chrysene-d12	195629	18.983	208629	18.991	94	50 - 200	0.0080	+/-0.50	
Perylene-d12	243397	22.173	225431	22.182	108	50 - 200	0.0090	+/-0.50	
PG-PJ-HC-COC-170428 (17E0012-05)		(Tissue)	Lab File ID: N1117051619.D			Analyzed: 05/16/17 21:16			
Naphthalene-d8	467644	8.481	371325	8.499	126	50 - 200	0.0180	+/-0.50	
Acenaphthene-d10	199402	11.519	154428	11.537	129	50 - 200	0.0180	+/-0.50	
Phenanthrene-d10	309247	14.22	256956	14.23	120	50 - 200	0.0100	+/-0.50	
Chrysene-d12	185414	18.983	208629	18.991	89	50 - 200	0.0080	+/-0.50	
Perylene-d12	232036	22.173	225431	22.182	103	50 - 200	0.0090	+/-0.50	
PG-PJ-MUS-COC-170427 (17E0012-06)		(Tissue)	Lab File ID: N1117051620.D			Analyzed: 05/16/17 21:53			
Naphthalene-d8	476842	8.481	371325	8.499	128	50 - 200	0.0180	+/-0.50	
Acenaphthene-d10	204374	11.519	154428	11.537	132	50 - 200	0.0180	+/-0.50	
Phenanthrene-d10	322346	14.22	256956	14.23	125	50 - 200	0.0100	+/-0.50	
Chrysene-d12	193848	18.983	208629	18.991	93	50 - 200	0.0080	+/-0.50	
Perylene-d12	236203	22.163	225431	22.182	105	50 - 200	0.0190	+/-0.50	



HOLDING TIME SUMMARY

Analysis: EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 17E0012

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Sample Name	Date Collected	Date Received	Date Prepared	Days to Prep	Max Days to Prep	Date Analyzed	Days to Analysis	Max Days to Analysis	Q
PG-PJ-OYS-COC-170427 17E0012-01	04/27/17 13:00	04/29/17 10:00	05/09/17 13:50	12	365	05/16/17 18:52	7	40	
PG-PJ-COC-COC-170427 17E0012-02	04/27/17 12:45	04/29/17 10:00	05/09/17 13:50	12	365	05/16/17 19:28	7	40	
PG-PJ-LTN-COC-170427 17E0012-03	04/27/17 13:30	04/29/17 10:00	05/09/17 13:50	12	365	05/16/17 20:04	7	40	
PG-PJ-MAN-COC-170427 17E0012-04	04/27/17 12:00	04/29/17 10:00	05/09/17 13:50	12	365	05/16/17 20:40	7	40	
PG-PJ-HC-COC-170428 17E0012-05	04/28/17 13:30	04/29/17 10:00	05/09/17 13:50	11	365	05/16/17 21:16	7	40	
PG-PJ-MUS-COC-170427 17E0012-06	04/27/17 12:30	04/29/17 10:00	05/09/17 13:50	12	365	05/16/17 21:53	7	40	

* Indicates hold time exceedance.



METHOD DETECTION AND REPORTING LIMITS

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 17E0012

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Matrix: Tissue

Instrument: NT11

Analyte	MDL	RL	Units
Naphthalene	0.50	0.60	ug/kg
2-Methylnaphthalene	0.50	0.50	ug/kg
Acenaphthylene	0.50	0.50	ug/kg
Acenaphthene	0.50	0.50	ug/kg
Fluorene	0.50	0.50	ug/kg
Phenanthrene	0.50	0.50	ug/kg
Anthracene	0.50	0.50	ug/kg
Fluoranthene	0.50	0.50	ug/kg
Pyrene	0.50	0.50	ug/kg
Benzo(a)anthracene	0.50	0.50	ug/kg
Chrysene	0.50	0.50	ug/kg
Benzo(b)fluoranthene	0.50	0.50	ug/kg
Benzo(k)fluoranthene	0.50	0.50	ug/kg
Benzo(e)pyrene	0.50	0.50	ug/kg
Benzo(a)pyrene	0.50	0.50	ug/kg
Indeno(1,2,3-cd)pyrene	0.50	0.50	ug/kg
Dibenzo(a,h)anthracene	0.50	0.50	ug/kg
Benzo(g,h,i)perylene	0.50	0.50	ug/kg
Perylene	0.50	0.50	ug/kg



METHOD DETECTION AND REPORTING LIMITS

EPA 8270D-SIM

Laboratory: Analytical Resources, Inc.

SDG: 17E0012

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Matrix: Water

Instrument: NT11

Analyte	MDL	RL	Units
Naphthalene	0.001	0.010	ug/L
2-Methylnaphthalene	0.001	0.010	ug/L
1-Methylnaphthalene	0.0009	0.010	ug/L
2-Chloronaphthalene	0.001	0.010	ug/L
Acenaphthylene	0.002	0.010	ug/L
Acenaphthene	0.003	0.010	ug/L
Dibenzofuran	0.002	0.010	ug/L
Fluorene	0.002	0.010	ug/L
Phenanthrene	0.001	0.010	ug/L
Anthracene	0.001	0.010	ug/L
Carbazole	0.001	0.010	ug/L
Fluoranthene	0.002	0.010	ug/L
Pyrene	0.001	0.010	ug/L
Benzo(a)anthracene	0.0008	0.010	ug/L
Chrysene	0.0009	0.010	ug/L
Benzo(b)fluoranthene	0.0005	0.010	ug/L
Benzo(k)fluoranthene	0.003	0.010	ug/L
Benzo(j)fluoranthene	0.002	0.010	ug/L
Benzo(a)fluoranthene, Total	0.004	0.010	ug/L
Benzo(a)pyrene	0.002	0.010	ug/L
Perylene	0.006	0.010	ug/L
Indeno(1,2,3-cd)pyrene	0.001	0.010	ug/L
Dibenzo(a,h)anthracene	0.001	0.010	ug/L
Benzo(g,h,i)perylene	0.001	0.010	ug/L



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

Laboratory: Analytical Resources, Inc. SDG: 17E0012
 Client: Anchor QEA, LLC
 Project: Port Gamble Shellfish Monitoring
 Matrix: Tissue Laboratory ID: 17E0012-01 File ID: 17052218
 Sampled: 04/27/17 13:00 Prepared: 05/09/17 16:05 Analyzed: 05/23/17 00:42
 Solids Wt%: Preparation: EPA 1613 Initial/Final: 10.02 g / 20 uL
 Result Basis: Dry Sequence: SFE0219 Calibration: AE00055
 Batch: BFE0233 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.675	0.655-0.886		0.998	0.202	ng/kg	J, B
1746-01-6	2,3,7,8-TCDD	1	0.159	0.655-0.886		0.998	0.164	ng/kg	EMPC, J, B
57117-41-6	1,2,3,7,8-PeCDF	1	0.979	1.318-1.783		4.99	0.076	ng/kg	EMPC, J, B
57117-31-4	2,3,4,7,8-PeCDF	1	0.000	1.318-1.783	0.044	4.99	ND	ng/kg	U
40321-76-4	1,2,3,7,8-PeCDD	1	0.700	1.318-1.783		4.99	0.102	ng/kg	EMPC, J, B
70648-26-9	1,2,3,4,7,8-HxCDF	1	0.665	1.054-1.426		4.99	0.046	ng/kg	EMPC, J, B
57117-44-9	1,2,3,6,7,8-HxCDF	1	0.711	1.054-1.426		4.99	0.080	ng/kg	EMPC, J, B
60851-34-5	2,3,4,6,7,8-HxCDF	1	0.629	1.054-1.426		4.99	0.060	ng/kg	EMPC, J, B
72918-21-9	1,2,3,7,8,9-HxCDF	1	0.544	1.054-1.426		4.99	0.107	ng/kg	EMPC, J, B
39227-28-6	1,2,3,4,7,8-HxCDD	1	0.000	1.054-1.426	0.062	4.99	ND	ng/kg	U
57653-85-7	1,2,3,6,7,8-HxCDD	1	0.965	1.054-1.426		4.99	0.092	ng/kg	EMPC, J, B
19408-74-3	1,2,3,7,8,9-HxCDD	1	1.345	1.054-1.426		4.99	0.111	ng/kg	J
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	1.205	0.893-1.208		4.99	0.141	ng/kg	J, B
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	0.000	0.893-1.208	0.085	4.99	ND	ng/kg	U
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	1.231	0.893-1.208		4.99	0.435	ng/kg	EMPC, J, B
39001-02-0	OCDF	1	0.661	0.757-1.024		9.98	0.280	ng/kg	EMPC, J, B
3268-87-9	OCDD	1	0.892	0.757-1.024		9.98	2.91	ng/kg	J, B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			0.998	2.13	ng/kg
41903-57-5	Total TCDD	1	0.000			0.998	0.942	ng/kg
30402-15-4	Total PeCDF	1	0.000			0.998	1.20	ng/kg
36088-22-9	Total PeCDD	1	0.000			0.998	0.593	ng/kg
55684-94-1	Total HxCDF	1	0.000			0.998	0.510	ng/kg
34465-46-8	Total HxCDD	1	0.000			0.998	0.768	ng/kg
38998-75-3	Total HpCDF	1	0.000			0.998	0.256	ng/kg
37871-00-4	Total HpCDD	1	0.000			0.998	1.58	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.345
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.345



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

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>17E0012</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Port Gamble Shellfish Monitoring</u>
Matrix:	<u>Tissue</u>	Laboratory ID:	<u>17E0012-01</u>
Sampled:	<u>04/27/17 13:00</u>	Prepared:	<u>05/09/17 16:05</u>
Solids Wt%:		Preparation:	<u>EPA 1613</u>
Result Basis:	<u>Dry</u>	Sequence:	<u>SFE0219</u>
Batch:	<u>BFE0233</u>	Instrument:	<u>AUTOSPEC01</u>
		File ID:	<u>17052218</u>
		Analyzed:	<u>05/23/17 00:42</u>
		Initial/Final:	<u>10.02 g / 20 uL</u>
		Calibration:	<u>AE00055</u>
		Column:	<u>RTX-Dioxin2</u>

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF		0.788	0.655-0.886		61.6	24 - 169 %	
13C12-2,3,7,8-TCDD		0.782	0.655-0.886		61.7	25 - 164 %	
13C12-1,2,3,7,8-PeCDF		1.597	1.318-1.783		53.4	24 - 185 %	
13C12-2,3,4,7,8-PeCDF		1.590	1.318-1.783		55.3	21 - 178 %	
13C12-1,2,3,7,8-PeCDD		1.643	1.318-1.783		55.9	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF		0.527	0.434-0.587		56.1	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF		0.523	0.434-0.587		52.0	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF		0.520	0.434-0.587		56.9	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF		0.530	0.434-0.587		54.9	29 - 147 %	
13C12-1,2,3,4,7,8-HxCDD		1.298	1.054-1.426		57.0	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD		1.246	1.054-1.426		57.2	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF		0.461	0.374-0.506		50.7	28 - 143 %	
13C12-1,2,3,4,7,8,9-HpCDF		0.446	0.374-0.506		53.4	26 - 138 %	
13C12-1,2,3,4,6,7,8-HpCDD		1.071	0.893-1.208		57.5	23 - 140 %	
13C12-OCDD		0.928	0.757-1.024		53.2	17 - 157 %	
37C14-2,3,7,8-TCDD		328.000			92.8	35 - 197 %	

* Values outside of QC limits

Quantify Sample Summary Report MassLynx MassLynx V4.1 SCN909

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:08 Pacific Daylight Time

Method: C:\MassLynx\Dioxin.pro\MethDB\DiDioxin170518.mdb 18 May 2017 15:01:42
Calibration: C:\MassLynx\Dioxin.pro\CurveDB\170518CIH.cdb 19 May 2017 13:57:26

ID: 17E0012-01, Name: 17052218, Date: 23-May-2017, Time: 00:42:26, Conditions: AUTOSPEC01, User: PK

Table with columns: Compound, RT, RRT, Ion1Area, Ion2Area, RRF, Ratio, Pred R, Noise 1, Noise 2, Height 1, Height 2, S/N, SNFlag, EMPC, Int.1, Int.2, pg. Rows include various compounds like 2378-TCDF, 12378-PeCDF, 23478-PeCDF, etc.

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

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
 Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
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ID: 17E0012-01, Name: 17052218, Date: 23-May-2017, Time: 00:42:26, Conditions: AUTOSPEC01, User: PK

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
Total-penta1			1.586e3					695		1.96e4							0.103
Total-pentafurans			7.001e3		0.998			1832		9.74e4							0.496
Total-hexafurans			2.088e3		1.138			719		3.58e4							0.255
Total-heptafurans			1.022e3		1.248			1206		2.03e4							0.128
Total-Furans			2.665e4		1.138			1527		3.78e5							2.207
Total-tetradioxins			3.785e3		1.244			876		5.92e4							0.472
Total-pentadioxins			2.769e3		1.058			1204		4.25e4							0.297
Total-hexadioxins			3.042e3		1.047			943		5.13e4							0.385
Total-heptadioxins			4.782e3		1.132			761		6.73e4							0.791
Total-Dioxins			2.020e4		1.099			876		2.87e5							3.401
Total-TEQ			4.685e4					876		6.65e5							5.608
37CL-2378-TCDD	26.631	1.032	1.143e6		1.021			759		1.61e7		21180.8	YES		bb		37.132
FUNCTION1 PFK			6.510e6					513880		7.31e7							
FUNCTION2 PFK			0.000e0					112931		0.00e0							0.000
FUNCTION3 PFK			6.153e6					517858		6.51e7							
FUNCTION4 PFK			8.997e6					219967		7.40e7							
FUNCTION5 PFK			4.592e5					166220		9.22e5							
FUNCTION1 HXCD...			4.594e4					846		6.13e5							0.000
FUNCTION1 HPCD...			1.763e3					332		2.79e4							0.000
FUNCTION2 HPCD...			0.000e0					419		0.00e0							
FUNCTION3 OCDPE			7.304e1					685		1.45e3							0.000
FUNCTION4 NCDPE			1.445e3					415		2.11e4							0.000
FUNCTION5 DCDPE			0.000e0					223		0.00e0							

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Method: C:\MassLynx\Dioxin.pro\MethDB\Dioxin170518.mdb 18 May 2017 15:01:42
 Calibration: C:\MassLynx\Dioxin.pro\CurveDB\170518CIH.cdb 19 May 2017 13:57:26

ID: 17E0012-01, Name: 17052218, Date: 23-May-2017, Time: 00:42:26, Conditions: AUTOSPEC01, User: PK

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.67	9.057e2	9.256e2	1.018	0.98	0.77	5.6	YES	YES	dd	dd	0.057
2	Total-tetrafurans	24.23	6.720e2	1.205e3	1.018	0.56	0.77	6.7	YES	YES	db	db	0.059
3	Total-tetrafurans	24.12	5.409e2	5.537e2	1.018	0.98	0.77	4.2	YES	YES	dd	dd	0.034
4	Total-tetrafurans	24.00	6.205e2	8.471e2	1.018	0.73	0.77	6.6	YES	NO	dd	dd	0.046
5	Total-tetrafurans	23.84	4.461e2	8.433e2	1.018	0.53	0.77	4.0	YES	YES	dd	dd	0.040
6	Total-tetrafurans	23.75	7.019e2	8.221e2	1.018	0.85	0.77	5.5	YES	NO	dd	dd	0.048
7	Total-tetrafurans	23.63	7.726e2	1.215e3	1.018	0.64	0.77	5.3	YES	YES	dd	dd	0.062
8	Total-tetrafurans	23.52	7.107e2	1.435e3	1.018	0.50	0.77	4.9	YES	YES	dd	MM	0.067
9	Total-tetrafurans	23.34	1.492e3	2.331e3	1.018	0.64	0.77	15.4	YES	YES	bd	bd	0.120
10	Total-tetrafurans	22.78	6.975e2	8.274e2	1.018	0.84	0.77	5.1	YES	NO	db	db	0.048
11	Total-tetrafurans	22.51	9.594e2	9.819e2	1.018	0.98	0.77	7.8	YES	YES	bd	db	0.061
12	Total-tetrafurans	26.21	1.179e3	1.450e3	1.018	0.81	0.77	10.7	YES	NO	bb	db	0.083
13	2378-TCDF	25.97	1.301e3	1.926e3	1.018	0.68	0.77	13.4	YES	NO	bb	bd	0.101
14	Total-tetrafurans	25.73	5.223e2	1.077e3	1.018	0.49	0.77	4.3	YES	YES	bd	db	0.050
15	Total-tetrafurans	25.32	4.710e2	6.671e2	1.018	0.71	0.77	4.4	YES	NO	bb	bb	0.036
16	Total-tetrafurans	25.08	4.561e2	5.141e2	1.018	0.89	0.77	5.2	YES	YES	MM	MM	0.030
17	Total-tetrafurans	24.90	1.346e3	1.574e3	1.018	0.86	0.77	12.7	YES	NO	db	dd	0.092
18	Total-tetrafurans	24.75	3.963e2	5.928e2	1.018	0.67	0.77	4.3	YES	NO	dd	dd	0.031

PP

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-penta1	27.41	1.586e3	1.001e3		1.58	1.55	28.2	YES	NO	bb	bb	0.103

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	28.72	7.791e2	4.453e2	0.998	1.75	1.55	8.1	YES	NO	bb	bb	0.045
2	12378-PeCDF	30.15	5.023e2	5.133e2	0.977	0.98	1.55	4.2	YES	YES	bb	MM	0.038
3	Total-pentafurans	28.98	5.720e3	5.534e3	0.998	1.03	1.55	40.8	YES	YES	bb	bb	0.413

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	37.40	2.870e2	5.275e2	1.116	0.54	1.24	7.2	YES	YES	bd	MM	0.053
2	234678-HxCDF	36.22	2.385e2	3.791e2	1.188	0.63	1.24	6.5	YES	YES	MM	bb	0.030
3	123678-HxCDF	35.30	3.579e2	5.037e2	1.100	0.71	1.24	7.8	YES	YES	db	bb	0.040
4	Total-hexafurans	34.50	5.837e2	4.639e2	1.138	1.26	1.24	14.0	YES	NO	MM	MM	0.053
5	Total-hexafurans	33.63	4.291e2	6.627e2	1.138	0.65	1.24	8.6	YES	YES	MM	bb	0.056
6	123478-HxCDF	35.14	1.920e2	2.887e2	1.150	0.67	1.24	5.8	YES	YES	MM	MM	0.023

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptafurans	40.31	1.296e2	1.319e2	1.248	0.98	1.05	3.6	YES	NO	db	db	0.018
2	Total-heptafurans	40.27	2.226e2	3.728e2	1.248	0.60	1.05	5.5	YES	YES	bd	bd	0.040
3	1234678-HpCDF	39.47	6.702e2	5.560e2	1.238	1.21	1.05	7.8	YES	NO	bd	bd	0.071

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ID: 17E0012-01, Name: 17052218, Date: 23-May-2017, Time: 00:42:26, Conditions: AUTOSPEC01, User: PK

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

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.67	9.057e2	9.256e2	1.018	0.98	0.77	5.6	YES	YES	dd	dd	0.057
2	Total-tetrafurans	24.23	6.720e2	1.205e3	1.018	0.56	0.77	6.7	YES	YES	db	db	0.059
3	Total-tetrafurans	24.12	5.409e2	5.537e2	1.018	0.98	0.77	4.2	YES	YES	dd	dd	0.034
4	Total-tetrafurans	24.00	6.205e2	8.471e2	1.018	0.73	0.77	6.6	YES	NO	dd	dd	0.046
5	Total-tetrafurans	23.84	4.461e2	8.433e2	1.018	0.53	0.77	4.0	YES	YES	dd	dd	0.040
6	Total-tetrafurans	23.75	7.019e2	8.221e2	1.018	0.85	0.77	5.5	YES	NO	dd	dd	0.048
7	Total-tetrafurans	23.63	7.726e2	1.215e3	1.018	0.64	0.77	5.3	YES	YES	dd	dd	0.062
8	Total-tetrafurans	23.52	7.107e2	1.435e3	1.018	0.50	0.77	4.9	YES	YES	dd	MM	0.067
9	Total-tetrafurans	23.34	1.492e3	2.331e3	1.018	0.64	0.77	15.4	YES	YES	bd	bd	0.120
10	Total-tetrafurans	22.78	6.975e2	8.274e2	1.018	0.84	0.77	5.1	YES	NO	db	db	0.048
11	Total-tetrafurans	22.51	9.594e2	9.819e2	1.018	0.98	0.77	7.8	YES	YES	bd	db	0.061
12	Total-Furans	28.08	2.070e2	4.081e2	1.138	0.51	0.77	3.1	YES	YES	bb	bb	0.017
13	Total-tetrafurans	26.21	1.179e3	1.450e3	1.018	0.81	0.77	10.7	YES	NO	bb	db	0.083
14	2378-TCDF	25.97	1.301e3	1.926e3	1.018	0.68	0.77	13.4	YES	NO	bb	bd	0.101
15	Total-tetrafurans	25.73	5.223e2	1.077e3	1.018	0.49	0.77	4.3	YES	YES	bd	db	0.050
16	Total-tetrafurans	25.32	4.710e2	6.671e2	1.018	0.71	0.77	4.4	YES	NO	bb	bb	0.036
17	Total-tetrafurans	25.08	4.561e2	5.141e2	1.018	0.89	0.77	5.2	YES	YES	MM	MM	0.030
18	Total-tetrafurans	24.90	1.346e3	1.574e3	1.018	0.86	0.77	12.7	YES	NO	db	dd	0.092
19	Total-tetrafurans	24.75	3.963e2	5.928e2	1.018	0.67	0.77	4.3	YES	NO	dd	dd	0.031
20	Total-pentafurans	28.72	7.791e2	4.453e2	0.998	1.75	1.55	8.1	YES	NO	bb	bb	0.045
21	12378-PeCDF	30.15	5.023e2	5.133e2	0.977	0.98	1.55	4.2	YES	YES	bb	MM	0.038
22	Total-pentafurans	28.98	5.720e3	5.534e3	0.998	1.03	1.55	40.8	YES	YES	bb	bb	0.413
23	123789-HxCDF	37.40	2.870e2	5.275e2	1.116	0.54	1.24	7.2	YES	YES	bd	MM	0.053
24	234678-HxCDF	36.22	2.385e2	3.791e2	1.188	0.63	1.24	6.5	YES	YES	MM	bb	0.030
25	123678-HxCDF	35.30	3.579e2	5.037e2	1.100	0.71	1.24	7.8	YES	YES	db	bb	0.040
26	Total-hexafurans	34.50	5.837e2	4.639e2	1.138	1.26	1.24	14.0	YES	NO	MM	MM	0.053
27	Total-hexafurans	33.63	4.291e2	6.627e2	1.138	0.65	1.24	8.6	YES	YES	MM	bb	0.056
28	Total-heptafurans	40.31	1.296e2	1.319e2	1.248	0.98	1.05	3.6	YES	NO	db	db	0.018
29	Total-heptafurans	40.27	2.226e2	3.728e2	1.248	0.60	1.05	5.5	YES	YES	bd	bd	0.040
30	1234678-HpCDF	39.47	6.702e2	5.560e2	1.238	1.21	1.05	7.8	YES	NO	bd	bd	0.071
31	OCDF	47.48	5.593e2	8.455e2	1.321	0.66	0.89	10.5	YES	YES	MM	MM	0.140
32	Total-penta1	27.41	1.586e3	1.001e3		1.58	1.55	28.2	YES	NO	bb	bb	0.103
33	123478-HxCDF	35.14	1.920e2	2.887e2	1.150	0.67	1.24	5.8	YES	YES	MM	MM	0.023

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradiioxins	26.75	2.900e2	3.096e2	1.244	0.94	0.77	6.4	YES	YES	db	db	0.030
2	2378-TCDD	26.63	2.275e2	1.432e3	1.244	0.16	0.77	4.3	YES	YES	bd	bd	0.082
3	Total-tetradiioxins	26.24	1.113e3	1.175e3	1.244	0.95	0.77	16.2	YES	YES	bb	bb	0.113
4	Total-tetradiioxins	25.24	1.670e2	4.073e2	1.244	0.41	0.77	3.4	YES	YES	bb	bb	0.028
5	Total-tetradiioxins	24.03	3.560e2	5.511e2	1.244	0.65	0.77	7.9	YES	YES	bb	MM	0.045
6	Total-tetradiioxins	23.78	1.632e3	1.869e3	1.244	0.87	0.77	29.3	YES	NO	bb	bb	0.173

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ID: 17E0012-01, Name: 17052218, Date: 23-May-2017, Time: 00:42:26, Conditions: AUTOSPEC01, User: PK

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentadioxins	29.02	6.367e2	4.883e2	1.058	1.30	1.55	9.3	YES	YES	db	db	0.073
2	Total-pentadioxins	28.98	4.467e2	1.857e2	1.058	2.41	1.55	9.4	YES	YES	bd	bd	0.041
3	12378-PeCDD	31.71	3.227e2	4.608e2	1.058	0.70	1.55	3.6	YES	YES	MM	bb	0.051
4	Total-pentadioxins	30.38	7.443e2	2.388e2	1.058	3.12	1.55	6.0	YES	YES	MM	bb	0.064
5	Total-pentadioxins	30.11	6.186e2	4.121e2	1.058	1.50	1.55	7.0	YES	NO	MM	MM	0.067

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexadioxins	34.89	2.999e2	1.837e2	1.047	1.63	1.24	4.8	YES	YES	bb	bb	0.035
2	Total-hexadioxins	34.41	1.729e2	2.576e2	1.047	0.67	1.24	3.1	YES	YES	bb	bd	0.031
3	Total-hexadioxins	34.25	9.663e2	4.503e2	1.047	2.15	1.24	17.0	YES	YES	MM	bb	0.103
4	123789-HxCDD	36.95	4.086e2	3.038e2	0.981	1.34	1.24	9.5	YES	NO	bb	bb	0.056
5	123678-HxCDD	36.53	3.258e2	3.376e2	1.040	0.96	1.24	7.6	YES	YES	bb	bb	0.046
6	Total-hexadioxins	35.43	8.684e2	6.823e2	1.047	1.27	1.24	12.4	YES	NO	MM	bb	0.113

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	41.32	1.394e3	1.133e3	1.132	1.23	1.05	25.4	YES	YES	bb	bb	0.218
2	Total-heptadioxins	40.05	3.388e3	3.265e3	1.132	1.04	1.05	62.9	YES	NO	bb	bb	0.573

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	26.75	2.900e2	3.096e2	1.244	0.94	0.77	6.4	YES	YES	db	db	0.030
2	2378-TCDD	26.63	2.275e2	1.432e3	1.244	0.16	0.77	4.3	YES	YES	bd	bd	0.082
3	Total-tetradoxins	26.24	1.113e3	1.175e3	1.244	0.95	0.77	16.2	YES	YES	bb	bb	0.113
4	Total-tetradoxins	25.24	1.670e2	4.073e2	1.244	0.41	0.77	3.4	YES	YES	bb	bb	0.028
5	Total-tetradoxins	24.03	3.560e2	5.511e2	1.244	0.65	0.77	7.9	YES	YES	bb	MM	0.045
6	Total-tetradoxins	23.78	1.632e3	1.869e3	1.244	0.87	0.77	29.3	YES	NO	bb	bb	0.173
7	Total-pentadioxins	29.02	6.367e2	4.883e2	1.058	1.30	1.55	9.3	YES	YES	db	db	0.073
8	Total-pentadioxins	28.98	4.467e2	1.857e2	1.058	2.41	1.55	9.4	YES	YES	bd	bd	0.041
9	12378-PeCDD	31.71	3.227e2	4.608e2	1.058	0.70	1.55	3.6	YES	YES	MM	bb	0.051
10	Total-pentadioxins	30.38	7.443e2	2.388e2	1.058	3.12	1.55	6.0	YES	YES	MM	bb	0.064
11	Total-pentadioxins	30.11	6.186e2	4.121e2	1.058	1.50	1.55	7.0	YES	NO	MM	MM	0.067
12	Total-hexadioxins	34.89	2.999e2	1.837e2	1.047	1.63	1.24	4.8	YES	YES	bb	bb	0.035
13	Total-hexadioxins	34.41	1.729e2	2.576e2	1.047	0.67	1.24	3.1	YES	YES	bb	bd	0.031
14	Total-hexadioxins	34.25	9.663e2	4.503e2	1.047	2.15	1.24	17.0	YES	YES	MM	bb	0.103
15	123789-HxCDD	36.95	4.086e2	3.038e2	0.981	1.34	1.24	9.5	YES	NO	bb	bb	0.056
16	123678-HxCDD	36.53	3.258e2	3.376e2	1.040	0.96	1.24	7.6	YES	YES	bb	bb	0.046
17	Total-hexadioxins	35.43	8.684e2	6.823e2	1.047	1.27	1.24	12.4	YES	NO	MM	bb	0.113
18	OCDD	47.20	5.820e3	6.521e3	1.117	0.89	0.89	97.5	YES	NO	bb	bd	1.456
19	1234678-HpCDD	41.32	1.394e3	1.133e3	1.132	1.23	1.05	25.4	YES	YES	bb	bb	0.218
20	Total-heptadioxins	40.05	3.388e3	3.265e3	1.132	1.04	1.05	62.9	YES	NO	bb	bb	0.573

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
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ID: 17E0012-01, Name: 17052218, Date: 23-May-2017, Time: 00:42:26, Conditions: AUTOSPEC01, User: PK

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	24.67	9.057e2	9.256e2	1.018	0.98	0.77	5.6	YES	YES	dd	dd	0.057
2	Total-tetrafurans	24.23	6.720e2	1.205e3	1.018	0.56	0.77	6.7	YES	YES	db	db	0.059
3	Total-tetrafurans	24.12	5.409e2	5.537e2	1.018	0.98	0.77	4.2	YES	YES	dd	dd	0.034
4	Total-tetrafurans	24.00	6.205e2	8.471e2	1.018	0.73	0.77	6.6	YES	NO	dd	dd	0.046
5	Total-tetrafurans	23.84	4.461e2	8.433e2	1.018	0.53	0.77	4.0	YES	YES	dd	dd	0.040
6	Total-tetrafurans	23.75	7.019e2	8.221e2	1.018	0.85	0.77	5.5	YES	NO	dd	dd	0.048
7	Total-tetrafurans	23.63	7.726e2	1.215e3	1.018	0.64	0.77	5.3	YES	YES	dd	dd	0.062
8	Total-tetrafurans	23.52	7.107e2	1.435e3	1.018	0.50	0.77	4.9	YES	YES	dd	MM	0.067
9	Total-tetrafurans	23.34	1.492e3	2.331e3	1.018	0.64	0.77	15.4	YES	YES	bd	bd	0.120
10	Total-tetrafurans	22.78	6.975e2	8.274e2	1.018	0.84	0.77	5.1	YES	NO	db	db	0.048
11	Total-tetrafurans	22.51	9.594e2	9.819e2	1.018	0.98	0.77	7.8	YES	YES	bd	db	0.061
12	Total-Furans	28.08	2.070e2	4.081e2	1.138	0.51	0.77	3.1	YES	YES	bb	bb	0.017
13	Total-tetrafurans	26.21	1.179e3	1.450e3	1.018	0.81	0.77	10.7	YES	NO	bb	db	0.083
14	2378-TCDF	25.97	1.301e3	1.926e3	1.018	0.68	0.77	13.4	YES	NO	bb	bd	0.101
15	Total-tetrafurans	25.73	5.223e2	1.077e3	1.018	0.49	0.77	4.3	YES	YES	bd	db	0.050
16	Total-tetrafurans	25.32	4.710e2	6.671e2	1.018	0.71	0.77	4.4	YES	NO	bb	bb	0.036
17	Total-tetrafurans	25.08	4.561e2	5.141e2	1.018	0.89	0.77	5.2	YES	YES	MM	MM	0.030
18	Total-tetrafurans	24.90	1.346e3	1.574e3	1.018	0.86	0.77	12.7	YES	NO	db	dd	0.092
19	Total-tetrafurans	24.75	3.963e2	5.928e2	1.018	0.67	0.77	4.3	YES	NO	dd	dd	0.031
20	Total-pentafurans	28.72	7.791e2	4.453e2	0.998	1.75	1.55	8.1	YES	NO	bb	bb	0.045
21	12378-PeCDF	30.15	5.023e2	5.133e2	0.977	0.98	1.55	4.2	YES	YES	bb	MM	0.038
22	Total-pentafurans	28.98	5.720e3	5.534e3	0.998	1.03	1.55	40.8	YES	YES	bb	bb	0.413
23	123789-HxCDF	37.40	2.870e2	5.275e2	1.116	0.54	1.24	7.2	YES	YES	bd	MM	0.053
24	234678-HxCDF	36.22	2.385e2	3.791e2	1.188	0.63	1.24	6.5	YES	YES	MM	bb	0.030
25	123678-HxCDF	35.30	3.579e2	5.037e2	1.100	0.71	1.24	7.8	YES	YES	db	bb	0.040
26	Total-hexafurans	34.50	5.837e2	4.639e2	1.138	1.26	1.24	14.0	YES	NO	MM	MM	0.053
27	Total-hexafurans	33.63	4.291e2	6.627e2	1.138	0.65	1.24	8.6	YES	YES	MM	bb	0.056
28	Total-heptafurans	40.31	1.296e2	1.319e2	1.248	0.98	1.05	3.6	YES	NO	db	db	0.018
29	Total-heptafurans	40.27	2.226e2	3.728e2	1.248	0.60	1.05	5.5	YES	YES	bd	bd	0.040
30	1234678-HpCDF	39.47	6.702e2	5.560e2	1.238	1.21	1.05	7.8	YES	NO	bd	bd	0.071
31	OCDF	47.48	5.593e2	8.455e2	1.321	0.66	0.89	10.5	YES	YES	MM	MM	0.140
32	Total-penta1	27.41	1.586e3	1.001e3		1.58	1.55	28.2	YES	NO	bb	bb	0.103
33	123478-HxCDF	35.14	1.920e2	2.887e2	1.150	0.67	1.24	5.8	YES	YES	MM	MM	0.023
34	Total-tetradoxins	26.75	2.900e2	3.096e2	1.244	0.94	0.77	6.4	YES	YES	db	db	0.030
35	2378-TCDD	26.63	2.275e2	1.432e3	1.244	0.16	0.77	4.3	YES	YES	bd	bd	0.082
36	Total-tetradoxins	26.24	1.113e3	1.175e3	1.244	0.95	0.77	16.2	YES	YES	bb	bb	0.113
37	Total-tetradoxins	25.24	1.670e2	4.073e2	1.244	0.41	0.77	3.4	YES	YES	bb	bb	0.028
38	Total-tetradoxins	24.03	3.560e2	5.511e2	1.244	0.65	0.77	7.9	YES	YES	bb	MM	0.045
39	Total-tetradoxins	23.78	1.632e3	1.869e3	1.244	0.87	0.77	29.3	YES	NO	bb	bb	0.173
40	Total-pentadoxins	29.02	6.367e2	4.883e2	1.058	1.30	1.55	9.3	YES	YES	db	db	0.073
41	Total-pentadoxins	28.98	4.467e2	1.857e2	1.058	2.41	1.55	9.4	YES	YES	bd	bd	0.041
42	12378-PeCDD	31.71	3.227e2	4.608e2	1.058	0.70	1.55	3.6	YES	YES	MM	bb	0.051
43	Total-pentadoxins	30.38	7.443e2	2.388e2	1.058	3.12	1.55	6.0	YES	YES	MM	bb	0.064
44	Total-pentadoxins	30.11	6.186e2	4.121e2	1.058	1.50	1.55	7.0	YES	NO	MM	MM	0.067
45	Total-hexadoxins	34.89	2.999e2	1.837e2	1.047	1.63	1.24	4.8	YES	YES	bb	bb	0.035
46	Total-hexadoxins	34.41	1.729e2	2.576e2	1.047	0.67	1.24	3.1	YES	YES	bb	bd	0.031
47	Total-hexadoxins	34.25	9.663e2	4.503e2	1.047	2.15	1.24	17.0	YES	YES	MM	bb	0.103
48	123789-HxCDD	36.95	4.086e2	3.038e2	0.981	1.34	1.24	9.5	YES	NO	bb	bb	0.056
49	123678-HxCDD	36.53	3.258e2	3.376e2	1.040	0.96	1.24	7.6	YES	YES	bb	bb	0.046
50	Total-hexadoxins	35.43	8.684e2	6.823e2	1.047	1.27	1.24	12.4	YES	NO	MM	bb	0.113
51	OCDD	47.20	5.820e3	6.521e3	1.117	0.89	0.89	97.5	YES	NO	bb	bd	1.456

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
52	1234678-HpCDD	41.32	1.394e3	1.133e3	1.132	1.23	1.05	25.4	YES	YES	bb	bb	0.218
53	Total-heptadioxins	40.05	3.388e3	3.265e3	1.132	1.04	1.05	62.9	YES	NO	bb	bb	0.573

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PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	22.57	2.322e4					1.1	NO		dd		
2	FUNCTION1 PFK	22.51	5.196e4					2.1	NO		dd		
3	FUNCTION1 PFK	22.43	9.068e4					2.3	NO		bd		
4	FUNCTION1 PFK	22.31	3.531e4					1.5	NO		db		
5	FUNCTION1 PFK	22.19	5.736e4					1.6	NO		dd		
6	FUNCTION1 PFK	22.06	1.085e5					1.8	NO		bd		
7	FUNCTION1 PFK	21.85	2.672e4					1.2	NO		db		
8	FUNCTION1 PFK	21.78	1.282e4					0.7	NO		bd		
9	FUNCTION1 PFK	21.64	4.489e4					1.6	NO		db		
10	FUNCTION1 PFK	21.52	4.543e4					1.4	NO		dd		
11	FUNCTION1 PFK	21.46	2.798e4					1.4	NO		bd		
12	FUNCTION1 PFK	21.37	3.260e4					1.3	NO		db		
13	FUNCTION1 PFK	21.28	2.642e4					0.8	NO		bd		
14	FUNCTION1 PFK	21.22	3.536e4					1.1	NO		bb		
15	FUNCTION1 PFK	24.85	6.500e4					2.0	NO		db		
16	FUNCTION1 PFK	24.75	7.461e4					1.8	NO		dd		
17	FUNCTION1 PFK	24.64	8.494e4					2.1	NO		dd		
18	FUNCTION1 PFK	24.55	4.930e4					2.2	NO		dd		
19	FUNCTION1 PFK	24.49	2.366e4					1.1	NO		bd		
20	FUNCTION1 PFK	24.39	1.134e4					0.5	NO		bb		
21	FUNCTION1 PFK	24.18	3.433e4					1.1	NO		db		
22	FUNCTION1 PFK	24.09	1.569e4					0.9	NO		dd		
23	FUNCTION1 PFK	24.03	4.251e4					1.4	NO		bd		
24	FUNCTION1 PFK	23.87	1.855e3					0.0	NO		bb		
25	FUNCTION1 PFK	23.63	7.883e4					2.2	NO		bb		
26	FUNCTION1 PFK	23.24	3.736e4					1.8	NO		db		
27	FUNCTION1 PFK	23.21	3.709e4					1.7	NO		bd		
28	FUNCTION1 PFK	23.10	3.312e4					1.5	NO		db		
29	FUNCTION1 PFK	23.06	4.569e4					2.2	NO		bd		
30	FUNCTION1 PFK	22.64	3.510e4					1.3	NO		db		
31	FUNCTION1 PFK	26.96	4.400e5					8.3	YES		dd		
32	FUNCTION1 PFK	26.90	4.250e5					8.4	YES		dd		
33	FUNCTION1 PFK	26.78	3.605e5					8.2	YES		bd		
34	FUNCTION1 PFK	26.59	6.405e5					9.1	YES		db		
35	FUNCTION1 PFK	26.48	2.386e5					7.1	YES		dd		
36	FUNCTION1 PFK	26.36	5.541e5					8.1	YES		dd		
37	FUNCTION1 PFK	26.23	2.380e5					6.8	YES		dd		
38	FUNCTION1 PFK	26.15	3.808e5					6.1	YES		dd		
39	FUNCTION1 PFK	25.99	6.964e4					3.2	YES		dd		
40	FUNCTION1 PFK	25.94	1.843e5					3.9	YES		dd		
41	FUNCTION1 PFK	25.87	1.051e5					3.1	YES		dd		
42	FUNCTION1 PFK	25.73	1.108e5					2.5	NO		dd		
43	FUNCTION1 PFK	25.66	5.870e4					1.9	NO		bd		
44	FUNCTION1 PFK	25.53	2.773e4					1.2	NO		db		
45	FUNCTION1 PFK	25.50	1.714e4					1.2	NO		bd		
46	FUNCTION1 PFK	24.97	8.184e4					1.8	NO		bb		
47	FUNCTION1 PFK	28.14	3.846e4					1.7	NO		db		
48	FUNCTION1 PFK	28.08	8.208e4					2.6	NO		bd		
49	FUNCTION1 PFK	27.96	2.822e4					1.3	NO		db		
50	FUNCTION1 PFK	27.86	5.375e4					1.5	NO		bd		
51	FUNCTION1 PFK	27.75	6.629e3					0.5	NO		bb		

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PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
52	FUNCTION1 PFK	27.47	8.741e4					2.8	NO		db		
53	FUNCTION1 PFK	27.12	9.912e5					7.6	YES		dd		

PFK2

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

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	34.98	6.500e5					10.2	YES		bd		0.000
2	FUNCTION3 PFK	34.74	2.815e5					4.4	YES		bb		0.000
3	FUNCTION3 PFK	34.26	2.708e5					7.3	YES		db		0.000
4	FUNCTION3 PFK	34.22	2.262e5					7.7	YES		bd		0.000
5	FUNCTION3 PFK	34.00	2.857e5					3.0	YES		bb		0.000
6	FUNCTION3 PFK	33.74	3.470e4					0.0	NO		bb		0.000
7	FUNCTION3 PFK	33.23	9.829e5					10.5	YES		bb		0.000
8	FUNCTION3 PFK	38.49	4.632e4					1.7	NO		bb		0.000
9	FUNCTION3 PFK	38.19	1.770e5					4.1	YES		bb		0.000
10	FUNCTION3 PFK	38.03	1.320e5					4.8	YES		bb		0.000
11	FUNCTION3 PFK	37.72	1.259e5					4.6	YES		bb		0.000
12	FUNCTION3 PFK	37.61	4.087e5					7.7	YES		bb		0.000
13	FUNCTION3 PFK	37.41	2.499e5					6.4	YES		bb		0.000
14	FUNCTION3 PFK	37.11	6.195e4					2.8	NO		bb		0.000
15	FUNCTION3 PFK	36.87	1.572e5					3.9	YES		bb		0.000
16	FUNCTION3 PFK	36.54	2.758e5					6.9	YES		bb		0.000
17	FUNCTION3 PFK	36.27	1.720e5					4.8	YES		bb		0.000
18	FUNCTION3 PFK	35.85	6.597e5					7.6	YES		bb		0.000
19	FUNCTION3 PFK	35.62	4.911e5					10.1	YES		bb		0.000
20	FUNCTION3 PFK	35.23	1.015e5					4.1	YES		db		0.000
21	FUNCTION3 PFK	35.14	1.219e5					4.4	YES		dd		0.000
22	FUNCTION3 PFK	35.06	2.398e5					8.7	YES		dd		0.000

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PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	42.97	2.301e5					13.7	YES		bd		
2	FUNCTION4 PFK	42.84	2.020e5					11.7	YES		bb		
3	FUNCTION4 PFK	42.46	2.723e4					3.1	YES		bb		
4	FUNCTION4 PFK	41.61	1.021e5					8.0	YES		bb		
5	FUNCTION4 PFK	41.26	7.296e5					26.0	YES		bb		
6	FUNCTION4 PFK	40.98	1.298e6					26.2	YES		db		
7	FUNCTION4 PFK	40.80	1.734e5					13.5	YES		dd		
8	FUNCTION4 PFK	40.70	6.194e5					22.1	YES		bd		
9	FUNCTION4 PFK	40.51	1.337e5					8.2	YES		bb		
10	FUNCTION4 PFK	40.07	4.064e5					15.0	YES		bb		
11	FUNCTION4 PFK	39.93	4.860e4					4.4	YES		bb		
12	FUNCTION4 PFK	39.80	2.502e4					0.0	NO		bb		
13	FUNCTION4 PFK	39.44	2.994e5					15.5	YES		bb		
14	FUNCTION4 PFK	39.24	1.032e5					8.6	YES		bb		
15	FUNCTION4 PFK	38.89	4.556e5					16.8	YES		bb		
16	FUNCTION4 PFK	38.65	3.012e5					12.2	YES		bb		
17	FUNCTION4 PFK	44.23	8.983e5					17.0	YES		db		
18	FUNCTION4 PFK	43.89	5.148e5					19.9	YES		dd		
19	FUNCTION4 PFK	43.77	1.485e5					11.0	YES		dd		
20	FUNCTION4 PFK	43.66	5.726e5					18.9	YES		bd		
21	FUNCTION4 PFK	43.44	4.808e5					22.8	YES		db		
22	FUNCTION4 PFK	43.31	5.715e5					19.6	YES		dd		
23	FUNCTION4 PFK	43.13	6.563e5					22.4	YES		dd		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	47.49	4.592e5					5.5	YES		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	26.33	1.586e2					2.9	NO		db		0.000
2	FUNCTION1 HXCD...	26.29	1.053e2					3.2	YES		dd		0.000
3	FUNCTION1 HXCD...	26.21	2.115e2					6.2	YES		dd		0.000
4	FUNCTION1 HXCD...	26.06	3.425e4					530.7	YES		bd		0.000
5	FUNCTION1 HXCD...	25.78	1.063e4					169.8	YES		bb		0.000
6	FUNCTION1 HXCD...	21.89	7.049e1					1.7	NO		bb		0.000
7	FUNCTION1 HXCD...	27.77	7.268e1					1.3	NO		bb		0.000
8	FUNCTION1 HXCD...	27.59	1.109e2					2.3	NO		db		0.000
9	FUNCTION1 HXCD...	27.53	2.361e2					5.0	YES		bd		0.000
10	FUNCTION1 HXCD...	26.93	8.609e1					1.9	NO		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	23.52	9.280e1					8.3	YES		bb		0.000
2	FUNCTION1 HPCD...	22.30	1.325e3					59.9	YES		bb		0.000
3	FUNCTION1 HPCD...	21.18	3.459e2					15.8	YES		bb		0.000

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
 Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
 Printed: Tuesday, May 23, 2017 13:55:08 Pacific Daylight Time

ID: 17E0012-01, Name: 17052218, Date: 23-May-2017, Time: 00:42:26, Conditions: AUTOSPEC01, User: PK

ETHERS3

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

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.90	7.304e1					2.1	NO		bb		0.000

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	39.06	1.445e3					50.9	YES		bb		0.000

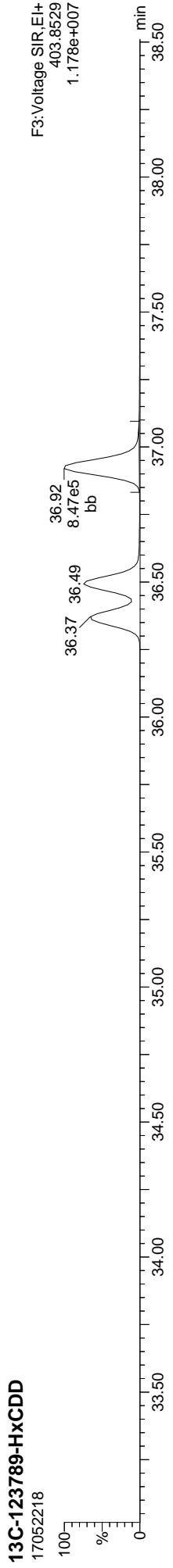
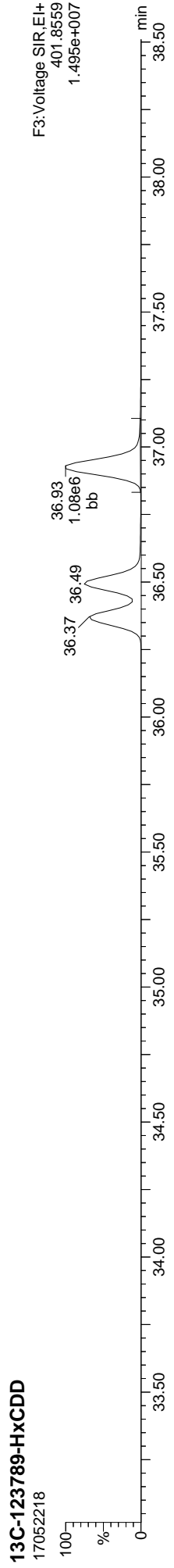
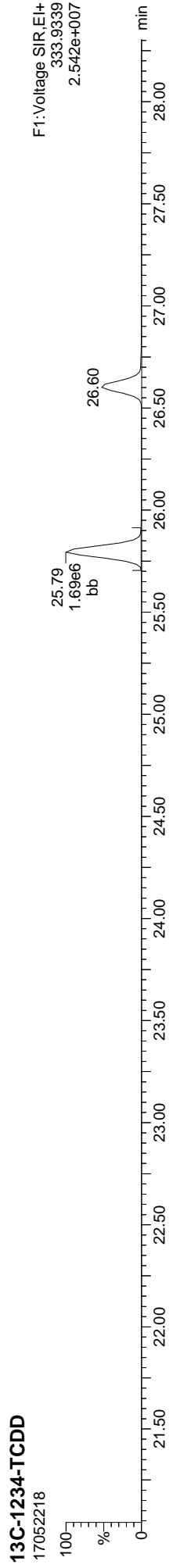
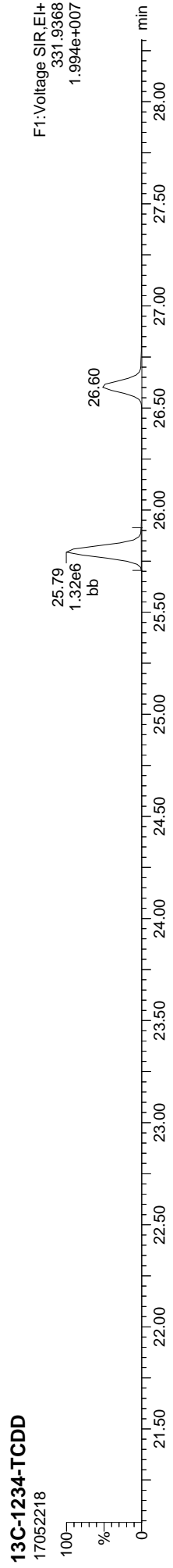
ETHERS6

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

Quantify Sample Report
MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:08 Pacific Daylight Time

Method: C:\MassLynx\Dioxin.pro\MethDB\Dioxin170518.mdb 18 May 2017 15:01:42
Calibration: C:\MassLynx\Dioxin.pro\CurveDB\170518CIH.cdb 19 May 2017 13:57:26

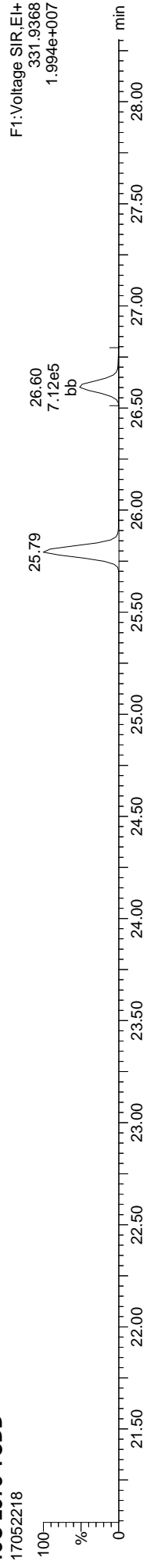
ID: 17E0012-01, **Name:** 17052218, **Date:** 23-May-2017, **Time:** 00:42:26, **Conditions:** AUTOSPEC01, **User:** PK



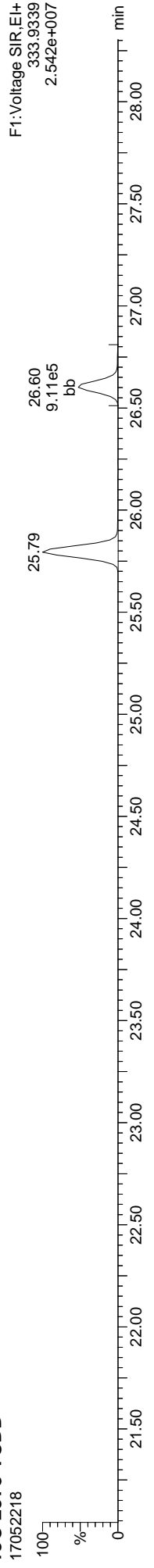
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MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:08 Pacific Daylight Time

ID: 17E0012-01, Name: 17052218, Date: 23-May-2017, Time: 00:42:26, Conditions: AUTOSPEC01, User: PK

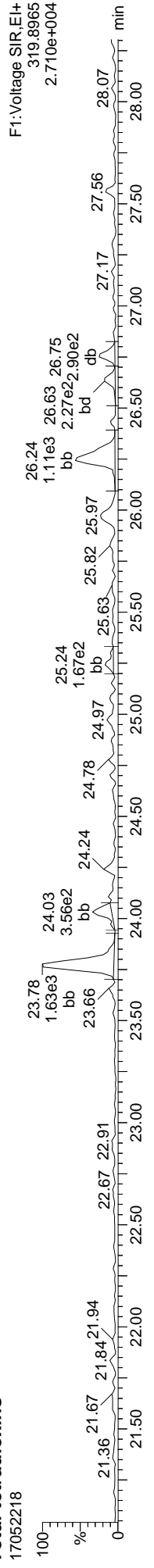
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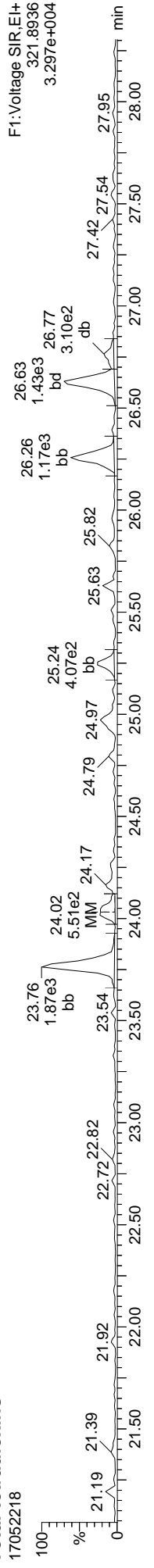
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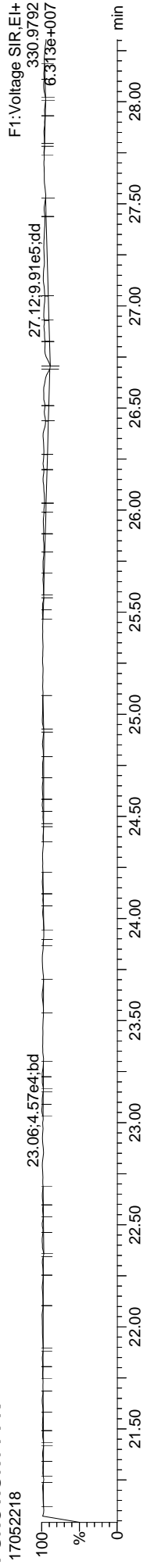
Total-tetradioxins



Total-tetradioxins



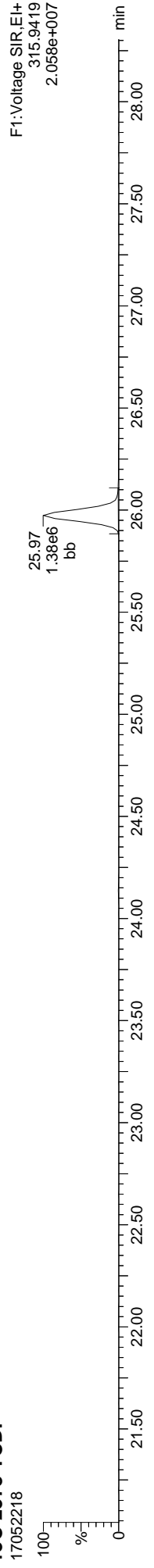
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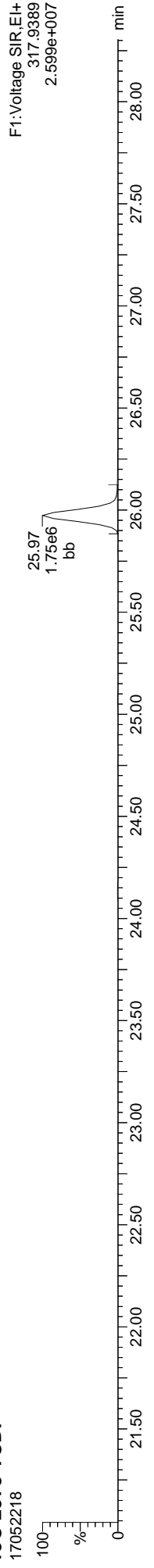
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ID: 17E0012-01, Name: 17052218, Date: 23-May-2017, Time: 00:42:26, Conditions: AUTOSPEC01, User: PK

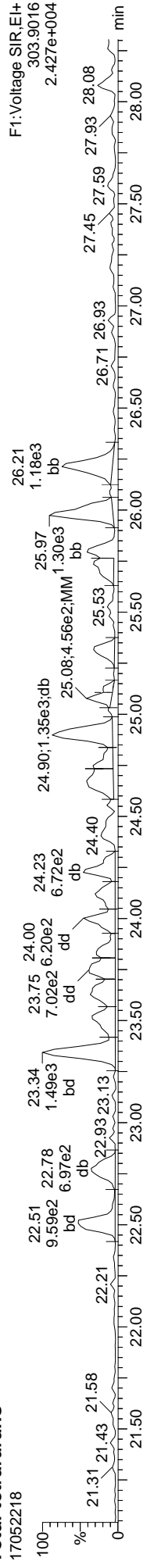
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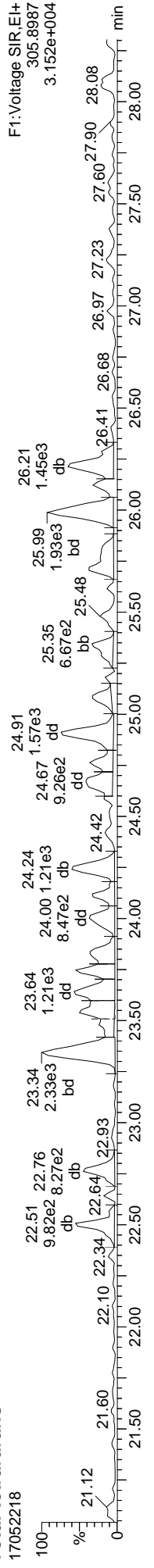
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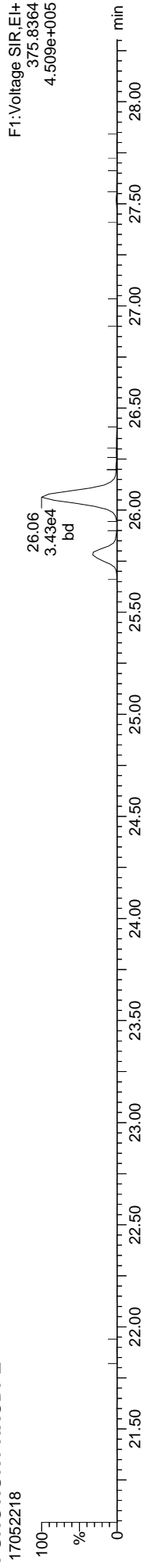
Total-tetrafurans



Total-tetrafurans



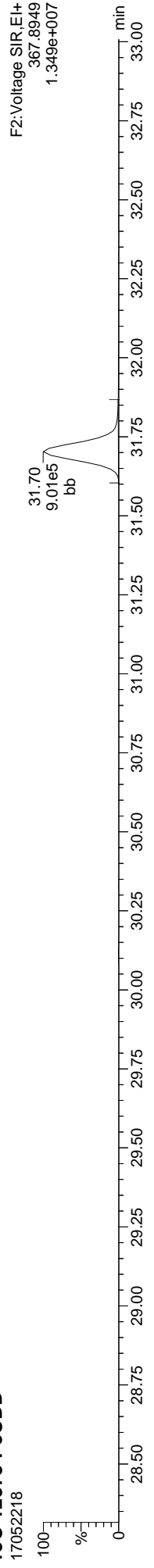
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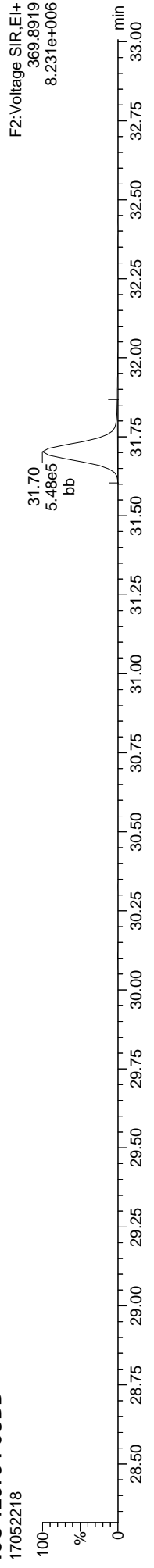
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Printed: Tuesday, May 23, 2017 13:55:08 Pacific Daylight Time

ID: 17E0012-01, Name: 17052218, Date: 23-May-2017, Time: 00:42:26, Conditions: AUTOSPEC01, User: PK

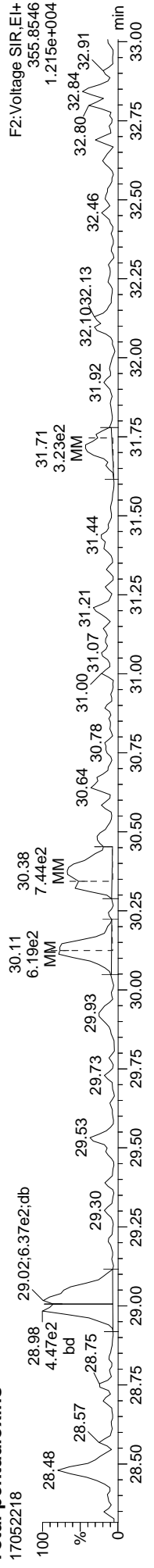
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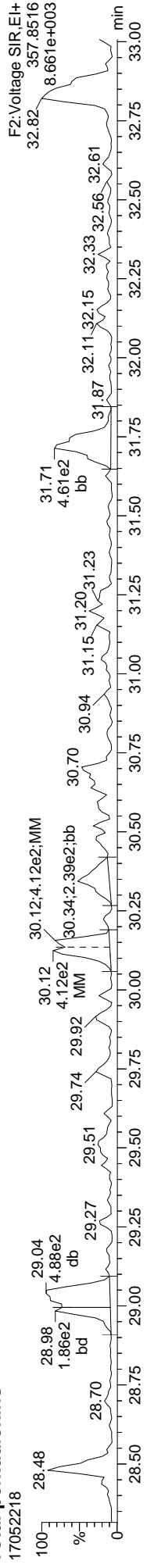
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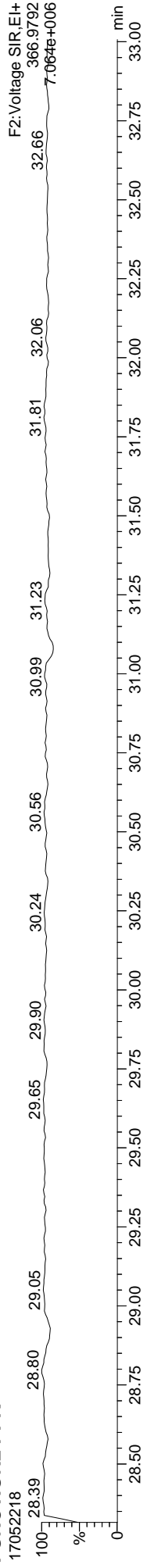
Total-pentadioxins



Total-pentadioxins



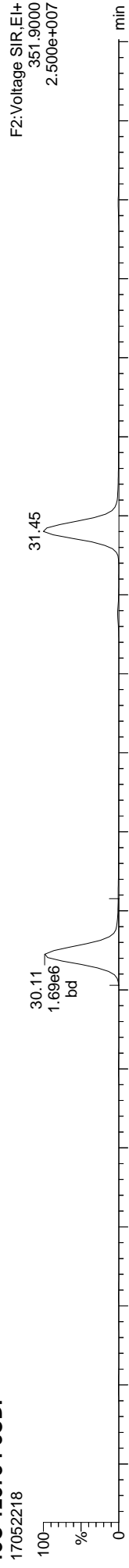
FUNCTION2 PFK



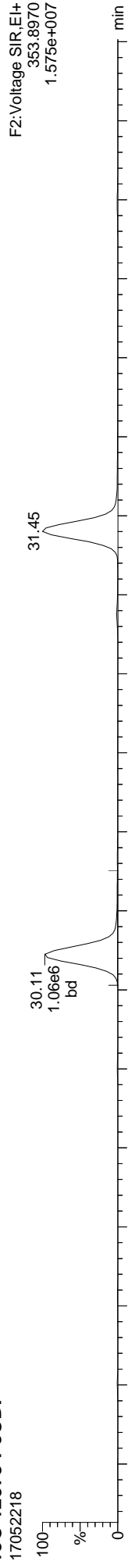
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ID: 17E0012-01, Name: 17052218, Date: 23-May-2017, Time: 00:42:26, Conditions: AUTOSPEC01, User: PK

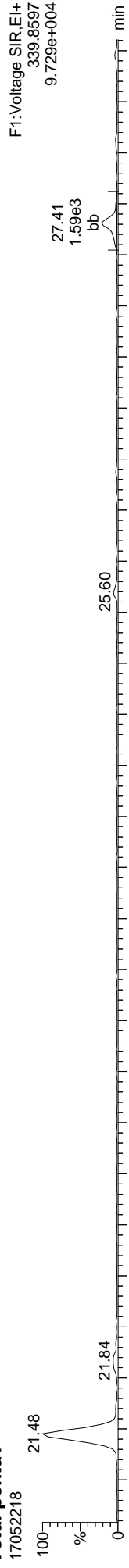
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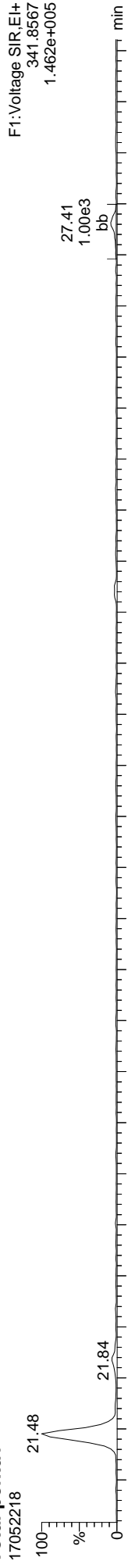
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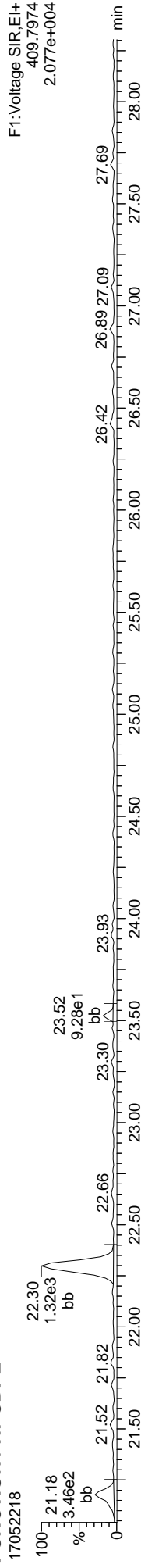
Total-penta1



Total-penta1



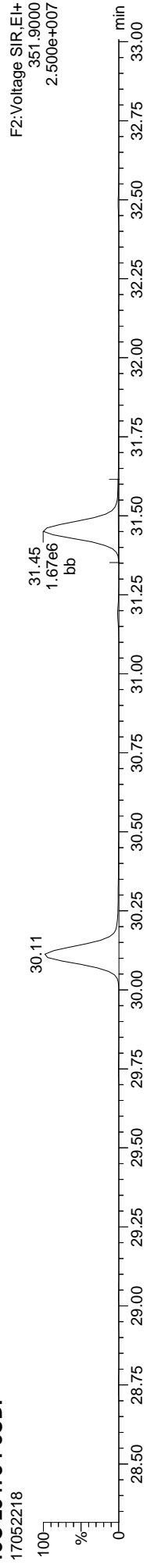
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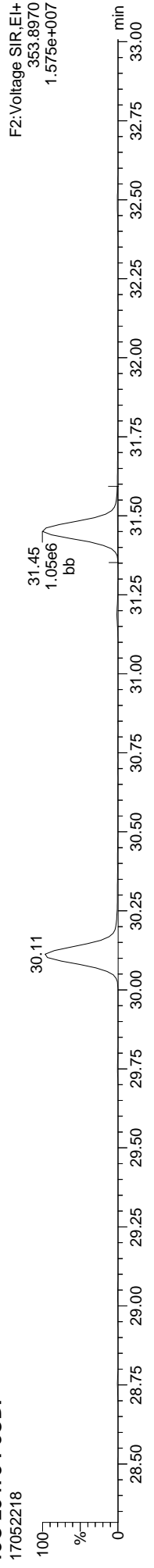
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ID: 17E0012-01, Name: 17052218, Date: 23-May-2017, Time: 00:42:26, Conditions: AUTOSPEC01, User: PK

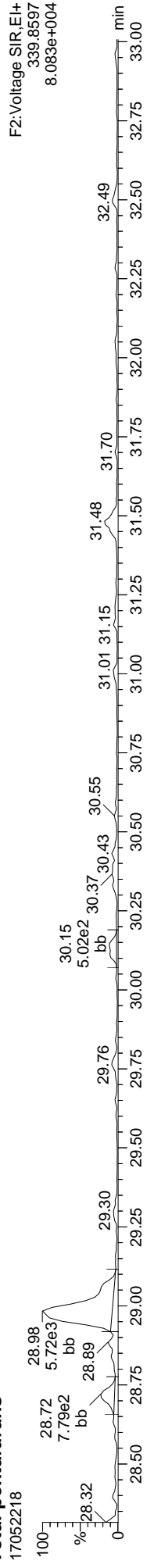
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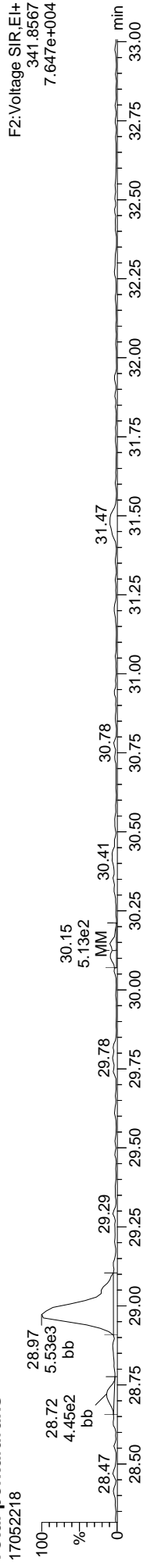
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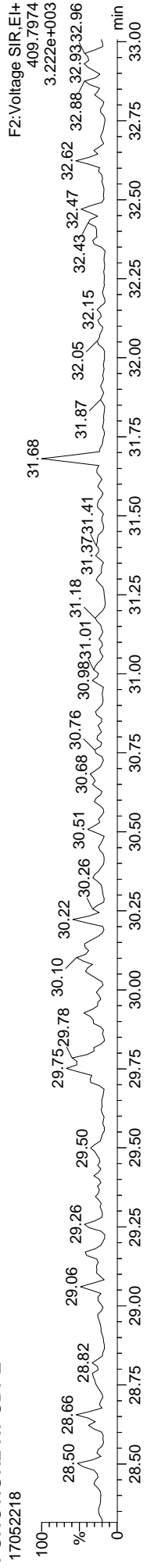
Total-pentafurans



Total-pentafurans



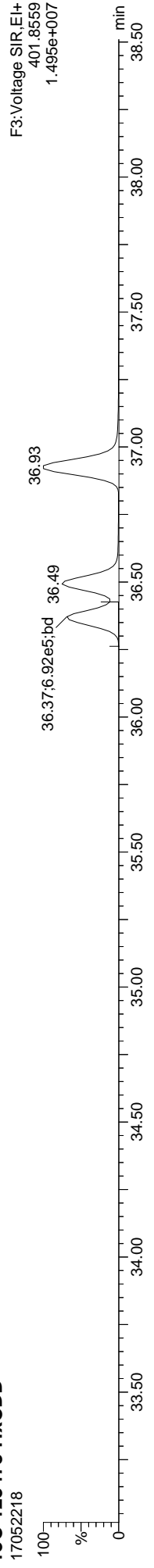
FUNCTION2 HPCDPE



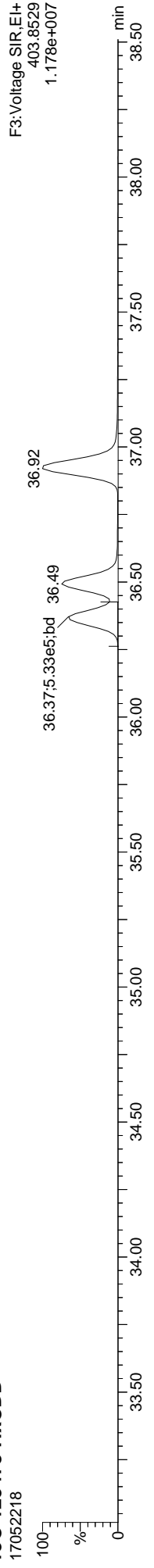
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Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
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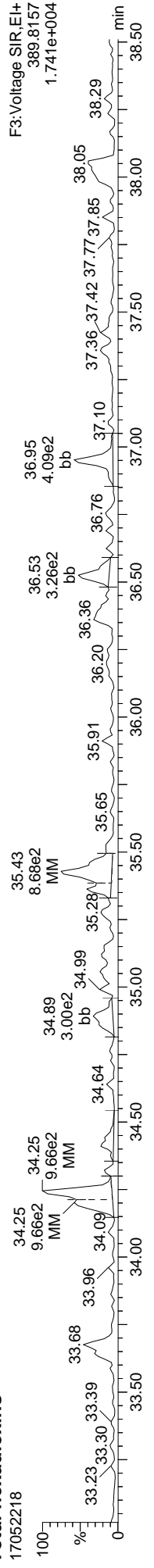
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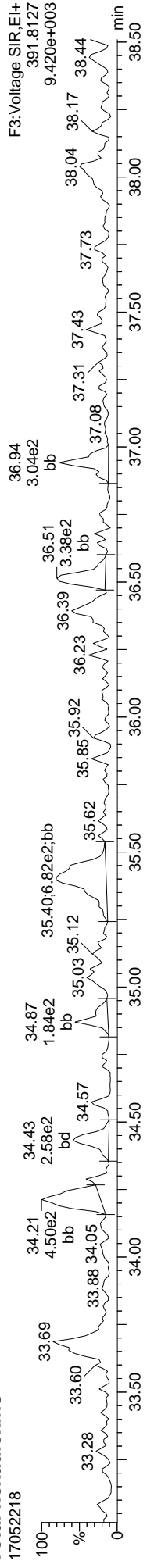
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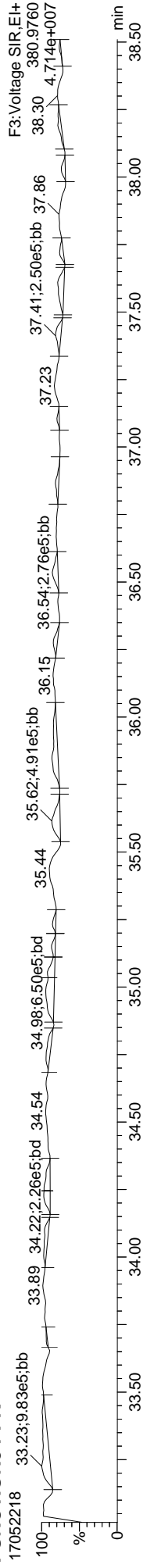
Total-hexadioxins



Total-hexadioxins



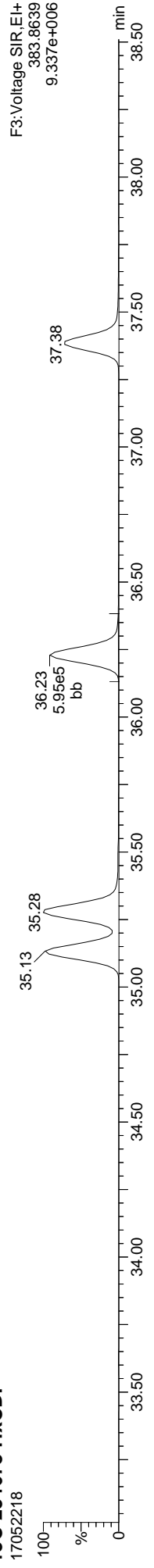
FUNCTION3 PFK



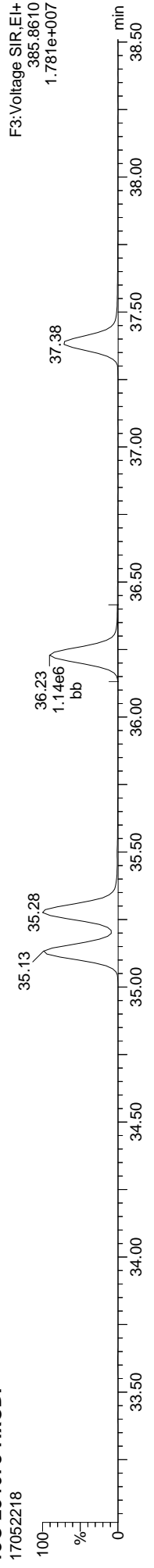
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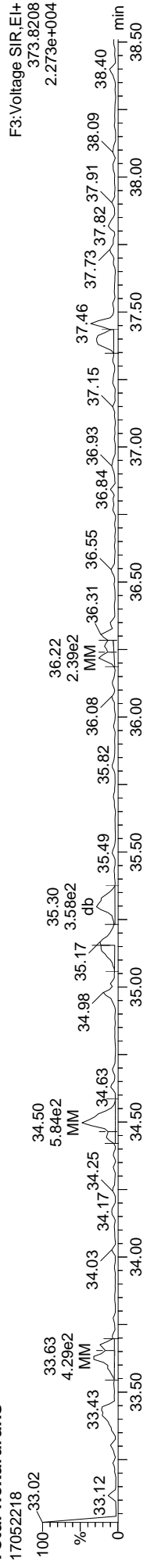
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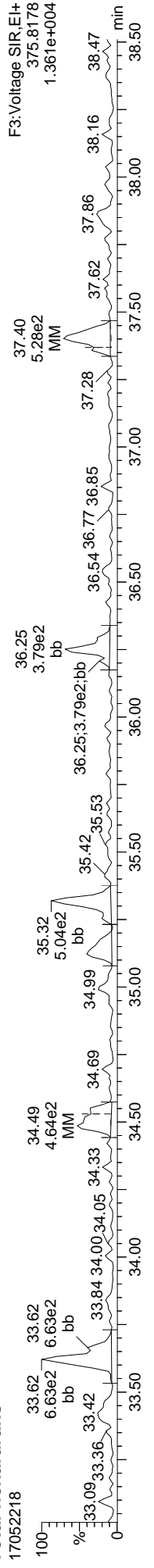
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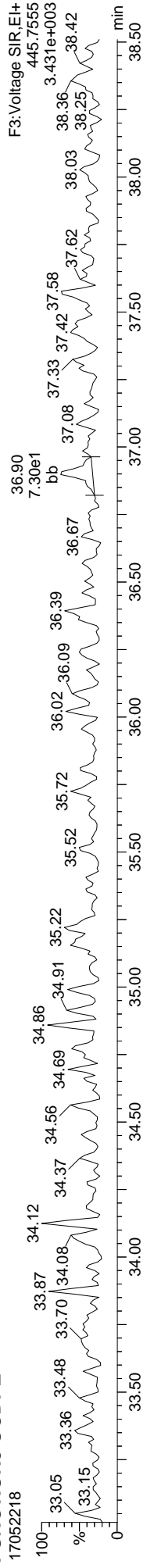
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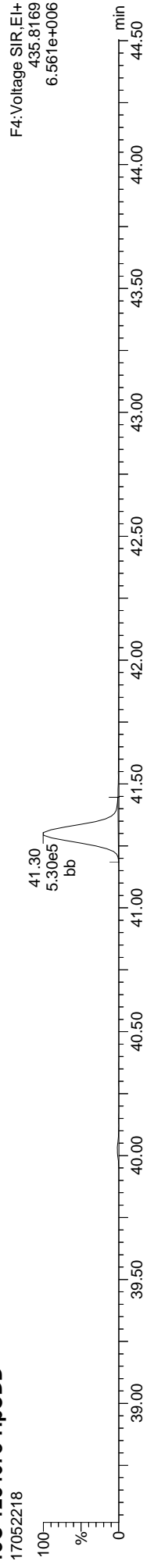
FUNCTION3 OCDFE



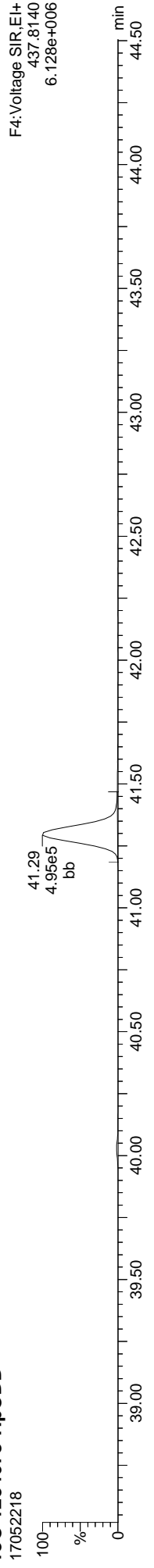
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MassLynx MassLynx V4.1 SCN909
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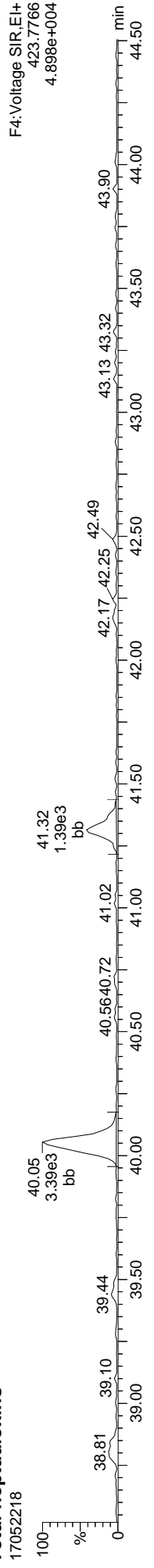
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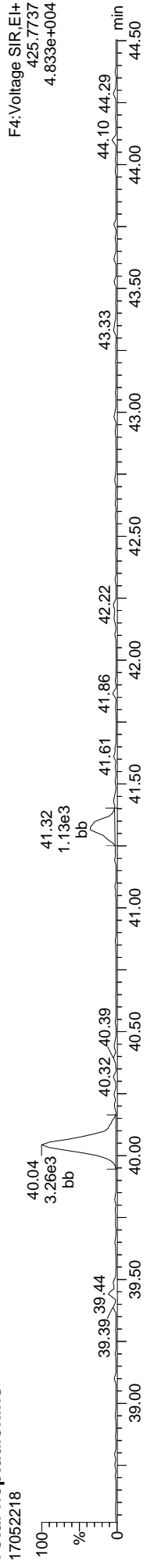
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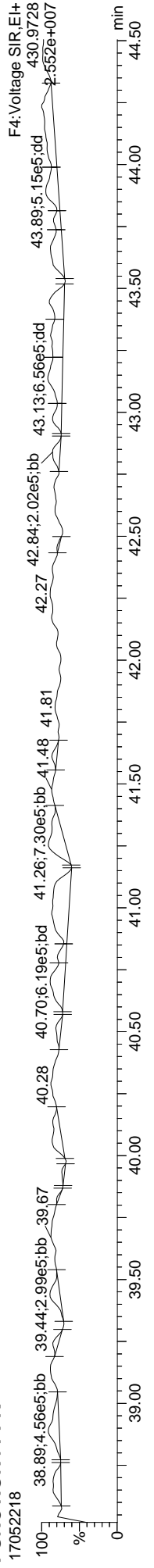
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Total-heptadioxins



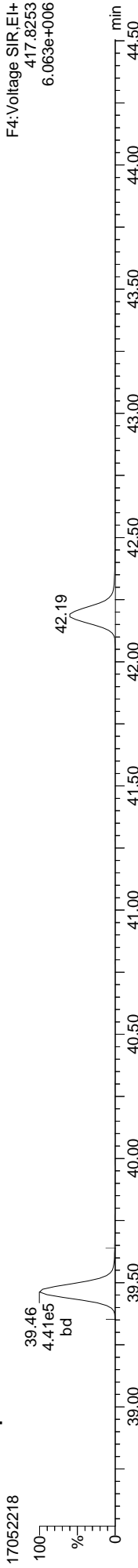
FUNCTION4 PFK



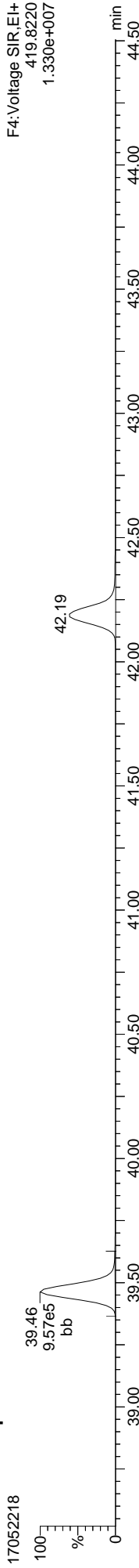
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ID: 17E0012-01, Name: 17052218, Date: 23-May-2017, Time: 00:42:26, Conditions: AUTOSPEC01, User: PK

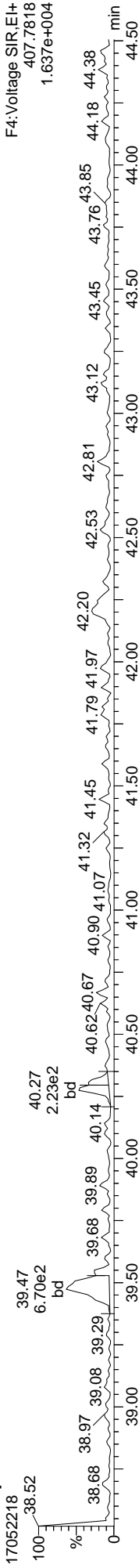
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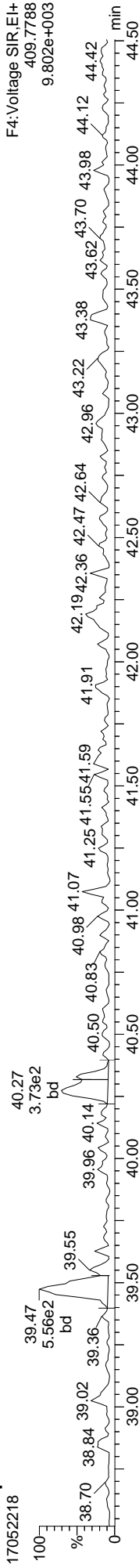
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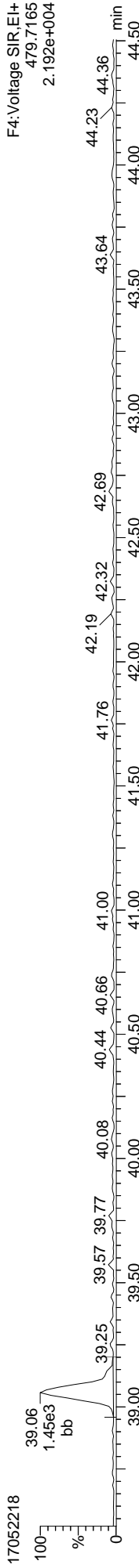
Total-heptafurans



Total-heptafurans



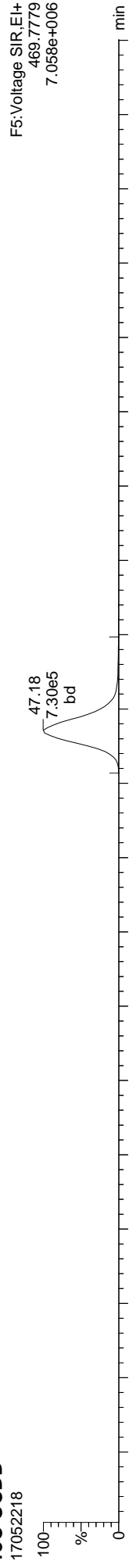
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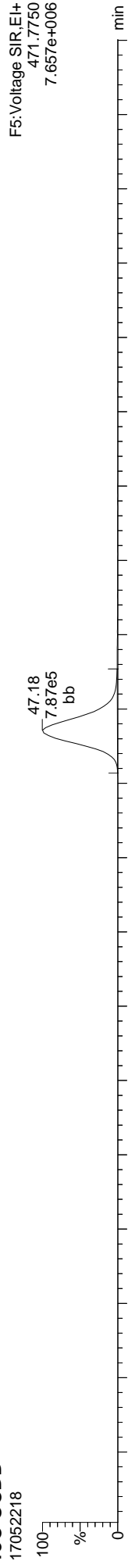
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MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
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ID: 17E0012-01, Name: 17052218, Date: 23-May-2017, Time: 00:42:26, Conditions: AUTOSPEC01, User: PK

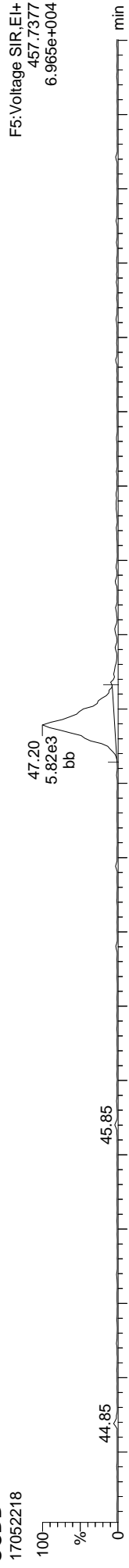
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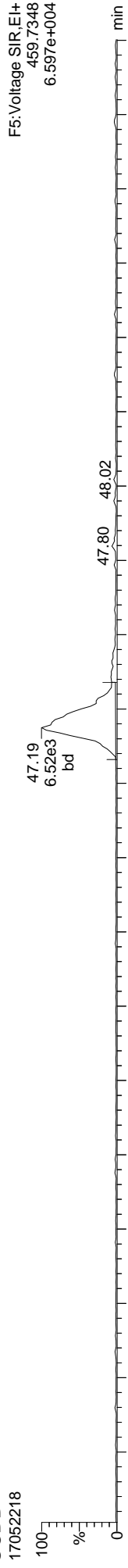
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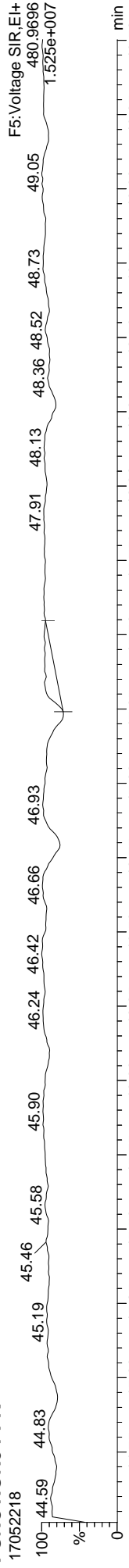
OCDD



OCDD



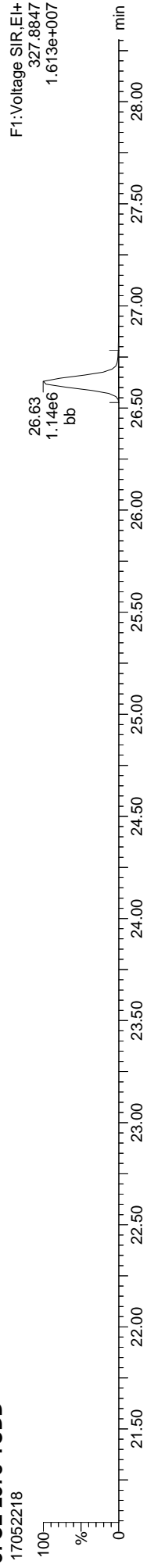
FUNCTION5 PFK



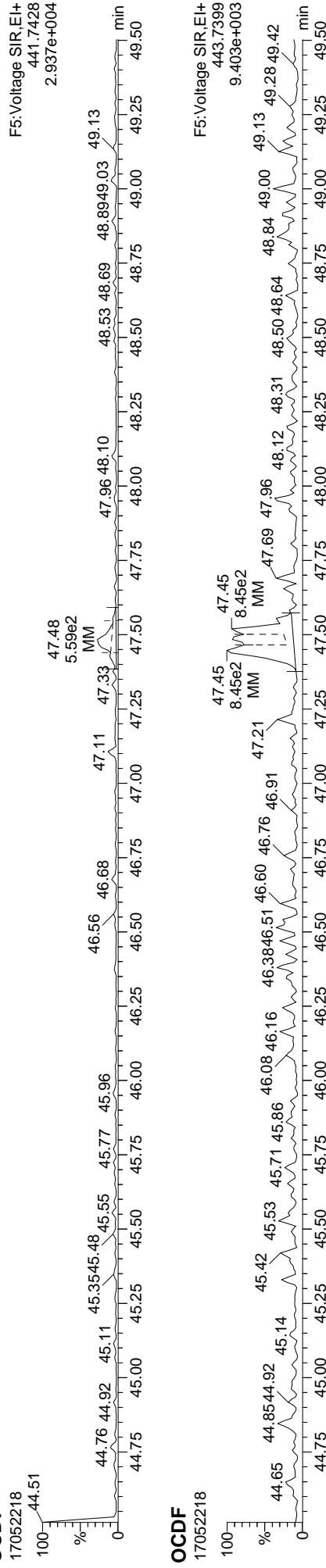
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MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:08 Pacific Daylight Time

ID: 17E0012-01, Name: 17052218, Date: 23-May-2017, Time: 00:42:26, Conditions: AUTOSPEC01, User: PK

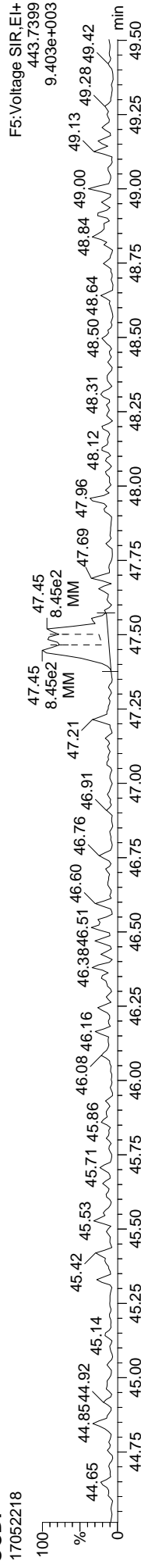
37CL-2378-TCDD



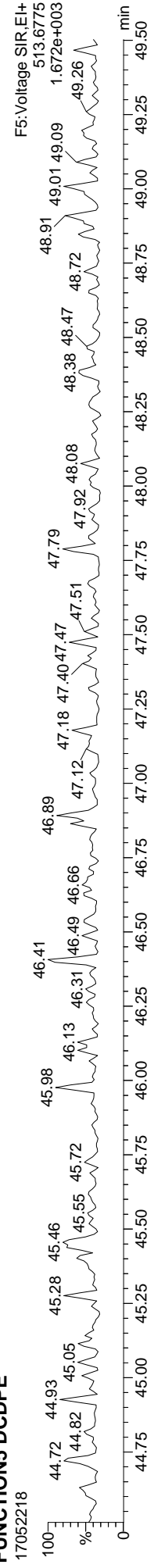
OCDF



OCDF



FUNCTION5 DCDPE





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

Laboratory: Analytical Resources, Inc. SDG: 17E0012
 Client: Anchor QEA, LLC
 Project: Port Gamble Shellfish Monitoring
 Matrix: Tissue Laboratory ID: 17E0012-02 File ID: 17052219
 Sampled: 04/27/17 12:45 Prepared: 05/09/17 16:05 Analyzed: 05/23/17 01:35
 Solids Wt%: Preparation: EPA 1613 Initial/Final: 10.04 g / 20 uL
 Result Basis: Dry Sequence: SFE0219 Calibration: AE00055
 Batch: BFE0233 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.000	0.655-0.886	0.041	0.996	ND	ng/kg	U
1746-01-6	2,3,7,8-TCDD	1	0.000	0.655-0.886	0.049	0.996	ND	ng/kg	U
57117-41-6	1,2,3,7,8-PeCDF	1	0.000	1.318-1.783	0.057	4.98	ND	ng/kg	U
57117-31-4	2,3,4,7,8-PeCDF	1	0.000	1.318-1.783	0.052	4.98	ND	ng/kg	U
40321-76-4	1,2,3,7,8-PeCDD	1	0.000	1.318-1.783	0.056	4.98	ND	ng/kg	U
70648-26-9	1,2,3,4,7,8-HxCDF	1	0.000	1.054-1.426	0.041	4.98	ND	ng/kg	U
57117-44-9	1,2,3,6,7,8-HxCDF	1	0.000	1.054-1.426	0.040	4.98	ND	ng/kg	U
60851-34-5	2,3,4,6,7,8-HxCDF	1	0.000	1.054-1.426	0.044	4.98	ND	ng/kg	U
72918-21-9	1,2,3,7,8,9-HxCDF	1	0.000	1.054-1.426	0.062	4.98	ND	ng/kg	U
39227-28-6	1,2,3,4,7,8-HxCDD	1	0.000	1.054-1.426	0.081	4.98	ND	ng/kg	U
57653-85-7	1,2,3,6,7,8-HxCDD	1	0.000	1.054-1.426	0.083	4.98	ND	ng/kg	U
19408-74-3	1,2,3,7,8,9-HxCDD	1	0.000	1.054-1.426	0.090	4.98	ND	ng/kg	U
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	0.822	0.893-1.208		4.98	0.069	ng/kg	EMPC, J, B
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	0.000	0.893-1.208	0.062	4.98	ND	ng/kg	U
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	1.313	0.893-1.208		4.98	0.264	ng/kg	EMPC, J, B
39001-02-0	OCDF	1	0.000	0.757-1.024	0.158	9.96	ND	ng/kg	U
3268-87-9	OCDD	1	0.929	0.757-1.024		9.96	1.74	ng/kg	J, B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			0.996	ND	ng/kg
41903-57-5	Total TCDD	1	0.000			0.996	ND	ng/kg
30402-15-4	Total PeCDF	1	0.000			0.996	0.056	ng/kg
36088-22-9	Total PeCDD	1	0.000			0.996	ND	ng/kg
55684-94-1	Total HxCDF	1	0.000			0.996	ND	ng/kg
34465-46-8	Total HxCDD	1	0.000			0.996	ND	ng/kg
38998-75-3	Total HpCDF	1	0.000			0.996	0.069	ng/kg
37871-00-4	Total HpCDD	1	0.000			0.996	0.976	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.004
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.004



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

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>17E0012</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Port Gamble Shellfish Monitoring</u>
Matrix:	<u>Tissue</u>	Laboratory ID:	<u>17E0012-02</u>
Sampled:	<u>04/27/17 12:45</u>	Prepared:	<u>05/09/17 16:05</u>
Solids Wt%:		Preparation:	<u>EPA 1613</u>
Result Basis:	<u>Dry</u>	Sequence:	<u>SFE0219</u>
Batch:	<u>BFE0233</u>	Instrument:	<u>AUTOSPEC01</u>
		File ID:	<u>17052219</u>
		Analyzed:	<u>05/23/17 01:35</u>
		Initial/Final:	<u>10.04 g / 20 uL</u>
		Calibration:	<u>AE00055</u>
		Column:	<u>RTX-Dioxin2</u>

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF		0.769	0.655-0.886		48.2	24 - 169 %	
13C12-2,3,7,8-TCDD		0.786	0.655-0.886		46.7	25 - 164 %	
13C12-1,2,3,7,8-PeCDF		1.607	1.318-1.783		39.8	24 - 185 %	
13C12-2,3,4,7,8-PeCDF		1.576	1.318-1.783		41.1	21 - 178 %	
13C12-1,2,3,7,8-PeCDD		1.618	1.318-1.783		40.8	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF		0.525	0.434-0.587		43.0	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF		0.528	0.434-0.587		43.4	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF		0.525	0.434-0.587		42.5	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF		0.530	0.434-0.587		41.4	29 - 147 %	
13C12-1,2,3,4,7,8-HxCDD		1.294	1.054-1.426		46.1	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD		1.333	1.054-1.426		44.8	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF		0.442	0.374-0.506		39.6	28 - 143 %	
13C12-1,2,3,4,7,8,9-HpCDF		0.446	0.374-0.506		40.8	26 - 138 %	
13C12-1,2,3,4,6,7,8-HpCDD		1.087	0.893-1.208		43.9	23 - 140 %	
13C12-OCDD		0.890	0.757-1.024		34.6	17 - 157 %	
37C14-2,3,7,8-TCDD		328.000			92.0	35 - 197 %	

* Values outside of QC limits

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

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
 Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
 Printed: Tuesday, May 23, 2017 13:55:15 Pacific Daylight Time

Method: C:\MassLynx\Dioxin.pro\MethDBIDioxin170518.mdb 18 May 2017 15:01:42
Calibration: C:\MassLynx\Dioxin.pro\CurveDB\170518CIH.cdb 19 May 2017 13:57:26

ID: 17E0012-02, **Name:** 17052219, **Date:** 23-May-2017, **Time:** 01:35:40, **Conditions:** AUTOSPEC01, **User:** PK

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg	
2378-TCDF	39.429	1.000	1.579e2	1.921e2	1.238	0.822	1.050	550	343	2.88e3	2.80e3	5.2	YES	YES	bb	bb	0.035	
12378-PeCDF					1.257		1.050	550	343									
23478-PeCDF					1.321		0.890	391	854									
123478-HxCDF					1.244		0.770	811	519									
234678-HxCDF					1.058		1.550	615	491									
123678-HxCDF					1.119		1.240	905	782									
123789-HxCDF					1.040		1.240	905	782									
1234678-HpCDF					0.981		1.240	905	782									
1234789-HpCDF					1.132		1.050	517	416	7.14e3	6.11e3	13.8	YES	YES	bb	bb	0.133	
OCDD	41.216	1.000	4.987e2	3.799e2	1.117	0.929	0.890	414	783	2.41e4	1.96e4	58.2	YES	NO	MM	MM	0.876	
13C-2378-TCDF	25.988	1.007	7.896e5	1.026e6	1.685	0.769	0.770	5123	2337	1.10e7	1.42e7	2148.1	YES	NO	bb	bb	48.155	
13C-12378-PeCDF	30.113	1.167	9.356e5	5.823e5	1.706	1.607	1.550	2719	3540	1.29e7	8.05e6	4742.8	YES	NO	bd	bd	39.755	
13C-23478-PeCDF	31.461	1.219	9.192e5	5.832e5	1.632	1.576	1.550	2719	3540	1.33e7	8.44e6	4886.8	YES	NO	bd	bd	41.130	
13C-123478-HxCDF	35.122	0.952	3.601e5	6.852e5	1.682	0.525	0.510	2572	3660	5.29e6	1.01e7	2055.3	YES	NO	bd	bd	43.045	
13C-123678-HxCDF	35.275	0.956	4.209e5	7.972e5	1.945	0.528	0.510	2572	3660	5.73e6	1.08e7	2229.5	YES	NO	bd	bd	43.374	
13C-234678-HxCDF	36.218	0.981	3.345e5	6.370e5	1.582	0.525	0.510	2572	3660	4.82e6	9.18e6	1875.6	YES	NO	bb	bb	42.537	
13C-123789-HxCDF	37.369	1.013	2.673e5	5.039e5	1.291	0.530	0.510	2572	3660	3.68e6	7.18e6	1429.2	YES	NO	bb	bb	41.392	
13C-1234678-HpCDF	39.418	1.068	2.498e5	5.659e5	1.427	0.442	0.440	1803	3061	3.45e6	8.00e6	1912.6	YES	NO	bd	bd	39.613	
13C-1234789-HpCDF	42.104	1.141	1.737e5	3.898e5	0.957	0.446	0.440	1803	3061	2.10e6	4.74e6	1163.0	YES	NO	bd	bd	40.792	
13C-1234-TCDD	25.809	0.000	9.849e5	1.254e6	1.000	0.786	0.770	1974	1250	1.46e7	1.85e7	7398.1	YES	NO	bb	bb	100.000	
13C-2378-TCDD	26.616	1.031	4.015e5	5.106e5	0.873	0.786	0.770	1974	1250	5.72e6	7.16e6	2896.0	YES	NO	bb	bb	46.690	
13C-12378-PeCDD	31.713	1.229	4.856e5	3.001e5	0.860	1.618	1.550	1979	1326	6.87e6	4.24e6	3470.7	YES	NO	bb	bb	40.810	
13C-123478-HxCDD	36.349	0.985	4.181e5	3.232e5	1.114	1.294	1.240	1936	2075	6.27e6	4.79e6	3240.5	YES	NO	bd	bd	46.115	
13C-123678-HxCDD	36.481	0.988	4.649e5	3.488e5	1.258	1.333	1.240	1936	2075	6.68e6	5.07e6	3447.7	YES	NO	db	db	44.789	
13C-1234678-HpCDD	41.216	1.117	3.051e5	2.806e5	0.924	1.087	1.050	1508	1610	4.01e6	3.72e6	2658.6	YES	NO	bd	bd	43.932	
13C-OCDD	47.088	1.276	3.470e5	3.899e5	0.738	0.890	0.890	1341	1401	3.36e6	3.75e6	2504.6	YES	NO	bd	bd	69.138	
13C-123789-HxCDD	36.908	0.000	8.068e5	6.368e5	1.000	1.267	1.240	1936	2075	1.17e7	9.26e6	6045.5	YES	NO	bb	bb	100.000	
Total-tetrafurans			0.000e0	0.000e0	1.018			764		0.00e0								

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

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld

Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time

Printed: Tuesday, May 23, 2017 13:55:15 Pacific Daylight Time

ID: 17E0012-02, Name: 17052219, Date: 23-May-2017, Time: 01:35:40, Conditions: AUTOSPEC01, User: PK

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg	
Total-penta1			0.000e0					325		0.00e0								
Total-pentafurans			1.593e2		0.998			720		4.75e3								0.028
Total-hexafurans			0.000e0		1.138			497		0.00e0								
Total-heptafurans			1.579e2		1.248			550		2.88e3								0.035
Total-Furans			3.173e2		1.138			764		7.62e3								0.063
Total-tetradioxins			0.000e0		1.244			811		0.00e0								
Total-pentadioxins			0.000e0		1.058			615		0.00e0								
Total-hexadioxins			0.000e0		1.047			905		0.00e0								
Total-heptadioxins			1.790e3		1.132			517		2.64e4								0.490
Total-Dioxins			3.526e3		1.099			811		5.04e4								1.366
Total-TEQ			3.843e3					811		5.81e4								1.428
37CL-2378-TCDD	26.631	1.032	8.411e5		1.021			1057		1.20e7		11395.8	YES		bb			36.794
FUNCTION1 PFK			4.411e4					615233		1.02e6								
FUNCTION2 PFK			9.807e4					107296		3.22e6								0.000
FUNCTION3 PFK			6.361e5					503057		1.68e7								0.000
FUNCTION4 PFK			2.423e5					314611		7.52e6								
FUNCTION5 PFK			2.454e5					182681		8.35e6								
FUNCTION1 HXCD...			2.592e3					563		3.63e4								0.000
FUNCTION1 HPCD...			2.110e2					437		3.73e3								0.000
FUNCTION2 HPCD...			0.000e0					357		0.00e0								
FUNCTION3 OCDPE			7.647e1					811		2.50e3								0.000
FUNCTION4 NCDPE			0.000e0					504		0.00e0								
FUNCTION5 DCDPE			0.000e0					252		0.00e0								

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
 Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
 Printed: Tuesday, May 23, 2017 13:55:15 Pacific Daylight Time

Method: C:\MassLynx\Dioxin.pro\MethDB\Dioxin170518.mdb 18 May 2017 15:01:42
 Calibration: C:\MassLynx\Dioxin.pro\CurveDB\170518\CIH.cdb 19 May 2017 13:57:26

ID: 17E0012-02, Name: 17052219, Date: 23-May-2017, Time: 01:35:40, Conditions: AUTOSPEC01, User: PK

TF

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

PP

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

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	28.98	1.593e2	2.639e2	0.998	0.60	1.55	6.6	YES	YES	bb	bb	0.028

HF

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

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDF	39.43	1.579e2	1.921e2	1.238	0.82	1.05	5.2	YES	YES	bb	bb	0.035

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

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	28.98	1.593e2	2.639e2	0.998	0.60	1.55	6.6	YES	YES	bb	bb	0.028
2	1234678-HpCDF	39.43	1.579e2	1.921e2	1.238	0.82	1.05	5.2	YES	YES	bb	bb	0.035

TD

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

PD

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

HD

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

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	41.22	4.987e2	3.799e2	1.132	1.31	1.05	13.8	YES	YES	bb	bb	0.133
2	Total-heptadioxins	39.98	1.292e3	1.078e3	1.132	1.20	1.05	37.2	YES	NO	MM	bd	0.357

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ID: 17E0012-02, Name: 17052219, Date: 23-May-2017, Time: 01:35:40, Conditions: AUTOSPEC01, User: PK

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	41.22	4.987e2	3.799e2	1.132	1.31	1.05	13.8	YES	YES	bb	bb	0.133
2	Total-heptadioxins	39.98	1.292e3	1.078e3	1.132	1.20	1.05	37.2	YES	NO	MM	bd	0.357
3	OCDD	47.12	1.736e3	1.868e3	1.117	0.93	0.89	58.2	YES	NO	MM	MM	0.876

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	28.98	1.593e2	2.639e2	0.998	0.60	1.55	6.6	YES	YES	bb	bb	0.028
2	1234678-HpCDF	39.43	1.579e2	1.921e2	1.238	0.82	1.05	5.2	YES	YES	bb	bb	0.035
3	1234678-HpCDD	41.22	4.987e2	3.799e2	1.132	1.31	1.05	13.8	YES	YES	bb	bb	0.133
4	Total-heptadioxins	39.98	1.292e3	1.078e3	1.132	1.20	1.05	37.2	YES	NO	MM	bd	0.357
5	OCDD	47.12	1.736e3	1.868e3	1.117	0.93	0.89	58.2	YES	NO	MM	MM	0.876

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	23.88	4.411e4					1.7	NO		bb		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.48	4.500e3					1.7	NO		bb		0.000
2	FUNCTION2 PFK	29.41	5.240e3					1.8	NO		bb		0.000
3	FUNCTION2 PFK	29.07	3.718e3					1.2	NO		bb		0.000
4	FUNCTION2 PFK	28.76	2.518e3					1.1	NO		bb		0.000
5	FUNCTION2 PFK	28.52	1.436e3					0.7	NO		bb		0.000
6	FUNCTION2 PFK	28.37	8.383e2					0.7	NO		bb		0.000
7	FUNCTION2 PFK	32.95	5.149e2					0.4	NO		bb		0.000
8	FUNCTION2 PFK	32.91	4.476e3					1.2	NO		bb		0.000
9	FUNCTION2 PFK	32.82	7.106e3					1.9	NO		bb		0.000
10	FUNCTION2 PFK	32.67	1.286e3					0.7	NO		bb		0.000
11	FUNCTION2 PFK	32.49	8.718e3					1.6	NO		bb		0.000
12	FUNCTION2 PFK	31.86	7.778e2					0.7	NO		bb		0.000
13	FUNCTION2 PFK	31.61	8.845e3					1.8	NO		bb		0.000
14	FUNCTION2 PFK	31.27	6.691e3					1.6	NO		bb		0.000
15	FUNCTION2 PFK	31.02	9.204e3					2.2	NO		bb		0.000
16	FUNCTION2 PFK	30.65	2.248e3					0.9	NO		db		0.000
17	FUNCTION2 PFK	30.59	5.868e3					1.8	NO		dd		0.000
18	FUNCTION2 PFK	30.55	6.386e3					2.4	NO		bd		0.000
19	FUNCTION2 PFK	30.01	4.621e3					1.6	NO		bb		0.000
20	FUNCTION2 PFK	29.69	2.792e3					1.1	NO		db		0.000
21	FUNCTION2 PFK	29.64	6.697e3					1.6	NO		dd		0.000
22	FUNCTION2 PFK	29.58	3.589e3					1.3	NO		bd		0.000

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
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PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	36.36	2.592e4					1.1	NO		bb		0.000
2	FUNCTION3 PFK	36.24	2.413e4					1.3	NO		bb		0.000
3	FUNCTION3 PFK	36.02	4.147e4					2.0	NO		bb		0.000
4	FUNCTION3 PFK	35.91	1.884e4					1.2	NO		bb		0.000
5	FUNCTION3 PFK	35.86	2.154e3					0.4	NO		bb		0.000
6	FUNCTION3 PFK	35.66	2.356e3					0.4	NO		bb		0.000
7	FUNCTION3 PFK	35.58	4.054e4					1.4	NO		bb		0.000
8	FUNCTION3 PFK	35.35	2.169e4					1.6	NO		bb		0.000
9	FUNCTION3 PFK	35.25	3.839e4					2.1	NO		bb		0.000
10	FUNCTION3 PFK	35.18	5.113e3					0.6	NO		bb		0.000
11	FUNCTION3 PFK	33.98	6.155e3					0.7	NO		bb		0.000
12	FUNCTION3 PFK	33.92	3.656e4					2.1	NO		bb		0.000
13	FUNCTION3 PFK	33.69	4.988e4					2.3	NO		bb		0.000
14	FUNCTION3 PFK	33.47	3.983e4					1.9	NO		bb		0.000
15	FUNCTION3 PFK	33.25	3.876e4					2.3	NO		bb		0.000
16	FUNCTION3 PFK	37.97	2.062e4					1.5	NO		bb		0.000
17	FUNCTION3 PFK	37.87	3.734e4					1.0	NO		bb		0.000
18	FUNCTION3 PFK	37.69	3.993e4					1.7	NO		bb		0.000
19	FUNCTION3 PFK	37.34	4.822e4					2.2	NO		bb		0.000
20	FUNCTION3 PFK	37.03	2.675e4					1.6	NO		bb		0.000
21	FUNCTION3 PFK	36.92	3.127e4					1.4	NO		bb		0.000
22	FUNCTION3 PFK	36.47	3.036e4					1.9	NO		db		0.000
23	FUNCTION3 PFK	36.43	9.785e3					0.8	NO		bd		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	40.45	3.276e3					0.7	NO		bb		
2	FUNCTION4 PFK	40.16	2.102e3					0.6	NO		bb		
3	FUNCTION4 PFK	40.05	1.735e3					0.5	NO		bb		
4	FUNCTION4 PFK	39.32	1.641e3					0.5	NO		bb		
5	FUNCTION4 PFK	39.13	2.640e4					1.5	NO		bb		
6	FUNCTION4 PFK	38.88	1.731e3					0.5	NO		bb		
7	FUNCTION4 PFK	38.78	2.065e3					0.6	NO		bb		
8	FUNCTION4 PFK	43.08	2.582e4					2.1	NO		bb		
9	FUNCTION4 PFK	42.59	9.213e3					0.9	NO		bb		
10	FUNCTION4 PFK	42.31	2.551e4					1.8	NO		bb		
11	FUNCTION4 PFK	42.09	2.155e4					1.5	NO		bb		
12	FUNCTION4 PFK	41.87	1.556e3					0.4	NO		bb		
13	FUNCTION4 PFK	41.76	1.750e4					2.0	NO		db		
14	FUNCTION4 PFK	41.73	1.018e4					1.5	NO		bd		
15	FUNCTION4 PFK	41.54	1.146e4					1.4	NO		bb		
16	FUNCTION4 PFK	41.42	7.141e3					1.0	NO		bb		
17	FUNCTION4 PFK	41.00	1.615e4					1.6	NO		bb		
18	FUNCTION4 PFK	40.90	1.466e3					0.4	NO		bb		
19	FUNCTION4 PFK	40.70	2.449e4					2.0	NO		db		
20	FUNCTION4 PFK	40.63	3.128e4					2.3	NO		bd		

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PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	44.64	1.468e3					0.5	NO		bb		
2	FUNCTION5 PFK	44.57	3.342e3					0.9	NO		bb		
3	FUNCTION5 PFK	47.21	6.518e3					1.4	NO		dd		
4	FUNCTION5 PFK	47.18	8.139e3					1.7	NO		dd		
5	FUNCTION5 PFK	47.13	1.081e4					2.1	NO		dd		
6	FUNCTION5 PFK	47.09	5.917e3					1.7	NO		bd		
7	FUNCTION5 PFK	47.05	1.549e3					0.5	NO		bb		
8	FUNCTION5 PFK	46.85	9.009e3					1.2	NO		bb		
9	FUNCTION5 PFK	46.77	5.985e3					1.7	NO		bb		
10	FUNCTION5 PFK	46.51	1.607e4					1.8	NO		bb		
11	FUNCTION5 PFK	46.32	8.592e3					1.4	NO		bb		
12	FUNCTION5 PFK	46.04	7.009e2					0.4	NO		bb		
13	FUNCTION5 PFK	46.00	2.302e3					0.9	NO		bb		
14	FUNCTION5 PFK	45.84	1.670e4					1.9	NO		bb		
15	FUNCTION5 PFK	45.51	7.209e3					1.6	NO		bb		
16	FUNCTION5 PFK	45.24	2.888e3					0.7	NO		bb		
17	FUNCTION5 PFK	44.93	9.304e3					1.6	NO		bb		
18	FUNCTION5 PFK	44.81	3.267e3					1.0	NO		bb		
19	FUNCTION5 PFK	48.96	1.807e4					1.9	NO		bb		
20	FUNCTION5 PFK	48.60	1.542e4					1.9	NO		bb		
21	FUNCTION5 PFK	48.35	1.270e4					1.3	NO		db		
22	FUNCTION5 PFK	48.28	1.421e4					2.1	NO		dd		
23	FUNCTION5 PFK	48.25	2.992e3					0.8	NO		dd		
24	FUNCTION5 PFK	48.20	5.688e3					1.4	NO		dd		
25	FUNCTION5 PFK	48.16	2.334e3					0.7	NO		bd		
26	FUNCTION5 PFK	48.14	2.805e3					0.6	NO		bb		
27	FUNCTION5 PFK	48.04	2.757e3					0.9	NO		bb		
28	FUNCTION5 PFK	47.99	8.445e2					0.4	NO		bb		
29	FUNCTION5 PFK	47.95	7.754e2					0.5	NO		bb		
30	FUNCTION5 PFK	47.63	1.015e4					1.8	NO		bb		
31	FUNCTION5 PFK	47.57	4.247e3					1.1	NO		db		
32	FUNCTION5 PFK	47.54	5.614e3					1.4	NO		bd		
33	FUNCTION5 PFK	47.31	6.058e3					1.4	NO		db		
34	FUNCTION5 PFK	47.26	1.004e4					1.3	NO		dd		
35	FUNCTION5 PFK	49.40	7.098e3					1.6	NO		db		
36	FUNCTION5 PFK	49.37	2.699e3					0.9	NO		bd		
37	FUNCTION5 PFK	49.33	1.111e3					0.5	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	26.08	1.843e3					38.9	YES		bb		0.000
2	FUNCTION1 HXCD...	25.79	5.839e2					16.7	YES		bb		0.000
3	FUNCTION1 HXCD...	24.70	7.879e1					4.1	YES		bb		0.000
4	FUNCTION1 HXCD...	24.37	8.680e1					4.8	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	24.81	9.225e1					5.1	YES		bb		0.000
2	FUNCTION1 HPCD...	22.31	1.188e2					3.5	YES		bb		0.000

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ETHERS3

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

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	37.47	7.647e1					3.1	YES		bb		0.000

ETHERS5

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

ETHERS6

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

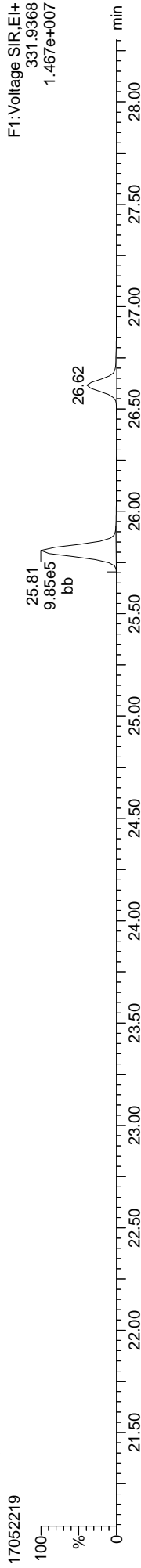
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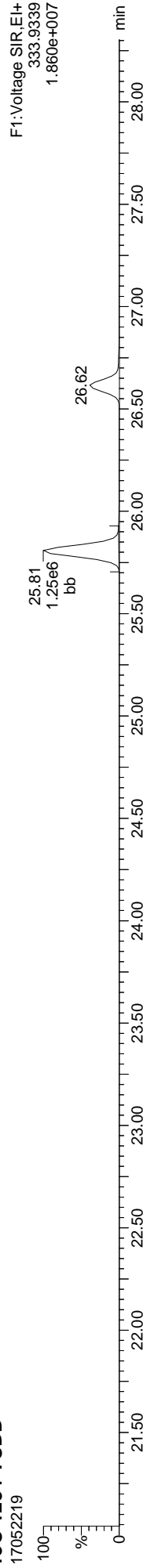
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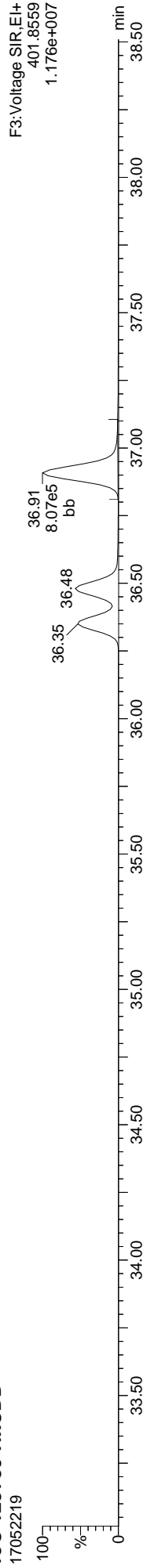
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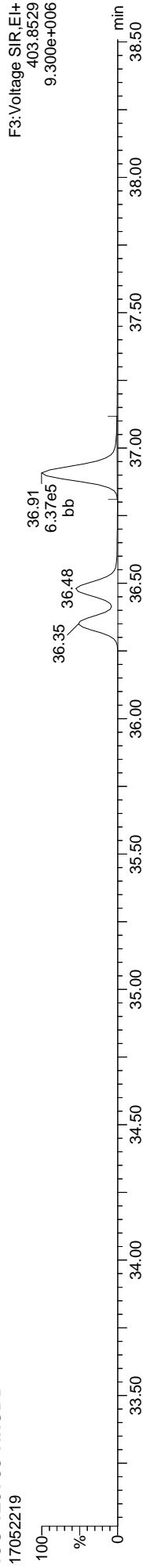
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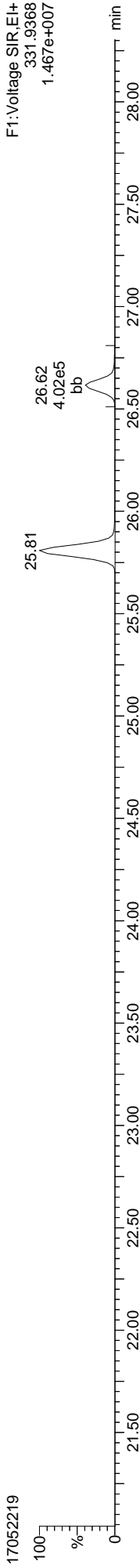
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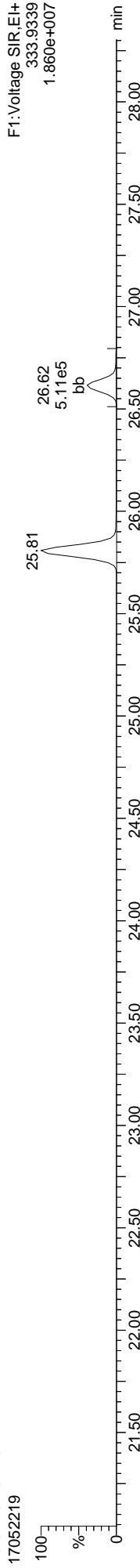
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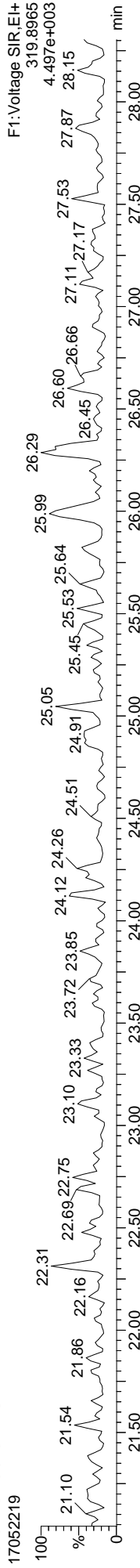
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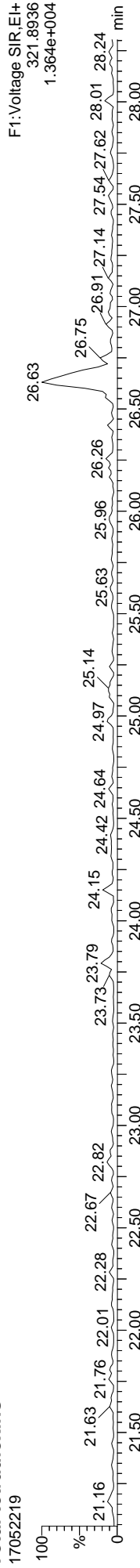
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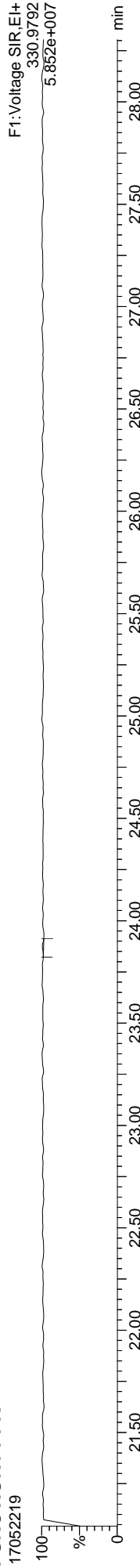
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Total-tetradioxins



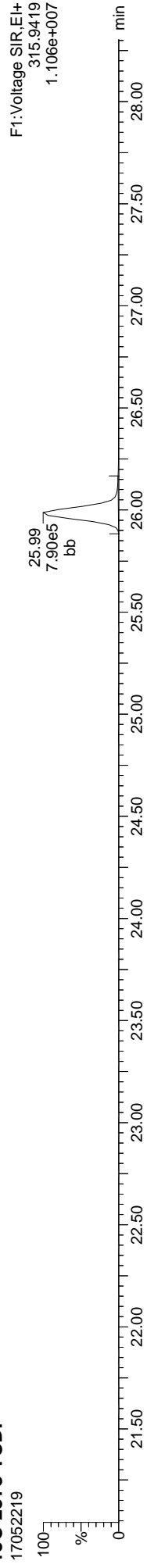
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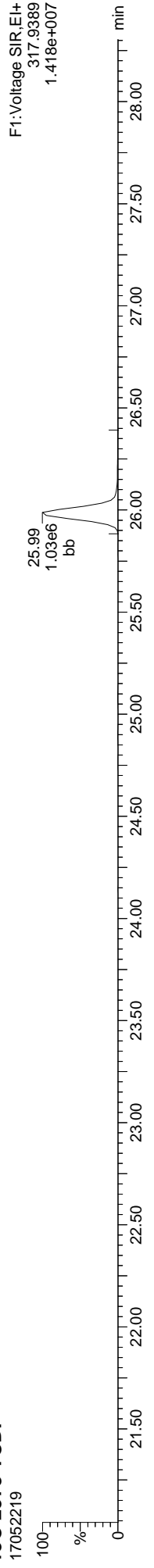
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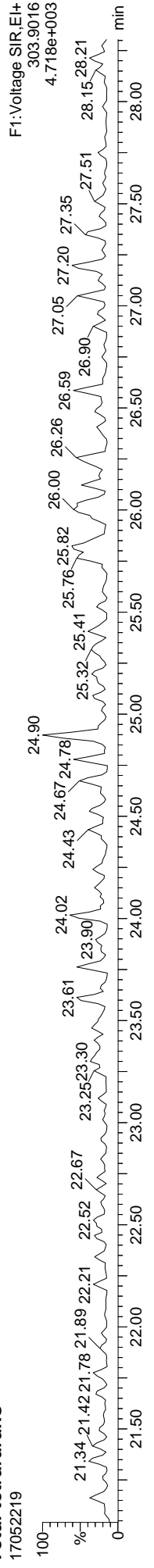
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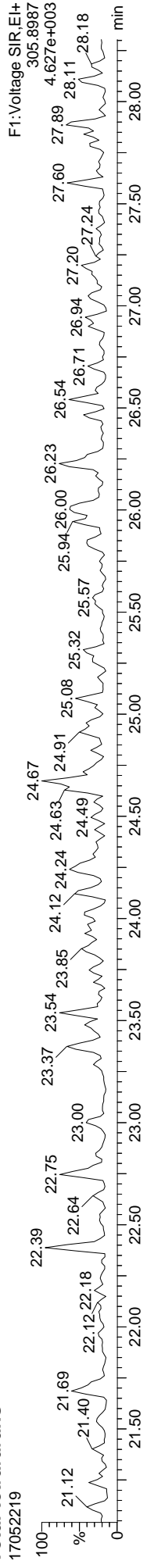
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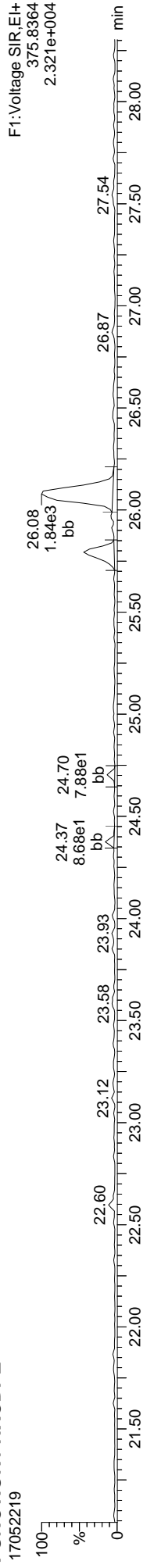
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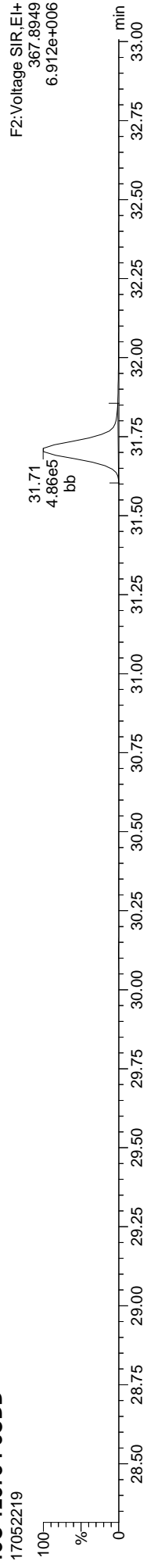
FUNCTION1 HXCDFE



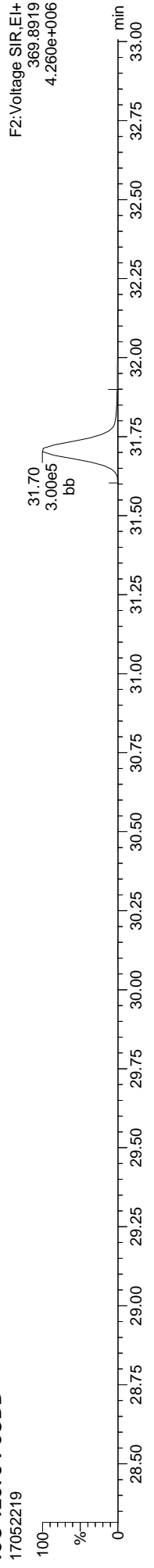
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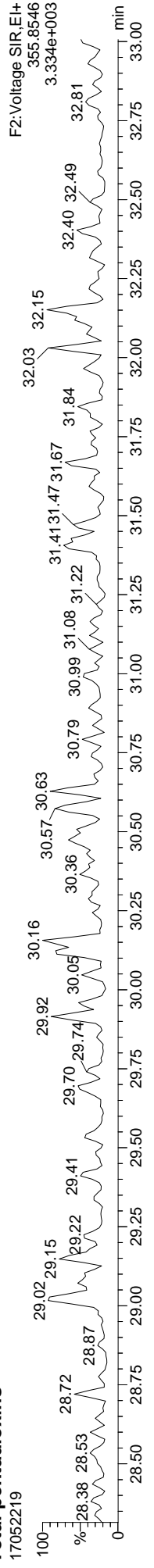
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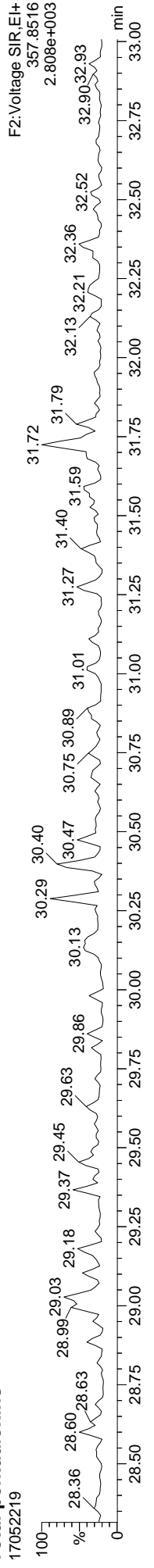
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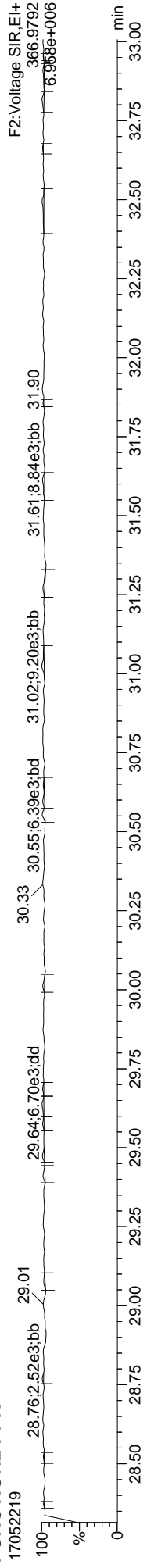
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Total-pentadioxins



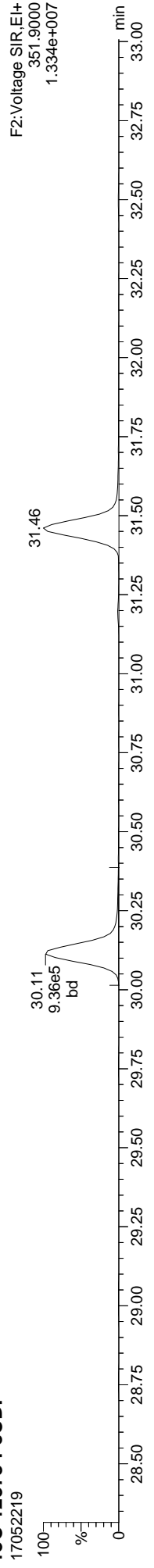
FUNCTION2 PFK



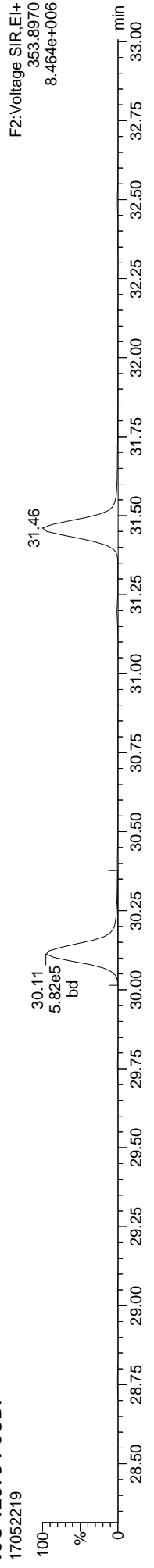
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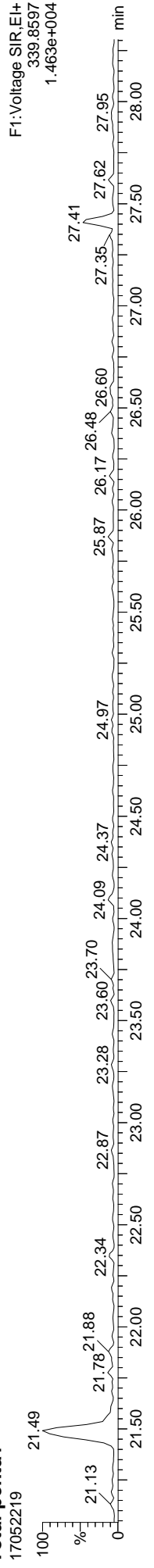
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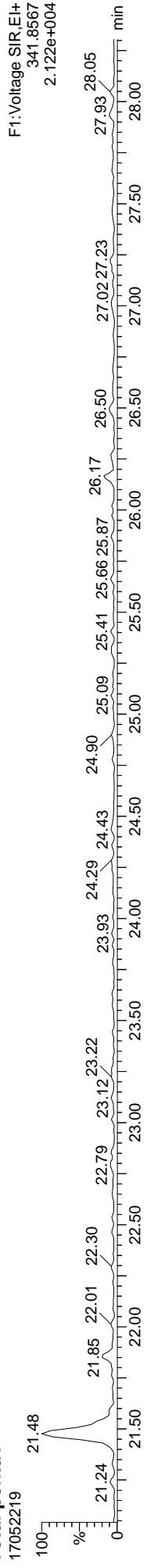
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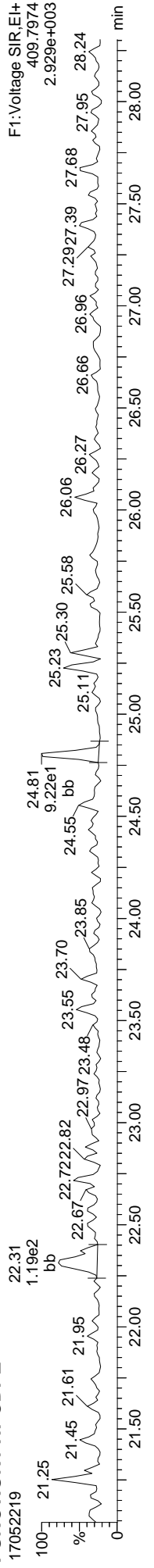
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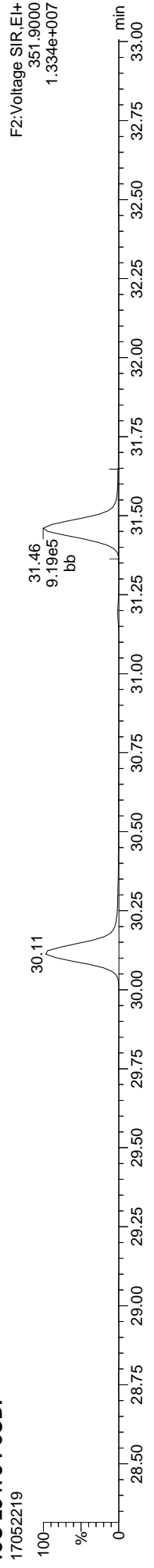
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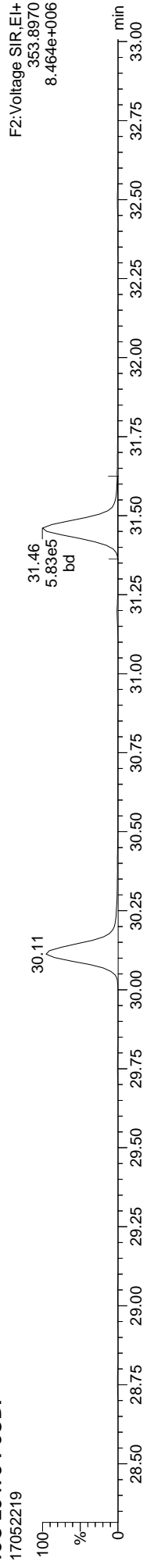
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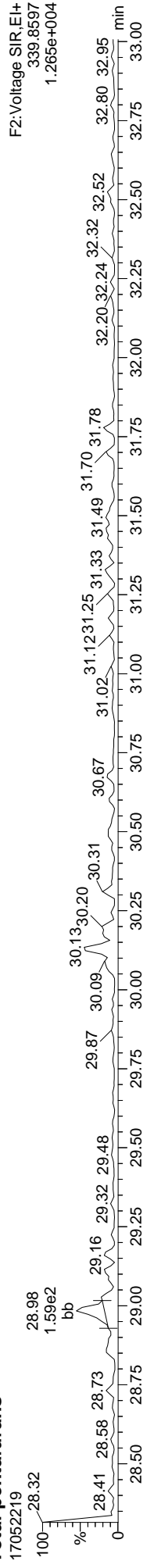
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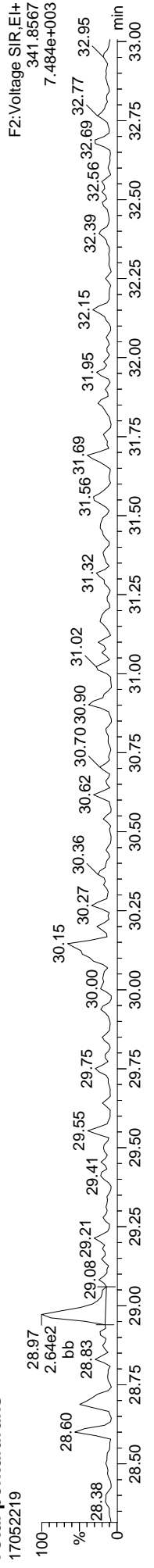
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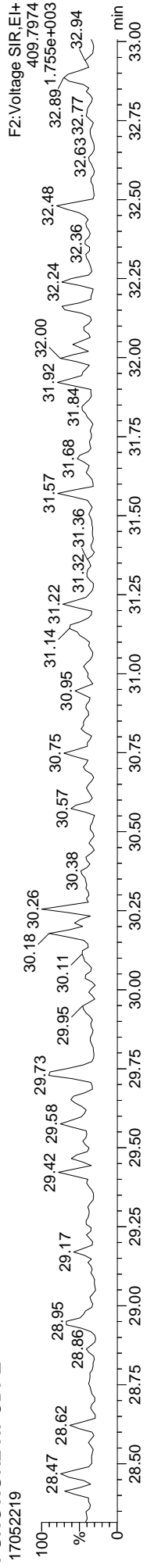
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Total-pentafurans



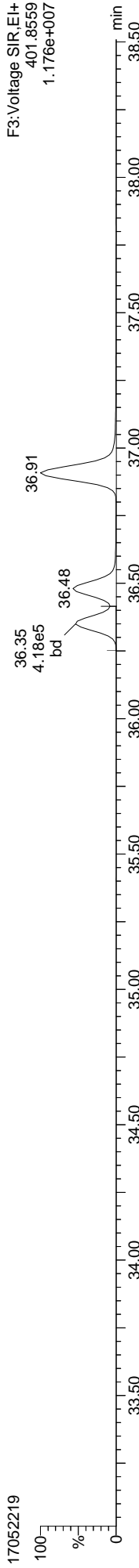
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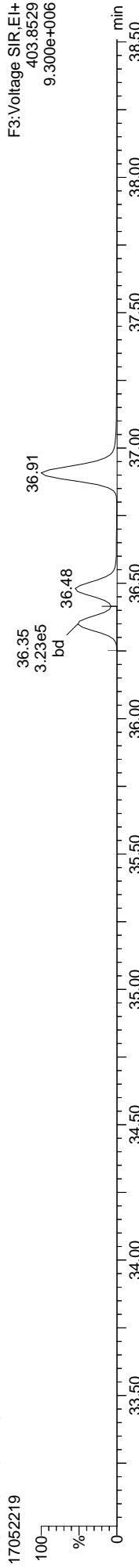
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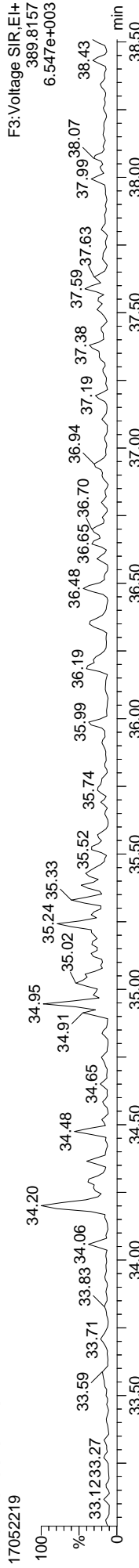
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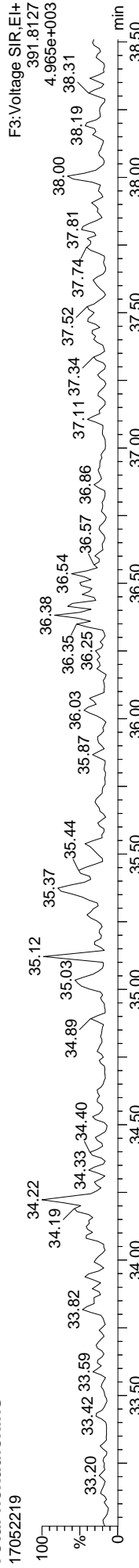
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Total-hexadioxins



Total-hexadioxins



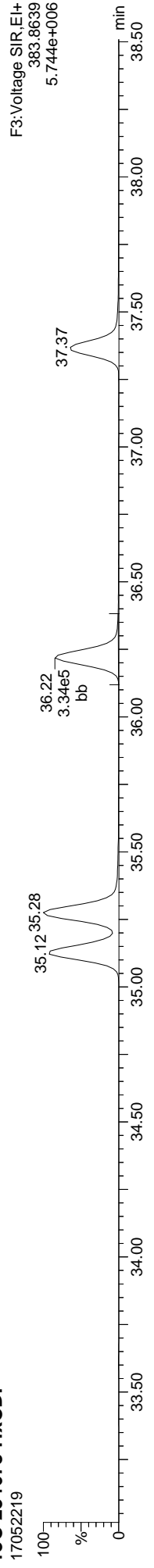
FUNCTION3 PFK



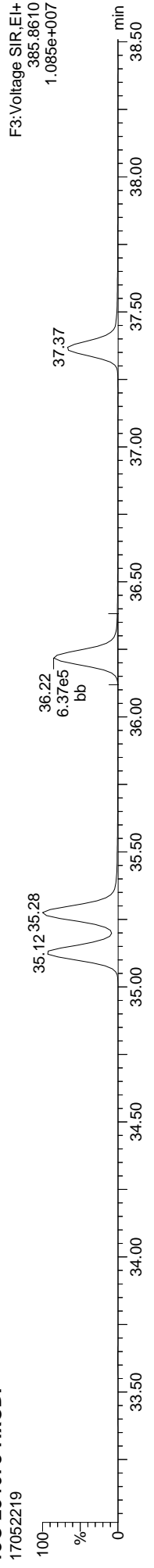
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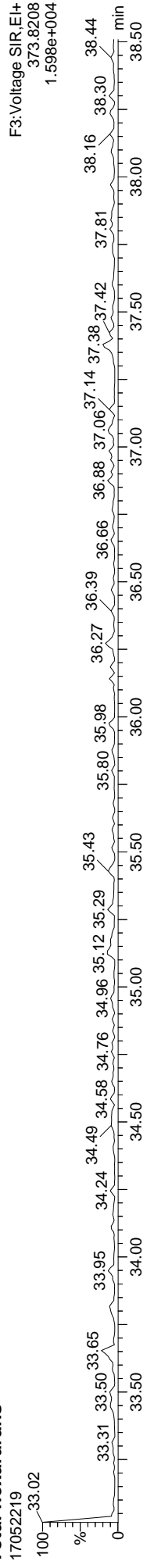
13C-234678-HxCDF



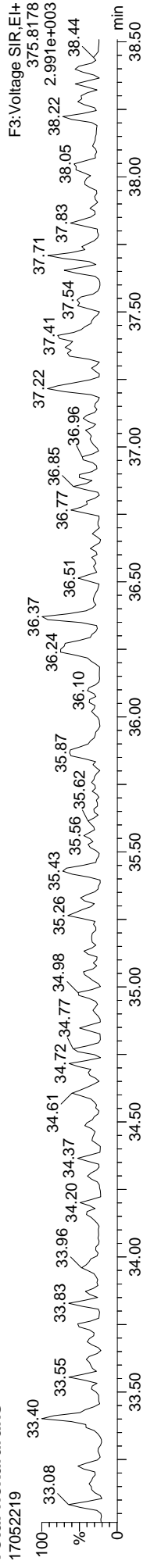
13C-234678-HxCDF



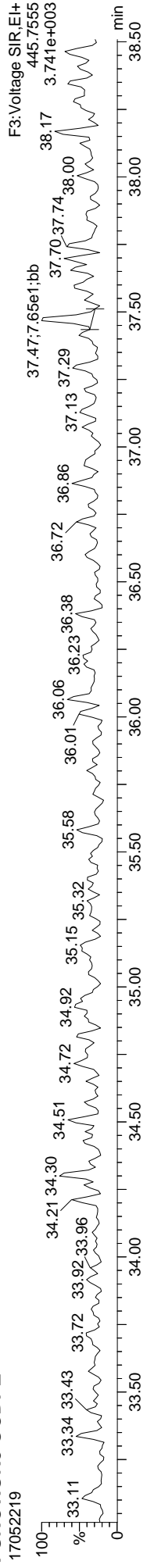
Total-hexafurans



Total-hexafurans



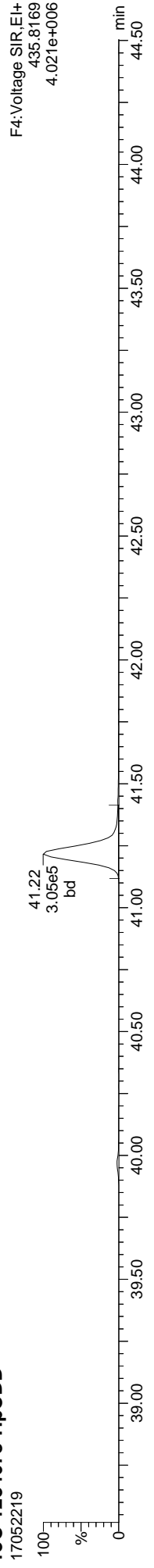
FUNCTION3 OCDPE



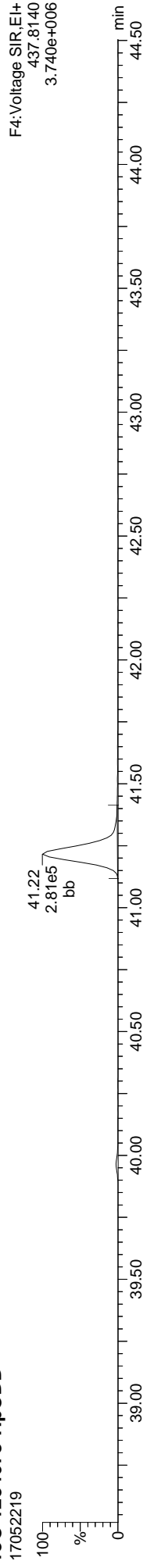
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:15 Pacific Daylight Time

ID: 17E0012-02, Name: 17052219, Date: 23-May-2017, Time: 01:35:40, Conditions: AUTOSPEC01, User: PK

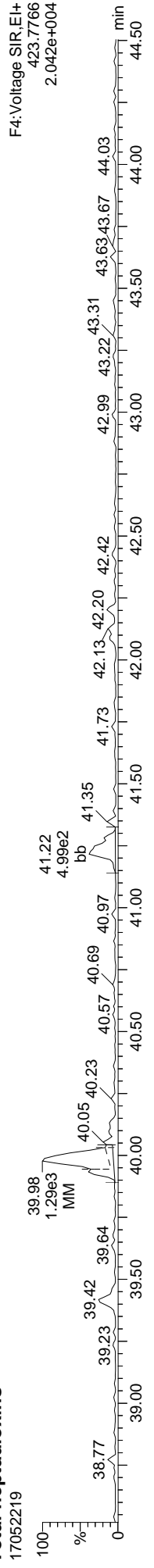
13C-1234678-HpCDD



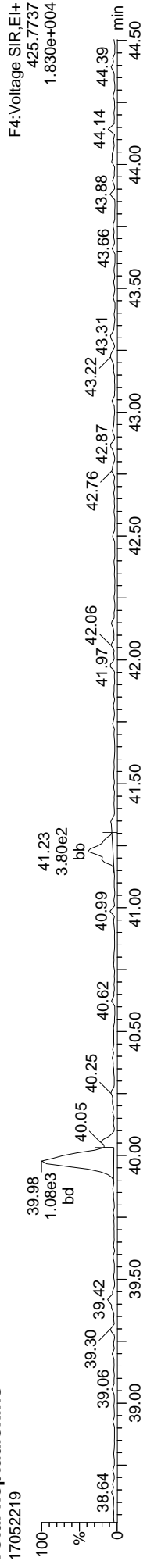
13C-1234678-HpCDD



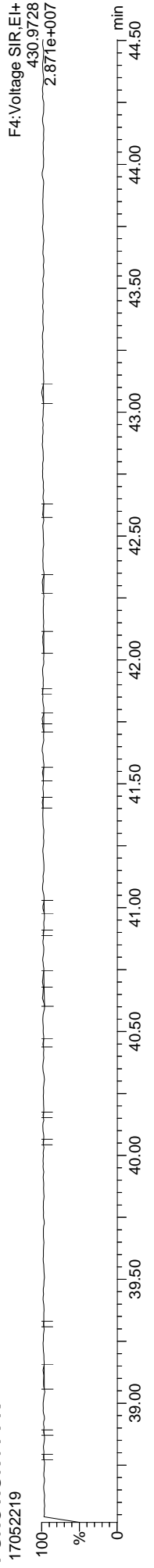
Total-heptadioxins



Total-heptadioxins



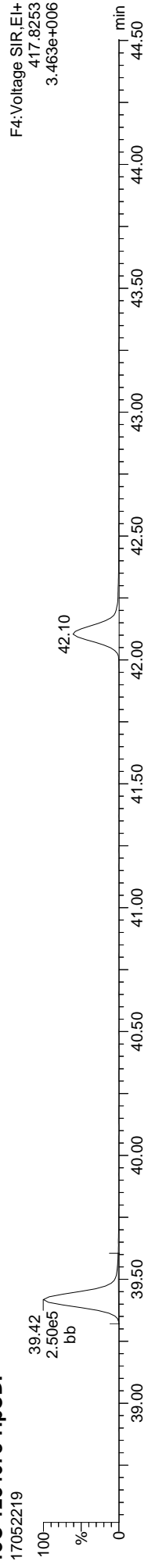
FUNCTION4 PFK



Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:15 Pacific Daylight Time

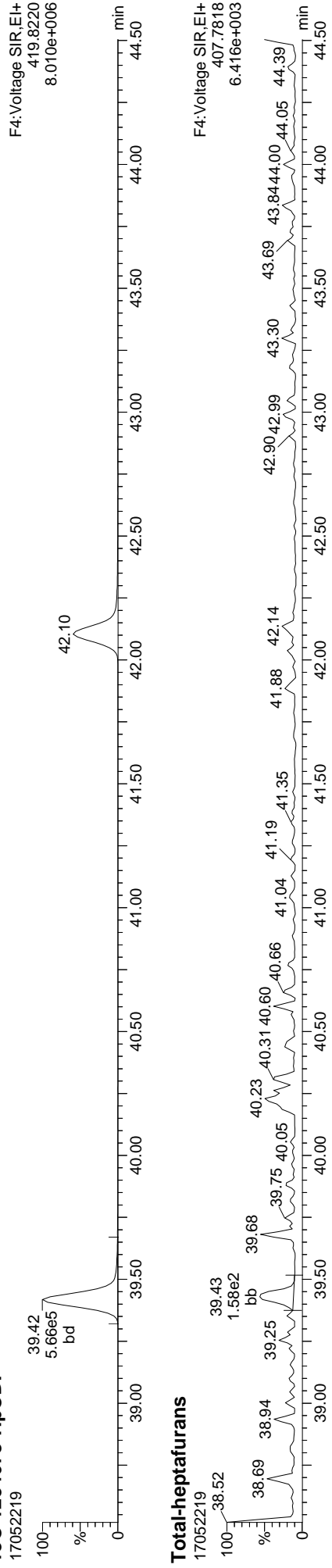
ID: 17E0012-02, Name: 170522219, Date: 23-May-2017, Time: 01:35:40, Conditions: AUTOSPEC01, User: PK

13C-1234678-HpCDF



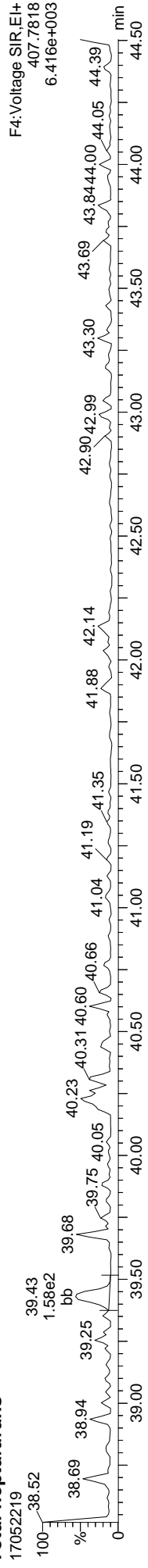
F4:Voltage SIR,EI+
417.8253
3.463e+006

13C-1234678-HpCDF



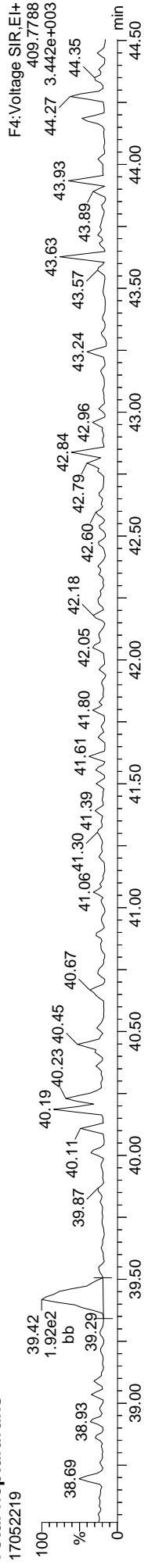
F4:Voltage SIR,EI+
419.8220
8.010e+006

Total-heptafurans



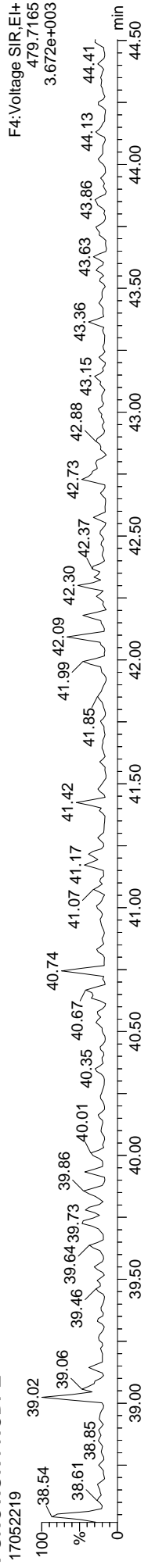
F4:Voltage SIR,EI+
407.7818
6.416e+003

Total-heptafurans



F4:Voltage SIR,EI+
409.7788
3.442e+003

FUNCTION4 NCDPE

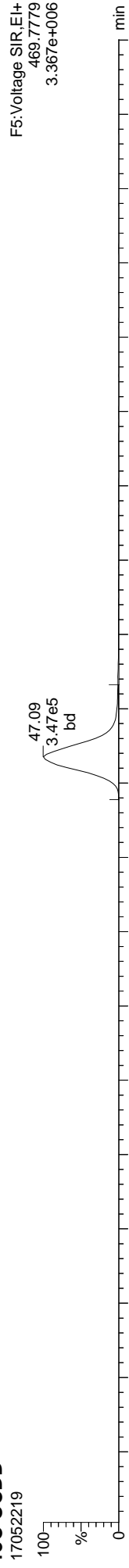


F4:Voltage SIR,EI+
479.7165
3.672e+003

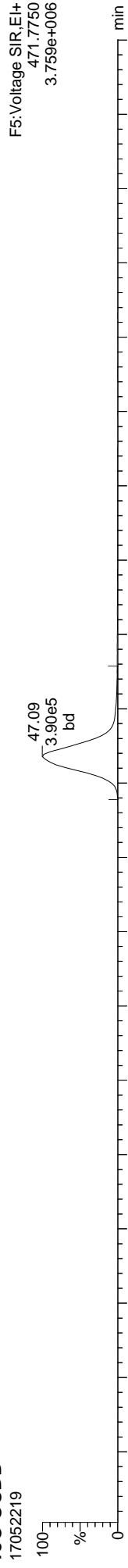
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:15 Pacific Daylight Time

ID: 17E0012-02, Name: 17052219, Date: 23-May-2017, Time: 01:35:40, Conditions: AUTOSPEC01, User: PK

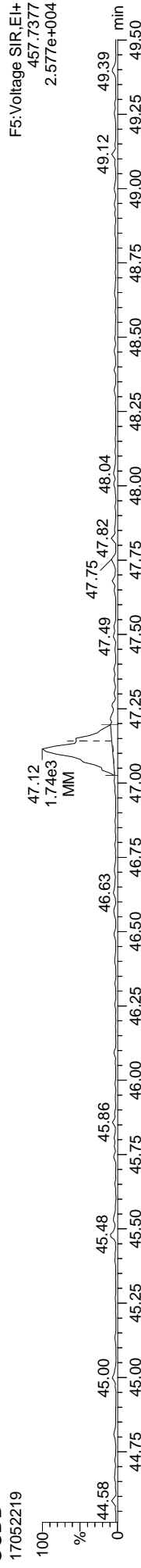
13C-OCDD



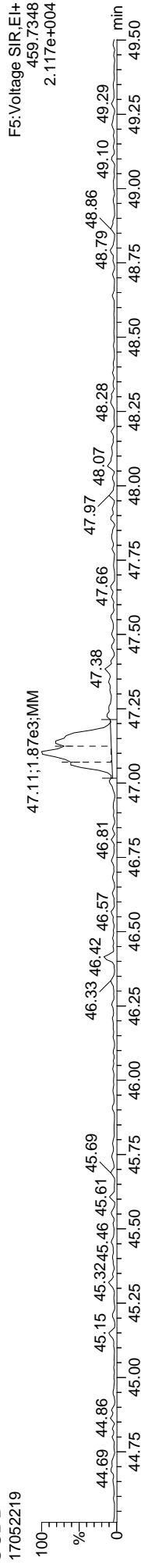
13C-OCDD



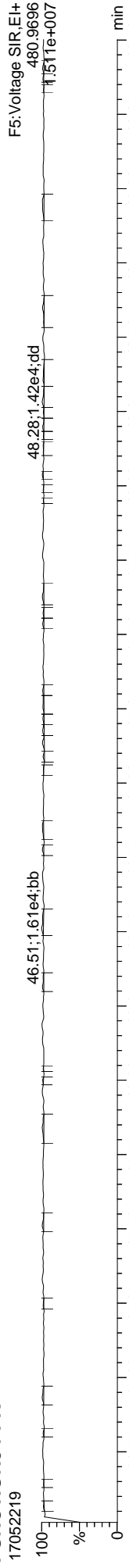
OCDD



OCDD



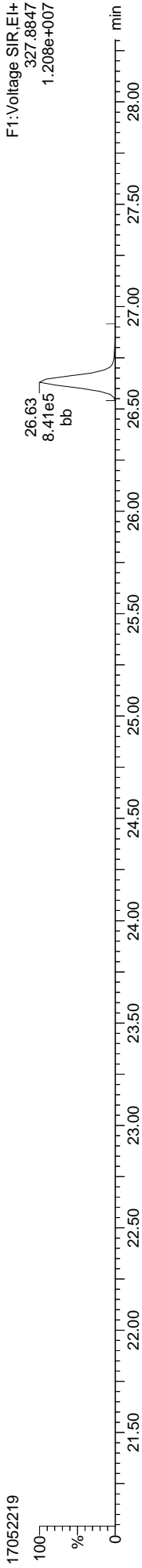
FUNCTION5 PFK



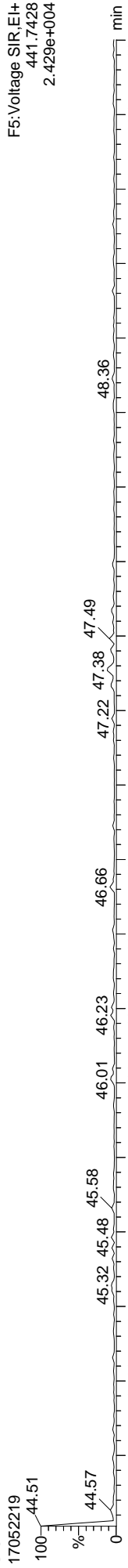
Quantify Sample Report **MassLynx MassLynx V4.1 SCN909**
 Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
 Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
 Printed: Tuesday, May 23, 2017 13:55:15 Pacific Daylight Time

ID: 17E0012-02, Name: 17052219, Date: 23-May-2017, Time: 01:35:40, Conditions: AUTOSPEC01, User: PK

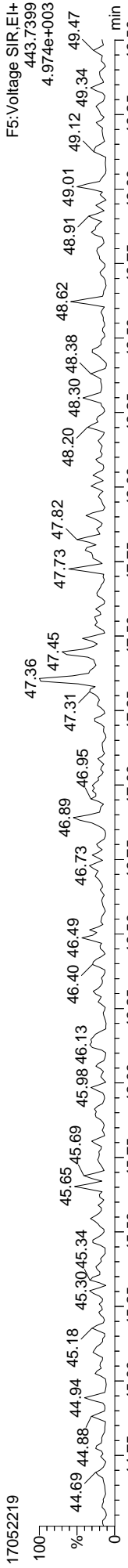
37CL-2378-TCDD



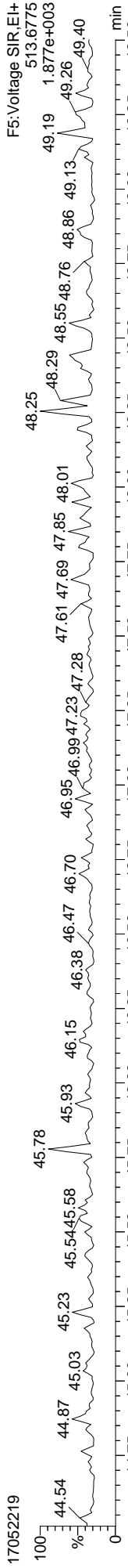
OCDF



OCDF



FUNCTION5 DCDPE





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

Laboratory: Analytical Resources, Inc. SDG: 17E0012
 Client: Anchor QEA, LLC
 Project: Port Gamble Shellfish Monitoring
 Matrix: Tissue Laboratory ID: 17E0012-03 File ID: 17052220
 Sampled: 04/27/17 13:30 Prepared: 05/09/17 16:05 Analyzed: 05/23/17 02:28
 Solids Wt%: Preparation: EPA 1613 Initial/Final: 10.05 g / 20 uL
 Result Basis: Dry Sequence: SFE0219 Calibration: AE00055
 Batch: BFE0233 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.000	0.655-0.886	0.050	0.995	ND	ng/kg	U
1746-01-6	2,3,7,8-TCDD	1	0.148	0.655-0.886		0.995	0.227	ng/kg	EMPC, J, B
57117-41-6	1,2,3,7,8-PeCDF	1	0.000	1.318-1.783	0.057	4.98	ND	ng/kg	U
57117-31-4	2,3,4,7,8-PeCDF	1	0.000	1.318-1.783	0.055	4.98	ND	ng/kg	U
40321-76-4	1,2,3,7,8-PeCDD	1	0.000	1.318-1.783	0.069	4.98	ND	ng/kg	U
70648-26-9	1,2,3,4,7,8-HxCDF	1	0.000	1.054-1.426	0.039	4.98	ND	ng/kg	U
57117-44-9	1,2,3,6,7,8-HxCDF	1	0.842	1.054-1.426		4.98	0.048	ng/kg	EMPC, J, B
60851-34-5	2,3,4,6,7,8-HxCDF	1	0.000	1.054-1.426	0.040	4.98	ND	ng/kg	U
72918-21-9	1,2,3,7,8,9-HxCDF	1	1.135	1.054-1.426		4.98	0.109	ng/kg	J, B
39227-28-6	1,2,3,4,7,8-HxCDD	1	0.000	1.054-1.426	0.079	4.98	ND	ng/kg	U
57653-85-7	1,2,3,6,7,8-HxCDD	1	0.000	1.054-1.426	0.082	4.98	ND	ng/kg	U
19408-74-3	1,2,3,7,8,9-HxCDD	1	0.000	1.054-1.426	0.089	4.98	ND	ng/kg	U
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	1.034	0.893-1.208		4.98	0.160	ng/kg	J, B
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	0.000	0.893-1.208	0.084	4.98	ND	ng/kg	U
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	0.803	0.893-1.208		4.98	0.378	ng/kg	EMPC, J, B
39001-02-0	OCDF	1	1.057	0.757-1.024		9.95	0.401	ng/kg	EMPC, J, B
3268-87-9	OCDD	1	0.752	0.757-1.024		9.95	4.19	ng/kg	EMPC, J, B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			0.995	ND	ng/kg
41903-57-5	Total TCDD	1	0.000			0.995	0.227	ng/kg
30402-15-4	Total PeCDF	1	0.000			0.995	ND	ng/kg
36088-22-9	Total PeCDD	1	0.000			0.995	ND	ng/kg
55684-94-1	Total HxCDF	1	0.000			0.995	0.157	ng/kg
34465-46-8	Total HxCDD	1	0.000			0.995	0.149	ng/kg
38998-75-3	Total HpCDF	1	0.000			0.995	0.304	ng/kg
37871-00-4	Total HpCDD	1	0.000			0.995	1.74	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.249
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.249



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

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>17E0012</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Port Gamble Shellfish Monitoring</u>
Matrix:	<u>Tissue</u>	Laboratory ID:	<u>17E0012-03</u>
Sampled:	<u>04/27/17 13:30</u>	Prepared:	<u>05/09/17 16:05</u>
Solids Wt%:		Preparation:	<u>EPA 1613</u>
Result Basis:	<u>Dry</u>	Sequence:	<u>SFE0219</u>
Batch:	<u>BFE0233</u>	Instrument:	<u>AUTOSPEC01</u>
		File ID:	<u>17052220</u>
		Analyzed:	<u>05/23/17 02:28</u>
		Initial/Final:	<u>10.05 g / 20 uL</u>
		Calibration:	<u>AE00055</u>
		Column:	<u>RTX-Dioxin2</u>

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF		0.790	0.655-0.886		42.2	24 - 169 %	
13C12-2,3,7,8-TCDD		0.772	0.655-0.886		42.1	25 - 164 %	
13C12-1,2,3,7,8-PeCDF		1.601	1.318-1.783		35.3	24 - 185 %	
13C12-2,3,4,7,8-PeCDF		1.603	1.318-1.783		36.8	21 - 178 %	
13C12-1,2,3,7,8-PeCDD		1.592	1.318-1.783		37.6	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF		0.517	0.434-0.587		40.4	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF		0.524	0.434-0.587		40.5	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF		0.530	0.434-0.587		40.9	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF		0.521	0.434-0.587		37.2	29 - 147 %	
13C12-1,2,3,4,7,8-HxCDD		1.309	1.054-1.426		44.9	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD		1.255	1.054-1.426		42.0	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF		0.456	0.374-0.506		36.8	28 - 143 %	
13C12-1,2,3,4,7,8,9-HpCDF		0.446	0.374-0.506		36.9	26 - 138 %	
13C12-1,2,3,4,6,7,8-HpCDD		1.048	0.893-1.208		41.9	23 - 140 %	
13C12-OCDD		0.894	0.757-1.024		31.8	17 - 157 %	
37C14-2,3,7,8-TCDD		328.000			93.7	35 - 197 %	

* Values outside of QC limits

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

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
 Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
 Printed: Tuesday, May 23, 2017 13:55:19 Pacific Daylight Time

Method: C:\MassLynx\Dioxin.pro\MethDB\Dioxin170518.mdb 18 May 2017 15:01:42
Calibration: C:\MassLynx\Dioxin.pro\CurveDB\170518CIH.cdb 19 May 2017 13:57:26

ID: 17E0012-03, **Name:** 17052220, **Date:** 23-May-2017, **Time:** 02:28:55, **Conditions:** AUTOSPEC01, **User:** PK

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
2378-TCDF					1.018		0.770	824	783								
12378-PeCDF					0.977		1.550	765	778								
23478-PeCDF					1.019		1.550	765	778								
123478-HxCDF					1.150		1.240	437	442								
234678-HxCDF					1.188		1.240	437	442								
123678-HxCDF	35.297	1.001	1.135e2	1.349e2	1.100	0.842	1.240	437	442	3.45e3	2.26e3	7.9	YES	YES	bb	db	0.024
123789-HxCDF	37.380	1.000	1.856e2	1.635e2	1.116	1.135	1.240	437	442	5.20e3	2.91e3	11.9	YES	NO	bb	bb	0.055
1234678-HpCDF	39.397	0.999	3.156e2	3.051e2	1.238	1.034	1.050	558	340	3.96e3	5.01e3	7.1	YES	NO	MM	bb	0.080
1234789-HpCDF					1.257		1.050	558	340								
OCDF	47.412	1.007	3.828e2	3.622e2	1.321	1.057	0.890	346	487	4.13e3	4.46e3	11.9	YES	YES	MM	MM	0.202
2378-TCDD	26.646	1.001	1.299e2	8.748e2	1.244	0.148	0.770	672	576	2.29e3	1.16e4	3.4	YES	YES	db	bb	0.114
12378-PeCDD					1.058		1.550	760	323								
123478-HxCDD					1.119		1.240	577	702								
123678-HxCDD					1.040		1.240	577	702								
123789-HxCDD					0.981		1.240	577	702								
1234678-HpCDD	41.250	1.001	4.419e2	5.506e2	1.132	0.803	1.050	488	429	7.14e3	1.18e4	14.6	YES	YES	bb	bb	0.190
OCDD	47.107	1.000	2.823e3	3.756e3	1.117	0.752	0.890	635	1512	3.46e4	3.76e4	54.5	YES	YES	MM	bb	2.106
13C-2378-TCDF	25.973	1.006	6.049e5	7.653e5	1.685	0.790	0.770	5483	3105	8.30e6	1.06e7	1513.2	YES	NO	bb	bb	42.171
13C-12378-PeCDF	30.113	1.167	7.156e5	4.471e5	1.706	1.601	1.550	3401	2366	1.01e7	6.30e6	2970.2	YES	NO	bb	bb	35.346
13C-23478-PeCDF	31.461	1.219	7.130e5	4.448e5	1.632	1.603	1.550	3401	2366	1.01e7	6.27e6	2957.3	YES	NO	bb	bb	36.790
13C-123478-HxCDF	35.122	0.952	2.759e5	5.339e5	1.682	0.517	0.510	2968	3873	3.97e6	7.69e6	1336.3	YES	NO	bd	bd	40.446
13C-123678-HxCDF	35.275	0.956	3.227e5	6.157e5	1.945	0.524	0.510	2968	3873	4.43e6	8.30e6	1492.2	YES	NO	db	db	40.527
13C-234678-HxCDF	36.218	0.981	2.668e5	5.037e5	1.582	0.530	0.510	2968	3873	3.80e6	7.21e6	1281.8	YES	NO	bd	bb	40.918
13C-123789-HxCDF	37.369	1.013	1.958e5	3.756e5	1.291	0.521	0.510	2968	3873	2.75e6	5.40e6	927.0	YES	NO	bb	bb	37.192
13C-1234678-HpCDF	39.419	1.068	1.955e5	4.288e5	1.427	0.456	0.440	1309	2312	2.74e6	6.11e6	2095.1	YES	NO	bd	bb	36.770
13C-1234789-HpCDF	42.104	1.141	1.297e5	2.907e5	0.957	0.446	0.440	1309	2312	1.57e6	3.44e6	1199.0	YES	NO	bd	bd	36.910
13C-1234-TCDD	25.809	0.000	8.443e5	1.084e6	1.000	0.779	0.770	2001	1233	1.22e7	1.56e7	6095.4	YES	NO	bb	bb	100.000
13C-2378-TCDD	26.616	1.031	3.085e5	3.998e5	0.873	0.772	0.770	2001	1233	4.31e6	5.57e6	2152.1	YES	NO	bb	bb	42.084
13C-12378-PeCDD	31.702	1.228	3.832e5	2.407e5	0.860	1.592	1.550	1537	1423	5.44e6	3.41e6	3538.7	YES	NO	bd	bd	37.618
13C-123478-HxCDD	36.349	0.985	3.375e5	2.579e5	1.114	1.309	1.240	1562	1745	4.88e6	3.79e6	3122.2	YES	NO	bd	bd	44.917
13C-123678-HxCDD	36.470	0.988	3.499e5	2.789e5	1.258	1.255	1.240	1562	1745	5.00e6	3.96e6	3197.0	YES	NO	db	dd	41.983
13C-1234678-HpCDD	41.217	1.117	2.360e5	2.251e5	0.924	1.048	1.050	1676	1199	3.04e6	2.85e6	1814.0	YES	NO	bd	bd	41.946
13C-OCDD	47.089	1.276	2.640e5	2.954e5	0.738	0.894	0.890	1257	1254	2.52e6	2.81e6	2004.8	YES	NO	bd	bd	63.658
13C-123789-HxCDD	36.909	0.000	6.693e5	5.210e5	1.000	1.285	1.240	1562	1745	9.35e6	7.33e6	5987.2	YES	NO	bb	bb	100.000
Total-tetrafurans			0.000e0	0.000e0	1.018			824		0.00e0							

Quantify Sample Summary Report MassLynx MassLynx V4.1 SCN909

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld

Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time

Printed: Tuesday, May 23, 2017 13:55:19 Pacific Daylight Time

ID: 17E0012-03, Name: 17052220, Date: 23-May-2017, Time: 02:28:55, Conditions: AUTOSPEC01, User: PK

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg	
Total-penta1			0.000e0					294		0.00e0								
Total-pentafurans			0.000e0		0.998			765		0.00e0								0.079
Total-hexafurans			2.991e2		1.138			437		8.65e3								0.153
Total-heptafurans			5.324e2		1.248			558		1.03e4								0.433
Total-Furans			1.214e3		1.138			824		2.31e4								0.114
Total-tetradioxins			1.299e2		1.244			672		2.29e3								
Total-pentadioxins			0.000e0		1.058			760		0.00e0								0.075
Total-hexadioxins			2.542e2		1.047			577		4.85e3								0.875
Total-heptadioxins			2.243e3		1.132			488		3.33e4								3.170
Total-Dioxins			5.450e3		1.099			672		7.50e4								3.603
Total-TEQ			6.664e3					672		9.81e4								37.498
37CL-2378-TCDD	26.631	1.032	7.385e5		1.021			999		1.05e7		10486.2	YES		bb			
FUNCTION1 PFK			1.144e5					503327		3.48e6								0.000
FUNCTION2 PFK			2.040e5					99480		5.20e6								0.000
FUNCTION3 PFK			1.124e4					546936		5.62e5								0.000
FUNCTION4 PFK			0.000e0					278244		0.00e0								
FUNCTION5 PFK			1.384e5					179418		5.42e6								
FUNCTION1 HXCD...			1.453e3					330		1.87e4								0.000
FUNCTION1 HPCD...			1.441e2					303		3.18e3								0.000
FUNCTION2 HPCD...			0.000e0					365		0.00e0								
FUNCTION3 OCDPE			7.719e1					478		2.58e3								0.000
FUNCTION4 NCDPE			0.000e0					330		0.00e0								
FUNCTION5 DCDPE			0.000e0					303		0.00e0								

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
 Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
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Method: C:\MassLynx\Dioxin.pro\MethDB\Dioxin170518.mdb 18 May 2017 15:01:42
 Calibration: C:\MassLynx\Dioxin.pro\CurveDB\170518CIH.cdb 19 May 2017 13:57:26

ID: 17E0012-03, Name: 17052220, Date: 23-May-2017, Time: 02:28:55, Conditions: AUTOSPEC01, User: PK

TF

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

PP

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

PF

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

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	37.38	1.856e2	1.635e2	1.116	1.14	1.24	11.9	YES	NO	bb	bb	0.055
2	123678-HxCDF	35.30	1.135e2	1.349e2	1.100	0.84	1.24	7.9	YES	YES	bb	db	0.024

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptafurans	40.21	2.168e2	2.568e2	1.248	0.84	1.05	11.4	YES	YES	bb	MM	0.073
2	1234678-HpCDF	39.40	3.156e2	3.051e2	1.238	1.03	1.05	7.1	YES	NO	MM	bb	0.080

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

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptafurans	40.21	2.168e2	2.568e2	1.248	0.84	1.05	11.4	YES	YES	bb	MM	0.073
2	1234678-HpCDF	39.40	3.156e2	3.051e2	1.238	1.03	1.05	7.1	YES	NO	MM	bb	0.080
3	123789-HxCDF	37.38	1.856e2	1.635e2	1.116	1.14	1.24	11.9	YES	NO	bb	bb	0.055
4	123678-HxCDF	35.30	1.135e2	1.349e2	1.100	0.84	1.24	7.9	YES	YES	bb	db	0.024
5	OCDF	47.41	3.828e2	3.622e2	1.321	1.06	0.89	11.9	YES	YES	MM	MM	0.202

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.65	1.299e2	8.748e2	1.244	0.15	0.77	3.4	YES	YES	db	bb	0.114

PD

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

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexadioxins	35.44	1.205e2	8.518e1	1.047	1.41	1.24	3.7	YES	NO	bb	db	0.032
2	Total-hexadioxins	34.22	1.336e2	1.392e2	1.047	0.96	1.24	4.7	YES	YES	bb	bb	0.043

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
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HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptadioxins	39.98	1.801e3	1.775e3	1.132	1.01	1.05	53.6	YES	NO	bb	bb	0.685
2	1234678-HpCDD	41.25	4.419e2	5.506e2	1.132	0.80	1.05	14.6	YES	YES	bb	bb	0.190

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexadioxins	35.44	1.205e2	8.518e1	1.047	1.41	1.24	3.7	YES	NO	bb	db	0.032
2	Total-hexadioxins	34.22	1.336e2	1.392e2	1.047	0.96	1.24	4.7	YES	YES	bb	bb	0.043
3	2378-TCDD	26.65	1.299e2	8.748e2	1.244	0.15	0.77	3.4	YES	YES	db	bb	0.114
4	Total-heptadioxins	39.98	1.801e3	1.775e3	1.132	1.01	1.05	53.6	YES	NO	bb	bb	0.685
5	OCDD	47.11	2.823e3	3.756e3	1.117	0.75	0.89	54.5	YES	YES	MM	bb	2.106
6	1234678-HpCDD	41.25	4.419e2	5.506e2	1.132	0.80	1.05	14.6	YES	YES	bb	bb	0.190

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptafurans	40.21	2.168e2	2.568e2	1.248	0.84	1.05	11.4	YES	YES	bb	MM	0.073
2	1234678-HpCDF	39.40	3.156e2	3.051e2	1.238	1.03	1.05	7.1	YES	NO	MM	bb	0.080
3	123789-HxCDF	37.38	1.856e2	1.635e2	1.116	1.14	1.24	11.9	YES	NO	bb	bb	0.055
4	123678-HxCDF	35.30	1.135e2	1.349e2	1.100	0.84	1.24	7.9	YES	YES	bb	db	0.024
5	OCDF	47.41	3.828e2	3.622e2	1.321	1.06	0.89	11.9	YES	YES	MM	MM	0.202
6	Total-hexadioxins	35.44	1.205e2	8.518e1	1.047	1.41	1.24	3.7	YES	NO	bb	db	0.032
7	Total-hexadioxins	34.22	1.336e2	1.392e2	1.047	0.96	1.24	4.7	YES	YES	bb	bb	0.043
8	2378-TCDD	26.65	1.299e2	8.748e2	1.244	0.15	0.77	3.4	YES	YES	db	bb	0.114
9	Total-heptadioxins	39.98	1.801e3	1.775e3	1.132	1.01	1.05	53.6	YES	NO	bb	bb	0.685
10	OCDD	47.11	2.823e3	3.756e3	1.117	0.75	0.89	54.5	YES	YES	MM	bb	2.106
11	1234678-HpCDD	41.25	4.419e2	5.506e2	1.132	0.80	1.05	14.6	YES	YES	bb	bb	0.190

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	26.26	4.159e4					2.0	NO		bb		
2	FUNCTION1 PFK	22.63	2.360e4					1.4	NO		bb		
3	FUNCTION1 PFK	21.22	1.279e4					1.0	NO		bb		
4	FUNCTION1 PFK	21.16	1.340e4					1.1	NO		bb		
5	FUNCTION1 PFK	27.18	2.305e4					1.5	NO		bb		

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
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ID: 17E0012-03, Name: 17052220, Date: 23-May-2017, Time: 02:28:55, Conditions: AUTOSPEC01, User: PK

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.95	1.318e4					2.2	NO		bd		0.000
2	FUNCTION2 PFK	29.79	3.546e3					1.5	NO		bb		0.000
3	FUNCTION2 PFK	29.66	7.510e3					2.0	NO		bb		0.000
4	FUNCTION2 PFK	29.54	5.724e3					2.0	NO		bb		0.000
5	FUNCTION2 PFK	29.48	4.446e3					1.4	NO		bb		0.000
6	FUNCTION2 PFK	29.41	2.438e3					1.0	NO		bb		0.000
7	FUNCTION2 PFK	29.27	2.634e3					1.1	NO		bb		0.000
8	FUNCTION2 PFK	29.08	4.475e2					0.4	NO		bb		0.000
9	FUNCTION2 PFK	28.96	6.402e3					1.5	NO		bb		0.000
10	FUNCTION2 PFK	28.89	1.087e3					0.7	NO		db		0.000
11	FUNCTION2 PFK	28.84	1.294e4					2.3	NO		dd		0.000
12	FUNCTION2 PFK	28.70	1.497e4					2.2	NO		bd		0.000
13	FUNCTION2 PFK	28.64	3.768e3					1.0	NO		bb		0.000
14	FUNCTION2 PFK	28.42	6.182e2					0.6	NO		bb		0.000
15	FUNCTION2 PFK	31.79	2.658e3					1.1	NO		bb		0.000
16	FUNCTION2 PFK	31.52	1.416e3					0.8	NO		bb		0.000
17	FUNCTION2 PFK	31.44	2.731e3					0.9	NO		bb		0.000
18	FUNCTION2 PFK	31.27	1.166e4					1.6	NO		db		0.000
19	FUNCTION2 PFK	31.16	1.135e4					2.2	NO		bd		0.000
20	FUNCTION2 PFK	31.01	1.029e4					0.8	NO		bb		0.000
21	FUNCTION2 PFK	30.91	4.089e3					1.5	NO		bb		0.000
22	FUNCTION2 PFK	30.77	5.591e2					0.5	NO		bb		0.000
23	FUNCTION2 PFK	30.74	4.946e2					0.4	NO		db		0.000
24	FUNCTION2 PFK	30.70	2.429e3					1.0	NO		dd		0.000
25	FUNCTION2 PFK	30.67	2.214e3					1.2	NO		dd		0.000
26	FUNCTION2 PFK	30.64	1.876e3					1.1	NO		bd		0.000
27	FUNCTION2 PFK	30.40	2.774e3					1.3	NO		bb		0.000
28	FUNCTION2 PFK	30.21	9.203e3					1.8	NO		db		0.000
29	FUNCTION2 PFK	30.15	2.624e3					1.2	NO		dd		0.000
30	FUNCTION2 PFK	30.08	9.809e3					2.0	NO		dd		0.000
31	FUNCTION2 PFK	32.97	5.648e2					0.5	NO		bb		0.000
32	FUNCTION2 PFK	32.71	2.666e3					1.1	NO		db		0.000
33	FUNCTION2 PFK	32.66	6.855e3					1.7	NO		bd		0.000
34	FUNCTION2 PFK	32.61	4.598e2					0.4	NO		bb		0.000
35	FUNCTION2 PFK	32.51	7.977e3					1.8	NO		bb		0.000
36	FUNCTION2 PFK	32.43	4.803e3					1.9	NO		bb		0.000
37	FUNCTION2 PFK	32.37	1.174e4					2.0	NO		db		0.000
38	FUNCTION2 PFK	32.28	2.409e3					0.9	NO		bd		0.000
39	FUNCTION2 PFK	32.09	7.474e3					1.8	NO		bb		0.000
40	FUNCTION2 PFK	32.04	3.194e3					0.9	NO		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	38.42	1.124e4					1.0	NO		bb		0.000

PFK4

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

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
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PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	44.88	2.837e3					0.9	NO		bd		
2	FUNCTION5 PFK	44.64	9.699e3					1.5	NO		bb		
3	FUNCTION5 PFK	47.34	2.195e3					0.9	NO		bb		
4	FUNCTION5 PFK	47.23	1.697e4					1.9	NO		db		
5	FUNCTION5 PFK	47.15	1.348e4					1.5	NO		bd		
6	FUNCTION5 PFK	47.10	1.137e3					0.7	NO		bb		
7	FUNCTION5 PFK	46.86	5.992e3					1.3	NO		bb		
8	FUNCTION5 PFK	46.75	1.725e3					0.7	NO		bb		
9	FUNCTION5 PFK	46.70	8.000e3					1.5	NO		bb		
10	FUNCTION5 PFK	46.63	2.211e3					0.8	NO		bb		
11	FUNCTION5 PFK	46.54	7.760e2					0.5	NO		bb		
12	FUNCTION5 PFK	45.90	8.556e2					0.5	NO		bb		
13	FUNCTION5 PFK	45.72	1.806e3					0.7	NO		bb		
14	FUNCTION5 PFK	45.55	4.017e3					1.1	NO		bb		
15	FUNCTION5 PFK	45.15	2.108e3					0.9	NO		bb		
16	FUNCTION5 PFK	45.12	2.701e3					1.0	NO		bb		
17	FUNCTION5 PFK	44.97	2.371e3					0.7	NO		db		
18	FUNCTION5 PFK	44.92	6.090e3					1.1	NO		dd		
19	FUNCTION5 PFK	49.39	1.541e3					0.6	NO		bb		
20	FUNCTION5 PFK	49.29	2.806e3					0.9	NO		bb		
21	FUNCTION5 PFK	49.19	2.060e3					0.7	NO		bb		
22	FUNCTION5 PFK	49.10	8.865e3					1.0	NO		bb		
23	FUNCTION5 PFK	48.98	1.929e3					0.7	NO		bb		
24	FUNCTION5 PFK	48.87	1.789e3					0.7	NO		bb		
25	FUNCTION5 PFK	48.47	7.033e3					1.6	NO		db		
26	FUNCTION5 PFK	48.43	7.993e3					1.6	NO		bd		
27	FUNCTION5 PFK	48.07	8.078e2					0.5	NO		bb		
28	FUNCTION5 PFK	48.03	1.280e4					2.2	NO		db		
29	FUNCTION5 PFK	47.97	3.960e3					1.1	NO		bd		
30	FUNCTION5 PFK	47.54	1.827e3					0.5	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	26.08	1.018e3					37.8	YES		bb		0.000
2	FUNCTION1 HXCD...	25.79	4.345e2					18.9	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	22.31	1.441e2					10.5	YES		bb		0.000

ETHERS3

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

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	33.57	7.719e1					5.4	YES		bb		0.000

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ETHERS5

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

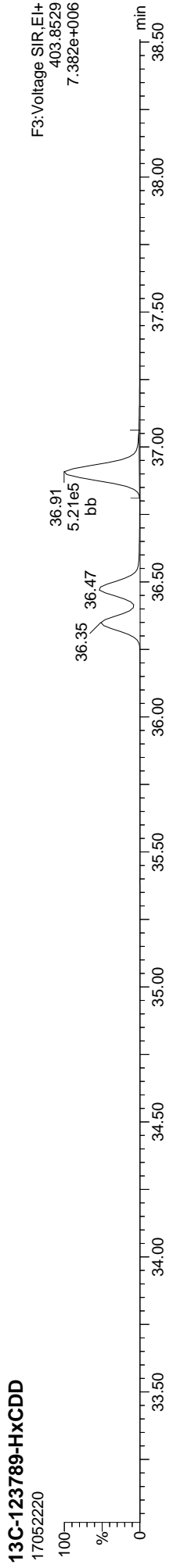
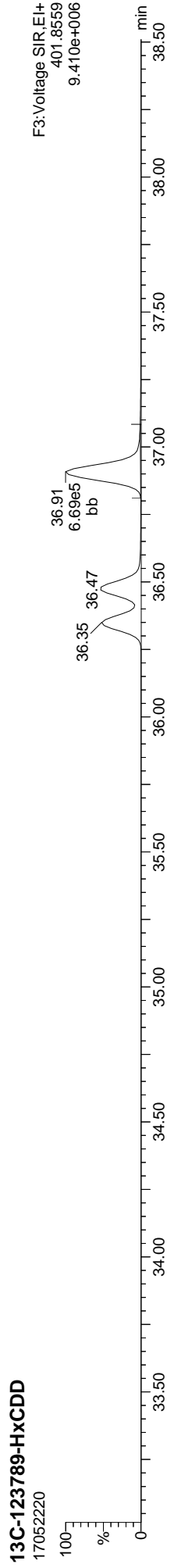
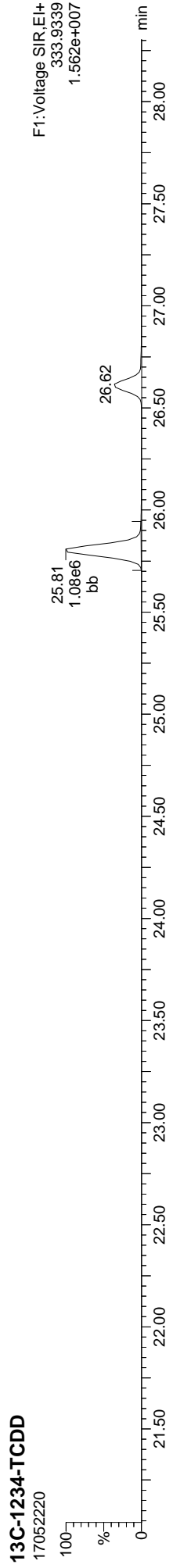
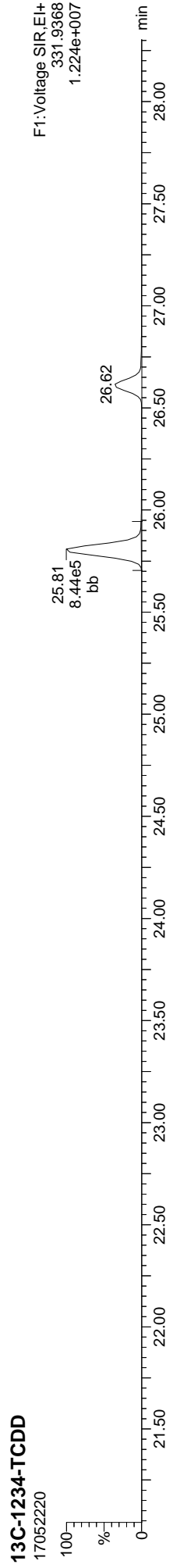
ETHERS6

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

Quantify Sample Report
MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
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Method: C:\MassLynx\Dioxin.pro\MethDB\Dioxin170518.mdb 18 May 2017 15:01:42
Calibration: C:\MassLynx\Dioxin.pro\CurveDB\170518CIH.cdb 19 May 2017 13:57:26

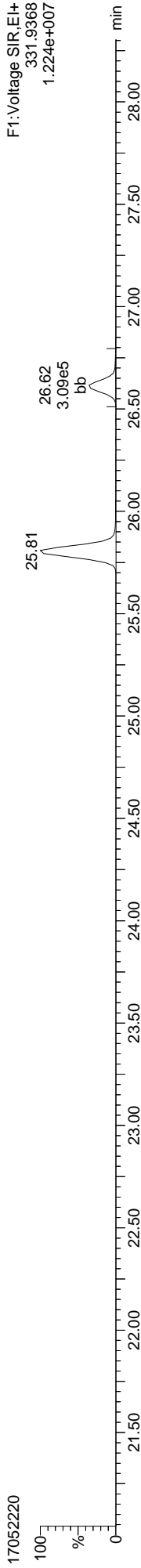
ID: 17E0012-03, **Name:** 17052220, **Date:** 23-May-2017, **Time:** 02:28:55, **Conditions:** AUTOSPEC01, **User:** PK



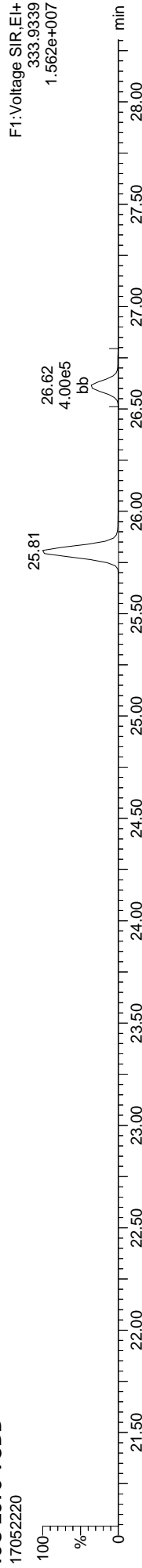
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
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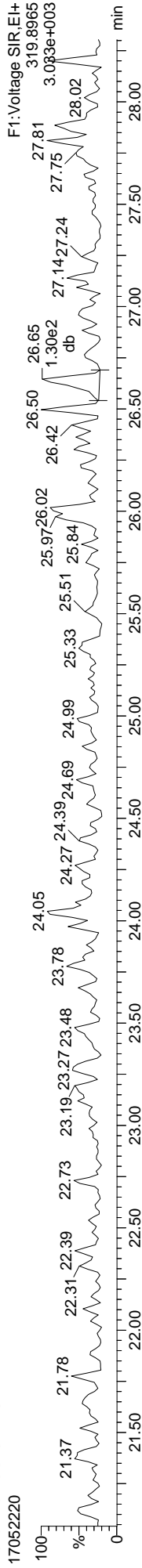
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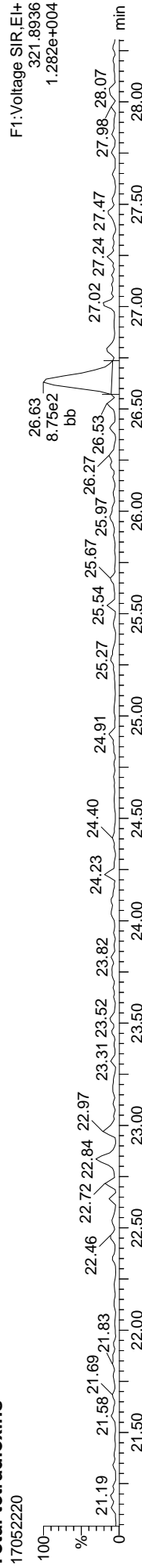
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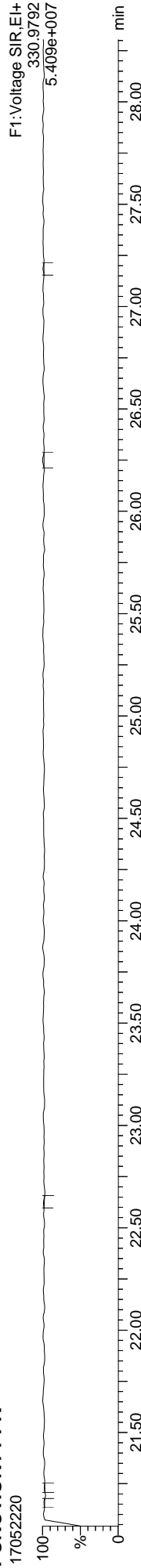
Total-tetradioxins



Total-tetradioxins



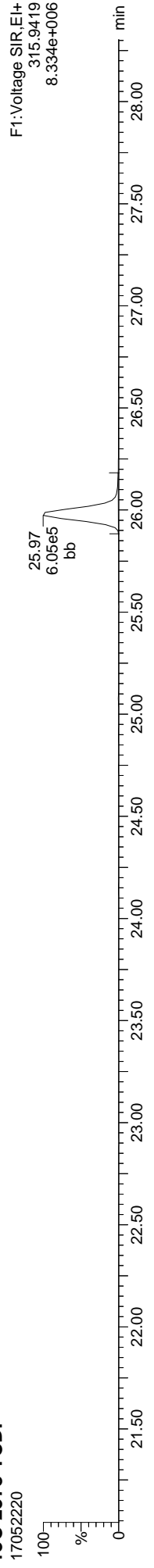
FUNCTION1 PFK



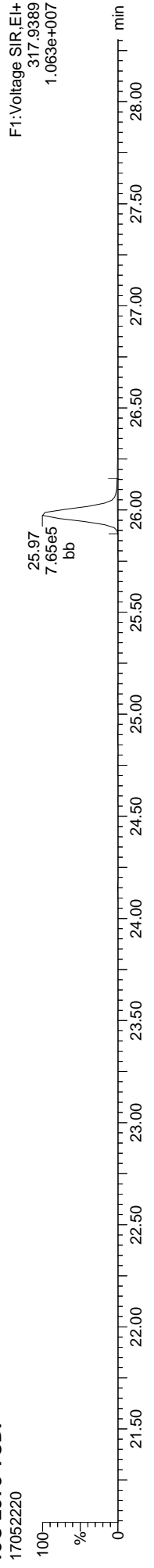
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MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\17052220.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
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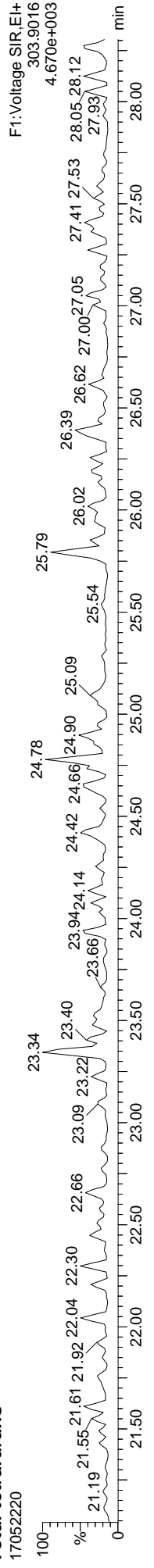
13C-2378-TCDF



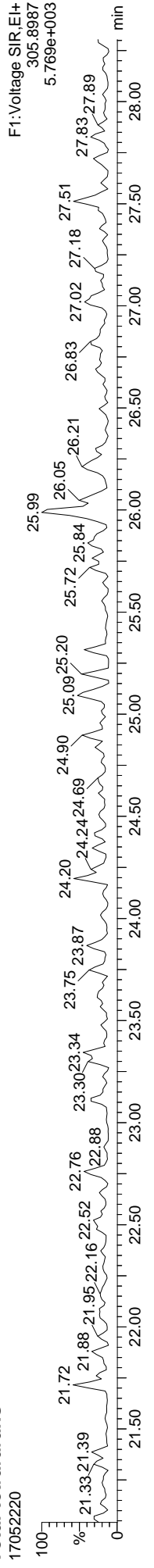
13C-2378-TCDF



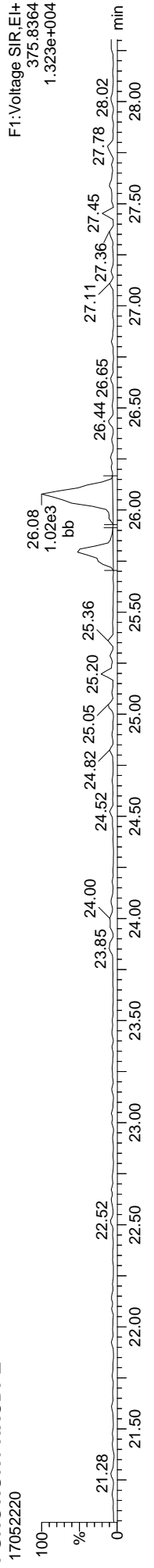
Total-tetrafurans



Total-tetrafurans



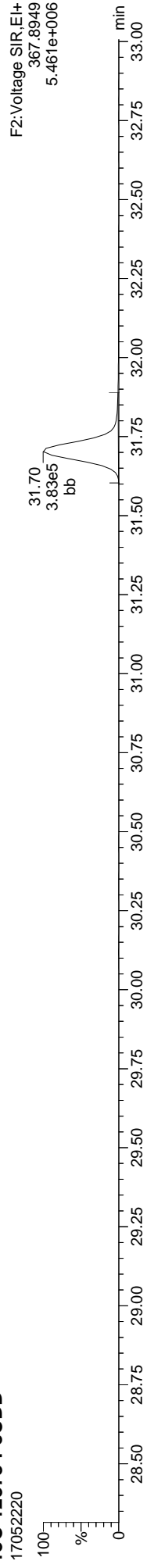
FUNCTION1 HXCDFE



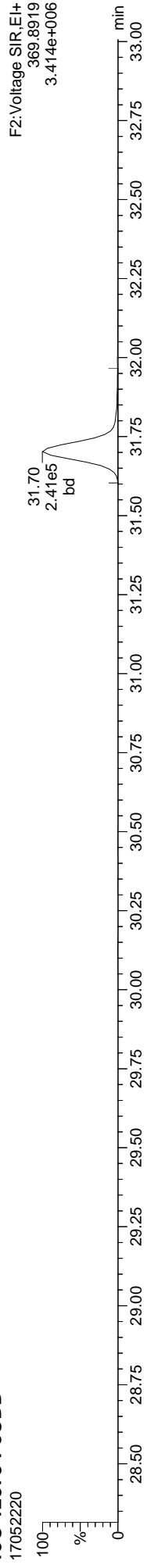
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:19 Pacific Daylight Time

ID: 17E0012-03, Name: 17052220, Date: 23-May-2017, Time: 02:28:55, Conditions: AUTOSPEC01, User: PK

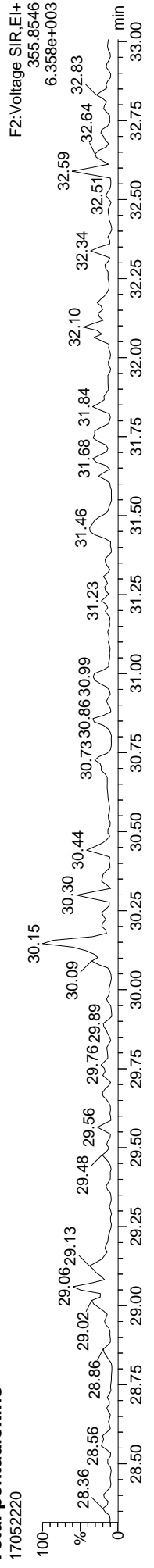
13C-12378-PeCDD



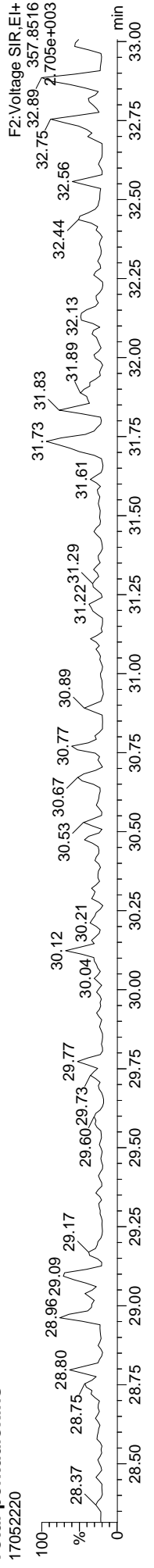
13C-12378-PeCDD



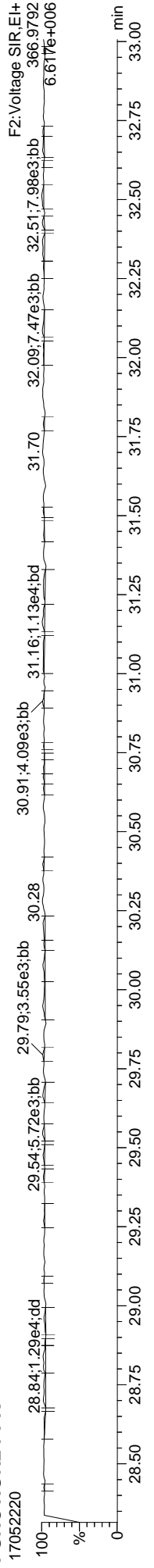
Total-pentadioxins



Total-pentadioxins



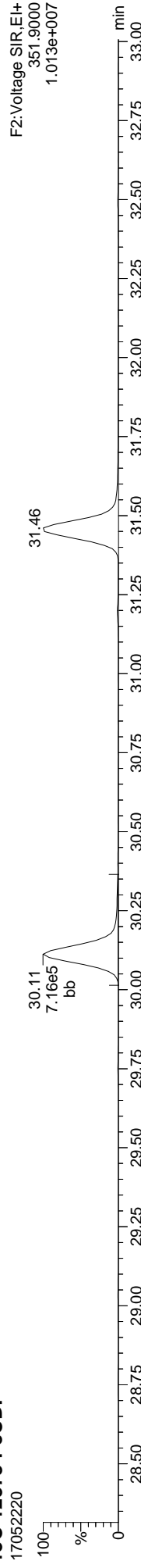
FUNCTION2 PFK



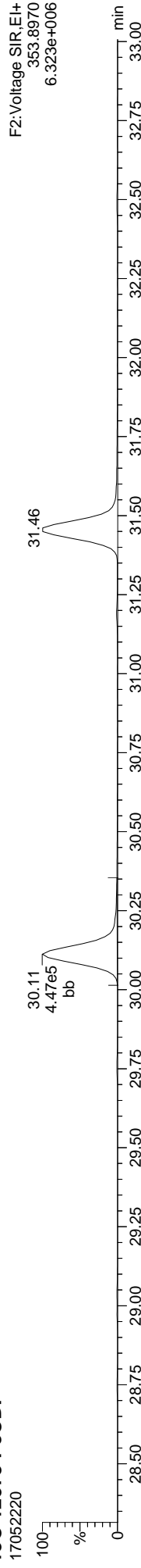
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:19 Pacific Daylight Time

ID: 17E0012-03, Name: 17052220, Date: 23-May-2017, Time: 02:28:55, Conditions: AUTOSPEC01, User: PK

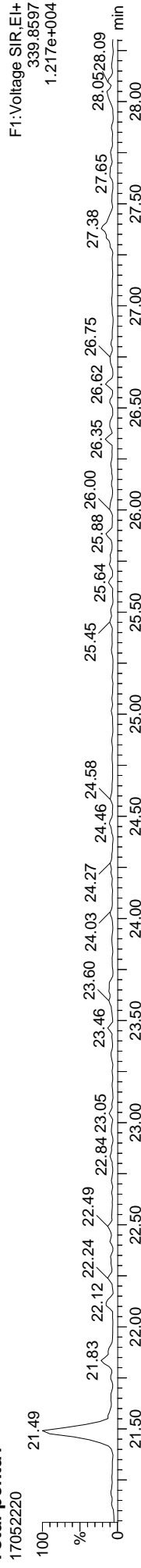
13C-12378-PeCDF



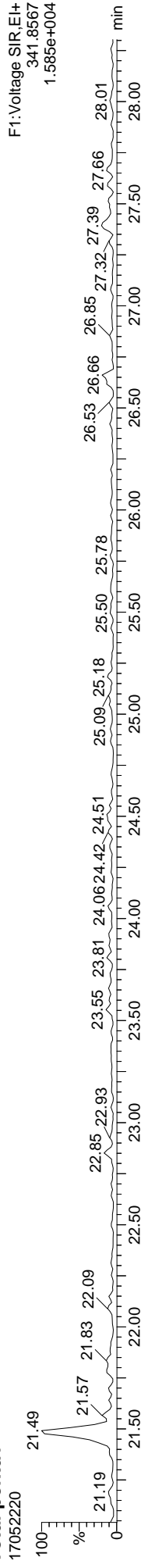
13C-12378-PeCDF



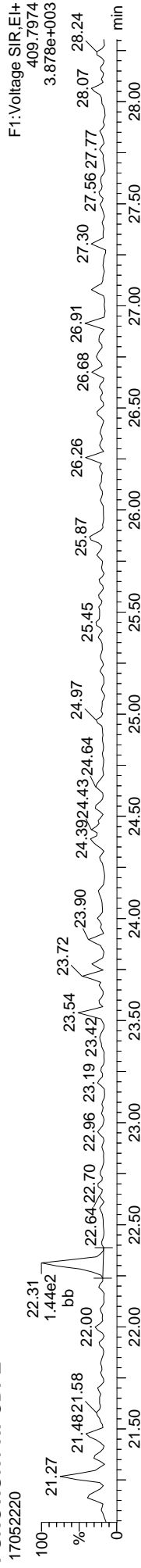
Total-penta1



Total-penta1



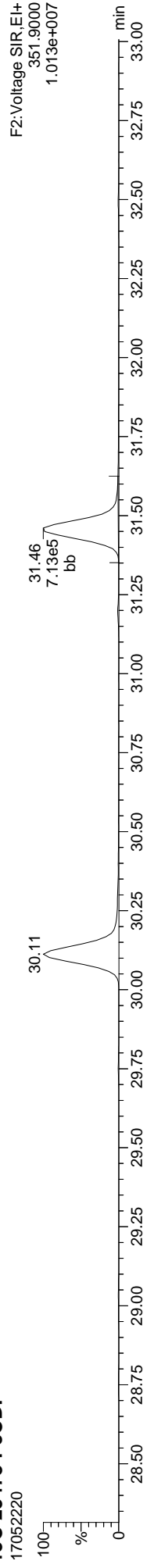
FUNCTION1 HPCDPE



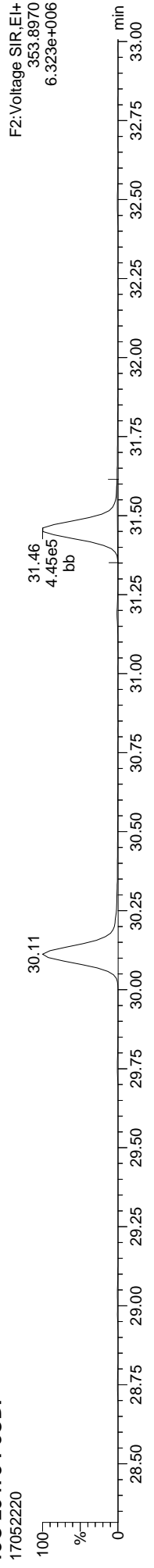
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\17052220.d
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:19 Pacific Daylight Time

ID: 17E0012-03, Name: 17052220, Date: 23-May-2017, Time: 02:28:55, Conditions: AUTOSPEC01, User: PK

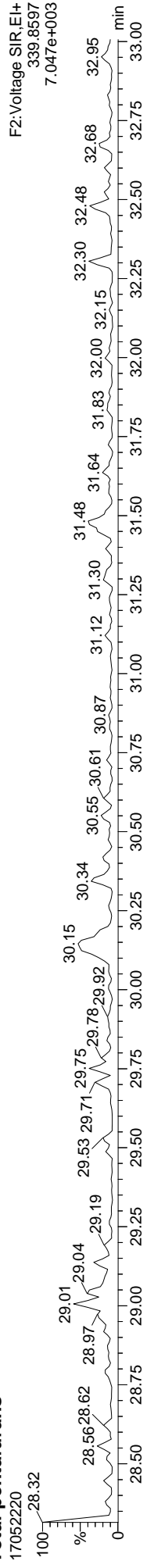
13C-23478-PeCDF



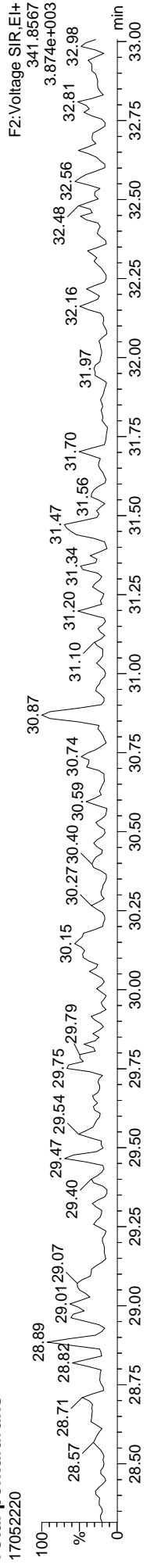
13C-23478-PeCDF



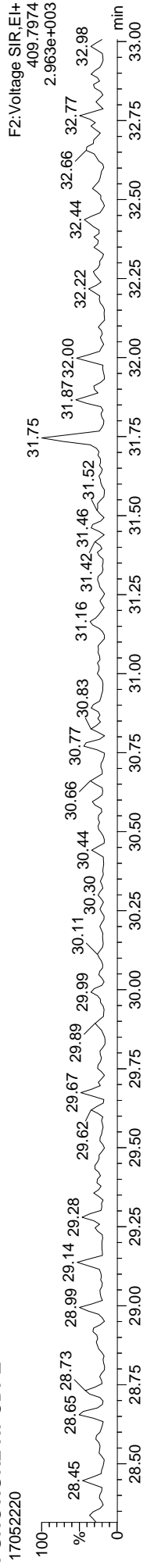
Total-pentafurans



Total-pentafurans



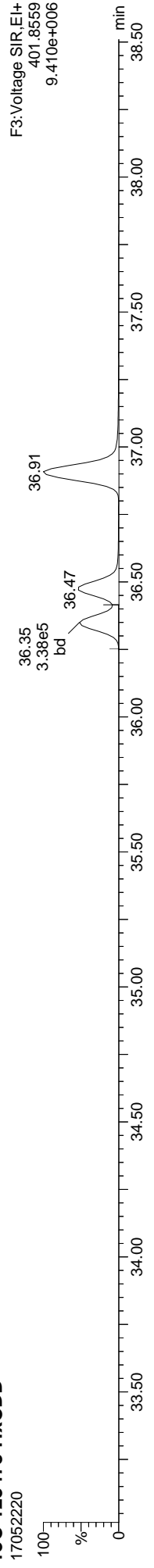
FUNCTION2 HPCDFE



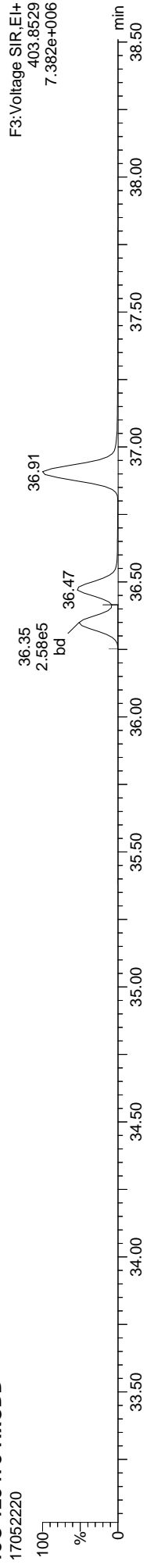
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:19 Pacific Daylight Time

ID: 17E0012-03, Name: 17052220, Date: 23-May-2017, Time: 02:28:55, Conditions: AUTOSPEC01, User: PK

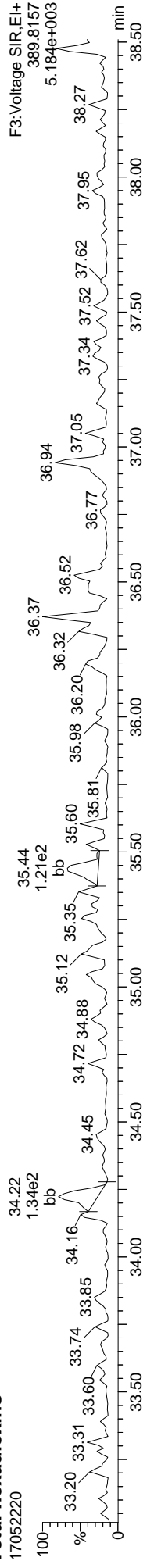
13C-123478-HxCDD



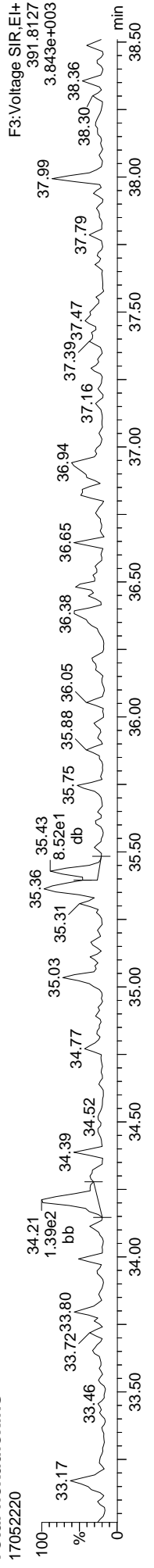
13C-123478-HxCDD



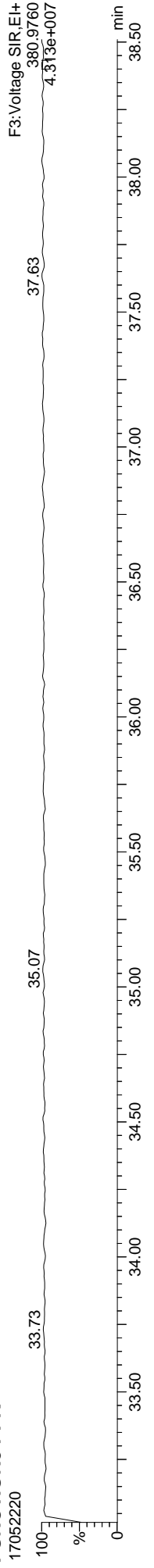
Total-hexadioxins



Total-hexadioxins



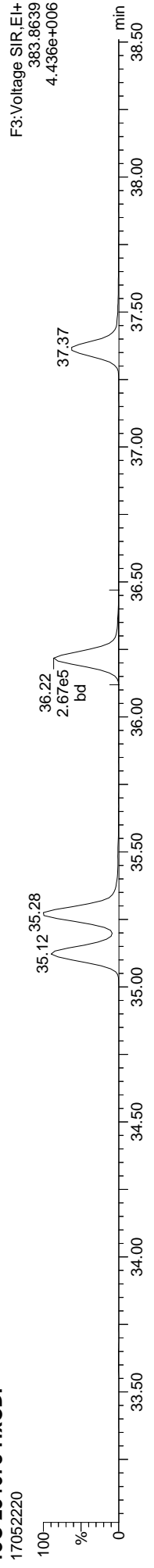
FUNCTION3 PFK



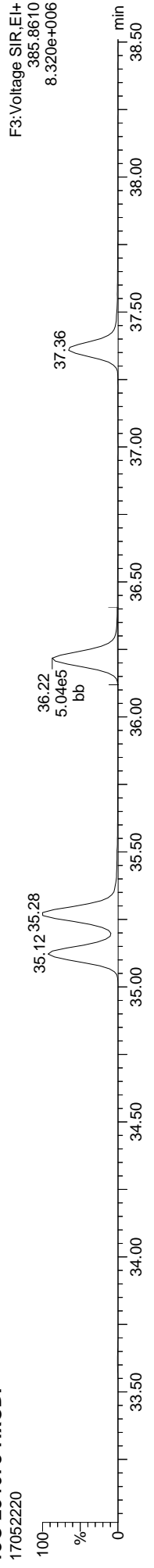
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:19 Pacific Daylight Time

ID: 17E0012-03, Name: 17052220, Date: 23-May-2017, Time: 02:28:55, Conditions: AUTOSPEC01, User: PK

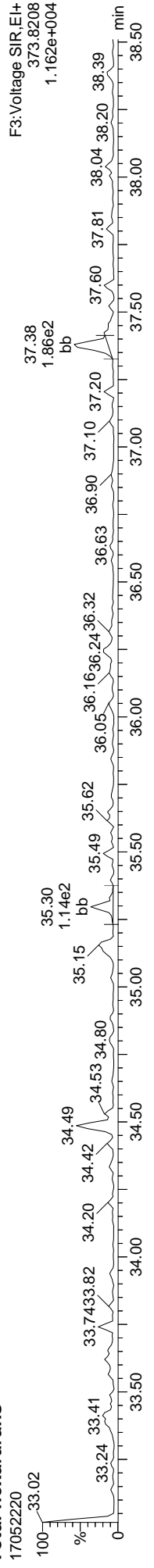
13C-234678-HxCDF



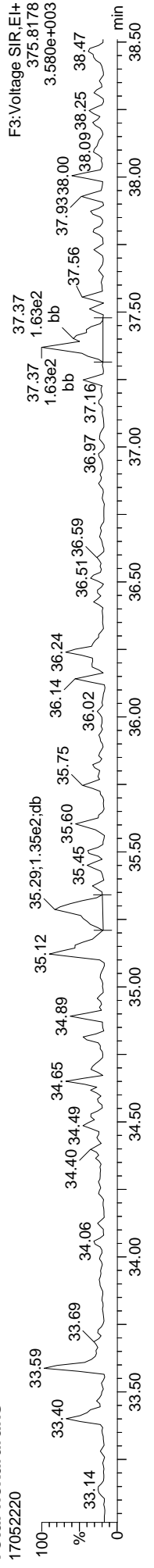
13C-234678-HxCDF



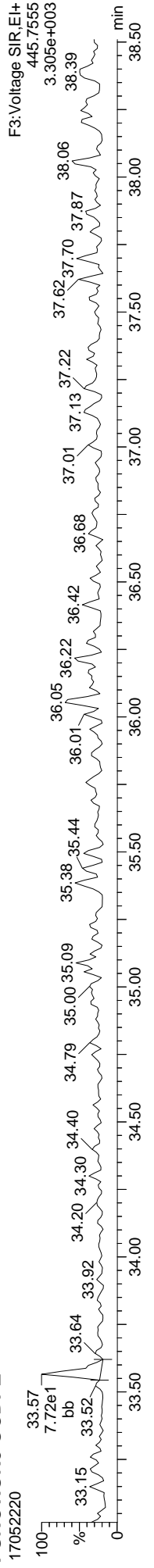
Total-hexafurans



Total-hexafurans



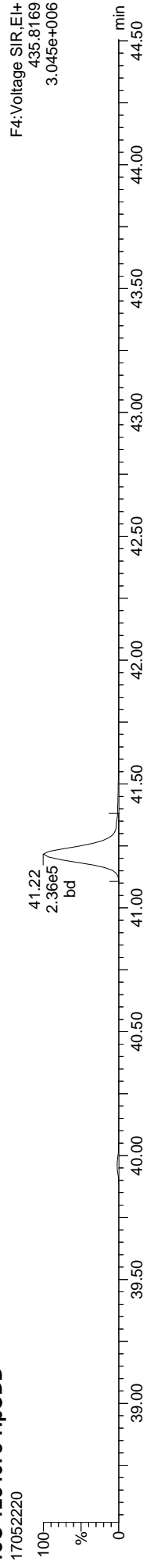
FUNCTION3 OCDPE



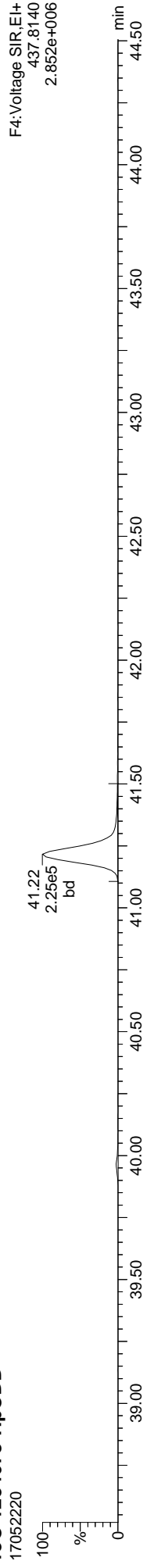
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:19 Pacific Daylight Time

ID: 17E0012-03, Name: 17052220, Date: 23-May-2017, Time: 02:28:55, Conditions: AUTOSPEC01, User: PK

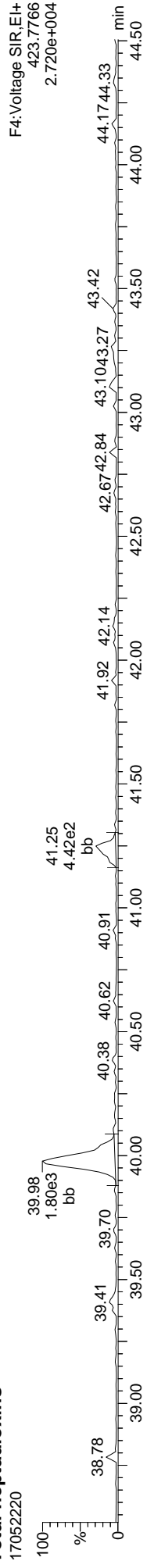
13C-1234678-HpCDD



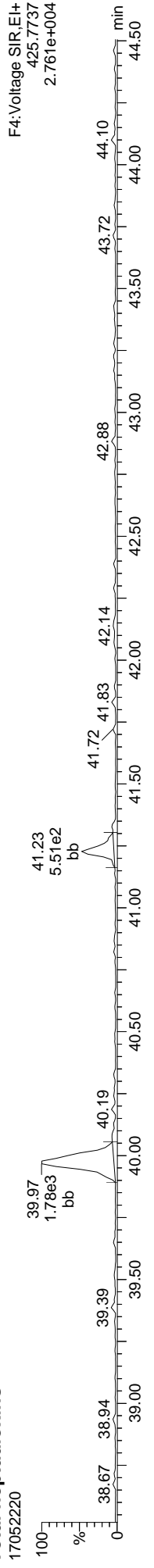
13C-1234678-HpCDD



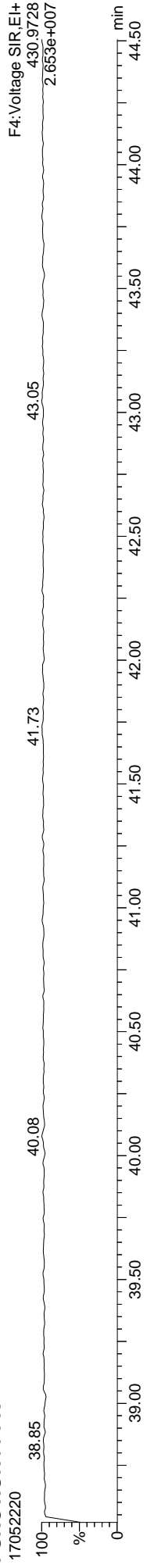
Total-heptadioxins



Total-heptadioxins



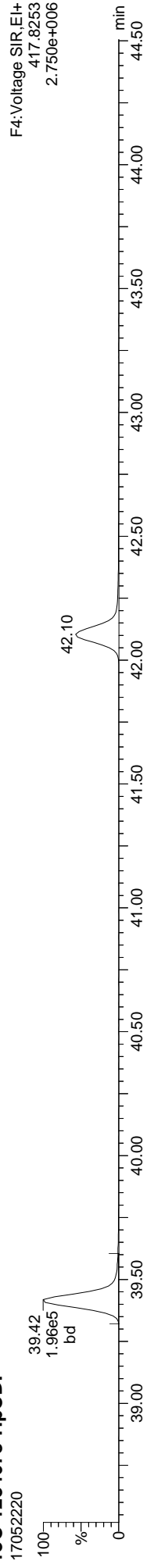
FUNCTION4 PFK



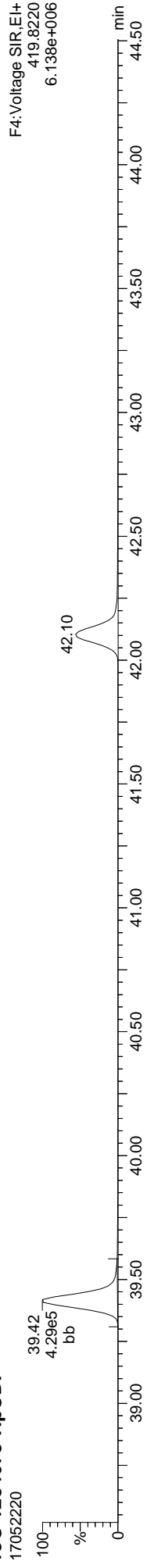
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:19 Pacific Daylight Time

ID: 17E0012-03, Name: 170522220, Date: 23-May-2017, Time: 02:28:55, Conditions: AUTOSPEC01, User: PK

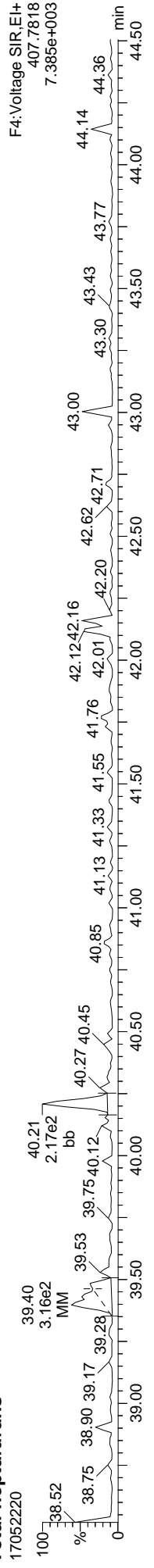
13C-1234678-HpCDF



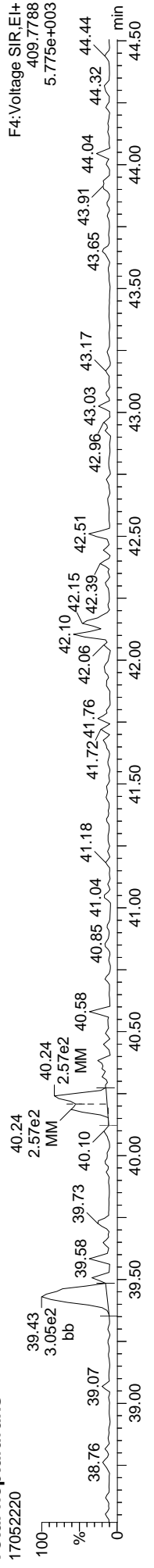
13C-1234678-HpCDF



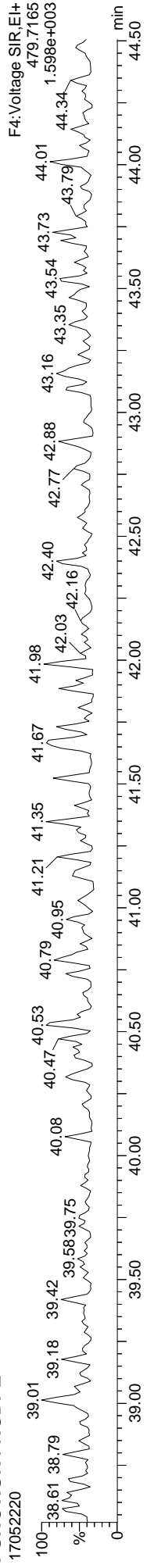
Total-heptafurans



Total-heptafurans



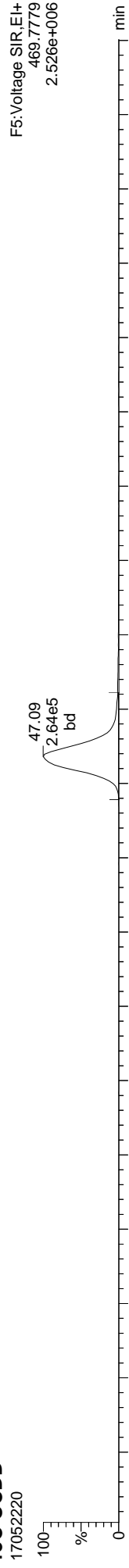
FUNCTION4 NCDPE



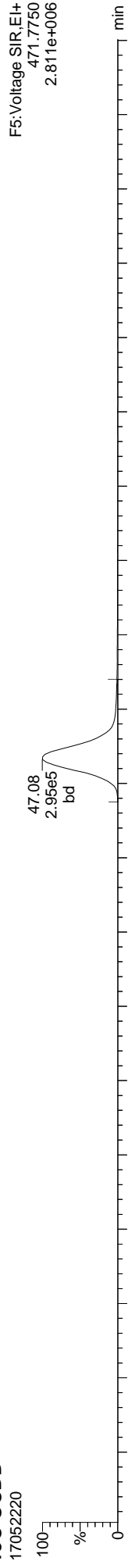
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:19 Pacific Daylight Time

ID: 17E0012-03, Name: 17052220, Date: 23-May-2017, Time: 02:28:55, Conditions: AUTOSPEC01, User: PK

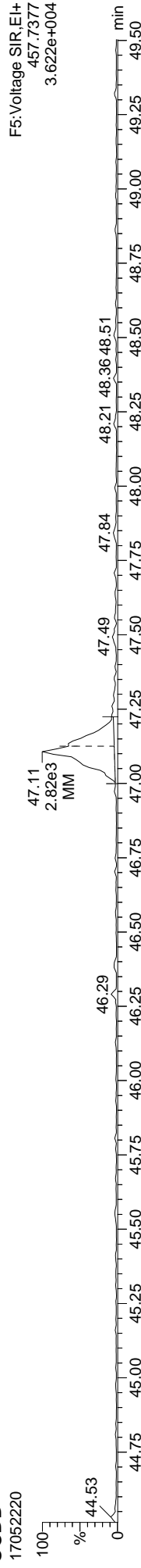
13C-OCDD



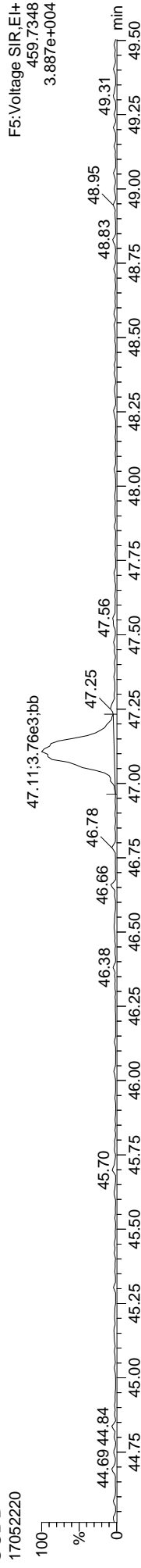
13C-OCDD



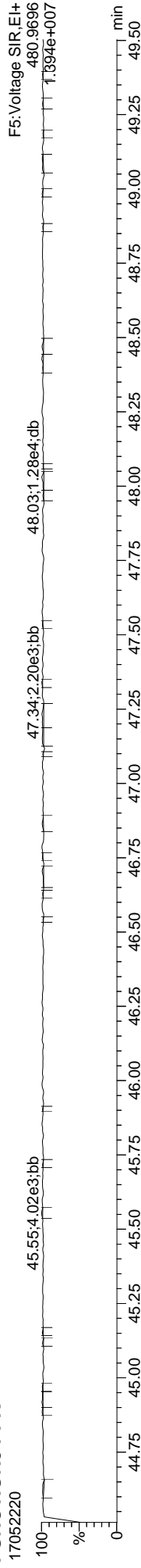
OCDD



OCDD



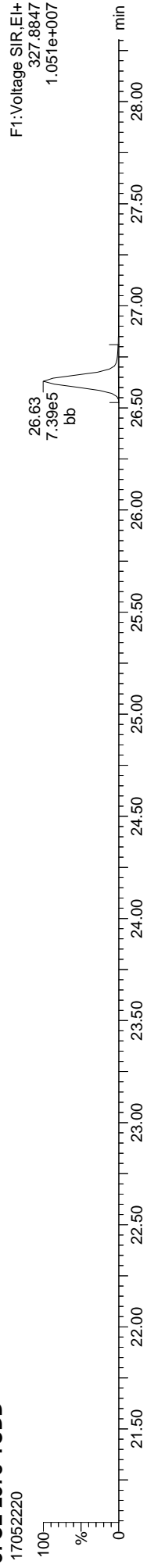
FUNCTION5 PFK



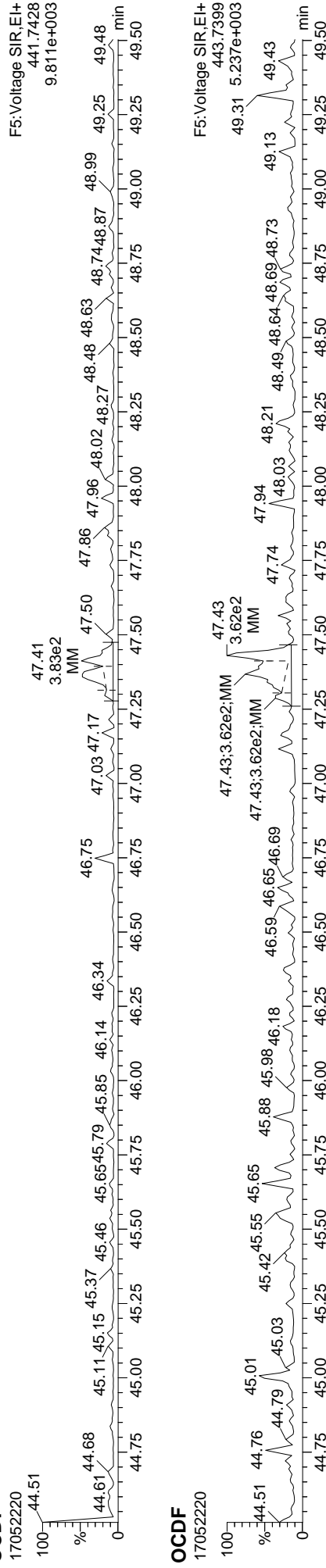
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:19 Pacific Daylight Time

ID: 17E0012-03, Name: 17052220, Date: 23-May-2017, Time: 02:28:55, Conditions: AUTOSPEC01, User: PK

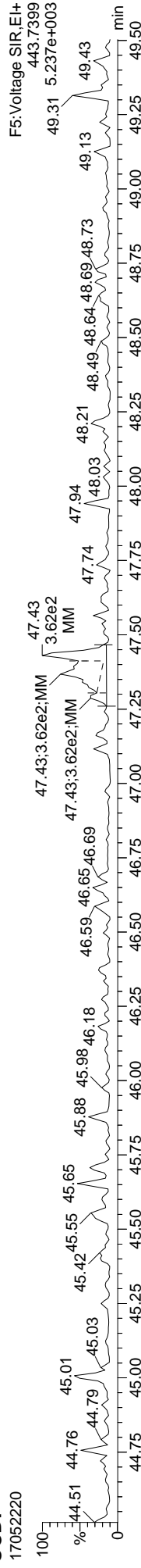
37CL-2378-TCDD



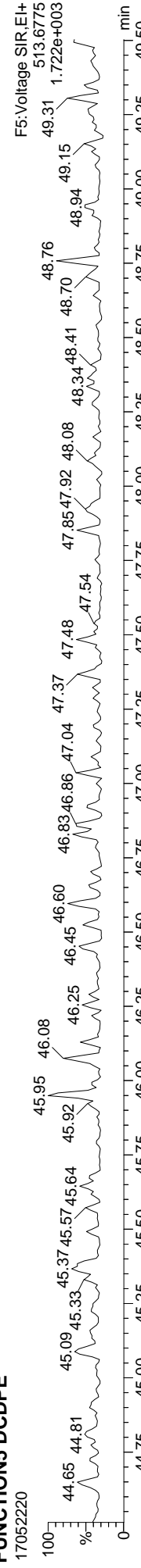
OCDF



OCDF



FUNCTION5 DCDPE





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

Laboratory: Analytical Resources, Inc. SDG: 17E0012
 Client: Anchor QEA, LLC
 Project: Port Gamble Shellfish Monitoring
 Matrix: Tissue Laboratory ID: 17E0012-04 File ID: 17052221
 Sampled: 04/27/17 12:00 Prepared: 05/09/17 16:05 Analyzed: 05/23/17 03:22
 Solids Wt%: Preparation: EPA 1613 Initial/Final: 10.01 g / 20 uL
 Result Basis: Dry Sequence: SFE0219 Calibration: AE00055
 Batch: BFE0233 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.000	0.655-0.886	0.056	0.999	ND	ng/kg	U
1746-01-6	2,3,7,8-TCDD	1	0.000	0.655-0.886	0.085	0.999	ND	ng/kg	U
57117-41-6	1,2,3,7,8-PeCDF	1	0.000	1.318-1.783	0.117	5.00	ND	ng/kg	U
57117-31-4	2,3,4,7,8-PeCDF	1	0.000	1.318-1.783	0.103	5.00	ND	ng/kg	U
40321-76-4	1,2,3,7,8-PeCDD	1	0.000	1.318-1.783	0.127	5.00	ND	ng/kg	U
70648-26-9	1,2,3,4,7,8-HxCDF	1	0.000	1.054-1.426	0.091	5.00	ND	ng/kg	U
57117-44-9	1,2,3,6,7,8-HxCDF	1	0.000	1.054-1.426	0.087	5.00	ND	ng/kg	U
60851-34-5	2,3,4,6,7,8-HxCDF	1	0.000	1.054-1.426	0.102	5.00	ND	ng/kg	U
72918-21-9	1,2,3,7,8,9-HxCDF	1	1.773	1.054-1.426		5.00	0.152	ng/kg	EMPC, J, B
39227-28-6	1,2,3,4,7,8-HxCDD	1	0.967	1.054-1.426		5.00	0.156	ng/kg	EMPC, J, B
57653-85-7	1,2,3,6,7,8-HxCDD	1	0.000	1.054-1.426	0.100	5.00	ND	ng/kg	U
19408-74-3	1,2,3,7,8,9-HxCDD	1	0.939	1.054-1.426		5.00	0.284	ng/kg	EMPC, J
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	1.356	0.893-1.208		5.00	0.510	ng/kg	EMPC, J, B
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	0.000	0.893-1.208	0.152	5.00	ND	ng/kg	U
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	1.181	0.893-1.208		5.00	1.35	ng/kg	J, B
39001-02-0	OCDF	1	1.068	0.757-1.024		9.99	1.36	ng/kg	EMPC, J, B
3268-87-9	OCDD	1	0.871	0.757-1.024		9.99	14.5	ng/kg	B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			0.999	ND	ng/kg
41903-57-5	Total TCDD	1	0.000			0.999	ND	ng/kg
30402-15-4	Total PeCDF	1	0.000			0.999	ND	ng/kg
36088-22-9	Total PeCDD	1	0.000			0.999	ND	ng/kg
55684-94-1	Total HxCDF	1	0.000			0.999	0.243	ng/kg
34465-46-8	Total HxCDD	1	0.000			0.999	0.734	ng/kg
38998-75-3	Total HpCDF	1	0.000			0.999	0.976	ng/kg
37871-00-4	Total HpCDD	1	0.000			0.999	5.61	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.083
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.083



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

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>17E0012</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Port Gamble Shellfish Monitoring</u>
Matrix:	<u>Tissue</u>	Laboratory ID:	<u>17E0012-04</u>
Sampled:	<u>04/27/17 12:00</u>	Prepared:	<u>05/09/17 16:05</u>
Solids Wt%:		Preparation:	<u>EPA 1613</u>
Result Basis:	<u>Dry</u>	Sequence:	<u>SFE0219</u>
Batch:	<u>BFE0233</u>	Instrument:	<u>AUTOSPEC01</u>
		File ID:	<u>17052221</u>
		Analyzed:	<u>05/23/17 03:22</u>
		Initial/Final:	<u>10.01 g / 20 uL</u>
		Calibration:	<u>AE00055</u>
		Column:	<u>RTX-Dioxin2</u>

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF		0.791	0.655-0.886		29.3	24 - 169 %	
13C12-2,3,7,8-TCDD		0.782	0.655-0.886		28.5	25 - 164 %	
13C12-1,2,3,7,8-PeCDF		1.601	1.318-1.783		23.3	24 - 185 %	*
13C12-2,3,4,7,8-PeCDF		1.559	1.318-1.783		25.4	21 - 178 %	
13C12-1,2,3,7,8-PeCDD		1.648	1.318-1.783		25.5	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF		0.522	0.434-0.587		32.0	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF		0.512	0.434-0.587		32.3	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF		0.515	0.434-0.587		29.5	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF		0.515	0.434-0.587		24.0	29 - 147 %	*
13C12-1,2,3,4,7,8-HxCDD		1.297	1.054-1.426		34.0	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD		1.288	1.054-1.426		33.1	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF		0.450	0.374-0.506		25.9	28 - 143 %	*
13C12-1,2,3,4,7,8,9-HpCDF		0.439	0.374-0.506		23.6	26 - 138 %	*
13C12-1,2,3,4,6,7,8-HpCDD		1.069	0.893-1.208		27.2	23 - 140 %	
13C12-OCDD		0.884	0.757-1.024		18.7	17 - 157 %	
37C14-2,3,7,8-TCDD		328.000			78.4	35 - 197 %	

* Values outside of QC limits

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

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld

Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time

Printed: Tuesday, May 23, 2017 13:55:23 Pacific Daylight Time

Method: C:\MassLynx\Dioxin.pro\MethDB\Dioxin170518.mdb **18 May 2017 15:01:42**
Calibration: C:\MassLynx\Dioxin.pro\CurveDB\170518CIH.cdb **19 May 2017 13:57:26**

ID: 17E0012-04, Name: 17052221, Date: 23-May-2017, Time: 03:22:10, Conditions: AUTOSPEC01, User: PK

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg	
2378-TCDF					1.018		0.770	593	618									
12378-PeCDF					0.977		1.550	680	1195									
23478-PeCDF					1.019		1.550	680	1195									
123478-HxCDF					1.150		1.240	530	712									
234678-HxCDF					1.188		1.240	530	712									
123678-HxCDF					1.100		1.240	530	712									
123789-HxCDF	37.380	1.001	1.529e2	8.621e1	1.116	1.773	1.240	530	712	2.40e3	2.75e3	4.5	YES	YES	bb	bb	0.076	
1234678-HpCDF	39.419	1.000	6.102e2	4.499e2	1.238	1.356	1.050	335	455	1.14e4	8.68e3	34.2	YES	YES	bb	MM	0.255	
1234789-HpCDF					1.257		1.050	335	455									
OCDF	47.385	1.007	5.800e2	5.432e2	1.321	1.068	0.890	306	627	6.95e3	7.34e3	22.7	YES	YES	MM	MM	0.680	
2378-TCDD					1.244		0.770	658	440									
12378-PeCDD					1.058		1.550	795	440									
123478-HxCDD	36.361	1.001	1.480e2	1.530e2	1.119	0.967	1.240	350	563	3.36e3	2.97e3	9.6	YES	YES	bd	bb	0.078	
123678-HxCDD					1.040		1.240	350	563									
123789-HxCDD	36.909	1.012	2.434e2	2.593e2	0.981	0.939	1.240	350	563	5.61e3	3.72e3	16.0	YES	YES	bb	MM	0.142	
1234678-HpCDD	41.238	1.001	9.465e2	8.016e2	1.132	1.181	1.050	446	1393	1.22e4	1.16e4	27.3	YES	NO	bb	bd	0.676	
OCDD	47.089	1.000	4.731e3	5.431e3	1.117	0.871	0.890	311	832	5.30e4	5.35e4	170.6	YES	NO	bd	bb	7.270	
13C-2378-TCDF	25.973	1.007	3.848e5	4.865e5	1.685	0.791	0.770	4025	2163	5.63e6	7.07e6	1399.4	YES	NO	bb	bb	29.256	
13C-12378-PeCDF	30.102	1.167	4.321e5	2.699e5	1.706	1.601	1.550	2711	2027	6.04e6	3.80e6	2229.8	YES	NO	bd	bd	23.279	
13C-23478-PeCDF	31.450	1.219	4.459e5	2.859e5	1.632	1.559	1.550	2711	2027	6.53e6	4.14e6	2407.7	YES	NO	bb	bd	25.370	
13C-123478-HxCDF	35.122	0.952	1.676e5	3.209e5	1.682	0.522	0.510	2875	2845	2.43e6	4.67e6	845.7	YES	NO	bd	bd	31.960	
13C-123678-HxCDF	35.264	0.956	1.936e5	3.778e5	1.945	0.512	0.510	2875	2845	2.64e6	5.07e6	919.4	YES	NO	bd	dd	32.330	
13C-234678-HxCDF	36.207	0.981	1.443e5	2.801e5	1.582	0.515	0.510	2875	2845	2.09e6	3.99e6	728.2	YES	NO	bb	bb	29.531	
13C-123789-HxCDF	37.358	1.013	9.575e4	1.860e5	1.291	0.515	0.510	2875	2845	1.38e6	2.58e6	481.4	YES	NO	bd	bd	24.027	
13C-1234678-HpCDF	39.408	1.068	1.041e5	2.315e5	1.427	0.450	0.440	1723	2012	1.45e6	3.15e6	840.0	YES	NO	bb	bb	25.891	
13C-1234789-HpCDF	42.093	1.141	6.253e4	1.425e5	0.957	0.439	0.440	1723	2012	7.53e5	1.64e6	437.3	YES	NO	bd	bd	23.580	
13C-1234-TCDD	25.794	0.000	7.830e5	9.848e5	1.000	0.795	0.770	1812	1720	1.16e7	1.45e7	6401.9	YES	NO	bb	bb	100.000	
13C-2378-TCDD	26.601	1.031	1.930e5	2.469e5	0.873	0.782	0.770	1812	1720	2.73e6	3.49e6	1504.6	YES	NO	bb	bb	28.517	
13C-12378-PeCDD	31.702	1.229	2.408e5	1.461e5	0.860	1.648	1.550	1192	972	3.42e6	2.06e6	2867.3	YES	NO	bd	bd	25.451	
13C-123478-HxCDD	36.339	0.985	1.942e5	1.497e5	1.114	1.297	1.240	1950	1259	2.90e6	2.27e6	1489.7	YES	NO	bd	bd	33.988	
13C-123678-HxCDD	36.470	0.988	2.129e5	1.653e5	1.258	1.288	1.240	1950	1259	2.95e6	2.33e6	1515.4	YES	NO	db	dd	33.074	
13C-1234678-HpCDD	41.205	1.117	1.180e5	1.104e5	0.924	1.069	1.050	1025	811	1.48e6	1.40e6	1442.9	YES	NO	bd	bd	27.209	
13C-OCDD	47.080	1.276	1.174e5	1.329e5	0.738	0.884	0.890	1129	909	1.11e6	1.25e6	978.4	YES	NO	bd	bd	37.314	
13C-123789-HxCDD	36.898	0.000	5.082e5	4.003e5	1.000	1.270	1.240	1950	1259	7.34e6	5.81e6	3767.0	YES	NO	bb	bb	100.000	
Total-tetrafurans			0.000e0	0.000e0	1.018			593		0.00e0								

Quantify Sample Summary Report MassLynx MassLynx V4.1 SCN909

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld

Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time

Printed: Tuesday, May 23, 2017 13:55:23 Pacific Daylight Time

ID: 17E0012-04, Name: 17052221, Date: 23-May-2017, Time: 03:22:10, Conditions: AUTOSPEC01, User: PK

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg	
Total-penta1			0.000e0					411		0.00e0								
Total-pentafurans			0.000e0		0.998			680		0.00e0								
Total-hexafurans			2.285e2		1.138			530		4.15e3								0.122
Total-heptafurans			1.093e3		1.248			335		1.89e4								0.489
Total-Furans			1.901e3		1.138			593		3.00e4								1.290
Total-tetradioxins			0.000e0		1.244			658		0.00e0								
Total-pentadioxins			0.000e0		1.058			795		0.00e0								
Total-hexadioxins			6.152e2		1.047			350		1.36e4								0.367
Total-heptadioxins			3.860e3		1.132			446		5.18e4								2.807
Total-Dioxins			9.206e3		1.099			658		1.18e5								10.445
Total-TEQ			1.111e4					658		1.48e5								11.734
37CL-2378-TCDD	26.631	1.032	5.663e5		1.021			911		7.76e6		8515.4	YES		bb			31.371
FUNCTION1 PFK			5.479e7					496899		5.76e8								
FUNCTION2 PFK			7.863e4					99296		2.37e6								0.000
FUNCTION3 PFK			1.873e5					442782		4.92e6								0.000
FUNCTION4 PFK			2.726e5					298661		7.59e6								
FUNCTION5 PFK			6.358e4					186819		2.70e6								
FUNCTION1 HXCD...			8.635e2					268		1.39e4								
FUNCTION1 HPCD...			0.000e0					277		0.00e0								0.000
FUNCTION2 HPCD...			0.000e0					342		0.00e0								
FUNCTION3 OCDPE			0.000e0					284		0.00e0								
FUNCTION4 NCDPE			0.000e0					306		0.00e0								
FUNCTION5 DCDPE			0.000e0					186		0.00e0								

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
 Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
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Method: C:\MassLynx\Dioxin.pro\MethDB\Dioxin170518.mdb 18 May 2017 15:01:42
 Calibration: C:\MassLynx\Dioxin.pro\CurveDB\170518\CIH.cdb 19 May 2017 13:57:26

ID: 17E0012-04, Name: 17052221, Date: 23-May-2017, Time: 03:22:10, Conditions: AUTOSPEC01, User: PK

TF

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

PP

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

PF

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

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexafurans	33.43	7.560e1	1.531e2	1.138	0.49	1.24	3.3	YES	YES	bb	bb	0.045
2	123789-HxCDF	37.38	1.529e2	8.621e1	1.116	1.77	1.24	4.5	YES	YES	bb	bb	0.076

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptafurans	40.21	4.827e2	3.045e2	1.248	1.59	1.05	22.4	YES	YES	bb	bb	0.233
2	1234678-HpCDF	39.42	6.102e2	4.499e2	1.238	1.36	1.05	34.2	YES	YES	bb	MM	0.255

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

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexafurans	33.43	7.560e1	1.531e2	1.138	0.49	1.24	3.3	YES	YES	bb	bb	0.045
2	Total-heptafurans	40.21	4.827e2	3.045e2	1.248	1.59	1.05	22.4	YES	YES	bb	bb	0.233
3	1234678-HpCDF	39.42	6.102e2	4.499e2	1.238	1.36	1.05	34.2	YES	YES	bb	MM	0.255
4	123789-HxCDF	37.38	1.529e2	8.621e1	1.116	1.77	1.24	4.5	YES	YES	bb	bb	0.076
5	OCDF	47.38	5.800e2	5.432e2	1.321	1.07	0.89	22.7	YES	YES	MM	MM	0.680

TD

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

PD

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

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDD	36.91	2.434e2	2.593e2	0.981	0.94	1.24	16.0	YES	YES	bb	MM	0.142
2	123478-HxCDD	36.36	1.480e2	1.530e2	1.119	0.97	1.24	9.6	YES	YES	bd	bb	0.078
3	Total-hexadioxins	34.21	2.238e2	3.329e2	1.047	0.67	1.24	13.3	YES	YES	bb	bb	0.147

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
 Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
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ID: 17E0012-04, Name: 17052221, Date: 23-May-2017, Time: 03:22:10, Conditions: AUTOSPEC01, User: PK

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptadioxins	39.97	2.913e3	2.593e3	1.132	1.12	1.05	89.0	YES	NO	bb	bb	2.130
2	1234678-HpCDD	41.24	9.465e2	8.016e2	1.132	1.18	1.05	27.3	YES	NO	bb	bd	0.676

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptadioxins	39.97	2.913e3	2.593e3	1.132	1.12	1.05	89.0	YES	NO	bb	bb	2.130
2	123789-HxCDD	36.91	2.434e2	2.593e2	0.981	0.94	1.24	16.0	YES	YES	bb	MM	0.142
3	123478-HxCDD	36.36	1.480e2	1.530e2	1.119	0.97	1.24	9.6	YES	YES	bd	bb	0.078
4	Total-hexadioxins	34.21	2.238e2	3.329e2	1.047	0.67	1.24	13.3	YES	YES	bb	bb	0.147
5	OCDD	47.09	4.731e3	5.431e3	1.117	0.87	0.89	170.6	YES	NO	bd	bb	7.270
6	1234678-HpCDD	41.24	9.465e2	8.016e2	1.132	1.18	1.05	27.3	YES	NO	bb	bd	0.676

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexafurans	33.43	7.560e1	1.531e2	1.138	0.49	1.24	3.3	YES	YES	bb	bb	0.045
2	Total-heptafurans	40.21	4.827e2	3.045e2	1.248	1.59	1.05	22.4	YES	YES	bb	bb	0.233
3	1234678-HpCDF	39.42	6.102e2	4.499e2	1.238	1.36	1.05	34.2	YES	YES	bb	MM	0.255
4	123789-HxCDF	37.38	1.529e2	8.621e1	1.116	1.77	1.24	4.5	YES	YES	bb	bb	0.076
5	OCDF	47.38	5.800e2	5.432e2	1.321	1.07	0.89	22.7	YES	YES	MM	MM	0.680
6	Total-heptadioxins	39.97	2.913e3	2.593e3	1.132	1.12	1.05	89.0	YES	NO	bb	bb	2.130
7	123789-HxCDD	36.91	2.434e2	2.593e2	0.981	0.94	1.24	16.0	YES	YES	bb	MM	0.142
8	123478-HxCDD	36.36	1.480e2	1.530e2	1.119	0.97	1.24	9.6	YES	YES	bd	bb	0.078
9	Total-hexadioxins	34.21	2.238e2	3.329e2	1.047	0.67	1.24	13.3	YES	YES	bb	bb	0.147
10	OCDD	47.09	4.731e3	5.431e3	1.117	0.87	0.89	170.6	YES	NO	bd	bb	7.270
11	1234678-HpCDD	41.24	9.465e2	8.016e2	1.132	1.18	1.05	27.3	YES	NO	bb	bd	0.676

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:23 Pacific Daylight Time

ID: 17E0012-04, Name: 17052221, Date: 23-May-2017, Time: 03:22:10, Conditions: AUTOSPEC01, User: PK

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.31	2.006e6					46.1	YES		dd		
2	FUNCTION1 PFK	21.27	1.373e6					46.7	YES		dd		
3	FUNCTION1 PFK	21.21	2.423e6					47.2	YES		dd		
4	FUNCTION1 PFK	21.10	1.750e6					47.5	YES		bd		
5	FUNCTION1 PFK	22.82	1.081e6					29.2	YES		dd		
6	FUNCTION1 PFK	22.70	1.575e6					31.4	YES		dd		
7	FUNCTION1 PFK	22.60	1.404e6					32.3	YES		dd		
8	FUNCTION1 PFK	22.54	1.193e6					32.4	YES		dd		
9	FUNCTION1 PFK	22.39	2.695e6					33.9	YES		dd		
10	FUNCTION1 PFK	22.22	2.883e6					36.5	YES		dd		
11	FUNCTION1 PFK	22.13	8.030e5					36.4	YES		dd		
12	FUNCTION1 PFK	22.07	1.373e6					37.8	YES		dd		
13	FUNCTION1 PFK	21.95	2.848e6					39.4	YES		dd		
14	FUNCTION1 PFK	21.85	1.481e6					40.5	YES		dd		
15	FUNCTION1 PFK	21.79	1.207e6					41.0	YES		dd		
16	FUNCTION1 PFK	21.75	9.085e5					40.9	YES		dd		
17	FUNCTION1 PFK	21.67	1.535e6					41.6	YES		dd		
18	FUNCTION1 PFK	21.57	3.213e6					44.3	YES		dd		
19	FUNCTION1 PFK	21.46	9.635e5					43.5	YES		dd		
20	FUNCTION1 PFK	21.42	1.305e6					44.3	YES		dd		
21	FUNCTION1 PFK	24.69	5.390e5					9.8	YES		dd		
22	FUNCTION1 PFK	24.58	4.543e5					10.9	YES		dd		
23	FUNCTION1 PFK	24.54	3.254e5					11.2	YES		dd		
24	FUNCTION1 PFK	24.43	6.064e5					12.6	YES		dd		
25	FUNCTION1 PFK	24.36	3.756e5					13.4	YES		dd		
26	FUNCTION1 PFK	24.32	1.048e6					14.1	YES		dd		
27	FUNCTION1 PFK	24.09	1.381e6					16.4	YES		dd		
28	FUNCTION1 PFK	23.87	1.999e6					18.9	YES		dd		
29	FUNCTION1 PFK	23.78	4.252e5					19.3	YES		dd		
30	FUNCTION1 PFK	23.66	1.212e6					21.3	YES		dd		
31	FUNCTION1 PFK	23.58	9.711e5					22.4	YES		dd		
32	FUNCTION1 PFK	23.49	1.169e6					22.8	YES		dd		
33	FUNCTION1 PFK	23.30	2.282e6					25.0	YES		dd		
34	FUNCTION1 PFK	23.15	1.286e6					25.4	YES		dd		
35	FUNCTION1 PFK	23.08	1.405e6					27.8	YES		dd		
36	FUNCTION1 PFK	22.88	2.717e6					29.3	YES		dd		
37	FUNCTION1 PFK	26.57	5.536e4					1.5	NO		bd		
38	FUNCTION1 PFK	26.41	7.015e4					1.8	NO		db		
39	FUNCTION1 PFK	26.33	5.101e4					1.8	NO		dd		
40	FUNCTION1 PFK	26.27	1.952e4					0.8	NO		bd		
41	FUNCTION1 PFK	25.96	3.842e4					1.1	NO		bb		
42	FUNCTION1 PFK	25.82	2.825e4					1.2	NO		bb		
43	FUNCTION1 PFK	25.72	1.024e4					0.7	NO		db		
44	FUNCTION1 PFK	25.69	1.352e4					0.8	NO		bd		
45	FUNCTION1 PFK	25.60	1.399e4					1.1	NO		bb		
46	FUNCTION1 PFK	25.47	3.286e4					1.3	NO		db		
47	FUNCTION1 PFK	25.38	1.085e5					3.4	YES		dd		
48	FUNCTION1 PFK	25.33	1.712e5					2.7	NO		dd		
49	FUNCTION1 PFK	25.18	2.044e5					5.6	YES		dd		
50	FUNCTION1 PFK	25.00	4.860e5					7.1	YES		dd		
51	FUNCTION1 PFK	24.94	1.453e5					6.8	YES		dd		

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
 Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
 Printed: Tuesday, May 23, 2017 13:55:23 Pacific Daylight Time

ID: 17E0012-04, Name: 17052221, Date: 23-May-2017, Time: 03:22:10, Conditions: AUTOSPEC01, User: PK

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
52	FUNCTION1 PFK	24.84	5.887e5					8.7	YES		dd		
53	FUNCTION1 PFK	28.13	2.148e4					0.9	NO		db		
54	FUNCTION1 PFK	28.07	3.253e4					1.3	NO		dd		
55	FUNCTION1 PFK	27.99	2.816e4					1.1	NO		bd		
56	FUNCTION1 PFK	27.92	6.557e3					0.6	NO		bb		
57	FUNCTION1 PFK	27.87	2.103e4					1.4	NO		db		
58	FUNCTION1 PFK	27.80	2.623e4					1.2	NO		dd		
59	FUNCTION1 PFK	27.69	6.437e4					2.1	NO		dd		
60	FUNCTION1 PFK	27.57	5.986e4					1.7	NO		dd		
61	FUNCTION1 PFK	27.53	1.731e4					1.1	NO		bd		
62	FUNCTION1 PFK	27.36	8.349e4					1.5	NO		db		
63	FUNCTION1 PFK	27.18	5.617e4					1.5	NO		bd		
64	FUNCTION1 PFK	27.05	9.017e3					0.5	NO		db		
65	FUNCTION1 PFK	27.02	9.028e3					0.6	NO		bd		
66	FUNCTION1 PFK	26.78	3.519e4					1.4	NO		db		
67	FUNCTION1 PFK	26.69	6.915e4					1.9	NO		dd		

PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	31.84	9.937e3					1.7	NO		bb		0.000
2	FUNCTION2 PFK	31.71	3.961e3					1.3	NO		bb		0.000
3	FUNCTION2 PFK	31.64	1.388e3					0.8	NO		bb		0.000
4	FUNCTION2 PFK	31.53	4.953e2					0.5	NO		bb		0.000
5	FUNCTION2 PFK	31.48	2.071e3					0.8	NO		db		0.000
6	FUNCTION2 PFK	31.42	3.733e3					1.0	NO		bd		0.000
7	FUNCTION2 PFK	30.88	4.019e3					1.3	NO		bb		0.000
8	FUNCTION2 PFK	30.56	3.349e3					0.9	NO		bb		0.000
9	FUNCTION2 PFK	30.03	6.361e2					0.6	NO		bb		0.000
10	FUNCTION2 PFK	29.92	1.371e3					0.7	NO		bb		0.000
11	FUNCTION2 PFK	29.42	3.988e3					1.4	NO		bb		0.000
12	FUNCTION2 PFK	29.01	3.465e3					1.0	NO		db		0.000
13	FUNCTION2 PFK	28.96	3.858e3					1.4	NO		dd		0.000
14	FUNCTION2 PFK	28.92	3.019e3					1.2	NO		bd		0.000
15	FUNCTION2 PFK	28.57	2.210e3					1.2	NO		bb		0.000
16	FUNCTION2 PFK	28.39	6.857e3					2.1	NO		bb		0.000
17	FUNCTION2 PFK	32.70	3.303e3					1.0	NO		bb		0.000
18	FUNCTION2 PFK	32.56	2.780e3					1.1	NO		bb		0.000
19	FUNCTION2 PFK	32.43	8.741e3					1.5	NO		bb		0.000
20	FUNCTION2 PFK	32.14	8.433e3					1.6	NO		bb		0.000
21	FUNCTION2 PFK	31.98	1.018e3					0.6	NO		bb		0.000

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
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ID: 17E0012-04, Name: 17052221, Date: 23-May-2017, Time: 03:22:10, Conditions: AUTOSPEC01, User: PK

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	37.80	3.430e4					1.8	NO		bb		0.000
2	FUNCTION3 PFK	37.28	2.780e4					1.9	NO		bb		0.000
3	FUNCTION3 PFK	37.12	8.306e3					0.9	NO		bb		0.000
4	FUNCTION3 PFK	36.77	2.456e4					1.7	NO		bb		0.000
5	FUNCTION3 PFK	34.95	1.429e4					1.0	NO		bb		0.000
6	FUNCTION3 PFK	34.64	3.643e4					2.4	NO		bb		0.000
7	FUNCTION3 PFK	34.23	4.161e4					1.4	NO		bb		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	39.27	2.567e4					1.6	NO		bb		
2	FUNCTION4 PFK	38.65	5.585e3					0.9	NO		bb		
3	FUNCTION4 PFK	43.85	1.909e4					1.5	NO		bb		
4	FUNCTION4 PFK	43.19	2.381e4					1.9	NO		bb		
5	FUNCTION4 PFK	42.32	5.742e3					1.1	NO		bb		
6	FUNCTION4 PFK	42.04	3.500e4					2.1	NO		db		
7	FUNCTION4 PFK	42.01	1.479e4					1.5	NO		dd		
8	FUNCTION4 PFK	41.97	1.527e4					1.2	NO		bd		
9	FUNCTION4 PFK	41.86	1.127e4					1.4	NO		bb		
10	FUNCTION4 PFK	41.65	2.987e4					1.9	NO		bb		
11	FUNCTION4 PFK	41.21	3.849e3					0.7	NO		bb		
12	FUNCTION4 PFK	40.95	1.065e4					1.4	NO		db		
13	FUNCTION4 PFK	40.89	1.961e4					1.6	NO		dd		
14	FUNCTION4 PFK	40.84	8.993e3					1.2	NO		bd		
15	FUNCTION4 PFK	40.74	8.884e3					1.3	NO		bb		
16	FUNCTION4 PFK	40.32	1.237e4					1.7	NO		bb		
17	FUNCTION4 PFK	39.94	1.400e4					1.4	NO		bb		
18	FUNCTION4 PFK	39.46	8.187e3					0.9	NO		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	49.30	1.182e3					0.7	NO		bb		
2	FUNCTION5 PFK	49.21	8.473e3					1.5	NO		bb		
3	FUNCTION5 PFK	49.13	5.729e3					1.6	NO		bb		
4	FUNCTION5 PFK	48.90	3.023e3					0.9	NO		bb		
5	FUNCTION5 PFK	48.32	2.053e3					0.6	NO		bb		
6	FUNCTION5 PFK	48.16	1.717e3					0.6	NO		bb		
7	FUNCTION5 PFK	47.77	2.573e3					0.7	NO		bb		
8	FUNCTION5 PFK	47.61	1.468e3					0.6	NO		bb		
9	FUNCTION5 PFK	47.11	1.715e4					1.7	NO		bb		
10	FUNCTION5 PFK	46.51	3.058e3					0.9	NO		bb		
11	FUNCTION5 PFK	46.33	3.619e3					0.9	NO		bb		
12	FUNCTION5 PFK	45.84	2.447e3					0.8	NO		bb		
13	FUNCTION5 PFK	45.44	7.728e3					1.6	NO		bb		
14	FUNCTION5 PFK	45.39	2.406e3					0.8	NO		bb		
15	FUNCTION5 PFK	44.88	9.551e2					0.6	NO		bb		

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 Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
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ID: 17E0012-04, Name: 17052221, Date: 23-May-2017, Time: 03:22:10, Conditions: AUTOSPEC01, User: PK

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	26.06	6.581e2					38.9	YES		bb		0.000
2	FUNCTION1 HXCD...	25.78	2.054e2					13.1	YES		bb		0.000

ETHERS2

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

ETHERS3

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

ETHERS4

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

ETHERS5

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

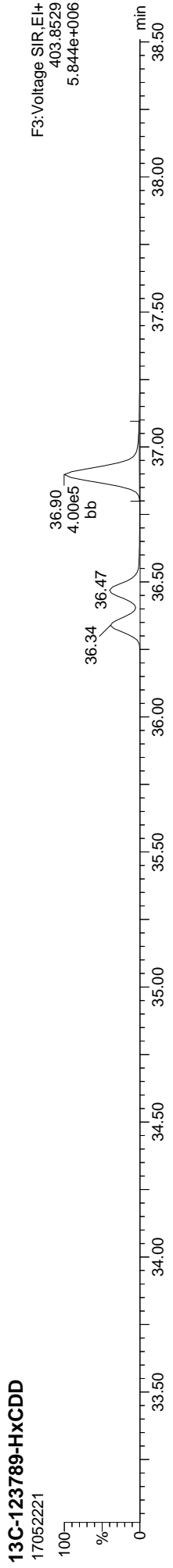
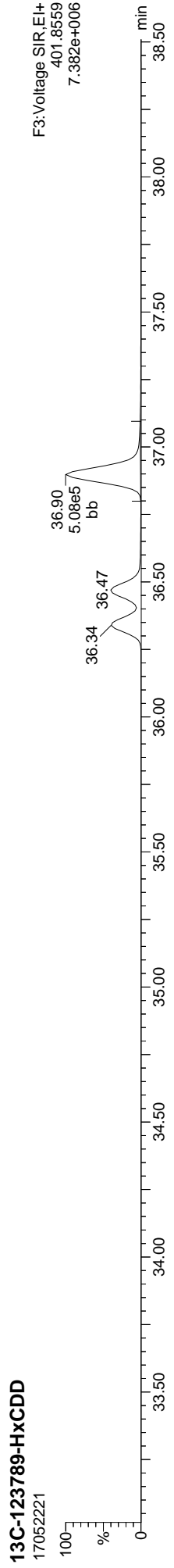
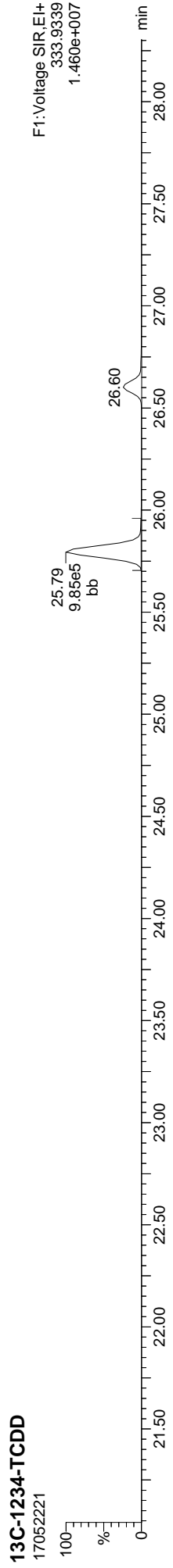
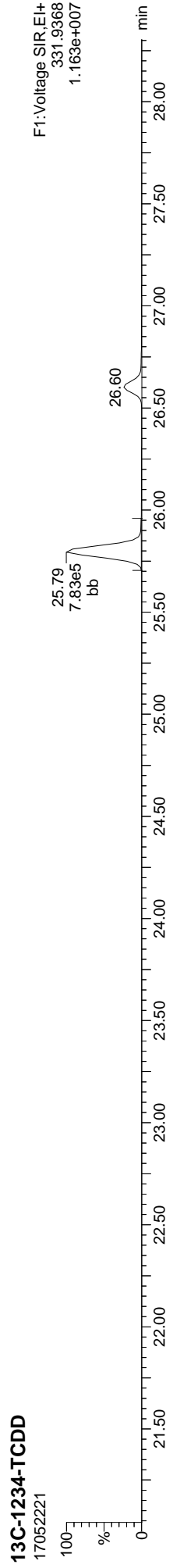
ETHERS6

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

Quantify Sample Report
MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:23 Pacific Daylight Time

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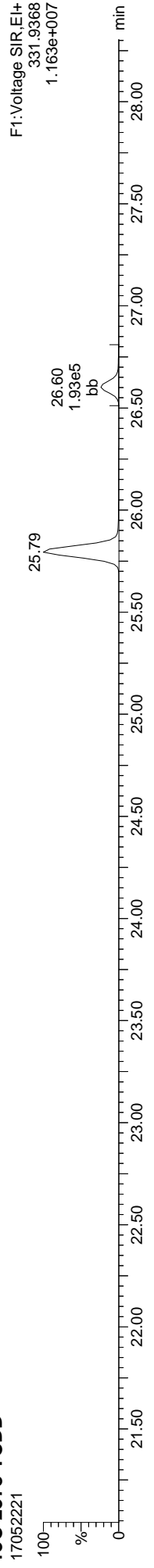
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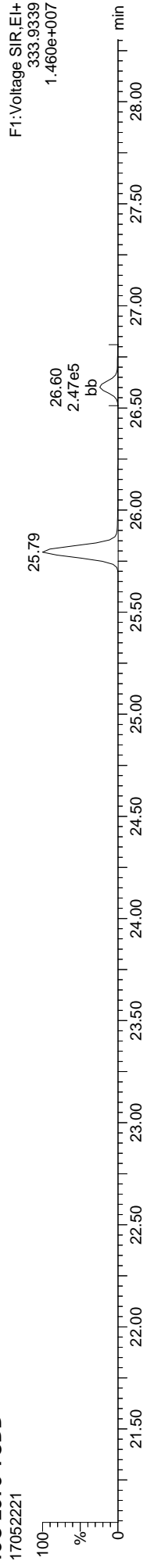
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MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
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ID: 17E0012-04, Name: 17052221, Date: 23-May-2017, Time: 03:22:10, Conditions: AUTOSPEC01, User: PK

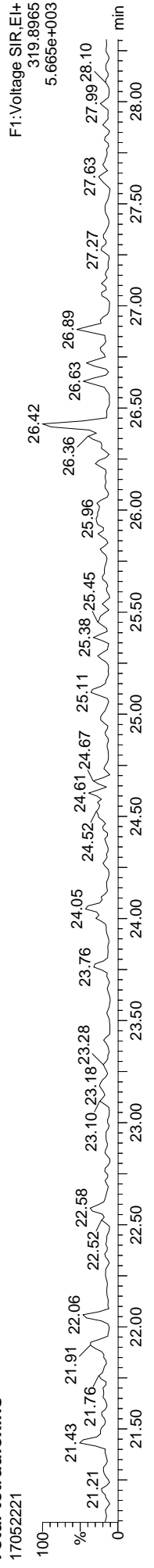
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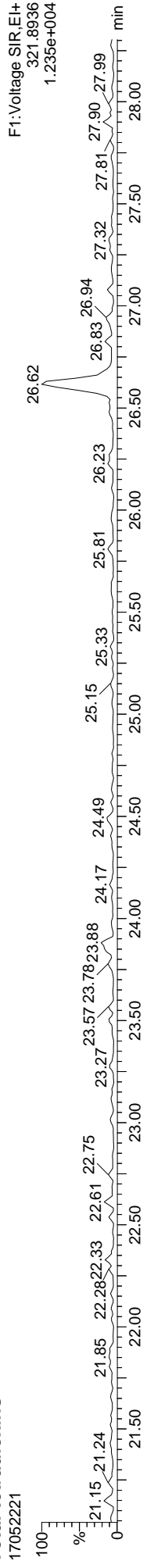
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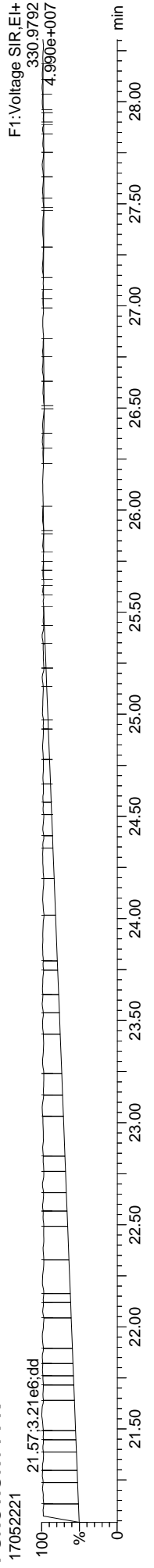
Total-tetradioxins



Total-tetradioxins



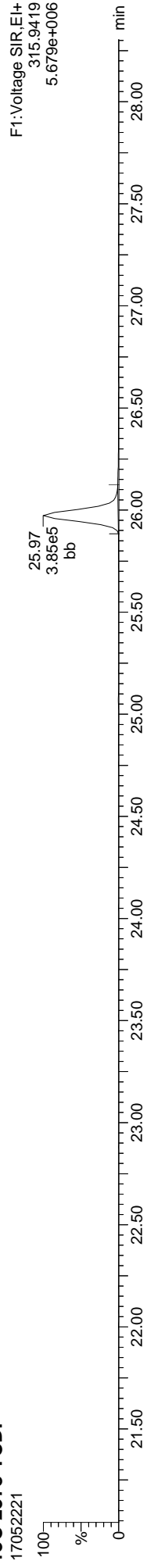
FUNCTION1 PFK



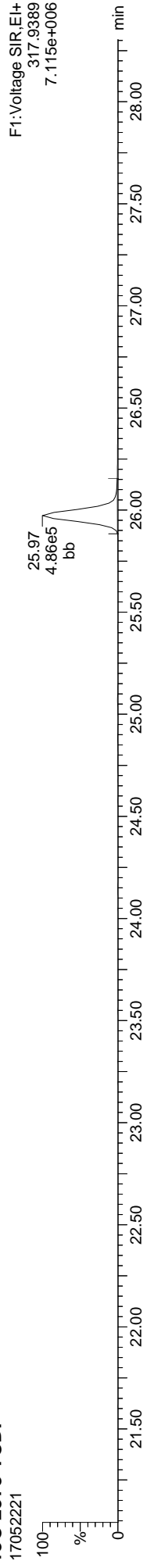
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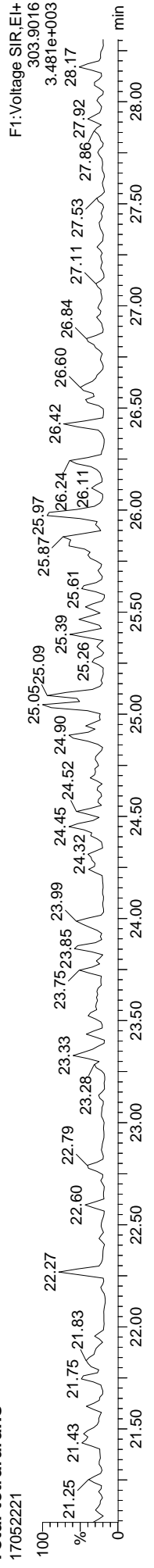
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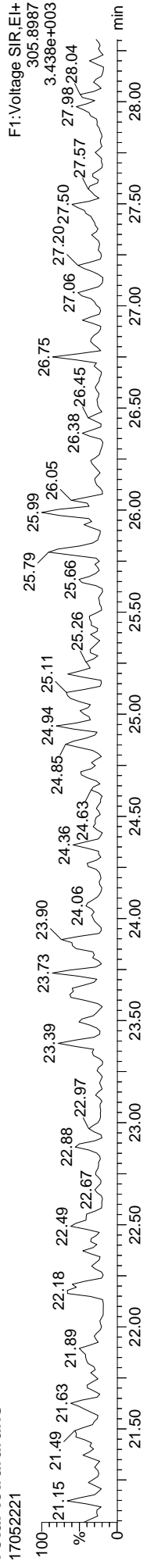
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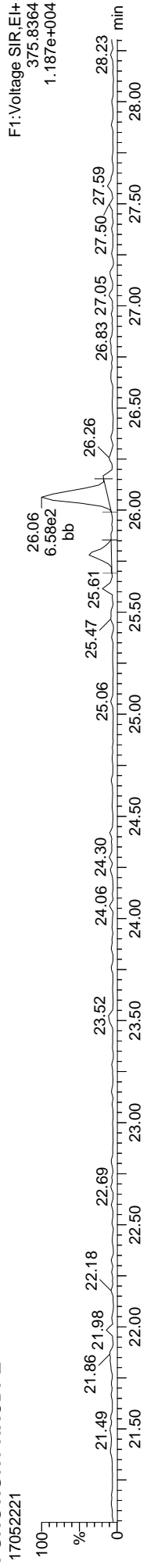
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Total-tetrafurans



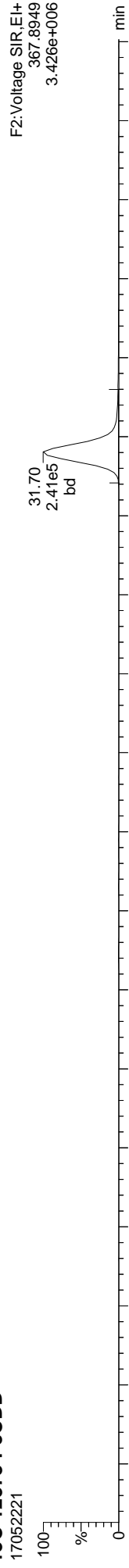
FUNCTION1 HXCDFE



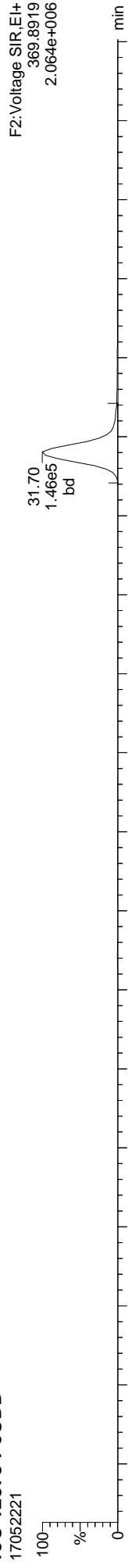
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ID: 17E0012-04, Name: 17052221, Date: 23-May-2017, Time: 03:22:10, Conditions: AUTOSPEC01, User: PK

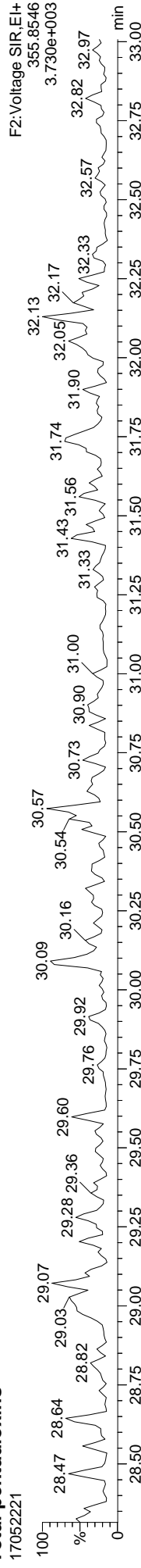
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13C-12378-PeCDD



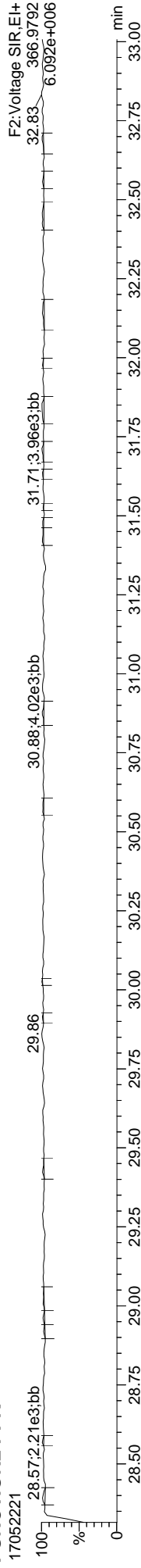
Total-pentadioxins



Total-pentadioxins



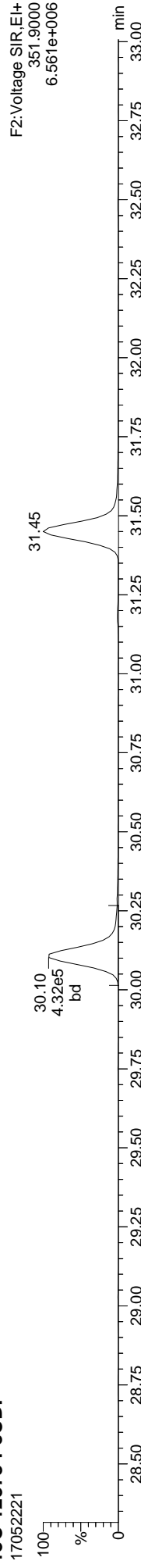
FUNCTION2 PFK



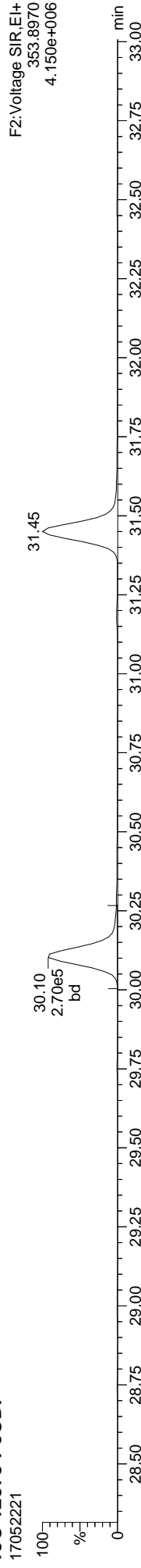
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ID: 17E0012-04, Name: 17052221, Date: 23-May-2017, Time: 03:22:10, Conditions: AUTOSPEC01, User: PK

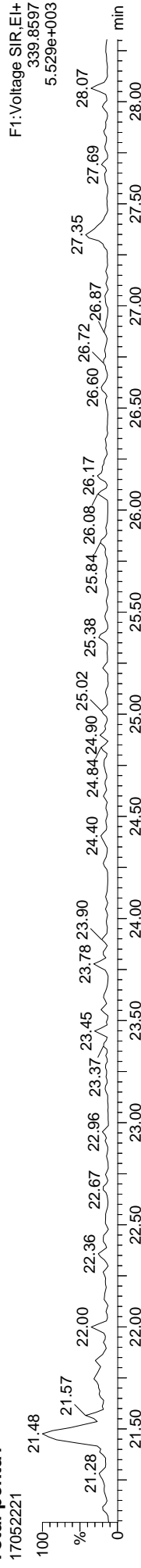
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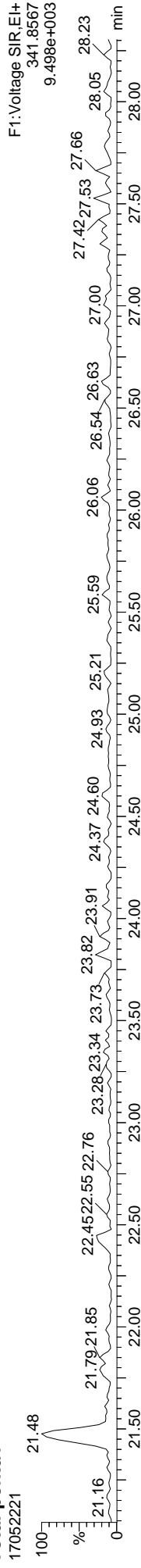
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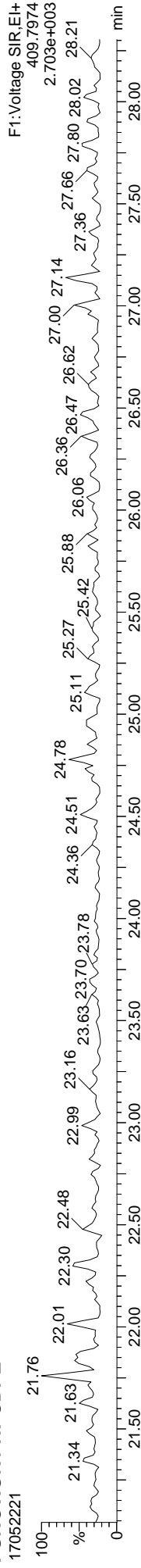
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Total-penta1



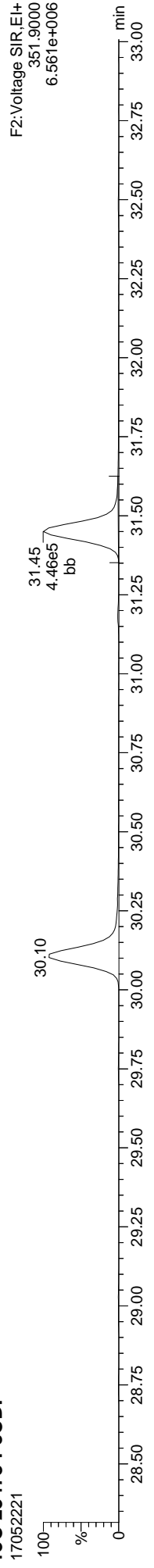
FUNCTION1 HPCDPE



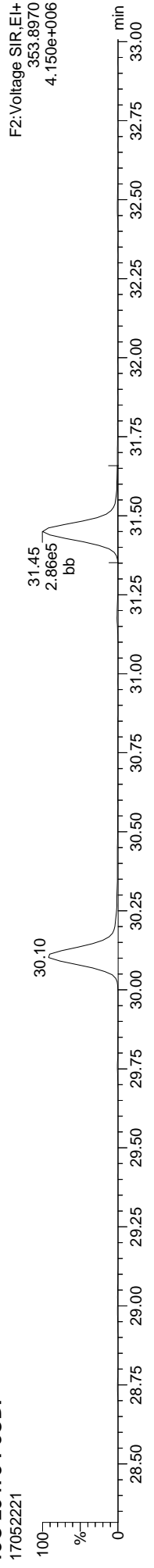
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ID: 17E0012-04, Name: 17052221, Date: 23-May-2017, Time: 03:22:10, Conditions: AUTOSPEC01, User: PK

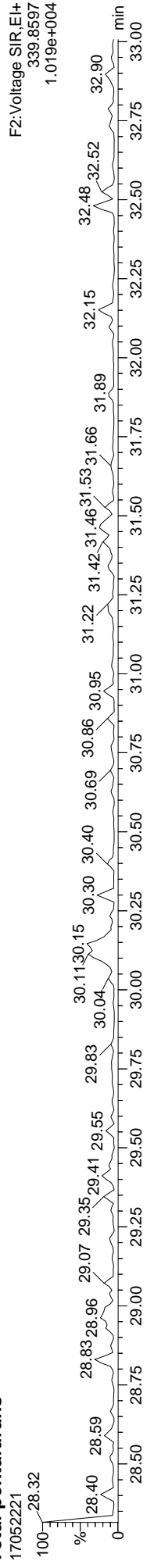
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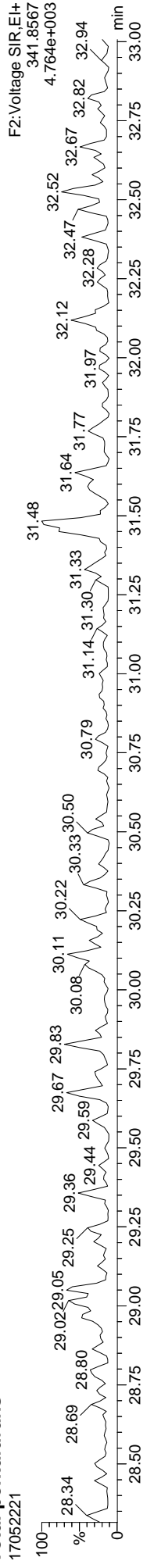
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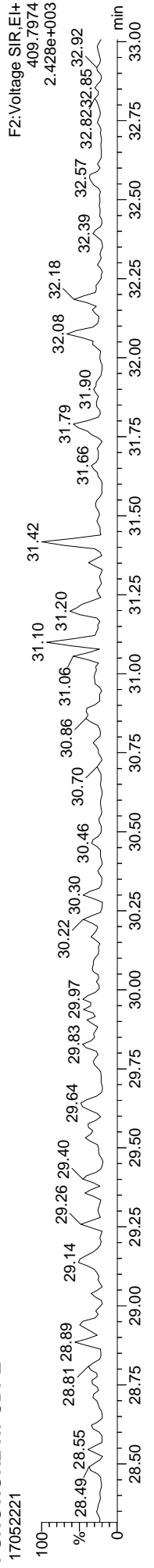
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Total-pentafurans



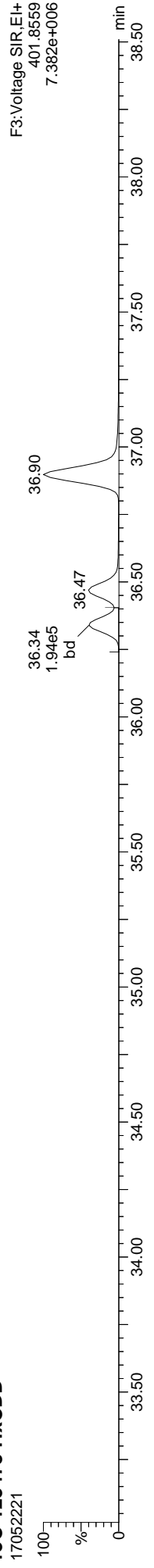
FUNCTION2 HPCDFE



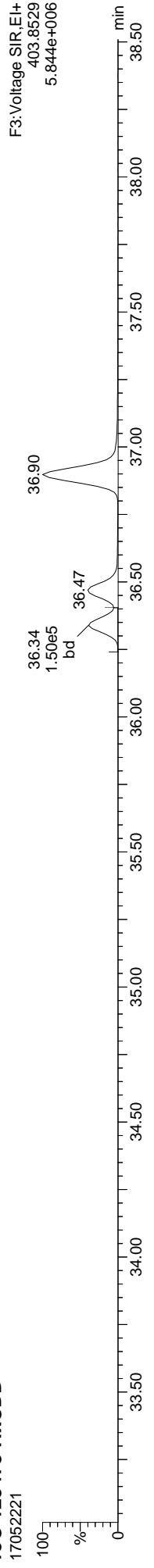
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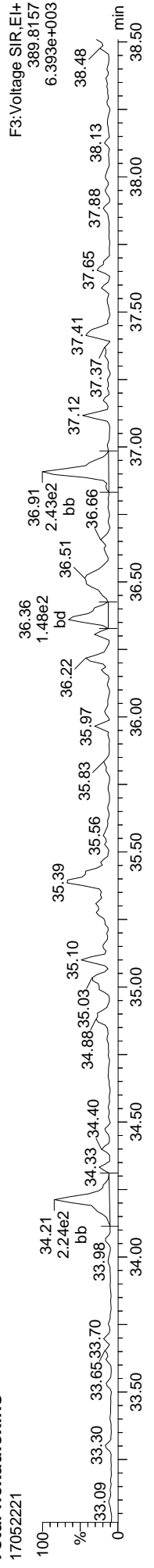
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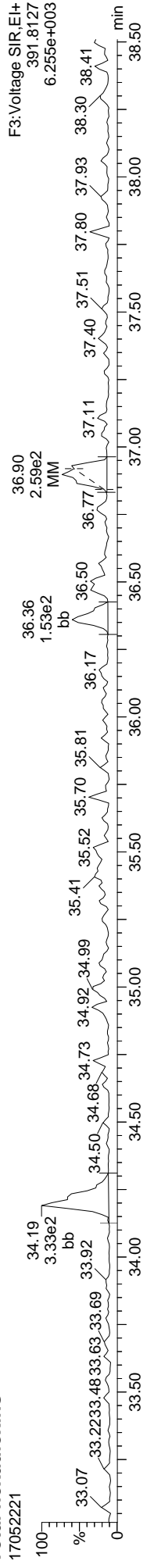
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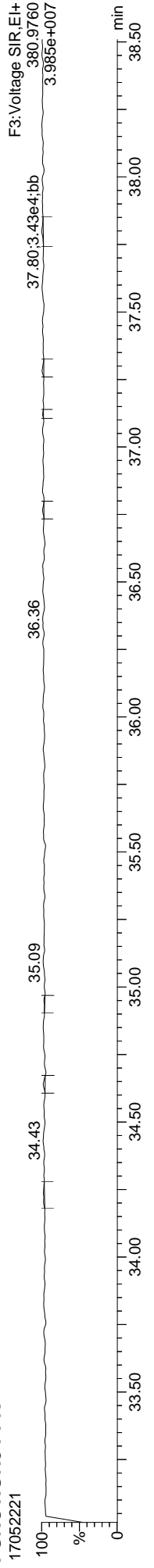
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Total-hexadioxins



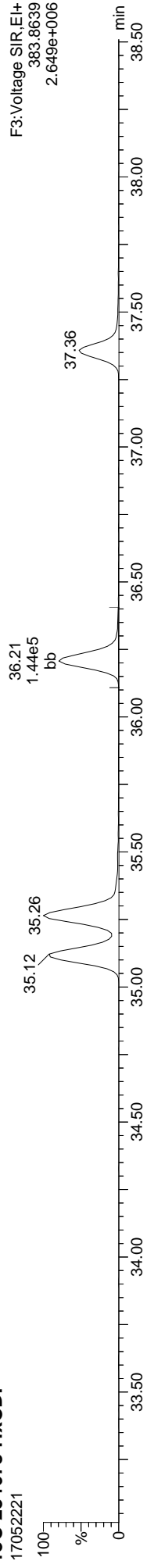
FUNCTION3 PFK



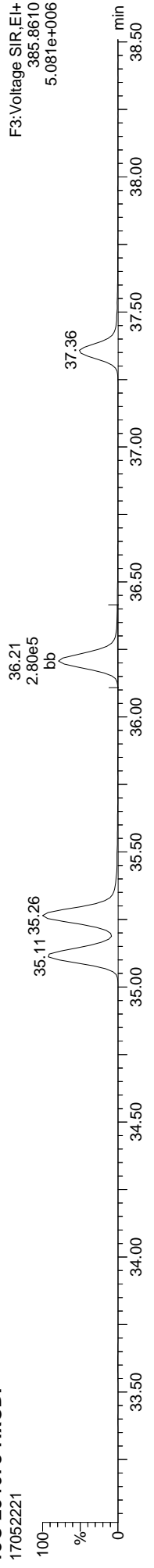
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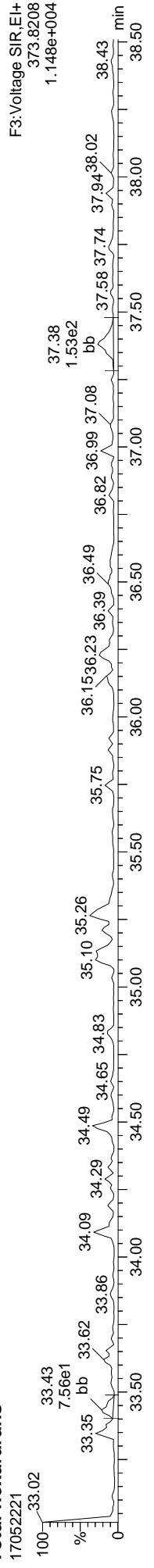
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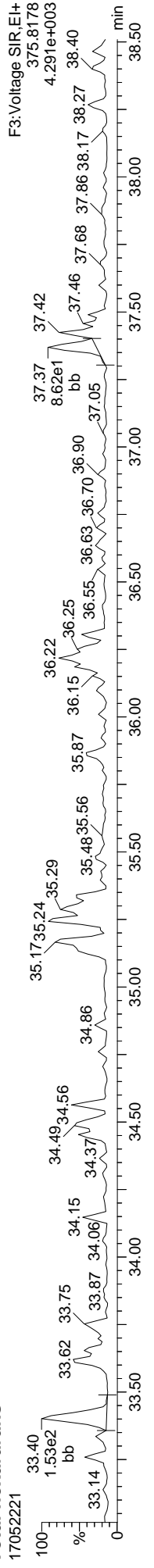
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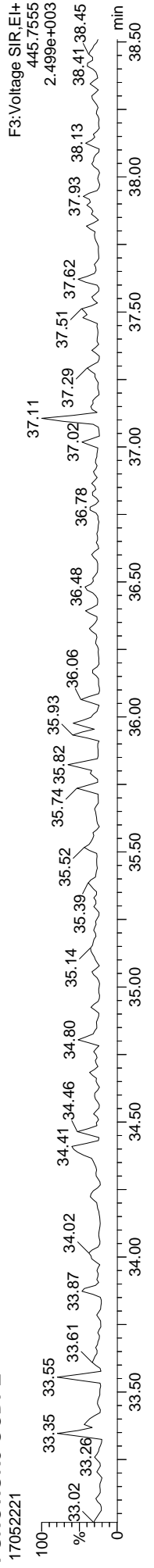
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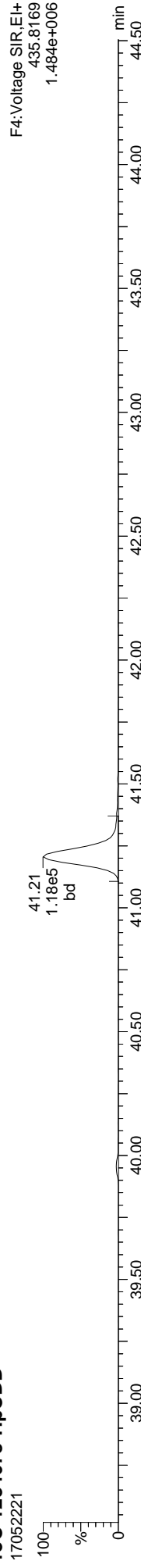
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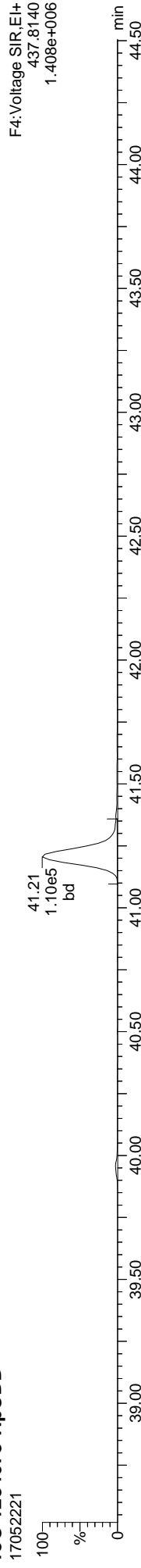
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MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\1705222D2.qld
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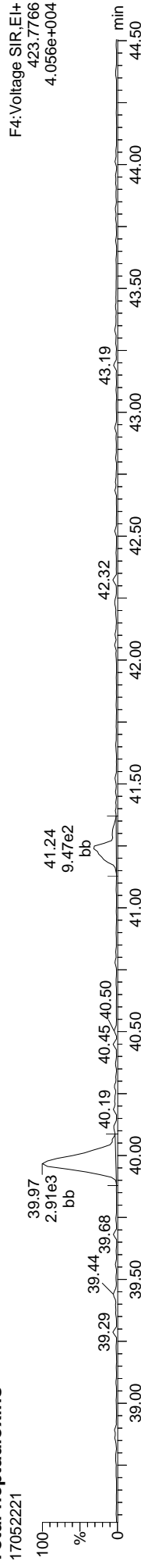
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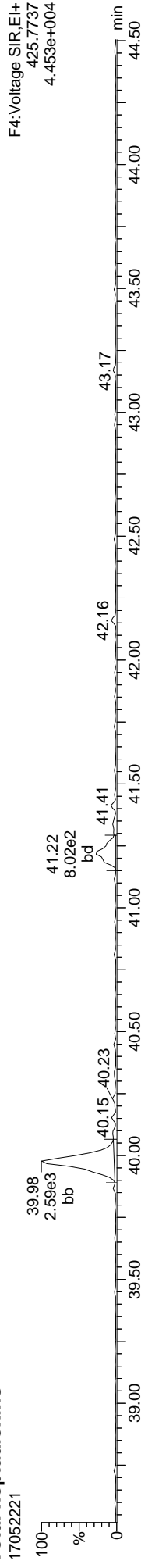
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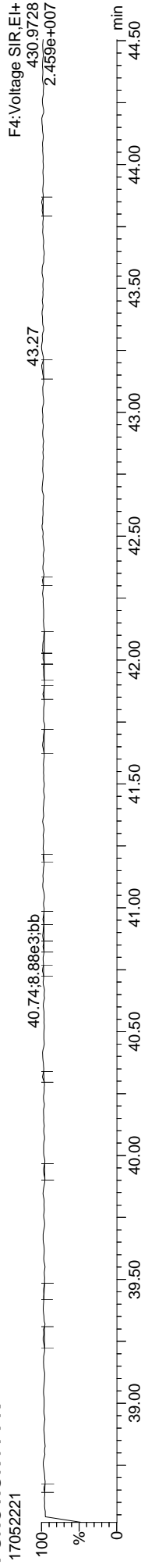
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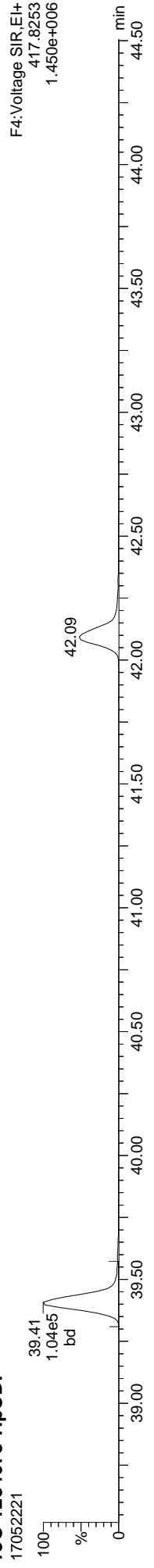
FUNCTION4 PFK



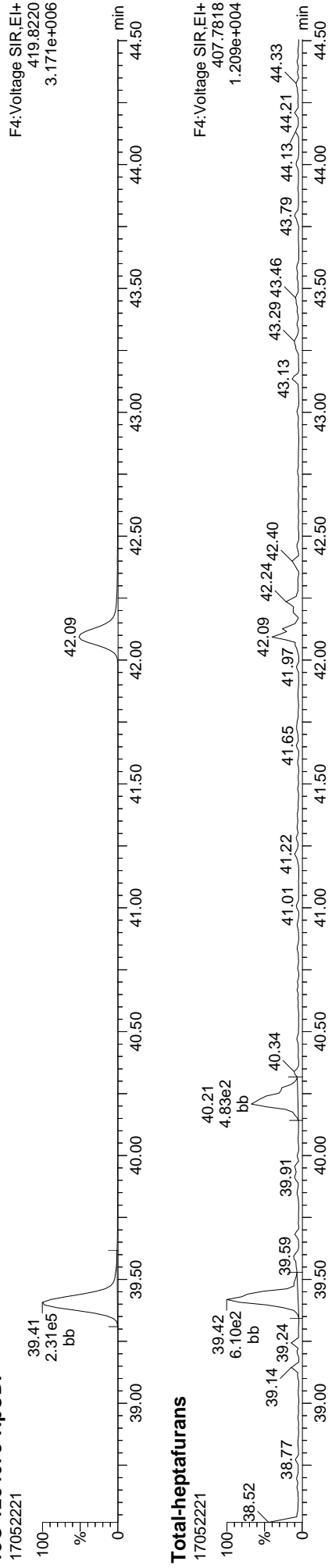
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MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:23 Pacific Daylight Time

ID: 17E0012-04, Name: 17052221, Date: 23-May-2017, Time: 03:22:10, Conditions: AUTOSPEC01, User: PK

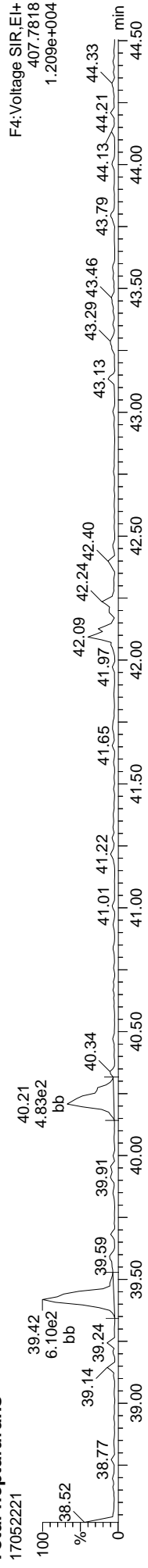
13C-1234678-HpCDF



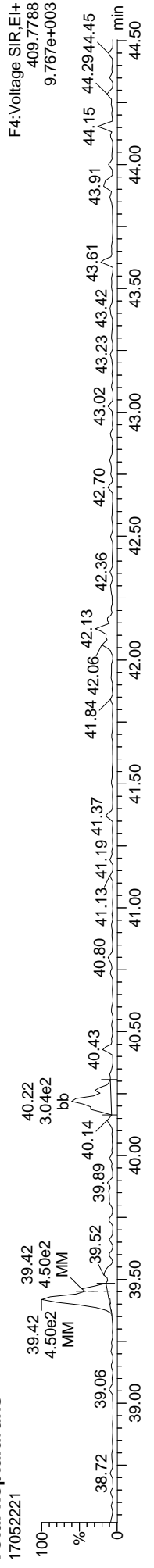
13C-1234678-HpCDF



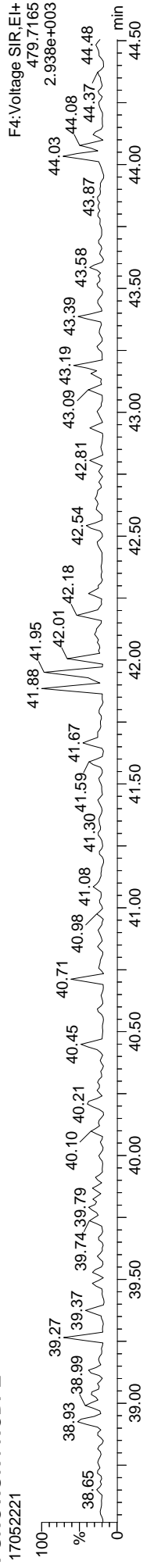
Total-heptafurans



Total-heptafurans



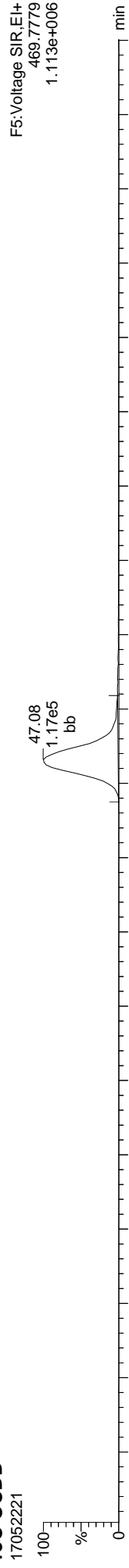
FUNCTION4 NCDPE



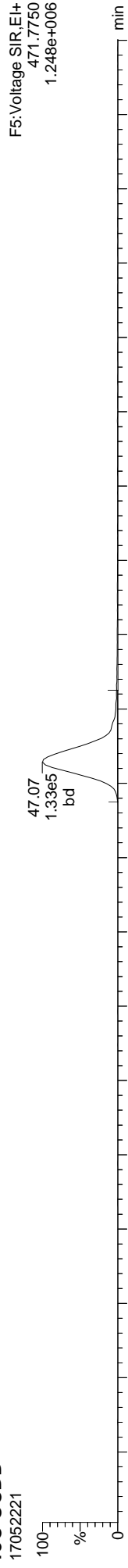
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:23 Pacific Daylight Time

ID: 17E0012-04, Name: 17052221, Date: 23-May-2017, Time: 03:22:10, Conditions: AUTOSPEC01, User: PK

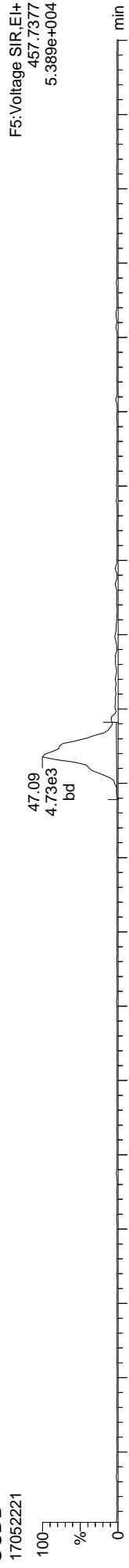
13C-OCDD



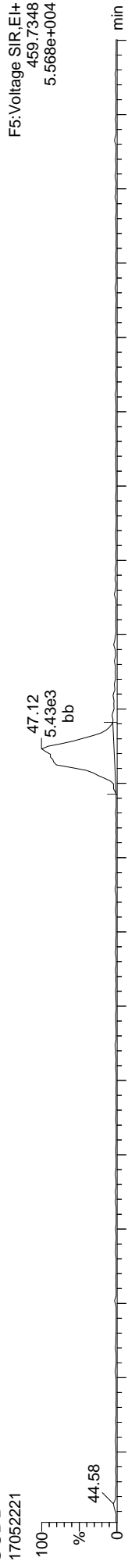
13C-OCDD



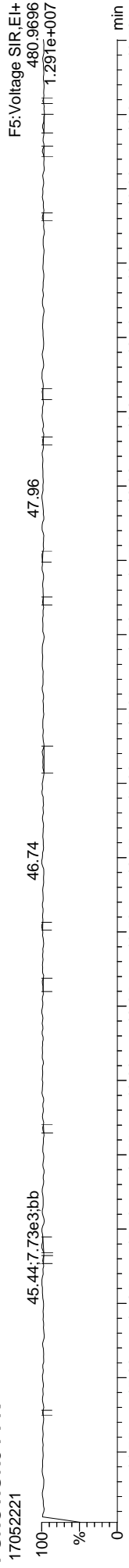
OCDD



OCDD



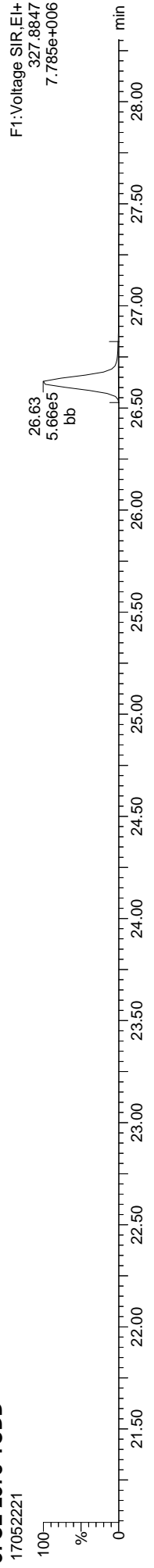
FUNCTION5 PFK



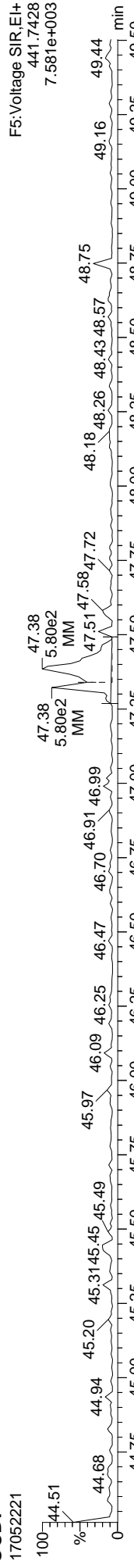
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:23 Pacific Daylight Time

ID: 17E0012-04, Name: 17052221, Date: 23-May-2017, Time: 03:22:10, Conditions: AUTOSPEC01, User: PK

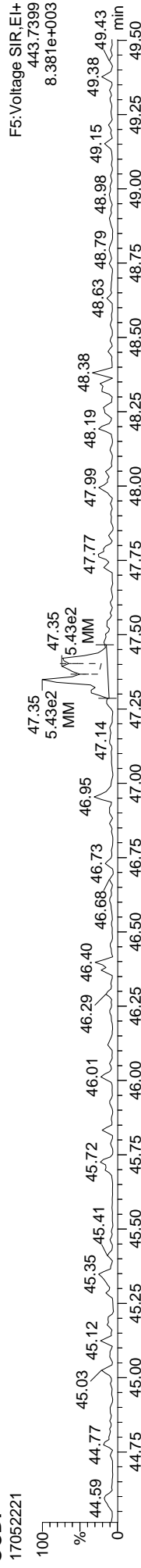
37CL-2378-TCDD



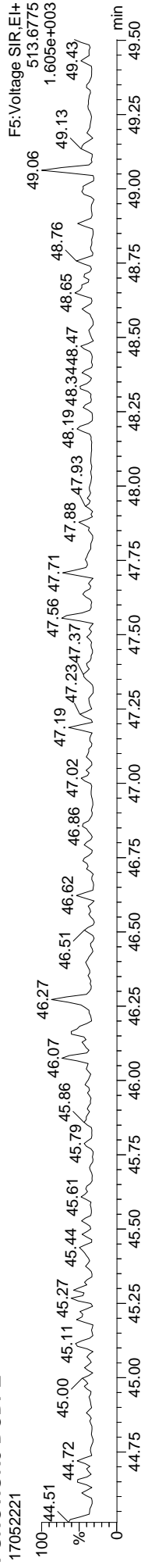
OCDF



OCDF



FUNCTION5 DCDPE





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

Laboratory: Analytical Resources, Inc. SDG: 17E0012
 Client: Anchor QEA, LLC
 Project: Port Gamble Shellfish Monitoring
 Matrix: Tissue Laboratory ID: 17E0012-05 File ID: 17052222
 Sampled: 04/28/17 13:30 Prepared: 05/09/17 16:05 Analyzed: 05/23/17 04:15
 Solids Wt%: Preparation: EPA 1613 Initial/Final: 10.04 g / 20 uL
 Result Basis: Dry Sequence: SFE0219 Calibration: AE00055
 Batch: BFE0233 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.000	0.655-0.886	0.038	0.996	ND	ng/kg	U
1746-01-6	2,3,7,8-TCDD	1	0.000	0.655-0.886	0.048	0.996	ND	ng/kg	U
57117-41-6	1,2,3,7,8-PeCDF	1	0.000	1.318-1.783	0.043	4.98	ND	ng/kg	U
57117-31-4	2,3,4,7,8-PeCDF	1	0.000	1.318-1.783	0.040	4.98	ND	ng/kg	U
40321-76-4	1,2,3,7,8-PeCDD	1	0.000	1.318-1.783	0.114	4.98	ND	ng/kg	U
70648-26-9	1,2,3,4,7,8-HxCDF	1	0.000	1.054-1.426	0.050	4.98	ND	ng/kg	U
57117-44-9	1,2,3,6,7,8-HxCDF	1	0.000	1.054-1.426	0.047	4.98	ND	ng/kg	U
60851-34-5	2,3,4,6,7,8-HxCDF	1	0.000	1.054-1.426	0.052	4.98	ND	ng/kg	U
72918-21-9	1,2,3,7,8,9-HxCDF	1	1.996	1.054-1.426		4.98	0.078	ng/kg	EMPC, J, B
39227-28-6	1,2,3,4,7,8-HxCDD	1	0.000	1.054-1.426	0.077	4.98	ND	ng/kg	U
57653-85-7	1,2,3,6,7,8-HxCDD	1	0.000	1.054-1.426	0.076	4.98	ND	ng/kg	U
19408-74-3	1,2,3,7,8,9-HxCDD	1	0.000	1.054-1.426	0.084	4.98	ND	ng/kg	U
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	0.000	0.893-1.208	0.036	4.98	ND	ng/kg	U
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	0.000	0.893-1.208	0.061	4.98	ND	ng/kg	U
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	0.000	0.893-1.208	0.166	4.98	ND	ng/kg	U
39001-02-0	OCDF	1	0.000	0.757-1.024	0.200	9.96	ND	ng/kg	U
3268-87-9	OCDD	1	0.965	0.757-1.024		9.96	1.23	ng/kg	J, B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			0.996	ND	ng/kg
41903-57-5	Total TCDD	1	0.000			0.996	ND	ng/kg
30402-15-4	Total PeCDF	1	0.000			0.996	ND	ng/kg
36088-22-9	Total PeCDD	1	0.000			0.996	ND	ng/kg
55684-94-1	Total HxCDF	1	0.000			0.996	0.078	ng/kg
34465-46-8	Total HxCDD	1	0.000			0.996	ND	ng/kg
38998-75-3	Total HpCDF	1	0.000			0.996	ND	ng/kg
37871-00-4	Total HpCDD	1	0.000			0.996	0.325	ng/kg

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



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

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>17E0012</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Port Gamble Shellfish Monitoring</u>
Matrix:	<u>Tissue</u>	Laboratory ID:	<u>17E0012-05</u>
Sampled:	<u>04/28/17 13:30</u>	Prepared:	<u>05/09/17 16:05</u>
Solids Wt%:		Preparation:	<u>EPA 1613</u>
Result Basis:	<u>Dry</u>	Sequence:	<u>SFE0219</u>
Batch:	<u>BFE0233</u>	Instrument:	<u>AUTOSPEC01</u>
		File ID:	<u>17052222</u>
		Analyzed:	<u>05/23/17 04:15</u>
		Initial/Final:	<u>10.04 g / 20 uL</u>
		Calibration:	<u>AE00055</u>
		Column:	<u>RTX-Dioxin2</u>

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF		0.798	0.655-0.886		38.0	24 - 169 %	
13C12-2,3,7,8-TCDD		0.760	0.655-0.886		38.6	25 - 164 %	
13C12-1,2,3,7,8-PeCDF		1.652	1.318-1.783		32.1	24 - 185 %	
13C12-2,3,4,7,8-PeCDF		1.569	1.318-1.783		33.0	21 - 178 %	
13C12-1,2,3,7,8-PeCDD		1.583	1.318-1.783		32.6	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF		0.515	0.434-0.587		36.4	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF		0.506	0.434-0.587		36.9	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF		0.522	0.434-0.587		36.3	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF		0.522	0.434-0.587		33.3	29 - 147 %	
13C12-1,2,3,4,7,8-HxCDD		1.304	1.054-1.426		39.6	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD		1.327	1.054-1.426		39.1	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF		0.436	0.374-0.506		33.1	28 - 143 %	
13C12-1,2,3,4,7,8,9-HpCDF		0.453	0.374-0.506		32.7	26 - 138 %	
13C12-1,2,3,4,6,7,8-HpCDD		1.059	0.893-1.208		37.4	23 - 140 %	
13C12-OCDD		0.897	0.757-1.024		28.6	17 - 157 %	
37C14-2,3,7,8-TCDD		328.000			89.5	35 - 197 %	

* Values outside of QC limits

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

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
 Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
 Printed: Tuesday, May 23, 2017 13:55:28 Pacific Daylight Time

Method: C:\MassLynx\Dioxin.pro\MethDBIDioxin170518.mdb 18 May 2017 15:01:42
Calibration: C:\MassLynx\Dioxin.pro\CurveDB\170518CIH.cdb 19 May 2017 13:57:26

ID: 17E0012-05, **Name:** 17052222, **Date:** 23-May-2017, **Time:** 04:15:27, **Conditions:** AUTOSPEC01, **User:** PK

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
2378-TCDF					1.018		0.770	537	641								
12378-PeCDF					0.977		1.550	327	712								
23478-PeCDF					1.019		1.550	327	712								
123478-HxCDF					1.150		1.240	522	462								
234678-HxCDF					1.188		1.240	522	462								
123678-HxCDF					1.100		1.240	522	462								
123789-HxCDF	37.357	1.000	1.452e2	7.276e1	1.116	1.996	1.240	522	462	2.24e3	2.01e3	4.3	YES	YES	MM	bb	0.039
1234678-HpCDF					1.238		1.050	319	240								
1234789-HpCDF					1.257		1.050	319	240								
OCDF					1.321		0.890	274	791								
2378-TCDD					1.244		0.770	593	368								
12378-PeCDD					1.058		1.550	854	692								
123478-HxCDD					1.119		1.240	693	389								
123678-HxCDD					1.040		1.240	693	389								
123789-HxCDD					0.981		1.240	693	389								
1234678-HpCDD					1.132		1.050	671	923								
OCDD	47.115	1.001	8.296e2	8.594e2	1.117	0.965	0.890	602	794	9.58e3	7.62e3	15.9	YES	NO	MM	MM	0.616
13C-2378-TCDF	25.973	1.007	5.629e5	7.058e5	1.685	0.798	0.770	4115	1957	7.99e6	1.01e7	1942.1	YES	NO	bb	bb	37.996
13C-12378-PeCDF	30.102	1.167	6.766e5	4.097e5	1.706	1.652	1.550	3852	2231	9.15e6	5.77e6	2375.8	YES	NO	bd	bb	32.132
13C-23478-PeCDF	31.450	1.219	6.526e5	4.160e5	1.632	1.569	1.550	3852	2231	9.40e6	5.95e6	2441.3	YES	NO	bb	bb	33.038
13C-123478-HxCDF	35.121	0.952	2.411e5	4.684e5	1.682	0.515	0.510	2616	2356	3.45e6	6.74e6	1318.4	YES	NO	bd	bd	36.362
13C-123678-HxCDF	35.264	0.956	2.796e5	5.523e5	1.945	0.506	0.510	2616	2356	3.86e6	7.46e6	1476.9	YES	NO	db	dd	36.868
13C-234678-HxCDF	36.207	0.981	2.284e5	4.372e5	1.582	0.522	0.510	2616	2356	3.27e6	6.09e6	1250.2	YES	NO	bb	bb	36.272
13C-123789-HxCDF	37.357	1.013	1.711e5	3.279e5	1.291	0.522	0.510	2616	2356	2.37e6	4.60e6	906.2	YES	NO	bb	bb	33.332
13C-1234678-HpCDF	39.407	1.068	1.664e5	3.816e5	1.427	0.436	0.440	1650	2154	2.30e6	5.37e6	1391.8	YES	NO	bd	bd	33.118
13C-1234789-HpCDF	42.093	1.141	1.130e5	2.495e5	0.957	0.453	0.440	1650	2154	1.37e6	3.00e6	828.5	YES	NO	bd	bd	32.659
13C-1234-TCDD	25.794	0.000	8.735e5	1.108e6	1.000	0.788	0.770	2003	1419	1.30e7	1.64e7	6479.9	YES	NO	bb	bb	100.000
13C-2378-TCDD	26.601	1.031	2.886e5	3.795e5	0.873	0.760	0.770	2003	1419	4.16e6	5.33e6	2077.7	YES	NO	bb	bd	38.622
13C-12378-PeCDD	31.702	1.229	3.405e5	2.151e5	0.860	1.583	1.550	2032	1425	4.71e6	2.94e6	2317.0	YES	NO	bb	bd	32.598
13C-123478-HxCDD	36.338	0.985	2.894e5	2.219e5	1.114	1.304	1.240	2120	1712	4.26e6	3.27e6	2011.7	YES	NO	bd	bd	39.585
13C-123678-HxCDD	36.470	0.988	3.257e5	2.454e5	1.258	1.327	1.240	2120	1712	4.68e6	3.51e6	2206.6	YES	NO	db	db	39.126
13C-1234678-HpCDD	41.205	1.117	2.059e5	1.943e5	0.924	1.059	1.050	1192	1346	2.61e6	2.48e6	2190.9	YES	NO	bb	bd	37.355
13C-OCDD	47.070	1.276	2.320e5	2.587e5	0.738	0.897	0.890	995	1169	2.28e6	2.54e6	2287.3	YES	NO	bd	bd	57.293
13C-123789-HxCDD	36.897	0.000	6.539e5	5.059e5	1.000	1.293	1.240	2120	1712	9.30e6	7.21e6	4386.8	YES	NO	bb	bb	100.000
Total-tetrafurans			0.000e0	0.000e0	1.018			537		0.00e0							

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

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
 Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
 Printed: Tuesday, May 23, 2017 13:55:28 Pacific Daylight Time

ID: 17E0012-05, Name: 17052222, Date: 23-May-2017, Time: 04:15:27, Conditions: AUTOSPEC01, User: PK

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg	
Total-penta1			0.000e0					398		0.00e0								
Total-pentafurans			0.000e0		0.998			327		0.00e0								
Total-hexafurans			1.452e2		1.138			522		2.24e3								0.039
Total-heptafurans			0.000e0		1.248			319		0.00e0								
Total-Furans			1.452e2		1.138			537		2.24e3								0.039
Total-tetradioxins			0.000e0		1.244			593		0.00e0								
Total-pentadioxins			0.000e0		1.058			854		0.00e0								
Total-hexadioxins			0.000e0		1.047			693		0.00e0								
Total-heptadioxins			3.635e2		1.132			671		6.99e3								0.163
Total-Dioxins			1.193e3		1.099			593		1.66e4								0.780
Total-TEQ			1.338e3					593		1.88e4								0.819
37CL-2378-TCDD	26.631	1.032	7.246e5		1.021			1090		1.00e7		9206.4	YES		bb			35.802
FUNCTION1 PFK			9.837e5					512881		1.73e7								
FUNCTION2 PFK			7.015e4					108325		2.77e6								0.000
FUNCTION3 PFK			1.455e6					557892		3.16e7								0.000
FUNCTION4 PFK			2.452e5					273329		7.74e6								
FUNCTION5 PFK			2.038e6					183764		2.13e7								
FUNCTION1 HXCD...			1.573e2					205		2.34e3								0.000
FUNCTION1 HPCD...			1.281e2					283		3.49e3								0.000
FUNCTION2 HPCD...			9.195e1					351		3.73e3								0.000
FUNCTION3 OCDPE			0.000e0					205		0.00e0								
FUNCTION4 NCDPE			0.000e0					293		0.00e0								
FUNCTION5 DCDPE			0.000e0					300		0.00e0								

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
 Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
 Printed: Tuesday, May 23, 2017 13:55:28 Pacific Daylight Time

Method: C:\MassLynx\Dioxin.pro\MethDB\Dioxin170518.mdb 18 May 2017 15:01:42
 Calibration: C:\MassLynx\Dioxin.pro\CurveDB\170518\CIH.cdb 19 May 2017 13:57:26

ID: 17E0012-05, Name: 17052222, Date: 23-May-2017, Time: 04:15:27, Conditions: AUTOSPEC01, User: PK

TF

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

PP

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

PF

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

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	37.36	1.452e2	7.276e1	1.116	2.00	1.24	4.3	YES	YES	MM	bb	0.039

HPF

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

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

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	37.36	1.452e2	7.276e1	1.116	2.00	1.24	4.3	YES	YES	MM	bb	0.039

TD

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

PD

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

HD

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

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptadioxins	39.98	3.635e2	3.766e2	1.132	0.97	1.05	10.4	YES	NO	bb	MM	0.163

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
 Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
 Printed: Tuesday, May 23, 2017 13:55:28 Pacific Daylight Time

ID: 17E0012-05, Name: 17052222, Date: 23-May-2017, Time: 04:15:27, Conditions: AUTOSPEC01, User: PK

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	OCDD	47.12	8.296e2	8.594e2	1.117	0.97	0.89	15.9	YES	NO	MM	MM	0.616
2	Total-heptadioxins	39.98	3.635e2	3.766e2	1.132	0.97	1.05	10.4	YES	NO	bb	MM	0.163

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	37.36	1.452e2	7.276e1	1.116	2.00	1.24	4.3	YES	YES	MM	bb	0.039
2	OCDD	47.12	8.296e2	8.594e2	1.117	0.97	0.89	15.9	YES	NO	MM	MM	0.616
3	Total-heptadioxins	39.98	3.635e2	3.766e2	1.132	0.97	1.05	10.4	YES	NO	bb	MM	0.163

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	21.15	5.868e4					1.5	NO		bd		
2	FUNCTION1 PFK	24.81	3.090e4					1.4	NO		bb		
3	FUNCTION1 PFK	24.66	5.019e4					1.3	NO		bb		
4	FUNCTION1 PFK	24.34	3.125e3					0.4	NO		bb		
5	FUNCTION1 PFK	24.11	3.583e4					1.0	NO		bb		
6	FUNCTION1 PFK	23.99	1.428e4					0.9	NO		bb		
7	FUNCTION1 PFK	23.69	4.209e4					1.5	NO		bb		
8	FUNCTION1 PFK	23.57	5.217e4					1.7	NO		bb		
9	FUNCTION1 PFK	23.12	1.299e4					0.7	NO		db		
10	FUNCTION1 PFK	23.08	4.305e4					1.0	NO		bd		
11	FUNCTION1 PFK	22.93	4.605e4					1.3	NO		bb		
12	FUNCTION1 PFK	22.51	2.563e3					0.3	NO		bb		
13	FUNCTION1 PFK	22.16	4.403e4					1.2	NO		bb		
14	FUNCTION1 PFK	22.03	6.442e4					2.2	NO		db		
15	FUNCTION1 PFK	21.83	7.634e4					1.8	NO		bd		
16	FUNCTION1 PFK	21.49	7.711e3					0.5	NO		bb		
17	FUNCTION1 PFK	21.28	1.170e4					0.8	NO		db		
18	FUNCTION1 PFK	27.90	2.821e4					1.3	NO		bb		
19	FUNCTION1 PFK	27.78	5.922e4					1.8	NO		bb		
20	FUNCTION1 PFK	27.39	2.714e4					1.2	NO		bb		
21	FUNCTION1 PFK	27.23	2.546e3					0.3	NO		bb		
22	FUNCTION1 PFK	27.12	3.511e4					1.5	NO		bb		
23	FUNCTION1 PFK	26.94	1.027e4					0.7	NO		bb		
24	FUNCTION1 PFK	26.47	3.767e4					1.2	NO		bb		
25	FUNCTION1 PFK	26.32	6.506e4					1.7	NO		bb		
26	FUNCTION1 PFK	26.00	8.043e4					2.3	NO		bb		
27	FUNCTION1 PFK	25.91	3.657e4					1.4	NO		bb		
28	FUNCTION1 PFK	25.24	5.389e3					0.7	NO		bb		

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PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	28.99	2.885e3					1.0	NO		bd		0.000
2	FUNCTION2 PFK	28.68	6.801e3					1.3	NO		bb		0.000
3	FUNCTION2 PFK	28.53	4.347e3					1.3	NO		bb		0.000
4	FUNCTION2 PFK	28.42	2.098e3					0.8	NO		bb		0.000
5	FUNCTION2 PFK	31.98	3.421e3					1.2	NO		bb		0.000
6	FUNCTION2 PFK	31.92	6.871e2					0.6	NO		bb		0.000
7	FUNCTION2 PFK	31.88	2.527e3					0.8	NO		bb		0.000
8	FUNCTION2 PFK	31.81	7.268e2					0.6	NO		bb		0.000
9	FUNCTION2 PFK	31.75	5.248e2					0.4	NO		bb		0.000
10	FUNCTION2 PFK	31.38	4.433e2					0.4	NO		bb		0.000
11	FUNCTION2 PFK	31.31	4.406e3					1.3	NO		bb		0.000
12	FUNCTION2 PFK	31.00	2.089e3					0.9	NO		db		0.000
13	FUNCTION2 PFK	30.95	3.858e3					1.1	NO		bd		0.000
14	FUNCTION2 PFK	30.45	9.743e2					0.6	NO		bb		0.000
15	FUNCTION2 PFK	30.17	3.541e3					0.8	NO		bb		0.000
16	FUNCTION2 PFK	29.65	1.866e3					0.9	NO		bb		0.000
17	FUNCTION2 PFK	29.61	1.838e3					0.8	NO		bb		0.000
18	FUNCTION2 PFK	29.56	1.281e3					0.7	NO		bb		0.000
19	FUNCTION2 PFK	29.36	2.902e3					1.2	NO		bb		0.000
20	FUNCTION2 PFK	29.04	3.411e3					1.2	NO		db		0.000
21	FUNCTION2 PFK	32.96	4.557e3					1.4	NO		bb		0.000
22	FUNCTION2 PFK	32.81	1.951e3					1.0	NO		bb		0.000
23	FUNCTION2 PFK	32.60	7.283e2					0.6	NO		bb		0.000
24	FUNCTION2 PFK	32.56	6.847e2					0.6	NO		bb		0.000
25	FUNCTION2 PFK	32.45	1.900e3					0.7	NO		bb		0.000
26	FUNCTION2 PFK	32.37	2.632e3					1.0	NO		bb		0.000
27	FUNCTION2 PFK	32.16	3.932e3					1.2	NO		db		0.000
28	FUNCTION2 PFK	32.10	3.139e3					1.3	NO		bd		0.000

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PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	33.74	7.398e4					2.4	NO		db		0.000
2	FUNCTION3 PFK	33.69	1.704e4					1.6	NO		dd		0.000
3	FUNCTION3 PFK	33.62	7.235e4					2.0	NO		bd		0.000
4	FUNCTION3 PFK	33.40	4.688e4					1.9	NO		bb		0.000
5	FUNCTION3 PFK	33.30	2.838e4					1.4	NO		db		0.000
6	FUNCTION3 PFK	33.26	2.012e4					1.3	NO		bd		0.000
7	FUNCTION3 PFK	33.17	2.080e4					1.0	NO		bb		0.000
8	FUNCTION3 PFK	35.94	3.536e4					1.6	NO		bd		0.000
9	FUNCTION3 PFK	35.84	6.675e4					2.1	NO		bb		0.000
10	FUNCTION3 PFK	35.74	1.348e4					0.7	NO		bb		0.000
11	FUNCTION3 PFK	35.61	8.098e3					0.7	NO		db		0.000
12	FUNCTION3 PFK	35.58	2.161e3					0.3	NO		bd		0.000
13	FUNCTION3 PFK	35.51	3.139e4					1.3	NO		bb		0.000
14	FUNCTION3 PFK	35.42	3.780e4					1.4	NO		bb		0.000
15	FUNCTION3 PFK	35.17	6.439e3					0.5	NO		bb		0.000
16	FUNCTION3 PFK	35.06	5.809e4					2.0	NO		bb		0.000
17	FUNCTION3 PFK	34.94	2.619e4					1.1	NO		bb		0.000
18	FUNCTION3 PFK	34.81	1.159e4					0.7	NO		db		0.000
19	FUNCTION3 PFK	34.72	3.881e4					1.4	NO		bd		0.000
20	FUNCTION3 PFK	34.46	7.302e3					0.5	NO		db		0.000
21	FUNCTION3 PFK	34.40	1.617e4					1.1	NO		bd		0.000
22	FUNCTION3 PFK	34.28	6.819e4					2.3	NO		db		0.000
23	FUNCTION3 PFK	34.16	9.302e4					2.1	NO		bd		0.000
24	FUNCTION3 PFK	37.89	1.040e4					0.5	NO		db		0.000
25	FUNCTION3 PFK	37.83	4.074e4					1.7	NO		dd		0.000
26	FUNCTION3 PFK	37.70	5.512e4					1.6	NO		bd		0.000
27	FUNCTION3 PFK	37.50	2.625e4					1.1	NO		bb		0.000
28	FUNCTION3 PFK	37.40	5.848e4					1.7	NO		db		0.000
29	FUNCTION3 PFK	37.27	2.159e4					1.1	NO		bd		0.000
30	FUNCTION3 PFK	37.05	1.779e4					0.9	NO		bb		0.000
31	FUNCTION3 PFK	36.84	4.151e4					1.7	NO		bb		0.000
32	FUNCTION3 PFK	36.77	2.339e3					0.4	NO		db		0.000
33	FUNCTION3 PFK	36.71	3.783e4					1.3	NO		bd		0.000
34	FUNCTION3 PFK	36.58	4.018e4					1.2	NO		db		0.000
35	FUNCTION3 PFK	36.50	4.383e4					1.6	NO		dd		0.000
36	FUNCTION3 PFK	36.45	1.746e4					1.1	NO		bd		0.000
37	FUNCTION3 PFK	36.29	3.085e4					1.3	NO		bb		0.000
38	FUNCTION3 PFK	36.18	1.017e4					0.7	NO		bb		0.000
39	FUNCTION3 PFK	36.06	3.792e4					1.2	NO		db		0.000
40	FUNCTION3 PFK	38.43	1.939e3					0.3	NO		bb		0.000
41	FUNCTION3 PFK	38.37	4.620e4					1.8	NO		bb		0.000
42	FUNCTION3 PFK	38.27	5.670e4					1.7	NO		bb		0.000
43	FUNCTION3 PFK	38.06	2.597e4					1.2	NO		bb		0.000
44	FUNCTION3 PFK	37.94	3.176e4					1.3	NO		bb		0.000

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PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	40.81	1.167e4					1.5	NO		bd		
2	FUNCTION4 PFK	40.67	2.225e4					1.8	NO		bb		
3	FUNCTION4 PFK	40.60	1.086e4					1.8	NO		db		
4	FUNCTION4 PFK	40.58	1.018e4					1.7	NO		bd		
5	FUNCTION4 PFK	40.04	1.311e4					1.8	NO		bb		
6	FUNCTION4 PFK	39.69	3.042e4					2.1	NO		bb		
7	FUNCTION4 PFK	39.46	4.910e3					0.9	NO		bb		
8	FUNCTION4 PFK	39.14	1.621e4					1.2	NO		bb		
9	FUNCTION4 PFK	39.08	7.957e3					1.3	NO		bb		
10	FUNCTION4 PFK	38.94	1.215e4					1.5	NO		bb		
11	FUNCTION4 PFK	43.81	1.571e3					0.5	NO		bb		
12	FUNCTION4 PFK	42.86	1.625e3					0.5	NO		bb		
13	FUNCTION4 PFK	42.47	3.205e4					2.1	NO		bb		
14	FUNCTION4 PFK	42.02	1.088e4					1.4	NO		bb		
15	FUNCTION4 PFK	41.52	8.232e3					1.3	NO		bb		
16	FUNCTION4 PFK	41.45	1.235e4					1.3	NO		bb		
17	FUNCTION4 PFK	41.26	1.751e3					0.6	NO		bb		
18	FUNCTION4 PFK	41.23	1.825e3					0.6	NO		bb		
19	FUNCTION4 PFK	41.16	1.020e4					1.4	NO		bb		
20	FUNCTION4 PFK	41.04	1.926e4					1.8	NO		bb		
21	FUNCTION4 PFK	40.84	5.772e3					1.2	NO		db		

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PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	44.99	1.925e5					9.3	YES		dd		
2	FUNCTION5 PFK	44.91	8.212e4					13.1	YES		dd		
3	FUNCTION5 PFK	44.84	8.274e5					16.8	YES		dd		
4	FUNCTION5 PFK	44.56	6.975e5					30.5	YES		bd		
5	FUNCTION5 PFK	47.30	7.233e3					1.2	NO		bb		
6	FUNCTION5 PFK	47.12	7.328e2					0.4	NO		bb		
7	FUNCTION5 PFK	47.04	2.847e3					1.0	NO		bb		
8	FUNCTION5 PFK	46.96	2.108e3					0.6	NO		bb		
9	FUNCTION5 PFK	46.83	4.039e3					1.1	NO		bb		
10	FUNCTION5 PFK	46.70	2.262e3					0.6	NO		bb		
11	FUNCTION5 PFK	46.56	3.139e3					0.6	NO		bb		
12	FUNCTION5 PFK	46.43	2.539e3					0.9	NO		bb		
13	FUNCTION5 PFK	46.10	8.288e2					0.5	NO		bb		
14	FUNCTION5 PFK	46.07	6.336e2					0.4	NO		bb		
15	FUNCTION5 PFK	45.91	5.037e3					1.4	NO		bb		
16	FUNCTION5 PFK	45.60	2.303e3					0.7	NO		bb		
17	FUNCTION5 PFK	45.53	4.014e3					1.1	NO		bb		
18	FUNCTION5 PFK	45.47	1.116e4					1.5	NO		bb		
19	FUNCTION5 PFK	45.11	3.118e4					4.4	YES		db		
20	FUNCTION5 PFK	45.06	4.729e4					6.6	YES		dd		
21	FUNCTION5 PFK	48.93	1.633e3					0.6	NO		bb		
22	FUNCTION5 PFK	48.84	5.806e3					1.4	NO		db		
23	FUNCTION5 PFK	48.81	1.502e3					0.7	NO		bd		
24	FUNCTION5 PFK	48.53	1.146e4					2.0	NO		bb		
25	FUNCTION5 PFK	48.47	4.302e3					1.1	NO		db		
26	FUNCTION5 PFK	48.43	2.369e3					0.7	NO		bd		
27	FUNCTION5 PFK	48.39	5.467e3					1.1	NO		bb		
28	FUNCTION5 PFK	48.25	6.240e3					1.3	NO		bb		
29	FUNCTION5 PFK	48.20	3.711e3					1.0	NO		bb		
30	FUNCTION5 PFK	48.13	6.496e2					0.4	NO		bb		
31	FUNCTION5 PFK	47.73	5.629e3					1.2	NO		db		
32	FUNCTION5 PFK	47.70	4.662e3					1.2	NO		bd		
33	FUNCTION5 PFK	47.63	5.907e3					0.7	NO		bb		
34	FUNCTION5 PFK	47.53	4.411e3					1.3	NO		bb		
35	FUNCTION5 PFK	47.44	5.234e3					1.4	NO		db		
36	FUNCTION5 PFK	47.40	1.411e4					1.7	NO		bd		
37	FUNCTION5 PFK	49.39	1.451e4					1.7	NO		db		
38	FUNCTION5 PFK	49.31	2.079e3					0.7	NO		bd		
39	FUNCTION5 PFK	49.28	2.787e3					0.8	NO		bb		
40	FUNCTION5 PFK	49.15	7.024e3					1.3	NO		bb		
41	FUNCTION5 PFK	49.01	1.122e3					0.7	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	26.06	1.573e2					11.4	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	22.31	1.281e2					12.3	YES		bb		0.000

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ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.53	9.195e1					10.6	YES		bb		0.000

ETHERS4

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

ETHERS5

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

ETHERS6

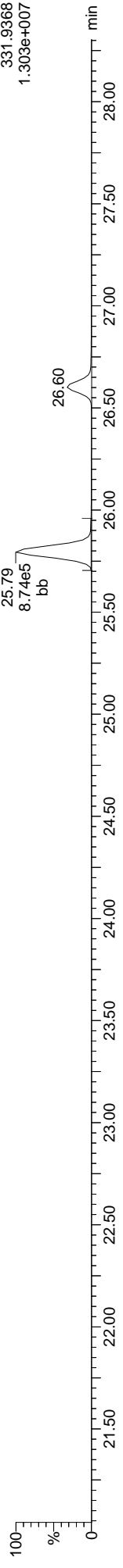
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Quantify Sample Report
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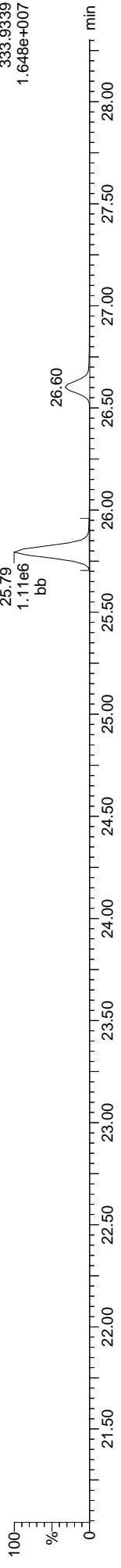
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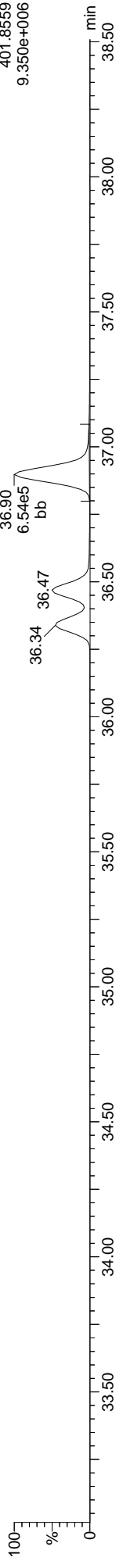
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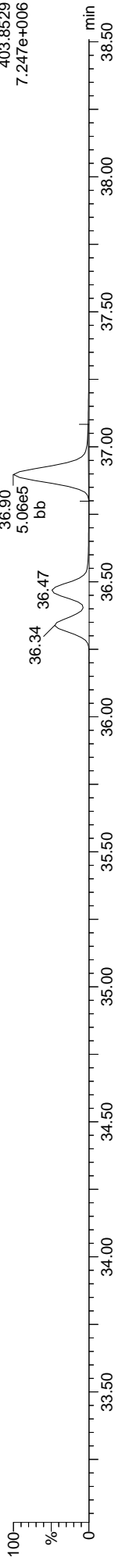
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13C-123789-HxCDD
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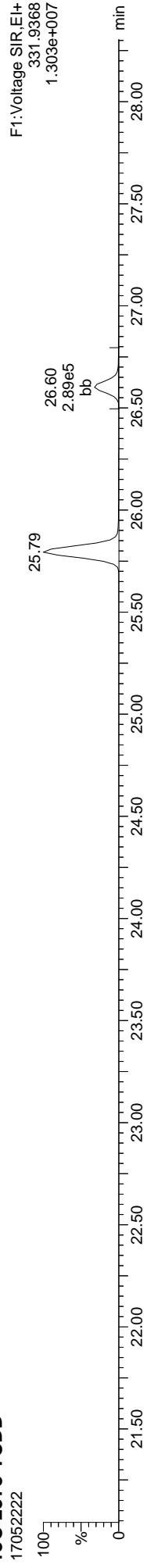
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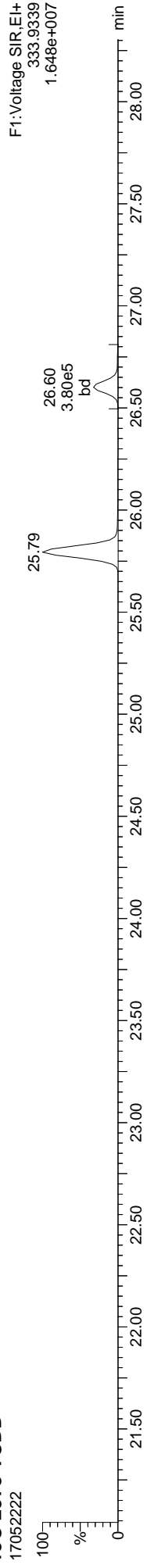
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MassLynx MassLynx V4.1 SCN909
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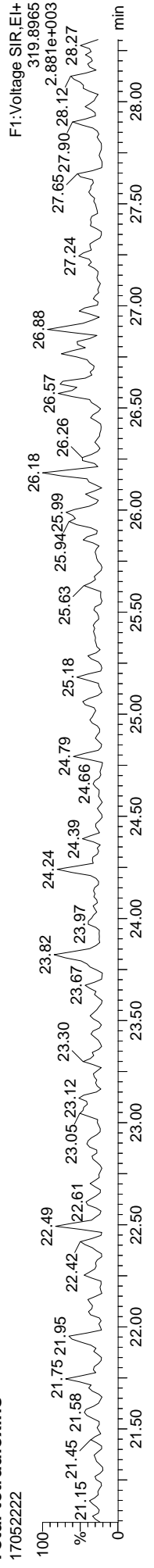
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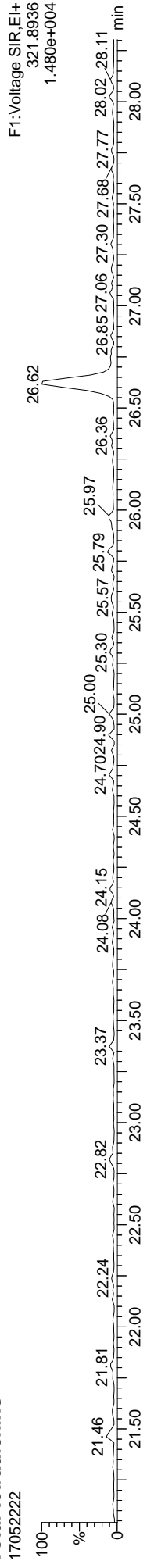
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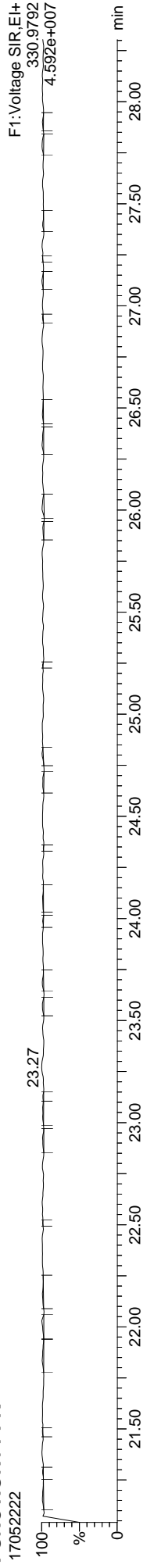
Total-tetradioxins



Total-tetradioxins



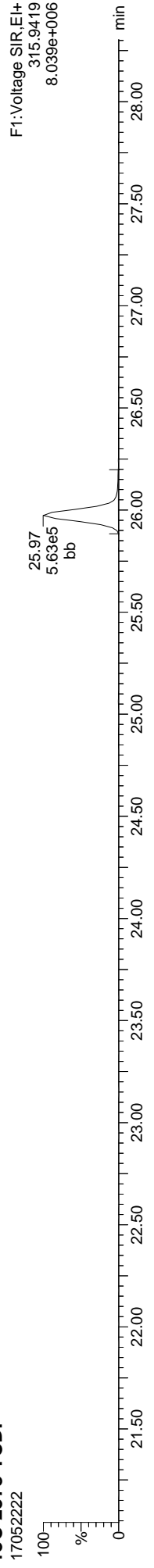
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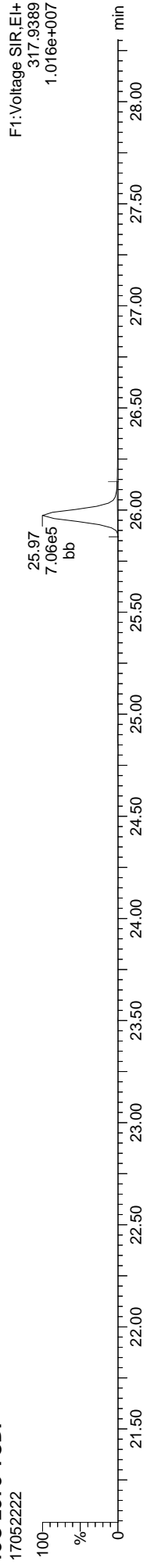
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ID: 17E0012-05, Name: 17052222, Date: 23-May-2017, Time: 04:15:27, Conditions: AUTOSPEC01, User: PK

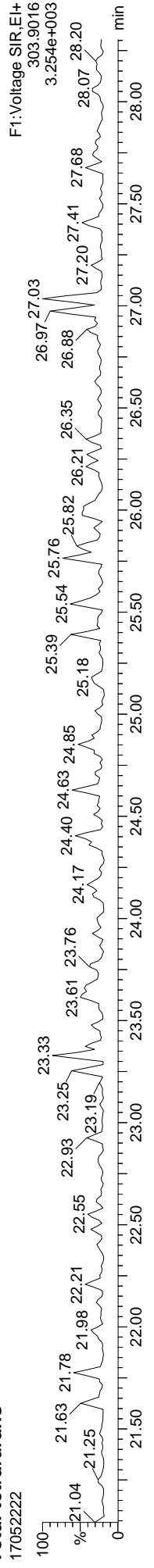
13C-2378-TCDF



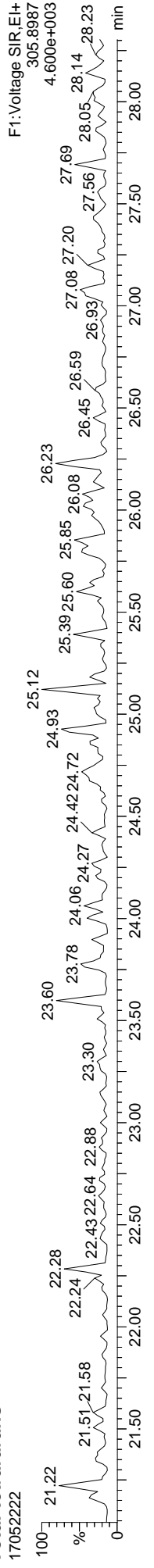
13C-2378-TCDF



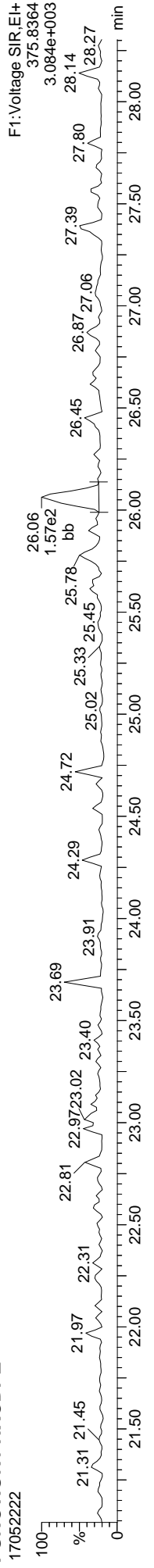
Total-tetrafurans



Total-tetrafurans



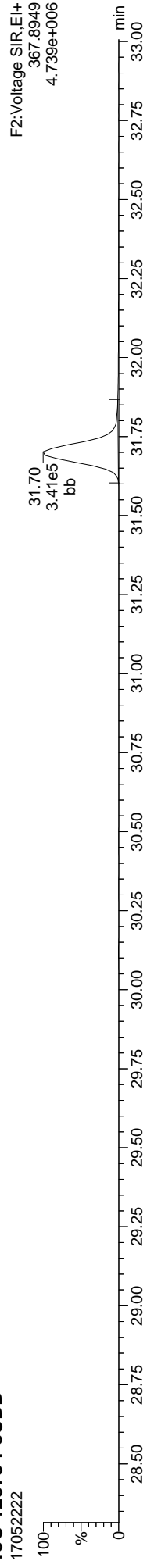
FUNCTION1 HXCDFE



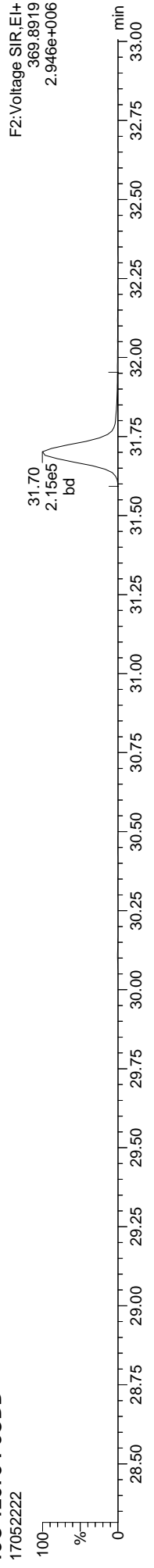
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:28 Pacific Daylight Time

ID: 17E0012-05, Name: 17052222, Date: 23-May-2017, Time: 04:15:27, Conditions: AUTOSPEC01, User: PK

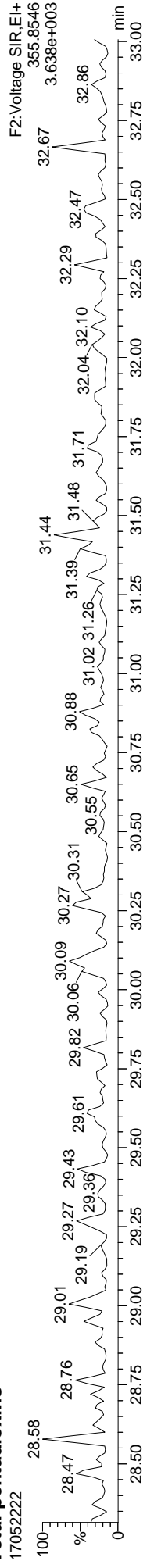
13C-12378-PeCDD



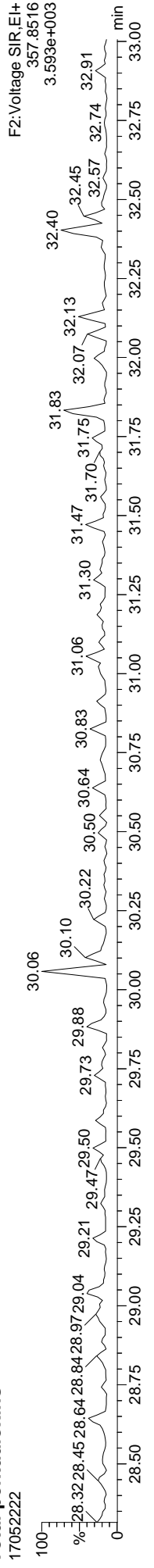
13C-12378-PeCDD



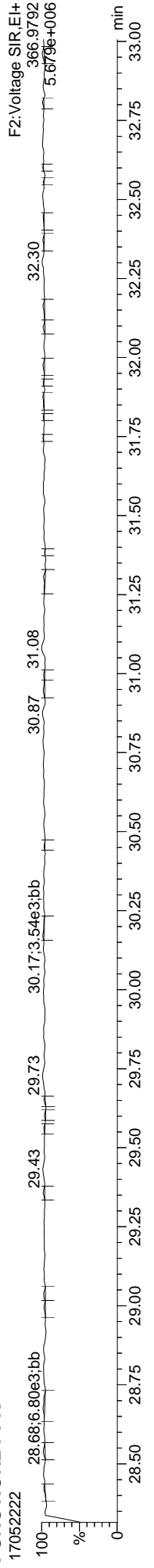
Total-pentadioxins



Total-pentadioxins



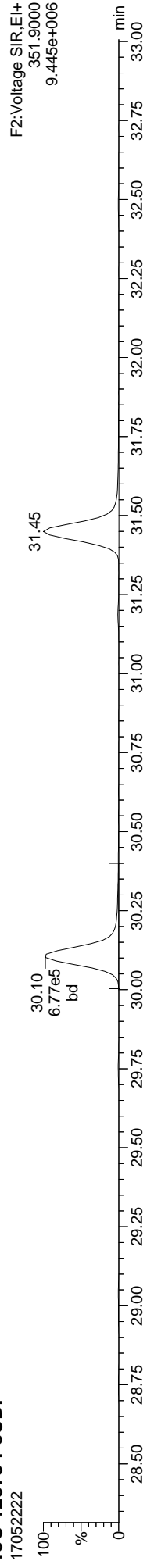
FUNCTION2 PFK



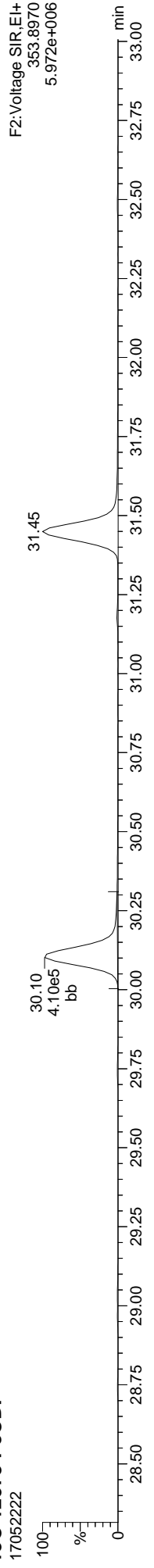
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:28 Pacific Daylight Time

ID: 17E0012-05, Name: 170522222, Date: 23-May-2017, Time: 04:15:27, Conditions: AUTOSPEC01, User: PK

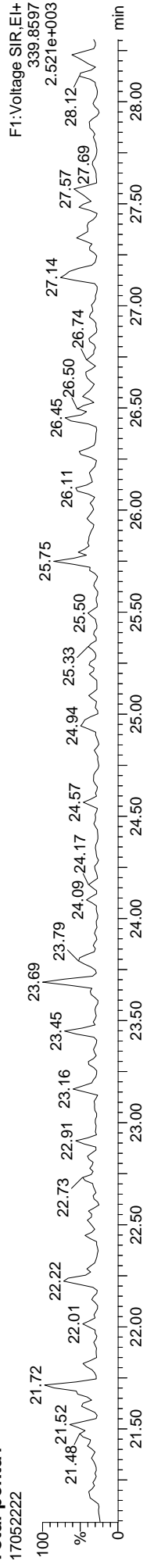
13C-12378-PeCDF



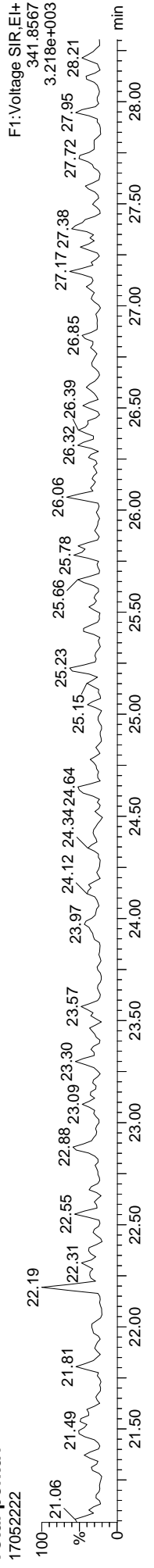
13C-12378-PeCDF



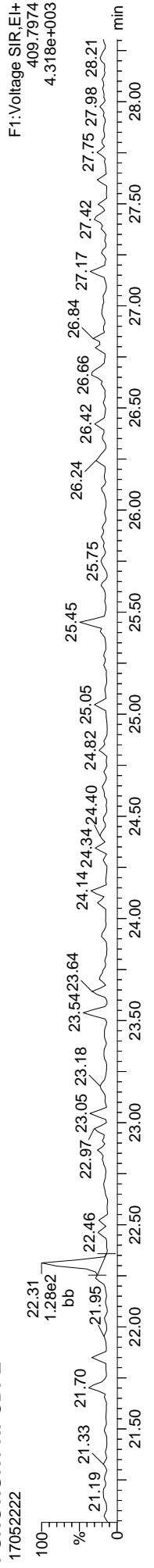
Total-penta1



Total-penta1



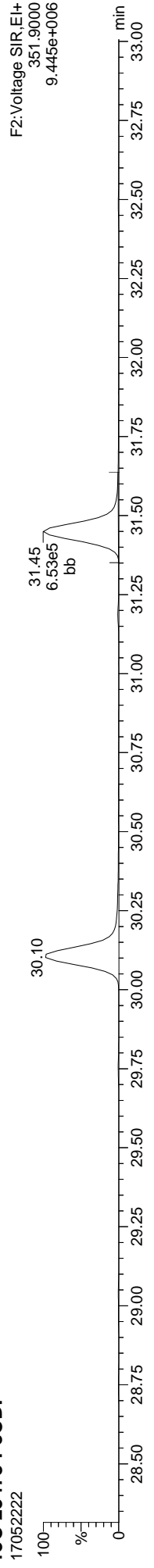
FUNCTION1 HPCDFE



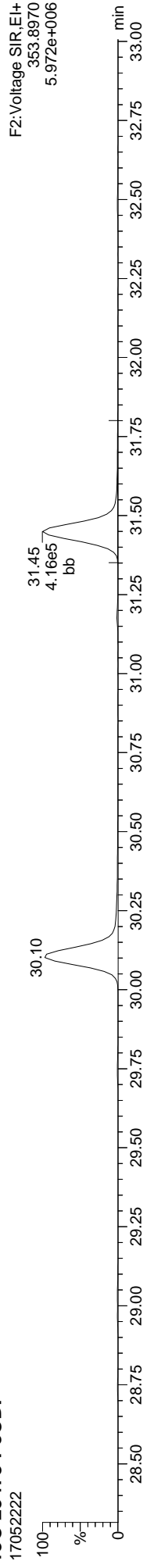
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:28 Pacific Daylight Time

ID: 17E0012-05, Name: 170522222, Date: 23-May-2017, Time: 04:15:27, Conditions: AUTOSPEC01, User: PK

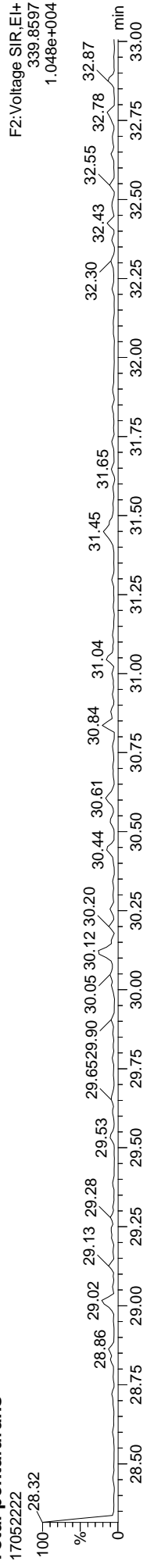
13C-23478-PeCDF



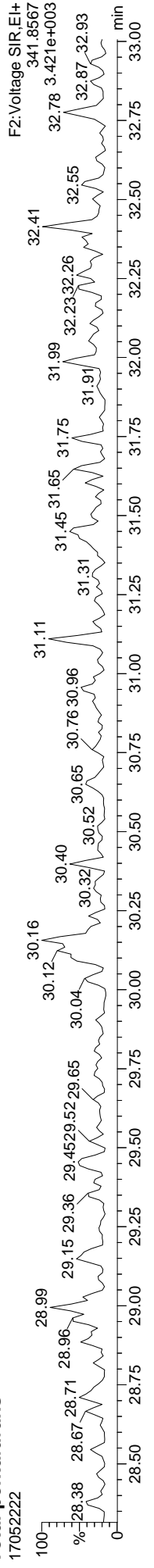
13C-23478-PeCDF



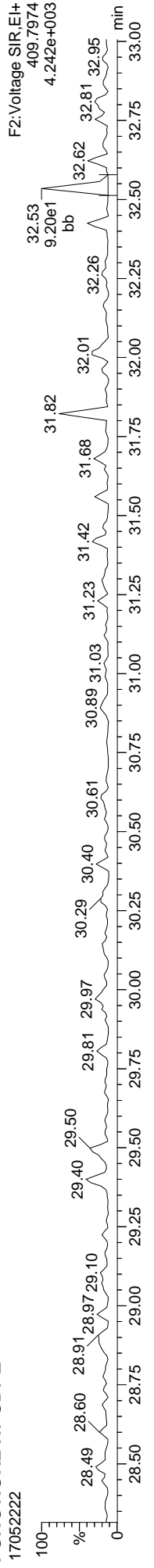
Total-pentafurans



Total-pentafurans



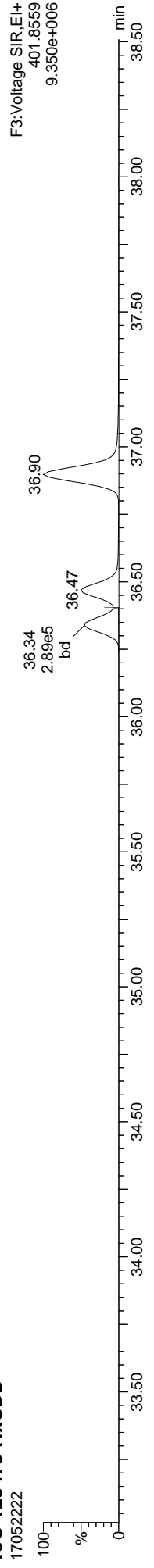
FUNCTION2 HPCDPE



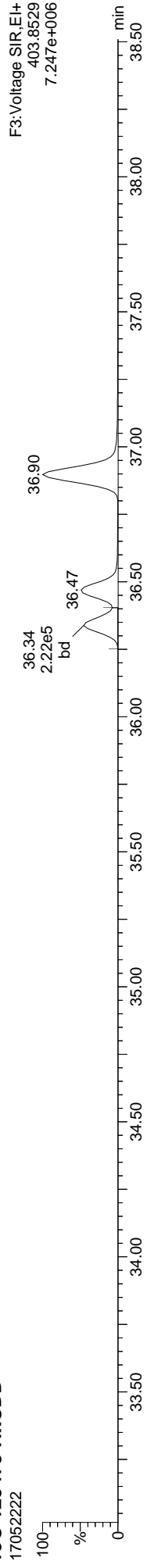
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\17052222.d\2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:28 Pacific Daylight Time

ID: 17E0012-05, Name: 17052222, Date: 23-May-2017, Time: 04:15:27, Conditions: AUTOSPEC01, User: PK

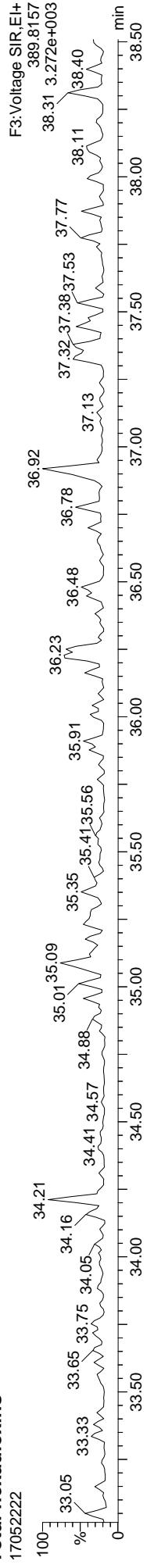
13C-123478-HxCDD



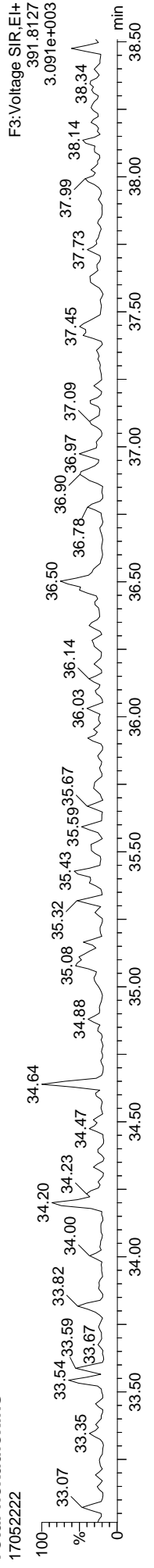
13C-123478-HxCDD



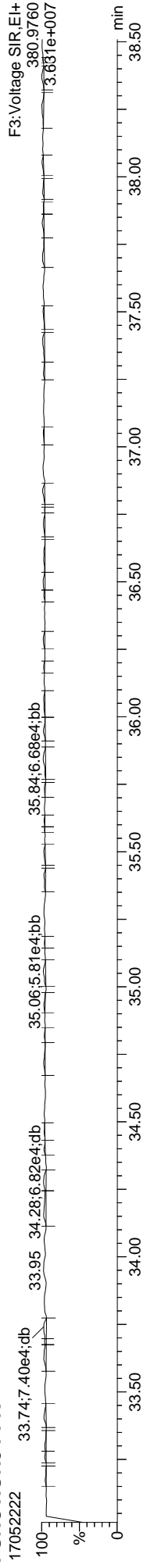
Total-hexadioxins



Total-hexadioxins



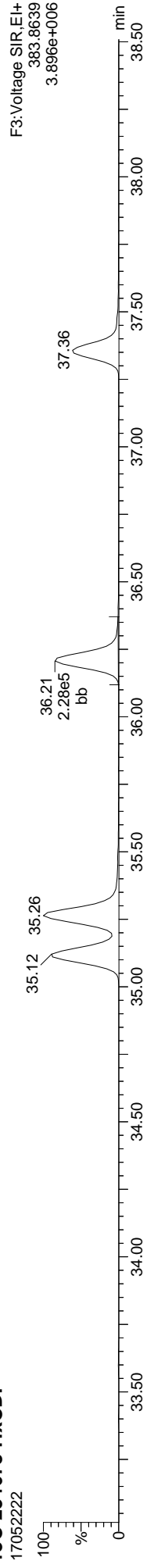
FUNCTION3 PFK



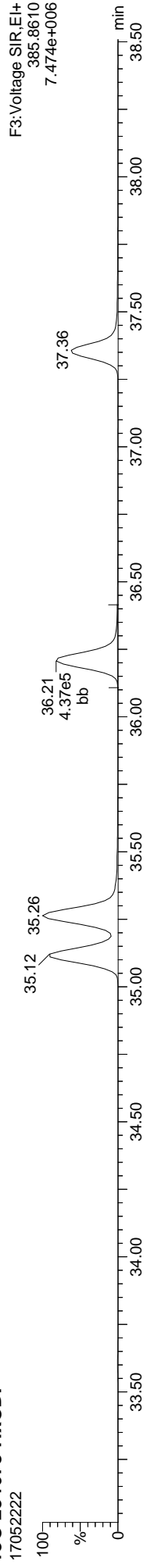
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:28 Pacific Daylight Time

ID: 17E0012-05, Name: 17052222, Date: 23-May-2017, Time: 04:15:27, Conditions: AUTOSPEC01, User: PK

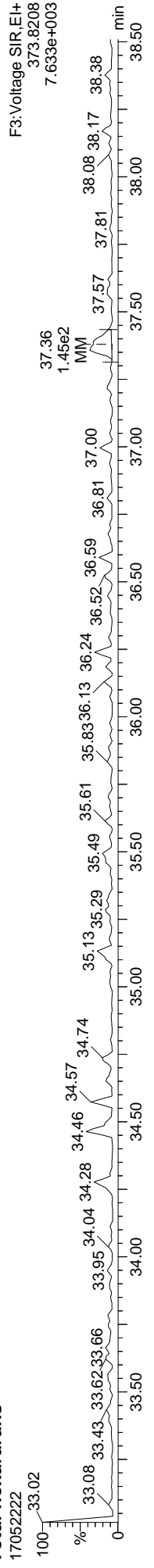
13C-234678-HxCDF



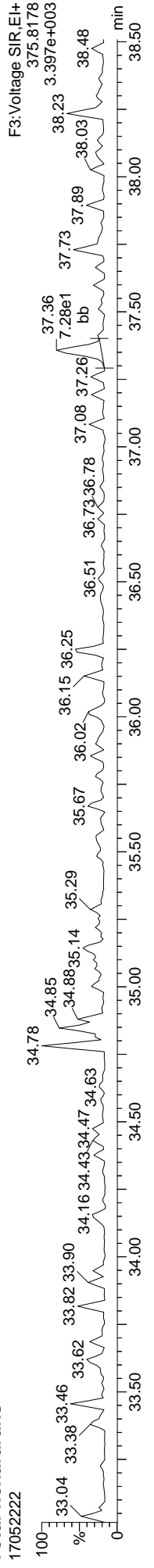
13C-234678-HxCDF



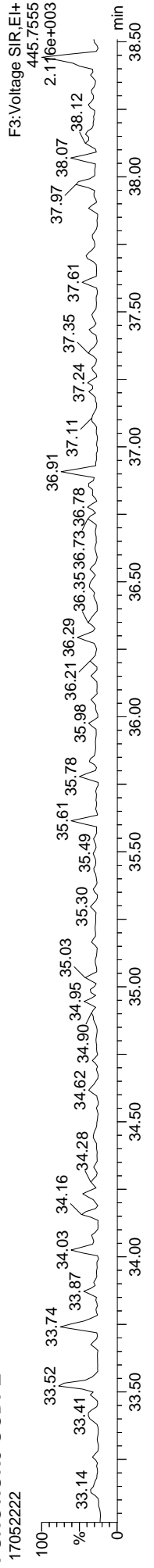
Total-hexafurans



Total-hexafurans



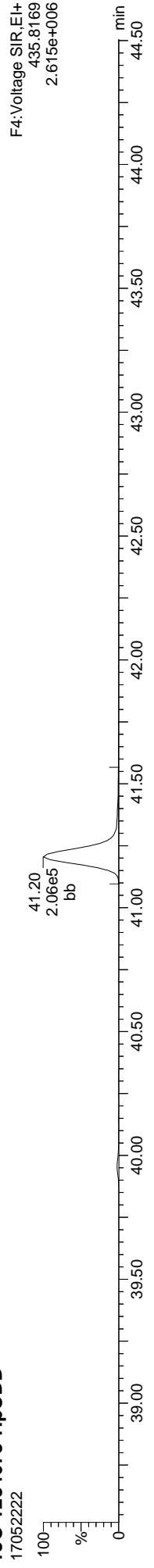
FUNCTION3 OCDPE



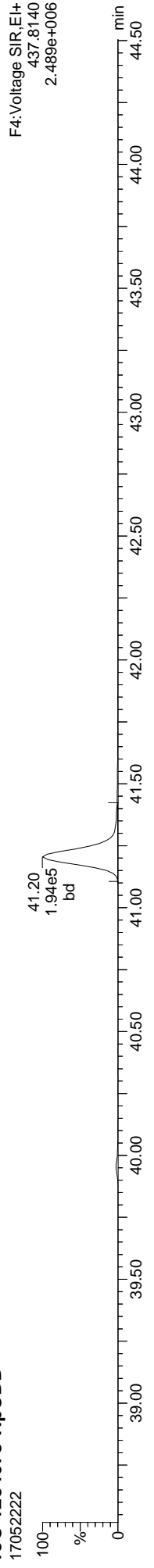
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:28 Pacific Daylight Time

ID: 17E0012-05, Name: 17052222, Date: 23-May-2017, Time: 04:15:27, Conditions: AUTOSPEC01, User: PK

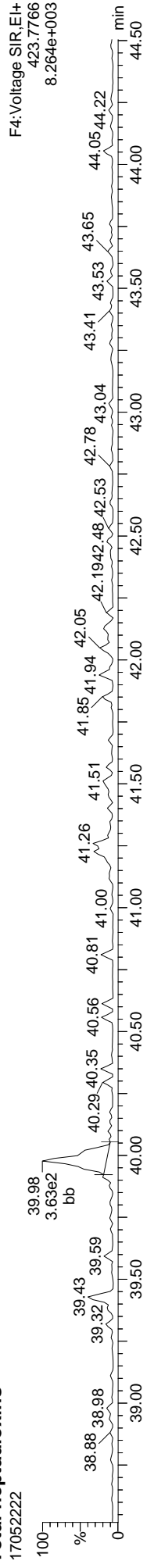
13C-1234678-HpCDD



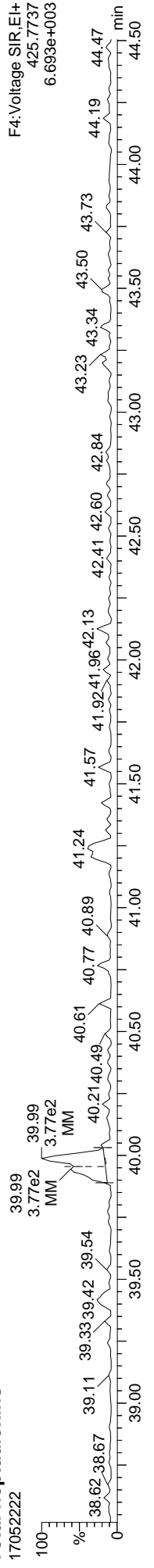
13C-1234678-HpCDD



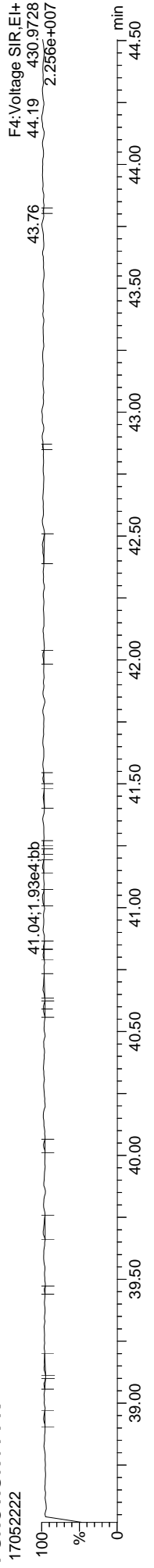
Total-heptadioxins



Total-heptadioxins



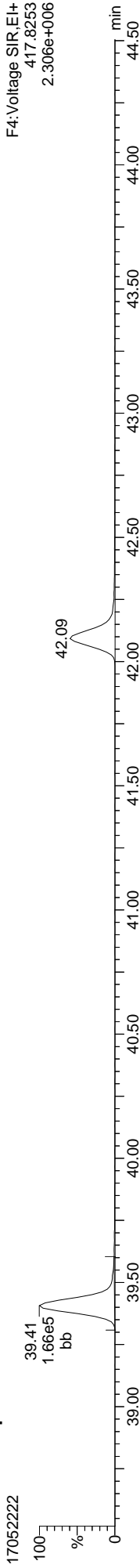
FUNCTION4 PFK



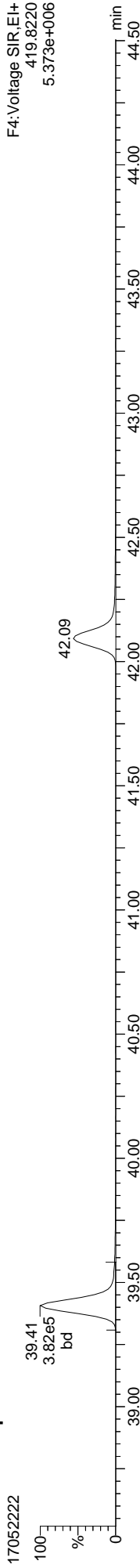
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:28 Pacific Daylight Time

ID: 17E0012-05, Name: 17052222, Date: 23-May-2017, Time: 04:15:27, Conditions: AUTOSPEC01, User: PK

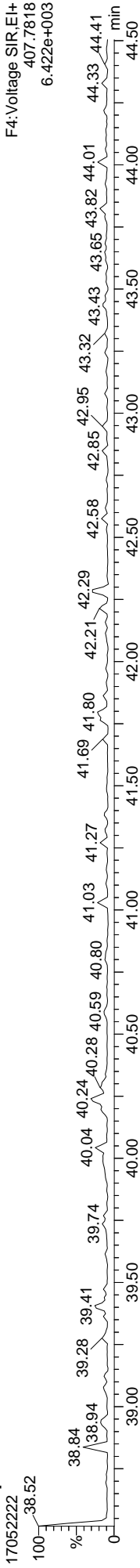
13C-1234678-HpCDF



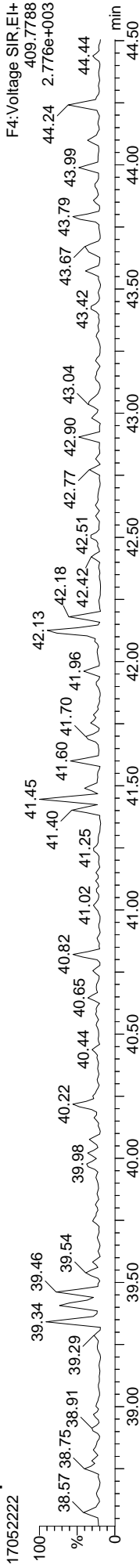
13C-1234678-HpCDF



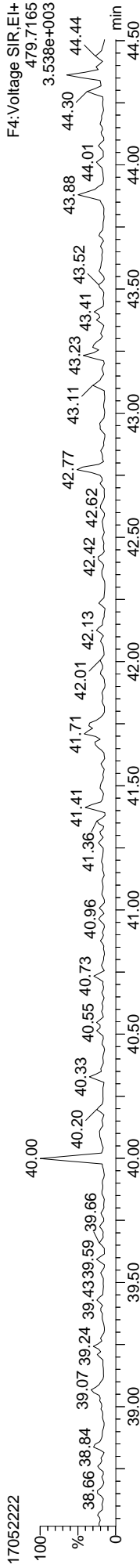
Total-heptafurans



Total-heptafurans



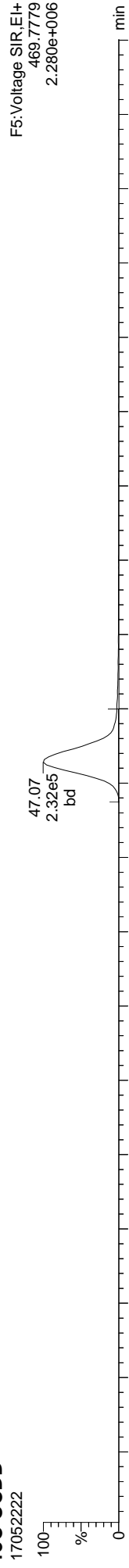
FUNCTION4 NCDPE



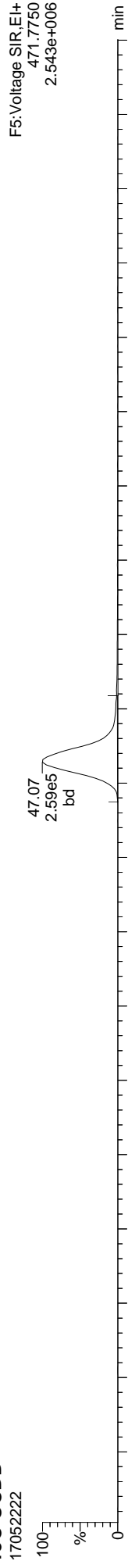
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:28 Pacific Daylight Time

ID: 17E0012-05, Name: 17052222, Date: 23-May-2017, Time: 04:15:27, Conditions: AUTOSPEC01, User: PK

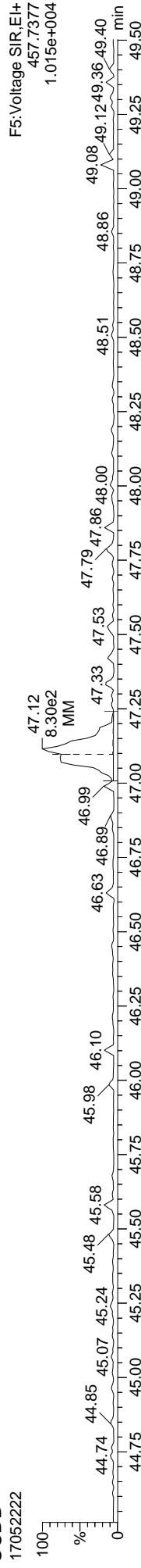
13C-OCDD



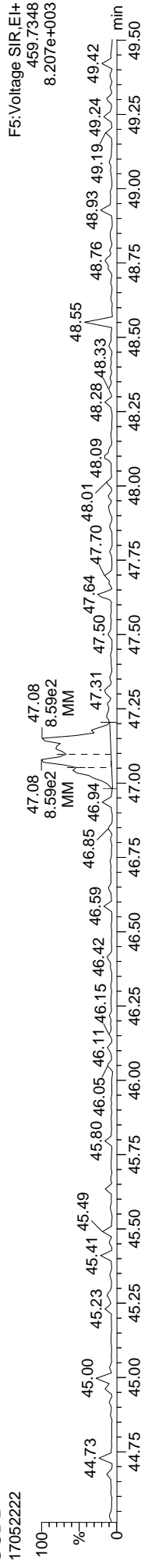
13C-OCDD



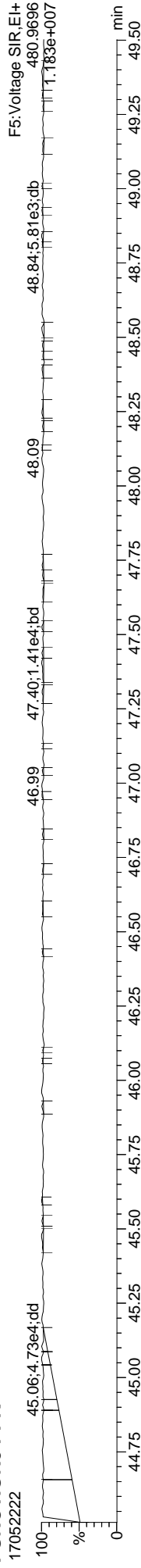
OCDD



OCDD



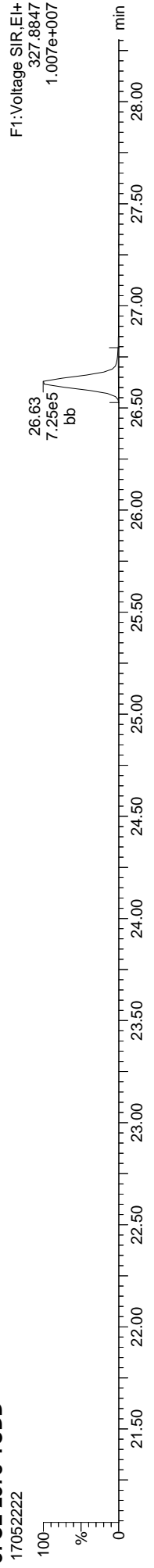
FUNCTION5 PFK



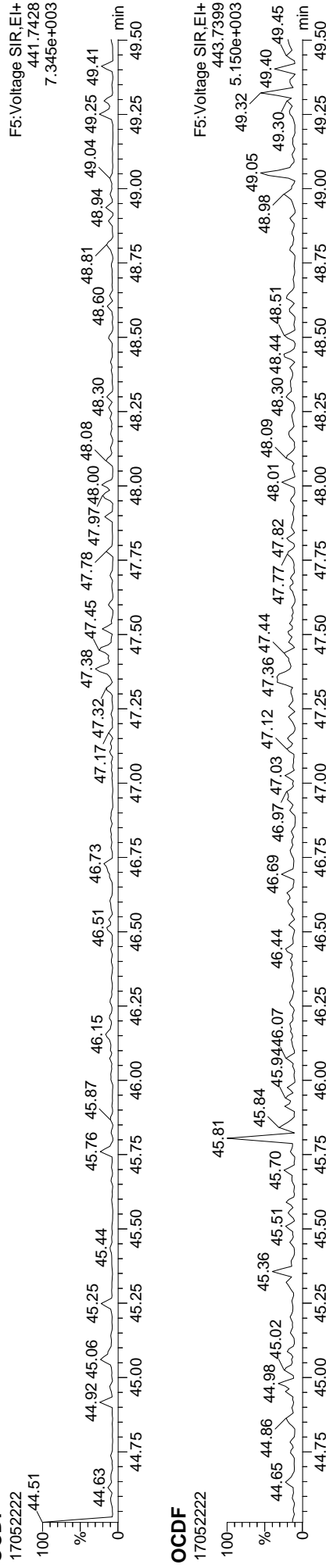
Quantify Sample Report **MassLynx MassLynx V4.1 SCN909**
 Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
 Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
 Printed: Tuesday, May 23, 2017 13:55:28 Pacific Daylight Time

ID: 17E0012-05, Name: 170522222, Date: 23-May-2017, Time: 04:15:27, Conditions: AUTOSPEC01, User: PK

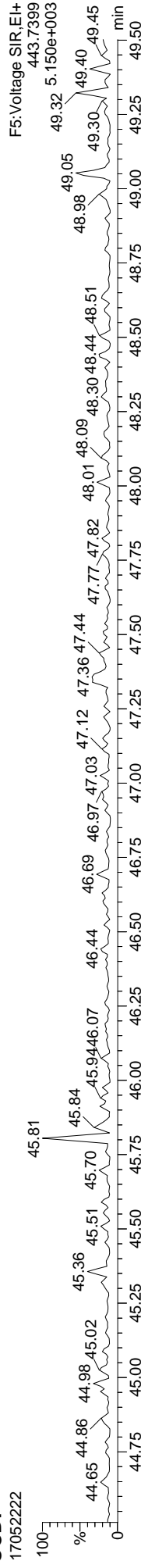
37CL-2378-TCDD



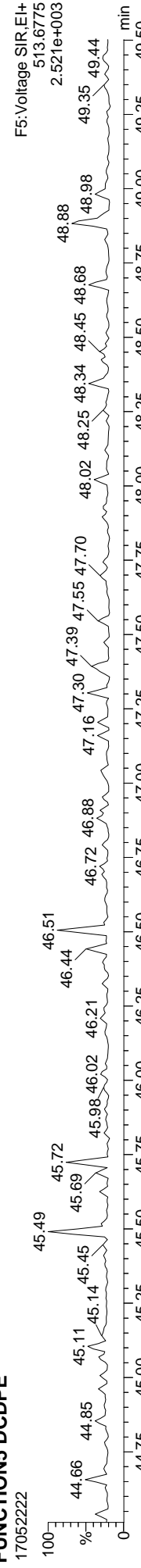
OCDF



OCDF



FUNCTION5 DCDPE





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

Laboratory: Analytical Resources, Inc. SDG: 17E0012
 Client: Anchor QEA, LLC
 Project: Port Gamble Shellfish Monitoring
 Matrix: Tissue Laboratory ID: 17E0012-06 File ID: 17052223
 Sampled: 04/27/17 12:30 Prepared: 05/09/17 16:05 Analyzed: 05/23/17 05:08
 Solids Wt%: Preparation: EPA 1613 Initial/Final: 10.05 g / 20 uL
 Result Basis: Dry Sequence: SFE0219 Calibration: AE00055
 Batch: BFE0233 Instrument: AUTOSPEC01 Column: RTX-Dioxin2

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.000	0.655-0.886	0.033	0.995	ND	ng/kg	U
1746-01-6	2,3,7,8-TCDD	1	0.106	0.655-0.886		0.995	0.159	ng/kg	EMPC, J, B
57117-41-6	1,2,3,7,8-PeCDF	1	0.000	1.318-1.783	0.050	4.98	ND	ng/kg	U
57117-31-4	2,3,4,7,8-PeCDF	1	0.000	1.318-1.783	0.046	4.98	ND	ng/kg	U
40321-76-4	1,2,3,7,8-PeCDD	1	0.000	1.318-1.783	0.065	4.98	ND	ng/kg	U
70648-26-9	1,2,3,4,7,8-HxCDF	1	0.000	1.054-1.426	0.032	4.98	ND	ng/kg	U
57117-44-9	1,2,3,6,7,8-HxCDF	1	0.000	1.054-1.426	0.033	4.98	ND	ng/kg	U
60851-34-5	2,3,4,6,7,8-HxCDF	1	0.000	1.054-1.426	0.034	4.98	ND	ng/kg	U
72918-21-9	1,2,3,7,8,9-HxCDF	1	0.000	1.054-1.426	0.045	4.98	ND	ng/kg	U
39227-28-6	1,2,3,4,7,8-HxCDD	1	0.000	1.054-1.426	0.106	4.98	ND	ng/kg	U
57653-85-7	1,2,3,6,7,8-HxCDD	1	0.000	1.054-1.426	0.116	4.98	ND	ng/kg	U
19408-74-3	1,2,3,7,8,9-HxCDD	1	0.000	1.054-1.426	0.122	4.98	ND	ng/kg	U
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	0.862	0.893-1.208		4.98	0.118	ng/kg	EMPC, J, B
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	0.000	0.893-1.208	0.055	4.98	ND	ng/kg	U
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	1.616	0.893-1.208		4.98	0.565	ng/kg	EMPC, J, B
39001-02-0	OCDF	1	0.000	0.757-1.024	0.132	9.95	ND	ng/kg	U
3268-87-9	OCDD	1	1.066	0.757-1.024		9.95	3.73	ng/kg	EMPC, J, B

Homologue Groups

55722-27-5	Total TCDF	1	0.000			0.995	0.083	ng/kg
41903-57-5	Total TCDD	1	0.000			0.995	0.159	ng/kg
30402-15-4	Total PeCDF	1	0.000			0.995	0.199	ng/kg
36088-22-9	Total PeCDD	1	0.000			0.995	ND	ng/kg
55684-94-1	Total HxCDF	1	0.000			0.995	0.061	ng/kg
34465-46-8	Total HxCDD	1	0.000			0.995	0.151	ng/kg
38998-75-3	Total HpCDF	1	0.000			0.995	0.262	ng/kg
37871-00-4	Total HpCDD	1	0.000			0.995	2.08	ng/kg

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.167
 Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.167



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

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>17E0012</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Port Gamble Shellfish Monitoring</u>
Matrix:	<u>Tissue</u>	Laboratory ID:	<u>17E0012-06</u>
Sampled:	<u>04/27/17 12:30</u>	Prepared:	<u>05/09/17 16:05</u>
Solids Wt%:		Preparation:	<u>EPA 1613</u>
Result Basis:	<u>Dry</u>	Sequence:	<u>SFE0219</u>
Batch:	<u>BFE0233</u>	Instrument:	<u>AUTOSPEC01</u>
		File ID:	<u>17052223</u>
		Analyzed:	<u>05/23/17 05:08</u>
		Initial/Final:	<u>10.05 g / 20 uL</u>
		Calibration:	<u>AE00055</u>
		Column:	<u>RTX-Dioxin2</u>

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF		0.785	0.655-0.886		58.8	24 - 169 %	
13C12-2,3,7,8-TCDD		0.769	0.655-0.886		58.4	25 - 164 %	
13C12-1,2,3,7,8-PeCDF		1.609	1.318-1.783		47.2	24 - 185 %	
13C12-2,3,4,7,8-PeCDF		1.612	1.318-1.783		50.3	21 - 178 %	
13C12-1,2,3,7,8-PeCDD		1.648	1.318-1.783		49.9	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF		0.516	0.434-0.587		52.4	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF		0.526	0.434-0.587		49.1	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF		0.527	0.434-0.587		52.6	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF		0.546	0.434-0.587		52.5	29 - 147 %	
13C12-1,2,3,4,7,8-HxCDD		1.299	1.054-1.426		58.7	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD		1.278	1.054-1.426		53.9	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF		0.441	0.374-0.506		47.3	28 - 143 %	
13C12-1,2,3,4,7,8,9-HpCDF		0.446	0.374-0.506		47.6	26 - 138 %	
13C12-1,2,3,4,6,7,8-HpCDD		1.076	0.893-1.208		53.2	23 - 140 %	
13C12-OCDD		0.891	0.757-1.024		40.0	17 - 157 %	
37C14-2,3,7,8-TCDD		328.000			97.0	35 - 197 %	

* Values outside of QC limits

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

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
 Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
 Printed: Tuesday, May 23, 2017 13:55:32 Pacific Daylight Time

Method: C:\MassLynx\Dioxin.pro\MethDB\Dioxin170518.mdb 18 May 2017 15:01:42
Calibration: C:\MassLynx\Dioxin.pro\CurveDB\170518CIH.cdb 19 May 2017 13:57:26

ID: 17E0012-06, **Name:** 17052223, **Date:** 23-May-2017, **Time:** 05:08:43, **Conditions:** AUTOSPEC01, **User:** PK

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg	
2378-TCDF					1.018		0.770	559	1066									
12378-PeCDF					0.977		1.550	832	1076									
23478-PeCDF					1.019		1.550	832	1076									
123478-HxCDF					1.150		1.240	645	413									
234678-HxCDF					1.188		1.240	645	413									
123678-HxCDF					1.100		1.240	645	413									
123789-HxCDF					1.116		1.240	645	413									
1234678-HpCDF	39.441	1.001	3.011e2	3.495e2	1.238	0.862	1.050	433	391	4.71e3	5.50e3	10.9	YES	YES	bb	bb	0.059	
1234789-HpCDF					1.257		1.050	433	391									
OCDF					1.321		0.890	453	638									
2378-TCDD	26.616	1.001	1.012e2	9.517e2	1.244	0.106	0.770	616	587	2.21e3	1.47e4	3.6	YES	YES	bb	bd	0.080	
12378-PeCDD					1.058		1.550	773	696									
123478-HxCDD					1.119		1.240	1678	859									
123678-HxCDD					1.040		1.240	1678	859									
123789-HxCDD					0.981		1.240	1678	859									
1234678-HpCDD	41.228	1.000	1.279e3	7.915e2	1.132	1.616	1.050	480	360	1.90e4	1.53e4	39.6	YES	YES	bb	bb	0.284	
OCDD	47.089	1.000	4.183e3	3.926e3	1.117	1.066	0.890	413	503	5.12e4	4.25e4	124.0	YES	YES	MM	bb	1.875	
13C-2378-TCDF	25.974	1.007	9.073e5	1.156e6	1.685	0.785	0.770	3658	2173	1.28e7	1.61e7	3497.1	YES	NO	bb	bb	58.800	
13C-12378-PeCDF	30.103	1.167	1.034e6	6.424e5	1.706	1.609	1.550	3275	3108	1.45e7	9.01e6	4433.0	YES	NO	bd	bb	47.179	
13C-23478-PeCDF	31.440	1.219	1.055e6	6.541e5	1.632	1.612	1.550	3275	3108	1.50e7	9.46e6	4592.6	YES	NO	bb	bb	50.270	
13C-123478-HxCDF	35.112	0.952	3.941e5	7.634e5	1.682	0.516	0.510	2689	4587	5.92e6	1.14e7	2203.1	YES	NO	bd	bd	52.411	
13C-123678-HxCDF	35.255	0.955	4.325e5	8.225e5	1.945	0.526	0.510	2689	4587	6.03e6	1.16e7	2244.3	YES	NO	db	db	49.139	
13C-234678-HxCDF	36.208	0.981	3.769e5	7.151e5	1.582	0.527	0.510	2689	4587	5.35e6	1.02e7	1988.0	YES	NO	bb	bb	52.571	
13C-123789-HxCDF	37.348	1.012	3.140e5	5.753e5	1.291	0.546	0.510	2689	4587	4.47e6	8.24e6	1660.8	YES	NO	bd	bb	52.479	
13C-1234678-HpCDF	39.397	1.068	2.709e5	6.144e5	1.427	0.441	0.440	1669	2427	3.74e6	8.47e6	2241.9	YES	NO	bd	bd	47.272	
13C-1234789-HpCDF	42.094	1.141	1.845e5	4.133e5	0.957	0.446	0.440	1669	2427	2.19e6	5.00e6	1309.7	YES	NO	bb	bb	47.580	
13C-1234-TCDD	25.795	0.000	9.159e5	1.167e6	1.000	0.785	0.770	1628	1449	1.35e7	1.72e7	8269.6	YES	NO	bb	bb	100.000	
13C-2378-TCDD	26.601	1.031	4.617e5	6.001e5	0.873	0.769	0.770	1628	1449	6.50e6	8.40e6	3989.9	YES	NO	bb	bb	58.412	
13C-12378-PeCDD	31.692	1.229	5.569e5	3.378e5	0.860	1.648	1.550	1920	1306	7.90e6	4.96e6	4113.5	YES	NO	bd	bb	49.943	
13C-123478-HxCDD	36.340	0.985	4.850e5	3.734e5	1.114	1.299	1.240	2736	2149	7.24e6	5.57e6	2645.0	YES	NO	bd	bd	58.713	
13C-123678-HxCDD	36.460	0.988	4.997e5	3.911e5	1.258	1.278	1.240	2736	2149	7.06e6	5.57e6	2580.8	YES	NO	db	db	53.914	
13C-1234678-HpCDD	41.206	1.117	3.340e5	3.106e5	0.924	1.076	1.050	2088	1688	4.22e6	3.81e6	2018.5	YES	NO	bd	bd	53.160	
13C-OCDD	47.071	1.276	3.650e5	4.095e5	0.738	0.891	0.890	947	1245	3.53e6	3.92e6	3729.2	YES	NO	bd	bd	79.909	
13C-123789-HxCDD	36.898	0.000	7.359e5	5.770e5	1.000	1.275	1.240	2736	2149	1.04e7	8.19e6	3785.6	YES	NO	bb	bb	100.000	
Total-tetrafurans			3.530e2		1.018			559		5.65e3							0.042	

Quantify Sample Summary Report MassLynx MassLynx V4.1 SCN909

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ID: 17E0012-06, Name: 17052223, Date: 23-May-2017, Time: 05:08:43, Conditions: AUTOSPEC01, User: PK

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg	
Total-penta1			0.000e0					429		0.00e0								
Total-pentafurans			9.692e2		0.998			832		1.25e4								0.100
Total-hexafurans			2.189e2		1.138			645		4.93e3								0.031
Total-heptafurans			6.822e2		1.248			433		9.82e3								0.132
Total-Furans			2.223e3		1.138			559		3.29e4								0.304
Total-tetradioxins			1.012e2		1.244			616		2.21e3								0.080
Total-pentadioxins			0.000e0		1.058			773		0.00e0								
Total-hexadioxins			5.413e2		1.047			1678		8.60e3								0.076
Total-heptadioxins			4.206e3		1.132			480		5.56e4								1.046
Total-Dioxins			9.032e3		1.099			616		1.18e5								3.077
Total-TEQ			1.126e4					616		1.51e5								3.381
37CL-2378-TCDD	26.616	1.032	8.252e5		1.021			944		1.17e7		12355.5	YES		bb			38.797
FUNCTION1 PFK			1.682e7					424734		1.19e8								
FUNCTION2 PFK			9.558e4					99002		2.94e6								0.000
FUNCTION3 PFK			1.024e6					388633		2.63e7								0.000
FUNCTION4 PFK			1.939e5					300127		6.06e6								
FUNCTION5 PFK			3.388e4					196016		1.96e6								
FUNCTION1 HXCD...			8.131e3					261		1.14e5								0.000
FUNCTION1 HPCD...			2.846e2					260		7.46e3								0.000
FUNCTION2 HPCD...			0.000e0					343		0.00e0								
FUNCTION3 OCDPE			0.000e0					149		0.00e0								
FUNCTION4 NCDPE			2.215e3					258		1.36e4								0.000
FUNCTION5 DCDPE			0.000e0					289		0.00e0								

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TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	26.24	7.135e1	2.237e2	1.018	0.32	0.77	3.7	YES	YES	bb	bb	0.014
2	Total-tetrafurans	25.96	2.817e2	3.019e2	1.018	0.93	0.77	6.4	YES	YES	bb	db	0.028

PP

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

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-pentafurans	28.96	8.828e2	6.091e2	0.998	1.45	1.55	11.7	YES	NO	MM	bd	0.088
2	Total-pentafurans	30.41	8.641e1	1.124e2	0.998	0.77	1.55	3.3	YES	YES	bb	bb	0.012

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexafurans	33.62	2.189e2	1.641e2	1.138	1.33	1.24	7.7	YES	NO	bb	MM	0.031

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptafurans	40.23	3.811e2	2.897e2	1.248	1.32	1.05	11.8	YES	YES	bb	bb	0.073
2	1234678-HpCDF	39.44	3.011e2	3.495e2	1.238	0.86	1.05	10.9	YES	YES	bb	bb	0.059

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

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	26.24	7.135e1	2.237e2	1.018	0.32	0.77	3.7	YES	YES	bb	bb	0.014
2	Total-tetrafurans	25.96	2.817e2	3.019e2	1.018	0.93	0.77	6.4	YES	YES	bb	db	0.028
3	Total-pentafurans	28.96	8.828e2	6.091e2	0.998	1.45	1.55	11.7	YES	NO	MM	bd	0.088
4	Total-hexafurans	33.62	2.189e2	1.641e2	1.138	1.33	1.24	7.7	YES	NO	bb	MM	0.031
5	Total-pentafurans	30.41	8.641e1	1.124e2	0.998	0.77	1.55	3.3	YES	YES	bb	bb	0.012
6	Total-heptafurans	40.23	3.811e2	2.897e2	1.248	1.32	1.05	11.8	YES	YES	bb	bb	0.073
7	1234678-HpCDF	39.44	3.011e2	3.495e2	1.238	0.86	1.05	10.9	YES	YES	bb	bb	0.059

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.62	1.012e2	9.517e2	1.244	0.11	0.77	3.6	YES	YES	bb	bd	0.080

PD

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

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexadioxins	34.19	5.413e2	1.554e2	1.047	3.48	1.24	5.1	YES	YES	bb	bd	0.076

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HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-heptadioxins	40.07	1.841e2	2.635e2	1.132	0.70	1.05	8.1	YES	YES	db	db	0.061
2	Total-heptadioxins	39.98	2.743e3	2.370e3	1.132	1.16	1.05	68.1	YES	NO	bd	bd	0.701
3	1234678-HpCDD	41.23	1.279e3	7.915e2	1.132	1.62	1.05	39.6	YES	YES	bb	bb	0.284

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.62	1.012e2	9.517e2	1.244	0.11	0.77	3.6	YES	YES	bb	bd	0.080
2	Total-hexadioxins	34.19	5.413e2	1.554e2	1.047	3.48	1.24	5.1	YES	YES	bb	bd	0.076
3	Total-heptadioxins	40.07	1.841e2	2.635e2	1.132	0.70	1.05	8.1	YES	YES	db	db	0.061
4	Total-heptadioxins	39.98	2.743e3	2.370e3	1.132	1.16	1.05	68.1	YES	NO	bd	bd	0.701
5	OCDD	47.09	4.183e3	3.926e3	1.117	1.07	0.89	124.0	YES	YES	MM	bb	1.875
6	1234678-HpCDD	41.23	1.279e3	7.915e2	1.132	1.62	1.05	39.6	YES	YES	bb	bb	0.284

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetrafurans	26.24	7.135e1	2.237e2	1.018	0.32	0.77	3.7	YES	YES	bb	bb	0.014
2	Total-tetrafurans	25.96	2.817e2	3.019e2	1.018	0.93	0.77	6.4	YES	YES	bb	db	0.028
3	Total-pentafurans	28.96	8.828e2	6.091e2	0.998	1.45	1.55	11.7	YES	NO	MM	bd	0.088
4	Total-hexafurans	33.62	2.189e2	1.641e2	1.138	1.33	1.24	7.7	YES	NO	bb	MM	0.031
5	Total-pentafurans	30.41	8.641e1	1.124e2	0.998	0.77	1.55	3.3	YES	YES	bb	bb	0.012
6	Total-heptafurans	40.23	3.811e2	2.897e2	1.248	1.32	1.05	11.8	YES	YES	bb	bb	0.073
7	1234678-HpCDF	39.44	3.011e2	3.495e2	1.238	0.86	1.05	10.9	YES	YES	bb	bb	0.059
8	2378-TCDD	26.62	1.012e2	9.517e2	1.244	0.11	0.77	3.6	YES	YES	bb	bd	0.080
9	Total-hexadioxins	34.19	5.413e2	1.554e2	1.047	3.48	1.24	5.1	YES	YES	bb	bd	0.076
10	Total-heptadioxins	40.07	1.841e2	2.635e2	1.132	0.70	1.05	8.1	YES	YES	db	db	0.061
11	Total-heptadioxins	39.98	2.743e3	2.370e3	1.132	1.16	1.05	68.1	YES	NO	bd	bd	0.701
12	OCDD	47.09	4.183e3	3.926e3	1.117	1.07	0.89	124.0	YES	YES	MM	bb	1.875
13	1234678-HpCDD	41.23	1.279e3	7.915e2	1.132	1.62	1.05	39.6	YES	YES	bb	bb	0.284

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PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	23.75	5.111e4					2.3	NO		bb		
2	FUNCTION1 PFK	23.48	1.876e4					1.1	NO		bb		
3	FUNCTION1 PFK	23.27	4.944e4					1.8	NO		bb		
4	FUNCTION1 PFK	22.93	2.727e4					1.4	NO		db		
5	FUNCTION1 PFK	22.84	1.775e4					1.0	NO		bd		
6	FUNCTION1 PFK	22.51	1.483e5					4.4	YES		db		
7	FUNCTION1 PFK	22.43	1.455e5					6.0	YES		dd		
8	FUNCTION1 PFK	22.21	8.319e5					12.6	YES		dd		
9	FUNCTION1 PFK	21.97	2.769e6					21.1	YES		dd		
10	FUNCTION1 PFK	21.73	1.845e6					27.5	YES		dd		
11	FUNCTION1 PFK	21.39	4.306e6					38.6	YES		dd		
12	FUNCTION1 PFK	21.33	2.063e6					40.5	YES		dd		
13	FUNCTION1 PFK	21.21	1.375e6					45.0	YES		dd		
14	FUNCTION1 PFK	21.12	2.313e6					46.6	YES		bd		
15	FUNCTION1 PFK	27.24	2.096e4					1.1	NO		dd		
16	FUNCTION1 PFK	27.12	4.550e4					1.5	NO		bd		
17	FUNCTION1 PFK	26.71	3.267e4					1.1	NO		bb		
18	FUNCTION1 PFK	26.39	5.264e4					1.6	NO		bb		
19	FUNCTION1 PFK	26.30	2.194e4					1.7	NO		db		
20	FUNCTION1 PFK	26.27	1.988e4					1.4	NO		bd		
21	FUNCTION1 PFK	26.05	1.858e4					0.8	NO		bb		
22	FUNCTION1 PFK	25.66	2.771e4					1.4	NO		bb		
23	FUNCTION1 PFK	25.33	4.557e4					1.4	NO		bb		
24	FUNCTION1 PFK	25.17	2.827e4					1.4	NO		bb		
25	FUNCTION1 PFK	24.93	8.003e4					1.2	NO		bb		
26	FUNCTION1 PFK	24.82	2.997e4					1.2	NO		bb		
27	FUNCTION1 PFK	24.60	2.229e4					1.3	NO		bb		
28	FUNCTION1 PFK	24.27	4.170e4					1.9	NO		db		
29	FUNCTION1 PFK	24.21	5.379e4					1.6	NO		bd		
30	FUNCTION1 PFK	23.85	3.224e4					1.6	NO		bb		
31	FUNCTION1 PFK	28.17	2.704e4					1.3	NO		bb		
32	FUNCTION1 PFK	28.08	2.152e4					0.9	NO		db		
33	FUNCTION1 PFK	27.99	9.310e3					0.8	NO		dd		
34	FUNCTION1 PFK	27.95	3.421e4					1.5	NO		dd		
35	FUNCTION1 PFK	27.83	1.111e5					1.9	NO		bd		
36	FUNCTION1 PFK	27.60	4.180e4					1.7	NO		bb		
37	FUNCTION1 PFK	27.42	3.260e4					0.8	NO		bb		
38	FUNCTION1 PFK	27.29	3.622e3					0.4	NO		db		

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PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	29.76	4.154e2					0.4	NO		bb		0.000
2	FUNCTION2 PFK	29.62	3.644e3					1.6	NO		db		0.000
3	FUNCTION2 PFK	29.57	4.685e3					1.2	NO		dd		0.000
4	FUNCTION2 PFK	29.49	5.823e3					1.3	NO		bd		0.000
5	FUNCTION2 PFK	28.84	9.000e3					1.9	NO		db		0.000
6	FUNCTION2 PFK	28.80	2.146e3					0.9	NO		bd		0.000
7	FUNCTION2 PFK	28.55	3.640e3					1.1	NO		bb		0.000
8	FUNCTION2 PFK	32.62	2.383e3					1.2	NO		bd		0.000
9	FUNCTION2 PFK	32.37	2.146e3					0.5	NO		bb		0.000
10	FUNCTION2 PFK	32.29	6.213e2					0.6	NO		bb		0.000
11	FUNCTION2 PFK	32.23	5.443e3					1.8	NO		bb		0.000
12	FUNCTION2 PFK	32.11	2.509e3					1.2	NO		bb		0.000
13	FUNCTION2 PFK	31.93	1.117e3					0.7	NO		bb		0.000
14	FUNCTION2 PFK	31.79	5.331e3					1.0	NO		db		0.000
15	FUNCTION2 PFK	31.75	3.633e3					1.4	NO		bd		0.000
16	FUNCTION2 PFK	31.56	4.443e3					1.6	NO		bb		0.000
17	FUNCTION2 PFK	31.34	9.807e2					0.6	NO		bb		0.000
18	FUNCTION2 PFK	31.10	9.452e3					1.8	NO		bb		0.000
19	FUNCTION2 PFK	31.03	6.071e3					1.4	NO		bb		0.000
20	FUNCTION2 PFK	30.49	5.357e3					1.0	NO		bb		0.000
21	FUNCTION2 PFK	30.39	2.352e3					1.1	NO		db		0.000
22	FUNCTION2 PFK	30.34	2.962e3					1.3	NO		bd		0.000
23	FUNCTION2 PFK	30.10	2.990e3					1.1	NO		bb		0.000
24	FUNCTION2 PFK	32.91	3.376e3					1.1	NO		bb		0.000
25	FUNCTION2 PFK	32.85	2.139e3					1.0	NO		bb		0.000
26	FUNCTION2 PFK	32.66	2.922e3					1.1	NO		db		0.000

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ID: 17E0012-06, Name: 17052223, Date: 23-May-2017, Time: 05:08:43, Conditions: AUTOSPEC01, User: PK

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	34.57	5.032e3					0.7	NO		bb		0.000
2	FUNCTION3 PFK	34.40	2.246e3					0.5	NO		bb		0.000
3	FUNCTION3 PFK	34.36	8.475e3					0.8	NO		bb		0.000
4	FUNCTION3 PFK	34.04	6.989e3					1.1	NO		db		0.000
5	FUNCTION3 PFK	34.00	3.494e4					3.0	NO		bd		0.000
6	FUNCTION3 PFK	33.81	1.171e4					0.9	NO		bb		0.000
7	FUNCTION3 PFK	33.57	1.131e4					1.3	NO		bb		0.000
8	FUNCTION3 PFK	33.49	1.728e3					0.4	NO		bb		0.000
9	FUNCTION3 PFK	33.35	2.606e4					2.0	NO		bb		0.000
10	FUNCTION3 PFK	33.24	3.806e4					2.6	NO		db		0.000
11	FUNCTION3 PFK	33.20	3.408e4					2.6	NO		dd		0.000
12	FUNCTION3 PFK	33.14	2.254e4					1.7	NO		bd		0.000
13	FUNCTION3 PFK	36.78	1.860e4					1.7	NO		bb		0.000
14	FUNCTION3 PFK	36.68	2.645e4					2.5	NO		bb		0.000
15	FUNCTION3 PFK	36.56	3.432e4					2.2	NO		bb		0.000
16	FUNCTION3 PFK	36.33	4.782e4					2.6	NO		bb		0.000
17	FUNCTION3 PFK	36.01	2.918e4					1.8	NO		bb		0.000
18	FUNCTION3 PFK	35.67	6.387e4					2.6	NO		bb		0.000
19	FUNCTION3 PFK	35.55	5.483e4					2.6	NO		bb		0.000
20	FUNCTION3 PFK	35.42	4.452e4					2.5	NO		bb		0.000
21	FUNCTION3 PFK	35.35	1.179e4					1.2	NO		bb		0.000
22	FUNCTION3 PFK	35.19	2.309e3					0.5	NO		bb		0.000
23	FUNCTION3 PFK	35.14	5.790e3					1.0	NO		db		0.000
24	FUNCTION3 PFK	35.10	4.396e4					2.8	NO		bd		0.000
25	FUNCTION3 PFK	35.00	3.780e4					2.2	NO		db		0.000
26	FUNCTION3 PFK	34.97	1.354e4					1.8	NO		bd		0.000
27	FUNCTION3 PFK	34.78	6.164e4					2.5	NO		db		0.000
28	FUNCTION3 PFK	34.65	5.058e4					2.1	NO		bd		0.000
29	FUNCTION3 PFK	38.43	3.853e4					2.1	NO		bb		0.000
30	FUNCTION3 PFK	38.29	4.195e4					2.6	NO		bb		0.000
31	FUNCTION3 PFK	38.18	4.965e4					2.4	NO		bb		0.000
32	FUNCTION3 PFK	37.96	9.921e3					0.7	NO		bb		0.000
33	FUNCTION3 PFK	37.65	2.020e4					1.9	NO		db		0.000
34	FUNCTION3 PFK	37.62	2.768e4					2.0	NO		bd		0.000
35	FUNCTION3 PFK	37.45	2.009e4					1.6	NO		bb		0.000
36	FUNCTION3 PFK	37.27	5.401e3					0.8	NO		bb		0.000
37	FUNCTION3 PFK	37.21	9.982e3					1.0	NO		bb		0.000
38	FUNCTION3 PFK	37.16	4.008e3					0.6	NO		bb		0.000
39	FUNCTION3 PFK	36.88	4.679e4					1.7	NO		bb		0.000

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
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PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	39.31	1.130e4					1.4	NO		bb		
2	FUNCTION4 PFK	39.24	6.716e3					0.9	NO		db		
3	FUNCTION4 PFK	39.21	2.753e3					0.7	NO		bd		
4	FUNCTION4 PFK	38.85	5.796e3					0.9	NO		bb		
5	FUNCTION4 PFK	44.09	1.764e4					1.3	NO		bb		
6	FUNCTION4 PFK	43.38	3.606e3					0.8	NO		bb		
7	FUNCTION4 PFK	42.73	1.402e4					1.3	NO		bb		
8	FUNCTION4 PFK	42.20	1.647e3					0.5	NO		bb		
9	FUNCTION4 PFK	41.69	6.840e3					1.0	NO		bb		
10	FUNCTION4 PFK	41.63	1.553e4					1.5	NO		bb		
11	FUNCTION4 PFK	41.50	1.379e4					1.5	NO		bb		
12	FUNCTION4 PFK	41.19	2.992e4					1.5	NO		bb		
13	FUNCTION4 PFK	40.63	1.136e4					1.5	NO		db		
14	FUNCTION4 PFK	40.53	2.466e4					1.9	NO		bd		
15	FUNCTION4 PFK	40.23	2.781e3					0.5	NO		db		
16	FUNCTION4 PFK	40.16	8.101e3					0.9	NO		bd		
17	FUNCTION4 PFK	39.49	1.044e4					0.8	NO		bb		
18	FUNCTION4 PFK	39.44	3.607e3					0.7	NO		bb		
19	FUNCTION4 PFK	39.35	3.375e3					0.7	NO		bb		

PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	49.26	6.685e3					1.2	NO		bb		
2	FUNCTION5 PFK	48.59	2.236e3					0.8	NO		bb		
3	FUNCTION5 PFK	48.34	4.859e3					1.2	NO		bb		
4	FUNCTION5 PFK	48.07	1.142e3					0.6	NO		bb		
5	FUNCTION5 PFK	47.49	9.928e2					0.6	NO		bb		
6	FUNCTION5 PFK	47.16	8.770e2					0.5	NO		bb		
7	FUNCTION5 PFK	46.51	3.862e3					1.0	NO		db		
8	FUNCTION5 PFK	46.49	3.269e3					1.0	NO		bd		
9	FUNCTION5 PFK	45.55	3.201e3					0.9	NO		bb		
10	FUNCTION5 PFK	44.81	1.992e3					0.7	NO		bb		
11	FUNCTION5 PFK	44.76	3.969e3					1.0	NO		bb		
12	FUNCTION5 PFK	44.62	7.962e2					0.5	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	26.06	5.842e3					318.9	YES		db		0.000
2	FUNCTION1 HXCD...	25.78	2.289e3					119.8	YES		bd		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	22.31	1.168e2					11.9	YES		db		0.000
2	FUNCTION1 HPCD...	22.27	1.678e2					16.7	YES		bd		0.000

ETHERS3

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

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ETHERS4

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

ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	42.48	1.574e3					12.6	YES		bb		0.000
2	FUNCTION4 NCDPE	41.93	7.710e1					7.1	YES		bb		0.000
3	FUNCTION4 NCDPE	39.02	5.641e2					33.0	YES		bb		0.000

ETHERS6

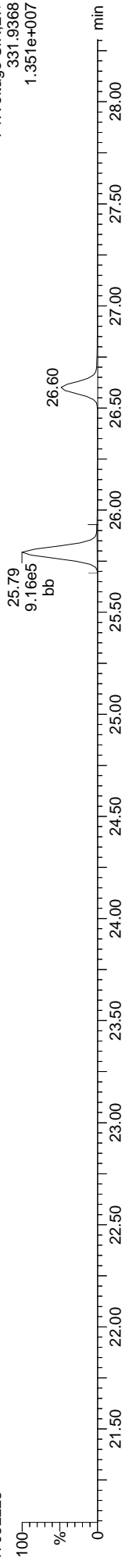
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1													

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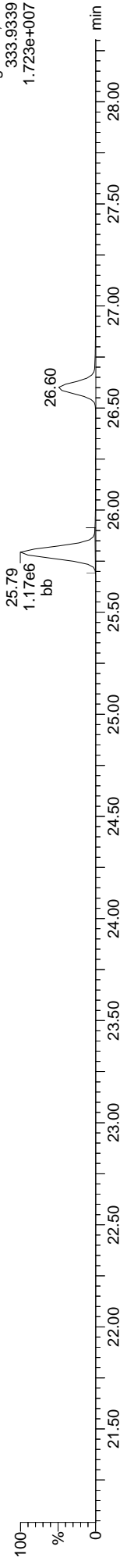
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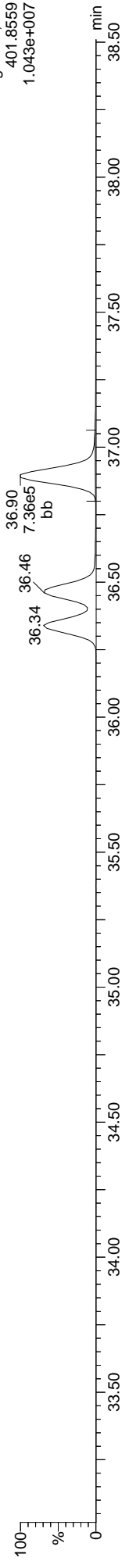
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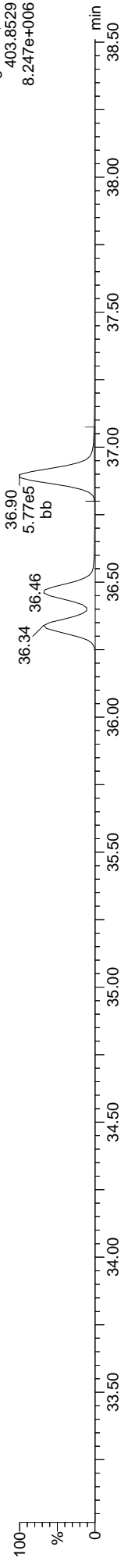
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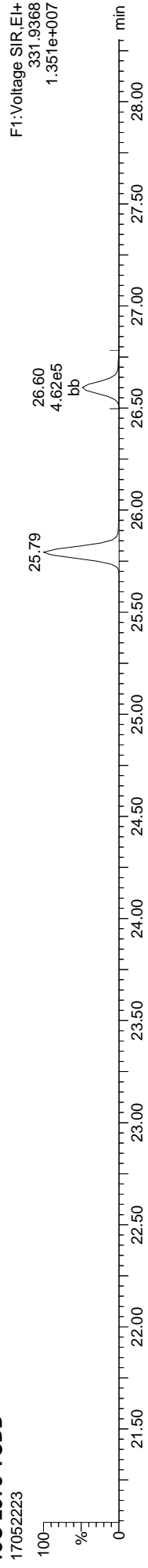
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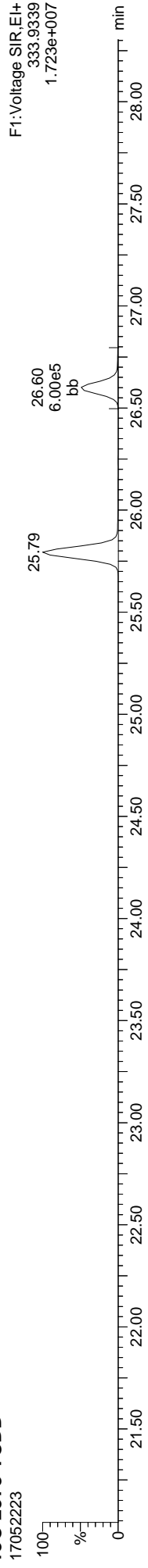
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MassLynx MassLynx V4.1 SCN909
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Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
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ID: 17E0012-06, Name: 17052223, Date: 23-May-2017, Time: 05:08:43, Conditions: AUTOSPEC01, User: PK

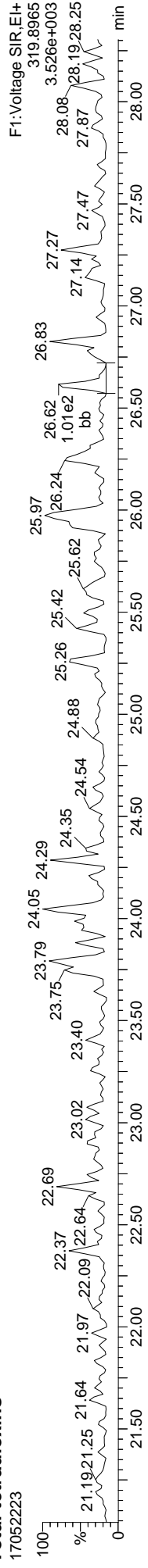
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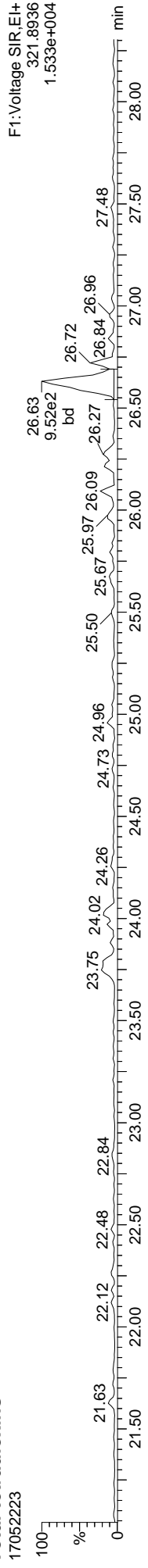
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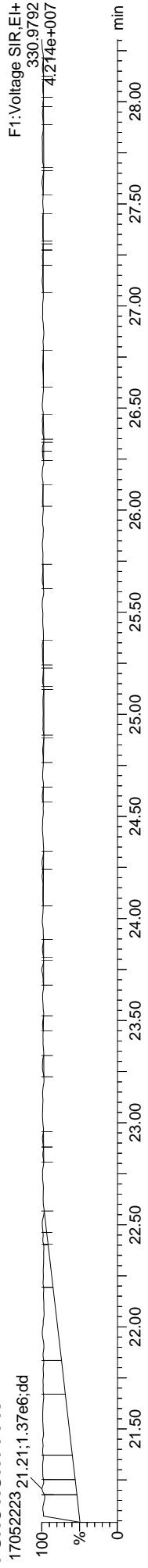
Total-tetradioxins



Total-tetradioxins



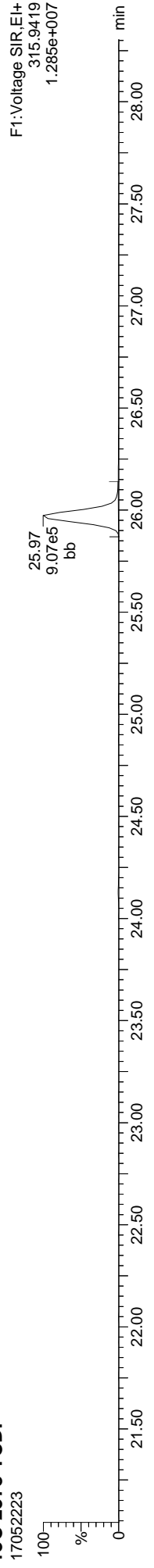
FUNCTION1 PFK



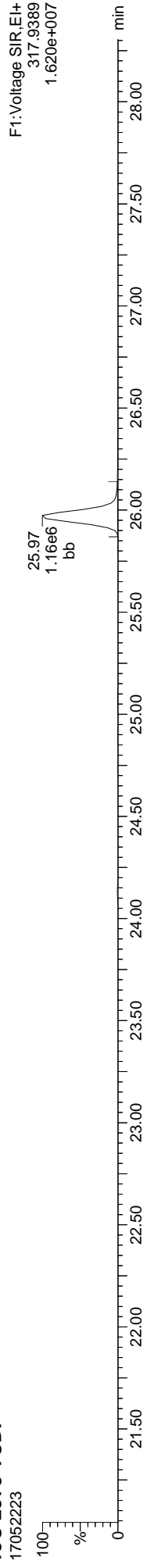
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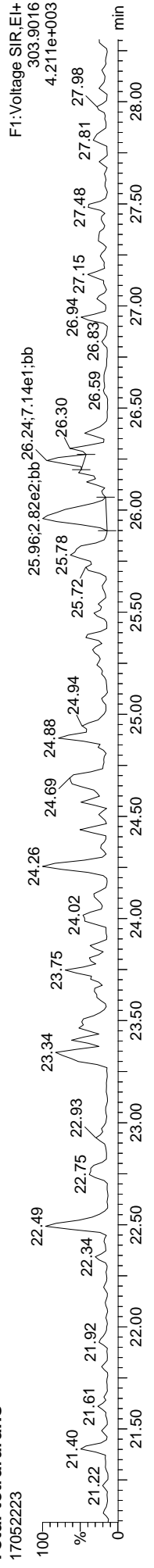
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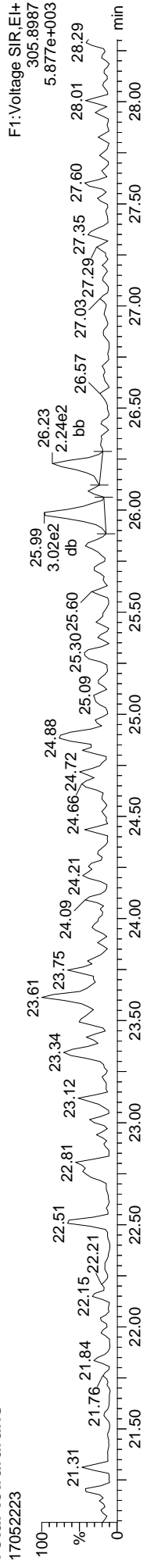
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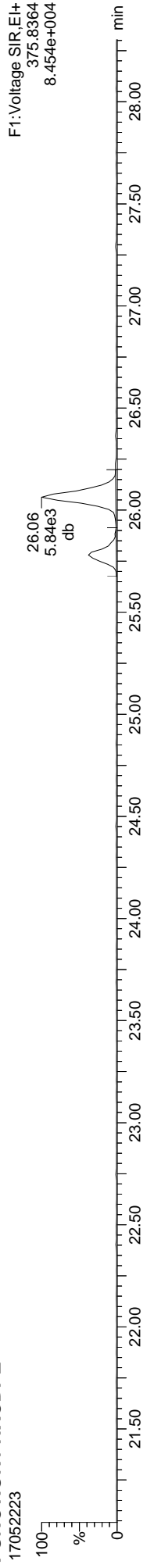
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Total-tetrafurans



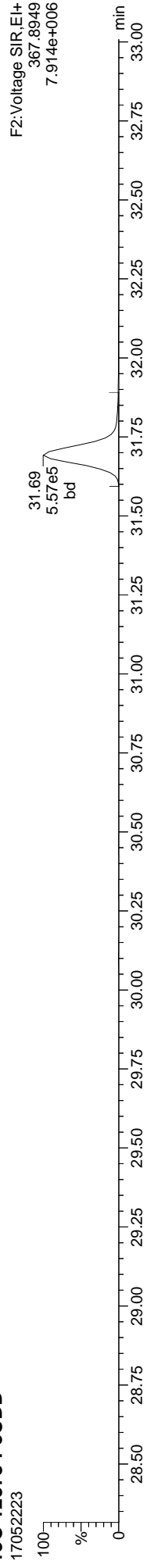
FUNCTION1 HXCDFE



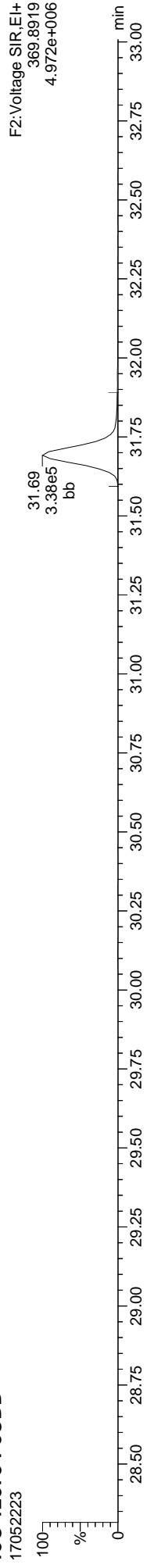
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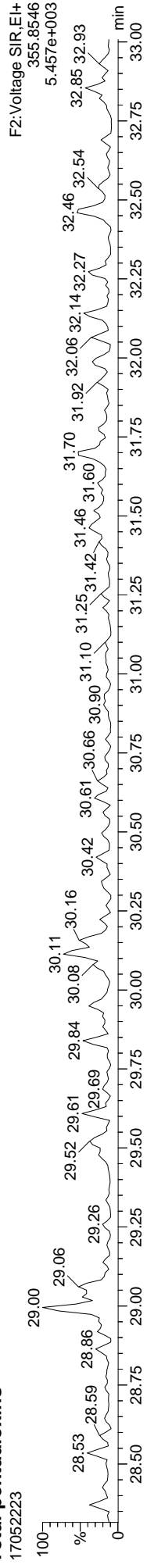
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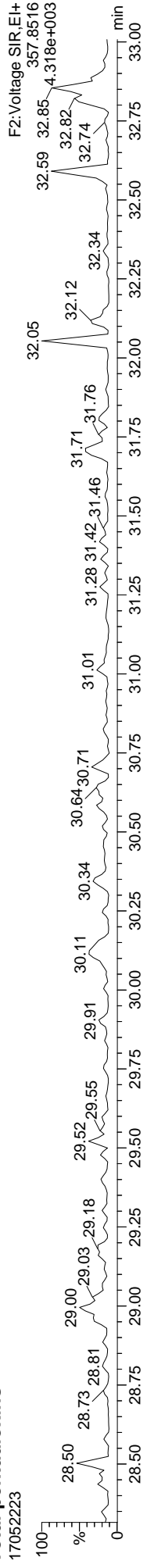
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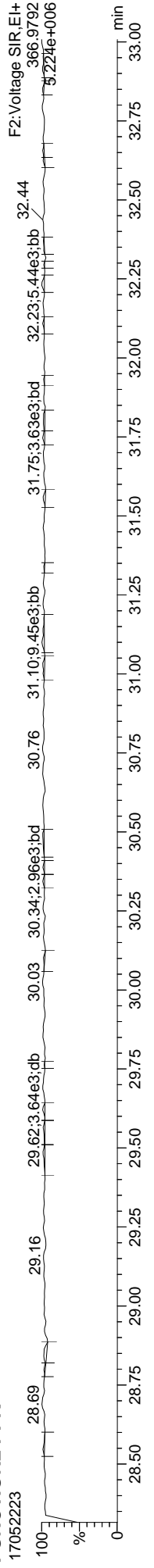
Total-pentadioxins



Total-pentadioxins



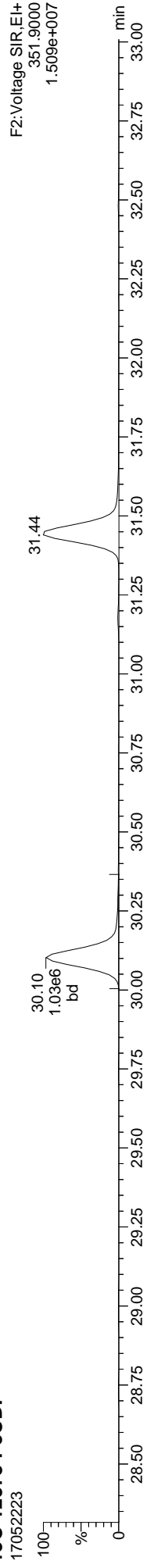
FUNCTION2 PFK



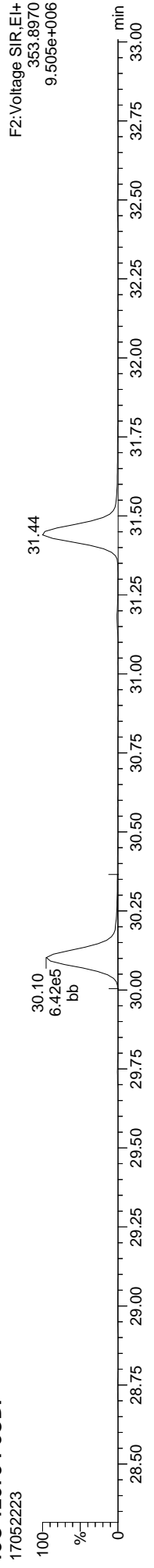
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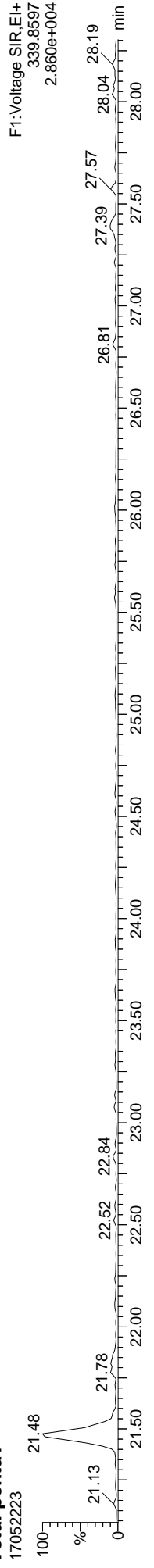
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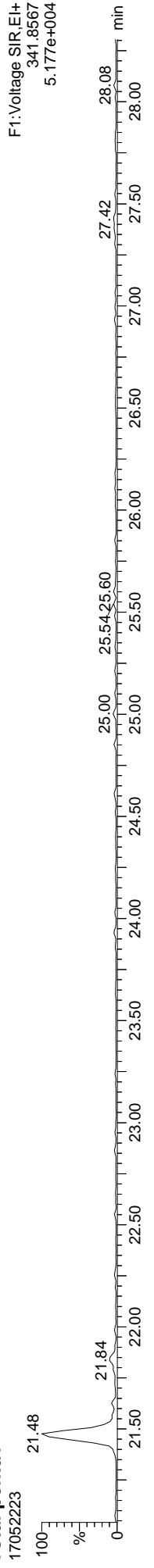
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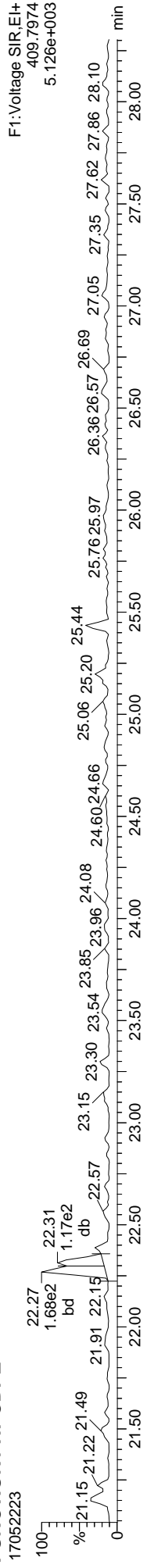
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Total-penta1



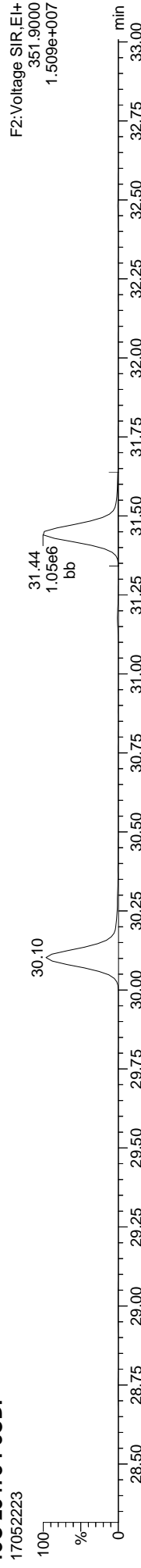
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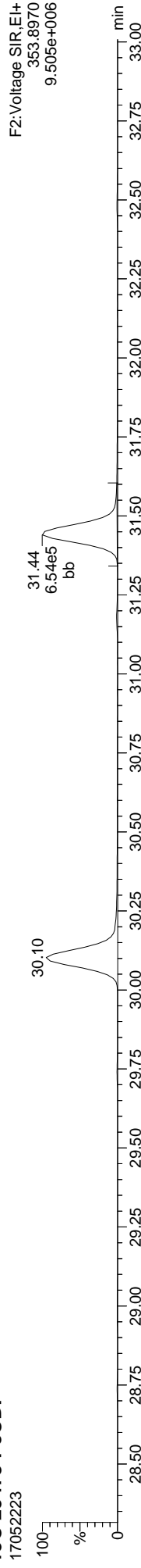
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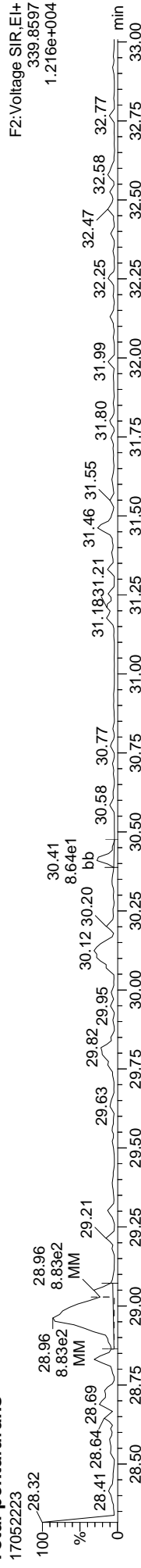
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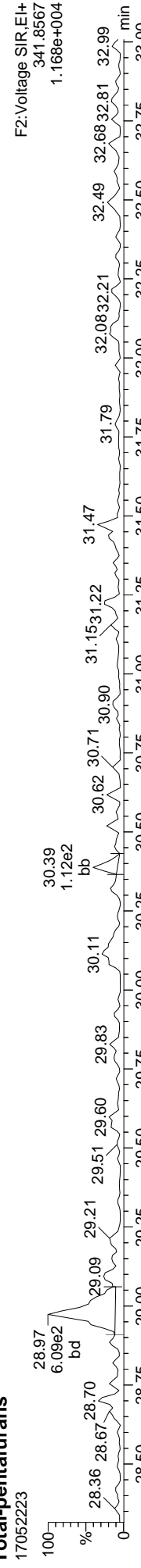
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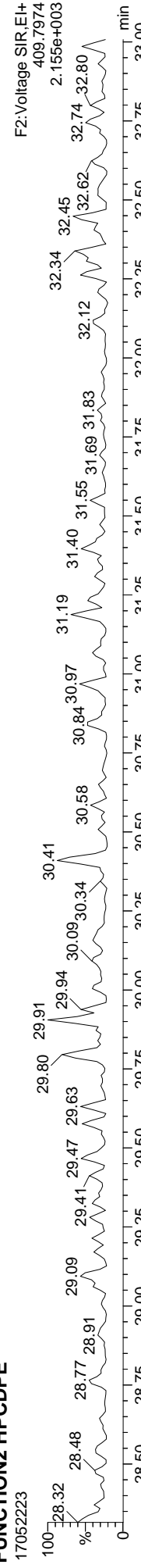
Total-pentafurans



Total-pentafurans



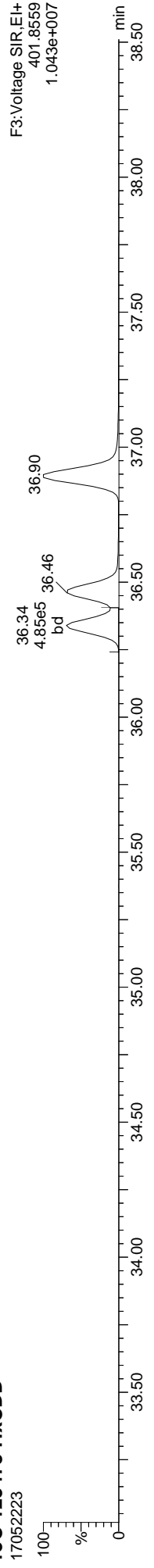
FUNCTION2 HPCDFE



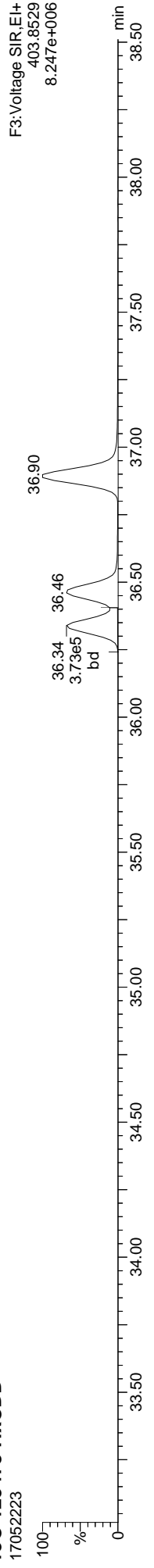
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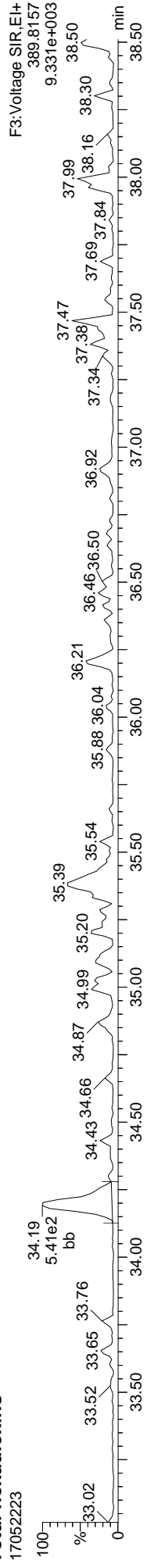
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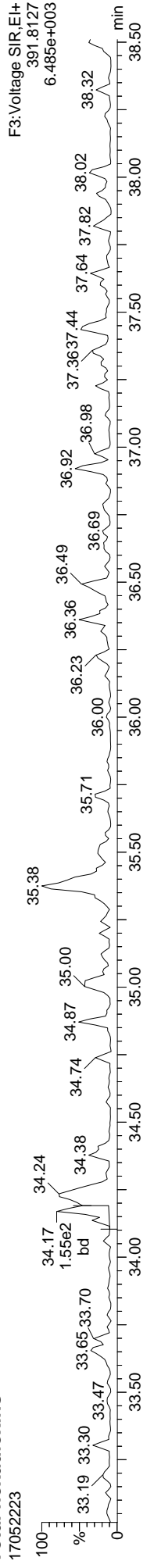
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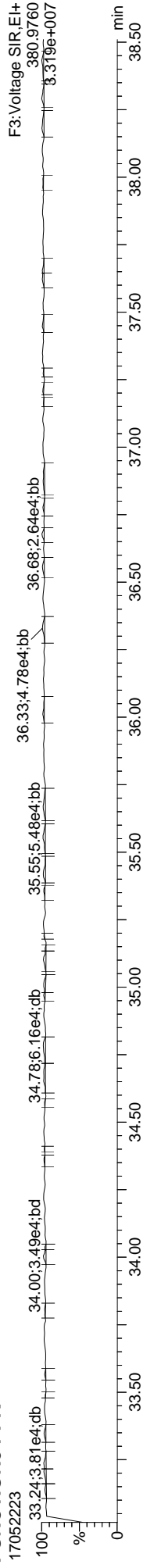
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Total-hexadioxins



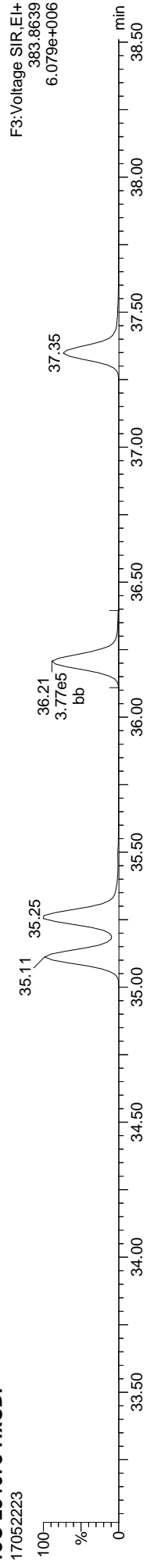
FUNCTION3 PFK



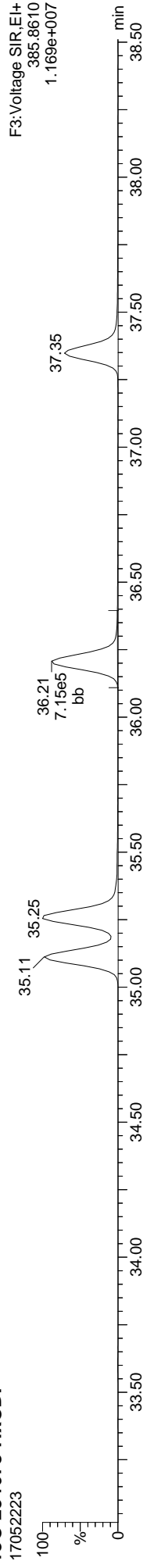
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Printed: Tuesday, May 23, 2017 13:55:32 Pacific Daylight Time

ID: 17E0012-06, Name: 17052223, Date: 23-May-2017, Time: 05:08:43, Conditions: AUTOSPEC01, User: PK

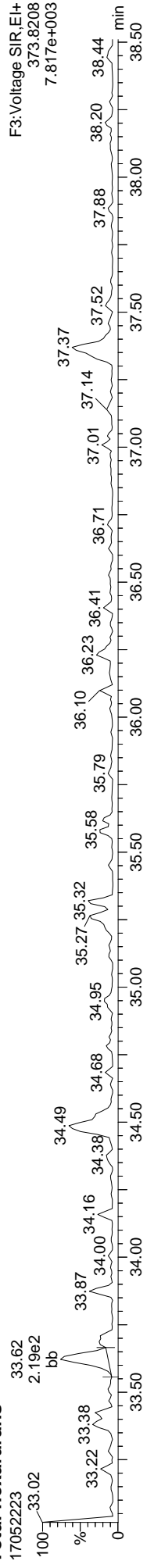
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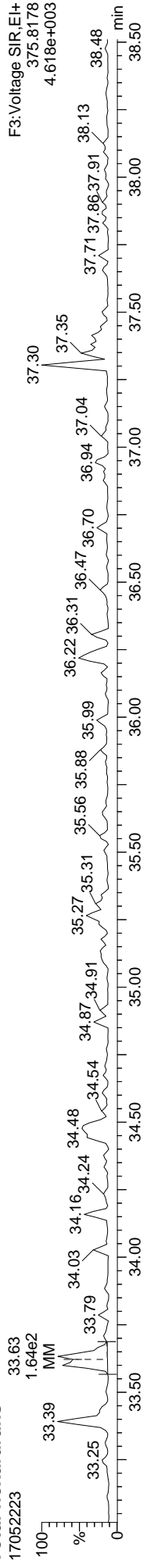
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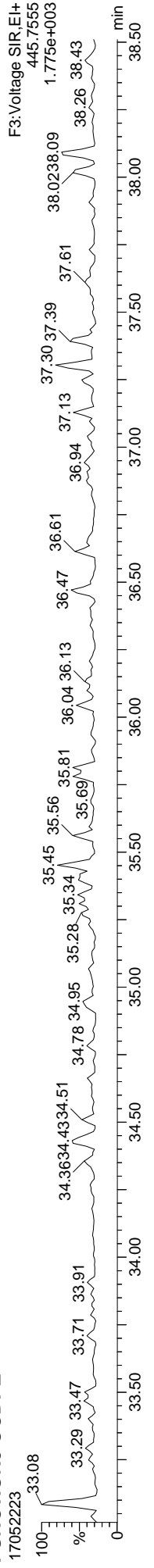
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Total-hexafurans



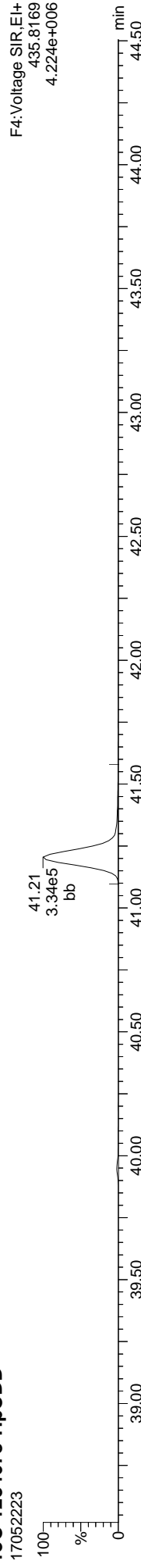
FUNCTION3 OCDPE



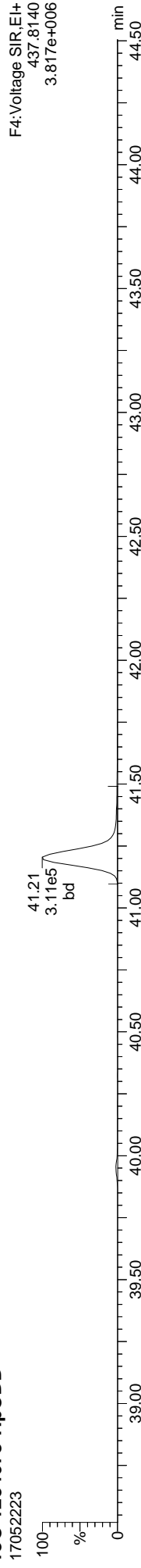
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Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:32 Pacific Daylight Time

ID: 17E0012-06, Name: 170522223, Date: 23-May-2017, Time: 05:08:43, Conditions: AUTOSPEC01, User: PK

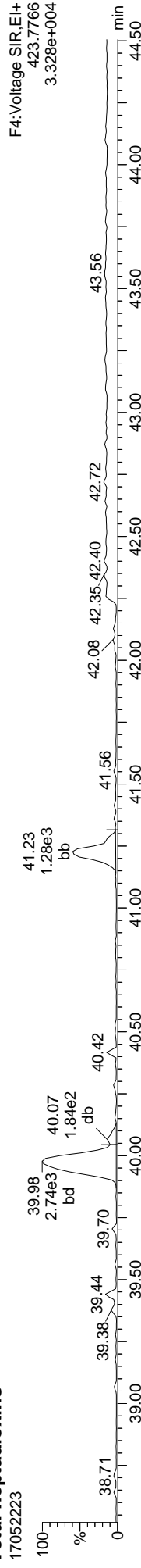
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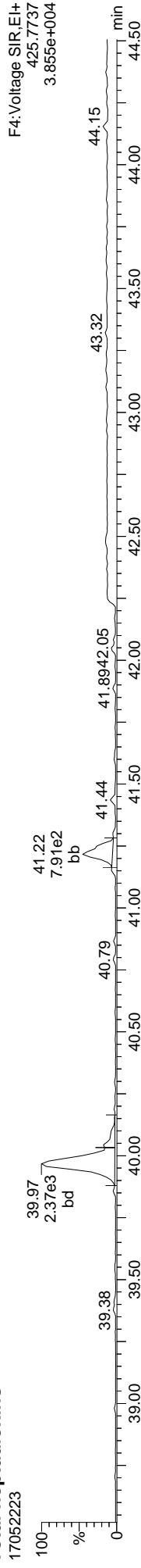
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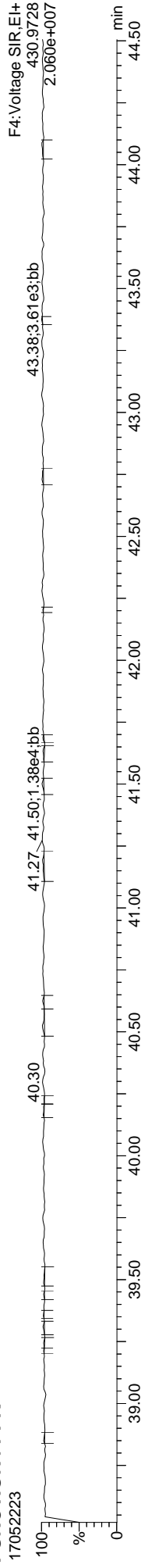
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Total-heptadioxins



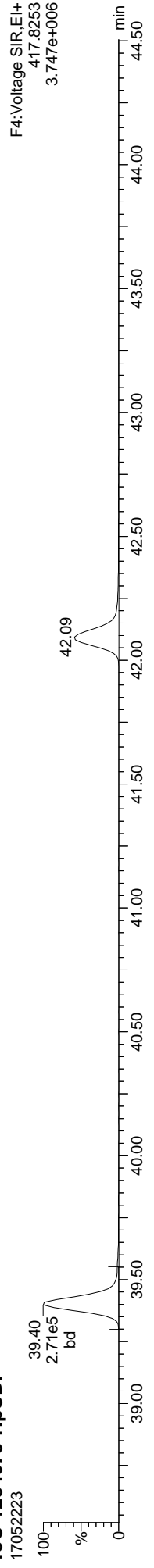
FUNCTION4 PFK



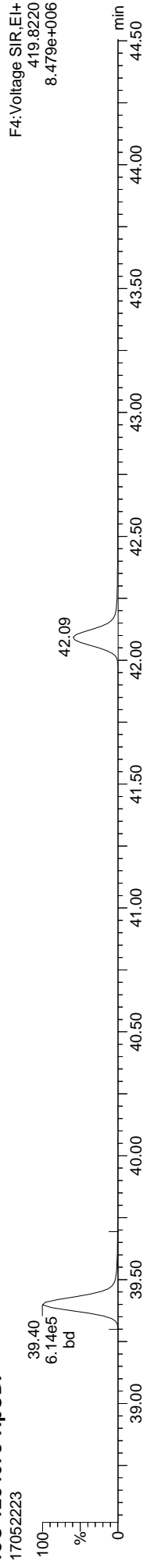
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Printed: Tuesday, May 23, 2017 13:55:32 Pacific Daylight Time

ID: 17E0012-06, Name: 17052223, Date: 23-May-2017, Time: 05:08:43, Conditions: AUTOSPEC01, User: PK

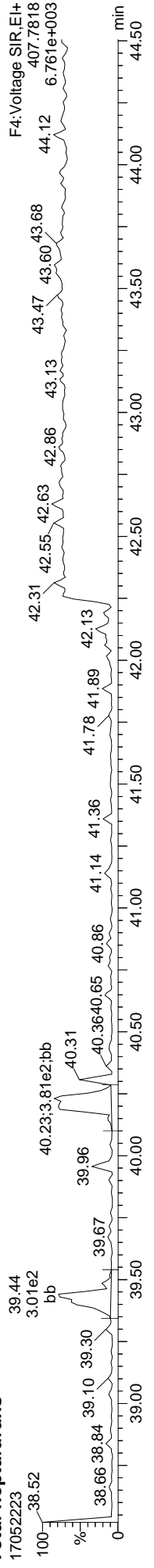
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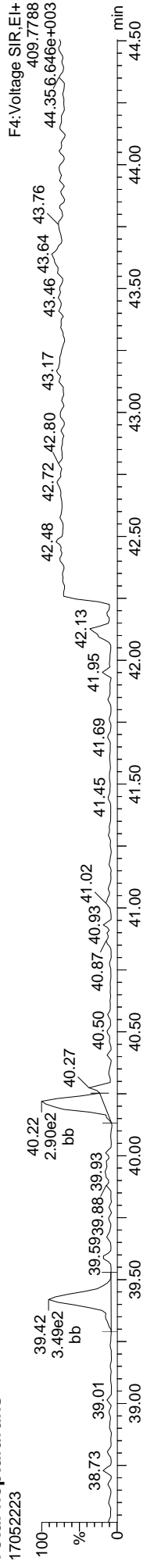
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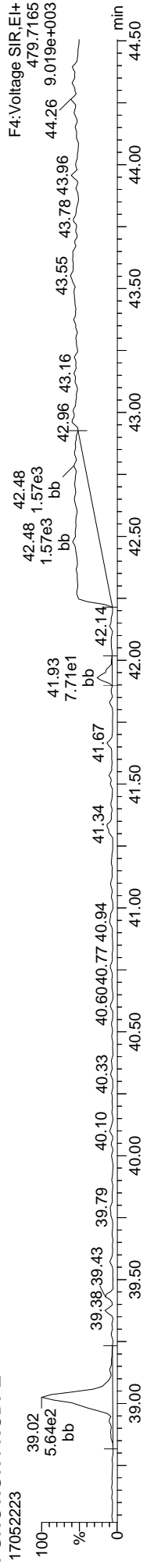
Total-heptafurans



Total-heptafurans



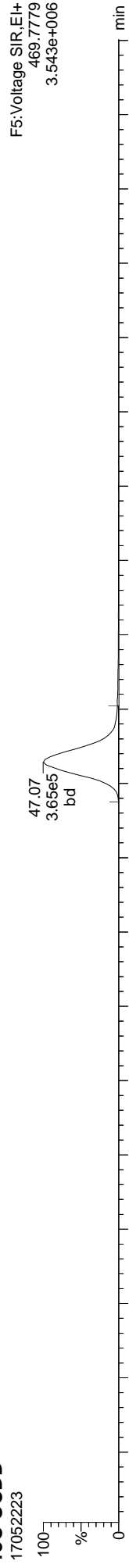
FUNCTION4 NCDPE



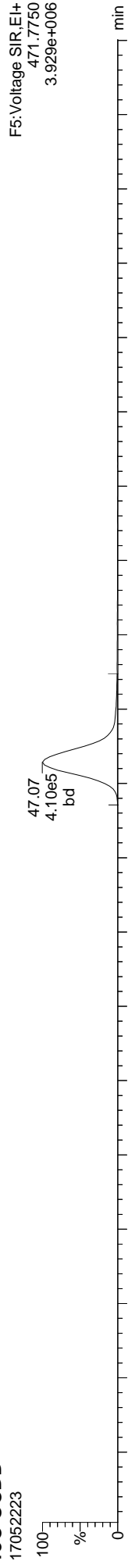
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ID: 17E0012-06, Name: 170522223, Date: 23-May-2017, Time: 05:08:43, Conditions: AUTOSPEC01, User: PK

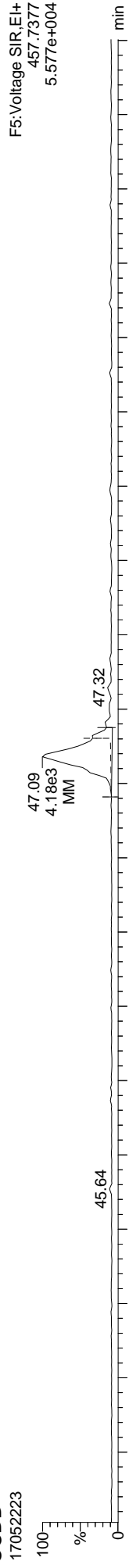
13C-OCDD



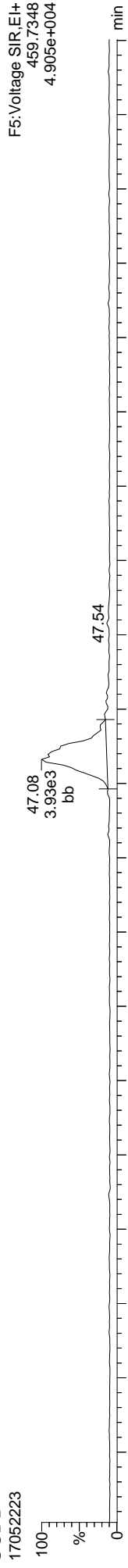
13C-OCDD



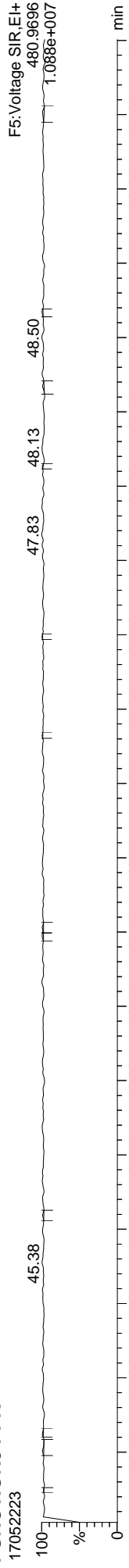
OCDD



OCDD



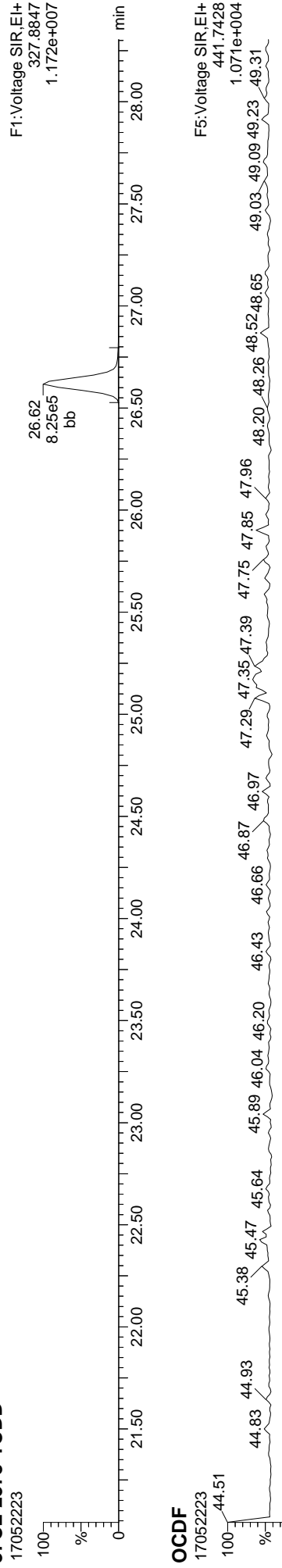
FUNCTION5 PFK



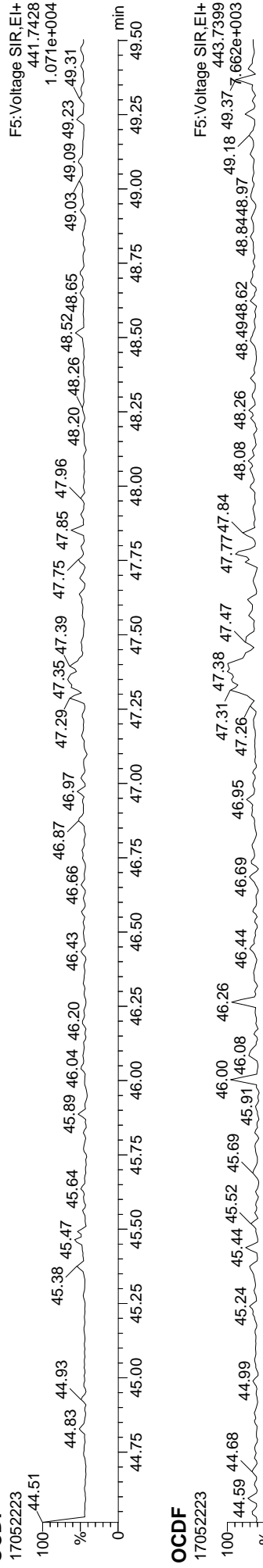
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Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:55:32 Pacific Daylight Time

ID: 17E0012-06, Name: 17052223, Date: 23-May-2017, Time: 05:08:43, Conditions: AUTOSPEC01, User: PK

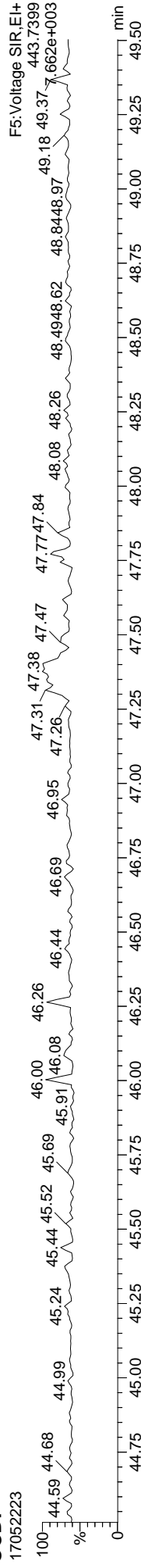
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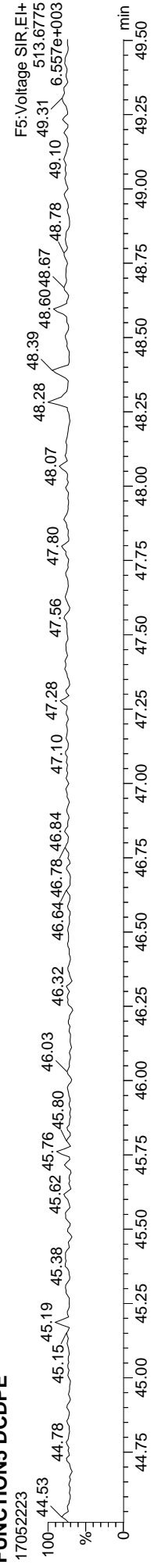
OCDF



OCDF



FUNCTION5 DCDPE





Analytical Resources, Incorporated
Analytical Chemists and Consultants

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

Batch: BFE0233

Tissue Samples

ARI Work Orders: 17D0421, 17E0012	
Matrix (circle one)	Soil Sediment Oil Tissue
Extraction Method	Start Date/Time: 5/9/17 16:05 End Date/Time: 11:06 5/10/17
Soxhlet SepF Shake out	

Reagents/Equipment Used	NA	ID / Lot Number	Initials	Date
Balance		24650344	AS	5/7/17
Purified Sand				
Toluene-1:1 Hex/DCM		E004138	AS	5/9/17
Hexane		F003119	AS/M	5/9/17
CH2Cl2		F003850	M	5/12/17
H2SO4		E008611 F00571	M	5/11/17
Na2SO4		F003342 F00392	AS/M	5/9/17
Glasswool		E001046	M	5/11/17
(98:2) Hex/DCM		F003868	M	5/12/17
Basic Silica		F001225	M	5/12/17
Acid Silica		F003402	M	5/12/17
0% Silica		E006349	AS/M	5/9/17
Activated Florisil		F001724	M	5/12/17
Nonane		E000869	M	5/15/17
Other (<i>corn oil</i>)		E005442	AS	5/9/17

Lab Number & Container	Sample Name	Sample Vol (ml)	Ratio Vap	Water Trap Vol (ml)	Final Vol (ul)
17D0421-01 A	PG-PROX-COC-170	10.02	1/2	N/A	20
17D0421-02 A	PG-GP-COC-170	10.04	1/2		20
17D0421-03 A	PG-GP-TEQ-COC-170	10.03	1/2		20
17D0421-04 A	PG-MS-OXS-COC-17	10.02	1/2		20
17D0421-05 A	PG-MS-COC-COC-17	10.03	1/2		20
17D0421-06 A	PG-MS-TEQ-COC-170	10.04	1/2		20
17D0421-07 A	PG-MS-MAN-COC-17	10.05	1/2		20
17D0421-08 A	PG-MS-TEQ-COC-170	10.05	1/2		20
17D0421-09 A	PG-MS-TEQ-COC-170	10.01	1/2		20
17D0421-10 A	PG-MS-TEQ-COC-170	10.01	1/2		20
17E0012-01 A	PG-PROX-COC-170	10.02	1/2		20
17E0012-02 A	PG-PROX-COC-170	10.04	1/2		20
17E0012-03 A	PG-PL-TEQ-COC-170	10.05	1/2		20
17E0012-04 A	PG-MS-MAN-COC-170	10.01	1/2		20
17E0012-05 A	PG-PROX-COC-170	10.04	1/2		20
17E0012-06 A	PG-MS-OXS-COC-170	10.05	1/2		20
Prep Analyst / Date: AS 5/9/17					
Lab Number	Sample Name	Sample Vol (ml)	Ratio Vap	Water Trap Vol (ml)	Final Vol (ul)
BFE0233-BLK1	Blank	10.50	1/2		20
BFE0233-BBS1	LCS	10.50	1/2		20
Prep Analyst / Date: AS 5/11/17					



Analytical Resources, Incorporated
Analytical Chemists and Consultants

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

Batch: BFE0233
Tissue Samples

Standards Used	Vol	ID / Lot Number	Concentration	Expiration Date	Analyst	Witness	Date
Recovery Standard	1.0 mL	F003162	2/4 ng/mL	10/10/2017	AS	M	5/9/17
OPR	20 uL	F002400	10/50/100 ng/mL	9/21/2017	AS	M	5/9/17
QC Standard	10 uL	F003024	0.8 ng/mL	10/15/17	M	M	5/12/17
Clean-up Standard	1.0 mL	F003024	0.8 ng/mL	10/15/17	M	M	5/12/17

Analyst / Date:	AS	Acid Clean	Y/N	5/17/17
Analyst / Date:	AS	Silica-Florisil Clean	Y/N	5/12/17

Supervisor Review By: [Signature]
Date: 5/15/17



Extraction Parameter: Dioxin

Element Batch: BFE0233 Work Order(s): 17D0421, 17E0012

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
<input type="checkbox"/> No Anomalies (standard soil/wet sediment/sand/gravel)=	
<input type="checkbox"/> Standing Water Decanted (Not shared)=	
<input type="checkbox"/> Standing Water Homogenized (Shared samples)=	
<input type="checkbox"/> Clay/Clumps (Difficult to homogenize)=	
<input type="checkbox"/> Rocks (%+size)?	
<input type="checkbox"/> Organics (Leaves/sticks/grass)=	
<input type="checkbox"/> Oily, obvious fuel/sulfur odors=	
<input type="checkbox"/> Received in 32oz jar(s)=Homogenized in Pyrex dish=	
<input type="checkbox"/> Other (Details)=	
Aqueous:	
<input type="checkbox"/> No Anomalies	
<input type="checkbox"/> Turbid/Color=	
<input type="checkbox"/> Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
<input checked="" type="checkbox"/> Emulsions (%)= <u>BFE0233 - B1K, B5, 17D0421-01A, 04A, 0A, 17E0012-01A - Heavy</u>	<u>M 5/11/17</u>
<input type="checkbox"/> Oily, obvious fuel/sulfur odors= <u>Emulsion; samples centrifuged, after centrifuged sample, still had emulsion, used Na2SO4 to break up</u>	
<input type="checkbox"/> Other (Details)=	
<input type="checkbox"/> Received in 1.0L Bottle(s)=No Bottle Rinse=	
<input checked="" type="checkbox"/> Other Notes/Comments= (Note problems, concerns, corrective actions).	
<u>All Extracts taking through double Scoop Acid silica gel on columns.</u>	<u>M 5/12/17</u>
<input type="checkbox"/> Share Samples Y / N	
<input type="checkbox"/> Multiple Jars Y / N	
<input type="checkbox"/> Sample Pre-Screens indicate analyte activity=	
<input type="checkbox"/> Sample weights/volumes reduced based on Pre-Screen=	



Analytical Resources, Incorporated
Analytical Chemists and Consultants

Dioxin Extraction Laboratory - Glassware

ARI Sample ID: BE0233

Client Sample ID:

Client Project ID:

ARI Analyst

ML

ARI Sample ID	300 mL Flat Bottom	Small Soxhlet	Large Soxhlet	250 mL Beaker	Funnel	Column	Florisil Column	Turbo Tube	Sep Funnel	Erlenmeyer Flask	Centrifuge Bottle	Turbo-Vap	Vortex Mixer	Heating Mantle
<u>BE0233 - BK1</u>	<u>19</u>	<u>L10</u>		<u>8</u>	<u>119/167</u>	<u>121</u>	<u>59</u>	<u>37</u>	<u>37</u>		<u>2</u>	<u>4</u>	<u>4</u>	<u>A1</u>
<u>BS1</u>	<u>25</u>	<u>55</u>		<u>7</u>	<u>96/171</u>	<u>197</u>	<u>131</u>	<u>41</u>	<u>34</u>		<u>21</u>	<u>4</u>	<u>4</u>	<u>A2</u>
<u>1700421 - 01A</u>	<u>45</u>	<u>84</u>		<u>2</u>	<u>109/100</u>	<u>204</u>	<u>148</u>	<u>30</u>	<u>28</u>		<u>25</u>	<u>4</u>	<u>4</u>	<u>A3</u>
<u>02A</u>	<u>17</u>	<u>71</u>		<u>34</u>	<u>37/109</u>	<u>179</u>	<u>122</u>	<u>13</u>	<u>26</u>		<u>2</u>	<u>4</u>	<u>4</u>	<u>A4</u>
<u>03A</u>	<u>30</u>	<u>46</u>		<u>44</u>	<u>13/117</u>	<u>118</u>	<u>149</u>	<u>24</u>	<u>23</u>		<u>15</u>	<u>4</u>	<u>4</u>	<u>A5</u>
<u>04A</u>	<u>79</u>	<u>83</u>		<u>6</u>	<u>66/115</u>	<u>119</u>	<u>77</u>	<u>51</u>	<u>25</u>			<u>4</u>	<u>4</u>	<u>A6</u>
<u>05A</u>	<u>4</u>	<u>74</u>		<u>163</u>	<u>112/85</u>	<u>212</u>	<u>128</u>	<u>44</u>	<u>2</u>			<u>4</u>	<u>4</u>	<u>B1</u>
<u>06A</u>	<u>72</u>	<u>57</u>		<u>240</u>	<u>89/118</u>	<u>211</u>	<u>1</u>	<u>17</u>	<u>35</u>			<u>4</u>	<u>4</u>	<u>B2</u>
<u>07A</u>	<u>56</u>	<u>69</u>		<u>56</u>	<u>72/29</u>	<u>177</u>	<u>76</u>	<u>43</u>	<u>22</u>			<u>4</u>	<u>4</u>	<u>B3</u>
<u>08A</u>	<u>10</u>	<u>L3</u>		<u>L2</u>	<u>88/18</u>	<u>L7</u>	<u>116</u>	<u>19</u>	<u>29</u>			<u>4</u>	<u>4</u>	<u>B4</u>
<u>09A</u>	<u>257</u>	<u>88</u>		<u>186</u>	<u>59/20</u>	<u>176</u>	<u>L5</u>	<u>47</u>	<u>27</u>			<u>4</u>	<u>4</u>	<u>B5</u>
<u>10A</u>	<u>L7</u>	<u>L1</u>		<u>213</u>	<u>94/39</u>	<u>190</u>	<u>128</u>	<u>36</u>	<u>24</u>		<u>28</u>	<u>4</u>	<u>4</u>	<u>B6</u>
<u>17E0012 - 01A</u>	<u>70</u>	<u>90</u>		<u>219</u>	<u>91/101</u>	<u>128</u>	<u>142</u>	<u>4</u>	<u>33</u>		<u>27</u>	<u>4</u>	<u>4</u>	<u>C1</u>
<u>02A</u>	<u>L5</u>	<u>67</u>		<u>18</u>	<u>62/16</u>	<u>213</u>	<u>155</u>	<u>12</u>	<u>31</u>			<u>4</u>	<u>4</u>	<u>C2</u>
<u>03A</u>	<u>64</u>	<u>L9</u>		<u>220</u>	<u>104/125</u>	<u>147</u>	<u>112</u>	<u>50</u>	<u>20</u>			<u>4</u>	<u>4</u>	<u>C3</u>
<u>04A</u>	<u>20</u>	<u>L8</u>		<u>188</u>	<u>116/14</u>	<u>202</u>	<u>86</u>	<u>16</u>	<u>103</u>			<u>4</u>	<u>4</u>	<u>C4</u>
<u>05A</u>	<u>44</u>	<u>89</u>		<u>199</u>	<u>114/126</u>	<u>102</u>	<u>L9</u>	<u>42</u>	<u>70</u>			<u>4</u>	<u>4</u>	<u>C5</u>
<u>06A</u>	<u>18</u>	<u>86</u>		<u>179</u>	<u>35/129</u>	<u>218</u>	<u>71</u>	<u>40</u>	<u>162</u>			<u>4</u>	<u>4</u>	<u>C6</u>



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, Inc.

SDG: 17E0012

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Cleanup Batch: CFE0097

Cleanup Type: Silica Gel

Cleanup Method: EPA 3630C Silica Gel Cleanup

Analysis: EPA 1613B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
PG-PJ-COC-COC-170427	17E0012-02	17052219	05/12/2017	
PG-PJ-OYS-COC-170427	17E0012-01	17052218	05/12/2017	
PG-PJ-MUS-COC-170427	17E0012-06	17052223	05/12/2017	
PG-PJ-MAN-COC-170427	17E0012-04	17052221	05/12/2017	
PG-PJ-HC-COC-170428	17E0012-05	17052222	05/12/2017	
PG-PJ-LTN-COC-170427	17E0012-03	17052220	05/12/2017	



CLEANUP BENCH SHEET

CFE0097

Printed: 5/15/2017 9:29:27AM

Cleanup using: HRGCMS - EPA 3630C Silica Gel Cleanup

Matrix: Tissue

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
17E0012-06	A	PG-PJ-MUS-COC-170427	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17E0012-05	A	PG-PJ-HC-COC-170428	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17E0012-04	A	PG-PJ-MAN-COC-170427	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17E0012-03	A	PG-PJ-LTN-COC-170427	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17E0012-02	A	PG-PJ-COC-COC-170427	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17E0012-01	A	PG-PJ-OYS-COC-170427	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-10	A	PG-SMA3-DUNH-COC-170426	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-09	A	PG-SMA3-DUNH-COC-170426	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-08	A	PG-SMA3-GEO-COC-170426	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-07	A	PG-WS-MAN-COC-170424	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-06	A	PG-WS-LTN-COC-170424	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-05	A	PG-WS-COC-COC-170425	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-04	A	PG-WS-OYS-COC-170424	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-03	A	PG-GPLTN-COC-170424	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-02	A	PG-GP-COC-COC-170424	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-01	A	PG-GP-OYS-COC-170424	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
BFE0233-BS1	-	LCS	-	20	20	-	5/12/2017	NPL	
BFE0233-BLK1	-	Blank	-	20	20	-	5/12/2017	NPL	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, Inc.

SDG: 17E0012

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Cleanup Batch: CFE0098

Cleanup Type: Florisil

Cleanup Method: EPA 3620B Florisil Cleanup

Analysis: EPA 1613B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
PG-PJ-MUS-COC-170427	17E0012-06	17052223	05/12/2017	
PG-PJ-MAN-COC-170427	17E0012-04	17052221	05/12/2017	
PG-PJ-LTN-COC-170427	17E0012-03	17052220	05/12/2017	
PG-PJ-HC-COC-170428	17E0012-05	17052222	05/12/2017	
PG-PJ-COC-COC-170427	17E0012-02	17052219	05/12/2017	
PG-PJ-OYS-COC-170427	17E0012-01	17052218	05/12/2017	



CLEANUP BENCH SHEET

CFE0098

Matrix: Tissue Cleanup using: HRGCMS - EPA 3620B Florisil Cleanup Printed: 5/15/2017 9:29:38AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
17E0012-06	A	PG-PJ-MUS-COC-170427	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17E0012-05	A	PG-PJ-HC-COC-170428	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17E0012-04	A	PG-PJ-MAN-COC-170427	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17E0012-03	A	PG-PJ-LTN-COC-170427	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17E0012-02	A	PG-PJ-COC-COC-170427	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17E0012-01	A	PG-PJ-OYS-COC-170427	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-10	A	PG-SMA3-DUNH-COC-170426	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-09	A	PG-SMA3-DUNH-COC-170426	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-08	A	PG-SMA3-GEO-COC-170426	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-07	A	PG-WS-MAN-COC-170424	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-06	A	PG-WS-LTN-COC-170424	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-05	A	PG-WS-COC-COC-170425	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-04	A	PG-WS-OYS-COC-170424	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-03	A	PG-GP-LTN-COC-170424	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-02	A	PG-GP-COC-COC-170424	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-01	A	PG-GP-OYS-COC-170424	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
BFE0233-BS1	-	LCS	-	20	20	-	5/12/2017	NPL	
BFE0233-BLK1	-	Blank	-	20	20	-	5/12/2017	NPL	



CLEANUP BATCH SUMMARY

Laboratory: Analytical Resources, Inc.

SDG: 17E0012

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

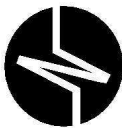
Cleanup Batch: CFE0096

Cleanup Type: Sulfuric Acid

Cleanup Method: EPA 3665A Sulfuric Acid Cleanup

Analysis: EPA 1613B

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARE	OBSERVATIONS
PG-PJ-OYS-COC-170427	17E0012-01	17052218	05/12/2017	
PG-PJ-MUS-COC-170427	17E0012-06	17052223	05/12/2017	
PG-PJ-MAN-COC-170427	17E0012-04	17052221	05/12/2017	
PG-PJ-LTN-COC-170427	17E0012-03	17052220	05/12/2017	
PG-PJ-HC-COC-170428	17E0012-05	17052222	05/12/2017	
PG-PJ-COC-COC-170427	17E0012-02	17052219	05/12/2017	



CLEANUP BENCH SHEET

CFE0096

Matrix: Tissue Cleanup using: HRGCMS - EPA 3665A Sulfuric Acid Cleanup Printed: 5/15/2017 9:29:16AM

Lab Number	Sample Container	Sample Name	Extract Container	Initial (mL)	Final (mL)	Analysis	Clean Up Date	Cleaned By	Cleanup Comments
17E0012-06	A	PG-PJ-MUS-COC-170427	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17E0012-05	A	PG-PJ-HC-COC-170428	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17E0012-04	A	PG-PJ-MAN-COC-170427	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17E0012-03	A	PG-PJ-LTN-COC-170427	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17E0012-02	A	PG-PJ-COC-COC-170427	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17E0012-01	A	PG-PJ-OYS-COC-170427	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-10	A	PG-SMA3-DUNH-COC-170426	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-09	A	PG-SMA3-DUNH-COC-170426	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-08	A	PG-SMA3-GEO-COC-170426	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-07	A	PG-WS-MAN-COC-170424	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-06	A	PG-WS-LTN-COC-170424	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-05	A	PG-WS-COC-COC-170425	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-04	A	PG-WS-OYS-COC-170424	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-03	A	PG-GP-LTN-COC-170424	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-02	A	PG-GP-COC-COC-170424	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
17D0421-01	A	PG-GP-OYS-COC-170424	A 02	20	20	1613B Dioxin	5/12/2017	NPL	
BFE0233-BS1	-	LCS	-	20	20	-	5/12/2017	NPL	
BFE0233-BLK1	-	Blank	-	20	20	-	5/12/2017	NPL	



Blank

Form I
METHOD BLANK DATA SHEET
EPA 1613B
Chlorinated Dioxins/Furans by HRGC/HRMS

Laboratory:	<u>Analytical Resources, Inc.</u>	SDG:	<u>17E0012</u>
Client:	<u>Anchor QEA, LLC</u>	Project:	<u>Port Gamble Shellfish Monitoring</u>
Matrix:	Tissue	Laboratory ID:	<u>BFE0233-BLK1</u>
Sampled:	<u>N/A</u>	File ID:	<u>17052204</u>
Solids Wt%:		Prepared:	<u>05/09/17 16:05</u>
Result Basis:	<u>Dry</u>	Analyzed:	<u>05/22/17 12:05</u>
Batch:	<u>BFE0233</u>	Preparation:	<u>EPA 1613</u>
		Initial/Final:	<u>10 g / 20 uL</u>
		Sequence:	<u>SFE0219</u>
		Calibration:	<u>AE00055</u>
		Instrument:	<u>AUTOSPEC01</u>
		Column:	<u>RTX-Dioxin2</u>

CAS NO.	COMPOUND	DF/Split	Ion Ratio	Ratio Limits	EDL	RL	Result	Units	Q
51207-31-9	2,3,7,8-TCDF	1	0.604	0.655-0.886		1.00	0.0544	ng/kg	EMPC, J
1746-01-6	2,3,7,8-TCDD	1	0.202	0.655-0.886		1.00	0.209	ng/kg	EMPC, J
57117-41-6	1,2,3,7,8-PeCDF	1	0.910	1.318-1.783		5.00	0.100	ng/kg	EMPC, J
57117-31-4	2,3,4,7,8-PeCDF	1	0.000	1.318-1.783	0.032	5.00	ND	ng/kg	U
40321-76-4	1,2,3,7,8-PeCDD	1	1.340	1.318-1.783		5.00	0.0474	ng/kg	J
70648-26-9	1,2,3,4,7,8-HxCDF	1	0.919	1.054-1.426		5.00	0.0839	ng/kg	EMPC, J
57117-44-9	1,2,3,6,7,8-HxCDF	1	1.193	1.054-1.426		5.00	0.0511	ng/kg	J
60851-34-5	2,3,4,6,7,8-HxCDF	1	0.900	1.054-1.426		5.00	0.0524	ng/kg	EMPC, J
72918-21-9	1,2,3,7,8,9-HxCDF	1	1.883	1.054-1.426		5.00	0.142	ng/kg	EMPC, J
39227-28-6	1,2,3,4,7,8-HxCDD	1	0.904	1.054-1.426		5.00	0.0686	ng/kg	EMPC, J
57653-85-7	1,2,3,6,7,8-HxCDD	1	0.859	1.054-1.426		5.00	0.0861	ng/kg	EMPC, J
19408-74-3	1,2,3,7,8,9-HxCDD	1	0.000	1.054-1.426	0.070	5.00	ND	ng/kg	U
67562-39-4	1,2,3,4,6,7,8-HpCDF	1	1.003	0.893-1.208		5.00	0.120	ng/kg	J
55673-89-7	1,2,3,4,7,8,9-HpCDF	1	0.796	0.893-1.208		5.00	0.104	ng/kg	EMPC, J
35822-46-9	1,2,3,4,6,7,8-HpCDD	1	0.996	0.893-1.208		5.00	0.224	ng/kg	J
39001-02-0	OCDF	1	0.822	0.757-1.024		10.0	0.301	ng/kg	J
3268-87-9	OCDD	1	0.840	0.757-1.024		10.0	1.82	ng/kg	J

Homologue Groups

55722-27-5	Total TCDF	1	0.000			1.00	0.0932	ng/kg	
41903-57-5	Total TCDD	1	0.000			1.00	0.263	ng/kg	
30402-15-4	Total PeCDF	1	0.000			1.00	0.100	ng/kg	
36088-22-9	Total PeCDD	1	0.000			1.00	0.0474	ng/kg	
55684-94-1	Total HxCDF	1	0.000			1.00	0.329	ng/kg	
34465-46-8	Total HxCDD	1	0.000			1.00	0.155	ng/kg	
38998-75-3	Total HpCDF	1	0.000			1.00	0.262	ng/kg	
37871-00-4	Total HpCDD	1	0.000			1.00	0.722	ng/kg	

Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=0, Including EMPC): 0.318
Total 2,3,7,8-TCDD Equivalence (WHO2005, ND=1/2 EDL, Including EMPC): 0.327



Blank

Form I
METHOD BLANK DATA SHEET
EPA 1613B
Chlorinated Dioxins/Furans by HRGC/HRMS

Laboratory: <u>Analytical Resources, Inc.</u>	SDG: <u>17E0012</u>
Client: <u>Anchor QEA, LLC</u>	Project: <u>Port Gamble Shellfish Monitoring</u>
Matrix: Tissue	Laboratory ID: <u>BFE0233-BLK1</u>
Sampled: <u>N/A</u>	File ID: <u>17052204</u>
Solids Wt%:	Prepared: <u>05/09/17 16:05</u>
Result Basis: <u>Dry</u>	Analyzed: <u>05/22/17 12:05</u>
Batch: <u>BFE0233</u>	Preparation: <u>EPA 1613</u>
	Initial/Final: <u>10 g / 20 uL</u>
	Sequence: <u>SFE0219</u>
	Calibration: <u>AE00055</u>
	Instrument: <u>AUTOSPEC01</u>
	Column: <u>RTX-Dioxin2</u>

Labels	DF/Split	Ion Ratio	Ratio Limits	EDL	% REC	QC LIMITS	Q
13C12-2,3,7,8-TCDF	1	0.793	0.655-0.886		76.2	24 - 169 %	
13C12-2,3,7,8-TCDD	1	0.779	0.655-0.886		74.0	25 - 164 %	
13C12-1,2,3,7,8-PeCDF	1	1.604	1.318-1.783		66.6	24 - 185 %	
13C12-2,3,4,7,8-PeCDF	1	1.599	1.318-1.783		69.9	21 - 178 %	
13C12-1,2,3,7,8-PeCDD	1	1.623	1.318-1.783		69.5	25 - 181 %	
13C12-1,2,3,4,7,8-HxCDF	1	0.523	0.434-0.587		74.0	26 - 152 %	
13C12-1,2,3,6,7,8-HxCDF	1	0.503	0.434-0.587		75.3	26 - 123 %	
13C12-2,3,4,6,7,8-HxCDF	1	0.531	0.434-0.587		76.2	28 - 136 %	
13C12-1,2,3,7,8,9-HxCDF	1	0.544	0.434-0.587		66.4	29 - 147 %	
13C12-1,2,3,4,7,8-HxCDD	1	1.288	1.054-1.426		81.2	32 - 141 %	
13C12-1,2,3,6,7,8-HxCDD	1	1.290	1.054-1.426		80.4	28 - 130 %	
13C12-1,2,3,4,6,7,8-HpCDF	1	0.463	0.374-0.506		68.7	28 - 143 %	
13C12-1,2,3,4,7,8,9-HpCDF	1	0.453	0.374-0.506		72.2	26 - 138 %	
13C12-1,2,3,4,6,7,8-HpCDD	1	1.076	0.893-1.208		83.7	23 - 140 %	
13C12-OCDD	1	0.901	0.757-1.024		74.6	17 - 157 %	
37C14-2,3,7,8-TCDD	1	328.000			88.1	35 - 197 %	

* Values outside of QC limits

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

Dataset: C:\MassLynx\Dioxin.pro\170522D1.qld
 Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time
 Printed: Tuesday, May 23, 2017 13:48:46 Pacific Daylight Time

Method: C:\MassLynx\Dioxin.pro\MethDB\IDioxin170518.mdb 18 May 2017 15:01:42
Calibration: C:\MassLynx\Dioxin.pro\CurveDB\170518\CIH.cdb 19 May 2017 13:57:26

ID: BFE0233-BLK1, **Name:** 17052204, **Date:** 22-May-2017, **Time:** 12:05:50, **Conditions:** AUTOSPEC01, **User:** PK

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
2378-TCDF	26.003	1.001	3.451e2	5.712e2	1.018	0.604	0.770	1033	1149	7.16e3	8.40e3	6.9	YES	YES	bb	dd	0.027
12378-PeCDF	30.157	1.001	6.838e2	7.515e2	0.977	0.910	1.550	856	1500	1.06e4	7.80e3	12.4	YES	YES	bb	MM	0.050
23478-PeCDF					1.019		1.550	856	1500								
123478-HxCDF	35.144	1.000	4.947e2	5.385e2	1.150	0.919	1.240	1157	816	8.78e3	9.52e3	7.6	YES	YES	bd	bb	0.042
234678-HxCDF	36.251	1.001	3.057e2	3.396e2	1.188	0.900	1.240	1157	816	6.31e3	6.36e3	5.4	YES	YES	bb	bb	0.026
123678-HxCDF	35.308	1.001	3.852e2	3.229e2	1.100	1.193	1.240	1157	816	6.08e3	6.60e3	5.3	YES	NO	db	bb	0.026
123789-HxCDF	37.402	1.001	7.611e2	4.042e2	1.116	1.883	1.240	1157	816	8.87e3	8.76e3	7.7	YES	YES	MM	bb	0.071
1234678-HpCDF	39.463	1.001	6.270e2	6.254e2	1.238	1.003	1.050	1260	1283	9.90e3	7.90e3	7.9	YES	NO	dd	bb	0.060
1234789-HpCDF	42.159	1.000	3.455e2	4.340e2	1.257	0.796	1.050	1260	1283	5.38e3	7.14e3	4.3	YES	YES	bd	bb	0.052
OCDF	47.411	1.006	8.482e2	1.032e3	1.321	0.822	0.890	681	1212	8.37e3	1.23e4	12.3	YES	NO	MM	MM	0.150
2378-TCDD	26.631	1.000	3.639e2	1.798e3	1.244	0.202	0.770	1039	710	4.99e3	2.11e4	4.8	YES	YES	bd	bd	0.104
12378-PeCDD	31.735	1.000	2.214e2	1.651e2	1.058	1.340	1.550	1174	639	4.55e3	2.65e3	3.9	YES	NO	bb	bb	0.024
123478-HxCDD	36.382	1.001	2.837e2	3.139e2	1.119	0.904	1.240	1242	1397	5.35e3	5.45e3	4.3	YES	YES	dd	dd	0.034
123678-HxCDD	36.503	1.000	3.601e2	4.190e2	1.040	0.859	1.240	1242	1397	4.87e3	6.58e3	3.9	YES	YES	dd	db	0.043
123789-HxCDD					0.981		1.240	1242	1397								
1234678-HpCDD	41.271	1.000	8.433e2	8.467e2	1.132	0.996	1.050	863	674	1.37e4	1.11e4	15.9	YES	NO	bb	bb	0.112
OCDD	47.142	1.000	4.391e3	5.226e3	1.117	0.840	0.890	761	486	4.38e4	5.20e4	57.5	YES	NO	bb	bb	0.909
13C-2378-TCDF	25.989	1.007	1.463e6	1.846e6	1.685	0.793	0.770	6857	3354	2.08e7	2.62e7	3029.8	YES	NO	bb	bb	76.160
13C-12378-PeCDF	30.124	1.167	1.806e6	1.126e6	1.706	1.604	1.550	5345	3042	2.45e7	1.54e7	4588.5	YES	NO	bd	bd	66.638
13C-23478-PeCDF	31.472	1.219	1.811e6	1.132e6	1.632	1.599	1.550	5345	3042	2.63e7	1.64e7	4918.6	YES	NO	bb	bb	69.918
13C-123478-HxCDF	35.133	0.952	7.347e5	1.406e6	1.682	0.523	0.510	3787	4592	1.08e7	2.07e7	2847.4	YES	NO	bd	bd	73.971
13C-123678-HxCDF	35.286	0.956	8.432e5	1.675e6	1.945	0.503	0.510	3787	4592	1.17e7	2.20e7	3084.2	YES	NO	db	db	75.254
13C-234678-HxCDF	36.229	0.981	7.193e5	1.354e6	1.582	0.531	0.510	3787	4592	1.01e7	1.91e7	2674.1	YES	NO	bb	bb	76.159
13C-123789-HxCDF	37.369	1.012	5.195e5	9.553e5	1.291	0.544	0.510	3787	4592	6.89e6	1.31e7	1818.1	YES	NO	bb	bb	66.425
13C-1234678-HpCDF	39.440	1.068	5.337e5	1.153e6	1.427	0.463	0.440	2360	2913	7.33e6	1.60e7	3105.6	YES	NO	bd	bb	68.717
13C-1234789-HpCDF	42.137	1.141	3.704e5	8.178e5	0.957	0.453	0.440	2360	2913	4.40e6	9.66e6	1862.8	YES	NO	bb	bb	72.178
13C-1234-TCDD	25.809	0.000	1.135e6	1.444e6	1.000	0.786	0.770	2661	1804	1.68e7	2.14e7	6320.3	YES	NO	bb	bb	100.000
13C-2378-TCDD	26.631	1.032	7.289e5	9.363e5	0.873	0.779	0.770	2661	1804	1.00e7	1.29e7	3757.7	YES	NO	bb	bb	73.977
13C-12378-PeCDD	31.724	1.229	9.544e5	5.879e5	0.860	1.623	1.550	1788	1198	1.32e7	8.21e6	7390.8	YES	NO	bb	bb	69.525
13C-123478-HxCDD	36.361	0.985	8.757e5	6.802e5	1.114	1.288	1.240	3451	2687	1.28e7	9.91e6	3711.3	YES	NO	bd	bd	81.216
13C-123678-HxCDD	36.492	0.988	9.804e5	7.599e5	1.258	1.290	1.240	3451	2687	1.32e7	1.03e7	3834.6	YES	NO	db	db	80.388
13C-1234678-HpCDD	41.249	1.117	6.896e5	6.409e5	0.924	1.076	1.050	2495	3061	8.49e6	7.89e6	3404.0	YES	NO	bd	bd	83.739
13C-OCDD	47.124	1.276	8.976e5	9.963e5	0.738	0.901	0.890	2669	2940	8.67e6	9.63e6	3248.5	YES	NO	bb	bb	149.110
13C-123789-HxCDD	36.919	0.000	9.651e5	7.552e5	1.000	1.278	1.240	3451	2687	1.31e7	1.02e7	3786.5	YES	NO	bb	bb	100.000
Total-tetrafurans			5.343e2		1.018			1033		1.10e4							0.047

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

Dataset: C:\MassLynx\Dioxin.pro\170522D1.qld
 Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time
 Printed: Tuesday, May 23, 2017 13:48:46 Pacific Daylight Time

ID: BFE0233-BLK1, Name: 17052204, Date: 22-May-2017, Time: 12:05:50, Conditions: AUTOSPEC01, User: PK

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg	
Total-penta1			0.000e0					550		0.00e0								
Total-pentafurans			6.838e2		0.998			856		1.06e4								0.050
Total-hexafurans			1.947e3		1.138			1157		3.00e4								0.165
Total-heptafurans			1.170e3		1.248			1260		2.19e4								0.131
Total-Furans			5.268e3		1.138			1033		8.47e4								0.548
Total-tetradioxins			5.499e2		1.244			1039		8.17e3								0.131
Total-pentadioxins			2.214e2		1.058			1174		4.55e3								0.024
Total-hexadioxins			6.438e2		1.047			1242		1.02e4								0.077
Total-heptadioxins			2.665e3		1.132			863		3.61e4								0.361
Total-Dioxins			8.471e3		1.099			1039		1.03e5								1.503
Total-TEQ	26.646	1.032	1.374e4					1039		1.88e5								2.051
37CL-2378-TCDD			9.282e5		1.021			1215		1.33e7		10990.7	YES		bb			35.239
FUNCTION1 PFK			1.965e6					879536		1.35e7								
FUNCTION2 PFK			0.000e0					162130		0.00e0								
FUNCTION3 PFK			6.418e6					770006		1.07e8								0.000
FUNCTION4 PFK			4.778e6					439719		4.60e7								
FUNCTION5 PFK			4.594e5					308231		1.51e7								
FUNCTION1 HXCD...			0.000e0					499		0.00e0								
FUNCTION1 HPCD...			2.247e2					426		2.12e3								0.000
FUNCTION2 HPCD...			7.764e1					782		2.56e3								0.000
FUNCTION3 OCDPE			0.000e0					402		0.00e0								
FUNCTION4 NCDPE			0.000e0					622		0.00e0								
FUNCTION5 DCDPE			0.000e0					431		0.00e0								

Dataset: C:\MassLynx\Dioxin.pro\170522D1.qld
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Method: C:\MassLynx\Dioxin.pro\MethDB\Dioxin170518.mdb 18 May 2017 15:01:42
 Calibration: C:\MassLynx\Dioxin.pro\CurveDB\170518\CIH.cdb 19 May 2017 13:57:26

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TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	26.00	3.451e2	5.712e2	1.018	0.60	0.77	6.9	YES	YES	bb	dd	0.027
2	Total-tetrafurans	25.82	1.892e2	4.648e2	1.018	0.41	0.77	3.7	YES	YES	bb	MM	0.019

PP

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

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDF	30.16	6.838e2	7.515e2	0.977	0.91	1.55	12.4	YES	YES	bb	MM	0.050

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123789-HxCDF	37.40	7.611e2	4.042e2	1.116	1.88	1.24	7.7	YES	YES	MM	bb	0.071
2	234678-HxCDF	36.25	3.057e2	3.396e2	1.188	0.90	1.24	5.4	YES	YES	bb	bb	0.026
3	123678-HxCDF	35.31	3.852e2	3.229e2	1.100	1.19	1.24	5.3	YES	NO	db	bb	0.026
4	123478-HxCDF	35.14	4.947e2	5.385e2	1.150	0.92	1.24	7.6	YES	YES	bd	bb	0.042

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDF	39.46	6.270e2	6.254e2	1.238	1.00	1.05	7.9	YES	NO	dd	bb	0.060
2	1234789-HpCDF	42.16	3.455e2	4.340e2	1.257	0.80	1.05	4.3	YES	YES	bd	bb	0.052
3	Total-heptafurans	40.25	1.977e2	1.381e2	1.248	1.43	1.05	5.2	YES	YES	bd	bb	0.019

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

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	26.00	3.451e2	5.712e2	1.018	0.60	0.77	6.9	YES	YES	bb	dd	0.027
2	Total-tetrafurans	25.82	1.892e2	4.648e2	1.018	0.41	0.77	3.7	YES	YES	bb	MM	0.019
3	Total-Furans	21.60	8.529e1	1.277e2	1.138	0.67	0.77	2.7	NO	NO	bb	bd	0.006
4	12378-PeCDF	30.16	6.838e2	7.515e2	0.977	0.91	1.55	12.4	YES	YES	bb	MM	0.050
5	123789-HxCDF	37.40	7.611e2	4.042e2	1.116	1.88	1.24	7.7	YES	YES	MM	bb	0.071
6	234678-HxCDF	36.25	3.057e2	3.396e2	1.188	0.90	1.24	5.4	YES	YES	bb	bb	0.026
7	123678-HxCDF	35.31	3.852e2	3.229e2	1.100	1.19	1.24	5.3	YES	NO	db	bb	0.026
8	123478-HxCDF	35.14	4.947e2	5.385e2	1.150	0.92	1.24	7.6	YES	YES	bd	bb	0.042
9	1234678-HpCDF	39.46	6.270e2	6.254e2	1.238	1.00	1.05	7.9	YES	NO	dd	bb	0.060
10	1234789-HpCDF	42.16	3.455e2	4.340e2	1.257	0.80	1.05	4.3	YES	YES	bd	bb	0.052
11	Total-heptafurans	40.25	1.977e2	1.381e2	1.248	1.43	1.05	5.2	YES	YES	bd	bb	0.019
12	OCDF	47.41	8.482e2	1.032e3	1.321	0.82	0.89	12.3	YES	NO	MM	MM	0.150

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradiioxins	26.78	1.860e2	3.759e2	1.244	0.49	0.77	3.1	YES	YES	db	dd	0.027
2	2378-TCDD	26.63	3.639e2	1.798e3	1.244	0.20	0.77	4.8	YES	YES	bd	bd	0.104

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PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.74	2.214e2	1.651e2	1.058	1.34	1.55	3.9	YES	NO	bb	bb	0.024

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123478-HxCDD	36.38	2.837e2	3.139e2	1.119	0.90	1.24	4.3	YES	YES	dd	dd	0.034
2	123678-HxCDD	36.50	3.601e2	4.190e2	1.040	0.86	1.24	3.9	YES	YES	dd	db	0.043

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	41.27	8.433e2	8.467e2	1.132	1.00	1.05	15.9	YES	NO	bb	bb	0.112
2	Total-heptadioxins	40.00	1.821e3	1.922e3	1.132	0.95	1.05	26.0	YES	NO	bb	MM	0.249

Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-tetradoxins	26.78	1.860e2	3.759e2	1.244	0.49	0.77	3.1	YES	YES	db	dd	0.027
2	2378-TCDD	26.63	3.639e2	1.798e3	1.244	0.20	0.77	4.8	YES	YES	bd	bd	0.104
3	123478-HxCDD	36.38	2.837e2	3.139e2	1.119	0.90	1.24	4.3	YES	YES	dd	dd	0.034
4	12378-PeCDD	31.74	2.214e2	1.651e2	1.058	1.34	1.55	3.9	YES	NO	bb	bb	0.024
5	123678-HxCDD	36.50	3.601e2	4.190e2	1.040	0.86	1.24	3.9	YES	YES	dd	db	0.043
6	1234678-HpCDD	41.27	8.433e2	8.467e2	1.132	1.00	1.05	15.9	YES	NO	bb	bb	0.112
7	Total-heptadioxins	40.00	1.821e3	1.922e3	1.132	0.95	1.05	26.0	YES	NO	bb	MM	0.249
8	OCDD	47.14	4.391e3	5.226e3	1.117	0.84	0.89	57.5	YES	NO	bb	bb	0.909

TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	26.00	3.451e2	5.712e2	1.018	0.60	0.77	6.9	YES	YES	bb	dd	0.027
2	Total-tetrafurans	25.82	1.892e2	4.648e2	1.018	0.41	0.77	3.7	YES	YES	bb	MM	0.019
3	Total-Furans	21.60	8.529e1	1.277e2	1.138	0.67	0.77	2.7	NO	NO	bb	bd	0.006
4	12378-PeCDF	30.16	6.838e2	7.515e2	0.977	0.91	1.55	12.4	YES	YES	bb	MM	0.050
5	123789-HxCDF	37.40	7.611e2	4.042e2	1.116	1.88	1.24	7.7	YES	YES	MM	bb	0.071
6	234678-HxCDF	36.25	3.057e2	3.396e2	1.188	0.90	1.24	5.4	YES	YES	bb	bb	0.026
7	123678-HxCDF	35.31	3.852e2	3.229e2	1.100	1.19	1.24	5.3	YES	NO	db	bb	0.026
8	123478-HxCDF	35.14	4.947e2	5.385e2	1.150	0.92	1.24	7.6	YES	YES	bd	bb	0.042
9	1234678-HpCDF	39.46	6.270e2	6.254e2	1.238	1.00	1.05	7.9	YES	NO	dd	bb	0.060
10	1234789-HpCDF	42.16	3.455e2	4.340e2	1.257	0.80	1.05	4.3	YES	YES	bd	bb	0.052
11	Total-heptafurans	40.25	1.977e2	1.381e2	1.248	1.43	1.05	5.2	YES	YES	bd	bb	0.019
12	OCDF	47.41	8.482e2	1.032e3	1.321	0.82	0.89	12.3	YES	NO	MM	MM	0.150
13	Total-tetradoxins	26.78	1.860e2	3.759e2	1.244	0.49	0.77	3.1	YES	YES	db	dd	0.027
14	2378-TCDD	26.63	3.639e2	1.798e3	1.244	0.20	0.77	4.8	YES	YES	bd	bd	0.104
15	123478-HxCDD	36.38	2.837e2	3.139e2	1.119	0.90	1.24	4.3	YES	YES	dd	dd	0.034
16	12378-PeCDD	31.74	2.214e2	1.651e2	1.058	1.34	1.55	3.9	YES	NO	bb	bb	0.024
17	123678-HxCDD	36.50	3.601e2	4.190e2	1.040	0.86	1.24	3.9	YES	YES	dd	db	0.043
18	1234678-HpCDD	41.27	8.433e2	8.467e2	1.132	1.00	1.05	15.9	YES	NO	bb	bb	0.112
19	Total-heptadioxins	40.00	1.821e3	1.922e3	1.132	0.95	1.05	26.0	YES	NO	bb	MM	0.249
20	OCDD	47.14	4.391e3	5.226e3	1.117	0.84	0.89	57.5	YES	NO	bb	bb	0.909

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PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	26.57	9.250e5					6.3	YES		bb		
2	FUNCTION1 PFK	26.27	7.033e5					3.7	YES		bb		
3	FUNCTION1 PFK	23.87	2.077e5					3.2	YES		bb		
4	FUNCTION1 PFK	22.34	1.291e5					2.1	NO		bb		

PFK2

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

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	34.85	8.422e4					2.6	NO		bb		0.000
2	FUNCTION3 PFK	34.73	2.749e4					1.2	NO		bb		0.000
3	FUNCTION3 PFK	34.49	5.791e4					1.5	NO		bb		0.000
4	FUNCTION3 PFK	34.20	8.498e4					2.3	NO		bb		0.000
5	FUNCTION3 PFK	34.09	6.052e4					1.5	NO		bb		0.000
6	FUNCTION3 PFK	37.74	7.737e4					2.7	NO		bd		0.000
7	FUNCTION3 PFK	37.51	9.612e4					2.7	NO		bb		0.000
8	FUNCTION3 PFK	37.27	3.255e5					3.5	YES		bb		0.000
9	FUNCTION3 PFK	37.04	1.829e5					3.3	YES		db		0.000
10	FUNCTION3 PFK	36.97	2.338e4					1.2	NO		bd		0.000
11	FUNCTION3 PFK	36.92	2.065e4					1.2	NO		bb		0.000
12	FUNCTION3 PFK	36.63	3.036e4					1.3	NO		bb		0.000
13	FUNCTION3 PFK	36.42	5.439e4					1.9	NO		bb		0.000
14	FUNCTION3 PFK	36.29	1.413e5					3.0	YES		bb		0.000
15	FUNCTION3 PFK	36.04	9.199e4					2.3	NO		bb		0.000
16	FUNCTION3 PFK	35.51	8.031e4					1.9	NO		db		0.000
17	FUNCTION3 PFK	35.42	7.639e4					2.6	NO		dd		0.000
18	FUNCTION3 PFK	35.37	4.311e4					1.9	NO		bd		0.000
19	FUNCTION3 PFK	35.30	6.952e4					1.9	NO		bb		0.000
20	FUNCTION3 PFK	35.18	5.218e4					1.9	NO		bb		0.000
21	FUNCTION3 PFK	35.07	3.138e4					1.1	NO		bb		0.000
22	FUNCTION3 PFK	38.40	4.517e5					10.9	YES		db		0.000
23	FUNCTION3 PFK	38.38	2.609e5					10.8	YES		dd		0.000
24	FUNCTION3 PFK	38.32	6.771e5					12.3	YES		dd		0.000
25	FUNCTION3 PFK	38.27	1.977e5					12.0	YES		dd		0.000
26	FUNCTION3 PFK	38.21	1.076e6					14.5	YES		dd		0.000
27	FUNCTION3 PFK	38.13	4.074e5					10.2	YES		dd		0.000
28	FUNCTION3 PFK	38.03	1.042e6					13.5	YES		bd		0.000
29	FUNCTION3 PFK	37.88	1.207e5					3.8	YES		db		0.000
30	FUNCTION3 PFK	37.82	4.729e5					6.8	YES		dd		0.000

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PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	39.79	2.227e5					6.7	YES		bb		
2	FUNCTION4 PFK	39.44	5.152e5					11.9	YES		bb		
3	FUNCTION4 PFK	39.09	3.102e5					8.5	YES		db		
4	FUNCTION4 PFK	39.01	2.286e5					8.6	YES		bd		
5	FUNCTION4 PFK	38.84	6.488e5					13.0	YES		bb		
6	FUNCTION4 PFK	38.68	6.601e5					14.4	YES		bb		
7	FUNCTION4 PFK	44.09	1.717e5					4.9	YES		bb		
8	FUNCTION4 PFK	43.58	2.663e5					5.6	YES		db		
9	FUNCTION4 PFK	43.42	4.431e5					7.9	YES		bd		
10	FUNCTION4 PFK	43.07	5.929e5					8.3	YES		bb		
11	FUNCTION4 PFK	41.69	1.860e4					1.5	NO		bb		
12	FUNCTION4 PFK	40.84	2.390e5					4.8	YES		bb		
13	FUNCTION4 PFK	40.32	9.352e4					3.7	YES		bb		
14	FUNCTION4 PFK	40.02	3.674e5					4.8	YES		bb		

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PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	45.17	2.063e3					0.5	NO		bb		
2	FUNCTION5 PFK	45.07	2.269e4					1.3	NO		bb		
3	FUNCTION5 PFK	44.96	2.700e4					2.1	NO		db		
4	FUNCTION5 PFK	44.92	7.595e3					1.0	NO		bd		
5	FUNCTION5 PFK	44.72	2.436e4					2.3	NO		db		
6	FUNCTION5 PFK	44.68	1.887e4					1.7	NO		bd		
7	FUNCTION5 PFK	44.57	8.138e3					1.1	NO		bb		
8	FUNCTION5 PFK	47.13	1.518e4					1.2	NO		bb		
9	FUNCTION5 PFK	46.98	7.457e3					1.2	NO		db		
10	FUNCTION5 PFK	46.94	1.228e4					1.5	NO		bd		
11	FUNCTION5 PFK	46.77	3.572e3					0.6	NO		bb		
12	FUNCTION5 PFK	46.68	1.195e3					0.4	NO		bb		
13	FUNCTION5 PFK	46.65	2.768e3					0.6	NO		bb		
14	FUNCTION5 PFK	46.38	9.490e3					1.6	NO		bb		
15	FUNCTION5 PFK	46.33	5.470e3					0.9	NO		bb		
16	FUNCTION5 PFK	46.14	1.591e4					1.3	NO		db		
17	FUNCTION5 PFK	46.07	1.569e4					1.5	NO		bd		
18	FUNCTION5 PFK	45.74	9.320e2					0.3	NO		bb		
19	FUNCTION5 PFK	45.56	1.861e4					2.2	NO		bb		
20	FUNCTION5 PFK	45.53	5.624e3					1.0	NO		bb		
21	FUNCTION5 PFK	45.37	2.530e4					1.9	NO		db		
22	FUNCTION5 PFK	45.33	1.810e4					2.0	NO		dd		
23	FUNCTION5 PFK	45.29	1.948e4					2.0	NO		bd		
24	FUNCTION5 PFK	49.06	1.790e4					1.3	NO		bb		
25	FUNCTION5 PFK	49.00	1.030e3					0.4	NO		bb		
26	FUNCTION5 PFK	48.60	1.759e4					1.7	NO		bb		
27	FUNCTION5 PFK	48.57	1.052e3					0.4	NO		bb		
28	FUNCTION5 PFK	48.49	1.371e4					1.5	NO		bb		
29	FUNCTION5 PFK	48.39	4.310e3					0.8	NO		bb		
30	FUNCTION5 PFK	48.09	4.070e3					0.7	NO		bb		
31	FUNCTION5 PFK	47.90	1.640e4					0.9	NO		db		
32	FUNCTION5 PFK	47.82	9.966e3					1.3	NO		dd		
33	FUNCTION5 PFK	47.74	1.364e4					1.4	NO		bd		
34	FUNCTION5 PFK	47.70	6.128e3					1.1	NO		db		
35	FUNCTION5 PFK	47.66	1.407e4					1.6	NO		bd		
36	FUNCTION5 PFK	47.58	5.669e3					0.8	NO		bb		
37	FUNCTION5 PFK	47.46	1.566e4					1.1	NO		db		
38	FUNCTION5 PFK	47.38	1.128e4					1.4	NO		bd		
39	FUNCTION5 PFK	47.17	4.562e3					0.8	NO		bb		
40	FUNCTION5 PFK	49.46	1.111e4					1.0	NO		db		
41	FUNCTION5 PFK	49.43	3.453e3					0.7	NO		bd		

ETHERS1

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

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ID: BFE0233-BLK1, Name: 17052204, Date: 22-May-2017, Time: 12:05:50, Conditions: AUTOSPEC01, User: PK

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	26.36	7.732e1					2.1	NO		bb		0.000
2	FUNCTION1 HPCD...	21.76	1.474e2					2.9	NO		bb		0.000

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	32.86	7.764e1					3.3	YES		bb		0.000

ETHERS4

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

ETHERS5

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

ETHERS6

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

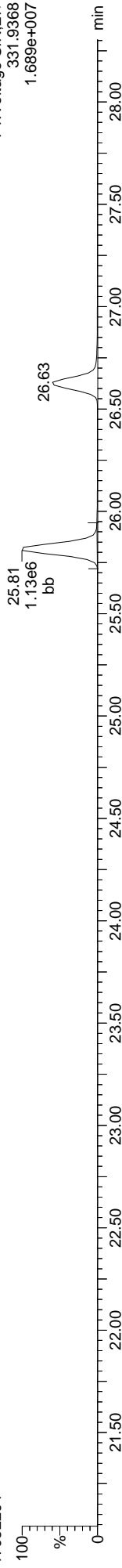
Quantify Sample Report MassLynx MassLynx V4.1 SCN909

Dataset: C:\MassLynx\Dioxin.pro\170522D1.qld
Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:48:46 Pacific Daylight Time

Method: C:\MassLynx\Dioxin.pro\MethDB\Dioxin170518.mdb 18 May 2017 15:01:42
Calibration: C:\MassLynx\Dioxin.pro\CurveDB\170518CIH.cdb 19 May 2017 13:57:26

ID: BFE0233-BLK1, Name: 17052204, Date: 22-May-2017, Time: 12:05:50, Conditions: AUTOSPEC01, User: PK

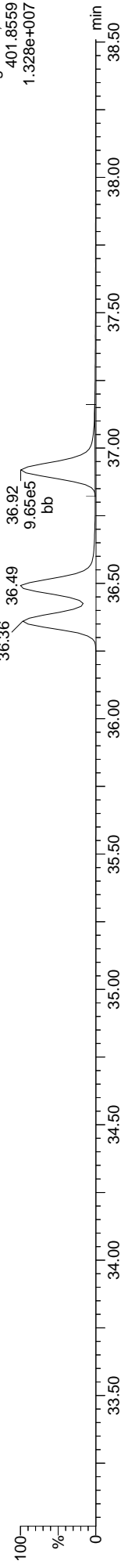
13C-1234-TCDD
17052204



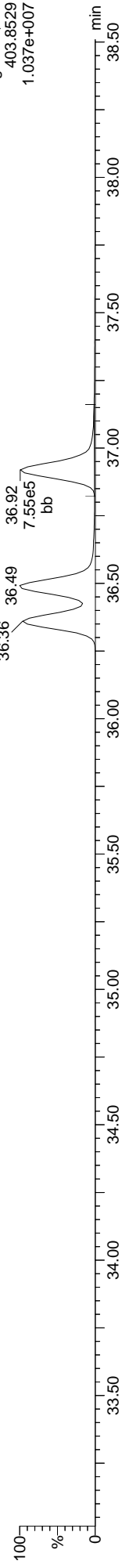
13C-1234-TCDD
17052204



13C-123789-HxCDD
17052204



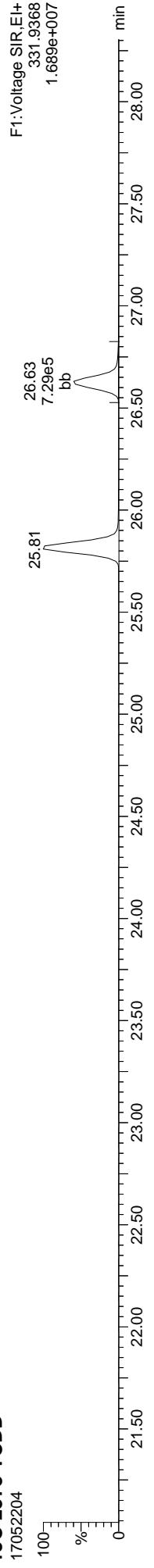
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17052204



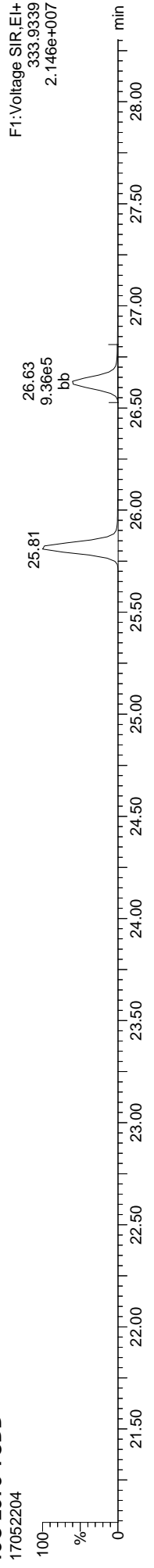
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Printed: Tuesday, May 23, 2017 13:48:46 Pacific Daylight Time

ID: BFE0233-BLK1, Name: 17052204, Date: 22-May-2017, Time: 12:05:50, Conditions: AUTOSPEC01, User: PK

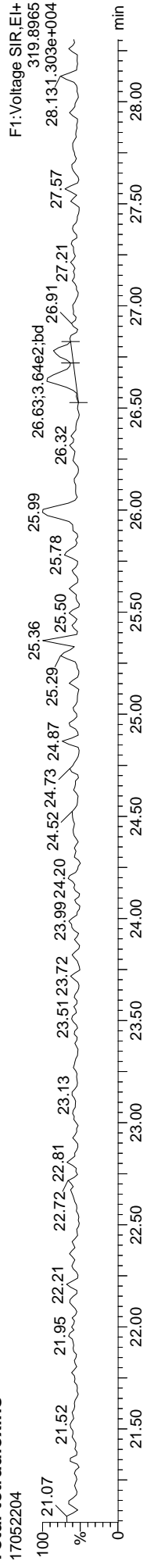
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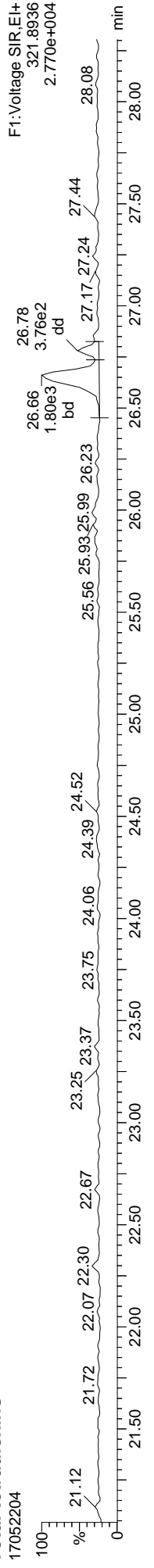
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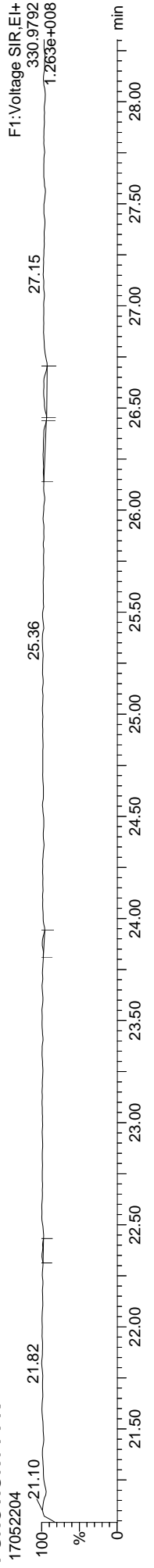
Total-tetradioxins



Total-tetradioxins



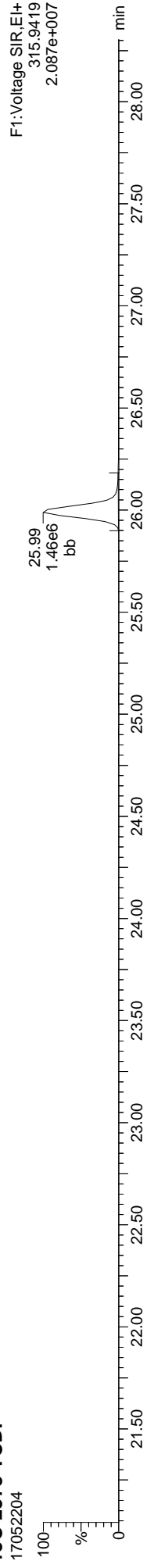
FUNCTION1 PFK



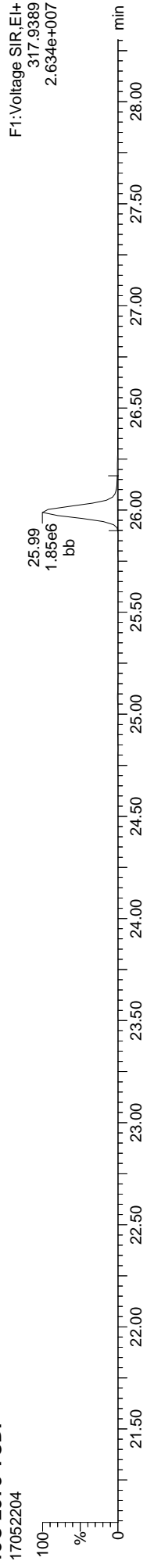
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Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:48:46 Pacific Daylight Time

ID: BFE0233-BLK1, Name: 17052204, Date: 22-May-2017, Time: 12:05:50, Conditions: AUTOSPEC01, User: PK

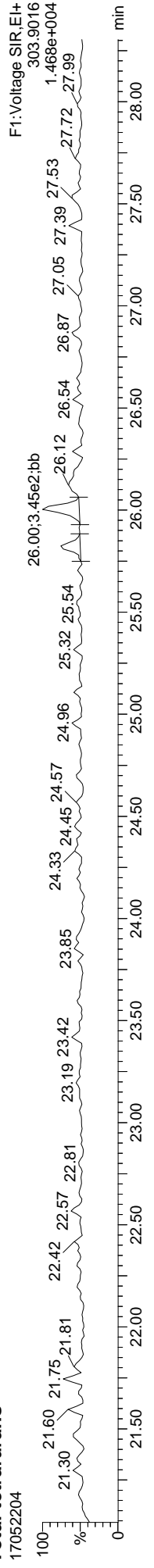
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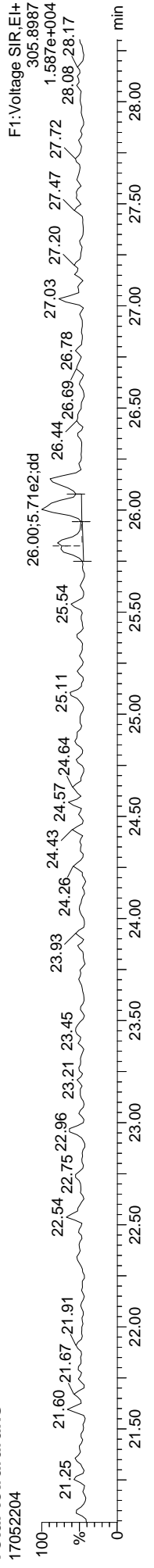
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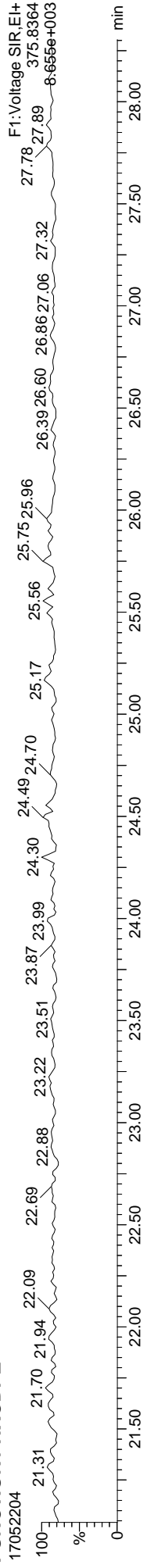
Total-tetrafurans



Total-tetrafurans



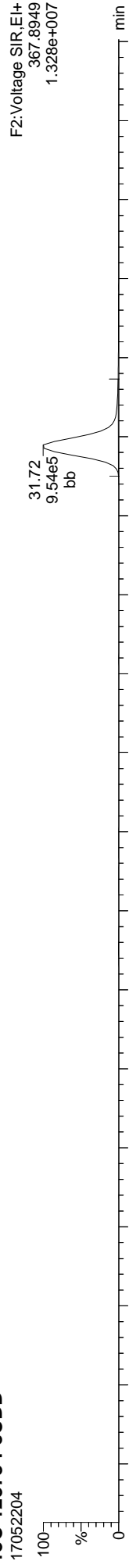
FUNCTION1 HXCDFE



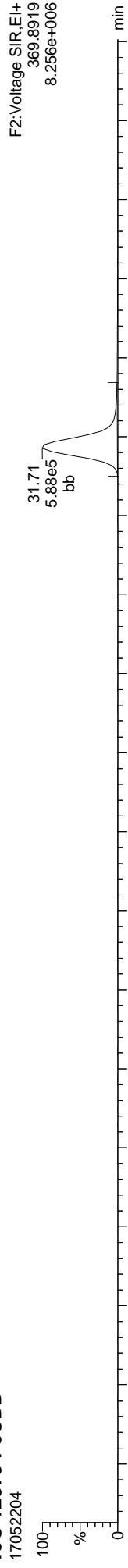
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Printed: Tuesday, May 23, 2017 13:48:46 Pacific Daylight Time

ID: BFE0233-BLK1, Name: 17052204, Date: 22-May-2017, Time: 12:05:50, Conditions: AUTOSPEC01, User: PK

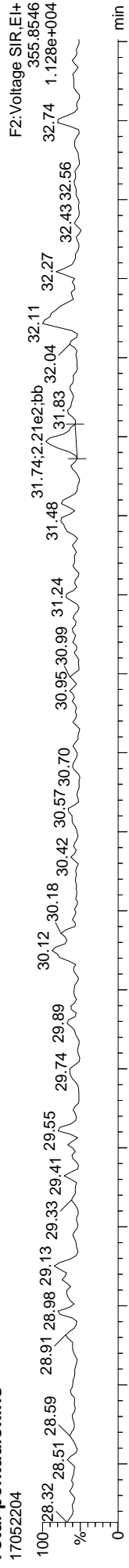
13C-12378-PeCDD



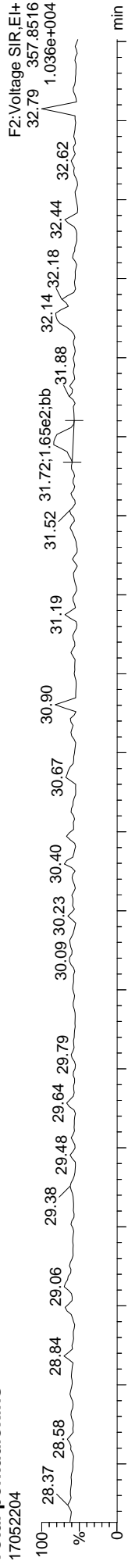
13C-12378-PeCDD



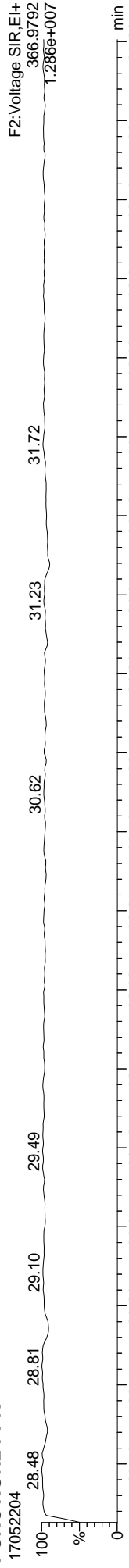
Total-pentadioxins



Total-pentadioxins



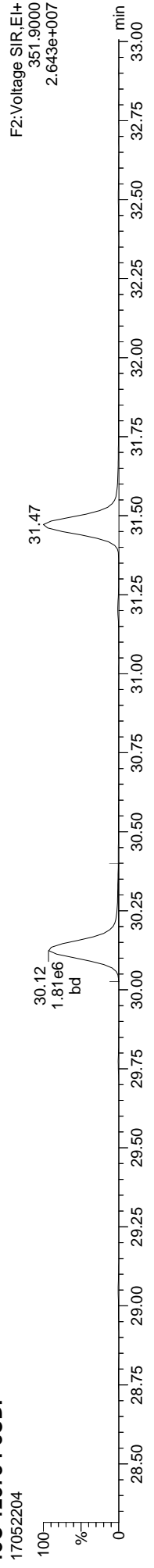
FUNCTION2 PFK



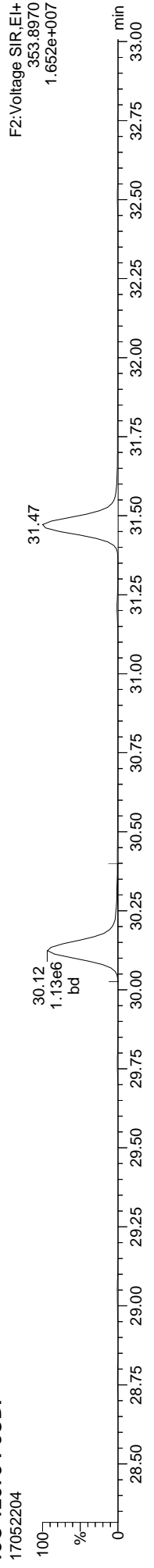
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Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:48:46 Pacific Daylight Time

ID: BFE0233-BLK1, Name: 17052204, Date: 22-May-2017, Time: 12:05:50, Conditions: AUTOSPEC01, User: PK

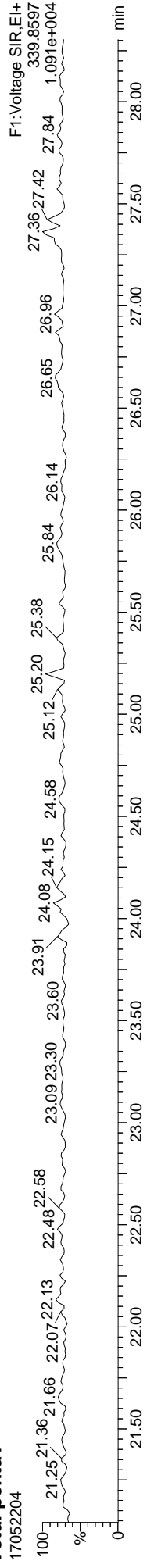
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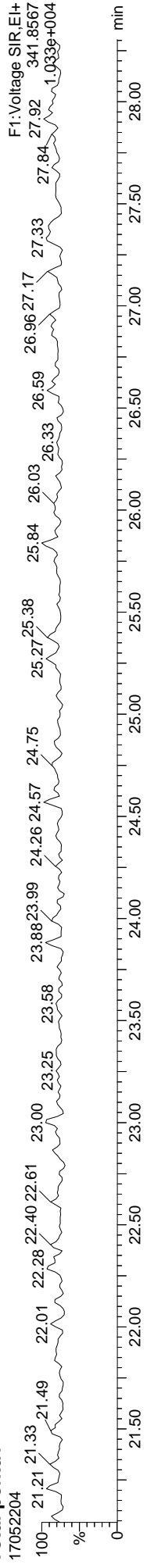
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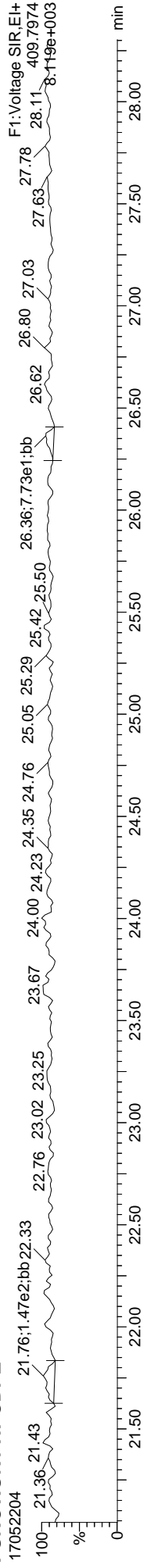
Total-penta1



Total-penta1



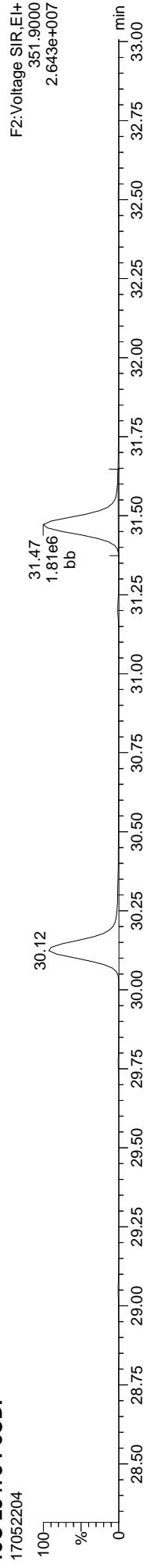
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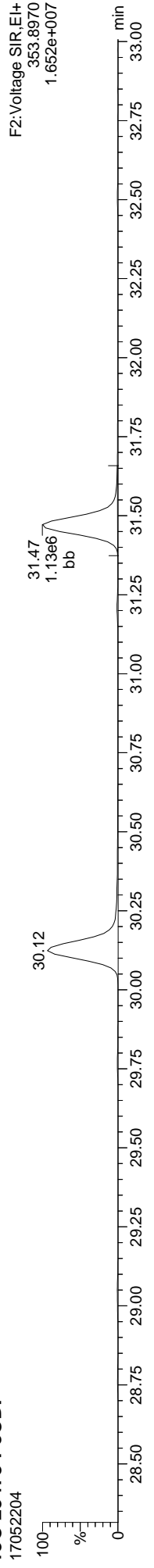
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ID: BFE0233-BLK1, Name: 17052204, Date: 22-May-2017, Time: 12:05:50, Conditions: AUTOSPEC01, User: PK

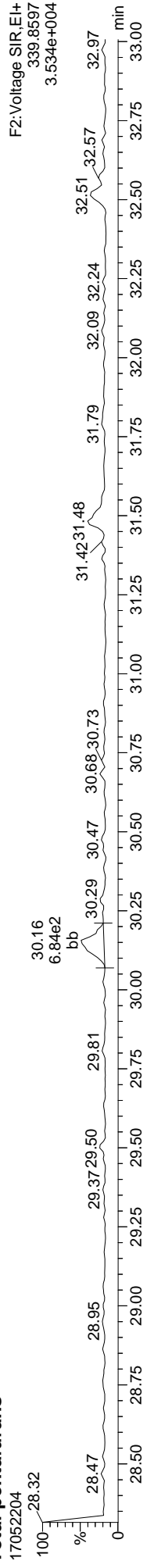
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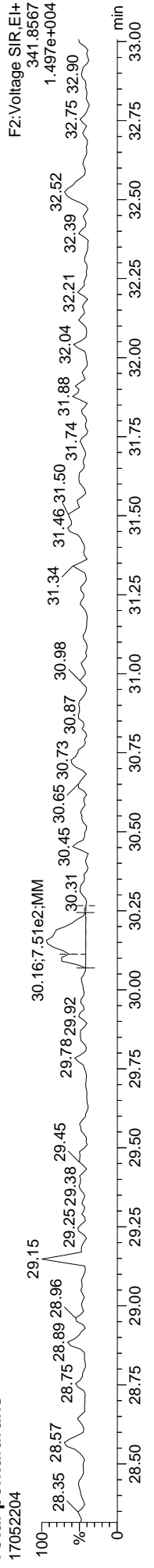
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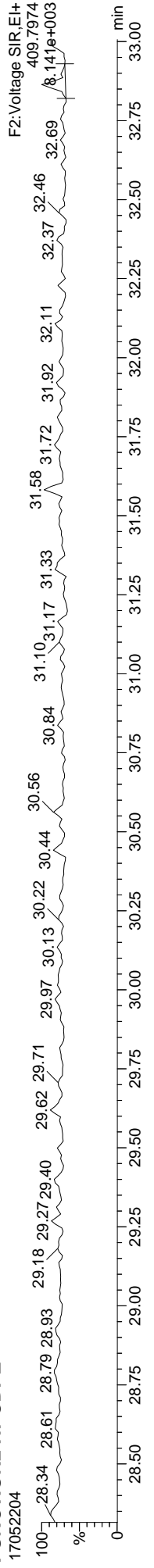
Total-pentafurans



Total-pentafurans



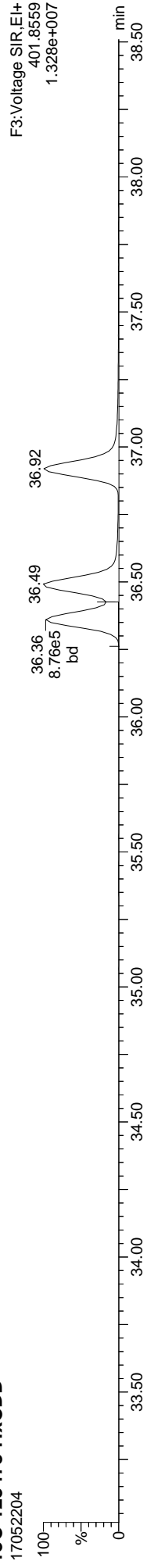
FUNCTION2 HPCDPE



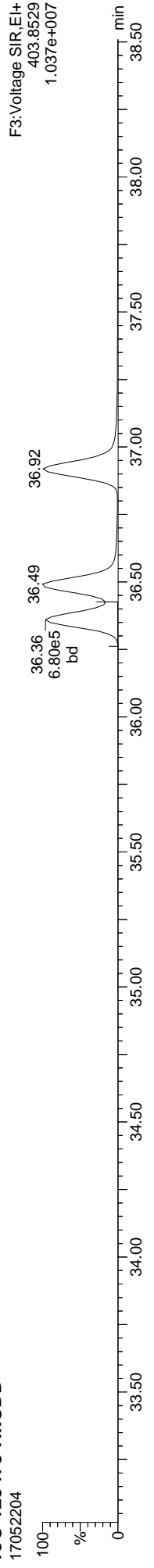
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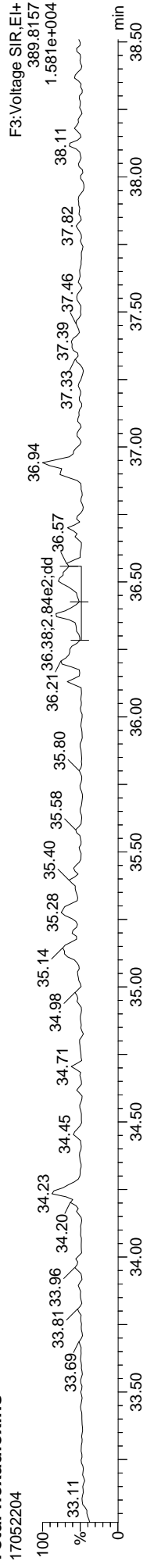
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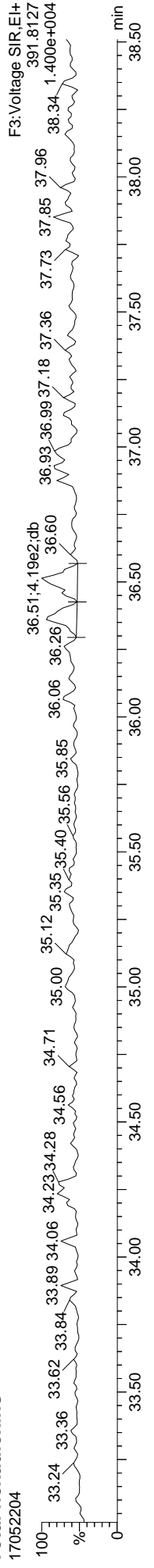
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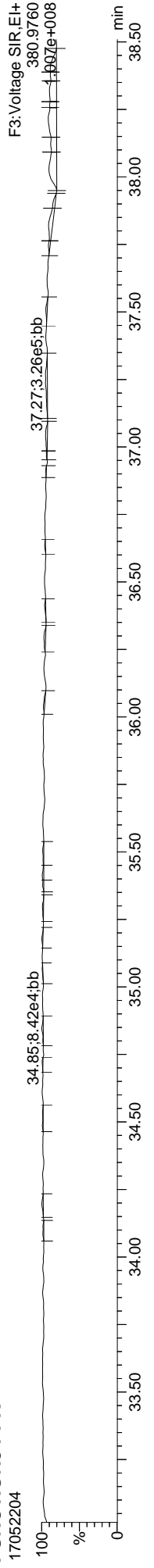
Total-hexadioxins



Total-hexadioxins



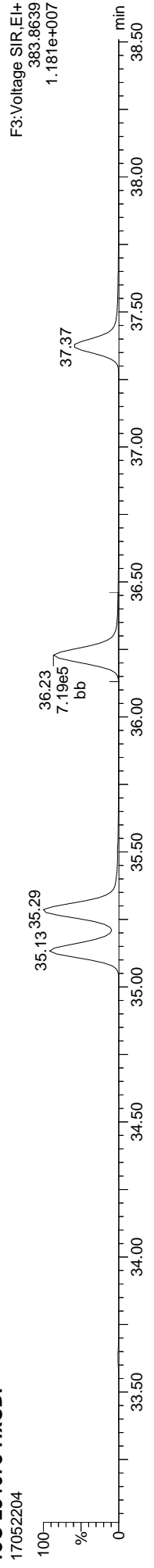
FUNCTION3 PFK



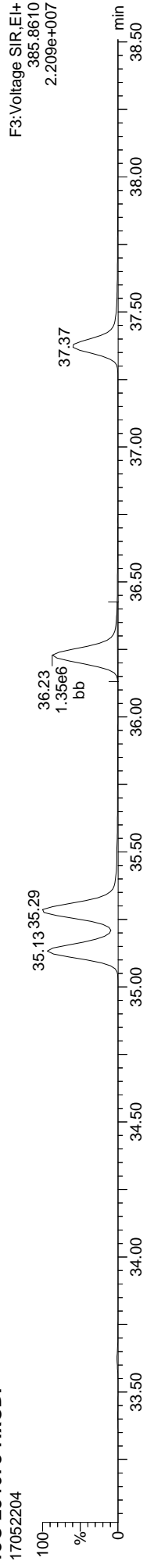
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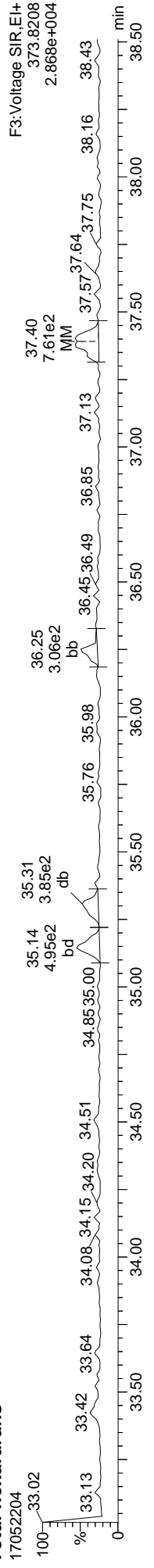
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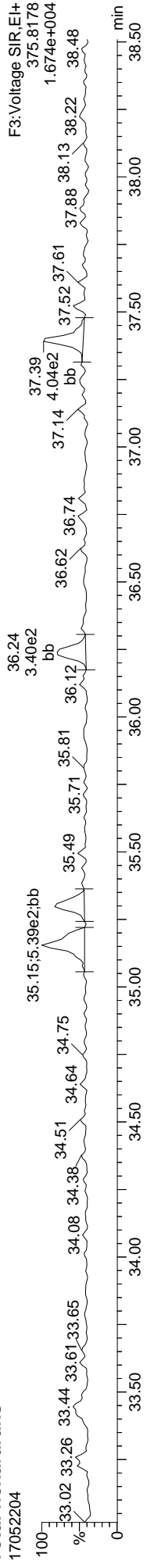
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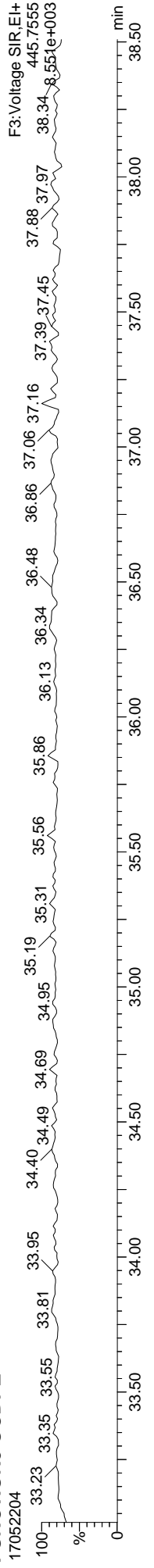
Total-hexafurans



Total-hexafurans



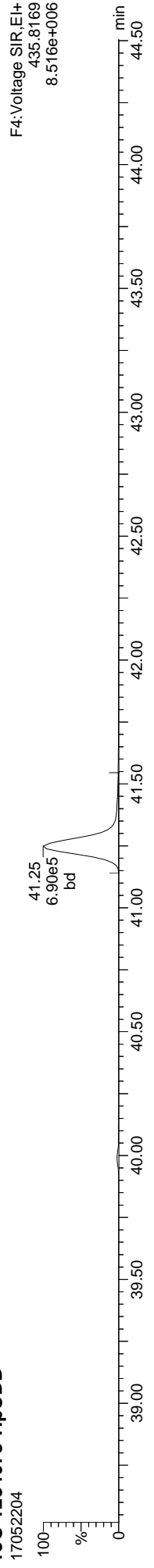
FUNCTION3 OCDPE



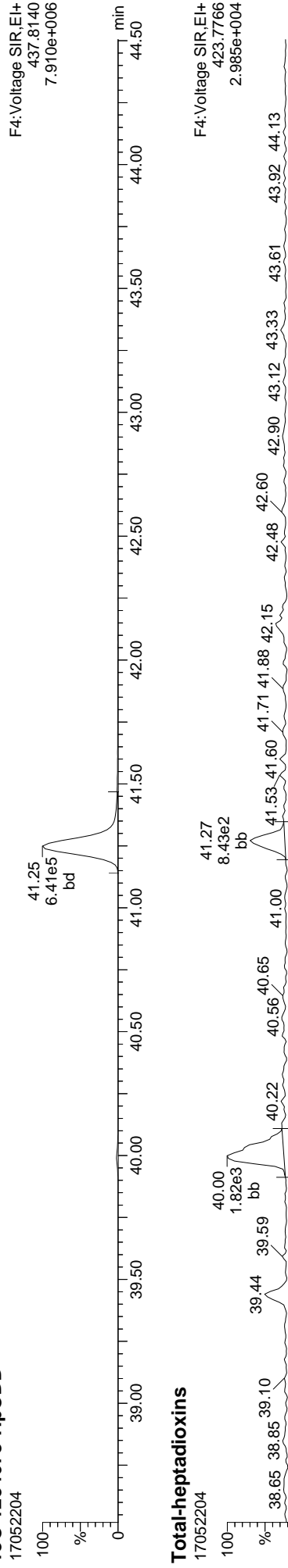
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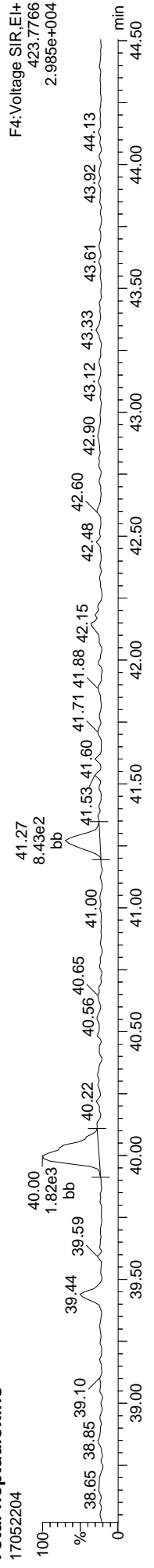
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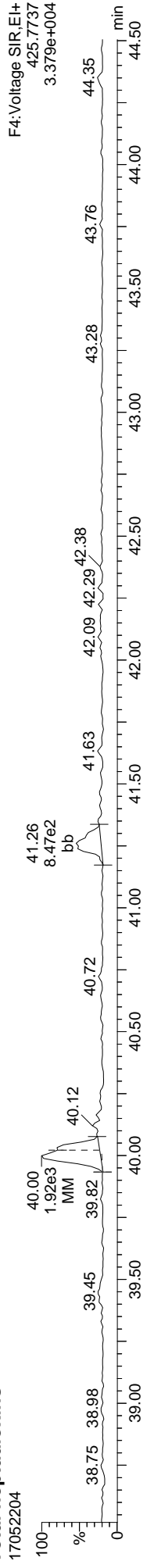
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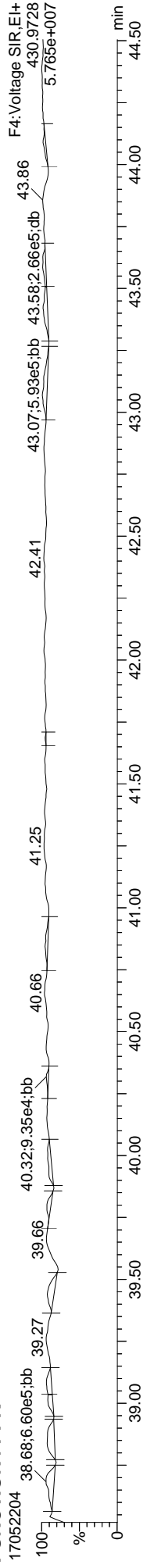
Total-heptadioxins



Total-heptadioxins



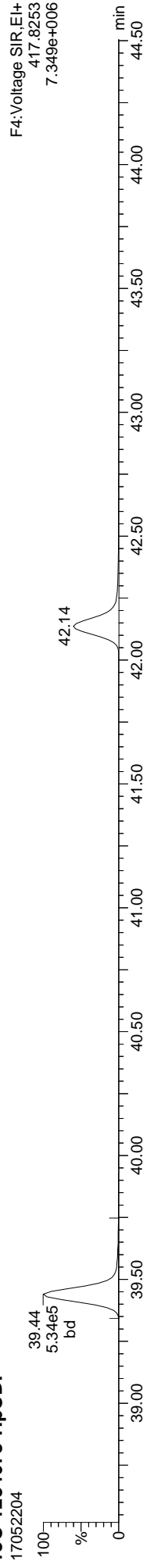
FUNCTION4 PFK



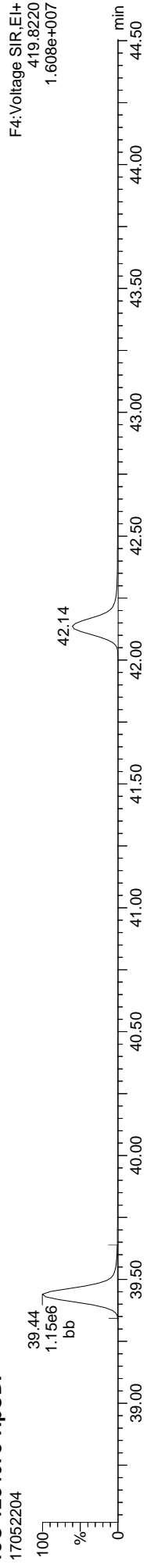
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
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Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time
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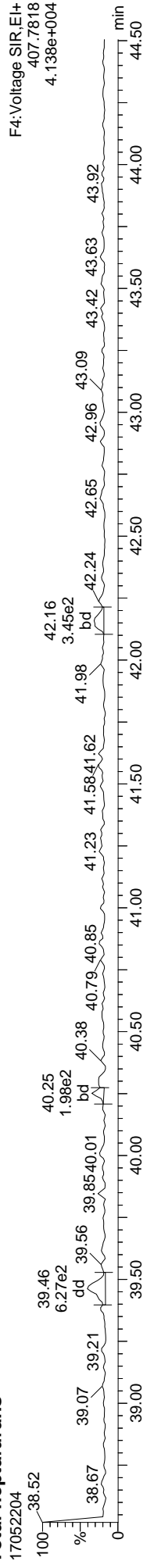
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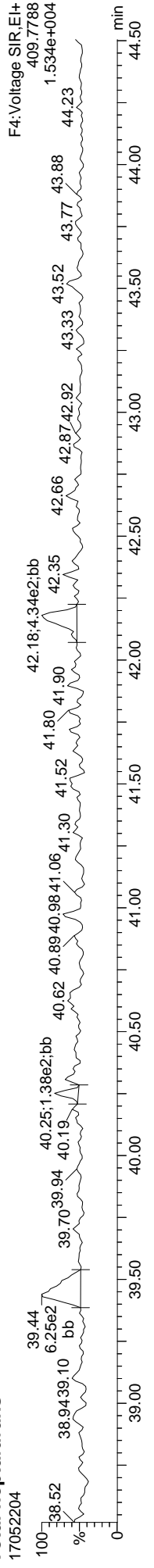
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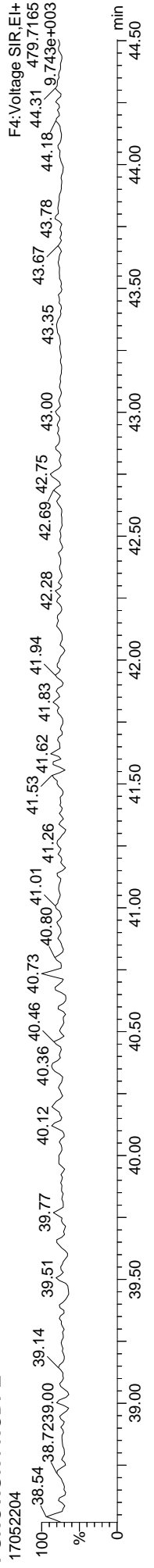
Total-heptafurans



Total-heptafurans



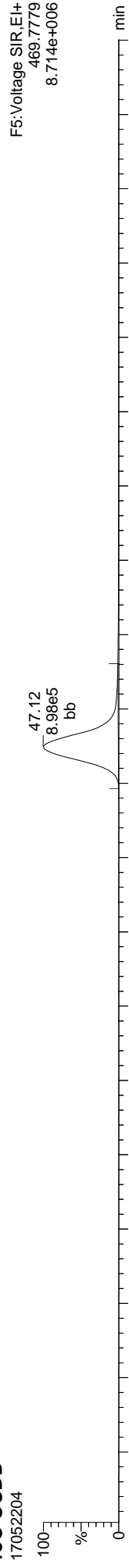
FUNCTION4 NCDPE



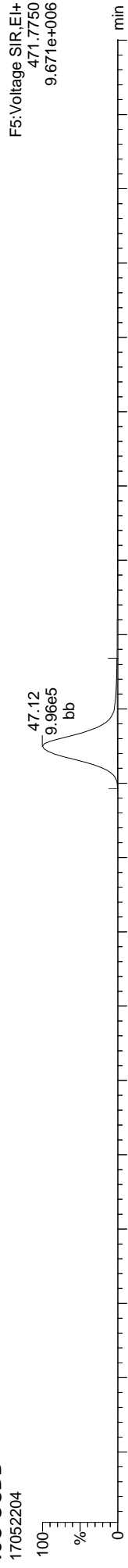
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Printed: Tuesday, May 23, 2017 13:48:46 Pacific Daylight Time

ID: BFE0233-BLK1, Name: 17052204, Date: 22-May-2017, Time: 12:05:50, Conditions: AUTOSPEC01, User: PK

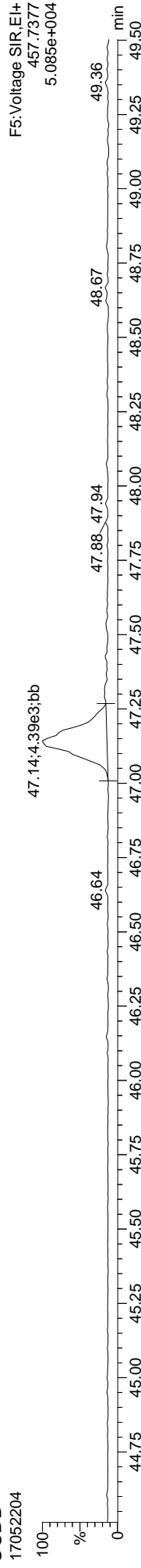
13C-OCDD



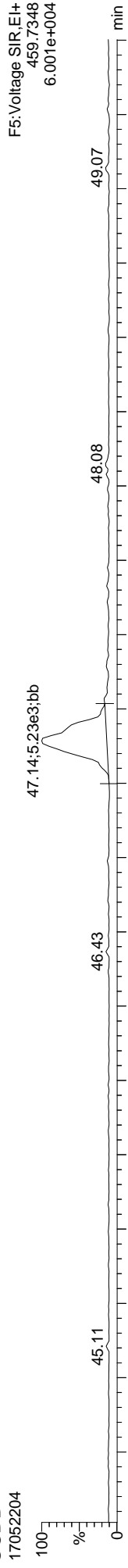
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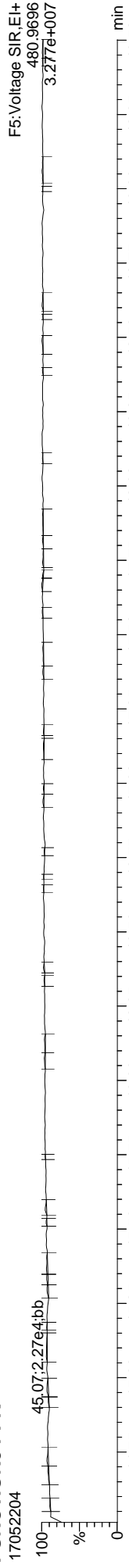
OCDD



OCDD



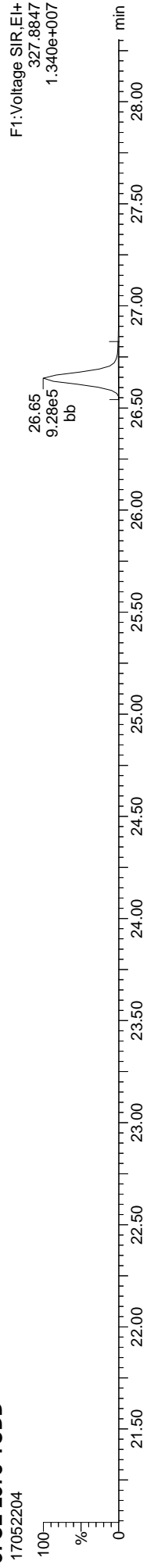
FUNCTION5 PFK



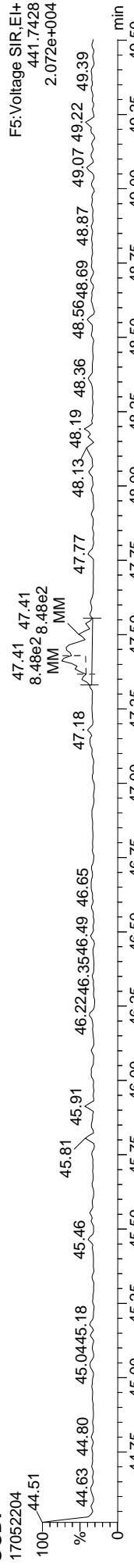
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D1.qld
Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:48:46 Pacific Daylight Time

ID: BFE0233-BLK1, Name: 17052204, Date: 22-May-2017, Time: 12:05:50, Conditions: AUTOSPEC01, User: PK

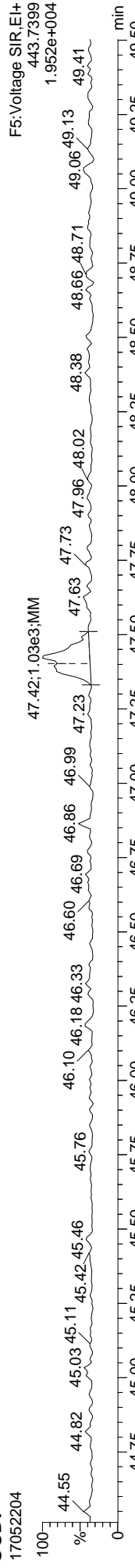
37CL-2378-TCDD



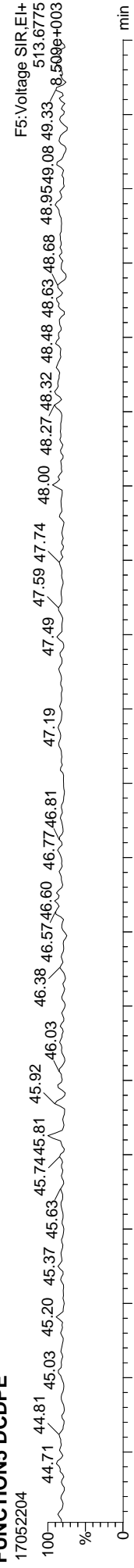
OCDF



OCDF



FUNCTION5 DCDPE





LCS / LCS DUPLICATE RECOVERY
EPA 1613B

Laboratory: Analytical Resources, Inc.

SDG: 17E0012

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Matrix: Tissue

Analyzed: 05/22/17 12:57

Batch: BFE0233

Laboratory ID: BFE0233-BS1

Preparation: EPA 1613

Initial/Final: 10 g / 20 uL

COMPOUND	SPIKE ADDED (ng/kg)	LCS CONCENTRATION (ng/kg)	LCS % REC.	QC LIMITS REC.	Q
2,3,7,8-TCDF	20.0	19.7	98.4	75 - 158	
2,3,7,8-TCDD	20.0	19.7	98.7	67 - 158	
1,2,3,7,8-PeCDF	100	102	102	80 - 134	
2,3,4,7,8-PeCDF	100	96.9	96.9	68 - 160	
1,2,3,7,8-PeCDD	100	101	101	70 - 142	
1,2,3,4,7,8-HxCDF	100	102	102	72 - 134	
1,2,3,6,7,8-HxCDF	100	101	101	84 - 130	
2,3,4,6,7,8-HxCDF	100	103	103	70 - 156	
1,2,3,7,8,9-HxCDF	100	105	105	78 - 130	
1,2,3,4,7,8-HxCDD	100	98.5	98.5	70 - 164	
1,2,3,6,7,8-HxCDD	100	103	103	76 - 134	
1,2,3,7,8,9-HxCDD	100	104	104	64 - 162	
1,2,3,4,6,7,8-HpCDF	100	109	109	82 - 122	
1,2,3,4,7,8,9-HpCDF	100	103	103	78 - 138	
1,2,3,4,6,7,8-HpCDD	100	98.2	98.2	70 - 140	
OCDF	200	190	94.8	63 - 170	
OCDD	200	193	96.6	78 - 144	
13C12-2,3,7,8-TCDF	200	158	78.8	24 - 169	

Labels

13C12-2,3,7,8-TCDD	200	159	79.3	25 - 164	
13C12-1,2,3,7,8-PeCDF	200	140	70.0	24 - 185	
13C12-2,3,4,7,8-PeCDF	200	145	72.3	21 - 178	
13C12-1,2,3,7,8-PeCDD	200	146	73.1	25 - 181	
13C12-1,2,3,4,7,8-HxCDF	200	148	74.2	26 - 152	
13C12-1,2,3,6,7,8-HxCDF	200	147	73.7	26 - 123	
13C12-2,3,4,6,7,8-HxCDF	200	151	75.7	28 - 136	
13C12-1,2,3,7,8,9-HxCDF	200	141	70.7	29 - 147	
13C12-1,2,3,4,7,8-HxCDD	200	160	80.0	32 - 141	
13C12-1,2,3,6,7,8-HxCDD	200	152	75.9	28 - 130	
13C12-1,2,3,4,6,7,8-HpCDF	200	133	66.5	28 - 143	
13C12-1,2,3,4,7,8,9-HpCDF	200	147	73.4	26 - 138	
13C12-1,2,3,4,6,7,8-HpCDD	200	162	81.1	23 - 140	
13C12-OCDD	400	302	75.4	17 - 157	
37C14-2,3,7,8-TCDD	80.0	70.7	88.4	35 - 197	

* Values outside of QC limits

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

Dataset: C:\MassLynx\Dioxin.pro\170522D1.qld
 Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time
 Printed: Tuesday, May 23, 2017 13:48:53 Pacific Daylight Time

Method: C:\MassLynx\Dioxin.pro\MethDB\Dioxin170518.mdb 18 May 2017 15:01:42
Calibration: C:\MassLynx\Dioxin.pro\CurvedB\170518CIH.cdb 19 May 2017 13:57:26

ID: BFE0233-BS1, Name: 17052205, Date: 22-May-2017, Time: 12:57:17, Conditions: AUTOSPEC01, User: PK

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
2378-TCDF	26.003	1.001	1.400e5	1.858e5	1.018	0.753	0.770	1246	1474	1.96e6	2.58e6	1572.5	YES	NO	bd	bd	9.843
12378-PeCDF	30.135	1.001	8.807e5	5.746e5	0.977	1.533	1.550	3621	3241	1.23e7	7.91e6	3384.4	YES	NO	bd	bd	50.964
23478-PeCDF	31.472	1.000	8.727e5	5.543e5	1.019	1.574	1.550	3621	3241	1.27e7	8.20e6	3509.8	YES	NO	bd	bd	48.465
123478-HxCDF	35.144	1.001	6.822e5	5.681e5	1.150	1.201	1.240	3311	4637	9.85e6	8.07e6	2975.9	YES	NO	bd	bd	51.087
234678-HxCDF	36.240	1.001	6.888e5	5.657e5	1.188	1.218	1.240	3311	4637	9.57e6	7.86e6	2890.1	YES	NO	bd	bd	51.709
123678-HxCDF	35.287	1.000	7.443e5	6.147e5	1.100	1.211	1.240	3311	4637	1.04e7	8.61e6	3142.1	YES	NO	db	db	50.555
123789-HxCDF	37.380	1.000	5.093e5	4.036e5	1.116	1.262	1.240	3311	4637	6.99e6	5.64e6	2109.9	YES	NO	bd	bd	52.551
1234678-HpCDF	39.440	1.000	5.406e5	5.507e5	1.238	0.982	1.050	2709	2472	7.55e6	7.77e6	2788.3	YES	NO	bd	bd	54.484
1234789-HpCDF	42.148	1.000	3.912e5	3.845e5	1.257	1.018	1.050	2709	2472	4.60e6	4.54e6	1698.0	YES	NO	bd	bd	51.533
OCDF	47.411	1.006	5.592e5	6.297e5	1.321	0.888	0.890	1812	3478	5.30e6	5.87e6	2923.3	YES	NO	bd	bd	94.770
2378-TCDD	26.631	1.001	9.139e4	1.167e5	1.244	0.783	0.770	1808	1159	1.29e6	1.64e6	715.6	YES	NO	bd	bd	9.872
12378-PeCDD	31.724	1.001	5.042e5	3.168e5	1.058	1.592	1.550	3204	1516	7.28e6	4.63e6	2271.5	YES	NO	bd	bd	50.366
123478-HxCDD	36.372	1.001	4.756e5	3.620e5	1.119	1.314	1.240	2748	2359	6.85e6	5.36e6	2492.6	YES	NO	bd	bd	49.254
123678-HxCDD	36.492	1.000	4.812e5	3.882e5	1.040	1.240	1.240	2748	2359	6.76e6	5.30e6	2462.1	YES	NO	dd	dd	51.319
123789-HxCDD	36.920	1.012	4.487e5	3.552e5	0.981	1.263	1.240	2748	2359	6.06e6	4.86e6	2204.4	YES	NO	bd	bd	52.080
1234678-HpCDD	41.260	1.000	3.631e5	3.463e5	1.132	1.048	1.050	1661	1874	4.56e6	4.30e6	2742.0	YES	NO	bd	bd	49.079
OCDD	47.133	1.000	4.869e5	5.373e5	1.117	0.906	0.890	2181	1529	4.92e6	5.47e6	2255.4	YES	NO	bd	bd	96.557
13C-2378-TCDF	25.974	1.006	1.429e6	1.822e6	1.685	0.785	0.770	7608	3492	2.02e7	2.60e7	2656.7	YES	NO	bd	bd	78.794
13C-12378-PeCDF	30.113	1.167	1.807e6	1.117e6	1.706	1.617	1.550	3912	3583	2.51e7	1.56e7	6409.0	YES	NO	bd	bd	70.001
13C-23478-PeCDF	31.461	1.219	1.772e6	1.117e6	1.632	1.586	1.550	3912	3583	2.58e7	1.61e7	6588.5	YES	NO	bd	bd	72.283
13C-123478-HxCDF	35.122	0.952	7.301e5	1.398e6	1.682	0.522	0.510	4168	5792	1.05e7	2.03e7	2531.1	YES	NO	bd	bd	74.188
13C-123678-HxCDF	35.276	0.956	8.218e5	1.622e6	1.945	0.507	0.510	4168	5792	1.15e7	2.18e7	2749.2	YES	NO	db	db	73.684
13C-234678-HxCDF	36.218	0.981	7.053e5	1.337e6	1.582	0.527	0.510	4168	5792	9.95e6	1.89e7	2386.5	YES	NO	bd	bd	75.703
13C-123789-HxCDF	37.369	1.013	5.379e5	1.019e6	1.291	0.528	0.510	4168	5792	7.43e6	1.41e7	1782.6	YES	NO	bd	bd	70.725
13C-1234678-HpCDF	39.430	1.068	5.128e5	1.105e6	1.427	0.464	0.440	1964	2988	7.14e6	1.55e7	3637.7	YES	NO	bd	bd	66.515
13C-1234789-HpCDF	42.126	1.141	3.648e5	8.325e5	0.957	0.438	0.440	1964	2988	4.35e6	9.71e6	2212.6	YES	NO	bd	bd	73.375
13C-1234-TCDD	25.809	0.000	1.078e6	1.371e6	1.000	0.786	0.770	3023	1724	1.54e7	1.97e7	5103.1	YES	NO	bd	bd	100.000
13C-2378-TCDD	26.616	1.031	7.404e5	9.541e5	0.873	0.776	0.770	3023	1724	1.02e7	1.32e7	3386.4	YES	NO	bd	bd	79.278
13C-12378-PeCDD	31.702	1.228	9.435e5	5.968e5	0.860	1.581	1.550	1769	1292	1.34e7	8.47e6	7601.0	YES	NO	bd	bd	73.130
13C-123478-HxCDD	36.350	0.985	8.558e5	6.637e5	1.114	1.289	1.240	3935	1899	1.25e7	9.75e6	3183.8	YES	NO	bd	bd	80.015
13C-123678-HxCDD	36.481	0.988	9.063e5	7.222e5	1.258	1.255	1.240	3935	1899	1.27e7	1.01e7	3231.0	YES	NO	db	db	75.887
13C-1234678-HpCDD	41.238	1.117	6.579e5	6.191e5	0.924	1.063	1.050	2117	1638	8.52e6	8.04e6	4023.9	YES	NO	bd	bd	81.080
13C-OCDD	47.115	1.276	9.092e5	9.903e5	0.738	0.918	0.890	1708	2721	8.59e6	9.65e6	5029.0	YES	NO	bd	bd	150.876
13C-123789-HxCDD	36.909	0.000	9.454e5	7.597e5	1.000	1.244	1.240	3935	1899	1.33e7	1.03e7	3378.1	YES	NO	bd	bd	100.000
Total-tetrafurans			1.448e5		1.018			1246		2.03e6							10.158

Quantify Sample Summary Report MassLynx MassLynx V4.1 SCN909

Dataset: C:\MassLynx\Dioxin.pro\170522D1.qld

Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time

Printed: Tuesday, May 23, 2017 13:48:53 Pacific Daylight Time

ID: BFE0233-BS1, Name: 17052205, Date: 22-May-2017, Time: 12:57:17, Conditions: AUTOSPEC01, User: PK

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg	
Total-penta1			0.000e0					1144		0.00e0								
Total-pentafurans			1.804e6		0.998			3621		2.56e7								102.371
Total-hexafurans			2.637e6		1.138			3311		3.70e7								206.903
Total-heptafurans			9.363e5		1.248			2709		1.22e7								106.495
Total-Furans			6.081e6		1.138			1246		8.21e7								520.697
Total-tetradioxins			9.402e4		1.244			1808		1.33e6								10.137
Total-pentadioxins			5.052e5		1.058			3204		7.29e6								50.466
Total-hexadioxins			1.406e6		1.047			2748		1.97e7								152.771
Total-heptadioxins			3.660e5		1.132			1661		4.60e6								49.471
Total-Dioxins			2.858e6		1.099			1808		3.78e7								359.413
Total-TEQ	26.631	1.032	8.940e6					1808		1.20e8								880.110
37CL-2378-TCDD			8.846e5		1.021			1478		1.25e7		8475.6	YES		bb			35.369
FUNCTION1 PFK			6.176e5					1030239		8.33e6								
FUNCTION2 PFK			6.693e4					119735		1.44e6								0.000
FUNCTION3 PFK			4.714e6					608441		3.18e7								0.000
FUNCTION4 PFK			4.614e6					443272		5.22e7								
FUNCTION5 PFK			1.422e5					297193		6.11e6								
FUNCTION1 HXCD...			3.841e2					1002		7.06e3								0.000
FUNCTION1 HPCD...			1.046e3					932		1.55e4								0.000
FUNCTION2 HPCD...			5.262e2					797		1.01e4								0.000
FUNCTION3 OCDPE			1.023e2					745		1.94e3								0.000
FUNCTION4 NCDPE			1.694e2					648		5.48e3								0.000
FUNCTION5 DCDPE			1.096e2					852		2.14e3								0.000

Dataset: C:\MassLynx\Dioxin.pro\170522D1.qld
 Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time
 Printed: Tuesday, May 23, 2017 13:48:53 Pacific Daylight Time

Method: C:\MassLynx\Dioxin.pro\MethDB\Dioxin170518.mdb 18 May 2017 15:01:42
 Calibration: C:\MassLynx\Dioxin.pro\CurveDB\170518\CIH.cdb 19 May 2017 13:57:26

ID: BFE0233-BS1, Name: 17052205, Date: 22-May-2017, Time: 12:57:17, Conditions: AUTOSPEC01, User: PK

TF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	26.00	1.400e5	1.858e5	1.018	0.75	0.77	1572.5	YES	NO	bd	bd	9.843
2	Total-tetrafurans	25.79	2.340e2	3.894e2	1.018	0.60	0.77	3.5	YES	YES	bb	bb	0.019
3	Total-tetrafurans	25.08	1.761e3	2.164e3	1.018	0.81	0.77	21.1	YES	NO	db	bb	0.119
4	Total-tetrafurans	24.91	1.526e3	1.235e3	1.018	1.24	0.77	15.6	YES	YES	dd	db	0.083
5	Total-tetrafurans	24.76	1.213e3	1.923e3	1.018	0.63	0.77	14.4	YES	YES	bd	bd	0.095

PP

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

PF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	23478-PeCDF	31.47	8.727e5	5.543e5	1.019	1.57	1.55	3509.8	YES	NO	bd	bb	48.465
2	Total-pentafurans	31.20	1.118e3	8.424e2	0.998	1.33	1.55	4.5	YES	NO	bb	bb	0.068
3	Total-pentafurans	30.33	2.993e4	1.885e4	0.998	1.59	1.55	95.4	YES	NO	db	dd	1.682
4	12378-PeCDF	30.14	8.807e5	5.746e5	0.977	1.53	1.55	3384.4	YES	NO	bd	bd	50.964
5	Total-pentafurans	29.77	3.899e3	3.675e3	0.998	1.06	1.55	16.6	YES	YES	bd	bb	0.261
6	Total-pentafurans	29.06	9.876e3	8.034e3	0.998	1.23	1.55	38.2	YES	YES	db	bb	0.617
7	Total-pentafurans	32.51	5.693e3	3.425e3	0.998	1.66	1.55	19.4	YES	NO	bb	bb	0.314

HF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-hexafurans	33.42	2.386e3	2.302e3	1.138	1.04	1.24	10.3	YES	YES	bb	bb	0.202
2	123789-HxCDF	37.38	5.093e5	4.036e5	1.116	1.26	1.24	2109.9	YES	NO	bd	bd	52.551
3	234678-HxCDF	36.24	6.888e5	5.657e5	1.188	1.22	1.24	2890.1	YES	NO	bd	bb	51.709
4	123678-HxCDF	35.29	7.443e5	6.147e5	1.100	1.21	1.24	3142.1	YES	NO	db	db	50.555
5	123478-HxCDF	35.14	6.822e5	5.681e5	1.150	1.20	1.24	2975.9	YES	NO	bd	bd	51.087
6	Total-hexafurans	34.98	1.043e3	8.274e2	1.138	1.26	1.24	5.7	YES	NO	bb	bb	0.080
7	Total-hexafurans	33.63	9.148e3	7.565e3	1.138	1.21	1.24	37.8	YES	NO	bb	bb	0.719

HPF

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234789-HpCDF	42.15	3.912e5	3.845e5	1.257	1.02	1.05	1698.0	YES	NO	bd	bb	51.533
2	Total-heptafurans	40.26	4.396e3	4.006e3	1.248	1.10	1.05	19.5	YES	NO	bb	bb	0.478
3	1234678-HpCDF	39.44	5.406e5	5.507e5	1.238	0.98	1.05	2788.3	YES	NO	bb	bd	54.484

ID: BFE0233-BS1, Name: 17052205, Date: 22-May-2017, Time: 12:57:17, Conditions: AUTOSPEC01, User: PK

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

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	26.00	1.400e5	1.858e5	1.018	0.75	0.77	1572.5	YES	NO	bd	bd	9.843
2	Total-tetrafurans	25.79	2.340e2	3.894e2	1.018	0.60	0.77	3.5	YES	YES	bb	bb	0.019
3	Total-tetrafurans	25.08	1.761e3	2.164e3	1.018	0.81	0.77	21.1	YES	NO	db	bb	0.119
4	Total-tetrafurans	24.91	1.526e3	1.235e3	1.018	1.24	0.77	15.6	YES	YES	dd	db	0.083
5	Total-tetrafurans	24.76	1.213e3	1.923e3	1.018	0.63	0.77	14.4	YES	YES	bd	bd	0.095
6	23478-PeCDF	31.47	8.727e5	5.543e5	1.019	1.57	1.55	3509.8	YES	NO	bd	bb	48.465
7	Total-pentafurans	31.20	1.118e3	8.424e2	0.998	1.33	1.55	4.5	YES	NO	bb	bb	0.068
8	Total-pentafurans	30.33	2.993e4	1.885e4	0.998	1.59	1.55	95.4	YES	NO	db	dd	1.682
9	12378-PeCDF	30.14	8.807e5	5.746e5	0.977	1.53	1.55	3384.4	YES	NO	bd	bd	50.964
10	Total-pentafurans	29.77	3.899e3	3.675e3	0.998	1.06	1.55	16.6	YES	YES	bd	bb	0.261
11	Total-pentafurans	29.06	9.876e3	8.034e3	0.998	1.23	1.55	38.2	YES	YES	db	bb	0.617
12	Total-hexafurans	33.42	2.386e3	2.302e3	1.138	1.04	1.24	10.3	YES	YES	bb	bb	0.202
13	Total-pentafurans	32.51	5.693e3	3.425e3	0.998	1.66	1.55	19.4	YES	NO	bb	bb	0.314
14	123789-HxCDF	37.38	5.093e5	4.036e5	1.116	1.26	1.24	2109.9	YES	NO	bd	bd	52.551
15	234678-HxCDF	36.24	6.888e5	5.657e5	1.188	1.22	1.24	2890.1	YES	NO	bd	bb	51.709
16	123678-HxCDF	35.29	7.443e5	6.147e5	1.100	1.21	1.24	3142.1	YES	NO	db	db	50.555
17	123478-HxCDF	35.14	6.822e5	5.681e5	1.150	1.20	1.24	2975.9	YES	NO	bd	bd	51.087
18	Total-hexafurans	34.98	1.043e3	8.274e2	1.138	1.26	1.24	5.7	YES	NO	bb	bb	0.080
19	Total-hexafurans	33.63	9.148e3	7.565e3	1.138	1.21	1.24	37.8	YES	NO	bb	bb	0.719
20	1234789-HpCDF	42.15	3.912e5	3.845e5	1.257	1.02	1.05	1698.0	YES	NO	bd	bb	51.533
21	Total-heptafurans	40.26	4.396e3	4.006e3	1.248	1.10	1.05	19.5	YES	NO	bb	bb	0.478
22	1234678-HpCDF	39.44	5.406e5	5.507e5	1.238	0.98	1.05	2788.3	YES	NO	bb	bd	54.484
23	OCDF	47.41	5.592e5	6.297e5	1.321	0.89	0.89	2923.3	YES	NO	bb	bd	94.770

TD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDD	26.63	9.139e4	1.167e5	1.244	0.78	0.77	715.6	YES	NO	bb	bb	9.872
2	Total-tetradoxins	26.26	2.633e3	2.966e3	1.244	0.89	0.77	20.4	YES	YES	bb	bb	0.266

PD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	12378-PeCDD	31.72	5.042e5	3.168e5	1.058	1.59	1.55	2271.5	YES	NO	bb	bb	50.366
2	Total-pentadoxins	31.04	9.220e2	6.993e2	1.058	1.32	1.55	3.2	YES	NO	bb	bb	0.099

HD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	123678-HxCDD	36.49	4.812e5	3.882e5	1.040	1.24	1.24	2462.1	YES	NO	dd	dd	51.319
2	123478-HxCDD	36.37	4.756e5	3.620e5	1.119	1.31	1.24	2492.6	YES	NO	bd	bd	49.254
3	Total-hexadoxins	37.24	5.655e2		1.047			5.4	YES		dd		0.097
4	123789-HxCDD	36.92	4.487e5	3.552e5	0.981	1.26	1.24	2204.4	YES	NO	bd	bd	52.080
5	Total-hexadoxins	36.77	1.664e2	1.636e2	1.047	1.02	1.24	2.5	NO	YES	db	db	0.020

HPD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	1234678-HpCDD	41.26	3.631e5	3.463e5	1.132	1.05	1.05	2742.0	YES	NO	bd	bd	49.079
2	Total-heptadoxins	40.00	2.930e3	2.740e3	1.132	1.07	1.05	26.1	YES	NO	bb	bb	0.392

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Dioxins,TD,PD,HD,HPD,OD

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	Total-Dioxins	27.86	9.742e1	9.189e1	1.099	1.06	0.77	1.3	NO	YES	bb	bb	0.010
2	2378-TCDD	26.63	9.139e4	1.167e5	1.244	0.78	0.77	715.6	YES	NO	bb	bb	9.872
3	Total-tetradoxins	26.26	2.633e3	2.966e3	1.244	0.89	0.77	20.4	YES	YES	bb	bb	0.266
4	12378-PeCDD	31.72	5.042e5	3.168e5	1.058	1.59	1.55	2271.5	YES	NO	bb	bb	50.366
5	Total-pentadoxins	31.04	9.220e2	6.993e2	1.058	1.32	1.55	3.2	YES	NO	bb	bb	0.099
6	123678-HxCDD	36.49	4.812e5	3.882e5	1.040	1.24	1.24	2462.1	YES	NO	dd	dd	51.319
7	123478-HxCDD	36.37	4.756e5	3.620e5	1.119	1.31	1.24	2492.6	YES	NO	bd	bd	49.254
8	Total-hexadoxins	37.24	5.655e2		1.047			5.4	YES		dd		0.097
9	123789-HxCDD	36.92	4.487e5	3.552e5	0.981	1.26	1.24	2204.4	YES	NO	bd	bd	52.080
10	Total-hexadoxins	36.77	1.664e2	1.636e2	1.047	1.02	1.24	2.5	NO	YES	db	db	0.020
11	1234678-HpCDD	41.26	3.631e5	3.463e5	1.132	1.05	1.05	2742.0	YES	NO	bd	bd	49.079
12	Total-heptadoxins	40.00	2.930e3	2.740e3	1.132	1.07	1.05	26.1	YES	NO	bb	bb	0.392
13	OCDD	47.13	4.869e5	5.373e5	1.117	0.91	0.89	2255.4	YES	NO	bd	bb	96.557

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TotalTEQ,Furans,Dioxins

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	2378-TCDF	26.00	1.400e5	1.858e5	1.018	0.75	0.77	1572.5	YES	NO	bd	bd	9.843
2	Total-tetrafurans	25.79	2.340e2	3.894e2	1.018	0.60	0.77	3.5	YES	YES	bb	bb	0.019
3	Total-tetrafurans	25.08	1.761e3	2.164e3	1.018	0.81	0.77	21.1	YES	NO	db	bb	0.119
4	Total-tetrafurans	24.91	1.526e3	1.235e3	1.018	1.24	0.77	15.6	YES	YES	dd	db	0.083
5	Total-tetrafurans	24.76	1.213e3	1.923e3	1.018	0.63	0.77	14.4	YES	YES	bd	bd	0.095
6	23478-PeCDF	31.47	8.727e5	5.543e5	1.019	1.57	1.55	3509.8	YES	NO	bd	bb	48.465
7	Total-pentafurans	31.20	1.118e3	8.424e2	0.998	1.33	1.55	4.5	YES	NO	bb	bb	0.068
8	Total-pentafurans	30.33	2.993e4	1.885e4	0.998	1.59	1.55	95.4	YES	NO	db	dd	1.682
9	12378-PeCDF	30.14	8.807e5	5.746e5	0.977	1.53	1.55	3384.4	YES	NO	bd	bd	50.964
10	Total-pentafurans	29.77	3.899e3	3.675e3	0.998	1.06	1.55	16.6	YES	YES	bd	bb	0.261
11	Total-pentafurans	29.06	9.876e3	8.034e3	0.998	1.23	1.55	38.2	YES	YES	db	bb	0.617
12	Total-hexafurans	33.42	2.386e3	2.302e3	1.138	1.04	1.24	10.3	YES	YES	bb	bb	0.202
13	Total-pentafurans	32.51	5.693e3	3.425e3	0.998	1.66	1.55	19.4	YES	NO	bb	bb	0.314
14	123789-HxCDF	37.38	5.093e5	4.036e5	1.116	1.26	1.24	2109.9	YES	NO	bd	bd	52.551
15	234678-HxCDF	36.24	6.888e5	5.657e5	1.188	1.22	1.24	2890.1	YES	NO	bd	bb	51.709
16	123678-HxCDF	35.29	7.443e5	6.147e5	1.100	1.21	1.24	3142.1	YES	NO	db	db	50.555
17	123478-HxCDF	35.14	6.822e5	5.681e5	1.150	1.20	1.24	2975.9	YES	NO	bd	bd	51.087
18	Total-hexafurans	34.98	1.043e3	8.274e2	1.138	1.26	1.24	5.7	YES	NO	bb	bb	0.080
19	Total-hexafurans	33.63	9.148e3	7.565e3	1.138	1.21	1.24	37.8	YES	NO	bb	bb	0.719
20	1234789-HpCDF	42.15	3.912e5	3.845e5	1.257	1.02	1.05	1698.0	YES	NO	bd	bb	51.533
21	Total-heptafurans	40.26	4.396e3	4.006e3	1.248	1.10	1.05	19.5	YES	NO	bb	bb	0.478
22	1234678-HpCDF	39.44	5.406e5	5.507e5	1.238	0.98	1.05	2788.3	YES	NO	bb	bd	54.484
23	OCDF	47.41	5.592e5	6.297e5	1.321	0.89	0.89	2923.3	YES	NO	bb	bd	94.770
24	Total-Dioxins	27.86	9.742e1	9.189e1	1.099	1.06	0.77	1.3	NO	YES	bb	bb	0.010
25	2378-TCDD	26.63	9.139e4	1.167e5	1.244	0.78	0.77	715.6	YES	NO	bb	bb	9.872
26	Total-tetradoxins	26.26	2.633e3	2.966e3	1.244	0.89	0.77	20.4	YES	YES	bb	bb	0.266
27	12378-PeCDD	31.72	5.042e5	3.168e5	1.058	1.59	1.55	2271.5	YES	NO	bb	bb	50.366
28	Total-pentadoxins	31.04	9.220e2	6.993e2	1.058	1.32	1.55	3.2	YES	NO	bb	bb	0.099
29	123678-HxCDD	36.49	4.812e5	3.882e5	1.040	1.24	1.24	2462.1	YES	NO	dd	dd	51.319
30	123478-HxCDD	36.37	4.756e5	3.620e5	1.119	1.31	1.24	2492.6	YES	NO	bd	bd	49.254
31	Total-hexadoxins	37.24	5.655e2		1.047			5.4	YES		dd		0.097
32	123789-HxCDD	36.92	4.487e5	3.552e5	0.981	1.26	1.24	2204.4	YES	NO	bd	bd	52.080
33	Total-hexadoxins	36.77	1.664e2	1.636e2	1.047	1.02	1.24	2.5	NO	YES	db	db	0.020
34	1234678-HpCDD	41.26	3.631e5	3.463e5	1.132	1.05	1.05	2742.0	YES	NO	bd	bd	49.079
35	Total-heptadoxins	40.00	2.930e3	2.740e3	1.132	1.07	1.05	26.1	YES	NO	bb	bb	0.392
36	OCDD	47.13	4.869e5	5.373e5	1.117	0.91	0.89	2255.4	YES	NO	bd	bb	96.557

PFK1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 PFK	26.83	2.963e5					1.8	NO		bb		
2	FUNCTION1 PFK	25.53	3.740e4					1.1	NO		bb		
3	FUNCTION1 PFK	25.09	4.888e4					1.2	NO		bb		
4	FUNCTION1 PFK	21.10	2.350e5					4.0	YES		bb		

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PFK2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 PFK	32.05	1.369e4					2.6	NO		bb		0.000
2	FUNCTION2 PFK	31.24	2.950e4					3.7	YES		bb		0.000
3	FUNCTION2 PFK	31.02	1.515e4					3.4	YES		bb		0.000
4	FUNCTION2 PFK	29.37	8.598e3					2.3	NO		bb		0.000

PFK3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 PFK	38.39	5.317e5					13.1	YES		db		0.000
2	FUNCTION3 PFK	38.21	2.661e6					19.1	YES		dd		0.000
3	FUNCTION3 PFK	38.02	9.066e5					17.7	YES		bd		0.000
4	FUNCTION3 PFK	33.23	6.147e5					2.3	NO		bb		0.000

PFK4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 PFK	41.70	8.714e4					2.1	NO		bb		
2	FUNCTION4 PFK	40.56	1.699e4					1.6	NO		bb		
3	FUNCTION4 PFK	39.77	4.758e5					12.9	YES		db		
4	FUNCTION4 PFK	39.65	1.008e6					15.9	YES		bd		
5	FUNCTION4 PFK	39.43	4.675e5					10.4	YES		bb		
6	FUNCTION4 PFK	39.08	3.398e5					8.5	YES		db		
7	FUNCTION4 PFK	38.99	1.500e5					7.0	YES		bd		
8	FUNCTION4 PFK	38.87	2.886e5					11.4	YES		db		
9	FUNCTION4 PFK	38.83	3.366e5					12.4	YES		bd		
10	FUNCTION4 PFK	38.67	5.301e5					11.2	YES		bb		
11	FUNCTION4 PFK	44.23	4.937e4					2.8	NO		db		
12	FUNCTION4 PFK	44.19	4.644e4					2.6	NO		bd		
13	FUNCTION4 PFK	43.87	2.179e5					5.7	YES		bb		
14	FUNCTION4 PFK	43.58	2.361e5					6.0	YES		db		
15	FUNCTION4 PFK	43.41	3.635e5					7.3	YES		bd		

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PFK5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 PFK	47.32	4.927e3					0.9	NO		bb		
2	FUNCTION5 PFK	47.05	8.615e3					1.5	NO		bb		
3	FUNCTION5 PFK	46.97	7.024e3					1.0	NO		bb		
4	FUNCTION5 PFK	46.92	8.058e3					1.3	NO		bb		
5	FUNCTION5 PFK	46.85	1.948e4					1.7	NO		bb		
6	FUNCTION5 PFK	46.80	4.706e3					0.9	NO		bb		
7	FUNCTION5 PFK	46.24	3.291e3					0.7	NO		bb		
8	FUNCTION5 PFK	45.86	9.900e3					1.0	NO		bb		
9	FUNCTION5 PFK	44.71	5.026e3					0.8	NO		bb		
10	FUNCTION5 PFK	44.67	1.107e4					1.2	NO		bb		
11	FUNCTION5 PFK	49.43	1.645e3					0.6	NO		bb		
12	FUNCTION5 PFK	48.91	1.015e4					1.8	NO		bb		
13	FUNCTION5 PFK	48.39	2.771e3					0.7	NO		bb		
14	FUNCTION5 PFK	48.28	2.262e3					0.6	NO		bb		
15	FUNCTION5 PFK	48.08	8.929e3					1.5	NO		bb		
16	FUNCTION5 PFK	47.97	5.262e3					1.0	NO		bb		
17	FUNCTION5 PFK	47.68	1.662e4					1.5	NO		db		
18	FUNCTION5 PFK	47.63	7.271e3					1.1	NO		bd		
19	FUNCTION5 PFK	47.45	5.161e3					0.8	NO		bb		

ETHERS1

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HXCD...	27.14	1.321e2					2.0	NO		bb		0.000
2	FUNCTION1 HXCD...	25.30	1.555e2					2.0	NO		bb		0.000
3	FUNCTION1 HXCD...	22.46	9.647e1					3.1	YES		bb		0.000

ETHERS2

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION1 HPCD...	22.84	7.764e1					2.0	NO		bb		0.000
2	FUNCTION1 HPCD...	22.33	3.478e2					3.1	YES		bb		0.000
3	FUNCTION1 HPCD...	25.84	1.881e2					3.7	YES		bb		0.000
4	FUNCTION1 HPCD...	24.66	1.496e2					2.5	NO		bb		0.000
5	FUNCTION1 HPCD...	24.29	1.203e2					2.0	NO		bb		0.000
6	FUNCTION1 HPCD...	23.67	1.625e2					3.3	YES		bb		0.000

ETHERS3

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION2 HPCD...	31.89	8.784e1					1.8	NO		bb		0.000
2	FUNCTION2 HPCD...	31.40	2.401e2					2.9	NO		bb		0.000
3	FUNCTION2 HPCD...	30.27	9.748e1					3.1	YES		bb		0.000
4	FUNCTION2 HPCD...	29.75	1.008e2					4.8	YES		bb		0.000

ETHERS4

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION3 OCDPE	36.91	1.023e2					2.6	NO		bb		0.000

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ETHERS5

	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION4 NCDPE	41.91	8.059e1					4.3	YES		bb		0.000
2	FUNCTION4 NCDPE	39.23	8.882e1					4.1	YES		bb		0.000

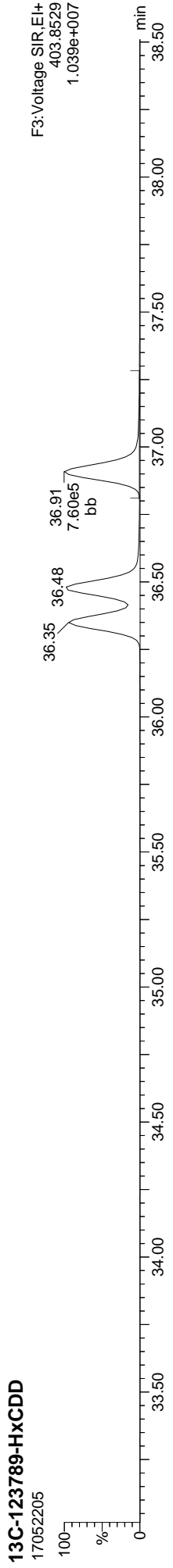
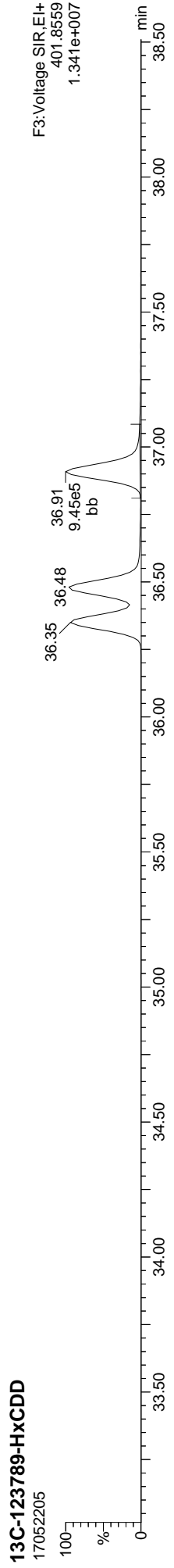
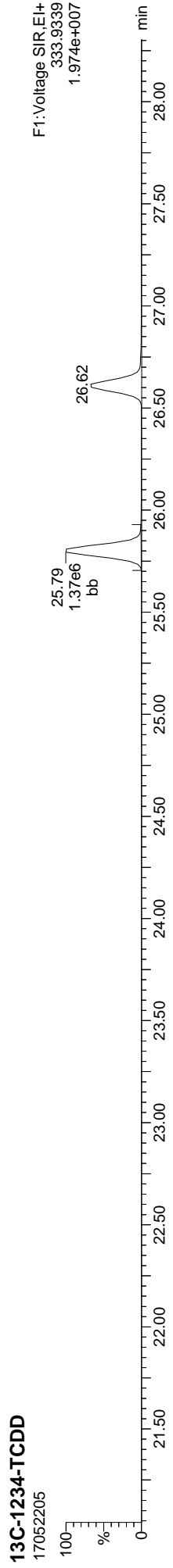
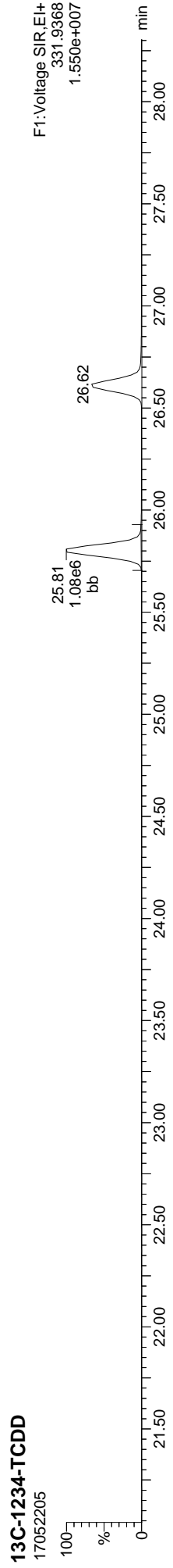
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	Compound	RT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
1	FUNCTION5 DCDPE	45.88	1.096e2					2.5	NO		bb		0.000

Quantify Sample Report
MassLynx V4.1 SCN909
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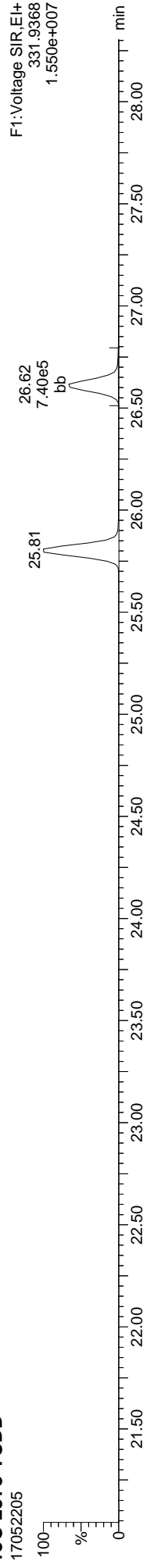
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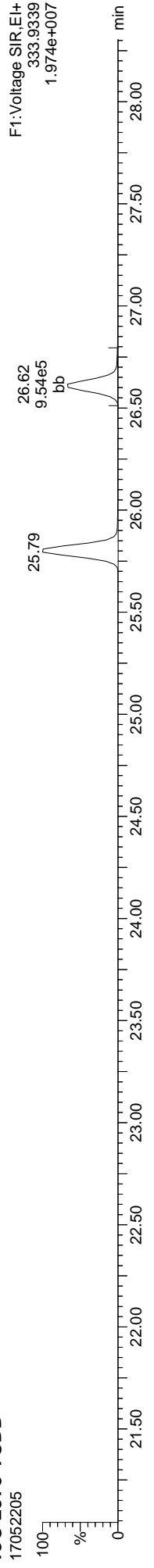
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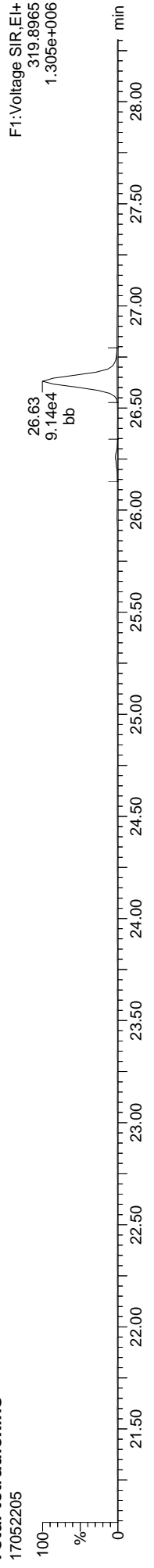
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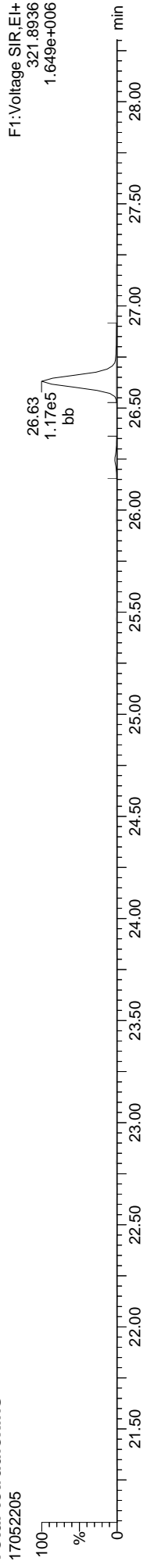
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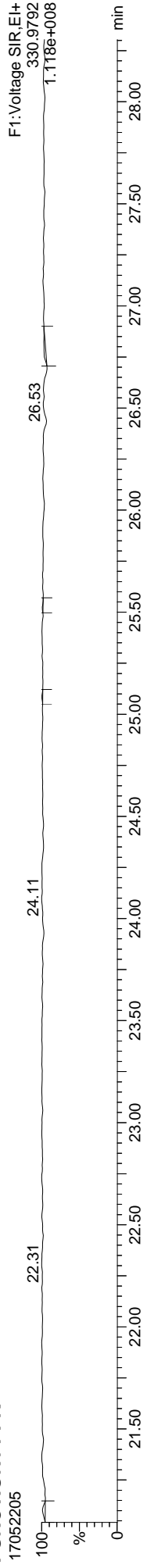
Total-tetradioxins



Total-tetradioxins



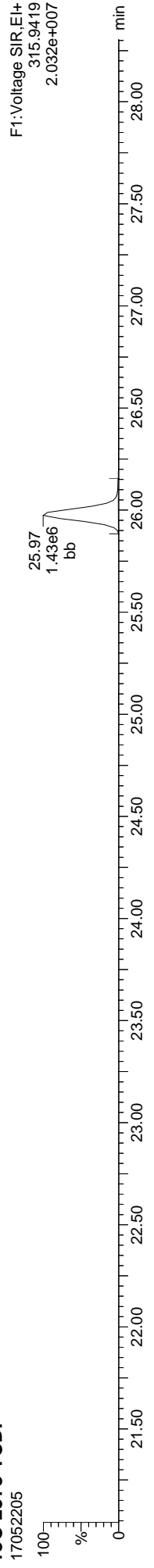
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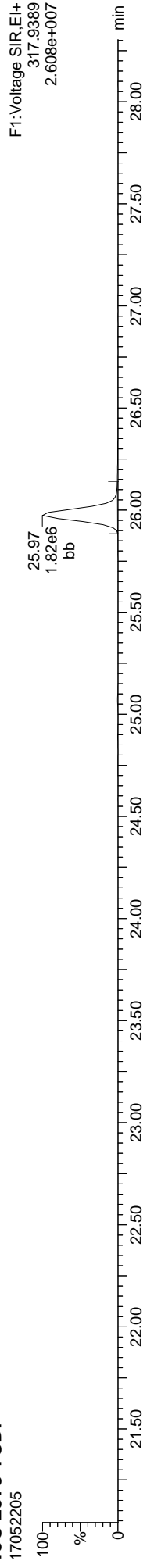
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MassLynx MassLynx V4.1 SCN909
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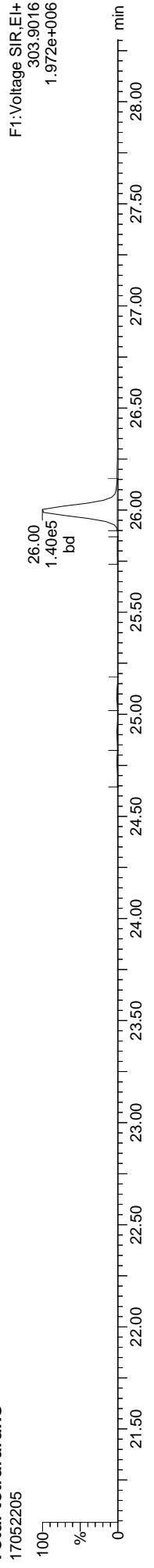
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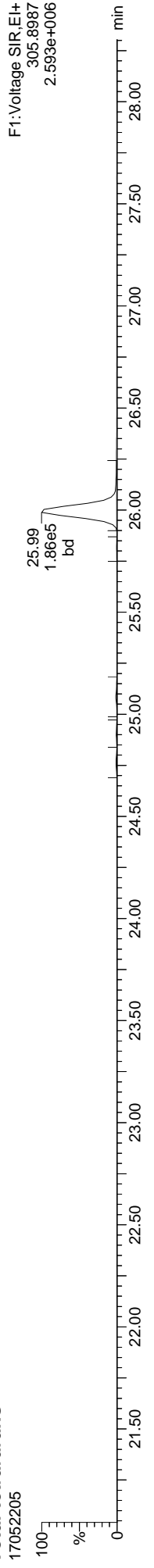
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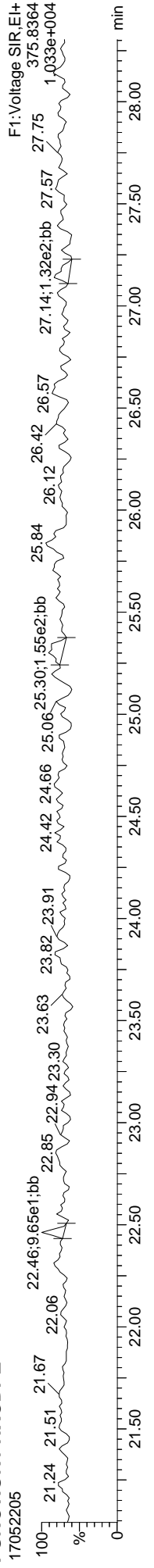
Total-tetrafurans



Total-tetrafurans



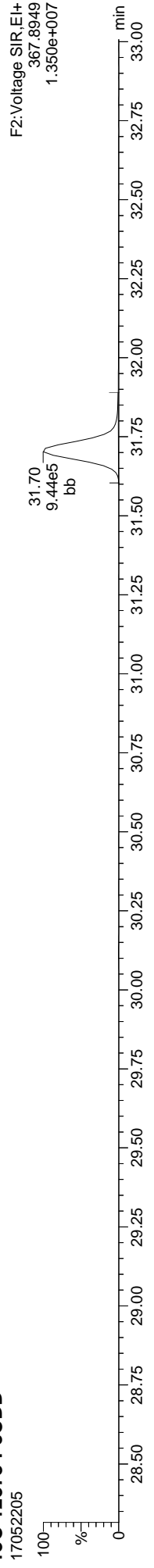
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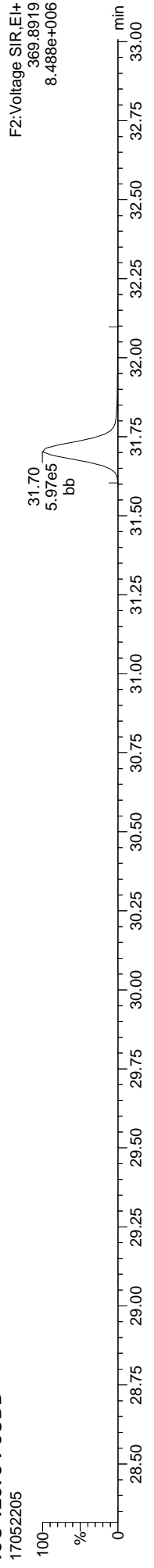
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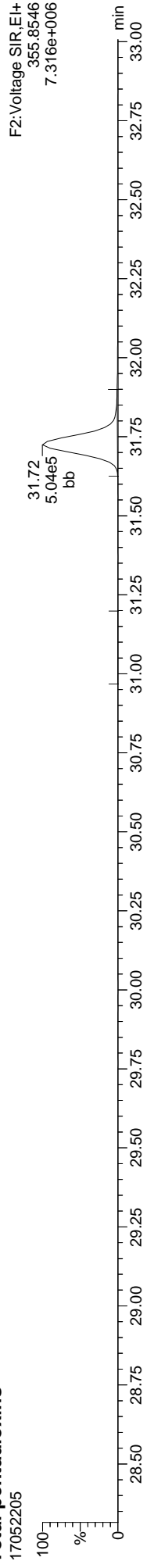
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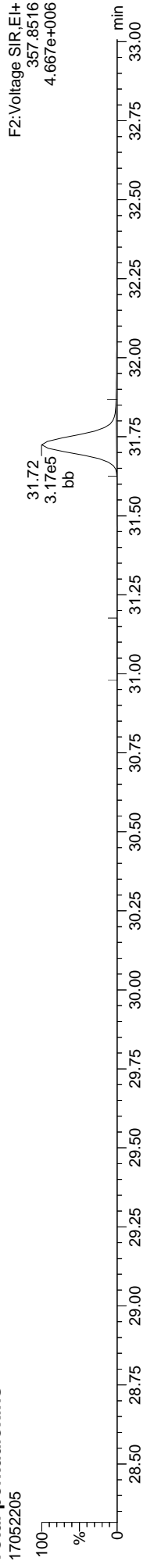
13C-12378-PeCDD



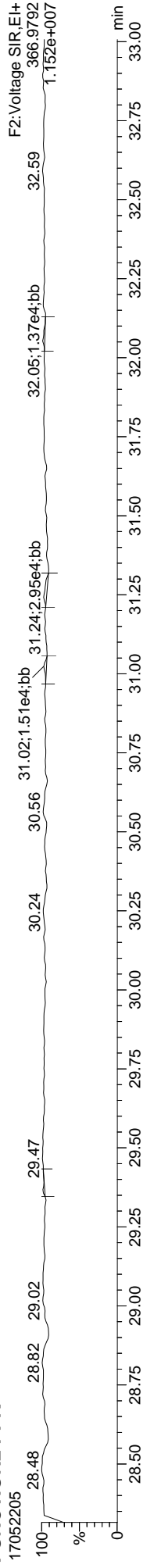
Total-pentadioxins



Total-pentadioxins



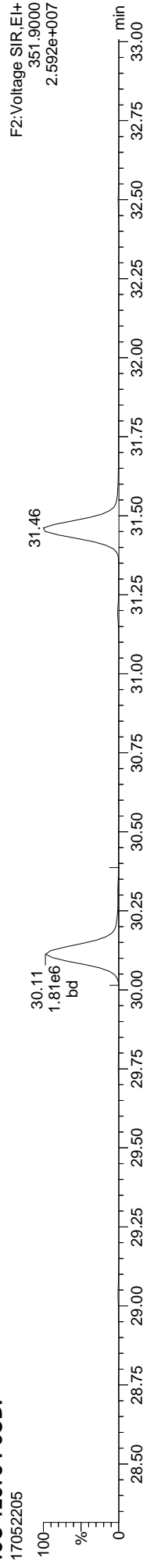
FUNCTION2 PFK



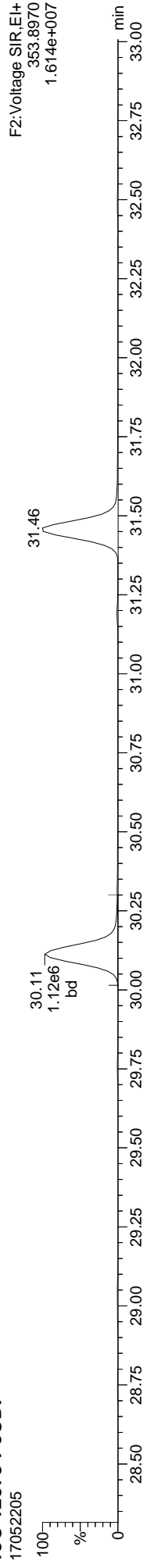
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D1.qld
Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:48:53 Pacific Daylight Time

ID: BFE0233-BS1, Name: 17052205, Date: 22-May-2017, Time: 12:57:17, Conditions: AUTOSPEC01, User: PK

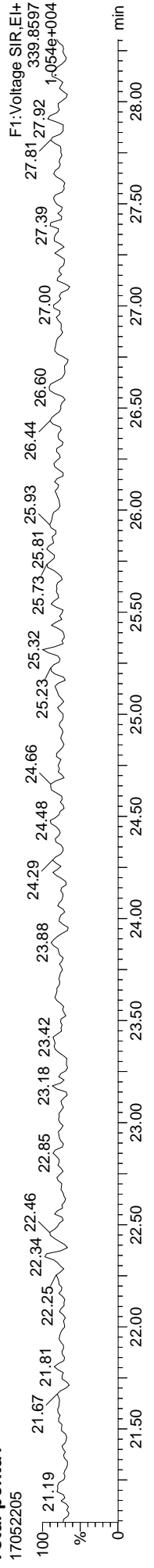
13C-12378-PeCDF



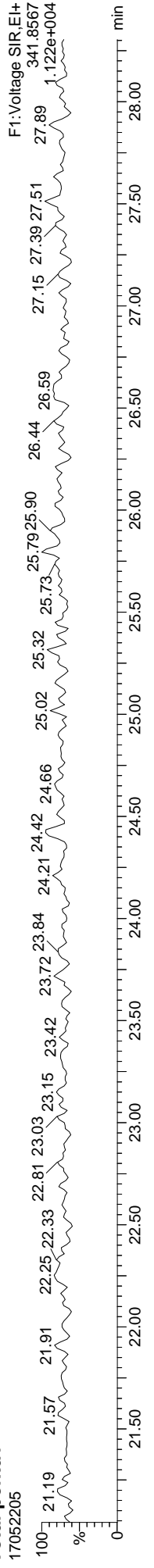
13C-12378-PeCDF



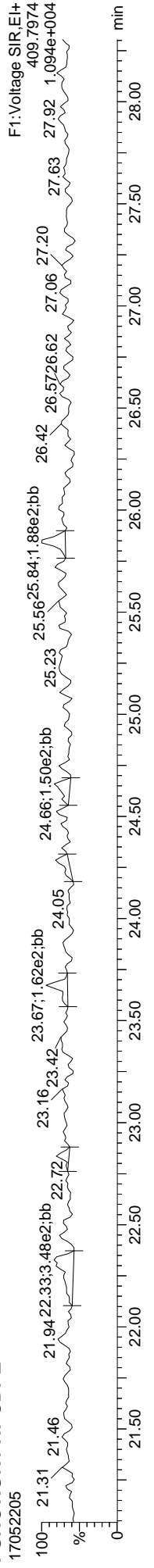
Total-penta1



Total-penta1



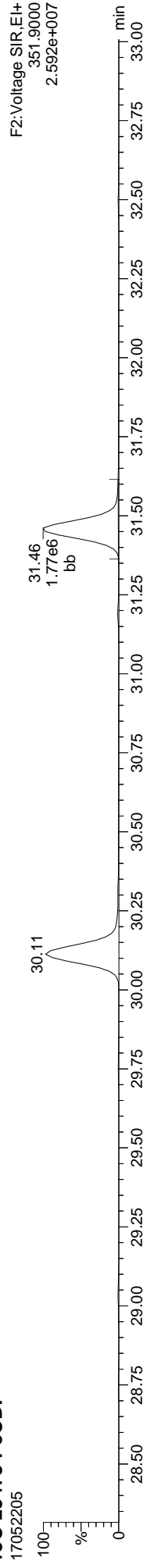
FUNCTION1 HPCDPE



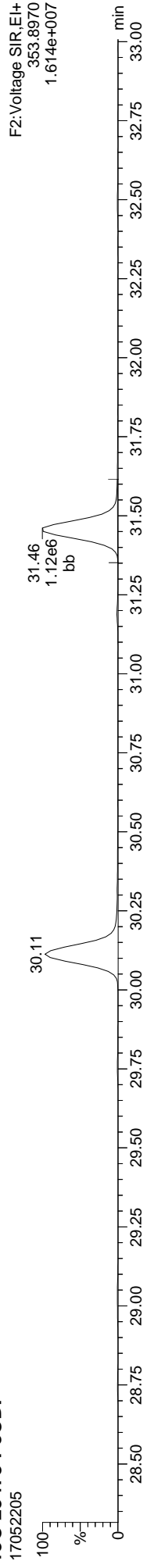
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D1.qld
Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:48:53 Pacific Daylight Time

ID: BFE0233-BS1, Name: 17052205, Date: 22-May-2017, Time: 12:57:17, Conditions: AUTOSPEC01, User: PK

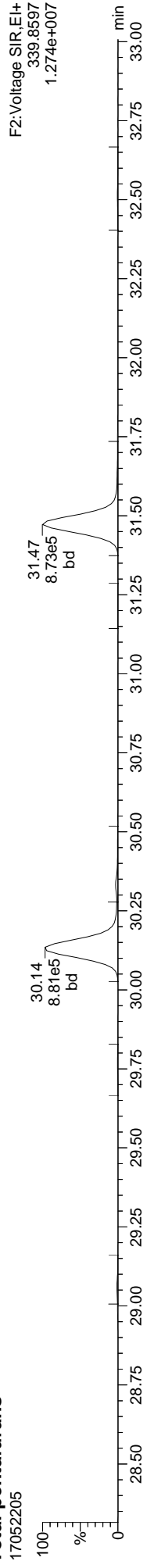
13C-23478-PeCDF



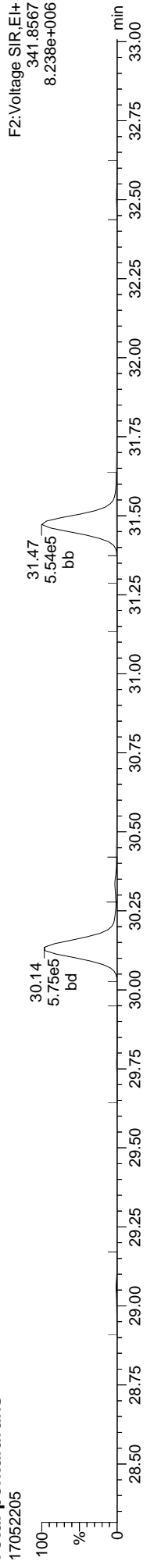
13C-23478-PeCDF



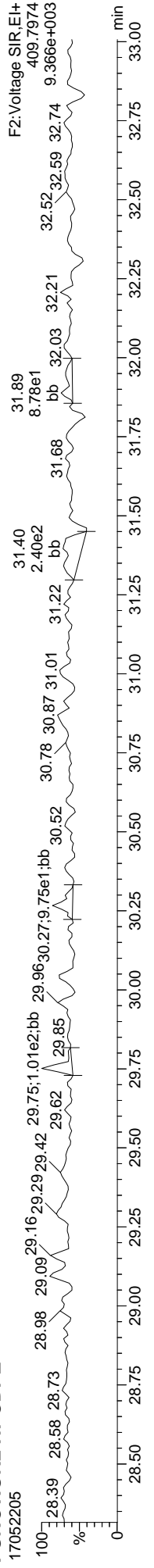
Total-pentafurans



Total-pentafurans



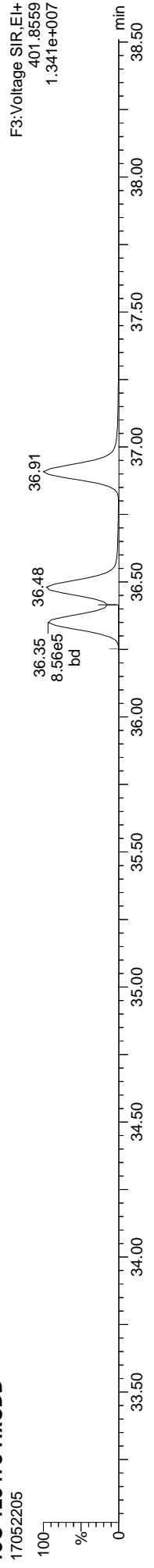
FUNCTION2 HPCDPE



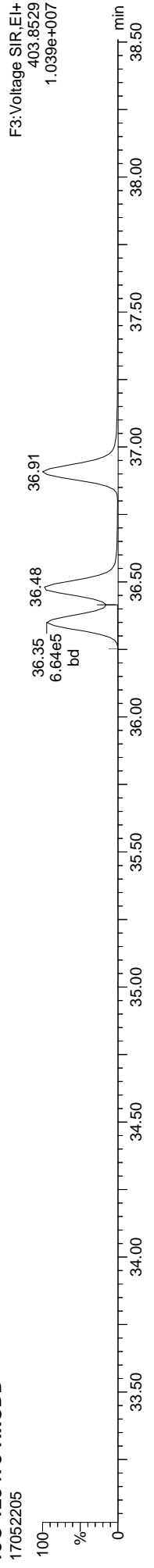
Quantify Sample Report
MassLynx V4.1 SCN909
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Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:48:53 Pacific Daylight Time

ID: BFE0233-BS1, Name: 17052205, Date: 22-May-2017, Time: 12:57:17, Conditions: AUTOSPEC01, User: PK

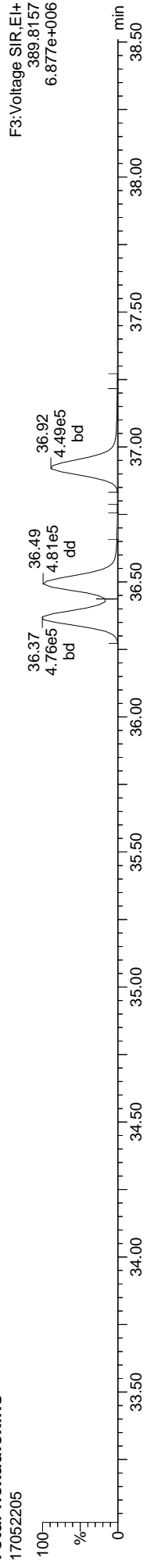
13C-123478-HxCDD



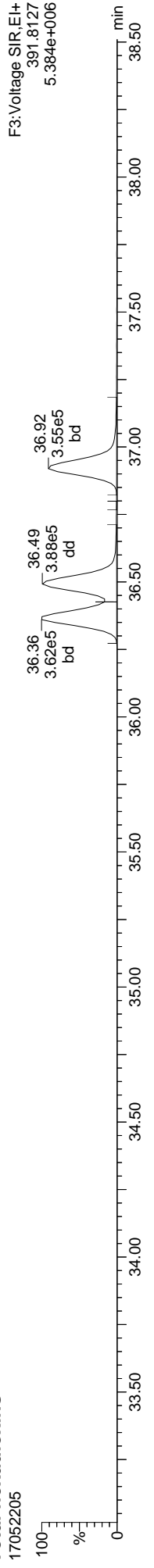
13C-123478-HxCDD



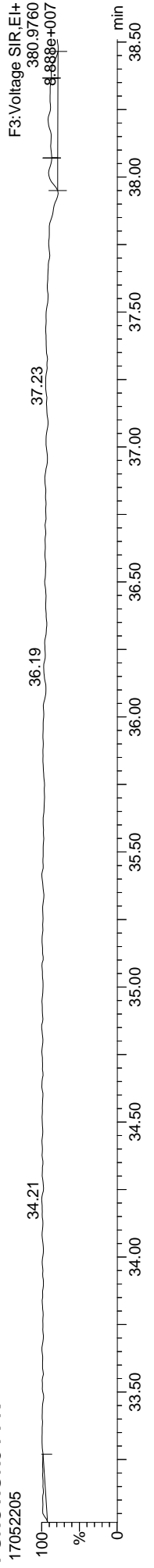
Total-hexadioxins



Total-hexadioxins



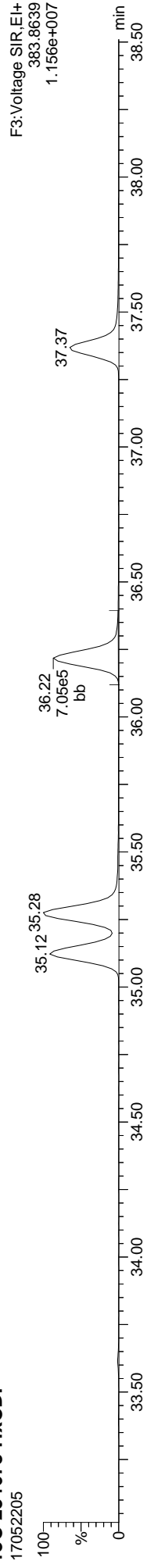
FUNCTION3 PFK



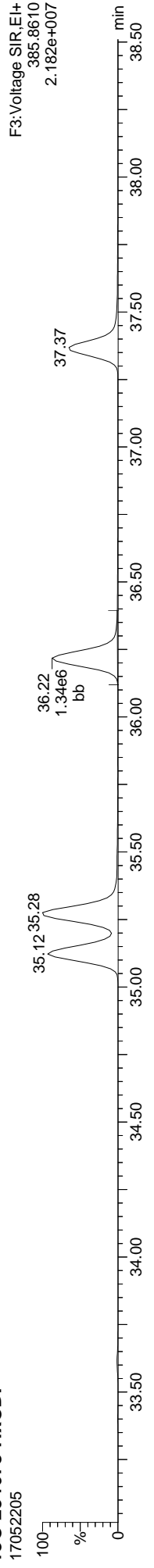
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D1.qld
Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:48:53 Pacific Daylight Time

ID: BFE0233-BS1, Name: 17052205, Date: 22-May-2017, Time: 12:57:17, Conditions: AUTOSPEC01, User: PK

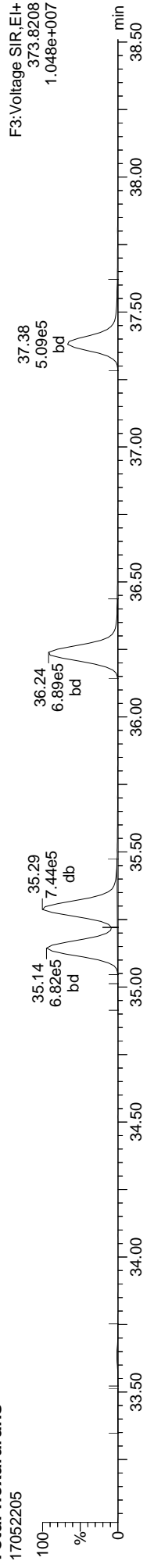
13C-234678-HxCDF



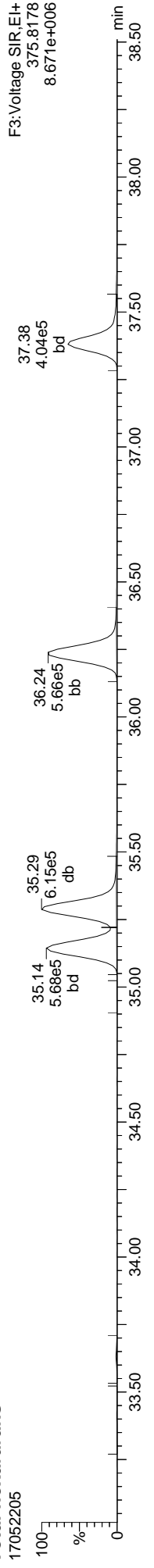
13C-234678-HxCDF



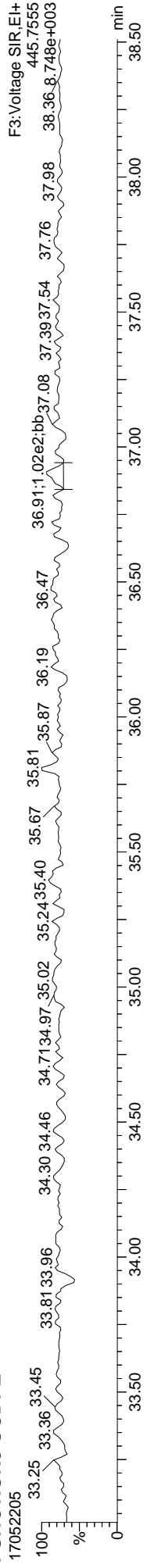
Total-hexafurans



Total-hexafurans



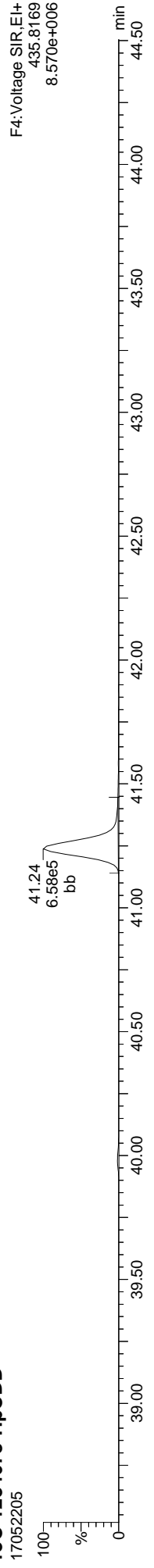
FUNCTION3 OCDPE



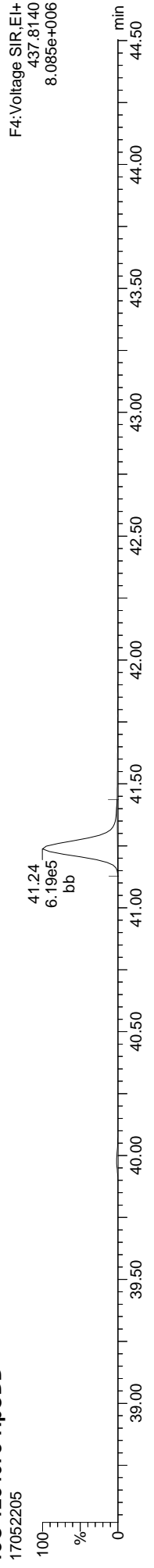
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D1.qld
Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:48:53 Pacific Daylight Time

ID: BFE0233-BS1, Name: 17052205, Date: 22-May-2017, Time: 12:57:17, Conditions: AUTOSPEC01, User: PK

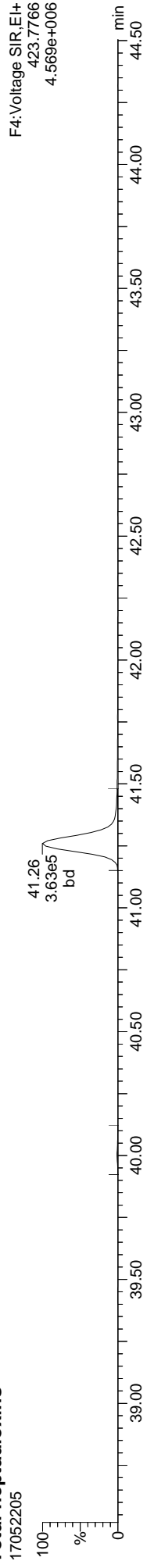
13C-1234678-HpCDD



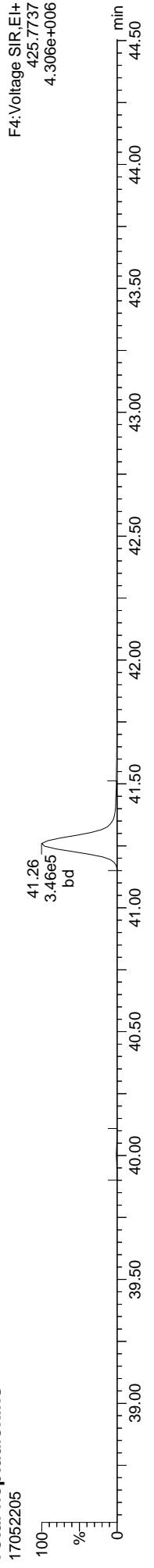
13C-1234678-HpCDD



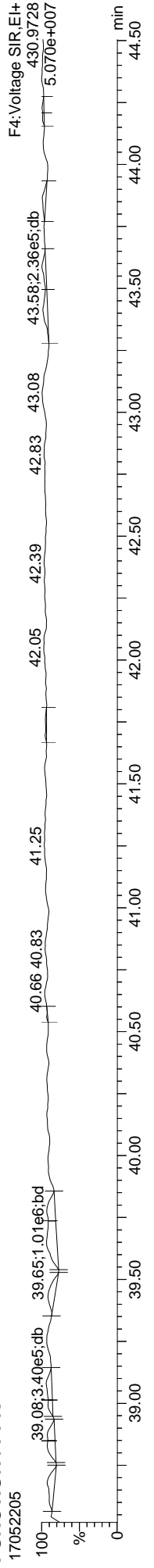
Total-heptadioxins



Total-heptadioxins



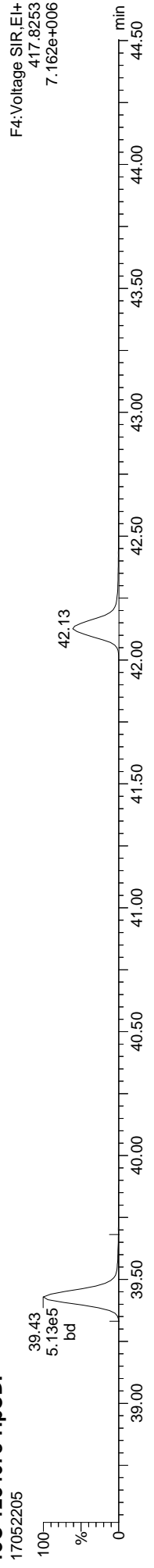
FUNCTION4 PFK



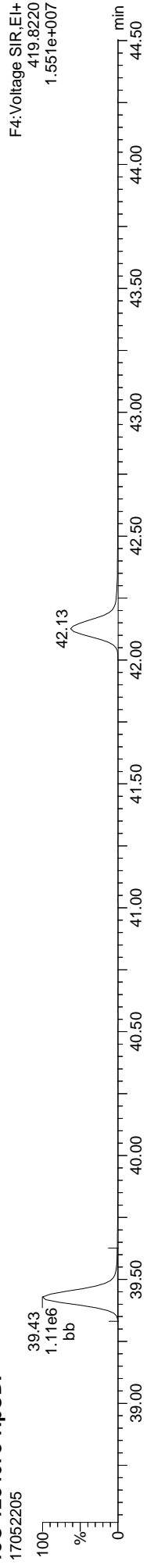
Quantify Sample Report
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Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:48:53 Pacific Daylight Time

ID: BFE0233-BS1, Name: 17052205, Date: 22-May-2017, Time: 12:57:17, Conditions: AUTOSPEC01, User: PK

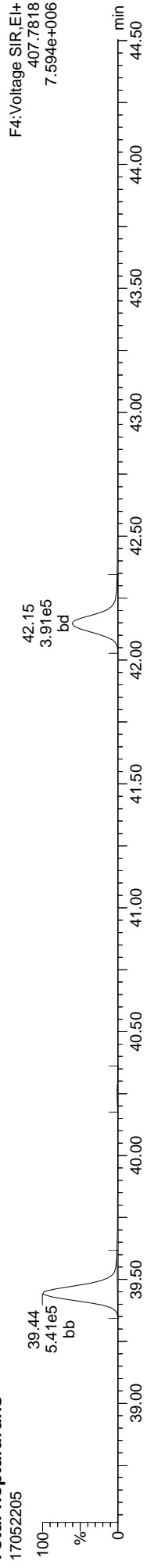
13C-1234678-HpCDF



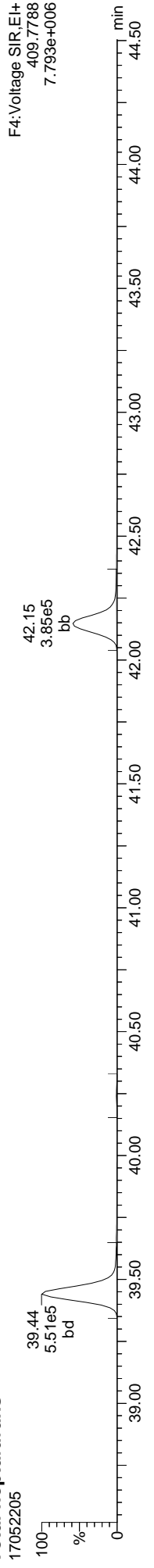
13C-1234678-HpCDF



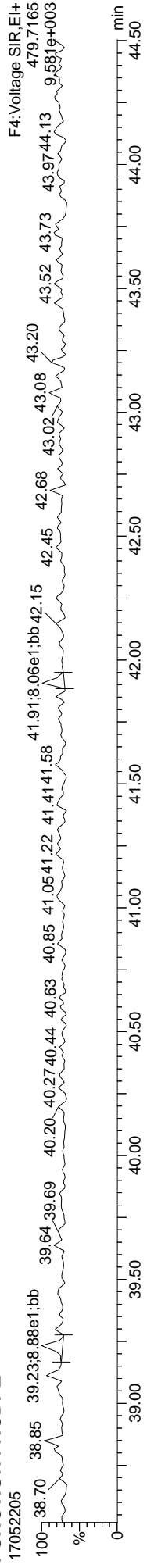
Total-heptafurans



Total-heptafurans



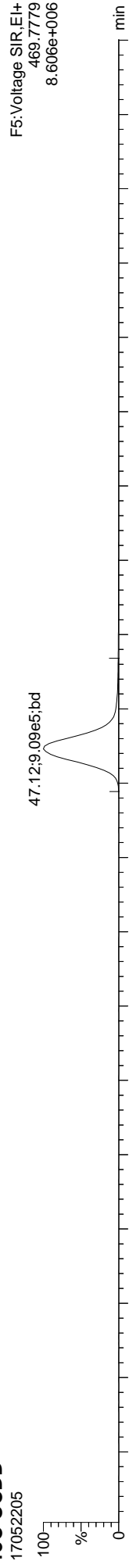
FUNCTION4 NCDPE



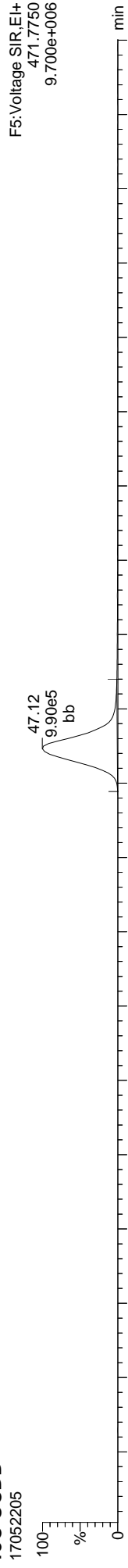
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D1.qld
Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:48:53 Pacific Daylight Time

ID: BFE0233-BS1, Name: 17052205, Date: 22-May-2017, Time: 12:57:17, Conditions: AUTOSPEC01, User: PK

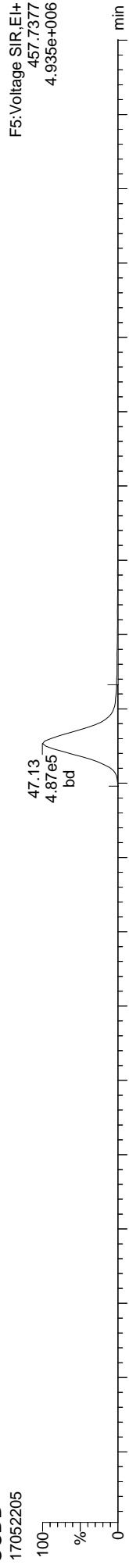
13C-OCDD



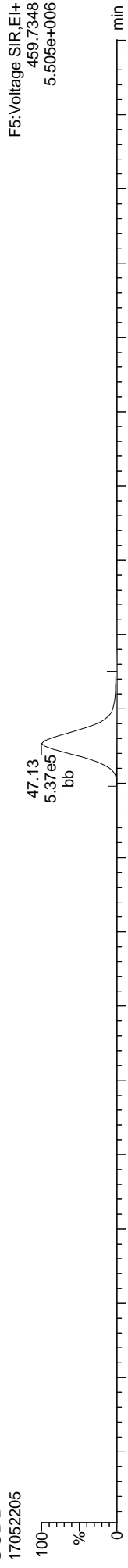
13C-OCDD



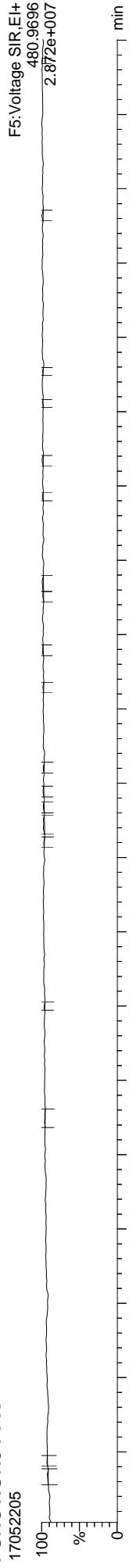
OCDD



OCDD



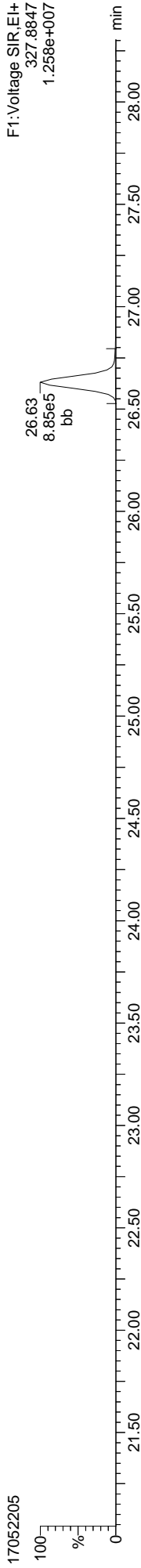
FUNCTION5 PFK



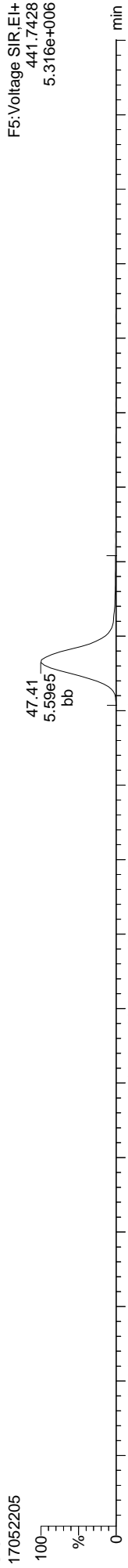
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170522D1.qld
Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 13:48:53 Pacific Daylight Time

ID: BFE0233-BS1, Name: 17052205, Date: 22-May-2017, Time: 12:57:17, Conditions: AUTOSPEC01, User: PK

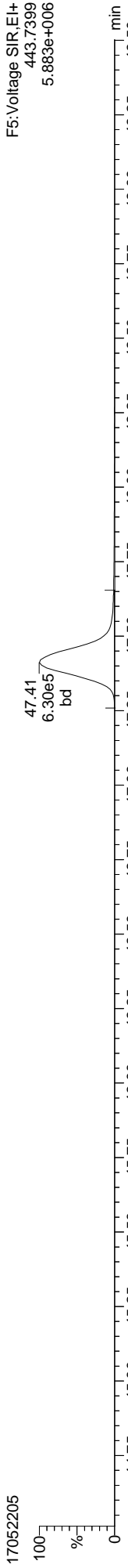
37CL-2378-TCDD



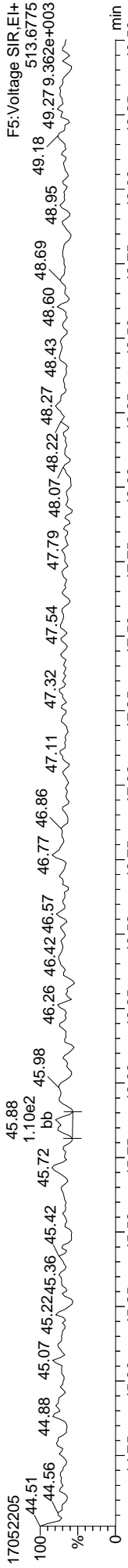
OCDF



OCDF



FUNCTION5 DCDPE





INITIAL CALIBRATION DATA

EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17E0012
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Calibration:	AE00055	Instrument:	AUTOSPEC01
Calibration Date:	05/18/2017 14:31	Column (1):	RTX-Dioxin2

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
2,3,7,8-TCDF			0.5	0.9490585	2	0.9813596	10	1.040606	40	1.022436	200	1.07303
2,3,7,8-TCDD			0.5	1.162099	2	1.083366	10	1.14587	40	1.230064	200	1.25632
1,2,3,7,8-PeCDF	0.5	0.9460449	2.5	0.952468	10	0.944373	50	0.9457384	200	1.022763	1000	1.048011
2,3,4,7,8-PeCDF	0.5	1.027909	2.5	0.9549815	10	0.9900258	50	1.028953	200	1.044385	1000	1.069328
1,2,3,7,8-PeCDD	0.5	1.007555	2.5	1.020548	10	1.027524	50	1.041747	200	1.125024	1000	1.127084
1,2,3,4,7,8-HxCDF	0.5	1.115253	2.5	1.115152	10	1.104844	50	1.187491	200	1.181831	1000	1.195943
1,2,3,6,7,8-HxCDF	0.5	1.090299	2.5	1.035	10	1.10073	50	1.103804	200	1.107081	1000	1.161613
2,3,4,6,7,8-HxCDF	0.5	1.170089	2.5	1.122018	10	1.150339	50	1.208793	200	1.22948	1000	1.246524
1,2,3,7,8,9-HxCDF	0.5	1.110733	2.5	1.102017	10	1.052919	50	1.136686	200	1.141828	1000	1.152117
1,2,3,4,7,8-HxCDD	0.5	1.131299	2.5	1.103758	10	1.106461	50	1.086181	200	1.13703	1000	1.150769
1,2,3,6,7,8-HxCDD	0.5	1.024176	2.5	0.9620978	10	1.028364	50	1.099369	200	1.066357	1000	1.060948
1,2,3,7,8,9-HxCDD	0.5	0.9894779	2.5	0.9509678	10	0.9432685	50	0.9675789	200	1.000898	1000	1.031535
1,2,3,4,6,7,8-HpCDF	0.5	1.241073	2.5	1.23024	10	1.21198	50	1.182277	200	1.284727	1000	1.277839
1,2,3,4,7,8,9-HpCDF	0.5	1.32289	2.5	1.187628	10	1.170267	50	1.238743	200	1.308398	1000	1.316258
1,2,3,4,6,7,8-HpCDD	0.5	1.38109	2.5	1.01197	10	1.040216	50	1.079128	200	1.129739	1000	1.149402
OCDF	1	1.269489	5	1.238552	20	1.255464	100	1.357207	400	1.390997	2000	1.41295
OCDD			5	1.203734	20	1.051231	100	1.092155	400	1.12076	2000	1.116201
13C12-2,3,7,8-TCDF	100	1.704625	100	1.662846	100	1.660973	100	1.635004	100	1.69552	100	1.749015
13C12-2,3,7,8-TCDD	100	0.8636431	100	0.854138	100	0.8591536	100	0.8561875	100	0.8768373	100	0.926382
13C12-1,2,3,7,8-PeCDF	100	1.681118	100	1.683612	100	1.648119	100	1.641387	100	1.726715	100	1.852877
13C12-2,3,4,7,8-PeCDF	100	1.61253	100	1.626987	100	1.568332	100	1.584016	100	1.639531	100	1.759664
13C12-1,2,3,7,8-PeCDD	100	0.8607353	100	0.8442584	100	0.8194666	100	0.8283601	100	0.863508	100	0.9438485
13C12-1,2,3,4,7,8-HxCDF	100	1.706566	100	1.710278	100	1.678083	100	1.703242	100	1.674994	100	1.619961
13C12-1,2,3,6,7,8-HxCDF	100	2.004543	100	1.94794	100	1.911598	100	2.034138	100	1.961576	100	1.812604
13C12-2,3,4,6,7,8-HxCDF	100	1.607487	100	1.595725	100	1.602608	100	1.593941	100	1.57575	100	1.517173
13C12-1,2,3,7,8,9-HxCDF	100	1.300689	100	1.273934	100	1.293443	100	1.268152	100	1.296498	100	1.311536
13C12-1,2,3,4,7,8-HxCDD	100	1.134251	100	1.116602	100	1.085662	100	1.127072	100	1.114364	100	1.103912
13C12-1,2,3,6,7,8-HxCDD	100	1.304356	100	1.29054	100	1.264198	100	1.256098	100	1.232147	100	1.203603



INITIAL CALIBRATION DATA

EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17E0012
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Calibration:	AE00055	Instrument:	AUTOSPEC01
Calibration Date:	05/18/2017 14:31	Column (1):	RTX-Dioxin2

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	Limit Type & Limit	Q
13C12-OCDD	0.7383514	4.0			RSD ()	
37C14-2,3,7,8-TCDD	1.021192	9.4			RSD ()	
13C12-1,2,3,4-TCDD	1	0.0			RSD ()	
13C12-1,2,3,7,8,9-HxCDD	1	0.0			RSD ()	



6 pt Dioxin Curve 5/18/17

HR-GC/MS Analyst Notes / Data Review Checklist

ELEMENT/NWA: _____

Client ID: In-House

Element Calibration Code: AE00055

METHOD: 1613B (Dioxins) 8290A (Dioxins)

Instrument: AutoSpec01

Analysis Start Date: 5/18/17

Resolution Check > 10,000ppm Y / N / _____
REVIEW 1/REVIEW 2

Signal / Noise \geq 3.0? _____
REVIEW 1/REVIEW 2
Y / N / _____

TCDD / TCDF Resolution \leq 25% Y / N / _____

Extraction STD Limits Met? Y / N / _____

PCDF Windows Verified Y / N / _____

Cleanup STD Limits Met? Y / N / _____

ICV/CCV %D limits met? Y / N / _____

Method Blank in Control? Y / N / _____

ICV/CCV Ratios limits met? Y / N / _____

OPR Recovery Limits Met? Y / N / _____

ICV/CCV RRT limits met? Y / N / _____

Values Exceeding Curve Range? Y / N / _____

Manual Integrations? Y / N / _____

Samples Diluted? Y / N / _____

VDP Completed? NA / Y / N / _____

Duplicate Sample RPD \leq 25%? NA / _____

EPA Case # NA / _____

Technical Review? _____ / _____

Detail problems, corrective actions and/or other pertinent information below:

- All cpds 6 pts, except TCDD, TCDF, and OCDD
dropped from CSL.

6 pts: CSL - CSS
5 pts: CSI - CSS

- All avg, %RSD < 20%

- Man Int for PD and OF in CSL.

- Seq SFB0273

(Review 1)Analyst: Plyler Date: 5/19/17

(Review 2)Peer: _____ Date: _____

(Final Review)Reviewer: _____ Date: _____

Analytical Resources Inc.: Organics Instrument Log

AutoSpec01 Serial No.: GC=CN10921030, MS=P764

Date: 5/18/17 Analysis: Dioxins Analyst: ph
 GC Program: 8290D Column No: E765 Column Type: MaxDioxin2
 Inj Vol: 1ul Instrument Tune (IPR): May 15 17 1-5 Detector Voltage: 350
 Resolution Check Files: 16:43, 02:34 Curve Date: 5/18/17

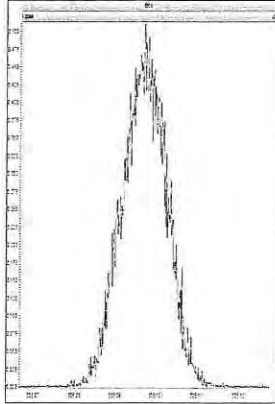
IS/SS	Ical/Ccal	LCS/ICV
	D621 D622	
	D620 E001	E002
	E3891 E4948	
	D623	

#	Acq.Date	Acq.Time	File	ID	Comments
1	18-May-17	16:44:51	17051802	CS3WD	
2	18-May-17	17:36:18	17051803	ISCI1	
3	18-May-17	18:29:32	17051804	IB	SFB0269 EPA
4	18-May-17	19:22:46	17051805	CSL	SFE0273 IH
5	18-May-17	20:16:01	17051806	CS1	
6	18-May-17	21:09:21	17051807	CS2	
7	18-May-17	22:02:34	17051808	CS3	
8	18-May-17	22:55:59	17051809	CS4	
9	18-May-17	23:49:31	17051810	CS5	
10	19-May-17	00:42:51	17051811	ICV	
11	19-May-17	01:36:06	17051812	ISCI2	

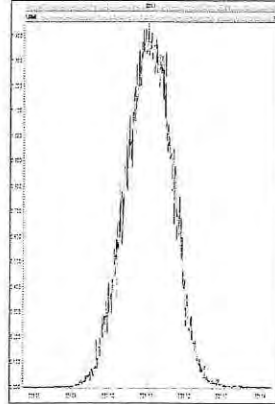
ph 5/19/17

Every line must contain information or be lined out. Make all entries legible.
 Start a new page for each QC period. Document All Maintenance Tasks In Element LIMS

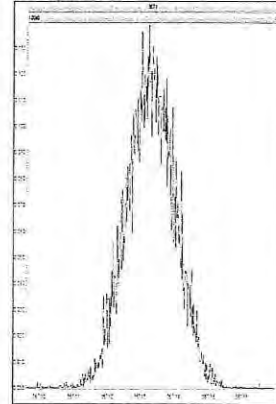
M 304.9824 R 12410



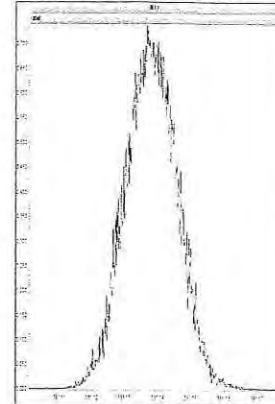
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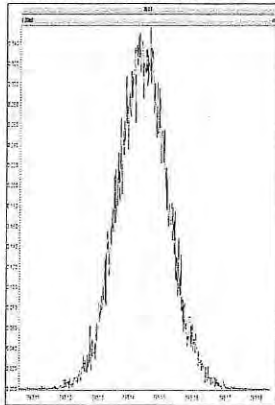
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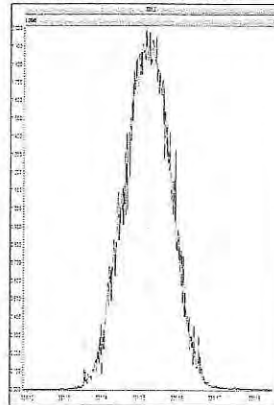
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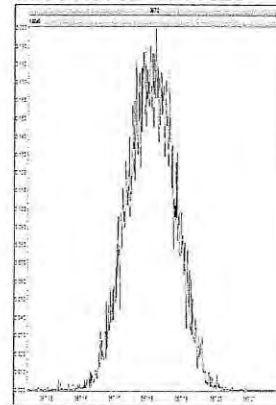
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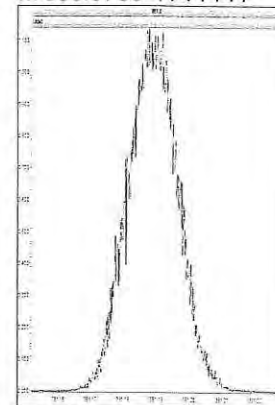
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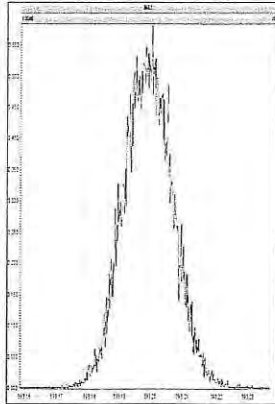
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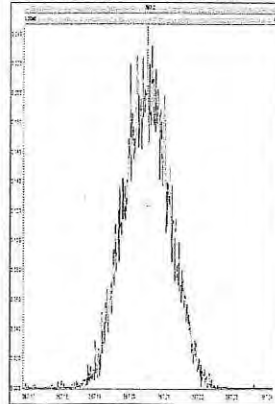
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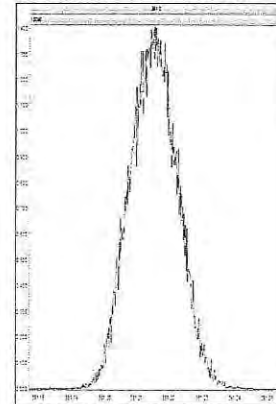
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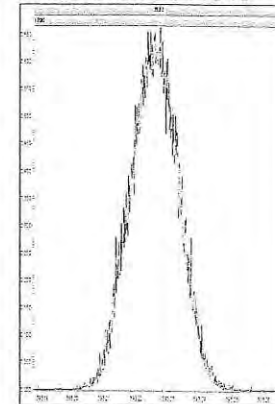
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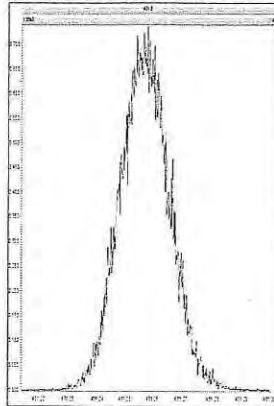
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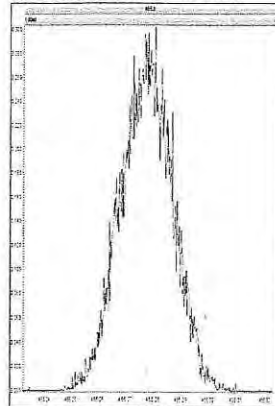
M 392.9760 R 11849



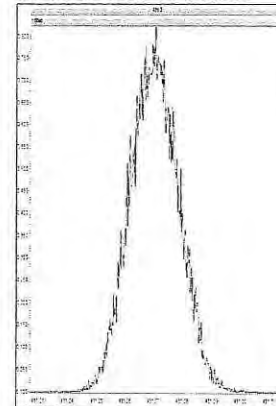
M 430.9728 R 11075



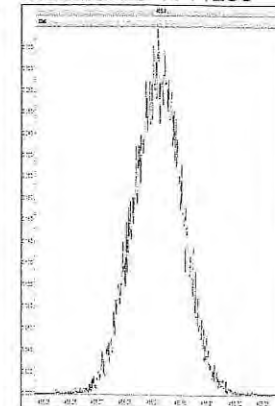
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M 430.9728 R 11313

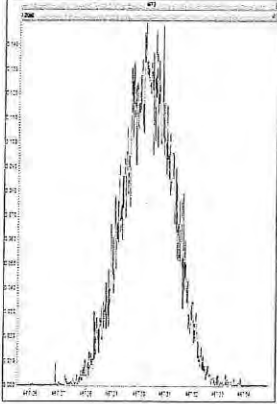


M 454.9728 R 11235

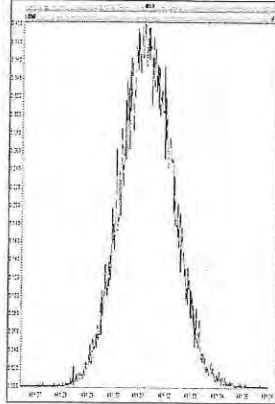


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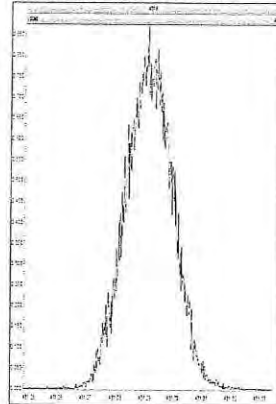
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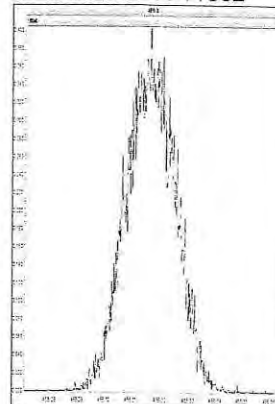
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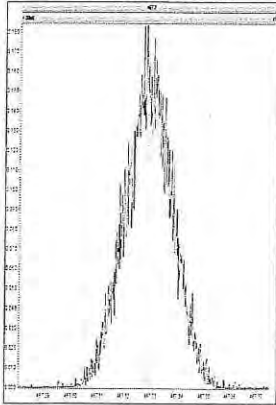
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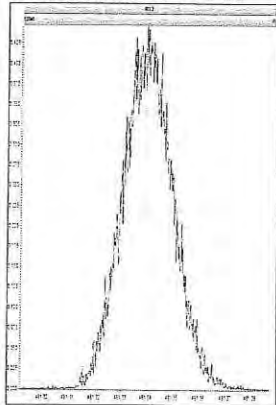
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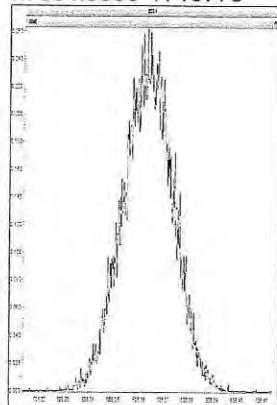
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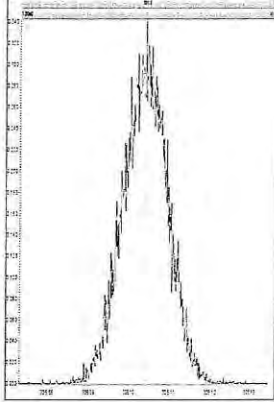
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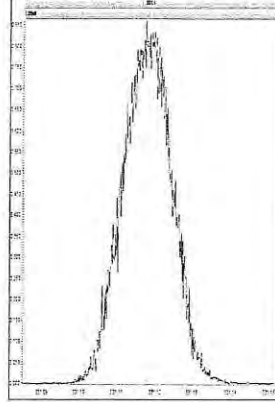
M 504.9696 R 10775



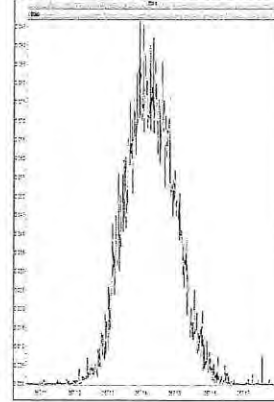
M 304.9824 R 11765



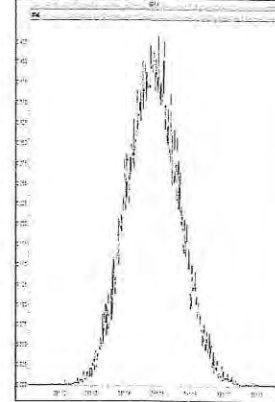
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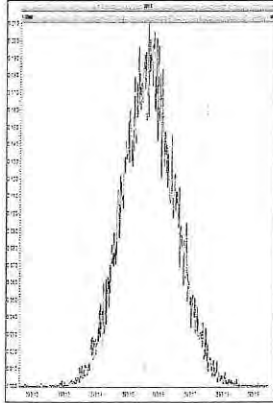
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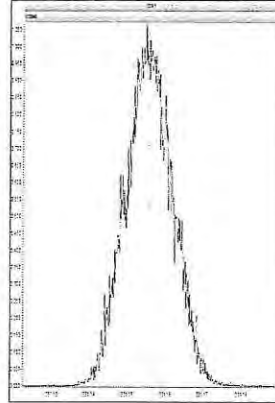
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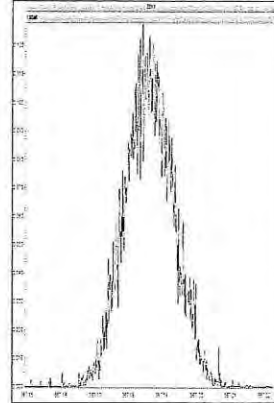
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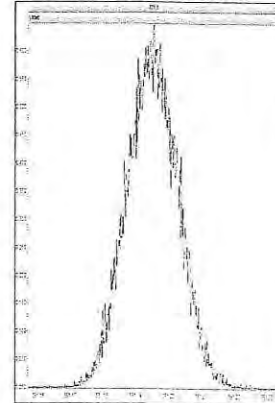
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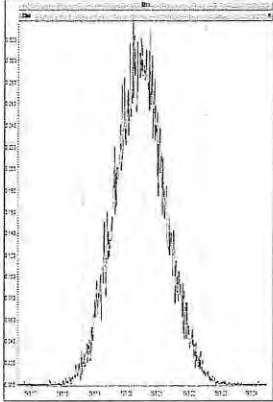
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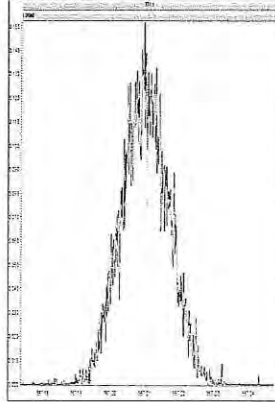
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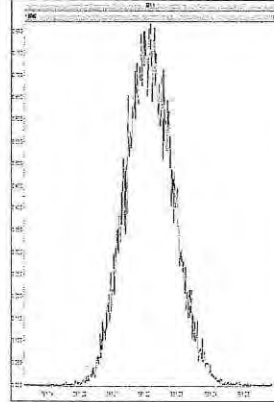
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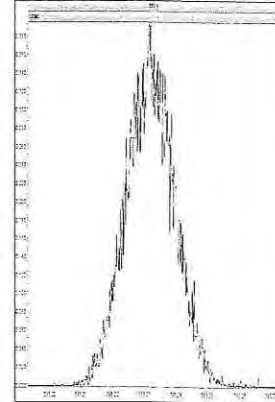
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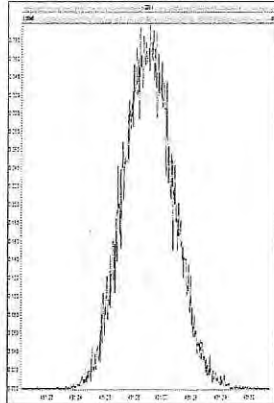
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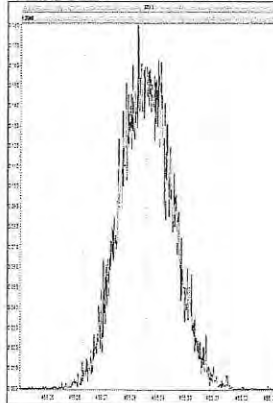
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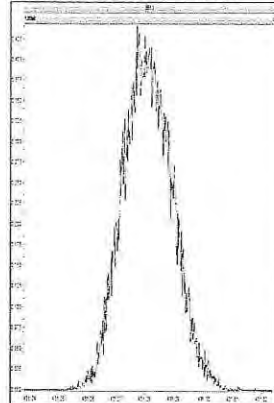
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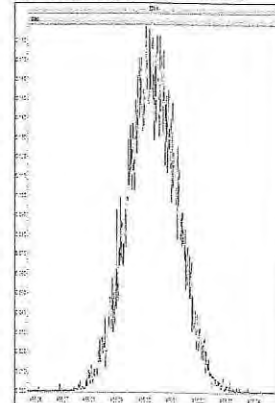
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M 430.9728 R 11264

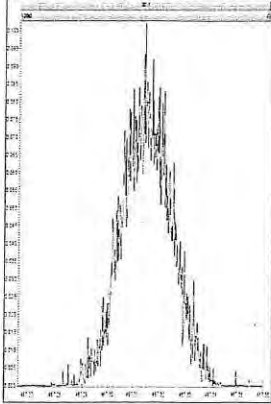


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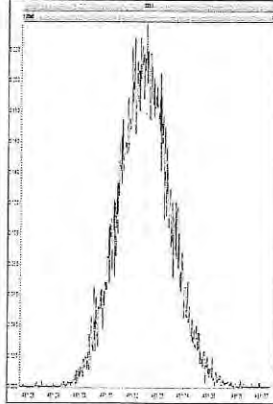


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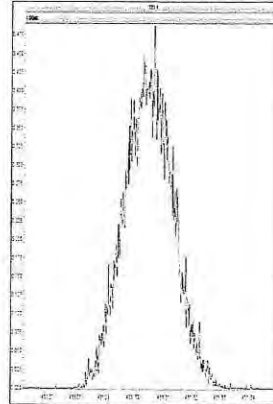
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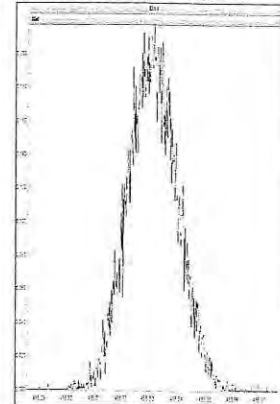
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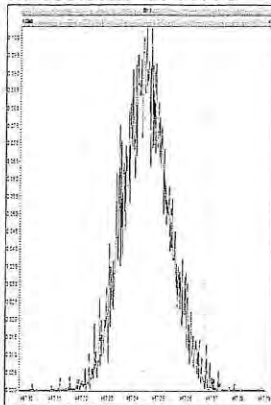
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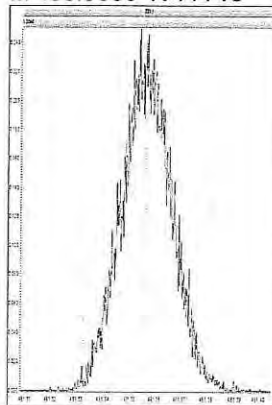
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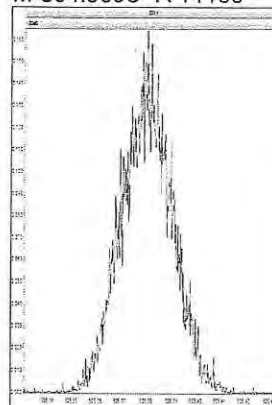
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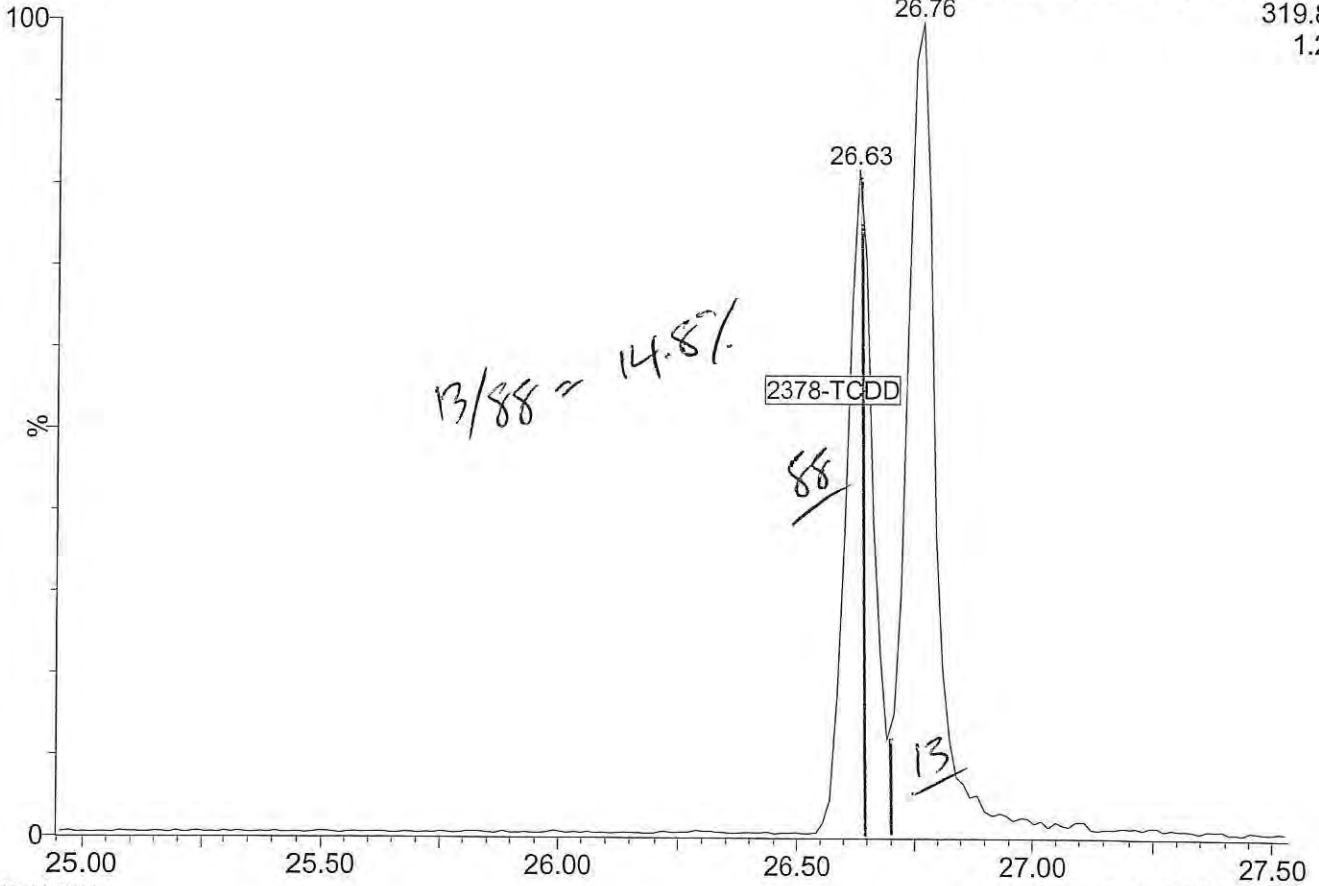


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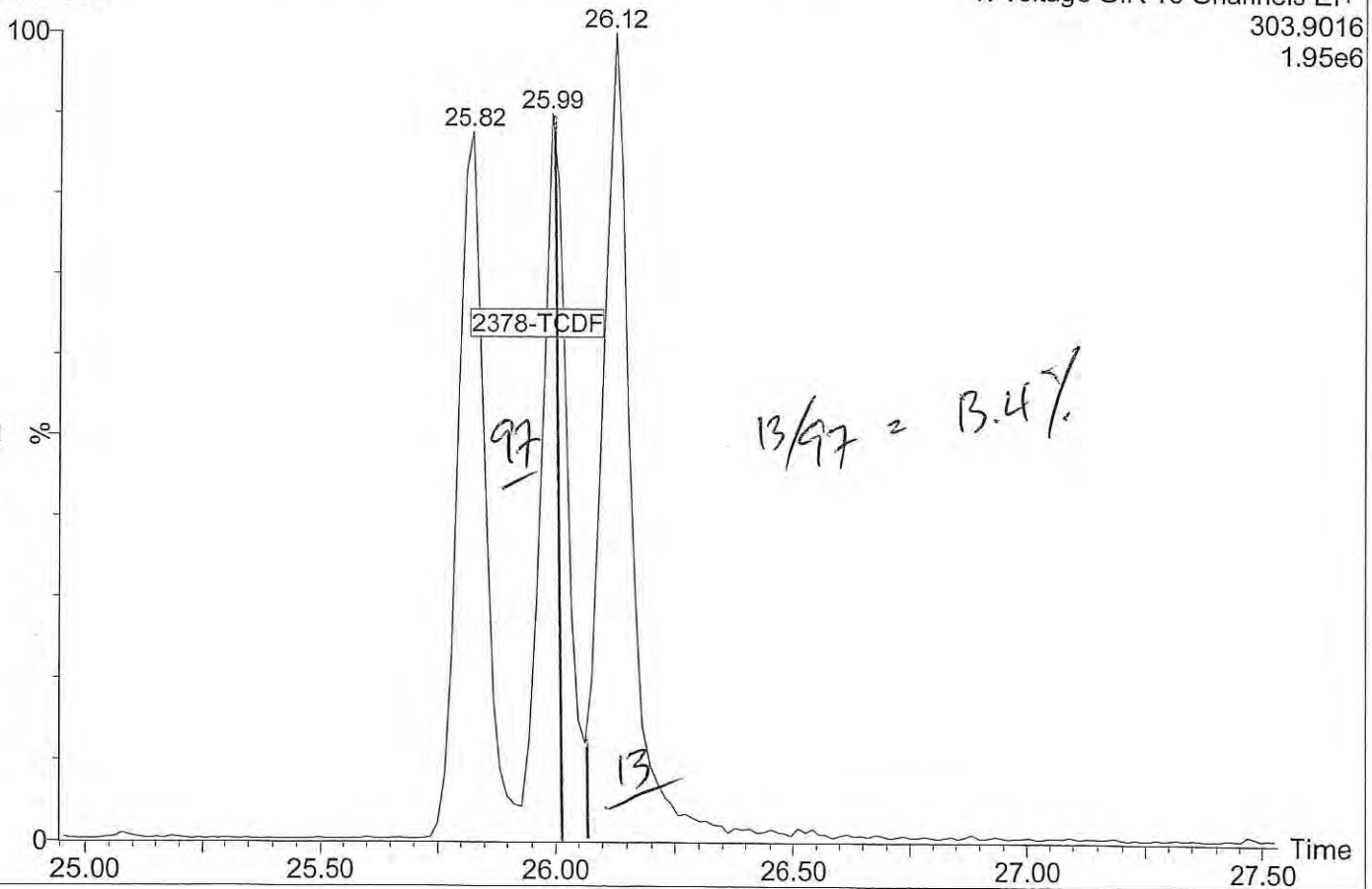
17051803

1: Voltage SIR 15 Channels EI+
319.8965
1.29e6



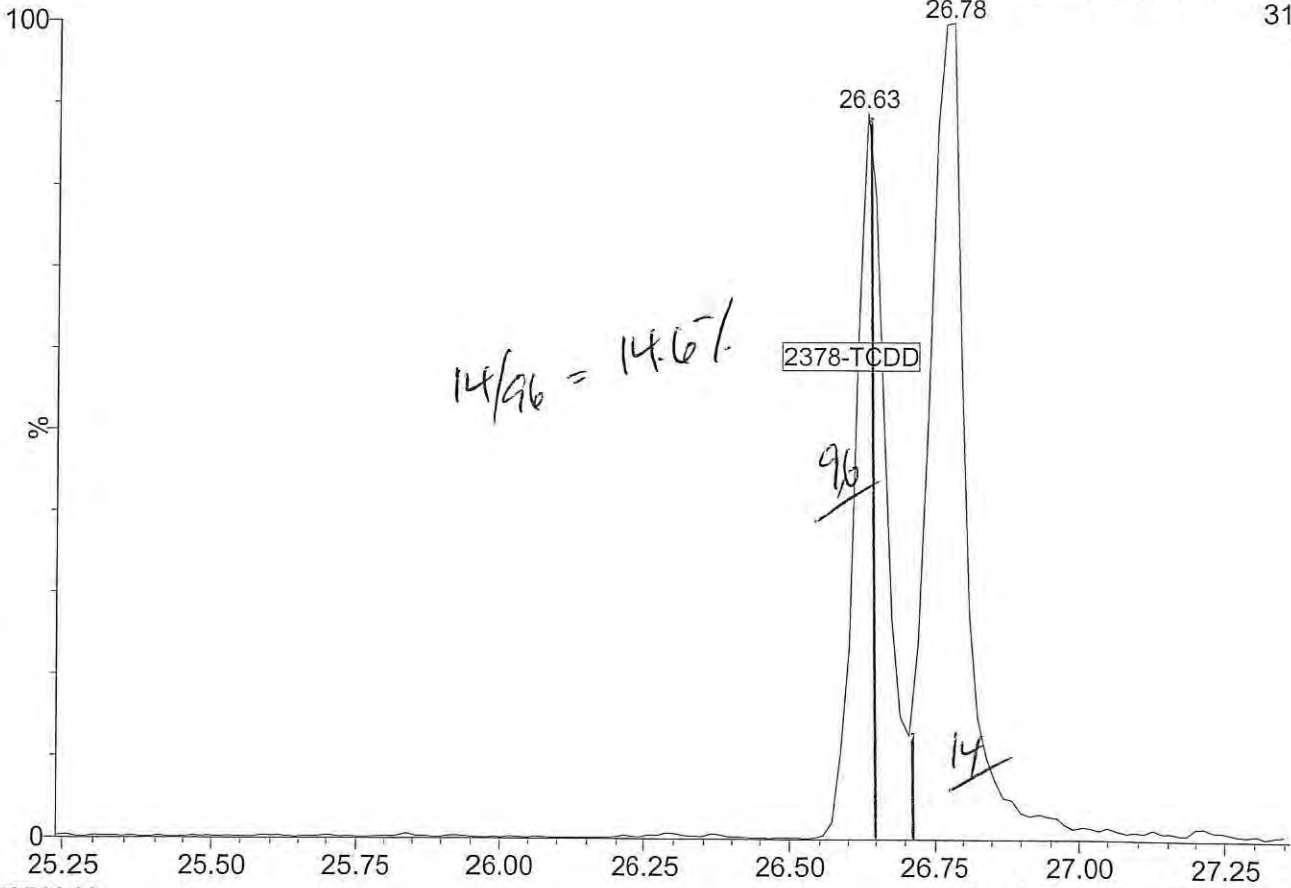
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1: Voltage SIR 15 Channels EI+
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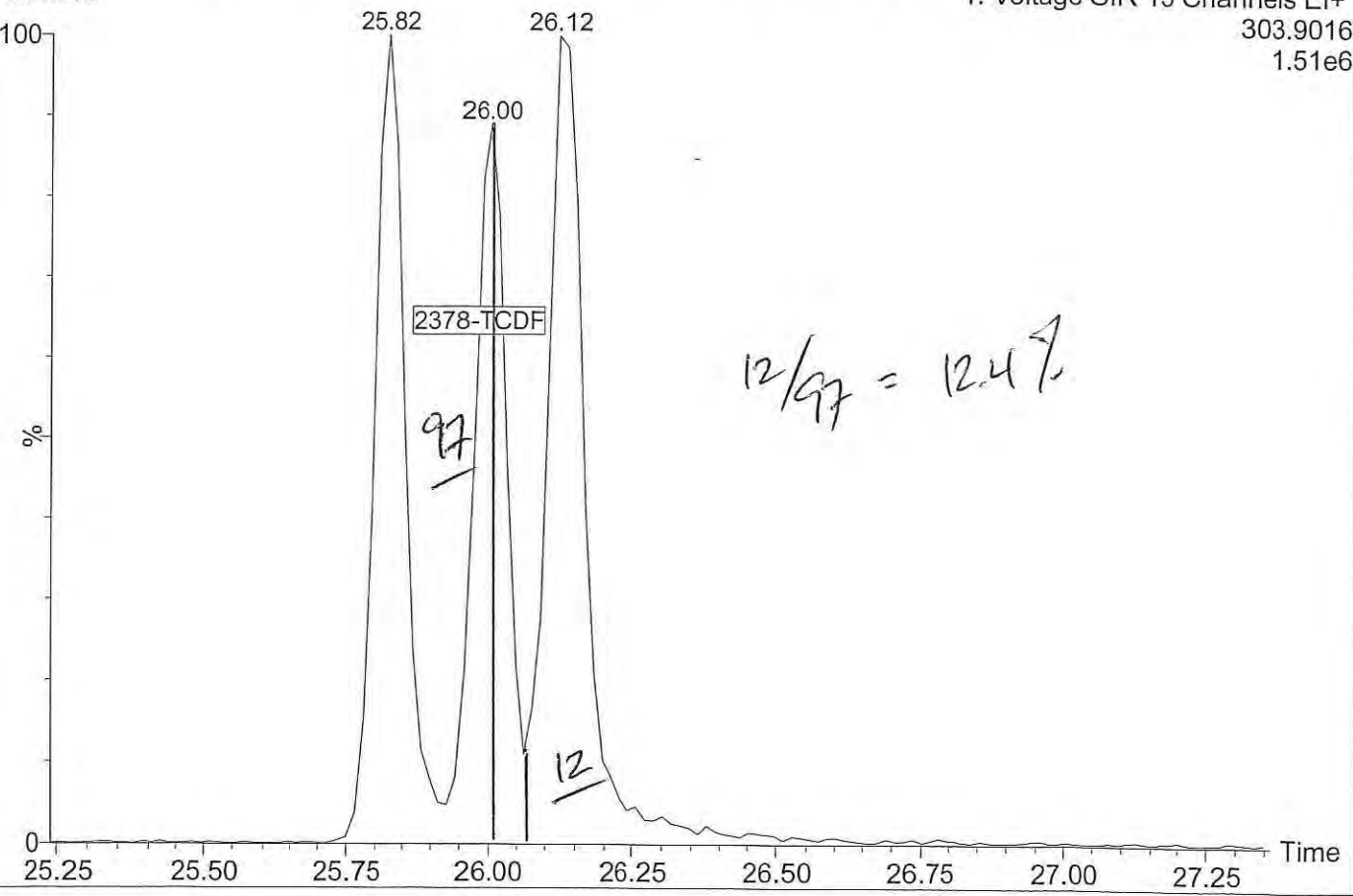
17051812

1: Voltage SIR 15 Channels EI+
319.8965
1.06e6



17051812

1: Voltage SIR 15 Channels EI+
303.9016
1.51e6



Dataset: C:\MassLynx\Dioxin.pro\170518ICIH.qld
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 Printed: Friday, May 19, 2017 14:36:32 Pacific Daylight Time

Event	Details	Sample ID
Process Extract		
Process Integrate		
Process Calibrate		
Process Quantify		
Dataset Created		
Pre modification peak	Sample:17051805, Compound:HF, RT:37.380	1
Peak modified	Sample:17051805, Compound:HF, RT:37.380	1
Peak deleted	Sample:17051805, Compound:OD, RT:47.098	1
Peak deleted	Sample:17051805, Compound:OD, RT:47.098	1
Peak deleted	Sample:17051805, Compound:OD, RT:47.296	1
Peak deleted	Sample:17051805, Compound:OD, RT:47.296	1
Pre modification peak	Sample:17051805, Compound:OF, RT:47.403	1
Peak modified	Sample:17051805, Compound:OF, RT:47.403	1
Pre modification peak	Sample:17051805, Compound:PD, RT:31.724	1
Peak modified	Sample:17051805, Compound:PD, RT:31.724	1
Peak deleted	Sample:17051805, Compound:TD, RT:26.631	1
Peak deleted	Sample:17051805, Compound:TD, RT:26.631	1
Peak deleted	Sample:17051805, Compound:TF, RT:26.003	1
Peak deleted	Sample:17051805, Compound:TF, RT:26.003	1
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Dataset Saved	Saved to 'C:\MassLynx\Dioxin.pro\170518ICIH.qld'	
Calibration Saved	Saved to 'C:\MassLynx\Dioxin.pro\CurveDB\170518ICIH.cdb'	

Dataset: C:\MassLynx\Dioxin.pro\170518\CIH.qld
 Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
 Printed: Friday, May 19, 2017 13:58:49 Pacific Daylight Time

Method: C:\MassLynx\Dioxin.pro\MethDB\Dioxin\170518.mdb 18 May 2017 15:01:42
 Calibration: 19 May 2017 13:57:26

ID: CSL, Name: 17051805, Date: 18-May-2017, Time: 19:22:46, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
2378-TCDF	26.003	1.001	1.175e3	1.802e3	1.018	0.652	0.770	917	1874	2.06e4	2.76e4	22.5	YES	YES	db	bb	0.103
12378-PeCDF	30.124	1.000	7.783e3	5.518e3	0.977	1.410	1.550	1342	2315	1.19e5	8.40e4	88.4	YES	NO	bd	bb	0.484
23478-PeCDF	31.472	1.001	8.026e3	5.837e3	1.019	1.375	1.550	1342	2315	1.13e5	7.98e4	84.0	YES	NO	bb	bb	0.504
123478-HxCDF	35.133	1.000	6.333e3	5.277e3	1.150	1.200	1.240	1517	1099	9.30e4	8.36e4	61.3	YES	NO	bd	bd	0.485
234678-HxCDF	36.240	1.001	6.431e3	5.043e3	1.188	1.275	1.240	1517	1099	9.10e4	6.50e4	60.0	YES	NO	bd	bd	0.493
123678-HxCDF	35.287	1.001	7.078e3	6.254e3	1.100	1.132	1.240	1517	1099	8.48e4	8.94e4	55.9	YES	NO	dd	db	0.496
123789-HxCDF	37.380	1.001	4.662e3	4.151e3	1.116	1.123	1.240	1517	1099	6.66e4	6.40e4	43.9	YES	NO	MM	bd	0.498
1234678-HpCDF	39.430	1.001	5.447e3	5.815e3	1.238	0.937	1.050	1821	902	7.50e4	7.42e4	41.2	YES	NO	bd	bd	0.501
1234789-HpCDF	42.126	1.001	4.110e3	3.614e3	1.257	1.137	1.050	1821	902	4.60e4	4.57e4	25.3	YES	NO	bd	bb	0.526
OCDF	47.394	1.006	5.049e3	6.304e3	1.321	0.801	0.890	996	1209	5.75e4	7.25e4	57.7	YES	NO	bd	MM	0.961
2378-TCDD	26.631	1.001	1.212e3	1.082e3	1.244	1.120	0.770	866	513	1.93e4	1.46e4	22.3	YES	YES	dd	bb	0.128
12378-PeCDD	31.724	1.001	4.201e3	3.053e3	1.058	1.376	1.550	1343	623	5.96e4	5.07e4	44.3	YES	NO	bb	MM	0.476
123478-HxCDD	36.361	1.000	4.350e3	3.478e3	1.119	1.251	1.240	1242	907	5.60e4	5.05e4	45.1	YES	NO	bd	bd	0.505
123678-HxCDD	36.493	1.001	4.732e3	3.417e3	1.040	1.385	1.240	1242	907	6.91e4	4.51e4	55.7	YES	NO	db	db	0.492
123789-HxCDD	36.920	1.012	4.101e3	3.258e3	0.981	1.259	1.240	1242	907	5.47e4	4.25e4	44.1	YES	NO	bb	bb	0.505
1234678-HpCDD	41.250	1.001	4.225e3	3.597e3	1.132	1.175	1.050	1008	898	5.05e4	4.05e4	50.1	YES	NO	bd	bb	0.610
OCDD					1.117		0.890	649	971								
13C-2378-TCDF	25.973	1.006	1.258e6	1.593e6	1.685	0.789	0.770	1718	3710	1.76e7	2.23e7	2445.1	YES	NO	bb	bb	101.185
13C-12378-PeCDF	30.113	1.167	1.731e6	1.081e6	1.706	1.601	1.550	6901	6442	2.41e7	1.51e7	3489.3	YES	NO	bb	bb	98.562
13C-23478-PeCDF	31.450	1.219	1.669e6	1.028e6	1.632	1.623	1.550	6901	6442	2.37e7	1.47e7	3438.1	YES	NO	bb	bb	98.816
13C-123478-HxCDF	35.122	0.952	7.153e5	1.367e6	1.682	0.523	0.510	6415	5245	1.06e7	2.00e7	1654.4	YES	NO	bd	bd	101.449
13C-123678-HxCDF	35.265	0.956	8.225e5	1.623e6	1.945	0.507	0.510	6415	5245	1.11e7	2.12e7	1726.7	YES	NO	db	dd	103.040
13C-234678-HxCDF	36.218	0.992	6.746e5	1.287e6	1.582	0.524	0.510	6415	5245	9.34e6	1.75e7	1456.4	YES	NO	bb	bb	101.604
13C-123789-HxCDF	37.359	1.012	5.404e5	1.046e6	1.291	0.516	0.510	6415	5245	7.21e6	1.40e7	1123.6	YES	NO	bb	bb	100.773
13C-1234678-HpCDF	39.408	1.068	5.590e5	1.256e6	1.427	0.445	0.440	3802	5691	7.29e6	1.65e7	1917.9	YES	NO	bd	bd	104.275
13C-1234789-HpCDF	42.094	1.141	3.687e5	7.991e5	0.957	0.461	0.440	3802	5691	4.20e6	9.28e6	1103.9	YES	NO	bd	bb	100.025
13C-1234-TCDD	25.809	0.000	7.371e5	9.356e5	1.000	0.788	0.770	2951	1394	1.08e7	1.36e7	3670.1	YES	NO	bb	bb	100.000
13C-2378-TCDD	26.616	1.031	6.386e5	8.060e5	0.873	0.792	0.770	2951	1394	8.95e6	1.11e7	3034.4	YES	NO	bb	bb	98.960
13C-12378-PeCDD	31.702	1.228	8.880e5	5.517e5	0.860	1.610	1.550	1543	1920	1.22e7	7.68e6	7940.1	YES	NO	bd	bd	100.082
13C-123478-HxCDD	36.350	0.985	7.812e5	6.026e5	1.114	1.296	1.240	4318	2859	1.10e7	8.44e6	2556.2	YES	NO	bd	bd	101.850
13C-123678-HxCDD	36.471	0.988	8.950e5	6.963e5	1.258	1.285	1.240	4318	2859	1.19e7	9.29e6	2761.1	YES	NO	db	db	103.644
13C-1234678-HpCDD	41.217	1.117	5.938e5	5.389e5	0.924	1.102	1.050	3122	2966	7.21e6	6.57e6	2309.0	YES	NO	bd	bb	100.526
13C-OCDD	47.089	1.276	8.653e5	9.232e5	0.738	0.937	0.890	3258	3584	7.84e6	8.53e6	2406.4	YES	NO	bd	bb	198.547

Dataset: C:\MassLynx\Dioxin.pro\170518\CIH.qld
 Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
 Printed: Friday, May 19, 2017 13:58:49 Pacific Daylight Time

ID: CSL, Name: 17051805, Date: 18-May-2017, Time: 19:22:46, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int:1	Int:2	pg
13C-123789-HxCDD	36.898	0.000	6.858e5	5.342e5	1.000	1.284	1.240	4318	2859	9.32e6	7.20e6	2157.5	YES	NO	bb	bb	100.000
Total-tetraturans			1.296e3	1.018				917		2.34e4							0.112
Total-penta1			0.000e0					670		0.00e0							
Total-pentaturans			1.590e4	0.998				1342		2.34e5							0.997
Total-hexaturans			2.489e4	1.138				1517		3.43e5							1.995
Total-heptaturans			1.055e4	1.248				1821		1.45e5							1.120
Total-Furans			5.768e4	1.138				917		8.03e5							5.185
Total-tetradiioxins			1.212e3	1.244				866		1.93e4							0.128
Total-pentadiioxins			4.201e3	1.058				1343		5.96e4							0.476
Total-hexadiioxins			1.330e4	1.047				1242		1.84e5							1.517
Total-heptadiioxins			7.252e3	1.132				1008		9.80e4							1.045
Total-Dioxins			2.596e4	1.099				866		3.61e5							3.166
Total-TEQ			8.365e4					866		1.16e6							8.351
37CL-2378-TCDD	26.646	1.032	1.813e3	1.021				1850		2.45e4		13.2	YES		bd		0.106
FUNCTION1 PFK			2.710e5					988006		6.77e6							0.000
FUNCTION2 PFK			1.886e5					196933		5.87e6							
FUNCTION3 PFK			0.000e0					1102264		0.00e0							
FUNCTION4 PFK			2.903e6					649881		5.95e7							
FUNCTION5 PFK			1.507e4					335635		7.41e5							
FUNCTION1 HXCDPE			0.000e0					399		0.00e0							0.000
FUNCTION1 HPCDPE			4.461e2					569		9.86e3							0.000
FUNCTION2 HPCDPE			4.546e2					876		9.30e3							0.000
FUNCTION3 OCDPE			0.000e0					634		0.00e0							
FUNCTION4 NCDPE			5.429e2					484		1.54e4							0.000
FUNCTION5 DCDPE			0.000e0					455		0.00e0							

Dataset: C:\MassLynx\Dioxin.pro\170518\IC1H.qld
Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
Printed: Friday, May 19, 2017 13:58:49 Pacific Daylight Time

Method: C:\MassLynx\Dioxin.pro\MethDB\IDioxin170518.mdb 18 May 2017 15:01:42
Calibration: 19 May 2017 13:57:26

ID: CSL, Name: 17051805, Date: 18-May-2017, Time: 19:22:46, Conditions: AUTOSPEC01, User: pk

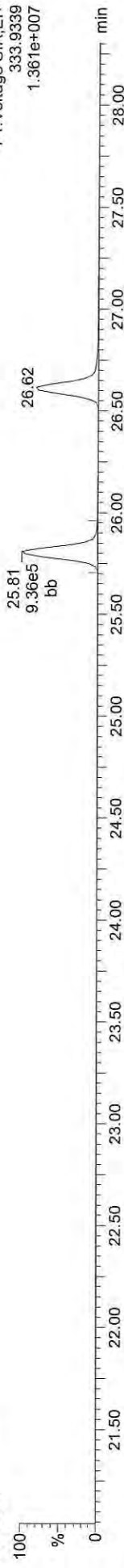
13C-1234-TCDD

17051805



13C-1234-TCDD

17051805



13C-123789-HxCDD

17051805



13C-123789-HxCDD

17051805



Dataset: C:\MassLynx\Dioxin.pro\170518\CIH.qld

Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time

Printed: Friday, May 19, 2017 13:58:49 Pacific Daylight Time

ID: CSL, Name: 17051805, Date: 18-May-2017, Time: 19:22:46, Conditions: AUTOSPEC01, User: pk

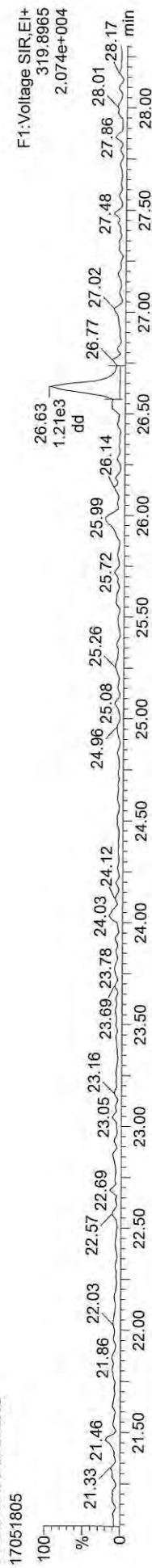
13C-2378-TCDD



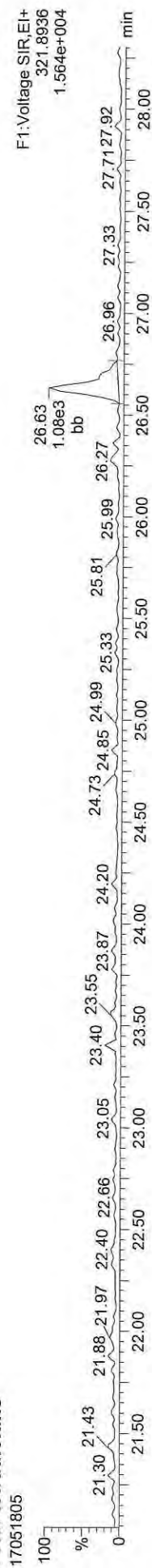
13C-2378-TCDD



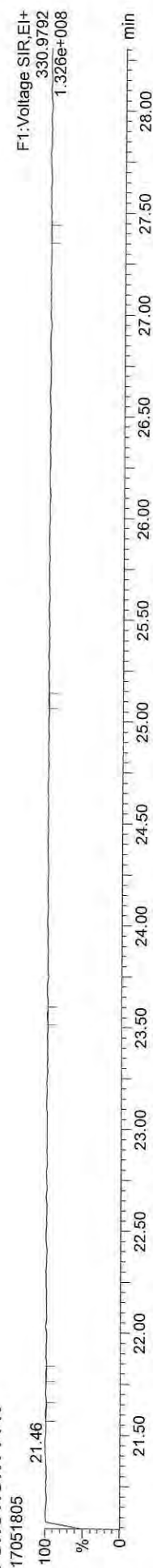
Total-tetradiioxins



Total-tetradiioxins



FUNCTION1 PFK



Quantify Sample Report MassLynx MassLynx V4.1 SCN909

Dataset: C:\MassLynx\Dioxin.pro\170518\IC1H.qld
Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
Printed: Friday, May 19, 2017 13:58:49 Pacific Daylight Time

ID: CSL, Name: 17051805, Date: 18-May-2017, Time: 19:22:46, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDF



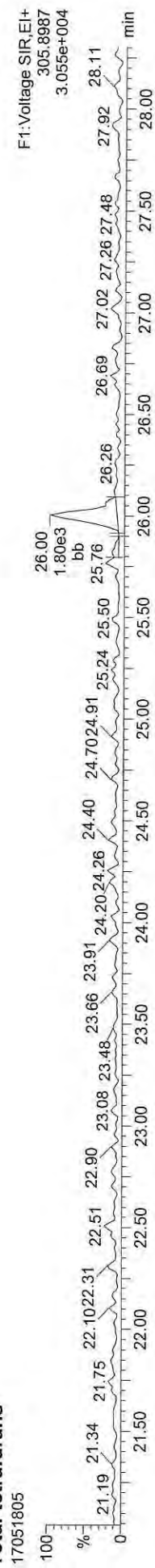
13C-2378-TCDF



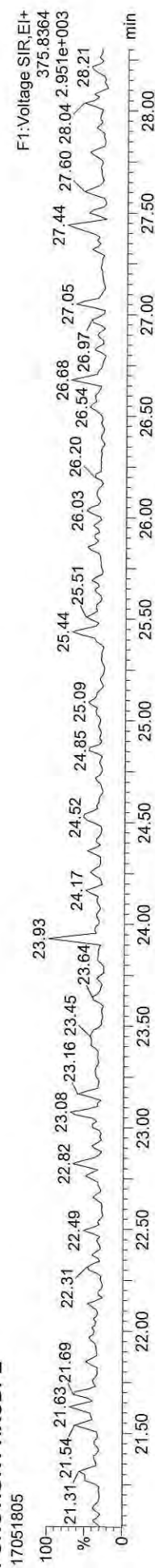
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE

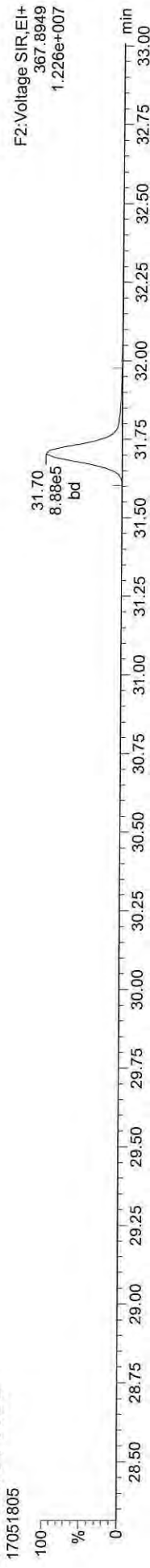


Quantify Sample Report MassLynx MassLynx V4.1 SCN909

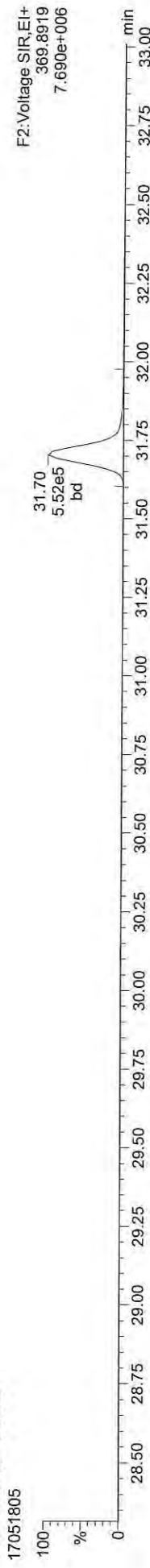
Dataset: C:\MassLynx\Dioxin.pro\170518\CIH.qld
Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
Printed: Friday, May 19, 2017 13:58:49 Pacific Daylight Time

ID: CSL, Name: 17051805, Date: 18-May-2017, Time: 19:22:46, Conditions: AUTOSPEC01, User: pk

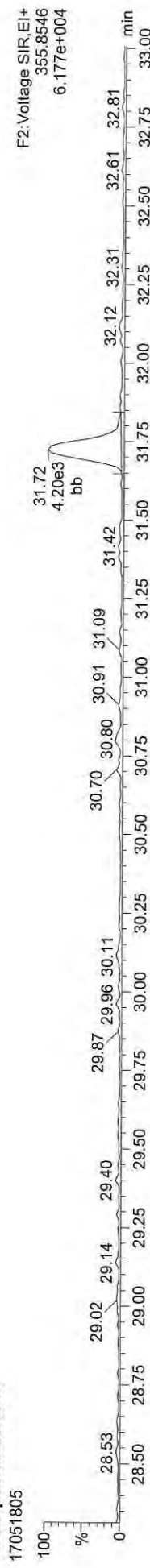
13C-12378-PeCDD



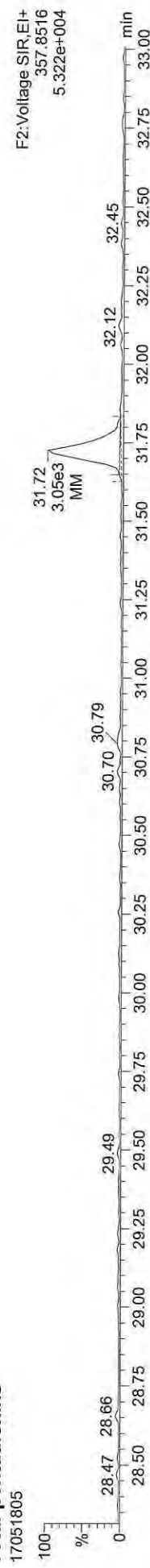
13C-12378-PeCDD



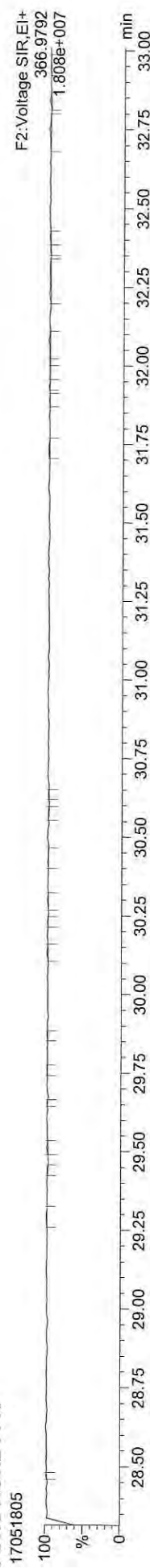
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



Quantify Sample Report MassLynx MassLynx V4.1 SCN909

Dataset: C:\MassLynx\Dioxin.pro\170518\CIH.qld
Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
Printed: Friday, May 19, 2017 13:58:49 Pacific Daylight Time

ID: CSL, Name: 17051805, Date: 18-May-2017, Time: 19:22:46, Conditions: AUTOSPEC01, User: pk

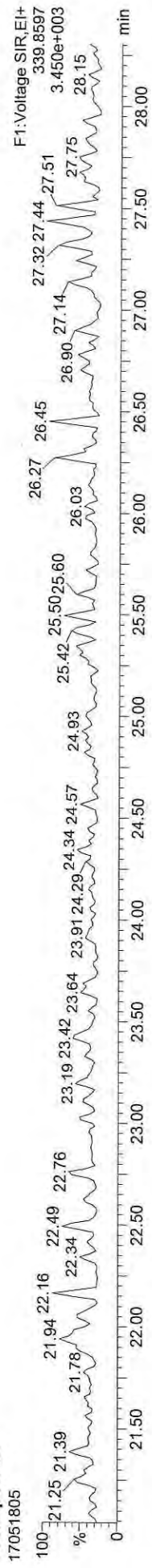
13C-12378-PeCDF



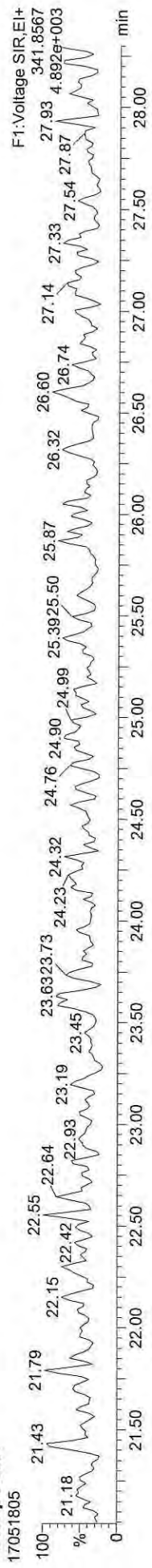
13C-12378-PeCDF



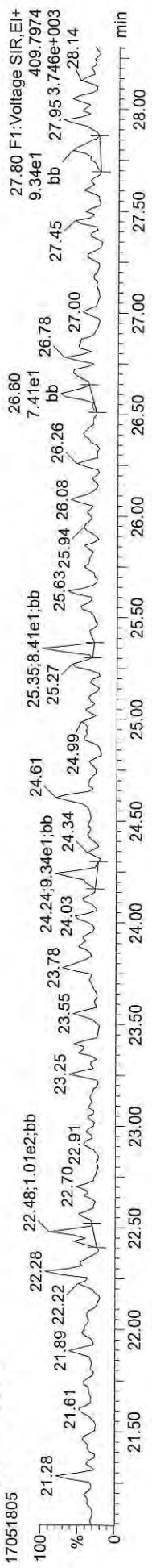
Total-penta1



Total-penta1

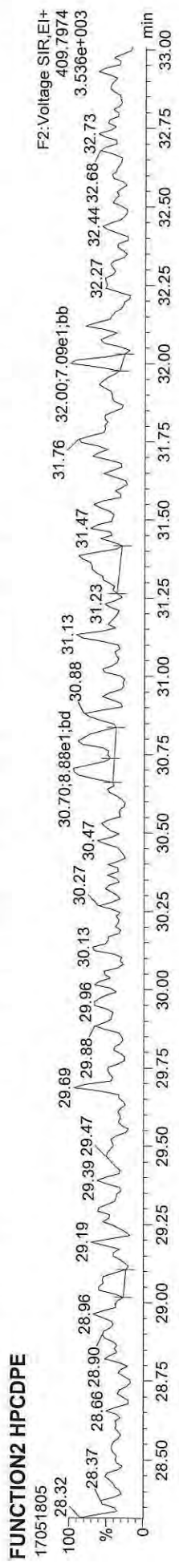
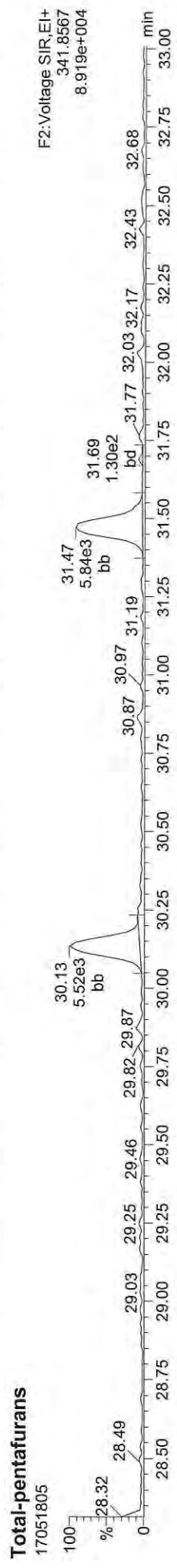
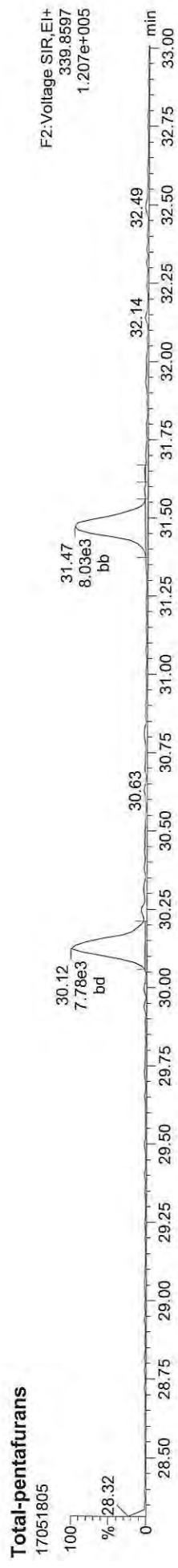
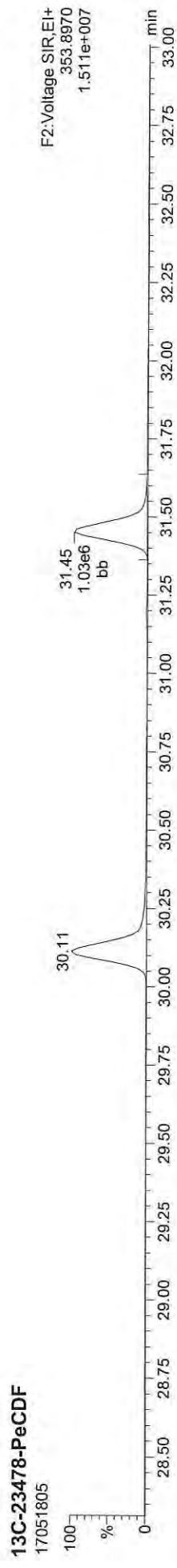
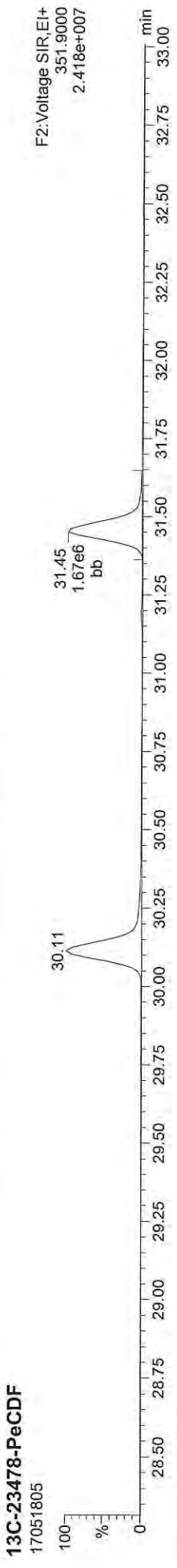


FUNCTION1 HPCDPE



Quantify Sample Report MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170518\CIH.qld
Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
Printed: Friday, May 19, 2017 13:58:49 Pacific Daylight Time

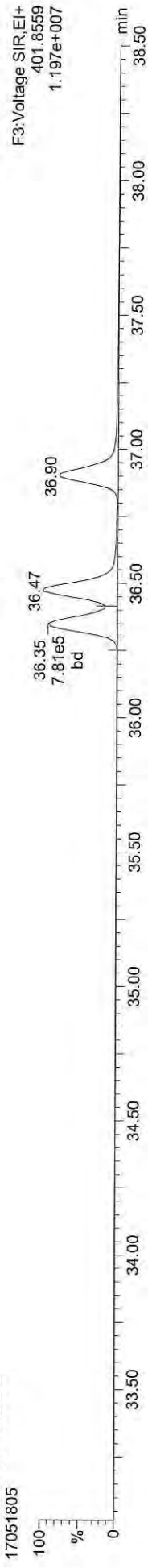
ID: CSL, Name: 17051805, Date: 18-May-2017, Time: 19:22:46, Conditions: AUTOSPEC01, User: pk



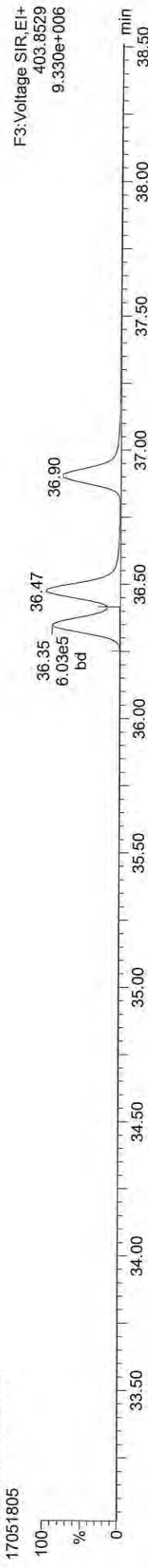
Quantify Sample Report **MassLynx MassLynx V4.1 SCN909**
 Dataset: C:\MassLynx\Dioxin.pro\170518\CIH.qld
 Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
 Printed: Friday, May 19, 2017 13:58:49 Pacific Daylight Time

ID: CSL, Name: 17051805, Date: 18-May-2017, Time: 19:22:46, Conditions: AUTOSPEC01, User: pk

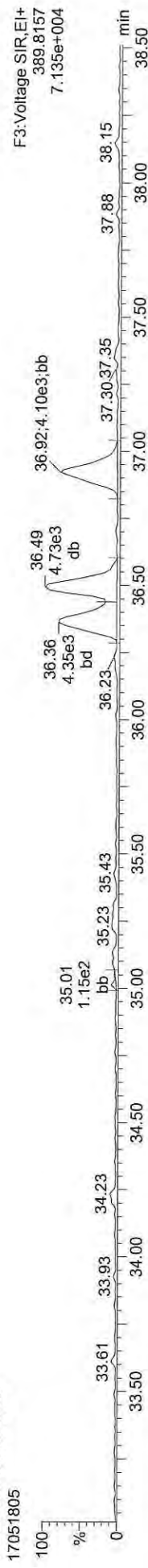
13C-123478-HxCDD



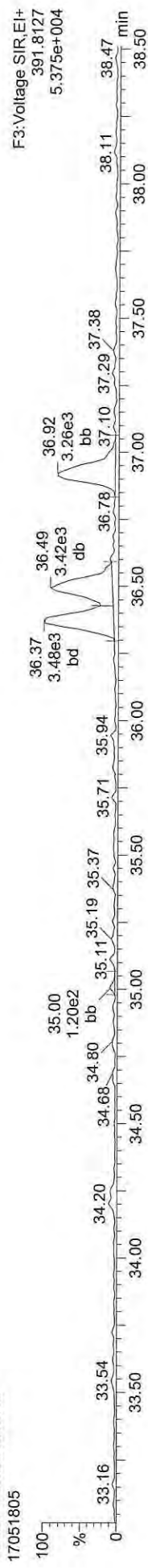
13C-123478-HxCDD



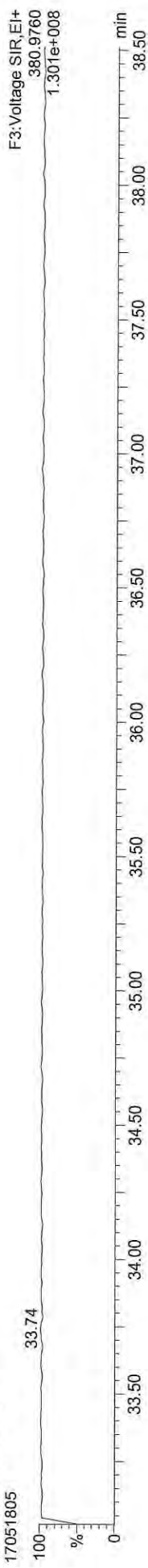
Total-hexadioxins



Total-hexadioxins



FUNCTION3 PFK

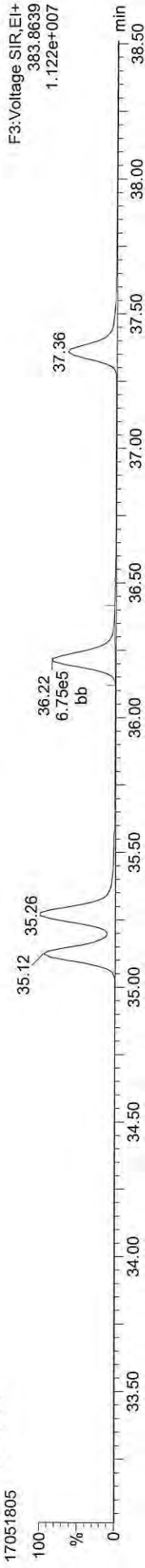


Quantify Sample Report MassLynx MassLynx V4.1 SCN909

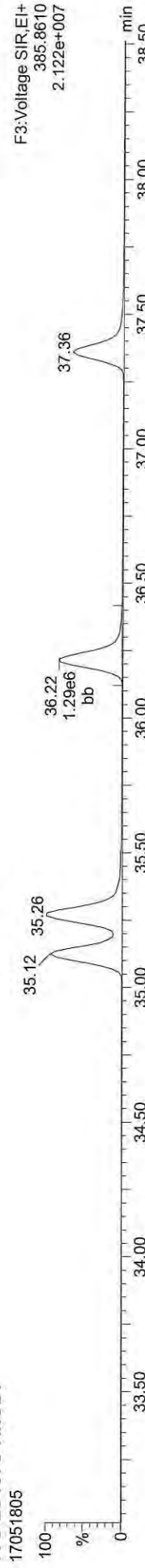
Dataset: C:\MassLynx\Dioxin.pro\170518\CIH.qld
Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
Printed: Friday, May 19, 2017 13:58:49 Pacific Daylight Time

ID: CSL, Name: 17051805, Date: 18-May-2017, Time: 19:22:46, Conditions: AUTOSPEC01, User: pk

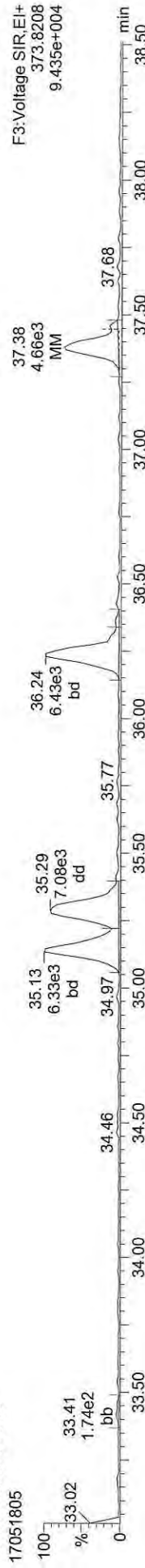
13C-234678-HxCDF



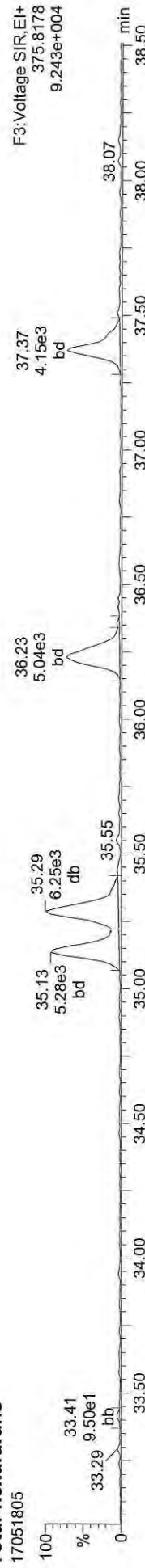
13C-234678-HxCDF



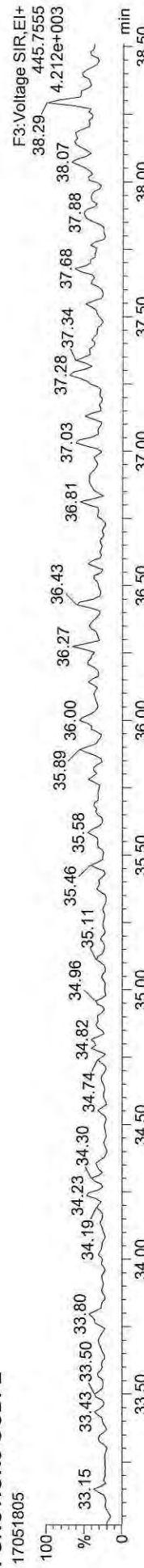
Total-hexafurans



Total-hexafurans



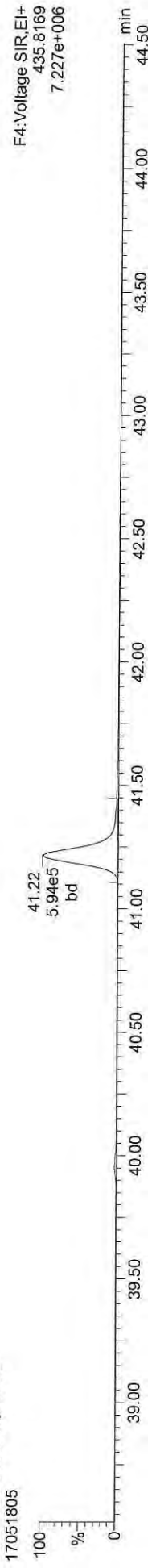
FUNCTION3 OCDPE



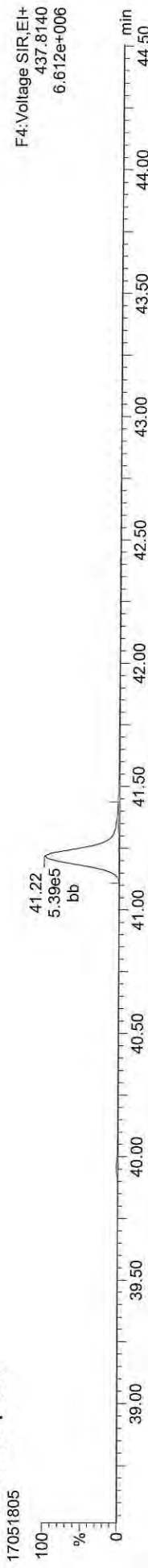
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170518\CIH.qld
Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
Printed: Friday, May 19, 2017 13:58:49 Pacific Daylight Time

ID: CSL, Name: 17051805, Date: 18-May-2017, Time: 19:22:46, Conditions: AUTOSPEC01, User: pk

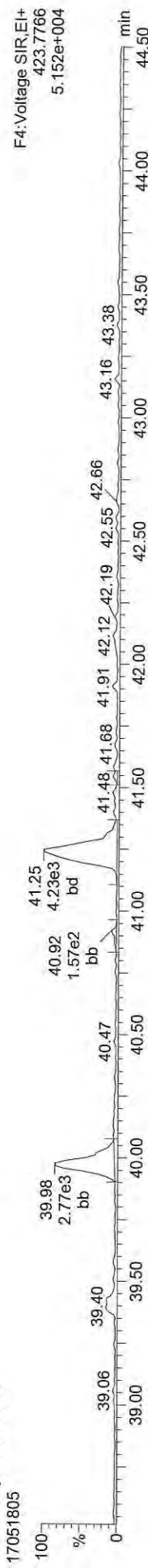
13C-1234678-HpCDD



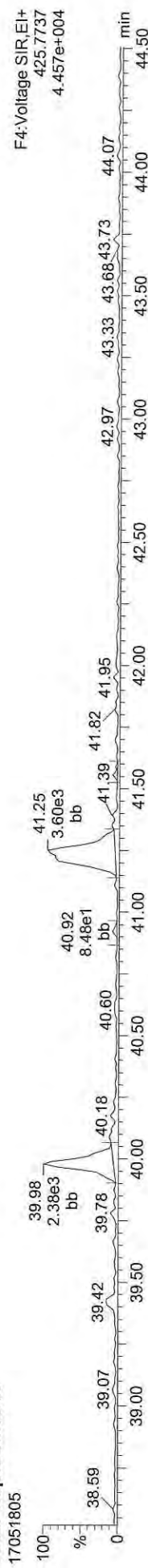
13C-1234678-HpCDD



Total-heptadioxins



Total-heptadioxins



FUNCTION4 PFK

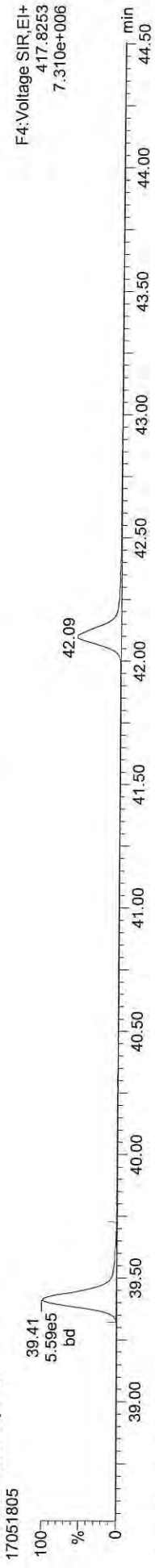


Quantify Sample Report

MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170518\CIH.qld
Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
Printed: Friday, May 19, 2017 13:58:49 Pacific Daylight Time

ID: CSL, Name: 17051805, Date: 18-May-2017, Time: 19:22:46, Conditions: AUTOSPEC01, User: pk

13C-1234678-HpCDF



13C-1234678-HpCDF



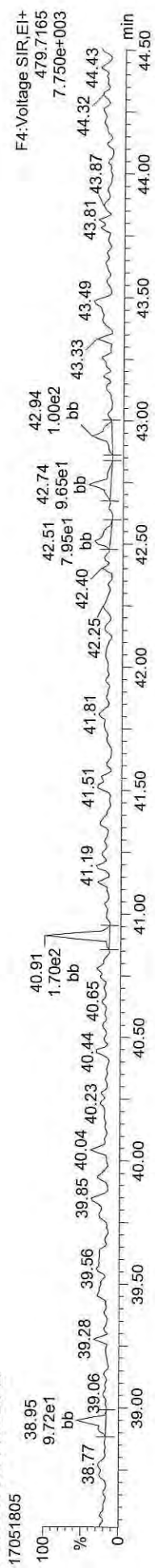
Total-heptafulurans



Total-heptafulurans



FUNCTION4 NCDPE



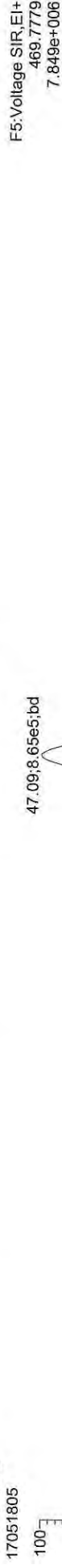
Quantify Sample Report MassLynx MassLynx V4.1 SCN909

Dataset: C:\MassLynx\Dioxin.pro\170518\CIH.qld
Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
Printed: Friday, May 19, 2017 13:58:49 Pacific Daylight Time

ID: CSL, Name: 17051805, Date: 18-May-2017, Time: 19:22:46, Conditions: AUTOSPEC01, User: pk

13C-OCDD

17051805



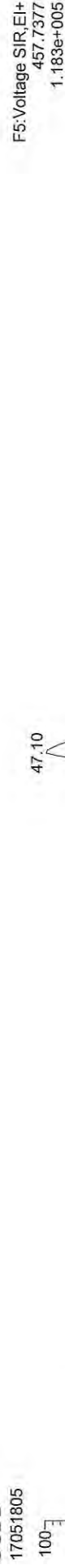
13C-OCDD

17051805



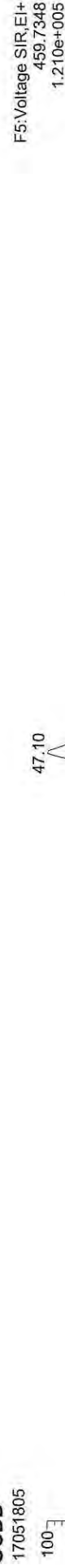
OCDD

17051805



OCDD

17051805



FUNCTION5 PFK

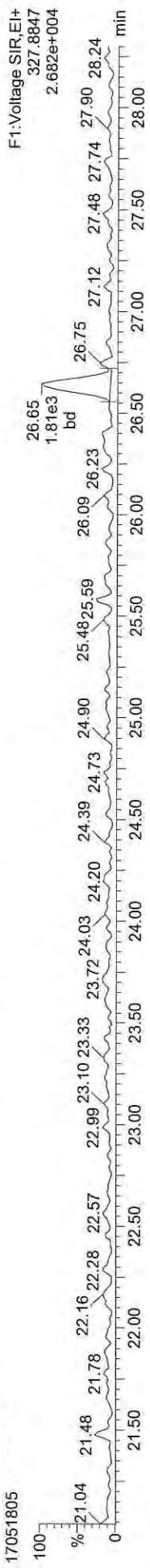
17051805



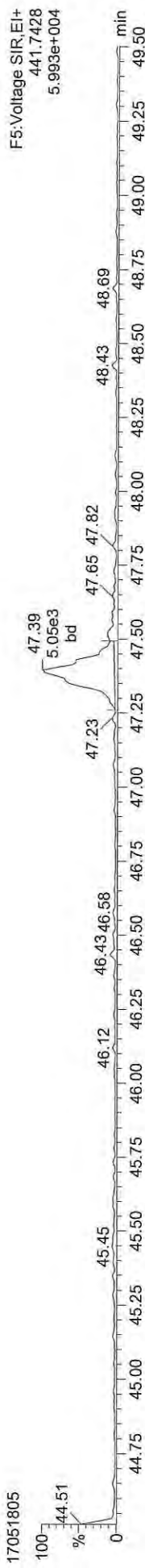
Quantify Sample Report
MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\17051805\1705180518\CIH.qld
Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
Printed: Friday, May 19, 2017 13:58:49 Pacific Daylight Time

ID: CSL, Name: 17051805, Date: 18-May-2017, Time: 19:22:46, Conditions: AUTOSPEC01, User: pk

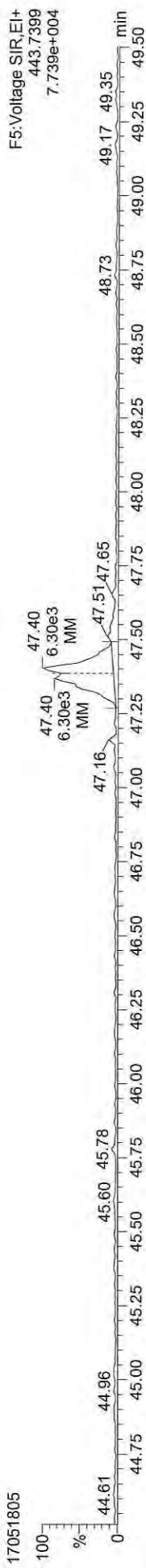
37CL-2378-TCDD



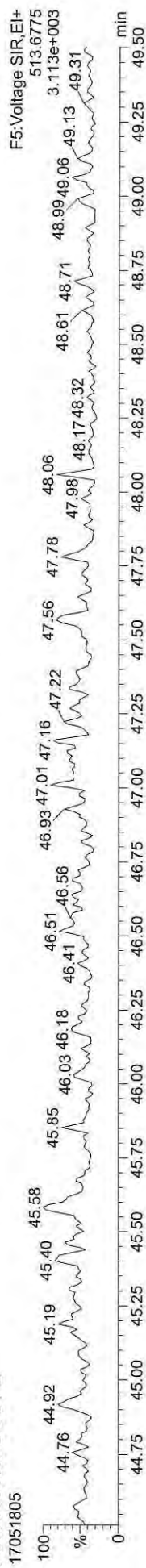
OCDF



OCDF



FUNCTION5 DCDPE



Quantify Sample Summary Report MassLynx MassLynx V4.1 SCN909

Dataset: C:\MassLynx\Dioxin.pro\170518\IC1H.qld
 Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
 Printed: Friday, May 19, 2017 13:58:51 Pacific Daylight Time

Method: C:\MassLynx\Dioxin.pro\MethDB\Dioxin\170518.mdb 18 May 2017 15:01:42
 Calibration: 19 May 2017 13:57:26

ID: CS1, Name: 17051806, Date: 18-May-2017, Time: 20:16:01, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
2378-TCDF	25.988	1.000	5.873e3	8.813e3	1.018	0.666	0.770	690	2050	7.72e4	1.31e5	111.E	YES	NO	bd	dd	0.466
12378-PeCDF	30.134	1.001	4.509e4	2.953e4	0.977	1.527	1.550	1801	2340	6.36e5	4.00e5	353.0	YES	NO	bd	bd	2.438
23478-PeCDF	31.482	1.001	4.339e4	2.890e4	1.019	1.502	1.550	1801	2340	6.15e5	4.18e5	341.4	YES	NO	bb	bb	2.342
123478-HxCDF	35.143	1.001	3.537e4	2.940e4	1.150	1.203	1.240	2354	1534	5.27e5	4.17e5	224.0	YES	NO	bd	bd	2.424
234678-HxCDF	36.239	1.001	3.266e4	2.814e4	1.188	1.160	1.240	2354	1534	4.78e5	3.91e5	203.2	YES	NO	bb	bd	2.361
123678-HxCDF	35.286	1.000	3.926e4	2.921e4	1.100	1.344	1.240	2354	1534	5.23e5	4.03e5	222.1	YES	NO	dd	dd	2.353
123789-HxCDF	37.379	1.000	2.576e4	2.191e4	1.116	1.176	1.240	2354	1534	3.53e5	2.93e5	150.0	YES	NO	bd	bb	2.469
1234678-HpCDF	39.429	1.000	2.959e4	3.067e4	1.238	0.965	1.050	1719	1382	4.01e5	4.20e5	233.6	YES	NO	bd	bd	2.484
1234789-HpCDF	42.125	1.001	1.908e4	1.929e4	1.257	0.989	1.050	1719	1382	2.33e5	2.19e5	135.3	YES	NO	bd	bd	2.361
OCDF	47.383	1.006	2.717e4	3.249e4	1.321	0.836	0.890	996	2159	2.46e5	2.92e5	246.7	YES	NO	bd	bd	4.689
2378-TCDD	26.631	1.001	4.241e3	4.996e3	1.244	0.849	0.770	967	757	6.61e4	7.33e4	68.3	YES	NO	bd	bd	0.467
12378-PeCDD	31.735	1.001	2.486e4	1.523e4	1.058	1.632	1.550	1108	911	3.52e5	2.08e5	317.4	YES	NO	bb	bb	2.411
123478-HxCDD	36.371	1.001	2.268e4	1.918e4	1.119	1.182	1.240	1123	1078	3.38e5	2.74e5	300.5	YES	NO	dd	bd	2.465
123678-HxCDD	36.491	1.000	2.326e4	1.891e4	1.040	1.230	1.240	1123	1078	3.46e5	2.70e5	307.8	YES	NO	dd	dd	2.312
123789-HxCDD	36.919	1.012	2.231e4	1.656e4	0.981	1.348	1.240	1123	1078	3.09e5	2.28e5	274.7	YES	NO	bd	bd	2.424
1234678-HpCDD	41.226	1.000	1.679e4	1.534e4	1.132	1.094	1.050	1096	1278	2.12e5	1.92e5	193.6	YES	NO	bd	bd	2.235
OCDD	47.114	1.001	2.738e4	3.061e4	1.117	0.895	0.890	746	680	2.68e5	2.84e5	358.5	YES	NO	bd	bd	5.389
13C-2378-TCDF	25.988	1.007	1.377e6	1.718e6	1.685	0.801	0.770	6791	4269	1.93e7	2.40e7	2840.7	YES	NO	bb	bb	98.705
13C-12378-PeCDF	30.112	1.167	1.929e6	1.204e6	1.706	1.602	1.550	6402	4434	2.66e7	1.66e7	4147.8	YES	NO	bb	bb	98.709
13C-23478-PeCDF	31.460	1.219	1.884e6	1.144e6	1.632	1.646	1.550	6402	4434	2.67e7	1.64e7	4169.4	YES	NO	bd	bb	99.702
13C-123478-HxCDF	35.121	0.952	7.958e5	1.527e6	1.682	0.521	0.510	4122	7125	1.18e7	2.22e7	2860.3	YES	NO	bd	bd	101.670
13C-123678-HxCDF	35.275	0.956	9.154e5	1.731e6	1.945	0.529	0.510	4122	7125	1.27e7	2.41e7	3089.4	YES	NO	db	db	100.131
13C-234678-HxCDF	36.217	0.981	7.497e5	1.418e6	1.582	0.529	0.510	4122	7125	1.03e7	1.94e7	2490.4	YES	NO	bb	bb	100.860
13C-123789-HxCDF	37.368	1.012	5.965e5	1.134e6	1.291	0.526	0.510	4122	7125	8.08e6	1.52e7	1961.2	YES	NO	bb	bb	98.700
13C-1234678-HpCDF	39.418	1.068	6.073e5	1.352e6	1.427	0.449	0.440	4704	5986	8.33e6	1.84e7	1771.0	YES	NO	bb	bb	101.113
13C-1234789-HpCDF	42.103	1.141	3.988e5	8.934e5	0.957	0.446	0.440	4704	5986	4.57e6	1.01e7	971.4	YES	NO	bd	bd	99.412
13C-12334-TCDD	25.809	0.000	8.188e5	1.042e6	1.000	0.785	0.770	2673	1687	1.21e7	1.54e7	4518.5	YES	NO	bb	bb	100.000
13C-2378-TCDD	26.616	1.031	6.973e5	8.924e5	0.873	0.781	0.770	2673	1687	9.77e6	1.27e7	3656.4	YES	NO	bb	bb	97.870
13C-12378-PeCDD	31.712	1.229	9.594e5	6.120e5	0.860	1.568	1.550	2214	2156	1.35e7	8.50e6	6097.1	YES	NO	bb	bd	98.166
13C-123478-HxCDD	36.349	0.985	8.570e5	6.597e5	1.114	1.299	1.240	3395	2755	1.26e7	9.76e6	3724.3	YES	NO	bd	bd	100.266
13C-123678-HxCDD	36.480	0.988	9.848e5	7.682e5	1.258	1.282	1.240	3395	2755	1.32e7	1.03e7	3885.3	YES	NO	db	db	102.547
13C-1234678-HpCDD	41.215	1.117	6.557e5	6.141e5	0.924	1.068	1.050	6211	2736	8.07e6	7.59e6	1299.5	YES	NO	bd	bd	101.206
13C-OCDD	47.087	1.276	9.147e5	1.012e6	0.738	0.904	0.890	4349	3495	8.80e6	9.52e6	2024.2	YES	NO	bd	bd	192.115

Quantify Sample Summary Report MassLynx MassLynx V4.1 SCN909

Dataset: C:\MassLynx\Dioxin.pro\170518\CIH.qld
 Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
 Printed: Friday, May 19, 2017 13:58:51 Pacific Daylight Time

ID: CS1, Name: 17051806, Date: 18-May-2017, Time: 20:16:01, Conditions: AUTOSPEC01, User: pk

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	Pg
13C-123789-HxCDD	36.908	0.000	7.648e5	5.935e5	1.000	1.288	1.240	3395	2755	1.04e7	7.99e6	3055.0	YES	NO	bb	bb	100.000
Total-tetrafurans			6.261e3	1.018				690		8.48e4							0.492
Total-penta1			1.409e2					458		2.23e3							0.009
Total-pentafurans			9.050e4	0.998				1801		1.29e6							4.885
Total-hexafurans			1.347e5	1.138				2354		1.92e6							9.707
Total-heptafurans			4.967e4	1.248				1719		6.60e5							4.953
Total-Furans			3.084e5	1.138				690		4.21e6							24.735
Total-tetra-dioxins			4.568e3	1.244				967		7.08e4							0.494
Total-pentadioxins			2.486e4	1.058				1108		3.52e5							2.411
Total-hexadioxins			6.866e4	1.047				1123		9.99e5							7.252
Total-heptadioxins			1.855e4	1.132				1096		2.52e5							2.539
Total-Dioxins			1.440e5	1.099				967		1.94e6							18.085
Total-TEQ			4.524e5					967		6.15e6							42.820
37CL-2378-TCDD	26.631	1.032	8.241e3	1.021				1613		1.23e5		76.5	YES		bb		0.434
FUNCTION1 PFK			0.000e0					932779		0.00e0							0.000
FUNCTION2 PFK			5.290e5					181490		1.38e7							0.000
FUNCTION3 PFK			3.051e6					1244687		7.00e7							0.000
FUNCTION4 PFK			0.000e0					650863		0.00e0							
FUNCTION5 PFK			1.088e7					324774		1.12e8							
FUNCTION1 HXCDPE			2.503e2					354		4.09e3							0.000
FUNCTION1 HPCDPE			3.397e2					645		7.42e3							0.000
FUNCTION2 HPCDPE			4.329e2					1024		1.06e4							0.000
FUNCTION3 OCDPE			0.000e0					599		0.00e0							
FUNCTION4 NCDPE			0.000e0					580		0.00e0							
FUNCTION5 DCDPE			0.000e0					419		0.00e0							

Quantify Sample Report MassLynx MassLynx V4.1 SCN909

Dataset: C:\MassLynx\Dioxin.pro\170518\CIH.qld
Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
Printed: Friday, May 19, 2017 13:58:51 Pacific Daylight Time

Method: C:\MassLynx\Dioxin.pro\MethDB\Dioxin170518.mdb 18 May 2017 15:01:42
Calibration: 19 May 2017 13:57:26

ID: CS1, Name: 17051806, Date: 18-May-2017, Time: 20:16:01, Conditions: AUTOSPEC01, User: pk

13C-1234-TCDD

17051806



13C-1234-TCDD

17051806



13C-123789-HxCDD

17051806



13C-123789-HxCDD

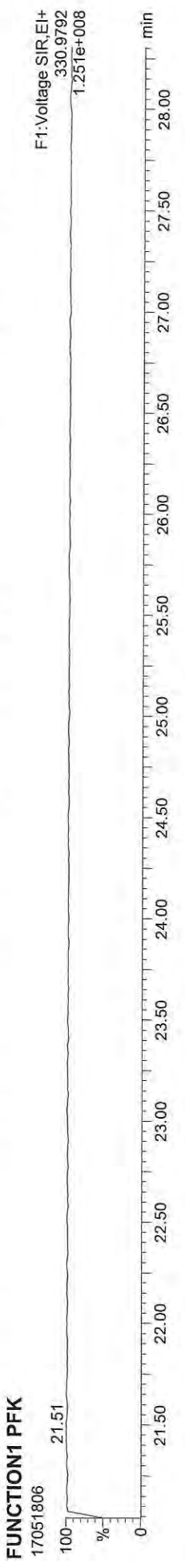
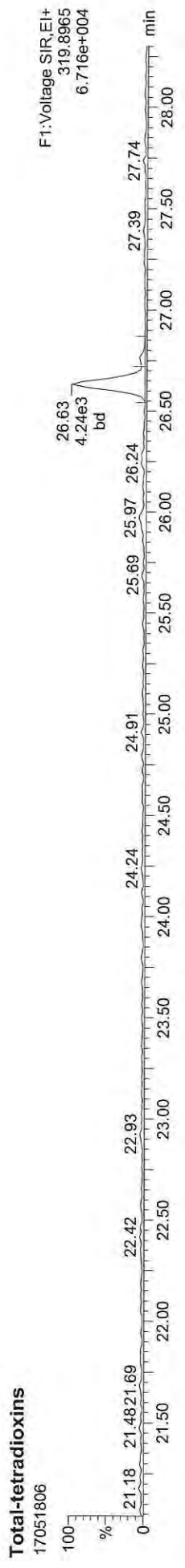
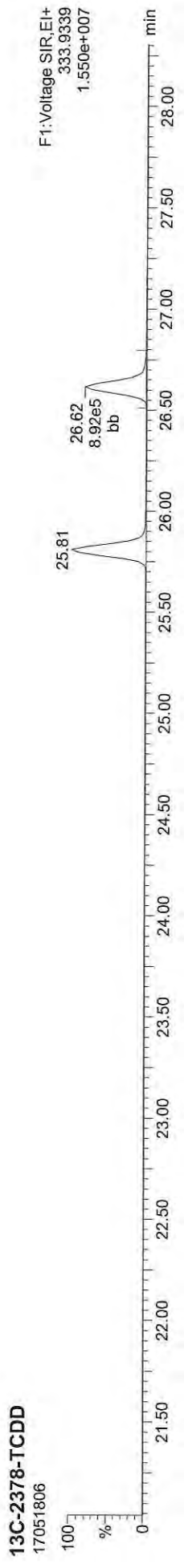
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Quantify Sample Report MassLynx MassLynx V4.1 SCN909

Dataset: C:\MassLynx\Dioxin.pro\170518\CIH.qld
Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
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ID: CS1, Name: 17051806, Date: 18-May-2017, Time: 20:16:01, Conditions: AUTOSPEC01, User: pk



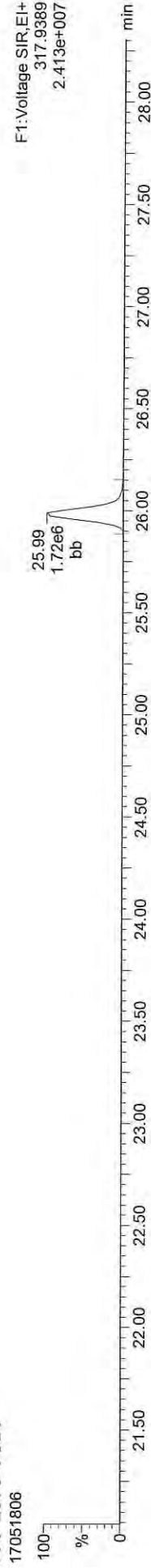
Quantify Sample Report MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170518\CIH.qld
Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
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ID: CS1, Name: 17051806, Date: 18-May-2017, Time: 20:16:01, Conditions: AUTOSPEC01, User: pk

13C-2378-TCDF



13C-2378-TCDF



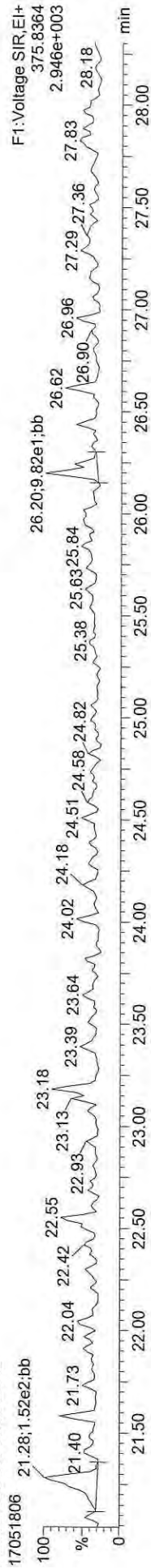
Total-tetrafurans



Total-tetrafurans



FUNCTION1 HXCDPE



Quantify Sample Report MassLynx MassLynx V4.1 SCN909
Dataset: C:\MassLynx\Dioxin.pro\170518\CIH.qld
Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
Printed: Friday, May 19, 2017 13:58:51 Pacific Daylight Time

ID: CS1, Name: 17051806, Date: 18-May-2017, Time: 20:16:01, Conditions: AUTOSPEC01, User: pk

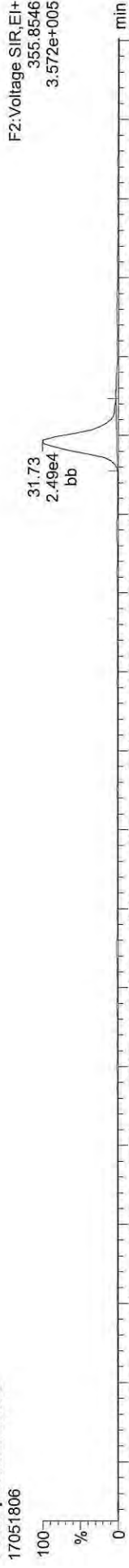
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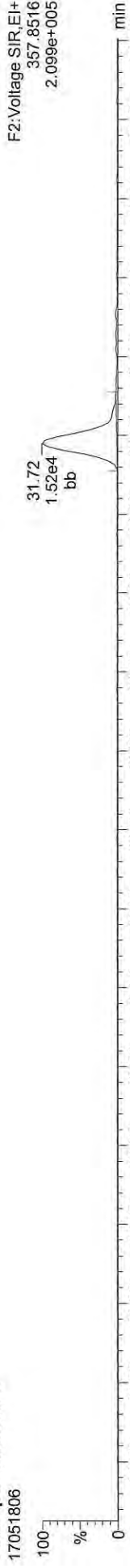
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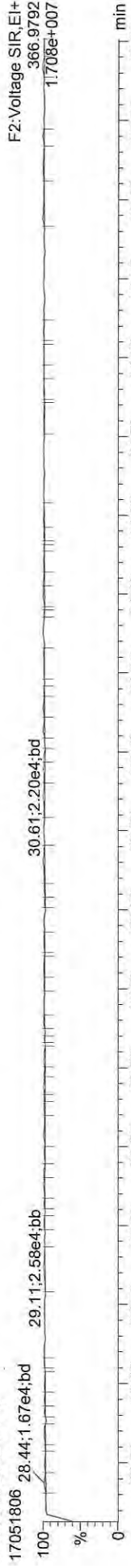
Total-pentadioxins



Total-pentadioxins



FUNCTION2 PFK



Quantify Sample Report MassLynx MassLynx V4.1 SCN909

Dataset: C:\MassLynx\Dioxin.pro\170518\CIH.qld
Last Altered: Friday, May 19, 2017 13:57:26 Pacific Daylight Time
Printed: Friday, May 19, 2017 13:58:51 Pacific Daylight Time

ID: CS1, Name: 17051806, Date: 18-May-2017, Time: 20:16:01, Conditions: AUTOSPEC01, User: pk

