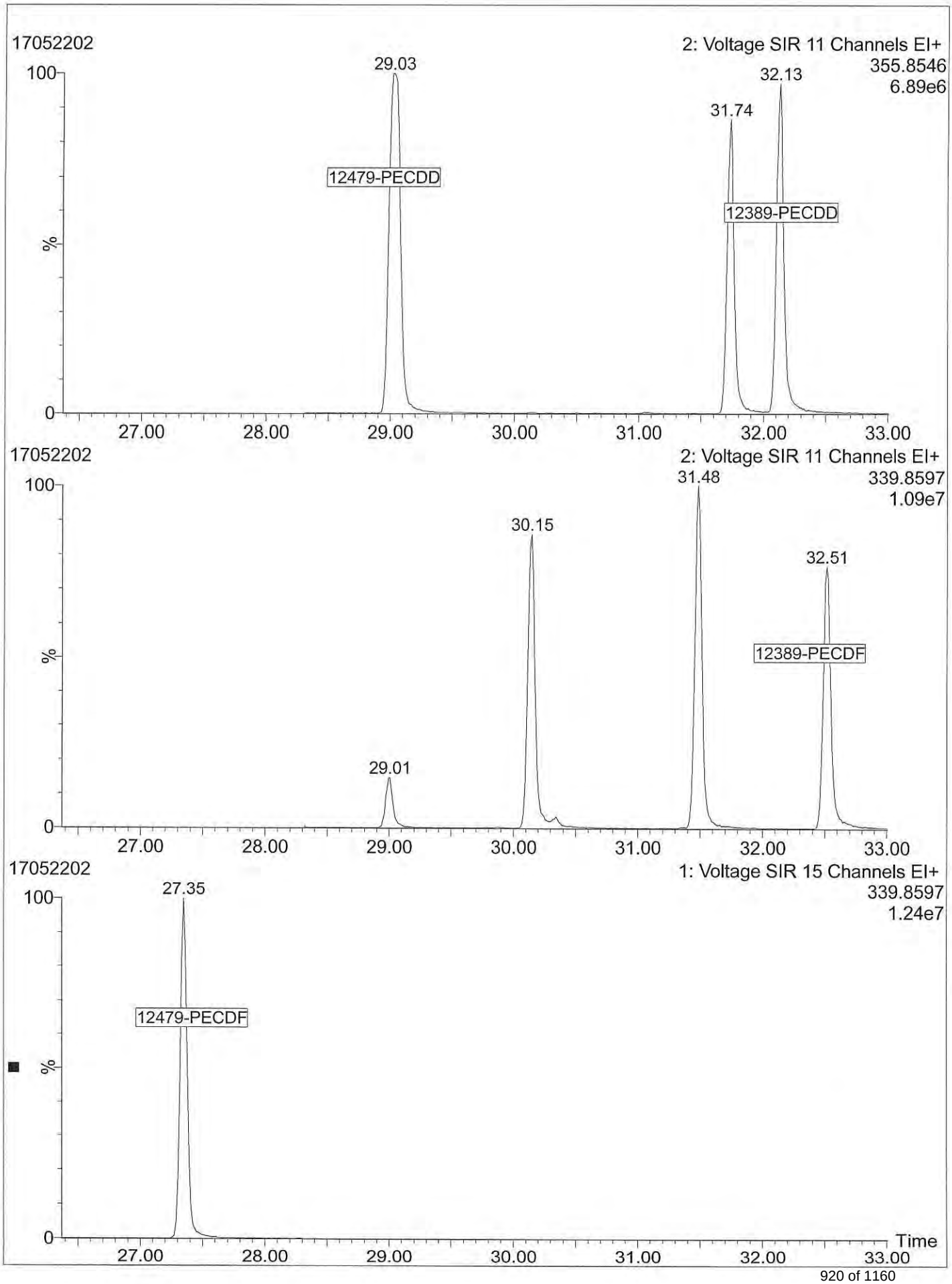
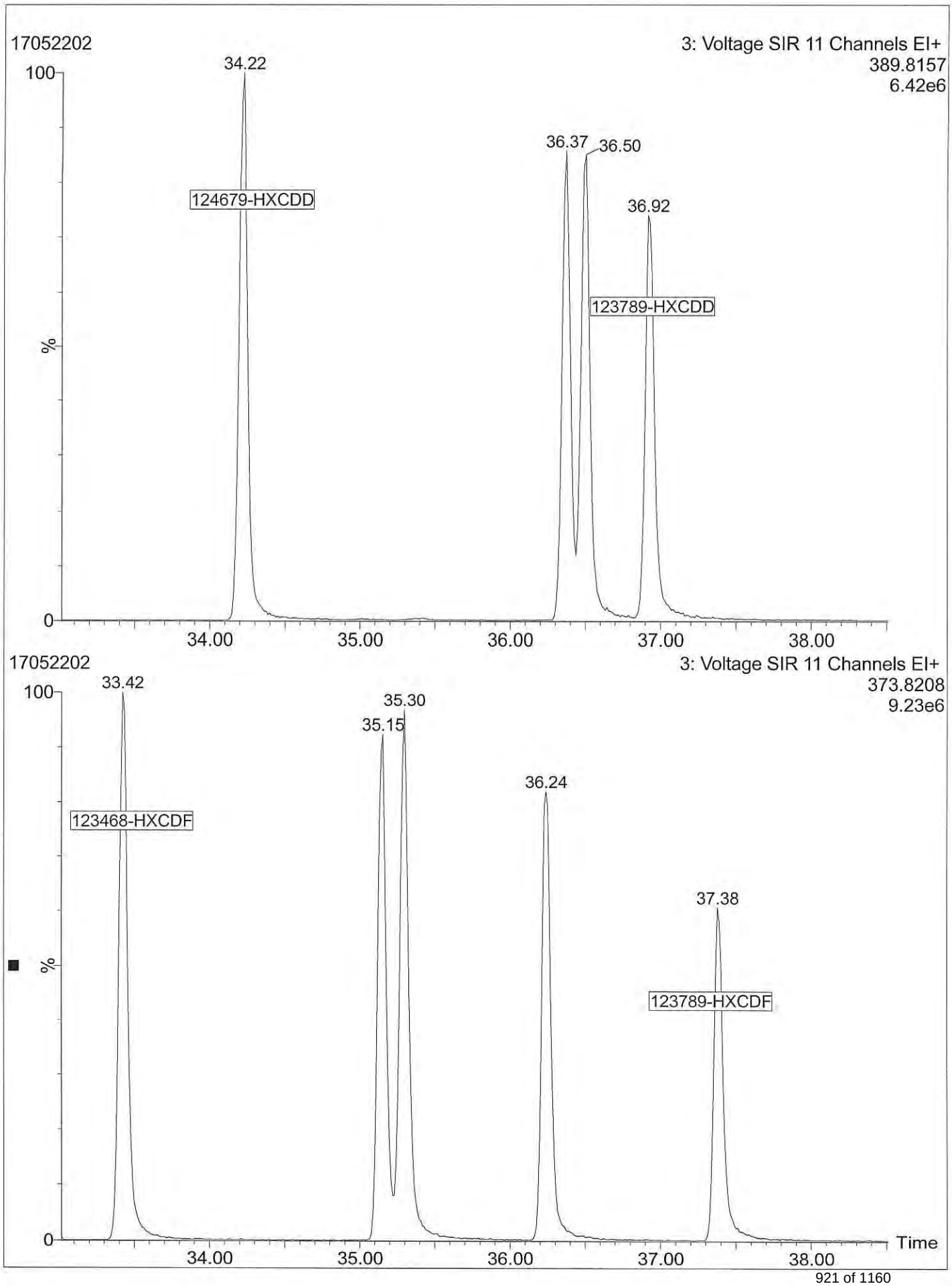
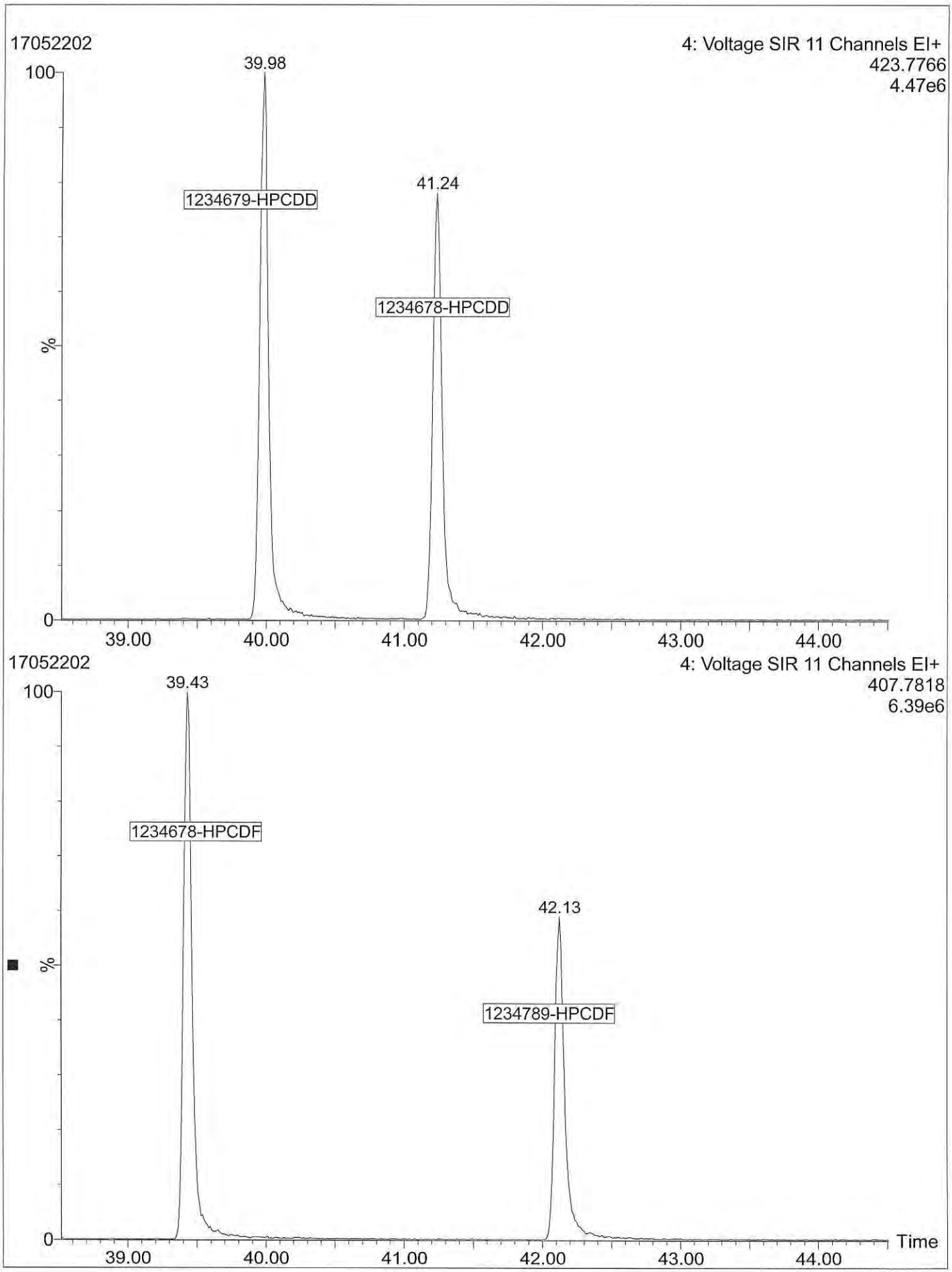
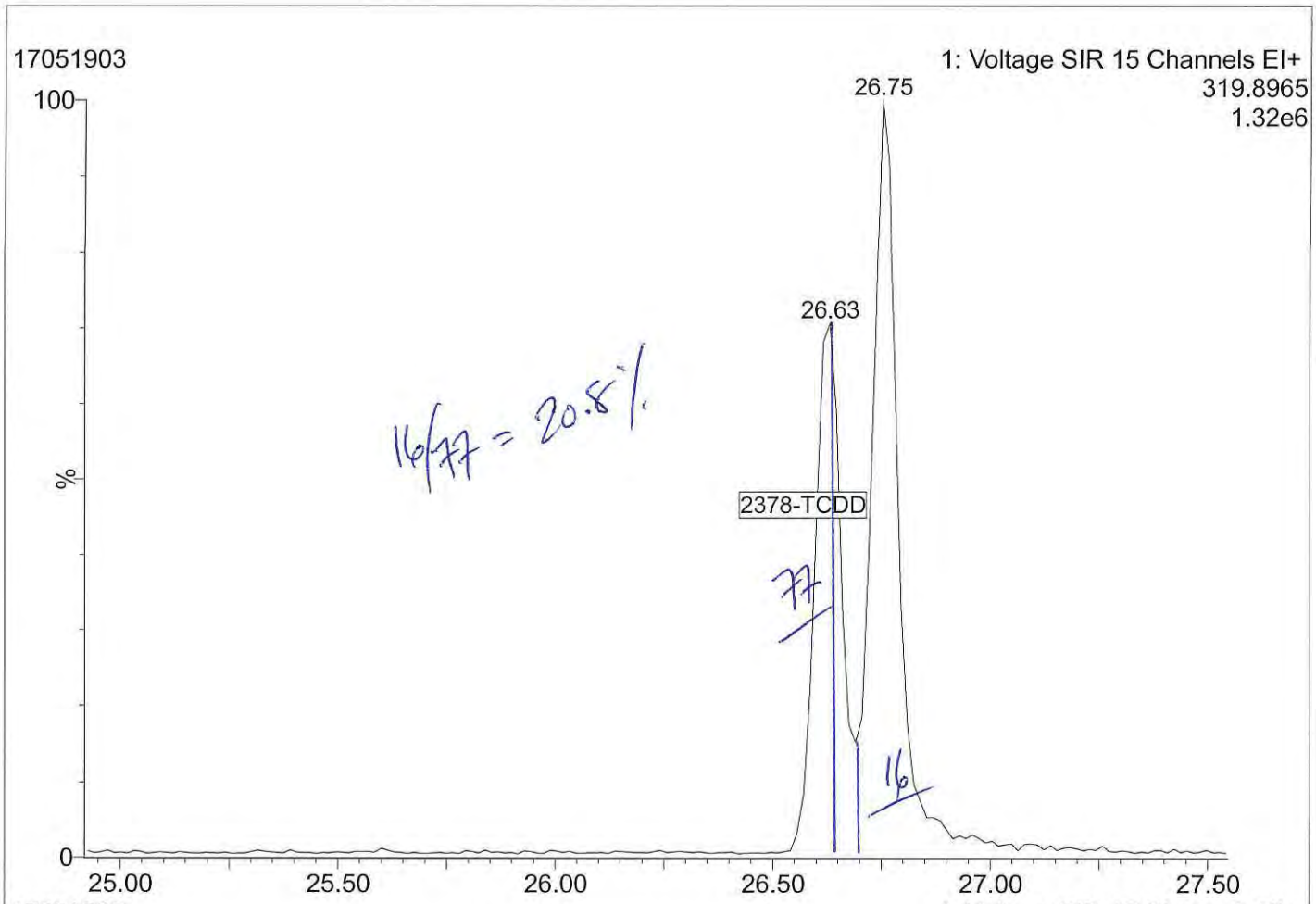
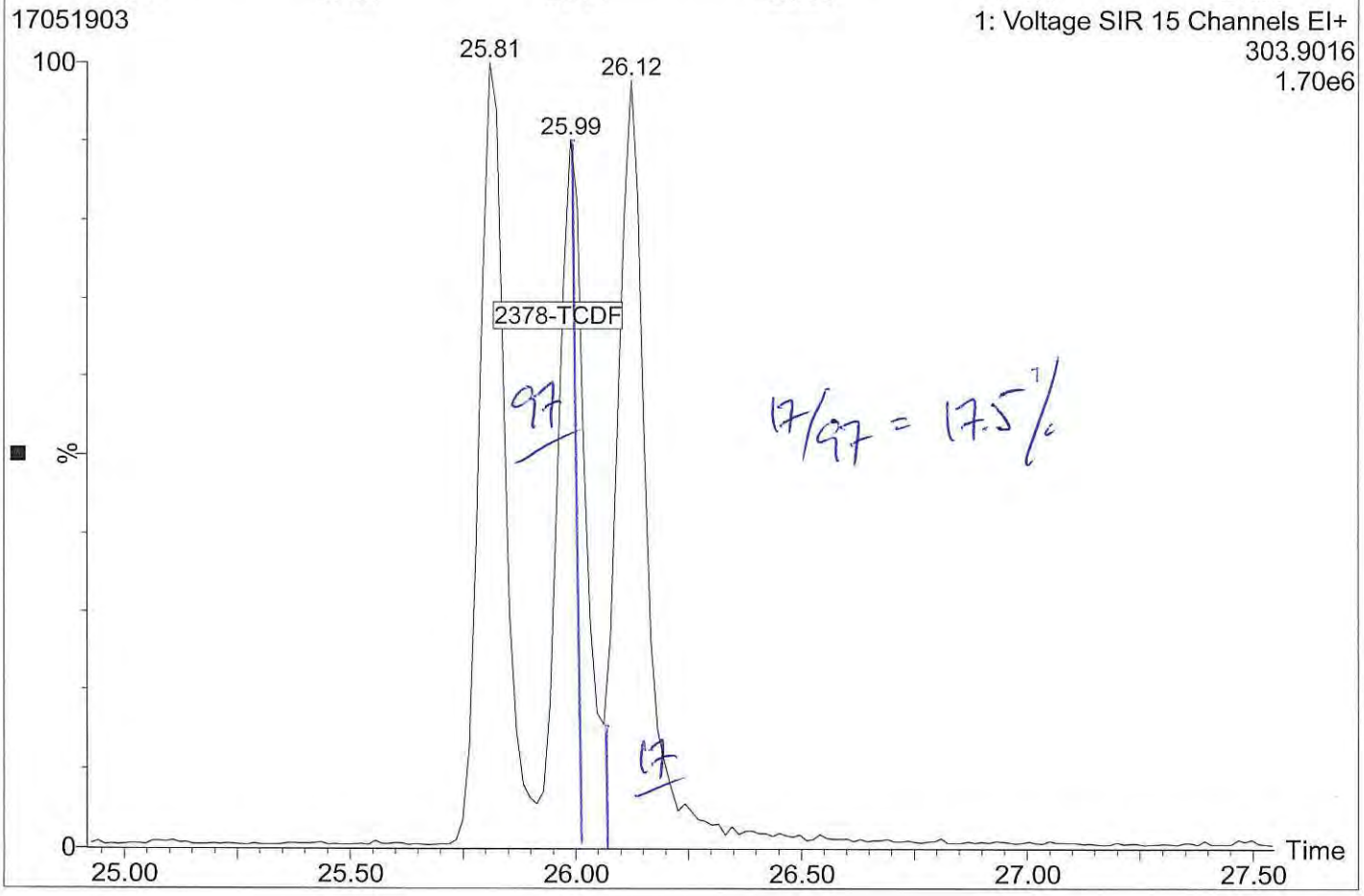

17052202
2: Voltage SIR 11 Channels EI+
355.8546
6.89e6
100
%
0
29.03
31.74
32.13
12479-PECDD
12389-PECDD
27.00
28.00
29.00
30.00
31.00
32.00
33.00
17052202
2: Voltage SIR 11 Channels EI+
339.8597
1.09e7
100
%
0
31.48
30.15
32.51
12389-PECDF
29.01
27.00
28.00
29.00
30.00
31.00
32.00
33.00
17052202
1: Voltage SIR 15 Channels EI+
339.8597
1.24e7
100
%
0
27.35
12479-PECDF
Time
27.00
28.00
29.00
30.00
31.00
32.00
33.00


17052202
3: Voltage SIR 11 Channels EI+
389.8157
6.42e6
100
%
0
34.22
124679-HXCDD
36.37
36.50
36.92
123789-HXCDD
34.00
35.00
36.00
37.00
38.00
17052202
3: Voltage SIR 11 Channels EI+
373.8208
9.23e6
100
%
0
33.42
123468-HXCDF
35.30
35.15
36.24
37.38
123789-HXCDF
Time
34.00
35.00
36.00
37.00
38.00


17052202
4: Voltage SIR 11 Channels EI+
423.7766
4.47e6
100
39.98
1234679-HPCDD
41.24
1234678-HPCDD
%
0
39.00
40.00
41.00
42.00
43.00
44.00
17052202
4: Voltage SIR 11 Channels EI+
407.7818
6.39e6
100
39.43
1234678-HPCDF
42.13
1234789-HPCDF
%
0
Time
39.00
40.00
41.00
42.00
43.00
44.00


17051903
1: Voltage SIR 15 Channels EI+
319.8965
1.32e6
26.75
26.63
2378-TCDD
77
16
16/77 = 20.8%
100
%
0
25.00
25.50
26.00
26.50
27.00
27.50


17051903
1: Voltage SIR 15 Channels EI+
303.9016
1.70e6
25.81
26.12
25.99
2378-TCDF
97
17
17/97 = 17.5%
100
%
0
Time
25.00
25.50
26.00
26.50
27.00
27.50

CONTINUING CALIBRATION CHECK
EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Instrument ID:	AUTOSPEC01	Calibration:	AE00055
Lab File ID:	17052213	Calibration Date:	05/18/17 14:31
Sequence:	SFE0219	Injection Date:	05/22/17
Lab Sample ID:	SFE0219-CCV1	Injection Time:	20:03
Sequence Name:	CS302		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
2,3,7,8-TCDF	A	10.000	9.77	1.0132980	0.9953508		-2.3	16
2,3,7,8-TCDD	A	10.000	9.77	1.1755440	1.2157520		-2.3	22
1,2,3,7,8-PeCDF	A	50.000	48.7	0.9765664	0.9516954		-2.5	18
2,3,4,7,8-PeCDF	A	50.000	50.9	1.0192640	1.0366200		1.7	18
1,2,3,7,8-PeCDD	A	50.000	50.4	1.0582470	1.0671800		0.8	22
1,2,3,4,7,8-HxCDF	A	50.000	50.8	1.1500860	1.1690760		1.7	10
1,2,3,6,7,8-HxCDF	A	50.000	49.2	1.0997540	1.0827170		-1.5	12
2,3,4,6,7,8-HxCDF	A	50.000	51.3	1.1878740	1.2197040		2.7	12
1,2,3,7,8,9-HxCDF	A	50.000	49.9	1.1160500	1.1129740		-0.3	10
1,2,3,4,7,8-HxCDD	A	50.000	47.3	1.1192500	1.0583480		-5.4	22
1,2,3,6,7,8-HxCDD	A	50.000	52.1	1.0402190	1.0834290		4.2	22
1,2,3,7,8,9-HxCDD	A	50.000	50.5	0.9806210	0.9904728		1.0	18
1,2,3,4,6,7,8-HpCDF	A	50.000	48.9	1.2380230	1.2100110		-2.3	10
1,2,3,4,7,8,9-HpCDF	A	50.000	50.3	1.2573640	1.2639990		0.5	14
1,2,3,4,6,7,8-HpCDD	A	50.000	47.5	1.1319240	1.0758370		-5.0	14
OCDF	A	100.00	99.9	1.3207770	1.3190400		-0.1	37
OCDD	A	100.00	95.1	1.1168160	1.0623550		-4.9	21
13C12-2,3,7,8-TCDF	A	100.00	98.3	1.6846640	1.6564763		-1.7	29
13C12-2,3,7,8-TCDD	A	100.00	99.3	0.8727236	0.8664366		-0.7	18
13C12-1,2,3,7,8-PeCDF	A	100.00	79.1	1.7056380	1.3487520		-20.9	24
13C12-2,3,4,7,8-PeCDF	A	100.00	82.5	1.6318430	1.3467770		-17.5	23
13C12-1,2,3,7,8-PeCDD	A	100.00	82.9	0.8600295	0.7128275		-17.1	38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	93.7	1.6821870	1.5754347		-6.3	24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	91.7	1.9454000	1.7839501		-8.3	30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	91.4	1.5821140	1.4455141		-8.6	27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	95.6	1.2907090	1.2338905		-4.4	26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	99.9	1.1136440	1.1124487		-0.1	15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	95.1	1.2584900	1.1974338		-4.9	15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	89.5	1.4265280	1.2769697		-10.5	22
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	94.1	0.9569095	0.9003585		-5.9	23
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	97.7	0.9236238	0.9024390		-2.3	18
13C12-OCDD	A	200.00	190	0.7383514	0.7024581		-4.9	52
37C14-2,3,7,8-TCDD	A	10.000	10.2	1.0211920	1.0419464		2.0	

* Values outside of QC limits

* Values outside of QC limits

Dataset: C:\MassLynx\Dioxin.pro\170522D1.qld
Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 10:33:47 Pacific Daylight Time

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

ID: CS3B2, Name: 17052213, Date: 22-May-2017, Time: 20:03:43, 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	26.003	1.001	1.069e5	1.388e5	1.018	0.771	0.770	1219	1704	1.48e6	1.97e6	1209.9	YES	NO	bb	bb	9.774
12378-PeCDF	30.135	1.001	5.775e5	3.788e5	0.977	1.525	1.550	4062	3949	7.98e6	5.26e6	1964.0	YES	NO	bd	bd	48.727
23478-PeCDF	31.472	1.000	6.339e5	4.063e5	1.019	1.560	1.550	4062	3949	9.41e6	5.94e6	2317.0	YES	NO	dd	dd	50.851
123478-HxCDF	35.144	1.001	4.672e5	3.860e5	1.150	1.210	1.240	3224	3403	6.96e6	5.69e6	2159.7	YES	NO	bd	bd	50.826
234678-HxCDF	36.240	1.001	4.493e5	3.675e5	1.188	1.222	1.240	3224	3403	6.31e6	5.21e6	1956.1	YES	NO	bb	bb	51.340
123678-HxCDF	35.286	1.000	4.908e5	4.040e5	1.100	1.215	1.240	3224	3403	6.81e6	5.68e6	2113.2	YES	NO	db	db	49.225
123789-HxCDF	37.380	1.001	3.477e5	2.885e5	1.116	1.205	1.240	3224	3403	4.88e6	4.06e6	1512.8	YES	NO	bd	bd	49.862
1234678-HpCDF	39.430	1.000	3.571e5	3.587e5	1.238	0.996	1.050	2207	2618	5.05e6	4.97e6	2286.2	YES	NO	bb	bd	48.869
1234789-HpCDF	42.126	1.000	2.646e5	2.626e5	1.257	1.007	1.050	2207	2618	3.09e6	3.06e6	1399.5	YES	NO	bd	bd	50.264
OCDF	47.385	1.006	4.015e5	4.570e5	1.321	0.879	0.890	1649	1868	3.79e6	4.21e6	2301.9	YES	NO	bd	bd	99.869
2378-TCDD	26.631	1.001	6.971e4	8.725e4	1.244	0.799	0.770	1591	1560	9.85e5	1.23e6	619.1	YES	NO	bd	bd	9.771
12378-PeCDD	31.724	1.001	3.494e5	2.173e5	1.058	1.608	1.550	3055	2874	5.03e6	3.19e6	1647.7	YES	NO	bd	bb	50.422
123478-HxCDD	36.361	1.000	3.040e5	2.415e5	1.119	1.259	1.240	3517	1594	4.53e6	3.54e6	1287.8	YES	NO	bd	bd	47.279
123678-HxCDD	36.492	1.000	3.312e5	2.698e5	1.040	1.228	1.240	3517	1594	4.67e6	3.77e6	1329.1	YES	NO	db	dd	52.077
123789-HxCDD	36.920	1.012	2.953e5	2.347e5	0.981	1.258	1.240	3517	1594	4.07e6	3.28e6	1158.2	YES	NO	bd	bd	50.502
1234678-HpCDD	41.238	1.000	2.345e5	2.153e5	1.132	1.089	1.050	2042	1952	2.90e6	2.73e6	1420.3	YES	NO	bd	bb	47.522
OCDD	47.107	1.000	3.291e5	3.624e5	1.117	0.908	0.890	1262	1126	3.24e6	3.59e6	2563.8	YES	NO	bd	bd	95.124
13C-2378-TCDF	25.989	1.007	1.094e6	1.374e6	1.685	0.796	0.770	6514	3662	1.50e7	1.88e7	2300.7	YES	NO	bb	bb	98.327
13C-12378-PeCDF	30.113	1.167	1.232e6	7.778e5	1.706	1.584	1.550	3474	2747	1.75e7	1.08e7	5043.5	YES	NO	bb	bd	79.076
13C-23478-PeCDF	31.461	1.219	1.234e6	7.733e5	1.632	1.595	1.550	3474	2747	1.77e7	1.12e7	5108.9	YES	NO	bb	bb	82.531
13C-123478-HxCDF	35.122	0.952	5.018e5	9.579e5	1.682	0.524	0.510	3615	3043	7.32e6	1.39e7	2025.1	YES	NO	bd	bd	93.654
13C-123678-HxCDF	35.276	0.956	5.713e5	1.082e6	1.945	0.528	0.510	3615	3043	7.71e6	1.46e7	2131.6	YES	NO	dd	dd	91.701
13C-234678-HxCDF	36.218	0.981	4.604e5	8.790e5	1.582	0.524	0.510	3615	3043	6.46e6	1.23e7	1786.3	YES	NO	bb	bb	91.366
13C-123789-HxCDF	37.358	1.012	3.893e5	7.540e5	1.291	0.516	0.510	3615	3043	5.29e6	1.01e7	1464.6	YES	NO	bb	bd	95.598
13C-1234678-HpCDF	39.419	1.068	3.728e5	8.104e5	1.427	0.460	0.440	3031	3035	5.03e6	1.11e7	1657.9	YES	NO	bb	bb	89.516
13C-1234789-HpCDF	42.104	1.141	2.574e5	5.768e5	0.957	0.446	0.440	3031	3035	3.00e6	6.74e6	991.0	YES	NO	bd	bd	94.090
13C-1234-TCDD	25.809	0.000	6.537e5	8.364e5	1.000	0.782	0.770	2708	2235	9.73e6	1.23e7	3593.6	YES	NO	bb	bb	100.000
13C-2378-TCDD	26.616	1.031	5.694e5	7.217e5	0.873	0.789	0.770	2708	2235	7.85e6	1.01e7	2897.3	YES	NO	bb	bb	99.280
13C-12378-PeCDD	31.702	1.228	6.519e5	4.103e5	0.860	1.589	1.550	1259	1185	9.26e6	5.82e6	7359.8	YES	NO	bb	bd	82.884
13C-123478-HxCDD	36.350	0.985	5.825e5	4.483e5	1.114	1.299	1.240	1701	1470	8.47e6	6.54e6	4978.7	YES	NO	bd	bd	99.893
13C-123678-HxCDD	36.481	0.988	6.304e5	4.790e5	1.258	1.316	1.240	1701	1470	8.63e6	6.78e6	5072.2	YES	NO	db	db	95.148
13C-1234678-HpCDD	41.216	1.117	4.406e5	3.956e5	0.924	1.114	1.050	2205	1638	5.38e6	5.04e6	2440.6	YES	NO	bd	bb	97.706
13C-OCDD	47.089	1.276	6.101e5	6.916e5	0.738	0.882	0.890	2345	1957	5.78e6	6.50e6	2466.2	YES	NO	bd	bd	190.277

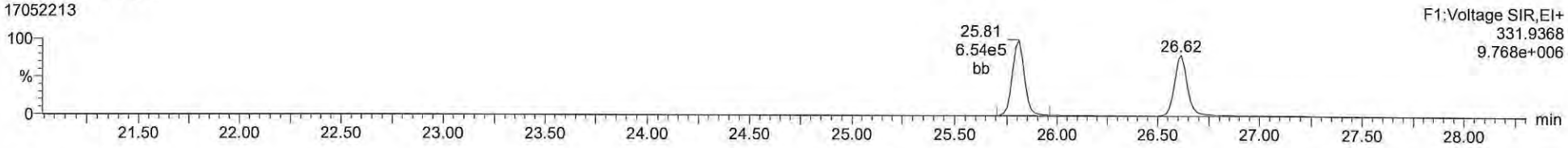
ID: CS3B2, Name: 17052213, Date: 22-May-2017, Time: 20:03:43, Conditions: AUTOSPEC01, User: PK

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
13C-123789-HxCDD	36.909	0.000	5.178e5	4.088e5	1.000	1.267	1.240	1701	1470	7.27e6	5.70e6	4272.1	YES	NO	bb	bb	100.000
Total-tetrafurans			3.646e5		1.018			1219		4.99e6							33.152
Total-penta1			7.305e5					659		1.05e7							65.473
Total-pentafurans			1.866e6		0.998			4062		2.64e7							153.925
Total-hexafurans			2.266e6		1.138			3224		3.21e7							259.878
Total-heptafurans			6.222e5		1.248			2207		8.15e6							99.202
Total-Furans			6.251e6		1.138			1219		8.58e7							711.499
Total-tetradioxins			3.804e5		1.244			1591		4.84e6							53.610
Total-pentadioxins			1.407e6		1.058			3055		1.70e7							203.937
Total-hexadioxins			1.294e6		1.047			3517		1.85e7							208.042
Total-heptadioxins			5.123e5		1.132			2042		6.56e6							104.342
Total-Dioxins			3.923e6		1.099			1591		5.01e7							665.070
Total-TEQ			1.017e7					1591		1.36e8							1376.569
37CL-2378-TCDD	26.631	1.032	1.553e5		1.021			1724		2.19e6		1267.3	YES		bb		10.203
FUNCTION1 PFK			2.827e6					949566		4.39e7							
FUNCTION2 PFK			1.607e5					133350		5.09e6							0.000
FUNCTION3 PFK			1.007e6					921923		2.57e7							0.000
FUNCTION4 PFK			1.243e6					498912		2.91e7							
FUNCTION5 PFK			1.753e5					307039		7.88e6							
FUNCTION1 HXCDPE			9.176e1					343		2.11e3							0.000
FUNCTION1 HPCDPE			2.469e2					717		5.42e3							0.000
FUNCTION2 HPCDPE			4.787e2					610		7.15e3							0.000
FUNCTION3 OCDPE			0.000e0					262		0.00e0							
FUNCTION4 NCDPE			0.000e0					379		0.00e0							
FUNCTION5 DCDPE			0.000e0					345		0.00e0							

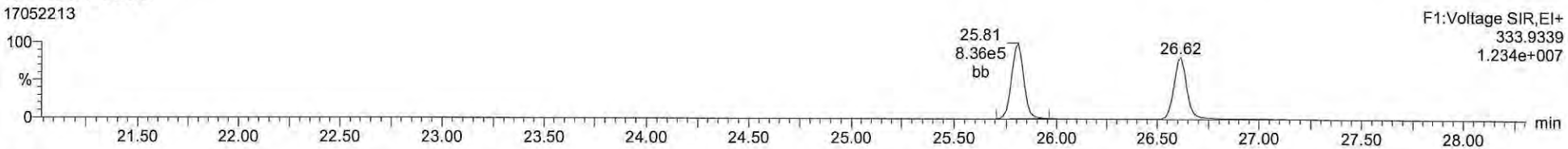
Method: C:\MassLynx\Dioxin.pro\MethDB\Dioxin170518.mdb 18 May 2017 15:01:42
Calibration: C:\MassLynx\Dioxin.pro\CurveDB\170518ICIH.cdb 19 May 2017 13:57:26

ID: CS3B2, Name: 17052213, Date: 22-May-2017, Time: 20:03:43, Conditions: AUTOSPEC01, User: PK

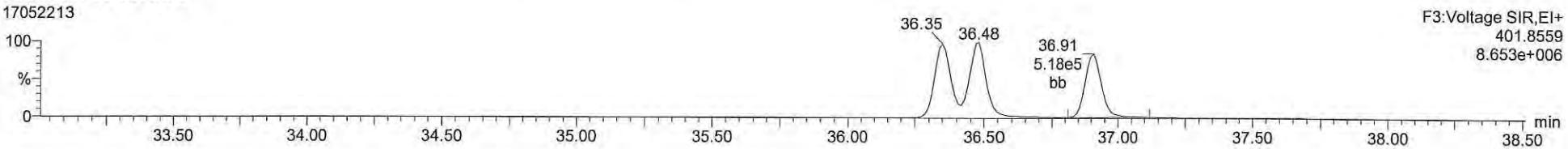
13C-1234-TCDD



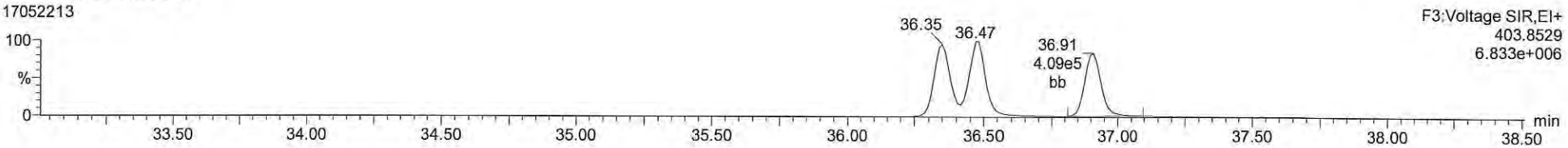
13C-1234-TCDD



13C-123789-HxCDD

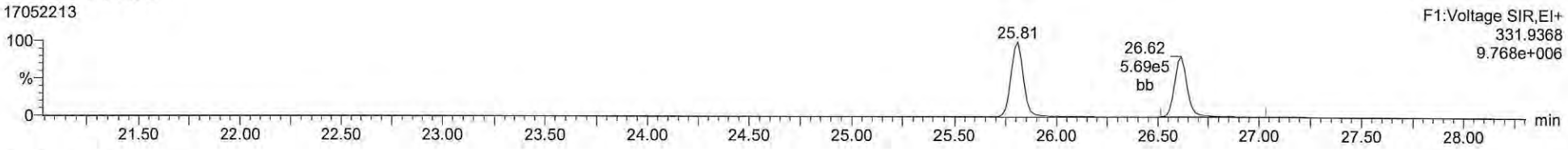


13C-123789-HxCDD

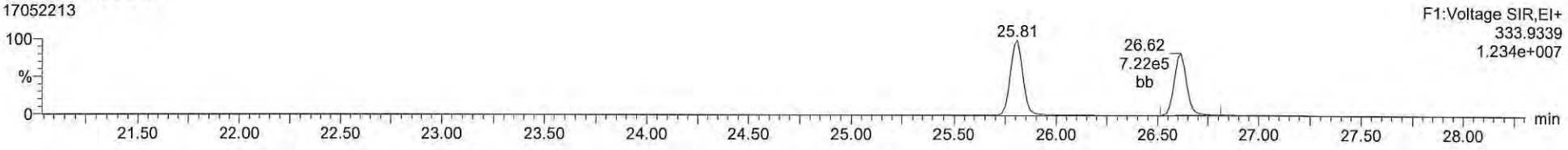


ID: CS3B2, Name: 17052213, Date: 22-May-2017, Time: 20:03:43, Conditions: AUTOSPEC01, User: PK

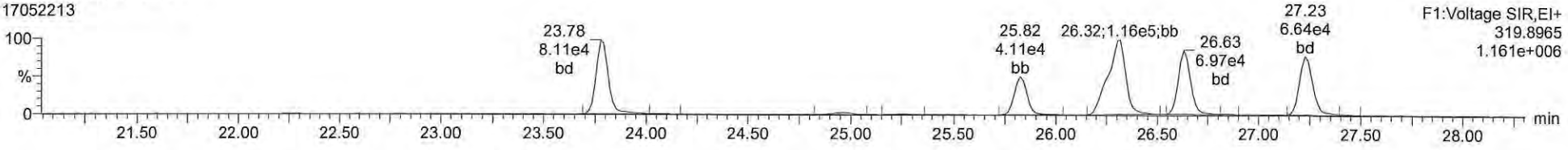
13C-2378-TCDD



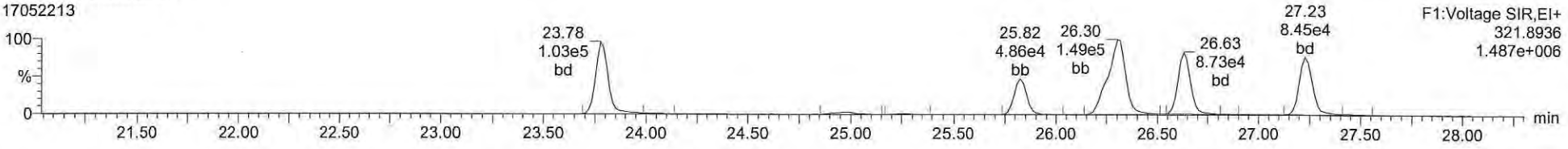
13C-2378-TCDD



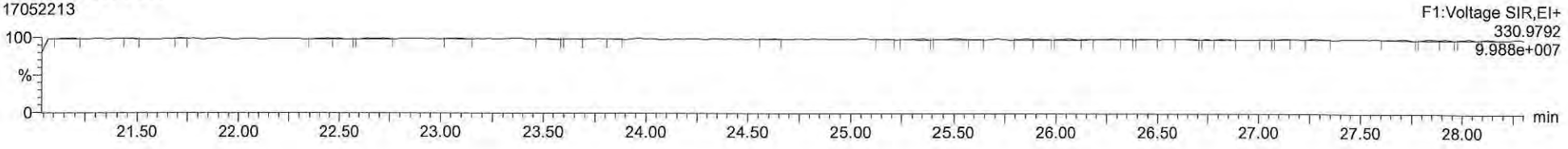
Total-tetradioxins



Total-tetradioxins

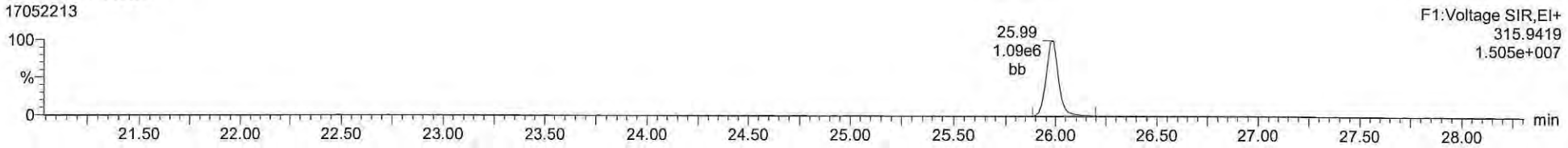


FUNCTION1 PFK

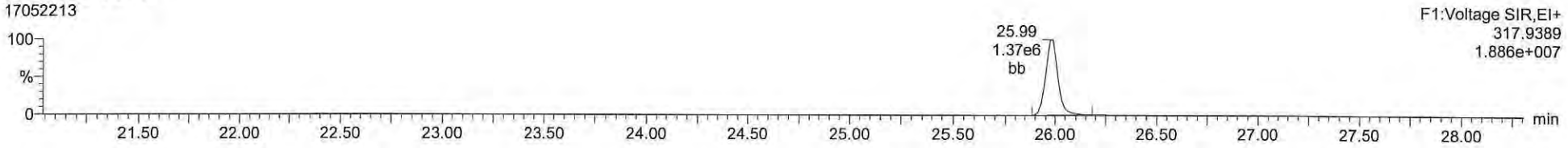


ID: CS3B2, Name: 17052213, Date: 22-May-2017, Time: 20:03:43, Conditions: AUTOSPEC01, User: PK

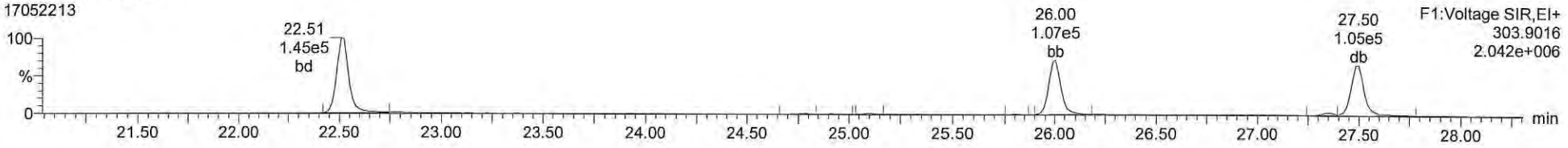
13C-2378-TCDF



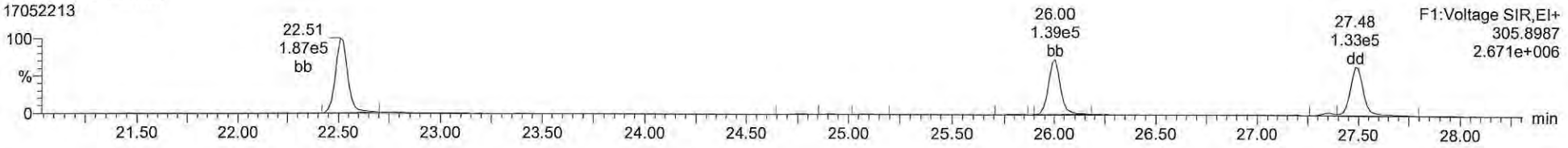
13C-2378-TCDF



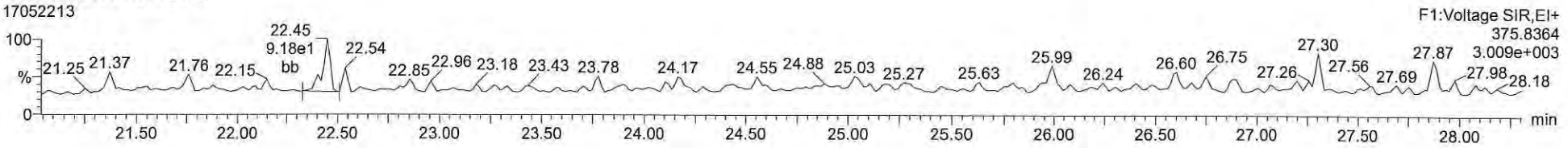
Total-tetrafurans



Total-tetrafurans

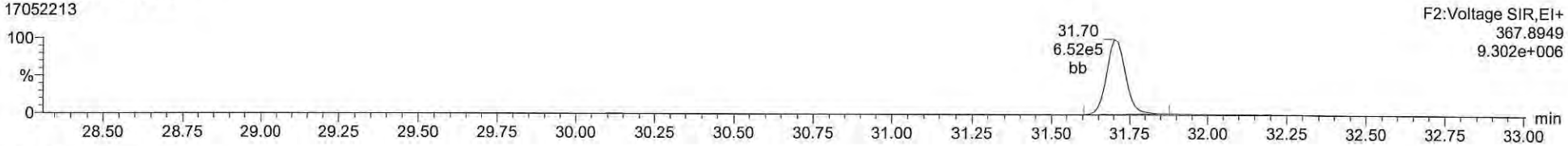


FUNCTION1 HXCDPE

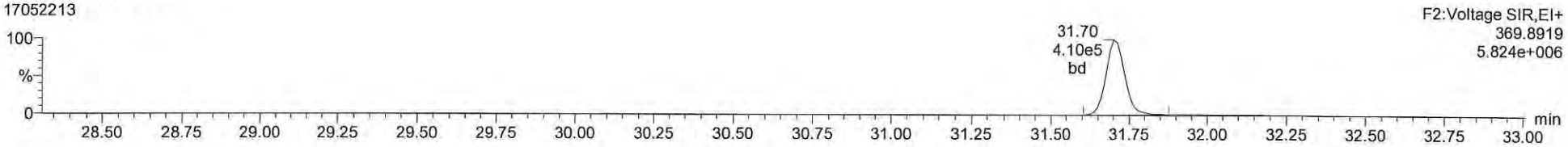


ID: CS3B2, Name: 17052213, Date: 22-May-2017, Time: 20:03:43, Conditions: AUTOSPEC01, User: PK

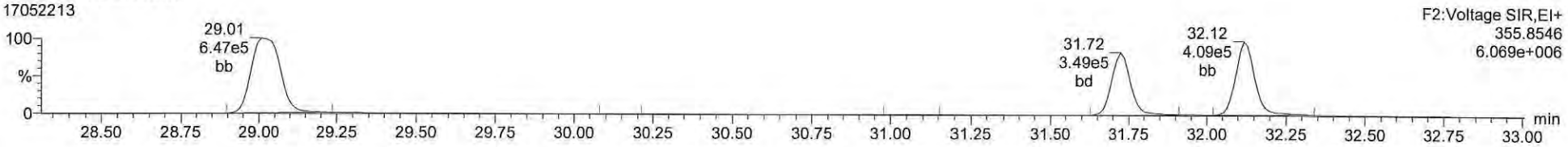
13C-12378-PeCDD



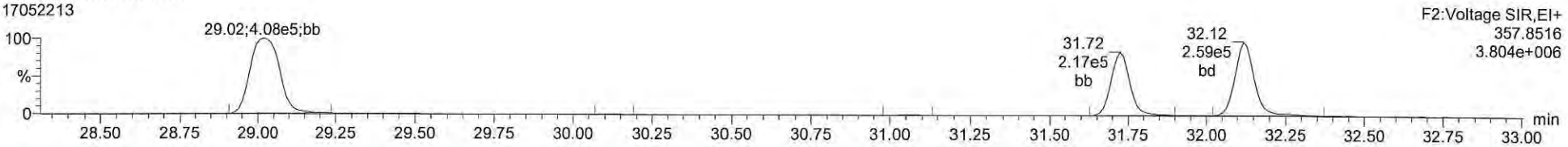
13C-12378-PeCDD



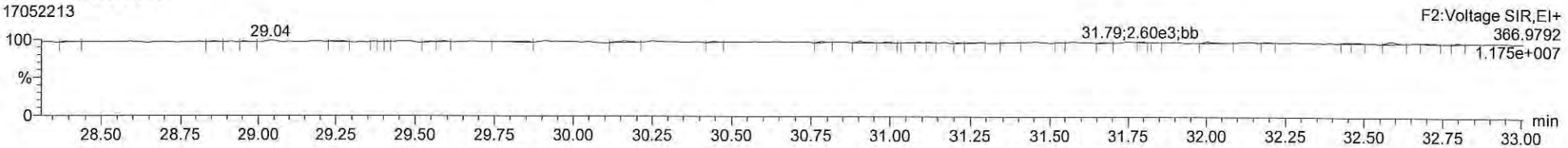
Total-pentadioxins



Total-pentadioxins

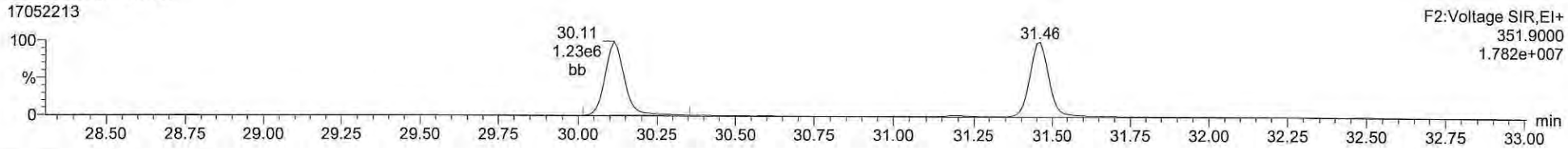


FUNCTION2 PFK

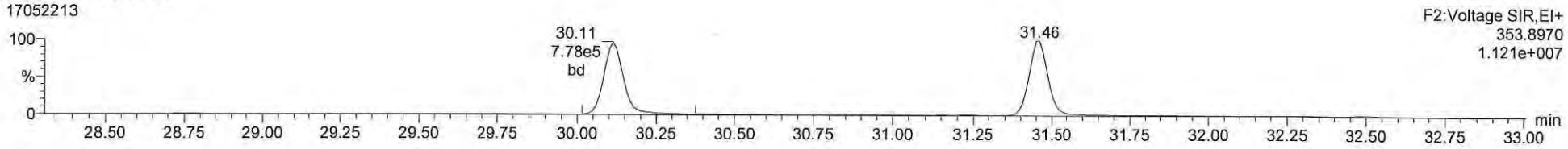


ID: CS3B2, Name: 17052213, Date: 22-May-2017, Time: 20:03:43, Conditions: AUTOSPEC01, User: PK

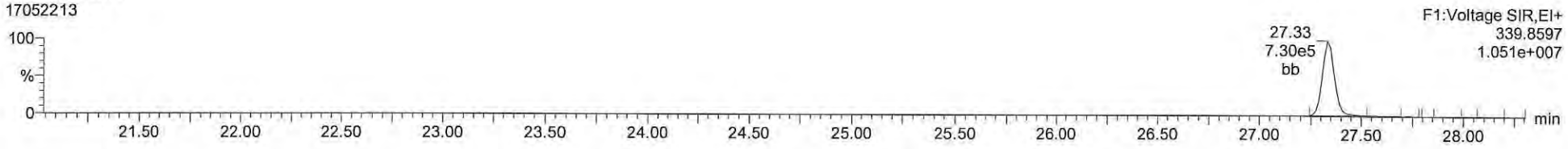
13C-12378-PeCDF



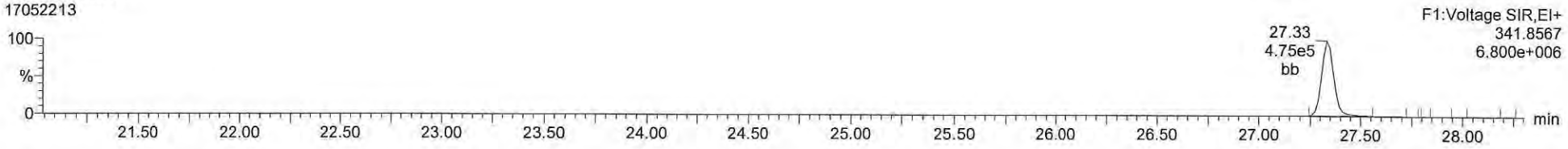
13C-12378-PeCDF



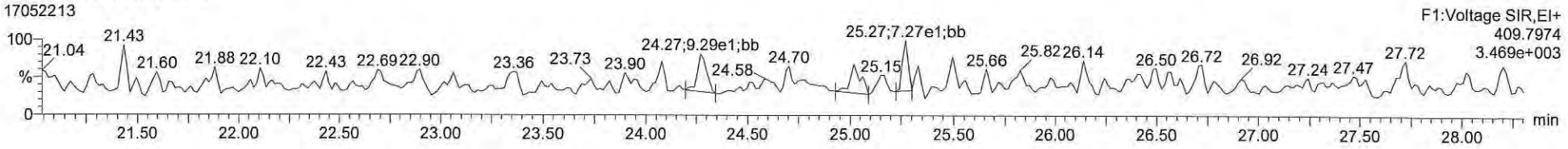
Total-penta1



Total-penta1

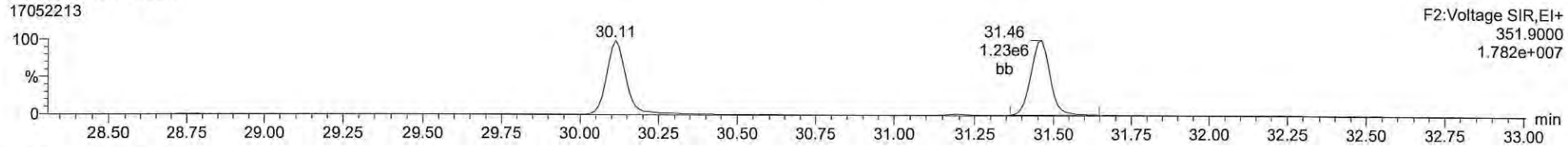


FUNCTION1 HPCDPE

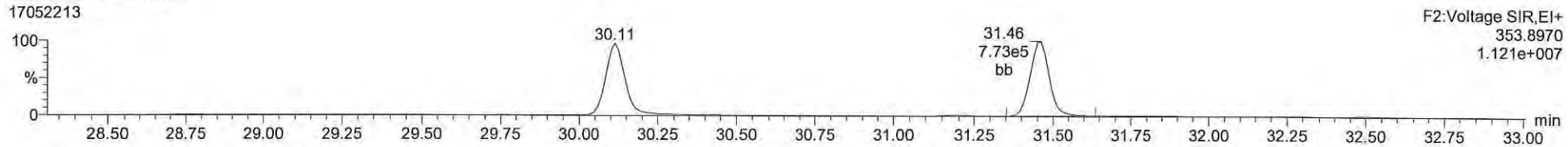


ID: CS3B2, Name: 17052213, Date: 22-May-2017, Time: 20:03:43, Conditions: AUTOSPEC01, User: PK

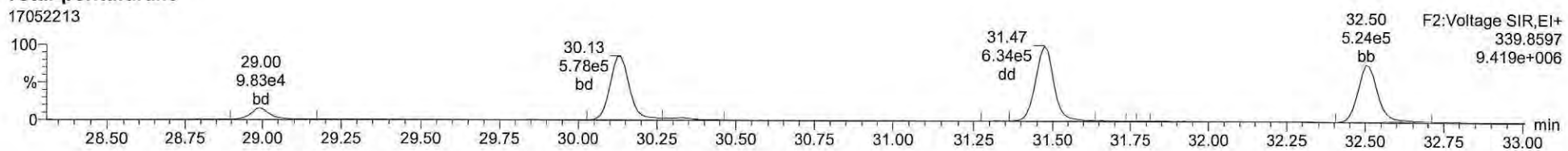
13C-23478-PeCDF



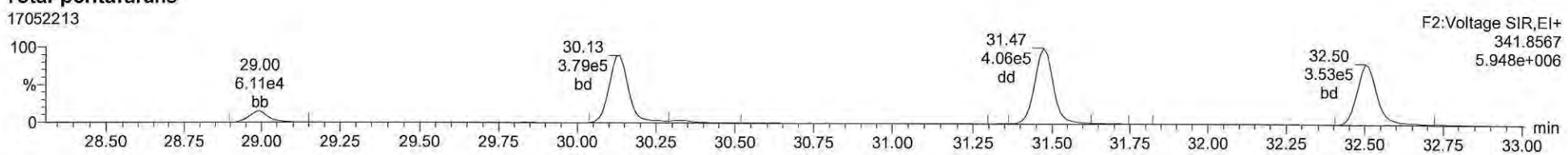
13C-23478-PeCDF



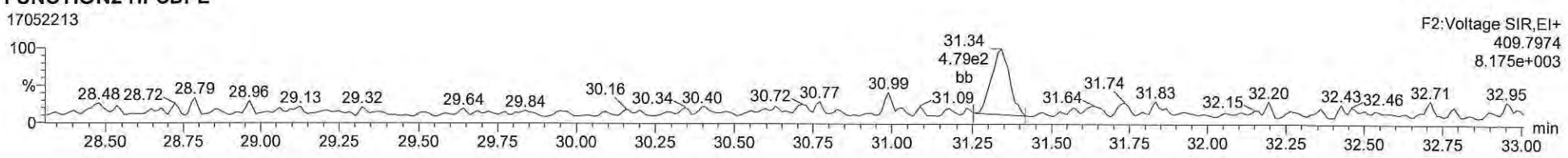
Total-pentafurans



Total-pentafurans

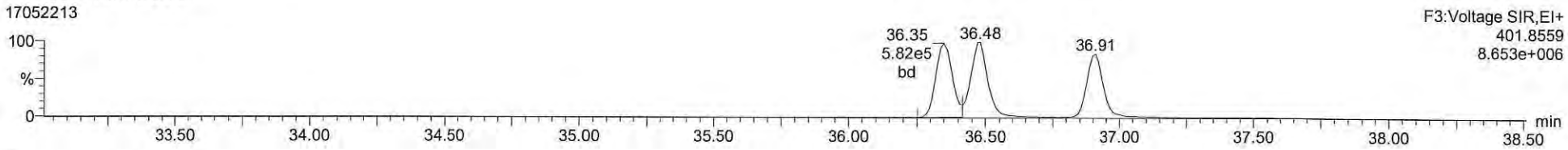


FUNCTION2 HPCDPE

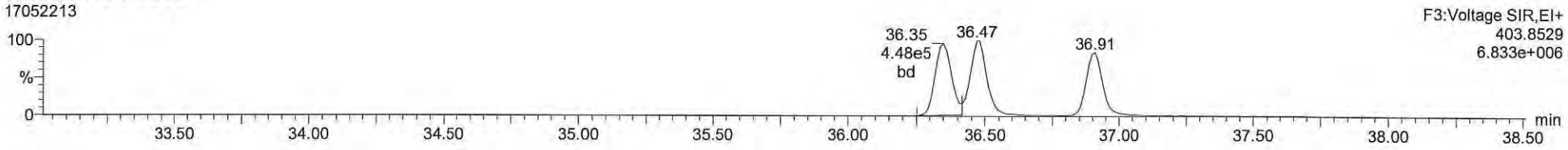


ID: CS3B2, Name: 17052213, Date: 22-May-2017, Time: 20:03:43, Conditions: AUTOSPEC01, User: PK

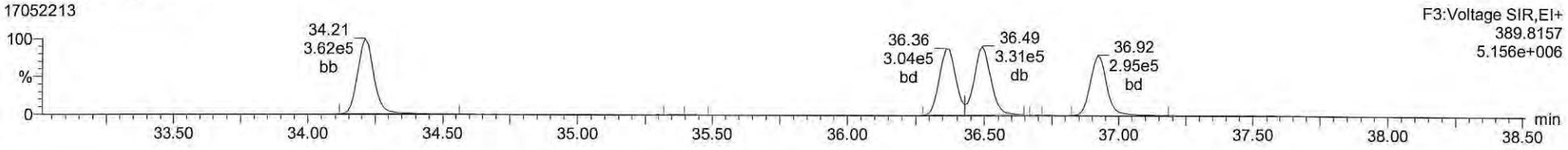
13C-123478-HxCDD



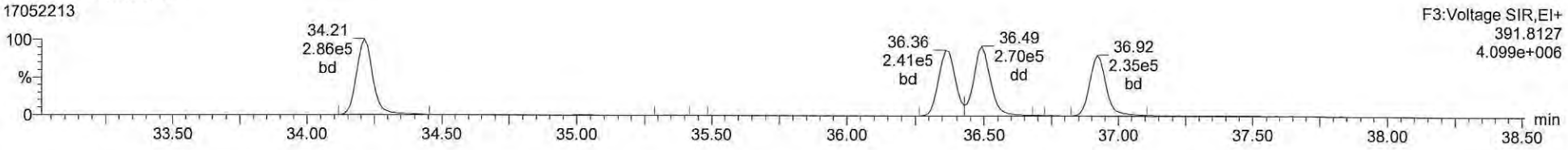
13C-123478-HxCDD



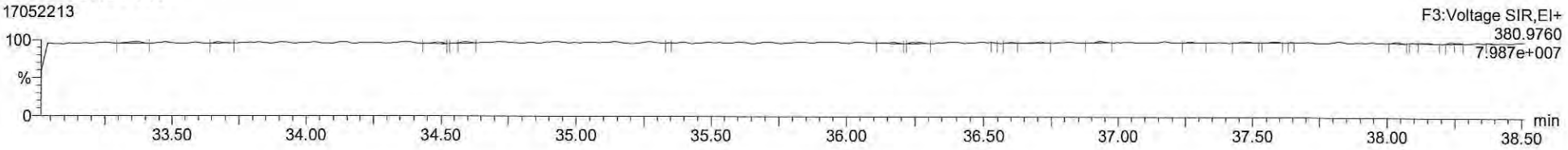
Total-hexadioxins



Total-hexadioxins

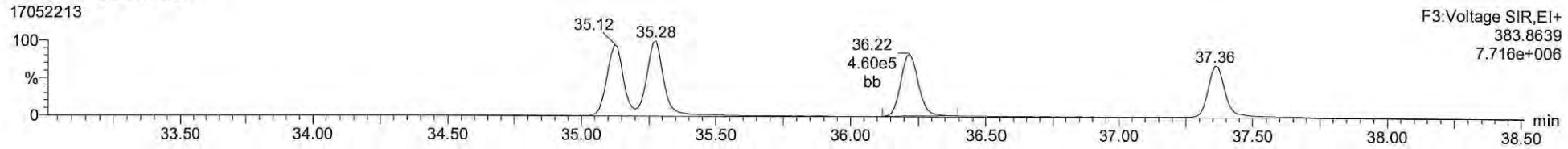


FUNCTION3 PFK

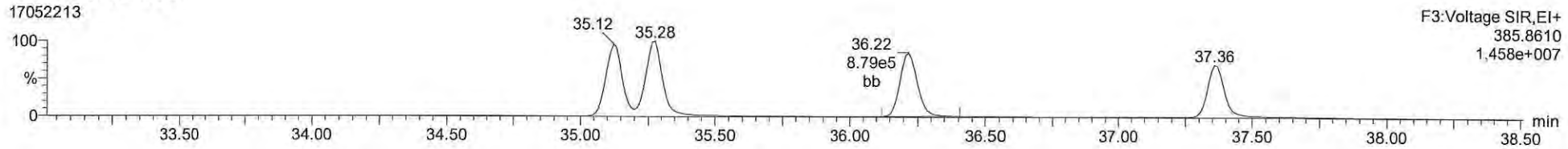


ID: CS3B2, Name: 17052213, Date: 22-May-2017, Time: 20:03:43, Conditions: AUTOSPEC01, User: PK

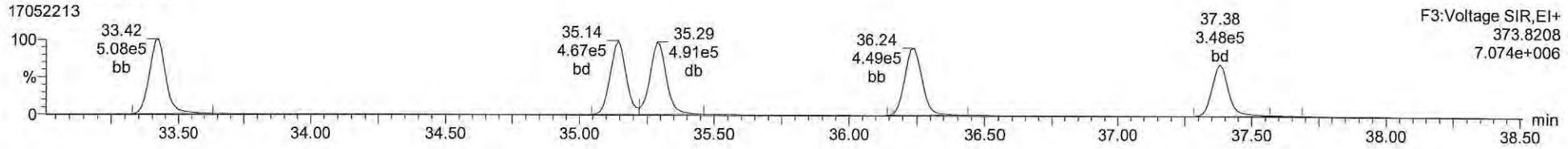
13C-234678-HxCDF



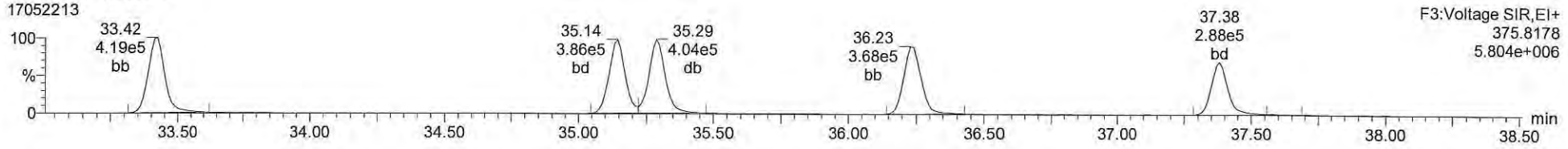
13C-234678-HxCDF



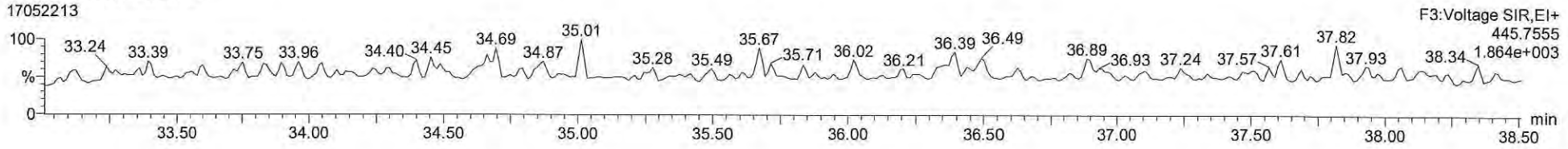
Total-hexafurans



Total-hexafurans

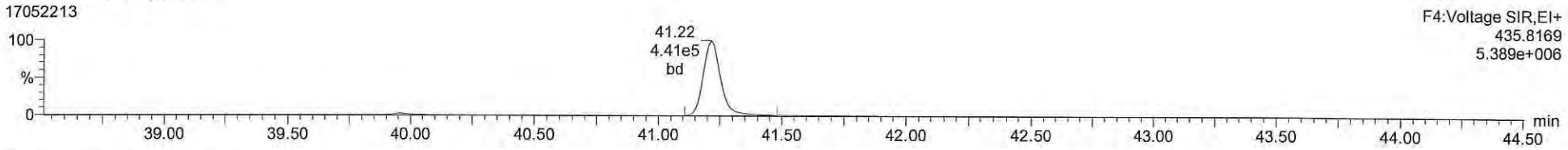


FUNCTION3 OCDPE

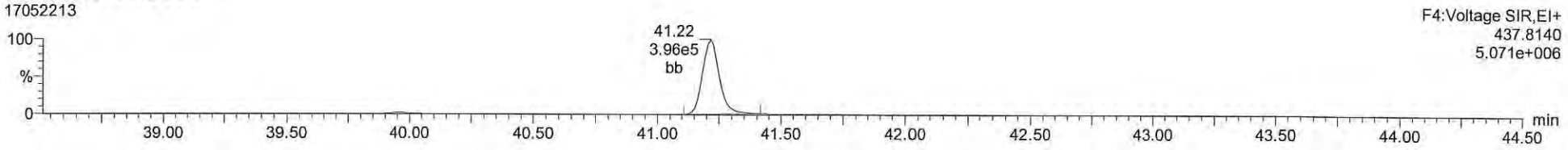


ID: CS3B2, Name: 17052213, Date: 22-May-2017, Time: 20:03:43, Conditions: AUTOSPEC01, User: PK

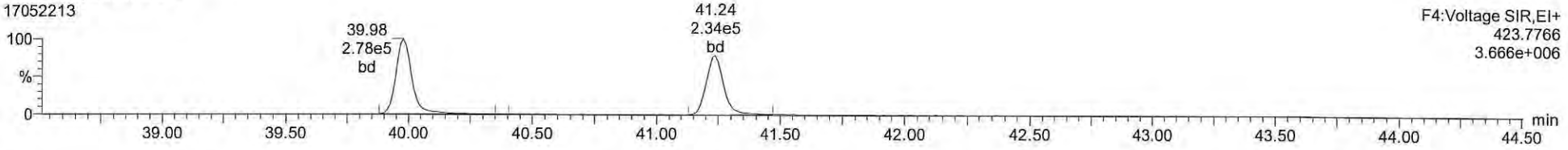
13C-1234678-HpCDD



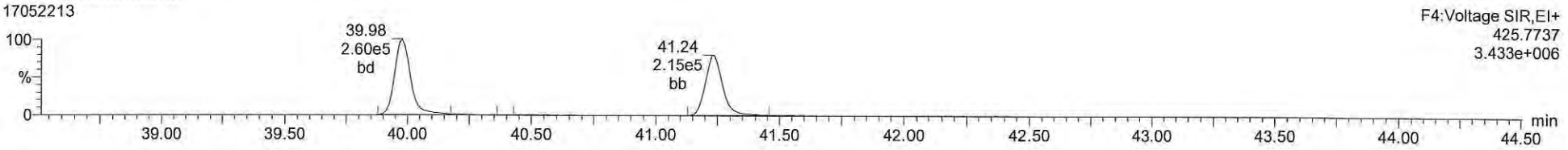
13C-1234678-HpCDD



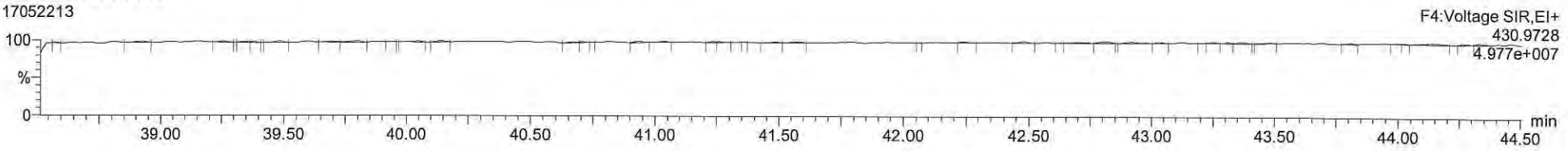
Total-heptadioxins



Total-heptadioxins

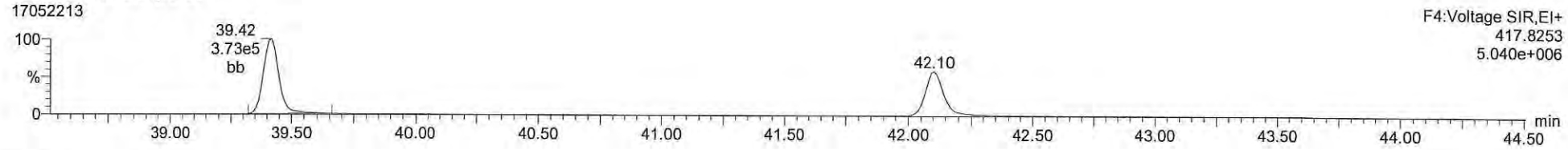


FUNCTION4 PFK

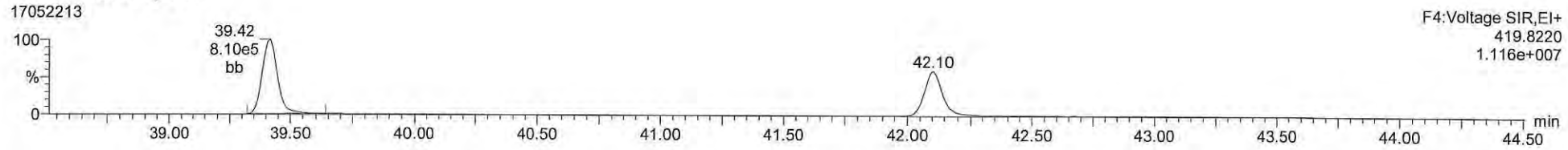


ID: CS3B2, Name: 17052213, Date: 22-May-2017, Time: 20:03:43, Conditions: AUTOSPEC01, User: PK

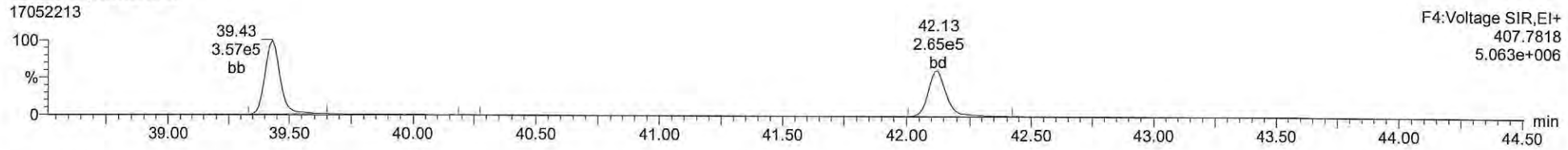
13C-1234678-HpCDF



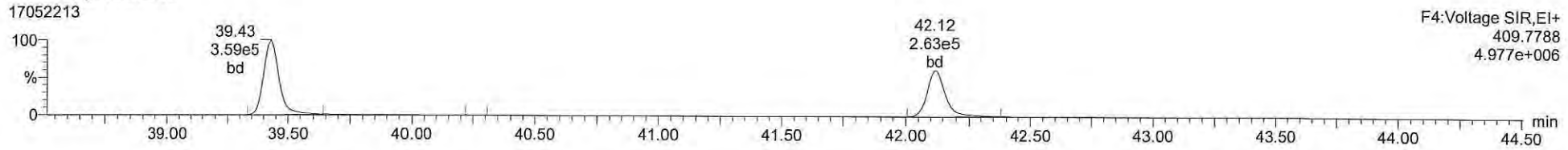
13C-1234678-HpCDF



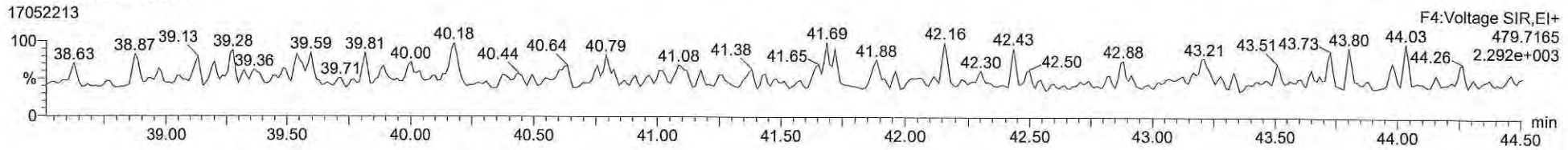
Total-heptafurans



Total-heptafurans

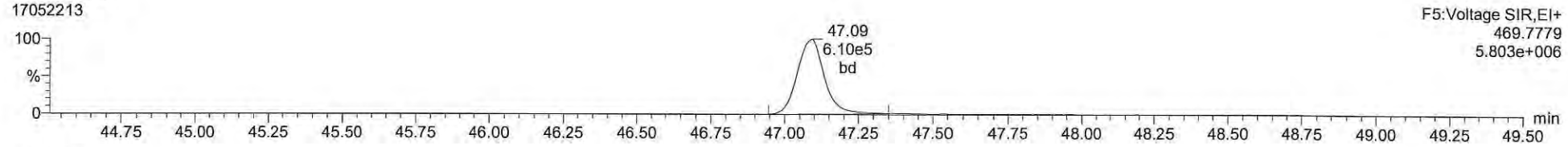


FUNCTION4 NCDPE

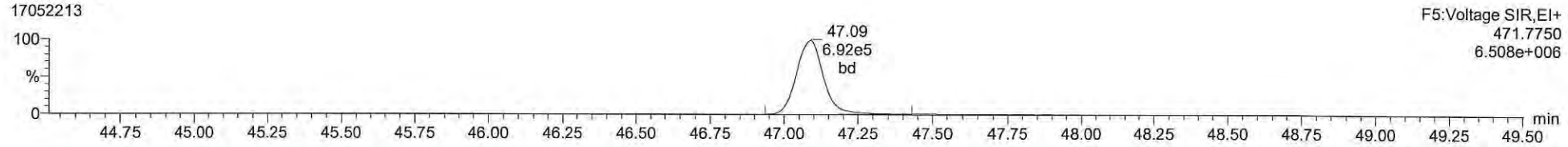


ID: CS3B2, Name: 17052213, Date: 22-May-2017, Time: 20:03:43, Conditions: AUTOSPEC01, User: PK

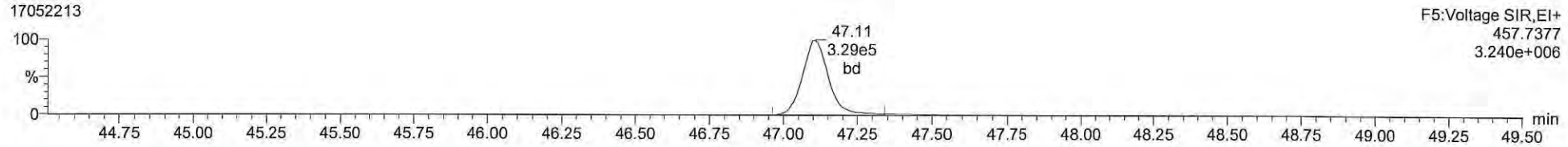
13C-OCDD



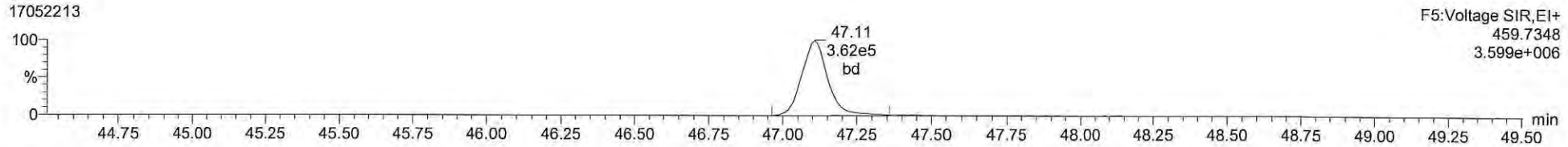
13C-OCDD



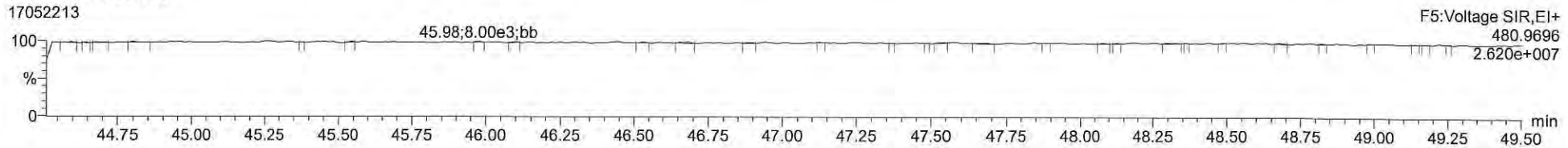
OCDD



OCDD



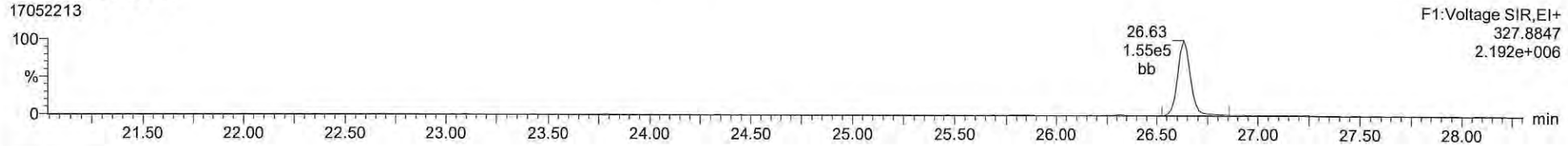
FUNCTION5 PFK



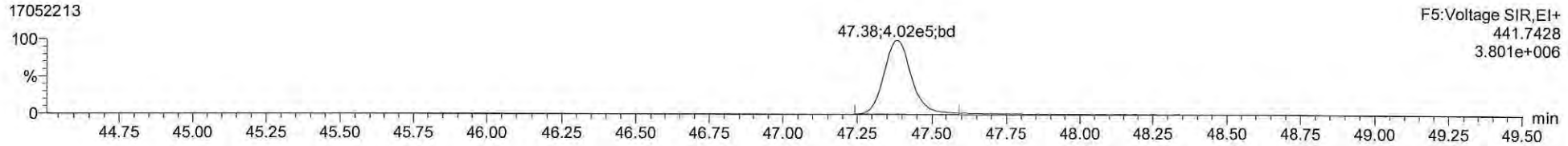
Dataset: C:\MassLynx\Dioxin.pro\170522D1.qld
Last Altered: Tuesday, May 23, 2017 10:30:46 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 10:33:47 Pacific Daylight Time

ID: CS3B2, Name: 17052213, Date: 22-May-2017, Time: 20:03:43, Conditions: AUTOSPEC01, User: PK

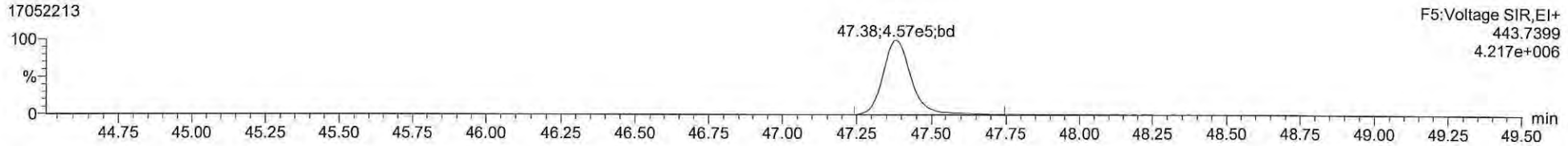
37CL-2378-TCDD



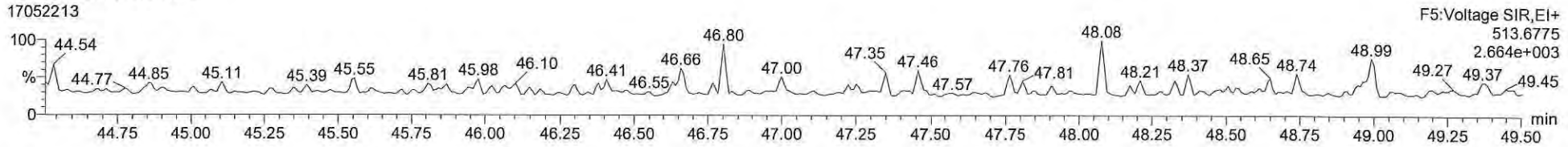
OCDF



OCDF

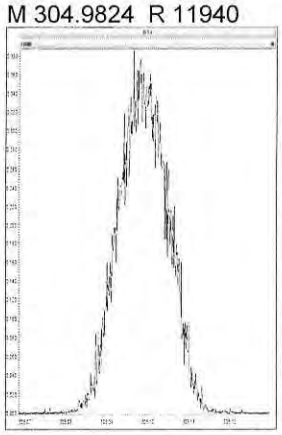


FUNCTION5 DCDPE

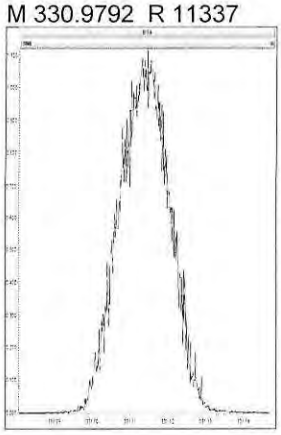


Printed: Monday, May 22, 2017 21:01:51 Pacific Daylight Time

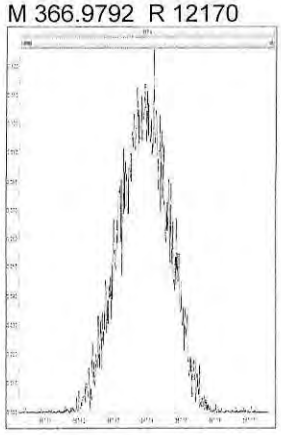
M 304.9824 R 11940



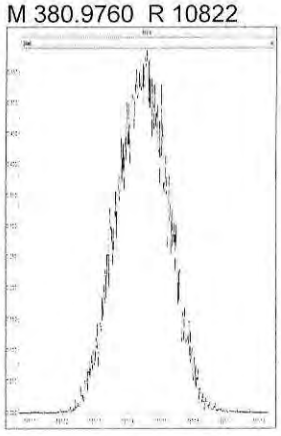
M 330.9792 R 11337



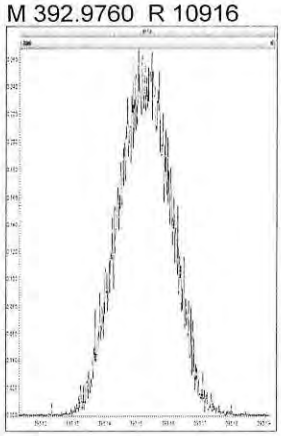
M 366.9792 R 12170



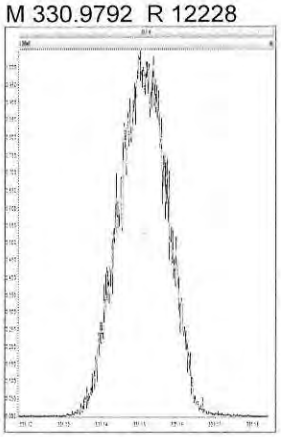
M 380.9760 R 10822



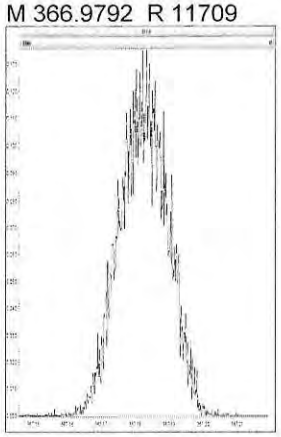
M 392.9760 R 10916



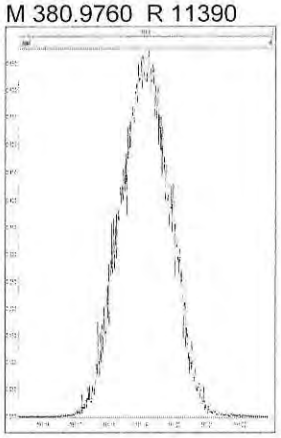
M 330.9792 R 12228



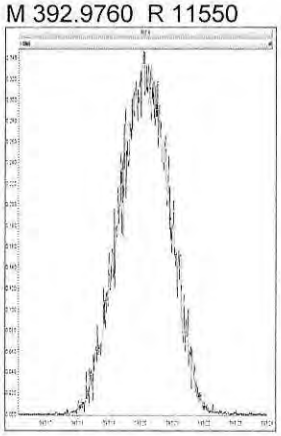
M 366.9792 R 11709



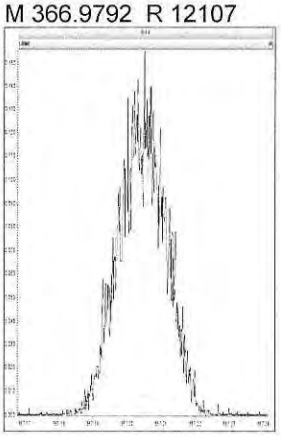
M 380.9760 R 11390



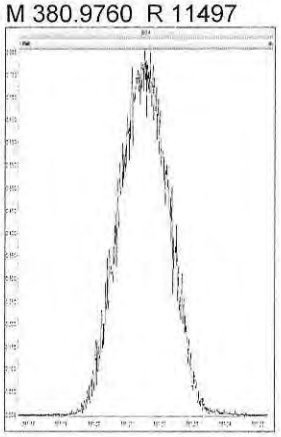
M 392.9760 R 11550



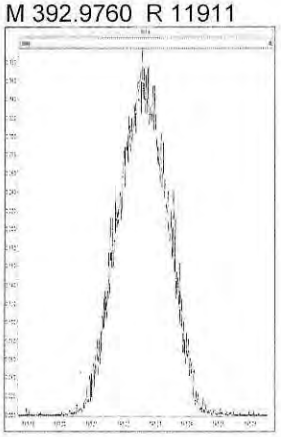
M 366.9792 R 12107



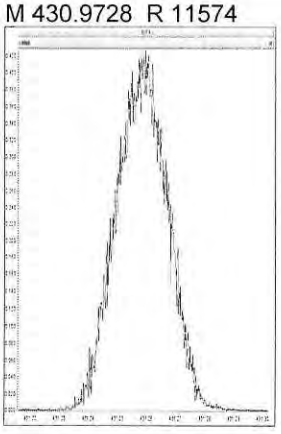
M 380.9760 R 11497



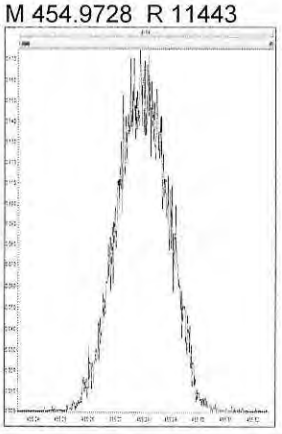
M 392.9760 R 11911



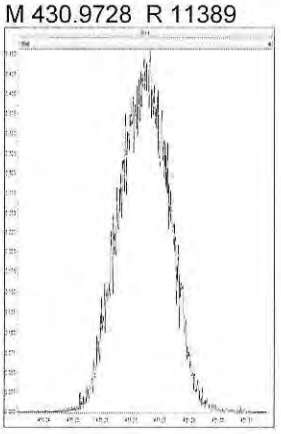
M 430.9728 R 11574



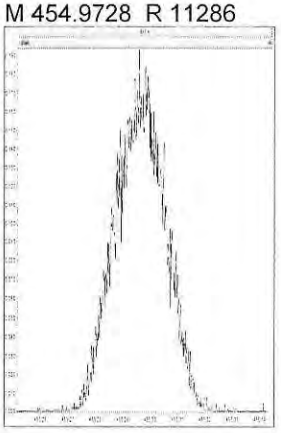
M 454.9728 R 11443



M 430.9728 R 11389

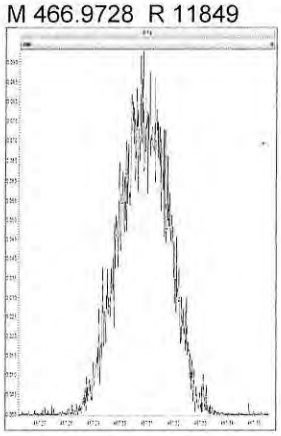


M 454.9728 R 11286

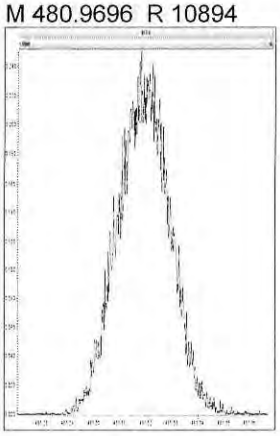


Printed: Monday, May 22, 2017 21:01:51 Pacific Daylight Time

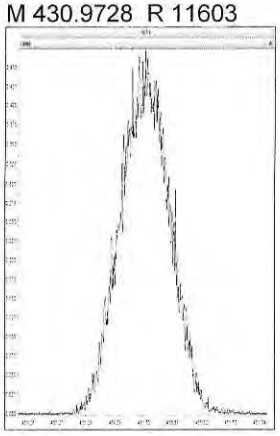
M 466.9728 R 11849



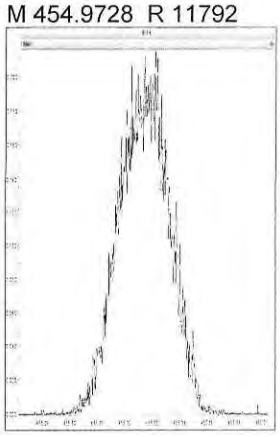
M 480.9696 R 10894



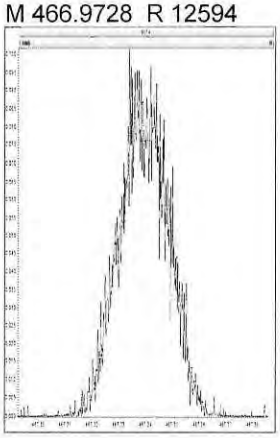
M 430.9728 R 11603



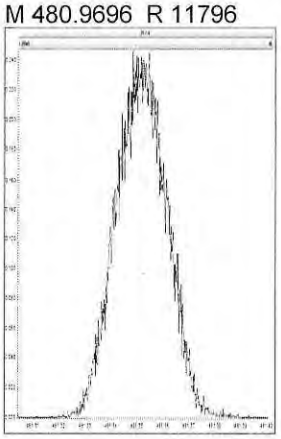
M 454.9728 R 11792



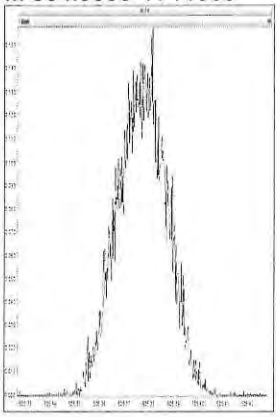
M 466.9728 R 12594

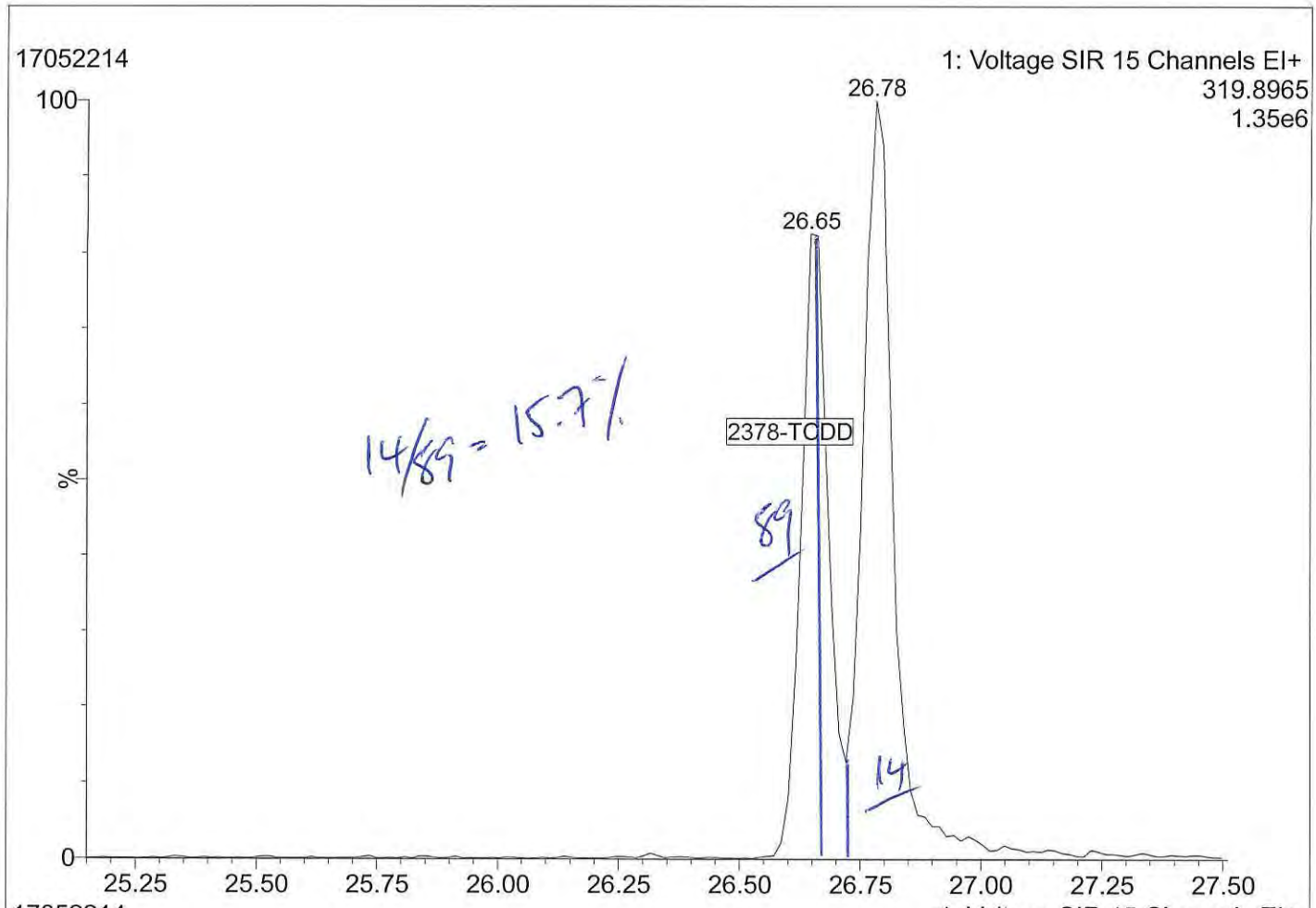


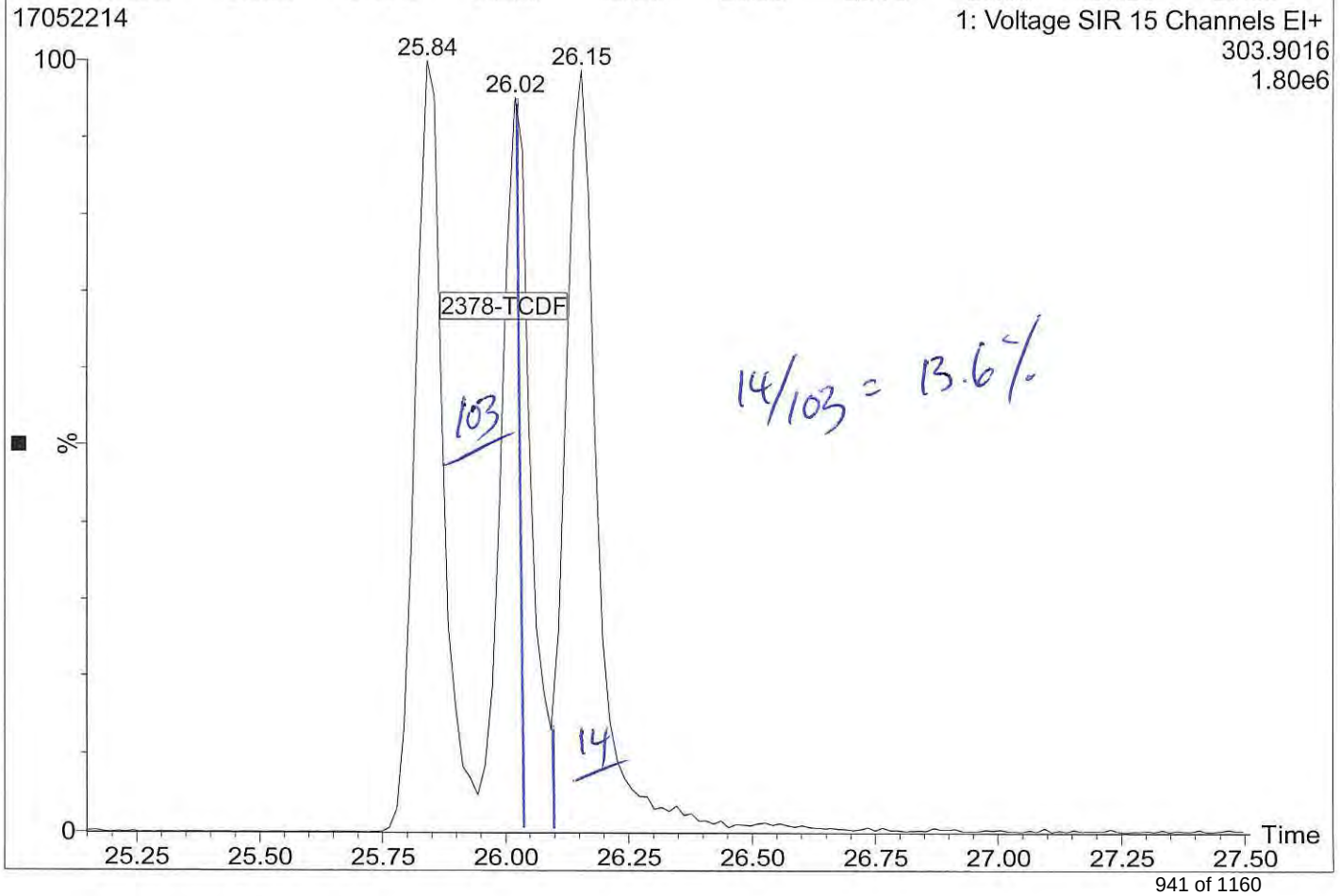
M 480.9696 R 11796



M 504.9696 R 11363




17052214
1: Voltage SIR 15 Channels EI+
319.8965
1.35e6
100
%
0
26.78
26.65
2378-TCDD
89
14
14/89 = 15.7%
25.25
25.50
25.75
26.00
26.25
26.50
26.75
27.00
27.25
27.50


17052214
1: Voltage SIR 15 Channels EI+
303.9016
1.80e6
100
%
0
25.84
26.02
26.15
2378-TCDF
103
14
14/103 = 13.6%
Time
25.25
25.50
25.75
26.00
26.25
26.50
26.75
27.00
27.25
27.50

Analytical Resources, Incorporated
Analytical Chemists and Consultants

CONTINUING CALIBRATION CHECK
EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Instrument ID:	AUTOSPEC01	Calibration:	AE00055
Lab File ID:	17052224	Calibration Date:	05/18/17 14:31
Sequence:	SFE0219	Injection Date:	05/23/17
Lab Sample ID:	SFE0219-CCV2	Injection Time:	06:01
Sequence Name:	CS303		

		CONC. (ng/mL)		RESPONSE FACTOR			% DRIFT/DIFF	
COMPOUND	TYPE	STD	CCV	ICAL	CCV	MIN	CCV	LIMIT
2,3,7,8-TCDF	A	10.000	9.44	1.0132980	0.9614571		-5.6	16
2,3,7,8-TCDD	A	10.000	9.70	1.1755440	1.2069670		-3.0	22
1,2,3,7,8-PeCDF	A	50.000	47.6	0.9765664	0.9300157		-4.8	18
2,3,4,7,8-PeCDF	A	50.000	50.1	1.0192640	1.0211930		0.2	18
1,2,3,7,8-PeCDD	A	50.000	50.3	1.0582470	1.0653540		0.7	22
1,2,3,4,7,8-HxCDF	A	50.000	51.5	1.1500860	1.1853760		3.1	10
1,2,3,6,7,8-HxCDF	A	50.000	51.2	1.0997540	1.1259230		2.4	12
2,3,4,6,7,8-HxCDF	A	50.000	51.0	1.1878740	1.2114250		2.0	12
1,2,3,7,8,9-HxCDF	A	50.000	51.0	1.1160500	1.1392890		2.1	10
1,2,3,4,7,8-HxCDD	A	50.000	47.0	1.1192500	1.0513930		-6.1	22
1,2,3,6,7,8-HxCDD	A	50.000	50.9	1.0402190	1.0595940		1.9	22
1,2,3,7,8,9-HxCDD	A	50.000	49.5	0.9806210	0.9702677		-1.1	18
1,2,3,4,6,7,8-HpCDF	A	50.000	48.4	1.2380230	1.1972980		-3.3	10
1,2,3,4,7,8,9-HpCDF	A	50.000	49.5	1.2573640	1.2446620		-1.0	14
1,2,3,4,6,7,8-HpCDD	A	50.000	47.3	1.1319240	1.0713290		-5.4	14
OCDF	A	100.00	99.2	1.3207770	1.3099840		-0.8	37
OCDD	A	100.00	95.8	1.1168160	1.0696240		-4.2	21
13C12-2,3,7,8-TCDF	A	100.00	100	1.6846640	1.6891252		0.3	29
13C12-2,3,7,8-TCDD	A	100.00	101	0.8727236	0.8787748		0.7	18
13C12-1,2,3,7,8-PeCDF	A	100.00	83.5	1.7056380	1.4247866		-16.5	24
13C12-2,3,4,7,8-PeCDF	A	100.00	86.8	1.6318430	1.4172141		-13.2	23
13C12-1,2,3,7,8-PeCDD	A	100.00	86.1	0.8600295	0.7408616		-13.9	38
13C12-1,2,3,4,7,8-HxCDF	A	100.00	91.0	1.6821870	1.5308766		-9.0	24
13C12-1,2,3,6,7,8-HxCDF	A	100.00	87.0	1.9454000	1.6931306		-13.0	30
13C12-2,3,4,6,7,8-HxCDF	A	100.00	91.0	1.5821140	1.4401558		-9.0	27
13C12-1,2,3,7,8,9-HxCDF	A	100.00	92.6	1.2907090	1.1958235		-7.4	26
13C12-1,2,3,4,7,8-HxCDD	A	100.00	99.8	1.1136440	1.1114813		-0.2	15
13C12-1,2,3,6,7,8-HxCDD	A	100.00	93.7	1.2584900	1.1794639		-6.3	15
13C12-1,2,3,4,6,7,8-HpCDF	A	100.00	89.1	1.4265280	1.2712771		-10.9	22
13C12-1,2,3,4,7,8,9-HpCDF	A	100.00	95.1	0.9569095	0.9104080		-4.9	23
13C12-1,2,3,4,6,7,8-HpCDD	A	100.00	97.0	0.9236238	0.8962085		-3.0	18
13C12-OCDD	A	200.00	187	0.7383514	0.6914866		-6.3	52
37C14-2,3,7,8-TCDD	A	10.000	10.5	1.0211920	1.0674342		4.5	

* Values outside of QC limits

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 11:29:51 Pacific Daylight Time

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

ID: CS3B3, Name: 17052224, Date: 23-May-2017, Time: 06:01:57, Conditions: AUTOSPEC01, User: PK

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
2378-TCDF	25.988	1.001	1.062e5	1.406e5	1.018	0.755	0.770	2160	1938	1.56e6	2.04e6	721.2	YES	NO	bb	bb	9.441
12378-PeCDF	30.124	1.001	6.065e5	4.005e5	0.977	1.515	1.550	3310	9236	8.65e6	5.68e6	2612.7	YES	NO	bd	bd	47.617
23478-PeCDF	31.461	1.000	6.581e5	4.418e5	1.019	1.490	1.550	3310	9236	9.73e6	6.49e6	2938.2	YES	NO	bb	dd	50.095
123478-HxCDF	35.133	1.001	5.099e5	4.195e5	1.150	1.215	1.240	3107	3280	7.37e6	6.07e6	2371.9	YES	NO	bd	bd	51.534
234678-HxCDF	36.229	1.001	4.909e5	4.026e5	1.188	1.219	1.240	3107	3280	7.07e6	5.74e6	2275.0	YES	NO	bb	bb	50.991
123678-HxCDF	35.276	1.000	5.322e5	4.442e5	1.100	1.198	1.240	3107	3280	7.60e6	6.27e6	2445.5	YES	NO	db	dd	51.190
123789-HxCDF	37.369	1.001	3.818e5	3.160e5	1.116	1.208	1.240	3107	3280	5.45e6	4.44e6	1753.9	YES	NO	bb	bd	51.041
1234678-HpCDF	39.419	1.000	3.891e5	3.905e5	1.238	0.997	1.050	2487	2967	5.58e6	5.41e6	2244.7	YES	NO	bb	bb	48.355
1234789-HpCDF	42.104	1.000	2.920e5	2.884e5	1.257	1.013	1.050	2487	2967	3.43e6	3.41e6	1377.6	YES	NO	bd	bd	49.495
OCDF	47.367	1.006	4.319e5	4.960e5	1.321	0.871	0.890	1279	1651	4.25e6	4.77e6	3320.5	YES	NO	bd	bd	99.183
2378-TCDD	26.616	1.001	7.039e4	9.083e4	1.244	0.775	0.770	1203	1684	9.65e5	1.24e6	802.3	YES	NO	bd	bb	9.701
12378-PeCDD	31.713	1.001	3.681e5	2.318e5	1.058	1.588	1.550	3731	1642	5.44e6	3.45e6	1457.0	YES	NO	bb	bd	50.336
123478-HxCDD	36.349	1.000	3.322e5	2.664e5	1.119	1.247	1.240	2676	2035	5.01e6	4.01e6	1872.4	YES	NO	bd	bd	46.969
123678-HxCDD	36.481	1.001	3.552e5	2.849e5	1.040	1.247	1.240	2676	2035	5.16e6	4.04e6	1926.9	YES	NO	db	db	50.931
123789-HxCDD	36.909	1.012	3.146e5	2.546e5	0.981	1.235	1.240	2676	2035	4.65e6	3.73e6	1736.4	YES	NO	bb	bd	49.472
1234678-HpCDD	41.227	1.000	2.515e5	2.403e5	1.132	1.046	1.050	1947	1825	3.22e6	3.10e6	1654.8	YES	NO	bd	bd	47.323
OCDD	47.089	1.000	3.589e5	3.988e5	1.117	0.900	0.890	2551	1649	3.60e6	4.06e6	1409.9	YES	NO	bd	bd	95.774
13C-2378-TCDF	25.973	1.007	1.135e6	1.432e6	1.685	0.793	0.770	4147	2171	1.61e7	2.01e7	3888.4	YES	NO	bb	bb	100.265
13C-12378-PeCDF	30.102	1.167	1.316e6	8.498e5	1.706	1.548	1.550	3975	2701	1.90e7	1.21e7	4783.3	YES	NO	bb	bd	83.534
13C-23478-PeCDF	31.450	1.219	1.334e6	8.203e5	1.632	1.626	1.550	3975	2701	1.91e7	1.18e7	4809.9	YES	NO	bb	bb	86.847
13C-123478-HxCDF	35.111	0.952	5.386e5	1.030e6	1.682	0.523	0.510	3120	4504	7.97e6	1.52e7	2554.7	YES	NO	bd	bd	91.005
13C-123678-HxCDF	35.264	0.956	6.036e5	1.131e6	1.945	0.534	0.510	3120	4504	8.46e6	1.61e7	2710.3	YES	NO	dd	db	87.033
13C-234678-HxCDF	36.207	0.981	5.067e5	9.685e5	1.582	0.523	0.510	3120	4504	7.56e6	1.44e7	2421.3	YES	NO	bb	bb	91.027
13C-123789-HxCDF	37.347	1.012	4.206e5	8.043e5	1.291	0.523	0.510	3120	4504	6.06e6	1.17e7	1942.2	YES	NO	bb	bb	92.649
13C-1234678-HpCDF	39.408	1.068	4.133e5	8.889e5	1.427	0.465	0.440	1867	2692	5.60e6	1.22e7	2997.1	YES	NO	bd	bb	89.117
13C-1234789-HpCDF	42.093	1.141	2.885e5	6.441e5	0.957	0.448	0.440	1867	2692	3.45e6	7.69e6	1846.6	YES	NO	bb	bd	95.140
13C-1234-TCDD	25.794	0.000	6.568e5	8.631e5	1.000	0.761	0.770	1411	1753	9.79e6	1.28e7	6939.2	YES	NO	bb	bb	100.000
13C-2378-TCDD	26.601	1.031	5.861e5	7.496e5	0.873	0.782	0.770	1411	1753	8.33e6	1.06e7	5899.6	YES	NO	bb	bb	100.693
13C-12378-PeCDD	31.691	1.229	6.993e5	4.268e5	0.860	1.638	1.550	1437	1580	1.03e7	6.33e6	7150.9	YES	NO	bb	bb	86.144
13C-123478-HxCDD	36.339	0.985	6.429e5	4.956e5	1.114	1.297	1.240	1781	1651	9.63e6	7.47e6	5407.0	YES	NO	bd	bd	99.806
13C-123678-HxCDD	36.459	0.988	6.851e5	5.231e5	1.258	1.310	1.240	1781	1651	9.75e6	7.53e6	5473.3	YES	NO	db	db	93.720
13C-1234678-HpCDD	41.205	1.117	4.647e5	4.533e5	0.924	1.025	1.050	2216	2198	6.08e6	5.78e6	2745.6	YES	NO	bb	bd	97.032
13C-OCDD	47.070	1.276	6.688e5	7.478e5	0.738	0.894	0.890	1721	1383	6.70e6	7.29e6	3892.6	YES	NO	bb	bd	187.306

Dataset: C:\MassLynx\Dioxin.pro\170522D2.qld
Last Altered: Tuesday, May 23, 2017 11:28:07 Pacific Daylight Time
Printed: Tuesday, May 23, 2017 11:29:51 Pacific Daylight Time

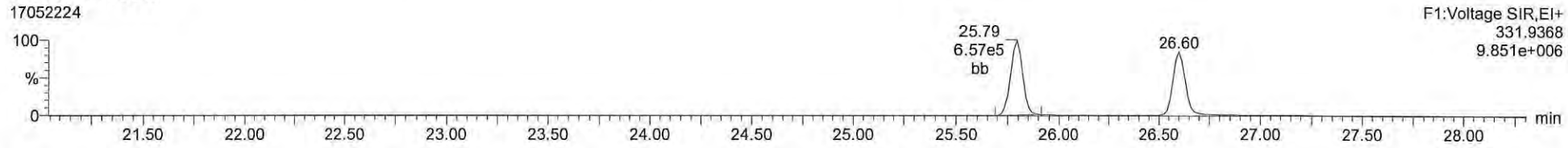
ID: CS3B3, Name: 17052224, Date: 23-May-2017, Time: 06:01:57, Conditions: AUTOSPEC01, User: PK

Compound	RT	RRT	Ion1Area	Ion2Area	RRF	Ratio	Pred R	Noise 1	Noise 2	Height 1	Height 2	S/N 1	SNFlag	EMPC	Int.1	Int.2	pg
13C-123789-HxCDD	36.897	0.000	5.747e5	4.496e5	1.000	1.278	1.240	1781	1651	8.11e6	6.34e6	4550.7	YES	NO	bb	bb	100.000
Total-tetrafurans			3.656e5		1.018			2160		5.08e6							32.452
Total-penta1			7.736e5					997		1.06e7							63.832
Total-pentafurans			1.973e6		0.998			3310		2.82e7							151.357
Total-hexafurans			2.457e6		1.138			3107		3.50e7							262.714
Total-heptafurans			6.844e5		1.248			2487		9.07e6							98.273
Total-Furans			6.686e6		1.138			2160		9.21e7							707.832
Total-tetradioxins			3.887e5		1.244			1203		4.98e6							53.118
Total-pentadioxins			1.482e6		1.058			3731		1.80e7							202.346
Total-hexadioxins			1.379e6		1.047			2676		2.02e7							202.287
Total-heptadioxins			5.514e5		1.132			1947		7.37e6							103.629
Total-Dioxins			4.161e6		1.099			1203		5.42e7							657.220
Total-TEQ			1.085e7					1203		1.46e8							1365.052
37CL-2378-TCDD	26.616	1.032	1.622e5		1.021			1025		2.26e6		2209.0	YES		bb		10.453
FUNCTION1 PFK			1.789e6					398655		2.71e7							
FUNCTION2 PFK			5.030e4					95230		1.34e6							0.000
FUNCTION3 PFK			1.220e6					445620		2.90e7							0.000
FUNCTION4 PFK			5.206e5					270134		1.36e7							
FUNCTION5 PFK			5.613e3					161178		2.87e5							
FUNCTION1 HXCDPE			2.139e2					464		2.01e3							0.000
FUNCTION1 HPCDPE			0.000e0					506		0.00e0							
FUNCTION2 HPCDPE			3.259e2					603		5.03e3							0.000
FUNCTION3 OCDPE			3.402e2					767		2.18e3							0.000
FUNCTION4 NCDPE			9.273e1					897		1.91e3							0.000
FUNCTION5 DCDPE			0.000e0					729		0.00e0							

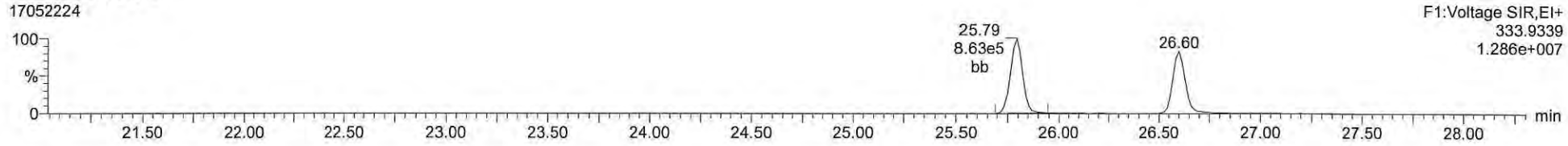
Method: C:\MassLynx\Dioxin.pro\MethDB\Dioxin170518.mdb 18 May 2017 15:01:42
Calibration: C:\MassLynx\Dioxin.pro\CurveDB\170518ICIH.cdb 19 May 2017 13:57:26

ID: CS3B3, Name: 17052224, Date: 23-May-2017, Time: 06:01:57, Conditions: AUTOSPEC01, User: PK

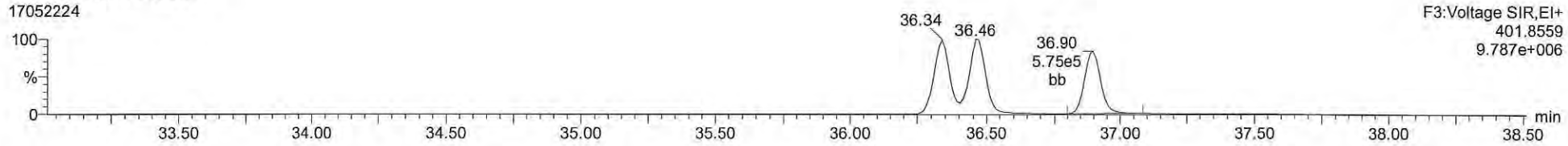
13C-1234-TCDD



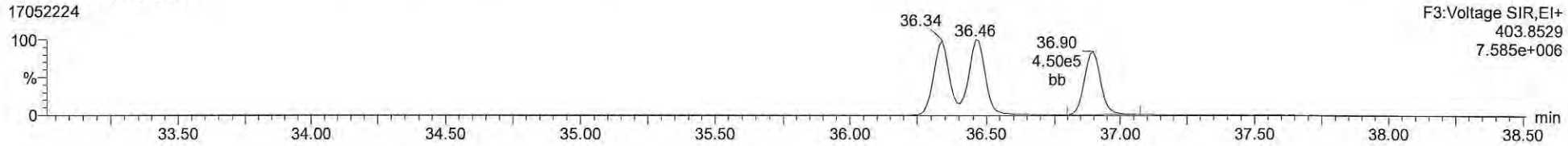
13C-1234-TCDD



13C-123789-HxCDD

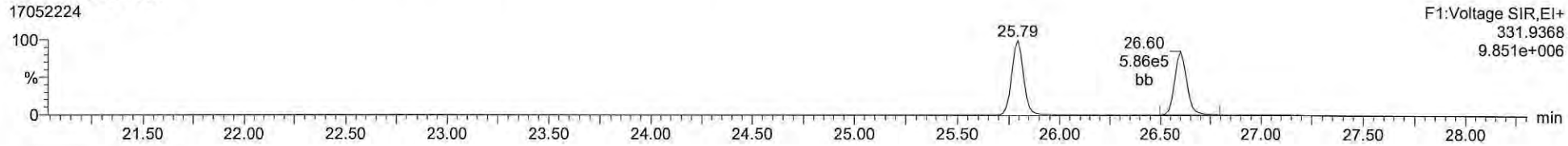


13C-123789-HxCDD

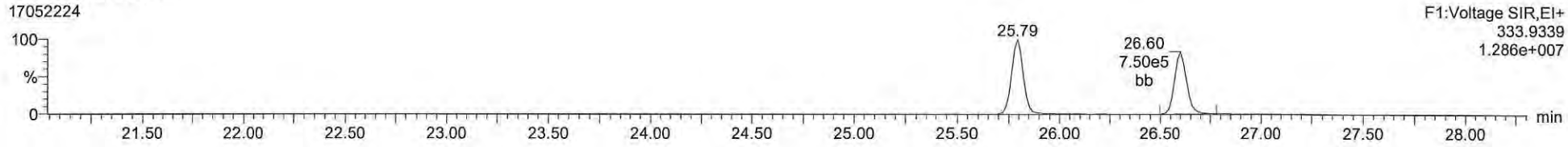


ID: CS3B3, Name: 17052224, Date: 23-May-2017, Time: 06:01:57, Conditions: AUTOSPEC01, User: PK

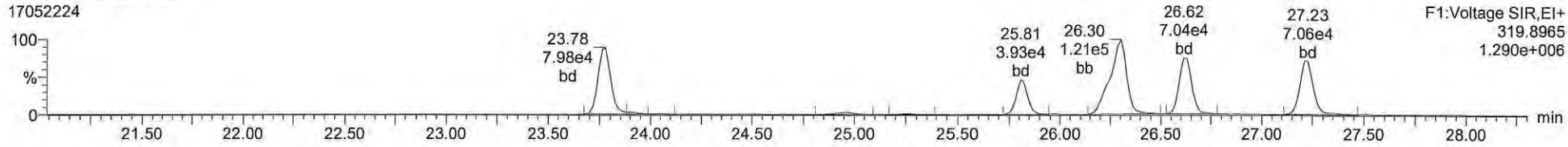
13C-2378-TCDD



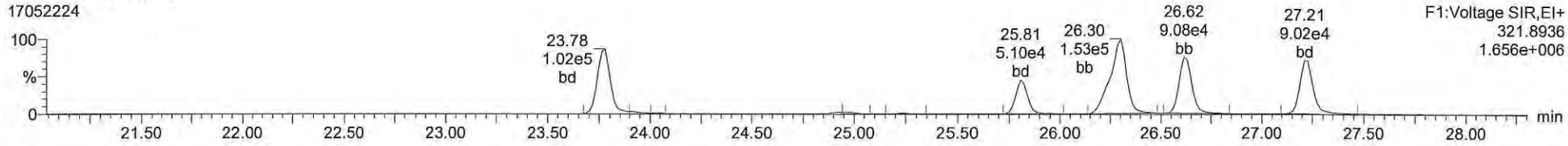
13C-2378-TCDD



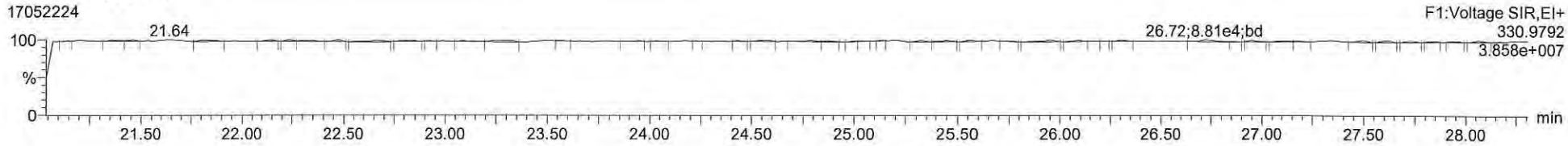
Total-tetradioxins



Total-tetradioxins

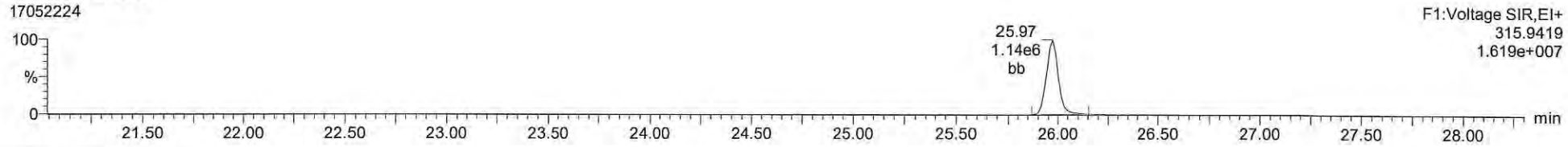


FUNCTION1 PFK

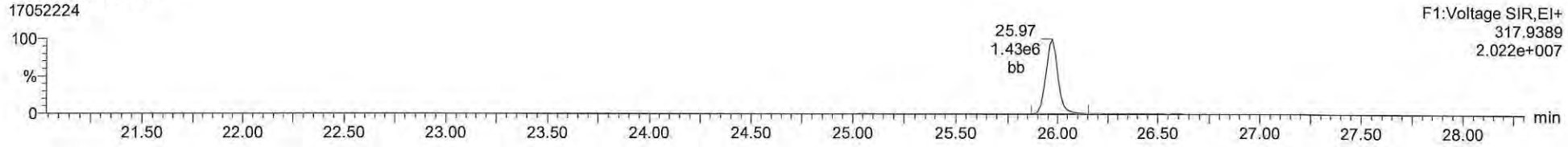


ID: CS3B3, Name: 17052224, Date: 23-May-2017, Time: 06:01:57, Conditions: AUTOSPEC01, User: PK

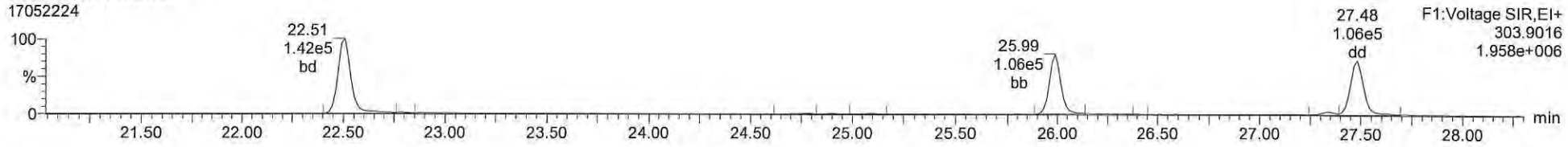
13C-2378-TCDF



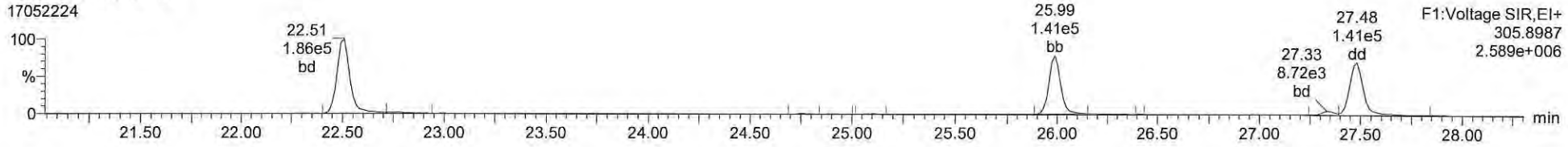
13C-2378-TCDF



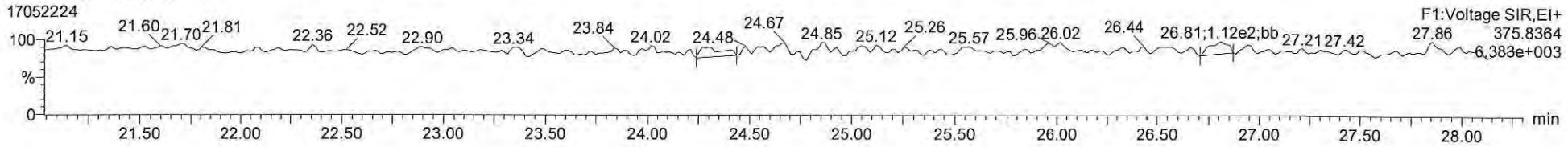
Total-tetrafurans



Total-tetrafurans

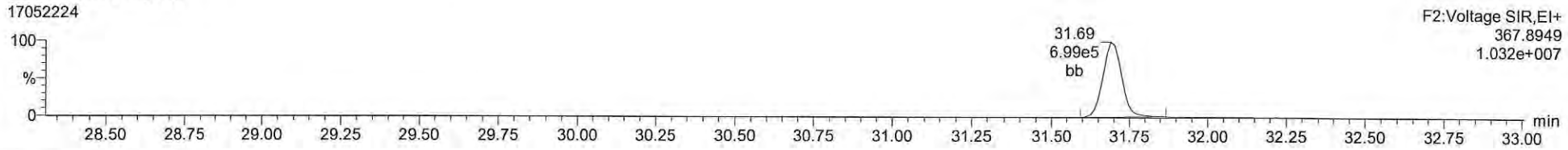


FUNCTION1 HXCDPE

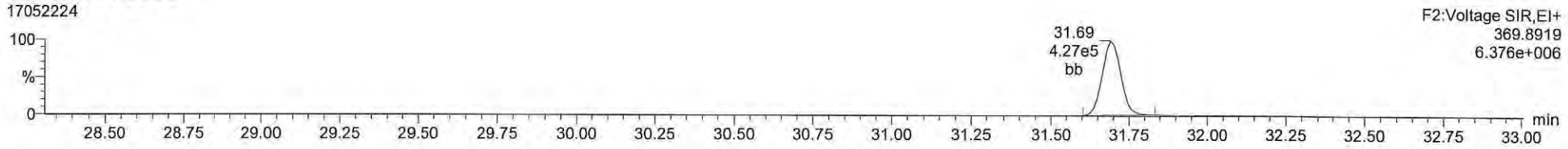


ID: CS3B3, Name: 17052224, Date: 23-May-2017, Time: 06:01:57, Conditions: AUTOSPEC01, User: PK

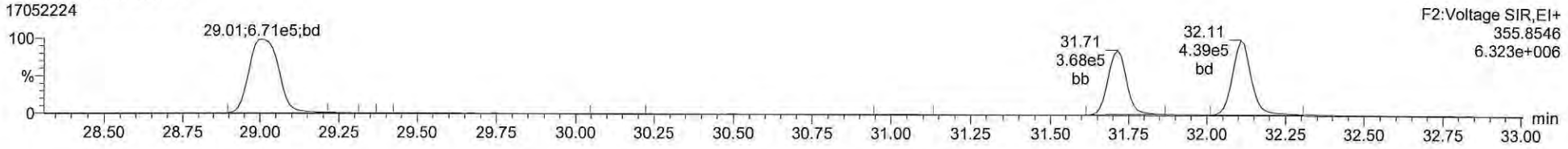
13C-12378-PeCDD



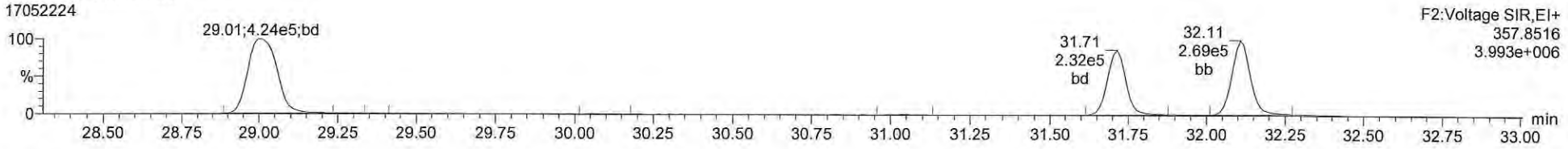
13C-12378-PeCDD



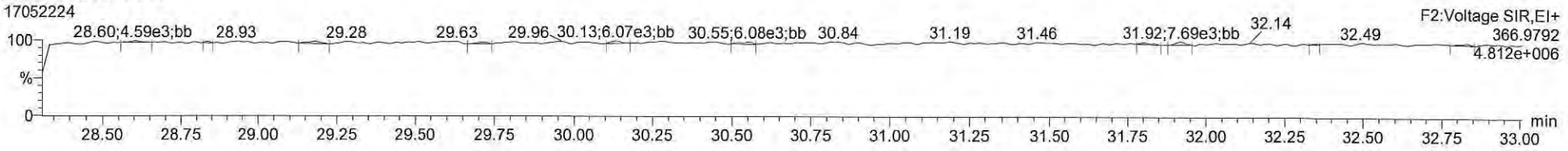
Total-pentadioxins



Total-pentadioxins

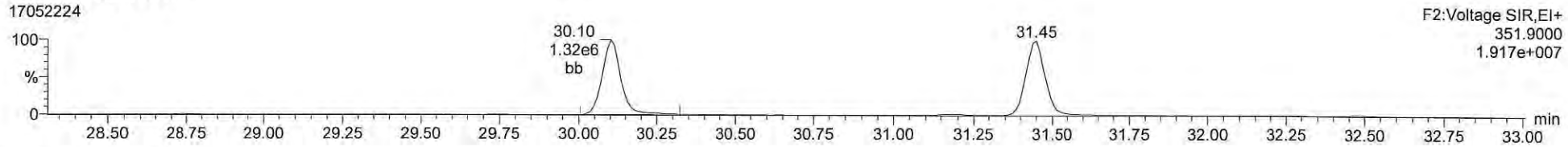


FUNCTION2 PFK

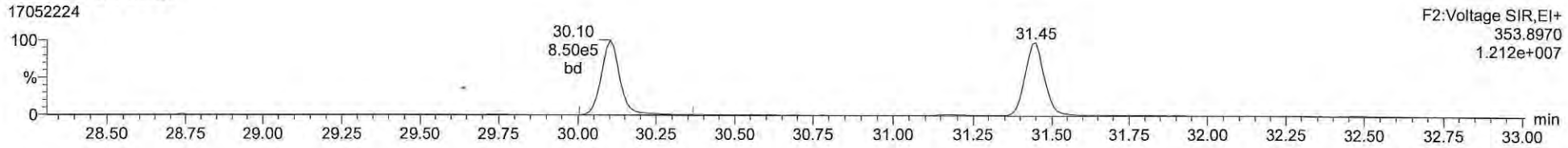


ID: CS3B3, Name: 17052224, Date: 23-May-2017, Time: 06:01:57, Conditions: AUTOSPEC01, User: PK

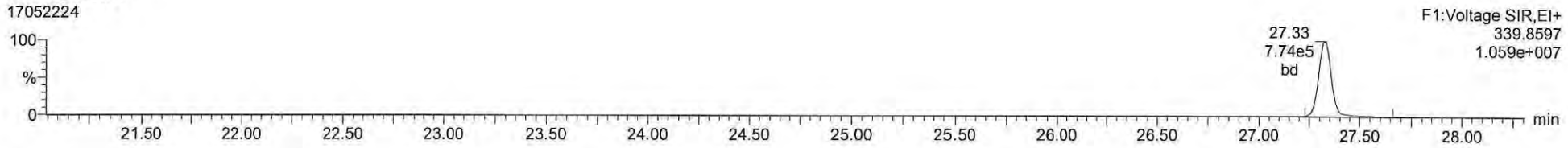
13C-12378-PeCDF



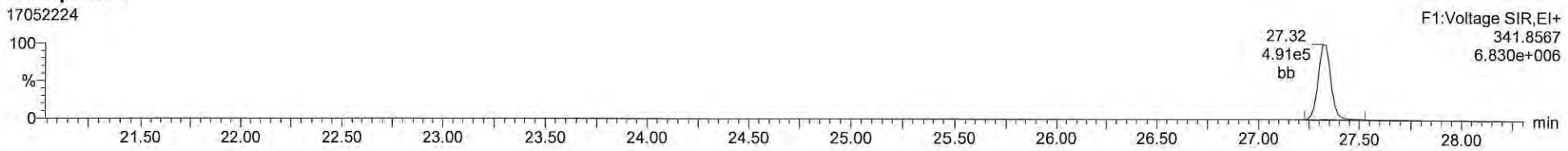
13C-12378-PeCDF



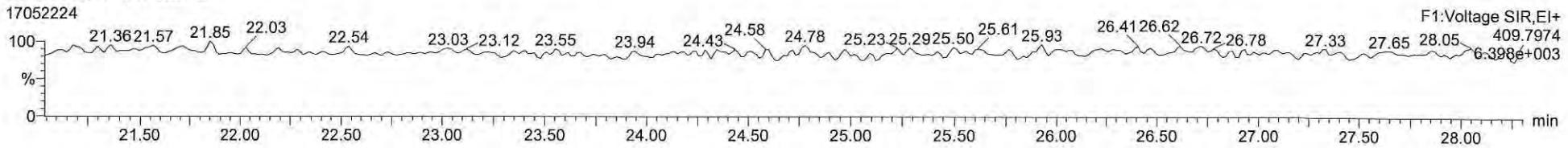
Total-penta1



Total-penta1

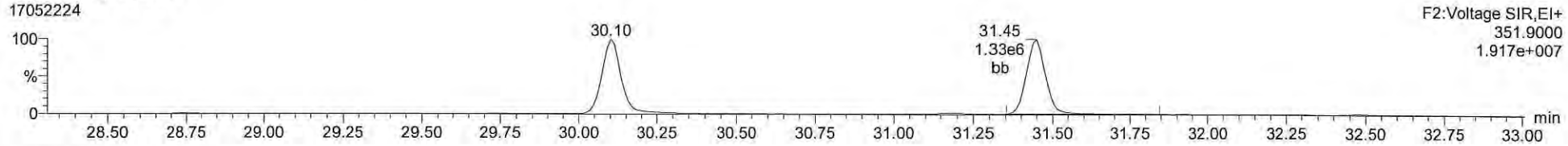


FUNCTION1 HPCDPE

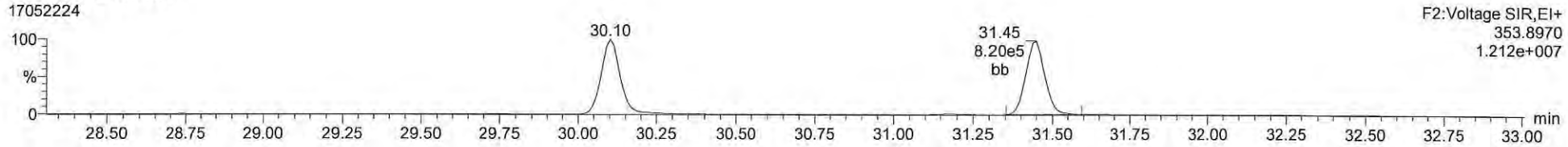


ID: CS3B3, Name: 17052224, Date: 23-May-2017, Time: 06:01:57, Conditions: AUTOSPEC01, User: PK

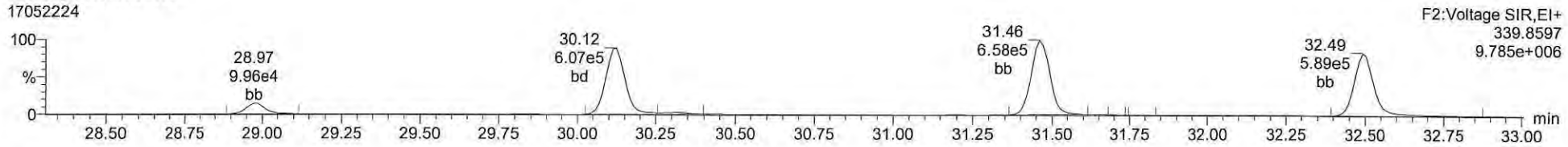
13C-23478-PeCDF



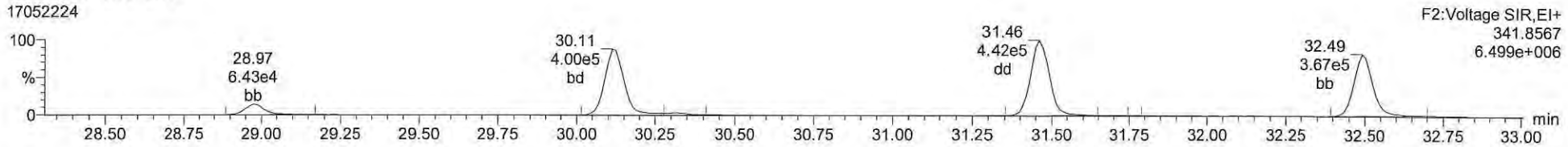
13C-23478-PeCDF



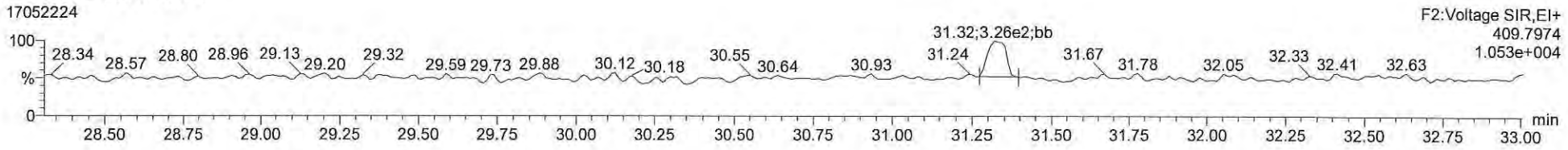
Total-pentafurans



Total-pentafurans

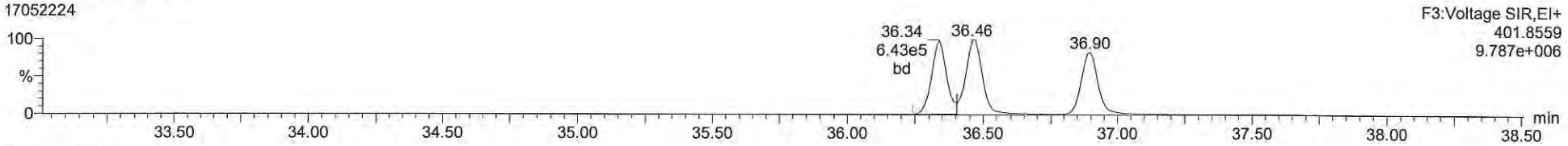


FUNCTION2 HPCDPE

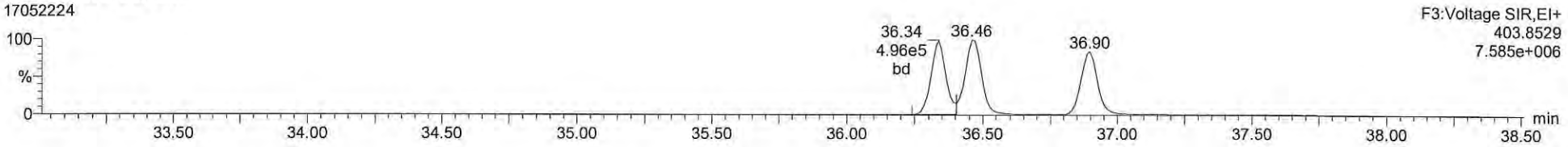


ID: CS3B3, Name: 17052224, Date: 23-May-2017, Time: 06:01:57, Conditions: AUTOSPEC01, User: PK

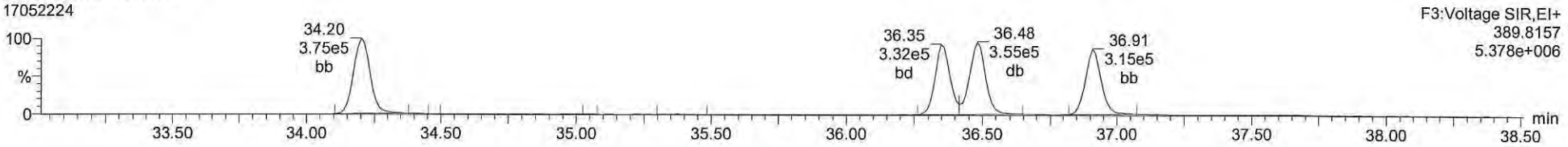
13C-123478-HxCDD



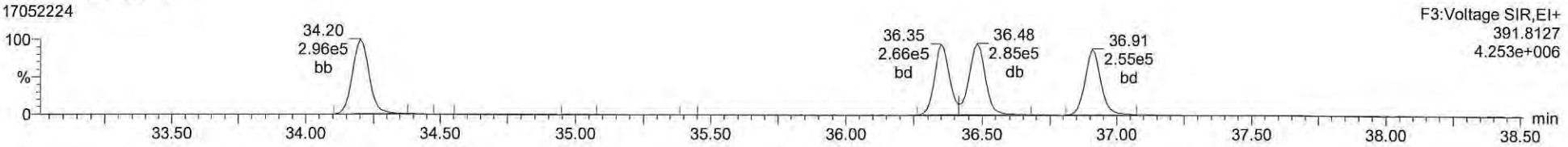
13C-123478-HxCDD



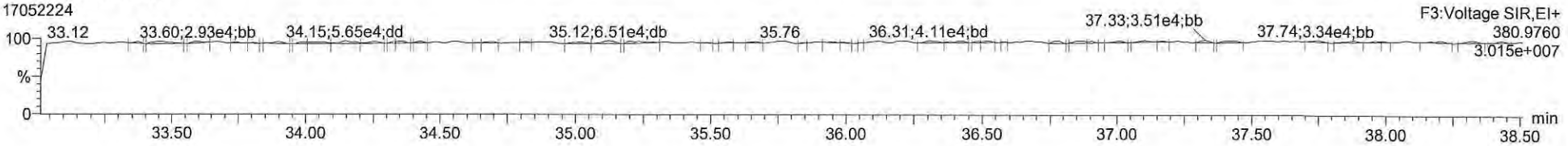
Total-hexadioxins



Total-hexadioxins

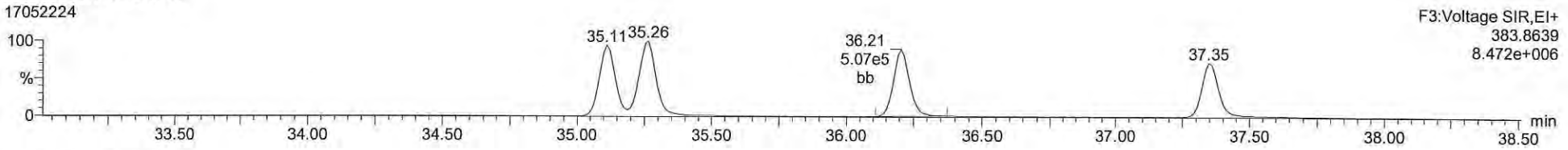


FUNCTION3 PFK

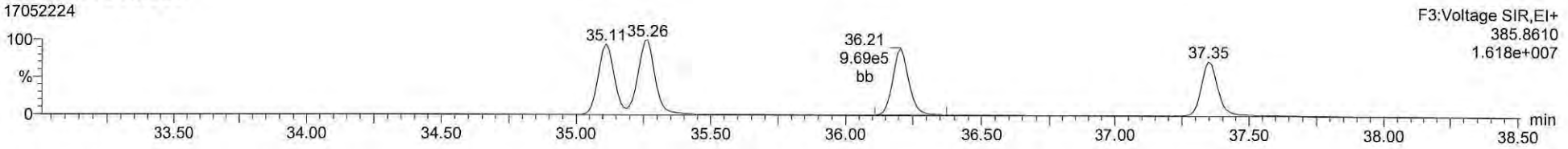


ID: CS3B3, Name: 17052224, Date: 23-May-2017, Time: 06:01:57, Conditions: AUTOSPEC01, User: PK

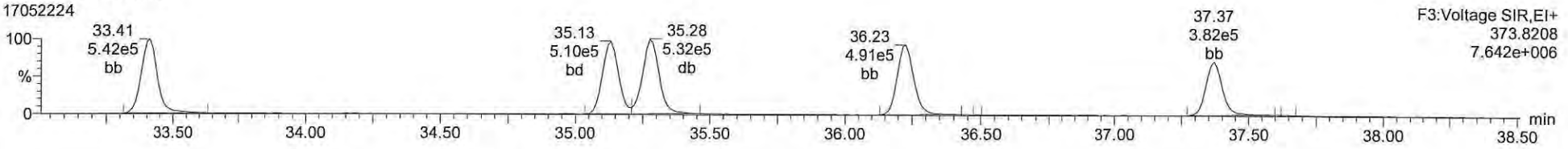
13C-234678-HxCDF



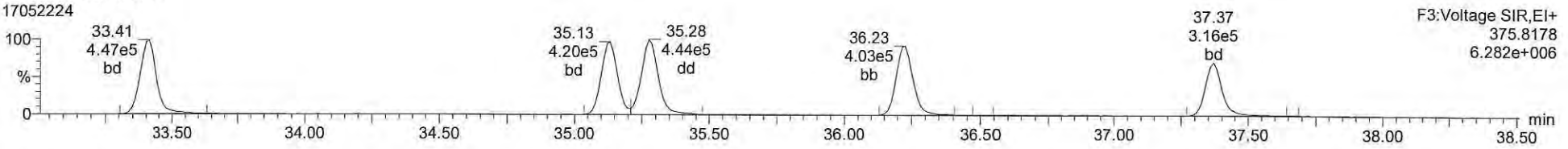
13C-234678-HxCDF



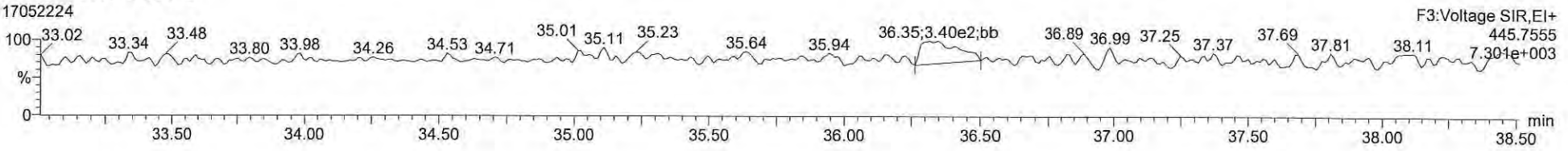
Total-hexafurans



Total-hexafurans

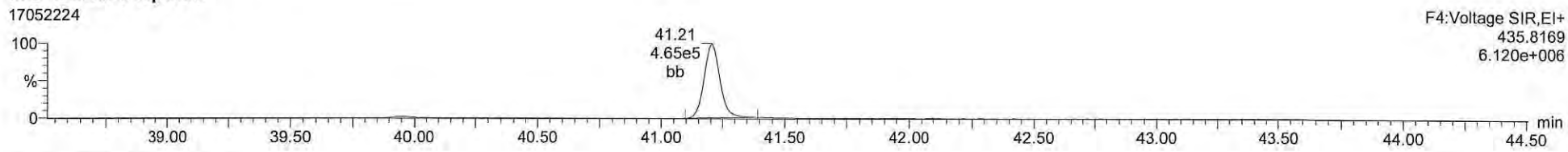


FUNCTION3 OCDPE

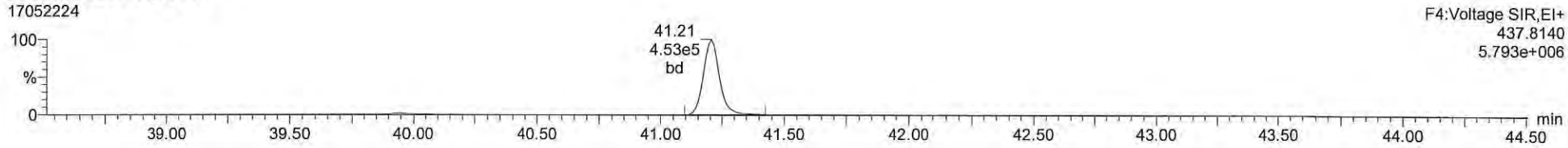


ID: CS3B3, Name: 17052224, Date: 23-May-2017, Time: 06:01:57, Conditions: AUTOSPEC01, User: PK

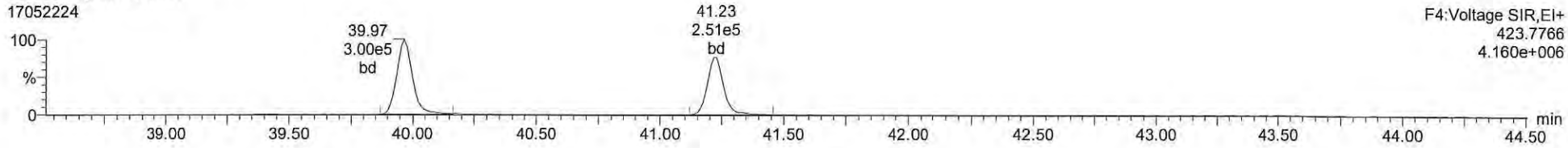
13C-1234678-HpCDD



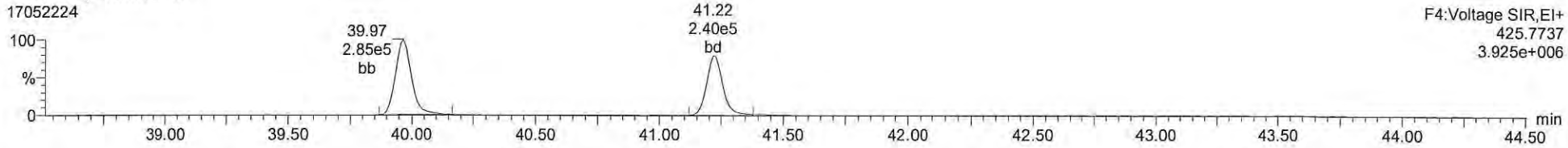
13C-1234678-HpCDD



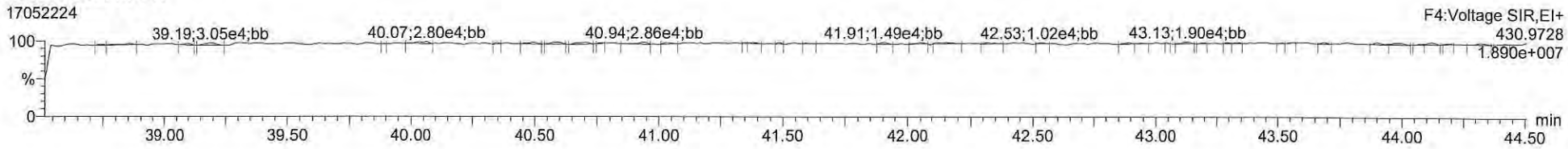
Total-heptadioxins



Total-heptadioxins

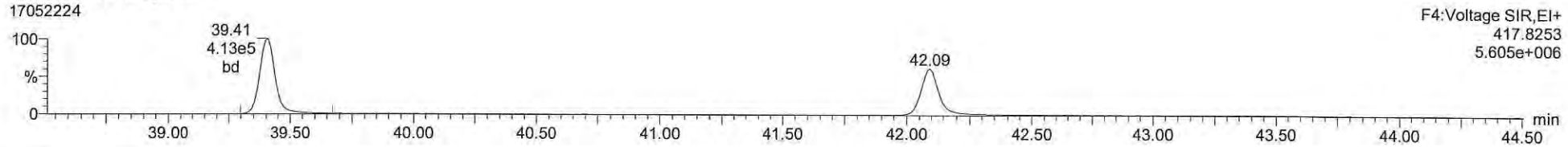


FUNCTION4 PFK

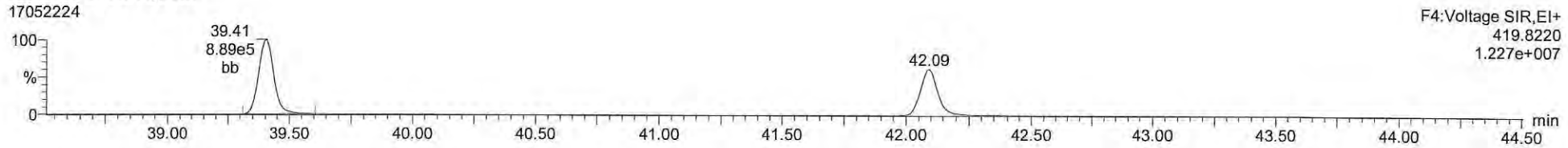


ID: CS3B3, Name: 17052224, Date: 23-May-2017, Time: 06:01:57, Conditions: AUTOSPEC01, User: PK

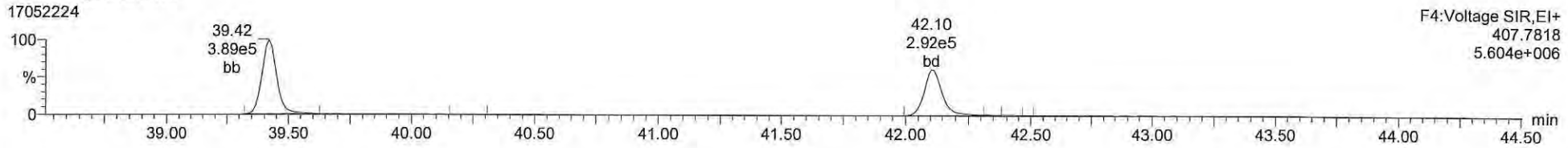
13C-1234678-HpCDF



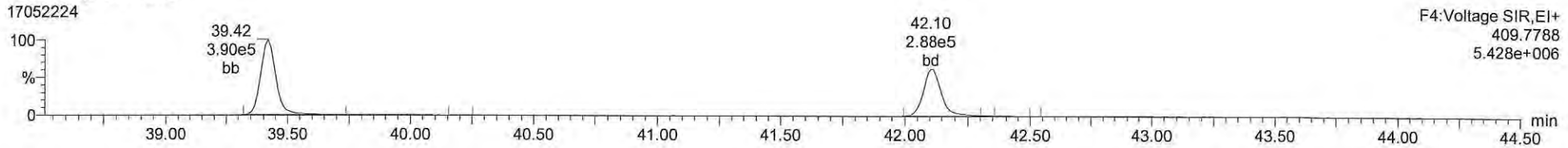
13C-1234678-HpCDF



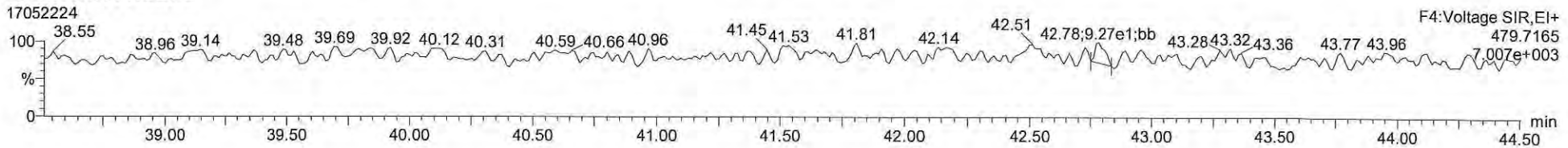
Total-heptafurans



Total-heptafurans

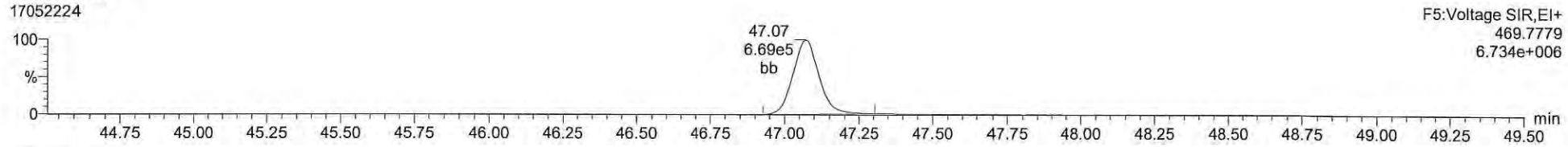


FUNCTION4 NCDPE

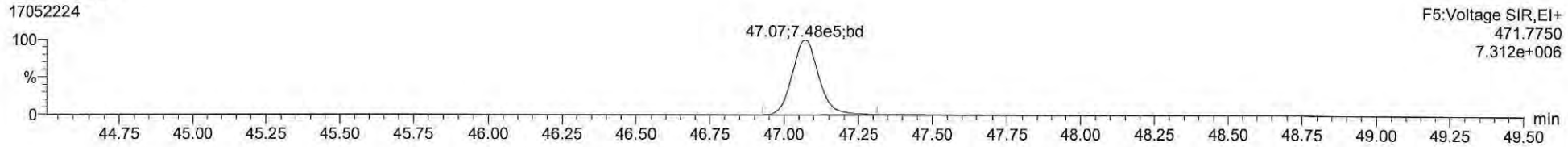


ID: CS3B3, Name: 17052224, Date: 23-May-2017, Time: 06:01:57, Conditions: AUTOSPEC01, User: PK

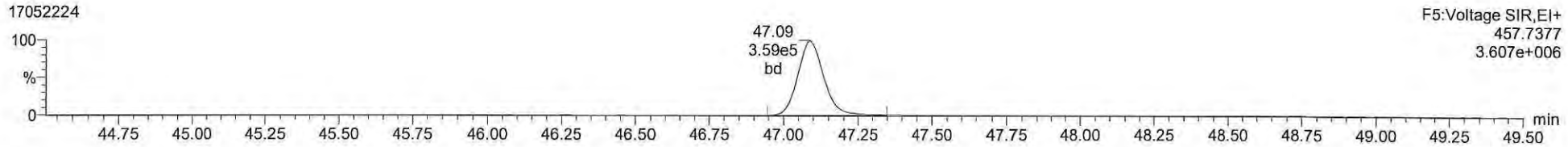
13C-OCDD



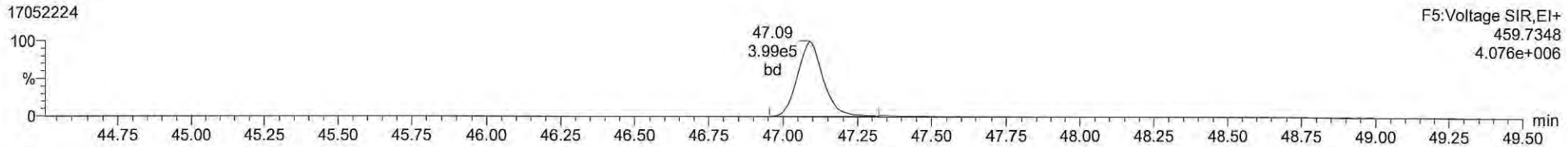
13C-OCDD



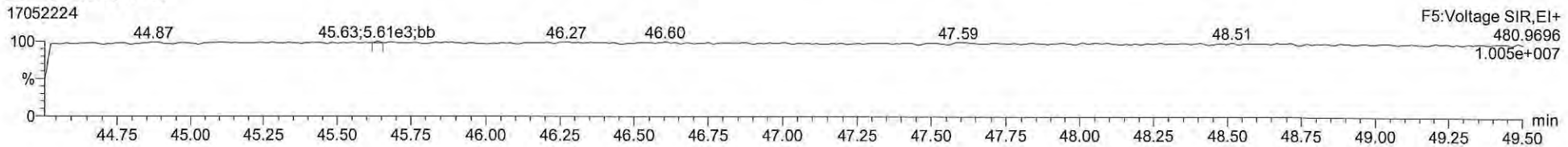
OCDD



OCDD

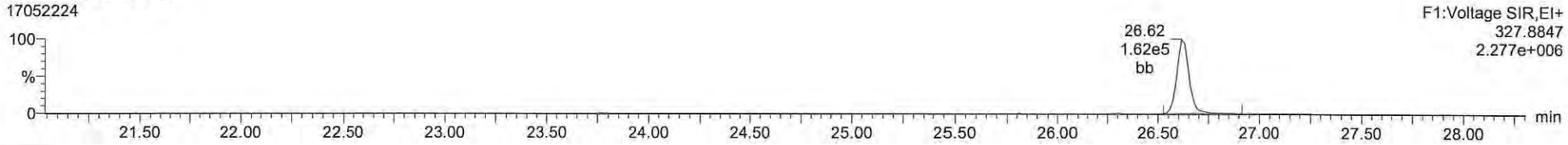


FUNCTION5 PFK

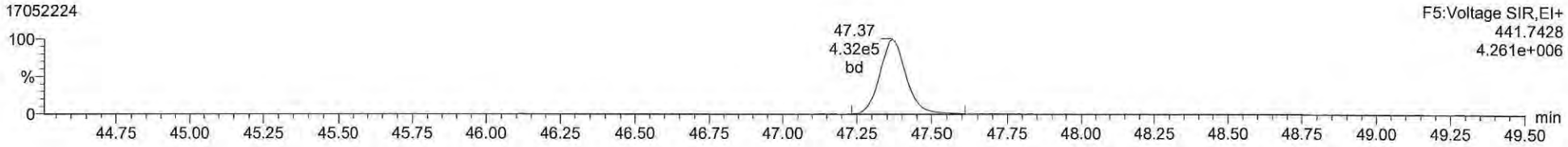


ID: CS3B3, Name: 17052224, Date: 23-May-2017, Time: 06:01:57, Conditions: AUTOSPEC01, User: PK

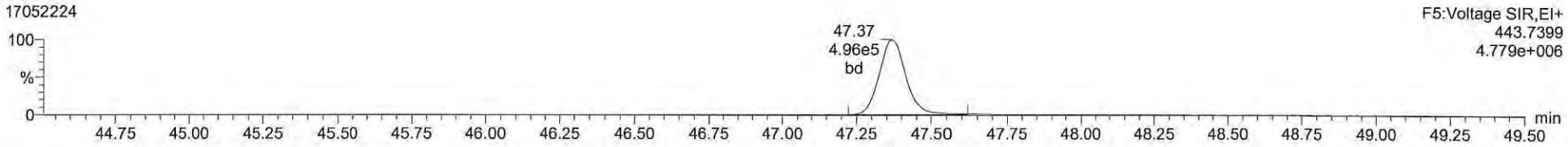
37CL-2378-TCDD



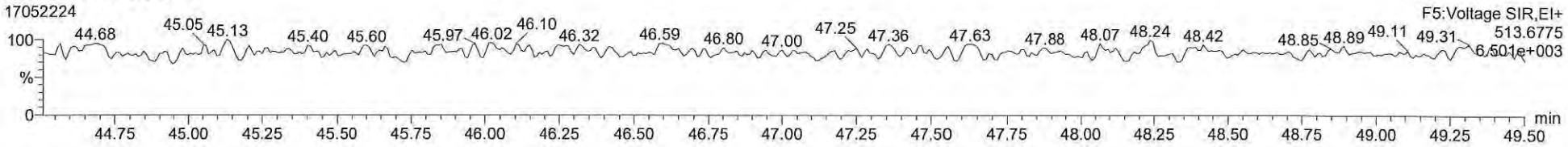
OCDF



OCDF

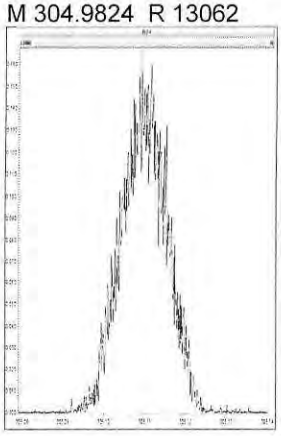


FUNCTION5 DCDPE

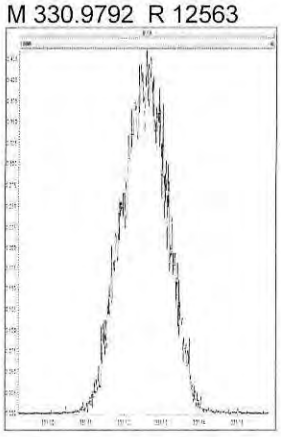


Printed: Tuesday, May 23, 2017 07:00:07 Pacific Daylight Time

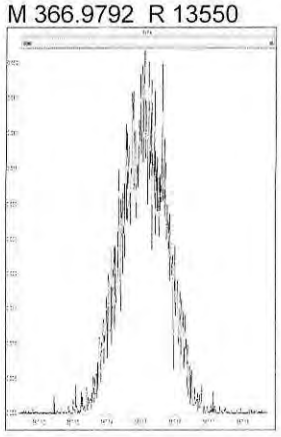
M 304.9824 R 13062



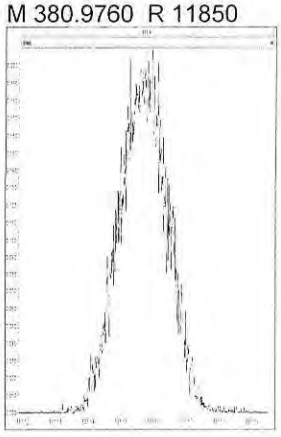
M 330.9792 R 12563



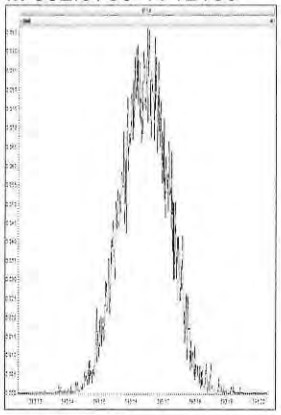
M 366.9792 R 13550



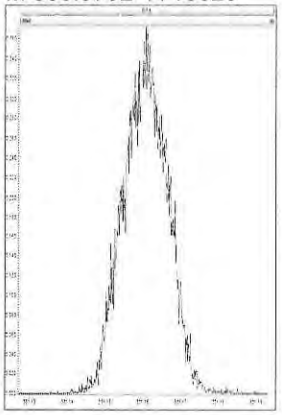
M 380.9760 R 11850



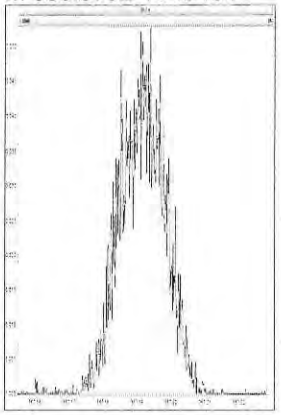
M 392.9760 R 12136



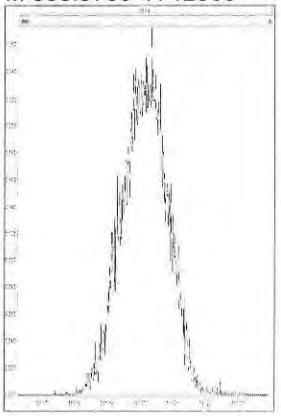
M 330.9792 R 13023



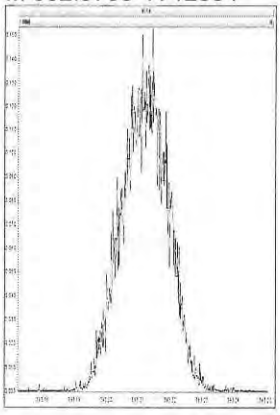
M 366.9792 R 13454



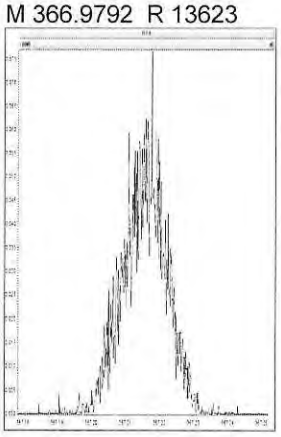
M 380.9760 R 12969



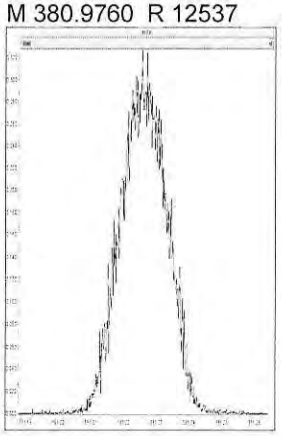
M 392.9760 R 12504



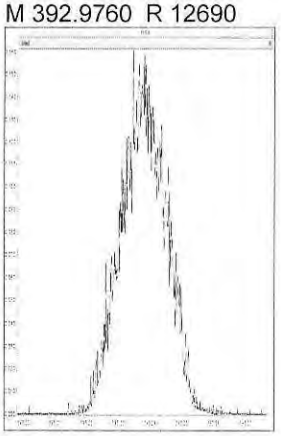
M 366.9792 R 13623



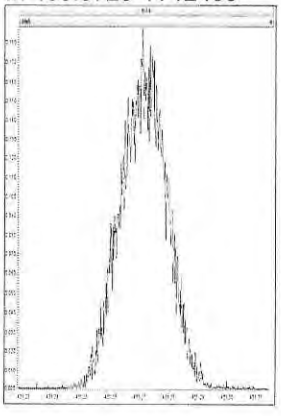
M 380.9760 R 12537



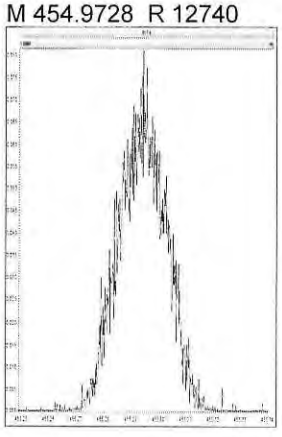
M 392.9760 R 12690



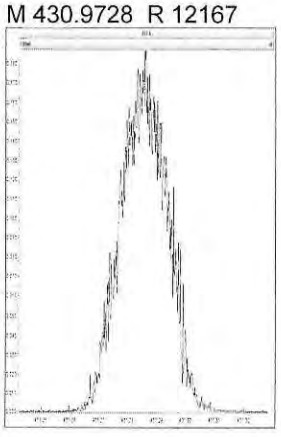
M 430.9728 R 12408



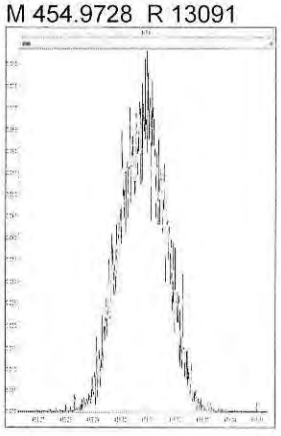
M 454.9728 R 12740



M 430.9728 R 12167

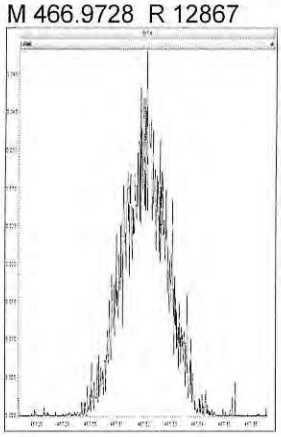


M 454.9728 R 13091

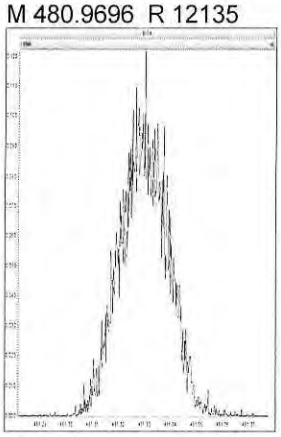


Printed: Tuesday, May 23, 2017 07:00:07 Pacific Daylight Time

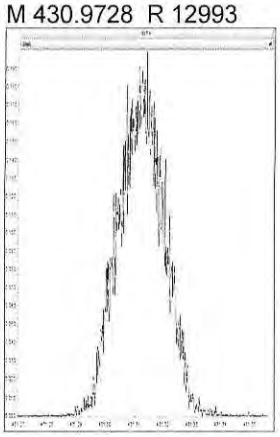
M 466.9728 R 12867



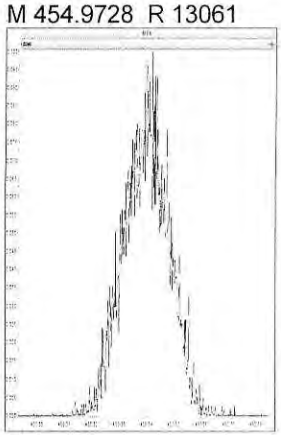
M 480.9696 R 12135



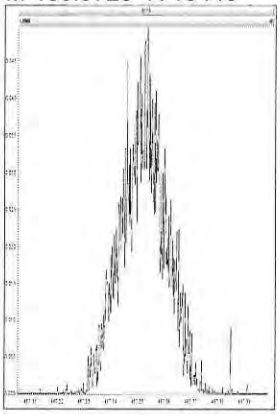
M 430.9728 R 12993



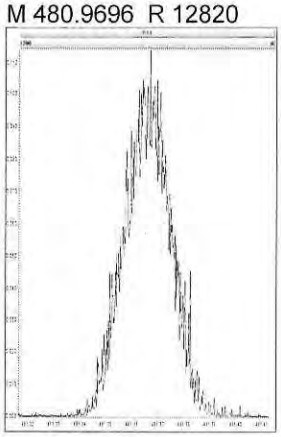
M 454.9728 R 13061



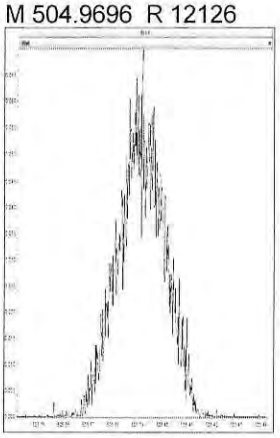
M 466.9728 R 13440

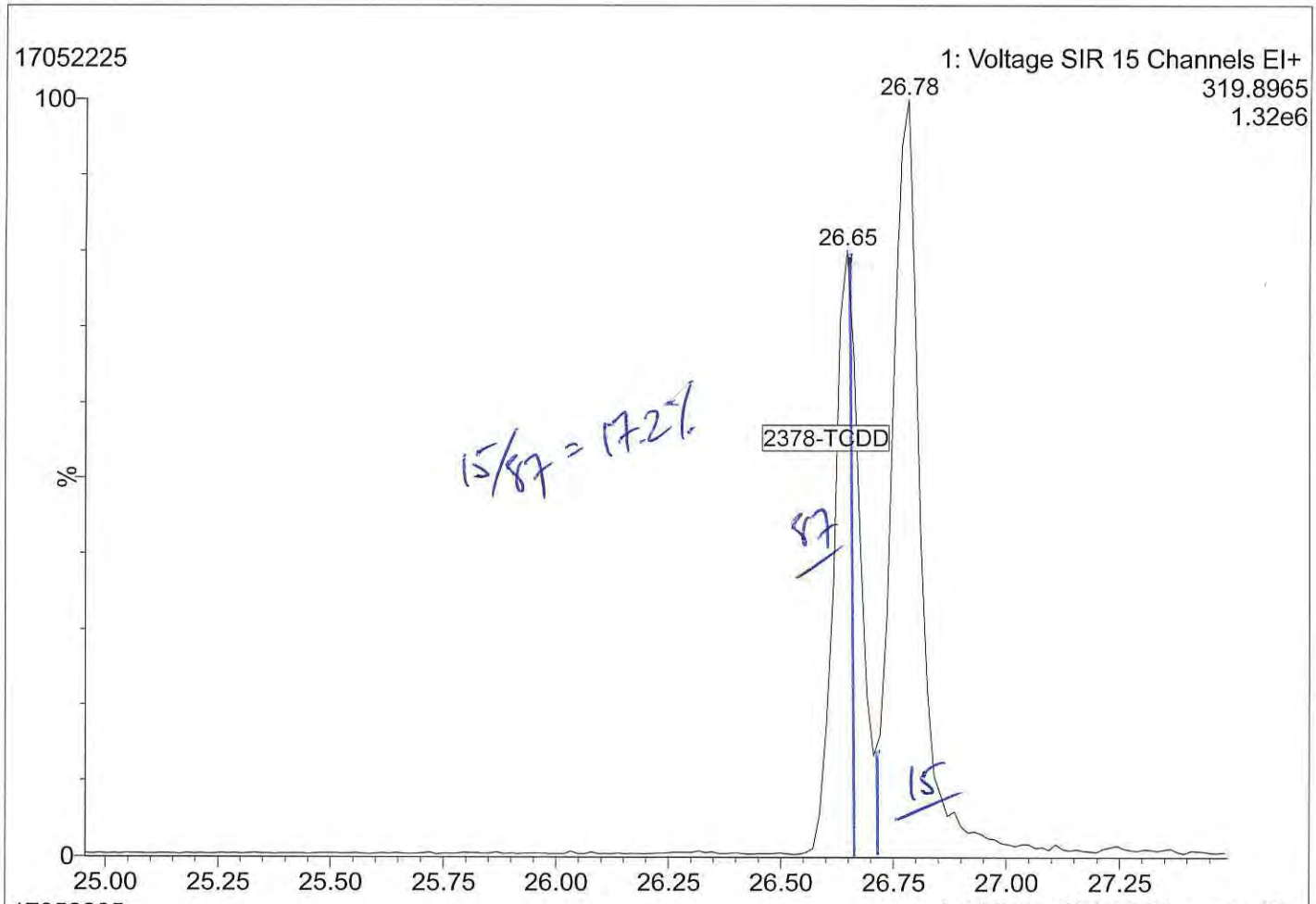


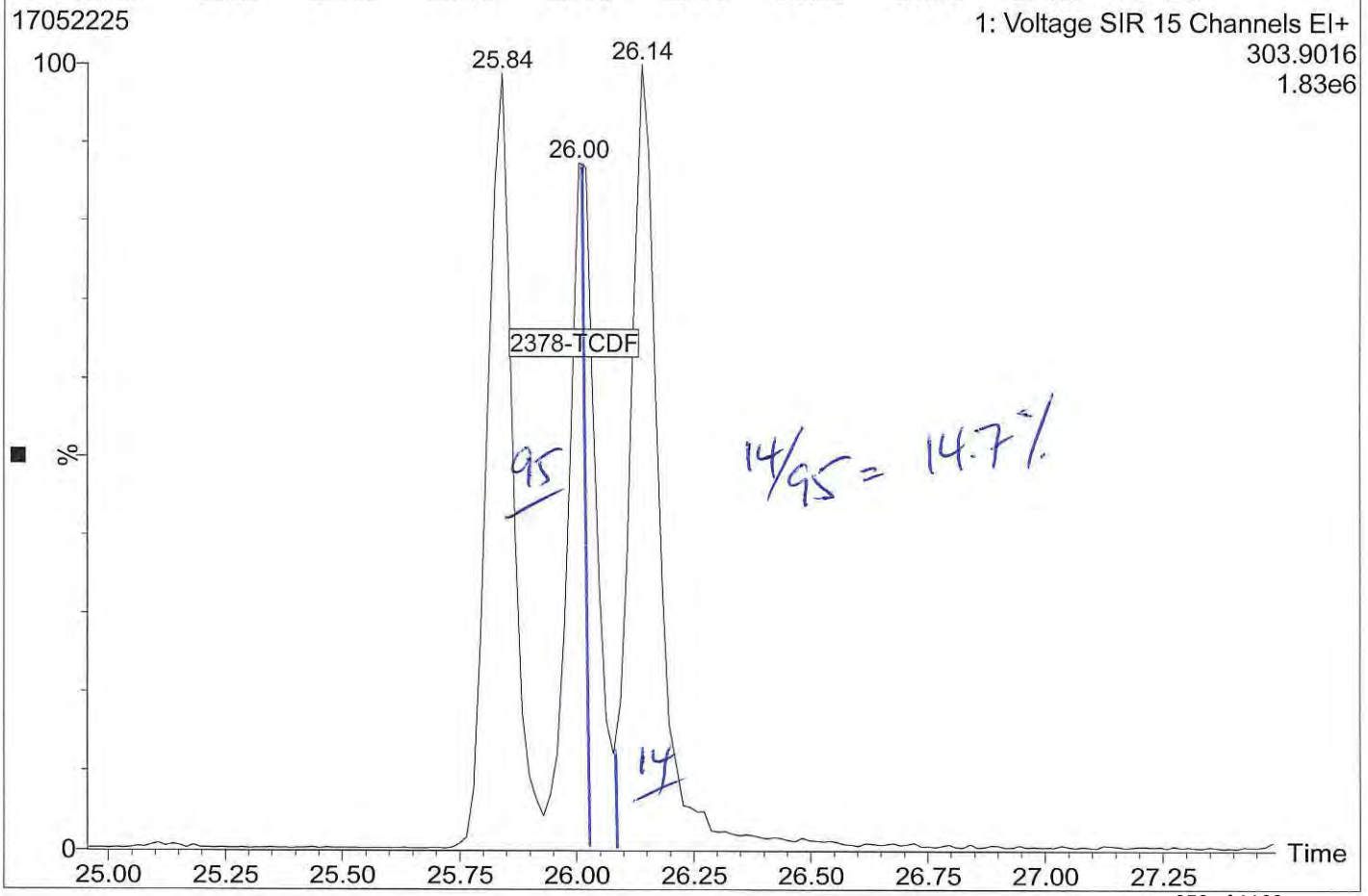
M 480.9696 R 12820



M 504.9696 R 12126




17052225
1: Voltage SIR 15 Channels EI+
319.8965
1.32e6
26.78
26.65
100
%
0
2378-TCDD
87
15
15/87 = 17.2%
25.00
25.25
25.50
25.75
26.00
26.25
26.50
26.75
27.00
27.25


17052225
1: Voltage SIR 15 Channels EI+
303.9016
1.83e6
25.84
26.14
26.00
100
%
0
2378-TCDF
95
14
14/95 = 14.7%
Time
25.00
25.25
25.50
25.75
26.00
26.25
26.50
26.75
27.00
27.25

CDD/CDF CHROMATOGRAPHIC RESOLUTION SUMMARY
EPA 1613B

Lab Name: Analytical Resources, Inc.
SDG: 17D0421
Instrument .ID: AUTOSPEC01
Lab File ID: 17051803
Date Analyzed: 05/18/17
Time Analyzed: 17:36
Lab Sample ID: SFE0273-RES1
Sequence: SFE0273

Percent Valley Determination for Column: RTX-Dioxin2 ID: 0.25 (mm)

1278-TCDD/2378-TCDD: 14.8

3467-TCDF/2378-TCDF: 13.4

Quality Control (QC) Limits: ≤ 25%

Lab Sample ID	Sample Name	Lab File ID	Data Analyzed	Time Analyzed
SFE0273-RES1	ISC01	17051803	05/18/2017	17:36
SFE0273-CAL1	CSL	17051805	05/18/2017	19:22
SFE0273-CAL2	CS1	17051806	05/18/2017	20:16
SFE0273-CAL3	CS2	17051807	05/18/2017	21:09
SFE0273-CAL4	CS3	17051808	05/18/2017	22:02
SFE0273-CAL5	CS4	17051809	05/18/2017	22:55
SFE0273-CAL6	CS5	17051810	05/18/2017	23:49
SFE0273-SCV1	ICV	17051811	05/19/2017	00:42
SFE0273-RES2	ISC02	17051812	05/19/2017	01:36

CDD/CDF CHROMATOGRAPHIC RESOLUTION SUMMARY
EPA 1613B

Lab Name:	Analytical Resources, Inc.	SDG:	17D0421
Instrument .ID:	AUTOSPEC01	Lab File ID:	17051812
Date Analyzed:	05/19/17	Time Analyzed:	01:36
Lab Sample ID:	SFE0273-RES2	Sequence:	SFE0273

Percent Valley Determination for Column: RTX-Dioxin2 ID: 0.25 (mm)

1278-TCDD/2378-TCDD: 14.6

3467-TCDF/2378-TCDF: 12.4

Quality Control (QC) Limits: ≤ 25%

Lab Sample ID	Sample Name	Lab File ID	Data Analyzed	Time Analyzed
SFE0273-RES1	ISC01	17051803	05/18/2017	17:36
SFE0273-CAL1	CSL	17051805	05/18/2017	19:22
SFE0273-CAL2	CS1	17051806	05/18/2017	20:16
SFE0273-CAL3	CS2	17051807	05/18/2017	21:09
SFE0273-CAL4	CS3	17051808	05/18/2017	22:02
SFE0273-CAL5	CS4	17051809	05/18/2017	22:55
SFE0273-CAL6	CS5	17051810	05/18/2017	23:49
SFE0273-SCV1	ICV	17051811	05/19/2017	00:42
SFE0273-RES2	ISC02	17051812	05/19/2017	01:36

CDD/CDF CHROMATOGRAPHIC RESOLUTION SUMMARY
EPA 1613B

Lab Name: Analytical Resources, Inc. SDG: 17D0421

Instrument .ID: AUTOSPEC01 Lab File ID: 17052203

Date Analyzed: 05/22/17 Time Analyzed: 11:04

Lab Sample ID: SFE0219-RES1 Sequence: SFE0219

Percent Valley Determination for Column: RTX-Dioxin2 ID: 0.25 (mm)

1278-TCDD/2378-TCDD: 20.8

3467-TCDF/2378-TCDF: 17.5

Quality Control (QC) Limits: ≤ 25%

Lab Sample ID	Sample Name	Lab File ID	Data Analyzed	Time Analyzed
SFE0219-ICV1	CS301	17052202	05/22/2017	10:12
SFE0219-RES1	ISC01	17052203	05/22/2017	11:04
BFE0233-BLK1	Blank	17052204	05/22/2017	12:05
BFE0233-BS1	LCS	17052205	05/22/2017	12:57
17D0421-01	PG-GP-OYS-COC-170424	17052206	05/22/2017	13:50
17D0421-02	PG-GP-COC-COC-170424	17052207	05/22/2017	14:43
17D0421-03	PG-GP-LTN-COC-170424	17052208	05/22/2017	15:37
17D0421-04	PG-WS-OYS-COC-170424	17052209	05/22/2017	16:30
17D0421-05	PG-WS-COC-COC-170425	17052210	05/22/2017	17:23
17D0421-06	PG-WS-LTN-COC-170424	17052211	05/22/2017	18:17
17D0421-07	PG-WS-MAN-COC-170424	17052212	05/22/2017	19:10
SFE0219-CCV1	CS302	17052213	05/22/2017	20:03
SFE0219-RES2	ISC02	17052214	05/22/2017	21:01
17D0421-08	PG-SMA3-GEO-COC-170426	17052215	05/22/2017	22:02
17D0421-09	PG-SMA3-DUNM-COC-170426	17052216	05/22/2017	22:55
17D0421-10	PG-SMA3-DUNM-COC-170426	17052217	05/22/2017	23:49
SFE0219-CCV2	CS303	17052224	05/23/2017	06:01
SFE0219-RES3	ISC03	17052225	05/23/2017	07:00

CDD/CDF CHROMATOGRAPHIC RESOLUTION SUMMARY
EPA 1613B

Lab Name: Analytical Resources, Inc.
SDG: 17D0421
Instrument .ID: AUTOSPEC01
Lab File ID: 17052214
Date Analyzed: 05/22/17
Time Analyzed: 21:01
Lab Sample ID: SFE0219-RES2
Sequence: SFE0219

Percent Valley Determination for Column: RTX-Dioxin2 ID: 0.25 (mm)

1278-TCDD/2378-TCDD: 15.7

3467-TCDF/2378-TCDF: 13.6

Quality Control (QC) Limits: ≤ 25%

Lab Sample ID	Sample Name	Lab File ID	Data Analyzed	Time Analyzed
SFE0219-ICV1	CS301	17052202	05/22/2017	10:12
SFE0219-RES1	ISC01	17052203	05/22/2017	11:04
BFE0233-BLK1	Blank	17052204	05/22/2017	12:05
BFE0233-BS1	LCS	17052205	05/22/2017	12:57
17D0421-01	PG-GP-OYS-COC-170424	17052206	05/22/2017	13:50
17D0421-02	PG-GP-COC-COC-170424	17052207	05/22/2017	14:43
17D0421-03	PG-GP-LTN-COC-170424	17052208	05/22/2017	15:37
17D0421-04	PG-WS-OYS-COC-170424	17052209	05/22/2017	16:30
17D0421-05	PG-WS-COC-COC-170425	17052210	05/22/2017	17:23
17D0421-06	PG-WS-LTN-COC-170424	17052211	05/22/2017	18:17
17D0421-07	PG-WS-MAN-COC-170424	17052212	05/22/2017	19:10
SFE0219-CCV1	CS302	17052213	05/22/2017	20:03
SFE0219-RES2	ISC02	17052214	05/22/2017	21:01
17D0421-08	PG-SMA3-GEO-COC-170426	17052215	05/22/2017	22:02
17D0421-09	PG-SMA3-DUNM-COC-170426	17052216	05/22/2017	22:55
17D0421-10	PG-SMA3-DUNM-COC-170426	17052217	05/22/2017	23:49
SFE0219-CCV2	CS303	17052224	05/23/2017	06:01
SFE0219-RES3	ISC03	17052225	05/23/2017	07:00

CDD/CDF CHROMATOGRAPHIC RESOLUTION SUMMARY
EPA 1613B

Lab Name: Analytical Resources, Inc. SDG: 17D0421

Instrument .ID: AUTOSPEC01 Lab File ID: 17052225

Date Analyzed: 05/23/17 Time Analyzed: 07:00

Lab Sample ID: SFE0219-RES3 Sequence: SFE0219

Percent Valley Determination for Column: RTX-Dioxin2 ID: 0.25 (mm)

1278-TCDD/2378-TCDD: 17.2

3467-TCDF/2378-TCDF: 14.7

Quality Control (QC) Limits: ≤ 25%

Lab Sample ID	Sample Name	Lab File ID	Data Analyzed	Time Analyzed
SFE0219-ICV1	CS301	17052202	05/22/2017	10:12
SFE0219-RES1	ISC01	17052203	05/22/2017	11:04
BFE0233-BLK1	Blank	17052204	05/22/2017	12:05
BFE0233-BS1	LCS	17052205	05/22/2017	12:57
17D0421-01	PG-GP-OYS-COC-170424	17052206	05/22/2017	13:50
17D0421-02	PG-GP-COC-COC-170424	17052207	05/22/2017	14:43
17D0421-03	PG-GP-LTN-COC-170424	17052208	05/22/2017	15:37
17D0421-04	PG-WS-OYS-COC-170424	17052209	05/22/2017	16:30
17D0421-05	PG-WS-COC-COC-170425	17052210	05/22/2017	17:23
17D0421-06	PG-WS-LTN-COC-170424	17052211	05/22/2017	18:17
17D0421-07	PG-WS-MAN-COC-170424	17052212	05/22/2017	19:10
SFE0219-CCV1	CS302	17052213	05/22/2017	20:03
SFE0219-RES2	ISC02	17052214	05/22/2017	21:01
17D0421-08	PG-SMA3-GEO-COC-170426	17052215	05/22/2017	22:02
17D0421-09	PG-SMA3-DUNM-COC-170426	17052216	05/22/2017	22:55
17D0421-10	PG-SMA3-DUNM-COC-170426	17052217	05/22/2017	23:49
SFE0219-CCV2	CS303	17052224	05/23/2017	06:01
SFE0219-RES3	ISC03	17052225	05/23/2017	07:00

Analytical Resources, Incorporated

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFE0219	Instrument:	AUTOSPEC01
		Calibration:	AE00055

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CS301	SFE0219-ICV1	17052202	Tissue	05/22/17 10:12
ISC01	SFE0219-RES1	17052203	Tissue	05/22/17 11:04
Blank	BFE0233-BLK1	17052204	Tissue	05/22/17 12:05
LCS	BFE0233-BS1	17052205	Tissue	05/22/17 12:57
PG-GP-OYS-COC-170424	17D0421-01	17052206	Tissue	05/22/17 13:50
PG-GP-COC-COC-170424	17D0421-02	17052207	Tissue	05/22/17 14:43
PG-GP-LTN-COC-170424	17D0421-03	17052208	Tissue	05/22/17 15:37
PG-WS-OYS-COC-170424	17D0421-04	17052209	Tissue	05/22/17 16:30
PG-WS-COC-COC-170425	17D0421-05	17052210	Tissue	05/22/17 17:23
PG-WS-LTN-COC-170424	17D0421-06	17052211	Tissue	05/22/17 18:17
PG-WS-MAN-COC-170424	17D0421-07	17052212	Tissue	05/22/17 19:10
CS302	SFE0219-CCV1	17052213	Tissue	05/22/17 20:03
ISC02	SFE0219-RES2	17052214	Tissue	05/22/17 21:01
PG-SMA3-GEO-COC-170426	17D0421-08	17052215	Tissue	05/22/17 22:02
PG-SMA3-DUNM-COC-170426	17D0421-09	17052216	Tissue	05/22/17 22:55
PG-SMA3-DUNH-COC-170426	17D0421-10	17052217	Tissue	05/22/17 23:49
CS303	SFE0219-CCV2	17052224	Tissue	05/23/17 06:01
ISC03	SFE0219-RES3	17052225	Tissue	05/23/17 07:00

Port Gamble Shellfish Monitoring
17D0421

Analysis	Matrix	Method
1613B Dioxin	Tissue	EPA 1613B

Checklist: DLM02.2 HR-GC/MS Checklist

#	Checklist Item	Response	Analyst Initials	Date
1	Resolution Check > 10,000 ppm	YES	PK	05/23/2017
2	TCDD/TCDF Resolution <= 25%	YES	PK	05/23/2017
3	PCDF markers >= 10 seconds from scan descriptor switch	YES	PK	05/23/2017
4	ICV/CCV meets %D limits	YES	PK	05/23/2017
5	ICV/CCV Ion ratios within limits	YES	PK	05/23/2017
6	ICV/CCV RRT within limits	YES	PK	05/23/2017
7	Manual integrations have been stamped and signed	NO	PK	05/23/2017
	Comments: *EXCEPTION REPORT REQUIRED*			
8	Signal/Noise >= 3.0 for all detectiions	YES	PK	05/23/2017
9	AUTOCHECK: Blank checked for exceedance of criteria	NO *	PK	05/23/2017

Comments:
QC Sample BFE0233-BLK1 failed criteria for 1,2,3,4,6,7,8-HpCDD in 1613B Dioxin.
MDL = 0.580 ng/kg
MRL = 5.00 ng/kg
Result = 0.224 ng/kg
Criterion = 0 x RL

QC Sample BFE0233-BLK1 failed criteria for 1,2,3,4,6,7,8-HpCDF in 1613B Dioxin.
MDL = 0.470 ng/kg
MRL = 5.00 ng/kg
Result = 0.120 ng/kg
Criterion = 0 x RL

QC Sample BFE0233-BLK1 failed criteria for 1,2,3,4,7,8,9-HpCDF in 1613B Dioxin.
MDL = 0.450 ng/kg
MRL = 5.00 ng/kg
Result = 0.104 ng/kg
Criterion = 0 x RL
- Estimated Maximum Possible Concentration qualifier for HRGCMS Dioxin

QC Sample BFE0233-BLK1 failed criteria for 1,2,3,4,7,8-HxCDD in 1613B Dioxin.
MDL = 0.480 ng/kg
MRL = 5.00 ng/kg
Result = 0.0686 ng/kg
Criterion = 0 x RL
- Estimated Maximum Possible Concentration qualifier for HRGCMS Dioxin

QC Sample BFE0233-BLK1 failed criteria for 1,2,3,4,7,8-HxCDF in 1613B Dioxin.
MDL = 0.440 ng/kg

* = Indicates Automated Response from Element DataSyst

Port Gamble Shellfish Monitoring
17D0421

Analysis	Matrix	Method
1613B Dioxin	Tissue	EPA 1613B

Checklist: DLM02.2 HR-GC/MS Checklist

#	Checklist Item	Response	Analyst Initials	Date

MRL = 5.00 ng/kg
Result = 0.0839 ng/kg
Criterion = 0 x RL
- Estimated Maximum Possible Concentration qualifier for HRGCMS Dioxin

QC Sample BFE0233-BLK1 failed criteria for 1,2,3,6,7,8-HxCDD in 1613B Dioxin.
MDL = 0.370 ng/kg
MRL = 5.00 ng/kg
Result = 0.0861 ng/kg
Criterion = 0 x RL
- Estimated Maximum Possible Concentration qualifier for HRGCMS Dioxin

QC Sample BFE0233-BLK1 failed criteria for 1,2,3,6,7,8-HxCDF in 1613B Dioxin.
MDL = 0.390 ng/kg
MRL = 5.00 ng/kg
Result = 0.0511 ng/kg
Criterion = 0 x RL

QC Sample BFE0233-BLK1 failed criteria for 1,2,3,7,8,9-HxCDF in 1613B Dioxin.
MDL = 0.490 ng/kg
MRL = 5.00 ng/kg
Result = 0.142 ng/kg
Criterion = 0 x RL
- Estimated Maximum Possible Concentration qualifier for HRGCMS Dioxin

QC Sample BFE0233-BLK1 failed criteria for 1,2,3,7,8-PeCDD in 1613B Dioxin.
MDL = 0.490 ng/kg
MRL = 5.00 ng/kg
Result = 0.0474 ng/kg
Criterion = 0 x RL

QC Sample BFE0233-BLK1 failed criteria for 1,2,3,7,8-PeCDF in 1613B Dioxin.
MDL = 0.470 ng/kg
MRL = 5.00 ng/kg
Result = 0.100 ng/kg
Criterion = 0 x RL
- Estimated Maximum Possible Concentration qualifier for HRGCMS Dioxin

QC Sample BFE0233-BLK1 failed criteria for 2,3,4,6,7,8-HxCDF in 1613B Dioxin.
MDL = 0.410 ng/kg
MRL = 5.00 ng/kg
Result = 0.0524 ng/kg

Port Gamble Shellfish Monitoring
17D0421

Analysis	Matrix	Method
1613B Dioxin	Tissue	EPA 1613B

Checklist: DLM02.2 HR-GC/MS Checklist

#	Checklist Item	Response	Analyst Initials	Date

Criterion = 0 x RL
- Estimated Maximum Possible Concentration qualifier for HRGCMS Dioxin

QC Sample BFE0233-BLK1 failed criteria for 2,3,7,8-TCDD in 1613B Dioxin.
MDL = 0.160 ng/kg
MRL = 1.00 ng/kg
Result = 0.209 ng/kg
Criterion = 0 x RL
- Estimated Maximum Possible Concentration qualifier for HRGCMS Dioxin

QC Sample BFE0233-BLK1 failed criteria for 2,3,7,8-TCDF in 1613B Dioxin.
MDL = 0.050 ng/kg
MRL = 1.00 ng/kg
Result = 0.0544 ng/kg
Criterion = 0 x RL
- Estimated Maximum Possible Concentration qualifier for HRGCMS Dioxin

QC Sample BFE0233-BLK1 failed criteria for OCDD in 1613B Dioxin.
MDL = 1.83 ng/kg
MRL = 10.0 ng/kg
Result = 1.82 ng/kg
Criterion = 0 x RL

QC Sample BFE0233-BLK1 failed criteria for OCDF in 1613B Dioxin.
MDL = 0.740 ng/kg
MRL = 10.0 ng/kg
Result = 0.301 ng/kg
Criterion = 0 x RL

QC Sample BFE0233-BLK1 failed criteria for Total HpCDD in 1613B Dioxin.
MRL = 1.00 ng/kg
Result = 0.722 ng/kg
Criterion = 0 x RL

QC Sample BFE0233-BLK1 failed criteria for Total HpCDF in 1613B Dioxin.
MRL = 1.00 ng/kg
Result = 0.262 ng/kg
Criterion = 0 x RL

QC Sample BFE0233-BLK1 failed criteria for Total HxCDD in 1613B Dioxin.
MRL = 1.00 ng/kg

Port Gamble Shellfish Monitoring
17D0421

Analysis	Matrix	Method
1613B Dioxin	Tissue	EPA 1613B

Checklist: DLM02.2 HR-GC/MS Checklist

#	Checklist Item	Response	Analyst Initials	Date

Result = 0.155 ng/kg
Criterion = 0 x RL

QC Sample BFE0233-BLK1 failed criteria for Total HxCDF in 1613B Dioxin.
MRL = 1.00 ng/kg
Result = 0.329 ng/kg
Criterion = 0 x RL

QC Sample BFE0233-BLK1 failed criteria for Total PeCDD in 1613B Dioxin.
MRL = 1.00 ng/kg
Result = 0.0474 ng/kg
Criterion = 0 x RL

QC Sample BFE0233-BLK1 failed criteria for Total PeCDF in 1613B Dioxin.
MRL = 1.00 ng/kg
Result = 0.100 ng/kg
Criterion = 0 x RL

QC Sample BFE0233-BLK1 failed criteria for Total TCDD in 1613B Dioxin.
MRL = 1.00 ng/kg
Result = 0.263 ng/kg
Criterion = 0 x RL

QC Sample BFE0233-BLK1 failed criteria for Total TCDF in 1613B Dioxin.
MRL = 1.00 ng/kg
Result = 0.0932 ng/kg
Criterion = 0 x RL

10	AUTOCHECK: Check Extraction and Cleanup Surrogate recoveries	NO *	PK	05/23/2017

Comments:
The following labels were outside method limits. Tissue samples sometimes have low recoveries.

Surrogate Recovery for 13C12-1,2,3,4,6,7,8-HpCDF (26.5%) was outside acceptance limits (28-143) in 17D0421-07 for 1613B Dioxin

Surrogate Recovery for 13C12-1,2,3,4,7,8,9-HpCDF (24.5%) was outside acceptance limits (26-138) in 17D0421-07 for 1613B Dioxin

Surrogate Recovery for 13C12-1,2,3,4,7,8-HxCDD (31.0%) was outside acceptance limits (32-141) in 17D0421-07 for 1613B Dioxin

Surrogate Recovery for 13C12-1,2,3,7,8,9-HxCDF (25.7%) was outside acceptance limits (29-147) in 17D0421-07 for 1613B Dioxin

Port Gamble Shellfish Monitoring
17D0421

Analysis	Matrix	Method
1613B Dioxin	Tissue	EPA 1613B

Checklist: DLM02.2 HR-GC/MS Checklist

#	Checklist Item	Response		Analyst Initials	Date
	Surrogate Recovery for 13C12-2,3,4,6,7,8-HxCDF (27.7%) was outside acceptance limits (28-136) in 17D0421-07 for 1613B Dioxin				
	Surrogate Recovery for 13C12-1,2,3,4,6,7,8-HpCDF (27.4%) was outside acceptance limits (28-143) in 17D0421-09 for 1613B Dioxin				
	Surrogate Recovery for 13C12-1,2,3,7,8,9-HxCDF (28.2%) was outside acceptance limits (29-147) in 17D0421-09 for 1613B Dioxin				
	Surrogate Recovery for 13C12-1,2,3,4,6,7,8-HpCDF (25.9%) was outside acceptance limits (28-143) in 17E0012-04 for 1613B Dioxin				
	Surrogate Recovery for 13C12-1,2,3,4,7,8,9-HpCDF (23.6%) was outside acceptance limits (26-138) in 17E0012-04 for 1613B Dioxin				
	Surrogate Recovery for 13C12-1,2,3,7,8,9-HxCDF (24.0%) was outside acceptance limits (29-147) in 17E0012-04 for 1613B Dioxin				
	Surrogate Recovery for 13C12-1,2,3,7,8-PeCDF (23.3%) was outside acceptance limits (24-185) in 17E0012-04 for 1613B Dioxin				
11	AUTOCHECK: Check blank spike (OPR) recovery	YES	*	PK	05/23/2017
12	Sample values exceeding calibration range	NO		PK	05/23/2017
	Comments: *EXCEPTION REPORT REQUIRED*				
13	Samples diluted	NO		PK	05/23/2017
	Comments: *EXCEPTION REPORT REQUIRED*				
14	AUTOCHECK: Check %RPD between sample and sample duplicate	NA	*	PK	05/23/2017
15	AUTOCHECK: Check SRM limits for exceedance	NA	*	PK	05/23/2017
16	EPA CASE#				12/30/1899
17	Analyst checklist completed (PEER)				12/30/1899
18	Data is locked and status is analyzed (PEER)				12/30/1899
19	Data file, Batch, and Cleanup .pdf's are attached (PEER)				12/30/1899
20	Color warnings have been addressed and (or) qualified (PEER)				12/30/1899
21	Qualifiers have been correctly added (PEER)				12/30/1899
22	Checklist completed and status is peer reviewed (REVIEWER)				12/30/1899
23	Dilutions are linear (50-200%) and appropriate (REVIEWER)				12/30/1899
24	All requested samples have been reported (REVIEWER)				12/30/1899

* = Indicates Automated Response from Element DataSyst

Port Gamble Shellfish Monitoring
17D0421

Analysis	Matrix	Method
1613B Dioxin	Tissue	EPA 1613B

Checklist: DLM02.2 HR-GC/MS Checklist

#	Checklist Item	Response	Analyst Initials	Date
25	Color warnings have been addressed, narrated and (or) qualified (REVIEWER)			12/30/1899
26	List of samples in this sequence that will require additional runs-verify reshot created (ANALYST)			12/30/1899
27	List of samples in this sequence that are re-analysis or dilutons of samples (ANALYST)			12/30/1899
28	Additional Notes (ANALYST, PEER, and REVIEWER)			12/30/1899

Analytical Resources Inc.: Organics Instrument Log

AutoSpec01 Serial No.:GC=CN10921030, MS=P764

Date: 5/22/17 Analysis: Dioxins Analyst: JL

GC Program: 8290D Column No: E765 Column Type: RTX-Dioxin2

Inj Vol: 1ul Instrument Tune (IPR): May1517_1-5 Detector Voltage: 350

Resolution Check Files: 10:11, 21:01, 07:00 Curve Date: 5/18/17

IS/SS	Ical/Ccal	LCS/ICV
E7749	E3891 E4948	

#	Acq.Date	Acq.Time	File	ID	Comments
1	22-May-17	10:12:41	17052202	CS3B1	
2	22-May-17	11:04:00	17052203	ISCB1	
3	22-May-17	12:05:50	17052204	BFE0233-BLK1	SFE0219
4	22-May-17	12:57:17	17052205	BFE0233-BS1	
5	22-May-17	13:50:32	17052206	17D0421-01	
6	22-May-17	14:43:50	17052207	17D0421-02	
7	22-May-17	15:37:05	17052208	17D0421-03	
8	22-May-17	16:30:22	17052209	17D0421-04	
9	22-May-17	17:23:42	17052210	17D0421-05	
10	22-May-17	18:17:05	17052211	17D0421-06	
11	22-May-17	19:10:26	17052212	17D0421-07	
12	22-May-17	20:03:43	17052213	CS3B2	
13	22-May-17	21:01:53	17052214	ISCB2	
14	22-May-17	22:02:20	17052215	17D0421-08	
15	22-May-17	22:55:40	17052216	17D0421-09	
16	22-May-17	23:49:10	17052217	17D0421-10	
17	23-May-17	00:42:26	17052218	17E0012-01	
18	23-May-17	01:35:40	17052219	17E0012-02	
19	23-May-17	02:28:55	17052220	17E0012-03	
20	23-May-17	03:22:10	17052221	17E0012-04	
21	23-May-17	04:15:27	17052222	17E0012-05	
22	23-May-17	05:08:43	17052223	17E0012-06	
23	23-May-17	06:01:57	17052224	CS3B3	
24	23-May-17	07:00:09	17052225	ISCB3	

JL 5/23/17

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

Event	Details	Sample ID
Process Quantify		
Process Integrate		
Process Extract		
Pre modification peak	Sample:17052204, Compound:OF, RT:47.421	1
Pre modification peak	Sample:17052204, Compound:OF, RT:47.411	1
Pre modification peak	Sample:17052204, Compound:TF, RT:25.839	1
Pre modification peak	Sample:17052204, Compound:PF, RT:30.157	1
Pre modification peak	Sample:17052204, Compound:HF, RT:37.402	1
Pre modification peak	Sample:17052204, Compound:HF, RT:37.402	1
Pre modification peak	Sample:17052204, Compound:HPD, RT:40.000	1
Pre modification peak	Sample:17052206, Compound:OF, RT:47.447	3
Pre modification peak	Sample:17052206, Compound:TF, RT:23.523	3
Pre modification peak	Sample:17052206, Compound:TF, RT:23.538	3
Pre modification peak	Sample:17052206, Compound:HF, RT:33.620	3
Pre modification peak	Sample:17052206, Compound:HF, RT:37.369	3
Pre modification peak	Sample:17052206, Compound:HPF, RT:40.274	3
Pre modification peak	Sample:17052206, Compound:HPF, RT:42.170	3
Pre modification peak	Sample:17052206, Compound:HD, RT:36.371	3
Pre modification peak	Sample:17052207, Compound:OF, RT:47.375	4
Pre modification peak	Sample:17052207, Compound:OF, RT:47.402	4
Pre modification peak	Sample:17052207, Compound:OF, RT:47.402	4
Pre modification peak	Sample:17052207, Compound:PF, RT:30.146	4
Pre modification peak	Sample:17052207, Compound:HF, RT:35.144	4
Pre modification peak	Sample:17052207, Compound:HF, RT:37.380	4
Pre modification peak	Sample:17052207, Compound:PD, RT:31.735	4
Pre modification peak	Sample:17052207, Compound:HD, RT:36.941	4
Pre modification peak	Sample:17052208, Compound:OF, RT:47.394	5
Pre modification peak	Sample:17052208, Compound:OF, RT:47.394	5
Pre modification peak	Sample:17052208, Compound:OF, RT:47.394	5
Pre modification peak	Sample:17052208, Compound:PF, RT:31.461	5
Pre modification peak	Sample:17052209, Compound:OD, RT:47.232	6
Pre modification peak	Sample:17052209, Compound:TF, RT:23.553	6
Pre modification peak	Sample:17052209, Compound:TF, RT:23.658	6
Pre modification peak	Sample:17052209, Compound:TF, RT:23.538	6
Pre modification peak	Sample:17052209, Compound:TF, RT:25.765	6
Pre modification peak	Sample:17052209, Compound:PF, RT:28.984	6
Pre modification peak	Sample:17052209, Compound:HF, RT:33.654	6
Pre modification peak	Sample:17052209, Compound:PD, RT:29.039	6
Pre modification peak	Sample:17052209, Compound:HPD, RT:41.359	6
Pre modification peak	Sample:17052209, Compound:HPD, RT:41.359	6
Pre modification peak	Sample:17052210, Compound:OF, RT:47.358	7
Pre modification peak	Sample:17052210, Compound:HPF, RT:39.419	7
Pre modification peak	Sample:17052210, Compound:HPF, RT:39.408	7
Pre modification peak	Sample:17052211, Compound:OD, RT:47.079	8
Pre modification peak	Sample:17052212, Compound:OD, RT:47.107	9
Pre modification peak	Sample:17052212, Compound:OD, RT:47.071	9
Peak modified	Sample:17052204, Compound:OF, RT:47.421	1
Peak modified	Sample:17052204, Compound:OF, RT:47.411	1
Peak modified	Sample:17052204, Compound:TF, RT:25.839	1
Peak modified	Sample:17052204, Compound:PF, RT:30.157	1
Peak modified	Sample:17052204, Compound:HF, RT:37.402	1
Peak modified	Sample:17052204, Compound:HF, RT:37.402	1
Peak modified	Sample:17052204, Compound:HPD, RT:40.000	1

Event	Details	Sample ID
Process Extract		
Process Integrate		
Process Quantify		
Dataset Created		
Dataset Saved	Saved to 'C:\MassLynx\Dioxin.pro\170522D2.qld'	
Pre modification peak	Sample:17052215, Compound:OF, RT:47.402	1
Peak modified	Sample:17052215, Compound:OF, RT:47.402	1
Pre modification peak	Sample:17052215, Compound:OF, RT:47.384	1
Peak modified	Sample:17052215, Compound:OF, RT:47.384	1
Peak deleted	Sample:17052215, Compound:TF, RT:23.762	1
Peak deleted	Sample:17052215, Compound:TF, RT:23.538	1
Peak deleted	Sample:17052215, Compound:TF, RT:24.031	1
Peak deleted	Sample:17052215, Compound:TF, RT:25.092	1
Peak deleted	Sample:17052215, Compound:TF, RT:24.882	1
Peak deleted	Sample:17052215, Compound:TF, RT:26.138	1
Peak deleted	Sample:17052215, Compound:TF, RT:25.779	1
Peak deleted	Sample:17052215, Compound:TF, RT:27.392	1
Pre modification peak	Sample:17052215, Compound:PF, RT:28.972	1
Peak modified	Sample:17052215, Compound:PF, RT:28.972	1
Peak deleted	Sample:17052215, Compound:PF, RT:30.156	1
Peak deleted	Sample:17052215, Compound:PF, RT:30.112	1
Peak deleted	Sample:17052215, Compound:PF, RT:31.461	1
Peak deleted	Sample:17052215, Compound:HF, RT:35.154	1
Peak deleted	Sample:17052215, Compound:HF, RT:37.369	1
Peak deleted	Sample:17052215, Compound:HF, RT:36.240	1
Pre modification peak	Sample:17052215, Compound:HPF, RT:39.418	1
Peak modified	Sample:17052215, Compound:HPF, RT:39.418	1
Pre modification peak	Sample:17052215, Compound:HPF, RT:39.429	1
Peak modified	Sample:17052215, Compound:HPF, RT:39.429	1
Peak deleted	Sample:17052215, Compound:HPF, RT:40.262	1
Peak deleted	Sample:17052215, Compound:TD, RT:24.255	1
Peak deleted	Sample:17052215, Compound:TD, RT:24.957	1
Peak deleted	Sample:17052215, Compound:TD, RT:26.735	1
Peak deleted	Sample:17052215, Compound:TD, RT:26.631	1
Peak deleted	Sample:17052215, Compound:TD, RT:26.302	1
Peak deleted	Sample:17052215, Compound:TD, RT:26.272	1
Peak deleted	Sample:17052215, Compound:PD, RT:30.343	1
Pre modification peak	Sample:17052215, Compound:HD, RT:34.869	1
Peak modified	Sample:17052215, Compound:HD, RT:34.869	1
Pre modification peak	Sample:17052216, Compound:OF, RT:47.392	2
Peak modified	Sample:17052216, Compound:OF, RT:47.392	2
Pre modification peak	Sample:17052216, Compound:OF, RT:47.374	2
Peak modified	Sample:17052216, Compound:OF, RT:47.374	2
Pre modification peak	Sample:17052216, Compound:OD, RT:47.114	2
Peak modified	Sample:17052216, Compound:OD, RT:47.114	2
Pre modification peak	Sample:17052216, Compound:OD, RT:47.087	2
Peak modified	Sample:17052216, Compound:OD, RT:47.087	2
Peak deleted	Sample:17052216, Compound:TF, RT:25.092	2
Peak deleted	Sample:17052216, Compound:PF, RT:30.146	2
Pre modification peak	Sample:17052216, Compound:HF, RT:37.390	2
Peak modified	Sample:17052216, Compound:HF, RT:37.390	2
Pre modification peak	Sample:17052216, Compound:HPD, RT:39.977	2
Peak modified	Sample:17052216, Compound:HPD, RT:39.977	2

Event	Details	Sample ID
Pre modification peak	Sample:17052217, Compound:OF, RT:47.484	3
Peak modified	Sample:17052217, Compound:OF, RT:47.484	3
Pre modification peak	Sample:17052217, Compound:OF, RT:47.448	3
Peak modified	Sample:17052217, Compound:OF, RT:47.448	3
Pre modification peak	Sample:17052217, Compound:TF, RT:25.809	3
Peak modified	Sample:17052217, Compound:TF, RT:25.809	3
Pre modification peak	Sample:17052217, Compound:TF, RT:25.809	3
Peak modified	Sample:17052217, Compound:TF, RT:25.809	3
Peak deleted	Sample:17052217, Compound:TF, RT:27.393	3
Peak deleted	Sample:17052217, Compound:TF, RT:26.392	3
Pre modification peak	Sample:17052217, Compound:PF, RT:28.853	3
Peak modified	Sample:17052217, Compound:PF, RT:28.853	3
Peak deleted	Sample:17052217, Compound:PF, RT:29.170	3
Peak deleted	Sample:17052217, Compound:PF, RT:29.225	3
Pre modification peak	Sample:17052217, Compound:PF, RT:29.795	3
Peak modified	Sample:17052217, Compound:PF, RT:29.795	3
Peak deleted	Sample:17052217, Compound:PF, RT:30.518	3
Pre modification peak	Sample:17052217, Compound:PF, RT:30.343	3
Peak modified	Sample:17052217, Compound:PF, RT:30.343	3
Peak deleted	Sample:17052217, Compound:HF, RT:34.980	3
Peak deleted	Sample:17052217, Compound:HF, RT:33.829	3
Pre modification peak	Sample:17052217, Compound:PD, RT:29.006	3
Peak modified	Sample:17052217, Compound:PD, RT:29.006	3
Pre modification peak	Sample:17052217, Compound:PD, RT:30.135	3
Peak modified	Sample:17052217, Compound:PD, RT:30.135	3
Pre modification peak	Sample:17052218, Compound:OF, RT:47.447	4
Peak modified	Sample:17052218, Compound:OF, RT:47.447	4
Pre modification peak	Sample:17052218, Compound:OF, RT:47.484	4
Peak modified	Sample:17052218, Compound:OF, RT:47.484	4
Pre modification peak	Sample:17052218, Compound:TF, RT:23.538	4
Peak modified	Sample:17052218, Compound:TF, RT:23.538	4
Peak deleted	Sample:17052218, Compound:TF, RT:24.554	4
Peak deleted	Sample:17052218, Compound:TF, RT:25.092	4
Pre modification peak	Sample:17052218, Compound:TF, RT:25.077	4
Peak modified	Sample:17052218, Compound:TF, RT:25.077	4
Peak added	Sample:17052218, Compound:TF, RT:25.092	4
Peak added	Sample:17052218, Compound:TF, RT:25.077	4
Pre modification peak	Sample:17052218, Compound:PF, RT:30.146	4
Peak modified	Sample:17052218, Compound:PF, RT:30.146	4
Pre modification peak	Sample:17052218, Compound:HF, RT:33.632	4
Peak modified	Sample:17052218, Compound:HF, RT:33.632	4
Peak deleted	Sample:17052218, Compound:HF, RT:34.991	4
Pre modification peak	Sample:17052218, Compound:HF, RT:34.486	4
Peak modified	Sample:17052218, Compound:HF, RT:34.486	4
Pre modification peak	Sample:17052218, Compound:HF, RT:35.166	4
Peak modified	Sample:17052218, Compound:HF, RT:35.166	4
Pre modification peak	Sample:17052218, Compound:HF, RT:34.498	4
Peak modified	Sample:17052218, Compound:HF, RT:34.498	4
Peak added	Sample:17052218, Compound:HF, RT:35.122	4
Peak added	Sample:17052218, Compound:HF, RT:35.144	4
Pre modification peak	Sample:17052218, Compound:HF, RT:36.218	4
Peak modified	Sample:17052218, Compound:HF, RT:36.218	4
Pre modification peak	Sample:17052218, Compound:HF, RT:37.402	4

Event	Details	Sample ID
Peak modified	Sample:17052218, Compound:HF, RT:37.402	4
Peak deleted	Sample:17052218, Compound:HPF, RT:39.550	4
Peak deleted	Sample:17052218, Compound:HPF, RT:42.192	4
Peak deleted	Sample:17052218, Compound:TD, RT:24.271	4
Pre modification peak	Sample:17052218, Compound:TD, RT:24.017	4
Peak modified	Sample:17052218, Compound:TD, RT:24.017	4
Peak deleted	Sample:17052218, Compound:TD, RT:24.973	4
Peak deleted	Sample:17052218, Compound:TD, RT:25.959	4
Peak deleted	Sample:17052218, Compound:TD, RT:25.824	4
Pre modification peak	Sample:17052218, Compound:PD, RT:30.124	4
Peak modified	Sample:17052218, Compound:PD, RT:30.124	4
Pre modification peak	Sample:17052218, Compound:PD, RT:30.113	4
Peak modified	Sample:17052218, Compound:PD, RT:30.113	4
Peak deleted	Sample:17052218, Compound:PD, RT:29.927	4
Pre modification peak	Sample:17052218, Compound:PD, RT:30.376	4
Peak modified	Sample:17052218, Compound:PD, RT:30.376	4
Pre modification peak	Sample:17052218, Compound:PD, RT:31.713	4
Peak modified	Sample:17052218, Compound:PD, RT:31.713	4
Pre modification peak	Sample:17052218, Compound:HD, RT:34.245	4
Peak modified	Sample:17052218, Compound:HD, RT:34.245	4
Pre modification peak	Sample:17052218, Compound:HD, RT:35.429	4
Peak modified	Sample:17052218, Compound:HD, RT:35.429	4
Pre modification peak	Sample:17052219, Compound:OD, RT:47.106	5
Peak modified	Sample:17052219, Compound:OD, RT:47.106	5
Pre modification peak	Sample:17052219, Compound:OD, RT:47.115	5
Peak modified	Sample:17052219, Compound:OD, RT:47.115	5
Peak deleted	Sample:17052219, Compound:TF, RT:26.227	5
Peak deleted	Sample:17052219, Compound:TF, RT:26.003	5
Pre modification peak	Sample:17052219, Compound:HPD, RT:39.977	5
Peak modified	Sample:17052219, Compound:HPD, RT:39.977	5
Pre modification peak	Sample:17052220, Compound:OF, RT:47.430	6
Peak modified	Sample:17052220, Compound:OF, RT:47.430	6
Pre modification peak	Sample:17052220, Compound:OF, RT:47.412	6
Peak modified	Sample:17052220, Compound:OF, RT:47.412	6
Pre modification peak	Sample:17052220, Compound:OD, RT:47.107	6
Peak modified	Sample:17052220, Compound:OD, RT:47.107	6
Peak deleted	Sample:17052220, Compound:PF, RT:31.472	6
Pre modification peak	Sample:17052220, Compound:HPF, RT:40.241	6
Peak modified	Sample:17052220, Compound:HPF, RT:40.241	6
Pre modification peak	Sample:17052220, Compound:HPF, RT:39.397	6
Peak modified	Sample:17052220, Compound:HPF, RT:39.397	6
Peak deleted	Sample:17052220, Compound:HD, RT:36.942	6
Peak deleted	Sample:17052220, Compound:HD, RT:36.382	6
Pre modification peak	Sample:17052220, Compound:HD, RT:36.371	6
Peak modified	Sample:17052220, Compound:HD, RT:36.371	6
Pre modification peak	Sample:17052221, Compound:OF, RT:47.349	7
Peak modified	Sample:17052221, Compound:OF, RT:47.349	7
Pre modification peak	Sample:17052221, Compound:OF, RT:47.385	7
Peak modified	Sample:17052221, Compound:OF, RT:47.385	7
Peak deleted	Sample:17052221, Compound:TF, RT:25.989	7
Peak deleted	Sample:17052221, Compound:TF, RT:25.107	7
Pre modification peak	Sample:17052221, Compound:HPF, RT:39.419	7
Peak modified	Sample:17052221, Compound:HPF, RT:39.419	7

Event	Details	Sample ID
Peak deleted	Sample:17052221, Compound:TD, RT:26.616	7
Peak deleted	Sample:17052221, Compound:PD, RT:29.017	7
Pre modification peak	Sample:17052221, Compound:HD, RT:36.898	7
Peak modified	Sample:17052221, Compound:HD, RT:36.898	7
Pre modification peak	Sample:17052222, Compound:OD, RT:47.079	8
Peak modified	Sample:17052222, Compound:OD, RT:47.079	8
Pre modification peak	Sample:17052222, Compound:OD, RT:47.115	8
Peak modified	Sample:17052222, Compound:OD, RT:47.115	8
Pre modification peak	Sample:17052222, Compound:OD, RT:47.115	8
Peak modified	Sample:17052222, Compound:OD, RT:47.115	8
Pre modification peak	Sample:17052222, Compound:HF, RT:37.357	8
Peak modified	Sample:17052222, Compound:HF, RT:37.357	8
Pre modification peak	Sample:17052222, Compound:HPD, RT:39.988	8
Peak modified	Sample:17052222, Compound:HPD, RT:39.988	8
Pre modification peak	Sample:17052223, Compound:OD, RT:47.089	9
Peak modified	Sample:17052223, Compound:OD, RT:47.089	9
Peak deleted	Sample:17052223, Compound:TF, RT:22.507	9
Peak deleted	Sample:17052223, Compound:TF, RT:24.659	9
Peak deleted	Sample:17052223, Compound:TF, RT:23.748	9
Peak deleted	Sample:17052223, Compound:TF, RT:23.344	9
Peak deleted	Sample:17052223, Compound:TF, RT:24.719	9
Pre modification peak	Sample:17052223, Compound:PF, RT:28.962	9
Peak modified	Sample:17052223, Compound:PF, RT:28.962	9
Pre modification peak	Sample:17052223, Compound:HF, RT:33.632	9
Peak modified	Sample:17052223, Compound:HF, RT:33.632	9
Peak deleted	Sample:17052223, Compound:TD, RT:24.017	9
Peak deleted	Sample:17052223, Compound:HD, RT:36.921	9
Peak deleted	Sample:17052223, Compound:HD, RT:35.375	9
Dataset Saved	Saved to 'C:\MassLynx\Dioxin.pro\170522D2.qld'	

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFE0273	Instrument:	AUTOSPEC01
		Calibration:	AE00055

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ISC01	SFE0273-RES1	17051803	Solid	05/18/17 17:36
CSL	SFE0273-CAL1	17051805	Solid	05/18/17 19:22
CS1	SFE0273-CAL2	17051806	Solid	05/18/17 20:16
CS2	SFE0273-CAL3	17051807	Solid	05/18/17 21:09
CS3	SFE0273-CAL4	17051808	Solid	05/18/17 22:02
CS4	SFE0273-CAL5	17051809	Solid	05/18/17 22:55
CS5	SFE0273-CAL6	17051810	Solid	05/18/17 23:49
ICV	SFE0273-SCV1	17051811	Solid	05/19/17 00:42
ISC02	SFE0273-RES2	17051812	Solid	05/19/17 01:36

Analytical Resources, Incorporated

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFE0273	Instrument:	AUTOSPEC01
Sample ID:	SFE0273-SCV1	Calibration:	AE00055
File ID:	17051811	Analyzed:	05/19/17 00:42

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	100.00	99.9	0 - 200	25.9735	25.9809	-0.0074	N/A	
13C12-2,3,7,8-TCDD	100.00	100	0 - 200	26.6008	26.61337	-0.0126	N/A	
13C12-1,2,3,7,8-PeCDF	100.00	99.7	0 - 200	30.1017	30.1144	-0.0127	N/A	
13C12-2,3,4,7,8-PeCDF	100.00	99.2	0 - 200	31.45	31.45532	-0.0053	N/A	
13C12-1,2,3,7,8-PeCDD	100.00	99.3	0 - 200	31.6912	31.70743	-0.0162	N/A	
13C12-1,2,3,4,7,8-HxCDF	100.00	101	0 - 200	35.111	35.12362	-0.0126	N/A	
13C12-1,2,3,6,7,8-HxCDF	100.00	98.6	0 - 200	35.2643	35.26975	-0.0055	N/A	
13C12-2,3,4,6,7,8-HxCDF	100.00	100	0 - 200	36.207	36.21603	-0.0090	N/A	
13C12-1,2,3,7,8,9-HxCDF	100.00	97.4	0 - 200	37.3577	37.36327	-0.0056	N/A	
13C12-1,2,3,4,7,8-HxCDD	100.00	101	0 - 200	36.3385	36.34938	-0.0109	N/A	
13C12-1,2,3,6,7,8-HxCDD	100.00	99.9	0 - 200	36.47	36.4754	-0.0054	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	98.4	0 - 200	39.4073	39.41285	-0.0055	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	98.0	0 - 200	42.0928	42.10002	-0.0072	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	98.9	0 - 200	41.205	41.21587	-0.0109	N/A	
13C12-OCDD	200.00	95.5	0 - 200	47.0705	47.08662	-0.0161	N/A	
37C14-2,3,7,8-TCDD	10.000	110	0 - 200	26.6158	26.6333	-0.0175	N/A	

* Values outside of QC limits

Analytical Resources, Incorporated

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFE0219	Instrument:	AUTOSPEC01
Sample ID:	SFE0219-ICV1	Calibration:	AE00055
File ID:	17052202	Analyzed:	05/22/17 10:12

Surrogate Compound	Spike Level ng/mL	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	100.00	100	70 - 130	25.9885	25.9809	0.0076	N/A	
13C12-2,3,7,8-TCDD	100.00	100	70 - 130	26.631	26.61337	0.0176	N/A	
13C12-1,2,3,7,8-PeCDF	100.00	88.7	70 - 130	30.1237	30.1144	0.0093	N/A	
13C12-2,3,4,7,8-PeCDF	100.00	90.7	70 - 130	31.4718	31.45532	0.0165	N/A	
13C12-1,2,3,7,8-PeCDD	100.00	90.0	70 - 130	31.713	31.70743	0.0056	N/A	
13C12-1,2,3,4,7,8-HxCDF	100.00	98.0	70 - 130	35.1328	35.12362	0.0092	N/A	
13C12-1,2,3,6,7,8-HxCDF	100.00	98.0	70 - 130	35.2752	35.26975	0.0054	N/A	
13C12-2,3,4,6,7,8-HxCDF	100.00	96.5	70 - 130	36.2178	36.21603	0.0018	N/A	
13C12-1,2,3,7,8,9-HxCDF	100.00	97.9	70 - 130	37.3687	37.36327	0.0054	N/A	
13C12-1,2,3,4,7,8-HxCDD	100.00	100	70 - 130	36.3602	36.34938	0.0108	N/A	
13C12-1,2,3,6,7,8-HxCDD	100.00	101	70 - 130	36.4808	36.4754	0.0054	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	100.00	98.4	70 - 130	39.4182	39.41285	0.0053	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	100.00	99.1	70 - 130	42.1037	42.10002	0.0037	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	100.00	102	70 - 130	41.2158	41.21587	-0.0001	N/A	
13C12-OCDD	200.00	97.3	70 - 130	47.088	47.08662	0.0014	N/A	
37C14-2,3,7,8-TCDD	10.000	100	0 - 200	26.646	26.6333	0.0127	N/A	

* Values outside of QC limits

Analytical Resources, Incorporated

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFE0219	Instrument:	AUTOSPEC01
Sample ID:	BFE0233-BLK1	Calibration:	AE00055
File ID:	17052204	Analyzed:	05/22/17 12:05

Surrogate Compound	Spike Level ng/kg	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	200.00	76.2	24 - 169	25.9885	25.9809	0.0076	N/A	
13C12-2,3,7,8-TCDD	200.00	74.0	25 - 164	26.631	26.61337	0.0176	N/A	
13C12-1,2,3,7,8-PeCDF	200.00	66.6	24 - 185	30.1237	30.1144	0.0093	N/A	
13C12-2,3,4,7,8-PeCDF	200.00	69.9	21 - 178	31.472	31.45532	0.0167	N/A	
13C12-1,2,3,7,8-PeCDD	200.00	69.5	25 - 181	31.7242	31.70743	0.0168	N/A	
13C12-1,2,3,4,7,8-HxCDF	200.00	74.0	26 - 152	35.133	35.12362	0.0094	N/A	
13C12-1,2,3,6,7,8-HxCDF	200.00	75.3	26 - 123	35.2865	35.26975	0.0167	N/A	
13C12-2,3,4,6,7,8-HxCDF	200.00	76.2	28 - 136	36.2292	36.21603	0.0132	N/A	
13C12-1,2,3,7,8,9-HxCDF	200.00	66.4	29 - 147	37.369	37.36327	0.0057	N/A	
13C12-1,2,3,4,7,8-HxCDD	200.00	81.2	32 - 141	36.3607	36.34938	0.0113	N/A	
13C12-1,2,3,6,7,8-HxCDD	200.00	80.4	28 - 130	36.492	36.4754	0.0166	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	200.00	68.7	28 - 143	39.4405	39.41285	0.0277	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	200.00	72.2	26 - 138	42.137	42.10002	0.0370	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	200.00	83.7	23 - 140	41.2492	41.21587	0.0333	N/A	
13C12-OCDD	400.00	74.6	17 - 157	47.1243	47.08662	0.0377	N/A	
37C14-2,3,7,8-TCDD	80.000	88.1	35 - 197	26.646	26.6333	0.0127	N/A	

* Values outside of QC limits

Analytical Resources, Incorporated

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFE0219	Instrument:	AUTOSPEC01
Sample ID:	BFE0233-BS1	Calibration:	AE00055
File ID:	17052205	Analyzed:	05/22/17 12:57

Surrogate Compound	Spike Level ng/kg	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	200.00	78.8	24 - 169	25.9737	25.9809	-0.0072	N/A	
13C12-2,3,7,8-TCDD	200.00	79.3	25 - 164	26.6162	26.61337	0.0028	N/A	
13C12-1,2,3,7,8-PeCDF	200.00	70.0	24 - 185	30.113	30.1144	-0.0014	N/A	
13C12-2,3,4,7,8-PeCDF	200.00	72.3	21 - 178	31.4613	31.45532	0.0060	N/A	
13C12-1,2,3,7,8-PeCDD	200.00	73.1	25 - 181	31.7023	31.70743	-0.0051	N/A	
13C12-1,2,3,4,7,8-HxCDF	200.00	74.2	26 - 152	35.1222	35.12362	-0.0014	N/A	
13C12-1,2,3,6,7,8-HxCDF	200.00	73.7	26 - 123	35.2757	35.26975	0.0059	N/A	
13C12-2,3,4,6,7,8-HxCDF	200.00	75.7	28 - 136	36.2183	36.21603	0.0023	N/A	
13C12-1,2,3,7,8,9-HxCDF	200.00	70.7	29 - 147	37.369	37.36327	0.0057	N/A	
13C12-1,2,3,4,7,8-HxCDD	200.00	80.0	32 - 141	36.3498	36.34938	0.0004	N/A	
13C12-1,2,3,6,7,8-HxCDD	200.00	75.9	28 - 130	36.4813	36.4754	0.0059	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	200.00	66.5	28 - 143	39.4295	39.41285	0.0166	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	200.00	73.4	26 - 138	42.1258	42.10002	0.0258	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	200.00	81.1	23 - 140	41.238	41.21587	0.0221	N/A	
13C12-OCDD	400.00	75.4	17 - 157	47.1153	47.08662	0.0287	N/A	
37C14-2,3,7,8-TCDD	80.000	88.4	35 - 197	26.631	26.6333	-0.0023	N/A	

* Values outside of QC limits

Analytical Resources, Incorporated

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFE0219	Instrument:	AUTOSPEC01
Sample ID:	17D0421-01	Calibration:	AE00055
File ID:	17052206	Analyzed:	05/22/17 13:50

Surrogate Compound	Spike Level ng/kg	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	199.60	45.5	24 - 169	25.9733	25.9809	-0.0076	N/A	
13C12-2,3,7,8-TCDD	199.60	45.3	25 - 164	26.6008	26.61337	-0.0126	N/A	
13C12-1,2,3,7,8-PeCDF	199.60	39.0	24 - 185	30.1125	30.1144	-0.0019	N/A	
13C12-2,3,4,7,8-PeCDF	199.60	42.3	21 - 178	31.4498	31.45532	-0.0055	N/A	
13C12-1,2,3,7,8-PeCDD	199.60	42.2	25 - 181	31.702	31.70743	-0.0054	N/A	
13C12-1,2,3,4,7,8-HxCDF	199.60	46.1	26 - 152	35.1218	35.12362	-0.0018	N/A	
13C12-1,2,3,6,7,8-HxCDF	199.60	45.2	26 - 123	35.2753	35.26975	0.0055	N/A	
13C12-2,3,4,6,7,8-HxCDF	199.60	45.3	28 - 136	36.229	36.21603	0.0130	N/A	
13C12-1,2,3,7,8,9-HxCDF	199.60	38.8	29 - 147	37.3798	37.36327	0.0165	N/A	
13C12-1,2,3,4,7,8-HxCDD	199.60	46.6	32 - 141	36.3605	36.34938	0.0111	N/A	
13C12-1,2,3,6,7,8-HxCDD	199.60	46.5	28 - 130	36.492	36.4754	0.0166	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	199.60	42.3	28 - 143	39.4407	39.41285	0.0279	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	199.60	44.2	26 - 138	42.1372	42.10002	0.0372	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	199.60	49.3	23 - 140	41.2493	41.21587	0.0334	N/A	
13C12-OCDD	399.20	42.6	17 - 157	47.1243	47.08662	0.0377	N/A	
37C14-2,3,7,8-TCDD	79.840	88.8	35 - 197	26.6307	26.6333	-0.0026	N/A	

* Values outside of QC limits

Analytical Resources, Incorporated

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFE0219	Instrument:	AUTOSPEC01
Sample ID:	17D0421-02	Calibration:	AE00055
File ID:	17052207	Analyzed:	05/22/17 14:43

Surrogate Compound	Spike Level ng/kg	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	199.20	42.9	24 - 169	25.9883	25.9809	0.0074	N/A	
13C12-2,3,7,8-TCDD	199.20	42.5	25 - 164	26.6158	26.61337	0.0024	N/A	
13C12-1,2,3,7,8-PeCDF	199.20	35.9	24 - 185	30.1127	30.1144	-0.0017	N/A	
13C12-2,3,4,7,8-PeCDF	199.20	37.7	21 - 178	31.461	31.45532	0.0057	N/A	
13C12-1,2,3,7,8-PeCDD	199.20	38.5	25 - 181	31.713	31.70743	0.0056	N/A	
13C12-1,2,3,4,7,8-HxCDF	199.20	39.5	26 - 152	35.1218	35.12362	-0.0018	N/A	
13C12-1,2,3,6,7,8-HxCDF	199.20	38.5	26 - 123	35.2753	35.26975	0.0055	N/A	
13C12-2,3,4,6,7,8-HxCDF	199.20	38.9	28 - 136	36.218	36.21603	0.0020	N/A	
13C12-1,2,3,7,8,9-HxCDF	199.20	35.5	29 - 147	37.3577	37.36327	-0.0056	N/A	
13C12-1,2,3,4,7,8-HxCDD	199.20	43.2	32 - 141	36.3495	36.34938	0.0001	N/A	
13C12-1,2,3,6,7,8-HxCDD	199.20	41.5	28 - 130	36.481	36.4754	0.0056	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	199.20	37.1	28 - 143	39.4185	39.41285	0.0057	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	199.20	35.6	26 - 138	42.104	42.10002	0.0040	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	199.20	39.8	23 - 140	41.216	41.21587	0.0001	N/A	
13C12-OCDD	398.41	28.7	17 - 157	47.0792	47.08662	-0.0074	N/A	
37C14-2,3,7,8-TCDD	79.681	92.5	35 - 197	26.6308	26.6333	-0.0025	N/A	

* Values outside of QC limits

Analytical Resources, Incorporated

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFE0219	Instrument:	AUTOSPEC01
Sample ID:	17D0421-03	Calibration:	AE00055
File ID:	17052208	Analyzed:	05/22/17 15:37

Surrogate Compound	Spike Level ng/kg	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	199.40	63.0	24 - 169	25.9737	25.9809	-0.0072	N/A	
13C12-2,3,7,8-TCDD	199.40	62.6	25 - 164	26.6012	26.61337	-0.0122	N/A	
13C12-1,2,3,7,8-PeCDF	199.40	55.4	24 - 185	30.1128	30.1144	-0.0016	N/A	
13C12-2,3,4,7,8-PeCDF	199.40	56.4	21 - 178	31.45	31.45532	-0.0053	N/A	
13C12-1,2,3,7,8-PeCDD	199.40	55.8	25 - 181	31.7022	31.70743	-0.0052	N/A	
13C12-1,2,3,4,7,8-HxCDF	199.40	55.0	26 - 152	35.1328	35.12362	0.0092	N/A	
13C12-1,2,3,6,7,8-HxCDF	199.40	53.2	26 - 123	35.2863	35.26975	0.0165	N/A	
13C12-2,3,4,6,7,8-HxCDF	199.40	57.4	28 - 136	36.229	36.21603	0.0130	N/A	
13C12-1,2,3,7,8,9-HxCDF	199.40	57.6	29 - 147	37.369	37.36327	0.0057	N/A	
13C12-1,2,3,4,7,8-HxCDD	199.40	60.0	32 - 141	36.3605	36.34938	0.0111	N/A	
13C12-1,2,3,6,7,8-HxCDD	199.40	58.3	28 - 130	36.4812	36.4754	0.0058	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	199.40	56.2	28 - 143	39.4187	39.41285	0.0059	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	199.40	61.0	26 - 138	42.1042	42.10002	0.0042	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	199.40	64.8	23 - 140	41.2163	41.21587	0.0004	N/A	
13C12-OCDD	398.80	53.8	17 - 157	47.0795	47.08662	-0.0071	N/A	
37C14-2,3,7,8-TCDD	79.761	92.2	35 - 197	26.631	26.6333	-0.0023	N/A	

* Values outside of QC limits

Analytical Resources, Incorporated

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFE0219	Instrument:	AUTOSPEC01
Sample ID:	17D0421-04	Calibration:	AE00055
File ID:	17052209	Analyzed:	05/22/17 16:30

Surrogate Compound	Spike Level ng/kg	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	199.60	71.7	24 - 169	25.9887	25.9809	0.0078	N/A	
13C12-2,3,7,8-TCDD	199.60	71.1	25 - 164	26.6163	26.61337	0.0029	N/A	
13C12-1,2,3,7,8-PeCDF	199.60	60.5	24 - 185	30.1132	30.1144	-0.0012	N/A	
13C12-2,3,4,7,8-PeCDF	199.60	63.7	21 - 178	31.4615	31.45532	0.0062	N/A	
13C12-1,2,3,7,8-PeCDD	199.60	66.0	25 - 181	31.7135	31.70743	0.0061	N/A	
13C12-1,2,3,4,7,8-HxCDF	199.60	69.7	26 - 152	35.1443	35.12362	0.0207	N/A	
13C12-1,2,3,6,7,8-HxCDF	199.60	67.0	26 - 123	35.2868	35.26975	0.0170	N/A	
13C12-2,3,4,6,7,8-HxCDF	199.60	73.6	28 - 136	36.2513	36.21603	0.0353	N/A	
13C12-1,2,3,7,8,9-HxCDF	199.60	66.2	29 - 147	37.4023	37.36327	0.0390	N/A	
13C12-1,2,3,4,7,8-HxCDD	199.60	66.6	32 - 141	36.383	36.34938	0.0336	N/A	
13C12-1,2,3,6,7,8-HxCDD	199.60	72.9	28 - 130	36.5145	36.4754	0.0391	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	199.60	58.8	28 - 143	39.4848	39.41285	0.0720	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	199.60	63.9	26 - 138	42.214	42.10002	0.1140	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	199.60	70.4	23 - 140	41.3262	41.21587	0.1103	N/A	
13C12-OCDD	399.20	63.5	17 - 157	47.2145	47.08662	0.1279	N/A	
37C14-2,3,7,8-TCDD	79.840	98.8	35 - 197	26.6312	26.6333	-0.0021	N/A	

* Values outside of QC limits

Analytical Resources, Incorporated

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFE0219	Instrument:	AUTOSPEC01
Sample ID:	17D0421-05	Calibration:	AE00055
File ID:	17052210	Analyzed:	05/22/17 17:23

Surrogate Compound	Spike Level ng/kg	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	199.40	37.8	24 - 169	25.9887	25.9809	0.0078	N/A	
13C12-2,3,7,8-TCDD	199.40	37.5	25 - 164	26.6162	26.61337	0.0028	N/A	
13C12-1,2,3,7,8-PeCDF	199.40	31.6	24 - 185	30.1133	30.1144	-0.0011	N/A	
13C12-2,3,4,7,8-PeCDF	199.40	33.3	21 - 178	31.4615	31.45532	0.0062	N/A	
13C12-1,2,3,7,8-PeCDD	199.40	33.1	25 - 181	31.7027	31.70743	-0.0047	N/A	
13C12-1,2,3,4,7,8-HxCDF	199.40	34.3	26 - 152	35.1227	35.12362	-0.0009	N/A	
13C12-1,2,3,6,7,8-HxCDF	199.40	33.5	26 - 123	35.276	35.26975	0.0063	N/A	
13C12-2,3,4,6,7,8-HxCDF	199.40	34.6	28 - 136	36.2187	36.21603	0.0027	N/A	
13C12-1,2,3,7,8,9-HxCDF	199.40	32.8	29 - 147	37.3695	37.36327	0.0062	N/A	
13C12-1,2,3,4,7,8-HxCDD	199.40	37.5	32 - 141	36.3502	36.34938	0.0008	N/A	
13C12-1,2,3,6,7,8-HxCDD	199.40	35.7	28 - 130	36.4818	36.4754	0.0064	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	199.40	32.4	28 - 143	39.4192	39.41285	0.0063	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	199.40	33.6	26 - 138	42.1047	42.10002	0.0047	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	199.40	36.2	23 - 140	41.2168	41.21587	0.0009	N/A	
13C12-OCDD	398.80	28.1	17 - 157	47.0802	47.08662	-0.0064	N/A	
37C14-2,3,7,8-TCDD	79.761	95.0	35 - 197	26.6312	26.6333	-0.0021	N/A	

* Values outside of QC limits

SURROGATE RECOVERY AND RT SUMMARY
EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFE0219	Instrument:	AUTOSPEC01
Sample ID:	17D0421-06	Calibration:	AE00055
File ID:	17052211	Analyzed:	05/22/17 18:17

Surrogate Compound	Spike Level ng/kg	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	199.20	53.4	24 - 169	25.9733	25.9809	-0.0076	N/A	
13C12-2,3,7,8-TCDD	199.20	53.1	25 - 164	26.601	26.61337	-0.0124	N/A	
13C12-1,2,3,7,8-PeCDF	199.20	45.0	24 - 185	30.1018	30.1144	-0.0126	N/A	
13C12-2,3,4,7,8-PeCDF	199.20	48.1	21 - 178	31.45	31.45532	-0.0053	N/A	
13C12-1,2,3,7,8-PeCDD	199.20	48.7	25 - 181	31.6912	31.70743	-0.0162	N/A	
13C12-1,2,3,4,7,8-HxCDF	199.20	51.2	26 - 152	35.1108	35.12362	-0.0128	N/A	
13C12-1,2,3,6,7,8-HxCDF	199.20	50.7	26 - 123	35.2642	35.26975	-0.0055	N/A	
13C12-2,3,4,6,7,8-HxCDF	199.20	50.6	28 - 136	36.2068	36.21603	-0.0092	N/A	
13C12-1,2,3,7,8,9-HxCDF	199.20	45.9	29 - 147	37.3468	37.36327	-0.0165	N/A	
13C12-1,2,3,4,7,8-HxCDD	199.20	56.5	32 - 141	36.3383	36.34938	-0.0111	N/A	
13C12-1,2,3,6,7,8-HxCDD	199.20	53.4	28 - 130	36.4698	36.4754	-0.0056	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	199.20	48.0	28 - 143	39.4073	39.41285	-0.0055	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	199.20	47.9	26 - 138	42.0928	42.10002	-0.0072	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	199.20	52.0	23 - 140	41.205	41.21587	-0.0109	N/A	
13C12-OCDD	398.41	39.8	17 - 157	47.0703	47.08662	-0.0163	N/A	
37C14-2,3,7,8-TCDD	79.681	91.6	35 - 197	26.6158	26.6333	-0.0175	N/A	

* Values outside of QC limits

Analytical Resources, Incorporated

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFE0219	Instrument:	AUTOSPEC01
Sample ID:	17D0421-07	Calibration:	AE00055
File ID:	17052212	Analyzed:	05/22/17 19:10

Surrogate Compound	Spike Level ng/kg	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	199.01	28.5	24 - 169	25.9735	25.9809	-0.0074	N/A	
13C12-2,3,7,8-TCDD	199.01	29.1	25 - 164	26.616	26.61337	0.0026	N/A	
13C12-1,2,3,7,8-PeCDF	199.01	24.4	24 - 185	30.1128	30.1144	-0.0016	N/A	
13C12-2,3,4,7,8-PeCDF	199.01	25.6	21 - 178	31.4612	31.45532	0.0059	N/A	
13C12-1,2,3,7,8-PeCDD	199.01	26.4	25 - 181	31.7023	31.70743	-0.0051	N/A	
13C12-1,2,3,4,7,8-HxCDF	199.01	28.4	26 - 152	35.1223	35.12362	-0.0013	N/A	
13C12-1,2,3,6,7,8-HxCDF	199.01	27.6	26 - 123	35.2758	35.26975	0.0060	N/A	
13C12-2,3,4,6,7,8-HxCDF	199.01	27.7	28 - 136	36.2185	36.21603	0.0025	N/A	*
13C12-1,2,3,7,8,9-HxCDF	199.01	25.7	29 - 147	37.3585	37.36327	-0.0048	N/A	*
13C12-1,2,3,4,7,8-HxCDD	199.01	31.0	32 - 141	36.35	36.34938	0.0006	N/A	*
13C12-1,2,3,6,7,8-HxCDD	199.01	28.5	28 - 130	36.4707	36.4754	-0.0047	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	199.01	26.5	28 - 143	39.4193	39.41285	0.0065	N/A	*
13C12-1,2,3,4,7,8,9-HpCDF	199.01	24.5	26 - 138	42.1048	42.10002	0.0048	N/A	*
13C12-1,2,3,4,6,7,8-HpCDD	199.01	28.8	23 - 140	41.217	41.21587	0.0011	N/A	
13C12-OCDD	398.01	21.5	17 - 157	47.0802	47.08662	-0.0064	N/A	
37C14-2,3,7,8-TCDD	79.602	95.1	35 - 197	26.631	26.6333	-0.0023	N/A	

* Values outside of QC limits

Analytical Resources, Incorporated

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFE0219	Instrument:	AUTOSPEC01
Sample ID:	17D0421-08	Calibration:	AE00055
File ID:	17052215	Analyzed:	05/22/17 22:02

Surrogate Compound	Spike Level ng/kg	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	199.01	45.1	24 - 169	25.9732	25.9809	-0.0077	N/A	
13C12-2,3,7,8-TCDD	199.01	45.5	25 - 164	26.6007	26.61337	-0.0127	N/A	
13C12-1,2,3,7,8-PeCDF	199.01	37.6	24 - 185	30.1013	30.1144	-0.0131	N/A	
13C12-2,3,4,7,8-PeCDF	199.01	41.0	21 - 178	31.4497	31.45532	-0.0056	N/A	
13C12-1,2,3,7,8-PeCDD	199.01	40.1	25 - 181	31.7017	31.70743	-0.0057	N/A	
13C12-1,2,3,4,7,8-HxCDF	199.01	35.4	26 - 152	35.1215	35.12362	-0.0021	N/A	
13C12-1,2,3,6,7,8-HxCDF	199.01	35.2	26 - 123	35.2642	35.26975	-0.0055	N/A	
13C12-2,3,4,6,7,8-HxCDF	199.01	37.8	28 - 136	36.2068	36.21603	-0.0092	N/A	
13C12-1,2,3,7,8,9-HxCDF	199.01	38.4	29 - 147	37.3577	37.36327	-0.0056	N/A	
13C12-1,2,3,4,7,8-HxCDD	199.01	40.3	32 - 141	36.3383	36.34938	-0.0111	N/A	
13C12-1,2,3,6,7,8-HxCDD	199.01	38.8	28 - 130	36.4698	36.4754	-0.0056	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	199.01	36.9	28 - 143	39.4073	39.41285	-0.0055	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	199.01	37.9	26 - 138	42.0927	42.10002	-0.0073	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	199.01	41.0	23 - 140	41.2048	41.21587	-0.0111	N/A	
13C12-OCDD	398.01	33.8	17 - 157	47.0792	47.08662	-0.0074	N/A	
37C14-2,3,7,8-TCDD	79.602	106	35 - 197	26.6305	26.6333	-0.0028	N/A	

* Values outside of QC limits

Analytical Resources, Incorporated

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFE0219	Instrument:	AUTOSPEC01
Sample ID:	17D0421-09	Calibration:	AE00055
File ID:	17052216	Analyzed:	05/22/17 22:55

Surrogate Compound	Spike Level ng/kg	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	199.80	32.2	24 - 169	25.9737	25.9809	-0.0072	N/A	
13C12-2,3,7,8-TCDD	199.80	31.6	25 - 164	26.616	26.61337	0.0026	N/A	
13C12-1,2,3,7,8-PeCDF	199.80	26.2	24 - 185	30.1128	30.1144	-0.0016	N/A	
13C12-2,3,4,7,8-PeCDF	199.80	27.0	21 - 178	31.4498	31.45532	-0.0055	N/A	
13C12-1,2,3,7,8-PeCDD	199.80	27.4	25 - 181	31.702	31.70743	-0.0054	N/A	
13C12-1,2,3,4,7,8-HxCDF	199.80	30.6	26 - 152	35.1217	35.12362	-0.0019	N/A	
13C12-1,2,3,6,7,8-HxCDF	199.80	30.7	26 - 123	35.2642	35.26975	-0.0055	N/A	
13C12-2,3,4,6,7,8-HxCDF	199.80	31.1	28 - 136	36.2175	36.21603	0.0015	N/A	
13C12-1,2,3,7,8,9-HxCDF	199.80	28.2	29 - 147	37.3573	37.36327	-0.0060	N/A	*
13C12-1,2,3,4,7,8-HxCDD	199.80	33.9	32 - 141	36.349	36.34938	-0.0004	N/A	
13C12-1,2,3,6,7,8-HxCDD	199.80	32.5	28 - 130	36.4697	36.4754	-0.0057	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	199.80	27.4	28 - 143	39.4068	39.41285	-0.0061	N/A	*
13C12-1,2,3,4,7,8,9-HpCDF	199.80	27.4	26 - 138	42.0922	42.10002	-0.0078	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	199.80	30.6	23 - 140	41.2045	41.21587	-0.0114	N/A	
13C12-OCDD	399.60	24.1	17 - 157	47.0783	47.08662	-0.0083	N/A	
37C14-2,3,7,8-TCDD	79.920	93.1	35 - 197	26.631	26.6333	-0.0023	N/A	

* Values outside of QC limits

Analytical Resources, Incorporated

SURROGATE RECOVERY AND RT SUMMARY

EPA 1613B

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFE0219	Instrument:	AUTOSPEC01
Sample ID:	17D0421-10	Calibration:	AE00055
File ID:	17052217	Analyzed:	05/22/17 23:49

Surrogate Compound	Spike Level ng/kg	% Recovery	Recovery Limits	RT	Calibration Mean RT	RT Diff	RT Diff Limit	Q
13C12-2,3,7,8-TCDF	199.80	57.5	24 - 169	25.9737	25.9809	-0.0072	N/A	
13C12-2,3,7,8-TCDD	199.80	56.8	25 - 164	26.6012	26.61337	-0.0122	N/A	
13C12-1,2,3,7,8-PeCDF	199.80	47.2	24 - 185	30.113	30.1144	-0.0014	N/A	
13C12-2,3,4,7,8-PeCDF	199.80	49.9	21 - 178	31.4503	31.45532	-0.0050	N/A	
13C12-1,2,3,7,8-PeCDD	199.80	50.4	25 - 181	31.7025	31.70743	-0.0049	N/A	
13C12-1,2,3,4,7,8-HxCDF	199.80	68.2	26 - 152	35.1443	35.12362	0.0207	N/A	
13C12-1,2,3,6,7,8-HxCDF	199.80	75.9	26 - 123	35.2867	35.26975	0.0170	N/A	
13C12-2,3,4,6,7,8-HxCDF	199.80	70.7	28 - 136	36.2513	36.21603	0.0353	N/A	
13C12-1,2,3,7,8,9-HxCDF	199.80	53.8	29 - 147	37.4242	37.36327	0.0609	N/A	
13C12-1,2,3,4,7,8-HxCDD	199.80	65.2	32 - 141	36.3938	36.34938	0.0444	N/A	
13C12-1,2,3,6,7,8-HxCDD	199.80	69.4	28 - 130	36.5253	36.4754	0.0499	N/A	
13C12-1,2,3,4,6,7,8-HpCDF	199.80	48.5	28 - 143	39.5508	39.41285	0.1380	N/A	
13C12-1,2,3,4,7,8,9-HpCDF	199.80	72.9	26 - 138	42.2473	42.10002	0.1473	N/A	
13C12-1,2,3,4,6,7,8-HpCDD	199.80	70.7	23 - 140	41.3813	41.21587	0.1654	N/A	
13C12-OCDD	399.60	84.1	17 - 157	47.1433	47.08662	0.0567	N/A	
37C14-2,3,7,8-TCDD	79.920	91.3	35 - 197	26.631	26.6333	-0.0023	N/A	

* Values outside of QC limits

Analytical Resources, Incorporated

HOLDING TIME SUMMARY

Analysis: EPA 1613B

Laboratory: Analytical Resources, Inc. SDG: 17D0421

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-GP-OYS-COC-170424 17D0421-01	04/24/17 10:30	04/26/17 17:05	05/09/17 16:05	15	365	05/22/17 13:50	13	365	
PG-GP-COC-COC-170424 17D0421-02	04/24/17 10:45	04/26/17 17:05	05/09/17 16:05	15	365	05/22/17 14:43	13	365	
PG-GP-LTN-COC-170424 17D0421-03	04/24/17 11:00	04/26/17 17:05	05/09/17 16:05	15	365	05/22/17 15:37	13	365	
PG-WS-OYS-COC-170424 17D0421-04	04/24/17 11:30	04/26/17 17:05	05/09/17 16:05	15	365	05/22/17 16:30	13	365	
PG-WS-COC-COC-170425 17D0421-05	04/25/17 11:00	04/26/17 17:05	05/09/17 16:05	14	365	05/22/17 17:23	13	365	
PG-WS-LTN-COC-170424 17D0421-06	04/24/17 12:00	04/26/17 17:05	05/09/17 16:05	15	365	05/22/17 18:17	13	365	
PG-WS-MAN-COC-170424 17D0421-07	04/24/17 12:45	04/26/17 17:05	05/09/17 16:05	15	365	05/22/17 19:10	13	365	
PG-SMA3-GEO-COC-170426 17D0421-08	04/26/17 07:00	04/26/17 17:05	05/09/17 16:05	13	365	05/22/17 22:02	13	365	
PG-SMA3-DUNM-COC-170426 17D0421-09	04/26/17 12:00	04/26/17 17:05	05/09/17 16:05	13	365	05/22/17 22:55	13	365	
PG-SMA3-DUNH-COC-170426 17D0421-10	04/26/17 12:15	04/26/17 17:05	05/09/17 16:05	13	365	05/22/17 23:49	13	365	

* Indicates hold time exceedance.

Analytical Resources, Incorporated

METHOD DETECTION AND REPORTING LIMITS

EPA 1613B

Laboratory: Analytical Resources, Inc.
SDG: 17D0421
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Matrix: Solid
Instrument: AUTOSPEC01

Analyte	MDL	RL	Units
2,3,7,8-TCDF	0.244	1.00	ng/kg
2,3,7,8-TCDD	0.214	1.00	ng/kg
1,2,3,7,8-PeCDF	0.472	1.00	ng/kg
2,3,4,7,8-PeCDF	0.625	1.00	ng/kg
1,2,3,7,8-PeCDD	0.590	1.00	ng/kg
1,2,3,4,7,8-HxCDF	0.784	1.00	ng/kg
1,2,3,6,7,8-HxCDF	0.623	1.00	ng/kg
2,3,4,6,7,8-HxCDF	0.574	1.00	ng/kg
1,2,3,7,8,9-HxCDF	0.953	1.00	ng/kg
1,2,3,4,7,8-HxCDD	0.479	1.00	ng/kg
1,2,3,6,7,8-HxCDD	0.702	1.00	ng/kg
1,2,3,7,8,9-HxCDD	0.722	1.00	ng/kg
1,2,3,4,6,7,8-HpCDF	0.881	1.00	ng/kg
1,2,3,4,7,8,9-HpCDF	0.703	1.00	ng/kg
1,2,3,4,6,7,8-HpCDD	1.14	2.50	ng/kg
OCDF	1.77	2.00	ng/kg
OCDD	9.42	10.0	ng/kg

Analytical Resources, Incorporated

METHOD DETECTION AND REPORTING LIMITS

EPA 1613B

Laboratory: Analytical Resources, Inc. SDG: 17D0421

Client: Anchor QEA, LLC Project: Port Gamble Shellfish Monitoring

Matrix: Tissue Instrument: AUTOSPEC01

Analyte	MDL	RL	Units
2,3,7,8-TCDF	0.050	1.00	ng/kg
2,3,7,8-TCDD	0.160	1.00	ng/kg
1,2,3,7,8-PeCDF	0.470	5.00	ng/kg
2,3,4,7,8-PeCDF	0.410	5.00	ng/kg
1,2,3,7,8-PeCDD	0.490	5.00	ng/kg
1,2,3,4,7,8-HxCDF	0.440	5.00	ng/kg
1,2,3,6,7,8-HxCDF	0.390	5.00	ng/kg
2,3,4,6,7,8-HxCDF	0.410	5.00	ng/kg
1,2,3,7,8,9-HxCDF	0.490	5.00	ng/kg
1,2,3,4,7,8-HxCDD	0.480	5.00	ng/kg
1,2,3,6,7,8-HxCDD	0.370	5.00	ng/kg
1,2,3,7,8,9-HxCDD	0.350	5.00	ng/kg
1,2,3,4,6,7,8-HpCDF	0.470	5.00	ng/kg
1,2,3,4,7,8,9-HpCDF	0.450	5.00	ng/kg
1,2,3,4,6,7,8-HpCDD	0.580	5.00	ng/kg
OCDF	0.740	10.0	ng/kg
OCDD	1.83	10.0	ng/kg
Total TCDF		1.00	ng/kg
Total TCDD		1.00	ng/kg
Total PeCDF		1.00	ng/kg
Total PeCDD		1.00	ng/kg
Total HxCDF		1.00	ng/kg
Total HxCDD		1.00	ng/kg
Total HpCDF		1.00	ng/kg
Total HpCDD		1.00	ng/kg

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-GP-OYS-COC-170424

EPA 6010C
Total Metals

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-01	SDG:	17D0421
Sampled:	04/24/17 10:30	Prepared:	05/09/17 14:15	File ID:	I2170510-026
Solids:	0.00	Preparation:	FRN Tissue Digestion ICP ICP-MS	Analyzed:	05/10/17 11:26
Batch:	BFE0167	Sequence:	SFE0141	Initial/Final:	2.564 g / 50 mL
Instrument:	ICP2			Calibration:	AE00030

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	MDL	MRL	Q
7440-43-9	Cadmium	1.55	1	0.0024	0.0390	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-GP-COC-COC-170424

EPA 6010C
Total Metals

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-02	SDG:	17D0421
Sampled:	04/24/17 10:45	Prepared:	05/09/17 14:15	File ID:	I2170510-037
Solids:	0.00	Preparation:	FRN Tissue Digestion ICP ICP-MS	Analyzed:	05/10/17 12:11
Batch:	BFE0167	Sequence:	SFE0141	Initial/Final:	2.523 g / 50 mL
Instrument:	ICP2			Calibration:	AE00030

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	MDL	MRL	Q
7440-43-9	Cadmium	0.0823	1	0.0025	0.0396	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-GP-LTN-COC-170424

EPA 6010C
Total Metals

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-03	SDG:	17D0421
Sampled:	04/24/17 11:00	Prepared:	05/09/17 14:15	File ID:	I2170510-038
Solids:	0.00	Preparation:	FRN Tissue Digestion ICP ICP-MS	Analyzed:	05/10/17 12:15
Batch:	BFE0167	Sequence:	SFE0141	Initial/Final:	2.537 g / 50 mL
Instrument:	ICP2			Calibration:	AE00030

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	MDL	MRL	Q
7440-43-9	Cadmium	0.235	1	0.0024	0.0394	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-WS-OYS-COC-170424

EPA 6010C
Total Metals

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-04	SDG:	17D0421
Sampled:	04/24/17 11:30	Prepared:	05/09/17 14:15	File ID:	I2170510-039
Solids:	0.00	Preparation:	FRN Tissue Digestion ICP ICP-MS	Analyzed:	05/10/17 12:19
Batch:	BFE0167	Sequence:	SFE0141	Initial/Final:	2.533 g / 50 mL
Instrument:	ICP2			Calibration:	AE00030

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	MDL	MRL	Q
7440-43-9	Cadmium	1.57	1	0.0024	0.0395	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-WS-COC-COC-170425

EPA 6010C
Total Metals

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-05	SDG:	17D0421
Sampled:	04/25/17 11:00	Prepared:	05/09/17 14:15	File ID:	I2170510-040
Solids:	0.00	Preparation:	FRN Tissue Digestion ICP ICP-MS	Analyzed:	05/10/17 12:24
Batch:	BFE0167	Sequence:	SFE0141	Initial/Final:	2.579 g / 50 mL
Instrument:	ICP2			Calibration:	AE00030

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	MDL	MRL	Q
7440-43-9	Cadmium	0.0929	1	0.0024	0.0388	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-WS-LTN-COC-170424

EPA 6010C
Total Metals

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-06	SDG:	17D0421
Sampled:	04/24/17 12:00	Prepared:	05/09/17 14:15	File ID:	I2170510-041
Solids:	0.00	Preparation:	FRN Tissue Digestion ICP ICP-MS	Analyzed:	05/10/17 12:28
Batch:	BFE0167	Sequence:	SFE0141	Initial/Final:	2.529 g / 50 mL
Instrument:	ICP2			Calibration:	AE00030

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	MDL	MRL	Q
7440-43-9	Cadmium	0.392	1	0.0024	0.0395	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET
EPA 6010C
Total Metals

PG-WS-MAN-COC-170424

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-07	SDG:	17D0421
Sampled:	04/24/17 12:45	Prepared:	05/09/17 14:15	File ID:	I2170510-054
Solids:	0.00	Preparation:	FRN Tissue Digestion ICP ICP-MS	Analyzed:	05/10/17 13:18
Batch:	BFE0167	Sequence:	SFE0141	Initial/Final:	2.523 g / 50 mL
Instrument:	ICP2			Calibration:	AE00030

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	MDL	MRL	Q
7440-43-9	Cadmium	0.303	1	0.0025	0.0396	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA3-GEO-COC-170426

EPA 6010C
Total Metals

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-08	SDG:	17D0421
Sampled:	04/26/17 07:00	Prepared:	05/09/17 14:15	File ID:	I2170510-058
Solids:	0.00	Preparation:	FRN Tissue Digestion ICP ICP-MS	Analyzed:	05/10/17 13:35
Batch:	BFE0167	Sequence:	SFE0141	Initial/Final:	2.571 g / 50 mL
Instrument:	ICP2			Calibration:	AE00030

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	MDL	MRL	Q
7440-43-9	Cadmium	0.219	1	0.0024	0.0389	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA3-DUNM-COC-170426

EPA 6010C
Total Metals

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-09	SDG:	17D0421
Sampled:	04/26/17 12:00	Prepared:	05/09/17 14:15	File ID:	I2170510-055
Solids:	0.00	Preparation:	FRN Tissue Digestion ICP ICP-MS	Analyzed:	05/10/17 13:22
Batch:	BFE0167	Sequence:	SFE0141	Initial/Final:	2.525 g / 50 mL
Instrument:	ICP2			Calibration:	AE00030

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	MDL	MRL	Q
7440-43-9	Cadmium	0.0396	1	0.0025	0.0396	U

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA3-DUNH-COC-170426

EPA 6010C
Total Metals

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-10	SDG:	17D0421
Sampled:	04/26/17 12:15	Prepared:	05/09/17 14:15	File ID:	I2170510-056
Solids:	0.00	Preparation:	FRN Tissue Digestion ICP ICP-MS	Analyzed:	05/10/17 13:27
Batch:	BFE0167	Sequence:	SFE0141	Initial/Final:	2.564 g / 50 mL
Instrument:	ICP2			Calibration:	AE00030

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	MDL	MRL	Q
7440-43-9	Cadmium	4.97	1	0.0024	0.0390	

PREPARATION BATCH SUMMARY

EPA 6010C

Laboratory: Analytical Resources, Inc.
SDG: 17D0421
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Batch: BFE0167 Batch Matrix: Tissue
Preparation: FRN Tissue Digestion ICP ICP-MS

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PG-GP-OYS-COC-170424	17D0421-01	I2170510-026	05/09/17 14:15	
PG-GP-COC-COC-170424	17D0421-02	I2170510-037	05/09/17 14:15	
PG-GP-LTN-COC-170424	17D0421-03	I2170510-038	05/09/17 14:15	
PG-WS-OYS-COC-170424	17D0421-04	I2170510-039	05/09/17 14:15	
PG-WS-COC-COC-170425	17D0421-05	I2170510-040	05/09/17 14:15	
PG-WS-LTN-COC-170424	17D0421-06	I2170510-041	05/09/17 14:15	
PG-WS-MAN-COC-170424	17D0421-07	I2170510-054	05/09/17 14:15	
PG-SMA3-GEO-COC-170426	17D0421-08	I2170510-058	05/09/17 14:15	
PG-SMA3-DUNM-COC-170426	17D0421-09	I2170510-055	05/09/17 14:15	
PG-SMA3-DUNH-COC-170426	17D0421-10	I2170510-056	05/09/17 14:15	
Blank	BFE0167-BLK1	I2170510-025	05/09/17 14:15	
LCS	BFE0167-BS1	I2170510-034	05/09/17 14:15	
PG-SMA3-GEO-COC-170426	BFE0167-DUP1	I2170510-057	05/09/17 14:15	
PG-SMA3-GEO-COC-170426	BFE0167-MS1	I2170510-059	05/09/17 14:15	

BFE0167

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: MB Date: 5/9/17 Time: 1415

Matrix: tissue Block ID: #4 Block Temp: 94°C Thermometer: mp84

ARI Sample ID	Btl #	pH<2	Prep Code: FRN Initial Wt (g) ~~Vol (mL)~~	Prep Code: FRN Final Vol (mL)	Prep Code: Initial Wt (g) Vol (mL)	Prep Code: Final Vol (mL)	Comments
170421-01	A		2.564	50.0			
" 02			2.523				
" 03			2.537				
" 04			2.533				
" 05			2.579				
" 06			2.529				
" 07			2.523				
" 08			2.571				
" 09			2.525				
" 10			2.564				
17E12-01			2.575				
" 02			2.563				
" 03			2.520				
" 04			2.534				
" 05	↓		2.579				
" 06	A		2.512				
BFE167-BLK1	–		–				
" -BS1	–		–				
" -DUP1	–		2.570	↓			170421-08
" -MS1	–		2.573	50.0			↓
				MS 5/9/17			

Chemical/Reagent ID:

HNO_3: _____ HCl: _____ H_2O_2: _____ Tube Lot #: _____

Analytical Resources, Incorporated

Form I

METHOD BLANK DATA SHEET

EPA 6010C

Total Metals

Blank

Batch: BFE0167 Laboratory ID: BFE0167-BLK1 Prepared: 05/09/17 14:15

Matrix: Tissue Preparation: FRN Tissue Digestion ICP Analyzed: 05/10/17 11:22

Sequence: SFE0141 Calibration: AE00030 Instrument: ICP2

CAS NO.	Analyte	Concentration (mg/kg)	Dilution Factor	MDL	MRL	Q
7440-43-9	Cadmium	0.0030	1	0.0025	0.0400	J

Analytical Resources, Incorporated

DUPLICATES

EPA 6010C

Total Metals

PG-SMA3-GEO-COC-17042(

Laboratory: Analytical Resources, Inc.
SDG: 17D0421
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Matrix: Tissue
Laboratory ID: BFE0167-DUP1
Batch: BFE0167
Lab Source ID: 17D0421-08
Preparation: FRN Tissue Digestion ICP ICP-MS
Initial/Final: 2.57 g / 50 mL
Source Sample Name: PG-SMA3-GEO-COC-170426
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (mg/kg)	C	DUPLICATE CONCENTRATION (mg/kg)	C	RPD %	Q
Cadmium		0.219		0.228		4.14	

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

Analytical Resources, Incorporated

INSTRUMENT BLANKS
EPA 6010C

Laboratory: Analytical Resources, Inc.
SDG: 17D0421
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Instrument ID: ICP2
Calibration: AE00030
Sequence: SFE0141
Date Analyzed: 05/10/17 10:16

Lab Sample ID	Analyte	Found	MDL	MRL	Units	C
SFE0141-CCB1	Cadmium	0.0003	0.0003	0.0020	mg/L	
SFE0141-CCB2	Cadmium	0.0004	0.0003	0.0020	mg/L	
SFE0141-CCB3	Cadmium	0.0003	0.0003	0.0020	mg/L	
SFE0141-CCB4	Cadmium	0.0003	0.0003	0.0020	mg/L	
SFE0141-CCB5	Cadmium	0.0003	0.0003	0.0020	mg/L	
SFE0141-CCB6	Cadmium	0.0003	0.0003	0.0020	mg/L	
SFE0141-CCB7	Cadmium	0.0004	0.0003	0.0020	mg/L	
SFE0141-CCB8	Cadmium	0.0006	0.0003	0.0020	mg/L	
SFE0141-IBL1	Cadmium	0.0004	0.0003	0.0020	mg/L	
SFE0141-ICB1	Cadmium	0.0004	0.0003	0.0020	mg/L	

LCS / LCS DUPLICATE RECOVERY

EPA 6010C

Total Metals

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Analyzed:	05/10/17 11:58
Batch:	BFE0167	Laboratory ID:	BFE0167-BS1
Preparation:	FRN Tissue Digestion ICP ICP-MS	Sequence Name:	LCS
Initial/Final:	2.5 g / 50 mL		

COMPOUND	SPIKE ADDED (mg/kg)	LCS CONCENTRATION (mg/kg)	Q	LCS % REC. #	QC LIMITS REC.
Cadmium	20.0	18.2		91.2	80 - 120

* Indicates values outside of QC limits

MS / MS DUPLICATE RECOVERY

EPA 6010C

Total Metals

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Matrix:	Tissue	Analyzed:	05/10/17 13:39
Batch:	BFE0167	Laboratory ID:	BFE0167-MS1
Preparation:	FRN Tissue Digestion ICP ICP-MS	Sequence Name:	Matrix Spike
Initial/Final:	2.573 g / 50 mL	Source Sample:	PG-SMA3-GEO-COC-170426

COMPOUND	SPIKE ADDED (mg/kg)	SAMPLE CONCENTRATION (mg/kg)	MS CONCENTRATION (mg/kg)	Q	MS % REC. #	QC LIMITS REC.
Cadmium	19.4	0.219	19.6		99.9	75 - 125

* Values outside of QC limits

INITIAL CALIBRATION DATA

EPA 6010C

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Calibration:	AE00030	Instrument:	ICP2
Calibration Date:	05/10/2017 9:33		

Compound	Level 01		Level 02		Level 03		Level 04		Level 05		Level 06	
		RF		RF		RF		RF		RF		RF
Cadmium	0	0	10	27854.85	0		0		0			

INITIAL CALIBRATION DATA

EPA 6010C

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Calibration:	AE00030	Instrument:	ICP2
Calibration Date:	05/10/2017 9:33		

COMPOUND	Mean RF	RF RSD	Linear COD	Quad COD	COD Limit	Q
Cadmium	13927.43	141.4	1.0000			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7300
Serial No. – 077C8121202

IEC Date: 4-14-17 Analysis Date: 5-10-17 Analyst: TH

LR Date: 4-14-17. Sequence: SFE0141 Page: 1 of 4

All corrections made by analyst unless otherwise noted. TH 5-10-17

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		SEQ-CAL1	F3620		
		-CAL2	F4073		
		-CAL3	F4074		
		-CAL4	F4075		
		-CAL5	F4076		
		-ICV1	E6096		
		-ICB1	F3620		
		-CRL1	F3637		
		-IFA1	F3354		
		-IFB1	F0779		
		-CCV1	E6096		
		-CCB1	F3620		
		BFE0201-BLK1	SWC	2	
		17D0447-01			
	✓	" -02		"	Mn > LR TH 05-11-17
		17D0397-06	"	5	
	✓	17E0009-01	TWC	50	Fe 790% LR
		" -02	"	100	
	✓	BFE0201-DUP1	SWC	5	Fe 7LR
		17E0009-01 ~~17E0074-01~~	TWC	100	
	✓	17E0124-03 ~~BFE0201-MS1~~	REN	10	Si Satd
		BFE0201-BS1 ~~-BS1~~	SWC	2	
		SEQ-CCV2			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7300
Serial No. – 077C8121202

IEC Date: — Analysis Date: 5-10-17 Analyst: TH

LR Date: — Sequence: — Page: 2 of 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		SEQ-CCB2			
		BFE0167-BLK1	FRN		
		17D0421-01	↓		
		17D0447-03	SWC	2	
		-04			
		-06			
	✓	-08			Fe 7 LR
		BFE0136-DUP1		5	Ni RPD↑ (ER)
		17E0011-01			
		BFE0136-MS1			Sb 1.2↓ (ER)
		BFE0167-BS1	FRN		
		SEQ-CCV3			
		↓ -CCB3			
		17D0421-02	FRN		
		-03			SER noisy
		-04			
		-05			
		-06			
	✓	17E0085-01	SWC	2	Fe 7 LR
		17E0084-03		↓	
		BFE0201-DUP1		20	Cd, Cu, Zn RPD↑ (ER)
		17E0074-01			
		BFE0201-MS1			Zn STL

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7300
Serial No. – 077C8121202

IEC Date: — Analysis Date: 5-10-17 Analyst: YK

LR Date: — Sequence: — Page: 3 of 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		SEQ-CCV4			
		↓ -CCB4			
		SEQ-CAL3			
		-CAL4			
		-CCV5			
		-CCB5			
		BFE0263-BLK1	REN		
		17D0421-07	FRN		
		-09			
		-10			
		BFE0167-DUP1			
		17D0421-08			
		BFE0167-MS1			
	✓	17E0~~123~~124-03	REN	100	use 20x D.1
	↓	17E0124-03		50	↓
		BFE0263-BS1			ICP-MS SPIKE
		SEQ-CCV6			
		↓ -CCB6			
		BFE0238-BLK1	LEN	5	0.00751 Ba (ER)
		17E0012-01	FRN		
		-02			
		-03			
		-04			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7300
Serial No. – 077C8121202

IEC Date: — Analysis Date: 5-10-17 Analyst: QA

LR Date: — Sequence: — Page: 4 of 4

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		17E0085-01	SWC	5	
		17D0447-08	↓	↓	
		BFE0238-DUP1	LEN		
		17E0111-01	↓		
		BFE0238-MS1	↓	↓	
		SEQ-CCV7			
		↓ -CCB7			
		17E0012-05	FRN		
		↓ -06	↓		
		17E0055-01	LEN	5	
		17E0074-01	↓	↓	
		17E0077-03	↓	↓	
		17E0124-03	REN	20	
		SEQ-ICV1			
		↓ -CCV8			
		↓ -CCB8			
		Rinse/DI			
		QA 5-10-17			

Nebulizer Parameters: Hg_ReAlign

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

==========

5/10/2017 9:08:06 AM Hg ReAlign... Actual peak offset (nm): 0.004
Drift (nm): -0.001 Slit adjustment: -3

==========

Analysis Begun

Start Time: 5/10/2017 9:11:45 AM **Plasma On Time: 5/10/2017 8:20:29 AM**
Logged In Analyst: metinst **Technique: ICP Continuous**
Spectrometer: Optima 7300 DV, S/N 077C8121202 **Autosampler: ESI**

Sample Information File: C:\pe\metals\Sample Information\BLKS.sif
Batch ID:
Results Data Set: I2170510
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

==========

Method Loaded
Method Name: ELMT7300bcESI2FAST **Method Last Saved: 12/7/2015 11:08:22 AM**
IEC File: IEC041417.iec **MSF File:**
Method Description: 12Axial Elements

Analyte	Calibration Equation	Processing	View	Internal Standard	IEC
Ag 328.068	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Al 308.215	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
As 188.979	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
B 249.677	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ba 233.527	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Be 313.042	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ca 317.933	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cd 228.802	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Co 228.616	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Cr 267.716	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Cu 324.752	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Fe 273.955	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
K 766.490	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Mg 279.077	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mn 257.610	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Mo 202.031	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Na 589.592	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Na 330.237	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Ni 231.604	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Pb 220.353	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sb 206.836	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Se 196.026	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Si 288.158	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Sn 189.927	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Sr 421.552	Lin Thru 0	Peak Area	Radial	ScR 361.383	No
Ti 334.903	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
Tl 190.801	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
V 292.402	Lin Thru 0	Peak Area	Axial	ScA 357.253	Yes
Zn 206.200	Lin Thru 0	Peak Area	Radial	ScR 361.383	Yes
ScA 357.253	Lin, Calc Int	Peak Area	Axial	n/a	n/a
ScR 361.383	Lin, Calc Int	Peak Area	Radial	n/a	n/a

==========

~~**Sequence No.: 1**~~ ~~**Autosampler Location: 1**~~
~~**Sample ID: B1**~~ TH 05-10-17 ~~**Date Collected: 5/10/2017 9:11:54 AM**~~
~~**Data Type: Original**~~

~~**Dilution: 1.000000X**~~

==========

~~**Nebulizer Parameters: B1**~~

~~Analyte~~	~~Back Pressure~~	~~Flow~~
~~All~~	~~160.0 kPa~~	~~0.65 L/min~~

==========

~~**Mean Data: B1**~~

==========

Analysis Begun

Start Time: 5/10/2017 9:33:41 AM **Plasma On Time: 5/10/2017 8:20:29 AM**
Logged In Analyst: metinst **Technique: ICP Continuous**
Spectrometer: Optima 7300 DV, S/N 077C8121202 **Autosampler: ESI**

Sample Information File: C:\pe\metals\Sample Information\CRISETelmt.sif
Batch ID:
Results Data Set: I2170510
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: SEQ-CAL1 **Date Collected: 5/10/2017 9:33:42 AM**
Data Type: Original

Nebulizer Parameters: SEQ-CAL1

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: SEQ-CAL1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2254911.3	8806.46	0.39%	100.0	%
ScR 361.383	240382.7	2376.72	0.99%	100.0	%
Ag 328.068†	-92.8	38.30	41.25%	[0.00]	mg/L
Al 308.215†	182.6	10.80	5.92%	[0.00]	mg/L
As 188.979†	-0.4	1.13	262.38%	[0.00]	mg/L
B 249.677†	79.2	7.12	8.99%	[0.00]	mg/L
Ba 233.527†	36.3	2.32	6.40%	[0.00]	mg/L
Be 313.042†	777.9	18.39	2.36%	[0.00]	mg/L
Ca 317.933†	186.8	13.52	7.23%	[0.00]	mg/L
Cd 228.802†	293.2	4.68	1.60%	[0.00]	mg/L
Co 228.616†	-44.2	5.59	12.64%	[0.00]	mg/L
Cr 267.716†	-193.0	8.99	4.66%	[0.00]	mg/L
Cu 324.752†	1370.6	9.74	0.71%	[0.00]	mg/L
Fe 273.955†	28.7	5.07	17.64%	[0.00]	mg/L
K 766.490†	642.3	21.25	3.31%	[0.00]	mg/L
Mg 279.077†	97.8	12.21	12.48%	[0.00]	mg/L
Mn 257.610†	240.1	1.07	0.45%	[0.00]	mg/L
Mo 202.031†	46.5	7.18	15.44%	[0.00]	mg/L
Na 589.592†	-170.9	24.70	14.46%	[0.00]	mg/L
Na 330.237†	-265.8	2.03	0.76%	[0.00]	mg/L
Ni 231.604†	-20.0	1.97	9.85%	[0.00]	mg/L
Pb 220.353†	62.9	9.18	14.59%	[0.00]	mg/L
Sb 206.836†	67.1	2.67	3.98%	[0.00]	mg/L
Se 196.026†	-15.3	3.83	25.09%	[0.00]	mg/L
Si 288.158†	59.5	3.26	5.49%	[0.00]	mg/L
Sn 189.927†	-3.7	4.24	114.82%	[0.00]	mg/L
Sr 421.552†	89.3	20.59	23.05%	[0.00]	mg/L
Ti 334.903†	-34.7	10.83	31.23%	[0.00]	mg/L
Tl 190.801†	-26.9	6.33	23.54%	[0.00]	mg/L
V 292.402†	165.1	29.67	17.97%	[0.00]	mg/L
Zn 206.200†	4.7	2.25	48.43%	[0.00]	mg/L

==========

Sequence No.: 2 **Autosampler Location: 2**
Sample ID: SEQ-CAL2 **Date Collected: 5/10/2017 9:37:42 AM**
Data Type: Original

Nebulizer Parameters: SEQ-CAL2

Analyte	Back Pressure	Flow
All	158.0 kPa	0.65 L/min

Mean Data: SEQ-CAL2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2234034.5	10510.01	0.47%	99.07	%

ScR 361.383	232986.0	328.74	0.14%	96.92	%
Ba 233.527†	50363.1	437.83	0.87%	[10]	mg/L
Cd 228.802†	278548.5	1870.05	0.67%	[10]	mg/L
Co 228.616†	364562.9	2640.47	0.72%	[10]	mg/L
Cr 267.716†	68569.9	118.88	0.17%	[10]	mg/L
Cu 324.752†	2059053.3	9394.26	0.46%	[10]	mg/L
Mn 257.610†	385235.5	506.24	0.13%	[10]	mg/L
V 292.402†	1072744.6	5386.08	0.50%	[10]	mg/L

Sequence No.: 3 **Autosampler Location: 3**
Sample ID: SEQ-CAL3 **Date Collected: 5/10/2017 9:39:28 AM**
Data Type: Original

Nebulizer Parameters: SEQ-CAL3

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: SEQ-CAL3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2248484.1	16110.68	0.72%	99.71	%
ScR 361.383	239932.4	678.06	0.28%	99.81	%
Ag 328.068†	146707.3	404.12	0.28%	[1.0]	mg/L
As 188.979†	17002.8	120.16	0.71%	[10]	mg/L
B 249.677†	70437.0	267.16	0.38%	[10]	mg/L
Be 313.042†	2119147.8	28027.02	1.32%	[5.0]	mg/L
Na 589.592†	432651.2	3110.21	0.72%	[50]	mg/L
Ni 231.604†	47304.0	304.39	0.64%	[10]	mg/L
Pb 220.353†	82505.7	55.40	0.07%	[10]	mg/L
Se 196.026†	12452.1	104.91	0.84%	[10]	mg/L
Sr 421.552†	2606445.1	22203.40	0.85%	[5]	mg/L
Tl 190.801†	19598.4	155.80	0.79%	[10]	mg/L
Zn 206.200†	37758.9	211.56	0.56%	[10]	mg/L

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: SEQ-CAL4 **Date Collected: 5/10/2017 9:41:45 AM**
Data Type: Original

Nebulizer Parameters: SEQ-CAL4

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: SEQ-CAL4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2285829.6	12245.50	0.54%	101.4	%
ScR 361.383	244220.8	607.63	0.25%	101.6	%
Mo 202.031†	191304.2	575.08	0.30%	[10]	mg/L
Sb 206.836†	29790.0	94.97	0.32%	[10]	mg/L
Si 288.158†	20299.6	219.45	1.08%	[10]	mg/L
Sn 189.927†	37621.1	173.47	0.46%	[10]	mg/L
Ti 334.903†	160591.2	1034.35	0.64%	[10]	mg/L

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: SEQ-CAL5 **Date Collected: 5/10/2017 9:43:59 AM**
Data Type: Original

Nebulizer Parameters: SEQ-CAL5

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: SEQ-CAL5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2089653.1	7387.34	0.35%	92.67	%

ScR 361.383	237526.3	1378.68	0.58%	98.81	%
Al 308.215†	43975.5	235.05	0.53%	[30]	mg/L
Ca 317.933†	369054.1	964.42	0.26%	[30]	mg/L
Fe 273.955†	129809.3	474.26	0.37%	[100]	mg/L
K 766.490†	173638.4	536.16	0.31%	[100]	mg/L
Mg 279.077†	41003.2	93.61	0.23%	[30]	mg/L
Na 330.237†	2276.9	10.66	0.47%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	146700	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1466	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1700	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	7044	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	5036	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	423800	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	12300	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	27850	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	36460	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	6857	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	205900	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1298	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1736	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1367	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	38520	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	19130	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	8653	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	22.77	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	4730	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	8251	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	2979	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1245	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	2030	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	3762	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	521300	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	16060	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	1960	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	107300	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	3776	0.00000	1.000000	

==========

Analysis Begun

Start Time: 5/10/2017 9:49:34 AM **Plasma On Time: 5/10/2017 8:20:29 AM**
Logged In Analyst: metinst **Technique: ICP Continuous**
Spectrometer: Optima 7300 DV, S/N 077C8121202 **Autosampler: ESI**

Sample Information File: C:\pe\metals\Sample Information\0510.sif
Batch ID:
Results Data Set: I2170510
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: SEQ-ICV1 **Date Collected: 5/10/2017 9:49:35 AM**
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-ICV1

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: SEQ-ICV1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2188892.9	97.07	%	0.243				0.25%
ScR 361.383	233028.1	96.94	%	0.435				0.45%
Ag 328.068†	153719.0	1.048	mg/L	0.0014	1.048	mg/L	0.0014	0.14%
Al 308.215†	2997.3	2.009	mg/L	0.0038	2.009	mg/L	0.0038	0.19%
As 188.979†	3387.9	2.012	mg/L	0.0012	2.012	mg/L	0.0012	0.06%
B 249.677†	7161.7	1.015	mg/L	0.0026	1.015	mg/L	0.0026	0.26%
Ba 233.527†	5050.0	1.002	mg/L	0.0012	1.002	mg/L	0.0012	0.12%
Be 313.042†	434998.3	1.026	mg/L	0.0016	1.026	mg/L	0.0016	0.16%
Ca 317.933†	23801.0	1.935	mg/L	0.0039	1.935	mg/L	0.0039	0.20%
Cd 228.802†	28677.6	1.015	mg/L	0.0015	1.015	mg/L	0.0015	0.15%
Co 228.616†	36303.9	0.9939	mg/L	0.00160	0.9939	mg/L	0.00160	0.16%
Cr 267.716†	6924.8	1.009	mg/L	0.0051	1.009	mg/L	0.0051	0.50%
Cu 324.752†	206571.8	1.003	mg/L	0.0015	1.003	mg/L	0.0015	0.15%
Fe 273.955†	2584.0	1.984	mg/L	0.0173	1.984	mg/L	0.0173	0.87%
K 766.490†	34685.6	19.98	mg/L	0.098	19.98	mg/L	0.098	0.49%
Mg 279.077†	2771.1	2.037	mg/L	0.0083	2.037	mg/L	0.0083	0.41%
Mn 257.610†	36567.8	0.9496	mg/L	0.00231	0.9496	mg/L	0.00231	0.24%
Mo 202.031†	19024.0	0.9944	mg/L	0.00142	0.9944	mg/L	0.00142	0.14%
Na 589.592†	445550.5	51.49	mg/L	0.104	51.49	mg/L	0.104	0.20%
Na 330.237†	1171.9	51.28	mg/L	0.213	51.28	mg/L	0.213	0.41%
Ni 231.604†	4811.2	1.018	mg/L	0.0044	1.018	mg/L	0.0044	0.43%
Pb 220.353†	16712.7	2.027	mg/L	0.0025	2.027	mg/L	0.0025	0.12%
Sb 206.836†	6188.6	2.075	mg/L	0.0049	2.075	mg/L	0.0049	0.24%
Se 196.026†	2540.6	2.039	mg/L	0.0052	2.039	mg/L	0.0052	0.25%
Si 288.158†	4304.0	2.101	mg/L	0.0160	2.101	mg/L	0.0160	0.76%
Sn 189.927†	3749.5	0.9979	mg/L	0.00105	0.9979	mg/L	0.00105	0.11%
Sr 421.552†	537777.5	1.032	mg/L	0.0010	1.032	mg/L	0.0010	0.09%
Ti 334.903†	16193.2	1.007	mg/L	0.0023	1.007	mg/L	0.0023	0.23%
Tl 190.801†	3951.8	2.007	mg/L	0.0065	2.007	mg/L	0.0065	0.32%
V 292.402†	108591.0	1.017	mg/L	0.0010	1.017	mg/L	0.0010	0.10%
Zn 206.200†	3833.7	1.016	mg/L	0.0044	1.016	mg/L	0.0044	0.43%

==========

Sequence No.: 2
Sample ID: SEQ-ICB1

Autosampler Location: 1
Date Collected: 5/10/2017 9:53:36 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-ICB1

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: SEQ-ICB1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2216973.9	98.32	%	0.545				0.55%
ScR 361.383	234763.9	97.66	%	1.109				1.14%
Ag 328.068†	-5.4	-0.00004	mg/L	0.000161	-0.00004	mg/L	0.000161	437.51%
Al 308.215†	4.6	0.00315	mg/L	0.002222	0.00315	mg/L	0.002222	70.60%
As 188.979†	-6.4	-0.00374	mg/L	0.002531	-0.00374	mg/L	0.002531	67.64%
B 249.677†	3.5	0.00049	mg/L	0.001293	0.00049	mg/L	0.001293	261.84%
Ba 233.527†	-2.2	-0.00043	mg/L	0.000635	-0.00043	mg/L	0.000635	147.53%
Be 313.042†	2.6	0.00001	mg/L	0.000026	0.00001	mg/L	0.000026	420.39%
Ca 317.933†	9.3	0.00075	mg/L	0.000602	0.00075	mg/L	0.000602	79.85%
Cd 228.802†	10.6	0.00041	mg/L	0.000090	0.00041	mg/L	0.000090	22.08%
Co 228.616†	-2.7	-0.00007	mg/L	0.000054	-0.00007	mg/L	0.000054	72.93%
Cr 267.716†	-3.9	-0.00056	mg/L	0.000738	-0.00056	mg/L	0.000738	130.78%
Cu 324.752†	14.5	0.00007	mg/L	0.000145	0.00007	mg/L	0.000145	204.90%
Fe 273.955†	4.3	0.00330	mg/L	0.002160	0.00330	mg/L	0.002160	65.47%
K 766.490†	-18.3	-0.01052	mg/L	0.015625	-0.01052	mg/L	0.015625	148.51%
Mg 279.077†	-8.2	-0.00599	mg/L	0.003216	-0.00599	mg/L	0.003216	53.68%
Mn 257.610†	8.0	0.00021	mg/L	0.000110	0.00021	mg/L	0.000110	52.37%
Mo 202.031†	13.2	0.00069	mg/L	0.000272	0.00069	mg/L	0.000272	39.43%
Na 589.592†	6.8	0.00079	mg/L	0.001321	0.00079	mg/L	0.001321	167.18%
Na 330.237†	-2.6	-0.1153	mg/L	0.39079	-0.1153	mg/L	0.39079	338.81%
Ni 231.604†	0.0	0.00001	mg/L	0.000697	0.00001	mg/L	0.000697	>999.9%
Pb 220.353†	9.5	0.00115	mg/L	0.000464	0.00115	mg/L	0.000464	40.47%
Sb 206.836†	13.8	0.00464	mg/L	0.002221	0.00464	mg/L	0.002221	47.88%
Se 196.026†	1.4	0.00109	mg/L	0.003401	0.00109	mg/L	0.003401	313.09%
Si 288.158†	-13.4	-0.00660	mg/L	0.007650	-0.00660	mg/L	0.007650	115.99%
Sn 189.927†	0.5	0.00014	mg/L	0.000425	0.00014	mg/L	0.000425	302.68%
Sr 421.552†	20.0	0.00004	mg/L	0.000015	0.00004	mg/L	0.000015	39.21%
Ti 334.903†	-2.0	-0.00013	mg/L	0.002218	-0.00013	mg/L	0.002218	>999.9%
Tl 190.801†	-1.0	-0.00049	mg/L	0.001909	-0.00049	mg/L	0.001909	389.26%
V 292.402†	17.1	0.00016	mg/L	0.000122	0.00016	mg/L	0.000122	77.76%
Zn 206.200†	4.4	0.00117	mg/L	0.000298	0.00117	mg/L	0.000298	25.51%

Sequence No.: 3
Sample ID: SEQ-CRL1

Autosampler Location: 301
Date Collected: 5/10/2017 9:57:36 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CRL1

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: SEQ-CRL1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2201639.9	97.64	%	1.050				1.08%
ScR 361.383	233456.0	97.12	%	0.667				0.69%
Ag 328.068†	492.3	0.00336	mg/L	0.000059	0.00336	mg/L	0.000059	1.76%
Al 308.215†	77.1	0.05242	mg/L	0.012369	0.05242	mg/L	0.012369	23.60%
As 188.979†	83.5	0.04920	mg/L	0.001096	0.04920	mg/L	0.001096	2.23%
B 249.677†	148.8	0.02112	mg/L	0.000645	0.02112	mg/L	0.000645	3.06%
Ba 233.527†	17.1	0.00339	mg/L	0.000362	0.00339	mg/L	0.000362	10.70%
Be 313.042†	434.0	0.00102	mg/L	0.000078	0.00102	mg/L	0.000078	7.60%
Ca 317.933†	556.7	0.04526	mg/L	0.000750	0.04526	mg/L	0.000750	1.66%
Cd 228.802†	75.1	0.00233	mg/L	0.000248	0.00233	mg/L	0.000248	10.63%
Co 228.616†	117.0	0.00320	mg/L	0.000163	0.00320	mg/L	0.000163	5.09%
Cr 267.716†	28.4	0.00414	mg/L	0.000977	0.00414	mg/L	0.000977	23.58%
Cu 324.752†	462.4	0.00224	mg/L	0.000254	0.00224	mg/L	0.000254	11.34%
Fe 273.955†	69.7	0.05368	mg/L	0.001951	0.05368	mg/L	0.001951	3.63%
K 766.490†	899.0	0.5177	mg/L	0.00346	0.5177	mg/L	0.00346	0.67%
Mg 279.077†	81.9	0.05996	mg/L	0.004746	0.05996	mg/L	0.004746	7.91%
Mn 257.610†	47.8	0.00124	mg/L	0.000128	0.00124	mg/L	0.000128	10.31%
Mo 202.031†	99.2	0.00519	mg/L	0.000171	0.00519	mg/L	0.000171	3.30%
Na 589.592†	4530.2	0.5235	mg/L	0.00244	0.5235	mg/L	0.00244	0.47%
Na 330.237†	9.4	0.4082	mg/L	0.20634	0.4082	mg/L	0.20634	50.55%
Ni 231.604†	44.2	0.00935	mg/L	0.001169	0.00935	mg/L	0.001169	12.50%
Pb 220.353†	179.7	0.02181	mg/L	0.001854	0.02181	mg/L	0.001854	8.50%
Sb 206.836†	161.1	0.05410	mg/L	0.001709	0.05410	mg/L	0.001709	3.16%
Se 196.026†	63.5	0.05096	mg/L	0.002517	0.05096	mg/L	0.002517	4.94%
Si 288.158†	112.7	0.05546	mg/L	0.000812	0.05546	mg/L	0.000812	1.46%
Sn 189.927†	33.0	0.00881	mg/L	0.000680	0.00881	mg/L	0.000680	7.72%
Sr 421.552†	571.5	0.00110	mg/L	0.000016	0.00110	mg/L	0.000016	1.42%
Ti 334.903†	71.3	0.00443	mg/L	0.001804	0.00443	mg/L	0.001804	40.69%
Tl 190.801†	100.8	0.05141	mg/L	0.001010	0.05141	mg/L	0.001010	1.96%
V 292.402†	347.0	0.00325	mg/L	0.000033	0.00325	mg/L	0.000033	1.01%
Zn 206.200†	40.6	0.01077	mg/L	0.000580	0.01077	mg/L	0.000580	5.38%

Sequence No.: 4 **Autosampler Location: 302**
Sample ID: SEQ-IFA1 **Date Collected: 5/10/2017 10:01:37 AM**
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-IFA1

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: SEQ-IFA1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2094167.6	92.87	%	0.313				0.34%
ScR 361.383	227651.6	94.70	%	0.818				0.86%
Ag 328.068†	-173.9	-0.00118	mg/L	0.000258	-0.00118	mg/L	0.000258	21.84%
Al 308.215†	297518.9	203.0	mg/L	0.83	203.0	mg/L	0.83	0.41%
As 188.979†	38.5	0.01482	mg/L	0.002917	0.01482	mg/L	0.002917	19.68%
B 249.677†	-10.3	-0.00147	mg/L	0.002994	-0.00147	mg/L	0.002994	203.97%
Ba 233.527†	144.4	-0.00025	mg/L	0.000387	-0.00025	mg/L	0.000387	156.46%
Be 313.042†	118.7	0.00028	mg/L	0.000043	0.00028	mg/L	0.000043	15.35%
Ca 317.933†	1246446.2	101.3	mg/L	0.36	101.3	mg/L	0.36	0.35%
Cd 228.802†	18.1	0.00047	mg/L	0.000078	0.00047	mg/L	0.000078	16.55%
Co 228.616†	84.0	0.00229	mg/L	0.000091	0.00229	mg/L	0.000091	3.95%
Cr 267.716†	4.2	-0.00118	mg/L	0.000275	-0.00118	mg/L	0.000275	23.34%
Cu 324.752†	-1518.7	0.00147	mg/L	0.000079	0.00147	mg/L	0.000079	5.40%
Fe 273.955†	261675.4	201.6	mg/L	0.88	201.6	mg/L	0.88	0.44%
K 766.490†	21.0	0.01207	mg/L	0.009220	0.01207	mg/L	0.009220	76.41%
Mg 279.077†	143553.7	104.9	mg/L	1.11	104.9	mg/L	1.11	1.06%
Mn 257.610†	65.3	0.00093	mg/L	0.000287	0.00093	mg/L	0.000287	30.87%
Mo 202.031†	72.4	0.00239	mg/L	0.000318	0.00239	mg/L	0.000318	13.31%
Na 589.592†	117.4	0.01357	mg/L	0.001035	0.01357	mg/L	0.001035	7.62%
Na 330.237†	-5.5	-0.2420	mg/L	0.46004	-0.2420	mg/L	0.46004	190.08%
Ni 231.604†	-9.9	-0.00207	mg/L	0.000764	-0.00207	mg/L	0.000764	36.84%
Pb 220.353†	-368.1	0.01252	mg/L	0.001119	0.01252	mg/L	0.001119	8.94%
Sb 206.836†	73.6	0.02450	mg/L	0.004081	0.02450	mg/L	0.004081	16.66%
Se 196.026†	54.7	0.01037	mg/L	0.001885	0.01037	mg/L	0.001885	18.17%
Si 288.158†	-19.4	-0.00966	mg/L	0.000432	-0.00966	mg/L	0.000432	4.47%
Sn 189.927†	-93.9	-0.00908	mg/L	0.000827	-0.00908	mg/L	0.000827	9.11%
Sr 421.552†	3549.0	0.00681	mg/L	0.000101	0.00681	mg/L	0.000101	1.48%
Ti 334.903†	89.1	-0.00039	mg/L	0.000376	-0.00039	mg/L	0.000376	95.21%
Tl 190.801†	-43.5	-0.02223	mg/L	0.002224	-0.02223	mg/L	0.002224	10.00%
V 292.402†	1272.8	0.00449	mg/L	0.000462	0.00449	mg/L	0.000462	10.30%
Zn 206.200†	18.3	0.00483	mg/L	0.000999	0.00483	mg/L	0.000999	20.68%

cont.

Sequence No.: 5 **Autosampler Location: 303**
Sample ID: SEQ-IFB1 **Date Collected: 5/10/2017 10:05:52 AM**
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-IFB1

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: SEQ-IFB1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2103709.7	93.29	%	0.741				0.79%
ScR 361.383	226518.3	94.23	%	0.259				0.28%
Ag 328.068†	152517.7	1.040	mg/L	0.0034	1.040	mg/L	0.0034	0.32%
Al 308.215†	296571.1	202.3	mg/L	0.17	202.3	mg/L	0.17	0.08%
As 188.979†	1759.5	1.026	mg/L	0.0052	1.026	mg/L	0.0052	0.50%
B 249.677†	12.3	-0.00093	mg/L	0.001004	-0.00093	mg/L	0.001004	107.99%
Ba 233.527†	5124.4	0.9886	mg/L	0.00894	0.9886	mg/L	0.00894	0.90%
Be 313.042†	440866.7	1.040	mg/L	0.0028	1.040	mg/L	0.0028	0.27%
Ca 317.933†	1241771.5	100.9	mg/L	0.13	100.9	mg/L	0.13	0.12%
Cd 228.802†	28201.2	1.005	mg/L	0.0051	1.005	mg/L	0.0051	0.51%
Co 228.616†	35018.8	0.9603	mg/L	0.00420	0.9603	mg/L	0.00420	0.44%
Cr 267.716†	6876.6	1.001	mg/L	0.0050	1.001	mg/L	0.0050	0.49%
Cu 324.752†	203860.9	0.9991	mg/L	0.00342	0.9991	mg/L	0.00342	0.34%
Fe 273.955†	259807.0	200.1	mg/L	0.53	200.1	mg/L	0.53	0.26%
K 766.490†	-36.8	-0.02120	mg/L	0.012933	-0.02120	mg/L	0.012933	61.00%
Mg 279.077†	136948.0	100.1	mg/L	0.03	100.1	mg/L	0.03	0.03%
Mn 257.610†	36160.7	0.9381	mg/L	0.00279	0.9381	mg/L	0.00279	0.30%
Mo 202.031†	70.4	0.00224	mg/L	0.000927	0.00224	mg/L	0.000927	41.44%
Na 589.592†	66.1	0.00764	mg/L	0.004902	0.00764	mg/L	0.004902	64.20%
Na 330.237†	0.9	-0.3450	mg/L	0.12693	-0.3450	mg/L	0.12693	36.79%
Ni 231.604†	4610.1	0.9748	mg/L	0.00563	0.9748	mg/L	0.00563	0.58%
Pb 220.353†	7891.4	1.014	mg/L	0.0043	1.014	mg/L	0.0043	0.42%
Sb 206.836†	3141.9	1.041	mg/L	0.0062	1.041	mg/L	0.0062	0.59%
Se 196.026†	1315.3	1.021	mg/L	0.0062	1.021	mg/L	0.0062	0.60%
Si 288.158†	-7.9	-0.00403	mg/L	0.004364	-0.00403	mg/L	0.004364	108.37%
Sn 189.927†	-88.7	-0.00727	mg/L	0.001484	-0.00727	mg/L	0.001484	20.41%
Sr 421.552†	3514.5	0.00674	mg/L cont.	0.000035	0.00674	mg/L	0.000035	0.52%
Ti 334.903†	98.7	-0.00001	mg/L	0.000168	-0.00001	mg/L	0.000168	>999.9%
Tl 190.801†	1829.1	0.9242	mg/L	0.00660	0.9242	mg/L	0.00660	0.71%
V 292.402†	107072.2	0.9958	mg/L	0.00425	0.9958	mg/L	0.00425	0.43%
Zn 206.200†	3658.9	0.9692	mg/L	0.00420	0.9692	mg/L	0.00420	0.43%

==========

Sequence No.: 6
Sample ID: SEQ-CCV1

Autosampler Location: 7
Date Collected: 5/10/2017 10:11:03 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCV1

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: SEQ-CCV1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2154890.4	95.56	%	0.085				0.09%
ScR 361.383	229095.3	95.30	%	0.838				0.88%
Ag 328.068†	156441.6	1.067	mg/L	0.0123	1.067	mg/L	0.0123	1.15%
Al 308.215†	3114.0	2.088	mg/L	0.0374	2.088	mg/L	0.0374	1.79%
As 188.979†	3467.0	2.059	mg/L	0.0075	2.059	mg/L	0.0075	0.37%
B 249.677†	7323.1	1.038	mg/L	0.0049	1.038	mg/L	0.0049	0.47%
Ba 233.527†	5159.3	1.024	mg/L	0.0033	1.024	mg/L	0.0033	0.32%
Be 313.042†	440677.6	1.039	mg/L	0.0058	1.039	mg/L	0.0058	0.56%
Ca 317.933†	24439.4	1.987	mg/L	0.0087	1.987	mg/L	0.0087	0.44%
Cd 228.802†	29249.5	1.035	mg/L	0.0074	1.035	mg/L	0.0074	0.71%
Co 228.616†	36996.8	1.013	mg/L	0.0137	1.013	mg/L	0.0137	1.35%
Cr 267.716†	7077.9	1.032	mg/L	0.0057	1.032	mg/L	0.0057	0.56%
Cu 324.752†	210371.1	1.021	mg/L	0.0099	1.021	mg/L	0.0099	0.97%
Fe 273.955†	2668.4	2.049	mg/L	0.0333	2.049	mg/L	0.0333	1.62%
K 766.490†	35346.2	20.36	mg/L	0.093	20.36	mg/L	0.093	0.46%
Mg 279.077†	2855.9	2.099	mg/L	0.0182	2.099	mg/L	0.0182	0.87%
Mn 257.610†	37131.4	0.9642	mg/L	0.00243	0.9642	mg/L	0.00243	0.25%
Mo 202.031†	19389.7	1.013	mg/L	0.0140	1.013	mg/L	0.0140	1.38%
Na 589.592†	453860.9	52.45	mg/L	0.119	52.45	mg/L	0.119	0.23%
Na 330.237†	1193.4	52.22	mg/L	0.313	52.22	mg/L	0.313	0.60%
Ni 231.604†	4915.6	1.040	mg/L	0.0062	1.040	mg/L	0.0062	0.59%
Pb 220.353†	17048.5	2.068	mg/L	0.0247	2.068	mg/L	0.0247	1.19%
Sb 206.836†	6330.5	2.122	mg/L	0.0044	2.122	mg/L	0.0044	0.21%
Se 196.026†	2586.5	2.075	mg/L	0.0012	2.075	mg/L	0.0012	0.06%
Si 288.158†	4367.0	2.132	mg/L	0.0155	2.132	mg/L	0.0155	0.73%
Sn 189.927†	3812.8	1.015	mg/L	0.0012	1.015	mg/L	0.0012	0.11%
Sr 421.552†	547224.2	1.050	mg/L	0.0011	1.050	mg/L	0.0011	0.11%
Ti 334.903†	16465.7	1.024	mg/L	0.0024	1.024	mg/L	0.0024	0.24%
Tl 190.801†	4057.1	2.061	mg/L	0.0013	2.061	mg/L	0.0013	0.06%
V 292.402†	110614.7	1.036	mg/L	0.0117	1.036	mg/L	0.0117	1.12%
Zn 206.200†	3915.4	1.037	mg/L	0.0057	1.037	mg/L	0.0057	0.55%

Sequence No.: 7
Sample ID: SEQ-CCB1

Autosampler Location: 1
Date Collected: 5/10/2017 10:16:08 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCB1

Analyte	Back Pressure	Flow
All	162.0 kPa	0.65 L/min

Mean Data: SEQ-CCB1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2184376.5	96.87	%	0.710				0.73%
ScR 361.383	231995.4	96.51	%	0.067				0.07%
Ag 328.068†	-51.8	-0.00035	mg/L	0.000214	-0.00035	mg/L	0.000214	60.56%
Al 308.215†	9.4	0.00637	mg/L	0.008511	0.00637	mg/L	0.008511	133.53%
As 188.979†	1.2	0.00069	mg/L	0.001124	0.00069	mg/L	0.001124	162.04%
B 249.677†	4.9	0.00069	mg/L	0.000189	0.00069	mg/L	0.000189	27.29%
Ba 233.527†	-1.7	-0.00035	mg/L	0.000165	-0.00035	mg/L	0.000165	47.62%
Be 313.042†	43.6	0.00010	mg/L	0.000013	0.00010	mg/L	0.000013	13.03%
Ca 317.933†	14.9	0.00121	mg/L	0.000241	0.00121	mg/L	0.000241	19.91%
Cd 228.802†	9.6	0.00034	mg/L	0.000140	0.00034	mg/L	0.000140	41.13%
Co 228.616†	-2.5	-0.00007	mg/L	0.000088	-0.00007	mg/L	0.000088	129.93%
Cr 267.716†	-8.4	-0.00122	mg/L	0.000878	-0.00122	mg/L	0.000878	71.86%
Cu 324.752†	77.8	0.00038	mg/L	0.000102	0.00038	mg/L	0.000102	26.87%
Fe 273.955†	6.3	0.00484	mg/L	0.002453	0.00484	mg/L	0.002453	50.68%
K 766.490†	1.9	0.00107	mg/L	0.012515	0.00107	mg/L	0.012515	>999.9%
Mg 279.077†	4.1	0.00300	mg/L	0.002633	0.00300	mg/L	0.002633	87.84%
Mn 257.610†	13.9	0.00036	mg/L	0.000223	0.00036	mg/L	0.000223	62.11%
Mo 202.031†	11.3	0.00059	mg/L	0.000393	0.00059	mg/L	0.000393	66.53%
Na 589.592†	25.9	0.00299	mg/L	0.002042	0.00299	mg/L	0.002042	68.25%
Na 330.237†	-9.7	-0.4256	mg/L	0.44753	-0.4256	mg/L	0.44753	105.16%
Ni 231.604†	1.5	0.00032	mg/L	0.001242	0.00032	mg/L	0.001242	392.95%
Pb 220.353†	0.8	0.00010	mg/L	0.000750	0.00010	mg/L	0.000750	772.67%
Sb 206.836†	18.2	0.00612	mg/L	0.002275	0.00612	mg/L	0.002275	37.17%
Se 196.026†	0.1	0.00011	mg/L	0.001555	0.00011	mg/L	0.001555	>999.9%
Si 288.158†	5.7	0.00282	mg/L	0.004332	0.00282	mg/L	0.004332	153.70%
Sn 189.927†	1.5	0.00041	mg/L	0.000297	0.00041	mg/L	0.000297	71.68%
Sr 421.552†	51.5	0.00010	mg/L	0.000016	0.00010	mg/L	0.000016	16.45%
Ti 334.903†	-16.0	-0.00100	mg/L	0.000259	-0.00100	mg/L	0.000259	25.94%
Tl 190.801†	1.3	0.00065	mg/L	0.001005	0.00065	mg/L	0.001005	153.55%
V 292.402†	28.6	0.00026	mg/L	0.000120	0.00026	mg/L	0.000120	45.79%
Zn 206.200†	3.5	0.00092	mg/L	0.000627	0.00092	mg/L	0.000627	68.08%

Sequence No.: 8
Sample ID: BFE0201-BLK1

Autosampler Location: 304
Date Collected: 5/10/2017 10:20:08 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: BFE0201-BLK1

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: BFE0201-BLK1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2230812.0	98.93	%	0.244				0.25%
ScR 361.383	238388.9	99.17	%	0.323				0.33%
Ag 328.068†	16.4	0.00011	mg/L	0.000168	0.00022	mg/L	0.000336	149.98%
Al 308.215†	5.7	0.00387	mg/L	0.003198	0.00774	mg/L	0.006395	82.61%
As 188.979†	-2.9	-0.00170	mg/L	0.002213	-0.00340	mg/L	0.004426	130.29%
B 249.677†	-4.9	-0.00070	mg/L	0.001096	-0.00139	mg/L	0.002192	157.70%
Ba 233.527†	-1.2	-0.00025	mg/L	0.000217	-0.00050	mg/L	0.000433	87.30%
Be 313.042†	3.2	0.00001	mg/L	0.000030	0.00002	mg/L	0.000060	391.08%
Ca 317.933†	61.9	0.00503	mg/L	0.001695	0.01007	mg/L	0.003390	33.67%
Cd 228.802†	8.6	0.00032	mg/L	0.000110	0.00065	mg/L	0.000220	34.04%
Co 228.616†	-5.3	-0.00014	mg/L	0.000035	-0.00029	mg/L	0.000070	24.21%
Cr 267.716†	5.4	0.00078	mg/L	0.000714	0.00157	mg/L	0.001428	91.04%
Cu 324.752†	103.1	0.00050	mg/L	0.000107	0.00100	mg/L	0.000214	21.36%
Fe 273.955†	18.9	0.01453	mg/L	0.001076	0.02907	mg/L	0.002152	7.40%
K 766.490†	42.5	0.02445	mg/L	0.005340	0.04890	mg/L	0.010680	21.84%
Mg 279.077†	1.7	0.00126	mg/L	0.000777	0.00253	mg/L	0.001554	61.46%
Mn 257.610†	8.4	0.00022	mg/L	0.000036	0.00044	mg/L	0.000072	16.37%
Mo 202.031†	1.1	0.00006	mg/L	0.000155	0.00012	mg/L	0.000310	259.91%
Na 589.592†	60.4	0.00698	mg/L	0.006477	0.01397	mg/L	0.012955	92.76%
Na 330.237†	-0.1	-0.00628	mg/L	0.467284	-0.01256	mg/L	0.934568	>999.9%
Ni 231.604†	-1.3	-0.00028	mg/L	0.001541	-0.00055	mg/L	0.003082	556.19%
Pb 220.353†	0.1	0.00001	mg/L	0.000365	0.00002	mg/L	0.000729	>999.9%
Sb 206.836†	3.3	0.00108	mg/L	0.002422	0.00217	mg/L	0.004843	223.35%
Se 196.026†	3.2	0.00255	mg/L	0.002147	0.00510	mg/L	0.004295	84.25%
Si 288.158†	-0.1	-0.00005	mg/L	0.000545	-0.00011	mg/L	0.001089	>999.9%
Sn 189.927†	0.1	0.00002	mg/L	0.000737	0.00005	mg/L	0.001474	>999.9%
Sr 421.552†	13.4	0.00003	mg/L	0.000082	0.00005	mg/L	0.000165	319.68%
Ti 334.903†	-8.6	-0.00053	mg/L	0.000605	-0.00107	mg/L	0.001210	113.36%
Tl 190.801†	0.4	0.00022	mg/L	0.001535	0.00044	mg/L	0.003071	691.23%
V 292.402†	12.1	0.00012	mg/L	0.000263	0.00023	mg/L	0.000527	225.58%
Zn 206.200†	10.9	0.00290	mg/L	0.000942	0.00579	mg/L	0.001884	32.52%

Sequence No.: 9
Sample ID: 17D0447-01

Autosampler Location: 305
Date Collected: 5/10/2017 10:24:09 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: 17D0447-01

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: 17D0447-01

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2137715.2	94.80	%	0.393				0.42%
ScR 361.383	231858.8	96.45	%	2.275				2.36%
Ag 328.068†	-102.0	-0.00058	mg/L	0.000284	-0.00117	mg/L	0.000568	48.54%
Al 308.215†	141965.9	96.83	mg/L	0.271	193.7	mg/L	0.54	0.28%
As 188.979†	-199.1	0.04601	mg/L	0.003113	0.09201	mg/L	0.006226	6.77%
B 249.677†	250.8	0.03399	mg/L	0.001783	0.06798	mg/L	0.003567	5.25%
Ba 233.527†	6338.3	1.234	mg/L	0.0276	2.467	mg/L	0.0553	2.24%
Be 313.042†	714.5	0.00149	mg/L	0.000091	0.00298	mg/L	0.000183	6.14%
Ca 317.933†	780823.0	63.47	mg/L	0.230	126.9	mg/L	0.46	0.36%
Cd 228.802†	176.6	0.00744	mg/L	0.000249	0.01488	mg/L	0.000497	3.34%
Co 228.616†	2783.4	0.06393	mg/L	0.000586	0.1279	mg/L	0.00117	0.92%
Cr 267.716†	2654.0	0.3893	mg/L	0.00773	0.7786	mg/L	0.01546	1.99%
Cu 324.752†	130201.8	0.6390	mg/L	0.00172	1.278	mg/L	0.0034	0.27%
Fe 273.955†	224621.9	173.0	mg/L	0.30	346.1	mg/L	0.60	0.17%
K 766.490†	10869.1	6.260	mg/L	0.0376	12.52	mg/L	0.075	0.60%
Mg 279.077†	51879.0	37.86	mg/L	0.032	75.73	mg/L	0.063	0.08%
Mn 257.610†	220886.1	5.734	mg/L	0.0123	11.47	mg/L	0.025	0.21%
Mo 202.031†	577.8	0.02931	mg/L	0.000059	0.05861	mg/L	0.000119	0.20%
Na 589.592†	47255.4	5.461	mg/L	0.0177	10.92	mg/L	0.035	0.32%
Na 330.237†	95.0	4.568	mg/L	0.2201	9.136	mg/L	0.4403	4.82%
Ni 231.604†	1173.8	0.2482	mg/L	0.00529	0.4963	mg/L	0.01058	2.13%
Pb 220.353†	3709.8	0.4768	mg/L	0.00490	0.9536	mg/L	0.00981	1.03%
Sb 206.836†	66.9	0.01981	mg/L	0.003734	0.03963	mg/L	0.007467	18.84%
Se 196.026†	25.6	0.00420	mg/L	0.000294	0.00841	mg/L	0.000589	7.01%
Si 288.158†	6859.3	3.240	mg/L	0.0628	6.479	mg/L	0.1256	1.94%
Sn 189.927†	68.2	0.02810	mg/L	0.001309	0.05620	mg/L	0.002619	4.66%
Sr 421.552†	299792.2	0.5751	mg/L	0.00166	1.150	mg/L	0.0033	0.29%
Ti 334.903†	108048.6	6.724	mg/L	0.0021	13.45	mg/L	0.004	0.03%
Tl 190.801†	-36.4	-0.02027	mg/L	0.006218	-0.04054	mg/L	0.012435	30.67%
V 292.402†	38962.3	0.3553	mg/L	0.00085	0.7107	mg/L	0.00170	0.24%
Zn 206.200†	9748.3	2.582	mg/L	0.0538	5.165	mg/L	0.1076	2.08%

Sequence No.: 10
Sample ID: 17D0447-02

Dilution: 2.000000X

DEL
TH 05-11-17

Autosampler Location: 306
Date Collected: 5/10/2017 10:28:09 AM
Data Type: Original

Nebulizer Parameters: 17D0447-02

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: 17D0447-02

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2160325.4	95.81	%	0.472				0.49%
ScR 361.383	230520.9	95.90	%	0.893				0.93%
Ag 328.068†	461.3	0.00326	mg/L	0.000440	0.00652	mg/L	0.000879	13.49%
Al 308.215†	87587.0	59.74	mg/L	0.217	119.5	mg/L	0.43	0.36%
As 188.979†	0.2	0.09968	mg/L	0.000551	0.1994	mg/L	0.00110	0.55%
B 249.677†	189.0	0.02577	mg/L	0.000592	0.05154	mg/L	0.001184	2.30%
Ba 233.527†	11228.4	2.204	mg/L	0.0261	4.408	mg/L	0.0522	1.18%
Be 313.042†	633.3	0.00133	mg/L	0.000029	0.00267	mg/L	0.000058	2.17%
Ca 317.933†	467024.4	37.96	mg/L	0.163	75.93	mg/L	0.327	0.43%
Cd 228.802†	50.1	0.00216	mg/L	0.000240	0.00431	mg/L	0.000480	11.14%
Co 228.616†	2570.5	0.06277	mg/L	0.000616	0.1255	mg/L	0.00123	0.98%
Cr 267.716†	1620.5	0.2389	mg/L	0.00178	0.4777	mg/L	0.00357	0.75%
Cu 324.752†	24474.2	0.1262	mg/L	0.00074	0.2523	mg/L	0.00149	0.59%
Fe 273.955†	228072.1	175.7	mg/L	0.70	351.4	mg/L	1.40	0.40%
K 766.490†	6612.2	3.808	mg/L	0.0365	7.616	mg/L	0.0731	0.96%
Mg 279.077†	53681.4	39.31	mg/L	0.156	78.62	mg/L	0.312	0.40%
Mn 257.610†	2737840.7	71.07	mg/L	0.284	142.1	mg/L	0.57	0.40%
Mo 202.031†	100.3	0.00471	mg/L	0.000246	0.00941	mg/L	0.000492	5.23%
Na 589.592†	15619.0	1.805	mg/L	0.0112	3.610	mg/L	0.0224	0.62%
Na 330.237†	21.7	1.320	mg/L	0.5126	2.641	mg/L	1.0252	38.82%
Ni 231.604†	1918.0	0.4055	mg/L	0.00494	0.8109	mg/L	0.00988	1.22%
Pb 220.353†	700.5	0.1020	mg/L	0.00030	0.2040	mg/L	0.00060	0.29%
Sb 206.836†	44.0	0.01362	mg/L	0.002504	0.02724	mg/L	0.005008	18.38%
Se 196.026†	66.2	0.04290	mg/L	0.008106	0.08580	mg/L	0.016213	18.90%
Si 288.158†	6898.5	3.313	mg/L	0.0301	6.627	mg/L	0.0602	0.91%
Sn 189.927†	-77.5	-0.01465	mg/L	0.000440	-0.02929	mg/L	0.000880	3.00%
Sr 421.552†	167180.3	0.3207	mg/L	0.00130	0.6414	mg/L	0.00260	0.41%
Ti 334.903†	65860.4	4.099	mg/L	0.0132	8.198	mg/L	0.0265	0.32%
Tl 190.801†	-50.0	-0.02729	mg/L	0.004167	-0.05458	mg/L	0.008334	15.27%
V 292.402†	41104.2	0.3856	mg/L	0.00363	0.7712	mg/L	0.00727	0.94%
Zn 206.200†	4737.8	1.255	mg/L	0.0176	2.511	mg/L	0.0352	1.40%

Sequence No.: 11
Sample ID: 17D0397-06

Autosampler Location: 307
Date Collected: 5/10/2017 10:32:11 AM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: 17D0397-06

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: 17D0397-06

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2188619.6	97.06	%	0.203				0.21%
ScR 361.383	235621.2	98.02	%	0.788				0.80%
Ag 328.068†	269.3	0.00187	mg/L	0.000300	0.00934	mg/L	0.001499	16.05%
Al 308.215†	20264.3	13.82	mg/L	0.109	69.11	mg/L	0.543	0.79%
As 188.979†	28.0	0.03577	mg/L	0.003050	0.1789	mg/L	0.01525	8.53%
B 249.677†	60.5	0.00835	mg/L	0.001153	0.04176	mg/L	0.005767	13.81%
Ba 233.527†	1318.9	0.2455	mg/L	0.00233	1.227	mg/L	0.0117	0.95%
Be 313.042†	224.8	0.00049	mg/L	0.000037	0.00246	mg/L	0.000185	7.52%
Ca 317.933†	130539.7	10.61	mg/L	0.060	53.06	mg/L	0.300	0.57%
Cd 228.802†	130.9	0.00461	mg/L	0.000137	0.02307	mg/L	0.000685	2.97%
Co 228.616†	1056.2	0.02747	mg/L	0.000039	0.1373	mg/L	0.00020	0.14%
Cr 267.716†	465.6	0.07114	mg/L	0.000917	0.3557	mg/L	0.00459	1.29%
Cu 324.752†	20179.6	0.1033	mg/L	0.00047	0.5164	mg/L	0.00236	0.46%
Fe 273.955†	147979.8	114.0	mg/L	0.70	570.0	mg/L	3.50	0.61%
K 766.490†	1677.8	0.9663	mg/L	0.01014	4.831	mg/L	0.0507	1.05%
Mg 279.077†	8049.7	5.832	mg/L	0.0342	29.16	mg/L	0.171	0.59%
Mn 257.610†	220901.5	5.735	mg/L	0.0480	28.67	mg/L	0.240	0.84%
Mo 202.031†	167.4	0.00860	mg/L	0.000222	0.04301	mg/L	0.001110	2.58%
Na 589.592†	5711.2	0.6600	mg/L	0.01636	3.300	mg/L	0.0818	2.48%
Na 330.237†	12.3	0.2680	mg/L	0.14003	1.340	mg/L	0.7001	52.25%
Ni 231.604†	239.5	0.05064	mg/L	0.000618	0.2532	mg/L	0.00309	1.22%
Pb 220.353†	1513.0	0.1873	mg/L	0.00051	0.9364	mg/L	0.00255	0.27%
Sb 206.836†	94.8	0.03141	mg/L	0.001183	0.1571	mg/L	0.00592	3.77%
Se 196.026†	4.4	0.00112	mg/L	0.002361	0.00561	mg/L	0.011804	210.37%
Si 288.158†	4418.3	2.160	mg/L	0.0215	10.80	mg/L	0.107	1.00%
Sn 189.927†	13.7	0.00532	mg/L	0.000720	0.02660	mg/L	0.003602	13.54%
Sr 421.552†	42142.8	0.08084	mg/L	0.000684	0.4042	mg/L	0.00342	0.85%
Ti 334.903†	12980.8	0.8077	mg/L	0.00421	4.038	mg/L	0.0211	0.52%
Tl 190.801†	-24.5	-0.01303	mg/L	0.004819	-0.06513	mg/L	0.024095	37.00%
V 292.402†	11101.8	0.09997	mg/L	0.000430	0.4999	mg/L	0.00215	0.43%
Zn 206.200†	4202.5	1.113	mg/L	0.0078	5.567	mg/L	0.0392	0.70%

Sequence No.: 12
Sample ID: 17E0009-01 DEL

Autosampler Location: 308
Date Collected: 5/10/2017 10:36:10 AM
Data Type: Original

Dilution: 50.000000X

Nebulizer Parameters: 17E0009-01

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: 17E0009-01

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2183748.3	96.84	%	0.958				0.99%
ScR 361.383	235028.7	97.77	%	0.305				0.31%
Ag 328.068†	-107.7	-0.00058	mg/L	0.000127	-0.02903	mg/L	0.006333	21.81%
Al 308.215†	55495.7	37.85	mg/L	0.114	1893	mg/L	5.68	0.30%
As 188.979†	-21.2	-0.00470	mg/L	0.003216	-0.2348	mg/L	0.16078	68.48%
B 249.677†	-2.0	-0.00042	mg/L	0.002355	-0.02110	mg/L	0.117738	558.06%
Ba 233.527†	171.2	-0.00020	mg/L	0.000491	-0.01006	mg/L	0.024557	244.08%
Be 313.042†	131.2	0.00017	mg/L	0.000015	0.00874	mg/L	0.000746	8.54%
Ca 317.933†	3204.8	0.2605	mg/L	0.00238	13.03	mg/L	0.119	0.92%
Cd 228.802†	42.6	0.00163	mg/L	0.000153	0.08133	mg/L	0.007650	9.41%
Co 228.616†	812.5	0.02169	mg/L	0.000371	1.085	mg/L	0.0185	1.71%
Cr 267.716†	1014.8	0.1554	mg/L	0.00099	7.768	mg/L	0.0495	0.64%
Cu 324.752†	255978.8	1.254	mg/L	0.0038	62.72	mg/L	0.189	0.30%
Fe 273.955†	308389.4	237.6	mg/L	1.05	11880	mg/L	52.56	0.44%
K 766.490†	23963.6	13.80	mg/L	0.020	690.0	mg/L	1.00	0.14%
Mg 279.077†	4453.5	3.117	mg/L	0.0143	155.8	mg/L	0.71	0.46%
Mn 257.610†	32715.3	0.8502	mg/L	0.00316	42.51	mg/L	0.158	0.37%
Mo 202.031†	334.5	0.01747	mg/L	0.000221	0.8736	mg/L	0.01105	1.27%
Na 589.592†	378023.6	43.69	mg/L	0.096	2184	mg/L	4.81	0.22%
Na 330.237†	1025.2	43.21	mg/L	0.116	2161	mg/L	5.82	0.27%
Ni 231.604†	207.6	0.04390	mg/L	0.000826	2.195	mg/L	0.0413	1.88%
Pb 220.353†	38.6	0.01401	mg/L	0.000405	0.7006	mg/L	0.02026	2.89%
Sb 206.836†	51.6	0.01725	mg/L	0.000911	0.8625	mg/L	0.04554	5.28%
Se 196.026†	6.0	-0.00183	mg/L	0.004542	-0.09154	mg/L	0.227079	248.06%
Si 288.158†	353.5	0.1675	mg/L	0.08383	8.375	mg/L	4.1917	50.05%
Sn 189.927†	6.6	0.00180	mg/L	0.000670	0.08999	mg/L	0.033489	37.22%
Sr 421.552†	450.2	0.00086	mg/L	0.000015	0.04319	mg/L	0.000772	1.79%
Ti 334.903†	5182.9	0.3227	mg/L	0.00220	16.13	mg/L	0.110	0.68%
Tl 190.801†	-44.3	-0.02448	mg/L	0.000832	-1.224	mg/L	0.0416	3.40%
V 292.402†	54020.7	0.4955	mg/L	0.00075	24.78	mg/L	0.037	0.15%
Zn 206.200†	17731.9	4.696	mg/L	0.0083	234.8	mg/L	0.41	0.18%

Sequence No.: 13
Sample ID: 17E0009-02

Autosampler Location: 309
Date Collected: 5/10/2017 10:40:10 AM
Data Type: Original

Dilution: 100.000000X

Nebulizer Parameters: 17E0009-02

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: 17E0009-02

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2173094.9	96.37	%	0.986				1.02%
ScR 361.383	238219.5	99.10	%	0.276				0.28%
Ag 328.068†	-75.9	-0.00043	mg/L	0.000327	-0.04263	mg/L	0.032703	76.72%
Al 308.215†	37010.4	25.24	mg/L	0.026	2524	mg/L	2.65	0.10%
As 188.979†	-12.7	-0.00288	mg/L	0.001791	-0.2880	mg/L	0.17912	62.20%
B 249.677†	309.9	0.04391	mg/L	0.002491	4.391	mg/L	0.2491	5.67%
Ba 233.527†	105.0	0.00015	mg/L	0.000593	0.01490	mg/L	0.059250	397.76%
Be 313.042†	101.7	0.00016	mg/L	0.000031	0.01599	mg/L	0.003061	19.15%
Ca 317.933†	2074.7	0.1687	mg/L	0.00098	16.87	mg/L	0.098	0.58%
Cd 228.802†	29.3	0.00113	mg/L	0.000030	0.1131	mg/L	0.00301	2.66%
Co 228.616†	500.4	0.01337	mg/L	0.000087	1.337	mg/L	0.0087	0.65%
Cr 267.716†	753.0	0.1143	mg/L	0.00149	11.43	mg/L	0.149	1.31%
Cu 324.752†	31866.0	0.1616	mg/L	0.00047	16.16	mg/L	0.047	0.29%
Fe 273.955†	186618.2	143.8	mg/L	1.17	14380	mg/L	117.31	0.82%
K 766.490†	13741.6	7.914	mg/L	0.0351	791.4	mg/L	3.51	0.44%
Mg 279.077†	2814.1	1.973	mg/L	0.0009	197.3	mg/L	0.09	0.05%
Mn 257.610†	18673.4	0.4853	mg/L	0.00380	48.53	mg/L	0.380	0.78%
Mo 202.031†	200.2	0.01046	mg/L	0.000142	1.046	mg/L	0.0142	1.36%
Na 589.592†	115090.8	13.30	mg/L	0.015	1330	mg/L	1.46	0.11%
Na 330.237†	312.0	12.81	mg/L	0.291	1281	mg/L	29.12	2.27%
Ni 231.604†	220.4	0.04660	mg/L	0.000410	4.660	mg/L	0.0410	0.88%
Pb 220.353†	17.0	0.00916	mg/L	0.000312	0.9165	mg/L	0.03115	3.40%
Sb 206.836†	36.9	0.01195	mg/L	0.001669	1.195	mg/L	0.1669	13.97%
Se 196.026†	3.3	-0.00175	mg/L	0.003573	-0.1750	mg/L	0.35733	204.14%
Si 288.158†	152.9	0.07136	mg/L	0.037458	7.136	mg/L	3.7458	52.50%
Sn 189.927†	1.6	0.00046	mg/L	0.000655	0.04639	mg/L	0.065456	141.11%
Sr 421.552†	283.7	0.00054	mg/L	0.000071	0.05443	mg/L	0.007087	13.02%
Ti 334.903†	3099.2	0.1929	mg/L	0.00063	19.29	mg/L	0.063	0.33%
Tl 190.801†	-30.4	-0.01667	mg/L	0.001644	-1.667	mg/L	0.1644	9.87%
V 292.402†	32051.0	0.2940	mg/L	0.00207	29.40	mg/L	0.207	0.70%
Zn 206.200†	8816.2	2.335	mg/L	0.0114	233.5	mg/L	1.14	0.49%

Sequence No.: 14
Sample ID: BFE0201-DUP1

DEL

Autosampler Location: 310
Date Collected: 5/10/2017 10:44:09 AM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: BFE0201-DUP1

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: BFE0201-DUP1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2171743.9	96.31	%	0.247				0.26%
ScR 361.383	235398.4	97.93	%	0.651				0.66%
Ag 328.068†	379.1	0.00262	mg/L	0.000633	0.01310	mg/L	0.003163	24.15%
Al 308.215†	25039.9	17.08	mg/L	0.103	85.39	mg/L	0.514	0.60%
As 188.979†	3284.5	1.950	mg/L	0.0100	9.749	mg/L	0.0499	0.51%
B 249.677†	92.2	0.01288	mg/L	0.002006	0.06440	mg/L	0.010032	15.58%
Ba 233.527†	5136.2	0.9390	mg/L	0.00584	4.695	mg/L	0.0292	0.62%
Be 313.042†	230.4	0.00050	mg/L	0.000046	0.00250	mg/L	0.000228	9.12%
Ca 317.933†	324455.8	26.37	mg/L	0.096	131.9	mg/L	0.48	0.36%
Cd 228.802†	1416.6	0.03619	mg/L	0.000137	0.1810	mg/L	0.00068	0.38%
Co 228.616†	987.6	0.02551	mg/L	0.000091	0.1275	mg/L	0.00045	0.36%
Cr 267.716†	613.3	0.1065	mg/L	0.00091	0.5325	mg/L	0.00454	0.85%
Cu 324.752†	100538.7	0.5152	mg/L	0.00088	2.576	mg/L	0.0044	0.17%
Fe 273.955†	731278.8	563.3	mg/L	4.34	2817	mg/L	21.71	0.77%
K 766.490†	1896.7	1.092	mg/L	0.0012	5.462	mg/L	0.0060	0.11%
Mg 279.077†	11169.9	7.878	mg/L	0.0633	39.39	mg/L	0.317	0.80%
Mn 257.610†	919373.4	23.87	mg/L	0.149	119.3	mg/L	0.75	0.63%
Mo 202.031†	623.9	0.03225	mg/L	0.000535	0.1612	mg/L	0.00267	1.66%
Na 589.592†	4650.9	0.5375	mg/L	0.00404	2.687	mg/L	0.0202	0.75%
Na 330.237†	143.4	-1.472	mg/L	0.2429	-7.362	mg/L	1.2143	16.50%
Ni 231.604†	293.7	0.06213	mg/L	0.000790	0.3107	mg/L	0.00395	1.27%
Pb 220.353†	4022.5	0.4919	mg/L	0.00108	2.459	mg/L	0.0054	0.22%
Sb 206.836†	142.3	0.04699	mg/L	0.001918	0.2350	mg/L	0.00959	4.08%
Se 196.026†	13.3	0.00776	mg/L	0.005622	0.03882	mg/L	0.028111	72.42%
Si 288.158†	1182.7	0.5658	mg/L	0.00826	2.829	mg/L	0.0413	1.46%
Sn 189.927†	-10.0	0.00152	mg/L	0.001653	0.00758	mg/L	0.008264	108.95%
Sr 421.552†	152124.3	0.2918	mg/L	0.00039	1.459	mg/L	0.0019	0.13%
Ti 334.903†	13086.8	0.8133	mg/L	0.00038	4.067	mg/L	0.0019	0.05%
Tl 190.801†	-125.8	-0.06475	mg/L	0.001899	-0.3237	mg/L	0.00950	2.93%
V 292.402†	12749.8	0.1016	mg/L	0.00068	0.5081	mg/L	0.00340	0.67%
Zn 206.200†	74899.7	19.84	mg/L	0.117	99.18	mg/L	0.586	0.59%

==========

Analysis Begun

Start Time: 5/10/2017 10:53:54 AM **Plasma On Time: 5/10/2017 8:20:29 AM**
Logged In Analyst: metinst **Technique: ICP Continuous**
Spectrometer: Optima 7300 DV, S/N 077C8121202 **Autosampler: ESI**

Sample Information File: C:\pe\metals\Sample Information\0510.sif
Batch ID:
Results Data Set: I2170510
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 311**
Sample ID: 17E0009-01 **Date Collected: 5/10/2017 10:53:55 AM**
Data Type: Original

Dilution: 100.000000X

Nebulizer Parameters: 17E0009-01

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: 17E0009-01

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2216957.8	98.32	%	0.559				0.57%
ScR 361.383	239966.9	99.83	%	0.182				0.18%
Ag 328.068†	-44.8	-0.00023	mg/L	0.000394	-0.02278	mg/L	0.039421	173.05%
Al 308.215†	27358.1	18.66	mg/L	0.023	1866	mg/L	2.28	0.12%
As 188.979†	-8.4	-0.00115	mg/L	0.001913	-0.1147	mg/L	0.19126	166.73%
B 249.677†	-4.8	-0.00075	mg/L	0.000748	-0.07463	mg/L	0.074775	100.19%
Ba 233.527†	82.1	-0.00059	mg/L	0.000810	-0.05901	mg/L	0.081024	137.29%
Be 313.042†	101.3	0.00017	mg/L	0.000010	0.01708	mg/L	0.001041	6.10%
Ca 317.933†	1855.5	0.1508	mg/L	0.00258	15.08	mg/L	0.258	1.71%
Cd 228.802†	26.6	0.00099	mg/L	0.000056	0.09940	mg/L	0.005566	5.60%
Co 228.616†	406.9	0.01087	mg/L	0.000123	1.087	mg/L	0.0123	1.13%
Cr 267.716†	514.0	0.07859	mg/L	0.001337	7.859	mg/L	0.1337	1.70%
Cu 324.752†	128387.2	0.6291	mg/L	0.00148	62.91	mg/L	0.148	0.23%
Fe 273.955†	152368.9	117.4	mg/L	0.61	11740	mg/L	61.40	0.52%
K 766.490†	11838.8	6.818	mg/L	0.0247	681.8	mg/L	2.47	0.36%
Mg 279.077†	2208.7	1.546	mg/L	0.0172	154.6	mg/L	1.72	1.11%
Mn 257.610†	16186.7	0.4207	mg/L	0.00182	42.07	mg/L	0.182	0.43%
Mo 202.031†	170.5	0.00891	mg/L	0.000337	0.8906	mg/L	0.03370	3.78%
Na 589.592†	187108.1	21.62	mg/L	0.032	2162	mg/L	3.20	0.15%
Na 330.237†	503.2	21.19	mg/L	0.357	2119	mg/L	35.71	1.68%
Ni 231.604†	101.1	0.02138	mg/L	0.001367	2.138	mg/L	0.1367	6.39%
Pb 220.353†	23.4	0.00742	mg/L	0.000296	0.7422	mg/L	0.02960	3.99%
Sb 206.836†	32.2	0.01076	mg/L	0.000561	1.076	mg/L	0.0561	5.21%
Se 196.026†	7.3	0.00252	mg/L	0.003271	0.2525	mg/L	0.32709	129.54%
Si 288.158†	89.0	0.04059	mg/L	0.027461	4.059	mg/L	2.7461	67.66%
Sn 189.927†	2.0	0.00057	mg/L	0.000498	0.05658	mg/L	0.049833	88.07%
Sr 421.552†	246.7	0.00047	mg/L	0.000090	0.04733	mg/L	0.008952	18.92%
Ti 334.903†	2546.9	0.1586	mg/L	0.00163	15.86	mg/L	0.163	1.03%
Tl 190.801†	-26.2	-0.01433	mg/L	0.001551	-1.433	mg/L	0.1551	10.83%
V 292.402†	27356.4	0.2510	mg/L	0.00254	25.10	mg/L	0.254	1.01%
Zn 206.200†	8855.7	2.345	mg/L	0.0110	234.5	mg/L	1.10	0.47%

Sequence No.: 2
Sample ID: 17E0124-03 DEL
Dilution: 10.000000X

Autosampler Location: 312
Date Collected: 5/10/2017 10:57:56 AM
Data Type: Original

Nebulizer Parameters: 17E0124-03

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: 17E0124-03

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2225112.9	98.68	%	0.270				0.27%
ScR 361.383	242087.5	100.7	%	0.50				0.50%
Ag 328.068†	219.0	0.00150	mg/L	0.000532	0.01496	mg/L	0.005321	35.58%
Al 308.215†	443.6	0.2911	mg/L	0.00638	2.911	mg/L	0.0638	2.19%
As 188.979†	10.5	-0.00072	mg/L	0.002437	-0.00719	mg/L	0.024367	339.11%
B 249.677†	51.6	0.00730	mg/L	0.000966	0.07300	mg/L	0.009658	13.23%
Ba 233.527†	108.5	0.00098	mg/L	0.001230	0.00980	mg/L	0.012303	125.50%
Be 313.042†	63.0	0.00015	mg/L	0.000023	0.00146	mg/L	0.000231	15.85%
Ca 317.933†	29681.2	2.413	mg/L	0.0204	24.13	mg/L	0.204	0.85%
Cd 228.802†	-120.9	0.00166	mg/L	0.000037	0.01656	mg/L	0.000372	2.25%
Co 228.616†	2739.2	0.07428	mg/L	0.001585	0.7428	mg/L	0.01585	2.13%
Cr 267.716†	18952.3	2.769	mg/L	0.0386	27.69	mg/L	0.386	1.39%
Cu 324.752†	5292332.5	25.71	mg/L	0.643	257.1	mg/L	6.43	2.50%
Fe 273.955†	179609.8	138.4	mg/L	1.00	1384	mg/L	10.04	0.73%
K 766.490†	3204.5	1.845	mg/L	0.0110	18.45	mg/L	0.110	0.60%
Mg 279.077†	1261.3	0.8473	mg/L	0.01713	8.473	mg/L	0.1713	2.02%
Mn 257.610†	22690.4	0.5894	mg/L	0.00861	5.894	mg/L	0.0861	1.46%
Mo 202.031†	11499.8	0.6010	mg/L	0.01160	6.010	mg/L	0.1160	1.93%
Na 589.592†	24142.6	2.790	mg/L	0.0076	27.90	mg/L	0.076	0.27%
Na 330.237†	56.9	2.429	mg/L	0.1356	24.29	mg/L	1.356	5.58%
Ni 231.604†	29268.6	6.187	mg/L	0.0376	61.87	mg/L	0.376	0.61%
Pb 220.353†	434.5	0.02477	mg/L	0.000316	0.2477	mg/L	0.00316	1.28%
Sb 206.836†	203.8	0.02104	mg/L	0.001769	0.2104	mg/L	0.01769	8.41%
Se 196.026†	3.2	0.00249	mg/L	0.004375	0.02494	mg/L	0.043749	175.40%
Si 288.158†	53009.3	26.11	mg/L	5.099	261.1	mg/L	50.99	19.53%
Saturated within auto integration window (code 4)								
Sn 189.927†	960.3	0.2557	mg/L	0.00692	2.557	mg/L	0.0692	2.71%
Sr 421.552†	4582.7	0.00879	mg/L	0.000060	0.08791	mg/L	0.000600	0.68%
Ti 334.903†	634.8	0.03819	mg/L	0.000543	0.3819	mg/L	0.00543	1.42%
Tl 190.801†	-25.2	-0.01330	mg/L	0.001268	-0.1330	mg/L	0.01268	9.53%
V 292.402†	942.7	0.01757	mg/L	0.000698	0.1757	mg/L	0.00698	3.97%
Zn 206.200†	740.5	0.2012	mg/L	0.00484	2.012	mg/L	0.0484	2.40%

Sequence No.: 3
Sample ID: BFE0201-BS1

Autosampler Location: 313
Date Collected: 5/10/2017 11:04:56 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: BFE0201-BS1

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: BFE0201-BS1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2265703.4	100.5	%	0.14				0.14%
ScR 361.383	242963.7	101.1	%	0.39				0.39%
Ag 328.068†	80793.5	0.5509	mg/L	0.00326	1.102	mg/L	0.0065	0.59%
Al 308.215†	2978.3	2.024	mg/L	0.0171	4.048	mg/L	0.0342	0.85%
As 188.979†	3519.4	2.069	mg/L	0.0216	4.137	mg/L	0.0432	1.04%
B 249.677†	4.1	-0.00085	mg/L	0.001255	-0.00171	mg/L	0.002511	146.92%
Ba 233.527†	10451.2	2.075	mg/L	0.0244	4.150	mg/L	0.0489	1.18%
Be 313.042†	224230.2	0.5289	mg/L	0.00532	1.058	mg/L	0.0106	1.00%
Ca 317.933†	125901.0	10.23	mg/L	0.028	20.47	mg/L	0.057	0.28%
Cd 228.802†	14965.6	0.5219	mg/L	0.00439	1.044	mg/L	0.0088	0.84%
Co 228.616†	18916.2	0.5186	mg/L	0.00295	1.037	mg/L	0.0059	0.57%
Cr 267.716†	3601.7	0.5242	mg/L	0.00528	1.048	mg/L	0.0106	1.01%
Cu 324.752†	101946.7	0.4952	mg/L	0.00108	0.9903	mg/L	0.00216	0.22%
Fe 273.955†	2697.7	2.075	mg/L	0.0226	4.149	mg/L	0.0451	1.09%
K 766.490†	17907.2	10.31	mg/L	0.058	20.63	mg/L	0.116	0.56%
Mg 279.077†	14659.4	10.73	mg/L	0.104	21.45	mg/L	0.209	0.97%
Mn 257.610†	19462.6	0.5056	mg/L	0.00478	1.011	mg/L	0.0096	0.95%
Mo 202.031†	23.3	0.00105	mg/L	0.000288	0.00210	mg/L	0.000577	27.42%
Na 589.592†	91506.9	10.58	mg/L	0.032	21.15	mg/L	0.065	0.31%
Na 330.237†	242.2	10.43	mg/L	0.136	20.85	mg/L	0.271	1.30%
Ni 231.604†	2521.3	0.5322	mg/L	0.00476	1.064	mg/L	0.0095	0.89%
Pb 220.353†	17572.5	2.131	mg/L	0.0135	4.262	mg/L	0.0270	0.63%
Sb 206.836†	19.7	-0.00032	mg/L	0.002549	-0.00063	mg/L	0.005098	804.25%
Se 196.026†	2614.9	2.099	mg/L	0.0180	4.198	mg/L	0.0361	0.86%
Si 288.158†	27.3	0.01343	mg/L	0.005953	0.02686	mg/L	0.011906	44.33%
Sn 189.927†	-20.6	-0.00380	mg/L	0.000184	-0.00759	mg/L	0.000368	4.84%
Sr 421.552†	275367.0	0.5282	mg/L	0.00173	1.056	mg/L	0.0035	0.33%
Ti 334.903†	14.2	0.00017	mg/L	0.000791	0.00033	mg/L	0.001582	477.14%
Tl 190.801†	4083.8	2.079	mg/L	0.0159	4.158	mg/L	0.0319	0.77%
V 292.402†	57026.8	0.5342	mg/L	0.00459	1.068	mg/L	0.0092	0.86%
Zn 206.200†	1986.0	0.5261	mg/L	0.00618	1.052	mg/L	0.0124	1.17%

Sequence No.: 4
Sample ID: SEQ-CCV2

Autosampler Location: 7
Date Collected: 5/10/2017 11:11:39 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCV2

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: SEQ-CCV2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2200068.8	97.57	%	0.188				0.19%
ScR 361.383	237954.8	98.99	%	0.459				0.46%
Ag 328.068†	157059.2	1.071	mg/L	0.0057	1.071	mg/L	0.0057	0.53%
Al 308.215†	3034.3	2.034	mg/L	0.0068	2.034	mg/L	0.0068	0.33%
As 188.979†	3501.6	2.079	mg/L	0.0155	2.079	mg/L	0.0155	0.74%
B 249.677†	7258.2	1.029	mg/L	0.0031	1.029	mg/L	0.0031	0.30%
Ba 233.527†	5192.8	1.031	mg/L	0.0047	1.031	mg/L	0.0047	0.46%
Be 313.042†	440497.5	1.039	mg/L	0.0044	1.039	mg/L	0.0044	0.43%
Ca 317.933†	24392.0	1.983	mg/L	0.0063	1.983	mg/L	0.0063	0.32%
Cd 228.802†	29083.2	1.029	mg/L	0.0075	1.029	mg/L	0.0075	0.73%
Co 228.616†	37307.1	1.021	mg/L	0.0048	1.021	mg/L	0.0048	0.47%
Cr 267.716†	7073.2	1.031	mg/L	0.0044	1.031	mg/L	0.0044	0.43%
Cu 324.752†	209643.3	1.018	mg/L	0.0046	1.018	mg/L	0.0046	0.45%
Fe 273.955†	2598.4	1.995	mg/L	0.0080	1.995	mg/L	0.0080	0.40%
K 766.490†	34982.8	20.15	mg/L	0.039	20.15	mg/L	0.039	0.19%
Mg 279.077†	2835.3	2.084	mg/L	0.0133	2.084	mg/L	0.0133	0.64%
Mn 257.610†	36910.9	0.9585	mg/L	0.00377	0.9585	mg/L	0.00377	0.39%
Mo 202.031†	19481.6	1.018	mg/L	0.0036	1.018	mg/L	0.0036	0.36%
Na 589.592†	448322.4	51.81	mg/L	0.097	51.81	mg/L	0.097	0.19%
Na 330.237†	1180.0	51.63	mg/L	0.293	51.63	mg/L	0.293	0.57%
Ni 231.604†	4941.0	1.045	mg/L	0.0030	1.045	mg/L	0.0030	0.28%
Pb 220.353†	17214.3	2.088	mg/L	0.0094	2.088	mg/L	0.0094	0.45%
Sb 206.836†	6351.3	2.129	mg/L	0.0119	2.129	mg/L	0.0119	0.56%
Se 196.026†	2609.2	2.094	mg/L	0.0112	2.094	mg/L	0.0112	0.53%
Si 288.158†	4282.9	2.090	mg/L	0.0094	2.090	mg/L	0.0094	0.45%
Sn 189.927†	3839.5	1.022	mg/L	0.0062	1.022	mg/L	0.0062	0.61%
Sr 421.552†	541984.5	1.040	mg/L	0.0024	1.040	mg/L	0.0024	0.23%
Ti 334.903†	16434.9	1.022	mg/L	0.0028	1.022	mg/L	0.0028	0.27%
Tl 190.801†	4062.8	2.063	mg/L	0.0067	2.063	mg/L	0.0067	0.32%
V 292.402†	111320.6	1.043	mg/L	0.0050	1.043	mg/L	0.0050	0.48%
Zn 206.200†	3930.8	1.041	mg/L	0.0075	1.041	mg/L	0.0075	0.72%

==========

Sequence No.: 5
Sample ID: SEQ-CCB2

Autosampler Location: 1
Date Collected: 5/10/2017 11:18:24 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCB2

Analyte	Back Pressure	Flow
All	158.0 kPa	0.65 L/min

Mean Data: SEQ-CCB2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2241700.6	99.41	%	0.216				0.22%
ScR 361.383	240402.9	100.0	%	0.10				0.10%
Ag 328.068†	3.7	0.00003	mg/L	0.000364	0.00003	mg/L	0.000364	>999.9%
Al 308.215†	12.1	0.00821	mg/L	0.010452	0.00821	mg/L	0.010452	127.23%
As 188.979†	-0.9	-0.00058	mg/L	0.001044	-0.00058	mg/L	0.001044	180.11%
B 249.677†	-0.4	-0.00005	mg/L	0.000256	-0.00005	mg/L	0.000256	501.95%
Ba 233.527†	-1.0	-0.00020	mg/L	0.000349	-0.00020	mg/L	0.000349	177.83%
Be 313.042†	40.3	0.00010	mg/L	0.000009	0.00010	mg/L	0.000009	9.19%
Ca 317.933†	10.9	0.00088	mg/L	0.001945	0.00088	mg/L	0.001945	219.82%
Cd 228.802†	10.5	0.00038	mg/L	0.000079	0.00038	mg/L	0.000079	20.64%
Co 228.616†	1.0	0.00003	mg/L	0.000098	0.00003	mg/L	0.000098	340.73%
Cr 267.716†	-6.7	-0.00097	mg/L	0.000846	-0.00097	mg/L	0.000846	87.00%
Cu 324.752†	109.1	0.00053	mg/L	0.000110	0.00053	mg/L	0.000110	20.82%
Fe 273.955†	6.2	0.00475	mg/L	0.001067	0.00475	mg/L	0.001067	22.47%
K 766.490†	5.9	0.00337	mg/L	0.020854	0.00337	mg/L	0.020854	618.36%
Mg 279.077†	1.1	0.00078	mg/L	0.006639	0.00078	mg/L	0.006639	853.34%
Mn 257.610†	13.3	0.00034	mg/L	0.000143	0.00034	mg/L	0.000143	41.64%
Mo 202.031†	8.5	0.00045	mg/L	0.000267	0.00045	mg/L	0.000267	59.85%
Na 589.592†	6.3	0.00072	mg/L	0.005148	0.00072	mg/L	0.005148	712.51%
Na 330.237†	-11.4	-0.5017	mg/L	0.43052	-0.5017	mg/L	0.43052	85.82%
Ni 231.604†	-1.4	-0.00030	mg/L	0.001541	-0.00030	mg/L	0.001541	520.08%
Pb 220.353†	1.7	0.00020	mg/L	0.000410	0.00020	mg/L	0.000410	203.92%
Sb 206.836†	7.2	0.00242	mg/L	0.001763	0.00242	mg/L	0.001763	72.75%
Se 196.026†	3.4	0.00275	mg/L	0.003653	0.00275	mg/L	0.003653	132.97%
Si 288.158†	-7.0	-0.00343	mg/L	0.001721	-0.00343	mg/L	0.001721	50.14%
Sn 189.927†	0.6	0.00016	mg/L	0.000889	0.00016	mg/L	0.000889	560.62%
Sr 421.552†	37.2	0.00007	mg/L	0.000021	0.00007	mg/L	0.000021	29.79%
Ti 334.903†	-14.6	-0.00091	mg/L	0.000692	-0.00091	mg/L	0.000692	76.29%
Tl 190.801†	3.7	0.00189	mg/L	0.003262	0.00189	mg/L	0.003262	172.47%
V 292.402†	5.5	0.00005	mg/L	0.000124	0.00005	mg/L	0.000124	265.33%
Zn 206.200†	3.4	0.00091	mg/L	0.000989	0.00091	mg/L	0.000989	108.62%

Sequence No.: 6
Sample ID: BFE0167-BLK1

Autosampler Location: 314
Date Collected: 5/10/2017 11:22:24 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: BFE0167-BLK1

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: BFE0167-BLK1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2262405.0	100.3	%	0.64				0.64%
ScR 361.383	238476.2	99.21	%	1.912				1.93%
Ag 328.068†	-8.8	-0.00006	mg/L	0.000470	-0.00006	mg/L	0.000470	782.55%
Al 308.215†	36.6	0.02494	mg/L	0.009238	0.02494	mg/L	0.009238	37.04%
As 188.979†	-2.4	-0.00136	mg/L	0.001219	-0.00136	mg/L	0.001219	89.99%
B 249.677†	-1.8	-0.00026	mg/L	0.000489	-0.00026	mg/L	0.000489	186.75%
Ba 233.527†	3.7	0.00074	mg/L	0.000312	0.00074	mg/L	0.000312	42.44%
Be 313.042†	30.0	0.00007	mg/L	0.000045	0.00007	mg/L	0.000045	63.01%
Ca 317.933†	252.1	0.02050	mg/L	0.000803	0.02050	mg/L	0.000803	3.92%
Cd 228.802†	3.9	0.00015	mg/L	0.000110	0.00015	mg/L	0.000110	72.34%
Co 228.616†	-9.5	-0.00027	mg/L	0.000182	-0.00027	mg/L	0.000182	68.46%
Cr 267.716†	-0.6	-0.00008	mg/L	0.001495	-0.00008	mg/L	0.001495	>999.9%
Cu 324.752†	196.2	0.00095	mg/L	0.000064	0.00095	mg/L	0.000064	6.67%
Fe 273.955†	2.8	0.00217	mg/L	0.002496	0.00217	mg/L	0.002496	115.18%
K 766.490†	4.2	0.00244	mg/L	0.015746	0.00244	mg/L	0.015746	646.32%
Mg 279.077†	18.6	0.01360	mg/L	0.002035	0.01360	mg/L	0.002035	14.96%
Mn 257.610†	11.0	0.00029	mg/L	0.000139	0.00029	mg/L	0.000139	48.63%
Mo 202.031†	8.8	0.00046	mg/L	0.000157	0.00046	mg/L	0.000157	34.11%
Na 589.592†	-6.4	-0.00073	mg/L	0.000675	-0.00073	mg/L	0.000675	91.90%
Na 330.237†	4.4	0.1954	mg/L	0.12834	0.1954	mg/L	0.12834	65.68%
Ni 231.604†	-1.0	-0.00022	mg/L	0.002335	-0.00022	mg/L	0.002335	>999.9%
Pb 220.353†	3.2	0.00039	mg/L	0.000441	0.00039	mg/L	0.000441	111.94%
Sb 206.836†	3.2	0.00107	mg/L	0.001287	0.00107	mg/L	0.001287	119.81%
Se 196.026†	-1.5	-0.00118	mg/L	0.001959	-0.00118	mg/L	0.001959	165.94%
Si 288.158†	-7.5	-0.00373	mg/L	0.002300	-0.00373	mg/L	0.002300	61.63%
Sn 189.927†	-1.4	-0.00036	mg/L	0.000613	-0.00036	mg/L	0.000613	170.14%
Sr 421.552†	41.6	0.00008	mg/L	0.000011	0.00008	mg/L	0.000011	13.19%
Ti 334.903†	45.9	0.00285	mg/L	0.000883	0.00285	mg/L	0.000883	30.96%
Tl 190.801†	3.6	0.00185	mg/L	0.002887	0.00185	mg/L	0.002887	155.77%
V 292.402†	-5.8	-0.00006	mg/L	0.000293	-0.00006	mg/L	0.000293	519.57%
Zn 206.200†	4.0	0.00105	mg/L	0.000338	0.00105	mg/L	0.000338	32.25%

==========

Sequence No.: 7
Sample ID: 17D0421-01

Autosampler Location: 315
Date Collected: 5/10/2017 11:26:25 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 17D0421-01

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: 17D0421-01

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2208286.8	97.93	%	0.386				0.39%
ScR 361.383	246782.9	102.7	%	0.94				0.92%
Ag 328.068†	1547.2	0.01055	mg/L	0.000294	0.01055	mg/L	0.000294	2.79%
Al 308.215†	1188.0	0.8102	mg/L	0.01397	0.8102	mg/L	0.01397	1.72%
As 188.979†	135.6	0.07869	mg/L	0.001713	0.07869	mg/L	0.001713	2.18%
B 249.677†	1214.9	0.1725	mg/L	0.00250	0.1725	mg/L	0.00250	1.45%
Ba 233.527†	15.1	0.00261	mg/L	0.000778	0.00261	mg/L	0.000778	29.75%
Be 313.042†	72.1	0.00017	mg/L	0.000041	0.00017	mg/L	0.000041	24.62%
Ca 317.933†	307200.9	24.97	mg/L	0.196	24.97	mg/L	0.196	0.78%
Cd 228.802†	2229.9	0.07945	mg/L	0.000469	0.07945	mg/L	0.000469	0.59%
Co 228.616†	62.6	0.00165	mg/L	0.000182	0.00165	mg/L	0.000182	11.04%
Cr 267.716†	60.7	0.00619	mg/L	0.000235	0.00619	mg/L	0.000235	3.80%
Cu 324.752†	91104.9	0.4418	mg/L	0.00128	0.4418	mg/L	0.00128	0.29%
Fe 273.955†	3369.7	2.596	mg/L	0.0330	2.596	mg/L	0.0330	1.27%
K 766.490†	168096.8	96.81	mg/L	0.247	96.81	mg/L	0.247	0.26%
Mg 279.077†	39886.3	29.18	mg/L	0.044	29.18	mg/L	0.044	0.15%
Mn 257.610†	5327.4	0.1382	mg/L	0.00009	0.1382	mg/L	0.00009	0.07%
Mo 202.031†	139.4	0.00694	mg/L	0.000384	0.00694	mg/L	0.000384	5.53%
Na 589.592†	1677135.2	193.8	mg/L	2.02	193.8	mg/L	2.02	1.04%
Na 330.237†	4440.4	192.4	mg/L	0.72	192.4	mg/L	0.72	0.37%
Ni 231.604†	28.6	0.00605	mg/L	0.001321	0.00605	mg/L	0.001321	21.84%
Pb 220.353†	47.6	0.00544	mg/L	0.000106	0.00544	mg/L	0.000106	1.95%
Sb 206.836†	2.4	0.00065	mg/L	0.000865	0.00065	mg/L	0.000865	133.28%
Se 196.026†	32.8	0.02621	mg/L	0.004456	0.02621	mg/L	0.004456	17.00%
Si 288.158†	1186.8	0.5839	mg/L	0.00743	0.5839	mg/L	0.00743	1.27%
Sn 189.927†	-18.1	-0.00089	mg/L	0.001185	-0.00089	mg/L	0.001185	132.91%
Sr 421.552†	127985.4	0.2455	mg/L	0.00045	0.2455	mg/L	0.00045	0.18%
Ti 334.903†	591.0	0.03533	mg/L	0.000166	0.03533	mg/L	0.000166	0.47%
Tl 190.801†	-3.4	-0.00174	mg/L	0.001370	-0.00174	mg/L	0.001370	78.53%
V 292.402†	490.8	0.00452	mg/L	0.000098	0.00452	mg/L	0.000098	2.17%
Zn 206.200†	24531.9	6.497	mg/L	0.0270	6.497	mg/L	0.0270	0.42%

Sequence No.: 8
Sample ID: 17D0447-03

Autosampler Location: 316
Date Collected: 5/10/2017 11:30:41 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: 17D0447-03

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: 17D0447-03

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2258782.1	100.2	%	0.97				0.97%
ScR 361.383	246503.5	102.5	%	0.45				0.44%
Ag 328.068†	181.4	0.00134	mg/L	0.000278	0.00268	mg/L	0.000557	20.80%
Al 308.215†	84484.2	57.62	mg/L	0.029	115.2	mg/L	0.06	0.05%
As 188.979†	-15.5	0.08002	mg/L	0.001043	0.1600	mg/L	0.00209	1.30%
B 249.677†	335.8	0.04674	mg/L	0.001804	0.09349	mg/L	0.003608	3.86%
Ba 233.527†	5102.3	0.9901	mg/L	0.00316	1.980	mg/L	0.0063	0.32%
Be 313.042†	578.4	0.00122	mg/L	0.000027	0.00245	mg/L	0.000054	2.22%
Ca 317.933†	408626.6	33.22	mg/L	0.123	66.43	mg/L	0.246	0.37%
Cd 228.802†	136.7	0.00518	mg/L	0.000139	0.01036	mg/L	0.000278	2.68%
Co 228.616†	2129.4	0.05159	mg/L	0.000649	0.1032	mg/L	0.00130	1.26%
Cr 267.716†	1283.5	0.1902	mg/L	0.00131	0.3804	mg/L	0.00262	0.69%
Cu 324.752†	79028.5	0.3905	mg/L	0.00301	0.7810	mg/L	0.00601	0.77%
Fe 273.955†	207068.9	159.5	mg/L	0.46	319.0	mg/L	0.93	0.29%
K 766.490†	7226.2	4.162	mg/L	0.0066	8.323	mg/L	0.0133	0.16%
Mg 279.077†	34628.4	25.28	mg/L	0.086	50.56	mg/L	0.172	0.34%
Mn 257.610†	809995.9	21.03	mg/L	0.031	42.05	mg/L	0.061	0.15%
Mo 202.031†	242.7	0.01222	mg/L	0.000166	0.02444	mg/L	0.000332	1.36%
Na 589.592†	22871.2	2.643	mg/L	0.0189	5.286	mg/L	0.0379	0.72%
Na 330.237†	57.0	2.417	mg/L	0.4200	4.835	mg/L	0.8401	17.38%
Ni 231.604†	1143.1	0.2417	mg/L	0.00225	0.4833	mg/L	0.00449	0.93%
Pb 220.353†	2237.3	0.2872	mg/L	0.00206	0.5745	mg/L	0.00413	0.72%
Sb 206.836†	48.1	0.01577	mg/L	0.002281	0.03154	mg/L	0.004562	14.46%
Se 196.026†	33.6	0.01716	mg/L	0.005338	0.03432	mg/L	0.010676	31.11%
Si 288.158†	7358.2	3.549	mg/L	0.0136	7.098	mg/L	0.0271	0.38%
Sn 189.927†	14.4	0.00905	mg/L	0.001243	0.01811	mg/L	0.002485	13.73%
Sr 421.552†	132708.8	0.2546	mg/L	0.00040	0.5092	mg/L	0.00081	0.16%
Ti 334.903†	58938.2	3.668	mg/L	0.0039	7.336	mg/L	0.0077	0.11%
Tl 190.801†	-27.3	-0.01546	mg/L	0.000997	-0.03092	mg/L	0.001994	6.45%
V 292.402†	35932.6	0.3308	mg/L	0.00194	0.6615	mg/L	0.00388	0.59%
Zn 206.200†	8169.8	2.164	mg/L	0.0045	4.329	mg/L	0.0090	0.21%

Sequence No.: 9
Sample ID: 17D0447-04

Autosampler Location: 317
Date Collected: 5/10/2017 11:34:41 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: 17D0447-04

Analyte	Back Pressure	Flow
All	158.0 kPa	0.65 L/min

Mean Data: 17D0447-04

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2243878.0	99.51	%	0.325				0.33%
ScR 361.383	243108.4	101.1	%	0.77				0.76%
Ag 328.068†	-9.8	0.00003	mg/L	0.000356	0.00005	mg/L	0.000712	>999.9%
Al 308.215†	107896.7	73.59	mg/L	0.177	147.2	mg/L	0.35	0.24%
As 188.979†	-92.1	0.06651	mg/L	0.002433	0.1330	mg/L	0.00487	3.66%
B 249.677†	1372.8	0.1937	mg/L	0.00114	0.3874	mg/L	0.00228	0.59%
Ba 233.527†	2790.6	0.5322	mg/L	0.00140	1.064	mg/L	0.0028	0.26%
Be 313.042†	620.2	0.00131	mg/L	0.000048	0.00262	mg/L	0.000096	3.67%
Ca 317.933†	581200.0	47.25	mg/L	0.145	94.49	mg/L	0.291	0.31%
Cd 228.802†	143.7	0.00573	mg/L	0.000183	0.01146	mg/L	0.000365	3.19%
Co 228.616†	2116.2	0.04888	mg/L	0.000259	0.09777	mg/L	0.000518	0.53%
Cr 267.716†	2073.1	0.3040	mg/L	0.00136	0.6081	mg/L	0.00272	0.45%
Cu 324.752†	150645.0	0.7376	mg/L	0.00163	1.475	mg/L	0.0033	0.22%
Fe 273.955†	197685.7	152.3	mg/L	0.43	304.6	mg/L	0.86	0.28%
K 766.490†	15324.5	8.826	mg/L	0.0274	17.65	mg/L	0.055	0.31%
Mg 279.077†	51520.9	37.61	mg/L	0.064	75.21	mg/L	0.128	0.17%
Mn 257.610†	62032.2	1.610	mg/L	0.0014	3.221	mg/L	0.0028	0.09%
Mo 202.031†	518.6	0.02644	mg/L	0.000303	0.05288	mg/L	0.000606	1.15%
Na 589.592†	369068.7	42.65	mg/L	0.109	85.30	mg/L	0.218	0.26%
Na 330.237†	965.0	42.25	mg/L	0.387	84.50	mg/L	0.774	0.92%
Ni 231.604†	928.6	0.1963	mg/L	0.00161	0.3927	mg/L	0.00322	0.82%
Pb 220.353†	4027.6	0.5085	mg/L	0.00394	1.017	mg/L	0.0079	0.78%
Sb 206.836†	57.1	0.01724	mg/L	0.001565	0.03448	mg/L	0.003130	9.08%
Se 196.026†	29.9	0.01152	mg/L	0.005121	0.02303	mg/L	0.010241	44.46%
Si 288.158†	7338.5	3.512	mg/L	0.0267	7.024	mg/L	0.0533	0.76%
Sn 189.927†	91.1	0.03165	mg/L	0.000695	0.06331	mg/L	0.001390	2.20%
Sr 421.552†	231331.9	0.4438	mg/L	0.00096	0.8875	mg/L	0.00192	0.22%
Ti 334.903†	79986.3	4.978	mg/L	0.0050	9.956	mg/L	0.0100	0.10%
Tl 190.801†	-27.4	-0.01537	mg/L	0.002278	-0.03075	mg/L	0.004556	14.82%
V 292.402†	32868.2	0.2994	mg/L	0.00064	0.5988	mg/L	0.00128	0.21%
Zn 206.200†	11243.9	2.979	mg/L	0.0205	5.957	mg/L	0.0411	0.69%

Sequence No.: 10
Sample ID: 17D0447-06

Autosampler Location: 318
Date Collected: 5/10/2017 11:38:41 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: 17D0447-06

Analyte	Back Pressure	Flow
All	158.0 kPa	0.65 L/min

Mean Data: 17D0447-06

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2247804.3	99.68	%	0.354				0.36%
ScR 361.383	246174.1	102.4	%	0.35				0.35%
Ag 328.068†	39.9	0.00038	mg/L	0.000238	0.00077	mg/L	0.000475	61.94%
Al 308.215†	113332.7	77.30	mg/L	0.289	154.6	mg/L	0.58	0.37%
As 188.979†	-43.1	0.09112	mg/L	0.000684	0.1822	mg/L	0.00137	0.75%
B 249.677†	553.8	0.07744	mg/L	0.001414	0.1549	mg/L	0.00283	1.83%
Ba 233.527†	4026.6	0.7737	mg/L	0.00744	1.547	mg/L	0.0149	0.96%
Be 313.042†	706.8	0.00150	mg/L	0.000014	0.00300	mg/L	0.000028	0.95%
Ca 317.933†	642180.6	52.20	mg/L	0.179	104.4	mg/L	0.36	0.34%
Cd 228.802†	148.3	0.00572	mg/L	0.000062	0.01143	mg/L	0.000123	1.08%
Co 228.616†	2420.2	0.05748	mg/L	0.000362	0.1150	mg/L	0.00072	0.63%
Cr 267.716†	1567.9	0.2316	mg/L	0.00252	0.4631	mg/L	0.00504	1.09%
Cu 324.752†	110728.7	0.5451	mg/L	0.00179	1.090	mg/L	0.0036	0.33%
Fe 273.955†	232707.9	179.3	mg/L	0.99	358.5	mg/L	1.98	0.55%
K 766.490†	10044.2	5.785	mg/L	0.0201	11.57	mg/L	0.040	0.35%
Mg 279.077†	45795.2	33.43	mg/L	0.086	66.85	mg/L	0.172	0.26%
Mn 257.610†	570393.1	14.81	mg/L	0.016	29.61	mg/L	0.032	0.11%
Mo 202.031†	344.6	0.01728	mg/L	0.000168	0.03456	mg/L	0.000336	0.97%
Na 589.592†	37899.7	4.380	mg/L	0.0100	8.760	mg/L	0.0200	0.23%
Na 330.237†	94.1	4.213	mg/L	0.3919	8.425	mg/L	0.7838	9.30%
Ni 231.604†	1142.8	0.2416	mg/L	0.00213	0.4832	mg/L	0.00426	0.88%
Pb 220.353†	2482.2	0.3223	mg/L	0.00122	0.6447	mg/L	0.00243	0.38%
Sb 206.836†	46.1	0.01492	mg/L	0.002768	0.02984	mg/L	0.005535	18.55%
Se 196.026†	29.8	0.01084	mg/L	0.008502	0.02168	mg/L	0.017005	78.44%
Si 288.158†	7260.1	3.477	mg/L	0.0274	6.953	mg/L	0.0548	0.79%
Sn 189.927†	16.2	0.01251	mg/L	0.000935	0.02502	mg/L	0.001870	7.48%
Sr 421.552†	208911.6	0.4008	mg/L	0.00072	0.8015	mg/L	0.00143	0.18%
Ti 334.903†	77449.6	4.820	mg/L	0.0128	9.639	mg/L	0.0256	0.27%
Tl 190.801†	-33.8	-0.01891	mg/L	0.002277	-0.03783	mg/L	0.004554	12.04%
V 292.402†	39457.5	0.3615	mg/L	0.00061	0.7229	mg/L	0.00123	0.17%
Zn 206.200†	8925.3	2.364	mg/L	0.0142	4.729	mg/L	0.0284	0.60%

Sequence No.: 11
Sample ID: 17D0447-08
DEL
Dilution: 2.000000X

Autosampler Location: 319
Date Collected: 5/10/2017 11:42:41 AM
Data Type: Original

Nebulizer Parameters: 17D0447-08

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: 17D0447-08

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2226981.1	98.76	%	0.703				0.71%
ScR 361.383	242016.8	100.7	%	0.36				0.36%
Ag 328.068†	15.5	0.00021	mg/L	0.000176	0.00041	mg/L	0.000352	85.02%
Al 308.215†	104870.9	71.53	mg/L	0.191	143.1	mg/L	0.38	0.27%
As 188.979†	82.2	0.1517	mg/L	0.00288	0.3033	mg/L	0.00577	1.90%
B 249.677†	1748.6	0.2472	mg/L	0.00254	0.4944	mg/L	0.00509	1.03%
Ba 233.527†	2965.3	0.5505	mg/L	0.00346	1.101	mg/L	0.0069	0.63%
Be 313.042†	627.4	0.00133	mg/L	0.000023	0.00266	mg/L	0.000047	1.75%
Ca 317.933†	413514.1	33.61	mg/L	0.140	67.23	mg/L	0.280	0.42%
Cd 228.802†	180.2	0.00625	mg/L	0.000132	0.01249	mg/L	0.000263	2.11%
Co 228.616†	1980.3	0.04651	mg/L	0.000364	0.09302	mg/L	0.000728	0.78%
Cr 267.716†	1496.3	0.2240	mg/L	0.00056	0.4479	mg/L	0.00112	0.25%
Cu 324.752†	89401.6	0.4458	mg/L	0.00522	0.8916	mg/L	0.01044	1.17%
Fe 273.955†	345961.4	266.5	mg/L	1.70	533.0	mg/L	3.41	0.64%
K 766.490†	13443.0	7.742	mg/L	0.0336	15.48	mg/L	0.067	0.43%
Mg 279.077†	50664.1	36.91	mg/L	0.120	73.82	mg/L	0.239	0.32%
Mn 257.610†	92200.3	2.394	mg/L	0.0103	4.788	mg/L	0.0207	0.43%
Mo 202.031†	318.7	0.01618	mg/L	0.000221	0.03237	mg/L	0.000441	1.36%
Na 589.592†	459617.0	53.12	mg/L	0.082	106.2	mg/L	0.16	0.15%
Na 330.237†	1211.9	53.07	mg/L	0.578	106.1	mg/L	1.16	1.09%
Ni 231.604†	853.5	0.1805	mg/L	0.00226	0.3609	mg/L	0.00452	1.25%
Pb 220.353†	4815.2	0.6036	mg/L	0.00548	1.207	mg/L	0.0110	0.91%
Sb 206.836†	74.4	0.02430	mg/L	0.002335	0.04860	mg/L	0.004670	9.61%
Se 196.026†	22.3	0.00579	mg/L	0.003539	0.01158	mg/L	0.007079	61.14%
Si 288.158†	7837.9	3.773	mg/L	0.0245	7.547	mg/L	0.0490	0.65%
Sn 189.927†	42.8	0.01668	mg/L	0.000481	0.03335	mg/L	0.000962	2.89%
Sr 421.552†	243250.7	0.4666	mg/L	0.00045	0.9333	mg/L	0.00090	0.10%
Ti 334.903†	68085.7	4.238	mg/L	0.0016	8.475	mg/L	0.0033	0.04%
Tl 190.801†	-47.5	-0.02571	mg/L	0.001678	-0.05142	mg/L	0.003355	6.53%
V 292.402†	35761.5	0.3223	mg/L	0.00289	0.6447	mg/L	0.00577	0.90%
Zn 206.200†	9921.8	2.628	mg/L	0.0109	5.257	mg/L	0.0217	0.41%

Sequence No.: 12
Sample ID: BFE0136-DUP1

Autosampler Location: 320
Date Collected: 5/10/2017 11:46:41 AM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: BFE0136-DUP1

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: BFE0136-DUP1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2248969.4	99.74	%	0.271				0.27%
ScR 361.383	247288.5	102.9	%	0.92				0.90%
Ag 328.068†	-55.5	-0.00030	mg/L	0.000198	-0.00148	mg/L	0.000989	66.64%
Al 308.215†	110421.4	75.31	mg/L	0.085	376.6	mg/L	0.43	0.11%
As 188.979†	-242.3	0.00954	mg/L	0.003279	0.04769	mg/L	0.016393	34.38%
B 249.677†	114.6	0.01488	mg/L	0.000235	0.07439	mg/L	0.001173	1.58%
Ba 233.527†	1850.2	0.3477	mg/L	0.00172	1.738	mg/L	0.0086	0.50%
Be 313.042†	614.1	0.00129	mg/L	0.000057	0.00643	mg/L	0.000284	4.41%
Ca 317.933†	407212.7	33.10	mg/L	0.084	165.5	mg/L	0.42	0.25%
Cd 228.802†	45.0	0.00282	mg/L	0.000065	0.01412	mg/L	0.000326	2.31%
Co 228.616†	1722.9	0.03595	mg/L	0.000413	0.1797	mg/L	0.00207	1.15%
Cr 267.716†	684.7	0.1016	mg/L	0.00007	0.5078	mg/L	0.00035	0.07%
Cu 324.752†	32350.5	0.1621	mg/L	0.00065	0.8107	mg/L	0.00325	0.40%
Fe 273.955†	177592.6	136.8	mg/L	0.84	684.0	mg/L	4.22	0.62%
K 766.490†	5315.1	3.061	mg/L	0.0251	15.31	mg/L	0.125	0.82%
Mg 279.077†	47179.1	34.44	mg/L	0.018	172.2	mg/L	0.09	0.05%
Mn 257.610†	80038.2	2.078	mg/L	0.0087	10.39	mg/L	0.044	0.42%
Mo 202.031†	86.9	0.00408	mg/L	0.000106	0.02042	mg/L	0.000529	2.59%
Na 589.592†	6824.8	0.7887	mg/L	0.00399	3.944	mg/L	0.0200	0.51%
Na 330.237†	-10.8	0.6979	mg/L	0.06162	3.489	mg/L	0.3081	8.83%
Ni 231.604†	729.1	0.1541	mg/L	0.00285	0.7707	mg/L	0.01426	1.85%
Pb 220.353†	6.8	0.02201	mg/L	0.001628	0.1100	mg/L	0.00814	7.40%
Sb 206.836†	22.3	0.00904	mg/L	0.001701	0.04519	mg/L	0.008504	18.82%
Se 196.026†	21.8	0.00478	mg/L	0.007636	0.02391	mg/L	0.038180	159.69%
Si 288.158†	6715.4	3.180	mg/L	0.0188	15.90	mg/L	0.094	0.59%
Sn 189.927†	-53.5	-0.00903	mg/L	0.000531	-0.04516	mg/L	0.002656	5.88%
Sr 421.552†	91710.8	0.1759	mg/L	0.00017	0.8797	mg/L	0.00086	0.10%
Ti 334.903†	99083.6	6.168	mg/L	0.0084	30.84	mg/L	0.042	0.14%
Tl 190.801†	-11.1	-0.00689	mg/L	0.002372	-0.03444	mg/L	0.011860	34.44%
V 292.402†	28661.0	0.2591	mg/L	0.00164	1.295	mg/L	0.0082	0.63%
Zn 206.200†	1301.0	0.3452	mg/L	0.00324	1.726	mg/L	0.0162	0.94%

Sequence No.: 13
Sample ID: 17E0011-01

Autosampler Location: 321
Date Collected: 5/10/2017 11:50:40 AM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: 17E0011-01

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: 17E0011-01

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2208565.3	97.94	%	0.474				0.48%
ScR 361.383	244798.7	101.8	%	2.04				2.01%
Ag 328.068†	-38.3	-0.00018	mg/L	0.000172	-0.00092	mg/L	0.000862	94.05%
Al 308.215†	108884.0	74.27	mg/L	0.035	371.3	mg/L	0.18	0.05%
As 188.979†	-229.6	0.00960	mg/L	0.001013	0.04801	mg/L	0.005065	10.55%
B 249.677†	100.3	0.01292	mg/L	0.001420	0.06459	mg/L	0.007101	10.99%
Ba 233.527†	1678.1	0.3138	mg/L	0.00746	1.569	mg/L	0.0373	2.38%
Be 313.042†	560.7	0.00117	mg/L	0.000035	0.00584	mg/L	0.000177	3.02%
Ca 317.933†	371783.8	30.22	mg/L	0.155	151.1	mg/L	0.77	0.51%
Cd 228.802†	48.3	0.00285	mg/L	0.000212	0.01427	mg/L	0.001062	7.44%
Co 228.616†	1650.2	0.03452	mg/L	0.000817	0.1726	mg/L	0.00408	2.37%
Cr 267.716†	598.6	0.08907	mg/L	0.001355	0.4454	mg/L	0.00677	1.52%
Cu 324.752†	28383.3	0.1429	mg/L	0.00084	0.7143	mg/L	0.00420	0.59%
Fe 273.955†	175183.9	135.0	mg/L	1.31	674.8	mg/L	6.53	0.97%
K 766.490†	5796.1	3.338	mg/L	0.0196	16.69	mg/L	0.098	0.59%
Mg 279.077†	45054.3	32.89	mg/L	0.056	164.4	mg/L	0.28	0.17%
Mn 257.610†	82482.2	2.141	mg/L	0.0175	10.71	mg/L	0.088	0.82%
Mo 202.031†	93.1	0.00445	mg/L	0.000203	0.02223	mg/L	0.001017	4.58%
Na 589.592†	7361.2	0.8507	mg/L	0.00348	4.254	mg/L	0.0174	0.41%
Na 330.237†	-13.4	0.5261	mg/L	0.29544	2.630	mg/L	1.4772	56.16%
Ni 231.604†	567.4	0.1200	mg/L	0.00219	0.5998	mg/L	0.01096	1.83%
Pb 220.353†	-5.9	0.02018	mg/L	0.000616	0.1009	mg/L	0.00308	3.05%
Sb 206.836†	29.5	0.01156	mg/L	0.003041	0.05778	mg/L	0.015207	26.32%
Se 196.026†	16.4	0.00062	mg/L	0.006830	0.00309	mg/L	0.034150	>999.9%
Si 288.158†	6765.7	3.211	mg/L	0.0697	16.06	mg/L	0.348	2.17%
Sn 189.927†	-44.5	-0.00708	mg/L	0.000728	-0.03542	mg/L	0.003639	10.27%
Sr 421.552†	87417.1	0.1677	mg/L	0.00043	0.8385	mg/L	0.00214	0.25%
Ti 334.903†	94168.2	5.862	mg/L	0.0165	29.31	mg/L	0.083	0.28%
Tl 190.801†	-26.3	-0.01458	mg/L	0.003114	-0.07288	mg/L	0.015568	21.36%
V 292.402†	27318.9	0.2467	mg/L	0.00113	1.234	mg/L	0.0057	0.46%
Zn 206.200†	1234.1	0.3275	mg/L	0.00568	1.637	mg/L	0.0284	1.73%

Sequence No.: 14
Sample ID: BFE0136-MS1

Autosampler Location: 322
Date Collected: 5/10/2017 11:54:39 AM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: BFE0136-MS1

Analyte	Back Pressure	Flow
All	158.0 kPa	0.65 L/min

Mean Data: BFE0136-MS1

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2239823.1	99.33	%	3.364				3.39%
ScR 361.383	246166.4	102.4	%	0.27				0.26%
Ag 328.068†	30149.0	0.2056	mg/L	0.00499	1.028	mg/L	0.0250	2.43%
Al 308.215†	110135.1	75.12	mg/L	0.125	375.6	mg/L	0.63	0.17%
As 188.979†	1177.2	0.8294	mg/L	0.02059	4.147	mg/L	0.1029	2.48%
B 249.677†	102.6	0.01273	mg/L	0.000728	0.06363	mg/L	0.003638	5.72%
Ba 233.527†	5673.9	1.107	mg/L	0.0053	5.533	mg/L	0.0264	0.48%
Be 313.042†	89826.1	0.2117	mg/L	0.00219	1.059	mg/L	0.0109	1.03%
Ca 317.933†	433086.6	35.21	mg/L	0.200	176.0	mg/L	1.00	0.57%
Cd 228.802†	6221.4	0.2183	mg/L	0.00653	1.092	mg/L	0.0327	2.99%
Co 228.616†	9259.8	0.2437	mg/L	0.00747	1.218	mg/L	0.0373	3.06%
Cr 267.716†	1950.2	0.2858	mg/L	0.00218	1.429	mg/L	0.0109	0.76%
Cu 324.752†	70188.6	0.3461	mg/L	0.00916	1.730	mg/L	0.0458	2.65%
Fe 273.955†	179223.9	138.1	mg/L	0.86	690.3	mg/L	4.30	0.62%
K 766.490†	11238.3	6.472	mg/L	0.0281	32.36	mg/L	0.140	0.43%
Mg 279.077†	52148.0	38.08	mg/L	0.078	190.4	mg/L	0.39	0.20%
Mn 257.610†	86289.4	2.240	mg/L	0.0067	11.20	mg/L	0.034	0.30%
Mo 202.031†	91.5	0.00428	mg/L	0.000308	0.02142	mg/L	0.001539	7.18%
Na 589.592†	42467.3	4.908	mg/L	0.0045	24.54	mg/L	0.023	0.09%
Na 330.237†	87.0	4.791	mg/L	0.3906	23.95	mg/L	1.953	8.15%
Ni 231.604†	1606.1	0.3394	mg/L	0.00171	1.697	mg/L	0.0086	0.50%
Pb 220.353†	7129.2	0.8853	mg/L	0.02457	4.427	mg/L	0.1228	2.77%
Sb 206.836†	765.6	0.2560	mg/L	0.00731	1.280	mg/L	0.0365	2.86%
Se 196.026†	1037.2	0.8200	mg/L	0.02283	4.100	mg/L	0.1141	2.78%
Si 288.158†	6208.6	2.943	mg/L	0.0137	14.71	mg/L	0.068	0.47%
Sn 189.927†	-57.4	-0.00959	mg/L	0.001006	-0.04796	mg/L	0.005031	10.49%
Sr 421.552†	209287.1	0.4015	mg/L	0.00061	2.007	mg/L	0.0030	0.15%
Ti 334.903†	89688.4	5.583	mg/L	0.0088	27.91	mg/L	0.044	0.16%
Tl 190.801†	1560.4	0.7931	mg/L	0.02630	3.965	mg/L	0.1315	3.32%
V 292.402†	49384.1	0.4535	mg/L	0.01221	2.267	mg/L	0.0611	2.69%
Zn 206.200†	2051.4	0.5440	mg/L	0.00047	2.720	mg/L	0.0023	0.09%

Sequence No.: 15
Sample ID: BFE0167-BS1

Autosampler Location: 323
Date Collected: 5/10/2017 11:58:24 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: BFE0167-BS1

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: BFE0167-BS1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2290453.1	101.6	%	0.33				0.32%
ScR 361.383	249450.9	103.8	%	0.14				0.14%
Ag 328.068†	140155.3	0.9556	mg/L	0.00851	0.9556	mg/L	0.00851	0.89%
Al 308.215†	5226.0	3.551	mg/L	0.0063	3.551	mg/L	0.0063	0.18%
As 188.979†	6290.1	3.697	mg/L	0.0099	3.697	mg/L	0.0099	0.27%
B 249.677†	12.4	-0.00079	mg/L	0.000844	-0.00079	mg/L	0.000844	106.23%
Ba 233.527†	18368.8	3.647	mg/L	0.0171	3.647	mg/L	0.0171	0.47%
Be 313.042†	398091.2	0.9390	mg/L	0.00071	0.9390	mg/L	0.00071	0.08%
Ca 317.933†	224143.7	18.22	mg/L	0.053	18.22	mg/L	0.053	0.29%
Cd 228.802†	26166.3	0.9119	mg/L	0.00636	0.9119	mg/L	0.00636	0.70%
Co 228.616†	33429.4	0.9165	mg/L	0.00413	0.9165	mg/L	0.00413	0.45%
Cr 267.716†	6374.0	0.9278	mg/L	0.00220	0.9278	mg/L	0.00220	0.24%
Cu 324.752†	185644.0	0.9017	mg/L	0.00464	0.9017	mg/L	0.00464	0.51%
Fe 273.955†	4749.9	3.653	mg/L	0.0197	3.653	mg/L	0.0197	0.54%
K 766.490†	31398.0	18.08	mg/L	0.025	18.08	mg/L	0.025	0.14%
Mg 279.077†	25834.7	18.90	mg/L	0.014	18.90	mg/L	0.014	0.07%
Mn 257.610†	33121.3	0.8605	mg/L	0.00263	0.8605	mg/L	0.00263	0.31%
Mo 202.031†	47.0	0.00216	mg/L	0.000345	0.00216	mg/L	0.000345	15.99%
Na 589.592†	160063.1	18.50	mg/L	0.030	18.50	mg/L	0.030	0.16%
Na 330.237†	435.4	18.75	mg/L	0.270	18.75	mg/L	0.270	1.44%
Ni 231.604†	4420.6	0.9330	mg/L	0.00379	0.9330	mg/L	0.00379	0.41%
Pb 220.353†	31019.1	3.761	mg/L	0.0230	3.761	mg/L	0.0230	0.61%
Sb 206.836†	37.3	0.00031	mg/L	0.002273	0.00031	mg/L	0.002273	735.06%
Se 196.026†	4634.5	3.720	mg/L	0.0090	3.720	mg/L	0.0090	0.24%
Si 288.158†	-11.9	-0.00592	mg/L	0.003696	-0.00592	mg/L	0.003696	62.45%
Sn 189.927†	-25.8	-0.00386	mg/L	0.000824	-0.00386	mg/L	0.000824	21.34%
Sr 421.552†	484953.2	0.9303	mg/L	0.00021	0.9303	mg/L	0.00021	0.02%
Ti 334.903†	47.8	0.00170	mg/L	0.000738	0.00170	mg/L	0.000738	43.55%
Tl 190.801†	7125.9	3.627	mg/L	0.0125	3.627	mg/L	0.0125	0.34%
V 292.402†	101647.7	0.9521	mg/L	0.00710	0.9521	mg/L	0.00710	0.75%
Zn 206.200†	3511.4	0.9303	mg/L	0.00299	0.9303	mg/L	0.00299	0.32%

Sequence No.: 16
Sample ID: SEQ-CCV3

Autosampler Location: 7
Date Collected: 5/10/2017 12:02:24 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCV3

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: SEQ-CCV3

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2265397.2	100.5	%	0.07				0.07%
ScR 361.383	244039.2	101.5	%	0.74				0.73%
Ag 328.068†	151937.6	1.036	mg/L	0.0045	1.036	mg/L	0.0045	0.44%
Al 308.215†	3026.5	2.028	mg/L	0.0161	2.028	mg/L	0.0161	0.79%
As 188.979†	3516.1	2.088	mg/L	0.0058	2.088	mg/L	0.0058	0.28%
B 249.677†	7280.2	1.032	mg/L	0.0076	1.032	mg/L	0.0076	0.74%
Ba 233.527†	5138.9	1.020	mg/L	0.0101	1.020	mg/L	0.0101	0.99%
Be 313.042†	447198.8	1.055	mg/L	0.0051	1.055	mg/L	0.0051	0.49%
Ca 317.933†	24491.2	1.991	mg/L	0.0091	1.991	mg/L	0.0091	0.46%
Cd 228.802†	29093.7	1.030	mg/L	0.0046	1.030	mg/L	0.0046	0.45%
Co 228.616†	37523.7	1.027	mg/L	0.0041	1.027	mg/L	0.0041	0.39%
Cr 267.716†	7121.0	1.038	mg/L	0.0086	1.038	mg/L	0.0086	0.83%
Cu 324.752†	203759.9	0.9891	mg/L	0.00276	0.9891	mg/L	0.00276	0.28%
Fe 273.955†	2638.7	2.026	mg/L	0.0145	2.026	mg/L	0.0145	0.71%
K 766.490†	34978.5	20.14	mg/L	0.044	20.14	mg/L	0.044	0.22%
Mg 279.077†	2838.1	2.086	mg/L	0.0198	2.086	mg/L	0.0198	0.95%
Mn 257.610†	36734.6	0.9540	mg/L	0.00254	0.9540	mg/L	0.00254	0.27%
Mo 202.031†	20026.7	1.047	mg/L	0.0024	1.047	mg/L	0.0024	0.23%
Na 589.592†	446037.8	51.55	mg/L	0.141	51.55	mg/L	0.141	0.27%
Na 330.237†	1183.2	51.76	mg/L	0.482	51.76	mg/L	0.482	0.93%
Ni 231.604†	4966.8	1.050	mg/L	0.0088	1.050	mg/L	0.0088	0.83%
Pb 220.353†	17782.7	2.157	mg/L	0.0054	2.157	mg/L	0.0054	0.25%
Sb 206.836†	6343.3	2.126	mg/L	0.0042	2.126	mg/L	0.0042	0.20%
Se 196.026†	2625.6	2.107	mg/L	0.0087	2.107	mg/L	0.0087	0.41%
Si 288.158†	4261.9	2.080	mg/L	0.0145	2.080	mg/L	0.0145	0.70%
Sn 189.927†	3846.6	1.024	mg/L	0.0035	1.024	mg/L	0.0035	0.34%
Sr 421.552†	540674.2	1.037	mg/L	0.0026	1.037	mg/L	0.0026	0.25%
Ti 334.903†	16480.4	1.025	mg/L	0.0044	1.025	mg/L	0.0044	0.43%
Tl 190.801†	4064.5	2.064	mg/L	0.0055	2.064	mg/L	0.0055	0.27%
V 292.402†	109505.7	1.026	mg/L	0.0059	1.026	mg/L	0.0059	0.57%
Zn 206.200†	3965.3	1.051	mg/L	0.0087	1.051	mg/L	0.0087	0.82%

==========

Sequence No.: 17
Sample ID: SEQ-CCB3

Autosampler Location: 1
Date Collected: 5/10/2017 12:07:15 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCB3

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: SEQ-CCB3

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2285567.2	101.4	%	0.14				0.14%
ScR 361.383	246803.5	102.7	%	0.81				0.79%
Ag 328.068†	-8.9	-0.00006	mg/L	0.000310	-0.00006	mg/L	0.000310	510.92%
Al 308.215†	15.3	0.01040	mg/L	0.015695	0.01040	mg/L	0.015695	150.93%
As 188.979†	-1.4	-0.00080	mg/L	0.000484	-0.00080	mg/L	0.000484	60.80%
B 249.677†	4.8	0.00068	mg/L	0.000194	0.00068	mg/L	0.000194	28.50%
Ba 233.527†	3.3	0.00065	mg/L	0.000662	0.00065	mg/L	0.000662	102.60%
Be 313.042†	34.6	0.00008	mg/L	0.000053	0.00008	mg/L	0.000053	64.88%
Ca 317.933†	7.4	0.00060	mg/L	0.000500	0.00060	mg/L	0.000500	83.41%
Cd 228.802†	8.6	0.00031	mg/L	0.000185	0.00031	mg/L	0.000185	59.21%
Co 228.616†	-5.3	-0.00014	mg/L	0.000184	-0.00014	mg/L	0.000184	127.17%
Cr 267.716†	4.9	0.00071	mg/L	0.001373	0.00071	mg/L	0.001373	192.86%
Cu 324.752†	113.8	0.00055	mg/L	0.000134	0.00055	mg/L	0.000134	24.34%
Fe 273.955†	1.8	0.00140	mg/L	0.000463	0.00140	mg/L	0.000463	33.20%
K 766.490†	33.2	0.01910	mg/L	0.010664	0.01910	mg/L	0.010664	55.82%
Mg 279.077†	-4.1	-0.00301	mg/L	0.004622	-0.00301	mg/L	0.004622	153.47%
Mn 257.610†	7.2	0.00019	mg/L	0.000054	0.00019	mg/L	0.000054	28.86%
Mo 202.031†	3.9	0.00021	mg/L	0.000343	0.00021	mg/L	0.000343	167.09%
Na 589.592†	-35.7	-0.00413	mg/L	0.005652	-0.00413	mg/L	0.005652	136.84%
Na 330.237†	2.9	0.1257	mg/L	0.11831	0.1257	mg/L	0.11831	94.11%
Ni 231.604†	-6.6	-0.00140	mg/L	0.001405	-0.00140	mg/L	0.001405	100.16%
Pb 220.353†	6.4	0.00078	mg/L	0.001082	0.00078	mg/L	0.001082	138.39%
Sb 206.836†	4.1	0.00137	mg/L	0.001197	0.00137	mg/L	0.001197	87.11%
Se 196.026†	-1.3	-0.00108	mg/L	0.003536	-0.00108	mg/L	0.003536	326.70%
Si 288.158†	-3.2	-0.00159	mg/L	0.001925	-0.00159	mg/L	0.001925	120.83%
Sn 189.927†	-0.6	-0.00016	mg/L	0.001139	-0.00016	mg/L	0.001139	713.09%
Sr 421.552†	58.6	0.00011	mg/L	0.000046	0.00011	mg/L	0.000046	40.66%
Ti 334.903†	5.0	0.00031	mg/L	0.001701	0.00031	mg/L	0.001701	542.20%
Tl 190.801†	5.6	0.00287	mg/L	0.001563	0.00287	mg/L	0.001563	54.48%
V 292.402†	14.3	0.00014	mg/L	0.000237	0.00014	mg/L	0.000237	172.98%
Zn 206.200†	3.0	0.00078	mg/L	0.000539	0.00078	mg/L	0.000539	68.84%

Sequence No.: 18
Sample ID: 17D0421-02

Autosampler Location: 324
Date Collected: 5/10/2017 12:11:15 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 17D0421-02

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: 17D0421-02

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2180538.0	96.70	%	0.595				0.61%
ScR 361.383	242312.9	100.8	%	1.32				1.31%
Ag 328.068†	-31.7	-0.00021	mg/L	0.000163	-0.00021	mg/L	0.000163	78.36%
Al 308.215†	10955.0	7.472	mg/L	0.0806	7.472	mg/L	0.0806	1.08%
As 188.979†	89.4	0.05805	mg/L	0.001191	0.05805	mg/L	0.001191	2.05%
B 249.677†	601.1	0.08523	mg/L	0.002114	0.08523	mg/L	0.002114	2.48%
Ba 233.527†	124.4	0.02279	mg/L	0.000910	0.02279	mg/L	0.000910	3.99%
Be 313.042†	210.2	0.00048	mg/L	0.000043	0.00048	mg/L	0.000043	9.00%
Ca 317.933†	726632.0	59.07	mg/L	0.194	59.07	mg/L	0.194	0.33%
Cd 228.802†	124.5	0.00415	mg/L	0.000183	0.00415	mg/L	0.000183	4.40%
Co 228.616†	514.6	0.01336	mg/L	0.000308	0.01336	mg/L	0.000308	2.30%
Cr 267.716†	226.6	0.03008	mg/L	0.000368	0.03008	mg/L	0.000368	1.22%
Cu 324.752†	9401.3	0.04553	mg/L	0.000168	0.04553	mg/L	0.000168	0.37%
Fe 273.955†	17241.2	13.28	mg/L	0.114	13.28	mg/L	0.114	0.85%
K 766.490†	110426.5	63.60	mg/L	0.202	63.60	mg/L	0.202	0.32%
Mg 279.077†	53178.2	38.90	mg/L	0.313	38.90	mg/L	0.313	0.81%
Mn 257.610†	6848.6	0.1776	mg/L	0.00234	0.1776	mg/L	0.00234	1.32%
Mo 202.031†	204.1	0.00985	mg/L	0.000135	0.00985	mg/L	0.000135	1.37%
Na 589.592†	1940548.1	224.3	mg/L	0.52	224.3	mg/L	0.52	0.23%
Na 330.237†	5156.1	226.3	mg/L	1.90	226.3	mg/L	1.90	0.84%
Ni 231.604†	422.5	0.08931	mg/L	0.001847	0.08931	mg/L	0.001847	2.07%
Pb 220.353†	66.9	0.01022	mg/L	0.000597	0.01022	mg/L	0.000597	5.84%
Sb 206.836†	11.5	0.00339	mg/L	0.002072	0.00339	mg/L	0.002072	61.06%
Se 196.026†	24.6	0.01852	mg/L	0.006483	0.01852	mg/L	0.006483	35.00%
Si 288.158†	2318.9	1.134	mg/L	0.0133	1.134	mg/L	0.0133	1.18%
Sn 189.927†	-49.1	-0.00379	mg/L	0.000738	-0.00379	mg/L	0.000738	19.50%
Sr 421.552†	259284.2	0.4974	mg/L	0.00135	0.4974	mg/L	0.00135	0.27%
Ti 334.903†	6512.0	0.4020	mg/L	0.00465	0.4020	mg/L	0.00465	1.16%
Tl 190.801†	-1.0	-0.00066	mg/L	0.000514	-0.00066	mg/L	0.000514	77.86%
V 292.402†	2754.3	0.02512	mg/L	0.000063	0.02512	mg/L	0.000063	0.25%
Zn 206.200†	2656.3	0.7037	mg/L	0.00758	0.7037	mg/L	0.00758	1.08%

Sequence No.: 19
Sample ID: 17D0421-03

Autosampler Location: 325
Date Collected: 5/10/2017 12:15:31 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 17D0421-03

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: 17D0421-03

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2153036.3	95.48	%	0.985				1.03%
ScR 361.383	237834.1	98.94	%	3.645				3.68%
Ag 328.068†	533.7	0.00364	mg/L	0.000082	0.00364	mg/L	0.000082	2.25%
Al 308.215†	2525.6	1.723	mg/L	0.0303	1.723	mg/L	0.0303	1.76%
As 188.979†	233.5	0.1360	mg/L	0.00149	0.1360	mg/L	0.00149	1.10%
B 249.677†	600.0	0.08517	mg/L	0.000415	0.08517	mg/L	0.000415	0.49%
Ba 233.527†	90.4	0.01749	mg/L	0.000814	0.01749	mg/L	0.000814	4.66%
Be 313.042†	122.4	0.00029	mg/L	0.000067	0.00029	mg/L	0.000067	23.47%
Ca 317.933†	463518.4	37.68	mg/L	1.774	37.68	mg/L	1.774	4.71%
Cd 228.802†	360.4	0.01191	mg/L	0.000317	0.01191	mg/L	0.000317	2.66%
Co 228.616†	181.6	0.00485	mg/L	0.000095	0.00485	mg/L	0.000095	1.95%
Cr 267.716†	117.0	0.01434	mg/L	0.000334	0.01434	mg/L	0.000334	2.33%
Cu 324.752†	9248.2	0.04444	mg/L	0.000565	0.04444	mg/L	0.000565	1.27%
Fe 273.955†	4145.4	3.193	mg/L	0.0155	3.193	mg/L	0.0155	0.49%
K 766.490†	102720.8	59.16	mg/L	0.186	59.16	mg/L	0.186	0.31%
Mg 279.077†	45722.6	33.45	mg/L	0.104	33.45	mg/L	0.104	0.31%
Mn 257.610†	2352.4	0.06094	mg/L	0.000963	0.06094	mg/L	0.000963	1.58%
Mo 202.031†	216.7	0.01081	mg/L	0.000327	0.01081	mg/L	0.000327	3.03%
Na 589.592†	2004039.2	231.6	mg/L	9.80	231.6	mg/L	9.80	4.23%
Na 330.237†	5161.0	226.5	mg/L	1.09	226.5	mg/L	1.09	0.48%
Ni 231.604†	78.3	0.01655	mg/L	0.001272	0.01655	mg/L	0.001272	7.69%
Pb 220.353†	21.1	0.00301	mg/L	0.001347	0.00301	mg/L	0.001347	44.71%
Sb 206.836†	5.5	0.00151	mg/L	0.001216	0.00151	mg/L	0.001216	80.52%
Se 196.026†	25.8	0.02042	mg/L	0.002459	0.02042	mg/L	0.002459	12.04%
Si 288.158†	1350.1	0.6636	mg/L	0.01550	0.6636	mg/L	0.01550	2.34%
Sn 189.927†	-35.6	-0.00355	mg/L	0.000526	-0.00355	mg/L	0.000526	14.82%
Sr 421.552†	206530.9	0.3962	mg/L	0.01718	0.3962	mg/L	0.01718	4.34%
Ti 334.903†	1125.8	0.06788	mg/L	0.001112	0.06788	mg/L	0.001112	1.64%
Tl 190.801†	-3.3	-0.00172	mg/L	0.001344	-0.00172	mg/L	0.001344	78.28%
V 292.402†	878.1	0.00812	mg/L	0.000177	0.00812	mg/L	0.000177	2.18%
Zn 206.200†	1996.8	0.5290	mg/L	0.00295	0.5290	mg/L	0.00295	0.56%

Sequence No.: 20
Sample ID: 17D0421-04

Autosampler Location: 326
Date Collected: 5/10/2017 12:19:47 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 17D0421-04

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: 17D0421-04

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2194414.5	97.32	%	0.545				0.56%
ScR 361.383	244796.5	101.8	%	0.55				0.54%
Ag 328.068†	1596.0	0.01088	mg/L	0.000060	0.01088	mg/L	0.000060	0.55%
Al 308.215†	983.6	0.6708	mg/L	0.00387	0.6708	mg/L	0.00387	0.58%
As 188.979†	120.3	0.06965	mg/L	0.001589	0.06965	mg/L	0.001589	2.28%
B 249.677†	1166.4	0.1656	mg/L	0.00141	0.1656	mg/L	0.00141	0.85%
Ba 233.527†	21.7	0.00399	mg/L	0.000406	0.00399	mg/L	0.000406	10.16%
Be 313.042†	68.3	0.00016	mg/L	0.000011	0.00016	mg/L	0.000011	7.04%
Ca 317.933†	284737.3	23.15	mg/L	0.040	23.15	mg/L	0.040	0.17%
Cd 228.802†	2227.7	0.07944	mg/L	0.000645	0.07944	mg/L	0.000645	0.81%
Co 228.616†	56.9	0.00150	mg/L	0.000139	0.00150	mg/L	0.000139	9.23%
Cr 267.716†	58.3	0.00539	mg/L	0.000758	0.00539	mg/L	0.000758	14.04%
Cu 324.752†	138080.0	0.6700	mg/L	0.00153	0.6700	mg/L	0.00153	0.23%
Fe 273.955†	2847.0	2.193	mg/L	0.0170	2.193	mg/L	0.0170	0.78%
K 766.490†	140596.6	80.97	mg/L	0.268	80.97	mg/L	0.268	0.33%
Mg 279.077†	43627.3	31.92	mg/L	0.105	31.92	mg/L	0.105	0.33%
Mn 257.610†	4074.9	0.1057	mg/L	0.00079	0.1057	mg/L	0.00079	0.74%
Mo 202.031†	114.4	0.00566	mg/L	0.000317	0.00566	mg/L	0.000317	5.60%
Na 589.592†	1896896.8	219.2	mg/L	0.63	219.2	mg/L	0.63	0.29%
Na 330.237†	5039.8	217.1	mg/L	0.55	217.1	mg/L	0.55	0.26%
Ni 231.604†	15.7	0.00331	mg/L	0.001305	0.00331	mg/L	0.001305	39.37%
Pb 220.353†	57.8	0.00635	mg/L	0.000360	0.00635	mg/L	0.000360	5.67%
Sb 206.836†	3.5	0.00100	mg/L	0.000827	0.00100	mg/L	0.000827	82.90%
Se 196.026†	20.3	0.01620	mg/L	0.002639	0.01620	mg/L	0.002639	16.29%
Si 288.158†	1375.3	0.6769	mg/L	0.00367	0.6769	mg/L	0.00367	0.54%
Sn 189.927†	-22.9	-0.00246	mg/L	0.001630	-0.00246	mg/L	0.001630	66.32%
Sr 421.552†	128231.4	0.2460	mg/L	0.00022	0.2460	mg/L	0.00022	0.09%
Ti 334.903†	482.3	0.02867	mg/L	0.001049	0.02867	mg/L	0.001049	3.66%
Tl 190.801†	1.0	0.00050	mg/L	0.001792	0.00050	mg/L	0.001792	356.90%
V 292.402†	393.1	0.00362	mg/L	0.000478	0.00362	mg/L	0.000478	13.19%
Zn 206.200†	39967.5	10.59	mg/L	0.030	10.59	mg/L	0.030	0.29%

Sequence No.: 21
Sample ID: 17D0421-05

Autosampler Location: 327
Date Collected: 5/10/2017 12:24:03 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 17D0421-05

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: 17D0421-05

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2194095.3	97.30	%	0.546				0.56%
ScR 361.383	247800.7	103.1	%	0.38				0.37%
Ag 328.068†	20.0	0.00014	mg/L	0.000136	0.00014	mg/L	0.000136	96.19%
Al 308.215†	6587.7	4.493	mg/L	0.0392	4.493	mg/L	0.0392	0.87%
As 188.979†	98.6	0.06209	mg/L	0.001247	0.06209	mg/L	0.001247	2.01%
B 249.677†	495.8	0.07031	mg/L	0.001407	0.07031	mg/L	0.001407	2.00%
Ba 233.527†	91.6	0.01679	mg/L	0.001075	0.01679	mg/L	0.001075	6.40%
Be 313.042†	164.8	0.00038	mg/L	0.000013	0.00038	mg/L	0.000013	3.46%
Ca 317.933†	328714.9	26.72	mg/L	0.040	26.72	mg/L	0.040	0.15%
Cd 228.802†	143.5	0.00479	mg/L	0.000090	0.00479	mg/L	0.000090	1.88%
Co 228.616†	566.5	0.01507	mg/L	0.000207	0.01507	mg/L	0.000207	1.38%
Cr 267.716†	172.3	0.02223	mg/L	0.000337	0.02223	mg/L	0.000337	1.52%
Cu 324.752†	9301.2	0.04470	mg/L	0.000133	0.04470	mg/L	0.000133	0.30%
Fe 273.955†	12563.3	9.678	mg/L	0.0325	9.678	mg/L	0.0325	0.34%
K 766.490†	170541.4	98.22	mg/L	0.548	98.22	mg/L	0.548	0.56%
Mg 279.077†	54613.2	39.95	mg/L	0.176	39.95	mg/L	0.176	0.44%
Mn 257.610†	5360.8	0.1391	mg/L	0.00062	0.1391	mg/L	0.00062	0.45%
Mo 202.031†	178.3	0.00895	mg/L	0.000346	0.00895	mg/L	0.000346	3.87%
Na 589.592†	2200931.1	254.4	mg/L	0.05	254.4	mg/L	0.05	0.02%
Na 330.237†	5749.6	252.3	mg/L	1.34	252.3	mg/L	1.34	0.53%
Ni 231.604†	414.9	0.08771	mg/L	0.001612	0.08771	mg/L	0.001612	1.84%
Pb 220.353†	81.7	0.01115	mg/L	0.000162	0.01115	mg/L	0.000162	1.45%
Sb 206.836†	13.1	0.00408	mg/L	0.001146	0.00408	mg/L	0.001146	28.12%
Se 196.026†	32.0	0.02489	mg/L	0.004689	0.02489	mg/L	0.004689	18.84%
Si 288.158†	1605.7	0.7858	mg/L	0.00190	0.7858	mg/L	0.00190	0.24%
Sn 189.927†	-23.6	-0.00209	mg/L	0.001932	-0.00209	mg/L	0.001932	92.31%
Sr 421.552†	169833.3	0.3258	mg/L	0.00145	0.3258	mg/L	0.00145	0.44%
Ti 334.903†	4014.7	0.2484	mg/L	0.00161	0.2484	mg/L	0.00161	0.65%
Tl 190.801†	-4.1	-0.00226	mg/L	0.003712	-0.00226	mg/L	0.003712	164.16%
V 292.402†	1983.7	0.01813	mg/L	0.000442	0.01813	mg/L	0.000442	2.44%
Zn 206.200†	2846.2	0.7539	mg/L	0.00573	0.7539	mg/L	0.00573	0.76%

Sequence No.: 22
Sample ID: 17D0421-06

Autosampler Location: 328
Date Collected: 5/10/2017 12:28:19 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 17D0421-06

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: 17D0421-06

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2192293.8	97.22	%	0.642				0.66%
ScR 361.383	248889.3	103.5	%	0.53				0.51%
Ag 328.068†	131.9	0.00090	mg/L	0.000035	0.00090	mg/L	0.000035	3.86%
Al 308.215†	4431.8	3.023	mg/L	0.0128	3.023	mg/L	0.0128	0.42%
As 188.979†	255.3	0.1482	mg/L	0.00292	0.1482	mg/L	0.00292	1.97%
B 249.677†	443.0	0.06284	mg/L	0.001155	0.06284	mg/L	0.001155	1.84%
Ba 233.527†	78.7	0.01477	mg/L	0.000869	0.01477	mg/L	0.000869	5.88%
Be 313.042†	104.6	0.00024	mg/L	0.000029	0.00024	mg/L	0.000029	12.16%
Ca 317.933†	1019488.3	82.87	mg/L	0.932	82.87	mg/L	0.932	1.12%
Cd 228.802†	582.6	0.01981	mg/L	0.000268	0.01981	mg/L	0.000268	1.35%
Co 228.616†	344.0	0.00909	mg/L	0.000041	0.00909	mg/L	0.000041	0.45%
Cr 267.716†	234.2	0.03081	mg/L	0.000838	0.03081	mg/L	0.000838	2.72%
Cu 324.752†	9399.5	0.04522	mg/L	0.000582	0.04522	mg/L	0.000582	1.29%
Fe 273.955†	7744.4	5.966	mg/L	0.0062	5.966	mg/L	0.0062	0.10%
K 766.490†	111543.6	64.24	mg/L	0.242	64.24	mg/L	0.242	0.38%
Mg 279.077†	51921.7	37.99	mg/L	0.073	37.99	mg/L	0.073	0.19%
Mn 257.610†	4363.4	0.1130	mg/L	0.00114	0.1130	mg/L	0.00114	1.01%
Mo 202.031†	202.4	0.00944	mg/L	0.000301	0.00944	mg/L	0.000301	3.19%
Na 589.592†	2183918.4	252.4	mg/L	2.37	252.4	mg/L	2.37	0.94%
Na 330.237†	5746.5	252.1	mg/L	1.18	252.1	mg/L	1.18	0.47%
Ni 231.604†	168.5	0.03561	mg/L	0.001186	0.03561	mg/L	0.001186	3.33%
Pb 220.353†	33.2	0.00487	mg/L	0.000432	0.00487	mg/L	0.000432	8.87%
Sb 206.836†	14.2	0.00413	mg/L	0.002025	0.00413	mg/L	0.002025	49.01%
Se 196.026†	24.6	0.01924	mg/L	0.003677	0.01924	mg/L	0.003677	19.11%
Si 288.158†	1275.2	0.6244	mg/L	0.00553	0.6244	mg/L	0.00553	0.89%
Sn 189.927†	-55.4	-0.00174	mg/L	0.001825	-0.00174	mg/L	0.001825	104.71%
Sr 421.552†	320912.9	0.6156	mg/L	0.00579	0.6156	mg/L	0.00579	0.94%
Ti 334.903†	2975.8	0.1804	mg/L	0.00203	0.1804	mg/L	0.00203	1.13%
Tl 190.801†	-1.0	-0.00060	mg/L	0.004003	-0.00060	mg/L	0.004003	671.07%
V 292.402†	1437.2	0.01325	mg/L	0.000151	0.01325	mg/L	0.000151	1.14%
Zn 206.200†	2587.7	0.6854	mg/L	0.00832	0.6854	mg/L	0.00832	1.21%

Sequence No.: 23 Autosampler Location: 329
Sample ID: 17E0085-01 Date Collected: 5/10/2017 12:32:37 PM
DEL Data Type: Original
Dilution: 2.000000X

Nebulizer Parameters: 17E0085-01

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: 17E0085-01

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2222922.3	98.58	%	0.712				0.72%
ScR 361.383	247951.4	103.1	%	1.79				1.73%
Ag 328.068†	-296.6	-0.00185	mg/L	0.000041	-0.00371	mg/L	0.000082	2.21%
Al 308.215†	284756.4	194.2	mg/L	0.19	388.5	mg/L	0.38	0.10%
As 188.979†	-157.0	0.04390	mg/L	0.001076	0.08780	mg/L	0.002152	2.45%
B 249.677†	165.6	0.02202	mg/L	0.000972	0.04404	mg/L	0.001943	4.41%
Ba 233.527†	3255.8	0.6082	mg/L	0.00921	1.216	mg/L	0.0184	1.51%
Be 313.042†	1499.6	0.00331	mg/L	0.000094	0.00662	mg/L	0.000188	2.84%
Ca 317.933†	845786.5	68.75	mg/L	0.110	137.5	mg/L	0.22	0.16%
Cd 228.802†	45.7	0.00258	mg/L	0.000266	0.00516	mg/L	0.000533	10.33%
Co 228.616†	4049.3	0.1006	mg/L	0.00024	0.2013	mg/L	0.00047	0.23%
Cr 267.716†	1783.0	0.2617	mg/L	0.00237	0.5234	mg/L	0.00475	0.91%
Cu 324.752†	62251.5	0.3132	mg/L	0.00089	0.6265	mg/L	0.00179	0.29%
Fe 273.955†	345475.9	266.1	mg/L	1.27	532.3	mg/L	2.53	0.48%
K 766.490†	14114.3	8.129	mg/L	0.0116	16.26	mg/L	0.023	0.14%
Mg 279.077†	121134.3	88.48	mg/L	0.120	177.0	mg/L	0.24	0.14%
Mn 257.610†	164373.3	4.267	mg/L	0.0174	8.533	mg/L	0.0349	0.41%
Mo 202.031†	78.2	0.00312	mg/L	0.000224	0.00625	mg/L	0.000448	7.17%
Na 589.592†	38030.7	4.395	mg/L	0.0261	8.790	mg/L	0.0522	0.59%
Na 330.237†	72.1	4.154	mg/L	0.3769	8.309	mg/L	0.7538	9.07%
Ni 231.604†	1402.2	0.2964	mg/L	0.00588	0.5929	mg/L	0.01176	1.98%
Pb 220.353†	-48.1	0.04894	mg/L	0.000191	0.09788	mg/L	0.000382	0.39%
Sb 206.836†	66.5	0.02215	mg/L	0.001346	0.04431	mg/L	0.002691	6.07%
Se 196.026†	47.1	0.00520	mg/L	0.005661	0.01040	mg/L	0.011322	108.84%
Si 288.158†	4814.2	2.254	mg/L	0.0387	4.508	mg/L	0.0773	1.71%
Sn 189.927†	-78.5	-0.01007	mg/L	0.001900	-0.02014	mg/L	0.003799	18.87%
Sr 421.552†	271568.2	0.5210	mg/L	0.00049	1.042	mg/L	0.0010	0.09%
Ti 334.903†	90905.3	5.657	mg/L	0.0054	11.31	mg/L	0.011	0.09%
Tl 190.801†	-51.2	-0.02870	mg/L	0.000128	-0.05741	mg/L	0.000256	0.45%
V 292.402†	59136.7	0.5398	mg/L	0.00278	1.080	mg/L	0.0056	0.51%
Zn 206.200†	2038.3	0.5403	mg/L	0.00882	1.081	mg/L	0.0176	1.63%

Sequence No.: 24
Sample ID: 17E0084-03

Autosampler Location: 330
Date Collected: 5/10/2017 12:36:23 PM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: 17E0084-03

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: 17E0084-03

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2244170.6	99.52	%	0.550				0.55%
ScR 361.383	247047.8	102.8	%	0.74				0.72%
Ag 328.068†	-99.8	-0.00057	mg/L	0.000200	-0.00114	mg/L	0.000400	35.07%
Al 308.215†	154640.8	105.5	mg/L	0.01	211.0	mg/L	0.02	0.01%
As 188.979†	-161.2	0.05327	mg/L	0.001154	0.1065	mg/L	0.00231	2.17%
B 249.677†	282.1	0.03853	mg/L	0.001018	0.07707	mg/L	0.002036	2.64%
Ba 233.527†	4243.1	0.8198	mg/L	0.00399	1.640	mg/L	0.0080	0.49%
Be 313.042†	798.2	0.00170	mg/L	0.000016	0.00339	mg/L	0.000031	0.93%
Ca 317.933†	829180.7	67.40	mg/L	0.250	134.8	mg/L	0.50	0.37%
Cd 228.802†	173.8	0.00718	mg/L	0.000149	0.01436	mg/L	0.000297	2.07%
Co 228.616†	2937.4	0.06927	mg/L	0.000303	0.1385	mg/L	0.00061	0.44%
Cr 267.716†	2352.8	0.3444	mg/L	0.00253	0.6887	mg/L	0.00506	0.73%
Cu 324.752†	109586.5	0.5382	mg/L	0.00251	1.076	mg/L	0.0050	0.47%
Fe 273.955†	204801.7	157.8	mg/L	1.72	315.5	mg/L	3.44	1.09%
K 766.490†	12193.4	7.022	mg/L	0.0200	14.04	mg/L	0.040	0.28%
Mg 279.077†	59017.7	43.09	mg/L	0.107	86.18	mg/L	0.214	0.25%
Mn 257.610†	86685.4	2.250	mg/L	0.0163	4.500	mg/L	0.0326	0.73%
Mo 202.031†	319.4	0.01575	mg/L	0.000221	0.03149	mg/L	0.000441	1.40%
Na 589.592†	42727.8	4.938	mg/L	0.0108	9.876	mg/L	0.0215	0.22%
Na 330.237†	102.3	4.305	mg/L	0.0878	8.610	mg/L	0.1755	2.04%
Ni 231.604†	1241.9	0.2625	mg/L	0.00038	0.5251	mg/L	0.00076	0.14%
Pb 220.353†	3229.2	0.4210	mg/L	0.00354	0.8421	mg/L	0.00709	0.84%
Sb 206.836†	63.6	0.01909	mg/L	0.000921	0.03819	mg/L	0.001842	4.82%
Se 196.026†	21.8	-0.00025	mg/L	0.000623	-0.00050	mg/L	0.001245	247.96%
Si 288.158†	8348.6	3.986	mg/L	0.0412	7.971	mg/L	0.0825	1.03%
Sn 189.927†	-0.2	0.01053	mg/L	0.001224	0.02106	mg/L	0.002448	11.63%
Sr 421.552†	209392.7	0.4017	mg/L	0.00097	0.8034	mg/L	0.00193	0.24%
Ti 334.903†	98550.1	6.133	mg/L	0.0129	12.27	mg/L	0.026	0.21%
Tl 190.801†	-25.9	-0.01496	mg/L	0.005887	-0.02992	mg/L	0.011774	39.36%
V 292.402†	38761.3	0.3537	mg/L	0.00174	0.7074	mg/L	0.00349	0.49%
Zn 206.200†	14075.7	3.729	mg/L	0.0189	7.457	mg/L	0.0378	0.51%

Sequence No.: 25
Sample ID: BFE0201-DUP1

Autosampler Location: 331
Date Collected: 5/10/2017 12:40:09 PM
Data Type: Original

Dilution: 20.000000X

Nebulizer Parameters: BFE0201-DUP1

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: BFE0201-DUP1

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2257239.6	100.1	%	0.78				0.78%
ScR 361.383	247006.5	102.8	%	0.55				0.54%
Ag 328.068†	127.6	0.00088	mg/L	0.000192	0.01758	mg/L	0.003847	21.89%
Al 308.215†	6167.4	4.206	mg/L	0.0405	84.13	mg/L	0.810	0.96%
As 188.979†	847.2	0.5029	mg/L	0.00483	10.06	mg/L	0.097	0.96%
B 249.677†	14.1	0.00195	mg/L	0.000199	0.03893	mg/L	0.003986	10.24%
Ba 233.527†	1292.3	0.2360	mg/L	0.00200	4.721	mg/L	0.0400	0.85%
Be 313.042†	112.6	0.00025	mg/L	0.000031	0.00509	mg/L	0.000614	12.05%
Ca 317.933†	83201.0	6.763	mg/L	0.0376	135.3	mg/L	0.75	0.56%
Cd 228.802†	369.5	0.00948	mg/L	0.000315	0.1897	mg/L	0.00629	3.32%
Co 228.616†	268.4	0.00695	mg/L	0.000048	0.1391	mg/L	0.00095	0.69%
Cr 267.716†	161.0	0.02781	mg/L	0.001131	0.5562	mg/L	0.02262	4.07%
Cu 324.752†	25880.6	0.1325	mg/L	0.00124	2.651	mg/L	0.0247	0.93%
Fe 273.955†	185969.0	143.3	mg/L	0.55	2865	mg/L	10.96	0.38%
K 766.490†	511.4	0.2945	mg/L	0.01788	5.891	mg/L	0.3576	6.07%
Mg 279.077†	2788.0	1.965	mg/L	0.0249	39.30	mg/L	0.499	1.27%
Mn 257.610†	232052.6	6.024	mg/L	0.0192	120.5	mg/L	0.38	0.32%
Mo 202.031†	166.6	0.00861	mg/L	0.000127	0.1722	mg/L	0.00254	1.47%
Na 589.592†	1362.5	0.1575	mg/L	0.00690	3.149	mg/L	0.1379	4.38%
Na 330.237†	29.6	-0.7520	mg/L	0.18376	-15.04	mg/L	3.675	24.43%
Ni 231.604†	76.8	0.01626	mg/L	0.000352	0.3251	mg/L	0.00704	2.16%
Pb 220.353†	1070.0	0.1308	mg/L	0.00066	2.615	mg/L	0.0132	0.51%
Sb 206.836†	37.3	0.01231	mg/L	0.001834	0.2462	mg/L	0.03668	14.89%
Se 196.026†	5.9	0.00401	mg/L	0.001542	0.08011	mg/L	0.030847	38.51%
Si 288.158†	300.0	0.1435	mg/L	0.00161	2.869	mg/L	0.0321	1.12%
Sn 189.927†	-7.6	-0.00096	mg/L	0.001093	-0.01921	mg/L	0.021861	113.77%
Sr 421.552†	37691.1	0.07230	mg/L	0.000141	1.446	mg/L	0.0028	0.20%
Ti 334.903†	3382.1	0.2102	mg/L	0.00225	4.204	mg/L	0.0450	1.07%
Tl 190.801†	-29.4	-0.01517	mg/L	0.002217	-0.3034	mg/L	0.04434	14.62%
V 292.402†	3250.2	0.02591	mg/L	0.000284	0.5182	mg/L	0.00567	1.09%
Zn 206.200†	19767.5	5.235	mg/L	0.0528	104.7	mg/L	1.06	1.01%

Sequence No.: 26
Sample ID: 17E0074-01

Autosampler Location: 332
Date Collected: 5/10/2017 12:44:09 PM
Data Type: Original

Dilution: 20.000000X

Nebulizer Parameters: 17E0074-01

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: 17E0074-01

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2277414.0	101.0	%	0.44				0.43%
ScR 361.383	249104.4	103.6	%	0.47				0.45%
Ag 328.068†	150.2	0.00103	mg/L	0.000200	0.02066	mg/L	0.004004	19.38%
Al 308.215†	6201.2	4.229	mg/L	0.0156	84.59	mg/L	0.311	0.37%
As 188.979†	874.7	0.5195	mg/L	0.00227	10.39	mg/L	0.045	0.44%
B 249.677†	10.2	0.00140	mg/L	0.000354	0.02798	mg/L	0.007081	25.31%
Ba 233.527†	1278.7	0.2329	mg/L	0.00079	4.658	mg/L	0.0158	0.34%
Be 313.042†	105.0	0.00024	mg/L	0.000048	0.00473	mg/L	0.000955	20.19%
Ca 317.933†	92754.1	7.540	mg/L	0.0339	150.8	mg/L	0.68	0.45%
Cd 228.802†	446.1	0.01211	mg/L	0.000080	0.2422	mg/L	0.00159	0.66%
Co 228.616†	285.1	0.00738	mg/L	0.000139	0.1477	mg/L	0.00277	1.88%
Cr 267.716†	146.4	0.02587	mg/L	0.000432	0.5174	mg/L	0.00865	1.67%
Cu 324.752†	20140.0	0.1048	mg/L	0.00053	2.096	mg/L	0.0107	0.51%
Fe 273.955†	190026.4	146.4	mg/L	0.55	2928	mg/L	10.96	0.37%
K 766.490†	506.5	0.2917	mg/L	0.01710	5.834	mg/L	0.3420	5.86%
Mg 279.077†	2864.3	2.021	mg/L	0.0020	40.43	mg/L	0.041	0.10%
Mn 257.610†	278344.0	7.226	mg/L	0.0303	144.5	mg/L	0.61	0.42%
Mo 202.031†	181.4	0.00938	mg/L	0.000119	0.1875	mg/L	0.00238	1.27%
Na 589.592†	1210.5	0.1399	mg/L	0.00649	2.798	mg/L	0.1299	4.64%
Na 330.237†	30.8	-0.06689	mg/L	0.331982	-1.338	mg/L	6.6396	496.32%
Ni 231.604†	80.7	0.01707	mg/L	0.000737	0.3414	mg/L	0.01474	4.32%
Pb 220.353†	923.3	0.1130	mg/L	0.00072	2.260	mg/L	0.0144	0.64%
Sb 206.836†	44.6	0.01482	mg/L	0.001414	0.2964	mg/L	0.02828	9.54%
Se 196.026†	8.8	0.00638	mg/L	0.001579	0.1275	mg/L	0.03157	24.76%
Si 288.158†	242.1	0.1146	mg/L	0.00246	2.292	mg/L	0.0491	2.14%
Sn 189.927†	-4.7	-0.00007	mg/L	0.001099	-0.00140	mg/L	0.021978	>999.9%
Sr 421.552†	41217.0	0.07907	mg/L	0.000533	1.581	mg/L	0.0107	0.67%
Ti 334.903†	3634.5	0.2259	mg/L	0.00125	4.517	mg/L	0.0251	0.56%
Tl 190.801†	-27.0	-0.01391	mg/L	0.000850	-0.2782	mg/L	0.01701	6.11%
V 292.402†	3250.1	0.02595	mg/L	0.000159	0.5190	mg/L	0.00317	0.61%
Zn 206.200†	13847.2	3.667	mg/L	0.0141	73.35	mg/L	0.281	0.38%

Sequence No.: 27
Sample ID: BFE0201-MS1

Autosampler Location: 333
Date Collected: 5/10/2017 12:48:08 PM
Data Type: Original

Dilution: 20.000000X

Nebulizer Parameters: BFE0201-MS1

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: BFE0201-MS1

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2280140.0	101.1	%	0.42				0.42%
ScR 361.383	248301.8	103.3	%	0.65				0.63%
Ag 328.068†	8125.8	0.05541	mg/L	0.000596	1.108	mg/L	0.0119	1.07%
Al 308.215†	6160.6	4.201	mg/L	0.0380	84.02	mg/L	0.760	0.91%
As 188.979†	1218.0	0.7209	mg/L	0.00948	14.42	mg/L	0.190	1.32%
B 249.677†	14.3	0.00184	mg/L	0.001424	0.03677	mg/L	0.028485	77.46%
Ba 233.527†	2282.9	0.4321	mg/L	0.00311	8.642	mg/L	0.0622	0.72%
Be 313.042†	23204.4	0.05473	mg/L	0.000529	1.095	mg/L	0.0106	0.97%
Ca 317.933†	99547.9	8.092	mg/L	0.0268	161.8	mg/L	0.54	0.33%
Cd 228.802†	1940.3	0.06425	mg/L	0.000490	1.285	mg/L	0.0098	0.76%
Co 228.616†	2260.5	0.06157	mg/L	0.000131	1.231	mg/L	0.0026	0.21%
Cr 267.716†	479.6	0.07437	mg/L	0.000586	1.487	mg/L	0.0117	0.79%
Cu 324.752†	31041.0	0.1578	mg/L	0.00159	3.156	mg/L	0.0318	1.01%
Fe 273.955†	191570.6	147.6	mg/L	1.35	2952	mg/L	27.08	0.92%
K 766.490†	2239.6	1.290	mg/L	0.0137	25.80	mg/L	0.273	1.06%
Mg 279.077†	4099.8	2.922	mg/L	0.0187	58.45	mg/L	0.374	0.64%
Mn 257.610†	235091.8	6.103	mg/L	0.0435	122.1	mg/L	0.87	0.71%
Mo 202.031†	219.5	0.01136	mg/L	0.000363	0.2272	mg/L	0.00725	3.19%
Na 589.592†	10345.8	1.196	mg/L	0.0053	23.91	mg/L	0.106	0.44%
Na 330.237†	52.8	0.5873	mg/L	0.03987	11.75	mg/L	0.797	6.79%
Ni 231.604†	324.1	0.06844	mg/L	0.000734	1.369	mg/L	0.0147	1.07%
Pb 220.353†	2743.6	0.3336	mg/L	0.00107	6.673	mg/L	0.0214	0.32%
Sb 206.836†	41.1	0.01297	mg/L	0.000759	0.2595	mg/L	0.01517	5.85%
Se 196.026†	271.6	0.2173	mg/L	0.00662	4.347	mg/L	0.1324	3.05%
Si 288.158†	251.2	0.1194	mg/L	0.00111	2.387	mg/L	0.0223	0.93%
Sn 189.927†	-11.7	-0.00182	mg/L	0.001188	-0.03636	mg/L	0.023769	65.38%
Sr 421.552†	66549.4	0.1277	mg/L	0.00039	2.553	mg/L	0.0079	0.31%
Ti 334.903†	3388.7	0.2105	mg/L	0.00110	4.210	mg/L	0.0220	0.52%
Tl 190.801†	382.9	0.1947	mg/L	0.00256	3.894	mg/L	0.0511	1.31%
V 292.402†	8628.1	0.07612	mg/L	0.000790	1.522	mg/L	0.0158	1.04%
Zn 206.200†	16771.4	4.442	mg/L	0.0368	88.84	mg/L	0.736	0.83%

Sequence No.: 28 **Autosampler Location: 7**
Sample ID: SEQ-CCV4 **Date Collected: 5/10/2017 12:52:07 PM**
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCV4

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: SEQ-CCV4

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2260475.5	100.2	%	0.39				0.39%
ScR 361.383	246116.7	102.4	%	0.50				0.49%
Ag 328.068†	160185.0	1.092	mg/L	0.0012	1.092	mg/L	0.0012	0.11%
Al 308.215†	3055.2	2.047	mg/L	0.0116	2.047	mg/L	0.0116	0.57%
As 188.979†	3619.4	2.149	mg/L	0.0023	2.149	mg/L	0.0023	0.11%
B 249.677†	7402.8	1.050	mg/L	0.0031	1.050	mg/L	0.0031	0.29%
Ba 233.527†	5285.2	1.049	mg/L	0.0066	1.049	mg/L	0.0066	0.63%
Be 313.042†	451117.1	1.064	mg/L	0.0017	1.064	mg/L	0.0017	0.16%
Ca 317.933†	24874.0	2.022	mg/L	0.0012	2.022	mg/L	0.0012	0.06%
Cd 228.802†	29780.8	1.054	mg/L	0.0036	1.054	mg/L	0.0036	0.34%
Co 228.616†	38455.5	1.053	mg/L	0.0026	1.053	mg/L	0.0026	0.25%
Cr 267.716†	7251.3	1.057	mg/L	0.0048	1.057	mg/L	0.0048	0.45%
Cu 324.752†	212791.9	1.033	mg/L	0.0043	1.033	mg/L	0.0043	0.42%
Fe 273.955†	2672.8	2.052	mg/L	0.0103	2.052	mg/L	0.0103	0.50%
K 766.490†	35027.9	20.17	mg/L	0.022	20.17	mg/L	0.022	0.11%
Mg 279.077†	2895.2	2.128	mg/L	0.0049	2.128	mg/L	0.0049	0.23%
Mn 257.610†	37309.6	0.9689	mg/L	0.00263	0.9689	mg/L	0.00263	0.27%
Mo 202.031†	19951.4	1.043	mg/L	0.0040	1.043	mg/L	0.0040	0.39%
Na 589.592†	448852.2	51.87	mg/L	0.106	51.87	mg/L	0.106	0.20%
Na 330.237†	1187.8	51.96	mg/L	0.404	51.96	mg/L	0.404	0.78%
Ni 231.604†	5109.8	1.081	mg/L	0.0025	1.081	mg/L	0.0025	0.23%
Pb 220.353†	17742.8	2.152	mg/L	0.0093	2.152	mg/L	0.0093	0.43%
Sb 206.836†	6495.6	2.178	mg/L	0.0052	2.178	mg/L	0.0052	0.24%
Se 196.026†	2693.8	2.161	mg/L	0.0059	2.161	mg/L	0.0059	0.27%
Si 288.158†	4315.4	2.106	mg/L	0.0106	2.106	mg/L	0.0106	0.50%
Sn 189.927†	3941.5	1.049	mg/L	0.0028	1.049	mg/L	0.0028	0.27%
Sr 421.552†	544336.6	1.044	mg/L	0.0025	1.044	mg/L	0.0025	0.24%
Ti 334.903†	16633.6	1.034	mg/L	0.0030	1.034	mg/L	0.0030	0.29%
Tl 190.801†	4164.6	2.115	mg/L	0.0080	2.115	mg/L	0.0080	0.38%
V 292.402†	114232.6	1.070	mg/L	0.0001	1.070	mg/L	0.0001	0.01%
Zn 206.200†	4078.0	1.080	mg/L	0.0046	1.080	mg/L	0.0046	0.43%

Sequence No.: 29 **Autosampler Location: 1**
Sample ID: SEQ-CCB4 **Date Collected: 5/10/2017 12:57:12 PM**
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCB4

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: SEQ-CCB4

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2298600.9	101.9	%	0.53				0.52%
ScR 361.383	246418.2	102.5	%	0.39				0.39%
Ag 328.068†	13.4	0.00009	mg/L	0.000277	0.00009	mg/L	0.000277	303.22%
Al 308.215†	20.5	0.01396	mg/L	0.020140	0.01396	mg/L	0.020140	144.31%
As 188.979†	-2.6	-0.00156	mg/L	0.000676	-0.00156	mg/L	0.000676	43.29%
B 249.677†	1.5	0.00022	mg/L	0.000593	0.00022	mg/L	0.000593	271.11%
Ba 233.527†	1.0	0.00019	mg/L	0.000349	0.00019	mg/L	0.000349	180.56%
Be 313.042†	51.2	0.00012	mg/L	0.000096	0.00012	mg/L	0.000096	79.36%
Ca 317.933†	18.6	0.00151	mg/L	0.000636	0.00151	mg/L	0.000636	42.11%
Cd 228.802†	7.2	0.00027	mg/L	0.000217	0.00027	mg/L	0.000217	81.10%
Co 228.616†	-6.1	-0.00017	mg/L	0.000050	-0.00017	mg/L	0.000050	30.21%
Cr 267.716†	-10.0	-0.00146	mg/L	0.001057	-0.00146	mg/L	0.001057	72.47%
Cu 324.752†	118.8	0.00058	mg/L	0.000041	0.00058	mg/L	0.000041	7.13%
Fe 273.955†	4.3	0.00333	mg/L	0.002976	0.00333	mg/L	0.002976	89.29%
K 766.490†	13.2	0.00762	mg/L	0.010338	0.00762	mg/L	0.010338	135.74%
Mg 279.077†	4.2	0.00307	mg/L	0.004736	0.00307	mg/L	0.004736	154.32%
Mn 257.610†	9.7	0.00025	mg/L	0.000032	0.00025	mg/L	0.000032	12.85%
Mo 202.031†	8.4	0.00044	mg/L	0.000213	0.00044	mg/L	0.000213	48.68%
Na 589.592†	58.3	0.00674	mg/L	0.006538	0.00674	mg/L	0.006538	97.07%
Na 330.237†	-3.8	-0.1689	mg/L	0.44690	-0.1689	mg/L	0.44690	264.61%
Ni 231.604†	-7.4	-0.00156	mg/L	0.000162	-0.00156	mg/L	0.000162	10.37%
Pb 220.353†	7.3	0.00088	mg/L	0.000082	0.00088	mg/L	0.000082	9.29%
Sb 206.836†	3.8	0.00129	mg/L	0.001619	0.00129	mg/L	0.001619	125.83%
Se 196.026†	0.9	0.00073	mg/L	0.004698	0.00073	mg/L	0.004698	640.84%
Si 288.158†	-7.9	-0.00388	mg/L	0.002771	-0.00388	mg/L	0.002771	71.37%
Sn 189.927†	-0.8	-0.00022	mg/L	0.000427	-0.00022	mg/L	0.000427	192.46%
Sr 421.552†	41.5	0.00008	mg/L	0.000005	0.00008	mg/L	0.000005	6.39%
Ti 334.903†	-11.3	-0.00070	mg/L	0.000549	-0.00070	mg/L	0.000549	77.96%
Tl 190.801†	1.3	0.00068	mg/L	0.001333	0.00068	mg/L	0.001333	195.10%
V 292.402†	17.9	0.00016	mg/L	0.000089	0.00016	mg/L	0.000089	55.62%
Zn 206.200†	5.0	0.00131	mg/L	0.000572	0.00131	mg/L	0.000572	43.54%

==========

Analysis Begun

Start Time: 5/10/2017 1:01:10 PM **Plasma On Time: 5/10/2017 8:20:29 AM**
Logged In Analyst: metinst **Technique: ICP Continuous**
Spectrometer: Optima 7300 DV, S/N 077C8121202 **Autosampler: ESI**

Sample Information File: C:\pe\metals\Sample Information\0510.sif
Batch ID:
Results Data Set: I2170510
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

==========

Sequence No.: 1
Sample ID: SEQ-CAL3 **Date Collected: 5/10/2017 1:01:12 PM**
Data Type: Original

Nebulizer Parameters: SEQ-CAL3

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: SEQ-CAL3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2279781.2	8295.31	0.36%	101.1	%
ScR 361.383	251375.3	163.66	0.07%	104.6	%
Ag 328.068†	153778.3	310.33	0.20%	[1.0]	mg/L
As 188.979†	17987.8	156.53	0.87%	[10]	mg/L
B 249.677†	73099.7	72.61	0.10%	[10]	mg/L
Be 313.042†	2202528.4	1831.62	0.08%	[5.0]	mg/L
Na 589.592†	436771.6	1132.15	0.26%	[50]	mg/L
Ni 231.604†	50391.2	151.77	0.30%	[10]	mg/L
Pb 220.353†	87154.4	194.75	0.22%	[10]	mg/L
Se 196.026†	13137.9	128.35	0.98%	[10]	mg/L
Sr 421.552†	2647595.9	5575.15	0.21%	[5]	mg/L
Tl 190.801†	20582.2	225.85	1.10%	[10]	mg/L
Zn 206.200†	40228.3	67.81	0.17%	[10]	mg/L

==========

Sequence No.: 2
Sample ID: SEQ-CAL4

Date Collected: 5/10/2017 1:03:15 PM
Data Type: Original

Nebulizer Parameters: SEQ-CAL4

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: SEQ-CAL4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2322391.9	13529.41	0.58%	103.0	%
ScR 361.383	249441.8	2273.68	0.91%	103.8	%
Mo 202.031†	199326.1	1422.87	0.71%	[10]	mg/L
Sb 206.836†	31153.6	160.20	0.51%	[10]	mg/L
Si 288.158†	20237.3	35.43	0.18%	[10]	mg/L
Sn 189.927†	39263.8	284.71	0.73%	[10]	mg/L
Ti 334.903†	167680.2	1405.74	0.84%	[10]	mg/L

==========

Analysis Begun

Start Time: 5/10/2017 1:05:22 PM **Plasma On Time: 5/10/2017 8:20:29 AM**
Logged In Analyst: metinst **Technique: ICP Continuous**
Spectrometer: Optima 7300 DV, S/N 077C8121202 **Autosampler: ESI**

Sample Information File: C:\pe\metals\Sample Information\0510.sif
Batch ID:
Results Data Set: I2170510
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 7**
Sample ID: SEQ-CCV5 **Date Collected: 5/10/2017 1:05:24 PM**
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCV5

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: SEQ-CCV5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2269583.3	100.7	%	0.65				0.65%
ScR 361.383	247410.5	102.9	%	1.12				1.09%
Ag 328.068†	153743.4	1.000	mg/L	0.0029	1.000	mg/L	0.0029	0.29%
Al 308.215†	3058.1	2.050	mg/L	0.0176	2.050	mg/L	0.0176	0.86%
As 188.979†	3571.6	2.005	mg/L	0.0164	2.005	mg/L	0.0164	0.82%
B 249.677†	7440.7	1.016	mg/L	0.0081	1.016	mg/L	0.0081	0.80%
Ba 233.527†	5273.0	1.047	mg/L	0.0105	1.047	mg/L	0.0105	1.00%
Be 313.042†	454218.9	1.031	mg/L	0.0094	1.031	mg/L	0.0094	0.91%
Ca 317.933†	25056.6	2.037	mg/L	0.0084	2.037	mg/L	0.0084	0.41%
Cd 228.802†	29395.5	1.041	mg/L	0.0045	1.041	mg/L	0.0045	0.43%
Co 228.616†	38304.9	1.049	mg/L	0.0030	1.049	mg/L	0.0030	0.28%
Cr 267.716†	7258.7	1.058	mg/L	0.0135	1.058	mg/L	0.0135	1.28%
Cu 324.752†	206192.6	1.001	mg/L	0.0033	1.001	mg/L	0.0033	0.33%
Fe 273.955†	2670.1	2.050	mg/L	0.0213	2.050	mg/L	0.0213	1.04%
K 766.490†	35172.6	20.26	mg/L	0.119	20.26	mg/L	0.119	0.59%
Mg 279.077†	2895.9	2.129	mg/L	0.0186	2.129	mg/L	0.0186	0.87%
Mn 257.610†	37335.6	0.9695	mg/L	0.00610	0.9695	mg/L	0.00610	0.63%
Mo 202.031†	20298.6	1.018	mg/L	0.0056	1.018	mg/L	0.0056	0.55%
Na 589.592†	450007.5	51.52	mg/L	0.369	51.52	mg/L	0.369	0.72%
Na 330.237†	1183.3	51.78	mg/L	0.901	51.78	mg/L	0.901	1.74%
Ni 231.604†	5113.2	1.015	mg/L	0.0101	1.015	mg/L	0.0101	1.00%
Pb 220.353†	18006.6	2.067	mg/L	0.0182	2.067	mg/L	0.0182	0.88%
Sb 206.836†	6408.2	2.053	mg/L	0.0159	2.053	mg/L	0.0159	0.77%
Se 196.026†	2663.6	2.026	mg/L	0.0167	2.026	mg/L	0.0167	0.83%
Si 288.158†	4302.3	2.107	mg/L	0.0213	2.107	mg/L	0.0213	1.01%
Sn 189.927†	3899.8	0.9945	mg/L	0.00787	0.9945	mg/L	0.00787	0.79%
Sr 421.552†	545564.1	1.030	mg/L	0.0079	1.030	mg/L	0.0079	0.77%
Ti 334.903†	16721.6	0.9959	mg/L	0.00766	0.9959	mg/L	0.00766	0.77%
Tl 190.801†	4120.5	1.992	mg/L	0.0184	1.992	mg/L	0.0184	0.92%
V 292.402†	111131.0	1.041	mg/L	0.0043	1.041	mg/L	0.0043	0.42%
Zn 206.200†	4083.7	1.016	mg/L	0.0120	1.016	mg/L	0.0120	1.18%

Sequence No.: 2
Sample ID: SEQ-CCB5

Autosampler Location: 1
Date Collected: 5/10/2017 1:10:15 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCB5

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: SEQ-CCB5

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2302629.6	102.1	%	0.96				0.94%
ScR 361.383	247757.1	103.1	%	0.84				0.82%
Ag 328.068†	17.6	0.00011	mg/L	0.000156	0.00011	mg/L	0.000156	136.34%
Al 308.215†	-1.4	-0.00097	mg/L	0.009811	-0.00097	mg/L	0.009811	>999.9%
As 188.979†	-1.4	-0.00081	mg/L	0.001133	-0.00081	mg/L	0.001133	139.88%
B 249.677†	22.7	0.00311	mg/L	0.001442	0.00311	mg/L	0.001442	46.39%
Ba 233.527†	-0.5	-0.00010	mg/L	0.000903	-0.00010	mg/L	0.000903	929.38%
Be 313.042†	68.5	0.00016	mg/L	0.000135	0.00016	mg/L	0.000135	87.01%
Ca 317.933†	24.2	0.00197	mg/L	0.000982	0.00197	mg/L	0.000982	49.91%
Cd 228.802†	7.3	0.00027	mg/L	0.000204	0.00027	mg/L	0.000204	76.31%
Co 228.616†	-1.7	-0.00005	mg/L	0.000289	-0.00005	mg/L	0.000289	605.36%
Cr 267.716†	-3.6	-0.00053	mg/L	0.001067	-0.00053	mg/L	0.001067	202.59%
Cu 324.752†	101.2	0.00049	mg/L	0.000177	0.00049	mg/L	0.000177	35.97%
Fe 273.955†	4.3	0.00328	mg/L	0.002265	0.00328	mg/L	0.002265	68.97%
K 766.490†	10.5	0.00606	mg/L	0.017277	0.00606	mg/L	0.017277	285.17%
Mg 279.077†	0.7	0.00051	mg/L	0.001760	0.00051	mg/L	0.001760	345.29%
Mn 257.610†	14.2	0.00037	mg/L	0.000075	0.00037	mg/L	0.000075	20.38%
Mo 202.031†	6.4	0.00032	mg/L	0.000222	0.00032	mg/L	0.000222	69.18%
Na 589.592†	74.7	0.00855	mg/L	0.005106	0.00855	mg/L	0.005106	59.71%
Na 330.237†	-9.9	-0.4335	mg/L	0.31793	-0.4335	mg/L	0.31793	73.34%
Ni 231.604†	2.8	0.00055	mg/L	0.000436	0.00055	mg/L	0.000436	78.88%
Pb 220.353†	3.7	0.00043	mg/L	0.000646	0.00043	mg/L	0.000646	150.98%
Sb 206.836†	8.9	0.00284	mg/L	0.000374	0.00284	mg/L	0.000374	13.17%
Se 196.026†	5.3	0.00407	mg/L	0.001676	0.00407	mg/L	0.001676	41.22%
Si 288.158†	-6.0	-0.00298	mg/L	0.001536	-0.00298	mg/L	0.001536	51.59%
Sn 189.927†	-3.5	-0.00089	mg/L	0.000461	-0.00089	mg/L	0.000461	51.97%
Sr 421.552†	81.3	0.00015	mg/L	0.000089	0.00015	mg/L	0.000089	57.98%
Ti 334.903†	-2.5	-0.00015	mg/L	0.000972	-0.00015	mg/L	0.000972	646.78%
Tl 190.801†	3.0	0.00146	mg/L	0.003027	0.00146	mg/L	0.003027	207.36%
V 292.402†	31.9	0.00029	mg/L	0.000089	0.00029	mg/L	0.000089	30.33%
Zn 206.200†	3.5	0.00088	mg/L	0.000753	0.00088	mg/L	0.000753	85.88%

==========

Sequence No.: 3 **Autosampler Location: 334**
Sample ID: BFE0283-BLK1 **Date Collected: 5/10/2017 1:14:15 PM**
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: BFE0283-BLK1

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: BFE0283-BLK1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2329500.5	103.3	%	0.34				0.33%
ScR 361.383	251026.1	104.4	%	0.81				0.77%
Ag 328.068†	13.4	0.00009	mg/L	0.000417	0.00009	mg/L	0.000417	477.78%
Al 308.215†	21.4	0.01463	mg/L	0.006173	0.01463	mg/L	0.006173	42.20%
As 188.979†	-0.1	-0.00005	mg/L	0.000733	-0.00005	mg/L	0.000733	>999.9%
B 249.677†	2.4	0.00033	mg/L	0.001099	0.00033	mg/L	0.001099	331.13%
Ba 233.527†	3.3	0.00065	mg/L	0.000436	0.00065	mg/L	0.000436	67.44%
Be 313.042†	84.3	0.00019	mg/L	0.000069	0.00019	mg/L	0.000069	36.20%
Ca 317.933†	204.2	0.01660	mg/L	0.000242	0.01660	mg/L	0.000242	1.46%
Cd 228.802†	8.0	0.00029	mg/L	0.000259	0.00029	mg/L	0.000259	90.29%
Co 228.616†	1.6	0.00004	mg/L	0.000062	0.00004	mg/L	0.000062	144.54%
Cr 267.716†	-0.0	-0.00000	mg/L	0.001498	-0.00000	mg/L	0.001498	>999.9%
Cu 324.752†	136.1	0.00066	mg/L	0.000073	0.00066	mg/L	0.000073	10.98%
Fe 273.955†	6.3	0.00488	mg/L	0.001208	0.00488	mg/L	0.001208	24.77%
K 766.490†	117.8	0.06787	mg/L	0.000279	0.06787	mg/L	0.000279	0.41%
Mg 279.077†	-7.6	-0.00558	mg/L	0.009232	-0.00558	mg/L	0.009232	165.37%
Mn 257.610†	17.7	0.00046	mg/L	0.000085	0.00046	mg/L	0.000085	18.48%
Mo 202.031†	1.8	0.00009	mg/L	0.000065	0.00009	mg/L	0.000065	72.85%
Na 589.592†	708.1	0.08106	mg/L	0.002989	0.08106	mg/L	0.002989	3.69%
Na 330.237†	12.7	0.5581	mg/L	0.15620	0.5581	mg/L	0.15620	27.99%
Ni 231.604†	-2.5	-0.00050	mg/L	0.001107	-0.00050	mg/L	0.001107	221.22%
Pb 220.353†	7.8	0.00089	mg/L	0.000843	0.00089	mg/L	0.000843	94.43%
Sb 206.836†	1.7	0.00053	mg/L	0.001880	0.00053	mg/L	0.001880	355.71%
Se 196.026†	5.8	0.00440	mg/L	0.004621	0.00440	mg/L	0.004621	104.95%
Si 288.158†	-5.5	-0.00271	mg/L	0.001005	-0.00271	mg/L	0.001005	37.13%
Sn 189.927†	-2.9	-0.00074	mg/L	0.000810	-0.00074	mg/L	0.000810	109.98%
Sr 421.552†	52.9	0.00010	mg/L	0.000055	0.00010	mg/L	0.000055	55.09%
Ti 334.903†	6.4	0.00038	mg/L	0.000368	0.00038	mg/L	0.000368	96.27%
Tl 190.801†	-1.1	-0.00051	mg/L	0.000871	-0.00051	mg/L	0.000871	169.25%
V 292.402†	6.3	0.00006	mg/L	0.000170	0.00006	mg/L	0.000170	293.72%
Zn 206.200†	6.5	0.00160	mg/L	0.001050	0.00160	mg/L	0.001050	65.48%

Sequence No.: 4
Sample ID: 17D0421-07

Autosampler Location: 335
Date Collected: 5/10/2017 1:18:31 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 17D0421-07

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: 17D0421-07

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2138236.6	94.83	%	1.002				1.06%
ScR 361.383	244089.3	101.5	%	1.21				1.19%
Ag 328.068†	112.8	0.00074	mg/L	0.000347	0.00074	mg/L	0.000347	46.78%
Al 308.215†	9210.9	6.282	mg/L	0.0283	6.282	mg/L	0.0283	0.45%
As 188.979†	197.9	0.1094	mg/L	0.00157	0.1094	mg/L	0.00157	1.43%
B 249.677†	605.2	0.08268	mg/L	0.001029	0.08268	mg/L	0.001029	1.24%
Ba 233.527†	84.1	0.01482	mg/L	0.000623	0.01482	mg/L	0.000623	4.20%
Be 313.042†	139.5	0.00031	mg/L	0.000037	0.00031	mg/L	0.000037	12.16%
Ca 317.933†	1431444.3	116.4	mg/L	0.19	116.4	mg/L	0.19	0.16%
Cd 228.802†	447.4	0.01529	mg/L	0.000257	0.01529	mg/L	0.000257	1.68%
Co 228.616†	554.1	0.01456	mg/L	0.000137	0.01456	mg/L	0.000137	0.94%
Cr 267.716†	462.0	0.06375	mg/L	0.000642	0.06375	mg/L	0.000642	1.01%
Cu 324.752†	10966.8	0.05305	mg/L	0.000591	0.05305	mg/L	0.000591	1.11%
Fe 273.955†	16937.4	13.05	mg/L	0.027	13.05	mg/L	0.027	0.21%
K 766.490†	130879.6	75.37	mg/L	0.162	75.37	mg/L	0.162	0.22%
Mg 279.077†	56810.9	41.56	mg/L	0.080	41.56	mg/L	0.080	0.19%
Mn 257.610†	8994.4	0.2331	mg/L	0.00067	0.2331	mg/L	0.00067	0.29%
Mo 202.031†	215.4	0.00920	mg/L	0.000372	0.00920	mg/L	0.000372	4.05%
Na 589.592†	2084714.7	238.7	mg/L	1.28	238.7	mg/L	1.28	0.54%
Na 330.237†	5432.0	238.4	mg/L	0.65	238.4	mg/L	0.65	0.27%
Ni 231.604†	346.1	0.06868	mg/L	0.000884	0.06868	mg/L	0.000884	1.29%
Pb 220.353†	48.2	0.00735	mg/L	0.000443	0.00735	mg/L	0.000443	6.03%
Sb 206.836†	13.0	0.00302	mg/L	0.001759	0.00302	mg/L	0.001759	58.21%
Se 196.026†	25.1	0.01800	mg/L	0.001776	0.01800	mg/L	0.001776	9.87%
Si 288.158†	1331.3	0.6507	mg/L	0.00593	0.6507	mg/L	0.00593	0.91%
Sn 189.927†	-64.0	0.00194	mg/L	0.002601	0.00194	mg/L	0.002601	134.21%
Sr 421.552†	408437.8	0.7713	mg/L	0.00318	0.7713	mg/L	0.00318	0.41%
Ti 334.903†	5755.4	0.3364	mg/L	0.00149	0.3364	mg/L	0.00149	0.44%
Tl 190.801†	0.0	-0.00017	mg/L	0.003062	-0.00017	mg/L	0.003062	>999.9%
V 292.402†	2702.2	0.02486	mg/L	0.000373	0.02486	mg/L	0.000373	1.50%
Zn 206.200†	2212.9	0.5502	mg/L	0.00430	0.5502	mg/L	0.00430	0.78%

Sequence No.: 5
Sample ID: 17D0421-09

Autosampler Location: 336
Date Collected: 5/10/2017 1:22:48 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 17D0421-09

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: 17D0421-09

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2207127.8	97.88	%	0.539				0.55%
ScR 361.383	237213.9	98.68	%	2.204				2.23%
Ag 328.068†	461.0	0.00300	mg/L	0.000264	0.00300	mg/L	0.000264	8.82%
Al 308.215†	117.9	0.08031	mg/L	0.005651	0.08031	mg/L	0.005651	7.04%
As 188.979†	923.3	0.5088	mg/L	0.00498	0.5088	mg/L	0.00498	0.98%
B 249.677†	194.4	0.02659	mg/L	0.002187	0.02659	mg/L	0.002187	8.23%
Ba 233.527†	27.9	0.00551	mg/L	0.001185	0.00551	mg/L	0.001185	21.51%
Be 313.042†	117.4	0.00027	mg/L	0.000055	0.00027	mg/L	0.000055	20.60%
Ca 317.933†	723295.8	58.80	mg/L	0.094	58.80	mg/L	0.094	0.16%
Cd 228.802†	89.9	-0.00068	mg/L	0.000054	-0.00068	mg/L	0.000054	7.88%
Co 228.616†	62.2	0.00169	mg/L	0.000229	0.00169	mg/L	0.000229	13.52%
Cr 267.716†	41.5	0.00422	mg/L	0.001392	0.00422	mg/L	0.001392	33.01%
Cu 324.752†	48941.9	0.2364	mg/L	0.00179	0.2364	mg/L	0.00179	0.76%
Fe 273.955†	242.4	0.1867	mg/L	0.00958	0.1867	mg/L	0.00958	5.13%
K 766.490†	360925.5	207.9	mg/L	0.70	207.9	mg/L	0.70	0.34%
Mg 279.077†	22821.6	16.70	mg/L	0.693	16.70	mg/L	0.693	4.15%
Mn 257.610†	447.3	0.01143	mg/L	0.000552	0.01143	mg/L	0.000552	4.83%
Mo 202.031†	120.8	0.00525	mg/L	0.000107	0.00525	mg/L	0.000107	2.04%
Na 589.592†	971897.5	111.3	mg/L	0.69	111.3	mg/L	0.69	0.62%
Na 330.237†	2516.7	109.7	mg/L	3.88	109.7	mg/L	3.88	3.53%
Ni 231.604†	7.5	0.00148	mg/L	0.000068	0.00148	mg/L	0.000068	4.62%
Pb 220.353†	17.3	0.00172	mg/L	0.000413	0.00172	mg/L	0.000413	24.06%
Sb 206.836†	7.3	0.00216	mg/L	0.001440	0.00216	mg/L	0.001440	66.78%
Se 196.026†	21.4	0.01630	mg/L	0.003673	0.01630	mg/L	0.003673	22.54%
Si 288.158†	373.1	0.1842	mg/L	0.00870	0.1842	mg/L	0.00870	4.72%
Sn 189.927†	-37.4	-0.00031	mg/L	0.000553	-0.00031	mg/L	0.000553	179.85%
Sr 421.552†	458036.7	0.8650	mg/L	0.00434	0.8650	mg/L	0.00434	0.50%
Ti 334.903†	119.9	0.00369	mg/L	0.000780	0.00369	mg/L	0.000780	21.12%
Tl 190.801†	1.9	0.00093	mg/L	0.001838	0.00093	mg/L	0.001838	197.97%
V 292.402†	59.2	0.00057	mg/L	0.000213	0.00057	mg/L	0.000213	37.15%
Zn 206.200†	8030.5	1.996	mg/L	0.0857	1.996	mg/L	0.0857	4.29%

Sequence No.: 6
Sample ID: 17D0421-10

Autosampler Location: 337
Date Collected: 5/10/2017 1:27:03 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 17D0421-10

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: 17D0421-10

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2214684.4	98.22	%	0.207				0.21%
ScR 361.383	243866.8	101.4	%	0.62				0.61%
Ag 328.068†	1151.8	0.00749	mg/L	0.000162	0.00749	mg/L	0.000162	2.16%
Al 308.215†	60.1	0.04038	mg/L	0.006415	0.04038	mg/L	0.006415	15.89%
As 188.979†	878.8	0.4866	mg/L	0.00377	0.4866	mg/L	0.00377	0.78%
B 249.677†	473.5	0.06474	mg/L	0.001344	0.06474	mg/L	0.001344	2.08%
Ba 233.527†	28.7	0.00527	mg/L	0.000417	0.00527	mg/L	0.000417	7.92%
Be 313.042†	104.2	0.00023	mg/L	0.000030	0.00023	mg/L	0.000030	13.03%
Ca 317.933†	326718.2	26.56	mg/L	0.048	26.56	mg/L	0.048	0.18%
Cd 228.802†	7198.6	0.2548	mg/L	0.00407	0.2548	mg/L	0.00407	1.60%
Co 228.616†	989.3	0.02712	mg/L	0.000164	0.02712	mg/L	0.000164	0.60%
Cr 267.716†	48.5	0.00527	mg/L	0.001379	0.00527	mg/L	0.001379	26.14%
Cu 324.752†	109986.1	0.5333	mg/L	0.00120	0.5333	mg/L	0.00120	0.22%
Fe 273.955†	3805.5	2.931	mg/L	0.0315	2.931	mg/L	0.0315	1.08%
K 766.490†	253129.9	145.8	mg/L	0.30	145.8	mg/L	0.30	0.20%
Mg 279.077†	29471.0	21.56	mg/L	0.164	21.56	mg/L	0.164	0.76%
Mn 257.610†	2627.1	0.06813	mg/L	0.000797	0.06813	mg/L	0.000797	1.17%
Mo 202.031†	499.9	0.02472	mg/L	0.000178	0.02472	mg/L	0.000178	0.72%
Na 589.592†	1781013.2	203.9	mg/L	0.31	203.9	mg/L	0.31	0.15%
Na 330.237†	4711.0	206.4	mg/L	1.59	206.4	mg/L	1.59	0.77%
Ni 231.604†	243.2	0.04826	mg/L	0.001349	0.04826	mg/L	0.001349	2.80%
Pb 220.353†	57.4	0.00592	mg/L	0.000654	0.00592	mg/L	0.000654	11.05%
Sb 206.836†	8.3	0.00257	mg/L	0.001383	0.00257	mg/L	0.001383	53.75%
Se 196.026†	109.4	0.08323	mg/L	0.006938	0.08323	mg/L	0.006938	8.34%
Si 288.158†	262.3	0.1295	mg/L	0.00158	0.1295	mg/L	0.00158	1.22%
Sn 189.927†	-13.3	0.00079	mg/L	0.000851	0.00079	mg/L	0.000851	108.31%
Sr 421.552†	379601.6	0.7169	mg/L	0.00151	0.7169	mg/L	0.00151	0.21%
Ti 334.903†	132.4	0.00631	mg/L	0.000212	0.00631	mg/L	0.000212	3.36%
Tl 190.801†	-2.3	-0.00129	mg/L	0.001073	-0.00129	mg/L	0.001073	82.91%
V 292.402†	1241.9	0.01152	mg/L	0.000206	0.01152	mg/L	0.000206	1.78%
Zn 206.200†	4910.6	1.221	mg/L	0.0112	1.221	mg/L	0.0112	0.91%

Sequence No.: 7
Sample ID: BFE0167-DUP1

Autosampler Location: 338
Date Collected: 5/10/2017 1:31:18 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: BFE0167-DUP1

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: BFE0167-DUP1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2228012.4	98.81	%	0.703				0.71%
ScR 361.383	256333.8	106.6	%	1.44				1.35%
Ag 328.068†	6984.8	0.04542	mg/L	0.000450	0.04542	mg/L	0.000450	0.99%
Al 308.215†	2392.3	1.632	mg/L	0.0239	1.632	mg/L	0.0239	1.47%
As 188.979†	206.8	0.1152	mg/L	0.00176	0.1152	mg/L	0.00176	1.53%
B 249.677†	656.5	0.08979	mg/L	0.001024	0.08979	mg/L	0.001024	1.14%
Ba 233.527†	30.3	0.00520	mg/L	0.001297	0.00520	mg/L	0.001297	24.96%
Be 313.042†	103.4	0.00023	mg/L	0.000036	0.00023	mg/L	0.000036	15.77%
Ca 317.933†	227515.1	18.49	mg/L	0.298	18.49	mg/L	0.298	1.61%
Cd 228.802†	350.1	0.01171	mg/L	0.000099	0.01171	mg/L	0.000099	0.85%
Co 228.616†	151.8	0.00404	mg/L	0.000090	0.00404	mg/L	0.000090	2.22%
Cr 267.716†	134.5	0.01684	mg/L	0.000499	0.01684	mg/L	0.000499	2.96%
Cu 324.752†	20005.8	0.09648	mg/L	0.000632	0.09648	mg/L	0.000632	0.66%
Fe 273.955†	7458.2	5.745	mg/L	0.0334	5.745	mg/L	0.0334	0.58%
K 766.490†	193520.4	111.5	mg/L	0.57	111.5	mg/L	0.57	0.51%
Mg 279.077†	50097.8	36.65	mg/L	0.099	36.65	mg/L	0.099	0.27%
Mn 257.610†	4696.5	0.1219	mg/L	0.00072	0.1219	mg/L	0.00072	0.59%
Mo 202.031†	188.0	0.00918	mg/L	0.000118	0.00918	mg/L	0.000118	1.29%
Na 589.592†	1939444.8	222.0	mg/L	2.59	222.0	mg/L	2.59	1.17%
Na 330.237†	5131.6	224.7	mg/L	0.64	224.7	mg/L	0.64	0.29%
Ni 231.604†	67.8	0.01346	mg/L	0.000907	0.01346	mg/L	0.000907	6.74%
Pb 220.353†	71.3	0.00855	mg/L	0.001557	0.00855	mg/L	0.001557	18.21%
Sb 206.836†	8.6	0.00243	mg/L	0.001221	0.00243	mg/L	0.001221	50.26%
Se 196.026†	48.6	0.03671	mg/L	0.002485	0.03671	mg/L	0.002485	6.77%
Si 288.158†	1376.9	0.6789	mg/L	0.01479	0.6789	mg/L	0.01479	2.18%
Sn 189.927†	-14.1	-0.00069	mg/L	0.000930	-0.00069	mg/L	0.000930	133.88%
Sr 421.552†	144492.6	0.2729	mg/L	0.00110	0.2729	mg/L	0.00110	0.40%
Ti 334.903†	1162.4	0.06822	mg/L	0.001074	0.06822	mg/L	0.001074	1.57%
Tl 190.801†	-5.5	-0.00271	mg/L	0.001666	-0.00271	mg/L	0.001666	61.39%
V 292.402†	1041.9	0.00958	mg/L	0.000409	0.00958	mg/L	0.000409	4.28%
Zn 206.200†	6856.9	1.705	mg/L	0.0264	1.705	mg/L	0.0264	1.55%

Sequence No.: 8
Sample ID: 17D0421-08

Autosampler Location: 339
Date Collected: 5/10/2017 1:35:33 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 17D0421-08

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: 17D0421-08

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2191757.2	97.20	%	0.772				0.79%
ScR 361.383	240166.1	99.91	%	1.208				1.21%
Ag 328.068†	6551.2	0.04260	mg/L	0.000460	0.04260	mg/L	0.000460	1.08%
Al 308.215†	2592.1	1.768	mg/L	0.0082	1.768	mg/L	0.0082	0.47%
As 188.979†	212.8	0.1150	mg/L	0.00115	0.1150	mg/L	0.00115	1.00%
B 249.677†	684.3	0.09359	mg/L	0.001009	0.09359	mg/L	0.001009	1.08%
Ba 233.527†	54.4	0.00996	mg/L	0.000633	0.00996	mg/L	0.000633	6.35%
Be 313.042†	154.8	0.00035	mg/L	0.000022	0.00035	mg/L	0.000022	6.32%
Ca 317.933†	842673.7	68.50	mg/L	0.225	68.50	mg/L	0.225	0.33%
Cd 228.802†	337.6	0.01124	mg/L	0.000446	0.01124	mg/L	0.000446	3.97%
Co 228.616†	148.7	0.00392	mg/L	0.000059	0.00392	mg/L	0.000059	1.49%
Cr 267.716†	152.3	0.01897	mg/L	0.000920	0.01897	mg/L	0.000920	4.85%
Cu 324.752†	19838.0	0.09565	mg/L	0.001285	0.09565	mg/L	0.001285	1.34%
Fe 273.955†	7586.9	5.845	mg/L	0.0216	5.845	mg/L	0.0216	0.37%
K 766.490†	196936.4	113.4	mg/L	0.23	113.4	mg/L	0.23	0.20%
Mg 279.077†	51248.4	37.49	mg/L	0.412	37.49	mg/L	0.412	1.10%
Mn 257.610†	4114.1	0.1066	mg/L	0.00081	0.1066	mg/L	0.00081	0.76%
Mo 202.031†	223.6	0.01027	mg/L	0.000429	0.01027	mg/L	0.000429	4.18%
Na 589.592†	1992136.1	228.1	mg/L	0.12	228.1	mg/L	0.12	0.05%
Na 330.237†	5320.3	233.0	mg/L	1.40	233.0	mg/L	1.40	0.60%
Ni 231.604†	83.6	0.01659	mg/L	0.001432	0.01659	mg/L	0.001432	8.63%
Pb 220.353†	80.5	0.00965	mg/L	0.000807	0.00965	mg/L	0.000807	8.37%
Sb 206.836†	12.3	0.00349	mg/L	0.001871	0.00349	mg/L	0.001871	53.62%
Se 196.026†	39.1	0.02946	mg/L	0.003279	0.02946	mg/L	0.003279	11.13%
Si 288.158†	1403.6	0.6918	mg/L	0.01018	0.6918	mg/L	0.01018	1.47%
Sn 189.927†	-49.8	-0.00195	mg/L	0.000902	-0.00195	mg/L	0.000902	46.15%
Sr 421.552†	430064.9	0.8122	mg/L	0.00107	0.8122	mg/L	0.00107	0.13%
Ti 334.903†	1460.4	0.08306	mg/L	0.000171	0.08306	mg/L	0.000171	0.21%
Tl 190.801†	-5.3	-0.00264	mg/L	0.002104	-0.00264	mg/L	0.002104	79.56%
V 292.402†	1080.4	0.00993	mg/L	0.000319	0.00993	mg/L	0.000319	3.21%
Zn 206.200†	6772.7	1.684	mg/L	0.0128	1.684	mg/L	0.0128	0.76%

Sequence No.: 9
Sample ID: BFE0167-MS1

Autosampler Location: 340
Date Collected: 5/10/2017 1:39:48 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: BFE0167-MS1

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: BFE0167-MS1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2194179.5	97.31	%	0.434				0.45%
ScR 361.383	240539.4	100.1	%	0.90				0.90%
Ag 328.068†	49703.1	0.3235	mg/L	0.00133	0.3235	mg/L	0.00133	0.41%
Al 308.215†	7983.1	5.431	mg/L	0.0512	5.431	mg/L	0.0512	0.94%
As 188.979†	7204.0	4.002	mg/L	0.0306	4.002	mg/L	0.0306	0.76%
B 249.677†	696.0	0.09246	mg/L	0.003709	0.09246	mg/L	0.003709	4.01%
Ba 233.527†	20415.0	4.052	mg/L	0.0620	4.052	mg/L	0.0620	1.53%
Be 313.042†	423181.0	0.9604	mg/L	0.00103	0.9604	mg/L	0.00103	0.11%
Ca 317.933†	667024.5	54.22	mg/L	0.078	54.22	mg/L	0.078	0.14%
Cd 228.802†	28973.6	1.010	mg/L	0.0060	1.010	mg/L	0.0060	0.60%
Co 228.616†	35890.0	0.9838	mg/L	0.00357	0.9838	mg/L	0.00357	0.36%
Cr 267.716†	7058.6	1.025	mg/L	0.0069	1.025	mg/L	0.0069	0.67%
Cu 324.752†	224484.3	1.090	mg/L	0.0040	1.090	mg/L	0.0040	0.37%
Fe 273.955†	14858.4	11.44	mg/L	0.021	11.44	mg/L	0.021	0.18%
K 766.490†	233350.0	134.4	mg/L	0.18	134.4	mg/L	0.18	0.13%
Mg 279.077†	76649.6	56.08	mg/L	0.146	56.08	mg/L	0.146	0.26%
Mn 257.610†	41231.3	1.071	mg/L	0.0017	1.071	mg/L	0.0017	0.15%
Mo 202.031†	215.6	0.01001	mg/L	0.000372	0.01001	mg/L	0.000372	3.71%
Na 589.592†	2176773.2	249.2	mg/L	0.63	249.2	mg/L	0.63	0.25%
Na 330.237†	5873.1	256.9	mg/L	1.82	256.9	mg/L	1.82	0.71%
Ni 231.604†	5008.0	0.9924	mg/L	0.00960	0.9924	mg/L	0.00960	0.97%
Pb 220.353†	32577.6	3.740	mg/L	0.0139	3.740	mg/L	0.0139	0.37%
Sb 206.836†	42.2	0.00001	mg/L	0.001028	0.00001	mg/L	0.001028	>999.9%
Se 196.026†	5427.0	4.128	mg/L	0.0355	4.128	mg/L	0.0355	0.86%
Si 288.158†	1697.7	0.8373	mg/L	0.00321	0.8373	mg/L	0.00321	0.38%
Sn 189.927†	-46.3	-0.00316	mg/L	0.000969	-0.00316	mg/L	0.000969	30.68%
Sr 421.552†	766389.0	1.447	mg/L	0.0020	1.447	mg/L	0.0020	0.14%
Ti 334.903†	1336.6	0.07628	mg/L	0.000426	0.07628	mg/L	0.000426	0.56%
Tl 190.801†	7337.8	3.556	mg/L	0.0339	3.556	mg/L	0.0339	0.95%
V 292.402†	112208.0	1.051	mg/L	0.0046	1.051	mg/L	0.0046	0.43%
Zn 206.200†	10485.0	2.607	mg/L	0.0126	2.607	mg/L	0.0126	0.48%

Sequence No.: 10 **Autosampler Location: 341**
Sample ID: 17E0124-03 DEL **Date Collected: 5/10/2017 1:44:09 PM**
Data Type: Original

Dilution: 100.000000X

Nebulizer Parameters: 17E0124-03

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: 17E0124-03

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2287677.8	101.5	%	0.15				0.15%
ScR 361.383	249122.5	103.6	%	0.62				0.59%
Ag 328.068†	29.9	0.00019	mg/L	0.000219	0.01947	mg/L	0.021851	112.20%
Al 308.215†	62.8	0.04174	mg/L	0.003156	4.174	mg/L	0.3156	7.56%
As 188.979†	1.6	0.00022	mg/L	0.000740	0.02188	mg/L	0.074017	338.33%
B 249.677†	-0.4	-0.00005	mg/L	0.000528	-0.00548	mg/L	0.052798	963.62%
Ba 233.527†	29.4	0.00391	mg/L	0.000243	0.3911	mg/L	0.02427	6.21%
Be 313.042†	95.4	0.00022	mg/L	0.000033	0.02163	mg/L	0.003310	15.30%
Ca 317.933†	3225.6	0.2622	mg/L	0.00178	26.22	mg/L	0.178	0.68%
Cd 228.802†	-4.9	0.00037	mg/L	0.000139	0.03747	mg/L	0.013922	37.16%
Co 228.616†	285.7	0.00776	mg/L	0.000119	0.7760	mg/L	0.01186	1.53%
Cr 267.716†	1825.3	0.2666	mg/L	0.00096	26.66	mg/L	0.096	0.36%
Cu 324.752†	516615.7	2.510	mg/L	0.0031	251.0	mg/L	0.31	0.13%
Fe 273.955†	16864.6	12.99	mg/L	0.091	1299	mg/L	9.06	0.70%
K 766.490†	375.6	0.2163	mg/L	0.01617	21.63	mg/L	1.617	7.47%
Mg 279.077†	126.5	0.08550	mg/L	0.004786	8.550	mg/L	0.4786	5.60%
Mn 257.610†	2184.7	0.05678	mg/L	0.000140	5.678	mg/L	0.0140	0.25%
Mo 202.031†	1181.3	0.05925	mg/L	0.000204	5.925	mg/L	0.0204	0.34%
Na 589.592†	3012.9	0.3449	mg/L	0.00854	34.49	mg/L	0.854	2.48%
Na 330.237†	-2.7	-0.1278	mg/L	0.12222	-12.78	mg/L	12.222	95.63%
Ni 231.604†	2881.7	0.5719	mg/L	0.00010	57.19	mg/L	0.010	0.02%
Pb 220.353†	55.8	0.00368	mg/L	0.000606	0.3676	mg/L	0.06059	16.48%
Sb 206.836†	25.2	0.00352	mg/L	0.001144	0.3525	mg/L	0.11438	32.45%
Se 196.026†	-1.0	-0.00077	mg/L	0.001135	-0.07699	mg/L	0.113514	147.43%
Si 288.158†	441.1	0.2180	mg/L	0.03027	21.80	mg/L	3.027	13.88%
Sn 189.927†	94.5	0.02411	mg/L	0.000772	2.411	mg/L	0.0772	3.20%
Sr 421.552†	500.9	0.00095	mg/L	0.000054	0.09459	mg/L	0.005399	5.71%
Ti 334.903†	55.1	0.00315	mg/L	0.000568	0.3151	mg/L	0.05679	18.02%
Tl 190.801†	-3.1	-0.00157	mg/L	0.000721	-0.1571	mg/L	0.07214	45.93%
V 292.402†	87.7	0.00168	mg/L	0.000059	0.1676	mg/L	0.00590	3.52%
Zn 206.200†	85.8	0.02137	mg/L	0.000492	2.137	mg/L	0.0492	2.30%

Sequence No.: 11 **Autosampler Location: 342**
Sample ID: 17E0124-03 DEL **Date Collected: 5/10/2017 1:48:31 PM**
Data Type: Original

Dilution: 50.000000X

Nebulizer Parameters: 17E0124-03

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: 17E0124-03

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2308692.8	102.4	%	0.23				0.22%
ScR 361.383	248863.3	103.5	%	0.77				0.74%
Ag 328.068†	61.4	0.00040	mg/L	0.000058	0.01997	mg/L	0.002914	14.59%
Al 308.215†	105.7	0.06976	mg/L	0.007323	3.488	mg/L	0.3661	10.50%
As 188.979†	2.3	-0.00015	mg/L	0.000540	-0.00767	mg/L	0.026994	351.93%
B 249.677†	7.3	0.00099	mg/L	0.002060	0.04933	mg/L	0.103025	208.85%
Ba 233.527†	22.2	0.00035	mg/L	0.000434	0.01770	mg/L	0.021697	122.55%
Be 313.042†	94.8	0.00021	mg/L	0.000013	0.01073	mg/L	0.000636	5.93%
Ca 317.933†	5987.5	0.4867	mg/L	0.00093	24.34	mg/L	0.046	0.19%
Cd 228.802†	-20.5	0.00038	mg/L	0.000219	0.01918	mg/L	0.010959	57.14%
Co 228.616†	586.8	0.01594	mg/L	0.000289	0.7969	mg/L	0.01443	1.81%

Cr 267.716†	3842.4	0.5613 mg/L	0.00304	28.06 mg/L	0.152	0.54%
Cu 324.752†	1086966.4	5.280 mg/L	0.0029	264.0 mg/L	0.15	0.06%
Fe 273.955†	35446.0	27.31 mg/L	0.051	1365 mg/L	2.54	0.19%
K 766.490†	666.9	0.3841 mg/L	0.00751	19.20 mg/L	0.375	1.95%
Mg 279.077†	265.1	0.1791 mg/L	0.00285	8.955 mg/L	0.1426	1.59%
Mn 257.610†	4576.9	0.1189 mg/L	0.00054	5.947 mg/L	0.0269	0.45%
Mo 202.031†	2441.9	0.1225 mg/L	0.00060	6.124 mg/L	0.0299	0.49%
Na 589.592†	5070.0	0.5804 mg/L	0.00729	29.02 mg/L	0.364	1.26%
Na 330.237†	8.8	0.3739 mg/L	0.27773	18.69 mg/L	13.886	74.28%
Ni 231.604†	5834.2	1.158 mg/L	0.0023	57.89 mg/L	0.115	0.20%
Pb 220.353†	95.5	0.00522 mg/L	0.000350	0.2608 mg/L	0.01752	6.72%
Sb 206.836†	39.7	0.00314 mg/L	0.002488	0.1571 mg/L	0.12438	79.16%
Se 196.026†	-1.7	-0.00129 mg/L	0.001913	-0.06454 mg/L	0.095635	148.18%
Si 288.158†	1327.6	0.6561 mg/L	0.12190	32.80 mg/L	6.095	18.58%
Sn 189.927†	204.6	0.05218 mg/L	0.000747	2.609 mg/L	0.0373	1.43%
Sr 421.552†	928.2	0.00175 mg/L	0.000013	0.08765 mg/L	0.000632	0.72%
Ti 334.903†	125.1	0.00719 mg/L	0.000488	0.3593 mg/L	0.02441	6.79%
Tl 190.801†	-3.2	-0.00163 mg/L	0.000887	-0.08167 mg/L	0.044361	54.32%
V 292.402†	162.0	0.00332 mg/L	0.000248	0.1659 mg/L	0.01240	7.47%
Zn 206.200†	162.4	0.04052 mg/L	0.000935	2.026 mg/L	0.0468	2.31%

Sequence No.: 12
Sample ID: BFE0283-BS1

Autosampler Location: 343
Date Collected: 5/10/2017 1:53:53 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: BFE0283-BS1

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: BFE0283-BS1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2333025.4	103.5	%	0.15				0.15%
ScR 361.383	253362.1	105.4	%	2.05				1.95%
Ag 328.068†	4141.6	0.02694	mg/L	0.000253	0.02694	mg/L	0.000253	0.94%
Al 308.215†	17.6	0.01111	mg/L	0.001206	0.01111	mg/L	0.001206	10.85%
As 188.979†	45.0	0.02489	mg/L	0.001979	0.02489	mg/L	0.001979	7.95%
B 249.677†	-4.3	-0.00062	mg/L	0.000576	-0.00062	mg/L	0.000576	92.47%
Ba 233.527†	133.5	0.02650	mg/L	0.000456	0.02650	mg/L	0.000456	1.72%
Be 313.042†	11161.7	0.02533	mg/L	0.000304	0.02533	mg/L	0.000304	1.20%
Ca 317.933†	858.4	0.06977	mg/L	0.001183	0.06977	mg/L	0.001183	1.69%
Cd 228.802†	811.1	0.02895	mg/L	0.000041	0.02895	mg/L	0.000041	0.14%
Co 228.616†	1050.2	0.02880	mg/L	0.000277	0.02880	mg/L	0.000277	0.96%
Cr 267.716†	184.4	0.02687	mg/L	0.000262	0.02687	mg/L	0.000262	0.97%
Cu 324.752†	5762.0	0.02798	mg/L	0.000285	0.02798	mg/L	0.000285	1.02%
Fe 273.955†	2.7	0.00192	mg/L	0.000821	0.00192	mg/L	0.000821	42.73%
K 766.490†	717.8	0.4134	mg/L	0.03073	0.4134	mg/L	0.03073	7.43%
Mg 279.077†	5.0	0.00391	mg/L	0.006968	0.00391	mg/L	0.006968	178.18%
Mn 257.610†	1071.6	0.02782	mg/L	0.000634	0.02782	mg/L	0.000634	2.28%
Mo 202.031†	511.0	0.02563	mg/L	0.000169	0.02563	mg/L	0.000169	0.66%
Na 589.592†	5016.6	0.5743	mg/L	0.00538	0.5743	mg/L	0.00538	0.94%
Na 330.237†	1.3	0.02120	mg/L	0.328448	0.02120	mg/L	0.328448	>999.9%
Ni 231.604†	142.2	0.02823	mg/L	0.000325	0.02823	mg/L	0.000325	1.15%
Pb 220.353†	247.1	0.02836	mg/L	0.000505	0.02836	mg/L	0.000505	1.78%
Sb 206.836†	86.7	0.02748	mg/L	0.001746	0.02748	mg/L	0.001746	6.35%
Se 196.026†	122.0	0.09285	mg/L	0.004571	0.09285	mg/L	0.004571	4.92%
Si 288.158†	-0.6	-0.00024	mg/L	0.004751	-0.00024	mg/L	0.004751	>999.9%
Sn 189.927†	-1.2	-0.00028	mg/L	0.000968	-0.00028	mg/L	0.000968	348.34%
Sr 421.552†	96.2	0.00018	mg/L	0.000034	0.00018	mg/L	0.000034	18.52%
Ti 334.903†	8.1	0.00045	mg/L	0.000120	0.00045	mg/L	0.000120	26.95%
Tl 190.801†	59.0	0.02840	mg/L	0.000982	0.02840	mg/L	0.000982	3.46%
V 292.402†	2887.3	0.02706	mg/L	0.000332	0.02706	mg/L	0.000332	1.23%
Zn 206.200†	368.6	0.09163	mg/L	0.001805	0.09163	mg/L	0.001805	1.97%

==========

Sequence No.: 13 **Autosampler Location: 7**
Sample ID: SEQ-CCV6 **Date Collected: 5/10/2017 1:58:55 PM**
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCV6

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: SEQ-CCV6

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2284980.5	101.3	%	0.08				0.08%
ScR 361.383	250335.2	104.1	%	0.32				0.30%
Ag 328.068†	158493.9	1.031	mg/L	0.0052	1.031	mg/L	0.0052	0.50%
Al 308.215†	2979.3	1.997	mg/L	0.0169	1.997	mg/L	0.0169	0.85%
As 188.979†	3644.7	2.046	mg/L	0.0185	2.046	mg/L	0.0185	0.91%
B 249.677†	7289.6	0.9957	mg/L	0.00703	0.9957	mg/L	0.00703	0.71%
Ba 233.527†	5173.1	1.027	mg/L	0.0181	1.027	mg/L	0.0181	1.76%
Be 313.042†	455294.8	1.033	mg/L	0.0018	1.033	mg/L	0.0018	0.17%
Ca 317.933†	26096.0	2.121	mg/L	0.0076	2.121	mg/L	0.0076	0.36%
Cd 228.802†	29595.8	1.048	mg/L	0.0069	1.048	mg/L	0.0069	0.66%
Co 228.616†	38409.8	1.052	mg/L	0.0068	1.052	mg/L	0.0068	0.65%
Cr 267.716†	7145.1	1.041	mg/L	0.0057	1.041	mg/L	0.0057	0.55%
Cu 324.752†	210711.6	1.023	mg/L	0.0052	1.023	mg/L	0.0052	0.51%
Fe 273.955†	2646.7	2.032	mg/L	0.0102	2.032	mg/L	0.0102	0.50%
K 766.490†	35068.4	20.20	mg/L	0.084	20.20	mg/L	0.084	0.42%
Mg 279.077†	2850.5	2.095	mg/L	0.0184	2.095	mg/L	0.0184	0.88%
Mn 257.610†	38536.1	1.001	mg/L	0.0079	1.001	mg/L	0.0079	0.79%
Mo 202.031†	19838.5	0.9952	mg/L	0.00595	0.9952	mg/L	0.00595	0.60%
Na 589.592†	446468.8	51.11	mg/L	0.114	51.11	mg/L	0.114	0.22%
Na 330.237†	1164.5	50.96	mg/L	1.016	50.96	mg/L	1.016	1.99%
Ni 231.604†	5044.9	1.002	mg/L	0.0068	1.002	mg/L	0.0068	0.68%
Pb 220.353†	17647.4	2.026	mg/L	0.0108	2.026	mg/L	0.0108	0.53%
Sb 206.836†	6519.5	2.090	mg/L	0.0196	2.090	mg/L	0.0196	0.94%
Se 196.026†	2716.4	2.066	mg/L	0.0218	2.066	mg/L	0.0218	1.05%
Si 288.158†	4233.6	2.073	mg/L	0.0275	2.073	mg/L	0.0275	1.33%
Sn 189.927†	3968.4	1.012	mg/L	0.0091	1.012	mg/L	0.0091	0.90%
Sr 421.552†	541832.6	1.023	mg/L	0.0018	1.023	mg/L	0.0018	0.18%
Ti 334.903†	17086.9	1.018	mg/L	0.0064	1.018	mg/L	0.0064	0.63%
Tl 190.801†	4158.1	2.010	mg/L	0.0140	2.010	mg/L	0.0140	0.69%
V 292.402†	113420.9	1.062	mg/L	0.0062	1.062	mg/L	0.0062	0.58%
Zn 206.200†	4049.5	1.007	mg/L	0.0044	1.007	mg/L	0.0044	0.43%

Sequence No.: 14
Sample ID: SEQ-CCB6

Autosampler Location: 1
Date Collected: 5/10/2017 2:04:34 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCB6

Analyte	Back Pressure	Flow
All	160.0 kPa	0.65 L/min

Mean Data: SEQ-CCB6

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2309420.0	102.4	%	0.54				0.52%
ScR 361.383	252710.1	105.1	%	1.09				1.04%
Ag 328.068†	-15.4	-0.00010	mg/L	0.000280	-0.00010	mg/L	0.000280	279.95%
Al 308.215†	11.0	0.00747	mg/L	0.007857	0.00747	mg/L	0.007857	105.19%
As 188.979†	-0.4	-0.00025	mg/L	0.001071	-0.00025	mg/L	0.001071	432.11%
B 249.677†	3.3	0.00045	mg/L	0.001602	0.00045	mg/L	0.001602	356.03%
Ba 233.527†	0.5	0.00009	mg/L	0.000539	0.00009	mg/L	0.000539	569.86%
Be 313.042†	51.2	0.00012	mg/L	0.000031	0.00012	mg/L	0.000031	26.61%
Ca 317.933†	-18.0	-0.00147	mg/L	0.000716	-0.00147	mg/L	0.000716	48.78%
Cd 228.802†	8.4	0.00030	mg/L	0.000061	0.00030	mg/L	0.000061	20.16%
Co 228.616†	-3.0	-0.00008	mg/L	0.000138	-0.00008	mg/L	0.000138	174.73%
Cr 267.716†	-0.9	-0.00014	mg/L	0.000656	-0.00014	mg/L	0.000656	483.88%
Cu 324.752†	104.6	0.00051	mg/L	0.000049	0.00051	mg/L	0.000049	9.72%
Fe 273.955†	1.6	0.00126	mg/L	0.000258	0.00126	mg/L	0.000258	20.49%
K 766.490†	10.3	0.00591	mg/L	0.009666	0.00591	mg/L	0.009666	163.58%
Mg 279.077†	4.4	0.00321	mg/L	0.000353	0.00321	mg/L	0.000353	10.97%
Mn 257.610†	6.1	0.00016	mg/L	0.000090	0.00016	mg/L	0.000090	57.47%
Mo 202.031†	6.7	0.00034	mg/L	0.000148	0.00034	mg/L	0.000148	44.13%
Na 589.592†	161.4	0.01848	mg/L	0.003076	0.01848	mg/L	0.003076	16.64%
Na 330.237†	9.0	0.3961	mg/L	0.31500	0.3961	mg/L	0.31500	79.53%
Ni 231.604†	-7.1	-0.00141	mg/L	0.000827	-0.00141	mg/L	0.000827	58.79%
Pb 220.353†	0.0	0.00001	mg/L	0.001019	0.00001	mg/L	0.001019	>999.9%
Sb 206.836†	5.0	0.00159	mg/L	0.001361	0.00159	mg/L	0.001361	85.49%
Se 196.026†	0.6	0.00046	mg/L	0.004300	0.00046	mg/L	0.004300	944.88%
Si 288.158†	-0.1	-0.00003	mg/L	0.002151	-0.00003	mg/L	0.002151	>999.9%
Sn 189.927†	-3.1	-0.00080	mg/L	0.000717	-0.00080	mg/L	0.000717	89.90%
Sr 421.552†	49.1	0.00009	mg/L	0.000039	0.00009	mg/L	0.000039	41.86%
Ti 334.903†	-20.3	-0.00121	mg/L	0.000759	-0.00121	mg/L	0.000759	62.60%
Tl 190.801†	5.3	0.00256	mg/L	0.001711	0.00256	mg/L	0.001711	66.93%
V 292.402†	7.7	0.00007	mg/L	0.000030	0.00007	mg/L	0.000030	42.34%
Zn 206.200†	3.2	0.00081	mg/L	0.001190	0.00081	mg/L	0.001190	147.76%

Sequence No.: 15
Sample ID: BFE0238-BLK1

Autosampler Location: 344
Date Collected: 5/10/2017 2:08:34 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: BFE0238-BLK1

Analyte	Back Pressure	Flow
All	159.0 kPa	0.65 L/min

Mean Data: BFE0238-BLK1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2227109.1	98.77	%	0.627				0.64%
ScR 361.383	244571.8	101.7	%	0.10				0.10%
Ag 328.068†	-1.3	-0.00001	mg/L	0.000088	-0.00004	mg/L	0.000438	>999.9%
Al 308.215†	33.5	0.02285	mg/L	0.007734	0.1142	mg/L	0.03867	33.85%
As 188.979†	1.1	0.00061	mg/L	0.001489	0.00305	mg/L	0.007443	243.79%
B 249.677†	174.7	0.02389	mg/L	0.000783	0.1195	mg/L	0.00392	3.28%
Ba 233.527†	37.8	0.00751	mg/L	0.001070	0.03754	mg/L	0.005351	14.26%
Be 313.042†	89.1	0.00020	mg/L	0.000046	0.00101	mg/L	0.000229	22.65%
Ca 317.933†	3658.5	0.2974	mg/L	0.00274	1.487	mg/L	0.0137	0.92%
Cd 228.802†	7.0	0.00025	mg/L	0.000088	0.00124	mg/L	0.000438	35.36%
Co 228.616†	0.0	0.00000	mg/L	0.000101	0.00000	mg/L	0.000505	>999.9%
Cr 267.716†	14.5	0.00211	mg/L	0.000839	0.01057	mg/L	0.004197	39.71%
Cu 324.752†	259.4	0.00126	mg/L	0.000109	0.00630	mg/L	0.000543	8.62%
Fe 273.955†	37.6	0.02898	mg/L	0.001663	0.1449	mg/L	0.00832	5.74%
K 766.490†	190.0	0.1094	mg/L	0.01270	0.5471	mg/L	0.06349	11.61%
Mg 279.077†	75.0	0.05488	mg/L	0.007596	0.2744	mg/L	0.03798	13.84%
Mn 257.610†	35.5	0.00092	mg/L	0.000044	0.00461	mg/L	0.000219	4.75%
Mo 202.031†	10.1	0.00050	mg/L	0.000205	0.00252	mg/L	0.001026	40.69%
Na 589.592†	2427016.0	277.8	mg/L	0.88	1389	mg/L	4.38	0.32%
Na 330.237†	6397.9	281.0	mg/L	1.97	1405	mg/L	9.83	0.70%
Ni 231.604†	-2.2	-0.00043	mg/L	0.000841	-0.00216	mg/L	0.004205	195.08%
Pb 220.353†	4.4	0.00052	mg/L	0.000591	0.00259	mg/L	0.002955	113.99%
Sb 206.836†	1.9	0.00058	mg/L	0.000358	0.00290	mg/L	0.001788	61.56%
Se 196.026†	4.9	0.00369	mg/L	0.003421	0.01845	mg/L	0.017104	92.71%
Si 288.158†	53.8	0.02660	mg/L	0.002689	0.1330	mg/L	0.01345	10.11%
Sn 189.927†	-3.0	-0.00071	mg/L	0.001234	-0.00356	mg/L	0.006169	173.37%
Sr 421.552†	192.5	0.00036	mg/L	0.000059	0.00182	mg/L	0.000296	16.29%
Ti 334.903†	1.6	0.00008	mg/L	0.001249	0.00039	mg/L	0.006244	>999.9%
Tl 190.801†	2.0	0.00095	mg/L	0.001347	0.00476	mg/L	0.006735	141.42%
V 292.402†	27.7	0.00027	mg/L	0.000308	0.00134	mg/L	0.001542	115.08%
Zn 206.200†	19.5	0.00485	mg/L	0.000366	0.02426	mg/L	0.001830	7.54%

Sequence No.: 16
Sample ID: 17E0012-01

Autosampler Location: 345
Date Collected: 5/10/2017 2:12:51 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 17E0012-01

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: 17E0012-01

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2186801.2	96.98	%	0.283				0.29%
ScR 361.383	248955.4	103.6	%	1.28				1.24%
Ag 328.068†	1135.7	0.00739	mg/L	0.000036	0.00739	mg/L	0.000036	0.49%
Al 308.215†	1070.2	0.7299	mg/L	0.00873	0.7299	mg/L	0.00873	1.20%
As 188.979†	110.8	0.05991	mg/L	0.002349	0.05991	mg/L	0.002349	3.92%
B 249.677†	1211.0	0.1657	mg/L	0.00223	0.1657	mg/L	0.00223	1.35%
Ba 233.527†	8.5	0.00137	mg/L	0.001085	0.00137	mg/L	0.001085	79.28%
Be 313.042†	81.7	0.00018	mg/L	0.000051	0.00018	mg/L	0.000051	27.77%
Ca 317.933†	392761.9	31.93	mg/L	0.160	31.93	mg/L	0.160	0.50%
Cd 228.802†	1847.8	0.06587	mg/L	0.000297	0.06587	mg/L	0.000297	0.45%
Co 228.616†	54.5	0.00143	mg/L	0.000026	0.00143	mg/L	0.000026	1.85%
Cr 267.716†	57.7	0.00538	mg/L	0.000672	0.00538	mg/L	0.000672	12.49%
Cu 324.752†	70927.9	0.3438	mg/L	0.00088	0.3438	mg/L	0.00088	0.26%
Fe 273.955†	2802.4	2.159	mg/L	0.0212	2.159	mg/L	0.0212	0.98%
K 766.490†	143451.3	82.62	mg/L	0.229	82.62	mg/L	0.229	0.28%
Mg 279.077†	47261.4	34.58	mg/L	0.012	34.58	mg/L	0.012	0.03%
Mn 257.610†	4723.8	0.1225	mg/L	0.00150	0.1225	mg/L	0.00150	1.22%
Mo 202.031†	127.7	0.00597	mg/L	0.000084	0.00597	mg/L	0.000084	1.42%
Na 589.592†	2064134.3	236.3	mg/L	1.70	236.3	mg/L	1.70	0.72%
Na 330.237†	5465.9	238.2	mg/L	1.06	238.2	mg/L	1.06	0.45%
Ni 231.604†	23.3	0.00463	mg/L	0.000365	0.00463	mg/L	0.000365	7.89%
Pb 220.353†	37.9	0.00413	mg/L	0.000128	0.00413	mg/L	0.000128	3.09%
Sb 206.836†	5.7	0.00163	mg/L	0.002150	0.00163	mg/L	0.002150	131.63%
Se 196.026†	19.3	0.01458	mg/L	0.002776	0.01458	mg/L	0.002776	19.04%
Si 288.158†	1019.5	0.5031	mg/L	0.00707	0.5031	mg/L	0.00707	1.40%
Sn 189.927†	-27.0	-0.00186	mg/L	0.000268	-0.00186	mg/L	0.000268	14.43%
Sr 421.552†	129009.5	0.2436	mg/L	0.00081	0.2436	mg/L	0.00081	0.33%
Ti 334.903†	580.0	0.03271	mg/L	0.000267	0.03271	mg/L	0.000267	0.82%
Tl 190.801†	-0.6	-0.00033	mg/L	0.003760	-0.00033	mg/L	0.003760	>999.9%
V 292.402†	484.1	0.00447	mg/L	0.000360	0.00447	mg/L	0.000360	8.04%
Zn 206.200†	18567.7	4.616	mg/L	0.0022	4.616	mg/L	0.0022	0.05%

Sequence No.: 17
Sample ID: 17E0012-02

Autosampler Location: 346
Date Collected: 5/10/2017 2:17:06 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 17E0012-02

Analyte	Back Pressure	Flow
All	162.0 kPa	0.65 L/min

Mean Data: 17E0012-02

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2207770.4	97.91	%	0.386				0.39%
ScR 361.383	253932.4	105.6	%	0.48				0.45%
Ag 328.068†	-50.9	-0.00033	mg/L	0.000193	-0.00033	mg/L	0.000193	58.75%
Al 308.215†	3509.3	2.394	mg/L	0.0141	2.394	mg/L	0.0141	0.59%
As 188.979†	68.7	0.03929	mg/L	0.002668	0.03929	mg/L	0.002668	6.79%
B 249.677†	419.9	0.05740	mg/L	0.000888	0.05740	mg/L	0.000888	1.55%
Ba 233.527†	46.6	0.00853	mg/L	0.000758	0.00853	mg/L	0.000758	8.89%
Be 313.042†	169.9	0.00038	mg/L	0.000029	0.00038	mg/L	0.000029	7.69%
Ca 317.933†	292403.0	23.77	mg/L	0.275	23.77	mg/L	0.275	1.16%
Cd 228.802†	92.7	0.00308	mg/L	0.000163	0.00308	mg/L	0.000163	5.29%
Co 228.616†	319.6	0.00854	mg/L	0.000086	0.00854	mg/L	0.000086	1.01%
Cr 267.716†	124.6	0.01545	mg/L	0.000339	0.01545	mg/L	0.000339	2.19%
Cu 324.752†	5426.0	0.02582	mg/L	0.000236	0.02582	mg/L	0.000236	0.91%
Fe 273.955†	6534.6	5.034	mg/L	0.0224	5.034	mg/L	0.0224	0.44%
K 766.490†	137799.7	79.36	mg/L	0.274	79.36	mg/L	0.274	0.35%
Mg 279.077†	48962.0	35.82	mg/L	0.051	35.82	mg/L	0.051	0.14%
Mn 257.610†	2465.8	0.06393	mg/L	0.000382	0.06393	mg/L	0.000382	0.60%
Mo 202.031†	159.8	0.00769	mg/L	0.000182	0.00769	mg/L	0.000182	2.36%
Na 589.592†	2118390.6	242.5	mg/L	1.98	242.5	mg/L	1.98	0.82%
Na 330.237†	5627.8	247.0	mg/L	1.50	247.0	mg/L	1.50	0.61%
Ni 231.604†	225.9	0.04483	mg/L	0.000765	0.04483	mg/L	0.000765	1.71%
Pb 220.353†	34.2	0.00459	mg/L	0.000831	0.00459	mg/L	0.000831	18.11%
Sb 206.836†	7.6	0.00213	mg/L	0.001342	0.00213	mg/L	0.001342	62.92%
Se 196.026†	17.3	0.01277	mg/L	0.004204	0.01277	mg/L	0.004204	32.93%
Si 288.158†	1183.0	0.5821	mg/L	0.00570	0.5821	mg/L	0.00570	0.98%
Sn 189.927†	-24.0	-0.00237	mg/L	0.001718	-0.00237	mg/L	0.001718	72.37%
Sr 421.552†	154212.0	0.2912	mg/L	0.00087	0.2912	mg/L	0.00087	0.30%
Ti 334.903†	2012.7	0.1186	mg/L	0.00103	0.1186	mg/L	0.00103	0.87%
Tl 190.801†	-1.6	-0.00084	mg/L	0.002815	-0.00084	mg/L	0.002815	335.99%
V 292.402†	993.1	0.00910	mg/L	0.000155	0.00910	mg/L	0.000155	1.71%
Zn 206.200†	1981.7	0.4927	mg/L	0.00234	0.4927	mg/L	0.00234	0.48%

Sequence No.: 18
Sample ID: 17E0012-03

Autosampler Location: 347
Date Collected: 5/10/2017 2:21:22 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 17E0012-03

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: 17E0012-03

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2242091.1	99.43	%	0.338				0.34%
ScR 361.383	245654.8	102.2	%	1.62				1.59%
Ag 328.068†	280.8	0.00183	mg/L	0.000154	0.00183	mg/L	0.000154	8.44%
Al 308.215†	2066.7	1.410	mg/L	0.0274	1.410	mg/L	0.0274	1.95%
As 188.979†	132.8	0.07358	mg/L	0.001081	0.07358	mg/L	0.001081	1.47%
B 249.677†	795.3	0.1088	mg/L	0.00201	0.1088	mg/L	0.00201	1.85%
Ba 233.527†	68.4	0.01318	mg/L	0.000785	0.01318	mg/L	0.000785	5.96%
Be 313.042†	132.9	0.00030	mg/L	0.000041	0.00030	mg/L	0.000041	13.81%
Ca 317.933†	243721.8	19.81	mg/L	0.012	19.81	mg/L	0.012	0.06%
Cd 228.802†	305.8	0.01043	mg/L	0.000107	0.01043	mg/L	0.000107	1.03%
Co 228.616†	155.7	0.00417	mg/L	0.000136	0.00417	mg/L	0.000136	3.27%
Cr 267.716†	101.9	0.01225	mg/L	0.001525	0.01225	mg/L	0.001525	12.44%
Cu 324.752†	11466.1	0.05503	mg/L	0.000350	0.05503	mg/L	0.000350	0.64%
Fe 273.955†	3662.6	2.821	mg/L	0.0505	2.821	mg/L	0.0505	1.79%
K 766.490†	151934.4	87.50	mg/L	0.309	87.50	mg/L	0.309	0.35%
Mg 279.077†	46141.8	33.76	mg/L	0.435	33.76	mg/L	0.435	1.29%
Mn 257.610†	2805.1	0.07275	mg/L	0.001327	0.07275	mg/L	0.001327	1.82%
Mo 202.031†	181.7	0.00884	mg/L	0.000108	0.00884	mg/L	0.000108	1.22%
Na 589.592†	1812033.8	207.4	mg/L	0.77	207.4	mg/L	0.77	0.37%
Na 330.237†	4819.9	211.5	mg/L	4.01	211.5	mg/L	4.01	1.90%
Ni 231.604†	83.1	0.01649	mg/L	0.000919	0.01649	mg/L	0.000919	5.57%
Pb 220.353†	20.8	0.00274	mg/L	0.000444	0.00274	mg/L	0.000444	16.20%
Sb 206.836†	6.1	0.00169	mg/L	0.000647	0.00169	mg/L	0.000647	38.39%
Se 196.026†	23.7	0.01780	mg/L	0.001876	0.01780	mg/L	0.001876	10.54%
Si 288.158†	1065.7	0.5255	mg/L	0.00362	0.5255	mg/L	0.00362	0.69%
Sn 189.927†	-20.5	-0.00212	mg/L	0.000859	-0.00212	mg/L	0.000859	40.49%
Sr 421.552†	131902.7	0.2491	mg/L	0.00085	0.2491	mg/L	0.00085	0.34%
Ti 334.903†	921.1	0.05376	mg/L	0.001574	0.05376	mg/L	0.001574	2.93%
Tl 190.801†	0.8	0.00036	mg/L	0.001966	0.00036	mg/L	0.001966	547.78%
V 292.402†	690.8	0.00639	mg/L	0.000141	0.00639	mg/L	0.000141	2.21%
Zn 206.200†	2086.8	0.5188	mg/L	0.00763	0.5188	mg/L	0.00763	1.47%

Sequence No.: 19
Sample ID: 17E0012-04

Autosampler Location: 348
Date Collected: 5/10/2017 2:25:37 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 17E0012-04

Analyte	Back Pressure	Flow
All	162.0 kPa	0.65 L/min

Mean Data: 17E0012-04

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2210986.5	98.05	%	0.732				0.75%
ScR 361.383	253990.4	105.7	%	0.40				0.38%
Ag 328.068†	142.9	0.00093	mg/L	0.000112	0.00093	mg/L	0.000112	12.05%
Al 308.215†	4468.5	3.048	mg/L	0.0137	3.048	mg/L	0.0137	0.45%
As 188.979†	119.1	0.06690	mg/L	0.002971	0.06690	mg/L	0.002971	4.44%
B 249.677†	509.7	0.06967	mg/L	0.000584	0.06967	mg/L	0.000584	0.84%
Ba 233.527†	49.9	0.00903	mg/L	0.000949	0.00903	mg/L	0.000949	10.52%
Be 313.042†	108.6	0.00024	mg/L	0.000017	0.00024	mg/L	0.000017	7.24%
Ca 317.933†	418743.0	34.04	mg/L	0.076	34.04	mg/L	0.076	0.22%
Cd 228.802†	320.5	0.01105	mg/L	0.000073	0.01105	mg/L	0.000073	0.66%
Co 228.616†	317.5	0.00845	mg/L	0.000082	0.00845	mg/L	0.000082	0.98%
Cr 267.716†	373.5	0.05151	mg/L	0.000476	0.05151	mg/L	0.000476	0.92%
Cu 324.752†	9807.3	0.04712	mg/L	0.000544	0.04712	mg/L	0.000544	1.15%
Fe 273.955†	7967.0	6.137	mg/L	0.0485	6.137	mg/L	0.0485	0.79%
K 766.490†	140852.4	81.12	mg/L	0.053	81.12	mg/L	0.053	0.07%
Mg 279.077†	52558.0	38.45	mg/L	0.109	38.45	mg/L	0.109	0.28%
Mn 257.610†	4899.1	0.1271	mg/L	0.00045	0.1271	mg/L	0.00045	0.35%
Mo 202.031†	178.4	0.00848	mg/L	0.000264	0.00848	mg/L	0.000264	3.11%
Na 589.592†	1972455.6	225.8	mg/L	0.40	225.8	mg/L	0.40	0.18%
Na 330.237†	5173.1	227.0	mg/L	0.76	227.0	mg/L	0.76	0.33%
Ni 231.604†	257.9	0.05119	mg/L	0.000956	0.05119	mg/L	0.000956	1.87%
Pb 220.353†	30.8	0.00443	mg/L	0.000463	0.00443	mg/L	0.000463	10.46%
Sb 206.836†	11.1	0.00262	mg/L	0.001668	0.00262	mg/L	0.001668	63.62%
Se 196.026†	21.6	0.01591	mg/L	0.003546	0.01591	mg/L	0.003546	22.29%
Si 288.158†	1352.0	0.6652	mg/L	0.00316	0.6652	mg/L	0.00316	0.47%
Sn 189.927†	-29.5	-0.00217	mg/L	0.001120	-0.00217	mg/L	0.001120	51.70%
Sr 421.552†	202849.4	0.3831	mg/L	0.00067	0.3831	mg/L	0.00067	0.18%
Ti 334.903†	2321.2	0.1364	mg/L	0.00127	0.1364	mg/L	0.00127	0.93%
Tl 190.801†	-3.3	-0.00170	mg/L	0.001666	-0.00170	mg/L	0.001666	98.21%
V 292.402†	1409.6	0.01312	mg/L	0.000060	0.01312	mg/L	0.000060	0.46%
Zn 206.200†	2160.5	0.5372	mg/L	0.00241	0.5372	mg/L	0.00241	0.45%

Sequence No.: 20
Sample ID: 17E0085-01

Autosampler Location: 349
Date Collected: 5/10/2017 2:29:54 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: 17E0085-01

Analyte	Back Pressure	Flow
All	162.0 kPa	0.65 L/min

Mean Data: 17E0085-01

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2318892.9	102.8	%	0.25				0.24%
ScR 361.383	255744.5	106.4	%	0.64				0.60%
Ag 328.068†	-116.0	-0.00068	mg/L	0.000309	-0.00342	mg/L	0.001543	45.10%
Al 308.215†	115214.8	78.59	mg/L	0.209	393.0	mg/L	1.05	0.27%
As 188.979†	-64.5	0.01762	mg/L	0.003505	0.08808	mg/L	0.017525	19.90%
B 249.677†	57.9	0.00733	mg/L	0.000380	0.03664	mg/L	0.001902	5.19%
Ba 233.527†	1346.2	0.2512	mg/L	0.00180	1.256	mg/L	0.0090	0.72%
Be 313.042†	679.4	0.00145	mg/L	0.000026	0.00725	mg/L	0.000130	1.79%
Ca 317.933†	350627.7	28.50	mg/L	0.113	142.5	mg/L	0.57	0.40%
Cd 228.802†	17.9	0.00101	mg/L	0.000090	0.00504	mg/L	0.000448	8.88%
Co 228.616†	1713.4	0.04289	mg/L	0.000127	0.2145	mg/L	0.00064	0.30%
Cr 267.716†	748.6	0.1099	mg/L	0.00043	0.5495	mg/L	0.00213	0.39%
Cu 324.752†	25701.2	0.1294	mg/L	0.00053	0.6472	mg/L	0.00263	0.41%
Fe 273.955†	144950.6	111.7	mg/L	0.37	558.3	mg/L	1.87	0.33%
K 766.490†	5767.3	3.321	mg/L	0.0317	16.61	mg/L	0.158	0.95%
Mg 279.077†	50206.4	36.67	mg/L	0.136	183.3	mg/L	0.68	0.37%
Mn 257.610†	68621.0	1.781	mg/L	0.0050	8.906	mg/L	0.0248	0.28%
Mo 202.031†	42.5	0.00173	mg/L	0.000211	0.00866	mg/L	0.001056	12.20%
Na 589.592†	16175.3	1.852	mg/L	0.0153	9.258	mg/L	0.0765	0.83%
Na 330.237†	28.1	1.619	mg/L	0.0815	8.094	mg/L	0.4074	5.03%
Ni 231.604†	594.5	0.1180	mg/L	0.00063	0.5900	mg/L	0.00315	0.53%
Pb 220.353†	-23.7	0.01945	mg/L	0.000869	0.09724	mg/L	0.004345	4.47%
Sb 206.836†	29.6	0.00936	mg/L	0.001904	0.04680	mg/L	0.009522	20.35%
Se 196.026†	21.1	0.00287	mg/L	0.003263	0.01433	mg/L	0.016316	113.83%
Si 288.158†	2013.2	0.9486	mg/L	0.00815	4.743	mg/L	0.0408	0.86%
Sn 189.927†	-42.9	-0.00645	mg/L	0.000920	-0.03224	mg/L	0.004600	14.27%
Sr 421.552†	110455.1	0.2086	mg/L	0.00066	1.043	mg/L	0.0033	0.32%
Ti 334.903†	37344.0	2.225	mg/L	0.0040	11.13	mg/L	0.020	0.18%
Tl 190.801†	-21.9	-0.01171	mg/L	0.003681	-0.05857	mg/L	0.018406	31.42%
V 292.402†	24747.8	0.2260	mg/L	0.00134	1.130	mg/L	0.0067	0.59%
Zn 206.200†	872.4	0.2171	mg/L	0.00204	1.085	mg/L	0.0102	0.94%

Sequence No.: 21
Sample ID: 17D0447-08

Autosampler Location: 350
Date Collected: 5/10/2017 2:33:53 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: 17D0447-08

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: 17D0447-08

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2311950.6	102.5	%	0.69				0.67%
ScR 361.383	255772.7	106.4	%	1.00				0.94%
Ag 328.068†	15.7	0.00014	mg/L	0.000052	0.00072	mg/L	0.000260	36.32%
Al 308.215†	41939.4	28.61	mg/L	0.096	143.0	mg/L	0.48	0.34%
As 188.979†	31.1	0.05740	mg/L	0.001657	0.2870	mg/L	0.00829	2.89%
B 249.677†	697.9	0.09506	mg/L	0.001608	0.4753	mg/L	0.00804	1.69%
Ba 233.527†	1189.2	0.2203	mg/L	0.00398	1.102	mg/L	0.0199	1.80%
Be 313.042†	287.7	0.00059	mg/L	0.000021	0.00297	mg/L	0.000105	3.54%
Ca 317.933†	170408.1	13.85	mg/L	0.038	69.26	mg/L	0.189	0.27%
Cd 228.802†	79.1	0.00276	mg/L	0.000219	0.01382	mg/L	0.001094	7.92%
Co 228.616†	821.9	0.01951	mg/L	0.000266	0.09753	mg/L	0.001330	1.36%
Cr 267.716†	612.7	0.09169	mg/L	0.000527	0.4585	mg/L	0.00264	0.57%
Cu 324.752†	35809.7	0.1787	mg/L	0.00158	0.8936	mg/L	0.00791	0.88%
Fe 273.955†	142794.8	110.0	mg/L	1.04	550.0	mg/L	5.18	0.94%
K 766.490†	5414.3	3.118	mg/L	0.0077	15.59	mg/L	0.039	0.25%
Mg 279.077†	21611.4	15.75	mg/L	0.151	78.74	mg/L	0.755	0.96%
Mn 257.610†	37719.9	0.9795	mg/L	0.00806	4.897	mg/L	0.0403	0.82%
Mo 202.031†	133.1	0.00648	mg/L	0.000273	0.03241	mg/L	0.001366	4.22%
Na 589.592†	184636.4	21.14	mg/L	0.078	105.7	mg/L	0.39	0.37%
Na 330.237†	482.8	21.15	mg/L	0.177	105.7	mg/L	0.88	0.84%
Ni 231.604†	355.1	0.07048	mg/L	0.000217	0.3524	mg/L	0.00109	0.31%
Pb 220.353†	2022.7	0.2401	mg/L	0.00303	1.200	mg/L	0.0151	1.26%
Sb 206.836†	29.2	0.00904	mg/L	0.001678	0.04519	mg/L	0.008392	18.57%
Se 196.026†	12.2	0.00445	mg/L	0.004603	0.02224	mg/L	0.023017	103.49%
Si 288.158†	3169.2	1.532	mg/L	0.0166	7.659	mg/L	0.0831	1.08%
Sn 189.927†	12.3	0.00531	mg/L	0.001038	0.02654	mg/L	0.005188	19.54%
Sr 421.552†	97483.7	0.1841	mg/L	0.00053	0.9205	mg/L	0.00265	0.29%
Ti 334.903†	27648.2	1.648	mg/L	0.0033	8.240	mg/L	0.0165	0.20%
Tl 190.801†	-19.2	-0.00994	mg/L	0.000563	-0.04972	mg/L	0.002814	5.66%
V 292.402†	14434.6	0.1301	mg/L	0.00112	0.6503	mg/L	0.00562	0.86%
Zn 206.200†	4073.3	1.013	mg/L	0.0099	5.064	mg/L	0.0494	0.98%

Sequence No.: 22
Sample ID: BFE0238-DUP1

Autosampler Location: 351
Date Collected: 5/10/2017 2:37:52 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: BFE0238-DUP1

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: BFE0238-DUP1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2162656.9	95.91	%	0.428				0.45%
ScR 361.383	237102.6	98.64	%	0.834				0.85%
Ag 328.068†	24.3	0.00016	mg/L	0.000120	0.00079	mg/L	0.000599	75.58%
Al 308.215†	29.4	0.01997	mg/L	0.006295	0.09986	mg/L	0.031477	31.52%
As 188.979†	-1.5	-0.00151	mg/L	0.002448	-0.00757	mg/L	0.012238	161.66%
B 249.677†	319.9	0.04377	mg/L	0.000874	0.2188	mg/L	0.00437	2.00%
Ba 233.527†	43.1	0.00855	mg/L	0.000671	0.04274	mg/L	0.003353	7.85%
Be 313.042†	99.4	0.00023	mg/L	0.000018	0.00113	mg/L	0.000091	8.09%
Ca 317.933†	101522.1	8.253	mg/L	0.0660	41.26	mg/L	0.330	0.80%
Cd 228.802†	10.0	0.00037	mg/L	0.000232	0.00183	mg/L	0.001162	63.55%
Co 228.616†	-2.0	-0.00006	mg/L	0.000208	-0.00028	mg/L	0.001039	371.05%
Cr 267.716†	37.3	-0.00086	mg/L	0.001976	-0.00432	mg/L	0.009881	228.80%
Cu 324.752†	1100.1	0.00465	mg/L	0.000080	0.02326	mg/L	0.000399	1.72%
Fe 273.955†	16.8	0.01295	mg/L	0.002473	0.06476	mg/L	0.012366	19.10%
K 766.490†	725.9	0.4181	mg/L	0.01117	2.090	mg/L	0.0559	2.67%
Mg 279.077†	114792.6	83.99	mg/L	0.813	419.9	mg/L	4.07	0.97%
Mn 257.610†	1806.6	0.04686	mg/L	0.000410	0.2343	mg/L	0.00205	0.88%
Mo 202.031†	63.4	0.00307	mg/L	0.000111	0.01534	mg/L	0.000556	3.62%
Na 589.592†	2438692.6	279.2	mg/L	1.34	1396	mg/L	6.70	0.48%
Na 330.237†	6469.2	284.1	mg/L	3.04	1421	mg/L	15.19	1.07%
Ni 231.604†	-5.6	-0.00111	mg/L	0.001726	-0.00555	mg/L	0.008631	155.43%
Pb 220.353†	-4.8	-0.00054	mg/L	0.000339	-0.00270	mg/L	0.001693	62.77%
Sb 206.836†	5.7	0.00168	mg/L	0.001661	0.00840	mg/L	0.008304	98.87%
Se 196.026†	5.2	0.00395	mg/L	0.005299	0.01974	mg/L	0.026496	134.21%
Si 288.158†	1433.9	0.7086	mg/L	0.01093	3.543	mg/L	0.0546	1.54%
Sn 189.927†	-18.4	-0.00338	mg/L	0.000320	-0.01692	mg/L	0.001602	9.47%
Sr 421.552†	18925.4	0.03574	mg/L	0.000360	0.1787	mg/L	0.00180	1.01%
Ti 334.903†	-1.0	-0.00055	mg/L	0.000887	-0.00274	mg/L	0.004435	161.79%
Tl 190.801†	-8.3	-0.00401	mg/L	0.000761	-0.02007	mg/L	0.003807	18.97%
V 292.402†	74.9	0.00073	mg/L	0.000403	0.00366	mg/L	0.002015	55.01%
Zn 206.200†	16.7	0.00430	mg/L	0.000534	0.02149	mg/L	0.002669	12.42%

Sequence No.: 23
Sample ID: 17E0111-01

Autosampler Location: 352
Date Collected: 5/10/2017 2:42:07 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: 17E0111-01

Analyte	Back Pressure	Flow
All	163.0 kPa	0.65 L/min

Mean Data: 17E0111-01

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2151102.1	95.40	%	0.206				0.22%
ScR 361.383	245065.2	101.9	%	0.40				0.39%
Ag 328.068†	-25.6	-0.00017	mg/L	0.000550	-0.00083	mg/L	0.002752	330.95%
Al 308.215†	22.8	0.01553	mg/L	0.005592	0.07764	mg/L	0.027958	36.01%
As 188.979†	0.4	-0.00040	mg/L	0.001250	-0.00198	mg/L	0.006250	315.22%
B 249.677†	299.8	0.04101	mg/L	0.001081	0.2050	mg/L	0.00541	2.64%
Ba 233.527†	38.8	0.00770	mg/L	0.000653	0.03848	mg/L	0.003267	8.49%
Be 313.042†	103.1	0.00023	mg/L	0.000024	0.00117	mg/L	0.000121	10.32%
Ca 317.933†	95350.0	7.751	mg/L	0.0041	38.75	mg/L	0.021	0.05%
Cd 228.802†	11.3	0.00041	mg/L	0.000015	0.00203	mg/L	0.000073	3.58%
Co 228.616†	-3.8	-0.00011	mg/L	0.000172	-0.00053	mg/L	0.000859	161.41%
Cr 267.716†	41.7	0.00016	mg/L	0.000528	0.00081	mg/L	0.002638	324.10%
Cu 324.752†	1089.3	0.00464	mg/L	0.000072	0.02321	mg/L	0.000359	1.55%
Fe 273.955†	8.7	0.00673	mg/L	0.001339	0.03364	mg/L	0.006695	19.90%
K 766.490†	666.8	0.3840	mg/L	0.00499	1.920	mg/L	0.0250	1.30%
Mg 279.077†	107723.0	78.82	mg/L	0.129	394.1	mg/L	0.65	0.16%
Mn 257.610†	1693.5	0.04393	mg/L	0.000208	0.2196	mg/L	0.00104	0.47%
Mo 202.031†	56.3	0.00272	mg/L	0.000114	0.01358	mg/L	0.000568	4.19%
Na 589.592†	2321733.5	265.8	mg/L	2.02	1329	mg/L	10.09	0.76%
Na 330.237†	6126.1	269.0	mg/L	1.31	1345	mg/L	6.53	0.49%
Ni 231.604†	3.1	0.00061	mg/L	0.001730	0.00304	mg/L	0.008651	284.53%
Pb 220.353†	-10.2	-0.00116	mg/L	0.000601	-0.00580	mg/L	0.003005	51.77%
Sb 206.836†	5.5	0.00160	mg/L	0.001601	0.00798	mg/L	0.008005	100.30%
Se 196.026†	10.1	0.00766	mg/L	0.000909	0.03831	mg/L	0.004543	11.86%
Si 288.158†	1364.5	0.6743	mg/L	0.00227	3.371	mg/L	0.0114	0.34%
Sn 189.927†	-18.0	-0.00337	mg/L	0.001021	-0.01687	mg/L	0.005103	30.26%
Sr 421.552†	18014.0	0.03402	mg/L	0.000086	0.1701	mg/L	0.00043	0.25%
Ti 334.903†	5.1	-0.00015	mg/L	0.000275	-0.00077	mg/L	0.001374	178.16%
Tl 190.801†	-4.3	-0.00209	mg/L	0.001836	-0.01043	mg/L	0.009181	88.00%
V 292.402†	18.0	0.00020	mg/L	0.000285	0.00102	mg/L	0.001426	139.57%
Zn 206.200†	146.6	0.03657	mg/L	0.000514	0.1829	mg/L	0.00257	1.41%

Sequence No.: 24
Sample ID: BFE0238-MS1

Autosampler Location: 353
Date Collected: 5/10/2017 2:46:22 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: BFE0238-MS1

Analyte	Back Pressure	Flow
All	162.0 kPa	0.65 L/min

Mean Data: BFE0238-MS1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2120925.3	94.06	%	0.627				0.67%
ScR 361.383	241557.1	100.5	%	0.55				0.55%
Ag 328.068†	32051.7	0.2085	mg/L	0.00148	1.042	mg/L	0.0074	0.71%
Al 308.215†	1237.2	0.8409	mg/L	0.00488	4.204	mg/L	0.0244	0.58%
As 188.979†	1474.2	0.8184	mg/L	0.00925	4.092	mg/L	0.0463	1.13%
B 249.677†	301.1	0.04062	mg/L	0.000620	0.2031	mg/L	0.00310	1.53%
Ba 233.527†	4162.8	0.8264	mg/L	0.00890	4.132	mg/L	0.0445	1.08%
Be 313.042†	88290.3	0.2004	mg/L	0.00057	1.002	mg/L	0.0029	0.29%
Ca 317.933†	146238.5	11.89	mg/L	0.052	59.44	mg/L	0.258	0.43%
Cd 228.802†	6242.6	0.2180	mg/L	0.00160	1.090	mg/L	0.0080	0.74%
Co 228.616†	7556.6	0.2072	mg/L	0.00119	1.036	mg/L	0.0060	0.57%
Cr 267.716†	1507.1	0.2135	mg/L	0.00250	1.067	mg/L	0.0125	1.17%
Cu 324.752†	42671.7	0.2066	mg/L	0.00192	1.033	mg/L	0.0096	0.93%
Fe 273.955†	1100.0	0.8460	mg/L	0.00752	4.230	mg/L	0.0376	0.89%
K 766.490†	7813.5	4.500	mg/L	0.0298	22.50	mg/L	0.149	0.66%
Mg 279.077†	113520.0	83.06	mg/L	0.212	415.3	mg/L	1.06	0.26%
Mn 257.610†	9341.1	0.2426	mg/L	0.00251	1.213	mg/L	0.0126	1.03%
Mo 202.031†	69.4	0.00331	mg/L	0.000133	0.01654	mg/L	0.000667	4.03%
Na 589.592†	2401069.4	274.9	mg/L	2.51	1374	mg/L	12.57	0.91%
Na 330.237†	6491.6	285.0	mg/L	2.59	1425	mg/L	12.95	0.91%
Ni 231.604†	997.4	0.1976	mg/L	0.00294	0.9882	mg/L	0.01471	1.49%
Pb 220.353†	6990.0	0.8024	mg/L	0.00602	4.012	mg/L	0.0301	0.75%
Sb 206.836†	14.1	0.00155	mg/L	0.001548	0.00775	mg/L	0.007741	99.93%
Se 196.026†	1096.6	0.8342	mg/L	0.00559	4.171	mg/L	0.0280	0.67%
Si 288.158†	1391.8	0.6877	mg/L	0.00417	3.439	mg/L	0.0208	0.61%
Sn 189.927†	-21.2	-0.00351	mg/L	0.001002	-0.01754	mg/L	0.005009	28.55%
Sr 421.552†	127115.9	0.2401	mg/L	0.00042	1.200	mg/L	0.0021	0.17%
Ti 334.903†	5.8	-0.00041	mg/L	0.000125	-0.00203	mg/L	0.000625	30.81%
Tl 190.801†	1549.9	0.7511	mg/L	0.00771	3.755	mg/L	0.0385	1.03%
V 292.402†	22875.5	0.2143	mg/L	0.00189	1.072	mg/L	0.0095	0.88%
Zn 206.200†	798.9	0.1988	mg/L	0.00266	0.9940	mg/L	0.01328	1.34%

Sequence No.: 25 **Autosampler Location: 7**
Sample ID: SEQ-CCV7 **Date Collected: 5/10/2017 2:50:37 PM**
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCV7

Analyte	Back Pressure	Flow
All	164.0 kPa	0.65 L/min

Mean Data: SEQ-CCV7

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2223198.0	98.59	%	0.789				0.80%
ScR 361.383	242728.4	101.0	%	0.79				0.78%
Ag 328.068†	158403.2	1.030	mg/L	0.0121	1.030	mg/L	0.0121	1.17%
Al 308.215†	3044.3	2.042	mg/L	0.0266	2.042	mg/L	0.0266	1.30%
As 188.979†	3478.9	1.953	mg/L	0.0170	1.953	mg/L	0.0170	0.87%
B 249.677†	7347.2	1.004	mg/L	0.0077	1.004	mg/L	0.0077	0.77%
Ba 233.527†	5172.9	1.027	mg/L	0.0077	1.027	mg/L	0.0077	0.75%
Be 313.042†	445504.1	1.011	mg/L	0.0050	1.011	mg/L	0.0050	0.49%
Ca 317.933†	24524.7	1.994	mg/L	0.0067	1.994	mg/L	0.0067	0.33%
Cd 228.802†	29076.9	1.030	mg/L	0.0108	1.030	mg/L	0.0108	1.05%
Co 228.616†	37194.7	1.018	mg/L	0.0127	1.018	mg/L	0.0127	1.25%
Cr 267.716†	7139.0	1.041	mg/L	0.0076	1.041	mg/L	0.0076	0.73%
Cu 324.752†	209918.0	1.019	mg/L	0.0115	1.019	mg/L	0.0115	1.13%
Fe 273.955†	2618.7	2.010	mg/L	0.0171	2.010	mg/L	0.0171	0.85%
K 766.490†	35263.0	20.31	mg/L	0.112	20.31	mg/L	0.112	0.55%
Mg 279.077†	2827.2	2.078	mg/L	0.0108	2.078	mg/L	0.0108	0.52%
Mn 257.610†	37011.8	0.9611	mg/L	0.00364	0.9611	mg/L	0.00364	0.38%
Mo 202.031†	19332.4	0.9698	mg/L	0.01097	0.9698	mg/L	0.01097	1.13%
Na 589.592†	453793.7	51.95	mg/L	0.181	51.95	mg/L	0.181	0.35%
Na 330.237†	1195.6	52.33	mg/L	0.337	52.33	mg/L	0.337	0.64%
Ni 231.604†	5004.3	0.9935	mg/L	0.00754	0.9935	mg/L	0.00754	0.76%
Pb 220.353†	17047.6	1.957	mg/L	0.0205	1.957	mg/L	0.0205	1.05%
Sb 206.836†	6340.7	2.032	mg/L	0.0197	2.032	mg/L	0.0197	0.97%
Se 196.026†	2587.9	1.968	mg/L	0.0250	1.968	mg/L	0.0250	1.27%
Si 288.158†	4268.5	2.090	mg/L	0.0180	2.090	mg/L	0.0180	0.86%
Sn 189.927†	3795.0	0.9677	mg/L	0.00833	0.9677	mg/L	0.00833	0.86%
Sr 421.552†	545411.6	1.030	mg/L	0.0037	1.030	mg/L	0.0037	0.36%
Ti 334.903†	16608.2	0.9892	mg/L	0.00395	0.9892	mg/L	0.00395	0.40%
Tl 190.801†	4067.2	1.966	mg/L	0.0223	1.966	mg/L	0.0223	1.14%
V 292.402†	111889.9	1.048	mg/L	0.0099	1.048	mg/L	0.0099	0.95%
Zn 206.200†	3935.5	0.9787	mg/L	0.00865	0.9787	mg/L	0.00865	0.88%

Sequence No.: 26 **Autosampler Location: 1**
Sample ID: SEQ-CCB7 **Date Collected: 5/10/2017 2:55:41 PM**
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCB7

Analyte	Back Pressure	Flow
All	164.0 kPa	0.65 L/min

Mean Data: SEQ-CCB7

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2251487.4	99.85	%	0.584				0.58%
ScR 361.383	242252.3	100.8	%	0.40				0.40%
Ag 328.068†	-1.9	-0.00001	mg/L	0.000085	-0.00001	mg/L	0.000085	682.48%
Al 308.215†	25.5	0.01740	mg/L	0.003862	0.01740	mg/L	0.003862	22.19%
As 188.979†	-1.9	-0.00109	mg/L	0.003488	-0.00109	mg/L	0.003488	320.17%
B 249.677†	6.9	0.00094	mg/L	0.001037	0.00094	mg/L	0.001037	109.89%
Ba 233.527†	2.3	0.00045	mg/L	0.000602	0.00045	mg/L	0.000602	132.46%
Be 313.042†	32.2	0.00007	mg/L	0.000009	0.00007	mg/L	0.000009	12.48%
Ca 317.933†	-4.8	-0.00039	mg/L	0.001082	-0.00039	mg/L	0.001082	274.54%
Cd 228.802†	11.0	0.00040	mg/L	0.000035	0.00040	mg/L	0.000035	8.66%
Co 228.616†	-6.4	-0.00018	mg/L	0.000147	-0.00018	mg/L	0.000147	83.71%
Cr 267.716†	-3.2	-0.00046	mg/L	0.000436	-0.00046	mg/L	0.000436	94.01%
Cu 324.752†	75.3	0.00037	mg/L	0.000079	0.00037	mg/L	0.000079	21.74%
Fe 273.955†	2.6	0.00202	mg/L	0.001870	0.00202	mg/L	0.001870	92.51%
K 766.490†	39.7	0.02286	mg/L	0.024948	0.02286	mg/L	0.024948	109.15%
Mg 279.077†	0.4	0.00029	mg/L	0.002281	0.00029	mg/L	0.002281	790.77%
Mn 257.610†	6.1	0.00016	mg/L	0.000044	0.00016	mg/L	0.000044	27.35%
Mo 202.031†	4.1	0.00021	mg/L	0.000221	0.00021	mg/L	0.000221	106.33%
Na 589.592†	525.1	0.06011	mg/L	0.004194	0.06011	mg/L	0.004194	6.98%
Na 330.237†	13.6	0.5960	mg/L	0.47902	0.5960	mg/L	0.47902	80.37%
Ni 231.604†	4.7	0.00094	mg/L	0.000540	0.00094	mg/L	0.000540	57.59%
Pb 220.353†	5.1	0.00059	mg/L	0.000090	0.00059	mg/L	0.000090	15.20%
Sb 206.836†	6.7	0.00215	mg/L	0.002100	0.00215	mg/L	0.002100	97.83%
Se 196.026†	2.5	0.00186	mg/L	0.003072	0.00186	mg/L	0.003072	164.93%
Si 288.158†	-12.5	-0.00616	mg/L	0.001171	-0.00616	mg/L	0.001171	19.00%
Sn 189.927†	0.5	0.00013	mg/L	0.000483	0.00013	mg/L	0.000483	384.63%
Sr 421.552†	23.1	0.00004	mg/L	0.000041	0.00004	mg/L	0.000041	95.18%
Ti 334.903†	-11.6	-0.00069	mg/L	0.000919	-0.00069	mg/L	0.000919	133.17%
Tl 190.801†	3.1	0.00151	mg/L	0.001784	0.00151	mg/L	0.001784	118.37%
V 292.402†	0.3	0.00000	mg/L	0.000169	0.00000	mg/L	0.000169	>999.9%
Zn 206.200†	1.5	0.00037	mg/L	0.000577	0.00037	mg/L	0.000577	154.58%

Sequence No.: 27
Sample ID: 17E0012-05

Autosampler Location: 354
Date Collected: 5/10/2017 2:59:41 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 17E0012-05

Analyte	Back Pressure	Flow
All	163.0 kPa	0.65 L/min

Mean Data: 17E0012-05

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2160782.9	95.83	%	1.247				1.30%
ScR 361.383	247300.3	102.9	%	0.68				0.66%
Ag 328.068†	3593.4	0.02338	mg/L	0.000126	0.02338	mg/L	0.000126	0.54%
Al 308.215†	7706.6	5.256	mg/L	0.0135	5.256	mg/L	0.0135	0.26%
As 188.979†	94.6	0.05752	mg/L	0.001569	0.05752	mg/L	0.001569	2.73%
B 249.677†	745.4	0.1019	mg/L	0.00112	0.1019	mg/L	0.00112	1.10%
Ba 233.527†	169.8	0.03108	mg/L	0.000758	0.03108	mg/L	0.000758	2.44%
Be 313.042†	170.0	0.00038	mg/L	0.000110	0.00038	mg/L	0.000110	29.30%
Ca 317.933†	303606.9	24.68	mg/L	0.303	24.68	mg/L	0.303	1.23%
Cd 228.802†	244.2	0.00840	mg/L	0.000321	0.00840	mg/L	0.000321	3.82%
Co 228.616†	363.2	0.00945	mg/L	0.000268	0.00945	mg/L	0.000268	2.84%
Cr 267.716†	342.7	0.04781	mg/L	0.000417	0.04781	mg/L	0.000417	0.87%
Cu 324.752†	18504.6	0.08999	mg/L	0.000433	0.08999	mg/L	0.000433	0.48%
Fe 273.955†	23751.7	18.30	mg/L	0.136	18.30	mg/L	0.136	0.75%
K 766.490†	128850.6	74.21	mg/L	0.271	74.21	mg/L	0.271	0.36%
Mg 279.077†	47116.0	34.46	mg/L	0.033	34.46	mg/L	0.033	0.09%
Mn 257.610†	35635.7	0.9250	mg/L	0.00681	0.9250	mg/L	0.00681	0.74%
Mo 202.031†	158.1	0.00759	mg/L	0.000240	0.00759	mg/L	0.000240	3.16%
Na 589.592†	1813483.2	207.6	mg/L	1.66	207.6	mg/L	1.66	0.80%
Na 330.237†	4725.7	207.5	mg/L	0.92	207.5	mg/L	0.92	0.44%
Ni 231.604†	192.2	0.03814	mg/L	0.001629	0.03814	mg/L	0.001629	4.27%
Pb 220.353†	92.2	0.01203	mg/L	0.000503	0.01203	mg/L	0.000503	4.18%
Sb 206.836†	16.8	0.00465	mg/L	0.002530	0.00465	mg/L	0.002530	54.46%
Se 196.026†	21.8	0.01570	mg/L	0.003654	0.01570	mg/L	0.003654	23.27%
Si 288.158†	1507.7	0.7393	mg/L	0.01400	0.7393	mg/L	0.01400	1.89%
Sn 189.927†	-26.6	-0.00289	mg/L	0.000570	-0.00289	mg/L	0.000570	19.70%
Sr 421.552†	216626.4	0.4091	mg/L	0.00354	0.4091	mg/L	0.00354	0.87%
Ti 334.903†	4664.9	0.2767	mg/L	0.00071	0.2767	mg/L	0.00071	0.26%
Tl 190.801†	-4.6	-0.00237	mg/L	0.000970	-0.00237	mg/L	0.000970	41.01%
V 292.402†	2755.3	0.02522	mg/L	0.000113	0.02522	mg/L	0.000113	0.45%
Zn 206.200†	1394.3	0.3467	mg/L	0.00376	0.3467	mg/L	0.00376	1.08%

Sequence No.: 28
Sample ID: 17E0012-06

Autosampler Location: 355
Date Collected: 5/10/2017 3:03:59 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: 17E0012-06

Analyte	Back Pressure	Flow
All	164.0 kPa	0.65 L/min

Mean Data: 17E0012-06

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2134277.9	94.65	%	0.391				0.41%
ScR 361.383	240741.5	100.1	%	0.81				0.81%
Ag 328.068†	-74.5	-0.00048	mg/L	0.000131	-0.00048	mg/L	0.000131	27.29%
Al 308.215†	3138.9	2.141	mg/L	0.0280	2.141	mg/L	0.0280	1.31%
As 188.979†	105.7	0.05590	mg/L	0.003216	0.05590	mg/L	0.003216	5.75%
B 249.677†	1062.1	0.1453	mg/L	0.00182	0.1453	mg/L	0.00182	1.25%
Ba 233.527†	55.9	0.01056	mg/L	0.000662	0.01056	mg/L	0.000662	6.27%
Be 313.042†	104.7	0.00023	mg/L	0.000029	0.00023	mg/L	0.000029	12.55%
Ca 317.933†	918819.2	74.69	mg/L	0.964	74.69	mg/L	0.964	1.29%
Cd 228.802†	515.8	0.01808	mg/L	0.000272	0.01808	mg/L	0.000272	1.51%
Co 228.616†	159.1	0.00414	mg/L	0.000100	0.00414	mg/L	0.000100	2.41%
Cr 267.716†	194.5	0.02539	mg/L	0.001294	0.02539	mg/L	0.001294	5.10%
Cu 324.752†	10715.5	0.05160	mg/L	0.000045	0.05160	mg/L	0.000045	0.09%
Fe 273.955†	4764.8	3.671	mg/L	0.0023	3.671	mg/L	0.0023	0.06%
K 766.490†	95906.3	55.23	mg/L	0.239	55.23	mg/L	0.239	0.43%
Mg 279.077†	44972.9	32.90	mg/L	0.052	32.90	mg/L	0.052	0.16%
Mn 257.610†	3293.2	0.08525	mg/L	0.001446	0.08525	mg/L	0.001446	1.70%
Mo 202.031†	169.2	0.00746	mg/L	0.000116	0.00746	mg/L	0.000116	1.55%
Na 589.592†	2025672.3	231.9	mg/L	2.31	231.9	mg/L	2.31	1.00%
Na 330.237†	5304.9	232.7	mg/L	0.32	232.7	mg/L	0.32	0.14%
Ni 231.604†	68.2	0.01353	mg/L	0.000903	0.01353	mg/L	0.000903	6.68%
Pb 220.353†	35.4	0.00464	mg/L	0.000496	0.00464	mg/L	0.000496	10.67%
Sb 206.836†	7.6	0.00187	mg/L	0.001551	0.00187	mg/L	0.001551	82.72%
Se 196.026†	18.8	0.01396	mg/L	0.004228	0.01396	mg/L	0.004228	30.29%
Si 288.158†	990.9	0.4871	mg/L	0.01148	0.4871	mg/L	0.01148	2.36%
Sn 189.927†	-55.5	-0.00242	mg/L	0.000602	-0.00242	mg/L	0.000602	24.82%
Sr 421.552†	379227.2	0.7162	mg/L	0.00787	0.7162	mg/L	0.00787	1.10%
Ti 334.903†	2057.3	0.1183	mg/L	0.00090	0.1183	mg/L	0.00090	0.76%
Tl 190.801†	-0.5	-0.00032	mg/L	0.001822	-0.00032	mg/L	0.001822	578.52%
V 292.402†	1078.0	0.00999	mg/L	0.000151	0.00999	mg/L	0.000151	1.52%
Zn 206.200†	2948.7	0.7331	mg/L	0.01292	0.7331	mg/L	0.01292	1.76%

Sequence No.: 29
Sample ID: 17E0055-01

Autosampler Location: 356
Date Collected: 5/10/2017 3:08:15 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: 17E0055-01

Analyte	Back Pressure	Flow
All	164.0 kPa	0.65 L/min

Mean Data: 17E0055-01

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2147351.5	95.23	%	0.509				0.53%
ScR 361.383	230934.5	96.07	%	0.498				0.52%
Ag 328.068†	-39.3	-0.00025	mg/L	0.000390	-0.00126	mg/L	0.001952	154.34%
Al 308.215†	206.2	0.1405	mg/L	0.00730	0.7026	mg/L	0.03652	5.20%
As 188.979†	-0.6	-0.00037	mg/L	0.002143	-0.00186	mg/L	0.010716	575.34%
B 249.677†	90.7	0.01242	mg/L	0.001878	0.06208	mg/L	0.009392	15.13%
Ba 233.527†	14.8	0.00294	mg/L	0.001195	0.01469	mg/L	0.005977	40.70%
Be 313.042†	96.5	0.00022	mg/L	0.000028	0.00108	mg/L	0.000142	13.06%
Ca 317.933†	2062.2	0.1676	mg/L	0.00106	0.8382	mg/L	0.00530	0.63%
Cd 228.802†	14.9	0.00054	mg/L	0.000177	0.00269	mg/L	0.000884	32.90%
Co 228.616†	-7.5	-0.00020	mg/L	0.000057	-0.00102	mg/L	0.000283	27.65%
Cr 267.716†	-13.7	-0.00200	mg/L	0.001372	-0.00999	mg/L	0.006860	68.70%
Cu 324.752†	367.1	0.00178	mg/L	0.000014	0.00892	mg/L	0.000072	0.81%
Fe 273.955†	71.7	0.05513	mg/L	0.000447	0.2757	mg/L	0.00223	0.81%
K 766.490†	321.4	0.1851	mg/L	0.02777	0.9256	mg/L	0.13887	15.00%
Mg 279.077†	63.0	0.04606	mg/L	0.006320	0.2303	mg/L	0.03160	13.72%
Mn 257.610†	61.8	0.00160	mg/L	0.000072	0.00801	mg/L	0.000359	4.48%
Mo 202.031†	6.1	0.00030	mg/L	0.000077	0.00151	mg/L	0.000386	25.52%
Na 589.592†	2545840.8	291.4	mg/L	0.46	1457	mg/L	2.30	0.16%
Na 330.237†	6663.4	292.6	mg/L	1.43	1463	mg/L	7.17	0.49%
Ni 231.604†	5.6	0.00112	mg/L	0.000600	0.00558	mg/L	0.003000	53.78%
Pb 220.353†	3.1	0.00039	mg/L	0.000311	0.00196	mg/L	0.001554	79.23%
Sb 206.836†	0.6	0.00027	mg/L	0.001519	0.00135	mg/L	0.007593	561.40%
Se 196.026†	4.4	0.00334	mg/L	0.005938	0.01670	mg/L	0.029689	177.73%
Si 288.158†	221.8	0.1096	mg/L	0.00311	0.5481	mg/L	0.01555	2.84%
Sn 189.927†	-3.4	-0.00083	mg/L	0.000345	-0.00415	mg/L	0.001723	41.50%
Sr 421.552†	6669.0	0.01259	mg/L	0.000119	0.06297	mg/L	0.000595	0.95%
Ti 334.903†	-3.9	-0.00024	mg/L	0.001488	-0.00120	mg/L	0.007438	621.21%
Tl 190.801†	0.1	0.00001	mg/L	0.001224	0.00005	mg/L	0.006118	>999.9%
V 292.402†	941.2	0.00876	mg/L	0.000168	0.04381	mg/L	0.000842	1.92%
Zn 206.200†	22.1	0.00552	mg/L	0.000686	0.02759	mg/L	0.003432	12.44%

Sequence No.: 30
Sample ID: 17E0074-01

Autosampler Location: 357
Date Collected: 5/10/2017 3:12:30 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: 17E0074-01

Analyte	Back Pressure	Flow
All	164.0 kPa	0.65 L/min

Mean Data: 17E0074-01

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2118939.7	93.97	%	0.176				0.19%
ScR 361.383	237692.6	98.88	%	1.098				1.11%
Ag 328.068†	2.1	0.00001	mg/L	0.000457	0.00007	mg/L	0.002286	>999.9%
Al 308.215†	25.0	0.01701	mg/L	0.003161	0.08507	mg/L	0.015807	18.58%
As 188.979†	22.5	0.00973	mg/L	0.001961	0.04864	mg/L	0.009803	20.15%
B 249.677†	372.3	0.05093	mg/L	0.001025	0.2546	mg/L	0.00513	2.01%
Ba 233.527†	579.0	0.1150	mg/L	0.00125	0.5748	mg/L	0.00626	1.09%
Be 313.042†	100.7	0.00023	mg/L	0.000032	0.00114	mg/L	0.000159	13.94%
Ca 317.933†	442389.9	35.96	mg/L	0.140	179.8	mg/L	0.70	0.39%
Cd 228.802†	192.3	0.00681	mg/L	0.000161	0.03407	mg/L	0.000805	2.36%
Co 228.616†	9.4	0.00024	mg/L	0.000258	0.00122	mg/L	0.001292	106.06%
Cr 267.716†	25.4	0.00285	mg/L	0.001254	0.01427	mg/L	0.006269	43.92%
Cu 324.752†	1615.7	0.00781	mg/L	0.000106	0.03905	mg/L	0.000528	1.35%
Fe 273.955†	78.9	0.06075	mg/L	0.002889	0.3038	mg/L	0.01444	4.75%
K 766.490†	988.2	0.5691	mg/L	0.00841	2.846	mg/L	0.0420	1.48%
Mg 279.077†	5911.3	4.332	mg/L	0.0319	21.66	mg/L	0.160	0.74%
Mn 257.610†	131644.1	3.417	mg/L	0.0047	17.09	mg/L	0.023	0.14%
Mo 202.031†	51.1	0.00207	mg/L	0.000206	0.01033	mg/L	0.001030	9.97%
Na 589.592†	2382156.6	272.7	mg/L	1.71	1364	mg/L	8.54	0.63%
Na 330.237†	6440.9	281.2	mg/L	2.07	1406	mg/L	10.36	0.74%
Ni 231.604†	30.4	0.00604	mg/L	0.000776	0.03020	mg/L	0.003881	12.85%
Pb 220.353†	1.5	0.00017	mg/L	0.000898	0.00085	mg/L	0.004489	525.22%
Sb 206.836†	6.4	0.00186	mg/L	0.000483	0.00930	mg/L	0.002413	25.93%
Se 196.026†	-3.4	-0.00261	mg/L	0.008266	-0.01307	mg/L	0.041329	316.21%
Si 288.158†	11178.5	5.524	mg/L	0.0139	27.62	mg/L	0.069	0.25%
Sn 189.927†	-50.0	-0.00709	mg/L	0.000620	-0.03545	mg/L	0.003101	8.75%
Sr 421.552†	158411.6	0.2992	mg/L	0.00046	1.496	mg/L	0.0023	0.16%
Ti 334.903†	21.7	-0.00082	mg/L	0.000598	-0.00408	mg/L	0.002990	73.31%
Tl 190.801†	4.4	0.00212	mg/L	0.001142	0.01058	mg/L	0.005708	53.97%
V 292.402†	-45.5	0.00009	mg/L	0.000183	0.00043	mg/L	0.000916	212.22%
Zn 206.200†	16550.3	4.115	mg/L	0.0317	20.58	mg/L	0.159	0.77%

Sequence No.: 31
Sample ID: 17E0077-03

Autosampler Location: 358
Date Collected: 5/10/2017 3:16:45 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: 17E0077-03

Analyte	Back Pressure	Flow
All	164.0 kPa	0.65 L/min

Mean Data: 17E0077-03

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2159383.2	95.76	%	0.197				0.21%
ScR 361.383	231679.7	96.38	%	0.972				1.01%
Ag 328.068†	-44.0	-0.00029	mg/L	0.000280	-0.00143	mg/L	0.001401	97.88%
Al 308.215†	97.1	0.06624	mg/L	0.005373	0.3312	mg/L	0.02686	8.11%
As 188.979†	1.0	0.00017	mg/L	0.001450	0.00085	mg/L	0.007250	848.35%
B 249.677†	163.7	0.02239	mg/L	0.000612	0.1120	mg/L	0.00306	2.73%
Ba 233.527†	326.9	0.06492	mg/L	0.000613	0.3246	mg/L	0.00306	0.94%
Be 313.042†	117.3	0.00027	mg/L	0.000018	0.00133	mg/L	0.000089	6.68%
Ca 317.933†	62460.8	5.077	mg/L	0.0900	25.39	mg/L	0.450	1.77%
Cd 228.802†	13.7	0.00049	mg/L	0.000167	0.00245	mg/L	0.000837	34.20%
Co 228.616†	138.6	0.00379	mg/L	0.000195	0.01897	mg/L	0.000975	5.14%
Cr 267.716†	-3.1	-0.00060	mg/L	0.001417	-0.00301	mg/L	0.007086	235.74%
Cu 324.752†	607.6	0.00294	mg/L	0.000107	0.01469	mg/L	0.000537	3.65%
Fe 273.955†	30.5	0.02346	mg/L	0.002376	0.1173	mg/L	0.01188	10.13%
K 766.490†	942.4	0.5427	mg/L	0.01745	2.714	mg/L	0.0873	3.22%
Mg 279.077†	1970.1	1.442	mg/L	0.0374	7.209	mg/L	0.1872	2.60%
Mn 257.610†	8376.3	0.2174	mg/L	0.00401	1.087	mg/L	0.0201	1.85%
Mo 202.031†	17.8	0.00082	mg/L	0.000057	0.00412	mg/L	0.000287	6.97%
Na 589.592†	2465206.9	282.2	mg/L	0.76	1411	mg/L	3.78	0.27%
Na 330.237†	6496.6	285.3	mg/L	4.15	1427	mg/L	20.76	1.46%
Ni 231.604†	17.6	0.00349	mg/L	0.000789	0.01743	mg/L	0.003946	22.65%
Pb 220.353†	2.9	0.00034	mg/L	0.001120	0.00171	mg/L	0.005602	328.44%
Sb 206.836†	0.3	0.00008	mg/L	0.001500	0.00039	mg/L	0.007499	>999.9%
Se 196.026†	-2.7	-0.00203	mg/L	0.004212	-0.01017	mg/L	0.021058	207.01%
Si 288.158†	994.8	0.4915	mg/L	0.00688	2.458	mg/L	0.0344	1.40%
Sn 189.927†	-11.8	-0.00222	mg/L	0.000825	-0.01110	mg/L	0.004125	37.17%
Sr 421.552†	34233.3	0.06465	mg/L	0.001067	0.3232	mg/L	0.00533	1.65%
Ti 334.903†	16.1	0.00066	mg/L	0.000165	0.00331	mg/L	0.000825	24.91%
Tl 190.801†	-0.2	-0.00013	mg/L	0.001929	-0.00065	mg/L	0.009644	>999.9%
V 292.402†	28.9	0.00030	mg/L	0.000152	0.00149	mg/L	0.000761	51.19%
Zn 206.200†	50.8	0.01272	mg/L	0.000734	0.06361	mg/L	0.003672	5.77%

Sequence No.: 32
Sample ID: 17E0124-03

Autosampler Location: 359
Date Collected: 5/10/2017 3:21:00 PM
Data Type: Original

Dilution: 20.000000X

Nebulizer Parameters: 17E0124-03

Analyte	Back Pressure	Flow
All	164.0 kPa	0.65 L/min

Mean Data: 17E0124-03

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2284515.4	101.3	%	0.65				0.64%
ScR 361.383	246450.5	102.5	%	0.28				0.27%
Ag 328.068†	127.7	0.00083	mg/L	0.000171	0.01664	mg/L	0.003413	20.51%
Al 308.215†	227.0	0.1492	mg/L	0.00749	2.983	mg/L	0.1498	5.02%
As 188.979†	6.3	0.00007	mg/L	0.000687	0.00148	mg/L	0.013745	930.55%
B 249.677†	12.3	0.00167	mg/L	0.001096	0.03341	mg/L	0.021926	65.63%
Ba 233.527†	60.0	0.00225	mg/L	0.000484	0.04498	mg/L	0.009676	21.51%
Be 313.042†	74.4	0.00017	mg/L	0.000040	0.00336	mg/L	0.000794	23.65%
Ca 317.933†	14081.6	1.145	mg/L	0.0025	22.89	mg/L	0.050	0.22%
Cd 228.802†	-56.7	0.00072	mg/L	0.000111	0.01434	mg/L	0.002212	15.42%
Co 228.616†	1413.2	0.03837	mg/L	0.000417	0.7675	mg/L	0.00834	1.09%
Cr 267.716†	9331.0	1.363	mg/L	0.0032	27.26	mg/L	0.064	0.23%
Cu 324.752†	2686870.8	13.05	mg/L	0.004	261.0	mg/L	0.09	0.03%
Fe 273.955†	84507.5	65.10	mg/L	0.241	1302	mg/L	4.83	0.37%
K 766.490†	1553.6	0.8947	mg/L	0.02808	17.89	mg/L	0.562	3.14%
Mg 279.077†	621.0	0.4190	mg/L	0.00757	8.379	mg/L	0.1513	1.81%
Mn 257.610†	10476.0	0.2722	mg/L	0.00083	5.445	mg/L	0.0167	0.31%
Mo 202.031†	5944.6	0.2982	mg/L	0.00308	5.963	mg/L	0.0617	1.03%
Na 589.592†	12957.4	1.483	mg/L	0.0186	29.67	mg/L	0.371	1.25%
Na 330.237†	33.2	1.423	mg/L	0.1014	28.46	mg/L	2.028	7.13%
Ni 231.604†	14333.7	2.844	mg/L	0.0090	56.89	mg/L	0.179	0.32%
Pb 220.353†	234.9	0.01271	mg/L	0.000426	0.2541	mg/L	0.00851	3.35%
Sb 206.836†	93.0	0.00651	mg/L	0.001960	0.1302	mg/L	0.03919	30.11%
Se 196.026†	3.5	0.00259	mg/L	0.001387	0.05174	mg/L	0.027730	53.59%
Si 288.158†	6058.5	2.994	mg/L	0.6902	59.88	mg/L	13.805	23.05%
Sn 189.927†	483.4	0.1233	mg/L	0.00193	2.466	mg/L	0.0386	1.57%
Sr 421.552†	2239.8	0.00423	mg/L	0.000032	0.08460	mg/L	0.000635	0.75%
Ti 334.903†	297.1	0.01706	mg/L	0.000295	0.3412	mg/L	0.00591	1.73%
Tl 190.801†	-12.5	-0.00632	mg/L	0.002881	-0.1264	mg/L	0.05761	45.57%
V 292.402†	372.5	0.00790	mg/L	0.000156	0.1581	mg/L	0.00312	1.98%
Zn 206.200†	377.8	0.09456	mg/L	0.000748	1.891	mg/L	0.0150	0.79%

Sequence No.: 33 **Autosampler Location: 9**
Sample ID: SEQ-IBL1 **Date Collected: 5/10/2017 3:27:43 PM**
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-IBL1

Analyte	Back Pressure	Flow
All	163.0 kPa	0.65 L/min

Mean Data: SEQ-IBL1

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2295997.3	101.8	%	0.43				0.43%
ScR 361.383	247954.5	103.1	%	0.62				0.60%
Ag 328.068†	-18.0	-0.00012	mg/L	0.000154	-0.00012	mg/L	0.000154	131.35%
Al 308.215†	11.9	0.00809	mg/L	0.004286	0.00809	mg/L	0.004286	52.95%
As 188.979†	-0.3	-0.00016	mg/L	0.002575	-0.00016	mg/L	0.002575	>999.9%
B 249.677†	-16.7	-0.00229	mg/L	0.000776	-0.00229	mg/L	0.000776	33.86%
Ba 233.527†	-3.3	-0.00065	mg/L	0.000537	-0.00065	mg/L	0.000537	82.01%
Be 313.042†	16.6	0.00004	mg/L	0.000029	0.00004	mg/L	0.000029	78.19%
Ca 317.933†	-48.3	-0.00392	mg/L	0.000753	-0.00392	mg/L	0.000753	19.19%
Cd 228.802†	11.6	0.00042	mg/L	0.000181	0.00042	mg/L	0.000181	43.30%
Co 228.616†	-3.1	-0.00008	mg/L	0.000130	-0.00008	mg/L	0.000130	152.95%
Cr 267.716†	5.5	0.00081	mg/L	0.000493	0.00081	mg/L	0.000493	61.08%
Cu 324.752†	168.5	0.00082	mg/L	0.000154	0.00082	mg/L	0.000154	18.82%
Fe 273.955†	7.5	0.00580	mg/L	0.002944	0.00580	mg/L	0.002944	50.74%
K 766.490†	6.7	0.00387	mg/L	0.009670	0.00387	mg/L	0.009670	249.65%
Mg 279.077†	-6.3	-0.00464	mg/L	0.004463	-0.00464	mg/L	0.004463	96.11%
Mn 257.610†	7.6	0.00020	mg/L	0.000135	0.00020	mg/L	0.000135	68.16%
Mo 202.031†	5.3	0.00026	mg/L	0.000281	0.00026	mg/L	0.000281	106.40%
Na 589.592†	580.4	0.06644	mg/L	0.007063	0.06644	mg/L	0.007063	10.63%
Na 330.237†	11.2	0.4912	mg/L	0.31218	0.4912	mg/L	0.31218	63.55%
Ni 231.604†	1.5	0.00029	mg/L	0.002237	0.00029	mg/L	0.002237	759.28%
Pb 220.353†	3.0	0.00034	mg/L	0.000676	0.00034	mg/L	0.000676	196.30%
Sb 206.836†	1.6	0.00048	mg/L	0.002006	0.00048	mg/L	0.002006	416.89%
Se 196.026†	-2.5	-0.00192	mg/L	0.002627	-0.00192	mg/L	0.002627	136.99%
Si 288.158†	4.7	0.00231	mg/L	0.002388	0.00231	mg/L	0.002388	103.38%
Sn 189.927†	-1.5	-0.00039	mg/L	0.000720	-0.00039	mg/L	0.000720	184.13%
Sr 421.552†	23.6	0.00004	mg/L	0.000019	0.00004	mg/L	0.000019	43.29%
Ti 334.903†	1.3	0.00008	mg/L	0.001757	0.00008	mg/L	0.001757	>999.9%
Tl 190.801†	1.7	0.00082	mg/L	0.001575	0.00082	mg/L	0.001575	191.70%
V 292.402†	5.6	0.00006	mg/L	0.000124	0.00006	mg/L	0.000124	223.58%
Zn 206.200†	2.9	0.00073	mg/L	0.000771	0.00073	mg/L	0.000771	105.36%

Sequence No.: 34 **Autosampler Location: 7**
Sample ID: SEQ-CCV8 **Date Collected: 5/10/2017 3:32:47 PM**
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCV8

Analyte	Back Pressure	Flow
All	162.0 kPa	0.65 L/min

Mean Data: SEQ-CCV8

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2265341.0	100.5	%	0.81				0.80%
ScR 361.383	248121.2	103.2	%	0.32				0.31%
Ag 328.068†	159173.8	1.035	mg/L	0.0035	1.035	mg/L	0.0035	0.33%
Al 308.215†	2961.9	1.985	mg/L	0.0268	1.985	mg/L	0.0268	1.35%
As 188.979†	3436.2	1.929	mg/L	0.0109	1.929	mg/L	0.0109	0.56%
B 249.677†	7161.6	0.9782	mg/L	0.01446	0.9782	mg/L	0.01446	1.48%
Ba 233.527†	5207.4	1.034	mg/L	0.0158	1.034	mg/L	0.0158	1.53%
Be 313.042†	431272.0	0.9788	mg/L	0.00667	0.9788	mg/L	0.00667	0.68%
Ca 317.933†	24165.8	1.964	mg/L	0.0099	1.964	mg/L	0.0099	0.50%
Cd 228.802†	28447.3	1.007	mg/L	0.0043	1.007	mg/L	0.0043	0.43%
Co 228.616†	37390.8	1.024	mg/L	0.0070	1.024	mg/L	0.0070	0.69%
Cr 267.716†	6979.3	1.017	mg/L	0.0175	1.017	mg/L	0.0175	1.72%
Cu 324.752†	208424.4	1.012	mg/L	0.0042	1.012	mg/L	0.0042	0.42%
Fe 273.955†	2496.8	1.916	mg/L	0.0332	1.916	mg/L	0.0332	1.73%
K 766.490†	34691.1	19.98	mg/L	0.040	19.98	mg/L	0.040	0.20%
Mg 279.077†	2767.7	2.034	mg/L	0.0383	2.034	mg/L	0.0383	1.88%
Mn 257.610†	35702.6	0.9271	mg/L	0.00655	0.9271	mg/L	0.00655	0.71%
Mo 202.031†	19246.8	0.9655	mg/L	0.00569	0.9655	mg/L	0.00569	0.59%
Na 589.592†	445862.1	51.04	mg/L	0.033	51.04	mg/L	0.033	0.06%
Na 330.237†	1163.0	50.90	mg/L	0.601	50.90	mg/L	0.601	1.18%
Ni 231.604†	4940.5	0.9809	mg/L	0.01755	0.9809	mg/L	0.01755	1.79%
Pb 220.353†	17035.5	1.956	mg/L	0.0087	1.956	mg/L	0.0087	0.45%
Sb 206.836†	6252.2	2.004	mg/L	0.0167	2.004	mg/L	0.0167	0.83%
Se 196.026†	2539.8	1.931	mg/L	0.0154	1.931	mg/L	0.0154	0.80%
Si 288.158†	4162.6	2.038	mg/L	0.0308	2.038	mg/L	0.0308	1.51%
Sn 189.927†	3717.0	0.9479	mg/L	0.00180	0.9479	mg/L	0.00180	0.19%
Sr 421.552†	534925.6	1.010	mg/L	0.0019	1.010	mg/L	0.0019	0.18%
Ti 334.903†	16243.7	0.9675	mg/L	0.00294	0.9675	mg/L	0.00294	0.30%
Tl 190.801†	4054.5	1.960	mg/L	0.0190	1.960	mg/L	0.0190	0.97%
V 292.402†	111973.3	1.049	mg/L	0.0008	1.049	mg/L	0.0008	0.08%
Zn 206.200†	3864.0	0.9609	mg/L	0.02001	0.9609	mg/L	0.02001	2.08%

Sequence No.: 35 **Autosampler Location: 1**
Sample ID: SEQ-CCB8 **Date Collected: 5/10/2017 3:37:51 PM**
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: SEQ-CCB8

Analyte	Back Pressure	Flow
All	162.0 kPa	0.65 L/min

Mean Data: SEQ-CCB8

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2279927.4	101.1	%	0.26				0.26%
ScR 361.383	244986.4	101.9	%	0.56				0.55%
Ag 328.068†	18.4	0.00012	mg/L	0.000168	0.00012	mg/L	0.000168	140.16%
Al 308.215†	18.7	0.01274	mg/L	0.002183	0.01274	mg/L	0.002183	17.13%
As 188.979†	-1.0	-0.00055	mg/L	0.003048	-0.00055	mg/L	0.003048	549.94%
B 249.677†	-1.3	-0.00018	mg/L	0.000327	-0.00018	mg/L	0.000327	185.39%
Ba 233.527†	1.3	0.00026	mg/L	0.000374	0.00026	mg/L	0.000374	144.51%
Be 313.042†	69.8	0.00016	mg/L	0.000030	0.00016	mg/L	0.000030	18.72%
Ca 317.933†	-13.3	-0.00108	mg/L	0.000601	-0.00108	mg/L	0.000601	55.48%
Cd 228.802†	17.4	0.00063	mg/L	0.000125	0.00063	mg/L	0.000125	19.85%
Co 228.616†	-6.0	-0.00016	mg/L	0.000182	-0.00016	mg/L	0.000182	110.51%
Cr 267.716†	1.0	0.00015	mg/L	0.000439	0.00015	mg/L	0.000439	294.11%
Cu 324.752†	206.8	0.00100	mg/L	0.000154	0.00100	mg/L	0.000154	15.37%
Fe 273.955†	0.5	0.00039	mg/L	0.002772	0.00039	mg/L	0.002772	708.00%
K 766.490†	14.7	0.00848	mg/L	0.007936	0.00848	mg/L	0.007936	93.62%
Mg 279.077†	-0.5	-0.00038	mg/L	0.000448	-0.00038	mg/L	0.000448	117.72%
Mn 257.610†	4.8	0.00012	mg/L	0.000089	0.00012	mg/L	0.000089	72.00%
Mo 202.031†	3.5	0.00018	mg/L	0.000343	0.00018	mg/L	0.000343	194.68%
Na 589.592†	467.6	0.05353	mg/L	0.002371	0.05353	mg/L	0.002371	4.43%
Na 330.237†	23.7	1.039	mg/L	0.4068	1.039	mg/L	0.4068	39.17%
Ni 231.604†	2.6	0.00051	mg/L	0.001483	0.00051	mg/L	0.001483	290.78%
Pb 220.353†	0.6	0.00007	mg/L	0.000290	0.00007	mg/L	0.000290	390.97%
Sb 206.836†	-4.0	-0.00129	mg/L	0.001950	-0.00129	mg/L	0.001950	151.64%
Se 196.026†	-1.0	-0.00077	mg/L	0.001110	-0.00077	mg/L	0.001110	143.34%
Si 288.158†	-11.0	-0.00543	mg/L	0.003156	-0.00543	mg/L	0.003156	58.07%
Sn 189.927†	0.6	0.00014	mg/L	0.000714	0.00014	mg/L	0.000714	506.60%
Sr 421.552†	48.0	0.00009	mg/L	0.000026	0.00009	mg/L	0.000026	28.63%
Ti 334.903†	-7.9	-0.00047	mg/L	0.000890	-0.00047	mg/L	0.000890	187.72%
Tl 190.801†	5.8	0.00283	mg/L	0.001966	0.00283	mg/L	0.001966	69.45%
V 292.402†	22.5	0.00021	mg/L	0.000176	0.00021	mg/L	0.000176	83.16%
Zn 206.200†	4.9	0.00121	mg/L	0.000308	0.00121	mg/L	0.000308	25.51%

Sequence No.: 36 **Autosampler Location: 9**
Sample ID: RINSE **Date Collected: 5/10/2017 3:41:51 PM**
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: RINSE

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: RINSE

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	982069.0	43.55	%	51.425				118.08%
ScR 361.383	247930.5	103.1	%	0.59				0.57%
Ag 328.068†	-1959.9	-0.01274	mg/L	0.020321	-0.01274	mg/L	0.020321	159.55%
Al 308.215†	3.7	0.00137	mg/L	0.004795	0.00137	mg/L	0.004795	349.59%
As 188.979†	-6.7	-0.00391	mg/L	0.003648	-0.00391	mg/L	0.003648	93.28%
B 249.677†	-7.9	-0.00096	mg/L	0.000735	-0.00096	mg/L	0.000735	76.17%
Ba 233.527†	0.3	0.00004	mg/L	0.000322	0.00004	mg/L	0.000322	782.22%
Be 313.042†	30.4	0.00006	mg/L	0.000026	0.00006	mg/L	0.000026	41.54%
Ca 317.933†	-33.1	-0.00269	mg/L	0.001071	-0.00269	mg/L	0.001071	39.75%
Cd 228.802†	1137.3	0.04086	mg/L	0.069371	0.04086	mg/L	0.069371	169.78%
Co 228.616†	-829.3	-0.02274	mg/L	0.036221	-0.02274	mg/L	0.036221	159.27%
Cr 267.716†	-4.3	-0.00063	mg/L	0.000880	-0.00063	mg/L	0.000880	139.35%
Cu 324.752†	26522.9	0.1288	mg/L	0.20497	0.1288	mg/L	0.20497	159.15%
Fe 273.955†	4.2	0.00298	mg/L	0.002706	0.00298	mg/L	0.002706	90.70%
K 766.490†	27.4	0.01575	mg/L	0.007266	0.01575	mg/L	0.007266	46.12%
Mg 279.077†	-3.1	-0.00204	mg/L	0.004470	-0.00204	mg/L	0.004470	218.77%
Mn 257.610†	5.3	0.00016	mg/L	0.000207	0.00016	mg/L	0.000207	125.42%
Mo 202.031†	789.3	0.03960	mg/L	0.062284	0.03960	mg/L	0.062284	157.29%
Na 589.592†	341.1	0.03905	mg/L	0.003358	0.03905	mg/L	0.003358	8.60%
Na 330.237†	-1.5	-0.06630	mg/L	0.351233	-0.06630	mg/L	0.351233	529.79%
Ni 231.604†	-5.0	-0.00067	mg/L	0.000176	-0.00067	mg/L	0.000176	26.38%
Pb 220.353†	1093.9	0.1253	mg/L	0.20099	0.1253	mg/L	0.20099	160.34%
Sb 206.836†	1233.7	0.3959	mg/L	0.63477	0.3959	mg/L	0.63477	160.32%
Se 196.026†	-133.4	-0.1015	mg/L	0.17178	-0.1015	mg/L	0.17178	169.19%
Si 288.158†	-11.2	-0.00547	mg/L	0.003429	-0.00547	mg/L	0.003429	62.67%
Sn 189.927†	-84.6	-0.02139	mg/L	0.037443	-0.02139	mg/L	0.037443	175.08%
Sr 421.552†	22.9	0.00004	mg/L	0.000028	0.00004	mg/L	0.000028	64.63%
Ti 334.903†	-8.2	-0.00053	mg/L	0.001648	-0.00053	mg/L	0.001648	313.38%
Tl 190.801†	-421.8	-0.2049	mg/L	0.33357	-0.2049	mg/L	0.33357	162.79%
V 292.402†	2959.6	0.02760	mg/L	0.044047	0.02760	mg/L	0.044047	159.59%
Zn 206.200†	3.0	0.00075	mg/L	0.000342	0.00075	mg/L	0.000342	45.57%

Sequence No.: 37 **Autosampler Location: 9**
Sample ID: RINSE2 **Date Collected: 5/10/2017 3:45:51 PM**
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: RINSE2

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: RINSE2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	15233.4	0.6756	%	0.00459				0.68%
ScR 361.383	-145.9	-0.06069	%	0.008780				14.47%
Ag 328.068†	-16367.7	-0.1064	mg/L	0.02928	-0.1064	mg/L	0.02928	27.53%
Al 308.215†	-352183.2	-240.3	mg/L	59.32	-240.3	mg/L	59.32	24.69%
As 188.979†	-1121.2	-0.6025	mg/L	0.13560	-0.6025	mg/L	0.13560	22.51%
B 249.677†	-127756.6	-17.49	mg/L	5.639	-17.49	mg/L	5.639	32.24%
Ba 233.527†	-50434.7	-10.01	mg/L	2.947	-10.01	mg/L	2.947	29.44%
Be 313.042†	-1432777.1	-3.253	mg/L	0.5466	-3.253	mg/L	0.5466	16.80%
Ca 317.933†	-258352.6	-21.00	mg/L	3.619	-21.00	mg/L	3.619	17.23%
Cd 228.802†	11019.3	0.4064	mg/L	0.01729	0.4064	mg/L	0.01729	4.25%
Co 228.616†	-7082.3	-0.2020	mg/L	0.01439	-0.2020	mg/L	0.01439	7.13%
Cr 267.716†	320941.7	46.81	mg/L	7.527	46.81	mg/L	7.527	16.08%
Cu 324.752†	234664.0	1.142	mg/L	0.0127	1.142	mg/L	0.0127	1.11%
Fe 273.955†	-50740.1	-39.02	mg/L	6.347	-39.02	mg/L	6.347	16.27%
K 766.490†	-1187403.5	-683.8	mg/L	57.69	-683.8	mg/L	57.69	8.44%
Mg 279.077†	-158606.7	-116.0	mg/L	16.22	-116.0	mg/L	16.22	13.98%
Mn 257.610†	-413243.2	-10.72	mg/L	1.352	-10.72	mg/L	1.352	12.61%
Mo 202.031†	6504.2	0.3242	mg/L	0.02802	0.3242	mg/L	0.02802	8.64%
Na 589.592†	-281310.7	-32.20	mg/L	12.025	-32.20	mg/L	12.025	37.34%
Na 330.237†	459190.7	20170	mg/L	3408.67	20170	mg/L	3408.67	16.90%
Ni 231.604†	31157.6	6.186	mg/L	1.7148	6.186	mg/L	1.7148	27.72%
Pb 220.353†	8472.9	0.9887	mg/L	0.15603	0.9887	mg/L	0.15603	15.78%
Sb 206.836†	9796.0	2.299	mg/L	0.2613	2.299	mg/L	0.2613	11.37%
Se 196.026†	-2270.2	-1.688	mg/L	0.3670	-1.688	mg/L	0.3670	21.74%
Si 288.158†	-86277.3	-42.72	mg/L	4.919	-42.72	mg/L	4.919	11.51%
Sn 189.927†	-670.8	-0.1728	mg/L	0.07292	-0.1728	mg/L	0.07292	42.20%
Sr 421.552†	-249780.7	-0.4717	mg/L	0.13631	-0.4717	mg/L	0.13631	28.90%
Ti 334.903†	71256.3	4.240	mg/L	2.0511	4.240	mg/L	2.0511	48.38%
Tl 190.801†	-3789.2	-1.841	mg/L	0.1930	-1.841	mg/L	0.1930	10.48%
V 292.402†	24061.9	0.4513	mg/L	0.03257	0.4513	mg/L	0.03257	7.22%
Zn 206.200†	-14424.0	-3.588	mg/L	1.5225	-3.588	mg/L	1.5225	42.43%

Sequence No.: 38 **Autosampler Location: 9**
Sample ID: RINSE3 **Date Collected: 5/10/2017 3:49:35 PM**
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: RINSE3

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: RINSE3

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	15105.5	0.6699	%	0.00124				0.19%
ScR 361.383	-183.8	-0.07646	%	0.003368				4.40%
Ag 328.068†	-11259.4	-0.07315	mg/L	0.042935	-0.07315	mg/L	0.042935	58.69%
Al 308.215†	-243896.1	-166.4	mg/L	4.64	-166.4	mg/L	4.64	2.79%
As 188.979†	-162.3	-0.06086	mg/L	0.325827	-0.06086	mg/L	0.325827	535.40%
B 249.677†	-96070.8	-13.15	mg/L	1.575	-13.15	mg/L	1.575	11.98%
Ba 233.527†	-46588.3	-9.247	mg/L	1.5726	-9.247	mg/L	1.5726	17.01%
Be 313.042†	-1114337.7	-2.530	mg/L	0.1284	-2.530	mg/L	0.1284	5.07%
Ca 317.933†	-187370.5	-15.23	mg/L	1.694	-15.23	mg/L	1.694	11.12%
Cd 228.802†	10890.8	0.3973	mg/L	0.01288	0.3973	mg/L	0.01288	3.24%
Co 228.616†	-7312.1	-0.2074	mg/L	0.03267	-0.2074	mg/L	0.03267	15.75%
Cr 267.716†	244255.9	35.63	mg/L	1.917	35.63	mg/L	1.917	5.38%
Cu 324.752†	233215.6	1.134	mg/L	0.0078	1.134	mg/L	0.0078	0.69%
Fe 273.955†	-42251.8	-32.50	mg/L	2.205	-32.50	mg/L	2.205	6.78%
K 766.490†	-937136.7	-539.7	mg/L	27.97	-539.7	mg/L	27.97	5.18%
Mg 279.077†	-119138.4	-87.12	mg/L	7.332	-87.12	mg/L	7.332	8.42%
Mn 257.610†	-323215.9	-8.388	mg/L	0.4107	-8.388	mg/L	0.4107	4.90%
Mo 202.031†	6385.0	0.3187	mg/L	0.00660	0.3187	mg/L	0.00660	2.07%
Na 589.592†	-130256.7	-14.91	mg/L	1.545	-14.91	mg/L	1.545	10.36%
Na 330.237†	342344.0	15040	mg/L	433.18	15040	mg/L	433.18	2.88%
Ni 231.604†	28742.6	5.707	mg/L	1.4550	5.707	mg/L	1.4550	25.50%
Pb 220.353†	7854.0	0.9180	mg/L	0.13142	0.9180	mg/L	0.13142	14.32%
Sb 206.836†	9834.7	2.513	mg/L	0.0851	2.513	mg/L	0.0851	3.38%
Se 196.026†	-2023.1	-1.512	mg/L	0.3370	-1.512	mg/L	0.3370	22.29%
Si 288.158†	-56517.4	-28.01	mg/L	6.163	-28.01	mg/L	6.163	22.01%
Sn 189.927†	-627.1	-0.1608	mg/L	0.07494	-0.1608	mg/L	0.07494	46.61%
Sr 421.552†	-157951.2	-0.2983	mg/L	0.11560	-0.2983	mg/L	0.11560	38.75%
Ti 334.903†	63545.6	3.782	mg/L	1.3609	3.782	mg/L	1.3609	35.98%
Tl 190.801†	-4115.1	-1.999	mg/L	0.3656	-1.999	mg/L	0.3656	18.29%
V 292.402†	22590.2	0.3831	mg/L	0.06936	0.3831	mg/L	0.06936	18.10%
Zn 206.200†	-13041.8	-3.243	mg/L	0.3213	-3.243	mg/L	0.3213	9.91%

Sequence No.: 39 **Autosampler Location: 9**
Sample ID: RINSE4 **Date Collected: 5/10/2017 3:53:19 PM**
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: RINSE4

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: RINSE4

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	14961.8	0.6635	%	0.00173				0.26%
ScR 361.383	-184.4	-0.07670	%	0.005250				6.84%
Ag 328.068†	-11773.5	-0.07649	mg/L	0.051542	-0.07649	mg/L	0.051542	67.38%
Al 308.215†	-252051.1	-172.0	mg/L	23.92	-172.0	mg/L	23.92	13.91%
As 188.979†	-815.7	-0.4064	mg/L	0.09459	-0.4064	mg/L	0.09459	23.27%
B 249.677†	-88122.0	-12.07	mg/L	0.865	-12.07	mg/L	0.865	7.17%
Ba 233.527†	-41405.3	-8.217	mg/L	1.3269	-8.217	mg/L	1.3269	16.15%
Be 313.042†	-1146963.6	-2.604	mg/L	0.1784	-2.604	mg/L	0.1784	6.85%
Ca 317.933†	-200967.1	-16.34	mg/L	3.183	-16.34	mg/L	3.183	19.48%
Cd 228.802†	10725.1	0.3935	mg/L	0.01509	0.3935	mg/L	0.01509	3.83%
Co 228.616†	-7609.5	-0.2171	mg/L	0.03013	-0.2171	mg/L	0.03013	13.88%
Cr 267.716†	253421.8	36.96	mg/L	1.792	36.96	mg/L	1.792	4.85%
Cu 324.752†	233915.9	1.137	mg/L	0.0046	1.137	mg/L	0.0046	0.40%
Fe 273.955†	-42683.5	-32.83	mg/L	0.739	-32.83	mg/L	0.739	2.25%
K 766.490†	-921916.2	-530.9	mg/L	39.38	-530.9	mg/L	39.38	7.42%
Mg 279.077†	-127698.0	-93.38	mg/L	15.318	-93.38	mg/L	15.318	16.40%
Mn 257.610†	-323226.2	-8.389	mg/L	0.5313	-8.389	mg/L	0.5313	6.33%
Mo 202.031†	7317.7	0.3655	mg/L	0.03663	0.3655	mg/L	0.03663	10.02%
Na 589.592†	-109237.9	-12.51	mg/L	3.374	-12.51	mg/L	3.374	26.98%
Na 330.237†	341502.8	15000	mg/L	497.16	15000	mg/L	497.16	3.31%
Ni 231.604†	25741.5	5.111	mg/L	1.4045	5.111	mg/L	1.4045	27.48%
Pb 220.353†	9098.1	1.062	mg/L	0.0681	1.062	mg/L	0.0681	6.42%
Sb 206.836†	10410.7	2.674	mg/L	0.2521	2.674	mg/L	0.2521	9.43%
Se 196.026†	-2026.1	-1.514	mg/L	0.6808	-1.514	mg/L	0.6808	44.97%
Si 288.158†	-70920.1	-35.14	mg/L	2.984	-35.14	mg/L	2.984	8.49%
Sn 189.927†	-909.8	-0.2329	mg/L	0.05866	-0.2329	mg/L	0.05866	25.19%
Sr 421.552†	-120895.7	-0.2283	mg/L	0.06694	-0.2283	mg/L	0.06694	29.32%
Ti 334.903†	77103.0	4.590	mg/L	1.5824	4.590	mg/L	1.5824	34.47%
Tl 190.801†	-4249.4	-2.064	mg/L	0.0891	-2.064	mg/L	0.0891	4.32%
V 292.402†	24799.9	0.4098	mg/L	0.01038	0.4098	mg/L	0.01038	2.53%
Zn 206.200†	-8528.2	-2.123	mg/L	0.5754	-2.123	mg/L	0.5754	27.11%

Sequence No.: 40
Sample ID: DI

Autosampler Location: 10
Date Collected: 5/10/2017 3:57:03 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: DI

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: DI

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	15325.9	0.6797	%	0.00302				0.44%
ScR 361.383	-190.1	-0.07910	%	0.005505				6.96%
Ag 328.068†	-12464.0	-0.08098	mg/L	0.064113	-0.08098	mg/L	0.064113	79.17%
Al 308.215†	-235762.3	-160.9	mg/L	17.62	-160.9	mg/L	17.62	10.96%
As 188.979†	-235.2	-0.1389	mg/L	0.06281	-0.1389	mg/L	0.06281	45.21%
B 249.677†	-69426.6	-9.508	mg/L	1.5293	-9.508	mg/L	1.5293	16.08%
Ba 233.527†	-41757.2	-8.288	mg/L	0.1785	-8.288	mg/L	0.1785	2.15%
Be 313.042†	-1084644.0	-2.462	mg/L	0.1463	-2.462	mg/L	0.1463	5.94%
Ca 317.933†	-235637.1	-19.15	mg/L	0.589	-19.15	mg/L	0.589	3.08%
Cd 228.802†	10347.4	0.3774	mg/L	0.01947	0.3774	mg/L	0.01947	5.16%
Co 228.616†	-6495.8	-0.1824	mg/L	0.01287	-0.1824	mg/L	0.01287	7.06%
Cr 267.716†	251844.4	36.73	mg/L	1.814	36.73	mg/L	1.814	4.94%
Cu 324.752†	233752.2	1.137	mg/L	0.0106	1.137	mg/L	0.0106	0.93%
Fe 273.955†	-38948.6	-29.95	mg/L	4.326	-29.95	mg/L	4.326	14.44%
K 766.490†	-909847.2	-524.0	mg/L	43.26	-524.0	mg/L	43.26	8.26%
Mg 279.077†	-114553.5	-83.77	mg/L	1.407	-83.77	mg/L	1.407	1.68%
Mn 257.610†	-310379.5	-8.055	mg/L	0.5700	-8.055	mg/L	0.5700	7.08%
Mo 202.031†	6686.9	0.3339	mg/L	0.03477	0.3339	mg/L	0.03477	10.41%
Na 589.592†	-193589.2	-22.16	mg/L	3.968	-22.16	mg/L	3.968	17.90%
Na 330.237†	337824.5	14840	mg/L	848.69	14840	mg/L	848.69	5.72%
Ni 231.604†	25173.6	4.998	mg/L	1.5760	4.998	mg/L	1.5760	31.53%
Pb 220.353†	10008.5	1.169	mg/L	0.0624	1.169	mg/L	0.0624	5.34%
Sb 206.836†	9437.2	2.364	mg/L	0.3562	2.364	mg/L	0.3562	15.07%
Se 196.026†	-1326.2	-0.9829	mg/L	0.12513	-0.9829	mg/L	0.12513	12.73%
Si 288.158†	-64249.5	-31.80	mg/L	2.022	-31.80	mg/L	2.022	6.36%
Sn 189.927†	-1070.9	-0.2745	mg/L	0.02590	-0.2745	mg/L	0.02590	9.44%
Sr 421.552†	-138441.6	-0.2614	mg/L	0.04212	-0.2614	mg/L	0.04212	16.11%
Ti 334.903†	39649.1	2.357	mg/L	0.8188	2.357	mg/L	0.8188	34.74%
Tl 190.801†	-3355.9	-1.630	mg/L	0.1705	-1.630	mg/L	0.1705	10.46%
V 292.402†	24966.3	0.4116	mg/L	0.01186	0.4116	mg/L	0.01186	2.88%
Zn 206.200†	-9415.4	-2.342	mg/L	0.5510	-2.342	mg/L	0.5510	23.52%

Sequence No.: 41
Sample ID: DI2
Autosampler Location: 10
Date Collected: 5/10/2017 4:00:45 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: DI2

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: DI2

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	15338.6	0.6802	%	0.00314				0.46%
ScR 361.383	-191.8	-0.07981	%	0.010840				13.58%
Ag 328.068†	-9932.0	-0.06451	mg/L	0.049070	-0.06451	mg/L	0.049070	76.07%
Al 308.215†	-232075.6	-158.3	mg/L	14.69	-158.3	mg/L	14.69	9.28%
As 188.979†	-576.8	-0.3142	mg/L	0.42548	-0.3142	mg/L	0.42548	135.44%
B 249.677†	-76420.5	-10.46	mg/L	2.021	-10.46	mg/L	2.021	19.32%
Ba 233.527†	-42739.2	-8.483	mg/L	0.6010	-8.483	mg/L	0.6010	7.09%
Be 313.042†	-1082454.1	-2.457	mg/L	0.3333	-2.457	mg/L	0.3333	13.56%
Ca 317.933†	-239637.6	-19.48	mg/L	3.032	-19.48	mg/L	3.032	15.56%
Cd 228.802†	10229.8	0.3745	mg/L	0.01720	0.3745	mg/L	0.01720	4.59%
Co 228.616†	-6828.1	-0.1924	mg/L	0.03542	-0.1924	mg/L	0.03542	18.41%
Cr 267.716†	241802.2	35.27	mg/L	3.875	35.27	mg/L	3.875	10.99%
Cu 324.752†	235074.2	1.143	mg/L	0.0014	1.143	mg/L	0.0014	0.13%
Fe 273.955†	-38669.8	-29.74	mg/L	4.903	-29.74	mg/L	4.903	16.48%
K 766.490†	-935652.5	-538.9	mg/L	82.40	-538.9	mg/L	82.40	15.29%
Mg 279.077†	-118344.6	-86.54	mg/L	14.839	-86.54	mg/L	14.839	17.15%
Mn 257.610†	-313070.9	-8.125	mg/L	1.0067	-8.125	mg/L	1.0067	12.39%
Mo 202.031†	6157.9	0.3074	mg/L	0.04026	0.3074	mg/L	0.04026	13.10%
Na 589.592†	-245884.1	-28.15	mg/L	5.433	-28.15	mg/L	5.433	19.30%
Na 330.237†	335152.1	14720	mg/L	2126.15	14720	mg/L	2126.15	14.44%
Ni 231.604†	24643.8	4.893	mg/L	0.7967	4.893	mg/L	0.7967	16.28%
Pb 220.353†	9007.5	1.052	mg/L	0.0393	1.052	mg/L	0.0393	3.74%
Sb 206.836†	9342.6	2.362	mg/L	0.3233	2.362	mg/L	0.3233	13.69%
Se 196.026†	-1807.1	-1.349	mg/L	0.2089	-1.349	mg/L	0.2089	15.48%
Si 288.158†	-51986.5	-25.75	mg/L	6.109	-25.75	mg/L	6.109	23.73%
Sn 189.927†	-403.0	-0.1044	mg/L	0.03433	-0.1044	mg/L	0.03433	32.87%
Sr 421.552†	-150257.3	-0.2838	mg/L	0.03297	-0.2838	mg/L	0.03297	11.62%
Ti 334.903†	47573.1	2.830	mg/L	1.3606	2.830	mg/L	1.3606	48.08%
Tl 190.801†	-3564.9	-1.732	mg/L	0.1754	-1.732	mg/L	0.1754	10.13%
V 292.402†	27163.5	0.4245	mg/L	0.02408	0.4245	mg/L	0.02408	5.67%
Zn 206.200†	-12900.0	-3.208	mg/L	1.2949	-3.208	mg/L	1.2949	40.37%

Sequence No.: 42
Sample ID: DI3

Autosampler Location: 10
Date Collected: 5/10/2017 4:04:30 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: DI3

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: DI3

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	15215.7	0.6748	%	0.00252				0.37%
ScR 361.383	-200.6	-0.08343	%	0.003790				4.54%
Ag 328.068†	-15613.0	-0.1015	mg/L	0.02325	-0.1015	mg/L	0.02325	22.92%
Al 308.215†	-243139.0	-165.9	mg/L	9.93	-165.9	mg/L	9.93	5.99%
As 188.979†	-129.4	-0.04226	mg/L	0.264770	-0.04226	mg/L	0.264770	626.47%
B 249.677†	-77788.8	-10.65	mg/L	0.341	-10.65	mg/L	0.341	3.21%
Ba 233.527†	-39417.7	-7.824	mg/L	0.9100	-7.824	mg/L	0.9100	11.63%
Be 313.042†	-1052948.5	-2.390	mg/L	0.0982	-2.390	mg/L	0.0982	4.11%
Ca 317.933†	-238310.5	-19.37	mg/L	0.756	-19.37	mg/L	0.756	3.90%
Cd 228.802†	9906.7	0.3609	mg/L	0.01084	0.3609	mg/L	0.01084	3.00%
Co 228.616†	-6009.8	-0.1716	mg/L	0.03369	-0.1716	mg/L	0.03369	19.64%
Cr 267.716†	237329.3	34.62	mg/L	3.066	34.62	mg/L	3.066	8.86%
Cu 324.752†	231890.5	1.128	mg/L	0.0165	1.128	mg/L	0.0165	1.46%
Fe 273.955†	-34543.5	-26.56	mg/L	1.976	-26.56	mg/L	1.976	7.44%
K 766.490†	-869438.3	-500.7	mg/L	20.69	-500.7	mg/L	20.69	4.13%
Mg 279.077†	-116756.6	-85.38	mg/L	8.418	-85.38	mg/L	8.418	9.86%
Mn 257.610†	-299010.2	-7.760	mg/L	0.4208	-7.760	mg/L	0.4208	5.42%
Mo 202.031†	6211.9	0.3101	mg/L	0.02942	0.3101	mg/L	0.02942	9.49%
Na 589.592†	-196208.3	-22.46	mg/L	7.898	-22.46	mg/L	7.898	35.16%
Na 330.237†	322049.1	14150	mg/L	896.31	14150	mg/L	896.31	6.34%
Ni 231.604†	24205.9	4.806	mg/L	1.9972	4.806	mg/L	1.9972	41.56%
Pb 220.353†	9008.5	1.049	mg/L	0.0752	1.049	mg/L	0.0752	7.17%
Sb 206.836†	9272.0	2.351	mg/L	0.3092	2.351	mg/L	0.3092	13.15%
Se 196.026†	-1336.4	-0.9899	mg/L	0.62358	-0.9899	mg/L	0.62358	62.99%
Si 288.158†	-59974.3	-29.71	mg/L	5.335	-29.71	mg/L	5.335	17.95%
Sn 189.927†	-671.6	-0.1728	mg/L	0.17953	-0.1728	mg/L	0.17953	103.88%
Sr 421.552†	-132473.3	-0.2502	mg/L	0.02090	-0.2502	mg/L	0.02090	8.35%
Ti 334.903†	62237.0	3.705	mg/L	1.0928	3.705	mg/L	1.0928	29.50%
Tl 190.801†	-3123.6	-1.518	mg/L	0.2910	-1.518	mg/L	0.2910	19.17%
V 292.402†	27678.2	0.4255	mg/L	0.04727	0.4255	mg/L	0.04727	11.11%
Zn 206.200†	-11249.6	-2.798	mg/L	0.3539	-2.798	mg/L	0.3539	12.65%

Sequence No.: 43
Sample ID: DI4
Autosampler Location: 10
Date Collected: 5/10/2017 4:08:15 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: DI4

Analyte	Back Pressure	Flow
All	161.0 kPa	0.65 L/min

Mean Data: DI4

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	15429.1	0.6842	%	0.00147				0.21%
ScR 361.383	-185.2	-0.07703	%	0.007167				9.30%
Ag 328.068†	-25190.0	-0.1637	mg/L	0.04470	-0.1637	mg/L	0.04470	27.30%
Al 308.215†	-227294.5	-155.1	mg/L	38.55	-155.1	mg/L	38.55	24.86%
As 188.979†	-408.1	-0.2371	mg/L	0.16221	-0.2371	mg/L	0.16221	68.43%
B 249.677†	-85334.2	-11.68	mg/L	1.161	-11.68	mg/L	1.161	9.93%
Ba 233.527†	-39389.0	-7.817	mg/L	0.3921	-7.817	mg/L	0.3921	5.02%
Be 313.042†	-1125463.8	-2.555	mg/L	0.2664	-2.555	mg/L	0.2664	10.43%
Ca 317.933†	-232997.1	-18.94	mg/L	1.362	-18.94	mg/L	1.362	7.19%
Cd 228.802†	9565.0	0.3501	mg/L	0.01316	0.3501	mg/L	0.01316	3.76%
Co 228.616†	-6291.6	-0.1766	mg/L	0.00864	-0.1766	mg/L	0.00864	4.89%
Cr 267.716†	248081.2	36.19	mg/L	3.806	36.19	mg/L	3.806	10.52%
Cu 324.752†	231988.8	1.129	mg/L	0.0100	1.129	mg/L	0.0100	0.89%
Fe 273.955†	-43050.0	-33.11	mg/L	3.406	-33.11	mg/L	3.406	10.29%
K 766.490†	-1019534.3	-587.2	mg/L	44.67	-587.2	mg/L	44.67	7.61%
Mg 279.077†	-127525.5	-93.26	mg/L	6.670	-93.26	mg/L	6.670	7.15%
Mn 257.610†	-321511.7	-8.344	mg/L	0.7188	-8.344	mg/L	0.7188	8.61%
Mo 202.031†	5273.1	0.2630	mg/L	0.01676	0.2630	mg/L	0.01676	6.37%
Na 589.592†	-2469230.1	-282.7	mg/L	21.69	-282.7	mg/L	21.69	7.67%
Na 330.237†	350306.3	15390	mg/L	1772.26	15390	mg/L	1772.26	11.52%
Ni 231.604†	25729.9	5.109	mg/L	0.9438	5.109	mg/L	0.9438	18.47%
Pb 220.353†	9372.4	1.096	mg/L	0.0735	1.096	mg/L	0.0735	6.71%
Sb 206.836†	9950.1	2.538	mg/L	0.2209	2.538	mg/L	0.2209	8.70%
Se 196.026†	-1535.8	-1.143	mg/L	0.3473	-1.143	mg/L	0.3473	30.37%
Si 288.158†	-57607.6	-28.51	mg/L	6.703	-28.51	mg/L	6.703	23.51%
Sn 189.927†	-1158.9	-0.2968	mg/L	0.08231	-0.2968	mg/L	0.08231	27.74%
Sr 421.552†	-179611.0	-0.3392	mg/L	0.01571	-0.3392	mg/L	0.01571	4.63%
Ti 334.903†	37422.0	2.224	mg/L	0.9526	2.224	mg/L	0.9526	42.82%
Tl 190.801†	-3195.6	-1.552	mg/L	0.3402	-1.552	mg/L	0.3402	21.91%
V 292.402†	25679.9	0.4157	mg/L	0.00443	0.4157	mg/L	0.00443	1.07%
Zn 206.200†	-14387.0	-3.578	mg/L	1.0056	-3.578	mg/L	1.0056	28.11%

Analytical Resources, Incorporated

INITIAL AND CONTINUING CALIBRATION CHECK

EPA 6010C

Laboratory: Analytical Resources, Inc.
SDG: 17D0421
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Instrument ID: ICP2
Calibration: AE00030
Control Limt: +/- 10.00%
Sequence: SFE0141

Lab Sample ID	Analyte	True	Found	%R	Units	Method
SFE0141-ICV1	Cadmium	1.0000	1.02	102	mg/L	EPA 6010C
SFE0141-CCV1	Cadmium	1.0000	1.04	104	mg/L	EPA 6010C
SFE0141-CCV2	Cadmium	1.0000	1.03	103	mg/L	EPA 6010C
SFE0141-CCV3	Cadmium	1.0000	1.03	103	mg/L	EPA 6010C
SFE0141-CCV4	Cadmium	1.0000	1.05	105	mg/L	EPA 6010C
SFE0141-CCV5	Cadmium	1.0000	1.04	104	mg/L	EPA 6010C
SFE0141-CCV6	Cadmium	1.0000	1.05	105	mg/L	EPA 6010C
SFE0141-CCV7	Cadmium	1.0000	1.03	103	mg/L	EPA 6010C
SFE0141-CCV8	Cadmium	1.0000	1.01	101	mg/L	EPA 6010C

* Values outside of QC limits

Analytical Resources, Incorporated

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6010C

Laboratory: Analytical Resources, Inc.
SDG: 17D0421
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Sequence: SFE0141
Instrument: ICP2
Calibration: AE00030

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
CAL 0	SFE0141-CAL1	I2170510-001	Water	05/10/17 09:33
CAL 1 - LOW CHECK	SFE0141-CAL2	I2170510-002	Water	05/10/17 09:37
CAL 2	SFE0141-CAL3	I2170510-003	Water	05/10/17 09:39
CAL 3	SFE0141-CAL4	I2170510-004	Water	05/10/17 09:41
CAL 4	SFE0141-CAL5	I2170510-005	Water	05/10/17 09:43
Initial Cal Check	SFE0141-ICV1	I2170510-006	Water	05/10/17 09:49
Initial Cal Blank	SFE0141-ICB1	I2170510-007	Water	05/10/17 09:53
Instrument RL Check	SFE0141-CRL1	I2170510-008	Water	05/10/17 09:57
Interference Check A	SFE0141-IFA1	I2170510-009	Water	05/10/17 10:01
Interference Check B	SFE0141-IFB1	I2170510-010	Water	05/10/17 10:05
Calibration Check	SFE0141-CCV1	I2170510-011	Water	05/10/17 10:11
Calibration Blank	SFE0141-CCB1	I2170510-012	Water	05/10/17 10:16
ZZZZZ	BFE0201-BLK1	I2170510-013	Solid	05/10/17 10:20
ZZZZZ	17D0447-01	I2170510-014	Solid	05/10/17 10:24
ZZZZZ	17D0397-06	I2170510-016	Solid	05/10/17 10:32
ZZZZZ	17E0009-02	I2170510PRE-023	Water	05/10/17 10:40
ZZZZZ	17E0009-01	I2170510PRE-025	Water	05/10/17 10:53
ZZZZZ	BFE0201-BS1	I2170510-022	Solid	05/10/17 11:04
Calibration Check	SFE0141-CCV2	I2170510-023	Water	05/10/17 11:11
Calibration Blank	SFE0141-CCB2	I2170510-024	Water	05/10/17 11:18
Blank	BFE0167-BLK1	I2170510-025	Tissue	05/10/17 11:22
PG-GP-OYS-COC-170424	17D0421-01	I2170510-026	Tissue	05/10/17 11:26
ZZZZZ	17D0447-03	I2170510-027	Solid	05/10/17 11:30
ZZZZZ	17D0447-04	I2170510-028	Solid	05/10/17 11:34
ZZZZZ	17D0447-06	I2170510-029	Solid	05/10/17 11:38
ZZZZZ	17E0011-01	I2170510-032	Solid	05/10/17 11:50
LCS	BFE0167-BS1	I2170510-034	Tissue	05/10/17 11:58
Calibration Check	SFE0141-CCV3	I2170510-035	Water	05/10/17 12:02
Calibration Blank	SFE0141-CCB3	I2170510-036	Water	05/10/17 12:07
PG-GP-COC-COC-170424	17D0421-02	I2170510-037	Tissue	05/10/17 12:11
PG-GP-LTN-COC-170424	17D0421-03	I2170510-038	Tissue	05/10/17 12:15

Analytical Resources, Incorporated

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6010C

Laboratory: Analytical Resources, Inc.
SDG: 17D0421
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Sequence: SFE0141
Instrument: ICP2
Calibration: AE00030

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
PG-WS-OYS-COC-170424	17D0421-04	I2170510-039	Tissue	05/10/17 12:19
PG-WS-COC-COC-170425	17D0421-05	I2170510-040	Tissue	05/10/17 12:24
PG-WS-LTN-COC-170424	17D0421-06	I2170510-041	Tissue	05/10/17 12:28
ZZZZZ	17E0084-03	I2170510-043	Solid	05/10/17 12:36
ZZZZZ	17E0074-01	I2170510-045	Solid	05/10/17 12:44
Calibration Check	SFE0141-CCV4	I2170510-047	Water	05/10/17 12:52
Calibration Blank	SFE0141-CCB4	I2170510-048	Water	05/10/17 12:57
Calibration Check	SFE0141-CCV5	I2170510-051	Water	05/10/17 13:05
Calibration Blank	SFE0141-CCB5	I2170510-052	Water	05/10/17 13:10
ZZZZZ	BFE0283-BLK1	I2170510-053	Water	05/10/17 13:14
PG-WS-MAN-COC-170424	17D0421-07	I2170510-054	Tissue	05/10/17 13:18
PG-SMA3-DUNM-COC-170426	17D0421-09	I2170510-055	Tissue	05/10/17 13:22
PG-SMA3-DUNH-COC-170426	17D0421-10	I2170510-056	Tissue	05/10/17 13:27
PG-SMA3-GEO-COC-170426	BFE0167-DUP1	I2170510-057	Tissue	05/10/17 13:31
PG-SMA3-GEO-COC-170426	17D0421-08	I2170510-058	Tissue	05/10/17 13:35
PG-SMA3-GEO-COC-170426	BFE0167-MS1	I2170510-059	Tissue	05/10/17 13:39
ZZZZZ	BFE0283-BS1	I2170510-062	Water	05/10/17 13:53
Calibration Check	SFE0141-CCV6	I2170510-063	Water	05/10/17 13:58
Calibration Blank	SFE0141-CCB6	I2170510-064	Water	05/10/17 14:04
ZZZZZ	17E0012-01	I2170510-066	Tissue	05/10/17 14:12
ZZZZZ	17E0012-02	I2170510-067	Tissue	05/10/17 14:17
ZZZZZ	17E0012-03	I2170510-068	Tissue	05/10/17 14:21
ZZZZZ	17E0012-04	I2170510-069	Tissue	05/10/17 14:25
ZZZZZ	17E0085-01	I2170510-070	Solid	05/10/17 14:29
ZZZZZ	17D0447-08	I2170510-071	Solid	05/10/17 14:33
ZZZZZ	17E0111-01	I2170510-073	Solid	05/10/17 14:42
Calibration Check	SFE0141-CCV7	I2170510-075	Water	05/10/17 14:50
Calibration Blank	SFE0141-CCB7	I2170510-076	Water	05/10/17 14:55
ZZZZZ	17E0012-05	I2170510-077	Tissue	05/10/17 14:59
ZZZZZ	17E0012-06	I2170510-078	Tissue	05/10/17 15:03
ZZZZZ	17E0055-01	I2170510-079	Solid	05/10/17 15:08

ANALYSIS BATCH (SEQUENCE) SUMMARY

EPA 6010C

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Sequence:	SFE0141	Instrument:	ICP2
		Calibration:	AE00030

Sample Name	Lab Sample ID	Lab File ID	Matrix	Analysis Date/Time
ZZZZZ	17E0074-01	I2170510-080	Solid	05/10/17 15:12
ZZZZZ	17E0077-03	I2170510-081	Solid	05/10/17 15:16
ZZZZZ	17E0124-03	I2170510-082	Water	05/10/17 15:21
Instrument Blank	SFE0141-IBL1	I2170510-083	Water	05/10/17 15:27
Calibration Check	SFE0141-CCV8	I2170510-084	Water	05/10/17 15:32
Calibration Blank	SFE0141-CCB8	I2170510-085	Water	05/10/17 15:37

Analytical Resources, Incorporated

ICP INTERFERENCE CHECK SAMPLE

EPA 6010C

Laboratory: Analytical Resources, Inc.

SDG: 17D0421

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Instrument ID: ICP2

Calibration: AE00030

Sequence: SFE0141

Standard ID: F003354

Lab Sample ID	Analyte	True	Found	%R	Units
SFE0141-IFA1	Cadmium	0	0.0005		mg/L
	Vanadium	0	0.0045		mg/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

Analytical Resources, Incorporated

ICP INTERFERENCE CHECK SAMPLE

EPA 6010C

Laboratory: Analytical Resources, Inc.

SDG: 17D0421

Client: Anchor QEA, LLC

Project: Port Gamble Shellfish Monitoring

Instrument ID: ICP2

Calibration: AE00030

Sequence: SFE0141

Standard ID: F003354

Lab Sample ID	Analyte	True	Found	%R	Units
SFE0141-IFB1	Cadmium	1.0000	1.0053	101	mg/L

* Indicates %R outside of QC limits

NOTE: True value and %R are populated only for analytes found in the interference check standards, and will be seen only if those analytes were requested.

INTER-ELEMENT CORRECTION FACTORS

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Instrument:	ICP2	IEC Date:	04/17/2017

Analyte	Wave-length (nm)	Interelement Correction Factors for: Al	Ca	Fe	Mg	Sb
Cadmium	228.8					
Vanadium				0.036615		

INTER-ELEMENT CORRECTION FACTORS

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Instrument:	ICP2	IEC Date:	04/17/2017

Analyte	Wave-length (nm)	Interelement Correction Factors for: As	Ba	Cd	Cr	Co
Cadmium	228.8	7.616655				0.123938
Vanadium					-4.908316	

INTER-ELEMENT CORRECTION FACTORS

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Instrument:	ICP2	IEC Date:	04/17/2017

Analyte	Wave-length (nm)	Interelement Correction Factors for: Cu	Pb	Mn	Mo	Ni
Cadmium	228.8					-0.978297
Vanadium				-0.144814	-0.364063	

INTER-ELEMENT CORRECTION FACTORS

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Instrument:	ICP2	IEC Date:	04/17/2017

Analyte	Wave-length (nm)	Interelement Correction Factors for: Si	Tl	Sn	Ti	V
Cadmium	228.8					0.077337
Vanadium					0.633273	

INTER-ELEMENT CORRECTION FACTORS

Laboratory:	Analytical Resources, Inc.	SDG:	17D0421
Client:	Anchor QEA, LLC	Project:	Port Gamble Shellfish Monitoring
Instrument:	ICP2	IEC Date:	04/17/2017

Analyte	Wave-length (nm)	Interelement Correction Factors for: Zn				
Cadmium	228.8					
Vanadium						

Analytical Resources, Incorporated

DETECTION LEVEL STANDARD

EPA 6010C

Laboratory: Analytical Resources, Inc.
SDG: 17D0421
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Instrument ID: ICP2
Calibration: AE00030
Sequence: SFE0141
Lab Sample ID: SFE0141-CRL1

Analyte	True	Found	%R	Units	QC Limts
Cadmium	0.0020	0.0023	117	mg/L	50 - 150

* Values outside of QC limits

Analytical Resources, Incorporated

HOLDING TIME SUMMARY

Analysis: EPA 6010C

Laboratory: Analytical Resources, Inc. SDG: 17D0421

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-GP-OYS-COC-170424 17D0421-01	04/24/17 10:30	04/26/17 17:05	05/09/17 14:15	15	180	05/10/17 11:26	16	180	
PG-GP-COC-COC-170424 17D0421-02	04/24/17 10:45	04/26/17 17:05	05/09/17 14:15	15	180	05/10/17 12:11	16	180	
PG-GP-LTN-COC-170424 17D0421-03	04/24/17 11:00	04/26/17 17:05	05/09/17 14:15	15	180	05/10/17 12:15	16	180	
PG-WS-OYS-COC-170424 17D0421-04	04/24/17 11:30	04/26/17 17:05	05/09/17 14:15	15	180	05/10/17 12:19	16	180	
PG-WS-COC-COC-170425 17D0421-05	04/25/17 11:00	04/26/17 17:05	05/09/17 14:15	14	180	05/10/17 12:24	15	180	
PG-WS-LTN-COC-170424 17D0421-06	04/24/17 12:00	04/26/17 17:05	05/09/17 14:15	15	180	05/10/17 12:28	16	180	
PG-WS-MAN-COC-170424 17D0421-07	04/24/17 12:45	04/26/17 17:05	05/09/17 14:15	15	180	05/10/17 13:18	16	180	
PG-SMA3-GEO-COC-170426 17D0421-08	04/26/17 07:00	04/26/17 17:05	05/09/17 14:15	13	180	05/10/17 13:35	14	180	
PG-SMA3-DUNM-COC-170426 17D0421-09	04/26/17 12:00	04/26/17 17:05	05/09/17 14:15	13	180	05/10/17 13:22	14	180	
PG-SMA3-DUNH-COC-170426 17D0421-10	04/26/17 12:15	04/26/17 17:05	05/09/17 14:15	13	180	05/10/17 13:27	14	180	
Duplicate BFE0167-DUP1	04/26/17 07:00	04/26/17 17:05	05/09/17 14:15	13	180	05/10/17 13:31	14	180	
Matrix Spike BFE0167-MS1	04/26/17 07:00	04/26/17 17:05	05/09/17 14:15	13	180	05/10/17 13:39	14	180	

* Indicates hold time exceedance.

Analytical Resources, Incorporated

METHOD DETECTION AND REPORTING LIMITS

EPA 6010C

Laboratory: Analytical Resources, Inc.
SDG: 17D0421
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Matrix: Tissue
Instrument: ICP2

Analyte	MDL	RL	Units
Cadmium	0.0025	0.0400	mg/kg

Analytical Resources, Incorporated

METHOD DETECTION AND REPORTING LIMITS

EPA 6010C

Laboratory: Analytical Resources, Inc.
SDG: 17D0421
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Matrix: Water
Instrument: ICP2

Analyte	MDL	RL	Units
Cadmium	0.0003	0.0020	mg/L

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-GP-OYS-COC-170424

Bligh & Dyer (Mod)

TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-01	SDG:	17D0421
Sampled:	04/24/17 10:30	Prepared:	05/09/17 09:30	File ID:	
Solids:	0.00	Preparation:	EPA 3550C-Mod (Ultrasonic)	Analyzed:	05/15/17 17:18
Batch:	BFE0161	Sequence:		Initial/Final:	5.26 g / 5 mL
Instrument:	Inst			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Percent Lipids	2.4	1	0.010	0.010	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-GP-COC-COC-170424

Bligh & Dyer (Mod)

TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-02	SDG:	17D0421
Sampled:	04/24/17 10:45	Prepared:	05/09/17 09:30	File ID:	
Solids:	0.00	Preparation:	EPA 3550C-Mod (Ultrasonic)	Analyzed:	05/15/17 17:18
Batch:	BFE0161	Sequence:		Initial/Final:	5.25 g / 5 mL
Instrument:	Inst			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Percent Lipids	1.4	1	0.010	0.010	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-GP-LTN-COC-170424

Bligh & Dyer (Mod)

TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-03	SDG:	17D0421
Sampled:	04/24/17 11:00	Prepared:	05/09/17 09:30	File ID:	
Solids:	0.00	Preparation:	EPA 3550C-Mod (Ultrasonic)	Analyzed:	05/15/17 17:18
Batch:	BFE0161	Sequence:		Initial/Final:	5.01 g / 5 mL
Instrument:	Inst			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Percent Lipids	0.82	1	0.010	0.010	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-WS-OYS-COC-170424

Bligh & Dyer (Mod)

TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-04	SDG:	17D0421
Sampled:	04/24/17 11:30	Prepared:	05/09/17 09:30	File ID:	
Solids:	0.00	Preparation:	EPA 3550C-Mod (Ultrasonic)	Analyzed:	05/15/17 17:18
Batch:	BFE0161	Sequence:		Initial/Final:	5.01 g / 5 mL
Instrument:	Inst			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Percent Lipids	2.0	1	0.010	0.010	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-WS-COC-COC-170425

Bligh & Dyer (Mod)

TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-05	SDG:	17D0421
Sampled:	04/25/17 11:00	Prepared:	05/09/17 09:30	File ID:	
Solids:	0.00	Preparation:	EPA 3550C-Mod (Ultrasonic)	Analyzed:	05/15/17 17:18
Batch:	BFE0161	Sequence:		Initial/Final:	5.05 g / 5 mL
Instrument:	Inst			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Percent Lipids	0.90	1	0.010	0.010	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-WS-LTN-COC-170424

Bligh & Dyer (Mod)

TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-06	SDG:	17D0421
Sampled:	04/24/17 12:00	Prepared:	05/09/17 09:30	File ID:	
Solids:	0.00	Preparation:	EPA 3550C-Mod (Ultrasonic)	Analyzed:	05/15/17 17:18
Batch:	BFE0161	Sequence:		Initial/Final:	5.14 g / 5 mL
Instrument:	Inst			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Percent Lipids	0.68	1	0.010	0.010	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-WS-MAN-COC-170424

Bligh & Dyer (Mod)

TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-07	SDG:	17D0421
Sampled:	04/24/17 12:45	Prepared:	05/09/17 09:30	File ID:	
Solids:	0.00	Preparation:	EPA 3550C-Mod (Ultrasonic)	Analyzed:	05/15/17 17:18
Batch:	BFE0161	Sequence:		Initial/Final:	5.1 g / 5 mL
Instrument:	Inst			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Percent Lipids	0.70	1	0.010	0.010	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA3-GEO-COC-170426

Bligh & Dyer (Mod)

TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-08	SDG:	17D0421
Sampled:	04/26/17 07:00	Prepared:	05/09/17 09:30	File ID:	
Solids:	0.00	Preparation:	EPA 3550C-Mod (Ultrasonic)	Analyzed:	05/15/17 17:18
Batch:	BFE0161	Sequence:		Initial/Final:	5.1 g / 5 mL
Instrument:	Inst			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Percent Lipids	1.5	1	0.010	0.010	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA3-DUNM-COC-170426

Bligh & Dyer (Mod)

TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-09	SDG:	17D0421
Sampled:	04/26/17 12:00	Prepared:	05/09/17 09:30	File ID:	
Solids:	0.00	Preparation:	EPA 3550C-Mod (Ultrasonic)	Analyzed:	05/15/17 17:18
Batch:	BFE0161	Sequence:		Initial/Final:	5.17 g / 5 mL
Instrument:	Inst			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Percent Lipids	0.46	1	0.010	0.010	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA3-DUNH-COC-170426

Bligh & Dyer (Mod)

TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-10	SDG:	17D0421
Sampled:	04/26/17 12:15	Prepared:	05/09/17 09:30	File ID:	
Solids:	0.00	Preparation:	EPA 3550C-Mod (Ultrasonic)	Analyzed:	05/15/17 17:18
Batch:	BFE0161	Sequence:		Initial/Final:	5.08 g / 5 mL
Instrument:	Inst			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Percent Lipids	31	1	0.010	0.010	

PREPARATION BATCH SUMMARY

Bligh & Dyer (Mod)

Laboratory: Analytical Resources, Inc.
SDG: 17D0421
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Batch: BFE0161 Batch Matrix: Tissue
Preparation: EPA 3550C-Mod (Ultrasonic)

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PG-GP-OYS-COC-170424	17D0421-01		05/09/17 09:30	
PG-GP-COC-COC-170424	17D0421-02		05/09/17 09:30	
PG-GP-LTN-COC-170424	17D0421-03		05/09/17 09:30	
PG-WS-OYS-COC-170424	17D0421-04		05/09/17 09:30	
PG-WS-COC-COC-170425	17D0421-05		05/09/17 09:30	
PG-WS-LTN-COC-170424	17D0421-06		05/09/17 09:30	
PG-WS-MAN-COC-170424	17D0421-07		05/09/17 09:30	
PG-SMA3-GEO-COC-170426	17D0421-08		05/09/17 09:30	
PG-SMA3-DUNM-COC-170426	17D0421-09		05/09/17 09:30	
PG-SMA3-DUNH-COC-170426	17D0421-10		05/09/17 09:30	
Blank	BFE0161-BLK1		05/09/17 09:30	
PG-SMA3-GEO-COC-170426	BFE0161-DUP1		05/09/17 09:30	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BFE0161

Prepared using: EPA 3550C-Mod (Ultrasonic)

Lipids, Percent in Tissue

Matrix: Tissue **Date Prepared:** 05/08/17 **Balance ID:** B139298002 **Set Up By:** JW

Analysis: Lipids, Percent

Lab Number & Container	Initial (g) Target Dry: 5 (Wet)	Actual	(split aliquot) Y/N	Volume Taken (µL)	Tare Weight	Tare + Sample Weight	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
17D0421-01 A	(5.00)	5.26	( ) Y/N	(1000 µL)	~~1.1737~~ 1.1842 05/12/17	1.3084	NA	NA	
17D0421-02 A	(5.00)	5.25	( ) Y/N	(1000 µL)	1.1785	1.2515	NA	NA	
17D0421-03 A	(5.00)	5.01	( ) Y/N	(1000 µL)	1.1741	1.2154	NA	NA	
17D0421-04 A	(5.00)	5.01	( ) Y/N	(1000 µL)	1.1668	1.2681	NA	NA	
17D0421-05 A	(5.00)	5.05	( ) Y/N	(1000 µL)	1.1723	1.2178	NA	NA	
17D0421-06 A	(5.00)	5.14	( ) Y/N	(1000 µL)	1.1634	1.1983	NA	NA	
17D0421-07 A	(5.00)	5.16	( ) Y/N	(1000 µL)	1.1754	1.2110	NA	NA	
17D0421-08 A	(5.00)	5.10	( ) Y/N	(1000 µL)	1.1750	1.2521	NA	NA	
17D0421-09 A	(5.00)	5.17	( ) Y/N	(1000 µL)	1.1662	1.1898	NA	NA	
17D0421-10 A	(5.00)	5.08	( ) Y/N	(1000 µL)	~~1.1744~~	05/12/17 3.8269	NA	NA	see notes (Final wt 5.4087)
17E0012-01 A	(5.00)	5.19	( ) Y/N	(1000 µL)	1.1707	1.2422	NA	NA	
17E0012-02 A	(5.00)	5.11	( ) Y/N	(1000 µL)	1.1636	1.1961	NA	NA	
17E0012-03 A	(5.00)	5.08	( ) Y/N	(1000 µL)	1.1676	1.2151	NA	NA	
17E0012-04 A	(5.00)	5.08	( ) Y/N	(1000 µL)	1.1756	1.2128	NA	NA	
17E0012-05 A	(5.00)	5.13	( ) Y/N	(1000 µL)	1.1703	1.2109	NA	NA	
17E0012-06 A	(5.00)	5.18	( ) Y/N	(1000 µL)	1.1693	1.2068	NA	NA	

Batch QC

Lab Number	Initial (g) Target Dry: 5 (Wet)	Actual	(split aliquot) Y/N	Volume Taken (µL)	Tare Weight	Tare + Sample Weight	Final Effective Vol (mL)	Vol (mL) to Lab	Extraction Comments
BFE0161-BLK1	(5.00)	5.00	( ) Y/N	(1000 µL)	1.1737	1.1850	NA	NA	
BFE0161-DUP1	(5.00)	5.04	( ) Y/N	(1000 µL)	1.1735	1.2562	NA	NA	Use 17D0421-08

Analytical Balance B941108

Client ID verified By: MJ 05/08/17 Date

Preparation Review By: JW 5/15/17 Date

Extraction Date and Time: 05/09/17 9:30

Printed: 5/4/2017 5:33:33PM

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ORGANICS PREPARATION BENCH SHEET

Batch: BFE0161

Prepared using: EPA 3550C-Mod (Ultrasonic)

Lipids, Percent in Tissue

Prep Steps

KD ~~80 – 85°C~~ 100°C

1 2 (3) (4) 5 6

AI 5/10/17
Analyst/Date

TurboVap

(1) 2 3 4 5

Analyst/Date

Vialing

SC 5/12/17
Analyst/Date

Reagents Used

Station/Reagent	Standard ID
TissueMizing Analyst: MF Date: 05/09/17	
Anhydrous Sodium Sulfate	F003342
1:1 Methylene Chloride/Acetone	F004154
Methylene Chloride	F003880
Neutral Glass Wool	F001960
KD Analyst: AI Date: 5/10/17	
Anhydrous Sodium Sulfate	F003342
Neutral Glass Wool	F001960
Methylene Chloride	F003880
Vialing Analyst: SC Date: 5/12/17	
Methylene Chloride	F003880

Surrogates & Spike Standards Used

Type	Standard ID	Vol uL	Analyst	Witness

(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 inthe 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).

ORGANICS PREPARATION BENCH SHEET

Batch: BFE0161

Prepared using: EPA 3550C-Mod (Ultrasonic)

Lipids, Percent in Tissue

Prep Instructions	
SPECIAL INSTRUCTIONS: 1. Weigh into 250mL Centrifuge bottles. 2. Use 10 g neutral Sodium Sulfate for the blanks. 3. Add 1:1 DCM/Acetone. 4. Add Sodium Sulfate to samples just prior to tissuemizzing. 5. Tissuemize (2X) with 1:1 DCM/Acetone + (1X) DCM only. 6. Collect in 500mL flask + Lg Funnel with glasswool (NO Sodium Sulfate). 7. KD (Normal drying column) at ~~80-85°C~~. 100 °C 8. Turbovap to 1mL. 9. Record weights of empty tins from Analytical Balance in Tare Weight column. 10. Transfer the 1mL extract into the empty tins. 11. Dry extracts in tins under hood for a minimum of 2 hours. 12. Store extracts in a desiccator over night. 13. Re-weigh tins with Analytical Balance. 14. Record weights in Tare+Sample Weight column. 15. %Lipids are calculated by entering on LIMS.	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: Lipids

Element Batch: BFE0161 Work Order(s): 17D0421, 17E0012

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☒ Other (Details)= 17D0421 oyster =ϕ1, cockle =ϕ2, ϕ3, oyster =ϕ4. cockle =ϕ5, little cockle =ϕ6, manila clams =ϕ7, geo-duc =ϕ8, muscle =ϕ9. cockle# 1ϕ(17E0012 oyster =ϕ1, cockle =ϕ2, little cockle #3. manila clam #4.	✓ μ ϕ5/ϕ8/17 1
Aqueous: Horse clams =ϕ5, muscle = ϕ6.	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions). drying Ø1 column used on samples 17DØ421-10 & 17EØØ12-~~Ø6~~ Ø1 & 17EØØ12-Ø6 @ KD	T AI 5/10/17 1
Sample 17D0421-10 used a larger tin to dry sample due to heavy amount of lipid material	SP 5/12/17
☒ Share Samples Y / (N)	✓ μ ϕ5/ϕ8/17
☒ Multiple Jars Y / N 17EØ421 =ϕ8 x 4	✓ μ ϕ5/ϕ8/17
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

NOTE: Do not enter data in blue shaded cells as they are calculated fields.

PERCENT LIPIDS BENCHSHEET

Method: PSEP 1986

Batch:	BFE0161
Date:	5/8/2017 9:30
Analyst:	SP
Desicator:	OE
Analytical Balance:	B139298002

Instrumentation

Batch drying time		
record times as mm/dd/yy hh:mm		
date/time in desicator:	5/12/2017 10:30	
date/time out:	5/12/2017 18:00	
elapsed hrs:	**7.5**	

Lipid Percent calculated as:

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

Lipid Percent = (Lipid Dry Wt X 1)/ (Sample)

SAMPLE ID	*Dish Tare Wt (g)*	*Dish & Sample (g)*	*Dry Wt (g)*	*Dried Sample Wt (g)*	*Percent Lipids*	*Source Sample*	*RPD*
17D0421-01	1.1842	5.2600	1.3084	**0.1242**	**2.36%**		
17D0421-02	1.1785	5.2500	1.2515	**0.0730**	**1.39%**		
17D0421-03	1.1741	5.0100	1.2154	**0.0413**	**0.82%**		
17D0421-04	1.1668	5.0100	1.2681	**0.1013**	**2.02%**		
17D0421-05	1.1723	5.0500	1.2178	**0.0455**	**0.90%**		
17D0421-06	1.1634	5.1400	1.1983	**0.0349**	**0.68%**		
17D0421-07	1.1754	5.1000	1.2110	**0.0356**	**0.70%**		
17D0421-08	1.1750	5.1000	1.2521	**0.0771**	**1.51%**		
17D0421-09	1.1662	5.1700	1.1898	**0.0236**	**0.46%**		
17D0421-10	3.8269	5.0800	5.4087	**1.5818**	**31.14%**		
17E0012-01	1.1707	5.1900	1.2422	**0.0715**	**1.38%**		
17E0012-02	1.1636	5.1100	1.1961	**0.0325**	**0.64%**		
17E0012-03	1.1676	5.0800	1.2151	**0.0475**	**0.94%**		
17E0012-04	1.1756	5.0800	1.2128	**0.0372**	**0.73%**		
17E0012-05	1.1703	5.1300	1.2109	**0.0406**	**0.79%**		
17E0012-06	1.1693	5.1800	1.2068	**0.0375**	**0.72%**		
BFE0161-BLK1	1.1737	5.0000	1.1850	**0.0113**	**0.23%**		
BFE0161-DUP1	1.1735	5.0400	1.2562	**0.0827**	**1.64%**	17D0421-08	8.19%

Analytical Resources, Incorporated

Form I

METHOD BLANK DATA SHEET

Blank

Bligh & Dyer (Mod)

TotalAnalytes

Batch: BFE0161 Laboratory ID: BFE0161-BLK1 Prepared: 05/09/17 09:30

Matrix: Tissue Preparation: EPA 3550C-Mod (Ultrasor Analyzed: 05/15/17 17:18

Sequence: Calibration: Instrument: Inst

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Percent Lipids	0.23	1	0.010	0.010	

Analytical Resources, Incorporated

DUPLICATES

Bligh & Dyer (Mod)

PG-SMA3-GEO-COC-17042(

Laboratory: Analytical Resources, Inc.
SDG: 17D0421
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Matrix: Tissue
Laboratory ID: BFE0161-DUP1
Batch: BFE0161
Lab Source ID: 17D0421-08
Preparation: EPA 3550C-Mod (Ultrasonic)
Initial/Final: 5 g / 5 mL
Source Sample Name: PG-SMA3-GEO-COC-170426
% Solids:

ANALYTE	CONTROL LIMIT	SAMPLE CONCENTRATION (%)	C	DUPLICATE CONCENTRATION (%)	C	RPD %	Q
Percent Lipids		1.5		1.6		8.25	

*: Values outside of QC limits
L: Analyte concentration is <=5 times the reporting limit and the replicate control limit defaults to Dup = +/- RL instead of 20% RPD

Analytical Resources, Incorporated

HOLDING TIME SUMMARY

Analysis: Bligh & Dyer (Mod)

Laboratory: Analytical Resources, Inc. SDG: 17D0421

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-GP-OYS-COC-170424 17D0421-01	04/24/17 10:30	04/26/17 17:05	05/09/17 09:30	14	365	05/15/17 17:18	21	365	
PG-GP-COC-COC-170424 17D0421-02	04/24/17 10:45	04/26/17 17:05	05/09/17 09:30	14	365	05/15/17 17:18	21	365	
PG-GP-LTN-COC-170424 17D0421-03	04/24/17 11:00	04/26/17 17:05	05/09/17 09:30	14	365	05/15/17 17:18	21	365	
PG-WS-OYS-COC-170424 17D0421-04	04/24/17 11:30	04/26/17 17:05	05/09/17 09:30	14	365	05/15/17 17:18	21	365	
PG-WS-COC-COC-170425 17D0421-05	04/25/17 11:00	04/26/17 17:05	05/09/17 09:30	13	365	05/15/17 17:18	20	365	
PG-WS-LTN-COC-170424 17D0421-06	04/24/17 12:00	04/26/17 17:05	05/09/17 09:30	14	365	05/15/17 17:18	21	365	
PG-WS-MAN-COC-170424 17D0421-07	04/24/17 12:45	04/26/17 17:05	05/09/17 09:30	14	365	05/15/17 17:18	21	365	
PG-SMA3-GEO-COC-170426 17D0421-08	04/26/17 07:00	04/26/17 17:05	05/09/17 09:30	13	365	05/15/17 17:18	19	365	
PG-SMA3-DUNM-COC-170426 17D0421-09	04/26/17 12:00	04/26/17 17:05	05/09/17 09:30	12	365	05/15/17 17:18	19	365	
PG-SMA3-DUNH-COC-170426 17D0421-10	04/26/17 12:15	04/26/17 17:05	05/09/17 09:30	12	365	05/15/17 17:18	19	365	
Duplicate BFE0161-DUP1	04/26/17 07:00	04/26/17 17:05	05/09/17 09:30	13	365	05/15/17 17:18	19	365	

* Indicates hold time exceedance.

Analytical Resources, Incorporated

METHOD DETECTION AND REPORTING LIMITS

Bligh & Dyer (Mod)

Laboratory: Analytical Resources, Inc.
SDG: 17D0421
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Matrix: Tissue
Instrument:

Analyte	MDL	RL	Units
Percent Lipids	0.010	0.010	%

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-GP-OYS-COC-170424

SM 2540 G-97
TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-01	SDG:	17D0421
Sampled:	04/24/17 10:30	Prepared:	05/04/17 15:03	File ID:	
Solids:	0.00	Preparation:	No Prep Extractions	Analyzed:	05/04/17 16:04
Batch:	BFE0151	Sequence:		Initial/Final:	1 g / 1 g
Instrument:	NA			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	17.0	1		0.0400	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-GP-COC-COC-170424

SM 2540 G-97
TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-02	SDG:	17D0421
Sampled:	04/24/17 10:45	Prepared:	05/04/17 15:03	File ID:	
Solids:	0.00	Preparation:	No Prep Extractions	Analyzed:	05/04/17 16:04
Batch:	BFE0151	Sequence:		Initial/Final:	1 g / 1 g
Instrument:	NA			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	12.2	1		0.0400	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-GP-LTN-COC-170424

SM 2540 G-97
TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-03	SDG:	17D0421
Sampled:	04/24/17 11:00	Prepared:	05/04/17 15:03	File ID:	
Solids:	0.00	Preparation:	No Prep Extractions	Analyzed:	05/04/17 16:04
Batch:	BFE0151	Sequence:		Initial/Final:	1 g / 1 g
Instrument:	NA			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	11.3	1		0.0400	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-WS-OYS-COC-170424

SM 2540 G-97
TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-04	SDG:	17D0421
Sampled:	04/24/17 11:30	Prepared:	05/04/17 15:03	File ID:	
Solids:	0.00	Preparation:	No Prep Extractions	Analyzed:	05/04/17 16:04
Batch:	BFE0151	Sequence:		Initial/Final:	1 g / 1 g
Instrument:	NA			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	13.9	1		0.0400	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-WS-COC-COC-170425

SM 2540 G-97
TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-05	SDG:	17D0421
Sampled:	04/25/17 11:00	Prepared:	05/04/17 15:03	File ID:	
Solids:	0.00	Preparation:	No Prep Extractions	Analyzed:	05/04/17 16:04
Batch:	BFE0151	Sequence:		Initial/Final:	1 g / 1 g
Instrument:	NA			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	13.8	1		0.0400	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-WS-LTN-COC-170424

SM 2540 G-97
TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-06	SDG:	17D0421
Sampled:	04/24/17 12:00	Prepared:	05/04/17 15:03	File ID:	
Solids:	0.00	Preparation:	No Prep Extractions	Analyzed:	05/04/17 16:04
Batch:	BFE0151	Sequence:		Initial/Final:	1 g / 1 g
Instrument:	NA			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	11.5	1		0.0400	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-WS-MAN-COC-170424

SM 2540 G-97
TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-07	SDG:	17D0421
Sampled:	04/24/17 12:45	Prepared:	05/04/17 15:03	File ID:	
Solids:	0.00	Preparation:	No Prep Extractions	Analyzed:	05/04/17 16:04
Batch:	BFE0151	Sequence:		Initial/Final:	1 g / 1 g
Instrument:	NA			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	14.2	1		0.0400	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA3-GEO-COC-170426

SM 2540 G-97
TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-08	SDG:	17D0421
Sampled:	04/26/17 07:00	Prepared:	05/04/17 15:03	File ID:	
Solids:	0.00	Preparation:	No Prep Extractions	Analyzed:	05/04/17 16:04
Batch:	BFE0151	Sequence:		Initial/Final:	1 g / 1 g
Instrument:	NA			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	19.1	1		0.0400	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA3-DUNM-COC-170426

SM 2540 G-97
TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-09	SDG:	17D0421
Sampled:	04/26/17 12:00	Prepared:	05/04/17 15:03	File ID:	
Solids:	0.00	Preparation:	No Prep Extractions	Analyzed:	05/04/17 16:04
Batch:	BFE0151	Sequence:		Initial/Final:	1 g / 1 g
Instrument:	NA			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	21.3	1		0.0400	

Analytical Resources, Incorporated

Form I
INORGANIC ANALYSIS DATA SHEET

PG-SMA3-DUNH-COC-170426

SM 2540 G-97
TotalAnalytes

Laboratory:	Analytical Resources, Inc.				
Client:	Anchor QEA, LLC				
Project:	Port Gamble Shellfish Monitoring				
Matrix:	Tissue	Laboratory ID:	17D0421-10	SDG:	17D0421
Sampled:	04/26/17 12:15	Prepared:	05/04/17 15:03	File ID:	
Solids:	0.00	Preparation:	No Prep Extractions	Analyzed:	05/04/17 16:04
Batch:	BFE0151	Sequence:		Initial/Final:	1 g / 1 g
Instrument:	NA			Calibration:	

CAS NO.	Analyte	Concentration (%)	Dilution Factor	MDL	MRL	Q
	Total Solids	21.7	1		0.0400	

PREPARATION BATCH SUMMARY

SM 2540 G-97

Laboratory: Analytical Resources, Inc.
SDG: 17D0421
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Batch: BFE0151
Batch Matrix: Tissue
Preparation: No Prep Extractions

SAMPLE NAME	LAB SAMPLE ID	LAB FILE ID	DATE PREPARED	OBSERVATIONS
PG-GP-OYS-COC-170424	17D0421-01		05/04/17 15:03	
PG-GP-COC-COC-170424	17D0421-02		05/04/17 15:03	
PG-GP-LTN-COC-170424	17D0421-03		05/04/17 15:03	
PG-WS-OYS-COC-170424	17D0421-04		05/04/17 15:03	
PG-WS-COC-COC-170425	17D0421-05		05/04/17 15:03	
PG-WS-LTN-COC-170424	17D0421-06		05/04/17 15:03	
PG-WS-MAN-COC-170424	17D0421-07		05/04/17 15:03	
PG-SMA3-GEO-COC-170426	17D0421-08		05/04/17 15:03	
PG-SMA3-DUNM-COC-170426	17D0421-09		05/04/17 15:03	
PG-SMA3-DUNH-COC-170426	17D0421-10		05/04/17 15:03	

TOTAL SOLIDS BENCHSHEET

Method: PSEP 1986

(dry at 103-105 C)

Instrumentation

Batch:	BFE0151
Date:	5/4/2017 16:04
Analyst:	YL
Drying Oven:	15
Analytical Balance:	B139298002

Batch drying time	
record times as mm/dd/yy hh:mm	
date/time in oven:	5/8/2017 16:55
date/time out:	5/9/2017 7:29
elapsed hrs:	14.6

TS (%) calculated as:

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

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

SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted
17D0421-01	1.1700	6.8800	2.1400	0.97	**16.99%**	No
17D0421-02	1.1800	6.4100	1.8200	0.64	**12.24%**	No
17D0421-03	1.1800	6.2400	1.7500	0.57	**11.26%**	No
17D0421-04	1.1800	6.3600	1.9000	0.72	**13.90%**	No
17D0421-05	1.1700	6.3100	1.8800	0.71	**13.81%**	No
17D0421-06	1.1700	6.3000	1.7600	0.59	**11.50%**	No
17D0421-07	1.1700	6.2500	1.8900	0.72	**14.17%**	No
17D0421-08	1.1700	6.3000	2.1500	0.98	**19.10%**	No
17D0421-09	1.1700	6.5600	2.3200	1.15	**21.34%**	No
17D0421-10	1.1700	6.3700	2.3000	1.13	**21.73%**	No
17E0012-01	1.1700	6.3100	1.8400	0.67	**13.04%**	No
17E0012-02	1.1800	6.7300	1.7300	0.55	**9.91%**	No
17E0012-03	1.1800	6.2900	1.8500	0.67	**13.11%**	No
17E0012-04	1.1700	6.3200	1.8900	0.72	**13.98%**	No
17E0012-05	1.1700	6.4700	1.9300	0.76	**14.34%**	No
17E0012-06	1.1700	6.2900	1.7300	0.56	**10.94%**	No

TOTAL SOLIDS BENCHSHEET

Method: PSEP 1986

(dry at 103-105 C)

Instrumentation

Batch:	BFE0151
Date:	5/4/2017 16:04
Analyst:	MP
Drying Oven:	OIS
Analytical Balance:	B139298402

Batch drying time		
record times as mm/dd/yy hh:mm		
date/time in oven:	05/08/17	16:55
date/time out:	5/9/17	0729
elapsed hrs:	0.0	

TS (%) calculated as:

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

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

SAMPLE ID	Dish Tare Wt (g)	Dish with Sample (g)	Dry Wt (g)	Solids Wt (g)	TS (%)	Sample Decanted
17D0421-01	1.17	6.88	2.14			No
17D0421-02	1.18	6.41	1.82			No
17D0421-03	1.18	6.24	1.75			No
17D0421-04	1.18	6.36	1.90			No
17D0421-05	1.17	6.31	1.88			No
17D0421-06	1.17	6.30	1.76			No
17D0421-07	1.17	6.25	1.89			No
17D0421-08	1.17	6.30	2.15			No
17D0421-09	1.17	6.56	2.32			No
17D0421-10	1.17	6.37	2.30			No
17E0012-01	1.17	6.31	1.84			No
17E0012-02	1.18	6.73	1.73			No
17E0012-03	1.18	6.29	1.85			No
17E0012-04	1.17	6.32	1.89			No
17E0012-05	1.17	6.47	1.93			No
17E0012-06	1.17	6.29	1.73			No

Analytical Resources, Incorporated

HOLDING TIME SUMMARY

Analysis: SM 2540 G-97

Laboratory: Analytical Resources, Inc. SDG: 17D0421

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-GP-OYS-COC-170424 17D0421-01	04/24/17 10:30	04/26/17 17:05	05/04/17 15:03	10	365	05/04/17 16:04	10	365	
PG-GP-COC-COC-170424 17D0421-02	04/24/17 10:45	04/26/17 17:05	05/04/17 15:03	10	365	05/04/17 16:04	10	365	
PG-GP-LTN-COC-170424 17D0421-03	04/24/17 11:00	04/26/17 17:05	05/04/17 15:03	10	365	05/04/17 16:04	10	365	
PG-WS-OYS-COC-170424 17D0421-04	04/24/17 11:30	04/26/17 17:05	05/04/17 15:03	10	365	05/04/17 16:04	10	365	
PG-WS-COC-COC-170425 17D0421-05	04/25/17 11:00	04/26/17 17:05	05/04/17 15:03	9	365	05/04/17 16:04	9	365	
PG-WS-LTN-COC-170424 17D0421-06	04/24/17 12:00	04/26/17 17:05	05/04/17 15:03	10	365	05/04/17 16:04	10	365	
PG-WS-MAN-COC-170424 17D0421-07	04/24/17 12:45	04/26/17 17:05	05/04/17 15:03	10	365	05/04/17 16:04	10	365	
PG-SMA3-GEO-COC-170426 17D0421-08	04/26/17 07:00	04/26/17 17:05	05/04/17 15:03	8	365	05/04/17 16:04	8	365	
PG-SMA3-DUNM-COC-170426 17D0421-09	04/26/17 12:00	04/26/17 17:05	05/04/17 15:03	8	365	05/04/17 16:04	8	365	
PG-SMA3-DUNH-COC-170426 17D0421-10	04/26/17 12:15	04/26/17 17:05	05/04/17 15:03	8	365	05/04/17 16:04	8	365	

* Indicates hold time exceedance.

Analytical Resources, Incorporated

METHOD DETECTION AND REPORTING LIMITS

SM 2540 G-97

Laboratory: Analytical Resources, Inc.
SDG: 17D0421
Client: Anchor QEA, LLC
Project: Port Gamble Shellfish Monitoring
Matrix: Tissue
Instrument:

Analyte	MDL	RL	Units
Total Solids		0.0400	%

Analytical Resources, Incorporated
Analytical Chemists and Consultants

24 May 2017

Nathan Soccorsy
Anchor QEA, LLC
720 Olive Way, Suite 1900
Seattle, WA 98101

RE: Port Gamble Shellfish Monitoring

Please find enclosed sample receipt documentation and analytical results for samples from the project referenced above.

Sample analyses were performed according to ARI's Quality Assurance Plan and any provided project specific Quality Assurance Plan. Each analytical section of this report has been approved and reviewed by an analytical peer, the appropriate Laboratory Supervisor or qualified substitute, and a technical reviewer.

Should you have any questions or problems, please feel free to contact us at your convenience.

Associated Work Order(s)	Associated SDG ID(s)
17E0012	N/A

I certify that this data package is in compliance with the terms and conditions of the contract, both technically and for completeness, for other than the conditions detailed in the enclose Narrative. ARI, an accredited laboratory, certifies that the report results for which ARI is accredited meets all the reqirements of the accrediting body. A list of certified analyses, accreditations, and expiration dates is included in this report.

Release of the data contained in this hardcopy data package has been authorized by the Laboratory Manager or his/her designee, as verified by the following signature.

Analytical Resources, Inc.

Amanda Volgardsen, Project Management Assistant

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety.

ACCREDITED IN ACCORDANCE WITH nelac
Cert# 100006

PJLA Testing
Accreditation # 66169

4611 S. 134th Place, Suite 100 • Tukwila, WA 98168 • Ph: (206) 695-6200 • Fax: (206) 695-6202

17E0012

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number:

Date: 4/28 2017
Project Name: Port Gamble Bay Shellfish Monitoring
Project Number: 160368-01.04
Project Manager: ~~Chris~~ Nathan Soccorsy
Phone Number: 206.787.9130
Shipment Method:

ANCHOR QEA

Line	Field Sample ID	Collection Date/Time	Matrix	Containers	Lipids	PAHs	Dioxins/furans	Cadmium	PCB Congeners	Comments/Preservation
1	PG-PJ-OYS-COC*	4/27/17 1:00pm	Tissue	1	X	X	X	X	X	
2	PG-PJ-cockle-COC*	4/27/17 1245		1	X	X	X	X	X	
3	PG-PJ-LTLA-COC*	4/27/17 1330		1	X	X	X	X	X	
4	PG-PJ-MAN-COC*	4/27/17 1200		1	X	X	X	X	X	
5	PG-PJ-HC-COC^	4/28/17 1330		1	X	X	X	X	X	
6	PG-PJ-MUS-COC*	4/27/17 1230	↓	1	X	X	X	X	X	
7										
8										
9										
10										
11										
12										
13										
14										
15										

Notes: * Please append -170427 to the end of each sample ID
^ Please append -170428

Relinquished By:	Company:	Received By:	Company:
Christine Reeder 4/28/17 5:00	Anchor QEA, LLC	Alexander Karpoff 4/28/17 1700	AQ
Signature/Printed Name / Date/Time		Signature/Printed Name / Date/Time	
Alexandra Karpoff 4/29/17 1000	AQ	A. Volgardsen 4/28/17 1000	~~AQ~~
Signature/Printed Name / Date/Time		Signature/Printed Name / Date/Time	

2 of 922

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Page____of_____

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Anchor

Project Name: Port Gamble Bay Shellfish Monitoring

COC No(s): _____ NA

Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: 17E0012

Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry): 0.3

Time: _____

If cooler temperature is out of compliance fill out form 00070F

Temp Gun ID#: D0025605

Cooler Accepted by: AV Date: 4/29/17 Time: 1000

Complete custody forms and attach all shipping documents

Log-In Phase:

Was a temperature blank included in the cooler?		YES	(NO)
What kind of packing material was used? ... Bubble Wrap (Wet Ice) Gel Packs Baggies Foam Block Paper Other: _____			
Was sufficient ice used (if appropriate)?	NA	(YES)	NO
Were all bottles sealed in individual plastic bags?		YES	(NO)
Did all bottles arrive in good condition (unbroken)?		(YES)	NO
Were all bottle labels complete and legible?		YES	(NO)
Did the number of containers listed on COC match with the number of containers received?		(YES)	NO
Did all bottle labels and tags agree with custody papers?		(YES)	NO
Were all bottles used correct for the requested analyses?		(YES)	NO
Do any of the analyses (bottles) require preservation? (attach preservation sheet, excluding VOCs)...	(NA)	YES	NO
Were all VOC vials free of air bubbles?	(NA)	YES	NO
Was sufficient amount of sample sent in each bottle?		(YES)	NO
Date VOC Trip Blank was made at ARI	(NA)		

Was Sample Split by ARI : (NA) YES Date/Time: _____ Equipment: _____ Split by: _____

Samples Logged by: PM Date: 5/1/2017 Time: 12:14

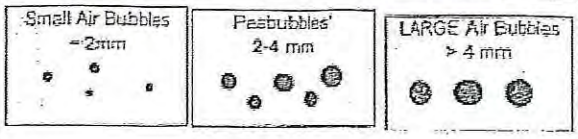
*** Notify Project Manager of discrepancies or concerns ***

Sample ID on Bottle	Sample ID on COC	Sample ID on Bottle	Sample ID on COC

Additional Notes, Discrepancies, & Resolutions:

Container label for sample "PG-PJ-HC-COC" was missing.

By: PM Date: 5/1/2017



Small → "sm"	(< 2 mm)
Peabubbles → "pb"	(2 to < 4 mm)
Large → "lg"	(4 to < 6 mm)
Headspace → "hs"	(> 6 mm)

17E0012

Chain of Custody Record & Laboratory Analysis Request

Laboratory Number:

Date: ~~10~~ 28 2017
Project Name: Port Gamble Bay Shellfish Monitoring
Project Number: 160388-01.04
Project Manager: ~~Chris~~ Nathan Soccorsy
Phone Number: 206.287.9130
Shipment Method:

ANCHOR QEA

Line	Field Sample ID	Collection Date/Time	Matrix	Containers	Lipids	PAHs	Dioxins/furans	Cadmium	PCB Congeners	TS	Comments/Preservation
1	PG-PJ-OYS-COC*	4/27/17 1:00pm	Tissue	1	x	x	x	x	x	x	
2	PG-PJ-cockle-COC*	4/27/17 1245		1	x	x	x	x	x	x	
3	PG-PJ-LTLA-COC*	4/27/17 1530		1	x	x	x	x	x	x	
4	PG-PJ-MAL-COC*	4/27/17 1200		1	x	x	x	x	x	x	
5	PG-PJ-HC-COC^	4/28/17 1330		1	x	x	x	x	x	x	
6	PG-PJ-MUS-COC*	4/27/17 1230	↓	1	x	x	x	x	x	x	
7											
8											
9											
10											
11											
12											
13											
14											
15											

Notes: * Please append -170427 to the end of each sample ID
^ Please append -170428

Relinquished By:	Company:	Received By:	Company:
Christine Reed 4/28/17 5:00	Anchor QEA, LLC	Alexander Kanoff 4/28/17 1700	AQ
Signature/Printed Name / Date/Time		Signature/Printed Name / Date/Time	
Alexandra Kanoff 4/29/17 1000	AQ	A. Volgardsen 4/28/17 1000	~~AQ~~
Signature/Printed Name / Date/Time		Signature/Printed Name / Date/Time	

4 of 922

COC revised by CMO - 05/01/17

Distribution: A copy will be made for the laboratory and client. The Project file will retain the original.

Page____of_____

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Prep Sheet Notes

ARI Job No.: 17E0012

~~Client ID:~~ Batch BFE0064

Parameter: Tissue Prep

~~Client Project:~~

Matrix: ~~Filter bag~~/tissue/~~other~~

Rinse w/ DI to remove any particulates
Shuck & homogenize, record weights. Before split of 25-30g check w/ supervisor for limited volume list.

#01 = 415.32g (oyster)
#02 = 767.19g (cockle)
#03 = 261.52g (Little cockle)
#4 = 138.57g (Manila clams)
#05 = 1082.12g (Horse clams)
#06 = 121.19g (Mussel(n))

Pre-Dry Prep Time: 9:45 - 12:15	Analyst/Date: NE/CT 05/03/17	Post-Dry Prep Time:	Analyst/Date: NE/CT 05/03/17	Balance ID: B3347S934

Special Instructions:

(8270) PNA Filter Bag:
1. Follow prep and extraction instructions on bench sheet.

Small PCB Filter Bag:
1. Weigh wet filter bag and record weight on blue prep sheet. 2. Any solids splits taken at this time. (Record weights on blue prep sheet). 3. Filter bags are dried overnight by attaching them to the drying apparatus (wrapped in aluminum foil in a tube shape). 4. Re-weigh dried samples and record weight on blue prep sheet. 5. Cut off plastic rings and record weights on blue prep sheet. 6. Record sample dry weights without plastic rings on blue prep sheet and bench sheet. 7. Roll up filter bag and place in labeled 32oz jars. 8. Add Hexane until jar is half full. 9. Add 20g sodium sulfate to filter bag in jar. 10. Blanks=Weigh 10g Sodium Sulfate into labeled 32oz jars. Add Hexane until jar is ¼ full. 11. Add surr/spike. 12. Tighten lids and place in large ziplock bags. 13. Tumble for 12 hours (min 6 hours). 14. Record "prep time" on blue prep sheet. 15. KD (normal drying columns) on 100°C water bath. 16. Turbovap to approx. 4mL. 17. Vial with Hexane at 5mL in scintillation vials for required cleanups. (Acid/Sulfur/SPE). 18. Pre-SPE Screen 1mL. (Note: Determination of Required SPE cleanup is based on Pre-SPE Screen. 19. After cleanups: TurboVap and vial 1mL in Hexane.

Large PCB Filter Bag instructions on the back of this prep sheet. (Turn over)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Organic Extractions Laboratory Analyst Notes

Extraction Parameter: Tissue Prep

Element Batch: BFE0064 Work Order(s): 17E0012

Screens: Soil/Sediment/Solid/Other:	Analyst/Date
☐ No Anomalies (standard soil/wet sediment/sand/gravel)=	
☐ Standing Water Decanted (Not shared)=	
☐ Standing Water Homogenized (Shared samples)=	
☐ Clay/Clumps (Difficult to homogenize)=	
☐ Rocks (%+size)?	
☐ Organics (Leaves/sticks/grass)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Received in 32oz jar(s)=Homogenized in Pyrex dish=	
☒ Other (Details)= #1 = oyster, #2 = cockle, #3 Little cockle. #4 = Manila clams, #5 = ~~Horse~~ Horse clams. #6 = mussels. 5/3/17	mle 05/03/17 mle 05/03/17 mle 05/03/17
Aqueous:	
☐ No Anomalies	
☐ Turbid/Color=	
☐ Particulates(%)=(Note: >5%=Notify Supervisor/Lead)	
☐ Emulsions (%)=	
☐ Oily, obvious fuel/sulfur odors=	
☐ Other (Details)=	
☐ Received in 1.0L Bottle(s)=No Bottle Rinse=	
☐ Other Notes/Comments= (Note problems, concerns, corrective actions).	
☒ Share Samples Y / N	No 05/03/17
☒ Multiple Jars Y / N	mle 05/03/17
☐ Sample Pre-Screens indicate analyte activity=	
☐ Sample weights/volumes reduced based on Pre-Screen=	

Anchor QEA, LLC	Project: Port Gamble Shellfish Monitoring	
720 Olive Way, Suite 1900	Project Number: 160388-01.01	**Reported:**
Seattle WA, 98101	Project Manager: Nathan Soccorsy	24-May-2017 13:45

Case Narrative

Sample Receipt

Six tissue samples were received April 28, 2017 under ARI workorder 17E0012. For details regarding sample receipt, please refer to the Cooler Receipt Form. The samples were prepped in the lab on May 3, 2017. The PCB Congener analysis was transferred to Maxxam Analytical on May 9, 2017.

Dioxin/Furans - EPA Method 1613

The samples were extracted and analyzed within the recommended holding times. Analysis was performed using an application specific column recently developed by Restek. The RTX-DIoxin2 column has unique isomer separation for the 2378-TCDF, eliminating the need for confirmation analysis.

Initial and continuing calibrations were within method requirements.

Labeled internal standard areas were within limits.

Sample PG-PJ-MAN-COC-170427 has low cleanup surrogate recoveries for 13C12-1,2,3,7,8-PeCDF, 13C12-1,2,3,7,8,9-HxCDF, 13C12-1,2,3,4,6,7,8-HpCDF and 13C12-1,2,3,4,7,8,9-HpCDF. All other cleanup surrogate recoveries were within control limits. No corrective action was taken.

Method blank BFE0233 contained reportable responses for several compounds below the reporting limits, these compounds have been flagged with “J” qualifiers on the method blank. Associated detected results have been flagged with a “B” qualifier. No further corrective action was taken.

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

Polynuclear Aromatic Hydrocarbons (PAH) - EPA Method SW8270D-SIM

The sample were extracted and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

Internal standard areas were within limits.

The surrogate percent recoveries were within control limits.

There were no target compounds detected in the method blank.

The LCS percent recoveries were within control limits.

Anchor QEA, LLC	Project: Port Gamble Shellfish Monitoring	
720 Olive Way, Suite 1900	Project Number: 160388-01.01	**Reported:**
Seattle WA, 98101	Project Manager: Nathan Soccorsy	24-May-2017 13:45

Case Narrative

Total Cadmium - EPA Method 6010C

The samples were digested and analyzed within the recommended holding times.

Initial and continuing calibrations were within method requirements.

The method blank BFE0167 has Cadmium contamination below the reporting limit. The Cadmium has been flagged with an “J” qualifier on the method blank. No further actions were taken.

The LCS percent recoveries were within control limits.

Percent Lipids

The sample were prepared and analyzed within the recommended holding times.

The method blank was free of contaminates.

Anchor QEA, LLC	Project: Port Gamble Shellfish Monitoring	
720 Olive Way, Suite 1900	Project Number: 160388-01.01	**Reported:**
Seattle, WA 98101	Project Manager: Nathan Soccorsy	05/24/2017 13:45

ANALYTICAL REPORT FOR SAMPLES

Laboratory ID	Sample ID	Matrix	Date Sampled	Date Received
17E0012-01	PG-PJ-OYS-COC-170427	Tissue	04/27/17 13:00	04/29/17 10:00
17E0012-02	PG-PJ-COC-COC-170427	Tissue	04/27/17 12:45	04/29/17 10:00
17E0012-03	PG-PJ-LTN-COC-170427	Tissue	04/27/17 13:30	04/29/17 10:00
17E0012-04	PG-PJ-MAN-COC-170427	Tissue	04/27/17 12:00	04/29/17 10:00
17E0012-05	PG-PJ-HC-COC-170428	Tissue	04/28/17 13:30	04/29/17 10:00
17E0012-06	PG-PJ-MUS-COC-170427	Tissue	04/27/17 12:30	04/29/17 10:00

Analytical Resources, Incorporated

Internal Chain of Custody

Client:	Anchor QEA, LLC	Received:	29-Apr-2017 10:00
Project:	Port Gamble Shellfish Monitoring	Received By:	Amanda Volgardsen
Number:	160388-01.01	Temp (°C):	0.30

17E0012-01 (PG-PJ-OYS-COC-170427) Sampled 04/27/2017 13:00

Current Status	*Out*	*Location*	*In*
17E0012-01 A [Miscellaneous Container]		*Hazard Info:Benzo(a)anthracene [0.6533561ug/kg];Benzo(b)fluoranthene [0.73440*	
Sample Receiving	05/01/2017 12:16 by PAM	***START***	05/01/2017 12:16 by PAM
	05/01/2017 12:16 by PAM	***START***	05/01/2017 12:16 by PAM
	05/01/2017 12:16 by PAM	***START***	05/01/2017 12:16 by PAM
	05/01/2017 12:16 by PAM	***START***	05/01/2017 12:16 by PAM
	05/01/2017 12:16 by PAM	***START***	05/01/2017 12:16 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
Organics	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
Extractions	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
Organics	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
Extractions	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
Metals	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by

17E0012-02 (PG-PJ-COC-COC-170427) Sampled 04/27/2017 12:45

Current Status	*Out*	*Location*	*In*
17E0012-02 A [Miscellaneous Container]		*Hazard Info:Fluoranthene [0.63629ug/kg];Total HpCDD [0.9758444ng/kg]*	
Sample Receiving	05/01/2017 12:17 by PAM	***START***	05/01/2017 12:17 by PAM

Analytical Resources, Incorporated

Internal Chain of Custody

Client:	Anchor QEA, LLC	Received:	29-Apr-2017 10:00
Project:	Port Gamble Shellfish Monitoring	Received By:	Amanda Volgardsen
Number:	160388-01.01	Temp (°C):	0.30

17E0012-02 (PG-PJ-COC-COC-170427) Sampled 04/27/2017 12:45

Current Status	*Out*	*Location*	*In*
17E0012-02 A [Miscellaneous Container]		*Hazard Info:Fluoranthene [0.63629ug/kg];Total HpCDD [0.9758444ng/kg]*	
Sample Receiving	05/01/2017 12:17 by PAM	***START***	05/01/2017 12:17 by PAM
	05/01/2017 12:17 by PAM	***START***	05/01/2017 12:17 by PAM
	05/01/2017 12:17 by PAM	***START***	05/01/2017 12:17 by PAM
	05/01/2017 12:17 by PAM	***START***	05/01/2017 12:17 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
Organics	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
Extractions	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
Organics	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
Extractions	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
Metals	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by

17E0012-03 (PG-PJ-LTN-COC-170427) Sampled 04/27/2017 13:30

Current Status	*Out*	*Location*	*In*
17E0012-03 A [Miscellaneous Container]		*Hazard Info:Chrysene [0.500403ug/kg];Fluoranthene [1.359408ug/kg];Phenanthre*	
Sample Receiving	05/01/2017 12:18 by PAM	***START***	05/01/2017 12:18 by PAM
	05/01/2017 12:18 by PAM	***START***	05/01/2017 12:18 by PAM

Analytical Resources, Incorporated

Internal Chain of Custody

Client:	Anchor QEA, LLC	Received:	29-Apr-2017 10:00
Project:	Port Gamble Shellfish Monitoring	Received By:	Amanda Volgardsen
Number:	160388-01.01	Temp (°C):	0.30

17E0012-03 (PG-PJ-LTN-COC-170427) Sampled 04/27/2017 13:30

Current Status	*Out*	*Location*	*In*
17E0012-03 A [Miscellaneous Container]		*Hazard Info:Chrysene [0.500403ug/kg];Fluoranthene [1.359408ug/kg];Phenanthre*	
Sample Receiving	05/01/2017 12:18 by PAM	***START***	05/01/2017 12:18 by PAM
	05/01/2017 12:18 by PAM	***START***	05/01/2017 12:18 by PAM
	05/01/2017 12:18 by PAM	***START***	05/01/2017 12:18 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
Organics	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
Extractions	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
Organics	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
Extractions	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
Metals	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by

17E0012-04 (PG-PJ-MAN-COC-170427) Sampled 04/27/2017 12:00

Current Status	*Out*	*Location*	*In*
17E0012-04 A [Miscellaneous Container]		*Hazard Info:Benzo(a)anthracene [0.7800244ug/kg];Chrysene [0.82667ug/kg];Fluo*	
Sample Receiving	05/01/2017 12:18 by PAM	***START***	05/01/2017 12:18 by PAM
	05/01/2017 12:18 by PAM	***START***	05/01/2017 12:18 by PAM
	05/01/2017 12:18 by PAM	***START***	05/01/2017 12:18 by PAM

Analytical Resources, Incorporated

Internal Chain of Custody

Client:	Anchor QEA, LLC	Received:	29-Apr-2017 10:00
Project:	Port Gamble Shellfish Monitoring	Received By:	Amanda Volgardsen
Number:	160388-01.01	Temp (°C):	0.30

17E0012-04 (PG-PJ-MAN-COC-170427) Sampled 04/27/2017 12:00

Current Status	*Out*	*Location*	*In*
17E0012-04 A [Miscellaneous Container]			*Hazard Info:Benzo(a)anthracene [0.7800244ug/kg];Chrysene [0.82667ug/kg];Fluo*
Sample Receiving	05/01/2017 12:18 by PAM	***START***	05/01/2017 12:18 by PAM
	05/01/2017 12:18 by PAM	***START***	05/01/2017 12:18 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
Organics	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
Extractions	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
Organics	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
Extractions	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
Metals	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by

17E0012-05 (PG-PJ-HC-COC-170428) Sampled 04/28/2017 13:30

Current Status	*Out*	*Location*	*In*
17E0012-05 A [Miscellaneous Container]			*Hazard Info:Total HpCDD [0.3254448ng/kg]*
Sample Receiving	05/01/2017 12:18 by PAM	***START***	05/01/2017 12:18 by PAM
	05/01/2017 12:18 by PAM	***START***	05/01/2017 12:18 by PAM
	05/01/2017 12:18 by PAM	***START***	05/01/2017 12:18 by PAM
	05/01/2017 12:18 by PAM	***START***	05/01/2017 12:18 by PAM

Analytical Resources, Incorporated

Internal Chain of Custody

Client:	Anchor QEA, LLC	Received:	29-Apr-2017 10:00
Project:	Port Gamble Shellfish Monitoring	Received By:	Amanda Volgardsen
Number:	160388-01.01	Temp (°C):	0.30

17E0012-05 (PG-PJ-HC-COC-170428) Sampled 04/28/2017 13:30

Current Status	*Out*	*Location*	*In*
17E0012-05 A [Miscellaneous Container]			*Hazard Info:Total HpCDD [0.3254448ng/kg]*
Sample Receiving	05/01/2017 12:18 by PAM	***START***	05/01/2017 12:18 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
Organics	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
Extractions	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
Organics	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
Extractions	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
Metals	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by

17E0012-06 (PG-PJ-MUS-COC-170427) Sampled 04/27/2017 12:30

Current Status	*Out*	*Location*	*In*
17E0012-06 A [Miscellaneous Container]			*Hazard Info:Chrysene [0.5519055ug/kg];Fluoranthene [0.676587ug/kg];Phenanth*
Sample Receiving	05/01/2017 12:19 by PAM	***START***	05/01/2017 12:19 by PAM
	05/01/2017 12:19 by PAM	***START***	05/01/2017 12:19 by PAM
	05/01/2017 12:19 by PAM	***START***	05/01/2017 12:19 by PAM
	05/01/2017 12:19 by PAM	***START***	05/01/2017 12:19 by PAM
	05/01/2017 12:19 by PAM	***START***	05/01/2017 12:19 by PAM

Analytical Resources, Incorporated

Internal Chain of Custody

Client:	Anchor QEA, LLC	Received:	29-Apr-2017 10:00
Project:	Port Gamble Shellfish Monitoring	Received By:	Amanda Volgardsen
Number:	160388-01.01	Temp (°C):	0.30

17E0012-06 (PG-PJ-MUS-COC-170427) Sampled 04/27/2017 12:30

Current Status	*Out*	*Location*	*In*
17E0012-06 A [Miscellaneous Container]		*Hazard Info:Chrysene [0.5519055ug/kg];Fluoranthene [0.676587ug/kg];Phenanth*	
Sample Receiving	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
	05/01/2017 12:27 by PAM		05/01/2017 12:27 by PAM
Organics	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
	05/02/2017 16:00 by JZ	R-05 M03 Ext	05/03/2017 09:19 by YQL
Extractions	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
	05/03/2017 09:19 by YQL	Organic Extractions	05/03/2017 12:17 by YQL
Organics	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
	05/04/2017 17:24 by JLW	Organic Extractions	05/09/2017 10:05 by ACS
Extractions	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
	05/09/2017 10:05 by ACS	Dioxin Lab	05/09/2017 16:41 by MCB
Metals	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:41 by MCB	Metals Prep Lab	05/09/2017 16:42 by MCB
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by
	05/09/2017 16:42 by MCB	F-51 C3-5	by

Analytical Resources, Incorporated

QUALIFIERS AND NOTES

Qualifier	Definition
U	This analyte is not detected above the applicable reporting or detection limit.
J	Estimated concentration value detected below the reporting limit.
EMPC	Estimated Maximum Possible Concentration qualifier for HRGCMS Dioxin
E	The analyte concentration exceeds the upper limit of the calibration range of the instrument established by the initial calibration (ICAL)
D	The reported value is from a dilution
B	This analyte was detected in the method blank.
DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

PG-PJ-OYS-COC-170427

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:	17E0012-01	File ID:	N1117051615.D
Sampled:	04/27/17 13:00	Prepared:	05/09/17 13:50	Analyzed:	05/16/17 18:52
Solids:		Preparation:	EPA 3550C-Mod (Ultrasonic	Initial/Final:	10.25 g / 0.5 mL
Batch:	BFE0160	Sequence:	SFE0208	Calibration:	AE00020
Instrument:	NT11	Column:	RXi-17Sil-MS		

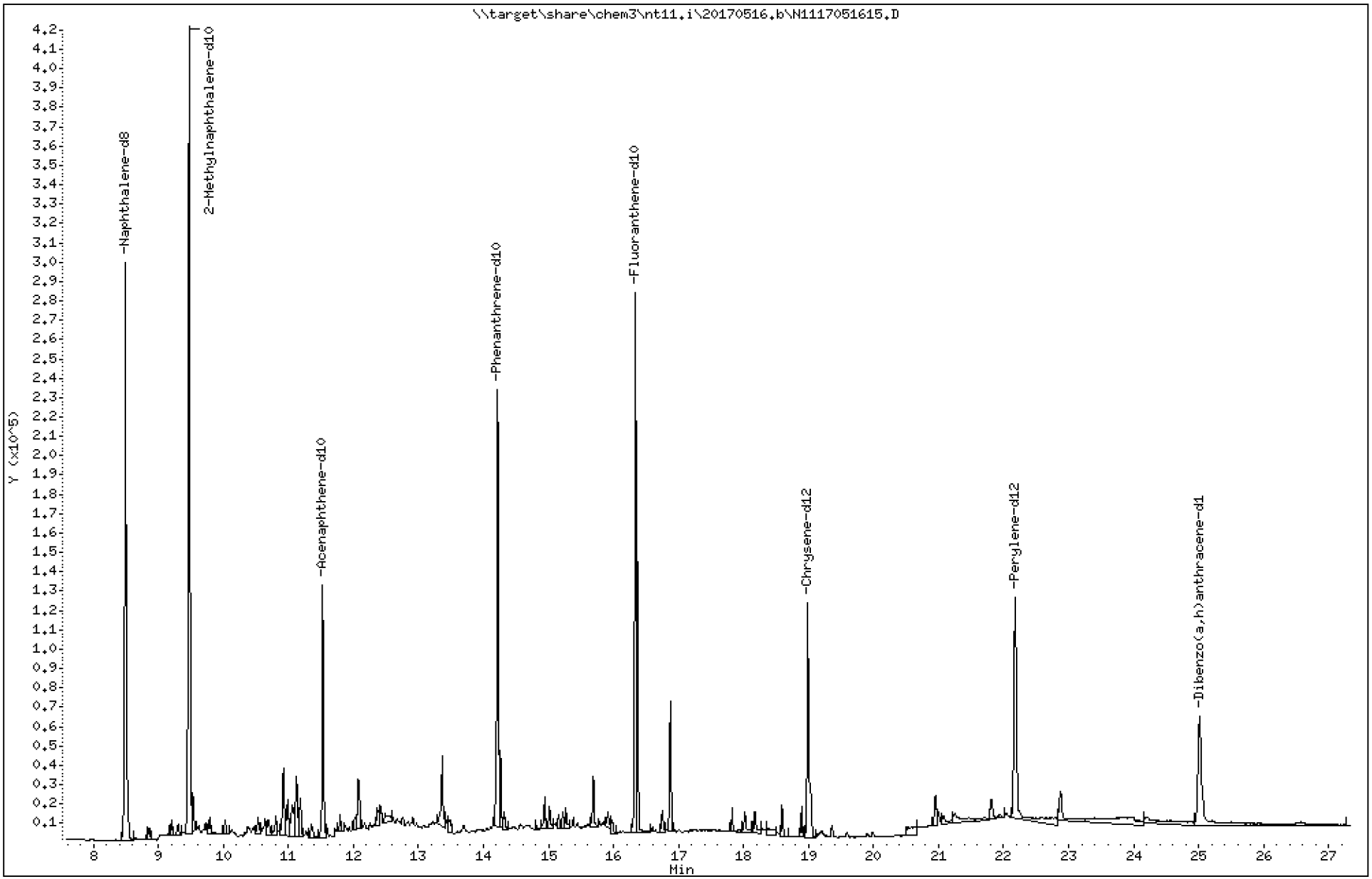
CAS NO.	COMPOUND	DILUTION	CONC. (ug/kg)	Q	DL	RL
91-20-3	Naphthalene	1	0.59	U	0.49	0.59
91-57-6	2-Methylnaphthalene	1	0.49	U	0.49	0.49
208-96-8	Acenaphthylene	1	0.49	U	0.49	0.49
83-32-9	Acenaphthene	1	0.49	U	0.49	0.49
86-73-7	Fluorene	1	0.49	U	0.49	0.49
85-01-8	Phenanthrene	1	1.05		0.49	0.49
120-12-7	Anthracene	1	0.49	U	0.49	0.49
206-44-0	Fluoranthene	1	3.41		0.49	0.49
129-00-0	Pyrene	1	2.01		0.49	0.49
56-55-3	Benzo(a)anthracene	1	0.65		0.49	0.49
218-01-9	Chrysene	1	1.65		0.49	0.49
205-99-2	Benzo(b)fluoranthene	1	0.73		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	0.55		0.49	0.49

SURROGATES	ADDED (ug/kg)	CONC (ug/kg)	% REC	QC LIMITS	Q
2-Methylnaphthalene-d10	14.634	8.49	58.0	30 - 160	
Dibenzo[a,h]anthracene-d14	14.634	11.4	77.8	30 - 160	
Fluoranthene-d10	14.634	10.6	72.2	30 - 160	

Data File: \\target\share\chem3\nt11.i\20170516.b\N1117051615.D
Date : 16-MAY-2017 18:52
Client ID:
Sample Info: 17E0012-01

Instrument: nt11.i
Operator: VTS
Column diameter: 0.25

Column phase: Rxi-17Sil MS



Data File: \\target\share\chem3\nt11.i\20170516.b\N1117051615.D

Date : 16-MAY-2017 18:52

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-01

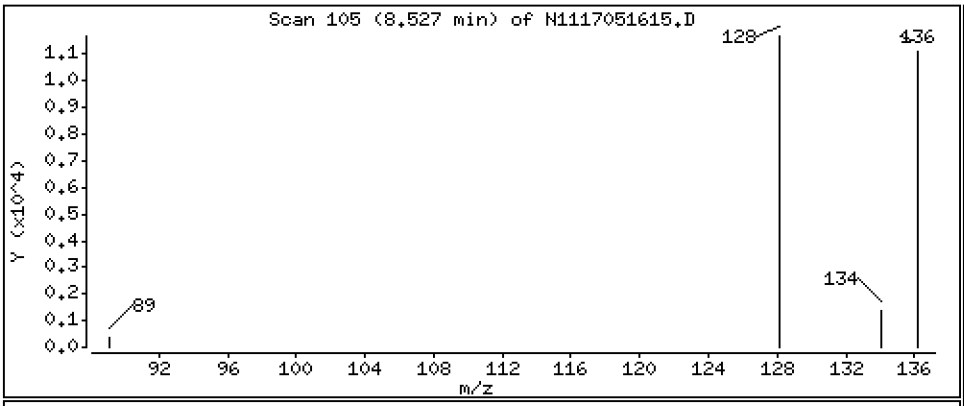
Operator: VTS

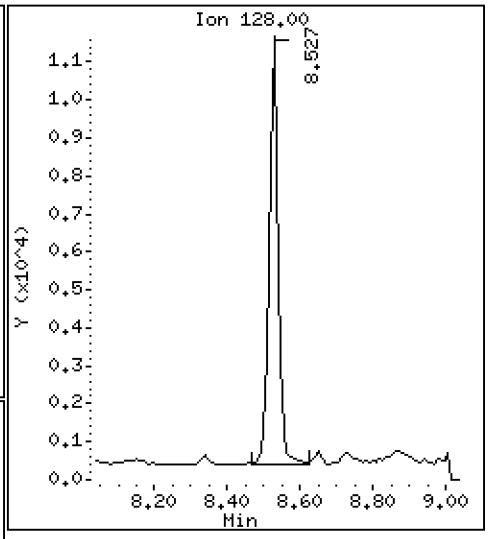
Column phase: Rxi-17Sil MS

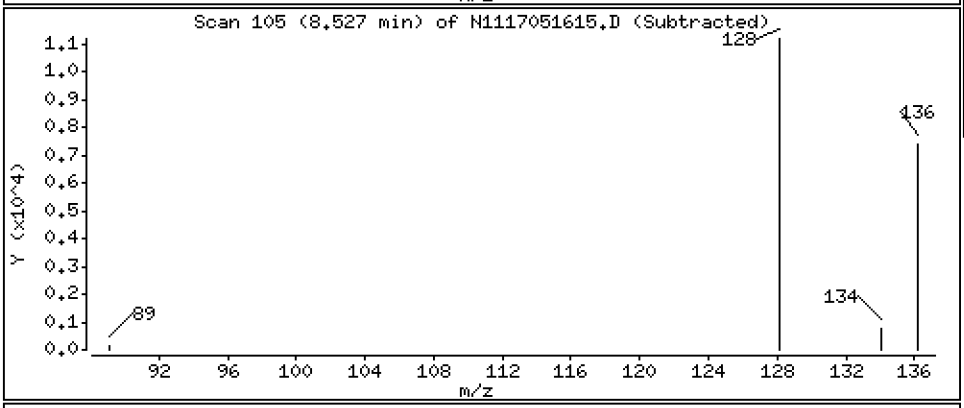
Column diameter: 0.25

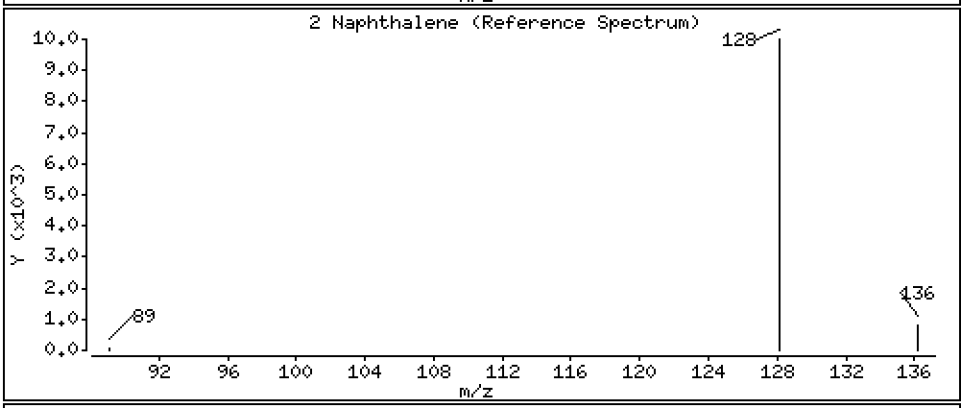
2 Naphthalene

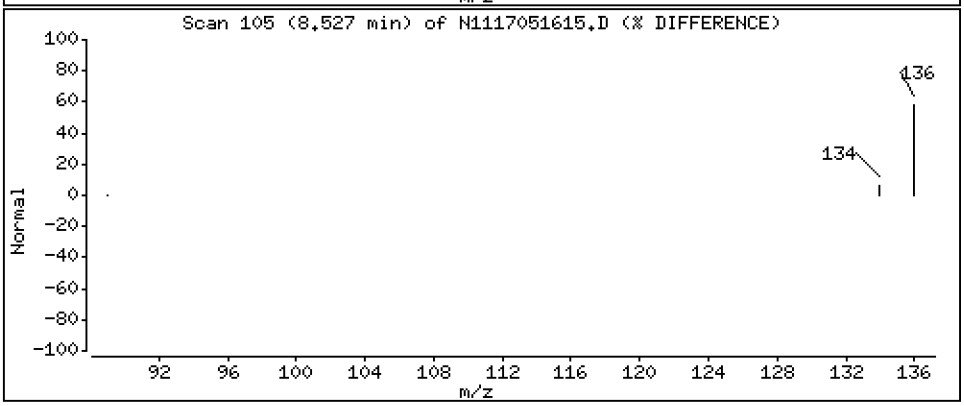
Concentration: 7.50 ng/mL











Data File: \\target\share\chem3\nt11.i\20170516.b\N1117051615.D

Date : 16-MAY-2017 18:52

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-01

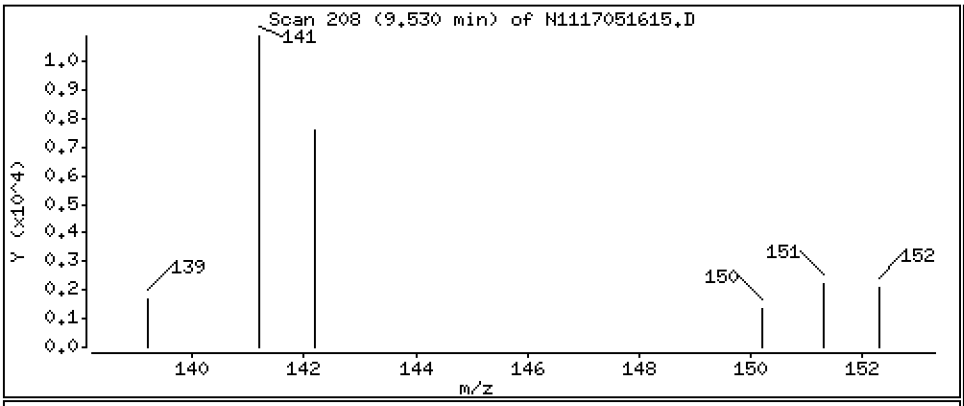
Operator: VTS

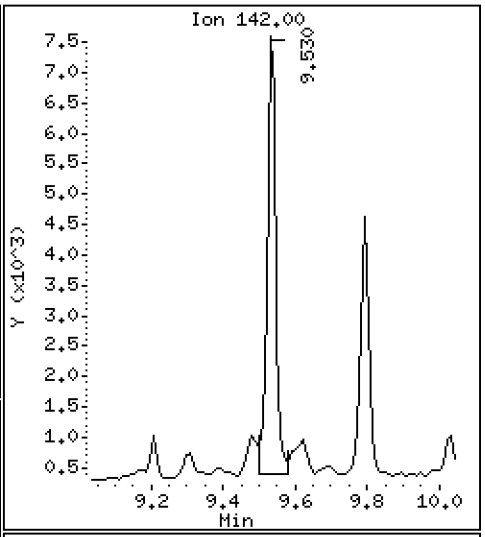
Column phase: Rxi-17Sil MS

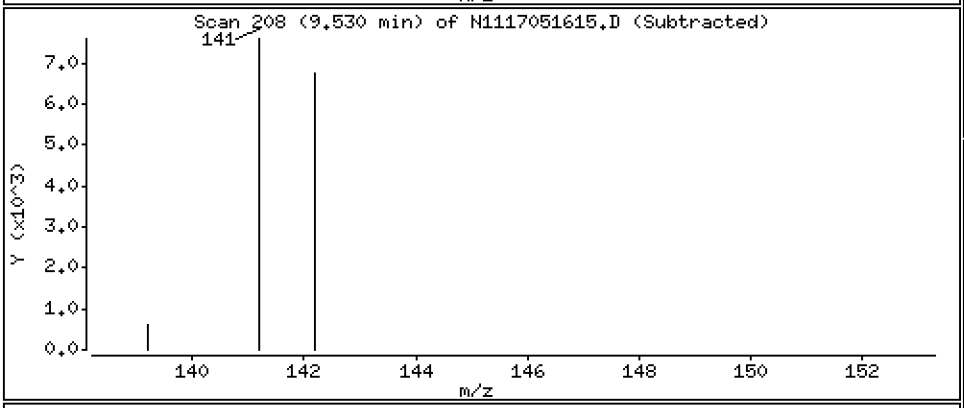
Column diameter: 0.25

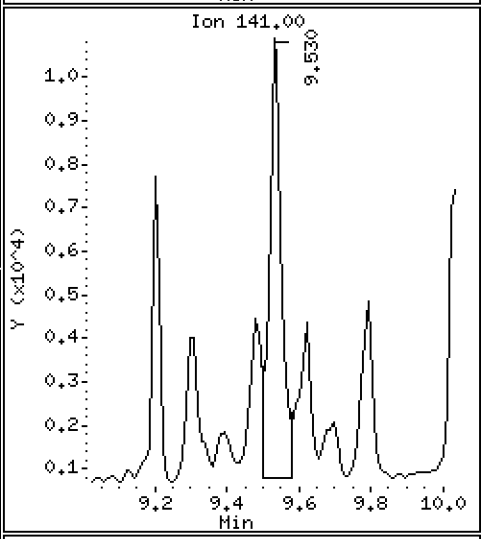
5 2-Methylnaphthalene

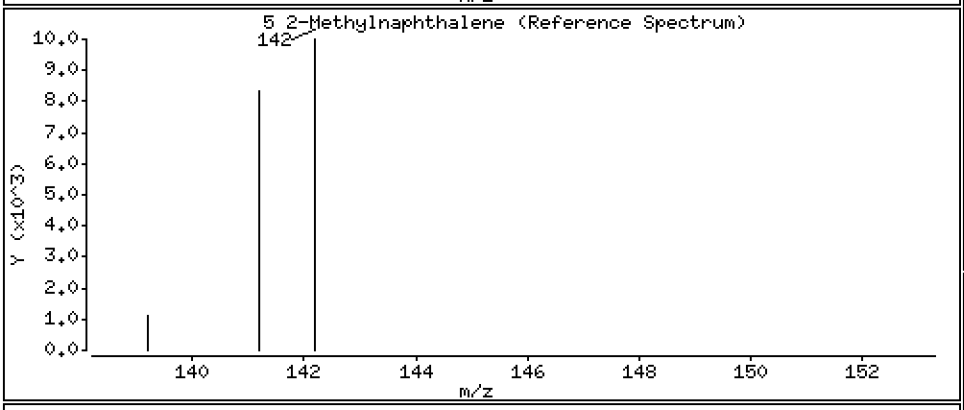
Concentration: 5.53 ng/mL

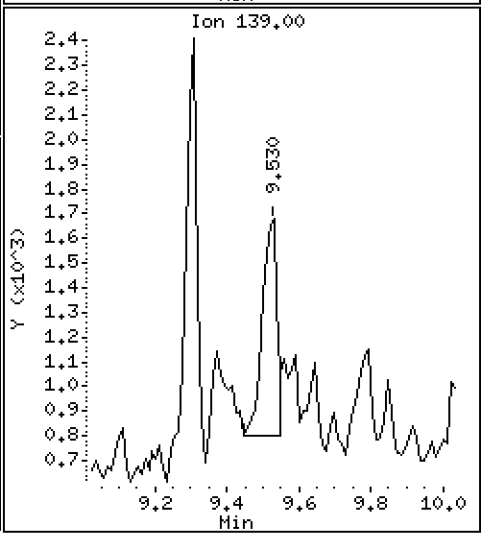


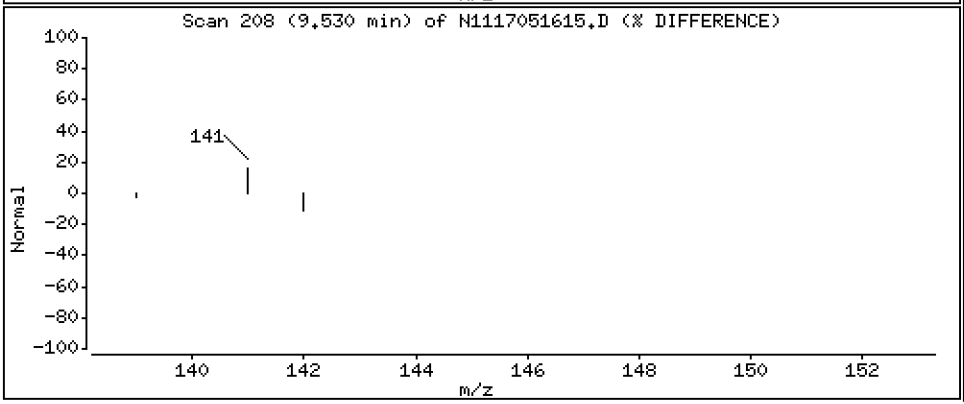












Data File: \\target\share\chem3\nt11.i\20170516.b\N1117051615.D

Date : 16-MAY-2017 18:52

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-01

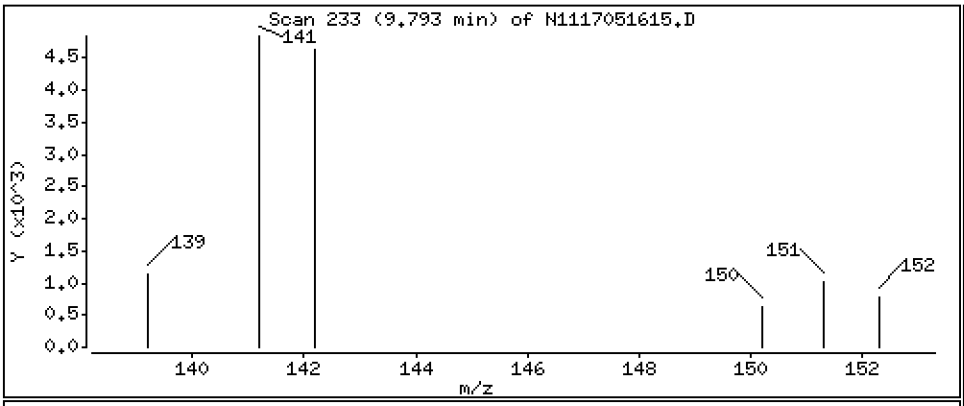
Operator: VTS

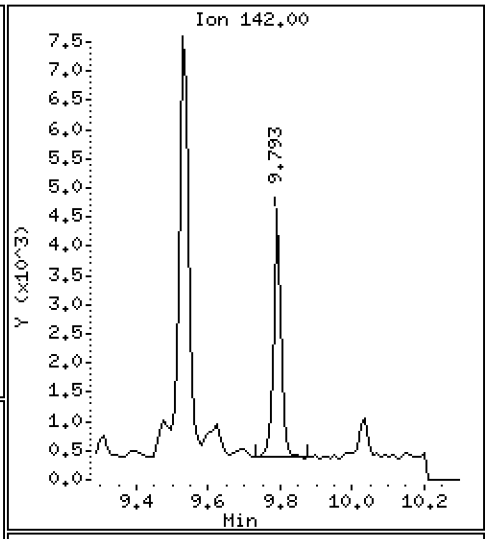
Column phase: Rxi-17Sil MS

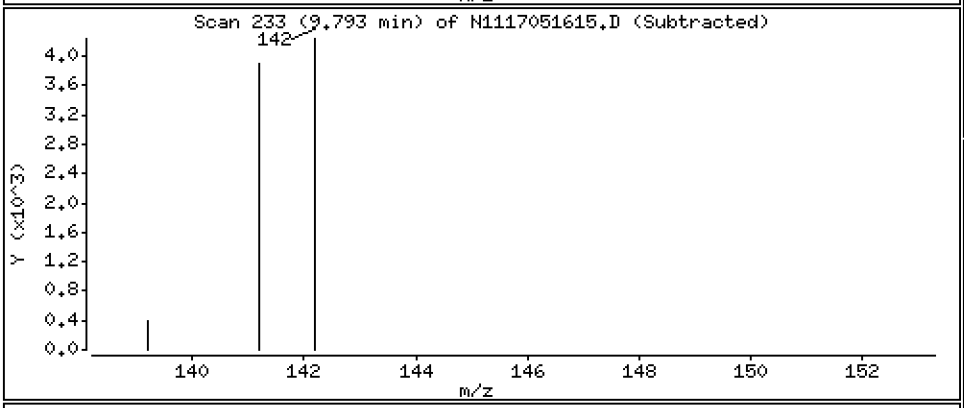
Column diameter: 0.25

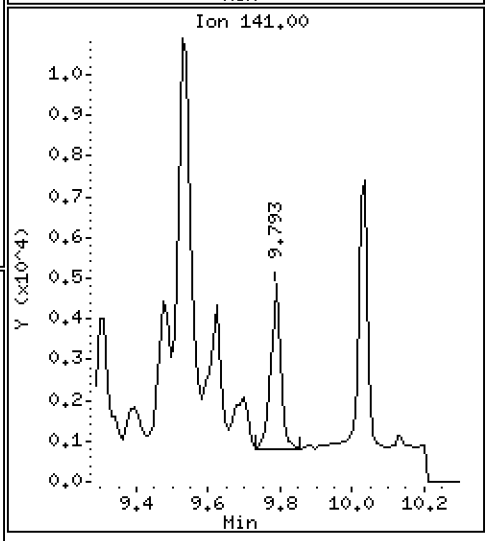
6 1-Methylnaphthalene

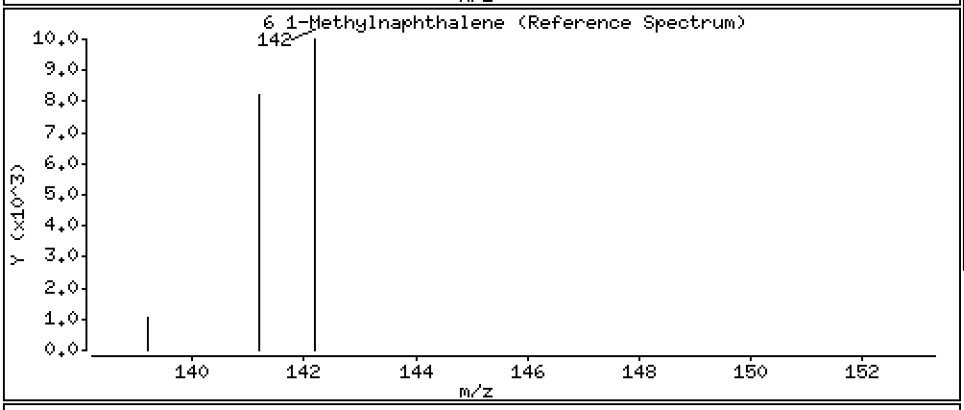
Concentration: 3.02 ng/mL

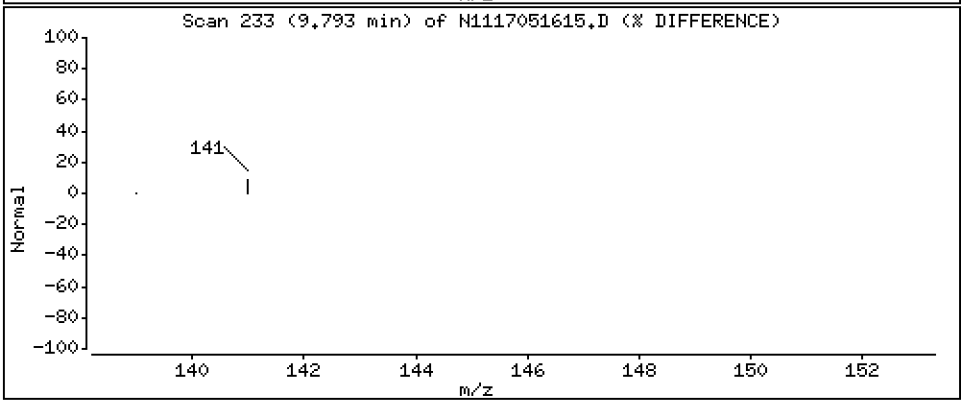












Data File: \\target\share\chem3\nt11.i\20170516.b\N1117051615.D

Date : 16-MAY-2017 18:52

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-01

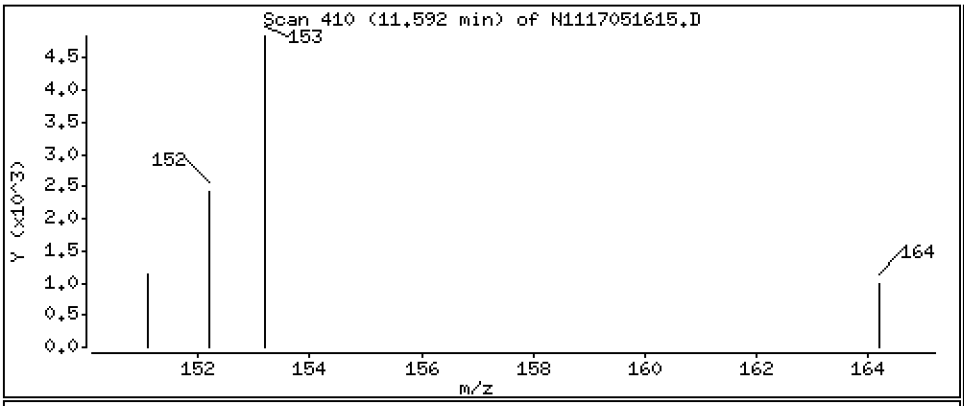
Operator: VTS

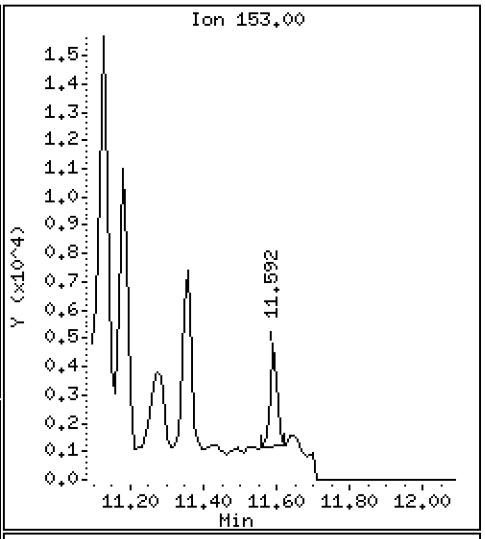
Column phase: Rxi-17Sil MS

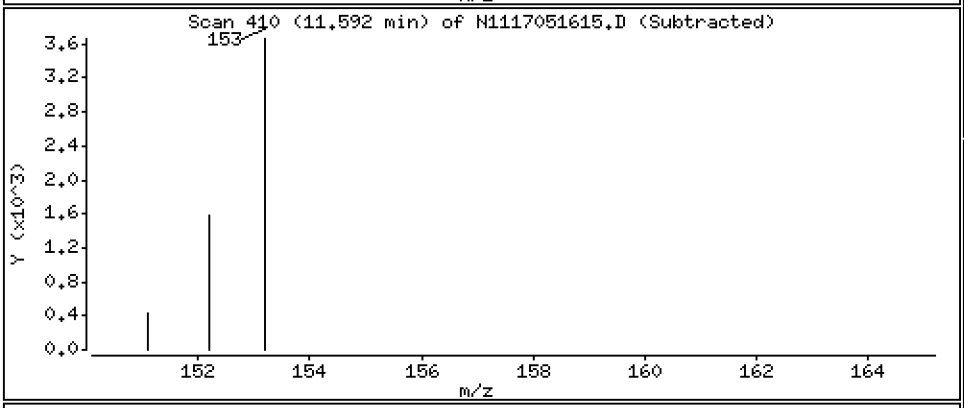
Column diameter: 0.25

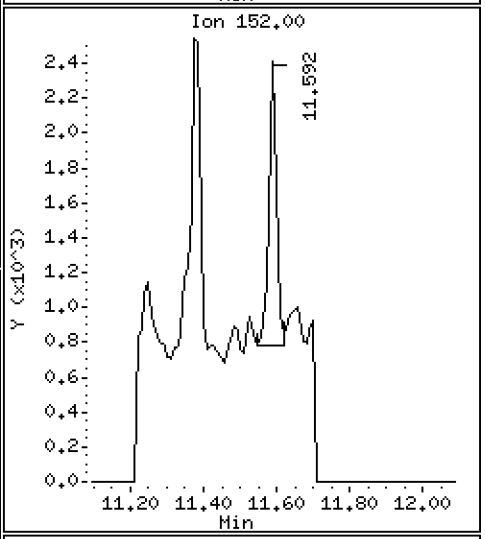
12 Acenaphthene

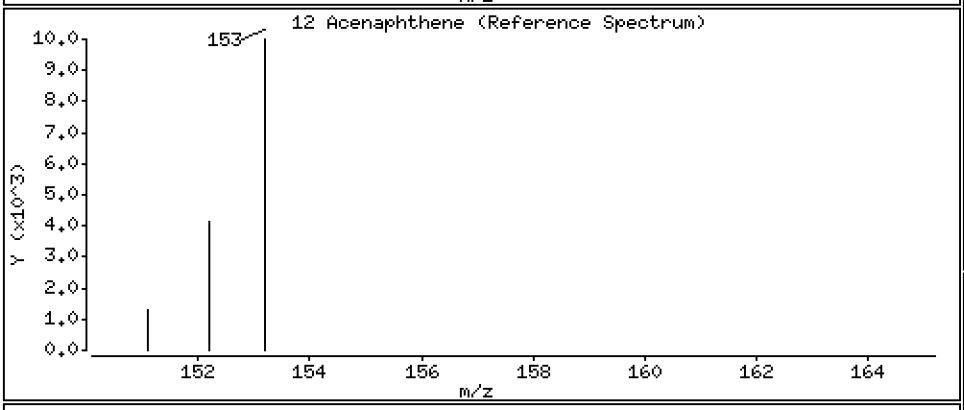
Concentration: 3.16 ng/mL

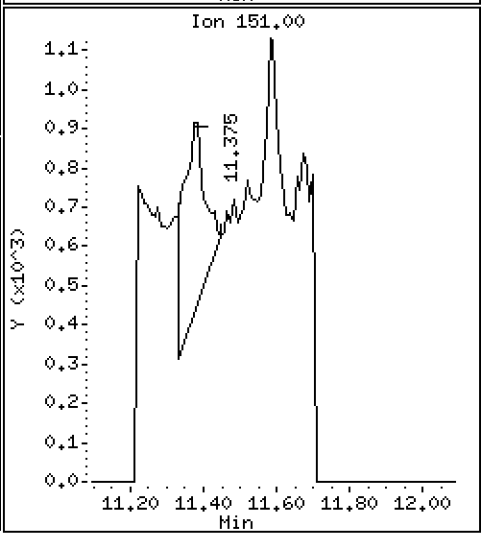


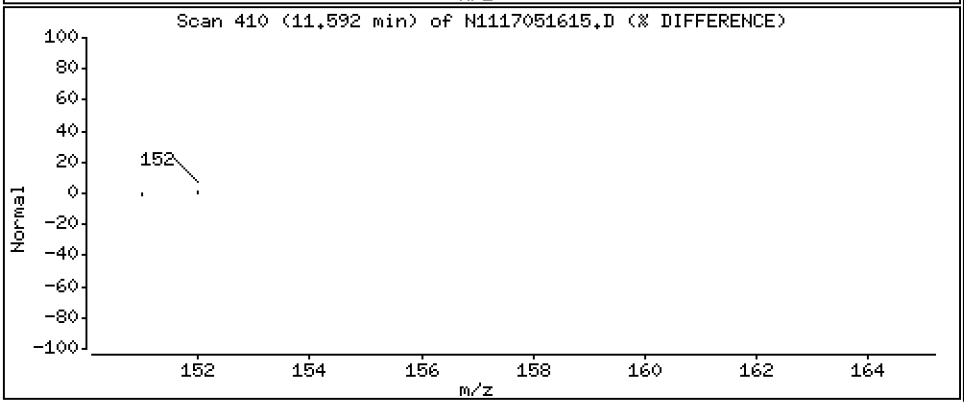












Data File: \\target\share\chem3\nt11.i\20170516.b\N1117051615.D

Date : 16-MAY-2017 18:52

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-01

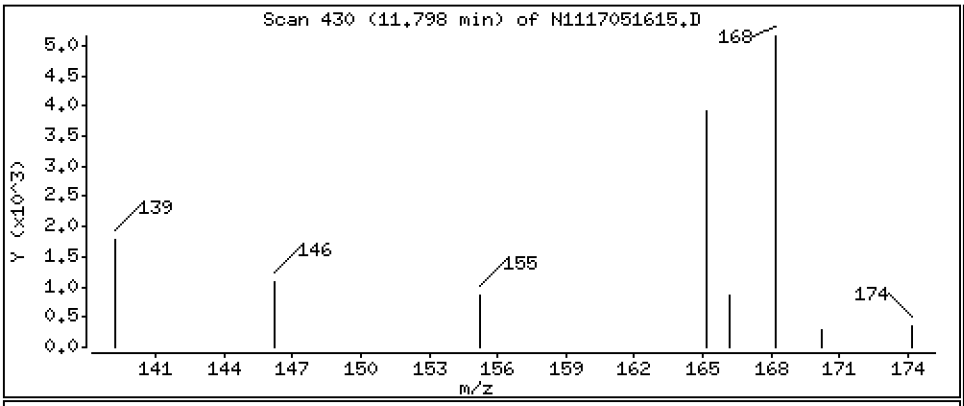
Operator: VTS

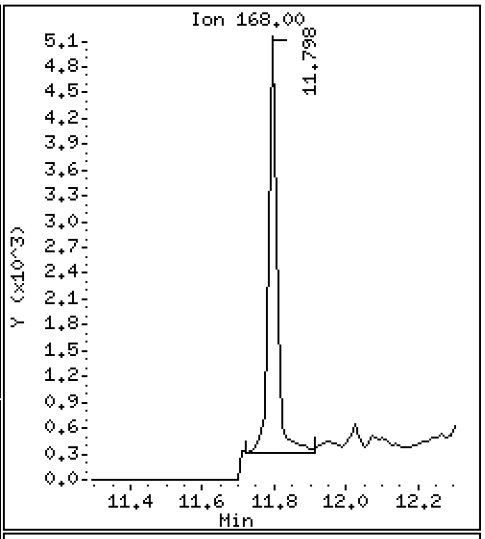
Column phase: Rxi-17Sil MS

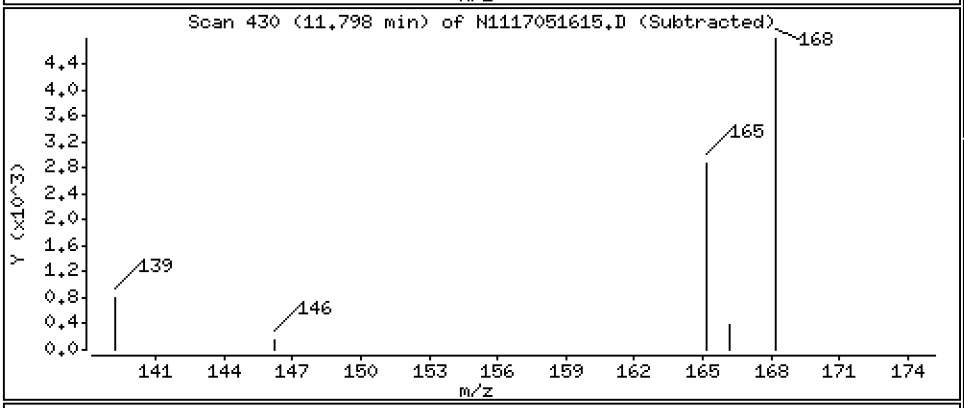
Column diameter: 0.25

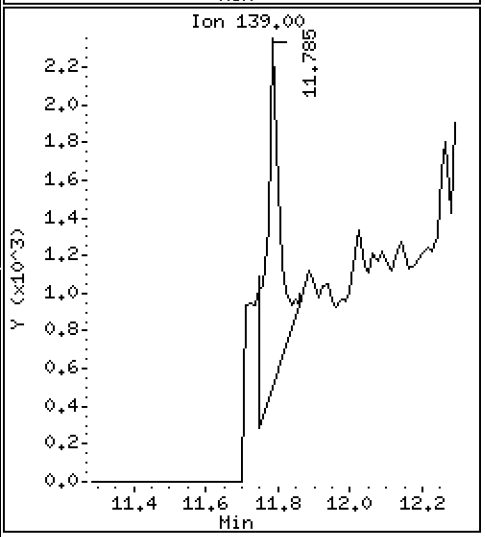
13 Dibenzofuran

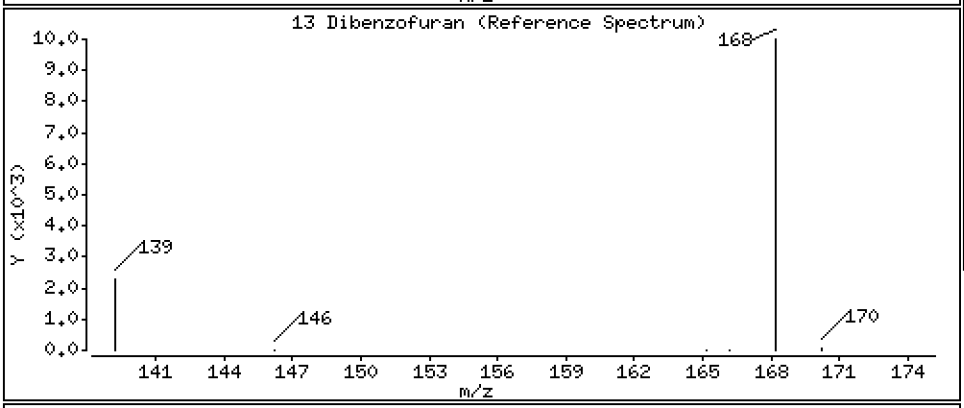
Concentration: 3.77 ng/mL

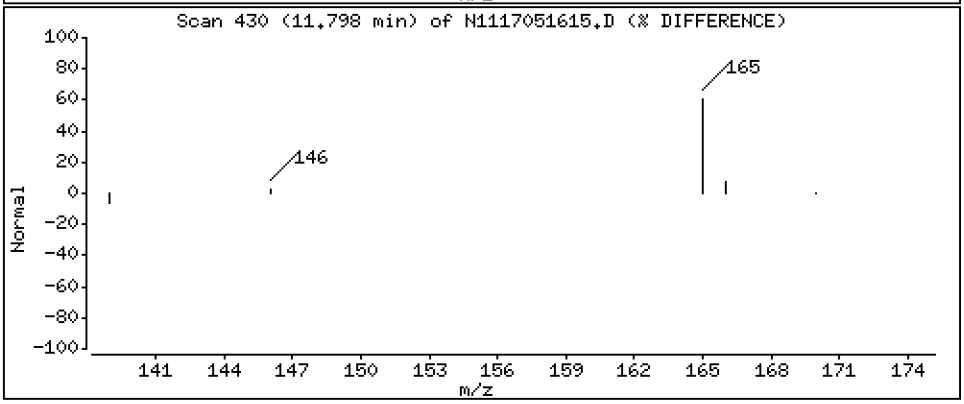












Data File: \\target\share\chem3\nt11.i\20170516.b\N1117051615.D

Date : 16-MAY-2017 18:52

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-01

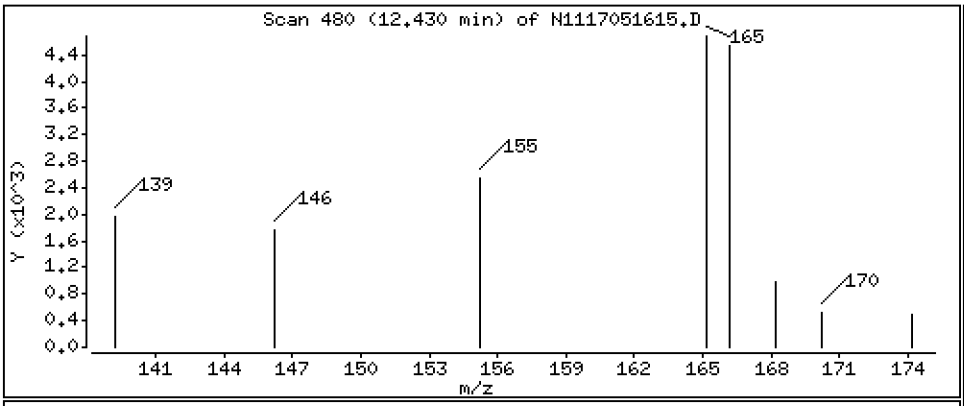
Operator: VTS

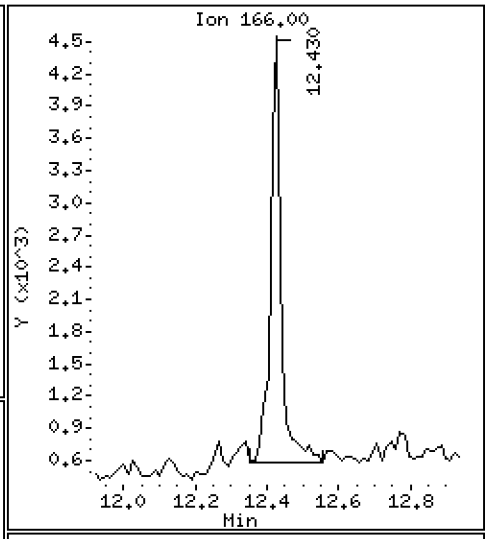
Column phase: Rxi-17Sil MS

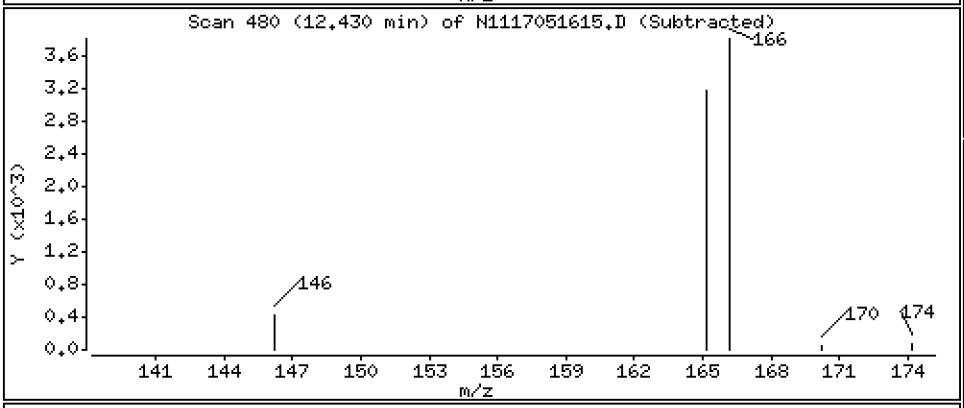
Column diameter: 0.25

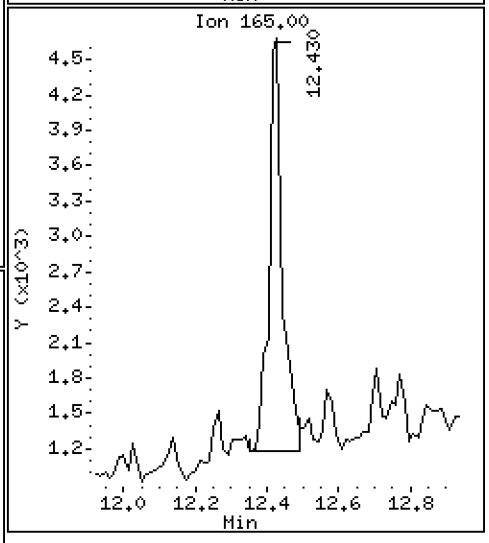
16 Fluorene

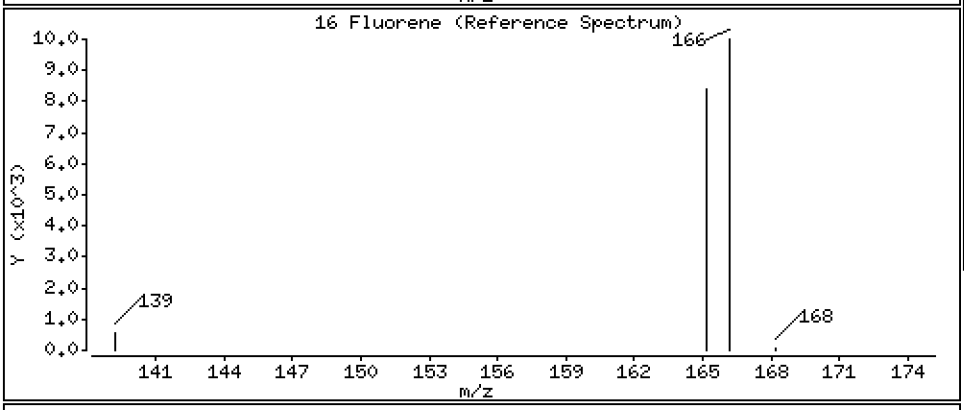
Concentration: 4.93 ng/mL

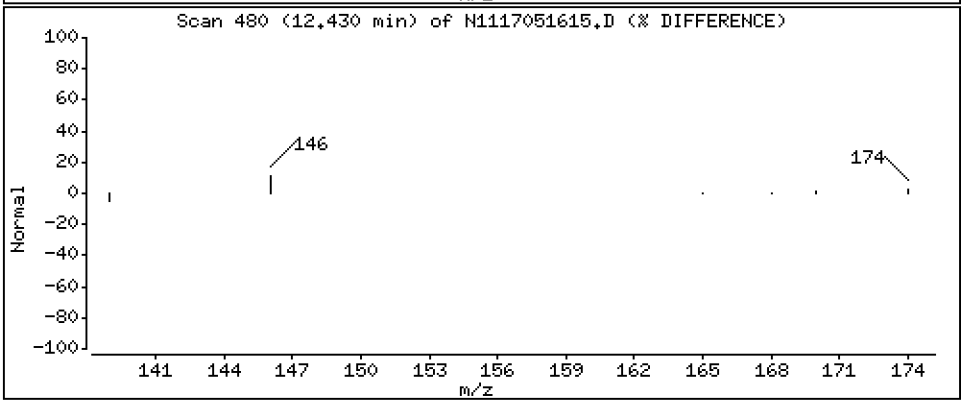












Data File: \\target\share\chem3\nt11.i\20170516.b\N1117051615.D

Date : 16-MAY-2017 18:52

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-01

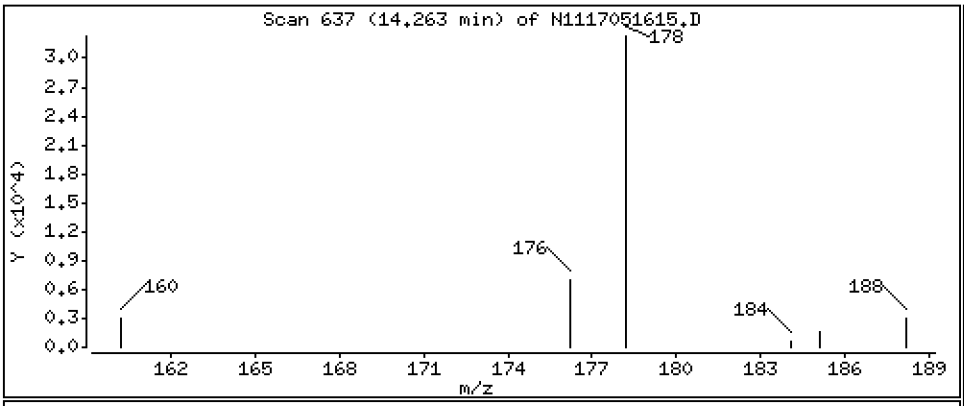
Operator: VTS

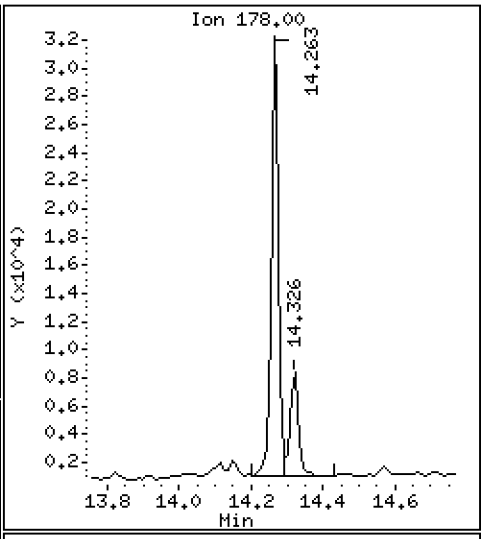
Column phase: Rxi-17Sil MS

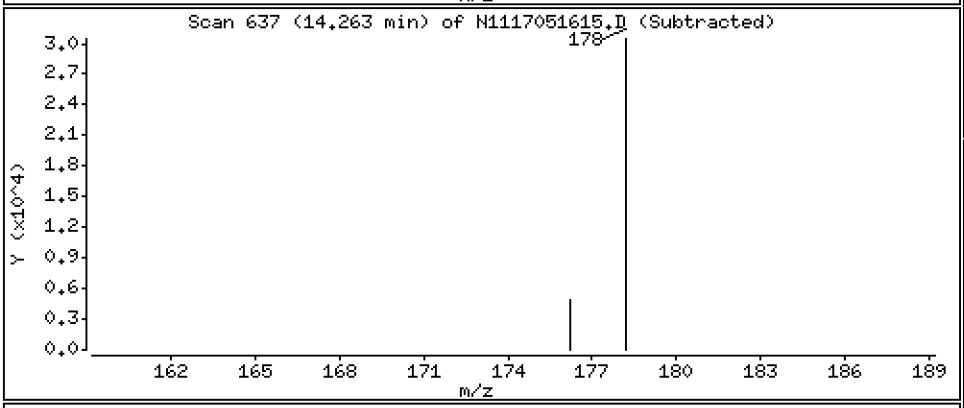
Column diameter: 0.25

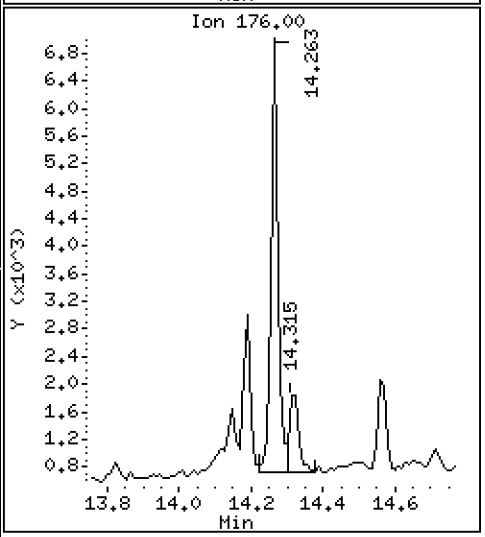
19 Phenanthrene

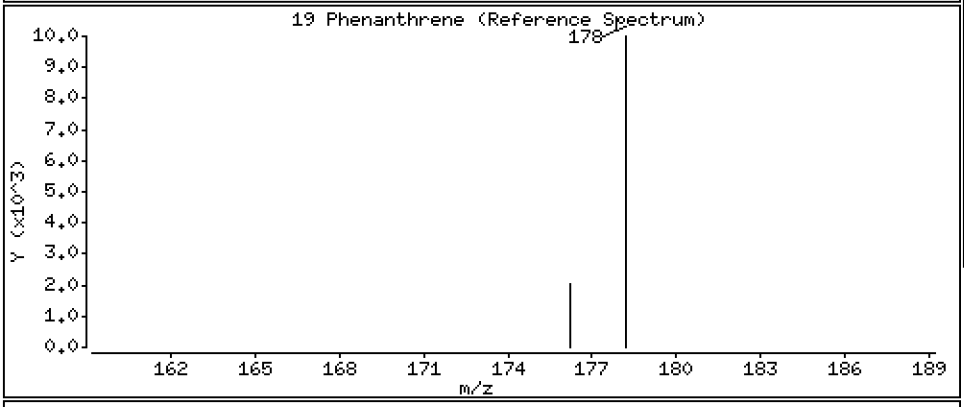
Concentration: 21.5 ng/mL

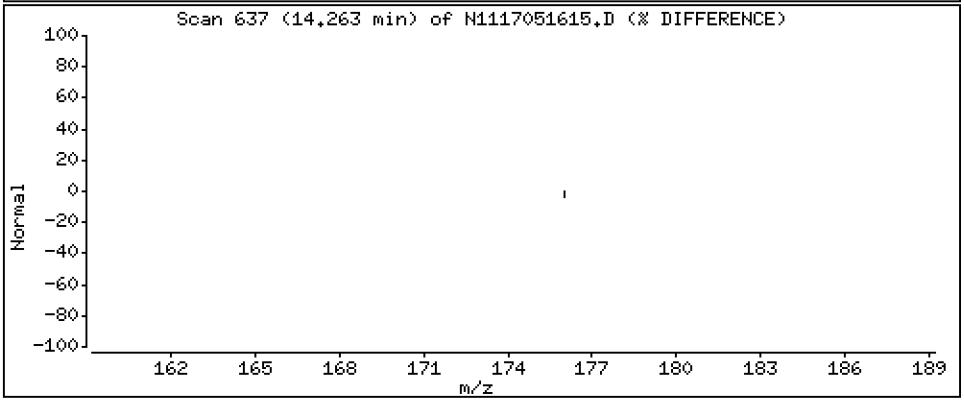












Data File: \\target\share\chem3\nt11.i\20170516.b\N1117051615.D

Date : 16-MAY-2017 18:52

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-01

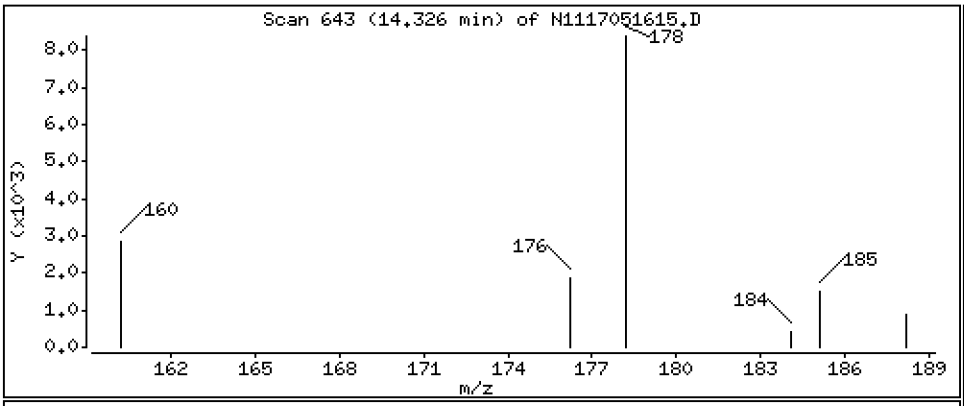
Operator: VTS

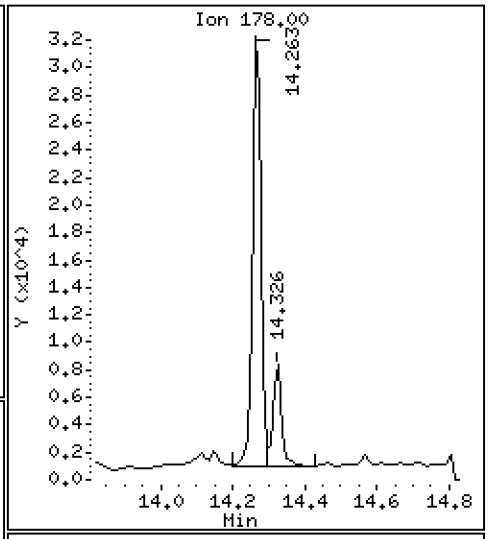
Column phase: Rxi-17Sil MS

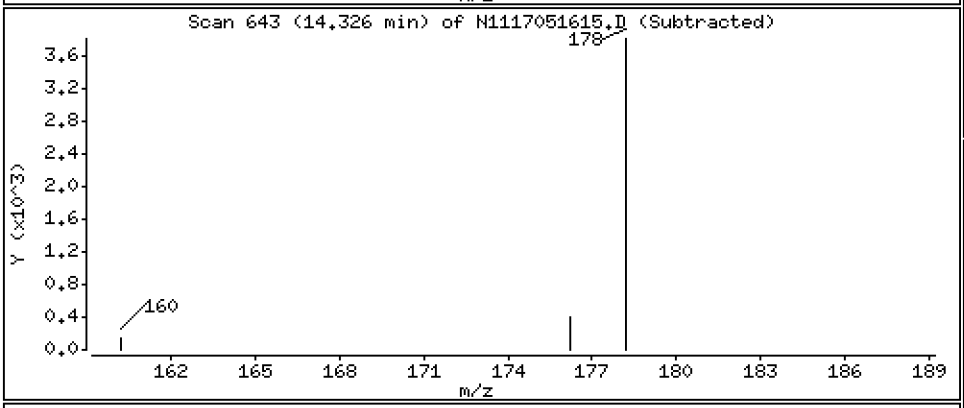
Column diameter: 0.25

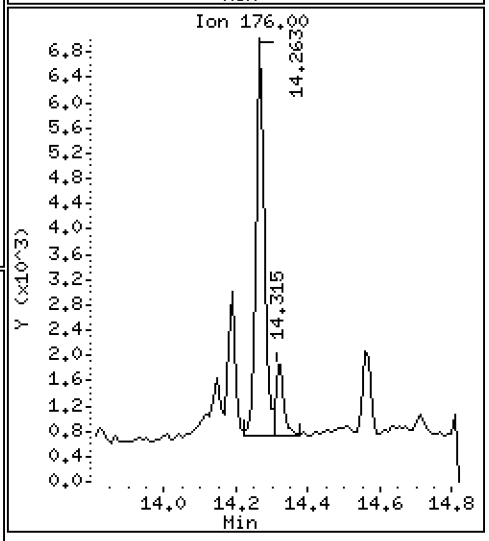
21 Anthracene

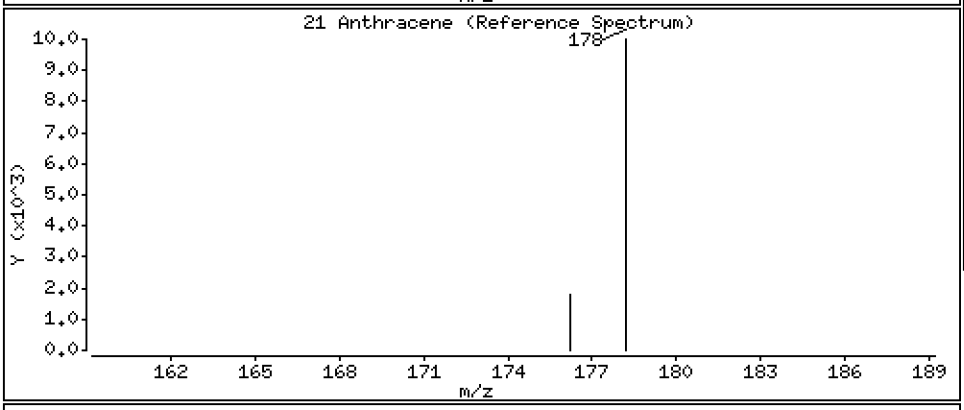
Concentration: 5.35 ng/mL

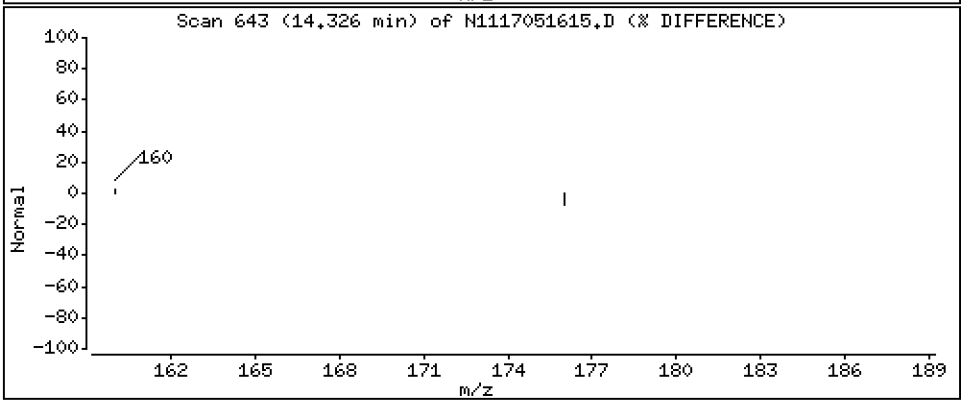












Data File: \\target\share\chem3\nt11.i\20170516.b\N1117051615.D

Date : 16-MAY-2017 18:52

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-01

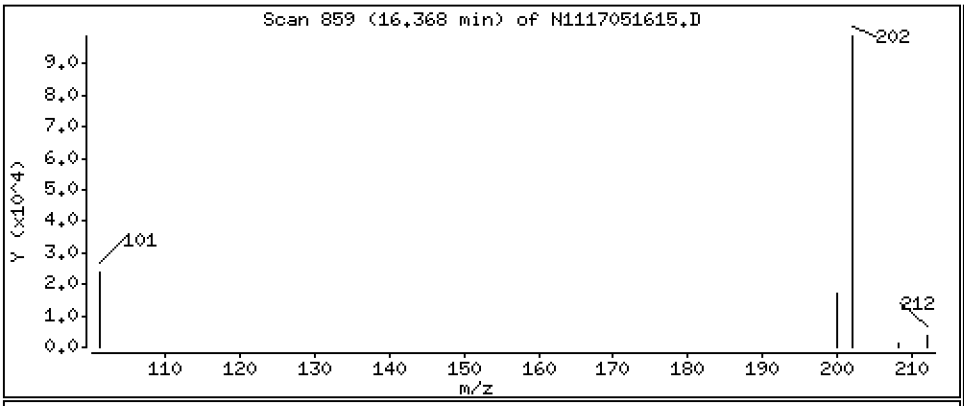
Operator: VTS

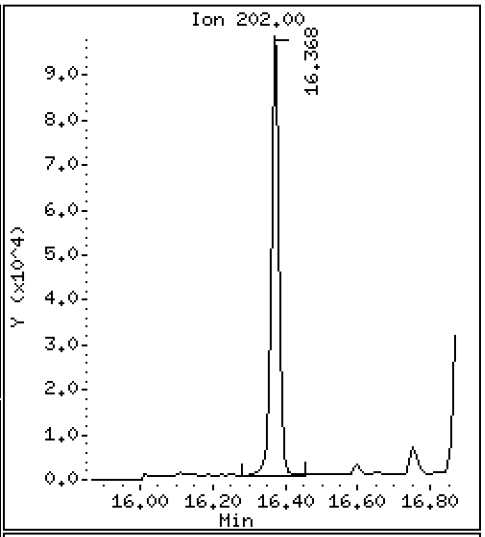
Column phase: Rxi-17Sil MS

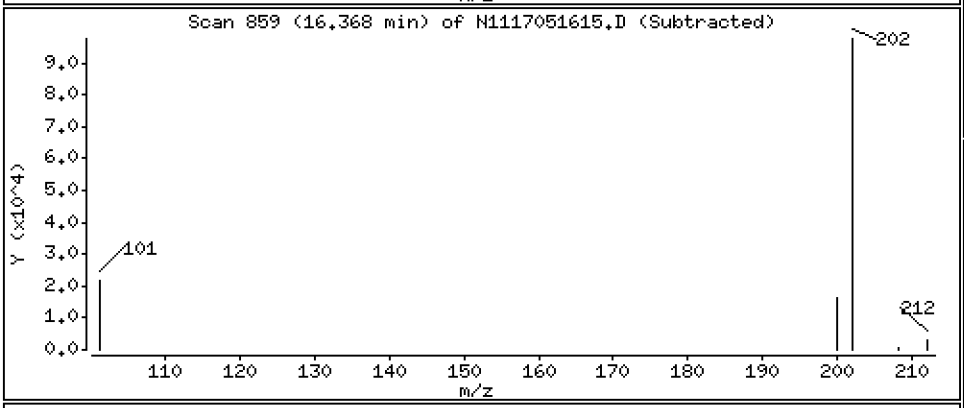
Column diameter: 0.25

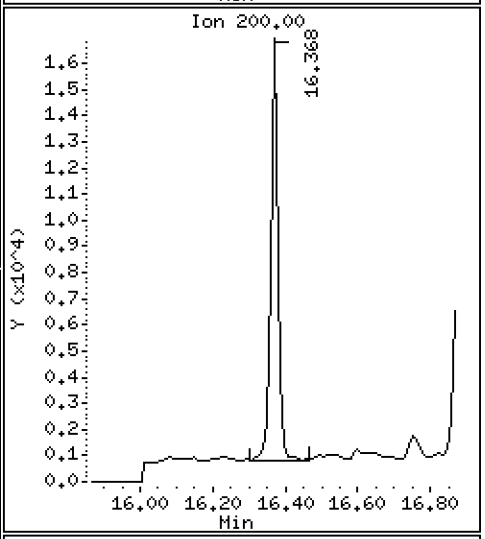
25 Fluoranthene

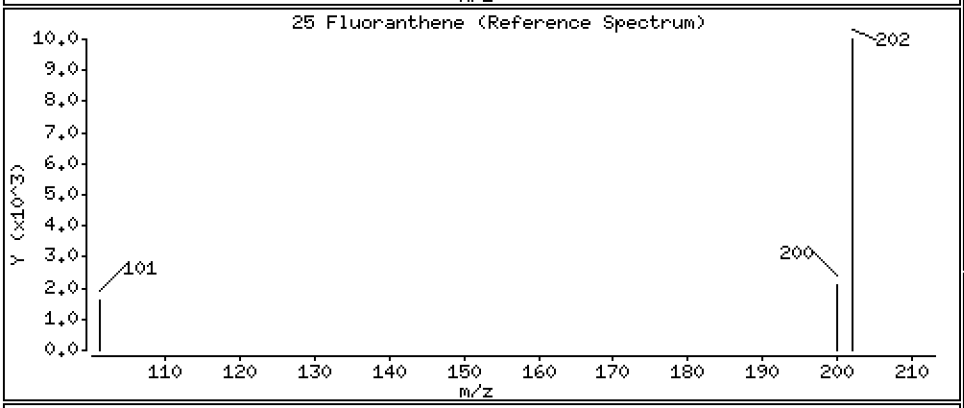
Concentration: 69.8 ng/mL

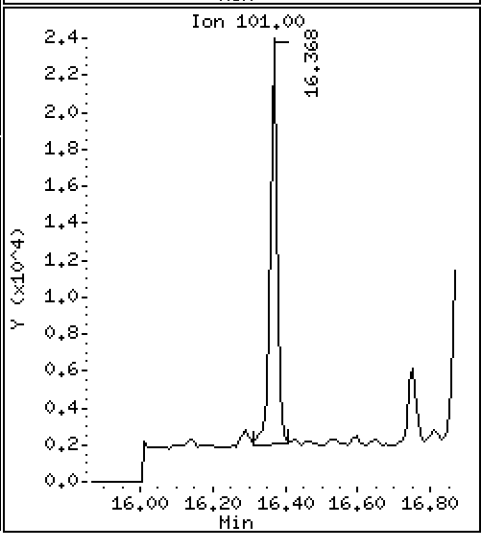


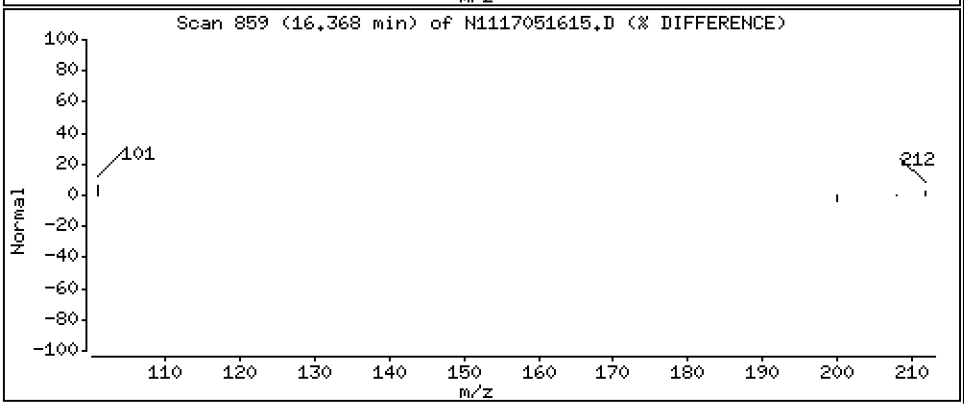












Data File: \\target\share\chem3\nt11.i\20170516.b\N1117051615.D

Date : 16-MAY-2017 18:52

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-01

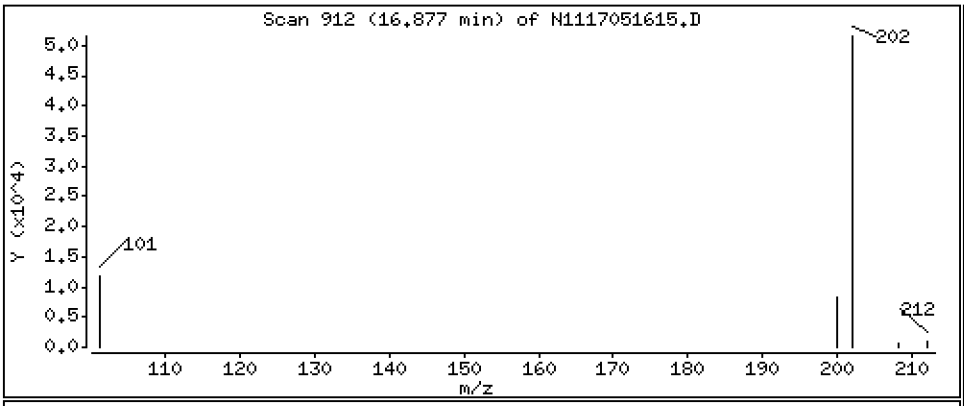
Operator: VTS

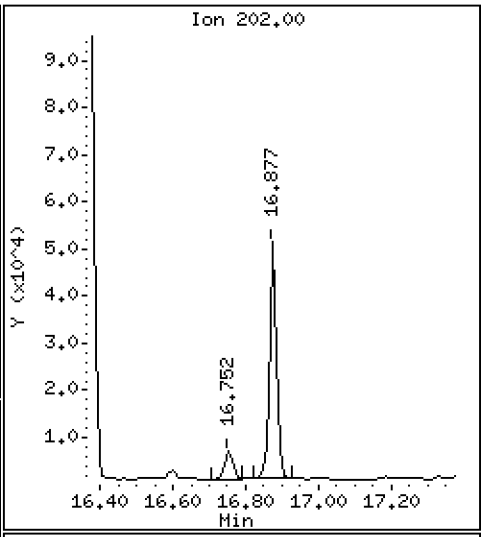
Column phase: Rxi-17Sil MS

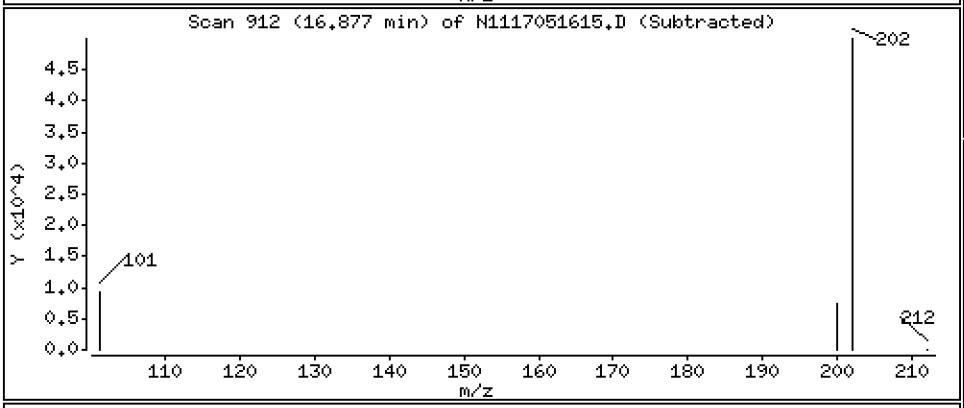
Column diameter: 0.25

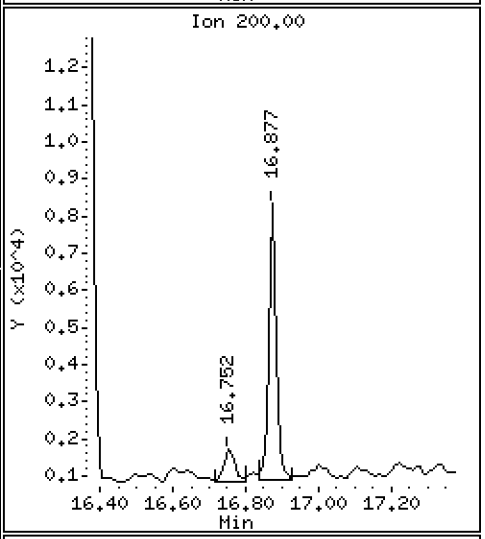
26 Pyrene

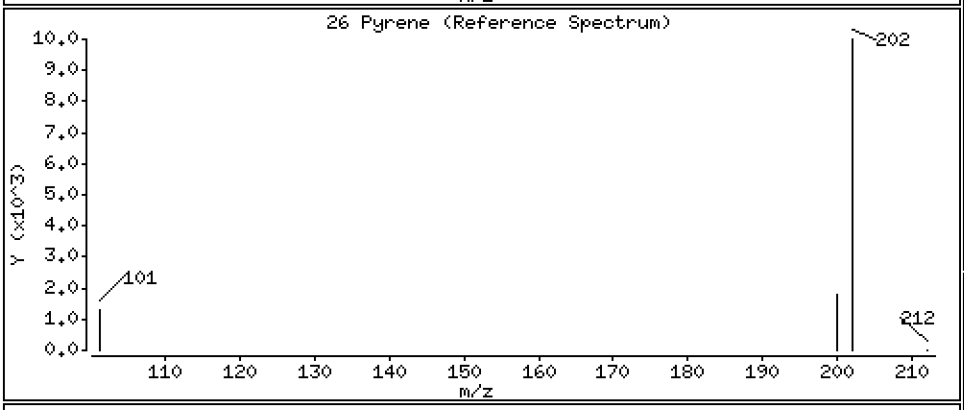
Concentration: 41.3 ng/mL

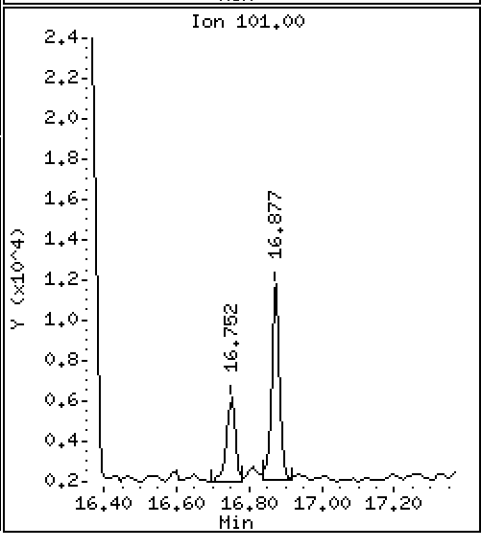


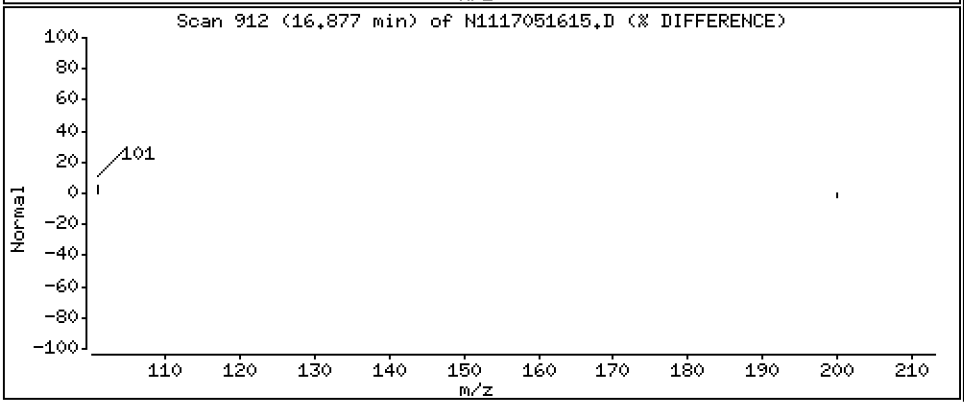












Data File: \\target\share\chem3\nt11.i\20170516.b\N1117051615.D

Date : 16-MAY-2017 18:52

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-01

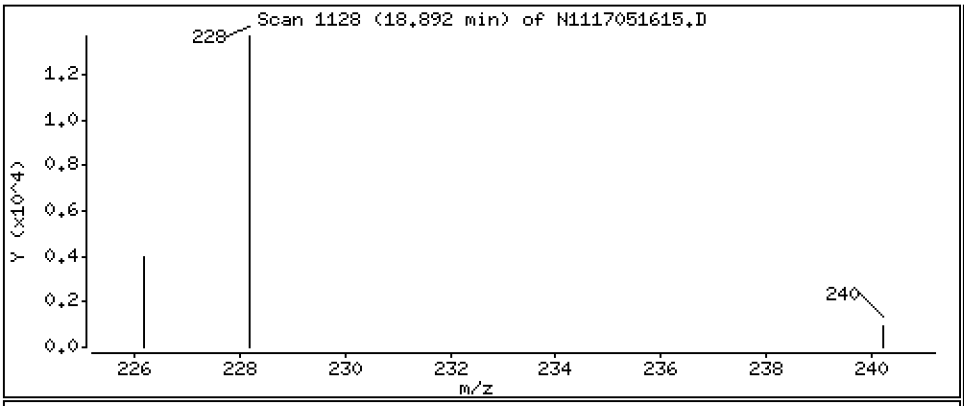
Operator: VTS

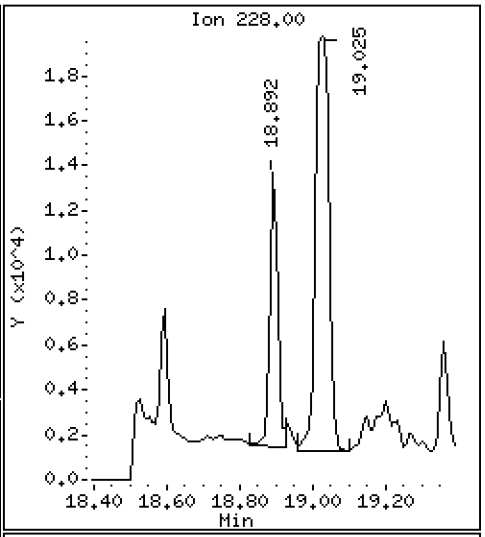
Column phase: Rxi-17Sil MS

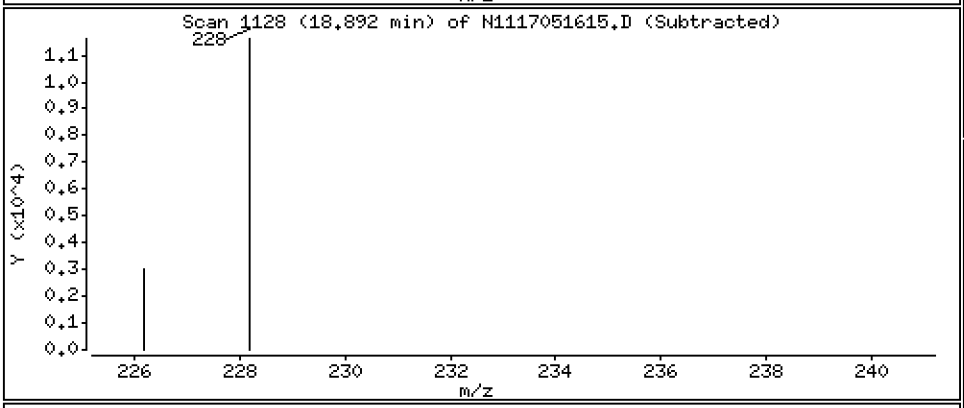
Column diameter: 0.25

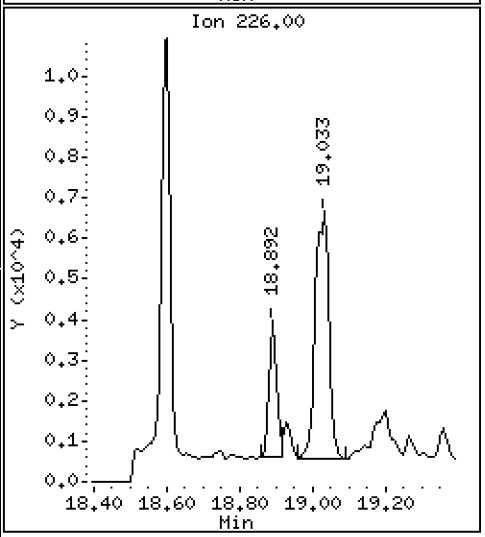
27 Benzo(a)anthracene

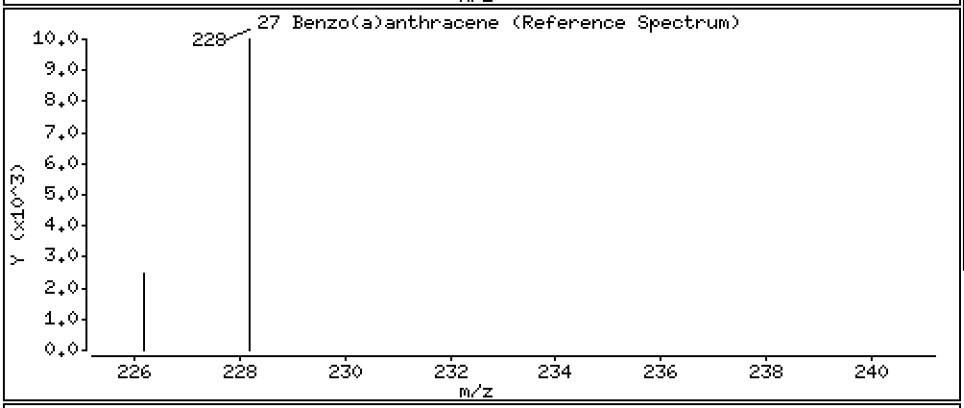
Concentration: 13.4 ng/mL

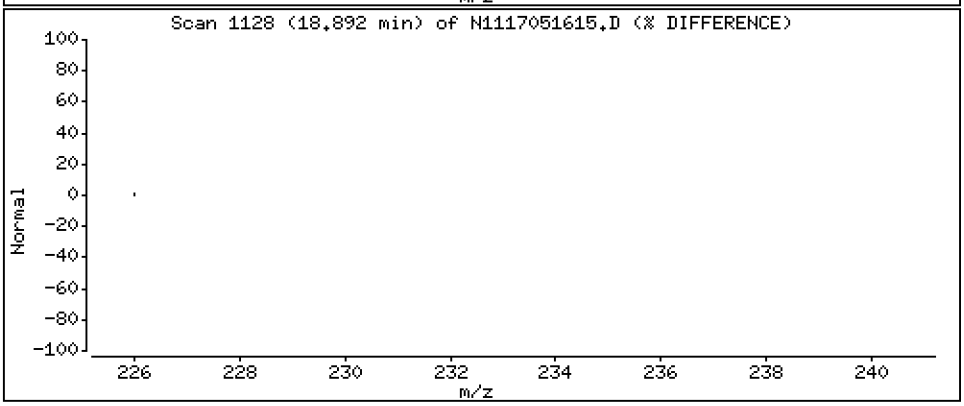












Data File: \\target\share\chem3\nt11.i\20170516.b\N1117051615.D

Date : 16-MAY-2017 18:52

Client ID:

Instrument: nt11.i

Sample Info: 17E0012-01

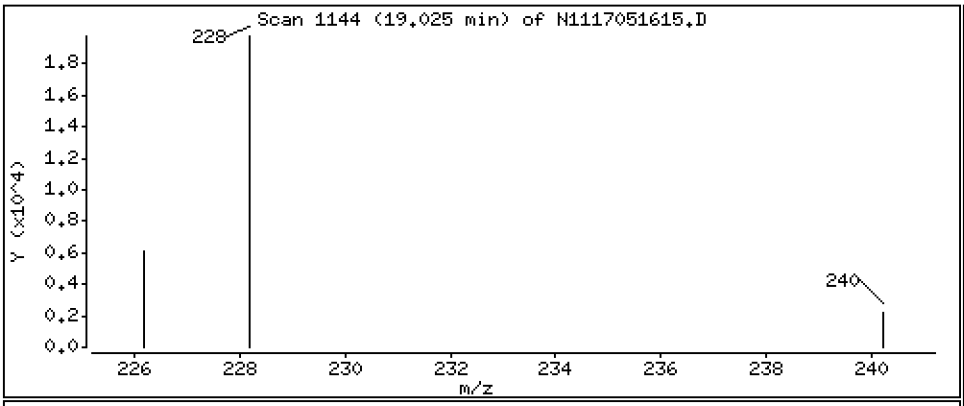
Operator: VTS

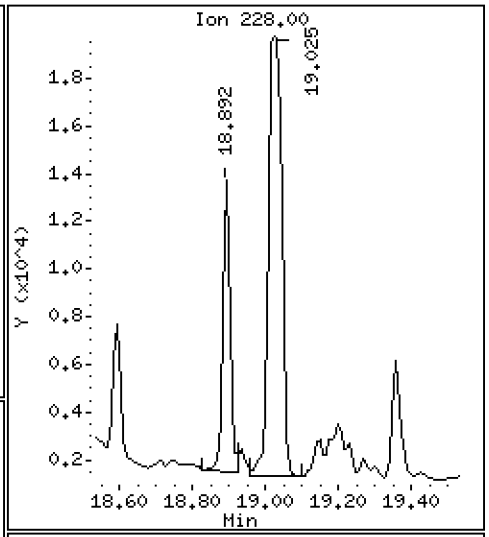
Column phase: Rxi-17Sil MS

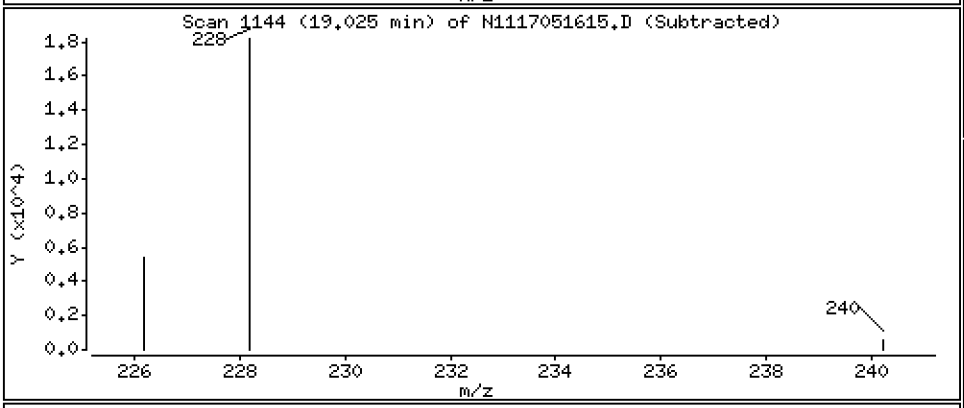
Column diameter: 0.25

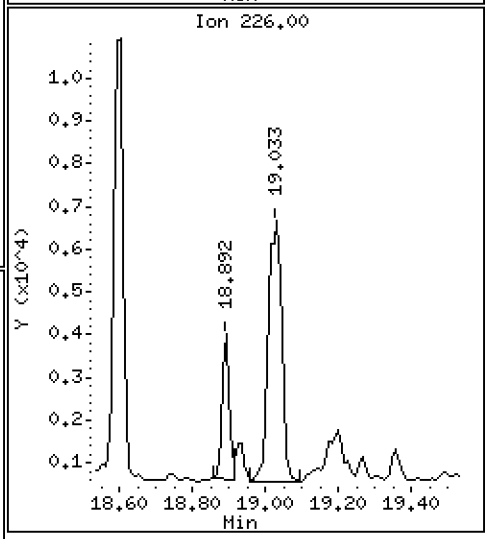
29 Chrysene

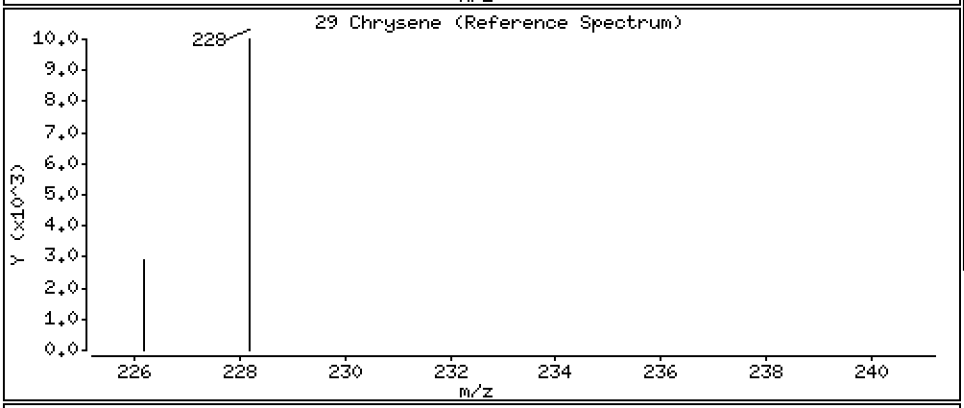
Concentration: 33.9 ng/mL

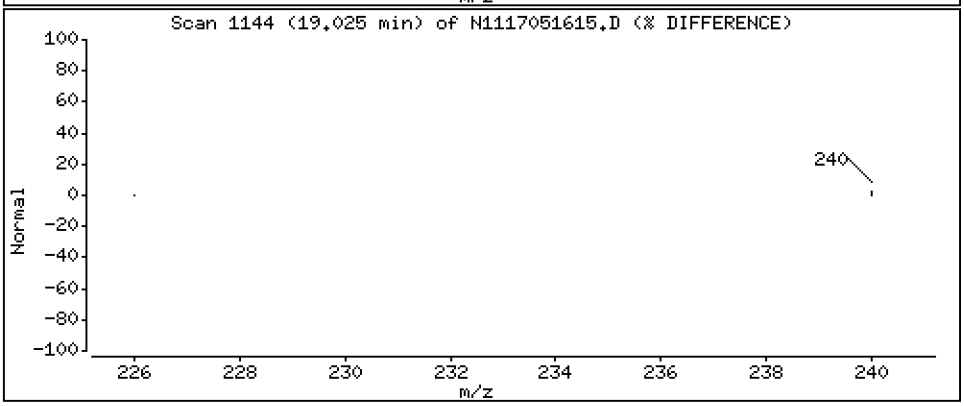












Data File: \\target\share\chem3\nt11.i\20170516.b\N1117051615.D

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

30 Benzo(b)fluoranthene

Concentration: 15.1 ng/mL