Sequence No.: 10
Sample ID: 1412020-BS1
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 27
Date Collected: 12/3/2014 11:45:29 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 1412020-BS1

Analyte	Back Pressure	Flow
All	248.0 kPa	0.80 L/min

Mean Data: 1412020-BS1

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2276493.4	99.68	%	0.277				0.28%
Sc Radial	339346.9	99.70	%	0.786				0.79%
Ag 328.068†	5534.9	100.9	ug/L	0.88	100.9	ug/L	0.88	0.87%
Al 396.153†	56267.6	10410	ug/L	70.3	10410	ug/L	70.3	0.68%
As 193.696†	7.8	101.4	ug/L	17.51	101.4	ug/L	17.51	17.26%
Ba 233.527†	832.3	101.1	ug/L	1.23	101.1	ug/L	1.23	1.22%
Be 313.107†	34054.7	102.7	ug/L	0.63	102.7	ug/L	0.63	0.61%
B 249.677†	-79.9	-10.44	ug/L	0.243	-10.44	ug/L	0.243	2.33%
Ca 317.933†	19607.5	10290	ug/L	11.5	10290	ug/L	11.5	0.11%
Cd 214.440†	241.7	102.6	ug/L	1.57	102.6	ug/L	1.57	1.53%
Co 228.616†	322.0	99.98	ug/L	2.384	99.98	ug/L	2.384	2.38%
Cr 267.716†	450.0	98.83	ug/L	0.716	98.83	ug/L	0.716	0.72%
Cu 324.752†	16546.3	95.53	ug/L	0.672	95.53	ug/L	0.672	0.70%
Fe 238.204†	576.3	10330	ug/L	119.0	10330	ug/L	119.0	1.15%
K 766.490†	22492.8	10530	ug/L	106.5	10530	ug/L	106.5	1.01%
Mg 285.213†	50702.6	10390	ug/L	49.8	10390	ug/L	49.8	0.48%
Mn 257.610†	11218.5	102.1	ug/L	0.54	102.1	ug/L	0.54	0.53%
Mo 202.031†	49.3	100.3	ug/L	5.97	100.3	ug/L	5.97	5.95%
Na 589.592†	77750.2	10450	ug/L	96.8	10450	ug/L	96.8	0.93%
Ni 231.604†	245.6	104.2	ug/L	1.55	104.2	ug/L	1.55	1.49%
Pb 220.353†	44.9	99.09	ug/L	5.170	99.09	ug/L	5.170	5.22%
Sb 206.836†	27.2	108.3	ug/L	11.01	108.3	ug/L	11.01	10.17%
Se 196.026†	39.3	492.3	ug/L	24.56	492.3	ug/L	24.56	4.99%
SiO2 251.603†	-128.1	-54.06	ug/L	1.524	-54.06	ug/L	1.524	2.82%
Sr 421.552†	1656129.0	536.9	ug/L	1.00	536.9	ug/L	1.00	0.19%
Ti 334.940†	-67.7	-0.353	ug/L	0.0208	-0.353	ug/L	0.0208	5.91%
Tl 190.801†	29.8	112.3	ug/L	5.56	112.3	ug/L	5.56	4.95%
V 290.880†	2267.2	95.04	ug/L	0.918	95.04	ug/L	0.918	0.97%
Zn 206.200†	78.9	100.00	ug/L	2.016	100.00	ug/L	2.016	2.02%

Matrix Recovery Check: 1412020-BS1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Al 396.153	10100	10410	70.297	ug/L	103.1
Ca 317.933	10110	10290	11.499	ug/L	101.8
Fe 238.204	10150	10330	118.974	ug/L	101.7
K 766.490	10120	10530	106.502	ug/L	104.0
Mg 285.213	10090	10390	49.771	ug/L	102.9
Na 589.592	10110	10450	96.790	ug/L	103.3
Ag 328.068	100.1	100.9	0.876	ug/L	100.8
As 193.696	102.3	101.4	17.507	ug/L	99.2
Ba 233.527	99.99	101.1	1.231	ug/L	101.1
Be 313.107	100.4	102.7	0.631	ug/L	102.2
Cd 214.440	100.3	102.6	1.574	ug/L	102.3
Co 228.616	99.84	99.98	2.384	ug/L	100.1
Cr 267.716	100.3	98.83	0.716	ug/L	98.5
Cu 324.752	98.58	95.53	0.672	ug/L	97.0
Mn 257.610	99.91	102.1	0.538	ug/L	102.2
Mo 202.031	101.4	100.3	5.972	ug/L	98.9
Ni 231.604	100.6	104.2	1.552	ug/L	103.5
Pb 220.353	103.0	99.09	5.170	ug/L	96.1
Sb 206.836	98.49	108.3	11.011	ug/L	109.8
Se 196.026	494.6	492.3	24.559	ug/L	99.5

SiO2 251.603	4960	-54.06	1.524	ug/L	-0.3
Sr 421.552	500.0	536.9	0.995	ug/L	107.4
Tl 190.801	102.2	112.3	5.561	ug/L	110.1
V 290.880	94.39	95.04	0.918	ug/L	100.6
Zn 206.200	101.0	100.00	2.016	ug/L	99.0

Sequence No.: 11
Sample ID: C141006-02
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 28
Date Collected: 12/3/2014 11:48:32 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C141006-02

Analyte	Back Pressure	Flow
All	249.0 kPa	0.80 L/min

Mean Data: C141006-02

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2193867.6	96.07	%	0.608				0.63%
Sc Radial	330474.7	97.10	%	0.832				0.86%
Ag 328.068†	-8.7	0.0819	ug/L	0.08099	0.0819	ug/L	0.08099	98.92%
Al 396.153†	468.2	10.48	ug/L	12.391	10.48	ug/L	12.391	118.22%
As 193.696†	-2.0	-25.14	ug/L	17.230	-25.14	ug/L	17.230	68.55%
Ba 233.527†	838.5	100.7	ug/L	0.60	100.7	ug/L	0.60	0.60%
Be 313.107†	130.7	0.0451	ug/L	0.03876	0.0451	ug/L	0.03876	85.92%
B 249.677†	-183.7	-23.98	ug/L	0.347	-23.98	ug/L	0.347	1.45%
Ca 317.933†	457742.8	240700	ug/L	2301.0	240700	ug/L	2301.0	0.96%
Cd 214.440†	-4.3	-1.682	ug/L	0.7886	-1.682	ug/L	0.7886	46.87%
Co 228.616†	4.3	2.043	ug/L	0.8312	2.043	ug/L	0.8312	40.68%
Cr 267.716†	-6.5	-0.7460	ug/L	0.30382	-0.7460	ug/L	0.30382	40.73%
Cu 324.752†	-5.8	-0.4142	ug/L	0.07523	-0.4142	ug/L	0.07523	18.16%
Fe 238.204†	3.5	47.48	ug/L	43.440	47.48	ug/L	43.440	91.49%
K 766.490†	4733.2	2277	ug/L	5.1	2277	ug/L	5.1	0.22%
Mg 285.213†	102825.3	21060	ug/L	92.6	21060	ug/L	92.6	0.44%
Mn 257.610†	243313.8	2222	ug/L	6.3	2222	ug/L	6.3	0.28%
Mo 202.031†	2.7	1.416	ug/L	8.6874	1.416	ug/L	8.6874	613.46%
Na 589.592†	74043.0	9961	ug/L	17.9	9961	ug/L	17.9	0.18%
Ni 231.604†	13.8	4.311	ug/L	1.7568	4.311	ug/L	1.7568	40.75%
Pb 220.353†	-7.8	-9.345	ug/L	10.1609	-9.345	ug/L	10.1609	108.73%
Sb 206.836†	-0.6	-4.478	ug/L	2.8752	-4.478	ug/L	2.8752	64.20%
Se 196.026†	9.3	94.54	ug/L	54.260	94.54	ug/L	54.260	57.39%
SiO2 251.603†	63451.6	17720	ug/L	85.6	17720	ug/L	85.6	0.48%
Sr 421.552†	Saturated2							
Ti 334.940†	165.6	0.863	ug/L	0.2965	0.863	ug/L	0.2965	34.35%
Tl 190.801†	-0.9	-14.42	ug/L	8.190	-14.42	ug/L	8.190	56.80%
V 290.880†	-2.5	-4.147	ug/L	0.7621	-4.147	ug/L	0.7621	18.38%
Zn 206.200†	151.0	196.9	ug/L	4.23	196.9	ug/L	4.23	2.15%

Sequence No.: 12
Sample ID: 1412020-DUP1
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 29
Date Collected: 12/3/2014 11:52:35 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 1412020-DUP1

Analyte	Back Pressure	Flow
All	249.0 kPa	0.80 L/min

Mean Data: 1412020-DUP1

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2192499.5	96.01	%	0.467				0.49%
Sc Radial	329794.1	96.90	%	1.320				1.36%
Ag 328.068†	12.4	0.4548	ug/L	0.11837	0.4548	ug/L	0.11837	26.03%
Al 396.153†	524.2	21.11	ug/L	1.925	21.11	ug/L	1.925	9.12%
As 193.696†	-4.0	-46.71	ug/L	31.030	-46.71	ug/L	31.030	66.43%
Ba 233.527†	836.2	100.4	ug/L	1.02	100.4	ug/L	1.02	1.01%
Be 313.107†	82.1	-0.1017	ug/L	0.06724	-0.1017	ug/L	0.06724	66.11%
B 249.677†	-190.7	-24.90	ug/L	0.112	-24.90	ug/L	0.112	0.45%
Ca 317.933†	457645.1	240700	ug/L	5290.5	240700	ug/L	5290.5	2.20%
Cd 214.440†	-4.2	-1.642	ug/L	0.6970	-1.642	ug/L	0.6970	42.44%
Co 228.616†	-0.4	0.6032	ug/L	0.75888	0.6032	ug/L	0.75888	125.80%
Cr 267.716†	-3.5	-0.0743	ug/L	0.54729	-0.0743	ug/L	0.54729	736.63%
Cu 324.752†	-7.7	-0.4279	ug/L	0.04125	-0.4279	ug/L	0.04125	9.64%
Fe 238.204†	4.0	55.73	ug/L	37.370	55.73	ug/L	37.370	67.06%
K 766.490†	4830.0	2322	ug/L	21.7	2322	ug/L	21.7	0.93%
Mg 285.213†	103970.6	21300	ug/L	390.7	21300	ug/L	390.7	1.83%
Mn 257.610†	242524.2	2215	ug/L	3.9	2215	ug/L	3.9	0.17%
Mo 202.031†	0.8	-2.428	ug/L	7.2472	-2.428	ug/L	7.2472	298.46%
Na 589.592†	75510.6	10160	ug/L	121.8	10160	ug/L	121.8	1.20%
Ni 231.604†	11.8	3.439	ug/L	1.1112	3.439	ug/L	1.1112	32.31%
Pb 220.353†	-4.4	-1.799	ug/L	17.4582	-1.799	ug/L	17.4582	970.17%
Sb 206.836†	0.8	1.415	ug/L	12.2329	1.415	ug/L	12.2329	864.65%
Se 196.026†	6.1	54.19	ug/L	48.791	54.19	ug/L	48.791	90.04%
SiO2 251.603†	63277.4	17670	ug/L	128.7	17670	ug/L	128.7	0.73%
Sr 421.552†	Saturated2							
Ti 334.940†	144.0	0.750	ug/L	0.0599	0.750	ug/L	0.0599	7.99%
Tl 190.801†	-0.8	-13.87	ug/L	8.745	-13.87	ug/L	8.745	63.04%
V 290.880†	-17.6	-4.810	ug/L	0.6152	-4.810	ug/L	0.6152	12.79%
Zn 206.200†	154.3	201.3	ug/L	3.97	201.3	ug/L	3.97	1.97%

Duplicate Check: 1412020-DUP1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Sc Radial	97.10	96.90	1.320	%	0.2
Al 396.153	10.48	21.11	1.925	ug/L	67.3
Ca 317.933	240700	240700	5290.470	ug/L	0.0
Fe 238.204	47.48	55.73	37.370	ug/L	16.0
K 766.490	2277	2322	21.692	ug/L	2.0
Mg 285.213	21060	21300	390.730	ug/L	1.1
Na 589.592	9961	10160	121.754	ug/L	2.0
Sc Axial	96.07	96.01	0.467	%	0.1
Ag 328.068	0.0819	0.4548	0.118	ug/L	139.0
As 193.696	-25.14	-46.71	31.030	ug/L	-60.1
Ba 233.527	100.7	100.4	1.016	ug/L	0.3
Be 313.107	0.0451	-0.1017	0.067	ug/L	-518.8
B 249.677	-23.98	-24.90	0.112	ug/L	-3.8
Cd 214.440	-1.682	-1.642	0.697	ug/L	-2.4
Co 228.616	2.043	0.6032	0.759	ug/L	108.8
Cr 267.716	-0.7460	-0.0743	0.547	ug/L	-163.8
Cu 324.752	-0.4142	-0.4279	0.041	ug/L	-3.2
Mn 257.610	2222	2215	3.860	ug/L	0.3
Mo 202.031	1.416	-2.428	7.247	ug/L	-759.7
Ni 231.604	4.311	3.439	1.111	ug/L	22.5

Pb 220.353	-9.345	-1.799	17.458	ug/L	-135.4
Sb 206.836	-4.478	1.415	12.233	ug/L	-384.7
Se 196.026	94.54	54.19	48.791	ug/L	54.3
SiO2 251.603	17720	17670	128.709	ug/L	0.3
Sr 421.552			0.000	ug/L	Not calculated
Ti 334.940	0.863	0.750	0.060	ug/L	14.0
Tl 190.801	-14.42	-13.87	8.745	ug/L	-3.9
V 290.880	-4.147	-4.810	0.615	ug/L	-14.8
Zn 206.200	196.9	201.3	3.973	ug/L	2.2

Sequence No.: 13
Sample ID: SEQ-SRD1 @5X
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 30
Date Collected: 12/3/2014 11:56:37 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-SRD1 @5X

Analyte	Back Pressure	Flow
All	249.0 kPa	0.80 L/min

Mean Data: SEQ-SRD1 @5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2278494.5	99.77	%	0.374				0.38%
Sc Radial	339732.8	99.82	%	0.463				0.46%
Ag 328.068†	5.3	1.141	ug/L	0.1228	5.707	ug/L	0.6140	10.76%
Al 396.153†	101.6	17.02	ug/L	1.749	85.11	ug/L	8.743	10.27%
As 193.696†	1.6	15.42	ug/L	20.834	77.10	ug/L	104.168	135.10%
Ba 233.527†	170.7	19.99	ug/L	0.021	99.97	ug/L	0.106	0.11%
Be 313.107†	120.6	0.2618	ug/L	0.07817	1.309	ug/L	0.3909	29.86%
B 249.677†	-113.5	-14.82	ug/L	0.204	-74.10	ug/L	1.020	1.38%
Ca 317.933†	87855.8	46200	ug/L	211.8	231000	ug/L	1058.9	0.46%
Cd 214.440†	1.0	0.4510	ug/L	1.33662	2.255	ug/L	6.6831	296.36%
Co 228.616†	1.8	0.7043	ug/L	0.69269	3.521	ug/L	3.4634	98.35%
Cr 267.716†	-0.9	0.2893	ug/L	0.31791	1.447	ug/L	1.5896	109.87%
Cu 324.752†	-118.2	-0.3980	ug/L	0.06629	-1.990	ug/L	0.3314	16.66%
Fe 238.204†	-0.0	-6.647	ug/L	43.0227	-33.23	ug/L	215.113	647.27%
K 766.490†	933.1	392.8	ug/L	12.28	1964	ug/L	61.4	3.13%
Mg 285.213†	20101.3	4117	ug/L	15.4	20590	ug/L	77.1	0.37%
Mn 257.610†	49792.1	454.5	ug/L	3.28	2273	ug/L	16.4	0.72%
Mo 202.031†	5.8	11.72	ug/L	5.308	58.58	ug/L	26.541	45.31%
Na 589.592†	14396.9	1927	ug/L	7.5	9636	ug/L	37.6	0.39%
Ni 231.604†	5.4	2.418	ug/L	1.7720	12.09	ug/L	8.860	73.27%
Pb 220.353†	-4.7	-10.85	ug/L	5.014	-54.25	ug/L	25.070	46.21%
Sb 206.836†	-0.3	-4.122	ug/L	11.0531	-20.61	ug/L	55.265	268.13%
Se 196.026†	0.3	2.029	ug/L	55.4385	10.14	ug/L	277.192	>999.9%
SiO2 251.603†	12084.5	3359	ug/L	20.6	16790	ug/L	103.0	0.61%
Sr 421.552†	2169668.3	704.0	ug/L	1.43	3520	ug/L	7.1	0.20%
Ti 334.940†	-0.9	-0.004	ug/L	0.0319	-0.022	ug/L	0.1594	710.20%
Tl 190.801†	3.8	10.94	ug/L	7.764	54.70	ug/L	38.822	70.97%
V 290.880†	-49.9	-4.169	ug/L	0.3030	-20.84	ug/L	1.515	7.27%
Zn 206.200†	31.8	39.95	ug/L	2.657	199.8	ug/L	13.29	6.65%

Dilution Check: SEQ-SRD1 @5X

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Sc Radial	19.42	99.82	0.463	%	414.0
Al 396.153	2.096	17.02	1.749	ug/L	712.0
Ca 317.933	48150	46200	211.775	ug/L	4.1
Fe 238.204	9.496	-6.647	43.023	ug/L	170.0
K 766.490	455.3	392.8	12.277	ug/L	13.7
Mg 285.213	4213	4117	15.412	ug/L	2.3
Na 589.592	1992	1927	7.513	ug/L	3.3
Sc Axial	19.21	99.77	0.374	%	419.3
Ag 328.068	0.0164	1.141	0.123	ug/L	6870.6
As 193.696	-5.027	15.42	20.834	ug/L	-406.7
Ba 233.527	20.13	19.99	0.021	ug/L	0.7
Be 313.107	0.0090	0.2618	0.078	ug/L	2802.2
B 249.677	-4.796	-14.82	0.204	ug/L	-209.0
Cd 214.440	-0.3365	0.4510	1.337	ug/L	-234.0
Co 228.616	0.4086	0.7043	0.693	ug/L	72.4
Cr 267.716	-0.1492	0.2893	0.318	ug/L	-293.9
Cu 324.752	-0.0828	-0.3980	0.066	ug/L	-380.4
Mn 257.610	444.4	454.5	3.276	ug/L	2.3
Mo 202.031	0.2832	11.72	5.308	ug/L	4036.5
Ni 231.604	0.8622	2.418	1.772	ug/L	180.5

Pb 220.353	-1.869	-10.85	5.014	ug/L	-480.5
Sb 206.836	-0.8957	-4.122	11.053	ug/L	-360.2
Se 196.026	18.91	2.029	55.438	ug/L	89.3
SiO2 251.603	3545	3359	20.606	ug/L	5.2
Sr 421.552		704.0	1.425	ug/L	Not calculated
Ti 334.940	0.173	-0.004	0.032	ug/L	102.6
Tl 190.801	-2.884	10.94	7.764	ug/L	-479.4
V 290.880	-0.829	-4.169	0.303	ug/L	-402.7
Zn 206.200	39.39	39.95	2.657	ug/L	1.4

Sequence No.: 14
Sample ID: 1412020-MS1
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 31
Date Collected: 12/3/2014 11:59:41 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 1412020-MS1

Analyte	Back Pressure	Flow
All	249.0 kPa	0.80 L/min

Mean Data: 1412020-MS1

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2171061.5	95.07	%	0.478				0.50%
Sc Radial	333788.0	98.07	%	0.267				0.27%
Ag 328.068†	5150.1	93.50	ug/L	0.488	93.50	ug/L	0.488	0.52%
Al 396.153†	57654.6	10580	ug/L	120.8	10580	ug/L	120.8	1.14%
As 193.696†	1.2	28.44	ug/L	24.994	28.44	ug/L	24.994	87.87%
Ba 233.527†	1621.7	196.2	ug/L	0.80	196.2	ug/L	0.80	0.41%
Be 313.107†	34361.2	103.3	ug/L	0.82	103.3	ug/L	0.82	0.79%
B 249.677†	-240.6	-31.42	ug/L	0.354	-31.42	ug/L	0.354	1.13%
Ca 317.933†	462650.0	243300	ug/L	2946.4	243300	ug/L	2946.4	1.21%
Cd 214.440†	232.4	98.83	ug/L	1.951	98.83	ug/L	1.951	1.97%
Co 228.616†	323.0	101.0	ug/L	2.31	101.0	ug/L	2.31	2.29%
Cr 267.716†	443.4	97.78	ug/L	0.676	97.78	ug/L	0.676	0.69%
Cu 324.752†	17621.4	101.0	ug/L	0.79	101.0	ug/L	0.79	0.78%
Fe 238.204†	571.0	10220	ug/L	75.8	10220	ug/L	75.8	0.74%
K 766.490†	27911.9	13170	ug/L	155.8	13170	ug/L	155.8	1.18%
Mg 285.213†	149981.4	30730	ug/L	298.7	30730	ug/L	298.7	0.97%
Mn 257.610†	245325.5	2240	ug/L	8.2	2240	ug/L	8.2	0.36%
Mo 202.031†	46.8	90.88	ug/L	6.241	90.88	ug/L	6.241	6.87%
Na 589.592†	150620.9	20260	ug/L	234.9	20260	ug/L	234.9	1.16%
Ni 231.604†	248.9	103.7	ug/L	1.11	103.7	ug/L	1.11	1.07%
Pb 220.353†	37.8	92.63	ug/L	10.186	92.63	ug/L	10.186	11.00%
Sb 206.836†	23.5	93.12	ug/L	8.994	93.12	ug/L	8.994	9.66%
Se 196.026†	46.4	557.5	ug/L	54.21	557.5	ug/L	54.21	9.72%
SiO2 251.603†	62300.4	17400	ug/L	96.0	17400	ug/L	96.0	0.55%
Sr 421.552†	Saturated2							
Ti 334.940†	60.4	0.315	ug/L	0.0843	0.315	ug/L	0.0843	26.76%
Tl 190.801†	25.9	88.08	ug/L	5.578	88.08	ug/L	5.578	6.33%
V 290.880†	2409.6	98.21	ug/L	0.839	98.21	ug/L	0.839	0.85%
Zn 206.200†	218.5	283.2	ug/L	2.90	283.2	ug/L	2.90	1.02%

Matrix Recovery Check: 1412020-MS1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Al 396.153	10110	10580	120.829	ug/L	104.7
Ca 317.933	250800	243300	2946.414	ug/L	25.4
Fe 238.204	10150	10220	75.835	ug/L	100.7
K 766.490	12380	13170	155.816	ug/L	107.8
Mg 285.213	31160	30730	298.705	ug/L	95.7
Na 589.592	20060	20260	234.881	ug/L	102.0
Ag 328.068	100.1	93.50	0.488	ug/L	93.4
As 193.696	74.86	28.44	24.994	ug/L	53.6
Ba 233.527	200.7	196.2	0.802	ug/L	95.5
Be 313.107	100.0	103.3	0.821	ug/L	103.3
Cd 214.440	98.32	98.83	1.951	ug/L	100.5
Co 228.616	102.0	101.0	2.312	ug/L	98.9
Cr 267.716	99.25	97.78	0.676	ug/L	98.5
Cu 324.752	99.59	101.0	0.791	ug/L	101.5
Mn 257.610	2322	2240	8.167	ug/L	18.1
Mo 202.031	101.4	90.88	6.241	ug/L	89.5
Ni 231.604	104.3	103.7	1.112	ug/L	99.4
Pb 220.353	90.66	92.63	10.186	ug/L	102.0
Sb 206.836	95.52	93.12	8.994	ug/L	97.6
Se 196.026	594.5	557.5	54.207	ug/L	92.6

SiO2 251.603	22720	17400	96.006	ug/L	-6.5
Tl 190.801	85.58	88.08	5.578	ug/L	102.5
V 290.880	95.85	98.21	0.839	ug/L	102.4
Zn 206.200	296.9	283.2	2.900	ug/L	86.2

Sequence No.: 15
Sample ID: C141006-04
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 32
Date Collected: 12/3/2014 12:03:44 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C141006-04

Analyte	Back Pressure	Flow
All	249.0 kPa	0.80 L/min

Mean Data: C141006-04

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2210055.9	96.77	%	0.205				0.21%
Sc Radial	332220.0	97.61	%	1.246				1.28%
Ag 328.068†	-2.8	0.2270	ug/L	0.08344	0.2270	ug/L	0.08344	36.75%
Al 396.153†	706.1	58.43	ug/L	4.121	58.43	ug/L	4.121	7.05%
As 193.696†	-2.2	-26.16	ug/L	13.031	-26.16	ug/L	13.031	49.82%
Ba 233.527†	153.4	16.71	ug/L	0.054	16.71	ug/L	0.054	0.32%
Be 313.107†	208.2	0.2904	ug/L	0.02350	0.2904	ug/L	0.02350	8.09%
B 249.677†	-237.1	-30.96	ug/L	0.194	-30.96	ug/L	0.194	0.63%
Ca 317.933†	440264.3	231500	ug/L	3704.0	231500	ug/L	3704.0	1.60%
Cd 214.440†	53.8	23.05	ug/L	1.532	23.05	ug/L	1.532	6.65%
Co 228.616†	14.3	5.079	ug/L	0.5888	5.079	ug/L	0.5888	11.59%
Cr 267.716†	-5.6	-0.6414	ug/L	0.57808	-0.6414	ug/L	0.57808	90.13%
Cu 324.752†	1384.5	7.685	ug/L	0.0421	7.685	ug/L	0.0421	0.55%
Fe 238.204†	22.0	378.4	ug/L	12.03	378.4	ug/L	12.03	3.18%
K 766.490†	4340.8	2081	ug/L	20.1	2081	ug/L	20.1	0.97%
Mg 285.213†	99124.0	20310	ug/L	233.1	20310	ug/L	233.1	1.15%
Mn 257.610†	256323.5	2341	ug/L	1.6	2341	ug/L	1.6	0.07%
Mo 202.031†	6.7	9.713	ug/L	6.5341	9.713	ug/L	6.5341	67.27%
Na 589.592†	74348.9	10000	ug/L	90.7	10000	ug/L	90.7	0.91%
Ni 231.604†	31.3	11.83	ug/L	1.043	11.83	ug/L	1.043	8.82%
Pb 220.353†	-6.2	-6.309	ug/L	11.3973	-6.309	ug/L	11.3973	180.65%
Sb 206.836†	-0.3	-3.599	ug/L	15.4590	-3.599	ug/L	15.4590	429.56%
Se 196.026†	4.8	39.36	ug/L	41.400	39.36	ug/L	41.400	105.19%
SiO2 251.603†	54919.7	15340	ug/L	31.9	15340	ug/L	31.9	0.21%
Sr 421.552†	Saturated2							
Ti 334.940†	52.7	0.275	ug/L	0.0743	0.275	ug/L	0.0743	27.05%
Tl 190.801†	-2.3	-20.51	ug/L	16.068	-20.51	ug/L	16.068	78.36%
V 290.880†	-15.4	-4.849	ug/L	0.2308	-4.849	ug/L	0.2308	4.76%
Zn 206.200†	3618.3	4679	ug/L	12.7	4679	ug/L	12.7	0.27%

Sequence No.: 16
Sample ID: C141006-06
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 33
Date Collected: 12/3/2014 12:07:47 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C141006-06

Analyte	Back Pressure	Flow
All	251.0 kPa	0.80 L/min

Mean Data: C141006-06

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2188459.5	95.83	%	0.523				0.55%
Sc Radial	330865.9	97.21	%	1.656				1.70%
Ag 328.068†	-4.4	0.3308	ug/L	0.28441	0.3308	ug/L	0.28441	85.97%
Al 396.153†	534.2	21.67	ug/L	6.522	21.67	ug/L	6.522	30.10%
As 193.696†	-7.2	-80.51	ug/L	10.227	-80.51	ug/L	10.227	12.70%
Ba 233.527†	788.1	94.40	ug/L	0.457	94.40	ug/L	0.457	0.48%
Be 313.107†	60.1	-0.1735	ug/L	0.12738	-0.1735	ug/L	0.12738	73.40%
B 249.677†	-113.7	-14.84	ug/L	0.492	-14.84	ug/L	0.492	3.31%
Ca 317.933†	454156.0	238800	ug/L	3835.2	238800	ug/L	3835.2	1.61%
Cd 214.440†	-4.3	-1.696	ug/L	0.5089	-1.696	ug/L	0.5089	30.01%
Co 228.616†	1.5	1.232	ug/L	2.0351	1.232	ug/L	2.0351	165.15%
Cr 267.716†	-4.2	0.0347	ug/L	0.20002	0.0347	ug/L	0.20002	577.18%
Cu 324.752†	46.7	-0.0609	ug/L	0.02428	-0.0609	ug/L	0.02428	39.84%
Fe 238.204†	-0.3	-25.38	ug/L	41.578	-25.38	ug/L	41.578	163.79%
K 766.490†	19652.2	9317	ug/L	155.3	9317	ug/L	155.3	1.67%
Mg 285.213†	116352.5	23840	ug/L	397.1	23840	ug/L	397.1	1.67%
Mn 257.610†	199961.5	1826	ug/L	5.2	1826	ug/L	5.2	0.29%
Mo 202.031†	0.3	-3.456	ug/L	5.6185	-3.456	ug/L	5.6185	162.55%
Na 589.592†	83341.8	11210	ug/L	172.0	11210	ug/L	172.0	1.53%
Ni 231.604†	20.3	7.158	ug/L	1.2682	7.158	ug/L	1.2682	17.72%
Pb 220.353†	-6.9	-7.874	ug/L	8.4360	-7.874	ug/L	8.4360	107.13%
Sb 206.836†	0.2	-1.496	ug/L	2.3099	-1.496	ug/L	2.3099	154.38%
Se 196.026†	4.0	28.89	ug/L	75.196	28.89	ug/L	75.196	260.29%
SiO2 251.603†	79645.6	22240	ug/L	100.2	22240	ug/L	100.2	0.45%
Sr 421.552†	Saturated2							
Ti 334.940†	294.4	1.534	ug/L	0.0548	1.534	ug/L	0.0548	3.57%
Tl 190.801†	-5.8	-33.57	ug/L	8.112	-33.57	ug/L	8.112	24.16%
V 290.880†	44.9	-2.245	ug/L	0.8348	-2.245	ug/L	0.8348	37.18%
Zn 206.200†	50.8	67.03	ug/L	4.834	67.03	ug/L	4.834	7.21%

Sequence No.: 17
Sample ID: Blank
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 34
Date Collected: 12/3/2014 12:11:50 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Blank

Analyte	Back Pressure	Flow
All	250.0 kPa	0.80 L/min

Mean Data: Blank

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2330240.5	102.0	%	0.60				0.59%
Sc Radial	343297.0	100.9	%	0.87				0.86%
Ag 328.068†	-0.6	-0.0121	ug/L	0.18090	-0.0121	ug/L	0.18090	>999.9%
Al 396.153†	-24.2	-4.448	ug/L	0.9812	-4.448	ug/L	0.9812	22.06%
As 193.696†	0.7	7.604	ug/L	22.6978	7.604	ug/L	22.6978	298.48%
Ba 233.527†	-0.7	-0.0854	ug/L	0.16331	-0.0854	ug/L	0.16331	191.19%
Be 313.107†	136.3	0.4114	ug/L	0.02737	0.4114	ug/L	0.02737	6.65%
B 249.677†	-23.6	-3.087	ug/L	0.4679	-3.087	ug/L	0.4679	15.16%
Ca 317.933†	25.2	13.24	ug/L	5.463	13.24	ug/L	5.463	41.26%
Cd 214.440†	0.7	0.2814	ug/L	0.08671	0.2814	ug/L	0.08671	30.81%
Co 228.616†	1.2	0.3779	ug/L	0.98491	0.3779	ug/L	0.98491	260.60%
Cr 267.716†	0.3	0.0655	ug/L	0.20975	0.0655	ug/L	0.20975	320.35%
Cu 324.752†	-262.9	-1.505	ug/L	0.1337	-1.505	ug/L	0.1337	8.89%
Fe 238.204†	0.1	2.104	ug/L	13.3894	2.104	ug/L	13.3894	636.45%
K 766.490†	19.7	9.033	ug/L	9.3320	9.033	ug/L	9.3320	103.31%
Mg 285.213†	-67.6	-13.84	ug/L	0.777	-13.84	ug/L	0.777	5.61%
Mn 257.610†	13.5	0.1240	ug/L	0.03092	0.1240	ug/L	0.03092	24.94%
Mo 202.031†	-0.3	-0.5260	ug/L	4.59941	-0.5260	ug/L	4.59941	874.44%
Na 589.592†	13.8	1.852	ug/L	0.5561	1.852	ug/L	0.5561	30.02%
Ni 231.604†	-6.3	-2.693	ug/L	1.0208	-2.693	ug/L	1.0208	37.91%
Pb 220.353†	2.8	6.204	ug/L	3.3295	6.204	ug/L	3.3295	53.67%
Sb 206.836†	-1.2	-4.978	ug/L	4.3875	-4.978	ug/L	4.3875	88.14%
Se 196.026†	-0.1	-0.7014	ug/L	24.59219	-0.7014	ug/L	24.59219	>999.9%
SiO2 251.603†	-146.5	-40.87	ug/L	0.702	-40.87	ug/L	0.702	1.72%
Sr 421.552†	871.7	0.283	ug/L	0.0351	0.283	ug/L	0.0351	12.42%
Ti 334.940†	-21.2	-0.110	ug/L	0.0198	-0.110	ug/L	0.0198	17.93%
Tl 190.801†	2.3	8.919	ug/L	7.5353	8.919	ug/L	7.5353	84.49%
V 290.880†	-113.2	-4.877	ug/L	0.5078	-4.877	ug/L	0.5078	10.41%
Zn 206.200†	-0.3	-0.360	ug/L	3.1240	-0.360	ug/L	3.1240	867.04%

Sequence No.: 18
Sample ID: SEQ-CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/3/2014 12:14:52 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CCV

Analyte	Back Pressure	Flow
All	251.0 kPa	0.80 L/min

Mean Data: SEQ-CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2259338.6	98.93	%	0.242				0.24%
Sc Radial	339286.0	99.69	%	1.163				1.17%
Ag 328.068†	13298.1	242.4	ug/L	1.40	242.4	ug/L	1.40	0.58%
QC value within limits for Ag 328.068 Recovery = 96.97%								
Al 396.153†	69205.9	12790	ug/L	196.1	12790	ug/L	196.1	1.53%
QC value within limits for Al 396.153 Recovery = 102.34%								
As 193.696†	244.6	2635	ug/L	28.9	2635	ug/L	28.9	1.10%
QC value within limits for As 193.696 Recovery = 105.40%								
Ba 233.527†	4216.3	514.0	ug/L	2.16	514.0	ug/L	2.16	0.42%
QC value within limits for Ba 233.527 Recovery = 102.79%								
Be 313.107†	171727.7	518.0	ug/L	0.65	518.0	ug/L	0.65	0.13%
QC value within limits for Be 313.107 Recovery = 103.60%								
B 249.677†	39256.9	5125	ug/L	17.6	5125	ug/L	17.6	0.34%
QC value within limits for B 249.677 Recovery = 102.50%								
Ca 317.933†	24334.1	12740	ug/L	114.2	12740	ug/L	114.2	0.90%
QC value within limits for Ca 317.933 Recovery = 101.88%								
Cd 214.440†	1213.1	516.6	ug/L	1.94	516.6	ug/L	1.94	0.38%
QC value within limits for Cd 214.440 Recovery = 103.32%								
Co 228.616†	1672.5	519.9	ug/L	1.70	519.9	ug/L	1.70	0.33%
QC value within limits for Co 228.616 Recovery = 103.97%								
Cr 267.716†	11895.5	2598	ug/L	10.2	2598	ug/L	10.2	0.39%
QC value within limits for Cr 267.716 Recovery = 103.93%								
Cu 324.752†	178264.0	1022	ug/L	2.4	1022	ug/L	2.4	0.23%
QC value within limits for Cu 324.752 Recovery = 102.18%								
Fe 238.204†	733.8	13140	ug/L	187.7	13140	ug/L	187.7	1.43%
QC value within limits for Fe 238.204 Recovery = 105.09%								
K 766.490†	54709.7	25600	ug/L	446.0	25600	ug/L	446.0	1.74%
QC value within limits for K 766.490 Recovery = 102.41%								
Mg 285.213†	63127.3	12930	ug/L	193.6	12930	ug/L	193.6	1.50%
QC value within limits for Mg 285.213 Recovery = 103.42%								
Mn 257.610†	114691.4	1047	ug/L	3.3	1047	ug/L	3.3	0.32%
QC value within limits for Mn 257.610 Recovery = 104.65%								
Mo 202.031†	244.9	498.4	ug/L	5.76	498.4	ug/L	5.76	1.16%
QC value within limits for Mo 202.031 Recovery = 99.67%								
Na 589.592†	95833.0	12800	ug/L	252.6	12800	ug/L	252.6	1.97%
QC value within limits for Na 589.592 Recovery = 102.38%								
Ni 231.604†	6059.0	2598	ug/L	4.2	2598	ug/L	4.2	0.16%
QC value within limits for Ni 231.604 Recovery = 103.94%								
Pb 220.353†	1187.7	2600	ug/L	5.9	2600	ug/L	5.9	0.23%
QC value within limits for Pb 220.353 Recovery = 103.99%								
Sb 206.836†	615.2	2516	ug/L	11.4	2516	ug/L	11.4	0.45%
QC value within limits for Sb 206.836 Recovery = 100.66%								
Se 196.026†	211.9	2646	ug/L	24.0	2646	ug/L	24.0	0.91%
QC value within limits for Se 196.026 Recovery = 105.86%								
SiO2 251.603†	36774.3	10240	ug/L	44.6	10240	ug/L	44.6	0.44%
QC value within limits for SiO2 251.603 Recovery = 102.43%								
Sr 421.552†	1607489.1	520.6	ug/L	0.99	520.6	ug/L	0.99	0.19%
QC value within limits for Sr 421.552 Recovery = 104.12%								
Ti 334.940†	98723.9	514.5	ug/L	1.82	514.5	ug/L	1.82	0.35%
QC value within limits for Ti 334.940 Recovery = 102.90%								
Tl 190.801†	675.8	2600	ug/L	8.9	2600	ug/L	8.9	0.34%
QC value within limits for Tl 190.801 Recovery = 104.01%								
V 290.880†	23992.4	1030	ug/L	3.6	1030	ug/L	3.6	0.35%
QC value within limits for V 290.880 Recovery = 103.05%								

Zn 206.200†	2023.4	2609 ug/L	2.5	2609 ug/L	2.5	0.10%

QC value within limits for Zn 206.200 Recovery = 104.38%

All analyte(s) passed QC.

Sequence No.: 19
Sample ID: SEQ-CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/3/2014 12:17:57 PM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CCB

Analyte	Back Pressure	Flow
All	251.0 kPa	0.80 L/min

Mean Data: SEQ-CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2337837.6	102.4	%	0.19				0.19%
Sc Radial	344130.9	101.1	%	1.10				1.09%
Ag 328.068†	10.3	0.1855	ug/L	0.16189	0.1855	ug/L	0.16189	87.26%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153†	11.6	2.064	ug/L	1.4117	2.064	ug/L	1.4117	68.40%
QC value within limits for Al 396.153 Recovery = Not calculated								
As 193.696†	1.2	13.01	ug/L	5.402	13.01	ug/L	5.402	41.51%
QC value within limits for As 193.696 Recovery = Not calculated								
Ba 233.527†	2.1	0.2521	ug/L	0.01989	0.2521	ug/L	0.01989	7.89%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	135.3	0.4080	ug/L	0.06424	0.4080	ug/L	0.06424	15.74%
QC value within limits for Be 313.107 Recovery = Not calculated								
B 249.677†	113.2	14.78	ug/L	1.962	14.78	ug/L	1.962	13.27%
QC value within limits for B 249.677 Recovery = Not calculated								
Ca 317.933†	15.8	8.252	ug/L	3.2947	8.252	ug/L	3.2947	39.92%
QC value within limits for Ca 317.933 Recovery = Not calculated								
Cd 214.440†	0.6	0.2757	ug/L	0.55439	0.2757	ug/L	0.55439	201.11%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	1.6	0.5120	ug/L	0.50136	0.5120	ug/L	0.50136	97.92%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	2.6	0.5768	ug/L	0.19921	0.5768	ug/L	0.19921	34.54%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	-201.1	-1.150	ug/L	0.0723	-1.150	ug/L	0.0723	6.29%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 238.204†	1.7	29.69	ug/L	4.983	29.69	ug/L	4.983	16.78%
QC value within limits for Fe 238.204 Recovery = Not calculated								
K 766.490†	46.4	21.84	ug/L	4.497	21.84	ug/L	4.497	20.59%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	9.7	1.980	ug/L	1.8948	1.980	ug/L	1.8948	95.70%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	18.7	0.1703	ug/L	0.07361	0.1703	ug/L	0.07361	43.21%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	0.5	1.016	ug/L	2.7854	1.016	ug/L	2.7854	274.13%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	49.5	6.621	ug/L	1.3521	6.621	ug/L	1.3521	20.42%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	-8.1	-3.465	ug/L	0.9152	-3.465	ug/L	0.9152	26.42%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353†	1.8	3.883	ug/L	5.4014	3.883	ug/L	5.4014	139.12%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-0.9	-3.703	ug/L	8.0349	-3.703	ug/L	8.0349	216.99%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	0.2	2.020	ug/L	27.0392	2.020	ug/L	27.0392	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated								
SiO2 251.603†	-6.7	-1.931	ug/L	0.4542	-1.931	ug/L	0.4542	23.53%
QC value within limits for SiO2 251.603 Recovery = Not calculated								
Sr 421.552†	224.2	0.071	ug/L	0.0146	0.071	ug/L	0.0146	20.69%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 334.940†	27.9	0.145	ug/L	0.0087	0.145	ug/L	0.0087	6.02%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Tl 190.801†	0.9	3.205	ug/L	3.7947	3.205	ug/L	3.7947	118.42%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 290.880†	-107.4	-4.616	ug/L	0.3739	-4.616	ug/L	0.3739	8.10%
QC value within limits for V 290.880 Recovery = Not calculated								

Zn 206.200†	-0.6	-0.783 ug/L	3.2749	-0.783 ug/L	3.2749	417.99%

QC value within limits for Zn 206.200 Recovery = Not calculated

All analyte(s) passed QC.

PERKIN ELMER OPTIMA 4300DV ICP-OE

Project(s): Rico-Argentine Oct 2014 Date: 12 / 04 / 2014

Work Order(s): C141006 TDF: A-048 Analyst: S Van Overmeiren

Batch Preparation Information

Digest / Prep	Matrix	Batch ID
TR / Total / Diss.	Water / Soil / Other	1412012

Data Storage

Data File: X:/Metals Data Files/ A048_1412012_141204

Standard Information

Calibration Std. # 1 = Reagent Blank Solution

SCV: *(LIMS ID: 4020403)*

Prepped: 10/20/14 By: SV

CRQL Stock: *(LIMS ID: 4020501)*

Prepped: 2-04-2014 By: SV

CRQL Daily *(LIMS ID: 4020502)*

Prepped: 12/04/14 By: SV

Calibration Std. # 2 = ESAT High, LIMS: 4020401

Prepped: 10/28/14 By: SV

ICV/CCV: 1:2 of 4020401 *(LIMS ID: 4020402)*

Prepped: 12/04/14 By: SV

ICSA: 4020404 **Prepped: 2-04-2014**

ICSAB: 4020405 Prepped: 2-04-2014

Spike Information

Dissolved Spikes

Sample ID: —

Sample ID: —

Sample vol: 10 mL

QCS-3 : 100 uL

Exp: 2-1-2015 (LIMS ID: 4012234)

Salt Spike: 100 uL

Prepped 2-04-2014 *(LIMS ID: 4020314)*

Tot. / Tot. Rec. Spikes

Sample ID: C141006-01

Sample Vol: 50 mL

WW-LFS1: 500 uL

Exp: 2-1-2015 *(LIMS ID: 4012235)*

WW-LFS2: 500 uL

Exp: 2-1-2015 *(LIMS ID: 4012236)*

Comments / Maintenance

Replace Nebulizer? Y / N New pump tubing? Y / N Replace torch or injector? Y / N

Analytes Reported:

Ag, Al, As, Ba, Be, B, Ca, Cd, Co, Cr, Cu, Fe, K, Mg,

Mn, Mo, Na, Ni, Pb, Sb, Se, SiO2, Sr, Ti, Tl, V, Zn

Sequence ID: 1412031

Lims Entry (Date / Init): 12/04/14 SV

TLF-06.02	SOP: QAQ-04.01	Eff. Date: 11/11/2013

ESAT Region 8

ICP-OE Data Review Form

Analyst / Bench Review – Level I

LIMS:	C141006	TDF:	A-048
Matrix:	Water	Analysis:	Total Recoverable Metals

Method / Instrument QC Parameters				Analytical Batch / Sample Parameters	
☒ Yes ☐ No	ICV 95-105%	☒ Yes ☐ No	SCV 90-110%	☒ Yes ☐ No	Mth. Blk. (MB) / Prep. BLK (PB) ≤ ± PQL
☒ Yes ☐ No	ICB ≤ ± PQL	☒ Yes ☐ No	CRDL 70-130%	☒ Yes ☐ No	Blk. Spike (BS) 85-115% / SRM In Control
☒ Yes ☐ No	ICSA Spiked Analytes 80% - 120%			☒ Yes ☐ No	Laboratory Duplicate Analyzed
☒ Yes ☐ No	ICSA Non-Spiked Analytes ≤ ± PQL			☒ Yes ☐ No	MS Analyzed Every 10% of Samples 70-130%
☒ Yes ☐ No	ICSAB Spiked Analytes 80-120%			☒ Yes ☐ No	Serial Dilution Analyzed
☒ Yes ☐ No	CCBs ≤ ± PQL	☒ Yes ☐ No	CCVs 90-110%	☒ Yes ☐ No	Internal Standards 80-120%

Other data quality issues identified ☐ Yes ☒ No

Describe any anomaly or deficiency not indicated above in the space provided

LIMS Electronic Data Transfer

☒ Yes ☐ No	The instrument data file is uploaded to the X: drive	☒ Yes ☐ No	Instrument data are uploaded into the LIMS
☒ Yes ☐ No	All samples and QC data are present in LIMS	☒ Yes ☐ No	The analyte list for the sequence is complete
Analyst:		Date:	12/04/14

Peer Review of Analytical Analysis – Level II

Method / Instrument QC Parameters				Analytical Batch / Sample Parameters	
☒ Yes ☐ No	ICV 95-105%	☒ Yes ☐ No	SCV 90-110%	☒ Yes ☐ No	Mth. Blk. (MB) / Prep. BLK (PB) ≤ ± PQL
☒ Yes ☐ No	ICB ≤ ± PQL	☒ Yes ☐ No	CRDL 70-130%	☒ Yes ☐ No	Blk. Spike (BS) 85-115% / SRM In Control
☒ Yes ☐ No	ICSA Spiked Analytes 80-120%			☒ Yes ☐ No	Laboratory Duplicate Analyzed
☒ Yes ☐ No	ICSA Non-Spiked Analytes ≤ ± PQL			☒ Yes ☐ No	MS Analyzed Every 10% of Samples 70-130%
☒ Yes ☐ No	ICSAB Spiked Analytes 80-120%			☒ Yes ☐ No	Serial Dilution Analyzed
☒ Yes ☐ No	CCBs ≤ ± PQL	☒ Yes ☐ No	CCVs 90-110%	☒ Yes ☐ No	Internal Standards 80-120%

Other data quality issues identified ☐ Yes ☒ No

Describe any anomaly or deficiency not indicated above in the space provided

LIMS Electronic Data Transfer

☒ Yes ☐ No	The instrument data file is uploaded to the X: drive	☒ Yes ☐ No	Instrument data are uploaded into the LIMS
☒ Yes ☐ No	All samples and QC data are present in LIMS	☒ Yes ☐ No	The analyte list for the sequence is complete
Peer Reviewer:		Date:	12/4/2014

PREPARATION BENCH SHEET

1412012

TechLaw, Inc. - ESAT Region 8

Matrix: Water

Printed: 12/1/2014 2:26:01PM

Date Prepared: 12/01/14 14:24 By: SV

Prepared using: METALS - 200.2 - TR Metals

Lab Number	Analysis	EPA Tag ID	Initial (mL)	Final (mL)	Spike1 ID	ul Spike1	Spike2 ID	ul Spike2	Source ID	QC Code	Extraction Comments
C141006-01 A	ICPMS Tot. Rec. Metals	8-A	50	50						AC2EFF	8-A
C141006-03 A	ICPMS Tot. Rec. Metals	8-A	50	50						FDB	8-A
C141006-05 A	ICPMS Tot. Rec. Metals	8-A	50	50						RDEFF	8-A
C141006-01 A	ICPOE Tot. Rec. Metals	8-A	50	50						AC2EFF	8-A
C141006-03 A	ICPOE Tot. Rec. Metals	8-A	50	50						FDB	8-A
C141006-05 A	ICPOE Tot. Rec. Metals	8-A	50	50						RDEFF	8-A
1412012-BLK1	QC		50	50						Blank	
1412012-BLK2	QC		50	50						Blank	
1412012-DUP1	QC		50	50					C141006-01	Duplicate	
1412012-DUP2	QC		50	50					C141006-01	Duplicate	
1412012-MS1	QC		50	50	4012235	500	4012236	500	C141006-01	Matrix Spike	
1412012-MS2	QC		50	50	4012235	500	4012236	500	C141006-01	Matrix Spike	
1412012-SRM1	QC		50	50	4012245	500	4012247	500		Reference	
1412012-SRM2	QC		50	50	4012245	500	4012247	500		Reference	

12/04/14

Preparation Reviewed By Date

ANALYSIS SEQUENCE

1412031

Instrument: ICPOE - PE Optima Sequence Date: 12/04/14 00:00 Printed: 12/4/2014 11:55:50AM

Lab Number	Dilut. Factor	Analysis	STD ID	Sample/Std Name	EPA Tag ID	Source Sple	Comments
1412031-ICV1		QC	4020402	Initial Cal Check		-	
1412031-SCV1		QC	4020403	Secondary Cal Check		-	
1412031-ICB1		QC		Initial Cal Blank		-	
1412031-CRL1		QC	4020502	Instrument RL Check		-	
1412031-IFA1		QC	4020404	Interference Check A		-	
1412031-IFB1		QC	4020405	Interference Check B		-	
1412012-BLK1		QC		Blank		-	
1412012-SRM1		QC		Reference		-	
C141006-01 A		ICPOE Tot. Rec. Metals		AC2EFF	8-A		
1412012-DUP1		QC		Duplicate		C141006-01	
1412031-SRD1		QC		Serial Dilution		C141006-01	
1412012-MS1		QC		Matrix Spike		C141006-01	
C141006-03 A		ICPOE Tot. Rec. Metals		FDB	8-A		
C141006-05 A		ICPOE Tot. Rec. Metals		RDEFF	8-A		
1412031-CCV1		QC	4020402	Calibration Check		-	
1412031-CCB1		QC		Calibration Blank		-	

Analytical Sequence

Method : ESAT_2013_1.0

12/04/14

Seq.	Loc.		Sample ID
1	1		Cal Blank
2	9		High Std
3	3	QC	SEQ-ICV
4	10	QC	SEQ-SCV
5	1	QC	SEQ-ICB
6	11	QC	SEQ-CRL
7	12	QC	SEQ-IFA
8	13	QC	SEQ-IFB
9	26		1412012-BLK1
10	27		1412012-SRM1
11	28		C141006-01
12	29		1412012-DUP1
13	30		SEQ-SRD1 @5X
14	31		1412012-MS1
15	32		C141006-03
16	33		C141006-05
17	34		Blank
18	3	QC	SEQ-CCV
19	1	QC	SEQ-CCB

Sample Information Detail Report
Document Name: A-048_1412012_TRA_141204

File Description
A-048 Rico-Argentine Oct 2014

Parameters Common to All Samples

Batch ID	1412012
Analyst Name	S.VanOvermeiren
Volume Units	mL
Weight Units	g

Parameters That Vary By Sample

Sample No	A/S Location	Sample ID	Remarks
1	26	1412012-BLK1	
2	27	1412012-SRM1	
3	28	C141006-01	
4	29	1412012-DUP1	
5	30	SEQ-SRD1 @5X	
6	31	1412012-MS1	
7	32	C141006-03	
8	33	C141006-05	
9	34	Blank	

Sample No	Aliquot Volume	Diluted To Vol.	Matrix Check Sample
1			
2			Recovery 2 of 1
3			
4			Duplicate of 3
5	2	10	5X Dilution of 3
6			Recovery 1 of 3
7			
8			
9			

W12/04/14

==========

Analysis Begun

Start Time: 12/4/2014 10:08:52 AM **Plasma On Time: 12/4/2014 7:13:26 AM**
Logged In Analyst: esat **Technique: ICP Continuous**
Spectrometer Model: Optima 4300 DV, S/N 077N3082602Autosampler Model: AS-93plus

Sample Information File: C:\pe\Administrator\Sample Information\2014\A-048 Rico-Arg\A-048_1412012_TRA_141
Batch ID: 1412012
Results Data Set: A-048_1412012_141204
Results Library: C:\pe\Administrator\Results\Results.mdb

==========

Sequence No.: 1 **Autosampler Location: 1**
Sample ID: Cal Blank **Date Collected: 12/4/2014 10:08:52 AM**
Analyst: **Data Type: Original**
Initial Sample Wt: **Initial Sample Vol:**
Dilution: **Sample Prep Vol:**

Nebulizer Parameters: Cal Blank

Analyte	Back Pressure	Flow
All	252.0 kPa	0.80 L/min

Mean Data: Cal Blank

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc Axial	2342931.6	12569.80	0.54%	100.0	%
Sc Radial	346357.7	2544.53	0.73%	100.00	%
Ag 328.068†	-136.0	6.96	5.12%	[0.00]	ug/L
Al 396.153†	-0.0	5.54	>999.9%	[0.00]	ug/L
As 193.696†	-10.5	1.26	11.93%	[0.00]	ug/L
Ba 233.527†	-10.7	0.55	5.17%	[0.00]	ug/L
Be 313.107†	-797.6	21.01	2.63%	[0.00]	ug/L
B 249.677†	-120.0	0.70	0.58%	[0.00]	ug/L
Ca 317.933†	19.8	0.89	4.49%	[0.00]	ug/L
Cd 214.440†	-3.3	1.83	54.73%	[0.00]	ug/L
Co 228.616†	-21.2	1.25	5.90%	[0.00]	ug/L
Cr 267.716†	3.4	1.15	34.43%	[0.00]	ug/L
Cu 324.752†	2775.9	14.92	0.54%	[0.00]	ug/L
Fe 238.204†	6.8	1.32	19.43%	[0.00]	ug/L
K 766.490†	-26.6	17.66	66.31%	[0.00]	ug/L
Mg 285.213†	51.5	1.98	3.84%	[0.00]	ug/L
Mn 257.610†	111.5	6.08	5.45%	[0.00]	ug/L
Mo 202.031†	-3.9	1.67	43.10%	[0.00]	ug/L
Na 589.592†	143.0	2.10	1.47%	[0.00]	ug/L
Ni 231.604†	93.9	2.03	2.16%	[0.00]	ug/L
Pb 220.353†	-10.0	1.69	16.89%	[0.00]	ug/L
Sb 206.836†	10.8	0.66	6.13%	[0.00]	ug/L
Se 196.026†	1.2	2.36	195.14%	[0.00]	ug/L
SiO2 251.603†	131.2	5.71	4.35%	[0.00]	ug/L
Sr 421.552†	4381.0	23.36	0.53%	[0.00]	ug/L
Ti 334.940†	1.1	2.21	203.57%	[0.00]	ug/L
Tl 190.801†	-2.4	1.48	60.85%	[0.00]	ug/L
V 290.880†	1660.1	9.10	0.55%	[0.00]	ug/L
Zn 206.200†	-3.4	1.32	38.41%	[0.00]	ug/L

Sequence No.: 2
Sample ID: High Std
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 9
Date Collected: 12/4/2014 10:11:53 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: High Std

Analyte	Back Pressure	Flow
All	253.0 kPa	0.80 L/min

Mean Data: High Std

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
Sc Axial	2253498.3	4749.94	0.21%	96.18	%
Sc Radial	338738.0	3528.50	1.04%	97.80	%
Ag 328.068†	28842.7	132.96	0.46%	[500]	ug/L
Al 396.153†	135472.8	3220.71	2.38%	[25000]	ug/L
As 193.696†	488.2	5.01	1.03%	[5000]	ug/L
Ba 233.527†	8265.3	53.50	0.65%	[1000]	ug/L
Be 313.107†	336836.3	1146.00	0.34%	[1000]	ug/L
B 249.677†	78437.9	319.20	0.41%	[10000]	ug/L
Ca 317.933†	47303.3	592.88	1.25%	[25000]	ug/L
Cd 214.440†	2402.6	22.60	0.94%	[1000]	ug/L
Co 228.616†	3253.6	18.94	0.58%	[1000]	ug/L
Cr 267.716†	23614.5	231.48	0.98%	[5000]	ug/L
Cu 324.752†	353616.1	2556.50	0.72%	[2000]	ug/L
Fe 238.204†	1417.6	19.79	1.40%	[25000]	ug/L
K 766.490†	106064.9	2890.84	2.73%	[50000]	ug/L
Mg 285.213†	121724.5	2827.06	2.32%	[25000]	ug/L
Mn 257.610†	221615.7	1159.87	0.52%	[2000]	ug/L
Mo 202.031†	488.3	5.25	1.07%	[1000]	ug/L
Na 589.592†	185437.2	4984.11	2.69%	[25000]	ug/L
Ni 231.604†	11921.8	73.11	0.61%	[5000]	ug/L
Pb 220.353†	2318.1	15.02	0.65%	[5000]	ug/L
Sb 206.836†	1232.1	8.41	0.68%	[5000]	ug/L
Se 196.026†	410.8	1.33	0.32%	[5000]	ug/L
SiO2 251.603†	72417.0	144.15	0.20%	[20000]	ug/L
Sr 421.552†	3068161.8	13697.57	0.45%	[1000]	ug/L
Ti 334.940†	194644.0	305.45	0.16%	[1000]	ug/L
Tl 190.801†	1301.0	2.31	0.18%	[5000]	ug/L
V 290.880†	47230.8	239.57	0.51%	[2000]	ug/L
Zn 206.200†	3939.0	23.75	0.60%	[5000]	ug/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	57.69	0.00000	1.000000	
Al 396.153	1	Lin, Calc Int	0.0	5.419	0.00000	1.000000	
As 193.696	1	Lin Thru 0	0.0	0.0976	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	8.265	0.00000	1.000000	
Be 313.107	1	Lin Thru 0	0.0	336.8	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	7.844	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	1.892	0.00000	1.000000	
Cd 214.440	1	Lin Thru 0	0.0	2.403	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	3.254	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	4.723	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	176.8	0.00000	1.000000	
Fe 238.204	1	Lin, Calc Int	0.0	0.0567	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	2.121	0.00000	1.000000	
Mg 285.213	1	Lin, Calc Int	0.0	4.869	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	110.8	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	0.4883	0.00000	1.000000	
Na 589.592	1	Lin, Calc Int	0.0	7.417	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	2.384	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	0.4636	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	0.2464	0.00000	1.000000	

Se 196.026	1	Lin Thru 0	0.0	0.0822	0.00000	1.000000
SiO2 251.603	1	Lin, Calc Int	0.0	3.621	0.00000	1.000000
Sr 421.552	1	Lin, Calc Int	0.0	3068	0.00000	1.000000
Ti 334.940	1	Lin Thru 0	0.0	194.6	0.00000	1.000000
Tl 190.801	1	Lin Thru 0	0.0	0.2602	0.00000	1.000000
V 290.880	1	Lin Thru 0	0.0	23.62	0.00000	1.000000
Zn 206.200	1	Lin Thru 0	0.0	0.7878	0.00000	1.000000

Sequence No.: 3
Sample ID: SEQ-ICV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/4/2014 10:15:06 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-ICV

Analyte	Back Pressure	Flow
All	252.0 kPa	0.80 L/min

Mean Data: SEQ-ICV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2330533.5	99.47	%	0.330				0.33%
Sc Radial	341755.3	98.67	%	0.392				0.40%
Ag 328.068†	14097.3	248.4	ug/L	0.99	248.4	ug/L	0.99	0.40%
QC value within limits for Ag 328.068 Recovery = 99.35%								
Al 396.153†	69209.9	12770	ug/L	35.7	12770	ug/L	35.7	0.28%
QC value within limits for Al 396.153 Recovery = 102.14%								
As 193.696†	239.8	2496	ug/L	10.5	2496	ug/L	10.5	0.42%
QC value within limits for As 193.696 Recovery = 99.83%								
Ba 233.527†	4167.2	501.4	ug/L	1.79	501.4	ug/L	1.79	0.36%
QC value within limits for Ba 233.527 Recovery = 100.28%								
Be 313.107†	168402.4	499.7	ug/L	2.06	499.7	ug/L	2.06	0.41%
QC value within limits for Be 313.107 Recovery = 99.95%								
B 249.677†	38657.5	4928	ug/L	14.9	4928	ug/L	14.9	0.30%
QC value within limits for B 249.677 Recovery = 98.57%								
Ca 317.933†	24329.7	12800	ug/L	65.7	12800	ug/L	65.7	0.51%
QC value within limits for Ca 317.933 Recovery = 102.38%								
Cd 214.440†	1203.6	500.4	ug/L	2.24	500.4	ug/L	2.24	0.45%
QC value within limits for Cd 214.440 Recovery = 100.09%								
Co 228.616†	1647.3	506.7	ug/L	1.65	506.7	ug/L	1.65	0.33%
QC value within limits for Co 228.616 Recovery = 101.35%								
Cr 267.716†	11829.9	2506	ug/L	5.4	2506	ug/L	5.4	0.21%
QC value within limits for Cr 267.716 Recovery = 100.23%								
Cu 324.752†	174951.3	991.8	ug/L	3.51	991.8	ug/L	3.51	0.35%
QC value within limits for Cu 324.752 Recovery = 99.18%								
Fe 238.204†	735.1	12940	ug/L	52.4	12940	ug/L	52.4	0.41%
QC value within limits for Fe 238.204 Recovery = 103.48%								
K 766.490†	54040.4	25320	ug/L	92.1	25320	ug/L	92.1	0.36%
QC value within limits for K 766.490 Recovery = 101.27%								
Mg 285.213†	62625.0	12850	ug/L	30.9	12850	ug/L	30.9	0.24%
QC value within limits for Mg 285.213 Recovery = 102.81%								
Mn 257.610†	113267.9	1021	ug/L	4.3	1021	ug/L	4.3	0.42%
QC value within limits for Mn 257.610 Recovery = 102.11%								
Mo 202.031†	243.4	496.4	ug/L	6.39	496.4	ug/L	6.39	1.29%
QC value within limits for Mo 202.031 Recovery = 99.27%								
Na 589.592†	94626.9	12650	ug/L	64.0	12650	ug/L	64.0	0.51%
QC value within limits for Na 589.592 Recovery = 101.17%								
Ni 231.604†	6002.0	2517	ug/L	13.3	2517	ug/L	13.3	0.53%
QC value within limits for Ni 231.604 Recovery = 100.69%								
Pb 220.353†	1173.4	2526	ug/L	17.5	2526	ug/L	17.5	0.69%
QC value within limits for Pb 220.353 Recovery = 101.04%								
Sb 206.836†	605.6	2423	ug/L	11.3	2423	ug/L	11.3	0.47%
QC value within limits for Sb 206.836 Recovery = 96.93%								
Se 196.026†	201.8	2461	ug/L	48.0	2461	ug/L	48.0	1.95%
QC value within limits for Se 196.026 Recovery = 98.43%								
SiO2 251.603†	35746.4	9857	ug/L	30.0	9857	ug/L	30.0	0.30%
QC value within limits for SiO2 251.603 Recovery = 98.57%								
Sr 421.552†	1594563.0	518.4	ug/L	1.12	518.4	ug/L	1.12	0.22%
QC value within limits for Sr 421.552 Recovery = 103.69%								
Ti 334.940†	98044.1	503.7	ug/L	1.55	503.7	ug/L	1.55	0.31%
QC value within limits for Ti 334.940 Recovery = 100.74%								
Tl 190.801†	664.5	2557	ug/L	12.9	2557	ug/L	12.9	0.51%
QC value within limits for Tl 190.801 Recovery = 102.30%								
V 290.880†	23656.5	1000	ug/L	2.9	1000	ug/L	2.9	0.29%
QC value within limits for V 290.880 Recovery = 100.02%								

Zn 206.200†	1975.6	2502 ug/L	10.8	2502 ug/L	10.8	0.43%

QC value within limits for Zn 206.200 Recovery = 100.08%

All analyte(s) passed QC.

Sequence No.: 4
Sample ID: SEQ-SCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 10
Date Collected: 12/4/2014 10:18:11 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-SCV

Analyte	Back Pressure	Flow
All	252.0 kPa	0.80 L/min

Mean Data: SEQ-SCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2365601.6	101.0	%	0.47				0.46%
Sc Radial	349562.8	100.9	%	1.70				1.68%
Ag 328.068†	14092.7	247.9	ug/L	0.84	247.9	ug/L	0.84	0.34%
QC value within limits for Ag 328.068 Recovery = 99.15%								
Al 396.153†	5207.6	939.6	ug/L	9.74	939.6	ug/L	9.74	1.04%
QC value within limits for Al 396.153 Recovery = 93.96%								
As 193.696†	183.6	1900	ug/L	43.9	1900	ug/L	43.9	2.31%
QC value within limits for As 193.696 Recovery = 94.99%								
Ba 233.527†	8431.3	1018	ug/L	3.1	1018	ug/L	3.1	0.31%
QC value within limits for Ba 233.527 Recovery = 101.82%								
Be 313.107†	332861.4	988.1	ug/L	1.57	988.1	ug/L	1.57	0.16%
QC value within limits for Be 313.107 Recovery = 98.81%								
B 249.677†	7733.8	986.0	ug/L	4.61	986.0	ug/L	4.61	0.47%
QC value within limits for B 249.677 Recovery = 98.60%								
Ca 317.933†	1854.0	927.0	ug/L	16.84	927.0	ug/L	16.84	1.82%
QC value within limits for Ca 317.933 Recovery = 92.70%								
Cd 214.440†	2385.0	992.6	ug/L	6.14	992.6	ug/L	6.14	0.62%
QC value within limits for Cd 214.440 Recovery = 99.26%								
Co 228.616†	3321.7	1022	ug/L	3.8	1022	ug/L	3.8	0.38%
QC value within limits for Co 228.616 Recovery = 102.18%								
Cr 267.716†	4619.4	979.2	ug/L	2.92	979.2	ug/L	2.92	0.30%
QC value within limits for Cr 267.716 Recovery = 97.92%								
Cu 324.752†	174949.8	991.3	ug/L	2.53	991.3	ug/L	2.53	0.26%
QC value within limits for Cu 324.752 Recovery = 99.13%								
Fe 238.204†	52.5	912.5	ug/L	21.81	912.5	ug/L	21.81	2.39%
QC value within limits for Fe 238.204 Recovery = 91.25%								
K 766.490†	10758.7	4829	ug/L	83.6	4829	ug/L	83.6	1.73%
QC value within limits for K 766.490 Recovery = 96.58%								
Mg 285.213†	4841.0	985.1	ug/L	19.21	985.1	ug/L	19.21	1.95%
QC value within limits for Mg 285.213 Recovery = 98.51%								
Mn 257.610†	115029.9	1037	ug/L	1.3	1037	ug/L	1.3	0.13%
QC value within limits for Mn 257.610 Recovery = 103.72%								
Mo 202.031†	491.0	1006	ug/L	9.9	1006	ug/L	9.9	0.99%
QC value within limits for Mo 202.031 Recovery = 100.55%								
Na 589.592†	7653.4	950.4	ug/L	16.69	950.4	ug/L	16.69	1.76%
QC value within limits for Na 589.592 Recovery = 95.04%								
Ni 231.604†	2430.1	1021	ug/L	4.4	1021	ug/L	4.4	0.43%
QC value within limits for Ni 231.604 Recovery = 102.10%								
Pb 220.353†	930.5	2000	ug/L	12.9	2000	ug/L	12.9	0.64%
QC value within limits for Pb 220.353 Recovery = 100.00%								
Sb 206.836†	472.7	1912	ug/L	6.9	1912	ug/L	6.9	0.36%
QC value within limits for Sb 206.836 Recovery = 95.62%								
Se 196.026†	79.1	965.0	ug/L	36.01	965.0	ug/L	36.01	3.73%
QC value within limits for Se 196.026 Recovery = 96.50%								
SiO2 251.603†	17751.1	4847	ug/L	26.2	4847	ug/L	26.2	0.54%
QC value within limits for SiO2 251.603 Recovery = 96.93%								
Sr 421.552†	3230079.7	1052	ug/L	2.3	1052	ug/L	2.3	0.22%
QC value within limits for Sr 421.552 Recovery = 105.22%								
Ti 334.940†	196256.1	1008	ug/L	1.3	1008	ug/L	1.3	0.13%
QC value within limits for Ti 334.940 Recovery = 100.83%								
Tl 190.801†	1307.9	5033	ug/L	41.9	5033	ug/L	41.9	0.83%
QC value within limits for Tl 190.801 Recovery = 100.65%								
V 290.880†	23393.1	992.2	ug/L	1.63	992.2	ug/L	1.63	0.16%
QC value within limits for V 290.880 Recovery = 99.22%								

Zn 206.200†	775.2	976.3 ug/L	5.36	976.3 ug/L	5.36	0.55%

QC value within limits for Zn 206.200 Recovery = 97.63%

All analyte(s) passed QC.

Sequence No.: 5
Sample ID: SEQ-ICB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/4/2014 10:21:24 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-ICB

Analyte	Back Pressure	Flow
All	252.0 kPa	0.80 L/min

Mean Data: SEQ-ICB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2358840.4	100.7	%	0.24				0.24%
Sc Radial	347619.3	100.4	%	0.34				0.34%
Ag 328.068†	7.6	0.1352	ug/L	0.17439	0.1352	ug/L	0.17439	129.01%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153†	11.8	2.082	ug/L	1.4657	2.082	ug/L	1.4657	70.41%
QC value within limits for Al 396.153 Recovery = Not calculated								
As 193.696†	-0.1	-1.460	ug/L	7.7673	-1.460	ug/L	7.7673	531.98%
QC value within limits for As 193.696 Recovery = Not calculated								
Ba 233.527†	1.9	0.2319	ug/L	0.15767	0.2319	ug/L	0.15767	67.98%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	60.3	0.1790	ug/L	0.07891	0.1790	ug/L	0.07891	44.08%
QC value within limits for Be 313.107 Recovery = Not calculated								
B 249.677†	103.6	13.21	ug/L	1.082	13.21	ug/L	1.082	8.19%
QC value within limits for B 249.677 Recovery = Not calculated								
Ca 317.933†	-4.8	-2.522	ug/L	3.4601	-2.522	ug/L	3.4601	137.21%
QC value within limits for Ca 317.933 Recovery = Not calculated								
Cd 214.440†	0.3	0.1230	ug/L	0.32023	0.1230	ug/L	0.32023	260.29%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	1.8	0.5414	ug/L	1.01502	0.5414	ug/L	1.01502	187.48%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	1.5	0.3076	ug/L	0.30315	0.3076	ug/L	0.30315	98.56%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	-9.4	-0.0522	ug/L	0.10666	-0.0522	ug/L	0.10666	204.16%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 238.204†	1.9	34.00	ug/L	20.143	34.00	ug/L	20.143	59.24%
QC value within limits for Fe 238.204 Recovery = Not calculated								
K 766.490†	49.7	23.36	ug/L	19.583	23.36	ug/L	19.583	83.82%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	1.2	0.2468	ug/L	0.10166	0.2468	ug/L	0.10166	41.20%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-14.6	-0.1318	ug/L	0.04249	-0.1318	ug/L	0.04249	32.24%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	1.0	2.133	ug/L	0.8011	2.133	ug/L	0.8011	37.55%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	33.2	4.425	ug/L	1.9272	4.425	ug/L	1.9272	43.56%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	3.8	1.583	ug/L	1.0246	1.583	ug/L	1.0246	64.74%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353†	4.9	10.58	ug/L	2.232	10.58	ug/L	2.232	21.11%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	-1.8	-7.215	ug/L	7.2876	-7.215	ug/L	7.2876	101.00%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-0.5	-6.084	ug/L	25.1888	-6.084	ug/L	25.1888	414.02%
QC value within limits for Se 196.026 Recovery = Not calculated								
SiO2 251.603†	10.3	2.756	ug/L	0.8969	2.756	ug/L	0.8969	32.55%
QC value within limits for SiO2 251.603 Recovery = Not calculated								
Sr 421.552†	436.2	0.140	ug/L	0.0169	0.140	ug/L	0.0169	12.04%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 334.940†	64.0	0.329	ug/L	0.0230	0.329	ug/L	0.0230	6.99%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Tl 190.801†	0.6	2.238	ug/L	16.1279	2.238	ug/L	16.1279	720.51%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 290.880†	-23.2	-0.973	ug/L	0.2630	-0.973	ug/L	0.2630	27.04%
QC value within limits for V 290.880 Recovery = Not calculated								

Zn 206.200†	-1.5	-1.842 ug/L	1.5781	-1.842 ug/L	1.5781	85.69%

QC value within limits for Zn 206.200 Recovery = Not calculated

All analyte(s) passed QC.

Sequence No.: 6
Sample ID: SEQ-CRL
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 11
Date Collected: 12/4/2014 10:24:25 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CRL

Analyte	Back Pressure	Flow
All	253.0 kPa	0.80 L/min

Mean Data: SEQ-CRL

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2324605.3	99.22	%	0.193				0.19%
Sc Radial	342175.2	98.79	%	0.207				0.21%
Ag 328.068†	563.3	9.869	ug/L	0.2230	9.869	ug/L	0.2230	2.26%
QC value within limits for Ag 328.068 Recovery = 98.69%								
Al 396.153†	541.1	100.0	ug/L	3.22	100.0	ug/L	3.22	3.22%
QC value within limits for Al 396.153 Recovery = 100.00%								
As 193.696†	2.8	30.50	ug/L	15.945	30.50	ug/L	15.945	52.28%
QC value less than the lower limit for As 193.696 Recovery = 61.00%								
Ba 233.527†	86.7	10.44	ug/L	0.237	10.44	ug/L	0.237	2.27%
QC value within limits for Ba 233.527 Recovery = 104.39%								
Be 313.107†	1669.8	4.952	ug/L	0.0507	4.952	ug/L	0.0507	1.02%
QC value within limits for Be 313.107 Recovery = 99.04%								
B 249.677†	1986.0	253.2	ug/L	1.81	253.2	ug/L	1.81	0.71%
QC value within limits for B 249.677 Recovery = 101.28%								
Ca 317.933†	458.6	240.8	ug/L	3.11	240.8	ug/L	3.11	1.29%
QC value within limits for Ca 317.933 Recovery = 96.31%								
Cd 214.440†	24.1	10.02	ug/L	0.658	10.02	ug/L	0.658	6.57%
QC value within limits for Cd 214.440 Recovery = 100.20%								
Co 228.616†	34.6	10.66	ug/L	0.603	10.66	ug/L	0.603	5.66%
QC value within limits for Co 228.616 Recovery = 106.60%								
Cr 267.716†	43.5	9.265	ug/L	0.3842	9.265	ug/L	0.3842	4.15%
QC value within limits for Cr 267.716 Recovery = 92.65%								
Cu 324.752†	1812.3	10.30	ug/L	0.144	10.30	ug/L	0.144	1.40%
QC value within limits for Cu 324.752 Recovery = 102.99%								
Fe 238.204†	5.9	102.7	ug/L	25.67	102.7	ug/L	25.67	25.00%
QC value within limits for Fe 238.204 Recovery = 102.68%								
K 766.490†	2209.2	1038	ug/L	5.1	1038	ug/L	5.1	0.49%
QC value within limits for K 766.490 Recovery = 103.83%								
Mg 285.213†	4986.1	1024	ug/L	1.2	1024	ug/L	1.2	0.12%
QC value within limits for Mg 285.213 Recovery = 102.38%								
Mn 257.610†	1164.7	10.47	ug/L	0.127	10.47	ug/L	0.127	1.21%
QC value within limits for Mn 257.610 Recovery = 104.70%								
Mo 202.031†	4.1	8.354	ug/L	3.4056	8.354	ug/L	3.4056	40.77%
QC value within limits for Mo 202.031 Recovery = 83.54%								
Na 589.592†	7716.6	1038	ug/L	1.7	1038	ug/L	1.7	0.16%
QC value within limits for Na 589.592 Recovery = 103.80%								
Ni 231.604†	28.5	11.99	ug/L	2.081	11.99	ug/L	2.081	17.35%
QC value within limits for Ni 231.604 Recovery = 119.92%								
Pb 220.353†	17.2	36.85	ug/L	6.518	36.85	ug/L	6.518	17.69%
QC value within limits for Pb 220.353 Recovery = 122.84%								
Sb 206.836†	9.3	37.66	ug/L	2.353	37.66	ug/L	2.353	6.25%
QC value within limits for Sb 206.836 Recovery = 75.33%								
Se 196.026†	9.8	119.8	ug/L	29.88	119.8	ug/L	29.88	24.95%
QC value within limits for Se 196.026 Recovery = 119.78%								
SiO2 251.603†	868.8	239.3	ug/L	1.06	239.3	ug/L	1.06	0.44%
QC value within limits for SiO2 251.603 Recovery = 95.74%								
Sr 421.552†	33920.5	11.04	ug/L	0.067	11.04	ug/L	0.067	0.61%
QC value within limits for Sr 421.552 Recovery = 110.37%								
Ti 334.940†	10036.4	51.56	ug/L	0.278	51.56	ug/L	0.278	0.54%
QC value within limits for Ti 334.940 Recovery = 103.13%								
Tl 190.801†	13.8	53.80	ug/L	3.536	53.80	ug/L	3.536	6.57%
QC value within limits for Tl 190.801 Recovery = 107.59%								
V 290.880†	1220.5	51.57	ug/L	0.966	51.57	ug/L	0.966	1.87%
QC value within limits for V 290.880 Recovery = 103.15%								

Zn 206.200†	41.8	52.85 ug/L	2.973	52.85 ug/L	2.973	5.63%

QC value within limits for Zn 206.200 Recovery = 105.70%
QC Failed. Continue with analysis.

Sequence No.: 7
Sample ID: SEQ-IFA
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 12
Date Collected: 12/4/2014 10:27:28 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-IFA

Analyte	Back Pressure	Flow
All	252.0 kPa	0.80 L/min

Mean Data: SEQ-IFA

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2163581.2	92.35	%	0.363				0.39%
Sc Radial	331347.7	95.67	%	2.735				2.86%
Ag 328.068†	-613.6	4.309	ug/L	0.7741	4.309	ug/L	0.7741	17.96%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153†	312380.2	57570	ug/L	2397.0	57570	ug/L	2397.0	4.16%
QC value within limits for Al 396.153 Recovery = 95.95%								
As 193.696†	-24.8	11.93	ug/L	51.290	11.93	ug/L	51.290	429.80%
QC value within limits for As 193.696 Recovery = Not calculated								
Ba 233.527†	32.4	-0.3395	ug/L	0.32094	-0.3395	ug/L	0.32094	94.54%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	-69.5	-0.9381	ug/L	0.03559	-0.9381	ug/L	0.03559	3.79%
QC value within limits for Be 313.107 Recovery = Not calculated								
B 249.677†	-1010.3	-128.8	ug/L	2.00	-128.8	ug/L	2.00	1.56%
QC value within limits for B 249.677 Recovery = Not calculated								
Ca 317.933†	557470.4	294600	ug/L	12106.2	294600	ug/L	12106.2	4.11%
QC value within limits for Ca 317.933 Recovery = 98.20%								
Cd 214.440†	7.8	-5.745	ug/L	2.5776	-5.745	ug/L	2.5776	44.87%
QC value less than the lower limit for Cd 214.440 Recovery = Not calculated								
Co 228.616†	29.2	3.464	ug/L	1.8577	3.464	ug/L	1.8577	53.63%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	-23.6	-1.162	ug/L	1.0305	-1.162	ug/L	1.0305	88.67%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	-2310.2	-0.6616	ug/L	0.55710	-0.6616	ug/L	0.55710	84.20%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 238.204†	13081.5	230700	ug/L	9692.9	230700	ug/L	9692.9	4.20%
QC value within limits for Fe 238.204 Recovery = 92.26%								
K 766.490†	26.0	-87.20	ug/L	5.606	-87.20	ug/L	5.606	6.43%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	676684.8	139000	ug/L	5611.5	139000	ug/L	5611.5	4.04%
QC value within limits for Mg 285.213 Recovery = 92.67%								
Mn 257.610†	197.2	-0.6523	ug/L	0.15533	-0.6523	ug/L	0.15533	23.81%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	14.8	10.03	ug/L	5.527	10.03	ug/L	5.527	55.08%
QC value greater than the upper limit for Mo 202.031 Recovery = Not calculated								
Na 589.592†	362918.7	48810	ug/L	1958.7	48810	ug/L	1958.7	4.01%
QC value within limits for Na 589.592 Recovery = 97.61%								
Ni 231.604†	110.1	8.301	ug/L	1.3808	8.301	ug/L	1.3808	16.63%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353†	-22.7	20.41	ug/L	5.153	20.41	ug/L	5.153	25.25%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	16.4	20.83	ug/L	8.245	20.83	ug/L	8.245	39.57%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	-2.0	11.57	ug/L	42.371	11.57	ug/L	42.371	366.30%
QC value within limits for Se 196.026 Recovery = Not calculated								
SiO2 251.603†	-108.0	48.80	ug/L	1.549	48.80	ug/L	1.549	3.17%
QC value within limits for SiO2 251.603 Recovery = Not calculated								
Sr 421.552†	45159.4	-1.601	ug/L	0.6518	-1.601	ug/L	0.6518	40.72%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 334.940†	146.6	0.753	ug/L	0.0269	0.753	ug/L	0.0269	3.57%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Tl 190.801†	0.4	-9.487	ug/L	9.4216	-9.487	ug/L	9.4216	99.31%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 290.880†	738.6	1.509	ug/L	0.8415	1.509	ug/L	0.8415	55.76%
QC value within limits for V 290.880 Recovery = Not calculated								

Zn 206.200†	1.8	1.543 ug/L	3.0974	1.543 ug/L	3.0974	200.79%

QC value within limits for Zn 206.200 Recovery = Not calculated

QC Failed. Continue with analysis.

Sequence No.: 8
Sample ID: SEQ-IFB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 13
Date Collected: 12/4/2014 10:31:09 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-IFB

Analyte	Back Pressure	Flow
All	252.0 kPa	0.80 L/min

Mean Data: SEQ-IFB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2186056.8	93.30	%	0.218				0.23%
Sc Radial	329313.2	95.08	%	2.131				2.24%
Ag 328.068†	16822.1	308.6	ug/L	1.52	308.6	ug/L	1.52	0.49%
QC value within limits for Ag 328.068 Recovery = 102.88%								
Al 396.153†	315714.1	58200	ug/L	2399.3	58200	ug/L	2399.3	4.12%
QC value within limits for Al 396.153 Recovery = 96.99%								
As 193.696†	73.5	1022	ug/L	7.5	1022	ug/L	7.5	0.74%
QC value within limits for As 193.696 Recovery = 102.18%								
Ba 233.527†	2443.8	290.0	ug/L	0.69	290.0	ug/L	0.69	0.24%
QC value within limits for Ba 233.527 Recovery = 96.67%								
Be 313.107†	31443.2	92.52	ug/L	0.297	92.52	ug/L	0.297	0.32%
QC value within limits for Be 313.107 Recovery = 92.52%								
B 249.677†	2916.6	371.8	ug/L	0.10	371.8	ug/L	0.10	0.03%
QC value less than the lower limit for B 249.677 Recovery = 74.37%								
Ca 317.933†	559361.6	295600	ug/L	11941.5	295600	ug/L	11941.5	4.04%
QC value within limits for Ca 317.933 Recovery = 98.52%								
Cd 214.440†	697.1	281.2	ug/L	1.09	281.2	ug/L	1.09	0.39%
QC value within limits for Cd 214.440 Recovery = 93.73%								
Co 228.616†	972.4	293.8	ug/L	1.50	293.8	ug/L	1.50	0.51%
QC value within limits for Co 228.616 Recovery = 97.92%								
Cr 267.716†	1321.8	284.7	ug/L	1.47	284.7	ug/L	1.47	0.51%
QC value within limits for Cr 267.716 Recovery = 94.89%								
Cu 324.752†	51236.4	302.8	ug/L	1.45	302.8	ug/L	1.45	0.48%
QC value within limits for Cu 324.752 Recovery = 100.93%								
Fe 238.204†	12991.7	229100	ug/L	6018.3	229100	ug/L	6018.3	2.63%
QC value within limits for Fe 238.204 Recovery = 91.62%								
K 766.490†	43272.9	20160	ug/L	617.2	20160	ug/L	617.2	3.06%
QC value within limits for K 766.490 Recovery = 100.81%								
Mg 285.213†	687767.0	141300	ug/L	5684.0	141300	ug/L	5684.0	4.02%
QC value within limits for Mg 285.213 Recovery = 94.19%								
Mn 257.610†	21683.3	192.8	ug/L	1.14	192.8	ug/L	1.14	0.59%
QC value within limits for Mn 257.610 Recovery = 96.41%								
Mo 202.031†	150.6	288.8	ug/L	7.16	288.8	ug/L	7.16	2.48%
QC value within limits for Mo 202.031 Recovery = 96.26%								
Na 589.592†	368935.2	49570	ug/L	1958.9	49570	ug/L	1958.9	3.95%
QC value within limits for Na 589.592 Recovery = 99.14%								
Ni 231.604†	771.2	287.0	ug/L	3.39	287.0	ug/L	3.39	1.18%
QC value within limits for Ni 231.604 Recovery = 95.66%								
Pb 220.353†	420.4	970.4	ug/L	7.35	970.4	ug/L	7.35	0.76%
QC value within limits for Pb 220.353 Recovery = 97.04%								
Sb 206.836†	239.1	920.5	ug/L	12.70	920.5	ug/L	12.70	1.38%
QC value within limits for Sb 206.836 Recovery = 92.05%								
Se 196.026†	29.6	400.6	ug/L	60.91	400.6	ug/L	60.91	15.20%
QC value within limits for Se 196.026 Recovery = 80.12%								
SiO2 251.603†	1706.7	491.9	ug/L	4.10	491.9	ug/L	4.10	0.83%
QC value within limits for SiO2 251.603 Recovery = 98.38%								
Sr 421.552†	3091539.7	991.2	ug/L	7.64	991.2	ug/L	7.64	0.77%
QC value within limits for Sr 421.552 Recovery = 99.12%								
Ti 334.940†	196355.7	1009	ug/L	1.4	1009	ug/L	1.4	0.14%
QC value within limits for Ti 334.940 Recovery = 100.88%								
Tl 190.801†	240.1	910.5	ug/L	23.07	910.5	ug/L	23.07	2.53%
QC value within limits for Tl 190.801 Recovery = 91.05%								
V 290.880†	7830.0	300.4	ug/L	1.84	300.4	ug/L	1.84	0.61%
QC value within limits for V 290.880 Recovery = 100.13%								

Zn 206.200†	217.4	270.5 ug/L	3.06	270.5 ug/L	3.06	1.13%

QC value within limits for Zn 206.200 Recovery = 90.16%

QC Failed. Continue with analysis.

Sequence No.: 9
Sample ID: 1412012-BLK1
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 26
Date Collected: 12/4/2014 10:35:00 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 1412012-BLK1

Analyte	Back Pressure	Flow
All	251.0 kPa	0.80 L/min

Mean Data: 1412012-BLK1

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2348273.6	100.2	%	0.55				0.55%
Sc Radial	347411.3	100.3	%	0.65				0.65%
Ag 328.068†	7.5	0.1329	ug/L	0.44923	0.1329	ug/L	0.44923	337.97%
Al 396.153†	17.7	3.355	ug/L	0.7655	3.355	ug/L	0.7655	22.82%
As 193.696†	-0.4	-3.706	ug/L	10.1122	-3.706	ug/L	10.1122	272.87%
Ba 233.527†	-0.8	-0.0919	ug/L	0.21825	-0.0919	ug/L	0.21825	237.47%
Be 313.107†	-31.6	-0.0939	ug/L	0.06278	-0.0939	ug/L	0.06278	66.84%
B 249.677†	10.7	1.366	ug/L	0.2330	1.366	ug/L	0.2330	17.06%
Ca 317.933†	23.0	12.14	ug/L	3.215	12.14	ug/L	3.215	26.48%
Cd 214.440†	-1.7	-0.6934	ug/L	0.80919	-0.6934	ug/L	0.80919	116.70%
Co 228.616†	-0.4	-0.1321	ug/L	0.55474	-0.1321	ug/L	0.55474	419.95%
Cr 267.716†	0.0	0.0075	ug/L	0.41762	0.0075	ug/L	0.41762	>999.9%
Cu 324.752†	68.9	0.3914	ug/L	0.08576	0.3914	ug/L	0.08576	21.91%
Fe 238.204†	2.5	44.93	ug/L	26.838	44.93	ug/L	26.838	59.73%
K 766.490†	134.9	63.36	ug/L	16.415	63.36	ug/L	16.415	25.91%
Mg 285.213†	2.8	0.5865	ug/L	1.60393	0.5865	ug/L	1.60393	273.47%
Mn 257.610†	-47.2	-0.4252	ug/L	0.09457	-0.4252	ug/L	0.09457	22.24%
Mo 202.031†	-0.5	-1.119	ug/L	1.6153	-1.119	ug/L	1.6153	144.41%
Na 589.592†	513.1	69.13	ug/L	12.971	69.13	ug/L	12.971	18.76%
Ni 231.604†	3.5	1.474	ug/L	2.3109	1.474	ug/L	2.3109	156.75%
Pb 220.353†	4.5	9.831	ug/L	5.4052	9.831	ug/L	5.4052	54.98%
Sb 206.836†	0.1	0.3961	ug/L	13.37404	0.3961	ug/L	13.37404	>999.9%
Se 196.026†	-0.8	-9.130	ug/L	12.9714	-9.130	ug/L	12.9714	142.08%
SiO2 251.603†	-64.5	-17.82	ug/L	1.457	-17.82	ug/L	1.457	8.17%
Sr 421.552†	106.1	0.032	ug/L	0.0142	0.032	ug/L	0.0142	44.73%
Ti 334.940†	25.8	0.132	ug/L	0.0100	0.132	ug/L	0.0100	7.55%
Tl 190.801†	-0.1	-0.515	ug/L	6.8034	-0.515	ug/L	6.8034	>999.9%
V 290.880†	-12.6	-0.547	ug/L	0.4498	-0.547	ug/L	0.4498	82.17%
Zn 206.200†	-2.2	-2.825	ug/L	2.2475	-2.825	ug/L	2.2475	79.56%

Sequence No.: 10
Sample ID: 1412012-SRM1
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 27
Date Collected: 12/4/2014 10:38:01 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 1412012-SRM1

Analyte	Back Pressure	Flow
All	251.0 kPa	0.80 L/min

Mean Data: 1412012-SRM1

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2358693.9	100.7	%	0.09				0.09%
Sc Radial	348644.3	100.7	%	1.50				1.49%
Ag 328.068†	14085.7	247.7	ug/L	0.89	247.7	ug/L	0.89	0.36%
Al 396.153†	5138.4	927.3	ug/L	23.86	927.3	ug/L	23.86	2.57%
As 193.696†	180.7	1871	ug/L	23.9	1871	ug/L	23.9	1.28%
Ba 233.527†	8523.7	1029	ug/L	1.7	1029	ug/L	1.7	0.17%
Be 313.107†	335597.1	996.2	ug/L	0.74	996.2	ug/L	0.74	0.07%
B 249.677†	7427.7	947.0	ug/L	1.53	947.0	ug/L	1.53	0.16%
Ca 317.933†	1853.2	927.1	ug/L	14.81	927.1	ug/L	14.81	1.60%
Cd 214.440†	2350.5	978.2	ug/L	4.17	978.2	ug/L	4.17	0.43%
Co 228.616†	3316.4	1020	ug/L	3.7	1020	ug/L	3.7	0.36%
Cr 267.716†	4674.0	990.7	ug/L	1.74	990.7	ug/L	1.74	0.18%
Cu 324.752†	175087.5	992.0	ug/L	3.69	992.0	ug/L	3.69	0.37%
Fe 238.204†	53.7	933.7	ug/L	31.16	933.7	ug/L	31.16	3.34%
K 766.490†	10519.8	4719	ug/L	79.8	4719	ug/L	79.8	1.69%
Mg 285.213†	4812.4	979.3	ug/L	18.49	979.3	ug/L	18.49	1.89%
Mn 257.610†	115741.3	1044	ug/L	3.6	1044	ug/L	3.6	0.34%
Mo 202.031†	483.8	990.8	ug/L	11.70	990.8	ug/L	11.70	1.18%
Na 589.592†	7557.7	938.3	ug/L	13.00	938.3	ug/L	13.00	1.39%
Ni 231.604†	2407.0	1011	ug/L	5.4	1011	ug/L	5.4	0.54%
Pb 220.353†	925.8	1990	ug/L	6.6	1990	ug/L	6.6	0.33%
Sb 206.836†	457.9	1852	ug/L	10.1	1852	ug/L	10.1	0.55%
Se 196.026†	77.5	945.6	ug/L	3.73	945.6	ug/L	3.73	0.39%
SiO2 251.603†	17532.6	4786	ug/L	15.5	4786	ug/L	15.5	0.32%
Sr 421.552†	3201737.0	1043	ug/L	3.1	1043	ug/L	3.1	0.30%
Ti 334.940†	194148.1	997.5	ug/L	1.11	997.5	ug/L	1.11	0.11%
Tl 190.801†	1288.0	4956	ug/L	18.7	4956	ug/L	18.7	0.38%
V 290.880†	23527.8	997.9	ug/L	4.09	997.9	ug/L	4.09	0.41%
Zn 206.200†	761.8	959.4	ug/L	7.37	959.4	ug/L	7.37	0.77%

Matrix Recovery Check: 1412012-SRM1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Al 396.153	1003	927.3	23.864	ug/L	92.4
Ca 317.933	1012	927.1	14.809	ug/L	91.5
Fe 238.204	1045	933.7	31.159	ug/L	88.9
K 766.490	5063	4719	79.819	ug/L	93.1
Mg 285.213	1001	979.3	18.489	ug/L	97.9
Na 589.592	1069	938.3	13.004	ug/L	86.9
Ag 328.068	250.1	247.7	0.885	ug/L	99.0
As 193.696	1996	1871	23.870	ug/L	93.7
Ba 233.527	999.9	1029	1.739	ug/L	103.0
Be 313.107	999.9	996.2	0.741	ug/L	99.6
B 249.677	1001	947.0	1.534	ug/L	94.6
Cd 214.440	999.3	978.2	4.171	ug/L	97.9
Co 228.616	999.9	1020	3.697	ug/L	102.0
Cr 267.716	1000	990.7	1.743	ug/L	99.1
Cu 324.752	1000	992.0	3.690	ug/L	99.2
Mn 257.610	999.6	1044	3.572	ug/L	104.4
Mo 202.031	998.9	990.8	11.703	ug/L	99.2
Ni 231.604	1001	1011	5.426	ug/L	101.0
Pb 220.353	2010	1990	6.554	ug/L	99.0
Sb 206.836	2000	1852	10.143	ug/L	92.6

Se 196.026	990.9	945.6	3.729	ug/L	95.5
SiO2 251.603	4982	4786	15.472	ug/L	96.1
Sr 421.552	1000	1043	3.107	ug/L	104.3
Ti 334.940	1000	997.5	1.106	ug/L	99.7
Tl 190.801	4999	4956	18.660	ug/L	99.1
V 290.880	999.5	997.9	4.085	ug/L	99.8
Zn 206.200	997.2	959.4	7.367	ug/L	96.2

Sequence No.: 11
Sample ID: C141006-01
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 28
Date Collected: 12/4/2014 10:41:13 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C141006-01

Analyte	Back Pressure	Flow
All	252.0 kPa	0.80 L/min

Mean Data: C141006-01

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2226800.1	95.04	%	0.359				0.38%
Sc Radial	338082.8	97.61	%	0.439				0.45%
Ag 328.068†	10.6	0.4071	ug/L	0.08130	0.4071	ug/L	0.08130	19.97%
Al 396.153†	514.5	21.24	ug/L	4.025	21.24	ug/L	4.025	18.95%
As 193.696†	-0.5	-8.881	ug/L	6.1857	-8.881	ug/L	6.1857	69.65%
Ba 233.527†	846.7	100.4	ug/L	1.23	100.4	ug/L	1.23	1.22%
Be 313.107†	-6.1	-0.3579	ug/L	0.15361	-0.3579	ug/L	0.15361	42.93%
B 249.677†	-153.9	-19.62	ug/L	0.745	-19.62	ug/L	0.745	3.80%
Ca 317.933†	442692.1	234000	ug/L	3775.6	234000	ug/L	3775.6	1.61%
Cd 214.440†	-2.1	-0.7472	ug/L	0.72659	-0.7472	ug/L	0.72659	97.24%
Co 228.616†	0.1	0.7273	ug/L	1.95335	0.7273	ug/L	1.95335	268.58%
Cr 267.716†	-4.9	-0.4045	ug/L	0.87945	-0.4045	ug/L	0.87945	217.42%
Cu 324.752†	399.6	1.905	ug/L	0.0851	1.905	ug/L	0.0851	4.47%
Fe 238.204†	9.7	154.4	ug/L	41.73	154.4	ug/L	41.73	27.02%
K 766.490†	4696.1	2260	ug/L	21.5	2260	ug/L	21.5	0.95%
Mg 285.213†	100278.5	20590	ug/L	321.5	20590	ug/L	321.5	1.56%
Mn 257.610†	245411.8	2214	ug/L	10.7	2214	ug/L	10.7	0.48%
Mo 202.031†	0.2	-3.536	ug/L	12.4677	-3.536	ug/L	12.4677	352.57%
Na 589.592†	72444.5	9751	ug/L	170.2	9751	ug/L	170.2	1.75%
Ni 231.604†	25.9	9.302	ug/L	1.8824	9.302	ug/L	1.8824	20.24%
Pb 220.353†	-3.0	1.034	ug/L	7.4746	1.034	ug/L	7.4746	722.98%
Sb 206.836†	-2.3	-11.15	ug/L	2.627	-11.15	ug/L	2.627	23.56%
Se 196.026†	2.8	13.51	ug/L	13.799	13.51	ug/L	13.799	102.14%
SiO2 251.603†	62570.8	17300	ug/L	128.0	17300	ug/L	128.0	0.74%
Sr 421.552†	Saturated2							
Ti 334.940†	233.8	1.201	ug/L	0.0851	1.201	ug/L	0.0851	7.09%
Tl 190.801†	-0.9	-14.32	ug/L	6.745	-14.32	ug/L	6.745	47.09%
V 290.880†	87.7	-0.280	ug/L	0.1222	-0.280	ug/L	0.1222	43.62%
Zn 206.200†	605.1	769.8	ug/L	13.05	769.8	ug/L	13.05	1.70%

Sequence No.: 12
Sample ID: 1412012-DUP1
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 29
Date Collected: 12/4/2014 10:45:16 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 1412012-DUP1

Analyte	Back Pressure	Flow
All	253.0 kPa	0.80 L/min

Mean Data: 1412012-DUP1

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2233414.3	95.33	%	0.746				0.78%
Sc Radial	334728.7	96.64	%	0.881				0.91%
Ag 328.068†	-7.7	0.0988	ug/L	0.13526	0.0988	ug/L	0.13526	136.89%
Al 396.153†	532.1	23.32	ug/L	4.023	23.32	ug/L	4.023	17.25%
As 193.696†	0.5	1.336	ug/L	30.4721	1.336	ug/L	30.4721	>999.9%
Ba 233.527†	842.7	99.87	ug/L	1.077	99.87	ug/L	1.077	1.08%
Be 313.107†	-71.5	-0.5565	ug/L	0.03817	-0.5565	ug/L	0.03817	6.86%
B 249.677†	-185.8	-23.69	ug/L	0.348	-23.69	ug/L	0.348	1.47%
Ca 317.933†	448645.8	237100	ug/L	4708.9	237100	ug/L	4708.9	1.99%
Cd 214.440†	-3.8	-1.429	ug/L	0.6429	-1.429	ug/L	0.6429	44.97%
Co 228.616†	-1.9	0.1299	ug/L	1.04382	0.1299	ug/L	1.04382	803.26%
Cr 267.716†	-6.7	-0.7366	ug/L	0.36510	-0.7366	ug/L	0.36510	49.57%
Cu 324.752†	402.0	1.906	ug/L	0.1747	1.906	ug/L	0.1747	9.16%
Fe 238.204†	7.3	112.5	ug/L	17.00	112.5	ug/L	17.00	15.11%
K 766.490†	4747.1	2284	ug/L	52.7	2284	ug/L	52.7	2.31%
Mg 285.213†	101384.7	20810	ug/L	382.8	20810	ug/L	382.8	1.84%
Mn 257.610†	243657.8	2198	ug/L	17.4	2198	ug/L	17.4	0.79%
Mo 202.031†	2.3	0.7966	ug/L	13.68500	0.7966	ug/L	13.68500	>999.9%
Na 589.592†	73005.7	9827	ug/L	185.9	9827	ug/L	185.9	1.89%
Ni 231.604†	29.4	10.74	ug/L	1.370	10.74	ug/L	1.370	12.76%
Pb 220.353†	-5.5	-4.266	ug/L	7.0012	-4.266	ug/L	7.0012	164.10%
Sb 206.836†	-0.5	-3.825	ug/L	10.0629	-3.825	ug/L	10.0629	263.10%
Se 196.026†	2.6	10.94	ug/L	30.195	10.94	ug/L	30.195	275.98%
SiO2 251.603†	62892.1	17390	ug/L	229.3	17390	ug/L	229.3	1.32%
Sr 421.552†	Saturated2							
Ti 334.940†	188.0	0.966	ug/L	0.0152	0.966	ug/L	0.0152	1.58%
Tl 190.801†	-1.4	-16.24	ug/L	10.029	-16.24	ug/L	10.029	61.76%
V 290.880†	83.7	-0.464	ug/L	0.3874	-0.464	ug/L	0.3874	83.58%
Zn 206.200†	603.7	768.0	ug/L	13.82	768.0	ug/L	13.82	1.80%

Duplicate Check: 1412012-DUP1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Sc Radial	97.61	96.64	0.881	%	1.0
Al 396.153	21.24	23.32	4.023	ug/L	9.3
Ca 317.933	234000	237100	4708.903	ug/L	1.3
Fe 238.204	154.4	112.5	16.996	ug/L	31.4
K 766.490	2260	2284	52.725	ug/L	1.1
Mg 285.213	20590	20810	382.756	ug/L	1.1
Na 589.592	9751	9827	185.892	ug/L	0.8
Sc Axial	95.04	95.33	0.746	%	0.3
Ag 328.068	0.4071	0.0988	0.135	ug/L	121.9
As 193.696	-8.881	1.336	30.472	ug/L	-270.8
Ba 233.527	100.4	99.87	1.077	ug/L	0.5
Be 313.107	-0.3579	-0.5565	0.038	ug/L	-43.4
B 249.677	-19.62	-23.69	0.348	ug/L	-18.8
Cd 214.440	-0.7472	-1.429	0.643	ug/L	-62.7
Co 228.616	0.7273	0.1299	1.044	ug/L	139.4
Cr 267.716	-0.4045	-0.7366	0.365	ug/L	-58.2
Cu 324.752	1.905	1.906	0.175	ug/L	0.1
Mn 257.610	2214	2198	17.437	ug/L	0.7
Mo 202.031	-3.536	0.7966	13.685	ug/L	-316.3
Ni 231.604	9.302	10.74	1.370	ug/L	14.4

Pb 220.353	1.034	-4.266	7.001	ug/L	-327.9
Sb 206.836	-11.15	-3.825	10.063	ug/L	-97.8
Se 196.026	13.51	10.94	30.195	ug/L	21.0
SiO2 251.603	17300	17390	229.297	ug/L	0.5
Sr 421.552			0.000	ug/L	Not calculated
Ti 334.940	1.201	0.966	0.015	ug/L	21.7
Tl 190.801	-14.32	-16.24	10.029	ug/L	-12.5
V 290.880	-0.280	-0.464	0.387	ug/L	-49.3
Zn 206.200	769.8	768.0	13.820	ug/L	0.2

Sequence No.: 13
Sample ID: SEQ-SRD1 @5X
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution: 5X

Autosampler Location: 30
Date Collected: 12/4/2014 10:49:18 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-SRD1 @5X

Analyte	Back Pressure	Flow
All	253.0 kPa	0.80 L/min

Mean Data: SEQ-SRD1 @5X

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2335293.6	99.67	%	0.661				0.66%
Sc Radial	343056.6	99.05	%	1.003				1.01%
Ag 328.068†	5.2	1.152	ug/L	0.1379	5.759	ug/L	0.6895	11.97%
Al 396.153†	114.3	19.71	ug/L	0.655	98.54	ug/L	3.275	3.32%
As 193.696†	-0.4	-5.209	ug/L	10.2811	-26.04	ug/L	51.405	197.39%
Ba 233.527†	170.1	19.65	ug/L	0.077	98.23	ug/L	0.383	0.39%
Be 313.107†	27.1	-0.0216	ug/L	0.05364	-0.1078	ug/L	0.26818	248.67%
B 249.677†	-115.5	-14.73	ug/L	0.354	-73.64	ug/L	1.771	2.41%
Ca 317.933†	87144.7	46050	ug/L	253.8	230200	ug/L	1269.1	0.55%
Cd 214.440†	-1.8	-0.7427	ug/L	0.95713	-3.714	ug/L	4.7856	128.86%
Co 228.616†	-0.0	0.1395	ug/L	0.40850	0.6977	ug/L	2.04252	292.77%
Cr 267.716†	-1.8	0.0999	ug/L	0.27690	0.4994	ug/L	1.38451	277.25%
Cu 324.752†	-24.4	0.1496	ug/L	0.08088	0.7481	ug/L	0.40439	54.05%
Fe 238.204†	1.1	13.85	ug/L	64.333	69.25	ug/L	321.667	464.48%
K 766.490†	963.0	407.0	ug/L	12.37	2035	ug/L	61.8	3.04%
Mg 285.213†	20188.1	4144	ug/L	18.8	20720	ug/L	94.2	0.45%
Mn 257.610†	50598.8	456.4	ug/L	3.13	2282	ug/L	15.6	0.69%
Mo 202.031†	4.5	9.128	ug/L	3.8406	45.64	ug/L	19.203	42.08%
Na 589.592†	14381.7	1926	ug/L	26.4	9631	ug/L	131.9	1.37%
Ni 231.604†	6.3	2.742	ug/L	2.7038	13.71	ug/L	13.519	98.62%
Pb 220.353†	0.7	0.9473	ug/L	12.32762	4.736	ug/L	61.6381	>999.9%
Sb 206.836†	-3.0	-15.25	ug/L	7.431	-76.24	ug/L	37.154	48.73%
Se 196.026†	0.9	9.361	ug/L	34.9737	46.80	ug/L	174.869	373.62%
SiO2 251.603†	12120.1	3335	ug/L	26.6	16680	ug/L	133.1	0.80%
Sr 421.552†	2184455.1	711.6	ug/L	3.55	3558	ug/L	17.8	0.50%
Ti 334.940†	12.5	0.064	ug/L	0.0119	0.322	ug/L	0.0593	18.43%
Tl 190.801†	-0.1	-4.060	ug/L	4.3468	-20.30	ug/L	21.734	107.06%
V 290.880†	-36.6	-3.610	ug/L	0.4273	-18.05	ug/L	2.136	11.84%
Zn 206.200†	126.3	159.2	ug/L	3.71	795.9	ug/L	18.53	2.33%

Dilution Check: SEQ-SRD1 @5X

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Difference (%)
Sc Radial	19.52	99.05	1.003	%	407.4
Al 396.153	4.249	19.71	0.655	ug/L	363.8
Ca 317.933	46790	46050	253.824	ug/L	1.6
Fe 238.204	30.89	13.85	64.333	ug/L	55.2
K 766.490	451.9	407.0	12.368	ug/L	9.9
Mg 285.213	4117	4144	18.849	ug/L	0.6
Na 589.592	1950	1926	26.376	ug/L	1.2
Sc Axial	19.01	99.67	0.661	%	424.4
Ag 328.068	0.0814	1.152	0.138	ug/L	1314.8
As 193.696	-1.776	-5.209	10.281	ug/L	-193.2
Ba 233.527	20.07	19.65	0.077	ug/L	2.1
Be 313.107	-0.0716	-0.0216	0.054	ug/L	-69.9
B 249.677	-3.924	-14.73	0.354	ug/L	-275.4
Cd 214.440	-0.1494	-0.7427	0.957	ug/L	-397.0
Co 228.616	0.1455	0.1395	0.409	ug/L	4.1
Cr 267.716	-0.0809	0.0999	0.277	ug/L	-223.5
Cu 324.752	0.3809	0.1496	0.081	ug/L	60.7
Mn 257.610	442.8	456.4	3.128	ug/L	3.1
Mo 202.031	-0.7073	9.128	3.841	ug/L	-1390.6
Ni 231.604	1.860	2.742	2.704	ug/L	47.4

Pb 220.353	0.2068	0.9473	12.328	ug/L	358.1
Sb 206.836	-2.230	-15.25	7.431	ug/L	-583.8
Se 196.026	2.702	9.361	34.974	ug/L	246.4
SiO2 251.603	3461	3335	26.620	ug/L	3.6
Sr 421.552		711.6	3.551	ug/L	Not calculated
Ti 334.940	0.240	0.064	0.012	ug/L	73.2
Tl 190.801	-2.864	-4.060	4.347	ug/L	-41.8
V 290.880	-0.056	-3.610	0.427	ug/L	-6344.0
Zn 206.200	154.0	159.2	3.705	ug/L	3.4

Sequence No.: 14
Sample ID: 1412012-MS1
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 31
Date Collected: 12/4/2014 10:52:22 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: 1412012-MS1

Analyte	Back Pressure	Flow
All	254.0 kPa	0.80 L/min

Mean Data: 1412012-MS1

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2214732.2	94.53	%	0.272				0.29%
Sc Radial	340488.5	98.31	%	1.447				1.47%
Ag 328.068†	3987.2	70.66	ug/L	0.244	70.66	ug/L	0.244	0.35%
Al 396.153†	10916.7	1925	ug/L	47.9	1925	ug/L	47.9	2.49%
As 193.696†	80.8	833.7	ug/L	10.46	833.7	ug/L	10.46	1.25%
Ba 233.527†	2455.9	294.2	ug/L	1.43	294.2	ug/L	1.43	0.49%
Be 313.107†	66595.5	197.3	ug/L	1.01	197.3	ug/L	1.01	0.51%
B 249.677†	2182.4	278.2	ug/L	1.67	278.2	ug/L	1.67	0.60%
Ca 317.933†	449431.2	237500	ug/L	4260.7	237500	ug/L	4260.7	1.79%
Cd 214.440†	456.7	190.1	ug/L	2.08	190.1	ug/L	2.08	1.09%
Co 228.616†	640.3	197.8	ug/L	3.05	197.8	ug/L	3.05	1.54%
Cr 267.716†	1812.0	384.7	ug/L	2.65	384.7	ug/L	2.65	0.69%
Cu 324.752†	54683.4	309.7	ug/L	0.25	309.7	ug/L	0.25	0.08%
Fe 238.204†	170.0	2973	ug/L	60.2	2973	ug/L	60.2	2.02%
K 766.490†	26756.7	12600	ug/L	291.6	12600	ug/L	291.6	2.31%
Mg 285.213†	110013.7	22580	ug/L	452.1	22580	ug/L	452.1	2.00%
Mn 257.610†	263745.0	2379	ug/L	0.9	2379	ug/L	0.9	0.04%
Mo 202.031†	196.5	397.8	ug/L	11.21	397.8	ug/L	11.21	2.82%
Na 589.592†	94672.9	12710	ug/L	288.8	12710	ug/L	288.8	2.27%
Ni 231.604†	1200.8	502.1	ug/L	2.39	502.1	ug/L	2.39	0.48%
Pb 220.353†	463.3	1005	ug/L	17.9	1005	ug/L	17.9	1.78%
Sb 206.836†	192.9	778.3	ug/L	15.42	778.3	ug/L	15.42	1.98%
Se 196.026†	143.3	1723	ug/L	79.0	1723	ug/L	79.0	4.59%
SiO2 251.603†	69893.5	19320	ug/L	118.1	19320	ug/L	118.1	0.61%
Sr 421.552†	Saturated2							
Ti 334.940†	39260.5	201.7	ug/L	1.20	201.7	ug/L	1.20	0.60%
Tl 190.801†	524.8	2007	ug/L	22.5	2007	ug/L	22.5	1.12%
V 290.880†	7277.4	304.6	ug/L	1.03	304.6	ug/L	1.03	0.34%
Zn 206.200†	738.6	936.4	ug/L	6.27	936.4	ug/L	6.27	0.67%

Matrix Recovery Check: 1412012-MS1

Analyte	Expected Conc.	Measured Conc.	Std. Dev.	Units	Recovery (%)
Al 396.153	2021	1925	47.915	ug/L	95.2
Ca 317.933	235000	237500	4260.744	ug/L	354.2
Fe 238.204	3154	2973	60.197	ug/L	93.9
K 766.490	12260	12600	291.594	ug/L	103.4
Mg 285.213	22590	22580	452.130	ug/L	99.8
Na 589.592	12750	12710	288.780	ug/L	98.7
Ag 328.068	75.41	70.66	0.244	ug/L	93.7
As 193.696	791.1	833.7	10.461	ug/L	105.3
Ba 233.527	300.4	294.2	1.431	ug/L	96.9
Be 313.107	199.6	197.3	1.012	ug/L	98.8
B 249.677	280.4	278.2	1.668	ug/L	99.3
Cd 214.440	199.3	190.1	2.078	ug/L	95.4
Co 228.616	200.7	197.8	3.053	ug/L	98.5
Cr 267.716	399.6	384.7	2.646	ug/L	96.3
Cu 324.752	301.9	309.7	0.247	ug/L	102.6
Mn 257.610	2414	2379	0.866	ug/L	82.5
Mo 202.031	396.5	397.8	11.207	ug/L	100.3
Ni 231.604	509.3	502.1	2.389	ug/L	98.6
Pb 220.353	1001	1005	17.880	ug/L	100.4
Sb 206.836	788.9	778.3	15.425	ug/L	98.7

Se 196.026	2014	1723	78.998	ug/L	85.5
SiO2 251.603	19300	19320	118.131	ug/L	101.0
Ti 334.940	201.2	201.7	1.202	ug/L	100.3
Tl 190.801	1986	2007	22.515	ug/L	101.1
V 290.880	299.7	304.6	1.030	ug/L	101.6
Zn 206.200	969.8	936.4	6.266	ug/L	83.3

Sequence No.: 15
Sample ID: C141006-03
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 32
Date Collected: 12/4/2014 10:56:24 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C141006-03

Analyte	Back Pressure	Flow
All	254.0 kPa	0.80 L/min

Mean Data: C141006-03

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2215151.5	94.55	%	1.557				1.65%
Sc Radial	338815.4	97.82	%	2.731				2.79%
Ag 328.068†	-12.7	0.2646	ug/L	0.10188	0.2646	ug/L	0.10188	38.51%
Al 396.153†	2209.2	336.8	ug/L	15.76	336.8	ug/L	15.76	4.68%
As 193.696†	0.5	5.839	ug/L	19.9618	5.839	ug/L	19.9618	341.89%
Ba 233.527†	159.0	17.17	ug/L	0.798	17.17	ug/L	0.798	4.65%
Be 313.107†	79.8	-0.0972	ug/L	0.09842	-0.0972	ug/L	0.09842	101.26%
B 249.677†	-241.7	-30.81	ug/L	1.121	-30.81	ug/L	1.121	3.64%
Ca 317.933†	427465.5	225900	ug/L	8374.9	225900	ug/L	8374.9	3.71%
Cd 214.440†	53.5	22.21	ug/L	1.040	22.21	ug/L	1.040	4.68%
Co 228.616†	11.3	3.987	ug/L	0.8533	3.987	ug/L	0.8533	21.40%
Cr 267.716†	-8.0	-1.141	ug/L	0.7591	-1.141	ug/L	0.7591	66.52%
Cu 324.752†	11160.7	63.11	ug/L	2.740	63.11	ug/L	2.740	4.34%
Fe 238.204†	233.8	4107	ug/L	190.6	4107	ug/L	190.6	4.64%
K 766.490†	4191.8	2013	ug/L	69.3	2013	ug/L	69.3	3.44%
Mg 285.213†	96165.2	19740	ug/L	725.7	19740	ug/L	725.7	3.68%
Mn 257.610†	257225.7	2321	ug/L	80.8	2321	ug/L	80.8	3.48%
Mo 202.031†	9.1	14.67	ug/L	6.987	14.67	ug/L	6.987	47.62%
Na 589.592†	72055.3	9699	ug/L	349.2	9699	ug/L	349.2	3.60%
Ni 231.604†	41.7	15.35	ug/L	0.408	15.35	ug/L	0.408	2.66%
Pb 220.353†	-7.2	-7.497	ug/L	0.3569	-7.497	ug/L	0.3569	4.76%
Sb 206.836†	-0.4	-4.441	ug/L	16.8793	-4.441	ug/L	16.8793	380.08%
Se 196.026†	4.3	33.70	ug/L	43.307	33.70	ug/L	43.307	128.50%
SiO2 251.603†	56109.4	15520	ug/L	534.1	15520	ug/L	534.1	3.44%
Sr 421.552†	Saturated2							
Ti 334.940†	79.7	0.409	ug/L	0.0578	0.409	ug/L	0.0578	14.11%
Tl 190.801†	-2.0	-19.05	ug/L	11.790	-19.05	ug/L	11.790	61.90%
V 290.880†	110.2	0.183	ug/L	0.9009	0.183	ug/L	0.9009	492.30%
Zn 206.200†	3533.3	4487	ug/L	130.4	4487	ug/L	130.4	2.91%

Sequence No.: 16
Sample ID: C141006-05
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 33
Date Collected: 12/4/2014 11:00:27 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: C141006-05

Analyte	Back Pressure	Flow
All	255.0 kPa	0.80 L/min

Mean Data: C141006-05

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2233658.3	95.34	%	0.216				0.23%
Sc Radial	338481.3	97.73	%	1.296				1.33%
Ag 328.068†	-9.0	0.2733	ug/L	0.21777	0.2733	ug/L	0.21777	79.67%
Al 396.153†	618.2	38.44	ug/L	1.210	38.44	ug/L	1.210	3.15%
As 193.696†	-2.4	-28.14	ug/L	19.379	-28.14	ug/L	19.379	68.86%
Ba 233.527†	791.5	93.58	ug/L	0.661	93.58	ug/L	0.661	0.71%
Be 313.107†	-8.5	-0.3740	ug/L	0.11684	-0.3740	ug/L	0.11684	31.24%
B 249.677†	-109.4	-13.95	ug/L	0.633	-13.95	ug/L	0.633	4.54%
Ca 317.933†	443280.0	234300	ug/L	4442.6	234300	ug/L	4442.6	1.90%
Cd 214.440†	-3.9	-1.453	ug/L	0.7657	-1.453	ug/L	0.7657	52.69%
Co 228.616†	1.8	1.302	ug/L	0.4897	1.302	ug/L	0.4897	37.62%
Cr 267.716†	-5.7	-0.2642	ug/L	0.14447	-0.2642	ug/L	0.14447	54.69%
Cu 324.752†	386.6	1.895	ug/L	0.0676	1.895	ug/L	0.0676	3.57%
Fe 238.204†	5.9	83.90	ug/L	20.785	83.90	ug/L	20.785	24.77%
K 766.490†	19210.8	9117	ug/L	217.4	9117	ug/L	217.4	2.38%
Mg 285.213†	114033.8	23410	ug/L	546.1	23410	ug/L	546.1	2.33%
Mn 257.610†	200736.7	1811	ug/L	5.9	1811	ug/L	5.9	0.32%
Mo 202.031†	2.2	0.5161	ug/L	8.03467	0.5161	ug/L	8.03467	>999.9%
Na 589.592†	80996.2	10900	ug/L	250.2	10900	ug/L	250.2	2.29%
Ni 231.604†	23.9	8.523	ug/L	2.4599	8.523	ug/L	2.4599	28.86%
Pb 220.353†	-0.7	5.509	ug/L	2.7420	5.509	ug/L	2.7420	49.78%
Sb 206.836†	-2.2	-11.26	ug/L	4.482	-11.26	ug/L	4.482	39.82%
Se 196.026†	8.1	77.98	ug/L	17.706	77.98	ug/L	17.706	22.71%
SiO2 251.603†	78222.7	21630	ug/L	151.8	21630	ug/L	151.8	0.70%
Sr 421.552†	Saturated2							
Ti 334.940†	399.1	2.050	ug/L	0.0948	2.050	ug/L	0.0948	4.62%
Tl 190.801†	-0.4	-12.88	ug/L	8.833	-12.88	ug/L	8.833	68.57%
V 290.880†	85.0	-0.560	ug/L	0.3740	-0.560	ug/L	0.3740	66.76%
Zn 206.200†	587.5	747.0	ug/L	6.40	747.0	ug/L	6.40	0.86%

Sequence No.: 17
Sample ID: Blank
Analyst: S.VanOvermeiren
Initial Sample Wt:
Dilution:

Autosampler Location: 34
Date Collected: 12/4/2014 11:04:30 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: Blank

Analyte	Back Pressure	Flow
All	253.0 kPa	0.80 L/min

Mean Data: Blank

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2348892.9	100.3	%	0.39				0.38%
Sc Radial	348334.6	100.6	%	0.56				0.56%
Ag 328.068†	-1.9	-0.0281	ug/L	0.08831	-0.0281	ug/L	0.08831	314.46%
Al 396.153†	0.9	0.4192	ug/L	1.43284	0.4192	ug/L	1.43284	341.83%
As 193.696†	1.0	10.22	ug/L	16.618	10.22	ug/L	16.618	162.56%
Ba 233.527†	-0.8	-0.1039	ug/L	0.21538	-0.1039	ug/L	0.21538	207.26%
Be 313.107†	-13.2	-0.0394	ug/L	0.08229	-0.0394	ug/L	0.08229	208.78%
B 249.677†	-21.7	-2.767	ug/L	0.2685	-2.767	ug/L	0.2685	9.70%
Ca 317.933†	16.7	8.737	ug/L	2.8153	8.737	ug/L	2.8153	32.22%
Cd 214.440†	-1.1	-0.4753	ug/L	0.87414	-0.4753	ug/L	0.87414	183.91%
Co 228.616†	4.6	1.411	ug/L	0.5467	1.411	ug/L	0.5467	38.75%
Cr 267.716†	-3.5	-0.7457	ug/L	0.11616	-0.7457	ug/L	0.11616	15.58%
Cu 324.752†	-55.1	-0.3064	ug/L	0.04703	-0.3064	ug/L	0.04703	15.35%
Fe 238.204†	2.0	34.48	ug/L	31.741	34.48	ug/L	31.741	92.06%
K 766.490†	26.4	12.44	ug/L	6.274	12.44	ug/L	6.274	50.45%
Mg 285.213†	-31.3	-6.441	ug/L	0.6344	-6.441	ug/L	0.6344	9.85%
Mn 257.610†	-44.6	-0.4025	ug/L	0.06724	-0.4025	ug/L	0.06724	16.71%
Mo 202.031†	-2.2	-4.598	ug/L	2.2899	-4.598	ug/L	2.2899	49.80%
Na 589.592†	-7.5	-1.147	ug/L	0.3554	-1.147	ug/L	0.3554	31.00%
Ni 231.604†	1.6	0.6845	ug/L	2.17465	0.6845	ug/L	2.17465	317.71%
Pb 220.353†	2.3	4.865	ug/L	4.9598	4.865	ug/L	4.9598	101.94%
Sb 206.836†	-0.2	-0.8080	ug/L	8.77501	-0.8080	ug/L	8.77501	>999.9%
Se 196.026†	1.5	18.10	ug/L	22.653	18.10	ug/L	22.653	125.12%
SiO2 251.603†	-58.0	-15.87	ug/L	0.943	-15.87	ug/L	0.943	5.94%
Sr 421.552†	643.8	0.207	ug/L	0.0321	0.207	ug/L	0.0321	15.47%
Ti 334.940†	-12.9	-0.066	ug/L	0.0105	-0.066	ug/L	0.0105	15.85%
Tl 190.801†	0.6	2.160	ug/L	7.8164	2.160	ug/L	7.8164	361.81%
V 290.880†	-32.4	-1.418	ug/L	0.5376	-1.418	ug/L	0.5376	37.92%
Zn 206.200†	1.2	1.534	ug/L	0.7368	1.534	ug/L	0.7368	48.03%

Sequence No.: 18
Sample ID: SEQ-CCV
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 3
Date Collected: 12/4/2014 11:07:32 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CCV

Analyte	Back Pressure	Flow
All	254.0 kPa	0.80 L/min

Mean Data: SEQ-CCV

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2323087.9	99.15	%	0.432				0.44%
Sc Radial	342422.9	98.86	%	0.869				0.88%
Ag 328.068†	14270.2	251.4	ug/L	0.65	251.4	ug/L	0.65	0.26%
QC value within limits for Ag 328.068 Recovery = 100.55%								
Al 396.153†	69017.1	12730	ug/L	146.5	12730	ug/L	146.5	1.15%
QC value within limits for Al 396.153 Recovery = 101.86%								
As 193.696†	243.5	2534	ug/L	64.7	2534	ug/L	64.7	2.55%
QC value within limits for As 193.696 Recovery = 101.37%								
Ba 233.527†	4231.5	509.1	ug/L	4.29	509.1	ug/L	4.29	0.84%
QC value within limits for Ba 233.527 Recovery = 101.83%								
Be 313.107†	170540.1	506.1	ug/L	0.84	506.1	ug/L	0.84	0.17%
QC value within limits for Be 313.107 Recovery = 101.22%								
B 249.677†	38731.1	4938	ug/L	34.6	4938	ug/L	34.6	0.70%
QC value within limits for B 249.677 Recovery = 98.76%								
Ca 317.933†	24035.7	12640	ug/L	217.1	12640	ug/L	217.1	1.72%
QC value within limits for Ca 317.933 Recovery = 101.13%								
Cd 214.440†	1222.1	508.1	ug/L	4.83	508.1	ug/L	4.83	0.95%
QC value within limits for Cd 214.440 Recovery = 101.62%								
Co 228.616†	1667.5	513.0	ug/L	4.83	513.0	ug/L	4.83	0.94%
QC value within limits for Co 228.616 Recovery = 102.59%								
Cr 267.716†	11956.5	2533	ug/L	19.3	2533	ug/L	19.3	0.76%
QC value within limits for Cr 267.716 Recovery = 101.31%								
Cu 324.752†	175437.2	994.5	ug/L	4.36	994.5	ug/L	4.36	0.44%
QC value within limits for Cu 324.752 Recovery = 99.45%								
Fe 238.204†	708.6	12470	ug/L	225.4	12470	ug/L	225.4	1.81%
QC value within limits for Fe 238.204 Recovery = 99.75%								
K 766.490†	53949.4	25270	ug/L	276.9	25270	ug/L	276.9	1.10%
QC value within limits for K 766.490 Recovery = 101.10%								
Mg 285.213†	62562.4	12840	ug/L	154.4	12840	ug/L	154.4	1.20%
QC value within limits for Mg 285.213 Recovery = 102.71%								
Mn 257.610†	114282.0	1030	ug/L	6.3	1030	ug/L	6.3	0.61%
QC value within limits for Mn 257.610 Recovery = 103.03%								
Mo 202.031†	246.7	503.0	ug/L	3.91	503.0	ug/L	3.91	0.78%
QC value within limits for Mo 202.031 Recovery = 100.61%								
Na 589.592†	95177.9	12720	ug/L	133.0	12720	ug/L	133.0	1.05%
QC value within limits for Na 589.592 Recovery = 101.75%								
Ni 231.604†	6073.4	2547	ug/L	10.9	2547	ug/L	10.9	0.43%
QC value within limits for Ni 231.604 Recovery = 101.89%								
Pb 220.353†	1182.4	2545	ug/L	7.3	2545	ug/L	7.3	0.29%
QC value within limits for Pb 220.353 Recovery = 101.81%								
Sb 206.836†	608.5	2434	ug/L	7.0	2434	ug/L	7.0	0.29%
QC value within limits for Sb 206.836 Recovery = 97.37%								
Se 196.026†	211.2	2574	ug/L	79.4	2574	ug/L	79.4	3.08%
QC value within limits for Se 196.026 Recovery = 102.96%								
SiO2 251.603†	36037.0	9937	ug/L	51.8	9937	ug/L	51.8	0.52%
QC value within limits for SiO2 251.603 Recovery = 99.37%								
Sr 421.552†	1592929.3	517.9	ug/L	0.57	517.9	ug/L	0.57	0.11%
QC value within limits for Sr 421.552 Recovery = 103.59%								
Ti 334.940†	98291.2	505.0	ug/L	2.52	505.0	ug/L	2.52	0.50%
QC value within limits for Ti 334.940 Recovery = 101.00%								
Tl 190.801†	671.7	2585	ug/L	18.8	2585	ug/L	18.8	0.73%
QC value within limits for Tl 190.801 Recovery = 103.41%								
V 290.880†	23847.9	1008	ug/L	4.6	1008	ug/L	4.6	0.46%
QC value within limits for V 290.880 Recovery = 100.84%								

Zn 206.200†	2011.1	2547 ug/L	15.8	2547 ug/L	15.8	0.62%

QC value within limits for Zn 206.200 Recovery = 101.88%

All analyte(s) passed QC.

Sequence No.: 19
Sample ID: SEQ-CCB
Analyst:
Initial Sample Wt:
Dilution:

Autosampler Location: 1
Date Collected: 12/4/2014 11:10:37 AM
Data Type: Original
Initial Sample Vol:
Sample Prep Vol:

Nebulizer Parameters: SEQ-CCB

Analyte	Back Pressure	Flow
All	255.0 kPa	0.80 L/min

Mean Data: SEQ-CCB

Analyte	Mean Corrected Intensity	Calib Conc.	Calib Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
Sc Axial	2386663.3	101.9	%	0.26				0.25%
Sc Radial	345828.4	99.85	%	0.106				0.11%
Ag 328.068†	12.7	0.2230	ug/L	0.13181	0.2230	ug/L	0.13181	59.10%
QC value within limits for Ag 328.068 Recovery = Not calculated								
Al 396.153†	21.7	4.055	ug/L	0.9842	4.055	ug/L	0.9842	24.27%
QC value within limits for Al 396.153 Recovery = Not calculated								
As 193.696†	-0.7	-6.911	ug/L	9.2476	-6.911	ug/L	9.2476	133.81%
QC value within limits for As 193.696 Recovery = Not calculated								
Ba 233.527†	-1.5	-0.1860	ug/L	0.19267	-0.1860	ug/L	0.19267	103.58%
QC value within limits for Ba 233.527 Recovery = Not calculated								
Be 313.107†	47.3	0.1403	ug/L	0.08718	0.1403	ug/L	0.08718	62.16%
QC value within limits for Be 313.107 Recovery = Not calculated								
B 249.677†	119.2	15.20	ug/L	2.136	15.20	ug/L	2.136	14.06%
QC value within limits for B 249.677 Recovery = Not calculated								
Ca 317.933†	4.4	2.345	ug/L	1.5066	2.345	ug/L	1.5066	64.25%
QC value within limits for Ca 317.933 Recovery = Not calculated								
Cd 214.440†	0.5	0.2265	ug/L	0.12031	0.2265	ug/L	0.12031	53.12%
QC value within limits for Cd 214.440 Recovery = Not calculated								
Co 228.616†	0.4	0.1140	ug/L	0.25276	0.1140	ug/L	0.25276	221.82%
QC value within limits for Co 228.616 Recovery = Not calculated								
Cr 267.716†	0.9	0.1986	ug/L	0.24596	0.1986	ug/L	0.24596	123.84%
QC value within limits for Cr 267.716 Recovery = Not calculated								
Cu 324.752†	-27.2	-0.1515	ug/L	0.03923	-0.1515	ug/L	0.03923	25.90%
QC value within limits for Cu 324.752 Recovery = Not calculated								
Fe 238.204†	1.5	25.69	ug/L	24.183	25.69	ug/L	24.183	94.12%
QC value within limits for Fe 238.204 Recovery = Not calculated								
K 766.490†	41.9	19.66	ug/L	3.430	19.66	ug/L	3.430	17.45%
QC value within limits for K 766.490 Recovery = Not calculated								
Mg 285.213†	7.0	1.428	ug/L	0.6906	1.428	ug/L	0.6906	48.37%
QC value within limits for Mg 285.213 Recovery = Not calculated								
Mn 257.610†	-13.1	-0.1187	ug/L	0.08785	-0.1187	ug/L	0.08785	73.98%
QC value within limits for Mn 257.610 Recovery = Not calculated								
Mo 202.031†	-0.2	-0.4657	ug/L	3.88387	-0.4657	ug/L	3.88387	833.92%
QC value within limits for Mo 202.031 Recovery = Not calculated								
Na 589.592†	35.0	4.660	ug/L	0.2457	4.660	ug/L	0.2457	5.27%
QC value within limits for Na 589.592 Recovery = Not calculated								
Ni 231.604†	4.5	1.896	ug/L	0.2236	1.896	ug/L	0.2236	11.79%
QC value within limits for Ni 231.604 Recovery = Not calculated								
Pb 220.353†	2.2	4.740	ug/L	7.3923	4.740	ug/L	7.3923	155.94%
QC value within limits for Pb 220.353 Recovery = Not calculated								
Sb 206.836†	0.8	3.278	ug/L	8.5163	3.278	ug/L	8.5163	259.81%
QC value within limits for Sb 206.836 Recovery = Not calculated								
Se 196.026†	0.1	0.9834	ug/L	40.74187	0.9834	ug/L	40.74187	>999.9%
QC value within limits for Se 196.026 Recovery = Not calculated								
SiO2 251.603†	1.4	0.4051	ug/L	1.40265	0.4051	ug/L	1.40265	346.28%
QC value within limits for SiO2 251.603 Recovery = Not calculated								
Sr 421.552†	320.3	0.103	ug/L	0.0182	0.103	ug/L	0.0182	17.66%
QC value within limits for Sr 421.552 Recovery = Not calculated								
Ti 334.940†	31.4	0.161	ug/L	0.0327	0.161	ug/L	0.0327	20.29%
QC value within limits for Ti 334.940 Recovery = Not calculated								
Tl 190.801†	-0.5	-1.858	ug/L	4.4053	-1.858	ug/L	4.4053	237.13%
QC value within limits for Tl 190.801 Recovery = Not calculated								
V 290.880†	-20.9	-0.894	ug/L	0.2437	-0.894	ug/L	0.2437	27.24%
QC value within limits for V 290.880 Recovery = Not calculated								

Zn 206.200†	-2.1	-2.623 ug/L	1.5041	-2.623 ug/L	1.5041	57.34%

QC value within limits for Zn 206.200 Recovery = Not calculated

All analyte(s) passed QC.

Perkin Elmer DRC-II ICP-MS

Project(s): Rico-Argentine Oct 2014 Date: 12 / 03 / 2014

Work Order(s): C141006 TDF: A-048 Analyst: S. Van Overmeiren

Batch Preparation Information

Digest / Prep.	Matrix	Batch ID
TR / Total / Diss.	Water / Soil / Other	1412021

Data Storage

Data File: X:/Metals Data Files/ A-048_1412021_DISSA_120314

Standard Information

Calibration Std. #1: 4020304
Prepped By: SV Date: 09/22/14

Calibration Std. #2: 4020305
Prepped By: SV Date: 09/09/14

Calibration Std. #3: 4020306
Prepped By: SV Date: 11/06/14

SCV **LIMS: 4020308**
Prepped By: SV Date: 10/21/14

CRDL: 1:100 of 4020312 **LIMS: 4020313**
Prepped By: SV Date: 12/03/14

ICV/CCV **LIMS: 4020311**
Prepped By: SV Date: 11/06/14

ICSA LIMS: 4020309

ICSAB LIMS: 4020310

Spike Information

Dissolved Spikes

Sample ID: C141006-02
Sample ID: —
Sample Vol: 10 mL

Spike
LIMS ID: 4020315 100 uL

Total / Total Rec. Spikes

Sample ID: —
Sample Vol: 50 mL
PSS2007-220: 500 uL
WW-LFS1 Exp: 02-1-2015
PSS2007-221: 500 uL
WW-LFS2 Exp: 02-1-2015

Tune criteria passed? Yes / No

Comments / Maintenance New pump tubing? Y / N Cleaned cones? Y / N

Reportable Analytes

Ag As Ba Be Cd Co Cr Cu Mn Mo Ni Pb Sb Se Tl V Zn U Th

Sequence ID: 1412025

Lims Entry (Date / Init): 12/03/14 SV

TLF-06.03	SOP: QAQ-04.01	Eff. Date: 11/11/2013

ESAT Region 8

ICP-MS Data Review Form

Analyst / Bench Review – Level I

LIMS: C141006	TDF: A-048
Matrix: Water	Analysis: Dissolved metals

Method / Instrument QC Parameters				Analytical Batch / Sample Parameters	
☒ Yes ☐ No	ICV 90-110%	☒ Yes ☐ No	SCV 90-110%	☒ Yes ☐ No	Mth. Blk. (MB) / Prep. BLK (PB) ≤ ± PQL
☒ Yes ☐ No	ICB ≤ ± PQL	☒ Yes ☐ No	CRDL 70-130%	☒ Yes ☐ No	Blk. Spike (BS) 85-115% / LCS/SRM In Control
☒ Yes ☐ No	ICSA Spiked Analytes 80-120%			☒ Yes ☐ No	Laboratory Duplicate (DUP) Analyzed
☒ Yes ☐ No	ICSA Non-Spiked Analytes ≤ ± PQL			☒ Yes ☐ No	Serial Dilution (SRD) Analyzed
☒ Yes ☐ No	ICSAB Spiked Analytes 80-120%			☒ Yes ☐ No	MS Analyzed Every 10% of Samples 70-130%
☒ Yes ☐ No	CCBs ≤ ± PQL	☒ Yes ☐ No	CCVs 90-110%	☒ Yes ☐ No	Internal Standards 60-125%

Other data quality issues identified ☐ Yes ☒ No

Describe any anomaly or deficiency not indicated above in the space provided

LIMS Electronic Data Transfer

☒ Yes ☐ No	The instrument data file is uploaded to the X: drive	☒ Yes ☐ No	Instrument data are uploaded into the LIMS
☒ Yes ☐ No	All samples and QC data are present in LIMS	☒ Yes ☐ No	The analyte list for the sequence is complete
Analyst:		Date: 12/03/14	

Peer Review of Analytical Analysis – Level II

Method / Instrument QC Parameters				Analytical Batch / Sample Parameters	
☒ Yes ☐ No	ICV 90-110%	☒ Yes ☐ No	SCV 90-110%	☒ Yes ☐ No	Mth. Blk. (MB) / Prep. BLK (PB) ≤ ± PQL
☒ Yes ☐ No	ICB ≤ ± PQL	☒ Yes ☐ No	CRDL 70-130%	☒ Yes ☐ No	Blk. Spike (BS) 85-115% / LCS/SRM In Control
☒ Yes ☐ No	ICSA Spiked Analytes 80-120%			☒ Yes ☐ No	Laboratory Duplicate (DUP) Analyzed
☒ Yes ☐ No	ICSA Non-Spiked Analytes ≤ ± PQL			☒ Yes ☐ No	Serial Dilution (SRD) Analyzed
☒ Yes ☐ No	ICSAB Spiked Analytes 80-120%			☒ Yes ☐ No	MS Analyzed Every 10% of Samples 70-130%
☒ Yes ☐ No	CCBs ≤ ± PQL	☒ Yes ☐ No	CCVs 90-110%	☒ Yes ☐ No	Internal Standards 60-125%

Other data quality issues identified ☐ Yes ☒ No

Describe any anomaly or deficiency not indicated above in the space provided

LIMS Electronic Data Transfer

☒ Yes ☐ No	The instrument data file is uploaded to the X: drive	☒ Yes ☐ No	Instrument data are uploaded into the LIMS
☒ Yes ☐ No	All samples and QC data are present in LIMS	☒ Yes ☐ No	The analyte list for the sequence is complete
Peer Reviewer:		Date: 12/4/2014	

PREPARATION BENCH SHEET

1412021

TechLaw, Inc. - ESAT Region 8

Matrix: Water

Printed: 12/3/2014 10:25:31AM

Date Prepared: 12/03/14 10:24 By: SV

Prepared using: METALS - No Lab Prep Reqd

Lab Number	Analysis	EPA Tag ID	Initial (mL)	Final (mL)	Spike1 ID	ul Spike1	Spike2 ID	ul Spike2	Source ID	QC Code	Extraction Comments
C141006-02 A	ICPMS Diss. Metals	8-B	50	50						AC2EFF	8-B
C141006-04 A	ICPMS Diss. Metals	8-B	50	50						FDB	8-B
C141006-06 A	ICPMS Diss. Metals	8-B	50	50						RDEFF	8-B
1412021-BLK1	QC		50	50						Blank	
1412021-BS1	QC		10	10	4020315	100				LCS	
1412021-DUP1	QC		50	50					C141006-02	Duplicate	
1412021-MS1	QC		10	10	4020315	100			C141006-02	Matrix Spike	

12/03/14

Preparation Reviewed By Date

ANALYSIS SEQUENCE

1412025 12/03/14

Instrument: ICPMS-PE DRC-II Sequence Date: 12/03/14 00:00 Printed: 12/3/2014 2:09:54PM

Lab Number	Dilut. Factor	Analysis	STD ID	Sample/Std Name	EPA Tag ID	Source Sple	Comments
1412025-ICV1		QC	4020311	Initial Cal Check		-	
1412025-SCV1		QC	4020308	Secondary Cal Check		-	
1412025-ICB1		QC		Initial Cal Blank		-	
1412025-CRL1		QC	4020313	Instrument RL Check		-	
1412025-IFA1		QC	4020309	Interference Check A		-	
1412025-IFB1		QC	4020310	Interference Check B		-	
1412021-BLK1		QC		Blank		-	
1412021-BS1		QC		LCS		-	
C141006-02 A		ICPMS Diss. Metals		AC2EFF	8-B		
1412021-DUP1		QC		Duplicate		C141006-02	
1412025-SRD1		QC		Serial Dilution		C141006-02	
1412021-MS1		QC		Matrix Spike		C141006-02	
C141006-04 A		ICPMS Diss. Metals		FDB	8-B		
C141006-06 A		ICPMS Diss. Metals		RDEFF	8-B		
1412025-CCV1		QC	4020311	Calibration Check		-	
1412025-CCB1		QC		Calibration Blank		-	

Run List

Sample File Name: 1412021_DISSA_120314.sam

12/03/14

AS Loc.	Sample ID	Batch Index	Sample Type	Method
1	Blank		Blank	esat2010.mth
2	Standard 1		Standard	esat2010.mth
3	Standard 2		Standard	esat2010.mth
4	Standard 3		Standard	esat2010.mth
6	SEQ-ICV		QC Std	esat2010.mth
5	SEQ-SCV		QC Std	esat2010.mth
1	SEQ-ICB		QC Std	esat2010.mth
26	SEQ-CRL		QC Std	esat2010.mth
7	SEQ-IFA		QC Std	esat2010.mth
8	SEQ-IFB		QC Std	esat2010.mth
27	1412021-BLK1	1	Sample	esat2010.mth
28	1412021-BS1	2	Spike - 3 of 1	esat2010.mth
29	C141006-02 @10X	3	Sample	esat2010.mth
30	1412021-DUP1 @10X	4	Duplicate of 3	esat2010.mth
31	SEQ-SRD1 @50X	5	Dilution - DF:5 of 3	esat2010.mth
32	1412021-MS1 @10X	6	Spike - 3 of 3	esat2010.mth
33	C141006-04 @10X	7	Sample	esat2010.mth
34	C141006-06 @10X	8	Sample	esat2010.mth
35	Blank	9	Sample	esat2010.mth
6	SEQ-CCV		QC Std	esat2010.mth
1	SEQ-CCB		QC Std	esat2010.mth

Instrument Tuning Report

File Name: ESAT tuning 2010.tun
File Path: C:\Elandata\Tuning\ESAT tuning 2010.tun

Sv 12/03/14

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
C	12.000	11.975	2734	2051	0.744	
Mg	23.985	23.925	5632	2043	0.745	
In	114.904	114.925	27734	2003	0.762	
Ce	139.905	139.875	33820	1999	0.767	
Pb	207.977	208.025	50386	1980	0.771	
U	238.050	238.125	57706	1959	0.768	
Zn	65.926	65.925	15847	2024	0.766	

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Wednesday, December 03, 2014 09:55:06
Sample Description:
Method File: C:\Elandata\Method\ESAT Daily Performance 2010.mth
Dataset File: C:\Elandata\DataSet\Default\Daily Performance Check.62141
Tuning File: C:\Elandata\Tuning\ESAT tuning 2010.tun
Optimization File: C:\Elandata\Optimize\ESAT optimization 2010.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 80
Current Dead Time (ns): 80

JV 12/03/14

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24.0	14329.0	14329.011	248.217	1.7
	In	114.9	109635.4	109635.437	230.619	0.2
	U	238.1	46355.7	46355.745	286.884	0.6
⌈>	Ce	139.9	95632.4	95632.390	738.685	0.8
⌊	CeO	155.9	2225.5	0.023	0.000	0.2
⌈>	Ba	137.9	71222.4	71222.411	407.425	0.6
⌊	Ba++	69.0	1775.8	0.025	0.000	1.8
	Bkgd	220.0	0.4	0.367	0.217	59.3
	Bkgd	8.5	71.6	71.634	0.968	1.4

Current Optimization File Data

Current Value	Description
0.66	Nebulizer Gas Flow [NEB]
1.20	Auxiliary Gas Flow
17.00	Plasma Gas Flow
7.75	Lens Voltage
1200.00	ICP RF Power
-1600.00	Analog Stage Voltage
875.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset Std [QRO]
-15.00	Cell Rod Offset Std [CRO]
22.00	Discriminator Threshold
-14.00	Cell Path Voltage Std [CPV]
0.00	RPa
0.25	RPq
0.82	DRC Mode NEB
-10.00	DRC Mode QRO
-1.00	DRC Mode CRO
-5.00	DRC Mode CPV
0.00	Cell Gas A
0.00	Cell Gas B

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	45	3.5	2575.5
Co	59	45	7.3	60265.2
In	115	45	8.0	115852.9

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Elandata\Wizard\SmartTune\ESAT Smart Tune 2010.swz

Start Time: 12/3/2014 9:28:09 AM
End Time: 12/3/2014 9:58:48 AM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (12/11.975), Target/Obtained resolution (0.75/0.744)
Target/Obtained mass (23.985/23.925), Target/Obtained resolution (0.75/0.745)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.75/0.762)
Target/Obtained mass (139.905/139.875), Target/Obtained resolution (0.75/0.767)
Target/Obtained mass (207.977/208.025), Target/Obtained resolution (0.75/0.771)
Target/Obtained mass (238.05/238.125), Target/Obtained resolution (0.75/0.768)
Target/Obtained mass (65.926/65.925), Target/Obtained resolution (0.75/0.766)

Nebulizer Gas Flow [NEB] - [Passed] Optimum value(s): 0.66
Obtained Intensity (In 114.904): 118448
Obtained Formula (CeO 155.9 / Ce 139.905): 0.026 (=2635 / 103201)

Lens Voltage - [Passed] Optimum value(s): 7.75
Obtained Intensity (In 114.904): 119884

AutoLens - [Passed] Optimum value(s): y = 0.042 x + 3.696

Daily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Mg 23.985): 14329
Obtained Intensity (In 114.904): 109635
Obtained Intensity (Bkgd 220): 0
Obtained Formula (CeO 155.9 / Ce 139.905): 0.023 (=2225 / 95632)
Obtained Formula (Ba++ 68.9525 / Ba 137.905): 0.025 (=1776 / 71493)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Elandata\Wizard\SmartTune\ESAT Smart Tune 2010.swz

Optimization Status

Start Time: 12/3/2014 9:28:09 AM

Mass Calibration and Resolution

Optimization Settings:

Method: C:\Elandata\Method\ESAT Tuning 2010.mth.
Tuning File: C:\Elandata\Tuning\ESAT tuning 2010.tun
Iterations: 6
Target accuracy (+/- amu): 0.1 for Mass Cal. and 0.1 for Resolution
Peak height (%) for Res. Opt.: 10

Optimization Results:

Initial Try

Target/Obtained mass (12/11.975), Target/Obtained resolution (0.75/0.744)
Target/Obtained mass (23.985/23.925), Target/Obtained resolution (0.75/0.745)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.75/0.762)
Target/Obtained mass (139.905/139.875), Target/Obtained resolution (0.75/0.767)
Target/Obtained mass (207.977/208.025), Target/Obtained resolution (0.75/0.771)
Target/Obtained mass (238.05/238.125), Target/Obtained resolution (0.75/0.768)
Target/Obtained mass (65.926/65.925), Target/Obtained resolution (0.75/0.766)

[Passed] Optimum value(s): N/A

Nebulizer Gas Flow [NEB]

Optimization Settings:

Method: C:\Elandata\Method\ESAT Optimize 2010.mth.
Initial Try - Start/End/Step: 0.52/0.82/0.01.
Intensity Criterion: In 114.904 Maximum
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.028

Optimization Results:

Initial Try

Obtained Intensity (In 114.904): 118448
Obtained Formula (CeO 155.9 / Ce 139.905): 0.026 (=2635 / 103201)

[Passed] Optimum value(s): 0.66

Lens Voltage

Optimization Settings:

Method: C:\Elandata\Method\ESAT Optimize 2010.mth.
Initial Try - Start/End/Step: 4/8/0.25.
Intensity Criterion: In 114.904 Maximum

Optimization Results:

Initial Try

Obtained Intensity (In 114.904): 119884

[Passed] Optimum value(s): 7.75

AutoLens

Optimization Settings:

Method: C:\Elandata\Method\ESAT AutoLens Calibration 2010.mth.
Initial Try - Start/End/Step: 1.5/12.5/0.25.

Optimization Results:

Initial Try

[Passed] Optimum value(s): y = 0.042 x + 3.696

Analyte	Mass	Points	DAC	MaxIntensity
Be	9.012	45	3.5	2575.53
Co	58.933	45	7.25	60265.2
In	114.904	45	8	115853

Daily Performance Check

Optimization Settings:

Method: C:\Elandata\Method\ESAT Daily Performance 2010.mth.
Intensity Criterion: Mg 23.985 > 8000
Intensity Criterion: In 114.904 > 80000
Intensity Criterion: Bkgd 220 <= 30
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.03
Formula Criterion: Ba++ 68.9525 / Ba 137.905 <= 0.03

Optimization Results:

Initial Try

Obtained Intensity (Mg 23.985): 14329
Obtained Intensity (In 114.904): 109635
Obtained Intensity (Bkgd 220): 0
Obtained Formula (CeO 155.9 / Ce 139.905): 0.023 (=2225 / 95632)
Obtained Formula (Ba++ 68.9525 / Ba 137.905): 0.025 (=1776 / 71493)

[Passed] Optimum value(s): N/A

End Time: 12/3/2014 9:58:48 AM

Method 200.8 - Summary Report

Sample ID: Blank

Sample Date/Time: Wednesday, December 03, 2014 12:45:42
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Blank.62176
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	10483.827	8.441				ug/L
	Be	9	5.000	120.185				ug/L
	Al	27	2527.733	1.567				ug/L
>	Sc	45	125133.276	4.094				ug/L
	V	51	2760.792	43.408				ug/L
	Cr	52	5404.562	4.813				ug/L
	Mn	55	1612.574	2.711				ug/L
	Co	59	36.111	20.812				ug/L
	Ni	60	40.695	33.955				ug/L
	Cu	65	112.779	7.584				ug/L
	Zn	66	411.680	6.628				ug/L
>	Ge	72	88488.714	0.866				ug/L
	As	75	66.472	259.456				ug/L
	Se	82	19.889	116.506				ug/L
	Y	89	13.333	43.301				ug/L
	Mo	98	118.654	4.460				ug/L
	Ag	107	15.556	26.964				ug/L
	Ag	109	18.333	18.182				ug/L
	Cd	111	2.353	179.484				ug/L
	Cd	114	10.172	153.701				ug/L
>	In	115	272358.253	1.170				ug/L
	Sb	121	65.556	10.275				ug/L
	Ba	135	14.444	6.662				ug/L
>	Tb	159	263158.297	1.397				ug/L
	Ho	165	1.667	100.000				ug/L
	Tl	205	206.670	4.191				ug/L
	Pb	208	147.779	27.449				ug/L
	Bi	209	2.778	34.641				ug/L
	Th	232	115.001	20.547				ug/L
	U	238	11.111	52.678				ug/L
	Na	23	16123.038	5.804				mg/L
	Mg	24	2554.411	4.521				mg/L
	K	39	669615.513	0.352				mg/L
	Ca	44	15065.358	0.691				mg/L
	Fe	54	25572.146	7.503				mg/L
>	Sc-1	45	125133.276	4.094				mg/L
	Kr	83	77.223	22.875				mg/L
	N	15	30920.873	5.045				mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Al	27					
>	Sc	45					
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72					
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Ba	135					
>	Tb	159					
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Wednesday, December 03, 2014 12:48:45
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Standard 1.62177
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	10488.268	7.273	10488.268			ug/L
	Be	9	1585.201	4.695	0.151	10.00000	5.04	ug/L
	Al	27	102292.150	4.876	0.781	50.00000	4.19	ug/L
>	Sc	45	127647.236	1.688	127647.236			ug/L
	V	51	31362.204	2.090	0.224	10.00000	0.80	ug/L
	Cr	52	30174.899	1.487	0.193	10.00000	2.25	ug/L
	Mn	55	41275.435	2.791	0.310	10.00000	2.51	ug/L
	Co	59	35382.702	2.813	0.277	10.00000	3.26	ug/L
	Ni	60	7755.672	4.783	0.060	10.00000	3.82	ug/L
	Cu	65	9537.275	2.941	0.074	10.00000	2.17	ug/L
	Zn	66	5787.123	0.681	0.061	10.00000	1.62	ug/L
>	Ge	72	87666.129	0.826	87666.129			ug/L
	As	75	7179.613	2.859	0.081	10.00000	2.73	ug/L
	Se	82	671.154	2.826	0.007	10.00000	2.71	ug/L
	Y	89	17.778	19.516	4.444			ug/L
	Mo	98	14398.628	3.406	0.052	10.00000	2.80	ug/L
	Ag	107	23030.694	1.435	0.084	10.00000	0.81	ug/L
	Ag	109	22156.985	1.008	0.081	10.00000	0.39	ug/L
	Cd	111	5948.479	1.502	0.022	10.00000	0.64	ug/L
	Cd	114	13529.760	0.227	0.049	10.00000	1.17	ug/L
>	In	115	273314.175	0.966	273314.175			ug/L
	Sb	121	19124.221	1.888	0.070	10.00000	0.97	ug/L
	Ba	135	4373.197	3.193	0.017	10.00000	3.72	ug/L
>	Tb	159	263784.554	1.966	263784.554			ug/L
	Ho	165	4.444	94.373	0.000			ug/L
	Tl	205	21406.040	0.466	0.080	10.00000	2.43	ug/L
	Pb	208	28576.122	1.635	0.108	10.00000	1.40	ug/L
	Bi	209	48.889	16.817	0.000			ug/L
	Th	232	27209.140	3.258	0.103	10.00000	3.44	ug/L
	U	238	28223.025	0.478	0.107	10.00000	1.56	ug/L
	Na	23	232324.143	7.818	1.690	0.10000	7.01	mg/L
	Mg	24	119491.192	8.474	0.915	0.10000	7.36	mg/L
	K	39	964015.516	3.011	2.201	0.10000	8.31	mg/L
	Ca	44	23035.723	2.428	0.060	0.10000	7.13	mg/L
	Fe	54	53387.465	7.977	0.214	0.10000	12.55	mg/L
>	Sc-1	45	127647.236	1.688	127647.236			mg/L
	Kr	83	86.112	23.413	8.889			mg/L
	N	15	40728.845	7.230	9807.973			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Al	27					
>	Sc	45					
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72					
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Ba	135					
>	Tb	159					
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Wednesday, December 03, 2014 12:51:50
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Standard 2.62178
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	10151.038	6.524	10151.038			ug/L
	Be	9	3216.384	3.269	0.317	20.19196	4.90	ug/L
	Al	27	187212.438	2.416	1.546	99.79283	3.56	ug/L
>	Sc	45	119633.413	4.522	119633.413			ug/L
	V	51	58110.181	4.819	0.464	20.14590	5.42	ug/L
	Cr	52	53339.348	5.698	0.403	20.16070	1.29	ug/L
	Mn	55	78935.369	4.350	0.647	20.16205	0.18	ug/L
	Co	59	68382.201	2.440	0.572	20.12567	3.04	ug/L
	Ni	60	15426.102	3.641	0.129	20.24579	1.01	ug/L
	Cu	65	17963.024	3.840	0.149	20.04498	2.06	ug/L
	Zn	66	10451.510	1.032	0.115	19.73186	2.45	ug/L
>	Ge	72	87437.651	2.609	87437.651			ug/L
	As	75	14869.989	0.810	0.169	20.16852	1.83	ug/L
	Se	82	1332.379	1.578	0.015	20.04197	2.71	ug/L
	Y	89	17.778	32.924	4.444			ug/L
	Mo	98	28925.028	2.495	0.106	20.04056	0.95	ug/L
	Ag	107	46529.250	1.572	0.170	20.04800	0.84	ug/L
	Ag	109	45385.961	3.025	0.166	20.10265	2.44	ug/L
	Cd	111	11992.716	2.287	0.044	20.03930	2.05	ug/L
	Cd	114	26771.737	2.790	0.098	19.96423	1.69	ug/L
>	In	115	272890.838	1.618	272890.838			ug/L
	Sb	121	38116.466	2.122	0.139	19.99929	0.67	ug/L
	Ba	135	8420.114	1.695	0.032	19.85097	0.82	ug/L
>	Tb	159	263830.127	1.323	263830.127			ug/L
	Ho	165	0.556	173.205	-0.000			ug/L
	Tl	205	42671.910	2.654	0.161	20.00415	1.97	ug/L
	Pb	208	58039.174	1.380	0.219	20.07076	0.86	ug/L
	Bi	209	47.778	17.558	0.000			ug/L
	Th	232	54995.390	1.695	0.208	20.04915	0.41	ug/L
	U	238	57329.533	1.128	0.217	20.06124	0.47	ug/L
	Na	23	1973665.239	1.401	16.384	0.99969	3.22	mg/L
	Mg	24	1291515.835	2.218	10.788	1.00150	4.66	mg/L
	K	39	3101776.359	5.313	20.579	0.99931	4.12	mg/L
	Ca	44	87369.858	4.006	0.610	1.00015	1.84	mg/L
	Fe	54	217398.342	2.794	1.614	0.99681	2.21	mg/L
>	Sc-1	45	119633.413	4.522	119633.413			mg/L
	Kr	83	86.112	14.527	8.889			mg/L
	N	15	39617.133	6.034	8696.261			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Al	27					
>	Sc	45					
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72					
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Ba	135					
>	Tb	159					
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: Standard 3

Sample Date/Time: Wednesday, December 03, 2014 12:54:55
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Standard 3.62179
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	9318.084	8.261	9318.084			ug/L
	Be	9	16626.533	1.267	1.792	100.59371	8.15	ug/L
	Al	27	904983.944	2.733	8.202	501.32545	1.80	ug/L
>	Sc	45	110121.755	4.354	110121.755			ug/L
	V	51	272277.846	7.444	2.448	100.28257	3.13	ug/L
	Cr	52	229406.931	5.150	2.040	100.10063	1.05	ug/L
	Mn	55	354264.589	6.129	3.203	99.99066	1.79	ug/L
	Co	59	330885.621	3.903	3.005	100.26074	1.70	ug/L
	Ni	60	72827.641	4.301	0.661	100.18464	1.22	ug/L
	Cu	65	86089.334	3.519	0.781	100.22251	2.91	ug/L
	Zn	66	48631.958	3.496	0.566	99.86213	1.45	ug/L
>	Ge	72	85202.546	2.079	85202.546			ug/L
	As	75	70615.073	1.468	0.828	99.93317	1.03	ug/L
	Se	82	6477.204	1.998	0.076	100.05655	4.02	ug/L
	Y	89	28.889	31.775	15.556			ug/L
	Mo	98	144305.453	0.797	0.529	100.02049	0.25	ug/L
	Ag	107	227138.191	1.544	0.833	99.90332	2.17	ug/L
	Ag	109	218710.418	1.566	0.802	99.85402	2.13	ug/L
	Cd	111	59407.189	1.285	0.218	99.97053	0.59	ug/L
	Cd	114	132565.326	1.022	0.486	99.95209	0.50	ug/L
>	In	115	272591.942	1.003	272591.942			ug/L
	Sb	121	191921.415	2.230	0.704	100.04468	1.36	ug/L
	Ba	135	42265.228	1.574	0.162	100.04030	2.60	ug/L
>	Tb	159	261089.985	1.624	261089.985			ug/L
	Ho	165	1.111	173.205	-0.000			ug/L
	Tl	205	214773.603	0.842	0.822	100.10056	1.12	ug/L
	Pb	208	291757.608	0.769	1.117	100.10124	0.87	ug/L
	Bi	209	18.889	5.094	0.000			ug/L
	Th	232	289272.146	1.515	1.108	100.30272	2.15	ug/L
	U	238	297918.733	2.848	1.141	100.24218	1.22	ug/L
	Na	23	18197690.311	3.940	165.146	10.00076	0.95	mg/L
	Mg	24	11985185.272	1.793	108.895	10.00108	2.53	mg/L
	K	39	22962590.718	7.284	202.995	9.99855	3.01	mg/L
	Ca	44	678920.116	4.027	6.046	9.99910	1.26	mg/L
	Fe	54	1743685.828	2.280	15.639	9.99648	2.07	mg/L
>	Sc-1	45	110121.755	4.354	110121.755			mg/L
	Kr	83	85.556	11.077	8.333			mg/L
	N	15	41967.339	5.114	11046.466			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Al	27					
>	Sc	45					
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72					
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Ba	135					
>	Tb	159					
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Calibration

Analyte	Mass	Correlation Coefficient
Li	6	
Be	9	0.999641
Al	27	0.999929
Sc	45	
V	51	0.999916
Cr	52	0.999984
Mn	55	0.999994
Co	59	0.999929
Ni	60	0.999953
Cu	65	0.999950
Zn	66	0.999963
Ge	72	
As	75	0.999989
Se	82	0.999996
Y	89	
Mo	98	0.999999
Ag	107	0.999990
Ag	109	0.999976
Cd	111	0.999999
Cd	114	0.999997
In	115	
Sb	121	0.999998
Ba	135	0.999993
Tb	159	
Ho	165	
Tl	205	0.999990
Pb	208	0.999989
Bi	209	
Th	232	0.999908
U	238	0.999941
Na	23	1.000000
Mg	24	0.999998
K	39	0.999999
Ca	44	1.000000
Fe	54	0.999988
Sc-1	45	
Kr	83	
N	15	

Method 200.8 - Summary Report

Sample ID: SEQ-ICV

Sample Date/Time: Wednesday, December 03, 2014 12:58:00
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-ICV.62180
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	8650.493	12.870	8650.493			ug/L
	Be	9	8244.880	1.231	0.962	53.99559	11.09	ug/L
	Al	27	428711.324	3.860	4.070	248.78300	2.15	ug/L
>	Sc	45	104900.659	6.055	104900.659			ug/L
	V	51	125174.305	7.654	1.170	47.94171	1.67	ug/L
	Cr	52	109856.647	5.361	1.004	49.29366	1.14	ug/L
	Mn	55	166708.393	7.516	1.576	49.20722	3.80	ug/L
	Co	59	153709.484	3.150	1.467	48.93845	3.31	ug/L
	Ni	60	33658.075	1.657	0.321	48.67564	5.16	ug/L
	Cu	65	40351.062	3.626	0.384	49.29133	3.77	ug/L
	Zn	66	22849.480	1.980	0.272	47.95669	0.42	ug/L
>	Ge	72	82652.005	2.351	82652.005			ug/L
	As	75	34010.318	0.356	0.411	49.58079	2.02	ug/L
	Se	82	3228.424	3.762	0.039	51.28328	6.01	ug/L
	Y	89	13.333	12.500	-0.000			ug/L
	Mo	98	70885.815	1.130	0.261	49.34318	1.34	ug/L
	Ag	107	113207.784	0.770	0.417	50.04066	1.07	ug/L
	Ag	109	108958.214	0.236	0.402	49.99262	0.55	ug/L
	Cd	111	29321.784	0.191	0.108	49.59558	0.65	ug/L
	Cd	114	65157.553	0.411	0.240	49.37585	0.17	ug/L
>	In	115	271200.286	0.555	271200.286			ug/L
	Sb	121	94742.345	2.136	0.349	49.62501	1.76	ug/L
	Ba	135	20908.249	0.884	0.078	48.28909	1.64	ug/L
>	Tb	159	267453.323	1.394	267453.323			ug/L
	Ho	165	1.111	86.603	-0.000			ug/L
	Tl	205	109703.712	2.552	0.409	49.87214	3.42	ug/L
	Pb	208	146793.351	0.992	0.548	49.13794	0.52	ug/L
	Bi	209	17.222	29.565	0.000			ug/L
	Th	232	141541.671	1.478	0.529	47.88219	0.56	ug/L
	U	238	147408.186	1.004	0.551	48.42543	0.48	ug/L
	Na	23	8427167.969	2.499	80.318	4.86383	3.47	mg/L
	Mg	24	5095185.714	4.248	48.586	4.46216	1.77	mg/L
	K	39	10516191.417	4.099	94.996	4.67903	3.36	mg/L
	Ca	44	319535.177	3.784	2.928	4.84340	2.30	mg/L
	Fe	54	798532.147	6.619	7.407	4.73461	2.06	mg/L
>	Sc-1	45	104900.659	6.055	104900.659			mg/L
	Kr	83	82.223	22.236	5.000			mg/L
	N	15	39285.000	5.598	8364.128			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		82.513			
	Be	9	107.991				
	Al	27	99.513				
>	Sc	45		83.831			
	V	51	95.883				
	Cr	52	98.587				
	Mn	55	98.414				
	Co	59	97.877				
	Ni	60	97.351				
	Cu	65	98.583				
	Zn	66	95.913				
>	Ge	72		93.404			
	As	75	99.162				
	Se	82	102.567				
	Y	89					
	Mo	98	98.686				
	Ag	107	100.081				
	Ag	109	99.985				
	Cd	111	99.191				
	Cd	114					
>	In	115		99.575			
	Sb	121	99.250				
	Ba	135	96.578				
>	Tb	159		101.632			
	Ho	165					
	Tl	205	99.744				
	Pb	208	98.276				
	Bi	209					
	Th	232	95.764				
	U	238	96.851				
	Na	23	97.277				
	Mg	24	89.243				
	K	39	93.581				
	Ca	44	96.868				
	Fe	54	94.692				
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-SCV

Sample Date/Time: Wednesday, December 03, 2014 13:01:20
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-SCV.62181
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	8470.791	11.902	8470.791			ug/L
	Be	9	8707.728	0.327	1.037	58.19220	10.99	ug/L
	Al	27	87603.916	4.738	0.833	50.92262	3.42	ug/L
>	Sc	45	102733.579	5.534	102733.579			ug/L
	V	51	125554.251	5.546	1.200	49.15870	1.50	ug/L
	Cr	52	108846.180	5.866	1.017	49.89144	3.19	ug/L
	Mn	55	167624.735	4.119	1.620	50.58506	3.34	ug/L
	Co	59	151141.306	2.340	1.473	49.13697	3.47	ug/L
	Ni	60	32821.379	0.367	0.320	48.46876	5.57	ug/L
	Cu	65	40309.123	3.591	0.392	50.26141	2.61	ug/L
	Zn	66	22454.737	3.212	0.271	47.78920	1.45	ug/L
>	Ge	72	81498.757	2.836	81498.757			ug/L
	As	75	33297.519	2.430	0.408	49.25853	5.14	ug/L
	Se	82	16462.848	1.404	0.202	266.42804	4.31	ug/L
	Y	89	21.667	20.352	8.333			ug/L
	Mo	98	72789.976	3.761	0.268	50.71708	5.16	ug/L
	Ag	107	113820.447	0.927	0.420	50.34385	2.39	ug/L
	Ag	109	109806.241	0.873	0.405	50.41745	2.72	ug/L
	Cd	111	29268.308	1.773	0.108	49.52990	1.90	ug/L
	Cd	114	66490.307	0.268	0.245	50.42036	2.34	ug/L
>	In	115	271102.039	2.085	271102.039			ug/L
	Sb	121	100971.993	1.523	0.372	52.93158	3.04	ug/L
	Ba	135	21506.952	2.194	0.080	49.43229	0.79	ug/L
>	Tb	159	268708.048	1.715	268708.048			ug/L
	Ho	165	1.667	0.000	-0.000			ug/L
	Tl	205	113358.328	1.307	0.421	51.28617	0.53	ug/L
	Pb	208	151415.893	1.485	0.563	50.44932	0.34	ug/L
	Bi	209	44.445	9.437	0.000			ug/L
	Th	232	145336.009	0.801	0.540	48.94209	0.92	ug/L
	U	238	151782.943	1.700	0.565	49.64089	2.78	ug/L
	Na	23	8748007.512	7.960	85.000	5.14735	4.74	mg/L
	Mg	24	5798882.476	4.468	56.451	5.18457	1.63	mg/L
	K	39	10966542.818	4.916	101.479	4.99836	4.14	mg/L
	Ca	44	323660.937	5.234	3.033	5.01636	4.95	mg/L
	Fe	54	838868.985	5.853	7.978	5.09958	8.28	mg/L
>	Sc-1	45	102733.579	5.534	102733.579			mg/L
	Kr	83	91.112	8.645	13.889			mg/L
	N	15	38715.378	5.969	7794.505			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		80.799			
	Be	9	116.384				
	Al	27	101.845				
>	Sc	45		82.099			
	V	51	98.317				
	Cr	52	99.783				
	Mn	55	101.170				
	Co	59	98.274				
	Ni	60	96.938				
	Cu	65	100.523				
	Zn	66	95.578				
>	Ge	72		92.101			
	As	75	98.517				
	Se	82	106.571				
	Y	89					
	Mo	98	101.434				
	Ag	107	100.688				
	Ag	109	100.835				
	Cd	111	99.060				
	Cd	114					
>	In	115		99.539			
	Sb	121	105.863				
	Ba	135	98.865				
>	Tb	159		102.109			
	Ho	165					
	Tl	205	102.572				
	Pb	208	100.899				
	Bi	209					
	Th	232	97.884				
	U	238	99.282				
	Na	23	102.947				
	Mg	24	103.691				
	K	39	99.967				
	Ca	44	100.327				
	Fe	54	101.992				
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-ICB

Sample Date/Time: Wednesday, December 03, 2014 13:04:39
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-ICB.62182
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	8268.823	7.943	8268.823			ug/L
	Be	9	8.889	28.641	0.001	0.03465	63.04	ug/L
	Al	27	2270.414	7.098	0.002	0.14602	53.95	ug/L
>	Sc	45	100528.344	5.005	100528.344			ug/L
	V	51	2578.612	21.462	0.003	0.14160	120.62	ug/L
	Cr	52	4210.870	9.027	-0.001	-0.06556	178.30	ug/L
	Mn	55	1425.277	1.428	0.001	0.04093	47.42	ug/L
	Co	59	73.889	6.891	0.000	0.01492	11.84	ug/L
	Ni	60	42.911	7.767	0.000	0.01535	14.60	ug/L
	Cu	65	102.779	5.213	0.000	0.01596	80.89	ug/L
	Zn	66	341.120	4.695	-0.000	-0.08472	39.14	ug/L
>	Ge	72	81757.391	0.620	81757.391			ug/L
	As	75	24.419	171.695	-0.000	-0.05483	112.87	ug/L
	Se	82	24.778	34.069	0.000	0.10330	131.40	ug/L
	Y	89	24.444	21.917	11.111			ug/L
	Mo	98	412.182	7.494	0.001	0.20857	12.97	ug/L
	Ag	107	106.112	6.348	0.000	0.04056	5.21	ug/L
	Ag	109	93.890	19.634	0.000	0.03516	23.69	ug/L
	Cd	111	14.516	36.058	0.000	0.02079	41.88	ug/L
	Cd	114	43.224	4.651	0.000	0.02545	5.47	ug/L
>	In	115	268179.377	1.892	268179.377			ug/L
	Sb	121	328.898	3.804	0.001	0.14017	5.29	ug/L
	Ba	135	16.111	56.975	0.000	0.00262	795.53	ug/L
>	Tb	159	272411.400	1.491	272411.400			ug/L
	Ho	165	2.222	114.564	0.000			ug/L
	Tl	205	246.116	7.241	0.000	0.01433	45.27	ug/L
	Pb	208	188.334	16.003	0.000	0.01170	88.92	ug/L
	Bi	209	3.889	24.744	0.000			ug/L
	Th	232	265.006	9.518	0.001	0.04859	19.18	ug/L
	U	238	58.334	12.454	0.000	0.01511	15.80	ug/L
	Na	23	16751.924	6.340	0.038	0.00228	8.07	mg/L
	Mg	24	3705.544	4.263	0.016	0.00151	6.87	mg/L
	K	39	616167.312	1.607	0.785	0.03868	28.20	mg/L
	Ca	44	14534.661	1.538	0.024	0.04049	36.21	mg/L
	Fe	54	22213.307	6.570	0.017	0.01056	34.36	mg/L
>	Sc-1	45	100528.344	5.005	100528.344			mg/L
	Kr	83	73.889	20.959	-3.333			mg/L
	N	15	29626.892	6.070	-1293.980			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		78.872			
	Be	9					
	Al	27					
>	Sc	45		80.337			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		92.393			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		98.466			
	Sb	121					
	Ba	135					
>	Tb	159		103.516			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-CRL

Sample Date/Time: Wednesday, December 03, 2014 13:07:58
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CRL.62183
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	8432.402	11.600	8432.402			ug/L
	Be	9	41.111	16.878	0.004	0.24666	13.22	ug/L
	Al	27	35823.939	8.168	0.329	20.12189	6.78	ug/L
>	Sc	45	102455.913	1.840	102455.913			ug/L
	V	51	6652.796	11.023	0.043	1.75637	16.83	ug/L
	Cr	52	8226.524	2.374	0.037	1.82073	1.25	ug/L
	Mn	55	2954.263	5.435	0.016	0.49765	7.38	ug/L
	Co	59	587.250	9.643	0.005	0.18143	8.21	ug/L
	Ni	60	662.969	3.480	0.006	0.93136	2.98	ug/L
	Cu	65	854.503	3.713	0.007	0.95407	2.15	ug/L
	Zn	66	2707.253	2.561	0.029	5.04907	0.94	ug/L
>	Ge	72	81363.506	1.756	81363.506			ug/L
	As	75	1446.607	13.017	0.017	2.05215	11.93	ug/L
	Se	82	115.558	12.294	0.001	1.57929	16.07	ug/L
	Y	89	18.333	9.091	5.000			ug/L
	Mo	98	1563.666	5.959	0.005	1.00187	8.13	ug/L
	Ag	107	2140.922	1.597	0.008	0.93384	2.53	ug/L
	Ag	109	2107.578	2.355	0.008	0.95308	3.94	ug/L
	Cd	111	140.073	7.044	0.001	0.23161	8.08	ug/L
	Cd	114	280.978	11.997	0.001	0.20370	10.75	ug/L
>	In	115	272918.876	1.605	272918.876			ug/L
	Sb	121	2077.568	3.894	0.007	1.04847	5.45	ug/L
	Ba	135	4099.678	1.917	0.015	9.22569	2.39	ug/L
>	Tb	159	273673.937	1.175	273673.937			ug/L
	Ho	165	0.556	173.205	-0.000			ug/L
	Tl	205	2206.501	2.862	0.007	0.88655	4.22	ug/L
	Pb	208	735.017	5.333	0.002	0.19037	6.80	ug/L
	Bi	209	5.000	57.735	0.000			ug/L
	Th	232	2299.870	8.624	0.008	0.72119	8.53	ug/L
	U	238	613.364	6.408	0.002	0.19316	5.67	ug/L
	Na	23	5144.349	8.496	-0.079	-0.00476	4.52	mg/L
	Mg	24	2115.359	6.038	0.000	0.00002	515.17	mg/L
	K	39	598458.360	4.388	0.488	0.02406	34.43	mg/L
	Ca	44	14580.878	0.748	0.022	0.03631	12.75	mg/L
	Fe	54	22537.069	5.857	0.016	0.00993	63.83	mg/L
>	Sc-1	45	102455.913	1.840	102455.913			mg/L
	Kr	83	94.445	9.056	17.222			mg/L
	N	15	31045.978	5.802	125.105			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		80.432			
	Be	9	123.332				
	Al	27	100.609				
>	Sc	45		81.877			
	V	51	87.819				
	Cr	52	91.037				
	Mn	55	99.531				
	Co	59	90.713				
	Ni	60	93.136				
	Cu	65	95.407				
	Zn	66	100.981				
>	Ge	72		91.948			
	As	75	102.608				
	Se	82	78.964				
	Y	89					
	Mo	98	100.187				
	Ag	107	93.384				
	Ag	109	95.308				
	Cd	111	115.806				
	Cd	114					
>	In	115		100.206			
	Sb	121	104.847				
	Ba	135	92.257				
>	Tb	159		103.996			
	Ho	165					
	Tl	205	88.655				
	Pb	208	95.186				
	Bi	209					
	Th	232	72.119				
	U	238	96.579				
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-IFA

Sample Date/Time: Wednesday, December 03, 2014 13:11:17
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-IFA.62184
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	10003.565	4.466	10003.565			ug/L
	Be	9	4.444	21.651	-0.000	-0.00195	230.13	ug/L
	Al	27	18896996.651	5.312	156.718	9579.16282	4.21	ug/L
>	Sc	45	120527.276	1.250	120527.276			ug/L
	V	51	1768.891	21.314	-0.007	-0.30354	39.90	ug/L
	Cr	52	5579.714	3.761	0.003	0.15227	51.21	ug/L
	Mn	55	754.684	3.039	-0.007	-0.20688	1.92	ug/L
	Co	59	111.112	7.697	0.001	0.02111	9.44	ug/L
	Ni	60	-56.085	74.574	-0.001	-0.11948	43.28	ug/L
	Cu	65	707.818	6.459	0.005	0.63796	8.18	ug/L
	Zn	66	1171.221	3.476	0.009	1.56496	6.33	ug/L
>	Ge	72	86629.608	0.895	86629.608			ug/L
	As	75	88.007	60.966	0.000	0.03224	234.18	ug/L
	Se	82	11.667	120.103	-0.000	-0.11772	181.96	ug/L
	Y	89	18.889	22.205	5.556			ug/L
	Mo	98	270343.069	1.397	1.031	195.04626	1.16	ug/L
	Ag	107	46.111	18.548	0.000	0.01425	27.14	ug/L
	Ag	109	50.000	17.321	0.000	0.01538	26.90	ug/L
	Cd	111	46.405	92.523	0.000	0.07719	97.06	ug/L
	Cd	114	575.460	2.854	0.002	0.44383	2.85	ug/L
>	In	115	261973.269	0.269	261973.269			ug/L
	Sb	121	181.114	3.831	0.000	0.06407	6.24	ug/L
	Ba	135	45.556	10.561	0.000	0.08255	15.12	ug/L
>	Tb	159	241776.209	0.720	241776.209			ug/L
	Ho	165	1.111	173.205	-0.000			ug/L
	Tl	205	73.889	16.318	-0.000	-0.05842	10.45	ug/L
	Pb	208	211.668	15.370	0.000	0.02808	41.00	ug/L
	Bi	209	50.556	7.613	0.000			ug/L
	Th	232	257.783	7.210	0.001	0.05695	11.22	ug/L
	U	238	8.889	39.031	-0.000	-0.00049	255.71	ug/L
	Na	23	19603187.981	1.057	162.547	9.84338	2.28	mg/L
	Mg	24	12621528.987	2.243	104.697	9.61555	1.75	mg/L
	K	39	24843760.449	2.870	200.755	9.88824	2.02	mg/L
	Ca	44	759316.674	1.953	6.180	10.22124	2.01	mg/L
	Fe	54	1938410.871	0.852	15.880	10.15010	1.15	mg/L
>	Sc-1	45	120527.276	1.250	120527.276			mg/L
	Kr	83	77.778	19.795	0.556			mg/L
	N	15	40098.260	2.227	9177.388			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		95.419			
	Be	9					
	Al	27	95.792				
>	Sc	45		96.319			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		97.899			
	As	75					
	Se	82					
	Y	89					
	Mo	98	97.523				
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		96.187			
	Sb	121					
	Ba	135					
>	Tb	159		91.875			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23	98.434				
	Mg	24	96.155				
	K	39	98.882				
	Ca	44	102.212				
	Fe	54	101.501				
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-IFB

Sample Date/Time: Wednesday, December 03, 2014 13:14:36
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-IFB.62185
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	10438.182	7.055	10438.182			ug/L
	Be	9	2.778	34.641	-0.000	-0.01191	41.07	ug/L
	Al	27	18566055.494	2.821	149.545	9140.74270	1.38	ug/L
>	Sc	45	124122.893	1.840	124122.893			ug/L
	V	51	1438.135	64.268	-0.011	-0.43270	68.10	ug/L
	Cr	52	55629.469	3.653	0.405	19.87224	2.22	ug/L
	Mn	55	81763.093	0.704	0.646	20.16782	1.26	ug/L
	Co	59	70497.145	2.152	0.568	18.93926	0.58	ug/L
	Ni	60	15359.225	1.756	0.123	18.71078	3.19	ug/L
	Cu	65	18593.729	0.749	0.149	19.10617	2.06	ug/L
	Zn	66	10925.097	1.172	0.121	21.39358	1.71	ug/L
>	Ge	72	86776.653	1.214	86776.653			ug/L
	As	75	13656.151	0.986	0.157	18.90089	1.03	ug/L
	Se	82	7.000	186.448	-0.000	-0.19168	103.20	ug/L
	Y	89	16.111	41.808	2.778			ug/L
	Mo	98	267014.213	1.651	1.012	191.36419	1.68	ug/L
	Ag	107	43206.150	3.199	0.164	19.63325	2.89	ug/L
	Ag	109	41662.852	0.794	0.158	19.65304	1.50	ug/L
	Cd	111	11498.202	1.775	0.044	19.99509	1.05	ug/L
	Cd	114	26160.328	1.624	0.099	20.37999	1.04	ug/L
>	In	115	263733.927	0.724	263733.927			ug/L
	Sb	121	117.779	4.549	0.000	0.02926	9.09	ug/L
	Ba	135	23.333	44.607	0.000	0.02639	102.73	ug/L
>	Tb	159	239195.664	1.385	239195.664			ug/L
	Ho	165	0.000		-0.000			ug/L
	Tl	205	61.667	5.405	-0.001	-0.06423	3.28	ug/L
	Pb	208	180.001	13.889	0.000	0.01714	56.51	ug/L
	Bi	209	5.556	75.498	0.000			ug/L
	Th	232	118.334	19.718	0.000	0.00519	165.14	ug/L
	U	238	7.778	86.603	-0.000	-0.00083	301.65	ug/L
	Na	23	19341040.532	2.802	155.680	9.42756	1.41	mg/L
	Mg	24	12671580.895	2.217	102.064	9.37370	0.49	mg/L
	K	39	25680888.876	4.772	201.494	9.92465	3.55	mg/L
	Ca	44	776811.726	0.534	6.139	10.15402	1.75	mg/L
	Fe	54	1956937.171	0.857	15.566	9.94980	2.42	mg/L
>	Sc-1	45	124122.893	1.840	124122.893			mg/L
	Kr	83	87.778	16.589	10.556			mg/L
	N	15	40084.671	7.101	9163.798			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		99.565			
	Be	9					
	Al	27	91.407				
>	Sc	45		99.193			
	V	51					
	Cr	52	99.361				
	Mn	55	100.839				
	Co	59	94.696				
	Ni	60	93.554				
	Cu	65	95.531				
	Zn	66	106.968				
>	Ge	72		98.065			
	As	75	94.504				
	Se	82					
	Y	89					
	Mo	98	95.682				
	Ag	107	98.166				
	Ag	109	98.265				
	Cd	111	99.975				
	Cd	114					
>	In	115		96.833			
	Sb	121					
	Ba	135					
>	Tb	159		90.894			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23	94.276				
	Mg	24	93.737				
	K	39	99.246				
	Ca	44	101.540				
	Fe	54	99.498				
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: 1412021-BLK1

Sample Date/Time: Wednesday, December 03, 2014 13:17:56
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1412021
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1412021-BLK1.62186
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	9681.392	4.503	9681.392			ug/L
	Be	9	5.000	33.333	0.000	0.00247	424.66	ug/L
	Al	27	8111.935	4.704	0.048	2.91145	10.78	ug/L
>	Sc	45	119838.509	5.418	119838.509			ug/L
	V	51	2408.568	24.284	-0.002	-0.08174	232.50	ug/L
	Cr	52	4522.749	4.435	-0.005	-0.26641	20.06	ug/L
	Mn	55	1617.297	3.376	0.001	0.01979	131.24	ug/L
	Co	59	48.334	6.897	0.000	0.00382	10.10	ug/L
	Ni	60	25.528	9.663	-0.000	-0.01704	11.08	ug/L
	Cu	65	65.000	2.564	-0.000	-0.04585	11.66	ug/L
	Zn	66	251.116	11.916	-0.002	-0.29806	22.72	ug/L
>	Ge	72	84829.077	1.238	84829.077			ug/L
	As	75	90.755	89.579	0.000	0.03920	296.59	ug/L
	Se	82	31.445	15.374	0.000	0.19197	36.07	ug/L
	Y	89	18.333	18.182	5.000			ug/L
	Mo	98	1107.885	16.795	0.004	0.69785	20.42	ug/L
	Ag	107	78.334	23.693	0.000	0.02798	27.43	ug/L
	Ag	109	86.667	13.462	0.000	0.03168	15.57	ug/L
	Cd	111	8.889	85.927	0.000	0.01123	116.92	ug/L
	Cd	114	24.895	49.294	0.000	0.01137	83.38	ug/L
>	In	115	269025.358	1.613	269025.358			ug/L
	Sb	121	307.230	9.845	0.001	0.12798	10.37	ug/L
	Ba	135	5.000	33.333	-0.000	-0.02185	17.38	ug/L
>	Tb	159	254900.668	2.214	254900.668			ug/L
	Ho	165	2.778	91.652	0.000			ug/L
	Tl	205	88.890	7.099	-0.000	-0.05318	5.42	ug/L
	Pb	208	157.779	12.243	0.000	0.00524	147.35	ug/L
	Bi	209	0.000		-0.000			ug/L
	Th	232	40.556	22.634	-0.000	-0.02518	12.54	ug/L
	U	238	3.333	100.000	-0.000	-0.00256	45.39	ug/L
	Na	23	9319.739	6.273	-0.051	-0.00309	8.68	mg/L
	Mg	24	7101.261	5.175	0.039	0.00357	9.22	mg/L
	K	39	633272.701	1.942	-0.060	-0.00297	301.30	mg/L
	Ca	44	15480.262	1.563	0.009	0.01481	54.36	mg/L
	Fe	54	26552.536	3.097	0.017	0.01112	29.17	mg/L
>	Sc-1	45	119838.509	5.418	119838.509			mg/L
	Kr	83	79.445	21.531	2.222			mg/L
	N	15	31234.648	4.961	313.775			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		92.346			
	Be	9					
	Al	27					
>	Sc	45		95.769			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		95.864			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		98.776			
	Sb	121					
	Ba	135					
>	Tb	159		96.862			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: 1412021-BS1

Sample Date/Time: Wednesday, December 03, 2014 13:21:00
Sample Type: Spike - 3 of 1
Sample Description:
Number of Replicates: 3
Batch ID: 1412021
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1412021-BS1.62187
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	8989.811	6.228	8989.811			ug/L
	Be	9	15269.746	1.800	1.704	95.63913	7.72	ug/L
	Al	27	17651221.254	5.600	161.126	9848.64231	2.26	ug/L
>	Sc	45	109492.180	3.736	109492.180			ug/L
	V	51	255799.355	5.693	2.313	94.75084	2.75	ug/L
	Cr	52	222111.632	2.554	1.986	97.47262	1.51	ug/L
	Mn	55	342176.399	4.741	3.111	97.14781	1.01	ug/L
	Co	59	303582.557	5.610	2.772	92.46830	2.79	ug/L
	Ni	60	67285.442	4.962	0.614	93.05602	1.28	ug/L
	Cu	65	80186.630	3.919	0.731	93.83028	0.32	ug/L
	Zn	66	46493.262	6.049	0.534	94.21982	4.34	ug/L
>	Ge	72	86264.700	1.752	86264.700			ug/L
	As	75	64974.762	1.112	0.753	90.83140	2.87	ug/L
	Se	82	31999.735	2.811	0.371	489.36332	4.54	ug/L
	Y	89	65.000	6.784	51.667			ug/L
	Mo	98	136830.245	2.507	0.516	97.47686	1.05	ug/L
	Ag	107	215533.418	0.410	0.813	97.45558	1.86	ug/L
	Ag	109	209015.697	1.334	0.788	98.08971	1.03	ug/L
	Cd	111	56307.656	0.304	0.212	97.41602	1.28	ug/L
	Cd	114	124849.346	1.563	0.471	96.76369	0.03	ug/L
>	In	115	265181.873	1.547	265181.873			ug/L
	Sb	121	189255.636	0.991	0.714	101.43390	1.68	ug/L
	Ba	135	40010.440	0.660	0.156	96.37753	2.39	ug/L
>	Tb	159	256565.136	1.831	256565.136			ug/L
	Ho	165	1.667	100.000	0.000			ug/L
	Tl	205	207508.773	1.034	0.808	98.44242	2.86	ug/L
	Pb	208	277720.960	2.485	1.082	96.94737	0.66	ug/L
	Bi	209	11.667	49.487	0.000			ug/L
	Th	232	264289.581	1.410	1.030	93.24351	0.61	ug/L
	U	238	281154.253	0.505	1.096	96.29934	1.49	ug/L
	Na	23	17939231.831	3.900	163.709	9.91373	0.79	mg/L
	Mg	24	11933281.852	3.677	108.977	10.00857	1.46	mg/L
	K	39	22979438.586	7.820	204.362	10.06589	4.90	mg/L
	Ca	44	708887.786	9.812	6.345	10.49470	6.42	mg/L
	Fe	54	1745779.458	3.590	15.741	10.06151	0.84	mg/L
>	Sc-1	45	109492.180	3.736	109492.180			mg/L
	Kr	83	104.445	11.763	27.223			mg/L
	N	15	31867.265	4.696	946.392			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		85.749			
	Be	9			95.637		
	Al	27			98.457		
>	Sc	45		87.500			
	V	51			94.833		
	Cr	52			97.739		
	Mn	55			97.128		
	Co	59			92.464		
	Ni	60			93.073		
	Cu	65			93.876		
	Zn	66					
>	Ge	72		97.487			
	As	75			90.792		
	Se	82			97.834		
	Y	89					
	Mo	98			96.779		
	Ag	107			97.428		
	Ag	109			98.058		
	Cd	111			97.405		
	Cd	114					
>	In	115		97.365			
	Sb	121			101.306		
	Ba	135			96.399		
>	Tb	159		97.495			
	Ho	165					
	Tl	205			98.496		
	Pb	208			96.942		
	Bi	209					
	Th	232			93.269		
	U	238			96.302		
	Na	23			99.168		
	Mg	24			100.050		
	K	39			100.689		
	Ca	44			104.799		
	Fe	54			100.504		
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C141006-02 @10X

Sample Date/Time: Wednesday, December 03, 2014 13:24:04
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1412021
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C141006-02 @10X.62188
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	10787.083	2.698	10787.083			ug/L
	Be	9	8.889	47.186	0.000	0.01989	116.17	ug/L
	Al	27	7593.544	12.149	0.038	2.29729	20.69	ug/L
>	Sc	45	131560.376	1.280	131560.376			ug/L
	V	51	2462.996	42.296	-0.003	-0.13902	227.21	ug/L
	Cr	52	5889.445	5.161	0.002	0.07681	120.19	ug/L
	Mn	55	855740.170	0.701	6.492	202.69735	0.69	ug/L
	Co	59	501.131	9.503	0.004	0.11757	11.58	ug/L
	Ni	60	-243.824	14.097	-0.002	-0.33001	11.43	ug/L
	Cu	65	352.788	7.108	0.002	0.22830	9.61	ug/L
	Zn	66	9958.484	1.118	0.107	18.91185	1.30	ug/L
>	Ge	72	89046.051	1.478	89046.051			ug/L
	As	75	40.500	115.741	-0.000	-0.03590	175.02	ug/L
	Se	82	34.778	18.594	0.000	0.21789	40.87	ug/L
	Y	89	28.889	12.010	15.556			ug/L
	Mo	98	1163.703	18.554	0.004	0.72255	22.11	ug/L
	Ag	107	49.445	45.765	0.000	0.01485	67.54	ug/L
	Ag	109	38.889	13.777	0.000	0.00932	28.74	ug/L
	Cd	111	28.548	36.048	0.000	0.04389	39.18	ug/L
	Cd	114	62.305	24.767	0.000	0.03920	31.25	ug/L
>	In	115	273812.080	1.284	273812.080			ug/L
	Sb	121	314.452	6.324	0.001	0.12911	9.07	ug/L
	Ba	135	4091.895	1.353	0.016	9.95579	0.54	ug/L
>	Tb	159	253155.463	0.830	253155.463			ug/L
	Ho	165	2.222	43.301	0.000			ug/L
	Tl	205	120.557	23.557	-0.000	-0.03758	37.56	ug/L
	Pb	208	203.890	15.984	0.000	0.02179	50.46	ug/L
	Bi	209	1.111	86.603	-0.000			ug/L
	Th	232	1107.878	18.488	0.004	0.35632	19.72	ug/L
	U	238	66.667	33.072	0.000	0.01942	39.08	ug/L
	Na	23	1800062.701	0.494	13.555	0.82088	1.70	mg/L
	Mg	24	2498751.113	3.994	18.981	1.74321	5.21	mg/L
	K	39	1166953.593	2.733	3.522	0.17346	9.85	mg/L
	Ca	44	1790932.606	0.850	13.494	22.31787	1.24	mg/L
	Fe	54	29636.881	1.018	0.021	0.01337	7.06	mg/L
>	Sc-1	45	131560.376	1.280	131560.376			mg/L
	Kr	83	79.445	26.231	2.222			mg/L
	N	15	31053.271	6.366	132.399			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		102.893			
	Be	9					
	Al	27					
>	Sc	45		105.136			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		100.630			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		100.534			
	Sb	121					
	Ba	135					
>	Tb	159		96.199			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: 1412021-DUP1 @10X

Sample Date/Time: Wednesday, December 03, 2014 13:27:08
Sample Type: Duplicate of 3
Sample Description:
Number of Replicates: 3
Batch ID: 1412021
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1412021-DUP1 @10X.62189
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	11493.912	5.339	11493.912			ug/L
	Be	9	5.000	100.000	-0.000	-0.00254	979.51	ug/L
	Al	27	3832.286	2.910	0.008	0.48537	16.67	ug/L
>	Sc	45	136263.751	2.179	136263.751			ug/L
	V	51	3048.720	6.262	0.000	0.01386	564.12	ug/L
	Cr	52	6356.566	2.690	0.003	0.16962	13.00	ug/L
	Mn	55	891023.252	3.195	6.529	203.85864	4.45	ug/L
	Co	59	496.131	9.104	0.003	0.11204	12.20	ug/L
	Ni	60	-340.387	6.214	-0.003	-0.42768	3.87	ug/L
	Cu	65	311.119	6.784	0.001	0.17760	14.19	ug/L
	Zn	66	10183.847	1.606	0.110	19.46689	1.90	ug/L
>	Ge	72	88565.323	0.494	88565.323			ug/L
	As	75	-22.832	257.740	-0.001	-0.12152	65.71	ug/L
	Se	82	17.222	17.562	-0.000	-0.03993	114.23	ug/L
	Y	89	36.667	20.830	23.333			ug/L
	Mo	98	603.926	3.916	0.002	0.34374	5.12	ug/L
	Ag	107	17.778	14.321	0.000	0.00110	99.55	ug/L
	Ag	109	10.000	16.667	-0.000	-0.00373	21.91	ug/L
	Cd	111	17.515	24.170	0.000	0.02606	28.79	ug/L
	Cd	114	37.380	78.681	0.000	0.02088	107.38	ug/L
>	In	115	268017.704	0.982	268017.704			ug/L
	Sb	121	123.890	6.214	0.000	0.03152	14.85	ug/L
	Ba	135	3934.016	0.759	0.016	9.80196	1.27	ug/L
>	Tb	159	247212.150	0.514	247212.150			ug/L
	Ho	165	3.333	132.288	0.000			ug/L
	Tl	205	58.334	13.093	-0.001	-0.06690	5.81	ug/L
	Pb	208	133.889	5.031	-0.000	-0.00178	149.11	ug/L
	Bi	209	1.667	0.000	-0.000			ug/L
	Th	232	402.235	2.532	0.001	0.10775	2.77	ug/L
	U	238	16.111	26.034	0.000	0.00202	74.17	ug/L
	Na	23	1846251.895	1.852	13.427	0.81311	3.76	mg/L
	Mg	24	2639084.278	1.686	19.357	1.77781	3.79	mg/L
	K	39	1255221.207	0.874	3.864	0.19033	6.88	mg/L
	Ca	44	1890911.258	3.213	13.754	22.74892	1.06	mg/L
	Fe	54	29635.487	3.964	0.013	0.00839	52.35	mg/L
>	Sc-1	45	136263.751	2.179	136263.751			mg/L
	Kr	83	83.334	8.718	6.111			mg/L
	N	15	30353.589	3.522	-567.283			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		109.635			
	Be	9					258.483
	Al	27					130.229
>	Sc	45		108.895			
	V	51					244.311
	Cr	52					75.330
	Mn	55					0.571
	Co	59					4.818
	Ni	60					25.782
	Cu	65					24.983
	Zn	66					2.892
>	Ge	72		100.087			
	As	75					108.778
	Se	82					289.742
	Y	89					
	Mo	98					71.053
	Ag	107					172.380
	Ag	109					466.693
	Cd	111					50.956
	Cd	114					60.987
>	In	115		98.406			
	Sb	121					121.501
	Ba	135					1.557
>	Tb	159		93.940			
	Ho	165					
	Tl	205					56.116
	Pb	208					235.588
	Bi	209					
	Th	232					107.124
	U	238					162.373
	Na	23					0.952
	Mg	24					1.966
	K	39					9.277
	Ca	44					1.913
	Fe	54					45.819
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-SRD1 @50X

Sample Date/Time: Wednesday, December 03, 2014 13:30:13
Sample Type: Dilution - DF:5 of 3
Sample Description:
Number of Replicates: 3
Batch ID: 1412021
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-SRD1 @50X.62190
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	11275.205	8.024	11275.205			ug/L
	Be	9	2.778	34.641	-0.000	-0.01266	44.46	ug/L
	Al	27	2188.717	4.296	-0.004	-0.22398	8.22	ug/L
>	Sc	45	132340.142	3.205	132340.142			ug/L
	V	51	2731.917	4.501	-0.001	-0.05838	19.52	ug/L
	Cr	52	5967.296	4.879	0.002	0.09343	94.53	ug/L
	Mn	55	170910.814	3.987	1.279	39.91877	2.14	ug/L
	Co	59	113.890	3.046	0.001	0.01910	5.18	ug/L
	Ni	60	-30.546	60.046	-0.001	-0.08471	25.64	ug/L
	Cu	65	121.668	3.624	0.000	0.00248	308.96	ug/L
	Zn	66	2149.815	4.212	0.020	3.45624	5.31	ug/L
>	Ge	72	88688.239	1.481	88688.239			ug/L
	As	75	58.019	171.411	-0.000	-0.01051	1302.21	ug/L
	Se	82	8.667	50.001	-0.000	-0.16810	37.71	ug/L
	Y	89	18.889	25.471	5.556			ug/L
	Mo	98	230.628	8.882	0.000	0.07871	19.97	ug/L
	Ag	107	8.333	20.000	-0.000	-0.00315	24.44	ug/L
	Ag	109	7.778	44.607	-0.000	-0.00481	32.63	ug/L
	Cd	111	10.122	49.443	0.000	0.01319	64.23	ug/L
	Cd	114	13.804	85.848	0.000	0.00277	322.93	ug/L
>	In	115	270868.518	0.898	270868.518			ug/L
	Sb	121	79.445	11.929	0.000	0.00751	70.93	ug/L
	Ba	135	763.936	2.962	0.003	1.83892	3.75	ug/L
>	Tb	159	252155.185	0.964	252155.185			ug/L
	Ho	165	0.556	173.205	-0.000			ug/L
	Tl	205	43.889	24.414	-0.001	-0.07446	6.87	ug/L
	Pb	208	108.334	28.493	-0.000	-0.01175	96.39	ug/L
	Bi	209	1.111	86.603	-0.000			ug/L
	Th	232	166.113	14.517	0.000	0.02004	41.33	ug/L
	U	238	8.889	39.031	-0.000	-0.00061	198.97	ug/L
	Na	23	358094.369	1.826	2.578	0.15610	1.46	mg/L
	Mg	24	511771.640	4.356	3.846	0.35324	2.21	mg/L
	K	39	783884.945	3.688	0.574	0.02827	36.90	mg/L
	Ca	44	366459.442	5.010	2.648	4.37903	1.88	mg/L
	Fe	54	27922.437	5.048	0.007	0.00419	62.76	mg/L
>	Sc-1	45	132340.142	3.205	132340.142			mg/L
	Kr	83	85.001	5.882	7.778			mg/L
	N	15	32099.072	5.874	1178.199			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		107.549			
	Be	9				418.187	
	Al	27				148.748	
>	Sc	45		105.759			
	V	51				-109.970	
	Cr	52				508.254	
	Mn	55				1.531	
	Co	59				18.786	
	Ni	60				-28.351	
	Cu	65				94.573	
	Zn	66				8.622	
>	Ge	72		100.225			
	As	75				-46.368	
	Se	82				485.740	
	Y	89					
	Mo	98				45.534	
	Ag	107				206.213	
	Ag	109				357.945	
	Cd	111				50.287	
	Cd	114				64.606	
>	In	115		99.453			
	Sb	121				70.935	
	Ba	135				7.646	
>	Tb	159		95.819			
	Ho	165					
	Tl	205				-890.579	
	Pb	208				369.572	
	Bi	209					
	Th	232				71.874	
	U	238				115.742	
	Na	23				4.916	
	Mg	24				1.319	
	K	39				18.524	
	Ca	44				1.894	
	Fe	54				56.609	
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: 1412021-MS1 @10X

Sample Date/Time: Wednesday, December 03, 2014 13:33:18
Sample Type: Spike - 3 of 3
Sample Description:
Number of Replicates: 3
Batch ID: 1412021
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1412021-MS1 @10X.62191
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	12147.364	4.431	12147.364			ug/L
	Be	9	1461.838	0.748	0.120	6.73681	3.73	ug/L
	Al	27	2091743.731	3.400	15.003	917.06221	3.38	ug/L
>	Sc	45	139241.451	1.616	139241.451			ug/L
	V	51	33342.180	2.425	0.217	8.90784	4.09	ug/L
	Cr	52	32248.554	1.662	0.188	9.24768	1.61	ug/L
	Mn	55	954164.297	2.816	6.841	213.58150	3.07	ug/L
	Co	59	36576.857	4.446	0.262	8.75728	5.13	ug/L
	Ni	60	7427.288	3.179	0.053	8.03891	4.79	ug/L
	Cu	65	9226.813	3.918	0.065	8.38388	2.91	ug/L
	Zn	66	15155.577	1.000	0.165	29.11676	1.33	ug/L
>	Ge	72	89321.575	1.184	89321.575			ug/L
	As	75	6119.781	1.284	0.068	8.17718	0.49	ug/L
	Se	82	2853.018	0.596	0.032	41.85004	1.74	ug/L
	Y	89	41.111	6.193	27.778			ug/L
	Mo	98	13424.038	1.234	0.050	9.41030	1.71	ug/L
	Ag	107	18141.301	2.435	0.068	8.12605	2.09	ug/L
	Ag	109	17838.198	0.597	0.067	8.29333	0.60	ug/L
	Cd	111	5607.981	1.370	0.021	9.61603	0.92	ug/L
	Cd	114	12729.824	0.796	0.048	9.77708	1.05	ug/L
>	In	115	267415.940	0.461	267415.940			ug/L
	Sb	121	18670.074	2.067	0.070	9.89062	2.05	ug/L
	Ba	135	7670.821	4.185	0.031	19.42598	4.19	ug/L
>	Tb	159	243640.795	1.290	243640.795			ug/L
	Ho	165	1.667	0.000	0.000			ug/L
	Tl	205	18909.125	2.090	0.077	9.35599	0.83	ug/L
	Pb	208	25274.545	0.864	0.103	9.24696	1.31	ug/L
	Bi	209	1.111	173.205	-0.000			ug/L
	Th	232	23213.597	1.981	0.095	8.59039	3.26	ug/L
	U	238	25121.514	2.273	0.103	9.05617	2.08	ug/L
	Na	23	3849487.303	4.057	27.510	1.66595	2.54	mg/L
	Mg	24	3956158.370	3.956	28.386	2.60703	2.70	mg/L
	K	39	4102348.847	4.641	24.121	1.18810	6.62	mg/L
	Ca	44	1982061.798	3.917	14.112	23.34054	2.82	mg/L
	Fe	54	242739.937	2.425	1.539	0.98368	2.06	mg/L
>	Sc-1	45	139241.451	1.616	139241.451			mg/L
	Kr	83	92.223	8.915	15.000			mg/L
	N	15	31042.552	4.340	121.679			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		115.868			
	Be	9			6.717		
	Al	27			9.148		
>	Sc	45		111.275			
	V	51			9.047		
	Cr	52			9.171		
	Mn	55			10.884		
	Co	59			8.640		
	Ni	60			8.369		
	Cu	65			8.156		
	Zn	66					
>	Ge	72		100.941			
	As	75			8.213		
	Se	82			8.326		
	Y	89					
	Mo	98			8.688		
	Ag	107			8.111		
	Ag	109			8.284		
	Cd	111			9.572		
	Cd	114					
>	In	115		98.185			
	Sb	121			9.762		
	Ba	135			9.470		
>	Tb	159		92.583			
	Ho	165					
	Tl	205			9.394		
	Pb	208			9.225		
	Bi	209					
	Th	232			8.234		
	U	238			9.037		
	Na	23			8.451		
	Mg	24			8.638		
	K	39			10.146		
	Ca	44			10.227		
	Fe	54			9.703		
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C141006-04 @ 10% 12/12/03/14

Sample Date/Time: Wednesday, December 03, 2014 13:36:22
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1412021
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C141006-04.62192
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	12508.077	4.610	12508.077			ug/L
	Be	9	15.556	34.442	0.001	0.04242	48.10	ug/L
	Al	27	11504.482	4.501	0.058	3.55661	6.01	ug/L
>	Sc	45	146992.726	6.954	146992.726			ug/L
	V	51	2143.485	16.775	-0.007	-0.30717	28.35	ug/L
	Cr	52	6327.647	2.545	-0.000	-0.00067	22096.46	ug/L
	Mn	55	974112.621	5.070	6.620	206.70434	2.56	ug/L
	Co	59	1687.450	4.562	0.011	0.37400	4.84	ug/L
	Ni	60	185.621	33.446	0.001	0.14553	51.21	ug/L
	Cu	65	1037.864	2.500	0.006	0.79388	10.23	ug/L
	Zn	66	245254.419	1.947	2.740	483.49068	2.23	ug/L
>	Ge	72	89348.591	0.781	89348.591			ug/L
	As	75	99.823	164.677	0.000	0.04519	491.97	ug/L
	Se	82	21.111	23.008	0.000	0.01511	472.62	ug/L
	Y	89	60.556	24.047	47.223			ug/L
	Mo	98	2062.518	5.019	0.007	1.37247	5.21	ug/L
	Ag	107	28.333	23.529	0.000	0.00583	51.33	ug/L
	Ag	109	33.889	45.431	0.000	0.00736	97.30	ug/L
	Cd	111	1316.428	2.256	0.005	2.24884	2.19	ug/L
	Cd	114	3009.319	4.557	0.011	2.29969	4.41	ug/L
>	In	115	268063.165	0.202	268063.165			ug/L
	Sb	121	108.334	4.615	0.000	0.02323	10.94	ug/L
	Ba	135	707.818	7.237	0.003	1.77297	6.00	ug/L
>	Tb	159	241983.893	1.406	241983.893			ug/L
	Ho	165	0.000		-0.000			ug/L
	Tl	205	70.000	4.762	-0.000	-0.06040	3.30	ug/L
	Pb	208	111.667	24.841	-0.000	-0.00888	120.23	ug/L
	Bi	209	1.667	100.000	-0.000			ug/L
	Th	232	235.560	11.719	0.001	0.04865	22.80	ug/L
	U	238	891.175	2.309	0.004	0.31997	3.51	ug/L
	Na	23	1864570.421	2.046	12.585	0.76209	4.97	mg/L
	Mg	24	2580087.849	3.176	17.570	1.61367	5.28	mg/L
	K	39	1198514.569	3.057	2.817	0.13874	11.25	mg/L
	Ca	44	1908620.814	3.916	12.882	21.30670	3.21	mg/L
	Fe	54	36780.995	3.445	0.046	0.02960	22.32	mg/L
>	Sc-1	45	146992.726	6.954	146992.726			mg/L
	Kr	83	88.890	14.197	11.667			mg/L
	N	15	30760.066	4.753	-160.806			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
⌈>	Li	6		119.308			
⌊	Be	9					
⌈	Al	27					
|>	Sc	45		117.469			
|	V	51					
|	Cr	52					
|	Mn	55					
|	Co	59					
|	Ni	60					
⌊	Cu	65					
⌈	Zn	66					
|>	Ge	72		100.972			
|	As	75					
⌊	Se	82					
	Y	89					
⌈	Mo	98					
|	Ag	107					
|	Ag	109					
|	Cd	111					
|	Cd	114					
|>	In	115		98.423			
⌊	Sb	121					
⌈	Ba	135					
|>	Tb	159		91.954			
|	Ho	165					
|	Tl	205					
|	Pb	208					
|	Bi	209					
|	Th	232					
⌊	U	238					
⌈	Na	23					
|	Mg	24					
|	K	39					
|	Ca	44					
|	Fe	54					
⌊>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C141006-06 @10X

Sample Date/Time: Wednesday, December 03, 2014 13:39:28
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1412021
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C141006-06 @10X.62193
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	12740.204	3.478	12740.204			ug/L
	Be	9	5.556	34.641	-0.000	-0.00241	332.79	ug/L
	Al	27	4299.817	7.213	0.009	0.57312	22.98	ug/L
>	Sc	45	145401.050	1.636	145401.050			ug/L
	V	51	3761.930	13.616	0.004	0.15618	91.85	ug/L
	Cr	52	8013.482	6.549	0.012	0.58569	31.12	ug/L
	Mn	55	786412.715	2.213	5.397	168.50456	2.96	ug/L
	Co	59	492.242	5.183	0.003	0.10341	7.49	ug/L
	Ni	60	-213.954	31.916	-0.002	-0.27156	25.05	ug/L
	Cu	65	367.789	5.311	0.002	0.20912	10.87	ug/L
	Zn	66	3270.856	1.041	0.032	5.61859	0.81	ug/L
>	Ge	72	89616.272	0.781	89616.272			ug/L
	As	75	34.337	321.209	-0.000	-0.04499	328.95	ug/L
	Se	82	24.778	13.475	0.000	0.06851	75.58	ug/L
	Y	89	52.778	41.214	39.445			ug/L
	Mo	98	288.469	9.851	0.001	0.11469	18.26	ug/L
	Ag	107	15.000	67.586	-0.000	-0.00036	1208.31	ug/L
	Ag	109	14.444	13.323	-0.000	-0.00188	48.44	ug/L
	Cd	111	12.365	106.981	0.000	0.01655	132.84	ug/L
	Cd	114	19.667	16.584	0.000	0.00693	36.10	ug/L
>	In	115	276938.563	0.916	276938.563			ug/L
	Sb	121	53.889	15.567	-0.000	-0.00656	64.57	ug/L
	Ba	135	3586.584	0.993	0.015	9.07900	1.15	ug/L
>	Tb	159	243257.684	0.855	243257.684			ug/L
	Ho	165	1.111	86.603	-0.000			ug/L
	Tl	205	60.556	20.288	-0.001	-0.06534	9.38	ug/L
	Pb	208	113.334	7.641	-0.000	-0.00855	41.26	ug/L
	Bi	209	1.667	173.205	-0.000			ug/L
	Th	232	107.223	18.675	0.000	0.00035	2169.83	ug/L
	U	238	36.111	20.812	0.000	0.00933	29.05	ug/L
	Na	23	2110130.618	4.121	14.385	0.87110	4.07	mg/L
	Mg	24	3091567.114	5.425	21.245	1.95112	5.47	mg/L
	K	39	3082863.640	7.462	15.850	0.78069	9.50	mg/L
	Ca	44	1924578.686	1.997	13.116	21.69293	1.06	mg/L
	Fe	54	28870.919	4.453	-0.006	-0.00367	175.05	mg/L
>	Sc-1	45	145401.050	1.636	145401.050			mg/L
	Kr	83	73.889	7.251	-3.333			mg/L
	N	15	31016.916	5.286	96.043			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		121.522			
	Be	9					
	Al	27					
>	Sc	45		116.197			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		101.274			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		101.682			
	Sb	121					
	Ba	135					
>	Tb	159		92.438			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: Blank

Sample Date/Time: Wednesday, December 03, 2014 13:49:38
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1412021
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Blank.62196
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	10627.952	7.584	10627.952			ug/L
	Be	9	4.444	57.282	-0.000	-0.00383	314.34	ug/L
	Al	27	2191.496	4.957	-0.002	-0.14276	44.08	ug/L
>	Sc	45	122877.886	6.588	122877.886			ug/L
	V	51	2250.548	33.295	-0.003	-0.14105	204.26	ug/L
	Cr	52	7557.361	7.441	0.018	0.89861	10.82	ug/L
	Mn	55	37030.666	4.305	0.289	9.01617	2.37	ug/L
	Co	59	302.785	9.697	0.002	0.07248	3.56	ug/L
	Ni	60	641.133	3.848	0.005	0.74490	10.57	ug/L
	Cu	65	3085.762	1.717	0.024	3.11265	4.91	ug/L
	Zn	66	308.341	6.554	-0.001	-0.21044	23.43	ug/L
>	Ge	72	89200.496	1.802	89200.496			ug/L
	As	75	39.911	290.135	-0.000	-0.03778	409.03	ug/L
	Se	82	11.111	86.966	-0.000	-0.13120	109.13	ug/L
	Y	89	13.889	36.661	0.556			ug/L
	Mo	98	482.431	12.522	0.001	0.25255	18.00	ug/L
	Ag	107	52.778	9.648	0.000	0.01636	13.76	ug/L
	Ag	109	65.000	16.814	0.000	0.02131	23.96	ug/L
	Cd	111	15.365	37.055	0.000	0.02196	45.10	ug/L
	Cd	114	14.642	100.257	0.000	0.00325	337.45	ug/L
>	In	115	272650.908	1.467	272650.908			ug/L
	Sb	121	402.791	8.038	0.001	0.17582	9.67	ug/L
	Ba	135	8.889	39.031	-0.000	-0.01260	68.13	ug/L
>	Tb	159	258501.588	1.952	258501.588			ug/L
	Ho	165	2.222	43.301	0.000			ug/L
	Tl	205	82.778	23.336	-0.000	-0.05670	15.32	ug/L
	Pb	208	206.112	15.264	0.000	0.02118	53.07	ug/L
	Bi	209	3.889	65.465	0.000			ug/L
	Th	232	165.558	10.084	0.000	0.01837	26.83	ug/L
	U	238	31.667	41.107	0.000	0.00703	61.38	ug/L
	Na	23	5145.468	11.074	-0.087	-0.00527	3.02	mg/L
	Mg	24	3021.842	3.610	0.004	0.00039	40.68	mg/L
	K	39	668141.592	3.429	0.094	0.00461	183.76	mg/L
	Ca	44	14253.461	2.104	-0.004	-0.00689	127.74	mg/L
	Fe	54	222264.967	4.947	1.606	1.02652	2.87	mg/L
>	Sc-1	45	122877.886	6.588	122877.886			mg/L
	Kr	83	83.334	12.166	6.111			mg/L
	N	15	30933.648	3.549	12.776			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		101.375			
	Be	9					
	Al	27					
>	Sc	45		98.198			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		100.804			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		100.107			
	Sb	121					
	Ba	135					
>	Tb	159		98.230			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-CCV

Sample Date/Time: Wednesday, December 03, 2014 13:52:43
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CCV.62197
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	9967.963	6.202	9967.963			ug/L
	Be	9	8114.158	3.965	0.815	45.73177	4.04	ug/L
	Al	27	470981.224	6.422	3.999	244.46346	2.32	ug/L
>	Sc	45	117155.074	5.616	117155.074			ug/L
	V	51	142638.620	7.409	1.195	48.93498	2.09	ug/L
	Cr	52	127252.382	10.292	1.041	51.09934	4.91	ug/L
	Mn	55	195068.788	6.620	1.652	51.56824	1.49	ug/L
	Co	59	168815.249	5.961	1.441	48.07175	2.58	ug/L
	Ni	60	37653.689	3.890	0.321	48.69521	2.25	ug/L
	Cu	65	44129.237	3.197	0.376	48.25014	2.45	ug/L
	Zn	66	26119.050	6.289	0.291	51.41724	5.01	ug/L
>	Ge	72	88194.944	3.015	88194.944			ug/L
	As	75	36542.727	0.395	0.414	49.94298	3.36	ug/L
	Se	82	3269.563	4.424	0.037	48.67017	6.72	ug/L
	Y	89	22.222	17.321	8.889			ug/L
	Mo	98	71556.159	1.790	0.263	49.75892	1.77	ug/L
	Ag	107	113428.632	2.013	0.418	50.09640	3.19	ug/L
	Ag	109	108737.208	0.549	0.401	49.84633	2.02	ug/L
	Cd	111	29349.362	0.294	0.108	49.59567	1.68	ug/L
	Cd	114	66258.836	1.381	0.244	50.17122	2.98	ug/L
>	In	115	271507.697	1.949	271507.697			ug/L
	Sb	121	94139.510	2.436	0.347	49.26637	3.02	ug/L
	Ba	135	20897.667	2.151	0.080	49.56592	4.13	ug/L
>	Tb	159	260564.412	2.513	260564.412			ug/L
	Ho	165	1.667	100.000	0.000			ug/L
	Tl	205	107504.633	1.630	0.412	50.16144	1.13	ug/L
	Pb	208	144791.584	1.805	0.555	49.77466	3.61	ug/L
	Bi	209	16.667	0.000	0.000			ug/L
	Th	232	138603.357	0.269	0.532	48.14661	2.33	ug/L
	U	238	143033.966	1.475	0.549	48.23862	1.41	ug/L
	Na	23	9167148.745	3.256	78.189	4.73488	2.40	mg/L
	Mg	24	5661591.899	7.642	48.287	4.43474	3.73	mg/L
	K	39	11888342.476	4.937	96.158	4.73627	1.89	mg/L
	Ca	44	352258.777	7.092	2.885	4.77117	1.63	mg/L
	Fe	54	919140.648	4.387	7.645	4.88670	1.68	mg/L
>	Sc-1	45	117155.074	5.616	117155.074			mg/L
	Kr	83	96.112	12.782	18.889			mg/L
	N	15	39885.386	4.757	8964.514			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		95.079			
	Be	9	91.464				
	Al	27	97.785				
>	Sc	45		93.624			
	V	51	97.870				
	Cr	52	102.199				
	Mn	55	103.136				
	Co	59	96.143				
	Ni	60	97.390				
	Cu	65	96.500				
	Zn	66	102.834				
>	Ge	72		99.668			
	As	75	99.886				
	Se	82	97.340				
	Y	89					
	Mo	98	99.518				
	Ag	107	100.193				
	Ag	109	99.693				
	Cd	111	99.191				
	Cd	114					
>	In	115		99.688			
	Sb	121	98.533				
	Ba	135	99.132				
>	Tb	159		99.014			
	Ho	165					
	Tl	205	100.323				
	Pb	208	99.549				
	Bi	209					
	Th	232	96.293				
	U	238	96.477				
	Na	23	94.698				
	Mg	24	88.695				
	K	39	94.725				
	Ca	44	95.423				
	Fe	54	97.734				
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-CCB

Sample Date/Time: Wednesday, December 03, 2014 13:56:01
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CCB.62198
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	9687.541	8.824	9687.541			ug/L
	Be	9	2.222	114.564	-0.000	-0.01358	116.98	ug/L
	Al	27	2477.159	6.506	0.002	0.11745	87.51	ug/L
>	Sc	45	112172.353	6.152	112172.353			ug/L
	V	51	2606.313	18.010	0.001	0.05132	374.27	ug/L
	Cr	52	4673.974	6.057	-0.002	-0.07458	34.51	ug/L
	Mn	55	1566.062	1.701	0.001	0.03474	86.91	ug/L
	Co	59	79.445	9.690	0.000	0.01414	26.05	ug/L
	Ni	60	38.283	27.296	0.000	0.00295	573.86	ug/L
	Cu	65	110.557	3.794	0.000	0.01106	66.04	ug/L
	Zn	66	401.124	6.469	0.000	0.01122	416.88	ug/L
>	Ge	72	85078.574	4.118	85078.574			ug/L
	As	75	105.509	51.787	0.000	0.05980	134.31	ug/L
	Se	82	25.334	19.383	0.000	0.09481	66.60	ug/L
	Y	89	27.778	3.464	14.444			ug/L
	Mo	98	295.075	16.264	0.001	0.12349	27.21	ug/L
	Ag	107	101.667	9.128	0.000	0.03811	10.31	ug/L
	Ag	109	96.667	23.324	0.000	0.03603	29.24	ug/L
	Cd	111	20.961	37.100	0.000	0.03148	41.43	ug/L
	Cd	114	37.178	35.718	0.000	0.02054	49.70	ug/L
>	In	115	271059.083	0.427	271059.083			ug/L
	Sb	121	478.907	12.018	0.002	0.21696	13.98	ug/L
	Ba	135	13.889	18.330	-0.000	-0.00151	410.08	ug/L
>	Tb	159	265030.112	0.895	265030.112			ug/L
	Ho	165	1.111	86.603	-0.000			ug/L
	Tl	205	226.671	5.302	0.000	0.00850	57.39	ug/L
	Pb	208	170.556	12.754	0.000	0.00739	106.62	ug/L
	Bi	209	3.333	50.000	0.000			ug/L
	Th	232	203.892	13.711	0.000	0.03014	33.34	ug/L
	U	238	51.111	21.217	0.000	0.01325	27.54	ug/L
	Na	23	17373.608	5.588	0.026	0.00159	35.76	mg/L
	Mg	24	3516.546	5.374	0.011	0.00101	9.23	mg/L
	K	39	655349.145	2.248	0.501	0.02466	46.22	mg/L
	Ca	44	14639.350	1.702	0.010	0.01712	56.50	mg/L
	Fe	54	23099.159	8.664	0.001	0.00090	512.67	mg/L
>	Sc-1	45	112172.353	6.152	112172.353			mg/L
	Kr	83	76.667	17.794	-0.556			mg/L
	N	15	30119.732	4.747	-801.141			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		92.405			
	Be	9					
	Al	27					
>	Sc	45		89.642			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		96.146			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		99.523			
	Sb	121					
	Ba	135					
>	Tb	159		100.711			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Perkin Elmer DRC-II ICP-MS

Project(s): Rico- Argentine Out 2014 Date: 12 / 04 / 2014

Work Order(s): C141006 TDF: A-048 Analyst: S. Van Overmeiren

Batch Preparation Information

Digest / Prep.	Matrix	Batch ID
TR / Total / Diss.	Water / Soil / Other	1412012

Data Storage

Data File: X:/Metals Data Files/ A-048_1412012_TRA_120414

Standard Information

Calibration Std. #1: 4020304
Prepped By: SV Date: 09/22/14

Calibration Std. #2: 4020305
Prepped By: SV Date: 09/09/14

Calibration Std. #3: 4020306
Prepped By: SV Date: 09/06/14

SCV **LIMS: 4020308**
Prepped By: SV Date: 10/21/14

CRDL: 1:100 of 4020312 **LIMS: 4020313**
Prepped By: SV Date: 12/04/14

ICV/CCV **LIMS: 4020311**
Prepped By: SV Date: 11/06/14

ICSA LIMS: 4020309

ICSAB LIMS: 4020310

Spike Information

Dissolved Spikes

Sample ID: —
Sample ID: —
Sample Vol: 10 mL

Spike
LIMS ID: 4020315 100 uL

Total / Total Rec. Spikes

Sample ID: C141006-01
Sample Vol: 50 mL
PSS2007-220: 500 uL
WW-LFS1 Exp: 02-1-2015
PSS2007-221: 500 uL
WW-LFS2 Exp: 02-1-2015

Tune criteria passed? Yes / No

Comments / Maintenance New pump tubing? Y / N Cleaned cones? Y / N

Reportable Analytes

Ag As Ba Be Cd Co Cr Cu Mn Mo Ni Pb Sb Se Tl V Zn U Th

Sequence ID: 1412033

Lims Entry (Date / Init): 12/04/14 SV

TLF-06.03	SOP: QAQ-04.01	Eff. Date: 11/11/2013

ESAT Region 8

ICP-MS Data Review Form

Analyst / Bench Review – Level I

LIMS:	C141006	**TDF:**	A-048
Matrix:	Water	**Analysis:**	Total Recoverable Metals

Method / Instrument QC Parameters				Analytical Batch / Sample Parameters	
☒ Yes ☐ No	ICV 90-110%	☒ Yes ☐ No	SCV 90-110%	☒ Yes ☐ No	Mth. Blk. (MB) / Prep. BLK (PB) ≤ ± PQL
☒ Yes ☐ No	ICB ≤ ± PQL	☒ Yes ☐ No	CRDL 70-130%	☒ Yes ☐ No	Blk. Spike (BS) 85-115% / LCS/SRM In Control
☒ Yes ☐ No	ICSA Spiked Analytes 80-120%			☒ Yes ☐ No	Laboratory Duplicate (DUP) Analyzed
☒ Yes ☐ No	ICSA Non-Spiked Analytes ≤ ± PQL			☒ Yes ☐ No	Serial Dilution (SRD) Analyzed
☒ Yes ☐ No	ICSAB Spiked Analytes 80-120%			☒ Yes ☐ No	MS Analyzed Every 10% of Samples 70-130%
☒ Yes ☐ No	CCBs ≤ ± PQL	☒ Yes ☐ No	CCVs 90-110%	☒ Yes ☐ No	Internal Standards 60-125%

Other data quality issues identified ☐ Yes ☒ No

Describe any anomaly or deficiency not indicated above in the space provided

LIMS Electronic Data Transfer

☒ Yes ☐ No	The instrument data file is uploaded to the X: drive	☒ Yes ☐ No	Instrument data are uploaded into the LIMS
☒ Yes ☐ No	All samples and QC data are present in LIMS	☒ Yes ☐ No	The analyte list for the sequence is complete
Analyst:		Date:	12/04/14

Peer Review of Analytical Analysis – Level II

Method / Instrument QC Parameters				Analytical Batch / Sample Parameters	
☒ Yes ☐ No	ICV 90-110%	☒ Yes ☐ No	SCV 90-110%	☒ Yes ☐ No	Mth. Blk. (MB) / Prep. BLK (PB) ≤ ± PQL
☒ Yes ☐ No	ICB ≤ ± PQL	☒ Yes ☐ No	CRDL 70-130%	☒ Yes ☐ No	Blk. Spike (BS) 85-115% / LCS/SRM In Control
☒ Yes ☐ No	ICSA Spiked Analytes 80-120%			☒ Yes ☐ No	Laboratory Duplicate (DUP) Analyzed
☒ Yes ☐ No	ICSA Non-Spiked Analytes ≤ ± PQL			☒ Yes ☐ No	Serial Dilution (SRD) Analyzed
☒ Yes ☐ No	ICSAB Spiked Analytes 80-120%			☒ Yes ☐ No	MS Analyzed Every 10% of Samples 70-130%
☒ Yes ☐ No	CCBs ≤ ± PQL	☒ Yes ☐ No	CCVs 90-110%	☒ Yes ☐ No	Internal Standards 60-125%

Other data quality issues identified ☐ Yes ☒ No

Describe any anomaly or deficiency not indicated above in the space provided

LIMS Electronic Data Transfer

☒ Yes ☐ No	The instrument data file is uploaded to the X: drive	☒ Yes ☐ No	Instrument data are uploaded into the LIMS
☒ Yes ☐ No	All samples and QC data are present in LIMS	☒ Yes ☐ No	The analyte list for the sequence is complete
Peer Reviewer:		Date:	12/4/2014

PREPARATION BENCH SHEET

1412012

TechLaw, Inc. - ESAT Region 8

Printed: 12/1/2014 2:25:53PM

Matrix: Water

Date Prepared: 12/01/14 14:24 By: SV

Prepared using: METALS - 200.2 - TR Metals

Lab Number	Analysis	EPA Tag ID	Initial (mL)	Final (mL)	Spike1 ID	ul Spike1	Spike2 ID	ul Spike2	Source ID	QC Code	Extraction Comments
C141006-01 A	ICPMS Tot. Rec. Metals	8-A	50	50						AC2EFF	8-A
C141006-03 A	ICPMS Tot. Rec. Metals	8-A	50	50						FDB	8-A
C141006-05 A	ICPMS Tot. Rec. Metals	8-A	50	50						RDEFF	8-A
C141006-01 A	ICPOE Tot. Rec. Metals	8-A	50	50						AC2EFF	8-A
C141006-03 A	ICPOE Tot. Rec. Metals	8-A	50	50						FDB	8-A
C141006-05 A	ICPOE Tot. Rec. Metals	8-A	50	50						RDEFF	8-A
1412012-BLK1	QC		50	50						Blank	
1412012-BLK2	QC		50	50						Blank	
1412012-DUP1	QC		50	50					C141006-01	Duplicate	
1412012-DUP2	QC		50	50					C141006-01	Duplicate	
1412012-MS1	QC		50	50	4012235	500	4012236	500	C141006-01	Matrix Spike	
1412012-MS2	QC		50	50	4012235	500	4012236	500	C141006-01	Matrix Spike	
1412012-SRM1	QC		50	50	4012245	500	4012247	500		Reference	
1412012-SRM2	QC		50	50	4012245	500	4012247	500		Reference	

12/04/14

Preparation Reviewed By Date

ANALYSIS SEQUENCE

1412033

hv 12/04/14

Instrument: ICPMS-PE DRC-II Sequence Date: 12/04/14 00:00 Printed: 12/4/2014 12:26:57PM

Lab Number	Dilut. Factor	Analysis	STD ID	Sample/Std Name	EPA Tag ID	Source Sple	Comments
1412033-ICV1		QC	4020311	Initial Cal Check		-	
1412033-SCV1		QC	4020308	Secondary Cal Check		-	
1412033-ICB1		QC		Initial Cal Blank		-	
1412033-CRL1		QC	4020313	Instrument RL Check		-	
1412033-IFA1		QC	4020309	Interference Check A		-	
1412033-IFB1		QC	4020310	Interference Check B		-	
1412012-BLK2		QC		Blank		-	
C141006-01 A		ICPMS Tot. Rec. Metals		AC2EFF	8-A		
1412012-DUP2		QC		Duplicate		C141006-01	
1412033-SRD1		QC		Serial Dilution		C141006-01	
1412012-SRM2		QC		Reference		-	
1412012-MS2		QC		Matrix Spike		C141006-01	
C141006-03 A		ICPMS Tot. Rec. Metals		FDB	8-A		
C141006-05 A		ICPMS Tot. Rec. Metals		RDEFF	8-A		
1412033-CCV1		QC	4020311	Calibration Check		-	
1412033-CCB1		QC		Calibration Blank		-	

Run List

Sample File Name: 1412012_TRA_120414.sam

12/04/14

AS Loc.	Sample ID	Batch Index	Sample Type	Method
1	Blank		Blank	esat2010.mth
2	Standard 1		Standard	esat2010.mth
3	Standard 2		Standard	esat2010.mth
4	Standard 3		Standard	esat2010.mth
6	SEQ-ICV		QC Std	esat2010.mth
5	SEQ-SCV		QC Std	esat2010.mth
1	SEQ-ICB		QC Std	esat2010.mth
26	SEQ-CRL		QC Std	esat2010.mth
7	SEQ-IFA		QC Std	esat2010.mth
8	SEQ-IFB		QC Std	esat2010.mth
27	1412012-BLK2 @5X	1	Sample	esat2010.mth
28	C141006-01 @10X	2	Sample	esat2010.mth
29	1412012-DUP2 @10X	3	Duplicate of 2	esat2010.mth
30	SEQ-SRD1 @50X	4	Dilution - DF:5 of 2	esat2010.mth
31	1412012-SRM2 @20X	5	Spike - 1 of 1	esat2010.mth
32	1412012-MS2 @10X	6	Spike - 2 of 2	esat2010.mth
33	C141006-03 @5X	7	Sample	esat2010.mth
34	C141006-05 @5X	8	Sample	esat2010.mth
35	Blank	9	Sample	esat2010.mth
6	SEQ-CCV		QC Std	esat2010.mth
1	SEQ-CCB		QC Std	esat2010.mth

Instrument Tuning Report

File Name: ESAT tuning 2010.tun
File Path: C:\Elandata\Tuning\ESAT tuning 2010.tun

12/04/14

Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
C	12.000	11.975	2728	2051	0.750	
Mg	23.985	23.975	5629	2043	0.752	
In	114.904	114.925	27739	2003	0.767	
Ce	139.905	139.925	33824	1999	0.753	
Pb	207.977	207.975	50385	1980	0.765	
U	238.050	238.025	57699	1959	0.768	
Zn	65.926	65.975	15858	2024	0.769	

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Thursday, December 04, 2014 08:35:48
Sample Description:
Method File: C:\Elandata\Method\ESAT Daily Performance 2010.mth
Dataset File: C:\Elandata\DataSet\Default\Daily Performance Check.62203
Tuning File: C:\Elandata\Tuning\ESAT tuning 2010.tun
Optimization File: C:\Elandata\Optimize\ESAT optimization 2010.dac
Dual Detector Mode: Pulse

Acq. Dead Time(ns): 80
Current Dead Time (ns): 80

Sv 12/04/14

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24.0	15947.7	15947.655	123.239	0.8
	In	114.9	114365.5	114365.479	372.562	0.3
	U	238.1	55447.0	55447.008	426.541	0.8
⌈>	Ce	139.9	100014.8	100014.841	600.838	0.6
⌊	CeO	155.9	2466.9	0.025	0.000	0.8
⌈>	Ba	137.9	74247.8	74247.762	700.238	0.9
⌊	Ba++	69.0	1736.0	0.023	0.000	1.1
	Bkgd	220.0	0.5	0.533	0.321	60.1
	Bkgd	8.5	29.7	29.667	2.544	8.6

Current Optimization File Data

Current Value	Description
0.66	Nebulizer Gas Flow [NEB]
1.20	Auxiliary Gas Flow
17.00	Plasma Gas Flow
7.75	Lens Voltage
1200.00	ICP RF Power
-1600.00	Analog Stage Voltage
875.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset Std [QRO]
-15.00	Cell Rod Offset Std [CRO]
22.00	Discriminator Threshold
-14.00	Cell Path Voltage Std [CPV]
0.00	RPa
0.25	RPq
0.82	DRC Mode NEB
-10.00	DRC Mode QRO
-1.00	DRC Mode CRO
-5.00	DRC Mode CPV
0.00	Cell Gas A
0.00	Cell Gas B

Current Autolens Data

Analyte	Mass	Num of Pts	DAC Value	Maximum Intensity
Be	9	45	3.8	2670.6
Co	59	45	7.3	61330.4
In	115	45	8.0	117761.1

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\Elandata\Wizard\SmartTune\ESAT Smart Tune 2010.swz

Start Time: 12/4/2014 8:08:51 AM
End Time: 12/4/2014 8:39:30 AM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (12/11.975), Target/Obtained resolution (0.75/0.750)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.75/0.752)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.75/0.767)
Target/Obtained mass (139.905/139.925), Target/Obtained resolution (0.75/0.753)
Target/Obtained mass (207.977/207.975), Target/Obtained resolution (0.75/0.765)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.75/0.768)
Target/Obtained mass (65.926/65.975), Target/Obtained resolution (0.75/0.769)

Nebulizer Gas Flow [NEB] - [Passed] Optimum value(s): 0.66
Obtained Intensity (In 114.904): 116998
Obtained Formula (CeO 155.9 / Ce 139.905): 0.026 (=2639 / 101685)

Lens Voltage - [Passed] Optimum value(s): 7.75
Obtained Intensity (In 114.904): 119785

AutoLens - [Passed] Optimum value(s): y = 0.040 x + 3.920

Daily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Mg 23.985): 15948
Obtained Intensity (In 114.904): 114365
Obtained Intensity (Bkgd 220): 1
Obtained Formula (CeO 155.9 / Ce 139.905): 0.025 (=2467 / 100015)
Obtained Formula (Ba++ 68.9525 / Ba 137.905): 0.023 (=1736 / 74530)

SmartTune Wizard - Details

Optimization Details

SmartTune file: C:\Elandata\Wizard\SmartTune\ESAT Smart Tune 2010.swz

Optimization Status

Start Time: 12/4/2014 8:08:51 AM

Mass Calibration and Resolution
    Optimization Settings:
        Method: C:\Elandata\Method\ESAT Tuning 2010.mth.
        Tuning File: C:\Elandata\Tuning\ESAT tuning 2010.tun
        Iterations: 6
        Target accuracy (+/- amu): 0.1 for Mass Cal. and 0.1 for Resolution
        Peak height (%) for Res. Opt.: 10

    Optimization Results:
    Initial Try
        Target/Obtained mass (12/11.975), Target/Obtained resolution (0.75/0.750)
        Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.75/0.752)
        Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.75/0.767)
        Target/Obtained mass (139.905/139.925), Target/Obtained resolution (0.75/0.753)
        Target/Obtained mass (207.977/207.975), Target/Obtained resolution (0.75/0.765)
        Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.75/0.768)
        Target/Obtained mass (65.926/65.975), Target/Obtained resolution (0.75/0.769)
[Passed] Optimum value(s): N/A

Nebulizer Gas Flow [NEB]
    Optimization Settings:
        Method: C:\Elandata\Method\ESAT Optimize 2010.mth.
        Initial Try - Start/End/Step: 0.52/0.82/0.01.
        Intensity Criterion: In 114.904 Maximum
        Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.028

    Optimization Results:
    Initial Try
        Obtained Intensity (In 114.904): 116998
        Obtained Formula (CeO 155.9 / Ce 139.905): 0.026 (=2639 / 101685)
[Passed] Optimum value(s): 0.66

Lens Voltage
    Optimization Settings:
        Method: C:\Elandata\Method\ESAT Optimize 2010.mth.
        Initial Try - Start/End/Step: 4/8/0.25.
        Intensity Criterion: In 114.904 Maximum

    Optimization Results:
    Initial Try
        Obtained Intensity (In 114.904): 119785
[Passed] Optimum value(s): 7.75

AutoLens
    Optimization Settings:
        Method: C:\Elandata\Method\ESAT AutoLens Calibration 2010.mth.
        Initial Try - Start/End/Step: 1.5/12.5/0.25.

    Optimization Results:
    Initial Try

[Passed] Optimum value(s): y = 0.040 x + 3.920

Analyte	Mass	Points	DAC	MaxIntensity
Be	9.012	45	3.75	2670.57
Co	58.933	45	7.25	61330.4
In	114.904	45	8	117761

Daily Performance Check

Optimization Settings:

Method: C:\Elandata\Method\ESAT Daily Performance 2010.mth.
Intensity Criterion: Mg 23.985 > 8000
Intensity Criterion: In 114.904 > 80000
Intensity Criterion: Bkgd 220 <= 30
Formula Criterion: CeO 155.9 / Ce 139.905 <= 0.03
Formula Criterion: Ba++ 68.9525 / Ba 137.905 <= 0.03

Optimization Results:

Initial Try

Obtained Intensity (Mg 23.985): 15948
Obtained Intensity (In 114.904): 114365
Obtained Intensity (Bkgd 220): 1
Obtained Formula (CeO 155.9 / Ce 139.905): 0.025 (=2467 / 100015)
Obtained Formula (Ba++ 68.9525 / Ba 137.905): 0.023 (=1736 / 74530)

[Passed] Optimum value(s): N/A

End Time: 12/4/2014 8:39:30 AM

Method 200.8 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, December 04, 2014 11:08:32
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Blank.62249
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

hw 12/04/14

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	13736.254	8.010				ug/L
	Be	9	4.444	86.603				ug/L
	Al	27	1949.193	3.549				ug/L
>	Sc	45	137916.730	4.104				ug/L
	V	51	1889.384	61.062				ug/L
	Cr	52	4824.642	5.071				ug/L
	Mn	55	2382.739	5.899				ug/L
	Co	59	34.445	31.109				ug/L
	Ni	60	36.900	18.565				ug/L
	Cu	65	93.890	10.846				ug/L
	Zn	66	414.458	1.293				ug/L
>	Ge	72	85476.127	1.114				ug/L
	As	75	84.382	42.681				ug/L
	Se	82	14.111	71.037				ug/L
	Y	89	16.667	36.056				ug/L
	Mo	98	67.230	18.902				ug/L
	Ag	107	24.444	10.415				ug/L
	Ag	109	22.778	18.414				ug/L
	Cd	111	7.949	34.898				ug/L
	Cd	114	20.117	60.839				ug/L
>	In	115	267477.367	0.359				ug/L
	Sb	121	143.335	1.163				ug/L
	Ba	135	13.333	33.072				ug/L
>	Tb	159	267373.401	1.451				ug/L
	Ho	165	2.222	173.205				ug/L
	Tl	205	163.335	8.896				ug/L
	Pb	208	157.223	11.135				ug/L
	Bi	209	2.222	43.301				ug/L
	Th	232	50.000	3.333				ug/L
	U	238	6.667	25.000				ug/L
	Na	23	10241.171	4.088				mg/L
	Mg	24	2561.637	6.211				mg/L
	K	39	715639.950	2.311				mg/L
	Ca	44	14070.828	2.447				mg/L
	Fe	54	26660.071	3.306				mg/L
>	Sc-1	45	137916.730	4.104				mg/L
	Kr	83	84.445	13.863				mg/L
	N	15	30305.042	4.090				mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Al	27					
>	Sc	45					
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72					
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Ba	135					
>	Tb	159					
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: Standard 1

Sample Date/Time: Thursday, December 04, 2014 11:11:35
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Standard 1.62250
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	13420.515	3.237	13420.515			ug/L
	Be	9	1506.848	1.630	0.112	10.00000	1.58	ug/L
	Al	27	112198.815	1.426	0.790	50.00000	1.42	ug/L
>	Sc	45	139556.588	1.232	139556.588			ug/L
	V	51	35048.001	2.933	0.237	10.00000	2.23	ug/L
	Cr	52	32670.173	1.220	0.199	10.00000	1.32	ug/L
	Mn	55	46278.834	3.802	0.314	10.00000	2.76	ug/L
	Co	59	36714.748	0.753	0.263	10.00000	0.49	ug/L
	Ni	60	7994.539	2.361	0.057	10.00000	1.67	ug/L
	Cu	65	9530.043	3.089	0.068	10.00000	3.33	ug/L
	Zn	66	5782.118	0.927	0.062	10.00000	1.74	ug/L
>	Ge	72	85887.251	0.980	85887.251			ug/L
	As	75	7016.498	4.096	0.081	10.00000	4.62	ug/L
	Se	82	605.813	5.388	0.007	10.00000	6.45	ug/L
	Y	89	21.111	4.558	4.444			ug/L
	Mo	98	13963.553	1.876	0.052	10.00000	3.43	ug/L
	Ag	107	22691.681	1.562	0.085	10.00000	3.23	ug/L
	Ag	109	21760.071	3.717	0.081	10.00000	5.08	ug/L
	Cd	111	5828.778	0.901	0.022	10.00000	1.53	ug/L
	Cd	114	13114.841	1.387	0.049	10.00000	1.14	ug/L
>	In	115	268011.409	1.663	268011.409			ug/L
	Sb	121	18228.225	2.936	0.067	10.00000	3.47	ug/L
	Ba	135	4202.524	0.645	0.016	10.00000	0.66	ug/L
>	Tb	159	267634.071	1.310	267634.071			ug/L
	Ho	165	3.333	50.000	0.000			ug/L
	Tl	205	22411.797	2.711	0.083	10.00000	1.42	ug/L
	Pb	208	30396.193	1.483	0.113	10.00000	0.21	ug/L
	Bi	209	51.111	27.152	0.000			ug/L
	Th	232	29143.372	2.479	0.109	10.00000	2.36	ug/L
	U	238	30016.924	1.802	0.112	10.00000	1.53	ug/L
	Na	23	240996.727	2.333	1.652	0.10000	1.24	mg/L
	Mg	24	131389.943	2.284	0.923	0.10000	1.78	mg/L
	K	39	1029007.843	2.365	2.185	0.10000	7.51	mg/L
	Ca	44	22958.201	0.576	0.063	0.10000	4.07	mg/L
	Fe	54	56437.798	6.508	0.211	0.10000	10.41	mg/L
>	Sc-1	45	139556.588	1.232	139556.588			mg/L
	Kr	83	81.667	14.717	-2.778			mg/L
	N	15	39816.523	3.414	9511.481			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Al	27					
>	Sc	45					
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72					
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Ba	135					
>	Tb	159					
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: Standard 2

Sample Date/Time: Thursday, December 04, 2014 11:14:40
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Standard 2.62251
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	13045.850	5.364	13045.850			ug/L
	Be	9	3002.388	0.618	0.230	20.10924	5.17	ug/L
	Al	27	207854.466	2.976	1.513	99.12171	2.09	ug/L
>	Sc	45	136161.605	3.321	136161.605			ug/L
	V	51	63610.542	4.672	0.454	19.81455	4.59	ug/L
	Cr	52	57853.762	5.660	0.390	19.91329	3.55	ug/L
	Mn	55	86012.876	1.729	0.615	19.91019	2.13	ug/L
	Co	59	71895.066	1.044	0.528	20.01959	4.33	ug/L
	Ni	60	15435.890	4.006	0.113	19.96714	2.39	ug/L
	Cu	65	18091.708	1.762	0.132	19.91067	2.90	ug/L
	Zn	66	10634.597	1.829	0.119	19.81523	3.58	ug/L
>	Ge	72	85629.386	1.762	85629.386			ug/L
	As	75	13674.383	2.214	0.159	19.93127	1.28	ug/L
	Se	82	1249.472	9.714	0.014	20.18283	10.69	ug/L
	Y	89	24.444	44.362	7.778			ug/L
	Mo	98	28205.761	2.508	0.105	20.03662	3.35	ug/L
	Ag	107	45530.904	3.108	0.169	20.00218	3.56	ug/L
	Ag	109	43537.848	2.536	0.162	19.99083	3.75	ug/L
	Cd	111	11420.158	1.413	0.042	19.90800	2.75	ug/L
	Cd	114	25733.272	1.441	0.096	19.91414	2.10	ug/L
>	In	115	268840.628	1.825	268840.628			ug/L
	Sb	121	37255.157	0.957	0.138	20.08982	1.88	ug/L
	Ba	135	8422.338	1.430	0.031	19.98017	2.22	ug/L
>	Tb	159	269961.935	1.036	269961.935			ug/L
	Ho	165	1.111	173.205	-0.000			ug/L
	Tl	205	45202.349	1.756	0.167	20.01469	2.47	ug/L
	Pb	208	60419.604	2.293	0.223	19.95120	2.59	ug/L
	Bi	209	50.556	14.866	0.000			ug/L
	Th	232	57615.179	4.013	0.213	19.92232	4.39	ug/L
	U	238	60030.833	1.179	0.222	19.96601	2.20	ug/L
	Na	23	2147809.271	3.636	15.708	0.99949	4.25	mg/L
	Mg	24	1415044.406	1.394	10.379	1.00110	2.47	mg/L
	K	39	3495887.307	4.504	20.480	0.99934	2.00	mg/L
	Ca	44	97250.854	3.581	0.612	0.99980	3.39	mg/L
	Fe	54	239530.718	2.422	1.566	0.99658	2.30	mg/L
>	Sc-1	45	136161.605	3.321	136161.605			mg/L
	Kr	83	80.001	20.833	-4.444			mg/L
	N	15	38855.568	4.505	8550.526			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Al	27					
>	Sc	45					
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72					
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Ba	135					
>	Tb	159					
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: Standard 3

Sample Date/Time: Thursday, December 04, 2014 11:17:45
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Standard 3.62252
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	12345.546	6.274	12345.546			ug/L
	Be	9	15469.681	1.920	1.256	100.42355	6.89	ug/L
	Al	27	1005911.270	4.605	7.677	500.14504	2.48	ug/L
>	Sc	45	130761.272	3.166	130761.272			ug/L
	V	51	307152.397	4.550	2.335	100.09314	2.40	ug/L
	Cr	52	257821.068	1.547	1.937	99.95125	2.09	ug/L
	Mn	55	405233.563	6.517	3.080	99.98818	3.45	ug/L
	Co	59	347169.392	3.225	2.655	100.02862	0.37	ug/L
	Ni	60	77305.324	2.476	0.591	100.19940	2.59	ug/L
	Cu	65	86617.840	1.529	0.662	99.98527	3.77	ug/L
	Zn	66	49967.302	1.384	0.576	99.78033	0.59	ug/L
>	Ge	72	86036.496	0.855	86036.496			ug/L
	As	75	68450.143	0.230	0.795	99.99030	0.69	ug/L
	Se	82	6117.507	1.646	0.071	99.96114	2.49	ug/L
	Y	89	23.333	39.770	6.667			ug/L
	Mo	98	139318.812	1.066	0.521	99.98469	1.68	ug/L
	Ag	107	221238.061	1.359	0.827	99.89064	1.97	ug/L
	Ag	109	214835.608	1.666	0.803	99.96144	2.23	ug/L
	Cd	111	56475.024	1.517	0.211	99.95295	2.12	ug/L
	Cd	114	128496.922	0.809	0.481	100.00155	1.42	ug/L
>	In	115	267381.093	0.620	267381.093			ug/L
	Sb	121	183676.844	2.849	0.687	99.99482	3.46	ug/L
	Ba	135	40625.501	0.750	0.153	99.91426	1.07	ug/L
>	Tb	159	265201.339	1.796	265201.339			ug/L
	Ho	165	1.111	173.205	-0.000			ug/L
	Tl	205	224830.050	2.839	0.847	100.07545	1.10	ug/L
	Pb	208	303736.082	1.781	1.145	100.10745	0.32	ug/L
	Bi	209	14.444	59.211	0.000			ug/L
	Th	232	292102.030	0.897	1.101	100.13387	1.12	ug/L
	U	238	304237.388	1.998	1.147	100.13870	0.21	ug/L
	Na	23	20658002.916	1.470	157.972	10.00051	2.06	mg/L
	Mg	24	13006548.067	3.896	99.435	9.99574	0.89	mg/L
	K	39	27447019.260	6.030	204.740	9.99990	5.64	mg/L
	Ca	44	802223.835	1.511	6.035	9.99852	1.88	mg/L
	Fe	54	1946358.344	2.346	14.695	9.99304	1.48	mg/L
>	Sc-1	45	130761.272	3.166	130761.272			mg/L
	Kr	83	88.890	5.413	4.445			mg/L
	N	15	42283.227	3.626	11978.185			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6					
	Be	9					
	Al	27					
>	Sc	45					
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72					
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115					
	Sb	121					
	Ba	135					
>	Tb	159					
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Calibration

Analyte	Mass	Correlation Coefficient
Li	6	
Be	9	0.999818
Al	27	0.999992
Sc	45	
V	51	0.999983
Cr	52	0.999996
Mn	55	0.999998
Co	59	0.999999
Ni	60	0.999960
Cu	65	0.999998
Zn	66	0.999943
Ge	72	
As	75	0.999999
Se	82	0.999990
Y	89	
Mo	98	0.999999
Ag	107	0.999988
Ag	109	0.999998
Cd	111	0.999996
Cd	114	0.999998
In	115	
Sb	121	0.999998
Ba	135	0.999993
Tb	159	
Ho	165	
Tl	205	0.999994
Pb	208	0.999988
Bi	209	
Th	232	0.999981
U	238	0.999981
Na	23	1.000000
Mg	24	0.999990
K	39	1.000000
Ca	44	0.999999
Fe	54	0.999969
Sc-1	45	
Kr	83	
N	15	

Method 200.8 - Summary Report

Sample ID: SEQ-ICV

Sample Date/Time: Thursday, December 04, 2014 11:20:50
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-ICV.62253
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	12194.147	7.188	12194.147			ug/L
	Be	9	7814.330	3.159	0.643	51.42955	9.44	ug/L
	Al	27	510038.073	4.308	3.908	254.60335	2.44	ug/L
>	Sc	45	130075.527	4.791	130075.527			ug/L
	V	51	151314.556	2.974	1.150	49.30907	1.79	ug/L
	Cr	52	129703.147	0.536	0.964	49.70805	4.58	ug/L
	Mn	55	203181.593	3.047	1.546	50.20825	4.37	ug/L
	Co	59	174098.254	0.719	1.340	50.50372	5.07	ug/L
	Ni	60	38401.817	2.343	0.295	50.05522	4.25	ug/L
	Cu	65	43695.553	0.894	0.336	50.68078	3.98	ug/L
	Zn	66	25331.255	2.686	0.299	51.79691	2.07	ug/L
>	Ge	72	83390.671	2.670	83390.671			ug/L
	As	75	34644.509	1.273	0.415	52.16876	2.02	ug/L
	Se	82	3046.219	0.689	0.036	51.25660	2.49	ug/L
	Y	89	23.333	7.143	6.667			ug/L
	Mo	98	70578.452	2.217	0.270	51.89864	1.94	ug/L
	Ag	107	111712.882	0.413	0.428	51.70241	1.31	ug/L
	Ag	109	107131.481	0.075	0.411	51.09437	0.89	ug/L
	Cd	111	28593.294	2.147	0.110	51.87455	2.78	ug/L
	Cd	114	64217.866	1.723	0.246	51.22877	2.30	ug/L
>	In	115	260820.541	0.890	260820.541			ug/L
	Sb	121	91993.328	1.786	0.352	51.29898	2.00	ug/L
	Ba	135	20477.939	0.930	0.077	50.41658	0.66	ug/L
>	Tb	159	264806.481	0.895	264806.481			ug/L
	Ho	165	2.778	69.282	0.000			ug/L
	Tl	205	114699.861	2.022	0.433	51.10625	2.43	ug/L
	Pb	208	153237.811	2.033	0.578	50.55364	1.64	ug/L
	Bi	209	12.778	39.849	0.000			ug/L
	Th	232	147850.706	1.115	0.558	50.74541	0.90	ug/L
	U	238	152093.034	1.457	0.574	50.13434	0.72	ug/L
	Na	23	9709485.014	0.736	74.665	4.72672	3.96	mg/L
	Mg	24	6073650.691	3.582	46.707	4.69527	3.41	mg/L
	K	39	13322500.763	5.389	97.224	4.74862	2.04	mg/L
	Ca	44	403017.677	3.887	2.997	4.96578	1.88	mg/L
	Fe	54	976172.459	3.470	7.319	4.97722	4.64	mg/L
>	Sc-1	45	130075.527	4.791	130075.527			mg/L
	Kr	83	82.778	14.841	-1.667			mg/L
	N	15	40036.227	2.901	9731.185			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		88.773			
	Be	9	102.859				
	Al	27	101.841				
>	Sc	45		94.315			
	V	51	98.618				
	Cr	52	99.416				
	Mn	55	100.416				
	Co	59	101.007				
	Ni	60	100.110				
	Cu	65	101.362				
	Zn	66	103.594				
>	Ge	72		97.560			
	As	75	104.338				
	Se	82	102.513				
	Y	89					
	Mo	98	103.797				
	Ag	107	103.405				
	Ag	109	102.189				
	Cd	111	103.749				
	Cd	114					
>	In	115		97.511			
	Sb	121	102.598				
	Ba	135	100.833				
>	Tb	159		99.040			
	Ho	165					
	Tl	205	102.212				
	Pb	208	101.107				
	Bi	209					
	Th	232	101.491				
	U	238	100.269				
	Na	23	94.534				
	Mg	24	93.905				
	K	39	94.972				
	Ca	44	99.316				
	Fe	54	99.544				
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-SCV

Sample Date/Time: Thursday, December 04, 2014 11:24:10
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-SCV.62254
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	11697.642	7.273	11697.642			ug/L
	Be	9	7901.665	4.606	0.679	54.27178	11.36	ug/L
	Al	27	104555.500	2.745	0.823	53.62398	2.61	ug/L
>	Sc	45	124956.792	4.568	124956.792			ug/L
	V	51	145140.401	2.136	1.149	49.24178	2.44	ug/L
	Cr	52	127781.754	2.133	0.988	50.99482	3.22	ug/L
	Mn	55	194009.966	4.591	1.535	49.84966	0.75	ug/L
	Co	59	168200.244	1.492	1.348	50.78307	4.97	ug/L
	Ni	60	37619.656	3.654	0.301	51.05004	5.59	ug/L
	Cu	65	43127.295	3.506	0.345	52.03730	2.97	ug/L
	Zn	66	24882.233	2.664	0.295	51.10736	3.12	ug/L
>	Ge	72	83000.901	1.402	83000.901			ug/L
	As	75	32698.027	4.341	0.393	49.46991	5.60	ug/L
	Se	82	15729.271	1.601	0.189	266.83814	2.91	ug/L
	Y	89	22.222	22.913	5.556			ug/L
	Mo	98	70244.759	1.299	0.267	51.24722	0.68	ug/L
	Ag	107	110842.639	0.951	0.422	50.89525	1.20	ug/L
	Ag	109	107808.584	0.936	0.410	51.01185	0.69	ug/L
	Cd	111	28381.505	1.826	0.108	51.07765	1.20	ug/L
	Cd	114	64982.375	0.491	0.247	51.42879	0.84	ug/L
>	In	115	262879.637	0.626	262879.637			ug/L
	Sb	121	97140.805	1.040	0.369	53.74541	0.64	ug/L
	Ba	135	20492.430	0.597	0.078	50.63254	1.44	ug/L
>	Tb	159	263912.065	2.016	263912.065			ug/L
	Ho	165	1.111	173.205	-0.000			ug/L
	Tl	205	116568.782	1.168	0.441	52.11901	1.16	ug/L
	Pb	208	155525.233	0.403	0.589	51.49560	1.64	ug/L
	Bi	209	44.445	33.611	0.000			ug/L
	Th	232	148295.466	0.952	0.562	51.07901	1.44	ug/L
	U	238	153728.249	2.272	0.583	50.85046	1.87	ug/L
	Na	23	10207315.874	5.648	81.593	5.16528	1.89	mg/L
	Mg	24	6770151.370	5.155	54.155	5.44391	1.38	mg/L
	K	39	13428458.056	6.512	102.219	4.99259	2.46	mg/L
	Ca	44	400154.919	7.387	3.098	5.13185	2.95	mg/L
	Fe	54	956140.190	4.959	7.458	5.07145	0.41	mg/L
>	Sc-1	45	124956.792	4.568	124956.792			mg/L
	Kr	83	82.778	14.841	-1.667			mg/L
	N	15	39321.739	3.461	9016.697			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		85.159			
	Be	9	108.544				
	Al	27	107.248				
>	Sc	45		90.603			
	V	51	98.484				
	Cr	52	101.990				
	Mn	55	99.699				
	Co	59	101.566				
	Ni	60	102.100				
	Cu	65	104.075				
	Zn	66	102.215				
>	Ge	72		97.104			
	As	75	98.940				
	Se	82	106.735				
	Y	89					
	Mo	98	102.494				
	Ag	107	101.791				
	Ag	109	102.024				
	Cd	111	102.155				
	Cd	114					
>	In	115		98.281			
	Sb	121	107.491				
	Ba	135	101.265				
>	Tb	159		98.705			
	Ho	165					
	Tl	205	104.238				
	Pb	208	102.991				
	Bi	209					
	Th	232	102.158				
	U	238	101.701				
	Na	23	103.306				
	Mg	24	108.878				
	K	39	99.852				
	Ca	44	102.637				
	Fe	54	101.429				
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-ICB

Sample Date/Time: Thursday, December 04, 2014 11:27:30
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-ICB.62255
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	11586.878	7.164	11586.878			ug/L
	Be	9	5.556	45.826	0.000	0.01332	150.69	ug/L
	Al	27	2015.881	3.529	0.002	0.15066	37.70	ug/L
>	Sc	45	122745.067	5.108	122745.067			ug/L
	V	51	2337.352	17.370	0.005	0.23138	68.19	ug/L
	Cr	52	4616.157	8.818	0.003	0.13309	54.40	ug/L
	Mn	55	2012.580	8.451	-0.001	-0.02619	267.96	ug/L
	Co	59	64.445	7.901	0.000	0.01042	20.25	ug/L
	Ni	60	47.783	11.293	0.000	0.02082	44.14	ug/L
	Cu	65	85.556	4.499	0.000	0.00248	32.34	ug/L
	Zn	66	401.124	3.119	0.000	0.01746	168.98	ug/L
>	Ge	72	81049.943	0.825	81049.943			ug/L
	As	75	44.958	147.204	-0.000	-0.05386	192.14	ug/L
	Se	82	13.333	43.804	-0.000	-0.00134	7440.47	ug/L
	Y	89	15.000	40.062	-1.667			ug/L
	Mo	98	375.636	19.759	0.001	0.22505	25.53	ug/L
	Ag	107	75.000	6.667	0.000	0.02323	10.86	ug/L
	Ag	109	77.778	17.843	0.000	0.02595	23.11	ug/L
	Cd	111	13.758	52.087	0.000	0.01055	121.78	ug/L
	Cd	114	24.061	63.880	0.000	0.00333	365.69	ug/L
>	In	115	264365.236	1.391	264365.236			ug/L
	Sb	121	298.340	4.573	0.001	0.08637	10.07	ug/L
	Ba	135	16.111	33.254	0.000	0.00669	197.82	ug/L
>	Tb	159	268269.676	1.609	268269.676			ug/L
	Ho	165	0.000		-0.000			ug/L
	Tl	205	190.003	9.283	0.000	0.01150	65.56	ug/L
	Pb	208	155.556	2.696	-0.000	-0.00071	161.43	ug/L
	Bi	209	1.667	0.000	-0.000			ug/L
	Th	232	228.893	12.786	0.001	0.06064	17.59	ug/L
	U	238	47.778	14.098	0.000	0.01338	16.91	ug/L
	Na	23	12360.588	7.327	0.026	0.00167	9.33	mg/L
	Mg	24	3722.220	3.440	0.012	0.00119	20.65	mg/L
	K	39	686748.199	2.272	0.412	0.02010	41.49	mg/L
	Ca	44	13954.450	0.849	0.012	0.01959	39.97	mg/L
	Fe	54	24813.411	6.546	0.009	0.00597	62.88	mg/L
>	Sc-1	45	122745.067	5.108	122745.067			mg/L
	Kr	83	86.112	4.470	1.667			mg/L
	N	15	29933.373	6.443	-371.669			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		84.353			
	Be	9					
	Al	27					
>	Sc	45		88.999			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		94.822			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		98.836			
	Sb	121					
	Ba	135					
>	Tb	159		100.335			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-CRL

Sample Date/Time: Thursday, December 04, 2014 11:30:48
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CRL.62256
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	11718.221	5.702	11718.221			ug/L
	Be	9	41.111	20.405	0.003	0.25707	27.69	ug/L
	Al	27	41345.987	5.098	0.322	20.96000	0.48	ug/L
>	Sc	45	123118.222	5.532	123118.222			ug/L
	V	51	7787.612	14.224	0.049	2.11674	11.98	ug/L
	Cr	52	9391.522	7.555	0.041	2.12770	3.79	ug/L
	Mn	55	3829.712	3.529	0.014	0.44999	7.67	ug/L
	Co	59	751.156	3.469	0.006	0.22094	6.83	ug/L
	Ni	60	806.091	7.237	0.006	1.06376	1.73	ug/L
	Cu	65	927.847	3.008	0.007	1.03612	2.78	ug/L
	Zn	66	2780.619	4.340	0.029	4.95785	3.98	ug/L
>	Ge	72	83078.021	1.343	83078.021			ug/L
	As	75	1320.980	13.354	0.015	1.87527	13.49	ug/L
	Se	82	118.558	13.775	0.001	1.77585	14.16	ug/L
	Y	89	16.111	52.068	-0.556			ug/L
	Mo	98	1555.141	8.392	0.006	1.06256	8.55	ug/L
	Ag	107	2096.463	2.190	0.008	0.93071	1.40	ug/L
	Ag	109	2111.468	3.854	0.008	0.96676	3.14	ug/L
	Cd	111	120.256	6.216	0.000	0.19765	5.82	ug/L
	Cd	114	304.686	5.169	0.001	0.22036	6.31	ug/L
>	In	115	268737.793	0.818	268737.793			ug/L
	Sb	121	2018.104	2.524	0.007	1.01571	2.17	ug/L
	Ba	135	4016.290	0.324	0.015	9.56781	1.41	ug/L
>	Tb	159	272947.115	1.244	272947.115			ug/L
	Ho	165	1.111	86.603	-0.000			ug/L
	Tl	205	2420.469	0.430	0.008	0.97566	1.74	ug/L
	Pb	208	753.352	5.026	0.002	0.19007	7.95	ug/L
	Bi	209	2.778	69.282	0.000			ug/L
	Th	232	2377.123	11.799	0.009	0.77497	12.22	ug/L
	U	238	608.363	4.091	0.002	0.19244	4.87	ug/L
	Na	23	5557.485	9.503	-0.029	-0.00185	6.39	mg/L
	Mg	24	2509.950	6.412	0.002	0.00018	13.65	mg/L
	K	39	677636.211	2.915	0.321	0.01566	51.14	mg/L
	Ca	44	13876.502	1.736	0.011	0.01796	38.60	mg/L
	Fe	54	25078.621	7.727	0.010	0.00696	48.42	mg/L
>	Sc-1	45	123118.222	5.532	123118.222			mg/L
	Kr	83	95.556	1.007	11.111			mg/L
	N	15	31419.028	6.966	1113.986			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		85.309			
	Be	9	128.537				
	Al	27	104.800				
>	Sc	45		89.270			
	V	51	105.837				
	Cr	52	106.385				
	Mn	55	89.998				
	Co	59	110.470				
	Ni	60	106.376				
	Cu	65	103.612				
	Zn	66	99.157				
>	Ge	72		97.194			
	As	75	93.764				
	Se	82	88.793				
	Y	89					
	Mo	98	106.256				
	Ag	107	93.071				
	Ag	109	96.676				
	Cd	111	98.823				
	Cd	114					
>	In	115		100.471			
	Sb	121	101.571				
	Ba	135	95.678				
>	Tb	159		102.085			
	Ho	165					
	Tl	205	97.566				
	Pb	208	95.034				
	Bi	209					
	Th	232	77.497				
	U	238	96.221				
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-IFA

Sample Date/Time: Thursday, December 04, 2014 11:34:07
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-IFA.62257
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	13603.698	4.593	13603.698			ug/L
	Be	9	6.667	50.000	0.000	0.01345	152.11	ug/L
	Al	27	20574278.271	1.495	148.054	9645.00158	3.44	ug/L
>	Sc	45	139049.825	3.417	139049.825			ug/L
	V	51	2121.923	21.426	0.001	0.06422	187.46	ug/L
	Cr	52	5992.326	7.197	0.008	0.41753	26.96	ug/L
	Mn	55	1075.437	29.880	-0.009	-0.30796	27.21	ug/L
	Co	59	101.112	12.590	0.000	0.01808	23.97	ug/L
	Ni	60	-108.683	20.927	-0.001	-0.17815	16.28	ug/L
	Cu	65	651.145	4.407	0.004	0.60447	4.80	ug/L
	Zn	66	946.183	2.065	0.006	1.10193	4.55	ug/L
>	Ge	72	84424.192	1.082	84424.192			ug/L
	As	75	9.189	424.214	-0.001	-0.11091	51.97	ug/L
	Se	82	6.889	322.509	-0.000	-0.12019	305.99	ug/L
	Y	89	26.667	28.641	10.000			ug/L
	Mo	98	264788.974	0.608	1.020	195.90150	0.68	ug/L
	Ag	107	44.445	34.027	0.000	0.00967	73.97	ug/L
	Ag	109	42.778	12.524	0.000	0.00993	26.62	ug/L
	Cd	111	47.877	51.194	0.000	0.07327	60.96	ug/L
	Cd	114	553.457	12.505	0.002	0.42841	13.10	ug/L
>	In	115	259414.937	0.549	259414.937			ug/L
	Sb	121	178.336	7.299	0.000	0.02210	34.94	ug/L
	Ba	135	33.333	5.000	0.000	0.05540	5.22	ug/L
>	Tb	159	247209.856	1.983	247209.856			ug/L
	Ho	165	0.000		-0.000			ug/L
	Tl	205	68.889	7.777	-0.000	-0.03921	8.25	ug/L
	Pb	208	207.779	12.174	0.000	0.02201	36.30	ug/L
	Bi	209	61.111	6.298	0.000			ug/L
	Th	232	210.559	6.732	0.001	0.06042	7.46	ug/L
	U	238	10.000	44.096	0.000	0.00134	112.84	ug/L
	Na	23	21352451.568	5.125	153.426	9.71270	1.80	mg/L
	Mg	24	13719727.625	3.634	98.645	9.91632	0.54	mg/L
	K	39	28470790.472	1.853	199.663	9.75196	2.57	mg/L
	Ca	44	888917.951	2.593	6.293	10.42469	1.81	mg/L
	Fe	54	2079449.160	3.298	14.762	10.03868	0.44	mg/L
>	Sc-1	45	139049.825	3.417	139049.825			mg/L
	Kr	83	90.001	16.460	5.556			mg/L
	N	15	39581.930	6.227	9276.888			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		99.035			
	Be	9					
	Al	27	96.450				
>	Sc	45		100.822			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		98.769			
	As	75					
	Se	82					
	Y	89					
	Mo	98	97.951				
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		96.986			
	Sb	121					
	Ba	135					
>	Tb	159		92.459			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23	97.127				
	Mg	24	99.163				
	K	39	97.520				
	Ca	44	104.247				
	Fe	54	100.387				
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-IFB

Sample Date/Time: Thursday, December 04, 2014 11:37:27
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-IFB.62258
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	13245.144	3.692	13245.144			ug/L
	Be	9	7.778	44.607	0.000	0.02144	105.03	ug/L
	Al	27	20362886.400	4.536	148.544	9676.91352	0.76	ug/L
>	Sc	45	137045.979	3.816	137045.979			ug/L
	V	51	1268.936	78.898	-0.004	-0.18679	174.21	ug/L
	Cr	52	59481.148	0.428	0.399	20.60751	4.18	ug/L
	Mn	55	88374.377	3.621	0.628	20.38128	2.52	ug/L
	Co	59	72543.664	1.771	0.530	19.95152	3.51	ug/L
	Ni	60	15531.224	1.750	0.113	19.17880	3.38	ug/L
	Cu	65	17848.232	1.776	0.130	19.58162	4.56	ug/L
	Zn	66	11003.568	1.344	0.127	22.07986	1.68	ug/L
>	Ge	72	83186.678	1.379	83186.678			ug/L
	As	75	13503.558	0.715	0.161	20.30513	1.89	ug/L
	Se	82	10.889	4.676	-0.000	-0.04807	23.14	ug/L
	Y	89	22.222	24.109	5.556			ug/L
	Mo	98	265146.754	2.509	1.031	197.97332	2.50	ug/L
	Ag	107	41582.345	1.858	0.162	19.52015	2.18	ug/L
	Ag	109	40590.836	1.033	0.158	19.63708	1.67	ug/L
	Cd	111	11200.814	1.294	0.044	20.60837	1.38	ug/L
	Cd	114	25272.603	1.343	0.098	20.44535	1.25	ug/L
>	In	115	257051.408	0.960	257051.408			ug/L
	Sb	121	126.112	5.502	-0.000	-0.00659	61.34	ug/L
	Ba	135	25.000	29.059	0.000	0.03462	57.42	ug/L
>	Tb	159	243232.471	1.163	243232.471			ug/L
	Ho	165	0.556	173.205	-0.000			ug/L
	Tl	205	80.001	3.608	-0.000	-0.03331	4.74	ug/L
	Pb	208	173.334	15.112	0.000	0.01091	87.16	ug/L
	Bi	209	7.222	58.076	0.000			ug/L
	Th	232	84.445	21.104	0.000	0.01451	43.55	ug/L
	U	238	7.778	49.487	0.000	0.00062	224.57	ug/L
	Na	23	20253368.990	4.580	147.682	9.34912	0.81	mg/L
	Mg	24	13398522.724	6.691	97.679	9.81920	3.09	mg/L
	K	39	28311525.473	1.866	201.552	9.84422	3.53	mg/L
	Ca	44	863463.922	3.722	6.200	10.27141	2.53	mg/L
	Fe	54	2045304.114	1.892	14.738	10.02260	1.97	mg/L
>	Sc-1	45	137045.979	3.816	137045.979			mg/L
	Kr	83	93.334	3.571	8.889			mg/L
	N	15	38679.056	6.110	8374.014			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		96.425			
	Be	9					
	Al	27	96.769				
>	Sc	45		99.369			
	V	51					
	Cr	52	103.038				
	Mn	55	101.906				
	Co	59	99.758				
	Ni	60	95.894				
	Cu	65	97.908				
	Zn	66	110.399				
>	Ge	72		97.322			
	As	75	101.526				
	Se	82					
	Y	89					
	Mo	98	98.987				
	Ag	107	97.601				
	Ag	109	98.185				
	Cd	111	103.042				
	Cd	114					
>	In	115		96.102			
	Sb	121					
	Ba	135					
>	Tb	159		90.971			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23	93.491				
	Mg	24	98.192				
	K	39	98.442				
	Ca	44	102.714				
	Fe	54	100.226				
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: 1412012-BLK2 @5X

Sample Date/Time: Thursday, December 04, 2014 11:40:46
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1412012
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1412012-BLK2 @5X.62259
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	13318.092	5.522	13318.092			ug/L
	Be	9	3.889	137.766	-0.000	-0.00357	841.45	ug/L
	Al	27	7107.959	10.721	0.037	2.39479	18.42	ug/L
>	Sc	45	140013.511	4.476	140013.511			ug/L
	V	51	1921.776	35.192	0.000	0.00239	8990.42	ug/L
	Cr	52	6197.521	4.867	0.009	0.47857	3.60	ug/L
	Mn	55	3566.864	6.888	0.008	0.26893	34.56	ug/L
	Co	59	60.556	17.908	0.000	0.00699	51.80	ug/L
	Ni	60	39.056	16.493	0.000	0.00207	418.77	ug/L
	Cu	65	90.001	8.072	-0.000	-0.00581	73.64	ug/L
	Zn	66	311.119	2.696	-0.001	-0.19782	8.16	ug/L
>	Ge	72	83924.151	0.301	83924.151			ug/L
	As	75	-47.296	349.545	-0.002	-0.19464	127.22	ug/L
	Se	82	0.778	1385.188	-0.000	-0.21980	82.12	ug/L
	Y	89	14.444	13.323	-2.222			ug/L
	Mo	98	1102.328	13.271	0.004	0.75637	16.08	ug/L
	Ag	107	61.667	14.044	0.000	0.01719	20.87	ug/L
	Ag	109	64.445	24.030	0.000	0.01977	35.26	ug/L
	Cd	111	12.859	34.800	0.000	0.00913	91.50	ug/L
	Cd	114	15.394	35.121	-0.000	-0.00353	116.85	ug/L
>	In	115	263491.854	1.904	263491.854			ug/L
	Sb	121	99.445	1.935	-0.000	-0.02308	1.86	ug/L
	Ba	135	52.222	24.166	0.000	0.09841	31.85	ug/L
>	Tb	159	260072.075	0.860	260072.075			ug/L
	Ho	165	1.111	173.205	-0.000			ug/L
	Tl	205	54.445	18.704	-0.000	-0.04746	9.45	ug/L
	Pb	208	142.223	10.104	-0.000	-0.00357	146.11	ug/L
	Bi	209	2.222	43.301	0.000			ug/L
	Th	232	39.445	4.879	-0.000	-0.00322	18.17	ug/L
	U	238	1.667	100.000	-0.000	-0.00162	34.49	ug/L
	Na	23	11025.829	1.455	0.005	0.00029	88.78	mg/L
	Mg	24	4749.589	7.559	0.015	0.00155	25.67	mg/L
	K	39	684153.324	4.342	-0.302	-0.01474	33.23	mg/L
	Ca	44	16111.300	1.969	0.013	0.02182	35.26	mg/L
	Fe	54	44588.227	3.043	0.126	0.08539	13.53	mg/L
>	Sc-1	45	140013.511	4.476	140013.511			mg/L
	Kr	83	95.556	6.603	11.111			mg/L
	N	15	31873.018	7.311	1567.977			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		96.956			
	Be	9					
	Al	27					
>	Sc	45		101.520			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		98.184			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		98.510			
	Sb	121					
	Ba	135					
>	Tb	159		97.269			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C141006-01 @10X

Sample Date/Time: Thursday, December 04, 2014 11:43:50
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1412012
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C141006-01 @10X.62260
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	14100.395	7.688	14100.395			ug/L
	Be	9	3.889	65.465	-0.000	-0.00361	397.05	ug/L
	Al	27	5300.028	4.931	0.022	1.44023	6.51	ug/L
>	Sc	45	146301.386	4.468	146301.386			ug/L
	V	51	2920.442	24.339	0.006	0.26384	67.86	ug/L
	Cr	52	6456.667	1.281	0.009	0.47580	26.86	ug/L
	Mn	55	939564.830	4.926	6.407	208.03721	3.99	ug/L
	Co	59	310.008	2.993	0.002	0.07050	4.09	ug/L
	Ni	60	-479.217	11.029	-0.004	-0.59970	6.73	ug/L
	Cu	65	315.008	14.325	0.001	0.22386	26.18	ug/L
	Zn	66	40687.041	2.025	0.468	81.01543	2.16	ug/L
>	Ge	72	86123.236	0.882	86123.236			ug/L
	As	75	213.478	28.606	0.001	0.18735	46.80	ug/L
	Se	82	-2.556	730.443	-0.000	-0.27468	111.77	ug/L
	Y	89	40.556	10.342	23.889			ug/L
	Mo	98	787.158	4.356	0.003	0.51976	5.29	ug/L
	Ag	107	41.111	18.281	0.000	0.00761	44.05	ug/L
	Ag	109	27.778	22.716	0.000	0.00239	121.02	ug/L
	Cd	111	56.052	24.692	0.000	0.08562	28.65	ug/L
	Cd	114	121.969	12.004	0.000	0.07972	14.00	ug/L
>	In	115	266077.664	0.502	266077.664			ug/L
	Sb	121	74.445	7.197	-0.000	-0.03729	8.31	ug/L
	Ba	135	3912.891	1.493	0.015	9.83535	1.49	ug/L
>	Tb	159	258683.255	0.544	258683.255			ug/L
	Ho	165	2.222	86.603	0.000			ug/L
	Tl	205	56.667	21.209	-0.000	-0.04628	12.08	ug/L
	Pb	208	190.001	8.368	0.000	0.01283	44.26	ug/L
	Bi	209	1.111	173.205	-0.000			ug/L
	Th	232	42.222	50.139	-0.000	-0.00216	345.45	ug/L
	U	238	13.333	78.062	0.000	0.00233	150.92	ug/L
	Na	23	1885697.143	1.180	12.833	0.81241	4.93	mg/L
	Mg	24	2709483.731	1.561	18.525	1.86222	4.56	mg/L
	K	39	1317845.488	2.152	3.832	0.18718	12.70	mg/L
	Ca	44	2025811.558	1.388	13.758	22.79250	3.23	mg/L
	Fe	54	34119.734	7.313	0.040	0.02718	36.53	mg/L
>	Sc-1	45	146301.386	4.468	146301.386			mg/L
	Kr	83	98.334	2.936	13.889			mg/L
	N	15	31055.388	4.218	750.346			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		102.651			
	Be	9					
	Al	27					
>	Sc	45		106.080			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		100.757			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		99.477			
	Sb	121					
	Ba	135					
>	Tb	159		96.750			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: 1412012-DUP2 @10X

Sample Date/Time: Thursday, December 04, 2014 11:46:54
Sample Type: Duplicate of 2
Sample Description:
Number of Replicates: 3
Batch ID: 1412012
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1412012-DUP2 @10X.62261
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	14752.966	3.997	14752.966			ug/L
	Be	9	6.111	15.746	0.000	0.00725	70.93	ug/L
	Al	27	4959.192	4.542	0.019	1.24589	6.00	ug/L
>	Sc	45	149092.331	2.222	149092.331			ug/L
	V	51	2354.360	30.603	0.002	0.08691	221.28	ug/L
	Cr	52	7292.037	5.400	0.014	0.71974	21.92	ug/L
	Mn	55	944050.523	2.346	6.317	205.08625	3.13	ug/L
	Co	59	310.563	6.174	0.002	0.06917	9.45	ug/L
	Ni	60	-435.564	22.155	-0.003	-0.54123	20.97	ug/L
	Cu	65	345.010	6.849	0.002	0.24658	8.98	ug/L
	Zn	66	40523.191	1.611	0.474	82.13637	3.08	ug/L
>	Ge	72	84639.902	1.530	84639.902			ug/L
	As	75	195.818	169.082	0.001	0.17060	290.74	ug/L
	Se	82	16.111	138.023	0.000	0.03624	1031.17	ug/L
	Y	89	49.445	21.407	32.778			ug/L
	Mo	98	632.817	4.472	0.002	0.40457	4.67	ug/L
	Ag	107	27.778	24.980	0.000	0.00149	216.65	ug/L
	Ag	109	21.667	27.735	-0.000	-0.00055	494.58	ug/L
	Cd	111	67.356	3.167	0.000	0.10480	4.80	ug/L
	Cd	114	114.196	24.429	0.000	0.07279	28.21	ug/L
>	In	115	268271.654	1.385	268271.654			ug/L
	Sb	121	77.778	17.971	-0.000	-0.03576	22.59	ug/L
	Ba	135	3860.637	1.637	0.015	9.97243	1.44	ug/L
>	Tb	159	251728.952	0.761	251728.952			ug/L
	Ho	165	1.111	86.603	-0.000			ug/L
	Tl	205	37.222	2.585	-0.000	-0.05470	0.96	ug/L
	Pb	208	196.668	13.046	0.000	0.01695	55.39	ug/L
	Bi	209	3.889	24.744	0.000			ug/L
	Th	232	33.333	26.458	-0.000	-0.00498	61.91	ug/L
	U	238	13.333	33.072	0.000	0.00245	63.27	ug/L
	Na	23	1945799.618	2.206	12.978	0.82159	1.86	mg/L
	Mg	24	2743311.048	2.849	18.383	1.84792	2.29	mg/L
	K	39	1334259.309	2.990	3.763	0.18381	8.98	mg/L
	Ca	44	2072611.573	4.013	13.802	22.86597	4.20	mg/L
	Fe	54	34683.619	4.150	0.039	0.02684	32.36	mg/L
>	Sc-1	45	149092.331	2.222	149092.331			mg/L
	Kr	83	80.556	20.724	-3.889			mg/L
	N	15	31535.527	3.276	1230.485			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		107.402			
	Be	9					596.335
	Al	27					14.470
>	Sc	45		108.103			
	V	51					100.884
	Cr	52					40.809
	Mn	55					1.429
	Co	59					1.896
	Ni	60					10.249
	Cu	65					9.658
	Zn	66					1.374
>	Ge	72		99.022			
	As	75					9.357
	Se	82					260.796
	Y	89					
	Mo	98					24.924
	Ag	107					134.521
	Ag	109					320.817
	Cd	111					20.145
	Cd	114					9.087
>	In	115		100.297			
	Sb	121					4.208
	Ba	135					1.384
>	Tb	159		94.149			
	Ho	165					
	Tl	205					16.679
	Pb	208					27.662
	Bi	209					
	Th	232					79.033
	U	238					4.965
	Na	23					1.124
	Mg	24					0.771
	K	39					1.816
	Ca	44					0.322
	Fe	54					1.266
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-SRD1 @50X

Sample Date/Time: Thursday, December 04, 2014 11:49:59
Sample Type: Dilution - DF:5 of 2
Sample Description:
Number of Replicates: 3
Batch ID: 1412012
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-SRD1 @50X.62262
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	13756.240	2.594	13756.240			ug/L
	Be	9	4.444	21.651	-0.000	-0.00009	6017.65	ug/L
	Al	27	2537.741	9.921	0.005	0.31045	29.40	ug/L
>	Sc	45	134114.857	2.609	134114.857			ug/L
	V	51	2607.147	3.957	0.006	0.24635	14.49	ug/L
	Cr	52	6343.777	3.964	0.012	0.63524	8.97	ug/L
	Mn	55	184137.457	1.141	1.356	44.02855	1.56	ug/L
	Co	59	81.667	10.204	0.000	0.01358	21.67	ug/L
	Ni	60	-79.325	21.600	-0.001	-0.14556	14.37	ug/L
	Cu	65	148.335	9.197	0.000	0.06415	21.32	ug/L
	Zn	66	7764.824	3.294	0.089	15.37249	3.05	ug/L
>	Ge	72	82973.814	0.445	82973.814			ug/L
	As	75	-0.767	4214.111	-0.001	-0.12550	39.00	ug/L
	Se	82	13.667	12.674	-0.000	-0.00054	5397.66	ug/L
	Y	89	22.222	4.330	5.556			ug/L
	Mo	98	206.305	9.989	0.001	0.10557	15.84	ug/L
	Ag	107	12.778	71.838	-0.000	-0.00501	87.78	ug/L
	Ag	109	14.444	24.019	-0.000	-0.00362	46.42	ug/L
	Cd	111	17.628	26.232	0.000	0.01824	44.45	ug/L
	Cd	114	27.501	58.968	0.000	0.00649	197.62	ug/L
>	In	115	257661.117	1.243	257661.117			ug/L
	Sb	121	45.000	16.973	-0.000	-0.05259	8.50	ug/L
	Ba	135	796.162	6.272	0.003	2.01374	5.68	ug/L
>	Tb	159	253772.291	1.308	253772.291			ug/L
	Ho	165	1.111	86.603	-0.000			ug/L
	Tl	205	60.556	22.416	-0.000	-0.04394	14.87	ug/L
	Pb	208	137.778	11.240	-0.000	-0.00393	137.32	ug/L
	Bi	209	2.778	34.641	0.000			ug/L
	Th	232	19.444	17.843	-0.000	-0.01002	13.37	ug/L
	U	238	3.889	24.744	-0.000	-0.00084	37.56	ug/L
	Na	23	366014.271	4.539	2.654	0.16802	2.57	mg/L
	Mg	24	514698.282	2.391	3.820	0.38397	1.60	mg/L
	K	39	799567.455	0.961	0.775	0.03784	13.74	mg/L
	Ca	44	384881.218	8.418	2.765	4.58082	6.34	mg/L
	Fe	54	29330.566	5.196	0.025	0.01720	23.64	mg/L
>	Sc-1	45	134114.857	2.609	134114.857			mg/L
	Kr	83	82.223	12.873	-2.222			mg/L
	N	15	30341.329	4.107	36.287			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		100.146			
	Be	9				-87.904	
	Al	27				7.779	
>	Sc	45		97.243			
	V	51				366.861	
	Cr	52				567.552	
	Mn	55				5.819	
	Co	59				3.651	
	Ni	60				-21.365	
	Cu	65				43.271	
	Zn	66				5.126	
>	Ge	72		97.073			
	As	75				434.937	
	Se	82				-99.013	
	Y	89					
	Mo	98				1.552	
	Ag	107				429.063	
	Ag	109				858.320	
	Cd	111				6.550	
	Cd	114				59.286	
>	In	115		96.330			
	Sb	121				-605.143	
	Ba	135				2.372	
>	Tb	159		94.913			
	Ho	165					
	Tl	205				-374.718	
	Pb	208				253.368	
	Bi	209					
	Th	232				-2222.285	
	U	238				280.204	
	Na	23				3.410	
	Mg	24				3.095	
	K	39				1.073	
	Ca	44				0.490	
	Fe	54				216.473	
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: 1412012-SRM2 @20X

Sample Date/Time: Thursday, December 04, 2014 11:53:03
Sample Type: Spike - 1 of 1
Sample Description:
Number of Replicates: 3
Batch ID: 1412012
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1412012-SRM2 @20X.62263
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	14878.801	0.819	14878.801			ug/L
	Be	9	7216.388	2.504	0.485	38.74839	2.65	ug/L
	Al	27	103839.504	3.446	0.738	48.04963	1.00	ug/L
>	Sc	45	138128.919	3.023	138128.919			ug/L
	V	51	155705.973	6.103	1.113	47.70685	3.20	ug/L
	Cr	52	137589.371	6.083	0.961	49.55040	3.16	ug/L
	Mn	55	215864.844	1.499	1.546	50.19690	1.95	ug/L
	Co	59	180439.035	3.916	1.306	49.20323	0.93	ug/L
	Ni	60	38903.557	1.294	0.281	47.71393	2.14	ug/L
	Cu	65	45326.001	1.246	0.328	49.46033	1.89	ug/L
	Zn	66	25949.875	1.098	0.305	52.88021	0.73	ug/L
>	Ge	72	83692.187	0.470	83692.187			ug/L
	As	75	66909.140	2.304	0.799	100.47945	2.61	ug/L
	Se	82	3001.310	2.941	0.036	50.29446	3.04	ug/L
	Y	89	25.000	30.551	8.333			ug/L
	Mo	98	66724.882	1.088	0.253	48.66022	1.33	ug/L
	Ag	107	27136.567	1.221	0.103	12.44642	0.98	ug/L
	Ag	109	26647.800	0.473	0.101	12.59603	0.34	ug/L
	Cd	111	28160.137	1.086	0.107	50.66273	1.28	ug/L
	Cd	114	63029.922	0.869	0.240	49.86271	1.02	ug/L
>	In	115	262982.512	0.246	262982.512			ug/L
	Sb	121	185525.251	1.275	0.705	102.67623	1.03	ug/L
	Ba	135	19554.439	1.943	0.075	48.76008	1.67	ug/L
>	Tb	159	261452.702	1.306	261452.702			ug/L
	Ho	165	1.111	173.205	-0.000			ug/L
	Tl	205	528548.091	1.344	2.021	238.77888	1.22	ug/L
	Pb	208	285761.043	0.570	1.092	95.53819	0.99	ug/L
	Bi	209	2.778	34.641	0.000			ug/L
	Th	232	33.889	19.876	-0.000	-0.00520	47.10	ug/L
	U	238	0.556	173.205	-0.000	-0.00199	16.06	ug/L
	Na	23	110609.736	4.393	0.727	0.04600	4.08	mg/L
	Mg	24	71727.879	5.641	0.501	0.05032	3.98	mg/L
	K	39	1396439.384	2.524	4.922	0.24041	2.61	mg/L
	Ca	44	21548.756	1.419	0.054	0.08951	4.81	mg/L
	Fe	54	39494.879	3.606	0.093	0.06304	10.52	mg/L
>	Sc-1	45	138128.919	3.023	138128.919			mg/L
	Kr	83	88.890	10.327	4.445			mg/L
	N	15	31165.425	5.184	860.383			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		108.318			
	Be	9			77.504		
	Al	27			91.310		
>	Sc	45		100.154			
	V	51			95.409		
	Cr	52			98.144		
	Mn	55			99.856		
	Co	59			98.392		
	Ni	60			95.424		
	Cu	65			98.932		
	Zn	66					
>	Ge	72		97.913			
	As	75			100.674		
	Se	82			101.029		
	Y	89					
	Mo	98			95.808		
	Ag	107			99.434		
	Ag	109			100.610		
	Cd	111			101.307		
	Cd	114					
>	In	115		98.320			
	Sb	121			102.699		
	Ba	135			97.323		
>	Tb	159		97.786			
	Ho	165					
	Tl	205			95.531		
	Pb	208			95.542		
	Bi	209					
	Th	232					
	U	238					
	Na	23			91.414		
	Mg	24			97.534		
	K	39			102.059		
	Ca	44			135.390		
	Fe	54			-44.713		
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: 1412012-MS2 @10X

Sample Date/Time: Thursday, December 04, 2014 11:56:08
Sample Type: Spike - 2 of 2
Sample Description:
Number of Replicates: 3
Batch ID: 1412012
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\1412012-MS2 @10X.62264
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	13159.409	4.015	13159.409			ug/L
	Be	9	2207.057	5.702	0.167	13.37823	2.86	ug/L
	Al	27	333144.739	9.854	2.674	174.18196	6.68	ug/L
>	Sc	45	123925.703	6.729	123925.703			ug/L
	V	51	80704.440	8.546	0.637	27.30893	2.49	ug/L
	Cr	52	95766.495	4.913	0.739	38.11042	3.97	ug/L
	Mn	55	883953.613	8.402	7.111	230.88279	2.62	ug/L
	Co	59	61936.196	6.384	0.500	18.82956	2.49	ug/L
	Ni	60	32918.324	5.723	0.266	45.00942	2.49	ug/L
	Cu	65	23239.296	4.586	0.187	28.24056	2.50	ug/L
	Zn	66	44402.338	4.053	0.588	101.93916	5.77	ug/L
>	Ge	72	74916.616	3.146	74916.616			ug/L
	As	75	47736.447	1.191	0.637	80.09438	2.50	ug/L
	Se	82	8901.663	3.036	0.119	167.22355	2.71	ug/L
	Y	89	53.889	21.942	37.222			ug/L
	Mo	98	49283.741	0.195	0.211	40.51588	1.37	ug/L
	Ag	107	14497.909	1.392	0.062	7.49253	0.54	ug/L
	Ag	109	14046.884	2.309	0.060	7.48258	2.90	ug/L
	Cd	111	10051.520	2.814	0.043	20.38035	2.92	ug/L
	Cd	114	22243.621	1.047	0.095	19.83231	2.06	ug/L
>	In	115	233263.008	1.280	233263.008			ug/L
	Sb	121	132451.033	0.840	0.567	82.63180	0.47	ug/L
	Ba	135	10264.535	1.611	0.044	29.01940	1.55	ug/L
>	Tb	159	230511.280	1.669	230511.280			ug/L
	Ho	165	2.778	69.282	0.000			ug/L
	Tl	205	368784.055	0.490	1.600	188.98306	1.98	ug/L
	Pb	208	251935.211	0.984	1.092	95.53752	1.13	ug/L
	Bi	209	5.000	33.333	0.000			ug/L
	Th	232	33.333	25.000	-0.000	-0.00382	91.63	ug/L
	U	238	6.111	15.746	0.000	0.00014	280.16	ug/L
	Na	23	2136101.113	4.590	17.205	1.08915	6.86	mg/L
	Mg	24	2452959.592	6.379	19.803	1.99071	5.90	mg/L
	K	39	3583684.606	8.985	23.717	1.15837	5.64	mg/L
	Ca	44	1760561.249	8.967	14.101	23.36135	5.17	mg/L
	Fe	54	80638.386	5.712	0.458	0.31150	5.80	mg/L
>	Sc-1	45	123925.703	6.729	123925.703			mg/L
	Kr	83	90.001	14.464	5.556			mg/L
	N	15	28332.631	7.251	-1972.411			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		95.801			
	Be	9			33.455		
	Al	27			43.185		
>	Sc	45		89.855			
	V	51			45.075		
	Cr	52			47.043		
	Mn	55			57.114		
	Co	59			37.518		
	Ni	60			45.609		
	Cu	65			46.694		
	Zn	66					
>	Ge	72		87.646			
	As	75			49.942		
	Se	82			41.875		
	Y	89					
	Mo	98			49.995		
	Ag	107			49.899		
	Ag	109			49.868		
	Cd	111			50.737		
	Cd	114					
>	In	115		87.209			
	Sb	121			51.668		
	Ba	135			47.960		
>	Tb	159		86.213			
	Ho	165					
	Tl	205			47.257		
	Pb	208			47.762		
	Bi	209					
	Th	232					
	U	238					
	Na	23			46.124		
	Mg	24			32.124		
	K	39			48.560		
	Ca	44			284.421		
	Fe	54			47.387		
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C141006-03 @5X

Sample Date/Time: Thursday, December 04, 2014 11:59:12
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1412012
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C141006-03 @5X.62265
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	13512.413	6.722	13512.413			ug/L
	Be	9	12.778	32.825	0.001	0.04886	41.21	ug/L
	Al	27	60815.979	7.060	0.447	29.11949	2.28	ug/L
>	Sc	45	132038.554	8.995	132038.554			ug/L
	V	51	1854.124	18.748	0.001	0.02359	695.33	ug/L
	Cr	52	6478.913	2.496	0.014	0.73917	29.14	ug/L
	Mn	55	884926.882	8.032	6.692	217.27675	4.00	ug/L
	Co	59	1342.367	8.121	0.010	0.37510	10.43	ug/L
	Ni	60	15.588	221.853	-0.000	-0.02479	188.20	ug/L
	Cu	65	5069.279	3.658	0.038	5.71346	6.00	ug/L
	Zn	66	219469.391	5.956	2.817	488.13040	3.66	ug/L
>	Ge	72	77725.509	2.483	77725.509			ug/L
	As	75	-72.467	209.851	-0.002	-0.24491	102.03	ug/L
	Se	82	23.556	7.262	0.000	0.19508	21.12	ug/L
	Y	89	521.133	5.200	504.466			ug/L
	Mo	98	2332.726	2.674	0.009	1.81147	7.72	ug/L
	Ag	107	42.778	23.485	0.000	0.01045	53.58	ug/L
	Ag	109	41.111	33.757	0.000	0.01074	73.75	ug/L
	Cd	111	1262.963	4.075	0.005	2.46285	1.67	ug/L
	Cd	114	2861.759	4.584	0.012	2.45242	2.92	ug/L
>	In	115	241454.903	5.690	241454.903			ug/L
	Sb	121	157.780	4.269	0.000	0.01743	48.74	ug/L
	Ba	135	682.260	4.599	0.003	1.86768	3.59	ug/L
>	Tb	159	234207.446	2.382	234207.446			ug/L
	Ho	165	12.222	47.889	0.000			ug/L
	Tl	205	2362.684	22.456	0.010	1.12434	26.65	ug/L
	Pb	208	1059.480	6.948	0.004	0.34462	10.01	ug/L
	Bi	209	6.111	41.660	0.000			ug/L
	Th	232	26.667	34.799	-0.000	-0.00663	54.64	ug/L
	U	238	983.411	1.345	0.004	0.36456	3.53	ug/L
	Na	23	1638170.352	7.378	12.345	0.78148	1.71	mg/L
	Mg	24	2299161.925	8.567	17.399	1.74900	0.44	mg/L
	K	39	1188908.481	5.972	3.831	0.18713	6.94	mg/L
	Ca	44	1807743.810	10.540	13.579	22.49548	2.30	mg/L
	Fe	54	106958.220	8.095	0.618	0.42019	6.83	mg/L
>	Sc-1	45	132038.554	8.995	132038.554			mg/L
	Kr	83	78.889	5.317	-5.556			mg/L
	N	15	28508.327	5.366	-1796.715			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		98.370			
	Be	9					
	Al	27					
>	Sc	45		95.738			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		90.932			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		90.271			
	Sb	121					
	Ba	135					
>	Tb	159		87.596			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: C141006-05 @5X

Sample Date/Time: Thursday, December 04, 2014 12:02:18
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1412012
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\C141006-05 @5X.62266
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	14168.854	5.669	14168.854			ug/L
	Be	9	3.333	86.603	-0.000	-0.00656	255.34	ug/L
	Al	27	7529.555	8.597	0.038	2.47432	9.19	ug/L
>	Sc	45	144369.997	2.175	144369.997			ug/L
	V	51	3275.637	5.349	0.009	0.38635	18.36	ug/L
	Cr	52	7050.649	5.273	0.014	0.71371	11.30	ug/L
	Mn	55	747354.407	3.892	5.158	167.48355	2.30	ug/L
	Co	59	393.901	6.788	0.002	0.09339	7.07	ug/L
	Ni	60	-313.957	19.430	-0.002	-0.41317	15.45	ug/L
	Cu	65	376.678	13.944	0.002	0.29097	18.14	ug/L
	Zn	66	37597.800	2.629	0.465	80.54698	2.15	ug/L
>	Ge	72	80034.196	0.737	80034.196			ug/L
	As	75	132.994	65.376	0.001	0.08539	161.63	ug/L
	Se	82	13.667	66.035	0.000	0.00850	1880.66	ug/L
	Y	89	43.333	30.040	26.667			ug/L
	Mo	98	418.789	4.997	0.001	0.27625	7.56	ug/L
	Ag	107	28.889	28.459	0.000	0.00308	138.58	ug/L
	Ag	109	27.222	18.704	0.000	0.00309	86.63	ug/L
	Cd	111	88.487	28.531	0.000	0.15458	30.38	ug/L
	Cd	114	188.336	15.128	0.001	0.14265	17.82	ug/L
>	In	115	247908.296	1.793	247908.296			ug/L
	Sb	121	75.556	31.686	-0.000	-0.03379	40.10	ug/L
	Ba	135	3395.923	2.498	0.014	9.24877	2.05	ug/L
>	Tb	159	238678.163	0.459	238678.163			ug/L
	Ho	165	2.778	69.282	0.000			ug/L
	Tl	205	794.495	7.710	0.003	0.32117	9.86	ug/L
	Pb	208	282.780	3.246	0.001	0.05218	5.60	ug/L
	Bi	209	3.889	65.465	0.000			ug/L
	Th	232	19.444	43.142	-0.000	-0.00959	33.55	ug/L
	U	238	40.556	2.373	0.000	0.01266	3.20	ug/L
	Na	23	2005696.410	6.819	13.809	0.87421	4.76	mg/L
	Mg	24	2760738.167	3.667	19.100	1.92005	1.57	mg/L
	K	39	3056012.351	6.264	15.973	0.78015	6.67	mg/L
	Ca	44	1933801.748	5.677	13.286	22.01063	3.55	mg/L
	Fe	54	32205.510	5.676	0.030	0.02017	26.94	mg/L
>	Sc-1	45	144369.997	2.175	144369.997			mg/L
	Kr	83	85.001	12.858	0.556			mg/L
	N	15	30100.287	6.481	-204.755			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		103.149			
	Be	9					
	Al	27					
>	Sc	45		104.679			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		93.633			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		92.684			
	Sb	121					
	Ba	135					
>	Tb	159		89.268			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: Blank

Sample Date/Time: Thursday, December 04, 2014 12:05:23
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID: 1412012
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\Blank.62267
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	13063.661	4.978	13063.661			ug/L
	Be	9	3.333	100.000	-0.000	-0.00526	404.53	ug/L
	Al	27	1767.473	8.224	-0.000	-0.03251	161.35	ug/L
>	Sc	45	129535.391	2.830	129535.391			ug/L
	V	51	2346.818	29.772	0.004	0.18718	114.96	ug/L
	Cr	52	5895.574	9.599	0.011	0.54350	40.11	ug/L
	Mn	55	1871.868	1.976	-0.003	-0.09139	22.37	ug/L
	Co	59	34.445	23.869	0.000	0.00065	397.99	ug/L
	Ni	60	31.094	15.439	-0.000	-0.00453	164.02	ug/L
	Cu	65	75.000	35.556	-0.000	-0.01559	190.06	ug/L
	Zn	66	253.894	9.475	-0.002	-0.28193	24.14	ug/L
>	Ge	72	78974.370	2.556	78974.370			ug/L
	As	75	46.550	267.783	-0.000	-0.04807	413.82	ug/L
	Se	82	-2.445	420.355	-0.000	-0.27536	65.67	ug/L
	Y	89	13.889	48.497	-2.778			ug/L
	Mo	98	89.947	5.640	0.000	0.02254	18.57	ug/L
	Ag	107	20.556	16.878	-0.000	-0.00084	227.71	ug/L
	Ag	109	18.333	27.273	-0.000	-0.00128	184.49	ug/L
	Cd	111	7.122	37.145	-0.000	-0.00032	1544.21	ug/L
	Cd	114	19.965	131.735	0.000	0.00164	1397.32	ug/L
>	In	115	243991.485	2.211	243991.485			ug/L
	Sb	121	33.889	18.619	-0.000	-0.05787	5.81	ug/L
	Ba	135	6.111	15.746	-0.000	-0.01640	14.80	ug/L
>	Tb	159	246918.973	1.748	246918.973			ug/L
	Ho	165	1.667	0.000	-0.000			ug/L
	Tl	205	568.359	12.590	0.002	0.19978	17.17	ug/L
	Pb	208	135.001	11.315	-0.000	-0.00355	170.42	ug/L
	Bi	209	1.667	0.000	-0.000			ug/L
	Th	232	13.333	43.301	-0.000	-0.01207	18.15	ug/L
	U	238	2.222	86.603	-0.000	-0.00139	48.57	ug/L
	Na	23	2700.588	10.491	-0.053	-0.00338	3.34	mg/L
	Mg	24	2295.979	7.110	-0.001	-0.00009	122.06	mg/L
	K	39	678576.152	0.249	0.052	0.00256	274.88	mg/L
	Ca	44	14905.539	2.678	0.013	0.02169	28.86	mg/L
	Fe	54	26711.428	6.594	0.013	0.00876	90.49	mg/L
>	Sc-1	45	129535.391	2.830	129535.391			mg/L
	Kr	83	96.112	1.001	11.667			mg/L
	N	15	29356.094	4.461	-948.948			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		95.104			
	Be	9					
	Al	27					
>	Sc	45		93.923			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		92.393			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		91.219			
	Sb	121					
	Ba	135					
>	Tb	159		92.350			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-CCV

Sample Date/Time: Thursday, December 04, 2014 12:08:28
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CCV.62268
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	11153.299	5.874	11153.299			ug/L
	Be	9	6136.352	6.371	0.551	44.03002	7.56	ug/L
	Al	27	440783.167	4.624	4.022	262.03066	7.67	ug/L
>	Sc	45	109411.837	4.676	109411.837			ug/L
	V	51	128205.214	1.673	1.159	49.69073	2.98	ug/L
	Cr	52	114662.628	5.486	1.013	52.27813	4.56	ug/L
	Mn	55	174281.608	9.447	1.578	51.23459	10.97	ug/L
	Co	59	149643.823	8.035	1.367	51.52189	6.44	ug/L
	Ni	60	32175.081	11.425	0.294	49.78486	10.06	ug/L
	Cu	65	37800.324	5.737	0.345	52.07566	4.51	ug/L
	Zn	66	22362.314	7.695	0.299	51.76344	4.95	ug/L
>	Ge	72	73585.330	2.887	73585.330			ug/L
	As	75	30523.255	1.635	0.414	52.10147	3.45	ug/L
	Se	82	2817.445	5.350	0.038	53.79432	8.22	ug/L
	Y	89	18.889	18.368	2.222			ug/L
	Mo	98	64468.817	1.553	0.275	52.83435	0.93	ug/L
	Ag	107	100025.520	2.608	0.427	51.58039	0.57	ug/L
	Ag	109	95139.989	2.153	0.406	50.56190	0.35	ug/L
	Cd	111	25303.991	2.802	0.108	51.14746	1.25	ug/L
	Cd	114	57322.450	3.845	0.245	50.94102	1.84	ug/L
>	In	115	234050.622	2.062	234050.622			ug/L
	Sb	121	81835.385	5.027	0.349	50.83941	3.83	ug/L
	Ba	135	17841.055	6.488	0.077	50.13439	2.61	ug/L
>	Tb	159	231889.308	4.641	231889.308			ug/L
	Ho	165	1.667	100.000	-0.000			ug/L
	Tl	205	102294.248	3.265	0.441	52.07361	2.24	ug/L
	Pb	208	138351.950	3.146	0.596	52.16076	2.99	ug/L
	Bi	209	13.333	25.000	0.000			ug/L
	Th	232	126315.181	2.195	0.545	49.54532	2.50	ug/L
	U	238	130775.233	2.753	0.564	49.26729	3.15	ug/L
	Na	23	8527710.421	8.933	77.919	4.93274	9.04	mg/L
	Mg	24	5245681.199	6.678	47.964	4.82162	7.00	mg/L
	K	39	11596741.917	3.475	100.954	4.93079	6.12	mg/L
	Ca	44	331520.714	5.235	2.928	4.85141	3.20	mg/L
	Fe	54	850119.056	7.187	7.590	5.16176	9.53	mg/L
>	Sc-1	45	109411.837	4.676	109411.837			mg/L
	Kr	83	86.667	10.176	2.222			mg/L
	N	15	35205.852	6.855	4900.810			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		81.196			
	Be	9	88.060				
	Al	27	104.812				
>	Sc	45		79.332			
	V	51	99.381				
	Cr	52	104.556				
	Mn	55	102.469				
	Co	59	103.044				
	Ni	60	99.570				
	Cu	65	104.151				
	Zn	66	103.527				
>	Ge	72		86.089			
	As	75	104.203				
	Se	82	107.589				
	Y	89					
	Mo	98	105.669				
	Ag	107	103.161				
	Ag	109	101.124				
	Cd	111	102.295				
	Cd	114					
>	In	115		87.503			
	Sb	121	101.679				
	Ba	135	100.269				
>	Tb	159		86.729			
	Ho	165					
	Tl	205	104.147				
	Pb	208	104.322				
	Bi	209					
	Th	232	99.091				
	U	238	98.535				
	Na	23	98.655				
	Mg	24	96.432				
	K	39	98.616				
	Ca	44	97.028				
	Fe	54	103.235				
>	Sc-1	45					
	Kr	83					
	N	15					

Method 200.8 - Summary Report

Sample ID: SEQ-CCB

Sample Date/Time: Thursday, December 04, 2014 12:11:46
Sample Type: Sample
Sample Description:
Number of Replicates: 3
Batch ID:
Method File: C:\Elandata\Method\esat2010.mth
Dataset File: C:\Elandata\Dataset\Default\SEQ-CCB.62269
Sample Prep Volume (mL):
Initial Sample Quantity (mg):
Aliquot Volume (mL):
Diluted To Volume (mL):

Concentration Results

	Analyte	Mass	Meas. Intens. Mean	Meas. Intens. RSD	Net Intens. Mean	Conc. Mean	Conc. RSD	Sample Unit
>	Li	6	11305.257	7.811	11305.257			ug/L
	Be	9	6.667	43.301	0.000	0.02182	101.66	ug/L
	Al	27	2169.267	7.009	0.004	0.28370	36.39	ug/L
>	Sc	45	117783.479	9.711	117783.479			ug/L
	V	51	1954.260	18.561	0.003	0.12872	119.34	ug/L
	Cr	52	4681.757	6.039	0.005	0.25134	39.84	ug/L
	Mn	55	1780.565	7.938	-0.002	-0.06699	92.48	ug/L
	Co	59	68.334	2.439	0.000	0.01256	13.79	ug/L
	Ni	60	44.950	22.960	0.000	0.01927	71.75	ug/L
	Cu	65	108.890	15.408	0.000	0.03658	36.68	ug/L
	Zn	66	333.898	8.491	-0.000	-0.08175	73.95	ug/L
>	Ge	72	76284.143	3.208	76284.143			ug/L
	As	75	20.835	763.390	-0.001	-0.08438	311.95	ug/L
	Se	82	12.000	168.143	-0.000	-0.01791	2062.50	ug/L
	Y	89	14.444	54.529	-2.222			ug/L
	Mo	98	287.237	20.644	0.001	0.17593	26.63	ug/L
	Ag	107	67.778	2.839	0.000	0.02223	4.85	ug/L
	Ag	109	62.223	14.752	0.000	0.02086	21.86	ug/L
	Cd	111	11.707	13.212	0.000	0.00844	33.57	ug/L
	Cd	114	6.475	235.163	-0.000	-0.01018	126.85	ug/L
>	In	115	246050.119	0.615	246050.119			ug/L
	Sb	121	388.901	5.113	0.001	0.15214	7.05	ug/L
	Ba	135	12.778	7.531	0.000	0.00107	258.80	ug/L
>	Tb	159	248209.899	1.322	248209.899			ug/L
	Ho	165	1.111	86.603	-0.000			ug/L
	Tl	205	373.900	4.465	0.001	0.10575	5.42	ug/L
	Pb	208	167.779	2.068	0.000	0.00769	11.84	ug/L
	Bi	209	1.111	86.603	-0.000			ug/L
	Th	232	177.780	17.346	0.001	0.04807	22.56	ug/L
	U	238	35.000	26.513	0.000	0.01011	31.00	ug/L
	Na	23	10666.413	12.658	0.016	0.00103	34.13	mg/L
	Mg	24	3026.292	8.669	0.007	0.00072	8.07	mg/L
	K	39	671885.815	3.259	0.541	0.02642	75.79	mg/L
	Ca	44	14269.052	1.939	0.020	0.03267	47.02	mg/L
	Fe	54	24234.828	6.271	0.013	0.00877	55.58	mg/L
>	Sc-1	45	117783.479	9.711	117783.479			mg/L
	Kr	83	85.001	12.245	0.556			mg/L
	N	15	27920.085	4.512	-2384.957			mg/L

QC Calculated Values

	Analyte	Mass	QC Std % Recovery	Int Std % Recovery	Spike % Recovery	Dilution % Diff	Dup. Rel. % Diff
>	Li	6		82.302			
	Be	9					
	Al	27					
>	Sc	45		85.402			
	V	51					
	Cr	52					
	Mn	55					
	Co	59					
	Ni	60					
	Cu	65					
	Zn	66					
>	Ge	72		89.246			
	As	75					
	Se	82					
	Y	89					
	Mo	98					
	Ag	107					
	Ag	109					
	Cd	111					
	Cd	114					
>	In	115		91.989			
	Sb	121					
	Ba	135					
>	Tb	159		92.833			
	Ho	165					
	Tl	205					
	Pb	208					
	Bi	209					
	Th	232					
	U	238					
	Na	23					
	Mg	24					
	K	39					
	Ca	44					
	Fe	54					
>	Sc-1	45					
	Kr	83					
	N	15					