Sequence No.: 101
Sample ID: VS20 L SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 372
Date Collected: 11/23/2012 4:20:11 PM
Data Type: Original

Nebulizer Parameters: VS20 L SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS20 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2751547.4	104.3	%	0.74				0.71%
ScR 361.383	349259.2	105.8	%	1.74				1.65%
Ag 328.068†	160.7	0.00093	mg/L	0.000288	0.00464	mg/L	0.001442	31.07%
Al 308.215†	104417.8	60.88	mg/L	0.862	304.4	mg/L	4.31	1.42%
As 188.979†	16.9	0.07336	mg/L	0.003166	0.3668	mg/L	0.01583	4.32%
B 249.677†	82.6	0.01047	mg/L	0.000457	0.05234	mg/L	0.002284	4.36%
Ba 233.527†	8063.2	1.678	mg/L	0.0201	8.392	mg/L	0.1004	1.20%
Be 313.042†	950.6	0.00144	mg/L	0.000031	0.00719	mg/L	0.000153	2.13%
Ca 317.933†	264632.0	18.87	mg/L	0.269	94.35	mg/L	1.347	1.43%
Cd 228.802†	834.1	0.02675	mg/L	0.000232	0.1337	mg/L	0.00116	0.87%
Co 228.616†	1226.3	0.02665	mg/L	0.000496	0.1332	mg/L	0.00248	1.86%
Cr 267.716†	425.4	0.06647	mg/L	0.001148	0.3324	mg/L	0.00574	1.73%
Cu 324.752†	22230.7	0.08671	mg/L	0.001647	0.4336	mg/L	0.00823	1.90%
Fe 273.955†	89449.6	63.94	mg/L	0.950	319.7	mg/L	4.75	1.49%
K 766.490†	10030.3	5.119	mg/L	0.0863	25.59	mg/L	0.431	1.69%
Mg 279.077†	19043.0	13.39	mg/L	0.182	66.95	mg/L	0.908	1.36%
Mn 257.610†	254987.7	6.633	mg/L	0.0948	33.17	mg/L	0.474	1.43%
Mo 202.031†	64.9	0.00288	mg/L	0.000206	0.01442	mg/L	0.001030	7.14%
Na 589.592†	13437.4	1.093	mg/L	0.0138	5.463	mg/L	0.0690	1.26%
Na 330.237†	31.1	1.123	mg/L	0.1362	5.617	mg/L	0.6810	12.12%
Ni 231.604†	206.5	0.04864	mg/L	0.000582	0.2432	mg/L	0.00291	1.20%
Pb 220.353†	10345.4	1.275	mg/L	0.0186	6.376	mg/L	0.0932	1.46%
Sb 206.836†	38.8	0.01165	mg/L	0.002923	0.05827	mg/L	0.014614	25.08%
Se 196.026†	18.5	0.01238	mg/L	0.003145	0.06188	mg/L	0.015726	25.41%
Si 288.158†	1420.1	0.6672	mg/L	0.01070	3.336	mg/L	0.0535	1.60%
Sn 189.927†	-16.0	-0.00133	mg/L	0.000992	-0.00666	mg/L	0.004958	74.44%
Sr 421.552†	247619.4	0.2763	mg/L	0.00398	1.381	mg/L	0.0199	1.44%
Ti 334.903†	48582.8	2.287	mg/L	0.0316	11.44	mg/L	0.158	1.38%
Tl 190.801†	-3.9	0.00473	mg/L	0.003749	0.02367	mg/L	0.018744	79.20%
V 292.402†	14013.3	0.1062	mg/L	0.00192	0.5311	mg/L	0.00962	1.81%
Zn 206.200†	5502.3	1.375	mg/L	0.0175	6.873	mg/L	0.0877	1.28%

Sequence No.: 102
Sample ID: VS18 I SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 373
Date Collected: 11/23/2012 4:24:11 PM
Data Type: Original

Nebulizer Parameters: VS18 I SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS18 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2731981.2	103.6	%	0.69				0.67%
ScR 361.383	344675.4	104.4	%	2.31				2.21%
Ag 328.068†	788.0	0.00443	mg/L	0.000220	0.02216	mg/L	0.001100	4.96%
Al 308.215†	87586.8	51.07	mg/L	1.473	255.3	mg/L	7.36	2.88%
As 188.979†	52.5	0.1000	mg/L	0.00082	0.5001	mg/L	0.00410	0.82%
B 249.677†	108.3	0.01374	mg/L	0.000440	0.06870	mg/L	0.002202	3.21%
Ba 233.527†	5193.1	1.076	mg/L	0.0196	5.381	mg/L	0.0979	1.82%
Be 313.042†	1068.0	0.00162	mg/L	0.000054	0.00808	mg/L	0.000272	3.37%
Ca 317.933†	391616.1	27.93	mg/L	0.810	139.6	mg/L	4.05	2.90%
Cd 228.802†	2789.0	0.09075	mg/L	0.001059	0.4537	mg/L	0.00530	1.17%
Co 228.616†	1329.0	0.02873	mg/L	0.000309	0.1437	mg/L	0.00155	1.08%
Cr 267.716†	548.6	0.08555	mg/L	0.000796	0.4277	mg/L	0.00398	0.93%
Cu 324.752†	38244.3	0.1478	mg/L	0.00113	0.7388	mg/L	0.00563	0.76%
Fe 273.955†	99030.3	70.78	mg/L	1.959	353.9	mg/L	9.80	2.77%
K 766.490†	18722.0	9.554	mg/L	0.2685	47.77	mg/L	1.343	2.81%
Mg 279.077†	25022.9	17.60	mg/L	0.476	88.01	mg/L	2.379	2.70%
Mn 257.610†	140757.8	3.662	mg/L	0.0999	18.31	mg/L	0.499	2.73%
Mo 202.031†	78.3	0.00342	mg/L	0.000187	0.01710	mg/L	0.000934	5.46%
Na 589.592†	7809.1	0.6350	mg/L	0.01678	3.175	mg/L	0.0839	2.64%
Na 330.237†	38.7	0.4924	mg/L	0.27688	2.462	mg/L	1.3844	56.23%
Ni 231.604†	268.0	0.06311	mg/L	0.000896	0.3156	mg/L	0.00448	1.42%
Pb 220.353†	37660.6	4.608	mg/L	0.0340	23.04	mg/L	0.170	0.74%
Sb 206.836†	81.2	0.02387	mg/L	0.001549	0.1194	mg/L	0.00775	6.49%
Se 196.026†	1.8	0.00114	mg/L	0.005030	0.00570	mg/L	0.025149	440.83%
Si 288.158†	2601.9	1.222	mg/L	0.0284	6.108	mg/L	0.1421	2.33%
Sn 189.927†	34.0	0.01254	mg/L	0.000672	0.06271	mg/L	0.003361	5.36%
Sr 421.552†	252392.7	0.2816	mg/L	0.00785	1.408	mg/L	0.0392	2.79%
Ti 334.903†	54656.0	2.573	mg/L	0.0689	12.86	mg/L	0.345	2.68%
Tl 190.801†	1.8	0.00766	mg/L	0.000903	0.03831	mg/L	0.004514	11.78%
V 292.402†	14473.6	0.1090	mg/L	0.00104	0.5450	mg/L	0.00519	0.95%
Zn 206.200†	17093.1	4.270	mg/L	0.1183	21.35	mg/L	0.591	2.77%

Sequence No.: 103
Sample ID: VS18 J SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 374
Date Collected: 11/23/2012 4:28:11 PM
Data Type: Original

Nebulizer Parameters: VS18 J SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS18 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2740293.7	103.9	%	0.52				0.50%
ScR 361.383	351761.6	106.6	%	3.19				2.99%
Ag 328.068†	337.3	0.00198	mg/L	0.000152	0.00988	mg/L	0.000762	7.71%
Al 308.215†	196512.9	114.6	mg/L	4.23	572.8	mg/L	21.15	3.69%
As 188.979†	-205.4	0.1463	mg/L	0.00968	0.7316	mg/L	0.04840	6.62%
B 249.677†	65.8	0.00818	mg/L	0.001146	0.04088	mg/L	0.005728	14.01%
Ba 233.527†	10049.6	2.078	mg/L	0.0725	10.39	mg/L	0.362	3.49%
Be 313.042†	1704.7	0.00249	mg/L	0.000140	0.01246	mg/L	0.000702	5.63%
Ca 317.933†	381161.4	27.18	mg/L	0.996	135.9	mg/L	4.98	3.66%
Cd 228.802†	1991.9	0.06482	mg/L	0.000765	0.3241	mg/L	0.00383	1.18%
Co 228.616†	4145.8	0.08849	mg/L	0.001403	0.4425	mg/L	0.00701	1.59%
Cr 267.716†	4254.5	0.6572	mg/L	0.02244	3.286	mg/L	0.1122	3.41%
Cu 324.752†	65144.3	0.2522	mg/L	0.00182	1.261	mg/L	0.0091	0.72%
Fe 273.955†	232761.2	166.4	mg/L	6.63	831.9	mg/L	33.16	3.99%
K 766.490†	109757.1	56.01	mg/L	1.842	280.1	mg/L	9.21	3.29%
Mg 279.077†	134102.4	94.45	mg/L	3.554	472.2	mg/L	17.77	3.76%
Mn 257.610†	161133.2	4.193	mg/L	0.1620	20.96	mg/L	0.810	3.86%
Mo 202.031†	73.8	0.00318	mg/L	0.000328	0.01591	mg/L	0.001639	10.31%
Na 589.592†	15976.9	1.299	mg/L	0.0463	6.496	mg/L	0.2314	3.56%
Na 330.237†	-9.0	0.7899	mg/L	0.19043	3.949	mg/L	0.9521	24.11%
Ni 231.604†	1375.7	0.3240	mg/L	0.01157	1.620	mg/L	0.0578	3.57%
Pb 220.353†	28648.2	3.519	mg/L	0.0250	17.60	mg/L	0.125	0.71%
Sb 206.836†	74.2	0.01706	mg/L	0.001085	0.08531	mg/L	0.005427	6.36%
Se 196.026†	22.8	0.01511	mg/L	0.008909	0.07554	mg/L	0.044547	58.97%
Si 288.158†	2443.9	1.157	mg/L	0.0410	5.783	mg/L	0.2052	3.55%
Sn 189.927†	-9.2	0.00247	mg/L	0.001380	0.01234	mg/L	0.006899	55.89%
Sr 421.552†	333232.4	0.3718	mg/L	0.01336	1.859	mg/L	0.0668	3.59%
Ti 334.903†	191826.6	9.034	mg/L	0.3361	45.17	mg/L	1.681	3.72%
Tl 190.801†	-30.3	0.00392	mg/L	0.001766	0.01960	mg/L	0.008829	45.05%
V 292.402†	41596.7	0.3145	mg/L	0.00325	1.572	mg/L	0.0162	1.03%
Zn 206.200†	11664.7	2.914	mg/L	0.1016	14.57	mg/L	0.508	3.49%

Sequence No.: 104
Sample ID: CV 12
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/23/2012 4:32:12 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2715853.6	103.0	%	0.38				0.37%
ScR 361.383	338903.8	102.7	%	1.27				1.24%
Ag 328.068†	185003.9	1.033	mg/L	0.0024	1.033	mg/L	0.0024	0.23%
Al 308.215†	3469.4	1.988	mg/L	0.0173	1.988	mg/L	0.0173	0.87%
As 188.979†	3794.9	2.054	mg/L	0.0210	2.054	mg/L	0.0210	1.02%
B 249.677†	7656.9	0.9755	mg/L	0.01185	0.9755	mg/L	0.01185	1.21%
Ba 233.527†	4760.2	0.9966	mg/L	0.01180	0.9966	mg/L	0.01180	1.18%
Be 313.042†	627177.3	0.9806	mg/L	0.01331	0.9806	mg/L	0.01331	1.36%
Ca 317.933†	28796.6	2.053	mg/L	0.0253	2.053	mg/L	0.0253	1.23%
Cd 228.802†	32084.4	1.041	mg/L	0.0029	1.041	mg/L	0.0029	0.28%
Co 228.616†	39172.8	1.021	mg/L	0.0028	1.021	mg/L	0.0028	0.27%
Cr 267.716†	6473.4	1.003	mg/L	0.0115	1.003	mg/L	0.0115	1.15%
Cu 324.752†	272062.4	1.033	mg/L	0.0021	1.033	mg/L	0.0021	0.20%
Fe 273.955†	2931.7	2.088	mg/L	0.0294	2.088	mg/L	0.0294	1.41%
K 766.490†	39334.5	20.07	mg/L	0.267	20.07	mg/L	0.267	1.33%
Mg 279.077†	2867.8	2.029	mg/L	0.0272	2.029	mg/L	0.0272	1.34%
Mn 257.610†	39113.7	1.018	mg/L	0.0131	1.018	mg/L	0.0131	1.29%
Mo 202.031†	21471.0	1.022	mg/L	0.0106	1.022	mg/L	0.0106	1.04%
Na 589.592†	617525.1	50.21	mg/L	0.659	50.21	mg/L	0.659	1.31%
Na 330.237†	1548.5	52.49	mg/L	0.379	52.49	mg/L	0.379	0.72%
Ni 231.604†	4198.9	0.9891	mg/L	0.01572	0.9891	mg/L	0.01572	1.59%
Pb 220.353†	17105.5	2.090	mg/L	0.0220	2.090	mg/L	0.0220	1.05%
Sb 206.836†	7263.3	2.098	mg/L	0.0181	2.098	mg/L	0.0181	0.86%
Se 196.026†	2992.1	2.016	mg/L	0.0208	2.016	mg/L	0.0208	1.03%
Si 288.158†	4456.2	2.087	mg/L	0.0319	2.087	mg/L	0.0319	1.53%
Sn 189.927†	4058.0	1.023	mg/L	0.0123	1.023	mg/L	0.0123	1.20%
Sr 421.552†	890727.5	0.9938	mg/L	0.01347	0.9938	mg/L	0.01347	1.36%
Ti 334.903†	22503.9	1.059	mg/L	0.0121	1.059	mg/L	0.0121	1.14%
Tl 190.801†	5134.1	2.007	mg/L	0.0186	2.007	mg/L	0.0186	0.93%
V 292.402†	133088.6	1.034	mg/L	0.0028	1.034	mg/L	0.0028	0.27%
Zn 206.200†	4154.0	1.037	mg/L	0.0175	1.037	mg/L	0.0175	1.68%

Sequence No.: 105
Sample ID: CB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/23/2012 4:36:33 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2720901.7	103.2	%	0.62				0.60%
ScR 361.383	341958.4	103.6	%	1.42				1.37%
Ag 328.068†	-6.5	-0.00004	mg/L	0.000217	-0.00004	mg/L	0.000217	600.09%
Al 308.215†	1.2	0.00068	mg/L	0.003505	0.00068	mg/L	0.003505	518.61%
As 188.979†	-0.3	-0.00013	mg/L	0.000923	-0.00013	mg/L	0.000923	695.63%
B 249.677†	17.3	0.00221	mg/L	0.000429	0.00221	mg/L	0.000429	19.42%
Ba 233.527†	-3.9	-0.00082	mg/L	0.000239	-0.00082	mg/L	0.000239	29.16%
Be 313.042†	38.9	0.00006	mg/L	0.000019	0.00006	mg/L	0.000019	31.35%
Ca 317.933†	4.1	0.00029	mg/L	0.000874	0.00029	mg/L	0.000874	299.95%
Cd 228.802†	-1.6	-0.00005	mg/L	0.000079	-0.00005	mg/L	0.000079	157.67%
Co 228.616†	6.6	0.00017	mg/L	0.000086	0.00017	mg/L	0.000086	50.71%
Cr 267.716†	8.3	0.00128	mg/L	0.000577	0.00128	mg/L	0.000577	44.98%
Cu 324.752†	-87.8	-0.00033	mg/L	0.000057	-0.00033	mg/L	0.000057	17.19%
Fe 273.955†	2.6	0.00184	mg/L	0.002023	0.00184	mg/L	0.002023	109.63%
K 766.490†	7.3	0.00371	mg/L	0.010623	0.00371	mg/L	0.010623	286.42%
Mg 279.077†	0.7	0.00048	mg/L	0.003616	0.00048	mg/L	0.003616	750.29%
Mn 257.610†	6.8	0.00018	mg/L	0.000191	0.00018	mg/L	0.000191	108.47%
Mo 202.031†	13.0	0.00062	mg/L	0.000047	0.00062	mg/L	0.000047	7.60%
Na 589.592†	77.8	0.00633	mg/L	0.000536	0.00633	mg/L	0.000536	8.46%
Na 330.237†	3.4	0.1166	mg/L	0.14858	0.1166	mg/L	0.14858	127.46%
Ni 231.604†	1.9	0.00045	mg/L	0.001158	0.00045	mg/L	0.001158	256.57%
Pb 220.353†	6.6	0.00081	mg/L	0.000377	0.00081	mg/L	0.000377	46.27%
Sb 206.836†	3.7	0.00106	mg/L	0.002482	0.00106	mg/L	0.002482	234.68%
Se 196.026†	-2.0	-0.00136	mg/L	0.001137	-0.00136	mg/L	0.001137	83.42%
Si 288.158†	-4.2	-0.00195	mg/L	0.002287	-0.00195	mg/L	0.002287	117.49%
Sn 189.927†	0.2	0.00004	mg/L	0.000936	0.00004	mg/L	0.000936	>999.9%
Sr 421.552†	79.2	0.00009	mg/L	0.000008	0.00009	mg/L	0.000008	9.17%
Ti 334.903†	15.7	0.00074	mg/L	0.000301	0.00074	mg/L	0.000301	40.78%
Tl 190.801†	7.4	0.00290	mg/L	0.001905	0.00290	mg/L	0.001905	65.66%
V 292.402†	16.7	0.00013	mg/L	0.000035	0.00013	mg/L	0.000035	25.76%
Zn 206.200†	-1.2	-0.00029	mg/L	0.000283	-0.00029	mg/L	0.000283	96.94%

Sequence No.: 106
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 375
Date Collected: 11/23/2012 4:40:48 PM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2725526.2	103.3	%	0.13				0.12%
ScR 361.383	343904.6	104.2	%	1.52				1.46%
Ag 328.068†	549.0	0.00307	mg/L	0.000150	0.00307	mg/L	0.000150	4.89%
Al 308.215†	77.6	0.04512	mg/L	0.016603	0.04512	mg/L	0.016603	36.80%
As 188.979†	93.4	0.05004	mg/L	0.000972	0.05004	mg/L	0.000972	1.94%
B 249.677†	161.1	0.02054	mg/L	0.000716	0.02054	mg/L	0.000716	3.49%
Ba 233.527†	13.8	0.00287	mg/L	0.000929	0.00287	mg/L	0.000929	32.35%
Be 313.042†	598.6	0.00094	mg/L	0.000042	0.00094	mg/L	0.000042	4.50%
Ca 317.933†	656.0	0.04678	mg/L	0.000768	0.04678	mg/L	0.000768	1.64%
Cd 228.802†	74.2	0.00211	mg/L	0.000037	0.00211	mg/L	0.000037	1.77%
Co 228.616†	144.0	0.00375	mg/L	0.000139	0.00375	mg/L	0.000139	3.70%
Cr 267.716†	36.7	0.00569	mg/L	0.000487	0.00569	mg/L	0.000487	8.55%
Cu 324.752†	465.3	0.00177	mg/L	0.000064	0.00177	mg/L	0.000064	3.65%
Fe 273.955†	71.1	0.05078	mg/L	0.002086	0.05078	mg/L	0.002086	4.11%
K 766.490†	956.5	0.4881	mg/L	0.02497	0.4881	mg/L	0.02497	5.12%
Mg 279.077†	66.0	0.04653	mg/L	0.006656	0.04653	mg/L	0.006656	14.30%
Mn 257.610†	38.4	0.00100	mg/L	0.000094	0.00100	mg/L	0.000094	9.40%
Mo 202.031†	111.7	0.00532	mg/L	0.000121	0.00532	mg/L	0.000121	2.28%
Na 589.592†	5853.9	0.4760	mg/L	0.01015	0.4760	mg/L	0.01015	2.13%
Na 330.237†	25.0	0.8461	mg/L	0.42632	0.8461	mg/L	0.42632	50.38%
Ni 231.604†	40.9	0.00964	mg/L	0.001274	0.00964	mg/L	0.001274	13.22%
Pb 220.353†	172.9	0.02113	mg/L	0.000039	0.02113	mg/L	0.000039	0.19%
Sb 206.836†	178.4	0.05156	mg/L	0.001324	0.05156	mg/L	0.001324	2.57%
Se 196.026†	73.0	0.04922	mg/L	0.002956	0.04922	mg/L	0.002956	6.01%
Si 288.158†	133.5	0.06249	mg/L	0.003067	0.06249	mg/L	0.003067	4.91%
Sn 189.927†	39.7	0.01003	mg/L	0.000778	0.01003	mg/L	0.000778	7.76%
Sr 421.552†	921.3	0.00103	mg/L	0.000040	0.00103	mg/L	0.000040	3.89%
Ti 334.903†	105.3	0.00495	mg/L	0.000387	0.00495	mg/L	0.000387	7.82%
Tl 190.801†	129.3	0.05074	mg/L	0.001798	0.05074	mg/L	0.001798	3.54%
V 292.402†	428.7	0.00334	mg/L	0.000227	0.00334	mg/L	0.000227	6.79%
Zn 206.200†	36.0	0.00900	mg/L	0.000711	0.00900	mg/L	0.000711	7.90%

Sequence No.: 107
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 376
Date Collected: 11/23/2012 4:45:05 PM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2657337.7	100.8	%	0.47				0.47%
ScR 361.383	333725.5	101.1	%	1.35				1.34%
Ag 328.068†	-213.3	-0.00119	mg/L	0.000076	-0.00119	mg/L	0.000076	6.38%
Al 308.215†	341657.9	199.2	mg/L	3.56	199.2	mg/L	3.56	1.79%
As 188.979†	40.5	0.01601	mg/L	0.003339	0.01601	mg/L	0.003339	20.86%
B 249.677†	-21.2	-0.00271	mg/L	0.001517	-0.00271	mg/L	0.001517	56.06%
Ba 233.527†	136.9	-0.00388	mg/L	0.001269	-0.00388	mg/L	0.001269	32.71%
Be 313.042†	65.9	0.00010	mg/L	0.000014	0.00010	mg/L	0.000014	14.25%
Ca 317.933†	1403891.1	100.1	mg/L	1.66	100.1	mg/L	1.66	1.66%
Cd 228.802†	52.1	-0.00032	mg/L	0.000104	-0.00032	mg/L	0.000104	32.24%
Co 228.616†	78.9	-0.00054	mg/L	0.000081	-0.00054	mg/L	0.000081	14.86%
Cr 267.716†	12.0	-0.00022	mg/L	0.001103	-0.00022	mg/L	0.001103	498.52%
Cu 324.752†	-2154.3	-0.00027	mg/L	0.000101	-0.00027	mg/L	0.000101	37.29%
Fe 273.955†	278221.7	198.9	mg/L	3.73	198.9	mg/L	3.73	1.87%
K 766.490†	18.4	0.00936	mg/L	0.012414	0.00936	mg/L	0.012414	132.57%
Mg 279.077†	147403.7	103.8	mg/L	1.73	103.8	mg/L	1.73	1.66%
Mn 257.610†	36.6	0.00094	mg/L	0.000428	0.00094	mg/L	0.000428	45.78%
Mo 202.031†	50.5	0.00132	mg/L	0.000135	0.00132	mg/L	0.000135	10.26%
Na 589.592†	198.5	0.01614	mg/L	0.002135	0.01614	mg/L	0.002135	13.23%
Na 330.237†	-2.6	-0.08903	mg/L	0.169447	-0.08903	mg/L	0.169447	190.33%
Ni 231.604†	2.9	0.00071	mg/L	0.000668	0.00071	mg/L	0.000668	94.61%
Pb 220.353†	-325.7	-0.00027	mg/L	0.001036	-0.00027	mg/L	0.001036	388.86%
Sb 206.836†	25.2	0.00715	mg/L	0.001601	0.00715	mg/L	0.001601	22.41%
Se 196.026†	12.1	0.00812	mg/L	0.006561	0.00812	mg/L	0.006561	80.82%
Si 288.158†	-33.7	-0.00325	mg/L	0.001893	-0.00325	mg/L	0.001893	58.22%
Sn 189.927†	-69.4	-0.00509	mg/L	0.002004	-0.00509	mg/L	0.002004	39.40%
Sr 421.552†	3635.2	0.00406	mg/L Cont.	0.000067	0.00406	mg/L	0.000067	1.65%
Ti 334.903†	153.4	0.00244	mg/L	0.000719	0.00244	mg/L	0.000719	29.46%
Tl 190.801†	-55.6	-0.00062	mg/L	0.003897	-0.00062	mg/L	0.003897	627.56%
V 292.402†	1476.6	0.00448	mg/L	0.000285	0.00448	mg/L	0.000285	6.36%
Zn 206.200†	13.3	0.00332	mg/L	0.000503	0.00332	mg/L	0.000503	15.15%

Sequence No.: 108
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 377
Date Collected: 11/23/2012 4:49:08 PM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2667035.0	101.1	%	0.16				0.16%
ScR 361.383	343651.8	104.1	%	1.50				1.44%
Ag 328.068†	187072.2	1.045	mg/L	0.0052	1.045	mg/L	0.0052	0.50%
Al 308.215†	332427.9	193.8	mg/L	4.52	193.8	mg/L	4.52	2.33%
As 188.979†	1953.6	1.038	mg/L	0.0041	1.038	mg/L	0.0041	0.39%
B 249.677†	-3.8	-0.00250	mg/L	0.000628	-0.00250	mg/L	0.000628	25.15%
Ba 233.527†	4808.4	0.9751	mg/L	0.01661	0.9751	mg/L	0.01661	1.70%
Be 313.042†	618992.0	0.9679	mg/L	0.02375	0.9679	mg/L	0.02375	2.45%
Ca 317.933†	1378379.2	98.29	mg/L	2.406	98.29	mg/L	2.406	2.45%
Cd 228.802†	31822.0	1.037	mg/L	0.0071	1.037	mg/L	0.0071	0.69%
Co 228.616†	37554.1	0.9785	mg/L	0.00719	0.9785	mg/L	0.00719	0.74%
Cr 267.716†	6412.3	0.9922	mg/L	0.01358	0.9922	mg/L	0.01358	1.37%
Cu 324.752†	275557.6	1.055	mg/L	0.0067	1.055	mg/L	0.0067	0.63%
Fe 273.955†	272350.2	194.7	mg/L	4.72	194.7	mg/L	4.72	2.43%
K 766.490†	-35.6	-0.01819	mg/L	0.025177	-0.01819	mg/L	0.025177	138.44%
Mg 279.077†	138357.0	97.44	mg/L	2.409	97.44	mg/L	2.409	2.47%
Mn 257.610†	36361.7	0.9461	mg/L	0.02295	0.9461	mg/L	0.02295	2.43%
Mo 202.031†	59.0	0.00169	mg/L	0.000247	0.00169	mg/L	0.000247	14.62%
Na 589.592†	338.1	0.02750	mg/L	0.003671	0.02750	mg/L	0.003671	13.35%
Na 330.237†	20.7	0.3915	mg/L	0.03623	0.3915	mg/L	0.03623	9.25%
Ni 231.604†	4039.5	0.9514	mg/L	0.01527	0.9514	mg/L	0.01527	1.61%
Pb 220.353†	7943.3	1.009	mg/L	0.0016	1.009	mg/L	0.0016	0.16%
Sb 206.836†	3560.9	1.018	mg/L	0.0012	1.018	mg/L	0.0012	0.12%
Se 196.026†	1525.6	1.027	mg/L	0.0019	1.027	mg/L	0.0019	0.19%
Si 288.158†	-43.5	-0.00483	mg/L	0.001178	-0.00483	mg/L	0.001178	24.40%
Sn 189.927†	-76.2	-0.00652	mg/L	0.001885	-0.00652	mg/L	0.001885	28.90%
Sr 421.552†	3533.2	0.00394	mg/L	Cont, 0.000091	0.00394	mg/L	0.000091	2.30%
Ti 334.903†	158.5	0.00257	mg/L	0.000628	0.00257	mg/L	0.000628	24.42%
Tl 190.801†	2378.3	0.9453	mg/L	0.00232	0.9453	mg/L	0.00232	0.25%
V 292.402†	130312.1	1.006	mg/L	0.0054	1.006	mg/L	0.0054	0.54%
Zn 206.200†	3820.8	0.9544	mg/L	0.01595	0.9544	mg/L	0.01595	1.67%

Sequence No.: 109
Sample ID: CV 13
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/23/2012 4:53:11 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2714009.2	102.9	%	0.25				0.24%
ScR 361.383	338487.9	102.6	%	1.95				1.90%
Ag 328.068†	183731.5	1.026	mg/L	0.0030	1.026	mg/L	0.0030	0.29%
Al 308.215†	3541.4	2.030	mg/L	0.0186	2.030	mg/L	0.0186	0.92%
As 188.979†	3807.6	2.061	mg/L	0.0108	2.061	mg/L	0.0108	0.53%
B 249.677†	7637.8	0.9731	mg/L	0.01068	0.9731	mg/L	0.01068	1.10%
Ba 233.527†	4763.8	0.9973	mg/L	0.00955	0.9973	mg/L	0.00955	0.96%
Be 313.042†	628176.6	0.9822	mg/L	0.01388	0.9822	mg/L	0.01388	1.41%
Ca 317.933†	29098.6	2.075	mg/L	0.0173	2.075	mg/L	0.0173	0.83%
Cd 228.802†	31933.6	1.036	mg/L	0.0047	1.036	mg/L	0.0047	0.45%
Co 228.616†	38997.9	1.017	mg/L	0.0048	1.017	mg/L	0.0048	0.47%
Cr 267.716†	6473.4	1.003	mg/L	0.0142	1.003	mg/L	0.0142	1.42%
Cu 324.752†	270024.8	1.026	mg/L	0.0041	1.026	mg/L	0.0041	0.40%
Fe 273.955†	2966.9	2.114	mg/L	0.0207	2.114	mg/L	0.0207	0.98%
K 766.490†	39241.5	20.03	mg/L	0.332	20.03	mg/L	0.332	1.66%
Mg 279.077†	2877.9	2.036	mg/L	0.0188	2.036	mg/L	0.0188	0.92%
Mn 257.610†	39137.1	1.018	mg/L	0.0098	1.018	mg/L	0.0098	0.96%
Mo 202.031†	21521.4	1.024	mg/L	0.0073	1.024	mg/L	0.0073	0.72%
Na 589.592†	615101.3	50.02	mg/L	0.783	50.02	mg/L	0.783	1.56%
Na 330.237†	1534.8	52.02	mg/L	0.352	52.02	mg/L	0.352	0.68%
Ni 231.604†	4206.9	0.9909	mg/L	0.01012	0.9909	mg/L	0.01012	1.02%
Pb 220.353†	17177.9	2.098	mg/L	0.0121	2.098	mg/L	0.0121	0.58%
Sb 206.836†	7286.4	2.104	mg/L	0.0157	2.104	mg/L	0.0157	0.74%
Se 196.026†	3007.6	2.027	mg/L	0.0169	2.027	mg/L	0.0169	0.84%
Si 288.158†	4455.1	2.087	mg/L	0.0239	2.087	mg/L	0.0239	1.15%
Sn 189.927†	4081.4	1.029	mg/L	0.0075	1.029	mg/L	0.0075	0.73%
Sr 421.552†	889331.7	0.9922	mg/L	0.01530	0.9922	mg/L	0.01530	1.54%
Ti 334.903†	22452.0	1.056	mg/L	0.0092	1.056	mg/L	0.0092	0.87%
Tl 190.801†	5150.6	2.014	mg/L	0.0133	2.014	mg/L	0.0133	0.66%
V 292.402†	131993.9	1.026	mg/L	0.0031	1.026	mg/L	0.0031	0.30%
Zn 206.200†	4175.3	1.043	mg/L	0.0138	1.043	mg/L	0.0138	1.33%

Sequence No.: 110
Sample ID: CB 12
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/23/2012 4:57:32 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2724347.6	103.3	%	0.43				0.42%
ScR 361.383	343601.5	104.1	%	0.65				0.63%
Ag 328.068†	20.8	0.00012	mg/L	0.000125	0.00012	mg/L	0.000125	107.64%
Al 308.215†	8.1	0.00471	mg/L	0.004852	0.00471	mg/L	0.004852	103.11%
As 188.979†	-0.5	-0.00024	mg/L	0.001575	-0.00024	mg/L	0.001575	670.14%
B 249.677†	17.5	0.00223	mg/L	0.000278	0.00223	mg/L	0.000278	12.47%
Ba 233.527†	-0.1	-0.00002	mg/L	0.000186	-0.00002	mg/L	0.000186	806.10%
Be 313.042†	49.2	0.00008	mg/L	0.000042	0.00008	mg/L	0.000042	54.57%
Ca 317.933†	9.3	0.00066	mg/L	0.001105	0.00066	mg/L	0.001105	167.09%
Cd 228.802†	-2.5	-0.00008	mg/L	0.000047	-0.00008	mg/L	0.000047	57.74%
Co 228.616†	9.1	0.00024	mg/L	0.000141	0.00024	mg/L	0.000141	59.79%
Cr 267.716†	-2.4	-0.00037	mg/L	0.001197	-0.00037	mg/L	0.001197	319.35%
Cu 324.752†	-108.2	-0.00041	mg/L	0.000082	-0.00041	mg/L	0.000082	19.85%
Fe 273.955†	5.4	0.00386	mg/L	0.000262	0.00386	mg/L	0.000262	6.78%
K 766.490†	6.1	0.00309	mg/L	0.014928	0.00309	mg/L	0.014928	482.43%
Mg 279.077†	3.3	0.00236	mg/L	0.004525	0.00236	mg/L	0.004525	192.06%
Mn 257.610†	3.4	0.00009	mg/L	0.000089	0.00009	mg/L	0.000089	99.54%
Mo 202.031†	11.2	0.00053	mg/L	0.000105	0.00053	mg/L	0.000105	19.76%
Na 589.592†	51.5	0.00419	mg/L	0.006014	0.00419	mg/L	0.006014	143.66%
Na 330.237†	2.9	0.09860	mg/L	0.128051	0.09860	mg/L	0.128051	129.87%
Ni 231.604†	1.0	0.00023	mg/L	0.000909	0.00023	mg/L	0.000909	399.16%
Pb 220.353†	4.9	0.00059	mg/L	0.001131	0.00059	mg/L	0.001131	190.28%
Sb 206.836†	4.6	0.00132	mg/L	0.001450	0.00132	mg/L	0.001450	109.54%
Se 196.026†	2.5	0.00170	mg/L	0.001870	0.00170	mg/L	0.001870	110.10%
Si 288.158†	-3.5	-0.00162	mg/L	0.000759	-0.00162	mg/L	0.000759	46.80%
Sn 189.927†	0.7	0.00019	mg/L	0.000434	0.00019	mg/L	0.000434	233.67%
Sr 421.552†	76.5	0.00009	mg/L	0.000015	0.00009	mg/L	0.000015	18.00%
Ti 334.903†	22.8	0.00107	mg/L	0.000645	0.00107	mg/L	0.000645	60.03%
Tl 190.801†	7.3	0.00286	mg/L	0.001625	0.00286	mg/L	0.001625	56.81%
V 292.402†	23.6	0.00018	mg/L	0.000051	0.00018	mg/L	0.000051	28.07%
Zn 206.200†	0.5	0.00013	mg/L	0.000584	0.00013	mg/L	0.000584	455.62%

Sequence No.: 111
Sample ID: VS19 G SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 378
Date Collected: 11/23/2012 5:01:47 PM
Data Type: Original

Nebulizer Parameters: VS19 G SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS19 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2756107.7	104.5	%	0.18				0.18%
ScR 361.383	343857.4	104.2	%	2.57				2.46%
Ag 328.068†	-166.0	-0.00088	mg/L	0.000027	-0.00441	mg/L	0.000135	3.07%
Al 308.215†	141551.7	82.53	mg/L	2.964	412.7	mg/L	14.82	3.59%
As 188.979†	-143.3	0.02239	mg/L	0.001967	0.1120	mg/L	0.00984	8.79%
B 249.677†	50.9	0.00639	mg/L	0.000767	0.03196	mg/L	0.003835	12.00%
Ba 233.527†	3408.5	0.6977	mg/L	0.01670	3.488	mg/L	0.0835	2.39%
Be 313.042†	1426.4	0.00216	mg/L	0.000089	0.01079	mg/L	0.000446	4.14%
Ca 317.933†	217014.3	15.48	mg/L	0.548	77.38	mg/L	2.740	3.54%
Cd 228.802†	82.4	0.00236	mg/L	0.000113	0.01180	mg/L	0.000565	4.79%
Co 228.616†	1823.5	0.03953	mg/L	0.000313	0.1976	mg/L	0.00156	0.79%
Cr 267.716†	710.7	0.1116	mg/L	0.00225	0.5582	mg/L	0.01127	2.02%
Cu 324.752†	22337.1	0.08834	mg/L	0.000892	0.4417	mg/L	0.00446	1.01%
Fe 273.955†	138658.1	99.11	mg/L	3.479	495.5	mg/L	17.40	3.51%
K 766.490†	14253.0	7.274	mg/L	0.2694	36.37	mg/L	1.347	3.70%
Mg 279.077†	33679.0	23.69	mg/L	0.596	118.4	mg/L	2.98	2.52%
Mn 257.610†	81213.4	2.113	mg/L	0.0725	10.56	mg/L	0.363	3.43%
Mo 202.031†	50.2	0.00222	mg/L	0.000253	0.01109	mg/L	0.001265	11.41%
Na 589.592†	13035.6	1.060	mg/L	0.0366	5.300	mg/L	0.1831	3.45%
Na 330.237†	10.9	1.039	mg/L	0.3105	5.197	mg/L	1.5525	29.87%
Ni 231.604†	448.4	0.1056	mg/L	0.00220	0.5279	mg/L	0.01102	2.09%
Pb 220.353†	480.0	0.07438	mg/L	0.001585	0.3719	mg/L	0.00792	2.13%
Sb 206.836†	14.0	0.00454	mg/L	0.000462	0.02270	mg/L	0.002310	10.18%
Se 196.026†	7.5	0.00497	mg/L	0.005133	0.02485	mg/L	0.025667	103.27%
Si 288.158†	1722.2	0.8098	mg/L	0.01989	4.049	mg/L	0.0995	2.46%
Sn 189.927†	-24.0	-0.00363	mg/L	0.001327	-0.01813	mg/L	0.006634	36.59%
Sr 421.552†	152770.1	0.1704	mg/L	0.00613	0.8522	mg/L	0.03065	3.60%
Ti 334.903†	74195.0	3.494	mg/L	0.1197	17.47	mg/L	0.598	3.43%
Tl 190.801†	-16.6	0.00324	mg/L	0.000907	0.01619	mg/L	0.004537	28.02%
V 292.402†	19869.4	0.1491	mg/L	0.00119	0.7456	mg/L	0.00595	0.80%
Zn 206.200†	1534.5	0.3833	mg/L	0.00953	1.917	mg/L	0.0476	2.49%

Sequence No.: 112
Sample ID: VS19 H SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 379
Date Collected: 11/23/2012 5:05:49 PM
Data Type: Original

Nebulizer Parameters: VS19 H SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS19 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2751488.8	104.3	%	0.22				0.21%
ScR 361.383	350458.3	106.2	%	1.54				1.45%
Ag 328.068†	-162.3	-0.00086	mg/L	0.000166	-0.00428	mg/L	0.000828	19.34%
Al 308.215†	148008.1	86.30	mg/L	1.256	431.5	mg/L	6.28	1.46%
As 188.979†	-147.8	0.02627	mg/L	0.001785	0.1313	mg/L	0.00893	6.80%
B 249.677†	41.2	0.00515	mg/L	0.000911	0.02577	mg/L	0.004556	17.68%
Ba 233.527†	3470.1	0.7091	mg/L	0.01084	3.546	mg/L	0.0542	1.53%
Be 313.042†	1397.8	0.00211	mg/L	0.000044	0.01053	mg/L	0.000221	2.10%
Ca 317.933†	223890.6	15.97	mg/L	0.225	79.83	mg/L	1.126	1.41%
Cd 228.802†	109.3	0.00319	mg/L	0.000125	0.01593	mg/L	0.000627	3.93%
Co 228.616†	2009.7	0.04385	mg/L	0.000195	0.2192	mg/L	0.00097	0.44%
Cr 267.716†	1007.5	0.1579	mg/L	0.00170	0.7893	mg/L	0.00848	1.07%
Cu 324.752†	26124.1	0.1031	mg/L	0.00057	0.5153	mg/L	0.00286	0.56%
Fe 273.955†	151173.3	108.1	mg/L	1.60	540.3	mg/L	8.00	1.48%
K 766.490†	15504.0	7.912	mg/L	0.1275	39.56	mg/L	0.637	1.61%
Mg 279.077†	36603.3	25.75	mg/L	0.360	128.7	mg/L	1.80	1.40%
Mn 257.610†	70244.5	1.827	mg/L	0.0265	9.137	mg/L	0.1327	1.45%
Mo 202.031†	61.2	0.00273	mg/L	0.000133	0.01365	mg/L	0.000665	4.87%
Na 589.592†	13876.8	1.128	mg/L	0.0182	5.642	mg/L	0.0912	1.62%
Na 330.237†	9.6	1.035	mg/L	0.0485	5.174	mg/L	0.2426	4.69%
Ni 231.604†	524.0	0.1234	mg/L	0.00166	0.6170	mg/L	0.00829	1.34%
Pb 220.353†	904.6	0.1268	mg/L	0.00124	0.6341	mg/L	0.00622	0.98%
Sb 206.836†	22.2	0.00639	mg/L	0.002052	0.03195	mg/L	0.010262	32.12%
Se 196.026†	8.4	0.00557	mg/L	0.006556	0.02783	mg/L	0.032778	117.80%
Si 288.158†	2248.4	1.057	mg/L	0.0136	5.283	mg/L	0.0681	1.29%
Sn 189.927†	-32.0	-0.00555	mg/L	0.001542	-0.02773	mg/L	0.007710	27.81%
Sr 421.552†	157287.5	0.1755	mg/L	0.00243	0.8774	mg/L	0.01215	1.39%
Ti 334.903†	78927.0	3.717	mg/L	0.0536	18.58	mg/L	0.268	1.44%
Tl 190.801†	-23.2	0.00149	mg/L	0.002865	0.00743	mg/L	0.014324	192.76%
V 292.402†	22458.5	0.1689	mg/L	0.00074	0.8444	mg/L	0.00372	0.44%
Zn 206.200†	1659.7	0.4146	mg/L	0.00598	2.073	mg/L	0.0299	1.44%

Sequence No.: 113
Sample ID: CV 14
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/23/2012 5:09:49 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2741001.7	103.9	%	1.07				1.03%
ScR 361.383	335581.9	101.7	%	0.48				0.47%
Ag 328.068†	177394.2	0.9909	mg/L	0.01361	0.9909	mg/L	0.01361	1.37%
Al 308.215†	3534.8	2.027	mg/L	0.0111	2.027	mg/L	0.0111	0.55%
As 188.979†	3762.6	2.037	mg/L	0.0160	2.037	mg/L	0.0160	0.79%
B 249.677†	7722.5	0.9839	mg/L	0.00741	0.9839	mg/L	0.00741	0.75%
Ba 233.527†	4828.3	1.011	mg/L	0.0036	1.011	mg/L	0.0036	0.35%
Be 313.042†	631581.1	0.9875	mg/L	0.00932	0.9875	mg/L	0.00932	0.94%
Ca 317.933†	29042.9	2.071	mg/L	0.0203	2.071	mg/L	0.0203	0.98%
Cd 228.802†	31649.4	1.026	mg/L	0.0148	1.026	mg/L	0.0148	1.44%
Co 228.616†	38604.1	1.007	mg/L	0.0119	1.007	mg/L	0.0119	1.18%
Cr 267.716†	6527.6	1.012	mg/L	0.0054	1.012	mg/L	0.0054	0.53%
Cu 324.752†	263063.2	0.9991	mg/L	0.01338	0.9991	mg/L	0.01338	1.34%
Fe 273.955†	2969.1	2.115	mg/L	0.0217	2.115	mg/L	0.0217	1.03%
K 766.490†	39503.9	20.16	mg/L	0.156	20.16	mg/L	0.156	0.77%
Mg 279.077†	2861.8	2.025	mg/L	0.0248	2.025	mg/L	0.0248	1.23%
Mn 257.610†	39390.3	1.025	mg/L	0.0124	1.025	mg/L	0.0124	1.21%
Mo 202.031†	21269.3	1.012	mg/L	0.0059	1.012	mg/L	0.0059	0.59%
Na 589.592†	621904.3	50.57	mg/L	0.380	50.57	mg/L	0.380	0.75%
Na 330.237†	1548.1	52.48	mg/L	0.499	52.48	mg/L	0.499	0.95%
Ni 231.604†	4245.1	0.9999	mg/L	0.00749	0.9999	mg/L	0.00749	0.75%
Pb 220.353†	16940.3	2.069	mg/L	0.0155	2.069	mg/L	0.0155	0.75%
Sb 206.836†	7181.5	2.074	mg/L	0.0167	2.074	mg/L	0.0167	0.80%
Se 196.026†	2969.9	2.001	mg/L	0.0129	2.001	mg/L	0.0129	0.65%
Si 288.158†	4506.7	2.111	mg/L	0.0277	2.111	mg/L	0.0277	1.31%
Sn 189.927†	4029.8	1.016	mg/L	0.0047	1.016	mg/L	0.0047	0.47%
Sr 421.552†	897315.3	1.001	mg/L	0.0065	1.001	mg/L	0.0065	0.65%
Ti 334.903†	22746.3	1.070	mg/L	0.0076	1.070	mg/L	0.0076	0.71%
Tl 190.801†	5079.7	1.986	mg/L	0.0138	1.986	mg/L	0.0138	0.70%
V 292.402†	129064.2	1.003	mg/L	0.0138	1.003	mg/L	0.0138	1.37%
Zn 206.200†	4183.1	1.045	mg/L	0.0101	1.045	mg/L	0.0101	0.96%

Sequence No.: 114
Sample ID: CB 13
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/23/2012 5:13:56 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2700919.4	102.4	%	0.34				0.34%
ScR 361.383	341573.2	103.5	%	1.50				1.45%
Ag 328.068†	0.1	0.00000	mg/L	0.000051	0.00000	mg/L	0.000051	>999.9%
Al 308.215†	12.3	0.00716	mg/L	0.002473	0.00716	mg/L	0.002473	34.52%
As 188.979†	1.1	0.00059	mg/L	0.001534	0.00059	mg/L	0.001534	258.58%
B 249.677†	18.4	0.00235	mg/L	0.000866	0.00235	mg/L	0.000866	36.91%
Ba 233.527†	-1.3	-0.00028	mg/L	0.000562	-0.00028	mg/L	0.000562	197.91%
Be 313.042†	62.2	0.00010	mg/L	0.000009	0.00010	mg/L	0.000009	9.23%
Ca 317.933†	5.1	0.00036	mg/L	0.001116	0.00036	mg/L	0.001116	306.92%
Cd 228.802†	-1.0	-0.00004	mg/L	0.000080	-0.00004	mg/L	0.000080	223.88%
Co 228.616†	13.3	0.00035	mg/L	0.000094	0.00035	mg/L	0.000094	27.34%
Cr 267.716†	-1.3	-0.00021	mg/L	0.000548	-0.00021	mg/L	0.000548	264.07%
Cu 324.752†	-80.0	-0.00030	mg/L	0.000029	-0.00030	mg/L	0.000029	9.54%
Fe 273.955†	13.5	0.00966	mg/L	0.002375	0.00966	mg/L	0.002375	24.58%
K 766.490†	11.7	0.00600	mg/L	0.000888	0.00600	mg/L	0.000888	14.81%
Mg 279.077†	0.5	0.00033	mg/L	0.001207	0.00033	mg/L	0.001207	362.71%
Mn 257.610†	10.0	0.00026	mg/L	0.000071	0.00026	mg/L	0.000071	27.35%
Mo 202.031†	17.2	0.00082	mg/L	0.000086	0.00082	mg/L	0.000086	10.53%
Na 589.592†	55.5	0.00451	mg/L	0.001923	0.00451	mg/L	0.001923	42.61%
Na 330.237†	5.2	0.1759	mg/L	0.23924	0.1759	mg/L	0.23924	136.01%
Ni 231.604†	1.9	0.00044	mg/L	0.001261	0.00044	mg/L	0.001261	286.89%
Pb 220.353†	0.2	0.00003	mg/L	0.000595	0.00003	mg/L	0.000595	>999.9%
Sb 206.836†	3.9	0.00113	mg/L	0.000842	0.00113	mg/L	0.000842	74.87%
Se 196.026†	-3.8	-0.00257	mg/L	0.003372	-0.00257	mg/L	0.003372	130.97%
Si 288.158†	-2.9	-0.00136	mg/L	0.003036	-0.00136	mg/L	0.003036	223.53%
Sn 189.927†	-0.8	-0.00020	mg/L	0.000256	-0.00020	mg/L	0.000256	125.41%
Sr 421.552†	122.8	0.00014	mg/L	0.000029	0.00014	mg/L	0.000029	21.43%
Ti 334.903†	14.4	0.00068	mg/L	0.000420	0.00068	mg/L	0.000420	62.13%
Tl 190.801†	6.0	0.00235	mg/L	0.000964	0.00235	mg/L	0.000964	41.05%
V 292.402†	33.2	0.00026	mg/L	0.000080	0.00026	mg/L	0.000080	31.14%
Zn 206.200†	0.3	0.00008	mg/L	0.000423	0.00008	mg/L	0.000423	501.54%

Sequence No.: 115
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 11/23/2012 5:18:11 PM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2748417.2	104.2	%	0.23				0.22%
ScR 361.383	341481.9	103.5	%	1.00				0.97%
Ag 328.068†	518.2	0.00289	mg/L	0.000250	0.00289	mg/L	0.000250	8.64%
Al 308.215†	86.4	0.05024	mg/L	0.002528	0.05024	mg/L	0.002528	5.03%
As 188.979†	91.1	0.04880	mg/L	0.001343	0.04880	mg/L	0.001343	2.75%
B 249.677†	166.0	0.02117	mg/L	0.000462	0.02117	mg/L	0.000462	2.18%
Ba 233.527†	12.9	0.00268	mg/L	0.000616	0.00268	mg/L	0.000616	22.95%
Be 313.042†	645.2	0.00101	mg/L	0.000053	0.00101	mg/L	0.000053	5.21%
Ca 317.933†	670.8	0.04783	mg/L	0.001448	0.04783	mg/L	0.001448	3.03%
Cd 228.802†	68.9	0.00195	mg/L	0.000184	0.00195	mg/L	0.000184	9.46%
Co 228.616†	152.2	0.00396	mg/L	0.000042	0.00396	mg/L	0.000042	1.06%
Cr 267.716†	38.0	0.00589	mg/L	0.000327	0.00589	mg/L	0.000327	5.55%
Cu 324.752†	399.5	0.00152	mg/L	0.000026	0.00152	mg/L	0.000026	1.71%
Fe 273.955†	79.3	0.05665	mg/L	0.002007	0.05665	mg/L	0.002007	3.54%
K 766.490†	973.2	0.4966	mg/L	0.00213	0.4966	mg/L	0.00213	0.43%
Mg 279.077†	73.9	0.05211	mg/L	0.002098	0.05211	mg/L	0.002098	4.03%
Mn 257.610†	42.0	0.00110	mg/L	0.000133	0.00110	mg/L	0.000133	12.14%
Mo 202.031†	114.9	0.00547	mg/L	0.000173	0.00547	mg/L	0.000173	3.17%
Na 589.592†	5941.4	0.4831	mg/L	0.00531	0.4831	mg/L	0.00531	1.10%
Na 330.237†	19.7	0.6659	mg/L	0.24283	0.6659	mg/L	0.24283	36.47%
Ni 231.604†	44.9	0.01058	mg/L	0.000573	0.01058	mg/L	0.000573	5.42%
Pb 220.353†	165.0	0.02016	mg/L	0.000598	0.02016	mg/L	0.000598	2.96%
Sb 206.836†	177.9	0.05141	mg/L	0.001196	0.05141	mg/L	0.001196	2.33%
Se 196.026†	70.1	0.04725	mg/L	0.001691	0.04725	mg/L	0.001691	3.58%
Si 288.158†	131.0	0.06134	mg/L	0.000768	0.06134	mg/L	0.000768	1.25%
Sn 189.927†	42.3	0.01068	mg/L	0.000151	0.01068	mg/L	0.000151	1.41%
Sr 421.552†	984.0	0.00110	mg/L	0.000015	0.00110	mg/L	0.000015	1.34%
Ti 334.903†	118.4	0.00557	mg/L	0.000636	0.00557	mg/L	0.000636	11.42%
Tl 190.801†	130.7	0.05129	mg/L	0.001523	0.05129	mg/L	0.001523	2.97%
V 292.402†	394.2	0.00307	mg/L	0.000183	0.00307	mg/L	0.000183	5.97%
Zn 206.200†	39.7	0.00992	mg/L	0.000269	0.00992	mg/L	0.000269	2.71%

Sequence No.: 116
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 11/23/2012 5:22:27 PM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2669703.6	101.2	%	0.25				0.25%
ScR 361.383	333260.1	101.0	%	0.31				0.30%
Ag 328.068†	-213.5	-0.00119	mg/L	0.000013	-0.00119	mg/L	0.000013	1.09%
Al 308.215†	341709.7	199.3	mg/L	0.76	199.3	mg/L	0.76	0.38%
As 188.979†	38.0	0.01470	mg/L	0.001490	0.01470	mg/L	0.001490	10.13%
B 249.677†	-27.2	-0.00347	mg/L	0.000779	-0.00347	mg/L	0.000779	22.42%
Ba 233.527†	132.3	-0.00498	mg/L	0.001303	-0.00498	mg/L	0.001303	26.17%
Be 313.042†	73.5	0.00011	mg/L	0.000005	0.00011	mg/L	0.000005	4.59%
Ca 317.933†	1403484.6	100.1	mg/L	0.63	100.1	mg/L	0.63	0.63%
Cd 228.802†	54.5	-0.00025	mg/L	0.000140	-0.00025	mg/L	0.000140	56.85%
Co 228.616†	84.8	-0.00040	mg/L	0.000354	-0.00040	mg/L	0.000354	89.19%
Cr 267.716†	20.2	0.00112	mg/L	0.000655	0.00112	mg/L	0.000655	58.37%
Cu 324.752†	-2195.5	-0.00039	mg/L	0.000111	-0.00039	mg/L	0.000111	28.44%
Fe 273.955†	279289.6	199.6	mg/L	1.73	199.6	mg/L	1.73	0.87%
K 766.490†	-18.1	-0.00925	mg/L	0.018985	-0.00925	mg/L	0.018985	205.24%
Mg 279.077†	146748.2	103.3	mg/L	1.15	103.3	mg/L	1.15	1.12%
Mn 257.610†	42.2	0.00109	mg/L	0.000288	0.00109	mg/L	0.000288	26.45%
Mo 202.031†	58.4	0.00170	mg/L	0.000481	0.00170	mg/L	0.000481	28.34%
Na 589.592†	196.5	0.01598	mg/L	0.001376	0.01598	mg/L	0.001376	8.61%
Na 330.237†	-1.3	-0.04496	mg/L	0.167630	-0.04496	mg/L	0.167630	372.85%
Ni 231.604†	1.2	0.00029	mg/L	0.000254	0.00029	mg/L	0.000254	87.79%
Pb 220.353†	-321.6	0.00021	mg/L	0.000411	0.00021	mg/L	0.000411	198.81%
Sb 206.836†	20.3	0.00571	mg/L	0.001279	0.00571	mg/L	0.001279	22.40%
Se 196.026†	11.6	0.00781	mg/L	0.002676	0.00781	mg/L	0.002676	34.26%
Si 288.158†	-38.5	-0.00552	mg/L	0.007906	-0.00552	mg/L	0.007906	143.13%
Sn 189.927†	-70.8	-0.00544	mg/L	0.001517	-0.00544	mg/L	0.001517	27.89%
Sr 421.552†	3628.7	0.00405	mg/L Conf.	0.000042	0.00405	mg/L	0.000042	1.03%
Ti 334.903†	158.0	0.00266	mg/L	0.000309	0.00266	mg/L	0.000309	11.60%
Tl 190.801†	-52.7	0.00061	mg/L	0.003040	0.00061	mg/L	0.003040	496.60%
V 292.402†	1500.6	0.00465	mg/L	0.000112	0.00465	mg/L	0.000112	2.41%
Zn 206.200†	9.9	0.00247	mg/L	0.000130	0.00247	mg/L	0.000130	5.26%

Sequence No.: 117
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 11/23/2012 5:26:28 PM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2699509.9	102.4	%	0.41				0.40%
ScR 361.383	334963.5	101.5	%	1.20				1.18%
Ag 328.068†	186130.9	1.040	mg/L	0.0089	1.040	mg/L	0.0089	0.85%
Al 308.215†	341691.9	199.2	mg/L	3.72	199.2	mg/L	3.72	1.87%
As 188.979†	1929.4	1.025	mg/L	0.0049	1.025	mg/L	0.0049	0.48%
B 249.677†	-8.9	-0.00313	mg/L	0.000336	-0.00313	mg/L	0.000336	10.75%
Ba 233.527†	4931.2	0.9999	mg/L	0.01572	0.9999	mg/L	0.01572	1.57%
Be 313.042†	637156.8	0.9963	mg/L	0.02022	0.9963	mg/L	0.02022	2.03%
Ca 317.933†	1414501.2	100.9	mg/L	1.98	100.9	mg/L	1.98	1.97%
Cd 228.802†	31537.3	1.027	mg/L	0.0065	1.027	mg/L	0.0065	0.63%
Co 228.616†	37202.9	0.9693	mg/L	0.00931	0.9693	mg/L	0.00931	0.96%
Cr 267.716†	6577.1	1.018	mg/L	0.0162	1.018	mg/L	0.0162	1.59%
Cu 324.752†	274326.9	1.050	mg/L	0.0077	1.050	mg/L	0.0077	0.73%
Fe 273.955†	280320.1	200.4	mg/L	4.29	200.4	mg/L	4.29	2.14%
K 766.490†	-66.6	-0.03398	mg/L	0.019373	-0.03398	mg/L	0.019373	57.02%
Mg 279.077†	142067.7	100.0	mg/L	2.02	100.0	mg/L	2.02	2.02%
Mn 257.610†	37411.8	0.9734	mg/L	0.02050	0.9734	mg/L	0.02050	2.11%
Mo 202.031†	58.7	0.00165	mg/L	0.000094	0.00165	mg/L	0.000094	5.69%
Na 589.592†	373.5	0.03037	mg/L	0.000127	0.03037	mg/L	0.000127	0.42%
Na 330.237†	16.3	0.2319	mg/L	0.04422	0.2319	mg/L	0.04422	19.07%
Ni 231.604†	4139.4	0.9749	mg/L	0.01696	0.9749	mg/L	0.01696	1.74%
Pb 220.353†	7845.2	0.9979	mg/L	0.00405	0.9979	mg/L	0.00405	0.41%
Sb 206.836†	3519.0	1.006	mg/L	0.0043	1.006	mg/L	0.0043	0.43%
Se 196.026†	1505.7	1.014	mg/L	0.0095	1.014	mg/L	0.0095	0.94%
Si 288.158†	-38.1	-0.00203	mg/L	0.003996	-0.00203	mg/L	0.003996	196.66%
Sn 189.927†	-73.3	-0.00549	mg/L	0.001781	-0.00549	mg/L	0.001781	32.47%
Sr 421.552†	3607.0	0.00402	mg/L Conf.	0.000103	0.00402	mg/L	0.000103	2.56%
Ti 334.903†	154.5	0.00226	mg/L	0.000159	0.00226	mg/L	0.000159	7.02%
Tl 190.801†	2350.9	0.9352	mg/L	0.00127	0.9352	mg/L	0.00127	0.14%
V 292.402†	129245.8	0.9977	mg/L	0.00879	0.9977	mg/L	0.00879	0.88%
Zn 206.200†	3914.3	0.9778	mg/L	0.01589	0.9778	mg/L	0.01589	1.62%

Sequence No.: 118
Sample ID: CV 15
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/23/2012 5:30:31 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2744984.5	104.1	%	0.23				0.22%
ScR 361.383	338238.1	102.5	%	0.94				0.92%
Ag 328.068†	177200.9	0.9898	mg/L	0.00225	0.9898	mg/L	0.00225	0.23%
Al 308.215†	3547.7	2.034	mg/L	0.0148	2.034	mg/L	0.0148	0.73%
As 188.979†	3753.7	2.032	mg/L	0.0041	2.032	mg/L	0.0041	0.20%
B 249.677†	7652.0	0.9749	mg/L	0.00499	0.9749	mg/L	0.00499	0.51%
Ba 233.527†	4777.2	1.000	mg/L	0.0050	1.000	mg/L	0.0050	0.50%
Be 313.042†	626293.4	0.9793	mg/L	0.01134	0.9793	mg/L	0.01134	1.16%
Ca 317.933†	29192.4	2.082	mg/L	0.0191	2.082	mg/L	0.0191	0.92%
Cd 228.802†	31612.3	1.025	mg/L	0.0030	1.025	mg/L	0.0030	0.29%
Co 228.616†	38664.9	1.008	mg/L	0.0030	1.008	mg/L	0.0030	0.30%
Cr 267.716†	6485.7	1.005	mg/L	0.0110	1.005	mg/L	0.0110	1.09%
Cu 324.752†	262206.4	0.9959	mg/L	0.00248	0.9959	mg/L	0.00248	0.25%
Fe 273.955†	2981.5	2.124	mg/L	0.0149	2.124	mg/L	0.0149	0.70%
K 766.490†	39071.9	19.94	mg/L	0.238	19.94	mg/L	0.238	1.19%
Mg 279.077†	2893.3	2.047	mg/L	0.0063	2.047	mg/L	0.0063	0.31%
Mn 257.610†	39153.5	1.019	mg/L	0.0095	1.019	mg/L	0.0095	0.94%
Mo 202.031†	21245.4	1.011	mg/L	0.0034	1.011	mg/L	0.0034	0.34%
Na 589.592†	615482.4	50.05	mg/L	0.476	50.05	mg/L	0.476	0.95%
Na 330.237†	1526.4	51.74	mg/L	0.662	51.74	mg/L	0.662	1.28%
Ni 231.604†	4216.3	0.9932	mg/L	0.01001	0.9932	mg/L	0.01001	1.01%
Pb 220.353†	16932.8	2.069	mg/L	0.0075	2.069	mg/L	0.0075	0.36%
Sb 206.836†	7183.8	2.074	mg/L	0.0067	2.074	mg/L	0.0067	0.32%
Se 196.026†	2964.3	1.997	mg/L	0.0037	1.997	mg/L	0.0037	0.19%
Si 288.158†	4470.6	2.094	mg/L	0.0149	2.094	mg/L	0.0149	0.71%
Sn 189.927†	4019.6	1.013	mg/L	0.0046	1.013	mg/L	0.0046	0.45%
Sr 421.552†	886764.7	0.9893	mg/L	0.01167	0.9893	mg/L	0.01167	1.18%
Ti 334.903†	22452.4	1.056	mg/L	0.0091	1.056	mg/L	0.0091	0.86%
Tl 190.801†	5073.0	1.984	mg/L	0.0073	1.984	mg/L	0.0073	0.37%
V 292.402†	129100.9	1.003	mg/L	0.0021	1.003	mg/L	0.0021	0.21%
Zn 206.200†	4177.9	1.043	mg/L	0.0137	1.043	mg/L	0.0137	1.31%

Sequence No.: 119
Sample ID: CB 14
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/23/2012 5:34:38 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2724050.9	103.3	%	0.30				0.29%
ScR 361.383	343294.7	104.0	%	0.53				0.51%
Ag 328.068†	44.4	0.00025	mg/L	0.000046	0.00025	mg/L	0.000046	18.53%
Al 308.215†	17.9	0.01044	mg/L	0.003218	0.01044	mg/L	0.003218	30.82%
As 188.979†	0.3	0.00017	mg/L	0.000664	0.00017	mg/L	0.000664	400.11%
B 249.677†	12.0	0.00153	mg/L	0.000682	0.00153	mg/L	0.000682	44.51%
Ba 233.527†	-2.5	-0.00054	mg/L	0.000320	-0.00054	mg/L	0.000320	59.70%
Be 313.042†	88.9	0.00014	mg/L	0.000025	0.00014	mg/L	0.000025	18.29%
Ca 317.933†	92.1	0.00657	mg/L	0.001080	0.00657	mg/L	0.001080	16.45%
Cd 228.802†	1.7	0.00005	mg/L	0.000051	0.00005	mg/L	0.000051	95.75%
Co 228.616†	13.7	0.00036	mg/L	0.000132	0.00036	mg/L	0.000132	36.83%
Cr 267.716†	2.9	0.00045	mg/L	0.001306	0.00045	mg/L	0.001306	287.14%
Cu 324.752†	-79.1	-0.00030	mg/L	0.000110	-0.00030	mg/L	0.000110	36.56%
Fe 273.955†	20.1	0.01438	mg/L	0.000979	0.01438	mg/L	0.000979	6.80%
K 766.490†	-10.6	-0.00543	mg/L	0.018600	-0.00543	mg/L	0.018600	342.25%
Mg 279.077†	8.9	0.00626	mg/L	0.002327	0.00626	mg/L	0.002327	37.17%
Mn 257.610†	4.1	0.00011	mg/L	0.000101	0.00011	mg/L	0.000101	94.73%
Mo 202.031†	8.3	0.00040	mg/L	0.000042	0.00040	mg/L	0.000042	10.59%
Na 589.592†	88.4	0.00719	mg/L	0.001349	0.00719	mg/L	0.001349	18.77%
Na 330.237†	-8.0	-0.2704	mg/L	0.15510	-0.2704	mg/L	0.15510	57.36%
Ni 231.604†	-0.2	-0.00005	mg/L	0.000819	-0.00005	mg/L	0.000819	>999.9%
Pb 220.353†	2.6	0.00032	mg/L	0.001132	0.00032	mg/L	0.001132	349.87%
Sb 206.836†	4.2	0.00122	mg/L	0.000327	0.00122	mg/L	0.000327	26.82%
Se 196.026†	3.0	0.00204	mg/L	0.001999	0.00204	mg/L	0.001999	98.20%
Si 288.158†	-8.1	-0.00378	mg/L	0.003857	-0.00378	mg/L	0.003857	102.15%
Sn 189.927†	-0.1	-0.00003	mg/L	0.000742	-0.00003	mg/L	0.000742	>999.9%
Sr 421.552†	107.8	0.00012	mg/L	0.000021	0.00012	mg/L	0.000021	17.11%
Ti 334.903†	0.8	0.00004	mg/L	0.001023	0.00004	mg/L	0.001023	>999.9%
Tl 190.801†	7.0	0.00274	mg/L	0.002183	0.00274	mg/L	0.002183	79.54%
V 292.402†	34.7	0.00027	mg/L	0.000053	0.00027	mg/L	0.000053	19.69%
Zn 206.200†	3.3	0.00082	mg/L	0.000524	0.00082	mg/L	0.000524	63.80%

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.23.12 **Analyst:** MJT **Page:** 1 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2991-10
		1			2990-12
		2			2991-1
		3			↓ -2
		4			2993-15
		5			2991-3
		Rinse sample			
		ICV			2926-7
		ICB			
		CCV1			
		CCB1			
		Low check			^{62}Ni low
		ICSA			
		ICSA B			^{62}Ni 120.31.
		LR200			
		LR300			
		B1			
		B2			
		B3			
		CCV2			
		CCB2			
		VS18 A-L	SWN	500	Pb Zn
		A		100	
		ADUP		↓	

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.23.12 **Analyst:** MJJ **Page:** 2 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID		Prep Code	Dilution	Comments
		VS18	ASPK	SWN	100	PbZn ; Pb STL
		VS18	A-L	↑	↓	Ag
		↓	A		20	↑
			ADUP		↓	↓
			ASPK		↓	↓
			B		100	V Cr Co
			H	↓	↓	Pb
		CCV3				
		CCB3				^{62}Ni low
		VR64	MB2	RHN		Mn Zn Pb 0.223 ppb - confirms 11.21.12
		↓	MB2SPK	↓	↓	↓
		VS18	J	SWN	100	V Cr Co Pb Zn
	✓	↓	J	↓	20	CV out - rr Ag
			K		100	Pb Zn
	✓		K		20	CV out - rr Ag
			L		100	Cr Zn
	✓		L		20	rr Ag
		↓	I	↓	100	Pb Zn
		VR64	B	RHN	20	Mn Zn
		CCV4				Ag high
		CCB4				^{62}Ni low
		VR64	MB1	RHN		Zn
		↓	MB1SPK	↓	↓	↓
		↓	ADUP	↓	2	↓

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.23.12 **Analyst:** MJJ **Page:** 3 of 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VR64 A	RHN	2	Zn
		ASPK		↓	↓
		C		↓	
		D		1	
		E		2	↓
		G		↓	Mn Zn
		F		20	↓
		CCV5			
		CCB5			^{62}Ni: low
		VR64 H	RHN		Mn Zn
		J			↓
		N			
		O			
		R			
		L		50	
		P		↓	
		I		5	
		M		2	
		Q		↓	↓
		CCV6			Ag high
		CCB6			^{62}Ni: low
		STD O			
		CCV7			Ag high
		CCB7			

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.23.12 **Analyst:** MJJ **Page:** 4 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS19 MB1	SWN	20	rr Ag (CV cut)
		↓ MB1SPK	↓	1 ✓	↓
		VR64 S	RHN	2	Mn Zn
		T			
		KDUP		✓	
		K			(CAF)
		KSPK			Zn low'l R
		VS19 B	SWN	20	rr Ag; rr Pb Zn 1/100
		C			
		D			
		CCV8			Ag high
		CCB8			
		VS19 A-L	SWN	100 ✓	rr Ag (100x); V Cr Co Zn (500x)
		A		20	rr Ag (20x); V, Cr, Co, Zn (100x) (CAF)
		ADUP			
		ASPK			Sb low'l R PbSPL
		APOST			Sb 0.06mL PbSpk#1 1/10 0.06mL PbSpk#2 1/10
		E			rr Ag (1/20); Pb Zn 1/100
		F			rr Ag
		G			
		H			
		I			
		CCV9			Mo, Ag, U high
		CCB9			

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.23.12 **Analyst:** MJT **Page:** 5 **of** 7

All corrections made by analyst unless otherwise noted. 11.26-12 MJT

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS20 MB1	SWN	20	rr Ag, Be, Se 1/20
		↓ MB1SPK		✓	
		VS19 J			rr Pb Zn 1/100
		K			↓
		L			rr Zn 1/100
		VS20 B			rr Pb Zn 1/100
		C			rr Pb Zn ~~Mo~~ 1/100
		D			Pb Zn 1/100
		E			↓
		F			rr Zn ~~Mo~~ 1/50
		CCV10			Be, ^{82}Se, Mo, Ag, U high
		CCB10			
		VS20 A-L	SWN	100	cr 11.5?.d+.V12.2?. rr Ag, Be, Se rr Pb Zn (500x)
		A		20	(MF) rr Pb Zn 1/100
		ADUP		✓	
		ASPK			Sb low 1.R
		APOST			Sb 0.06mL PMSspk#1 1/20 0.06mL PMSspk#2 1/20
		G			rr Ag, Be, Se rr Pb Zn 1/100
		H			
		I			
		J			
		K			rr Pb Zn 1/100
		CCV11			Mo, Ag, U high
		CCB11			

11-27-12

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA Analysis Date: 11.23.12

M2 Nexion	Analyst MJ 11-26-12	Peer AT 11-27-12	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓		see log
ICB/CCB	✓	✓	↓
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	see log
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	see log
ICSA/ICSAB	✓	✓	↓
Post Spikes/Serial Dilutions	✓	✓	see log
Analytic Spikes	—		
Matrix QC:			
SRM/LCS	✓	—	
Matrix Spikes	✓	✓	VR64, VS19, VS20
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	VS08
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	—	CAFs VR64, VS19, VS20 VS08

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Friday, November 23, 2012 11:51:48
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1326
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	5157.2	5157.196	133.184	2.6	Standard
	Mg	24.0	35771.2	35771.236	726.303	2.0	Standard
	In	114.9	82883.2	82883.164	2187.354	2.6	Standard
	Pb	208.0	36793.4	36793.420	922.625	2.5	Standard
	U	238.1	63938.8	63938.831	2418.674	3.8	Standard
⌈	CeO	155.9	1031.2	0.013	0.001	6.3	Standard
| >	Ce	139.9	81570.0	81570.016	396.386	0.5	Standard
⌊	Ce++	70.0	1119.8	0.014	0.001	10.2	Standard
	Bkgd	220.0	0.0	0.000	0.000		Standard

Current Conditions File Data

Current Value	Description
1.07	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

VS19 : 00234

0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 11/23/2012 11:06:01 AM
End Time: 11/23/2012 11:12:35 AM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.702)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.696)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.697)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.707)

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 11/23/2012 11:14:06 AM
nd Time: 11/23/2012 11:18:17 AM

utoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.999; Intercept = -11.17

SmartTune Wizard - Summary

)ptimization Summary

;martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

;tart Time: 11/23/2012 11:51:46 AM
:nd Time: 11/23/2012 11:54:22 AM

)aily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5157.20
Obtained Intensity (Mg 23.985): 35771.24
Obtained Intensity (In 114.904): 82883.16
Obtained Intensity (Pb 207.977): 36793.42
Obtained Intensity (U 238.05): 63938.83
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.013 (=1031.20 / 81570.02)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.014 (=1119.81 / 81570.02)

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 12:15:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L				1287485	0
[	Be	9		ug/L				27	13
	C	13		ug/L				110265	3
	Cl	37		ug/L				4510739	2
[>	Sc	45		ug/L				1161996	2
[	V	51		ug/L				7869	1
[	V-1	51		ug/L				69	15
[	Cr	52		ug/L				23331	1
[	Cr	53		ug/L				142	7
[	Mn	55		ug/L				504	1
[	Co	59		ug/L				96	14
[>	Ge	72		ug/L				655148	1
[	Ni	60		ug/L				35	9
[	Ni	62		ug/L				554	2
[	Cu	63		ug/L				544	1
[	Cu	65		ug/L				67	3
[	Zn	66		ug/L				288	1
[	Zn	67		ug/L				44	19
[	Zn	68		ug/L				283	5
[	As	75		ug/L				246	1
[	As-1	75		ug/L				10971	0
[	Se	82		ug/L				0	2402
[	Se	78		ug/L				11110	0
[	Mo	98		ug/L				46	4
	Y	89		ug/L				416262	0
	Kr	83		ug/L				531	6
[>	In	115		ug/L				1030601	1
[	Ag	107		ug/L				43	10
[	Cd	111		ug/L				92	17
[	Cd	114		ug/L				61	18
[	Sb	121		ug/L				304	5
[	Sb	123		ug/L				246	7
[	Ba	135		ug/L				18	16
[	Ba	137		ug/L				36	3
[>	Tb	159		ug/L				1247472	0
[	Tl	205		ug/L				176	2
[	Pb	208		ug/L				302	2
[	Bi	209		ug/L				2786089	0
[	Th	232		ug/L				860	3
[	U	238		ug/L				28	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 12:19:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1285125	2
[	Be	9	0.200	ug/L	0.011	5	27	826	2
	C	13		ug/L			110265	113938	1
	Cl	37		ug/L			4510739	4508586	1
[>	Sc	45		ug/L			1161996	1149310	0
[	V	51	0.200	ug/L	0.009	4	7869	12362	1
[	V-1	51	0.200	ug/L	0.011	5	69	4652	4
[	Cr	52	0.500	ug/L	0.004	0	23331	32945	0
[	Cr	53	0.500	ug/L	0.016	3	142	1257	2
[	Mn	55	0.500	ug/L	0.008	1	504	13670	1
[	Co	59	0.200	ug/L	0.005	2	96	3873	1
[>	Ge	72		ug/L			655148	663938	0
[	Ni	60	0.500	ug/L	0.018	3	35	2201	3
[	Ni	62	0.500	ug/L	0.032	6	554	783	1
[	Cu	63	0.500	ug/L	0.017	3	544	5229	3
[	Cu	65	0.500	ug/L	0.017	3	67	2237	2
[	Zn	66	4.000	ug/L	0.091	2	288	11390	2
[	Zn	67	4.000	ug/L	0.098	2	44	1781	2
[	Zn	68	4.000	ug/L	0.014	0	283	8107	0
[	As	75	0.200	ug/L	0.033	16	246	653	9
[	As-1	75	0.200	ug/L	0.132	65	10971	11456	1
[	Se	82	0.500	ug/L	0.041	8	0	119	7
[	Se	78	0.500	ug/L	0.418	83	11110	11485	1
[	Mo	98	0.200	ug/L	0.008	3	46	1005	3
	Y	89		ug/L			416262	418871	2
	Kr	83		ug/L			531	526	2
[>	In	115		ug/L			1030601	1024831	1
[	Ag	107	0.200	ug/L	0.010	5	43	2226	3
[	Cd	111	0.100	ug/L	0.004	4	92	611	4
[	Cd	114	0.100	ug/L	0.005	4	61	1317	3
[	Sb	121	0.200	ug/L	0.008	4	304	3167	1
[	Sb	123	0.200	ug/L	0.007	3	246	2400	1
[	Ba	135	0.500	ug/L	0.015	3	18	2285	1
[	Ba	137	0.500	ug/L	0.014	2	36	3905	3
[>	Tb	159		ug/L			1247472	1238635	1
[	Tl	205	0.200	ug/L	0.004	1	176	8114	0
[	Pb	208	0.100	ug/L	0.001	1	302	6049	1
[	Bi	209		ug/L			2786089	2779382	1
[	Th	232	0.200	ug/L	0.012	6	860	7938	4
[	U	238	0.200	ug/L	0.007	3	28	9694	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 12:24:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1300072	1
	Be	9	10.000	ug/L	0.385	3	27	39752	2
	C	13		ug/L			110265	113616	2
	Cl	37		ug/L			4510739	4515549	2
>	Sc	45		ug/L			1161996	1169452	1
	V	51	10.000	ug/L	0.079	0	7869	232685	1
	V-1	51	10.000	ug/L	0.120	1	69	224293	0
	Cr	52	9.999	ug/L	0.193	1	23331	217328	0
	Cr	53	9.999	ug/L	0.376	3	142	21874	2
	Mn	55	9.999	ug/L	0.206	2	504	261733	2
	Co	59	10.000	ug/L	0.095	0	96	188535	0
>	Ge	72		ug/L			655148	678018	0
	Ni	60	9.998	ug/L	0.316	3	35	40845	2
	Ni	62	10.005	ug/L	0.134	1	554	6229	1
	Cu	63	9.999	ug/L	0.119	1	544	92294	1
	Cu	65	9.998	ug/L	0.126	1	67	41111	0
	Zn	66	9.857	ug/L	0.119	1	288	25939	1
	Zn	67	9.938	ug/L	0.116	1	44	4287	1
	Zn	68	9.895	ug/L	0.287	2	283	18828	2
	As	75	10.000	ug/L	0.135	1	246	21967	1
	As-1	75	10.001	ug/L	0.131	1	10971	33013	0
	Se	82	10.000	ug/L	0.207	2	0	2428	1
	Se	78	10.006	ug/L	0.159	1	11110	17595	0
	Mo	98	10.000	ug/L	0.311	3	46	49592	2
	Y	89		ug/L			416262	424317	1
	Kr	83		ug/L			531	530	2
>	In	115		ug/L			1030601	1048085	1
	Ag	107	10.000	ug/L	0.211	2	43	109410	2
	Cd	111	10.000	ug/L	0.133	1	92	50265	0
	Cd	114	10.000	ug/L	0.123	1	61	128525	0
	Sb	121	10.000	ug/L	0.257	2	304	150456	1
	Sb	123	10.000	ug/L	0.154	1	246	114621	0
	Ba	135	9.999	ug/L	0.072	0	18	44533	0
	Ba	137	10.000	ug/L	0.136	1	36	77961	0
>	Tb	159		ug/L			1247472	1273891	1
	Tl	205	10.000	ug/L	0.175	1	176	384984	0
	Pb	208	10.000	ug/L	0.197	1	302	516674	0
	Bi	209		ug/L			2786089	2794907	1
	Th	232	10.001	ug/L	0.083	0	860	463344	0
	U	238	10.000	ug/L	0.152	1	28	485813	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 12:28:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1316424	1
[	Be	9	19.957	ug/L	0.037	0	27	79663	1
	C	13		ug/L			110265	113210	2
	Cl	37		ug/L			4510739	4564522	1
[>	Sc	45		ug/L			1161996	1179270	0
[	V	51	19.937	ug/L	0.696	3	7869	454153	2
[	V-1	51	19.932	ug/L	0.747	3	69	444697	2
[	Cr	52	19.951	ug/L	0.324	1	23331	409924	1
[	Cr	53	19.936	ug/L	0.415	2	142	43297	1
[	Mn	55	19.952	ug/L	0.119	0	504	521164	0
[	Co	59	19.994	ug/L	0.793	3	96	379571	3
[>	Ge	72		ug/L			655148	671271	0
[	Ni	60	19.970	ug/L	0.217	1	35	80261	1
[	Ni	62	20.009	ug/L	0.793	3	554	11785	3
[	Cu	63	20.008	ug/L	0.241	1	544	182591	1
[	Cu	65	19.995	ug/L	0.403	2	67	81252	1
[	Zn	66	19.915	ug/L	0.108	0	288	50846	0
[	Zn	67	19.904	ug/L	0.208	1	44	8319	0
[	Zn	68	19.915	ug/L	0.226	1	283	36692	1
[	As	75	20.028	ug/L	0.137	0	246	43542	1
[	As-1	75	20.101	ug/L	0.162	0	10971	55228	0
[	Se	82	19.983	ug/L	0.286	1	0	4787	1
[	Se	78	20.247	ug/L	0.289	1	11110	24232	0
[	Mo	98	20.069	ug/L	0.149	0	46	99876	0
	Y	89		ug/L			416262	417406	1
	Kr	83		ug/L			531	539	2
[>	In	115		ug/L			1030601	1034021	0
[	Ag	107	20.017	ug/L	0.447	2	43	216745	1
[	Cd	111	19.968	ug/L	0.416	2	92	98295	1
[	Cd	114	19.978	ug/L	0.334	1	61	252145	0
[	Sb	121	20.022	ug/L	0.211	1	304	298270	0
[	Sb	123	20.048	ug/L	0.222	1	246	228644	0
[	Ba	135	20.024	ug/L	0.320	1	18	88389	0
[	Ba	137	20.031	ug/L	0.252	1	36	154990	0
[>	Tb	159		ug/L			1247472	1275792	1
[	Tl	205	19.952	ug/L	0.386	1	176	761712	0
[	Pb	208	19.965	ug/L	0.478	2	302	1025386	0
[	Bi	209		ug/L			2786089	2766080	0
[	Th	232	20.063	ug/L	0.301	1	860	941740	0
[	U	238	19.968	ug/L	0.571	2	28	965050	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 12:33:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			1287485	1324765	0
Be	9	49.589	ug/L	1.681	3	27	191268	2
C	13		ug/L			110265	111102	2
Cl	37		ug/L			4510739	4516755	1
Sc	45		ug/L			1161996	1172233	2
V	51	49.750	ug/L	0.985	1	7869	1087463	1
V-1	51	49.800	ug/L	1.148	2	69	1082543	1
Cr	52	49.655	ug/L	1.572	3	23331	946884	0
Cr	53	49.823	ug/L	2.078	4	142	105424	1
Mn	55	49.868	ug/L	1.941	3	504	1276354	1
Co	59	49.736	ug/L	1.220	2	96	914102	0
Ge	72		ug/L			655148	667653	2
Ni	60	49.747	ug/L	0.499	1	35	193875	1
Ni	62	49.874	ug/L	1.283	2	554	28022	1
Cu	63	49.752	ug/L	1.429	2	544	439680	0
Cu	65	49.823	ug/L	1.892	3	67	197660	1
Zn	66	49.576	ug/L	1.911	3	288	120449	1
Zn	67	49.812	ug/L	0.653	1	44	20268	1
Zn	68	49.494	ug/L	1.736	3	283	86027	1
As	75	49.827	ug/L	0.863	1	246	105523	0
As-1	75	49.789	ug/L	0.769	1	10971	117279	0
Se	82	49.861	ug/L	1.535	3	0	11712	0
Se	78	49.737	ug/L	1.246	2	11110	41899	0
Mo	98	49.947	ug/L	0.761	1	46	245802	1
Y	89		ug/L			416262	421015	0
Kr	83		ug/L			531	552	6
In	115		ug/L			1030601	1034405	1
Ag	107	49.661	ug/L	0.683	1	43	520229	1
Cd	111	49.775	ug/L	1.259	2	92	239561	1
Cd	114	49.711	ug/L	0.545	1	61	609907	0
Sb	121	49.829	ug/L	0.491	0	304	729647	0
Sb	123	49.749	ug/L	0.649	1	246	553283	0
Ba	135	49.888	ug/L	0.435	0	18	217825	0
Ba	137	49.887	ug/L	0.548	1	36	381756	0
Tb	159		ug/L			1247472	1291187	1
Tl	205	49.769	ug/L	0.407	0	176	1879609	0
Pb	208	49.647	ug/L	0.636	1	302	2492690	0
Bi	209		ug/L			2786089	2713539	0
Th	232	50.082	ug/L	0.562	1	860	2397636	0
U	238	49.914	ug/L	0.776	1	28	2421120	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 12:39:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1299968	0
[	Be	9	100.242	ug/L	2.173	2	27	382466	1
	C	13		ug/L			110265	114007	0
	Cl	37		ug/L			4510739	4624636	1
[>	Sc	45		ug/L			1161996	1175275	0
[	V	51	100.778	ug/L	1.885	1	7869	2259302	0
[	V-1	51	100.751	ug/L	1.847	1	69	2252609	1
[	Cr	52	99.735	ug/L	0.773	0	23331	1867611	0
[	Cr	53	99.642	ug/L	0.356	0	142	208899	1
[	Mn	55	99.808	ug/L	2.574	2	504	2545632	1
[	Co	59	100.581	ug/L	1.142	1	96	1890493	0
[>	Ge	72		ug/L			655148	667387	1
[	Ni	60	99.780	ug/L	1.149	1	35	385881	1
[	Ni	62	99.819	ug/L	1.463	1	554	55184	1
[	Cu	63	99.090	ug/L	1.217	1	544	849311	0
[	Cu	65	99.484	ug/L	0.930	0	67	388033	2
[	Zn	66	99.315	ug/L	1.525	1	288	235681	1
[	Zn	67	99.431	ug/L	0.997	1	44	39656	1
[	Zn	68	99.729	ug/L	1.243	1	283	171515	1
[	As	75	99.839	ug/L	2.293	2	246	209992	1
[	As-1	75	99.863	ug/L	2.503	2	10971	222929	1
[	Se	82	99.265	ug/L	1.198	1	0	22758	0
[	Se	78	99.371	ug/L	2.402	2	11110	71139	0
[	Mo	98	99.766	ug/L	1.611	1	46	486967	0
	Y	89		ug/L			416262	419788	2
	Kr	83		ug/L			531	564	5
[>	In	115		ug/L			1030601	1003161	1
[	Ag	107	100.331	ug/L	1.710	1	43	1030613	1
[	Cd	111	100.201	ug/L	0.507	0	92	470838	0
[	Cd	114	100.535	ug/L	1.702	1	61	1217864	0
[	Sb	121	100.594	ug/L	1.233	1	304	1457055	0
[	Sb	123	100.616	ug/L	1.558	1	246	1107748	0
[	Ba	135	100.686	ug/L	1.680	1	18	436295	0
[	Ba	137	100.825	ug/L	0.663	0	36	769423	0
[>	Tb	159		ug/L			1247472	1259899	0
[	Tl	205	100.661	ug/L	0.675	0	176	3793017	0
[	Pb	208	100.558	ug/L	1.129	1	302	5019757	0
[	Bi	209		ug/L			2786089	2644214	1
[	Th	232	100.692	ug/L	2.125	2	860	4813877	1
[	U	238	100.420	ug/L	1.011	1	28	4820707	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 12:46:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1292588	1
[	Be	9	0.002	ug/L	0.003	199	27	33	36
	C	13		ug/L			110265	112410	3
	Cl	37		ug/L			4510739	4443044	1
[>	Sc	45		ug/L			1161996	1161612	1
|	V	51	0.023	ug/L	0.007	30	7869	8372	2
|	V-1	51	0.004	ug/L	0.004	112	69	148	60
|	Cr	52	0.070	ug/L	0.019	27	23331	24602	1
|	Cr	53	0.004	ug/L	0.005	128	142	150	7
|	Mn	55	0.003	ug/L	0.003	112	504	570	14
[	Co	59	0.002	ug/L	0.003	149	96	135	44
[>	Ge	72		ug/L			655148	659715	1
|	Ni	60	0.003	ug/L	0.006	229	35	46	50
|	Ni	62	-0.140	ug/L	0.103	73	554	482	10
|	Cu	63	-0.002	ug/L	0.006	249	544	527	8
|	Cu	65	0.005	ug/L	0.001	13	67	88	2
|	Zn	66	-0.003	ug/L	0.008	242	288	283	5
|	Zn	67	0.002	ug/L	0.031	1581	44	45	25
|	Zn	68	0.010	ug/L	0.018	169	283	302	10
|	As	75	-0.003	ug/L	0.017	521	246	241	15
|	As-1	75	0.103	ug/L	0.058	56	10971	11263	0
|	Se	82	0.020	ug/L	0.097	493	0	5	423
|	Se	78	0.401	ug/L	0.206	51	11110	11425	0
[	Mo	98	0.015	ug/L	0.003	17	46	120	9
	Y	89		ug/L			416262	430552	3
	Kr	83		ug/L			531	541	6
[>	In	115		ug/L			1030601	1030408	1
|	Ag	107	0.001	ug/L	0.001	119	43	52	21
|	Cd	111	0.000	ug/L	0.002	1312	92	93	8
|	Cd	114	-0.000	ug/L	0.000	297	61	60	7
|	Sb	121	0.090	ug/L	0.012	13	304	1637	11
|	Sb	123	0.090	ug/L	0.007	8	246	1269	6
|	Ba	135	0.001	ug/L	0.001	140	18	23	27
[	Ba	137	0.002	ug/L	0.001	35	36	54	12
[>	Tb	159		ug/L			1247472	1256718	1
|	Tl	205	0.024	ug/L	0.009	38	176	1097	32
|	Pb	208	0.002	ug/L	0.001	75	302	396	16
|	Bi	209		ug/L			2786089	2770551	0
|	Th	232	0.176	ug/L	0.019	10	860	9280	10
[	U	238	0.004	ug/L	0.001	13	28	237	11

Sample Information

Sample Date/Time: Friday, November 23, 2012 12:46:07
Method File: C:\NexION Data\Method\200.8nomin.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**1.0000**	0.003	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**0.9999**	0.019	0.20	10	20	50	100
V-1	51	**0.9999**	0.019	0.20	10	20	50	100
Cr	52	**1.0000**	0.016	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**1.0000**	0.022	0.50	10	20	50	100
Co	59	**0.9999**	0.016	0.20	10	20	50	100
Ge	72							
Ni	60	**1.0000**	0.006	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**0.9998**	0.013	0.50	10	20	50	100
Cu	65	**0.9999**	0.006	0.50	10	20	50	100
Zn	66	**0.9999**	0.004	4.00	10	20	50	100
Zn	67	**0.9999**	0.001	4.00	10	20	50	100
Zn	68	**0.9999**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9999**	0.000	0.50	10	20	50	100
Se	78	**0.9999**	0.001	0.50	10	20	50	100
Mo	98	**1.0000**	0.007	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.010	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**0.9999**	0.012	0.10	10	20	50	100
Sb	121	**0.9999**	0.014	0.20	10	20	50	100
Sb	123	**0.9999**	0.011	0.20	10	20	50	100
Ba	135	**0.9999**	0.004	0.50	10	20	50	100
Ba	137	**0.9999**	0.008	0.50	10	20	50	100
Tb	159							
Tl	205	**0.9999**	0.030	0.20	10	20	50	100
Pb	208	**0.9999**	0.040	0.10	10	20	50	100
Bi	209							
Th	232	**0.9999**	0.038	0.20	10	20	50	100
U	238	**1.0000**	0.038	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 12:53:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1341051	1
[	Be	9	50.496	ug/L	0.885	1	27	198760	0
	C	13		ug/L			110265	120256	1
	Cl	37		ug/L			4510739	4665038	1
[>	Sc	45		ug/L			1161996	1194102	2
|	V	51	50.901	ug/L	1.947	3	7869	1162979	2
|	V-1	51	51.165	ug/L	2.105	4	69	1161795	2
|	Cr	52	50.543	ug/L	0.851	1	23331	973482	2
|	Cr	53	51.445	ug/L	0.929	1	142	109624	0
|	Mn	55	51.769	ug/L	1.107	2	504	1341683	1
[	Co	59	50.104	ug/L	2.691	5	96	956255	3
[>	Ge	72		ug/L			655148	669875	0
|	Ni	60	52.787	ug/L	0.448	0	35	204937	1
|	Ni	62	51.574	ug/L	0.782	1	554	28891	0
|	Cu	63	52.425	ug/L	0.516	0	544	451345	1
|	Cu	65	52.984	ug/L	1.296	2	67	207435	2
|	Zn	66	51.753	ug/L	0.571	1	288	123423	1
|	Zn	67	50.703	ug/L	0.462	0	44	20319	0
|	Zn	68	52.034	ug/L	0.877	1	283	89961	1
|	As	75	51.871	ug/L	0.407	0	246	109649	1
|	As-1	75	52.372	ug/L	0.381	0	10971	122709	1
|	Se	82	81.110	ug/L	0.371	0	0	18666	0
|	Se	78	81.907	ug/L	0.674	0	11110	60861	0
[	Mo	98	50.854	ug/L	0.128	0	46	249201	0
	Y	89		ug/L			416262	424648	0
	Kr	83		ug/L			531	553	4
[>	In	115		ug/L			1030601	1050304	0
|	Ag	107	51.509	ug/L	0.844	1	43	554060	1
|	Cd	111	49.553	ug/L	0.341	0	92	243847	0
|	Cd	114	48.628	ug/L	0.380	0	61	616865	1
|	Sb	121	48.703	ug/L	0.399	0	304	738821	0
|	Sb	123	48.614	ug/L	0.221	0	246	560556	0
|	Ba	135	50.357	ug/L	0.271	0	18	228501	0
[	Ba	137	49.612	ug/L	0.740	1	36	396425	1
[>	Tb	159		ug/L			1247472	1285033	0
|	Tl	205	51.006	ug/L	0.468	0	176	1960440	0
|	Pb	208	51.016	ug/L	0.420	0	302	2597697	0
|	Bi	209		ug/L			2786089	2744321	0
|	Th	232	52.244	ug/L	0.342	0	860	2548103	0
[	U	238	52.200	ug/L	0.207	0	28	2555974	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:00:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1331677	0
[	Be	9	-0.002	ug/L	0.001	59	27	22	15
	C	13		ug/L			110265	113197	1
	Cl	37		ug/L			4510739	4517387	2
[>	Sc	45		ug/L			1161996	1191405	1
[	V	51	0.008	ug/L	0.012	150	7869	8253	2
[	V-1	51	0.001	ug/L	0.000	6	69	88	2
[	Cr	52	0.034	ug/L	0.042	124	23331	24548	2
[	Cr	53	0.008	ug/L	0.001	13	142	162	1
[	Mn	55	-0.000	ug/L	0.001	152	504	506	2
[	Co	59	-0.000	ug/L	0.000	256	96	95	7
[>	Ge	72		ug/L			655148	671825	1
[	Ni	60	0.001	ug/L	0.001	83	35	39	7
[	Ni	62	-0.394	ug/L	0.013	3	554	351	3
[	Cu	63	-0.019	ug/L	0.002	11	544	397	4
[	Cu	65	0.001	ug/L	0.003	326	67	72	12
[	Zn	66	-0.005	ug/L	0.002	38	288	282	2
[	Zn	67	0.019	ug/L	0.017	90	44	53	11
[	Zn	68	-0.021	ug/L	0.011	50	283	254	8
[	As	75	0.001	ug/L	0.004	330	246	255	4
[	As-1	75	0.014	ug/L	0.074	545	10971	11278	0
[	Se	82	0.005	ug/L	0.038	711	0	1	443
[	Se	78	0.043	ug/L	0.271	624	11110	11417	0
[	Mo	98	0.004	ug/L	0.001	32	46	68	8
	Y	89		ug/L			416262	432448	2
	Kr	83		ug/L			531	541	4
[>	In	115		ug/L			1030601	1048342	1
[	Ag	107	0.000	ug/L	0.001	272	43	46	17
[	Cd	111	-0.002	ug/L	0.002	141	92	86	11
[	Cd	114	0.001	ug/L	0.002	231	61	70	25
[	Sb	121	0.026	ug/L	0.008	32	304	698	17
[	Sb	123	0.025	ug/L	0.011	44	246	538	23
[	Ba	135	0.003	ug/L	0.002	73	18	31	28
[	Ba	137	0.001	ug/L	0.001	105	36	47	21
[>	Tb	159		ug/L			1247472	1261012	0
[	Tl	205	0.009	ug/L	0.004	47	176	518	32
[	Pb	208	0.001	ug/L	0.001	91	302	360	14
[	Bi	209		ug/L			2786089	2820040	0
[	Th	232	0.100	ug/L	0.006	6	860	5678	5
[	U	238	0.002	ug/L	0.000	10	28	149	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:04:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1335751	0
[	Be	9	49.710	ug/L	2.051	4	27	194887	3
	C	13		ug/L			110265	111645	3
	Cl	37		ug/L			4510739	4658692	1
[>	Sc	45		ug/L			1161996	1171764	2
|	V	51	50.129	ug/L	0.927	1	7869	1124244	1
|	V-1	51	50.192	ug/L	0.922	1	69	1118664	1
|	Cr	52	51.137	ug/L	2.093	4	23331	965546	1
|	Cr	53	51.348	ug/L	2.052	3	142	107322	1
|	Mn	55	50.390	ug/L	2.172	4	504	1280869	1
[	Co	59	51.137	ug/L	1.117	2	96	958051	0
[>	Ge	72		ug/L			655148	667843	1
|	Ni	60	51.663	ug/L	1.165	2	35	199938	1
|	Ni	62	50.524	ug/L	1.685	3	554	28225	2
|	Cu	63	51.555	ug/L	0.406	0	544	442474	0
|	Cu	65	50.771	ug/L	0.721	1	67	198161	0
|	Zn	66	52.221	ug/L	1.596	3	288	124124	1
|	Zn	67	50.684	ug/L	1.073	2	44	20247	0
|	Zn	68	51.749	ug/L	0.946	1	283	89191	0
|	As	75	51.565	ug/L	0.474	0	246	108664	0
|	As-1	75	51.692	ug/L	0.613	1	10971	120882	0
|	Se	82	52.056	ug/L	0.388	0	0	11943	0
|	Se	78	52.460	ug/L	0.967	1	11110	42930	0
[	Mo	98	50.687	ug/L	1.023	2	46	247608	1
	Y	89		ug/L			416262	431320	2
	Kr	83		ug/L			531	531	2
[>	In	115		ug/L			1030601	1038101	1
|	Ag	107	48.955	ug/L	0.772	1	43	520396	0
|	Cd	111	49.862	ug/L	0.465	0	92	242493	0
|	Cd	114	49.291	ug/L	1.124	2	61	617868	0
|	Sb	121	49.654	ug/L	0.634	1	304	744393	0
|	Sb	123	49.172	ug/L	0.623	1	246	560347	0
|	Ba	135	49.136	ug/L	0.579	1	18	220344	0
[	Ba	137	48.603	ug/L	1.231	2	36	383760	1
[>	Tb	159		ug/L			1247472	1282522	0
|	Tl	205	49.784	ug/L	0.479	0	176	1909693	0
|	Pb	208	49.359	ug/L	0.388	0	302	2508453	0
|	Bi	209		ug/L			2786089	2726694	0
|	Th	232	49.634	ug/L	0.469	0	860	2416170	1
[	U	238	50.274	ug/L	0.577	1	28	2456821	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:10:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			1287485	1313664	1
Be	9	0.000	ug/L	0.003	1387	27	28	38
C	13		ug/L			110265	113489	3
Cl	37		ug/L			4510739	4607580	3
Sc	45		ug/L			1161996	1206918	1
V	51	0.007	ug/L	0.006	79	7869	8333	0
V-1	51	0.002	ug/L	0.001	53	69	109	17
Cr	52	0.022	ug/L	0.019	88	23331	24641	0
Cr	53	0.003	ug/L	0.005	172	142	154	7
Mn	55	0.000	ug/L	0.001	424	504	532	5
Co	59	0.000	ug/L	0.001	1102	96	102	25
Ge	72		ug/L			655148	670854	0
Ni	60	0.000	ug/L	0.001	397	35	37	12
Ni	62	-0.495	ug/L	0.026	5	554	295	5
Cu	63	-0.025	ug/L	0.003	13	544	343	8
Cu	65	-0.001	ug/L	0.001	83	67	66	3
Zn	66	0.003	ug/L	0.010	343	288	302	8
Zn	67	0.006	ug/L	0.018	309	44	47	14
Zn	68	0.015	ug/L	0.008	53	283	315	5
As	75	-0.000	ug/L	0.013	3224	246	251	11
As-1	75	0.033	ug/L	0.022	67	10971	11304	0
Se	82	-0.019	ug/L	0.047	246	0	-3	289
Se	78	0.135	ug/L	0.130	95	11110	11458	0
Mo	98	0.009	ug/L	0.005	56	46	89	26
Y	89		ug/L			416262	431601	1
Kr	83		ug/L			531	572	5
In	115		ug/L			1030601	1048861	0
Ag	107	0.003	ug/L	0.003	120	43	74	49
Cd	111	0.005	ug/L	0.004	90	92	117	17
Cd	114	0.003	ug/L	0.003	118	61	97	42
Sb	121	0.058	ug/L	0.010	16	304	1187	12
Sb	123	0.052	ug/L	0.009	16	246	845	11
Ba	135	0.002	ug/L	0.003	133	18	27	41
Ba	137	0.002	ug/L	0.001	33	36	54	10
Tb	159		ug/L			1247472	1256513	1
Tl	205	0.009	ug/L	0.005	58	176	528	38
Pb	208	0.002	ug/L	0.001	72	302	402	17
Bi	209		ug/L			2786089	2821450	0
Th	232	0.132	ug/L	0.012	9	860	7178	7
U	238	0.003	ug/L	0.001	36	28	164	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:15:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1323288	0
[	Be	9	0.207	ug/L	0.007	3	27	831	2
	C	13		ug/L			110265	117543	2
	Cl	37		ug/L			4510739	4334129	1
[>	Sc	45		ug/L			1161996	1195652	1
[	V	51	0.229	ug/L	0.017	7	7869	13302	1
[	V-1	51	0.212	ug/L	0.003	1	69	4893	0
[	Cr	52	0.581	ug/L	0.058	9	23331	34930	1
[	Cr	53	0.522	ug/L	0.020	3	142	1258	2
[	Mn	55	0.500	ug/L	0.018	3	504	13482	2
[	Co	59	0.209	ug/L	0.003	1	96	4099	0
[>	Ge	72		ug/L			655148	676924	2
[	Ni	60	0.540	ug/L	0.006	1	35	2155	1
[	Ni	62	0.041	ug/L	0.041	99	554	595	2
[	Cu	63	0.512	ug/L	0.021	4	544	5009	1
[	Cu	65	0.539	ug/L	0.026	4	67	2201	3
[	Zn	66	4.675	ug/L	0.042	0	288	11535	1
[	Zn	67	4.298	ug/L	0.206	4	44	1781	3
[	Zn	68	4.531	ug/L	0.134	2	283	8181	1
[	As	75	0.203	ug/L	0.014	6	246	686	3
[	As-1	75	0.181	ug/L	0.125	68	10971	11722	0
[	Se	82	0.544	ug/L	0.041	7	0	127	6
[	Se	78	0.460	ug/L	0.420	91	11110	11756	0
[	Mo	98	0.195	ug/L	0.002	1	46	1013	1
	Y	89		ug/L			416262	440140	0
	Kr	83		ug/L			531	551	3
[>	In	115		ug/L			1030601	1040468	0
[	Ag	107	0.206	ug/L	0.007	3	43	2235	2
[	Cd	111	0.107	ug/L	0.008	7	92	615	5
[	Cd	114	0.105	ug/L	0.003	3	61	1377	2
[	Sb	121	0.204	ug/L	0.002	1	304	3368	1
[	Sb	123	0.201	ug/L	0.002	1	246	2542	0
[	Ba	135	0.500	ug/L	0.009	1	18	2266	1
[	Ba	137	0.490	ug/L	0.007	1	36	3914	1
[>	Tb	159		ug/L			1247472	1266781	1
[	Tl	205	0.209	ug/L	0.007	3	176	8093	1
[	Pb	208	0.108	ug/L	0.002	2	302	5739	1
[	Bi	209		ug/L			2786089	2837377	2
[	Th	232	0.202	ug/L	0.002	1	860	10562	1
[	U	238	0.200	ug/L	0.001	0	28	9698	1

VS19:00251

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:19:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1328338 ✓	1
	Be	9	-0.003	ug/L	0.001	32	27	16	22
	C	13		ug/L			110265	200329	4
	Cl	37		ug/L			4510739	12007797	1
>	Sc	45		ug/L			1161996	1211608 ✓	1
	V	51	0.121	ug/L	0.024	19	7869	11000	6
	V-1	51	0.855	ug/L	0.013	1	69	19776	2
	Cr	52	0.553	ug/L	0.023	4	23331	34867	2
	Cr	53	3.055	ug/L	0.019	0	142	6746	0
	Mn	55	0.058	ug/L	0.002	3	504	2052	1
	Co	59	0.022	ug/L	0.002	8	96	529	7
>	Ge	72		ug/L			655148	668093 ✓	3
	Ni	60	0.324	ug/L	0.012	3	35	1291	2
	Ni	62	2.446	ug/L	0.503	20	554	1906	15
	Cu	63	0.941	ug/L	0.049	5	544	8621	5
	Cu	65	0.325	ug/L	0.011	3	67	1335	2
	Zn	66	0.972	ug/L	0.056	5	288	2596	2
	Zn	67	6.263	ug/L	0.153	2	44	2544	5
	Zn	68	0.450	ug/L	0.019	4	283	1062	0
	As	75	0.059	ug/L	0.062	103	246	373	32
	As-1	75	0.250	ug/L	0.182	72	10971	11712	0
	Se	82	-0.116	ug/L	0.063	54	0	-26	55
	Se	78	0.763	ug/L	0.500	65	11110	11783	1
	Mo	98	413.093 ✓	ug/L	17.173	4	46	2017045	2
	Y	89		ug/L			416262	430391	0
	Kr	83		ug/L			531	696	3
>	In	115		ug/L			1030601	1017221 ✓	2
	Ag	107	0.020	ug/L	0.006	28	43	250	24
	Cd	111	0.136	ug/L	0.020	15	92	738	13
	Cd	114	0.234	ug/L	0.007	2	61	2929	2
	Sb	121	0.060	ug/L	0.005	9	304	1188	8
	Sb	123	0.056	ug/L	0.006	9	246	867	8
	Ba	135	0.055	ug/L	0.001	2	18	262	4
	Ba	137	0.041	ug/L	0.002	5	36	356	6
>	Tb	159		ug/L			1247472	1293665 ✓	1
	Tl	205	0.051	ug/L	0.007	13	176	2147	13
	Pb	208	0.034	ug/L	0.001	4	302	2054	4
	Bi	209		ug/L			2786089	2588902	0
	Th	232	0.233	ug/L	0.075	32	860	12328	29
	U	238	0.001	ug/L	0.001	94	28	100	67

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:25:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1334400✓	0
[	Be	9	-0.002	ug/L	0.001	30	27	19	13
	C	13		ug/L			110265	204089	2
	Cl	37		ug/L			4510739	12277127	0
[>	Sc	45		ug/L			1161996	1189407✓	0
[	V	51	0.114	ug/L	0.143	125	7869	10640	30
[	V-1	51	0.884	ug/L	0.033	3	69	20080	3
[	Cr	52	21.037	ug/L	0.184	0	23331	417523	0
[	Cr	53	23.611	ug/L	0.713	3	142	50199	2
[	Mn	55	20.117	ug/L	0.381	1	504	519728	1
[	Co	59	19.709	ug/L	0.092	0	96	375008	0
[>	Ge	72		ug/L			655148	649621✓	0
[	Ni	60	21.377	ug/L	0.125	0	35	80499	0
[	Ni	62	24.061	ug/L	0.230	0	554	13365	1
[	Cu	63	21.887	ug/L	0.433	1	544	183029	1
[	Cu	65	20.830	ug/L	0.257	1	67	79126	0
[	Zn	66	21.020	ug/L	0.264	1	288	48780	1
[	Zn	67	23.871	ug/L	0.556	2	44	9301	2
[	Zn	68	19.245	ug/L	0.410	2	283	32445	2
[	As	75	20.632	ug/L	0.292	1	246	42438	0
[	As-1	75	20.654	ug/L	0.325	1	10971	53514	0
[	Se	82	-0.087	ug/L	0.036	41	0	-18	43
[	Se	78	0.870	ug/L	0.140	16	11110	11525	0
[	Mo	98	424.336✓	ug/L	11.668	2	46	2015913	1
	Y	89		ug/L			416262	420636	0
	Kr	83		ug/L			531	678	2
[>	In	115		ug/L			1030601	1035788✓	0
[	Ag	107	20.816	ug/L	0.316	1	43	220849	2
[	Cd	111	19.892	ug/L	0.201	1	92	96587	1
[	Cd	114	19.665	ug/L	0.112	0	61	246043	0
[	Sb	121	0.055	ug/L	0.003	5	304	1131	4
[	Sb	123	0.054	ug/L	0.003	4	246	862	4
[	Ba	135	0.048	ug/L	0.005	10	18	234	8
[	Ba	137	0.038	ug/L	0.003	6	36	335	4
[>	Tb	159		ug/L			1247472	1278590 ✓	0
[	Tl	205	0.034	ug/L	0.001	1	176	1490	1
[	Pb	208	0.036	ug/L	0.006	17	302	2154	14
[	Bi	209		ug/L			2786089	2596251	0
[	Th	232	0.090	ug/L	0.013	14	860	5233	11
[	U	238	0.000	ug/L	0.000	391	28	32	39

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:32:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1288570 ✓	0
[	Be	9	201.605	ug/L	2.157	1	27	762552	1
	C	13		ug/L			110265	117587	2
	Cl	37		ug/L			4510739	4657357	1
[>	Sc	45		ug/L			1161996	1121030 ✓	2
[	V	51	208.903	ug/L	8.892	4	7869	4456811	2
[	V-1	51	207.457	ug/L	8.908	4	69	4422193	2
[	Cr	52	212.138	ug/L	6.389	3	23331	3762131	0
[	Cr	53	207.192	ug/L	5.041	2	142	414050	1
[	Mn	55	210.223	ug/L	3.240	1	504	5113503	1
[	Co	59	202.434	ug/L	7.589	3	96	3627494	1
[>	Ge	72		ug/L			655148	621355 ✓	1
[	Ni	60	205.296	ug/L	3.471	1	35	739103	0
[	Ni	62	207.958	ug/L	2.547	1	554	106465	0
[	Cu	63	206.150	ug/L	2.762	1	544	1644544	0
[	Cu	65	202.550	ug/L	3.465	1	67	735334	0
[	Zn	66	202.305	ug/L	1.516	0	288	446682	0
[	Zn	67	200.513	ug/L	2.666	1	44	74409	1
[	Zn	68	203.392	ug/L	4.023	1	283	325369	1
[	As	75	206.793	ug/L	1.054	0	246	404755	0
[	As-1	75	207.724	ug/L	0.535	0	10971	420571	0
[	Se	82	201.215	ug/L	3.964	1	0	42948	0
[	Se	78	204.813	ug/L	2.554	1	11110	125347	0
[	Mo	98	212.846	ug/L	4.857	2	46	967230	1
	Y	89		ug/L			416262	399850	2
	Kr	83		ug/L			531	642	4
[>	In	115		ug/L			1030601	1014826 ✓	1
[	Ag	107	215.923	ug/L	3.518	1	43	2243695	0
[	Cd	111	202.134	ug/L	2.810	1	92	960706	0
[	Cd	114	204.161	ug/L	0.471	0	61	2502206	1
[	Sb	121	205.089	ug/L	3.458	1	304	3004786	0
[	Sb	123	209.156	ug/L	2.837	1	246	2329292	0
[	Ba	135	204.395	ug/L	2.290	1	18	896007	0
[	Ba	137	202.998	ug/L	2.889	1	36	1567029	0
[>	Tb	159		ug/L			1247472	1263462 ✓	0
[	Tl	205	199.174	ug/L	1.553	0	176	7526134	0
[	Pb	208	200.089	ug/L	1.412	0	302	10016369	0
[	Bi	209		ug/L			2786089	2538382	0
[	Th	232	200.143	ug/L	0.200	0	860	9595419	0
[	U	238	201.868	ug/L	0.534	0	28	9718568	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:39:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1267105	2
[	Be	9	301.942	ug/L	7.974	2	27	1122493	0
	C	13		ug/L			110265	120594	1
	Cl	37		ug/L			4510739	4515291	0
[>	Sc	45		ug/L			1161996	1089814	1
[	V	51	313.943	ug/L	6.023	1	7869	6510307	0
[	V-1	51	313.793	ug/L	7.412	2	69	6504929	1
[	Cr	52	318.822	ug/L	6.486	2	23331	5487348	1
[	Cr	53	318.297	ug/L	8.343	2	142	618350	1
[	Mn	55	315.642	ug/L	1.900	0	504	7465716	1
[	Co	59	307.828	ug/L	4.110	1	96	5364807	0
[>	Ge	72		ug/L			655148	598429	1
[	Ni	60	309.587	ug/L	1.703	0	35	1073511	0
[	Ni	62	317.208	ug/L	5.893	1	554	156131	1
[	Cu	63	319.702	ug/L	5.663	1	544	2455932	0
[	Cu	65	308.337	ug/L	4.038	1	67	1078141	1
[	Zn	66	303.303	ug/L	10.002	3	288	644721	2
[	Zn	67	298.917	ug/L	1.738	0	44	106823	1
[	Zn	68	299.260	ug/L	5.731	1	283	460945	0
[	As	75	308.179	ug/L	5.859	1	246	580779	1
[	As-1	75	310.918	ug/L	4.576	1	10971	601265	1
[	Se	82	292.317	ug/L	6.020	2	0	60089	0
[	Se	78	302.784	ug/L	2.096	0	11110	173630	1
[	Mo	98	326.684	ug/L	3.061	0	46	1429946	1
	Y	89		ug/L			416262	381275	0
	Kr	83		ug/L			531	763	3
[>	In	115		ug/L			1030601	976059	0
[	Ag	107	316.332	ug/L	1.015	0	43	3161818	0
[	Cd	111	299.269	ug/L	1.870	0	92	1368094	0
[	Cd	114	303.525	ug/L	1.193	0	61	3577806	0
[	Sb	121	313.663	ug/L	4.514	1	304	4420004	0
[	Sb	123	310.154	ug/L	2.798	0	246	3322163	0
[	Ba	135	317.483	ug/L	2.761	0	18	1338622	0
[	Ba	137	320.812	ug/L	1.396	0	36	2382042	0
[>	Tb	159		ug/L			1247472	1238644	0
[	Tl	205	299.682	ug/L	1.402	0	176	11101826	0
[	Pb	208	298.451	ug/L	0.125	0	302	14647131	0
[	Bi	209		ug/L			2786089	2428284	0
[	Th	232	302.556	ug/L	2.155	0	860	14219689	0
[	U	238	302.867	ug/L	0.861	0	28	14294412	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:46:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1316570	0
[	Be	9	0.001	ug/L	0.001	108	27	29	7
	C	13		ug/L			110265	119332	2
	Cl	37		ug/L			4510739	4538937	3
[>	Sc	45		ug/L			1161996	1138131	2
[	V	51	0.030	ug/L	0.007	24	7869	8365	3
[	V-1	51	0.016	ug/L	0.002	12	69	411	8
[	Cr	52	0.090	ug/L	0.034	37	23331	24461	4
[	Cr	53	0.040	ug/L	0.008	19	142	220	6
[	Mn	55	0.018	ug/L	0.002	14	504	925	4
[	Co	59	0.001	ug/L	0.001	36	96	121	10
[>	Ge	72		ug/L			655148	651496	1
[	Ni	60	0.033	ug/L	0.001	3	35	160	1
[	Ni	62	0.915	ug/L	0.238	26	554	1038	10
[	Cu	63	0.063	ug/L	0.009	15	544	1065	6
[	Cu	65	0.027	ug/L	0.003	10	67	169	7
[	Zn	66	1.159	ug/L	0.008	0	288	2968	1
[	Zn	67	1.052	ug/L	0.114	10	44	453	8
[	Zn	68	1.095	ug/L	0.032	2	283	2117	2
[	As	75	0.175	ug/L	0.031	17	246	604	11
[	As-1	75	0.153	ug/L	0.016	10	10971	11227	1
[	Se	82	0.183	ug/L	0.089	48	0	41	47
[	Se	78	0.114	ug/L	0.127	111	11110	11114	0
[	Mo	98	0.083	ug/L	0.009	10	46	442	10
	Y	89		ug/L			416262	413341	2
	Kr	83		ug/L			531	534	9
[>	In	115		ug/L			1030601	1052156	0
[	Ag	107	0.008	ug/L	0.001	14	43	130	9
[	Cd	111	0.005	ug/L	0.003	63	92	119	13
[	Cd	114	0.001	ug/L	0.001	78	61	75	13
[	Sb	121	0.345	ug/L	0.039	11	304	5553	10
[	Sb	123	0.349	ug/L	0.051	14	246	4281	13
[	Ba	135	0.014	ug/L	0.003	19	18	81	14
[	Ba	137	0.011	ug/L	0.002	17	36	124	12
[>	Tb	159		ug/L			1247472	1273480	0
[	Tl	205	0.050	ug/L	0.022	43	176	2102	40
[	Pb	208	0.012	ug/L	0.001	11	302	914	7
[	Bi	209		ug/L			2786089	2825627	0
[	Th	232	0.239	ug/L	0.013	5	860	12436	5
[	U	238	0.008	ug/L	0.001	13	28	423	12

VS19:00256

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:52:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1316091	0
	Be	9	0.017	ug/L	0.033	196	27	91	137
	C	13		ug/L			110265	119703	0
	Cl	37		ug/L			4510739	4494917	1
>	Sc	45		ug/L			1161996	1153867	0
	V	51	0.039	ug/L	0.050	129	7869	8661	11
	V-1	51	0.023	ug/L	0.027	114	69	578	99
	Cr	52	0.094	ug/L	0.102	108	23331	24873	6
	Cr	53	0.041	ug/L	0.021	51	142	225	18
	Mn	55	0.017	ug/L	0.019	108	504	936	49
	Co	59	0.011	ug/L	0.017	160	96	290	107
>	Ge	72		ug/L			655148	640288	0
	Ni	60	0.029	ug/L	0.017	59	35	141	44
	Ni	62	0.387	ug/L	0.024	6	554	744	1
	Cu	63	0.026	ug/L	0.011	42	544	746	11
	Cu	65	0.018	ug/L	0.017	91	67	134	46
	Zn	66	0.220	ug/L	0.029	13	288	781	8
	Zn	67	0.202	ug/L	0.057	27	44	120	17
	Zn	68	0.211	ug/L	0.018	8	283	624	4
	As	75	0.072	ug/L	0.029	39	246	385	14
	As-1	75	0.187	ug/L	0.058	31	10971	11103	0
	Se	82	0.095	ug/L	0.030	31	0	21	30
	Se	78	0.489	ug/L	0.174	35	11110	11140	0
	Mo	98	0.030	ug/L	0.006	20	46	184	14
	Y	89		ug/L			416262	405851	0
	Kr	83		ug/L			531	512	4
>	In	115		ug/L			1030601	1036198	0
	Ag	107	0.003	ug/L	0.002	84	43	74	35
	Cd	111	0.006	ug/L	0.001	24	92	120	5
	Cd	114	0.002	ug/L	0.002	73	61	93	24
	Sb	121	0.100	ug/L	0.022	21	304	1806	18
	Sb	123	0.110	ug/L	0.041	37	246	1502	31
	Ba	135	0.044	ug/L	0.064	146	18	216	133
	Ba	137	0.045	ug/L	0.069	155	36	389	140
>	Tb	159		ug/L			1247472	1249974	1
	Tl	205	0.068	ug/L	0.082	120	176	2687	111
	Pb	208	0.037	ug/L	0.056	153	302	2104	130
	Bi	209		ug/L			2786089	2800780	1
	Th	232	0.089	ug/L	0.054	60	860	5071	49
	U	238	0.023	ug/L	0.037	160	28	1122	156

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:57:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1340178	0
	Be	9	-0.002	ug/L	0.002	120	27	21	39
	C	13		ug/L			110265	115157	4
	Cl	37		ug/L			4510739	4485915	1
>	Sc	45		ug/L			1161996	1180652	2
	V	51	0.020	ug/L	0.018	89	7869	8445	2
	V-1	51	0.007	ug/L	0.001	7	69	225	5
	Cr	52	0.065	ug/L	0.072	111	23331	24892	3
	Cr	53	0.019	ug/L	0.010	53	142	184	9
	Mn	55	0.006	ug/L	0.001	24	504	657	2
	Co	59	-0.001	ug/L	0.001	109	96	81	18
>	Ge	72		ug/L			655148	659762	2
	Ni	60	0.017	ug/L	0.003	15	35	99	10
	Ni	62	0.064	ug/L	0.102	158	554	592	7
	Cu	63	0.058	ug/L	0.004	7	544	1035	2
	Cu	65	0.060	ug/L	0.004	6	67	297	3
	Zn	66	0.319	ug/L	0.029	9	288	1036	5
	Zn	67	0.269	ug/L	0.020	7	44	150	7
	Zn	68	0.289	ug/L	0.020	6	283	776	6
	As	75	0.028	ug/L	0.007	25	246	307	5
	As-1	75	-0.013	ug/L	0.136	1049	10971	11017	0
	Se	82	0.042	ug/L	0.040	94	0	10	89
	Se	78	-0.105	ug/L	0.480	457	11110	11121	0
	Mo	98	0.015	ug/L	0.004	23	46	119	15
	Y	89		ug/L			416262	405610	1
	Kr	83		ug/L			531	533	2
>	In	115		ug/L			1030601	1049980	1
	Ag	107	0.001	ug/L	0.001	97	43	51	15
	Cd	111	-0.003	ug/L	0.000	4	92	79	1
	Cd	114	-0.000	ug/L	0.000	247	61	60	11
	Sb	121	0.041	ug/L	0.014	33	304	936	21
	Sb	123	0.039	ug/L	0.013	33	246	699	20
	Ba	135	0.008	ug/L	0.002	20	18	54	13
	Ba	137	0.011	ug/L	0.003	24	36	122	16
>	Tb	159		ug/L			1247472	1287434	0
	Tl	205	0.017	ug/L	0.009	49	176	846	39
	Pb	208	0.007	ug/L	0.000	5	302	643	2
	Bi	209		ug/L			2786089	2843049	0
	Th	232	0.028	ug/L	0.003	11	860	2238	7
	U	238	0.001	ug/L	0.000	38	28	63	20

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 14:02:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1370286 ✓	2
	Be	9	50.357	ug/L	0.184	0	27	202554	1
	C	13		ug/L			110265	117289	0
	Cl	37		ug/L			4510739	4738648	0
>	Sc	45		ug/L			1161996	1164355 ✓	4
	V	51	50.959	ug/L	2.877	5	7869	1133794	1
	V-1	51	51.187	ug/L	2.850	5	69	1131950	1
	Cr	52	51.579	ug/L	2.623	5	23331	966624	0
	Cr	53	52.355	ug/L	2.489	4	142	108638	0
	Mn	55	50.895	ug/L	2.745	5	504	1284208	0
	Co	59	50.777	ug/L	2.746	5	96	944118	2
>	Ge	72		ug/L			655148	663753 ✓	1
	Ni	60	51.062	ug/L	1.272	2	35	196386	1
	Ni	62	51.268	ug/L	0.791	1	554	28459	0
	Cu	63	52.613	ug/L	1.744	3	544	448784	3
	Cu	65	51.092	ug/L	0.731	1	67	198201	1
	Zn	66	51.707	ug/L	0.313	0	288	122177	1
	Zn	67	52.828	ug/L	0.687	1	44	20973	0
	Zn	68	52.246	ug/L	1.051	2	283	89490	0
	As	75	50.960	ug/L	0.623	1	246	106732	0
	As-1	75	51.010	ug/L	0.631	1	10971	118702	0
	Se	82	51.441	ug/L	0.855	1	0	11730	2
	Se	78	51.569	ug/L	0.579	1	11110	42135	0
	Mo	98	51.738	ug/L	0.543	1	46	251197	0
	Y	89		ug/L			416262	421611	1
	Kr	83		ug/L			531	523	2
>	In	115		ug/L			1030601	1059359 ✓	1
	Ag	107	50.627	ug/L	0.665	1	43	549192	1
	Cd	111	51.009	ug/L	1.325	2	92	253100	1
	Cd	114	50.304	ug/L	0.989	1	61	643472	0
	Sb	121	50.194	ug/L	0.991	1	304	767804	0
	Sb	123	49.836	ug/L	0.585	1	246	579549	1
	Ba	135	49.877	ug/L	0.464	0	18	228250	1
	Ba	137	49.100	ug/L	0.713	1	36	395674	1
>	Tb	159		ug/L			1247472	1293702 ✓	1
	Tl	205	50.264	ug/L	1.396	2	176	1944420	1
	Pb	208	50.104	ug/L	0.619	1	302	2568227	0
	Bi	209		ug/L			2786089	2753866	0
	Th	232	50.119	ug/L	0.465	0	860	2460796	0
	U	238	51.526	ug/L	0.907	1	28	2539689	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 14:08:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1401558 ✓	2
[	Be	9	-0.002	ug/L	0.001	54	27	22	16
	C	13		ug/L			110265	121098	1
	Cl	37		ug/L			4510739	4700257	1
[>	Sc	45		ug/L			1161996	1223934 ✓	1
[	V	51	0.021	ug/L	0.016	77	7869	8773	3
[	V-1	51	0.005	ug/L	0.000	7	69	197	4
[	Cr	52	0.061	ug/L	0.054	89	23331	25743	3
[	Cr	53	0.008	ug/L	0.001	12	142	166	0
[	Mn	55	-0.000	ug/L	0.001	168	504	519	3
[	Co	59	-0.000	ug/L	0.000	300	96	98	7
[>	Ge	72		ug/L			655148	677565 ✓	1
[	Ni	60	-0.000	ug/L	0.001	971	35	36	6
[	Ni	62	-0.252	ug/L	0.008	3	554	433	1
[	Cu	63	-0.015	ug/L	0.002	13	544	428	4
[	Cu	65	-0.004	ug/L	0.002	43	67	55	12
[	Zn	66	-0.001	ug/L	0.005	321	288	294	4
[	Zn	67	-0.020	ug/L	0.019	92	44	37	18
[	Zn	68	-0.008	ug/L	0.006	70	283	278	2
[	As	75	0.043	ug/L	0.017	39	246	346	9
[	As-1	75	-0.081	ug/L	0.105	129	10971	11169	0
[	Se	82	0.097	ug/L	0.019	19	0	23	17
[	Se	78	-0.356	ug/L	0.335	94	11110	11271	0
[	Mo	98	0.019	ug/L	0.004	21	46	143	12
	Y	89		ug/L			416262	431308	1
	Kr	83		ug/L			531	538	1
[>	In	115		ug/L			1030601	1088081 ✓	0
[	Ag	107	-0.000	ug/L	0.000	29	43	40	3
[	Cd	111	-0.001	ug/L	0.002	322	92	94	10
[	Cd	114	-0.001	ug/L	0.001	165	61	57	21
[	Sb	121	0.078	ug/L	0.013	17	304	1546	13
[	Sb	123	0.073	ug/L	0.012	16	246	1134	12
[	Ba	135	0.000	ug/L	0.001	389	18	21	23
[	Ba	137	0.000	ug/L	0.001	760	36	40	24
[>	Tb	159		ug/L			1247472	1286325 ✓	0
[	Tl	205	0.011	ug/L	0.006	54	176	621	38
[	Pb	208	0.002	ug/L	0.004	207	302	415	51
[	Bi	209		ug/L			2786089	2859912	0
[	Th	232	0.129	ug/L	0.016	12	860	7171	10
[	U	238	0.002	ug/L	0.000	12	28	135	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 A-L SWN
Sample Dil Factor: 500
Comments:
Sample Date/Time: Friday, November 23, 2012 14:13:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1425698	1
[	Be	9	0.022	ug/L	0.003	14	27	123	12
	C	13		ug/L			110265	129176	0
	Cl	37		ug/L			4510739	4774843	5
[>	Sc	45		ug/L			1161996	1224051	2
[	V	51	0.855	ug/L	0.038	4	7869	28162	1
[	V-1	51	0.852	ug/L	0.029	3	69	19902	1
[	Cr	52	0.683	ug/L	0.037	5	23331	37716	1
[	Cr	53	0.674	ug/L	0.032	4	142	1620	3
[	Mn	55	33.791	ug/L	0.782	2	504	897721	0
[	Co	59	0.200	ug/L	0.005	2	96	4006	2
[>	Ge	72		ug/L			655148	678089	1
[	Ni	60	0.439	ug/L	0.009	2	35	1762	1
[	Ni	62	0.119	ug/L	0.028	23	554	639	2
[	Cu	63	1.537	ug/L	0.032	2	544	13938	0
[	Cu	65	1.532	ug/L	0.029	1	67	6139	1
[	Zn	66	12.625	ug/L	0.113	0	288	30701	1
[	Zn	67	11.860	ug/L	0.372	3	44	4845	2
[	Zn	68	12.734	ug/L	0.272	2	283	22504	1
[	As	75	0.456	ug/L	0.010	2	246	1229	2
[	As-1	75	0.345	ug/L	0.043	12	10971	12098	0
[	Se	82	0.023	ug/L	0.044	190	0	6	170
[	Se	78	-0.328	ug/L	0.156	47	11110	11297	0
[	Mo	98	0.017	ug/L	0.003	17	46	131	11
	Y	89		ug/L			416262	447605	0
	Kr	83		ug/L			531	569	3
[>	In	115		ug/L			1030601	1102867	1
[	Ag	107	0.010	ug/L	0.001	10	43	156	7
[	Cd	111	0.230	ug/L	0.005	2	92	1289	0
[	Cd	114	0.215	ug/L	0.005	2	61	2935	1
[	Sb	121	0.041	ug/L	0.007	17	304	980	12
[	Sb	123	0.043	ug/L	0.008	19	246	779	12
[	Ba	135	7.022	ug/L	0.112	1	18	33471	0
[	Ba	137	6.892	ug/L	0.046	0	36	57855	0
[>	Tb	159		ug/L			1247472	1314770	1
[	Tl	205	0.028	ug/L	0.007	25	176	1299	22
[	Pb	208	12.094	ug/L	0.195	1	302	630209	0
[	Bi	209		ug/L			2786089	2921164	1
[	Th	232	0.197	ug/L	0.003	1	860	10755	1
[	U	238	0.210	ug/L	0.002	1	28	10542	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 A SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 14:17:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1415143	2
	Be	9	0.114	ug/L	0.003	2	27	505	0
	C	13		ug/L			110265	136248	1
	Cl	37		ug/L			4510739	4709603	1
>	Sc	45		ug/L			1161996	1239480	1
	V	51	4.116	ug/L	0.074	1	7869	105350	0
	V-1	51	4.094	ug/L	0.064	1	69	96600	0
	Cr	52	3.256	ug/L	0.069	2	23331	88368	1
	Cr	53	3.185	ug/L	0.036	1	142	7187	1
	Mn	55	168.625	ug/L	4.874	2	504	4534824	1
	Co	59	0.984	ug/L	0.023	2	96	19601	0
>	Ge	72		ug/L			655148	695949	1
	Ni	60	2.098	ug/L	0.115	5	35	8491	3
	Ni	62	1.850	ug/L	0.040	2	554	1644	1
	Cu	63	7.000	ug/L	0.162	2	544	63098	0
	Cu	65	6.952	ug/L	0.087	1	67	28340	1
	Zn	66	59.670	ug/L	0.910	1	288	147765	0
	Zn	67	56.286	ug/L	1.481	2	44	23423	1
	Zn	68	58.861	ug/L	1.885	3	283	105657	1
	As	75	2.094	ug/L	0.052	2	246	4849	0
	As-1	75	1.888	ug/L	0.128	6	10971	15827	0
	Se	82	0.113	ug/L	0.031	27	0	27	28
	Se	78	-0.557	ug/L	0.290	52	11110	11450	0
	Mo	98	0.058	ug/L	0.003	4	46	345	2
	Y	89		ug/L			416262	501951	2
	Kr	83		ug/L			531	555	3
>	In	115		ug/L			1030601	1106263	2
	Ag	107	0.050	ug/L	0.003	5	43	610	3
	Cd	111	1.094	ug/L	0.022	2	92	5768	0
	Cd	114	1.078	ug/L	0.033	3	61	14462	1
	Sb	121	0.116	ug/L	0.008	6	304	2184	5
	Sb	123	0.115	ug/L	0.008	7	246	1662	6
	Ba	135	34.281	ug/L	0.604	1	18	163804	0
	Ba	137	34.107	ug/L	0.704	2	36	286985	0
>	Tb	159		ug/L			1247472	1318444	1
	Tl	205	0.070	ug/L	0.006	8	176	2946	8
	Pb	208	59.667	ug/L	1.329	2	302	3116497	0
	Bi	209		ug/L			2786089	2916733	0
	Th	232	0.685	ug/L	0.024	3	860	35185	2
	U	238	1.031	ug/L	0.022	2	28	51834	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 ADUP SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 14:21:26

Pb Zn

Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1436759	4
[	Be	9	0.104	ug/L	0.007	6	27	468	5
	C	13		ug/L			110265	133980	4
	Cl	37		ug/L			4510739	4664363	2
[>	Sc	45		ug/L			1161996	1238991	3
[	V	51	3.914	ug/L	0.135	3	7869	100519	2
[	V-1	51	3.892	ug/L	0.133	3	69	91757	2
[	Cr	52	2.737	ug/L	0.182	6	23331	78154	1
[	Cr	53	2.665	ug/L	0.161	6	142	6029	2
[	Mn	55	161.930	ug/L	5.253	3	504	4351413	0
[	Co	59	0.924	ug/L	0.051	5	96	18398	2
[>	Ge	72		ug/L			655148	694662	0
[	Ni	60	1.979	ug/L	0.058	2	35	8003	2
[	Ni	62	1.669	ug/L	0.050	3	554	1538	1
[	Cu	63	6.715	ug/L	0.130	1	544	60444	1
[	Cu	65	6.757	ug/L	0.091	1	67	27493	1
[	Zn	66	58.727	ug/L	0.329	0	288	145186	0
[	Zn	67	55.086	ug/L	0.650	1	44	22888	0
[	Zn	68	57.785	ug/L	0.177	0	283	103572	0
[	As	75	2.016	ug/L	0.046	2	246	4670	1
[	As-1	75	1.770	ug/L	0.117	6	10971	15540	0
[	Se	82	0.071	ug/L	0.019	27	0	17	25
[	Se	78	-0.717	ug/L	0.303	42	11110	11329	1
[	Mo	98	0.045	ug/L	0.004	9	46	276	8
	Y	89		ug/L			416262	491182	1
	Kr	83		ug/L			531	571	0
[>	In	115		ug/L			1030601	1105110	1
[	Ag	107	0.045	ug/L	0.002	3	43	551	2
[	Cd	111	1.056	ug/L	0.010	0	92	5566	1
[	Cd	114	1.019	ug/L	0.004	0	61	13670	1
[	Sb	121	0.101	ug/L	0.006	6	304	1933	4
[	Sb	123	0.102	ug/L	0.004	3	246	1499	2
[	Ba	135	33.239	ug/L	0.485	1	18	158685	0
[	Ba	137	32.725	ug/L	0.495	1	36	275130	1
[>	Tb	159		ug/L			1247472	1324166	1
[	Tl	205	0.056	ug/L	0.002	3	176	2393	4
[	Pb	208	58.691	ug/L	1.278	2	302	3078676	0
[	Bi	209		ug/L			2786089	2910941	1
[	Th	232	0.616	ug/L	0.015	2	860	31833	0
[	U	238	0.986	ug/L	0.037	3	28	49762	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 ASPK SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 14:25:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1287485	1407483	1
[	**Be**	**9**	**5.244**	ug/L	0.192	3	27	21688	2
	C	**13**		ug/L			110265	134352	4
	Cl	**37**		ug/L			4510739	4623674	1
[>	**Sc**	**45**		ug/L			1161996	1235565	0
|	**V**	**51**	**9.130**	ug/L	0.202	2	7869	222777	1
|	**V-1**	**51**	**9.101**	ug/L	0.223	2	69	213992	1
|	**Cr**	**52**	**7.862**	ug/L	0.112	1	23331	177634	0
|	**Cr**	**53**	**7.770**	ug/L	0.164	2	142	17263	1
|	**Mn**	**55**	**184.665**	ug/L	3.777	2	504	4951359	1
[	**Co**	**59**	**5.948**	ug/L	0.157	2	96	117626	1
[>	**Ge**	**72**		ug/L			655148	686563	1
|	**Ni**	**60**	**7.263**	ug/L	0.287	3	35	28923	2
|	**Ni**	**62**	**6.812**	ug/L	0.154	2	554	4414	1
|	**Cu**	**63**	**12.233**	ug/L	0.243	1	544	108361	1
|	**Cu**	**65**	**12.075**	ug/L	0.164	1	67	48506	0
|	**Zn**	**66**	**77.428**	ug/L	1.910	2	288	189063	1
|	**Zn**	**67**	**71.648**	ug/L	3.151	4	44	29401	3
|	**Zn**	**68**	**77.312**	ug/L	2.493	3	283	136831	2
|	**As**	**75**	**7.180**	ug/L	0.134	1	246	15776	0
|	**As-1**	**75**	**7.169**	ug/L	0.101	1	10971	27138	0
|	**Se**	**82**	**16.839**	ug/L	0.359	2	0	3971	1
|	**Se**	**78**	**16.521**	ug/L	0.327	1	11110	21875	0
[	**Mo**	**98**	**4.475**	ug/L	0.102	2	46	22516	1
	Y	**89**		ug/L			416262	485433	1
	Kr	**83**		ug/L			531	588	4
[>	**In**	**115**		ug/L			1030601	1107196	1
|	**Ag**	**107**	**4.687**	ug/L	0.042	0	43	53188	0
|	**Cd**	**111**	**6.095**	ug/L	0.063	1	92	31700	0
|	**Cd**	**114**	**5.979**	ug/L	0.105	1	61	80003	1
|	**Sb**	**121**	**0.671**	ug/L	0.014	2	304	11050	2
|	**Sb**	**123**	**0.676**	ug/L	0.010	1	246	8480	1
|	**Ba**	**135**	**39.101**	ug/L	0.757	1	18	187012	0
[	**Ba**	**137**	**38.636**	ug/L	0.509	1	36	325438	1
[>	**Tb**	**159**		ug/L			1247472	1324710	0
|	**Tl**	**205**	**4.923**	ug/L	0.044	0	176	195216	0
|	**Pb**	**208**	**64.871**	ug/L	0.947	1	302	3404835	0
|	**Bi**	**209**		ug/L			2786089	2904126	0
|	**Th**	**232**	**4.354**	ug/L	0.090	2	860	219749	1
[	**U**	**238**	**5.888**	ug/L	0.064	1	28	297239	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 14:29:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Ag

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			1287485	1426043	2
Be	9	0.106	ug/L	0.004	3	27	473	2
C	13		ug/L			110265	134676	1
Cl	37		ug/L			4510739	4662367	1
Sc	45		ug/L			1161996	1259720	0
V	51	3.875	ug/L	0.036	0	7869	101320	0
V-1	51	3.895	ug/L	0.017	0	69	93415	1
Cr	52	3.134	ug/L	0.109	3	23331	87400	1
Cr	53	3.204	ug/L	0.055	1	142	7348	2
Mn	55	162.374	ug/L	2.439	1	504	4439687	2
Co	59	0.937	ug/L	0.011	1	96	18977	0
Ge	72		ug/L			655148	691920	3
Ni	60	2.050	ug/L	0.111	5	35	8249	2
Ni	62	1.664	ug/L	0.147	8	554	1528	3
Cu	63	6.728	ug/L	0.331	4	544	60272	1
Cu	65	6.891	ug/L	0.269	3	67	27908	1
Zn	66	60.129	ug/L	3.040	5	288	147905	2
Zn	67	55.791	ug/L	1.772	3	44	23079	2
Zn	68	58.914	ug/L	2.512	4	283	105082	1
As	75	2.089	ug/L	0.089	4	246	4807	1
As-1	75	1.851	ug/L	0.249	13	10971	15644	0
Se	82	0.065	ug/L	0.030	46	0	15	42
Se	78	-0.678	ug/L	0.616	90	11110	11302	0
Mo	98	0.057	ug/L	0.001	2	46	337	1
Y	89		ug/L			416262	497799	0
Kr	83		ug/L			531	584	2
In	115		ug/L			1030601	1111315	1
Ag	107	0.050	ug/L	0.003	5	43	615	3
Cd	111	1.078	ug/L	0.012	1	92	5708	2
Cd	114	1.044	ug/L	0.030	2	61	14072	1
Sb	121	0.121	ug/L	0.030	24	304	2265	20
Sb	123	0.108	ug/L	0.005	4	246	1579	1
Ba	135	33.740	ug/L	0.962	2	18	161941	0
Ba	137	33.267	ug/L	0.683	2	36	281205	0
Tb	159		ug/L			1247472	1319347	0
Tl	205	0.053	ug/L	0.003	5	176	2286	5
Pb	208	57.907	ug/L	0.167	0	302	3027339	0
Bi	209		ug/L			2786089	2923641	0
Th	232	0.611	ug/L	0.005	0	860	31512	1
U	238	0.999	ug/L	0.001	0	28	50241	0

VS19:00265

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 14:33:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1424960	1
[	Be	9	0.559	ug/L	0.008	1	27	2369	0
	C	13		ug/L			110265	187988	2
	Cl	37		ug/L			4510739	4878230	4
[>	Sc	45		ug/L			1161996	1292709	1
[	V	51	19.707	ug/L	0.033	0	7869	493047	1
[	V-1	51	19.798	ug/L	0.135	0	69	487028	2
[	Cr	52	15.236	ug/L	0.503	3	23331	335690	1
[	Cr	53	15.559	ug/L	0.237	1	142	36008	1
[	Mn	55	792.072	ug/L	26.765	3	504	22217341	3
[	Co	59	4.715	ug/L	0.106	2	96	97561	0
[>	Ge	72		ug/L			655148	673942	1
[	Ni	60	10.576	ug/L	0.196	1	35	41329	0
[	Ni	62	11.004	ug/L	0.060	0	554	6650	1
[	Cu	63	34.974	ug/L	0.287	0	544	303104	1
[	Cu	65	34.632	ug/L	0.215	0	67	136433	0
[	Zn	66	296.570	ug/L	1.611	0	288	710100	0
[	Zn	67	273.023	ug/L	3.257	1	44	109871	0
[	Zn	68	291.567	ug/L	2.344	0	283	505814	0
[	As	75	10.544	ug/L	0.162	1	246	22622	0
[	As-1	75	10.284	ug/L	0.240	2	10971	33308	0
[	Se	82	0.391	ug/L	0.026	6	0	91	5
[	Se	78	0.028	ug/L	0.333	1187	11110	11444	0
[	Mo	98	0.283	ug/L	0.016	5	46	1444	4
	Y	89		ug/L			416262	730790	1
	Kr	83		ug/L			531	713	3
[>	In	115		ug/L			1030601	1119180	1
[	Ag	107	0.252	ug/L	0.005	2	43	2932	2
[	Cd	111	5.208	ug/L	0.057	1	92	27395	1
[	Cd	114	5.111	ug/L	0.073	1	61	69140	0
[	Sb	121	0.553	ug/L	0.018	3	304	9260	3
[	Sb	123	0.540	ug/L	0.012	2	246	6902	2
[	Ba	135	170.343	ug/L	2.058	1	18	823493	0
[	Ba	137	170.278	ug/L	2.000	1	36	1449621	0
[>	Tb	159		ug/L			1247472	1332171	0
[	Tl	205	0.248	ug/L	0.001	0	176	10085	0
[	Pb	208	293.062	ug/L	2.252	0	302	15468339	0
[	Bi	209		ug/L			2786089	2806385	2
[	Th	232	2.827	ug/L	0.034	1	860	143826	0
[	U	238	5.035	ug/L	0.016	0	28	255605	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 14:37:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1424791	2
[	Be	9	0.547	ug/L	0.010	1	27	2318	0
	C	13		ug/L			110265	172713	0
	Cl	37		ug/L			4510739	4835546	2
[>	Sc	45		ug/L			1161996	1332345	2
[	V	51	18.221	ug/L	0.420	2	7869	470366	0
[	V-1	51	18.248	ug/L	0.379	2	69	462502	0
[	Cr	52	12.605	ug/L	0.261	2	23331	290885	1
[	Cr	53	12.714	ug/L	0.151	1	142	30355	1
[	Mn	55	764.631	ug/L	9.390	1	504	22104303	1
[	Co	59	4.373	ug/L	0.143	3	96	93257	1
[>	Ge	72		ug/L			655148	677650	2
[	Ni	60	10.330	ug/L	0.007	0	35	40597	2
[	Ni	62	10.640	ug/L	0.333	3	554	6481	0
[	Cu	63	34.049	ug/L	0.914	2	544	296587	0
[	Cu	65	33.768	ug/L	1.565	4	67	133676	2
[	Zn	66	296.715	ug/L	7.324	2	288	714102	1
[	Zn	67	276.273	ug/L	6.359	2	44	111757	1
[	Zn	68	290.279	ug/L	7.293	2	283	506168	1
[	As	75	10.332	ug/L	0.262	2	246	22287	0
[	As-1	75	10.057	ug/L	0.413	4	10971	32989	0
[	Se	82	0.379	ug/L	0.057	15	0	88	15
[	Se	78	-0.035	ug/L	0.569	1633	11110	11464	0
[	Mo	98	0.243	ug/L	0.007	2	46	1252	2
	Y	89		ug/L			416262	724019	1
	Kr	83		ug/L			531	725	5
[>	In	115		ug/L			1030601	1134058	0
[	Ag	107	0.239	ug/L	0.006	2	43	2827	2
[	Cd	111	5.183	ug/L	0.033	0	92	27629	0
[	Cd	114	5.015	ug/L	0.015	0	61	68753	0
[	Sb	121	0.479	ug/L	0.005	0	304	8180	0
[	Sb	123	0.480	ug/L	0.014	2	246	6240	2
[	Ba	135	164.603	ug/L	1.298	0	18	806395	0
[	Ba	137	162.826	ug/L	1.698	1	36	1404715	0
[>	Tb	159		ug/L			1247472	1342163	1
[	Tl	205	0.244	ug/L	0.002	0	176	9970	0
[	Pb	208	294.447	ug/L	2.728	0	302	15657235	0
[	Bi	209		ug/L			2786089	2809040	1
[	Th	232	2.838	ug/L	0.030	1	860	145451	0
[	U	238	4.925	ug/L	0.046	0	28	251871	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 14:42:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1440594	0
	Be	9	25.631	ug/L	0.410	1	27	108399	0
	C	13		ug/L			110265	173755	2
	Cl	37		ug/L			4510739	4859178	2
>	Sc	45		ug/L			1161996	1285557	0
	V	51	43.434	ug/L	0.335	0	7869	1070131	0
	V-1	51	43.321	ug/L	0.210	0	69	1059637	0
	Cr	52	36.639	ug/L	0.813	2	23331	766745	1
	Cr	53	36.274	ug/L	0.277	0	142	83286	1
	Mn	55	853.361	ug/L	14.317	1	504	23805806	1
	Co	59	28.421	ug/L	0.048	0	96	584441	0
>	Ge	72		ug/L			655148	686302	1
	Ni	60	35.758	ug/L	0.726	2	35	142218	0
	Ni	62	35.773	ug/L	0.645	1	554	20708	1
	Cu	63	58.747	ug/L	1.043	1	544	518014	0
	Cu	65	59.060	ug/L	0.782	1	67	236877	0
	Zn	66	369.907	ug/L	3.570	0	288	901842	0
	Zn	67	345.844	ug/L	4.391	1	44	141720	0
	Zn	68	361.795	ug/L	10.537	2	283	638993	1
	As	75	34.374	ug/L	0.628	1	246	74520	0
	As-1	75	35.007	ug/L	0.978	2	10971	87827	1
	Se	82	79.719	ug/L	1.586	1	0	18794	0
	Se	78	80.641	ug/L	2.705	3	11110	61558	1
	Mo	98	22.483	ug/L	0.396	1	46	112892	0
	Y	89		ug/L			416262	730338	2
	Kr	83		ug/L			531	715	2
>	In	115		ug/L			1030601	1138959	0
	Ag	107	22.196	ug/L	0.201	0	43	258926	1
	Cd	111	28.625	ug/L	0.206	0	92	152794	1
	Cd	114	28.229	ug/L	0.249	0	61	388338	0
	Sb	121	3.208	ug/L	0.009	0	304	53079	1
	Sb	123	3.167	ug/L	0.014	0	246	39858	0
	Ba	135	188.594	ug/L	0.711	0	18	927926	0
	Ba	137	188.616	ug/L	3.042	1	36	1634145	0
>	Tb	159		ug/L			1247472	1337830	1
	Tl	205	24.007	ug/L	0.450	1	176	960599	0
	Pb	208	319.325	ug/L	4.558	1	302	16924474	0
	Bi	209		ug/L			2786089	2811677	0
	Th	232	21.233	ug/L	0.100	0	860	1078754	1
	U	238	29.127	ug/L	0.220	0	28	1484760	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 B SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 14:47:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

V Cr Co

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1439015	0
[	Be	9	0.166	ug/L	0.008	5	27	732	4
	C	13		ug/L			110265	137693	1
	Cl	37		ug/L			4510739	4775877	2
[>	Sc	45		ug/L			1161996	1289655	0
[	V	51	14.758	ug/L	0.089	0	7869	370542	0
[	V-1	51	15.030	ug/L	0.380	2	69	368799	1
[	Cr	52	36.929	ug/L	0.468	1	23331	775145	1
[	Cr	53	37.796	ug/L	1.214	3	142	87033	2
[	Mn	55	203.295	ug/L	3.392	1	504	5689735	1
[	Co	59	4.120	ug/L	0.088	2	96	85089	1
[>	Ge	72		ug/L			655148	684479	0
[	Ni	60	9.792	ug/L	0.077	0	35	38873	0
[	Ni	62	10.034	ug/L	0.329	3	554	6210	3
[	Cu	63	4.914	ug/L	0.084	1	544	43744	1
[	Cu	65	5.055	ug/L	0.044	0	67	20286	0
[	Zn	66	51.916	ug/L	0.761	1	288	126506	1
[	Zn	67	57.855	ug/L	2.480	4	44	23683	4
[	Zn	68	56.793	ug/L	0.322	0	283	100309	0
[	As	75	2.619	ug/L	0.040	1	246	5901	1
[	As-1	75	2.354	ug/L	0.099	4	10971	16583	1
[	Se	82	0.015	ug/L	0.023	157	0	4	131
[	Se	78	-0.773	ug/L	0.256	33	11110	11129	1
[	Mo	98	0.086	ug/L	0.002	2	46	479	1
	Y	89		ug/L			416262	473862	0
	Kr	83		ug/L			531	599	3
[>	In	115		ug/L			1030601	1089939	1
[	Ag	107	0.046	ug/L	0.002	5	43	559	4
[	Cd	111	0.833	ug/L	0.014	1	92	4351	1
[	Cd	114	0.795	ug/L	0.032	4	61	10525	2
[	Sb	121	0.026	ug/L	0.003	10	304	737	4
[	Sb	123	0.025	ug/L	0.005	18	246	560	8
[	Ba	135	155.301	ug/L	3.666	2	18	731114	1
[	Ba	137	154.201	ug/L	1.662	1	36	1278460	0
[>	Tb	159		ug/L			1247472	1303295	0
[	Tl	205	0.130	ug/L	0.001	0	176	5262	0
[	Pb	208	30.705	ug/L	0.105	0	302	1585856	0
[	Bi	209		ug/L			2786089	2813230	0
[	Th	232	0.770	ug/L	0.010	1	860	38962	1
[	U	238	0.152	ug/L	0.002	1	28	7587	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 H SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 14:51:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1446845	1
[	Be	9	0.120	ug/L	0.006	4	27	541	3
	C	13		ug/L			110265	133374	1
	Cl	37		ug/L			4510739	4753551	0
[>	Sc	45		ug/L			1161996	1268959	1
[	V	51	9.883	ug/L	0.298	3	7869	246947	2
[	V-1	51	9.881	ug/L	0.269	2	69	238594	1
[	Cr	52	8.007	ug/L	0.325	4	23331	185278	2
[	Cr	53	8.008	ug/L	0.324	4	142	18265	3
[	Mn	55	119.773	ug/L	2.715	2	504	3298376	1
[	Co	59	2.231	ug/L	0.098	4	96	45371	3
[>	Ge	72		ug/L			655148	683892	1
[	Ni	60	4.786	ug/L	0.113	2	35	19002	3
[	Ni	62	4.416	ug/L	0.182	4	554	3054	2
[	Cu	63	7.857	ug/L	0.134	1	544	69541	2
[	Cu	65	7.809	ug/L	0.193	2	67	31267	1
[	Zn	66	56.851	ug/L	1.250	2	288	138345	0
[	Zn	67	53.587	ug/L	2.378	4	44	21911	2
[	Zn	68	54.988	ug/L	1.558	2	283	97031	2
[	As	75	6.048	ug/L	0.109	1	246	13277	1
[	As-1	75	5.759	ug/L	0.159	2	10971	23966	1
[	Se	82	0.113	ug/L	0.006	5	0	27	4
[	Se	78	-0.687	ug/L	0.285	41	11110	11171	0
[	Mo	98	0.077	ug/L	0.006	7	46	436	8
	Y	89		ug/L			416262	474978	1
	Kr	83		ug/L			531	569	1
[>	In	115		ug/L			1030601	1104977	0
[	Ag	107	0.098	ug/L	0.006	5	43	1154	6
[	Cd	111	1.345	ug/L	0.042	3	92	7060	2
[	Cd	114	1.300	ug/L	0.032	2	61	17411	2
[	Sb	121	0.078	ug/L	0.006	7	304	1565	5
[	Sb	123	0.072	ug/L	0.003	3	246	1134	2
[	Ba	135	36.283	ug/L	0.871	2	18	173213	2
[	Ba	137	35.829	ug/L	0.550	1	36	301212	1
[>	Tb	159		ug/L			1247472	1305732	0
[	Tl	205	0.110	ug/L	0.001	0	176	4463	1
[	Pb	208	69.570	ug/L	1.954	2	302	3598912	2
[	Bi	209		ug/L			2786089	2890770	1
[	Th	232	0.997	ug/L	0.038	3	860	50304	3
[	U	238	0.148	ug/L	0.005	3	28	7411	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 14:55:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1394571 ✓	1
[	Be	9	52.948	ug/L	1.314	2	27	216719	1
	C	13		ug/L			110265	122341	1
	Cl	37		ug/L			4510739	4856450	2
[>	Sc	45		ug/L			1161996	1209255 ✓	2
[	V	51	50.462	ug/L	1.144	2	7869	1167878	1
[	V-1	51	50.572	ug/L	1.436	2	69	1163059	1
[	Cr	52	51.174	ug/L	1.243	2	23331	997428	0
[	Cr	53	51.549	ug/L	2.627	5	142	111168	2
[	Mn	55	50.444	ug/L	1.898	3	504	1323431	1
[	Co	59	49.650	ug/L	1.722	3	96	959775	1
[>	Ge	72		ug/L			655148	662072 ✓	1
[	Ni	60	53.488	ug/L	1.867	3	35	205162	2
[	Ni	62	51.725	ug/L	0.904	1	554	28633	0
[	Cu	63	52.927	ug/L	1.451	2	544	450201	1
[	Cu	65	52.537	ug/L	1.576	2	67	203239	1
[	Zn	66	52.330	ug/L	1.161	2	288	123307	0
[	Zn	67	52.777	ug/L	0.618	1	44	20900	0
[	Zn	68	53.638	ug/L	0.811	1	283	91636	0
[	As	75	52.254	ug/L	1.240	2	246	109146	1
[	As-1	75	52.418	ug/L	1.205	2	10971	121353	1
[	Se	82	52.396	ug/L	1.402	2	0	11915	1
[	Se	78	52.972	ug/L	1.245	2	11110	42862	0
[	Mo	98	52.194	ug/L	0.518	0	46	252790	1
	Y	89		ug/L			416262	419588	0
	Kr	83		ug/L			531	550	2
[>	In	115		ug/L			1030601	1060298 ✓	1
[	Ag	107	54.624	ug/L	1.687	3	43	593032	2
[	Cd	111	51.504	ug/L	0.278	0	92	255865	1
[	Cd	114	51.113	ug/L	0.261	0	61	654529	0
[	Sb	121	50.428	ug/L	0.655	1	304	772184	0
[	Sb	123	51.007	ug/L	1.116	2	246	593665	1
[	Ba	135	49.970	ug/L	0.222	0	18	228895	0
[	Ba	137	49.433	ug/L	0.609	1	36	398728	0
[>	Tb	159		ug/L			1247472	1278212 ✓	0
[	Tl	205	50.757	ug/L	0.900	1	176	1940358	1
[	Pb	208	50.828	ug/L	0.576	1	302	2574296	0
[	Bi	209		ug/L			2786089	2766629	0
[	Th	232	51.432	ug/L	0.143	0	860	2495215	0
[	U	238	52.687	ug/L	0.615	1	28	2565980	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 15:02:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1427564	0
	Be	9	-0.002	ug/L	0.001	78	27	22	26
	C	13		ug/L			110265	126565	0
	Cl	37		ug/L			4510739	4855732	0
>	Sc	45		ug/L			1161996	1210855	1
	V	51	0.024	ug/L	0.011	45	7869	8744	1
	V-1	51	0.003	ug/L	0.001	22	69	131	10
	Cr	52	0.080	ug/L	0.042	52	23331	25830	1
	Cr	53	0.008	ug/L	0.006	76	142	164	6
	Mn	55	0.000	ug/L	0.002	693	504	532	8
	Co	59	-0.000	ug/L	0.001	214	96	92	19
>	Ge	72		ug/L			655148	667302	1
	Ni	60	0.000	ug/L	0.002	768	35	37	20
	Ni	62	-0.691	ug/L	0.028	4	554	186	8
	Cu	63	-0.037	ug/L	0.001	3	544	237	5
	Cu	65	-0.003	ug/L	0.002	57	67	58	9
	Zn	66	0.006	ug/L	0.006	94	288	307	4
	Zn	67	0.004	ug/L	0.004	100	44	46	3
	Zn	68	-0.012	ug/L	0.010	84	283	268	7
	As	75	0.009	ug/L	0.014	154	246	270	10
	As-1	75	-0.055	ug/L	0.072	131	10971	11057	0
	Se	82	0.053	ug/L	0.074	138	0	12	132
	Se	78	-0.184	ug/L	0.237	128	11110	11204	0
	Mo	98	0.007	ug/L	0.002	32	46	83	12
	Y	89		ug/L			416262	421326	0
	Kr	83		ug/L			531	533	8
>	In	115		ug/L			1030601	1074289	0
	Ag	107	-0.001	ug/L	0.001	41	43	29	22
	Cd	111	-0.001	ug/L	0.003	270	92	91	15
	Cd	114	-0.001	ug/L	0.001	39	61	47	15
	Sb	121	0.054	ug/L	0.005	10	304	1150	6
	Sb	123	0.050	ug/L	0.006	11	246	849	7
	Ba	135	0.002	ug/L	0.002	116	18	29	39
	Ba	137	0.001	ug/L	0.001	96	36	47	19
>	Tb	159		ug/L			1247472	1273742	0
	Tl	205	0.005	ug/L	0.003	48	176	384	25
	Pb	208	0.001	ug/L	0.002	139	302	382	26
	Bi	209		ug/L			2786089	2864406	0
	Th	232	0.104	ug/L	0.007	7	860	5904	6
	U	238	0.002	ug/L	0.000	12	28	135	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 MB2 RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 15:07:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1546934	0
[	Be	9	0.006	ug/L	0.002	31	27	60	15
	C	13		ug/L			110265	134114	1
	Cl	37		ug/L			4510739	4782553	3
[>	Sc	45		ug/L			1161996	1345273	2
|	V	51	0.290	ug/L	0.019	6	7869	16526	1
|	V-1	51	0.262	ug/L	0.004	1	69	6779	0
|	Cr	52	0.468	ug/L	0.061	13	23331	36906	1
|	Cr	53	0.371	ug/L	0.013	3	142	1053	1
|	Mn	55	0.333	ug/L	0.004	1	504	10315	1
[	Co	59	0.015	ug/L	0.001	4	96	432	5
[>	Ge	72		ug/L			655148	719074	1
|	Ni	60	0.192	ug/L	0.007	3	35	837	1
|	Ni	62	-0.589	ug/L	0.013	2	554	261	3
|	Cu	63	0.295	ug/L	0.009	3	544	3317	0
|	Cu	65	0.341	ug/L	0.014	4	67	1505	2
|	Zn	66	1.518	ug/L	0.018	1	288	4192	2
|	Zn	67	1.548	ug/L	0.028	1	44	713	2
|	Zn	68	1.521	ug/L	0.013	0	283	3124	1
|	As	75	0.020	ug/L	0.006	28	246	315	5
|	As-1	75	-0.067	ug/L	0.143	214	10971	11886	1
|	Se	82	0.019	ug/L	0.045	229	0	5	201
|	Se	78	-0.307	ug/L	0.501	163	11110	11991	1
[	Mo	98	0.008	ug/L	0.002	32	46	91	15
	Y	89		ug/L			416262	468449	0
	Kr	83		ug/L			531	564	5
[>	In	115		ug/L			1030601	1160737	1
|	Ag	107	-0.001	ug/L	0.001	72	43	38	16
|	Cd	111	0.000	ug/L	0.001	432	92	106	8
|	Cd	114	-0.001	ug/L	0.000	42	61	56	9
|	Sb	121	0.025	ug/L	0.003	12	304	761	8
|	Sb	123	0.026	ug/L	0.002	8	246	608	6
|	Ba	135	1.368	ug/L	0.032	2	18	6880	1
[	Ba	137	1.347	ug/L	0.019	1	36	11932	1
[>	Tb	159		ug/L			1247472	1375752	0
|	Tl	205	0.020	ug/L	0.005	27	176	1018	22
|	Pb	208	0.223	ug/L	0.004	1	302	12506	1
|	Bi	209		ug/L			2786089	2905720	0
|	Th	232	0.251	ug/L	0.108	42	860	14044	39
[	U	238	0.011	ug/L	0.001	5	28	618	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 MB2SPK RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 15:12:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1287485	1502141	1
[	**Be**	**9**	**21.526**	ug/L	0.657	3	27	94917	1
	C	**13**		ug/L			110265	130488	1
	Cl	**37**		ug/L			4510739	4895445	2
[>	**Sc**	**45**		ug/L			1161996	1340411 ✓	4
[	**V**	**51**	**25.379**	ug/L	1.273	5	7869	654851	1
[	**V-1**	**51**	**25.264**	ug/L	1.398	5	69	643325	1
[	**Cr**	**52**	**26.287**	ug/L	0.976	3	23331	580645	0
[	**Cr**	**53**	**25.891**	ug/L	1.456	5	142	61926	1
[	**Mn**	**55**	**25.945**	ug/L	1.705	6	504	753860	2
[	**Co**	**59**	**25.220**	ug/L	0.861	3	96	540217	1
[>	**Ge**	**72**		ug/L			655148	707742	2
[	**Ni**	**60**	**27.412**	ug/L	1.057	3	35	112380	1
[	**Ni**	**62**	**27.485**	ug/L	0.529	1	554	16544	1
[	**Cu**	**63**	**28.403**	ug/L	1.148	4	544	258430	1
[	**Cu**	**65**	**28.147**	ug/L	0.725	2	67	116418	1
[	**Zn**	**66**	**70.414**	ug/L	3.679	5	288	177138	2
[	**Zn**	**67**	**65.155**	ug/L	2.162	3	44	27560	1
[	**Zn**	**68**	**70.248**	ug/L	2.290	3	283	128149	1
[	**As**	**75**	**21.630**	ug/L	0.822	3	246	48430	1
[	**As-1**	**75**	**22.315**	ug/L	1.223	5	10971	61994	1
[	**Se**	**82**	**59.473**	ug/L	1.978	3	0	14452	0
[	**Se**	**78**	**60.604**	ug/L	3.216	5	11110	50663	1
[	**Mo**	**98**	**0.013**	ug/L	0.002	17	46	116	9
	Y	**89**		ug/L			416262	466943	0
	Kr	**83**		ug/L			531	555	5
[>	**In**	**115**		ug/L			1030601	1164627	1
[	**Ag**	**107**	**25.676**	ug/L	0.505	1	43	306208	0
[	**Cd**	**111**	**21.791**	ug/L	0.241	1	92	118947	0
[	**Cd**	**114**	**21.376**	ug/L	0.271	1	61	300683	0
[	**Sb**	**121**	**0.011**	ug/L	0.004	35	304	531	13
[	**Sb**	**123**	**0.009**	ug/L	0.004	50	246	391	15
[	**Ba**	**135**	**26.365**	ug/L	0.591	2	18	132638	0
[	**Ba**	**137**	**25.634**	ug/L	0.655	2	36	227090	1
[>	**Tb**	**159**		ug/L			1247472	1381002	0
[	**Tl**	**205**	**25.450**	ug/L	0.413	1	176	1051284	1
[	**Pb**	**208**	**25.764**	ug/L	0.298	1	302	1409959	0
[	**Bi**	**209**		ug/L			2786089	2892216	2
[	**Th**	**232**	**24.606**	ug/L	0.439	1	860	1290127	1
[	**U**	**238**	**25.209**	ug/L	0.537	2	28	1326433	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 J SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 15:16:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

V Cr Co Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1445812	1
[	Be	9	0.146	ug/L	0.011	7	27	649	5
	C	13		ug/L			110265	131782	2
	Cl	37		ug/L			4510739	4755590	3
[>	Sc	45		ug/L			1161996	1292018 ✓	1
[	V	51	15.182	ug/L	0.326	2	7869	381571	0
[	V-1	51	15.153	ug/L	0.304	2	69	372460	0
[	Cr	52	32.242	ug/L	0.432	1	23331	681293	1
[	Cr	53	32.094	ug/L	0.165	0	142	74072	1
[	Mn	55	219.894	ug/L	3.680	1	504	6164963	0
[	Co	59	4.384	ug/L	0.027	0	96	90693	1
[>	Ge	72		ug/L			655148	681685 ✓	0
[	Ni	60	18.257	ug/L	0.311	1	35	72148	1
[	Ni	62	18.565	ug/L	0.194	1	554	10952	1
[	Cu	63	13.680	ug/L	0.308	2	544	120253	1
[	Cu	65	13.778	ug/L	0.227	1	67	54941	1
[	Zn	66	163.349	ug/L	5.150	3	288	395684	2
[	Zn	67	156.309	ug/L	2.194	1	44	63646	0
[	Zn	68	162.497	ug/L	4.622	2	283	285237	1
[	As	75	8.638	ug/L	0.200	2	246	18793	1
[	As-1	75	8.336	ug/L	0.234	2	10971	29471	1
[	Se	82	0.098	ug/L	0.063	63	0	23	62
[	Se	78	-0.628	ug/L	0.176	28	11110	11173	0
[	Mo	98	0.103	ug/L	0.007	7	46	560	5
	Y	89		ug/L			416262	478400	0
	Kr	83		ug/L			531	597	4
[>	In	115		ug/L			1030601	1111274	0
[	Ag	107	0.226	ug/L	0.020	8	43	2615	8
[	Cd	111	3.253	ug/L	0.026	0	92	17031	0
[	Cd	114	3.167	ug/L	0.045	1	61	42571	1
[	Sb	121	0.069	ug/L	0.007	10	304	1433	8
[	Sb	123	0.064	ug/L	0.005	7	246	1050	5
[	Ba	135	106.902	ug/L	1.420	1	18	513193	1
[	Ba	137	105.197	ug/L	1.345	1	36	889272	0
[>	Tb	159		ug/L			1247472	1308178 ✓	1
[	Tl	205	0.232	ug/L	0.007	3	176	9266	3
[	Pb	208	188.996	ug/L	2.658	1	302	9795048	0
[	Bi	209		ug/L			2786089	2852857	0
[	Th	232	1.002	ug/L	0.010	1	860	50614	0
[	U	238	0.150	ug/L	0.003	2	28	7513	2

ICP-MS Quantitative Analysis - Summary Report

Del

Sample ID: VS18 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 15:20:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1439966	0
[	Be	9	0.717	ug/L	0.016	2	27	3061	2
	C	13		ug/L			110265	163685	2
	Cl	37		ug/L			4510739	4987131	0
[>	Sc	45		ug/L			1161996	1476214	1
[	V	51	65.498	ug/L	0.961	1	7869	1847884	0
[	V-1	51	64.911	ug/L	1.144	1	69	1822868	0
[	Cr	52	140.777	ug/L	1.867	1	23331	3298739	0
[	Cr	53	138.569	ug/L	2.896	2	142	364757	0
[	Mn	55	941.922	ug/L	23.579	2	504	30169420	1
[	Co	59	18.605	ug/L	0.479	2	96	439279	1
[>	Ge	72		ug/L			655148	648728	1
[	Ni	60	90.482	ug/L	1.669	1	35	340150	2
[	Ni	62	96.497	ug/L	0.911	0	554	51872	1
[	Cu	63	66.189	ug/L	2.269	3	544	551617	3
[	Cu	65	66.964	ug/L	1.526	2	67	253827	0
[	Zn	66	805.326	ug/L	17.931	2	288	1855334	1
[	Zn	67	742.032	ug/L	13.595	1	44	287336	0
[	Zn	68	787.262	ug/L	9.546	1	283	1314117	1
[	As	75	42.534	ug/L	0.815	1	246	87101	1
[	As-1	75	41.976	ug/L	0.861	2	10971	97385	1
[	Se	82	0.207	ug/L	0.056	27	0	46	27
[	Se	78	0.221	ug/L	0.229	103	11110	11129	0
[	Mo	98	0.537	ug/L	0.014	2	46	2596	2
	Y	89		ug/L			416262	659778	1
	Kr	83		ug/L			531	963	2
[>	In	115		ug/L			1030601	1124239	0
[	Ag	107	0.969	ug/L	0.016	1	43	11200	1
[	Cd	111	14.593	ug/L	0.079	0	92	76935	0
[	Cd	114	14.290	ug/L	0.126	0	61	194076	0
[	Sb	121	0.336	ug/L	0.003	0	304	5782	0
[	Sb	123	0.327	ug/L	0.005	1	246	4301	1
[	Ba	135	521.879	ug/L	7.892	1	18	2534633	1
[	Ba	137	515.622	ug/L	4.388	0	36	4409708	0
[>	Tb	159		ug/L			1247472	1293200	1
[	Tl	205	1.134	ug/L	0.015	1	176	44036	0
[	Pb	208	890.011	ug/L	14.845	1	302	45596823	0
[	Bi	209		ug/L			2786089	2663688	1
[	Th	232	4.914	ug/L	0.079	1	860	241975	0
[	U	238	0.727	ug/L	0.014	1	28	35827	1

ICP-MS Quantitative Analysis - Summary Report

Pb Zn

Sample ID: VS18 K SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 15:24:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1495376	1
[	Be	9	0.114	ug/L	0.006	4	27	533	3
	C	13		ug/L			110265	138909	1
	Cl	37		ug/L			4510739	4874311	2
[>	Sc	45		ug/L			1161996	1275824	1
[	V	51	8.329	ug/L	0.097	1	7869	210637	0
[	V-1	51	8.280	ug/L	0.045	0	69	201055	0
[	Cr	52	9.728	ug/L	0.256	2	23331	220829	1
[	Cr	53	9.557	ug/L	0.090	0	142	21889	0
[	Mn	55	326.703	ug/L	9.918	3	504	9043528	1
[	Co	59	2.183	ug/L	0.043	1	96	44644	0
[>	Ge	72		ug/L			655148	695875 ✓	0
[	Ni	60	4.442	ug/L	0.070	1	35	17948	1
[	Ni	62	4.128	ug/L	0.161	3	554	2944	3
[	Cu	63	6.773	ug/L	0.094	1	544	61074	1
[	Cu	65	6.884	ug/L	0.064	0	67	28061	0
[	Zn	66	167.121	ug/L	1.644	0	288	413318	0
[	Zn	67	156.741	ug/L	3.114	1	44	65153	1
[	Zn	68	168.584	ug/L	1.059	0	283	302126	0
[	As	75	6.068	ug/L	0.029	0	246	13556	0
[	As-1	75	5.680	ug/L	0.042	0	10971	24213	0
[	Se	82	0.093	ug/L	0.021	22	0	22	22
[	Se	78	-1.075	ug/L	0.082	7	11110	11126	0
[	Mo	98	0.095	ug/L	0.002	1	46	531	1
	Y	89		ug/L			416262	454227	1
	Kr	83		ug/L			531	566	3
[>	In	115		ug/L			1030601	1137803	0
[	Ag	107	0.102	ug/L	0.005	4	43	1237	5
[	Cd	111	5.328	ug/L	0.122	2	92	28491	1
[	Cd	114	5.162	ug/L	0.016	0	61	70993	0
[	Sb	121	0.081	ug/L	0.003	4	304	1660	2
[	Sb	123	0.084	ug/L	0.004	4	246	1316	2
[	Ba	135	134.887	ug/L	0.492	0	18	663000	0
[	Ba	137	133.349	ug/L	2.103	1	36	1154122	0
[>	Tb	159		ug/L			1247472	1308521 ✓	1
[	Tl	205	0.190	ug/L	0.004	2	176	7618	1
[	Pb	208	210.407	ug/L	4.442	2	302	10906741	0
[	Bi	209		ug/L			2786089	2893818	0
[	Th	232	0.807	ug/L	0.004	0	860	40969	1
[	U	238	0.122	ug/L	0.001	0	28	6108	0

VS19 : 00277

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 K SWN

Del

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, November 23, 2012 15:28:31

Number of Replicates: 3

Method File: C:\NexION Data\Method\200.8nomin.mth

Tuning File: C:\NexION Data\MassCal\Default.tun

Optimization File: C:\NexION Data\Conditions\Default.dac

Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1432417	2
[	Be	9	0.599	ug/L	0.044	7	27	2545	4
	C	13		ug/L			110265	176311	2
	Cl	37		ug/L			4510739	4916608	3
[>	Sc	45		ug/L			1161996	1340831	1
[	V	51	38.552	ug/L	0.779	2	7869	991495	0
[	V-1	51	38.745	ug/L	1.041	2	69	988112	0
[	Cr	52	44.267	ug/L	0.668	1	23331	960571	1
[	Cr	53	44.909	ug/L	1.318	2	142	107462	0
[	Mn	55	1495.899	ug/L	28.215	1	504	43519288	1
[	Co	59	10.280	ug/L	0.209	2	96	220499	0
[>	Ge	72		ug/L			655148	659494	0
[	Ni	60	22.416	ug/L	0.226	1	35	85699	1
[	Ni	62	24.081	ug/L	0.667	2	554	13577	1
[	Cu	63	34.330	ug/L	0.723	2	544	291123	1
[	Cu	65	33.776	ug/L	0.259	0	67	130215	0
[	Zn	66	807.247	ug/L	11.842	1	288	1890903	1
[	Zn	67	768.854	ug/L	6.225	0	44	302707	0
[	Zn	68	808.675	ug/L	18.714	2	283	1372255	1
[	As	75	30.233	ug/L	0.404	1	246	63015	0
[	As-1	75	29.822	ug/L	0.472	1	10971	73540	0
[	Se	82	0.173	ug/L	0.107	62	0	39	61
[	Se	78	0.111	ug/L	0.276	248	11110	11248	0
[	Mo	98	0.488	ug/L	0.018	3	46	2399	4
	Y	89		ug/L			416262	568484	0
	Kr	83		ug/L			531	833	0
[>	In	115		ug/L			1030601	1152022	1
[	Ag	107	0.474	ug/L	0.003	0	43	5637	1
[	Cd	111	24.380	ug/L	0.417	1	92	131617	0
[	Cd	114	23.670	ug/L	0.476	2	61	329307	0
[	Sb	121	0.442	ug/L	0.007	1	304	7697	3
[	Sb	123	0.434	ug/L	0.004	0	246	5765	0
[	Ba	135	665.635	ug/L	22.009	3	18	3311512	1
[	Ba	137	657.554	ug/L	6.418	0	36	5762006	0
[>	Tb	159		ug/L			1247472	1299421	2
[	Tl	205	0.926	ug/L	0.015	1	176	36154	0
[	Pb	208	995.433	ug/L	21.054	2	302	51234895	0
[	Bi	209		ug/L			2786089	2758770	1
[	Th	232	3.872	ug/L	0.056	1	860	191780	0
[	U	238	0.592	ug/L	0.012	1	28	29339	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 L SWN
Sample Dil Factor: 100
Comments:

Cr Zn

Sample Date/Time: Friday, November 23, 2012 15:33:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1465782	1
[	Be	9	0.351	ug/L	0.012	3	27	1538	1
	C	13		ug/L			110265	137688	2
	Cl	37		ug/L			4510739	4888080	1
[>	Sc	45		ug/L			1161996	1267330	0
[	V	51	16.419	ug/L	0.737	4	7869	404102	4
[	V-1	51	16.229	ug/L	0.170	1	69	391398	1
[	Cr	52	97.376	ug/L	1.808	1	23331	1966844	1
[	Cr	53	96.510	ug/L	1.278	1	142	218190	1
[	Mn	55	196.257	ug/L	3.251	1	504	5397858	1
[	Co	59	5.782	ug/L	0.030	0	96	117293	0
[>	Ge	72		ug/L			655148	670298	1
[	Ni	60	40.822	ug/L	0.677	1	35	158585	1
[	Ni	62	39.249	ug/L	0.605	1	554	22138	1
[	Cu	63	11.755	ug/L	0.192	1	544	101679	0
[	Cu	65	11.996	ug/L	0.047	0	67	47050	0
[	Zn	66	74.247	ug/L	2.466	3	288	176996	2
[	Zn	67	105.181	ug/L	0.911	0	44	42128	0
[	Zn	68	99.592	ug/L	0.745	0	283	172049	1
[	As	75	2.391	ug/L	0.043	1	246	5296	0
[	As-1	75	2.106	ug/L	0.089	4	10971	15710	0
[	Se	82	0.108	ug/L	0.056	52	0	25	50
[	Se	78	-0.753	ug/L	0.197	26	11110	10911	0
[	Mo	98	0.121	ug/L	0.002	2	46	641	1
	Y	89		ug/L			416262	525454	0
	Kr	83		ug/L			531	592	7
[>	In	115		ug/L			1030601	1075896	0
[	Ag	107	0.110	ug/L	0.006	5	43	1253	4
[	Cd	111	1.124	ug/L	0.008	0	92	5760	0
[	Cd	114	1.128	ug/L	0.018	1	61	14718	1
[	Sb	121	-0.000	ug/L	0.002	469	304	311	9
[	Sb	123	-0.002	ug/L	0.002	118	246	236	9
[	Ba	135	593.176	ug/L	3.903	0	18	2756983	0
[	Ba	137	581.390	ug/L	3.509	0	36	4758444	0
[>	Tb	159		ug/L			1247472	1311104	0
[	Tl	205	0.207	ug/L	0.003	1	176	8318	0
[	Pb	208	52.379	ug/L	0.655	1	302	2721067	0
[	Bi	209		ug/L			2786089	2782542	0
[	Th	232	2.181	ug/L	0.047	2	860	109374	1
[	U	238	0.146	ug/L	0.003	1	28	7313	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 15:37:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1435736	1
[	Be	9	1.579	ug/L	0.025	1	27	6681	0
	C	13		ug/L			110265	160442	2
	Cl	37		ug/L			4510739	5057712	2
[>	Sc	45		ug/L			1161996	1333270	1
[	V	51	73.543	ug/L	5.096	6	7869	1871680	5
[	V-1	51	73.380	ug/L	0.755	1	69	1861214	1
[	Cr	52	431.289	ug/L	17.863	4	23331	9068873	2
[	Cr	53	429.759	ug/L	4.886	1	142	1021435	0
[	Mn	55	866.634	ug/L	26.932	3	504	25065792	1
[	Co	59	26.080	ug/L	0.257	0	96	556156	1
[>	Ge	72		ug/L			655148	629813	0
[	Ni	60	195.307	ug/L	3.154	1	35	712743	0
[	Ni	62	192.959	ug/L	4.032	2	554	100165	1
[	Cu	63	55.072	ug/L	0.188	0	544	445729	0
[	Cu	65	55.959	ug/L	1.924	3	67	205956	2
[	Zn	66	345.333	ug/L	1.707	0	288	772723	1
[	Zn	67	475.677	ug/L	1.255	0	44	178877	0
[	Zn	68	440.655	ug/L	4.125	0	283	714302	1
[	As	75	11.411	ug/L	0.128	1	246	22862	0
[	As-1	75	11.124	ug/L	0.145	1	10971	32810	0
[	Se	82	0.270	ug/L	0.093	34	0	58	34
[	Se	78	0.319	ug/L	0.139	43	11110	10861	0
[	Mo	98	0.596	ug/L	0.023	3	46	2789	4
	Y	89		ug/L			416262	885056	0
	Kr	83		ug/L			531	1009	0
[>	In	115		ug/L			1030601	1041758	0
[	Ag	107	0.523	ug/L	0.015	2	43	5619	2
[	Cd	111	5.235	ug/L	0.128	2	92	25633	1
[	Cd	114	4.952	ug/L	0.020	0	61	62363	0
[	Sb	121	0.039	ug/L	0.004	11	304	888	6
[	Sb	123	0.037	ug/L	0.001	3	246	668	1
[	Ba	135	2765.620	ug/L	15.762	0	18	12445979	0
[	Ba	137	2731.017	ug/L	25.718	0	36	21642164	0
[>	Tb	159		ug/L			1247472	1312049	1
[	Tl	205	0.931	ug/L	0.022	2	176	36700	0
[	Pb	208	234.460	ug/L	3.323	1	302	12186793	0
[	Bi	209		ug/L			2786089	2398858	1
[	Th	232	9.644	ug/L	0.107	1	860	480923	0
[	U	238	0.657	ug/L	0.010	1	28	32859	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 I SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 15:41:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1287485	1471869	1
[	**Be**	**9**	**0.094**	ug/L	0.010	10	27	435	8
	C	**13**		ug/L			110265	145640	1
	Cl	**37**		ug/L			4510739	4971955	2
[>	**Sc**	**45**		ug/L			1161996	1268729	1
[	**V**	**51**	**5.249**	ug/L	0.052	0	7869	135188	0
[	**V-1**	**51**	**5.264**	ug/L	0.117	2	69	127117	1
[	**Cr**	**52**	**4.198**	ug/L	0.175	4	23331	109294	4
[	**Cr**	**53**	**4.252**	ug/L	0.111	2	142	9769	1
[	**Mn**	**55**	**188.808**	ug/L	3.645	1	504	5199344	2
[	**Co**	**59**	**1.469**	ug/L	0.027	1	96	29914	0
[>	**Ge**	**72**		ug/L			655148	672065	2
[	**Ni**	**60**	**3.726**	ug/L	0.144	3	35	14536	1
[	**Ni**	**62**	**3.271**	ug/L	0.057	1	554	2370	2
[	**Cu**	**63**	**8.445**	ug/L	0.358	4	544	73373	3
[	**Cu**	**65**	**8.247**	ug/L	0.329	3	67	32433	2
[	**Zn**	**66**	**246.511**	ug/L	10.312	4	288	588194	1
[	**Zn**	**67**	**223.938**	ug/L	3.928	1	44	89857	1
[	**Zn**	**68**	**238.781**	ug/L	6.306	2	283	412956	0
[	**As**	**75**	**5.568**	ug/L	0.210	3	246	12025	0
[	**As-1**	**75**	**5.308**	ug/L	0.357	6	10971	22576	0
[	**Se**	**82**	**0.130**	ug/L	0.019	14	0	30	13
[	**Se**	**78**	**-0.590**	ug/L	0.546	92	11110	11032	0
[	**Mo**	**98**	**0.107**	ug/L	0.004	3	46	574	2
	Y	**89**		ug/L			416262	459888	1
	Kr	**83**		ug/L			531	557	1
[>	**In**	**115**		ug/L			1030601	1146840	2
[	**Ag**	**107**	**0.268**	ug/L	0.019	7	43	3194	4
[	**Cd**	**111**	**4.355**	ug/L	0.101	2	92	23486	0
[	**Cd**	**114**	**4.174**	ug/L	0.183	4	61	57842	2
[	**Sb**	**121**	**0.291**	ug/L	0.015	5	304	5158	3
[	**Sb**	**123**	**0.289**	ug/L	0.013	4	246	3913	3
[	**Ba**	**135**	**52.317**	ug/L	2.102	4	18	259056	1
[	**Ba**	**137**	**52.061**	ug/L	1.458	2	36	454041	0
[>	**Tb**	**159**		ug/L			1247472	1295918	1
[	**Tl**	**205**	**0.195**	ug/L	0.003	1	176	7746	2
[	**Pb**	**208**	**251.710**	ug/L	4.750	1	302	12922458	0
[	**Bi**	**209**		ug/L			2786089	2889860	2
[	**Th**	**232**	**0.941**	ug/L	0.009	0	860	47148	0
[	**U**	**238**	**0.142**	ug/L	0.003	2	28	7022	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 B RHN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 15:46:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1287485	1381622	1
[	**Be**	**9**	**0.000**	ug/L	0.002	441	27	30	24
	C	**13**		ug/L			110265	122761	1
	Cl	**37**		ug/L			4510739	4647522	3
[>	**Sc**	**45**		ug/L			1161996	1231312	0
[	**V**	**51**	**0.327**	ug/L	0.009	2	7869	15985	1
[	**V-1**	**51**	**0.332**	ug/L	0.009	2	69	7841	2
[	**Cr**	**52**	**0.110**	ug/L	0.027	24	23331	26858	1
[	**Cr**	**53**	**0.128**	ug/L	0.025	19	142	430	12
[	**Mn**	**55**	**24.429**	ug/L	0.238	0	504	653301	1
[	**Co**	**59**	**0.385**	ug/L	0.001	0	96	7685	0
[>	**Ge**	**72**		ug/L			655148	683048	0
[	**Ni**	**60**	**1.055**	ug/L	0.031	2	35	4213	2
[	**Ni**	**62**	**0.182**	ug/L	0.073	39	554	680	5
[	**Cu**	**63**	**1.375**	ug/L	0.007	0	544	12623	0
[	**Cu**	**65**	**1.406**	ug/L	0.009	0	67	5681	0
[	**Zn**	**66**	**135.160**	ug/L	1.583	1	288	328174	1
[	**Zn**	**67**	**120.416**	ug/L	2.030	1	44	49140	1
[	**Zn**	**68**	**128.389**	ug/L	0.556	0	283	225913	0
[	**As**	**75**	**0.330**	ug/L	0.013	3	246	966	2
[	**As-1**	**75**	**0.150**	ug/L	0.024	16	10971	11764	1
[	**Se**	**82**	**0.059**	ug/L	0.056	94	0	14	90
[	**Se**	**78**	**-0.540**	ug/L	0.104	19	11110	11250	1
[	**Mo**	**98**	**0.161**	ug/L	0.005	3	46	853	3
	Y	**89**		ug/L			416262	430770	0
	Kr	**83**		ug/L			531	572	3
[>	**In**	**115**		ug/L			1030601	1086259	0
[	**Ag**	**107**	**-0.001**	ug/L	0.001	94	43	38	18
[	**Cd**	**111**	**0.600**	ug/L	0.023	3	92	3150	3
[	**Cd**	**114**	**0.598**	ug/L	0.001	0	61	7907	0
[	**Sb**	**121**	**-0.004**	ug/L	0.002	47	304	259	11
[	**Sb**	**123**	**-0.006**	ug/L	0.001	23	246	188	8
[	**Ba**	**135**	**5.149**	ug/L	0.333	6	18	24182	6
[	**Ba**	**137**	**5.051**	ug/L	0.299	5	36	41778	5
[>	**Tb**	**159**		ug/L			1247472	1295560	0
[	**Tl**	**205**	**0.002**	ug/L	0.000	5	176	274	1
[	**Pb**	**208**	**0.178**	ug/L	0.158	88	302	9450	86
[	**Bi**	**209**		ug/L			2786089	2869886	0
[	**Th**	**232**	**0.001**	ug/L	0.001	87	860	966	6
[	**U**	**238**	**0.031**	ug/L	0.001	1	28	1536	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 15:50:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1349528 ✓	0
	Be	9	52.031	ug/L	0.653	1	27	206137	1
	C	13		ug/L			110265	124777	2
	Cl	37		ug/L			4510739	4761562	2
>	Sc	45		ug/L			1161996	1178168 ✓	1
	V	51	50.569	ug/L	0.817	1	7869	1140666	2
	V-1	51	50.643	ug/L	0.611	1	69	1135227	1
	Cr	52	51.042	ug/L	0.687	1	23331	969817	2
	Cr	53	51.296	ug/L	1.406	2	142	107849	1
	Mn	55	50.968	ug/L	0.635	1	504	1303532	0
	Co	59	50.234	ug/L	0.668	1	96	946569	1
>	Ge	72		ug/L			655148	657237 ✓	1
	Ni	60	51.513	ug/L	1.158	2	35	196177	1
	Ni	62	50.224	ug/L	0.553	1	554	27623	2
	Cu	63	52.457	ug/L	0.952	1	544	442989	0
	Cu	65	51.272	ug/L	0.916	1	67	196931	1
	Zn	66	52.302	ug/L	1.048	2	288	122344	0
	Zn	67	52.278	ug/L	1.668	3	44	20547	1
	Zn	68	52.475	ug/L	0.425	0	283	89020	2
	As	75	51.488	ug/L	0.986	1	246	106764	0
	As-1	75	51.410	ug/L	1.068	2	10971	118358	0
	Se	82	52.541	ug/L	1.056	2	0	11861	0
	Se	78	52.193	ug/L	1.323	2	11110	42086	0
	Mo	98	52.109	ug/L	0.909	1	46	250489	0
	Y	89		ug/L			416262	415102	1
	Kr	83		ug/L			531	513	4
>	In	115		ug/L			1030601	1058656 ✓	2
	Ag	107	55.214	ug/L	0.172	0	43	598637	2
	Cd	111	51.649	ug/L	0.800	1	92	256142	1
	Cd	114	50.741	ug/L	0.662	1	61	648668	0
	Sb	121	50.565	ug/L	0.823	1	304	772986	0
	Sb	123	49.739	ug/L	0.846	1	246	577962	0
	Ba	135	49.004	ug/L	1.033	2	18	224062	0
	Ba	137	48.603	ug/L	0.817	1	36	391421	2
>	Tb	159		ug/L			1247472	1268830 ✓	1
	Tl	205	50.599	ug/L	0.792	1	176	1920270	1
	Pb	208	50.243	ug/L	0.424	0	302	2526036	0
	Bi	209		ug/L			2786089	2769391	1
	Th	232	51.568	ug/L	0.521	1	860	2483322	0
	U	238	52.857	ug/L	0.874	1	28	2555344	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 15:57:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1374399	0
	Be	9	-0.001	ug/L	0.002	160	27	23	35
	C	13		ug/L			110265	123524	2
	Cl	37		ug/L			4510739	4639956	2
>	Sc	45		ug/L			1161996	1181811	1
	V	51	0.023	ug/L	0.009	37	7869	8512	3
	V-1	51	0.003	ug/L	0.003	117	69	134	55
	Cr	52	0.084	ug/L	0.031	36	23331	25303	3
	Cr	53	0.017	ug/L	0.015	88	142	180	17
	Mn	55	0.023	ug/L	0.030	133	504	1094	71
	Co	59	0.001	ug/L	0.001	129	96	118	22
>	Ge	72		ug/L			655148	657876	2
	Ni	60	0.002	ug/L	0.005	192	35	45	41
	Ni	62	-0.790	ug/L	0.021	2	554	130	7
	Cu	63	-0.042	ug/L	0.002	5	544	194	11
	Cu	65	-0.001	ug/L	0.003	506	67	65	18
	Zn	66	0.011	ug/L	0.011	104	288	315	9
	Zn	67	0.015	ug/L	0.021	138	44	50	18
	Zn	68	0.020	ug/L	0.010	48	283	317	7
	As	75	0.003	ug/L	0.011	353	246	254	8
	As-1	75	-0.003	ug/L	0.114	3835	10971	11007	0
	Se	82	0.018	ug/L	0.026	148	0	4	130
	Se	78	-0.007	ug/L	0.407	5608	11110	11148	0
	Mo	98	0.005	ug/L	0.003	57	46	72	22
	Y	89		ug/L			416262	412687	0
	Kr	83		ug/L			531	531	3
>	In	115		ug/L			1030601	1061788	1
	Ag	107	-0.000	ug/L	0.001	287	43	39	34
	Cd	111	0.001	ug/L	0.003	304	92	100	15
	Cd	114	-0.001	ug/L	0.002	197	61	50	47
	Sb	121	0.044	ug/L	0.006	13	304	988	8
	Sb	123	0.042	ug/L	0.011	25	246	741	15
	Ba	135	0.027	ug/L	0.039	147	18	140	126
	Ba	137	0.028	ug/L	0.038	139	36	258	118
>	Tb	159		ug/L			1247472	1248357	1
	Tl	205	0.005	ug/L	0.003	67	176	350	32
	Pb	208	0.013	ug/L	0.017	134	302	920	89
	Bi	209		ug/L			2786089	2824525	1
	Th	232	0.101	ug/L	0.015	15	860	5655	11
	U	238	0.003	ug/L	0.001	59	28	147	46

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 MB1 RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 16:08:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1446492	2
	Be	9	0.000	ug/L	0.000	136	27	31	7
	C	13		ug/L			110265	132154	0
	Cl	37		ug/L			4510739	4779940	4
>	Sc	45		ug/L			1161996	1266727	2
	V	51	0.029	ug/L	0.015	51	7869	9265	1
	V-1	51	0.005	ug/L	0.001	21	69	194	13
	Cr	52	0.095	ug/L	0.047	49	23331	27316	1
	Cr	53	0.014	ug/L	0.006	40	142	185	7
	Mn	55	0.075	ug/L	0.008	10	504	2615	6
	Co	59	0.001	ug/L	0.000	20	96	125	0
>	Ge	72		ug/L			655148	675057 ✓	2
	Ni	60	0.013	ug/L	0.004	33	35	88	21
	Ni	62	-0.810	ug/L	0.008	0	554	123	5
	Cu	63	0.227	ug/L	0.013	5	544	2523	3
	Cu	65	0.249	ug/L	0.007	2	67	1052	4
	Zn	66	~ 0.863	ug/L	0.027	3	288	2364	0
	Zn	67	0.828	ug/L	0.077	9	44	379	6
	Zn	68	0.856	ug/L	0.009	1	283	1778	2
	As	75	0.012	ug/L	0.010	84	246	279	9
	As-1	75	0.050	ug/L	0.085	168	10971	11410	1
	Se	82	0.028	ug/L	0.030	104	0	7	92
	Se	78	0.169	ug/L	0.322	190	11110	11548	1
	Mo	98	0.004	ug/L	0.001	31	46	69	8
	Y	89		ug/L			416262	434034	1
	Kr	83		ug/L			531	552	3
>	In	115		ug/L			1030601	1083303	1
	Ag	107	-0.000	ug/L	0.001	459	43	41	36
	Cd	111	-0.002	ug/L	0.002	157	92	89	14
	Cd	114	-0.001	ug/L	0.001	207	61	58	23
	Sb	121	0.008	ug/L	0.004	47	304	448	12
	Sb	123	0.008	ug/L	0.002	27	246	350	6
	Ba	135	0.030	ug/L	0.007	23	18	159	21
	Ba	137	0.028	ug/L	0.006	22	36	268	19
>	Tb	159		ug/L			1247472	1279751	0
	Tl	205	0.009	ug/L	0.003	37	176	536	24
	Pb	208	0.016	ug/L	0.003	16	302	1122	11
	Bi	209		ug/L			2786089	2828760	1
	Th	232	0.142	ug/L	0.039	27	860	7748	23
	U	238	0.001	ug/L	0.000	10	28	71	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 MB1SPK RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 16:12:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1468673	3
[	Be	9	22.822	ug/L	0.862	3	27	98338	1
	C	13		ug/L			110265	130727	2
	Cl	37		ug/L			4510739	4753163	3
[>	Sc	45		ug/L			1161996	1267252	0
[	V	51	24.574	ug/L	0.430	1	7869	600591	1
[	V-1	51	24.497	ug/L	0.187	0	69	590699	1
[	Cr	52	25.945	ug/L	0.632	2	23331	542694	2
[	Cr	53	25.680	ug/L	0.582	2	142	58161	1
[	Mn	55	25.582	ug/L	0.538	2	504	704058	1
[	Co	59	25.016	ug/L	0.372	1	96	507090	1
[>	Ge	72		ug/L			655148	680709 ✔	1
[	Ni	60	27.315	ug/L	0.377	1	35	107765	0
[	Ni	62	26.375	ug/L	0.184	0	554	15295	0
[	Cu	63	29.257	ug/L	0.409	1	544	256166	0
[	Cu	65	29.097	ug/L	0.363	1	67	115787	0
[	Zn	66	73.555	ug/L	1.276	1	288	178103	1
[	Zn	67	68.499	ug/L	0.625	0	44	27881	2
[	Zn	68	71.558	ug/L	2.231	3	283	125582	1
[	As	75	22.774	ug/L	0.599	2	246	49053	1
[	As-1	75	23.402	ug/L	0.413	1	10971	62016	0
[	Se	82	67.039	ug/L	0.544	0	0	15677	0
[	Se	78	67.775	ug/L	0.500	0	11110	53167	1
[	Mo	98	0.014	ug/L	0.005	31	46	119	18
	Y	89		ug/L			416262	438127	1
	Kr	83		ug/L			531	547	10
[>	In	115		ug/L			1030601	1121859	2
[	Ag	107	26.711	ug/L	1.308	4	43	306662	2
[	Cd	111	23.256	ug/L	0.174	0	92	122275	1
[	Cd	114	22.387	ug/L	0.642	2	61	303231	0
[	Sb	121	-0.005	ug/L	0.004	77	304	249	23
[	Sb	123	-0.006	ug/L	0.004	67	246	194	23
[	Ba	135	24.300	ug/L	0.488	2	18	117747	0
[	Ba	137	23.907	ug/L	0.673	2	36	203984	1
[>	Tb	159		ug/L			1247472	1301221	2
[	Tl	205	25.816	ug/L	0.363	1	176	1004651	0
[	Pb	208	25.725	ug/L	0.533	2	302	1326205	0
[	Bi	209		ug/L			2786089	2862581	1
[	Th	232	24.614	ug/L	0.662	2	860	1215699	0
[	U	238	25.326	ug/L	0.371	1	28	1255470	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 ADUP RHN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 16:16:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1437003	2
	Be	9	0.002	ug/L	0.001	39	27	39	8
	C	13		ug/L			110265	130067	1
	Cl	37		ug/L			4510739	4676653	3
>	Sc	45		ug/L			1161996	1282325	2
	V	51	0.802	ug/L	0.018	2	7869	28221	1
	V-1	51	0.800	ug/L	0.008	1	69	19600	2
	Cr	52	0.226	ug/L	0.044	19	23331	30288	1
	Cr	53	0.223	ug/L	0.013	5	142	665	5
	Mn	55	10.769	ug/L	0.286	2	504	300127	1
	Co	59	0.186	ug/L	0.011	5	96	3915	3
>	Ge	72		ug/L			655148	702825 ✔	0
	Ni	60	0.719	ug/L	0.009	1	35	2964	1
	Ni	62	-0.229	ug/L	0.015	6	554	463	1
	Cu	63	8.488	ug/L	0.281	3	544	77156	3
	Cu	65	8.430	ug/L	0.096	1	67	34691	1
	Zn	66	23.827	ug/L	0.554	2	288	59782	2
	Zn	67	22.022	ug/L	0.528	2	44	9286	2
	Zn	68	23.501	ug/L	0.301	1	283	42797	1
	As	75	1.806	ug/L	0.017	0	246	4260	0
	As-1	75	1.600	ug/L	0.028	1	10971	15343	0
	Se	82	0.122	ug/L	0.029	23	0	30	22
	Se	78	-0.557	ug/L	0.108	19	11110	11565	0
	Mo	98	1.514	ug/L	0.011	0	46	7833	0
	Y	89		ug/L			416262	444938	2
	Kr	83		ug/L			531	561	4
>	In	115		ug/L			1030601	1121502	1
	Ag	107	0.006	ug/L	0.001	12	43	113	7
	Cd	111	0.155	ug/L	0.009	5	92	912	3
	Cd	114	0.155	ug/L	0.001	0	61	2172	2
	Sb	121	0.149	ug/L	0.006	3	304	2749	2
	Sb	123	0.146	ug/L	0.006	4	246	2063	3
	Ba	135	11.773	ug/L	0.404	3	18	57041	2
	Ba	137	11.580	ug/L	0.221	1	36	98822	1
>	Tb	159		ug/L			1247472	1326374	0
	Tl	205	0.010	ug/L	0.001	12	176	599	9
	Pb	208	0.211	ug/L	0.000	0	302	11401	0
	Bi	209		ug/L			2786089	2876821	0
	Th	232	0.131	ug/L	0.028	21	860	7493	18
	U	238	0.097	ug/L	0.002	2	28	4912	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 A RHN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 16:20:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1444210	2
	Be	9	0.002	ug/L	0.001	47	27	39	8
	C	13		ug/L			110265	132555	0
	Cl	37		ug/L			4510739	4692561	2
>	Sc	45		ug/L			1161996	1300855	1
	V	51	0.795	ug/L	0.035	4	7869	28467	1
	V-1	51	0.797	ug/L	0.025	3	69	19795	1
	Cr	52	0.191	ug/L	0.027	14	23331	30015	0
	Cr	53	0.198	ug/L	0.006	3	142	618	4
	Mn	55	10.967	ug/L	0.310	2	504	310035	1
	Co	59	0.185	ug/L	0.006	3	96	3953	1
>	Ge	72		ug/L			655148	690488	1
	Ni	60	0.740	ug/L	0.007	0	35	2997	1
	Ni	62	-0.270	ug/L	0.038	14	554	431	6
	Cu	63	8.620	ug/L	0.179	2	544	76958	0
	Cu	65	8.593	ug/L	0.135	1	67	34735	1
	Zn	66	24.029	ug/L	0.706	2	288	59209	1
	Zn	67	22.096	ug/L	0.134	0	44	9153	1
	Zn	68	23.643	ug/L	0.731	3	283	42285	1
	As	75	1.850	ug/L	0.064	3	246	4279	2
	As-1	75	1.614	ug/L	0.148	9	10971	15101	0
	Se	82	0.139	ug/L	0.047	33	0	33	31
	Se	78	-0.646	ug/L	0.386	59	11110	11304	0
	Mo	98	1.532	ug/L	0.024	1	46	7784	0
	Y	89		ug/L			416262	437344	1
	Kr	83		ug/L			531	549	1
>	In	115		ug/L			1030601	1113315	1
	Ag	107	0.004	ug/L	0.001	34	43	88	15
	Cd	111	0.164	ug/L	0.007	4	92	954	2
	Cd	114	0.158	ug/L	0.002	1	61	2191	0
	Sb	121	0.152	ug/L	0.003	1	304	2771	0
	Sb	123	0.150	ug/L	0.004	2	246	2099	1
	Ba	135	11.763	ug/L	0.259	2	18	56586	1
	Ba	137	11.746	ug/L	0.087	0	36	99515	0
>	Tb	159		ug/L			1247472	1334823	1
	Tl	205	0.007	ug/L	0.001	18	176	460	12
	Pb	208	0.208	ug/L	0.008	3	302	11303	1
	Bi	209		ug/L			2786089	2847734	1
	Th	232	0.044	ug/L	0.004	8	860	3131	4
	U	238	0.094	ug/L	0.003	3	28	4835	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 ASPK RHN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 16:24:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1441404	1
[	Be	9	11.970	ug/L	0.259	2	27	50664	1
	C	13		ug/L			110265	134793	1
	Cl	37		ug/L			4510739	4758174	1
[>	Sc	45		ug/L			1161996	1266535	0
[	V	51	13.384	ug/L	0.115	0	7869	330816	0
[	V-1	51	13.438	ug/L	0.175	1	69	323868	1
[	Cr	52	13.003	ug/L	0.392	3	23331	284521	2
[	Cr	53	13.188	ug/L	0.191	1	142	29928	1
[	Mn	55	23.653	ug/L	0.686	2	504	650667	3
[	Co	59	12.715	ug/L	0.218	1	96	257646	1
[>	Ge	72		ug/L			655148	684587 ✓	1
[	Ni	60	14.279	ug/L	0.218	1	35	56676	1
[	Ni	62	13.279	ug/L	0.224	1	554	8032	0
[	Cu	63	23.962	ug/L	0.414	1	544	211102	0
[	Cu	65	23.835	ug/L	0.091	0	67	95409	1
[	Zn	66	62.561	ug/L	1.107	1	288	152386	0
[	Zn	67	58.963	ug/L	0.162	0	44	24141	1
[	Zn	68	61.881	ug/L	1.073	1	283	109276	1
[	As	75	13.807	ug/L	0.172	1	246	30012	0
[	As-1	75	14.161	ug/L	0.321	2	10971	42267	0
[	Se	82	35.063	ug/L	0.455	1	0	8246	0
[	Se	78	35.573	ug/L	0.993	2	11110	33577	1
[	Mo	98	1.640	ug/L	0.017	1	46	8259	0
	Y	89		ug/L			416262	434770	1
	Kr	83		ug/L			531	532	0
[>	In	115		ug/L			1030601	1109817	1
[	Ag	107	13.696	ug/L	0.396	2	43	155664	1
[	Cd	111	12.162	ug/L	0.082	0	92	63309	0
[	Cd	114	11.855	ug/L	0.091	0	61	158951	0
[	Sb	121	0.153	ug/L	0.003	2	304	2776	1
[	Sb	123	0.152	ug/L	0.001	0	246	2112	1
[	Ba	135	24.550	ug/L	0.312	1	18	117708	0
[	Ba	137	24.245	ug/L	0.402	1	36	204708	0
[>	Tb	159		ug/L			1247472	1310814	0
[	Tl	205	12.988	ug/L	0.154	1	176	509325	0
[	Pb	208	13.099	ug/L	0.179	1	302	680573	0
[	Bi	209		ug/L			2786089	2842584	0
[	Th	232	11.921	ug/L	0.135	1	860	593768	0
[	U	238	12.906	ug/L	0.157	1	28	644627	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 C RHN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 16:28:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1461125	0
[	Be	9	0.001	ug/L	0.002	117	27	36	19
	C	13		ug/L			110265	133883	1
	Cl	37		ug/L			4510739	4700084	2
[>	Sc	45		ug/L			1161996	1278257	2
[	V	51	0.873	ug/L	0.039	4	7869	29854	1
[	V-1	51	0.883	ug/L	0.028	3	69	21529	0
[	Cr	52	0.208	ug/L	0.048	22	23331	29832	1
[	Cr	53	0.243	ug/L	0.016	6	142	709	3
[	Mn	55	13.723	ug/L	0.436	3	504	381094	2
[	Co	59	0.234	ug/L	0.011	4	96	4880	2
[>	Ge	72		ug/L			655148	683197 ✓	1
[	Ni	60	0.892	ug/L	0.028	3	35	3568	1
[	Ni	62	-0.121	ug/L	0.015	12	554	510	2
[	Cu	63	8.901	ug/L	0.323	3	544	78593	2
[	Cu	65	8.726	ug/L	0.180	2	67	34893	0
[	Zn	66	38.854	ug/L	0.983	2	288	94547	0
[	Zn	67	35.432	ug/L	1.212	3	44	14490	2
[	Zn	68	37.614	ug/L	1.037	2	283	66389	1
[	As	75	1.892	ug/L	0.070	3	246	4324	2
[	As-1	75	1.724	ug/L	0.105	6	10971	15182	0
[	Se	82	0.100	ug/L	0.041	41	0	24	41
[	Se	78	-0.413	ug/L	0.219	53	11110	11329	1
[	Mo	98	1.565	ug/L	0.040	2	46	7868	3
	Y	89		ug/L			416262	434312	2
	Kr	83		ug/L			531	566	4
[>	In	115		ug/L			1030601	1121168	1
[	Ag	107	0.005	ug/L	0.001	11	43	107	5
[	Cd	111	0.236	ug/L	0.012	5	92	1339	3
[	Cd	114	0.222	ug/L	0.002	0	61	3071	2
[	Sb	121	0.148	ug/L	0.002	1	304	2721	1
[	Sb	123	0.150	ug/L	0.005	3	246	2113	1
[	Ba	135	12.576	ug/L	0.258	2	18	60912	0
[	Ba	137	12.237	ug/L	0.123	1	36	104393	1
[>	Tb	159		ug/L			1247472	1320973	0
[	Tl	205	0.007	ug/L	0.000	7	176	446	4
[	Pb	208	0.247	ug/L	0.004	1	302	13261	1
[	Bi	209		ug/L			2786089	2858899	1
[	Th	232	0.109	ug/L	0.009	8	860	6354	7
[	U	238	0.101	ug/L	0.002	1	28	5131	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 D RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 16:32:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1475051	1
[	Be	9	0.008	ug/L	0.001	15	27	66	9
	C	13		ug/L			110265	143367	1
	Cl	37		ug/L			4510739	4736810	1
[>	Sc	45		ug/L			1161996	1306935	0
[	V	51	1.921	ug/L	0.034	1	7869	56577	1
[	V-1	51	1.931	ug/L	0.023	1	69	48093	0
[	Cr	52	0.531	ug/L	0.052	9	23331	37151	2
[	Cr	53	0.569	ug/L	0.031	5	142	1485	5
[	Mn	55	23.416	ug/L	0.187	0	504	664669	0
[	Co	59	0.450	ug/L	0.006	1	96	9521	1
[>	Ge	72		ug/L			655148	691170	1
[	Ni	60	1.510	ug/L	0.035	2	35	6085	1
[	Ni	62	0.402	ug/L	0.020	5	554	812	1
[	Cu	63	14.355	ug/L	0.190	1	544	127914	0
[	Cu	65	14.348	ug/L	0.402	2	67	57999	1
[	Zn	66	34.347	ug/L	1.415	4	288	84584	2
[	Zn	67	32.474	ug/L	1.292	3	44	13440	2
[	Zn	68	35.206	ug/L	0.658	1	283	62891	0
[	As	75	3.876	ug/L	0.076	1	246	8692	0
[	As-1	75	3.715	ug/L	0.142	3	10971	19731	0
[	Se	82	0.225	ug/L	0.015	6	0	54	5
[	Se	78	-0.192	ug/L	0.285	148	11110	11599	0
[	Mo	98	3.084	ug/L	0.095	3	46	15632	1
	Y	89		ug/L			416262	451231	2
	Kr	83		ug/L			531	584	2
[>	In	115		ug/L			1030601	1129091	1
[	Ag	107	0.011	ug/L	0.000	3	43	170	3
[	Cd	111	0.246	ug/L	0.003	1	92	1401	0
[	Cd	114	0.243	ug/L	0.008	3	61	3385	2
[	Sb	121	0.289	ug/L	0.005	1	304	5049	2
[	Sb	123	0.292	ug/L	0.003	1	246	3884	1
[	Ba	135	23.516	ug/L	0.300	1	18	114712	0
[	Ba	137	23.389	ug/L	0.258	1	36	200931	1
[>	Tb	159		ug/L			1247472	1325932	0
[	Tl	205	0.015	ug/L	0.000	2	176	771	2
[	Pb	208	0.486	ug/L	0.004	0	302	25842	1
[	Bi	209		ug/L			2786089	2809143	0
[	Th	232	0.102	ug/L	0.017	16	860	6043	13
[	U	238	0.221	ug/L	0.003	1	28	11174	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 E RHN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 16:36:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1425469	0
	Be	9	0.000	ug/L	0.001	122	27	31	7
	C	13		ug/L			110265	134757	2
	Cl	37		ug/L			4510739	4600372	2
>	Sc	45		ug/L			1161996	1235041	1
	V	51	0.964	ug/L	0.026	2	7869	31001	2
	V-1	51	0.953	ug/L	0.027	2	69	22467	2
	Cr	52	0.317	ug/L	0.011	3	23331	30952	1
	Cr	53	0.281	ug/L	0.019	6	142	768	3
	Mn	55	12.549	ug/L	0.209	1	504	336806	0
	Co	59	0.229	ug/L	0.007	3	96	4633	3
>	Ge	72		ug/L			655148	684403	2
	Ni	60	0.761	ug/L	0.036	4	35	3054	2
	Ni	62	-0.272	ug/L	0.060	21	554	425	5
	Cu	63	6.979	ug/L	0.096	1	544	61863	1
	Cu	65	6.985	ug/L	0.246	3	67	27991	2
	Zn	66	21.298	ug/L	0.406	1	288	52055	1
	Zn	67	19.937	ug/L	0.769	3	44	8186	1
	Zn	68	21.520	ug/L	0.323	1	283	38179	1
	As	75	2.036	ug/L	0.034	1	246	4644	2
	As-1	75	1.818	ug/L	0.103	5	10971	15411	0
	Se	82	0.129	ug/L	0.067	51	0	30	50
	Se	78	-0.587	ug/L	0.316	53	11110	11240	0
	Mo	98	1.463	ug/L	0.062	4	46	7369	2
	Y	89		ug/L			416262	425865	0
	Kr	83		ug/L			531	546	6
>	In	115		ug/L			1030601	1115462	1
	Ag	107	0.005	ug/L	0.001	18	43	105	11
	Cd	111	0.140	ug/L	0.006	4	92	832	4
	Cd	114	0.142	ug/L	0.002	1	61	1981	0
	Sb	121	0.140	ug/L	0.002	1	304	2591	2
	Sb	123	0.141	ug/L	0.002	1	246	1991	0
	Ba	135	11.717	ug/L	0.204	1	18	56470	0
	Ba	137	11.540	ug/L	0.118	1	36	97949	0
>	Tb	159		ug/L			1247472	1294333	0
	Tl	205	0.006	ug/L	0.001	10	176	408	5
	Pb	208	0.234	ug/L	0.001	0	302	12291	0
	Bi	209		ug/L			2786089	2834583	0
	Th	232	0.009	ug/L	0.002	25	860	1355	7
	U	238	0.107	ug/L	0.002	2	28	5312	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 G RHN

Mn Zn

Sample Dil Factor: 2

Comments:

Sample Date/Time: Friday, November 23, 2012 16:42:07

Number of Replicates: 3

Method File: C:\NexION Data\Method\200.8nomin.mth

Tuning File: C:\NexION Data\MassCal\Default.tun

Optimization File: C:\NexION Data\Conditions\Default.dac

Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1411093	1
	Be	9	0.001	ug/L	0.001	88	27	34	14
	C	13		ug/L			110265	131655	2
	Cl	37		ug/L			4510739	4600229	0
>	Sc	45		ug/L			1161996	1273663 ✔	3
	V	51	0.957	ug/L	0.036	3	7869	31770	0
	V-1	51	0.937	ug/L	0.031	3	69	22768	0
	Cr	52	0.322	ug/L	0.043	13	23331	32014	0
	Cr	53	0.257	ug/L	0.024	9	142	739	4
	Mn	55	13.420	ug/L	0.577	4	504	371144	1
	Co	59	0.245	ug/L	0.007	2	96	5093	3
>	Ge	72		ug/L			655148	683598 ✔	1
	Ni	60	0.813	ug/L	0.023	2	35	3258	1
	Ni	62	-0.240	ug/L	0.028	11	554	444	2
	Cu	63	7.369	ug/L	0.071	0	544	65223	0
	Cu	65	7.430	ug/L	0.242	3	67	29740	2
	Zn	66	26.609	ug/L	0.537	2	288	64893	1
	Zn	67	25.127	ug/L	0.813	3	44	10297	2
	Zn	68	26.759	ug/L	0.160	0	283	47354	0
	As	75	2.085	ug/L	0.084	4	246	4742	2
	As-1	75	1.894	ug/L	0.156	8	10971	15559	1
	Se	82	0.079	ug/L	0.048	60	0	19	58
	Se	78	-0.496	ug/L	0.263	53	11110	11285	0
	Mo	98	1.465	ug/L	0.021	1	46	7373	1
	Y	89		ug/L			416262	437232	1
	Kr	83		ug/L			531	577	3
>	In	115		ug/L			1030601	1119796	1
	Ag	107	0.004	ug/L	0.000	2	43	88	0
	Cd	111	0.178	ug/L	0.009	5	92	1034	3
	Cd	114	0.166	ug/L	0.003	1	61	2316	0
	Sb	121	0.147	ug/L	0.011	7	304	2704	4
	Sb	123	0.146	ug/L	0.009	6	246	2066	3
	Ba	135	12.033	ug/L	0.210	1	18	58218	0
	Ba	137	11.870	ug/L	0.322	2	36	101128	1
>	Tb	159		ug/L			1247472	1304084	1
	Tl	205	0.007	ug/L	0.000	5	176	439	1
	Pb	208	0.245	ug/L	0.007	2	302	12953	0
	Bi	209		ug/L			2786089	2868110	1
	Th	232	0.010	ug/L	0.002	20	860	1398	5
	U	238	0.112	ug/L	0.004	3	28	5605	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 F RHN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 16:46:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1287485	1362728	1
[	**Be**	**9**	**-0.001**	ug/L	0.000	56	27	25	8
	C	**13**		ug/L			110265	122086	3
	Cl	**37**		ug/L			4510739	4566948	2
[>	**Sc**	**45**		ug/L			1161996	1195593 ✓	1
[	**V**	**51**	**0.094**	ug/L	0.009	9	7869	10231	0
[	**V-1**	**51**	**0.100**	ug/L	0.003	3	69	2344	3
[	**Cr**	**52**	**0.037**	ug/L	0.027	73	23331	24697	0
[	**Cr**	**53**	**0.057**	ug/L	0.005	8	142	268	5
[	**Mn**	**55**	**31.910**	ug/L	0.805	2	504	828409	2
[	**Co**	**59**	**0.577**	ug/L	0.013	2	96	11126	1
[>	**Ge**	**72**		ug/L			655148	663526 ✓	0
[	**Ni**	**60**	**1.393**	ug/L	0.037	2	35	5393	3
[	**Ni**	**62**	**0.372**	ug/L	0.046	12	554	763	2
[	**Cu**	**63**	**0.951**	ug/L	0.016	1	544	8649	1
[	**Cu**	**65**	**0.959**	ug/L	0.006	0	67	3785	0
[	**Zn**	**66**	**188.023**	ug/L	3.231	1	288	443404	2
[	**Zn**	**67**	**166.204**	ug/L	1.243	0	44	65872	0
[	**Zn**	**68**	**177.288**	ug/L	0.813	0	283	302930	0
[	**As**	**75**	**0.066**	ug/L	0.008	11	246	387	4
[	**As-1**	**75**	**-0.055**	ug/L	0.034	60	10971	10995	0
[	**Se**	**82**	**0.061**	ug/L	0.017	28	0	14	27
[	**Se**	**78**	**-0.382**	ug/L	0.126	32	11110	11023	0
[	**Mo**	**98**	**0.118**	ug/L	0.004	3	46	618	2
	Y	**89**		ug/L			416262	417090	0
	Kr	**83**		ug/L			531	524	3
[>	**In**	**115**		ug/L			1030601	1073733	2
[	**Ag**	**107**	**-0.001**	ug/L	0.001	76	43	33	22
[	**Cd**	**111**	**0.901**	ug/L	0.020	2	92	4624	0
[	**Cd**	**114**	**0.866**	ug/L	0.019	2	61	11295	0
[	**Sb**	**121**	**-0.010**	ug/L	0.001	12	304	169	9
[	**Sb**	**123**	**-0.012**	ug/L	0.002	20	246	113	23
[	**Ba**	**135**	**4.421**	ug/L	0.123	2	18	20515	1
[	**Ba**	**137**	**4.333**	ug/L	0.102	2	36	35418	0
[>	**Tb**	**159**		ug/L			1247472	1266148	1
[	**Tl**	**205**	**0.001**	ug/L	0.000	58	176	209	8
[	**Pb**	**208**	**0.011**	ug/L	0.001	10	302	861	5
[	**Bi**	**209**		ug/L			2786089	2844731	2
[	**Th**	**232**	**-0.015**	ug/L	0.001	3	860	158	14
[	**U**	**238**	**0.023**	ug/L	0.000	1	28	1147	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 16:50:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1287485	1369140 ✓	0
	Be	**9**	**52.025**	ug/L	0.215	0	27	209101	1
	C	**13**		ug/L			110265	124944	4
	Cl	**37**		ug/L			4510739	4905265	0
>	**Sc**	**45**		ug/L			1161996	1230145 ✓	0
	V	**51**	**49.059**	ug/L	0.943	1	7869	1155641	2
	V-1	**51**	**48.834**	ug/L	0.385	0	69	1143000	1
	Cr	**52**	**50.004**	ug/L	1.306	2	23331	992460	2
	Cr	**53**	**49.232**	ug/L	1.155	2	142	108105	2
	Mn	**55**	**48.712**	ug/L	0.725	1	504	1300871	1
	Co	**59**	**48.185**	ug/L	1.029	2	96	948013	1
>	**Ge**	**72**		ug/L			655148	659455 ✓	1
	Ni	**60**	**52.737**	ug/L	1.118	2	35	201521	1
	Ni	**62**	**50.116**	ug/L	0.549	1	554	27653	0
	Cu	**63**	**52.797**	ug/L	1.543	2	544	447338	1
	Cu	**65**	**52.013**	ug/L	0.512	0	67	200460	0
	Zn	**66**	**51.383**	ug/L	0.914	1	288	120639	2
	Zn	**67**	**53.117**	ug/L	0.820	1	44	20950	0
	Zn	**68**	**52.420**	ug/L	1.404	2	283	89206	1
	As	**75**	**51.497**	ug/L	0.596	1	246	107155	0
	As-1	**75**	**51.549**	ug/L	0.741	1	10971	119059	0
	Se	**82**	**51.647**	ug/L	0.725	1	0	11700	0
	Se	**78**	**51.848**	ug/L	1.283	2	11110	42025	0
	Mo	**98**	**52.372**	ug/L	2.001	3	46	252560	2
	Y	**89**		ug/L			416262	418737	1
	Kr	**83**		ug/L			531	564	5
>	**In**	**115**		ug/L			1030601	1084092 ✓	0
	Ag	**107**	**54.330**	ug/L	0.702	1	43	603151	0
	Cd	**111**	**50.933**	ug/L	0.258	0	92	258691	0
	Cd	**114**	**49.907**	ug/L	0.539	1	61	653423	0
	Sb	**121**	**49.565**	ug/L	0.244	0	304	776070	0
	Sb	**123**	**49.458**	ug/L	0.693	1	246	588604	0
	Ba	**135**	**48.134**	ug/L	0.064	0	18	225438	0
	Ba	**137**	**47.652**	ug/L	0.772	1	36	392996	1
>	**Tb**	**159**		ug/L			1247472	1286038 ✓	0
	Tl	**205**	**50.489**	ug/L	0.562	1	176	1941958	0
	Pb	**208**	**50.507**	ug/L	0.273	0	302	2573743	0
	Bi	**209**		ug/L			2786089	2811374	0
	Th	**232**	**51.235**	ug/L	0.721	1	860	2500718	0
	U	**238**	**52.728**	ug/L	0.466	0	28	2583756	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 16:57:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1378031 ✓	0
[	Be	9	-0.004	ug/L	0.001	38	27	13	42
	C	13		ug/L			110265	126248	4
	Cl	37		ug/L			4510739	4893535	0
[>	Sc	45		ug/L			1161996	1206341 ✓	0
[	V	51	0.041	ug/L	0.043	104	7869	9107	11
[	V-1	51	0.002	ug/L	0.000	19	69	107	6
[	Cr	52	0.138	ug/L	0.136	98	23331	26851	10
[	Cr	53	0.004	ug/L	0.010	238	142	156	12
[	Mn	55	-0.002	ug/L	0.000	13	504	480	0
[	Co	59	0.000	ug/L	0.001	284	96	105	14
[>	Ge	72		ug/L			655148	661054 ✓	0
[	Ni	60	0.000	ug/L	0.001	722	35	36	6
[	Ni	62	-0.913	ug/L	0.015	1	554	64	11
[	Cu	63	-0.049	ug/L	0.001	1	544	131	4
[	Cu	65	-0.002	ug/L	0.001	29	67	58	5
[	Zn	66	0.002	ug/L	0.011	543	288	295	8
[	Zn	67	0.019	ug/L	0.019	97	44	52	13
[	Zn	68	-0.004	ug/L	0.010	243	283	278	6
[	As	75	0.009	ug/L	0.012	140	246	267	8
[	As-1	75	-0.017	ug/L	0.069	400	10971	11033	0
[	Se	82	0.031	ug/L	0.006	20	0	7	19
[	Se	78	-0.061	ug/L	0.234	383	11110	11173	0
[	Mo	98	0.006	ug/L	0.001	21	46	76	8
	Y	89		ug/L			416262	420077	1
	Kr	83		ug/L			531	537	4
[>	In	115		ug/L			1030601	1064903 ✓	2
[	Ag	107	-0.001	ug/L	0.000	42	43	32	18
[	Cd	111	0.001	ug/L	0.004	553	92	98	16
[	Cd	114	-0.002	ug/L	0.001	39	61	44	19
[	Sb	121	0.043	ug/L	0.005	10	304	968	6
[	Sb	123	0.042	ug/L	0.009	20	246	745	12
[	Ba	135	0.001	ug/L	0.001	56	18	24	14
[	Ba	137	0.001	ug/L	0.001	86	36	46	15
[>	Tb	159		ug/L			1247472	1248314 ✓	1
[	Tl	205	0.005	ug/L	0.003	64	176	353	31
[	Pb	208	0.001	ug/L	0.000	51	302	332	4
[	Bi	209		ug/L			2786089	2880248	0
[	Th	232	0.123	ug/L	0.015	11	860	6672	9
[	U	238	0.002	ug/L	0.000	14	28	140	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 H RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 17:01:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1451306	0
[	Be	9	0.011	ug/L	0.003	28	27	76	16
	C	13		ug/L			110265	146070	0
	Cl	37		ug/L			4510739	4844046	1
[>	Sc	45		ug/L			1161996	1341853	1
[	V	51	2.463	ug/L	0.047	1	7869	71903	1
[	V-1	51	2.463	ug/L	0.041	1	69	62963	1
[	Cr	52	0.859	ug/L	0.058	6	23331	45059	1
[	Cr	53	0.865	ug/L	0.027	3	142	2232	1
[	Mn	55	32.440	ug/L	0.704	2	504	945027	1
[	Co	59	0.671	ug/L	0.025	3	96	14510	2
[>	Ge	72		ug/L			655148	694659	0
[	Ni	60	1.669	ug/L	0.069	4	35	6757	4
[	Ni	62	0.646	ug/L	0.072	11	554	956	4
[	Cu	63	13.048	ug/L	0.310	2	544	116913	2
[	Cu	65	12.939	ug/L	0.263	2	67	52584	1
[	Zn	66	26.129	ug/L	0.508	1	288	64768	2
[	Zn	67	24.749	ug/L	0.486	1	44	10309	1
[	Zn	68	26.369	ug/L	0.285	1	283	47427	1
[	As	75	4.732	ug/L	0.033	0	246	10609	0
[	As-1	75	4.610	ug/L	0.067	1	10971	21809	0
[	Se	82	0.168	ug/L	0.053	31	0	40	31
[	Se	78	-0.068	ug/L	0.134	195	11110	11737	0
[	Mo	98	2.765	ug/L	0.057	2	46	14100	2
	Y	89		ug/L			416262	460586	1
	Kr	83		ug/L			531	597	5
[>	In	115		ug/L			1030601	1136958	0
[	Ag	107	0.014	ug/L	0.002	16	43	209	12
[	Cd	111	0.207	ug/L	0.010	4	92	1203	3
[	Cd	114	0.207	ug/L	0.002	0	61	2903	1
[	Sb	121	0.307	ug/L	0.007	2	304	5371	1
[	Sb	123	0.310	ug/L	0.006	1	246	4140	1
[	Ba	135	23.002	ug/L	0.765	3	18	112974	2
[	Ba	137	22.727	ug/L	0.031	0	36	196609	0
[>	Tb	159		ug/L			1247472	1341422	0
[	Tl	205	0.033	ug/L	0.005	16	176	1501	15
[	Pb	208	0.862	ug/L	0.004	0	302	46129	0
[	Bi	209		ug/L			2786089	2810160	0
[	Th	232	0.249	ug/L	0.081	32	860	13568	29
[	U	238	0.250	ug/L	0.002	0	28	12787	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 J RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 17:05:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1465761	0
	Be	9	0.012	ug/L	0.003	24	27	80	15
	C	13		ug/L			110265	141123	0
	Cl	37		ug/L			4510739	4799107	2
>	Sc	45		ug/L			1161996	1352436 ✔	1
	V	51	2.468	ug/L	0.021	0	7869	72609	2
	V-1	51	2.480	ug/L	0.030	1	69	63890	2
	Cr	52	0.796	ug/L	0.055	6	23331	44078	1
	Cr	53	0.841	ug/L	0.035	4	142	2192	1
	Mn	55	34.932	ug/L	0.924	2	504	1025482	0
	Co	59	0.715	ug/L	0.020	2	96	15564	2
>	Ge	72		ug/L			655148	698216 ✔	1
	Ni	60	1.770	ug/L	0.047	2	35	7197	1
	Ni	62	0.692	ug/L	0.074	10	554	987	5
	Cu	63	13.058	ug/L	0.276	2	544	117591	1
	Cu	65	12.966	ug/L	0.299	2	67	52961	1
	Zn	66	36.597	ug/L	0.591	1	288	91043	0
	Zn	67	34.371	ug/L	0.861	2	44	14369	1
	Zn	68	36.588	ug/L	0.364	0	283	66021	0
	As	75	4.691	ug/L	0.075	1	246	10573	0
	As-1	75	4.537	ug/L	0.116	2	10971	21758	0
	Se	82	0.131	ug/L	0.055	42	0	32	40
	Se	78	-0.219	ug/L	0.175	79	11110	11701	0
	Mo	98	2.704	ug/L	0.045	1	46	13858	0
	Y	89		ug/L			416262	450766	0
	Kr	83		ug/L			531	598	5
>	In	115		ug/L			1030601	1141319	0
	Ag	107	0.017	ug/L	0.001	4	43	249	3
	Cd	111	0.273	ug/L	0.006	2	92	1561	2
	Cd	114	0.270	ug/L	0.002	0	61	3784	0
	Sb	121	0.289	ug/L	0.009	3	304	5105	3
	Sb	123	0.289	ug/L	0.007	2	246	3888	1
	Ba	135	23.230	ug/L	0.136	0	18	114553	0
	Ba	137	22.837	ug/L	0.056	0	36	198318	0
>	Tb	159		ug/L			1247472	1337415	0
	Tl	205	0.018	ug/L	0.002	8	176	905	6
	Pb	208	0.881	ug/L	0.006	0	302	47012	0
	Bi	209		ug/L			2786089	2820406	0
	Th	232	0.073	ug/L	0.004	5	860	4649	3
	U	238	0.256	ug/L	0.003	1	28	13084	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 N RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 17:09:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1470137	2
[	Be	9	0.019	ug/L	0.002	8	27	111	5
	C	13		ug/L			110265	138893	2
	Cl	37		ug/L			4510739	4653911	1
[>	Sc	45		ug/L			1161996	1364900	1
[	V	51	0.865	ug/L	0.039	4	7869	31674	1
[	V-1	51	0.879	ug/L	0.025	2	69	22891	1
[	Cr	52	0.334	ug/L	0.055	16	23331	34556	1
[	Cr	53	0.382	ug/L	0.005	1	142	1096	1
[	Mn	55	13.897	ug/L	0.328	2	504	412199	2
[	Co	59	0.228	ug/L	0.005	2	96	5086	1
[>	Ge	72		ug/L			655148	684939	0
[	Ni	60	1.669	ug/L	0.027	1	35	6660	1
[	Ni	62	0.550	ug/L	0.041	7	554	888	1
[	Cu	63	9.959	ug/L	0.218	2	544	88113	1
[	Cu	65	9.815	ug/L	0.200	2	67	39345	1
[	Zn	66	30.816	ug/L	0.665	2	288	75261	2
[	Zn	67	28.089	ug/L	0.398	1	44	11530	1
[	Zn	68	31.080	ug/L	0.509	1	283	55061	1
[	As	75	2.559	ug/L	0.032	1	246	5776	1
[	As-1	75	2.531	ug/L	0.057	2	10971	16979	0
[	Se	82	0.293	ug/L	0.083	28	0	69	27
[	Se	78	0.327	ug/L	0.150	45	11110	11816	0
[	Mo	98	3.177	ug/L	0.083	2	46	15962	2
	Y	89		ug/L			416262	450383	1
	Kr	83		ug/L			531	602	4
[>	In	115		ug/L			1030601	1125810	1
[	Ag	107	0.015	ug/L	0.002	11	43	219	8
[	Cd	111	0.238	ug/L	0.003	1	92	1357	2
[	Cd	114	0.228	ug/L	0.002	0	61	3168	0
[	Sb	121	0.287	ug/L	0.004	1	304	4994	0
[	Sb	123	0.288	ug/L	0.015	5	246	3820	3
[	Ba	135	21.114	ug/L	0.022	0	18	102704	1
[	Ba	137	20.771	ug/L	0.192	0	36	177916	0
[>	Tb	159		ug/L			1247472	1340172	0
[	Tl	205	0.013	ug/L	0.001	6	176	702	4
[	Pb	208	0.196	ug/L	0.003	1	302	10726	1
[	Bi	209		ug/L			2786089	2827604	0
[	Th	232	0.090	ug/L	0.001	1	860	5501	0
[	U	238	0.218	ug/L	0.004	1	28	11138	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 O RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 17:14:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1287485	1457597	2
	Be	**9**	**0.004**	ug/L	0.001	37	27	45	13
	C	**13**		ug/L			110265	138388	2
	Cl	**37**		ug/L			4510739	4671212	0
>	**Sc**	**45**		ug/L			1161996	1304379	1
	V	**51**	**0.537**	ug/L	0.014	2	7869	22143	0
	V-1	**51**	**0.533**	ug/L	0.006	1	69	13295	0
	Cr	**52**	**0.382**	ug/L	0.033	8	23331	34013	0
	Cr	**53**	**0.368**	ug/L	0.012	3	142	1014	1
	Mn	**55**	**14.669**	ug/L	0.183	1	504	415732	0
	Co	**59**	**0.240**	ug/L	0.005	1	96	5111	3
>	**Ge**	**72**		ug/L			655148	684701	0
	Ni	**60**	**1.737**	ug/L	0.046	2	35	6928	2
	Ni	**62**	**0.576**	ug/L	0.101	17	554	902	6
	Cu	**63**	**10.813**	ug/L	0.104	0	544	95591	0
	Cu	**65**	**10.635**	ug/L	0.179	1	67	42610	0
	Zn	**66**	**31.778**	ug/L	0.306	0	288	77572	0
	Zn	**67**	**30.053**	ug/L	0.141	0	44	12329	1
	Zn	**68**	**32.557**	ug/L	0.681	2	283	57641	1
	As	**75**	**2.036**	ug/L	0.007	0	246	4646	1
	As-1	**75**	**1.938**	ug/L	0.008	0	10971	15682	0
	Se	**82**	**0.216**	ug/L	0.049	22	0	51	21
	Se	**78**	**-0.066**	ug/L	0.070	106	11110	11570	0
	Mo	**98**	**2.885**	ug/L	0.026	0	46	14497	1
	Y	**89**		ug/L			416262	452192	3
	Kr	**83**		ug/L			531	558	2
>	**In**	**115**		ug/L			1030601	1129528	1
	Ag	**107**	**0.002**	ug/L	0.001	63	43	67	18
	Cd	**111**	**0.235**	ug/L	0.007	2	92	1345	2
	Cd	**114**	**0.230**	ug/L	0.004	1	61	3198	0
	Sb	**121**	**0.272**	ug/L	0.010	3	304	4763	2
	Sb	**123**	**0.281**	ug/L	0.005	1	246	3750	0
	Ba	**135**	**21.681**	ug/L	0.557	2	18	105785	1
	Ba	**137**	**21.398**	ug/L	0.314	1	36	183882	0
>	**Tb**	**159**		ug/L			1247472	1321355	1
	Tl	**205**	**0.009**	ug/L	0.001	8	176	525	5
	Pb	**208**	**0.129**	ug/L	0.003	2	302	7071	1
	Bi	**209**		ug/L			2786089	2773943	1
	Th	**232**	**0.015**	ug/L	0.002	14	860	1672	5
	U	**238**	**0.140**	ug/L	0.002	1	28	7094	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 R RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 17:18:09

Mn Zn

Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1287485	1450797	1
[	**Be**	**9**	**0.029**	ug/L	0.003	9	27	153	6
	C	**13**		ug/L			110265	142179	1
	Cl	**37**		ug/L			4510739	4704951	1
[>	**Sc**	**45**		ug/L			1161996	1314617	1
[	**V**	**51**	**0.649**	ug/L	0.021	3	7869	25110	1
[	**V-1**	**51**	**0.655**	ug/L	0.007	1	69	16460	0
[	**Cr**	**52**	**0.285**	ug/L	0.042	14	23331	32293	2
[	**Cr**	**53**	**0.308**	ug/L	0.004	1	142	882	2
[	**Mn**	**55**	**17.587**	ug/L	0.226	1	504	502283	1
[	**Co**	**59**	**0.314**	ug/L	0.007	2	96	6720	1
[>	**Ge**	**72**		ug/L			655148	685612	0
[	**Ni**	**60**	**1.656**	ug/L	0.019	1	35	6617	1
[	**Ni**	**62**	**0.578**	ug/L	0.050	8	554	904	2
[	**Cu**	**63**	**11.199**	ug/L	0.164	1	544	99124	1
[	**Cu**	**65**	**10.857**	ug/L	0.151	1	67	43565	1
[	**Zn**	**66**	**24.500**	ug/L	0.731	2	288	59954	2
[	**Zn**	**67**	**23.185**	ug/L	0.610	2	44	9535	2
[	**Zn**	**68**	**25.454**	ug/L	0.197	0	283	45193	0
[	**As**	**75**	**2.695**	ug/L	0.053	1	246	6075	1
[	**As-1**	**75**	**2.557**	ug/L	0.103	4	10971	17051	0
[	**Se**	**82**	**0.198**	ug/L	0.054	27	0	47	26
[	**Se**	**78**	**-0.197**	ug/L	0.232	117	11110	11504	0
[	**Mo**	**98**	**2.178**	ug/L	0.025	1	46	10972	0
	Y	**89**		ug/L			416262	452115	0
	Kr	**83**		ug/L			531	563	1
[>	**In**	**115**		ug/L			1030601	1151271	0
[	**Ag**	**107**	**0.002**	ug/L	0.000	21	43	74	8
[	**Cd**	**111**	**0.192**	ug/L	0.010	5	92	1138	4
[	**Cd**	**114**	**0.198**	ug/L	0.002	1	61	2817	0
[	**Sb**	**121**	**0.271**	ug/L	0.004	1	304	4843	1
[	**Sb**	**123**	**0.270**	ug/L	0.004	1	246	3681	1
[	**Ba**	**135**	**19.875**	ug/L	0.033	0	18	98867	0
[	**Ba**	**137**	**19.482**	ug/L	0.021	0	36	170666	0
[>	**Tb**	**159**		ug/L			1247472	1335495	0
[	**Tl**	**205**	**0.009**	ug/L	0.001	7	176	559	4
[	**Pb**	**208**	**0.183**	ug/L	0.004	2	302	10028	1
[	**Bi**	**209**		ug/L			2786089	2823449	0
[	**Th**	**232**	**0.009**	ug/L	0.001	7	860	1368	2
[	**U**	**238**	**0.181**	ug/L	0.002	0	28	9245	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 L RHN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, November 23, 2012 17:22:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1287485	1387042	1
[	**Be**	**9**	**-0.004**	ug/L	0.001	14	27	11	24
	C	**13**		ug/L			110265	125567	1
	Cl	**37**		ug/L			4510739	4556267	3
[>	**Sc**	**45**		ug/L			1161996	1188629	1
[	**V**	**51**	**0.034**	ug/L	0.003	9	7869	8810	2
[	**V-1**	**51**	**0.024**	ug/L	0.002	7	69	621	5
[	**Cr**	**52**	**0.050**	ug/L	0.015	30	23331	24802	2
[	**Cr**	**53**	**0.018**	ug/L	0.003	14	142	184	3
[	**Mn**	**55**	**8.683**	ug/L	0.063	0	504	224496	1
[	**Co**	**59**	**0.131**	ug/L	0.003	2	96	2594	3
[>	**Ge**	**72**		ug/L			655148	667308	1
[	**Ni**	**60**	**0.399**	ug/L	0.011	2	35	1580	4
[	**Ni**	**62**	**-0.579**	ug/L	0.008	1	554	247	2
[	**Cu**	**63**	**0.158**	ug/L	0.011	6	544	1907	3
[	**Cu**	**65**	**0.192**	ug/L	0.011	5	67	818	6
[	**Zn**	**66**	**51.942**	ug/L	1.707	3	288	123353	1
[	**Zn**	**67**	**46.754**	ug/L	0.703	1	44	18668	2
[	**Zn**	**68**	**49.852**	ug/L	1.099	2	283	85862	1
[	**As**	**75**	**-0.002**	ug/L	0.012	743	246	247	9
[	**As-1**	**75**	**-0.185**	ug/L	0.078	42	10971	10781	0
[	**Se**	**82**	**-0.050**	ug/L	0.035	70	0	-10	74
[	**Se**	**78**	**-0.652**	ug/L	0.281	43	11110	10922	0
[	**Mo**	**98**	**0.068**	ug/L	0.001	1	46	379	1
	Y	**89**		ug/L			416262	415480	2
	Kr	**83**		ug/L			531	572	5
[>	**In**	**115**		ug/L			1030601	1086956	2
[	**Ag**	**107**	**-0.002**	ug/L	0.000	19	43	27	14
[	**Cd**	**111**	**0.218**	ug/L	0.007	3	92	1209	1
[	**Cd**	**114**	**0.212**	ug/L	0.011	5	61	2848	2
[	**Sb**	**121**	**-0.013**	ug/L	0.001	8	304	121	13
[	**Sb**	**123**	**-0.014**	ug/L	0.001	6	246	91	10
[	**Ba**	**135**	**1.670**	ug/L	0.036	2	18	7860	0
[	**Ba**	**137**	**1.647**	ug/L	0.061	3	36	13651	1
[>	**Tb**	**159**		ug/L			1247472	1281256	0
[	**Tl**	**205**	**-0.001**	ug/L	0.000	4	176	131	1
[	**Pb**	**208**	**0.006**	ug/L	0.000	7	302	614	4
[	**Bi**	**209**		ug/L			2786089	2908883	0
[	**Th**	**232**	**-0.017**	ug/L	0.000	1	860	61	19
[	**U**	**238**	**0.005**	ug/L	0.000	5	28	288	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 P RHN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, November 23, 2012 17:26:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1287485	1382188	0
[	**Be**	**9**	**-0.004**	ug/L	0.001	12	27	12	16
	C	**13**		ug/L			110265	129703	2
	Cl	**37**		ug/L			4510739	4634069	2
[>	**Sc**	**45**		ug/L			1161996	1222337	1
[	**V**	**51**	**0.014**	ug/L	0.018	124	7869	8605	3
[	**V-1**	**51**	**0.013**	ug/L	0.001	10	69	365	7
[	**Cr**	**52**	**0.017**	ug/L	0.058	351	23331	24853	3
[	**Cr**	**53**	**0.011**	ug/L	0.002	18	142	173	1
[	**Mn**	**55**	**12.048**	ug/L	0.207	1	504	320076	0
[	**Co**	**59**	**0.226**	ug/L	0.009	3	96	4515	2
[>	**Ge**	**72**		ug/L			655148	661642	1
[	**Ni**	**60**	**0.555**	ug/L	0.009	1	35	2161	0
[	**Ni**	**62**	**-0.353**	ug/L	0.013	3	554	368	3
[	**Cu**	**63**	**0.247**	ug/L	0.011	4	544	2648	4
[	**Cu**	**65**	**0.284**	ug/L	0.009	3	67	1164	4
[	**Zn**	**66**	**73.787**	ug/L	1.421	1	288	173656	1
[	**Zn**	**67**	**66.254**	ug/L	0.823	1	44	26209	0
[	**Zn**	**68**	**71.401**	ug/L	1.083	1	283	121815	1
[	**As**	**75**	**-0.007**	ug/L	0.012	175	246	235	10
[	**As-1**	**75**	**-0.143**	ug/L	0.080	56	10971	10779	0
[	**Se**	**82**	**-0.017**	ug/L	0.024	142	0	-3	170
[	**Se**	**78**	**-0.469**	ug/L	0.269	57	11110	10938	0
[	**Mo**	**98**	**0.042**	ug/L	0.004	9	46	250	7
	Y	**89**		ug/L			416262	417897	2
	Kr	**83**		ug/L			531	555	1
[>	**In**	**115**		ug/L			1030601	1087783	0
[	**Ag**	**107**	**-0.002**	ug/L	0.001	32	43	23	31
[	**Cd**	**111**	**0.364**	ug/L	0.009	2	92	1950	2
[	**Cd**	**114**	**0.329**	ug/L	0.004	1	61	4387	0
[	**Sb**	**121**	**-0.014**	ug/L	0.001	4	304	101	11
[	**Sb**	**123**	**-0.015**	ug/L	0.001	5	246	82	12
[	**Ba**	**135**	**1.719**	ug/L	0.014	0	18	8096	0
[	**Ba**	**137**	**1.696**	ug/L	0.018	1	36	14068	0
[>	**Tb**	**159**		ug/L			1247472	1266849	0
[	**Tl**	**205**	**-0.001**	ug/L	0.001	43	176	133	15
[	**Pb**	**208**	**0.000**	ug/L	0.000	123	302	326	7
[	**Bi**	**209**		ug/L			2786089	2880507	0
[	**Th**	**232**	**-0.017**	ug/L	0.000	1	860	60	23
[	**U**	**238**	**0.007**	ug/L	0.000	2	28	384	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 I RHN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, November 23, 2012 17:30:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1383188	1
[	Be	9	-0.001	ug/L	0.001	161	27	26	15
	C	13		ug/L			110265	129019	1
	Cl	37		ug/L			4510739	4702669	1
[>	Sc	45		ug/L			1161996	1199737	1
[	V	51	0.494	ug/L	0.017	3	7869	19376	0
[	V-1	51	0.482	ug/L	0.016	3	69	11072	2
[	Cr	52	0.190	ug/L	0.041	21	23331	27661	1
[	Cr	53	0.151	ug/L	0.017	11	142	470	5
[	Mn	55	12.373	ug/L	0.366	2	504	322538	1
[	Co	59	0.245	ug/L	0.007	2	96	4805	2
[>	Ge	72		ug/L			655148	678836	1
[	Ni	60	0.526	ug/L	0.015	2	35	2106	3
[	Ni	62	-0.432	ug/L	0.052	12	554	334	9
[	Cu	63	2.642	ug/L	0.063	2	544	23584	2
[	Cu	65	2.593	ug/L	0.024	0	67	10354	0
[	Zn	66	36.345	ug/L	0.382	1	288	87913	0
[	Zn	67	32.562	ug/L	0.502	1	44	13238	0
[	Zn	68	35.803	ug/L	0.438	1	283	62819	1
[	As	75	1.023	ug/L	0.011	1	246	2442	2
[	As-1	75	0.800	ug/L	0.111	13	10971	13091	0
[	Se	82	0.006	ug/L	0.024	371	0	2	251
[	Se	78	-0.727	ug/L	0.398	54	11110	11064	0
[	Mo	98	0.525	ug/L	0.008	1	46	2652	2
	Y	89		ug/L			416262	423005	1
	Kr	83		ug/L			531	564	3
[>	In	115		ug/L			1030601	1091908	1
[	Ag	107	0.001	ug/L	0.001	80	43	56	14
[	Cd	111	0.208	ug/L	0.004	1	92	1159	1
[	Cd	114	0.197	ug/L	0.004	2	61	2656	0
[	Sb	121	0.047	ug/L	0.002	4	304	1060	3
[	Sb	123	0.044	ug/L	0.003	5	246	793	2
[	Ba	135	5.156	ug/L	0.044	0	18	24341	0
[	Ba	137	5.129	ug/L	0.036	0	36	42641	0
[>	Tb	159		ug/L			1247472	1276032	1
[	Tl	205	0.003	ug/L	0.000	12	176	284	3
[	Pb	208	0.182	ug/L	0.002	1	302	9500	1
[	Bi	209		ug/L			2786089	2890253	0
[	Th	232	-0.011	ug/L	0.000	4	860	366	6
[	U	238	0.054	ug/L	0.001	2	28	2651	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 M RHN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 17:35:43

Mn Zn

Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1405450	0
[	Be	9	0.011	ug/L	0.002	17	27	75	9
	C	13		ug/L			110265	131205	2
	Cl	37		ug/L			4510739	4671513	1
[>	Sc	45		ug/L			1161996	1261067	0
[	V	51	0.417	ug/L	0.005	1	7869	18546	0
[	V-1	51	0.424	ug/L	0.007	1	69	10247	1
[	Cr	52	0.165	ug/L	0.018	11	23331	28603	1
[	Cr	53	0.189	ug/L	0.008	4	142	578	3
[	Mn	55	10.972	ug/L	0.229	2	504	300840	2
[	Co	59	0.167	ug/L	0.001	0	96	3470	0
[>	Ge	72		ug/L			655148	665741	2
[	Ni	60	0.946	ug/L	0.046	4	35	3683	3
[	Ni	62	-0.143	ug/L	0.043	30	554	485	6
[	Cu	63	6.934	ug/L	0.241	3	544	59776	1
[	Cu	65	6.979	ug/L	0.173	2	67	27206	0
[	Zn	66	37.707	ug/L	0.653	1	288	89421	0
[	Zn	67	34.973	ug/L	0.294	0	44	13944	2
[	Zn	68	36.227	ug/L	1.039	2	283	62314	1
[	As	75	1.218	ug/L	0.048	3	246	2801	1
[	As-1	75	1.119	ug/L	0.174	15	10971	13511	0
[	Se	82	0.090	ug/L	0.018	20	0	21	20
[	Se	78	-0.168	ug/L	0.500	297	11110	11184	0
[	Mo	98	1.556	ug/L	0.071	4	46	7621	3
	Y	89		ug/L			416262	427731	0
	Kr	83		ug/L			531	578	3
[>	In	115		ug/L			1030601	1100557	1
[	Ag	107	0.002	ug/L	0.001	32	43	68	9
[	Cd	111	0.213	ug/L	0.012	5	92	1194	4
[	Cd	114	0.207	ug/L	0.003	1	61	2819	2
[	Sb	121	0.140	ug/L	0.002	1	304	2547	2
[	Sb	123	0.139	ug/L	0.008	5	246	1935	5
[	Ba	135	11.098	ug/L	0.147	1	18	52778	0
[	Ba	137	10.884	ug/L	0.106	0	36	91154	0
[>	Tb	159		ug/L			1247472	1301101	0
[	Tl	205	0.004	ug/L	0.000	10	176	345	5
[	Pb	208	0.072	ug/L	0.002	3	302	4050	2
[	Bi	209		ug/L			2786089	2816443	0
[	Th	232	-0.000	ug/L	0.001	287	860	883	4
[	U	238	0.069	ug/L	0.002	3	28	3471	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 Q RHN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 17:39:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1287485	1393897	0
[	**Be**	**9**	**0.011**	ug/L	0.003	22	27	75	13
	C	**13**		ug/L			110265	130504	1
	Cl	**37**		ug/L			4510739	4709445	2
[>	**Sc**	**45**		ug/L			1161996	1222333	2
[	**V**	**51**	**0.469**	ug/L	0.011	2	7869	19181	2
[	**V-1**	**51**	**0.466**	ug/L	0.002	0	69	10908	1
[	**Cr**	**52**	**0.190**	ug/L	0.038	19	23331	28195	2
[	**Cr**	**53**	**0.180**	ug/L	0.014	7	142	540	3
[	**Mn**	**55**	**8.607**	ug/L	0.096	1	504	228848	2
[	**Co**	**59**	**0.150**	ug/L	0.004	2	96	3038	3
[>	**Ge**	**72**		ug/L			655148	664980	1
[	**Ni**	**60**	**0.846**	ug/L	0.013	1	35	3294	2
[	**Ni**	**62**	**-0.171**	ug/L	0.008	4	554	469	1
[	**Cu**	**63**	**5.860**	ug/L	0.044	0	544	50567	1
[	**Cu**	**65**	**5.756**	ug/L	0.091	1	67	22433	2
[	**Zn**	**66**	**27.321**	ug/L	0.796	2	288	64801	1
[	**Zn**	**67**	**25.152**	ug/L	0.153	0	44	10029	1
[	**Zn**	**68**	**27.222**	ug/L	0.800	2	283	46851	2
[	**As**	**75**	**1.359**	ug/L	0.012	0	246	3095	2
[	**As-1**	**75**	**1.274**	ug/L	0.016	1	10971	13828	1
[	**Se**	**82**	**0.047**	ug/L	0.023	48	0	11	45
[	**Se**	**78**	**-0.164**	ug/L	0.073	44	11110	11178	1
[	**Mo**	**98**	**1.482**	ug/L	0.029	1	46	7254	1
	Y	**89**		ug/L			416262	415499	1
	Kr	**83**		ug/L			531	574	0
[>	**In**	**115**		ug/L			1030601	1094515	1
[	**Ag**	**107**	**0.000**	ug/L	0.001	189	43	49	13
[	**Cd**	**111**	**0.157**	ug/L	0.011	6	92	901	6
[	**Cd**	**114**	**0.159**	ug/L	0.004	2	61	2166	3
[	**Sb**	**121**	**0.139**	ug/L	0.005	3	304	2520	3
[	**Sb**	**123**	**0.136**	ug/L	0.006	4	246	1894	3
[	**Ba**	**135**	**10.456**	ug/L	0.171	1	18	49452	0
[	**Ba**	**137**	**10.380**	ug/L	0.071	0	36	86460	0
[>	**Tb**	**159**		ug/L			1247472	1285059	0
[	**Tl**	**205**	**0.004**	ug/L	0.001	21	176	316	9
[	**Pb**	**208**	**0.072**	ug/L	0.002	2	302	3953	2
[	**Bi**	**209**		ug/L			2786089	2820709	0
[	**Th**	**232**	**-0.008**	ug/L	0.001	14	860	487	12
[	**U**	**238**	**0.071**	ug/L	0.001	1	28	3508	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 17:43:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1287485	1366849 ✓	2
[	Be	9	51.978	ug/L	0.598	1	27	208526	1
	C	13		ug/L			110265	124667	2
	Cl	37		ug/L			4510739	4955818	2
[>	Sc	45		ug/L			1161996	1176928 ✓	1
[	V	51	49.328	ug/L	0.915	1	7869	1111467	0
[	V-1	51	49.659	ug/L	1.126	2	69	1111832	1
[	Cr	52	50.186	ug/L	1.161	2	23331	952711	1
[	Cr	53	51.313	ug/L	1.810	3	142	107773	2
[	Mn	55	50.319	ug/L	0.771	1	504	1285554	0
[	Co	59	49.525	ug/L	0.771	1	96	932220	1
[>	Ge	72		ug/L			655148	644376 ✓	1
[	Ni	60	52.418	ug/L	1.030	1	35	195736	1
[	Ni	62	50.689	ug/L	0.343	0	554	27325	1
[	Cu	63	51.949	ug/L	1.309	2	544	430126	1
[	Cu	65	52.081	ug/L	0.743	1	67	196143	1
[	Zn	66	52.711	ug/L	1.744	3	288	120886	2
[	Zn	67	52.773	ug/L	0.782	1	44	20345	2
[	Zn	68	52.424	ug/L	0.534	1	283	87183	1
[	As	75	51.647	ug/L	0.458	0	246	105010	0
[	As-1	75	51.915	ug/L	0.495	0	10971	117091	0
[	Se	82	51.976	ug/L	0.756	1	0	11505	0
[	Se	78	52.929	ug/L	0.868	1	11110	41694	0
[	Mo	98	53.840	ug/L	0.447	0	46	253769	0
	Y	89		ug/L			416262	402723	0
	Kr	83		ug/L			531	549	0
[>	In	115		ug/L			1030601	1071858 ✓	1
[	Ag	107	57.766	ug/L	0.825	1	43	634116	2
[	Cd	111	51.383	ug/L	0.987	1	92	257989	0
[	Cd	114	50.107	ug/L	0.208	0	61	648640	0
[	Sb	121	49.956	ug/L	0.978	1	304	773244	0
[	Sb	123	49.982	ug/L	0.818	1	246	588082	0
[	Ba	135	48.769	ug/L	0.559	1	18	225822	1
[	Ba	137	47.971	ug/L	0.731	1	36	391129	0
[>	Tb	159		ug/L			1247472	1268110 ✓	0
[	Tl	205	51.166	ug/L	0.305	0	176	1940731	0
[	Pb	208	51.090	ug/L	0.236	0	302	2567215	0
[	Bi	209		ug/L			2786089	2803399	0
[	Th	232	51.920	ug/L	0.080	0	860	2498978	0
[	U	238	53.076	ug/L	0.437	0	28	2564596	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 17:50:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1319531	1
	Be	9	-0.003	ug/L	0.002	50	27	14	46
	C	13		ug/L			110265	130989	1
	Cl	37		ug/L			4510739	4589848	4
>	Sc	45		ug/L			1161996	1142451	1
	V	51	0.018	ug/L	0.014	78	7869	8127	3
	V-1	51	0.002	ug/L	0.001	33	69	108	13
	Cr	52	0.066	ug/L	0.045	68	23331	24126	2
	Cr	53	0.011	ug/L	0.005	41	142	162	5
	Mn	55	-0.001	ug/L	0.001	81	504	471	6
	Co	59	0.001	ug/L	0.001	51	96	113	10
>	Ge	72		ug/L			655148	642984	0
	Ni	60	0.002	ug/L	0.003	123	35	43	22
	Ni	62	-0.926	ug/L	0.014	1	554	55	13
	Cu	63	-0.049	ug/L	0.002	3	544	131	12
	Cu	65	-0.003	ug/L	0.002	87	67	56	16
	Zn	66	0.004	ug/L	0.005	124	288	291	3
	Zn	67	0.029	ug/L	0.020	67	44	54	13
	Zn	68	0.000	ug/L	0.018	8130	283	278	10
	As	75	-0.002	ug/L	0.001	49	246	237	0
	As-1	75	0.036	ug/L	0.019	52	10971	10841	0
	Se	82	-0.063	ug/L	0.028	44	0	-13	46
	Se	78	0.128	ug/L	0.094	73	11110	10978	0
	Mo	98	0.007	ug/L	0.001	20	46	77	8
	Y	89		ug/L			416262	399826	2
	Kr	83		ug/L			531	562	4
>	In	115		ug/L			1030601	1058655	1
	Ag	107	-0.000	ug/L	0.001	635	43	42	32
	Cd	111	-0.001	ug/L	0.001	61	92	88	3
	Cd	114	-0.002	ug/L	0.000	20	61	41	9
	Sb	121	0.053	ug/L	0.005	8	304	1118	7
	Sb	123	0.049	ug/L	0.006	13	246	818	10
	Ba	135	0.001	ug/L	0.000	84	18	21	10
	Ba	137	-0.000	ug/L	0.001	393	36	35	24
>	Tb	159		ug/L			1247472	1222172	0
	Tl	205	0.005	ug/L	0.003	64	176	345	32
	Pb	208	0.001	ug/L	0.000	44	302	323	3
	Bi	209		ug/L			2786089	2808281	0
	Th	232	0.147	ug/L	0.012	7	860	7640	7
	U	238	0.003	ug/L	0.000	11	28	168	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 17:56:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L				1308714	1
[	Be	9		ug/L				13	46
	C	13		ug/L				128029	1
	Cl	37		ug/L				4748971	1
[>	Sc	45		ug/L				1148143	0
[	V	51		ug/L				8327	5
[	V-1	51		ug/L				93	16
[	Cr	52		ug/L				24784	5
[	Cr	53		ug/L				167	4
[	Mn	55		ug/L				467	6
[	Co	59		ug/L				108	4
[>	Ge	72		ug/L				638278	2
[	Ni	60		ug/L				32	19
[	Ni	62		ug/L				59	6
[	Cu	63		ug/L				112	6
[	Cu	65		ug/L				50	7
[	Zn	66		ug/L				281	4
[	Zn	67		ug/L				48	4
[	Zn	68		ug/L				259	8
[	As	75		ug/L				250	7
[	As-1	75		ug/L				10735	0
[	Se	82		ug/L				12	39
[	Se	78		ug/L				10877	0
[	Mo	98		ug/L				45	45
	Y	89		ug/L				395688	0
	Kr	83		ug/L				503	2
[>	In	115		ug/L				1044851	0
[	Ag	107		ug/L				46	80
[	Cd	111		ug/L				93	15
[	Cd	114		ug/L				56	42
[	Sb	121		ug/L				342	4
[	Sb	123		ug/L				277	12
[	Ba	135		ug/L				19	52
[	Ba	137		ug/L				35	38
[>	Tb	159		ug/L				1220108	1
[	Tl	205		ug/L				250	15
[	Pb	208		ug/L				297	18
[	Bi	209		ug/L				2817769	1
[	Th	232		ug/L				2087	3
[	U	238		ug/L				63	41

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 18:00:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1320968	2
	Be	9	53.661	ug/L	1.354	2	13	208018	1
	C	13		ug/L			128029	122585	3
	Cl	37		ug/L			4748971	4854110	3
>	Sc	45		ug/L			1148143	1186626	0
	V	51	49.859	ug/L	0.939	1	8327	1133342	2
	V-1	51	49.847	ug/L	1.134	2	93	1125442	2
	Cr	52	50.309	ug/L	0.898	1	24784	964743	1
	Cr	53	50.265	ug/L	1.556	3	167	106489	2
	Mn	55	49.783	ug/L	1.323	2	467	1282547	3
	Co	59	49.420	ug/L	0.608	1	108	938025	1
>	Ge	72		ug/L			638278	633954	0
	Ni	60	53.890	ug/L	0.975	1	32	197994	1
	Ni	62	52.405	ug/L	0.279	0	59	27298	0
	Cu	63	53.944	ug/L	1.179	2	112	439055	1
	Cu	65	51.887	ug/L	0.667	1	50	192247	1
	Zn	66	53.813	ug/L	0.203	0	281	121437	0
	Zn	67	53.683	ug/L	0.646	1	48	20363	1
	Zn	68	53.742	ug/L	0.742	1	259	87909	1
	As	75	53.043	ug/L	0.826	1	250	106115	1
	As-1	75	53.227	ug/L	0.675	1	10735	117893	0
	Se	82	53.561	ug/L	0.785	1	12	11677	1
	Se	78	54.232	ug/L	0.345	0	10877	41822	0
	Mo	98	53.777	ug/L	0.794	1	45	249389	1
	Y	89		ug/L			395688	391901	1
	Kr	83		ug/L			503	540	5
>	In	115		ug/L			1044851	1042464	0
	Ag	107	57.087	ug/L	1.562	2	46	609448	2
	Cd	111	52.627	ug/L	0.616	1	93	257029	0
	Cd	114	51.018	ug/L	0.140	0	56	642344	0
	Sb	121	51.314	ug/L	0.418	0	342	772633	0
	Sb	123	51.007	ug/L	0.836	1	277	583775	1
	Ba	135	49.942	ug/L	0.516	1	19	224925	1
	Ba	137	49.357	ug/L	0.243	0	35	391447	0
>	Tb	159		ug/L			1220108	1242524	0
	Tl	205	52.305	ug/L	0.140	0	250	1943939	0
	Pb	208	51.997	ug/L	0.238	0	297	2560085	0
	Bi	209		ug/L			2817769	2711776	0
	Th	232	53.476	ug/L	0.248	0	.2087	2523187	0
	U	238	54.590	ug/L	0.604	1	63	2584642	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 18:07:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1320350	1
[	Be	9	0.000	ug/L	0.001	199	13	14	16
	C	13		ug/L			128029	125735	2
	Cl	37		ug/L			4748971	4690723	1
[>	Sc	45		ug/L			1148143	1175957	1
[	V	51	-0.010	ug/L	0.009	94	8327	8305	1
[	V-1	51	0.000	ug/L	0.000	60	93	99	3
[	Cr	52	-0.043	ug/L	0.042	97	24784	24578	1
[	Cr	53	-0.009	ug/L	0.013	153	167	153	16
[	Mn	55	-0.001	ug/L	0.001	38	467	441	5
[	Co	59	-0.001	ug/L	0.000	27	108	93	4
[>	Ge	72		ug/L			638278	629924	2
[	Ni	60	0.000	ug/L	0.002	566	32	33	18
[	Ni	62	-0.003	ug/L	0.013	452	59	56	9
[	Cu	63	0.001	ug/L	0.002	130	112	120	8
[	Cu	65	0.001	ug/L	0.001	77	50	54	3
[	Zn	66	-0.002	ug/L	0.008	362	281	272	8
[	Zn	67	-0.015	ug/L	0.024	156	48	42	23
[	Zn	68	0.006	ug/L	0.022	363	259	265	11
[	As	75	-0.006	ug/L	0.005	86	250	236	3
[	As-1	75	0.147	ug/L	0.143	97	10735	10884	0
[	Se	82	-0.057	ug/L	0.067	118	12	0	19658
[	Se	78	0.553	ug/L	0.472	85	10877	11045	0
[	Mo	98	0.005	ug/L	0.001	26	45	67	8
	Y	89		ug/L			395688	399167	0
	Kr	83		ug/L			503	547	5
[>	In	115		ug/L			1044851	1039267	1
[	Ag	107	-0.001	ug/L	0.001	53	46	32	24
[	Cd	111	-0.001	ug/L	0.002	227	93	88	9
[	Cd	114	-0.001	ug/L	0.001	56	56	40	19
[	Sb	121	0.051	ug/L	0.007	13	342	1105	10
[	Sb	123	0.050	ug/L	0.006	12	277	844	9
[	Ba	135	0.001	ug/L	0.001	59	19	25	14
[	Ba	137	-0.001	ug/L	0.001	71	35	27	19
[>	Tb	159		ug/L			1220108	1209500	1
[	Tl	205	0.003	ug/L	0.003	106	250	349	31
[	Pb	208	-0.001	ug/L	0.000	67	297	262	7
[	Bi	209		ug/L			2817769	2770074	1
[	Th	232	0.131	ug/L	0.014	11	2087	8069	9
[	U	238	0.002	ug/L	0.000	17	63	148	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 18:12:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1354569	0
[	Be	9	0.000	ug/L	0.002	527	13	15	54
	C	13		ug/L			128029	131293	2
	Cl	37		ug/L			4748971	4709101	1
[>	Sc	45		ug/L			1148143	1189642	0
[	V	51	-0.021	ug/L	0.003	15	8327	8152	0
[	V-1	51	-0.000	ug/L	0.000	149	93	91	10
[	Cr	52	-0.071	ug/L	0.017	24	24784	24350	0
[	Cr	53	-0.000	ug/L	0.006	147564	167	173	6
[	Mn	55	0.011	ug/L	0.003	27	467	775	10
[	Co	59	-0.001	ug/L	0.001	55	108	89	14
[>	Ge	72		ug/L			638278	647204	0
[	Ni	60	0.007	ug/L	0.001	9	32	59	3
[	Ni	62	-0.007	ug/L	0.012	182	59	56	10
[	Cu	63	0.008	ug/L	0.001	14	112	184	5
[	Cu	65	0.007	ug/L	0.001	10	50	77	3
[	Zn	66	0.154	ug/L	0.018	11	281	638	6
[	Zn	67	0.133	ug/L	0.044	33	48	100	16
[	Zn	68	0.153	ug/L	0.011	7	259	518	3
[	As	75	0.001	ug/L	0.006	527	250	256	5
[	As-1	75	0.008	ug/L	0.063	840	10735	10900	0
[	Se	82	-0.069	ug/L	0.047	68	12	-2	390
[	Se	78	0.024	ug/L	0.239	986	10877	11043	0
[	Mo	98	-0.003	ug/L	0.002	67	45	32	29
	Y	89		ug/L			395688	413499	3
	Kr	83		ug/L			503	560	1
[>	In	115		ug/L			1044851	1069026	0
[	Ag	107	-0.002	ug/L	0.000	30	46	29	17
[	Cd	111	-0.003	ug/L	0.002	61	93	82	9
[	Cd	114	-0.001	ug/L	0.000	4	56	39	2
[	Sb	121	0.003	ug/L	0.003	102	342	399	12
[	Sb	123	0.002	ug/L	0.003	158	277	304	10
[	Ba	135	0.008	ug/L	0.002	25	19	54	15,
[	Ba	137	0.006	ug/L	0.001	12	35	85	7
[>	Tb	159		ug/L			1220108	1246495	0
[	Tl	205	0.001	ug/L	0.002	355	250	279	30
[	Pb	208	0.002	ug/L	0.000	18	297	419	5
[	Bi	209		ug/L			2817769	2884737	0
[	Th	232	0.045	ug/L	0.002	5	2087	4246	2
[	U	238	-0.000	ug/L	0.000	29	63	42	15

VS19:00312

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 18:16:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1350336	2
[	Be	9	26.893	ug/L	0.697	2	13	106570	1
	C	13		ug/L			128029	128965	2
	Cl	37		ug/L			4748971	4726818	1
[>	Sc	45		ug/L			1148143	1174879	0
[	V	51	26.780	ug/L	0.427	1	8327	606596	0
[	V-1	51	26.875	ug/L	0.285	1	93	600774	0
[	Cr	52	26.932	ug/L	0.411	1	24784	523108	0
[	Cr	53	27.253	ug/L	0.201	0	167	57249	1
[	Mn	55	27.071	ug/L	0.332	1	467	690621	0
[	Co	59	26.127	ug/L	0.621	2	108	490978	1
[>	Ge	72		ug/L			638278	645331	1
[	Ni	60	28.322	ug/L	0.853	3	32	105901	1
[	Ni	62	28.080	ug/L	0.808	2	59	14912	1
[	Cu	63	28.645	ug/L	0.761	2	112	237332	1
[	Cu	65	28.375	ug/L	0.557	1	50	107016	0
[	Zn	66	90.675	ug/L	1.030	1	281	208076	0
[	Zn	67	81.929	ug/L	2.064	2	48	31600	1
[	Zn	68	88.478	ug/L	1.881	2	259	147128	0
[	As	75	26.994	ug/L	0.520	1	250	55087	1
[	As-1	75	27.689	ug/L	0.474	1	10735	67627	0
[	Se	82	86.994	ug/L	1.032	1	12	19297	1
[	Se	78	87.472	ug/L	0.966	1	10877	61920	0
[	Mo	98	26.865	ug/L	0.567	2	45	126820	1
	Y	89		ug/L			395688	405496	2
	Kr	83		ug/L			503	521	6
[>	In	115		ug/L			1044851	1066124	0
[	Ag	107	30.418	ug/L	0.436	1	46	332124	1
[	Cd	111	26.283	ug/L	0.333	1	93	131330	1
[	Cd	114	26.107	ug/L	0.394	1	56	336195	1
[	Sb	121	25.546	ug/L	0.078	0	342	393545	0
[	Sb	123	25.560	ug/L	0.587	2	277	299306	2
[	Ba	135	25.679	ug/L	0.383	1	19	118282	1
[	Ba	137	25.300	ug/L	0.370	1	35	205223	1
[>	Tb	159		ug/L			1220108	1243660	0
[	Tl	205	27.479	ug/L	0.273	0	250	1022273	0
[	Pb	208	27.811	ug/L	0.313	1	297	1370650	0
[	Bi	209		ug/L			2817769	2815649	0
[	Th	232	26.389	ug/L	0.411	1	2087	1247271	0
[	U	238	26.920	ug/L	0.162	0	63	1275725	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 S RHN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 18:20:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1308714	1365153	0
	Be	**9**	**0.005**	ug/L	0.001	21	13	34	13
	C	**13**		ug/L			128029	133439	0
	Cl	**37**		ug/L			4748971	4778375	1
>	**Sc**	**45**		ug/L			1148143	1283518	3
	V	**51**	**0.325**	ug/L	0.033	10	8327	17218	1
	V-1	**51**	**0.353**	ug/L	0.016	4	93	8719	1
	Cr	**52**	**0.028**	ug/L	0.078	274	24784	28246	2
	Cr	**53**	**0.126**	ug/L	0.014	10	167	474	3
	Mn	**55**	**15.351**	ug/L	0.894	5	467	427558	2
	Co	**59**	**0.280**	ug/L	0.010	3	108	5869	0
>	**Ge**	**72**		ug/L			638278	670475	2
	Ni	**60**	**1.128**	ug/L	0.034	3	32	4417	2
	Ni	**62**	**1.030**	ug/L	0.056	5	59	628	3
	Cu	**63**	**4.106**	ug/L	0.140	3	112	35440	1
	Cu	**65**	**4.145**	ug/L	0.055	1	50	16287	1
	Zn	**66**	**54.165**	ug/L	1.639	3	281	129222	1
	Zn	**67**	**49.137**	ug/L	0.325	0	48	19715	1
	Zn	**68**	**53.254**	ug/L	0.421	0	259	92124	1
	As	**75**	**1.280**	ug/L	0.022	1	250	2965	0
	As-1	**75**	**1.264**	ug/L	0.119	9	10735	13967	0
	Se	**82**	**0.073**	ug/L	0.013	17	12	29	12
	Se	**78**	**0.100**	ug/L	0.360	361	10877	11483	0
	Mo	**98**	**1.372**	ug/L	0.073	5	45	6769	3
	Y	**89**		ug/L			395688	432134	0
	Kr	**83**		ug/L			503	560	1
>	**In**	**115**		ug/L			1044851	1106703	0
	Ag	**107**	**0.004**	ug/L	0.001	14	46	89	7
	Cd	**111**	**0.322**	ug/L	0.001	0	93	1768	0
	Cd	**114**	**0.305**	ug/L	0.002	0	56	4138	1
	Sb	**121**	**0.165**	ug/L	0.002	1	342	2994	1
	Sb	**123**	**0.163**	ug/L	0.006	3	277	2278	3
	Ba	**135**	**10.540**	ug/L	0.123	1	19	50408	0
	Ba	**137**	**10.345**	ug/L	0.089	0	35	87128	0
>	**Tb**	**159**		ug/L			1220108	1280584	1
	Tl	**205**	**0.013**	ug/L	0.003	25	250	747	16
	Pb	**208**	**0.075**	ug/L	0.002	2	297	4134	1
	Bi	**209**		ug/L			2817769	2815966	0
	Th	**232**	**0.400**	ug/L	0.141	35	2087	21573	30
	U	**238**	**0.074**	ug/L	0.002	2	63	3662	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 T RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 18:24:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1308714	1424955	1
	Be	**9**	**0.008**	ug/L	0.002	20	13	47	13
	C	**13**		ug/L			128029	136609	1
	Cl	**37**		ug/L			4748971	4813335	0
>	**Sc**	**45**		ug/L			1148143	1312171	1
	V	**51**	**0.723**	ug/L	0.012	1	8327	27556	0
	V-1	**51**	**0.745**	ug/L	0.013	1	93	18717	2
	Cr	**52**	**0.163**	ug/L	0.031	18	24784	31693	1
	Cr	**53**	**0.240**	ug/L	0.033	13	167	754	11
	Mn	**55**	**22.563**	ug/L	0.621	2	467	643190	4
	Co	**59**	**0.409**	ug/L	0.008	2	108	8696	1
>	**Ge**	**72**		ug/L			638278	672177	2
	Ni	**60**	**1.649**	ug/L	0.074	4	32	6454	2
	Ni	**62**	**1.446**	ug/L	0.112	7	59	858	5
	Cu	**63**	**10.493**	ug/L	0.373	3	112	90613	1
	Cu	**65**	**10.432**	ug/L	0.282	2	50	41011	1
	Zn	**66**	**31.468**	ug/L	0.327	1	281	75407	1
	Zn	**67**	**29.283**	ug/L	1.029	3	48	11799	3
	Zn	**68**	**31.937**	ug/L	0.774	2	259	55486	1
	As	**75**	**2.901**	ug/L	0.059	2	250	6401	0
	As-1	**75**	**2.919**	ug/L	0.195	6	10735	17533	0
	Se	**82**	**0.048**	ug/L	0.030	62	12	24	31
	Se	**78**	**0.270**	ug/L	0.524	194	10877	11614	0
	Mo	**98**	**1.961**	ug/L	0.080	4	45	9682	2
	Y	**89**		ug/L			395688	444636	1
	Kr	**83**		ug/L			503	579	7
>	**In**	**115**		ug/L			1044851	1118450	1
	Ag	**107**	**0.002**	ug/L	0.001	65	46	69	17
	Cd	**111**	**0.229**	ug/L	0.002	0	93	1300	2
	Cd	**114**	**0.231**	ug/L	0.000	0	56	3178	1
	Sb	**121**	**0.279**	ug/L	0.008	2	342	4864	1
	Sb	**123**	**0.280**	ug/L	0.009	3	277	3732	1
	Ba	**135**	**20.730**	ug/L	0.329	1	19	100160	0
	Ba	**137**	**20.643**	ug/L	0.417	2	35	175638	0
>	**Tb**	**159**		ug/L			1220108	1307887	0
	Tl	**205**	**0.013**	ug/L	0.002	13	250	786	9
	Pb	**208**	**0.294**	ug/L	0.003	0	297	15567	0
	Bi	**209**		ug/L			2817769	2781185	0
	Th	**232**	**0.150**	ug/L	0.055	36	2087	9656	27
	U	**238**	**0.172**	ug/L	0.003	1	63	8638	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 KDUP RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 18:29:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1479645	0
	Be	9	0.010	ug/L	0.001	9	13	57	7
	C	13		ug/L			128029	141070	0
	Cl	37		ug/L			4748971	4881676	2
>	Sc	45		ug/L			1148143	1351353	1
	V	51	1.141	ug/L	0.030	2	8327	39117	1
	V-1	51	1.182	ug/L	0.038	3	93	30482	2
	Cr	52	0.253	ug/L	0.013	4	24784	34553	2
	Cr	53	0.393	ug/L	0.031	7	167	1143	5
	Mn	55	18.478	ug/L	0.230	1	467	542371	0
	Co	59	0.295	ug/L	0.004	1	108	6506	0
>	Ge	72		ug/L			638278	686160	1
	Ni	60	1.633	ug/L	0.034	2	32	6527	0
	Ni	62	1.315	ug/L	0.026	1	59	803	1
	Cu	63	15.461	ug/L	0.796	5	112	136204	3
	Cu	65	15.535	ug/L	0.251	1	50	62322	0
	Zn	66	40.785	ug/L	1.373	3	281	99652	1
	Zn	67	37.200	ug/L	0.179	0	48	15289	2
	Zn	68	41.178	ug/L	0.312	0	259	72963	1
	As	75	2.749	ug/L	0.046	1	250	6206	0
	As-1	75	2.679	ug/L	0.134	4	10735	17377	0
	Se	82	0.156	ug/L	0.045	29	12	49	19
	Se	78	0.052	ug/L	0.349	674	10877	11723	0
	Mo	98	2.951	ug/L	0.049	1	45	14856	0
	Y	89		ug/L			395688	466267	1
	Kr	83		ug/L			503	585	3
>	In	115		ug/L			1044851	1147439	0
	Ag	107	0.003	ug/L	0.000	10	46	85	4
	Cd	111	0.268	ug/L	0.012	4	93	1542	4
	Cd	114	0.266	ug/L	0.006	2	56	3749	2
	Sb	121	0.277	ug/L	0.008	2	342	4958	2
	Sb	123	0.274	ug/L	0.006	2	277	3753	1
	Ba	135	22.308	ug/L	0.170	0	19	110598	0
	Ba	137	21.946	ug/L	0.015	0	35	191600	0
>	Tb	159		ug/L			1220108	1352412	0
	Tl	205	0.010	ug/L	0.001	8	250	667	5
	Pb	208	0.366	ug/L	0.003	0	297	19924	0
	Bi	209		ug/L			2817769	2802226	0
	Th	232	0.061	ug/L	0.013	21	2087	5455	12
	U	238	0.179	ug/L	0.000	0	63	9272	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 K RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 18:33:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1455716	1
[	Be	9	0.012	ug/L	0.002	13	13	63	11
	C	13		ug/L			128029	139933	2
	Cl	37		ug/L			4748971	4796164	1
[>	Sc	45		ug/L			1148143	1354816	0
[	V	51	1.091	ug/L	0.032	2	8327	37909	1
[	V-1	51	1.136	ug/L	0.015	1	93	29391	0
[	Cr	52	0.245	ug/L	0.051	20	24784	34461	2
[	Cr	53	0.403	ug/L	0.016	3	167	1170	3
[	Mn	55	18.289	ug/L	0.447	2	467	538223	2
[	Co	59	0.287	ug/L	0.006	2	108	6353	2
[>	Ge	72		ug/L			638278	674492	1
[	Ni	60	1.645	ug/L	0.055	3	32	6463	3
[	Ni	62	1.398	ug/L	0.037	2	59	835	3
[	Cu	63	15.899	ug/L	0.353	2	112	137728	0
[	Cu	65	15.699	ug/L	0.431	2	50	61908	1
[	Zn	66	39.767	ug/L	1.024	2	281	95524	0
[	Zn	67	36.711	ug/L	0.351	0	48	14830	1
[	Zn	68	39.346	ug/L	1.366	3	259	68526	2
[	As	75	2.765	ug/L	0.048	1	250	6135	1
[	As-1	75	2.778	ug/L	0.205	7	10735	17292	0
[	Se	82	0.066	ug/L	0.065	98	12	28	53
[	Se	78	0.318	ug/L	0.602	189	10877	11684	1
[	Mo	98	3.025	ug/L	0.070	2	45	14968	1
	Y	89		ug/L			395688	460674	0
	Kr	83		ug/L			503	624	5
[>	In	115		ug/L			1044851	1146688	0
[	Ag	107	0.002	ug/L	0.001	27	46	76	9
[	Cd	111	0.276	ug/L	0.009	3	93	1587	2
[	Cd	114	0.264	ug/L	0.007	2	56	3711	2
[	Sb	121	0.269	ug/L	0.006	2	342	4823	1
[	Sb	123	0.266	ug/L	0.008	2	277	3651	2
[	Ba	135	22.077	ug/L	0.225	1	19	109383	1
[	Ba	137	21.744	ug/L	0.172	0	35	189707	0
[>	Tb	159		ug/L			1220108	1356219	0
[	Tl	205	0.007	ug/L	0.001	10	250	580	4
[	Pb	208	0.376	ug/L	0.004	1	297	20535	0
[	Bi	209		ug/L			2817769	2793863	0
[	Th	232	0.015	ug/L	0.002	16	2087	3086	3
[	U	238	0.177	ug/L	0.001	0	63	9221	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 KSPK RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 18:37:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1457441	0
[	Be	9	20.018	ug/L	0.147	0	13	85644	0
	C	13		ug/L			128029	141479	1
	Cl	37		ug/L			4748971	4846084	1
[>	Sc	45		ug/L			1148143	1343488	3
[	V	51	23.598	ug/L	1.022	4	8327	611919	1
[	V-1	51	23.665	ug/L	1.020	4	93	604454	1
[	Cr	52	23.256	ug/L	0.903	3	24784	520149	1
[	Cr	53	23.485	ug/L	0.993	4	167	56389	1
[	Mn	55	41.167	ug/L	1.040	2	467	1200200	1
[	Co	59	22.623	ug/L	0.588	2	108	485954	1
[>	Ge	72		ug/L			638278	679781	0
[	Ni	60	27.405	ug/L	0.635	2	32	107974	1
[	Ni	62	26.423	ug/L	0.550	2	59	14789	1
[	Cu	63	41.738	ug/L	0.710	1	112	364309	1
[	Cu	65	41.492	ug/L	0.910	2	50	164852	2
[	Zn	66	99.223	ug/L	1.057	1	281	239850	1
[	Zn	67	92.380	ug/L	1.088	1	48	37536	0
[	Zn	68	98.177	ug/L	1.423	1	259	171972	1
[	As	75	22.619	ug/L	0.387	1	250	48678	2
[	As-1	75	22.481	ug/L	0.090	0	10735	59998	0
[	Se	82	52.311	ug/L	0.970	1	12	12230	2
[	Se	78	50.939	ug/L	0.303	0	10877	42826	0
[	Mo	98	3.035	ug/L	0.047	1	45	15137	2
	Y	89		ug/L			395688	441943	1
	Kr	83		ug/L			503	610	2
[>	In	115		ug/L			1044851	1138575	0
[	Ag	107	29.762	ug/L	0.064	0	46	347060	0
[	Cd	111	20.590	ug/L	0.043	0	93	109896	0
[	Cd	114	19.756	ug/L	0.160	0	56	271695	0
[	Sb	121	0.270	ug/L	0.003	1	342	4809	0
[	Sb	123	0.275	ug/L	0.006	2	277	3739	1
[	Ba	135	45.216	ug/L	0.866	1	19	222399	1
[	Ba	137	44.366	ug/L	0.230	0	35	384310	1
[>	Tb	159		ug/L			1220108	1339809	0
[	Tl	205	24.031	ug/L	0.123	0	250	963199	0
[	Pb	208	24.235	ug/L	0.079	0	297	1286810	0
[	Bi	209		ug/L			2817769	2771573	1
[	Th	232	23.468	ug/L	0.117	0	2087	1195271	0
[	U	238	24.643	ug/L	0.248	1	63	1258087	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 18:41:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1428608 ✓	1
	Be	9	0.532	ug/L	0.011	2	13	2243	1
	C	13		ug/L			128029	202557	1
	Cl	37		ug/L			4748971	4730694	2
>	Sc	45		ug/L			1148143	1277895 ✓	0
	V	51	18.898	ug/L	0.196	1	8327	468324	0
	V-1	51	18.912	ug/L	0.196	1	93	459869	0
	Cr	52	19.384	ug/L	0.100	0	24784	417280	1
	Cr	53	19.430	ug/L	0.115	0	167	44448	1
	Mn	55	352.882	ug/L	7.418	2	467	9785466	1
	Co	59	6.182	ug/L	0.135	2	108	126458	1
>	Ge	72		ug/L			638278	640669 ✓	1
	Ni	60	20.675	ug/L	0.583	2	32	76769	1
	Ni	62	23.119	ug/L	0.557	2	59	12200	0
	Cu	63	25.811	ug/L	0.899	3	112	212329	3
	Cu	65	25.465	ug/L	0.176	0	50	95371	1
	Zn	66	475.273	ug/L	9.938	2	281	1081459	0
	Zn	67	434.361	ug/L	10.765	2	48	166120	0
	Zn	68	464.482	ug/L	8.064	1	259	765735	0
	As	75	17.872	ug/L	0.409	2	250	36292	0
	As-1	75	17.563	ug/L	0.485	2	10735	46524	0
	Se	82	0.971	ug/L	0.072	7	12	226	6
	Se	78	0.737	ug/L	0.300	40	10877	11342	0
	Mo	98	1.357	ug/L	0.032	2	45	6405	3
	Y	89		ug/L			395688	584773	0
	Kr	83		ug/L			503	722	4
>	In	115		ug/L			1044851	1137451 ✓	0
	Ag	107	0.612	ug/L	0.015	2	46	7181	2
	Cd	111	6.777	ug/L	0.038	0	93	36202	0
	Cd	114	6.470	ug/L	0.133	2	56	88924	1
	Sb	121	0.481	ug/L	0.010	1	342	8270	1
	Sb	123	0.460	ug/L	0.010	2	277	6044	1
	Ba	135	121.499	ug/L	2.116	1	19	596999	1
	Ba	137	120.351	ug/L	1.288	1	35	1041386	0
>	Tb	159		ug/L			1220108	1285203 ✓	0
	Tl	205	0.362	ug/L	0.006	1	250	14192	1
	Pb	208	488.980	ug/L	5.722	1	297	24898949	0
	Bi	209		ug/L			2817769	2801913	1
	Th	232	3.004	ug/L	0.050	1	2087	148665	1
	U	238	1.652	ug/L	0.027	1	63	80975	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 18:46:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1308714	1371278 ✓	0
	Be	**9**	**0.606**	ug/L	0.006	0	13	2453	0
	C	**13**		ug/L			128029	205641	1
	Cl	**37**		ug/L			4748971	4791498	2
>	**Sc**	**45**		ug/L			1148143	1279261 ✓	0
	V	**51**	**17.031**	ug/L	0.328	1	8327	423411	1
	V-1	**51**	**17.086**	ug/L	0.286	1	93	415911	1
	Cr	**52**	**17.859**	ug/L	0.074	0	24784	387033	0
	Cr	**53**	**18.044**	ug/L	0.282	1	167	41336	2
	Mn	**55**	**1760.294**	ug/L	36.423	2	467	48869241	2
	Co	**59**	**7.681**	ug/L	0.154	2	108	157254	1
>	**Ge**	**72**		ug/L			638278	639977 ✓	1
	Ni	**60**	**25.537**	ug/L	0.418	1	32	94725	1
	Ni	**62**	**26.469**	ug/L	0.519	1	59	13950	3
	Cu	**63**	**30.051**	ug/L	1.165	3	112	246933	3
	Cu	**65**	**29.803**	ug/L	0.572	1	50	111478	0
	Zn	**66**	**768.728**	ug/L	17.199	2	281	1747247	1
	Zn	**67**	**722.721**	ug/L	4.580	0	48	276131	0
	Zn	**68**	**770.633**	ug/L	9.314	1	259	1269154	1
	As	**75**	**27.730**	ug/L	0.272	0	250	56118	0
	As-1	**75**	**27.298**	ug/L	0.334	1	10735	66278	0
	Se	**82**	**0.483**	ug/L	0.049	10	12	118	9
	Se	**78**	**0.134**	ug/L	0.323	240	10877	10983	1
	Mo	**98**	**1.059**	ug/L	0.016	1	45	5003	1
	Y	**89**		ug/L			395688	538371	3
	Kr	**83**		ug/L			503	705	3
>	**In**	**115**		ug/L			1044851	1139216 ✓	0
	Ag	**107**	**0.638**	ug/L	0.012	1	46	7495	1
	Cd	**111**	**13.227**	ug/L	0.100	0	93	70673	0
	Cd	**114**	**12.643**	ug/L	0.123	0	56	174007	1
	Sb	**121**	**1.062**	ug/L	0.004	0	342	17836	0
	Sb	**123**	**1.037**	ug/L	0.008	0	277	13266	0
	Ba	**135**	**458.434**	ug/L	1.389	0	19	2256101	0
	Ba	**137**	**456.580**	ug/L	1.805	0	35	3956919	0
>	**Tb**	**159**		ug/L			1220108	1264787 ✓	1
	Tl	**205**	**0.518**	ug/L	0.013	2	250	19841	1
	Pb	**208**	**533.259**	ug/L	7.917	1	297	26719944	0
	Bi	**209**		ug/L			2817769	2756445	0
	Th	**232**	**3.265**	ug/L	0.035	1	2087	158818	0
	U	**238**	**0.563**	ug/L	0.002	0	63	27200	1

VS19:00320

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 18:50:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1394179	2
[	Be	9	0.577	ug/L	0.022	3	13	2372	2
	C	13		ug/L			128029	202838	2
	Cl	37		ug/L			4748971	4983513	2
[>	Sc	45		ug/L			1148143	1330960	1
[	V	51	26.046	ug/L	0.133	0	8327	668675	1
[	V-1	51	26.053	ug/L	0.194	0	93	659770	0
[	Cr	52	25.627	ug/L	0.269	1	24784	565374	2
[	Cr	53	25.652	ug/L	0.849	3	167	61039	2
[	Mn	55	1203.360	ug/L	20.609	1	467	34754685	1
[	Co	59	8.836	ug/L	0.230	2	108	188181	1
[>	Ge	72		ug/L			638278	654802	0
[	Ni	60	28.216	ug/L	0.670	2	32	107083	1
[	Ni	62	30.241	ug/L	0.956	3	59	16296	3
[	Cu	63	29.151	ug/L	0.377	1	112	245126	1
[	Cu	65	29.791	ug/L	0.277	0	50	114028	0
[	Zn	66	599.555	ug/L	9.485	1	281	1394471	0
[	Zn	67	573.284	ug/L	8.809	1	48	224121	1
[	Zn	68	593.570	ug/L	5.103	0	259	1000213	0
[	As	75	14.583	ug/L	0.067	0	250	30319	0
[	As-1	75	14.232	ug/L	0.071	0	10735	40628	0
[	Se	82	0.264	ug/L	0.068	25	12	72	20
[	Se	78	-0.181	ug/L	0.056	31	10877	11052	0
[	Mo	98	0.517	ug/L	0.013	2	45	2522	2
	Y	89		ug/L			395688	578303	2
	Kr	83		ug/L			503	754	5
[>	In	115		ug/L			1044851	1167873	0
[	Ag	107	0.508	ug/L	0.016	3	46	6125	3
[	Cd	111	14.992	ug/L	0.209	1	93	82099	1
[	Cd	114	14.340	ug/L	0.153	1	56	202315	1
[	Sb	121	0.476	ug/L	0.007	1	342	8407	1
[	Sb	123	0.476	ug/L	0.001	0	277	6416	0
[	Ba	135	383.241	ug/L	3.471	0	19	1933441	0
[	Ba	137	393.289	ug/L	3.370	0	35	3493999	0
[>	Tb	159		ug/L			1220108	1288418	0
[	Tl	205	0.576	ug/L	0.001	0	250	22467	0
[	Pb	208	683.317	ug/L	3.467	0	297	34882181	0
[	Bi	209		ug/L			2817769	2827537	0
[	Th	232	4.344	ug/L	0.045	1	2087	214534	0
[	U	238	0.498	ug/L	0.005	0	63	24508	0

VS19 : 00321

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 18:54:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1365646 ✓	0
	Be	9	53.456	ug/L	0.686	1	13	214282	1
	C	13		ug/L			128029	127579	3
	Cl	37		ug/L			4748971	4934583	2
>	Sc	45		ug/L			1148143	1199968 ✓	1
	V	51	49.413	ug/L	1.409	2	8327	1136027	3
	V-1	51	49.608	ug/L	1.057	2	93	1132671	2
	Cr	52	50.441	ug/L	0.775	1	24784	978213	2
	Cr	53	51.104	ug/L	1.434	2	167	109465	1
	Mn	55	50.421	ug/L	0.348	0	467	1313400	0
	Co	59	47.734	ug/L	0.977	2	108	916102	1
>	Ge	72		ug/L			638278	648181 ✓	1
	Ni	60	52.404	ug/L	1.423	2	32	196852	2
	Ni	62	51.885	ug/L	0.628	1	59	27632	0
	Cu	63	52.119	ug/L	0.195	0	112	433742	1
	Cu	65	51.510	ug/L	0.436	0	50	195120	0
	Zn	66	52.904	ug/L	1.115	2	281	122054	1
	Zn	67	53.075	ug/L	0.935	1	48	20585	2
	Zn	68	52.331	ug/L	1.511	2	259	87512	1
	As	75	52.001	ug/L	0.919	1	250	106372	2
	As-1	75	51.916	ug/L	0.516	0	10735	117841	1
	Se	82	52.932	ug/L	1.122	2	12	11797	1
	Se	78	52.617	ug/L	1.452	2	10877	41811	1
	Mo	98	53.932	ug/L	0.885	1	45	255759	2
	Y	89		ug/L			395688	401435	1
	Kr	83		ug/L			503	529	4
>	In	115		ug/L			1044851	1071871 ✓	0
	Ag	107	59.615	ug/L	1.538	2	46	654345	2
	Cd	111	52.407	ug/L	0.683	1	93	263167	1
	Cd	114	51.291	ug/L	0.687	1	56	663939	0
	Sb	121	50.988	ug/L	0.740	1	342	789304	0
	Sb	123	50.846	ug/L	0.619	1	277	598320	0
	Ba	135	49.356	ug/L	0.722	1	19	228533	0
	Ba	137	48.281	ug/L	0.404	0	35	393706	0
>	Tb	159		ug/L			1220108	1272379 ✓	0
	Tl	205	51.392	ug/L	0.456	0	250	1956005	1
	Pb	208	51.277	ug/L	0.191	0	297	2585301	0
	Bi	209		ug/L			2817769	2798674	0
	Th	232	52.638	ug/L	0.558	1	2087	2543250	0
	U	238	54.020	ug/L	0.960	1	63	2618897	1

VS19:00322

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 19:01:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1342676 ✓	0
	Be	9	0.002	ug/L	0.002	84	13	20	28
	C	13		ug/L			128029	127650	0
	Cl	37		ug/L			4748971	4876852	1
>	Sc	45		ug/L			1148143	1173729 ✓	0
	V	51	-0.012	ug/L	0.003	22	8327	8244	1
	V-1	51	0.001	ug/L	0.003	191	93	128	48
	Cr	52	-0.048	ug/L	0.011	23	24784	24449	1
	Cr	53	-0.002	ug/L	0.008	413	167	167	10
	Mn	55	0.046	ug/L	0.050	109	467	1639	77
	Co	59	0.002	ug/L	0.003	145	108	148	36
>	Ge	72		ug/L			638278	630194 ✓	0
	Ni	60	0.002	ug/L	0.004	151	32	41	31
	Ni	62	-0.011	ug/L	0.022	204	59	52	21
	Cu	63	0.004	ug/L	0.004	107	112	142	23
	Cu	65	0.006	ug/L	0.004	62	50	70	18
	Zn	66	0.020	ug/L	0.031	151	281	322	20
	Zn	67	0.015	ug/L	0.021	141	48	53	14
	Zn	68	0.039	ug/L	0.033	85	259	318	16
	As	75	-0.005	ug/L	0.009	187	250	237	8
	As-1	75	0.066	ug/L	0.026	38	10735	10732	0
	Se	82	-0.027	ug/L	0.026	97	12	6	89
	Se	78	0.246	ug/L	0.057	23	10877	10879	0
	Mo	98	0.005	ug/L	0.004	89	45	66	28
	Y	89		ug/L			395688	397141	1
	Kr	83		ug/L			503	512	3
>	In	115		ug/L			1044851	1055150 ✓	0
	Ag	107	0.001	ug/L	0.003	325	46	56	58
	Cd	111	0.004	ug/L	0.004	104	93	113	17
	Cd	114	0.002	ug/L	0.004	269	56	76	71
	Sb	121	0.045	ug/L	0.003	6	342	1035	3
	Sb	123	0.043	ug/L	0.003	7	277	772	3
	Ba	135	0.018	ug/L	0.019	109	19	99	87
	Ba	137	0.017	ug/L	0.021	120	35	176	95
>	Tb	159		ug/L			1220108	1216277 ✓	0
	Tl	205	0.004	ug/L	0.001	36	250	392	12
	Pb	208	0.025	ug/L	0.029	116	297	1507	93
	Bi	209		ug/L			2817769	2784670	0
	Th	232	0.096	ug/L	0.008	8	2087	6514	5
	U	238	0.003	ug/L	0.003	82	63	212	58

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 19:06:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, V, Cr, Co, Tb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1308714	1385032 ✓	1
	Be	**9**	**0.190**	ug/L	0.009	4	13	785	5
	C	**13**		ug/L			128029	137151	0
	Cl	**37**		ug/L			4748971	4783113	0
>	**Sc**	**45**		ug/L			1148143	1255762 ✓	0
	V	**51**	**13.687**	ug/L	0.242	1	8327	335852	2
	V-1	**51**	**13.713**	ug/L	0.314	2	93	327725	2
	Cr	**52**	**19.855**	ug/L	0.496	2	24784	419328	1
	Cr	**53**	**19.926**	ug/L	0.340	1	167	44785	1
	Mn	**55**	**293.450**	ug/L	0.858	0	467	7997268	0
	Co	**59**	**3.155**	ug/L	0.103	3	108	63463	2
>	**Ge**	**72**		ug/L			638278	656716 ✓	1
	Ni	**60**	**7.921**	ug/L	0.033	0	32	30174	1
	Ni	**62**	**8.466**	ug/L	0.039	0	59	4619	1
	Cu	**63**	**8.456**	ug/L	0.148	1	112	71386	1
	Cu	**65**	**8.235**	ug/L	0.099	1	50	31646	0
	Zn	**66**	**60.818**	ug/L	0.806	1	281	142122	0
	Zn	**67**	**64.588**	ug/L	1.982	3	48	25366	2
	Zn	**68**	**64.130**	ug/L	1.345	2	259	108602	0
	As	**75**	**2.908**	ug/L	0.007	0	250	6269	1
	As-1	**75**	**2.775**	ug/L	0.085	3	10735	16836	0
	Se	**82**	**-0.062**	ug/L	0.039	63	12	-1	749
	Se	**78**	**-0.336**	ug/L	0.307	91	10877	10991	0
	Mo	**98**	**0.101**	ug/L	0.004	4	45	532	3
	Y	**89**		ug/L			395688	463937	1
	Kr	**83**		ug/L			503	587	1
>	**In**	**115**		ug/L			1044851	1093604 ✓	0
	Ag	**107**	**0.058**	ug/L	0.003	4	46	699	4
	Cd	**111**	**0.971**	ug/L	0.021	2	93	5071	2
	Cd	**114**	**0.922**	ug/L	0.007	0	56	12229	0
	Sb	**121**	**0.016**	ug/L	0.002	12	342	608	5
	Sb	**123**	**0.015**	ug/L	0.003	20	277	466	7
	Ba	**135**	**124.035**	ug/L	0.610	0	19	585988	0
	Ba	**137**	**123.280**	ug/L	0.961	0	35	1025632	0
>	**Tb**	**159**		ug/L			1220108	1266156 ✓	0
	Tl	**205**	**0.117**	ug/L	0.005	4	250	4673	3
	Pb	**208**	**34.716**	ug/L	0.269	0	297	1741823	0
	Bi	**209**		ug/L			2817769	2833146	0
	Th	**232**	**1.162**	ug/L	0.002	0	2087	57988	0
	U	**238**	**0.233**	ug/L	0.001	0	63	11289	0

ICP-MS Quantitative Analysis - Summary Report

rr Ag, V, Cr, Co, Zn

Sample ID: VS19 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:10:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1379263	2
[	Be	9	0.887	ug/L	0.023	2	13	3603	0
	C	13		ug/L			128029	174412	0
	Cl	37		ug/L			4748971	4869889	1
[>	Sc	45		ug/L			1148143	1438286	1
[	V	51	60.605	ug/L	1.647	2	8327	1667862	3
[	V-1	51	59.710	ug/L	0.783	1	93	1634151	2
[	Cr	52	88.502	ug/L	1.991	2	24784	2033994	3
[	Cr	53	85.370	ug/L	1.158	1	167	219060	0
[	Mn	55	1261.701	ug/L	30.864	2	467	39374427	1
[	Co	59	13.259	ug/L	0.158	1	108	305147	2
[>	Ge	72		ug/L			638278	636704	2
[	Ni	60	39.404	ug/L	1.232	3	32	145366	2
[	Ni	62	42.874	ug/L	1.167	2	59	22438	2
[	Cu	63	41.318	ug/L	1.275	3	112	337754	3
[	Cu	65	40.011	ug/L	0.713	1	50	148873	1
[	Zn	66	288.227	ug/L	1.057	0	281	652043	2
[	Zn	67	301.790	ug/L	9.854	3	48	114703	1
[	Zn	68	305.256	ug/L	12.109	3	259	500044	2
[	As	75	14.478	ug/L	0.372	2	250	29264	1
[	As-1	75	14.195	ug/L	0.402	2	10735	39419	0
[	Se	82	-0.233	ug/L	0.088	37	12	-38	49
[	Se	78	-0.035	ug/L	0.331	933	10877	10828	1
[	Mo	98	0.556	ug/L	0.029	5	45	2633	3
	Y	89		ug/L			395688	652913	1
	Kr	83		ug/L			503	1018	1
[>	In	115		ug/L			1044851	1048609	0
[	Ag	107	0.310	ug/L	0.008	2	46	3370	3
[	Cd	111	4.793	ug/L	0.079	1	93	23634	2
[	Cd	114	4.487	ug/L	0.044	0	56	56877	0
[	Sb	121	0.078	ug/L	0.005	6	342	1525	6
[	Sb	123	0.080	ug/L	0.001	1	277	1194	0
[	Ba	135	663.092	ug/L	12.610	1	19	3003747	2
[	Ba	137	649.022	ug/L	3.391	0	35	5177347	1
[>	Tb	159		ug/L			1220108	1256189	1
[	Tl	205	0.560	ug/L	0.007	1	250	21277	0
[	Pb	208	173.544	ug/L	2.535	1	297	8636441	0
[	Bi	209		ug/L			2817769	2626413	0
[	Th	232	5.637	ug/L	0.091	1	2087	270768	0
[	U	238	1.168	ug/L	0.015	1	63	55949	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:14:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, V, Cr, Co, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1408154	1
	Be	9	0.801	ug/L	0.035	4	13	3322	2
	C	13		ug/L			128029	184290	1
	Cl	37		ug/L			4748971	4850492	3
>	Sc	45		ug/L			1148143	1463594	2
	V	51	54.178	ug/L	0.640	1	8327	1517771	0
	V-1	51	54.005	ug/L	1.223	2	93	1503433	0
	Cr	52	82.569	ug/L	1.212	1	24784	1932760	2
	Cr	53	81.900	ug/L	3.425	4	167	213816	3
	Mn	55	1132.631	ug/L	17.111	1	467	35966647	0
	Co	59	11.957	ug/L	0.346	2	108	279908	1
>	Ge	72		ug/L			638278	633185	2
	Ni	60	35.854	ug/L	0.561	1	32	131551	0
	Ni	62	40.002	ug/L	0.647	1	59	20821	0
	Cu	63	37.442	ug/L	0.399	1	112	304394	1
	Cu	65	37.505	ug/L	0.541	1	50	138800	2
	Zn	66	266.075	ug/L	10.167	3	281	598294	1
	Zn	67	276.910	ug/L	6.054	2	48	104680	0
	Zn	68	278.693	ug/L	7.141	2	259	454097	0
	As	75	13.323	ug/L	0.221	1	250	26801	0
	As-1	75	13.113	ug/L	0.316	2	10735	37027	0
	Se	82	u -0.242	ug/L	0.052	21	12	-40	27
	Se	78	0.148	ug/L	0.375	252	10877	10872	0
	Mo	98	0.534	ug/L	0.013	2	45	2515	1
	Y	89		ug/L			395688	640471	1
	Kr	83		ug/L			503	992	3
>	In	115		ug/L			1044851	1073487	1
	Ag	107	0.312	ug/L	0.007	2	46	3478	0
	Cd	111	4.437	ug/L	0.060	1	93	22399	1
	Cd	114	4.190	ug/L	0.067	1	56	54369	0
	Sb	121	u 0.081	ug/L	0.002	2	342	1605	2
	Sb	123	0.082	ug/L	0.006	6	277	1252	3
	Ba	135	617.885	ug/L	19.842	3	19	2864376	1
	Ba	137	600.045	ug/L	15.130	2	35	4898579	0
>	Tb	159		ug/L			1220108	1266442	0
	Tl	205	0.513	ug/L	0.001	0	250	19697	0
	Pb	208	156.580	ug/L	0.447	0	297	7857061	0
	Bi	209		ug/L			2817769	2650024	0
	Th	232	5.008	ug/L	0.043	0	2087	242810	0
	U	238	1.051	ug/L	0.004	0	63	50759	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:18:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, V, Cr, Co, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1308714	1387924	0
[	**Be**	**9**	**27.388**	ug/L	0.512	1	13	111593	2
	C	**13**		ug/L			128029	170151	1
	Cl	**37**		ug/L			4748971	4919738	1
[>	**Sc**	**45**		ug/L			1148143	1450501	0
[	**V**	**51**	**86.148**	ug/L	1.961	2	8327	2386009	2
[	**V-1**	**51**	**85.142**	ug/L	1.910	2	93	2349771	2
[	**Cr**	**52**	**105.458**	ug/L	1.286	1	24784	2437786	1
[	**Cr**	**53**	**101.973**	ug/L	0.945	0	167	263880	1
[	**Mn**	**55**	**1289.535**	ug/L	18.395	1	467	40592017	1
[	**Co**	**59**	**34.130**	ug/L	0.182	0	108	791884	0
[>	**Ge**	**72**		ug/L			638278	627125	1
[	**Ni**	**60**	**66.970**	ug/L	1.034	1	32	243407	2
[	**Ni**	**62**	**71.029**	ug/L	0.936	1	59	36577	0
[	**Cu**	**63**	**69.693**	ug/L	0.705	1	112	561100	1
[	**Cu**	**65**	**68.982**	ug/L	0.234	0	50	252814	1
[	**Zn**	**66**	**378.838**	ug/L	2.523	0	281	844023	1
[	**Zn**	**67**	**385.616**	ug/L	5.024	1	48	144396	1
[	**Zn**	**68**	**391.073**	ug/L	3.835	0	259	631229	1
[	**As**	**75**	**40.687**	ug/L	0.637	1	250	80568	0
[	**As-1**	**75**	**40.910**	ug/L	0.724	1	10735	92067	0
[	**Se**	**82**	**79.631**	ug/L	1.244	1	12	17167	1
[	**Se**	**78**	**79.910**	ug/L	1.239	1	10877	55897	0
[	**Mo**	**98**	**24.466**	ug/L	0.154	0	45	112261	1
	Y	**89**		ug/L			395688	678153	0
	Kr	**83**		ug/L			503	1058	3
[>	**In**	**115**		ug/L			1044851	1049192	0
[	**Ag**	**107**	**28.286**	ug/L	0.276	0	46	303953	1
[	**Cd**	**111**	**30.440**	ug/L	0.245	0	93	149672	1
[	**Cd**	**114**	**29.514**	ug/L	0.220	0	56	374008	0
[	**Sb**	**121**	**0.574**	ug/L	0.013	2	342	9038	2
[	**Sb**	**123**	**0.564**	ug/L	0.010	1	277	6769	2
[	**Ba**	**135**	**686.784**	ug/L	7.734	1	19	3112871	1
[	**Ba**	**137**	**671.103**	ug/L	6.080	0	35	5356252	0
[>	**Tb**	**159**		ug/L			1220108	1257484	0
[	**Tl**	**205**	**26.663**	ug/L	0.214	0	250	1003037	1
[	**Pb**	**208**	**203.780**	ug/L	1.514	0	297	10153028	1
[	**Bi**	**209**		ug/L			2817769	2626110	0
[	**Th**	**232**	**29.825**	ug/L	0.437	1	2087	1425212	2
[	**U**	**238**	**27.625**	ug/L	0.219	0	63	1323740	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 APOST SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:22:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

Sb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1380075	1
	Be	9	27.044	ug/L	0.774	2	13	109565	3
	C	13		ug/L			128029	179257	0
	Cl	37		ug/L			4748971	4978445	0
>	Sc	45		ug/L			1148143	1414742	1
	V	51	84.989	ug/L	2.128	2	8327	2295395	1
	V-1	51	83.788	ug/L	2.379	2	93	2254987	2
	Cr	52	110.922	ug/L	4.935	4	24784	2498149	2
	Cr	53	106.752	ug/L	4.421	4	167	269368	3
	Mn	55	1282.448	ug/L	47.122	3	467	39358287	2
	Co	59	33.469	ug/L	1.073	3	108	757241	2
>	Ge	72		ug/L			638278	614298	2
	Ni	60	65.599	ug/L	0.229	0	32	233531	2
	Ni	62	68.068	ug/L	1.086	1	59	34333	0
	Cu	63	67.574	ug/L	1.681	2	112	532930	3
	Cu	65	68.083	ug/L	2.748	4	50	244331	3
	Zn	66	381.028	ug/L	8.579	2	281	831283	0
	Zn	67	390.754	ug/L	5.196	1	48	143319	1
	Zn	68	392.368	ug/L	3.479	0	259	620440	2
	As	75	41.194	ug/L	0.838	2	250	79911	2
	As-1	75	41.461	ug/L	0.584	1	10735	91265	1
	Se	82	84.302	ug/L	2.041	2	12	17806	4
	Se	78	84.569	ug/L	0.602	0	10877	57342	2
	Mo	98	27.374	ug/L	0.369	1	45	123039	2
	Y	89		ug/L			395688	649378	1
	Kr	83		ug/L			503	1015	2
>	In	115		ug/L			1044851	1042307	1
	Ag	107	29.051	ug/L	0.681	2	46	310204	3
	Cd	111	30.116	ug/L	0.556	1	93	147134	3
	Cd	114	28.992	ug/L	0.317	1	56	365025	2
	Sb	121	23.569	ug/L	0.553	2	342	355104	3
	Sb	123	23.567	ug/L	0.335	1	277	269881	2
	Ba	135	685.828	ug/L	8.497	1	19	3087670	0
	Ba	137	668.955	ug/L	11.183	1	35	5303297	0
>	Tb	159		ug/L			1220108	1241888	1
	Tl	205	25.952	ug/L	0.468	1	250	964222	2
	Pb	208	201.525	ug/L	1.657	0	297	9915765	0
	Bi	209		ug/L			2817769	2595475	0
	Th	232	30.974	ug/L	0.649	2	2087	1461687	2
	U	238	27.167	ug/L	0.593	2	63	1285709	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:26:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1403157	1
	Be	9	0.601	ug/L	0.010	1	13	2489	0
	C	13		ug/L			128029	186477	1
	Cl	37		ug/L			4748971	4936320	1
>	Sc	45		ug/L			1148143	1328336	1
	V	51	27.919	ug/L	0.489	1	8327	714544	0
	V-1	51	27.955	ug/L	0.621	2	93	706467	1
	Cr	52	23.539	ug/L	0.146	0	24784	520586	1
	Cr	53	23.674	ug/L	0.421	1	167	56243	0
	Mn	55	1308.512	ug/L	14.953	1	467	37716012	0
	Co	59	8.404	ug/L	0.026	0	108	178673	1
>	Ge	72		ug/L			638278	635668	2
	Ni	60	25.199	ug/L	0.692	2	32	92821	1
	Ni	62	27.209	ug/L	0.866	3	59	14233	1
	Cu	63	30.083	ug/L	0.566	1	112	245506	0
	Cu	65	30.668	ug/L	0.977	3	50	113906	1
	Zn	66	583.426	ug/L	6.065	1	281	1317229	1
	Zn	67	547.221	ug/L	17.685	3	48	207603	1
	Zn	68	576.453	ug/L	20.211	3	259	942638	2
	As	75	34.984	ug/L	0.925	2	250	70237	0
	As-1	75	34.499	ug/L	1.012	2	10735	80354	0
	Se	82	0.147	ug/L	0.031	20	12	44	14
	Se	78	-0.019	ug/L	0.389	2005	10877	10819	0
	Mo	98	0.561	ug/L	0.012	2	45	2653	2
	Y	89		ug/L			395688	537753	0
	Kr	83		ug/L			503	789	5
>	In	115		ug/L			1044851	1102840	1
	Ag	107	0.472	ug/L	0.011	2	46	5376	0
	Cd	111	13.794	ug/L	0.254	1	93	71335	1
	Cd	114	13.235	ug/L	0.286	2	56	176294	1
	Sb	121	0.443	ug/L	0.012	2	342	7420	2
	Sb	123	0.438	ug/L	0.005	1	277	5597	0
	Ba	135	364.882	ug/L	11.761	3	19	1737852	2
	Ba	137	374.825	ug/L	5.698	1	35	3144116	0
>	Tb	159		ug/L			1220108	1245678	0
	Tl	205	0.540	ug/L	0.003	0	250	20357	0
	Pb	208	513.736	ug/L	6.675	1	297	25355008	1
	Bi	209		ug/L			2817769	2767307	0
	Th	232	5.045	ug/L	0.091	1	2087	240545	1
	U	238	0.646	ug/L	0.009	1	63	30707	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:30:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1404418	0
	Be	9	0.666	ug/L	0.012	1	13	2757	1
	C	13		ug/L			128029	177801	0
	Cl	37		ug/L			4748971	4794096	1
>	Sc	45		ug/L			1148143	1331431	0
	V	51	30.066	ug/L	0.658	2	8327	770547	1
	V-1	51	30.176	ug/L	0.521	1	93	764399	0
	Cr	52	24.752	ug/L	0.500	2	24784	547147	1
	Cr	53	25.140	ug/L	0.017	0	167	59861	0
	Mn	55	742.060	ug/L	8.089	1	467	21440062	0
	Co	59	8.701	ug/L	0.137	1	108	185388	0
>	Ge	72		ug/L			638278	622490	1
	Ni	60	30.549	ug/L	0.266	0	32	110214	0
	Ni	62	31.369	ug/L	0.415	1	59	16066	0
	Cu	63	22.018	ug/L	0.272	1	112	176034	1
	Cu	65	22.408	ug/L	0.293	1	50	81545	1
	Zn	66	154.146	ug/L	1.260	0	281	341043	1
	Zn	67	160.029	ug/L	3.463	2	48	59508	2
	Zn	68	160.242	ug/L	2.089	1	259	256857	0
	As	75	14.607	ug/L	0.186	1	250	28868	0
	As-1	75	14.360	ug/L	0.246	1	10735	38872	0
	Se	82	~ 0.059	ug/L	0.063	107	12	24	55
	Se	78	0.137	ug/L	0.177	129	10877	10685	0
	Mo	98	0.566	ug/L	0.020	3	45	2618	2
	Y	89		ug/L			395688	579995	0
	Kr	83		ug/L			503	825	4
>	In	115		ug/L			1044851	1040769	1
	Ag	107	0.233	ug/L	0.009	3	46	2528	3
	Cd	111	1.242	ug/L	0.008	0	93	6146	0
	Cd	114	1.066	ug/L	0.007	0	56	13449	0
	Sb	121	~ 0.065	ug/L	0.003	3	342	1320	3
	Sb	123	0.061	ug/L	0.002	2	277	971	2
	Ba	135	273.522	ug/L	3.810	1	19	1229635	0
	Ba	137	283.742	ug/L	3.401	1	35	2246293	0
>	Tb	159		ug/L			1220108	1248204	0
	Tl	205	0.210	ug/L	0.002	0	250	8100	0
	Pb	208	37.508	ug/L	0.349	0	297	1855157	0
	Bi	209		ug/L			2817769	2691507	0
	Th	232	6.261	ug/L	0.128	2	2087	298602	1
	U	238	0.861	ug/L	0.021	2	63	41023	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:34:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1434211	2
	Be	9	0.629	ug/L	0.043	6	13	2661	5
	C	13		ug/L			128029	173599	1
	Cl	37		ug/L			4748971	4793149	2
>	Sc	45		ug/L			1148143	1346256	2
	V	51	30.095	ug/L	0.767	2	8327	779709	0
	V-1	51	30.223	ug/L	0.730	2	93	773964	0
	Cr	52	24.568	ug/L	1.204	4	24784	549055	2
	Cr	53	25.020	ug/L	1.084	4	167	60206	2
	Mn	55	502.112	ug/L	2.403	0	467	14668902	1
	Co	59	8.694	ug/L	0.148	1	108	187277	1
>	Ge	72		ug/L			638278	640482	2
	Ni	60	30.321	ug/L	0.945	3	32	112509	2
	Ni	62	31.813	ug/L	0.698	2	59	16758	1
	Cu	63	23.671	ug/L	0.970	4	112	194561	1
	Cu	65	23.346	ug/L	0.839	3	50	87355	0
	Zn	66	101.427	ug/L	1.971	1	281	230904	1
	Zn	67	106.028	ug/L	1.155	1	48	40576	1
	Zn	68	104.830	ug/L	1.723	1	259	172945	1
	As	75	7.195	ug/L	0.244	3	250	14749	0
	As-1	75	6.881	ug/L	0.336	4	10735	24764	0
	Se	82	-0.113	ug/L	0.036	31	12	-12	65
	Se	78	-0.452	ug/L	0.331	73	10877	10650	1
	Mo	98	0.483	ug/L	0.013	2	45	2309	1
	Y	89		ug/L			395688	599166	1
	Kr	83		ug/L			503	888	6
>	In	115		ug/L			1044851	1065646	0
	Ag	107	0.247	ug/L	0.005	1	46	2737	2
	Cd	111	0.667	ug/L	0.041	6	93	3421	5
	Cd	114	0.504	ug/L	0.014	2	56	6542	2
	Sb	121	0.035	ug/L	0.002	5	342	888	3
	Sb	123	0.030	ug/L	0.003	8	277	639	4
	Ba	135	173.913	ug/L	3.321	1	19	800606	1
	Ba	137	172.806	ug/L	1.083	0	35	1400897	0
>	Tb	159		ug/L			1220108	1266486	0
	Tl	205	0.176	ug/L	0.002	1	250	6924	0
	Pb	208	16.261	ug/L	0.088	0	297	816263	0
	Bi	209		ug/L			2817769	2732473	1
	Th	232	5.954	ug/L	0.035	0	2087	288250	0
	U	238	0.958	ug/L	0.016	1	63	46280	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:40:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1429106	0
[	Be	9	0.641	ug/L	0.010	1	13	2702	1
	C	13		ug/L			128029	172553	0
	Cl	37		ug/L			4748971	4768712	3
[>	Sc	45		ug/L			1148143	1336033	2
[	V	51	34.444	ug/L	0.799	2	8327	884117	0
[	V-1	51	34.528	ug/L	0.679	1	93	877441	1
[	Cr	52	28.649	ug/L	0.972	3	24784	630603	0
[	Cr	53	28.952	ug/L	0.562	1	167	69123	1
[	Mn	55	434.809	ug/L	12.276	2	467	12601497	1
[	Co	59	8.984	ug/L	0.261	2	108	191991	0
[>	Ge	72		ug/L			638278	640390	1
[	Ni	60	29.706	ug/L	0.326	1	32	110257	0
[	Ni	62	31.407	ug/L	0.699	2	59	16548	1
[	Cu	63	25.064	ug/L	0.467	1	112	206158	2
[	Cu	65	25.066	ug/L	0.969	3	50	93826	3
[	Zn	66	110.296	ug/L	2.946	2	281	251085	1
[	Zn	67	117.945	ug/L	2.071	1	48	45129	0
[	Zn	68	115.291	ug/L	2.534	2	259	190184	1
[	As	75	8.139	ug/L	0.082	1	250	16659	0
[	As-1	75	7.827	ug/L	0.122	1	10735	26697	0
[	Se	82	-0.058	ug/L	0.100	171	12	0	6158
[	Se	78	-0.347	ug/L	0.222	64	10877	10712	0
[	Mo	98	0.444	ug/L	0.005	1	45	2126	1
	Y	89		ug/L			395688	622748	1
	Kr	83		ug/L			503	897	5
[>	In	115		ug/L			1044851	1058363	0
[	Ag	107	0.264	ug/L	0.006	2	46	2909	2
[	Cd	111	0.956	ug/L	0.006	0	93	4834	0
[	Cd	114	0.758	ug/L	0.011	1	56	9740	1
[	Sb	121	0.036	ug/L	0.003	7	342	903	4
[	Sb	123	0.034	ug/L	0.004	13	277	670	7
[	Ba	135	184.049	ug/L	1.395	0	19	841489	0
[	Ba	137	183.155	ug/L	0.355	0	35	1474654	0
[>	Tb	159		ug/L			1220108	1255576	0
[	Tl	205	0.197	ug/L	0.002	1	250	7640	1
[	Pb	208	34.192	ug/L	0.849	2	297	1701203	2
[	Bi	209		ug/L			2817769	2729059	0
[	Th	232	6.455	ug/L	0.056	0	2087	309677	0
[	U	238	1.038	ug/L	0.015	1	63	49723	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:44:18

rr Ag

Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1308714	1384461	0
[	**Be**	**9**	**0.582**	ug/L	0.023	3	13	2378	3
	C	**13**		ug/L			128029	153603	3
	Cl	**37**		ug/L			4748971	4865280	0
[>	**Sc**	**45**		ug/L			1148143	1314599	0
[	**V**	**51**	**38.675**	ug/L	0.415	1	8327	975979	0
[	**V-1**	**51**	**38.722**	ug/L	0.408	1	93	968513	0
[	**Cr**	**52**	**31.537**	ug/L	0.454	1	24784	680565	0
[	**Cr**	**53**	**31.717**	ug/L	0.878	2	167	74516	2
[	**Mn**	**55**	**408.982**	ug/L	8.026	1	467	11666835	1
[	**Co**	**59**	**10.152**	ug/L	0.083	0	108	213559	0
[>	**Ge**	**72**		ug/L			638278	612935	1
[	**Ni**	**60**	**39.095**	ug/L	0.597	1	32	138869	0
[	**Ni**	**62**	**40.821**	ug/L	1.029	2	59	20571	2
[	**Cu**	**63**	**26.701**	ug/L	0.456	1	112	210195	2
[	**Cu**	**65**	**26.637**	ug/L	0.526	1	50	95448	2
[	**Zn**	**66**	**85.256**	ug/L	1.571	1	281	185853	1
[	**Zn**	**67**	**97.811**	ug/L	1.316	1	48	35832	1
[	**Zn**	**68**	**94.573**	ug/L	1.347	1	259	149372	0
[	**As**	**75**	**7.081**	ug/L	0.100	1	250	13904	1
[	**As-1**	**75**	**6.960**	ug/L	0.119	1	10735	23863	0
[	**Se**	**82**	**-0.029**	ug/L	0.034	117	12	5	124
[	**Se**	**78**	**0.226**	ug/L	0.201	89	10877	10570	0
[	**Mo**	**98**	**0.472**	ug/L	0.015	3	45	2157	2
	Y	**89**		ug/L			395688	587839	2
	Kr	**83**		ug/L			503	796	1
[>	**In**	**115**		ug/L			1044851	1030313	1
[	**Ag**	**107**	**0.233**	ug/L	0.008	3	46	2499	3
[	**Cd**	**111**	**0.447**	ug/L	0.004	0	93	2247	1
[	**Cd**	**114**	**0.319**	ug/L	0.011	3	56	4019	2
[	**Sb**	**121**	**0.020**	ug/L	0.004	17	342	641	7
[	**Sb**	**123**	**0.017**	ug/L	0.003	17	277	467	6
[	**Ba**	**135**	**239.281**	ug/L	5.418	2	19	1064853	1
[	**Ba**	**137**	**240.429**	ug/L	2.619	1	35	1884315	0
[>	**Tb**	**159**		ug/L			1220108	1244332	0
[	**Tl**	**205**	**0.235**	ug/L	0.002	0	250	9010	0
[	**Pb**	**208**	**17.064**	ug/L	0.235	1	297	841551	1
[	**Bi**	**209**		ug/L			2817769	2662452	0
[	**Th**	**232**	**6.767**	ug/L	0.084	1	2087	321613	0
[	**U**	**238**	**0.971**	ug/L	0.019	1	63	46104	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 19:48:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1369126 ✓	1
	Be	9	53.262	ug/L	0.623	1	13	214038	0
	C	13		ug/L			128029	131545	1
	Cl	37		ug/L			4748971	4908496	0
>	Sc	45		ug/L			1148143	1180399 ✓	0
	V	51	49.634	ug/L	0.283	0	8327	1122347	1
	V-1	51	49.528	ug/L	0.567	1	93	1112392	1
	Cr	52	50.555	ug/L	0.676	1	24784	964323	1
	Cr	53	50.190	ug/L	0.494	0	167	105784	1
	Mn	55	50.107	ug/L	0.507	1	467	1284015	1
	Co	59	48.202	ug/L	0.841	1	108	910017	1
>	Ge	72		ug/L			638278	622910 ✓	1
	Ni	60	53.007	ug/L	1.060	1	32	191331	1
	Ni	62	52.028	ug/L	1.957	3	59	26623	2
	Cu	63	52.989	ug/L	0.853	1	112	423740	0
	Cu	65	52.342	ug/L	1.549	2	50	190532	2
	Zn	66	52.915	ug/L	1.268	2	281	117319	1
	Zn	67	53.560	ug/L	1.981	3	48	19957	2
	Zn	68	53.410	ug/L	1.211	2	259	85834	1
	As	75	52.429	ug/L	0.564	1	250	103057	0
	As-1	75	52.349	ug/L	0.706	1	10735	114093	0
	Se	82	53.893	ug/L	0.298	0	12	11545	1
	Se	78	53.637	ug/L	0.816	1	10877	40757	0
	Mo	98	56.300	ug/L	2.025	3	45	256488	2
	Y	89		ug/L			395688	391734	2
	Kr	83		ug/L			503	552	7
>	In	115		ug/L			1044851	1054165 ✓	0
	Ag	107	60.917	ug/L	0.648	1	46	657615	0
	Cd	111	52.261	ug/L	0.276	0	93	258108	0
	Cd	114	50.952	ug/L	0.537	1	56	648678	0
	Sb	121	50.969	ug/L	0.148	0	342	776038	0
	Sb	123	50.726	ug/L	0.613	1	277	587055	0
	Ba	135	48.541	ug/L	0.338	0	19	221065	0
	Ba	137	48.142	ug/L	1.094	2	35	386059	1
>	Tb	159		ug/L			1220108	1229310 ✓	0
	Tl	205	51.635	ug/L	0.252	0	250	1898633	0
	Pb	208	51.762	ug/L	0.271	0	297	2521425	0
	Bi	209		ug/L			2817769	2731763	0
	Th	232	54.083	ug/L	0.426	0	2087	2524662	0
	U	238	55.357	ug/L	0.260	0	63	2593047	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 19:55:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1334717 ✓	2
	Be	9	0.001	ug/L	0.001	137	13	17	33
	C	13		ug/L			128029	132060	2
	Cl	37		ug/L			4748971	4886385	1
>	Sc	45		ug/L			1148143	1165769 ✓	0
	V	51	-0.021	ug/L	0.022	103	8327	7981	5
	V-1	51	0.003	ug/L	0.005	174	93	157	68
	Cr	52	-0.092	ug/L	0.060	65	24784	23479	3
	Cr	53	-0.009	ug/L	0.002	24	167	151	2
	Mn	55	0.059	ug/L	0.093	158	467	1951	119
	Co	59	0.001	ug/L	0.003	239	108	130	35
>	Ge	72		ug/L			638278	608214 ✓	0
	Ni	60	0.005	ug/L	0.004	79	32	50	30
	Ni	62	0.000	ug/L	0.025	11330	59	56	22
	Cu	63	0.011	ug/L	0.003	24	112	191	11
	Cu	65	0.010	ug/L	0.003	26	50	82	11
	Zn	66	0.060	ug/L	0.027	44	281	398	14
	Zn	67	0.050	ug/L	0.036	70	48	64	20
	Zn	68	0.081	ug/L	0.016	20	259	373	7
	As	75	0.005	ug/L	0.016	318	250	248	12
	As-1	75	0.093	ug/L	0.043	46	10735	10409	0
	Se	82	-0.058	ug/L	0.062	106	12	0	4438
	Se	78	0.325	ug/L	0.177	54	10877	10543	0
	Mo	98	0.002	ug/L	0.002	75	45	53	14
	Y	89		ug/L			395688	394207	1
	Kr	83		ug/L			503	528	5
>	In	115		ug/L			1044851	1030969 ✓	1
	Ag	107	0.000	ug/L	0.001	400	46	48	23
	Cd	111	0.001	ug/L	0.001	167	93	96	6
	Cd	114	0.000	ug/L	0.002	1171	56	56	32
	Sb	121	0.049	ug/L	0.007	13	342	1072	9
	Sb	123	0.047	ug/L	0.002	5	277	803	4
	Ba	135	0.026	ug/L	0.020	77	19	132	64
	Ba	137	0.024	ug/L	0.022	92	35	218	76
>	Tb	159		ug/L			1220108	1201922 ✓	0
	Tl	205	0.000	ug/L	0.000	125	250	258	6
	Pb	208	0.010	ug/L	0.009	92	297	763	56
	Bi	209		ug/L			2817769	2783720	1
	Th	232	0.075	ug/L	0.003	4	2087	5479	3
	U	238	0.002	ug/L	0.001	42	63	131	22

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:59:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Be, Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1342897	1
[	Be	9	0.000	ug/L	0.001	15355	13	13	17
	C	13		ug/L			128029	137923	0
	Cl	37		ug/L			4748971	4791225	1
[>	Sc	45		ug/L			1148143	1175694	2
[	V	51	-0.035	ug/L	0.002	6	8327	7734	2
[	V-1	51	-0.001	ug/L	0.000	15	93	78	3
[	Cr	52	-0.128	ug/L	0.015	11	24784	22998	2
[	Cr	53	-0.010	ug/L	0.007	72	167	150	7
[	Mn	55	0.031	ug/L	0.001	3	467	1261	3
[	Co	59	-0.001	ug/L	0.000	54	108	100	8
[>	Ge	72		ug/L			638278	619623	1
[	Ni	60	0.001	ug/L	0.001	69	32	36	7
[	Ni	62	-0.014	ug/L	0.008	56	59	50	9
[	Cu	63	0.006	ug/L	0.001	21	112	156	6
[	Cu	65	0.005	ug/L	0.000	10	50	66	3
[	Zn	66	0.084	ug/L	0.017	20	281	458	6
[	Zn	67	0.092	ug/L	0.021	22	48	81	9
[	Zn	68	0.113	ug/L	0.026	23	259	431	9
[	As	75	0.002	ug/L	0.010	610	250	246	6
[	As-1	75	0.019	ug/L	0.100	518	10735	10456	0
[	Se	82	-0.062	ug/L	0.049	79	12	-1	814
[	Se	78	0.037	ug/L	0.345	923	10877	10578	0
[	Mo	98	-0.002	ug/L	0.001	37	45	34	8
	Y	89		ug/L			395688	392811	3
	Kr	83		ug/L			503	513	2
[>	In	115		ug/L			1044851	1026312	1
[	Ag	107	-0.001	ug/L	0.000	10	46	32	4
[	Cd	111	0.003	ug/L	0.002	94	93	103	10
[	Cd	114	-0.001	ug/L	0.001	68	56	45	13
[	Sb	121	0.000	ug/L	0.001	302	342	343	6
[	Sb	123	-0.001	ug/L	0.003	216	277	258	13
[	Ba	135	0.009	ug/L	0.002	17	19	59	10
[	Ba	137	0.010	ug/L	0.002	19	35	113	13
[>	Tb	159		ug/L			1220108	1201585	1
[	Tl	205	-0.002	ug/L	0.001	70	250	181	26
[	Pb	208	0.006	ug/L	0.001	13	297	559	6
[	Bi	209		ug/L			2817769	2778012	1
[	Th	232	0.018	ug/L	0.003	14	2087	2873	2
[	U	238	-0.001	ug/L	0.000	23	63	35	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 20:03:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Be, Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1308714	1351231	0
[	**Be**	**9**	**27.735**	ug/L	0.804	2	13	110002	2
	C	**13**		ug/L			128029	133841	0
	Cl	**37**		ug/L			4748971	4742166	0
[>	**Sc**	**45**		ug/L			1148143	1186825	0
[	**V**	**51**	**26.282**	ug/L	0.404	1	8327	601558	1
[	**V-1**	**51**	**26.297**	ug/L	0.474	1	93	593848	1
[	**Cr**	**52**	**26.107**	ug/L	0.470	1	24784	513039	1
[	**Cr**	**53**	**26.157**	ug/L	0.665	2	167	55507	2
[	**Mn**	**55**	**25.902**	ug/L	0.351	1	467	667604	1
[	**Co**	**59**	**25.425**	ug/L	0.393	1	108	482678	1
[>	**Ge**	**72**		ug/L			638278	617878	2
[	**Ni**	**60**	**29.383**	ug/L	1.059	3	32	105171	1
[	**Ni**	**62**	**28.847**	ug/L	1.643	5	59	14658	3
[	**Cu**	**63**	**28.862**	ug/L	1.075	3	112	228881	1
[	**Cu**	**65**	**28.920**	ug/L	0.840	2	50	104414	1
[	**Zn**	**66**	**91.293**	ug/L	3.031	3	281	200512	1
[	**Zn**	**67**	**83.816**	ug/L	1.726	2	48	30951	0
[	**Zn**	**68**	**88.055**	ug/L	1.712	1	259	140189	0
[	**As**	**75**	**28.227**	ug/L	0.398	1	250	55143	1
[	**As-1**	**75**	**28.731**	ug/L	0.824	2	10735	66784	0
[	**Se**	**82**	**89.812**	ug/L	1.763	1	12	19070	0
[	**Se**	**78**	**89.641**	ug/L	3.332	3	10877	60473	0
[	**Mo**	**98**	**28.591**	ug/L	0.790	2	45	129194	0
	Y	**89**		ug/L			395688	394044	1
	Kr	**83**		ug/L			503	552	3
[>	**In**	**115**		ug/L			1044851	1035670	0
[	**Ag**	**107**	**31.933**	ug/L	0.464	1	46	338702	1
[	**Cd**	**111**	**27.477**	ug/L	0.231	0	93	133367	0
[	**Cd**	**114**	**26.539**	ug/L	0.056	0	56	331980	0
[	**Sb**	**121**	**26.439**	ug/L	0.351	1	342	395645	0
[	**Sb**	**123**	**26.417**	ug/L	0.327	1	277	300495	0
[	**Ba**	**135**	**26.023**	ug/L	0.419	1	19	116441	1
[	**Ba**	**137**	**25.644**	ug/L	0.401	1	35	202065	1
[>	**Tb**	**159**		ug/L			1220108	1205501	1
[	**Tl**	**205**	**28.171**	ug/L	0.332	1	250	1015807	0
[	**Pb**	**208**	**28.161**	ug/L	0.459	1	297	1345141	0
[	**Bi**	**209**		ug/L			2817769	2774309	1
[	**Th**	**232**	**27.252**	ug/L	0.671	2	2087	1248260	1
[	**U**	**238**	**27.806**	ug/L	0.548	1	63	1277303	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 20:07:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Be, Se, Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1355271	1
	Be	9	0.586	ug/L	0.006	1	13	2344	0
	C	13		ug/L			128029	207691	1
	Cl	37		ug/L			4748971	4967404	1
>	Sc	45		ug/L			1148143	1267240	2
	V	51	20.226	ug/L	0.563	2	8327	496295	2
	V-1	51	20.283	ug/L	0.511	2	93	488977	1
	Cr	52	32.354	ug/L	1.123	3	24784	672052	1
	Cr	53	32.515	ug/L	0.985	3	167	73601	0
	Mn	55	2148.592	ug/L	75.361	3	467	59058993	1
	Co	59	11.044	ug/L	0.419	3	108	223826	1
>	Ge	72		ug/L			638278	607976	0
	Ni	60	32.364	ug/L	0.177	0	32	114047	1
	Ni	62	33.827	ug/L	0.712	2	59	16918	2
	Cu	63	37.096	ug/L	0.333	0	112	289605	1
	Cu	65	37.373	ug/L	0.679	1	50	132820	2
	Zn	66	892.763	ug/L	16.697	1	281	1927879	1
	Zn	67	825.617	ug/L	21.837	2	48	299711	3
	Zn	68	876.142	ug/L	8.580	0	259	1370664	0
	As	75	25.425	ug/L	0.023	0	250	48904	0
	As-1	75	25.157	ug/L	0.061	0	10735	58830	0
	Se	82	0.409	ug/L	0.051	12	12	97	11
	Se	78	0.703	ug/L	0.180	25	10877	10747	1
	Mo	98	0.514	ug/L	0.010	1	45	2328	2
	Y	89		ug/L			395688	560487	0
	Kr	83		ug/L			503	768	3
>	In	115		ug/L			1044851	1156671	0
	Ag	107	0.519	ug/L	0.006	1	46	6196	0
	Cd	111	16.008	ug/L	0.566	3	93	86826	3
	Cd	114	15.454	ug/L	0.176	1	56	215928	1
	Sb	121	0.710	ug/L	0.022	3	342	12230	2
	Sb	123	0.700	ug/L	0.018	2	277	9194	2
	Ba	135	514.362	ug/L	10.868	2	19	2570169	2
	Ba	137	504.885	ug/L	10.896	2	35	4442679	2
>	Tb	159		ug/L			1220108	1218445	1
	Tl	205	0.828	ug/L	0.024	2	250	30428	1
	Pb	208	664.808	ug/L	18.290	2	297	32086905	1
	Bi	209		ug/L			2817769	2674278	1
	Th	232	6.558	ug/L	0.116	1	2087	305230	0
	U	238	0.385	ug/L	0.012	3	63	17954	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 20:11:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Be, Se, Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1308714	1388312	1
[	**Be**	**9**	**0.690**	ug/L	0.018	2	13	2823	0
	C	**13**		ug/L			128029	168720	0
	Cl	**37**		ug/L			4748971	4881849	2
[>	**Sc**	**45**		ug/L			1148143	1308797	1
[	**V**	**51**	**27.175**	ug/L	0.366	1	8327	685538	0
[	**V-1**	**51**	**27.325**	ug/L	0.542	1	93	680416	1
[	**Cr**	**52**	**30.929**	ug/L	0.825	2	24784	664979	1
[	**Cr**	**53**	**31.433**	ug/L	1.487	4	167	73504	3
[	**Mn**	**55**	**1423.073**	ug/L	42.659	2	467	40410738	2
[	**Co**	**59**	**10.646**	ug/L	0.204	1	108	222967	2
[>	**Ge**	**72**		ug/L			638278	618822	1
[	**Ni**	**60**	**36.942**	ug/L	1.329	3	32	132439	1
[	**Ni**	**62**	**37.815**	ug/L	0.891	2	59	19238	0
[	**Cu**	**63**	**34.465**	ug/L	0.890	2	112	273780	0
[	**Cu**	**65**	**34.574**	ug/L	1.012	2	50	125026	2
[	**Zn**	**66**	**384.545**	ug/L	13.039	3	281	845061	1
[	**Zn**	**67**	**372.917**	ug/L	7.714	2	48	137771	1
[	**Zn**	**68**	**387.018**	ug/L	10.473	2	259	616250	1
[	**As**	**75**	**34.718**	ug/L	1.184	3	250	67857	1
[	**As-1**	**75**	**34.227**	ug/L	1.221	3	10735	77691	1
[	**Se**	**82**	**0.069**	ug/L	0.064	91	12	26	50
[	**Se**	**78**	**-0.090**	ug/L	0.274	305	10877	10494	0
[	**Mo**	**98**	**0.580**	ug/L	0.023	3	45	2666	2
	Y	**89**		ug/L			395688	590745	2
	Kr	**83**		ug/L			503	792	3
[>	**In**	**115**		ug/L			1044851	1060778	1
[	**Ag**	**107**	**0.315**	ug/L	0.003	1	46	3471	1
[	**Cd**	**111**	**10.704**	ug/L	0.333	3	93	53257	1
[	**Cd**	**114**	**10.256**	ug/L	0.171	1	56	131430	0
[	**Sb**	**121**	**0.196**	ug/L	0.010	5	342	3353	3
[	**Sb**	**123**	**0.200**	ug/L	0.005	2	277	2609	0
[	**Ba**	**135**	**390.080**	ug/L	8.942	2	19	1787222	1
[	**Ba**	**137**	**401.415**	ug/L	9.630	2	35	3238713	1
[>	**Tb**	**159**		ug/L			1220108	1229195	0
[	**Tl**	**205**	**0.364**	ug/L	0.014	3	250	13632	2
[	**Pb**	**208**	**372.076**	ug/L	7.989	2	297	18118873	1
[	**Bi**	**209**		ug/L			2817769	2699348	0
[	**Th**	**232**	**6.224**	ug/L	0.179	2	2087	292346	1
[	**U**	**238**	**0.437**	ug/L	0.005	1	63	20539	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 20:15:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Be, Se, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1414528	0
[	Be	9	0.583	ug/L	0.025	4	13	2432	4
	C	13		ug/L			128029	186084	0
	Cl	37		ug/L			4748971	4858216	1
[>	Sc	45		ug/L			1148143	1273473	1
[	V	51	26.003	ug/L	0.777	2	8327	638596	1
[	V-1	51	26.091	ug/L	0.615	2	93	632113	1
[	Cr	52	24.914	ug/L	1.259	5	24784	526459	3
[	Cr	53	25.215	ug/L	0.702	2	167	57416	2
[	Mn	55	628.481	ug/L	5.322	0	467	17367637	0
[	Co	59	7.851	ug/L	0.300	3	108	159958	2
[>	Ge	72		ug/L			638278	615127	1
[	Ni	60	26.181	ug/L	0.387	1	32	93335	0
[	Ni	62	27.508	ug/L	0.579	2	59	13930	2
[	Cu	63	24.000	ug/L	0.400	1	112	189604	2
[	Cu	65	23.595	ug/L	0.569	2	50	84830	0
[	Zn	66	326.373	ug/L	2.609	0	281	713242	1
[	Zn	67	304.457	ug/L	7.533	2	48	111823	2
[	Zn	68	317.566	ug/L	7.910	2	259	502764	2
[	As	75	21.417	ug/L	0.150	0	250	41719	2
[	As-1	75	21.101	ug/L	0.146	0	10735	51594	1
[	Se	82	0.125	ug/L	0.062	50	12	38	35
[	Se	78	0.087	ug/L	0.373	426	10877	10529	0
[	Mo	98	0.362	ug/L	0.008	2	45	1670	1
	Y	89		ug/L			395688	548961	1
	Kr	83		ug/L			503	747	4
[>	In	115		ug/L			1044851	1066807	0
[	Ag	107	0.337	ug/L	0.005	1	46	3731	1
[	Cd	111	6.802	ug/L	0.112	1	93	34082	1
[	Cd	114	6.488	ug/L	0.093	1	56	83643	1
[	Sb	121	0.196	ug/L	0.003	1	342	3369	1
[	Sb	123	0.194	ug/L	0.003	1	277	2550	1
[	Ba	135	167.150	ug/L	3.529	2	19	770364	2
[	Ba	137	165.753	ug/L	4.055	2	35	1345246	2
[>	Tb	159		ug/L			1220108	1218381	0
[	Tl	205	0.283	ug/L	0.005	1	250	10554	1
[	Pb	208	253.381	ug/L	5.394	2	297	12231556	1
[	Bi	209		ug/L			2817769	2699825	0
[	Th	232	4.349	ug/L	0.051	1	2087	203130	0
[	U	238	0.660	ug/L	0.014	2	63	30722	2

ICP-MS Quantitative Analysis - Summary Report

rr Ag, Be, Se, Pb Zn

Sample ID: VS20 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 20:20:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1370084	3
[	Be	9	0.572	ug/L	0.020	3	13	2312	0
	C	13		ug/L			128029	192070	1
	Cl	37		ug/L			4748971	4878848	1
[>	Sc	45		ug/L			1148143	1278119	3
[	V	51	41.818	ug/L	1.621	3	8327	1024540	0
[	V-1	51	41.887	ug/L	1.612	3	93	1017867	0
[	Cr	52	33.527	ug/L	1.232	3	24784	701235	0
[	Cr	53	33.784	ug/L	1.210	3	167	77105	1
[	Mn	55	1095.123	ug/L	23.650	2	467	30365478	2
[	Co	59	8.861	ug/L	0.255	2	108	181152	0
[>	Ge	72		ug/L			638278	606174	1
[	Ni	60	24.529	ug/L	0.422	1	32	86197	2
[	Ni	62	26.363	ug/L	0.500	1	59	13156	0
[	Cu	63	38.651	ug/L	0.555	1	112	300837	2
[	Cu	65	38.037	ug/L	0.348	0	50	134761	1
[	Zn	66	390.015	ug/L	8.842	2	281	839710	0
[	Zn	67	394.879	ug/L	3.183	0	48	142939	2
[	Zn	68	398.823	ug/L	7.793	1	259	622131	1
[	As	75	11.727	ug/L	0.133	1	250	22615	0
[	As-1	75	11.546	ug/L	0.154	1	10735	32434	0
[	Se	82	0.006	ug/L	0.114	1849	12	12	184
[	Se	78	0.211	ug/L	0.180	85	10877	10444	0
[	Mo	98	0.473	ug/L	0.024	5	45	2141	4
	Y	89		ug/L			395688	540888	3
	Kr	83		ug/L			503	792	5
[>	In	115		ug/L			1044851	1071025	1
[	Ag	107	0.266	ug/L	0.002	0	46	2959	0
[	Cd	111	7.676	ug/L	0.156	2	93	38590	0
[	Cd	114	7.288	ug/L	0.125	1	56	94304	0
[	Sb	121	0.191	ug/L	0.009	4	342	3306	2
[	Sb	123	0.189	ug/L	0.006	2	277	2506	1
[	Ba	135	549.550	ug/L	9.674	1	19	2542246	0
[	Ba	137	537.009	ug/L	13.359	2	35	4374348	1
[>	Tb	159		ug/L			1220108	1216512	0
[	Tl	205	0.420	ug/L	0.006	1	250	15544	1
[	Pb	208	365.632	ug/L	4.431	1	297	17623570	1
[	Bi	209		ug/L			2817769	2647342	0
[	Th	232	5.328	ug/L	0.041	0	2087	248002	0
[	U	238	0.943	ug/L	0.001	0	63	43797	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 20:24:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Be, Se, ~~As~~, Pb, Zn
11/26/12
mjt

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1396804	1
[	Be	9	1.200	ug/L	0.027	2	13	4933	1
	C	13		ug/L			128029	246089	1
	Cl	37		ug/L			4748971	4989500	1
[>	Sc	45		ug/L			1148143	1268679	1
[	V	51	24.381	ug/L	0.496	2	8327	597137	0
[	V-1	51	24.515	ug/L	0.568	2	93	591716	1
[	Cr	52	20.419	ug/L	0.453	2	24784	434912	1
[	Cr	53	20.886	ug/L	0.491	2	167	47411	1
[	Mn	55	5725.716	ug/L	257.232	4	467	157590799	3
[	Co	59	21.266	ug/L	0.526	2	108	431537	1
[>	Ge	72		ug/L			638278	599610	1
[	Ni	60	52.333	ug/L	1.621	3	32	181810	1
[	Ni	62	55.277	ug/L	1.156	2	59	27228	1
[	Cu	63	62.295	ug/L	0.264	0	112	479543	0
[	Cu	65	63.123	ug/L	1.364	2	50	221160	1
[	Zn	66	1543.326	ug/L	36.824	2	281	3286161	1
[	Zn	67	1367.315	ug/L	10.193	0	48	489411	0
[	Zn	68	1514.044	ug/L	31.773	2	259	2335493	0
[	As	75	54.982	ug/L	1.257	2	250	104010	1
[	As-1	75	54.360	ug/L	1.303	2	10735	113647	1
[	Se	82	1.281	ug/L	0.062	4	12	275	4
[	Se	78	1.395	ug/L	0.327	23	10877	10972	0
[	Mo	98	1.254	ug/L	0.035	2	45	5539	2
	Y	89		ug/L			395688	667904	0
	Kr	83		ug/L			503	844	3
[>	In	115		ug/L			1044851	1165933	0
[	Ag	107	0.807	ug/L	0.013	1	46	9680	0
[	Cd	111	36.882	ug/L	0.727	1	93	201476	1
[	Cd	114	36.415	ug/L	0.812	2	56	512736	1
[	Sb	121	1.684	ug/L	0.039	2	342	28730	1
[	Sb	123	1.666	ug/L	0.024	1	277	21625	1
[	Ba	135	500.064	ug/L	7.303	1	19	2518540	0
[	Ba	137	490.136	ug/L	3.940	0	35	4347193	0
[>	Tb	159		ug/L			1220108	1217923	1
[	Tl	205	1.180	ug/L	0.025	2	250	43220	0
[	Pb	208	1188.195	ug/L	33.277	2	297	57322375	1
[	Bi	209		ug/L			2817769	2739474	0
[	Th	232	4.365	ug/L	0.104	2	2087	203752	1
[	U	238	0.797	ug/L	0.020	2	63	37023	1

VS19:00342

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 20:28:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Be, Se, Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1308714	1390310	0
[	**Be**	**9**	**0.927**	ug/L	0.016	1	13	3798	2
	C	**13**		ug/L			128029	280032	2
	Cl	**37**		ug/L			4748971	5079664	1
[>	**Sc**	**45**		ug/L			1148143	1249189	0
[	**V**	**51**	**19.344**	ug/L	0.241	1	8327	468421	1
[	**V-1**	**51**	**19.284**	ug/L	0.238	1	93	458418	1
[	**Cr**	**52**	**14.633**	ug/L	0.101	0	24784	314537	0
[	**Cr**	**53**	**14.442**	ug/L	0.236	1	167	32343	2
[	**Mn**	**55**	**5648.973**	ug/L	65.944	1	467	153140256	1
[	**Co**	**59**	**18.582**	ug/L	0.211	1	108	371341	0
[>	**Ge**	**72**		ug/L			638278	608809	3
[	**Ni**	**60**	**41.847**	ug/L	2.393	5	32	147458	2
[	**Ni**	**62**	**42.253**	ug/L	2.402	5	59	21119	2
[	**Cu**	**63**	**65.216**	ug/L	1.540	2	112	509452	1
[	**Cu**	**65**	**66.506**	ug/L	4.227	6	50	236267	2
[	**Zn**	**66**	**1268.012**	ug/L	49.203	3	281	2739422	0
[	**Zn**	**67**	**1104.376**	ug/L	37.987	3	48	401080	0
[	**Zn**	**68**	**1183.038**	ug/L	61.746	5	259	1850982	1
[	**As**	**75**	**21.994**	ug/L	0.851	3	250	42356	0
[	**As-1**	**75**	**21.594**	ug/L	1.021	4	10735	51970	0
[	**Se**	**82**	**1.218**	ug/L	0.086	7	12	266	3
[	**Se**	**78**	**0.960**	ug/L	0.745	77	10877	10893	0
[	**Mo**	**98**	**1.146**	ug/L	0.057	4	45	5141	1
	Y	**89**		ug/L			395688	637404	2
	Kr	**83**		ug/L			503	804	3
[>	**In**	**115**		ug/L			1044851	1195697	0
[	**Ag**	**107**	**1.211**	ug/L	0.055	4	46	14873	4
[	**Cd**	**111**	**25.877**	ug/L	0.499	1	93	145006	1
[	**Cd**	**114**	**25.121**	ug/L	0.543	2	56	362781	1
[	**Sb**	**121**	**2.010**	ug/L	0.033	1	342	35089	1
[	**Sb**	**123**	**2.002**	ug/L	0.033	1	277	26583	1
[	**Ba**	**135**	**371.420**	ug/L	7.227	1	19	1918426	1
[	**Ba**	**137**	**383.747**	ug/L	9.889	2	35	3490227	2
[>	**Tb**	**159**		ug/L			1220108	1221919	1
[	**Tl**	**205**	**0.959**	ug/L	0.007	0	250	35283	0
[	**Pb**	**208**	**1627.765**	ug/L	13.624	0	297	78804232	1
[	**Bi**	**209**		ug/L			2817769	2770667	0
[	**Th**	**232**	**3.191**	ug/L	0.019	0	2087	150010	1
[	**U**	**238**	**0.629**	ug/L	0.005	0	63	29326	1

VS19:00343

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 20:33:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

nr Ag, Be, Se, Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1423835	1
[	Be	9	2.481	ug/L	0.034	1	13	10382	1
	C	13		ug/L			128029	242388	3
	Cl	37		ug/L			4748971	5035343	1
[>	Sc	45		ug/L			1148143	1301783	2
[	V	51	27.806	ug/L	0.844	3	8327	697203	0
[	V-1	51	27.752	ug/L	0.833	3	93	687102	0
[	Cr	52	23.426	ug/L	1.140	4	24784	507500	2
[	Cr	53	23.256	ug/L	1.100	4	167	54117	2
[	Mn	55	4434.465	ug/L	133.627	3	467	125211333	0
[	Co	59	32.287	ug/L	1.290	3	108	671937	2
[>	Ge	72		ug/L			638278	599267	1
[	Ni	60	78.138	ug/L	0.689	0	32	271346	0
[	Ni	62	81.246	ug/L	2.188	2	59	39966	1
[	Cu	63	70.407	ug/L	2.370	3	112	541628	3
[	Cu	65	70.119	ug/L	0.386	0	50	245557	0
[	Zn	66	762.281	ug/L	14.505	1	281	1622615	2
[	Zn	67	710.930	ug/L	5.399	0	48	254355	1
[	Zn	68	750.812	ug/L	15.359	2	259	1157852	2
[	As	75	28.197	ug/L	0.363	1	250	53430	1
[	As-1	75	27.708	ug/L	0.373	1	10735	62841	0
[	Se	82	1.496	ug/L	0.063	4	12	319	3
[	Se	78	1.508	ug/L	0.159	10	10877	11027	0
[	Mo	98	1.736	ug/L	0.003	0	45	7650	1
	Y	89		ug/L			395688	846654	1
	Kr	83		ug/L			503	1059	4
[>	In	115		ug/L			1044851	1072132	0
[	Ag	107	1.115	ug/L	0.026	2	46	12289	2
[	Cd	111	12.073	ug/L	0.079	0	93	60713	0
[	Cd	114	11.584	ug/L	0.130	1	56	150035	0
[	Sb	121	0.633	ug/L	0.005	0	342	10142	0
[	Sb	123	0.621	ug/L	0.015	2	277	7588	2
[	Ba	135	345.839	ug/L	4.079	1	19	1601781	1
[	Ba	137	359.969	ug/L	3.504	0	35	2936021	1
[>	Tb	159		ug/L			1220108	1226458	0
[	Tl	205	0.446	ug/L	0.011	2	250	16621	2
[	Pb	208	559.640	ug/L	5.501	0	297	27194570	0
[	Bi	209		ug/L			2817769	2597626	0
[	Th	232	5.539	ug/L	0.086	1	2087	259824	1
[	U	238	0.921	ug/L	0.008	0	63	43082	0

VS19:00344

ICP-MS Quantitative Analysis - Summary Report

rr Ag, Be, Se, Zn

Sample ID: VS20 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 20:37:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1431529	1
	Be	9	2.204	ug/L	0.066	2	13	9272	2
	C	13		ug/L			128029	236656	2
	Cl	37		ug/L			4748971	4951726	2
>	Sc	45		ug/L			1148143	1324132	0
	V	51	32.091	ug/L	0.897	2	8327	817355	2
	V-1	51	32.273	ug/L	0.683	2	93	813061	1
	Cr	52	26.202	ug/L	0.297	1	24784	574425	1
	Cr	53	26.839	ug/L	0.912	3	167	63536	3
	Mn	55	2911.684	ug/L	84.250	2	467	83659125	2
	Co	59	24.400	ug/L	0.458	1	108	516872	2
>	Ge	72		ug/L			638278	604280	1
	Ni	60	75.309	ug/L	2.800	3	32	263620	2
	Ni	62	75.080	ug/L	1.161	1	59	37250	1
	Cu	63	63.756	ug/L	1.507	2	112	494493	0
	Cu	65	62.712	ug/L	2.562	4	50	221376	2
	Zn	66	438.745	ug/L	13.749	3	281	941592	2
	Zn	67	406.062	ug/L	17.330	4	48	146450	2
	Zn	68	429.638	ug/L	6.471	1	259	668085	0
	As	75	16.044	ug/L	0.614	3	250	30748	2
	As-1	75	15.569	ug/L	0.704	4	10735	40045	1
	Se	82	1.705	ug/L	0.053	3	12	365	1
	Se	78	1.482	ug/L	0.483	32	10877	11103	0
	Mo	98	2.162	ug/L	0.087	4	45	9594	2
	Y	89		ug/L			395688	1018480	1
	Kr	83		ug/L			503	1150	3
>	In	115		ug/L			1044851	1012992	1
	Ag	107	1.577	ug/L	0.036	2	46	16403	1
	Cd	111	4.428	ug/L	0.189	4	93	21094	3
	Cd	114	4.127	ug/L	0.044	1	56	50538	0
	Sb	121	0.243	ug/L	0.013	5	342	3885	3
	Sb	123	0.244	ug/L	0.009	3	277	2979	2
	Ba	135	158.479	ug/L	4.553	2	19	693392	1
	Ba	137	157.072	ug/L	3.424	2	35	1210277	1
>	Tb	159		ug/L			1220108	1226706	0
	Tl	205	0.206	ug/L	0.003	1	250	7822	0
	Pb	208	246.494	ug/L	4.737	1	297	11979257	1
	Bi	209		ug/L			2817769	2585282	0
	Th	232	6.530	ug/L	0.154	2	2087	305973	1
	U	238	0.962	ug/L	0.026	2	63	45011	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV10
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 20:41:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1351493 ✓	2
	Be	9	55.142	ug/L	1.190	2	13	218735	2
	C	13		ug/L			128029	131526	2
	Cl	37		ug/L			4748971	4914023	2
>	Sc	45		ug/L			1148143	1171970 ✓	0
	V	51	48.398	ug/L	1.270	2	8327	1086884	3
	V-1	51	48.515	ug/L	0.904	1	93	1081916	2
	Cr	52	49.062	ug/L	0.517	1	24784	929922	1
	Cr	53	49.459	ug/L	0.963	1	167	103492	1
	Mn	55	48.756	ug/L	0.996	2	467	1240556	2
	Co	59	46.573	ug/L	0.552	1	108	873079	1
>	Ge	72		ug/L			638278	600636 ✓	0
	Ni	60	53.380	ug/L	2.219	4	32	185843	4
	Ni	62	52.350	ug/L	0.355	0	59	25836	1
	Cu	63	52.819	ug/L	0.767	1	112	407310	1
	Cu	65	51.363	ug/L	0.434	0	50	180305	1
	Zn	66	53.906	ug/L	1.110	2	281	115240	1
	Zn	67	53.990	ug/L	0.820	1	48	19404	2
	Zn	68	53.836	ug/L	0.590	1	259	83430	0
	As	75	53.260	ug/L	1.588	2	250	100936	2
	As-1	75	52.741	ug/L	1.385	2	10735	110761	1
	Se	82	55.238	ug/L	1.313	2	12	11408	1
	Se	78	53.431	ug/L	0.715	1	10877	39190	1
	Mo	98	57.679	ug/L	1.071	1	45	253444	2
	Y	89		ug/L			395688	389978	2
	Kr	83		ug/L			503	537	0
>	In	115		ug/L			1044851	1037078 ✓	1
	Ag	107	61.729	ug/L	1.350	2	46	655498	1
	Cd	111	52.708	ug/L	0.414	0	93	256095	1
	Cd	114	50.976	ug/L	0.618	1	56	638490	1
	Sb	121	51.094	ug/L	0.571	1	342	765265	0
	Sb	123	51.121	ug/L	0.529	1	277	581994	0
	Ba	135	48.250	ug/L	0.638	1	19	216152	0
	Ba	137	47.459	ug/L	0.890	1	35	374377	0
>	Tb	159		ug/L			1220108	1186769 ✓	1
	Tl	205	52.388	ug/L	0.646	1	250	1859488	0
	Pb	208	51.829	ug/L	0.052	0	297	2437308	1
	Bi	209		ug/L			2817769	2670895	2
	Th	232	53.837	ug/L	0.209	0	2087	2426270	1
	U	238	56.867	ug/L	0.129	0	63	2571607	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB10
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 20:48:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1359474 ✓	0
[	Be	9	0.002	ug/L	0.002	97	13	21	36
	C	13		ug/L			128029	136629	0
	Cl	37		ug/L			4748971	4613653	1
[>	Sc	45		ug/L			1148143	1171541 ✓	3
[	V	51	-0.033	ug/L	0.018	53	8327	7762	4
[	V-1	51	0.000	ug/L	0.001	321	93	102	23
[	Cr	52	-0.124	ug/L	0.062	50	24784	22986	3
[	Cr	53	-0.011	ug/L	0.012	113	167	147	15
[	Mn	55	0.040	ug/L	0.024	60	467	1499	44
[	Co	59	0.001	ug/L	0.001	123	108	124	15
[>	Ge	72		ug/L			638278	608893 ✓	1
[	Ni	60	0.004	ug/L	0.003	85	32	45	25
[	Ni	62	-0.025	ug/L	0.010	39	59	44	9
[	Cu	63	0.010	ug/L	0.003	31	112	187	12
[	Cu	65	0.009	ug/L	0.002	25	50	81	10
[	Zn	66	0.042	ug/L	0.002	3	281	359	0
[	Zn	67	0.028	ug/L	0.025	88	48	56	14
[	Zn	68	0.063	ug/L	0.008	12	259	346	4
[	As	75	0.006	ug/L	0.006	108	250	250	3
[	As-1	75	-0.013	ug/L	0.156	1233	10735	10213	1
[	Se	82	-0.075	ug/L	0.050	66	12	-3	278
[	Se	78	-0.072	ug/L	0.515	716	10877	10334	1
[	Mo	98	0.004	ug/L	0.002	40	45	61	10
	Y	89		ug/L			395688	382216	1
	Kr	83		ug/L			503	524	3
[>	In	115		ug/L			1044851	1031574 ✓	0
[	Ag	107	0.001	ug/L	0.001	114	46	53	16
[	Cd	111	0.001	ug/L	0.001	107	93	97	5
[	Cd	114	0.001	ug/L	0.001	140	56	61	14
[	Sb	121	0.044	ug/L	0.008	18	342	989	11
[	Sb	123	0.040	ug/L	0.007	17	277	731	9
[	Ba	135	0.012	ug/L	0.001	6	19	74	5
[	Ba	137	0.013	ug/L	0.002	13	35	134	9
[>	Tb	159		ug/L			1220108	1180150 ✓	1
[	Tl	205	-0.001	ug/L	0.001	55	250	196	11
[	Pb	208	0.011	ug/L	0.001	12	297	798	9
[	Bi	209		ug/L			2817769	2787500	0
[	Th	232	0.159	ug/L	0.016	10	2087	9138	7
[	U	238	0.003	ug/L	0.001	25	63	181	17

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.26.12 **Analyst:** MJJ **Page:** 1 of 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2991-10
		1			2990-12
		2			2994-16
		3			2995-1
		4			2994-3
		↓ 5			2995-2
		Rinse sample			
		ICV			2926-7
		ICB			^{62}Ni: low
		CCV1			
		CCB1			^{62}Ni: low
		low check			↓
		ICSA			
		ICSAB			^{62}Ni: high
		LR200			Ag high
		LR300			Mo, ^{137}Ba high
		B1			
		B2			
		ERA P197		10 ✓	
		B3			
		CCV2			
		CCB2			^{62}Ni: low
		VS19 MB1	SWN	20	Ag
		↓ MB1SPK	↓	↓ ✓	↓

VS19:00348

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.26.12 **Analyst:** MJJ **Page:** 2 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS18 J	SWN	20	Ag
		K		↓	↓
		L		↓	↓
		VS19 B		100	Pb Zn
		B		20	Ag
		C		100	Pb Zn
		C		20	Ag
		D		20	Ag
		CCV3			
		CCB3			^{62}Ni low
		VS19 A-L	SWN	100 ✓	Ag
		A		20	↓
		ADUP		↓ ✓	↓
		ASPK		↓ ✓	↓
		D		100	Pb Zn
		E		↓	↓
		F		20	Ag
		G		↓	↓
		H		↓	↓
		I		↓	↓
		CCV4			^{62}Ni low
		CCB4			↓
		VS19 A-L	SWN	500 ✓	V Cr Co Zn
		↓ A	↓	100	↓

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.26.12 **Analyst:** MJJ **Page:** 3 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS19 ADUP	SWN	100	V Cr Co Zn
		ASPK			
		J			Pb Zn
		L			Zn
		E		20	Ag
		K			Ag Be Se
		J			
		L			
		CCV5			^{62}Ni low
		CCB5			
		VS20 MB1	SWN	20	Be, Se ; rr Ag
		MB1SPK			
		VS19 K		100	Pb Zn
		VS20 B		20	Be, Se ; rr Ag
		C			
		D			
		E			
		G			
		H			
		I			
		CCV6			^{62}Ni low, Ag high
		CCB6			
		STD 0			
		CCV7			U high

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP (ICP-MS) GFA CVA

Analysis Date: 11-26-12

	Analyst	Peer	Comment
Nexion M2	MJB 11-27	MJT 11.28.12	
Logbook:			
Analyst, Date, Method info	—	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	—	✓	
Curve fit	—	✓	
Calibration Verification:			
ICV/CCV	—	✓	See Log
ICB/CCB	—	✓	↓
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	See Log
Carry-over	✓	—	
Method QC:			
CRI/CRA	✓	✓	See Log
ICSA/ICSAB	✓	✓	↓
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	—	✓	
Matrix Duplicates	—	✓	
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's		✓	

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Monday, November 26, 2012 09:37:26
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1330
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	5679.3	5679.268	87.094	1.5	Standard
	Mg	24.0	45038.5	45038.458	482.563	1.1	Standard
	In	114.9	89645.3	89645.261	1167.812	1.3	Standard
	Pb	208.0	39880.0	39880.002	305.997	0.8	Standard
	U	238.1	68170.8	68170.794	758.504	1.1	Standard
⌈	CeO	155.9	1499.2	0.016	0.001	5.3	Standard
| >	Ce	139.9	91069.3	91069.261	576.796	0.6	Standard
⌊	Ce++	70.0	1190.2	0.013	0.001	4.2	Standard
	Bkgd	220.0	0.0	0.000	0.000		Standard

Current Conditions File Data

Current Value	Description
1.07	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

VS19 : 00352

0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 11/26/2012 9:37:24 AM
nd Time: 11/26/2012 9:40:00 AM

aily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5679.27
Obtained Intensity (Mg 23.985): 45038.46
Obtained Intensity (In 114.904): 89645.26
Obtained Intensity (Pb 207.977): 39880.00
Obtained Intensity (U 238.05): 68170.79
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.016 (=1499.20 / 91069.26)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.013 (=1190.22 / 91069.26)

SmartTune Wizard - Summary

)ptimization Summary

;martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

;tart Time: 11/26/2012 9:30:12 AM
:nd Time: 11/26/2012 9:32:24 AM

lass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.703)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.711)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.709)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.716)

SmartTune Wizard - Summary

)ptimization Summary

,martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

;tart Time: 11/26/2012 9:32:51 AM
:nd Time: 11/26/2012 9:37:03 AM

,utoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.996; Intercept = -12.09

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:03:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				1452181	1
	Be	9		ug/L				10	33
	C	13		ug/L				122688	5
	Cl	37		ug/L				4809329	0
>	Sc	45		ug/L				1221736	1
	V	51		ug/L				8932	1
	V-1	51		ug/L				79	11
	Cr	52		ug/L				26512	1
	Cr	53		ug/L				164	5
	Mn	55		ug/L				526	7
	Co	59		ug/L				57	5
>	Ge	72		ug/L				666235	2
	Ni	60		ug/L				11	9
	Ni	62		ug/L				4585	1
	Cu	63		ug/L				3389	4
	Cu	65		ug/L				47	15
	Zn	66		ug/L				115	6
	Zn	67		ug/L				14	10
	Zn	68		ug/L				160	7
	As	75		ug/L				82	23
	As-1	75		ug/L				10540	0
	Se	82		ug/L				0	337
	Se	78		ug/L				10716	0
	Mo	98		ug/L				12	25
	Y	89		ug/L				407553	0
	Kr	83		ug/L				373	3
>	In	115		ug/L				1034700	0
	Ag	107		ug/L				17	34
	Cd	111		ug/L				81	7
	Cd	114		ug/L				29	14
	Sb	121		ug/L				57	6
	Sb	123		ug/L				42	42
	Ba	135		ug/L				12	12
	Ba	137		ug/L				12	24
>	Tb	159		ug/L				1245990	0
	Tl	205		ug/L				75	11
	Pb	208		ug/L				181	8
	Bi	209		ug/L				2867512	0
	Th	232		ug/L				132	20
	U	238		ug/L				4	66

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:07:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1489694	1
[	**Be**	**9**	**0.200**	ug/L	0.005	2	10	911	3
	C	**13**		ug/L			122688	124768	4
	Cl	**37**		ug/L			4809329	4698505	3
[>	**Sc**	**45**		ug/L			1221736	1237573	2
[	**V**	**51**	**0.200**	ug/L	0.007	3	8932	14397	1
[	**V-1**	**51**	**0.200**	ug/L	0.002	1	79	5376	1
[	**Cr**	**52**	**0.500**	ug/L	0.033	6	26512	38148	1
[	**Cr**	**53**	**0.500**	ug/L	0.021	4	164	1425	2
[	**Mn**	**55**	**0.500**	ug/L	0.015	2	526	15255	1
[	**Co**	**59**	**0.200**	ug/L	0.007	3	57	4345	4
[>	**Ge**	**72**		ug/L			666235	659179	1
[	**Ni**	**60**	**0.500**	ug/L	0.008	1	11	2376	0
[	**Ni**	**62**	**0.500**	ug/L	0.253	50	4585	4699	1
[	**Cu**	**63**	**0.500**	ug/L	0.012	2	3389	8488	2
[	**Cu**	**65**	**0.500**	ug/L	0.024	4	47	2380	4
[	**Zn**	**66**	**4.000**	ug/L	0.065	1	115	12134	0
[	**Zn**	**67**	**4.000**	ug/L	0.117	2	14	1835	3
[	**Zn**	**68**	**4.000**	ug/L	0.018	0	160	8623	1
[	**As**	**75**	**0.200**	ug/L	0.015	7	82	568	5
[	**As-1**	**75**	**0.200**	ug/L	0.025	12	10540	11205	0
[	**Se**	**82**	**0.500**	ug/L	0.119	23	0	129	22
[	**Se**	**78**	**0.500**	ug/L	0.096	19	10716	11237	0
[	**Mo**	**98**	**0.200**	ug/L	0.002	1	12	1059	1
	Y	**89**		ug/L			407553	405313	0
	Kr	**83**		ug/L			373	390	6
[>	**In**	**115**		ug/L			1034700	1025198	0
[	**Ag**	**107**	**0.200**	ug/L	0.008	3	17	2351	3
[	**Cd**	**111**	**0.100**	ug/L	0.005	4	81	627	4
[	**Cd**	**114**	**0.100**	ug/L	0.005	5	29	1455	6
[	**Sb**	**121**	**0.200**	ug/L	0.002	0	57	3145	0
[	**Sb**	**123**	**0.200**	ug/L	0.005	2	42	2367	3
[	**Ba**	**135**	**0.500**	ug/L	0.012	2	12	2484	1
[	**Ba**	**137**	**0.500**	ug/L	0.007	1	12	4281	0
[>	**Tb**	**159**		ug/L			1245990	1246021	0
[	**Tl**	**205**	**0.200**	ug/L	0.001	0	75	8749	0
[	**Pb**	**208**	**0.100**	ug/L	0.001	1	181	6331	2
[	**Bi**	**209**		ug/L			2867512	2863206	1
[	**Th**	**232**	**0.200**	ug/L	0.014	7	132	7322	7
[	**U**	**238**	**0.200**	ug/L	0.003	1	4	10534	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:11:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1513224	1
	Be	9	10.000	ug/L	0.250	2	10	44938	3
	C	13		ug/L			122688	119200	2
	Cl	37		ug/L			4809329	4919795	2
>	Sc	45		ug/L			1221736	1272532	2
	V	51	10.000	ug/L	0.159	1	8932	274700	2
	V-1	51	10.000	ug/L	0.189	1	79	265345	1
	Cr	52	9.999	ug/L	0.156	1	26512	249351	1
	Cr	53	9.999	ug/L	0.318	3	164	25185	1
	Mn	55	10.000	ug/L	0.219	2	526	301161	1
	Co	59	10.000	ug/L	0.295	2	57	215789	0
>	Ge	72		ug/L			666235	667779	1
	Ni	60	9.999	ug/L	0.071	0	11	46747	1
	Ni	62	10.011	ug/L	0.302	3	4585	10688	0
	Cu	63	10.000	ug/L	0.155	1	3389	106094	0
	Cu	65	10.000	ug/L	0.130	1	47	46465	2
	Zn	66	9.890	ug/L	0.090	0	115	28296	0
	Zn	67	10.039	ug/L	0.382	3	14	4760	2
	Zn	68	9.923	ug/L	0.299	3	160	20456	2
	As	75	10.000	ug/L	0.255	2	82	23778	1
	As-1	75	9.998	ug/L	0.163	1	10540	34776	0
	Se	82	10.000	ug/L	0.323	3	0	2614	2
	Se	78	9.980	ug/L	0.062	0	10716	17900	1
	Mo	98	10.000	ug/L	0.178	1	12	54764	1
	Y	89		ug/L			407553	418992	0
	Kr	83		ug/L			373	377	3
>	In	115		ug/L			1034700	1042804	0
	Ag	107	10.000	ug/L	0.328	3	17	116207	2
	Cd	111	10.000	ug/L	0.049	0	81	55103	0
	Cd	114	10.000	ug/L	0.032	0	29	140049	0
	Sb	121	10.000	ug/L	0.028	0	57	161884	0
	Sb	123	10.000	ug/L	0.057	0	42	122354	0
	Ba	135	10.000	ug/L	0.075	0	12	50244	0
	Ba	137	10.000	ug/L	0.050	0	12	86483	0
>	Tb	159		ug/L			1245990	1270979	0
	Tl	205	10.000	ug/L	0.133	1	75	430557	1
	Pb	208	10.000	ug/L	0.064	0	181	568098	0
	Bi	209		ug/L			2867512	2905496	1
	Th	232	10.001	ug/L	0.200	1	132	500563	1
	U	238	10.000	ug/L	0.078	0	4	544193	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:15:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1496355	2
[	Be	9	19.997	ug/L	0.407	2	10	88769	2
	C	13		ug/L			122688	116941	1
	Cl	37		ug/L			4809329	5139434	2
[>	Sc	45		ug/L			1221736	1266286	1
[	V	51	19.912	ug/L	0.333	1	8932	525964	0
[	V-1	51	19.945	ug/L	0.330	1	79	520833	0
[	Cr	52	19.985	ug/L	0.386	1	26512	467146	0
[	Cr	53	20.093	ug/L	0.381	1	164	51146	0
[	Mn	55	20.039	ug/L	0.473	2	526	604763	1
[	Co	59	20.053	ug/L	0.298	1	57	435339	1
[>	Ge	72		ug/L			666235	658338	1
[	Ni	60	19.977	ug/L	0.314	1	11	91620	0
[	Ni	62	20.104	ug/L	0.054	0	4585	16850	1
[	Cu	63	20.092	ug/L	0.599	2	3389	210521	1
[	Cu	65	19.980	ug/L	0.573	2	47	91081	1
[	Zn	66	20.014	ug/L	0.334	1	115	56458	0
[	Zn	67	19.975	ug/L	0.636	3	14	9283	3
[	Zn	68	20.024	ug/L	0.725	3	160	40697	2
[	As	75	20.012	ug/L	0.392	1	82	46940	0
[	As-1	75	20.014	ug/L	0.345	1	10540	58326	0
[	Se	82	19.983	ug/L	0.601	3	0	5133	1
[	Se	78	19.987	ug/L	0.410	2	10716	24683	0
[	Mo	98	20.020	ug/L	0.343	1	12	108487	0
	Y	89		ug/L			407553	416112	1
	Kr	83		ug/L			373	376	3
[>	In	115		ug/L			1034700	1043906	0
[	Ag	107	19.864	ug/L	0.388	1	17	224975	1
[	Cd	111	19.946	ug/L	0.167	0	81	108764	0
[	Cd	114	19.922	ug/L	0.189	0	29	274993	1
[	Sb	121	19.971	ug/L	0.213	1	57	321723	1
[	Sb	123	19.956	ug/L	0.150	0	42	242267	0
[	Ba	135	19.984	ug/L	0.274	1	12	100187	1
[	Ba	137	20.008	ug/L	0.149	0	12	173468	0
[>	Tb	159		ug/L			1245990	1280651	1
[	Tl	205	19.964	ug/L	0.415	2	75	859613	0
[	Pb	208	19.916	ug/L	0.348	1	181	1120915	0
[	Bi	209		ug/L			2867512	2874027	0
[	Th	232	20.060	ug/L	0.424	2	132	1023731	0
[	U	238	19.891	ug/L	0.421	2	4	1067122	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:20:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1487618	0
	Be	9	49.888	ug/L	1.235	2	10	217750	2
	C	13		ug/L			122688	122390	2
	Cl	37		ug/L			4809329	5208593	1
>	Sc	45		ug/L			1221736	1279552	1
	V	51	49.860	ug/L	1.612	3	8932	1298383	1
	V-1	51	49.821	ug/L	1.556	3	79	1291105	1
	Cr	52	49.744	ug/L	0.980	1	26512	1105961	0
	Cr	53	49.615	ug/L	1.296	2	164	122646	1
	Mn	55	49.830	ug/L	0.217	0	526	1493723	2
	Co	59	49.809	ug/L	1.612	3	57	1071787	2
>	Ge	72		ug/L			666235	662287	1
	Ni	60	49.585	ug/L	0.841	1	11	219647	0
	Ni	62	49.983	ug/L	2.299	4	4585	35306	2
	Cu	63	49.764	ug/L	0.540	1	3389	507881	2
	Cu	65	49.684	ug/L	1.826	3	47	220799	2
	Zn	66	49.760	ug/L	0.827	1	115	137850	0
	Zn	67	49.710	ug/L	0.938	1	14	22584	0
	Zn	68	49.592	ug/L	1.491	3	160	97361	3
	As	75	49.851	ug/L	0.808	1	82	115791	0
	As-1	75	49.815	ug/L	0.918	1	10540	128273	1
	Se	82	49.818	ug/L	0.542	1	0	12648	0
	Se	78	49.697	ug/L	0.763	1	10716	44877	1
	Mo	98	49.931	ug/L	0.354	0	12	270344	0
	Y	89		ug/L			407553	421483	1
	Kr	83		ug/L			373	396	3
>	In	115		ug/L			1034700	1031900	1
	Ag	107	49.923	ug/L	1.152	2	17	554547	1
	Cd	111	49.761	ug/L	0.228	0	81	261849	1
	Cd	114	49.811	ug/L	0.393	0	29	666975	1
	Sb	121	49.966	ug/L	0.818	1	57	792815	0
	Sb	123	49.919	ug/L	0.387	0	42	594150	0
	Ba	135	49.906	ug/L	0.595	1	12	244968	0
	Ba	137	49.979	ug/L	0.516	1	12	427391	0
>	Tb	159		ug/L			1245990	1257165	0
	Tl	205	50.261	ug/L	0.681	1	75	2181837	1
	Pb	208	49.926	ug/L	0.169	0	181	2738524	0
	Bi	209		ug/L			2867512	2814185	1
	Th	232	50.580	ug/L	0.377	0	132	2690485	0
	U	238	50.417	ug/L	0.509	1	4	2771272	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:26:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1452181	1
[	**Be**	**9**	**99.850**	ug/L	2.918	2	10	423209	1
	C	**13**		ug/L			122688	116585	2
	Cl	**37**		ug/L			4809329	5156950	0
[>	**Sc**	**45**		ug/L			1221736	1243183	1
[	**V**	**51**	**101.116**	ug/L	1.796	1	8932	2647742	0
[	**V-1**	**51**	**100.892**	ug/L	1.754	1	79	2618758	0
[	**Cr**	**52**	**100.721**	ug/L	2.399	2	26512	2200472	1
[	**Cr**	**53**	**99.939**	ug/L	2.594	2	164	239384	1
[	**Mn**	**55**	**100.758**	ug/L	3.725	3	526	3010684	4
[	**Co**	**59**	**100.965**	ug/L	0.931	0	57	2181766	2
[>	**Ge**	**72**		ug/L			666235	650981	2
[	**Ni**	**60**	**100.261**	ug/L	1.979	1	11	440324	1
[	**Ni**	**62**	**100.764**	ug/L	4.255	4	4585	66985	1
[	**Cu**	**63**	**99.330**	ug/L	3.636	3	3389	970902	1
[	**Cu**	**65**	**100.161**	ug/L	2.595	2	47	439837	1
[	**Zn**	**66**	**98.979**	ug/L	4.754	4	115	260424	2
[	**Zn**	**67**	**99.593**	ug/L	1.495	1	14	43879	3
[	**Zn**	**68**	**99.724**	ug/L	2.732	2	160	190435	0
[	**As**	**75**	**99.841**	ug/L	1.244	1	82	226649	1
[	**As-1**	**75**	**99.873**	ug/L	1.747	1	10540	241423	0
[	**Se**	**82**	**99.479**	ug/L	1.613	1	0	24399	0
[	**Se**	**78**	**99.621**	ug/L	3.364	3	10716	77033	0
[	**Mo**	**98**	**100.145**	ug/L	2.364	2	12	535398	1
	Y	**89**		ug/L			407553	412314	0
	Kr	**83**		ug/L			373	432	3
[>	**In**	**115**		ug/L			1034700	1013706	1
[	**Ag**	**107**	**99.869**	ug/L	0.767	0	17	1085230	1
[	**Cd**	**111**	**99.704**	ug/L	1.791	1	81	510212	0
[	**Cd**	**114**	**99.580**	ug/L	2.095	2	29	1291527	0
[	**Sb**	**121**	**99.759**	ug/L	0.660	0	57	1542611	0
[	**Sb**	**123**	**99.952**	ug/L	0.522	0	42	1166796	1
[	**Ba**	**135**	**100.144**	ug/L	1.380	1	12	485194	0
[	**Ba**	**137**	**100.237**	ug/L	0.905	0	12	848803	1
[>	**Tb**	**159**		ug/L			1245990	1244150	0
[	**Tl**	**205**	**99.635**	ug/L	1.184	1	75	4228514	0
[	**Pb**	**208**	**100.049**	ug/L	1.161	1	181	5439424	0
[	**Bi**	**209**		ug/L			2867512	2708987	0
[	**Th**	**232**	**100.055**	ug/L	1.599	1	132	5276267	0
[	**U**	**238**	**99.899**	ug/L	0.794	0	4	5416006	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:33:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1480190	2
[	**Be**	**9**	**0.002**	ug/L	0.001	42	10	20	21
	C	**13**		ug/L			122688	124802	2
	Cl	**37**		ug/L			4809329	5065695	2
[>	**Sc**	**45**		ug/L			1221736	1257555	3
[	**V**	**51**	**0.015**	ug/L	0.011	75	8932	9574	0
[	**V-1**	**51**	**0.001**	ug/L	0.002	171	79	104	36
[	**Cr**	**52**	**0.046**	ug/L	0.035	75	26512	28278	0
[	**Cr**	**53**	**-0.001**	ug/L	0.002	217	164	167	2
[	**Mn**	**55**	**0.000**	ug/L	0.003	1142	526	548	13
[	**Co**	**59**	**0.002**	ug/L	0.001	87	57	92	29
[>	**Ge**	**72**		ug/L			666235	661091	1
[	**Ni**	**60**	**0.002**	ug/L	0.001	55	11	19	25
[	**Ni**	**62**	**-0.709**	ug/L	0.148	20	4585	4103	2
[	**Cu**	**63**	**-0.027**	ug/L	0.006	22	3389	3090	1
[	**Cu**	**65**	**0.005**	ug/L	0.001	29	47	68	10
[	**Zn**	**66**	**0.000**	ug/L	0.006	2976	115	115	13
[	**Zn**	**67**	**0.012**	ug/L	0.010	82	14	20	21
[	**Zn**	**68**	**0.013**	ug/L	0.012	88	160	184	13
[	**As**	**75**	**0.015**	ug/L	0.010	65	82	115	20
[	**As-1**	**75**	**0.211**	ug/L	0.045	21	10540	10953	0
[	**Se**	**82**	**-0.018**	ug/L	0.040	225	0	-4	202
[	**Se**	**78**	**0.707**	ug/L	0.185	26	10716	11112	0
[	**Mo**	**98**	**0.020**	ug/L	0.010	51	12	121	47
	Y	**89**		ug/L			407553	413329	2
	Kr	**83**		ug/L			373	410	5
[>	**In**	**115**		ug/L			1034700	1023564	1
[	**Ag**	**107**	**0.006**	ug/L	0.009	139	17	87	112
[	**Cd**	**111**	**0.009**	ug/L	0.008	81	81	128	31
[	**Cd**	**114**	**0.005**	ug/L	0.006	115	29	94	79
[	**Sb**	**121**	**0.128**	ug/L	0.010	7	57	2056	7
[	**Sb**	**123**	**0.126**	ug/L	0.007	5	42	1523	4
[	**Ba**	**135**	**0.003**	ug/L	0.004	136	12	25	70
[	**Ba**	**137**	**0.003**	ug/L	0.003	130	12	34	84
[>	**Tb**	**159**		ug/L			1245990	1214298	0
[	**Tl**	**205**	**0.010**	ug/L	0.001	12	75	493	10
[	**Pb**	**208**	**0.002**	ug/L	0.003	144	181	278	52
[	**Bi**	**209**		ug/L			2867512	2861920	0
[	**Th**	**232**	**0.219**	ug/L	0.019	8	132	11380	8
[	**U**	**238**	**0.005**	ug/L	0.002	29	4	281	28

Sample Information

Sample Date/Time: Monday, November 26, 2012 10:33:29
Method File: C:\NexION Data\Method\200.8nomin.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**1.0000**	0.003	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**0.9998**	0.021	0.20	10	20	50	100
V-1	51	**0.9999**	0.021	0.20	10	20	50	100
Cr	52	**0.9999**	0.017	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**0.9999**	0.024	0.50	10	20	50	100
Co	59	**0.9998**	0.017	0.20	10	20	50	100
Ge	72							
Ni	60	**0.9999**	0.007	0.50	10	20	50	100
Ni	62	**0.9999**	0.001	0.50	10	20	50	100
Cu	63	**0.9999**	0.015	0.50	10	20	50	100
Cu	65	**1.0000**	0.007	0.50	10	20	50	100
Zn	66	**0.9998**	0.004	4.00	10	20	50	100
Zn	67	**1.0000**	0.001	4.00	10	20	50	100
Zn	68	**0.9999**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.004	0.20	10	20	50	100
Se	82	**0.9999**	0.000	0.50	10	20	50	100
Se	78	**0.9999**	0.001	0.50	10	20	50	100
Mo	98	**1.0000**	0.008	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.011	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.013	0.10	10	20	50	100
Sb	121	**1.0000**	0.015	0.20	10	20	50	100
Sb	123	**1.0000**	0.012	0.20	10	20	50	100
Ba	135	**1.0000**	0.005	0.50	10	20	50	100
Ba	137	**1.0000**	0.008	0.50	10	20	50	100
Tb	159							
Tl	205	**1.0000**	0.034	0.20	10	20	50	100
Pb	208	**1.0000**	0.044	0.10	10	20	50	100
Bi	209							
Th	232	**0.9999**	0.042	0.20	10	20	50	100
U	238	**1.0000**	0.044	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:43:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1529055	1
[	Be	9	49.712	ug/L	0.861	1	10	221888	0
	C	13		ug/L			122688	125975	1
	Cl	37		ug/L			4809329	5213504	1
[>	Sc	45		ug/L			1221736	1268936	1
|	V	51	51.073	ug/L	0.953	1	8932	1369561	0
|	V-1	51	51.371	ug/L	1.273	2	79	1360952	1
|	Cr	52	50.540	ug/L	0.446	0	26512	1140839	0
|	Cr	53	51.564	ug/L	1.661	3	164	126161	3
|	Mn	55	51.473	ug/L	1.502	2	526	1569232	1
[	Co	59	50.233	ug/L	0.723	1	57	1107747	0
[>	Ge	72		ug/L			666235	677661	1
|	Ni	60	51.202	ug/L	0.613	1	11	234113	0
|	Ni	62	49.663	ug/L	0.907	1	4585	36747	0
|	Cu	63	51.172	ug/L	0.363	0	3389	522642	1
|	Cu	65	50.711	ug/L	1.108	2	47	231858	0
|	Zn	66	49.947	ug/L	0.319	0	115	136974	2
|	Zn	67	50.759	ug/L	1.618	3	14	23278	2
|	Zn	68	49.579	ug/L	1.661	3	160	98660	2
|	As	75	50.107	ug/L	1.074	2	82	118454	1
|	As-1	75	50.399	ug/L	0.977	1	10540	132142	0
|	Se	82	78.818	ug/L	1.688	2	0	20127	2
|	Se	78	77.904	ug/L	1.439	1	10716	65103	0
[	Mo	98	48.614	ug/L	0.693	1	12	270634	1
	Y	89		ug/L			407553	423001	0
	Kr	83		ug/L			373	437	2
[>	In	115		ug/L			1034700	1037718	1
|	Ag	107	52.627	ug/L	0.410	0	17	585399	0
|	Cd	111	50.381	ug/L	0.849	1	81	263978	0
|	Cd	114	50.756	ug/L	0.883	1	29	673998	1
|	Sb	121	50.602	ug/L	0.495	0	57	801055	0
|	Sb	123	50.023	ug/L	0.782	1	42	597767	1
|	Ba	135	50.616	ug/L	0.978	1	12	251050	1
[	Ba	137	50.150	ug/L	0.814	1	12	434734	1
[>	Tb	159		ug/L			1245990	1271091	1
|	Tl	205	51.795	ug/L	0.653	1	75	2245807	0
|	Pb	208	50.340	ug/L	0.465	0	181	2796187	0
|	Bi	209		ug/L			2867512	2791025	0
|	Th	232	52.165	ug/L	1.016	1	132	2810317	0
[	U	238	52.052	ug/L	0.549	1	4	2883024	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:50:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1452181	1483374	0
	Be	**9**	**0.002**	ug/L	0.001	48	10	21	24
	C	**13**		ug/L			122688	125418	0
	Cl	**37**		ug/L			4809329	5075946	1
>	**Sc**	**45**		ug/L			1221736	1239146	2
	V	**51**	**0.025**	ug/L	0.008	33	8932	9711	1
	V-1	**51**	**-0.000**	ug/L	0.001	1014	79	79	24
	Cr	**52**	**0.087**	ug/L	0.027	31	26512	28754	1
	Cr	**53**	**0.001**	ug/L	0.003	397	164	169	6
	Mn	**55**	**0.000**	ug/L	0.001	365	526	539	1
	Co	**59**	**0.001**	ug/L	0.000	46	57	72	7
>	**Ge**	**72**		ug/L			666235	649944	1
	Ni	**60**	**0.001**	ug/L	0.001	99	11	16	35
	Ni	**62**	**-1.773**	ug/L	0.060	3	4585	3374	0
	Cu	**63**	**-0.075**	ug/L	0.009	12	3389	2572	2
	Cu	**65**	**0.003**	ug/L	0.001	45	47	60	10
	Zn	**66**	**-0.003**	ug/L	0.005	170	115	105	11
	Zn	**67**	**0.014**	ug/L	0.004	26	14	20	7
	Zn	**68**	**-0.003**	ug/L	0.005	150	160	150	7
	As	**75**	**-0.009**	ug/L	0.015	178	82	60	58
	As-1	**75**	**0.288**	ug/L	0.069	24	10540	10946	0
	Se	**82**	**-0.038**	ug/L	0.028	73	0	-9	67
	Se	**78**	**1.044**	ug/L	0.261	24	10716	11149	0
	Mo	**98**	**0.009**	ug/L	0.002	25	12	61	19
	Y	**89**		ug/L			407553	413786	1
	Kr	**83**		ug/L			373	412	3
>	**In**	**115**		ug/L			1034700	1007612	0
	Ag	**107**	**0.003**	ug/L	0.002	77	17	48	50
	Cd	**111**	**0.004**	ug/L	0.002	38	81	101	9
	Cd	**114**	**0.002**	ug/L	0.001	72	29	53	33
	Sb	**121**	**0.037**	ug/L	0.007	18	57	623	16
	Sb	**123**	**0.037**	ug/L	0.007	18	42	468	17
	Ba	**135**	**-0.000**	ug/L	0.000	163	12	11	10
	Ba	**137**	**0.002**	ug/L	0.002	141	12	25	75
>	**Tb**	**159**		ug/L			1245990	1221031	1
	Tl	**205**	**0.004**	ug/L	0.002	41	75	251	30
	Pb	**208**	**0.001**	ug/L	0.000	79	181	208	12
	Bi	**209**		ug/L			2867512	2820290	0
	Th	**232**	**0.123**	ug/L	0.008	6	132	6515	7
	U	**238**	**0.002**	ug/L	0.000	1	4	132	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:54:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1492475 ✓	1
	Be	9	50.359	ug/L	0.762	1	10	219398	0
	C	13		ug/L			122688	119979	1
	Cl	37		ug/L			4809329	5209240	2
>	Sc	45		ug/L			1221736	1276127 ✓	1
	V	51	49.106	ug/L	1.603	3	8932	1324542	2
	V-1	51	49.443	ug/L	1.479	2	79	1317180	1
	Cr	52	49.062	ug/L	1.025	2	26512	1114463	1
	Cr	53	50.230	ug/L	1.426	2	164	123580	1
	Mn	55	49.485	ug/L	1.094	2	526	1517361	1
	Co	59	48.622	ug/L	2.270	4	57	1077944	3
>	Ge	72		ug/L			666235	665476 ✓	0
	Ni	60	50.072	ug/L	0.378	0	11	224863	0
	Ni	62	47.934	ug/L	1.236	2	4585	34995	2
	Cu	63	51.338	ug/L	0.650	1	3389	514910	1
	Cu	65	49.144	ug/L	1.174	2	47	220709	2
	Zn	66	51.440	ug/L	0.300	0	115	138521	0
	Zn	67	50.677	ug/L	0.990	1	14	22830	2
	Zn	68	50.595	ug/L	0.557	1	160	98887	0
	As	75	51.023	ug/L	0.453	0	82	118469	0
	As-1	75	50.838	ug/L	0.390	0	10540	130828	0
	Se	82	51.297	ug/L	0.250	0	0	12865	0
	Se	78	50.663	ug/L	0.159	0	10716	45326	0
	Mo	98	49.864	ug/L	1.568	3	12	272604	2
	Y	89		ug/L			407553	424323	2
	Kr	83		ug/L			373	426	8
>	In	115		ug/L			1034700	1028642 ✓	0
	Ag	107	51.233	ug/L	0.644	1	17	564961	1
	Cd	111	50.171	ug/L	0.319	0	81	260602	1
	Cd	114	50.711	ug/L	0.266	0	29	667517	0
	Sb	121	50.051	ug/L	0.367	0	57	785405	0
	Sb	123	49.889	ug/L	0.820	1	42	590934	0
	Ba	135	49.980	ug/L	0.636	1	12	245740	0
	Ba	137	49.150	ug/L	0.104	0	12	422355	0
>	Tb	159		ug/L			1245990	1252346 ✓	0
	Tl	205	51.173	ug/L	0.241	0	75	2186281	0
	Pb	208	49.797	ug/L	0.304	0	181	2725336	0
	Bi	209		ug/L			2867512	2797875	0
	Th	232	50.536	ug/L	0.378	0	132	2682725	0
	U	238	51.006	ug/L	0.417	0	4	2783553	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:01:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1466136 ✓	4
[	Be	9	0.001	ug/L	0.001	98	10	17	41
	C	13		ug/L			122688	123163	1
	Cl	37		ug/L			4809329	5192111	1
[>	Sc	45		ug/L			1221736	1250524 ✓	3
[	V	51	0.015	ug/L	0.017	109	8932	9529	1
[	V-1	51	0.000	ug/L	0.000	222	79	85	8
[	Cr	52	0.049	ug/L	0.048	99	26512	28176	0
[	Cr	53	-0.002	ug/L	0.008	407	164	164	15
[	Mn	55	-0.002	ug/L	0.001	66	526	483	5
[	Co	59	0.001	ug/L	0.000	17	57	75	0
[>	Ge	72		ug/L			666235	649030 ✓	2
[	Ni	60	0.001	ug/L	0.001	52	11	15	13
[	Ni	62	-2.181	ug/L	0.090	4	4585	3116	1
[	Cu	63	-0.094	ug/L	0.006	6	3389	2390	0
[	Cu	65	0.001	ug/L	0.001	36	47	52	2
[	Zn	66	-0.006	ug/L	0.005	78	115	97	14
[	Zn	67	0.017	ug/L	0.005	27	14	21	7
[	Zn	68	0.002	ug/L	0.009	456	160	160	13
[	As	75	0.011	ug/L	0.019	165	82	105	38
[	As-1	75	0.338	ug/L	0.084	24	10540	11045	0
[	Se	82	-0.012	ug/L	0.051	433	0	-3	343
[	Se	78	1.185	ug/L	0.271	22	10716	11225	0
[	Mo	98	0.010	ug/L	0.003	30	12	62	23
	Y	89		ug/L			407553	415042	1
	Kr	83		ug/L			373	420	3
[>	In	115		ug/L			1034700	1008687 ✓	2
[	Ag	107	0.002	ug/L	0.000	18	17	33	8
[	Cd	111	0.004	ug/L	0.002	60	81	100	10
[	Cd	114	0.001	ug/L	0.000	8	29	40	3
[	Sb	121	0.069	ug/L	0.005	7	57	1114	8
[	Sb	123	0.069	ug/L	0.003	4	42	839	5
[	Ba	135	0.000	ug/L	0.000	15738	12	12	16
[	Ba	137	0.001	ug/L	0.001	85	12	20	35
[>	Tb	159		ug/L			1245990	1196291 ✓	0
[	Tl	205	0.005	ug/L	0.002	41	75	270	30
[	Pb	208	0.000	ug/L	0.000	82	181	184	5
[	Bi	209		ug/L			2867512	2816760	1
[	Th	232	0.171	ug/L	0.022	12	132	8786	12
[	U	238	0.003	ug/L	0.000	10	4	144	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:05:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1465604 ✓	0
[	Be	9	0.213	ug/L	0.008	3	10	921	3
	C	13		ug/L			122688	129329	1
	Cl	37		ug/L			4809329	5029040	3
[>	Sc	45		ug/L			1221736	1241640 ✓	0
[	V	51	0.232	ug/L	0.007	2	8932	15130	1
[	V-1	51	0.210	ug/L	0.006	2	79	5522	2
[	Cr	52	0.579	ug/L	0.031	5	26512	39433	2
[	Cr	53	0.509	ug/L	0.012	2	164	1383	2
[	Mn	55	0.511	ug/L	0.013	2	526	15773	3
[	Co	59	0.202	ug/L	0.006	3	57	4409	2
[>	Ge	72		ug/L			666235	659675 ✓	0
[	Ni	60	0.514	ug/L	0.017	3	11	2297	3
[	Ni	62	-1.845	ug/L	0.115	6	4585	3379	2
[	Cu	63	0.417	ug/L	0.029	7	3389	7468	3
[	Cu	65	0.533	ug/L	0.005	0	47	2421	0
[	Zn	66	4.621	ug/L	0.076	1	115	12437	1
[	Zn	67	4.209	ug/L	0.144	3	14	1892	3
[	Zn	68	4.399	ug/L	0.020	0	160	8667	0
[	As	75	0.203	ug/L	0.017	8	82	548	7
[	As-1	75	0.419	ug/L	0.045	10	10540	11419	0
[	Se	82	0.516	ug/L	0.044	8	0	127	9
[	Se	78	1.277	ug/L	0.162	12	10716	11475	0
[	Mo	98	0.193	ug/L	0.013	6	12	1057	6
	Y	89		ug/L			407553	414287	1
	Kr	83		ug/L			373	400	1
[>	In	115		ug/L			1034700	1023154 ✓	1
[	Ag	107	0.210	ug/L	0.004	1	17	2315	0
[	Cd	111	0.111	ug/L	0.005	4	81	653	3
[	Cd	114	0.107	ug/L	0.005	4	29	1426	2
[	Sb	121	0.211	ug/L	0.002	0	57	3358	2
[	Sb	123	0.215	ug/L	0.009	4	42	2574	3
[	Ba	135	0.493	ug/L	0.008	1	12	2424	1
[	Ba	137	0.487	ug/L	0.005	0	12	4176	0
[>	Tb	159		ug/L			1245990	1215210 ✓	0
[	Tl	205	0.208	ug/L	0.001	0	75	8696	0
[	Pb	208	0.114	ug/L	0.005	4	181	6213	3
[	Bi	209		ug/L			2867512	2828720	1
[	Th	232	0.213	ug/L	0.006	2	132	11122	2
[	U	238	0.198	ug/L	0.003	1	4	10485	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:09:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1506381	2
	Be	9	0.000	ug/L	0.001	1374	10	11	32
	C	13		ug/L			122688	220782	2
	Cl	37		ug/L			4809329	14161703	6
>	Sc	45		ug/L			1221736	1301140	1
	V	51	0.142	ug/L	0.013	9	8932	13383	1
	V-1	51	1.021	ug/L	0.032	3	79	27834	4
	Cr	52	0.603	ug/L	0.037	6	26512	41849	2
	Cr	53	3.660	ug/L	0.138	3	164	9350	5
	Mn	55	0.067	ug/L	0.002	3	526	2646	3
	Co	59	0.023	ug/L	0.001	3	57	582	4
>	Ge	72		ug/L			666235	661270	1
	Ni	60	0.354	ug/L	0.020	5	11	1590	3
	Ni	62	5.873	ug/L	1.228	20	4585	8258	10
	Cu	63	1.335	ug/L	0.088	6	3389	16582	6
	Cu	65	0.376	ug/L	0.009	2	47	1726	3
	Zn	66	0.964	ug/L	0.022	2	115	2692	2
	Zn	67	6.532	ug/L	0.422	6	14	2934	4
	Zn	68	0.410	ug/L	0.002	0	160	953	2
	As	75	0.062	ug/L	0.023	36	82	222	21
	As-1	75	0.535	ug/L	0.153	28	10540	11714	1
	Se	82	-0.217	ug/L	0.028	12	0	-54	13
	Se	78	1.785	ug/L	0.466	26	10716	11844	1
	Mo	98	419.453	ug/L	1.707	0	12	2278509	1
	Y	89		ug/L			407553	420285	0
	Kr	83		ug/L			373	671	4
>	In	115		ug/L			1034700	1004539	1
	Ag	107	0.019	ug/L	0.001	5	17	221	5
	Cd	111	0.172	ug/L	0.018	10	81	952	9
	Cd	114	0.287	ug/L	0.004	1	29	3721	0
	Sb	121	0.076	ug/L	0.004	4	57	1214	6
	Sb	123	0.073	ug/L	0.004	5	42	881	6
	Ba	135	0.051	ug/L	0.002	4	12	258	6
	Ba	137	0.040	ug/L	0.003	6	12	348	5
>	Tb	159		ug/L			1245990	1259173	1
	Tl	205	0.041	ug/L	0.002	3	75	1818	4
	Pb	208	0.034	ug/L	0.000	0	181	2055	0
	Bi	209		ug/L			2867512	2599701	1
	Th	232	0.227	ug/L	0.071	31	132	12198	30
	U	238	0.001	ug/L	0.000	16	4	77	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:16:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1452181	1485081 ✓	2
	Be	**9**	**0.001**	ug/L	0.001	65	10	15	17
	C	**13**		ug/L			122688	233253	2
	Cl	**37**		ug/L			4809329	14447099	2
>	**Sc**	**45**		ug/L			1221736	1287242 ✓	1
	V	**51**	**0.123**	ug/L	0.254	205	8932	12819	55
	V-1	**51**	**1.001**	ug/L	0.036	3	79	26980	2
	Cr	**52**	**20.312**	ug/L	0.319	1	26512	481823	1
	Cr	**53**	**23.733**	ug/L	1.019	4	164	58974	2
	Mn	**55**	**19.847**	ug/L	0.566	2	526	614104	1
	Co	**59**	**19.454**	ug/L	0.394	2	57	435201	0
>	**Ge**	**72**		ug/L			666235	658680 ✓	2
	Ni	**60**	**20.251**	ug/L	0.418	2	11	89993	0
	Ni	**62**	**24.860**	ug/L	0.975	3	4585	20137	1
	Cu	**63**	**21.084**	ug/L	0.586	2	3389	211219	2
	Cu	**65**	**20.261**	ug/L	0.730	3	47	90042	1
	Zn	**66**	**19.909**	ug/L	0.655	3	115	53113	2
	Zn	**67**	**23.551**	ug/L	0.572	2	14	10505	1
	Zn	**68**	**18.576**	ug/L	0.531	2	160	36032	3
	As	**75**	**20.309**	ug/L	0.437	2	82	46706	0
	As-1	**75**	**20.307**	ug/L	0.498	2	10540	57966	0
	Se	**82**	**-0.218**	ug/L	0.008	3	0	-54	3
	Se	**78**	**1.481**	ug/L	0.261	17	10716	11593	0
	Mo	**98**	**421.681**	ug/L	19.419	4	12	2280180	2
	Y	**89**		ug/L			407553	413916	0
	Kr	**83**		ug/L			373	646	3
>	**In**	**115**		ug/L			1034700	1013989 ✓	0
	Ag	**107**	**21.238**	ug/L	0.775	3	17	230829	3
	Cd	**111**	**19.819**	ug/L	0.298	1	81	101521	0
	Cd	**114**	**20.002**	ug/L	0.154	0	29	259563	0
	Sb	**121**	**0.070**	ug/L	0.003	3	57	1133	3
	Sb	**123**	**0.072**	ug/L	0.004	4	42	879	4
	Ba	**135**	**0.048**	ug/L	0.003	5	12	246	5
	Ba	**137**	**0.041**	ug/L	0.004	10	12	356	10
>	**Tb**	**159**		ug/L			1245990	1258930 ✓	0
	Tl	**205**	**0.033**	ug/L	0.001	2	75	1474	2
	Pb	**208**	**0.032**	ug/L	0.001	2	181	1967	1
	Bi	**209**		ug/L			2867512	2609853	1
	Th	**232**	**0.084**	ug/L	0.008	9	132	4638	9
	U	**238**	**0.001**	ug/L	0.000	32	4	33	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:22:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1457970	0
[	Be	9	202.770	ug/L	6.024	2	10	862917	2
	C	13		ug/L			122688	129857	3
	Cl	37		ug/L			4809329	5388262	4
[>	Sc	45		ug/L			1221736	1234343	0
[	V	51	202.143	ug/L	3.970	1	8932	5246613	1
[	V-1	51	202.321	ug/L	3.144	1	79	5214259	0
[	Cr	52	201.341	ug/L	3.427	1	26512	4341032	0
[	Cr	53	201.944	ug/L	1.293	0	164	480190	0
[	Mn	55	199.235	ug/L	7.849	3	526	5907504	3
[	Co	59	194.856	ug/L	1.732	0	57	4180182	0
[>	Ge	72		ug/L			666235	622046	1
[	Ni	60	199.351	ug/L	1.624	0	11	836720	0
[	Ni	62	205.045	ug/L	1.942	0	4585	125893	1
[	Cu	63	199.679	ug/L	2.220	1	3389	1862698	0
[	Cu	65	196.988	ug/L	5.724	2	47	826578	1
[	Zn	66	199.632	ug/L	4.200	2	115	502073	0
[	Zn	67	198.274	ug/L	2.850	1	14	83442	0
[	Zn	68	195.695	ug/L	3.130	1	160	357044	0
[	As	75	203.123	ug/L	3.675	1	82	440541	0
[	As-1	75	202.048	ug/L	3.320	1	10540	456683	0
[	Se	82	200.204	ug/L	5.257	2	0	46922	1
[	Se	78	196.897	ug/L	3.688	1	10716	135760	0
[	Mo	98	212.453	ug/L	3.354	1	12	1085498	0
	Y	89		ug/L			407553	395313	0
	Kr	83		ug/L			373	637	5
[>	In	115		ug/L			1034700	992273	1
[	Ag	107	223.233	ug/L	4.339	1	17	2374035	1
[	Cd	111	201.215	ug/L	0.785	0	81	1007967	1
[	Cd	114	210.637	ug/L	2.546	1	29	2674258	0
[	Sb	121	216.035	ug/L	3.428	1	57	3269564	0
[	Sb	123	217.706	ug/L	2.279	1	42	2487366	0
[	Ba	135	207.774	ug/L	3.225	1	12	985393	1
[	Ba	137	205.466	ug/L	1.477	0	12	1703031	1
[>	Tb	159		ug/L			1245990	1244938	1
[	Tl	205	196.985	ug/L	1.243	0	75	8365546	0
[	Pb	208	201.062	ug/L	2.915	1	181	10937183	0
[	Bi	209		ug/L			2867512	2568374	0
[	Th	232	198.706	ug/L	3.993	2	132	10484154	0
[	U	238	198.836	ug/L	4.215	2	4	10785269	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:29:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1396612	1
	Be	9	308.951	ug/L	9.052	2	10	1259290	1
	C	13		ug/L			122688	130421	2
	Cl	37		ug/L			4809329	5288449	2
>	Sc	45		ug/L			1221736	1202185	0
	V	51	309.302	ug/L	0.995	0	8932	7814991	0
	V-1	51	308.840	ug/L	1.999	0	79	7752828	0
	Cr	52	310.791	ug/L	5.346	1	26512	6512455	1
	Cr	53	309.216	ug/L	1.440	0	164	716027	0
	Mn	55	306.163	ug/L	1.739	0	526	8843080	0
	Co	59	298.248	ug/L	6.200	2	57	6231982	2
>	Ge	72		ug/L			666235	604039	0
	Ni	60	307.652	ug/L	5.548	1	11	1253855	0
	Ni	62	315.324	ug/L	6.298	1	4585	185789	2
	Cu	63	314.792	ug/L	3.587	1	3389	2850002	1
	Cu	65	301.620	ug/L	5.907	1	47	1229215	1
	Zn	66	292.438	ug/L	2.582	0	115	714329	1
	Zn	67	296.854	ug/L	1.234	0	14	121320	0
	Zn	68	292.660	ug/L	4.739	1	160	518461	0
	As	75	308.071	ug/L	4.326	1	82	648854	0
	As-1	75	308.362	ug/L	3.853	1	10540	671844	0
	Se	82	292.057	ug/L	2.012	0	0	66483	0
	Se	78	294.508	ug/L	2.703	0	10716	192396	0
	Mo	98	330.867	ug/L	9.071	2	12	1641600	2
	Y	89		ug/L			407553	386848	0
	Kr	83		ug/L			373	802	6
>	In	115		ug/L			1034700	951508	0
	Ag	107	320.036	ug/L	4.195	1	17	3264277	1
	Cd	111	305.690	ug/L	0.270	0	81	1468412	0
	Cd	114	314.836	ug/L	1.775	0	29	3833421	0
	Sb	121	323.641	ug/L	3.477	1	57	4697574	0
	Sb	123	325.625	ug/L	3.052	0	42	3567935	1
	Ba	135	322.251	ug/L	0.959	0	12	1465671	0
	Ba	137	333.310	ug/L	0.693	0	12	2649354	0
>	Tb	159		ug/L			1245990	1215850	0
	Tl	205	298.988	ug/L	4.839	1	75	12400818	1
	Pb	208	303.583	ug/L	2.906	0	181	16129262	0
	Bi	209		ug/L			2867512	2423228	0
	Th	232	304.804	ug/L	2.524	0	132	15708249	0
	U	238	304.390	ug/L	7.252	2	4	16125834	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:36:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1480935	0
[	Be	9	0.003	ug/L	0.001	45	10	22	24
	C	13		ug/L			122688	130214	1
	Cl	37		ug/L			4809329	5193418	1
[>	Sc	45		ug/L			1221736	1228680	2
[	V	51	0.022	ug/L	0.004	17	8932	9562	1
[	V-1	51	0.011	ug/L	0.001	9	79	372	6
[	Cr	52	0.075	ug/L	0.010	13	26512	28270	1
[	Cr	53	0.038	ug/L	0.004	10	164	255	5
[	Mn	55	0.017	ug/L	0.003	16	526	1034	6
[	Co	59	0.001	ug/L	0.001	65	57	88	20
[>	Ge	72		ug/L			666235	642985	1
[	Ni	60	0.019	ug/L	0.001	3	11	94	1
[	Ni	62	-1.655	ug/L	0.297	17	4585	3410	5
[	Cu	63	-0.064	ug/L	0.020	31	3389	2652	8
[	Cu	65	0.016	ug/L	0.001	8	47	114	6
[	Zn	66	1.155	ug/L	0.021	1	115	3114	1
[	Zn	67	1.084	ug/L	0.033	3	14	485	2
[	Zn	68	1.122	ug/L	0.019	1	160	2269	0
[	As	75	0.020	ug/L	0.013	66	82	123	23
[	As-1	75	0.276	ug/L	0.042	15	10540	10802	0
[	Se	82	0.025	ug/L	0.048	187	0	5	204
[	Se	78	0.949	ug/L	0.141	14	10716	10967	0
[	Mo	98	0.043	ug/L	0.000	0	12	238	0
	Y	89		ug/L			407553	404075	1
	Kr	83		ug/L			373	394	8
[>	In	115		ug/L			1034700	1024752	1
[	Ag	107	0.018	ug/L	0.001	5	17	211	6
[	Cd	111	0.009	ug/L	0.001	15	81	129	6
[	Cd	114	0.004	ug/L	0.001	14	29	85	10
[	Sb	121	0.296	ug/L	0.044	14	57	4681	12
[	Sb	123	0.291	ug/L	0.037	12	42	3471	11
[	Ba	135	0.007	ug/L	0.003	39	12	47	28
[	Ba	137	0.009	ug/L	0.001	10	12	90	10
[>	Tb	159		ug/L			1245990	1214798	0
[	Tl	205	0.024	ug/L	0.009	36	75	1083	33
[	Pb	208	0.009	ug/L	0.001	8	181	650	5
[	Bi	209		ug/L			2867512	2815493	0
[	Th	232	0.272	ug/L	0.020	7	132	14158	6
[	U	238	0.007	ug/L	0.001	9	4	381	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:42:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1442746	0
[	Be	9	0.003	ug/L	0.001	47	10	23	26
	C	13		ug/L			122688	132805	1
	Cl	37		ug/L			4809329	5061172	3
[>	Sc	45		ug/L			1221736	1249180	2
|	V	51	0.029	ug/L	0.015	53	8932	9883	1
|	V-1	51	0.008	ug/L	0.001	9	79	293	6
|	Cr	52	0.097	ug/L	0.055	56	26512	29179	1
|	Cr	53	0.026	ug/L	0.008	31	164	230	8
|	Mn	55	0.007	ug/L	0.001	15	526	752	2
[	Co	59	0.002	ug/L	0.001	34	57	92	9
[>	Ge	72		ug/L			666235	645062	1
|	Ni	60	0.014	ug/L	0.002	14	11	71	12
|	Ni	62	-2.588	ug/L	0.100	3	4585	2847	1
|	Cu	63	-0.112	ug/L	0.004	3	3389	2200	3
|	Cu	65	0.007	ug/L	0.001	21	47	74	8
|	Zn	66	0.151	ug/L	0.001	0	115	505	2
|	Zn	67	0.148	ug/L	0.015	10	14	78	8
|	Zn	68	0.155	ug/L	0.003	2	160	448	2
|	As	75	0.010	ug/L	0.012	124	82	101	27
|	As-1	75	0.265	ug/L	0.092	34	10540	10811	0
|	Se	82	-0.016	ug/L	0.033	209	0	-4	183
|	Se	78	0.922	ug/L	0.337	36	10716	10984	0
[	Mo	98	0.013	ug/L	0.002	15	12	82	14
	Y	89		ug/L			407553	408931	3
	Kr	83		ug/L			373	407	3
[>	In	115		ug/L			1034700	1007146	1
|	Ag	107	0.007	ug/L	0.001	18	17	97	15
|	Cd	111	0.007	ug/L	0.002	32	81	115	8
|	Cd	114	0.003	ug/L	0.000	1	29	66	1
|	Sb	121	0.087	ug/L	0.010	11	57	1393	10
|	Sb	123	0.084	ug/L	0.015	18	42	1015	16
|	Ba	135	0.004	ug/L	0.001	17	12	32	11
[	Ba	137	0.006	ug/L	0.001	18	12	63	14
[>	Tb	159		ug/L			1245990	1210903	1
|	Tl	205	0.016	ug/L	0.007	42	75	744	37
|	Pb	208	0.009	ug/L	0.000	1	181	662	3
|	Bi	209		ug/L			2867512	2813953	0
|	Th	232	0.085	ug/L	0.006	7	132	4474	5
[	U	238	0.002	ug/L	0.000	10	4	93	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ERA P197
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, November 26, 2012 11:48:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			1452181	1502149	0
Be	9	6.392	ug/L	0.018	0	10	28042	0
C	13		ug/L			122688	134789	1
Cl	37		ug/L			4809329	5141042	4
Sc	45		ug/L			1221736	1268973	1
V	51	52.242	ug/L	0.580	1	8932	1400876	0
V-1	51	52.635	ug/L	1.022	1	79	1394518	0
Cr	52	56.137	ug/L	0.932	1	26512	1264139	1
Cr	53	57.572	ug/L	2.189	3	164	140814	2
Mn	55	48.647	ug/L	0.806	1	526	1483440	0
Co	59	88.862	ug/L	2.633	2	57	1959455	1
Ge	72		ug/L			666235	651542	2
Ni	60	74.478	ug/L	2.448	3	11	327331	1
Ni	62	70.798	ug/L	0.850	1	4585	48460	1
Cu	63	32.230	ug/L	0.896	2	3389	317610	0
Cu	65	31.385	ug/L	0.674	2	47	138003	2
Zn	66	51.435	ug/L	1.461	2	115	135552	0
Zn	67	50.238	ug/L	1.024	2	14	22152	0
Zn	68	50.718	ug/L	2.196	4	160	96998	2
As	75	22.745	ug/L	0.598	2	82	51730	0
As-1	75	22.989	ug/L	0.916	3	10540	63541	1
Se	82	33.723	ug/L	0.552	1	0	8278	1
Se	78	33.840	ug/L	1.473	4	10716	33108	0
Mo	98	55.206	ug/L	0.603	1	12	295459	1
Y	89		ug/L			407553	418076	1
Kr	83		ug/L			373	394	8
In	115		ug/L			1034700	1031399	0
Ag	107	43.491	ug/L	1.709	3	17	480906	4
Cd	111	15.566	ug/L	0.099	0	81	81127	0
Cd	114	15.257	ug/L	0.238	1	29	201383	1
Sb	121	31.716	ug/L	0.140	0	57	499070	1
Sb	123	31.757	ug/L	0.219	0	42	377211	0
Ba	135	46.020	ug/L	0.457	0	12	226878	0
Ba	137	45.697	ug/L	0.464	1	12	393709	0
Tb	159		ug/L			1245990	1249280	0
Tl	205	18.333	ug/L	0.208	1	75	781332	0
Pb	208	224.972	ug/L	1.572	0	181	12281483	0
Bi	209		ug/L			2867512	2890413	0
Th	232	0.049	ug/L	0.003	6	132	2751	6
U	238	0.001	ug/L	0.000	19	4	54	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:53:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1447976	3
[	Be	9	0.002	ug/L	0.001	62	10	18	30
	C	13		ug/L			122688	127201	0
	Cl	37		ug/L			4809329	5064977	4
[>	Sc	45		ug/L			1221736	1234316	3
[	V	51	0.018	ug/L	0.009	48	8932	9478	1
[	V-1	51	0.007	ug/L	0.000	5	79	255	0
[	Cr	52	0.059	ug/L	0.040	66	26512	28037	0
[	Cr	53	0.022	ug/L	0.012	52	164	218	8
[	Mn	55	0.008	ug/L	0.001	14	526	758	3
[	Co	59	0.003	ug/L	0.000	0	57	122	3
[>	Ge	72		ug/L			666235	628935	1
[	Ni	60	0.015	ug/L	0.001	9	11	73	6
[	Ni	62	-2.921	ug/L	0.213	7	4585	2575	3
[	Cu	63	-0.127	ug/L	0.005	3	3389	2006	1
[	Cu	65	0.009	ug/L	0.001	8	47	84	5
[	Zn	66	0.158	ug/L	0.019	12	115	510	10
[	Zn	67	0.151	ug/L	0.011	7	14	78	7
[	Zn	68	0.150	ug/L	0.013	8	160	427	5
[	As	75	0.015	ug/L	0.002	10	82	110	2
[	As-1	75	0.354	ug/L	0.078	22	10540	10740	0
[	Se	82	0.028	ug/L	0.018	63	0	6	69
[	Se	78	1.246	ug/L	0.275	22	10716	10919	0
[	Mo	98	0.020	ug/L	0.003	14	12	113	12
	Y	89		ug/L			407553	396234	2
	Kr	83		ug/L			373	393	2
[>	In	115		ug/L			1034700	1005271	0
[	Ag	107	0.006	ug/L	0.000	2	17	79	2
[	Cd	111	0.005	ug/L	0.001	26	81	104	5
[	Cd	114	0.002	ug/L	0.000	14	29	58	8
[	Sb	121	0.045	ug/L	0.009	19	57	745	18
[	Sb	123	0.046	ug/L	0.010	22	42	573	21
[	Ba	135	0.006	ug/L	0.001	11	12	40	7
[	Ba	137	0.006	ug/L	0.001	10	12	62	8
[>	Tb	159		ug/L			1245990	1195607	0
[	Tl	205	0.008	ug/L	0.003	41	75	403	34
[	Pb	208	0.011	ug/L	0.000	3	181	738	1
[	Bi	209		ug/L			2867512	2809883	1
[	Th	232	0.032	ug/L	0.001	3	132	1735	3
[	U	238	0.001	ug/L	0.000	8	4	32	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:57:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1546085 ✓	1
	Be	9	50.719	ug/L	1.206	2	10	228879	1
	C	13		ug/L			122688	126390	3
	Cl	37		ug/L			4809329	5458713	3
>	Sc	45		ug/L			1221736	1271918 ✓	0
	V	51	47.530	ug/L	1.029	2	8932	1278400	1
	V-1	51	48.013	ug/L	0.832	1	79	1275186	1
	Cr	52	48.881	ug/L	0.882	1	26512	1106989	1
	Cr	53	50.582	ug/L	0.926	1	164	124062	1
	Mn	55	49.212	ug/L	0.800	1	526	1504248	1
	Co	59	47.595	ug/L	1.466	3	57	1052214	3
>	Ge	72		ug/L			666235	650558 ✓	0
	Ni	60	50.756	ug/L	1.553	3	11	222797	2
	Ni	62	46.861	ug/L	0.593	1	4585	33547	1
	Cu	63	50.573	ug/L	0.929	1	3389	495876	1
	Cu	65	50.419	ug/L	0.756	1	47	221365	1
	Zn	66	51.809	ug/L	0.437	0	115	136385	1
	Zn	67	51.168	ug/L	0.701	1	14	22533	0
	Zn	68	52.162	ug/L	0.628	1	160	99658	0
	As	75	51.405	ug/L	0.614	1	82	116675	0
	As-1	75	51.233	ug/L	0.709	1	10540	128803	0
	Se	82	52.169	ug/L	0.340	0	0	12790	0
	Se	78	51.548	ug/L	0.686	1	10716	44900	0
	Mo	98	51.275	ug/L	0.945	1	12	274022	1
	Y	89		ug/L			407553	404905	2
	Kr	83		ug/L			373	418	4
>	In	115		ug/L			1034700	1020299 ✓	1
	Ag	107	53.133	ug/L	1.556	2	17	581030	2
	Cd	111	50.724	ug/L	1.108	2	81	261338	2
	Cd	114	51.210	ug/L	0.498	0	29	668595	0
	Sb	121	51.471	ug/L	0.745	1	57	801087	0
	Sb	123	51.445	ug/L	0.809	1	42	604420	0
	Ba	135	50.867	ug/L	0.810	1	12	248065	0
	Ba	137	49.734	ug/L	0.699	1	12	423899	1
>	Tb	159		ug/L			1245990	1251942 ✓	0
	Tl	205	51.872	ug/L	0.211	0	75	2215447	0
	Pb	208	49.646	ug/L	0.360	0	181	2716195	0
	Bi	209		ug/L			2867512	2784470	0
	Th	232	50.379	ug/L	0.662	1	132	2673469	0
	U	238	51.458	ug/L	0.360	0	4	2807321	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 12:04:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1493377	3
	Be	9	0.002	ug/L	0.002	69	10	21	33
	C	13		ug/L			122688	130720	1
	Cl	37		ug/L			4809329	5117439	1
>	Sc	45		ug/L			1221736	1239339	3
	V	51	0.012	ug/L	0.008	69	8932	9364	2
	V-1	51	0.004	ug/L	0.001	22	79	185	10
	Cr	52	0.046	ug/L	0.026	56	26512	27876	2
	Cr	53	0.020	ug/L	0.004	18	164	214	1
	Mn	55	-0.000	ug/L	0.001	485	526	527	5
	Co	59	0.002	ug/L	0.001	41	57	95	15
>	Ge	72		ug/L			666235	644109	1
	Ni	60	0.002	ug/L	0.001	57	11	17	21
	Ni	62	-3.741	ug/L	0.126	3	4585	2134	2
	Cu	63	-0.179	ug/L	0.006	3	3389	1549	2
	Cu	65	-0.000	ug/L	0.001	533	47	45	7
	Zn	66	-0.005	ug/L	0.007	148	115	99	19
	Zn	67	0.014	ug/L	0.008	58	14	20	18
	Zn	68	-0.001	ug/L	0.006	850	160	153	6
	As	75	0.024	ug/L	0.016	67	82	133	26
	As-1	75	0.261	ug/L	0.031	12	10540	10786	0
	Se	82	0.054	ug/L	0.030	54	0	12	56
	Se	78	0.910	ug/L	0.100	11	10716	10961	0
	Mo	98	0.011	ug/L	0.001	13	12	68	11
	Y	89		ug/L			407553	406195	0
	Kr	83		ug/L			373	396	3
>	In	115		ug/L			1034700	1000778	0
	Ag	107	0.002	ug/L	0.001	57	17	38	31
	Cd	111	0.004	ug/L	0.001	27	81	99	5
	Cd	114	0.002	ug/L	0.001	37	29	49	15
	Sb	121	0.078	ug/L	0.012	15	57	1243	14
	Sb	123	0.078	ug/L	0.008	10	42	939	9
	Ba	135	0.000	ug/L	0.001	5798	12	12	30
	Ba	137	0.001	ug/L	0.000	32	12	19	11
>	Tb	159		ug/L			1245990	1203256	0
	Tl	205	0.008	ug/L	0.003	41	75	398	33
	Pb	208	0.001	ug/L	0.000	39	181	222	8
	Bi	209		ug/L			2867512	2800677	0
	Th	232	0.158	ug/L	0.017	10	132	8206	10
	U	238	0.002	ug/L	0.000	11	4	111	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:11:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1532575	1
	Be	9	0.001	ug/L	0.001	97	10	16	33
	C	13		ug/L			122688	136482	1
	Cl	37		ug/L			4809329	5078185	2
>	Sc	45		ug/L			1221736	1256492	2
	V	51	0.020	ug/L	0.007	33	8932	9717	0
	V-1	51	0.005	ug/L	0.000	9	79	204	4
	Cr	52	0.071	ug/L	0.016	22	26512	28803	1
	Cr	53	0.018	ug/L	0.008	44	164	212	11
	Mn	55	0.015	ug/L	0.003	20	526	996	7
	Co	59	0.002	ug/L	0.000	25	57	99	9
>	Ge	72		ug/L			666235	655704	1
	Ni	60	0.010	ug/L	0.001	6	11	53	5
	Ni	62	-4.031	ug/L	0.063	1	4585	1992	0
	Cu	63	-0.173	ug/L	0.007	4	3389	1633	3
	Cu	65	0.013	ug/L	0.003	27	47	102	14
	Zn	66	0.443	ug/L	0.028	6	115	1287	5
	Zn	67	0.414	ug/L	0.006	1	14	198	0
	Zn	68	0.434	ug/L	0.017	3	160	992	3
	As	75	0.005	ug/L	0.002	32	82	92	3
	As-1	75	0.205	ug/L	0.051	24	10540	10850	0
	Se	82	-0.006	ug/L	0.015	241	0	-2	173
	Se	78	0.736	ug/L	0.179	24	10716	11041	0
	Mo	98	0.005	ug/L	0.001	17	12	39	12
	Y	89		ug/L			407553	410366	1
	Kr	83		ug/L			373	412	1
>	In	115		ug/L			1034700	1028459	0
	Ag	107	0.002	ug/L	0.001	34	17	38	19
	Cd	111	0.005	ug/L	0.001	22	81	108	5
	Cd	114	0.002	ug/L	0.000	26	29	51	11
	Sb	121	0.030	ug/L	0.005	16	57	524	15
	Sb	123	0.030	ug/L	0.006	19	42	396	17
	Ba	135	0.009	ug/L	0.002	23	12	55	17
	Ba	137	0.010	ug/L	0.001	11	12	100	10
>	Tb	159		ug/L			1245990	1220693	0
	Tl	205	0.005	ug/L	0.002	36	75	292	27
	Pb	208	0.009	ug/L	0.000	2	181	635	1
	Bi	209		ug/L			2867512	2844918	1
	Th	232	0.086	ug/L	0.005	6	132	4600	5
	U	238	0.001	ug/L	0.000	34	4	36	30

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:15:38

Ag

Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1524537	2
[	Be	9	25.082	ug/L	0.686	2	10	111621	2
	C	13		ug/L			122688	132804	0
	Cl	37		ug/L			4809329	5224674	2
[>	Sc	45		ug/L			1221736	1264690	1
[	V	51	24.888	ug/L	0.992	3	8932	669719	2
[	V-1	51	24.970	ug/L	1.086	4	79	659124	2
[	Cr	52	25.366	ug/L	0.436	1	26512	584273	0
[	Cr	53	25.657	ug/L	0.791	3	164	62634	1
[	Mn	55	25.233	ug/L	0.425	1	526	767061	0
[	Co	59	23.921	ug/L	1.034	4	57	525589	2
[>	Ge	72		ug/L			666235	649619	2
[	Ni	60	26.432	ug/L	0.911	3	11	115827	2
[	Ni	62	22.749	ug/L	0.623	2	4585	18558	2
[	Cu	63	26.375	ug/L	1.181	4	3389	259627	1
[	Cu	65	26.637	ug/L	0.506	1	47	116825	4
[	Zn	66	84.032	ug/L	2.428	2	115	220709	1
[	Zn	67	78.469	ug/L	2.016	2	14	34506	4
[	Zn	68	83.149	ug/L	2.149	2	160	158474	1
[	As	75	25.363	ug/L	0.730	2	82	57504	2
[	As-1	75	25.971	ug/L	0.924	3	10540	70233	1
[	Se	82	83.140	ug/L	2.217	2	0	20345	1
[	Se	78	81.346	ug/L	2.988	3	10716	64679	0
[	Mo	98	24.568	ug/L	0.580	2	12	131067	1
	Y	89		ug/L			407553	422544	2
	Kr	83		ug/L			373	407	5
[>	In	115		ug/L			1034700	1043291	0
[	Ag	107	27.351	ug/L	0.157	0	17	305892	0
[	Cd	111	25.034	ug/L	0.641	2	81	131914	2
[	Cd	114	25.149	ug/L	0.329	1	29	335775	1
[	Sb	121	25.013	ug/L	0.449	1	57	398140	1
[	Sb	123	24.816	ug/L	0.261	1	42	298173	0
[	Ba	135	24.897	ug/L	0.315	1	12	124165	0
[	Ba	137	24.756	ug/L	0.161	0	12	215759	0
[>	Tb	159		ug/L			1245990	1226510	1
[	Tl	205	25.750	ug/L	0.604	2	75	1077200	0
[	Pb	208	26.142	ug/L	0.625	2	181	1401017	0
[	Bi	209		ug/L			2867512	2839300	0
[	Th	232	24.466	ug/L	0.467	1	132	1271869	0
[	U	238	24.717	ug/L	0.571	2	4	1320796	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:19:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1452181	1580425	2
	Be	**9**	**0.717**	ug/L	0.029	4	10	3317	1
	C	**13**		ug/L			122688	171947	0
	Cl	**37**		ug/L			4809329	5311076	1
>	**Sc**	**45**		ug/L			1221736	1567904	1
	V	**51**	**67.091**	ug/L	1.949	2	8932	2219878	3
	V-1	**51**	**66.179**	ug/L	1.004	1	79	2166854	2
	Cr	**52**	**136.801**	ug/L	2.639	1	26512	3757677	1
	Cr	**53**	**134.946**	ug/L	1.086	0	164	407660	1
	Mn	**55**	**915.659**	ug/L	3.763	0	526	34492309	1
	Co	**59**	**17.967**	ug/L	0.156	0	57	489719	1
>	**Ge**	**72**		ug/L			666235	657846	1
	Ni	**60**	**85.871**	ug/L	2.004	2	11	381147	1
	Ni	**62**	**89.598**	ug/L	4.326	4	4585	60708	3
	Cu	**63**	**63.462**	ug/L	0.320	0	3389	628392	0
	Cu	**65**	**64.508**	ug/L	2.556	3	47	286287	2
	Zn	**66**	**744.020**	ug/L	10.883	1	115	1978794	0
	Zn	**67**	**708.431**	ug/L	15.275	2	14	315272	1
	Zn	**68**	**744.443**	ug/L	27.313	3	160	1435850	2
	As	**75**	**41.152**	ug/L	0.747	1	82	94459	0
	As-1	**75**	**40.301**	ug/L	0.784	1	10540	104667	0
	Se	**82**	**0.029**	ug/L	0.032	109	0	6	118
	Se	**78**	**0.659**	ug/L	0.250	37	10716	11025	0
	Mo	**98**	**0.538**	ug/L	0.020	3	12	2918	2
	Y	**89**		ug/L			407553	674601	3
	Kr	**83**		ug/L			373	1056	3
>	**In**	**115**		ug/L			1034700	1112530	0
	Ag	**107**	**0.907**	ug/L	0.016	1	17	10835	1
	Cd	**111**	**14.238**	ug/L	0.228	1	81	80047	1
	Cd	**114**	**14.158**	ug/L	0.058	0	29	201597	0
	Sb	**121**	**0.411**	ug/L	0.008	1	57	7035	1
	Sb	**123**	**0.401**	ug/L	0.011	2	42	5185	3
	Ba	**135**	**524.941**	ug/L	4.668	0	12	2791573	0
	Ba	**137**	**526.279**	ug/L	6.935	1	12	4890931	0
>	**Tb**	**159**		ug/L			1245990	1267047	0
	Tl	**205**	**1.105**	ug/L	0.009	0	75	47825	1
	Pb	**208**	**902.340**	ug/L	4.253	0	181	49961748	0
	Bi	**209**		ug/L			2867512	2678187	0
	Th	**232**	**5.062**	ug/L	0.058	1	132	272002	0
	U	**238**	**0.711**	ug/L	0.014	2	4	39267	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:23:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1452181	1577714	1
	Be	**9**	**0.609**	ug/L	0.009	1	10	2815	0
	C	**13**		ug/L			122688	182847	1
	Cl	**37**		ug/L			4809329	5263022	3
>	**Sc**	**45**		ug/L			1221736	1399462	1
	V	**51**	**39.308**	ug/L	0.506	1	8932	1165220	2
	V-1	**51**	**39.616**	ug/L	0.502	1	79	1157881	2
	Cr	**52**	**44.875**	ug/L	0.640	1	26512	1120509	0
	Cr	**53**	**46.047**	ug/L	0.747	1	164	124270	0
	Mn	**55**	**1514.409**	ug/L	16.582	1	526	50922921	2
	Co	**59**	**10.208**	ug/L	0.029	0	57	248370	1
>	**Ge**	**72**		ug/L			666235	654092	1
	Ni	**60**	**21.707**	ug/L	0.356	1	11	95815	1
	Ni	**62**	**20.326**	ug/L	0.426	2	4585	17178	1
	Cu	**63**	**33.600**	ug/L	0.431	1	3389	332369	1
	Cu	**65**	**32.950**	ug/L	0.201	0	47	145456	0
	Zn	**66**	**853.558**	ug/L	15.924	1	115	2257118	0
	Zn	**67**	**767.085**	ug/L	13.490	1	14	339421	0
	Zn	**68**	**825.926**	ug/L	12.372	1	160	1584440	2
	As	**75**	**30.655**	ug/L	0.270	0	82	69995	1
	As-1	**75**	**30.085**	ug/L	0.233	0	10540	80325	1
	Se	**82**	**0.007**	ug/L	0.076	1047	0	1	1728
	Se	**78**	**0.691**	ug/L	0.132	19	10716	10984	0
	Mo	**98**	**0.509**	ug/L	0.015	2	12	2748	2
	Y	**89**		ug/L			407553	579406	2
	Kr	**83**		ug/L			373	868	4
>	**In**	**115**		ug/L			1034700	1137173	1
	Ag	**107**	**0.467**	ug/L	0.007	1	17	5712	2
	Cd	**111**	**24.379**	ug/L	0.474	1	81	140016	0
	Cd	**114**	**24.040**	ug/L	0.079	0	29	349850	1
	Sb	**121**	**0.583**	ug/L	0.007	1	57	10178	1
	Sb	**123**	**0.579**	ug/L	0.011	1	42	7633	2
	Ba	**135**	**682.265**	ug/L	5.879	0	12	3708352	0
	Ba	**137**	**679.042**	ug/L	10.856	1	12	6451332	2
>	**Tb**	**159**		ug/L			1245990	1273943	0
	Tl	**205**	**0.919**	ug/L	0.009	1	75	39997	1
	Pb	**208**	**1022.065**	ug/L	11.991	1	181	56897319	0
	Bi	**209**		ug/L			2867512	2784340	0
	Th	**232**	**3.866**	ug/L	0.070	1	132	208883	1
	U	**238**	**0.590**	ug/L	0.011	1	4	32754	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:28:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1570933	1
	Be	9	1.522	ug/L	0.022	1	10	6991	0
	C	13		ug/L			122688	162870	3
	Cl	37		ug/L			4809329	5316015	1
>	Sc	45		ug/L			1221736	1426103	0
	V	51	75.292	ug/L	3.358	4	8932	2264789	4
	V-1	51	72.373	ug/L	1.104	1	79	2155143	1
	Cr	52	411.428	ug/L	3.114	0	26512	10217649	1
	Cr	53	407.599	ug/L	6.251	1	164	1119530	1
	Mn	55	821.972	ug/L	17.749	2	526	28159043	1
	Co	59	24.282	ug/L	0.777	3	57	601810	2
>	Ge	72		ug/L			666235	637068	1
	Ni	60	179.736	ug/L	2.647	1	11	772584	0
	Ni	62	177.126	ug/L	3.412	1	4585	111963	0
	Cu	63	50.648	ug/L	0.506	0	3389	486321	0
	Cu	65	51.618	ug/L	0.078	0	47	221917	1
	Zn	66	319.013	ug/L	3.447	1	115	821760	0
	Zn	67	442.157	ug/L	3.882	0	14	190580	1
	Zn	68	410.794	ug/L	1.347	0	160	767555	1
	As	75	11.069	ug/L	0.109	0	82	24664	0
	As-1	75	10.852	ug/L	0.193	1	10540	34658	0
	Se	82	0.031	ug/L	0.074	239	0	6	256
	Se	78	0.844	ug/L	0.301	35	10716	10797	0
	Mo	98	0.589	ug/L	0.015	2	12	3093	3
	Y	89		ug/L			407553	902850	2
	Kr	83		ug/L			373	1037	2
>	In	115		ug/L			1034700	1010191	0
	Ag	107	0.496	ug/L	0.020	4	17	5388	3
	Cd	111	5.049	ug/L	0.099	1	81	25825	1
	Cd	114	4.938	ug/L	0.045	0	29	63861	0
	Sb	121	0.067	ug/L	0.004	5	57	1088	5
	Sb	123	0.071	ug/L	0.004	5	42	867	4
	Ba	135	2765.581	ug/L	29.584	1	12	13353641	0
	Ba	137	2773.195	ug/L	11.562	0	12	23402717	0
>	Tb	159		ug/L			1245990	1326171	0
	Tl	205	0.854	ug/L	0.009	1	75	38702	0
	Pb	208	223.230	ug/L	2.162	0	181	12936737	0
	Bi	209		ug/L			2867512	2430354	0
	Th	232	8.746	ug/L	0.059	0	132	491767	0
	U	238	0.611	ug/L	0.012	1	4	35309	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 B SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 12:32:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1546885	1
	Be	9	0.115	ug/L	0.011	9	10	530	8
	C	13		ug/L			122688	149536	2
	Cl	37		ug/L			4809329	5126670	0
>	Sc	45		ug/L			1221736	1321111	1
	V	51	3.996	ug/L	0.104	2	8932	120455	1
	V-1	51	4.021	ug/L	0.064	1	79	110997	1
	Cr	52	3.984	ug/L	0.168	4	26512	120015	1
	Cr	53	4.072	ug/L	0.009	0	164	10537	1
	Mn	55	77.823	ug/L	0.669	0	526	2470405	1
	Co	59	1.340	ug/L	0.035	2	57	30835	2
>	Ge	72		ug/L			666235	661239	0
	Ni	60	4.185	ug/L	0.056	1	11	18684	1
	Ni	62	-0.386	ug/L	0.081	21	4585	4307	0
	Cu	63	4.983	ug/L	0.155	3	3389	52692	2
	Cu	65	5.256	ug/L	0.098	1	47	23496	1
	Zn	66	96.972	ug/L	0.465	0	115	259360	0
	Zn	67	93.235	ug/L	0.654	0	14	41724	1
	Zn	68	95.811	ug/L	2.091	2	160	185929	2
	As	75	3.691	ug/L	0.033	0	82	8591	0
	As-1	75	3.705	ug/L	0.061	1	10540	19173	0
	Se	82	0.200	ug/L	0.002	1	0	49	0
	Se	78	0.601	ug/L	0.164	27	10716	11043	0
	Mo	98	0.261	ug/L	0.009	3	12	1431	2
	Y	89		ug/L			407553	460923	1
	Kr	83		ug/L			373	471	6
>	In	115		ug/L			1034700	1055632	0
	Ag	107	0.124	ug/L	0.005	4	17	1422	4
	Cd	111	1.484	ug/L	0.032	2	81	7990	2
	Cd	114	1.457	ug/L	0.031	2	29	19712	1
	Sb	121	0.122	ug/L	0.006	4	57	2025	4
	Sb	123	0.124	ug/L	0.003	2	42	1550	2
	Ba	135	26.913	ug/L	0.300	1	12	135811	0
	Ba	137	26.658	ug/L	0.409	1	12	235088	1
>	Tb	159		ug/L			1245990	1249511	1
	Tl	205	0.073	ug/L	0.002	3	75	3192	1
	Pb	208	100.535	ug/L	2.582	2	181	5488222	1
	Bi	209		ug/L			2867512	2856583	0
	Th	232	0.628	ug/L	0.017	2	132	33372	1
	U	238	0.328	ug/L	0.008	2	4	17834	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:36:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1580951	2
[	Be	9	0.518	ug/L	0.020	3	10	2402	3
	C	13		ug/L			122688	217793	2
	Cl	37		ug/L			4809329	5194968	2
[>	Sc	45		ug/L			1221736	1403919	2
|	V	51	18.399	ug/L	0.240	1	8932	552509	2
|	V-1	51	18.535	ug/L	0.224	1	79	543436	2
|	Cr	52	18.349	ug/L	0.514	2	26512	477502	1
|	Cr	53	18.822	ug/L	0.440	2	164	51056	0
|	Mn	55	346.647	ug/L	9.844	2	526	11687870	1
[	Co	59	5.899	ug/L	0.217	3	57	143937	1
[>	Ge	72		ug/L			666235	655466	2
|	Ni	60	20.527	ug/L	0.678	3	11	90758	1
|	Ni	62	16.328	ug/L	0.902	5	4585	14707	1
|	Cu	63	24.614	ug/L	0.815	3	3389	244772	1
|	Cu	65	24.659	ug/L	0.537	2	47	109091	2
|	Zn	66	455.819	ug/L	22.385	4	115	1207413	3
|	Zn	67	415.068	ug/L	12.023	2	14	183996	1
|	Zn	68	438.625	ug/L	16.672	3	160	842762	1
|	As	75	17.543	ug/L	0.260	1	82	40165	1
|	As-1	75	17.259	ug/L	0.370	2	10540	50584	0
|	Se	82	1.115	ug/L	0.060	5	0	274	3
|	Se	78	1.540	ug/L	0.466	30	10716	11575	0
[	Mo	98	1.292	ug/L	0.024	1	12	6966	1
	Y	89		ug/L			407553	615923	0
	Kr	83		ug/L			373	625	2
[>	In	115		ug/L			1034700	1099588	1
|	Ag	107	0.555	ug/L	0.003	0	17	6559	0
|	Cd	111	6.706	ug/L	0.226	3	81	37302	2
|	Cd	114	6.425	ug/L	0.128	1	29	90422	0
|	Sb	121	0.544	ug/L	0.011	1	57	9177	1
|	Sb	123	0.540	ug/L	0.019	3	42	6886	2
|	Ba	135	124.899	ug/L	1.844	1	12	656423	0
[	Ba	137	124.771	ug/L	2.893	2	12	1145934	1
[>	Tb	159		ug/L			1245990	1278536	1
|	Tl	205	0.344	ug/L	0.009	2	75	15079	1
|	Pb	208	473.353	ug/L	7.432	1	181	26442919	0
|	Bi	209		ug/L			2867512	2811758	1
|	Th	232	2.855	ug/L	0.065	2	132	154814	0
[	U	238	1.534	ug/L	0.046	2	4	85441	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 C SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 12:40:23

Pb Zn

Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1533883	1
	Be	9	0.124	ug/L	0.006	5	10	566	4
	C	13		ug/L			122688	146301	1
	Cl	37		ug/L			4809329	5039579	3
>	Sc	45		ug/L			1221736	1319838	1
	V	51	3.495	ug/L	0.077	2	8932	106476	1
	V-1	51	3.504	ug/L	0.088	2	79	96621	1
	Cr	52	3.555	ug/L	0.078	2	26512	110081	0
	Cr	53	3.586	ug/L	0.118	3	164	9287	1
	Mn	55	367.584	ug/L	5.651	1	526	11654036	0
	Co	59	1.556	ug/L	0.024	1	57	35759	0
>	Ge	72		ug/L			666235	671173	1
	Ni	60	4.845	ug/L	0.153	3	11	21944	1
	Ni	62	-0.408	ug/L	0.119	29	4585	4357	0
	Cu	63	5.473	ug/L	0.075	1	3389	58402	0
	Cu	65	5.703	ug/L	0.179	3	47	25864	1
	Zn	66	152.228	ug/L	0.551	0	115	413189	1
	Zn	67	141.835	ug/L	1.443	1	14	64424	2
	Zn	68	150.628	ug/L	4.449	2	160	296516	1
	As	75	5.525	ug/L	0.158	2	82	13007	1
	As-1	75	5.447	ug/L	0.254	4	10540	23612	0
	Se	82	0.103	ug/L	0.025	23	0	25	25
	Se	78	0.284	ug/L	0.359	126	10716	10988	0
	Mo	98	0.178	ug/L	0.006	3	12	993	1
	Y	89		ug/L			407553	452748	1
	Kr	83		ug/L			373	449	2
>	In	115		ug/L			1034700	1064720	0
	Ag	107	0.122	ug/L	0.007	6	17	1405	5
	Cd	111	2.807	ug/L	0.035	1	81	15170	1
	Cd	114	2.743	ug/L	0.038	1	29	37406	1
	Sb	121	0.243	ug/L	0.007	2	57	4010	3
	Sb	123	0.245	ug/L	0.005	2	42	3042	2
	Ba	135	93.910	ug/L	1.202	1	12	477934	0
	Ba	137	92.849	ug/L	1.116	1	12	825818	0
>	Tb	159		ug/L			1245990	1257526	0
	Tl	205	0.102	ug/L	0.000	0	75	4442	0
	Pb	208	105.202	ug/L	0.286	0	181	5781321	0
	Bi	209		ug/L			2867512	2885616	0
	Th	232	0.644	ug/L	0.009	1	132	34447	0
	U	238	0.106	ug/L	0.004	3	4	5808	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:45:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

AJ

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1553725	2
[	**Be**	**9**	**0.596**	ug/L	0.023	3	10	2715	2
	C	**13**		ug/L			122688	218662	3
	Cl	**37**		ug/L			4809329	5164990	0
[>	**Sc**	**45**		ug/L			1221736	1410789	1
[	**V**	**51**	**16.617**	ug/L	0.333	2	8932	502419	1
[	**V-1**	**51**	**16.687**	ug/L	0.373	2	79	491620	1
[	**Cr**	**52**	**17.233**	ug/L	0.177	1	26512	452676	0
[	**Cr**	**53**	**17.489**	ug/L	0.280	1	164	47698	0
[	**Mn**	**55**	**1723.630**	ug/L	30.244	1	526	58414583	0
[	**Co**	**59**	**7.497**	ug/L	0.158	2	57	183872	1
[>	**Ge**	**72**		ug/L			666235	652295	1
[	**Ni**	**60**	**24.880**	ug/L	1.052	4	11	109502	3
[	**Ni**	**62**	**21.196**	ug/L	0.465	2	4585	17669	0
[	**Cu**	**63**	**29.223**	ug/L	1.174	4	3389	288673	3
[	**Cu**	**65**	**28.977**	ug/L	0.288	0	47	127580	1
[	**Zn**	**66**	**753.047**	ug/L	10.841	1	115	1985845	0
[	**Zn**	**67**	**708.258**	ug/L	5.851	0	14	312557	1
[	**Zn**	**68**	**757.062**	ug/L	1.170	0	160	1448223	1
[	**As**	**75**	**28.517**	ug/L	0.760	2	82	64923	1
[	**As-1**	**75**	**28.052**	ug/L	0.817	2	10540	75372	1
[	**Se**	**82**	**0.403**	ug/L	0.039	9	0	98	10
[	**Se**	**78**	**1.059**	ug/L	0.284	26	10716	11199	0
[	**Mo**	**98**	**0.932**	ug/L	0.030	3	12	5002	1
	Y	**89**		ug/L			407553	559460	1
	Kr	**83**		ug/L			373	678	5
[>	**In**	**115**		ug/L			1034700	1140013	0
[	**Ag**	**107**	**0.566**	ug/L	0.016	2	17	6931	3
[	**Cd**	**111**	**13.050**	ug/L	0.151	1	81	75197	1
[	**Cd**	**114**	**12.725**	ug/L	0.125	0	29	185662	0
[	**Sb**	**121**	**1.116**	ug/L	0.025	2	57	19469	1
[	**Sb**	**123**	**1.118**	ug/L	0.010	0	42	14720	0
[	**Ba**	**135**	**472.942**	ug/L	6.110	1	12	2577074	1
[	**Ba**	**137**	**465.560**	ug/L	8.827	1	12	4433190	1
[>	**Tb**	**159**		ug/L			1245990	1278149	0
[	**Tl**	**205**	**0.505**	ug/L	0.012	2	75	22098	1
[	**Pb**	**208**	**527.714**	ug/L	6.643	1	181	29473372	0
[	**Bi**	**209**		ug/L			2867512	2798941	0
[	**Th**	**232**	**3.172**	ug/L	0.049	1	132	171956	1
[	**U**	**238**	**0.529**	ug/L	0.006	1	4	29452	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:49:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1564799	2
[	Be	9	0.565	ug/L	0.042	7	10	2589	4
	C	13		ug/L			122688	223628	3
	Cl	37		ug/L			4809329	5240108	2
[>	Sc	45		ug/L			1221736	1388546	1
[	V	51	25.882	ug/L	0.348	1	8932	764593	1
[	V-1	51	26.275	ug/L	0.107	0	79	761936	1
[	Cr	52	25.531	ug/L	0.985	3	26512	645389	2
[	Cr	53	26.888	ug/L	0.821	3	164	72079	2
[	Mn	55	1242.770	ug/L	31.641	2	526	41453992	2
[	Co	59	8.958	ug/L	0.261	2	57	216211	2
[>	Ge	72		ug/L			666235	666177	2
[	Ni	60	27.196	ug/L	1.018	3	11	122207	2
[	Ni	62	23.934	ug/L	0.750	3	4585	19781	0
[	Cu	63	28.770	ug/L	1.449	5	3389	290142	2
[	Cu	65	28.716	ug/L	0.996	3	47	129057	1
[	Zn	66	591.240	ug/L	24.757	4	115	1591607	2
[	Zn	67	546.350	ug/L	16.229	2	14	246154	1
[	Zn	68	580.641	ug/L	20.352	3	160	1133828	1
[	As	75	14.758	ug/L	0.462	3	82	34346	0
[	As-1	75	14.426	ug/L	0.556	3	10540	44693	0
[	Se	82	0.361	ug/L	0.052	14	0	90	15
[	Se	78	0.535	ug/L	0.372	69	10716	11077	0
[	Mo	98	0.497	ug/L	0.020	3	12	2728	2
	Y	89		ug/L			407553	609016	0
	Kr	83		ug/L			373	679	3
[>	In	115		ug/L			1034700	1129389	0
[	Ag	107	0.465	ug/L	0.013	2	17	5652	2
[	Cd	111	14.678	ug/L	0.335	2	81	83764	1
[	Cd	114	14.590	ug/L	0.304	2	29	210868	1
[	Sb	121	0.562	ug/L	0.006	0	57	9747	0
[	Sb	123	0.568	ug/L	0.011	1	42	7433	1
[	Ba	135	419.833	ug/L	9.499	2	12	2266221	1
[	Ba	137	412.047	ug/L	3.561	0	12	3887337	0
[>	Tb	159		ug/L			1245990	1288087	0
[	Tl	205	0.541	ug/L	0.014	2	75	23857	1
[	Pb	208	674.033	ug/L	12.745	1	181	37937052	1
[	Bi	209		ug/L			2867512	2801092	0
[	Th	232	4.179	ug/L	0.060	1	132	228309	0
[	U	238	0.483	ug/L	0.010	2	4	27099	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 12:53:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1527786 ✓	1
[	Be	9	52.137	ug/L	0.840	1	10	232529	1
	C	13		ug/L			122688	131753	0
	Cl	37		ug/L			4809329	5424471	2
[>	Sc	45		ug/L			1221736	1300770 ✓	1
[	V	51	46.960	ug/L	0.694	1	8932	1291778	0
[	V-1	51	47.233	ug/L	0.869	1	79	1282829	0
[	Cr	52	47.499	ug/L	0.381	0	26512	1100849	0
[	Cr	53	48.455	ug/L	1.175	2	164	121534	1
[	Mn	55	47.628	ug/L	0.455	0	526	1488940	1
[	Co	59	46.334	ug/L	0.438	0	57	1047555	1
[>	Ge	72		ug/L			666235	656189 ✓	0
[	Ni	60	49.101	ug/L	0.129	0	11	217421	0
[	Ni	62	45.050	ug/L	0.404	0	4585	32703	1
[	Cu	63	50.312	ug/L	1.585	3	3389	497589	2
[	Cu	65	50.809	ug/L	0.361	0	47	225001	0
[	Zn	66	50.689	ug/L	0.476	0	115	134588	0
[	Zn	67	51.030	ug/L	0.266	0	14	22668	0
[	Zn	68	49.866	ug/L	1.250	2	160	96098	2
[	As	75	50.715	ug/L	0.727	1	82	116108	1
[	As-1	75	50.489	ug/L	0.905	1	10540	128183	1
[	Se	82	51.507	ug/L	0.331	0	0	12736	0
[	Se	78	50.711	ug/L	1.169	2	10716	44724	1
[	Mo	98	50.421	ug/L	0.411	0	12	271808	0
	Y	89		ug/L			407553	413178	1
	Kr	83		ug/L			373	433	1
[>	In	115		ug/L			1034700	1034887 ✓	1
[	Ag	107	52.280	ug/L	0.530	1	17	579940	0
[	Cd	111	50.948	ug/L	0.189	0	81	266246	1
[	Cd	114	50.492	ug/L	0.556	1	29	668659	1
[	Sb	121	50.871	ug/L	0.521	1	57	803093	0
[	Sb	123	50.596	ug/L	0.309	0	42	602997	1
[	Ba	135	49.852	ug/L	0.702	1	12	246605	1
[	Ba	137	48.692	ug/L	0.703	1	12	420921	0
[>	Tb	159		ug/L			1245990	1244239 ✓	0
[	Tl	205	51.816	ug/L	0.868	1	75	2199254	1
[	Pb	208	49.841	ug/L	0.571	1	181	2709937	0
[	Bi	209		ug/L			2867512	2771555	0
[	Th	232	51.129	ug/L	0.706	1	132	2696539	1
[	U	238	51.755	ug/L	0.475	0	4	2806131	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 13:00:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1491780 ✓	0
[	Be	9	0.002	ug/L	0.000	7	10	17	3
	C	13		ug/L			122688	135775	1
	Cl	37		ug/L			4809329	5070389	0
[>	Sc	45		ug/L			1221736	1244227 ✓	0
[	V	51	0.013	ug/L	0.009	66	8932	9449	2
[	V-1	51	0.001	ug/L	0.000	22	79	108	5
[	Cr	52	0.045	ug/L	0.027	59	26512	27973	2
[	Cr	53	0.003	ug/L	0.005	219	164	173	7
[	Mn	55	-0.000	ug/L	0.001	261	526	523	6
[	Co	59	0.001	ug/L	0.000	51	57	79	13
[>	Ge	72		ug/L			666235	642946 ✓	1
[	Ni	60	0.001	ug/L	0.001	41	11	16	12
[	Ni	62	-5.476	ug/L	0.037	0	4585	1067	2
[	Cu	63	-0.257	ug/L	0.002	0	3389	794	3
[	Cu	65	0.000	ug/L	0.002	929	47	46	19
[	Zn	66	0.015	ug/L	0.005	32	115	150	9
[	Zn	67	0.029	ug/L	0.016	57	14	26	27
[	Zn	68	0.021	ug/L	0.004	17	160	194	3
[	As	75	0.021	ug/L	0.013	60	82	126	21
[	As-1	75	0.230	ug/L	0.058	25	10540	10695	0
[	Se	82	-0.015	ug/L	0.066	432	0	-4	362
[	Se	78	0.794	ug/L	0.198	24	10716	10864	0
[	Mo	98	0.006	ug/L	0.001	17	12	41	13
	Y	89		ug/L			407553	392955	2
	Kr	83		ug/L			373	433	3
[>	In	115		ug/L			1034700	1003755 ✓	1
[	Ag	107	0.007	ug/L	0.009	135	17	87	109
[	Cd	111	0.002	ug/L	0.002	64	81	91	7
[	Cd	114	0.001	ug/L	0.000	17	29	46	7
[	Sb	121	0.057	ug/L	0.006	10	57	936	9
[	Sb	123	0.057	ug/L	0.005	9	42	700	9
[	Ba	135	0.001	ug/L	0.001	65	12	16	17
[	Ba	137	0.002	ug/L	0.001	34	12	29	19
[>	Tb	159		ug/L			1245990	1185842 ✓	0
[	Tl	205	0.005	ug/L	0.003	50	75	285	38
[	Pb	208	0.003	ug/L	0.001	27	181	318	12
[	Bi	209		ug/L			2867512	2814275	1
[	Th	232	0.126	ug/L	0.011	8	132	6441	9
[	U	238	0.002	ug/L	0.000	12	4	112	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 13:08:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1581625	2
[	Be	9	0.175	ug/L	0.004	2	10	819	2
	C	13		ug/L			122688	140871	3
	Cl	37		ug/L			4809329	5096549	0
[>	Sc	45		ug/L			1221736	1352271	2
[	V	51	12.830	ug/L	0.139	1	8932	374089	2
[	V-1	51	13.101	ug/L	0.334	2	79	369838	1
[	Cr	52	18.778	ug/L	0.119	0	26512	470143	2
[	Cr	53	19.827	ug/L	0.949	4	164	51766	1
[	Mn	55	279.138	ug/L	7.832	2	526	9065371	1
[	Co	59	3.082	ug/L	0.123	3	57	72445	2
[>	Ge	72		ug/L			666235	662150	1
[	Ni	60	7.405	ug/L	0.206	2	11	33086	1
[	Ni	62	2.505	ug/L	0.176	7	4585	6137	1
[	Cu	63	7.794	ug/L	0.241	3	3389	80615	1
[	Cu	65	7.958	ug/L	0.109	1	47	35594	0
[	Zn	66	56.900	ug/L	1.861	3	115	152386	1
[	Zn	67	60.691	ug/L	0.681	1	14	27199	1
[	Zn	68	61.998	ug/L	0.803	1	160	120519	0
[	As	75	2.878	ug/L	0.059	2	82	6724	0
[	As-1	75	2.947	ug/L	0.177	5	10540	17409	0
[	Se	82	-0.035	ug/L	0.036	100	0	-9	93
[	Se	78	0.579	ug/L	0.413	71	10716	11040	0
[	Mo	98	0.109	ug/L	0.003	2	12	605	3
	Y	89		ug/L			407553	478315	0
	Kr	83		ug/L			373	526	3
[>	In	115		ug/L			1034700	1058203	1
[	Ag	107	0.054	ug/L	0.004	8	17	634	6
[	Cd	111	0.953	ug/L	0.032	3	81	5172	1
[	Cd	114	0.912	ug/L	0.011	1	29	12373	0
[	Sb	121	0.034	ug/L	0.003	9	57	607	7
[	Sb	123	0.035	ug/L	0.004	11	42	463	9
[	Ba	135	124.755	ug/L	1.762	1	12	630994	1
[	Ba	137	123.156	ug/L	3.232	2	12	1088373	1
[>	Tb	159		ug/L			1245990	1253819	1
[	Tl	205	0.110	ug/L	0.001	1	75	4790	1
[	Pb	208	33.123	ug/L	0.283	0	181	1814919	0
[	Bi	209		ug/L			2867512	2812730	1
[	Th	232	1.117	ug/L	0.015	1	132	59505	0
[	U	238	0.215	ug/L	0.004	1	4	11755	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 13:12:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ay

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1586185	3
[	Be	9	0.839	ug/L	0.043	5	10	3890	2
	C	13		ug/L			122688	181008	1
	Cl	37		ug/L			4809329	5172413	1
[>	Sc	45		ug/L			1221736	1557680	1
[	V	51	58.111	ug/L	0.755	1	8932	1911487	1
[	V-1	51	57.866	ug/L	1.251	2	79	1881976	1
[	Cr	52	85.289	ug/L	0.897	1	26512	2340041	0
[	Cr	53	84.952	ug/L	2.397	2	164	254987	2
[	Mn	55	1220.236	ug/L	15.515	1	526	45663442	1
[	Co	59	13.080	ug/L	0.477	3	57	354058	2
[>	Ge	72		ug/L			666235	649400	1
[	Ni	60	37.909	ug/L	0.720	1	11	166106	1
[	Ni	62	37.378	ug/L	1.651	4	4585	27603	2
[	Cu	63	39.532	ug/L	0.852	2	3389	387604	1
[	Cu	65	39.649	ug/L	1.093	2	47	173732	1
[	Zn	66	275.854	ug/L	6.360	2	115	724231	0
[	Zn	67	299.354	ug/L	5.763	1	14	131508	0
[	Zn	68	299.249	ug/L	5.094	1	160	569901	0
[	As	75	14.401	ug/L	0.197	1	82	32683	0
[	As-1	75	14.192	ug/L	0.273	1	10540	43040	0
[	Se	82	-0.418	ug/L	0.067	16	0	-102	15
[	Se	78	0.816	ug/L	0.306	37	10716	10987	0
[	Mo	98	0.527	ug/L	0.032	6	12	2820	4
	Y	89		ug/L			407553	695104	1
	Kr	83		ug/L			373	1172	1
[>	In	115		ug/L			1034700	1043451	0
[	Ag	107	0.272	ug/L	0.010	3	17	3058	2
[	Cd	111	4.604	ug/L	0.085	1	81	24334	1
[	Cd	114	4.497	ug/L	0.129	2	29	60067	2
[	Sb	121	0.096	ug/L	0.004	3	57	1590	3
[	Sb	123	0.095	ug/L	0.005	4	42	1184	4
[	Ba	135	665.799	ug/L	3.757	0	12	3320716	0
[	Ba	137	668.442	ug/L	12.934	1	12	5826063	1
[>	Tb	159		ug/L			1245990	1272198	0
[	Tl	205	0.531	ug/L	0.002	0	75	23104	0
[	Pb	208	170.827	ug/L	0.743	0	181	9497038	0
[	Bi	209		ug/L			2867512	2661502	0
[	Th	232	5.296	ug/L	0.035	0	132	285744	0
[	U	238	1.081	ug/L	0.018	1	4	59919	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 13:16:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1609909	1
[	Be	9	0.760	ug/L	0.010	1	10	3582	2
	C	13		ug/L			122688	191593	2
	Cl	37		ug/L			4809329	5293474	0
[>	Sc	45		ug/L			1221736	1549871	1
[	V	51	53.570	ug/L	1.468	2	8932	1753794	1
[	V-1	51	53.117	ug/L	1.505	2	79	1718534	1
[	Cr	52	83.106	ug/L	1.078	1	26512	2269603	1
[	Cr	53	82.091	ug/L	0.986	1	164	245189	0
[	Mn	55	1133.467	ug/L	13.328	1	526	42199581	0
[	Co	59	11.943	ug/L	0.389	3	57	321651	1
[>	Ge	72		ug/L			666235	650214	1
[	Ni	60	34.712	ug/L	0.876	2	11	152286	1
[	Ni	62	33.230	ug/L	0.751	2	4585	25074	1
[	Cu	63	34.426	ug/L	0.476	1	3389	338415	0
[	Cu	65	35.994	ug/L	0.807	2	47	157923	0
[	Zn	66	251.261	ug/L	4.144	1	115	660557	0
[	Zn	67	270.146	ug/L	3.118	1	14	118839	0
[	Zn	68	269.371	ug/L	4.080	1	160	513722	1
[	As	75	13.382	ug/L	0.253	1	82	30413	1
[	As-1	75	13.163	ug/L	0.282	2	10540	40717	0
[	Se	82	-0.334	ug/L	0.040	12	0	-82	11
[	Se	78	0.693	ug/L	0.236	34	10716	10920	0
[	Mo	98	0.507	ug/L	0.008	1	12	2721	1
	Y	89		ug/L			407553	687363	1
	Kr	83		ug/L			373	1088	1
[>	In	115		ug/L			1034700	1038142	2
[	Ag	107	0.278	ug/L	0.002	0	17	3115	2
[	Cd	111	4.336	ug/L	0.049	1	81	22799	1
[	Cd	114	4.187	ug/L	0.055	1	29	55642	1
[	Sb	121	0.115	ug/L	0.008	6	57	1880	4
[	Sb	123	0.116	ug/L	0.008	7	42	1422	4
[	Ba	135	640.159	ug/L	12.245	1	12	3176140	1
[	Ba	137	623.415	ug/L	10.153	1	12	5405395	0
[>	Tb	159		ug/L			1245990	1278716	0
[	Tl	205	0.484	ug/L	0.007	1	75	21198	1
[	Pb	208	152.214	ug/L	1.026	0	181	8505510	0
[	Bi	209		ug/L			2867512	2685809	1
[	Th	232	4.598	ug/L	0.039	0	132	249337	0
[	U	238	0.971	ug/L	0.011	1	4	54120	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 ASPK SWN

AJ

Sample Dil Factor: 20

Comments:

Sample Date/Time: Monday, November 26, 2012 13:20:44

Number of Replicates: 3

Method File: C:\NexION Data\Method\200.8nomin.mth

Tuning File: C:\NexION Data\MassCal\Default.tun

Optimization File: C:\NexION Data\Conditions\Default.dac

Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1588415	0
[	Be	9	27.240	ug/L	0.327	1	10	126326	1
	C	13		ug/L			122688	182160	2
	Cl	37		ug/L			4809329	5319992	1
[>	Sc	45		ug/L			1221736	1621579	1
[	V	51	83.191	ug/L	1.422	1	8932	2843570	0
[	V-1	51	82.917	ug/L	1.676	2	79	2807515	1
[	Cr	52	101.558	ug/L	1.954	1	26512	2893973	1
[	Cr	53	100.953	ug/L	1.505	1	164	315488	2
[	Mn	55	1282.466	ug/L	36.330	2	526	49954066	2
[	Co	59	32.854	ug/L	0.739	2	57	926075	2
[>	Ge	72		ug/L			666235	649344	1
[	Ni	60	65.926	ug/L	2.435	3	11	288743	1
[	Ni	62	64.993	ug/L	1.464	2	4585	44698	0
[	Cu	63	66.632	ug/L	1.185	1	3389	651003	1
[	Cu	65	67.714	ug/L	2.144	3	47	296599	1
[	Zn	66	371.561	ug/L	9.953	2	115	975271	0
[	Zn	67	381.130	ug/L	14.656	3	14	167370	2
[	Zn	68	384.638	ug/L	4.462	1	160	732429	0
[	As	75	40.373	ug/L	1.527	3	82	91446	2
[	As-1	75	40.863	ug/L	1.583	3	10540	104580	1
[	Se	82	79.551	ug/L	2.149	2	0	19460	0
[	Se	78	79.545	ug/L	2.726	3	10716	63466	1
[	Mo	98	23.409	ug/L	0.453	1	12	124856	0
	Y	89		ug/L			407553	739260	1
	Kr	83		ug/L			373	1203	6
[>	In	115		ug/L			1034700	1048061	1
[	Ag	107	25.157	ug/L	0.842	3	17	282646	3
[	Cd	111	29.972	ug/L	0.581	1	81	158655	2
[	Cd	114	29.656	ug/L	0.311	1	29	397730	0
[	Sb	121	0.680	ug/L	0.019	2	57	10922	1
[	Sb	123	0.680	ug/L	0.018	2	42	8243	1
[	Ba	135	710.357	ug/L	2.769	0	12	3558598	0
[	Ba	137	695.098	ug/L	10.499	1	12	6085097	0
[>	Tb	159		ug/L			1245990	1282645	1
[	Tl	205	25.231	ug/L	0.604	2	75	1103886	1
[	Pb	208	201.428	ug/L	2.611	1	181	11289299	0
[	Bi	209		ug/L			2867512	2650073	0
[	Th	232	28.293	ug/L	0.469	1	132	1538186	0
[	U	238	26.152	ug/L	0.491	1	4	1461558	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 D SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 13:24:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1452181	1556584	0
	Be	**9**	**0.125**	ug/L	0.006	4	10	579	4
	C	**13**		ug/L			122688	155736	3
	Cl	**37**		ug/L			4809329	5248449	4
>	**Sc**	**45**		ug/L			1221736	1306174	1
	V	**51**	**5.383**	ug/L	0.130	2	8932	157122	1
	V-1	**51**	**5.376**	ug/L	0.178	3	79	146649	1
	Cr	**52**	**5.399**	ug/L	0.100	1	26512	150748	0
	Cr	**53**	**5.374**	ug/L	0.287	5	164	13685	3
	Mn	**55**	**268.449**	ug/L	2.803	1	526	8424397	1
	Co	**59**	**1.874**	ug/L	0.071	3	57	42593	2
>	**Ge**	**72**		ug/L			666235	667924	1
	Ni	**60**	**5.378**	ug/L	0.015	0	11	24252	1
	Ni	**62**	**-0.387**	ug/L	0.275	71	4585	4348	2
	Cu	**63**	**5.475**	ug/L	0.131	2	3389	58141	1
	Cu	**65**	**5.781**	ug/L	0.148	2	47	26096	1
	Zn	**66**	**121.175**	ug/L	3.563	2	115	327338	3
	Zn	**67**	**113.585**	ug/L	2.588	2	14	51332	1
	Zn	**68**	**121.072**	ug/L	2.269	1	160	237254	0
	As	**75**	**2.955**	ug/L	0.034	1	82	6964	1
	As-1	**75**	**2.940**	ug/L	0.074	2	10540	17549	0
	Se	**82**	**0.105**	ug/L	0.080	75	0	26	78
	Se	**78**	**0.337**	ug/L	0.159	47	10716	10973	0
	Mo	**98**	**0.105**	ug/L	0.003	2	12	589	3
	Y	**89**		ug/L			407553	452249	1
	Kr	**83**		ug/L			373	454	7
>	**In**	**115**		ug/L			1034700	1063035	1
	Ag	**107**	**0.102**	ug/L	0.006	6	17	1176	5
	Cd	**111**	**3.179**	ug/L	0.040	1	81	17141	0
	Cd	**114**	**3.106**	ug/L	0.079	2	29	42273	2
	Sb	**121**	**0.122**	ug/L	0.004	3	57	2034	2
	Sb	**123**	**0.117**	ug/L	0.005	4	42	1478	3
	Ba	**135**	**80.913**	ug/L	0.913	1	12	411120	0
	Ba	**137**	**79.871**	ug/L	1.302	1	12	709205	0
>	**Tb**	**159**		ug/L			1245990	1249799	1
	Tl	**205**	**0.110**	ug/L	0.003	2	75	4780	1
	Pb	**208**	**134.286**	ug/L	1.629	1	181	7333670	0
	Bi	**209**		ug/L			2867512	2865227	1
	Th	**232**	**0.913**	ug/L	0.016	1	132	48503	0
	U	**238**	**0.096**	ug/L	0.003	2	4	5230	2

VS19:00396

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 E SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 13:28:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1577627	1
[	Be	9	0.124	ug/L	0.005	3	10	583	2
	C	13		ug/L			122688	148910	2
	Cl	37		ug/L			4809329	5073017	3
[>	Sc	45		ug/L			1221736	1340815	3
[	V	51	5.943	ug/L	0.176	2	8932	176993	0
[	V-1	51	5.979	ug/L	0.223	3	79	167365	0
[	Cr	52	5.120	ug/L	0.124	2	26512	148234	1
[	Cr	53	5.230	ug/L	0.284	5	164	13671	2
[	Mn	55	283.020	ug/L	5.657	1	526	9114398	1
[	Co	59	1.816	ug/L	0.050	2	57	42355	1
[>	Ge	72		ug/L			666235	666103	0
[	Ni	60	5.051	ug/L	0.078	1	11	22712	1
[	Ni	62	-0.863	ug/L	0.077	8	4585	4035	0
[	Cu	63	5.858	ug/L	0.214	3	3389	61809	3
[	Cu	65	6.198	ug/L	0.063	1	47	27901	0
[	Zn	66	119.557	ug/L	2.792	2	115	322085	2
[	Zn	67	112.476	ug/L	0.297	0	14	50701	0
[	Zn	68	120.552	ug/L	3.044	2	160	235603	2
[	As	75	7.321	ug/L	0.026	0	82	17085	1
[	As-1	75	7.224	ug/L	0.020	0	10540	27649	0
[	Se	82	0.037	ug/L	0.036	97	0	8	104
[	Se	78	0.315	ug/L	0.068	21	10716	10929	0
[	Mo	98	0.111	ug/L	0.001	1	12	620	1
	Y	89		ug/L			407553	450861	1
	Kr	83		ug/L			373	479	6
[>	In	115		ug/L			1034700	1055997	1
[	Ag	107	0.090	ug/L	0.003	2	17	1033	2
[	Cd	111	2.961	ug/L	0.037	1	81	15864	1
[	Cd	114	2.907	ug/L	0.068	2	29	39299	0
[	Sb	121	0.094	ug/L	0.003	2	57	1575	1
[	Sb	123	0.094	ug/L	0.007	7	42	1183	6
[	Ba	135	79.145	ug/L	1.225	1	12	399444	0
[	Ba	137	77.294	ug/L	1.487	1	12	681717	0
[>	Tb	159		ug/L			1245990	1241505	1
[	Tl	205	0.109	ug/L	0.001	1	75	4681	0
[	Pb	208	104.765	ug/L	0.498	0	181	5683796	0
[	Bi	209		ug/L			2867512	2883983	0
[	Th	232	1.000	ug/L	0.013	1	132	52734	0
[	U	238	0.125	ug/L	0.001	0	4	6774	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 13:34:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1586348	1
	Be	9	0.680	ug/L	0.026	3	10	3157	2
	C	13		ug/L			122688	194997	1
	Cl	37		ug/L			4809329	5160310	0
>	Sc	45		ug/L			1221736	1429771	1
	V	51	31.542	ug/L	1.343	4	8932	956876	2
	V-1	51	31.762	ug/L	1.463	4	79	947979	3
	Cr	52	26.183	ug/L	0.600	2	26512	680849	1
	Cr	53	26.847	ug/L	0.974	3	164	74090	2
	Mn	55	775.095	ug/L	26.434	3	526	26617579	2
	Co	59	9.263	ug/L	0.428	4	57	230164	3
>	Ge	72		ug/L			666235	657804	1
	Ni	60	30.064	ug/L	0.855	2	11	133432	1
	Ni	62	26.356	ug/L	1.313	4	4585	21052	2
	Cu	63	22.056	ug/L	0.808	3	3389	220520	2
	Cu	65	22.369	ug/L	0.556	2	47	99311	1
	Zn	66	151.023	ug/L	2.394	1	115	401753	1
	Zn	67	160.857	ug/L	2.888	1	14	71590	0
	Zn	68	159.379	ug/L	4.371	2	160	307528	1
	As	75	15.037	ug/L	0.482	3	82	34562	2
	As-1	75	14.741	ug/L	0.498	3	10540	44879	1
	Se	82	-0.064	ug/L	0.064	100	0	-16	96
	Se	78	0.553	ug/L	0.172	31	10716	10953	0
	Mo	98	0.535	ug/L	0.020	3	12	2904	3
	Y	89		ug/L			407553	625373	1
	Kr	83		ug/L			373	902	1
>	In	115		ug/L			1034700	1039321	1
	Ag	107	0.218	ug/L	0.006	2	17	2441	3
	Cd	111	1.231	ug/L	0.038	3	81	6539	2
	Cd	114	1.077	ug/L	0.017	1	29	14351	1
	Sb	121	0.076	ug/L	0.001	1	57	1256	2
	Sb	123	0.073	ug/L	0.004	6	42	918	4
	Ba	135	287.715	ug/L	7.932	2	12	1429123	2
	Ba	137	295.922	ug/L	3.053	1	12	2568990	0
>	Tb	159		ug/L			1245990	1259269	0
	Tl	205	0.211	ug/L	0.001	0	75	9158	0
	Pb	208	37.600	ug/L	0.417	1	181	2069208	0
	Bi	209		ug/L			2867512	2746655	1
	Th	232	6.207	ug/L	0.172	2	132	331422	2
	U	238	0.851	ug/L	0.013	1	4	46703	1

VS19 : 00398

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 13:38:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1636311	1
[	Be	9	0.608	ug/L	0.013	2	10	2918	3
	C	13		ug/L			122688	177161	1
	Cl	37		ug/L			4809329	5238040	1
[>	Sc	45		ug/L			1221736	1470547	0
[	V	51	30.125	ug/L	0.320	1	8932	940735	0
[	V-1	51	30.345	ug/L	0.246	0	79	931865	0
[	Cr	52	24.754	ug/L	0.108	0	26512	663893	0
[	Cr	53	25.419	ug/L	0.211	0	164	72183	1
[	Mn	55	500.893	ug/L	5.413	1	526	17696527	0
[	Co	59	8.737	ug/L	0.198	2	57	223364	2
[>	Ge	72		ug/L			666235	659215	1
[	Ni	60	30.328	ug/L	0.423	1	11	134898	0
[	Ni	62	25.786	ug/L	1.323	5	4585	20736	2
[	Cu	63	22.992	ug/L	0.329	1	3389	230253	0
[	Cu	65	23.306	ug/L	0.433	1	47	103690	1
[	Zn	66	100.124	ug/L	4.812	4	115	266841	3
[	Zn	67	108.867	ug/L	1.997	1	14	48563	1
[	Zn	68	105.516	ug/L	3.424	3	160	204054	1
[	As	75	7.286	ug/L	0.055	0	82	16827	1
[	As-1	75	7.189	ug/L	0.130	1	10540	27278	0
[	Se	82	-0.087	ug/L	0.081	93	0	-22	90
[	Se	78	0.668	ug/L	0.308	46	10716	11052	0
[	Mo	98	0.454	ug/L	0.004	0	12	2471	2
	Y	89		ug/L			407553	645825	0
	Kr	83		ug/L			373	877	4
[>	In	115		ug/L			1034700	1038917	0
[	Ag	107	0.235	ug/L	0.003	1	17	2634	1
[	Cd	111	0.679	ug/L	0.015	2	81	3643	1
[	Cd	114	0.524	ug/L	0.005	1	29	6994	0
[	Sb	121	0.050	ug/L	0.002	4	57	845	3
[	Sb	123	0.049	ug/L	0.003	6	42	626	5
[	Ba	135	183.167	ug/L	3.037	1	12	909569	1
[	Ba	137	181.491	ug/L	1.945	1	12	1575078	0
[>	Tb	159		ug/L			1245990	1275888	0
[	Tl	205	0.174	ug/L	0.003	1	75	7668	0
[	Pb	208	16.210	ug/L	0.364	2	181	903825	1
[	Bi	209		ug/L			2867512	2748413	0
[	Th	232	5.876	ug/L	0.130	2	132	317855	1
[	U	238	0.925	ug/L	0.010	1	4	51421	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 13:42:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1642537	2
	Be	9	0.606	ug/L	0.003	0	10	2916	1
	C	13		ug/L			122688	184593	0
	Cl	37		ug/L			4809329	5147029	1
>	Sc	45		ug/L			1221736	1450351	1
	V	51	33.353	ug/L	0.996	2	8932	1025949	2
	V-1	51	33.636	ug/L	0.716	2	79	1018576	1
	Cr	52	28.476	ug/L	1.298	4	26512	748362	3
	Cr	53	29.365	ug/L	0.234	0	164	82207	0
	Mn	55	433.334	ug/L	1.616	0	526	15099371	0
	Co	59	8.962	ug/L	0.120	1	57	225971	1
>	Ge	72		ug/L			666235	661398	1
	Ni	60	28.922	ug/L	0.279	0	11	129080	1
	Ni	62	24.865	ug/L	0.700	2	4585	20228	1
	Cu	63	24.272	ug/L	0.979	4	3389	243614	2
	Cu	65	24.457	ug/L	0.493	2	47	109160	0
	Zn	66	106.952	ug/L	3.006	2	115	286024	1
	Zn	67	111.915	ug/L	2.163	1	14	50079	0
	Zn	68	111.793	ug/L	3.652	3	160	216918	2
	As	75	8.179	ug/L	0.161	1	82	18937	0
	As-1	75	7.992	ug/L	0.250	3	10540	29251	0
	Se	82	-0.066	ug/L	0.022	32	0	-17	33
	Se	78	0.489	ug/L	0.343	70	10716	10967	0
	Mo	98	0.407	ug/L	0.011	2	12	2223	1
	Y	89		ug/L			407553	670606	1
	Kr	83		ug/L			373	926	2
>	In	115		ug/L			1034700	1036803	1
	Ag	107	0.251	ug/L	0.008	3	17	2807	2
	Cd	111	0.961	ug/L	0.064	6	81	5107	5
	Cd	114	0.780	ug/L	0.010	1	29	10383	0
	Sb	121	0.051	ug/L	0.003	6	57	870	4
	Sb	123	0.050	ug/L	0.001	2	42	643	2
	Ba	135	188.150	ug/L	3.150	1	12	932359	0
	Ba	137	187.451	ug/L	0.968	0	12	1623498	0
>	Tb	159		ug/L			1245990	1268025	0
	Tl	205	0.189	ug/L	0.003	1	75	8268	1
	Pb	208	32.368	ug/L	0.237	0	181	1793684	0
	Bi	209		ug/L			2867512	2765004	1
	Th	232	6.157	ug/L	0.070	1	132	331053	0
	U	238	0.986	ug/L	0.011	1	4	54505	1

VS19 : 00400

ICP-MS Quantitative Analysis - Summary Report

Ag

Sample ID: VS19 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 13:46:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1452181	1596461	1
	Be	**9**	**0.574**	ug/L	0.022	3	10	2684	2
	C	**13**		ug/L			122688	165355	3
	Cl	**37**		ug/L			4809329	5171193	0
>	**Sc**	**45**		ug/L			1221736	1436931	1
	V	**51**	**38.546**	ug/L	0.819	2	8932	1173229	2
	V-1	**51**	**38.687**	ug/L	0.724	1	79	1160781	1
	Cr	**52**	**31.573**	ug/L	0.202	0	26512	818801	0
	Cr	**53**	**31.931**	ug/L	0.601	1	164	88543	1
	Mn	**55**	**414.892**	ug/L	8.690	2	526	14321383	1
	Co	**59**	**10.429**	ug/L	0.102	0	57	260516	0
>	**Ge**	**72**		ug/L			666235	650715	1
	Ni	**60**	**37.898**	ug/L	1.190	3	11	166427	3
	Ni	**62**	**34.536**	ug/L	0.924	2	4585	25902	1
	Cu	**63**	**25.938**	ug/L	0.487	1	3389	256053	2
	Cu	**65**	**26.267**	ug/L	0.656	2	47	115366	2
	Zn	**66**	**82.688**	ug/L	0.949	1	115	217646	0
	Zn	**67**	**95.950**	ug/L	1.878	1	14	42249	1
	Zn	**68**	**92.766**	ug/L	2.067	2	160	177136	1
	As	**75**	**6.955**	ug/L	0.057	0	82	15859	0
	As-1	**75**	**6.860**	ug/L	0.059	0	10540	26168	0
	Se	**82**	**-0.043**	ug/L	0.084	196	0	-11	184
	Se	**78**	**0.624**	ug/L	0.124	19	10716	10882	0
	Mo	**98**	**0.443**	ug/L	0.005	1	12	2378	1
	Y	**89**		ug/L			407553	631710	1
	Kr	**83**		ug/L			373	807	4
>	**In**	**115**		ug/L			1034700	1026543	0
	Ag	**107**	**0.216**	ug/L	0.007	3	17	2391	3
	Cd	**111**	**0.462**	ug/L	0.032	6	81	2473	6
	Cd	**114**	**0.314**	ug/L	0.004	1	29	4149	1
	Sb	**121**	**0.038**	ug/L	0.002	4	57	648	4
	Sb	**123**	**0.036**	ug/L	0.001	3	42	469	3
	Ba	**135**	**246.054**	ug/L	4.197	1	12	1207373	1
	Ba	**137**	**259.963**	ug/L	2.562	0	12	2229280	0
>	**Tb**	**159**		ug/L			1245990	1252237	0
	Tl	**205**	**0.230**	ug/L	0.001	0	75	9899	0
	Pb	**208**	**16.782**	ug/L	0.116	0	181	918466	0
	Bi	**209**		ug/L			2867512	2729068	0
	Th	**232**	**6.618**	ug/L	0.022	0	132	351428	0
	U	**238**	**0.933**	ug/L	0.004	0	4	50905	0

VS19 : 00401

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 13:50:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1511289 ✓	1
	Be	9	52.506	ug/L	0.365	0	10	231651	1
	C	13		ug/L			122688	137684	0
	Cl	37		ug/L			4809329	5436258	1
>	Sc	45		ug/L			1221736	1258786 ✓	0
	V	51	49.088	ug/L	0.777	1	8932	1306410	1
	V-1	51	49.429	ug/L	0.871	1	79	1299325	2
	Cr	52	49.826	ug/L	1.392	2	26512	1116123	2
	Cr	53	51.023	ug/L	0.556	1	164	123856	1
	Mn	55	49.854	ug/L	0.590	1	526	1508241	1
	Co	59	47.417	ug/L	1.271	2	57	1037378	2
>	Ge	72		ug/L			666235	644292 ✓	0
	Ni	60	50.469	ug/L	0.509	1	11	219415	0
	Ni	62	44.607	ug/L	0.304	0	4585	31837	0
	Cu	63	50.964	ug/L	0.862	1	3389	494872	1
	Cu	65	49.855	ug/L	0.959	1	47	216759	1
	Zn	66	51.515	ug/L	1.886	3	115	134276	2
	Zn	67	51.138	ug/L	1.969	3	14	22303	3
	Zn	68	51.429	ug/L	0.413	0	160	97313	0
	As	75	52.301	ug/L	0.609	1	82	117562	0
	As-1	75	51.984	ug/L	0.674	1	10540	129282	0
	Se	82	52.854	ug/L	0.463	0	0	12832	0
	Se	78	51.802	ug/L	0.917	1	10716	44635	0
	Mo	98	51.142	ug/L	0.532	1	12	270683	0
	Y	89		ug/L			407553	413365	2
	Kr	83		ug/L			373	460	4
>	In	115		ug/L			1034700	1012136 ✓	1
	Ag	107	54.845	ug/L	0.719	1	17	595051	1
	Cd	111	51.863	ug/L	0.879	1	81	265038	0
	Cd	114	51.511	ug/L	0.840	1	29	667096	0
	Sb	121	51.878	ug/L	0.911	1	57	800926	0
	Sb	123	52.142	ug/L	0.866	1	42	607686	0
	Ba	135	50.288	ug/L	0.284	0	12	243292	0
	Ba	137	49.851	ug/L	0.746	1	12	421453	0
>	Tb	159		ug/L			1245990	1216756 ✓	1
	Tl	205	52.513	ug/L	0.447	0	75	2179633	0
	Pb	208	50.136	ug/L	0.609	1	181	2665748	0
	Bi	209		ug/L			2867512	2723677	0
	Th	232	52.716	ug/L	0.539	1	132	2718788	0
	U	238	53.179	ug/L	0.759	1	4	2819483	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 13:57:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1499691 ✓	0
	Be	9	0.001	ug/L	0.001	124	10	14	31
	C	13		ug/L			122688	136514	1
	Cl	37		ug/L			4809329	5178558	2
>	Sc	45		ug/L			1221736	1228742 ✓	2
	V	51	0.013	ug/L	0.008	62	8932	9316	0
	V-1	51	-0.000	ug/L	0.001	770	79	78	16
	Cr	52	0.047	ug/L	0.027	58	26512	27652	0
	Cr	53	0.002	ug/L	0.006	284	164	170	8
	Mn	55	0.000	ug/L	0.001	1715	526	531	6
	Co	59	0.002	ug/L	0.000	9	57	90	2
>	Ge	72		ug/L			666235	627100 ✓	1
	Ni	60	0.002	ug/L	0.001	23	11	20	10
	Ni	62	-6.322	ug/L	0.044	0	4585	535	5
	Cu	63	-0.293	ug/L	0.002	0	3389	434	2
	Cu	65	-0.002	ug/L	0.001	65	47	38	10
	Zn	66	0.014	ug/L	0.005	39	115	143	9
	Zn	67	0.023	ug/L	0.013	56	14	23	21
	Zn	68	0.021	ug/L	0.006	26	160	189	3
	As	75	0.017	ug/L	0.008	45	82	113	15
	As-1	75	0.354	ug/L	0.085	24	10540	10708	1
	Se	82	-0.022	ug/L	0.021	94	0	-5	85
	Se	78	1.240	ug/L	0.291	23	10716	10884	1
	Mo	98	0.007	ug/L	0.001	14	12	49	10
	Y	89		ug/L			407553	387180	0
	Kr	83		ug/L			373	430	4
>	In	115		ug/L			1034700	992518 ✓	1
	Ag	107	0.001	ug/L	0.001	63	17	26	24
	Cd	111	0.003	ug/L	0.002	54	81	95	9
	Cd	114	0.001	ug/L	0.000	51	29	40	15
	Sb	121	0.056	ug/L	0.005	8	57	907	8
	Sb	123	0.058	ug/L	0.004	7	42	699	7
	Ba	135	0.002	ug/L	0.000	26	12	20	10
	Ba	137	0.003	ug/L	0.001	37	12	35	24
>	Tb	159		ug/L			1245990	1152170 ✓	0
	Tl	205	0.006	ug/L	0.002	37	75	289	28
	Pb	208	0.002	ug/L	0.000	13	181	270	5
	Bi	209		ug/L			2867512	2735423	1
	Th	232	0.113	ug/L	0.014	12	132	5651	11
	U	238	0.002	ug/L	0.000	26	4	94	25

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 A-L SWN
Sample Dil Factor: 500
Comments:
Sample Date/Time: Monday, November 26, 2012 14:02:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

V Cr Co Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1539017	1
[	**Be**	**9**	**0.038**	ug/L	0.004	11	10	183	9
	C	**13**		ug/L			122688	139698	1
	Cl	**37**		ug/L			4809329	4970118	1
[>	**Sc**	**45**		ug/L			1221736	1291512 ✓	2
[	**V**	**51**	**2.818**	ug/L	0.075	2	8932	85810	0
[	**V-1**	**51**	**2.831**	ug/L	0.076	2	79	76406	0
[	**Cr**	**52**	**4.172**	ug/L	0.072	1	26512	121541	0
[	**Cr**	**53**	**4.244**	ug/L	0.130	3	164	10726	2
[	**Mn**	**55**	**60.386**	ug/L	1.292	2	526	1873755	1
[	**Co**	**59**	**0.658**	ug/L	0.011	1	57	14829	0
[>	**Ge**	**72**		ug/L			666235	654209 ✓	1
[	**Ni**	**60**	**1.629**	ug/L	0.031	1	11	7204	3
[	**Ni**	**62**	**-4.699**	ug/L	0.031	0	4585	1571	1
[	**Cu**	**63**	**1.416**	ug/L	0.035	2	3389	17196	0
[	**Cu**	**65**	**1.750**	ug/L	0.027	1	47	7771	1
[	**Zn**	**66**	**12.572**	ug/L	0.349	2	115	33357	1
[	**Zn**	**67**	**13.095**	ug/L	0.393	3	14	5808	1
[	**Zn**	**68**	**13.304**	ug/L	0.299	2	160	25674	0
[	**As**	**75**	**0.635**	ug/L	0.024	3	82	1528	2
[	**As-1**	**75**	**0.797**	ug/L	0.145	18	10540	12200	1
[	**Se**	**82**	**-0.007**	ug/L	0.018	240	0	-2	181
[	**Se**	**78**	**0.698**	ug/L	0.399	57	10716	10989	1
[	**Mo**	**98**	**0.024**	ug/L	0.003	13	12	142	13
	Y	**89**		ug/L			407553	419938	2
	Kr	**83**		ug/L			373	455	6
[>	**In**	**115**		ug/L			1034700	1022776	1
[	**Ag**	**107**	**0.012**	ug/L	0.000	0	17	145	2
[	**Cd**	**111**	**0.217**	ug/L	0.011	5	81	1198	3
[	**Cd**	**114**	**0.205**	ug/L	0.007	3	29	2714	2
[	**Sb**	**121**	**0.019**	ug/L	0.002	11	57	350	7
[	**Sb**	**123**	**0.020**	ug/L	0.002	12	42	273	8
[	**Ba**	**135**	**26.705**	ug/L	0.476	1	12	130545	0
[	**Ba**	**137**	**26.513**	ug/L	0.544	2	12	226493	0
[>	**Tb**	**159**		ug/L			1245990	1204763 ✓	0
[	**Tl**	**205**	**0.027**	ug/L	0.000	1	75	1195	1
[	**Pb**	**208**	**7.190**	ug/L	0.064	0	181	378690	0
[	**Bi**	**209**		ug/L			2867512	2826484	0
[	**Th**	**232**	**0.257**	ug/L	0.005	1	132	13276	1
[	**U**	**238**	**0.048**	ug/L	0.001	2	4	2523	1

VS19 : 00404

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 A SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 14:06:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

V Cr Co Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1573621	2
[	**Be**	**9**	**0.177**	ug/L	0.008	4	10	823	2
	C	**13**		ug/L			122688	139936	3
	Cl	**37**		ug/L			4809329	5097080	1
[>	**Sc**	**45**		ug/L			1221736	1361690	1
[	**V**	**51**	**13.035**	ug/L	0.250	1	8932	382509	0
[	**V-1**	**51**	**13.173**	ug/L	0.299	2	79	374538	0
[	**Cr**	**52**	**18.773**	ug/L	0.509	2	26512	473225	1
[	**Cr**	**53**	**19.357**	ug/L	0.661	3	164	50925	1
[	**Mn**	**55**	**288.675**	ug/L	12.714	4	526	9440974	3
[	**Co**	**59**	**3.028**	ug/L	0.090	2	57	71709	1
[>	**Ge**	**72**		ug/L			666235	656377	2
[	**Ni**	**60**	**7.658**	ug/L	0.310	4	11	33908	1
[	**Ni**	**62**	**1.839**	ug/L	0.145	7	4585	5667	1
[	**Cu**	**63**	**7.835**	ug/L	0.110	1	3389	80330	1
[	**Cu**	**65**	**8.302**	ug/L	0.213	2	47	36802	1
[	**Zn**	**66**	**58.581**	ug/L	1.974	3	115	155496	1
[	**Zn**	**67**	**63.244**	ug/L	0.419	0	14	28096	1
[	**Zn**	**68**	**62.480**	ug/L	2.606	4	160	120338	1
[	**As**	**75**	**2.956**	ug/L	0.108	3	82	6841	1
[	**As-1**	**75**	**2.994**	ug/L	0.225	7	10540	17364	0
[	**Se**	**82**	**0.017**	ug/L	0.017	101	0	3	119
[	**Se**	**78**	**0.522**	ug/L	0.468	89	10716	10904	0
[	**Mo**	**98**	**0.106**	ug/L	0.009	8	12	580	6
	Y	**89**		ug/L			407553	468966	0
	Kr	**83**		ug/L			373	517	8
[>	**In**	**115**		ug/L			1034700	1016791	0
[	**Ag**	**107**	**0.057**	ug/L	0.003	5	17	633	5
[	**Cd**	**111**	**0.977**	ug/L	0.015	1	81	5092	1
[	**Cd**	**114**	**0.960**	ug/L	0.012	1	29	12522	1
[	**Sb**	**121**	**0.026**	ug/L	0.003	11	57	461	9
[	**Sb**	**123**	**0.027**	ug/L	0.001	1	42	361	1
[	**Ba**	**135**	**131.124**	ug/L	0.799	0	12	637297	0
[	**Ba**	**137**	**129.304**	ug/L	0.852	0	12	1098298	0
[>	**Tb**	**159**		ug/L			1245990	1213290	0
[	**Tl**	**205**	**0.113**	ug/L	0.002	1	75	4757	1
[	**Pb**	**208**	**34.349**	ug/L	0.354	1	181	1821348	1
[	**Bi**	**209**		ug/L			2867512	2781904	0
[	**Th**	**232**	**1.123**	ug/L	0.011	0	132	57898	0
[	**U**	**238**	**0.224**	ug/L	0.002	0	4	11826	0

VS19 : 80405

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 ADUP SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 14:10:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

V Cr Co Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1572701	1
[	Be	9	0.169	ug/L	0.010	5	10	788	4
	C	13		ug/L			122688	149865	4
	Cl	37		ug/L			4809329	5073318	2
[>	Sc	45		ug/L			1221736	1343524	2
|	V	51	12.536	ug/L	0.209	1	8932	363318	1
|	V-1	51	12.510	ug/L	0.214	1	79	350956	1
|	Cr	52	19.006	ug/L	0.312	1	26512	472359	1
|	Cr	53	19.038	ug/L	0.323	1	164	49423	0
|	Mn	55	269.934	ug/L	6.454	2	526	8709980	0
[	Co	59	2.775	ug/L	0.096	3	57	64828	0
[>	Ge	72		ug/L			666235	651255	2
|	Ni	60	7.081	ug/L	0.176	2	11	31121	1
|	Ni	62	1.462	ug/L	0.101	6	4585	5390	2
|	Cu	63	7.310	ug/L	0.325	4	3389	74550	2
|	Cu	65	7.491	ug/L	0.289	3	47	32957	3
|	Zn	66	55.312	ug/L	0.415	0	115	145742	1
|	Zn	67	59.717	ug/L	2.538	4	14	26311	2
|	Zn	68	60.021	ug/L	1.579	2	160	114739	0
|	As	75	2.859	ug/L	0.019	0	82	6571	1
|	As-1	75	2.952	ug/L	0.099	3	10540	17136	0
|	Se	82	-0.014	ug/L	0.030	216	0	-3	187
|	Se	78	0.697	ug/L	0.273	39	10716	10939	0
[	Mo	98	0.100	ug/L	0.003	2	12	546	2
	Y	89		ug/L			407553	473905	0
	Kr	83		ug/L			373	531	1
[>	In	115		ug/L			1034700	1029126	1
|	Ag	107	0.055	ug/L	0.002	3	17	621	3
|	Cd	111	0.961	ug/L	0.027	2	81	5072	1
|	Cd	114	0.904	ug/L	0.006	0	29	11931	1
|	Sb	121	0.028	ug/L	0.001	4	57	502	3
|	Sb	123	0.028	ug/L	0.002	6	42	369	6
|	Ba	135	124.297	ug/L	2.737	2	12	611348	1
[	Ba	137	123.511	ug/L	1.479	1	12	1061763	0
[>	Tb	159		ug/L			1245990	1227122	0
|	Tl	205	0.106	ug/L	0.002	1	75	4517	1
|	Pb	208	31.495	ug/L	0.245	0	181	1689034	0
|	Bi	209		ug/L			2867512	2786183	0
|	Th	232	0.984	ug/L	0.015	1	132	51304	1
[	U	238	0.210	ug/L	0.001	0	4	11226	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 ASPK SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 14:14:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

V Cr Co Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1592034	2
[	Be	9	5.603	ug/L	0.121	2	10	26040	0
	C	13		ug/L			122688	141947	1
	Cl	37		ug/L			4809329	5219160	2
[>	Sc	45		ug/L			1221736	1364074	1
|	V	51	18.807	ug/L	0.519	2	8932	548448	1
|	V-1	51	19.060	ug/L	0.363	1	79	542896	0
|	Cr	52	22.693	ug/L	0.259	1	26512	566976	0
|	Cr	53	23.643	ug/L	0.669	2	164	62292	3
|	Mn	55	300.712	ug/L	3.840	1	526	9854300	0
[	Co	59	7.748	ug/L	0.208	2	57	183715	1
[>	Ge	72		ug/L			666235	659027	0
|	Ni	60	13.345	ug/L	0.351	2	11	59350	2
|	Ni	62	7.920	ug/L	0.378	4	4585	9512	2
|	Cu	63	13.488	ug/L	0.220	1	3389	136430	0
|	Cu	65	13.917	ug/L	0.271	1	47	61927	1
|	Zn	66	78.339	ug/L	1.595	2	115	208832	1
|	Zn	67	80.342	ug/L	0.788	0	14	35833	0
|	Zn	68	80.623	ug/L	1.563	1	160	155957	1
|	As	75	8.376	ug/L	0.220	2	82	19325	1
|	As-1	75	8.519	ug/L	0.245	2	10540	30387	1
|	Se	82	17.096	ug/L	0.418	2	0	4245	2
|	Se	78	17.203	ug/L	0.435	2	10716	22241	0
[	Mo	98	4.570	ug/L	0.095	2	12	24749	1
	Y	89		ug/L			407553	488414	1
	Kr	83		ug/L			373	551	5
[>	In	115		ug/L			1034700	1039543	0
|	Ag	107	5.294	ug/L	0.066	1	17	59003	0
|	Cd	111	6.295	ug/L	0.072	1	81	33114	0
|	Cd	114	6.306	ug/L	0.052	0	29	83916	0
|	Sb	121	0.141	ug/L	0.005	3	57	2301	3
|	Sb	123	0.138	ug/L	0.002	1	42	1696	0
|	Ba	135	135.559	ug/L	1.999	1	12	673587	1
[	Ba	137	133.899	ug/L	1.448	1	12	1162761	0
[>	Tb	159		ug/L			1245990	1219964	0
|	Tl	205	5.305	ug/L	0.052	0	75	220840	0
|	Pb	208	40.673	ug/L	0.251	0	181	2168523	0
|	Bi	209		ug/L			2867512	2802993	0
|	Th	232	5.942	ug/L	0.023	0	132	307414	0
[	U	238	5.385	ug/L	0.052	0	4	286305	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 J SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 14:18:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1531605	1
[	**Be**	**9**	**0.121**	ug/L	0.007	5	10	550	4
	C	**13**		ug/L			122688	154358	2
	Cl	**37**		ug/L			4809329	5076262	2
[>	**Sc**	**45**		ug/L			1221736	1287406	1
|	**V**	**51**	**4.192**	ug/L	0.120	2	8932	122683	1
|	**V-1**	**51**	**4.251**	ug/L	0.094	2	79	114336	1
|	**Cr**	**52**	**6.893**	ug/L	0.136	1	26512	181971	0
|	**Cr**	**53**	**7.148**	ug/L	0.113	1	164	17893	1
|	**Mn**	**55**	**477.813**	ug/L	8.702	1	526	14776983	0
[	**Co**	**59**	**2.445**	ug/L	0.074	3	57	54760	1
[>	**Ge**	**72**		ug/L			666235	651412	1
|	**Ni**	**60**	**6.548**	ug/L	0.078	1	11	28790	0
|	**Ni**	**62**	**0.118**	ug/L	0.255	215	4585	4555	2
|	**Cu**	**63**	**7.277**	ug/L	0.216	2	3389	74273	2
|	**Cu**	**65**	**7.620**	ug/L	0.147	1	47	33534	0
|	**Zn**	**66**	**177.590**	ug/L	2.662	1	115	467787	0
|	**Zn**	**67**	**164.357**	ug/L	2.375	1	14	72445	1
|	**Zn**	**68**	**175.928**	ug/L	5.496	3	160	336131	2
|	**As**	**75**	**5.234**	ug/L	0.123	2	82	11965	1
|	**As-1**	**75**	**5.290**	ug/L	0.148	2	10540	22558	0
|	**Se**	**82**	**0.124**	ug/L	0.024	19	0	29	18
|	**Se**	**78**	**0.777**	ug/L	0.133	17	10716	10997	0
[	**Mo**	**98**	**0.098**	ug/L	0.005	5	12	533	4
	Y	**89**		ug/L			407553	451288	1
	Kr	**83**		ug/L			373	461	2
[>	**In**	**115**		ug/L			1034700	1056101	0
|	**Ag**	**107**	**0.100**	ug/L	0.003	3	17	1147	3
|	**Cd**	**111**	**3.598**	ug/L	0.020	0	81	19266	0
|	**Cd**	**114**	**3.521**	ug/L	0.037	1	29	47612	1
|	**Sb**	**121**	**0.174**	ug/L	0.004	2	57	2855	2
|	**Sb**	**123**	**0.168**	ug/L	0.001	0	42	2086	0
|	**Ba**	**135**	**110.237**	ug/L	0.771	0	12	556505	0
[	**Ba**	**137**	**108.947**	ug/L	0.697	0	12	961177	0
[>	**Tb**	**159**		ug/L			1245990	1217713	0
|	**Tl**	**205**	**0.165**	ug/L	0.001	0	75	6928	0
|	**Pb**	**208**	**133.524**	ug/L	1.845	1	181	7104871	0
|	**Bi**	**209**		ug/L			2867512	2805292	0
|	**Th**	**232**	**1.291**	ug/L	0.021	1	132	66743	1
[	**U**	**238**	**0.073**	ug/L	0.001	1	4	3900	1

VS19 : 00408

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 14:22:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1578371	2
	Be	9	0.122	ug/L	0.002	1	10	572	1
	C	13		ug/L			122688	152273	1
	Cl	37		ug/L			4809329	5152571	1
>	Sc	45		ug/L			1221736	1314600	0
	V	51	5.296	ug/L	0.089	1	8932	155758	1
	V-1	51	5.327	ug/L	0.016	0	79	146325	0
	Cr	52	5.155	ug/L	0.226	4	26512	146150	2
	Cr	53	5.262	ug/L	0.138	2	164	13498	2
	Mn	55	132.707	ug/L	2.319	1	526	4191434	0
	Co	59	1.692	ug/L	0.032	1	57	38726	2
>	Ge	72		ug/L			666235	649927	1
	Ni	60	5.061	ug/L	0.073	1	11	22201	1
	Ni	62	-1.341	ug/L	0.155	11	4585	3641	1
	Cu	63	4.456	ug/L	0.018	0	3389	46662	1
	Cu	65	4.647	ug/L	0.076	1	47	20426	2
	Zn	66	65.745	ug/L	1.269	1	115	172834	0
	Zn	67	60.493	ug/L	0.389	0	14	26614	2
	Zn	68	64.918	ug/L	1.852	2	160	123843	1
	As	75	4.327	ug/L	0.045	1	82	9883	1
	As-1	75	4.427	ug/L	0.145	3	10540	20509	0
	Se	82	0.118	ug/L	0.014	12	0	28	10
	Se	78	0.844	ug/L	0.380	45	10716	11014	0
	Mo	98	0.067	ug/L	0.005	7	12	368	5
	Y	89		ug/L			407553	455103	1
	Kr	83		ug/L			373	446	3
>	In	115		ug/L			1034700	1030369	0
	Ag	107	0.064	ug/L	0.001	1	17	723	1
	Cd	111	1.368	ug/L	0.031	2	81	7195	2
	Cd	114	1.342	ug/L	0.016	1	29	17728	1
	Sb	121	0.049	ug/L	0.003	6	57	826	5
	Sb	123	0.051	ug/L	0.002	3	42	645	4
	Ba	135	34.443	ug/L	0.120	0	12	169649	0
	Ba	137	34.099	ug/L	0.446	1	12	293513	1
>	Tb	159		ug/L			1245990	1221974	0
	Tl	205	0.056	ug/L	0.001	1	75	2405	1
	Pb	208	47.029	ug/L	0.123	0	181	2511464	0
	Bi	209		ug/L			2867512	2848778	1
	Th	232	0.835	ug/L	0.007	0	132	43378	0
	U	238	0.125	ug/L	0.001	0	4	6656	0

VS19 : 00409

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 14:26:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1578983	2
[	Be	9	0.587	ug/L	0.036	6	10	2714	3
	C	13		ug/L			122688	188815	1
	Cl	37		ug/L			4809329	5155170	2
[>	Sc	45		ug/L			1221736	1407761	0
[	V	51	27.145	ug/L	0.412	1	8932	812476	0
[	V-1	51	27.169	ug/L	0.488	1	79	798652	1
[	Cr	52	23.322	ug/L	0.460	1	26512	600550	1
[	Cr	53	23.332	ug/L	0.301	1	164	63441	1
[	Mn	55	1264.742	ug/L	38.345	3	526	42772417	2
[	Co	59	8.084	ug/L	0.105	1	57	197852	1
[>	Ge	72		ug/L			666235	651041	0
[	Ni	60	24.218	ug/L	0.449	1	11	106401	1
[	Ni	62	18.599	ug/L	0.660	3	4585	16023	1
[	Cu	63	28.684	ug/L	0.417	1	3389	282922	2
[	Cu	65	29.457	ug/L	0.632	2	47	129446	2
[	Zn	66	566.896	ug/L	15.888	2	115	1492254	2
[	Zn	67	524.137	ug/L	14.427	2	14	230833	1
[	Zn	68	547.484	ug/L	3.613	0	160	1045333	1
[	As	75	34.253	ug/L	0.333	0	82	77829	0
[	As-1	75	33.691	ug/L	0.413	1	10540	88292	0
[	Se	82	0.093	ug/L	0.062	66	0	22	69
[	Se	78	0.957	ug/L	0.294	30	10716	11110	1
[	Mo	98	0.520	ug/L	0.013	2	12	2795	3
	Y	89		ug/L			407553	554751	2
	Kr	83		ug/L			373	792	2
[>	In	115		ug/L			1034700	1056766	1
[	Ag	107	0.397	ug/L	0.002	0	17	4519	2
[	Cd	111	13.388	ug/L	0.347	2	81	71484	1
[	Cd	114	13.256	ug/L	0.261	1	29	179247	0
[	Sb	121	0.431	ug/L	0.008	1	57	7007	0
[	Sb	123	0.425	ug/L	0.010	2	42	5220	0
[	Ba	135	371.656	ug/L	6.769	1	12	1876978	0
[	Ba	137	387.030	ug/L	7.691	1	12	3415925	0
[>	Tb	159		ug/L			1245990	1244124	0
[	Tl	205	0.503	ug/L	0.009	1	75	21423	1
[	Pb	208	494.268	ug/L	4.289	0	181	26871449	0
[	Bi	209		ug/L			2867512	2774929	0
[	Th	232	4.643	ug/L	0.050	1	132	244965	0
[	U	238	0.605	ug/L	0.007	1	4	32782	0

ICP-MS Quantitative Analysis - Summary Report

Ag. Be. Se

Sample ID: VS19 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 14:31:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1576904 ✓	1
[	**Be**	**9**	**0.653**	ug/L	0.017	2	10	3015	2
	C	**13**		ug/L			122688	171786	1
	Cl	**37**		ug/L			4809329	5171882	1
[>	**Sc**	**45**		ug/L			1221736	1422299	1
[	**V**	**51**	**25.661**	ug/L	0.650	2	8932	776675	3
[	**V-1**	**51**	**25.599**	ug/L	0.686	2	79	760333	2
[	**Cr**	**52**	**30.247**	ug/L	0.210	0	26512	777776	1
[	**Cr**	**53**	**30.115**	ug/L	0.783	2	164	82662	1
[	**Mn**	**55**	**1399.059**	ug/L	12.737	0	526	47803803	0
[	**Co**	**59**	**10.422**	ug/L	0.288	2	57	257656	1
[>	**Ge**	**72**		ug/L			666235	640272 ✓	0
[	**Ni**	**60**	**34.199**	ug/L	1.297	3	11	147772	4
[	**Ni**	**62**	**29.305**	ug/L	0.645	2	4585	22298	2
[	**Cu**	**63**	**33.174**	ug/L	0.297	0	3389	321264	0
[	**Cu**	**65**	**33.334**	ug/L	0.182	0	47	144044	0
[	**Zn**	**66**	**364.098**	ug/L	0.733	0	115	942636	0
[	**Zn**	**67**	**356.613**	ug/L	6.848	1	14	154480	1
[	**Zn**	**68**	**367.336**	ug/L	9.450	2	160	689720	1
[	**As**	**75**	**33.824**	ug/L	0.419	1	82	75582	0
[	**As-1**	**75**	**33.298**	ug/L	0.479	1	10540	85934	0
[	**Se**	**82**	**0.084**	ug/L	0.072	85	0	19	87
[	**Se**	**78**	**1.074**	ug/L	0.279	25	10716	11003	0
[	**Mo**	**98**	**0.533**	ug/L	0.009	1	12	2814	1
	Y	**89**		ug/L			407553	627819	1
	Kr	**83**		ug/L			373	805	5
[>	**In**	**115**		ug/L			1034700	1017983 ✓	1
[	**Ag**	**107**	**0.283**	ug/L	0.003	1	17	3102	0
[	**Cd**	**111**	**10.337**	ug/L	0.046	0	81	53198	0
[	**Cd**	**114**	**10.330**	ug/L	0.112	1	29	134580	0
[	**Sb**	**121**	**0.223**	ug/L	0.003	1	57	3526	0
[	**Sb**	**123**	**0.226**	ug/L	0.005	2	42	2685	1
[	**Ba**	**135**	**398.804**	ug/L	4.187	1	12	1940494	1
[	**Ba**	**137**	**413.556**	ug/L	3.413	0	12	3516852	1
[>	**Tb**	**159**		ug/L			1245990	1217344	0
[	**Tl**	**205**	**0.345**	ug/L	0.007	2	75	14418	2
[	**Pb**	**208**	**361.951**	ug/L	3.026	0	181	19254123	0
[	**Bi**	**209**		ug/L			2867512	2715913	0
[	**Th**	**232**	**5.887**	ug/L	0.096	1	132	303897	1
[	**U**	**238**	**0.413**	ug/L	0.003	0	4	21932	0

VS19:00411

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 J SWN
Sample Dil Factor: 20
Comments:

Ag Be Se

Sample Date/Time: Monday, November 26, 2012 14:36:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1452181	1554771	2
	Be	**9**	**0.572**	ug/L	0.018	3	10	2604	1
	C	**13**		ug/L			122688	227940	0
	Cl	**37**		ug/L			4809329	5423451	3
>	**Sc**	**45**		ug/L			1221736	1360861	1
	V	**51**	**19.877**	ug/L	0.413	2	8932	577714	0
	V-1	**51**	**19.798**	ug/L	0.298	1	79	562594	0
	Cr	**52**	**32.191**	ug/L	0.100	0	26512	790078	1
	Cr	**53**	**32.148**	ug/L	0.733	2	164	84443	3
	Mn	**55**	**2122.108**	ug/L	62.115	2	526	69364372	1
	Co	**59**	**11.103**	ug/L	0.191	1	57	262656	1
>	**Ge**	**72**		ug/L			666235	630552	1
	Ni	**60**	**31.214**	ug/L	0.626	2	11	132828	2
	Ni	**62**	**26.722**	ug/L	0.474	1	4585	20403	0
	Cu	**63**	**35.216**	ug/L	0.955	2	3389	335618	1
	Cu	**65**	**36.356**	ug/L	0.949	2	47	154690	1
	Zn	**66**	**912.219**	ug/L	2.630	0	115	2325753	1
	Zn	**67**	**801.940**	ug/L	5.747	0	14	342132	1
	Zn	**68**	**850.027**	ug/L	17.887	2	160	1571563	0
	As	**75**	**25.499**	ug/L	0.207	0	82	56134	0
	As-1	**75**	**25.162**	ug/L	0.286	1	10540	66389	0
	Se	**82**	**0.417**	ug/L	0.101	24	0	98	24
	Se	**78**	**1.428**	ug/L	0.247	17	10716	11066	1
	Mo	**98**	**0.467**	ug/L	0.007	1	12	2432	1
	Y	**89**		ug/L			407553	600589	1
	Kr	**83**		ug/L			373	753	9
>	**In**	**115**		ug/L			1034700	1132879	0
	Ag	**107**	**0.445**	ug/L	0.016	3	17	5420	3
	Cd	**111**	**15.565**	ug/L	0.329	2	81	89102	1
	Cd	**114**	**15.427**	ug/L	0.031	0	29	223671	0
	Sb	**121**	**0.757**	ug/L	0.001	0	57	13139	0
	Sb	**123**	**0.767**	ug/L	0.012	1	42	10049	1
	Ba	**135**	**528.319**	ug/L	2.305	0	12	2860958	0
	Ba	**137**	**512.856**	ug/L	4.446	0	12	4853495	0
>	**Tb**	**159**		ug/L			1245990	1214048	0
	Tl	**205**	**0.771**	ug/L	0.004	0	75	32022	0
	Pb	**208**	**651.737**	ug/L	4.888	0	181	34576029	0
	Bi	**209**		ug/L			2867512	2703275	0
	Th	**232**	**6.029**	ug/L	0.042	0	132	310377	0
	U	**238**	**0.361**	ug/L	0.007	1	4	19079	1

VS19 : 80412

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 14:40:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1569952	0
	Be	9	0.567	ug/L	0.018	3	10	2609	3
	C	13		ug/L			122688	190129	0
	Cl	37		ug/L			4809329	5098731	2
>	Sc	45		ug/L			1221736	1395071	2
	V	51	25.200	ug/L	0.636	2	8932	748000	2
	V-1	51	25.375	ug/L	0.734	2	79	738886	1
	Cr	52	24.006	ug/L	0.296	1	26512	611656	2
	Cr	53	24.587	ug/L	0.824	3	164	66202	0
	Mn	55	599.575	ug/L	18.871	3	526	20084028	0
	Co	59	7.703	ug/L	0.260	3	57	186728	0
>	Ge	72		ug/L			666235	655471 ✓	1
	Ni	60	24.010	ug/L	0.519	2	11	106193	1
	Ni	62	19.146	ug/L	0.361	1	4585	16475	0
	Cu	63	22.542	ug/L	0.488	2	3389	224535	1
	Cu	65	22.627	ug/L	0.280	1	47	100111	0
	Zn	66	306.739	ug/L	7.743	2	115	812877	1
	Zn	67	288.686	ug/L	1.035	0	14	128028	0
	Zn	68	299.134	ug/L	4.721	1	160	575055	0
	As	75	20.595	ug/L	0.250	1	82	47144	0
	As-1	75	20.254	ug/L	0.287	1	10540	57574	0
	Se	82	~ 0.121	ug/L	0.033	27	0	29	28
	Se	78	0.753	ug/L	0.193	25	10716	11049	0
	Mo	98	0.341	ug/L	0.005	1	12	1846	0
	Y	89		ug/L			407553	580324	1
	Kr	83		ug/L			373	734	3
>	In	115		ug/L			1034700	1042715 ✓	0
	Ag	107	0.286	ug/L	0.007	2	17	3209	2
	Cd	111	6.534	ug/L	0.092	1	81	34472	0
	Cd	114	6.400	ug/L	0.027	0	29	85426	0
	Sb	121	0.222	ug/L	0.001	0	57	3594	0
	Sb	123	0.236	ug/L	0.005	2	42	2877	1
	Ba	135	168.902	ug/L	2.582	1	12	841808	1
	Ba	137	167.291	ug/L	1.823	1	12	1457245	1
>	Tb	159		ug/L			1245990	1226746	1
	Tl	205	0.267	ug/L	0.007	2	75	11264	1
	Pb	208	242.557	ug/L	2.557	1	181	13002271	0
	Bi	209		ug/L			2867512	2744414	0
	Th	232	4.002	ug/L	0.073	1	132	208212	0
	U	238	0.615	ug/L	0.001	0	4	32880	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 14:44:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			1452181	1492439 ✓	1
Be	9	53.209	ug/L	1.279	2	10	231802	1
C	13		ug/L			122688	140028	0
Cl	37		ug/L			4809329	5272039	0
Sc	45		ug/L			1221736	1261935 ✓	0
V	51	49.024	ug/L	0.439	0	8932	1308041	1
V-1	51	49.336	ug/L	0.582	1	79	1300133	1
Cr	52	49.731	ug/L	0.835	1	26512	1116966	2
Cr	53	50.826	ug/L	1.801	3	164	123688	3
Mn	55	49.828	ug/L	0.929	1	526	1511237	2
Co	59	47.720	ug/L	1.308	2	57	1046682	2
Ge	72		ug/L			666235	629137 ✓	2
Ni	60	51.650	ug/L	1.664	3	11	219186	1
Ni	62	44.615	ug/L	0.994	2	4585	31096	3
Cu	63	51.239	ug/L	0.793	1	3389	485775	1
Cu	65	51.137	ug/L	1.464	2	47	217079	2
Zn	66	52.251	ug/L	1.420	2	115	132972	1
Zn	67	51.928	ug/L	0.936	1	14	22110	0
Zn	68	52.098	ug/L	1.005	1	160	96245	1
As	75	51.837	ug/L	0.952	1	82	113762	1
As-1	75	51.659	ug/L	1.137	2	10540	125491	0
Se	82	53.747	ug/L	1.233	2	0	12739	1
Se	78	53.106	ug/L	1.924	3	10716	44414	0
Mo	98	52.551	ug/L	1.796	3	12	271490	1
Y	89		ug/L			407553	404882	1
Kr	83		ug/L			373	468	1
In	115		ug/L			1034700	991971 ✓	1
Ag	107	54.729 ✓	ug/L	2.222	4	17	581762	2
Cd	111	52.313	ug/L	0.580	1	81	262016	0
Cd	114	52.573	ug/L	1.219	2	29	667233	1
Sb	121	52.022	ug/L	1.159	2	57	787073	0
Sb	123	52.067	ug/L	1.333	2	42	594641	1
Ba	135	50.823	ug/L	0.914	1	12	240951	0
Ba	137	49.764	ug/L	0.920	1	12	412313	0
Tb	159		ug/L			1245990	1181680 ✓	0
Tl	205	52.437	ug/L	2.966	5	75	2113580	5
Pb	208	50.657	ug/L	0.503	0	181	2615953	0
Bi	209		ug/L			2867512	2702186	1
Th	232	53.589	ug/L	0.214	0	132	2684271	0
U	238	54.479 ✓	ug/L	0.172	0	4	2805394	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 14:51:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1485781 ✓	1
	Be	9	0.002	ug/L	0.002	87	10	19	40
	C	13		ug/L			122688	139708	1
	Cl	37		ug/L			4809329	5083139	1
>	Sc	45		ug/L			1221736	1219885 ✓	2
	V	51	0.022	ug/L	0.010	43	8932	9480	0
	V-1	51	-0.000	ug/L	0.001	1728	79	78	16
	Cr	52	0.075	ug/L	0.033	43	26512	28044	0
	Cr	53	-0.001	ug/L	0.004	516	164	162	5
	Mn	55	0.006	ug/L	0.005	92	526	694	23
	Co	59	0.002	ug/L	0.001	37	57	94	12
>	Ge	72		ug/L			666235	625390 ✓	0
	Ni	60	0.002	ug/L	0.000	5	11	20	2
	Ni	62	-6.625	ug/L	0.024	0	4585	353	3
	Cu	63	-0.306	ug/L	0.001	0	3389	311	2
	Cu	65	0.000	ug/L	0.001	459	47	45	12
	Zn	66	0.016	ug/L	0.005	30	115	149	8
	Zn	67	0.028	ug/L	0.008	27	14	25	12
	Zn	68	0.014	ug/L	0.009	65	160	176	9
	As	75	0.030	ug/L	0.009	31	82	141	14
	As-1	75	0.400	ug/L	0.027	6	10540	10783	0
	Se	82	0.026	ug/L	0.045	172	0	5	190
	Se	78	1.388	ug/L	0.072	5	10716	10950	0
	Mo	98	0.006	ug/L	0.002	31	12	43	22
	Y	89		ug/L			407553	394127	1
	Kr	83		ug/L			373	418	3
>	In	115		ug/L			1034700	978366 ✓	0
	Ag	107	0.001	ug/L	0.001	62	17	30	29
	Cd	111	0.000	ug/L	0.003	1052	81	78	18
	Cd	114	0.001	ug/L	0.001	94	29	40	29
	Sb	121	0.056	ug/L	0.006	10	57	895	8
	Sb	123	0.058	ug/L	0.006	9	42	690	8
	Ba	135	0.002	ug/L	0.000	16	12	19	5
	Ba	137	0.002	ug/L	0.001	40	12	30	25
>	Tb	159		ug/L			1245990	1145285 ✓	0
	Tl	205	0.007	ug/L	0.002	28	75	328	22
	Pb	208	0.004	ug/L	0.001	33	181	344	17
	Bi	209		ug/L			2867512	2704747	0
	Th	232	0.129	ug/L	0.011	8	132	6378	7
	U	238	0.002	ug/L	0.000	5	4	110	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:16:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be, Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1494885	2
[	**Be**	**9**	**0.000**	ug/L	0.000	59	10	12	8
	C	**13**		ug/L			122688	144146	1
	Cl	**37**		ug/L			4809329	4973994	3
[>	**Sc**	**45**		ug/L			1221736	1226202	2
[	**V**	**51**	**0.021**	ug/L	0.010	46	8932	9502	1
[	**V-1**	**51**	**0.000**	ug/L	0.000	34	79	91	4
[	**Cr**	**52**	**0.074**	ug/L	0.033	44	26512	28173	1
[	**Cr**	**53**	**0.004**	ug/L	0.005	123	164	174	5
[	**Mn**	**55**	**0.032**	ug/L	0.001	1	526	1482	1
[	**Co**	**59**	**0.002**	ug/L	0.000	19	57	96	5
[>	**Ge**	**72**		ug/L			666235	618099	2
[	**Ni**	**60**	**0.006**	ug/L	0.001	20	11	34	13
[	**Ni**	**62**	**-6.623**	ug/L	0.023	0	4585	350	2
[	**Cu**	**63**	**-0.301**	ug/L	0.001	0	3389	357	4
[	**Cu**	**65**	**0.006**	ug/L	0.002	41	47	67	13
[	**Zn**	**66**	**0.146**	ug/L	0.010	6	115	471	4
[	**Zn**	**67**	**0.134**	ug/L	0.018	13	14	69	12
[	**Zn**	**68**	**0.149**	ug/L	0.011	7	160	418	2
[	**As**	**75**	**0.023**	ug/L	0.012	50	82	125	19
[	**As-1**	**75**	**0.499**	ug/L	0.099	19	10540	10873	0
[	**Se**	**82**	**-0.025**	ug/L	0.022	88	0	-6	82
[	**Se**	**78**	**1.754**	ug/L	0.364	20	10716	11051	0
[	**Mo**	**98**	**0.001**	ug/L	0.001	46	12	17	19
	Y	**89**		ug/L			407553	402232	2
	Kr	**83**		ug/L			373	452	4
[>	**In**	**115**		ug/L			1034700	980063	2
[	**Ag**	**107**	**0.000**	ug/L	0.000	16	17	21	4
[	**Cd**	**111**	**0.001**	ug/L	0.001	44	81	84	3
[	**Cd**	**114**	**0.001**	ug/L	0.000	12	29	39	3
[	**Sb**	**121**	**0.014**	ug/L	0.003	19	57	269	17
[	**Sb**	**123**	**0.015**	ug/L	0.004	25	42	211	22
[	**Ba**	**135**	**0.011**	ug/L	0.002	18	12	65	14
[	**Ba**	**137**	**0.012**	ug/L	0.001	11	12	106	8
[>	**Tb**	**159**		ug/L			1245990	1150843	0
[	**Tl**	**205**	**0.003**	ug/L	0.001	36	75	178	22
[	**Pb**	**208**	**0.008**	ug/L	0.000	4	181	590	3
[	**Bi**	**209**		ug/L			2867512	2736891	0
[	**Th**	**232**	**0.039**	ug/L	0.008	20	132	2041	19
[	**U**	**238**	**0.000**	ug/L	0.000	77	4	13	56

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:20:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be, Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1489490	2
[	Be	9	27.029	ug/L	1.577	5	10	117437	3
	C	13		ug/L			122688	143737	0
	Cl	37		ug/L			4809329	5019923	1
[>	Sc	45		ug/L			1221736	1253013	2
[	V	51	25.024	ug/L	0.190	0	8932	667370	1
[	V-1	51	25.129	ug/L	0.335	1	79	657432	1
[	Cr	52	25.890	ug/L	0.337	1	26512	590384	2
[	Cr	53	26.268	ug/L	0.730	2	164	63535	1
[	Mn	55	25.532	ug/L	0.991	3	526	768779	2
[	Co	59	24.924	ug/L	0.229	0	57	542822	1
[>	Ge	72		ug/L			666235	633744	0
[	Ni	60	27.233	ug/L	0.098	0	11	116468	0
[	Ni	62	21.416	ug/L	0.824	3	4585	17299	2
[	Cu	63	27.535	ug/L	0.093	0	3389	264491	0
[	Cu	65	27.979	ug/L	0.327	1	47	119674	0
[	Zn	66	86.484	ug/L	2.508	2	115	221677	2
[	Zn	67	80.424	ug/L	0.235	0	14	34495	0
[	Zn	68	85.156	ug/L	1.903	2	160	158386	1
[	As	75	26.091	ug/L	0.089	0	82	57730	1
[	As-1	75	26.875	ug/L	0.373	1	10540	70592	1
[	Se	82	87.375	ug/L	1.060	1	0	20867	1
[	Se	78	85.990	ug/L	0.181	0	10716	66158	0
[	Mo	98	25.489	ug/L	0.485	1	12	132720	2
	Y	89		ug/L			407553	409954	1
	Kr	83		ug/L			373	431	4
[>	In	115		ug/L			1034700	996397	1
[	Ag	107	28.573	ug/L	0.382	1	17	305231	2
[	Cd	111	26.744	ug/L	0.257	0	81	134598	1
[	Cd	114	26.395	ug/L	0.552	2	29	336541	1
[	Sb	121	26.030	ug/L	0.599	2	57	395649	1
[	Sb	123	26.027	ug/L	0.274	1	42	298650	0
[	Ba	135	26.319	ug/L	0.488	1	12	125348	1
[	Ba	137	25.836	ug/L	0.257	0	12	215050	0
[>	Tb	159		ug/L			1245990	1167699	0
[	Tl	205	26.626	ug/L	0.127	0	75	1060675	0
[	Pb	208	27.373	ug/L	0.082	0	181	1396924	0
[	Bi	209		ug/L			2867512	2743968	1
[	Th	232	25.601	ug/L	0.270	1	132	1267270	0
[	U	238	25.899	ug/L	0.064	0	4	1317863	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 K SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 15:24:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1548072	0
[	Be	9	0.144	ug/L	0.005	3	10	662	3
	C	13		ug/L			122688	147168	2
	Cl	37		ug/L			4809329	5141143	0
[>	Sc	45		ug/L			1221736	1310562	0
[	V	51	5.792	ug/L	0.057	0	8932	168943	0
[	V-1	51	5.824	ug/L	0.064	1	79	159457	0
[	Cr	52	6.701	ug/L	0.110	1	26512	180914	1
[	Cr	53	6.829	ug/L	0.094	1	164	17409	0
[	Mn	55	314.770	ug/L	3.543	1	526	9910750	0
[	Co	59	2.346	ug/L	0.040	1	57	53493	1
[>	Ge	72		ug/L			666235	661004	1
[	Ni	60	7.243	ug/L	0.102	1	11	32318	2
[	Ni	62	0.469	ug/L	0.049	10	4585	4845	1
[	Cu	63	6.634	ug/L	0.120	1	3389	69008	0
[	Cu	65	6.996	ug/L	0.145	2	47	31253	3
[	Zn	66	88.732	ug/L	2.966	3	115	237201	2
[	Zn	67	84.929	ug/L	1.006	1	14	37991	0
[	Zn	68	88.436	ug/L	1.531	1	160	171552	0
[	As	75	6.947	ug/L	0.065	0	82	16091	0
[	As-1	75	6.972	ug/L	0.100	1	10540	26844	0
[	Se	82	0.043	ug/L	0.027	62	0	10	66
[	Se	78	0.715	ug/L	0.130	18	10716	11116	0
[	Mo	98	0.118	ug/L	0.004	3	12	654	2
	Y	89		ug/L			407553	454919	1
	Kr	83		ug/L			373	475	3
[>	In	115		ug/L			1034700	1015111	0
[	Ag	107	0.061	ug/L	0.004	7	17	677	6
[	Cd	111	2.217	ug/L	0.040	1	81	11441	1
[	Cd	114	2.187	ug/L	0.033	1	29	28435	1
[	Sb	121	0.070	ug/L	0.007	9	57	1141	9
[	Sb	123	0.072	ug/L	0.001	1	42	883	1
[	Ba	135	81.993	ug/L	0.771	0	12	397864	1
[	Ba	137	82.028	ug/L	0.478	0	12	695607	0
[>	Tb	159		ug/L			1245990	1204658	1
[	Tl	205	0.074	ug/L	0.002	2	75	3132	1
[	Pb	208	75.341	ug/L	0.587	0	181	3966143	0
[	Bi	209		ug/L			2867512	2810584	0
[	Th	232	1.489	ug/L	0.012	0	132	76156	1
[	U	238	0.089	ug/L	0.002	2	4	4653	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:28:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1530706	0
[	**Be**	**9**	**0.559**	ug/L	0.019	3	10	2507	3
	C	**13**		ug/L			122688	205645	1
	Cl	**37**		ug/L			4809329	5140367	0
[>	**Sc**	**45**		ug/L			1221736	1399525	1
[	**V**	**51**	**41.018**	ug/L	1.127	2	8932	1214969	0
[	**V-1**	**51**	**41.376**	ug/L	1.041	2	79	1208851	0
[	**Cr**	**52**	**32.735**	ug/L	0.365	1	26512	825643	0
[	**Cr**	**53**	**33.822**	ug/L	0.156	0	164	91341	1
[	**Mn**	**55**	**1060.314**	ug/L	10.634	1	526	35647872	1
[	**Co**	**59**	**8.818**	ug/L	0.340	3	57	214507	3
[>	**Ge**	**72**		ug/L			666235	639522	0
[	**Ni**	**60**	**23.358**	ug/L	0.422	1	11	100801	1
[	**Ni**	**62**	**18.725**	ug/L	0.718	3	4585	15817	2
[	**Cu**	**63**	**35.479**	ug/L	0.467	1	3389	342956	0
[	**Cu**	**65**	**35.911**	ug/L	0.296	0	47	154995	0
[	**Zn**	**66**	**368.169**	ug/L	3.578	0	115	952037	0
[	**Zn**	**67**	**366.178**	ug/L	8.548	2	14	158430	1
[	**Zn**	**68**	**382.576**	ug/L	5.830	1	160	717540	0
[	**As**	**75**	**11.552**	ug/L	0.192	1	82	25835	1
[	**As-1**	**75**	**11.533**	ug/L	0.196	1	10540	36343	0
[	**Se**	**82**	**0.027**	ug/L	0.023	82	0	6	90
[	**Se**	**78**	**1.241**	ug/L	0.047	3	10716	11101	0
[	**Mo**	**98**	**0.436**	ug/L	0.006	1	12	2301	1
	Y	**89**		ug/L			407553	569301	1
	Kr	**83**		ug/L			373	775	3
[>	**In**	**115**		ug/L			1034700	1046815	1
[	**Ag**	**107**	**0.206**	ug/L	0.002	1	17	2332	0
[	**Cd**	**111**	**7.269**	ug/L	0.046	0	81	38492	0
[	**Cd**	**114**	**7.236**	ug/L	0.087	1	29	96947	0
[	**Sb**	**121**	**0.362**	ug/L	0.003	0	57	5832	1
[	**Sb**	**123**	**0.353**	ug/L	0.010	2	42	4303	3
[	**Ba**	**135**	**554.699**	ug/L	1.354	0	12	2775540	0
[	**Ba**	**137**	**544.384**	ug/L	10.012	1	12	4759870	0
[>	**Tb**	**159**		ug/L			1245990	1230182	0
[	**Tl**	**205**	**0.400**	ug/L	0.007	1	75	16870	1
[	**Pb**	**208**	**349.084**	ug/L	2.081	0	181	18766115	0
[	**Bi**	**209**		ug/L			2867512	2709500	0
[	**Th**	**232**	**4.674**	ug/L	0.015	0	132	243832	0
[	**U**	**238**	**0.868**	ug/L	0.007	0	4	46530	0

VS19:00419

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:32:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1452181	1565297 ✓	1
	Be	**9**	**1.164**	ug/L	0.021	1	10	5332	2
	C	**13**		ug/L			122688	260191	1
	Cl	**37**		ug/L			4809329	5314163	0
>	**Sc**	**45**		ug/L			1221736	1408899	1
	V	**51**	**24.203**	ug/L	0.246	1	8932	726088	0
	V-1	**51**	**24.383**	ug/L	0.315	1	79	717277	0
	Cr	**52**	**20.044**	ug/L	0.403	2	26512	520758	1
	Cr	**53**	**20.587**	ug/L	0.579	2	164	56028	1
	Mn	**55**	**5614.000**	ug/L	134.405	2	526	189976000	1
	Co	**59**	**20.752**	ug/L	0.334	1	57	508124	0
>	**Ge**	**72**		ug/L			666235	642476 ✓	0
	Ni	**60**	**49.375**	ug/L	1.945	3	11	214034	3
	Ni	**62**	**45.138**	ug/L	1.200	2	4585	32071	1
	Cu	**63**	**57.754**	ug/L	0.761	1	3389	558804	0
	Cu	**65**	**58.503**	ug/L	2.066	3	47	253614	2
	Zn	**66**	**1475.059**	ug/L	31.972	2	115	3831369	1
	Zn	**67**	**1297.582**	ug/L	37.158	2	14	563947	2
	Zn	**68**	**1445.298**	ug/L	21.754	1	160	2722980	1
	As	**75**	**53.754**	ug/L	0.972	1	82	120487	1
	As-1	**75**	**52.840**	ug/L	0.980	1	10540	130873	1
	Se	**82**	**1.248**	ug/L	0.065	5	0	301	4
	Se	**78**	**2.221**	ug/L	0.131	5	10716	11799	0
	Mo	**98**	**1.155**	ug/L	0.044	3	12	6105	3
	Y	**89**		ug/L			407553	723719	1
	Kr	**83**		ug/L			373	863	4
>	**In**	**115**		ug/L			1034700	1140494	1
	Ag	**107**	**0.659**	ug/L	0.031	4	17	8076	3
	Cd	**111**	**36.268**	ug/L	0.763	2	81	208870	1
	Cd	**114**	**35.929**	ug/L	1.043	2	29	524278	1
	Sb	**121**	**2.093**	ug/L	0.056	2	57	36463	1
	Sb	**123**	**2.067**	ug/L	0.047	2	42	27192	1
	Ba	**135**	**514.409**	ug/L	9.174	1	12	2803980	0
	Ba	**137**	**500.329**	ug/L	13.077	2	12	4765833	1
>	**Tb**	**159**		ug/L			1245990	1228374	0
	Tl	**205**	**1.093**	ug/L	0.003	0	75	45884	0
	Pb	**208**	**1153.439**	ug/L	13.628	1	181	61915084	1
	Bi	**209**		ug/L			2867512	2743767	0
	Th	**232**	**4.170**	ug/L	0.042	1	132	217238	0
	U	**238**	**0.739**	ug/L	0.004	0	4	39549	0

VS19:00420

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:36:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1563577	1
[	**Be**	**9**	**0.882**	ug/L	0.024	2	10	4037	1
	C	**13**		ug/L			122688	288849	0
	Cl	**37**		ug/L			4809329	5501311	1
[>	**Sc**	**45**		ug/L			1221736	1367836	1
	V	**51**	**18.895**	ug/L	0.239	1	8932	552483	0
	V-1	**51**	**18.872**	ug/L	0.354	1	79	538967	0
	Cr	**52**	**14.578**	ug/L	0.400	2	26512	375804	2
	Cr	**53**	**14.419**	ug/L	0.651	4	164	38143	2
	Mn	**55**	**5598.396**	ug/L	128.329	2	526	183919058	0
[	**Co**	**59**	**18.770**	ug/L	0.336	1	57	446201	0
[>	**Ge**	**72**		ug/L			666235	640703	2
	Ni	**60**	**39.944**	ug/L	0.880	2	11	172649	1
	Ni	**62**	**34.765**	ug/L	0.728	2	4585	25641	1
	Cu	**63**	**62.829**	ug/L	0.611	0	3389	605881	1
	Cu	**65**	**63.847**	ug/L	1.441	2	47	275965	1
	Zn	**66**	**1233.928**	ug/L	30.575	2	115	3195618	1
	Zn	**67**	**1084.071**	ug/L	24.103	2	14	469766	1
	Zn	**68**	**1197.571**	ug/L	26.991	2	160	2249352	1
	As	**75**	**21.971**	ug/L	0.481	2	82	49144	0
	As-1	**75**	**21.691**	ug/L	0.613	2	10540	59534	0
	Se	**82**	**1.256**	ug/L	0.081	6	0	302	6
	Se	**78**	**2.175**	ug/L	0.489	22	10716	11731	0
[	**Mo**	**98**	**1.083**	ug/L	0.023	2	12	5711	1
	Y	**89**		ug/L			407553	680571	1
	Kr	**83**		ug/L			373	769	5
[>	**In**	**115**		ug/L			1034700	1163038	0
	Ag	**107**	**0.946**	ug/L	0.009	0	17	11809	1
	Cd	**111**	**24.910**	ug/L	0.413	1	81	146329	1
	Cd	**114**	**24.933**	ug/L	0.512	2	29	371059	1
	Sb	**121**	**2.858**	ug/L	0.090	3	57	50755	2
	Sb	**123**	**2.859**	ug/L	0.032	1	42	38332	0
	Ba	**135**	**399.832**	ug/L	5.938	1	12	2222603	0
[	**Ba**	**137**	**394.437**	ug/L	3.211	0	12	3832028	0
[>	**Tb**	**159**		ug/L			1245990	1208926	0
	Tl	**205**	**0.912**	ug/L	0.013	1	75	37686	1
	Pb	**208**	**1598.799**	ug/L	9.275	0	181	84462776	0
	Bi	**209**		ug/L			2867512	2746637	1
	Th	**232**	**2.992**	ug/L	0.032	1	132	153450	1
[	**U**	**238**	**0.600**	ug/L	0.008	1	4	31606	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:40:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1617092	1
[	Be	9	2.372	ug/L	0.047	1	10	11205	0
	C	13		ug/L			122688	260484	1
	Cl	37		ug/L			4809329	5352770	2
[>	Sc	45		ug/L			1221736	1406812	0
[	V	51	28.015	ug/L	0.405	1	8932	837611	0
[	V-1	51	28.200	ug/L	0.359	1	79	828418	0
[	Cr	52	23.127	ug/L	0.507	2	26512	595305	1
[	Cr	53	23.677	ug/L	0.349	1	164	64329	0
[	Mn	55	4462.162	ug/L	110.765	2	526	150789665	1
[	Co	59	32.968	ug/L	0.627	1	57	806077	1
[>	Ge	72		ug/L			666235	629057	1
[	Ni	60	76.145	ug/L	1.977	2	11	323191	2
[	Ni	62	69.664	ug/L	2.920	4	4585	46103	2
[	Cu	63	67.282	ug/L	1.672	2	3389	636782	1
[	Cu	65	68.107	ug/L	1.382	2	47	289092	1
[	Zn	66	744.635	ug/L	10.511	1	115	1893764	0
[	Zn	67	699.868	ug/L	15.213	2	14	297812	1
[	Zn	68	732.924	ug/L	12.249	1	160	1351995	1
[	As	75	28.170	ug/L	0.193	0	82	61859	0
[	As-1	75	27.736	ug/L	0.210	0	10540	71991	0
[	Se	82	1.402	ug/L	0.110	7	0	331	6
[	Se	78	2.635	ug/L	0.155	5	10716	11819	0
[	Mo	98	1.559	ug/L	0.015	0	12	8065	0
	Y	89		ug/L			407553	942580	1
	Kr	83		ug/L			373	1113	4
[>	In	115		ug/L			1034700	1032629	1
[	Ag	107	0.962	ug/L	0.022	2	17	10661	1
[	Cd	111	11.756	ug/L	0.347	2	81	61340	1
[	Cd	114	11.649	ug/L	0.271	2	29	153915	0
[	Sb	121	0.732	ug/L	0.021	2	57	11583	1
[	Sb	123	0.720	ug/L	0.030	4	42	8595	2
[	Ba	135	352.499	ug/L	10.800	3	12	1739368	1
[	Ba	137	375.765	ug/L	9.995	2	12	3240414	0
[>	Tb	159		ug/L			1245990	1214246	0
[	Tl	205	0.427	ug/L	0.003	0	75	17778	1
[	Pb	208	548.527	ug/L	2.783	0	181	29105853	0
[	Bi	209		ug/L			2867512	2597639	0
[	Th	232	5.301	ug/L	0.061	1	132	272955	0
[	U	238	0.864	ug/L	0.005	0	4	45735	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:45:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1576229	0
[	Be	9	0.629	ug/L	0.013	2	10	2907	2
	C	13		ug/L			122688	197173	3
	Cl	37		ug/L			4809329	5148666	3
[>	Sc	45		ug/L			1221736	1395771	1
[	V	51	25.306	ug/L	0.242	0	8932	751628	0
[	V-1	51	25.450	ug/L	0.254	0	79	741739	0
[	Cr	52	21.524	ug/L	0.522	2	26512	551711	0
[	Cr	53	21.954	ug/L	0.568	2	164	59181	1
[	Mn	55	2830.101	ug/L	32.332	1	526	94889774	0
[	Co	59	9.225	ug/L	0.208	2	57	223797	0
[>	Ge	72		ug/L			666235	651699	1
[	Ni	60	28.549	ug/L	0.336	1	11	125545	0
[	Ni	62	24.310	ug/L	0.557	2	4585	19589	1
[	Cu	63	26.155	ug/L	0.382	1	3389	258499	0
[	Cu	65	26.776	ug/L	0.375	1	47	117776	1
[	Zn	66	425.843	ug/L	11.884	2	115	1121915	1
[	Zn	67	411.313	ug/L	1.264	0	14	181359	1
[	Zn	68	428.955	ug/L	7.363	1	160	819771	0
[	As	75	21.150	ug/L	0.159	0	82	48137	1
[	As-1	75	20.869	ug/L	0.199	0	10540	58669	0
[	Se	82	~ 0.117	ug/L	0.073	62	0	28	64
[	Se	78	1.099	ug/L	0.264	23	10716	11216	0
[	Mo	98	0.759	ug/L	0.008	1	12	4077	0
	Y	89		ug/L			407553	580203	1
	Kr	83		ug/L			373	820	5
[>	In	115		ug/L			1034700	1055091	0
[	Ag	107	0.297	ug/L	0.002	0	17	3381	0
[	Cd	111	7.523	ug/L	0.081	1	81	40149	0
[	Cd	114	7.484	ug/L	0.066	0	29	101072	1
[	Sb	121	0.365	ug/L	0.013	3	57	5925	3
[	Sb	123	0.363	ug/L	0.012	3	42	4449	2
[	Ba	135	429.455	ug/L	8.273	1	12	2165693	1
[	Ba	137	418.642	ug/L	5.951	1	12	3689619	0
[>	Tb	159		ug/L			1245990	1222897	0
[	Tl	205	0.431	ug/L	0.003	0	75	18058	0
[	Pb	208	347.916	ug/L	1.652	0	181	18592922	0
[	Bi	209		ug/L			2867512	2703502	0
[	Th	232	5.033	ug/L	0.009	0	132	261002	0
[	U	238	0.673	ug/L	0.005	0	4	35887	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:50:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1557415	1
[	**Be**	**9**	**0.719**	ug/L	0.020	2	10	3277	1
	C	**13**		ug/L			122688	178001	1
	Cl	**37**		ug/L			4809329	5164100	1
[>	**Sc**	**45**		ug/L			1221736	1440504	1
	V	**51**	**39.530**	ug/L	0.099	0	8932	1205942	0
	V-1	**51**	**39.877**	ug/L	0.129	0	79	1199529	0
	Cr	**52**	**30.627**	ug/L	0.524	1	26512	797159	1
	Cr	**53**	**31.665**	ug/L	0.552	1	164	88028	1
	Mn	**55**	**880.744**	ug/L	15.907	1	526	30478101	1
[	**Co**	**59**	**10.519**	ug/L	0.087	0	57	263424	1
[>	**Ge**	**72**		ug/L			666235	654684	0
	Ni	**60**	**29.290**	ug/L	0.726	2	11	129389	1
	Ni	**62**	**24.689**	ug/L	0.321	1	4585	19918	1
	Cu	**63**	**29.793**	ug/L	0.723	2	3389	295334	1
	Cu	**65**	**30.137**	ug/L	0.707	2	47	133160	2
	Zn	**66**	**162.152**	ug/L	3.781	2	115	429263	1
	Zn	**67**	**169.727**	ug/L	1.115	0	14	75187	0
	Zn	**68**	**165.362**	ug/L	2.624	1	160	317579	0
	As	**75**	**11.856**	ug/L	0.206	1	82	27140	0
	As-1	**75**	**11.693**	ug/L	0.259	2	10540	37575	0
	Se	**82**	**-0.234**	ug/L	0.032	13	0	-58	14
	Se	**78**	**0.770**	ug/L	0.240	31	10716	11047	1
[	**Mo**	**98**	**0.784**	ug/L	0.029	3	12	4227	4
	Y	**89**		ug/L			407553	659395	0
	Kr	**83**		ug/L			373	1007	2
[>	**In**	**115**		ug/L			1034700	987074	0
	Ag	**107**	**0.251**	ug/L	0.011	4	17	2675	3
	Cd	**111**	**2.442**	ug/L	0.012	0	81	12246	0
	Cd	**114**	**2.287**	ug/L	0.026	1	29	28916	0
	Sb	**121**	**0.063**	ug/L	0.002	3	57	997	3
	Sb	**123**	**0.063**	ug/L	0.001	1	42	755	1
	Ba	**135**	**260.524**	ug/L	2.528	0	12	1229151	0
[	**Ba**	**137**	**275.861**	ug/L	0.478	0	12	2274662	0
[>	**Tb**	**159**		ug/L			1245990	1221786	0
	Tl	**205**	**0.222**	ug/L	0.006	2	75	9333	1
	Pb	**208**	**79.428**	ug/L	0.400	0	181	4240759	0
	Bi	**209**		ug/L			2867512	2668218	0
	Th	**232**	**5.753**	ug/L	0.025	0	132	298065	0
[	**U**	**238**	**0.978**	ug/L	0.007	0	4	52080	1

VS19:00424

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:54:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1536649	0
	Be	9	0.445	ug/L	0.005	1	10	2005	0
	C	13		ug/L			122688	164510	2
	Cl	37		ug/L			4809329	5026111	2
>	Sc	45		ug/L			1221736	1404264	1
	V	51	32.235	ug/L	0.746	2	8932	960347	1
	V-1	51	32.375	ug/L	0.626	1	79	949234	1
	Cr	52	19.968	ug/L	0.513	2	26512	517154	0
	Cr	53	20.224	ug/L	0.362	1	164	54884	2
	Mn	55	1167.700	ug/L	35.322	3	526	39387351	2
	Co	59	8.056	ug/L	0.234	2	57	196634	1
>	Ge	72		ug/L			666235	649125	1
	Ni	60	19.615	ug/L	0.439	2	11	85911	0
	Ni	62	13.573	ug/L	0.045	0	4585	12868	1
	Cu	63	18.750	ug/L	0.754	4	3389	185472	2
	Cu	65	19.401	ug/L	0.493	2	47	84998	1
	Zn	66	197.209	ug/L	4.389	2	115	517598	1
	Zn	67	211.367	ug/L	2.599	1	14	92827	0
	Zn	68	209.861	ug/L	3.171	1	160	399556	0
	As	75	10.870	ug/L	0.215	1	82	24679	1
	As-1	75	10.776	ug/L	0.280	2	10540	35138	1
	Se	82	-0.105	ug/L	0.032	29	0	-26	28
	Se	78	0.781	ug/L	0.351	44	10716	10959	0
	Mo	98	0.307	ug/L	0.008	2	12	1649	3
	Y	89		ug/L			407553	560761	1
	Kr	83		ug/L			373	762	2
>	In	115		ug/L			1034700	1013435	1
	Ag	107	0.191	ug/L	0.006	2	17	2090	2
	Cd	111	2.737	ug/L	0.032	1	81	14081	2
	Cd	114	2.603	ug/L	0.059	2	29	33776	0
	Sb	121	0.129	ug/L	0.005	3	57	2045	2
	Sb	123	0.130	ug/L	0.009	6	42	1557	5
	Ba	135	511.178	ug/L	6.472	1	12	2475969	0
	Ba	137	498.611	ug/L	6.056	1	12	4220729	0
>	Tb	159		ug/L			1245990	1210442	0
	Tl	205	0.213	ug/L	0.002	0	75	8860	0
	Pb	208	95.833	ug/L	0.992	1	181	5069244	0
	Bi	209		ug/L			2867512	2678138	0
	Th	232	3.447	ug/L	0.050	1	132	176964	1
	U	238	0.385	ug/L	0.003	0	4	20321	0

VS19:00425

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 15:58:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1491441 ✓	1
[	Be	9	52.860	ug/L	1.678	3	10	230077	1
	C	13		ug/L			122688	140260	2
	Cl	37		ug/L			4809329	5401944	1
[>	Sc	45		ug/L			1221736	1266822 ✓	1
[	V	51	49.152	ug/L	2.099	4	8932	1315769	2
[	V-1	51	49.358	ug/L	1.734	3	79	1305159	1
[	Cr	52	49.836	ug/L	1.254	2	26512	1123205	0
[	Cr	53	50.563	ug/L	1.574	3	164	123529	3
[	Mn	55	49.463	ug/L	1.022	2	526	1505564	0
[	Co	59	48.254	ug/L	0.836	1	57	1062572	2
[>	Ge	72		ug/L			666235	641171 ✓	1
[	Ni	60	50.404	ug/L	0.974	1	11	218066	1
[	Ni	62	44.597	ug/L	0.489	1	4585	31674	0
[	Cu	63	51.143	ug/L	0.816	1	3389	494147	0
[	Cu	65	50.302	ug/L	0.986	1	47	217612	0
[	Zn	66	51.134	ug/L	1.394	2	115	132640	2
[	Zn	67	51.736	ug/L	0.440	0	14	22453	0
[	Zn	68	52.780	ug/L	2.013	3	160	99347	2
[	As	75	52.155	ug/L	1.400	2	82	116641	1
[	As-1	75	51.852	ug/L	1.604	3	10540	128325	1
[	Se	82	53.399	ug/L	0.826	1	0	12900	0
[	Se	78	52.354	ug/L	1.422	2	10716	44774	0
[	Mo	98	51.849	ug/L	1.241	2	12	273110	2
	Y	89		ug/L			407553	405374	1
	Kr	83		ug/L			373	463	8
[>	In	115		ug/L			1034700	984427 ✓	1
[	Ag	107	55.908	ug/L	1.000	1	17	589900	0
[	Cd	111	52.283	ug/L	0.766	1	81	259882	1
[	Cd	114	52.584	ug/L	0.448	0	29	662391	0
[	Sb	121	53.156	ug/L	0.347	0	57	798254	0
[	Sb	123	52.492	ug/L	0.988	1	42	594995	0
[	Ba	135	50.791	ug/L	0.857	1	12	238973	0
[	Ba	137	50.215	ug/L	0.356	0	12	412933	0
[>	Tb	159		ug/L			1245990	1174626 ✓	0
[	Tl	205	51.032	ug/L	2.451	4	75	2045293	5
[	Pb	208	51.199	ug/L	0.160	0	181	2628253	0
[	Bi	209		ug/L			2867512	2688477	0
[	Th	232	53.862	ug/L	0.252	0	132	2681913	1
[	U	238	54.969	ug/L	0.601	1	4	2813610	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 16:05:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1435095	2
[	**Be**	**9**	**0.003**	ug/L	0.001	35	10	23	19
	C	**13**		ug/L			122688	137586	1
	Cl	**37**		ug/L			4809329	5037037	1
[>	**Sc**	**45**		ug/L			1221736	1201906	3
[	**V**	**51**	**0.030**	ug/L	0.013	41	8932	9546	0
[	**V-1**	**51**	**0.005**	ug/L	0.007	122	79	211	74
[	**Cr**	**52**	**0.094**	ug/L	0.029	31	26512	28024	0
[	**Cr**	**53**	**0.009**	ug/L	0.011	127	164	181	11
[	**Mn**	**55**	**0.316**	ug/L	0.390	123	526	9412	114
[	**Co**	**59**	**0.005**	ug/L	0.003	71	57	153	42
[>	**Ge**	**72**		ug/L			666235	624589	2
[	**Ni**	**60**	**0.008**	ug/L	0.005	62	11	44	46
[	**Ni**	**62**	**-6.785**	ug/L	0.039	0	4585	257	7
[	**Cu**	**63**	**-0.306**	ug/L	0.006	1	3389	319	16
[	**Cu**	**65**	**0.008**	ug/L	0.007	84	47	78	35
[	**Zn**	**66**	**0.092**	ug/L	0.100	108	115	339	72
[	**Zn**	**67**	**0.099**	ug/L	0.090	90	14	55	66
[	**Zn**	**68**	**0.102**	ug/L	0.109	106	160	336	57
[	**As**	**75**	**0.029**	ug/L	0.001	4	82	140	2
[	**As-1**	**75**	**0.418**	ug/L	0.096	23	10540	10805	0
[	**Se**	**82**	**0.015**	ug/L	0.029	199	0	3	234
[	**Se**	**78**	**1.448**	ug/L	0.334	23	10716	10971	0
[	**Mo**	**98**	**0.009**	ug/L	0.002	16	12	59	12
	Y	**89**		ug/L			407553	382137	2
	Kr	**83**		ug/L			373	424	3
[>	**In**	**115**		ug/L			1034700	946368	3
[	**Ag**	**107**	**0.004**	ug/L	0.001	37	17	54	24
[	**Cd**	**111**	**0.004**	ug/L	0.004	93	81	93	17
[	**Cd**	**114**	**0.005**	ug/L	0.005	97	29	90	66
[	**Sb**	**121**	**0.059**	ug/L	0.003	4	57	911	7
[	**Sb**	**123**	**0.055**	ug/L	0.002	4	42	634	5
[	**Ba**	**135**	**0.054**	ug/L	0.066	121	12	254	114
[	**Ba**	**137**	**0.056**	ug/L	0.066	117	12	445	113
[>	**Tb**	**159**		ug/L			1245990	1098783	0
[	**Tl**	**205**	**0.008**	ug/L	0.001	16	75	352	14
[	**Pb**	**208**	**0.061**	ug/L	0.075	123	181	3075	116
[	**Bi**	**209**		ug/L			2867512	2639546	1
[	**Th**	**232**	**0.173**	ug/L	0.011	6	132	8190	7
[	**U**	**238**	**0.004**	ug/L	0.002	38	4	193	36

Mercury Analysis Log

Analyst: NB

Instrument: CETAC

Date: 11-23-12

Page: 1 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
STD 0.0	SMM	1x		
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV			8.49	Begin CLP %R=106 ✓
ICB			-0.01	✓
CCV1			4.18	%R=105 ✓
CCB1			0.01	✓
CRA			0.13	✓
VS96 MB1			0.01	✓
" MB1SPK			2.13	%R=107 ✓
" A			0.02	
" ADUP			0.01	No RPD: undetected ✓
" ASPK			1.13	%R=113 ✓
" B				
" C				
" D				
" E				
CCV2			4.24	%R=106 ✓
CCB2			-0.00	✓
VS96 F				
" G				
" H				
" I				
" J				
" K				
" L	↓	↓		

Chemical/Reagent ID:

10% $SnCl_2$: MP2395

14% NH_2OH/NaCl: MP2360

Standard ID:

Standard: 2993-14

ICV/CCV: 56-18

Mercury Analysis Log

Analyst: NB Date: 11-23-12

Instrument: CETAC Page: 2 of 5

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments	
VS96	M	SMM	1x			
"	~~*N~~ N					* NB 11-23-12
"	O					
CCV3				4.28	%R=107	✓
CCB3				0.00		✓
VS96	P					
"	Q					
"	R					
"	S					
"	T					
CCV4				4.26	%R=107	✓
CCB4				0.00		✓
VT06	MBI			0.00		✓
"	MBISPK			2.20	%R=110	✓
"	D			0.04		
"	DDUP			0.05	No RPD: undetected	✓
"	DSPK			1.16	%R=116	✓
"	E					
"	F					
"	G					
"	H					
CCV5				4.30	%R=108	✓
CCB5				-0.00		✓
VT06	I					
VS20	MBI			0.01		✓
"	MBISPK			2.18	%R=109	✓
"	A			1.59		
"	ADUP			1.59	RPD=0.00	✓
"	ASPK			2.59	%R=100	✓
"	B	↓	↓			

Chemical/Reagent ID:
10% $SnCl_2$: MP2395 14% NH_2OH/NaCl: MP2360

Standard ID:
Standard: 2993-14 ICV/CCV: 56-18

Mercury Analysis Log

Analyst: NB
Instrument: CETAC

All line-outs/corrections by: NB 11-23-12

Date: 11-23-12
Page: 3 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VS20 C	SMM	1x		
" D				
" E				
CCV6			4.24	%R = 106 ✓
CCB6			0.01	✓
VS20 F				
" G				
" H				
" I				
" J				
" K				
" L				
CCV7			4.37	%R = 109 ✓
CCB7			0.01	✓
VS82 MB1			0.01	✓
" MB1SPK			2.16	%R = 108 ✓
" A				
" B ~~ADUP~~				
" C ~~ASPK~~			0.16	-Spreadsheet typo:
" ~~B~~ CDUP			0.20	actual samples ran ✓
" ~~C~~ CSPK			1.39	as indicated. %R = 123 ✓
" D				
" E				
" F				
CCV8			4.40	%R = 110 ✓
CCB8			-0.01	✓
~~V8~~ VS82 G				
" H				
" I				
" J				

Chemical/Reagent ID:
10% $SnCl_2$: MP2395
14% NH_2OH/NaCl: MP2360

Standard ID:
Standard: 2993-14
ICV/CCV: 56-18

Mercury Analysis Log

Analyst: NB
Instrument: CETAC

Date: 11-23-12
Page: 4 of 5

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments	
VS82	K	SMM	1x			
"	L					
"	M					
VS19	MBI			0.01		✓
"	MBISPK			2.17	%R = 109	✓
"	A			0.76		
CCV9				4.43	%R = 111	✓
CCB9				-0.01		✓
VS19	ADUP			0.65	RPD = 15.6	✓
"	ASPK			1.80	%R = 104	✓
"	B					
"	C					
"	D					
"	E					
"	F					
"	G					
"	H					
"	I					
CCV10				4.44	%R = 111	✓
CCB10				-0.00		✓
VS19	J					
"	K					
"	L					
CCV11				4.41	%R = 110	✓
CCB11				-0.00		✓
VS21	MBI			0.01		✓
"	MBISPK			2.26	%R = 113	✓
"	A			1.44		
"	ADUP			1.26	RPD = 13.3	✓
"	ASPK	↓	↓	2.39	%R = 95	✓

Chemical/Reagent ID:
10% $SnCl_2$: MP2395

Standard ID:
Standard: 2993-14

11-26-12

14% $NH_2OH/NaCl$: MP2360

ICV/CCV: 56-18

VS19:00431

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

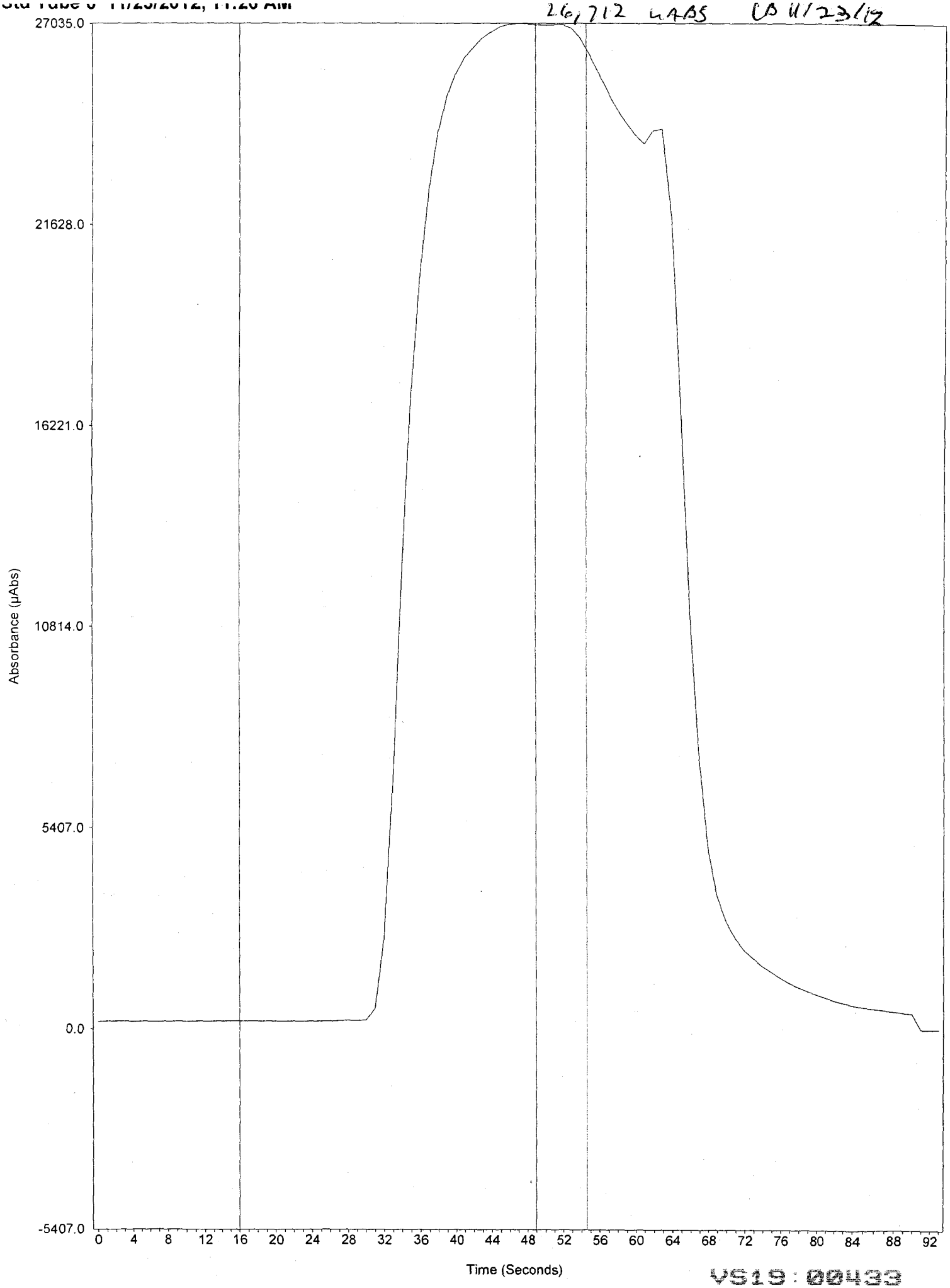
Method: ICP ICP-MS GFA (CVA) **Analysis Date:** 11-23-12

	Analyst NB 11-23-12	Peer MA 11-26	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	—	—	
Carry-over	—	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's:	—	—	

VS19 00432

Std Tube 0 11/23/2012, 11:20 AM

26,712 uABS CB 11/23/12



VS19:00433

CETAC Hg Analysis Report - 12112300.DB - Friday, November 23, 2012, 4:24:05 PM

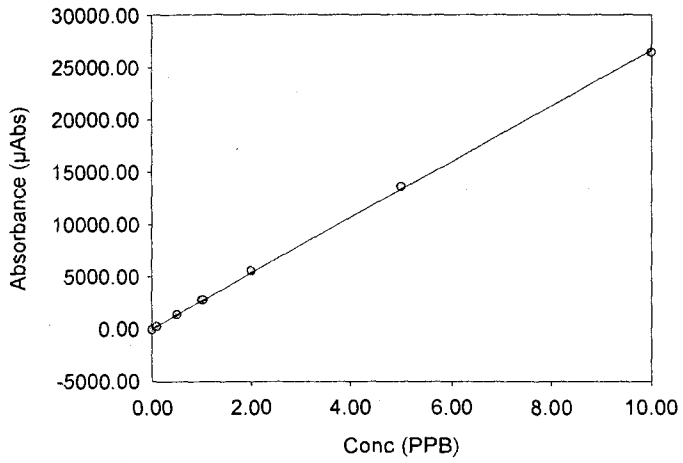
Analyst
Date Started Friday, November 23, 2012, 11:25:47
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Std Tube 6	23-Nov-2012, 11:25	10.00	0.54	26700.00	1.00	

Information about this calibration could not be retrieved from the Master File.

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Calibration Zero	23-Nov-2012, 11:28	0.00	10.30	-39.70	1.00	
Standard #1	23-Nov-2012, 11:29	0.10	0.95	289.00	1.00	
Standard #2	23-Nov-2012, 11:31	0.50	0.33	1370.00	1.00	
Standard #3	23-Nov-2012, 11:32	1.00	1.44	2750.00	1.00	
Standard #4	23-Nov-2012, 11:34	2.00	0.59	5550.00	1.00	
Standard #5	23-Nov-2012, 11:36	5.00	0.48	13600.00	1.00	
Standard #6	23-Nov-2012, 11:37	10.00	0.47	26500.00	1.00	

Calibration Data



Int.	0.000
Slope	2665.655
Correlation	0.99984

SMM

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	23-Nov-2012, 11:41	8.49	0.84	22600.00	1.00	Begin CLP
ICB	23-Nov-2012, 11:43	-0.01	16.20	-30.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 11:44	4.18	0.60	11100.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 11:46	0.01	32.90	23.90	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	23-Nov-2012, 11:47	0.13	1.49	336.00	1.00	
VS96 MB1 SMM	23-Nov-2012, 11:49	0.01	15.90	29.00	1.00	
VS96 MB1SPK SMM	23-Nov-2012, 11:51	2.13	0.46	5680.00	1.00	
VS96 A SMM	23-Nov-2012, 11:52	0.02	5.50	41.30	1.00	
VS96 ADUP SMM	23-Nov-2012, 11:54	0.01	5.34	33.80	1.00	
VS96 ASPK SMM	23-Nov-2012, 11:55	1.13	0.92	3010.00	1.00	
VS96 B SMM	23-Nov-2012, 11:57	0.04	2.67	118.00	1.00	
VS96 C SMM	23-Nov-2012, 11:59	0.21	1.07	550.00	1.00	
VS96 D SMM	23-Nov-2012, 12:00	0.26	0.29	681.00	1.00	
VS96 E SMM	23-Nov-2012, 12:02	0.09	0.61	227.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 12:04	4.24	0.62	11300.00	1.00	

CETAC Hg Analysis Report - 12112300.DB - Friday, November 23, 2012, 4:24:05 PM

Analyst
Date Started Friday, November 23, 2012, 12:05:47
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 12:05	-0.00	1560.00	-0.08	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS96 F SMM	23-Nov-2012, 12:07	0.11	0.75	299.00	1.00	
VS96 G SMM	23-Nov-2012, 12:08	0.08	1.70	205.00	1.00	
VS96 H SMM	23-Nov-2012, 12:10	0.07	0.87	194.00	1.00	
VS96 I SMM	23-Nov-2012, 12:12	0.05	2.26	125.00	1.00	
VS96 J SMM	23-Nov-2012, 12:13	0.05	5.86	135.00	1.00	
VS96 K SMM	23-Nov-2012, 12:15	0.20	0.60	546.00	1.00	
VS96 L SMM	23-Nov-2012, 12:16	0.28	0.73	755.00	1.00	
VS96 M SMM	23-Nov-2012, 12:18	0.09	0.76	251.00	1.00	
VS96 N SMM	23-Nov-2012, 12:20	0.27	0.95	729.00	1.00	
VS96 O SMM	23-Nov-2012, 12:21	2.95	0.80	7870.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 12:23	4.28	0.81	11400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 12:25	0.00	38.60	7.16	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS96 P SMM	23-Nov-2012, 12:26	0.23	0.63	609.00	1.00	
VS96 Q SMM	23-Nov-2012, 12:28	0.31	0.58	830.00	1.00	
VS96 R SMM	23-Nov-2012, 12:30	0.08	1.05	203.00	1.00	
VS96 S SMM	23-Nov-2012, 12:31	0.01	5.24	37.70	1.00	
VS96 T SMM	23-Nov-2012, 12:33	0.01	7.95	28.80	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 12:34	4.26	0.69	11300.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 12:36	0.00	19.10	8.91	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VT06 MB1 SMM	23-Nov-2012, 12:46	0.00	32.10	4.22	1.00	
VT06 MB1SPK SMM	23-Nov-2012, 12:47	2.20	0.44	5870.00	1.00	
VT06 D SMM	23-Nov-2012, 12:49	0.04	5.35	105.00	1.00	
VT06 DDUP SMM	23-Nov-2012, 12:50	0.05	1.28	133.00	1.00	
VT06 DSPK SMM	23-Nov-2012, 12:52	1.16	0.79	3090.00	1.00	
VT06 E SMM	23-Nov-2012, 12:54	0.09	1.42	236.00	1.00	
VT06 F SMM	23-Nov-2012, 12:55	0.13	0.68	347.00	1.00	
VT06 G SMM	23-Nov-2012, 12:57	0.09	0.51	248.00	1.00	
VT06 H SMM	23-Nov-2012, 12:58	0.07	1.25	191.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 13:00	4.30	0.71	11500.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 13:02	-0.00	40.80	-3.38	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VT06 I SMM	23-Nov-2012, 13:03	0.07	1.42	190.00	1.00	
VS20 MB1 SMM	23-Nov-2012, 13:05	0.01	8.32	16.30	1.00	
VS20 MB1SPK SMM	23-Nov-2012, 13:07	2.18	0.59	5810.00	1.00	
VS20 A SMM	23-Nov-2012, 13:08	1.59	0.50	4230.00	1.00	
VS20 ADUP SMM	23-Nov-2012, 13:10	1.59	0.42	4240.00	1.00	
VS20 ASPK SMM	23-Nov-2012, 13:12	2.59	0.39	6910.00	1.00	
VS20 B SMM	23-Nov-2012, 13:13	1.38	0.67	3690.00	1.00	
VS20 C SMM	23-Nov-2012, 13:15	3.11	0.38	8280.00	1.00	

CETAC Hg Analysis Report - 12112300.DB - Friday, November 23, 2012, 4:24:06 PM

Analyst
Date Started Friday, November 23, 2012, 13:16:48
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS20 D SMM	23-Nov-2012, 13:16	3.16	0.46	8420.00	1.00	
VS20 E SMM	23-Nov-2012, 13:18	1.94	0.55	5160.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 13:20	4.24	1.46	11300.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 13:21	0.01	12.10	37.10	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS20 F SMM	23-Nov-2012, 13:23	0.84	0.48	2230.00	1.00	
VS20 G SMM	23-Nov-2012, 13:25	1.68	0.45	4480.00	1.00	
VS20 H SMM	23-Nov-2012, 13:26	0.49	0.58	1320.00	1.00	
VS20 I SMM	23-Nov-2012, 13:28	0.68	0.69	1800.00	1.00	
VS20 J SMM	23-Nov-2012, 13:29	1.00	0.65	2660.00	1.00	
VS20 K SMM	23-Nov-2012, 13:31	1.72	0.91	4600.00	1.00	
VS20 L SMM	23-Nov-2012, 13:33	2.03	0.25	5410.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 13:34	4.37	0.44	11700.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 13:36	0.01	13.00	18.20	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS82 MB1 SMM	23-Nov-2012, 13:39	0.01	4.21	35.30	1.00	
VS82 MB1SPK SMM	23-Nov-2012, 13:41	2.16	0.38	5760.00	1.00	
VS82 A SMM	23-Nov-2012, 13:43	0.02	10.70	57.20	1.00	
VS82 ~~ADUP~~ SMM B	23-Nov-2012, 13:44	0.07	1.75	177.00	1.00	
VS82 ~~ASPK~~ SMM C	23-Nov-2012, 13:46	0.16	0.96	433.00	1.00	
VS82 ~~B~~ SMM CDUP	23-Nov-2012, 13:47	0.20	0.69	527.00	1.00	
VS82 ~~C~~ SMM CSPK	23-Nov-2012, 13:49	1.39	0.47	3700.00	1.00	
VS82 D SMM	23-Nov-2012, 13:51	0.30	0.99	796.00	1.00	
VS82 E SMM	23-Nov-2012, 13:52	0.06	1.97	151.00	1.00	
VS82 F SMM	23-Nov-2012, 13:54	0.13	1.49	337.00	1.00	

NB 11-23-12

Spreadsheet typo: Actual samples ran as indicated -NB 11-23-12

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 13:55	4.40	0.50	11700.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 13:57	-0.01	21.80	-28.50	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS82 G SMM	23-Nov-2012, 13:59	0.39	1.32	1040.00	1.00	
VS82 H SMM	23-Nov-2012, 14:00	0.12	0.91	307.00	1.00	
VS82 I SMM	23-Nov-2012, 14:02	0.10	0.29	270.00	1.00	
VS82 J SMM	23-Nov-2012, 14:04	0.41	0.73	1100.00	1.00	
VS82 K SMM	23-Nov-2012, 14:05	0.18	0.60	491.00	1.00	
VS82 L SMM	23-Nov-2012, 14:07	0.16	0.81	433.00	1.00	
VS82 M SMM	23-Nov-2012, 14:08	0.18	1.50	472.00	1.00	
VS19 MB1 SMM	23-Nov-2012, 14:10	0.01	11.10	14.70	1.00	
VS19 MB1SPK SMM	23-Nov-2012, 14:12	2.17	0.91	5780.00	1.00	
VS19 A SMM	23-Nov-2012, 14:13	0.76	1.16	2030.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 14:15	4.43	0.87	11800.00	1.00	

CETAC Hg Analysis Report - 12112300.DB - Friday, November 23, 2012, 4:24:06 PM

Analyst
Date Started Friday, November 23, 2012, 14:17:04
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 14:17	-0.01	7.88	-15.10	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS19 ADUP SMM	23-Nov-2012, 14:18	0.65	0.62	1720.00	1.00	
VS19 ASPK SMM	23-Nov-2012, 14:20	1.80	0.57	4800.00	1.00	
VS19 B SMM	23-Nov-2012, 14:21	2.15	0.62	5730.00	1.00	
VS19 C SMM	23-Nov-2012, 14:23	2.55	0.54	6790.00	1.00	
VS19 D SMM	23-Nov-2012, 14:25	2.56	0.50	6830.00	1.00	
VS19 E SMM	23-Nov-2012, 14:26	1.63	0.48	4340.00	1.00	
VS19 F SMM	23-Nov-2012, 14:28	0.42	0.54	1130.00	1.00	
VS19 G SMM	23-Nov-2012, 14:30	0.32	0.53	864.00	1.00	
VS19 H SMM	23-Nov-2012, 14:31	0.34	0.62	905.00	1.00	
VS19 I SMM	23-Nov-2012, 14:33	0.19	0.52	517.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 14:34	4.44	0.64	11800.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 14:36	-0.00	34.20	-13.30	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS19 J SMM	23-Nov-2012, 14:38	3.49	0.49	9310.00	1.00	
VS19 K SMM	23-Nov-2012, 14:39	0.95	0.79	2520.00	1.00	
VS19 L SMM	23-Nov-2012, 14:41	1.32	0.49	3510.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 14:43	4.41	0.76	11700.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 14:44	-0.00	119.00	-3.44	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS21 MB1 SMM	23-Nov-2012, 14:55	0.01	7.13	33.10	1.00	
VS21 MB1SPK SMM	23-Nov-2012, 14:57	2.26	0.64	6030.00	1.00	
VS21 A SMM	23-Nov-2012, 14:58	1.44	0.47	3830.00	1.00	
VS21 ADUP SMM	23-Nov-2012, 15:00	1.26	0.70	3350.00	1.00	
VS21 ASPK SMM	23-Nov-2012, 15:01	2.39	1.36	6380.00	1.00	
VS21 B SMM	23-Nov-2012, 15:03	6.73	0.22	17900.00	1.00	
VS21 C SMM	23-Nov-2012, 15:05	0.99	0.55	2630.00	1.00	
VS21 D SMM	23-Nov-2012, 15:06	2.62	0.42	6970.00	1.00	
VS21 E SMM	23-Nov-2012, 15:08	1.42	0.71	3790.00	1.00	
VS21 F SMM	23-Nov-2012, 15:09	0.40	0.12	1070.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 15:11	4.40	0.49	11700.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 15:13	0.00	58.90	5.81	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS21 G SMM	23-Nov-2012, 15:14	0.29	0.46	778.00	1.00	
VS21 H SMM	23-Nov-2012, 15:16	0.22	0.46	585.00	1.00	
VS21 I SMM	23-Nov-2012, 15:18	2.06	0.39	5480.00	1.00	
VS21 J SMM	23-Nov-2012, 15:19	1.10	0.28	2940.00	1.00	
VS21 K SMM	23-Nov-2012, 15:21	0.90	0.46	2410.00	1.00	
VS21 L SMM	23-Nov-2012, 15:22	1.79	0.43	4770.00	1.00	

AA 11-2612

VS19:00437

Analyst	
Date Created:	Thursday, July 13, 2000
Worksheet	ARI 10ppb CALIB
Comment	
Sip Duration (Sec.):	30
Rinse Duration (Sec.):	60
Read Delay:	49
Integration Time/Replicate:	1.40
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	10
Baseline Point 1 End Time:	16
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	
Baseline Point 2 End Time:	
Gas Flow (ml/min):	180
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	5
Calibration Standard #1 Conc.:	0.10 PPB
Calibration Standard #2 Conc.:	0.50 PPB
Calibration Standard #3 Conc.:	1.00 PPB
Calibration Standard #4 Conc.:	2.00 PPB
Calibration Standard #5 Conc.:	5.00 PPB
Calibration Standard #6 Conc.:	10.00 PPB
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5.0%, if µAbs. > 1500, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 80% .. 120%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -100 .. 100,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Digested 20.0mL

Prep Code: TWM Instrument: CETAC
Analyst: NB Date: 11-19-12
Bath Temp: 90°C Start Time: 1526 End Time: 1726

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	2993-13	0.01	↓	0.1	1
STD2	↓	0.05	↓	0.5	1
STD3	↓	0.10	↓	1.0	1
STD4	↓	0.20	↓	2.0	1
STD5	↓	0.50	↓	5.0	1
STD6	↓	1.00	↓	10.0	1
CRA	↓	0.01	↓	0.1	1
ICB/CCB	—	0.00	↓	0.0	1
ICV/LCS	56-18	0.16	↓	8.0	1
CCV	↓	0.08	100.0	4.0	1

Chemical/Reagent ID:

HNO_3: I7833 H_2SO_4: I7677 HCl: —
5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376

Prep Code: SMM Instrument: CETAC
Analyst: NB Date: 11-19-12
Bath Temp: 94°C Start Time: 1708 End Time: 1738

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	50.0	0.0	3
STD1	2993-14	0.01	↓	0.1	2
STD2	↓	0.05	↓	0.5	2
STD3	↓	0.10	↓	1.0	2
STD4	↓	0.20	↓	2.0	2
STD5	↓	0.50	↓	5.0	2
STD6	↓	1.00	↓	10.0	2
CRA	↓	0.01	↓	0.1	1
ICB/CCB	—	0.00	↓	0.0	3
ICV/LCS	56-18	~~0.08~~ ~~0.80~~*	↓	8.0	2
CCV	↓	0.04	50.0	4.0	3

*NB 11-19-12

Chemical/Reagent ID:

HNO_3: I7833 H_2SO_4: I7677 HCl: —
5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376

VS19:00439

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM
Analyst: NB
Bath Temp: 94°C
Start Time: 1302
Matrix: SOIL
Date: 11-21-12
End Time: 1332

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VS19 A	1	—	0.722	50.0	11-22 1	YES	
" ADUP	1	—	0.725		1		
" ASPK	1	—	0.721		1		
" B	1	—	0.744		1		
" C	1	—	0.715		1		
" D	1	—	0.735		1		
" E	1	—	0.739		1		
" F	1	—	0.702		1		
" G	1	—	0.749		1		
" H	1	—	0.743		1		
" I	1	—	0.703		1		
" J	1	—	0.719		1		
" K	1	—	0.718		1		
" L	1	—	0.732		1		
" MBI	—	—	—		1		
" MBISPK	—	—	—	50.0	1		

NB
11-21-12

Chemical/Reagent ID:

HNO_3: I7833
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2375
5% $KMnO_4$: MP2376
Digest Tube Lot: 12052S8

General Chemistry Raw Data
Analyst Notes and Raw Data

ARI Job ID: VS19

W

11-27-

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 11/20/12 (A)

ANALYST: CDE 19:29

Instrumentation

Drying Ovens: 12

Muffle Furnace: N / A

Analytical Balance: 1123230597

Batch drying time

record times as mm/dd/yy hh:mm

11/20/2012 19:29 date/time in oven CDE

11/21/2012 10:11 date/time out CDE

elapsed hrs = 14.7

TS (%) calculated as:

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

TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:

Final ash wt (g) = (min ash wt - tare wt)

*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*

if ash wt > dry wt, "Chk for Err"

*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02				
	Date & Time	1/20/12 18:21 CDE	11/20/12 17:37 CDE	11/21/12 10:28 CDE										
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000										
	record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*										

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	TVS (%)
Blank			1.0693	1.0693			0.00							
VS19 A1		5.3257	1.0726	5.2167			4.14	97.4%						
VS19 A1 dup		5.6800	1.0763	5.5627			4.49	97.5%						
							RPD =	0.02%				RPD =		NA
VS19 A1 trp		5.0205	1.0888	4.9265			3.84	97.6%						
							RSD =	0.10%				RSD =		NA
VS19 B1		5.2890	1.0730	4.9936			3.92	93.0%						
VS19 C1		5.6332	1.0694	5.3511			4.28	93.8%						
VS19 D1		4.6919	1.1035	4.5354			3.43	95.6%						
VS19 E1		5.4253	1.0661	5.2698			4.20	96.4%						
VS19 F1		6.4514	1.1049	6.3305			5.23	97.7%						
VS19 G1		6.8300	1.1135	6.7221			5.61	98.1%						
VS19 H1		6.5695	1.1209	6.4714			5.35	98.2%						
VS19 I 1		6.4708	1.1077	6.4077			5.30	98.8%						
VS19 J 1		5.3500	1.0889	5.0836			3.99	93.7%						
VS19 K1		6.2099	1.0892	6.0754			4.99	97.4%						
VS19 L1		5.4936	1.0854	5.3148			4.23	95.9%						
VS20 A1		5.4115	1.0905	5.2398			4.15	96.0%						
VS20 B1		4.6155	1.0818	4.4149			3.33	94.3%						
VS20 C1		4.9966	1.0959	4.6712			3.58	91.7%						
VS20 D1		3.9498	1.0757	3.6497			2.57	89.6%						
VS20 E1		3.9490	1.0762	3.7183			2.64	92.0%						

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 11/20/12 (A)
ANALYST: CDE 19:29

Instrumentation

Drying Ovens: 12
Muffle Furnace: N / A
Analytical Balance: 1123230597

Batch drying time

record times as mm/dd/yy hh:mm

11/20/2012 19:29	date/time in oven	CDE
11/21/2012 10:11	date/time out	CDE
elapsed hrs =	14.7	

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Drying					Ash		
Cal Weight ID	CV-02	CV-02	CV-02	CV-02		CV-02	CV-02	
Date & Time	1/20/12 18:21 CDE	11/20/12 17:37 CDE	11/21/12 10:28 CDE					
Cal Wt (g) 10.0000	10.0000	10.0000	10.0000					
record weights to 4 places	Cal OK!	Cal OK!	Cal OK!					

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1	DRY WT 104C 2	DRY WT 104C 3	dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	ASH WT 550C 2	ASH WT 550C 3	Ash Wt (g)	TVS (mg/kg)	TVS (%)
VS20 F1		5.2689	1.0723	5.0121			3.94	93.9%						
VS20 G1		5.2384	1.0676	5.0238			3.96	94.9%						
VS20 H1		5.5322	1.0627	5.4344			4.37	97.8%						

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET (A)

Analyst: CDG	Date: 11-20-12	Oven ID: 12		Balance ID:	1123230597
Time in Oven: ~~19:22~~ 19:29	Time Out of Oven:	11-21-12 10:11	Elapsed Time (> 12 Hrs):		

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

Cal Weight ID	CV-02	CV-02	CV-02	CV-02	CV-02	[redacted]	CV-02	CV-02	CV-02
Date & Time:	11-20-12 19:21	11-20-12 17:37	11-21-12 10:28						
Cal Weight (10.0000):	10.0002 WR	10.0000 WR	10.0000 WR						

Sample ID	Dish #	Sample	Tare	Dry Weight 104°C			Dry Weight	Ash Weight 550°C		
				1	2	3	grams	1	2	3
BLANK	1	Ø	1.0693	1.0693						
VS19 A1	2	5.3257	1.0726	5.2167						
A1 dup	3	5.6800	1.0763	5.5627						
A1 TP	4	5.0205	1.0898	4.9265						
B1	5	5.2890	1.0730	4.9936						
C1	6	5.6332	1.0694	5.3511						
D1	7	4.6919	1.1035	4.5354						
E1	8	5.4253	1.0661	5.2698						
F1	9	6.4514	1.1049	6.3305						
G1	10	6.8300	1.1135	6.7221						
H1	11	6.5695	1.1209	6.4714						
I1	12	6.4708	1.1077	6.4077						
J1	13	5.3500	1.0889	5.0836						
K1	14	6.2099	1.0892	6.0754						
L1	15	5.4936	1.0854	5.3148						
VS20 A1	16	5.4115	1.0905	5.2398						
B1	17	4.6155	1.0818	4.4149						
C1	18	4.4966	1.0959	4.6712						
D1	19	3.9498	1.0757	3.6497						
E1	20	3.9490	1.0762	3.7183						
F1	21	5.2689	1.0723	5.0121						
G1	22	5.2384	1.0676	5.0238						
H1	23	5.5322	1.0627	5.4344						

W
11-27-12

Soil Conductivity - pH

meter: Orion Model 115

Date: 11/21/2012
Analyst: KE 9:56

Conductivity Calibration
Potassium Chloride standard ARI ID = N / A

Conductivity =	1413	µS/cm
Cal Temp	N / A	
Input Value		µS/cm

pH Calibration Temperature (°C)
pH Buffers 2, 4, 7, 10, 12

Verification Buffer	pH
Source FISHER#	7.00

Conductivity Verification Standard
Source: N / A

Record Certified Values
µS / cm = 1000
TDS (mg/l) =

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity (mS/cm)	Conductivity (µS/cm)	Notes & Flags
pH 7 Buffer			20.3	6.97			OK@ 99.6%
VS21 C1	20.30	20	20.1	5.27			
VS21 C1 dup	20.30	20	20.1	5.29			pH RPD =0.38%
VS21 D1	20.20	20	20.0	5.41			
VS21 E1	20.10	20	20.1	5.62			
VS21 F1	20.20	20	20.0	5.68			
VS21 G1	20.03	20	20.0	5.95			
VS21 H1	20.03	20	20.0	5.98			
VS21 I 1	10	20	20.0	5.90			
VS21 J 1	20.01	20	20.1	6.06			
VS21 K1	20.01	20	20.1	5.08			
pH 7 Buffer			20.4	6.99			OK@ 99.9%
VS21 L1	10.05	20	20.1	5.89			
VS23 I 1	20.06	20	20.0	5.96			
VS19 A1	20	20	20.0	5.96			
VS19 A1 dup	20	20	20.0	5.98			pH RPD =0.34%
VS19 B1	20	20	20.0	6.13			
VS19 C1	20	20	20.1	6.10			
VS19 D1	10	20	20.0	6.44			
VS19 E1	20	20	20.0	5.78			
VS19 F1	20	20	20.0	6.03			
VS19 G1	20	20	20.0	6.10			
pH 7 Buffer			20.4	7.04			OK@ 100.6%
VS19 H1	20	20	20.0	6.11			
VS19 I 1	20	20	20.0	5.73			
VS19 J 1	10	20	20.0	5.97			
VS19 K1	20	20	20.0	5.60			
VS19 L1	20	20	20.0	6.03			
VS20 A1	10	20	20.0	6.11			
VS20 B1	10	20	20.0	6.14			
VS20 C1	10	20	20.0	5.96			
VS20 D1	5	20	20.3	6.21			
VS20 E1	10	20	20.2	6.27			
pH 7 Buffer			20.3	7.03			OK@ 100.4%

VS20 F1	20	20	20.1	6.22		
VS20 G1	10	20	20.3	6.08		
VS20 H1	20	20	20.2	6.09		
VS20 H1 dup	20	20	20.2	6.06		*pH RPD =0.49%*
VS20 J 1	10	20	20.2	6.52		
VS20 K1	10	20	20.3	6.37		
VS22 A1	10	20	20.2	5.45		
VS22 B1	20	20	20.3	5.73		
VS22 C1	20	20	20.2	6.67		
CS22 D1	20	20	20.3	7.48		
pH 7 Buffer			20.2	7.00		*OK@ 100%*
VS22 E1	10	20	20.5	6.75		
VS22 F1	10	20	20.3	6.42		
VS22 G1	20	20	20.2	6.13		
VS22 H1	20	20	20.3	5.61		
VS22 I 1	20	20	20.3	6.24		
VS22 J 1	20	20	20.3	6.25		
VS22 K1	20	20	20.2	6.18		
VS22 L1	10	20	20.2	6.68		
VS23 A1	20	20	20.4	5.77		
VS23 A1 dup	20	20	20.3	5.79		*pH RPD =0.35%*
pH 7 Buffer			20.3	6.98		*OK@ 99.7%*
VS23 B1	20	20	20.2	5.95		
VS23 C1	10	20	20.4	6.34		
VS23 D1	20	20	20.3	5.73		
VS23 E1	20	20	20.4	5.69		
VS23 F1	20	20	20.3	5.51		
VS23 G1	20	20	20.0	5.47		
VS23 H1	20	20	20.2	5.48		
VS23 J1	10	20	20.3	5.29		
VS23 K1	10	20	20.3	6.19		
VS18 B1	20	20	20.2	6.15		
pH 7 Buffer			20.5	7.05		*OK@ 100.7%*
VS18 A1	20	20	20.3	6.47		
VS18 A1 dup	20	20	20.3	6.45		*pH RPD =0.31%*
VS18 C1	20	20	20.2	6.17		
VS18 D1	20	20	20.1	6.16		
VS18 E1	20	20	20.2	6.15		
VS18 F1	20	20	20.2	6.06		
VS18 G1	20	20	20.3	6.13		
VS18 H1	20	20	20.3	6.10		
VS18 I 1	20	20	20.3	5.46		
VS18 J 1	20	20	20.3	5.97		
pH 7 Buffer			20.5	7.05		*OK@ 100.7%*
VS18 K1	10	20	20.4	6.19		
VS18 L1	20	20	20.4	6.10		
VT58 A1	20	20	20.3	3.81		
VT58 A1 dup	20	20	20.3	3.80		*pH RPD =0.26%*
VT58 B1	20	20	20.3	6.69		
VT58 C1	20	20	20.4	5.32		
VT58 D1	20	20	20.4	2.73		
VT58 E1	20	20	20.3	3.36		
VT58 F1	20	20	20.3	2.49		
pH 7 Buffer			20.6	7.02		*OK@ 100.3%*

(1) 11-21-12 (W)

Soil Conductivity - pH

Date: 11-20-12

meter: Orion Model 115

Analyst: (W) 9:56

Conductivity Calibration

Potassium Chloride standard ARI ID = _____

Conductivity =	1413	*µS/cm*
Cal Temp		
Input Value		*µS/cm*

pH Calibration *Temperature (°C)* _____

pH Buffers 2, 4, 7, 10, 12

Verification Buffer	pH
Source **FISHER#**	7.00

Conductivity Verification Standard

Source:

Record Certified Values

µS / cm =	1000
TDS (mg/l) =	

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity (mS/cm)	Conductivity (µS/cm)	Notes & Flags
pH 7 Buffer			(1) 20.3	6.97			
VS21 C1	20.03	20	20.1	~~20.41~~	6.27		
MC1	20.02	20	20.1	5.29			
B1	20.02	30	20.0	5.41			
E1	20.01	20	20.1	5.62			
F1	20.02	20	20.0	5.68			
G1	20.03	20	20.0	5.95			
H1	20.03	20	20.0	5.98			
I1	10.00	20	20.0	5.90			
J1	20.01	20	20.1	6.06			
K1	20.01	20	20.1	5.08			
pH 7 Buffer			20.4	6.99			
VS21 L1	10.05	20	20.1	5.89			
VS26 I1	20.06	20	20.0	5.96			
VS19 A1	20	20	20.0	5.96			
MA1	20	20	20.0	5.98			
B1	20	20	20.0	6.13			
C1	20	20	20.1	6.10			
D1	10	20	20.0	6.44			
E1	20	20	20.0	3.78			
F1	20	20	20.0	6.03			
G1	20	20	20.0	6.10			
pH 7 Buffer			20.4	7.04			
VS19 H1	20	20	20.0	6.11			
I1	20	20	20.0	5.73			
J1	10	20	20.0	5.97			
K1	20	20	20.0	5.60			
L1	20	20	20.0	6.03			
VS20 A1	10.	20	20.0	6.11			
B1	10	20	20.0	6.14			
C1	10	20	20.0	5.96			
D1	5	20	20.3	~~6.21~~ (1)	6.21		
E1	10	20	20.2	6.27			
pH 7 Buffer			20.3	7.03			
VS20 F1	20	30	20.1	6.22			
G1	10	20	20.3	6.08			
H1	20	20	20.2	6.09			
MH1	20	20	20.2	6.06			
J1 (1)	10	20	20.2	6.52			
K1	10	20	20.3	6.37			
VS22 A1	10	30	20.2	5.45			
B1	20	20	20.3	5.73			
C1	20	20	20.2	6.67			
D1	20	20	20.3	7.48			
pH 7 Buffer			20.2	7.00			

Soil Conductivity - pH

meter: Orion Model 115

Date: 11-21-12
Analyst: W 9:56

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity (mS/cm)	Conductivity (µS/cm)	Notes & Flags
US21 E1	10	20	20.5	6.75			
F1	20	20	20.3	6.42			
G1	20	20	20.2	6.13			
H1	20	20	20.3	5.61			
I1	20	20	20.3	6.24			
J1	20	20	20.3	6.25			
K1	20	20	20.2	6.18			
L1	10	20	20.2	6.68			
US23 A1	20	20	20.4	~~5.10~~	5.77		
ND A1	20	20	20.3	5.79			
pH 7 Buffer			20.3	~~6.98~~	6.99		
US23 B1	20	⑥ ~~20~~ 30	20.2	5.95			
C1	10	20	20.4	6.34			
D1	20	20	20.3	5.73			
E1	20	20	20.4	5.69			
F1	20	20	20.3	5.51			
G1	20	20	20.0	5.47			
H1	20	20	20.2	5.48			
J1	10	20	20.3	5.29			
K1	10	20	20.3	6.19			
US18 B1	20	① ~~20~~ 30	20.3	6.15			
pH 7 Buffer		20.3	20.5	7.05			
US18 A1	20	~~30~~	20.3	6.47			
ND A1	20	~~30~~	20.3	6.45			
C1	20	20	20.2	6.17			
D1	20	20	20.1	6.16			
E1	20	20	20.2	6.15			
F1	20	20	20.2	6.06			
G1	20	20	20.3	6.13			
H1	20	20	20.3	6.10			
I1	20	20	20.30	5.46			
J1	20	20 ⑥	~~20.34~~	5.97			
pH 7 Buffer			20.5	7.05			
US18 K1	10	20 ⑦	~~20.34~~	6.19			
L1	20	20	~~20.33~~	6.10			
UT58 A1	20	20	~~20.4~~ ③	3.81			
ND A1	20	20 ①	~~20.4~~	3.80			
B1	20	20	20.3	6.69			
C1	20	20 ⑤	~~20.3~~	~~5.35~~ 5.32			
D1	20	20	20.4	2.73			
E1	20	20	20.3	3.36			
F1	20	20	20.3	2.49			
PH 7 Buffer			20.6	7.02			
~~pH 7 Buffer~~							
pH 7 Buffer							

11-21-12 W

② 20.4-11-21-12 W
③ 20.3-11-21-12 W
④ 20.4-11-21-12 W
⑤ 20.4 11-21-12 W
⑥ 20.3-11-21-12
⑦ 20.3-11-21-12

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:	11-21-12		Buffer	Source	Lot #	pH	Temp.
Time:	11:14		2.00	Ricca	1205264	2.00	20.5
Analyst:	(W)		4.00	Fisher	116550	4.00	20.4
			7.00	Ricca	1206053	7.02	20.2
			10.00	Fisher	116346	10.05	20.2
			12.00	Ricca	120617	11.99	20.4
			Verification	Fisher	120143	6.97	20.3

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
(W)	10:28	ICV	6.97	6.97	PH		20.3
		VS21 C1	5.26	5.27		SD1	20.1
		DIC1	5.28	5.29			20.1
		D1	5.41	5.41			20.0
		E1	5.60	5.62			20.1
		F1	5.68	5.68			20.0
		G1	5.95	5.95			20.0
		H1	5.97	5.98			20.0
		I1	5.89	5.90			20.0
		J1	6.06	6.06			20.1
		K1	5.08	5.08			20.1
		CCV	7.00	6.99			20.4
		VS21 L1	5.89	5.89			20.1
		VS23 I1	5.96	5.96			20.0
		VS19 A1	5.96	5.96			20.0
		DIA1	5.97	5.98			20.0
		B1	6.13	6.13			20.0
		C1	6.09	6.10			20.1
		D1	6.42	6.44			20.0
		E1	5.78	5.78			20.0
		F1	6.01	6.03			20.0
		G1	6.10	6.10			20.0
		CCV	7.05	7.04			20.4

(1) 11-21-12 (W)

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pH Logbook

Meter ID: Accumet AR60

Page 2 of 4

Calibration

Date:	11-21-12		Buffer	Source	Lot #	pH	Temp.
Time:			2.00	Ricca			
Analyst:			4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher			
			12.00	Ricca			
			Verification	Fisher			

Continued

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
LW	12:10	ICV	7.03	7.03			20.2
		VTG2 A1	9.89	9.90 → 6.95		6.95	19.2
		~~I A1 dup~~ (1)					
		CCV	7.03	7.03			20.2
(W)	10:28 (cont)	VS19 H1	6.11	6.11	PH Soil		20.0
		J1	5.73	5.73			20.0
		J1	5.96	5.97			20.0
		K1	5.60	5.60			~~20.0~~ 20.3 (1) 20.0
		L1	6.02	6.03			20.1
		VS20 A1	6.10	6.11			20.0
		B1	6.13	6.14			20.0
		~~CCV~~ C1	5.97	5.96			20.0
		D1	6.21	6.21			20.3
		E1	6.27	6.27			20.2
		CCV	7.03	7.03			20.3
		F1	6.22	6.22			20.1
		G1	6.08	6.08			20.3
		H1	6.09	6.09			20.2
		DPH1	6.07	6.06			20.2
		J1	6.52	6.52			20.2
		K1	6.38	6.37			20.3
		VS22 A1	5.47	5.45			20.2
		~~CCV~~ B1	5.73	5.73			20.3

VS19:00450

(11-21-12)

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pH Logbook

Meter ID: Accumet AR60

Calibration

Date:			Buffer	Source	Lot #	pH	Temp.
Time:			2.00	Ricca			
Analyst:			4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher			
			12.00	Ricca			
			Verification	Fisher			

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
W	10.28	~~VS22~~ CCV C1	6.67	6.67	Soil	Ph	20.2
		↓ D1	7.46	7.48			20.3
		CCV	7.01	7.00			20.2
		VS22 E1	6.75	6.75			20.5
		F1	6.44	6.43			20.3
		G1	6.12	6.13			20.2
		A1	5.61	5.61			20.3
		I1	6.24	6.24			20.3
		J1	6.25	6.25			20.3
		K1	6.18	6.18			20.2
		↓ L1	6.67	6.68			20.2
		~~VS22~~ CCV A1	~~6.11~~ 5.77	~~6.10~~ 5.77			20.4
		↓ DP A1	5.79	5.79			20.3
		CCV	6.98	6.98			20.3
		VS23 B1	5.95	5.95			20.2
		C1	6.34	6.34			20.4
		D1	5.74	5.73			20.3
		E1	5.69	5.69			20.4
		F1	5.51	5.51			20.3
		G1	5.47	5.47			20.0
		H1	5.48	5.48			20.2
		I1	5.29	5.29			20.3
↓	↓	CCV K1	6.17	~~6.18~~ 6.19	↓	↓	20.3

① 11-21-12 (W)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:			Buffer	Source	Lot #	pH	Temp.
Time:			2.00	Ricca			
Analyst:			4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher			
			12.00	Ricca			
			Verification	Fisher			

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
		~~US~~ ~~ICV~~ ~~CCV~~					
(W)	10:28	US18 B'	6.15	6.15			20.2
		CCV	~~6.795~~	~~6.805~~ 7.05	50.1	pH	20.5
		US18 A'	6.45	6.47			20.3
		MA'	6.44	6.45			20.3
		C	6.17	6.17			20.2
		D	6.15	6.16			20.1
		E	6.14	6.15			20.2
		F	6.06	6.06			20.2
		G	6.13	6.13			20.3
		H	6.09	6.10			20.3
		~~CCV~~ I	5.47	5.46			20.3
		J	5.97	5.97			20.3
		CCV	7.05	7.05			20.5
		US18 K1	~~6.19~~ 6.19	~~6.19~~ 6.19			20.4
		L'	~~6.10~~ 6.10	~~6.10~~ 6.10			20.4
		UTS8 A1	3.81	3.81			20.3
		A1	3.80	3.80			20.3
		B1	6.69	6.69			20.3
		C1	~~6.33~~ 5.33	~~6.34~~ 5.32			20.4
		D1	2.73	2.73			20.4
		E1	3.36	3.36			20.3
		~~CCV~~ F1	2.49	2.49			20.3
		CCV	7.02	7.02			20.6

W
11-26-12

TOC Solids Prep Log

DATE: 11/20/2012
ANALYST: CDE 19:52

acid purging to remove IC and drying at 70°C for TOC analysis
General notes regarding prep method and samples (identify the acid used)

HCL 10% ID:
HCL ID:

Balance ID: Mettler Toledo (XS205 DU) SN 123230597

make no entry to shaded cells, they are calculated

Sample ID		IC Test	Gravimetric Data (grams)			%	*Sample description & notes*
ARI #	Client	+ / -	Tare Wt.	Wet wt.	70°C dry wt	Solids	*(homogeneity and exclusions)*
Blank			13.2086	0.0000	13.2089	0.3 mg	
VS19 A1		-	13.2361	16.4259	16.4795	101.68%	
VS19 A1 dup		-	13.1609	16.4650	16.5178	101.60%	RPD = 0.08%
VS19 A1 trip		-	13.3671	17.3528	17.3890	100.91%	RSD = 0.42%
VS19 B1		-	13.3278	15.4319	15.3949	98.24%	
VS19 C1		-	13.2040	15.6166	15.6001	99.32%	
VS19 D1		-	13.1192	16.2725	16.2617	99.66%	
VS19 E1		-	13.1045	16.3346	16.3498	100.47%	
VS19 F1		-	13.2580	17.0491	17.0909	101.10%	
VS19 G1		-	13.1993	17.5064	17.5479	100.96%	
VS19 H1		-	13.1304	16.5373	16.6010	101.87%	
VS19 I 1		-	13.1196	16.4831	16.5746	102.72%	
VS19 J1		-	13.2814	15.2055	15.2102	100.24%	
VS19 K1		-	13.1909	15.6628	15.7313	102.77%	
VS19 L1		-	13.4056	15.6324	15.6690	101.64%	
VS20 A1		-	13.1599	16.0712	16.0840	100.44%	
VS20 B1		-	13.0851	14.9695	14.9929	101.24%	
VS20 C1		-	13.2164	14.8034	14.8062	100.18%	
VS20 D1		-	13.2331	14.6541	14.6318	98.43%	
VS20 E1		-	13.2009	14.9215	14.9241	100.15%	
VS20 F1		-	13.3388	15.2962	15.3065	100.53%	
VS20 G1		-	13.1189	15.4550	15.4530	99.91%	
VS20 H1		-	13.2723	16.5699	16.6212	101.56%	

(A)

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TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

Analyst CDG Date 11-20-12 19:52

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.2086	Ø	13.2089		
VS19 A1		–	13.2361	16.4259	16.4795		dry seed
A1dp		–	13.1609	16.4650	16.5178		
A1TP		–	13.3671	17.3528	17.3890		
B1		–	13.3278	15.4319	15.3949		
C1		–	13.2040	15.6166	15.6001		
D1		–	13.1192	16.2725	16.2617		
E1		–	13.1045	16.3346	16.3498		
F1		–	13.2580	17.0491	17.0909		
G1		–	13.1993	17.5064	17.5479		
H1		–	13.1304	16.5373	16.6010		
I1		–	13.1196	16.4831	16.5746		
J1		–	13.2814	15.2055	15.2102		
K1		–	13.1909	15.6628	15.7313		
L1		–	13.4056	15.6324	15.6690		
VS20 A1		–	13.1599	16.0712	16.0840		
B1		–	13.0851	14.9695	14.9929		
C1		–	13.2164	14.8034	14.8062		
D1		–	13.2331	14.6541	14.6318		
E1		–	13.2009	14.9215	14.9241		
F1		–	13.3388	15.2962	15.3065		
G1		–	13.1189	15.4550	15.4530		
H1		–	13.2723	16.5699	16.6212		
			11-20-12 CDG				

V
11-29-12

TOC, Solids Data Analysis

DATE: 11/28/2012
ANALYST: KE 7:12

Instrument: Apollo 1
Mode: NPOC *Inlet:* Boat
Spike Std = 2,500 *ppm C*
Balance ID:

Calibration Data

Cal Curve ID:	**11/13/2012**			*Conc:*	5,000 *ppm*
Calibration Curve Standard:	**00130-01**			*Curve Date:*	**11/13/12**
CalFact:	***1.339E+05***	*intercept:*	**163305**	*r2 :*	**0.99851**
Curve Range (ppm)	200	*to*	2,500		
Curve Range (µgC):	**8**	*to*	**100**	*40 µL injections of designated standard*	

Verification Standard	Source:	***ERA# 0409-12-01***		*Conc:*	**5,000** *ppm*
dilution :	10	*mL to*	50		**1,000** *ppm*
Standard Reference Material	Source:	***NIST 8704***		*Conc:*	**33,510** *ppm*
	Source:	***NIST 1941B***		*Conc:*	**29,900** *ppm*

Silica Blanks

Replicate determinations						Mean	RSD	condition
67.9	61.7	53.0				60.9	12.3%	*OK*

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	*comments*
ICV				1.00		40.0	922	922	*92.20%*
Blank				1.00		40.0	-27.40	-27	*Blank OK*
NIST 1941B				1.00		1.7	29608	29,608	*99.02%*
~~VS19 A1~~				~~1.00~~		~~1.0~~	~~31444~~	~~31,444~~	*~~Range OK!~~*
~~VS19 A1 dup~~				~~1.00~~		~~1.0~~	~~38980~~	~~38,980~~	*~~RPD=21.4%~~*
~~VS19 A1 trp~~				~~1.00~~		~~0.9~~	~~50539~~	~~50,539~~	*~~RSD=23.9%~~*
Silica Blanks 1				1.00		31.1	67.93	68	*Low Scale*
Silica Blanks 2				1.00		28.9	61.66	62	*Low Scale*
Silica Blanks 3				1.00		34.4	53.04	53	*Low Scale*
VS19 B1				1.00		1.3	31429	31,429	*Range OK!*
VS19 C1				1.00		1.1	50439	50,439	*Range OK!*
VS19 D1				1.00		0.8	80618	80,618	*Range OK!*
CCV				1.00		40.0	956	956	*95.60%*
Blank				1.00		40.0	-28.64	-29	*Blank OK*
VS19 A1	12.4	119.6	89.63%	9.65		2.6	4802	45,790	*Range OK!*
VS19 A1 dup	13.2	126.4	89.56%	9.58		2.8	5462	51,781	*RPD=12.3%*
VS19 A1 trp	12.8	125.7	89.82%	9.82		2.6	4928	47,658	*RSD=6.3%*
VS19 A1 ms	12.4	119.6	89.63%	9.65	10	2.6	15681	150,719	*Range OK!*
Spike =	*0.025*	*mg C to*	*0.3*	*mg samp=*	*92,742*	*ppm*		*113%*	
VS19 E1				1.00		1.0	26761	26,761	*Range OK!*
VS19 F1				1.00		1.8	10959	10,959	*Range OK!*

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	comments
VS19 G1				1.00		1.8	6966	6,966	*Range OK!*
VS19 H1				1.00		2.2	6912	6,912	*Range OK!*
VS19 I 1				1.00		2.0	5626	5,626	*Range OK!*
VS19 J 1	12.4	121.4	89.79%	9.79		2.0	11867	115,647	*Range OK!*
CCV				1.00		40.0	1043	1,043	*104.30%*
Blank				1.00		40.0	-21.21	-21	*Blank OK*
VS19 K1				1.00		0.9	31176	31,176	*Range OK!*
VS19 L1				1.00		0.8	86654	86,654	*Range OK!*
VS20 A1	12.4	118.3	89.52%	9.54		1.8	6634	62,771	*Range OK!*
VS20 B1	13.2	129.4	89.80%	9.80		1.8	8420	82,006	*Range OK!*
VS20 C1	18.8	118.4	84.12%	6.30		2.1	18586	116,730	*Range OK!*
VS20 D1	13.3	132.2	89.94%	9.94		1.6	28098	278,746	*Range OK!*
VS20 E1	14.3	138.6	89.68%	9.69		1.6	17912	173,079	*Range OK!*
VS20 F1	15.2	147.5	89.69%	9.70		1.7	15102	146,019	*Range OK!*
VS20 G1				1.00		0.8	47649	47,649	*Range OK!*
VS20 H1				1.00		1.0	19068	19,068	*Range OK!*
CCV				1.00		40.0	1016	1,016	*101.60%*
Blank				1.00		40.0	-23.80	-24	*Blank OK*
VS20 I 1				1.00		0.8	28184	28,184	*Range OK!*
VS20 J 1				1.00		0.9	53397	53,397	*Range OK!*
VS20 K1				1.00		0.8	82256	82,256	*Range OK!*
VS20 L1				1.00		0.9	47048	47,048	*Range OK!*
NIST 1941B				1.00		1.7	29299	29,299	*97.99%*
CCV				1.00		40.0	1019	1,019	*101.90%*
Blank				1.00		40.0	-23.79	-24	*Blank OK*

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① 7-28-11 Ⓦ

TOC Solids Sample Run Log
Apollo 9000

Page 1 of 2

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler	
Standards:	Source	Conc (ppm)	Analyst:	Ⓚ
Calibration:	ARI - 00128-03	5000	Date:	11-28-11
Verification:	ERA - 0409-12-01	5000 to 1000 for CVS	Time:	7:12
SRM:	NBS - (1941b) or 8704	Method: PSEP 1986-MOD	Balance ID	B146454145
Sample Sequence:				

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
ICV			40			
ICB			40			
NBS 1941 B			1.7			
VS19 A'			1.0			Rerun Rebut 11-28 Ⓐ 72
A'			1.0			
A'			0.9			
SB 1' ~~A~~ ①			31.1			
2			28.9			
3			34.4			
VS19 B'			1.3			
C'			1.1			
D			0.8			
CCV			40			
CCB			40			
VS19 A'	12.4	119.6	2.6			
d A'	13.2	126.4	2.8			
rp A'	12.9	125.7	2.6			
ms A'	12.4	119.6	2.6	2800	10	
E'			① ~~1.8~~ 1.0			
F'			1.8			
G'			① ~~2.8~~ 1.8			
H'			① ~~2.0~~ 2.2			
I'			2.0			
J'	12.4	121.4	2.0			
CCV			40			
CCB			40			
VS19 K'			0.9			
L'			0.8			
VS20 A'	12.4	118.3	1.8			
B'	13.2	129.4	1.8			
C'	12.8	118.4	2.1			
D'	13.3	132.2	1.6			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

(D) 11-28-12 (W)

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler	
Standards:	Source	Conc (ppm)	Analyst:	(W)
Calibration:	ARI – 0028-03	5000	Date:	(D) 11-28-12
Verification:	ERA – 0409-12-01	5000 to 1000 for CVS	Time:	7.12
SRM:	NBS – (1941b) or 8704	Method: PSEP 1986-MOD	Balance ID	B146454145

Sample Sequence:

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
VS20 E1	14.3	138.6	(D) 2491.6			
F1	15.2	142.5	1.7			
G1			0.8			
H1			1.0			
CCV			40			
CCB			40			
VS20 I1			0.8 0.8			
J1			0.9			
K1			0.8			
L1			0.9			
NBS 1941 B			1.7			
CCV			40			
CCB			40			

11-28-12 (W)

11-28-12 (W)

Detailed Analysis Report Print Date/Time: 2012/11/28 18:09:54

Sample ID:	ICV/CCV BOAT	Mode:	TOC
Method:	Boat Sampler	Filename:	11280716
Cal. Curve:	11132012 BOAT CAL	Timestamp:	2012/11/28 07:23
Operator ID:	TRINA	Sample Type:	Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	921.8248	36.8730	5100494	7.597	8.597	142

Sample ID:	ICB/CCB BOAT	Mode:	TOC
Method:	Boat Sampler	Filename:	11280726
Cal. Curve:	11132012 BOAT CAL	Timestamp:	2012/11/28 07:29
Operator ID:	TRINA	Sample Type:	Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-27.3986	-1.0959	16562	7.534	7.583	120

Last Message: Low Sample Detected

Sample ID:	NBS 1941B	Mode:	TOC
Method:	Boat Sampler	Filename:	11280731
Cal. Curve:	11132012 BOAT CAL	Timestamp:	2012/11/28 07:35
Operator ID:	TRINA	Sample Type:	Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	29608.3086	50.3341	6902901	7.537	8.535	216

Sample ID:	VS19 A1	Mode:	TOC
Method:	Boat Sampler	Filename:	11280743
Cal. Curve:	11132012 BOAT CAL	Timestamp:	2012/11/28 07:46
Operator ID:	TRINA	Sample Type:	Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31443.6133	31.4436	4210240	7.335	8.334	137

Sample ID:	VS19 A1	Mode:	TOC
Method:	Boat Sampler	Filename:	11280758
Cal. Curve:	11132012 BOAT CAL	Timestamp:	2012/11/28 08:02
Operator ID:	TRINA	Sample Type:	Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	38979.5859	38.9796	5219256	7.275	8.273	148

Sample ID:	VS19 A1 DUP	Mode:	TOC
Method:	Boat Sampler	Filename:	11280810
Cal. Curve:	11132012 BOAT CAL	Timestamp:	2012/11/28 08:14
Operator ID:	TRINA	Sample Type:	Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	50538.6641	45.4848	6090285	7.288	8.288	152

Sample ID:	Silica Blank 1	Mode:	TOC
Method:	Boat Sampler	Filename:	11280833
Cal. Curve:	11132012 BOAT CAL	Timestamp:	2012/11/28 08:35
Operator ID:	TRINA	Sample Type:	Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	67.9288	2.1126	282869	7.328	8.324	60

Sample ID: Silica Blank 2 | Mode: TOC
Method: Boat Sampler | Filename: 11280843
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 08:45
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	61.6581	1.7819	238594	7.337	8.336	58

Sample ID: Silica Blank 3 | Mode: TOC
Method: Boat Sampler | Filename: 11280850
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 08:52
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	53.0360	1.8244	244287	7.416	8.413	58

Sample ID: VS19 B1 | Mode: TOC
Method: Boat Sampler | Filename: 11280904
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 09:07
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31428.5801	40.8572	5470657	7.380	8.378	141

Sample ID: VS19 B1 | Mode: TOC
Method: Boat Sampler | Filename: 11280914
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 09:18
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	50438.7695	55.4826	7428969	7.374	8.372	156

Sample ID: VS19 D1 | Mode: TOC
Method: Boat Sampler | Filename: 11281154
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 12:03
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	80617.8125	64.4943	8635597	6.955	7.955	173

Sample ID: ICV/CCV BOAT | Mode: TOC
Method: Boat Sampler | Filename: 11281213
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 12:17
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	955.9159	38.2366	5283082	6.935	7.934	145

Sample ID: ICB/CCB BOAT | Mode: TOC
Method: Boat Sampler | Filename: 11281225
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 12:28
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-28.6394	-1.1456	9916	6.949	6.989	120

Last Message: Low Sample Detected

Sample ID: VS19 A1 | Mode: TOC
Method: Boat Sampler | Filename: 11281235
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 12:43
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4802.1460	12.4856	1671784	7.122	8.120	97

Sample ID: VS19 A1 DP | Mode: TOC
Method: Boat Sampler | Filename: 11281251
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 12:54
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5461.7451	15.2929	2047674	6.928	7.927	111

Sample ID: VS19 A1 TRIP | Mode: TOC
Method: Boat Sampler | Filename: 11281302
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 13:05
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4927.8096	12.8123	1715531	7.003	8.002	102

Sample ID: VS19 A1 MS | Mode: TOC
Method: Boat Sampler | Filename: 11281324
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 13:28
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15681.2871	40.7713	5459167	7.061	8.061	149

Sample ID: VS19 E1 | Mode: TOC
Method: Boat Sampler | Filename: 11281332
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 13:36
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26760.5664	26.7606	3583164	7.029	8.026	134

Sample ID: VS19 F1 | Mode: TOC
Method: Boat Sampler | Filename: 11281339
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 13:42
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10959.0127	19.7262	2641285	7.032	8.029	129

Sample ID: VS19 G1 | Mode: TOC
Method: Boat Sampler | Filename: 11281345
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 13:48
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6965.6592	12.5382	1678828	7.053	8.053	121

Sample ID: VS19 H1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281351
Timestamp: 2012/11/28 13:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6911.9854	15.2064	2036089	7.081	8.077	134

Sample ID: VS19 I1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281357
Timestamp: 2012/11/28 14:00
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5625.9648	11.2519	1506601	7.013	8.012	127

Sample ID: VS19 J1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281435
Timestamp: 2012/11/28 14:38
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11867.4443	23.7349	3178034	7.032	8.031	123

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281444
Timestamp: 2012/11/28 14:47
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1043.0968	41.7239	5750013	7.009	8.008	151

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281449
Timestamp: 2012/11/28 14:51
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-21.2126	-0.8485	49693	7.191	8.187	51

Sample ID: VS19 K1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281454
Timestamp: 2012/11/28 15:01
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31175.5664	28.0580	3756888	7.181	8.181	133

Sample ID: VS19 L1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281515
Timestamp: 2012/11/28 15:19
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	86654.1719	69.3233	9282198	7.027	8.027	176

Sample ID: VS20 A1 | Mode: TOC
Method: Boat Sampler | Filename: 11281521
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 15:24
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6633.6636	11.9406	1598812	7.243	8.239	98

Sample ID: VS20 B1 | Mode: TOC
Method: Boat Sampler | Filename: 11281526
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 15:29
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8420.0303	15.1561	2029353	7.206	8.206	106

Sample ID: VS20 C1 | Mode: TOC
Method: Boat Sampler | Filename: 11281536
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 15:40
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18585.6621	39.0299	5225991	7.135	8.134	144

Sample ID: VS20 D1 | Mode: TOC
Method: Boat Sampler | Filename: 11281547
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 15:51
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	28097.8262	44.9565	6019551	7.221	8.220	152

Sample ID: VS20 E1 | Mode: TOC
Method: Boat Sampler | Filename: 11281554
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 16:01
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	17912.2734	28.6596	3837444	7.283	8.279	135

Sample ID: VS20 F1 | Mode: TOC
Method: Boat Sampler | Filename: 11281616
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 16:20
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15102.2461	25.6738	3437651	7.282	8.281	130

Sample ID: VS20 G1 | Mode: TOC
Method: Boat Sampler | Filename: 11281637
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 16:44
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	47649.4805	38.1196	5104104	7.220	8.216	146

Sample ID: VS20 H1 Mode: TOC
Method: Boat Sampler Filename: 11281649
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/28 16:53
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19068.2539	19.0683	2553185	7.150	8.148	117

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 11281655
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/28 16:59
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-30.6916	-1.2277	-1075	7.159	7.183	120

Last Message: Out of Calibration

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 11281700
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/28 17:05
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1016.4097	40.6564	5607080	7.128	8.125	144

Sample ID: ICB/CCB BOAT Mode: TOC
Method: Boat Sampler Filename: 11281707
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/28 17:10
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-23.7965	-0.9519	35854	7.381	7.205	120

Last Message: Low Sample Detected

Sample ID: VS20 I 1 Mode: TOC
Method: Boat Sampler Filename: 11281714
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/28 17:17
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	28183.7168	22.5470	3018976	7.103	8.100	140

Sample ID: VS20 J1 Mode: TOC
Method: Boat Sampler Filename: 11281719
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/28 17:23
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	53396.7852	48.0571	6434710	7.086	8.084	156

Sample ID: VS20 K1 Mode: TOC
Method: Boat Sampler Filename: 11281728
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/28 17:31
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning	Ending	Integration

				Baseline	Baseline	Time
1	82255.8906	65.8047	8811064	7.075	8.073	166

Sample ID: VS20 L1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281736
Timestamp: 2012/11/28 17:41
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	47047.6016	42.3428	5669586	7.041	8.041	149

Sample ID: NBS 1941B
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281747
Timestamp: 2012/11/28 17:52
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	29299.1309	49.8085	6832525	7.037	8.035	217

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281756
Timestamp: 2012/11/28 18:00
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1018.6388	40.7456	5619019	7.110	8.109	148

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281804
Timestamp: 2012/11/28 18:07
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-23.7915	-0.9517	35881	7.196	7.234	120

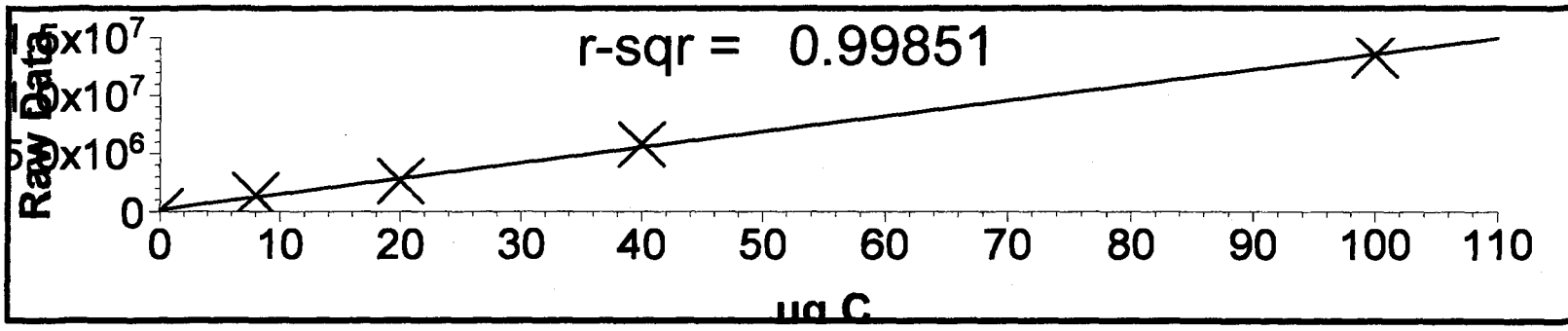
Last Message: Low Sample Detected

11-13-12 (4)

Calibration Report Print Date/Time: 2012/11/13 17:59:45

Cal. Curve ID: 11132012 BOAT CAL
Created: 2012/11/13 17:59
Calibration Factor (m): 1.339e+05
Y Intercept (b): 163305
r-squared: 0.99851

Standard ID	Y Raw Data	X Expected ug C	Measured ug C	Message	Date & Time
DI Water	34152	0.000	-0.965	Low Sample De	2012/11/13 12:29
200 ppm	1402526	8.000	9.255		2012/11/13 15:57
500 ppm	2612048	20.000	18.288		2012/11/13 16:30
1000 ppm	5782382	40.000	41.966		2012/11/13 17:08
2500 ppm	13480140	100.000	99.456		2012/11/13 17:46


r-sqr = 0.99851
Raw Data
5x10^7
3x10^7
0x10^6
0
0
10
20
30
40
50
60
70
80
90
100
110
ug C

Detailed Analysis Report Print Date/Time: 2012/11/13 18:00:30

Sample ID: DI Water
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131156
Timestamp: 2012/11/13 12:29
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			18402	16.796	16.349	120
2			42520	15.376	15.117	120
3			41534	14.988	14.928	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 34152 Std Dev: 13649 RSD: 39.96

Sample ID: 200 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131238
Timestamp: 2012/11/13 13:05
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1222030	14.878	15.874	82
2			2828545	14.808	15.808	104
3			1056788	14.689	15.685	76

<<<Statistics>>> Mean: 1702454 Std Dev: 978717 RSD: 57.49

Sample ID: 500 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131440
Timestamp: 2012/11/13 15:23
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			2592282	15.291	16.289	93
2			2967532	14.712	15.709	110
3			2466931	14.170	15.169	110

<<<Statistics>>> Mean: 2675582 Std Dev: 260489 RSD: 9.74

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131526
Timestamp: 2012/11/13 15:37
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			5290649	14.574	15.571	132
2			5344637	14.534	15.533	131

<<<Statistics>>> Mean: 5317643 Std Dev: 38175 RSD: 0.72

Sample ID: 200 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131539
Timestamp: 2012/11/13 15:57
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1133964	14.834	15.826	75
2			1682541	14.702	15.699	105
3			1391072	14.832	15.828	89

<<<Statistics>>> Mean: 1402526 Std Dev: 274468 RSD: 19.57

Sample ID: 500 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131603
Timestamp: 2012/11/13 16:30
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			2617921	14.909	15.904	100
2			2699842	15.434	16.427	110
3			2518382	15.642	16.642	96

<<<Statistics>>> Mean: 2612048 Std Dev: 90872 RSD: 3.48

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131635
Timestamp: 2012/11/13 16:48
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			6098208	15.069	16.068	161
2			4400089	15.386	16.386	294

<<<Statistics>>> Mean: 5249148 Std Dev: 1200752 RSD: 22.88

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131653
Timestamp: 2012/11/13 17:08
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			5668054	15.386	16.386	134
2			5866553	15.432	16.430	156
3			5812538	15.792	16.787	158

<<<Statistics>>> Mean: 5782382 Std Dev: 102628 RSD: 1.77

Sample ID: 2500 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131715
Timestamp: 2012/11/13 17:46
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			12880510	15.475	16.474	209
2			14040075	15.646	16.644	232
3			13519835	15.412	16.411	232

<<<Statistics>>> Mean: 13480140 Std Dev: 580801 RSD: 4.31

Table of Contents: ARI Job VS20

Client: Hart Crowser Inc. Project: 17800-36 Upper Columbia

Signature

December-04-2012
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

December 5, 2012

Steve Hughes
Hart Crowser, Inc.
1700 Westlake Avenue N. Suite 200
Seattle, WA 98109-3256

RE: Client Project: Upper Columbia 17800-36
ARI Job No. VS20

Dear Steve:

Please find enclosed the chain of custody documentation and data package for samples from the project referenced above

Sample receipt and details of the analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

MdDBai FOR
Kelly Bottem
Client Services Manager
kellyb@arilabs.com
206/695-6211

Enclosures

cc: eFile VS20

KFB/mdh

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: VS20

Sample Custody Record

3 of 6

Samples Shipped to: ARI

HARTCROWSER

Hart Crowser, Inc.
1700 Westlake Avenue North, Suite 200
Seattle, Washington 98109-6212
Office: 206.324.9530 • Fax 206.328.5581

JOB 17800-36 LAB NUMBER

PROJECT NAME Upper Columbia

HART CROWSER CONTACT Steve Hughes, Roger McGinnis, Anne Conrad

SAMPLED BY: PAC, NWG, KJH, ASK

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: Metals *	TOC	DNT (EPA 9045)	Total Solids (Gravimetric)	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	SA4a-Field Duplicate		11/9/12	1532	SOIL	X	X	X	X	1	
	SA10-1C		11/8/12	1142						1	
	SA10-2C			1139						1	
	SA10-2P-1 (0 to 3" depth)			1140						1	
	SA10-2P-2 (3 to 6" depth)			1145						1	
	SA10-2P-3 (6 to 12" depth)			1150						1	
	SA10-8C			1546						1	
	SA11-1C			1423						1	
	SA11-2C		11/6/12	0916						1	
	SA11-3C		11/10/12	1531						1	
	SA11-4C		11/8/12	1459						1	
	SA11-5C		11/6/12	1222						1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	11/12/12	SIGNATURE	11/12/12
PRINT NAME Phil Condit	TIME 1200	PRINT NAME Chris Atwell	TIME 1221
COMPANY AE		COMPANY ARI	
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE		SIGNATURE	
PRINT NAME	TIME	PRINT NAME	TIME
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

* See Page 1

12 TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE _____
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. _____ for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐48 HOURS ☒STANDARD
☐72 HOURS OTHER _____

White and Yellow Copies to Lab Pink to Project Manager Lab to Return White Copy to Hart Crowser Gold to Sample Custodian

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client Hart + Crowser Project Name Upper Columbia

COC No(s) _____ (NA) Delivered by Fed-Ex UPS Courier Hand Delivered Other _____

Assigned ARI Job No VS20 Tracking No _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6 0 °C for chemistry)	4.8 4.0	

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 12241222-4

Cooler Accepted by: CA Date 11-12-12 Time 1221

Complete custody forms and attach all shipping documents

Log-In Phase:

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

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

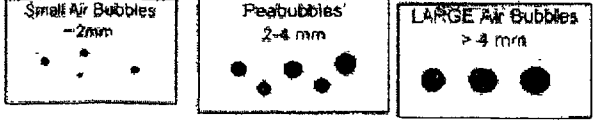
Samples Logged by: JM Date: 11/13/12 Time: 823

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

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

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: VS20

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative
Project: 17800-36
ARI Job No.: VS20
December 5, 2012

Sample Receipt:

Please find enclosed the original chain of custody (COC) record and analytical results for the project referenced above. Analytical Resources, Inc. accepted twelve soil samples in good condition on November 12, 2012. The samples were received with cooler temperatures between 4.0 and 4.8°C. Please see the Cooler Receipt Form for further details.

Total Metals by 200.8, 6010C and 7471A

The samples were digested on 11/21/12 and analyzed between 11/23/12 and 11/28/12 within the method recommended holding time.

Initial calibration (s): All analytes were within method acceptance criteria.

Continuing calibration (s): All analytes were within method acceptance criteria.

Samples: No anomalies were encountered for these samples.

Method Blank: A small amount of manganese was detected in the method blank associated with these samples. Manganese was detected in all samples associated with this blank. Since the concentrations of manganese measured in the samples were significantly greater than the amount found in the blank, no corrective actions were taken.

LCS: Is in control.

Matrix spike/Sample Duplicate/RPD: The percent recoveries for aluminum, antimony, calcium, iron, lead, magnesium, manganese and zinc were not within control limits for the matrix spike associated with sample SA9-Field Duplicate. Since the percent recoveries for all elements were within acceptable QC limits for the corresponding LCS, it was concluded that the sample matrix was the cause of the poor MS recoveries. No corrective actions were taken.

The RPDs for antimony and silver were not within control limits for the matrix duplicate associated with sample SA9-Field Duplicate. Since the percent recoveries for all elements were within acceptable QC limits for the corresponding LCS, it was concluded that a lack of sample homogeneity was the cause of the high RPDs. No corrective actions were taken.

Conventional Chemistry Parameters

The samples were analyzed between 11/19/12 and 11/28/12 within the method recommended holding times.

Initial calibration (s): All analytes were within method acceptance criteria.

Continuing calibration (s): All analytes of interest were within method acceptance criteria.

Samples: There were no anomalies with these samples.

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative
Project: 17800-36
ARI Job No.: VS20
December 5, 2012

Method Blank(s): The method blanks were free of contamination.

SRM/ LCS/ Sample Replicates: All percent recoveries and RPDs were in control.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: Hart Crowser, Inc.	**ARI Job No.:** VS20
Client Project: Upper Columbia	**Client Project No.:** 17800-36

Case Narrative

1. Twelve samples were submitted for preparation on November 12, 2012, and were in good condition.
2. The samples were submitted for separation of the less than 2mm material.
3. The samples were each placed in a clean tare and air-dried.
4. The samples were separated into two size fractions using a decontaminated, stainless steel #10 (2mm) sieve and sieve pan.
5. After separation, both size fractions were delivered to sample receiving for distribution.
6. There were no further anomalies in the samples or test method.

Released by: Geotechnical Division Manager Date: 11/20/12

Reviewed by: Lead Technician Date: 11/21/2012

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: VS20
Client: Hart Crowser Inc.
Project Event: 17800-36
Project Name: Upper Columbia

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	SA9-Field Duplicate	VS20A	12-22677	Soil	11/09/12 15:32	11/12/12 12:21
2.	SA10-1C	VS20B	12-22678	Soil	11/08/12 11:42	11/12/12 12:21
3.	SA10-2C	VS20C	12-22679	Soil	11/08/12 11:39	11/12/12 12:21
4.	SA10-2P-1(0 to 3" depth)	VS20D	12-22680	Soil	11/08/12 11:40	11/12/12 12:21
5.	SA10-2P-2(3 to 6" depth)	VS20E	12-22681	Soil	11/08/12 11:45	11/12/12 12:21
6.	SA10-2P-3(6 to 12" depth	VS20F	12-22682	Soil	11/08/12 11:50	11/12/12 12:21
7.	SA10-8C	VS20G	12-22683	Soil	11/08/12 15:46	11/12/12 12:21
8.	SA11-1C	VS20H	12-22684	Soil	11/08/12 14:23	11/12/12 12:21
9.	SA11-2C	VS20I	12-22685	Soil	11/06/12 09:16	11/12/12 12:21
10.	SA11-3C	VS20J	12-22686	Soil	11/10/12 15:31	11/12/12 12:21
11.	SA11-4C	VS20K	12-22687	Soil	11/08/12 14:59	11/12/12 12:21
12.	SA11-5C	VS20L	12-22688	Soil	11/06/12 12:22	11/12/12 12:21

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Duplicate RPD is not within established control limits
B	Reported value is less than the CRDL but ≥ the Reporting Limit
N	Matrix Spike recovery not within established control limits
NA	Not Applicable, analyte not spiked
H	The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible
L	Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U	Indicates that the target analyte was not detected at the reported concentration
*	Flagged value is not within established control limits
B	Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.
J	Estimated concentration when the value is less than ARI's established reporting limits
D	The spiked compound was not detected due to sample extract dilution
E	Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.
Q	Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration The reporting limit is raised due to chromatographic interference The Y flag is equivalent to the U flag with a raised reporting limit

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

Geotechnical Data

A The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.

F Samples were frozen prior to particle size determination

SM Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations

SS Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis

W Weight of sample in some pipette aliquots was below the level required for accurate weighting

Quality Control Parameters for Metals Analysis-ICP-OES 200.7/6010C

	Aqueous Samples[2]			Spike Recovery		RPD[5]	Solids[3]	Tissue[4]
Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ mg/kg	LOQ mg/kg
Aluminum	7.57	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Antimony	6.28	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Arsenic	3.33	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Barium	1.33	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Beryllium	0.16	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Boron	7.39	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Cadmium	0.18	0.5	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Calcium	11.27	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Chromium	1.24	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Cobalt	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Copper	0.92	1.0	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Iron	7.50	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Lead	1.55	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Magnesium	9.61	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Manganese	0.28	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Molybdenum	0.79	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Nickel	3.86	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Potassium	65.70	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Selenium	4.99	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Silicon	8.17	30	**60**	75 – 125	80 – 120	≤ 20	**(6)**	**(6)**
Silver	0.43	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Sodium	11.35	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Strontium	0.09	1.0	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Thallium	3.10	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Tin	1.41	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Titanium	2.11	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.01**
Vanadium	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Zinc	1.45	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Tissue is reported on an "as received" (wet weight) basis using 2.5 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$
(6) ARI does not analyze for Silicon in solids or tissue samples

Quality Control Parameters for Metals Analysis ICP-MS 200.8/6020A

Analyte	Mass	Aqueous Samples[2]			Spike Recovery		RPD[4]	Solids[3]
		DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ[1] mg/kg
Aluminum	27	1.601	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Antimony	121	0.010	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
	123	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #1	75	0.048	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #2	75	0.092	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Barium	135	0.020	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	137	0.019	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Beryllium	9	0.021	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Cadmium	111	0.010	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
	114	0.005	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Calcium	43	3.983	25	**50.0**	75 – 125	80 – 120	≤ 20	**50.0**
Chromium	52	0.045	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	53	0.118	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Cobalt	59	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Copper	63	0.158	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	65	0.236	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Iron	54	5.753	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
	57	3.876	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Lead	208	0.046	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Magnesium	24	0.297	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Manganese	55	0.022	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Molybdenum	98	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Nickel	60	0.079	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	62	0.089	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Potassium	39	2.944	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Selenium	82	0.127	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	78	0.324	0.25	**2.0**	75 – 125	80 – 120	≤ 20	**2.0**
Silver	107	0.008	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Sodium	23	2.833	50	**100.0**	75 – 125	80 – 120	≤ 20	**100.0**
Thorium[5]	232	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Thallium	205	0.004	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Uranium[5]	238	0.003	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Vanadium	51	0.043	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Zinc	66	0.497	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	67	0.531	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	68	0.524	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(5) ARI has no accreditation for these elements.

Quality Control Parameters for Mercury Analysis using CVAA

	Aqueous Samples[2]			Spike Recovery		RPD[5]
	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS	
Mercury	0.0069	0.05	**0.10**[2]	75 – 125	80 – 120	≤ 20
Mercury (low level)	0.0026	0.01	**0.02**[2]	75 – 125	80 – 120	≤ 20
	Soil / Sediment Samples			**Spike Recovery**		**RPD**[5]
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.025[3]	75 – 125	80 – 120	≤ 20
	Tissue Samples			**Spike Recovery**		**RPD**[5]
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.005[4]	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 20 mL sample with 20 mL final volume
(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.
(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

Metals Analysis
Report and Summary QC Forms

ARI Job ID: VS20

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SA9-Field Duplicat	VS20A	12-22677	
SA9-Field DuplicatD	VS20ADUP	12-22677	
SA9-Field DuplicatS	VS20ASPK	12-22677	
SA10-1C	VS20B	12-22678	
PBS	VS20MB1	12-22678	
LCSS	VS20MB1SPK	12-22678	
SA10-2C	VS20C	12-22679	
SA10-2P-1(0 to 3	VS20D	12-22680	
SA10-2P-2(3 to 6	VS20E	12-22681	
SA10-2P-3(6 to 12	VS20F	12-22682	
SA10-8C	VS20G	12-22683	
SA11-1C	VS20H	12-22684	
SA11-2C	VS20I	12-22685	
SA11-3C	VS20J	12-22686	
SA11-4C	VS20K	12-22687	
SA11-5C	VS20L	12-22688	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 12/4/12 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SA9-Field Duplicate
SAMPLE

Lab Sample ID: VS20A
LIMS ID: 12-22677
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS20-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Percent Total Solids: 95.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/21/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	9.1	10	**16,200**	
3050B	11/21/12	200.8	11/23/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.3**	
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.085	0.2	**30.6**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.8	**186**	
3050B	11/21/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.6**	
3050B	11/21/12	200.8	11/23/12	**7440-43-9**	**Cadmium**	0.012	0.1	**10.5**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.9	10	**7,230**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.037	0.5	**26.4**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.031	0.2	**8.2**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.035	0.5	**23.4**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.9	10	**20,400**	
3050B	11/21/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.23	0.5	**436**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.6	10	**5,780**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.10	0.3	**671**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.113**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.048	0.5	**26.7**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	45	130	**1,530**	
3050B	11/21/12	200.8	11/26/12	7782-49-2	Selenium	0.097	0.5	0.5	U
3050B	11/21/12	200.8	11/26/12	**7440-22-4**	**Silver**	0.0079	0.2	**0.3**	
3050B	11/21/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.7	130	**210**	
3050B	11/21/12	200.8	11/23/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.4**	
3050B	11/21/12	200.8	11/23/12	**7440-62-2**	**Vanadium**	0.017	0.2	**29.1**	
3050B	11/21/12	200.8	11/26/12	**7440-66-6**	**Zinc**	1.7	20	**440**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: METHOD BLANK**

Lab Sample ID: VS20MB
LIMS ID: 12-22678
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS20-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/21/12	6010C	11/23/12	7429-90-5	Aluminum	3.6	5	5	U
3050B	11/21/12	200.8	11/23/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/21/12	200.8	11/23/12	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	11/21/12	6010C	11/23/12	7440-39-3	Barium	0.060	0.3	0.3	U
3050B	11/21/12	200.8	11/26/12	7440-41-7	Beryllium	0.018	0.2	0.2	U
3050B	11/21/12	200.8	11/23/12	7440-43-9	Cadmium	0.012	0.1	0.1	U
3050B	11/21/12	6010C	11/23/12	7440-70-2	Calcium	1.9	5	5	U
3050B	11/21/12	200.8	11/23/12	7440-47-3	Chromium	0.038	0.5	0.5	U
3050B	11/21/12	200.8	11/23/12	7440-48-4	Cobalt	0.032	0.2	0.2	U
3050B	11/21/12	200.8	11/23/12	7440-50-8	Copper	0.036	0.5	0.5	U
3050B	11/21/12	6010C	11/23/12	7439-89-6	Iron	0.75	5	5	U
3050B	11/21/12	200.8	11/23/12	7439-92-1	Lead	0.047	0.1	0.1	U
3050B	11/21/12	6010C	11/23/12	7439-95-4	Magnesium	1.4	5	5	U
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.040	0.1	**0.1**	
CLP	11/21/12	7471A	11/23/12	7439-97-6	Mercury	0.0004	0.007	0.007	U
3050B	11/21/12	200.8	11/23/12	7440-02-0	Nickel	0.049	0.5	0.5	U
3050B	11/21/12	6010C	11/23/12	7440-09-7	Potassium	17	50	50	U
3050B	11/21/12	200.8	11/26/12	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	11/21/12	200.8	11/28/12	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	11/21/12	6010C	11/23/12	7440-23-5	Sodium	1.1	50	50	U
3050B	11/21/12	200.8	11/23/12	7440-28-0	Thallium	0.0030	0.2	0.2	U
3050B	11/21/12	200.8	11/23/12	7440-62-2	Vanadium	0.017	0.2	0.2	U
3050B	11/21/12	200.8	11/23/12	7440-66-6	Zinc	0.34	4	4	U

Reported in mg/kg (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: SA10-1C
SAMPLE

Lab Sample ID: VS20B
LIMS ID: 12-22678
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS20-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Percent Total Solids: 94.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/21/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	9.0	10	**17,400**	
3050B	11/21/12	200.8	11/23/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.088	0.2	**11.9**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.8	**507**	
3050B	11/21/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.6**	
3050B	11/21/12	200.8	11/23/12	**7440-43-9**	**Cadmium**	0.012	0.1	**7.4**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.8	10	**8,760**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.038	0.5	**34.0**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.032	0.2	**9.0**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.036	0.5	**39.1**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.9	10	**20,300**	
3050B	11/21/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.24	0.5	**330**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.5	10	**6,280**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.10	0.3	**1,070**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.008	**0.104**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.050	0.5	**24.8**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	44	130	**2,120**	
3050B	11/21/12	200.8	11/26/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/21/12	200.8	11/28/12	7440-22-4	Silver	0.0081	0.2	0.2	U
3050B	11/21/12	6010C	11/23/12	7440-23-5	Sodium	2.7	130	130	U
3050B	11/21/12	200.8	11/23/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.4**	
3050B	11/21/12	200.8	11/23/12	**7440-62-2**	**Vanadium**	0.017	0.2	**42.4**	
3050B	11/21/12	200.8	11/26/12	**7440-66-6**	**Zinc**	1.7	20	**370**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: SA10-2C
SAMPLE

Lab Sample ID: VS20C
LIMS ID: 12-22679
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS20-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Percent Total Solids: 91.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/21/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	9.0	10	**20,800**	
3050B	11/21/12	200.8	11/23/12	**7440-36-0**	**Antimony**	0.013	0.2	**1.7**	
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.088	0.2	**55.5**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.8	**498**	
3050B	11/21/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.018	0.2	**1.2**	
3050B	11/21/12	200.8	11/23/12	**7440-43-9**	**Cadmium**	0.012	0.1	**37.3**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.8	10	**14,000**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.038	0.5	**20.6**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.032	0.2	**21.5**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.036	0.5	**62.9**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.9	10	**33,900**	
3050B	11/21/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.24	0.5	**1,240**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.5	10	**6,200**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.10	0.3	**5,490**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.232**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.049	0.5	**52.9**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	44	130	**1,380**	
3050B	11/21/12	200.8	11/26/12	**7782-49-2**	**Selenium**	0.10	0.5	**1.3**	
3050B	11/21/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0081	0.2	**0.6**	
3050B	11/21/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.7	130	**150**	
3050B	11/21/12	200.8	11/23/12	**7440-28-0**	**Thallium**	0.0030	0.2	**1.2**	
3050B	11/21/12	200.8	11/23/12	**7440-62-2**	**Vanadium**	0.017	0.2	**24.6**	
3050B	11/21/12	200.8	11/26/12	**7440-66-6**	**Zinc**	1.7	20	**1,330**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: SA10-2P-1(0 to 3" depth)
SAMPLE

Lab Sample ID: VS20D
LIMS ID: 12-22680
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS20-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Percent Total Solids: 89.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/21/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	9.7	10	**18,000**	
3050B	11/21/12	200.8	11/23/12	**7440-36-0**	**Antimony**	0.014	0.2	**2.1**	
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.093	0.5	**23.1**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.16	0.8	**445**	
3050B	11/21/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.019	0.2	**0.9**	
3050B	11/21/12	200.8	11/23/12	**7440-43-9**	**Cadmium**	0.013	0.1	**26.9**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	5.2	10	**21,800**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.041	0.5	**15.6**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.034	0.2	**19.9**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.038	0.5	**69.7**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	2.0	10	**32,600**	
3050B	11/21/12	200.8	11/27/12	**7439-92-1**	**Lead**	1.3	3	**1,620**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.8	10	**6,680**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.11	0.3	**5,920**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.008	**0.241**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.052	0.5	**44.8**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	48	140	**1,650**	
3050B	11/21/12	200.8	11/26/12	**7782-49-2**	**Selenium**	0.11	0.5	**1.3**	
3050B	11/21/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0086	0.2	**1.0**	
3050B	11/21/12	6010C	11/23/12	7440-23-5	Sodium	2.9	140	140	U
3050B	11/21/12	200.8	11/23/12	**7440-28-0**	**Thallium**	0.0032	0.2	**1.0**	
3050B	11/21/12	200.8	11/23/12	**7440-62-2**	**Vanadium**	0.018	0.2	**20.7**	
3050B	11/21/12	200.8	11/28/12	**7440-66-6**	**Zinc**	1.8	20	**1,230**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: SA10-2P-2(3 to 6" depth)
SAMPLE

Lab Sample ID: VS20E
LIMS ID: 12-22681
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS20-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Percent Total Solids: 91.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/21/12	6010C	11/26/12	**7429-90-5**	**Aluminum**	9.0	10	**21,600**	
3050B	11/21/12	200.8	11/23/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.6**	
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.087	0.2	**28.2**	
3050B	11/21/12	6010C	11/26/12	**7440-39-3**	**Barium**	0.15	0.8	**275**	
3050B	11/21/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.018	0.2	**2.4**	
3050B	11/21/12	200.8	11/23/12	**7440-43-9**	**Cadmium**	0.012	0.1	**11.6**	
3050B	11/21/12	6010C	11/26/12	**7440-70-2**	**Calcium**	4.8	10	**12,700**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.038	0.5	**23.4**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.032	0.2	**32.3**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.036	0.5	**70.4**	
3050B	11/21/12	6010C	11/26/12	**7439-89-6**	**Iron**	1.9	10	**41,600**	
3050B	11/21/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.24	0.5	**552**	
3050B	11/21/12	6010C	11/26/12	**7439-95-4**	**Magnesium**	3.5	10	**10,600**	
3050B	11/21/12	6010C	11/26/12	**7439-96-5**	**Manganese**	0.10	0.3	**3,590**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.144**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.049	0.5	**78.2**	
3050B	11/21/12	6010C	11/26/12	**7440-09-7**	**Potassium**	44	130	**1,140**	
3050B	11/21/12	200.8	11/26/12	**7782-49-2**	**Selenium**	0.099	0.5	**1.4**	
3050B	11/21/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0080	0.2	**0.9**	
3050B	11/21/12	6010C	11/26/12	**7440-23-5**	**Sodium**	2.7	130	**140**	
3050B	11/21/12	200.8	11/23/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.5**	
3050B	11/21/12	200.8	11/23/12	**7440-62-2**	**Vanadium**	0.017	0.2	**27.8**	
3050B	11/21/12	200.8	11/26/12	**7440-66-6**	**Zinc**	1.7	20	**720**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

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Sample ID: SA10-2P-3(6 to 12" depth)
SAMPLE

Lab Sample ID: VS20F
LIMS ID: 12-22682
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS20-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Percent Total Solids: 93.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/21/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	9.1	10	**25,500**	
3050B	11/21/12	200.8	11/23/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.2**	
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.087	0.2	**16.1**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.8	**131**	
3050B	11/21/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.018	0.2	**2.1**	
3050B	11/21/12	200.8	11/23/12	**7440-43-9**	**Cadmium**	0.012	0.1	**4.1**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.9	10	**10,900**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.038	0.5	**26.3**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.032	0.2	**24.5**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.036	0.5	**64.0**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.9	10	**60,200**	
3050B	11/21/12	200.8	11/23/12	**7439-92-1**	**Lead**	0.047	0.1	**248**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.5	10	**13,400**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.10	0.3	**2,690**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.061**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.049	0.5	**75.6**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	45	130	**960**	
3050B	11/21/12	200.8	11/26/12	7782-49-2	Selenium	0.099	2	2	U
3050B	11/21/12	200.8	11/26/12	**7440-22-4**	**Silver**	0.0080	0.2	**1.4**	
3050B	11/21/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.7	130	**160**	
3050B	11/21/12	200.8	11/23/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.2**	
3050B	11/21/12	200.8	11/23/12	**7440-62-2**	**Vanadium**	0.017	0.2	**32.2**	
3050B	11/21/12	200.8	11/26/12	**7440-66-6**	**Zinc**	1.7	20	**410**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

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Sample ID: SA10-8C
SAMPLE

Lab Sample ID: VS20G
LIMS ID: 12-22683
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS20-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Percent Total Solids: 94.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/21/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	9.0	10	**20,600**	
3050B	11/21/12	200.8	11/23/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.4**	
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.087	0.2	**21.2**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.8	**374**	
3050B	11/21/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.6**	
3050B	11/21/12	200.8	11/23/12	**7440-43-9**	**Cadmium**	0.012	0.1	**7.4**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.8	10	**6,330**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.038	0.5	**21.2**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.032	0.2	**9.0**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.036	0.5	**27.0**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.9	10	**22,500**	
3050B	11/21/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.23	0.5	**313**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.5	10	**5,070**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.10	0.3	**2,840**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.124**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.049	0.5	**29.8**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	44	130	**1,390**	
3050B	11/21/12	200.8	11/26/12	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	11/21/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0080	0.2	**0.3**	
3050B	11/21/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.7	130	**200**	
3050B	11/21/12	200.8	11/23/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.5**	
3050B	11/21/12	200.8	11/23/12	**7440-62-2**	**Vanadium**	0.017	0.2	**25.7**	
3050B	11/21/12	200.8	11/26/12	**7440-66-6**	**Zinc**	1.7	20	**400**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA11-1C
SAMPLE

Lab Sample ID: VS20H
LIMS ID: 12-22684
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS20-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Percent Total Solids: 97.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/21/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	8.9	10	**23,500**	
3050B	11/21/12	200.8	11/23/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.086	0.2	**12.3**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.8	**230**	
3050B	11/21/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.7**	
3050B	11/21/12	200.8	11/23/12	**7440-43-9**	**Cadmium**	0.012	0.1	**2.2**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.7	10	**4,010**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.038	0.5	**31.9**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.032	0.2	**10.8**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.036	0.5	**32.0**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.9	10	**27,100**	
3050B	11/21/12	200.8	11/23/12	**7439-92-1**	**Lead**	0.047	0.1	**83.0**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.5	10	**7,150**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.10	0.3	**880**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.035**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.049	0.5	**31.1**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	44	130	**1,760**	
3050B	11/21/12	200.8	11/26/12	7782-49-2	Selenium	0.098	0.5	0.5	U
3050B	11/21/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0079	0.2	**0.2**	
3050B	11/21/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.7	130	**140**	
3050B	11/21/12	200.8	11/23/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.2**	
3050B	11/21/12	200.8	11/23/12	**7440-62-2**	**Vanadium**	0.017	0.2	**41.2**	
3050B	11/21/12	200.8	11/23/12	**7440-66-6**	**Zinc**	0.34	4	**169**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

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Sample ID: SA11-2C
SAMPLE

Lab Sample ID: VS20I
LIMS ID: 12-22685
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS20-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/06/12
Date Received: 11/12/12

Percent Total Solids: 97.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/21/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	8.4	10	**16,600**	
3050B	11/21/12	200.8	11/23/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.084	0.2	**10.6**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.14	0.7	**443**	
3050B	11/21/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.4**	
3050B	11/21/12	200.8	11/23/12	**7440-43-9**	**Cadmium**	0.012	0.1	**2.5**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.5	10	**5,590**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.037	0.5	**19.5**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.031	0.2	**7.9**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.035	0.5	**18.7**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.8	10	**21,900**	
3050B	11/21/12	200.8	11/23/12	**7439-92-1**	**Lead**	0.045	0.1	**94.7**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.3	10	**5,460**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.095	0.2	**1,200**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.050**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.047	0.5	**19.2**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	41	120	**1,930**	
3050B	11/21/12	200.8	11/26/12	7782-49-2	Selenium	0.095	0.5	0.5	U
3050B	11/21/12	200.8	11/28/12	7440-22-4	Silver	0.0077	0.2	0.2	U
3050B	11/21/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.5	120	**240**	
3050B	11/21/12	200.8	11/23/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.2**	
3050B	11/21/12	200.8	11/23/12	**7440-62-2**	**Vanadium**	0.016	0.2	**31.3**	
3050B	11/21/12	200.8	11/23/12	**7440-66-6**	**Zinc**	0.33	4	**196**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: SA11-3C**
Page 1 of 1 **SAMPLE**

Lab Sample ID: VS20J
LIMS ID: 12-22686
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS20-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 94.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/21/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	9.4	10	**16,100**	
3050B	11/21/12	200.8	11/23/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.088	0.2	**9.0**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.16	0.8	**255**	
3050B	11/21/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.5**	
3050B	11/21/12	200.8	11/23/12	**7440-43-9**	**Cadmium**	0.012	0.1	**2.4**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	5.0	10	**10,900**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.039	0.5	**23.2**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.032	0.2	**6.0**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.037	0.5	**22.6**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	2.0	10	**17,600**	
3050B	11/21/12	200.8	11/23/12	**7439-92-1**	**Lead**	0.048	0.1	**113**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.6	10	**4,420**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.11	0.3	**497**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.074**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.050	0.5	**18.6**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	46	130	**1,440**	
3050B	11/21/12	200.8	11/26/12	**7782-49-2**	**Selenium**	0.10	0.5	**0.7**	
3050B	11/21/12	200.8	11/26/12	7440-22-4	Silver	0.0081	0.2	0.2	U
3050B	11/21/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.8	130	**280**	
3050B	11/21/12	200.8	11/23/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.2**	
3050B	11/21/12	200.8	11/23/12	**7440-62-2**	**Vanadium**	0.017	0.2	**30.7**	
3050B	11/21/12	200.8	11/23/12	**7440-66-6**	**Zinc**	0.34	4	**187**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA11-4C
SAMPLE

Lab Sample ID: VS20K
LIMS ID: 12-22687
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS20-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Percent Total Solids: 95.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/21/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	8.8	10	**14,900**	
3050B	11/21/12	200.8	11/23/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.6**	
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.090	0.2	**20.7**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.7	**484**	
3050B	11/21/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.019	0.2	**0.6**	
3050B	11/21/12	200.8	11/23/12	**7440-43-9**	**Cadmium**	0.012	0.1	**13.3**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.7	10	**7,340**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.039	0.5	**21.5**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.033	0.2	**6.7**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.037	0.5	**24.9**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.9	10	**18,000**	
3050B	11/21/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.24	0.5	**500**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.4	10	**4,570**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.099	0.2	**1,330**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.126**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.051	0.5	**17.9**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	43	120	**2,230**	
3050B	11/21/12	200.8	11/26/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/21/12	200.8	11/26/12	**7440-22-4**	**Silver**	0.0082	0.2	**0.3**	
3050B	11/21/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.6	120	**160**	
3050B	11/21/12	200.8	11/23/12	**7440-28-0**	**Thallium**	0.0031	0.2	**0.6**	
3050B	11/21/12	200.8	11/23/12	**7440-62-2**	**Vanadium**	0.018	0.2	**26.2**	
3050B	11/21/12	200.8	11/26/12	**7440-66-6**	**Zinc**	1.7	20	**700**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: SA11-5C
SAMPLE

Lab Sample ID: VS20L
LIMS ID: 12-22688
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS20-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/06/12
Date Received: 11/12/12

Percent Total Solids: 95.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/21/12	6010C	11/23/12	**7429-90-5**	**Aluminum**	8.7	10	**15,000**	
3050B	11/21/12	200.8	11/23/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.8**	
3050B	11/21/12	200.8	11/23/12	**7440-38-2**	**Arsenic**	0.088	0.2	**21.0**	
3050B	11/21/12	6010C	11/23/12	**7440-39-3**	**Barium**	0.15	0.7	**413**	
3050B	11/21/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.5**	
3050B	11/21/12	200.8	11/23/12	**7440-43-9**	**Cadmium**	0.012	0.1	**6.9**	
3050B	11/21/12	6010C	11/23/12	**7440-70-2**	**Calcium**	4.6	10	**4,640**	
3050B	11/21/12	200.8	11/23/12	**7440-47-3**	**Chromium**	0.038	0.5	**14.9**	
3050B	11/21/12	200.8	11/23/12	**7440-48-4**	**Cobalt**	0.032	0.2	**6.4**	
3050B	11/21/12	200.8	11/23/12	**7440-50-8**	**Copper**	0.036	0.5	**24.1**	
3050B	11/21/12	6010C	11/23/12	**7439-89-6**	**Iron**	1.8	10	**15,700**	
3050B	11/21/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.24	0.5	**374**	
3050B	11/21/12	6010C	11/23/12	**7439-95-4**	**Magnesium**	3.4	10	**3,290**	
3050B	11/21/12	6010C	11/23/12	**7439-96-5**	**Manganese**	0.098	0.2	**1,630**	
CLP	11/21/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.150**	
3050B	11/21/12	200.8	11/23/12	**7440-02-0**	**Nickel**	0.050	0.5	**14.4**	
3050B	11/21/12	6010C	11/23/12	**7440-09-7**	**Potassium**	43	120	**1,260**	
3050B	11/21/12	200.8	11/23/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/21/12	200.8	11/26/12	**7440-22-4**	**Silver**	0.0081	0.2	**0.4**	
3050B	11/21/12	6010C	11/23/12	**7440-23-5**	**Sodium**	2.6	120	**270**	
3050B	11/21/12	200.8	11/23/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.5**	
3050B	11/21/12	200.8	11/23/12	**7440-62-2**	**Vanadium**	0.017	0.2	**24.8**	
3050B	11/21/12	200.8	11/26/12	**7440-66-6**	**Zinc**	1.7	20	**410**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

UNITS:ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Aluminum	AL	ICP	IP112371	2000.0	2025.52	**101.3**	2000.0	2085.67	**104.3**	2024.35	**101.2**	2000.16	**100.0**	2018.83	**100.9**	2069.20	**103.5**
Antimony	SB	PMS	MS112311	50.0	48.70	**97.4**	50.0	49.65	**99.3**	50.19	**100.4**	50.43	**100.9**	50.57	**101.1**	49.57	**99.1**
Arsenic	AS	PMS	MS112311	50.0	51.87	**103.7**	50.0	51.57	**103.1**	50.96	**101.9**	52.25	**104.5**	51.49	**103.0**	51.50	**103.0**
Barium	BA	ICP	IP112371	1000.0	1015.64	**101.6**	1000.0	1035.54	**103.6**	1034.72	**103.5**	1009.44	**100.9**	1024.61	**102.5**	1030.99	**103.1**
Cadmium	CD	PMS	MS112311	50.0	49.55	**99.1**	50.0	49.86	**99.7**	51.01	**102.0**	51.50	**103.0**	51.65	**103.3**	50.93	**101.9**
Calcium	CA	ICP	IP112371	2000.0	1928.23	**96.4**	2000.0	2115.53	**105.8**	2072.28	**103.6**	2035.15	**101.8**	2076.99	**103.8**	1999.30	**100.0**
Chromium	CR	PMS	MS112311	50.0	50.54	**101.1**	50.0	51.14	**102.3**	51.58	**103.2**	51.17	**102.3**	51.04	**102.1**	50.00	**100.0**
Cobalt	CO	PMS	MS112311	50.0	50.10	**100.2**	50.0	51.14	**102.3**	50.78	**101.6**	49.65	**99.3**	50.23	**100.5**	48.19	**96.4**
Copper	CU	PMS	MS112311	50.0	52.43	**104.9**	50.0	51.56	**103.1**	52.61	**105.2**	52.93	**105.9**	52.46	**104.9**	52.80	**105.6**
Iron	FE	ICP	IP112371	2000.0	2030.63	**101.5**	2000.0	2102.43	**105.1**	2009.68	**100.5**	2007.58	**100.4**	2054.80	**102.7**	2126.01	**106.3**
Lead	PB	PMS	MS112311	50.0	51.02	**102.0**	50.0	49.36	**98.7**	50.10	**100.2**	50.83	**101.7**	50.24	**100.5**	50.51	**101.0**
Magnesium	MG	ICP	IP112371	2000.0	2026.50	**101.3**	2000.0	2086.29	**104.3**	2029.06	**101.5**	2008.05	**100.4**	2042.17	**102.1**	2105.55	**105.3**
Manganese	MN	ICP	IP112371	1000.0	958.03	**95.8**	1000.0	1026.11	**102.6**	999.01	**99.9**	996.77	**99.7**	1010.21	**101.0**	987.87	**98.8**
Mercury	HG	CVA	HG112301	8.0	8.49	**106.1**	4.0	4.18	**104.5**	4.24	**106.0**	4.28	**107.0**	4.26	**106.5**	4.30	**107.5**
Nickel	NI	PMS	MS112311	50.0	52.79	**105.6**	50.0	51.66	**103.3**	51.06	**102.1**	53.49	**107.0**	51.51	**103.0**	52.74	**105.5**
Potassium	K	ICP	IP112371	20000.0	19935.65	**99.7**	20000.0	20774.69	**103.9**	20243.38	**101.2**	20028.27	**100.1**	20206.14	**101.0**	20231.83	**101.2**
Selenium	SE	PMS	MS112311	80.0	81.11	**101.4**	50.0	52.06	**104.1**	51.44	**102.9**	52.40	**104.8**	52.54	**105.1**	51.65	**103.3**
Sodium	NA	ICP	IP112371	50000.0	52868.77	**105.7**	50000.0	53363.13	**106.7**	52506.09	**105.0**	52159.22	**104.3**	52336.36	**104.7**	52957.22	**105.9**
Thallium	TL	PMS	MS112311	50.0	51.01	**102.0**	50.0	49.78	**99.6**	50.26	**100.5**	50.76	**101.5**	50.60	**101.2**	50.49	**101.0**
Vanadium	V	PMS	MS112311	50.0	50.90	**101.8**	50.0	50.13	**100.3**	50.96	**101.9**	50.46	**100.9**	50.57	**101.1**	49.06	**98.1**
Zinc	ZN	PMS	MS112311	50.0	51.75	**103.5**	50.0	52.22	**104.4**	51.71	**103.4**	52.33	**104.7**	52.30	**104.6**	51.38	**102.8**

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

UNITS: ug/L

SDG: VS20

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Aluminum	AL	ICP	IP112371	2000.0	2040.10	**102.0**	1995.86	**99.8**	2014.82	**100.7**	2025.27	**101.3**	2024.19	**101.2**	1978.98	**98.9**
Antimony	SB	PMS	MS112311	50.0	49.96	**99.9**	51.31	**102.6**	50.99	**102.0**	50.97	**101.9**	51.09	**102.2**	51.46	**102.9**
Arsenic	AS	PMS	MS112311	50.0	51.65	**103.3**	53.04	**106.1**	52.00	**104.0**	52.43	**104.9**	53.26	**106.5**	52.83	**105.7**
Barium	BA	ICP	IP112371	1000.0	1017.26	**101.7**	1007.98	**100.8**	1009.59	**101.0**	1014.74	**101.5**	1007.44	**100.7**	992.36	**99.2**
Cadmium	CD	PMS	MS112311	50.0	51.38	**102.8**	52.63	**105.3**	52.41	**104.8**	52.26	**104.5**	52.71	**105.4**	53.12	**106.2**
Calcium	CA	ICP	IP112371	2000.0	2088.29	**104.4**	2048.32	**102.4**	2060.46	**103.0**	2079.17	**104.0**	2087.98	**104.4**	2034.43	**101.7**
Chromium	CR	PMS	MS112311	50.0	50.19	**100.4**	50.31	**100.6**	50.44	**100.9**	50.56	**101.1**	49.06	**98.1**	48.46	**96.9**
Cobalt	CO	PMS	MS112311	50.0	49.53	**99.1**	49.42	**98.8**	47.73	**95.5**	48.20	**96.4**	46.57	**93.1**	46.52	**93.0**
Copper	CU	PMS	MS112311	50.0	51.95	**103.9**	53.94	**107.9**	52.12	**104.2**	52.99	**106.0**	52.82	**105.6**	52.01	**104.0**
Iron	FE	ICP	IP112371	2000.0	2097.97	**104.9**	2048.52	**102.4**	2062.94	**103.1**	2101.19	**105.1**	2119.69	**106.0**	2048.92	**102.4**
Lead	PB	PMS	MS112311	50.0	51.09	**102.2**	52.00	**104.0**	51.28	**102.6**	51.76	**103.5**	51.83	**103.7**	51.53	**103.1**
Magnesium	MG	ICP	IP112371	2000.0	2061.40	**103.1**	2025.43	**101.3**	2040.90	**102.0**	2036.14	**101.8**	2048.74	**102.4**	2000.38	**100.0**
Manganese	MN	ICP	IP112371	1000.0	1006.89	**100.7**	1001.20	**100.1**	1014.16	**101.4**	1016.89	**101.7**	1014.85	**101.5**	1003.53	**100.4**
Mercury	HG	CVA	HG112301	4.0	4.24	**106.0**	4.37	**109.3**								
Nickel	NI	PMS	MS112311	50.0	52.42	**104.8**	53.89	**107.8**	52.40	**104.8**	53.01	**106.0**	53.38	**106.8**	52.60	**105.2**
Potassium	K	ICP	IP112371	20000.0	20055.48	**100.3**	19714.52	**98.6**	20094.02	**100.5**	20136.53	**100.7**	20064.47	**100.3**	19706.24	**98.5**
Selenium	SE	PMS	MS112311	50.0	51.98	**104.0**	53.56	**107.1**	52.93	**105.9**	53.89	**107.8**	55.24	**110.5**	54.28	**108.6**
Sodium	NA	ICP	IP112371	50000.0	51772.63	**103.5**	49311.65	**98.6**	52526.36	**105.1**	52121.25	**104.2**	51905.40	**103.8**	49384.36	**98.8**
Thallium	TL	PMS	MS112311	50.0	51.17	**102.3**	52.31	**104.6**	51.39	**102.8**	51.64	**103.3**	52.39	**104.8**	51.85	**103.7**
Vanadium	V	PMS	MS112311	50.0	49.33	**98.7**	49.86	**99.7**	49.41	**98.8**	49.63	**99.3**	48.40	**96.8**	48.41	**96.8**
Zinc	ZN	PMS	MS112311	50.0	52.71	**105.4**	53.81	**107.6**	52.90	**105.8**	52.92	**105.8**	53.91	**107.8**	52.61	**105.2**

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

UNITS:ug/L

SDG: VS20

ANALYTE	EL	M	RUN	CCVTV	CCV12	%R	CCV13	%R	CCV14	%R	CCV15	%R	CCV16	%R	CCV17	%R
Aluminum	AL	ICP	IP112371	2000.0	1988.07	**99.4**	2030.15	**101.5**								
Antimony	SB	PMS	MS112311	50.0	52.30	**104.6**										
Arsenic	AS	PMS	MS112311	50.0	52.46	**104.9**										
Barium	BA	ICP	IP112371	1000.0	996.57	**99.7**	997.32	**99.7**								
Cadmium	CD	PMS	MS112311	50.0	54.18	**108.4**										
Calcium	CA	ICP	IP112371	2000.0	2053.45	**102.7**	2074.98	**103.7**								
Chromium	CR	PMS	MS112311	50.0	50.95	**101.9**										
Cobalt	CO	PMS	MS112311	50.0	48.47	**96.9**										
Copper	CU	PMS	MS112311	50.0	52.05	**104.1**										
Iron	FE	ICP	IP112371	2000.0	2088.23	**104.4**	2113.53	**105.7**								
Lead	PB	PMS	MS112311	50.0	53.61	**107.2**										
Magnesium	MG	ICP	IP112371	2000.0	2028.90	**101.4**	2035.99	**101.8**								
Manganese	MN	ICP	IP112371	1000.0	1017.86	**101.8**	1018.47	**101.8**								
Mercury	HG	CVA	HG112301	4.0												
Nickel	NI	PMS	MS112311	50.0	52.63	**105.3**										
Potassium	K	ICP	IP112371	20000.0	20073.17	**100.4**	20025.69	**100.1**								
Selenium	SE	PMS	MS112311	50.0	54.36	**108.7**										
Sodium	NA	ICP	IP112371	50000.0	52489.70	**105.0**	52021.06	**104.0**								
Thallium	TL	PMS	MS112311	50.0	53.56	**107.1**										
Vanadium	V	PMS	MS112311	50.0	49.50	**99.0**										
Zinc	ZN	PMS	MS112311	50.0	52.47	**104.9**										

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

UNITS:ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Aluminum	AL	ICP	IP112671	2000.0	2067.09	**103.4**	2000.0	2007.97	**100.4**	2017.32	**100.9**	2094.06	**104.7**	2071.84	**103.6**		
Barium	BA	ICP	IP112671	1000.0	1035.69	**103.6**	1000.0	1007.68	**100.8**	1010.87	**101.1**	1023.80	**102.4**	1017.20	**101.7**		
Beryllium	BE	PMS	MS112611	50.0	49.71	**99.4**	50.0	50.36	**100.7**	50.72	**101.4**	52.14	**104.3**	52.51	**105.0**	53.21	**106.4**
Calcium	CA	ICP	IP112671	2000.0	1994.41	**99.7**	2000.0	1932.94	**96.6**	1949.03	**97.5**	1987.61	**99.4**	1982.88	**99.1**		
Iron	FE	ICP	IP112671	2000.0	2107.78	**105.4**	2000.0	2037.31	**101.9**	2065.29	**103.3**	2143.77	**107.2**	2117.47	**105.9**		
Lead	PB	PMS	MS112611	50.0	50.34	**100.7**	50.0	49.80	**99.6**	49.65	**99.3**	49.84	**99.7**	50.14	**100.3**	50.66	**101.3**
Magnesium	MG	ICP	IP112671	2000.0	2081.03	**104.1**	2000.0	2019.03	**101.0**	2038.73	**101.9**	2077.72	**103.9**	2072.22	**103.6**		
Manganese	MN	ICP	IP112671	1000.0	1005.74	**100.6**	1000.0	975.22	**97.5**	985.59	**98.6**	1000.56	**100.1**	990.76	**99.1**		
Potassium	K	ICP	IP112671	20000.0	20464.95	**102.3**	20000.0	19840.51	**99.2**	20087.47	**100.4**	20335.53	**101.7**	20212.87	**101.1**		
Selenium	SE	PMS	MS112611	80.0	78.82	**98.5**	50.0	51.30	**102.6**	52.17	**104.3**	51.51	**103.0**	52.85	**105.7**	53.75	**107.5**
Silver	AG	PMS	MS112611	50.0	52.63	**105.3**	50.0	51.23	**102.5**	53.13	**106.3**	52.28	**104.6**	54.85	**109.7**	54.73	**109.5**
Sodium	NA	ICP	IP112671	50000.0	53299.27	**106.6**	50000.0	52542.91	**105.1**	52703.31	**105.4**	52984.32	**106.0**	52676.01	**105.4**		
Zinc	ZN	PMS	MS112611	50.0	49.95	**99.9**	50.0	51.44	**102.9**	51.81	**103.6**	50.69	**101.4**	51.52	**103.0**	52.25	**104.5**

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

UNITS: ug/L

SDG: VS20

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Aluminum	AL	ICP	IP112671	2000.0												
Barium	BA	ICP	IP112671	1000.0												
Beryllium	BE	PMS	MS112611	50.0	52.86	**105.7**	52.57	**105.1**	53.50	**107.0**	52.65	**105.3**				
Calcium	CA	ICP	IP112671	2000.0												
Iron	FE	ICP	IP112671	2000.0												
Lead	PB	PMS	MS112611	50.0	51.20	**102.4**	50.90	**101.8**	50.58	**101.2**	51.23	**102.5**				
Magnesium	MG	ICP	IP112671	2000.0												
Manganese	MN	ICP	IP112671	1000.0												
Potassium	K	ICP	IP112671	20000.0												
Selenium	SE	PMS	MS112611	50.0	53.40	**106.8**	53.19	**106.4**	54.99	**110.0**	51.75	**103.5**				
Silver	AG	PMS	MS112611	50.0	55.91	**111.8**	54.40	**108.8**	53.69	**107.4**	54.08	**108.2**				
Sodium	NA	ICP	IP112671	50000.0												
Zinc	ZN	PMS	MS112611	50.0	51.13	**102.3**	50.77	**101.5**	52.31	**104.6**	51.11	**102.2**				

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

UNITS:ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Lead	PB	PMS	MS112711	50.0	49.32	**98.6**	50.0	48.14	**96.3**	47.73	**95.5**	47.28	**94.6**	48.09	**96.2**	47.51	**95.0**

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

Calibration Verification

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Lead	PB	PMS	MS112711	50.0	48.70	97.4										

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

VS20 : 00038

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

UNITS:ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Silver	AG	PMS	MS112811	50.0	53.92	**107.8**	50.0	52.85	**105.7**	51.06	**102.1**	51.70	**103.4**	52.36	**104.7**	52.77	**105.5**
Zinc	ZN	PMS	MS112811	50.0	50.53	**101.1**	50.0	51.54	**103.1**	51.14	**102.3**	50.25	**100.5**	50.72	**101.4**	50.75	**101.5**

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

CRDL Standard

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

ANALYTICAL RESOURCES INCORPORATED

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Aluminum	AL	ICP	IP112371	50.0	46.95	**93.9**	46.28	**92.6**	59.66	**119.3**	45.12	**90.2**	50.24	**100.5**		
Antimony	SB	PMS	MS112311	0.2	0.20	**100.0**										
Arsenic	AS	PMS	MS112311	0.2	0.20	**100.0**										
Barium	BA	ICP	IP112371	3.0	2.35	**78.3**	3.02	**100.7**	3.14	**104.7**	2.87	**95.7**	2.68	**89.3**		
Cadmium	CD	PMS	MS112311	0.1	0.11	**110.0**										
Calcium	CA	ICP	IP112371	50.0	49.09	**98.2**	48.73	**97.5**	47.03	**94.1**	46.78	**93.6**	47.83	**95.7**		
Chromium	CR	PMS	MS112311	0.5	0.58	**116.0**										
Cobalt	CO	PMS	MS112311	0.2	0.21	**105.0**										
Copper	CU	PMS	MS112311	0.5	0.51	**102.0**										
Iron	FE	ICP	IP112371	50.0	48.15	**96.3**	56.03	**112.1**	52.94	**105.9**	50.78	**101.6**	56.65	**113.3**		
Lead	PB	PMS	MS112311	0.1	0.11	**110.0**										
Magnesium	MG	ICP	IP112371	50.0	51.84	**103.7**	47.59	**95.2**	52.88	**105.8**	46.53	**93.1**	52.11	**104.2**		
Manganese	MN	ICP	IP112371	1.0	0.91	**91.0**	1.31	**131.0**	1.15	**115.0**	1.00	**100.0**	1.10	**110.0**		
Mercury	HG	CVA	HG112301	0.1	0.13	**130.0**										
Nickel	NI	PMS	MS112311	0.5	0.54	**108.0**										
Potassium	K	ICP	IP112371	500.0	508.20	**101.6**	519.30	**103.9**	481.14	**96.2**	488.11	**97.6**	496.63	**99.3**		
Selenium	SE	PMS	MS112311	0.5	0.54	**108.0**										
Sodium	NA	ICP	IP112371	500.0	489.27	**97.9**	489.51	**97.9**	480.44	**96.1**	476.00	**95.2**	483.11	**96.6**		
Thallium	TL	PMS	MS112311	0.2	0.21	**105.0**										
Vanadium	V	PMS	MS112311	0.2	0.23	**115.0**										
Zinc	ZN	PMS	MS112311	4.0	4.68	**117.0**										
Aluminum	AL	ICP	IP112671	50.0	52.48	**105.0**	61.91	**123.8**	48.12	**96.2**						
Barium	BA	ICP	IP112671	3.0	2.96	**98.7**	4.01	**133.7**	3.87	**129.0**						
Beryllium	BE	PMS	MS112611	0.2	0.21	**105.0**										
Calcium	CA	ICP	IP112671	50.0	49.20	**98.4**	51.46	**102.9**	54.15	**108.3**						
Iron	FE	ICP	IP112671	50.0	51.46	**102.9**	62.04	**124.1**	50.68	**101.4**						
Lead	PB	PMS	MS112611	0.1	0.11	**110.0**										
Magnesium	MG	ICP	IP112671	50.0	51.14	**102.3**	53.60	**107.2**	55.92	**111.8**						
Manganese	MN	ICP	IP112671	1.0	1.17	**117.0**	1.66	**166.0**	1.10	**110.0**						
Potassium	K	ICP	IP112671	500.0	514.89	**103.0**	498.89	**99.8**	505.58	**101.1**						
Selenium	SE	PMS	MS112611	0.5	0.52	**104.0**										
Silver	AG	PMS	MS112611	0.2	0.21	**105.0**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Sodium	NA	ICP	IP112671	500.0	502.26	**100.5**	503.15	**100.6**	507.46	**101.5**						
Zinc	ZN	PMS	MS112611	4.0	4.62	**115.5**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

UNITS:ug/L

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Lead	PB	PMS	MS112711		0.1	0.10	**100.0**										
Silver	AG	PMS	MS112811		0.2	0.21	**105.0**										
Zinc	ZN	PMS	MS112811		4.0	4.54	**113.5**										

Control Limits: no control limits have been established by the EPA at this time.

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Aluminum	AL	ICP	IP112371	200.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Antimony	SB	PMS	MS112311	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS112311	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Barium	BA	ICP	IP112371	200.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
Cadmium	CD	PMS	MS112311	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Calcium	CA	ICP	IP112371	5000.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Chromium	CR	PMS	MS112311	10.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cobalt	CO	PMS	MS112311	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Copper	CU	PMS	MS112311	25.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Iron	FE	ICP	IP112371	100.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Lead	PB	PMS	MS112311	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Magnesium	MG	ICP	IP112371	5000.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Manganese	MN	ICP	IP112371	15.0	1.0	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Mercury	HG	CVA	HG112301	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Nickel	NI	PMS	MS112311	40.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Potassium	K	ICP	IP112371	5000.0	500.0	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U
Selenium	SE	PMS	MS112311	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Sodium	NA	ICP	IP112371	5000.0	500.0	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U
Thallium	TL	PMS	MS112311	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Vanadium	V	PMS	MS112311	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Zinc	ZN	PMS	MS112311	20.0	4.0	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Aluminum	AL	ICP	IP112371	200.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Antimony	SB	PMS	MS112311	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS112311	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Barium	BA	ICP	IP112371	200.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
Cadmium	CD	PMS	MS112311	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Calcium	CA	ICP	IP112371	5000.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Chromium	CR	PMS	MS112311	10.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cobalt	CO	PMS	MS112311	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Copper	CU	PMS	MS112311	25.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Iron	FE	ICP	IP112371	100.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Lead	PB	PMS	MS112311	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Magnesium	MG	ICP	IP112371	5000.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Manganese	MN	ICP	IP112371	15.0	1.0	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Mercury	HG	CVA	HG112301	0.2	0.1	0.1	U	0.1	U								
Nickel	NI	PMS	MS112311	40.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Potassium	K	ICP	IP112371	5000.0	500.0	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U
Selenium	SE	PMS	MS112311	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Sodium	NA	ICP	IP112371	5000.0	500.0	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U
Thallium	TL	PMS	MS112311	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Vanadium	V	PMS	MS112311	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Zinc	ZN	PMS	MS112311	20.0	4.0	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

UNITS:ug/L

SDG: VS20

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB12	C	CCB13	C	CCB14	C	CCB15	C	CCB16	C	CCB17	C
Aluminum	AL	ICP	IP112371	200.0	50.0	50.0	U										
Antimony	SB	PMS	MS112311	60.0	0.2	0.2	U										
Arsenic	AS	PMS	MS112311	10.0	0.2	0.2	U										
Barium	BA	ICP	IP112371	200.0	3.0	3.0	U										
Cadmium	CD	PMS	MS112311	5.0	0.1	0.1	U										
Calcium	CA	ICP	IP112371	5000.0	50.0	50.0	U										
Chromium	CR	PMS	MS112311	10.0	0.5	0.5	U										
Cobalt	CO	PMS	MS112311	50.0	0.2	0.2	U										
Copper	CU	PMS	MS112311	25.0	0.5	0.5	U										
Iron	FE	ICP	IP112371	100.0	50.0	50.0	U										
Lead	PB	PMS	MS112311	3.0	0.1	0.1	U										
Magnesium	MG	ICP	IP112371	5000.0	50.0	50.0	U										
Manganese	MN	ICP	IP112371	15.0	1.0	1.0	U										
Mercury	HG	CVA	HG112301	0.2	0.1												
Nickel	NI	PMS	MS112311	40.0	0.5	0.5	U										
Potassium	K	ICP	IP112371	5000.0	500.0	500.0	U										
Selenium	SE	PMS	MS112311	5.0	0.5	0.5	U										
Sodium	NA	ICP	IP112371	5000.0	500.0	500.0	U										
Thallium	TL	PMS	MS112311	10.0	0.2	0.2	U										
Vanadium	V	PMS	MS112311	50.0	0.2	0.2	U										
Zinc	ZN	PMS	MS112311	20.0	4.0	4.0	U										

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Aluminum	AL	ICP	IP112671	200.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Barium	BA	ICP	IP112671	200.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
Beryllium	BE	PMS	MS112611	5.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Calcium	CA	ICP	IP112671	5000.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Iron	FE	ICP	IP112671	100.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Lead	PB	PMS	MS112611	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Magnesium	MG	ICP	IP112671	5000.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Manganese	MN	ICP	IP112671	15.0	1.0	1.0	U	1.0	U	1.0	U	1.2	B	1.0	U	1.0	U
Potassium	K	ICP	IP112671	5000.0	500.0	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U
Selenium	SE	PMS	MS112611	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Silver	AG	PMS	MS112611	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Sodium	NA	ICP	IP112671	5000.0	500.0	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U
Zinc	ZN	PMS	MS112611	20.0	4.0	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Aluminum	AL	ICP	IP112671	200.0	50.0												
Barium	BA	ICP	IP112671	200.0	3.0												
Beryllium	BE	PMS	MS112611	5.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				
Calcium	CA	ICP	IP112671	5000.0	50.0												
Iron	FE	ICP	IP112671	100.0	50.0												
Lead	PB	PMS	MS112611	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U				
Magnesium	MG	ICP	IP112671	5000.0	50.0												
Manganese	MN	ICP	IP112671	15.0	1.0												
Potassium	K	ICP	IP112671	5000.0	500.0												
Selenium	SE	PMS	MS112611	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U				
Silver	AG	PMS	MS112611	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U				
Sodium	NA	ICP	IP112671	5000.0	500.0												
Zinc	ZN	PMS	MS112611	20.0	4.0	4.0	U	4.0	U	4.0	U	4.0	U				

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Lead	PB	PMS	MS112711	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U

VS20:00043

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Lead	PB	PMS	MS112711	3.0	0.1	0.1	U										

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Silver	AG	PMS	MS112811	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Zinc	ZN	PMS	MS112811	20.0	4.0	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U

VS20:00050

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

ICS SOURCE: I.V.

PROJECT: Upper Columbia

RUNID: IP112371

SDG: VS20

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	205876.7	203523.8	**101.8**	200009.3	204478.1	**102.2**	200343.2	198650.6	**99.3**
Antimony		1000	12.8	1016.2	**101.6**	8.2	1020.7	**102.1**	8.5	996.6	**99.7**
Arsenic		1000	17.1	1034.1	**103.4**	17.0	1035.8	**103.6**	13.5	1017.3	**101.7**
Barium		1000	-4.0	1020.0	**102.0**	-3.1	1028.1	**102.8**	-3.4	1000.8	**100.1**
Beryllium		1000	0.1	1006.2	**100.6**	0.1	1013.7	**101.4**	0.1	983.3	**98.3**
Boron			-2.9	-2.2		-2.0	-2.0		-2.0	-2.1	
Cadmium		1000	0.0	1044.0	**104.4**	0.0	1040.8	**104.1**	-0.1	1022.4	**102.2**
Calcium	100000	100000	101961.0	102356.8	**102.4**	99992.7	103626.0	**103.6**	100774.8	100466.4	**100.5**
Chromium		1000	-0.8	1029.5	**103.0**	0.1	1033.6	**103.4**	0.2	1009.6	**101.0**
Cobalt		1000	-0.5	983.3	**98.3**	-0.5	985.8	**98.6**	-0.5	967.9	**96.8**
Copper		1000	-0.1	1070.0	**107.0**	-0.1	1062.8	**106.3**	-0.1	1041.7	**104.2**
Iron	200000	200000	199598.9	201262.3	**100.6**	196041.8	202786.8	**101.4**	198944.7	198420.4	**99.2**
Lead		1000	0.0	1005.6	**100.6**	-0.9	1010.8	**101.1**	-0.3	994.1	**99.4**
Magnesium	100000	100000	105073.8	101989.3	**102.0**	104729.2	103154.9	**103.2**	104573.9	100033.4	**100.0**
Manganese		1000	0.7	982.0	**98.2**	0.9	988.1	**98.8**	1.3	964.2	**96.4**
Molybdenum			2.3	1.5		1.1	1.6		1.2	1.4	
Nickel		1000	-0.5	988.8	**98.9**	-0.5	995.9	**99.6**	0.2	973.1	**97.3**
Potassium			15.5	-29.9		6.6	-22.4		17.2	-29.2	
Selenium		1000	9.5	1020.6	**102.1**	9.0	1020.9	**102.1**	11.7	1010.5	**101.1**
Silicon			-1.3	-2.4		-3.3	-0.3		-3.9	-0.3	
Silver		1000	-1.0	1060.4	**106.0**	-1.2	1056.4	**105.6**	-1.2	1036.1	**103.6**
Sodium			15.9	27.3		19.3	32.9		14.2	28.9	
Strontium			4.1	4.1		4.1	4.2		4.0	4.0	
Thallium		1000	-0.7	953.0	**95.3**	2.4	955.9	**95.6**	1.7	937.4	**93.7**
Tin			-5.2	-5.2		-8.0	-8.5		-6.2	-5.6	
Titanium			2.6	2.3		2.4	1.7		2.1	2.3	
Vanadium		1000	3.8	1017.6	**101.8**	4.3	1014.8	**101.5**	4.1	995.9	**99.6**
Zinc		1000	3.2	985.0	**98.5**	3.2	997.2	**99.7**	2.4	973.5	**97.4**

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

ICS SOURCE: I.V.

RUNID: IP112371

ICP INSTRUMENT ID: OPTIMA ICP

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA4	ICSAB4	%R	ICSA5	ICSAB5	%R	ICSA6	ICSAB6	%R
Aluminum	200000	200000	199231.9	193835.0	**96.9**						
Antimony		1000	7.1	1018.1	**101.8**						
Arsenic		1000	16.0	1038.0	**103.8**						
Barium		1000	-3.9	975.1	**97.5**						
Beryllium		1000	0.1	967.9	**96.8**						
Boron			-2.7	-2.5							
Cadmium		1000	-0.3	1036.6	**103.7**						
Calcium	100000	100000	100109.7	98290.4	**98.3**						
Chromium		1000	-0.2	992.2	**99.2**						
Cobalt		1000	-0.5	978.5	**97.9**						
Copper		1000	-0.3	1054.9	**105.5**						
Iron	200000	200000	198869.4	194665.6	**97.3**						
Lead		1000	-0.3	1008.8	**100.9**						
Magnesium	100000	100000	103808.0	97435.3	**97.4**						
Manganese		1000	0.9	946.1	**94.6**						
Molybdenum			1.3	1.7							
Nickel		1000	0.7	951.4	**95.1**						
Potassium			9.4	-18.2							
Selenium		1000	8.1	1027.4	**102.7**						
Silicon			-3.3	-4.8							
Silver		1000	-1.2	1044.9	**104.5**						
Sodium			16.1	27.5							
Strontium			4.1	3.9							
Thallium		1000	-0.6	945.3	**94.5**						
Tin			-5.1	-6.5							
Titanium			2.4	2.6							
Vanadium		1000	4.5	1006.1	**100.6**						
Zinc		1000	3.3	954.4	**95.4**						

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

ICS SOURCE: I.V.

RUNID: MS112311

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	20.6	**103.0**						
Cadmium		20	0.1	19.9	**99.5**						
Chromium		20	0.6	21.0	**105.0**						
Cobalt		20	0.0	19.7	**98.5**						
Copper		20	0.9	21.9	**109.5**						
Manganese		20	0.1	20.1	**100.5**						
Molybdenum	400	400	413.1	424.3	**106.1**						
Nickel		20	0.3	21.4	**107.0**						
Selenium			-0.1	-0.1							
Silver		20	0.0	20.8	**104.0**						
Thorium			0.2	0.1							
Vanadium			0.1	0.1							
Zinc		20	1.0	21.0	**105.0**						

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

ICS SOURCE: I.V.

RUNID: IP112671

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	196858.1	194133.9	**97.1**	199546.5	197449.7	**98.7**			
Antimony		1000	10.9	1007.7	**100.8**	11.3	1030.9	**103.1**			
Arsenic		1000	16.8	990.2	**99.0**	16.9	1007.7	**100.8**			
Barium		1000	-4.6	981.6	**98.2**	-3.8	991.3	**99.1**			
Beryllium		1000	0.1	1001.1	**100.1**	0.1	1024.1	**102.4**			
Boron			-4.9	-6.1		-6.7	-5.8				
Cadmium		1000	-0.3	1001.0	**100.1**	-0.1	1023.4	**102.3**			
Calcium	100000	100000	98481.7	97438.1	**97.4**	99235.0	99361.5	**99.4**			
Chromium		1000	1.0	994.2	**99.4**	0.5	1011.3	**101.1**			
Cobalt		1000	-0.6	967.7	**96.8**	-0.5	984.2	**98.4**			
Copper		1000	-0.6	1008.3	**100.8**	-0.6	1030.9	**103.1**			
Iron	200000	200000	193545.9	191318.1	**95.7**	196742.4	196456.1	**98.2**			
Lead		1000	1.3	942.2	**94.2**	1.0	959.4	**95.9**			
Magnesium	100000	100000	101709.0	96852.1	**96.9**	103217.7	98770.5	**98.8**			
Manganese		1000	1.0	946.0	**94.6**	1.4	969.7	**97.0**			
Molybdenum			1.7	1.8		2.1	2.0				
Nickel		1000	1.3	975.5	**97.6**	0.8	989.3	**98.9**			
Potassium			6.5	-47.9		10.7	-35.0				
Selenium		1000	11.0	966.6	**96.7**	3.5	983.7	**98.4**			
Silicon			0.2	3.6		1.3	2.1				
Silver		1000	-1.0	983.1	**98.3**	-1.0	1001.8	**100.2**			
Sodium			19.2	26.8		14.1	27.6				
Strontium			4.1	4.1		4.2	4.2				
Thallium		1000	-1.5	911.9	**91.2**	-0.3	924.4	**92.4**			
Tin			-8.1	-7.5		-7.3	-6.8				
Titanium			3.5	2.6		3.2	3.0				
Vanadium		1000	3.4	956.5	**95.7**	3.6	973.6	**97.4**			
Zinc		1000	2.5	966.5	**96.7**	3.3	982.4	**98.2**			

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

ICS SOURCE: I.V.

RUNID: MS112611

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	20.3	**101.5**						
Cadmium		20	0.2	19.8	**99.0**						
Chromium		20	0.6	20.3	**101.5**						
Cobalt		20	0.0	19.5	**97.5**						
Copper		20	1.3	21.1	**105.5**						
Manganese		20	0.1	19.8	**99.0**						
Molybdenum	400	400	419.5	421.7	**105.4**						
Nickel		20	0.4	20.3	**101.5**						
Selenium			-0.2	-0.2							
Silver		20	0.0	21.2	**106.0**						
Thorium			0.2	0.1							
Vanadium			0.1	0.1							
Zinc		20	1.0	19.9	**99.5**						

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

ICS SOURCE: I.V.

PROJECT: Upper Columbia

RUNID: MS112711

SDG: VS20

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Arsenic		20	0.1	19.9	**99.5**						
Cadmium		20	0.1	20.0	**100.0**						
Chromium		20	0.5	20.4	**102.0**						
Cobalt		20	0.0	19.6	**98.0**						
Copper		20	0.9	20.8	**104.0**						
Manganese		20	0.1	20.0	**100.0**						
Molybdenum	400	400	425.6	444.6	**111.2**						
Nickel		20	0.3	20.6	**103.0**						
Selenium			-0.2	-0.2							
Silver		20	0.0	21.1	**105.5**						
Zinc		20	0.9	20.1	**100.5**						

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

ICS SOURCE: I.V.

RUNID: MS112811

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	20.0	**100.0**						
Cadmium		20	0.1	19.8	**99.0**						
Chromium		20	0.7	20.8	**104.0**						
Cobalt		20	0.0	20.6	**103.0**						
Copper		20	0.9	21.5	**107.5**						
Manganese		20	0.1	19.5	**97.5**						
Molybdenum	400	400	434.3	401.0	**100.3**						
Nickel		20	0.4	21.1	**105.5**						
Selenium			-0.2	-0.2							
Silver		20	0.0	21.1	**105.5**						
Thorium			0.2	0.1							
Zinc		20	0.9	20.3	**101.5**						

Post Digest Spike Sample Recovery

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: PMS

SDG: VS20

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT	C	SAMPLE RESULT	C	SPIKE ADDED	MATRIX	%R
Antimony	SA9-Field Duplicat	VS20APOST	MS112311	483.70	B	5.40	B	500	Soil	**95.7**

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia ANALYSIS METHOD: ICP

SDG: VS20 UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Aluminum	SA9-Field DuplicatL	VS20A-L	Soil	IP112371	63043.34		68443.55		8.6	
Barium	SA9-Field DuplicatL	VS20A-L	Soil	IP112371	722.21		801.65	B	11.0	E
Calcium	SA9-Field DuplicatL	VS20A-L	Soil	IP112371	28051.68		30168.85		7.5	
Iron	SA9-Field DuplicatL	VS20A-L	Soil	IP112371	79170.58		86251.30		8.9	
Magnesium	SA9-Field DuplicatL	VS20A-L	Soil	IP112371	22439.32		24619.30	B	9.7	
Manganese	SA9-Field DuplicatL	VS20A-L	Soil	IP112371	2602.42		2868.70		10.2	E
Potassium	SA9-Field DuplicatL	VS20A-L	Soil	IP112371	5919.92		6493.25	B	9.7	
Sodium	SA9-Field DuplicatL	VS20A-L	Soil	IP112371	807.58	B	2500.00	U	100.0	

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia ANALYSIS METHOD: PMS

SDG: VS20 UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Antimony	SA9-Field DuplicatL	VS20A-L	Soil	MS112311	0.27	B	0.30	B	11.1	
Arsenic	SA9-Field DuplicatL	VS20A-L	Soil	MS112311	31.15		32.05	B	2.9	
Cadmium	SA9-Field DuplicatL	VS20A-L	Soil	MS112311	10.67		12.00	B	12.5	
Chromium	SA9-Field DuplicatL	VS20A-L	Soil	MS112311	26.89		30.00	B	11.6	
Cobalt	SA9-Field DuplicatL	VS20A-L	Soil	MS112311	8.34	B	9.40	B	12.7	
Copper	SA9-Field DuplicatL	VS20A-L	Soil	MS112311	23.86	B	25.25	B	5.8	
Nickel	SA9-Field DuplicatL	VS20A-L	Soil	MS112311	27.12	B	28.15	B	3.8	
Thallium	SA9-Field DuplicatL	VS20A-L	Soil	MS112311	0.39	B	0.45	B	15.4	
Vanadium	SA9-Field DuplicatL	VS20A-L	Soil	MS112311	29.65	B	33.25	B	12.1	
Beryllium	SA9-Field DuplicatL	VS20A-L	Soil	MS112611	0.56	B	0.55	B	1.8	
Lead	SA9-Field DuplicatL	VS20A-L	Soil	MS112611	88.71		85.45		3.7	
Selenium	SA9-Field DuplicatL	VS20A-L	Soil	MS112611	0.13	U	0.25	B		
Silver	SA9-Field DuplicatL	VS20A-L	Soil	MS112611	0.35	B	0.35	B	0.0	
Zinc	SA9-Field DuplicatL	VS20A-L	Soil	MS112611	90.47		101.25		11.9	

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20 UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Aluminum	AL	ICP	OPTIMA ICP 2	308.22		200	50.0	4/1/2012	250000.0	7/30/2012
Antimony	SB	PMS	NEXION 300D MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Barium	BA	ICP	OPTIMA ICP 2	455.50		200	3.0	4/1/2012	100000.0	7/30/2012
Beryllium	BE	PMS	NEXION 300D MS	0.00		5	0.2	4/1/2012		
Cadmium	CD	PMS	NEXION 300D MS	0.00		5	0.1	4/1/2012		
Calcium	CA	ICP	OPTIMA ICP 2	317.93		5000	50.0	4/1/2012	500000.0	7/30/2012
Chromium	CR	PMS	NEXION 300D MS	0.00		10	0.5	4/1/2012		
Cobalt	CO	PMS	NEXION 300D MS	0.00		50	0.2	4/1/2012		
Copper	CU	PMS	NEXION 300D MS	0.00		25	0.5	4/1/2012		
Iron	FE	ICP	OPTIMA ICP 2	259.94		100	50.0	4/1/2012	250000.0	7/30/2012
Lead	PB	PMS	NEXION 300D MS	0.00		3	0.1	4/1/2012		
Magnesium	MG	ICP	OPTIMA ICP 2	279.08		5000	50.0	4/1/2012	500000.0	7/30/2012
Manganese	MN	ICP	OPTIMA ICP 2	257.61		15	1.0	4/1/2012	30000.0	7/30/2012
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	4/1/2012		
Nickel	NI	PMS	NEXION 300D MS	0.00		40	0.5	4/1/2012		
Potassium	K	ICP	OPTIMA ICP 2	766.49		5000	500.0	4/1/2012	500000.0	7/30/2012
Selenium	SE	PMS	NEXION 300D MS	0.00		5	0.5	4/1/2012		
Silver	AG	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Sodium	NA	ICP	OPTIMA ICP 2	589.00		5000	500.0	4/1/2012	5000000.0	7/30/2012
Thallium	TL	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Vanadium	V	PMS	NEXION 300D MS	0.00		50	0.2	4/1/2012		
Zinc	ZN	PMS	NEXION 300D MS	0.00		20	4.0	4/1/2012		

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

IEC DATE: 11/12/2012

SDG: VS20

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	9.1050360	0.0000000	0.0000000
Arsenic	188.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0581760	0.0000000	-0.8953680	1.5607750	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1763230	0.0000000	0.0000000	0.1637240
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	6.5458340	0.0000000	0.0000000	0.0000000	0.0000000	0.1152580	0.0000000	0.0000000	0.0095100
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0295099	0.0000000	0.0091790	0.0000000	-0.0348880	0.0000000	0.0000000	-0.0392710
Cobalt	228.62	0.0000000	0.0000000	0.0788170	0.0000000	0.0000000	0.0000000	0.0000000	-0.0346500	0.0000000	0.0130090
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1608400	0.0000000	0.0000000	-0.0442360
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.4437390	0.0000000	0.0000000
Lead	220.35	-0.2393490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1467250	-1.7804540	1.4264890	0.0412430
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.4396410	-1.1694080	0.0000000	0.5321920
Manganese	257.61	0.0046450	0.0000000	0.0000000	0.0000000	0.0019080	0.0000000	0.0000000	0.0000000	0.0000000	-0.0054280
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0108090	0.0000000	0.0000000	0.0540880	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.4883700	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.5902270	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	5.5577350	0.3891400	0.0000000	-0.1069480
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.1236770	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0477260	0.0000000	0.0000000	0.1988470	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-4.2880510	0.0000000	0.0349450
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0645950	0.0000000	0.0000000

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

IEC DATE: 11/12/2012

SDG: VS20

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	17.2648390	0.0000000	0.0000000	0.0000000	2.1534780	0.0000000	14.6676620	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	-0.3171320	0.0000000	0.0000000	-1.6488050	0.0000000	-2.7828430	0.0000000
Arsenic	188.98	0.0000000	0.0000000	3.5824010	0.0000000	0.0000000	0.0000000	-28.6279570	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.1006020	0.0000000	0.0000000	0.0000000	0.0000000	0.2160840	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0120420	0.0000000	0.1997240	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.9709640	0.0000000	0.0000000	0.0000000	0.0000000	0.6837900	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0863140	0.0880780	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.3314250	0.0362000
Cobalt	228.62	0.0000000	0.0000000	-0.1203920	0.1624660	0.0000000	0.0000000	1.9337740	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0084630	0.0000000	0.4010840	0.0000000	0.0000000	0.0000000	0.2064430	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	8.4794020	0.0000000
Lead	220.35	0.0000000	0.0000000	-0.4099510	-0.1101090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-5.5537550	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	-0.2086980	0.0000000	0.0000000	0.0000000	-0.0242310	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.5468870	0.0000000	0.4309940	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5703720	0.0000000
Silicon	288.16	-0.1197150	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0400098	0.0000000	-2.8848200	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	-0.8464030	-0.9915990	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	3.4340400	0.0000000
Tin	189.93	0.0000000	0.0000000	0.8648230	0.0000000	-0.0322750	-0.4551870	-0.1436590	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.8648230	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1521530	0.5765370	0.0000000	0.0000000	0.0000000	0.5629710	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2677330	0.0000000	-0.0519400	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

ANALYSIS METHOD: PMS

ARI PREP CODE: SWN

PREPDATE: 11/21/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA9-Field Duplicat	VS20A	1.068	0.0	50.0
SA9-Field DuplicatD	VS20ADUP	1.069	0.0	50.0
SA9-Field DuplicatS	VS20ASPK	1.068	0.0	50.0
SA10-1C	VS20B	1.044	0.0	50.0
SA10-2C	VS20C	1.080	0.0	50.0
SA10-2P-1(0 to 3	VS20D	1.049	0.0	50.0
SA10-2P-2(3 to 6	VS20E	1.092	0.0	50.0
SA10-2P-3(6 to 12	VS20F	1.065	0.0	50.0
SA10-8C	VS20G	1.058	0.0	50.0
SA11-1C	VS20H	1.034	0.0	50.0
SA11-2C	VS20I	1.071	0.0	50.0
SA11-3C	VS20J	1.046	0.0	50.0
SA11-4C	VS20K	1.020	0.0	50.0
SA11-5C	VS20L	1.039	0.0	50.0
PBS	VS20MB1	1.000	0.0	50.0
LCSS	VS20MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 11/21/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA9-Field Duplicat	VS20A	1.018	0.0	50.0
SA9-Field DuplicatD	VS20ADUP	1.019	0.0	50.0
SA9-Field DuplicatS	VS20ASPK	1.021	0.0	50.0
SA10-1C	VS20B	1.045	0.0	50.0
SA10-2C	VS20C	1.074	0.0	50.0
SA10-2P-1(0 to 3	VS20D	1.027	0.0	50.0
SA10-2P-2(3 to 6	VS20E	1.078	0.0	50.0
SA10-2P-3(6 to 12	VS20F	1.040	0.0	50.0
SA10-8C	VS20G	1.046	0.0	50.0
SA11-1C	VS20H	1.023	0.0	50.0
SA11-2C	VS20I	1.084	0.0	50.0
SA11-3C	VS20J	1.004	0.0	50.0
SA11-4C	VS20K	1.062	0.0	50.0
SA11-5C	VS20L	1.069	0.0	50.0
PBS	VS20MB1	1.000	0.0	50.0
LCSS	VS20MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS20

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 11/21/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA9-Field Duplicat	VS20A	0.739	0.0	50.0
SA9-Field DuplicatD	VS20ADUP	0.743	0.0	50.0
SA9-Field DuplicatS	VS20ASPK	0.741	0.0	50.0
SA10-1C	VS20B	0.702	0.0	50.0
SA10-2C	VS20C	0.731	0.0	50.0
SA10-2P-1(0 to 3	VS20D	0.736	0.0	50.0
SA10-2P-2(3 to 6	VS20E	0.735	0.0	50.0
SA10-2P-3(6 to 12	VS20F	0.731	0.0	50.0
SA10-8C	VS20G	0.715	0.0	50.0
SA11-1C	VS20H	0.712	0.0	50.0
SA11-2C	VS20I	0.706	0.0	50.0
SA11-3C	VS20J	0.715	0.0	50.0
SA11-4C	VS20K	0.719	0.0	50.0
SA11-5C	VS20L	0.711	0.0	50.0
PBS	VS20MB1	0.700	0.0	50.0
LCSW	VS20MB1SPK	0.700	0.0	50.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/23/2012

SDG: VS20 | RUNID: IP112371 | METHOD: ICP | END DATE: 11/23/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09032			X			X		X					X		X	X	X		X											
S2	S2	1.00	09073						X											X													
S3	S3	1.00	09092																														
S4	S4	1.00	09115																														
S5	S5	1.00	09141			X					X					X		X	X			X											
S4	S4	1.00	09175																														
ICV	ICV	1.00	09235			X			X		X					X		X	X	X		X											
ICB	ICB	1.00	09280			X			X		X					X		X	X	X		X											
CRI	CRII	1.00	09323			X			X		X					X		X	X	X		X											
ICSA	ICSAI	1.00	09364			X			X		X					X		X	X	X		X											
ICSAB	ICSABI	1.00	09410			X			X		X					X		X	X	X		X											
CCV	CCV1	1.00	09460			X			X		X					X		X	X	X		X											
CCB	CCB1	1.00	09503			X			X		X					X		X	X	X		X											
ZZZZZZ	VT39MB	5.00	09544																														
ZZZZZZ	VT01MB	1.00	09592																														
ZZZZZZ	VT01ADUP	5.00	10033																														
ZZZZZZ	VT01A	5.00	10075																														
ZZZZZZ	VT01ASPK	5.00	10121																														
ZZZZZZ	VT39ADUP	5.00	10164																														
ZZZZZZ	VT39A	5.00	10205																														
ZZZZZZ	VT39ASPK	5.00	10251																														
ZZZZZZ	VT01MBSPK	1.00	10293																														
CCV	CCV2	1.00	10333			X			X		X					X		X	X	X		X											
CCB	CCB2	1.00	10375			X			X		X					X		X	X	X		X											
ZZZZZZ	VS97MB1	1.00	10421																														
ZZZZZZ	VS28A	5.00	10462																														
ZZZZZZ	VS97A	1.00	10502																														
ZZZZZZ	VS97B	1.00	10544																														
ZZZZZZ	VS97MB1SPK	1.00	10585																														
ZZZZZZ	VS97MB1SPD	1.00	11025																														
CCV	CCV3	1.00	11065			X			X		X					X		X	X	X		X											
CCB	CCB3	1.00	11111			X			X		X					X		X	X	X		X											
ZZZZZZ	VS18MB1	2.00	11153																														
ZZZZZZ	VS18B	5.00	11195																														
ZZZZZZ	VS18C	5.00	11235																														

FORM XIV

VS20 00097

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/23/2012

SDG: VS20 | RUNID: IP112371 | METHOD: ICP | END DATE: 11/23/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	VS18D	5.00	11275																														
ZZZZZZ	VS18A-L	25.00	11315																														
ZZZZZZ	VS18A	5.00	11355																														
ZZZZZZ	VS18ADUP	5.00	11401																														
ZZZZZZ	VS18ASPK	5.00	11442																														
ZZZZZZ	VS18APOST	5.00	11482																														
ZZZZZZ	VS18MB1SPK	2.00	11514																														
CCV	CCV4	1.00	11554			X			X		X					X		X	X	X		X											
CCB	CCB4	1.00	12000			X			X		X					X		X	X	X		X											
ZZZZZZ	VS18E	5.00	12042																														
ZZZZZZ	VS18F	5.00	12082																														
ZZZZZZ	VS18G	5.00	12122																														
ZZZZZZ	VS18H	5.00	12162																														
ZZZZZZ	VS18I	5.00	12202																														
ZZZZZZ	VS18J	5.00	12242																														
ZZZZZZ	VS18K	5.00	12283																														
ZZZZZZ	VS18L	5.00	12323																														
CCV	CCV5	1.00	12355			X			X		X					X		X	X	X		X											
CCB	CCB5	1.00	12410			X			X		X					X		X	X	X		X											
CRI	CRIF	1.00	12461			X			X		X					X		X	X	X		X											
ICSA	ICSAF	1.00	12503			X			X		X					X		X	X	X		X											
ICSAB	ICSABF	1.00	12543			X			X		X					X		X	X	X		X											
CCV	CCV6	1.00	12583			X			X		X					X		X	X	X		X											
CCB	CCB6	1.00	13025			X			X		X					X		X	X	X		X											
ZZZZZZ	VS19MB1	2.00	13071																														
ZZZZZZ	VS19B	5.00	13113																														
ZZZZZZ	VS19C	5.00	13153																														
ZZZZZZ	VS19D	5.00	13193																														
ZZZZZZ	VS19A-L	25.00	13233																														
ZZZZZZ	VS19A	5.00	13273																														
ZZZZZZ	VS19ADUP	5.00	13313																														
ZZZZZZ	VS19ASPK	5.00	13353																														
ZZZZZZ	ZZZZZZ	5.00	13393																														
ZZZZZZ	VS19MB1SPK	2.00	13433																														
CCV	CCV7	1.00	13474			X			X		X					X		X	X	X		X											

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/23/2012

SDG: VS20 | RUNID: IP112371 | METHOD: ICP | END DATE: 11/23/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
CCV	CCV8	1.00	13525			X			X		X					X		X	X	X		X											
CCB	CCB7	1.00	13571			X			X		X					X		X	X	X		X											
ZZZZZZ	VS19E	5.00	14012																														
ZZZZZZ	VS19F	5.00	14053																														
ZZZZZZ	VS19G	5.00	14093																														
ZZZZZZ	VS19H	5.00	14133																														
ZZZZZZ	VS19I	5.00	14173																														
ZZZZZZ	VS19J	5.00	14213																														
ZZZZZZ	VS19K	5.00	14253																														
ZZZZZZ	VS19L	5.00	14293																														
CCV	CCV9	1.00	14333			X			X		X					X		X	X	X		X											
CCB	CCB8	1.00	14375			X			X		X					X		X	X	X		X											
CRI	CRIF1	1.00	14420			X			X		X					X		X	X	X		X											
ICSA	ICSAF1	1.00	14462			X			X		X					X		X	X	X		X											
ICSAB	ICSABF1	1.00	14502			X			X		X					X		X	X	X		X											
CCV	CCV10	1.00	14542			X			X		X					X		X	X	X		X											
CCB	CCB9	1.00	14584			X			X		X					X		X	X	X		X											
PBS	VS20MB1	2.00	15030			X			X		X					X		X	X	X		X											
SA10-1C	VS20B	5.00	15071			X			X		X					X		X	X	X		X											
SA10-2C	VS20C	5.00	15112			X			X		X					X		X	X	X		X											
SA10-2P-1(0 to 3	VS20D	5.00	15152			X			X		X					X		X	X	X		X											
SA9-Field DuplicatL	VS20A-L	25.00	15192			X			X		X					X		X	X	X		X											
SA9-Field Duplicat	VS20A	5.00	15232			X			X		X					X		X	X	X		X											
SA9-Field DuplicatD	VS20ADUP	5.00	15272			X			X		X					X		X	X	X		X											
SA9-Field DuplicatS	VS20ASPK	5.00	15312			X			X		X					X		X	X	X		X											
ZZZZZZ	ZZZZZZ	5.00	15352																														
LCSS	VS20MB1SPK	2.00	15393			X			X		X					X		X	X	X		X											
CCV	CCV11	1.00	15433			X			X		X					X		X	X	X		X											
CCB	CCB10	1.00	15475			X			X		X					X		X	X	X		X											
SA10-2P-2(3 to 6	VS20E	5.00	15520																														
SA10-2P-3(6 to 12	VS20F	5.00	15560			X			X		X					X		X	X	X		X											
SA10-8C	VS20G	5.00	16001			X			X		X					X		X	X	X		X											
SA11-1C	VS20H	5.00	16041			X			X		X					X		X	X	X		X											
SA11-2C	VS20I	5.00	16081			X			X		X					X		X	X	X		X											
SA11-3C	VS20J	5.00	16121			X			X		X					X		X	X	X		X											

VS20 - 000579

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia   INSTRUMENT ID: OPTIMA ICP 2   START DATE: 11/23/2012

SDG: VS20   RUNID: IP112371   METHOD: ICP   END DATE: 11/23/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
SA11-4C	VS20K	5.00	16161			X			X		X					X		X	X	X		X											
SA11-5C	VS20L	5.00	16201			X			X		X					X		X	X	X		X											
ZZZZZZ	VS18I	5.00	16241																														
ZZZZZZ	VS18J	5.00	16281																														
CCV	CCV12	1.00	16321			X			X		X					X		X	X	X		X											
CCB	CCB11	1.00	16363			X			X		X					X		X	X	X		X											
CRI	CRIF2	1.00	16404			X			X		X					X		X	X	X		X											
ICSA	ICSAF2	1.00	16450			X			X		X					X		X	X	X		X											
ICSAB	ICSABF2	1.00	16490			X			X		X					X		X	X	X		X											
CCV	CCV13	1.00	16531			X			X		X					X		X	X	X		X											
CCB	CCB12	1.00	16573			X			X		X					X		X	X	X		X											

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia INSTRUMENT ID: OPTIMA ICP 2 START DATE: 11/26/2012

SDG: VS20 RUNID: IP112671 METHOD: ICP END DATE: 11/26/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	11143			X			X		X					X		X	X	X		X											
S2	S2	1.00	11184						X											X													
S3	S3	1.00	11203																														
S4	S4	1.00	11225																														
S5	S5	1.00	11250			X					X					X		X	X			X											
S0	S0	1.00	11410			X			X		X					X		X	X	X		X											
S2	S2	1.00	11445						X											X													
S2	S2	1.00	12351						X											X													
ZZZZZZ	ZZZZZZ	1.00	12385																														
S4	S4	1.00	12485																														
S5	S5	1.00	12505			X					X					X		X	X			X											
ICV	ICV	1.00	12530			X			X		X					X		X	X	X		X											
ICB	ICB	1.00	12571			X			X		X					X		X	X	X		X											
CRI	CRII	1.00	13012			X			X		X					X		X	X	X		X											
ICSA	ICSAI	1.00	13054			X			X		X					X		X	X	X		X											
ICSAB	ICSABI	1.00	13095			X			X		X					X		X	X	X		X											
ZZZZZZ	HiPurQC7M	1.00	13150																														
ZZZZZZ	SPEXQC21	1.00	13192																														
ZZZZZZ	DICHECK	1.00	13233																														
CCV	CCV1	1.00	13275			X			X		X					X		X	X	X		X											
CCB	CCB1	1.00	13315			X			X		X					X		X	X	X		X											
ZZZZZZ	VS21MB1	2.00	13361																														
SA10-2P-2(3 to 6	VS20E	5.00	13402			X			X		X					X		X	X	X		X											
ZZZZZZ	VS21B	5.00	13442																														
ZZZZZZ	VS21C	5.00	13482																														
ZZZZZZ	VS21A-L	25.00	13522																														
ZZZZZZ	VS21A	5.00	13562																														
ZZZZZZ	VS21ADUP	5.00	14002																														
ZZZZZZ	VS21ASPK	5.00	14042																														
ZZZZZZ	ZZZZZZ	5.00	14081																														
ZZZZZZ	VS21MB1SPK	2.00	14112																														
CCV	CCV2	1.00	14152			X			X		X					X		X	X	X		X											
CCB	CCB2	1.00	14193			X			X		X					X		X	X	X		X											
ZZZZZZ	VS21D	5.00	14234																														
ZZZZZZ	VS21E	5.00	14274																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia   INSTRUMENT ID: OPTIMA ICP 2   START DATE: 11/26/2012

SDG: VS20   RUNID: IP112671   METHOD: ICP   END DATE: 11/26/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	VS21F	5.00	14314																														
ZZZZZZ	VS21G	5.00	14354																														
ZZZZZZ	VS21H	5.00	14394																														
ZZZZZZ	VS21I	5.00	14434																														
ZZZZZZ	VS21J	5.00	14474																														
ZZZZZZ	VS21K	5.00	14514																														
ZZZZZZ	VS21L	5.00	14554																														
CCV	CCV3	1.00	14594			X			X		X					X		X	X	X		X											
CCB	CCB3	1.00	15035			X			X		X					X		X	X	X		X											
CCB	CCB4	1.00	15084			X			X		X					X		X	X	X		X											
CRI	CRIF	1.00	15125			X			X		X					X		X	X	X		X											
ICSA	ICSAF	1.00	15171			X			X		X					X		X	X	X		X											
ICSAB	ICSABF	1.00	15213			X			X		X					X		X	X	X		X											
CCV	CCV4	1.00	15251			X			X		X					X		X	X	X		X											
CCB	CCB5	1.00	15292			X			X		X					X		X	X	X		X											

VS20 00072

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia   INSTRUMENT ID: NEXION 300D MS   START DATE: 11/23/2012

SDG: VS20   RUNID: MS112311   METHOD: PMS   END DATE: 11/23/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	12150				X					X	X	X	X								X	X	X	X				X		X	X
S1	S1	1.00	12190				X					X	X	X	X								X	X	X	X				X		X	X
S2	S2	1.00	12240				X					X	X	X	X								X	X	X	X				X		X	X
S3	S3	1.00	12280				X					X	X	X	X								X	X	X	X				X		X	X
S4	S4	1.00	12330				X					X	X	X	X								X	X	X	X				X		X	X
S5	S5	1.00	12390																														
ZZZZZZ	Rinse sampl	1.00	12460																														
ICV	MICV	1.00	12530				X					X	X	X	X								X	X	X	X				X		X	X
ICB	ICB	1.00	13000				X					X	X	X	X								X	X	X	X				X		X	X
CCV	MCCV1	1.00	13040				X					X	X	X	X								X	X	X	X				X		X	X
CCB	CCB1	1.00	13100				X					X	X	X	X								X	X	X	X				X		X	X
CRI	MCRI	1.00	13150				X					X	X	X	X								X	X	X	X				X		X	X
ICSA	ICSAI	1.00	13190				X					X	X	X	X								X	X	X	X				X		X	X
ICSAB	ICSABI	1.00	13250				X					X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	LR200	1.00	13320																														
ZZZZZZ	LR300	1.00	13390																														
ZZZZZZ	B1	1.00	13460																														
ZZZZZZ	B2	1.00	13520																														
ZZZZZZ	B3	1.00	13570																														
CCV	MCCV2	1.00	14020				X					X	X	X	X								X	X	X	X				X		X	X
CCB	CCB2	1.00	14080				X					X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS18A-L	500.00	14130																														
ZZZZZZ	VS18A	100.00	14170																														
ZZZZZZ	VS18ADUP	100.00	14210																														
ZZZZZZ	VS18ASPK	100.00	14250																														
ZZZZZZ	VS18A-L	100.00	14290																														
ZZZZZZ	VS18A	20.00	14330																														
ZZZZZZ	VS18ADUP	20.00	14370																														
ZZZZZZ	VS18ASPK	20.00	14420																														
ZZZZZZ	VS18B	100.00	14470																														
ZZZZZZ	VS18H	100.00	14510																														
CCV	MCCV3	1.00	14550				X					X	X	X	X								X	X	X	X				X		X	X
CCB	CCB3	1.00	15020				X					X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR64MB2	1.00	15070																														
ZZZZZZ	VR64MB2SPK	1.00	15120																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia   INSTRUMENT ID: NEXION 300D MS   START DATE: 11/23/2012

SDG: VS20   RUNID: MS112311   METHOD: PMS   END DATE: 11/23/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	VS18J	100.00	15160																														
ZZZZZZ	VS18J	20.00	15200																														
ZZZZZZ	VS18K	100.00	15240																														
ZZZZZZ	VS18K	20.00	15280																														
ZZZZZZ	VS18L	100.00	15330																														
ZZZZZZ	VS18L	20.00	15370																														
ZZZZZZ	VS18I	100.00	15410																														
ZZZZZZ	VR64B	20.00	15460																														
CCV	MCCV4	1.00	15500				X					X	X	X	X								X	X	X	X				X		X	X
CCB	CCB4	1.00	15570				X					X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR64MB1	1.00	16080																														
ZZZZZZ	VR64MB1SPK	1.00	16120																														
ZZZZZZ	VR64ADUP	2.00	16160																														
ZZZZZZ	VR64A	2.00	16200																														
ZZZZZZ	VR64ASPK	2.00	16240																														
ZZZZZZ	VR64C	2.00	16280																														
ZZZZZZ	VR64D	1.00	16320																														
ZZZZZZ	VR64E	2.00	16360																														
ZZZZZZ	VR64G	2.00	16420																														
ZZZZZZ	VR64F	20.00	16460																														
CCV	MCCV5	1.00	16500				X					X	X	X	X								X	X	X	X				X		X	X
CCB	CCB5	1.00	16570				X					X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR64H	1.00	17010																														
ZZZZZZ	VR64J	1.00	17050																														
ZZZZZZ	VR64N	1.00	17090																														
ZZZZZZ	VR64O	1.00	17140																														
ZZZZZZ	VR64R	1.00	17180																														
ZZZZZZ	VR64L	50.00	17220																														
ZZZZZZ	VR64P	50.00	17260																														
ZZZZZZ	VR64I	5.00	17300																														
ZZZZZZ	VR64M	2.00	17350																														
ZZZZZZ	VR64Q	2.00	17390																														
CCV	MCCV6	1.00	17430				X					X	X	X	X								X	X	X	X				X		X	X
CCB	CCB6	1.00	17500				X					X	X	X	X								X	X	X	X				X		X	X
S0	S0	1.00	17560				X					X	X	X	X								X	X	X	X				X		X	X

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/23/2012

SDG: VS20 | RUNID: MS112311 | METHOD: PMS | END DATE: 11/23/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
CCV	MCCV7	1.00	18000				X					X	X	X	X								X	X	X	X				X		X	X
CCB	CCB7	1.00	18070				X					X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS19MB1	20.00	18120																														
ZZZZZZ	VS19MB1SPK	20.00	18160																														
ZZZZZZ	VR64S	2.00	18200																														
ZZZZZZ	VR64T	1.00	18240																														
ZZZZZZ	VR64KDUP	1.00	18290																														
ZZZZZZ	VR64K	1.00	18330																														
ZZZZZZ	VR64KSPK	1.00	18370																														
ZZZZZZ	VS19B	20.00	18410																														
ZZZZZZ	VS19C	20.00	18460																														
ZZZZZZ	VS19D	20.00	18500																														
CCV	MCCV8	1.00	18540				X					X	X	X	X								X	X	X	X				X		X	X
CCB	CCB8	1.00	19010				X					X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS19A-L	100.00	19060																														
ZZZZZZ	VS19A	20.00	19100																														
ZZZZZZ	VS19ADUP	20.00	19140																														
ZZZZZZ	VS19ASPK	20.00	19180																														
ZZZZZZ	VS19APOST	20.00	19220																														
ZZZZZZ	VS19E	20.00	19260																														
ZZZZZZ	VS19F	20.00	19300																														
ZZZZZZ	VS19G	20.00	19340																														
ZZZZZZ	VS19H	20.00	19400																														
ZZZZZZ	VS19I	20.00	19440																														
CCV	MCCV9	1.00	19480				X					X	X	X	X								X	X	X	X				X		X	X
CCB	CCB9	1.00	19550				X					X	X	X	X								X	X	X	X				X		X	X
PBS	VS20MB1	20.00	19590				X					X	X	X	X								X	X	X					X		X	X
LCSS	VS20MB1SPK	20.00	20030				X					X	X	X	X								X	X	X					X		X	X
ZZZZZZ	VS19J	20.00	20070																														
ZZZZZZ	VS19K	20.00	20110																														
ZZZZZZ	VS19L	20.00	20150																														
SA10-1C	VS20B	20.00	20200				X					X	X	X	X								X		X					X		X	
SA10-2C	VS20C	20.00	20240				X					X	X	X	X								X		X					X		X	
SA10-2P-1(0 to 3	VS20D	20.00	20280				X					X	X	X	X								X		X					X		X	
SA10-2P-2(3 to 6	VS20E	20.00	20330				X					X	X	X	X								X		X					X		X	

FORM XIV

VS20:00275

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/23/2012

SDG: VS20 | RUNID: MS112311 | METHOD: PMS | END DATE: 11/23/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
SA10-2P-3(6 to 12	VS20F	20.00	20370				X					X	X	X	X								X	X	X					X		X	
CCV	MCCV10	1.00	20410				X					X	X	X	X								X	X	X	X				X		X	X
CCB	CCB10	1.00	20480				X					X	X	X	X								X	X	X	X				X		X	X
SA9-Field DuplicatL	VS20A-L	100.00	20520				X					X	X	X	X								X		X					X		X	
SA9-Field Duplicat	VS20A	20.00	20560				X					X	X	X	X								X		X					X		X	
SA9-Field DuplicatD	VS20ADUP	20.00	21010				X					X	X	X	X								X		X					X		X	
SA9-Field DuplicatS	VS20ASPK	20.00	21050				X					X	X	X	X								X		X					X		X	
SA9-Field DuplicatA	VS20APOST	20.00	21090																						X								
SA10-8C	VS20G	20.00	21130				X					X	X	X	X								X		X					X		X	
SA11-1C	VS20H	20.00	21170				X					X	X	X	X								X	X	X					X		X	X
SA11-2C	VS20I	20.00	21210				X					X	X	X	X								X	X	X					X		X	X
SA11-3C	VS20J	20.00	21260				X					X	X	X	X								X	X	X					X		X	X
SA11-4C	VS20K	20.00	21300				X					X	X	X	X								X		X					X		X	
CCV	MCCV11	1.00	21350				X					X	X	X	X								X	X	X	X				X		X	X
CCB	CCB11	1.00	21420				X					X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS08MB	2.00	21460																														
ZZZZZZ	VS12MB	2.00	21500																														
ZZZZZZ	VS12MBSPK	2.00	21540																														
ZZZZZZ	VS08MBSPK	2.00	21580																														
ZZZZZZ	VS08A	2.00	22020																														
ZZZZZZ	VS08B	2.00	22060																														
ZZZZZZ	VS08C	2.00	22100																														
ZZZZZZ	VS08D	2.00	22150																														
ZZZZZZ	VS12B	2.00	22200																														
SA11-5C	VS20L	20.00	22240				X					X	X	X	X								X		X	X				X		X	
CCV	MCCV12	1.00	22280				X					X	X	X	X								X	X	X	X				X		X	X
CCB	CCB12	1.00	22350				X					X	X	X	X								X	X	X	X				X		X	X

VS20 00075

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/26/2012

SDG: VS20 | RUNID: MS112611 METHOD: PMS | END DATE: 11/26/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	10030		X					X														X		X							X
S1	S1	1.00	10070		X					X														X		X							X
S2	S2	1.00	10110		X					X														X		X							X
S3	S3	1.00	10150		X					X														X		X							X
S4	S4	1.00	10200		X					X														X		X							X
S5	S5	1.00	10260																														
ZZZZZZ	Rinse sampl	1.00	10330																														
ICV	MICV	1.00	10430		X					X														X		X							X
ICB	ICB	1.00	10500		X					X														X		X							X
CCV	MCCV1	1.00	10540		X					X														X		X							X
CCB	CCB1	1.00	11010		X					X														X		X							X
CRI	MCRI	1.00	11050		X					X														X		X							X
ICSA	ICSAI	1.00	11090		X					X														X		X							X
ICSAB	ICSABI	1.00	11160		X					X														X		X							X
ZZZZZZ	LR200	1.00	11220																														
ZZZZZZ	LR300	1.00	11290																														
ZZZZZZ	B1	1.00	11360																														
ZZZZZZ	B2	1.00	11420																														
ZZZZZZ	ERA P197	10.00	11480																														
ZZZZZZ	B3	1.00	11530																														
CCV	MCCV2	1.00	11570		X					X														X		X							X
CCB	CCB2	1.00	12040		X					X														X		X							X
ZZZZZZ	VS19MB1	20.00	12110																														
ZZZZZZ	VS19MB1SPK	20.00	12150																														
ZZZZZZ	VS18J	20.00	12190																														
ZZZZZZ	VS18K	20.00	12230																														
ZZZZZZ	VS18L	20.00	12280																														
ZZZZZZ	VS19B	100.00	12320																														
ZZZZZZ	VS19B	20.00	12360																														
ZZZZZZ	VS19C	100.00	12400																														
ZZZZZZ	VS19C	20.00	12450																														
ZZZZZZ	VS19D	20.00	12490																														
CCV	MCCV3	1.00	12530		X					X														X		X							X
CCB	CCB3	1.00	13000		X					X														X		X							X
ZZZZZZ	VS19A-L	100.00	13080																														

FORM XIV

VS20 SDG

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/26/2012

SDG: VS20 | RUNID: MS112611 | METHOD: PMS | END DATE: 11/26/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	VS19A	20.00	13120																														
ZZZZZZ	VS19ADUP	20.00	13160																														
ZZZZZZ	VS19ASPK	20.00	13200																														
ZZZZZZ	VS19D	100.00	13240																														
ZZZZZZ	VS19E	100.00	13280																														
ZZZZZZ	VS19F	20.00	13340																														
ZZZZZZ	VS19G	20.00	13380																														
ZZZZZZ	VS19H	20.00	13420																														
ZZZZZZ	VS19I	20.00	13460																														
CCV	MCCV4	1.00	13500		X					X														X		X						X
CCB	CCB4	1.00	13570		X					X														X		X						X
ZZZZZZ	VS19A-L	500.00	14020																														
ZZZZZZ	VS19A	100.00	14060																														
ZZZZZZ	VS19ADUP	100.00	14100																														
ZZZZZZ	VS19ASPK	100.00	14140																														
ZZZZZZ	VS19J	100.00	14180																														
ZZZZZZ	VS19L	100.00	14220																														
ZZZZZZ	VS19E	20.00	14260																														
ZZZZZZ	VS19K	20.00	14310																														
ZZZZZZ	VS19J	20.00	14360																														
ZZZZZZ	VS19L	20.00	14400																														
CCV	MCCV5	1.00	14440		X					X														X		X						X
CCB	CCB5	1.00	14510		X					X														X		X						X
PBS	VS20MB1	20.00	15160							X																X						
LCSS	VS20MB1SPK	20.00	15200							X																X						
ZZZZZZ	VS19K	100.00	15240																														
SA10-1C	VS20B	20.00	15280							X																X						
SA10-2C	VS20C	20.00	15320							X																X						
SA10-2P-1(0 to 3	VS20D	20.00	15360							X																X						
SA10-2P-2(3 to 6	VS20E	20.00	15400							X																X						
SA10-8C	VS20G	20.00	15450							X																X						
SA11-1C	VS20H	20.00	15500							X																X						
SA11-2C	VS20I	20.00	15540							X																X						
CCV	MCCV6	1.00	15580		X					X														X		X						X
CCB	CCB6	1.00	16050		X					X														X		X						X

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/26/2012

SDG: VS20 | RUNID: MS112611 METHOD: PMS | END DATE: 11/26/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	16110		X					X														X		X							X
CCV	MCCV7	1.00	16150		X					X														X		X							X
CCB	CCB7	1.00	16220		X					X														X		X							X
SA9-Field DuplicatL	VS20A-L	100.00	16270		X					X																X							
SA9-Field Duplicat	VS20A	20.00	16310		X					X																X							
SA9-Field DuplicatD	VS20ADUP	20.00	16350		X					X																X							
SA9-Field DuplicatS	VS20ASPK	20.00	16390		X					X																X							
SA11-3C	VS20J	20.00	16440		X					X																X							
SA11-4C	VS20K	20.00	16480		X					X																X							
SA11-5C	VS20L	20.00	16520		X					X																							
SA10-2P-3(6 to 12	VS20F	20.00	16560		X					X																X							
SA10-2P-3(6 to 12	VS20F	100.00	17010																														X
SA10-1C	VS20B	100.00	17050																					X									X
CCV	MCCV8	1.00	17090		X					X														X		X							X
CCB	CCB8	1.00	17160		X					X														X		X							X
SA9-Field DuplicatL	VS20A-L	500.00	17230																					X									X
SA9-Field Duplicat	VS20A	100.00	17270																					X									X
SA9-Field DuplicatD	VS20ADUP	100.00	17310																					X									X
SA9-Field DuplicatS	VS20ASPK	100.00	17350																					X									X
SA10-2C	VS20C	100.00	17390																					X									X
SA10-2P-1(0 to 3	VS20D	100.00	17430																														
SA10-2P-2(3 to 6	VS20E	100.00	17470																					X									X
SA10-8C	VS20G	100.00	17510																					X									X
SA11-4C	VS20K	100.00	17570																					X									X
SA11-5C	VS20L	100.00	18010																					X									X
CCV	MCCV9	1.00	18050		X					X														X		X							X
CCB	CCB9	1.00	18120		X					X														X		X							X

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia INSTRUMENT ID: NEXION 300D MS START DATE: 11/27/2012

SDG: VS20 RUNID: MS112711 METHOD: PMS END DATE: 11/27/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	11110																					X									
S1	S1	1.00	11160																					X									
S2	S2	1.00	11200																					X									
S3	S3	1.00	11240																					X									
S4	S4	1.00	11290																					X									
S5	S5	1.00	11350																														
ZZZZZZ	Rinse sampl	1.00	11420																														
S0	S0	1.00	11570																					X									
ICV	MICV	1.00	12010																					X									
ICB	ICB	1.00	12080																					X									
CCV	MCCV1	1.00	12180																					X									
CCB	CCB1	1.00	12250																					X									
ZZZZZZ	ZZZZZZ	1.00	12290																														
ICSA	ICSAI	1.00	12330																					X									
ICSAB	ICSABI	1.00	12400																					X									
ZZZZZZ	LR200	1.00	12460																														
ZZZZZZ	LR300	1.00	12530																														
ZZZZZZ	B1	1.00	13000																														
ZZZZZZ	B2	1.00	13060																														
ZZZZZZ	B3	1.00	13120																														
CCV	MCCV2	1.00	13160																					X									
CCB	CCB2	1.00	13230																					X									
S0	S0	1.00	13310																					X									
CCV	MCCV3	1.00	13360																					X									
CCB	CCB3	1.00	13420																					X									
CRI	MCRI	1.00	14040																					X									
ZZZZZZ	VS17MB1	2.00	14090																														
ZZZZZZ	VS17MB1SPK	2.00	14130																														
ZZZZZZ	VS17MB2SPK	2.00	14170																														
ZZZZZZ	VS17ADUP	2.00	14210																														
ZZZZZZ	VS17A	2.00	14250																														
ZZZZZZ	VS17ASPK	2.00	14290																														
ZZZZZZ	VS17EDUP	2.00	14330																														
ZZZZZZ	VS17E	2.00	14390																														
ZZZZZZ	VS17ESPK	2.00	14430																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia INSTRUMENT ID: NEXION 300D MS START DATE: 11/27/2012

SDG: VS20 RUNID: MS112711 METHOD: PMS END DATE: 11/27/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
CCV	MCCV4	1.00	14470																					X									
CCB	CCB4	1.00	14540																					X									
ZZZZZZ	VS17MB2	2.00	15060																														
ZZZZZZ	VS17B	2.00	15100																														
ZZZZZZ	VS17C	2.00	15140																														
ZZZZZZ	VS17D	2.00	15180																														
ZZZZZZ	VS17F	2.00	15220																														
ZZZZZZ	VS17G	2.00	15260																														
ZZZZZZ	VS17H	2.00	15320																														
ZZZZZZ	VT58D	100.00	15360																														
ZZZZZZ	VT58E	100.00	15400																														
ZZZZZZ	VT58F	100.00	15440																														
CCV	MCCV5	1.00	15480																					X									
CCB	CCB5	1.00	15550																					X									
PBS	VS20MB1	20.00	16020																														
LCSS	VS20MB1SPK	20.00	16070																														
SA10-1C	VS20B	20.00	16110																														
SA10-2C	VS20C	20.00	16150																														
SA10-2P-1(0 to 3	VS20D	20.00	16190																														
SA10-2P-1(0 to 3	VS20D	500.00	16230																					X									
SA10-2P-2(3 to 6	VS20E	20.00	16270																														
SA10-8C	VS20G	20.00	16310																														
SA11-1C	VS20H	20.00	16360																														
SA11-2C	VS20I	20.00	16410																														
CCV	MCCV6	1.00	16450																					X									
CCB	CCB6	1.00	16520																					X									

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/28/2012

SDG: VS20 | RUNID: MS112811 METHOD: PMS | END DATE: 11/28/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09160		X																												X
S1	S1	1.00	09200		X																												X
S2	S2	1.00	09240		X																												X
S3	S3	1.00	09280		X																												X
S4	S4	1.00	09330		X																												X
S5	S5	1.00	09390																														
ZZZZZZ	Rinse sampl	1.00	09460																														
ICV	MICV	1.00	10010		X																												X
ICB	ICB	1.00	10080		X																												X
CCV	MCCV1	1.00	10120		X																												X
CCB	CCB1	1.00	10190		X																												X
CRI	MCRI	1.00	10230		X																												X
ICSA	ICSAI	1.00	10270		X																												X
ICSAB	ICSABI	1.00	10340		X																												X
ZZZZZZ	LR200	1.00	10410																														
ZZZZZZ	LR300	1.00	10470																														
ZZZZZZ	B1	1.00	10540																														
ZZZZZZ	B2	1.00	11000																														
ZZZZZZ	B3	1.00	11060																														
CCV	MCCV2	1.00	11100		X																												X
CCB	CCB2	1.00	11170		X																												X
ZZZZZZ	VT84MB1	2.00	11350																														
ZZZZZZ	VT84MB2	2.00	11390																														
ZZZZZZ	VT84MB2SPK	2.00	11430																														
ZZZZZZ	VT84MB1SPK	2.00	11470																														
ZZZZZZ	VT84A	2.00	11510																														
ZZZZZZ	VT84B	2.00	11550																														
CCV	MCCV3	1.00	12060		X																												X
CCB	CCB3	1.00	12130		X																												X
PBS	VS20MB1	20.00	12220		X																												
LCSS	VS20MB1SPK	20.00	12260		X																												
ZZZZZZ	VR88MB2SPK	2.00	12310																														
ZZZZZZ	VR88J	5.00	12360																														
SA10-1C	VS20B	20.00	12400		X																												
SA10-2C	VS20C	20.00	12440		X																												

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/28/2012

SDG: VS20 | RUNID: MS112811 METHOD: PMS | END DATE: 11/28/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
SA10-2P-1(0 to 3	VS20D	20.00	12480		X																												
SA10-2P-2(3 to 6	VS20E	20.00	12520		X																												
SA10-8C	VS20G	20.00	12560		X																												
SA11-1C	VS20H	20.00	13000		X																												
CCV	MCCV4	1.00	13050		X																												X
CCB	CCB4	1.00	13120		X																												X
ZZZZZZ	VS21MB1	20.00	13220																														
ZZZZZZ	VS21MB1SPK	20.00	13260																														
ZZZZZZ	VS21A-L	100.00	13300																														
ZZZZZZ	VS21A	20.00	13340																														
ZZZZZZ	VS21ADUP	20.00	13380																														
ZZZZZZ	VS21ASPK	20.00	13420																														
ZZZZZZ	ZZZZZZ	20.00	13470																														
ZZZZZZ	VS21B	20.00	13510																														
SA11-2C	VS20I	20.00	13550		X																												
SA10-2P-1(0 to 3	VS20D	100.00	13590																														X
CCV	MCCV5	1.00	14030		X																												X
CCB	CCB5	1.00	14100		X																												X

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia　　INSTRUMENT ID: CETAC MERCURY　　START DATE: 11/23/2012

SDG: VS20　　RUNID: HG112301　　METHOD: CVA　　END DATE: 11/23/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	11280														X																
S0.1	S0.1	1.00	11293														X																
S0.5	S0.5	1.00	11311														X																
S1	S1	1.00	11325														X																
S2	S2	1.00	11343														X																
S5	S5	1.00	11360														X																
S10	S10	1.00	11374														X																
ICV	AICV	1.00	11412														X																
ICB	ICB	1.00	11430														X																
CCV	ACCV1	1.00	11443														X																
CCB	CCB1	1.00	11461														X																
CRA	CRA	1.00	11475														X																
ZZZZZZ	VS96MB1	1.00	11493																														
ZZZZZZ	VS96MB1SPK	1.00	11510																														
ZZZZZZ	VS96A	1.00	11524																														
ZZZZZZ	VS96ADUP	1.00	11542																														
ZZZZZZ	VS96ASPK	1.00	11555																														
ZZZZZZ	VS96B	1.00	11573																														
ZZZZZZ	VS96C	1.00	11591																														
ZZZZZZ	VS96D	1.00	12004																														
ZZZZZZ	VS96E	1.00	12022																														
CCV	ACCV2	1.00	12040														X																
CCB	CCB2	1.00	12054														X																
ZZZZZZ	VS96F	1.00	12072																														
ZZZZZZ	VS96G	1.00	12085																														
ZZZZZZ	VS96H	1.00	12103																														
ZZZZZZ	VS96I	1.00	12121																														
ZZZZZZ	VS96J	1.00	12134																														
ZZZZZZ	VS96K	1.00	12152																														
ZZZZZZ	VS96L	1.00	12165																														
ZZZZZZ	VS96M	1.00	12183																														
ZZZZZZ	VS96N	1.00	12201																														
ZZZZZZ	VS96O	1.00	12215																														
CCV	ACCV3	1.00	12233														X																
CCB	CCB3	1.00	12251														X																

FORM XIV

E5000 : 0025C

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/23/2012

SDG: VS20 | RUNID: HG112301 | METHOD: CVA | END DATE: 11/23/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	VS96P	1.00	12265																														
ZZZZZZ	VS96Q	1.00	12282																														
ZZZZZZ	VS96R	1.00	12300																														
ZZZZZZ	VS96S	1.00	12314																														
ZZZZZZ	VS96T	1.00	12331																														
CCV	ACCV4	1.00	12345														X																
CCB	CCB4	1.00	12363														X																
ZZZZZZ	VT06MB1	1.00	12461																														
ZZZZZZ	VT06MB1SPK	1.00	12474																														
ZZZZZZ	VT06D	1.00	12492																														
ZZZZZZ	VT06DDUP	1.00	12505																														
ZZZZZZ	VT06DSPK	1.00	12523																														
ZZZZZZ	VT06E	1.00	12540																														
ZZZZZZ	VT06F	1.00	12554																														
ZZZZZZ	VT06G	1.00	12572																														
ZZZZZZ	VT06H	1.00	12585																														
CCV	ACCV5	1.00	13003														X																
CCB	CCB5	1.00	13021														X																
ZZZZZZ	VT06I	1.00	13035																														
PBW	VS20MB1	1.00	13053														X																
LCSW	VS20MB1SPK	1.00	13071														X																
SA9-Field Duplicat	VS20A	1.00	13084														X																
SA9-Field DuplicatD	VS20ADUP	1.00	13102														X																
SA9-Field DuplicatS	VS20ASPK	1.00	13120														X																
SA10-1C	VS20B	1.00	13133														X																
SA10-2C	VS20C	1.00	13151														X																
SA10-2P-1(0 to 3	VS20D	1.00	13164														X																
SA10-2P-2(3 to 6	VS20E	1.00	13182														X																
CCV	ACCV6	1.00	13200														X																
CCB	CCB6	1.00	13214														X																
SA10-2P-3(6 to 12	VS20F	1.00	13232														X																
SA10-8C	VS20G	1.00	13250														X																
SA11-1C	VS20H	1.00	13263														X																
SA11-2C	VS20I	1.00	13281														X																
SA11-3C	VS20J	1.00	13295														X																

VS20-000005

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/23/2012

SDG: VS20 | RUNID: HG112301 METHOD: CVA | END DATE: 11/23/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
SA11-4C	VS20K	1.00	13313														X																
SA11-5C	VS20L	1.00	13330														X																
CCV	ACCV7	1.00	13344														X																
CCB	CCB7	1.00	13362														X																

General Chemistry Analysis
Report and Summary QC Forms

ARI Job ID: VS20

SAMPLE RESULTS-CONVENTIONALS
VS20-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized: jmb
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/09/12
Date Received: 11/12/12

Client ID: SA9-Field Duplicate
ARI ID: 12-22677 VS20A

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.11
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	96.00
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.190	6.56

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS20-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Client ID: SA10-1C
ARI ID: 12-22678 VS20B

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.14
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	94.30
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.196	8.80

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS20-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Client ID: SA10-2C
ARI ID: 12-22679 VS20C

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.96
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	91.70
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.126	12.8

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS20-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Client ID: SA10-2P-1(0 to 3" depth)
ARI ID: 12-22680 VS20D

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.21
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	89.60
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.198	30.6

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS20-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Client ID: SA10-2P-2(3 to 6" depth)
ARI ID: 12-22681 VS20E

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.27
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	92.00
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.194	18.9

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS20-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Client ID: SA10-2P-3(6 to 12" depth)
ARI ID: 12-22682 VS20F

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.22
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	93.90
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.194	15.6

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS20-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized: MB
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Client ID: SA10-8C
ARI ID: 12-22683 VS20G

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.08
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	94.90
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.020	5.02

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS20-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Client ID: SA11-1C
ARI ID: 12-22684 VS20H

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.09
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	97.80
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.020	1.98

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS20-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/06/12
Date Received: 11/12/12

Client ID: SA11-2C
ARI ID: 12-22685 VS20I

Analyte	Date	Method	Units	RL	Sample
pH	11/20/12 112012#1	SW9045	std units	0.01	6.19
Total Solids	11/19/12 111912#1	SM2540B	Percent	0.01	97.30
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.020	3.01

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS20-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA11-3C
ARI ID: 12-22686 VS20J

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.52
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	94.70
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.020	5.68

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS20-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Client ID: SA11-4C
ARI ID: 12-22687 VS20K

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.37
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	95.70
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.020	8.71

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS20-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/06/12
Date Received: 11/12/12

Client ID: SA11-5C
ARI ID: 12-22688 VS20L

Analyte	Date	Method	Units	RL	Sample
pH	11/20/12 112012#1	SW9045	std units	0.01	5.41
Total Solids	11/19/12 111912#1	SM2540B	Percent	0.01	95.30
Total Organic Carbon	11/28/12 112812#1	Plumb,1981	Percent	0.020	5.13

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

REPLICATE RESULTS-CONVENTIONALS
VS20-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized: JWR
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: VS20H Client ID: SA11-1C					
pH	11/21/12	std units	6.09	6.06	0.03

pH is evaluated as the Absolute Difference between the values rather than Relative Percent Difference

LAB CONTROL RESULTS-CONVENTIONALS
VS20-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized: MR
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
pH	ICVL	11/20/12	std units	6.97	7.00	0.03
SW9045	ICVL	11/21/12		6.97	7.00	0.03
Total Organic Carbon Plumb,1981	ICVL	11/28/12	Percent	0.092	0.100	92.0%

pH is evaluated as the Absolute Difference between the values rather than Percent Recovery.

METHOD BLANK RESULTS-CONVENTIONALS
VS20-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized: MB
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	11/19/12	Percent	< 0.01 U
	11/20/12		< 0.01 U
	11/20/12		< 0.01 U
Total Organic Carbon	11/28/12	Percent	< 0.020 U

STANDARD REFERENCE RESULTS-CONVENTIONALS
VS20-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Organic Carbon NIST 1941B	11/28/12	Percent	2.96	2.99	99.0%

Total Solids

ARI Job ID: VS20

Solids Data Entry Report Checked by: VB Date: 11/26/12
Date: 11/24/12 Data Analyst: DM

Solids Determination performed on 11/23/12 by NB

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
VS20	A	SA9-Field Duplicate	1.072	10.936	10.470	95.28
VS20	B	SA9-Field Duplicate	1.096	10.045	9.559	94.57
VS20	C	SA9-Field Duplicate	1.108	10.710	9.910	91.67
VS20	D	SA9-Field Duplicate	1.085	10.341	9.337	89.15
VS20	E	SA9-Field Duplicate	1.088	10.395	9.607	91.53
VS20	F	SA9-Field Duplicate	1.111	10.952	10.311	93.49
VS20	G	SA9-Field Duplicate	1.094	10.289	9.785	94.52
VS20	H	SA9-Field Duplicate	1.094	10.502	10.258	97.41
VS20	I	SA9-Field Duplicate	1.120	10.855	10.565	97.02
VS20	J	SA9-Field Duplicate	1.101	10.743	10.183	94.19
VS20	K	SA9-Field Duplicate	1.094	10.899	10.417	95.08
VS20	L	SA9-Field Duplicate	1.118	10.706	10.239	95.13

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Total Solids Bench Sheet

Laboratory Section METALS

Oven Identification: 07 Balance ID: B116132369

Samples in Oven: Date: 11-23-12 Time: 1900 Temp: 107°C Analyst: NB

Removed from Oven: Date: 11-24-12 Time: 0845 Temp: 105°C Analyst: DM

ARI Sample ID		Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs[1]
NB 11-23-12* VS20	A	~~1.095~~ 1.072*	~~10.601~~ 10.936*	10.470	–	✓
"	B	1.096	10.045	9.559	–	✓
"	C	1.108	10.710	9.910	–	✓
"	D	1.085	10.341	9.337	–	✓
"	E	1.088	10.395	9.607	–	✓
"	F	1.111	10.952	10.311	–	✓
"	G	1.094	10.289	9.785	–	✓
"	H	1.094	10.502	10.258	–	✓
"	I	1.120	10.855	10.505	–	✓
"	J	1.101	10.743	10.183	–	✓
"	K	1.094	10.899	10.417	–	✓
"	L	1.118	10.706	10.239	–	✓

NB 11-23-12

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2nd bench sheet for additional weightings.

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: VS20

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: NB

Date: 11-21-12

Final Volume 50.0

Final Volume (Hg): 50.0

Sample ID VS20 ASPK, MBSPK

		Prepcode:	SWC		
		Spike Solution:	ICP Routine	ICP No GFA	GFA
		Standard No.:	2977-9		
		Vol Added (mL):	1.0		
STOCK CONCENTRATION	Ag		50		2.0
	Al		200 ✓	200	
	As		200		10
	Ba		200 ✓	200	
	Be		50	50	
	Ca		1000 ✓	1000	
	Cd		50		2.0
	Co		50	50	
	Cr		50	50	
	Cu		50	50	
	Fe		200 ✓	200	
	K		1000 ✓	1000	
	Mg		1000 ✓	1000	
	Mn		50 ✓	50	
	Na		1000 ✓	1000	
	Ni		50	50	
	Pb		200		10
	Se		200		10
	Sr		50	50	
	Tl		200		10
	V		50	50	
	Zn		50	50	

	SWN	SWN	
	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
	2987-2	2956-7	
	1.0	1.0	
Ag	25 ✓		
Al			500
As	25 ✓		
Ba	25		
Be	25 ✓		
Ca			500
Cd	25 ✓		
Co	25 ✓		
Cr	25 ✓		
Cu	25 ✓		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25 ✓		
Pb	25 ✓		
Sb		25 ✓	
Se	80 ✓		
Tl	25 ✓		
U	25		
V	25 ✓		
Zn	80 ✓		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	SMM	CVA	1.0	0.05	2908-7
Hg MBSPK	SMM	CVA	1.0	0.10	2908-7
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

Analytical Resources, Incorporated
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Digestion Log

Analyst: NB Date: 11-21-12 Time: 1408

Matrix: SOIL Block ID: #1 Block Temp: 91°C Thermometer: MP40

ARI Sample ID	Btl #	pH<2	Prep Code: SWC Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWC Final Vol (mL)	Prep Code: SWN Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWN Final Vol (mL)	Comments
VS20 A	1	—	1.018	50.0	1.068	50.0	
" ADUP	1	—	1.019		1.069		
" ASPK	1	—	1.021		1.068		
" B	1	—	1.045		1.044		
" C	1	—	1.074		1.080		
" D	1	—	1.027		1.049		
" E	1	—	1.078		1.092		
" F	1	—	1.040		1.065		
" G	1	—	1.046		1.058		
" H	1	—	1.023		1.034		
" I	1	—	1.084		1.071		
" J	1	—	1.004		1.046		
" K	1	—	1.062		1.020		
" L	1	—	1.069		1.039		
" MB1	—	—	—		—		
" MB1SPK	—	—	—	50.0	—	50.0	

NB 11-21-12

Chemical/Reagent ID:

HNO_3: MP2392/I7833 HCl: I7676 H_2O_2: I7845 Tube Lot #: 1207143

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM Matrix: SOIL
Analyst: NB Date: 11-21-12
Bath Temp: 92°C Start Time: 1428 End Time: 1458

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VS20A	1	—	0.739	50.0	11-22 1	YES	
" ADUP	1	—	0.743		1		
" ASPK	1	—	0.741		1		
" B	1	—	0.702		1		
" C	1	—	0.731		1		
" D	1	—	0.736		1		
" E	1	—	0.735		1		
" F	1	—	0.731		1		
" G	1	—	0.715		1		
" H	1	—	0.712		1		
" I	1	—	0.706		1		
" J	1	—	0.715		1		
" K	1	—	0.719		1		
" L	1	—	0.711		1		
" MB1	—	—	—		1		
" MB1SPK	—	—	—	50.0	1		
				NB 11-21-12			

Chemical/Reagent ID:

HNO_3: I7833 H_2SO_4: I7677 HCl: —
5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376 Digest Tube Lot: 1205258

VS20:00110

Analytical Resources, Incorporated
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Metals Laboratory Analyst Notes

ARI Job No.: VS20

Client ID: Hart Crowser

Parameter: ICP

Client Project: Upper Columbia

List problems, concerns, corrective actions and any other pertinent information
MB Mn at 0.00130 mg/L. All samples > 10x contamination level.

Analyst Initials:	BA	Date:	10-26-12

5048F

Revision 005
6/11/10

Analytical Resources, Incorporated
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Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	VS20
Unacceptable Blank:	☐	Date of Event:	11.23.12
Unacceptable Duplicate:	☐	Client ID:	
Unacceptable Spike:	☑	Method/Element:	ICPMS
Unacceptable Reference:	☐	Prep Code:	SWN

Details of Problem/Recommended Corrective Action:

A-L (100x): Cr -11.5 % difference, V -12.2 % difference

A: 0.274 ppb Sb

ASPK: 1.514 ppb Sb %R = 4.7

post-Spike ck

Samples Affected:

Corrective Action Taken:

Analyst Initials: MJT **Supervisor:**

Date: 11.26.12 **Date:**

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	VS20
Unacceptable Blank:	☐	Date of Event:	11-23-12
Unacceptable Duplicate:	☐	Client ID:	Hart Crowser
Unacceptable Spike:	☐	Method/Element:	ICP
Unacceptable Reference:	☐	Prep Code:	SWC

Details of Problem/Recommended Corrective Action:

SD for Ba, Mn >10%.

Samples Affected:

Corrective Action Taken:

11/27/12

Analyst Initials: BA **Supervisor:**

Date: 11/27/12 **Date:**

5049F

Revision 007
6/11/10

VS20:00113

VS20

SERIAL DILUTION WORKSHEET			
ELEMENT	1/5 VALUES	UNDILUTED	% DIFF
	mg/L	mg/L	
Ag			#VALUE!
Al	13.69	63.04	-8.58
As			#VALUE!
B			#VALUE!
Ba	0.1603	0.7222	-10.98
Be			#VALUE!
Ca	6.034	28.05	-7.56
Cd			#VALUE!
Co			#VALUE!
Cr			#VALUE!
Cu			#VALUE!
Fe	17.25	79.17	-8.94
K	1.299	5.92	-9.71
Mg	4.924	22.44	-9.71
Mn	0.5737	2.602	-10.24
Mo			#VALUE!
Na	0.1815	0.8076	-12.37
Ni			#VALUE!
Pb			#VALUE!
Sb			#VALUE!
Se			#VALUE!
Si			#DIV/0!
Sn			#VALUE!
Sr			#DIV/0!
Ti			#DIV/0!
Tl			#DIV/0!
V			#VALUE!
Zn			#VALUE!

Sample level < 5 RL

TABLE 6

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: VS20

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: 11 - ~~25~~ 12 - 12 BA 11/23/12 Analysis Date: 11 - 23 - 12 Analyst: BA

LR Date: 7-30-12 Page: 1 of 6

All corrections made by analyst unless otherwise noted. BA 11-27-12

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STD 0			2992-10
		2			2992-12
		3			-13
		4			-14 Ti noisy - rerun
		5			2993-1
		4			2992-14
		ICV			2988-6
		ICB			Max Rn (0.00557 mg/L)
		CRI			
		ICSA			
		ICSAB			
		CCV1			Sl. noisy - OK
		CCB1			
		VT39 MB	LEN	~~LEN~~ 5	BA 11/24/12
		VT01 MB	TWC		
		ADUP		5	
		A			
		ASPK		✓	
		VT39 ADUP	LEN	5	
		A			
		ASPK		✓	Pb STL
		VT01 MBSPK	TWC		
		CCV2			
		CCB2			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-23-12 Analyst: BA

LR Date: — Page: 2 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		VS97 MB1	TWC		
		VS28 A	SWC	5	
		VS97 A	TWC		
		B			
		MBISPK		✓	
		MBISPD		✓	
		CCV3			
		CCB3			End VS97
		VS18 MB1	SWC	2	
		B		5	
		C		↓	
		D		↓	
		A-L		25	
		A		5	
		ADUP		✓	
		ASPK		✓	Al, Ca, Fe, Mn STL
		APOST		✓ ↓	↓
		MBISPK		2 ✓	
		CCV4			
		CCB4			
		VS18 E	SWC	5	
		F			
		G			
		H			

VS20 00117

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-23-12 Analyst: BA

LR Date: ~ Page: 3 of 6

All corrections made by analyst unless otherwise noted. BA 11-27-12

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
	✓	VS18 ~~E~~ I	SWC	5	Analytes noisy
	✓	J			↓
		K			
		L			
		CCV5			
		CCB5			
		CRI			
		ICSA			
		ICSAB			sl. noisy - OK
		CCV6			
		CCB6			
		VS19 MB1	SWC	2	
		B		5	
		C		↓	
		D		↓	
		A-L		25	
		A		5	
		ADUP		↓ ✓	
		ASPK		✓	Al, Ca, Fe, K, Mg, Mn STL
		~~APOST~~ ZZZZZZ BA 11/27/12		↓ ✓	↓
		MB1SPK		2 ✓	
		CCV7			SCR/analytes noisy
		CCV8			
		CCB7			
		VS19 E	SWC	5	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-23-12 Analyst: BA

LR Date: — Page: 4 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		VS19 F	SWC	5	
	✓	G			S:R/analytes noisy
	✓	H			Analytes noisy
		I			
		J			
		K			
		L			
		CCV9			
		CCB8			
		CRI			Ti >150%
		ICSA			
		ICSAB			
		CCV10			
		CCB9			
		VS20 MB1	SWC	2	Mn > RL (0.00135 mg/L) -A.N.
		B		5	
		C			
		D			
		A-L		25	(CAF) BA Ba, Mn >10% diff. 11/27/12
		A		5	
		ADUP			✓
		ASPK			✓ Al, Ca, Fe, Mg, Mn STL
		~~ZZZZZZ~~ APOST BA 11/27/12			✓
		MB1SPK		2	✓

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-23-12 Analyst: B/A

LR Date: — Page: 5 of 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		CCV11			
		CCB10			
	✓	VS20 E	SWC	5	Analytes noisy
		F	↓	↓	
		G			
		H			
		I			
		J			
		K			
		L			
		VS18 I			
		J	↓	↓	Analytes noisy - This is 2nd fog.
		CCV12			
		CCB11			
		CRI			
		ICSA			
		ICSAB			
		CCV13			
		CCB12			
		VS19 G	SWC	5	Analytes noisy - This is 2nd fog.
		H	↓	↓	
		CCV14			
		CCB13			
		CRI			

12/4/12

VS20 : 00120

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: (ICP) ICP-MS GFA CVA Analysis Date: 11-23-12

ICP - 2	Analyst BA 11/26/12	Peer MH 11-26	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	See log
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	↓
Samples:			
RSD's & SD's	✓	✓	See log
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	See log
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	See log
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	See log
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	See log - VS20
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	A.N. - VS20 CAF - VS20

✓ 11-26-12 JB

Analysis Begun

Start Time: 11/23/2012 9:03:19 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/23/2012 7:30:40 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2121123
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Method Loaded
Method Name: 7300bcESI2FAST
IEC File: IEC110912.iec
Method Description: 12Axial Elements
Method Last Saved: 11/23/2012 8:43:03 AM
MSF File:

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

Sequence No.: 1
Sample ID: Calib Blank 1
Autosampler Location: 1
Date Collected: 11/23/2012 9:03:20 AM
Data Type: Original

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2637477.1	7239.54	0.27%	100.0	%
ScR 361.383	330039.1	3933.59	1.19%	100.0	%
Ag 328.068†	-117.2	37.61	32.10%	[0.00]	mg/L
Al 308.215†	197.1	0.75	0.38%	[0.00]	mg/L
As 188.979†	-12.6	3.13	24.76%	[0.00]	mg/L
B 249.677†	28.1	4.51	16.06%	[0.00]	mg/L

Ba 233.527†	24.4	4.45	18.25%	[0.00] mg/L
Be 313.042†	895.9	33.39	3.73%	[0.00] mg/L
Ca 317.933†	191.8	8.77	4.58%	[0.00] mg/L
Cd 228.802†	304.6	3.18	1.04%	[0.00] mg/L
Co 228.616†	-90.4	3.36	3.71%	[0.00] mg/L
Cr 267.716†	-117.5	3.10	2.63%	[0.00] mg/L
Cu 324.752†	2623.3	12.46	0.47%	[0.00] mg/L
Fe 273.955†	22.8	1.58	6.91%	[0.00] mg/L
K 766.490†	474.7	35.63	7.51%	[0.00] mg/L
Mg 279.077†	83.8	2.93	3.49%	[0.00] mg/L
Mn 257.610†	169.2	2.93	1.73%	[0.00] mg/L
Mo 202.031†	67.0	2.41	3.60%	[0.00] mg/L
Na 589.592†	-392.7	38.15	9.72%	[0.00] mg/L
Na 330.237†	-215.5	11.74	5.45%	[0.00] mg/L
Ni 231.604†	-21.7	4.79	22.13%	[0.00] mg/L
Pb 220.353†	60.4	3.73	6.17%	[0.00] mg/L
Sb 206.836†	71.9	7.45	10.36%	[0.00] mg/L
Se 196.026†	-45.4	8.44	18.58%	[0.00] mg/L
Si 288.158†	66.3	2.20	3.33%	[0.00] mg/L
Sn 189.927†	-3.0	2.91	97.88%	[0.00] mg/L
Sr 421.552†	341.3	36.25	10.62%	[0.00] mg/L
Ti 334.903†	-67.5	25.53	37.82%	[0.00] mg/L
Tl 190.801†	-45.7	4.98	10.90%	[0.00] mg/L
V 292.402†	118.1	3.92	3.32%	[0.00] mg/L
Zn 206.200†	19.3	0.48	2.49%	[0.00] mg/L

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Sequence No.: 2
Sample ID: STD2

Autosampler Location: 2
Date Collected: 11/23/2012 9:07:36 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2646818.3	34996.87	1.32%	100.4	%
ScR 361.383	328990.5	6564.77	2.00%	99.68	%
Ba 233.527†	47742.4	1013.51	2.12%	[10]	mg/L
Cd 228.802†	304610.7	4786.83	1.57%	[10]	mg/L
Co 228.616†	382712.2	6223.01	1.63%	[10]	mg/L
Cr 267.716†	64491.5	1438.03	2.23%	[10]	mg/L
Cu 324.752†	2631913.4	38827.53	1.48%	[10]	mg/L
Mn 257.610†	384429.6	9533.88	2.48%	[10]	mg/L
V 292.402†	1292186.7	21635.73	1.67%	[10]	mg/L

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Sequence No.: 3
Sample ID: STD3

Autosampler Location: 3
Date Collected: 11/23/2012 9:09:23 AM
Data Type: Original

Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2634602.6	17517.64	0.66%	99.89	%
ScR 361.383	328349.7	1942.48	0.59%	99.49	%
Ag 328.068†	179076.6	524.54	0.29%	[1.0]	mg/L
As 188.979†	18708.9	75.00	0.40%	[10]	mg/L
B 249.677†	78419.6	256.68	0.33%	[10]	mg/L
Be 313.042†	3197101.5	35658.34	1.12%	[5.0]	mg/L
Na 589.592†	614905.3	6706.72	1.09%	[50]	mg/L
Ni 231.604†	42465.5	222.77	0.52%	[10]	mg/L

Pb 220.353†	81900.1	402.25	0.49%	[10] mg/L
Se 196.026†	14833.3	78.66	0.53%	[10] mg/L
Sr 421.552†	4481647.2	54919.78	1.23%	[5] mg/L
Tl 190.801†	25469.9	86.32	0.34%	[10] mg/L
Zn 206.200†	40032.2	193.24	0.48%	[10] mg/L

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: STD4 **Date Collected: 11/23/2012 9:11:58 AM**
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2679935.0	10146.88	0.38%	101.6	%
ScR 361.383	332688.4	7948.78	2.39%	100.8	%
Mo 202.031†	208929.2	759.76	0.36%	[10]	mg/L
Sb 206.836†	34422.7	219.26	0.64%	[10]	mg/L
Si 288.158†	21839.8	475.12	2.18%	[10]	mg/L
Sn 189.927†	39640.2	247.72	0.62%	[10]	mg/L
Ti 334.903†	216613.5	7736.77	3.57%	[10]	mg/L

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: STD5 **Date Collected: 11/23/2012 9:14:13 AM**
Data Type: Original

Nebulizer Parameters: STD5 BA 11/23/12

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2532183.7	6658.81	0.26%	96.01	%
ScR 361.383	332711.8	5005.47	1.50%	100.8	%
Al 308.215†	51446.2	682.12	1.33%	[30]	mg/L
Ca 317.933†	420706.0	6992.51	1.66%	[30]	mg/L
Fe 273.955†	139901.6	2499.84	1.79%	[100]	mg/L
K 766.490†	195955.8	3198.15	1.63%	[100]	mg/L
Mg 279.077†	42555.6	529.22	1.24%	[30]	mg/L
Na 330.237†	2944.5	31.82	1.08%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	179100	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1715	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1871	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	7842	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	4774	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	639400	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	14020	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	30460	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	38270	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	6449	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	263200	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1399	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1960	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1419	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	38440	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	20890	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	12300	0.00000	1.000000	

Na 330.237	1	Lin Thru 0	0.0	29.44	0.00000	1.000000
Ni 231.604	1	Lin Thru 0	0.0	4247	0.00000	1.000000
Pb 220.353	1	Lin Thru 0	0.0	8190	0.00000	1.000000
Sb 206.836	1	Lin Thru 0	0.0	3442	0.00000	1.000000
Se 196.026	1	Lin Thru 0	0.0	1483	0.00000	1.000000
Si 288.158	1	Lin Thru 0	0.0	2184	0.00000	1.000000
Sn 189.927	1	Lin Thru 0	0.0	3964	0.00000	1.000000
Sr 421.552	1	Lin Thru 0	0.0	896300	0.00000	1.000000
Ti 334.903	1	Lin Thru 0	0.0	21660	0.00000	1.000000
Tl 190.801	1	Lin Thru 0	0.0	2547	0.00000	1.000000
V 292.402	1	Lin Thru 0	0.0	129200	0.00000	1.000000
Zn 206.200	1	Lin Thru 0	0.0	4003	0.00000	1.000000

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Analysis Begun

Start Time: 11/23/2012 9:17:54 AM **Plasma On Time: 11/23/2012 7:30:40 AM**
Logged In Analyst: Metals **Technique: ICP Continuous**
Spectrometer: Optima 7300 DV, S/N 077C8121202 **Autosampler: ESI**

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2121123
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

==========

Sequence No.: 1
Sample ID: STD4 **Date Collected: 11/23/2012 9:17:55 AM**
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2708369.3	12164.94	0.45%	102.7	%
ScR 361.383	341566.0	4792.93	1.40%	103.5	%
Mo 202.031†	210140.0	231.02	0.11%	[10]	mg/L
Sb 206.836†	34620.2	122.37	0.35%	[10]	mg/L
Si 288.158†	21342.2	345.16	1.62%	[10]	mg/L
Sn 189.927†	39722.1	135.66	0.34%	[10]	mg/L
Ti 334.903†	212310.5	3790.32	1.79%	[10]	mg/L

Analysis Begun

Start Time: 11/23/2012 9:23:56 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/23/2012 7:30:40 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2121123
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: ICV
Analyst: BA
Dilution: 1.000000X
Autosampler Location: 7
Date Collected: 11/23/2012 9:23:57 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	213.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2697909.2	102.3	%	0.50				0.49%
ScR 361.383	334174.7	101.3	%	1.16				1.15%
Ag 328.068†	185214.9	1.035	mg/L	0.0086	1.035	mg/L	0.0086	0.84%
Al 308.215†	3533.7	2.026	mg/L	0.0221	2.026	mg/L	0.0221	1.09%
As 188.979†	3731.9	2.019	mg/L	0.0184	2.019	mg/L	0.0184	0.91%
B 249.677†	7795.3	0.9932	mg/L	0.01127	0.9932	mg/L	0.01127	1.13%
Ba 233.527†	4851.2	1.016	mg/L	0.0144	1.016	mg/L	0.0144	1.42%
Be 313.042†	613312.2	0.9590	mg/L	0.01677	0.9590	mg/L	0.01677	1.75%
Ca 317.933†	27040.6	1.928	mg/L	0.0271	1.928	mg/L	0.0271	1.41%
Cd 228.802†	31684.7	1.028	mg/L	0.0079	1.028	mg/L	0.0079	0.77%
Co 228.616†	38650.0	1.008	mg/L	0.0082	1.008	mg/L	0.0082	0.81%
Cr 267.716†	6513.3	1.009	mg/L	0.0112	1.009	mg/L	0.0112	1.11%
Cu 324.752†	272070.1	1.033	mg/L	0.0071	1.033	mg/L	0.0071	0.69%
Fe 273.955†	2851.0	2.031	mg/L	0.0173	2.031	mg/L	0.0173	0.85%
K 766.490†	39065.1	19.94	mg/L	0.245	19.94	mg/L	0.245	1.23%
Mg 279.077†	2864.3	2.026	mg/L	0.0204	2.026	mg/L	0.0204	1.01%
Mn 257.610†	36814.2	0.9580	mg/L	0.01537	0.9580	mg/L	0.01537	1.60%
Mo 202.031†	21760.2	1.035	mg/L	0.0066	1.035	mg/L	0.0066	0.64%
Na 589.592†	617566.8	50.22	mg/L	0.777	50.22	mg/L	0.777	1.55%
Na 330.237†	1559.9	52.87	mg/L	0.245	52.87	mg/L	0.245	0.46%
Ni 231.604†	4229.3	0.9962	mg/L	0.01137	0.9962	mg/L	0.01137	1.14%
Pb 220.353†	16797.3	2.052	mg/L	0.0184	2.052	mg/L	0.0184	0.90%
Sb 206.836†	7213.5	2.083	mg/L	0.0165	2.083	mg/L	0.0165	0.79%
Se 196.026†	2934.6	1.977	mg/L	0.0165	1.977	mg/L	0.0165	0.83%
Si 288.158†	4518.7	2.117	mg/L	0.0246	2.117	mg/L	0.0246	1.16%
Sn 189.927†	3951.2	0.9961	mg/L	0.00981	0.9961	mg/L	0.00981	0.98%
Sr 421.552†	884640.0	0.9870	mg/L	0.01667	0.9870	mg/L	0.01667	1.69%
Ti 334.903†	21484.4	1.011	mg/L	0.0175	1.011	mg/L	0.0175	1.73%
Tl 190.801†	5105.8	1.996	mg/L	0.0216	1.996	mg/L	0.0216	1.08%
V 292.402†	132586.8	1.030	mg/L	0.0095	1.030	mg/L	0.0095	0.92%
Zn 206.200†	4094.0	1.022	mg/L	0.0106	1.022	mg/L	0.0106	1.04%

Sequence No.: 2
Sample ID: ICB
Analyst: BA
Dilution: 1.000000X
Autosampler Location: 1
Date Collected: 11/23/2012 9:28:02 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CCB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2650082.1	100.5	%	0.23				0.23%
ScR 361.383	333399.2	101.0	%	0.97				0.96%
Ag 328.068†	2.9	0.00002	mg/L	0.000095	0.00002	mg/L	0.000095	575.14%
Al 308.215†	-8.6	-0.00512	mg/L	0.008213	-0.00512	mg/L	0.008213	160.27%
As 188.979†	-1.8	-0.00096	mg/L	0.002898	-0.00096	mg/L	0.002898	302.54%
B 249.677†	21.3	0.00272	mg/L	0.000072	0.00272	mg/L	0.000072	2.66%
Ba 233.527†	-0.5	-0.00011	mg/L	0.000175	-0.00011	mg/L	0.000175	158.61%
Be 313.042†	110.9	0.00017	mg/L	0.000081	0.00017	mg/L	0.000081	46.89%
Ca 317.933†	10.4	0.00074	mg/L	0.001000	0.00074	mg/L	0.001000	134.89%
Cd 228.802†	5.7	0.00020	mg/L	0.000044	0.00020	mg/L	0.000044	22.75%
Co 228.616†	9.5	0.00025	mg/L	0.000205	0.00025	mg/L	0.000205	83.33%
Cr 267.716†	3.6	0.00055	mg/L	0.000213	0.00055	mg/L	0.000213	38.33%
Cu 324.752†	62.9	0.00024	mg/L	0.000057	0.00024	mg/L	0.000057	24.30%
Fe 273.955†	-2.0	-0.00145	mg/L	0.001347	-0.00145	mg/L	0.001347	92.68%
K 766.490†	-15.1	-0.00771	mg/L	0.000264	-0.00771	mg/L	0.000264	3.42%
Mg 279.077†	4.2	0.00299	mg/L	0.004769	0.00299	mg/L	0.004769	159.31%
Mn 257.610†	2.2	0.00006	mg/L	0.000110	0.00006	mg/L	0.000110	195.77%
Mo 202.031†	117.0	0.00557	mg/L	0.000656	0.00557	mg/L	0.000656	11.79%
Na 589.592†	124.2	0.01010	mg/L	0.005388	0.01010	mg/L	0.005388	53.34%
Na 330.237†	7.4	0.2516	mg/L	0.20787	0.2516	mg/L	0.20787	82.63%
Ni 231.604†	4.3	0.00101	mg/L	0.001092	0.00101	mg/L	0.001092	108.43%
Pb 220.353†	4.8	0.00058	mg/L	0.000288	0.00058	mg/L	0.000288	49.50%
Sb 206.836†	23.0	0.00666	mg/L	0.001530	0.00666	mg/L	0.001530	22.99%
Se 196.026†	0.1	0.00007	mg/L	0.003363	0.00007	mg/L	0.003363	>999.9%
Si 288.158†	2.3	0.00107	mg/L	0.003242	0.00107	mg/L	0.003242	302.33%
Sn 189.927†	6.3	0.00159	mg/L	0.000555	0.00159	mg/L	0.000555	34.85%
Sr 421.552†	131.1	0.00015	mg/L	0.000085	0.00015	mg/L	0.000085	57.97%
Ti 334.903†	27.5	0.00129	mg/L	0.000215	0.00129	mg/L	0.000215	16.65%
Tl 190.801†	4.4	0.00173	mg/L	0.001352	0.00173	mg/L	0.001352	77.93%
V 292.402†	29.1	0.00023	mg/L	0.000126	0.00023	mg/L	0.000126	54.53%
Zn 206.200†	-0.6	-0.00016	mg/L	0.000221	-0.00016	mg/L	0.000221	138.04%

User canceled analysis.

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Analysis Begun

Start Time: 11/23/2012 9:32:29 AM **Plasma On Time: 11/23/2012 7:30:40 AM**
Logged In Analyst: Metals **Technique: ICP Continuous**
Spectrometer: Optima 7300 DV, S/N 077C8121202 **Autosampler: ESI**

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2121123
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

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Sequence No.: 3 **Autosampler Location: 301**
Sample ID: CRI **Date Collected: 11/23/2012 9:32:30 AM**
Analyst: BA **Data Type: Original**
Dilution: 1.000000X

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2708849.8	102.7	%	0.66				0.64%
ScR 361.383	338015.5	102.4	%	0.53				0.52%
Ag 328.068†	530.1	0.00296	mg/L	0.000062	0.00296	mg/L	0.000062	2.08%
Al 308.215†	80.8	0.04695	mg/L	0.010516	0.04695	mg/L	0.010516	22.40%
As 188.979†	92.1	0.04936	mg/L	0.001351	0.04936	mg/L	0.001351	2.74%
B 249.677†	171.0	0.02181	mg/L	0.000534	0.02181	mg/L	0.000534	2.45%
Ba 233.527†	11.2	0.00235	mg/L	0.000665	0.00235	mg/L	0.000665	28.35%
Be 313.042†	653.8	0.00102	mg/L	0.000059	0.00102	mg/L	0.000059	5.82%
Ca 317.933†	688.3	0.04909	mg/L	0.001101	0.04909	mg/L	0.001101	2.24%

Cd 228.802†	72.3	0.00206 mg/L	0.000165	0.00206 mg/L	0.000165	8.02%
Co 228.616†	137.6	0.00358 mg/L	0.000096	0.00358 mg/L	0.000096	2.69%
Cr 267.716†	38.3	0.00594 mg/L	0.000932	0.00594 mg/L	0.000932	15.69%
Cu 324.752†	544.8	0.00207 mg/L	0.000086	0.00207 mg/L	0.000086	4.14%
Fe 273.955†	67.4	0.04815 mg/L	0.002578	0.04815 mg/L	0.002578	5.35%
K 766.490†	995.8	0.5082 mg/L	0.00524	0.5082 mg/L	0.00524	1.03%
Mg 279.077†	73.5	0.05184 mg/L	0.002265	0.05184 mg/L	0.002265	4.37%
Mn 257.610†	34.7	0.00091 mg/L	0.000076	0.00091 mg/L	0.000076	8.42%
Mo 202.031†	140.6	0.00669 mg/L	0.000193	0.00669 mg/L	0.000193	2.88%
Na 589.592†	6017.0	0.4893 mg/L	0.00438	0.4893 mg/L	0.00438	0.90%
Na 330.237†	30.2	1.024 mg/L	0.0927	1.024 mg/L	0.0927	9.05%
Ni 231.604†	42.6	0.01004 mg/L	0.000676	0.01004 mg/L	0.000676	6.74%
Pb 220.353†	164.9	0.02015 mg/L	0.000452	0.02015 mg/L	0.000452	2.24%
Sb 206.836†	187.9	0.05429 mg/L	0.000616	0.05429 mg/L	0.000616	1.14%
Se 196.026†	74.5	0.05023 mg/L	0.002969	0.05023 mg/L	0.002969	5.91%
Si 288.158†	130.5	0.06111 mg/L	0.002856	0.06111 mg/L	0.002856	4.67%
Sn 189.927†	40.9	0.01033 mg/L	0.000661	0.01033 mg/L	0.000661	6.40%
Sr 421.552†	931.1	0.00104 mg/L	0.000036	0.00104 mg/L	0.000036	3.46%
Ti 334.903†	126.3	0.00594 mg/L	0.001482	0.00594 mg/L	0.001482	24.96%
Tl 190.801†	131.5	0.05161 mg/L	0.001412	0.05161 mg/L	0.001412	2.74%
V 292.402†	424.0	0.00331 mg/L	0.000084	0.00331 mg/L	0.000084	2.54%
Zn 206.200†	40.4	0.01010 mg/L	0.000473	0.01010 mg/L	0.000473	4.68%

Sequence No.: 4
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 11/23/2012 9:36:47 AM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2591653.5	98.26	%	0.177				0.18%
ScR 361.383	323981.5	98.16	%	2.289				2.33%
Ag 328.068†	-184.4	-0.00103	mg/L	0.000224	-0.00103	mg/L	0.000224	21.80%
Al 308.215†	353052.9	205.9	mg/L	6.22	205.9	mg/L	6.22	3.02%
As 188.979†	42.7	0.01712	mg/L	0.001935	0.01712	mg/L	0.001935	11.31%
B 249.677†	-22.8	-0.00291	mg/L	0.000925	-0.00291	mg/L	0.000925	31.83%
Ba 233.527†	137.1	-0.00397	mg/L	0.000579	-0.00397	mg/L	0.000579	14.58%
Be 313.042†	66.8	0.00010	mg/L	0.000039	0.00010	mg/L	0.000039	38.06%
Ca 317.933†	1429853.7	102.0	mg/L	3.11	102.0	mg/L	3.11	3.05%
Cd 228.802†	63.8	0.00004	mg/L	0.000126	0.00004	mg/L	0.000126	302.92%
Co 228.616†	82.4	-0.00046	mg/L	0.000181	-0.00046	mg/L	0.000181	39.45%
Cr 267.716†	8.9	-0.00081	mg/L	0.001175	-0.00081	mg/L	0.001175	145.88%
Cu 324.752†	-2118.3	-0.00011	mg/L	0.000255	-0.00011	mg/L	0.000255	227.98%
Fe 273.955†	279242.2	199.6	mg/L	5.87	199.6	mg/L	5.87	2.94%
K 766.490†	30.4	0.01550	mg/L	0.010431	0.01550	mg/L	0.010431	67.29%
Mg 279.077†	149199.8	105.1	mg/L	2.78	105.1	mg/L	2.78	2.65%
Mn 257.610†	29.3	0.00071	mg/L	0.000214	0.00071	mg/L	0.000214	30.19%
Mo 202.031†	71.5	0.00230	mg/L	0.000339	0.00230	mg/L	0.000339	14.72%
Na 589.592†	195.4	0.01589	mg/L	0.001493	0.01589	mg/L	0.001493	9.40%
Na 330.237†	-5.8	-0.1972	mg/L	0.30142	-0.1972	mg/L	0.30142	152.83%
Ni 231.604†	-2.0	-0.00045	mg/L	0.001597	-0.00045	mg/L	0.001597	352.67%
Pb 220.353†	-336.2	0.00000	mg/L	0.001947	0.00000	mg/L	0.001947	>999.9%
Sb 206.836†	44.9	0.01283	mg/L	0.003414	0.01283	mg/L	0.003414	26.62%
Se 196.026†	14.1	0.00952	mg/L	0.005403	0.00952	mg/L	0.005403	56.73%
Si 288.158†	-30.0	-0.00134	mg/L	0.004395	-0.00134	mg/L	0.004395	327.94%
Sn 189.927†	-70.6	-0.00515	mg/L	0.000485	-0.00515	mg/L	0.000485	9.40%
Sr 421.552†	3651.0	0.00407	mg/L	0.000071	0.00407	mg/L	0.000071	1.74%
Ti 334.903†	158.5	0.00260	mg/L	0.000271	0.00260	mg/L	0.000271	10.45%
Tl 190.801†	-56.1	-0.00074	mg/L	0.002580	-0.00074	mg/L	0.002580	348.37%
V 292.402†	1396.6	0.00384	mg/L	0.000406	0.00384	mg/L	0.000406	10.58%
Zn 206.200†	13.0	0.00325	mg/L	0.000412	0.00325	mg/L	0.000412	12.67%

Sequence No.: 5
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 11/23/2012 9:41:03 AM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2608594.7	98.90	%	0.584				0.59%
ScR 361.383	323727.3	98.09	%	2.345				2.39%
Ag 328.068†	189848.3	1.060	mg/L	0.0046	1.060	mg/L	0.0046	0.43%
Al 308.215†	349043.4	203.5	mg/L	5.42	203.5	mg/L	5.42	2.67%
As 188.979†	1946.8	1.034	mg/L	0.0092	1.034	mg/L	0.0092	0.89%
B 249.677†	-1.0	-0.00215	mg/L	0.000946	-0.00215	mg/L	0.000946	43.91%
Ba 233.527†	5027.7	1.020	mg/L	0.0279	1.020	mg/L	0.0279	2.74%
Be 313.042†	643495.0	1.006	mg/L	0.0290	1.006	mg/L	0.0290	2.88%
Ca 317.933†	1435404.5	102.4	mg/L	3.02	102.4	mg/L	3.02	2.96%
Cd 228.802†	32046.6	1.044	mg/L	0.0063	1.044	mg/L	0.0063	0.60%
Co 228.616†	37741.5	0.9833	mg/L	0.00491	0.9833	mg/L	0.00491	0.50%
Cr 267.716†	6654.4	1.030	mg/L	0.0287	1.030	mg/L	0.0287	2.79%
Cu 324.752†	279450.2	1.070	mg/L	0.0038	1.070	mg/L	0.0038	0.36%
Fe 273.955†	281579.3	201.3	mg/L	5.71	201.3	mg/L	5.71	2.84%
K 766.490†	-58.6	-0.02989	mg/L	0.013964	-0.02989	mg/L	0.013964	46.72%
Mg 279.077†	144822.0	102.0	mg/L	2.89	102.0	mg/L	2.89	2.83%
Mn 257.610†	37742.8	0.9820	mg/L	0.02729	0.9820	mg/L	0.02729	2.78%
Mo 202.031†	55.1	0.00146	mg/L	0.000282	0.00146	mg/L	0.000282	19.30%
Na 589.592†	335.3	0.02726	mg/L	0.002855	0.02726	mg/L	0.002855	10.47%
Na 330.237†	9.1	-0.01373	mg/L	0.238710	-0.01373	mg/L	0.238710	>999.9%
Ni 231.604†	4198.2	0.9888	mg/L	0.02745	0.9888	mg/L	0.02745	2.78%
Pb 220.353†	7899.8	1.006	mg/L	0.0039	1.006	mg/L	0.0039	0.39%
Sb 206.836†	3556.1	1.016	mg/L	0.0107	1.016	mg/L	0.0107	1.05%
Se 196.026†	1515.5	1.021	mg/L	0.0071	1.021	mg/L	0.0071	0.69%
Si 288.158†	-39.4	-0.00235	mg/L	0.002558	-0.00235	mg/L	0.002558	108.78%
Sn 189.927†	-72.9	-0.00519	mg/L	0.001735	-0.00519	mg/L	0.001735	33.42%
Sr 421.552†	3687.2	0.00411	mg/L Conc.	0.000141	0.00411	mg/L	0.000141	3.44%
Ti 334.903†	157.3	0.00232	mg/L	0.000230	0.00232	mg/L	0.000230	9.92%
Tl 190.801†	2396.3	0.9530	mg/L	0.00738	0.9530	mg/L	0.00738	0.77%
V 292.402†	131809.8	1.018	mg/L	0.0049	1.018	mg/L	0.0049	0.49%
Zn 206.200†	3943.2	0.9850	mg/L	0.02617	0.9850	mg/L	0.02617	2.66%

Sequence No.: 6
Sample ID: CV
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/23/2012 9:46:09 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2702092.5	102.4	%	0.22				0.21%
ScR 361.383	326406.8	98.90	%	2.894				2.93%
Ag 328.068†	185103.3	1.034	mg/L	0.0081	1.034	mg/L	0.0081	0.79%
Al 308.215†	3636.6	2.086	mg/L	0.0699	2.086	mg/L	0.0699	3.35%
As 188.979†	3779.9	2.047	mg/L	0.0115	2.047	mg/L	0.0115	0.56%
B 249.677†	7881.6	1.004	mg/L	0.0363	1.004	mg/L	0.0363	3.62%
Ba 233.527†	4946.3	1.036	mg/L	0.0361	1.036	mg/L	0.0361	3.49%
Be 313.042†	640120.4	1.001	mg/L	0.0334	1.001	mg/L	0.0334	3.34%
Ca 317.933†	29667.2	2.116	mg/L	0.0723	2.116	mg/L	0.0723	3.42%
Cd 228.802†	31850.6	1.033	mg/L	0.0054	1.033	mg/L	0.0054	0.52%
Co 228.616†	38879.2	1.014	mg/L	0.0092	1.014	mg/L	0.0092	0.90%
Cr 267.716†	6617.2	1.025	mg/L	0.0373	1.025	mg/L	0.0373	3.64%
Cu 324.752†	271401.9	1.031	mg/L	0.0058	1.031	mg/L	0.0058	0.57%
Fe 273.955†	2951.5	2.102	mg/L	0.0756	2.102	mg/L	0.0756	3.60%
K 766.490†	40709.2	20.77	mg/L	0.701	20.77	mg/L	0.701	3.37%
Mg 279.077†	2949.3	2.086	mg/L	0.0774	2.086	mg/L	0.0774	3.71%
Mn 257.610†	39431.2	1.026	mg/L	0.0353	1.026	mg/L	0.0353	3.44%
Mo 202.031†	21327.4	1.015	mg/L	0.0045	1.015	mg/L	0.0045	0.44%
Na 589.592†	639129.9	51.97	mg/L	1.731	51.97	mg/L	1.731	3.33%
Na 330.237†	1574.3	53.36	mg/L	1.311	53.36	mg/L	1.311	2.46%
Ni 231.604†	4321.1	1.018	mg/L	0.0403	1.018	mg/L	0.0403	3.96%
Pb 220.353†	16979.4	2.074	mg/L	0.0095	2.074	mg/L	0.0095	0.46%
Sb 206.836†	7240.3	2.091	mg/L	0.0097	2.091	mg/L	0.0097	0.46%
Se 196.026†	2963.9	1.997	mg/L	0.0064	1.997	mg/L	0.0064	0.32%
Si 288.158†	4559.6	2.136	mg/L	0.0744	2.136	mg/L	0.0744	3.48%
Sn 189.927†	4005.7	1.010	mg/L	0.0034	1.010	mg/L	0.0034	0.34%
Sr 421.552†	918023.8	1.024	mg/L	0.0349	1.024	mg/L	0.0349	3.41%
Ti 334.903†	22905.8	1.078	mg/L	0.0394	1.078	mg/L	0.0394	3.65%
Tl 190.801†	5138.1	2.009	mg/L	0.0110	2.009	mg/L	0.0110	0.55%
V 292.402†	132866.1	1.033	mg/L	0.0081	1.033	mg/L	0.0081	0.79%
Zn 206.200†	4223.0	1.055	mg/L	0.0395	1.055	mg/L	0.0395	3.74%

Sequence No.: 7
Sample ID: CB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/23/2012 9:50:30 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2664998.2	101.0	%	0.06				0.06%
ScR 361.383	333612.1	101.1	%	0.23				0.22%
Ag 328.068†	-15.2	-0.00008	mg/L	0.000212	-0.00008	mg/L	0.000212	250.54%
Al 308.215†	22.0	0.01283	mg/L	0.005839	0.01283	mg/L	0.005839	45.53%
As 188.979†	1.6	0.00088	mg/L	0.000210	0.00088	mg/L	0.000210	23.82%
B 249.677†	19.8	0.00252	mg/L	0.000545	0.00252	mg/L	0.000545	21.59%
Ba 233.527†	0.8	0.00016	mg/L	0.000165	0.00016	mg/L	0.000165	106.01%
Be 313.042†	97.9	0.00015	mg/L	0.000018	0.00015	mg/L	0.000018	11.66%
Ca 317.933†	114.6	0.00817	mg/L	0.001422	0.00817	mg/L	0.001422	17.40%
Cd 228.802†	8.7	0.00028	mg/L	0.000074	0.00028	mg/L	0.000074	26.51%
Co 228.616†	5.0	0.00013	mg/L	0.000071	0.00013	mg/L	0.000071	55.23%
Cr 267.716†	-0.6	-0.00009	mg/L	0.000572	-0.00009	mg/L	0.000572	625.60%
Cu 324.752†	73.0	0.00028	mg/L	0.000060	0.00028	mg/L	0.000060	21.64%
Fe 273.955†	18.2	0.01302	mg/L	0.002444	0.01302	mg/L	0.002444	18.76%
K 766.490†	30.8	0.01573	mg/L	0.009873	0.01573	mg/L	0.009873	62.75%
Mg 279.077†	6.0	0.00426	mg/L	0.004752	0.00426	mg/L	0.004752	111.47%
Mn 257.610†	7.0	0.00018	mg/L	0.000035	0.00018	mg/L	0.000035	19.31%
Mo 202.031†	20.0	0.00095	mg/L	0.000069	0.00095	mg/L	0.000069	7.26%
Na 589.592†	52.9	0.00430	mg/L	0.003392	0.00430	mg/L	0.003392	78.90%
Na 330.237†	2.7	0.09087	mg/L	0.407432	0.09087	mg/L	0.407432	448.38%
Ni 231.604†	1.5	0.00035	mg/L	0.000882	0.00035	mg/L	0.000882	254.43%
Pb 220.353†	-3.1	-0.00038	mg/L	0.000497	-0.00038	mg/L	0.000497	130.01%
Sb 206.836†	7.1	0.00206	mg/L	0.000771	0.00206	mg/L	0.000771	37.35%
Se 196.026†	2.0	0.00138	mg/L	0.004077	0.00138	mg/L	0.004077	295.88%
Si 288.158†	2.2	0.00102	mg/L	0.001418	0.00102	mg/L	0.001418	138.48%
Sn 189.927†	1.3	0.00032	mg/L	0.000848	0.00032	mg/L	0.000848	261.93%
Sr 421.552†	104.3	0.00012	mg/L	0.000006	0.00012	mg/L	0.000006	5.24%
Ti 334.903†	18.4	0.00087	mg/L	0.000061	0.00087	mg/L	0.000061	7.02%
Tl 190.801†	2.2	0.00087	mg/L	0.001505	0.00087	mg/L	0.001505	172.96%
V 292.402†	29.9	0.00023	mg/L	0.000080	0.00023	mg/L	0.000080	34.48%
Zn 206.200†	-1.1	-0.00027	mg/L	0.000168	-0.00027	mg/L	0.000168	62.92%

Sequence No.: 8
Sample ID: VT39 MB LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 304
Date Collected: 11/23/2012 9:54:45 AM
Data Type: Original

Nebulizer Parameters: VT39 MB LEN

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VT39 MB LEN

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2576265.4	97.68	%	0.292				0.30%
ScR 361.383	332015.9	100.6	%	1.85				1.84%
Ag 328.068†	97.6	0.00055	mg/L	0.000217	0.00273	mg/L	0.001084	39.76%
Al 308.215†	-2.4	-0.00140	mg/L	0.007951	-0.00698	mg/L	0.039757	569.91%
As 188.979†	-0.6	-0.00035	mg/L	0.000406	-0.00175	mg/L	0.002031	116.03%
B 249.677†	142.4	0.01816	mg/L	0.001659	0.09082	mg/L	0.008297	9.14%
Ba 233.527†	11.9	0.00249	mg/L	0.000797	0.01245	mg/L	0.003987	32.03%
Be 313.042†	40.9	0.00006	mg/L	0.000024	0.00032	mg/L	0.000121	37.76%
Ca 317.933†	6764.6	0.4824	mg/L	0.00870	2.412	mg/L	0.0435	1.80%
Cd 228.802†	15.8	0.00052	mg/L	0.000224	0.00262	mg/L	0.001120	42.75%
Co 228.616†	4.8	0.00013	mg/L	0.000110	0.00063	mg/L	0.000549	87.83%
Cr 267.716†	2.4	0.00036	mg/L	0.000433	0.00182	mg/L	0.002164	119.01%
Cu 324.752†	440.1	0.00167	mg/L	0.000105	0.00836	mg/L	0.000523	6.26%
Fe 273.955†	9.8	0.00698	mg/L	0.000356	0.03492	mg/L	0.001782	5.10%
K 766.490†	513.8	0.2622	mg/L	0.00526	1.311	mg/L	0.0263	2.01%
Mg 279.077†	72.7	0.05127	mg/L	0.003256	0.2564	mg/L	0.01628	6.35%
Mn 257.610†	10.3	0.00027	mg/L	0.000112	0.00133	mg/L	0.000559	42.05%
Mo 202.031†	11.3	0.00053	mg/L	0.000131	0.00265	mg/L	0.000653	24.65%
Na 589.592†	3561196.6	289.6	mg/L	5.38	1448	mg/L	26.90	1.86%
Na 330.237†	8926.0	303.1	mg/L	4.70	1516	mg/L	23.49	1.55%
Ni 231.604†	15.1	0.00355	mg/L	0.001845	0.01774	mg/L	0.009227	52.03%
Pb 220.353†	5.2	0.00064	mg/L	0.000552	0.00318	mg/L	0.002760	86.91%
Sb 206.836†	5.9	0.00169	mg/L	0.001599	0.00847	mg/L	0.007995	94.45%
Se 196.026†	0.6	0.00037	mg/L	0.000749	0.00186	mg/L	0.003747	201.81%
Si 288.158†	54.0	0.02532	mg/L	0.003509	0.1266	mg/L	0.01755	13.86%
Sn 189.927†	-1.0	-0.00018	mg/L	0.000901	-0.00091	mg/L	0.004503	492.35%
Sr 421.552†	404.7	0.00045	mg/L	0.000032	0.00226	mg/L	0.000159	7.06%
Ti 334.903†	-1.1	-0.00008	mg/L	0.000237	-0.00038	mg/L	0.001187	309.14%
Tl 190.801†	8.9	0.00348	mg/L	0.002424	0.01741	mg/L	0.012121	69.62%
V 292.402†	26.3	0.00021	mg/L	0.000121	0.00103	mg/L	0.000604	58.80%
Zn 206.200†	69.5	0.01737	mg/L	0.000311	0.08684	mg/L	0.001555	1.79%

Sequence No.: 9
Sample ID: VT01 MB TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 305
Date Collected: 11/23/2012 9:59:20 AM
Data Type: Original

Nebulizer Parameters: VT01 MB TWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VT01 MB TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2654403.1	100.6	%	0.29				0.29%
ScR 361.383	333701.9	101.1	%	0.76				0.75%
Ag 328.068†	0.5	0.00000	mg/L	0.000225	0.00000	mg/L	0.000225	>999.9%
Al 308.215†	3.1	0.00179	mg/L	0.012017	0.00179	mg/L	0.012017	670.15%
As 188.979†	0.0	0.00003	mg/L	0.000318	0.00003	mg/L	0.000318	>999.9%
B 249.677†	16.4	0.00209	mg/L	0.000253	0.00209	mg/L	0.000253	12.09%
Ba 233.527†	-3.7	-0.00078	mg/L	0.000977	-0.00078	mg/L	0.000977	125.49%
Be 313.042†	14.1	0.00002	mg/L	0.000033	0.00002	mg/L	0.000033	148.66%
Ca 317.933†	63.4	0.00452	mg/L	0.000667	0.00452	mg/L	0.000667	14.76%
Cd 228.802†	6.3	0.00021	mg/L	0.000085	0.00021	mg/L	0.000085	41.27%
Co 228.616†	1.7	0.00004	mg/L	0.000062	0.00004	mg/L	0.000062	142.70%
Cr 267.716†	-2.9	-0.00045	mg/L	0.000212	-0.00045	mg/L	0.000212	46.96%
Cu 324.752†	99.4	0.00038	mg/L	0.000089	0.00038	mg/L	0.000089	23.56%
Fe 273.955†	-0.2	-0.00011	mg/L	0.002133	-0.00011	mg/L	0.002133	>999.9%
K 766.490†	14.0	0.00715	mg/L	0.012970	0.00715	mg/L	0.012970	181.41%
Mg 279.077†	4.2	0.00293	mg/L	0.008275	0.00293	mg/L	0.008275	282.33%
Mn 257.610†	-1.9	-0.00005	mg/L	0.000078	-0.00005	mg/L	0.000078	158.56%
Mo 202.031†	10.1	0.00048	mg/L	0.000352	0.00048	mg/L	0.000352	73.16%
Na 589.592†	911.7	0.07413	mg/L	0.003166	0.07413	mg/L	0.003166	4.27%
Na 330.237†	9.5	0.3208	mg/L	0.78549	0.3208	mg/L	0.78549	244.88%
Ni 231.604†	1.5	0.00036	mg/L	0.000538	0.00036	mg/L	0.000538	149.27%
Pb 220.353†	-0.4	-0.00004	mg/L	0.000478	-0.00004	mg/L	0.000478	>999.9%
Sb 206.836†	5.6	0.00161	mg/L	0.000451	0.00161	mg/L	0.000451	27.92%
Se 196.026†	-4.4	-0.00300	mg/L	0.001097	-0.00300	mg/L	0.001097	36.62%
Si 288.158†	12.5	0.00584	mg/L	0.002195	0.00584	mg/L	0.002195	37.57%
Sn 189.927†	-1.1	-0.00028	mg/L	0.001217	-0.00028	mg/L	0.001217	430.92%
Sr 421.552†	10.8	0.00001	mg/L	0.000065	0.00001	mg/L	0.000065	535.53%
Ti 334.903†	9.3	0.00044	mg/L	0.000692	0.00044	mg/L	0.000692	158.59%
Tl 190.801†	1.7	0.00066	mg/L	0.002756	0.00066	mg/L	0.002756	419.25%
V 292.402†	16.3	0.00012	mg/L	0.000105	0.00012	mg/L	0.000105	84.21%
Zn 206.200†	9.1	0.00227	mg/L	0.000298	0.00227	mg/L	0.000298	13.11%

Sequence No.: 10
Sample ID: VT01 ADUP TWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 306
Date Collected: 11/23/2012 10:03:35 AM
Data Type: Original

Nebulizer Parameters: VT01 ADUP TWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VT01 ADUP TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2499873.8	94.78	%	0.252				0.27%
ScR 361.383	323228.6	97.94	%	0.209				0.21%
Ag 328.068†	-42.1	-0.00023	mg/L	0.000079	-0.00117	mg/L	0.000397	33.81%
Al 308.215†	17.8	0.00993	mg/L	0.003557	0.04963	mg/L	0.017783	35.83%
As 188.979†	25.6	0.01273	mg/L	0.000193	0.06367	mg/L	0.000966	1.52%
B 249.677†	196660.6	25.08	mg/L	0.098	125.4	mg/L	0.49	0.39%
Ba 233.527†	27.2	0.00558	mg/L	0.000722	0.02792	mg/L	0.003608	12.92%
Be 313.042†	83.1	0.00013	mg/L	0.000004	0.00065	mg/L	0.000020	3.15%
Ca 317.933†	217836.6	15.53	mg/L	0.076	77.67	mg/L	0.379	0.49%
Cd 228.802†	20.2	0.00059	mg/L	0.000063	0.00294	mg/L	0.000315	10.72%
Co 228.616†	21.5	0.00055	mg/L	0.000058	0.00274	mg/L	0.000290	10.59%
Cr 267.716†	3.6	0.00039	mg/L	0.000468	0.00196	mg/L	0.002340	119.33%
Cu 324.752†	1109.8	0.00423	mg/L	0.000054	0.02117	mg/L	0.000271	1.28%
Fe 273.955†	1023.8	0.7318	mg/L	0.00114	3.659	mg/L	0.0057	0.16%
K 766.490†	1538.7	0.7853	mg/L	0.03246	3.926	mg/L	0.1623	4.13%
Mg 279.077†	774.0	0.5454	mg/L	0.00240	2.727	mg/L	0.0120	0.44%
Mn 257.610†	3879.2	0.1009	mg/L	0.00062	0.5044	mg/L	0.00309	0.61%
Mo 202.031†	570.9	0.02700	mg/L	0.000282	0.1350	mg/L	0.00141	1.05%
Na 589.592†	11485311.4	933.9	mg/L	1.80	4670	mg/L	9.00	0.19%
Na 330.237†	28692.6	974.4	mg/L	1.74	4872	mg/L	8.68	0.18%
Ni 231.604†	104.5	0.02461	mg/L	0.001224	0.1231	mg/L	0.00612	4.97%
Pb 220.353†	134.8	0.01643	mg/L	0.000600	0.08217	mg/L	0.002999	3.65%
Sb 206.836†	-10.0	-0.00293	mg/L	0.002127	-0.01467	mg/L	0.010633	72.50%
Se 196.026†	-7.2	-0.00484	mg/L	0.005240	-0.02422	mg/L	0.026198	108.17%
Si 288.158†	81.5	0.03831	mg/L	0.002293	0.1915	mg/L	0.01146	5.99%
Sn 189.927†	-10.6	-0.00075	mg/L	0.001370	-0.00373	mg/L	0.006851	183.65%
Sr 421.552†	64068.6	0.07148	mg/L	0.000078	0.3574	mg/L	0.00039	0.11%
Ti 334.903†	28.3	0.00057	mg/L	0.000356	0.00283	mg/L	0.001779	62.80%
Tl 190.801†	12.3	0.00493	mg/L	0.001383	0.02467	mg/L	0.006916	28.04%
V 292.402†	49.7	0.00039	mg/L	0.000084	0.00196	mg/L	0.000421	21.51%
Zn 206.200†	188.1	0.04697	mg/L	0.000797	0.2349	mg/L	0.00399	1.70%

Sequence No.: 11
Sample ID: VT01 A TWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 307
Date Collected: 11/23/2012 10:07:57 AM
Data Type: Original

Nebulizer Parameters: VT01 A TWC

Analyte	Back Pressure	Flow
A11	218.0 kPa	0.75 L/min

Mean Data: VT01 A TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2507898.6	95.09	%	0.151				0.16%
ScR 361.383	320525.9	97.12	%	1.983				2.04%
Ag 328.068†	-15.7	-0.00009	mg/L	0.000142	-0.00044	mg/L	0.000709	161.87%
Al 308.215†	13.2	0.00723	mg/L	0.004943	0.03617	mg/L	0.024717	68.34%
As 188.979†	21.7	0.01061	mg/L	0.003303	0.05303	mg/L	0.016516	31.15%
B 249.677†	200511.6	25.57	mg/L	0.483	127.8	mg/L	2.42	1.89%
Ba 233.527†	31.0	0.00639	mg/L	0.000966	0.03193	mg/L	0.004831	15.13%
Be 313.042†	82.7	0.00013	mg/L	0.000036	0.00065	mg/L	0.000182	28.12%
Ca 317.933†	222283.3	15.85	mg/L	0.301	79.25	mg/L	1.507	1.90%
Cd 228.802†	19.4	0.00058	mg/L	0.000100	0.00288	mg/L	0.000502	17.42%
Co 228.616†	16.4	0.00042	mg/L	0.000116	0.00209	mg/L	0.000582	27.89%
Cr 267.716†	-1.7	-0.00044	mg/L	0.000930	-0.00218	mg/L	0.004652	213.66%
Cu 324.752†	1544.6	0.00588	mg/L	0.000155	0.02942	mg/L	0.000777	2.64%
Fe 273.955†	960.8	0.6868	mg/L	0.01647	3.434	mg/L	0.0823	2.40%
K 766.490†	1587.4	0.8101	mg/L	0.03769	4.050	mg/L	0.1884	4.65%
Mg 279.077†	796.4	0.5612	mg/L	0.01682	2.806	mg/L	0.0841	3.00%
Mn 257.610†	3911.9	0.1017	mg/L	0.00185	0.5086	mg/L	0.00926	1.82%
Mo 202.031†	567.8	0.02685	mg/L	0.000258	0.1342	mg/L	0.00129	0.96%
Na 589.592†	11757915.2	956.1	mg/L	11.00	4780	mg/L	54.99	1.15%
Na 330.237†	29405.4	998.6	mg/L	20.41	4993	mg/L	102.05	2.04%
Ni 231.604†	106.0	0.02495	mg/L	0.001875	0.1247	mg/L	0.00938	7.52%
Pb 220.353†	146.3	0.01783	mg/L	0.000376	0.08916	mg/L	0.001880	2.11%
Sb 206.836†	-8.6	-0.00251	mg/L	0.001133	-0.01254	mg/L	0.005665	45.17%
Se 196.026†	-7.6	-0.00511	mg/L	0.003557	-0.02555	mg/L	0.017783	69.61%
Si 288.158†	93.0	0.04370	mg/L	0.003368	0.2185	mg/L	0.01684	7.71%
Sn 189.927†	-13.8	-0.00151	mg/L	0.000337	-0.00754	mg/L	0.001685	22.36%
Sr 421.552†	65553.8	0.07314	mg/L	0.001498	0.3657	mg/L	0.00749	2.05%
Ti 334.903†	21.1	0.00021	mg/L	0.000425	0.00107	mg/L	0.002127	199.12%
Tl 190.801†	11.8	0.00475	mg/L	0.000902	0.02373	mg/L	0.004511	19.01%
V 292.402†	41.5	0.00033	mg/L	0.000017	0.00163	mg/L	0.000085	5.24%
Zn 206.200†	192.4	0.04804	mg/L	0.000665	0.2402	mg/L	0.00333	1.38%

Sequence No.: 12
Sample ID: VT01 ASPK TWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 308
Date Collected: 11/23/2012 10:12:19 AM
Data Type: Original

Nebulizer Parameters: VT01 ASPK TWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VT01 ASPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2525686.9	95.76	%	0.290				0.30%
ScR 361.383	328207.4	99.45	%	0.671				0.67%
Ag 328.068†	20732.9	0.1158	mg/L	0.00205	0.5790	mg/L	0.01025	1.77%
Al 308.215†	734.0	0.4259	mg/L	0.00606	2.130	mg/L	0.0303	1.42%
As 188.979†	880.6	0.4696	mg/L	0.00821	2.348	mg/L	0.0411	1.75%
B 249.677†	193491.4	24.67	mg/L	0.238	123.4	mg/L	1.19	0.96%
Ba 233.527†	1352.5	0.2831	mg/L	0.00337	1.415	mg/L	0.0169	1.19%
Be 313.042†	61779.0	0.09660	mg/L	0.000642	0.4830	mg/L	0.00321	0.66%
Ca 317.933†	243205.1	17.34	mg/L	0.143	86.71	mg/L	0.713	0.82%
Cd 228.802†	3740.2	0.1197	mg/L	0.00207	0.5987	mg/L	0.01033	1.72%
Co 228.616†	4194.1	0.1095	mg/L	0.00171	0.5477	mg/L	0.00857	1.56%
Cr 267.716†	672.4	0.1039	mg/L	0.00180	0.5193	mg/L	0.00901	1.74%
Cu 324.752†	31733.5	0.1206	mg/L	0.00213	0.6030	mg/L	0.01066	1.77%
Fe 273.955†	1634.7	1.168	mg/L	0.0104	5.838	mg/L	0.0519	0.89%
K 766.490†	5585.4	2.850	mg/L	0.0300	14.25	mg/L	0.150	1.05%
Mg 279.077†	3759.7	2.650	mg/L	0.0177	13.25	mg/L	0.089	0.67%
Mn 257.610†	7697.7	0.2003	mg/L	0.00179	1.001	mg/L	0.0090	0.89%
Mo 202.031†	602.5	0.02848	mg/L	0.000538	0.1424	mg/L	0.00269	1.89%
Na 589.592†	11264337.0	915.9	mg/L	6.35	4580	mg/L	31.77	0.69%
Na 330.237†	28241.3	959.1	mg/L	9.60	4795	mg/L	47.98	1.00%
Ni 231.604†	533.6	0.1255	mg/L	0.00127	0.6274	mg/L	0.00637	1.02%
Pb 220.353†	3510.4	0.4287	mg/L	0.00605	2.144	mg/L	0.0303	1.41%
Sb 206.836†	-9.1	-0.00372	mg/L	0.002306	-0.01861	mg/L	0.011532	61.96%
Se 196.026†	651.0	0.4388	mg/L	0.00845	2.194	mg/L	0.0423	1.93%
Si 288.158†	86.5	0.04135	mg/L	0.001302	0.2068	mg/L	0.00651	3.15%
Sn 189.927†	-16.9	-0.00210	mg/L	0.001725	-0.01051	mg/L	0.008626	82.05%
Sr 421.552†	153024.2	0.1707	mg/L	0.00155	0.8536	mg/L	0.00776	0.91%
Ti 334.903†	39.6	0.00099	mg/L	0.000207	0.00497	mg/L	0.001036	20.86%
Tl 190.801†	1027.3	0.4025	mg/L	0.00596	2.012	mg/L	0.0298	1.48%
V 292.402†	14122.7	0.1097	mg/L	0.00184	0.5487	mg/L	0.00921	1.68%
Zn 206.200†	607.1	0.1517	mg/L	0.00103	0.7583	mg/L	0.00515	0.68%

Sequence No.: 13
Sample ID: VT39 ADUP LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 309
Date Collected: 11/23/2012 10:16:41 AM
Data Type: Original

Nebulizer Parameters: VT39 ADUP LEN

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VT39 ADUP LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2653896.8	100.6	%	0.35				0.34%
ScR 361.383	338673.1	102.6	%	1.31				1.28%
Ag 328.068†	-24.5	-0.00014	mg/L	0.000318	-0.00068	mg/L	0.001592	232.87%
Al 308.215†	190.8	0.1112	mg/L	0.00426	0.5562	mg/L	0.02130	3.83%
As 188.979†	5.6	0.00250	mg/L	0.001010	0.01249	mg/L	0.005051	40.45%
B 249.677†	620.7	0.07914	mg/L	0.007784	0.3957	mg/L	0.03892	9.84%
Ba 233.527†	447.1	0.09328	mg/L	0.001593	0.4664	mg/L	0.00797	1.71%
Be 313.042†	56.5	0.00009	mg/L	0.000027	0.00044	mg/L	0.000133	30.05%
Ca 317.933†	102501.9	7.309	mg/L	0.1032	36.55	mg/L	0.516	1.41%
Cd 228.802†	63.5	0.00206	mg/L	0.000017	0.01029	mg/L	0.000087	0.84%
Co 228.616†	167.9	0.00435	mg/L	0.000063	0.02174	mg/L	0.000315	1.45%
Cr 267.716†	459.7	0.06862	mg/L	0.000991	0.3431	mg/L	0.00496	1.44%
Cu 324.752†	28095.3	0.1068	mg/L	0.00020	0.5342	mg/L	0.00098	0.18%
Fe 273.955†	3132.6	2.239	mg/L	0.0295	11.20	mg/L	0.147	1.32%
K 766.490†	441.4	0.2252	mg/L	0.01971	1.126	mg/L	0.0985	8.75%
Mg 279.077†	1219.5	0.8586	mg/L	0.01422	4.293	mg/L	0.0711	1.66%
Mn 257.610†	4529.1	0.1191	mg/L	0.00158	0.5953	mg/L	0.00792	1.33%
Mo 202.031†	14.2	0.00059	mg/L	0.000305	0.00296	mg/L	0.001523	51.39%
Na 589.592†	3533125.6	287.3	mg/L	5.58	1436	mg/L	27.90	1.94%
Na 330.237†	9239.9	290.2	mg/L	3.55	1451	mg/L	17.75	1.22%
Ni 231.604†	60.8	0.01431	mg/L	0.000845	0.07155	mg/L	0.004224	5.90%
Pb 220.353†	54895.9	6.703	mg/L	0.0098	33.51	mg/L	0.049	0.15%
Sb 206.836†	-0.4	-0.00118	mg/L	0.001037	-0.00591	mg/L	0.005183	87.67%
Se 196.026†	-3.6	-0.00245	mg/L	0.001864	-0.01225	mg/L	0.009319	76.06%
Si 288.158†	1421.4	0.6661	mg/L	0.01193	3.331	mg/L	0.0596	1.79%
Sn 189.927†	-17.1	-0.00318	mg/L	0.000450	-0.01591	mg/L	0.002252	14.15%
Sr 421.552†	20207.1	0.02254	mg/L	0.000307	0.1127	mg/L	0.00154	1.36%
Ti 334.903†	10.0	0.00011	mg/L	0.000358	0.00053	mg/L	0.001788	339.38%
Tl 190.801†	8.3	0.00343	mg/L	0.001096	0.01716	mg/L	0.005479	31.93%
V 292.402†	-7.7	0.00019	mg/L	0.000147	0.00093	mg/L	0.000734	79.02%
Zn 206.200†	286825.6	71.65	mg/L	1.080	358.2	mg/L	5.40	1.51%

Sequence No.: 14
Sample ID: VT39 A LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 310
Date Collected: 11/23/2012 10:20:58 AM
Data Type: Original

Nebulizer Parameters: VT39 A LEN

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VT39 A LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2586765.6	98.08	%	0.615				0.63%
ScR 361.383	331542.2	100.5	%	1.57				1.56%
Ag 328.068†	-50.8	-0.00028	mg/L	0.000058	-0.00142	mg/L	0.000290	20.47%
Al 308.215†	196.8	0.1147	mg/L	0.00695	0.5737	mg/L	0.03477	6.06%
As 188.979†	3.7	0.00148	mg/L	0.000514	0.00740	mg/L	0.002569	34.74%
B 249.677†	322.4	0.04111	mg/L	0.002779	0.2055	mg/L	0.01390	6.76%
Ba 233.527†	439.2	0.09164	mg/L	0.002846	0.4582	mg/L	0.01423	3.11%
Be 313.042†	47.5	0.00007	mg/L	0.000024	0.00037	mg/L	0.000120	32.23%
Ca 317.933†	99998.9	7.131	mg/L	0.1153	35.65	mg/L	0.576	1.62%
Cd 228.802†	65.0	0.00211	mg/L	0.000164	0.01056	mg/L	0.000821	7.77%
Co 228.616†	162.1	0.00420	mg/L	0.000096	0.02099	mg/L	0.000482	2.30%
Cr 267.716†	451.4	0.06741	mg/L	0.001280	0.3371	mg/L	0.00640	1.90%
Cu 324.752†	27354.4	0.1040	mg/L	0.00049	0.5201	mg/L	0.00246	0.47%
Fe 273.955†	3051.1	2.181	mg/L	0.0272	10.91	mg/L	0.136	1.25%
K 766.490†	571.2	0.2915	mg/L	0.02412	1.458	mg/L	0.1206	8.27%
Mg 279.077†	1194.5	0.8410	mg/L	0.01558	4.205	mg/L	0.0779	1.85%
Mn 257.610†	4412.8	0.1160	mg/L	0.00172	0.5800	mg/L	0.00859	1.48%
Mo 202.031†	16.2	0.00069	mg/L	0.000265	0.00345	mg/L	0.001327	38.42%
Na 589.592†	3455230.2	281.0	mg/L	5.85	1405	mg/L	29.25	2.08%
Na 330.237†	9031.8	283.8	mg/L	5.18	1419	mg/L	25.90	1.83%
Ni 231.604†	54.2	0.01276	mg/L	0.000370	0.06379	mg/L	0.001848	2.90%
Pb 220.353†	53383.1	6.518	mg/L	0.0361	32.59	mg/L	0.181	0.55%
Sb 206.836†	4.8	0.00033	mg/L	0.001971	0.00163	mg/L	0.009856	604.86%
Se 196.026†	-5.9	-0.00397	mg/L	0.004037	-0.01985	mg/L	0.020183	101.70%
Si 288.158†	1403.5	0.6578	mg/L	0.00987	3.289	mg/L	0.0494	1.50%
Sn 189.927†	-18.3	-0.00351	mg/L	0.000189	-0.01757	mg/L	0.000943	5.36%
Sr 421.552†	19706.6	0.02199	mg/L	0.000436	0.1099	mg/L	0.00218	1.98%
Ti 334.903†	9.1	0.00007	mg/L	0.000035	0.00037	mg/L	0.000174	46.38%
Tl 190.801†	8.8	0.00365	mg/L	0.002209	0.01823	mg/L	0.011043	60.57%
V 292.402†	-10.2	0.00016	mg/L	0.000063	0.00082	mg/L	0.000316	38.80%
Zn 206.200†	279119.3	69.72	mg/L	1.019	348.6	mg/L	5.09	1.46%

Sequence No.: 15
Sample ID: VT39 ASPK LEN
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 311
Date Collected: 11/23/2012 10:25:16 AM
Data Type: Original

Nebulizer Parameters: VT39 ASPK LEN

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VT39 ASPK LEN

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2583913.9	97.97	%	0.057				0.06%
ScR 361.383	332308.2	100.7	%	0.22				0.21%
Ag 328.068†	39102.9	0.2184	mg/L	0.00059	1.092	mg/L	0.0030	0.27%
Al 308.215†	1622.2	0.9429	mg/L	0.00264	4.714	mg/L	0.0132	0.28%
As 188.979†	1600.7	0.8547	mg/L	0.00308	4.273	mg/L	0.0154	0.36%
B 249.677†	239.1	0.03004	mg/L	0.001624	0.1502	mg/L	0.00812	5.41%
Ba 233.527†	4479.6	0.9377	mg/L	0.00195	4.689	mg/L	0.0097	0.21%
Be 313.042†	128766.2	0.2013	mg/L	0.00073	1.007	mg/L	0.0036	0.36%
Ca 317.933†	163664.6	11.67	mg/L	0.037	58.35	mg/L	0.185	0.32%
Cd 228.802†	7060.3	0.2262	mg/L	0.00018	1.131	mg/L	0.0009	0.08%
Co 228.616†	8331.2	0.2175	mg/L	0.00010	1.088	mg/L	0.0005	0.05%
Cr 267.716†	1804.2	0.2766	mg/L	0.00068	1.383	mg/L	0.0034	0.25%
Cu 324.752†	86225.8	0.3277	mg/L	0.00036	1.639	mg/L	0.0018	0.11%
Fe 273.955†	4283.9	3.061	mg/L	0.0069	15.30	mg/L	0.034	0.22%
K 766.490†	8428.1	4.301	mg/L	0.0088	21.50	mg/L	0.044	0.20%
Mg 279.077†	7156.9	5.044	mg/L	0.0130	25.22	mg/L	0.065	0.26%
Mn 257.610†	12272.1	0.3206	mg/L	0.00025	1.603	mg/L	0.0012	0.08%
Mo 202.031†	23.6	0.00098	mg/L	0.000174	0.00491	mg/L	0.000870	17.70%
Na 589.592†	3628099.4	295.0	mg/L	0.99	1475	mg/L	4.96	0.34%
Na 330.237†	9840.6	310.1	mg/L	0.62	1551	mg/L	3.11	0.20%
Ni 231.604†	920.6	0.2164	mg/L	0.00133	1.082	mg/L	0.0067	0.62%
Pb 220.353†	62013.1	7.572	mg/L	0.0122	37.86	mg/L	0.061	0.16%
Pb 206.836†	8.3	-0.00086	mg/L	0.001595	-0.00428	mg/L	0.007975	186.48%
Se 196.026†	1248.6	0.8415	mg/L	0.00741	4.208	mg/L	0.0371	0.88%
Si 288.158†	1429.4	0.6712	mg/L	0.00339	3.356	mg/L	0.0170	0.51%
Sn 189.927†	-29.5	-0.00574	mg/L	0.000442	-0.02869	mg/L	0.002210	7.70%
Sr 421.552†	204878.6	0.2286	mg/L	0.00034	1.143	mg/L	0.0017	0.15%
Ti 334.903†	21.6	0.00040	mg/L	0.000068	0.00202	mg/L	0.000338	16.73%
Tl 190.801†	2075.5	0.8132	mg/L	0.00190	4.066	mg/L	0.0095	0.23%
V 292.402†	27230.8	0.2119	mg/L	0.00053	1.059	mg/L	0.0027	0.25%
Zn 206.200†	292549.7	73.08	mg/L	0.159	365.4	mg/L	0.80	0.22%

Sequence No.: 16
Sample ID: VT01 MBSPK TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 312
Date Collected: 11/23/2012 10:29:34 AM
Data Type: Original

Nebulizer Parameters: VT01 MBSPK TWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VT01 MBSPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2703433.8	102.5	%	0.55				0.54%
ScR 361.383	340045.3	103.0	%	2.08				2.02%
Ag 328.068†	96712.1	0.5402	mg/L	0.00234	0.5402	mg/L	0.00234	0.43%
Al 308.215†	3459.9	2.010	mg/L	0.0448	2.010	mg/L	0.0448	2.23%
As 188.979†	3810.5	2.036	mg/L	0.0092	2.036	mg/L	0.0092	0.45%
B 249.677†	130.4	0.01556	mg/L	0.001172	0.01556	mg/L	0.001172	7.53%
Ba 233.527†	9810.4	2.054	mg/L	0.0418	2.054	mg/L	0.0418	2.03%
Be 313.042†	309731.7	0.4843	mg/L	0.01067	0.4843	mg/L	0.01067	2.20%
Ca 317.933†	136634.4	9.743	mg/L	0.1994	9.743	mg/L	0.1994	2.05%
Cd 228.802†	16418.9	0.5258	mg/L	0.00160	0.5258	mg/L	0.00160	0.30%
Co 228.616†	19848.2	0.5184	mg/L	0.00103	0.5184	mg/L	0.00103	0.20%
Cr 267.716†	3259.2	0.5042	mg/L	0.01097	0.5042	mg/L	0.01097	2.18%
Cu 324.752†	133813.9	0.5085	mg/L	0.00042	0.5085	mg/L	0.00042	0.08%
Fe 273.955†	2782.8	1.985	mg/L	0.0462	1.985	mg/L	0.0462	2.33%
K 766.490†	19338.7	9.869	mg/L	0.2181	9.869	mg/L	0.2181	2.21%
Mg 279.077†	14533.5	10.25	mg/L	0.233	10.25	mg/L	0.233	2.28%
Mn 257.610†	18821.5	0.4900	mg/L	0.01134	0.4900	mg/L	0.01134	2.31%
Mo 202.031†	26.6	0.00113	mg/L	0.000144	0.00113	mg/L	0.000144	12.70%
Na 589.592†	122495.8	9.961	mg/L	0.2054	9.961	mg/L	0.2054	2.06%
Na 330.237†	314.1	10.50	mg/L	0.054	10.50	mg/L	0.054	0.52%
Ni 231.604†	2117.9	0.4979	mg/L	0.01036	0.4979	mg/L	0.01036	2.08%
Pb 220.353†	16664.6	2.035	mg/L	0.0062	2.035	mg/L	0.0062	0.30%
Sb 206.836†	17.2	-0.00024	mg/L	0.001401	-0.00024	mg/L	0.001401	590.57%
Se 196.026†	2976.7	2.006	mg/L	0.0078	2.006	mg/L	0.0078	0.39%
Si 288.158†	-4.6	0.00104	mg/L	0.002833	0.00104	mg/L	0.002833	272.77%
Sn 189.927†	-16.8	-0.00296	mg/L	0.001295	-0.00296	mg/L	0.001295	43.74%
Sr 421.552†	445998.6	0.4976	mg/L	0.01017	0.4976	mg/L	0.01017	2.04%
Ti 334.903†	26.6	0.00068	mg/L	0.000299	0.00068	mg/L	0.000299	43.61%
Tl 190.801†	5152.8	2.018	mg/L	0.0121	2.018	mg/L	0.0121	0.60%
V 292.402†	67930.0	0.5279	mg/L	0.00187	0.5279	mg/L	0.00187	0.35%
Zn 206.200†	2066.1	0.5162	mg/L	0.01082	0.5162	mg/L	0.01082	2.10%

Sequence No.: 17
Sample ID: CV 2
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/23/2012 10:33:34 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2634813.6	99.90	%	0.361				0.36%
ScR 361.383	329469.0	99.83	%	2.573				2.58%
Ag 328.068†	187817.4	1.049	mg/L	0.0088	1.049	mg/L	0.0088	0.84%
Al 308.215†	3531.5	2.024	mg/L	0.0605	2.024	mg/L	0.0605	2.99%
As 188.979†	3756.5	2.034	mg/L	0.0125	2.034	mg/L	0.0125	0.61%
B 249.677†	7847.6	0.9998	mg/L	0.02646	0.9998	mg/L	0.02646	2.65%
Ba 233.527†	4942.3	1.035	mg/L	0.0250	1.035	mg/L	0.0250	2.41%
Be 313.042†	619211.1	0.9682	mg/L	0.02728	0.9682	mg/L	0.02728	2.82%
Ca 317.933†	29060.7	2.072	mg/L	0.0514	2.072	mg/L	0.0514	2.48%
Cd 228.802†	31795.7	1.031	mg/L	0.0071	1.031	mg/L	0.0071	0.68%
Co 228.616†	39196.5	1.022	mg/L	0.0045	1.022	mg/L	0.0045	0.44%
Cr 267.716†	6519.7	1.010	mg/L	0.0238	1.010	mg/L	0.0238	2.35%
Cu 324.752†	273905.9	1.040	mg/L	0.0067	1.040	mg/L	0.0067	0.64%
Fe 273.955†	2821.8	2.010	mg/L	0.0502	2.010	mg/L	0.0502	2.50%
K 766.490†	39668.1	20.24	mg/L	0.570	20.24	mg/L	0.570	2.82%
Mg 279.077†	2868.0	2.029	mg/L	0.0646	2.029	mg/L	0.0646	3.18%
Mn 257.610†	38389.5	0.9990	mg/L	0.02469	0.9990	mg/L	0.02469	2.47%
Mo 202.031†	21336.5	1.015	mg/L	0.0058	1.015	mg/L	0.0058	0.57%
Na 589.592†	625598.2	50.87	mg/L	1.463	50.87	mg/L	1.463	2.88%
Na 330.237†	1549.2	52.51	mg/L	1.091	52.51	mg/L	1.091	2.08%
Ni 231.604†	4274.5	1.007	mg/L	0.0221	1.007	mg/L	0.0221	2.19%
Pb 220.353†	16988.9	2.075	mg/L	0.0155	2.075	mg/L	0.0155	0.75%
Sb 206.836†	7239.3	2.090	mg/L	0.0099	2.090	mg/L	0.0099	0.48%
Se 196.026†	2945.0	1.984	mg/L	0.0156	1.984	mg/L	0.0156	0.79%
Si 288.158†	4474.5	2.096	mg/L	0.0503	2.096	mg/L	0.0503	2.40%
Sn 189.927†	3971.6	1.001	mg/L	0.0098	1.001	mg/L	0.0098	0.98%
Sr 421.552†	893896.3	0.9973	mg/L	0.02976	0.9973	mg/L	0.02976	2.98%
Ti 334.903†	22481.6	1.058	mg/L	0.0260	1.058	mg/L	0.0260	2.46%
Tl 190.801†	5171.8	2.022	mg/L	0.0125	2.022	mg/L	0.0125	0.62%
V 292.402†	133907.0	1.041	mg/L	0.0084	1.041	mg/L	0.0084	0.81%
Zn 206.200†	4218.5	1.054	mg/L	0.0267	1.054	mg/L	0.0267	2.53%

Sequence No.: 18
Sample ID: CB 2
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/23/2012 10:37:55 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2686533.7	101.9	%	0.48				0.47%
ScR 361.383	337984.5	102.4	%	0.21				0.20%
Ag 328.068†	-12.0	-0.00007	mg/L	0.000206	-0.00007	mg/L	0.000206	306.17%
Al 308.215†	-10.8	-0.00629	mg/L	0.002487	-0.00629	mg/L	0.002487	39.53%
As 188.979†	1.9	0.00103	mg/L	0.001717	0.00103	mg/L	0.001717	166.20%
B 249.677†	89.7	0.01144	mg/L	0.001348	0.01144	mg/L	0.001348	11.79%
Ba 233.527†	-1.9	-0.00041	mg/L	0.000901	-0.00041	mg/L	0.000901	221.17%
Be 313.042†	93.6	0.00015	mg/L	0.000016	0.00015	mg/L	0.000016	11.18%
Ca 317.933†	21.9	0.00156	mg/L	0.000906	0.00156	mg/L	0.000906	58.08%
Cd 228.802†	9.2	0.00030	mg/L	0.000094	0.00030	mg/L	0.000094	31.61%
Co 228.616†	9.6	0.00025	mg/L	0.000088	0.00025	mg/L	0.000088	35.05%
Cr 267.716†	0.5	0.00008	mg/L	0.000503	0.00008	mg/L	0.000503	642.86%
Cu 324.752†	102.7	0.00039	mg/L	0.000133	0.00039	mg/L	0.000133	34.17%
Fe 273.955†	-1.9	-0.00138	mg/L	0.002589	-0.00138	mg/L	0.002589	187.38%
K 766.490†	16.9	0.00860	mg/L	0.013944	0.00860	mg/L	0.013944	162.13%
Mg 279.077†	-6.7	-0.00472	mg/L	0.008654	-0.00472	mg/L	0.008654	183.44%
Mn 257.610†	0.2	0.00001	mg/L	0.000081	0.00001	mg/L	0.000081	>999.9%
Mo 202.031†	16.8	0.00080	mg/L	0.000027	0.00080	mg/L	0.000027	3.38%
Na 589.592†	580.8	0.04723	mg/L	0.002285	0.04723	mg/L	0.002285	4.84%
Na 330.237†	11.7	0.3972	mg/L	0.34448	0.3972	mg/L	0.34448	86.73%
Ni 231.604†	3.9	0.00092	mg/L	0.001262	0.00092	mg/L	0.001262	137.65%
Pb 220.353†	5.3	0.00065	mg/L	0.000249	0.00065	mg/L	0.000249	38.30%
Sb 206.836†	4.9	0.00142	mg/L	0.002809	0.00142	mg/L	0.002809	198.07%
Se 196.026†	-0.7	-0.00045	mg/L	0.001973	-0.00045	mg/L	0.001973	434.34%
Si 288.158†	0.1	0.00005	mg/L	0.004437	0.00005	mg/L	0.004437	>999.9%
Sn 189.927†	3.0	0.00075	mg/L	0.000258	0.00075	mg/L	0.000258	34.25%
Sr 421.552†	104.1	0.00012	mg/L	0.000088	0.00012	mg/L	0.000088	75.42%
Ti 334.903†	12.3	0.00058	mg/L	0.001039	0.00058	mg/L	0.001039	178.90%
Tl 190.801†	7.3	0.00288	mg/L	0.000058	0.00288	mg/L	0.000058	2.03%
V 292.402†	38.9	0.00030	mg/L	0.000081	0.00030	mg/L	0.000081	26.81%
Zn 206.200†	10.9	0.00273	mg/L	0.000343	0.00273	mg/L	0.000343	12.58%

Sequence No.: 19
Sample ID: VS97 MB1 TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 313
Date Collected: 11/23/2012 10:42:10 AM
Data Type: Original

Nebulizer Parameters: VS97 MB1 TWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS97 MB1 TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2667821.1	101.2	%	0.07				0.06%
ScR 361.383	334914.5	101.5	%	1.19				1.17%
Ag 328.068†	-15.5	-0.00009	mg/L	0.000164	-0.00009	mg/L	0.000164	189.80%
Al 308.215†	6.6	0.00384	mg/L	0.003592	0.00384	mg/L	0.003592	93.48%
As 188.979†	0.1	0.00007	mg/L	0.001513	0.00007	mg/L	0.001513	>999.9%
B 249.677†	106.4	0.01357	mg/L	0.001011	0.01357	mg/L	0.001011	7.45%
Ba 233.527†	0.6	0.00013	mg/L	0.000084	0.00013	mg/L	0.000084	66.09%
Be 313.042†	52.8	0.00008	mg/L	0.000011	0.00008	mg/L	0.000011	12.92%
Ca 317.933†	53.8	0.00383	mg/L	0.000681	0.00383	mg/L	0.000681	17.77%
Cd 228.802†	7.7	0.00025	mg/L	0.000043	0.00025	mg/L	0.000043	16.82%
Co 228.616†	0.9	0.00002	mg/L	0.000153	0.00002	mg/L	0.000153	656.13%
Cr 267.716†	2.6	0.00040	mg/L	0.000559	0.00040	mg/L	0.000559	141.45%
Cu 324.752†	410.4	0.00156	mg/L	0.000058	0.00156	mg/L	0.000058	3.69%
Fe 273.955†	0.4	0.00026	mg/L	0.000585	0.00026	mg/L	0.000585	226.05%
K 766.490†	44.5	0.02269	mg/L	0.024525	0.02269	mg/L	0.024525	108.06%
Mg 279.077†	-1.9	-0.00134	mg/L	0.003422	-0.00134	mg/L	0.003422	255.09%
Mn 257.610†	6.7	0.00017	mg/L	0.000135	0.00017	mg/L	0.000135	77.34%
Mo 202.031†	7.5	0.00036	mg/L	0.000188	0.00036	mg/L	0.000188	52.86%
Na 589.592†	470.9	0.03829	mg/L	0.003172	0.03829	mg/L	0.003172	8.28%
Na 330.237†	10.1	0.3402	mg/L	0.29062	0.3402	mg/L	0.29062	85.41%
Ni 231.604†	2.1	0.00050	mg/L	0.001896	0.00050	mg/L	0.001896	377.50%
Pb 220.353†	9.4	0.00115	mg/L	0.000064	0.00115	mg/L	0.000064	5.62%
Sb 206.836†	-1.0	-0.00029	mg/L	0.001187	-0.00029	mg/L	0.001187	411.11%
Se 196.026†	-0.1	-0.00004	mg/L	0.000258	-0.00004	mg/L	0.000258	670.58%
Si 288.158†	2.8	0.00130	mg/L	0.000577	0.00130	mg/L	0.000577	44.53%
Sn 189.927†	-2.1	-0.00052	mg/L	0.000335	-0.00052	mg/L	0.000335	64.03%
Sr 421.552†	44.5	0.00005	mg/L	0.000030	0.00005	mg/L	0.000030	61.04%
Ti 334.903†	-1.4	-0.00007	mg/L	0.000346	-0.00007	mg/L	0.000346	511.43%
Tl 190.801†	2.2	0.00086	mg/L	0.001811	0.00086	mg/L	0.001811	209.99%
V 292.402†	48.7	0.00038	mg/L	0.000100	0.00038	mg/L	0.000100	26.34%
Zn 206.200†	19.3	0.00481	mg/L	0.000623	0.00481	mg/L	0.000623	12.96%

Sequence No.: 20
Sample ID: VS28 A SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 314
Date Collected: 11/23/2012 10:46:26 AM
Data Type: Original

Nebulizer Parameters: VS28 A SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS28 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2703606.5	102.5	%	0.91				0.89%
ScR 361.383	343921.5	104.2	%	1.09				1.04%
Ag 328.068†	-50.7	-0.00027	mg/L	0.000207	-0.00137	mg/L	0.001036	75.69%
Al 308.215†	1714.8	0.9993	mg/L	0.01412	4.997	mg/L	0.0706	1.41%
As 188.979†	32.8	0.01910	mg/L	0.001880	0.09548	mg/L	0.009402	9.85%
B 249.677†	119.9	0.01529	mg/L	0.000774	0.07645	mg/L	0.003868	5.06%
Ba 233.527†	555.8	0.09396	mg/L	0.001605	0.4698	mg/L	0.00802	1.71%
Be 313.042†	85.9	0.00013	mg/L	0.000012	0.00063	mg/L	0.000059	9.27%
Ca 317.933†	118997.2	8.486	mg/L	0.0997	42.43	mg/L	0.499	1.18%
Cd 228.802†	138.2	0.00312	mg/L	0.000080	0.01560	mg/L	0.000401	2.57%
Co 228.616†	117.3	0.00113	mg/L	0.000180	0.00565	mg/L	0.000901	15.94%
Cr 267.716†	31.3	0.01000	mg/L	0.000316	0.05001	mg/L	0.001578	3.16%
Cu 324.752†	5070.7	0.02531	mg/L	0.000791	0.1266	mg/L	0.00396	3.13%
Fe 273.955†	191920.2	137.2	mg/L	0.98	685.9	mg/L	4.89	0.71%
K 766.490†	840.3	0.4288	mg/L	0.02375	2.144	mg/L	0.1187	5.54%
Mg 279.077†	1384.5	0.9030	mg/L	0.01255	4.515	mg/L	0.0628	1.39%
Mn 257.610†	22110.5	0.5761	mg/L	0.00499	2.881	mg/L	0.0250	0.87%
Mo 202.031†	34.3	0.00154	mg/L	0.000179	0.00770	mg/L	0.000897	11.64%
Na 589.592†	2782.3	0.2262	mg/L	0.00423	1.131	mg/L	0.0211	1.87%
Na 330.237†	9.3	0.2084	mg/L	0.24489	1.042	mg/L	1.2245	117.49%
Ni 231.604†	23.4	0.00551	mg/L	0.001395	0.02756	mg/L	0.006973	25.30%
Pb 220.353†	168.8	0.01517	mg/L	0.001790	0.07585	mg/L	0.008949	11.80%
Sb 206.836†	28.5	0.00831	mg/L	0.001740	0.04154	mg/L	0.008699	20.94%
Se 196.026†	-6.5	-0.00439	mg/L	0.000739	-0.02197	mg/L	0.003696	16.83%
Si 288.158†	5120.4	2.399	mg/L	0.0353	12.00	mg/L	0.177	1.47%
Sn 189.927†	-13.6	-0.00235	mg/L	0.000272	-0.01175	mg/L	0.001360	11.58%
Sr 421.552†	142479.7	0.1590	mg/L	0.00177	0.7948	mg/L	0.00883	1.11%
Ti 334.903†	1544.1	0.07232	mg/L	0.001197	0.3616	mg/L	0.00598	1.65%
Tl 190.801†	-35.3	0.00070	mg/L	0.000650	0.00349	mg/L	0.003250	93.23%
V 292.402†	4187.4	0.02768	mg/L	0.001333	0.1384	mg/L	0.00666	4.81%
Zn 206.200†	1486.4	0.3713	mg/L	0.00525	1.856	mg/L	0.0263	1.42%

Sequence No.: 21
Sample ID: VS97 A TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 315
Date Collected: 11/23/2012 10:50:26 AM
Data Type: Original

Nebulizer Parameters: VS97 A TWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS97 A TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2693835.3	102.1	%	0.31				0.31%
ScR 361.383	334528.7	101.4	%	0.74				0.73%
Ag 328.068†	3.4	0.00002	mg/L	0.000194	0.00002	mg/L	0.000194	>999.9%
Al 308.215†	1.8	0.00105	mg/L	0.012981	0.00105	mg/L	0.012981	>999.9%
As 188.979†	-4.5	-0.00239	mg/L	0.000696	-0.00239	mg/L	0.000696	29.15%
B 249.677†	57.0	0.00726	mg/L	0.000797	0.00726	mg/L	0.000797	10.97%
Ba 233.527†	0.1	0.00002	mg/L	0.000414	0.00002	mg/L	0.000414	>999.9%
Be 313.042†	34.1	0.00005	mg/L	0.000049	0.00005	mg/L	0.000049	91.49%
Ca 317.933†	291.9	0.02081	mg/L	0.000516	0.02081	mg/L	0.000516	2.48%
Cd 228.802†	1.2	0.00006	mg/L	0.000069	0.00006	mg/L	0.000069	121.53%
Co 228.616†	3.9	0.00010	mg/L	0.000118	0.00010	mg/L	0.000118	121.21%
Cr 267.716†	-0.9	-0.00014	mg/L	0.000666	-0.00014	mg/L	0.000666	461.03%
Cu 324.752†	318.2	0.00121	mg/L	0.000092	0.00121	mg/L	0.000092	7.62%
Fe 273.955†	51.9	0.03712	mg/L	0.002564	0.03712	mg/L	0.002564	6.91%
K 766.490†	29.6	0.01511	mg/L	0.011858	0.01511	mg/L	0.011858	78.45%
Mg 279.077†	3.8	0.00264	mg/L	0.007859	0.00264	mg/L	0.007859	297.83%
Mn 257.610†	49.0	0.00127	mg/L	0.000094	0.00127	mg/L	0.000094	7.34%
Mo 202.031†	3.1	0.00015	mg/L	0.000117	0.00015	mg/L	0.000117	78.96%
Na 589.592†	1037.2	0.08433	mg/L	0.001216	0.08433	mg/L	0.001216	1.44%
Na 330.237†	11.4	0.3847	mg/L	0.35044	0.3847	mg/L	0.35044	91.09%
Ni 231.604†	3.8	0.00090	mg/L	0.001365	0.00090	mg/L	0.001365	151.29%
Pb 220.353†	2.2	0.00027	mg/L	0.001432	0.00027	mg/L	0.001432	529.42%
Sb 206.836†	0.5	0.00014	mg/L	0.001272	0.00014	mg/L	0.001272	893.64%
Se 196.026†	-1.6	-0.00110	mg/L	0.003917	-0.00110	mg/L	0.003917	356.05%
Si 288.158†	21.1	0.00988	mg/L	0.001984	0.00988	mg/L	0.001984	20.09%
Sn 189.927†	2.5	0.00063	mg/L	0.000338	0.00063	mg/L	0.000338	53.31%
Sr 421.552†	108.0	0.00012	mg/L	0.000039	0.00012	mg/L	0.000039	32.65%
Ti 334.903†	33.9	0.00159	mg/L	0.000530	0.00159	mg/L	0.000530	33.25%
Tl 190.801†	1.3	0.00052	mg/L	0.001254	0.00052	mg/L	0.001254	239.61%
V 292.402†	20.1	0.00015	mg/L	0.000133	0.00015	mg/L	0.000133	87.09%
Zn 206.200†	39.9	0.00997	mg/L	0.000767	0.00997	mg/L	0.000767	7.69%

Sequence No.: 22
Sample ID: VS97 B TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 316
Date Collected: 11/23/2012 10:54:41 AM
Data Type: Original

Nebulizer Parameters: VS97 B TWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS97 B TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2696209.6	102.2	%	0.26				0.25%
ScR 361.383	335592.2	101.7	%	0.62	.			0.61%
Ag 328.068†	1.4	0.00001	mg/L	0.000186	0.00001	mg/L	0.000186	>999.9%
Al 308.215†	-3.6	-0.00211	mg/L	0.009618	-0.00211	mg/L	0.009618	456.03%
As 188.979†	-2.6	-0.00139	mg/L	0.000885	-0.00139	mg/L	0.000885	63.61%
B 249.677†	47.7	0.00608	mg/L	0.000274	0.00608	mg/L	0.000274	4.51%
Ba 233.527†	0.1	0.00002	mg/L	0.000722	0.00002	mg/L	0.000722	>999.9%
Be 313.042†	21.9	0.00003	mg/L	0.000025	0.00003	mg/L	0.000025	71.51%
Ca 317.933†	190.0	0.01355	mg/L	0.000517	0.01355	mg/L	0.000517	3.81%
Cd 228.802†	1.0	0.00004	mg/L	0.000104	0.00004	mg/L	0.000104	257.29%
Co 228.616†	4.6	0.00012	mg/L	0.000157	0.00012	mg/L	0.000157	131.70%
Cr 267.716†	0.1	0.00002	mg/L	0.000533	0.00002	mg/L	0.000533	>999.9%
Cu 324.752†	28.2	0.00011	mg/L	0.000018	0.00011	mg/L	0.000018	16.43%
Fe 273.955†	10.7	0.00766	mg/L	0.001689	0.00766	mg/L	0.001689	22.05%
K 766.490†	71.1	0.03629	mg/L	0.007611	0.03629	mg/L	0.007611	20.97%
Mg 279.077†	7.7	0.00540	mg/L	0.002209	0.00540	mg/L	0.002209	40.94%
Mn 257.610†	10.1	0.00026	mg/L	0.000175	0.00026	mg/L	0.000175	66.39%
Mo 202.031†	-2.4	-0.00011	mg/L	0.000155	-0.00011	mg/L	0.000155	137.28%
Na 589.592†	961.2	0.07816	mg/L	0.000954	0.07816	mg/L	0.000954	1.22%
Na 330.237†	-1.5	-0.05271	mg/L	0.412359	-0.05271	mg/L	0.412359	782.36%
Ni 231.604†	-2.5	-0.00059	mg/L	0.001014	-0.00059	mg/L	0.001014	172.45%
Pb 220.353†	0.2	0.00003	mg/L	0.000990	0.00003	mg/L	0.000990	>999.9%
Sb 206.836†	-2.0	-0.00058	mg/L	0.001301	-0.00058	mg/L	0.001301	222.58%
Se 196.026†	-0.9	-0.00060	mg/L	0.001692	-0.00060	mg/L	0.001692	280.58%
Si 288.158†	20.5	0.00961	mg/L	0.001405	0.00961	mg/L	0.001405	14.62%
Sn 189.927†	-0.2	-0.00006	mg/L	0.000030	-0.00006	mg/L	0.000030	49.27%
Sr 421.552†	68.5	0.00008	mg/L	0.000011	0.00008	mg/L	0.000011	14.79%
Ti 334.903†	16.1	0.00076	mg/L	0.000467	0.00076	mg/L	0.000467	61.80%
Tl 190.801†	6.5	0.00254	mg/L	0.000934	0.00254	mg/L	0.000934	36.80%
V 292.402†	15.1	0.00012	mg/L	0.000044	0.00012	mg/L	0.000044	38.35%
Zn 206.200†	39.6	0.00989	mg/L	0.000617	0.00989	mg/L	0.000617	6.24%

Sequence No.: 23
Sample ID: VS97 MB1SPK TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 317
Date Collected: 11/23/2012 10:58:56 AM
Data Type: Original

Nebulizer Parameters: VS97 MB1SPK TWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS97 MB1SPK TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2667713.9	101.1	%	0.82				0.81%
ScR 361.383	339657.8	102.9	%	2.81				2.73%
Ag 328.068†	95251.3	0.5321	mg/L	0.00402	0.5321	mg/L	0.00402	0.75%
Al 308.215†	3432.4	1.994	mg/L	0.0578	1.994	mg/L	0.0578	2.90%
As 188.979†	3841.9	2.053	mg/L	0.0149	2.053	mg/L	0.0149	0.72%
B 249.677†	50.0	0.00531	mg/L	0.000853	0.00531	mg/L	0.000853	16.05%
Ba 233.527†	9630.6	2.017	mg/L	0.0554	2.017	mg/L	0.0554	2.75%
Be 313.042†	311462.1	0.4870	mg/L	0.01765	0.4870	mg/L	0.01765	3.62%
Ca 317.933†	136114.9	9.706	mg/L	0.3314	9.706	mg/L	0.3314	3.41%
Cd 228.802†	16466.7	0.5273	mg/L	0.00380	0.5273	mg/L	0.00380	0.72%
Co 228.616†	19804.3	0.5172	mg/L	0.00382	0.5172	mg/L	0.00382	0.74%
Cr 267.716†	3239.3	0.5012	mg/L	0.01265	0.5012	mg/L	0.01265	2.52%
Cu 324.752†	138830.7	0.5276	mg/L	0.00378	0.5276	mg/L	0.00378	0.72%
Fe 273.955†	2786.4	1.988	mg/L	0.0584	1.988	mg/L	0.0584	2.94%
K 766.490†	19278.0	9.838	mg/L	0.3386	9.838	mg/L	0.3386	3.44%
Mg 279.077†	14398.1	10.15	mg/L	0.274	10.15	mg/L	0.274	2.70%
Mn 257.610†	18836.9	0.4904	mg/L	0.01336	0.4904	mg/L	0.01336	2.72%
Mo 202.031†	27.4	0.00117	mg/L	0.000118	0.00117	mg/L	0.000118	10.10%
Na 589.592†	120452.9	9.794	mg/L	0.3133	9.794	mg/L	0.3133	3.20%
Na 330.237†	309.9	10.36	mg/L	0.140	10.36	mg/L	0.140	1.35%
Ni 231.604†	2090.6	0.4914	mg/L	0.01331	0.4914	mg/L	0.01331	2.71%
Pb 220.353†	16650.4	2.034	mg/L	0.0129	2.034	mg/L	0.0129	0.64%
Sb 206.836†	19.1	0.00032	mg/L	0.000557	0.00032	mg/L	0.000557	172.25%
Se 196.026†	3025.4	2.039	mg/L	0.0177	2.039	mg/L	0.0177	0.87%
Si 288.158†	-2.8	0.00190	mg/L	0.001329	0.00190	mg/L	0.001329	69.91%
Sn 189.927†	-22.2	-0.00432	mg/L	0.000273	-0.00432	mg/L	0.000273	6.32%
Sr 421.552†	445794.9	0.4974	mg/L	0.01649	0.4974	mg/L	0.01649	3.32%
Ti 334.903†	21.4	0.00044	mg/L	0.000710	0.00044	mg/L	0.000710	159.84%
Tl 190.801†	5160.9	2.022	mg/L	0.0163	2.022	mg/L	0.0163	0.80%
V 292.402†	67118.0	0.5216	mg/L	0.00360	0.5216	mg/L	0.00360	0.69%
Zn 206.200†	1972.9	0.4929	mg/L	0.01416	0.4929	mg/L	0.01416	2.87%

Sequence No.: 24
Sample ID: VS97 MB1SPD TWC
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 318
Date Collected: 11/23/2012 11:02:57 AM
Data Type: Original

Nebulizer Parameters: VS97 MB1SPD TWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS97 MB1SPD TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2644605.0	100.3	%	0.35				0.35%
ScR 361.383	330871.5	100.3	%	1.53				1.53%
Ag 328.068†	95215.4	0.5319	mg/L	0.00335	0.5319	mg/L	0.00335	0.63%
Al 308.215†	3520.9	2.046	mg/L	0.0444	2.046	mg/L	0.0444	2.17%
As 188.979†	3826.5	2.044	mg/L	0.0033	2.044	mg/L	0.0033	0.16%
B 249.677†	45.3	0.00472	mg/L	0.000453	0.00472	mg/L	0.000453	9.60%
Ba 233.527†	9869.7	2.067	mg/L	0.0422	2.067	mg/L	0.0422	2.04%
Be 313.042†	318891.8	0.4986	mg/L	0.00797	0.4986	mg/L	0.00797	1.60%
Ca 317.933†	139887.3	9.975	mg/L	0.1744	9.975	mg/L	0.1744	1.75%
Cd 228.802†	16435.8	0.5264	mg/L	0.00221	0.5264	mg/L	0.00221	0.42%
Co 228.616†	19796.3	0.5170	mg/L	0.00149	0.5170	mg/L	0.00149	0.29%
Cr 267.716†	3317.6	0.5133	mg/L	0.00865	0.5133	mg/L	0.00865	1.68%
Cu 324.752†	138994.7	0.5282	mg/L	0.00241	0.5282	mg/L	0.00241	0.46%
Fe 273.955†	2866.4	2.045	mg/L	0.0360	2.045	mg/L	0.0360	1.76%
K 766.490†	19736.5	10.07	mg/L	0.144	10.07	mg/L	0.144	1.43%
Mg 279.077†	14783.6	10.42	mg/L	0.205	10.42	mg/L	0.205	1.97%
Mn 257.610†	19356.4	0.5039	mg/L	0.00915	0.5039	mg/L	0.00915	1.82%
Mo 202.031†	27.4	0.00117	mg/L	0.000340	0.00117	mg/L	0.000340	29.09%
Na 589.592†	123186.4	10.02	mg/L	0.166	10.02	mg/L	0.166	1.66%
Na 330.237†	311.8	10.42	mg/L	0.317	10.42	mg/L	0.317	3.04%
Ni 231.604†	2149.4	0.5053	mg/L	0.00996	0.5053	mg/L	0.00996	1.97%
Pb 220.353†	16649.1	2.034	mg/L	0.0069	2.034	mg/L	0.0069	0.34%
Sb 206.836†	12.8	-0.00168	mg/L	0.000693	-0.00168	mg/L	0.000693	41.26%
Se 196.026†	2994.7	2.018	mg/L	0.0065	2.018	mg/L	0.0065	0.32%
Si 288.158†	1.6	0.00399	mg/L	0.004475	0.00399	mg/L	0.004475	112.25%
Sn 189.927†	-20.1	-0.00377	mg/L	0.000088	-0.00377	mg/L	0.000088	2.33%
Sr 421.552†	456636.9	0.5095	mg/L	0.00880	0.5095	mg/L	0.00880	1.73%
Ti 334.903†	24.1	0.00055	mg/L	0.000437	0.00055	mg/L	0.000437	78.88%
Tl 190.801†	5153.7	2.019	mg/L	0.0015	2.019	mg/L	0.0015	0.07%
V 292.402†	66979.3	0.5206	mg/L	0.00269	0.5206	mg/L	0.00269	0.52%
Zn 206.200†	2030.9	0.5074	mg/L	0.01134	0.5074	mg/L	0.01134	2.24%

Sequence No.: 25
Sample ID: CV 3
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/23/2012 11:06:58 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2628281.5	99.65	%	0.769				0.77%
ScR 361.383	330452.6	100.1	%	0.48				0.48%
Ag 328.068†	187889.1	1.050	mg/L	0.0061	1.050	mg/L	0.0061	0.59%
Al 308.215†	3490.4	2.000	mg/L	0.0208	2.000	mg/L	0.0208	1.04%
As 188.979†	3793.2	2.053	mg/L	0.0082	2.053	mg/L	0.0082	0.40%
B 249.677†	7708.8	0.9821	mg/L	0.00922	0.9821	mg/L	0.00922	0.94%
Ba 233.527†	4821.6	1.009	mg/L	0.0070	1.009	mg/L	0.0070	0.69%
Be 313.042†	616118.6	0.9633	mg/L	0.01073	0.9633	mg/L	0.01073	1.11%
Ca 317.933†	28539.9	2.035	mg/L	0.0183	2.035	mg/L	0.0183	0.90%
Cd 228.802†	32094.3	1.041	mg/L	0.0067	1.041	mg/L	0.0067	0.64%
Co 228.616†	39352.0	1.026	mg/L	0.0079	1.026	mg/L	0.0079	0.77%
Cr 267.716†	6434.5	0.9972	mg/L	0.01092	0.9972	mg/L	0.01092	1.10%
Cu 324.752†	275587.9	1.047	mg/L	0.0069	1.047	mg/L	0.0069	0.66%
Fe 273.955†	2818.9	2.008	mg/L	0.0214	2.008	mg/L	0.0214	1.07%
K 766.490†	39246.6	20.03	mg/L	0.226	20.03	mg/L	0.226	1.13%
Mg 279.077†	2838.1	2.008	mg/L	0.0340	2.008	mg/L	0.0340	1.69%
Mn 257.610†	38303.2	0.9968	mg/L	0.01004	0.9968	mg/L	0.01004	1.01%
Mo 202.031†	21552.6	1.026	mg/L	0.0026	1.026	mg/L	0.0026	0.25%
Na 589.592†	621528.0	50.54	mg/L	0.542	50.54	mg/L	0.542	1.07%
Na 330.237†	1538.7	52.16	mg/L	0.560	52.16	mg/L	0.560	1.07%
Ni 231.604†	4198.1	0.9889	mg/L	0.00702	0.9889	mg/L	0.00702	0.71%
Pb 220.353†	17122.7	2.092	mg/L	0.0079	2.092	mg/L	0.0079	0.38%
Sb 206.836†	7301.7	2.109	mg/L	0.0080	2.109	mg/L	0.0080	0.38%
Se 196.026†	2978.2	2.007	mg/L	0.0043	2.007	mg/L	0.0043	0.21%
Si 288.158†	4452.7	2.086	mg/L	0.0186	2.086	mg/L	0.0186	0.89%
Sn 189.927†	4022.7	1.014	mg/L	0.0048	1.014	mg/L	0.0048	0.48%
Sr 421.552†	891085.2	0.9941	mg/L	0.01052	0.9941	mg/L	0.01052	1.06%
Ti 334.903†	22317.5	1.050	mg/L	0.0114	1.050	mg/L	0.0114	1.09%
Tl 190.801†	5197.3	2.032	mg/L	0.0080	2.032	mg/L	0.0080	0.40%
V 292.402†	134201.6	1.043	mg/L	0.0075	1.043	mg/L	0.0075	0.72%
Zn 206.200†	4078.0	1.018	mg/L	0.0143	1.018	mg/L	0.0143	1.41%

Sequence No.: 26
Sample ID: CB 3
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/23/2012 11:11:19 AM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	Sample RSD
ScA 357.253	2649301.8	100.4	%	0.45				0.45%
ScR 361.383	332053.9	100.6	%	0.96				0.95%
Ag 328.068†	12.1	0.00007	mg/L	0.000228	0.00007	mg/L	0.000228	338.09%
Al 308.215†	-10.3	-0.00602	mg/L	0.004445	-0.00602	mg/L	0.004445	73.79%
As 188.979†	1.3	0.00068	mg/L	0.002097	0.00068	mg/L	0.002097	309.85%
B 249.677†	38.0	0.00484	mg/L	0.000451	0.00484	mg/L	0.000451	9.31%
Ba 233.527†	-1.0	-0.00022	mg/L	0.000455	-0.00022	mg/L	0.000455	209.92%
Be 313.042†	150.4	0.00024	mg/L	0.000028	0.00024	mg/L	0.000028	11.98%
Ca 317.933†	19.0	0.00136	mg/L	0.000426	0.00136	mg/L	0.000426	31.45%
Cd 228.802†	5.8	0.00019	mg/L	0.000055	0.00019	mg/L	0.000055	29.15%
Co 228.616†	4.1	0.00011	mg/L	0.000178	0.00011	mg/L	0.000178	165.22%
Cr 267.716†	2.5	0.00038	mg/L	0.000344	0.00038	mg/L	0.000344	90.64%
Cu 324.752†	82.3	0.00031	mg/L	0.000050	0.00031	mg/L	0.000050	16.08%
Fe 273.955†	-1.8	-0.00127	mg/L	0.001894	-0.00127	mg/L	0.001894	149.07%
K 766.490†	36.3	0.01850	mg/L	0.006215	0.01850	mg/L	0.006215	33.59%
Mg 279.077†	6.6	0.00465	mg/L	0.003396	0.00465	mg/L	0.003396	73.00%
Mn 257.610†	4.6	0.00012	mg/L	0.000146	0.00012	mg/L	0.000146	122.34%
Mo 202.031†	18.4	0.00088	mg/L	0.000201	0.00088	mg/L	0.000201	22.96%
Na 589.592†	277.6	0.02257	mg/L	0.000287	0.02257	mg/L	0.000287	1.27%
Na 330.237†	3.2	0.1074	mg/L	0.17574	0.1074	mg/L	0.17574	163.68%
Ni 231.604†	2.9	0.00069	mg/L	0.000513	0.00069	mg/L	0.000513	73.87%
Pb 220.353†	1.8	0.00022	mg/L	0.000739	0.00022	mg/L	0.000739	340.16%
Sb 206.836†	9.7	0.00280	mg/L	0.001537	0.00280	mg/L	0.001537	54.83%
Se 196.026†	-2.3	-0.00157	mg/L	0.001181	-0.00157	mg/L	0.001181	75.38%
Si 288.158†	3.7	0.00172	mg/L	0.002834	0.00172	mg/L	0.002834	164.43%
Sn 189.927†	2.5	0.00062	mg/L	0.000827	0.00062	mg/L	0.000827	132.40%
Sr 421.552†	115.9	0.00013	mg/L	0.000023	0.00013	mg/L	0.000023	17.67%
Ti 334.903†	-1.6	-0.00008	mg/L	0.000613	-0.00008	mg/L	0.000613	791.31%
Tl 190.801†	6.3	0.00246	mg/L	0.000872	0.00246	mg/L	0.000872	35.43%
V 292.402†	31.0	0.00024	mg/L	0.000083	0.00024	mg/L	0.000083	34.24%
Zn 206.200†	2.2	0.00055	mg/L	0.000597	0.00055	mg/L	0.000597	108.45%

Sequence No.: 27
Sample ID: VS18 MB1 SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 319
Date Collected: 11/23/2012 11:15:34 AM
Data Type: Original

Nebulizer Parameters: VS18 MB1 SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS18 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2686402.8	101.9	%	0.49				0.48%
ScR 361.383	337082.3	102.1	%	1.15				1.13%
Ag 328.068†	-23.0	-0.00013	mg/L	0.000068	-0.00026	mg/L	0.000136	53.07%
Al 308.215†	9.0	0.00524	mg/L	0.000856	0.01049	mg/L	0.001712	16.33%
As 188.979†	-0.0	-0.00002	mg/L	0.000919	-0.00004	mg/L	0.001838	>999.9%
B 249.677†	35.7	0.00455	mg/L	0.000641	0.00910	mg/L	0.001281	14.08%
Ba 233.527†	-2.9	-0.00061	mg/L	0.000649	-0.00122	mg/L	0.001299	106.76%
Be 313.042†	44.4	0.00007	mg/L	0.000034	0.00014	mg/L	0.000068	48.94%
Ca 317.933†	98.0	0.00698	mg/L	0.000323	0.01397	mg/L	0.000646	4.63%
Cd 228.802†	6.8	0.00022	mg/L	0.000095	0.00044	mg/L	0.000190	42.93%
Co 228.616†	11.6	0.00030	mg/L	0.000119	0.00061	mg/L	0.000238	39.21%
Cr 267.716†	6.0	0.00093	mg/L	0.000232	0.00186	mg/L	0.000464	24.89%
Cu 324.752†	57.1	0.00022	mg/L	0.000112	0.00043	mg/L	0.000223	51.43%
Fe 273.955†	10.4	0.00742	mg/L	0.000804	0.01484	mg/L	0.001609	10.84%
K 766.490†	15.5	0.00792	mg/L	0.012696	0.01584	mg/L	0.025392	160.33%
Mg 279.077†	2.9	0.00202	mg/L	0.001406	0.00404	mg/L	0.002811	69.66%
Mn 257.610†	10.2	0.00027	mg/L	0.000081	0.00053	mg/L	0.000162	30.39%
Mo 202.031†	8.6	0.00041	mg/L	0.000250	0.00082	mg/L	0.000500	61.24%
Na 589.592†	198.0	0.01610	mg/L	0.000355	0.03219	mg/L	0.000710	2.20%
Na 330.237†	3.6	0.1209	mg/L	0.19796	0.2417	mg/L	0.39593	163.78%
Ni 231.604†	-2.4	-0.00056	mg/L	0.000504	-0.00113	mg/L	0.001009	89.28%
Pb 220.353†	7.2	0.00088	mg/L	0.000899	0.00177	mg/L	0.001798	101.65%
Sb 206.836†	-4.4	-0.00130	mg/L	0.001625	-0.00260	mg/L	0.003250	125.15%
Se 196.026†	-0.4	-0.00026	mg/L	0.002845	-0.00052	mg/L	0.005690	>999.9%
Si 288.158†	1.8	0.00087	mg/L	0.001840	0.00174	mg/L	0.003681	211.93%
Sn 189.927†	-0.0	-0.00001	mg/L	0.000148	-0.00002	mg/L	0.000297	>999.9%
Sr 421.552†	63.8	0.00007	mg/L	0.000013	0.00014	mg/L	0.000027	18.94%
Ti 334.903†	-3.2	-0.00015	mg/L	0.000654	-0.00030	mg/L	0.001308	435.33%
Tl 190.801†	0.3	0.00010	mg/L	0.000702	0.00021	mg/L	0.001404	684.36%
V 292.402†	6.8	0.00006	mg/L	0.000130	0.00011	mg/L	0.000259	229.81%
Zn 206.200†	11.6	0.00291	mg/L	0.000564	0.00581	mg/L	0.001128	19.41%

Sequence No.: 28
Sample ID: VS18 B SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 320
Date Collected: 11/23/2012 11:19:51 AM
Data Type: Original

Nebulizer Parameters: VS18 B SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS18 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2690683.9	102.0	%	0.31				0.30%
ScR 361.383	338049.8	102.4	%	1.53				1.50%
Ag 328.068†	-383.5	-0.00203	mg/L	0.000203	-0.01016	mg/L	0.001016	10.00%
Al 308.215†	216429.4	126.2	mg/L	3.26	630.9	mg/L	16.28	2.58%
As 188.979†	-422.9	0.03297	mg/L	0.009797	0.1648	mg/L	0.04898	29.72%
B 249.677†	73.6	0.00917	mg/L	0.000751	0.04585	mg/L	0.003753	8.18%
Ba 233.527†	14864.5	3.086	mg/L	0.0538	15.43	mg/L	0.269	1.74%
Be 313.042†	2034.5	0.00300	mg/L	0.000063	0.01498	mg/L	0.000313	2.09%
Ca 317.933†	422160.8	30.10	mg/L	0.811	150.5	mg/L	4.05	2.69%
Cd 228.802†	543.6	0.01791	mg/L	0.000198	0.08954	mg/L	0.000988	1.10%
Co 228.616†	4160.4	0.08862	mg/L	0.000471	0.4431	mg/L	0.00236	0.53%
Cr 267.716†	4955.7	0.7657	mg/L	0.01247	3.829	mg/L	0.0624	1.63%
Cu 324.752†	23817.5	0.09512	mg/L	0.000493	0.4756	mg/L	0.00247	0.52%
Fe 273.955†	231830.9	165.7	mg/L	4.37	828.5	mg/L	21.86	2.64%
K 766.490†	81347.6	41.51	mg/L	0.991	207.6	mg/L	4.96	2.39%
Mg 279.077†	138919.3	97.85	mg/L	2.639	489.2	mg/L	13.19	2.70%
Mn 257.610†	147775.1	3.845	mg/L	0.0989	19.22	mg/L	0.494	2.57%
Mo 202.031†	72.5	0.00309	mg/L	0.000202	0.01543	mg/L	0.001010	6.55%
Na 589.592†	10385.7	0.8445	mg/L	0.01966	4.222	mg/L	0.0983	2.33%
Na 330.237†	-39.1	0.4485	mg/L	0.19833	2.243	mg/L	0.9916	44.22%
Ni 231.604†	768.4	0.1810	mg/L	0.00231	0.9048	mg/L	0.01154	1.28%
Pb 220.353†	4662.7	0.5940	mg/L	0.00274	2.970	mg/L	0.0137	0.46%
Sb 206.836†	48.7	0.00831	mg/L	0.002754	0.04156	mg/L	0.013771	33.13%
Se 196.026†	16.7	0.01099	mg/L	0.004718	0.05494	mg/L	0.023589	42.94%
Si 288.158†	2361.8	1.119	mg/L	0.0136	5.593	mg/L	0.0678	1.21%
Sn 189.927†	-51.3	-0.00786	mg/L	0.000398	-0.03930	mg/L	0.001989	5.06%
Sr 421.552†	270645.8	0.3019	mg/L	0.00746	1.510	mg/L	0.0373	2.47%
Ti 334.903†	194192.7	9.145	mg/L	0.2409	45.73	mg/L	1.205	2.63%
Tl 190.801†	-42.7	-0.00125	mg/L	0.000083	-0.00626	mg/L	0.000417	6.67%
V 292.402†	49233.5	0.3740	mg/L	0.00167	1.870	mg/L	0.0084	0.45%
Zn 206.200†	3712.3	0.9273	mg/L	0.01539	4.637	mg/L	0.0769	1.66%

Sequence No.: 29
Sample ID: VS18 C SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 321
Date Collected: 11/23/2012 11:23:52 AM
Data Type: Original

Nebulizer Parameters: VS18 C SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS18 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2709755.7	102.7	%	0.50				0.49%
ScR 361.383	341139.2	103.4	%	0.69				0.67%
Ag 328.068†	-142.4	-0.00076	mg/L	0.000081	-0.00378	mg/L	0.000405	10.71%
Al 308.215†	101635.8	59.26	mg/L	0.689	296.3	mg/L	3.45	1.16%
As 188.979†	-123.6	0.02980	mg/L	0.002001	0.1490	mg/L	0.01000	6.71%
B 249.677†	92.4	0.01171	mg/L	0.000083	0.05856	mg/L	0.000413	0.70%
Ba 233.527†	3189.4	0.6570	mg/L	0.00533	3.285	mg/L	0.0267	0.81%
Be 313.042†	1134.1	0.00170	mg/L	0.000037	0.00852	mg/L	0.000187	2.19%
Ca 317.933†	402126.4	28.68	mg/L	0.347	143.4	mg/L	1.74	1.21%
Cd 228.802†	400.1	0.01298	mg/L	0.000116	0.06490	mg/L	0.000578	0.89%
Co 228.616†	1420.0	0.02958	mg/L	0.000226	0.1479	mg/L	0.00113	0.76%
Cr 267.716†	579.5	0.09028	mg/L	0.001086	0.4514	mg/L	0.00543	1.20%
Cu 324.752†	23748.1	0.09233	mg/L	0.000502	0.4616	mg/L	0.00251	0.54%
Fe 273.955†	93724.2	66.99	mg/L	0.910	335.0	mg/L	4.55	1.36%
K 766.490†	20861.2	10.65	mg/L	0.089	53.23	mg/L	0.447	0.84%
Mg 279.077†	28146.5	19.81	mg/L	0.232	99.03	mg/L	1.159	1.17%
Mn 257.610†	68501.7	1.782	mg/L	0.0243	8.910	mg/L	0.1216	1.36%
Mo 202.031†	70.9	0.00306	mg/L	0.000119	0.01529	mg/L	0.000596	3.90%
Na 589.592†	11410.4	0.9278	mg/L	0.01094	4.639	mg/L	0.0547	1.18%
Na 330.237†	3.3	0.6703	mg/L	0.02450	3.352	mg/L	0.1225	3.66%
Ni 231.604†	253.0	0.05957	mg/L	0.001609	0.2979	mg/L	0.00805	2.70%
Pb 220.353†	3802.1	0.4757	mg/L	0.00153	2.379	mg/L	0.0076	0.32%
Sb 206.836†	4.0	0.00182	mg/L	0.000634	0.00909	mg/L	0.003171	34.87%
Se 196.026†	2.0	0.00126	mg/L	0.001899	0.00632	mg/L	0.009495	150.27%
Si 288.158†	2720.4	1.277	mg/L	0.0133	6.386	mg/L	0.0665	1.04%
Sn 189.927†	-35.7	-0.00495	mg/L	0.000399	-0.02474	mg/L	0.001993	8.06%
Sr 421.552†	517798.6	0.5777	mg/L	0.00728	2.888	mg/L	0.0364	1.26%
Ti 334.903†	72429.5	3.410	mg/L	0.0428	17.05	mg/L	0.214	1.25%
Tl 190.801†	-9.8	0.00262	mg/L	0.001514	0.01308	mg/L	0.007572	57.90%
V 292.402†	17965.1	0.1354	mg/L	0.00033	0.6771	mg/L	0.00167	0.25%
Zn 206.200†	2649.6	0.6619	mg/L	0.00836	3.309	mg/L	0.0418	1.26%

Sequence No.: 30
Sample ID: VS18 D SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 322
Date Collected: 11/23/2012 11:27:53 AM
Data Type: Original

Nebulizer Parameters: VS18 D SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS18 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2677590.7	101.5	%	0.33				0.32%
ScR 361.383	339596.7	102.9	%	1.10				1.07%
Ag 328.068†	-62.8	-0.00031	mg/L	0.000094	-0.00156	mg/L	0.000470	30.05%
Al 308.215†	100699.8	58.71	mg/L	1.408	293.6	mg/L	7.04	2.40%
As 188.979†	-105.8	0.04030	mg/L	0.004405	0.2015	mg/L	0.02203	10.93%
B 249.677†	84.9	0.01075	mg/L	0.001032	0.05375	mg/L	0.005162	9.60%
Ba 233.527†	3083.0	0.6351	mg/L	0.00541	3.175	mg/L	0.0271	0.85%
Be 313.042†	1067.4	0.00160	mg/L	0.000032	0.00801	mg/L	0.000162	2.02%
Ca 317.933†	435560.4	31.06	mg/L	0.743	155.3	mg/L	3.71	2.39%
Cd 228.802†	700.6	0.02281	mg/L	0.000072	0.1140	mg/L	0.00036	0.32%
Co 228.616†	1408.2	0.02922	mg/L	0.000239	0.1461	mg/L	0.00120	0.82%
Cr 267.716†	629.7	0.09794	mg/L	0.001077	0.4897	mg/L	0.00538	1.10%
Cu 324.752†	28439.2	0.1101	mg/L	0.00018	0.5503	mg/L	0.00090	0.16%
Fe 273.955†	90903.0	64.98	mg/L	1.554	324.9	mg/L	7.77	2.39%
K 766.490†	18906.4	9.648	mg/L	0.2239	48.24	mg/L	1.120	2.32%
Mg 279.077†	28467.1	20.03	mg/L	0.426	100.2	mg/L	2.13	2.13%
Mn 257.610†	73624.0	1.915	mg/L	0.0437	9.577	mg/L	0.2187	2.28%
Mo 202.031†	75.6	0.00326	mg/L	0.000339	0.01628	mg/L	0.001695	10.41%
Na 589.592†	13439.7	1.093	mg/L	0.0231	5.464	mg/L	0.1157	2.12%
Na 330.237†	7.8	0.7728	mg/L	0.12363	3.864	mg/L	0.6181	16.00%
Ni 231.604†	274.7	0.06470	mg/L	0.000644	0.3235	mg/L	0.00322	0.99%
Pb 220.353†	7085.9	0.8766	mg/L	0.00108	4.383	mg/L	0.0054	0.12%
Sb 206.836†	11.0	0.00372	mg/L	0.002079	0.01858	mg/L	0.010393	55.92%
Se 196.026†	-1.9	-0.00136	mg/L	0.004054	-0.00681	mg/L	0.020271	297.58%
Si 288.158†	5708.0	2.677	mg/L	0.0231	13.39	mg/L	0.116	0.86%
Sn 189.927†	-37.0	-0.00494	mg/L	0.001650	-0.02468	mg/L	0.008249	33.42%
Sr 421.552†	587072.9	0.6550	mg/L	0.01537	3.275	mg/L	0.0769	2.35%
Ti 334.903†	73247.0	3.448	mg/L	0.0814	17.24	mg/L	0.407	2.36%
Tl 190.801†	-7.4	0.00334	mg/L	0.001223	0.01670	mg/L	0.006113	36.61%
V 292.402†	17151.6	0.1292	mg/L	0.00037	0.6462	mg/L	0.00186	0.29%
Zn 206.200†	3351.0	0.8371	mg/L	0.00813	4.186	mg/L	0.0406	0.97%

Sequence No.: 31
Sample ID: VS18 A-L SWC
Analyst: BA
Dilution: 25.000000X

Autosampler Location: 323
Date Collected: 11/23/2012 11:31:54 AM
Data Type: Original

Nebulizer Parameters: VS18 A-L SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS18 A-L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2689782.1	102.0	%	0.22				0.22%
ScR 361.383	338238.5	102.5	%	0.96				0.94%
Ag 328.068†	-24.7	-0.00013	mg/L	0.000047	-0.00330	mg/L	0.001167	35.35%
Al 308.215†	16975.6	9.898	mg/L	0.1465	247.4	mg/L	3.66	1.48%
As 188.979†	-10.1	0.00769	mg/L	0.000808	0.1921	mg/L	0.02019	10.51%
B 249.677†	33.8	0.00430	mg/L	0.000529	0.1076	mg/L	0.01323	12.30%
Ba 233.527†	672.6	0.1391	mg/L	0.00145	3.479	mg/L	0.0362	1.04%
Be 313.042†	310.6	0.00048	mg/L	0.000001	0.01191	mg/L	0.000020	0.17%
Ca 317.933†	102531.6	7.311	mg/L	0.1079	182.8	mg/L	2.70	1.48%
Cd 228.802†	139.1	0.00451	mg/L	0.000095	0.1127	mg/L	0.00237	2.10%
Co 228.616†	200.0	0.00416	mg/L	0.000084	0.1041	mg/L	0.00211	2.03%
Cr 267.716†	87.9	0.01369	mg/L	0.001583	0.3423	mg/L	0.03958	11.56%
Cu 324.752†	6849.9	0.02637	mg/L	0.000153	0.6593	mg/L	0.00382	0.58%
Fe 273.955†	14722.3	10.52	mg/L	0.167	263.1	mg/L	4.18	1.59%
K 766.490†	1528.5	0.7800	mg/L	0.01327	19.50	mg/L	0.332	1.70%
Mg 279.077†	3510.0	2.469	mg/L	0.0217	61.72	mg/L	0.544	0.88%
Mn 257.610†	22723.9	0.5911	mg/L	0.00849	14.78	mg/L	0.212	1.44%
Mo 202.031†	20.6	0.00090	mg/L	0.000237	0.02246	mg/L	0.005917	26.35%
Na 589.592†	2107.4	0.1714	mg/L	0.00192	4.284	mg/L	0.0480	1.12%
Na 330.237†	3.8	0.1651	mg/L	0.06101	4.127	mg/L	1.5253	36.96%
Ni 231.604†	30.1	0.00708	mg/L	0.000647	0.1769	mg/L	0.01619	9.15%
Pb 220.353†	1895.5	0.2334	mg/L	0.00071	5.834	mg/L	0.0177	0.30%
Sb 206.836†	-0.1	0.00003	mg/L	0.001070	0.00068	mg/L	0.026744	>999.9%
Se 196.026†	-5.4	-0.00366	mg/L	0.003251	-0.09160	mg/L	0.081266	88.72%
Si 288.158†	1023.6	0.4799	mg/L	0.00498	12.00	mg/L	0.125	1.04%
Sn 189.927†	-11.1	-0.00181	mg/L	0.000333	-0.04537	mg/L	0.008318	18.33%
Sr 421.552†	181709.5	0.2027	mg/L	0.00271	5.068	mg/L	0.0679	1.34%
Ti 334.903†	10024.5	0.4718	mg/L	0.00643	11.80	mg/L	0.161	1.36%
Tl 190.801†	0.4	0.00118	mg/L	0.002812	0.02957	mg/L	0.070302	237.76%
V 292.402†	2494.3	0.01882	mg/L	0.000218	0.4705	mg/L	0.00544	1.16%
Zn 206.200†	879.2	0.2196	mg/L	0.00084	5.491	mg/L	0.0211	0.38%

Sequence No.: 32
Sample ID: VS18 A SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 324
Date Collected: 11/23/2012 11:35:54 AM
Data Type: Original

Nebulizer Parameters: VS18 A SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS18 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2713612.4	102.9	%	0.72				0.70%
ScR 361.383	334145.4	101.2	%	1.23				1.21%
Ag 328.068†	15.1	0.00011	mg/L	0.000044	0.00056	mg/L	0.000221	39.32%
Al 308.215†	88778.7	51.76	mg/L	0.568	258.8	mg/L	2.84	1.10%
As 188.979†	-44.7	0.04375	mg/L	0.001282	0.2187	mg/L	0.00641	2.93%
B 249.677†	78.4	0.00995	mg/L	0.001138	0.04975	mg/L	0.005692	11.44%
Ba 233.527†	3447.9	0.7132	mg/L	0.01044	3.566	mg/L	0.0522	1.46%
Be 313.042†	1453.6	0.00222	mg/L	0.000057	0.01112	mg/L	0.000287	2.58%
Ca 317.933†	521575.4	37.19	mg/L	0.571	186.0	mg/L	2.86	1.54%
Cd 228.802†	676.9	0.02189	mg/L	0.000202	0.1094	mg/L	0.00101	0.92%
Co 228.616†	986.6	0.02028	mg/L	0.000298	0.1014	mg/L	0.00149	1.47%
Cr 267.716†	429.4	0.06700	mg/L	0.000617	0.3350	mg/L	0.00309	0.92%
Cu 324.752†	35601.5	0.1371	mg/L	0.00088	0.6854	mg/L	0.00441	0.64%
Fe 273.955†	76374.6	54.59	mg/L	0.558	273.0	mg/L	2.79	1.02%
K 766.490†	7943.2	4.054	mg/L	0.0529	20.27	mg/L	0.265	1.31%
Mg 279.077†	17117.7	12.04	mg/L	0.144	60.19	mg/L	0.721	1.20%
Mn 257.610†	118437.6	3.081	mg/L	0.0293	15.41	mg/L	0.147	0.95%
Mo 202.031†	68.8	0.00287	mg/L	0.000080	0.01434	mg/L	0.000399	2.78%
Na 589.592†	10334.4	0.8403	mg/L	0.00874	4.202	mg/L	0.0437	1.04%
Na 330.237†	15.4	0.7082	mg/L	0.35841	3.541	mg/L	1.7920	50.61%
Ni 231.604†	168.9	0.03978	mg/L	0.000232	0.1989	mg/L	0.00116	0.58%
Pb 220.353†	9476.5	1.167	mg/L	0.0046	5.836	mg/L	0.0229	0.39%
Sb 206.836†	17.2	0.00536	mg/L	0.001884	0.02682	mg/L	0.009418	35.12%
Se 196.026†	-3.2	-0.00221	mg/L	0.003420	-0.01107	mg/L	0.017098	154.49%
Si 288.158†	5335.6	2.502	mg/L	0.0314	12.51	mg/L	0.157	1.26%
Sn 189.927†	-37.4	-0.00443	mg/L	0.000870	-0.02213	mg/L	0.004352	19.67%
Sr 421.552†	933617.9	1.042	mg/L	0.0130	5.208	mg/L	0.0652	1.25%
Ti 334.903†	51852.0	2.440	mg/L	0.0277	12.20	mg/L	0.139	1.14%
Tl 190.801†	0.3	0.00546	mg/L	0.000584	0.02728	mg/L	0.002919	10.70%
V 292.402†	12529.2	0.09443	mg/L	0.000447	0.4722	mg/L	0.00223	0.47%
Zn 206.200†	4511.5	1.127	mg/L	0.0173	5.635	mg/L	0.0863	1.53%

Sequence No.: 33
Sample ID: VS18 ADUP SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 325
Date Collected: 11/23/2012 11:40:10 AM
Data Type: Original

Nebulizer Parameters: VS18 ADUP SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS18 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2686700.7	101.9	%	0.20				0.20%
ScR 361.383	337619.8	102.3	%	0.47				0.46%
Ag 328.068†	15.0	0.00011	mg/L	0.000038	0.00057	mg/L	0.000191	33.32%
Al 308.215†	91548.7	53.38	mg/L	0.094	266.9	mg/L	0.47	0.18%
As 188.979†	-44.5	0.04526	mg/L	0.000719	0.2263	mg/L	0.00360	1.59%
B 249.677†	76.9	0.00976	mg/L	0.001125	0.04882	mg/L	0.005626	11.52%
Ba 233.527†	3551.4	0.7344	mg/L	0.00155	3.672	mg/L	0.0078	0.21%
Be 313.042†	1483.6	0.00227	mg/L	0.000011	0.01134	mg/L	0.000053	0.47%
Ca 317.933†	535584.0	38.19	mg/L	0.314	191.0	mg/L	1.57	0.82%
Cd 228.802†	725.2	0.02344	mg/L	0.000119	0.1172	mg/L	0.00060	0.51%
Co 228.616†	952.6	0.01926	mg/L	0.000042	0.09630	mg/L	0.000210	0.22%
Cr 267.716†	378.1	0.05907	mg/L	0.001062	0.2953	mg/L	0.00531	1.80%
Cu 324.752†	36345.2	0.1400	mg/L	0.00057	0.7001	mg/L	0.00286	0.41%
Fe 273.955†	80571.1	57.59	mg/L	0.056	288.0	mg/L	0.28	0.10%
K 766.490†	8213.3	4.191	mg/L	0.0098	20.96	mg/L	0.049	0.23%
Mg 279.077†	18117.7	12.74	mg/L	0.020	63.71	mg/L	0.098	0.15%
Mn 257.610†	127605.7	3.320	mg/L	0.0070	16.60	mg/L	0.035	0.21%
Mo 202.031†	71.2	0.00297	mg/L	0.000365	0.01486	mg/L	0.001827	12.29%
Na 589.592†	11657.8	0.9479	mg/L	0.00474	4.740	mg/L	0.0237	0.50%
Na 330.237†	18.0	0.7933	mg/L	0.11642	3.967	mg/L	0.5821	14.68%
Ni 231.604†	163.4	0.03849	mg/L	0.000990	0.1924	mg/L	0.00495	2.57%
Pb 220.353†	9925.1	1.222	mg/L	0.0027	6.111	mg/L	0.0137	0.22%
Sb 206.836†	11.2	0.00381	mg/L	0.001392	0.01904	mg/L	0.006958	36.54%
Se 196.026†	-1.5	-0.00109	mg/L	0.005118	-0.00544	mg/L	0.025588	470.77%
Si 288.158†	4075.9	1.911	mg/L	0.0073	9.557	mg/L	0.0365	0.38%
Sn 189.927†	-39.2	-0.00474	mg/L	0.001253	-0.02372	mg/L	0.006263	26.40%
Sr 421.552†	957282.3	1.068	mg/L	0.0081	5.340	mg/L	0.0404	0.76%
Ti 334.903†	52901.8	2.490	mg/L	0.0073	12.45	mg/L	0.036	0.29%
Tl 190.801†	-6.9	0.00294	mg/L	0.002856	0.01469	mg/L	0.014282	97.25%
V 292.402†	13719.2	0.1035	mg/L	0.00048	0.5176	mg/L	0.00241	0.47%
Zn 206.200†	4695.0	1.173	mg/L	0.0004	5.864	mg/L	0.0021	0.04%

Sequence No.: 34
Sample ID: VS18 ASPK SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 326
Date Collected: 11/23/2012 11:44:26 AM
Data Type: Original

Nebulizer Parameters: VS18 ASPK SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS18 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2720829.0	103.2	%	0.53				0.51%
ScR 361.383	338988.7	102.7	%	1.57				1.52%
Ag 328.068†	37551.9	0.2098	mg/L	0.00067	1.049	mg/L	0.0034	0.32%
Al 308.215†	92347.1	53.84	mg/L	1.219	269.2	mg/L	6.10	2.26%
As 188.979†	1471.2	0.8579	mg/L	0.00598	4.289	mg/L	0.0299	0.70%
B 249.677†	70.5	0.00850	mg/L	0.000577	0.04251	mg/L	0.002885	6.79%
Ba 233.527†	7513.0	1.564	mg/L	0.0300	7.821	mg/L	0.1500	1.92%
Be 313.042†	127418.3	0.1992	mg/L	0.00492	0.9959	mg/L	0.02461	2.47%
Ca 317.933†	590190.0	42.09	mg/L	0.997	210.4	mg/L	4.99	2.37%
Cd 228.802†	7469.2	0.2396	mg/L	0.00209	1.198	mg/L	0.0105	0.87%
Co 228.616†	9081.1	0.2314	mg/L	0.00168	1.157	mg/L	0.0084	0.73%
Cr 267.716†	1695.5	0.2628	mg/L	0.00511	1.314	mg/L	0.0255	1.94%
Cu 324.752†	93478.6	0.3571	mg/L	0.00173	1.785	mg/L	0.0087	0.49%
Fe 273.955†	79888.3	57.10	mg/L	1.121	285.5	mg/L	5.61	1.96%
K 766.490†	15906.9	8.118	mg/L	0.2051	40.59	mg/L	1.025	2.53%
Mg 279.077†	24132.1	16.98	mg/L	0.288	84.91	mg/L	1.439	1.70%
Mn 257.610†	130107.1	3.385	mg/L	0.0702	16.92	mg/L	0.351	2.07%
Mo 202.031†	66.8	0.00271	mg/L	0.000089	0.01356	mg/L	0.000445	3.28%
Na 589.592†	61202.2	4.977	mg/L	0.1258	24.88	mg/L	0.629	2.53%
Na 330.237†	150.9	5.269	mg/L	0.2047	26.34	mg/L	1.023	3.88%
Ni 231.604†	1023.4	0.2407	mg/L	0.00451	1.203	mg/L	0.0226	1.88%
Pb 220.353†	16332.3	2.005	mg/L	0.0146	10.02	mg/L	0.073	0.73%
Sb 206.836†	22.2	0.00489	mg/L	0.002547	0.02447	mg/L	0.012736	52.05%
Se 196.026†	1205.1	0.8121	mg/L	0.00821	4.061	mg/L	0.0410	1.01%
Si 288.158†	5981.6	2.806	mg/L	0.0472	14.03	mg/L	0.236	1.68%
Sn 189.927†	-37.5	-0.00380	mg/L	0.001253	-0.01898	mg/L	0.006266	33.02%
Sr 421.552†	1134485.4	1.266	mg/L	0.0285	6.329	mg/L	0.1426	2.25%
Ti 334.903†	54991.4	2.588	mg/L	0.0539	12.94	mg/L	0.270	2.08%
Tl 190.801†	2034.0	0.8022	mg/L	0.00756	4.011	mg/L	0.0378	0.94%
V 292.402†	40062.2	0.3082	mg/L	0.00112	1.541	mg/L	0.0056	0.36%
Zn 206.200†	5401.9	1.349	mg/L	0.0234	6.747	mg/L	0.1170	1.73%

Sequence No.: 35
Sample ID: VS18 APOST SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 327
Date Collected: 11/23/2012 11:48:29 AM
Data Type: Original

Nebulizer Parameters: VS18 APOST SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS18 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2691241.5	102.0	%	0.26				0.25%
ScR 361.383	335337.2	101.6	%	2.46				2.42%
Ag 328.068†	89701.4	0.5011	mg/L	0.00033	2.505	mg/L	0.0017	0.07%
Al 308.215†	91823.7	53.53	mg/L	1.605	267.7	mg/L	8.02	3.00%
As 188.979†	3744.1	2.068	mg/L	0.0099	10.34	mg/L	0.050	0.48%
B 249.677†	75.0	0.00845	mg/L	0.003383	0.04226	mg/L	0.016915	40.03%
Ba 233.527†	13253.6	2.767	mg/L	0.0712	13.83	mg/L	0.356	2.57%
Be 313.042†	319159.9	0.4990	mg/L	0.01431	2.495	mg/L	0.0715	2.87%
Ca 317.933†	675025.2	48.14	mg/L	1.473	240.7	mg/L	7.37	3.06%
Cd 228.802†	17293.0	0.5543	mg/L	0.00154	2.771	mg/L	0.0077	0.28%
Co 228.616†	20764.0	0.5368	mg/L	0.00189	2.684	mg/L	0.0095	0.35%
Cr 267.716†	3682.1	0.5701	mg/L	0.01619	2.851	mg/L	0.0809	2.84%
Cu 324.752†	176090.8	0.6709	mg/L	0.00112	3.355	mg/L	0.0056	0.17%
Fe 273.955†	78457.8	56.08	mg/L	1.872	280.4	mg/L	9.36	3.34%
K 766.490†	27852.2	14.21	mg/L	0.412	71.07	mg/L	2.059	2.90%
Mg 279.077†	32701.8	23.03	mg/L	0.624	115.1	mg/L	3.12	2.71%
Mn 257.610†	135795.9	3.533	mg/L	0.1128	17.66	mg/L	0.564	3.19%
Mo 202.031†	77.5	0.00314	mg/L	0.000175	0.01569	mg/L	0.000873	5.57%
Na 589.592†	133959.8	10.89	mg/L	0.313	54.46	mg/L	1.567	2.88%
Na 330.237†	323.5	11.01	mg/L	0.497	55.05	mg/L	2.486	4.52%
Ni 231.604†	2292.4	0.5390	mg/L	0.01431	2.695	mg/L	0.0716	2.66%
Pb 220.353†	26167.2	3.206	mg/L	0.0082	16.03	mg/L	0.041	0.25%
Sb 206.836†	33.6	0.00486	mg/L	0.000031	0.02432	mg/L	0.000154	0.63%
Se 196.026†	3000.8	2.022	mg/L	0.0058	10.11	mg/L	0.029	0.29%
Si 288.158†	5317.1	2.496	mg/L	0.0663	12.48	mg/L	0.332	2.66%
Sn 189.927†	-41.6	-0.00406	mg/L	0.000499	-0.02029	mg/L	0.002497	12.31%
Sr 421.552†	1398255.5	1.560	mg/L	0.0470	7.800	mg/L	0.2351	3.01%
Ti 334.903†	51855.6	2.440	mg/L	0.0743	12.20	mg/L	0.371	3.04%
Tl 190.801†	5004.7	1.966	mg/L	0.0077	9.828	mg/L	0.0385	0.39%
V 292.402†	78073.5	0.6039	mg/L	0.00064	3.019	mg/L	0.0032	0.11%
Zn 206.200†	6488.3	1.621	mg/L	0.0453	8.105	mg/L	0.2265	2.79%

Sequence No.: 36
Sample ID: VS18 MB1SPK SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 328
Date Collected: 11/23/2012 11:51:47 AM
Data Type: Original

Nebulizer Parameters: VS18 MB1SPK SWC

Analyte	Back Pressure	Flow
A11	218.0 kPa	0.75 L/min

Mean Data: VS18 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2704834.0	102.6	%	0.24				0.24%
ScR 361.383	339825.5	103.0	%	1.21				1.18%
Ag 328.068†	95177.9	0.5316	mg/L	0.00266	1.063	mg/L	0.0053	0.50%
Al 308.215†	3535.0	2.054	mg/L	0.0275	4.108	mg/L	0.0551	1.34%
As 188.979†	3863.9	2.064	mg/L	0.0063	4.129	mg/L	0.0126	0.30%
B 249.677†	21.6	0.00170	mg/L	0.000191	0.00339	mg/L	0.000383	11.29%
Ba 233.527†	9793.5	2.051	mg/L	0.0303	4.102	mg/L	0.0605	1.48%
Be 313.042†	313736.7	0.4906	mg/L	0.00731	0.9811	mg/L	0.01462	1.49%
Ca 317.933†	138651.9	9.887	mg/L	0.1443	19.77	mg/L	0.289	1.46%
Cd 228.802†	16410.9	0.5254	mg/L	0.00361	1.051	mg/L	0.0072	0.69%
Co 228.616†	19791.2	0.5169	mg/L	0.00223	1.034	mg/L	0.0045	0.43%
Cr 267.716†	3271.9	0.5062	mg/L	0.00627	1.012	mg/L	0.0125	1.24%
Cu 324.752†	138048.6	0.5246	mg/L	0.00336	1.049	mg/L	0.0067	0.64%
Fe 273.955†	2875.8	2.052	mg/L	0.0309	4.104	mg/L	0.0618	1.51%
K 766.490†	19469.8	9.936	mg/L	0.1185	19.87	mg/L	0.237	1.19%
Mg 279.077†	14612.8	10.30	mg/L	0.153	20.60	mg/L	0.305	1.48%
Mn 257.610†	19095.3	0.4971	mg/L	0.00733	0.9942	mg/L	0.01466	1.47%
Mo 202.031†	26.7	0.00114	mg/L	0.000150	0.00227	mg/L	0.000300	13.22%
Na 589.592†	121304.4	9.864	mg/L	0.1461	19.73	mg/L	0.292	1.48%
Na 330.237†	314.9	10.53	mg/L	0.140	21.06	mg/L	0.279	1.33%
Ni 231.604†	2126.8	0.5000	mg/L	0.00826	0.9999	mg/L	0.01652	1.65%
Pb 220.353†	16636.4	2.032	mg/L	0.0075	4.064	mg/L	0.0150	0.37%
Sb 206.836†	15.8	-0.00072	mg/L	0.002460	-0.00144	mg/L	0.004919	341.65%
Se 196.026†	3023.1	2.038	mg/L	0.0113	4.075	mg/L	0.0225	0.55%
Si 288.158†	-4.9	0.00089	mg/L	0.001080	0.00178	mg/L	0.002161	121.36%
Sn 189.927†	-22.8	-0.00444	mg/L	0.000708	-0.00887	mg/L	0.001417	15.96%
Sr 421.552†	449260.8	0.5012	mg/L	0.00703	1.002	mg/L	0.0141	1.40%
Ti 334.903†	77.8	0.00309	mg/L	0.001025	0.00618	mg/L	0.002049	33.16%
Tl 190.801†	5181.7	2.030	mg/L	0.0087	4.060	mg/L	0.0174	0.43%
V 292.402†	66784.6	0.5190	mg/L	0.00294	1.038	mg/L	0.0059	0.57%
Zn 206.200†	2018.2	0.5042	mg/L	0.00784	1.008	mg/L	0.0157	1.56%

Sequence No.: 37
Sample ID: CV 4
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/23/2012 11:55:48 AM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2659748.1	100.8	%	0.50				0.50%
ScR 361.383	335304.4	101.6	%	1.29				1.27%
Ag 328.068†	186085.0	1.039	mg/L	0.0050	1.039	mg/L	0.0050	0.48%
Al 308.215†	3521.8	2.019	mg/L	0.0353	2.019	mg/L	0.0353	1.75%
As 188.979†	3767.7	2.039	mg/L	0.0032	2.039	mg/L	0.0032	0.16%
B 249.677†	7744.0	0.9866	mg/L	0.01752	0.9866	mg/L	0.01752	1.78%
Ba 233.527†	4894.0	1.025	mg/L	0.0172	1.025	mg/L	0.0172	1.68%
Be 313.042†	627270.8	0.9808	mg/L	0.01467	0.9808	mg/L	0.01467	1.50%
Ca 317.933†	29126.7	2.077	mg/L	0.0277	2.077	mg/L	0.0277	1.33%
Cd 228.802†	31826.9	1.032	mg/L	0.0040	1.032	mg/L	0.0040	0.39%
Co 228.616†	39072.3	1.019	mg/L	0.0051	1.019	mg/L	0.0051	0.50%
Cr 267.716†	6524.9	1.011	mg/L	0.0128	1.011	mg/L	0.0128	1.27%
Cu 324.752†	272234.0	1.034	mg/L	0.0060	1.034	mg/L	0.0060	0.58%
Fe 273.955†	2884.9	2.055	mg/L	0.0306	2.055	mg/L	0.0306	1.49%
K 766.490†	39595.1	20.21	mg/L	0.323	20.21	mg/L	0.323	1.60%
Mg 279.077†	2886.7	2.042	mg/L	0.0476	2.042	mg/L	0.0476	2.33%
Mn 257.610†	38819.9	1.010	mg/L	0.0158	1.010	mg/L	0.0158	1.57%
Mo 202.031†	21335.5	1.015	mg/L	0.0056	1.015	mg/L	0.0056	0.55%
Na 589.592†	624926.0	50.81	mg/L	0.823	50.81	mg/L	0.823	1.62%
Na 330.237†	1544.2	52.34	mg/L	0.789	52.34	mg/L	0.789	1.51%
Ni 231.604†	4265.6	1.005	mg/L	0.0139	1.005	mg/L	0.0139	1.38%
Pb 220.353†	16988.0	2.075	mg/L	0.0071	2.075	mg/L	0.0071	0.34%
Sb 206.836†	7230.7	2.088	mg/L	0.0068	2.088	mg/L	0.0068	0.33%
Se 196.026†	2951.9	1.989	mg/L	0.0093	1.989	mg/L	0.0093	0.47%
Si 288.158†	4489.5	2.103	mg/L	0.0341	2.103	mg/L	0.0341	1.62%
Sn 189.927†	3993.7	1.007	mg/L	0.0034	1.007	mg/L	0.0034	0.34%
Sr 421.552†	899291.3	1.003	mg/L	0.0155	1.003	mg/L	0.0155	1.55%
Ti 334.903†	21924.7	1.031	mg/L	0.0168	1.031	mg/L	0.0168	1.63%
Tl 190.801†	5157.8	2.017	mg/L	0.0072	2.017	mg/L	0.0072	0.36%
V 292.402†	133077.4	1.034	mg/L	0.0068	1.034	mg/L	0.0068	0.66%
Zn 206.200†	4174.3	1.042	mg/L	0.0148	1.042	mg/L	0.0148	1.42%

Sequence No.: 38
Sample ID: CB 4
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/23/2012 12:00:09 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2673823.1	101.4	%	0.23				0.23%
ScR 361.383	334732.6	101.4	%	0.66				0.65%
Ag 328.068†	37.8	0.00021	mg/L	0.000034	0.00021	mg/L	0.000034	15.92%
Al 308.215†	3.1	0.00179	mg/L	0.004396	0.00179	mg/L	0.004396	245.53%
As 188.979†	-0.7	-0.00036	mg/L	0.002459	-0.00036	mg/L	0.002459	687.78%
B 249.677†	23.6	0.00301	mg/L	0.000650	0.00301	mg/L	0.000650	21.64%
Ba 233.527†	2.0	0.00043	mg/L	0.000404	0.00043	mg/L	0.000404	94.43%
Be 313.042†	112.0	0.00018	mg/L	0.000031	0.00018	mg/L	0.000031	17.90%
Ca 317.933†	28.0	0.00200	mg/L	0.000158	0.00200	mg/L	0.000158	7.88%
Cd 228.802†	7.5	0.00025	mg/L	0.000130	0.00025	mg/L	0.000130	51.95%
Co 228.616†	8.9	0.00023	mg/L	0.000025	0.00023	mg/L	0.000025	10.58%
Cr 267.716†	-3.0	-0.00046	mg/L	0.000488	-0.00046	mg/L	0.000488	106.35%
Cu 324.752†	29.2	0.00011	mg/L	0.000185	0.00011	mg/L	0.000185	166.99%
Fe 273.955†	2.6	0.00189	mg/L	0.000483	0.00189	mg/L	0.000483	25.52%
K 766.490†	7.9	0.00402	mg/L	0.011445	0.00402	mg/L	0.011445	284.62%
Mg 279.077†	4.2	0.00299	mg/L	0.004062	0.00299	mg/L	0.004062	135.69%
Mn 257.610†	12.0	0.00031	mg/L	0.000050	0.00031	mg/L	0.000050	16.08%
Mo 202.031†	15.4	0.00073	mg/L	0.000267	0.00073	mg/L	0.000267	36.47%
Na 589.592†	192.2	0.01563	mg/L	0.001472	0.01563	mg/L	0.001472	9.42%
Na 330.237†	8.4	0.2844	mg/L	0.46389	0.2844	mg/L	0.46389	163.09%
Ni 231.604†	4.5	0.00106	mg/L	0.000444	0.00106	mg/L	0.000444	41.80%
Pb 220.353†	3.7	0.00045	mg/L	0.001169	0.00045	mg/L	0.001169	258.50%
Sb 206.836†	4.7	0.00137	mg/L	0.001084	0.00137	mg/L	0.001084	79.12%
Se 196.026†	-0.7	-0.00049	mg/L	0.001836	-0.00049	mg/L	0.001836	376.05%
Si 288.158†	-0.3	-0.00015	mg/L	0.001194	-0.00015	mg/L	0.001194	778.32%
Sn 189.927†	0.1	0.00003	mg/L	0.000704	0.00003	mg/L	0.000704	>999.9%
Sr 421.552†	198.5	0.00022	mg/L	0.000015	0.00022	mg/L	0.000015	6.87%
Ti 334.903†	16.0	0.00075	mg/L	0.001259	0.00075	mg/L	0.001259	167.71%
Tl 190.801†	5.4	0.00210	mg/L	0.001612	0.00210	mg/L	0.001612	76.65%
V 292.402†	33.5	0.00026	mg/L	0.000109	0.00026	mg/L	0.000109	42.35%
Zn 206.200†	0.8	0.00021	mg/L	0.000804	0.00021	mg/L	0.000804	383.48%

Sequence No.: 39
Sample ID: VS18 E SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 329
Date Collected: 11/23/2012 12:04:24 PM
Data Type: Original

Nebulizer Parameters: VS18 E SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS18 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2703061.7	102.5	%	0.55				0.54%
ScR 361.383	345111.3	104.6	%	1.86				1.78%
Ag 328.068†	-121.4	-0.00064	mg/L	0.000102	-0.00320	mg/L	0.000511	15.98%
Al 308.215†	95391.8	55.62	mg/L	1.267	278.1	mg/L	6.34	2.28%
As 188.979†	-116.5	0.03222	mg/L	0.002242	0.1611	mg/L	0.01121	6.96%
B 249.677†	69.2	0.00875	mg/L	0.000744	0.04377	mg/L	0.003720	8.50%
Ba 233.527†	2776.5	0.5710	mg/L	0.00754	2.855	mg/L	0.0377	1.32%
Be 313.042†	1043.3	0.00157	mg/L	0.000049	0.00783	mg/L	0.000245	3.14%
Ca 317.933†	384186.8	27.40	mg/L	0.622	137.0	mg/L	3.11	2.27%
Cd 228.802†	472.6	0.01536	mg/L	0.000293	0.07680	mg/L	0.001463	1.90%
Co 228.616†	1319.2	0.02709	mg/L	0.000181	0.1354	mg/L	0.00091	0.67%
Cr 267.716†	519.6	0.08101	mg/L	0.001644	0.4050	mg/L	0.00822	2.03%
Cu 324.752†	24722.9	0.09593	mg/L	0.000659	0.4797	mg/L	0.00330	0.69%
Fe 273.955†	90038.2	64.36	mg/L	1.609	321.8	mg/L	8.04	2.50%
K 766.490†	16090.9	8.212	mg/L	0.2042	41.06	mg/L	1.021	2.49%
Mg 279.077†	26520.8	18.66	mg/L	0.454	93.31	mg/L	2.272	2.43%
Mn 257.610†	68784.0	1.789	mg/L	0.0418	8.947	mg/L	0.2088	2.33%
Mo 202.031†	65.5	0.00282	mg/L	0.000091	0.01408	mg/L	0.000453	3.22%
Na 589.592†	12533.5	1.019	mg/L	0.0208	5.096	mg/L	0.1040	2.04%
Na 330.237†	15.3	1.073	mg/L	0.1292	5.367	mg/L	0.6459	12.04%
Ni 231.604†	247.4	0.05826	mg/L	0.001529	0.2913	mg/L	0.00764	2.62%
Pb 220.353†	4999.3	0.6211	mg/L	0.00250	3.105	mg/L	0.0125	0.40%
Sb 206.836†	9.3	0.00340	mg/L	0.002393	0.01702	mg/L	0.011964	70.30%
Se 196.026†	2.1	0.00136	mg/L	0.006840	0.00678	mg/L	0.034198	504.67%
Si 288.158†	5799.7	2.720	mg/L	0.0444	13.60	mg/L	0.222	1.63%
Sn 189.927†	-38.1	-0.00570	mg/L	0.001390	-0.02850	mg/L	0.006948	24.38%
Sr 421.552†	510915.4	0.5700	mg/L	0.01294	2.850	mg/L	0.0647	2.27%
Ti 334.903†	71321.2	3.358	mg/L	0.0792	16.79	mg/L	0.396	2.36%
Tl 190.801†	-3.6	0.00481	mg/L	0.000070	0.02407	mg/L	0.000351	1.46%
V 292.402†	16867.8	0.1270	mg/L	0.00057	0.6351	mg/L	0.00284	0.45%
Zn 206.200†	2562.4	0.6401	mg/L	0.01027	3.201	mg/L	0.0514	1.60%

Sequence No.: 40
Sample ID: VS18 F SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 330
Date Collected: 11/23/2012 12:08:27 PM
Data Type: Original

Nebulizer Parameters: VS18 F SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS18 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2753185.1	104.4	%	0.30				0.29%
ScR 361.383	344295.8	104.3	%	0.97				0.93%
Ag 328.068†	-201.8	-0.00108	mg/L	0.000358	-0.00542	mg/L	0.001788	33.00%
Al 308.215†	111536.1	65.03	mg/L	1.119	325.2	mg/L	5.59	1.72%
As 188.979†	-157.4	0.02133	mg/L	0.004397	0.1067	mg/L	0.02199	20.61%
B 249.677†	43.5	0.00547	mg/L	0.000120	0.02733	mg/L	0.000601	2.20%
Ba 233.527†	2875.5	0.5906	mg/L	0.00535	2.953	mg/L	0.0268	0.91%
Be 313.042†	1213.9	0.00182	mg/L	0.000039	0.00912	mg/L	0.000197	2.16%
Ca 317.933†	403113.2	28.75	mg/L	0.565	143.7	mg/L	2.83	1.97%
Cd 228.802†	164.2	0.00533	mg/L	0.000084	0.02663	mg/L	0.000418	1.57%
Co 228.616†	1478.7	0.03041	mg/L	0.000074	0.1521	mg/L	0.00037	0.24%
Cr 267.716†	630.4	0.09818	mg/L	0.000859	0.4909	mg/L	0.00430	0.88%
Cu 324.752†	24498.5	0.09528	mg/L	0.000475	0.4764	mg/L	0.00238	0.50%
Fe 273.955†	99517.2	71.13	mg/L	1.290	355.7	mg/L	6.45	1.81%
K 766.490†	16671.1	8.508	mg/L	0.1604	42.54	mg/L	0.802	1.89%
Mg 279.077†	30732.4	21.63	mg/L	0.388	108.1	mg/L	1.94	1.80%
Mn 257.610†	73216.0	1.905	mg/L	0.0358	9.523	mg/L	0.1789	1.88%
Mo 202.031†	60.3	0.00256	mg/L	0.000150	0.01278	mg/L	0.000748	5.85%
Na 589.592†	16368.2	1.331	mg/L	0.0213	6.655	mg/L	0.1065	1.60%
Na 330.237†	20.7	1.445	mg/L	0.1198	7.224	mg/L	0.5988	8.29%
Ni 231.604†	305.2	0.07188	mg/L	0.000318	0.3594	mg/L	0.00159	0.44%
Pb 220.353†	1511.8	0.1973	mg/L	0.00100	0.9864	mg/L	0.00502	0.51%
Sb 206.836†	6.9	0.00270	mg/L	0.002019	0.01350	mg/L	0.010097	74.78%
Se 196.026†	4.5	0.00292	mg/L	0.002843	0.01462	mg/L	0.014216	97.23%
Si 288.158†	2796.1	1.313	mg/L	0.0100	6.564	mg/L	0.0500	0.76%
Sn 189.927†	-37.2	-0.00527	mg/L	0.000823	-0.02637	mg/L	0.004116	15.61%
Sr 421.552†	522204.1	0.5826	mg/L	0.01010	2.913	mg/L	0.0505	1.73%
Ti 334.903†	79536.1	3.745	mg/L	0.0687	18.72	mg/L	0.344	1.84%
Tl 190.801†	-10.5	0.00273	mg/L	0.001340	0.01364	mg/L	0.006700	49.11%
V 292.402†	19236.8	0.1450	mg/L	0.00049	0.7249	mg/L	0.00247	0.34%
Zn 206.200†	1342.7	0.3354	mg/L	0.00287	1.677	mg/L	0.0143	0.85%

Sequence No.: 41
Sample ID: VS18 G SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 331
Date Collected: 11/23/2012 12:12:27 PM
Data Type: Original

Nebulizer Parameters: VS18 G SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS18 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2717478.9	103.0	%	0.30				0.29%
ScR 361.383	343647.4	104.1	%	1.62				1.55%
Ag 328.068†	-213.2	-0.00114	mg/L	0.000097	-0.00572	mg/L	0.000483	8.44%
Al 308.215†	111517.9	65.02	mg/L	1.308	325.1	mg/L	6.54	2.01%
As 188.979†	-189.6	0.00897	mg/L	0.002669	0.04484	mg/L	0.013346	29.76%
B 249.677†	46.9	0.00590	mg/L	0.000365	0.02950	mg/L	0.001823	6.18%
Ba 233.527†	2560.3	0.5242	mg/L	0.00630	2.621	mg/L	0.0315	1.20%
Be 313.042†	1205.0	0.00181	mg/L	0.000048	0.00903	mg/L	0.000241	2.67%
Ca 317.933†	356381.3	25.41	mg/L	0.534	127.1	mg/L	2.67	2.10%
Cd 228.802†	109.8	0.00363	mg/L	0.000115	0.01817	mg/L	0.000575	3.16%
Co 228.616†	1550.4	0.03195	mg/L	0.000120	0.1597	mg/L	0.00060	0.37%
Cr 267.716†	630.9	0.09841	mg/L	0.000947	0.4921	mg/L	0.00474	0.96%
Cu 324.752†	27477.5	0.1067	mg/L	0.00015	0.5333	mg/L	0.00077	0.14%
Fe 273.955†	102545.2	73.30	mg/L	1.728	366.5	mg/L	8.64	2.36%
K 766.490†	15679.9	8.002	mg/L	0.1533	40.01	mg/L	0.767	1.92%
Mg 279.077†	30609.5	21.54	mg/L	0.433	107.7	mg/L	2.17	2.01%
Mn 257.610†	61714.8	1.605	mg/L	0.0339	8.027	mg/L	0.1695	2.11%
Mo 202.031†	53.3	0.00226	mg/L	0.000303	0.01129	mg/L	0.001516	13.43%
Na 589.592†	14776.3	1.202	mg/L	0.0234	6.008	mg/L	0.1170	1.95%
Na 330.237†	9.5	1.127	mg/L	0.0958	5.637	mg/L	0.4790	8.50%
Ni 231.604†	302.6	0.07126	mg/L	0.000301	0.3563	mg/L	0.00151	0.42%
Pb 220.353†	870.9	0.1189	mg/L	0.00019	0.5946	mg/L	0.00097	0.16%
Sb 206.836†	-1.6	0.00039	mg/L	0.000577	0.00194	mg/L	0.002886	148.47%
Se 196.026†	-3.3	-0.00234	mg/L	0.001962	-0.01168	mg/L	0.009812	83.99%
Si 288.158†	3396.5	1.594	mg/L	0.0226	7.971	mg/L	0.1132	1.42%
Sn 189.927†	-32.7	-0.00452	mg/L	0.001264	-0.02262	mg/L	0.006319	27.94%
Sr 421.552†	456142.1	0.5089	mg/L	0.01008	2.545	mg/L	0.0504	1.98%
Ti 334.903†	83012.6	3.909	mg/L	0.0781	19.54	mg/L	0.391	2.00%
Tl 190.801†	-9.1	0.00348	mg/L	0.001750	0.01740	mg/L	0.008749	50.29%
V 292.402†	20494.2	0.1545	mg/L	0.00019	0.7725	mg/L	0.00094	0.12%
Zn 206.200†	1050.3	0.2624	mg/L	0.00350	1.312	mg/L	0.0175	1.33%

Sequence No.: 42
Sample ID: VS18 H SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 332
Date Collected: 11/23/2012 12:16:29 PM
Data Type: Original

Nebulizer Parameters: VS18 H SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS18 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2716282.1	103.0	%	0.14				0.14%
ScR 361.383	342896.1	103.9	%	2.39				2.31%
Ag 328.068†	-0.0	0.00006	mg/L	0.000073	0.00030	mg/L	0.000364	123.36%
Al 308.215†	122321.0	71.32	mg/L	1.911	356.6	mg/L	9.55	2.68%
As 188.979†	-31.6	0.1001	mg/L	0.00336	0.5004	mg/L	0.01680	3.36%
B 249.677†	37.6	0.00469	mg/L	0.000784	0.02347	mg/L	0.003922	16.71%
Ba 233.527†	3449.7	0.7077	mg/L	0.01845	3.538	mg/L	0.0922	2.61%
Be 313.042†	1508.9	0.00227	mg/L	0.000092	0.01135	mg/L	0.000461	4.06%
Ca 317.933†	232492.1	16.58	mg/L	0.412	82.89	mg/L	2.059	2.48%
Cd 228.802†	829.3	0.02653	mg/L	0.000188	0.1326	mg/L	0.00094	0.71%
Co 228.616†	1988.2	0.04273	mg/L	0.000233	0.2136	mg/L	0.00117	0.55%
Cr 267.716†	895.7	0.1393	mg/L	0.00279	0.6963	mg/L	0.01394	2.00%
Cu 324.752†	35905.7	0.1393	mg/L	0.00025	0.6966	mg/L	0.00124	0.18%
Fe 273.955†	126851.7	90.67	mg/L	2.250	453.4	mg/L	11.25	2.48%
K 766.490†	26179.4	13.36	mg/L	0.374	66.80	mg/L	1.871	2.80%
Mg 279.077†	44945.8	31.64	mg/L	0.866	158.2	mg/L	4.33	2.74%
Mn 257.610†	83551.4	2.174	mg/L	0.0546	10.87	mg/L	0.273	2.51%
Mo 202.031†	58.1	0.00258	mg/L	0.000048	0.01289	mg/L	0.000240	1.87%
Na 589.592†	12694.4	1.032	mg/L	0.0271	5.161	mg/L	0.1357	2.63%
Na 330.237†	8.4	0.9045	mg/L	0.25156	4.522	mg/L	1.2578	27.81%
Ni 231.604†	324.8	0.07649	mg/L	0.000660	0.3825	mg/L	0.00330	0.86%
Pb 220.353†	10128.5	1.250	mg/L	0.0024	6.250	mg/L	0.0122	0.20%
Sb 206.836†	28.3	0.00875	mg/L	0.002372	0.04375	mg/L	0.011862	27.12%
Se 196.026†	14.2	0.00941	mg/L	0.004935	0.04705	mg/L	0.024675	52.44%
Si 288.158†	3849.3	1.808	mg/L	0.0474	9.038	mg/L	0.2371	2.62%
Sn 189.927†	-17.6	-0.00175	mg/L	0.001261	-0.00877	mg/L	0.006306	71.87%
Sr 421.552†	138516.3	0.1545	mg/L	0.00408	0.7727	mg/L	0.02038	2.64%
Ti 334.903†	87590.8	4.125	mg/L	0.1064	20.62	mg/L	0.532	2.58%
Tl 190.801†	-8.1	0.00547	mg/L	0.002122	0.02733	mg/L	0.010609	38.82%
V 292.402†	26548.9	0.2009	mg/L	0.00048	1.004	mg/L	0.0024	0.24%
Zn 206.200†	3869.5	0.9666	mg/L	0.02507	4.833	mg/L	0.1254	2.59%

Sequence No.: 43
Sample ID: VS18 I SWC
Analyst: BA
Dilution: 5.000000X

Del

Autosampler Location: 333
Date Collected: 11/23/2012 12:20:29 PM
Data Type: Original

Nebulizer Parameters: VS18 I SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS18 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2706206.9	102.6	%	0.11				0.11%
ScR 361.383	340974.0	103.3	%	2.75				2.67%
Ag 328.068†	806.6	0.00454	mg/L	0.000132	0.02268	mg/L	0.000662	2.92%
Al 308.215†	86917.9	50.68	mg/L	1.707	253.4	mg/L	8.53	3.37%
As 188.979†	51.2	0.09821	mg/L	0.004517	0.4911	mg/L	0.02258	4.60%
B 249.677†	112.9	0.01433	mg/L	0.001125	0.07164	mg/L	0.005624	7.85%
Ba 233.527†	5180.0	1.074	mg/L	0.0324	5.369	mg/L	0.1620	3.02%
Be 313.042†	1031.9	0.00156	mg/L	0.000080	0.00780	mg/L	0.000401	5.13%
Ca 317.933†	386597.8	27.57	mg/L	0.949	137.8	mg/L	4.75	3.44%
Cd 228.802†	2760.1	0.08982	mg/L	0.000019	0.4491	mg/L	0.00009	0.02%
Co 228.616†	1308.6	0.02831	mg/L	0.000340	0.1415	mg/L	0.00170	1.20%
Cr 267.716†	545.5	0.08502	mg/L	0.001949	0.4251	mg/L	0.00975	2.29%
Cu 324.752†	38204.4	0.1475	mg/L	0.00025	0.7377	mg/L	0.00123	0.17%
Fe 273.955†	96195.5	68.76	mg/L	2.421	343.8	mg/L	12.11	3.52%
K 766.490†	18529.5	9.456	mg/L	0.3453	47.28	mg/L	1.726	3.65%
Mg 279.077†	24755.9	17.42	mg/L	0.573	87.08	mg/L	2.864	3.29%
Mn 257.610†	137373.9	3.574	mg/L	0.1242	17.87	mg/L	0.621	3.47%
Mo 202.031†	85.9	0.00378	mg/L	0.000322	0.01892	mg/L	0.001608	8.50%
Na 589.592†	7819.7	0.6358	mg/L	0.01926	3.179	mg/L	0.0963	3.03%
Na 330.237†	40.5	0.5436	mg/L	0.21541	2.718	mg/L	1.0771	39.63%
Ni 231.604†	270.4	0.06369	mg/L	0.002927	0.3184	mg/L	0.01464	4.60%
Pb 220.353†	37273.0	4.560	mg/L	0.0064	22.80	mg/L	0.032	0.14%
Sb 206.836†	81.2	0.02384	mg/L	0.002463	0.1192	mg/L	0.01231	10.33%
Se 196.026†	4.7	0.00306	mg/L	0.002021	0.01528	mg/L	0.010103	66.11%
Si 288.158†	2481.0	1.165	mg/L	0.0378	5.824	mg/L	0.1890	3.24%
Sn 189.927†	31.4	0.01184	mg/L	0.001225	0.05918	mg/L	0.006127	10.35%
Sr 421.552†	249570.9	0.2784	mg/L	0.00965	1.392	mg/L	0.0482	3.46%
Ti 334.903†	53808.1	2.533	mg/L	0.0853	12.67	mg/L	0.426	3.37%
Tl 190.801†	1.7	0.00741	mg/L	0.000295	0.03707	mg/L	0.001473	3.97%
V 292.402†	14429.3	0.1087	mg/L	0.00054	0.5437	mg/L	0.00271	0.50%
Zn 206.200†	17132.7	4.280	mg/L	0.1253	21.40	mg/L	0.626	2.93%

Sequence No.: 44
Sample ID: VS18 J SWC
Analyst: BA
Dilution: 5.000000X

Dal

Autosampler Location: 334
Date Collected: 11/23/2012 12:24:29 PM
Data Type: Original

Nebulizer Parameters: VS18 J SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS18 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2696244.0	102.2	%	0.32				0.31%
ScR 361.383	347023.9	105.1	%	2.95				2.81%
Ag 328.068†	336.6	0.00197	mg/L	0.000218	0.00987	mg/L	0.001092	11.06%
Al 308.215†	197822.3	115.3	mg/L	3.72	576.7	mg/L	18.59	3.22%
As 188.979†	-209.2	0.1442	mg/L	0.01170	0.7209	mg/L	0.05852	8.12%
B 249.677†	70.0	0.00871	mg/L	0.000937	0.04356	mg/L	0.004685	10.76%
Ba 233.527†	10179.3	2.105	mg/L	0.0559	10.53	mg/L	0.280	2.66%
Be 313.042†	1700.5	0.00249	mg/L	0.000110	0.01243	mg/L	0.000550	4.43%
Ca 317.933†	383781.4	27.37	mg/L	0.885	136.8	mg/L	4.43	3.23%
Cd 228.802†	2000.7	0.06514	mg/L	0.000206	0.3257	mg/L	0.00103	0.32%
Co 228.616†	4176.7	0.08933	mg/L	0.001129	0.4467	mg/L	0.00564	1.26%
Cr 267.716†	4244.4	0.6555	mg/L	0.01622	3.278	mg/L	0.0811	2.47%
Cu 324.752†	65922.5	0.2551	mg/L	0.00202	1.276	mg/L	0.0101	0.79%
Fe 273.955†	230462.4	164.7	mg/L	5.72	823.6	mg/L	28.58	3.47%
K 766.490†	110539.8	56.41	mg/L	1.868	282.1	mg/L	9.34	3.31%
Mg 279.077†	135147.0	95.19	mg/L	3.281	475.9	mg/L	16.41	3.45%
Mn 257.610†	160123.9	4.166	mg/L	0.1373	20.83	mg/L	0.687	3.30%
Mo 202.031†	72.8	0.00314	mg/L	0.000293	0.01568	mg/L	0.001466	9.35%
Na 589.592†	16125.4	1.311	mg/L	0.0383	6.556	mg/L	0.1914	2.92%
Na 330.237†	1.6	1.151	mg/L	0.0685	5.753	mg/L	0.3427	5.96%
Ni 231.604†	1385.9	0.3264	mg/L	0.00779	1.632	mg/L	0.0389	2.39%
Pb 220.353†	28729.8	3.530	mg/L	0.0132	17.65	mg/L	0.066	0.37%
Sb 206.836†	74.7	0.01724	mg/L	0.003435	0.08621	mg/L	0.017174	19.92%
Se 196.026†	16.3	0.01074	mg/L	0.006267	0.05369	mg/L	0.031337	58.37%
Si 288.158†	2354.1	1.115	mg/L	0.0334	5.573	mg/L	0.1670	3.00%
Sn 189.927†	-7.6	0.00289	mg/L	0.000242	0.01447	mg/L	0.001209	8.36%
Sr 421.552†	333931.5	0.3726	mg/L	0.01177	1.863	mg/L	0.0589	3.16%
Ti 334.903†	191717.6	9.029	mg/L	0.2938	45.14	mg/L	1.469	3.25%
Tl 190.801†	-31.8	0.00315	mg/L	0.004867	0.01577	mg/L	0.024336	154.28%
V 292.402†	42086.8	0.3183	mg/L	0.00260	1.592	mg/L	0.0130	0.82%
Zn 206.200†	11652.1	2.911	mg/L	0.0789	14.55	mg/L	0.394	2.71%

Sequence No.: 45
Sample ID: VS18 K SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 335
Date Collected: 11/23/2012 12:28:30 PM
Data Type: Original

Nebulizer Parameters: VS18 K SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS18 K SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2719802.8	103.1	%	0.23				0.22%
ScR 361.383	340912.1	103.3	%	2.43				2.35%
Ag 328.068†	112.0	0.00068	mg/L	0.000125	0.00340	mg/L	0.000625	18.36%
Al 308.215†	146237.4	85.26	mg/L	2.331	426.3	mg/L	11.65	2.73%
As 188.979†	1.6	0.1179	mg/L	0.00196	0.5897	mg/L	0.00980	1.66%
B 249.677†	79.1	0.00998	mg/L	0.000670	0.04989	mg/L	0.003348	6.71%
Ba 233.527†	14198.3	2.957	mg/L	0.0772	14.78	mg/L	0.386	2.61%
Be 313.042†	1504.3	0.00226	mg/L	0.000086	0.01132	mg/L	0.000430	3.80%
Ca 317.933†	424358.7	30.26	mg/L	0.797	151.3	mg/L	3.98	2.63%
Cd 228.802†	3685.8	0.1201	mg/L	0.00035	0.6003	mg/L	0.00176	0.29%
Co 228.616†	2170.0	0.04706	mg/L	0.000095	0.2353	mg/L	0.00048	0.20%
Cr 267.716†	1285.0	0.1992	mg/L	0.00517	0.9961	mg/L	0.02583	2.59%
Cu 324.752†	35532.1	0.1384	mg/L	0.00086	0.6922	mg/L	0.00429	0.62%
Fe 273.955†	145281.2	103.8	mg/L	3.04	519.2	mg/L	15.22	2.93%
K 766.490†	19251.2	9.824	mg/L	0.2613	49.12	mg/L	1.307	2.66%
Mg 279.077†	49879.4	35.11	mg/L	0.936	175.5	mg/L	4.68	2.67%
Mn 257.610†	273298.9	7.110	mg/L	0.2007	35.55	mg/L	1.003	2.82%
Mo 202.031†	87.5	0.00382	mg/L	0.000163	0.01912	mg/L	0.000813	4.25%
Na 589.592†	8124.9	0.6607	mg/L	0.01778	3.303	mg/L	0.0889	2.69%
Na 330.237†	12.9	0.2968	mg/L	0.06946	1.484	mg/L	0.3473	23.41%
Ni 231.604†	350.6	0.08256	mg/L	0.001491	0.4128	mg/L	0.00745	1.81%
Pb 220.353†	32048.1	3.929	mg/L	0.0342	19.65	mg/L	0.171	0.87%
Sb 206.836†	58.2	0.01649	mg/L	0.001137	0.08243	mg/L	0.005685	6.90%
Se 196.026†	15.2	0.01013	mg/L	0.004818	0.05064	mg/L	0.024088	47.57%
Si 288.158†	2356.2	1.109	mg/L	0.0248	5.543	mg/L	0.1240	2.24%
Sn 189.927†	-6.3	0.00290	mg/L	0.000615	0.01448	mg/L	0.003074	21.23%
Sr 421.552†	333143.3	0.3717	mg/L	0.01019	1.858	mg/L	0.0510	2.74%
Ti 334.903†	88332.0	4.159	mg/L	0.1121	20.80	mg/L	0.561	2.70%
Tl 190.801†	-8.4	0.00678	mg/L	0.002952	0.03390	mg/L	0.014759	43.53%
V 292.402†	24725.8	0.1873	mg/L	0.00118	0.9366	mg/L	0.00588	0.63%
Zn 206.200†	13224.6	3.304	mg/L	0.0793	16.52	mg/L	0.397	2.40%

Sequence No.: 46
Sample ID: VS18 L SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 336
Date Collected: 11/23/2012 12:32:30 PM
Data Type: Original

Nebulizer Parameters: VS18 L SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS18 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2641456.8	100.2	%	0.75				0.75%
ScR 361.383	332672.1	100.8	%	2.01				1.99%
Ag 328.068†	-706.5	-0.00385	mg/L	0.000063	-0.01926	mg/L	0.000317	1.64%
Al 308.215†	204928.6	119.5	mg/L	2.96	597.4	mg/L	14.79	2.48%
As 188.979†	-88.4	0.06168	mg/L	0.007313	0.3084	mg/L	0.03657	11.86%
B 249.677†	44.2	0.00538	mg/L	0.001032	0.02690	mg/L	0.005162	19.19%
Ba 233.527†	51645.5	10.79	mg/L	0.225	53.95	mg/L	1.124	2.08%
Be 313.042†	4194.0	0.00645	mg/L	0.000137	0.03223	mg/L	0.000684	2.12%
Ca 317.933†	769404.1	54.87	mg/L	1.371	274.3	mg/L	6.85	2.50%
Cd 228.802†	708.8	0.02260	mg/L	0.000471	0.1130	mg/L	0.00235	2.08%
Co 228.616†	4824.5	0.1152	mg/L	0.00142	0.5761	mg/L	0.00709	1.23%
Cr 267.716†	11393.1	1.760	mg/L	0.0294	8.798	mg/L	0.1468	1.67%
Cu 324.752†	56678.7	0.2208	mg/L	0.00055	1.104	mg/L	0.0027	0.25%
Fe 273.955†	235449.9	168.3	mg/L	4.44	841.5	mg/L	22.21	2.64%
K 766.490†	140061.5	71.48	mg/L	1.638	357.4	mg/L	8.19	2.29%
Mg 279.077†	206530.4	145.5	mg/L	3.63	727.5	mg/L	18.16	2.50%
Mn 257.610†	134502.3	3.499	mg/L	0.0899	17.50	mg/L	0.449	2.57%
Mo 202.031†	111.5	0.00462	mg/L	0.000167	0.02309	mg/L	0.000833	3.61%
Na 589.592†	15714.4	1.278	mg/L	0.0261	6.389	mg/L	0.1304	2.04%
Na 330.237†	4.2	0.6306	mg/L	0.66531	3.153	mg/L	3.3265	105.50%
Ni 231.604†	2882.4	0.6788	mg/L	0.01248	3.394	mg/L	0.0624	1.84%
Pb 220.353†	7956.6	0.9961	mg/L	0.00593	4.980	mg/L	0.0296	0.59%
Sb 206.836†	100.3	0.00626	mg/L	0.002314	0.03132	mg/L	0.011568	36.93%
Se 196.026†	12.1	0.00789	mg/L	0.002554	0.03943	mg/L	0.012772	32.39%
Si 288.158†	3379.7	1.601	mg/L	0.0434	8.006	mg/L	0.2172	2.71%
Sn 189.927†	-67.1	-0.00948	mg/L	0.001480	-0.04741	mg/L	0.007399	15.61%
Sr 421.552†	2096331.4	2.339	mg/L	0.0533	11.69	mg/L	0.267	2.28%
Ti 334.903†	85141.2	4.007	mg/L	0.0971	20.04	mg/L	0.486	2.42%
Tl 190.801†	-25.1	0.00566	mg/L	0.001002	0.02830	mg/L	0.005012	17.71%
V 292.402†	41728.4	0.3229	mg/L	0.00174	1.615	mg/L	0.0087	0.54%
Zn 206.200†	5142.5	1.285	mg/L	0.0223	6.423	mg/L	0.1117	1.74%

Sequence No.: 47
Sample ID: CV 5
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/23/2012 12:35:52 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2702965.1	102.5	%	0.04				0.03%
ScR 361.383	329917.4	99.96	%	0.215				0.22%
Ag 328.068†	185571.0	1.037	mg/L	0.0022	1.037	mg/L	0.0022	0.21%
Al 308.215†	3608.6	2.069	mg/L	0.0058	2.069	mg/L	0.0058	0.28%
As 188.979†	3813.9	2.064	mg/L	0.0073	2.064	mg/L	0.0073	0.35%
B 249.677†	7831.3	0.9978	mg/L	0.00656	0.9978	mg/L	0.00656	0.66%
Ba 233.527†	4924.6	1.031	mg/L	0.0062	1.031	mg/L	0.0062	0.60%
Be 313.042†	627393.8	0.9810	mg/L	0.00646	0.9810	mg/L	0.00646	0.66%
Ca 317.933†	28037.2	1.999	mg/L	0.0067	1.999	mg/L	0.0067	0.34%
Cd 228.802†	32073.0	1.040	mg/L	0.0006	1.040	mg/L	0.0006	0.06%
Co 228.616†	39331.6	1.026	mg/L	0.0004	1.026	mg/L	0.0004	0.04%
Cr 267.716†	6635.3	1.028	mg/L	0.0073	1.028	mg/L	0.0073	0.71%
Cu 324.752†	271445.1	1.031	mg/L	0.0014	1.031	mg/L	0.0014	0.14%
Fe 273.955†	2984.5	2.126	mg/L	0.0099	2.126	mg/L	0.0099	0.47%
K 766.490†	39645.5	20.23	mg/L	0.059	20.23	mg/L	0.059	0.29%
Mg 279.077†	2976.5	2.106	mg/L	0.0111	2.106	mg/L	0.0111	0.53%
Mn 257.610†	37960.8	0.9879	mg/L	0.00572	0.9879	mg/L	0.00572	0.58%
Mo 202.031†	21576.5	1.027	mg/L	0.0025	1.027	mg/L	0.0025	0.24%
Na 589.592†	622622.4	50.63	mg/L	0.287	50.63	mg/L	0.287	0.57%
Na 330.237†	1562.7	52.96	mg/L	0.438	52.96	mg/L	0.438	0.83%
Ni 231.604†	4313.3	1.016	mg/L	0.0084	1.016	mg/L	0.0084	0.83%
Pb 220.353†	17229.2	2.105	mg/L	0.0061	2.105	mg/L	0.0061	0.29%
Sb 206.836†	7288.0	2.104	mg/L	0.0079	2.104	mg/L	0.0079	0.38%
Se 196.026†	2998.7	2.020	mg/L	0.0086	2.020	mg/L	0.0086	0.42%
Si 288.158†	4564.5	2.138	mg/L	0.0143	2.138	mg/L	0.0143	0.67%
Sn 189.927†	4072.9	1.027	mg/L	0.0044	1.027	mg/L	0.0044	0.43%
Sr 421.552†	895309.7	0.9989	mg/L	0.00483	0.9989	mg/L	0.00483	0.48%
Ti 334.903†	21957.3	1.033	mg/L	0.0052	1.033	mg/L	0.0052	0.50%
Tl 190.801†	5186.3	2.028	mg/L	0.0038	2.028	mg/L	0.0038	0.19%
V 292.402†	133588.6	1.038	mg/L	0.0020	1.038	mg/L	0.0020	0.19%
Zn 206.200†	4245.6	1.060	mg/L	0.0071	1.060	mg/L	0.0071	0.67%

Sequence No.: 48
Sample ID: CB 5
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/23/2012 12:41:00 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2684221.4	101.8	%	0.18				0.18%
ScR 361.383	336612.4	102.0	%	0.65				0.64%
Ag 328.068†	3.6	0.00002	mg/L	0.000154	0.00002	mg/L	0.000154	760.38%
Al 308.215†	2.7	0.00155	mg/L	0.008688	0.00155	mg/L	0.008688	559.40%
As 188.979†	-0.1	0.00000	mg/L	0.001020	0.00000	mg/L	0.001020	>999.9%
B 249.677†	25.1	0.00320	mg/L	0.000629	0.00320	mg/L	0.000629	19.64%
Ba 233.527†	-1.9	-0.00039	mg/L	0.000391	-0.00039	mg/L	0.000391	99.79%
Be 313.042†	88.8	0.00014	mg/L	0.000033	0.00014	mg/L	0.000033	23.45%
Ca 317.933†	36.8	0.00262	mg/L	0.000575	0.00262	mg/L	0.000575	21.91%
Cd 228.802†	7.1	0.00023	mg/L	0.000010	0.00023	mg/L	0.000010	4.28%
Co 228.616†	9.2	0.00024	mg/L	0.000092	0.00024	mg/L	0.000092	38.77%
Cr 267.716†	-1.8	-0.00028	mg/L	0.000722	-0.00028	mg/L	0.000722	255.48%
Cu 324.752†	3.0	0.00001	mg/L	0.000058	0.00001	mg/L	0.000058	512.16%
Fe 273.955†	14.6	0.01045	mg/L	0.000848	0.01045	mg/L	0.000848	8.12%
K 766.490†	3.5	0.00180	mg/L	0.006481	0.00180	mg/L	0.006481	359.87%
Mg 279.077†	8.3	0.00584	mg/L	0.002791	0.00584	mg/L	0.002791	47.80%
Mn 257.610†	20.6	0.00054	mg/L	0.000081	0.00054	mg/L	0.000081	15.11%
Mo 202.031†	23.1	0.00110	mg/L	0.000086	0.00110	mg/L	0.000086	7.87%
Na 589.592†	149.9	0.01219	mg/L	0.000749	0.01219	mg/L	0.000749	6.15%
Na 330.237†	6.7	0.2284	mg/L	0.47985	0.2284	mg/L	0.47985	210.12%
Ni 231.604†	-1.8	-0.00043	mg/L	0.001567	-0.00043	mg/L	0.001567	367.75%
Pb 220.353†	4.6	0.00056	mg/L	0.001113	0.00056	mg/L	0.001113	198.80%
Sb 206.836†	3.3	0.00095	mg/L	0.001329	0.00095	mg/L	0.001329	140.09%
Se 196.026†	-5.2	-0.00350	mg/L	0.002530	-0.00350	mg/L	0.002530	72.36%
Si 288.158†	1.5	0.00072	mg/L	0.001879	0.00072	mg/L	0.001879	260.33%
Sn 189.927†	-1.6	-0.00040	mg/L	0.000840	-0.00040	mg/L	0.000840	212.11%
Sr 421.552†	216.1	0.00024	mg/L	0.000023	0.00024	mg/L	0.000023	9.66%
Ti 334.903†	29.6	0.00139	mg/L	0.000611	0.00139	mg/L	0.000611	43.89%
Tl 190.801†	7.0	0.00273	mg/L	0.002008	0.00273	mg/L	0.002008	73.45%
V 292.402†	53.5	0.00041	mg/L	0.000018	0.00041	mg/L	0.000018	4.31%
Zn 206.200†	1.4	0.00034	mg/L	0.000410	0.00034	mg/L	0.000410	120.00%

Sequence No.: 49
Sample ID: CB
Analyst: BA
Dilution: 1.000000X
User canceled analysis.

Autosampler Location: 1
Date Collected: 11/23/2012 12:45:15 PM
Data Type: Original

BA 11/23/12

Analysis Begun

Start Time: 11/23/2012 12:46:16 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 11/23/2012 7:30:40 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1123.sif
Batch ID:
Results Data Set: I2121123
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 50
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 11/23/2012 12:46:16 PM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2698536.7	102.3	%	0.24				0.23%
ScR 361.383	336619.5	102.0	%	1.84				1.80%
Ag 328.068†	543.3	0.00304	mg/L	0.000144	0.00304	mg/L	0.000144	4.75%
Al 308.215†	79.6	0.04628	mg/L	0.006749	0.04628	mg/L	0.006749	14.58%
As 188.979†	95.5	0.05114	mg/L	0.001168	0.05114	mg/L	0.001168	2.28%
B 249.677†	170.7	0.02176	mg/L	0.001026	0.02176	mg/L	0.001026	4.72%
Ba 233.527†	14.5	0.00302	mg/L	0.000322	0.00302	mg/L	0.000322	10.67%
Be 313.042†	661.0	0.00103	mg/L	0.000073	0.00103	mg/L	0.000073	7.04%
Ca 317.933†	683.4	0.04873	mg/L	0.000502	0.04873	mg/L	0.000502	1.03%
Cd 228.802†	73.8	0.00209	mg/L	0.000061	0.00209	mg/L	0.000061	2.91%
Co 228.616†	144.3	0.00376	mg/L	0.000184	0.00376	mg/L	0.000184	4.89%
Cr 267.716†	29.4	0.00456	mg/L	0.001053	0.00456	mg/L	0.001053	23.12%
Cu 324.752†	513.3	0.00195	mg/L	0.000072	0.00195	mg/L	0.000072	3.71%
Fe 273.955†	78.4	0.05603	mg/L	0.000177	0.05603	mg/L	0.000177	0.32%
K 766.490†	1017.6	0.5193	mg/L	0.02985	0.5193	mg/L	0.02985	5.75%
Mg 279.077†	67.5	0.04759	mg/L	0.002531	0.04759	mg/L	0.002531	5.32%
Mn 257.610†	50.0	0.00131	mg/L	0.000091	0.00131	mg/L	0.000091	6.97%
Mo 202.031†	110.7	0.00527	mg/L	0.000214	0.00527	mg/L	0.000214	4.07%
Na 589.592†	6020.1	0.4895	mg/L	0.01321	0.4895	mg/L	0.01321	2.70%
Na 330.237†	18.9	0.6409	mg/L	0.04371	0.6409	mg/L	0.04371	6.82%
Ni 231.604†	43.6	0.01028	mg/L	0.000226	0.01028	mg/L	0.000226	2.19%
Pb 220.353†	176.0	0.02151	mg/L	0.000906	0.02151	mg/L	0.000906	4.21%
Sb 206.836†	175.0	0.05059	mg/L	0.000515	0.05059	mg/L	0.000515	1.02%
Se 196.026†	69.4	0.04680	mg/L	0.000895	0.04680	mg/L	0.000895	1.91%
Si 288.158†	136.3	0.06382	mg/L	0.003193	0.06382	mg/L	0.003193	5.00%
Sn 189.927†	40.3	0.01018	mg/L	0.000451	0.01018	mg/L	0.000451	4.43%
Sr 421.552†	983.5	0.00110	mg/L	0.000076	0.00110	mg/L	0.000076	6.94%
Ti 334.903†	94.3	0.00443	mg/L	0.000372	0.00443	mg/L	0.000372	8.40%
Tl 190.801†	128.6	0.05048	mg/L	0.000420	0.05048	mg/L	0.000420	0.83%
V 292.402†	424.1	0.00330	mg/L	0.000178	0.00330	mg/L	0.000178	5.39%
Zn 206.200†	41.4	0.01035	mg/L	0.000991	0.01035	mg/L	0.000991	9.57%

Sequence No.: 51
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 11/23/2012 12:50:33 PM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2643308.9	100.2	%	0.33				0.33%
ScR 361.383	331803.7	100.5	%	2.08				2.07%
Ag 328.068†	-216.4	-0.00121	mg/L	0.000057	-0.00121	mg/L	0.000057	4.77%
Al 308.215†	342990.9	200.0	mg/L	5.06	200.0	mg/L	5.06	2.53%
As 188.979†	42.3	0.01698	mg/L	0.000427	0.01698	mg/L	0.000427	2.52%
B 249.677†	-16.0	-0.00204	mg/L	0.001898	-0.00204	mg/L	0.001898	93.22%
Ba 233.527†	138.6	-0.00307	mg/L	0.001586	-0.00307	mg/L	0.001586	51.71%
Be 313.042†	76.8	0.00012	mg/L	0.000018	0.00012	mg/L	0.000018	15.67%
Ca 317.933†	1402250.4	99.99	mg/L	2.533	99.99	mg/L	2.533	2.53%
Cd 228.802†	61.5	0.00000	mg/L	0.000245	0.00000	mg/L	0.000245	>999.9%
Co 228.616†	78.8	-0.00051	mg/L	0.000078	-0.00051	mg/L	0.000078	15.33%
Cr 267.716†	15.6	0.00015	mg/L	0.000608	0.00015	mg/L	0.000608	410.46%
Cu 324.752†	-2074.6	-0.00010	mg/L	0.000175	-0.00010	mg/L	0.000175	175.68%
Fe 273.955†	274265.7	196.0	mg/L	4.86	196.0	mg/L	4.86	2.48%
K 766.490†	12.9	0.00656	mg/L	0.009959	0.00656	mg/L	0.009959	151.71%
Mg 279.077†	148708.3	104.7	mg/L	2.79	104.7	mg/L	2.79	2.66%
Mn 257.610†	36.5	0.00091	mg/L	0.000127	0.00091	mg/L	0.000127	13.96%
Mo 202.031†	46.8	0.00115	mg/L	0.000264	0.00115	mg/L	0.000264	23.02%
Na 589.592†	237.7	0.01933	mg/L	0.002152	0.01933	mg/L	0.002152	11.13%
Na 330.237†	-2.4	-0.08207	mg/L	0.359239	-0.08207	mg/L	0.359239	437.74%
Ni 231.604†	-2.3	-0.00053	mg/L	0.000519	-0.00053	mg/L	0.000519	98.16%
Pb 220.353†	-333.0	-0.00085	mg/L	0.001420	-0.00085	mg/L	0.001420	166.79%
Sb 206.836†	29.1	0.00823	mg/L	0.002871	0.00823	mg/L	0.002871	34.89%
Se 196.026†	13.3	0.00898	mg/L	0.011567	0.00898	mg/L	0.011567	128.86%
Si 288.158†	-34.1	-0.00328	mg/L	0.003874	-0.00328	mg/L	0.003874	118.19%
Sn 189.927†	-81.1	-0.00804	mg/L	0.001719	-0.00804	mg/L	0.001719	21.39%
Sr 421.552†	3634.9	0.00406	mg/L	0.000106	0.00406	mg/L	0.000106	2.61%
Ti 334.903†	153.1	0.00244	mg/L	0.000413	0.00244	mg/L	0.000413	16.95%
Tl 190.801†	-47.1	0.00242	mg/L	0.002502	0.00242	mg/L	0.002502	103.20%
V 292.402†	1436.0	0.00427	mg/L	0.000270	0.00427	mg/L	0.000270	6.33%
Zn 206.200†	12.9	0.00322	mg/L	0.001313	0.00322	mg/L	0.001313	40.82%

Cont.

Sequence No.: 52
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 11/23/2012 12:54:34 PM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2642296.9	100.2	%	0.39				0.39%
ScR 361.383	327928.8	99.36	%	3.474				3.50%
Ag 328.068†	189126.7	1.056	mg/L	0.0047	1.056	mg/L	0.0047	0.45%
Al 308.215†	350679.8	204.5	mg/L	9.93	204.5	mg/L	9.93	4.86%
As 188.979†	1950.1	1.036	mg/L	0.0053	1.036	mg/L	0.0053	0.51%
B 249.677†	0.5	-0.00197	mg/L	0.000510	-0.00197	mg/L	0.000510	25.97%
Ba 233.527†	5067.6	1.028	mg/L	0.0401	1.028	mg/L	0.0401	3.90%
Be 313.042†	648331.4	1.014	mg/L	0.0509	1.014	mg/L	0.0509	5.02%
Ca 317.933†	1453202.6	103.6	mg/L	5.07	103.6	mg/L	5.07	4.89%
Cd 228.802†	31948.9	1.041	mg/L	0.0040	1.041	mg/L	0.0040	0.38%
Co 228.616†	37837.8	0.9858	mg/L	0.00443	0.9858	mg/L	0.00443	0.45%
Cr 267.716†	6681.2	1.034	mg/L	0.0380	1.034	mg/L	0.0380	3.67%
Cu 324.752†	277558.0	1.063	mg/L	0.0041	1.063	mg/L	0.0041	0.39%
Fe 273.955†	283712.0	202.8	mg/L	9.93	202.8	mg/L	9.93	4.90%
K 766.490†	-43.9	-0.02238	mg/L	0.010328	-0.02238	mg/L	0.010328	46.15%
Mg 279.077†	146476.5	103.2	mg/L	4.93	103.2	mg/L	4.93	4.78%
Mn 257.610†	37977.8	0.9881	mg/L	0.04779	0.9881	mg/L	0.04779	4.84%
Mo 202.031†	58.0	0.00159	mg/L	0.000262	0.00159	mg/L	0.000262	16.50%
Na 589.592†	404.7	0.03291	mg/L	0.000829	0.03291	mg/L	0.000829	2.52%
Na 330.237†	6.8	-0.09756	mg/L	0.386028	-0.09756	mg/L	0.386028	395.68%
Ni 231.604†	4228.5	0.9959	mg/L	0.03882	0.9959	mg/L	0.03882	3.90%
Pb 220.353†	7941.3	1.011	mg/L	0.0047	1.011	mg/L	0.0047	0.46%
Sb 206.836†	3571.8	1.021	mg/L	0.0030	1.021	mg/L	0.0030	0.29%
Se 196.026†	1515.9	1.021	mg/L	0.0036	1.021	mg/L	0.0036	0.36%
Si 288.158†	-35.3	-0.00027	mg/L	0.003343	-0.00027	mg/L	0.003343	>999.9%
Sn 189.927†	-86.5	-0.00847	mg/L	0.001327	-0.00847	mg/L	0.001327	15.67%
Sr 421.552†	3740.6	0.00417	mg/L Conf.	0.000216	0.00417	mg/L	0.000216	5.19%
Ti 334.903†	146.0	0.00172	mg/L	0.000213	0.00172	mg/L	0.000213	12.35%
Tl 190.801†	2403.4	0.9559	mg/L	0.00614	0.9559	mg/L	0.00614	0.64%
V 292.402†	131457.2	1.015	mg/L	0.0041	1.015	mg/L	0.0041	0.41%
Zn 206.200†	3992.0	0.9972	mg/L	0.03862	0.9972	mg/L	0.03862	3.87%

Sequence No.: 53
Sample ID: CV6
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/23/2012 12:58:37 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2716384.0	103.0	%	0.22				0.21%
ScR 361.383	336616.6	102.0	%	2.29				2.25%
Ag 328.068†	184702.1	1.032	mg/L	0.0050	1.032	mg/L	0.0050	0.49%
Al 308.215†	3558.4	2.040	mg/L	0.0502	2.040	mg/L	0.0502	2.46%
As 188.979†	3809.2	2.061	mg/L	0.0059	2.061	mg/L	0.0059	0.29%
B 249.677†	7666.2	0.9767	mg/L	0.01899	0.9767	mg/L	0.01899	1.94%
Ba 233.527†	4859.0	1.017	mg/L	0.0254	1.017	mg/L	0.0254	2.50%
Be 313.042†	623724.5	0.9752	mg/L	0.03059	0.9752	mg/L	0.03059	3.14%
Ca 317.933†	29285.2	2.088	mg/L	0.0500	2.088	mg/L	0.0500	2.40%
Cd 228.802†	31920.0	1.035	mg/L	0.0051	1.035	mg/L	0.0051	0.49%
Co 228.616†	39107.5	1.020	mg/L	0.0049	1.020	mg/L	0.0049	0.48%
Cr 267.716†	6502.9	1.008	mg/L	0.0263	1.008	mg/L	0.0263	2.61%
Cu 324.752†	270001.0	1.025	mg/L	0.0036	1.025	mg/L	0.0036	0.35%
Fe 273.955†	2945.2	2.098	mg/L	0.0499	2.098	mg/L	0.0499	2.38%
K 766.490†	39299.9	20.06	mg/L	0.603	20.06	mg/L	0.603	3.01%
Mg 279.077†	2913.9	2.061	mg/L	0.0405	2.061	mg/L	0.0405	1.97%
Mn 257.610†	38692.2	1.007	mg/L	0.0240	1.007	mg/L	0.0240	2.38%
Mo 202.031†	21471.1	1.022	mg/L	0.0037	1.022	mg/L	0.0037	0.36%
Na 589.592†	617466.2	50.21	mg/L	1.579	50.21	mg/L	1.579	3.14%
Na 330.237†	1527.7	51.77	mg/L	0.819	51.77	mg/L	0.819	1.58%
Ni 231.604†	4264.4	1.004	mg/L	0.0270	1.004	mg/L	0.0270	2.69%
Pb 220.353†	17167.9	2.097	mg/L	0.0034	2.097	mg/L	0.0034	0.16%
Sb 206.836†	7277.6	2.102	mg/L	0.0088	2.102	mg/L	0.0088	0.42%
Se 196.026†	2994.4	2.018	mg/L	0.0037	2.018	mg/L	0.0037	0.18%
Si 288.158†	4454.6	2.087	mg/L	0.0482	2.087	mg/L	0.0482	2.31%
Sn 189.927†	4053.1	1.022	mg/L	0.0032	1.022	mg/L	0.0032	0.32%
Sr 421.552†	888355.3	0.9911	mg/L	0.03141	0.9911	mg/L	0.03141	3.17%
Ti 334.903†	21736.3	1.023	mg/L	0.0310	1.023	mg/L	0.0310	3.03%
Tl 190.801†	5171.2	2.022	mg/L	0.0042	2.022	mg/L	0.0042	0.21%
V 292.402†	132821.2	1.032	mg/L	0.0048	1.032	mg/L	0.0048	0.47%
Zn 206.200†	4188.8	1.046	mg/L	0.0283	1.046	mg/L	0.0283	2.71%

Sequence No.: 54
Sample ID: CB 6
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/23/2012 1:02:58 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2684975.5	101.8	%	0.30				0.29%
ScR 361.383	340850.0	103.3	%	1.09				1.06%
Ag 328.068†	6.6	0.00004	mg/L	0.000164	0.00004	mg/L	0.000164	447.88%
Al 308.215†	17.0	0.00987	mg/L	0.007012	0.00987	mg/L	0.007012	71.03%
As 188.979†	2.9	0.00160	mg/L	0.000573	0.00160	mg/L	0.000573	35.93%
B 249.677†	26.9	0.00342	mg/L	0.000682	0.00342	mg/L	0.000682	19.92%
Ba 233.527†	1.2	0.00025	mg/L	0.000621	0.00025	mg/L	0.000621	245.24%
Be 313.042†	105.1	0.00016	mg/L	0.000027	0.00016	mg/L	0.000027	16.71%
Ca 317.933†	83.8	0.00597	mg/L	0.001323	0.00597	mg/L	0.001323	22.16%
Cd 228.802†	7.5	0.00024	mg/L	0.000022	0.00024	mg/L	0.000022	9.33%
Co 228.616†	14.9	0.00039	mg/L	0.000102	0.00039	mg/L	0.000102	26.31%
Cr 267.716†	-0.7	-0.00011	mg/L	0.000580	-0.00011	mg/L	0.000580	536.72%
Cu 324.752†	36.1	0.00014	mg/L	0.000063	0.00014	mg/L	0.000063	46.28%
Fe 273.955†	16.5	0.01182	mg/L	0.000998	0.01182	mg/L	0.000998	8.44%
K 766.490†	33.6	0.01715	mg/L	0.019392	0.01715	mg/L	0.019392	113.05%
Mg 279.077†	2.6	0.00186	mg/L	0.010438	0.00186	mg/L	0.010438	560.96%
Mn 257.610†	3.1	0.00008	mg/L	0.000107	0.00008	mg/L	0.000107	132.64%
Mo 202.031†	13.8	0.00066	mg/L	0.000292	0.00066	mg/L	0.000292	44.45%
Na 589.592†	125.7	0.01022	mg/L	0.002631	0.01022	mg/L	0.002631	25.75%
Na 330.237†	5.0	0.1710	mg/L	0.62597	0.1710	mg/L	0.62597	365.98%
Ni 231.604†	1.6	0.00039	mg/L	0.001205	0.00039	mg/L	0.001205	310.85%
Pb 220.353†	7.1	0.00087	mg/L	0.000570	0.00087	mg/L	0.000570	65.34%
Sb 206.836†	0.6	0.00019	mg/L	0.002129	0.00019	mg/L	0.002129	>999.9%
Se 196.026†	0.9	0.00057	mg/L	0.002838	0.00057	mg/L	0.002838	494.23%
Si 288.158†	-4.5	-0.00209	mg/L	0.003135	-0.00209	mg/L	0.003135	150.27%
Sn 189.927†	-0.1	-0.00002	mg/L	0.000053	-0.00002	mg/L	0.000053	249.65%
Sr 421.552†	114.5	0.00013	mg/L	0.000024	0.00013	mg/L	0.000024	19.02%
Ti 334.903†	27.5	0.00129	mg/L	0.000697	0.00129	mg/L	0.000697	53.83%
Tl 190.801†	4.4	0.00171	mg/L	0.001472	0.00171	mg/L	0.001472	86.09%
V 292.402†	26.9	0.00021	mg/L	0.000100	0.00021	mg/L	0.000100	48.46%
Zn 206.200†	-0.6	-0.00015	mg/L	0.000781	-0.00015	mg/L	0.000781	536.51%

Sequence No.: 55
Sample ID: VS19 MB1 SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 337
Date Collected: 11/23/2012 1:07:13 PM
Data Type: Original

Nebulizer Parameters: VS19 MB1 SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS19 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2728240.6	103.4	%	0.52				0.51%
ScR 361.383	342706.6	103.8	%	1.11				1.07%
Ag 328.068†	2.0	0.00001	mg/L	0.000092	0.00002	mg/L	0.000183	834.74%
Al 308.215†	41.0	0.02390	mg/L	0.010550	0.04780	mg/L	0.021101	44.14%
As 188.979†	-0.1	-0.00001	mg/L	0.001859	-0.00003	mg/L	0.003718	>999.9%
B 249.677†	16.5	0.00210	mg/L	0.000302	0.00420	mg/L	0.000605	14.39%
Ba 233.527†	-0.9	-0.00018	mg/L	0.000789	-0.00037	mg/L	0.001579	428.20%
Be 313.042†	51.2	0.00008	mg/L	0.000062	0.00016	mg/L	0.000124	77.23%
Ca 317.933†	405.6	0.02892	mg/L	0.001739	0.05784	mg/L	0.003477	6.01%
Cd 228.802†	5.9	0.00019	mg/L	0.000142	0.00038	mg/L	0.000283	73.59%
Co 228.616†	7.6	0.00020	mg/L	0.000096	0.00039	mg/L	0.000192	48.92%
Cr 267.716†	3.0	0.00047	mg/L	0.000939	0.00094	mg/L	0.001879	199.13%
Cu 324.752†	20.6	0.00008	mg/L	0.000071	0.00016	mg/L	0.000143	91.11%
Fe 273.955†	21.1	0.01508	mg/L	0.000417	0.03015	mg/L	0.000833	2.76%
K 766.490†	-1.0	-0.00050	mg/L	0.011000	-0.00101	mg/L	0.022001	>999.9%
Mg 279.077†	14.0	0.00986	mg/L	0.000805	0.01972	mg/L	0.001610	8.17%
Mn 257.610†	8.0	0.00021	mg/L	0.000117	0.00042	mg/L	0.000234	56.03%
Mo 202.031†	5.3	0.00025	mg/L	0.000304	0.00050	mg/L	0.000609	120.60%
Na 589.592†	172.5	0.01402	mg/L	0.001313	0.02805	mg/L	0.002626	9.36%
Na 330.237†	-5.4	-0.1841	mg/L	0.20404	-0.3683	mg/L	0.40808	110.82%
Ni 231.604†	0.0	0.00001	mg/L	0.000479	0.00002	mg/L	0.000957	>999.9%
Pb 220.353†	0.7	0.00009	mg/L	0.000391	0.00017	mg/L	0.000783	452.58%
Sb 206.836†	-2.2	-0.00064	mg/L	0.000530	-0.00127	mg/L	0.001060	83.36%
Se 196.026†	-0.6	-0.00039	mg/L	0.001102	-0.00078	mg/L	0.002205	282.73%
Si 288.158†	0.2	0.00008	mg/L	0.002248	0.00016	mg/L	0.004496	>999.9%
Sn 189.927†	1.6	0.00041	mg/L	0.000058	0.00082	mg/L	0.000117	14.29%
Sr 421.552†	119.1	0.00013	mg/L	0.000035	0.00027	mg/L	0.000069	26.04%
Ti 334.903†	34.3	0.00161	mg/L	0.000973	0.00323	mg/L	0.001947	60.31%
Tl 190.801†	3.2	0.00124	mg/L	0.001794	0.00248	mg/L	0.003589	144.82%
V 292.402†	14.5	0.00011	mg/L	0.000173	0.00023	mg/L	0.000346	153.41%
Zn 206.200†	24.3	0.00607	mg/L	0.000582	0.01215	mg/L	0.001165	9.59%

Sequence No.: 56
Sample ID: VS19 B SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 338
Date Collected: 11/23/2012 1:11:30 PM
Data Type: Original

Nebulizer Parameters: VS19 B SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VS19 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2695125.6	102.2	%	0.25				0.24%
ScR 361.383	340356.5	103.1	%	0.92				0.89%
Ag 328.068†	197.4	0.00112	mg/L	0.000403	0.00562	mg/L	0.002013	35.81%
Al 308.215†	103971.8	60.62	mg/L	0.741	303.1	mg/L	3.71	1.22%
As 188.979†	-12.5	0.06575	mg/L	0.002741	0.3287	mg/L	0.01370	4.17%
B 249.677†	115.9	0.01473	mg/L	0.000951	0.07365	mg/L	0.004757	6.46%
Ba 233.527†	2266.4	0.4657	mg/L	0.00333	2.328	mg/L	0.0167	0.72%
Be 313.042†	1180.3	0.00180	mg/L	0.000031	0.00900	mg/L	0.000154	1.71%
Ca 317.933†	559562.6	39.90	mg/L	0.480	199.5	mg/L	2.40	1.20%
Cd 228.802†	821.6	0.02655	mg/L	0.000134	0.1328	mg/L	0.00067	0.51%
Co 228.616†	1180.3	0.02502	mg/L	0.000347	0.1251	mg/L	0.00174	1.39%
Cr 267.716†	463.4	0.07248	mg/L	0.000419	0.3624	mg/L	0.00210	0.58%
Cu 324.752†	22578.8	0.08759	mg/L	0.000674	0.4379	mg/L	0.00337	0.77%
Fe 273.955†	76916.0	54.98	mg/L	0.638	274.9	mg/L	3.19	1.16%
K 766.490†	8778.9	4.480	mg/L	0.0668	22.40	mg/L	0.334	1.49%
Mg 279.077†	15741.3	11.07	mg/L	0.130	55.34	mg/L	0.650	1.18%
Mn 257.610†	49873.5	1.298	mg/L	0.0134	6.488	mg/L	0.0671	1.03%
Mo 202.031†	159.6	0.00716	mg/L	0.000166	0.03579	mg/L	0.000831	2.32%
Na 589.592†	16265.1	1.323	mg/L	0.0175	6.613	mg/L	0.0875	1.32%
Na 330.237†	32.7	1.167	mg/L	0.2474	5.834	mg/L	1.2372	21.20%
Ni 231.604†	292.1	0.06879	mg/L	0.001106	0.3440	mg/L	0.00553	1.61%
Pb 220.353†	13382.5	1.646	mg/L	0.0164	8.231	mg/L	0.0820	1.00%
Sb 206.836†	45.2	0.01341	mg/L	0.002728	0.06705	mg/L	0.013641	20.34%
Se 196.026†	1.7	0.00110	mg/L	0.000406	0.00548	mg/L	0.002031	37.06%
Si 288.158†	2658.9	1.247	mg/L	0.0051	6.237	mg/L	0.0257	0.41%
Sn 189.927†	-19.4	0.00048	mg/L	0.000557	0.00242	mg/L	0.002786	115.12%
Sr 421.552†	411328.1	0.4589	mg/L	0.00533	2.295	mg/L	0.0267	1.16%
Ti 334.903†	55517.3	2.613	mg/L	0.0285	13.06	mg/L	0.143	1.09%
Tl 190.801†	0.5	0.00562	mg/L	0.002219	0.02809	mg/L	0.011097	39.51%
V 292.402†	9906.1	0.07378	mg/L	0.000488	0.3689	mg/L	0.00244	0.66%
Zn 206.200†	6537.7	1.633	mg/L	0.0156	8.166	mg/L	0.0778	0.95%

Sequence No.: 57
Sample ID: VS19 C SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 339
Date Collected: 11/23/2012 1:15:31 PM
Data Type: Original

Nebulizer Parameters: VS19 C SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS19 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2730302.7	103.5	%	0.40				0.39%
ScR 361.383	350591.7	106.2	%	1.52				1.43%
Ag 328.068†	243.4	0.00138	mg/L	0.000284	0.00692	mg/L	0.001422	20.54%
Al 308.215†	124542.6	72.62	mg/L	1.045	363.1	mg/L	5.23	1.44%
As 188.979†	64.5	0.1051	mg/L	0.00337	0.5253	mg/L	0.01687	3.21%
B 249.677†	165.9	0.02108	mg/L	0.001444	0.1054	mg/L	0.00722	6.85%
Ba 233.527†	8448.1	1.758	mg/L	0.0190	8.792	mg/L	0.0951	1.08%
Be 313.042†	1322.3	0.00202	mg/L	0.000045	0.01010	mg/L	0.000227	2.25%
Ca 317.933†	485261.5	34.60	mg/L	0.468	173.0	mg/L	2.34	1.35%
Cd 228.802†	1623.4	0.05249	mg/L	0.000718	0.2624	mg/L	0.00359	1.37%
Co 228.616†	1415.2	0.03104	mg/L	0.000344	0.1552	mg/L	0.00172	1.11%
Cr 267.716†	522.5	0.08128	mg/L	0.002356	0.4064	mg/L	0.01178	2.90%
Cu 324.752†	26616.4	0.1035	mg/L	0.00203	0.5174	mg/L	0.01014	1.96%
Fe 273.955†	94786.3	67.75	mg/L	1.160	338.8	mg/L	5.80	1.71%
K 766.490†	11673.5	5.957	mg/L	0.1148	29.79	mg/L	0.574	1.93%
Mg 279.077†	22208.3	15.62	mg/L	0.200	78.10	mg/L	1.000	1.28%
Mn 257.610†	262205.6	6.821	mg/L	0.1092	34.10	mg/L	0.546	1.60%
Mo 202.031†	114.1	0.00505	mg/L	0.000352	0.02525	mg/L	0.001760	6.97%
Na 589.592†	9710.5	0.7896	mg/L	0.01297	3.948	mg/L	0.0649	1.64%
Na 330.237†	33.3	0.8348	mg/L	0.20850	4.174	mg/L	1.0425	24.98%
Ni 231.604†	349.5	0.08232	mg/L	0.000845	0.4116	mg/L	0.00422	1.03%
Pb 220.353†	14877.3	1.831	mg/L	0.0338	9.156	mg/L	0.1689	1.84%
Sb 206.836†	63.4	0.01854	mg/L	0.002426	0.09270	mg/L	0.012132	13.09%
Se 196.026†	10.2	0.00678	mg/L	0.002389	0.03392	mg/L	0.011945	35.22%
Si 288.158†	1361.9	0.6402	mg/L	0.01160	3.201	mg/L	0.0580	1.81%
Sn 189.927†	-20.1	-0.00035	mg/L	0.001581	-0.00175	mg/L	0.007904	451.53%
Sr 421.552†	406934.8	0.4540	mg/L	0.00683	2.270	mg/L	0.0341	1.50%
Ti 334.903†	53913.4	2.538	mg/L	0.0372	12.69	mg/L	0.186	1.46%
Tl 190.801†	-4.1	0.00509	mg/L	0.002111	0.02545	mg/L	0.010557	41.49%
V 292.402†	11296.9	0.08502	mg/L	0.001636	0.4251	mg/L	0.00818	1.92%
Zn 206.200†	10637.8	2.657	mg/L	0.0296	13.29	mg/L	0.148	1.11%

Sequence No.: 58
Sample ID: VS19 D SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 340
Date Collected: 11/23/2012 1:19:32 PM
Data Type: Original

Nebulizer Parameters: VS19 D SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS19 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2715886.6	103.0	%	0.38				0.37%
ScR 361.383	346327.8	104.9	%	0.69				0.66%
Ag 328.068†	129.6	0.00076	mg/L	0.000131	0.00380	mg/L	0.000653	17.18%
Al 308.215†	105239.2	61.36	mg/L	0.739	306.8	mg/L	3.69	1.20%
As 188.979†	-34.6	0.05284	mg/L	0.003284	0.2642	mg/L	0.01642	6.22%
B 249.677†	121.6	0.01542	mg/L	0.000462	0.07711	mg/L	0.002310	3.00%
Ba 233.527†	7087.7	1.472	mg/L	0.0091	7.358	mg/L	0.0454	0.62%
Be 313.042†	1206.5	0.00183	mg/L	0.000048	0.00915	mg/L	0.000242	2.64%
Ca 317.933†	667678.5	47.61	mg/L	0.493	238.1	mg/L	2.47	1.04%
Cd 228.802†	1881.1	0.06120	mg/L	0.000526	0.3060	mg/L	0.00263	0.86%
Co 228.616†	1592.0	0.03543	mg/L	0.000176	0.1771	mg/L	0.00088	0.50%
Cr 267.716†	645.5	0.1003	mg/L	0.00049	0.5013	mg/L	0.00244	0.49%
Cu 324.752†	27338.6	0.1066	mg/L	0.00047	0.5332	mg/L	0.00235	0.44%
Fe 273.955†	110394.4	78.91	mg/L	0.840	394.5	mg/L	4.20	1.06%
K 766.490†	15844.7	8.086	mg/L	0.0717	40.43	mg/L	0.359	0.89%
Mg 279.077†	32241.8	22.69	mg/L	0.210	113.4	mg/L	1.05	0.92%
Mn 257.610†	177015.0	4.605	mg/L	0.0504	23.03	mg/L	0.252	1.09%
Mo 202.031†	92.5	0.00388	mg/L	0.000309	0.01941	mg/L	0.001545	7.96%
Na 589.592†	14346.5	1.167	mg/L	0.0170	5.833	mg/L	0.0849	1.46%
Na 330.237†	42.1	1.337	mg/L	0.0402	6.683	mg/L	0.2010	3.01%
Ni 231.604†	390.5	0.09198	mg/L	0.000660	0.4599	mg/L	0.00330	0.72%
Pb 220.353†	19296.6	2.368	mg/L	0.0162	11.84	mg/L	0.081	0.68%
Sb 206.836†	49.5	0.01443	mg/L	0.002638	0.07213	mg/L	0.013188	18.28%
Se 196.026†	-0.3	-0.00031	mg/L	0.001763	-0.00153	mg/L	0.008816	577.50%
Si 288.158†	1433.1	0.6745	mg/L	0.00791	3.372	mg/L	0.0395	1.17%
Sn 189.927†	-22.2	0.00076	mg/L	0.000783	0.00378	mg/L	0.003914	103.55%
Sr 421.552†	307270.9	0.3428	mg/L	0.00384	1.714	mg/L	0.0192	1.12%
Ti 334.903†	55054.8	2.591	mg/L	0.0305	12.95	mg/L	0.153	1.18%
Tl 190.801†	-12.2	0.00295	mg/L	0.002087	0.01475	mg/L	0.010434	70.77%
V 292.402†	16458.3	0.1243	mg/L	0.00089	0.6214	mg/L	0.00443	0.71%
Zn 206.200†	8316.4	2.078	mg/L	0.0205	10.39	mg/L	0.102	0.99%

Sequence No.: 59
Sample ID: VS19 A-L SWC
Analyst: BA
Dilution: 25.000000X

Autosampler Location: 341
Date Collected: 11/23/2012 1:23:33 PM
Data Type: Original

Nebulizer Parameters: VS19 A-L SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS19 A-L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2717129.6	103.0	%	0.25				0.24%
ScR 361.383	348830.1	105.7	%	2.09				1.98%
Ag 328.068†	-55.5	-0.00029	mg/L	0.000138	-0.00725	mg/L	0.003451	47.60%
Al 308.215†	45251.4	26.38	mg/L	0.432	659.6	mg/L	10.79	1.64%
As 188.979†	-68.6	0.00736	mg/L	0.001252	0.1840	mg/L	0.03129	17.01%
B 249.677†	21.5	0.00270	mg/L	0.000883	0.06757	mg/L	0.022067	32.66%
Ba 233.527†	2654.4	0.5509	mg/L	0.01115	13.77	mg/L	0.279	2.02%
Be 313.042†	485.5	0.00073	mg/L	0.000031	0.01817	mg/L	0.000765	4.21%
Ca 317.933†	66112.3	4.714	mg/L	0.0864	117.9	mg/L	2.16	1.83%
Cd 228.802†	125.7	0.00410	mg/L	0.000108	0.1025	mg/L	0.00270	2.63%
Co 228.616†	693.4	0.01467	mg/L	0.000222	0.3667	mg/L	0.00555	1.51%
Cr 267.716†	540.5	0.08365	mg/L	0.001875	2.091	mg/L	0.0469	2.24%
Cu 324.752†	8469.0	0.03311	mg/L	0.000466	0.8278	mg/L	0.01164	1.41%
Fe 273.955†	43274.7	30.93	mg/L	0.473	773.3	mg/L	11.83	1.53%
K 766.490†	9827.7	5.015	mg/L	0.0993	125.4	mg/L	2.48	1.98%
Mg 279.077†	19584.5	13.79	mg/L	0.225	344.7	mg/L	5.63	1.63%
Mn 257.610†	44452.3	1.156	mg/L	0.0187	28.91	mg/L	0.469	1.62%
Mo 202.031†	12.5	0.00054	mg/L	0.000088	0.01350	mg/L	0.002194	16.24%
Na 589.592†	1720.8	0.1399	mg/L	0.00267	3.498	mg/L	0.0668	1.91%
Na 330.237†	-7.0	0.04039	mg/L	0.024487	1.010	mg/L	0.6122	60.63%
Ni 231.604†	134.6	0.03169	mg/L	0.000706	0.7922	mg/L	0.01764	2.23%
Pb 220.353†	1074.2	0.1363	mg/L	0.00167	3.408	mg/L	0.0418	1.23%
Sb 206.836†	1.0	0.00001	mg/L	0.000561	0.00028	mg/L	0.014026	>999.9%
Se 196.026†	0.1	0.00005	mg/L	0.002818	0.00130	mg/L	0.070445	>999.9%
Si 288.158†	426.8	0.2017	mg/L	0.00393	5.041	mg/L	0.0983	1.95%
Sn 189.927†	-9.9	-0.00169	mg/L	0.000580	-0.04230	mg/L	0.014502	34.28%
Sr 421.552†	47522.3	0.05302	mg/L	0.001004	1.325	mg/L	0.0251	1.89%
Ti 334.903†	32931.9	1.551	mg/L	0.0265	38.77	mg/L	0.663	1.71%
Tl 190.801†	-3.5	0.00158	mg/L	0.002733	0.03951	mg/L	0.068330	172.93%
V 292.402†	9020.7	0.06839	mg/L	0.000850	1.710	mg/L	0.0213	1.24%
Zn 206.200†	911.2	0.2276	mg/L	0.00524	5.690	mg/L	0.1310	2.30%

Sequence No.: 60
Sample ID: VS19 A SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 342
Date Collected: 11/23/2012 1:27:33 PM
Data Type: Original

Nebulizer Parameters: VS19 A SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS19 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2725824.7	103.3	%	0.38				0.37%
ScR 361.383	346046.5	104.9	%	1.02				0.97%
Ag 328.068†	-213.9	-0.00110	mg/L	0.000084	-0.00552	mg/L	0.000418	7.59%
Al 308.215†	212280.5	123.8	mg/L	0.80	618.8	mg/L	4.01	0.65%
As 188.979†	-303.8	0.04109	mg/L	0.002918	0.2055	mg/L	0.01459	7.10%
B 249.677†	36.1	0.00445	mg/L	0.000341	0.02223	mg/L	0.001706	7.68%
Ba 233.527†	12111.5	2.514	mg/L	0.0340	12.57	mg/L	0.170	1.35%
Be 313.042†	2063.0	0.00308	mg/L	0.000045	0.01538	mg/L	0.000225	1.46%
Ca 317.933†	305839.0	21.81	mg/L	0.166	109.0	mg/L	0.83	0.76%
Cd 228.802†	564.7	0.01837	mg/L	0.000402	0.09187	mg/L	0.002008	2.19%
Co 228.616†	3091.9	0.06487	mg/L	0.000264	0.3244	mg/L	0.00132	0.41%
Cr 267.716†	2409.7	0.3729	mg/L	0.00432	1.864	mg/L	0.0216	1.16%
Cu 324.752†	39606.0	0.1547	mg/L	0.00088	0.7737	mg/L	0.00439	0.57%
Fe 273.955†	198407.8	141.8	mg/L	1.01	709.1	mg/L	5.06	0.71%
K 766.490†	45932.5	23.44	mg/L	0.085	117.2	mg/L	0.42	0.36%
Mg 279.077†	90797.2	63.93	mg/L	0.472	319.7	mg/L	2.36	0.74%
Mn 257.610†	204661.1	5.324	mg/L	0.0437	26.62	mg/L	0.218	0.82%
Mo 202.031†	72.8	0.00321	mg/L	0.000059	0.01604	mg/L	0.000295	1.84%
Na 589.592†	7662.6	0.6231	mg/L	0.00524	3.115	mg/L	0.0262	0.84%
Na 330.237†	-24.9	0.4483	mg/L	0.08061	2.241	mg/L	0.4031	17.98%
Ni 231.604†	605.3	0.1425	mg/L	0.00219	0.7127	mg/L	0.01094	1.54%
Pb 220.353†	4850.5	0.6165	mg/L	0.00318	3.082	mg/L	0.0159	0.52%
Sb 206.836†	25.0	0.00611	mg/L	0.001915	0.03055	mg/L	0.009573	31.34%
Se 196.026†	17.1	0.01132	mg/L	0.001080	0.05658	mg/L	0.005400	9.54%
Si 288.158†	1916.2	0.9056	mg/L	0.01559	4.528	mg/L	0.0779	1.72%
Sn 189.927†	-34.9	-0.00504	mg/L	0.000615	-0.02519	mg/L	0.003074	12.20%
Sr 421.552†	218157.9	0.2434	mg/L	0.00187	1.217	mg/L	0.0094	0.77%
Ti 334.903†	152216.8	7.168	mg/L	0.0538	35.84	mg/L	0.269	0.75%
Tl 190.801†	-26.2	0.00319	mg/L	0.001370	0.01593	mg/L	0.006852	43.00%
V 292.402†	40892.4	0.3099	mg/L	0.00120	1.549	mg/L	0.0060	0.39%
Zn 206.200†	4103.3	1.025	mg/L	0.0127	5.125	mg/L	0.0633	1.24%

Sequence No.: 61
Sample ID: VS19 ADUP SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 343
Date Collected: 11/23/2012 1:31:34 PM
Data Type: Original

Nebulizer Parameters: VS19 ADUP SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS19 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2726444.7	103.4	%	0.19				0.19%
ScR 361.383	351580.7	106.5	%	1.09				1.02%
Ag 328.068†	-183.7	-0.00094	mg/L	0.000035	-0.00470	mg/L	0.000175	3.73%
Al 308.215†	206724.9	120.5	mg/L	0.90	602.6	mg/L	4.49	0.75%
As 188.979†	-294.6	0.04722	mg/L	0.002513	0.2361	mg/L	0.01257	5.32%
B 249.677†	57.5	0.00717	mg/L	0.001518	0.03585	mg/L	0.007589	21.17%
Ba 233.527†	11937.4	2.478	mg/L	0.0182	12.39	mg/L	0.091	0.73%
Be 313.042†	1996.9	0.00298	mg/L	0.000027	0.01488	mg/L	0.000133	0.90%
Ca 317.933†	297292.7	21.20	mg/L	0.136	106.0	mg/L	0.68	0.64%
Cd 228.802†	598.2	0.01946	mg/L	0.000371	0.09732	mg/L	0.001857	1.91%
Co 228.616†	2981.9	0.06195	mg/L	0.001264	0.3098	mg/L	0.00632	2.04%
Cr 267.716†	2595.2	0.4018	mg/L	0.00419	2.009	mg/L	0.0210	1.04%
Cu 324.752†	37778.3	0.1477	mg/L	0.00228	0.7385	mg/L	0.01138	1.54%
Fe 273.955†	194829.0	139.3	mg/L	0.94	696.3	mg/L	4.72	0.68%
K 766.490†	40798.4	20.82	mg/L	0.216	104.1	mg/L	1.08	1.04%
Mg 279.077†	87046.4	61.29	mg/L	0.424	306.5	mg/L	2.12	0.69%
Mn 257.610†	215062.4	5.595	mg/L	0.0424	27.97	mg/L	0.212	0.76%
Mo 202.031†	67.2	0.00295	mg/L	0.000043	0.01475	mg/L	0.000216	1.47%
Na 589.592†	7121.8	0.5791	mg/L	0.00620	2.896	mg/L	0.0310	1.07%
Na 330.237†	-27.3	0.3654	mg/L	0.14031	1.827	mg/L	0.7016	38.40%
Ni 231.604†	586.3	0.1381	mg/L	0.00064	0.6904	mg/L	0.00321	0.47%
Pb 220.353†	4989.0	0.6328	mg/L	0.00920	3.164	mg/L	0.0460	1.45%
Sb 206.836†	24.7	0.00554	mg/L	0.002188	0.02771	mg/L	0.010939	39.48%
Se 196.026†	13.2	0.00867	mg/L	0.005201	0.04333	mg/L	0.026007	60.03%
Si 288.158†	1853.9	0.8762	mg/L	0.01201	4.381	mg/L	0.0600	1.37%
Sn 189.927†	-35.8	-0.00532	mg/L	0.001035	-0.02662	mg/L	0.005177	19.45%
Sr 421.552†	215653.8	0.2406	mg/L	0.00189	1.203	mg/L	0.0095	0.79%
Ti 334.903†	153134.6	7.212	mg/L	0.0472	36.06	mg/L	0.236	0.65%
Tl 190.801†	-25.3	0.00334	mg/L	0.002655	0.01670	mg/L	0.013275	79.50%
V 292.402†	38297.2	0.2900	mg/L	0.00485	1.450	mg/L	0.0242	1.67%
Zn 206.200†	4228.5	1.056	mg/L	0.0062	5.281	mg/L	0.0309	0.59%

Sequence No.: 62
Sample ID: VS19 ASPK SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 344
Date Collected: 11/23/2012 1:35:35 PM
Data Type: Original

Nebulizer Parameters: VS19 ASPK SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS19 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2726379.9	103.4	%	0.54				0.52%
ScR 361.383	344146.1	104.3	%	3.57				3.42%
Ag 328.068†	33944.9	0.1897	mg/L	0.00415	0.9485	mg/L	0.02076	2.19%
Al 308.215†	211840.2	123.5	mg/L	4.13	617.5	mg/L	20.67	3.35%
As 188.979†	1085.9	0.7809	mg/L	0.01385	3.905	mg/L	0.0693	1.77%
B 249.677†	48.6	0.00565	mg/L	0.000853	0.02823	mg/L	0.004266	15.11%
Ba 233.527†	16192.3	3.369	mg/L	0.0859	16.84	mg/L	0.430	2.55%
Be 313.042†	124184.7	0.1940	mg/L	0.00674	0.9702	mg/L	0.03368	3.47%
Ca 317.933†	360903.9	25.74	mg/L	0.816	128.7	mg/L	4.08	3.17%
Cd 228.802†	6800.1	0.2183	mg/L	0.00525	1.092	mg/L	0.0262	2.40%
Co 228.616†	10256.3	0.2522	mg/L	0.00624	1.261	mg/L	0.0312	2.47%
Cr 267.716†	3797.2	0.5875	mg/L	0.01423	2.938	mg/L	0.0711	2.42%
Cu 324.752†	90214.7	0.3469	mg/L	0.00739	1.735	mg/L	0.0369	2.13%
Fe 273.955†	194432.8	139.0	mg/L	4.58	694.9	mg/L	22.91	3.30%
K 766.490†	50351.3	25.70	mg/L	0.812	128.5	mg/L	4.06	3.16%
Mg 279.077†	94557.2	66.59	mg/L	2.165	332.9	mg/L	10.83	3.25%
Mn 257.610†	226472.5	5.892	mg/L	0.1957	29.46	mg/L	0.978	3.32%
Mo 202.031†	77.1	0.00336	mg/L	0.000360	0.01680	mg/L	0.001801	10.72%
Na 589.592†	54185.4	4.406	mg/L	0.1444	22.03	mg/L	0.722	3.28%
Na 330.237†	92.4	4.336	mg/L	0.1282	21.68	mg/L	0.641	2.96%
Ni 231.604†	1409.3	0.3316	mg/L	0.00745	1.658	mg/L	0.0372	2.25%
Pb 220.353†	11078.9	1.377	mg/L	0.0295	6.886	mg/L	0.1473	2.14%
Sb 206.836†	34.3	0.00628	mg/L	0.000699	0.03141	mg/L	0.003493	11.12%
Se 196.026†	1101.8	0.7424	mg/L	0.01557	3.712	mg/L	0.0779	2.10%
Si 288.158†	1867.7	0.8840	mg/L	0.02028	4.420	mg/L	0.1014	2.29%
Sn 189.927†	-42.3	-0.00641	mg/L	0.001035	-0.03203	mg/L	0.005177	16.16%
Sr 421.552†	400647.0	0.4470	mg/L	0.01499	2.235	mg/L	0.0749	3.35%
Ti 334.903†	150323.6	7.079	mg/L	0.2351	35.40	mg/L	1.175	3.32%
Tl 190.801†	1789.1	0.7139	mg/L	0.01301	3.570	mg/L	0.0650	1.82%
V 292.402†	61819.1	0.4730	mg/L	0.00977	2.365	mg/L	0.0489	2.07%
Zn 206.200†	5023.2	1.255	mg/L	0.0301	6.274	mg/L	0.1504	2.40%

Sequence No.: 63 ZZZZZZ
Sample ID: ~~VS19 APOST SWC~~ BA
Analyst: BA 11/26/12
Dilution: 5.000000X

Autosampler Location: 345
Date Collected: 11/23/2012 1:39:36 PM
Data Type: Original

Nebulizer Parameters: VS19 APOST SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS19 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2734542.1	103.7	%	0.19				0.18%
ScR 361.383	348067.3	105.5	%	1.91				1.81%
Ag 328.068†	90208.7	0.5040	mg/L	0.00644	2.520	mg/L	0.0322	1.28%
Al 308.215†	222477.3	129.7	mg/L	2.58	648.5	mg/L	12.89	1.99%
As 188.979†	3568.1	2.117	mg/L	0.0169	10.59	mg/L	0.084	0.80%
B 249.677†	60.9	0.00653	mg/L	0.002262	0.03266	mg/L	0.011309	34.63%
Ba 233.527†	22089.9	4.602	mg/L	0.0853	23.01	mg/L	0.427	1.85%
Be 313.042†	312872.5	0.4891	mg/L	0.01160	2.445	mg/L	0.0580	2.37%
Ca 317.933†	457478.7	32.62	mg/L	0.618	163.1	mg/L	3.09	1.89%
Cd 228.802†	17535.4	0.5620	mg/L	0.00318	2.810	mg/L	0.0159	0.57%
Co 228.616†	22990.1	0.5840	mg/L	0.00225	2.920	mg/L	0.0113	0.39%
Cr 267.716†	5745.1	0.8890	mg/L	0.01476	4.445	mg/L	0.0738	1.66%
Cu 324.752†	182573.6	0.6982	mg/L	0.00473	3.491	mg/L	0.0236	0.68%
Fe 273.955†	210040.5	150.1	mg/L	2.86	750.6	mg/L	14.28	1.90%
K 766.490†	66818.9	34.10	mg/L	0.615	170.5	mg/L	3.07	1.80%
Mg 279.077†	108545.3	76.44	mg/L	1.441	382.2	mg/L	7.20	1.88%
Mn 257.610†	231287.4	6.017	mg/L	0.1102	30.09	mg/L	0.551	1.83%
Mo 202.031†	79.3	0.00337	mg/L	0.000177	0.01685	mg/L	0.000887	5.26%
Na 589.592†	125474.6	10.20	mg/L	0.250	51.01	mg/L	1.248	2.45%
Na 330.237†	273.7	10.47	mg/L	0.042	52.35	mg/L	0.212	0.41%
Ni 231.604†	2680.3	0.6303	mg/L	0.01371	3.152	mg/L	0.0685	2.17%
Pb 220.353†	21714.9	2.677	mg/L	0.0037	13.39	mg/L	0.019	0.14%
Sb 206.836†	44.5	0.00646	mg/L	0.000997	0.03231	mg/L	0.004986	15.43%
Se 196.026†	3099.1	2.089	mg/L	0.0106	10.44	mg/L	0.053	0.51%
Si 288.158†	1996.0	0.9465	mg/L	0.02081	4.733	mg/L	0.1040	2.20%
Sn 189.927†	-44.4	-0.00598	mg/L	0.000473	-0.02988	mg/L	0.002364	7.91%
Sr 421.552†	660020.4	0.7364	mg/L	0.01543	3.682	mg/L	0.0771	2.10%
Ti 334.903†	157821.3	7.432	mg/L	0.1366	37.16	mg/L	0.683	1.84%
Tl 190.801†	4962.5	1.958	mg/L	0.0156	9.789	mg/L	0.0782	0.80%
V 292.402†	107963.3	0.8308	mg/L	0.00244	4.154	mg/L	0.0122	0.29%
Zn 206.200†	6297.0	1.573	mg/L	0.0277	7.865	mg/L	0.1385	1.76%

Sequence No.: 64
Sample ID: VS19 MB1SPK SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 346
Date Collected: 11/23/2012 1:43:38 PM
Data Type: Original

Nebulizer Parameters: VS19 MB1SPK SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS19 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2724161.6	103.3	%	0.33				0.32%
ScR 361.383	345802.2	104.8	%	1.60				1.53%
Ag 328.068†	95055.6	0.5310	mg/L	0.00230	1.062	mg/L	0.0046	0.43%
Al 308.215†	3511.8	2.040	mg/L	0.0358	4.080	mg/L	0.0716	1.76%
As 188.979†	3881.5	2.074	mg/L	0.0106	4.148	mg/L	0.0211	0.51%
B 249.677†	18.2	0.00125	mg/L	0.000447	0.00250	mg/L	0.000894	35.81%
Ba 233.527†	9703.7	2.032	mg/L	0.0297	4.064	mg/L	0.0594	1.46%
Be 313.042†	312853.0	0.4892	mg/L	0.01297	0.9783	mg/L	0.02594	2.65%
Ca 317.933†	137710.3	9.820	mg/L	0.2482	19.64	mg/L	0.496	2.53%
Cd 228.802†	16533.0	0.5293	mg/L	0.00313	1.059	mg/L	0.0063	0.59%
Co 228.616†	19908.0	0.5199	mg/L	0.00281	1.040	mg/L	0.0056	0.54%
Cr 267.716†	3278.2	0.5072	mg/L	0.00761	1.014	mg/L	0.0152	1.50%
Cu 324.752†	138122.8	0.5249	mg/L	0.00208	1.050	mg/L	0.0042	0.40%
Fe 273.955†	2918.3	2.082	mg/L	0.0328	4.165	mg/L	0.0655	1.57%
K 766.490†	19197.4	9.797	mg/L	0.2419	19.59	mg/L	0.484	2.47%
Mg 279.077†	14627.2	10.31	mg/L	0.164	20.62	mg/L	0.328	1.59%
Mn 257.610†	19192.0	0.4996	mg/L	0.00769	0.9992	mg/L	0.01538	1.54%
Mo 202.031†	25.4	0.00108	mg/L	0.000123	0.00215	mg/L	0.000246	11.45%
Na 589.592†	119122.9	9.686	mg/L	0.2363	19.37	mg/L	0.473	2.44%
Na 330.237†	311.2	10.40	mg/L	0.156	20.81	mg/L	0.312	1.50%
Ni 231.604†	2124.0	0.4993	mg/L	0.00682	0.9986	mg/L	0.01365	1.37%
Pb 220.353†	16874.9	2.061	mg/L	0.0087	4.122	mg/L	0.0174	0.42%
Sb 206.836†	17.9	-0.00012	mg/L	0.001658	-0.00023	mg/L	0.003317	>999.9%
Se 196.026†	3052.6	2.057	mg/L	0.0060	4.115	mg/L	0.0121	0.29%
Si 288.158†	-2.4	0.00210	mg/L	0.005572	0.00420	mg/L	0.011145	265.31%
Sn 189.927†	-21.3	-0.00408	mg/L	0.000465	-0.00816	mg/L	0.000929	11.39%
Sr 421.552†	443161.2	0.4944	mg/L	0.01209	0.9888	mg/L	0.02419	2.45%
Ti 334.903†	110.5	0.00464	mg/L	0.000242	0.00927	mg/L	0.000483	5.21%
Tl 190.801†	5191.2	2.034	mg/L	0.0127	4.067	mg/L	0.0254	0.62%
V 292.402†	66977.8	0.5205	mg/L	0.00259	1.041	mg/L	0.0052	0.50%
Zn 206.200†	2024.6	0.5058	mg/L	0.00810	1.012	mg/L	0.0162	1.60%

Sequence No.: 65
Sample ID: CV 7
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/23/2012 1:47:40 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2714327.7	102.9	%	1.59				1.55%
ScR 361.383	342647.5	103.8	%	3.45				3.32%
Ag 328.068†	183948.9	1.028	mg/L	0.0105	1.028	mg/L	0.0105	1.02%
Al 308.215†	3482.1	1.996	mg/L	0.0772	1.996	mg/L	0.0772	3.87%
As 188.979†	3767.1	2.038	mg/L	0.0248	2.038	mg/L	0.0248	1.22%
B 249.677†	7602.8	0.9686	mg/L	0.04066	0.9686	mg/L	0.04066	4.20%
Ba 233.527†	4814.6	1.008	mg/L	0.0389	1.008	mg/L	0.0389	3.86%
Be 313.042†	614496.4	0.9608	mg/L	0.04380	0.9608	mg/L	0.04380	4.56%
Ca 317.933†	28724.7	2.048	mg/L	0.0781	2.048	mg/L	0.0781	3.81%
Cd 228.802†	31722.5	1.029	mg/L	0.0117	1.029	mg/L	0.0117	1.14%
Co 228.616†	38889.3	1.014	mg/L	0.0111	1.014	mg/L	0.0111	1.09%
Cr 267.716†	6423.2	0.9954	mg/L	0.03676	0.9954	mg/L	0.03676	3.69%
Cu 324.752†	269460.4	1.023	mg/L	0.0119	1.023	mg/L	0.0119	1.16%
Fe 273.955†	2876.0	2.049	mg/L	0.0899	2.049	mg/L	0.0899	4.39%
K 766.490†	38631.8	19.71	mg/L	0.853	19.71	mg/L	0.853	4.33%
Mg 279.077†	2863.0	2.025	mg/L	0.0752	2.025	mg/L	0.0752	3.71%
Mn 257.610†	38473.5	1.001	mg/L	0.0396	1.001	mg/L	0.0396	3.96%
Mo 202.031†	21289.4	1.013	mg/L	0.0159	1.013	mg/L	0.0159	1.57%
Na 589.592†	606440.0	49.31	mg/L	2.062	49.31	mg/L	2.062	4.18%
Na 330.237†	1529.0	51.81	mg/L	1.812	51.81	mg/L	1.812	3.50%
Ni 231.604†	4208.6	0.9913	mg/L	0.03952	0.9913	mg/L	0.03952	3.99%
Pb 220.353†	16977.9	2.074	mg/L	0.0305	2.074	mg/L	0.0305	1.47%
Sb 206.836†	7204.8	2.081	mg/L	0.0276	2.081	mg/L	0.0276	1.32%
Se 196.026†	2964.5	1.997	mg/L	0.0237	1.997	mg/L	0.0237	1.18%
Si 288.158†	4419.8	2.070	mg/L	0.0778	2.070	mg/L	0.0778	3.76%
Sn 189.927†	4011.7	1.011	mg/L	0.0137	1.011	mg/L	0.0137	1.35%
Sr 421.552†	873371.6	0.9744	mg/L	0.04091	0.9744	mg/L	0.04091	4.20%
Ti 334.903†	21370.2	1.005	mg/L	0.0408	1.005	mg/L	0.0408	4.06%
Tl 190.801†	5127.2	2.005	mg/L	0.0264	2.005	mg/L	0.0264	1.32%
V 292.402†	132057.0	1.026	mg/L	0.0110	1.026	mg/L	0.0110	1.07%
Zn 206.200†	4148.4	1.036	mg/L	0.0403	1.036	mg/L	0.0403	3.89%

Sequence No.: 66
Sample ID: CB
Analyst: BA
Dilution: 1.000000X
User canceled analysis.

Autosampler Location: 1
Date Collected: 11/23/2012 1:52:01 PM
Data Type: Original

BA 11/23/12

Analysis Begun

Start Time: 11/23/2012 1:52:49 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 11/23/2012 7:30:40 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1123.sif
Batch ID:
Results Data Set: I2121123
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 65
Sample ID: CV 8
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/23/2012 1:52:50 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2708004.7	102.7	%	0.35				0.34%
ScR 361.383	335544.1	101.7	%	2.19				2.15%
Ag 328.068†	185226.1	1.035	mg/L	0.0045	1.035	mg/L	0.0045	0.43%
Al 308.215†	3515.3	2.015	mg/L	0.0311	2.015	mg/L	0.0311	1.54%
As 188.979†	3801.2	2.058	mg/L	0.0093	2.058	mg/L	0.0093	0.45%
B 249.677†	7720.3	0.9836	mg/L	0.01889	0.9836	mg/L	0.01889	1.92%
Ba 233.527†	4822.3	1.010	mg/L	0.0164	1.010	mg/L	0.0164	1.62%
Be 313.042†	624649.8	0.9767	mg/L	0.02418	0.9767	mg/L	0.02418	2.48%
Ca 317.933†	28895.0	2.060	mg/L	0.0384	2.060	mg/L	0.0384	1.86%
Cd 228.802†	31914.6	1.035	mg/L	0.0023	1.035	mg/L	0.0023	0.22%
Co 228.616†	39174.4	1.021	mg/L	0.0043	1.021	mg/L	0.0043	0.42%
Cr 267.716†	6515.5	1.010	mg/L	0.0180	1.010	mg/L	0.0180	1.78%
Cu 324.752†	271559.8	1.031	mg/L	0.0039	1.031	mg/L	0.0039	0.38%
Fe 273.955†	2896.3	2.063	mg/L	0.0358	2.063	mg/L	0.0358	1.74%
K 766.490†	39375.4	20.09	mg/L	0.404	20.09	mg/L	0.404	2.01%
Mg 279.077†	2884.8	2.041	mg/L	0.0407	2.041	mg/L	0.0407	1.99%
Mn 257.610†	38971.8	1.014	mg/L	0.0162	1.014	mg/L	0.0162	1.59%
Mo 202.031†	21497.2	1.023	mg/L	0.0039	1.023	mg/L	0.0039	0.38%
Na 589.592†	618943.0	50.33	mg/L	1.199	50.33	mg/L	1.199	2.38%
Na 330.237†	1549.6	52.53	mg/L	0.538	52.53	mg/L	0.538	1.02%
Ni 231.604†	4242.5	0.9993	mg/L	0.02006	0.9993	mg/L	0.02006	2.01%
Pb 220.353†	17133.3	2.093	mg/L	0.0091	2.093	mg/L	0.0091	0.43%
Sb 206.836†	7281.9	2.103	mg/L	0.0080	2.103	mg/L	0.0080	0.38%
Se 196.026†	2998.1	2.020	mg/L	0.0141	2.020	mg/L	0.0141	0.70%
Si 288.158†	4488.3	2.102	mg/L	0.0392	2.102	mg/L	0.0392	1.86%
Sn 189.927†	4049.1	1.021	mg/L	0.0056	1.021	mg/L	0.0056	0.55%
Sr 421.552†	891229.1	0.9943	mg/L	0.02375	0.9943	mg/L	0.02375	2.39%
Ti 334.903†	22539.1	1.060	mg/L	0.0168	1.060	mg/L	0.0168	1.58%
Tl 190.801†	5164.1	2.019	mg/L	0.0071	2.019	mg/L	0.0071	0.35%
V 292.402†	133142.4	1.035	mg/L	0.0039	1.035	mg/L	0.0039	0.38%
Zn 206.200†	4179.1	1.044	mg/L	0.0237	1.044	mg/L	0.0237	2.27%

Sequence No.: 66
Sample ID: CB 7
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/23/2012 1:57:13 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2719703.9	103.1	%	0.61				0.60%
ScR 361.383	340187.9	103.1	%	1.81				1.76%
Ag 328.068†	32.4	0.00018	mg/L	0.000200	0.00018	mg/L	0.000200	110.43%
Al 308.215†	0.2	0.00008	mg/L	0.003375	0.00008	mg/L	0.003375	>999.9%
As 188.979†	3.4	0.00183	mg/L	0.001594	0.00183	mg/L	0.001594	87.08%
B 249.677†	21.0	0.00267	mg/L	0.001093	0.00267	mg/L	0.001093	40.87%
Ba 233.527†	-1.6	-0.00034	mg/L	0.000993	-0.00034	mg/L	0.000993	290.19%
Be 313.042†	102.1	0.00016	mg/L	0.000026	0.00016	mg/L	0.000026	16.14%
Ca 317.933†	1.3	0.00009	mg/L	0.000293	0.00009	mg/L	0.000293	315.53%
Cd 228.802†	-1.3	-0.00005	mg/L	0.000183	-0.00005	mg/L	0.000183	346.71%
Co 228.616†	13.1	0.00034	mg/L	0.000061	0.00034	mg/L	0.000061	17.76%
Cr 267.716†	2.4	0.00037	mg/L	0.000976	0.00037	mg/L	0.000976	263.72%
Cu 324.752†	14.5	0.00005	mg/L	0.000054	0.00005	mg/L	0.000054	98.09%
Fe 273.955†	-1.6	-0.00115	mg/L	0.001235	-0.00115	mg/L	0.001235	107.29%
K 766.490†	15.2	0.00778	mg/L	0.019243	0.00778	mg/L	0.019243	247.41%
Mg 279.077†	3.0	0.00211	mg/L	0.003677	0.00211	mg/L	0.003677	174.28%
Mn 257.610†	5.4	0.00014	mg/L	0.000091	0.00014	mg/L	0.000091	65.04%
Mo 202.031†	19.8	0.00094	mg/L	0.000109	0.00094	mg/L	0.000109	11.58%
Na 589.592†	149.1	0.01212	mg/L	0.002489	0.01212	mg/L	0.002489	20.53%
Na 330.237†	0.6	0.01925	mg/L	0.589673	0.01925	mg/L	0.589673	>999.9%
Ni 231.604†	3.2	0.00075	mg/L	0.000189	0.00075	mg/L	0.000189	25.05%
Pb 220.353†	0.3	0.00004	mg/L	0.000183	0.00004	mg/L	0.000183	423.07%
Sb 206.836†	2.9	0.00083	mg/L	0.001323	0.00083	mg/L	0.001323	158.90%
Se 196.026†	-4.9	-0.00328	mg/L	0.001418	-0.00328	mg/L	0.001418	43.21%
Si 288.158†	1.7	0.00081	mg/L	0.001295	0.00081	mg/L	0.001295	159.58%
Sn 189.927†	0.8	0.00021	mg/L	0.000154	0.00021	mg/L	0.000154	73.78%
Sr 421.552†	163.9	0.00018	mg/L	0.000017	0.00018	mg/L	0.000017	9.52%
Ti 334.903†	28.3	0.00133	mg/L	0.000449	0.00133	mg/L	0.000449	33.66%
Tl 190.801†	5.0	0.00197	mg/L	0.001595	0.00197	mg/L	0.001595	81.11%
V 292.402†	25.7	0.00020	mg/L	0.000199	0.00020	mg/L	0.000199	99.61%
Zn 206.200†	-0.8	-0.00020	mg/L	0.000228	-0.00020	mg/L	0.000228	111.22%

Sequence No.: 67
Sample ID: VS19 E SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 347
Date Collected: 11/23/2012 2:01:28 PM
Data Type: Original

Nebulizer Parameters: VS19 E SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS19 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2752085.7	104.3	%	0.26				0.25%
ScR 361.383	347684.9	105.3	%	1.70				1.61%
Ag 328.068†	74.3	0.00045	mg/L	0.000222	0.00227	mg/L	0.001110	48.92%
Al 308.215†	129010.6	75.22	mg/L	0.879	376.1	mg/L	4.39	1.17%
As 188.979†	99.3	0.1326	mg/L	0.00225	0.6630	mg/L	0.01123	1.69%
B 249.677†	74.2	0.00937	mg/L	0.001206	0.04684	mg/L	0.006028	12.87%
Ba 233.527†	7075.0	1.466	mg/L	0.0214	7.332	mg/L	0.1070	1.46%
Be 313.042†	1463.9	0.00223	mg/L	0.000071	0.01114	mg/L	0.000354	3.18%
Ca 317.933†	279797.6	19.95	mg/L	0.216	99.76	mg/L	1.078	1.08%
Cd 228.802†	1748.4	0.05622	mg/L	0.000245	0.2811	mg/L	0.00123	0.44%
Co 228.616†	1750.7	0.03892	mg/L	0.000230	0.1946	mg/L	0.00115	0.59%
Cr 267.716†	702.7	0.1100	mg/L	0.00095	0.5499	mg/L	0.00476	0.87%
Cu 324.752†	29079.4	0.1139	mg/L	0.00088	0.5696	mg/L	0.00438	0.77%
Fe 273.955†	132769.2	94.90	mg/L	0.873	474.5	mg/L	4.36	0.92%
K 766.490†	14614.9	7.458	mg/L	0.0884	37.29	mg/L	0.442	1.19%
Mg 279.077†	31842.3	22.40	mg/L	0.344	112.0	mg/L	1.72	1.54%
Mn 257.610†	200937.9	5.227	mg/L	0.0525	26.14	mg/L	0.263	1.01%
Mo 202.031†	77.3	0.00345	mg/L	0.000185	0.01727	mg/L	0.000927	5.37%
Na 589.592†	10918.6	0.8878	mg/L	0.00991	4.439	mg/L	0.0495	1.12%
Na 330.237†	32.1	1.008	mg/L	0.1565	5.040	mg/L	0.7823	15.52%
Ni 231.604†	391.2	0.09212	mg/L	0.001278	0.4606	mg/L	0.00639	1.39%
Pb 220.353†	15808.7	1.944	mg/L	0.0156	9.722	mg/L	0.0779	0.80%
Sb 206.836†	35.8	0.01051	mg/L	0.002618	0.05254	mg/L	0.013088	24.91%
Se 196.026†	9.6	0.00639	mg/L	0.002581	0.03197	mg/L	0.012903	40.36%
Si 288.158†	1584.6	0.7454	mg/L	0.01518	3.727	mg/L	0.0759	2.04%
Sn 189.927†	-13.5	-0.00045	mg/L	0.001096	-0.00224	mg/L	0.005478	244.81%
Sr 421.552†	217125.1	0.2422	mg/L	0.00270	1.211	mg/L	0.0135	1.12%
Ti 334.903†	59952.8	2.823	mg/L	0.0308	14.11	mg/L	0.154	1.09%
Tl 190.801†	-6.9	0.00670	mg/L	0.001900	0.03350	mg/L	0.009502	28.36%
V 292.402†	17399.9	0.1310	mg/L	0.00105	0.6551	mg/L	0.00526	0.80%
Zn 206.200†	8811.4	2.201	mg/L	0.0343	11.01	mg/L	0.171	1.56%

Sequence No.: 68
Sample ID: VS19 F SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 348
Date Collected: 11/23/2012 2:05:30 PM
Data Type: Original

Nebulizer Parameters: VS19 F SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS19 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2785319.9	105.6	%	0.17				0.16%
ScR 361.383	342658.1	103.8	%	1.68				1.62%
Ag 328.068†	-173.5	-0.00093	mg/L	0.000168	-0.00464	mg/L	0.000842	18.14%
Al 308.215†	143854.5	83.88	mg/L	1.871	419.4	mg/L	9.35	2.23%
As 188.979†	-71.9	0.04876	mg/L	0.003731	0.2438	mg/L	0.01866	7.65%
B 249.677†	62.0	0.00781	mg/L	0.000215	0.03906	mg/L	0.001074	2.75%
Ba 233.527†	5008.7	1.033	mg/L	0.0185	5.166	mg/L	0.0924	1.79%
Be 313.042†	1471.2	0.00224	mg/L	0.000055	0.01118	mg/L	0.000277	2.48%
Ca 317.933†	239395.9	17.07	mg/L	0.400	85.36	mg/L	2.002	2.35%
Cd 228.802†	164.4	0.00481	mg/L	0.000041	0.02407	mg/L	0.000204	0.85%
Co 228.616†	1788.0	0.03939	mg/L	0.000229	0.1969	mg/L	0.00115	0.58%
Cr 267.716†	717.4	0.1125	mg/L	0.00121	0.5625	mg/L	0.00605	1.08%
Cu 324.752†	20328.8	0.08072	mg/L	0.000804	0.4036	mg/L	0.00402	1.00%
Fe 273.955†	136364.4	97.47	mg/L	2.076	487.4	mg/L	10.38	2.13%
K 766.490†	14056.4	7.173	mg/L	0.1881	35.87	mg/L	0.941	2.62%
Mg 279.077†	33914.7	23.86	mg/L	0.428	119.3	mg/L	2.14	1.79%
Mn 257.610†	116859.7	3.040	mg/L	0.0650	15.20	mg/L	0.325	2.14%
Mo 202.031†	64.5	0.00288	mg/L	0.000168	0.01439	mg/L	0.000841	5.85%
Na 589.592†	12214.8	0.9932	mg/L	0.02686	4.966	mg/L	0.1343	2.70%
Na 330.237†	11.2	0.9002	mg/L	0.03044	4.501	mg/L	0.1522	3.38%
Ni 231.604†	446.3	0.1051	mg/L	0.00277	0.5255	mg/L	0.01384	2.63%
Pb 220.353†	1047.8	0.1441	mg/L	0.00141	0.7205	mg/L	0.00705	0.98%
Sb 206.836†	16.6	0.00503	mg/L	0.003277	0.02514	mg/L	0.016387	65.18%
Se 196.026†	7.7	0.00512	mg/L	0.004428	0.02560	mg/L	0.022139	86.47%
Si 288.158†	1918.8	0.9020	mg/L	0.01917	4.510	mg/L	0.0959	2.13%
Sn 189.927†	-31.7	-0.00541	mg/L	0.000429	-0.02706	mg/L	0.002143	7.92%
Sr 421.552†	175665.5	0.1960	mg/L	0.00452	0.9799	mg/L	0.02259	2.30%
Ti 334.903†	65518.5	3.085	mg/L	0.0697	15.43	mg/L	0.349	2.26%
Tl 190.801†	-20.4	0.00163	mg/L	0.002206	0.00816	mg/L	0.011031	135.16%
V 292.402†	18369.7	0.1380	mg/L	0.00110	0.6898	mg/L	0.00550	0.80%
Zn 206.200†	2218.5	0.5542	mg/L	0.00945	2.771	mg/L	0.0472	1.71%

Sequence No.: 69
Sample ID: VS19 G SWC
Analyst: BA
Dilution: 5.000000X

Del

Autosampler Location: 349
Date Collected: 11/23/2012 2:09:30 PM
Data Type: Original

Nebulizer Parameters: VS19 G SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS19 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2762475.3	104.7	%	0.54				0.51%
ScR 361.383	346997.7	105.1	%	3.94				3.75%
Ag 328.068†	-162.8	-0.00087	mg/L	0.000145	-0.00433	mg/L	0.000724	16.71%
Al 308.215†	136798.7	79.76	mg/L	3.040	398.8	mg/L	15.20	3.81%
As 188.979†	-140.0	0.02076	mg/L	0.003968	0.1038	mg/L	0.01984	19.11%
B 249.677†	48.1	0.00604	mg/L	0.001229	0.03019	mg/L	0.006145	20.36%
Ba 233.527†	3343.8	0.6848	mg/L	0.02406	3.424	mg/L	0.1203	3.51%
Be 313.042†	1370.2	0.00207	mg/L	0.000139	0.01036	mg/L	0.000697	6.73%
Ca 317.933†	209864.0	14.97	mg/L	0.608	74.83	mg/L	3.038	4.06%
Cd 228.802†	85.9	0.00250	mg/L	0.000106	0.01248	mg/L	0.000531	4.26%
Co 228.616†	1780.1	0.03868	mg/L	0.000499	0.1934	mg/L	0.00250	1.29%
Cr 267.716†	695.5	0.1092	mg/L	0.00235	0.5460	mg/L	0.01175	2.15%
Cu 324.752†	21786.7	0.08611	mg/L	0.000272	0.4305	mg/L	0.00136	0.32%
Fe 273.955†	133203.9	95.21	mg/L	3.614	476.1	mg/L	18.07	3.80%
K 766.490†	13605.8	6.943	mg/L	0.2999	34.72	mg/L	1.499	4.32%
Mg 279.077†	32743.9	23.03	mg/L	0.822	115.2	mg/L	4.11	3.57%
Mn 257.610†	78236.9	2.035	mg/L	0.0777	10.18	mg/L	0.389	3.82%
Mo 202.031†	46.9	0.00207	mg/L	0.000297	0.01033	mg/L	0.001483	14.36%
Na 589.592†	11849.3	0.9635	mg/L	0.03538	4.818	mg/L	0.1769	3.67%
Na 330.237†	2.6	0.7336	mg/L	0.15877	3.668	mg/L	0.7938	21.64%
Ni 231.604†	439.6	0.1035	mg/L	0.00307	0.5176	mg/L	0.01533	2.96%
Pb 220.353†	470.1	0.07266	mg/L	0.000514	0.3633	mg/L	0.00257	0.71%
Sb 206.836†	7.3	0.00256	mg/L	0.001524	0.01279	mg/L	0.007618	59.55%
Se 196.026†	11.0	0.00729	mg/L	0.007038	0.03647	mg/L	0.035191	96.50%
Si 288.158†	1702.8	0.8007	mg/L	0.02977	4.003	mg/L	0.1488	3.72%
Sn 189.927†	-23.5	-0.00359	mg/L	0.001037	-0.01793	mg/L	0.005185	28.92%
Sr 421.552†	147395.3	0.1644	mg/L	0.00610	0.8222	mg/L	0.03048	3.71%
Ti 334.903†	71641.3	3.374	mg/L	0.1283	16.87	mg/L	0.642	3.80%
Tl 190.801†	-20.6	0.00126	mg/L	0.001112	0.00631	mg/L	0.005558	88.11%
V 292.402†	19405.4	0.1457	mg/L	0.00072	0.7286	mg/L	0.00359	0.49%
Zn 206.200†	1477.2	0.3690	mg/L	0.01351	1.845	mg/L	0.0675	3.66%

Sequence No.: 70
Sample ID: VS19 H SWC
Analyst: BA
Dilution: 5.000000X

Dal

Autosampler Location: 350
Date Collected: 11/23/2012 2:13:30 PM
Data Type: Original

Nebulizer Parameters: VS19 H SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS19 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2788702.8	105.7	%	0.35				0.33%
ScR 361.383	343302.7	104.0	%	2.92				2.81%
Ag 328.068†	-173.9	-0.00092	mg/L	0.000256	-0.00461	mg/L	0.001279	27.77%
Al 308.215†	152786.6	89.08	mg/L	3.248	445.4	mg/L	16.24	3.65%
As 188.979†	-148.1	0.02892	mg/L	0.004849	0.1446	mg/L	0.02425	16.77%
B 249.677†	40.5	0.00506	mg/L	0.001245	0.02529	mg/L	0.006227	24.62%
Ba 233.527†	3553.9	0.7264	mg/L	0.02128	3.632	mg/L	0.1064	2.93%
Be 313.042†	1416.1	0.00213	mg/L	0.000102	0.01067	mg/L	0.000512	4.80%
Ca 317.933†	229281.6	16.35	mg/L	0.617	81.75	mg/L	3.087	3.78%
Cd 228.802†	116.7	0.00342	mg/L	0.000127	0.01710	mg/L	0.000637	3.73%
Co 228.616†	2015.0	0.04377	mg/L	0.000401	0.2189	mg/L	0.00200	0.92%
Cr 267.716†	1019.0	0.1596	mg/L	0.00404	0.7982	mg/L	0.02018	2.53%
Cu 324.752†	25904.7	0.1023	mg/L	0.00063	0.5114	mg/L	0.00315	0.62%
Fe 273.955†	153429.2	109.7	mg/L	3.96	548.3	mg/L	19.81	3.61%
K 766.490†	15866.8	8.097	mg/L	0.2860	40.49	mg/L	1.430	3.53%
Mg 279.077†	37579.5	26.43	mg/L	1.026	132.2	mg/L	5.13	3.88%
Mn 257.610†	71602.8	1.863	mg/L	0.0679	9.314	mg/L	0.3396	3.65%
Mo 202.031†	62.8	0.00280	mg/L	0.000229	0.01401	mg/L	0.001146	8.18%
Na 589.592†	14243.9	1.158	mg/L	0.0432	5.791	mg/L	0.2160	3.73%
Na 330.237†	15.0	1.239	mg/L	0.3027	6.194	mg/L	1.5134	24.43%
Ni 231.604†	535.5	0.1261	mg/L	0.00349	0.6306	mg/L	0.01743	2.76%
Pb 220.353†	894.3	0.1262	mg/L	0.00057	0.6308	mg/L	0.00283	0.45%
Sb 206.836†	18.0	0.00518	mg/L	0.001966	0.02592	mg/L	0.009830	37.92%
Se 196.026†	9.8	0.00650	mg/L	0.006225	0.03252	mg/L	0.031125	95.70%
Si 288.158†	2198.6	1.033	mg/L	0.0278	5.167	mg/L	0.1389	2.69%
Sn 189.927†	-28.5	-0.00460	mg/L	0.001451	-0.02301	mg/L	0.007257	31.54%
Sr 421.552†	161968.4	0.1807	mg/L	0.00663	0.9035	mg/L	0.03315	3.67%
Ti 334.903†	81005.9	3.815	mg/L	0.1387	19.07	mg/L	0.693	3.64%
Tl 190.801†	-23.9	0.00142	mg/L	0.001332	0.00710	mg/L	0.006658	93.75%
V 292.402†	22318.9	0.1677	mg/L	0.00012	0.8385	mg/L	0.00058	0.07%
Zn 206.200†	1677.2	0.4190	mg/L	0.01206	2.095	mg/L	0.0603	2.88%

Sequence No.: 71
Sample ID: VS19 I SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 351
Date Collected: 11/23/2012 2:17:30 PM
Data Type: Original

Nebulizer Parameters: VS19 I SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS19 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2763169.2	104.8	%	0.56				0.54%
ScR 361.383	345363.1	104.6	%	1.54				1.47%
Ag 328.068†	-206.3	-0.00110	mg/L	0.000114	-0.00550	mg/L	0.000571	10.38%
Al 308.215†	134225.0	78.26	mg/L	0.850	391.3	mg/L	4.25	1.09%
As 188.979†	-208.0	0.02364	mg/L	0.001458	0.1182	mg/L	0.00729	6.17%
B 249.677†	32.6	0.00405	mg/L	0.000575	0.02024	mg/L	0.002877	14.21%
Ba 233.527†	4611.3	0.9474	mg/L	0.01301	4.737	mg/L	0.0650	1.37%
Be 313.042†	1327.5	0.00198	mg/L	0.000034	0.00991	mg/L	0.000172	1.74%
Ca 317.933†	245215.8	17.49	mg/L	0.129	87.43	mg/L	0.644	0.74%
Cd 228.802†	62.3	0.00183	mg/L	0.000063	0.00914	mg/L	0.000317	3.48%
Co 228.616†	2073.1	0.04342	mg/L	0.001941	0.2171	mg/L	0.00971	4.47%
Cr 267.716†	1019.2	0.1592	mg/L	0.00315	0.7958	mg/L	0.01574	1.98%
Cu 324.752†	23405.9	0.09265	mg/L	0.002657	0.4633	mg/L	0.01328	2.87%
Fe 273.955†	157493.9	112.6	mg/L	1.34	562.9	mg/L	6.69	1.19%
K 766.490†	24950.0	12.73	mg/L	0.133	63.66	mg/L	0.667	1.05%
Mg 279.077†	47509.7	33.43	mg/L	0.290	167.2	mg/L	1.45	0.87%
Mn 257.610†	69892.4	1.818	mg/L	0.0186	9.092	mg/L	0.0929	1.02%
Mo 202.031†	63.4	0.00282	mg/L	0.000440	0.01409	mg/L	0.002198	15.60%
Na 589.592†	13409.3	1.090	mg/L	0.0056	5.452	mg/L	0.0278	0.51%
Na 330.237†	-5.5	0.7901	mg/L	0.16499	3.950	mg/L	0.8249	20.88%
Ni 231.604†	576.0	0.1356	mg/L	0.00155	0.6782	mg/L	0.00775	1.14%
Pb 220.353†	387.7	0.06161	mg/L	0.001902	0.3080	mg/L	0.00951	3.09%
Sb 206.836†	3.3	0.00139	mg/L	0.001490	0.00694	mg/L	0.007449	107.36%
Se 196.026†	5.7	0.00369	mg/L	0.001325	0.01843	mg/L	0.006627	35.96%
Si 288.158†	1906.8	0.8975	mg/L	0.01544	4.488	mg/L	0.0772	1.72%
Sn 189.927†	-26.9	-0.00393	mg/L	0.000597	-0.01966	mg/L	0.002983	15.17%
Sr 421.552†	173565.3	0.1936	mg/L	0.00203	0.9682	mg/L	0.01017	1.05%
Ti 334.903†	100881.8	4.751	mg/L	0.0493	23.75	mg/L	0.246	1.04%
Tl 190.801†	-17.4	0.00421	mg/L	0.000687	0.02105	mg/L	0.003435	16.32%
V 292.402†	23621.2	0.1771	mg/L	0.00564	0.8857	mg/L	0.02821	3.19%
Zn 206.200†	1262.8	0.3154	mg/L	0.00501	1.577	mg/L	0.0250	1.59%

Sequence No.: 72
Sample ID: VS19 J SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 352
Date Collected: 11/23/2012 2:21:30 PM
Data Type: Original

Nebulizer Parameters: VS19 J SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS19 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2771273.9	105.1	%	0.21				0.20%
ScR 361.383	344255.5	104.3	%	2.53				2.43%
Ag 328.068†	82.6	0.00049	mg/L	0.000051	0.00246	mg/L	0.000254	10.31%
Al 308.215†	142881.7	83.31	mg/L	2.565	416.6	mg/L	12.83	3.08%
As 188.979†	52.6	0.09940	mg/L	0.003551	0.4970	mg/L	0.01776	3.57%
B 249.677†	142.9	0.01811	mg/L	0.000564	0.09054	mg/L	0.002818	3.11%
Ba 233.527†	10125.2	2.103	mg/L	0.0456	10.51	mg/L	0.228	2.17%
Be 313.042†	1423.9	0.00217	mg/L	0.000095	0.01087	mg/L	0.000476	4.38%
Ca 317.933†	724919.5	51.69	mg/L	1.597	258.5	mg/L	7.99	3.09%
Cd 228.802†	1883.5	0.06070	mg/L	0.001574	0.3035	mg/L	0.00787	2.59%
Co 228.616†	2127.3	0.04892	mg/L	0.000886	0.2446	mg/L	0.00443	1.81%
Cr 267.716†	944.0	0.1466	mg/L	0.00185	0.7330	mg/L	0.00926	1.26%
Cu 324.752†	34387.6	0.1348	mg/L	0.00184	0.6738	mg/L	0.00921	1.37%
Fe 273.955†	155386.4	111.1	mg/L	3.40	555.3	mg/L	16.98	3.06%
K 766.490†	14293.1	7.294	mg/L	0.2082	36.47	mg/L	1.041	2.85%
Mg 279.077†	46090.6	32.43	mg/L	1.019	162.2	mg/L	5.10	3.14%
Mn 257.610†	306800.0	7.981	mg/L	0.2423	39.91	mg/L	1.211	3.04%
Mo 202.031†	89.3	0.00368	mg/L	0.000403	0.01841	mg/L	0.002014	10.94%
Na 589.592†	7030.9	0.5717	mg/L	0.01378	2.859	mg/L	0.0689	2.41%
Na 330.237†	24.7	0.4449	mg/L	0.18791	2.224	mg/L	0.9395	42.24%
Ni 231.604†	534.7	0.1259	mg/L	0.00257	0.6296	mg/L	0.01284	2.04%
Pb 220.353†	17133.5	2.107	mg/L	0.0345	10.54	mg/L	0.173	1.64%
Sb 206.836†	37.9	0.01037	mg/L	0.001921	0.05184	mg/L	0.009604	18.53%
Se 196.026†	5.3	0.00352	mg/L	0.005248	0.01758	mg/L	0.026238	149.25%
Si 288.158†	1709.9	0.8053	mg/L	0.02235	4.027	mg/L	0.1117	2.78%
Sn 189.927†	-10.9	0.00408	mg/L	0.000845	0.02042	mg/L	0.004227	20.70%
Sr 421.552†	306120.3	0.3415	mg/L	0.01077	1.708	mg/L	0.0539	3.15%
Ti 334.903†	55255.2	2.600	mg/L	0.0807	13.00	mg/L	0.404	3.10%
Tl 190.801†	-14.3	0.00552	mg/L	0.000980	0.02762	mg/L	0.004899	17.74%
V 292.402†	13979.1	0.1047	mg/L	0.00162	0.5234	mg/L	0.00810	1.55%
Zn 206.200†	11966.2	2.989	mg/L	0.0691	14.95	mg/L	0.345	2.31%

Sequence No.: 73
Sample ID: VS19 K SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 353
Date Collected: 11/23/2012 2:25:31 PM
Data Type: Original

Nebulizer Parameters: VS19 K SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS19 K SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2728720.3	103.5	%	0.13				0.13%
ScR 361.383	350401.0	106.2	%	1.20				1.13%
Ag 328.068†	-59.7	-0.00029	mg/L	0.000117	-0.00146	mg/L	0.000585	39.99%
Al 308.215†	142786.8	83.26	mg/L	1.259	416.3	mg/L	6.30	1.51%
As 188.979†	69.8	0.1189	mg/L	0.00142	0.5943	mg/L	0.00709	1.19%
B 249.677†	76.3	0.00962	mg/L	0.000407	0.04811	mg/L	0.002035	4.23%
Ba 233.527†	7189.3	1.488	mg/L	0.0182	7.438	mg/L	0.0909	1.22%
Be 313.042†	1504.5	0.00229	mg/L	0.000048	0.01145	mg/L	0.000239	2.08%
Ca 317.933†	199804.6	14.25	mg/L	0.198	71.24	mg/L	0.988	1.39%
Cd 228.802†	1269.1	0.04046	mg/L	0.000135	0.2023	mg/L	0.00068	0.33%
Co 228.616†	2034.0	0.04598	mg/L	0.000288	0.2299	mg/L	0.00144	0.63%
Cr 267.716†	876.5	0.1373	mg/L	0.00114	0.6866	mg/L	0.00571	0.83%
Cu 324.752†	33399.8	0.1310	mg/L	0.00043	0.6552	mg/L	0.00216	0.33%
Fe 273.955†	156316.5	111.7	mg/L	1.40	558.7	mg/L	6.98	1.25%
K 766.490†	22525.4	11.50	mg/L	0.147	57.48	mg/L	0.736	1.28%
Mg 279.077†	37418.9	26.32	mg/L	0.396	131.6	mg/L	1.98	1.50%
Mn 257.610†	204786.0	5.328	mg/L	0.0704	26.64	mg/L	0.352	1.32%
Mo 202.031†	60.1	0.00270	mg/L	0.000263	0.01350	mg/L	0.001317	9.76%
Na 589.592†	11217.1	0.9121	mg/L	0.01447	4.560	mg/L	0.0724	1.59%
Na 330.237†	22.8	0.9959	mg/L	0.28447	4.979	mg/L	1.4224	28.56%
Ni 231.604†	536.0	0.1262	mg/L	0.00211	0.6312	mg/L	0.01054	1.67%
Pb 220.353†	10602.0	1.310	mg/L	0.0043	6.550	mg/L	0.0214	0.33%
Sb 206.836†	29.9	0.00845	mg/L	0.000936	0.04224	mg/L	0.004679	11.08%
Se 196.026†	10.7	0.00712	mg/L	0.001301	0.03561	mg/L	0.006504	18.26%
Si 288.158†	1675.8	0.7885	mg/L	0.01263	3.943	mg/L	0.0632	1.60%
Sn 189.927†	-19.6	-0.00272	mg/L	0.001170	-0.01359	mg/L	0.005849	43.03%
Sr 421.552†	148738.9	0.1659	mg/L	0.00238	0.8297	mg/L	0.01192	1.44%
Ti 334.903†	61236.5	2.884	mg/L	0.0413	14.42	mg/L	0.206	1.43%
Tl 190.801†	-22.4	0.00234	mg/L	0.000884	0.01170	mg/L	0.004421	37.80%
V 292.402†	18208.5	0.1368	mg/L	0.00005	0.6839	mg/L	0.00023	0.03%
Zn 206.200†	5282.2	1.320	mg/L	0.0112	6.598	mg/L	0.0558	0.85%

Sequence No.: 74
Sample ID: VS19 L SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 354
Date Collected: 11/23/2012 2:29:31 PM
Data Type: Original

Nebulizer Parameters: VS19 L SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS19 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2725121.7	103.3	%	0.55				0.53%
ScR 361.383	349585.9	105.9	%	1.01				0.95%
Ag 328.068†	-70.0	-0.00035	mg/L	0.000067	-0.00174	mg/L	0.000333	19.17%
Al 308.215†	132082.0	77.01	mg/L	0.963	385.1	mg/L	4.81	1.25%
As 188.979†	-22.5	0.08252	mg/L	0.003265	0.4126	mg/L	0.01632	3.96%
B 249.677†	89.8	0.01135	mg/L	0.000242	0.05677	mg/L	0.001210	2.13%
Ba 233.527†	3792.3	0.7794	mg/L	0.00927	3.897	mg/L	0.0464	1.19%
Be 313.042†	1478.9	0.00224	mg/L	0.000043	0.01121	mg/L	0.000217	1.94%
Ca 317.933†	477086.2	34.02	mg/L	0.447	170.1	mg/L	2.23	1.31%
Cd 228.802†	945.0	0.03031	mg/L	0.000171	0.1516	mg/L	0.00085	0.56%
Co 228.616†	1842.8	0.04036	mg/L	0.000198	0.2018	mg/L	0.00099	0.49%
Cr 267.716†	748.7	0.1169	mg/L	0.00060	0.5843	mg/L	0.00301	0.52%
Cu 324.752†	24843.8	0.09751	mg/L	0.000307	0.4876	mg/L	0.00154	0.32%
Fe 273.955†	127072.7	90.83	mg/L	1.257	454.1	mg/L	6.28	1.38%
K 766.490†	15315.9	7.816	mg/L	0.0932	39.08	mg/L	0.466	1.19%
Mg 279.077†	35420.6	24.92	mg/L	0.336	124.6	mg/L	1.68	1.35%
Mn 257.610†	103743.3	2.699	mg/L	0.0342	13.49	mg/L	0.171	1.27%
Mo 202.031†	74.8	0.00318	mg/L	0.000170	0.01592	mg/L	0.000849	5.33%
Na 589.592†	15606.6	1.269	mg/L	0.0163	6.345	mg/L	0.0814	1.28%
Na 330.237†	29.9	1.358	mg/L	0.2315	6.791	mg/L	1.1577	17.05%
Ni 231.604†	400.4	0.09428	mg/L	0.000987	0.4714	mg/L	0.00493	1.05%
Pb 220.353†	7964.6	0.9873	mg/L	0.00394	4.936	mg/L	0.0197	0.40%
Sb 206.836†	18.2	0.00555	mg/L	0.002880	0.02773	mg/L	0.014400	51.92%
Se 196.026†	6.7	0.00442	mg/L	0.001630	0.02209	mg/L	0.008150	36.89%
Si 288.158†	1152.4	0.5431	mg/L	0.00416	2.716	mg/L	0.0208	0.77%
Sn 189.927†	-39.8	-0.00528	mg/L	0.001037	-0.02642	mg/L	0.005186	19.63%
Sr 421.552†	243733.8	0.2719	mg/L	0.00361	1.360	mg/L	0.0181	1.33%
Ti 334.903†	71713.8	3.376	mg/L	0.0438	16.88	mg/L	0.219	1.30%
Tl 190.801†	-12.3	0.00407	mg/L	0.000989	0.02037	mg/L	0.004944	24.28%
V 292.402†	19462.3	0.1465	mg/L	0.00038	0.7323	mg/L	0.00192	0.26%
Zn 206.200†	5162.3	1.290	mg/L	0.0117	6.448	mg/L	0.0586	0.91%

Sequence No.: 75
Sample ID: CV 9
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/23/2012 2:33:32 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2693619.7	102.1	%	0.22				0.22%
ScR 361.383	332705.9	100.8	%	1.09				1.08%
Ag 328.068†	184429.1	1.030	mg/L	0.0034	1.030	mg/L	0.0034	0.33%
Al 308.215†	3533.0	2.025	mg/L	0.0154	2.025	mg/L	0.0154	0.76%
As 188.979†	3778.3	2.046	mg/L	0.0098	2.046	mg/L	0.0098	0.48%
B 249.677†	7703.8	0.9815	mg/L	0.00692	0.9815	mg/L	0.00692	0.70%
Ba 233.527†	4846.9	1.015	mg/L	0.0045	1.015	mg/L	0.0045	0.44%
Be 313.042†	625202.0	0.9775	mg/L	0.01251	0.9775	mg/L	0.01251	1.28%
Ca 317.933†	29157.2	2.079	mg/L	0.0176	2.079	mg/L	0.0176	0.84%
Cd 228.802†	31876.5	1.034	mg/L	0.0015	1.034	mg/L	0.0015	0.14%
Co 228.616†	38941.6	1.015	mg/L	0.0033	1.015	mg/L	0.0033	0.32%
Cr 267.716†	6504.9	1.008	mg/L	0.0060	1.008	mg/L	0.0060	0.60%
Cu 324.752†	270701.1	1.028	mg/L	0.0031	1.028	mg/L	0.0031	0.30%
Fe 273.955†	2949.7	2.101	mg/L	0.0224	2.101	mg/L	0.0224	1.06%
K 766.490†	39458.7	20.14	mg/L	0.269	20.14	mg/L	0.269	1.34%
Mg 279.077†	2878.1	2.036	mg/L	0.0174	2.036	mg/L	0.0174	0.85%
Mn 257.610†	39076.6	1.017	mg/L	0.0085	1.017	mg/L	0.0085	0.83%
Mo 202.031†	21415.8	1.019	mg/L	0.0052	1.019	mg/L	0.0052	0.52%
Na 589.592†	619752.8	50.39	mg/L	0.712	50.39	mg/L	0.712	1.41%
Na 330.237†	1537.7	52.12	mg/L	0.346	52.12	mg/L	0.346	0.66%
Ni 231.604†	4248.7	1.001	mg/L	0.0090	1.001	mg/L	0.0090	0.90%
Pb 220.353†	17050.1	2.083	mg/L	0.0098	2.083	mg/L	0.0098	0.47%
Sb 206.836†	7234.1	2.089	mg/L	0.0092	2.089	mg/L	0.0092	0.44%
Se 196.026†	2975.7	2.005	mg/L	0.0095	2.005	mg/L	0.0095	0.48%
Si 288.158†	4476.3	2.097	mg/L	0.0163	2.097	mg/L	0.0163	0.78%
Sn 189.927†	4034.1	1.017	mg/L	0.0047	1.017	mg/L	0.0047	0.46%
Sr 421.552†	891721.6	0.9949	mg/L	0.01400	0.9949	mg/L	0.01400	1.41%
Ti 334.903†	22586.6	1.063	mg/L	0.0096	1.063	mg/L	0.0096	0.90%
Tl 190.801†	5136.3	2.008	mg/L	0.0064	2.008	mg/L	0.0064	0.32%
V 292.402†	132357.7	1.029	mg/L	0.0034	1.029	mg/L	0.0034	0.33%
Zn 206.200†	4194.9	1.048	mg/L	0.0119	1.048	mg/L	0.0119	1.13%

Sequence No.: 76
Sample ID: CB 8
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/23/2012 2:37:52 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2696393.9	102.2	%	0.56				0.55%
ScR 361.383	341209.2	103.4	%	1.69				1.63%
Ag 328.068†	32.6	0.00018	mg/L	0.000104	0.00018	mg/L	0.000104	56.87%
Al 308.215†	-8.9	-0.00522	mg/L	0.001372	-0.00522	mg/L	0.001372	26.27%
As 188.979†	-0.4	-0.00018	mg/L	0.001022	-0.00018	mg/L	0.001022	583.77%
B 249.677†	18.9	0.00241	mg/L	0.000784	0.00241	mg/L	0.000784	32.53%
Ba 233.527†	1.2	0.00024	mg/L	0.000298	0.00024	mg/L	0.000298	121.80%
Be 313.042†	85.4	0.00013	mg/L	0.000042	0.00013	mg/L	0.000042	31.39%
Ca 317.933†	26.8	0.00191	mg/L	0.000667	0.00191	mg/L	0.000667	34.88%
Cd 228.802†	3.1	0.00010	mg/L	0.000110	0.00010	mg/L	0.000110	105.83%
Co 228.616†	9.7	0.00025	mg/L	0.000205	0.00025	mg/L	0.000205	81.68%
Cr 267.716†	-2.0	-0.00031	mg/L	0.001315	-0.00031	mg/L	0.001315	430.23%
Cu 324.752†	-35.9	-0.00014	mg/L	0.000069	-0.00014	mg/L	0.000069	50.92%
Fe 273.955†	17.3	0.01239	mg/L	0.000975	0.01239	mg/L	0.000975	7.87%
K 766.490†	-9.5	-0.00487	mg/L	0.003611	-0.00487	mg/L	0.003611	74.15%
Mg 279.077†	3.4	0.00243	mg/L	0.007946	0.00243	mg/L	0.007946	327.26%
Mn 257.610†	19.1	0.00050	mg/L	0.000083	0.00050	mg/L	0.000083	16.80%
Mo 202.031†	15.2	0.00072	mg/L	0.000276	0.00072	mg/L	0.000276	38.10%
Na 589.592†	105.7	0.00859	mg/L	0.004258	0.00859	mg/L	0.004258	49.56%
Na 330.237†	-5.9	-0.2007	mg/L	0.30801	-0.2007	mg/L	0.30801	153.47%
Ni 231.604†	4.7	0.00111	mg/L	0.000869	0.00111	mg/L	0.000869	78.34%
Pb 220.353†	-2.2	-0.00027	mg/L	0.000850	-0.00027	mg/L	0.000850	309.31%
Sb 206.836†	0.7	0.00020	mg/L	0.001746	0.00020	mg/L	0.001746	856.54%
Se 196.026†	-2.9	-0.00194	mg/L	0.002148	-0.00194	mg/L	0.002148	110.68%
Si 288.158†	-2.9	-0.00137	mg/L	0.002675	-0.00137	mg/L	0.002675	194.90%
Sn 189.927†	-0.3	-0.00007	mg/L	0.001198	-0.00007	mg/L	0.001198	>999.9%
Sr 421.552†	160.3	0.00018	mg/L	0.000039	0.00018	mg/L	0.000039	21.74%
Ti 334.903†	19.2	0.00090	mg/L	0.000372	0.00090	mg/L	0.000372	41.14%
Tl 190.801†	-1.8	-0.00072	mg/L	0.000735	-0.00072	mg/L	0.000735	101.61%
V 292.402†	35.4	0.00027	mg/L	0.000133	0.00027	mg/L	0.000133	48.98%
Zn 206.200†	-0.4	-0.00009	mg/L	0.000405	-0.00009	mg/L	0.000405	449.08%

Sequence No.: 77
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 11/23/2012 2:42:07 PM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2719447.2	103.1	%	0.04				0.04%
ScR 361.383	339923.9	103.0	%	1.20				1.16%
Ag 328.068†	545.2	0.00305	mg/L	0.000060	0.00305	mg/L	0.000060	1.97%
Al 308.215†	102.6	0.05966	mg/L	0.003509	0.05966	mg/L	0.003509	5.88%
As 188.979†	94.0	0.05040	mg/L	0.001854	0.05040	mg/L	0.001854	3.68%
B 249.677†	165.7	0.02113	mg/L	0.001133	0.02113	mg/L	0.001133	5.36%
Ba 233.527†	15.0	0.00314	mg/L	0.000208	0.00314	mg/L	0.000208	6.61%
Be 313.042†	632.3	0.00099	mg/L	0.000031	0.00099	mg/L	0.000031	3.17%
Ca 317.933†	659.5	0.04703	mg/L	0.000920	0.04703	mg/L	0.000920	1.96%
Cd 228.802†	71.1	0.00201	mg/L	0.000072	0.00201	mg/L	0.000072	3.59%
Co 228.616†	148.1	0.00385	mg/L	0.000140	0.00385	mg/L	0.000140	3.63%
Cr 267.716†	34.3	0.00531	mg/L	0.000751	0.00531	mg/L	0.000751	14.16%
Cu 324.752†	443.2	0.00168	mg/L	0.000066	0.00168	mg/L	0.000066	3.91%
Fe 273.955†	74.1	0.05294	mg/L	0.001246	0.05294	mg/L	0.001246	2.35%
K 766.490†	942.8	0.4811	mg/L	0.01728	0.4811	mg/L	0.01728	3.59%
Mg 279.077†	75.0	0.05288	mg/L	0.004902	0.05288	mg/L	0.004902	9.27%
Mn 257.610†	44.0	0.00115	mg/L	0.000059	0.00115	mg/L	0.000059	5.10%
Mo 202.031†	113.2	0.00539	mg/L	0.000144	0.00539	mg/L	0.000144	2.68%
Na 589.592†	5908.5	0.4804	mg/L	0.00846	0.4804	mg/L	0.00846	1.76%
Na 330.237†	29.4	0.9964	mg/L	0.35833	0.9964	mg/L	0.35833	35.96%
Ni 231.604†	45.7	0.01077	mg/L	0.000186	0.01077	mg/L	0.000186	1.72%
Pb 220.353†	167.9	0.02052	mg/L	0.000142	0.02052	mg/L	0.000142	0.69%
Sb 206.836†	173.7	0.05021	mg/L	0.000802	0.05021	mg/L	0.000802	1.60%
Se 196.026†	76.5	0.05158	mg/L	0.000610	0.05158	mg/L	0.000610	1.18%
Si 288.158†	140.0	0.06556	mg/L	0.001296	0.06556	mg/L	0.001296	1.98%
Sn 189.927†	39.7	0.01002	mg/L	0.000630	0.01002	mg/L	0.000630	6.28%
Sr 421.552†	942.3	0.00105	mg/L	0.000049	0.00105	mg/L	0.000049	4.68%
Ti 334.903†	133.8	0.00630	mg/L	0.001295	0.00630	mg/L	0.001295	20.56%
Tl 190.801†	124.9	0.04903	mg/L	0.002064	0.04903	mg/L	0.002064	4.21%
V 292.402†	401.7	0.00313	mg/L	0.000075	0.00313	mg/L	0.000075	2.41%
Zn 206.200†	38.5	0.00960	mg/L	0.000241	0.00960	mg/L	0.000241	2.51%

Sequence No.: 78
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 11/23/2012 2:46:23 PM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
A11	219.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2686847.3	101.9	%	0.33				0.33%
ScR 361.383	331708.5	100.5	%	1.80				1.79%
Ag 328.068†	-219.4	-0.00122	mg/L	0.000015	-0.00122	mg/L	0.000015	1.23%
Al 308.215†	343563.6	200.3	mg/L	4.34	200.3	mg/L	4.34	2.16%
As 188.979†	35.8	0.01346	mg/L	0.001243	0.01346	mg/L	0.001243	9.23%
B 249.677†	-15.7	-0.00201	mg/L	0.001103	-0.00201	mg/L	0.001103	54.98%
Ba 233.527†	139.1	-0.00345	mg/L	0.001746	-0.00345	mg/L	0.001746	50.66%
Be 313.042†	75.1	0.00012	mg/L	0.000038	0.00012	mg/L	0.000038	32.96%
Ca 317.933†	1413219.0	100.8	mg/L	2.23	100.8	mg/L	2.23	2.22%
Cd 228.802†	57.3	-0.00014	mg/L	0.000138	-0.00014	mg/L	0.000138	97.96%
Co 228.616†	80.0	-0.00051	mg/L	0.000136	-0.00051	mg/L	0.000136	26.45%
Cr 267.716†	15.2	0.00021	mg/L	0.000474	0.00021	mg/L	0.000474	228.72%
Cu 324.752†	-2118.0	-0.00013	mg/L	0.000228	-0.00013	mg/L	0.000228	169.07%
Fe 273.955†	278327.0	198.9	mg/L	4.43	198.9	mg/L	4.43	2.23%
K 766.490†	33.7	0.01720	mg/L	0.013422	0.01720	mg/L	0.013422	78.03%
Mg 279.077†	148490.2	104.6	mg/L	1.72	104.6	mg/L	1.72	1.64%
Mn 257.610†	49.3	0.00126	mg/L	0.000402	0.00126	mg/L	0.000402	32.02%
Mo 202.031†	47.6	0.00117	mg/L	0.000060	0.00117	mg/L	0.000060	5.11%
Na 589.592†	174.3	0.01417	mg/L	0.002084	0.01417	mg/L	0.002084	14.71%
Na 330.237†	-2.3	-0.07829	mg/L	0.127602	-0.07829	mg/L	0.127602	162.99%
Ni 231.604†	0.9	0.00023	mg/L	0.000901	0.00023	mg/L	0.000901	392.98%
Pb 220.353†	-327.9	-0.00027	mg/L	0.002083	-0.00027	mg/L	0.002083	765.28%
Sb 206.836†	30.2	0.00855	mg/L	0.004545	0.00855	mg/L	0.004545	53.17%
Se 196.026†	17.3	0.01165	mg/L	0.002025	0.01165	mg/L	0.002025	17.37%
Si 288.158†	-35.3	-0.00388	mg/L	0.003183	-0.00388	mg/L	0.003183	82.06%
Sn 189.927†	-74.2	-0.00620	mg/L	0.000268	-0.00620	mg/L	0.000268	4.32%
Sr 421.552†	3618.2	0.00404	mg/L Conf.	0.000072	0.00404	mg/L	0.000072	1.79%
Ti 334.903†	147.4	0.00213	mg/L	0.000644	0.00213	mg/L	0.000644	30.27%
Tl 190.801†	-49.8	0.00168	mg/L	0.004392	0.00168	mg/L	0.004392	262.08%
V 292.402†	1422.7	0.00407	mg/L	0.000373	0.00407	mg/L	0.000373	9.19%
Zn 206.200†	9.4	0.00236	mg/L	0.000449	0.00236	mg/L	0.000449	19.05%

Sequence No.: 79
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 11/23/2012 2:50:24 PM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2712827.3	102.9	%	0.15				0.14%
ScR 361.383	334693.0	101.4	%	0.74				0.73%
Ag 328.068†	185487.6	1.036	mg/L	0.0041	1.036	mg/L	0.0041	0.39%
Al 308.215†	340685.8	198.7	mg/L	1.82	198.7	mg/L	1.82	0.92%
As 188.979†	1915.2	1.017	mg/L	0.0046	1.017	mg/L	0.0046	0.45%
B 249.677†	-0.8	-0.00210	mg/L	0.000659	-0.00210	mg/L	0.000659	31.38%
Ba 233.527†	4933.8	1.001	mg/L	0.0078	1.001	mg/L	0.0078	0.78%
Be 313.042†	628857.0	0.9833	mg/L	0.01063	0.9833	mg/L	0.01063	1.08%
Ca 317.933†	1408894.6	100.5	mg/L	1.14	100.5	mg/L	1.14	1.14%
Cd 228.802†	31384.7	1.022	mg/L	0.0070	1.022	mg/L	0.0070	0.69%
Co 228.616†	37148.6	0.9679	mg/L	0.00486	0.9679	mg/L	0.00486	0.50%
Cr 267.716†	6525.1	1.010	mg/L	0.0088	1.010	mg/L	0.0088	0.87%
Cu 324.752†	272030.4	1.042	mg/L	0.0054	1.042	mg/L	0.0054	0.52%
Fe 273.955†	277603.1	198.4	mg/L	2.18	198.4	mg/L	2.18	1.10%
K 766.490†	-57.3	-0.02924	mg/L	0.013402	-0.02924	mg/L	0.013402	45.83%
Mg 279.077†	142045.4	100.0	mg/L	1.12	100.0	mg/L	1.12	1.12%
Mn 257.610†	37057.8	0.9642	mg/L	0.01083	0.9642	mg/L	0.01083	1.12%
Mo 202.031†	53.6	0.00141	mg/L	0.000149	0.00141	mg/L	0.000149	10.55%
Na 589.592†	355.4	0.02890	mg/L	0.003123	0.02890	mg/L	0.003123	10.81%
Na 330.237†	10.4	0.03333	mg/L	0.135945	0.03333	mg/L	0.135945	407.91%
Ni 231.604†	4131.6	0.9731	mg/L	0.01117	0.9731	mg/L	0.01117	1.15%
Pb 220.353†	7814.9	0.9941	mg/L	0.00174	0.9941	mg/L	0.00174	0.17%
Sb 206.836†	3487.5	0.9966	mg/L	0.00332	0.9966	mg/L	0.00332	0.33%
Se 196.026†	1500.5	1.011	mg/L	0.0037	1.011	mg/L	0.0037	0.36%
Si 288.158†	-34.5	-0.00034	mg/L	0.003638	-0.00034	mg/L	0.003638	>999.9%
Sn 189.927†	-73.7	-0.00564	mg/L	0.000887	-0.00564	mg/L	0.000887	15.71%
Sr 421.552†	3614.6	0.00403	mg/L Conf.	0.000075	0.00403	mg/L	0.000075	1.86%
Ti 334.903†	155.5	0.00233	mg/L	0.000550	0.00233	mg/L	0.000550	23.64%
Tl 190.801†	2356.9	0.9374	mg/L	0.00690	0.9374	mg/L	0.00690	0.74%
V 292.402†	129007.8	0.9959	mg/L	0.00464	0.9959	mg/L	0.00464	0.47%
Zn 206.200†	3897.3	0.9735	mg/L	0.00817	0.9735	mg/L	0.00817	0.84%

Sequence No.: 80
Sample ID: CV
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/23/2012 2:54:27 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2689520.7	102.0	%	0.48				0.47%
ScR 361.383	338103.0	102.4	%	0.67				0.66%
Ag 328.068†	184639.7	1.031	mg/L	0.0060	1.031	mg/L	0.0060	0.58%
Al 308.215†	3531.5	2.024	mg/L	0.0117	2.024	mg/L	0.0117	0.58%
As 188.979†	3822.4	2.069	mg/L	0.0093	2.069	mg/L	0.0093	0.45%
B 249.677†	7673.9	0.9777	mg/L	0.00627	0.9777	mg/L	0.00627	0.64%
Ba 233.527†	4812.1	1.007	mg/L	0.0098	1.007	mg/L	0.0098	0.98%
Be 313.042†	628064.6	0.9820	mg/L	0.00843	0.9820	mg/L	0.00843	0.86%
Ca 317.933†	29280.9	2.088	mg/L	0.0140	2.088	mg/L	0.0140	0.67%
Cd 228.802†	32160.0	1.043	mg/L	0.0064	1.043	mg/L	0.0064	0.61%
Co 228.616†	39198.2	1.022	mg/L	0.0078	1.022	mg/L	0.0078	0.76%
Cr 267.716†	6494.5	1.006	mg/L	0.0055	1.006	mg/L	0.0055	0.55%
Cu 324.752†	270461.1	1.027	mg/L	0.0052	1.027	mg/L	0.0052	0.50%
Fe 273.955†	2975.7	2.120	mg/L	0.0169	2.120	mg/L	0.0169	0.80%
K 766.490†	39317.5	20.06	mg/L	0.200	20.06	mg/L	0.200	1.00%
Mg 279.077†	2895.9	2.049	mg/L	0.0217	2.049	mg/L	0.0217	1.06%
Mn 257.610†	38998.1	1.015	mg/L	0.0052	1.015	mg/L	0.0052	0.51%
Mo 202.031†	21618.7	1.029	mg/L	0.0059	1.029	mg/L	0.0059	0.58%
Na 589.592†	615146.5	50.02	mg/L	0.437	50.02	mg/L	0.437	0.87%
Na 330.237†	1531.4	51.91	mg/L	0.139	51.91	mg/L	0.139	0.27%
Ni 231.604†	4253.4	1.002	mg/L	0.0070	1.002	mg/L	0.0070	0.70%
Pb 220.353†	17255.9	2.108	mg/L	0.0099	2.108	mg/L	0.0099	0.47%
Sb 206.836†	7318.9	2.114	mg/L	0.0096	2.114	mg/L	0.0096	0.46%
Se 196.026†	3017.4	2.033	mg/L	0.0093	2.033	mg/L	0.0093	0.46%
Si 288.158†	4463.4	2.091	mg/L	0.0122	2.091	mg/L	0.0122	0.59%
Sn 189.927†	4091.4	1.031	mg/L	0.0051	1.031	mg/L	0.0051	0.50%
Sr 421.552†	888827.3	0.9916	mg/L	0.00941	0.9916	mg/L	0.00941	0.95%
Ti 334.903†	22446.7	1.056	mg/L	0.0066	1.056	mg/L	0.0066	0.63%
Tl 190.801†	5178.0	2.025	mg/L	0.0065	2.025	mg/L	0.0065	0.32%
V 292.402†	132992.1	1.034	mg/L	0.0049	1.034	mg/L	0.0049	0.47%
Zn 206.200†	4200.9	1.049	mg/L	0.0071	1.049	mg/L	0.0071	0.67%

Sequence No.: 81
Sample ID: CB 9
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/23/2012 2:58:48 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2715306.4	103.0	%	0.34				0.33%
ScR 361.383	342691.0	103.8	%	1.66				1.59%
Ag 328.068†	-18.0	-0.00010	mg/L	0.000320	-0.00010	mg/L	0.000320	318.73%
Al 308.215†	32.5	0.01894	mg/L	0.010779	0.01894	mg/L	0.010779	56.91%
As 188.979†	2.0	0.00108	mg/L	0.000381	0.00108	mg/L	0.000381	35.30%
B 249.677†	17.0	0.00217	mg/L	0.000504	0.00217	mg/L	0.000504	23.20%
Ba 233.527†	-0.1	-0.00002	mg/L	0.000587	-0.00002	mg/L	0.000587	>999.9%
Be 313.042†	120.8	0.00019	mg/L	0.000059	0.00019	mg/L	0.000059	31.05%
Ca 317.933†	161.8	0.01154	mg/L	0.004881	0.01154	mg/L	0.004881	42.31%
Cd 228.802†	5.9	0.00019	mg/L	0.000135	0.00019	mg/L	0.000135	72.72%
Co 228.616†	16.1	0.00042	mg/L	0.000123	0.00042	mg/L	0.000123	29.43%
Cr 267.716†	2.8	0.00044	mg/L	0.001301	0.00044	mg/L	0.001301	299.05%
Cu 324.752†	-43.2	-0.00016	mg/L	0.000143	-0.00016	mg/L	0.000143	87.54%
Fe 273.955†	43.8	0.03131	mg/L	0.017086	0.03131	mg/L	0.017086	54.57%
K 766.490†	23.9	0.01219	mg/L	0.022220	0.01219	mg/L	0.022220	182.31%
Mg 279.077†	17.3	0.01217	mg/L	0.009074	0.01217	mg/L	0.009074	74.55%
Mn 257.610†	20.6	0.00054	mg/L	0.000555	0.00054	mg/L	0.000555	103.59%
Mo 202.031†	17.2	0.00082	mg/L	0.000260	0.00082	mg/L	0.000260	31.74%
Na 589.592†	101.3	0.00824	mg/L	0.000813	0.00824	mg/L	0.000813	9.87%
Na 330.237†	6.2	0.2123	mg/L	0.48940	0.2123	mg/L	0.48940	230.55%
Ni 231.604†	0.6	0.00014	mg/L	0.000460	0.00014	mg/L	0.000460	334.46%
Pb 220.353†	0.8	0.00011	mg/L	0.000974	0.00011	mg/L	0.000974	901.95%
Sb 206.836†	2.5	0.00071	mg/L	0.001178	0.00071	mg/L	0.001178	165.64%
Se 196.026†	-0.4	-0.00025	mg/L	0.002576	-0.00025	mg/L	0.002576	>999.9%
Si 288.158†	-1.5	-0.00069	mg/L	0.003555	-0.00069	mg/L	0.003555	514.63%
Sn 189.927†	1.2	0.00030	mg/L	0.000375	0.00030	mg/L	0.000375	127.04%
Sr 421.552†	182.6	0.00020	mg/L	0.000062	0.00020	mg/L	0.000062	30.47%
Ti 334.903†	25.3	0.00119	mg/L	0.000543	0.00119	mg/L	0.000543	45.59%
Tl 190.801†	7.4	0.00289	mg/L	0.000777	0.00289	mg/L	0.000777	26.84%
V 292.402†	38.5	0.00030	mg/L	0.000188	0.00030	mg/L	0.000188	62.83%
Zn 206.200†	-0.4	-0.00010	mg/L	0.000255	-0.00010	mg/L	0.000255	248.61%

Sequence No.: 82
Sample ID: VS20 MB1 SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 355
Date Collected: 11/23/2012 3:03:03 PM
Data Type: Original

Nebulizer Parameters: VS20 MB1 SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS20 MB1 SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2733290.8	103.6	%	0.49				0.48%
ScR 361.383	344270.8	104.3	%	2.00				1.92%
Ag 328.068†	19.0	0.00011	mg/L	0.000037	0.00021	mg/L	0.000074	34.90%
Al 308.215†	21.2	0.01233	mg/L	0.002290	0.02467	mg/L	0.004580	18.57%
As 188.979†	0.4	0.00024	mg/L	0.000565	0.00048	mg/L	0.001131	237.42%
B 249.677†	10.1	0.00129	mg/L	0.000772	0.00258	mg/L	0.001544	59.76%
Ba 233.527†	-0.7	-0.00015	mg/L	0.000479	-0.00030	mg/L	0.000958	323.45%
Be 313.042†	57.1	0.00009	mg/L	0.000017	0.00018	mg/L	0.000035	19.48%
Ca 317.933†	223.8	0.01596	mg/L	0.000430	0.03192	mg/L	0.000859	2.69%
Cd 228.802†	-0.4	-0.00002	mg/L	0.000092	-0.00003	mg/L	0.000183	584.47%
Co 228.616†	11.3	0.00029	mg/L	0.000151	0.00059	mg/L	0.000301	51.20%
Cr 267.716†	1.9	0.00030	mg/L	0.001436	0.00059	mg/L	0.002873	485.58%
Cu 324.752†	75.4	0.00029	mg/L	0.000072	0.00057	mg/L	0.000144	25.07%
Fe 273.955†	31.8	0.02272	mg/L	0.000350	0.04544	mg/L	0.000700	1.54%
K 766.490†	-11.1	-0.00567	mg/L	0.013566	-0.01134	mg/L	0.027133	239.27%
Mg 279.077†	5.9	0.00415	mg/L	0.004490	0.00830	mg/L	0.008979	108.23%
Mn 257.610†	50.1	0.00130	mg/L	0.000182	0.00261	mg/L	0.000364	13.96%
Mo 202.031†	4.9	0.00023	mg/L	0.000166	0.00046	mg/L	0.000332	71.51%
Na 589.592†	130.5	0.01061	mg/L	0.003044	0.02122	mg/L	0.006088	28.69%
Na 330.237†	5.9	0.1987	mg/L	0.38210	0.3974	mg/L	0.76420	192.29%
Ni 231.604†	3.4	0.00081	mg/L	0.001245	0.00162	mg/L	0.002490	153.45%
Pb 220.353†	7.3	0.00090	mg/L	0.000978	0.00180	mg/L	0.001957	108.90%
Sb 206.836†	-0.4	-0.00012	mg/L	0.001096	-0.00024	mg/L	0.002191	926.66%
Se 196.026†	3.1	0.00212	mg/L	0.002040	0.00424	mg/L	0.004080	96.30%
Si 288.158†	2.2	0.00102	mg/L	0.005772	0.00203	mg/L	0.011543	567.88%
Sn 189.927†	0.2	0.00005	mg/L	0.000482	0.00010	mg/L	0.000964	977.15%
Sr 421.552†	124.3	0.00014	mg/L	0.000028	0.00028	mg/L	0.000056	20.28%
Ti 334.903†	17.6	0.00083	mg/L	0.001034	0.00165	mg/L	0.002069	125.01%
Tl 190.801†	2.9	0.00114	mg/L	0.000052	0.00228	mg/L	0.000104	4.55%
V 292.402†	29.1	0.00023	mg/L	0.000166	0.00045	mg/L	0.000332	73.48%
Zn 206.200†	5.7	0.00143	mg/L	0.000895	0.00287	mg/L	0.001790	62.44%

Sequence No.: 83
Sample ID: VS20 B SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 356
Date Collected: 11/23/2012 3:07:19 PM
Data Type: Original

Nebulizer Parameters: VS20 B SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS20 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2723333.1	103.3	%	0.55				0.53%
ScR 361.383	349168.1	105.8	%	1.46				1.38%
Ag 328.068†	-44.6	-0.00020	mg/L	0.000102	-0.00101	mg/L	0.000508	50.45%
Al 308.215†	117805.9	68.69	mg/L	1.234	343.4	mg/L	6.17	1.80%
As 188.979†	-82.5	0.04119	mg/L	0.002753	0.2059	mg/L	0.01376	6.68%
B 249.677†	86.2	0.01090	mg/L	0.000841	0.05452	mg/L	0.004204	7.71%
Ba 233.527†	9636.9	2.005	mg/L	0.0271	10.03	mg/L	0.135	1.35%
Be 313.042†	1244.3	0.00188	mg/L	0.000045	0.00938	mg/L	0.000226	2.41%
Ca 317.933†	485786.7	34.64	mg/L	0.622	173.2	mg/L	3.11	1.80%
Cd 228.802†	995.8	0.03227	mg/L	0.000158	0.1614	mg/L	0.00079	0.49%
Co 228.616†	1706.3	0.03746	mg/L	0.000194	0.1873	mg/L	0.00097	0.52%
Cr 267.716†	779.3	0.1211	mg/L	0.00154	0.6053	mg/L	0.00769	1.27%
Cu 324.752†	34602.8	0.1342	mg/L	0.00111	0.6710	mg/L	0.00554	0.83%
Fe 273.955†	112506.4	80.42	mg/L	1.593	402.1	mg/L	7.96	1.98%
K 766.490†	16405.9	8.372	mg/L	0.1665	41.86	mg/L	0.833	1.99%
Mg 279.077†	35291.9	24.84	mg/L	0.444	124.2	mg/L	2.22	1.79%
Mn 257.610†	162928.5	4.239	mg/L	0.0824	21.19	mg/L	0.412	1.95%
Mo 202.031†	84.2	0.00362	mg/L	0.000091	0.01812	mg/L	0.000454	2.50%
Na 589.592†	4400.9	0.3579	mg/L	0.00512	1.789	mg/L	0.0256	1.43%
Na 330.237†	2.3	0.3092	mg/L	0.28417	1.546	mg/L	1.4208	91.90%
Ni 231.604†	295.3	0.06954	mg/L	0.002052	0.3477	mg/L	0.01026	2.95%
Pb 220.353†	10858.4	1.339	mg/L	0.0037	6.695	mg/L	0.0184	0.27%
Sb 206.836†	28.0	0.00824	mg/L	0.001473	0.04118	mg/L	0.007364	17.88%
Se 196.026†	7.2	0.00476	mg/L	0.003499	0.02382	mg/L	0.017497	73.45%
Si 288.158†	2028.4	0.9536	mg/L	0.00796	4.768	mg/L	0.0398	0.84%
Sn 189.927†	-35.3	-0.00413	mg/L	0.000598	-0.02063	mg/L	0.002990	14.49%
Sr 421.552†	409784.8	0.4572	mg/L	0.00857	2.286	mg/L	0.0428	1.87%
Ti 334.903†	64871.7	3.054	mg/L	0.0583	15.27	mg/L	0.292	1.91%
Tl 190.801†	-8.6	0.00438	mg/L	0.000481	0.02188	mg/L	0.002403	10.98%
V 292.402†	21416.3	0.1624	mg/L	0.00158	0.8119	mg/L	0.00789	0.97%
Zn 206.200†	5630.5	1.407	mg/L	0.0204	7.033	mg/L	0.1021	1.45%

Sequence No.: 84
Sample ID: VS20 C SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 357
Date Collected: 11/23/2012 3:11:20 PM
Data Type: Original

Nebulizer Parameters: VS20 C SWC

Analyte	Back Pressure	Flow
A11	218.0 kPa	0.75 L/min

Mean Data: VS20 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2739857.6	103.9	%	0.21				0.20%
ScR 361.383	351093.7	106.4	%	2.12				2.00%
Ag 328.068†	521.9	0.00295	mg/L	0.000074	0.01473	mg/L	0.000368	2.50%
Al 308.215†	140508.9	81.93	mg/L	2.003	409.6	mg/L	10.01	2.44%
As 188.979†	270.0	0.2102	mg/L	0.00190	1.051	mg/L	0.0095	0.90%
B 249.677†	94.4	0.01184	mg/L	0.000690	0.05921	mg/L	0.003452	5.83%
Ba 233.527†	9470.6	1.962	mg/L	0.0424	9.809	mg/L	0.2121	2.16%
Be 313.042†	2553.4	0.00394	mg/L	0.000085	0.01971	mg/L	0.000423	2.15%
Ca 317.933†	771187.6	54.99	mg/L	1.385	275.0	mg/L	6.93	2.52%
Cd 228.802†	5234.9	0.1698	mg/L	0.00070	0.8489	mg/L	0.00349	0.41%
Co 228.616†	3720.9	0.09064	mg/L	0.000059	0.4532	mg/L	0.00029	0.07%
Cr 267.716†	492.4	0.07685	mg/L	0.001107	0.3842	mg/L	0.00553	1.44%
Cu 324.752†	61125.3	0.2375	mg/L	0.00007	1.187	mg/L	0.0003	0.03%
Fe 273.955†	186566.3	133.4	mg/L	3.51	666.8	mg/L	17.56	2.63%
K 766.490†	10673.9	5.447	mg/L	0.1127	27.24	mg/L	0.564	2.07%
Mg 279.077†	34742.5	24.42	mg/L	0.523	122.1	mg/L	2.61	2.14%
Mn 257.610†	830393.0	21.60	mg/L	0.545	108.0	mg/L	2.73	2.53%
Mo 202.031†	153.4	0.00670	mg/L	0.000069	0.03350	mg/L	0.000346	1.03%
Na 589.592†	7367.0	0.5990	mg/L	0.01382	2.995	mg/L	0.0691	2.31%
Na 330.237†	51.8	0.6100	mg/L	0.12102	3.050	mg/L	0.6051	19.84%
Ni 231.604†	725.5	0.1709	mg/L	0.00405	0.8544	mg/L	0.02027	2.37%
Pb 220.353†	35298.0	4.324	mg/L	0.0174	21.62	mg/L	0.087	0.40%
Sb 206.836†	117.7	0.03439	mg/L	0.000747	0.1720	mg/L	0.00373	2.17%
Se 196.026†	24.2	0.01623	mg/L	0.004939	0.08114	mg/L	0.024697	30.44%
Si 288.158†	1380.2	0.6503	mg/L	0.01833	3.251	mg/L	0.0916	2.82%
Sn 189.927†	0.8	0.00750	mg/L	0.000710	0.03750	mg/L	0.003550	9.47%
Sr 421.552†	438463.3	0.4892	mg/L	0.01192	2.446	mg/L	0.0596	2.44%
Ti 334.903†	51291.1	2.413	mg/L	0.0606	12.07	mg/L	0.303	2.51%
Tl 190.801†	-17.0	0.00665	mg/L	0.002818	0.03325	mg/L	0.014090	42.37%
V 292.402†	14009.6	0.1060	mg/L	0.00032	0.5301	mg/L	0.00160	0.30%
Zn 206.200†	20644.1	5.157	mg/L	0.1055	25.79	mg/L	0.528	2.05%

Sequence No.: 85
Sample ID: VS20 D SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 358
Date Collected: 11/23/2012 3:15:21 PM
Data Type: Original

Nebulizer Parameters: VS20 D SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS20 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2739266.3	103.9	%	0.24				0.23%
ScR 361.383	341513.3	103.5	%	0.18				0.17%
Ag 328.068†	763.5	0.00429	mg/L	0.000133	0.02144	mg/L	0.000666	3.11%
Al 308.215†	112973.1	65.87	mg/L	0.075	329.4	mg/L	0.38	0.11%
As 188.979†	86.9	0.09726	mg/L	0.001640	0.4863	mg/L	0.00820	1.69%
B 249.677†	185.1	0.02343	mg/L	0.000071	0.1171	mg/L	0.00035	0.30%
Ba 233.527†	7875.7	1.630	mg/L	0.0082	8.150	mg/L	0.0408	0.50%
Be 313.042†	2139.9	0.00331	mg/L	0.000007	0.01653	mg/L	0.000036	0.22%
Ca 317.933†	1119110.7	79.80	mg/L	0.257	399.0	mg/L	1.29	0.32%
Cd 228.802†	3492.5	0.1133	mg/L	0.00035	0.5667	mg/L	0.00173	0.30%
Co 228.616†	3356.7	0.08226	mg/L	0.000047	0.4113	mg/L	0.00024	0.06%
Cr 267.716†	381.3	0.05886	mg/L	0.000183	0.2943	mg/L	0.00092	0.31%
Cu 324.752†	63947.5	0.2477	mg/L	0.00059	1.238	mg/L	0.0029	0.24%
Fe 273.955†	166893.3	119.3	mg/L	0.68	596.5	mg/L	3.40	0.57%
K 766.490†	11850.5	6.048	mg/L	0.0359	30.24	mg/L	0.179	0.59%
Mg 279.077†	34788.6	24.46	mg/L	0.020	122.3	mg/L	0.10	0.08%
Mn 257.610†	833875.9	21.69	mg/L	0.102	108.5	mg/L	0.51	0.47%
Mo 202.031†	154.6	0.00649	mg/L	0.000423	0.03245	mg/L	0.002114	6.52%
Na 589.592†	5657.6	0.4600	mg/L	0.00403	2.300	mg/L	0.0202	0.88%
Na 330.237†	40.0	0.3239	mg/L	0.04074	1.619	mg/L	0.2037	12.58%
Ni 231.604†	651.6	0.1535	mg/L	0.00124	0.7673	mg/L	0.00620	0.81%
Pb 220.353†	46812.9	5.726	mg/L	0.0195	28.63	mg/L	0.097	0.34%
Sb 206.836†	93.2	0.02724	mg/L	0.002284	0.1362	mg/L	0.01142	8.38%
Se 196.026†	15.6	0.01045	mg/L	0.002021	0.05225	mg/L	0.010107	19.34%
Si 288.158†	3824.1	1.795	mg/L	0.0018	8.976	mg/L	0.0092	0.10%
Sn 189.927†	-0.1	0.01032	mg/L	0.000926	0.05162	mg/L	0.004629	8.97%
Sr 421.552†	490320.9	0.5470	mg/L	0.00114	2.735	mg/L	0.0057	0.21%
Ti 334.903†	41155.5	1.935	mg/L	0.0047	9.673	mg/L	0.0233	0.24%
Tl 190.801†	-3.5	0.01060	mg/L	0.001717	0.05300	mg/L	0.008587	16.20%
V 292.402†	11199.2	0.08497	mg/L	0.000498	0.4248	mg/L	0.00249	0.59%
Zn 206.200†	17939.3	4.482	mg/L	0.0165	22.41	mg/L	0.082	0.37%

Sequence No.: 86
Sample ID: VS20 A-L SWC
Analyst: BA
Dilution: 25.000000X

Autosampler Location: 359
Date Collected: 11/23/2012 3:19:26 PM
Data Type: Original

Nebulizer Parameters: VS20 A-L SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS20 A-L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2779079.5	105.4	%	0.23				0.22%
ScR 361.383	344514.5	104.4	%	1.74				1.66%
Ag 328.068†	-28.2	-0.00015	mg/L	0.000197	-0.00375	mg/L	0.004928	131.41%
Al 308.215†	23477.0	13.69	mg/L	0.259	342.2	mg/L	6.47	1.89%
As 188.979†	14.5	0.02273	mg/L	0.000844	0.5684	mg/L	0.02109	3.71%
B 249.677†	26.0	0.00330	mg/L	0.000271	0.08244	mg/L	0.006771	8.21%
Ba 233.527†	779.0	0.1603	mg/L	0.00208	4.008	mg/L	0.0521	1.30%
Be 313.042†	311.9	0.00048	mg/L	0.000024	0.01191	mg/L	0.000611	5.13%
Ca 317.933†	84614.7	6.034	mg/L	0.1135	150.8	mg/L	2.84	1.88%
Cd 228.802†	293.3	0.00943	mg/L	0.000037	0.2357	mg/L	0.00092	0.39%
Co 228.616†	343.4	0.00769	mg/L	0.000018	0.1923	mg/L	0.00044	0.23%
Cr 267.716†	168.4	0.02623	mg/L	0.000278	0.6558	mg/L	0.00694	1.06%
Cu 324.752†	4402.4	0.01734	mg/L	0.000043	0.4335	mg/L	0.00108	0.25%
Fe 273.955†	24133.6	17.25	mg/L	0.309	431.3	mg/L	7.72	1.79%
K 766.490†	2544.8	1.299	mg/L	0.0219	32.47	mg/L	0.548	1.69%
Mg 279.077†	6997.5	4.924	mg/L	0.0761	123.1	mg/L	1.90	1.54%
Mn 257.610†	22052.9	0.5737	mg/L	0.01107	14.34	mg/L	0.277	1.93%
Mo 202.031†	18.4	0.00081	mg/L	0.000227	0.02019	mg/L	0.005681	28.15%
Na 589.592†	2232.1	0.1815	mg/L	0.00339	4.538	mg/L	0.0847	1.87%
Na 330.237†	5.2	0.1795	mg/L	0.11984	4.487	mg/L	2.9960	66.77%
Ni 231.604†	78.5	0.01848	mg/L	0.000744	0.4620	mg/L	0.01859	4.02%
Pb 220.353†	2740.8	0.3372	mg/L	0.00135	8.431	mg/L	0.0338	0.40%
Sb 206.836†	4.1	0.00113	mg/L	0.000415	0.02830	mg/L	0.010386	36.70%
Se 196.026†	5.7	0.00383	mg/L	0.004813	0.09580	mg/L	0.120320	125.59%
Si 288.158†	266.5	0.1255	mg/L	0.00363	3.138	mg/L	0.0908	2.89%
Sn 189.927†	-9.3	-0.00150	mg/L	0.000489	-0.03745	mg/L	0.012221	32.63%
Sr 421.552†	43082.8	0.04807	mg/L	0.000916	1.202	mg/L	0.0229	1.91%
Ti 334.903†	11410.6	0.5372	mg/L	0.00881	13.43	mg/L	0.220	1.64%
Tl 190.801†	2.3	0.00259	mg/L	0.001894	0.06479	mg/L	0.047361	73.10%
V 292.402†	3234.5	0.02433	mg/L	0.000130	0.6081	mg/L	0.00324	0.53%
Zn 206.200†	1466.7	0.3664	mg/L	0.00667	9.160	mg/L	0.1666	1.82%

Sequence No.: 87
Sample ID: VS20 A SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 360
Date Collected: 11/23/2012 3:23:26 PM
Data Type: Original

Nebulizer Parameters: VS20 A SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS20 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2721080.9	103.2	%	0.21				0.20%
ScR 361.383	348325.5	105.5	%	1.71				1.62%
Ag 328.068†	70.0	0.00042	mg/L	0.000170	0.00212	mg/L	0.000851	40.08%
Al 308.215†	108123.5	63.04	mg/L	0.993	315.2	mg/L	4.96	1.57%
As 188.979†	68.2	0.1051	mg/L	0.00292	0.5253	mg/L	0.01458	2.78%
B 249.677†	86.0	0.01089	mg/L	0.001586	0.05445	mg/L	0.007928	14.56%
Ba 233.527†	3510.0	0.7222	mg/L	0.00938	3.611	mg/L	0.0469	1.30%
Be 313.042†	1219.3	0.00185	mg/L	0.000039	0.00927	mg/L	0.000197	2.12%
Ca 317.933†	393383.6	28.05	mg/L	0.381	140.3	mg/L	1.90	1.36%
Cd 228.802†	1369.0	0.04402	mg/L	0.000136	0.2201	mg/L	0.00068	0.31%
Co 228.616†	1516.5	0.03377	mg/L	0.000151	0.1689	mg/L	0.00075	0.45%
Cr 267.716†	731.6	0.1140	mg/L	0.00188	0.5701	mg/L	0.00940	1.65%
Cu 324.752†	21581.5	0.08481	mg/L	0.000066	0.4240	mg/L	0.00033	0.08%
Fe 273.955†	110762.1	79.17	mg/L	1.190	395.9	mg/L	5.95	1.50%
K 766.490†	11600.4	5.920	mg/L	0.0995	29.60	mg/L	0.497	1.68%
Mg 279.077†	31890.1	22.44	mg/L	0.292	112.2	mg/L	1.46	1.30%
Mn 257.610†	100028.5	2.602	mg/L	0.0427	13.01	mg/L	0.213	1.64%
Mo 202.031†	65.9	0.00283	mg/L	0.000243	0.01414	mg/L	0.001215	8.59%
Na 589.592†	9931.7	0.8076	mg/L	0.01008	4.038	mg/L	0.0504	1.25%
Na 330.237†	30.1	1.031	mg/L	0.0988	5.154	mg/L	0.4940	9.58%
Ni 231.604†	370.3	0.08721	mg/L	0.001319	0.4360	mg/L	0.00659	1.51%
Pb 220.353†	12611.8	1.552	mg/L	0.0062	7.759	mg/L	0.0308	0.40%
Sb 206.836†	34.7	0.00986	mg/L	0.001148	0.04931	mg/L	0.005738	11.64%
Se 196.026†	6.9	0.00460	mg/L	0.003453	0.02298	mg/L	0.017263	75.11%
Si 288.158†	1193.4	0.5621	mg/L	0.01193	2.810	mg/L	0.0596	2.12%
Sn 189.927†	-22.5	-0.00178	mg/L	0.000865	-0.00891	mg/L	0.004326	48.53%
Sr 421.552†	196025.1	0.2187	mg/L	0.00352	1.093	mg/L	0.0176	1.61%
Ti 334.903†	52189.5	2.457	mg/L	0.0383	12.28	mg/L	0.191	1.56%
Tl 190.801†	-15.7	0.00164	mg/L	0.001027	0.00820	mg/L	0.005133	62.56%
V 292.402†	15062.3	0.1133	mg/L	0.00059	0.5665	mg/L	0.00296	0.52%
Zn 206.200†	6698.7	1.673	mg/L	0.0219	8.367	mg/L	0.1093	1.31%

Sequence No.: 88
Sample ID: VS20 ADUP SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 361
Date Collected: 11/23/2012 3:27:26 PM
Data Type: Original

Nebulizer Parameters: VS20 ADUP SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS20 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2727681.3	103.4	%	0.66				0.64%
ScR 361.383	350356.7	106.2	%	1.67				1.57%
Ag 328.068†	53.6	0.00033	mg/L	0.000065	0.00166	mg/L	0.000324	19.48%
Al 308.215†	106877.6	62.32	mg/L	1.053	311.6	mg/L	5.27	1.69%
As 188.979†	77.9	0.1103	mg/L	0.00049	0.5517	mg/L	0.00243	0.44%
B 249.677†	81.7	0.01034	mg/L	0.000872	0.05169	mg/L	0.004358	8.43%
Ba 233.527†	3446.1	0.7088	mg/L	0.01603	3.544	mg/L	0.0802	2.26%
Be 313.042†	1186.0	0.00180	mg/L	0.000060	0.00901	mg/L	0.000302	3.35%
Ca 317.933†	385482.8	27.49	mg/L	0.538	137.4	mg/L	2.69	1.96%
Cd 228.802†	1424.3	0.04579	mg/L	0.000318	0.2290	mg/L	0.00159	0.70%
Co 228.616†	1608.7	0.03618	mg/L	0.000267	0.1809	mg/L	0.00134	0.74%
Cr 267.716†	613.5	0.09584	mg/L	0.001415	0.4792	mg/L	0.00708	1.48%
Cu 324.752†	22490.1	0.08827	mg/L	0.000475	0.4414	mg/L	0.00237	0.54%
Fe 273.955†	110703.6	79.13	mg/L	1.456	395.6	mg/L	7.28	1.84%
K 766.490†	10732.5	5.477	mg/L	0.0998	27.38	mg/L	0.499	1.82%
Mg 279.077†	29604.7	20.83	mg/L	0.410	104.1	mg/L	2.05	1.97%
Mn 257.610†	106464.9	2.770	mg/L	0.0492	13.85	mg/L	0.246	1.78%
Mo 202.031†	69.2	0.00299	mg/L	0.000398	0.01495	mg/L	0.001990	13.30%
Na 589.592†	9532.0	0.7751	mg/L	0.01139	3.875	mg/L	0.0570	1.47%
Na 330.237†	28.0	0.9501	mg/L	0.00561	4.750	mg/L	0.0281	0.59%
Ni 231.604†	347.6	0.08186	mg/L	0.001429	0.4093	mg/L	0.00714	1.75%
Pb 220.353†	12744.6	1.568	mg/L	0.0068	7.839	mg/L	0.0341	0.44%
Sb 206.836†	38.4	0.01119	mg/L	0.002292	0.05594	mg/L	0.011461	20.49%
Se 196.026†	6.5	0.00430	mg/L	0.003478	0.02152	mg/L	0.017390	80.81%
Si 288.158†	1596.8	0.7509	mg/L	0.01397	3.755	mg/L	0.0698	1.86%
Sn 189.927†	-22.2	-0.00178	mg/L	0.001073	-0.00892	mg/L	0.005363	60.12%
Sr 421.552†	193471.0	0.2158	mg/L	0.00370	1.079	mg/L	0.0185	1.72%
Ti 334.903†	52229.5	2.459	mg/L	0.0430	12.29	mg/L	0.215	1.75%
Tl 190.801†	-9.5	0.00407	mg/L	0.001732	0.02033	mg/L	0.008660	42.60%
V 292.402†	14949.4	0.1124	mg/L	0.00054	0.5619	mg/L	0.00268	0.48%
Zn 206.200†	6795.1	1.697	mg/L	0.0353	8.487	mg/L	0.1767	2.08%

Sequence No.: 89
Sample ID: VS20 ASPK SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 362
Date Collected: 11/23/2012 3:31:27 PM
Data Type: Original

Nebulizer Parameters: VS20 ASPK SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS20 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2715822.2	103.0	%	0.23				0.23%
ScR 361.383	344640.3	104.4	%	1.23				1.18%
Ag 328.068†	35199.2	0.1966	mg/L	0.00030	0.9832	mg/L	0.00148	0.15%
Al 308.215†	114209.7	66.59	mg/L	0.860	332.9	mg/L	4.30	1.29%
As 188.979†	1525.3	0.8860	mg/L	0.00652	4.430	mg/L	0.0326	0.74%
B 249.677†	95.1	0.01163	mg/L	0.001064	0.05817	mg/L	0.005320	9.15%
Ba 233.527†	7238.9	1.503	mg/L	0.0162	7.514	mg/L	0.0811	1.08%
Be 313.042†	123840.9	0.1936	mg/L	0.00169	0.9679	mg/L	0.00847	0.88%
Ca 317.933†	467746.6	33.35	mg/L	0.389	166.8	mg/L	1.94	1.17%
Cd 228.802†	7889.1	0.2530	mg/L	0.00092	1.265	mg/L	0.0046	0.36%
Co 228.616†	9158.1	0.2331	mg/L	0.00079	1.166	mg/L	0.0039	0.34%
Cr 267.716†	1965.5	0.3051	mg/L	0.00399	1.525	mg/L	0.0200	1.31%
Cu 324.752†	75420.4	0.2895	mg/L	0.00012	1.447	mg/L	0.0006	0.04%
Fe 273.955†	114764.9	82.03	mg/L	0.908	410.2	mg/L	4.54	1.11%
K 766.490†	18890.5	9.640	mg/L	0.1112	48.20	mg/L	0.556	1.15%
Mg 279.077†	35749.0	25.16	mg/L	0.307	125.8	mg/L	1.53	1.22%
Mn 257.610†	112719.0	2.933	mg/L	0.0324	14.66	mg/L	0.162	1.10%
Mo 202.031†	72.9	0.00309	mg/L	0.000262	0.01546	mg/L	0.001309	8.47%
Na 589.592†	56690.5	4.610	mg/L	0.0503	23.05	mg/L	0.251	1.09%
Na 330.237†	140.2	4.695	mg/L	0.0466	23.47	mg/L	0.233	0.99%
Ni 231.604†	1178.0	0.2771	mg/L	0.00403	1.385	mg/L	0.0202	1.45%
Pb 220.353†	19471.3	2.390	mg/L	0.0083	11.95	mg/L	0.041	0.35%
Sb 206.836†	45.5	0.01100	mg/L	0.002576	0.05502	mg/L	0.012881	23.41%
Se 196.026†	1158.4	0.7807	mg/L	0.00678	3.903	mg/L	0.0339	0.87%
Si 288.158†	1477.7	0.6964	mg/L	0.00542	3.482	mg/L	0.0271	0.78%
Sn 189.927†	-32.3	-0.00357	mg/L	0.001198	-0.01783	mg/L	0.005992	33.61%
Sr 421.552†	374232.4	0.4175	mg/L	0.00433	2.088	mg/L	0.0217	1.04%
Ti 334.903†	54070.1	2.545	mg/L	0.0267	12.73	mg/L	0.134	1.05%
Tl 190.801†	1907.1	0.7550	mg/L	0.00199	3.775	mg/L	0.0099	0.26%
V 292.402†	40063.4	0.3075	mg/L	0.00069	1.537	mg/L	0.0034	0.22%
Zn 206.200†	7872.8	1.967	mg/L	0.0237	9.834	mg/L	0.1183	1.20%

Sequence No.: 90 ZZZZZZ
Sample ID: ~~VS20 APOST SWC~~ BA
Analyst: BA
Dilution: 5.000000X 11/26/12

Autosampler Location: 363
Date Collected: 11/23/2012 3:35:28 PM
Data Type: Original

Nebulizer Parameters: VS20 APOST SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS20 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2747143.2	104.2	%	0.35				0.34%
ScR 361.383	345702.9	104.7	%	0.79				0.75%
Ag 328.068†	88256.4	0.4930	mg/L	0.00295	2.465	mg/L	0.0148	0.60%
Al 308.215†	114708.1	66.88	mg/L	0.812	334.4	mg/L	4.06	1.21%
As 188.979†	3860.0	2.133	mg/L	0.0112	10.66	mg/L	0.056	0.52%
B 249.677†	90.9	0.01046	mg/L	0.000574	0.05232	mg/L	0.002870	5.49%
Ba 233.527†	13120.1	2.734	mg/L	0.0302	13.67	mg/L	0.151	1.10%
Be 313.042†	316876.3	0.4954	mg/L	0.00665	2.477	mg/L	0.0333	1.34%
Ca 317.933†	540799.3	38.56	mg/L	0.586	192.8	mg/L	2.93	1.52%
Cd 228.802†	17939.4	0.5749	mg/L	0.00294	2.874	mg/L	0.0147	0.51%
Co 228.616†	21062.4	0.5441	mg/L	0.00270	2.720	mg/L	0.0135	0.50%
Cr 267.716†	3983.6	0.6173	mg/L	0.00540	3.086	mg/L	0.0270	0.87%
Cu 324.752†	159700.5	0.6097	mg/L	0.00330	3.049	mg/L	0.0165	0.54%
Fe 273.955†	115843.7	82.80	mg/L	1.063	414.0	mg/L	5.32	1.28%
K 766.490†	31258.9	15.95	mg/L	0.159	79.76	mg/L	0.795	1.00%
Mg 279.077†	45Q72.6	31.73	mg/L	0.447	158.7	mg/L	2.23	1.41%
Mn 257.610†	120755.4	3.142	mg/L	0.0406	15.71	mg/L	0.203	1.29%
Mo 202.031†	83.1	0.00350	mg/L	0.000142	0.01752	mg/L	0.000711	4.06%
Na 589.592†	129500.1	10.53	mg/L	0.135	52.65	mg/L	0.677	1.29%
Na 330.237†	332.5	11.14	mg/L	0.297	55.69	mg/L	1.486	2.67%
Ni 231.604†	2447.9	0.5756	mg/L	0.00658	2.878	mg/L	0.0329	1.14%
Pb 220.353†	29395.1	3.602	mg/L	0.0191	18.01	mg/L	0.096	0.53%
Sb 206.836†	53.1	0.00993	mg/L	0.000811	0.04964	mg/L	0.004053	8.16%
Se 196.026†	3022.7	2.037	mg/L	0.0117	10.19	mg/L	0.059	0.58%
Si 288.158†	1241.4	0.5876	mg/L	0.00464	2.938	mg/L	0.0232	0.79%
Sn 189.927†	-34.5	-0.00343	mg/L	0.000460	-0.01713	mg/L	0.002300	13.42%
Sr 421.552†	643223.3	0.7176	mg/L	0.00878	3.588	mg/L	0.0439	1.22%
Ti 334.903†	53635.3	2.524	mg/L	0.0346	12.62	mg/L	0.173	1.37%
Tl 190.801†	4923.2	1.936	mg/L	0.0086	9.682	mg/L	0.0431	0.45%
V 292.402†	79673.3	0.6154	mg/L	0.00299	3.077	mg/L	0.0150	0.49%
Zn 206.200†	8849.6	2.211	mg/L	0.0279	11.05	mg/L	0.139	1.26%

Sequence No.: 91 **Autosampler Location: 364**
Sample ID: VS20 MB1SPK SWC **Date Collected: 11/23/2012 3:39:30 PM**
Analyst: BA **Data Type: Original**
Dilution: 2.000000X

Nebulizer Parameters: VS20 MB1SPK SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS20 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2739960.8	103.9	%	0.41				0.40%
ScR 361.383	341958.2	103.6	%	1.17				1.13%
Ag 328.068†	93826.8	0.5241	mg/L	0.00347	1.048	mg/L	0.0069	0.66%
Al 308.215†	3533.2	2.053	mg/L	0.0221	4.106	mg/L	0.0441	1.07%
As 188.979†	3850.5	2.057	mg/L	0.0049	4.115	mg/L	0.0098	0.24%
B 249.677†	13.8	0.00070	mg/L	0.000415	0.00141	mg/L	0.000831	59.02%
Ba 233.527†	9749.8	2.042	mg/L	0.0231	4.084	mg/L	0.0462	1.13%
Be 313.042†	322165.1	0.5037	mg/L	0.00602	1.007	mg/L	0.0120	1.19%
Ca 317.933†	140739.3	10.04	mg/L	0.110	20.07	mg/L	0.221	1.10%
Cd 228.802†	16339.2	0.5231	mg/L	0.00403	1.046	mg/L	0.0081	0.77%
Co 228.616†	19631.2	0.5127	mg/L	0.00344	1.025	mg/L	0.0069	0.67%
Cr 267.716†	3315.6	0.5130	mg/L	0.00492	1.026	mg/L	0.0098	0.96%
Cu 324.752†	136852.5	0.5201	mg/L	0.00348	1.040	mg/L	0.0070	0.67%
Fe 273.955†	2958.1	2.111	mg/L	0.0161	4.222	mg/L	0.0322	0.76%
K 766.490†	19658.0	10.03	mg/L	0.137	20.06	mg/L	0.274	1.37%
Mg 279.077†	14798.9	10.43	mg/L	0.089	20.87	mg/L	0.179	0.86%
Mn 257.610†	19652.5	0.5116	mg/L	0.00493	1.023	mg/L	0.0099	0.96%
Mo 202.031†	22.7	0.00094	mg/L	0.000103	0.00188	mg/L	0.000206	10.95%
Na 589.592†	121614.3	9.889	mg/L	0.1172	19.78	mg/L	0.234	1.19%
Na 330.237†	321.1	10.74	mg/L	0.109	21.47	mg/L	0.217	1.01%
Ni 231.604†	2145.7	0.5044	mg/L	0.00409	1.009	mg/L	0.0082	0.81%
Pb 220.353†	16599.0	2.027	mg/L	0.0092	4.055	mg/L	0.0184	0.45%
Sb 206.836†	13.7	-0.00144	mg/L	0.000493	-0.00288	mg/L	0.000986	34.23%
Se 196.026†	3016.1	2.033	mg/L	0.0055	4.066	mg/L	0.0109	0.27%
Si 288.158†	-2.5	0.00203	mg/L	0.006752	0.00406	mg/L	0.013504	332.22%
Sn 189.927†	-18.8	-0.00343	mg/L	0.000600	-0.00685	mg/L	0.001200	17.52%
Sr 421.552†	454307.2	0.5069	mg/L	0.00595	1.014	mg/L	0.0119	1.17%
Ti 334.903†	51.2	0.00183	mg/L	0.000132	0.00366	mg/L	0.000263	7.20%
Tl 190.801†	5122.8	2.007	mg/L	0.0071	4.014	mg/L	0.0143	0.36%
V 292.402†	66032.7	0.5132	mg/L	0.00270	1.026	mg/L	0.0054	0.53%
Zn 206.200†	2049.6	0.5121	mg/L	0.00461	1.024	mg/L	0.0092	0.90%

Sequence No.: 92
Sample ID: CV
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/23/2012 3:43:30 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2710003.2	102.7	%	0.24				0.23%
ScR 361.383	342775.7	103.9	%	1.93				1.86%
Ag 328.068†	184450.6	1.030	mg/L	0.0024	1.030	mg/L	0.0024	0.23%
Al 308.215†	3453.7	1.979	mg/L	0.0502	1.979	mg/L	0.0502	2.53%
As 188.979†	3808.0	2.061	mg/L	0.0093	2.061	mg/L	0.0093	0.45%
B 249.677†	7586.3	0.9665	mg/L	0.02063	0.9665	mg/L	0.02063	2.13%
Ba 233.527†	4740.0	0.9924	mg/L	0.02022	0.9924	mg/L	0.02022	2.04%
Be 313.042†	614505.8	0.9608	mg/L	0.02064	0.9608	mg/L	0.02064	2.15%
Ca 317.933†	28529.9	2.034	mg/L	0.0445	2.034	mg/L	0.0445	2.19%
Cd 228.802†	31963.6	1.037	mg/L	0.0038	1.037	mg/L	0.0038	0.36%
Co 228.616†	39115.4	1.020	mg/L	0.0040	1.020	mg/L	0.0040	0.39%
Cr 267.716†	6403.8	0.9924	mg/L	0.02107	0.9924	mg/L	0.02107	2.12%
Cu 324.752†	271417.2	1.031	mg/L	0.0038	1.031	mg/L	0.0038	0.37%
Fe 273.955†	2876.7	2.049	mg/L	0.0486	2.049	mg/L	0.0486	2.37%
K 766.490†	38615.5	19.71	mg/L	0.465	19.71	mg/L	0.465	2.36%
Mg 279.077†	2827.3	2.000	mg/L	0.0531	2.000	mg/L	0.0531	2.66%
Mn 257.610†	38562.9	1.004	mg/L	0.0235	1.004	mg/L	0.0235	2.34%
Mo 202.031†	21486.1	1.022	mg/L	0.0036	1.022	mg/L	0.0036	0.35%
Na 589.592†	607334.1	49.38	mg/L	1.155	49.38	mg/L	1.155	2.34%
Na 330.237†	1539.7	52.19	mg/L	1.102	52.19	mg/L	1.102	2.11%
Ni 231.604†	4167.2	0.9816	mg/L	0.02075	0.9816	mg/L	0.02075	2.11%
Pb 220.353†	17123.6	2.092	mg/L	0.0040	2.092	mg/L	0.0040	0.19%
Sb 206.836†	7266.6	2.099	mg/L	0.0075	2.099	mg/L	0.0075	0.36%
Se 196.026†	2993.4	2.017	mg/L	0.0068	2.017	mg/L	0.0068	0.34%
Si 288.158†	4415.8	2.068	mg/L	0.0431	2.068	mg/L	0.0431	2.08%
Sn 189.927†	4058.7	1.023	mg/L	0.0034	1.023	mg/L	0.0034	0.33%
Sr 421.552†	875832.9	0.9771	mg/L	0.02197	0.9771	mg/L	0.02197	2.25%
Ti 334.903†	22252.2	1.047	mg/L	0.0230	1.047	mg/L	0.0230	2.19%
Tl 190.801†	5154.2	2.015	mg/L	0.0057	2.015	mg/L	0.0057	0.28%
V 292.402†	132781.6	1.032	mg/L	0.0020	1.032	mg/L	0.0020	0.19%
Zn 206.200†	4108.2	1.026	mg/L	0.0218	1.026	mg/L	0.0218	2.13%

Sequence No.: 93
Sample ID: CB 10
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/23/2012 3:47:51 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2687976.4	101.9	%	0.35				0.34%
ScR 361.383	339696.2	102.9	%	1.54				1.49%
Ag 328.068†	12.1	0.00007	mg/L	0.000035	0.00007	mg/L	0.000035	51.98%
Al 308.215†	4.0	0.00232	mg/L	0.002727	0.00232	mg/L	0.002727	117.37%
As 188.979†	-0.0	0.00003	mg/L	0.001500	0.00003	mg/L	0.001500	>999.9%
B 249.677†	14.2	0.00181	mg/L	0.000489	0.00181	mg/L	0.000489	27.08%
Ba 233.527†	-1.3	-0.00028	mg/L	0.000416	-0.00028	mg/L	0.000416	149.51%
Be 313.042†	103.3	0.00016	mg/L	0.000037	0.00016	mg/L	0.000037	22.98%
Ca 317.933†	22.1	0.00158	mg/L	0.000254	0.00158	mg/L	0.000254	16.09%
Cd 228.802†	5.0	0.00016	mg/L	0.000222	0.00016	mg/L	0.000222	134.63%
Co 228.616†	13.7	0.00036	mg/L	0.000022	0.00036	mg/L	0.000022	6.14%
Cr 267.716†	1.6	0.00024	mg/L	0.000234	0.00024	mg/L	0.000234	95.56%
Cu 324.752†	-26.4	-0.00010	mg/L	0.000048	-0.00010	mg/L	0.000048	47.70%
Fe 273.955†	4.2	0.00302	mg/L	0.001497	0.00302	mg/L	0.001497	49.62%
K 766.490†	-0.1	-0.00004	mg/L	0.016336	-0.00004	mg/L	0.016336	>999.9%
Mg 279.077†	-2.8	-0.00199	mg/L	0.002246	-0.00199	mg/L	0.002246	112.88%
Mn 257.610†	12.0	0.00031	mg/L	0.000048	0.00031	mg/L	0.000048	15.54%
Mo 202.031†	14.9	0.00071	mg/L	0.000091	0.00071	mg/L	0.000091	12.82%
Na 589.592†	108.3	0.00881	mg/L	0.002051	0.00881	mg/L	0.002051	23.29%
Na 330.237†	-0.5	-0.01521	mg/L	0.382120	-0.01521	mg/L	0.382120	>999.9%
Ni 231.604†	2.9	0.00069	mg/L	0.000724	0.00069	mg/L	0.000724	105.57%
Pb 220.353†	7.8	0.00095	mg/L	0.000152	0.00095	mg/L	0.000152	16.08%
Sb 206.836†	3.0	0.00088	mg/L	0.000190	0.00088	mg/L	0.000190	21.69%
Se 196.026†	2.0	0.00136	mg/L	0.002113	0.00136	mg/L	0.002113	155.14%
Si 288.158†	-4.4	-0.00206	mg/L	0.005520	-0.00206	mg/L	0.005520	268.24%
Sn 189.927†	0.2	0.00005	mg/L	0.000533	0.00005	mg/L	0.000533	>999.9%
Sr 421.552†	177.0	0.00020	mg/L	0.000033	0.00020	mg/L	0.000033	16.64%
Ti 334.903†	24.9	0.00117	mg/L	0.000582	0.00117	mg/L	0.000582	49.69%
Tl 190.801†	4.4	0.00171	mg/L	0.000594	0.00171	mg/L	0.000594	34.66%
V 292.402†	45.8	0.00036	mg/L	0.000005	0.00036	mg/L	0.000005	1.31%
Zn 206.200†	-0.3	-0.00008	mg/L	0.000242	-0.00008	mg/L	0.000242	295.04%

Sequence No.: 94
Sample ID: VS20 E SWC
Analyst: BA
Dilution: 5.000000X

Del

Autosampler Location: 365
Date Collected: 11/23/2012 3:52:06 PM
Data Type: Original

Nebulizer Parameters: VS20 E SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS20 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2722732.3	103.2	%	0.18				0.17%
ScR 361.383	344421.2	104.4	%	2.87				2.75%
Ag 328.068†	570.1	0.00321	mg/L	0.000395	0.01607	mg/L	0.001976	12.30%
Al 308.215†	146322.0	85.32	mg/L	3.044	426.6	mg/L	15.22	3.57%
As 188.979†	83.7	0.09512	mg/L	0.000724	0.4756	mg/L	0.00362	0.76%
B 249.677†	77.6	0.00964	mg/L	0.000640	0.04820	mg/L	0.003200	6.64%
Ba 233.527†	5256.8	1.074	mg/L	0.0281	5.369	mg/L	0.1406	2.62%
Be 313.042†	3783.4	0.00587	mg/L	0.000212	0.02937	mg/L	0.001058	3.60%
Ca 317.933†	702738.0	50.11	mg/L	1.876	250.6	mg/L	9.38	3.74%
Cd 228.802†	1221.0	0.03839	mg/L	0.000137	0.1920	mg/L	0.00068	0.36%
Co 228.616†	4850.8	0.1209	mg/L	0.00055	0.6043	mg/L	0.00274	0.45%
Cr 267.716†	493.2	0.07757	mg/L	0.001915	0.3878	mg/L	0.00958	2.47%
Cu 324.752†	52246.9	0.2051	mg/L	0.00026	1.026	mg/L	0.0013	0.13%
Fe 273.955†	232529.7	166.2	mg/L	6.11	831.0	mg/L	30.54	3.68%
K 766.490†	8116.4	4.142	mg/L	0.1330	20.71	mg/L	0.665	3.21%
Mg 279.077†	59599.0	41.93	mg/L	1.542	209.6	mg/L	7.71	3.68%
Mn 257.610†	538631.0	14.01	mg/L	0.508	70.06	mg/L	2.541	3.63%
Mo 202.031†	142.4	0.00623	mg/L	0.000459	0.03116	mg/L	0.002296	7.37%
Na 589.592†	6553.5	0.5329	mg/L	0.01892	2.664	mg/L	0.0946	3.55%
Na 330.237†	25.5	0.5732	mg/L	0.27689	2.866	mg/L	1.3845	48.30%
Ni 231.604†	908.7	0.2140	mg/L	0.00557	1.070	mg/L	0.0278	2.60%
Pb 220.353†	12823.0	1.579	mg/L	0.0031	7.896	mg/L	0.0153	0.19%
Sb 206.836†	56.4	0.01630	mg/L	0.000950	0.08148	mg/L	0.004751	5.83%
Se 196.026†	22.5	0.01505	mg/L	0.003173	0.07523	mg/L	0.015863	21.09%
Si 288.158†	937.8	0.4446	mg/L	0.00924	2.223	mg/L	0.0462	2.08%
Sn 189.927†	-46.3	-0.00513	mg/L	0.001136	-0.02563	mg/L	0.005682	22.17%
Sr 421.552†	339629.9	0.3789	mg/L	0.01368	1.895	mg/L	0.0684	3.61%
Ti 334.903†	39539.2	1.860	mg/L	0.0666	9.300	mg/L	0.3329	3.58%
Tl 190.801†	-27.4	0.00592	mg/L	0.002290	0.02959	mg/L	0.011451	38.70%
V 292.402†	13599.9	0.1009	mg/L	0.00045	0.5043	mg/L	0.00227	0.45%
Zn 206.200†	8706.1	2.175	mg/L	0.0632	10.87	mg/L	0.316	2.90%

Sequence No.: 95
Sample ID: VS20 F SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 366
Date Collected: 11/23/2012 3:56:09 PM
Data Type: Original

Nebulizer Parameters: VS20 F SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS20 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2730734.2	103.5	%	0.20				0.19%
ScR 361.383	343450.1	104.1	%	1.65				1.59%
Ag 328.068†	512.2	0.00290	mg/L	0.000223	0.01449	mg/L	0.001114	7.69%
Al 308.215†	170196.9	99.24	mg/L	2.337	496.2	mg/L	11.69	2.36%
As 188.979†	-3.1	0.05913	mg/L	0.002339	0.2957	mg/L	0.01169	3.96%
B 249.677†	39.0	0.00476	mg/L	0.000372	0.02378	mg/L	0.001862	7.83%
Ba 233.527†	2619.3	0.5102	mg/L	0.01296	2.551	mg/L	0.0648	2.54%
Be 313.042†	4602.1	0.00714	mg/L	0.000175	0.03572	mg/L	0.000877	2.46%
Ca 317.933†	594834.3	42.42	mg/L	1.026	212.1	mg/L	5.13	2.42%
Cd 228.802†	501.7	0.01445	mg/L	0.000160	0.07227	mg/L	0.000798	1.10%
Co 228.616†	4162.0	0.1013	mg/L	0.00028	0.5067	mg/L	0.00141	0.28%
Cr 267.716†	578.6	0.09302	mg/L	0.001431	0.4651	mg/L	0.00716	1.54%
Cu 324.752†	53384.1	0.2123	mg/L	0.00013	1.062	mg/L	0.0007	0.06%
Fe 273.955†	327735.3	234.3	mg/L	5.57	1171	mg/L	27.87	2.38%
K 766.490†	7335.8	3.744	mg/L	0.0806	18.72	mg/L	0.403	2.15%
Mg 279.077†	73884.1	51.96	mg/L	1.252	259.8	mg/L	6.26	2.41%
Mn 257.610†	402317.8	10.47	mg/L	0.248	52.33	mg/L	1.241	2.37%
Mo 202.031†	167.3	0.00750	mg/L	0.000052	0.03750	mg/L	0.000260	0.69%
Na 589.592†	7581.0	0.6164	mg/L	0.01155	3.082	mg/L	0.0577	1.87%
Na 330.237†	10.8	0.4037	mg/L	0.07847	2.019	mg/L	0.3923	19.44%
Ni 231.604†	972.5	0.2290	mg/L	0.00702	1.145	mg/L	0.0351	3.07%
Pb 220.353†	6635.8	0.8242	mg/L	0.00254	4.121	mg/L	0.0127	0.31%
Sb 206.836†	53.0	0.01537	mg/L	0.000918	0.07683	mg/L	0.004590	5.97%
Se 196.026†	19.1	0.01273	mg/L	0.003879	0.06364	mg/L	0.019396	30.48%
Si 288.158†	1033.8	0.4908	mg/L	0.01387	2.454	mg/L	0.0693	2.83%
Sn 189.927†	-52.9	-0.00773	mg/L	0.000957	-0.03867	mg/L	0.004783	12.37%
Sr 421.552†	253578.9	0.2829	mg/L	0.00627	1.415	mg/L	0.0314	2.22%
Ti 334.903†	46956.2	2.210	mg/L	0.0522	11.05	mg/L	0.261	2.36%
Tl 190.801†	-66.6	-0.00218	mg/L	0.001292	-0.01090	mg/L	0.006459	59.26%
V 292.402†	16997.3	0.1241	mg/L	0.00042	0.6204	mg/L	0.00212	0.34%
Zn 206.200†	5660.9	1.414	mg/L	0.0303	7.071	mg/L	0.1516	2.14%

Sequence No.: 96 **Autosampler Location: 367**
Sample ID: VS20 G SWC **Date Collected: 11/23/2012 4:00:10 PM**
Analyst: BA **Data Type: Original**
Dilution: 5.000000X

Nebulizer Parameters: VS20 G SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS20 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2725535.4	103.3	%	0.39				0.38%
ScR 361.383	343571.6	104.1	%	2.29				2.20%
Ag 328.068†	31.0	0.00021	mg/L	0.000126	0.00104	mg/L	0.000631	60.87%
Al 308.215†	139449.7	81.31	mg/L	1.928	406.6	mg/L	9.64	2.37%
As 188.979†	-1.6	0.07478	mg/L	0.002680	0.3739	mg/L	0.01340	3.58%
B 249.677†	99.2	0.01257	mg/L	0.000852	0.06284	mg/L	0.004259	6.78%
Ba 233.527†	7133.7	1.480	mg/L	0.0277	7.398	mg/L	0.1387	1.87%
Be 313.042†	1415.4	0.00216	mg/L	0.000043	0.01079	mg/L	0.000217	2.02%
Ca 317.933†	350921.9	25.02	mg/L	0.571	125.1	mg/L	2.86	2.28%
Cd 228.802†	987.7	0.03167	mg/L	0.000299	0.1583	mg/L	0.00150	0.94%
Co 228.616†	1726.9	0.03862	mg/L	0.000090	0.1931	mg/L	0.00045	0.23%
Cr 267.716†	608.7	0.09483	mg/L	0.000888	0.4742	mg/L	0.00444	0.94%
Cu 324.752†	23620.7	0.09296	mg/L	0.000664	0.4648	mg/L	0.00332	0.71%
Fe 273.955†	124516.8	89.00	mg/L	2.136	445.0	mg/L	10.68	2.40%
K 766.490†	10766.0	5.494	mg/L	0.1203	27.47	mg/L	0.602	2.19%
Mg 279.077†	28521.8	20.06	mg/L	0.379	100.3	mg/L	1.89	1.89%
Mn 257.610†	431508.3	11.22	mg/L	0.258	56.12	mg/L	1.288	2.29%
Mo 202.031†	90.8	0.00404	mg/L	0.000164	0.02022	mg/L	0.000818	4.04%
Na 589.592†	9494.5	0.7720	mg/L	0.01293	3.860	mg/L	0.0646	1.67%
Na 330.237†	17.4	0.6936	mg/L	0.14743	3.468	mg/L	0.7371	21.26%
Ni 231.604†	428.4	0.1009	mg/L	0.00148	0.5045	mg/L	0.00742	1.47%
Pb 220.353†	9467.2	1.172	mg/L	0.0058	5.859	mg/L	0.0288	0.49%
Sb 206.836†	26.8	0.00794	mg/L	0.002330	0.03970	mg/L	0.011652	29.35%
Se 196.026†	15.8	0.01055	mg/L	0.003063	0.05275	mg/L	0.015313	29.03%
Si 288.158†	1161.8	0.5469	mg/L	0.01175	2.735	mg/L	0.0588	2.15%
Sn 189.927†	-32.0	-0.00453	mg/L	0.001275	-0.02265	mg/L	0.006376	28.16%
Sr 421.552†	211757.0	0.2362	mg/L	0.00546	1.181	mg/L	0.0273	2.31%
Ti 334.903†	57277.1	2.697	mg/L	0.0649	13.48	mg/L	0.324	2.41%
Tl 190.801†	-14.7	0.00306	mg/L	0.002895	0.01528	mg/L	0.014476	94.73%
V 292.402†	15281.8	0.1157	mg/L	0.00028	0.5787	mg/L	0.00140	0.24%
Zn 206.200†	6216.9	1.553	mg/L	0.0304	7.765	mg/L	0.1521	1.96%

Sequence No.: 97
Sample ID: VS20 H SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 368
Date Collected: 11/23/2012 4:04:10 PM
Data Type: Original

Nebulizer Parameters: VS20 H SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS20 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2775405.7	105.2	%	0.27				0.25%
ScR 361.383	351563.0	106.5	%	0.59				0.55%
Ag 328.068†	-148.0	-0.00077	mg/L	0.000217	-0.00386	mg/L	0.001083	28.07%
Al 308.215†	160632.4	93.66	mg/L	0.517	468.3	mg/L	2.59	0.55%
As 188.979†	-131.6	0.03621	mg/L	0.001326	0.1811	mg/L	0.00663	3.66%
B 249.677†	37.8	0.00471	mg/L	0.001139	0.02355	mg/L	0.005693	24.18%
Ba 233.527†	4458.8	0.9162	mg/L	0.00999	4.581	mg/L	0.0499	1.09%
Be 313.042†	1670.8	0.00253	mg/L	0.000033	0.01265	mg/L	0.000164	1.29%
Ca 317.933†	223971.5	15.97	mg/L	0.125	79.86	mg/L	0.623	0.78%
Cd 228.802†	306.6	0.00959	mg/L	0.000119	0.04793	mg/L	0.000594	1.24%
Co 228.616†	2171.9	0.04799	mg/L	0.000114	0.2400	mg/L	0.00057	0.24%
Cr 267.716†	851.2	0.1332	mg/L	0.00096	0.6660	mg/L	0.00479	0.72%
Cu 324.752†	31099.6	0.1219	mg/L	0.00031	0.6096	mg/L	0.00157	0.26%
Fe 273.955†	150856.4	107.8	mg/L	0.52	539.1	mg/L	2.60	0.48%
K 766.490†	13739.4	7.011	mg/L	0.0622	35.06	mg/L	0.311	0.89%
Mg 279.077†	40482.4	28.48	mg/L	0.213	142.4	mg/L	1.06	0.75%
Mn 257.610†	134895.8	3.509	mg/L	0.0198	17.55	mg/L	0.099	0.56%
Mo 202.031†	85.1	0.00387	mg/L	0.000299	0.01934	mg/L	0.001493	7.72%
Na 589.592†	6801.1	0.5530	mg/L	0.00647	2.765	mg/L	0.0324	1.17%
Na 330.237†	-1.5	0.6040	mg/L	0.16688	3.020	mg/L	0.8344	27.63%
Ni 231.604†	431.1	0.1015	mg/L	0.00200	0.5076	mg/L	0.00999	1.97%
Pb 220.353†	2340.7	0.3039	mg/L	0.00029	1.519	mg/L	0.0014	0.09%
Sb 206.836†	14.0	0.00446	mg/L	0.000699	0.02228	mg/L	0.003496	15.70%
Se 196.026†	16.4	0.01094	mg/L	0.002471	0.05468	mg/L	0.012356	22.60%
Si 288.158†	2273.1	1.069	mg/L	0.0118	5.343	mg/L	0.0588	1.10%
Sn 189.927†	-34.4	-0.00614	mg/L	0.000990	-0.03069	mg/L	0.004949	16.12%
Sr 421.552†	146011.5	0.1629	mg/L	0.00096	0.8145	mg/L	0.00479	0.59%
Ti 334.903†	79829.0	3.759	mg/L	0.0236	18.80	mg/L	0.118	0.63%
Tl 190.801†	-20.9	0.00230	mg/L	0.002485	0.01150	mg/L	0.012426	108.02%
V 292.402†	24872.7	0.1877	mg/L	0.00021	0.9385	mg/L	0.00105	0.11%
Zn 206.200†	2421.0	0.6048	mg/L	0.00698	3.024	mg/L	0.0349	1.15%

Sequence No.: 98
Sample ID: VS20 I SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 369
Date Collected: 11/23/2012 4:08:10 PM
Data Type: Original

Nebulizer Parameters: VS20 I SWC

Analyte	Back Pressure	Flow
A11	219.0 kPa	0.75 L/min

Mean Data: VS20 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2735138.4	103.7	%	0.52				0.51%
ScR 361.383	353530.2	107.1	%	1.53				1.43%
Ag 328.068†	-69.7	-0.00034	mg/L	0.000157	-0.00171	mg/L	0.000786	46.07%
Al 308.215†	119872.6	69.89	mg/L	1.041	349.5	mg/L	5.20	1.49%
As 188.979†	-40.0	0.04272	mg/L	0.003269	0.2136	mg/L	0.01635	7.65%
B 249.677†	68.9	0.00869	mg/L	0.000339	0.04346	mg/L	0.001695	3.90%
Ba 233.527†	8972.1	1.864	mg/L	0.0220	9.321	mg/L	0.1101	1.18%
Be 313.042†	1130.4	0.00171	mg/L	0.000044	0.00854	mg/L	0.000221	2.59%
Ca 317.933†	329876.8	23.52	mg/L	0.364	117.6	mg/L	1.82	1.55%
Cd 228.802†	390.0	0.01213	mg/L	0.000310	0.06064	mg/L	0.001549	2.55%
Co 228.616†	1763.8	0.04030	mg/L	0.000265	0.2015	mg/L	0.00133	0.66%
Cr 267.716†	619.4	0.09692	mg/L	0.000332	0.4846	mg/L	0.00166	0.34%
Cu 324.752†	19923.1	0.07910	mg/L	0.000290	0.3955	mg/L	0.00145	0.37%
Fe 273.955†	128598.1	91.92	mg/L	1.191	459.6	mg/L	5.96	1.30%
K 766.490†	15893.7	8.111	mg/L	0.1421	40.55	mg/L	0.710	1.75%
Mg 279.077†	32677.1	22.99	mg/L	0.340	114.9	mg/L	1.70	1.48%
Mn 257.610†	193497.4	5.034	mg/L	0.0686	25.17	mg/L	0.343	1.36%
Mo 202.031†	56.9	0.00245	mg/L	0.000263	0.01224	mg/L	0.001313	10.73%
Na 589.592†	12267.4	0.9975	mg/L	0.01105	4.987	mg/L	0.0552	1.11%
Na 330.237†	25.2	1.116	mg/L	0.3813	5.581	mg/L	1.9066	34.16%
Ni 231.604†	314.5	0.07407	mg/L	0.002119	0.3704	mg/L	0.01060	2.86%
Pb 220.353†	3297.8	0.4157	mg/L	0.00144	2.078	mg/L	0.0072	0.35%
Sb 206.836†	12.6	0.00382	mg/L	0.001815	0.01909	mg/L	0.009076	47.54%
Se 196.026†	4.5	0.00290	mg/L	0.005463	0.01448	mg/L	0.027316	188.65%
Si 288.158†	1794.5	0.8437	mg/L	0.01641	4.219	mg/L	0.0820	1.94%
Sn 189.927†	-37.4	-0.00617	mg/L	0.000438	-0.03087	mg/L	0.002190	7.09%
Sr 421.552†	273051.0	0.3046	mg/L	0.00430	1.523	mg/L	0.0215	1.41%
Ti 334.903†	48654.6	2.291	mg/L	0.0315	11.45	mg/L	0.157	1.37%
Tl 190.801†	-13.0	0.00388	mg/L	0.001261	0.01942	mg/L	0.006303	32.47%
V 292.402†	21438.9	0.1626	mg/L	0.00027	0.8129	mg/L	0.00135	0.17%
Zn 206.200†	3173.2	0.7927	mg/L	0.00966	3.963	mg/L	0.0483	1.22%

Sequence No.: 99
Sample ID: VS20 J SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 370
Date Collected: 11/23/2012 4:12:10 PM
Data Type: Original

Nebulizer Parameters: VS20 J SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS20 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2761822.8	104.7	%	0.07				0.07%
ScR 361.383	352252.2	106.7	%	1.58				1.48%
Ag 328.068†	-85.8	-0.00044	mg/L	0.000130	-0.00219	mg/L	0.000648	29.65%
Al 308.215†	104237.4	60.78	mg/L	1.060	303.9	mg/L	5.30	1.74%
As 188.979†	-104.4	0.02925	mg/L	0.001276	0.1463	mg/L	0.00638	4.36%
B 249.677†	125.7	0.01597	mg/L	0.001078	0.07984	mg/L	0.005388	6.75%
Ba 233.527†	4660.3	0.9652	mg/L	0.01955	4.826	mg/L	0.0977	2.03%
Be 313.042†	1218.7	0.00184	mg/L	0.000072	0.00920	mg/L	0.000359	3.90%
Ca 317.933†	577125.4	41.15	mg/L	0.705	205.8	mg/L	3.53	1.71%
Cd 228.802†	310.6	0.00998	mg/L	0.000108	0.04991	mg/L	0.000538	1.08%
Co 228.616†	1333.9	0.02799	mg/L	0.000293	0.1399	mg/L	0.00147	1.05%
Cr 267.716†	638.2	0.09952	mg/L	0.002388	0.4976	mg/L	0.01194	2.40%
Cu 324.752†	20870.3	0.08147	mg/L	0.000139	0.4074	mg/L	0.00070	0.17%
Fe 273.955†	93208.8	66.62	mg/L	1.231	333.1	mg/L	6.16	1.85%
K 766.490†	10690.2	5.455	mg/L	0.1087	27.28	mg/L	0.543	1.99%
Mg 279.077†	23790.8	16.74	mg/L	0.315	83.68	mg/L	1.573	1.88%
Mn 257.610†	72339.7	1.882	mg/L	0.0336	9.409	mg/L	0.1679	1.78%
Mo 202.031†	78.4	0.00328	mg/L	0.000152	0.01640	mg/L	0.000761	4.64%
Na 589.592†	12873.4	1.047	mg/L	0.0167	5.234	mg/L	0.0834	1.59%
Na 330.237†	20.9	1.195	mg/L	0.2298	5.974	mg/L	1.1490	19.23%
Ni 231.604†	266.4	0.06274	mg/L	0.000924	0.3137	mg/L	0.00462	1.47%
Pb 220.353†	3140.7	0.3954	mg/L	0.00114	1.977	mg/L	0.0057	0.29%
Sb 206.836†	15.9	0.00497	mg/L	0.000819	0.02487	mg/L	0.004096	16.47%
Se 196.026†	0.6	0.00030	mg/L	0.002360	0.00151	mg/L	0.011798	780.69%
Si 288.158†	1279.6	0.6017	mg/L	0.01227	3.009	mg/L	0.0614	2.04%
Sn 189.927†	-45.2	-0.00584	mg/L	0.000394	-0.02921	mg/L	0.001972	6.75%
Sr 421.552†	530640.9	0.5920	mg/L	0.00997	2.960	mg/L	0.0499	1.68%
Ti 334.903†	64946.5	3.057	mg/L	0.0523	15.29	mg/L	0.261	1.71%
Tl 190.801†	-8.2	0.00317	mg/L	0.001210	0.01585	mg/L	0.006051	38.17%
V 292.402†	18859.1	0.1426	mg/L	0.00051	0.7130	mg/L	0.00257	0.36%
Zn 206.200†	2584.6	0.6456	mg/L	0.01248	3.228	mg/L	0.0624	1.93%

Sequence No.: 100
Sample ID: VS20 K SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 371
Date Collected: 11/23/2012 4:16:11 PM
Data Type: Original

Nebulizer Parameters: VS20 K SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS20 K SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2758317.6	104.6	%	0.27				0.26%
ScR 361.383	351887.8	106.6	%	2.18				2.05%
Ag 328.068†	-50.3	-0.00024	mg/L	0.000096	-0.00121	mg/L	0.000480	39.57%
Al 308.215†	103549.4	60.37	mg/L	1.401	301.9	mg/L	7.01	2.32%
As 188.979†	-41.8	0.06864	mg/L	0.002432	0.3432	mg/L	0.01216	3.54%
B 249.677†	100.8	0.01279	mg/L	0.000388	0.06394	mg/L	0.001938	3.03%
Ba 233.527†	9396.8	1.956	mg/L	0.0375	9.782	mg/L	0.1873	1.91%
Be 313.042†	1323.1	0.00200	mg/L	0.000060	0.01002	mg/L	0.000302	3.02%
Ca 317.933†	415683.4	29.64	mg/L	0.685	148.2	mg/L	3.42	2.31%
Cd 228.802†	1480.3	0.04811	mg/L	0.000493	0.2405	mg/L	0.00247	1.03%
Co 228.616†	1390.4	0.02895	mg/L	0.000169	0.1448	mg/L	0.00084	0.58%
Cr 267.716†	625.9	0.09744	mg/L	0.000776	0.4872	mg/L	0.00388	0.80%
Cu 324.752†	22428.0	0.08761	mg/L	0.000276	0.4380	mg/L	0.00138	0.32%
Fe 273.955†	101570.0	72.60	mg/L	1.618	363.0	mg/L	8.09	2.23%
K 766.490†	17614.5	8.989	mg/L	0.2070	44.95	mg/L	1.035	2.30%
Mg 279.077†	26245.5	18.46	mg/L	0.417	92.32	mg/L	2.086	2.26%
Mn 257.610†	206964.8	5.384	mg/L	0.1252	26.92	mg/L	0.626	2.32%
Mo 202.031†	77.8	0.00338	mg/L	0.000470	0.01688	mg/L	0.002348	13.91%
Na 589.592†	7812.1	0.6352	mg/L	0.01985	3.176	mg/L	0.0993	3.13%
Na 330.237†	20.7	0.6894	mg/L	0.31720	3.447	mg/L	1.5860	46.01%
Ni 231.604†	279.4	0.06579	mg/L	0.000936	0.3289	mg/L	0.00468	1.42%
Pb 220.353†	12389.7	1.524	mg/L	0.0087	7.622	mg/L	0.0437	0.57%
Sb 206.836†	22.0	0.00685	mg/L	0.003172	0.03426	mg/L	0.015859	46.29%
Se 196.026†	4.9	0.00320	mg/L	0.004787	0.01598	mg/L	0.023936	149.75%
Si 288.158†	1545.1	0.7264	mg/L	0.01828	3.632	mg/L	0.0914	2.52%
Sn 189.927†	-18.6	-0.00049	mg/L	0.001581	-0.00244	mg/L	0.007903	324.37%
Sr 421.552†	243615.3	0.2718	mg/L	0.00659	1.359	mg/L	0.0329	2.42%
Ti 334.903†	68854.8	3.242	mg/L	0.0753	16.21	mg/L	0.376	2.32%
Tl 190.801†	-8.0	0.00392	mg/L	0.002431	0.01961	mg/L	0.012153	61.96%
V 292.402†	17051.1	0.1288	mg/L	0.00093	0.6441	mg/L	0.00463	0.72%
Zn 206.200†	9143.0	2.284	mg/L	0.0384	11.42	mg/L	0.192	1.68%

Sequence No.: 101
Sample ID: VS20 L SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 372
Date Collected: 11/23/2012 4:20:11 PM
Data Type: Original

Nebulizer Parameters: VS20 L SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS20 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2751547.4	104.3	%	0.74				0.71%
ScR 361.383	349259.2	105.8	%	1.74				1.65%
Ag 328.068†	160.7	0.00093	mg/L	0.000288	0.00464	mg/L	0.001442	31.07%
Al 308.215†	104417.8	60.88	mg/L	0.862	304.4	mg/L	4.31	1.42%
As 188.979†	16.9	0.07336	mg/L	0.003166	0.3668	mg/L	0.01583	4.32%
B 249.677†	82.6	0.01047	mg/L	0.000457	0.05234	mg/L	0.002284	4.36%
Ba 233.527†	8063.2	1.678	mg/L	0.0201	8.392	mg/L	0.1004	1.20%
Be 313.042†	950.6	0.00144	mg/L	0.000031	0.00719	mg/L	0.000153	2.13%
Ca 317.933†	264632.0	18.87	mg/L	0.269	94.35	mg/L	1.347	1.43%
Cd 228.802†	834.1	0.02675	mg/L	0.000232	0.1337	mg/L	0.00116	0.87%
Co 228.616†	1226.3	0.02665	mg/L	0.000496	0.1332	mg/L	0.00248	1.86%
Cr 267.716†	425.4	0.06647	mg/L	0.001148	0.3324	mg/L	0.00574	1.73%
Cu 324.752†	22230.7	0.08671	mg/L	0.001647	0.4336	mg/L	0.00823	1.90%
Fe 273.955†	89449.6	63.94	mg/L	0.950	319.7	mg/L	4.75	1.49%
K 766.490†	10030.3	5.119	mg/L	0.0863	25.59	mg/L	0.431	1.69%
Mg 279.077†	19043.0	13.39	mg/L	0.182	66.95	mg/L	0.908	1.36%
Mn 257.610†	254987.7	6.633	mg/L	0.0948	33.17	mg/L	0.474	1.43%
Mo 202.031†	64.9	0.00288	mg/L	0.000206	0.01442	mg/L	0.001030	7.14%
Na 589.592†	13437.4	1.093	mg/L	0.0138	5.463	mg/L	0.0690	1.26%
Na 330.237†	31.1	1.123	mg/L	0.1362	5.617	mg/L	0.6810	12.12%
Ni 231.604†	206.5	0.04864	mg/L	0.000582	0.2432	mg/L	0.00291	1.20%
Pb 220.353†	10345.4	1.275	mg/L	0.0186	6.376	mg/L	0.0932	1.46%
Sb 206.836†	38.8	0.01165	mg/L	0.002923	0.05827	mg/L	0.014614	25.08%
Se 196.026†	18.5	0.01238	mg/L	0.003145	0.06188	mg/L	0.015726	25.41%
Si 288.158†	1420.1	0.6672	mg/L	0.01070	3.336	mg/L	0.0535	1.60%
Sn 189.927†	-16.0	-0.00133	mg/L	0.000992	-0.00666	mg/L	0.004958	74.44%
Sr 421.552†	247619.4	0.2763	mg/L	0.00398	1.381	mg/L	0.0199	1.44%
Ti 334.903†	48582.8	2.287	mg/L	0.0316	11.44	mg/L	0.158	1.38%
Tl 190.801†	-3.9	0.00473	mg/L	0.003749	0.02367	mg/L	0.018744	79.20%
V 292.402†	14013.3	0.1062	mg/L	0.00192	0.5311	mg/L	0.00962	1.81%
Zn 206.200†	5502.3	1.375	mg/L	0.0175	6.873	mg/L	0.0877	1.28%

Sequence No.: 102
Sample ID: VS18 I SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 373
Date Collected: 11/23/2012 4:24:11 PM
Data Type: Original

Nebulizer Parameters: VS18 I SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS18 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2731981.2	103.6	%	0.69				0.67%
ScR 361.383	344675.4	104.4	%	2.31				2.21%
Ag 328.068†	788.0	0.00443	mg/L	0.000220	0.02216	mg/L	0.001100	4.96%
Al 308.215†	87586.8	51.07	mg/L	1.473	255.3	mg/L	7.36	2.88%
As 188.979†	52.5	0.1000	mg/L	0.00082	0.5001	mg/L	0.00410	0.82%
B 249.677†	108.3	0.01374	mg/L	0.000440	0.06870	mg/L	0.002202	3.21%
Ba 233.527†	5193.1	1.076	mg/L	0.0196	5.381	mg/L	0.0979	1.82%
Be 313.042†	1068.0	0.00162	mg/L	0.000054	0.00808	mg/L	0.000272	3.37%
Ca 317.933†	391616.1	27.93	mg/L	0.810	139.6	mg/L	4.05	2.90%
Cd 228.802†	2789.0	0.09075	mg/L	0.001059	0.4537	mg/L	0.00530	1.17%
Co 228.616†	1329.0	0.02873	mg/L	0.000309	0.1437	mg/L	0.00155	1.08%
Cr 267.716†	548.6	0.08555	mg/L	0.000796	0.4277	mg/L	0.00398	0.93%
Cu 324.752†	38244.3	0.1478	mg/L	0.00113	0.7388	mg/L	0.00563	0.76%
Fe 273.955†	99030.3	70.78	mg/L	1.959	353.9	mg/L	9.80	2.77%
K 766.490†	18722.0	9.554	mg/L	0.2685	47.77	mg/L	1.343	2.81%
Mg 279.077†	25022.9	17.60	mg/L	0.476	88.01	mg/L	2.379	2.70%
Mn 257.610†	140757.8	3.662	mg/L	0.0999	18.31	mg/L	0.499	2.73%
Mo 202.031†	78.3	0.00342	mg/L	0.000187	0.01710	mg/L	0.000934	5.46%
Na 589.592†	7809.1	0.6350	mg/L	0.01678	3.175	mg/L	0.0839	2.64%
Na 330.237†	38.7	0.4924	mg/L	0.27688	2.462	mg/L	1.3844	56.23%
Ni 231.604†	268.0	0.06311	mg/L	0.000896	0.3156	mg/L	0.00448	1.42%
Pb 220.353†	37660.6	4.608	mg/L	0.0340	23.04	mg/L	0.170	0.74%
Sb 206.836†	81.2	0.02387	mg/L	0.001549	0.1194	mg/L	0.00775	6.49%
Se 196.026†	1.8	0.00114	mg/L	0.005030	0.00570	mg/L	0.025149	440.83%
Si 288.158†	2601.9	1.222	mg/L	0.0284	6.108	mg/L	0.1421	2.33%
Sn 189.927†	34.0	0.01254	mg/L	0.000672	0.06271	mg/L	0.003361	5.36%
Sr 421.552†	252392.7	0.2816	mg/L	0.00785	1.408	mg/L	0.0392	2.79%
Ti 334.903†	54656.0	2.573	mg/L	0.0689	12.86	mg/L	0.345	2.68%
Tl 190.801†	1.8	0.00766	mg/L	0.000903	0.03831	mg/L	0.004514	11.78%
V 292.402†	14473.6	0.1090	mg/L	0.00104	0.5450	mg/L	0.00519	0.95%
Zn 206.200†	17093.1	4.270	mg/L	0.1183	21.35	mg/L	0.591	2.77%

Sequence No.: 103
Sample ID: VS18 J SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 374
Date Collected: 11/23/2012 4:28:11 PM
Data Type: Original

Nebulizer Parameters: VS18 J SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS18 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2740293.7	103.9	%	0.52				0.50%
ScR 361.383	351761.6	106.6	%	3.19				2.99%
Ag 328.068†	337.3	0.00198	mg/L	0.000152	0.00988	mg/L	0.000762	7.71%
Al 308.215†	196512.9	114.6	mg/L	4.23	572.8	mg/L	21.15	3.69%
As 188.979†	-205.4	0.1463	mg/L	0.00968	0.7316	mg/L	0.04840	6.62%
B 249.677†	65.8	0.00818	mg/L	0.001146	0.04088	mg/L	0.005728	14.01%
Ba 233.527†	10049.6	2.078	mg/L	0.0725	10.39	mg/L	0.362	3.49%
Be 313.042†	1704.7	0.00249	mg/L	0.000140	0.01246	mg/L	0.000702	5.63%
Ca 317.933†	381161.4	27.18	mg/L	0.996	135.9	mg/L	4.98	3.66%
Cd 228.802†	1991.9	0.06482	mg/L	0.000765	0.3241	mg/L	0.00383	1.18%
Co 228.616†	4145.8	0.08849	mg/L	0.001403	0.4425	mg/L	0.00701	1.59%
Cr 267.716†	4254.5	0.6572	mg/L	0.02244	3.286	mg/L	0.1122	3.41%
Cu 324.752†	65144.3	0.2522	mg/L	0.00182	1.261	mg/L	0.0091	0.72%
Fe 273.955†	232761.2	166.4	mg/L	6.63	831.9	mg/L	33.16	3.99%
K 766.490†	109757.1	56.01	mg/L	1.842	280.1	mg/L	9.21	3.29%
Mg 279.077†	134102.4	94.45	mg/L	3.554	472.2	mg/L	17.77	3.76%
Mn 257.610†	161133.2	4.193	mg/L	0.1620	20.96	mg/L	0.810	3.86%
Mo 202.031†	73.8	0.00318	mg/L	0.000328	0.01591	mg/L	0.001639	10.31%
Na 589.592†	15976.9	1.299	mg/L	0.0463	6.496	mg/L	0.2314	3.56%
Na 330.237†	-9.0	0.7899	mg/L	0.19043	3.949	mg/L	0.9521	24.11%
Ni 231.604†	1375.7	0.3240	mg/L	0.01157	1.620	mg/L	0.0578	3.57%
Pb 220.353†	28648.2	3.519	mg/L	0.0250	17.60	mg/L	0.125	0.71%
Sb 206.836†	74.2	0.01706	mg/L	0.001085	0.08531	mg/L	0.005427	6.36%
Se 196.026†	22.8	0.01511	mg/L	0.008909	0.07554	mg/L	0.044547	58.97%
Si 288.158†	2443.9	1.157	mg/L	0.0410	5.783	mg/L	0.2052	3.55%
Sn 189.927†	-9.2	0.00247	mg/L	0.001380	0.01234	mg/L	0.006899	55.89%
Sr 421.552†	333232.4	0.3718	mg/L	0.01336	1.859	mg/L	0.0668	3.59%
Ti 334.903†	191826.6	9.034	mg/L	0.3361	45.17	mg/L	1.681	3.72%
Tl 190.801†	-30.3	0.00392	mg/L	0.001766	0.01960	mg/L	0.008829	45.05%
V 292.402†	41596.7	0.3145	mg/L	0.00325	1.572	mg/L	0.0162	1.03%
Zn 206.200†	11664.7	2.914	mg/L	0.1016	14.57	mg/L	0.508	3.49%

Sequence No.: 104
Sample ID: CV 12
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/23/2012 4:32:12 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2715853.6	103.0	%	0.38				0.37%
ScR 361.383	338903.8	102.7	%	1.27				1.24%
Ag 328.068†	185003.9	1.033	mg/L	0.0024	1.033	mg/L	0.0024	0.23%
Al 308.215†	3469.4	1.988	mg/L	0.0173	1.988	mg/L	0.0173	0.87%
As 188.979†	3794.9	2.054	mg/L	0.0210	2.054	mg/L	0.0210	1.02%
B 249.677†	7656.9	0.9755	mg/L	0.01185	0.9755	mg/L	0.01185	1.21%
Ba 233.527†	4760.2	0.9966	mg/L	0.01180	0.9966	mg/L	0.01180	1.18%
Be 313.042†	627177.3	0.9806	mg/L	0.01331	0.9806	mg/L	0.01331	1.36%
Ca 317.933†	28796.6	2.053	mg/L	0.0253	2.053	mg/L	0.0253	1.23%
Cd 228.802†	32084.4	1.041	mg/L	0.0029	1.041	mg/L	0.0029	0.28%
Co 228.616†	39172.8	1.021	mg/L	0.0028	1.021	mg/L	0.0028	0.27%
Cr 267.716†	6473.4	1.003	mg/L	0.0115	1.003	mg/L	0.0115	1.15%
Cu 324.752†	272062.4	1.033	mg/L	0.0021	1.033	mg/L	0.0021	0.20%
Fe 273.955†	2931.7	2.088	mg/L	0.0294	2.088	mg/L	0.0294	1.41%
K 766.490†	39334.5	20.07	mg/L	0.267	20.07	mg/L	0.267	1.33%
Mg 279.077†	2867.8	2.029	mg/L	0.0272	2.029	mg/L	0.0272	1.34%
Mn 257.610†	39113.7	1.018	mg/L	0.0131	1.018	mg/L	0.0131	1.29%
Mo 202.031†	21471.0	1.022	mg/L	0.0106	1.022	mg/L	0.0106	1.04%
Na 589.592†	617525.1	50.21	mg/L	0.659	50.21	mg/L	0.659	1.31%
Na 330.237†	1548.5	52.49	mg/L	0.379	52.49	mg/L	0.379	0.72%
Ni 231.604†	4198.9	0.9891	mg/L	0.01572	0.9891	mg/L	0.01572	1.59%
Pb 220.353†	17105.5	2.090	mg/L	0.0220	2.090	mg/L	0.0220	1.05%
Sb 206.836†	7263.3	2.098	mg/L	0.0181	2.098	mg/L	0.0181	0.86%
Se 196.026†	2992.1	2.016	mg/L	0.0208	2.016	mg/L	0.0208	1.03%
Si 288.158†	4456.2	2.087	mg/L	0.0319	2.087	mg/L	0.0319	1.53%
Sn 189.927†	4058.0	1.023	mg/L	0.0123	1.023	mg/L	0.0123	1.20%
Sr 421.552†	890727.5	0.9938	mg/L	0.01347	0.9938	mg/L	0.01347	1.36%
Ti 334.903†	22503.9	1.059	mg/L	0.0121	1.059	mg/L	0.0121	1.14%
Tl 190.801†	5134.1	2.007	mg/L	0.0186	2.007	mg/L	0.0186	0.93%
V 292.402†	133088.6	1.034	mg/L	0.0028	1.034	mg/L	0.0028	0.27%
Zn 206.200†	4154.0	1.037	mg/L	0.0175	1.037	mg/L	0.0175	1.68%

Sequence No.: 105
Sample ID: CB 11
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/23/2012 4:36:33 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
A11	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2720901.7	103.2	%	0.62				0.60%
ScR 361.383	341958.4	103.6	%	1.42				1.37%
Ag 328.068†	-6.5	-0.00004	mg/L	0.000217	-0.00004	mg/L	0.000217	600.09%
Al 308.215†	1.2	0.00068	mg/L	0.003505	0.00068	mg/L	0.003505	518.61%
As 188.979†	-0.3	-0.00013	mg/L	0.000923	-0.00013	mg/L	0.000923	695.63%
B 249.677†	17.3	0.00221	mg/L	0.000429	0.00221	mg/L	0.000429	19.42%
Ba 233.527†	-3.9	-0.00082	mg/L	0.000239	-0.00082	mg/L	0.000239	29.16%
Be 313.042†	38.9	0.00006	mg/L	0.000019	0.00006	mg/L	0.000019	31.35%
Ca 317.933†	4.1	0.00029	mg/L	0.000874	0.00029	mg/L	0.000874	299.95%
Cd 228.802†	-1.6	-0.00005	mg/L	0.000079	-0.00005	mg/L	0.000079	157.67%
Co 228.616†	6.6	0.00017	mg/L	0.000086	0.00017	mg/L	0.000086	50.71%
Cr 267.716†	8.3	0.00128	mg/L	0.000577	0.00128	mg/L	0.000577	44.98%
Cu 324.752†	-87.8	-0.00033	mg/L	0.000057	-0.00033	mg/L	0.000057	17.19%
Fe 273.955†	2.6	0.00184	mg/L	0.002023	0.00184	mg/L	0.002023	109.63%
K 766.490†	7.3	0.00371	mg/L	0.010623	0.00371	mg/L	0.010623	286.42%
Mg 279.077†	0.7	0.00048	mg/L	0.003616	0.00048	mg/L	0.003616	750.29%
Mn 257.610†	6.8	0.00018	mg/L	0.000191	0.00018	mg/L	0.000191	108.47%
Mo 202.031†	13.0	0.00062	mg/L	0.000047	0.00062	mg/L	0.000047	7.60%
Na 589.592†	77.8	0.00633	mg/L	0.000536	0.00633	mg/L	0.000536	8.46%
Na 330.237†	3.4	0.1166	mg/L	0.14858	0.1166	mg/L	0.14858	127.46%
Ni 231.604†	1.9	0.00045	mg/L	0.001158	0.00045	mg/L	0.001158	256.57%
Pb 220.353†	6.6	0.00081	mg/L	0.000377	0.00081	mg/L	0.000377	46.27%
Sb 206.836†	3.7	0.00106	mg/L	0.002482	0.00106	mg/L	0.002482	234.68%
Se 196.026†	-2.0	-0.00136	mg/L	0.001137	-0.00136	mg/L	0.001137	83.42%
Si 288.158†	-4.2	-0.00195	mg/L	0.002287	-0.00195	mg/L	0.002287	117.49%
Sn 189.927†	0.2	0.00004	mg/L	0.000936	0.00004	mg/L	0.000936	>999.9%
Sr 421.552†	79.2	0.00009	mg/L	0.000008	0.00009	mg/L	0.000008	9.17%
Ti 334.903†	15.7	0.00074	mg/L	0.000301	0.00074	mg/L	0.000301	40.78%
Tl 190.801†	7.4	0.00290	mg/L	0.001905	0.00290	mg/L	0.001905	65.66%
V 292.402†	16.7	0.00013	mg/L	0.000035	0.00013	mg/L	0.000035	25.76%
Zn 206.200†	-1.2	-0.00029	mg/L	0.000283	-0.00029	mg/L	0.000283	96.94%

Sequence No.: 106
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 375
Date Collected: 11/23/2012 4:40:48 PM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc:	Sample Units	Std.Dev.	RSD
ScA 357.253	2725526.2	103.3	%	0.13				0.12%
ScR 361.383	343904.6	104.2	%	1.52				1.46%
Ag 328.068†	549.0	0.00307	mg/L	0.000150	0.00307	mg/L	0.000150	4.89%
Al 308.215†	77.6	0.04512	mg/L	0.016603	0.04512	mg/L	0.016603	36.80%
As 188.979†	93.4	0.05004	mg/L	0.000972	0.05004	mg/L	0.000972	1.94%
B 249.677†	161.1	0.02054	mg/L	0.000716	0.02054	mg/L	0.000716	3.49%
Ba 233.527†	13.8	0.00287	mg/L	0.000929	0.00287	mg/L	0.000929	32.35%
Be 313.042†	598.6	0.00094	mg/L	0.000042	0.00094	mg/L	0.000042	4.50%
Ca 317.933†	656.0	0.04678	mg/L	0.000768	0.04678	mg/L	0.000768	1.64%
Cd 228.802†	74.2	0.00211	mg/L	0.000037	0.00211	mg/L	0.000037	1.77%
Co 228.616†	144.0	0.00375	mg/L	0.000139	0.00375	mg/L	0.000139	3.70%
Cr 267.716†	36.7	0.00569	mg/L	0.000487	0.00569	mg/L	0.000487	8.55%
Cu 324.752†	465.3	0.00177	mg/L	0.000064	0.00177	mg/L	0.000064	3.65%
Fe 273.955†	71.1	0.05078	mg/L	0.002086	0.05078	mg/L	0.002086	4.11%
K 766.490†	956.5	0.4881	mg/L	0.02497	0.4881	mg/L	0.02497	5.12%
Mg 279.077†	66.0	0.04653	mg/L	0.006656	0.04653	mg/L	0.006656	14.30%
Mn 257.610†	38.4	0.00100	mg/L	0.000094	0.00100	mg/L	0.000094	9.40%
Mo 202.031†	111.7	0.00532	mg/L	0.000121	0.00532	mg/L	0.000121	2.28%
Na 589.592†	5853.9	0.4760	mg/L	0.01015	0.4760	mg/L	0.01015	2.13%
Na 330.237†	25.0	0.8461	mg/L	0.42632	0.8461	mg/L	0.42632	50.38%
Ni 231.604†	40.9	0.00964	mg/L	0.001274	0.00964	mg/L	0.001274	13.22%
Pb 220.353†	172.9	0.02113	mg/L	0.000039	0.02113	mg/L	0.000039	0.19%
Sb 206.836†	178.4	0.05156	mg/L	0.001324	0.05156	mg/L	0.001324	2.57%
Se 196.026†	73.0	0.04922	mg/L	0.002956	0.04922	mg/L	0.002956	6.01%
Si 288.158†	133.5	0.06249	mg/L	0.003067	0.06249	mg/L	0.003067	4.91%
Sn 189.927†	39.7	0.01003	mg/L	0.000778	0.01003	mg/L	0.000778	7.76%
Sr 421.552†	921.3	0.00103	mg/L	0.000040	0.00103	mg/L	0.000040	3.89%
Ti 334.903†	105.3	0.00495	mg/L	0.000387	0.00495	mg/L	0.000387	7.82%
Tl 190.801†	129.3	0.05074	mg/L	0.001798	0.05074	mg/L	0.001798	3.54%
V 292.402†	428.7	0.00334	mg/L	0.000227	0.00334	mg/L	0.000227	6.79%
Zn 206.200†	36.0	0.00900	mg/L	0.000711	0.00900	mg/L	0.000711	7.90%

Sequence No.: 107
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 376
Date Collected: 11/23/2012 4:45:05 PM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2657337.7	100.8	%	0.47				0.47%
ScR 361.383	333725.5	101.1	%	1.35				1.34%
Ag 328.068†	-213.3	-0.00119	mg/L	0.000076	-0.00119	mg/L	0.000076	6.38%
Al 308.215†	341657.9	199.2	mg/L	3.56	199.2	mg/L	3.56	1.79%
As 188.979†	40.5	0.01601	mg/L	0.003339	0.01601	mg/L	0.003339	20.86%
B 249.677†	-21.2	-0.00271	mg/L	0.001517	-0.00271	mg/L	0.001517	56.06%
Ba 233.527†	136.9	-0.00388	mg/L	0.001269	-0.00388	mg/L	0.001269	32.71%
Be 313.042†	65.9	0.00010	mg/L	0.000014	0.00010	mg/L	0.000014	14.25%
Ca 317.933†	1403891.1	100.1	mg/L	1.66	100.1	mg/L	1.66	1.66%
Cd 228.802†	52.1	-0.00032	mg/L	0.000104	-0.00032	mg/L	0.000104	32.24%
Co 228.616†	78.9	-0.00054	mg/L	0.000081	-0.00054	mg/L	0.000081	14.86%
Cr 267.716†	12.0	-0.00022	mg/L	0.001103	-0.00022	mg/L	0.001103	498.52%
Cu 324.752†	-2154.3	-0.00027	mg/L	0.000101	-0.00027	mg/L	0.000101	37.29%
Fe 273.955†	278221.7	198.9	mg/L	3.73	198.9	mg/L	3.73	1.87%
K 766.490†	18.4	0.00936	mg/L	0.012414	0.00936	mg/L	0.012414	132.57%
Mg 279.077†	147403.7	103.8	mg/L	1.73	103.8	mg/L	1.73	1.66%
Mn 257.610†	36.6	0.00094	mg/L	0.000428	0.00094	mg/L	0.000428	45.78%
Mo 202.031†	50.5	0.00132	mg/L	0.000135	0.00132	mg/L	0.000135	10.26%
Na 589.592†	198.5	0.01614	mg/L	0.002135	0.01614	mg/L	0.002135	13.23%
Na 330.237†	-2.6	-0.08903	mg/L	0.169447	-0.08903	mg/L	0.169447	190.33%
Ni 231.604†	2.9	0.00071	mg/L	0.000668	0.00071	mg/L	0.000668	94.61%
Pb 220.353†	-325.7	-0.00027	mg/L	0.001036	-0.00027	mg/L	0.001036	388.86%
Sb 206.836†	25.2	0.00715	mg/L	0.001601	0.00715	mg/L	0.001601	22.41%
Se 196.026†	12.1	0.00812	mg/L	0.006561	0.00812	mg/L	0.006561	80.82%
Si 288.158†	-33.7	-0.00325	mg/L	0.001893	-0.00325	mg/L	0.001893	58.22%
Sn 189.927†	-69.4	-0.00509	mg/L	0.002004	-0.00509	mg/L	0.002004	39.40%
Sr 421.552†	3635.2	0.00406	mg/L Conf.	0.000067	0.00406	mg/L	0.000067	1.65%
Ti 334.903†	153.4	0.00244	mg/L	0.000719	0.00244	mg/L	0.000719	29.46%
Tl 190.801†	-55.6	-0.00062	mg/L	0.003897	-0.00062	mg/L	0.003897	627.56%
V 292.402†	1476.6	0.00448	mg/L	0.000285	0.00448	mg/L	0.000285	6.36%
Zn 206.200†	13.3	0.00332	mg/L	0.000503	0.00332	mg/L	0.000503	15.15%

Sequence No.: 108
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 377
Date Collected: 11/23/2012 4:49:08 PM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
A11	219.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2667035.0	101.1	%	0.16				0.16%
ScR 361.383	343651.8	104.1	%	1.50				1.44%
Ag 328.068†	187072.2	1.045	mg/L	0.0052	1.045	mg/L	0.0052	0.50%
Al 308.215†	332427.9	193.8	mg/L	4.52	193.8	mg/L	4.52	2.33%
As 188.979†	1953.6	1.038	mg/L	0.0041	1.038	mg/L	0.0041	0.39%
B 249.677†	-3.8	-0.00250	mg/L	0.000628	-0.00250	mg/L	0.000628	25.15%
Ba 233.527†	4808.4	0.9751	mg/L	0.01661	0.9751	mg/L	0.01661	1.70%
Be 313.042†	618992.0	0.9679	mg/L	0.02375	0.9679	mg/L	0.02375	2.45%
Ca 317.933†	1378379.2	98.29	mg/L	2.406	98.29	mg/L	2.406	2.45%
Cd 228.802†	31822.0	1.037	mg/L	0.0071	1.037	mg/L	0.0071	0.69%
Co 228.616†	37554.1	0.9785	mg/L	0.00719	0.9785	mg/L	0.00719	0.74%
Cr 267.716†	6412.3	0.9922	mg/L	0.01358	0.9922	mg/L	0.01358	1.37%
Cu 324.752†	275557.6	1.055	mg/L	0.0067	1.055	mg/L	0.0067	0.63%
Fe 273.955†	272350.2	194.7	mg/L	4.72	194.7	mg/L	4.72	2.43%
K 766.490†	-35.6	-0.01819	mg/L	0.025177	-0.01819	mg/L	0.025177	138.44%
Mg 279.077†	138357.0	97.44	mg/L	2.409	97.44	mg/L	2.409	2.47%
Mn 257.610†	36361.7	0.9461	mg/L	0.02295	0.9461	mg/L	0.02295	2.43%
Mo 202.031†	59.0	0.00169	mg/L	0.000247	0.00169	mg/L	0.000247	14.62%
Na 589.592†	338.1	0.02750	mg/L	0.003671	0.02750	mg/L	0.003671	13.35%
Na 330.237†	20.7	0.3915	mg/L	0.03623	0.3915	mg/L	0.03623	9.25%
Ni 231.604†	4039.5	0.9514	mg/L	0.01527	0.9514	mg/L	0.01527	1.61%
Pb 220.353†	7943.3	1.009	mg/L	0.0016	1.009	mg/L	0.0016	0.16%
Sb 206.836†	3560.9	1.018	mg/L	0.0012	1.018	mg/L	0.0012	0.12%
Se 196.026†	1525.6	1.027	mg/L	0.0019	1.027	mg/L	0.0019	0.19%
Si 288.158†	-43.5	-0.00483	mg/L	0.001178	-0.00483	mg/L	0.001178	24.40%
Sn 189.927†	-76.2	-0.00652	mg/L	0.001885	-0.00652	mg/L	0.001885	28.90%
Sr 421.552†	3533.2	0.00394	mg/L	Cont, 0.000091	0.00394	mg/L	0.000091	2.30%
Ti 334.903†	158.5	0.00257	mg/L	0.000628	0.00257	mg/L	0.000628	24.42%
Tl 190.801†	2378.3	0.9453	mg/L	0.00232	0.9453	mg/L	0.00232	0.25%
V 292.402†	130312.1	1.006	mg/L	0.0054	1.006	mg/L	0.0054	0.54%
Zn 206.200†	3820.8	0.9544	mg/L	0.01595	0.9544	mg/L	0.01595	1.67%

Sequence No.: 109
Sample ID: CV 13
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/23/2012 4:53:11 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2714009.2	102.9	%	0.25				0.24%
ScR 361.383	338487.9	102.6	%	1.95				1.90%
Ag 328.068†	183731.5	1.026	mg/L	0.0030	1.026	mg/L	0.0030	0.29%
Al 308.215†	3541.4	2.030	mg/L	0.0186	2.030	mg/L	0.0186	0.92%
As 188.979†	3807.6	2.061	mg/L	0.0108	2.061	mg/L	0.0108	0.53%
B 249.677†	7637.8	0.9731	mg/L	0.01068	0.9731	mg/L	0.01068	1.10%
Ba 233.527†	4763.8	0.9973	mg/L	0.00955	0.9973	mg/L	0.00955	0.96%
Be 313.042†	628176.6	0.9822	mg/L	0.01388	0.9822	mg/L	0.01388	1.41%
Ca 317.933†	29098.6	2.075	mg/L	0.0173	2.075	mg/L	0.0173	0.83%
Cd 228.802†	31933.6	1.036	mg/L	0.0047	1.036	mg/L	0.0047	0.45%
Co 228.616†	38997.9	1.017	mg/L	0.0048	1.017	mg/L	0.0048	0.47%
Cr 267.716†	6473.4	1.003	mg/L	0.0142	1.003	mg/L	0.0142	1.42%
Cu 324.752†	270024.8	1.026	mg/L	0.0041	1.026	mg/L	0.0041	0.40%
Fe 273.955†	2966.9	2.114	mg/L	0.0207	2.114	mg/L	0.0207	0.98%
K 766.490†	39241.5	20.03	mg/L	0.332	20.03	mg/L	0.332	1.66%
Mg 279.077†	2877.9	2.036	mg/L	0.0188	2.036	mg/L	0.0188	0.92%
Mn 257.610†	39137.1	1.018	mg/L	0.0098	1.018	mg/L	0.0098	0.96%
Mo 202.031†	21521.4	1.024	mg/L	0.0073	1.024	mg/L	0.0073	0.72%
Na 589.592†	615101.3	50.02	mg/L	0.783	50.02	mg/L	0.783	1.56%
Na 330.237†	1534.8	52.02	mg/L	0.352	52.02	mg/L	0.352	0.68%
Ni 231.604†	4206.9	0.9909	mg/L	0.01012	0.9909	mg/L	0.01012	1.02%
Pb 220.353†	17177.9	2.098	mg/L	0.0121	2.098	mg/L	0.0121	0.58%
Sb 206.836†	7286.4	2.104	mg/L	0.0157	2.104	mg/L	0.0157	0.74%
Se 196.026†	3007.6	2.027	mg/L	0.0169	2.027	mg/L	0.0169	0.84%
Si 288.158†	4455.1	2.087	mg/L	0.0239	2.087	mg/L	0.0239	1.15%
Sn 189.927†	4081.4	1.029	mg/L	0.0075	1.029	mg/L	0.0075	0.73%
Sr 421.552†	889331.7	0.9922	mg/L	0.01530	0.9922	mg/L	0.01530	1.54%
Ti 334.903†	22452.0	1.056	mg/L	0.0092	1.056	mg/L	0.0092	0.87%
Tl 190.801†	5150.6	2.014	mg/L	0.0133	2.014	mg/L	0.0133	0.66%
V 292.402†	131993.9	1.026	mg/L	0.0031	1.026	mg/L	0.0031	0.30%
Zn 206.200†	4175.3	1.043	mg/L	0.0138	1.043	mg/L	0.0138	1.33%

Sequence No.: 110
Sample ID: CB 12
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/23/2012 4:57:32 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2724347.6	103.3	%	0.43				0.42%
ScR 361.383	343601.5	104.1	%	0.65				0.63%
Ag 328.068†	20.8	0.00012	mg/L	0.000125	0.00012	mg/L	0.000125	107.64%
Al 308.215†	8.1	0.00471	mg/L	0.004852	0.00471	mg/L	0.004852	103.11%
As 188.979†	-0.5	-0.00024	mg/L	0.001575	-0.00024	mg/L	0.001575	670.14%
B 249.677†	17.5	0.00223	mg/L	0.000278	0.00223	mg/L	0.000278	12.47%
Ba 233.527†	-0.1	-0.00002	mg/L	0.000186	-0.00002	mg/L	0.000186	806.10%
Be 313.042†	49.2	0.00008	mg/L	0.000042	0.00008	mg/L	0.000042	54.57%
Ca 317.933†	9.3	0.00066	mg/L	0.001105	0.00066	mg/L	0.001105	167.09%
Cd 228.802†	-2.5	-0.00008	mg/L	0.000047	-0.00008	mg/L	0.000047	57.74%
Co 228.616†	9.1	0.00024	mg/L	0.000141	0.00024	mg/L	0.000141	59.79%
Cr 267.716†	-2.4	-0.00037	mg/L	0.001197	-0.00037	mg/L	0.001197	319.35%
Cu 324.752†	-108.2	-0.00041	mg/L	0.000082	-0.00041	mg/L	0.000082	19.85%
Fe 273.955†	5.4	0.00386	mg/L	0.000262	0.00386	mg/L	0.000262	6.78%
K 766.490†	6.1	0.00309	mg/L	0.014928	0.00309	mg/L	0.014928	482.43%
Mg 279.077†	3.3	0.00236	mg/L	0.004525	0.00236	mg/L	0.004525	192.06%
Mn 257.610†	3.4	0.00009	mg/L	0.000089	0.00009	mg/L	0.000089	99.54%
Mo 202.031†	11.2	0.00053	mg/L	0.000105	0.00053	mg/L	0.000105	19.76%
Na 589.592†	51.5	0.00419	mg/L	0.006014	0.00419	mg/L	0.006014	143.66%
Na 330.237†	2.9	0.09860	mg/L	0.128051	0.09860	mg/L	0.128051	129.87%
Ni 231.604†	1.0	0.00023	mg/L	0.000909	0.00023	mg/L	0.000909	399.16%
Pb 220.353†	4.9	0.00059	mg/L	0.001131	0.00059	mg/L	0.001131	190.28%
Sb 206.836†	4.6	0.00132	mg/L	0.001450	0.00132	mg/L	0.001450	109.54%
Se 196.026†	2.5	0.00170	mg/L	0.001870	0.00170	mg/L	0.001870	110.10%
Si 288.158†	-3.5	-0.00162	mg/L	0.000759	-0.00162	mg/L	0.000759	46.80%
Sn 189.927†	0.7	0.00019	mg/L	0.000434	0.00019	mg/L	0.000434	233.67%
Sr 421.552†	76.5	0.00009	mg/L	0.000015	0.00009	mg/L	0.000015	18.00%
Ti 334.903†	22.8	0.00107	mg/L	0.000645	0.00107	mg/L	0.000645	60.03%
Tl 190.801†	7.3	0.00286	mg/L	0.001625	0.00286	mg/L	0.001625	56.81%
V 292.402†	23.6	0.00018	mg/L	0.000051	0.00018	mg/L	0.000051	28.07%
Zn 206.200†	0.5	0.00013	mg/L	0.000584	0.00013	mg/L	0.000584	455.62%

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SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: 11-12-12 Analysis Date: 11-26-12 Analyst: BA

LR Date: 7-30-12 Page: 1 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STD 0			2994-8 Sc R noisy
		2			-11 Sc A noisy
		3			-12 Be sl. noisy
		4			-13
		5			-14
		0			-8
		2			-11 Sc R very noisy
		2			
		ZZZZZZ ~~ICV~~ BA 11/27/12			2985-6 Fe Mg Na Sb Si Ti ↑
		STD 4			
		5			
		ICV			Si ↑ (NR)
		ICB			
		CRI			
		ICSA			
		ICSAB			
		HiPur QC7			
		Spex QC21			
		DI Check			
		CCV1			Sb ↑ (N.R.)
		CCB1			
		VS21 mB1	SWC	2	
		VS20 E		5	
		VS21 B			

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Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-26-12 Analyst: BA

LR Date: — Page: 2 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		VS21 C	SWC	5	
		A-L		25	ScR sl. noisy-
		A		5	
		ADUP			
		ASPK			Al, Fe, Mg, Mn STL
		~~APOST~~ ZZZZZZ 11/29/12			0.08 mL ICP Spike 2977-9
		MBISPK		2	
		CCV2			Sb (NR) ScR sl. noisy - levels OK.
		CCB2			
		VS21 D	SWC	5	
		E			
		F			
		G			
		H			
		I			
		J			
		K			
		L			
		CCV3			Sb, Si ↑ (NR)
		CCB3			Mn > RL (0.00117 mg/L) ScR sl. noisy
		CCB4			
		CRI			Mn > 150%
		ICSA			
		ICSAB			

VS20 : 00238

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SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-26-12 Analyst: BA

LR Date: — Page: 3 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		CCV4			Sb, Si ↑ (NR)
		CCB5			End VS20, VS21
		VS36 MB	TWC		
		B			
		C			
		D			
		E			
		F			
		ADUP		✓	
		A			
		ASPK		✓	
		MBSPK		✓	
		CCV5			Sb↑ (NR)
		CCB6			
		VS36 G	TWC		
		H			12/4/12
		I			
		CCV6			ScR sl. noisy - levels OK.
		CCB7			ScR noisy - SD's OK.
		VR80 MB1	TWC		
		B			
	✓	C			ScR/analytes noisy.
		D			
		ADUP		✓	

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: (ICP) ICP-MS GFA CVA Analysis Date: 11-26-12

ICP-2	Analyst BA 11/26/12	Peer # 11-290	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	See log
Standard deviations	✓	✓	↓
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	↓
Samples:			
RSD's & SD's	✓	✓	See log
Internal Standards	✓	✓	↓
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	See log
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	—	See log (VS45)
Matrix Duplicates	✓	—	
Method Blanks	✓	—	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	CAF-VS45

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Analysis Begun

Start Time: 11/26/2012 11:14:32 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/26/2012 8:17:31 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISETMON.sif
Batch ID:
Results Data Set: I2121126
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

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Method Loaded
Method Name: 7300bcESI2FAST
IEC File: IEC110912.iec
Method Description: 12Axial Elements
Method Last Saved: 11/26/2012 10:06:01 AM
MSF File:

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

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Sequence No.: 1
Sample ID: Calib Blank 1
Autosampler Location: 1
Date Collected: 11/26/2012 11:14:34 AM
Data Type: Original

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2347769.8	11086.06	0.47%	100.0	%
ScR 361.383	292119.7	12169.18	4.17%	100.0	%
Ag 328.068†	-153.5	13.56	8.83%	[0.00]	mg/L
Al 308.215†	198.0	5.26	2.66%	[0.00]	mg/L
As 188.979†	-10.6	2.99	28.10%	[0.00]	mg/L
B 249.677†	31.7	4.07	12.85%	[0.00]	mg/L

Ba 233.527†	26.6	2.39	8.98%	[0.00] mg/L
Be 313.042†	850.9	42.46	4.99%	[0.00] mg/L
Ca 317.933†	165.7	14.67	8.86%	[0.00] mg/L
Cd 228.802†	273.1	2.29	0.84%	[0.00] mg/L
Co 228.616†	-92.9	3.76	4.05%	[0.00] mg/L
Cr 267.716†	-124.5	6.21	4.99%	[0.00] mg/L
Cu 324.752†	2487.1	17.15	0.69%	[0.00] mg/L
Fe 273.955†	21.8	0.69	3.18%	[0.00] mg/L
K 766.490†	476.5	48.09	10.09%	[0.00] mg/L
Mg 279.077†	80.8	8.11	10.04%	[0.00] mg/L
Mn 257.610†	173.5	7.18	4.14%	[0.00] mg/L
Mo 202.031†	72.6	3.00	4.14%	[0.00] mg/L
Na 589.592†	-423.0	29.85	7.06%	[0.00] mg/L
Na 330.237†	-201.3	17.15	8.52%	[0.00] mg/L
Ni 231.604†	-12.9	2.34	18.13%	[0.00] mg/L
Pb 220.353†	55.1	1.06	1.92%	[0.00] mg/L
Sb 206.836†	73.8	6.29	8.51%	[0.00] mg/L
Se 196.026†	-44.7	3.27	7.30%	[0.00] mg/L
Si 288.158†	55.5	4.58	8.26%	[0.00] mg/L
Sn 189.927†	-0.1	3.62	>999.9%	[0.00] mg/L
Sr 421.552†	375.2	43.88	11.70%	[0.00] mg/L
Ti 334.903†	-58.2	19.58	33.64%	[0.00] mg/L
Tl 190.801†	-42.6	0.96	2.24%	[0.00] mg/L
V 292.402†	135.4	26.82	19.81%	[0.00] mg/L
Zn 206.200†	16.8	0.89	5.31%	[0.00] mg/L

Sequence No.: 2
Sample ID: STD2

Autosampler Location: 2
Date Collected: 11/26/2012 11:18:48 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2530864.9	103862.34	4.10%	107.8	%
ScR 361.383	309869.8	1489.46	0.48%	106.1	%
Ba 233.527†	39690.8	221.04	0.56%	[10]	mg/L
Cd 228.802†	249156.4	13307.11	5.34%	[10]	mg/L
Co 228.616†	325125.1	17508.76	5.39%	[10]	mg/L
Cr 267.716†	52762.2	191.61	0.36%	[10]	mg/L
Cu 324.752†	2211837.7	119775.77	5.42%	[10]	mg/L
Mn 257.610†	317813.7	625.57	0.20%	[10]	mg/L
V 292.402†	1079039.0	58497.32	5.42%	[10]	mg/L

Sequence No.: 3
Sample ID: STD3

Autosampler Location: 3
Date Collected: 11/26/2012 11:20:33 AM
Data Type: Original

Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2404147.0	22923.17	0.95%	102.4	%
ScR 361.383	298140.8	7589.32	2.55%	102.1	%
Ag 328.068†	161430.0	1518.95	0.94%	[1.0]	mg/L
As 188.979†	16341.9	195.98	1.20%	[10]	mg/L
B 249.677†	67206.4	1611.81	2.40%	[10]	mg/L
Be 313.042†	2641518.7	94044.84	3.56%	[5.0]	mg/L
Na 589.592†	526596.8	18392.70	3.49%	[50]	mg/L
Ni 231.604†	36729.6	939.65	2.56%	[10]	mg/L

Pb 220.353†	74849.7	796.84	1.06%	[10] mg/L
Se 196.026†	13086.4	140.70	1.08%	[10] mg/L
Sr 421.552†	3795608.0	131811.95	3.47%	[5] mg/L
Tl 190.801†	22498.8	239.86	1.07%	[10] mg/L
Zn 206.200†	34035.6	880.52	2.59%	[10] mg/L

Sequence No.: 4 **Autosampler Location: 4**
Sample ID: STD4 **Date Collected: 11/26/2012 11:22:50 AM**
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
ScA 357.253	2426619.0	12273.77	0.51%	103.4	%
ScR 361.383	308473.8	458.38	0.15%	105.6	%
Mo 202.031†	180470.2	1271.75	0.70%	[10]	mg/L
Sb 206.836†	29601.4	175.28	0.59%	[10]	mg/L
Si 288.158†	17593.4	79.18	0.45%	[10]	mg/L
Sn 189.927†	33831.9	136.08	0.40%	[10]	mg/L
Ti 334.903†	175209.5	375.38	0.21%	[10]	mg/L

Sequence No.: 5 **Autosampler Location: 5**
Sample ID: STD5 **Date Collected: 11/26/2012 11:25:04 AM**
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
ScA 357.253	2265618.3	13946.89	0.62%	96.50	%
ScR 361.383	305404.2	592.74	0.19%	104.5	%
Al 308.215†	42278.4	184.90	0.44%	[30]	mg/L
Ca 317.933†	341146.2	1744.20	0.51%	[30]	mg/L
Fe 273.955†	117027.7	461.54	0.39%	[100]	mg/L
K 766.490†	164480.3	839.49	0.51%	[100]	mg/L
Mg 279.077†	34312.8	122.09	0.36%	[30]	mg/L
Na 330.237†	2502.9	18.14	0.72%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	161400	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1409	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1634	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	6721	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	3969	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	528300	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	11370	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	24920	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	32510	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	5276	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	221200	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1170	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1645	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1144	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	31780	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	18050	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	10530	0.00000	1.000000	

Na 330.237	1	Lin Thru 0	0.0	25.03	0.00000	1.000000
Ni 231.604	1	Lin Thru 0	0.0	3673	0.00000	1.000000
Pb 220.353	1	Lin Thru 0	0.0	7485	0.00000	1.000000
Sb 206.836	1	Lin Thru 0	0.0	2960	0.00000	1.000000
Se 196.026	1	Lin Thru 0	0.0	1309	0.00000	1.000000
Si 288.158	1	Lin Thru 0	0.0	1759	0.00000	1.000000
Sn 189.927	1	Lin Thru 0	0.0	3383	0.00000	1.000000
Sr 421.552	1	Lin Thru 0	0.0	759100	0.00000	1.000000
Ti 334.903	1	Lin Thru 0	0.0	17520	0.00000	1.000000
Tl 190.801	1	Lin Thru 0	0.0	2250	0.00000	1.000000
V 292.402	1	Lin Thru 0	0.0	107900	0.00000	1.000000
Zn 206.200	1	Lin Thru 0	0.0	3404	0.00000	1.000000

Analysis Begun

Start Time: 11/26/2012 11:40:59 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/26/2012 8:17:31 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISETMON.sif
Batch ID:
Results Data Set: I2121126
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: Calib Blank 1
Date Collected: 11/26/2012 11:41:00 AM
Data Type: Original

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Calib Units
ScA 357.253	2385529.2	8370.78	0.35%	101.6	%
ScR 361.383	293229.1	8773.96	2.99%	100.4	%
Ag 328.068†	-131.5	27.33	20.78%	[0.00]	mg/L
Al 308.215†	192.4	9.48	4.93%	[0.00]	mg/L
As 188.979†	-15.7	1.21	7.69%	[0.00]	mg/L
B 249.677†	36.7	1.13	3.08%	[0.00]	mg/L
Ba 233.527†	25.0	3.53	14.10%	[0.00]	mg/L
Be 313.042†	875.9	34.04	3.89%	[0.00]	mg/L
Ca 317.933†	158.5	18.38	11.59%	[0.00]	mg/L
Cd 228.802†	271.7	3.19	1.17%	[0.00]	mg/L
Co 228.616†	-93.3	2.31	2.47%	[0.00]	mg/L
Cr 267.716†	-127.6	1.45	1.13%	[0.00]	mg/L
Cu 324.752†	2474.1	31.04	1.25%	[0.00]	mg/L
Fe 273.955†	21.9	2.35	10.74%	[0.00]	mg/L
K 766.490†	465.7	51.38	11.03%	[0.00]	mg/L
Mg 279.077†	74.7	3.51	4.69%	[0.00]	mg/L
Mn 257.610†	173.9	4.94	2.84%	[0.00]	mg/L
Mo 202.031†	76.6	1.96	2.56%	[0.00]	mg/L
Na 589.592†	-405.2	43.73	10.79%	[0.00]	mg/L
Na 330.237†	-200.8	16.90	8.41%	[0.00]	mg/L
Ni 231.604†	-22.3	3.80	17.04%	[0.00]	mg/L
Pb 220.353†	52.1	5.41	10.37%	[0.00]	mg/L
Sb 206.836†	70.5	4.64	6.58%	[0.00]	mg/L
Se 196.026†	-44.9	2.17	4.83%	[0.00]	mg/L
Si 288.158†	50.6	2.67	5.27%	[0.00]	mg/L
Sn 189.927†	-6.2	2.93	47.44%	[0.00]	mg/L
Sr 421.552†	327.1	40.91	12.51%	[0.00]	mg/L
Ti 334.903†	-64.8	12.04	18.58%	[0.00]	mg/L
Tl 190.801†	-43.6	3.14	7.19%	[0.00]	mg/L
V 292.402†	113.5	30.16	26.57%	[0.00]	mg/L
Zn 206.200†	14.2	2.41	16.95%	[0.00]	mg/L

Sequence No.: 2
Sample ID: STD2
Date Collected: 11/26/2012 11:44:55 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	214.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected	Calib

Analyte	Intensity	Std.Dev.	RSD	Conc.	Units
ScA 357.253	2476219.6	10662.05	0.43%	105.5	%
ScR 361.383	315044.5	20259.81	6.43%	107.8	%
Ba 233.527†	39774.5	2836.71	7.13%	[10]	mg/L
Cd 228.802†	258695.7	1067.88	0.41%	[10]	mg/L
Co 228.616†	337285.1	1647.51	0.49%	[10]	mg/L
Cr 267.716†	53142.5	3800.09	7.15%	[10]	mg/L
Cu 324.752†	2290740.0	7602.26	0.33%	[10]	mg/L
Mn 257.610†	320842.4	23143.56	7.21%	[10]	mg/L
V 292.402†	1117284.8	4603.96	0.41%	[10]	mg/L

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Analysis Begun

Start Time: 11/26/2012 12:35:11 PM **Plasma On Time: 11/26/2012 8:17:31 AM**
Logged In Analyst: Metals **Technique: ICP Continuous**
Spectrometer: Optima 7300 DV, S/N 077C8121202 **Autosampler: ESI**

Sample Information File: C:\pe\metals\Sample Information\CRISETMON.sif
Batch ID:
Results Data Set: I2121126
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

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Sequence No.: 1
Sample ID: STD2 **Date Collected: 11/26/2012 12:35:12 PM**
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2488817.5	16288.67	0.65%	106.0	%
ScR 361.383	299465.8	802.73	0.27%	102.5	%
Ba 233.527†	42427.4	71.23	0.17%	[10]	mg/L
Cd 228.802†	260300.9	303.66	0.12%	[10]	mg/L
Co 228.616†	341035.9	771.02	0.23%	[10]	mg/L
Cr 267.716†	56522.7	175.42	0.31%	[10]	mg/L
Cu 324.752†	2303115.8	4808.80	0.21%	[10]	mg/L
Mn 257.610†	341521.2	984.38	0.29%	[10]	mg/L
V 292.402†	1125550.3	1156.27	0.10%	[10]	mg/L

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Analysis Begun

Start Time: 11/26/2012 12:38:53 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/26/2012 8:17:31 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISETMON.sif
Batch ID:
Results Data Set: I2121126
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

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Sequence No.: 1
Sample ID: ~~Icv~~ zzzzzz
Analyst: BA
Dilution: 1.000000X
BA 11/27/12

Autosampler Location: 7
Date Collected: 11/26/2012 12:38:54 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2386735.7	101.7	%	0.43				0.42%
ScR 361.383	291856.2	99.91	%	1.609				1.61%
Ag 328.068†	170589.9	1.057	mg/L	0.0051	1.057	mg/L	0.0051	0.48%
Al 308.215†	3134.6	2.189	mg/L	0.0451	2.189	mg/L	0.0451	2.06%
As 188.979†	3331.7	2.066	mg/L	0.0119	2.066	mg/L	0.0119	0.58%
B 249.677†	6951.5	1.033	mg/L	0.0236	1.033	mg/L	0.0236	2.29%
Ba 233.527†	4373.7	1.030	mg/L	0.0202	1.030	mg/L	0.0202	1.96%
Be 313.042†	538039.1	1.018	mg/L	0.0186	1.018	mg/L	0.0186	1.83%
Ca 317.933†	23829.8	2.096	mg/L	0.0379	2.096	mg/L	0.0379	1.81%
Cd 228.802†	27882.6	1.058	mg/L	0.0049	1.058	mg/L	0.0049	0.46%
Co 228.616†	35171.0	1.029	mg/L	0.0049	1.029	mg/L	0.0049	0.47%
Cr 267.716†	5823.3	1.030	mg/L	0.0207	1.030	mg/L	0.0207	2.01%
Cu 324.752†	245303.5	1.065	mg/L	0.0067	1.065	mg/L	0.0067	0.63%
Fe 273.955†	2605.4	2.219	mg/L	0.0369	2.219	mg/L	0.0369	1.66%
K 766.490†	35177.5	21.39	mg/L	0.435	21.39	mg/L	0.435	2.04%
Mg 279.077†	2516.8	2.208	mg/L	0.0394	2.208	mg/L	0.0394	1.79%
Mn 257.610†	33697.7	0.9871	mg/L	0.01829	0.9871	mg/L	0.01829	1.85%
Mo 202.031†	18746.6	1.039	mg/L	0.0070	1.039	mg/L	0.0070	0.68%
Na 589.592†	554347.7	52.63	mg/L	0.995	52.63	mg/L	0.995	1.89%
Na 330.237†	1404.1	56.00	mg/L	0.817	56.00	mg/L	0.817	1.46%
Ni 231.604†	3811.8	1.038	mg/L	0.0189	1.038	mg/L	0.0189	1.82%
Pb 220.353†	14878.0	1.989	mg/L	0.0140	1.989	mg/L	0.0140	0.70%
Sb 206.836†	6546.7	2.211	mg/L	0.0063	2.211	mg/L	0.0063	0.29%
Se 196.026†	2642.7	2.018	mg/L	0.0108	2.018	mg/L	0.0108	0.54%
Si 288.158†	4002.1	2.274	mg/L	0.0531	2.274	mg/L	0.0531	2.34%
Sn 189.927†	3583.3	1.061	mg/L	0.0060	1.061	mg/L	0.0060	0.56%
Sr 421.552†	789459.9	1.040	mg/L	0.0205	1.040	mg/L	0.0205	1.97%
Ti 334.903†	19303.0	1.101	mg/L	0.0198	1.101	mg/L	0.0198	1.80%
Tl 190.801†	4578.3	2.026	mg/L	0.0111	2.026	mg/L	0.0111	0.55%
V 292.402†	118366.9	1.056	mg/L	0.0040	1.056	mg/L	0.0040	0.38%
Zn 206.200†	3639.3	1.069	mg/L	0.0207	1.069	mg/L	0.0207	1.93%

Analysis Begun

Start Time: 11/26/2012 12:48:55 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/26/2012 8:17:31 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISETMON.sif
Batch ID:
Results Data Set: I2121126
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: STD4
Date Collected: 11/26/2012 12:48:56 PM
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2437787.7	5970.81	0.24%	103.8	%
ScR 361.383	304982.2	8726.39	2.86%	104.4	%
Mo 202.031†	181280.3	811.04	0.45%	[10]	mg/L
Sb 206.836†	29682.2	92.93	0.31%	[10]	mg/L
Si 288.158†	18143.7	397.53	2.19%	[10]	mg/L
Sn 189.927†	34110.7	153.42	0.45%	[10]	mg/L
Ti 334.903†	179376.1	5898.01	3.29%	[10]	mg/L

Sequence No.: 2
Sample ID: STD5

Date Collected: 11/26/2012 12:50:56 PM
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2292570.9	9394.42	0.41%	97.65	%
ScR 361.383	294880.8	5114.68	1.73%	100.9	%
Al 308.215†	45143.6	745.52	1.65%	[30]	mg/L
Ca 317.933†	365449.2	6797.64	1.86%	[30]	mg/L
Fe 273.955†	126499.2	2404.96	1.90%	[100]	mg/L
K 766.490†	173748.8	3236.91	1.86%	[100]	mg/L
Mg 279.077†	36834.2	686.71	1.86%	[30]	mg/L
Na 330.237†	2645.5	55.26	2.09%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	161400	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1505	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1634	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	6721	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	4243	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	528300	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	12180	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	26030	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	34100	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	5652	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	230300	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1265	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1737	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1228	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	34150	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	18130	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	10530	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	26.45	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	3673	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	7485	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	2968	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1309	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	1814	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	3411	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	759100	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	17940	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	2250	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	112600	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	3404	0.00000	1.000000	

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Analysis Begun

Start Time: 11/26/2012 12:53:07 PM **Plasma On Time: 11/26/2012 8:17:31 AM**
Logged In Analyst: Metals **Technique: ICP Continuous**
Spectrometer: Optima 7300 DV, S/N 077C8121202 **Autosampler: ESI**

Sample Information File: C:\pe\metals\Sample Information\CRISETMON.sif
Batch ID:
Results Data Set: I2121126
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: CV **Date Collected: 11/26/2012 12:53:08 PM**
Analyst: BA **Data Type: Original**
Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2400881.2	102.3	%	0.36				0.35%
ScR 361.383	288632.6	98.81	%	1.073				1.09%
Ag 328.068†	168793.7	1.046	mg/L	0.0069	1.046	mg/L	0.0069	0.66%
Al 308.215†	3163.8	2.067	mg/L	0.0319	2.067	mg/L	0.0319	1.54%
As 188.979†	3311.2	2.053	mg/L	0.0121	2.053	mg/L	0.0121	0.59%
B 249.677†	7013.2	1.043	mg/L	0.0156	1.043	mg/L	0.0156	1.50%
Ba 233.527†	4396.2	1.036	mg/L	0.0148	1.036	mg/L	0.0148	1.43%
Be 313.042†	547744.2	1.037	mg/L	0.0076	1.037	mg/L	0.0076	0.74%
Ca 317.933†	24295.1	1.994	mg/L	0.0133	1.994	mg/L	0.0133	0.67%
Cd 228.802†	27575.1	1.047	mg/L	0.0077	1.047	mg/L	0.0077	0.73%
Co 228.616†	34814.8	1.019	mg/L	0.0079	1.019	mg/L	0.0079	0.77%
Cr 267.716†	5872.2	1.038	mg/L	0.0122	1.038	mg/L	0.0122	1.17%
Cu 324.752†	242706.5	1.053	mg/L	0.0081	1.053	mg/L	0.0081	0.76%
Fe 273.955†	2675.6	2.108	mg/L	0.0213	2.108	mg/L	0.0213	1.01%
K 766.490†	35557.6	20.46	mg/L	0.080	20.46	mg/L	0.080	0.39%
Mg 279.077†	2546.2	2.081	mg/L	0.0154	2.081	mg/L	0.0154	0.74%
Mn 257.610†	34334.8	1.006	mg/L	0.0087	1.006	mg/L	0.0087	0.87%
Mo 202.031†	18673.2	1.030	mg/L	0.0082	1.030	mg/L	0.0082	0.80%
Na 589.592†	562204.1	53.38	mg/L	0.419	53.38	mg/L	0.419	0.78%
Na 330.237†	1412.9	53.30	mg/L	0.665	53.30	mg/L	0.665	1.25%
Ni 231.604†	3838.9	1.046	mg/L	0.0142	1.046	mg/L	0.0142	1.36%
Pb 220.353†	14741.9	1.971	mg/L	0.0130	1.971	mg/L	0.0130	0.66%
Sb 206.836†	6484.5	2.184	mg/L	0.0141	2.184	mg/L	0.0141	0.65%
Se 196.026†	2616.7	1.998	mg/L	0.0145	1.998	mg/L	0.0145	0.73%
Si 288.158†	4051.9	2.232	mg/L	0.0366	2.232	mg/L	0.0366	1.64%
Sn 189.927†	3563.5	1.046	mg/L	0.0088	1.046	mg/L	0.0088	0.84%
Sr 421.552†	800206.1	1.054	mg/L	0.0078	1.054	mg/L	0.0078	0.74%
Ti 334.903†	19628.5	1.093	mg/L	0.0088	1.093	mg/L	0.0088	0.81%
Tl 190.801†	4539.5	2.009	mg/L	0.0128	2.009	mg/L	0.0128	0.64%
V 292.402†	116842.1	1.043	mg/L	0.0076	1.043	mg/L	0.0076	0.73%
Zn 206.200†	3681.2	1.081	mg/L	0.0132	1.081	mg/L	0.0132	1.22%

Sequence No.: 2
Sample ID: ICB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/26/2012 12:57:11 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: ICB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2412652.1	102.8	%	0.23				0.22%
ScR 361.383	294635.8	100.9	%	0.64				0.63%
Ag 328.068†	15.2	0.00009	mg/L	0.000340	0.00009	mg/L	0.000340	360.42%
Al 308.215†	6.5	0.00430	mg/L	0.001153	0.00430	mg/L	0.001153	26.83%
As 188.979†	4.6	0.00282	mg/L	0.001299	0.00282	mg/L	0.001299	46.07%
B 249.677†	16.4	0.00244	mg/L	0.000491	0.00244	mg/L	0.000491	20.11%
Ba 233.527†	2.1	0.00050	mg/L	0.000856	0.00050	mg/L	0.000856	170.38%
Be 313.042†	92.1	0.00017	mg/L	0.000050	0.00017	mg/L	0.000050	28.73%
Ca 317.933†	15.4	0.00127	mg/L	0.000280	0.00127	mg/L	0.000280	22.11%
Cd 228.802†	2.0	0.00006	mg/L	0.000168	0.00006	mg/L	0.000168	278.01%
Co 228.616†	11.6	0.00034	mg/L	0.000095	0.00034	mg/L	0.000095	28.02%
Cr 267.716†	3.8	0.00068	mg/L	0.000229	0.00068	mg/L	0.000229	33.94%
Cu 324.752†	-7.0	-0.00003	mg/L	0.000110	-0.00003	mg/L	0.000110	358.64%
Fe 273.955†	4.9	0.00384	mg/L	0.001951	0.00384	mg/L	0.001951	50.83%
K 766.490†	32.2	0.01854	mg/L	0.018993	0.01854	mg/L	0.018993	102.46%
Mg 279.077†	5.7	0.00465	mg/L	0.003037	0.00465	mg/L	0.003037	65.37%
Mn 257.610†	6.3	0.00018	mg/L	0.000118	0.00018	mg/L	0.000118	63.71%
Mo 202.031†	29.8	0.00165	mg/L	0.000239	0.00165	mg/L	0.000239	14.52%
Na 589.592†	170.5	0.01619	mg/L	0.005006	0.01619	mg/L	0.005006	30.92%
Na 330.237†	-8.9	-0.3370	mg/L	0.26033	-0.3370	mg/L	0.26033	77.24%
Ni 231.604†	8.4	0.00228	mg/L	0.000277	0.00228	mg/L	0.000277	12.13%
Pb 220.353†	3.2	0.00044	mg/L	0.000553	0.00044	mg/L	0.000553	127.12%
Sb 206.836†	15.0	0.00504	mg/L	0.001236	0.00504	mg/L	0.001236	24.54%
Se 196.026†	2.4	0.00185	mg/L	0.002671	0.00185	mg/L	0.002671	144.70%
Si 288.158†	10.5	0.00579	mg/L	0.003907	0.00579	mg/L	0.003907	67.49%
Sn 189.927†	2.8	0.00082	mg/L	0.000634	0.00082	mg/L	0.000634	77.28%
Sr 421.552†	158.2	0.00021	mg/L	0.000039	0.00021	mg/L	0.000039	18.60%
Ti 334.903†	-5.2	-0.00029	mg/L	0.001449	-0.00029	mg/L	0.001449	495.81%
Tl 190.801†	3.6	0.00159	mg/L	0.001910	0.00159	mg/L	0.001910	119.98%
V 292.402†	25.0	0.00023	mg/L	0.000326	0.00023	mg/L	0.000326	144.03%
Zn 206.200†	1.3	0.00038	mg/L	0.000706	0.00038	mg/L	0.000706	187.75%

Sequence No.: 3
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 11/26/2012 1:01:26 PM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2459799.1	104.8	%	0.33				0.32%
ScR 361.383	296470.9	101.5	%	1.60				1.57%
Ag 328.068†	466.1	0.00289	mg/L	0.000239	0.00289	mg/L	0.000239	8.26%
Al 308.215†	79.2	0.05248	mg/L	0.004119	0.05248	mg/L	0.004119	7.85%
As 188.979†	81.2	0.04980	mg/L	0.002402	0.04980	mg/L	0.002402	4.82%
B 249.677†	141.1	0.02100	mg/L	0.000882	0.02100	mg/L	0.000882	4.20%
Ba 233.527†	12.6	0.00296	mg/L	0.001316	0.00296	mg/L	0.001316	44.50%
Be 313.042†	545.6	0.00103	mg/L	0.000049	0.00103	mg/L	0.000049	4.78%
Ca 317.933†	599.4	0.04920	mg/L	0.000786	0.04920	mg/L	0.000786	1.60%
Cd 228.802†	57.5	0.00189	mg/L	0.000114	0.00189	mg/L	0.000114	6.05%
Co 228.616†	130.2	0.00380	mg/L	0.000053	0.00380	mg/L	0.000053	1.40%
Cr 267.716†	28.1	0.00496	mg/L	0.000168	0.00496	mg/L	0.000168	3.39%
Cu 324.752†	361.5	0.00157	mg/L	0.000027	0.00157	mg/L	0.000027	1.69%
Fe 273.955†	65.1	0.05146	mg/L	0.000197	0.05146	mg/L	0.000197	0.38%
K 766.490†	894.6	0.5149	mg/L	0.02599	0.5149	mg/L	0.02599	5.05%
Mg 279.077†	62.8	0.05114	mg/L	0.000791	0.05114	mg/L	0.000791	1.55%
Mn 257.610†	40.0	0.00117	mg/L	0.000113	0.00117	mg/L	0.000113	9.62%
Mo 202.031†	95.1	0.00525	mg/L	0.000123	0.00525	mg/L	0.000123	2.35%
Na 589.592†	5289.7	0.5023	mg/L	0.00376	0.5023	mg/L	0.00376	0.75%
Na 330.237†	12.5	0.4701	mg/L	0.23986	0.4701	mg/L	0.23986	51.02%
Ni 231.604†	43.9	0.01196	mg/L	0.000931	0.01196	mg/L	0.000931	7.78%
Pb 220.353†	150.1	0.02007	mg/L	0.001072	0.02007	mg/L	0.001072	5.34%
Sb 206.836†	152.3	0.05136	mg/L	0.000841	0.05136	mg/L	0.000841	1.64%
Se 196.026†	61.3	0.04682	mg/L	0.004628	0.04682	mg/L	0.004628	9.88%
Si 288.158†	131.4	0.07240	mg/L	0.001679	0.07240	mg/L	0.001679	2.32%
Sn 189.927†	36.3	0.01068	mg/L	0.000763	0.01068	mg/L	0.000763	7.14%
Sr 421.552†	841.6	0.00111	mg/L	0.000036	0.00111	mg/L	0.000036	3.23%
Ti 334.903†	93.7	0.00522	mg/L	0.000918	0.00522	mg/L	0.000918	17.59%
Tl 190.801†	110.0	0.04888	mg/L	0.001828	0.04888	mg/L	0.001828	3.74%
V 292.402†	345.7	0.00309	mg/L	0.000085	0.00309	mg/L	0.000085	2.75%
Zn 206.200†	35.9	0.01054	mg/L	0.000157	0.01054	mg/L	0.000157	1.49%

Sequence No.: 4
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 11/26/2012 1:05:42 PM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2440837.3	104.0	%	0.30				0.29%
ScR 361.383	295759.9	101.2	%	0.64				0.63%
Ag 328.068†	-159.2	-0.00098	mg/L	0.000197	-0.00098	mg/L	0.000197	20.01%
Al 308.215†	296229.9	196.9	mg/L	2.06	196.9	mg/L	2.06	1.05%
As 188.979†	36.4	0.01676	mg/L	0.004681	0.01676	mg/L	0.004681	27.92%
B 249.677†	-32.9	-0.00490	mg/L	0.001683	-0.00490	mg/L	0.001683	34.38%
Ba 233.527†	115.1	-0.00456	mg/L	0.000195	-0.00456	mg/L	0.000195	4.27%
Be 313.042†	52.3	0.00010	mg/L	0.000013	0.00010	mg/L	0.000013	13.21%
Ca 317.933†	1199669.3	98.48	mg/L	1.108	98.48	mg/L	1.108	1.13%
Cd 228.802†	45.1	-0.00026	mg/L	0.000250	-0.00026	mg/L	0.000250	97.68%
Co 228.616†	66.4	-0.00059	mg/L	0.000229	-0.00059	mg/L	0.000229	38.82%
Cr 267.716†	17.6	0.00103	mg/L	0.000444	0.00103	mg/L	0.000444	43.26%
Cu 324.752†	-1920.8	-0.00064	mg/L	0.000063	-0.00064	mg/L	0.000063	9.81%
Fe 273.955†	244834.1	193.5	mg/L	2.59	193.5	mg/L	2.59	1.34%
K 766.490†	11.2	0.00647	mg/L	0.010592	0.00647	mg/L	0.010592	163.60%
Mg 279.077†	125005.5	101.7	mg/L	1.31	101.7	mg/L	1.31	1.29%
Mn 257.610†	36.8	0.00104	mg/L	0.000240	0.00104	mg/L	0.000240	23.06%
Mo 202.031†	50.0	0.00170	mg/L	0.000371	0.00170	mg/L	0.000371	21.87%
Na 589.592†	201.7	0.01915	mg/L	0.004072	0.01915	mg/L	0.004072	21.26%
Na 330.237†	-6.5	-0.2453	mg/L	0.21591	-0.2453	mg/L	0.21591	88.00%
Ni 231.604†	4.6	0.00127	mg/L	0.001985	0.00127	mg/L	0.001985	155.95%
Pb 220.353†	-283.5	0.00127	mg/L	0.000877	0.00127	mg/L	0.000877	68.98%
Sb 206.836†	32.9	0.01091	mg/L	0.003469	0.01091	mg/L	0.003469	31.80%
Se 196.026†	14.4	0.01098	mg/L	0.004287	0.01098	mg/L	0.004287	39.03%
Si 288.158†	-22.0	0.00020	mg/L	0.003158	0.00020	mg/L	0.003158	>999.9%
Sn 189.927†	-69.3	-0.00814	mg/L	0.000487	-0.00814	mg/L	0.000487	5.98%
Sr 421.552†	3130.8	0.00412	mg/L Cont.	0.000042	0.00412	mg/L	0.000042	1.02%
Ti 334.903†	146.4	0.00346	mg/L	0.000428	0.00346	mg/L	0.000428	12.36%
Tl 190.801†	-49.8	-0.00150	mg/L	0.001258	-0.00150	mg/L	0.001258	84.06%
V 292.402†	1138.0	0.00336	mg/L	0.000116	0.00336	mg/L	0.000116	3.44%
Zn 206.200†	8.6	0.00252	mg/L	0.000683	0.00252	mg/L	0.000683	27.13%

Sequence No.: 5
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 11/26/2012 1:09:58 PM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2440929.8	104.0	%	0.74				0.72%
ScR 361.383	296310.5	101.4	%	0.72				0.71%
Ag 328.068†	158664.8	0.9831	mg/L	0.00252	0.9831	mg/L	0.00252	0.26%
Al 308.215†	292151.4	194.1	mg/L	2.48	194.1	mg/L	2.48	1.28%
As 188.979†	1628.2	0.9902	mg/L	0.00498	0.9902	mg/L	0.00498	0.50%
B 249.677†	-27.8	-0.00613	mg/L	0.000512	-0.00613	mg/L	0.000512	8.36%
Ba 233.527†	4298.0	0.9816	mg/L	0.00673	0.9816	mg/L	0.00673	0.69%
Be 313.042†	528994.6	1.001	mg/L	0.0121	1.001	mg/L	0.0121	1.21%
Ca 317.933†	1186955.6	97.44	mg/L	1.229	97.44	mg/L	1.229	1.26%
Cd 228.802†	26256.0	1.001	mg/L	0.0031	1.001	mg/L	0.0031	0.31%
Co 228.616†	33093.7	0.9677	mg/L	0.00656	0.9677	mg/L	0.00656	0.68%
Cr 267.716†	5631.9	0.9942	mg/L	0.00897	0.9942	mg/L	0.00897	0.90%
Cu 324.752†	230436.8	1.008	mg/L	0.0027	1.008	mg/L	0.0027	0.26%
Fe 273.955†	242024.2	191.3	mg/L	2.57	191.3	mg/L	2.57	1.34%
K 766.490†	-83.3	-0.04795	mg/L	0.035068	-0.04795	mg/L	0.035068	73.14%
Mg 279.077†	119037.7	96.85	mg/L	1.323	96.85	mg/L	1.323	1.37%
Mn 257.610†	32301.9	0.9460	mg/L	0.01271	0.9460	mg/L	0.01271	1.34%
Mo 202.031†	52.4	0.00179	mg/L	0.000199	0.00179	mg/L	0.000199	11.15%
Na 589.592†	282.2	0.02679	mg/L	0.003725	0.02679	mg/L	0.003725	13.90%
Na 330.237†	4.2	-0.1591	mg/L	0.28574	-0.1591	mg/L	0.28574	179.61%
Ni 231.604†	3582.2	0.9755	mg/L	0.00985	0.9755	mg/L	0.00985	1.01%
Pb 220.353†	6759.5	0.9422	mg/L	0.00509	0.9422	mg/L	0.00509	0.54%
Sb 206.836†	3022.7	1.008	mg/L	0.0061	1.008	mg/L	0.0061	0.61%
Se 196.026†	1266.3	0.9666	mg/L	0.00743	0.9666	mg/L	0.00743	0.77%
Si 288.158†	-21.4	0.00356	mg/L	0.002638	0.00356	mg/L	0.002638	74.07%
Sn 189.927†	-68.3	-0.00749	mg/L	0.000878	-0.00749	mg/L	0.000878	11.73%
Sr 421.552†	3145.5	0.00414	mg/L	Cont. 0.000085	0.00414	mg/L	0.000085	2.05%
Ti 334.903†	133.9	0.00261	mg/L	0.000089	0.00261	mg/L	0.000089	3.40%
Tl 190.801†	2026.1	0.9119	mg/L	0.00530	0.9119	mg/L	0.00530	0.58%
V 292.402†	107912.5	0.9565	mg/L	0.00211	0.9565	mg/L	0.00211	0.22%
Zn 206.200†	3289.5	0.9665	mg/L	0.00692	0.9665	mg/L	0.00692	0.72%

Sequence No.: 6
Sample ID: HiPurQC7M
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 304
Date Collected: 11/26/2012 1:15:09 PM
Data Type: Original

Nebulizer Parameters: HiPurQC7M

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: HiPurQC7M

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2493874.6	106.2	%	0.72				0.67%
ScR 361.383	303329.4	103.8	%	0.80				0.77%
Ag 328.068†	154679.2	0.9582	mg/L✔	0.00200	0.9582	mg/L	0.00200	0.21%
Al 308.215†	2914.1	1.937	mg/L✔	0.0253	1.937	mg/L	0.0253	1.31%
As 188.979†	2.5	0.00156	mg/L	0.001603	0.00156	mg/L	0.001603	103.03%
B 249.677†	13108.1	1.950	mg/L✔	0.0266	1.950	mg/L	0.0266	1.36%
Ba 233.527†	8223.7	1.938	mg/L✔	0.0232	1.938	mg/L	0.0232	1.20%
Be 313.042†	50.3	0.00010	mg/L	0.000013	0.00010	mg/L	0.000013	13.31%
Ca 317.933†	221.1	0.01815	mg/L	0.001446	0.01815	mg/L	0.001446	7.96%
Cd 228.802†	-1.6	-0.00007	mg/L	0.000138	-0.00007	mg/L	0.000138	195.94%
Co 228.616†	12.7	0.00022	mg/L	0.000023	0.00022	mg/L	0.000023	10.39%
Cr 267.716†	5.8	0.00102	mg/L	0.000757	0.00102	mg/L	0.000757	74.31%
Cu 324.752†	-105.5	-0.00046	mg/L	0.000082	-0.00046	mg/L	0.000082	17.89%
Fe 273.955†	34.2	0.02707	mg/L	0.004264	0.02707	mg/L	0.004264	15.75%
K 766.490†	33334.7	19.19	mg/L✔	0.197	19.19	mg/L	0.197	1.03%
Mg 279.077†	17.2	0.01401	mg/L	0.003185	0.01401	mg/L	0.003185	22.73%
Mn 257.610†	0.5	0.00000	mg/L	0.000115	0.00000	mg/L	0.000115	>999.9%
Mo 202.031†	-9.3	-0.00051	mg/L	0.000163	-0.00051	mg/L	0.000163	31.86%
Na 589.592†	20645.6	1.960	mg/L✔	0.0172	1.960	mg/L	0.0172	0.88%
Na 330.237†	42.8	1.619	mg/L	0.2105	1.619	mg/L	0.2105	13.00%
Ni 231.604†	7.4	0.00201	mg/L	0.000971	0.00201	mg/L	0.000971	48.31%
Pb 220.353†	0.8	0.00057	mg/L	0.000532	0.00057	mg/L	0.000532	93.31%
Sb 206.836†	2.8	0.00093	mg/L	0.002288	0.00093	mg/L	0.002288	247.28%
Se 196.026†	0.2	0.00015	mg/L	0.000902	0.00015	mg/L	0.000902	598.07%
Si 288.158†	3706.7	2.043	mg/L✔	0.0201	2.043	mg/L	0.0201	0.98%
Sn 189.927†	2.8	0.00083	mg/L	0.000614	0.00083	mg/L	0.000614	73.86%
Sr 421.552†	32.4	0.00004	mg/L	0.000016	0.00004	mg/L	0.000016	37.05%
Ti 334.903†	5.3	0.00029	mg/L	0.001275	0.00029	mg/L	0.001275	433.67%
Tl 190.801†	3.3	0.00144	mg/L	0.001033	0.00144	mg/L	0.001033	71.55%
V 292.402†	21.9	0.00020	mg/L	0.000193	0.00020	mg/L	0.000193	97.49%
Zn 206.200†	-1.0	-0.00030	mg/L	0.000445	-0.00030	mg/L	0.000445	150.49%

Sequence No.: 7
Sample ID: SPEXQC21
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 305
Date Collected: 11/26/2012 1:19:23 PM
Data Type: Original

Nebulizer Parameters: SPEXQC21

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: SPEXQC21

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2492046.4	106.1	%	0.34				0.32%
ScR 361.383	293523.4	100.5	%	0.63				0.63%
Ag 328.068†	-24.1	0.00043	mg/L	0.000328	0.00043	mg/L	0.000328	76.21%
Al 308.215†	136.4	0.02253	mg/L	0.004814	0.02253	mg/L	0.004814	21.37%
As 188.979†	3138.2	1.973	mg/L	0.0063	1.973	mg/L	0.0063	0.32%
B 249.677†	77.2	0.00971	mg/L	0.000629	0.00971	mg/L	0.000629	6.48%
Ba 233.527†	6.7	0.00095	mg/L	0.000418	0.00095	mg/L	0.000418	44.03%
Be 313.042†	1068711.9	2.022	mg/L	0.0104	2.022	mg/L	0.0104	0.51%
Ca 317.933†	24384.6	2.002	mg/L	0.0146	2.002	mg/L	0.0146	0.73%
Cd 228.802†	53365.1	2.039	mg/L	0.0118	2.039	mg/L	0.0118	0.58%
Co 228.616†	68737.5	2.011	mg/L	0.0123	2.011	mg/L	0.0123	0.61%
Cr 267.716†	11825.2	2.091	mg/L	0.0177	2.091	mg/L	0.0177	0.85%
Cu 324.752†	452183.1	1.963	mg/L	0.0018	1.963	mg/L	0.0018	0.09%
Fe 273.955†	2642.9	2.075	mg/L	0.0158	2.075	mg/L	0.0158	0.76%
K 766.490†	-23.8	-0.01371	mg/L	0.005377	-0.01371	mg/L	0.005377	39.22%
Mg 279.077†	2540.8	2.085	mg/L	0.0193	2.085	mg/L	0.0193	0.93%
Mn 257.610†	68552.0	2.008	mg/L	0.0116	2.008	mg/L	0.0116	0.58%
Mo 202.031†	35767.0	1.973	mg/L	0.0093	1.973	mg/L	0.0093	0.47%
Na 589.592†	345.4	0.03280	mg/L	0.003268	0.03280	mg/L	0.003268	9.96%
Na 330.237†	-15.7	-0.8000	mg/L	0.28056	-0.8000	mg/L	0.28056	35.07%
Ni 231.604†	7587.0	2.066	mg/L	0.0180	2.066	mg/L	0.0180	0.87%
Pb 220.353†	14398.7	1.925	mg/L	0.0094	1.925	mg/L	0.0094	0.49%
Sb 206.836†	6291.4	2.098	mg/L	0.0064	2.098	mg/L	0.0064	0.31%
Se 196.026†	2554.8	1.950	mg/L	0.0078	1.950	mg/L	0.0078	0.40%
Si 288.158†	65.6	0.04703	mg/L	0.007279	0.04703	mg/L	0.007279	15.48%
Sn 189.927†	-10.6	-0.00151	mg/L	0.000587	-0.00151	mg/L	0.000587	38.74%
Sr 421.552†	1570601.1	2.069	mg/L	0.0164	2.069	mg/L	0.0164	0.79%
Ti 334.903†	38204.3	2.128	mg/L	0.0118	2.128	mg/L	0.0118	0.55%
Tl 190.801†	4485.8	1.977	mg/L	0.0086	1.977	mg/L	0.0086	0.43%
V 292.402†	226220.1	2.019	mg/L	0.0116	2.019	mg/L	0.0116	0.57%
Zn 206.200†	7132.6	2.095	mg/L	0.0151	2.095	mg/L	0.0151	0.72%

Sequence No.: 8
Sample ID: DI CHECK
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 306
Date Collected: 11/26/2012 1:23:39 PM
Data Type: Original

Nebulizer Parameters: DI CHECK

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: DI CHECK

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2527297.5	107.6	%	1.00				0.93%
ScR 361.383	305917.3	104.7	%	1.58				1.51%
Ag 328.068†	28.0	0.00017	mg/L	0.000077	0.00017	mg/L	0.000077	44.18%
Al 308.215†	0.6	0.00038	mg/L	0.012781	0.00038	mg/L	0.012781	>999.9%
As 188.979†	3.9	0.00238	mg/L	0.002483	0.00238	mg/L	0.002483	104.32%
B 249.677†	-4.8	-0.00072	mg/L	0.000969	-0.00072	mg/L	0.000969	134.65%
Ba 233.527†	-1.8	-0.00042	mg/L	0.000941	-0.00042	mg/L	0.000941	226.42%
Be 313.042†	219.5	0.00042	mg/L	0.000152	0.00042	mg/L	0.000152	36.62%
Ca 317.933†	5.9	0.00048	mg/L	0.001485	0.00048	mg/L	0.001485	306.87%
Cd 228.802†	3.5	0.00012	mg/L	0.000125	0.00012	mg/L	0.000125	105.98%
Co 228.616†	22.5	0.00066	mg/L	0.000092	0.00066	mg/L	0.000092	13.93%
Cr 267.716†	8.4	0.00149	mg/L	0.000763	0.00149	mg/L	0.000763	51.26%
Cu 324.752†	-128.6	-0.00056	mg/L	0.000141	-0.00056	mg/L	0.000141	25.24%
Fe 273.955†	4.8	0.00377	mg/L	0.001739	0.00377	mg/L	0.001739	46.13%
K 766.490†	9.3	0.00536	mg/L	0.025631	0.00536	mg/L	0.025631	478.43%
Mg 279.077†	8.2	0.00672	mg/L	0.002335	0.00672	mg/L	0.002335	34.75%
Mn 257.610†	10.4	0.00030	mg/L	0.000099	0.00030	mg/L	0.000099	32.65%
Mo 202.031†	29.9	0.00165	mg/L	0.000131	0.00165	mg/L	0.000131	7.95%
Na 589.592†	1.7	0.00016	mg/L	0.004104	0.00016	mg/L	0.004104	>999.9%
Na 330.237†	-4.4	-0.1669	mg/L	0.43009	-0.1669	mg/L	0.43009	257.71%
Ni 231.604†	5.6	0.00153	mg/L	0.000331	0.00153	mg/L	0.000331	21.68%
Pb 220.353†	6.3	0.00084	mg/L	0.000497	0.00084	mg/L	0.000497	58.86%
Sb 206.836†	-3.6	-0.00124	mg/L	0.001027	-0.00124	mg/L	0.001027	83.03%
Se 196.026†	10.6	0.00811	mg/L	0.003042	0.00811	mg/L	0.003042	37.49%
Si 288.158†	-5.2	-0.00287	mg/L	0.003096	-0.00287	mg/L	0.003096	108.04%
Sn 189.927†	4.2	0.00125	mg/L	0.001043	0.00125	mg/L	0.001043	83.79%
Sr 421.552†	360.6	0.00048	mg/L	0.000137	0.00048	mg/L	0.000137	28.77%
Ti 334.903†	2.9	0.00016	mg/L	0.000701	0.00016	mg/L	0.000701	432.88%
Tl 190.801†	5.3	0.00236	mg/L	0.000438	0.00236	mg/L	0.000438	18.58%
V 292.402†	22.0	0.00020	mg/L	0.000173	0.00020	mg/L	0.000173	85.26%
Zn 206.200†	3.3	0.00097	mg/L	0.000974	0.00097	mg/L	0.000974	100.29%

Sequence No.: 9
Sample ID: CV
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/26/2012 1:27:53 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2393053.8	101.9	%	0.32				0.31%
ScR 361.383	297472.7	101.8	%	1.75				1.72%
Ag 328.068†	169942.3	1.053	mg/L	0.0049	1.053	mg/L	0.0049	0.46%
Al 308.215†	3075.2	2.008	mg/L	0.0493	2.008	mg/L	0.0493	2.45%
As 188.979†	3338.5	2.069	mg/L	0.0081	2.069	mg/L	0.0081	0.39%
B 249.677†	6837.4	1.016	mg/L	0.0233	1.016	mg/L	0.0233	2.30%
Ba 233.527†	4277.4	1.008	mg/L	0.0244	1.008	mg/L	0.0244	2.42%
Be 313.042†	538926.5	1.020	mg/L	0.0267	1.020	mg/L	0.0267	2.62%
Ca 317.933†	23546.4	1.933	mg/L	0.0449	1.933	mg/L	0.0449	2.32%
Cd 228.802†	27921.2	1.060	mg/L	0.0059	1.060	mg/L	0.0059	0.55%
Co 228.616†	35209.4	1.030	mg/L	0.0060	1.030	mg/L	0.0060	0.58%
Cr 267.716†	5734.6	1.014	mg/L	0.0219	1.014	mg/L	0.0219	2.16%
Cu 324.752†	244789.1	1.062	mg/L	0.0050	1.062	mg/L	0.0050	0.47%
Fe 273.955†	2586.6	2.037	mg/L	0.0456	2.037	mg/L	0.0456	2.24%
K 766.490†	34472.6	19.84	mg/L	0.329	19.84	mg/L	0.329	1.66%
Mg 279.077†	2470.0	2.019	mg/L	0.0468	2.019	mg/L	0.0468	2.32%
Mn 257.610†	33292.4	0.9752	mg/L	0.02149	0.9752	mg/L	0.02149	2.20%
Mo 202.031†	18833.7	1.039	mg/L	0.0043	1.039	mg/L	0.0043	0.42%
Na 589.592†	543442.3	51.60	mg/L	1.261	51.60	mg/L	1.261	2.44%
Na 330.237†	1392.8	52.54	mg/L	0.989	52.54	mg/L	0.989	1.88%
Ni 231.604†	3749.0	1.021	mg/L	0.0240	1.021	mg/L	0.0240	2.35%
Pb 220.353†	14974.8	2.002	mg/L	0.0084	2.002	mg/L	0.0084	0.42%
Sb 206.836†	6545.2	2.205	mg/L	0.0076	2.205	mg/L	0.0076	0.35%
Se 196.026†	2645.0	2.020	mg/L	0.0124	2.020	mg/L	0.0124	0.62%
Si 288.158†	3936.8	2.169	mg/L	0.0454	2.169	mg/L	0.0454	2.10%
Sn 189.927†	3591.4	1.054	mg/L	0.0070	1.054	mg/L	0.0070	0.67%
Sr 421.552†	773107.3	1.018	mg/L	0.0234	1.018	mg/L	0.0234	2.29%
Ti 334.903†	19069.3	1.062	mg/L	0.0262	1.062	mg/L	0.0262	2.46%
Tl 190.801†	4568.3	2.022	mg/L	0.0074	2.022	mg/L	0.0074	0.37%
V 292.402†	118228.6	1.055	mg/L	0.0066	1.055	mg/L	0.0066	0.63%
Zn 206.200†	3581.6	1.052	mg/L	0.0242	1.052	mg/L	0.0242	2.30%

Sequence No.: 10
Sample ID: CB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/26/2012 1:31:55 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2410890.1	102.7	%	0.61				0.59%
ScR 361.383	293927.4	100.6	%	1.04				1.03%
Ag 328.068†	-19.2	-0.00012	mg/L	0.000109	-0.00012	mg/L	0.000109	91.37%
Al 308.215†	5.2	0.00340	mg/L	0.009952	0.00340	mg/L	0.009952	292.31%
As 188.979†	3.2	0.00202	mg/L	0.001839	0.00202	mg/L	0.001839	91.02%
B 249.677†	15.2	0.00227	mg/L	0.000457	0.00227	mg/L	0.000457	20.17%
Ba 233.527†	-0.5	-0.00013	mg/L	0.000681	-0.00013	mg/L	0.000681	540.31%
Be 313.042†	92.8	0.00018	mg/L	0.000033	0.00018	mg/L	0.000033	18.87%
Ca 317.933†	10.7	0.00088	mg/L	0.001922	0.00088	mg/L	0.001922	219.31%
Cd 228.802†	1.1	0.00003	mg/L	0.000090	0.00003	mg/L	0.000090	272.99%
Co 228.616†	13.3	0.00039	mg/L	0.000046	0.00039	mg/L	0.000046	11.90%
Cr 267.716†	3.0	0.00054	mg/L	0.000705	0.00054	mg/L	0.000705	131.67%
Cu 324.752†	-43.8	-0.00019	mg/L	0.000147	-0.00019	mg/L	0.000147	77.23%
Fe 273.955†	0.8	0.00064	mg/L	0.000444	0.00064	mg/L	0.000444	69.01%
K 766.490†	31.1	0.01792	mg/L	0.004737	0.01792	mg/L	0.004737	26.44%
Mg 279.077†	10.9	0.00892	mg/L	0.003320	0.00892	mg/L	0.003320	37.22%
Mn 257.610†	7.4	0.00022	mg/L	0.000104	0.00022	mg/L	0.000104	47.92%
Mo 202.031†	15.9	0.00088	mg/L	0.000239	0.00088	mg/L	0.000239	27.22%
Na 589.592†	127.6	0.01211	mg/L	0.003745	0.01211	mg/L	0.003745	30.91%
Na 330.237†	-8.4	-0.3181	mg/L	0.26448	-0.3181	mg/L	0.26448	83.14%
Ni 231.604†	9.4	0.00257	mg/L	0.001863	0.00257	mg/L	0.001863	72.40%
Pb 220.353†	1.1	0.00014	mg/L	0.000681	0.00014	mg/L	0.000681	475.17%
Sb 206.836†	9.0	0.00302	mg/L	0.000694	0.00302	mg/L	0.000694	22.97%
Se 196.026†	-4.5	-0.00347	mg/L	0.003409	-0.00347	mg/L	0.003409	98.09%
Si 288.158†	5.2	0.00288	mg/L	0.000802	0.00288	mg/L	0.000802	27.81%
Sn 189.927†	2.5	0.00072	mg/L	0.000599	0.00072	mg/L	0.000599	82.76%
Sr 421.552†	150.0	0.00020	mg/L	0.000045	0.00020	mg/L	0.000045	22.56%
Ti 334.903†	24.7	0.00138	mg/L	0.000682	0.00138	mg/L	0.000682	49.52%
Tl 190.801†	2.3	0.00102	mg/L	0.002337	0.00102	mg/L	0.002337	228.31%
V 292.402†	31.0	0.00028	mg/L	0.000080	0.00028	mg/L	0.000080	29.00%
Zn 206.200†	1.8	0.00054	mg/L	0.000485	0.00054	mg/L	0.000485	89.65%

Sequence No.: 11
Sample ID: VS21 MB1 SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 307
Date Collected: 11/26/2012 1:36:10 PM
Data Type: Original

Nebulizer Parameters: VS21 MB1 SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VS21 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2503882.8	106.6	%	0.65				0.61%
ScR 361.383	306914.1	105.1	%	0.72				0.69%
Ag 328.068†	-8.9	-0.00005	mg/L	0.000227	-0.00011	mg/L	0.000455	414.20%
Al 308.215†	15.8	0.01048	mg/L	0.002001	0.02097	mg/L	0.004003	19.09%
As 188.979†	4.6	0.00280	mg/L	0.001771	0.00559	mg/L	0.003543	63.35%
B 249.677†	2.6	0.00038	mg/L	0.000897	0.00077	mg/L	0.001794	234.04%
Ba 233.527†	0.6	0.00014	mg/L	0.000338	0.00028	mg/L	0.000677	245.57%
Be 313.042†	-11.6	-0.00002	mg/L	0.000025	-0.00004	mg/L	0.000050	113.94%
Ca 317.933†	130.0	0.01067	mg/L	0.000384	0.02135	mg/L	0.000767	3.59%
Cd 228.802†	-0.2	-0.00003	mg/L	0.000186	-0.00005	mg/L	0.000371	726.54%
Co 228.616†	5.6	0.00016	mg/L	0.000116	0.00033	mg/L	0.000232	71.22%
Cr 267.716†	9.3	0.00165	mg/L	0.000839	0.00331	mg/L	0.001678	50.75%
Cu 324.752†	-88.6	-0.00038	mg/L	0.000105	-0.00077	mg/L	0.000209	27.21%
Fe 273.955†	4.4	0.00348	mg/L	0.000805	0.00695	mg/L	0.001609	23.14%
K 766.490†	25.4	0.01459	mg/L	0.008273	0.02919	mg/L	0.016546	56.69%
Mg 279.077†	2.7	0.00219	mg/L	0.003028	0.00438	mg/L	0.006055	138.10%
Mn 257.610†	5.5	0.00016	mg/L	0.000085	0.00032	mg/L	0.000170	52.77%
Mo 202.031†	-7.1	-0.00039	mg/L	0.000302	-0.00078	mg/L	0.000604	77.44%
Na 589.592†	70.0	0.00664	mg/L	0.003156	0.01329	mg/L	0.006313	47.51%
Na 330.237†	1.1	0.04050	mg/L	0.144835	0.08099	mg/L	0.289670	357.66%
Ni 231.604†	3.5	0.00094	mg/L	0.000777	0.00189	mg/L	0.001554	82.24%
Pb 220.353†	6.7	0.00090	mg/L	0.000743	0.00181	mg/L	0.001487	82.18%
Sb 206.836†	1.6	0.00053	mg/L	0.001506	0.00107	mg/L	0.003012	281.62%
Se 196.026†	-1.4	-0.00105	mg/L	0.002205	-0.00209	mg/L	0.004411	210.55%
Si 288.158†	7.5	0.00411	mg/L	0.002798	0.00823	mg/L	0.005595	68.01%
Sn 189.927†	3.8	0.00111	mg/L	0.000815	0.00222	mg/L	0.001631	73.46%
Sr 421.552†	10.7	0.00001	mg/L	0.000019	0.00003	mg/L	0.000039	136.44%
Ti 334.903†	2.1	0.00012	mg/L	0.000345	0.00023	mg/L	0.000690	298.74%
Tl 190.801†	1.7	0.00077	mg/L	0.001215	0.00155	mg/L	0.002429	157.03%
V 292.402†	19.9	0.00018	mg/L	0.000149	0.00037	mg/L	0.000299	81.19%
Zn 206.200†	10.1	0.00296	mg/L	0.000455	0.00591	mg/L	0.000910	15.38%

Sequence No.: 12
Sample ID: VS20 E SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 308
Date Collected: 11/26/2012 1:40:27 PM
Data Type: Original

Nebulizer Parameters: VS20 E SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS20 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2459457.6	104.8	%	0.40				0.38%
ScR 361.383	305676.4	104.6	%	1.42				1.36%
Ag 328.068†	428.6	0.00269	mg/L	0.000173	0.01343	mg/L	0.000864	6.43%
Al 308.215†	128209.6	85.20	mg/L	2.182	426.0	mg/L	10.91	2.56%
As 188.979†	75.2	0.09903	mg/L	0.001392	0.4951	mg/L	0.00696	1.41%
B 249.677†	59.9	0.00866	mg/L	0.001226	0.04328	mg/L	0.006131	14.17%
Ba 233.527†	4718.8	1.085	mg/L	0.0243	5.427	mg/L	0.1216	2.24%
Be 313.042†	2822.8	0.00530	mg/L	0.000148	0.02649	mg/L	0.000738	2.78%
Ca 317.933†	612347.9	50.27	mg/L	1.327	251.3	mg/L	6.64	2.64%
Cd 228.802†	1081.1	0.03986	mg/L	0.000351	0.1993	mg/L	0.00176	0.88%
Co 228.616†	4370.9	0.1221	mg/L	0.00067	0.6107	mg/L	0.00335	0.55%
Cr 267.716†	428.5	0.07681	mg/L	0.000369	0.3840	mg/L	0.00185	0.48%
Cu 324.752†	47131.8	0.2112	mg/L	0.00089	1.056	mg/L	0.0045	0.42%
Fe 273.955†	207588.8	164.1	mg/L	4.30	820.5	mg/L	21.52	2.62%
K 766.490†	7832.6	4.508	mg/L	0.1259	22.54	mg/L	0.630	2.79%
Mg 279.077†	51632.3	41.97	mg/L	1.173	209.8	mg/L	5.87	2.80%
Mn 257.610†	483526.6	14.16	mg/L	0.363	70.79	mg/L	1.815	2.56%
Mo 202.031†	121.3	0.00615	mg/L	0.000347	0.03073	mg/L	0.001735	5.64%
Na 589.592†	5961.0	0.5660	mg/L	0.01100	2.830	mg/L	0.0550	1.94%
Na 330.237†	14.0	0.2423	mg/L	0.09151	1.212	mg/L	0.4575	37.76%
Ni 231.604†	815.1	0.2219	mg/L	0.00418	1.110	mg/L	0.0209	1.88%
Pb 220.353†	11872.7	1.600	mg/L	0.0050	7.999	mg/L	0.0249	0.31%
Sb 206.836†	47.2	0.01600	mg/L	0.003584	0.08002	mg/L	0.017920	22.40%
Se 196.026†	14.8	0.01121	mg/L	0.002876	0.05606	mg/L	0.014382	25.66%
Si 288.158†	978.6	0.5446	mg/L	0.01221	2.723	mg/L	0.0611	2.24%
Sn 189.927†	-34.2	-0.00346	mg/L	0.001713	-0.01728	mg/L	0.008566	49.57%
Sr 421.552†	302241.1	0.3981	mg/L	0.01026	1.991	mg/L	0.0513	2.58%
Ti 334.903†	35059.7	1.952	mg/L	0.0505	9.761	mg/L	0.2524	2.59%
Tl 190.801†	-33.1	0.00172	mg/L	0.004841	0.00862	mg/L	0.024203	280.78%
V 292.402†	11954.3	0.1019	mg/L	0.00031	0.5093	mg/L	0.00154	0.30%
Zn 206.200†	7548.5	2.218	mg/L	0.0517	11.09	mg/L	0.258	2.33%

Sequence No.: 13
Sample ID: VS21 B SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 309
Date Collected: 11/26/2012 1:44:28 PM
Data Type: Original

Nebulizer Parameters: VS21 B SWC

Analyte	Back Pressure	Flow
A11	219.0 kPa	0.75 L/min

Mean Data: VS21 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2430555.1	103.5	%	0.13				0.12%
ScR 361.383	305755.5	104.7	%	2.44				2.33%
Ag 328.068†	965.8	0.00600	mg/L	0.000162	0.02999	mg/L	0.000808	2.69%
Al 308.215†	38524.6	25.60	mg/L	0.632	128.0	mg/L	3.16	2.47%
As 188.979†	81.0	0.09358	mg/L	0.001826	0.4679	mg/L	0.00913	1.95%
B 249.677†	147.9	0.02197	mg/L	0.000651	0.1099	mg/L	0.00326	2.96%
Ba 233.527†	13728.0	3.230	mg/L	0.0720	16.15	mg/L	0.360	2.23%
Be 313.042†	844.1	0.00157	mg/L	0.000086	0.00784	mg/L	0.000432	5.51%
Ca 317.933†	544962.5	44.74	mg/L	1.119	223.7	mg/L	5.59	2.50%
Cd 228.802†	1970.4	0.07507	mg/L	0.000458	0.3753	mg/L	0.00229	0.61%
Co 228.616†	648.2	0.01516	mg/L	0.000427	0.07579	mg/L	0.002133	2.81%
Cr 267.716†	173.5	0.03035	mg/L	0.001645	0.1518	mg/L	0.00823	5.42%
Cu 324.752†	39001.5	0.1704	mg/L	0.00162	0.8522	mg/L	0.00810	0.95%
Fe 273.955†	42633.9	33.70	mg/L	0.822	168.5	mg/L	4.11	2.44%
K 766.490†	7691.7	4.427	mg/L	0.0937	22.13	mg/L	0.468	2.12%
Mg 279.077†	8882.7	7.217	mg/L	0.1590	36.08	mg/L	0.795	2.20%
Mn 257.610†	183975.0	5.388	mg/L	0.1364	26.94	mg/L	0.682	2.53%
Mo 202.031†	93.5	0.00467	mg/L	0.000424	0.02335	mg/L	0.002119	9.07%
Na 589.592†	3892.9	0.3696	mg/L	0.00569	1.848	mg/L	0.0284	1.54%
Na 330.237†	23.5	-0.04649	mg/L	0.125481	-0.2325	mg/L	0.62740	269.89%
Ni 231.604†	91.4	0.02497	mg/L	0.000214	0.1249	mg/L	0.00107	0.86%
Pb 220.353†	43601.4	5.830	mg/L	0.0715	29.15	mg/L	0.357	1.23%
Sb 206.836†	434.5	0.1471	mg/L	0.00141	0.7355	mg/L	0.00706	0.96%
Se 196.026†	-0.7	-0.00056	mg/L	0.002193	-0.00281	mg/L	0.010966	390.92%
Si 288.158†	4496.2	2.479	mg/L	0.0605	12.40	mg/L	0.302	2.44%
Sn 189.927†	94.6	0.03376	mg/L	0.000867	0.1688	mg/L	0.00433	2.57%
Sr 421.552†	411859.5	0.5425	mg/L	0.01333	2.713	mg/L	0.0667	2.46%
Ti 334.903†	29250.3	1.629	mg/L	0.0416	8.143	mg/L	0.2079	2.55%
Tl 190.801†	10.2	0.00786	mg/L	0.002302	0.03928	mg/L	0.011512	29.31%
V 292.402†	5643.5	0.04900	mg/L	0.000431	0.2450	mg/L	0.00215	0.88%
Zn 206.200†	13491.6	3.964	mg/L	0.0861	19.82	mg/L	0.431	2.17%

Sequence No.: 14
Sample ID: VS21 C SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 310
Date Collected: 11/26/2012 1:48:28 PM
Data Type: Original

Nebulizer Parameters: VS21 C SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS21 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2459353.5	104.8	%	0.47				0.44%
ScR 361.383	308913.1	105.7	%	1.69				1.60%
Ag 328.068†	-24.3	-0.00010	mg/L	0.000095	-0.00049	mg/L	0.000475	96.87%
Al 308.215†	119818.0	79.61	mg/L	1.559	398.1	mg/L	7.79	1.96%
As 188.979†	-14.1	0.08496	mg/L	0.002004	0.4248	mg/L	0.01002	2.36%
B 249.677†	44.6	0.00654	mg/L	0.000390	0.03271	mg/L	0.001952	5.97%
Ba 233.527†	5004.9	1.164	mg/L	0.0197	5.821	mg/L	0.0984	1.69%
Be 313.042†	1056.7	0.00192	mg/L	0.000059	0.00962	mg/L	0.000297	3.08%
Ca 317.933†	212198.2	17.42	mg/L	0.362	87.10	mg/L	1.808	2.08%
Cd 228.802†	523.0	0.01932	mg/L	0.000296	0.09659	mg/L	0.001481	1.53%
Co 228.616†	1639.2	0.04034	mg/L	0.000688	0.2017	mg/L	0.00344	1.71%
Cr 267.716†	591.4	0.1058	mg/L	0.00299	0.5290	mg/L	0.01493	2.82%
Cu 324.752†	23586.9	0.1057	mg/L	0.00098	0.5285	mg/L	0.00489	0.92%
Fe 273.955†	118827.9	93.93	mg/L	1.722	469.7	mg/L	8.61	1.83%
K 766.490†	14620.8	8.415	mg/L	0.1156	42.07	mg/L	0.578	1.37%
Mg 279.077†	28098.3	22.84	mg/L	0.484	114.2	mg/L	2.42	2.12%
Mn 257.610†	104432.6	3.058	mg/L	0.0587	15.29	mg/L	0.294	1.92%
Mo 202.031†	49.3	0.00253	mg/L	0.000505	0.01264	mg/L	0.002527	19.99%
Na 589.592†	12571.9	1.194	mg/L	0.0240	5.968	mg/L	0.1201	2.01%
Na 330.237†	19.3	1.119	mg/L	0.1145	5.593	mg/L	0.5725	10.24%
Ni 231.604†	309.8	0.08437	mg/L	0.001304	0.4218	mg/L	0.00652	1.55%
Pb 220.353†	5284.1	0.7212	mg/L	0.00481	3.606	mg/L	0.0241	0.67%
Sb 206.836†	25.8	0.00931	mg/L	0.001705	0.04656	mg/L	0.008525	18.31%
Se 196.026†	8.9	0.00670	mg/L	0.003326	0.03350	mg/L	0.016631	49.64%
Si 288.158†	5718.5	3.155	mg/L	0.0529	15.77	mg/L	0.264	1.68%
Sn 189.927†	-15.2	-0.00179	mg/L	0.001435	-0.00895	mg/L	0.007174	80.20%
Sr 421.552†	163073.1	0.2148	mg/L	0.00398	1.074	mg/L	0.0199	1.85%
Ti 334.903†	59362.3	3.309	mg/L	0.0649	16.54	mg/L	0.325	1.96%
Tl 190.801†	-23.7	-0.00140	mg/L	0.002110	-0.00701	mg/L	0.010550	150.51%
V 292.402†	20599.1	0.1788	mg/L	0.00182	0.8939	mg/L	0.00908	1.02%
Zn 206.200†	3768.2	1.107	mg/L	0.0240	5.536	mg/L	0.1201	2.17%

Sequence No.: 15
Sample ID: VS21 A-L SWC
Analyst: BA
Dilution: 25.000000X

Autosampler Location: 311
Date Collected: 11/26/2012 1:52:28 PM
Data Type: Original

Nebulizer Parameters: VS21 A-L SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS21 A-L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2405663.5	102.5	%	0.37				0.36%
ScR 361.383	305081.8	104.4	%	3.63				3.47%
Ag 328.068†	-4.8	-0.00002	mg/L	0.000148	-0.00043	mg/L	0.003690	861.82%
Al 308.215†	26128.9	17.36	mg/L	0.574	434.0	mg/L	14.35	3.31%
As 188.979†	-4.5	0.01905	mg/L	0.001512	0.4763	mg/L	0.03781	7.94%
B 249.677†	0.5	0.00006	mg/L	0.000191	0.00153	mg/L	0.004780	311.41%
Ba 233.527†	676.8	0.1563	mg/L	0.00561	3.908	mg/L	0.1403	3.59%
Be 313.042†	264.7	0.00048	mg/L	0.000069	0.01208	mg/L	0.001728	14.31%
Ca 317.933†	37084.8	3.044	mg/L	0.0967	76.11	mg/L	2.417	3.18%
Cd 228.802†	150.1	0.00561	mg/L	0.000135	0.1403	mg/L	0.00337	2.40%
Co 228.616†	321.7	0.00768	mg/L	0.000320	0.1920	mg/L	0.00801	4.17%
Cr 267.716†	160.0	0.02849	mg/L	0.000775	0.7122	mg/L	0.01936	2.72%
Cu 324.752†	5689.7	0.02536	mg/L	0.000567	0.6341	mg/L	0.01419	2.24%
Fe 273.955†	24661.8	19.50	mg/L	0.622	487.4	mg/L	15.54	3.19%
K 766.490†	1807.0	1.040	mg/L	0.0572	26.00	mg/L	1.429	5.50%
Mg 279.077†	6771.0	5.504	mg/L	0.1626	137.6	mg/L	4.06	2.95%
Mn 257.610†	18772.4	0.5498	mg/L	0.01758	13.74	mg/L	0.439	3.20%
Mo 202.031†	6.8	0.00034	mg/L	0.000256	0.00858	mg/L	0.006409	74.68%
Na 589.592†	825.8	0.07841	mg/L	0.002174	1.960	mg/L	0.0544	2.77%
Na 330.237†	-4.5	-0.07037	mg/L	0.129283	-1.759	mg/L	3.2321	183.73%
Ni 231.604†	67.3	0.01833	mg/L	0.000732	0.4582	mg/L	0.01831	3.99%
Pb 220.353†	3073.9	0.4140	mg/L	0.00972	10.35	mg/L	0.243	2.35%
Sb 206.836†	10.1	0.00351	mg/L	0.004029	0.08763	mg/L	0.100732	114.95%
Se 196.026†	-0.9	-0.00069	mg/L	0.003094	-0.01736	mg/L	0.077349	445.44%
Si 288.158†	1237.6	0.6828	mg/L	0.01579	17.07	mg/L	0.395	2.31%
Sn 189.927†	-0.5	0.00034	mg/L	0.000749	0.00856	mg/L	0.018733	218.76%
Sr 421.552†	25211.5	0.03321	mg/L	0.001127	0.8303	mg/L	0.02818	3.39%
Ti 334.903†	13805.7	0.7695	mg/L	0.02321	19.24	mg/L	0.580	3.02%
Tl 190.801†	-4.5	-0.00015	mg/L	0.000965	-0.00368	mg/L	0.024128	655.22%
V 292.402†	4953.5	0.04310	mg/L	0.001331	1.077	mg/L	0.0333	3.09%
Zn 206.200†	785.1	0.2307	mg/L	0.00729	5.767	mg/L	0.1821	3.16%

Sequence No.: 16
Sample ID: VS21 A SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 312
Date Collected: 11/26/2012 1:56:27 PM
Data Type: Original

Nebulizer Parameters: VS21 A SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS21 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2424637.8	103.3	%	0.79				0.77%
ScR 361.383	305156.8	104.5	%	2.75				2.63%
Ag 328.068†	-35.6	-0.00016	mg/L	0.000251	-0.00078	mg/L	0.001255	160.23%
Al 308.215†	131399.7	87.31	mg/L	3.060	436.5	mg/L	15.30	3.50%
As 188.979†	-23.5	0.09437	mg/L	0.003312	0.4718	mg/L	0.01656	3.51%
B 249.677†	19.8	0.00285	mg/L	0.000468	0.01423	mg/L	0.002342	16.46%
Ba 233.527†	3392.5	0.7835	mg/L	0.01831	3.918	mg/L	0.0916	2.34%
Be 313.042†	1362.2	0.00249	mg/L	0.000092	0.01244	mg/L	0.000459	3.69%
Ca 317.933†	187494.5	15.39	mg/L	0.541	76.96	mg/L	2.705	3.52%
Cd 228.802†	775.5	0.02902	mg/L	0.001052	0.1451	mg/L	0.00526	3.63%
Co 228.616†	1628.5	0.03899	mg/L	0.001334	0.1949	mg/L	0.00667	3.42%
Cr 267.716†	766.6	0.1367	mg/L	0.00377	0.6836	mg/L	0.01883	2.76%
Cu 324.752†	29478.6	0.1313	mg/L	0.00386	0.6566	mg/L	0.01930	2.94%
Fe 273.955†	123713.9	97.80	mg/L	3.605	489.0	mg/L	18.03	3.69%
K 766.490†	9217.0	5.305	mg/L	0.1658	26.52	mg/L	0.829	3.13%
Mg 279.077†	32112.0	26.10	mg/L	0.898	130.5	mg/L	4.49	3.44%
Mn 257.610†	94029.5	2.754	mg/L	0.0972	13.77	mg/L	0.486	3.53%
Mo 202.031†	56.2	0.00292	mg/L	0.000548	0.01462	mg/L	0.002742	18.75%
Na 589.592†	4144.3	0.3935	mg/L	0.01428	1.967	mg/L	0.0714	3.63%
Na 330.237†	-5.4	0.2871	mg/L	0.17888	1.435	mg/L	0.8944	62.31%
Ni 231.604†	326.5	0.08889	mg/L	0.001246	0.4445	mg/L	0.00623	1.40%
Pb 220.353†	15295.7	2.060	mg/L	0.0495	10.30	mg/L	0.248	2.40%
Sb 206.836†	40.7	0.01429	mg/L	0.001857	0.07147	mg/L	0.009286	12.99%
Se 196.026†	6.1	0.00449	mg/L	0.002706	0.02246	mg/L	0.013528	60.24%
Si 288.158†	6171.3	3.405	mg/L	0.0908	17.02	mg/L	0.454	2.67%
Sn 189.927†	-0.7	0.00234	mg/L	0.001083	0.01168	mg/L	0.005414	46.37%
Sr 421.552†	125237.0	0.1650	mg/L	0.00573	0.8249	mg/L	0.02863	3.47%
Ti 334.903†	68804.7	3.835	mg/L	0.1316	19.18	mg/L	0.658	3.43%
Tl 190.801†	-15.9	0.00230	mg/L	0.001837	0.01149	mg/L	0.009183	79.95%
V 292.402†	25059.5	0.2181	mg/L	0.00656	1.090	mg/L	0.0328	3.01%
Zn 206.200†	3944.6	1.159	mg/L	0.0286	5.795	mg/L	0.1429	2.47%

Sequence No.: 17
Sample ID: VS21 ADUP SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 313
Date Collected: 11/26/2012 2:00:27 PM
Data Type: Original

Nebulizer Parameters: VS21 ADUP SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS21 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2427197.7	103.4	%	0.22				0.22%
ScR 361.383	307318.2	105.2	%	3.47				3.30%
Ag 328.068†	-30.2	-0.00012	mg/L	0.000183	-0.00062	mg/L	0.000915	147.99%
Al 308.215†	130586.1	86.77	mg/L	3.265	433.8	mg/L	16.32	3.76%
As 188.979†	-36.5	0.08568	mg/L	0.004387	0.4284	mg/L	0.02194	5.12%
B 249.677†	15.1	0.00216	mg/L	0.000789	0.01078	mg/L	0.003944	36.59%
Ba 233.527†	3417.5	0.7900	mg/L	0.02272	3.950	mg/L	0.1136	2.88%
Be 313.042†	1370.8	0.00251	mg/L	0.000128	0.01253	mg/L	0.000642	5.12%
Ca 317.933†	176300.0	14.47	mg/L	0.543	72.36	mg/L	2.713	3.75%
Cd 228.802†	752.3	0.02821	mg/L	0.000577	0.1411	mg/L	0.00288	2.04%
Co 228.616†	1641.2	0.03946	mg/L	0.000786	0.1973	mg/L	0.00393	1.99%
Cr 267.716†	797.0	0.1420	mg/L	0.00316	0.7102	mg/L	0.01579	2.22%
Cu 324.752†	29422.6	0.1309	mg/L	0.00170	0.6547	mg/L	0.00852	1.30%
Fe 273.955†	119595.3	94.54	mg/L	3.541	472.7	mg/L	17.70	3.75%
K 766.490†	9370.5	5.393	mg/L	0.2306	26.97	mg/L	1.153	4.28%
Mg 279.077†	31089.9	25.27	mg/L	0.907	126.4	mg/L	4.53	3.59%
Mn 257.610†	94010.5	2.753	mg/L	0.1042	13.77	mg/L	0.521	3.79%
Mo 202.031†	57.3	0.00300	mg/L	0.000479	0.01498	mg/L	0.002397	16.00%
Na 589.592†	3903.9	0.3707	mg/L	0.01347	1.853	mg/L	0.0674	3.63%
Na 330.237†	-11.1	0.07585	mg/L	0.330889	0.3793	mg/L	1.65445	436.23%
Ni 231.604†	321.1	0.08743	mg/L	0.001947	0.4371	mg/L	0.00974	2.23%
Pb 220.353†	14936.8	2.013	mg/L	0.0241	10.06	mg/L	0.121	1.20%
Sb 206.836†	43.6	0.01518	mg/L	0.001972	0.07590	mg/L	0.009862	12.99%
Se 196.026†	9.3	0.00699	mg/L	0.005256	0.03495	mg/L	0.026282	75.21%
Si 288.158†	6190.9	3.415	mg/L	0.0975	17.08	mg/L	0.487	2.85%
Sn 189.927†	2.9	0.00326	mg/L	0.000340	0.01631	mg/L	0.001702	10.43%
Sr 421.552†	121094.5	0.1595	mg/L	0.00584	0.7976	mg/L	0.02918	3.66%
Ti 334.903†	68321.8	3.808	mg/L	0.1402	19.04	mg/L	0.701	3.68%
Tl 190.801†	-15.2	0.00227	mg/L	0.002633	0.01136	mg/L	0.013163	115.85%
V 292.402†	24664.9	0.2147	mg/L	0.00250	1.074	mg/L	0.0125	1.17%
Zn 206.200†	3843.0	1.129	mg/L	0.0325	5.646	mg/L	0.1624	2.88%

Sequence No.: 18
Sample ID: VS21 ASPK SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 314
Date Collected: 11/26/2012 2:04:27 PM
Data Type: Original

Nebulizer Parameters: VS21 ASPK SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VS21 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2444658.5	104.1	%	0.47				0.45%
ScR 361.383	306065.2	104.8	%	2.46				2.34%
Ag 328.068†	32047.9	0.1986	mg/L	0.00228	0.9932	mg/L	0.01141	1.15%
Al 308.215†	135742.6	90.19	mg/L	2.763	451.0	mg/L	13.81	3.06%
As 188.979†	1280.6	0.8887	mg/L	0.01346	4.444	mg/L	0.0673	1.51%
B 249.677†	23.1	0.00291	mg/L	0.000855	0.01455	mg/L	0.004275	29.38%
Ba 233.527†	6924.9	1.616	mg/L	0.0287	8.078	mg/L	0.1435	1.78%
Be 313.042†	113392.8	0.2145	mg/L	0.00787	1.073	mg/L	0.0393	3.67%
Ca 317.933†	225927.3	18.55	mg/L	0.635	92.73	mg/L	3.177	3.43%
Cd 228.802†	6528.9	0.2449	mg/L	0.00470	1.224	mg/L	0.0235	1.92%
Co 228.616†	8733.8	0.2474	mg/L	0.00441	1.237	mg/L	0.0221	1.78%
Cr 267.716†	1958.3	0.3471	mg/L	0.00646	1.736	mg/L	0.0323	1.86%
Cu 324.752†	76614.2	0.3361	mg/L	0.00324	1.681	mg/L	0.0162	0.97%
Fe 273.955†	127950.3	101.1	mg/L	3.35	505.7	mg/L	16.76	3.31%
K 766.490†	16378.5	9.427	mg/L	0.2658	47.13	mg/L	1.329	2.82%
Mg 279.077†	38306.9	31.15	mg/L	1.010	155.7	mg/L	5.05	3.24%
Mn 257.610†	103328.8	3.026	mg/L	0.1010	15.13	mg/L	0.505	3.34%
Mo 202.031†	56.9	0.00292	mg/L	0.000174	0.01459	mg/L	0.000868	5.95%
Na 589.592†	47372.8	4.498	mg/L	0.1439	22.49	mg/L	0.720	3.20%
Na 330.237†	102.4	4.274	mg/L	0.1611	21.37	mg/L	0.805	3.77%
Ni 231.604†	1101.1	0.2995	mg/L	0.00746	1.497	mg/L	0.0373	2.49%
Pb 220.353†	21905.6	2.944	mg/L	0.0527	14.72	mg/L	0.263	1.79%
Sb 206.836†	50.3	0.01530	mg/L	0.001422	0.07648	mg/L	0.007112	9.30%
Se 196.026†	1052.7	0.8040	mg/L	0.01754	4.020	mg/L	0.0877	2.18%
Si 288.158†	5653.3	3.120	mg/L	0.0656	15.60	mg/L	0.328	2.10%
Sn 189.927†	-6.3	0.00107	mg/L	0.000377	0.00534	mg/L	0.001883	35.25%
Sr 421.552†	280545.8	0.3696	mg/L	0.01145	1.848	mg/L	0.0573	3.10%
Ti 334.903†	66720.4	3.719	mg/L	0.1184	18.59	mg/L	0.592	3.18%
Tl 190.801†	1729.6	0.7766	mg/L	0.01302	3.883	mg/L	0.0651	1.68%
V 292.402†	48689.9	0.4289	mg/L	0.00596	2.145	mg/L	0.0298	1.39%
Zn 206.200†	4597.9	1.351	mg/L	0.0247	6.755	mg/L	0.1236	1.83%

Sequence No.: 19 ZZZZZZ
Sample ID: ~~VS21 APOST SWC~~ BA
Analyst: BA
Dilution: 5.000000X 11/28/12

Autosampler Location: 315
Date Collected: 11/26/2012 2:08:13 PM
Data Type: Original

Nebulizer Parameters: VS21 APOST SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS21 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2444846.0	104.1	%	3.16				3.03%
ScR 361.383	301909.1	103.4	%	1.28				1.24%
Ag 328.068†	80202.6	0.4970	mg/L	0.01650	2.485	mg/L	0.0825	3.32%
Al 308.215†	139450.0	92.65	mg/L	1.371	463.3	mg/L	6.85	1.48%
As 188.979†	3315.3	2.141	mg/L	0.0840	10.71	mg/L	0.420	3.92%
B 249.677†	20.0	0.00181	mg/L	0.001288	0.00905	mg/L	0.006442	71.21%
Ba 233.527†	11805.7	2.766	mg/L	0.0405	13.83	mg/L	0.202	1.46%
Be 313.042†	272843.6	0.5163	mg/L	0.01149	2.581	mg/L	0.0574	2.23%
Ca 317.933†	314976.5	25.86	mg/L	0.436	129.3	mg/L	2.18	1.69%
Cd 228.802†	15328.5	0.5749	mg/L	0.02347	2.874	mg/L	0.1174	4.08%
Co 228.616†	19399.2	0.5595	mg/L	0.02166	2.797	mg/L	0.1083	3.87%
Cr 267.716†	3556.2	0.6291	mg/L	0.01017	3.145	mg/L	0.0509	1.62%
Cu 324.752†	154860.3	0.6759	mg/L	0.01901	3.380	mg/L	0.0951	2.81%
Fe 273.955†	130712.3	103.3	mg/L	1.70	516.6	mg/L	8.50	1.64%
K 766.490†	26791.7	15.42	mg/L	0.213	77.10	mg/L	1.067	1.38%
Mg 279.077†	47076.7	38.29	mg/L	0.401	191.4	mg/L	2.01	1.05%
Mn 257.610†	114037.9	3.340	mg/L	0.0560	16.70	mg/L	0.280	1.68%
Mo 202.031†	63.8	0.00321	mg/L	0.000118	0.01603	mg/L	0.000592	3.69%
Na 589.592†	110065.4	10.45	mg/L	0.207	52.25	mg/L	1.036	1.98%
Na 330.237†	255.2	10.00	mg/L	0.266	50.02	mg/L	1.331	2.66%
Ni 231.604†	2141.9	0.5823	mg/L	0.00847	2.912	mg/L	0.0424	1.45%
Pb 220.353†	30459.2	4.088	mg/L	0.1019	20.44	mg/L	0.509	2.49%
Sb 206.836†	60.8	0.01604	mg/L	0.000769	0.08021	mg/L	0.003843	4.79%
Se 196.026†	2695.9	2.059	mg/L	0.0765	10.30	mg/L	0.382	3.71%
Si 288.158†	6273.8	3.465	mg/L	0.0293	17.32	mg/L	0.146	0.85%
Sn 189.927†	-11.2	0.00063	mg/L	0.000554	0.00317	mg/L	0.002770	87.49%
Sr 421.552†	518449.0	0.6830	mg/L	0.01360	3.415	mg/L	0.0680	1.99%
Ti 334.903†	71661.5	3.994	mg/L	0.0603	19.97	mg/L	0.301	1.51%
Tl 190.801†	4400.7	1.961	mg/L	0.0799	9.805	mg/L	0.3996	4.08%
V 292.402†	82356.6	0.7290	mg/L	0.01780	3.645	mg/L	0.0890	2.44%
Zn 206.200†	5708.3	1.677	mg/L	0.0194	8.387	mg/L	0.0971	1.16%

Sequence No.: 20
Sample ID: VS21 MB1SPK SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 316
Date Collected: 11/26/2012 2:11:29 PM
Data Type: Original

Nebulizer Parameters: VS21 MB1SPK SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS21 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2450658.7	104.4	%	1.08				1.04%
ScR 361.383	297298.7	101.8	%	2.47				2.43%
Ag 328.068†	87388.5	0.5415	mg/L	0.00608	1.083	mg/L	0.0122	1.12%
Al 308.215†	3152.2	2.087	mg/L	0.0577	4.174	mg/L	0.1154	2.76%
As 188.979†	3403.7	2.082	mg/L	0.0240	4.164	mg/L	0.0481	1.15%
B 249.677†	-0.3	-0.00113	mg/L	0.000377	-0.00227	mg/L	0.000753	33.24%
Ba 233.527†	8833.3	2.082	mg/L	0.0564	4.163	mg/L	0.1128	2.71%
Be 313.042†	285897.0	0.5411	mg/L	0.01739	1.082	mg/L	0.0348	3.21%
Ca 317.933†	124910.2	10.25	mg/L	0.324	20.51	mg/L	0.648	3.16%
Cd 228.802†	14472.1	0.5425	mg/L	0.00582	1.085	mg/L	0.0116	1.07%
Co 228.616†	17972.8	0.5267	mg/L	0.00559	1.053	mg/L	0.0112	1.06%
Cr 267.716†	2980.2	0.5261	mg/L	0.01385	1.052	mg/L	0.0277	2.63%
Cu 324.752†	119178.9	0.5176	mg/L	0.00238	1.035	mg/L	0.0048	0.46%
Fe 273.955†	2697.3	2.129	mg/L	0.0601	4.257	mg/L	0.1202	2.82%
K 766.490†	17768.1	10.23	mg/L	0.276	20.45	mg/L	0.553	2.70%
Mg 279.077†	12969.2	10.56	mg/L	0.308	21.13	mg/L	0.615	2.91%
Mn 257.610†	17865.1	0.5235	mg/L	0.01454	1.047	mg/L	0.0291	2.78%
Mo 202.031†	13.9	0.00063	mg/L	0.000214	0.00125	mg/L	0.000428	34.24%
Na 589.592†	110631.2	10.50	mg/L	0.299	21.01	mg/L	0.597	2.84%
Na 330.237†	279.8	10.40	mg/L	0.224	20.81	mg/L	0.448	2.15%
Ni 231.604†	1943.7	0.5283	mg/L	0.01340	1.057	mg/L	0.0268	2.54%
Pb 220.353†	15150.9	2.025	mg/L	0.0257	4.050	mg/L	0.0515	1.27%
Sb 206.836†	19.0	0.00088	mg/L	0.002035	0.00176	mg/L	0.004071	231.18%
Se 196.026†	2697.1	2.060	mg/L	0.0268	4.121	mg/L	0.0535	1.30%
Si 288.158†	12.8	0.01035	mg/L	0.004346	0.02069	mg/L	0.008692	42.01%
Sn 189.927†	-14.6	-0.00295	mg/L	0.000756	-0.00590	mg/L	0.001512	25.62%
Sr 421.552†	406533.5	0.5355	mg/L	0.01569	1.071	mg/L	0.0314	2.93%
Ti 334.903†	55.8	0.00251	mg/L	0.000493	0.00503	mg/L	0.000985	19.59%
Tl 190.801†	4567.3	2.025	mg/L	0.0226	4.051	mg/L	0.0453	1.12%
V 292.402†	59553.1	0.5314	mg/L	0.00622	1.063	mg/L	0.0124	1.17%
Zn 206.200†	1807.2	0.5311	mg/L	0.01577	1.062	mg/L	0.0315	2.97%

Sequence No.: 21
Sample ID: CV 2
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/26/2012 2:15:29 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2410168.5	102.7	%	0.53				0.52%
ScR 361.383	299050.9	102.4	%	3.20				3.13%
Ag 328.068†	170327.8	1.055	mg/L	0.0021	1.055	mg/L	0.0021	0.20%
Al 308.215†	3089.4	2.017	mg/L	0.0752	2.017	mg/L	0.0752	3.73%
As 188.979†	3351.1	2.077	mg/L	0.0086	2.077	mg/L	0.0086	0.41%
B 249.677†	6871.0	1.021	mg/L	0.0348	1.021	mg/L	0.0348	3.41%
Ba 233.527†	4290.9	1.011	mg/L	0.0345	1.011	mg/L	0.0345	3.41%
Be 313.042†	536884.6	1.016	mg/L	0.0365	1.016	mg/L	0.0365	3.60%
Ca 317.933†	23742.3	1.949	mg/L	0.0682	1.949	mg/L	0.0682	3.50%
Cd 228.802†	28001.5	1.063	mg/L	0.0024	1.063	mg/L	0.0024	0.23%
Co 228.616†	35285.5	1.032	mg/L	0.0034	1.032	mg/L	0.0034	0.33%
Cr 267.716†	5762.9	1.019	mg/L	0.0335	1.019	mg/L	0.0335	3.28%
Cu 324.752†	238021.4	1.033	mg/L	0.0005	1.033	mg/L	0.0005	0.05%
Fe 273.955†	2622.0	2.065	mg/L	0.0682	2.065	mg/L	0.0682	3.30%
K 766.490†	34901.7	20.09	mg/L	0.730	20.09	mg/L	0.730	3.63%
Mg 279.077†	2494.1	2.039	mg/L	0.0685	2.039	mg/L	0.0685	3.36%
Mn 257.610†	33646.4	0.9856	mg/L	0.03682	0.9856	mg/L	0.03682	3.74%
Mo 202.031†	18911.1	1.043	mg/L	0.0021	1.043	mg/L	0.0021	0.20%
Na 589.592†	548436.8	52.07	mg/L	1.769	52.07	mg/L	1.769	3.40%
Na 330.237†	1397.0	52.70	mg/L	1.507	52.70	mg/L	1.507	2.86%
Ni 231.604†	3764.0	1.025	mg/L	0.0316	1.025	mg/L	0.0316	3.09%
Pb 220.353†	14993.6	2.004	mg/L	0.0071	2.004	mg/L	0.0071	0.35%
Sb 206.836†	6569.3	2.213	mg/L	0.0068	2.213	mg/L	0.0068	0.31%
Se 196.026†	2652.8	2.026	mg/L	0.0081	2.026	mg/L	0.0081	0.40%
Si 288.158†	3974.6	2.190	mg/L	0.0782	2.190	mg/L	0.0782	3.57%
Sn 189.927†	3615.6	1.061	mg/L	0.0052	1.061	mg/L	0.0052	0.49%
Sr 421.552†	781725.0	1.030	mg/L	0.0366	1.030	mg/L	0.0366	3.56%
Ti 334.903†	19180.6	1.068	mg/L	0.0397	1.068	mg/L	0.0397	3.72%
Tl 190.801†	4584.2	2.029	mg/L	0.0070	2.029	mg/L	0.0070	0.35%
V 292.402†	118359.2	1.056	mg/L	0.0022	1.056	mg/L	0.0022	0.20%
Zn 206.200†	3606.7	1.059	mg/L	0.0359	1.059	mg/L	0.0359	3.39%

Sequence No.: 22
Sample ID: CB 2
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/26/2012 2:19:33 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2418712.5	103.0	%	0.82				0.80%
ScR 361.383	298639.9	102.2	%	2.11				2.07%
Ag 328.068†	36.4	0.00023	mg/L	0.000303	0.00023	mg/L	0.000303	134.16%
Al 308.215†	8.7	0.00574	mg/L	0.009941	0.00574	mg/L	0.009941	173.16%
As 188.979†	2.2	0.00138	mg/L	0.001868	0.00138	mg/L	0.001868	135.69%
B 249.677†	7.8	0.00116	mg/L	0.000796	0.00116	mg/L	0.000796	68.32%
Ba 233.527†	4.1	0.00097	mg/L	0.000696	0.00097	mg/L	0.000696	71.50%
Be 313.042†	103.7	0.00020	mg/L	0.000031	0.00020	mg/L	0.000031	15.79%
Ca 317.933†	14.2	0.00117	mg/L	0.001648	0.00117	mg/L	0.001648	141.25%
Cd 228.802†	1.2	0.00004	mg/L	0.000113	0.00004	mg/L	0.000113	307.53%
Co 228.616†	9.1	0.00027	mg/L	0.000080	0.00027	mg/L	0.000080	29.94%
Cr 267.716†	1.2	0.00021	mg/L	0.001116	0.00021	mg/L	0.001116	541.74%
Cu 324.752†	-45.1	-0.00020	mg/L	0.000068	-0.00020	mg/L	0.000068	34.66%
Fe 273.955†	-1.5	-0.00117	mg/L	0.002212	-0.00117	mg/L	0.002212	189.18%
K 766.490†	32.1	0.01847	mg/L	0.010522	0.01847	mg/L	0.010522	56.95%
Mg 279.077†	-1.0	-0.00080	mg/L	0.003667	-0.00080	mg/L	0.003667	460.32%
Mn 257.610†	6.9	0.00020	mg/L	0.000253	0.00020	mg/L	0.000253	125.70%
Mo 202.031†	14.6	0.00081	mg/L	0.000217	0.00081	mg/L	0.000217	26.88%
Na 589.592†	96.8	0.00919	mg/L	0.006511	0.00919	mg/L	0.006511	70.83%
Na 330.237†	-9.8	-0.3697	mg/L	0.67373	-0.3697	mg/L	0.67373	182.22%
Ni 231.604†	6.0	0.00164	mg/L	0.001410	0.00164	mg/L	0.001410	86.21%
Pb 220.353†	12.9	0.00172	mg/L	0.000561	0.00172	mg/L	0.000561	32.55%
Sb 206.836†	6.2	0.00209	mg/L	0.001629	0.00209	mg/L	0.001629	78.10%
Se 196.026†	-7.1	-0.00540	mg/L	0.004031	-0.00540	mg/L	0.004031	74.65%
Si 288.158†	3.3	0.00184	mg/L	0.004282	0.00184	mg/L	0.004282	233.18%
Sn 189.927†	1.7	0.00051	mg/L	0.000443	0.00051	mg/L	0.000443	86.44%
Sr 421.552†	162.3	0.00021	mg/L	0.000021	0.00021	mg/L	0.000021	9.92%
Ti 334.903†	4.0	0.00022	mg/L	0.000980	0.00022	mg/L	0.000980	439.42%
Tl 190.801†	3.3	0.00147	mg/L	0.001429	0.00147	mg/L	0.001429	96.86%
V 292.402†	20.7	0.00019	mg/L	0.000208	0.00019	mg/L	0.000208	112.03%
Zn 206.200†	1.3	0.00038	mg/L	0.000842	0.00038	mg/L	0.000842	221.89%

Sequence No.: 23
Sample ID: VS21 D SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 317
Date Collected: 11/26/2012 2:23:48 PM
Data Type: Original

Nebulizer Parameters: VS21 D SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS21 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2495765.1	106.3	%	0.34				0.32%
ScR 361.383	306178.0	104.8	%	2.21				2.11%
Ag 328.068†	323.4	0.00205	mg/L	0.000021	0.01023	mg/L	0.000106	1.04%
Al 308.215†	116135.0	77.17	mg/L	2.450	385.8	mg/L	12.25	3.18%
As 188.979†	91.1	0.1425	mg/L	0.00475	0.7126	mg/L	0.02376	3.33%
B 249.677†	73.8	0.01090	mg/L	0.000882	0.05450	mg/L	0.004408	8.09%
Ba 233.527†	9073.5	2.124	mg/L	0.0521	10.62	mg/L	0.260	2.45%
Be 313.042†	1202.5	0.00221	mg/L	0.000112	0.01104	mg/L	0.000559	5.06%
Ca 317.933†	280973.1	23.07	mg/L	0.736	115.3	mg/L	3.68	3.19%
Cd 228.802†	1671.4	0.06307	mg/L	0.000298	0.3154	mg/L	0.00149	0.47%
Co 228.616†	1448.2	0.03519	mg/L	0.000031	0.1759	mg/L	0.00015	0.09%
Cr 267.716†	523.7	0.09346	mg/L	0.003063	0.4673	mg/L	0.01532	3.28%
Cu 324.752†	35998.8	0.1594	mg/L	0.00103	0.7969	mg/L	0.00513	0.64%
Fe 273.955†	110560.3	87.40	mg/L	2.845	437.0	mg/L	14.23	3.26%
K 766.490†	13186.3	7.589	mg/L	0.2233	37.95	mg/L	1.117	2.94%
Mg 279.077†	24331.1	19.77	mg/L	0.635	98.85	mg/L	3.177	3.21%
Mn 257.610†	217782.5	6.378	mg/L	0.1987	31.89	mg/L	0.993	3.12%
Mo 202.031†	63.9	0.00327	mg/L	0.000461	0.01635	mg/L	0.002307	14.11%
Na 589.592†	13486.6	1.281	mg/L	0.0341	6.403	mg/L	0.1705	2.66%
Na 330.237†	32.6	1.056	mg/L	0.1194	5.280	mg/L	0.5970	11.31%
Ni 231.604†	294.9	0.08029	mg/L	0.001754	0.4015	mg/L	0.00877	2.18%
Pb 220.353†	22018.5	2.957	mg/L	0.0085	14.78	mg/L	0.042	0.29%
Sb 206.836†	63.4	0.02196	mg/L	0.002064	0.1098	mg/L	0.01032	9.40%
Se 196.026†	14.7	0.01116	mg/L	0.011402	0.05581	mg/L	0.057010	102.15%
Si 288.158†	4140.4	2.285	mg/L	0.0527	11.42	mg/L	0.264	2.31%
Sn 189.927†	-3.3	0.00242	mg/L	0.001005	0.01209	mg/L	0.005024	41.54%
Sr 421.552†	240341.8	0.3166	mg/L	0.00978	1.583	mg/L	0.0489	3.09%
Ti 334.903†	55297.3	3.082	mg/L	0.0984	15.41	mg/L	0.492	3.19%
Tl 190.801†	-4.4	0.00659	mg/L	0.000972	0.03294	mg/L	0.004861	14.76%
V 292.402†	16936.5	0.1471	mg/L	0.00051	0.7353	mg/L	0.00255	0.35%
Zn 206.200†	9087.6	2.670	mg/L	0.0646	13.35	mg/L	0.323	2.42%

Sequence No.: 24 **Autosampler Location: 318**
Sample ID: VS21 E SWC **Date Collected: 11/26/2012 2:27:49 PM**
Analyst: BA **Data Type: Original**
Dilution: 5.000000X

Nebulizer Parameters: VS21 E SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS21 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2530178.5	107.8	%	0.66				0.61%
ScR 361.383	313314.1	107.3	%	2.25				2.09%
Ag 328.068†	100.9	0.00067	mg/L	0.000236	0.00333	mg/L	0.001179	35.42%
Al 308.215†	113273.5	75.27	mg/L	1.626	376.3	mg/L	8.13	2.16%
As 188.979†	33.6	0.1026	mg/L	0.00260	0.5130	mg/L	0.01298	2.53%
B 249.677†	61.9	0.00913	mg/L	0.000796	0.04567	mg/L	0.003978	8.71%
Ba 233.527†	7304.8	1.708	mg/L	0.0394	8.540	mg/L	0.1971	2.31%
Be 313.042†	1046.0	0.00192	mg/L	0.000079	0.00958	mg/L	0.000395	4.12%
Ca 317.933†	268458.0	22.04	mg/L	0.465	110.2	mg/L	2.33	2.11%
Cd 228.802†	785.1	0.02929	mg/L	0.000241	0.1464	mg/L	0.00121	0.82%
Co 228.616†	1426.2	0.03495	mg/L	0.000180	0.1748	mg/L	0.00090	0.52%
Cr 267.716†	521.1	0.09304	mg/L	0.001397	0.4652	mg/L	0.00698	1.50%
Cu 324.752†	19469.0	0.08747	mg/L	0.000120	0.4374	mg/L	0.00060	0.14%
Fe 273.955†	105678.6	83.54	mg/L	1.744	417.7	mg/L	8.72	2.09%
K 766.490†	11280.8	6.493	mg/L	0.1247	32.46	mg/L	0.623	1.92%
Mg 279.077†	23364.4	18.99	mg/L	0.401	94.93	mg/L	2.005	2.11%
Mn 257.610†	184294.3	5.397	mg/L	0.1132	26.98	mg/L	0.566	2.10%
Mo 202.031†	58.2	0.00297	mg/L	0.000015	0.01484	mg/L	0.000076	0.51%
Na 589.592†	10453.0	0.9925	mg/L	0.02256	4.963	mg/L	0.1128	2.27%
Na 330.237†	16.7	0.6670	mg/L	0.19229	3.335	mg/L	0.9614	28.83%
Ni 231.604†	281.5	0.07665	mg/L	0.002014	0.3833	mg/L	0.01007	2.63%
Pb 220.353†	6471.8	0.8793	mg/L	0.00078	4.396	mg/L	0.0039	0.09%
Sb 206.836†	27.0	0.00956	mg/L	0.000834	0.04781	mg/L	0.004171	8.72%
Se 196.026†	6.5	0.00489	mg/L	0.004275	0.02443	mg/L	0.021373	87.48%
Si 288.158†	4159.0	2.295	mg/L	0.0528	11.47	mg/L	0.264	2.30%
Sn 189.927†	-17.1	-0.00183	mg/L	0.000950	-0.00917	mg/L	0.004752	51.84%
Sr 421.552†	214582.0	0.2827	mg/L	0.00587	1.413	mg/L	0.0294	2.08%
Ti 334.903†	52272.2	2.913	mg/L	0.0644	14.57	mg/L	0.322	2.21%
Tl 190.801†	-6.4	0.00535	mg/L	0.005228	0.02676	mg/L	0.026142	97.69%
V 292.402†	15844.4	0.1374	mg/L	0.00032	0.6871	mg/L	0.00162	0.24%
Zn 206.200†	6481.1	1.904	mg/L	0.0430	9.521	mg/L	0.2148	2.26%

Sequence No.: 25
Sample ID: VS21 F SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 319
Date Collected: 11/26/2012 2:31:49 PM
Data Type: Original

Nebulizer Parameters: VS21 F SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS21 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2593650.1	110.5	%	0.61				0.55%
ScR 361.383	314400.5	107.6	%	0.64				0.59%
Ag 328.068†	-80.0	-0.00045	mg/L	0.000216	-0.00224	mg/L	0.001081	48.20%
Al 308.215†	131686.9	87.50	mg/L	0.947	437.5	mg/L	4.74	1.08%
As 188.979†	-69.2	0.05891	mg/L	0.001942	0.2946	mg/L	0.00971	3.30%
B 249.677†	44.1	0.00648	mg/L	0.001025	0.03238	mg/L	0.005124	15.82%
Ba 233.527†	4556.0	1.059	mg/L	0.0039	5.295	mg/L	0.0194	0.37%
Be 313.042†	1104.0	0.00201	mg/L	0.000016	0.01007	mg/L	0.000082	0.81%
Ca 317.933†	173351.5	14.23	mg/L	0.159	71.15	mg/L	0.797	1.12%
Cd 228.802†	89.9	0.00295	mg/L	0.000045	0.01474	mg/L	0.000223	1.51%
Co 228.616†	1553.9	0.03739	mg/L	0.000350	0.1870	mg/L	0.00175	0.94%
Cr 267.716†	543.2	0.09735	mg/L	0.000261	0.4868	mg/L	0.00130	0.27%
Cu 324.752†	19729.0	0.08875	mg/L	0.000257	0.4437	mg/L	0.00129	0.29%
Fe 273.955†	114137.0	90.23	mg/L	0.912	451.1	mg/L	4.56	1.01%
K 766.490†	11639.8	6.699	mg/L	0.0713	33.50	mg/L	0.356	1.06%
Mg 279.077†	25608.6	20.81	mg/L	0.231	104.0	mg/L	1.16	1.11%
Mn 257.610†	111924.3	3.277	mg/L	0.0342	16.39	mg/L	0.171	1.04%
Mo 202.031†	35.4	0.00179	mg/L	0.000284	0.00897	mg/L	0.001419	15.82%
Na 589.592†	13426.2	1.275	mg/L	0.0152	6.374	mg/L	0.0758	1.19%
Na 330.237†	12.8	1.145	mg/L	0.1817	5.723	mg/L	0.9084	15.87%
Ni 231.604†	327.5	0.08918	mg/L	0.000779	0.4459	mg/L	0.00389	0.87%
Pb 220.353†	431.0	0.07487	mg/L	0.000362	0.3744	mg/L	0.00181	0.48%
Sb 206.836†	8.7	0.00368	mg/L	0.000034	0.01839	mg/L	0.000171	0.93%
Se 196.026†	9.4	0.00704	mg/L	0.002189	0.03520	mg/L	0.010944	31.09%
Si 288.158†	4263.3	2.352	mg/L	0.0011	11.76	mg/L	0.005	0.05%
Sn 189.927†	-23.1	-0.00449	mg/L	0.000718	-0.02245	mg/L	0.003591	15.99%
Sr 421.552†	132241.5	0.1742	mg/L	0.00183	0.8710	mg/L	0.00916	1.05%
Ti 334.903†	64034.0	3.569	mg/L	0.0355	17.85	mg/L	0.178	1.00%
Tl 190.801†	-11.0	0.00392	mg/L	0.003377	0.01961	mg/L	0.016885	86.09%
V 292.402†	18293.8	0.1583	mg/L	0.00112	0.7914	mg/L	0.00559	0.71%
Zn 206.200†	1577.5	0.4635	mg/L	0.00175	2.317	mg/L	0.0088	0.38%

Sequence No.: 26
Sample ID: VS21 G SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 320
Date Collected: 11/26/2012 2:35:49 PM
Data Type: Original

Nebulizer Parameters: VS21 G SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS21 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2580749.0	109.9	%	0.57				0.52%
ScR 361.383	314417.7	107.6	%	2.61				2.43%
Ag 328.068†	-122.2	-0.00070	mg/L	0.000079	-0.00350	mg/L	0.000395	11.29%
Al 308.215†	127783.7	84.91	mg/L	2.788	424.5	mg/L	13.94	3.28%
As 188.979†	-172.5	0.02155	mg/L	0.006892	0.1078	mg/L	0.03446	31.98%
B 249.677†	26.1	0.00379	mg/L	0.000733	0.01895	mg/L	0.003664	19.34%
Ba 233.527†	2818.8	0.6489	mg/L	0.01592	3.244	mg/L	0.0796	2.45%
Be 313.042†	1056.6	0.00191	mg/L	0.000084	0.00953	mg/L	0.000422	4.43%
Ca 317.933†	183524.3	15.07	mg/L	0.505	75.33	mg/L	2.526	3.35%
Cd 228.802†	39.1	0.00137	mg/L	0.000291	0.00684	mg/L	0.001454	21.27%
Co 228.616†	1669.4	0.03900	mg/L	0.001050	0.1950	mg/L	0.00525	2.69%
Cr 267.716†	577.6	0.1034	mg/L	0.00246	0.5172	mg/L	0.01230	2.38%
Cu 324.752†	25711.6	0.1147	mg/L	0.00133	0.5735	mg/L	0.00665	1.16%
Fe 273.955†	119561.8	94.51	mg/L	3.615	472.6	mg/L	18.07	3.82%
K 766.490†	13473.0	7.754	mg/L	0.2287	38.77	mg/L	1.144	2.95%
Mg 279.077†	29728.3	24.16	mg/L	0.797	120.8	mg/L	3.98	3.30%
Mn 257.610†	57478.2	1.683	mg/L	0.0611	8.416	mg/L	0.3053	3.63%
Mo 202.031†	26.4	0.00129	mg/L	0.000150	0.00643	mg/L	0.000750	11.65%
Na 589.592†	15751.8	1.496	mg/L	0.0483	7.478	mg/L	0.2414	3.23%
Na 330.237†	12.9	1.406	mg/L	0.0929	7.028	mg/L	0.4643	6.61%
Ni 231.604†	304.6	0.08295	mg/L	0.003292	0.4147	mg/L	0.01646	3.97%
Pb 220.353†	126.6	0.03338	mg/L	0.001641	0.1669	mg/L	0.00821	4.92%
Sb 206.836†	5.2	0.00292	mg/L	0.001165	0.01460	mg/L	0.005825	39.90%
Se 196.026†	15.9	0.01201	mg/L	0.004350	0.06007	mg/L	0.021752	36.21%
Si 288.158†	4944.4	2.728	mg/L	0.0685	13.64	mg/L	0.343	2.51%
Sn 189.927†	-29.3	-0.00608	mg/L	0.001362	-0.03038	mg/L	0.006810	22.42%
Sr 421.552†	132269.2	0.1742	mg/L	0.00572	0.8712	mg/L	0.02862	3.29%
Ti 334.903†	80271.0	4.474	mg/L	0.1530	22.37	mg/L	0.765	3.42%
Tl 190.801†	-12.7	0.00347	mg/L	0.001566	0.01735	mg/L	0.007828	45.11%
V 292.402†	22334.4	0.1933	mg/L	0.00272	0.9665	mg/L	0.01358	1.40%
Zn 206.200†	1024.0	0.3009	mg/L	0.00751	1.504	mg/L	0.0376	2.50%

Sequence No.: 27
Sample ID: VS21 H SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 321
Date Collected: 11/26/2012 2:39:49 PM
Data Type: Original

Nebulizer Parameters: VS21 H SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS21 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2617970.6	111.5	%	0.62				0.55%
ScR 361.383	315427.4	108.0	%	1.12				1.04%
Ag 328.068†	-40.9	-0.00019	mg/L	0.000211	-0.00097	mg/L	0.001055	109.21%
Al 308.215†	103754.8	68.94	mg/L	1.145	344.7	mg/L	5.73	1.66%
As 188.979†	-151.8	0.02185	mg/L	0.003548	0.1093	mg/L	0.01774	16.23%
B 249.677†	9.2	0.00127	mg/L	0.000205	0.00633	mg/L	0.001026	16.21%
Ba 233.527†	2071.3	0.4731	mg/L	0.00693	2.366	mg/L	0.0346	1.46%
Be 313.042†	920.7	0.00165	mg/L	0.000043	0.00826	mg/L	0.000216	2.61%
Ca 317.933†	189480.4	15.55	mg/L	0.280	77.77	mg/L	1.398	1.80%
Cd 228.802†	30.2	0.00097	mg/L	0.000041	0.00483	mg/L	0.000205	4.25%
Co 228.616†	1641.5	0.03907	mg/L	0.000213	0.1954	mg/L	0.00106	0.54%
Cr 267.716†	618.8	0.1107	mg/L	0.00151	0.5535	mg/L	0.00753	1.36%
Cu 324.752†	28420.0	0.1264	mg/L	0.00058	0.6321	mg/L	0.00291	0.46%
Fe 273.955†	116112.3	91.79	mg/L	1.798	458.9	mg/L	8.99	1.96%
K 766.490†	15309.9	8.812	mg/L	0.1798	44.06	mg/L	0.899	2.04%
Mg 279.077†	29277.9	23.80	mg/L	0.399	119.0	mg/L	2.00	1.68%
Mn 257.610†	46093.6	1.350	mg/L	0.0242	6.749	mg/L	0.1210	1.79%
Mo 202.031†	33.4	0.00167	mg/L	0.000397	0.00835	mg/L	0.001985	23.77%
Na 589.592†	12017.6	1.141	mg/L	0.0156	5.705	mg/L	0.0780	1.37%
Na 330.237†	6.0	1.079	mg/L	0.1548	5.394	mg/L	0.7740	14.35%
Ni 231.604†	303.3	0.08257	mg/L	0.001179	0.4128	mg/L	0.00589	1.43%
Pb 220.353†	124.3	0.02936	mg/L	0.000573	0.1468	mg/L	0.00286	1.95%
Sb 206.836†	5.6	0.00281	mg/L	0.001119	0.01407	mg/L	0.005593	39.74%
Se 196.026†	5.0	0.00370	mg/L	0.005694	0.01850	mg/L	0.028468	153.91%
Si 288.158†	5313.4	2.931	mg/L	0.0476	14.66	mg/L	0.238	1.62%
Sn 189.927†	-23.4	-0.00435	mg/L	0.000466	-0.02176	mg/L	0.002329	10.70%
Sr 421.552†	127461.7	0.1679	mg/L	0.00294	0.8395	mg/L	0.01469	1.75%
Ti 334.903†	72548.5	4.044	mg/L	0.0666	20.22	mg/L	0.333	1.65%
Tl 190.801†	-7.7	0.00538	mg/L	0.000248	0.02689	mg/L	0.001241	4.62%
V 292.402†	23391.2	0.2030	mg/L	0.00120	1.015	mg/L	0.0060	0.59%
Zn 206.200†	720.3	0.2116	mg/L	0.00259	1.058	mg/L	0.0130	1.22%

Sequence No.: 28
Sample ID: VS21 I SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 322
Date Collected: 11/26/2012 2:43:49 PM
Data Type: Original

Nebulizer Parameters: VS21 I SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS21 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2585660.5	110.1	%	0.95				0.86%
ScR 361.383	311897.8	106.8	%	1.83				1.71%
Ag 328.068†	119.1	0.00078	mg/L	0.000110	0.00390	mg/L	0.000551	14.12%
Al 308.215†	132675.0	88.16	mg/L	1.890	440.8	mg/L	9.45	2.14%
As 188.979†	48.5	0.1266	mg/L	0.00585	0.6330	mg/L	0.02925	4.62%
B 249.677†	79.0	0.01163	mg/L	0.000823	0.05816	mg/L	0.004116	7.08%
Ba 233.527†	7064.1	1.645	mg/L	0.0309	8.225	mg/L	0.1544	1.88%
Be 313.042†	2019.7	0.00375	mg/L	0.000105	0.01876	mg/L	0.000526	2.81%
Ca 317.933†	429285.7	35.24	mg/L	0.772	176.2	mg/L	3.86	2.19%
Cd 228.802†	1694.6	0.06388	mg/L	0.000728	0.3194	mg/L	0.00364	1.14%
Co 228.616†	2112.3	0.05351	mg/L	0.000407	0.2676	mg/L	0.00203	0.76%
Cr 267.716†	829.9	0.1476	mg/L	0.00236	0.7378	mg/L	0.01180	1.60%
Cu 324.752†	34097.3	0.1525	mg/L	0.00129	0.7623	mg/L	0.00644	0.84%
Fe 273.955†	153587.3	121.4	mg/L	2.74	607.1	mg/L	13.69	2.26%
K 766.490†	13708.0	7.890	mg/L	0.1710	39.45	mg/L	0.855	2.17%
Mg 279.077†	36540.1	29.70	mg/L	0.674	148.5	mg/L	3.37	2.27%
Mn 257.610†	380958.5	11.16	mg/L	0.243	55.78	mg/L	1.217	2.18%
Mo 202.031†	107.9	0.00556	mg/L	0.000286	0.02781	mg/L	0.001428	5.14%
Na 589.592†	5374.3	0.5103	mg/L	0.00889	2.551	mg/L	0.0444	1.74%
Na 330.237†	11.8	0.3060	mg/L	0.23426	1.530	mg/L	1.1713	76.56%
Ni 231.604†	560.3	0.1526	mg/L	0.00231	0.7628	mg/L	0.01156	1.52%
Pb 220.353†	15864.7	2.136	mg/L	0.0148	10.68	mg/L	0.074	0.69%
Sb 206.836†	43.6	0.01461	mg/L	0.000566	0.07304	mg/L	0.002832	3.88%
Se 196.026†	12.7	0.00960	mg/L	0.001574	0.04798	mg/L	0.007871	16.41%
Si 288.158†	5325.2	2.939	mg/L	0.0601	14.69	mg/L	0.301	2.05%
Sn 189.927†	-14.1	0.00079	mg/L	0.001563	0.00396	mg/L	0.007814	197.10%
Sr 421.552†	206781.8	0.2724	mg/L	0.00583	1.362	mg/L	0.0291	2.14%
Ti 334.903†	62136.0	3.462	mg/L	0.0736	17.31	mg/L	0.368	2.13%
Tl 190.801†	-18.8	0.00376	mg/L	0.001225	0.01878	mg/L	0.006125	32.62%
V 292.402†	16372.0	0.1416	mg/L	0.00096	0.7080	mg/L	0.00481	0.68%
Zn 206.200†	9603.2	2.822	mg/L	0.0536	14.11	mg/L	0.268	1.90%

Sequence No.: 29
Sample ID: VS21 J SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 323
Date Collected: 11/26/2012 2:47:49 PM
Data Type: Original

Nebulizer Parameters: VS21 J SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS21 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2470324.6	105.2	%	0.70				0.66%
ScR 361.383	308643.1	105.7	%	2.06				1.95%
Ag 328.068†	409.5	0.00260	mg/L	0.000386	0.01301	mg/L	0.001928	14.82%
Al 308.215†	206160.0	137.0	mg/L	3.26	684.9	mg/L	16.30	2.38%
As 188.979†	-66.7	0.09585	mg/L	0.003159	0.4792	mg/L	0.01579	3.30%
B 249.677†	55.0	0.00799	mg/L	0.000703	0.03997	mg/L	0.003514	8.79%
Ba 233.527†	4580.9	1.053	mg/L	0.0256	5.266	mg/L	0.1280	2.43%
Be 313.042†	2543.6	0.00471	mg/L	0.000152	0.02355	mg/L	0.000760	3.23%
Ca 317.933†	291416.8	23.92	mg/L	0.626	119.6	mg/L	3.13	2.62%
Cd 228.802†	718.3	0.02656	mg/L	0.000253	0.1328	mg/L	0.00126	0.95%
Co 228.616†	3227.1	0.08306	mg/L	0.000505	0.4153	mg/L	0.00252	0.61%
Cr 267.716†	875.6	0.1571	mg/L	0.00373	0.7857	mg/L	0.01867	2.38%
Cu 324.752†	48297.5	0.2156	mg/L	0.00099	1.078	mg/L	0.0050	0.46%
Fe 273.955†	204604.7	161.7	mg/L	4.17	808.7	mg/L	20.85	2.58%
K 766.490†	13246.4	7.624	mg/L	0.1748	38.12	mg/L	0.874	2.29%
Mg 279.077†	45708.3	37.14	mg/L	0.948	185.7	mg/L	4.74	2.55%
Mn 257.610†	217294.1	6.363	mg/L	0.1621	31.81	mg/L	0.810	2.55%
Mo 202.031†	108.3	0.00571	mg/L	0.000238	0.02854	mg/L	0.001192	4.18%
Na 589.592†	7123.7	0.6764	mg/L	0.01613	3.382	mg/L	0.0807	2.38%
Na 330.237†	-2.7	0.4409	mg/L	0.34032	2.204	mg/L	1.7016	77.19%
Ni 231.604†	979.0	0.2665	mg/L	0.00561	1.333	mg/L	0.0281	2.11%
Pb 220.353†	5396.4	0.7471	mg/L	0.00044	3.736	mg/L	0.0022	0.06%
Sb 206.836†	28.4	0.01026	mg/L	0.003049	0.05128	mg/L	0.015244	29.73%
Se 196.026†	22.8	0.01723	mg/L	0.001570	0.08616	mg/L	0.007850	9.11%
Si 288.158†	6028.5	3.327	mg/L	0.0821	16.64	mg/L	0.410	2.47%
Sn 189.927†	-27.7	-0.00443	mg/L	0.000971	-0.02215	mg/L	0.004854	21.92%
Sr 421.552†	181719.4	0.2394	mg/L	0.00564	1.197	mg/L	0.0282	2.36%
Ti 334.903†	86600.9	4.827	mg/L	0.1192	24.13	mg/L	0.596	2.47%
Tl 190.801†	-37.1	-0.00057	mg/L	0.003472	-0.00287	mg/L	0.017361	605.68%
V 292.402†	25710.0	0.2217	mg/L	0.00082	1.108	mg/L	0.0041	0.37%
Zn 206.200†	5739.2	1.686	mg/L	0.0442	8.431	mg/L	0.2212	2.62%

Sequence No.: 30
Sample ID: VS21 K SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 324
Date Collected: 11/26/2012 2:51:49 PM
Data Type: Original

Nebulizer Parameters: VS21 K SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS21 K SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2454859.4	104.6	%	0.36				0.35%
ScR 361.383	309855.6	106.1	%	1.88				1.78%
Ag 328.068†	-20.7	-0.00008	mg/L	0.000163	-0.00040	mg/L	0.000815	204.96%
Al 308.215†	121778.6	80.92	mg/L	2.105	404.6	mg/L	10.53	2.60%
As 188.979†	-86.4	0.05166	mg/L	0.001505	0.2583	mg/L	0.00753	2.91%
B 249.677†	57.8	0.00851	mg/L	0.000971	0.04255	mg/L	0.004855	11.41%
Ba 233.527†	4226.6	0.9817	mg/L	0.01533	4.908	mg/L	0.0766	1.56%
Be 313.042†	1033.6	0.00188	mg/L	0.000068	0.00939	mg/L	0.000340	3.62%
Ca 317.933†	154256.7	12.66	mg/L	0.288	63.32	mg/L	1.441	2.28%
Cd 228.802†	364.1	0.01355	mg/L	0.000017	0.06776	mg/L	0.000087	0.13%
Co 228.616†	1625.2	0.03930	mg/L	0.000298	0.1965	mg/L	0.00149	0.76%
Cr 267.716†	524.9	0.09395	mg/L	0.001777	0.4698	mg/L	0.00889	1.89%
Cu 324.752†	15851.0	0.07182	mg/L	0.000397	0.3591	mg/L	0.00198	0.55%
Fe 273.955†	111942.3	88.49	mg/L	2.212	442.5	mg/L	11.06	2.50%
K 766.490†	9488.2	5.461	mg/L	0.1587	27.30	mg/L	0.793	2.91%
Mg 279.077†	23857.9	19.38	mg/L	0.520	96.92	mg/L	2.599	2.68%
Mn 257.610†	194724.3	5.702	mg/L	0.1369	28.51	mg/L	0.685	2.40%
Mo 202.031†	36.3	0.00186	mg/L	0.000117	0.00931	mg/L	0.000585	6.28%
Na 589.592†	11001.8	1.045	mg/L	0.0202	5.223	mg/L	0.1010	1.93%
Na 330.237†	7.2	0.8358	mg/L	0.12078	4.179	mg/L	0.6039	14.45%
Ni 231.604†	277.7	0.07561	mg/L	0.002642	0.3781	mg/L	0.01321	3.49%
Pb 220.353†	5949.6	0.8107	mg/L	0.00328	4.053	mg/L	0.0164	0.40%
Sb 206.836†	25.1	0.00936	mg/L	0.002085	0.04678	mg/L	0.010426	22.29%
Se 196.026†	14.1	0.01066	mg/L	0.008427	0.05328	mg/L	0.042137	79.08%
Si 288.158†	4245.3	2.342	mg/L	0.0369	11.71	mg/L	0.185	1.58%
Sn 189.927†	-12.0	-0.00138	mg/L	0.000983	-0.00691	mg/L	0.004915	71.11%
Sr 421.552†	121217.7	0.1597	mg/L	0.00424	0.7984	mg/L	0.02119	2.65%
Ti 334.903†	66042.4	3.681	mg/L	0.0936	18.41	mg/L	0.468	2.54%
Tl 190.801†	-19.7	-0.00018	mg/L	0.003220	-0.00092	mg/L	0.016099	>999.9%
V 292.402†	18903.5	0.1641	mg/L	0.00070	0.8203	mg/L	0.00350	0.43%
Zn 206.200†	2835.1	0.8330	mg/L	0.01466	4.165	mg/L	0.0733	1.76%

Sequence No.: 31
Sample ID: VS21 L SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 325
Date Collected: 11/26/2012 2:55:49 PM
Data Type: Original

Nebulizer Parameters: VS21 L SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VS21 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2456673.9	104.6	%	0.29				0.28%
ScR 361.383	306149.0	104.8	%	1.36				1.30%
Ag 328.068†	38.4	0.00028	mg/L	0.000120	0.00140	mg/L	0.000600	42.95%
Al 308.215†	104298.3	69.30	mg/L	1.500	346.5	mg/L	7.50	2.16%
As 188.979†	-95.5	0.04534	mg/L	0.003454	0.2267	mg/L	0.01727	7.62%
B 249.677†	73.5	0.01085	mg/L	0.001897	0.05426	mg/L	0.009483	17.48%
Ba 233.527†	2729.5	0.6314	mg/L	0.00983	3.157	mg/L	0.0491	1.56%
Be 313.042†	848.3	0.00153	mg/L	0.000040	0.00766	mg/L	0.000201	2.63%
Ca 317.933†	515427.4	42.31	mg/L	0.966	211.6	mg/L	4.83	2.28%
Cd 228.802†	481.3	0.01823	mg/L	0.000235	0.09116	mg/L	0.001175	1.29%
Co 228.616†	1386.7	0.03247	mg/L	0.000129	0.1623	mg/L	0.00064	0.40%
Cr 267.716†	471.9	0.08402	mg/L	0.001329	0.4201	mg/L	0.00664	1.58%
Cu 324.752†	20341.0	0.09063	mg/L	0.001091	0.4531	mg/L	0.00545	1.20%
Fe 273.955†	92315.2	72.98	mg/L	1.794	364.9	mg/L	8.97	2.46%
K 766.490†	7839.4	4.512	mg/L	0.0797	22.56	mg/L	0.398	1.77%
Mg 279.077†	23151.7	18.82	mg/L	0.412	94.09	mg/L	2.062	2.19%
Mn 257.610†	91436.7	2.677	mg/L	0.0601	13.39	mg/L	0.301	2.25%
Mo 202.031†	79.7	0.00393	mg/L	0.000251	0.01967	mg/L	0.001255	6.38%
Na 589.592†	13157.3	1.249	mg/L	0.0247	6.246	mg/L	0.1234	1.98%
Na 330.237†	9.4	0.9178	mg/L	0.28736	4.589	mg/L	1.4368	31.31%
Ni 231.604†	231.3	0.06297	mg/L	0.001278	0.3149	mg/L	0.00639	2.03%
Pb 220.353†	6047.6	0.8216	mg/L	0.00420	4.108	mg/L	0.0210	0.51%
Sb 206.836†	19.0	0.00728	mg/L	0.002002	0.03638	mg/L	0.010008	27.51%
Se 196.026†	2.4	0.00170	mg/L	0.002147	0.00848	mg/L	0.010734	126.53%
Si 288.158†	4498.9	2.482	mg/L	0.0406	12.41	mg/L	0.203	1.63%
Sn 189.927†	-35.4	-0.00457	mg/L	0.000312	-0.02287	mg/L	0.001559	6.81%
Sr 421.552†	210226.6	0.2769	mg/L	0.00597	1.385	mg/L	0.0299	2.16%
Ti 334.903†	66655.2	3.714	mg/L	0.0814	18.57	mg/L	0.407	2.19%
Tl 190.801†	-3.5	0.00552	mg/L	0.003909	0.02759	mg/L	0.019545	70.84%
V 292.402†	16338.4	0.1413	mg/L	0.00138	0.7064	mg/L	0.00690	0.98%
Zn 206.200†	2919.0	0.8577	mg/L	0.01572	4.288	mg/L	0.0786	1.83%

Sequence No.: 32
Sample ID: CV3
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/26/2012 2:59:49 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2390881.8	101.8	%	0.39				0.38%
ScR 361.383	291699.0	99.86	%	2.688				2.69%
Ag 328.068†	169856.7	1.053	mg/L	0.0056	1.053	mg/L	0.0056	0.53%
Al 308.215†	3204.8	2.094	mg/L	0.0704	2.094	mg/L	0.0704	3.36%
As 188.979†	3362.1	2.084	mg/L	0.0175	2.084	mg/L	0.0175	0.84%
B 249.677†	6939.5	1.032	mg/L	0.0329	1.032	mg/L	0.0329	3.18%
Ba 233.527†	4345.9	1.024	mg/L	0.0311	1.024	mg/L	0.0311	3.04%
Be 313.042†	541688.5	1.025	mg/L	0.0279	1.025	mg/L	0.0279	2.72%
Ca 317.933†	24212.3	1.988	mg/L	0.0538	1.988	mg/L	0.0538	2.71%
Cd 228.802†	27979.7	1.062	mg/L	0.0027	1.062	mg/L	0.0027	0.26%
Co 228.616†	35241.4	1.031	mg/L	0.0035	1.031	mg/L	0.0035	0.34%
Cr 267.716†	5829.8	1.031	mg/L	0.0332	1.031	mg/L	0.0332	3.22%
Cu 324.752†	236988.2	1.029	mg/L	0.0069	1.029	mg/L	0.0069	0.67%
Fe 273.955†	2721.2	2.144	mg/L	0.0658	2.144	mg/L	0.0658	3.07%
K 766.490†	35332.7	20.34	mg/L	0.595	20.34	mg/L	0.595	2.93%
Mg 279.077†	2542.0	2.078	mg/L	0.0669	2.078	mg/L	0.0669	3.22%
Mn 257.610†	34157.7	1.001	mg/L	0.0290	1.001	mg/L	0.0290	2.90%
Mo 202.031†	18879.8	1.041	mg/L	0.0052	1.041	mg/L	0.0052	0.50%
Na 589.592†	554853.0	52.68	mg/L	1.459	52.68	mg/L	1.459	2.77%
Na 330.237†	1404.5	52.98	mg/L	1.347	52.98	mg/L	1.347	2.54%
Ni 231.604†	3820.7	1.041	mg/L	0.0323	1.041	mg/L	0.0323	3.11%
Pb 220.353†	14982.4	2.003	mg/L	0.0070	2.003	mg/L	0.0070	0.35%
Sb 206.836†	6575.5	2.215	mg/L	0.0144	2.215	mg/L	0.0144	0.65%
Se 196.026†	2660.4	2.032	mg/L	0.0093	2.032	mg/L	0.0093	0.46%
Si 288.158†	4024.0	2.217	mg/L	0.0791	2.217	mg/L	0.0791	3.57%
Sn 189.927†	3632.6	1.066	mg/L	0.0075	1.066	mg/L	0.0075	0.71%
Sr 421.552†	790126.1	1.041	mg/L	0.0294	1.041	mg/L	0.0294	2.82%
Ti 334.903†	19443.6	1.083	mg/L	0.0291	1.083	mg/L	0.0291	2.69%
Tl 190.801†	4588.1	2.031	mg/L	0.0115	2.031	mg/L	0.0115	0.57%
V 292.402†	117958.2	1.052	mg/L	0.0067	1.052	mg/L	0.0067	0.64%
Zn 206.200†	3662.9	1.076	mg/L	0.0316	1.076	mg/L	0.0316	2.94%

Sequence No.: 33
Sample ID: CB 3
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/26/2012 3:03:52 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2399386.7	102.2	%	0.41				0.40%
ScR 361.383	296938.4	101.6	%	3.40				3.35%
Ag 328.068†	53.3	0.00033	mg/L	0.000044	0.00033	mg/L	0.000044	13.38%
Al 308.215†	37.4	0.02485	mg/L	0.001067	0.02485	mg/L	0.001067	4.29%
As 188.979†	0.6	0.00037	mg/L	0.001564	0.00037	mg/L	0.001564	420.81%
B 249.677†	3.6	0.00054	mg/L	0.000668	0.00054	mg/L	0.000668	124.49%
Ba 233.527†	3.0	0.00071	mg/L	0.000155	0.00071	mg/L	0.000155	21.77%
Be 313.042†	82.0	0.00016	mg/L	0.000055	0.00016	mg/L	0.000055	35.77%
Ca 317.933†	80.7	0.00662	mg/L	0.001165	0.00662	mg/L	0.001165	17.59%
Cd 228.802†	4.1	0.00016	mg/L	0.000090	0.00016	mg/L	0.000090	57.51%
Co 228.616†	7.6	0.00022	mg/L	0.000103	0.00022	mg/L	0.000103	46.57%
Cr 267.716†	5.9	0.00104	mg/L	0.001777	0.00104	mg/L	0.001777	171.55%
Cu 324.752†	-20.8	-0.00009	mg/L	0.000064	-0.00009	mg/L	0.000064	71.13%
Fe 273.955†	31.4	0.02484	mg/L	0.001389	0.02484	mg/L	0.001389	5.59%
K 766.490†	23.9	0.01377	mg/L	0.028048	0.01377	mg/L	0.028048	203.74%
Mg 279.077†	13.1	0.01063	mg/L	0.008268	0.01063	mg/L	0.008268	77.76%
Mn 257.610†	39.9	0.00117	mg/L	0.000020	0.00117	mg/L	0.000020	1.67%
Mo 202.031†	11.5	0.00063	mg/L	0.000105	0.00063	mg/L	0.000105	16.64%
Na 589.592†	91.8	0.00872	mg/L	0.002308	0.00872	mg/L	0.002308	26.47%
Na 330.237†	-11.9	-0.4516	mg/L	0.28247	-0.4516	mg/L	0.28247	62.55%
Ni 231.604†	6.5	0.00178	mg/L	0.000849	0.00178	mg/L	0.000849	47.68%
Pb 220.353†	10.5	0.00141	mg/L	0.000221	0.00141	mg/L	0.000221	15.70%
Sb 206.836†	4.3	0.00146	mg/L	0.000804	0.00146	mg/L	0.000804	54.98%
Se 196.026†	-7.9	-0.00604	mg/L	0.003530	-0.00604	mg/L	0.003530	58.44%
Si 288.158†	3.4	0.00186	mg/L	0.002827	0.00186	mg/L	0.002827	152.13%
Sn 189.927†	4.4	0.00128	mg/L	0.000072	0.00128	mg/L	0.000072	5.63%
Sr 421.552†	201.3	0.00027	mg/L	0.000047	0.00027	mg/L	0.000047	17.63%
Ti 334.903†	11.1	0.00062	mg/L	0.000638	0.00062	mg/L	0.000638	103.06%
Tl 190.801†	2.1	0.00094	mg/L	0.002533	0.00094	mg/L	0.002533	270.27%
V 292.402†	34.4	0.00031	mg/L	0.000226	0.00031	mg/L	0.000226	73.12%
Zn 206.200†	0.8	0.00023	mg/L	0.000506	0.00023	mg/L	0.000506	218.05%

User canceled analysis.

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Analysis Begun

Start Time: 11/26/2012 3:08:44 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/26/2012 8:17:31 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1126.sif
Batch ID:
Results Data Set: I2121126
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

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Sequence No.: 33
Sample ID: CB 4
Analyst: BA
Dilution: 1.000000X
Autosampler Location: 1
Date Collected: 11/26/2012 3:08:45 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2428895.3	103.5	%	0.49				0.47%
ScR 361.383	296885.0	101.6	%	1.62				1.60%
Ag 328.068†	5.8	0.00004	mg/L	0.000168	0.00004	mg/L	0.000168	468.19%
Al 308.215†	18.5	0.01227	mg/L	0.002165	0.01227	mg/L	0.002165	17.65%
As 188.979†	2.4	0.00146	mg/L	0.000838	0.00146	mg/L	0.000838	57.26%
B 249.677†	-7.9	-0.00118	mg/L	0.000527	-0.00118	mg/L	0.000527	44.84%
Ba 233.527†	-1.0	-0.00025	mg/L	0.001555	-0.00025	mg/L	0.001555	632.78%
Be 313.042†	29.7	0.00006	mg/L	0.000038	0.00006	mg/L	0.000038	67.60%
Ca 317.933†	62.4	0.00512	mg/L	0.000746	0.00512	mg/L	0.000746	14.56%
Cd 228.802†	0.4	0.00001	mg/L	0.000096	0.00001	mg/L	0.000096	>999.9%
Co 228.616†	3.9	0.00011	mg/L	0.000068	0.00011	mg/L	0.000068	59.52%
Cr 267.716†	-1.6	-0.00028	mg/L	0.000892	-0.00028	mg/L	0.000892	313.72%
Cu 324.752†	-100.2	-0.00043	mg/L	0.000074	-0.00043	mg/L	0.000074	16.99%
Fe 273.955†	23.8	0.01882	mg/L	0.003071	0.01882	mg/L	0.003071	16.32%
K 766.490†	53.6	0.03082	mg/L	0.009822	0.03082	mg/L	0.009822	31.87%
Mg 279.077†	9.2	0.00751	mg/L	0.001784	0.00751	mg/L	0.001784	23.76%
Mn 257.610†	32.2	0.00094	mg/L	0.000083	0.00094	mg/L	0.000083	8.75%
Mo 202.031†	-3.8	-0.00021	mg/L	0.000052	-0.00021	mg/L	0.000052	24.44%
Na 589.592†	24.9	0.00237	mg/L	0.001117	0.00237	mg/L	0.001117	47.17%
Na 330.237†	-12.5	-0.4710	mg/L	0.50365	-0.4710	mg/L	0.50365	106.93%
Ni 231.604†	5.1	0.00138	mg/L	0.002007	0.00138	mg/L	0.002007	145.75%
Pb 220.353†	7.7	0.00104	mg/L	0.000801	0.00104	mg/L	0.000801	77.34%
Sb 206.836†	1.9	0.00066	mg/L	0.001758	0.00066	mg/L	0.001758	266.79%
Se 196.026†	-0.2	-0.00017	mg/L	0.001707	-0.00017	mg/L	0.001707	987.45%
Si 288.158†	5.7	0.00313	mg/L	0.003613	0.00313	mg/L	0.003613	115.40%
Sn 189.927†	1.9	0.00056	mg/L	0.000352	0.00056	mg/L	0.000352	62.70%
Sr 421.552†	109.2	0.00014	mg/L	0.000045	0.00014	mg/L	0.000045	31.37%
Ti 334.903†	0.8	0.00005	mg/L	0.000305	0.00005	mg/L	0.000305	647.25%
Tl 190.801†	3.5	0.00156	mg/L	0.002398	0.00156	mg/L	0.002398	154.13%
V 292.402†	23.9	0.00021	mg/L	0.000183	0.00021	mg/L	0.000183	87.09%
Zn 206.200†	1.9	0.00056	mg/L	0.000163	0.00056	mg/L	0.000163	29.20%

Sequence No.: 34
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 11/26/2012 3:12:59 PM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2438119.2	103.8	%	0.24				0.23%
ScR 361.383	300432.0	102.8	%	1.08				1.05%
Ag 328.068†	499.3	0.00309	mg/L	0.000139	0.00309	mg/L	0.000139	4.49%
Al 308.215†	93.4	0.06191	mg/L	0.005305	0.06191	mg/L	0.005305	8.57%
As 188.979†	80.6	0.04949	mg/L	0.000434	0.04949	mg/L	0.000434	0.88%
B 249.677†	130.7	0.01944	mg/L	0.000872	0.01944	mg/L	0.000872	4.48%
Ba 233.527†	17.1	0.00401	mg/L	0.000642	0.00401	mg/L	0.000642	16.00%
Be 313.042†	554.6	0.00105	mg/L	0.000042	0.00105	mg/L	0.000042	4.03%
Ca 317.933†	626.9	0.05146	mg/L	0.000728	0.05146	mg/L	0.000728	1.41%
Cd 228.802†	63.5	0.00212	mg/L	0.000106	0.00212	mg/L	0.000106	4.98%
Co 228.616†	125.9	0.00368	mg/L	0.000093	0.00368	mg/L	0.000093	2.54%
Cr 267.716†	27.7	0.00489	mg/L	0.000738	0.00489	mg/L	0.000738	15.09%
Cu 324.752†	353.9	0.00154	mg/L	0.000116	0.00154	mg/L	0.000116	7.58%
Fe 273.955†	78.5	0.06204	mg/L	0.002004	0.06204	mg/L	0.002004	3.23%
K 766.490†	866.8	0.4989	mg/L	0.03230	0.4989	mg/L	0.03230	6.48%
Mg 279.077†	65.8	0.05360	mg/L	0.003041	0.05360	mg/L	0.003041	5.67%
Mn 257.610†	56.7	0.00166	mg/L	0.000111	0.00166	mg/L	0.000111	6.68%
Mo 202.031†	87.2	0.00481	mg/L	0.000642	0.00481	mg/L	0.000642	13.34%
Na 589.592†	5299.1	0.5031	mg/L	0.00189	0.5031	mg/L	0.00189	0.38%
Na 330.237†	14.9	0.5616	mg/L	0.16885	0.5616	mg/L	0.16885	30.06%
Ni 231.604†	43.5	0.01186	mg/L	0.000981	0.01186	mg/L	0.000981	8.27%
Pb 220.353†	152.0	0.02033	mg/L	0.000569	0.02033	mg/L	0.000569	2.80%
Sb 206.836†	154.0	0.05192	mg/L	0.000479	0.05192	mg/L	0.000479	0.92%
Se 196.026†	64.1	0.04896	mg/L	0.001897	0.04896	mg/L	0.001897	3.87%
Si 288.158†	127.2	0.07006	mg/L	0.005737	0.07006	mg/L	0.005737	8.19%
Sn 189.927†	37.5	0.01103	mg/L	0.000728	0.01103	mg/L	0.000728	6.60%
Sr 421.552†	844.4	0.00111	mg/L	0.000044	0.00111	mg/L	0.000044	3.96%
Ti 334.903†	116.3	0.00648	mg/L	0.000852	0.00648	mg/L	0.000852	13.16%
Tl 190.801†	114.0	0.05066	mg/L	0.001111	0.05066	mg/L	0.001111	2.19%
V 292.402†	355.3	0.00318	mg/L	0.000224	0.00318	mg/L	0.000224	7.07%
Zn 206.200†	35.8	0.01052	mg/L	0.001059	0.01052	mg/L	0.001059	10.07%

Sequence No.: 35
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 11/26/2012 3:17:15 PM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2401421.3	102.3	%	0.73				0.71%
ScR 361.383	290170.9	99.33	%	0.780				0.78%
Ag 328.068†	-165.5	-0.00102	mg/L	0.000183	-0.00102	mg/L	0.000183	17.90%
Al 308.215†	300275.3	199.5	mg/L	2.49	199.5	mg/L	2.49	1.25%
As 188.979†	36.6	0.01687	mg/L	0.001034	0.01687	mg/L	0.001034	6.13%
B 249.677†	-44.8	-0.00666	mg/L	0.001199	-0.00666	mg/L	0.001199	17.99%
Ba 233.527†	120.4	-0.00384	mg/L	0.000549	-0.00384	mg/L	0.000549	14.29%
Be 313.042†	56.7	0.00011	mg/L	0.000007	0.00011	mg/L	0.000007	6.29%
Ca 317.933†	1208845.4	99.24	mg/L	1.537	99.24	mg/L	1.537	1.55%
Cd 228.802†	50.0	-0.00010	mg/L	0.000197	-0.00010	mg/L	0.000197	195.48%
Co 228.616†	69.1	-0.00055	mg/L	0.000200	-0.00055	mg/L	0.000200	36.40%
Cr 267.716†	15.0	0.00054	mg/L	0.000444	0.00054	mg/L	0.000444	82.32%
Cu 324.752†	-1951.0	-0.00065	mg/L	0.000102	-0.00065	mg/L	0.000102	15.83%
Fe 273.955†	248877.6	196.7	mg/L	2.75	196.7	mg/L	2.75	1.40%
K 766.490†	18.6	0.01069	mg/L	0.010502	0.01069	mg/L	0.010502	98.27%
Mg 279.077†	126860.1	103.2	mg/L	0.95	103.2	mg/L	0.95	0.92%
Mn 257.610†	48.7	0.00140	mg/L	0.000154	0.00140	mg/L	0.000154	11.06%
Mo 202.031†	56.9	0.00207	mg/L	0.000230	0.00207	mg/L	0.000230	11.14%
Na 589.592†	148.5	0.01410	mg/L	0.003034	0.01410	mg/L	0.003034	21.52%
Na 330.237†	-9.1	-0.3443	mg/L	0.17409	-0.3443	mg/L	0.17409	50.57%
Ni 231.604†	2.8	0.00077	mg/L	0.001740	0.00077	mg/L	0.001740	226.91%
Pb 220.353†	-289.2	0.00102	mg/L	0.000616	0.00102	mg/L	0.000616	60.24%
Sb 206.836†	34.2	0.01134	mg/L	0.002289	0.01134	mg/L	0.002289	20.19%
Se 196.026†	4.6	0.00350	mg/L	0.003439	0.00350	mg/L	0.003439	98.36%
Si 288.158†	-20.3	0.00131	mg/L	0.003220	0.00131	mg/L	0.003220	246.01%
Sn 189.927†	-66.7	-0.00728	mg/L	0.000506	-0.00728	mg/L	0.000506	6.95%
Sr 421.552†	3199.6	0.00421	mg/L Conf.	0.000041	0.00421	mg/L	0.000041	0.97%
Ti 334.903†	143.2	0.00325	mg/L	0.000708	0.00325	mg/L	0.000708	21.81%
Tl 190.801†	-47.9	-0.00028	mg/L	0.004975	-0.00028	mg/L	0.004975	>999.9%
V 292.402†	1180.7	0.00362	mg/L	0.000203	0.00362	mg/L	0.000203	5.60%
Zn 206.200†	11.1	0.00327	mg/L	0.001588	0.00327	mg/L	0.001588	48.57%

Sequence No.: 36
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 11/26/2012 3:21:31 PM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2395726.6	102.0	%	0.30				0.29%
ScR 361.383	293147.8	100.4	%	2.38				2.37%
Ag 328.068†	161675.4	1.002	mg/L	0.0025	1.002	mg/L	0.0025	0.25%
Al 308.215†	297141.4	197.4	mg/L	5.35	197.4	mg/L	5.35	2.71%
As 188.979†	1657.1	1.008	mg/L	0.0071	1.008	mg/L	0.0071	0.70%
B 249.677†	-25.1	-0.00576	mg/L	0.000099	-0.00576	mg/L	0.000099	1.73%
Ba 233.527†	4342.9	0.9913	mg/L	0.02281	0.9913	mg/L	0.02281	2.30%
Be 313.042†	541114.7	1.024	mg/L	0.0244	1.024	mg/L	0.0244	2.38%
Ca 317.933†	1210385.8	99.36	mg/L	2.470	99.36	mg/L	2.470	2.49%
Cd 228.802†	26843.4	1.023	mg/L	0.0019	1.023	mg/L	0.0019	0.18%
Co 228.616†	33658.0	0.9842	mg/L	0.00316	0.9842	mg/L	0.00316	0.32%
Cr 267.716†	5728.3	1.011	mg/L	0.0247	1.011	mg/L	0.0247	2.44%
Cu 324.752†	235594.9	1.031	mg/L	0.0025	1.031	mg/L	0.0025	0.24%
Fe 273.955†	248523.9	196.5	mg/L	5.63	196.5	mg/L	5.63	2.87%
K 766.490†	-60.8	-0.03500	mg/L	0.016157	-0.03500	mg/L	0.016157	46.16%
Mg 279.077†	121396.4	98.77	mg/L	2.535	98.77	mg/L	2.535	2.57%
Mn 257.610†	33110.4	0.9697	mg/L	0.02524	0.9697	mg/L	0.02524	2.60%
Mo 202.031†	57.5	0.00204	mg/L	0.000387	0.00204	mg/L	0.000387	18.94%
Na 589.592†	290.5	0.02759	mg/L	0.001110	0.02759	mg/L	0.001110	4.03%
Na 330.237†	0.3	-0.3090	mg/L	0.09197	-0.3090	mg/L	0.09197	29.77%
Ni 231.604†	3633.0	0.9893	mg/L	0.02273	0.9893	mg/L	0.02273	2.30%
Pb 220.353†	6883.3	0.9594	mg/L	0.00272	0.9594	mg/L	0.00272	0.28%
Sb 206.836†	3092.3	1.031	mg/L	0.0058	1.031	mg/L	0.0058	0.56%
Se 196.026†	1288.6	0.9837	mg/L	0.00383	0.9837	mg/L	0.00383	0.39%
Si 288.158†	-24.6	0.00212	mg/L	0.001894	0.00212	mg/L	0.001894	89.39%
Sn 189.927†	-66.7	-0.00675	mg/L	0.000410	-0.00675	mg/L	0.000410	6.08%
Sr 421.552†	3199.1	0.00421	mg/L	Conf. 0.000165	0.00421	mg/L	0.000165	3.92%
Ti 334.903†	141.8	0.00296	mg/L	0.000493	0.00296	mg/L	0.000493	16.67%
Tl 190.801†	2053.3	0.9244	mg/L	0.00314	0.9244	mg/L	0.00314	0.34%
V 292.402†	109856.1	0.9736	mg/L	0.00341	0.9736	mg/L	0.00341	0.35%
Zn 206.200†	3343.7	0.9824	mg/L	0.02312	0.9824	mg/L	0.02312	2.35%

Sequence No.: 37
Sample ID: CV 4
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/26/2012 3:25:19 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2412673.8	102.8	%	0.34				0.33%
ScR 361.383	293700.2	100.5	%	2.12				2.11%
Ag 328.068†	169395.0	1.050	mg/L	0.0069	1.050	mg/L	0.0069	0.66%
Al 308.215†	3171.3	2.072	mg/L	0.0514	2.072	mg/L	0.0514	2.48%
As 188.979†	3352.8	2.078	mg/L	0.0025	2.078	mg/L	0.0025	0.12%
B 249.677†	6877.5	1.022	mg/L	0.0275	1.022	mg/L	0.0275	2.69%
Ba 233.527†	4317.8	1.017	mg/L	0.0272	1.017	mg/L	0.0272	2.67%
Be 313.042†	537392.9	1.017	mg/L	0.0303	1.017	mg/L	0.0303	2.98%
Ca 317.933†	24154.7	1.983	mg/L	0.0573	1.983	mg/L	0.0573	2.89%
Cd 228.802†	27924.9	1.060	mg/L	0.0096	1.060	mg/L	0.0096	0.91%
Co 228.616†	35275.0	1.032	mg/L	0.0084	1.032	mg/L	0.0084	0.81%
Cr 267.716†	5795.2	1.025	mg/L	0.0275	1.025	mg/L	0.0275	2.68%
Cu 324.752†	243347.1	1.056	mg/L	0.0076	1.056	mg/L	0.0076	0.72%
Fe 273.955†	2687.9	2.117	mg/L	0.0490	2.117	mg/L	0.0490	2.31%
K 766.490†	35119.6	20.21	mg/L	0.460	20.21	mg/L	0.460	2.28%
Mg 279.077†	2535.3	2.072	mg/L	0.0505	2.072	mg/L	0.0505	2.44%
Mn 257.610†	33823.0	0.9908	mg/L	0.02883	0.9908	mg/L	0.02883	2.91%
Mo 202.031†	18860.5	1.040	mg/L	0.0088	1.040	mg/L	0.0088	0.84%
Na 589.592†	551087.6	52.33	mg/L	1.404	52.33	mg/L	1.404	2.68%
Na 330.237†	1396.4	52.68	mg/L	1.088	52.68	mg/L	1.088	2.07%
Ni 231.604†	3801.2	1.035	mg/L	0.0279	1.035	mg/L	0.0279	2.69%
Pb 220.353†	15028.0	2.009	mg/L	0.0153	2.009	mg/L	0.0153	0.76%
Sb 206.836†	6560.0	2.210	mg/L	0.0029	2.210	mg/L	0.0029	0.13%
Se 196.026†	2662.6	2.033	mg/L	0.0038	2.033	mg/L	0.0038	0.19%
Si 288.158†	3997.0	2.202	mg/L	0.0570	2.202	mg/L	0.0570	2.59%
Sn 189.927†	3614.7	1.061	mg/L	0.0004	1.061	mg/L	0.0004	0.04%
Sr 421.552†	782846.0	1.031	mg/L	0.0290	1.031	mg/L	0.0290	2.82%
Ti 334.903†	19236.2	1.071	mg/L	0.0319	1.071	mg/L	0.0319	2.98%
Tl 190.801†	4586.3	2.030	mg/L	0.0058	2.030	mg/L	0.0058	0.29%
V 292.402†	117771.1	1.051	mg/L	0.0059	1.051	mg/L	0.0059	0.56%
Zn 206.200†	3651.4	1.073	mg/L	0.0305	1.073	mg/L	0.0305	2.85%

Sequence No.: 38
Sample ID: CB 5
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/26/2012 3:29:23 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2411701.8	102.7	%	0.25				0.24%
ScR 361.383	292897.2	100.3	%	0.79				0.79%
Ag 328.068†	4.8	0.00003	mg/L	0.000131	0.00003	mg/L	0.000131	439.99%
Al 308.215†	36.4	0.02415	mg/L	0.005336	0.02415	mg/L	0.005336	22.10%
As 188.979†	-2.7	-0.00164	mg/L	0.001909	-0.00164	mg/L	0.001909	116.70%
B 249.677†	7.6	0.00112	mg/L	0.000833	0.00112	mg/L	0.000833	74.11%
Ba 233.527†	1.9	0.00044	mg/L	0.000027	0.00044	mg/L	0.000027	6.21%
Be 313.042†	107.8	0.00020	mg/L	0.000022	0.00020	mg/L	0.000022	10.93%
Ca 317.933†	119.9	0.00984	mg/L	0.002771	0.00984	mg/L	0.002771	28.15%
Cd 228.802†	4.7	0.00019	mg/L	0.000118	0.00019	mg/L	0.000118	60.49%
Co 228.616†	13.0	0.00038	mg/L	0.000143	0.00038	mg/L	0.000143	37.89%
Cr 267.716†	3.5	0.00062	mg/L	0.000346	0.00062	mg/L	0.000346	55.63%
Cu 324.752†	-9.4	-0.00004	mg/L	0.000075	-0.00004	mg/L	0.000075	184.30%
Fe 273.955†	24.1	0.01901	mg/L	0.003288	0.01901	mg/L	0.003288	17.29%
K 766.490†	40.7	0.02344	mg/L	0.005668	0.02344	mg/L	0.005668	24.18%
Mg 279.077†	15.0	0.01223	mg/L	0.003176	0.01223	mg/L	0.003176	25.98%
Mn 257.610†	15.6	0.00046	mg/L	0.000074	0.00046	mg/L	0.000074	16.10%
Mo 202.031†	10.2	0.00056	mg/L	0.000186	0.00056	mg/L	0.000186	33.15%
Na 589.592†	87.9	0.00835	mg/L	0.004444	0.00835	mg/L	0.004444	53.23%
Na 330.237†	-2.7	-0.1018	mg/L	0.16789	-0.1018	mg/L	0.16789	164.85%
Ni 231.604†	7.9	0.00216	mg/L	0.000956	0.00216	mg/L	0.000956	44.17%
Pb 220.353†	7.1	0.00096	mg/L	0.000364	0.00096	mg/L	0.000364	38.03%
Sb 206.836†	6.4	0.00217	mg/L	0.002714	0.00217	mg/L	0.002714	124.92%
Se 196.026†	-1.4	-0.00104	mg/L	0.003837	-0.00104	mg/L	0.003837	368.23%
Si 288.158†	5.3	0.00290	mg/L	0.000981	0.00290	mg/L	0.000981	33.84%
Sn 189.927†	2.8	0.00083	mg/L	0.000988	0.00083	mg/L	0.000988	118.36%
Sr 421.552†	174.1	0.00023	mg/L	0.000029	0.00023	mg/L	0.000029	12.66%
Ti 334.903†	29.3	0.00163	mg/L	0.000341	0.00163	mg/L	0.000341	20.83%
Tl 190.801†	5.0	0.00222	mg/L	0.001898	0.00222	mg/L	0.001898	85.66%
V 292.402†	25.4	0.00023	mg/L	0.000175	0.00023	mg/L	0.000175	77.01%
Zn 206.200†	3.0	0.00087	mg/L	0.000323	0.00087	mg/L	0.000323	37.02%

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.23.12 **Analyst:** MJT **Page:** 1 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2991-10
		1			2990-12
		2			2991-1
		3			↓ -2
		4			2993-15
		5			2991-3
		Rinse sample			
		ICV			2926-7
		ICB			
		CCV1			
		CCB1			
		Low check			^{62}Ni low
		ICSA			
		ICSA B			^{62}Ni 120.31
		LR200			
		LR300			
		B1			
		B2			
		B3			
		CCV2			
		CCB2			
		VS18 A-L	SWN	500	Pb Zn
		A	↓	100	↓
		ADUP	↓	↓	↓

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.23.12 **Analyst:** MJJ **Page:** 2 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS18 ASPK	SWN	100	PbZn ; Pb STL
		VS18 A-L	↑	↓	Ag
		A		20	
		ADUP		↓	
		ASPK		↓	
		B		100	V Cr Co
		H	↓	↓	Pb
		CCV3			
		CCB3			^{62}Ni low
		VR64 MB2	RHN		Mn Zn Pb 0.223 ppb - confirms 11.21.12
		↓ MB2SPK	↓		
		VS18 J	SWN	100	V Cr Co Pb Zn
	✓	J		20	CV out - rr Ag
		K		100	Pb Zn
	✓	K		20	CV out - rr Ag
		L		100	Cr Zn
	✓	L		20	rr Ag
		I	↓	100	Pb Zn
		VR64 B	RHN	20	Mn Zn
		CCV4			Ag high
		CCB4			^{62}Ni low
		VR64 MB1	RHN		Zn
		MB1SPK			
		ADUP	↓	2	

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.23.12 **Analyst:** MJJ **Page:** 3 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VR64 A	RHN	2	Zn
		ASPK	↓	↓	↓
		C		↓	
		D		1	
		E		2	
		G		↓	Mn Zn
		F		20	↓
		CCV5			
		CCB5			^{62}Ni low
		VR64 H	RHN		Mn Zn
		J	↓		↓
		N			
		O			
		R			
		L		50	
		P		↓	
		I		5	
		M		2	
		Q		↓	
		CCV6			Ag high
		CCB6			^{62}Ni: low
		STD O			
		CCV7			Ag high
		CCB7			

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.23.12 **Analyst:** MJJ **Page:** 4 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS19 MB1	SWN	20	rr Ag (CV out)
		↓ MB1SPK	↓	1 ✓	↓
		VR64 S	RHN	2	Mn Zn
		T			
		KDUP		✓	
		K			(CAF)
		KSPK			Zn low'l R
		VS19 B	SWN	20	rr Ag; rr Pb Zn 1/100
		C			
		D			
		CCV8			Ag high
		CCB8			
		VS19 A-L	SWN	100 ✓	rr Ag (100x); V, Cr, Co, Zn (500x)
		A		20	rr Ag (20x); V, Cr, Co, Zn (100x) (CAF)
		ADUP			
		ASPK			Sb low'l R PbSPK
		APOST			Sb 0.4mL PbSpk#1 1/10 0.4mL PbSpk#2 1/10
		E			rr Ag (1/20); Pb Zn 1/100
		F			rr Ag
		G			
		H			
		I			
		CCV9			Mo, Ag, U high
		CCB9			

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.23.12 **Analyst:** MJT **Page:** 5 **of** 7

All corrections made by analyst unless otherwise noted. 11.26-12 MJT

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS20 MB1	SWN	20	rr Ag, Be, Se 1/20
		↓ MB1SPK			
		VS19 J			rr Pb Zn 1/100
		K			
		L			rr Zn 1/100
		VS20 B			rr Pb Zn 1/100
		C			rr Pb Zn ~~MS~~ 1/100
		D			Pb Zn 1/100
		E			
		F			rr Zn ~~Mo~~ 1/50
		CCV10			Be, ⁸²Se, Mo, Ag, U high
		CCB10			
		VS20 A-L	SWN	100	cr 11.5%.d4, V 12.2% rr Ag, Be, Se rr Pb Zn (500x)
		A		20	(EAP) rr Pb Zn 1/100
		ADUP			
		ASPK			Sb low 1.R
		APOST			Sb 0.1mL PMSspk#1 1/2 0.1mL PMSspk#2 1/2
		G			rr Ag, Be, Se rr Pb Zn 1/100
		H			
		I			
		J			
		K			rr Pb Zn 1/100
		CCV11			Mo, Ag, U high
		CCB11			

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-23.12 **Analyst:** MJJ **Page:** 6 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS08 MB	REN	2	1.881 ppb Mn (CAF)
		VS12 MB			rr Mo
		↓ MB SPK		✓	↓
		VS08 MBSPK			Mn Zn
		A			Zn
		B			
		C			
		D			
		VS12 B			
		VS20 L	SWN	20	rr Ag, Be (1/20); Pb Zn (1/100)
		CCV12			Be, Mo, Ag, Th, U high
		CCB12			End PKG
		VS12 AQUA	REN	2	✓ Zn
		A			
		ASPK		✓	
		C			
		D			
		E			Co Zn; rr Ho
		F			
		G			
		H			
		I			Zn
		CCV13			Mo, Ag, Th, U high
		CCB13			

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP (ICP-MS) GFA CVA

Analysis Date: 11.23.12

M2 Nexion	Analyst MJ 11-26-12	Peer AT 11-27-12	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓		see log
ICB/CCB	✓	✓	↓
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	see log
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	see log
ICSA/ICSAB	✓	✓	↓
Post Spikes/Serial Dilutions	✓	✓	see log
Analytic Spikes	—		
Matrix QC:			
SRM/LCS	✓	—	
Matrix Spikes	✓	✓	VR64, VS19, VS20
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	VS08
Data Distributions:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	—	CAFs VR64, VS19, VS20 VS08

VS20 · 00296

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Friday, November 23, 2012 11:51:48
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1326
MassCal File. C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	5157.2	5157.196	133.184	2.6	Standard
	Mg	24.0	35771.2	35771.236	726.303	2.0	Standard
	In	114.9	82883.2	82883.164	2187.354	2.6	Standard
	Pb	208.0	36793.4	36793.420	922.625	2.5	Standard
	U	238.1	63938.8	63938.831	2418.674	3.8	Standard
⌈	CeO	155.9	1031.2	0.013	0.001	6.3	Standard
| >	Ce	139.9	81570.0	81570.016	396.386	0.5	Standard
⌊	Ce++	70.0	1119.8	0.014	0.001	10.2	Standard
	Bkgd	220.0	0.0	0.000	0.000		Standard

Current Conditions File Data

Current Value	Description
1.07	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

timization Summary

artTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

art Time: 11/23/2012 11:06:01 AM
d Time: 11/23/2012 11:12:35 AM

ss Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.702)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.696)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.697)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.707)

SmartTune Wizard - Summary

:imization Summary

ırtTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

ırt Time: 11/23/2012 11:14:06 AM
l Time: 11/23/2012 11:18:17 AM

:oLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.999; Intercept = -11.17

SmartTune Wizard - Summary

timization Summary

artTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

art Time: 11/23/2012 11:51:46 AM
d Time: 11/23/2012 11:54:22 AM

ily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5157.20
Obtained Intensity (Mg 23.985): 35771.24
Obtained Intensity (In 114.904): 82883.16
Obtained Intensity (Pb 207.977): 36793.42
Obtained Intensity (U 238.05): 63938.83
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.013 (=1031.20 / 81570.02)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.014 (=1119.81 / 81570.02)

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 12:15:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens. RSD
>	Li	6		ug/L				1287485	0
	Be	9		ug/L				27	13
	C	13		ug/L				110265	3
	Cl	37		ug/L				4510739	2
>	Sc	45		ug/L				1161996	2
	V	51		ug/L				7869	1
	V-1	51		ug/L				69	15
	Cr	52		ug/L				23331	1
	Cr	53		ug/L				142	7
	Mn	55		ug/L				504	1
	Co	59		ug/L				96	14
>	Ge	72		ug/L				655148	1
	Ni	60		ug/L				35	9
	Ni	62		ug/L				554	2
	Cu	63		ug/L				544	1
	Cu	65		ug/L				67	3
	Zn	66		ug/L				288	1
	Zn	67		ug/L				44	19
	Zn	68		ug/L				283	5
	As	75		ug/L				246	1
	As-1	75		ug/L				10971	0
	Se	82		ug/L				0	2402
	Se	78		ug/L				11110	0
	Mo	98		ug/L				46	4
	Y	89		ug/L				416262	0
	Kr	83		ug/L				531	6
>	In	115		ug/L				1030601	1
	Ag	107		ug/L				43	10
	Cd	111		ug/L				92	17
	Cd	114		ug/L				61	18
	Sb	121		ug/L				304	5
	Sb	123		ug/L				246	7
	Ba	135		ug/L				18	16
	Ba	137		ug/L				36	3
>	Tb	159		ug/L				1247472	0
	Tl	205		ug/L				176	2
	Pb	208		ug/L				302	2
	Bi	209		ug/L				2786089	0
	Th	232		ug/L				860	3
	U	238		ug/L				28	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 12:19:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
>	**Li**	**6**		ug/L			1287485	1285125	2
	Be	**9**	**0.200**	ug/L	0.011	5	27	826	2
	C	**13**		ug/L			110265	113938	1
	Cl	**37**		ug/L			4510739	4508586	1
>	**Sc**	**45**		ug/L			1161996	1149310	0
	V	**51**	**0.200**	ug/L	0.009	4	7869	12362	1
	V-1	**51**	**0.200**	ug/L	0.011	5	69	4652	4
	Cr	**52**	**0.500**	ug/L	0.004	0	23331	32945	0
	Cr	**53**	**0.500**	ug/L	0.016	3	142	1257	2
	Mn	**55**	**0.500**	ug/L	0.008	1	504	13670	1
	Co	**59**	**0.200**	ug/L	0.005	2	96	3873	1
>	**Ge**	**72**		ug/L			655148	663938	0
	Ni	**60**	**0.500**	ug/L	0.018	3	35	2201	3
	Ni	**62**	**0.500**	ug/L	0.032	6	554	783	1
	Cu	**63**	**0.500**	ug/L	0.017	3	544	5229	3
	Cu	**65**	**0.500**	ug/L	0.017	3	67	2237	2
	Zn	**66**	**4.000**	ug/L	0.091	2	288	11390	2
	Zn	**67**	**4.000**	ug/L	0.098	2	44	1781	2
	Zn	**68**	**4.000**	ug/L	0.014	0	283	8107	0
	As	**75**	**0.200**	ug/L	0.033	16	246	653	9
	As-1	**75**	**0.200**	ug/L	0.132	65	10971	11456	1
	Se	**82**	**0.500**	ug/L	0 041	8	0	119	7
	Se	**78**	**0.500**	ug/L	0.418	83	11110	11485	1
	Mo	**98**	**0.200**	ug/L	0.008	3	46	1005	3
	Y	**89**		ug/L			416262	418871	2
	Kr	**83**		ug/L			531	526	2
>	**In**	**115**		ug/L			1030601	1024831	1
	Ag	**107**	**0.200**	ug/L	0.010	5	43	2226	3
	Cd	**111**	**0.100**	ug/L	0.004	4	92	611	4
	Cd	**114**	**0.100**	ug/L	0.005	4	61	1317	3
	Sb	**121**	**0.200**	ug/L	0.008	4	304	3167	1
	Sb	**123**	**0.200**	ug/L	0.007	3	246	2400	1
	Ba	**135**	**0.500**	ug/L	0.015	3	18	2285	1
	Ba	**137**	**0.500**	ug/L	0.014	2	36	3905	3
>	**Tb**	**159**		ug/L			1247472	1238635	1
	Tl	**205**	**0.200**	ug/L	0.004	1	176	8114	0
	Pb	**208**	**0.100**	ug/L	0.001	1	302	6049	1
	Bi	**209**		ug/L			2786089	2779382	1
	Th	**232**	**0.200**	ug/L	0.012	6	860	7938	4
	U	**238**	**0.200**	ug/L	0.007	3	28	9694	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 12:24:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
[>	Li	6		ug/L			1287485	1300072	1
[	Be	9	10.000	ug/L	0.385	3	27	39752	2
	C	13		ug/L			110265	113616	2
	Cl	37		ug/L			4510739	4515549	2
[>	Sc	45		ug/L			1161996	1169452	1
|	V	51	10.000	ug/L	0.079	0	7869	232685	1
|	V-1	51	10.000	ug/L	0.120	1	69	224293	0
|	Cr	52	9.999	ug/L	0.193	1	23331	217328	0
|	Cr	53	9.999	ug/L	0.376	3	142	21874	2
|	Mn	55	9.999	ug/L	0.206	2	504	261733	2
[	Co	59	10.000	ug/L	0.095	0	96	188535	0
[>	Ge	72		ug/L			655148	678018	0
|	Ni	60	9.998	ug/L	0.316	3	35	40845	2
|	Ni	62	10.005	ug/L	0.134	1	554	6229	1
|	Cu	63	9.999	ug/L	0.119	1	544	92294	1
|	Cu	65	9.998	ug/L	0.126	1	67	41111	0
|	Zn	66	9.857	ug/L	0.119	1	288	25939	1
|	Zn	67	9.938	ug/L	0.116	1	44	4287	1
|	Zn	68	9.895	ug/L	0.287	2	283	18828	2
|	As	75	10.000	ug/L	0.135	1	246	21967	1
|	As-1	75	10.001	ug/L	0 131	1	10971	33013	0
|	Se	82	10.000	ug/L	0.207	2	0	2428	1
|	Se	78	10.006	ug/L	0.159	1	11110	17595	0
[	Mo	98	10.000	ug/L	0.311	3	46	49592	2
	Y	89		ug/L			416262	424317	1
	Kr	83		ug/L			531	530	2
[>	In	115		ug/L			1030601	1048085	1
|	Ag	107	10.000	ug/L	0.211	2	43	109410	2
|	Cd	111	10.000	ug/L	0.133	1	92	50265	0
|	Cd	114	10.000	ug/L	0.123	1	61	128525	0
|	Sb	121	10.000	ug/L	0.257	2	304	150456	1
|	Sb	123	10.000	ug/L	0.154	1	246	114621	0
|	Ba	135	9.999	ug/L	0.072	0	18	44533	0
[	Ba	137	10.000	ug/L	0.136	1	36	77961	0
[>	Tb	159		ug/L			1247472	1273891	1
|	Tl	205	10.000	ug/L	0.175	1	176	384984	0
|	Pb	208	10.000	ug/L	0.197	1	302	516674	0
|	Bi	209		ug/L			2786089	2794907	1
|	Th	232	10.001	ug/L	0.083	0	860	463344	0
[	U	238	10.000	ug/L	0.152	1	28	485813	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 12:28:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1316424	1
	Be	9	19.957	ug/L	0.037	0	27	79663	1
	C	13		ug/L			110265	113210	2
	Cl	37		ug/L			4510739	4564522	1
>	Sc	45		ug/L			1161996	1179270	0
	V	51	19.937	ug/L	0.696	3	7869	454153	2
	V-1	51	19.932	ug/L	0.747	3	69	444697	2
	Cr	52	19.951	ug/L	0.324	1	23331	409924	1
	Cr	53	19.936	ug/L	0.415	2	142	43297	1
	Mn	55	19.952	ug/L	0.119	0	504	521164	0
	Co	59	19.994	ug/L	0.793	3	96	379571	3
>	Ge	72		ug/L			655148	671271	0
	Ni	60	19.970	ug/L	0.217	1	35	80261	1
	Ni	62	20.009	ug/L	0.793	3	554	11785	3
	Cu	63	20.008	ug/L	0.241	1	544	182591	1
	Cu	65	19.995	ug/L	0.403	2	67	81252	1
	Zn	66	19.915	ug/L	0.108	0	288	50846	0
	Zn	67	19.904	ug/L	0.208	1	44	8319	0
	Zn	68	19.915	ug/L	0.226	1	283	36692	1
	As	75	20.028	ug/L	0.137	0	246	43542	1
	As-1	75	20.101	ug/L	0.162	0	10971	55228	0
	Se	82	19.983	ug/L	0.286	1	0	4787	1
	Se	78	20.247	ug/L	0.289	1	11110	24232	0
	Mo	98	20.069	ug/L	0.149	0	46	99876	0
	Y	89		ug/L			416262	417406	1
	Kr	83		ug/L			531	539	2
>	In	115		ug/L			1030601	1034021	0
	Ag	107	20.017	ug/L	0.447	2	43	216745	1
	Cd	111	19.968	ug/L	0.416	2	92	98295	1
	Cd	114	19.978	ug/L	0.334	1	61	252145	0
	Sb	121	20.022	ug/L	0.211	1	304	298270	0
	Sb	123	20.048	ug/L	0 222	1	246	228644	0
	Ba	135	20.024	ug/L	0 320	1	18	88389	0
	Ba	137	20.031	ug/L	0 252	1	36	154990	0
>	Tb	159		ug/L			1247472	1275792	1
	Tl	205	19.952	ug/L	0.386	1	176	761712	0
	Pb	208	19.965	ug/L	0.478	2	302	1025386	0
	Bi	209		ug/L			2786089	2766080	0
	Th	232	20.063	ug/L	0.301	1	860	941740	0
	U	238	19.968	ug/L	0.571	2	28	965050	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 12:33:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1287485	1324765	0
	Be	9	49.589	ug/L	1.681	3	27	191268	2
	C	13		ug/L			110265	111102	2
	Cl	37		ug/L			4510739	4516755	1
>	Sc	45		ug/L			1161996	1172233	2
	V	51	49.750	ug/L	0.985	1	7869	1087463	1
	V-1	51	49.800	ug/L	1.148	2	69	1082543	1
	Cr	52	49.655	ug/L	1.572	3	23331	946884	0
	Cr	53	49.823	ug/L	2.078	4	142	105424	1
	Mn	55	49.868	ug/L	1.941	3	504	1276354	1
	Co	59	49.736	ug/L	1.220	2	96	914102	0
>	Ge	72		ug/L			655148	667653	2
	Ni	60	49.747	ug/L	0.499	1	35	193875	1
	Ni	62	49.874	ug/L	1.283	2	554	28022	1
	Cu	63	49.752	ug/L	1.429	2	544	439680	0
	Cu	65	49.823	ug/L	1.892	3	67	197660	1
	Zn	66	49.576	ug/L	1.911	3	288	120449	1
	Zn	67	49.812	ug/L	0.653	1	44	20268	1
	Zn	68	49.494	ug/L	1.736	3	283	86027	1
	As	75	49.827	ug/L	0.863	1	246	105523	0
	As-1	75	49.789	ug/L	0.769	1	10971	117279	0
	Se	82	49.861	ug/L	1.535	3	0	11712	0
	Se	78	49.737	ug/L	1.246	2	11110	41899	0
	Mo	98	49.947	ug/L	0.761	1	46	245802	1
	Y	89		ug/L			416262	421015	0
	Kr	83		ug/L			531	552	6
>	In	115		ug/L			1030601	1034405	1
	Ag	107	49.661	ug/L	0.683	1	43	520229	1
	Cd	111	49.775	ug/L	1.259	2	92	239561	1
	Cd	114	49.711	ug/L	0.545	1	61	609907	0
	Sb	121	49.829	ug/L	0.491	0	304	729647	0
	Sb	123	49.749	ug/L	0.649	1	246	553283	0
	Ba	135	49.888	ug/L	0.435	0	18	217825	0
	Ba	137	49.887	ug/L	0.548	1	36	381756	0
>	Tb	159		ug/L			1247472	1291187	1
	Tl	205	49.769	ug/L	0.407	0	176	1879609	0
	Pb	208	49.647	ug/L	0.636	1	302	2492690	0
	Bi	209		ug/L			2786089	2713539	0
	Th	232	50.082	ug/L	0.562	1	860	2397636	0
	U	238	49.914	ug/L	0.776	1	28	2421120	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 12:39:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1287485	1299968	0
	Be	9	100.242	ug/L	2.173	2	27	382466	1
	C	13		ug/L			110265	114007	0
	Cl	37		ug/L			4510739	4624636	1
>	Sc	45		ug/L			1161996	1175275	0
	V	51	100.778	ug/L	1.885	1	7869	2259302	0
	V-1	51	100.751	ug/L	1.847	1	69	2252609	1
	Cr	52	99.735	ug/L	0.773	0	23331	1867611	0
	Cr	53	99.642	ug/L	0.356	0	142	208899	1
	Mn	55	99.808	ug/L	2.574	2	504	2545632	1
	Co	59	100.581	ug/L	1.142	1	96	1890493	0
>	Ge	72		ug/L			655148	667387	1
	Ni	60	99.780	ug/L	1.149	1	35	385881	1
	Ni	62	99.819	ug/L	1.463	1	554	55184	1
	Cu	63	99.090	ug/L	1.217	1	544	849311	0
	Cu	65	99.484	ug/L	0.930	0	67	388033	2
	Zn	66	99.315	ug/L	1.525	1	288	235681	1
	Zn	67	99.431	ug/L	0.997	1	44	39656	1
	Zn	68	99.729	ug/L	1.243	1	283	171515	1
	As	75	99.839	ug/L	2.293	2	246	209992	1
	As-1	75	99.863	ug/L	2.503	2	10971	222929	1
	Se	82	99.265	ug/L	1 198	1	0	22758	0
	Se	78	99.371	ug/L	2.402	2	11110	71139	0
	Mo	98	99.766	ug/L	1.611	1	46	486967	0
	Y	89		ug/L			416262	419788	2
	Kr	83		ug/L			531	564	5
>	In	115		ug/L			1030601	1003161	1
	Ag	107	100.331	ug/L	1.710	1	43	1030613	1
	Cd	111	100.201	ug/L	0 507	0	92	470838	0
	Cd	114	100.535	ug/L	1.702	1	61	1217864	0
	Sb	121	100.594	ug/L	1.233	1	304	1457055	0
	Sb	123	100.616	ug/L	1.558	1	246	1107748	0
	Ba	135	100.686	ug/L	1.680	1	18	436295	0
	Ba	137	100.825	ug/L	0.663	0	36	769423	0
>	Tb	159		ug/L			1247472	1259899	0
	Tl	205	100.661	ug/L	0.675	0	176	3793017	0
	Pb	208	100.558	ug/L	1.129	1	302	5019757	0
	Bi	209		ug/L			2786089	2644214	1
	Th	232	100.692	ug/L	2.125	2	860	4813877	1
	U	238	100.420	ug/L	1.011	1	28	4820707	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 12:46:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	**Li**	**6**		ug/L			1287485	1292588	1
	Be	**9**	**0.002**	ug/L	0.003	199	27	33	36
	C	**13**		ug/L			110265	112410	3
	Cl	**37**		ug/L			4510739	4443044	1
>	**Sc**	**45**		ug/L			1161996	1161612	1
	V	**51**	**0.023**	ug/L	0.007	30	7869	8372	2
	V-1	**51**	**0.004**	ug/L	0.004	112	69	148	60
	Cr	**52**	**0.070**	ug/L	0.019	27	23331	24602	1
	Cr	**53**	**0.004**	ug/L	0 005	128	142	150	7
	Mn	**55**	**0.003**	ug/L	0 003	112	504	570	14
	Co	**59**	**0.002**	ug/L	0.003	149	96	135	44
>	**Ge**	**72**		ug/L			655148	659715	1
	Ni	**60**	**0.003**	ug/L	0.006	229	35	46	50
	Ni	**62**	**-0.140**	ug/L	0.103	73	554	482	10
	Cu	**63**	**-0.002**	ug/L	0.006	249	544	527	8
	Cu	**65**	**0.005**	ug/L	0.001	13	67	88	2
	Zn	**66**	**-0.003**	ug/L	0.008	242	288	283	5
	Zn	**67**	**0.002**	ug/L	0.031	1581	44	45	25
	Zn	**68**	**0.010**	ug/L	0.018	169	283	302	10
	As	**75**	**-0.003**	ug/L	0 017	521	246	241	15
	As-1	**75**	**0.103**	ug/L	0.058	56	10971	11263	0
	Se	**82**	**0.020**	ug/L	0 097	493	0	5	423
	Se	**78**	**0.401**	ug/L	0.206	51	11110	11425	0
	Mo	**98**	**0.015**	ug/L	0.003	17	46	120	9
	Y	**89**		ug/L			416262	430552	3
	Kr	**83**		ug/L			531	541	6
>	**In**	**115**		ug/L			1030601	1030408	1
	Ag	**107**	**0.001**	ug/L	0.001	119	43	52	21
	Cd	**111**	**0.000**	ug/L	0 002	1312	92	93	8
	Cd	**114**	**-0.000**	ug/L	0.000	297	61	60	7
	Sb	**121**	**0.090**	ug/L	0 012	13	304	1637	11
	Sb	**123**	**0.090**	ug/L	0.007	8	246	1269	6
	Ba	**135**	**0.001**	ug/L	0.001	140	18	23	27
	Ba	**137**	**0.002**	ug/L	0.001	35	36	54	12
>	**Tb**	**159**		ug/L			1247472	1256718	1
	Tl	**205**	**0.024**	ug/L	0.009	38	176	1097	32
	Pb	**208**	**0.002**	ug/L	0.001	75	302	396	16
	Bi	**209**		ug/L			2786089	2770551	0
	Th	**232**	**0.176**	ug/L	0.019	10	860	9280	10
	U	**238**	**0.004**	ug/L	0.001	13	28	237	11

Sample Information

Sample Date/Time: Friday, November 23, 2012 12:46:07
Method File: C:\NexION Data\Method\200.8nomin.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**1.0000**	0.003	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**0.9999**	0.019	0.20	10	20	50	100
V-1	51	**0.9999**	0.019	0.20	10	20	50	100
Cr	52	**1.0000**	0.016	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**1.0000**	0.022	0.50	10	20	50	100
Co	59	**0.9999**	0.016	0.20	10	20	50	100
Ge	72							
Ni	60	**1.0000**	0.006	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**0.9998**	0.013	0.50	10	20	50	100
Cu	65	**0.9999**	0.006	0.50	10	20	50	100
Zn	66	**0.9999**	0.004	4.00	10	20	50	100
Zn	67	**0.9999**	0.001	4.00	10	20	50	100
Zn	68	**0.9999**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9999**	0.000	0.50	10	20	50	100
Se	78	**0.9999**	0.001	0.50	10	20	50	100
Mo	98	**1.0000**	0.007	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.010	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**0.9999**	0.012	0.10	10	20	50	100
Sb	121	**0.9999**	0.014	0.20	10	20	50	100
Sb	123	**0.9999**	0.011	0.20	10	20	50	100
Ba	135	**0.9999**	0.004	0.50	10	20	50	100
Ba	137	**0.9999**	0.008	0.50	10	20	50	100
Tb	159							
Tl	205	**0.9999**	0.030	0.20	10	20	50	100
Pb	208	**0.9999**	0.040	0.10	10	20	50	100
Bi	209							
Th	232	**0.9999**	0.038	0.20	10	20	50	100
U	238	**1.0000**	0.038	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 12:53:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1341051	1
	Be	9	50.496	ug/L	0.885	1	27	198760	0
	C	13		ug/L			110265	120256	1
	Cl	37		ug/L			4510739	4665038	1
>	Sc	45		ug/L			1161996	1194102	2
	V	51	50.901	ug/L	1.947	3	7869	1162979	2
	V-1	51	51.165	ug/L	2.105	4	69	1161795	2
	Cr	52	50.543	ug/L	0.851	1	23331	973482	2
	Cr	53	51.445	ug/L	0.929	1	142	109624	0
	Mn	55	51.769	ug/L	1 107	2	504	1341683	1
	Co	59	50.104	ug/L	2.691	5	96	956255	3
>	Ge	72		ug/L			655148	669875	0
	Ni	60	52.787	ug/L	0.448	0	35	204937	1
	Ni	62	51.574	ug/L	0.782	1	554	28891	0
	Cu	63	52.425	ug/L	0.516	0	544	451345	1
	Cu	65	52.984	ug/L	1.296	2	67	207435	2
	Zn	66	51.753	ug/L	0.571	1	288	123423	1
	Zn	67	50.703	ug/L	0.462	0	44	20319	0
	Zn	68	52.034	ug/L	0.877	1	283	89961	1
	As	75	51.871	ug/L	0.407	0	246	109649	1
	As-1	75	52.372	ug/L	0.381	0	10971	122709	1
	Se	82	81.110	ug/L	0.371	0	0	18666	0
	Se	78	81.907	ug/L	0.674	0	11110	60861	0
	Mo	98	50.854	ug/L	0.128	0	46	249201	0
	Y	89		ug/L			416262	424648	0
	Kr	83		ug/L			531	553	4
>	In	115		ug/L			1030601	1050304	0
	Ag	107	51.509	ug/L	0.844	1	43	554060	1
	Cd	111	49.553	ug/L	0.341	0	92	243847	0
	Cd	114	48.628	ug/L	0 380	0	61	616865	1
	Sb	121	48.703	ug/L	0.399	0	304	738821	0
	Sb	123	48.614	ug/L	0 221	0	246	560556	0
	Ba	135	50.357	ug/L	0.271	0	18	228501	0
	Ba	137	49.612	ug/L	0.740	1	36	396425	1
>	Tb	159		ug/L			1247472	1285033	0
	Tl	205	51.006	ug/L	0.468	0	176	1960440	0
	Pb	208	51.016	ug/L	0.420	0	302	2597697	0
	Bi	209		ug/L			2786089	2744321	0
	Th	232	52.244	ug/L	0.342	0	860	2548103	0
	U	238	52.200	ug/L	0.207	0	28	2555974	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:00:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1287485	1331677	0
	Be	9	-0.002	ug/L	0.001	59	27	22	15
	C	13		ug/L			110265	113197	1
	Cl	37		ug/L			4510739	4517387	2
>	Sc	45		ug/L			1161996	1191405	1
	V	51	0.008	ug/L	0.012	150	7869	8253	2
	V-1	51	0.001	ug/L	0.000	6	69	88	2
	Cr	52	0.034	ug/L	0.042	124	23331	24548	2
	Cr	53	0.008	ug/L	0.001	13	142	162	1
	Mn	55	-0.000	ug/L	0.001	152	504	506	2
	Co	59	-0.000	ug/L	0.000	256	96	95	7
>	Ge	72		ug/L			655148	671825	1
	Ni	60	0.001	ug/L	0.001	83	35	39	7
	Ni	62	-0.394	ug/L	0.013	3	554	351	3
	Cu	63	-0.019	ug/L	0.002	11	544	397	4
	Cu	65	0.001	ug/L	0.003	326	67	72	12
	Zn	66	-0.005	ug/L	0.002	38	288	282	2
	Zn	67	0.019	ug/L	0.017	90	44	53	11
	Zn	68	-0.021	ug/L	0.011	50	283	254	8
	As	75	0.001	ug/L	0 004	330	246	255	4
	As-1	75	0.014	ug/L	0.074	545	10971	11278	0
	Se	82	0.005	ug/L	0.038	711	0	1	443
	Se	78	0.043	ug/L	0.271	624	11110	11417	0
	Mo	98	0.004	ug/L	0.001	32	46	68	8
	Y	89		ug/L			416262	432448	2
	Kr	83		ug/L			531	541	4
>	In	115		ug/L			1030601	1048342	1
	Ag	107	0.000	ug/L	0.001	272	43	46	17
	Cd	111	-0.002	ug/L	0.002	141	92	86	11
	Cd	114	0.001	ug/L	0.002	231	61	70	25
	Sb	121	0.026	ug/L	0 008	32	304	698	17
	Sb	123	0.025	ug/L	0.011	44	246	538	23
	Ba	135	0.003	ug/L	0.002	73	18	31	28
	Ba	137	0.001	ug/L	0.001	105	36	47	21
>	Tb	159		ug/L			1247472	1261012	0
	Tl	205	0.009	ug/L	0.004	47	176	518	32
	Pb	208	0.001	ug/L	0.001	91	302	360	14
	Bi	209		ug/L			2786089	2820040	0
	Th	232	0.100	ug/L	0 006	6	860	5678	5
	U	238	0.002	ug/L	0.000	10	28	149	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:04:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1287485	1335751	0
	Be	9	49.710	ug/L	2.051	4	27	194887	3
	C	13		ug/L			110265	111645	3
	Cl	37		ug/L			4510739	4658692	1
>	Sc	45		ug/L			1161996	1171764	2
	V	51	50.129	ug/L	0.927	1	7869	1124244	1
	V-1	51	50.192	ug/L	0.922	1	69	1118664	1
	Cr	52	51.137	ug/L	2.093	4	23331	965546	1
	Cr	53	51.348	ug/L	2.052	3	142	107322	1
	Mn	55	50.390	ug/L	2.172	4	504	1280869	1
	Co	59	51.137	ug/L	1.117	2	96	958051	0
>	Ge	72		ug/L			655148	667843	1
	Ni	60	51.663	ug/L	1.165	2	35	199938	1
	Ni	62	50.524	ug/L	1.685	3	554	28225	2
	Cu	63	51.555	ug/L	0.406	0	544	442474	0
	Cu	65	50.771	ug/L	0.721	1	67	198161	0
	Zn	66	52.221	ug/L	1.596	3	288	124124	1
	Zn	67	50.684	ug/L	1.073	2	44	20247	0
	Zn	68	51.749	ug/L	0.946	1	283	89191	0
	As	75	51.565	ug/L	0.474	0	246	108664	0
	As-1	75	51.692	ug/L	0.613	1	10971	120882	0
	Se	82	52.056	ug/L	0 388	0	0	11943	0
	Se	78	52.460	ug/L	0.967	1	11110	42930	0
	Mo	98	50.687	ug/L	1.023	2	46	247608	1
	Y	89		ug/L			416262	431320	2
	Kr	83		ug/L			531	531	2
>	In	115		ug/L			1030601	1038101	1
	Ag	107	48.955	ug/L	0.772	1	43	520396	0
	Cd	111	49.862	ug/L	0.465	0	92	242493	0
	Cd	114	49.291	ug/L	1.124	2	61	617868	0
	Sb	121	49.654	ug/L	0.634	1	304	744393	0
	Sb	123	49.172	ug/L	0.623	1	246	560347	0
	Ba	135	49.136	ug/L	0.579	1	18	220344	0
	Ba	137	48.603	ug/L	1.231	2	36	383760	1
>	Tb	159		ug/L			1247472	1282522	0
	Tl	205	49.784	ug/L	0.479	0	176	1909693	0
	Pb	208	49.359	ug/L	0.388	0	302	2508453	0
	Bi	209		ug/L			2786089	2726694	0
	Th	232	49.634	ug/L	0.469	0	860	2416170	1
	U	238	50.274	ug/L	0.577	1	28	2456821	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:10:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	**Li**	**6**		ug/L			1287485	1313664	1
	Be	**9**	**0.000**	ug/L	0.003	1387	27	28	38
	C	**13**		ug/L			110265	113489	3
	Cl	**37**		ug/L			4510739	4607580	3
>	**Sc**	**45**		ug/L			1161996	1206918	1
	V	**51**	**0.007**	ug/L	0.006	79	7869	8333	0
	V-1	**51**	**0.002**	ug/L	0.001	53	69	109	17
	Cr	**52**	**0.022**	ug/L	0.019	88	23331	24641	0
	Cr	**53**	**0.003**	ug/L	0.005	172	142	154	7
	Mn	**55**	**0.000**	ug/L	0.001	424	504	532	5
	Co	**59**	**0.000**	ug/L	0.001	1102	96	102	25
>	**Ge**	**72**		ug/L			655148	670854	0
	Ni	**60**	**0.000**	ug/L	0.001	397	35	37	12
	Ni	**62**	**-0.495**	ug/L	0.026	5	554	295	5
	Cu	**63**	**-0.025**	ug/L	0.003	13	544	343	8
	Cu	**65**	**-0.001**	ug/L	0.001	83	67	66	3
	Zn	**66**	**0.003**	ug/L	0.010	343	288	302	8
	Zn	**67**	**0.006**	ug/L	0.018	309	44	47	14
	Zn	**68**	**0.015**	ug/L	0.008	53	283	315	5
	As	**75**	**-0.000**	ug/L	0.013	3224	246	251	11
	As-1	**75**	**0.033**	ug/L	0.022	67	10971	11304	0
	Se	**82**	**-0.019**	ug/L	0.047	246	0	-3	289
	Se	**78**	**0.135**	ug/L	0.130	95	11110	11458	0
	Mo	**98**	**0.009**	ug/L	0.005	56	46	89	26
	Y	**89**		ug/L			416262	431601	1
	Kr	**83**		ug/L			531	572	5
>	**In**	**115**		ug/L			1030601	1048861	0
	Ag	**107**	**0.003**	ug/L	0.003	120	43	74	49
	Cd	**111**	**0.005**	ug/L	0.004	90	92	117	17
	Cd	**114**	**0.003**	ug/L	0.003	118	61	97	42
	Sb	**121**	**0.058**	ug/L	0.010	16	304	1187	12
	Sb	**123**	**0.052**	ug/L	0.009	16	246	845	11
	Ba	**135**	**0.002**	ug/L	0.003	133	18	27	41
	Ba	**137**	**0.002**	ug/L	0.001	33	36	54	10
>	**Tb**	**159**		ug/L			1247472	1256513	1
	Tl	**205**	**0.009**	ug/L	0.005	58	176	528	38
	Pb	**208**	**0.002**	ug/L	0.001	72	302	402	17
	Bi	**209**		ug/L			2786089	2821450	0
	Th	**232**	**0.132**	ug/L	0.012	9	860	7178	7
	U	**238**	**0.003**	ug/L	0.001	36	28	164	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:15:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1287485	1323288	0
	Be	**9**	**0.207**	ug/L	0.007	3	27	831	2
	C	**13**		ug/L			110265	117543	2
	Cl	**37**		ug/L			4510739	4334129	1
>	**Sc**	**45**		ug/L			1161996	1195652	1
	V	**51**	**0.229**	ug/L	0.017	7	7869	13302	1
	V-1	**51**	**0.212**	ug/L	0.003	1	69	4893	0
	Cr	**52**	**0.581**	ug/L	0.058	9	23331	34930	1
	Cr	**53**	**0.522**	ug/L	0.020	3	142	1258	2
	Mn	**55**	**0.500**	ug/L	0.018	3	504	13482	2
	Co	**59**	**0.209**	ug/L	0.003	1	96	4099	0
>	**Ge**	**72**		ug/L			655148	676924	2
	Ni	**60**	**0.540**	ug/L	0.006	1	35	2155	1
	Ni	**62**	**0.041**	ug/L	0.041	99	554	595	2
	Cu	**63**	**0.512**	ug/L	0.021	4	544	5009	1
	Cu	**65**	**0.539**	ug/L	0.026	4	67	2201	3
	Zn	**66**	**4.675**	ug/L	0.042	0	288	11535	1
	Zn	**67**	**4.298**	ug/L	0.206	4	44	1781	3
	Zn	**68**	**4.531**	ug/L	0 134	2	283	8181	1
	As	**75**	**0.203**	ug/L	0.014	6	246	686	3
	As-1	**75**	**0.181**	ug/L	0.125	68	10971	11722	0
	Se	**82**	**0.544**	ug/L	0.041	7	0	127	6
	Se	**78**	**0.460**	ug/L	0.420	91	11110	11756	0
	Mo	**98**	**0.195**	ug/L	0.002	1	46	1013	1
	Y	**89**		ug/L			416262	440140	0
	Kr	**83**		ug/L			531	551	3
>	**In**	**115**		ug/L			1030601	1040468	0
	Ag	**107**	**0.206**	ug/L	0.007	3	43	2235	2
	Cd	**111**	**0.107**	ug/L	0.008	7	92	615	5
	Cd	**114**	**0.105**	ug/L	0 003	3	61	1377	2
	Sb	**121**	**0.204**	ug/L	0.002	1	304	3368	1
	Sb	**123**	**0.201**	ug/L	0.002	1	246	2542	0
	Ba	**135**	**0.500**	ug/L	0.009	1	18	2266	1
	Ba	**137**	**0.490**	ug/L	0 007	1	36	3914	1
>	**Tb**	**159**		ug/L			1247472	1266781	1
	Tl	**205**	**0.209**	ug/L	0.007	3	176	8093	1
	Pb	**208**	**0.108**	ug/L	0.002	2	302	5739	1
	Bi	**209**		ug/L			2786089	2837377	2
	Th	**232**	**0.202**	ug/L	0.002	1	860	10562	1
	U	**238**	**0.200**	ug/L	0.001	0	28	9698	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:19:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1328338 ✓	1
	Be	9	-0.003	ug/L	0.001	32	27	16	22
	C	13		ug/L			110265	200329	4
	Cl	37		ug/L			4510739	12007797	1
>	Sc	45		ug/L			1161996	1211608 ✓	1
	V	51	0.121	ug/L	0.024	19	7869	11000	6
	V-1	51	0.855	ug/L	0.013	1	69	19776	2
	Cr	52	0.553	ug/L	0.023	4	23331	34867	2
	Cr	53	3.055	ug/L	0.019	0	142	6746	0
	Mn	55	0.058	ug/L	0.002	3	504	2052	1
	Co	59	0.022	ug/L	0.002	8	96	529	7
>	Ge	72		ug/L			655148	668093 ✓	3
	Ni	60	0.324	ug/L	0.012	3	35	1291	2
	Ni	62	2.446	ug/L	0.503	20	554	1906	15
	Cu	63	0.941	ug/L	0.049	5	544	8621	5
	Cu	65	0.325	ug/L	0.011	3	67	1335	2
	Zn	66	0.972	ug/L	0.056	5	288	2596	2
	Zn	67	6.263	ug/L	0.153	2	44	2544	5
	Zn	68	0.450	ug/L	0.019	4	283	1062	0
	As	75	0.059	ug/L	0.062	103	246	373	32
	As-1	75	0.250	ug/L	0.182	72	10971	11712	0
	Se	82	-0.116	ug/L	0.063	54	0	-26	55
	Se	78	0.763	ug/L	0.500	65	11110	11783	1
	Mo	98	413.093 ✓	ug/L	17 173	4	46	2017045	2
	Y	89		ug/L			416262	430391	0
	Kr	83		ug/L			531	696	3
>	In	115		ug/L			1030601	1017221 ✓	2
	Ag	107	0.020	ug/L	0.006	28	43	250	24
	Cd	111	0.136	ug/L	0.020	15	92	738	13
	Cd	114	0.234	ug/L	0.007	2	61	2929	2
	Sb	121	0.060	ug/L	0.005	9	304	1188	8
	Sb	123	0.056	ug/L	0.006	9	246	867	8
	Ba	135	0.055	ug/L	0.001	2	18	262	4
	Ba	137	0.041	ug/L	0.002	5	36	356	6
>	Tb	159		ug/L			1247472	1293665 ✓	1
	Tl	205	0.051	ug/L	0.007	13	176	2147	13
	Pb	208	0.034	ug/L	0.001	4	302	2054	4
	Bi	209		ug/L			2786089	2588902	0
	Th	232	0.233	ug/L	0.075	32	860	12328	29
	U	238	0.001	ug/L	0.001	94	28	100	67

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:25:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1334400✓	0
	Be	9	-0.002	ug/L	0.001	30	27	19	13
	C	13		ug/L			110265	204089	2
	Cl	37		ug/L			4510739	12277127	0
>	Sc	45		ug/L			1161996	1189407✓	0
	V	51	0.114	ug/L	0.143	125	7869	10640	30
	V-1	51	0.884	ug/L	0.033	3	69	20080	3
	Cr	52	21.037	ug/L	0.184	0	23331	417523	0
	Cr	53	23.611	ug/L	0.713	3	142	50199	2
	Mn	55	20.117	ug/L	0.381	1	504	519728	1
	Co	59	19.709	ug/L	0.092	0	96	375008	0
>	Ge	72		ug/L			655148	649621✓	0
	Ni	60	21.377	ug/L	0.125	0	35	80499	0
	Ni	62	24.061	ug/L	0.230	0	554	13365	1
	Cu	63	21.887	ug/L	0.433	1	544	183029	1
	Cu	65	20.830	ug/L	0.257	1	67	79126	0
	Zn	66	21.020	ug/L	0.264	1	288	48780	1
	Zn	67	23.871	ug/L	0.556	2	44	9301	2
	Zn	68	19.245	ug/L	0 410	2	283	32445	2
	As	75	20.632	ug/L	0.292	1	246	42438	0
	As-1	75	20.654	ug/L	0.325	1	10971	53514	0
	Se	82	-0.087	ug/L	0.036	41	0	-18	43
	Se	78	0.870	ug/L	0.140	16	11110	11525	0
	Mo	98	424.336✓	ug/L	11.668	2	46	2015913	1
	Y	89		ug/L			416262	420636	0
	Kr	83		ug/L			531	678	2
>	In	115		ug/L			1030601	1035788✓	0
	Ag	107	20.816	ug/L	0.316	1	43	220849	2
	Cd	111	19.892	ug/L	0.201	1	92	96587	1
	Cd	114	19.665	ug/L	0.112	0	61	246043	0
	Sb	121	0.055	ug/L	0.003	5	304	1131	4
	Sb	123	0.054	ug/L	0.003	4	246	862	4
	Ba	135	0.048	ug/L	0.005	10	18	234	8
	Ba	137	0.038	ug/L	0.003	6	36	335	4
>	Tb	159		ug/L			1247472	1278590 ✓	0
	Tl	205	0.034	ug/L	0.001	1	176	1490	1
	Pb	208	0.036	ug/L	0.006	17	302	2154	14
	Bi	209		ug/L			2786089	2596251	0
	Th	232	0.090	ug/L	0.013	14	860	5233	11
	U	238	0.000	ug/L	0.000	391	28	32	39

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:32:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1287485	1288570 ✓	0
	Be	**9**	**201.605**	ug/L	2.157	1	27	762552	1
	C	**13**		ug/L			110265	117587	2
	Cl	**37**		ug/L			4510739	4657357	1
>	**Sc**	**45**		ug/L			1161996	1121030 ✓	2
	V	**51**	**208.903**	ug/L	8.892	4	7869	4456811	2
	V-1	**51**	**207.457**	ug/L	8.908	4	69	4422193	2
	Cr	**52**	**212.138**	ug/L	6.389	3	23331	3762131	0
	Cr	**53**	**207.192**	ug/L	5.041	2	142	414050	1
	Mn	**55**	**210.223**	ug/L	3.240	1	504	5113503	1
	Co	**59**	**202.434**	ug/L	7.589	3	96	3627494	1
>	**Ge**	**72**		ug/L			655148	621355 ✓	1
	Ni	**60**	**205.296**	ug/L	3.471	1	35	739103	0
	Ni	**62**	**207.958**	ug/L	2.547	1	554	106465	0
	Cu	**63**	**206.150**	ug/L	2.762	1	544	1644544	0
	Cu	**65**	**202.550**	ug/L	3.465	1	67	735334	0
	Zn	**66**	**202.305**	ug/L	1.516	0	288	446682	0
	Zn	**67**	**200.513**	ug/L	2.666	1	44	74409	1
	Zn	**68**	**203.392**	ug/L	4.023	1	283	325369	1
	As	**75**	**206.793**	ug/L	1.054	0	246	404755	0
	As-1	**75**	**207.724**	ug/L	0.535	0	10971	420571	0
	Se	**82**	**201.215**	ug/L	3.964	1	0	42948	0
	Se	**78**	**204.813**	ug/L	2.554	1	11110	125347	0
	Mo	**98**	**212.846**	ug/L	4.857	2	46	967230	1
	Y	**89**		ug/L			416262	399850	2
	Kr	**83**		ug/L			531	642	4
>	**In**	**115**		ug/L			1030601	1014826 ✓	1
	Ag	**107**	**215.923**	ug/L	3.518	1	43	2243695	0
	Cd	**111**	**202.134**	ug/L	2.810	1	92	960706	0
	Cd	**114**	**204.161**	ug/L	0.471	0	61	2502206	1
	Sb	**121**	**205.089**	ug/L	3.458	1	304	3004786	0
	Sb	**123**	**209.156**	ug/L	2.837	1	246	2329292	0
	Ba	**135**	**204.395**	ug/L	2.290	1	18	896007	0
	Ba	**137**	**202.998**	ug/L	2.889	1	36	1567029	0
>	**Tb**	**159**		ug/L			1247472	1263462 ✓	0
	Tl	**205**	**199.174**	ug/L	1.553	0	176	7526134	0
	Pb	**208**	**200.089**	ug/L	1.412	0	302	10016369	0
	Bi	**209**		ug/L			2786089	2538382	0
	Th	**232**	**200.143**	ug/L	0.200	0	860	9595419	0
	U	**238**	**201.868**	ug/L	0.534	0	28	9718568	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:39:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1287485	1267105	2
	Be	9	301.942	ug/L	7.974	2	27	1122493	0
	C	13		ug/L			110265	120594	1
	Cl	37		ug/L			4510739	4515291	0
>	Sc	45		ug/L			1161996	1089814	1
	V	51	313.943	ug/L	6.023	1	7869	6510307	0
	V-1	51	313.793	ug/L	7.412	2	69	6504929	1
	Cr	52	318.822	ug/L	6.486	2	23331	5487348	1
	Cr	53	318.297	ug/L	8.343	2	142	618350	1
	Mn	55	315.642	ug/L	1.900	0	504	7465716	1
	Co	59	307.828	ug/L	4.110	1	96	5364807	0
>	Ge	72		ug/L			655148	598429	1
	Ni	60	309.587	ug/L	1.703	0	35	1073511	0
	Ni	62	317.208	ug/L	5.893	1	554	156131	1
	Cu	63	319.702	ug/L	5.663	1	544	2455932	0
	Cu	65	308.337	ug/L	4.038	1	67	1078141	1
	Zn	66	303.303	ug/L	10.002	3	288	644721	2
	Zn	67	298.917	ug/L	1.738	0	44	106823	1
	Zn	68	299.260	ug/L	5.731	1	283	460945	0
	As	75	308.179	ug/L	5.859	1	246	580779	1
	As-1	75	310.918	ug/L	4.576	1	10971	601265	1
	Se	82	292.317	ug/L	6.020	2	0	60089	0
	Se	78	302.784	ug/L	2.096	0	11110	173630	1
	Mo	98	326.684	ug/L	3.061	0	46	1429946	1
	Y	89		ug/L			416262	381275	0
	Kr	83		ug/L			531	763	3
>	In	115		ug/L			1030601	976059	0
	Ag	107	316.332	ug/L	1.015	0	43	3161818	0
	Cd	111	299.269	ug/L	1.870	0	92	1368094	0
	Cd	114	303.525	ug/L	1.193	0	61	3577806	0
	Sb	121	313.663	ug/L	4.514	1	304	4420004	0
	Sb	123	310.154	ug/L	2.798	0	246	3322163	0
	Ba	135	317.483	ug/L	2.761	0	18	1338622	0
	Ba	137	320.812	ug/L	1.396	0	36	2382042	0
>	Tb	159		ug/L			1247472	1238644	0
	Tl	205	299.682	ug/L	1.402	0	176	11101826	0
	Pb	208	298.451	ug/L	0.125	0	302	14647131	0
	Bi	209		ug/L			2786089	2428284	0
	Th	232	302.556	ug/L	2.155	0	860	14219689	0
	U	238	302.867	ug/L	0.861	0	28	14294412	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:46:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1287485	1316570	0
	Be	9	0.001	ug/L	0.001	108	27	29	7
	C	13		ug/L			110265	119332	2
	Cl	37		ug/L			4510739	4538937	3
>	Sc	45		ug/L			1161996	1138131	2
	V	51	0.030	ug/L	0.007	24	7869	8365	3
	V-1	51	0.016	ug/L	0.002	12	69	411	8
	Cr	52	0.090	ug/L	0.034	37	23331	24461	4
	Cr	53	0.040	ug/L	0.008	19	142	220	6
	Mn	55	0.018	ug/L	0.002	14	504	925	4
	Co	59	0.001	ug/L	0.001	36	96	121	10
>	Ge	72		ug/L			655148	651496	1
	Ni	60	0.033	ug/L	0.001	3	35	160	1
	Ni	62	0.915	ug/L	0.238	26	554	1038	10
	Cu	63	0.063	ug/L	0.009	15	544	1065	6
	Cu	65	0.027	ug/L	0.003	10	67	169	7
	Zn	66	1.159	ug/L	0.008	0	288	2968	1
	Zn	67	1.052	ug/L	0.114	10	44	453	8
	Zn	68	1.095	ug/L	0.032	2	283	2117	2
	As	75	0.175	ug/L	0.031	17	246	604	11
	As-1	75	0.153	ug/L	0.016	10	10971	11227	1
	Se	82	0.183	ug/L	0.089	48	0	41	47
	Se	78	0.114	ug/L	0.127	111	11110	11114	0
	Mo	98	0.083	ug/L	0.009	10	46	442	10
	Y	89		ug/L			416262	413341	2
	Kr	83		ug/L			531	534	9
>	In	115		ug/L			1030601	1052156	0
	Ag	107	0.008	ug/L	0.001	14	43	130	9
	Cd	111	0.005	ug/L	0.003	63	92	119	13
	Cd	114	0.001	ug/L	0.001	78	61	75	13
	Sb	121	0.345	ug/L	0.039	11	304	5553	10
	Sb	123	0.349	ug/L	0.051	14	246	4281	13
	Ba	135	0.014	ug/L	0.003	19	18	81	14
	Ba	137	0.011	ug/L	0.002	17	36	124	12
>	Tb	159		ug/L			1247472	1273480	0
	Tl	205	0.050	ug/L	0.022	43	176	2102	40
	Pb	208	0.012	ug/L	0.001	11	302	914	7
	Bi	209		ug/L			2786089	2825627	0
	Th	232	0.239	ug/L	0.013	5	860	12436	5
	U	238	0.008	ug/L	0 001	13	28	423	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:52:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1316091	0
	Be	9	0.017	ug/L	0.033	196	27	91	137
	C	13		ug/L			110265	119703	0
	Cl	37		ug/L			4510739	4494917	1
>	Sc	45		ug/L			1161996	1153867	0
	V	51	0.039	ug/L	0.050	129	7869	8661	11
	V-1	51	0.023	ug/L	0 027	114	69	578	99
	Cr	52	0.094	ug/L	0.102	108	23331	24873	6
	Cr	53	0.041	ug/L	0.021	51	142	225	18
	Mn	55	0.017	ug/L	0.019	108	504	936	49
	Co	59	0.011	ug/L	0.017	160	96	290	107
>	Ge	72		ug/L			655148	640288	0
	Ni	60	0.029	ug/L	0.017	59	35	141	44
	Ni	62	0.387	ug/L	0 024	6	554	744	1
	Cu	63	0.026	ug/L	0.011	42	544	746	11
	Cu	65	0.018	ug/L	0.017	91	67	134	46
	Zn	66	0.220	ug/L	0 029	13	288	781	8
	Zn	67	0.202	ug/L	0.057	27	44	120	17
	Zn	68	0.211	ug/L	0 018	8	283	624	4
	As	75	0.072	ug/L	0 029	39	246	385	14
	As-1	75	0.187	ug/L	0.058	31	10971	11103	0
	Se	82	0.095	ug/L	0.030	31	0	21	30
	Se	78	0.489	ug/L	0.174	35	11110	11140	0
	Mo	98	0.030	ug/L	0.006	20	46	184	14
	Y	89		ug/L			416262	405851	0
	Kr	83		ug/L			531	512	4
>	In	115		ug/L			1030601	1036198	0
	Ag	107	0.003	ug/L	0 002	84	43	74	35
	Cd	111	0.006	ug/L	0.001	24	92	120	5
	Cd	114	0.002	ug/L	0 002	73	61	93	24
	Sb	121	0.100	ug/L	0.022	21	304	1806	18
	Sb	123	0.110	ug/L	0.041	37	246	1502	31
	Ba	135	0.044	ug/L	0.064	146	18	216	133
	Ba	137	0.045	ug/L	0.069	155	36	389	140
>	Tb	159		ug/L			1247472	1249974	1
	Tl	205	0.068	ug/L	0.082	120	176	2687	111
	Pb	208	0.037	ug/L	0.056	153	302	2104	130
	Bi	209		ug/L			2786089	2800780	1
	Th	232	0.089	ug/L	0.054	60	860	5071	49
	U	238	0.023	ug/L	0.037	160	28	1122	156

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 13:57:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1287485	1340178	0
	Be	9	-0.002	ug/L	0 002	120	27	21	39
	C	13		ug/L			110265	115157	4
	Cl	37		ug/L			4510739	4485915	1
>	Sc	45		ug/L			1161996	1180652	2
	V	51	0.020	ug/L	0.018	89	7869	8445	2
	V-1	51	0.007	ug/L	0.001	7	69	225	5
	Cr	52	0.065	ug/L	0.072	111	23331	24892	3
	Cr	53	0.019	ug/L	0.010	53	142	184	9
	Mn	55	0.006	ug/L	0.001	24	504	657	2
	Co	59	-0.001	ug/L	0.001	109	96	81	18
>	Ge	72		ug/L			655148	659762	2
	Ni	60	0.017	ug/L	0.003	15	35	99	10
	Ni	62	0.064	ug/L	0.102	158	554	592	7
	Cu	63	0.058	ug/L	0.004	7	544	1035	2
	Cu	65	0.060	ug/L	0.004	6	67	297	3
	Zn	66	0.319	ug/L	0.029	9	288	1036	5
	Zn	67	0.269	ug/L	0.020	7	44	150	7
	Zn	68	0.289	ug/L	0.020	6	283	776	6
	As	75	0.028	ug/L	0.007	25	246	307	5
	As-1	75	-0.013	ug/L	0.136	1049	10971	11017	0
	Se	82	0.042	ug/L	0.040	94	0	10	89
	Se	78	-0.105	ug/L	0.480	457	11110	11121	0
	Mo	98	0.015	ug/L	0.004	23	46	119	15
	Y	89		ug/L			416262	405610	1
	Kr	83		ug/L			531	533	2
>	In	115		ug/L			1030601	1049980	1
	Ag	107	0.001	ug/L	0.001	97	43	51	15
	Cd	111	-0.003	ug/L	0.000	4	92	79	1
	Cd	114	-0.000	ug/L	0.000	247	61	60	11
	Sb	121	0.041	ug/L	0.014	33	304	936	21
	Sb	123	0.039	ug/L	0.013	33	246	699	20
	Ba	135	0.008	ug/L	0.002	20	18	54	13
	Ba	137	0.011	ug/L	0.003	24	36	122	16
>	Tb	159		ug/L			1247472	1287434	0
	Tl	205	0.017	ug/L	0.009	49	176	846	39
	Pb	208	0.007	ug/L	0.000	5	302	643	2
	Bi	209		ug/L			2786089	2843049	0
	Th	232	0.028	ug/L	0 003	11	860	2238	7
	U	238	0.001	ug/L	0.000	38	28	63	20

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 14:02:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1370286 ✓	2
	Be	9	50.357	ug/L	0.184	0	27	202554	1
	C	13		ug/L			110265	117289	0
	Cl	37		ug/L			4510739	4738648	0
>	Sc	45		ug/L			1161996	1164355 ✓	4
	V	51	50.959	ug/L	2.877	5	7869	1133794	1
	V-1	51	51.187	ug/L	2.850	5	69	1131950	1
	Cr	52	51.579	ug/L	2 623	5	23331	966624	0
	Cr	53	52.355	ug/L	2.489	4	142	108638	0
	Mn	55	50.895	ug/L	2.745	5	504	1284208	0
	Co	59	50.777	ug/L	2.746	5	96	944118	2
>	Ge	72		ug/L			655148	663753 ✓	1
	Ni	60	51.062	ug/L	1.272	2	35	196386	1
	Ni	62	51.268	ug/L	0.791	1	554	28459	0
	Cu	63	52.613	ug/L	1.744	3	544	448784	3
	Cu	65	51.092	ug/L	0.731	1	67	198201	1
	Zn	66	51.707	ug/L	0.313	0	288	122177	1
	Zn	67	52.828	ug/L	0.687	1	44	20973	0
	Zn	68	52.246	ug/L	1.051	2	283	89490	0
	As	75	50.960	ug/L	0.623	1	246	106732	0
	As-1	75	51.010	ug/L	0.631	1	10971	118702	0
	Se	82	51.441	ug/L	0.855	1	0	11730	2
	Se	78	51.569	ug/L	0.579	1	11110	42135	0
	Mo	98	51.738	ug/L	0.543	1	46	251197	0
	Y	89		ug/L			416262	421611	1
	Kr	83		ug/L			531	523	2
>	In	115		ug/L			1030601	1059359 ✓	1
	Ag	107	50.627	ug/L	0.665	1	43	549192	1
	Cd	111	51.009	ug/L	1.325	2	92	253100	1
	Cd	114	50.304	ug/L	0.989	1	61	643472	0
	Sb	121	50.194	ug/L	0.991	1	304	767804	0
	Sb	123	49.836	ug/L	0.585	1	246	579549	1
	Ba	135	49.877	ug/L	0.464	0	18	228250	1
	Ba	137	49.100	ug/L	0.713	1	36	395674	1
>	Tb	159		ug/L			1247472	1293702 ✓	1
	Tl	205	50.264	ug/L	1.396	2	176	1944420	1
	Pb	208	50.104	ug/L	0.619	1	302	2568227	0
	Bi	209		ug/L			2786089	2753866	0
	Th	232	50.119	ug/L	0.465	0	860	2460796	0
	U	238	51.526	ug/L	0.907	1	28	2539689	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 14:08:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1287485	1401558	2
	Be	9	-0.002	ug/L	0.001	54	27	22	16
	C	13		ug/L			110265	121098	1
	Cl	37		ug/L			4510739	4700257	1
>	Sc	45		ug/L			1161996	1223934	1
	V	51	0.021	ug/L	0.016	77	7869	8773	3
	V-1	51	0.005	ug/L	0.000	7	69	197	4
	Cr	52	0.061	ug/L	0.054	89	23331	25743	3
	Cr	53	0.008	ug/L	0.001	12	142	166	0
	Mn	55	-0.000	ug/L	0.001	168	504	519	3
	Co	59	-0.000	ug/L	0.000	300	96	98	7
>	Ge	72		ug/L			655148	677565	1
	Ni	60	-0.000	ug/L	0.001	971	35	36	6
	Ni	62	-0.252	ug/L	0.008	3	554	433	1
	Cu	63	-0.015	ug/L	0.002	13	544	428	4
	Cu	65	-0.004	ug/L	0.002	43	67	55	12
	Zn	66	-0.001	ug/L	0.005	321	288	294	4
	Zn	67	-0.020	ug/L	0.019	92	44	37	18
	Zn	68	-0.008	ug/L	0.006	70	283	278	2
	As	75	0.043	ug/L	0.017	39	246	346	9
	As-1	75	-0.081	ug/L	0.105	129	10971	11169	0
	Se	82	0.097	ug/L	0.019	19	0	23	17
	Se	78	-0.356	ug/L	0.335	94	11110	11271	0
	Mo	98	0.019	ug/L	0.004	21	46	143	12
	Y	89		ug/L			416262	431308	1
	Kr	83		ug/L			531	538	1
>	In	115		ug/L			1030601	1088081	0
	Ag	107	-0.000	ug/L	0.000	29	43	40	3
	Cd	111	-0.001	ug/L	0.002	322	92	94	10
	Cd	114	-0.001	ug/L	0.001	165	61	57	21
	Sb	121	0.078	ug/L	0.013	17	304	1546	13
	Sb	123	0.073	ug/L	0.012	16	246	1134	12
	Ba	135	0.000	ug/L	0 001	389	18	21	23
	Ba	137	0.000	ug/L	0.001	760	36	40	24
>	Tb	159		ug/L			1247472	1286325	0
	Tl	205	0.011	ug/L	0.006	54	176	621	38
	Pb	208	0.002	ug/L	0.004	207	302	415	51
	Bi	209		ug/L			2786089	2859912	0
	Th	232	0.129	ug/L	0.016	12	860	7171	10
	U	238	0.002	ug/L	0.000	12	28	135	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 A-L SWN
Sample Dil Factor: 500
Comments:
Sample Date/Time: Friday, November 23, 2012 14:13:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1287485	1425698	1
	Be	9	0.022	ug/L	0.003	14	27	123	12
	C	13		ug/L			110265	129176	0
	Cl	37		ug/L			4510739	4774843	5
>	Sc	45		ug/L			1161996	1224051	2
	V	51	0.855	ug/L	0.038	4	7869	28162	1
	V-1	51	0.852	ug/L	0.029	3	69	19902	1
	Cr	52	0.683	ug/L	0.037	5	23331	37716	1
	Cr	53	0.674	ug/L	0.032	4	142	1620	3
	Mn	55	33.791	ug/L	0.782	2	504	897721	0
	Co	59	0.200	ug/L	0.005	2	96	4006	2
>	Ge	72		ug/L			655148	678089	1
	Ni	60	0.439	ug/L	0.009	2	35	1762	1
	Ni	62	0.119	ug/L	0.028	23	554	639	2
	Cu	63	1.537	ug/L	0.032	2	544	13938	0
	Cu	65	1.532	ug/L	0 029	1	67	6139	1
	Zn	66	12.625	ug/L	0.113	0	288	30701	1
	Zn	67	11.860	ug/L	0.372	3	44	4845	2
	Zn	68	12.734	ug/L	0.272	2	283	22504	1
	As	75	0.456	ug/L	0.010	2	246	1229	2
	As-1	75	0.345	ug/L	0.043	12	10971	12098	0
	Se	82	0.023	ug/L	0.044	190	0	6	170
	Se	78	-0.328	ug/L	0.156	47	11110	11297	0
	Mo	98	0.017	ug/L	0.003	17	46	131	11
	Y	89		ug/L			416262	447605	0
	Kr	83		ug/L			531	569	3
>	In	115		ug/L			1030601	1102867	1
	Ag	107	0.010	ug/L	0.001	10	43	156	7
	Cd	111	0.230	ug/L	0.005	2	92	1289	0
	Cd	114	0.215	ug/L	0.005	2	61	2935	1
	Sb	121	0.041	ug/L	0.007	17	304	980	12
	Sb	123	0.043	ug/L	0.008	19	246	779	12
	Ba	135	7.022	ug/L	0.112	1	18	33471	0
	Ba	137	6.892	ug/L	0.046	0	36	57855	0
>	Tb	159		ug/L			1247472	1314770	1
	Tl	205	0.028	ug/L	0 007	25	176	1299	22
	Pb	208	12.094	ug/L	0.195	1	302	630209	0
	Bi	209		ug/L			2786089	2921164	1
	Th	232	0.197	ug/L	0.003	1	860	10755	1
	U	238	0.210	ug/L	0.002	1	28	10542	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 A SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 14:17:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1415143	2
	Be	9	0.114	ug/L	0.003	2	27	505	0
	C	13		ug/L			110265	136248	1
	Cl	37		ug/L			4510739	4709603	1
>	Sc	45		ug/L			1161996	1239480	1
	V	51	4.116	ug/L	0.074	1	7869	105350	0
	V-1	51	4.094	ug/L	0.064	1	69	96600	0
	Cr	52	3.256	ug/L	0.069	2	23331	88368	1
	Cr	53	3.185	ug/L	0.036	1	142	7187	1
	Mn	55	168.625	ug/L	4.874	2	504	4534824	1
	Co	59	0.984	ug/L	0.023	2	96	19601	0
>	Ge	72		ug/L			655148	695949	1
	Ni	60	2.098	ug/L	0.115	5	35	8491	3
	Ni	62	1.850	ug/L	0.040	2	554	1644	1
	Cu	63	7.000	ug/L	0.162	2	544	63098	0
	Cu	65	6.952	ug/L	0.087	1	67	28340	1
	Zn	66	59.670	ug/L	0.910	1	288	147765	0
	Zn	67	56.286	ug/L	1.481	2	44	23423	1
	Zn	68	58.861	ug/L	1.885	3	283	105657	1
	As	75	2.094	ug/L	0.052	2	246	4849	0
	As-1	75	1.888	ug/L	0.128	6	10971	15827	0
	Se	82	0.113	ug/L	0.031	27	0	27	28
	Se	78	-0.557	ug/L	0.290	52	11110	11450	0
	Mo	98	0.058	ug/L	0.003	4	46	345	2
	Y	89		ug/L			416262	501951	2
	Kr	83		ug/L			531	555	3
>	In	115		ug/L			1030601	1106263	2
	Ag	107	0.050	ug/L	0.003	5	43	610	3
	Cd	111	1.094	ug/L	0.022	2	92	5768	0
	Cd	114	1.078	ug/L	0.033	3	61	14462	1
	Sb	121	0.116	ug/L	0.008	6	304	2184	5
	Sb	123	0.115	ug/L	0.008	7	246	1662	6
	Ba	135	34.281	ug/L	0.604	1	18	163804	0
	Ba	137	34.107	ug/L	0.704	2	36	286985	0
>	Tb	159		ug/L			1247472	1318444	1
	Tl	205	0.070	ug/L	0.006	8	176	2946	8
	Pb	208	59.667	ug/L	1.329	2	302	3116497	0
	Bi	209		ug/L			2786089	2916733	0
	Th	232	0.685	ug/L	0.024	3	860	35185	2
	U	238	1.031	ug/L	0.022	2	28	51834	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 ADUP SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 14:21:26

Pb Zn

Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1287485	1436759	4
	Be	**9**	**0.104**	ug/L	0.007	6	27	468	5
	C	**13**		ug/L			110265	133980	4
	Cl	**37**		ug/L			4510739	4664363	2
>	**Sc**	**45**		ug/L			1161996	1238991	3
	V	**51**	**3.914**	ug/L	0.135	3	7869	100519	2
	V-1	**51**	**3.892**	ug/L	0.133	3	69	91757	2
	Cr	**52**	**2.737**	ug/L	0.182	6	23331	78154	1
	Cr	**53**	**2.665**	ug/L	0.161	6	142	6029	2
	Mn	**55**	**161.930**	ug/L	5.253	3	504	4351413	0
	Co	**59**	**0.924**	ug/L	0.051	5	96	18398	2
>	**Ge**	**72**		ug/L			655148	694662	0
	Ni	**60**	**1.979**	ug/L	0 058	2	35	8003	2
	Ni	**62**	**1.669**	ug/L	0.050	3	554	1538	1
	Cu	**63**	**6.715**	ug/L	0.130	1	544	60444	1
	Cu	**65**	**6.757**	ug/L	0.091	1	67	27493	1
	Zn	**66**	**58.727**	ug/L	0.329	0	288	145186	0
	Zn	**67**	**55.086**	ug/L	0.650	1	44	22888	0
	Zn	**68**	**57.785**	ug/L	0.177	0	283	103572	0
	As	**75**	**2.016**	ug/L	0.046	2	246	4670	1
	As-1	**75**	**1.770**	ug/L	0.117	6	10971	15540	0
	Se	**82**	**0.071**	ug/L	0.019	27	0	17	25
	Se	**78**	**-0.717**	ug/L	0.303	42	11110	11329	1
	Mo	**98**	**0.045**	ug/L	0 004	9	46	276	8
	Y	**89**		ug/L			416262	491182	1
	Kr	**83**		ug/L			531	571	0
>	**In**	**115**		ug/L			1030601	1105110	1
	Ag	**107**	**0.045**	ug/L	0.002	3	43	551	2
	Cd	**111**	**1.056**	ug/L	0.010	0	92	5566	1
	Cd	**114**	**1.019**	ug/L	0.004	0	61	13670	1
	Sb	**121**	**0.101**	ug/L	0.006	6	304	1933	4
	Sb	**123**	**0.102**	ug/L	0.004	3	246	1499	2
	Ba	**135**	**33.239**	ug/L	0.485	1	18	158685	0
	Ba	**137**	**32.725**	ug/L	0.495	1	36	275130	1
>	**Tb**	**159**		ug/L			1247472	1324166	1
	Tl	**205**	**0.056**	ug/L	0.002	3	176	2393	4
	Pb	**208**	**58.691**	ug/L	1 278	2	302	3078676	0
	Bi	**209**		ug/L			2786089	2910941	1
	Th	**232**	**0.616**	ug/L	0.015	2	860	31833	0
	U	**238**	**0.986**	ug/L	0 037	3	28	49762	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 ASPK SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 14:25:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
>	Li	6		ug/L			1287485	1407483	1
	Be	9	5.244	ug/L	0.192	3	27	21688	2
	C	13		ug/L			110265	134352	4
	Cl	37		ug/L			4510739	4623674	1
>	Sc	45		ug/L			1161996	1235565	0
	V	51	9.130	ug/L	0.202	2	7869	222777	1
	V-1	51	9.101	ug/L	0.223	2	69	213992	1
	Cr	52	7.862	ug/L	0.112	1	23331	177634	0
	Cr	53	7.770	ug/L	0.164	2	142	17263	1
	Mn	55	184.665	ug/L	3.777	2	504	4951359	1
	Co	59	5.948	ug/L	0.157	2	96	117626	1
>	Ge	72		ug/L			655148	686563	1
	Ni	60	7.263	ug/L	0.287	3	35	28923	2
	Ni	62	6.812	ug/L	0.154	2	554	4414	1
	Cu	63	12.233	ug/L	0.243	1	544	108361	1
	Cu	65	12.075	ug/L	0.164	1	67	48506	0
	Zn	66	77.428	ug/L	1.910	2	288	189063	1
	Zn	67	71.648	ug/L	3.151	4	44	29401	3
	Zn	68	77.312	ug/L	2.493	3	283	136831	2
	As	75	7.180	ug/L	0.134	1	246	15776	0
	As-1	75	7.169	ug/L	0.101	1	10971	27138	0
	Se	82	16.839	ug/L	0 359	2	0	3971	1
	Se	78	16.521	ug/L	0.327	1	11110	21875	0
	Mo	98	4.475	ug/L	0.102	2	46	22516	1
	Y	89		ug/L			416262	485433	1
	Kr	83		ug/L			531	588	4
>	In	115		ug/L			1030601	1107196	1
	Ag	107	4.687	ug/L	0.042	0	43	53188	0
	Cd	111	6.095	ug/L	0.063	1	92	31700	0
	Cd	114	5.979	ug/L	0.105	1	61	80003	1
	Sb	121	0.671	ug/L	0.014	2	304	11050	2
	Sb	123	0.676	ug/L	0.010	1	246	8480	1
	Ba	135	39.101	ug/L	0.757	1	18	187012	0
	Ba	137	38.636	ug/L	0.509	1	36	325438	1
>	Tb	159		ug/L			1247472	1324710	0
	Tl	205	4.923	ug/L	0.044	0	176	195216	0
	Pb	208	64.871	ug/L	0.947	1	302	3404835	0
	Bi	209		ug/L			2786089	2904126	0
	Th	232	4.354	ug/L	0.090	2	860	219749	1
	U	238	5.888	ug/L	0.064	1	28	297239	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 14:29:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1426043	2
	Be	9	0.106	ug/L	0.004	3	27	473	2
	C	13		ug/L			110265	134676	1
	Cl	37		ug/L			4510739	4662367	1
>	Sc	45		ug/L			1161996	1259720	0
	V	51	3.875	ug/L	0.036	0	7869	101320	0
	V-1	51	3.895	ug/L	0.017	0	69	93415	1
	Cr	52	3.134	ug/L	0.109	3	23331	87400	1
	Cr	53	3.204	ug/L	0.055	1	142	7348	2
	Mn	55	162.374	ug/L	2.439	1	504	4439687	2
	Co	59	0.937	ug/L	0.011	1	96	18977	0
>	Ge	72		ug/L			655148	691920	3
	Ni	60	2.050	ug/L	0.111	5	35	8249	2
	Ni	62	1.664	ug/L	0 147	8	554	1528	3
	Cu	63	6.728	ug/L	0.331	4	544	60272	1
	Cu	65	6.891	ug/L	0.269	3	67	27908	1
	Zn	66	60.129	ug/L	3.040	5	288	147905	2
	Zn	67	55.791	ug/L	1.772	3	44	23079	2
	Zn	68	58.914	ug/L	2.512	4	283	105082	1
	As	75	2.089	ug/L	0.089	4	246	4807	1
	As-1	75	1.851	ug/L	0.249	13	10971	15644	0
	Se	82	0.065	ug/L	0.030	46	0	15	42
	Se	78	-0.678	ug/L	0.616	90	11110	11302	0
	Mo	98	0.057	ug/L	0.001	2	46	337	1
	Y	89		ug/L			416262	497799	0
	Kr	83		ug/L			531	584	2
>	In	115		ug/L			1030601	1111315	1
	Ag	107	0.050	ug/L	0.003	5	43	615	3
	Cd	111	1.078	ug/L	0 012	1	92	5708	2
	Cd	114	1.044	ug/L	0.030	2	61	14072	1
	Sb	121	0.121	ug/L	0.030	24	304	2265	20
	Sb	123	0.108	ug/L	0.005	4	246	1579	1
	Ba	135	33.740	ug/L	0.962	2	18	161941	0
	Ba	137	33.267	ug/L	0.683	2	36	281205	0
>	Tb	159		ug/L			1247472	1319347	0
	Tl	205	0.053	ug/L	0.003	5	176	2286	5
	Pb	208	57.907	ug/L	0.167	0	302	3027339	0
	Bi	209		ug/L			2786089	2923641	0
	Th	232	0.611	ug/L	0.005	0	860	31512	1
	U	238	0.999	ug/L	0.001	0	28	50241	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 14:33:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	**Li**	**6**		ug/L			1287485	1424960	1
	Be	**9**	**0.559**	ug/L	0.008	1	27	2369	0
	C	**13**		ug/L			110265	187988	2
	Cl	**37**		ug/L			4510739	4878230	4
>	**Sc**	**45**		ug/L			1161996	1292709	1
	V	**51**	**19.707**	ug/L	0.033	0	7869	493047	1
	V-1	**51**	**19.798**	ug/L	0.135	0	69	487028	2
	Cr	**52**	**15.236**	ug/L	0.503	3	23331	335690	1
	Cr	**53**	**15.559**	ug/L	0.237	1	142	36008	1
	Mn	**55**	**792.072**	ug/L	26.765	3	504	22217341	3
	Co	**59**	**4.715**	ug/L	0.106	2	96	97561	0
>	**Ge**	**72**		ug/L			655148	673942	1
	Ni	**60**	**10.576**	ug/L	0 196	1	35	41329	0
	Ni	**62**	**11.004**	ug/L	0.060	0	554	6650	1
	Cu	**63**	**34.974**	ug/L	0.287	0	544	303104	1
	Cu	**65**	**34.632**	ug/L	0.215	0	67	136433	0
	Zn	**66**	**296.570**	ug/L	1 611	0	288	710100	0
	Zn	**67**	**273.023**	ug/L	3.257	1	44	109871	0
	Zn	**68**	**291.567**	ug/L	2.344	0	283	505814	0
	As	**75**	**10.544**	ug/L	0.162	1	246	22622	0
	As-1	**75**	**10.284**	ug/L	0.240	2	10971	33308	0
	Se	**82**	**0.391**	ug/L	0.026	6	0	91	5
	Se	**78**	**0.028**	ug/L	0.333	1187	11110	11444	0
	Mo	**98**	**0.283**	ug/L	0 016	5	46	1444	4
	Y	**89**		ug/L			416262	730790	1
	Kr	**83**		ug/L			531	713	3
>	**In**	**115**		ug/L			1030601	1119180	1
	Ag	**107**	**0.252**	ug/L	0.005	2	43	2932	2
	Cd	**111**	**5.208**	ug/L	0.057	1	92	27395	1
	Cd	**114**	**5.111**	ug/L	0.073	1	61	69140	0
	Sb	**121**	**0.553**	ug/L	0.018	3	304	9260	3
	Sb	**123**	**0.540**	ug/L	0.012	2	246	6902	2
	Ba	**135**	**170.343**	ug/L	2.058	1	18	823493	0
	Ba	**137**	**170.278**	ug/L	2.000	1	36	1449621	0
>	**Tb**	**159**		ug/L			1247472	1332171	0
	Tl	**205**	**0.248**	ug/L	0.001	0	176	10085	0
	Pb	**208**	**293.062**	ug/L	2.252	0	302	15468339	0
	Bi	**209**		ug/L			2786089	2806385	2
	Th	**232**	**2.827**	ug/L	0.034	1	860	143826	0
	U	**238**	**5.035**	ug/L	0.016	0	28	255605	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 14:37:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1287485	1424791	2
	Be	9	0.547	ug/L	0.010	1	27	2318	0
	C	13		ug/L			110265	172713	0
	Cl	37		ug/L			4510739	4835546	2
>	Sc	45		ug/L			1161996	1332345	2
	V	51	18.221	ug/L	0.420	2	7869	470366	0
	V-1	51	18.248	ug/L	0.379	2	69	462502	0
	Cr	52	12.605	ug/L	0.261	2	23331	290885	1
	Cr	53	12.714	ug/L	0.151	1	142	30355	1
	Mn	55	764.631	ug/L	9.390	1	504	22104303	1
	Co	59	4.373	ug/L	0.143	3	96	93257	1
>	Ge	72		ug/L			655148	677650	2
	Ni	60	10.330	ug/L	0.007	0	35	40597	2
	Ni	62	10.640	ug/L	0.333	3	554	6481	0
	Cu	63	34.049	ug/L	0.914	2	544	296587	0
	Cu	65	33.768	ug/L	1.565	4	67	133676	2
	Zn	66	296.715	ug/L	7.324	2	288	714102	1
	Zn	67	276.273	ug/L	6.359	2	44	111757	1
	Zn	68	290.279	ug/L	7 293	2	283	506168	1
	As	75	10.332	ug/L	0.262	2	246	22287	0
	As-1	75	10.057	ug/L	0.413	4	10971	32989	0
	Se	82	0.379	ug/L	0.057	15	0	88	15
	Se	78	-0.035	ug/L	0.569	1633	11110	11464	0
	Mo	98	0.243	ug/L	0.007	2	46	1252	2
	Y	89		ug/L			416262	724019	1
	Kr	83		ug/L			531	725	5
>	In	115		ug/L			1030601	1134058	0
	Ag	107	0.239	ug/L	0.006	2	43	2827	2
	Cd	111	5.183	ug/L	0.033	0	92	27629	0
	Cd	114	5.015	ug/L	0.015	0	61	68753	0
	Sb	121	0.479	ug/L	0.005	0	304	8180	0
	Sb	123	0.480	ug/L	0.014	2	246	6240	2
	Ba	135	164.603	ug/L	1.298	0	18	806395	0
	Ba	137	162.826	ug/L	1.698	1	36	1404715	0
>	Tb	159		ug/L			1247472	1342163	1
	Tl	205	0.244	ug/L	0.002	0	176	9970	0
	Pb	208	294.447	ug/L	2.728	0	302	15657235	0
	Bi	209		ug/L			2786089	2809040	1
	Th	232	2.838	ug/L	0.030	1	860	145451	0
	U	238	4.925	ug/L	0.046	0	28	251871	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 14:42:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1287485	1440594	0
	Be	9	25.631	ug/L	0.410	1	27	108399	0
	C	13		ug/L			110265	173755	2
	Cl	37		ug/L			4510739	4859178	2
>	Sc	45		ug/L			1161996	1285557	0
	V	51	43.434	ug/L	0.335	0	7869	1070131	0
	V-1	51	43.321	ug/L	0.210	0	69	1059637	0
	Cr	52	36.639	ug/L	0.813	2	23331	766745	1
	Cr	53	36.274	ug/L	0.277	0	142	83286	1
	Mn	55	853.361	ug/L	14.317	1	504	23805806	1
	Co	59	28.421	ug/L	0 048	0	96	584441	0
>	Ge	72		ug/L			655148	686302	1
	Ni	60	35.758	ug/L	0.726	2	35	142218	0
	Ni	62	35.773	ug/L	0.645	1	554	20708	1
	Cu	63	58.747	ug/L	1.043	1	544	518014	0
	Cu	65	59.060	ug/L	0.782	1	67	236877	0
	Zn	66	369.907	ug/L	3.570	0	288	901842	0
	Zn	67	345.844	ug/L	4.391	1	44	141720	0
	Zn	68	361.795	ug/L	10.537	2	283	638993	1
	As	75	34.374	ug/L	0.628	1	246	74520	0
	As-1	75	35.007	ug/L	0.978	2	10971	87827	1
	Se	82	79.719	ug/L	1 586	1	0	18794	0
	Se	78	80.641	ug/L	2.705	3	11110	61558	1
	Mo	98	22.483	ug/L	0.396	1	46	112892	0
	Y	89		ug/L			416262	730338	2
	Kr	83		ug/L			531	715	2
>	In	115		ug/L			1030601	1138959	0
	Ag	107	22.196	ug/L	0.201	0	43	258926	1
	Cd	111	28.625	ug/L	0.206	0	92	152794	1
	Cd	114	28.229	ug/L	0.249	0	61	388338	0
	Sb	121	3.208	ug/L	0.009	0	304	53079	1
	Sb	123	3.167	ug/L	0.014	0	246	39858	0
	Ba	135	188.594	ug/L	0.711	0	18	927926	0
	Ba	137	188.616	ug/L	3.042	1	36	1634145	0
>	Tb	159		ug/L			1247472	1337830	1
	Tl	205	24.007	ug/L	0.450	1	176	960599	0
	Pb	208	319.325	ug/L	4.558	1	302	16924474	0
	Bi	209		ug/L			2786089	2811677	0
	Th	232	21.233	ug/L	0.100	0	860	1078754	1
	U	238	29.127	ug/L	0.220	0	28	1484760	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 B SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 14:47:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

V Cr Co

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1287485	1439015	0
	Be	9	0.166	ug/L	0.008	5	27	732	4
	C	13		ug/L			110265	137693	1
	Cl	37		ug/L			4510739	4775877	2
>	Sc	45		ug/L			1161996	1289655	0
	V	51	14.758	ug/L	0.089	0	7869	370542	0
	V-1	51	15.030	ug/L	0.380	2	69	368799	1
	Cr	52	36.929	ug/L	0.468	1	23331	775145	1
	Cr	53	37.796	ug/L	1.214	3	142	87033	2
	Mn	55	203.295	ug/L	3.392	1	504	5689735	1
	Co	59	4.120	ug/L	0.088	2	96	85089	1
>	Ge	72		ug/L			655148	684479	0
	Ni	60	9.792	ug/L	0.077	0	35	38873	0
	Ni	62	10.034	ug/L	0.329	3	554	6210	3
	Cu	63	4.914	ug/L	0.084	1	544	43744	1
	Cu	65	5.055	ug/L	0.044	0	67	20286	0
	Zn	66	51.916	ug/L	0 761	1	288	126506	1
	Zn	67	57.855	ug/L	2.480	4	44	23683	4
	Zn	68	56.793	ug/L	0.322	0	283	100309	0
	As	75	2.619	ug/L	0.040	1	246	5901	1
	As-1	75	2.354	ug/L	0.099	4	10971	16583	1
	Se	82	0.015	ug/L	0.023	157	0	4	131
	Se	78	-0.773	ug/L	0.256	33	11110	11129	1
	Mo	98	0.086	ug/L	0.002	2	46	479	1
	Y	89		ug/L			416262	473862	0
	Kr	83		ug/L			531	599	3
>	In	115		ug/L			1030601	1089939	1
	Ag	107	0.046	ug/L	0.002	5	43	559	4
	Cd	111	0.833	ug/L	0.014	1	92	4351	1
	Cd	114	0.795	ug/L	0.032	4	61	10525	2
	Sb	121	0.026	ug/L	0.003	10	304	737	4
	Sb	123	0.025	ug/L	0.005	18	246	560	8
	Ba	135	155.301	ug/L	3.666	2	18	731114	1
	Ba	137	154.201	ug/L	1.662	1	36	1278460	0
>	Tb	159		ug/L			1247472	1303295	0
	Tl	205	0.130	ug/L	0.001	0	176	5262	0
	Pb	208	30.705	ug/L	0.105	0	302	1585856	0
	Bi	209		ug/L			2786089	2813230	0
	Th	232	0.770	ug/L	0.010	1	860	38962	1
	U	238	0.152	ug/L	0.002	1	28	7587	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 H SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 14:51:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Pb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens RSD
[>	Li	6		ug/L			1287485	1446845	1
[	Be	9	0.120	ug/L	0.006	4	27	541	3
	C	13		ug/L			110265	133374	1
	Cl	37		ug/L			4510739	4753551	0
[>	Sc	45		ug/L			1161996	1268959	1
[	V	51	9.883	ug/L	0.298	3	7869	246947	2
[	V-1	51	9.881	ug/L	0.269	2	69	238594	1
[	Cr	52	8.007	ug/L	0 325	4	23331	185278	2
[	Cr	53	8.008	ug/L	0.324	4	142	18265	3
[	Mn	55	119.773	ug/L	2.715	2	504	3298376	1
[	Co	59	2.231	ug/L	0.098	4	96	45371	3
[>	Ge	72		ug/L			655148	683892	1
[	Ni	60	4.786	ug/L	0.113	2	35	19002	3
[	Ni	62	4.416	ug/L	0.182	4	554	3054	2
[	Cu	63	7.857	ug/L	0.134	1	544	69541	2
[	Cu	65	7.809	ug/L	0.193	2	67	31267	1
[	Zn	66	56.851	ug/L	1.250	2	288	138345	0
[	Zn	67	53.587	ug/L	2.378	4	44	21911	2
[	Zn	68	54.988	ug/L	1.558	2	283	97031	2
[	As	75	6.048	ug/L	0.109	1	246	13277	1
[	As-1	75	5.759	ug/L	0.159	2	10971	23966	1
[	Se	82	0.113	ug/L	0.006	5	0	27	4
[	Se	78	-0.687	ug/L	0 285	41	11110	11171	0
[	Mo	98	0.077	ug/L	0.006	7	46	436	8
	Y	89		ug/L			416262	474978	1
	Kr	83		ug/L			531	569	1
[>	In	115		ug/L			1030601	1104977	0
[	Ag	107	0.098	ug/L	0.006	5	43	1154	6
[	Cd	111	1.345	ug/L	0.042	3	92	7060	2
[	Cd	114	1.300	ug/L	0.032	2	61	17411	2
[	Sb	121	0.078	ug/L	0 006	7	304	1565	5
[	Sb	123	0.072	ug/L	0.003	3	246	1134	2
[	Ba	135	36.283	ug/L	0.871	2	18	173213	2
[	Ba	137	35.829	ug/L	0.550	1	36	301212	1
[>	Tb	159		ug/L			1247472	1305732	0
[	Tl	205	0.110	ug/L	0.001	0	176	4463	1
[	Pb	208	69.570	ug/L	1.954	2	302	3598912	2
[	Bi	209		ug/L			2786089	2890770	1
[	Th	232	0.997	ug/L	0.038	3	860	50304	3
[	U	238	0.148	ug/L	0.005	3	28	7411	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 14:55:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1394571 ✓	1
	Be	9	52.948	ug/L	1.314	2	27	216719	1
	C	13		ug/L			110265	122341	1
	Cl	37		ug/L			4510739	4856450	2
>	Sc	45		ug/L			1161996	1209255 ✓	2
	V	51	50.462	ug/L	1.144	2	7869	1167878	1
	V-1	51	50.572	ug/L	1.436	2	69	1163059	1
	Cr	52	51.174	ug/L	1.243	2	23331	997428	0
	Cr	53	51.549	ug/L	2.627	5	142	111168	2
	Mn	55	50.444	ug/L	1.898	3	504	1323431	1
	Co	59	49.650	ug/L	1.722	3	96	959775	1
>	Ge	72		ug/L			655148	662072 ✓	1
	Ni	60	53.488	ug/L	1.867	3	35	205162	2
	Ni	62	51.725	ug/L	0.904	1	554	28633	0
	Cu	63	52.927	ug/L	1.451	2	544	450201	1
	Cu	65	52.537	ug/L	1.576	2	67	203239	1
	Zn	66	52.330	ug/L	1.161	2	288	123307	0
	Zn	67	52.777	ug/L	0.618	1	44	20900	0
	Zn	68	53.638	ug/L	0.811	1	283	91636	0
	As	75	52.254	ug/L	1.240	2	246	109146	1
	As-1	75	52.418	ug/L	1.205	2	10971	121353	1
	Se	82	52.396	ug/L	1.402	2	0	11915	1
	Se	78	52.972	ug/L	1.245	2	11110	42862	0
	Mo	98	52.194	ug/L	0.518	0	46	252790	1
	Y	89		ug/L			416262	419588	0
	Kr	83		ug/L			531	550	2
>	In	115		ug/L			1030601	1060298 ✓	1
	Ag	107	54.624	ug/L	1.687	3	43	593032	2
	Cd	111	51.504	ug/L	0.278	0	92	255865	1
	Cd	114	51.113	ug/L	0.261	0	61	654529	0
	Sb	121	50.428	ug/L	0.655	1	304	772184	0
	Sb	123	51.007	ug/L	1.116	2	246	593665	1
	Ba	135	49.970	ug/L	0.222	0	18	228895	0
	Ba	137	49.433	ug/L	0.609	1	36	398728	0
>	Tb	159		ug/L			1247472	1278212 ✓	0
	Tl	205	50.757	ug/L	0.900	1	176	1940358	1
	Pb	208	50.828	ug/L	0.576	1	302	2574296	0
	Bi	209		ug/L			2786089	2766629	0
	Th	232	51.432	ug/L	0.143	0	860	2495215	0
	U	238	52.687	ug/L	0.615	1	28	2565980	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 15:02:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1427564	0
	Be	9	-0.002	ug/L	0.001	78	27	22	26
	C	13		ug/L			110265	126565	0
	Cl	37		ug/L			4510739	4855732	0
>	Sc	45		ug/L			1161996	1210855	1
	V	51	0.024	ug/L	0.011	45	7869	8744	1
	V-1	51	0.003	ug/L	0.001	22	69	131	10
	Cr	52	0.080	ug/L	0.042	52	23331	25830	1
	Cr	53	0.008	ug/L	0.006	76	142	164	6
	Mn	55	0.000	ug/L	0.002	693	504	532	8
	Co	59	-0.000	ug/L	0.001	214	96	92	19
>	Ge	72		ug/L			655148	667302	1
	Ni	60	0.000	ug/L	0.002	768	35	37	20
	Ni	62	-0.691	ug/L	0.028	4	554	186	8
	Cu	63	-0.037	ug/L	0.001	3	544	237	5
	Cu	65	-0.003	ug/L	0.002	57	67	58	9
	Zn	66	0.006	ug/L	0.006	94	288	307	4
	Zn	67	0.004	ug/L	0.004	100	44	46	3
	Zn	68	-0.012	ug/L	0.010	84	283	268	7
	As	75	0.009	ug/L	0.014	154	246	270	10
	As-1	75	-0.055	ug/L	0.072	131	10971	11057	0
	Se	82	0.053	ug/L	0.074	138	0	12	132
	Se	78	-0.184	ug/L	0.237	128	11110	11204	0
	Mo	98	0.007	ug/L	0.002	32	46	83	12
	Y	89		ug/L			416262	421326	0
	Kr	83		ug/L			531	533	8
>	In	115		ug/L			1030601	1074289	0
	Ag	107	-0.001	ug/L	0.001	41	43	29	22
	Cd	111	-0.001	ug/L	0.003	270	92	91	15
	Cd	114	-0.001	ug/L	0.001	39	61	47	15
	Sb	121	0.054	ug/L	0.005	10	304	1150	6
	Sb	123	0.050	ug/L	0.006	11	246	849	7
	Ba	135	0.002	ug/L	0.002	116	18	29	39
	Ba	137	0.001	ug/L	0.001	96	36	47	19
>	Tb	159		ug/L			1247472	1273742	0
	Tl	205	0.005	ug/L	0.003	48	176	384	25
	Pb	208	0.001	ug/L	0.002	139	302	382	26
	Bi	209		ug/L			2786089	2864406	0
	Th	232	0.104	ug/L	0.007	7	860	5904	6
	U	238	0.002	ug/L	0.000	12	28	135	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 MB2 RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 15:07:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1287485	1546934	0
	Be	**9**	**0.006**	ug/L	0.002	31	27	60	15
	C	**13**		ug/L			110265	134114	1
	Cl	**37**		ug/L			4510739	4782553	3
>	**Sc**	**45**		ug/L			1161996	1345273	2
	V	**51**	**0.290**	ug/L	0.019	6	7869	16526	1
	V-1	**51**	**0.262**	ug/L	0.004	1	69	6779	0
	Cr	**52**	**0.468**	ug/L	0.061	13	23331	36906	1
	Cr	**53**	**0.371**	ug/L	0 013	3	142	1053	1
	Mn	**55**	**0.333**	ug/L	0.004	1	504	10315	1
	Co	**59**	**0.015**	ug/L	0.001	4	96	432	5
>	**Ge**	**72**		ug/L			655148	719074	1
	Ni	**60**	**0.192**	ug/L	0.007	3	35	837	1
	Ni	**62**	**-0.589**	ug/L	0.013	2	554	261	3
	Cu	**63**	**0.295**	ug/L	0.009	3	544	3317	0
	Cu	**65**	**0.341**	ug/L	0.014	4	67	1505	2
	Zn	**66**	**1.518**	ug/L	0.018	1	288	4192	2
	Zn	**67**	**1.548**	ug/L	0.028	1	44	713	2
	Zn	**68**	**1.521**	ug/L	0.013	0	283	3124	1
	As	**75**	**0.020**	ug/L	0.006	28	246	315	5
	As-1	**75**	**-0.067**	ug/L	0.143	214	10971	11886	1
	Se	**82**	**0.019**	ug/L	0.045	229	0	5	201
	Se	**78**	**-0.307**	ug/L	0.501	163	11110	11991	1
	Mo	**98**	**0.008**	ug/L	0.002	32	46	91	15
	Y	**89**		ug/L			416262	468449	0
	Kr	**83**		ug/L			531	564	5
>	**In**	**115**		ug/L			1030601	1160737	1
	Ag	**107**	**-0.001**	ug/L	0.001	72	43	38	16
	Cd	**111**	**0.000**	ug/L	0.001	432	92	106	8
	Cd	**114**	**-0.001**	ug/L	0.000	42	61	56	9
	Sb	**121**	**0.025**	ug/L	0.003	12	304	761	8
	Sb	**123**	**0.026**	ug/L	0.002	8	246	608	6
	Ba	**135**	**1.368**	ug/L	0.032	2	18	6880	1
	Ba	**137**	**1.347**	ug/L	0.019	1	36	11932	1
>	**Tb**	**159**		ug/L			1247472	1375752	0
	Tl	**205**	**0.020**	ug/L	0.005	27	176	1018	22
	Pb	**208**	**0.223**	ug/L	0.004	1	302	12506	1
	Bi	**209**		ug/L			2786089	2905720	0
	Th	**232**	**0.251**	ug/L	0.108	42	860	14044	39
	U	**238**	**0.011**	ug/L	0.001	5	28	618	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 MB2SPK RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 15:12:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	**Li**	**6**		ug/L			1287485	1502141	1
	Be	**9**	**21.526**	ug/L	0.657	3	27	94917	1
	C	**13**		ug/L			110265	130488	1
	Cl	**37**		ug/L			4510739	4895445	2
>	**Sc**	**45**		ug/L			1161996	1340411 ✓	4
	V	**51**	**25.379**	ug/L	1.273	5	7869	654851	1
	V-1	**51**	**25.264**	ug/L	1.398	5	69	643325	1
	Cr	**52**	**26.287**	ug/L	0.976	3	23331	580645	0
	Cr	**53**	**25.891**	ug/L	1.456	5	142	61926	1
	Mn	**55**	**25.945**	ug/L	1.705	6	504	753860	2
	Co	**59**	**25.220**	ug/L	0.861	3	96	540217	1
>	**Ge**	**72**		ug/L			655148	707742	2
	Ni	**60**	**27.412**	ug/L	1.057	3	35	112380	1
	Ni	**62**	**27.485**	ug/L	0.529	1	554	16544	1
	Cu	**63**	**28.403**	ug/L	1.148	4	544	258430	1
	Cu	**65**	**28.147**	ug/L	0.725	2	67	116418	1
	Zn	**66**	**70.414**	ug/L	3.679	5	288	177138	2
	Zn	**67**	**65.155**	ug/L	2.162	3	44	27560	1
	Zn	**68**	**70.248**	ug/L	2.290	3	283	128149	1
	As	**75**	**21.630**	ug/L	0.822	3	246	48430	1
	As-1	**75**	**22.315**	ug/L	1.223	5	10971	61994	1
	Se	**82**	**59.473**	ug/L	1.978	3	0	14452	0
	Se	**78**	**60.604**	ug/L	3.216	5	11110	50663	1
	Mo	**98**	**0.013**	ug/L	0.002	17	46	116	9
	Y	**89**		ug/L			416262	466943	0
	Kr	**83**		ug/L			531	555	5
>	**In**	**115**		ug/L			1030601	1164627	1
	Ag	**107**	**25.676**	ug/L	0.505	1	43	306208	0
	Cd	**111**	**21.791**	ug/L	0.241	1	92	118947	0
	Cd	**114**	**21.376**	ug/L	0.271	1	61	300683	0
	Sb	**121**	**0.011**	ug/L	0.004	35	304	531	13
	Sb	**123**	**0.009**	ug/L	0.004	50	246	391	15
	Ba	**135**	**26.365**	ug/L	0.591	2	18	132638	0
	Ba	**137**	**25.634**	ug/L	0.655	2	36	227090	1
>	**Tb**	**159**		ug/L			1247472	1381002	0
	Tl	**205**	**25.450**	ug/L	0.413	1	176	1051284	1
	Pb	**208**	**25.764**	ug/L	0.298	1	302	1409959	0
	Bi	**209**		ug/L			2786089	2892216	2
	Th	**232**	**24.606**	ug/L	0.439	1	860	1290127	1
	U	**238**	**25.209**	ug/L	0.537	2	28	1326433	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 J SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 15:16:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

V Cr Co Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens. RSD
>	Li	6		ug/L			1287485	1445812	1
	Be	9	0.146	ug/L	0.011	7	27	649	5
	C	13		ug/L			110265	131782	2
	Cl	37		ug/L			4510739	4755590	3
>	Sc	45		ug/L			1161996	1292018 ✓	1
	V	51	15.182	ug/L	0.326	2	7869	381571	0
	V-1	51	15.153	ug/L	0.304	2	69	372460	0
	Cr	52	32.242	ug/L	0.432	1	23331	681293	1
	Cr	53	32.094	ug/L	0.165	0	142	74072	1
	Mn	55	219.894	ug/L	3 680	1	504	6164963	0
	Co	59	4.384	ug/L	0.027	0	96	90693	1
>	Ge	72		ug/L			655148	681685 ✓	0
	Ni	60	18.257	ug/L	0 311	1	35	72148	1
	Ni	62	18.565	ug/L	0.194	1	554	10952	1
	Cu	63	13.680	ug/L	0.308	2	544	120253	1
	Cu	65	13.778	ug/L	0 227	1	67	54941	1
	Zn	66	163.349	ug/L	5.150	3	288	395684	2
	Zn	67	156.309	ug/L	2 194	1	44	63646	0
	Zn	68	162.497	ug/L	4.622	2	283	285237	1
	As	75	8.638	ug/L	0.200	2	246	18793	1
	As-1	75	8.336	ug/L	0.234	2	10971	29471	1
	Se	82	0.098	ug/L	0.063	63	0	23	62
	Se	78	-0.628	ug/L	0 176	28	11110	11173	0
	Mo	98	0.103	ug/L	0.007	7	46	560	5
	Y	89		ug/L			416262	478400	0
	Kr	83		ug/L			531	597	4
>	In	115		ug/L			1030601	1111274	0
	Ag	107	0.226	ug/L	0.020	8	43	2615	8
	Cd	111	3.253	ug/L	0.026	0	92	17031	0
	Cd	114	3.167	ug/L	0.045	1	61	42571	1
	Sb	121	0.069	ug/L	0.007	10	304	1433	8
	Sb	123	0.064	ug/L	0.005	7	246	1050	5
	Ba	135	106.902	ug/L	1.420	1	18	513193	1
	Ba	137	105.197	ug/L	1 345	1	36	889272	0
>	Tb	159		ug/L			1247472	1308178 ✓	1
	Tl	205	0.232	ug/L	0.007	3	176	9266	3
	Pb	208	188.996	ug/L	2.658	1	302	9795048	0
	Bi	209		ug/L			2786089	2852857	0
	Th	232	1.002	ug/L	0.010	1	860	50614	0
	U	238	0.150	ug/L	0.003	2	28	7513	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 J SWN

Del

Sample Dil Factor: 20

Comments:

Sample Date/Time: Friday, November 23, 2012 15:20:16

Number of Replicates: 3

Method File: C:\NexION Data\Method\200.8nomin.mth

Tuning File: C:\NexION Data\MassCal\Default.tun

Optimization File: C:\NexION Data\Conditions\Default.dac

Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1287485	1439966	0
	Be	9	0.717	ug/L	0.016	2	27	3061	2
	C	13		ug/L			110265	163685	2
	Cl	37		ug/L			4510739	4987131	0
>	Sc	45		ug/L			1161996	1476214	1
	V	51	65.498	ug/L	0.961	1	7869	1847884	0
	V-1	51	64.911	ug/L	1.144	1	69	1822868	0
	Cr	52	140.777	ug/L	1.867	1	23331	3298739	0
	Cr	53	138.569	ug/L	2.896	2	142	364757	0
	Mn	55	941.922	ug/L	23.579	2	504	30169420	1
	Co	59	18.605	ug/L	0.479	2	96	439279	1
>	Ge	72		ug/L			655148	648728	1
	Ni	60	90.482	ug/L	1 669	1	35	340150	2
	Ni	62	96.497	ug/L	0 911	0	554	51872	1
	Cu	63	66.189	ug/L	2.269	3	544	551617	3
	Cu	65	66.964	ug/L	1.526	2	67	253827	0
	Zn	66	805.326	ug/L	17.931	2	288	1855334	1
	Zn	67	742.032	ug/L	13.595	1	44	287336	0
	Zn	68	787.262	ug/L	9.546	1	283	1314117	1
	As	75	42.534	ug/L	0.815	1	246	87101	1
	As-1	75	41.976	ug/L	0.861	2	10971	97385	1
	Se	82	0.207	ug/L	0.056	27	0	46	27
	Se	78	0.221	ug/L	0.229	103	11110	11129	0
	Mo	98	0.537	ug/L	0.014	2	46	2596	2
	Y	89		ug/L			416262	659778	1
	Kr	83		ug/L			531	963	2
>	In	115		ug/L			1030601	1124239	0
	Ag	107	0.969	ug/L	0.016	1	43	11200	1
	Cd	111	14.593	ug/L	0.079	0	92	76935	0
	Cd	114	14.290	ug/L	0.126	0	61	194076	0
	Sb	121	0.336	ug/L	0.003	0	304	5782	0
	Sb	123	0.327	ug/L	0.005	1	246	4301	1
	Ba	135	521.879	ug/L	7.892	1	18	2534633	1
	Ba	137	515.622	ug/L	4.388	0	36	4409708	0
>	Tb	159		ug/L			1247472	1293200	1
	Tl	205	1.134	ug/L	0.015	1	176	44036	0
	Pb	208	890.011	ug/L	14.845	1	302	45596823	0
	Bi	209		ug/L			2786089	2663688	1
	Th	232	4.914	ug/L	0.079	1	860	241975	0
	U	238	0.727	ug/L	0.014	1	28	35827	1

ICP-MS Quantitative Analysis - Summary Report

Pb Zn

Sample ID: VS18 K SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 15:24:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	**Li**	**6**		ug/L			1287485	1495376	1
	Be	**9**	**0.114**	ug/L	0.006	4	27	533	3
	C	**13**		ug/L			110265	138909	1
	Cl	**37**		ug/L			4510739	4874311	2
>	**Sc**	**45**		ug/L			1161996	1275824	1
	V	**51**	**8.329**	ug/L	0.097	1	7869	210637	0
	V-1	**51**	**8.280**	ug/L	0.045	0	69	201055	0
	Cr	**52**	**9.728**	ug/L	0.256	2	23331	220829	1
	Cr	**53**	**9.557**	ug/L	0.090	0	142	21889	0
	Mn	**55**	**326.703**	ug/L	9.918	3	504	9043528	1
	Co	**59**	**2.183**	ug/L	0.043	1	96	44644	0
>	**Ge**	**72**		ug/L			655148	695875 ✓	0
	Ni	**60**	**4.442**	ug/L	0.070	1	35	17948	1
	Ni	**62**	**4.128**	ug/L	0.161	3	554	2944	3
	Cu	**63**	**6.773**	ug/L	0.094	1	544	61074	1
	Cu	**65**	**6.884**	ug/L	0.064	0	67	28061	0
	Zn	**66**	**167.121**	ug/L	1.644	0	288	413318	0
	Zn	**67**	**156.741**	ug/L	3.114	1	44	65153	1
	Zn	**68**	**168.584**	ug/L	1.059	0	283	302126	0
	As	**75**	**6.068**	ug/L	0.029	0	246	13556	0
	As-1	**75**	**5.680**	ug/L	0.042	0	10971	24213	0
	Se	**82**	**0.093**	ug/L	0.021	22	0	22	22
	Se	**78**	**-1.075**	ug/L	0.082	7	11110	11126	0
	Mo	**98**	**0.095**	ug/L	0 002	1	46	531	1
	Y	**89**		ug/L			416262	454227	1
	Kr	**83**		ug/L			531	566	3
>	**In**	**115**		ug/L			1030601	1137803	0
	Ag	**107**	**0.102**	ug/L	0.005	4	43	1237	5
	Cd	**111**	**5.328**	ug/L	0.122	2	92	28491	1
	Cd	**114**	**5.162**	ug/L	0.016	0	61	70993	0
	Sb	**121**	**0.081**	ug/L	0.003	4	304	1660	2
	Sb	**123**	**0.084**	ug/L	0.004	4	246	1316	2
	Ba	**135**	**134.887**	ug/L	0.492	0	18	663000	0
	Ba	**137**	**133.349**	ug/L	2.103	1	36	1154122	0
>	**Tb**	**159**		ug/L			1247472	1308521 ✓	1
	Tl	**205**	**0.190**	ug/L	0.004	2	176	7618	1
	Pb	**208**	**210.407**	ug/L	4.442	2	302	10906741	0
	Bi	**209**		ug/L			2786089	2893818	0
	Th	**232**	**0.807**	ug/L	0.004	0	860	40969	1
	U	**238**	**0.122**	ug/L	0.001	0	28	6108	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 15:28:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	**Li**	**6**		ug/L			1287485	1432417	2
	Be	**9**	**0.599**	ug/L	0.044	7	27	2545	4
	C	**13**		ug/L			110265	176311	2
	Cl	**37**		ug/L			4510739	4916608	3
>	**Sc**	**45**		ug/L			1161996	1340831	1
	V	**51**	**38.552**	ug/L	0.779	2	7869	991495	0
	V-1	**51**	**38.745**	ug/L	1.041	2	69	988112	0
	Cr	**52**	**44.267**	ug/L	0.668	1	23331	960571	1
	Cr	**53**	**44.909**	ug/L	1.318	2	142	107462	0
	Mn	**55**	**1495.899**	ug/L	28.215	1	504	43519288	1
	Co	**59**	**10.280**	ug/L	0.209	2	96	220499	0
>	**Ge**	**72**		ug/L			655148	659494	0
	Ni	**60**	**22.416**	ug/L	0.226	1	35	85699	1
	Ni	**62**	**24.081**	ug/L	0.667	2	554	13577	1
	Cu	**63**	**34.330**	ug/L	0.723	2	544	291123	1
	Cu	**65**	**33.776**	ug/L	0.259	0	67	130215	0
	Zn	**66**	**807.247**	ug/L	11.842	1	288	1890903	1
	Zn	**67**	**768.854**	ug/L	6.225	0	44	302707	0
	Zn	**68**	**808.675**	ug/L	18.714	2	283	1372255	1
	As	**75**	**30.233**	ug/L	0.404	1	246	63015	0
	As-1	**75**	**29.822**	ug/L	0.472	1	10971	73540	0
	Se	**82**	**0.173**	ug/L	0 107	62	0	39	61
	Se	**78**	**0.111**	ug/L	0.276	248	11110	11248	0
	Mo	**98**	**0.488**	ug/L	0 018	3	46	2399	4
	Y	**89**		ug/L			416262	568484	0
	Kr	**83**		ug/L			531	833	0
>	**In**	**115**		ug/L			1030601	1152022	1
	Ag	**107**	**0.474**	ug/L	0.003	0	43	5637	1
	Cd	**111**	**24.380**	ug/L	0.417	1	92	131617	0
	Cd	**114**	**23.670**	ug/L	0.476	2	61	329307	0
	Sb	**121**	**0.442**	ug/L	0.007	1	304	7697	3
	Sb	**123**	**0.434**	ug/L	0.004	0	246	5765	0
	Ba	**135**	**665.635**	ug/L	22.009	3	18	3311512	1
	Ba	**137**	**657.554**	ug/L	6.418	0	36	5762006	0
>	**Tb**	**159**		ug/L			1247472	1299421	2
	Tl	**205**	**0.926**	ug/L	0.015	1	176	36154	0
	Pb	**208**	**995.433**	ug/L	21.054	2	302	51234895	0
	Bi	**209**		ug/L			2786089	2758770	1
	Th	**232**	**3.872**	ug/L	0.056	1	860	191780	0
	U	**238**	**0.592**	ug/L	0.012	1	28	29339	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 15:33:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Cr Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1287485	1465782	1
	Be	9	0.351	ug/L	0.012	3	27	1538	1
	C	13		ug/L			110265	137688	2
	Cl	37		ug/L			4510739	4888080	1
>	Sc	45		ug/L			1161996	1267330	0
	V	51	16.419	ug/L	0.737	4	7869	404102	4
	V-1	51	16.229	ug/L	0.170	1	69	391398	1
	Cr	52	97.376	ug/L	1.808	1	23331	1966844	1
	Cr	53	96.510	ug/L	1.278	1	142	218190	1
	Mn	55	196.257	ug/L	3.251	1	504	5397858	1
	Co	59	5.782	ug/L	0.030	0	96	117293	0
>	Ge	72		ug/L			655148	670298	1
	Ni	60	40.822	ug/L	0.677	1	35	158585	1
	Ni	62	39.249	ug/L	0.605	1	554	22138	1
	Cu	63	11.755	ug/L	0.192	1	544	101679	0
	Cu	65	11.996	ug/L	0.047	0	67	47050	0
	Zn	66	74.247	ug/L	2.466	3	288	176996	2
	Zn	67	105.181	ug/L	0.911	0	44	42128	0
	Zn	68	99.592	ug/L	0.745	0	283	172049	1
	As	75	2.391	ug/L	0.043	1	246	5296	0
	As-1	75	2.106	ug/L	0.089	4	10971	15710	0
	Se	82	0.108	ug/L	0.056	52	0	25	50
	Se	78	-0.753	ug/L	0.197	26	11110	10911	0
	Mo	98	0.121	ug/L	0.002	2	46	641	1
	Y	89		ug/L			416262	525454	0
	Kr	83		ug/L			531	592	7
>	In	115		ug/L			1030601	1075896	0
	Ag	107	0.110	ug/L	0.006	5	43	1253	4
	Cd	111	1.124	ug/L	0.008	0	92	5760	0
	Cd	114	1.128	ug/L	0.018	1	61	14718	1
	Sb	121	-0.000	ug/L	0.002	469	304	311	9
	Sb	123	-0.002	ug/L	0.002	118	246	236	9
	Ba	135	593.176	ug/L	3.903	0	18	2756983	0
	Ba	137	581.390	ug/L	3.509	0	36	4758444	0
>	Tb	159		ug/L			1247472	1311104	0
	Tl	205	0.207	ug/L	0.003	1	176	8318	0
	Pb	208	52.379	ug/L	0.655	1	302	2721067	0
	Bi	209		ug/L			2786089	2782542	0
	Th	232	2.181	ug/L	0.047	2	860	109374	1
	U	238	0.146	ug/L	0.003	1	28	7313	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 15:37:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1435736	1
	Be	9	1.579	ug/L	0.025	1	27	6681	0
	C	13		ug/L			110265	160442	2
	Cl	37		ug/L			4510739	5057712	2
>	Sc	45		ug/L			1161996	1333270	1
	V	51	73.543	ug/L	5 096	6	7869	1871680	5
	V-1	51	73.380	ug/L	0.755	1	69	1861214	1
	Cr	52	431.289	ug/L	17.863	4	23331	9068873	2
	Cr	53	429.759	ug/L	4.886	1	142	1021435	0
	Mn	55	866.634	ug/L	26.932	3	504	25065792	1
	Co	59	26.080	ug/L	0.257	0	96	556156	1
>	Ge	72		ug/L			655148	629813	0
	Ni	60	195.307	ug/L	3.154	1	35	712743	0
	Ni	62	192.959	ug/L	4.032	2	554	100165	1
	Cu	63	55.072	ug/L	0.188	0	544	445729	0
	Cu	65	55.959	ug/L	1.924	3	67	205956	2
	Zn	66	345.333	ug/L	1.707	0	288	772723	1
	Zn	67	475.677	ug/L	1.255	0	44	178877	0
	Zn	68	440.655	ug/L	4.125	0	283	714302	1
	As	75	11.411	ug/L	0.128	1	246	22862	0
	As-1	75	11.124	ug/L	0.145	1	10971	32810	0
	Se	82	0.270	ug/L	0.093	34	0	58	34
	Se	78	0.319	ug/L	0.139	43	11110	10861	0
	Mo	98	0.596	ug/L	0.023	3	46	2789	4
	Y	89		ug/L			416262	885056	0
	Kr	83		ug/L			531	1009	0
>	In	115		ug/L			1030601	1041758	0
	Ag	107	0.523	ug/L	0.015	2	43	5619	2
	Cd	111	5.235	ug/L	0.128	2	92	25633	1
	Cd	114	4.952	ug/L	0.020	0	61	62363	0
	Sb	121	0.039	ug/L	0.004	11	304	888	6
	Sb	123	0.037	ug/L	0.001	3	246	668	1
	Ba	135	2765.620	ug/L	15.762	0	18	12445979	0
	Ba	137	2731.017	ug/L	25.718	0	36	21642164	0
>	Tb	159		ug/L			1247472	1312049	1
	Tl	205	0.931	ug/L	0.022	2	176	36700	0
	Pb	208	234.460	ug/L	3.323	1	302	12186793	0
	Bi	209		ug/L			2786089	2398858	1
	Th	232	9.644	ug/L	0.107	1	860	480923	0
	U	238	0.657	ug/L	0.010	1	28	32859	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 I SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 15:41:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	**Li**	**6**		ug/L			1287485	1471869	1
	Be	**9**	**0.094**	ug/L	0.010	10	27	435	8
	C	**13**		ug/L			110265	145640	1
	Cl	**37**		ug/L			4510739	4971955	2
>	**Sc**	**45**		ug/L			1161996	1268729	1
	V	**51**	**5.249**	ug/L	0.052	0	7869	135188	0
	V-1	**51**	**5.264**	ug/L	0.117	2	69	127117	1
	Cr	**52**	**4.198**	ug/L	0.175	4	23331	109294	4
	Cr	**53**	**4.252**	ug/L	0.111	2	142	9769	1
	Mn	**55**	**188.808**	ug/L	3.645	1	504	5199344	2
	Co	**59**	**1.469**	ug/L	0.027	1	96	29914	0
>	**Ge**	**72**		ug/L			655148	672065	2
	Ni	**60**	**3.726**	ug/L	0 144	3	35	14536	1
	Ni	**62**	**3.271**	ug/L	0.057	1	554	2370	2
	Cu	**63**	**8.445**	ug/L	0.358	4	544	73373	3
	Cu	**65**	**8.247**	ug/L	0.329	3	67	32433	2
	Zn	**66**	**246.511**	ug/L	10.312	4	288	588194	1
	Zn	**67**	**223.938**	ug/L	3.928	1	44	89857	1
	Zn	**68**	**238.781**	ug/L	6.306	2	283	412956	0
	As	**75**	**5.568**	ug/L	0.210	3	246	12025	0
	As-1	**75**	**5.308**	ug/L	0 357	6	10971	22576	0
	Se	**82**	**0.130**	ug/L	0.019	14	0	30	13
	Se	**78**	**-0.590**	ug/L	0 546	92	11110	11032	0
	Mo	**98**	**0.107**	ug/L	0.004	3	46	574	2
	Y	**89**		ug/L			416262	459888	1
	Kr	**83**		ug/L			531	557	1
>	**In**	**115**		ug/L			1030601	1146840	2
	Ag	**107**	**0.268**	ug/L	0.019	7	43	3194	4
	Cd	**111**	**4.355**	ug/L	0.101	2	92	23486	0
	Cd	**114**	**4.174**	ug/L	0.183	4	61	57842	2
	Sb	**121**	**0.291**	ug/L	0.015	5	304	5158	3
	Sb	**123**	**0.289**	ug/L	0.013	4	246	3913	3
	Ba	**135**	**52.317**	ug/L	2.102	4	18	259056	1
	Ba	**137**	**52.061**	ug/L	1.458	2	36	454041	0
>	**Tb**	**159**		ug/L			1247472	1295918	1
	Tl	**205**	**0.195**	ug/L	0.003	1	176	7746	2
	Pb	**208**	**251.710**	ug/L	4 750	1	302	12922458	0
	Bi	**209**		ug/L			2786089	2889860	2
	Th	**232**	**0.941**	ug/L	0.009	0	860	47148	0
	U	**238**	**0.142**	ug/L	0.003	2	28	7022	0

VS2B · 00344

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 B RHN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 15:46:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1287485	1381622	1
	Be	**9**	**0.000**	ug/L	0.002	441	27	30	24
	C	**13**		ug/L			110265	122761	1
	Cl	**37**		ug/L			4510739	4647522	3
>	**Sc**	**45**		ug/L			1161996	1231312	0
	V	**51**	**0.327**	ug/L	0.009	2	7869	15985	1
	V-1	**51**	**0.332**	ug/L	0.009	2	69	7841	2
	Cr	**52**	**0.110**	ug/L	0.027	24	23331	26858	1
	Cr	**53**	**0.128**	ug/L	0.025	19	142	430	12
	Mn	**55**	**24.429**	ug/L	0.238	0	504	653301	1
	Co	**59**	**0.385**	ug/L	0.001	0	96	7685	0
>	**Ge**	**72**		ug/L			655148	683048	0
	Ni	**60**	**1.055**	ug/L	0.031	2	35	4213	2
	Ni	**62**	**0.182**	ug/L	0.073	39	554	680	5
	Cu	**63**	**1.375**	ug/L	0.007	0	544	12623	0
	Cu	**65**	**1.406**	ug/L	0.009	0	67	5681	0
	Zn	**66**	**135.160**	ug/L	1.583	1	288	328174	1
	Zn	**67**	**120.416**	ug/L	2.030	1	44	49140	1
	Zn	**68**	**128.389**	ug/L	0.556	0	283	225913	0
	As	**75**	**0.330**	ug/L	0.013	3	246	966	2
	As-1	**75**	**0.150**	ug/L	0.024	16	10971	11764	1
	Se	**82**	**0.059**	ug/L	0.056	94	0	14	90
	Se	**78**	**-0.540**	ug/L	0.104	19	11110	11250	1
	Mo	**98**	**0.161**	ug/L	0.005	3	46	853	3
	Y	**89**		ug/L			416262	430770	0
	Kr	**83**		ug/L			531	572	3
>	**In**	**115**		ug/L			1030601	1086259	0
	Ag	**107**	**-0.001**	ug/L	0.001	94	43	38	18
	Cd	**111**	**0.600**	ug/L	0.023	3	92	3150	3
	Cd	**114**	**0.598**	ug/L	0.001	0	61	7907	0
	Sb	**121**	**-0.004**	ug/L	0.002	47	304	259	11
	Sb	**123**	**-0.006**	ug/L	0.001	23	246	188	8
	Ba	**135**	**5.149**	ug/L	0.333	6	18	24182	6
	Ba	**137**	**5.051**	ug/L	0.299	5	36	41778	5
>	**Tb**	**159**		ug/L			1247472	1295560	0
	Tl	**205**	**0.002**	ug/L	0.000	5	176	274	1
	Pb	**208**	**0.178**	ug/L	0.158	88	302	9450	86
	Bi	**209**		ug/L			2786089	2869886	0
	Th	**232**	**0.001**	ug/L	0.001	87	860	966	6
	U	**238**	**0.031**	ug/L	0.001	1	28	1536	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 15:50:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1349528 ✓	0
	Be	9	52.031	ug/L	0.653	1	27	206137	1
	C	13		ug/L			110265	124777	2
	Cl	37		ug/L			4510739	4761562	2
>	Sc	45		ug/L			1161996	1178168 ✓	1
	V	51	50.569	ug/L	0.817	1	7869	1140666	2
	V-1	51	50.643	ug/L	0.611	1	69	1135227	1
	Cr	52	51.042	ug/L	0.687	1	23331	969817	2
	Cr	53	51.296	ug/L	1.406	2	142	107849	1
	Mn	55	50.968	ug/L	0.635	1	504	1303532	0
	Co	59	50.234	ug/L	0.668	1	96	946569	1
>	Ge	72		ug/L			655148	657237 ✓	1
	Ni	60	51.513	ug/L	1.158	2	35	196177	1
	Ni	62	50.224	ug/L	0.553	1	554	27623	2
	Cu	63	52.457	ug/L	0.952	1	544	442989	0
	Cu	65	51.272	ug/L	0.916	1	67	196931	1
	Zn	66	52.302	ug/L	1 048	2	288	122344	0
	Zn	67	52.278	ug/L	1.668	3	44	20547	1
	Zn	68	52.475	ug/L	0.425	0	283	89020	2
	As	75	51.488	ug/L	0.986	1	246	106764	0
	As-1	75	51.410	ug/L	1.068	2	10971	118358	0
	Se	82	52.541	ug/L	1.056	2	0	11861	0
	Se	78	52.193	ug/L	1.323	2	11110	42086	0
	Mo	98	52.109	ug/L	0.909	1	46	250489	0
	Y	89		ug/L			416262	415102	1
	Kr	83		ug/L			531	513	4
>	In	115		ug/L			1030601	1058656 ✓	2
	Ag	107	55.214	ug/L	0.172	0	43	598637	2
	Cd	111	51.649	ug/L	0.800	1	92	256142	1
	Cd	114	50.741	ug/L	0.662	1	61	648668	0
	Sb	121	50.565	ug/L	0.823	1	304	772986	0
	Sb	123	49.739	ug/L	0.846	1	246	577962	0
	Ba	135	49.004	ug/L	1.033	2	18	224062	0
	Ba	137	48.603	ug/L	0.817	1	36	391421	2
>	Tb	159		ug/L			1247472	1268830 ✓	1
	Tl	205	50.599	ug/L	0.792	1	176	1920270	1
	Pb	208	50.243	ug/L	0.424	0	302	2526036	0
	Bi	209		ug/L			2786089	2769391	1
	Th	232	51.568	ug/L	0.521	1	860	2483322	0
	U	238	52.857	ug/L	0 874	1	28	2555344	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 15:57:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1287485	1374399	0
	Be	9	-0.001	ug/L	0.002	160	27	23	35
	C	13		ug/L			110265	123524	2
	Cl	37		ug/L			4510739	4639956	2
>	Sc	45		ug/L			1161996	1181811	1
	V	51	0.023	ug/L	0.009	37	7869	8512	3
	V-1	51	0.003	ug/L	0.003	117	69	134	55
	Cr	52	0.084	ug/L	0.031	36	23331	25303	3
	Cr	53	0.017	ug/L	0.015	88	142	180	17
	Mn	55	0.023	ug/L	0.030	133	504	1094	71
	Co	59	0.001	ug/L	0.001	129	96	118	22
>	Ge	72		ug/L			655148	657876	2
	Ni	60	0.002	ug/L	0.005	192	35	45	41
	Ni	62	-0.790	ug/L	0.021	2	554	130	7
	Cu	63	-0.042	ug/L	0.002	5	544	194	11
	Cu	65	-0.001	ug/L	0.003	506	67	65	18
	Zn	66	0.011	ug/L	0.011	104	288	315	9
	Zn	67	0.015	ug/L	0.021	138	44	50	18
	Zn	68	0.020	ug/L	0.010	48	283	317	7
	As	75	0.003	ug/L	0.011	353	246	254	8
	As-1	75	-0.003	ug/L	0.114	3835	10971	11007	0
	Se	82	0.018	ug/L	0.026	148	0	4	130
	Se	78	-0.007	ug/L	0.407	5608	11110	11148	0
	Mo	98	0.005	ug/L	0.003	57	46	72	22
	Y	89		ug/L			416262	412687	0
	Kr	83		ug/L			531	531	3
>	In	115		ug/L			1030601	1061788	1
	Ag	107	-0.000	ug/L	0.001	287	43	39	34
	Cd	111	0.001	ug/L	0.003	304	92	100	15
	Cd	114	-0.001	ug/L	0.002	197	61	50	47
	Sb	121	0.044	ug/L	0 006	13	304	988	8
	Sb	123	0.042	ug/L	0.011	25	246	741	15
	Ba	135	0.027	ug/L	0 039	147	18	140	126
	Ba	137	0.028	ug/L	0.038	139	36	258	118
>	Tb	159		ug/L			1247472	1248357	1
	Tl	205	0.005	ug/L	0.003	67	176	350	32
	Pb	208	0.013	ug/L	0.017	134	302	920	89
	Bi	209		ug/L			2786089	2824525	1
	Th	232	0.101	ug/L	0.015	15	860	5655	11
	U	238	0.003	ug/L	0.001	59	28	147	46

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 MB1 RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 16:08:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1287485	1446492	2
	Be	9	0.000	ug/L	0.000	136	27	31	7
	C	13		ug/L			110265	132154	0
	Cl	37		ug/L			4510739	4779940	4
>	Sc	45		ug/L			1161996	1266727	2
	V	51	0.029	ug/L	0.015	51	7869	9265	1
	V-1	51	0.005	ug/L	0 001	21	69	194	13
	Cr	52	0.095	ug/L	0.047	49	23331	27316	1
	Cr	53	0.014	ug/L	0.006	40	142	185	7
	Mn	55	0.075	ug/L	0.008	10	504	2615	6
	Co	59	0.001	ug/L	0.000	20	96	125	0
>	Ge	72		ug/L			655148	675057 ✓	2
	Ni	60	0.013	ug/L	0.004	33	35	88	21
	Ni	62	-0.810	ug/L	0.008	0	554	123	5
	Cu	63	0.227	ug/L	0.013	5	544	2523	3
	Cu	65	0.249	ug/L	0.007	2	67	1052	4
	Zn	66	~ 0.863	ug/L	0.027	3	288	2364	0
	Zn	67	0.828	ug/L	0 077	9	44	379	6
	Zn	68	0.856	ug/L	0.009	1	283	1778	2
	As	75	0.012	ug/L	0.010	84	246	279	9
	As-1	75	0.050	ug/L	0.085	168	10971	11410	1
	Se	82	0.028	ug/L	0.030	104	0	7	92
	Se	78	0.169	ug/L	0.322	190	11110	11548	1
	Mo	98	0.004	ug/L	0.001	31	46	69	8
	Y	89		ug/L			416262	434034	1
	Kr	83		ug/L			531	552	3
>	In	115		ug/L			1030601	1083303	1
	Ag	107	-0.000	ug/L	0.001	459	43	41	36
	Cd	111	-0.002	ug/L	0.002	157	92	89	14
	Cd	114	-0.001	ug/L	0.001	207	61	58	23
	Sb	121	0.008	ug/L	0.004	47	304	448	12
	Sb	123	0.008	ug/L	0.002	27	246	350	6
	Ba	135	0.030	ug/L	0.007	23	18	159	21
	Ba	137	0.028	ug/L	0.006	22	36	268	19
>	Tb	159		ug/L			1247472	1279751	0
	Tl	205	0.009	ug/L	0.003	37	176	536	24
	Pb	208	0.016	ug/L	0.003	16	302	1122	11
	Bi	209		ug/L			2786089	2828760	1
	Th	232	0.142	ug/L	0.039	27	860	7748	23
	U	238	0.001	ug/L	0.000	10	28	71	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 MB1SPK RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 16:12:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1468673	3
	Be	9	22.822	ug/L	0.862	3	27	98338	1
	C	13		ug/L			110265	130727	2
	Cl	37		ug/L			4510739	4753163	3
>	Sc	45		ug/L			1161996	1267252	0
	V	51	24.574	ug/L	0.430	1	7869	600591	1
	V-1	51	24.497	ug/L	0.187	0	69	590699	1
	Cr	52	25.945	ug/L	0.632	2	23331	542694	2
	Cr	53	25.680	ug/L	0.582	2	142	58161	1
	Mn	55	25.582	ug/L	0.538	2	504	704058	1
	Co	59	25.016	ug/L	0.372	1	96	507090	1
>	Ge	72		ug/L			655148	680709 ✓	1
	Ni	60	27.315	ug/L	0.377	1	35	107765	0
	Ni	62	26.375	ug/L	0.184	0	554	15295	0
	Cu	63	29.257	ug/L	0.409	1	544	256166	0
	Cu	65	29.097	ug/L	0.363	1	67	115787	0
	Zn	66	73.555	ug/L	1.276	1	288	178103	1
	Zn	67	68.499	ug/L	0.625	0	44	27881	2
	Zn	68	71.558	ug/L	2.231	3	283	125582	1
	As	75	22.774	ug/L	0.599	2	246	49053	1
	As-1	75	23.402	ug/L	0.413	1	10971	62016	0
	Se	82	67.039	ug/L	0.544	0	0	15677	0
	Se	78	67.775	ug/L	0.500	0	11110	53167	1
	Mo	98	0.014	ug/L	0.005	31	46	119	18
	Y	89		ug/L			416262	438127	1
	Kr	83		ug/L			531	547	10
>	In	115		ug/L			1030601	1121859	2
	Ag	107	26.711	ug/L	1.308	4	43	306662	2
	Cd	111	23.256	ug/L	0.174	0	92	122275	1
	Cd	114	22.387	ug/L	0.642	2	61	303231	0
	Sb	121	-0.005	ug/L	0.004	77	304	249	23
	Sb	123	-0.006	ug/L	0.004	67	246	194	23
	Ba	135	24.300	ug/L	0.488	2	18	117747	0
	Ba	137	23.907	ug/L	0.673	2	36	203984	1
>	Tb	159		ug/L			1247472	1301221	2
	Tl	205	25.816	ug/L	0.363	1	176	1004651	0
	Pb	208	25.725	ug/L	0.533	2	302	1326205	0
	Bi	209		ug/L			2786089	2862581	1
	Th	232	24.614	ug/L	0.662	2	860	1215699	0
	U	238	25.326	ug/L	0.371	1	28	1255470	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 ADUP RHN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 16:16:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	**Li**	**6**		ug/L			1287485	1437003	2
	Be	**9**	**0.002**	ug/L	0.001	39	27	39	8
	C	**13**		ug/L			110265	130067	1
	Cl	**37**		ug/L			4510739	4676653	3
>	**Sc**	**45**		ug/L			1161996	1282325	2
	V	**51**	**0.802**	ug/L	0.018	2	7869	28221	1
	V-1	**51**	**0.800**	ug/L	0.008	1	69	19600	2
	Cr	**52**	**0.226**	ug/L	0.044	19	23331	30288	1
	Cr	**53**	**0.223**	ug/L	0.013	5	142	665	5
	Mn	**55**	**10.769**	ug/L	0.286	2	504	300127	1
	Co	**59**	**0.186**	ug/L	0.011	5	96	3915	3
>	**Ge**	**72**		ug/L			655148	702825 ✓	0
	Ni	**60**	**0.719**	ug/L	0.009	1	35	2964	1
	Ni	**62**	**-0.229**	ug/L	0.015	6	554	463	1
	Cu	**63**	**8.488**	ug/L	0.281	3	544	77156	3
	Cu	**65**	**8.430**	ug/L	0.096	1	67	34691	1
	Zn	**66**	**23.827**	ug/L	0.554	2	288	59782	2
	Zn	**67**	**22.022**	ug/L	0.528	2	44	9286	2
	Zn	**68**	**23.501**	ug/L	0.301	1	283	42797	1
	As	**75**	**1.806**	ug/L	0.017	0	246	4260	0
	As-1	**75**	**1.600**	ug/L	0 028	1	10971	15343	0
	Se	**82**	**0.122**	ug/L	0.029	23	0	30	22
	Se	**78**	**-0.557**	ug/L	0.108	19	11110	11565	0
	Mo	**98**	**1.514**	ug/L	0.011	0	46	7833	0
	Y	**89**		ug/L			416262	444938	2
	Kr	**83**		ug/L			531	561	4
>	**In**	**115**		ug/L			1030601	1121502	1
	Ag	**107**	**0.006**	ug/L	0.001	12	43	113	7
	Cd	**111**	**0.155**	ug/L	0.009	5	92	912	3
	Cd	**114**	**0.155**	ug/L	0.001	0	61	2172	2
	Sb	**121**	**0.149**	ug/L	0.006	3	304	2749	2
	Sb	**123**	**0.146**	ug/L	0.006	4	246	2063	3
	Ba	**135**	**11.773**	ug/L	0.404	3	18	57041	2
	Ba	**137**	**11.580**	ug/L	0.221	1	36	98822	1
>	**Tb**	**159**		ug/L			1247472	1326374	0
	Tl	**205**	**0.010**	ug/L	0 001	12	176	599	9
	Pb	**208**	**0.211**	ug/L	0.000	0	302	11401	0
	Bi	**209**		ug/L			2786089	2876821	0
	Th	**232**	**0.131**	ug/L	0.028	21	860	7493	18
	U	**238**	**0.097**	ug/L	0.002	2	28	4912	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 A RHN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 16:20:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1444210	2
	Be	9	0.002	ug/L	0.001	47	27	39	8
	C	13		ug/L			110265	132555	0
	Cl	37		ug/L			4510739	4692561	2
>	Sc	45		ug/L			1161996	1300855	1
	V	51	0.795	ug/L	0.035	4	7869	28467	1
	V-1	51	0.797	ug/L	0.025	3	69	19795	1
	Cr	52	0.191	ug/L	0.027	14	23331	30015	0
	Cr	53	0.198	ug/L	0.006	3	142	618	4
	Mn	55	10.967	ug/L	0.310	2	504	310035	1
	Co	59	0.185	ug/L	0.006	3	96	3953	1
>	Ge	72		ug/L			655148	690488	1
	Ni	60	0.740	ug/L	0.007	0	35	2997	1
	Ni	62	-0.270	ug/L	0.038	14	554	431	6
	Cu	63	8.620	ug/L	0.179	2	544	76958	0
	Cu	65	8.593	ug/L	0.135	1	67	34735	1
	Zn	66	24.029	ug/L	0.706	2	288	59209	1
	Zn	67	22.096	ug/L	0.134	0	44	9153	1
	Zn	68	23.643	ug/L	0.731	3	283	42285	1
	As	75	1.850	ug/L	0.064	3	246	4279	2
	As-1	75	1.614	ug/L	0.148	9	10971	15101	0
	Se	82	0.139	ug/L	0.047	33	0	33	31
	Se	78	-0.646	ug/L	0.386	59	11110	11304	0
	Mo	98	1.532	ug/L	0.024	1	46	7784	0
	Y	89		ug/L			416262	437344	1
	Kr	83		ug/L			531	549	1
>	In	115		ug/L			1030601	1113315	1
	Ag	107	0.004	ug/L	0.001	34	43	88	15
	Cd	111	0.164	ug/L	0.007	4	92	954	2
	Cd	114	0.158	ug/L	0.002	1	61	2191	0
	Sb	121	0.152	ug/L	0.003	1	304	2771	0
	Sb	123	0.150	ug/L	0.004	2	246	2099	1
	Ba	135	11.763	ug/L	0.259	2	18	56586	1
	Ba	137	11.746	ug/L	0.087	0	36	99515	0
>	Tb	159		ug/L			1247472	1334823	1
	Tl	205	0.007	ug/L	0.001	18	176	460	12
	Pb	208	0.208	ug/L	0.008	3	302	11303	1
	Bi	209		ug/L			2786089	2847734	1
	Th	232	0.044	ug/L	0.004	8	860	3131	4
	U	238	0.094	ug/L	0.003	3	28	4835	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 ASPK RHN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 16:24:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1441404	1
	Be	9	11.970	ug/L	0.259	2	27	50664	1
	C	13		ug/L			110265	134793	1
	Cl	37		ug/L			4510739	4758174	1
>	Sc	45		ug/L			1161996	1266535	0
	V	51	13.384	ug/L	0.115	0	7869	330816	0
	V-1	51	13.438	ug/L	0 175	1	69	323868	1
	Cr	52	13.003	ug/L	0.392	3	23331	284521	2
	Cr	53	13.188	ug/L	0.191	1	142	29928	1
	Mn	55	23.653	ug/L	0.686	2	504	650667	3
	Co	59	12.715	ug/L	0.218	1	96	257646	1
>	Ge	72		ug/L			655148	684587 ✓	1
	Ni	60	14.279	ug/L	0.218	1	35	56676	1
	Ni	62	13.279	ug/L	0.224	1	554	8032	0
	Cu	63	23.962	ug/L	0.414	1	544	211102	0
	Cu	65	23.835	ug/L	0.091	0	67	95409	1
	Zn	66	62.561	ug/L	1 107	1	288	152386	0
	Zn	67	58.963	ug/L	0.162	0	44	24141	1
	Zn	68	61.881	ug/L	1.073	1	283	109276	1
	As	75	13.807	ug/L	0.172	1	246	30012	0
	As-1	75	14.161	ug/L	0.321	2	10971	42267	0
	Se	82	35.063	ug/L	0 455	1	0	8246	0
	Se	78	35.573	ug/L	0.993	2	11110	33577	1
	Mo	98	1.640	ug/L	0.017	1	46	8259	0
	Y	89		ug/L			416262	434770	1
	Kr	83		ug/L			531	532	0
>	In	115		ug/L			1030601	1109817	1
	Ag	107	13.696	ug/L	0.396	2	43	155664	1
	Cd	111	12.162	ug/L	0.082	0	92	63309	0
	Cd	114	11.855	ug/L	0.091	0	61	158951	0
	Sb	121	0.153	ug/L	0.003	2	304	2776	1
	Sb	123	0.152	ug/L	0.001	0	246	2112	1
	Ba	135	24.550	ug/L	0 312	1	18	117708	0
	Ba	137	24.245	ug/L	0.402	1	36	204708	0
>	Tb	159		ug/L			1247472	1310814	0
	Tl	205	12.988	ug/L	0.154	1	176	509325	0
	Pb	208	13.099	ug/L	0.179	1	302	680573	0
	Bi	209		ug/L			2786089	2842584	0
	Th	232	11.921	ug/L	0.135	1	860	593768	0
	U	238	12.906	ug/L	0.157	1	28	644627	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 C RHN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 16:28:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens RSD
>	Li	6		ug/L			1287485	1461125	0
	Be	9	0.001	ug/L	0.002	117	27	36	19
	C	13		ug/L			110265	133883	1
	Cl	37		ug/L			4510739	4700084	2
>	Sc	45		ug/L			1161996	1278257	2
	V	51	0.873	ug/L	0.039	4	7869	29854	1
	V-1	51	0.883	ug/L	0.028	3	69	21529	0
	Cr	52	0.208	ug/L	0.048	22	23331	29832	1
	Cr	53	0.243	ug/L	0.016	6	142	709	3
	Mn	55	13.723	ug/L	0.436	3	504	381094	2
	Co	59	0.234	ug/L	0.011	4	96	4880	2
>	Ge	72		ug/L			655148	683197✓	1
	Ni	60	0.892	ug/L	0.028	3	35	3568	1
	Ni	62	-0.121	ug/L	0.015	12	554	510	2
	Cu	63	8.901	ug/L	0.323	3	544	78593	2
	Cu	65	8.726	ug/L	0 180	2	67	34893	0
	Zn	66	38.854	ug/L	0.983	2	288	94547	0
	Zn	67	35.432	ug/L	1.212	3	44	14490	2
	Zn	68	37.614	ug/L	1.037	2	283	66389	1
	As	75	1.892	ug/L	0.070	3	246	4324	2
	As-1	75	1.724	ug/L	0.105	6	10971	15182	0
	Se	82	0.100	ug/L	0.041	41	0	24	41
	Se	78	-0.413	ug/L	0.219	53	11110	11329	1
	Mo	98	1.565	ug/L	0 040	2	46	7868	3
	Y	89		ug/L			416262	434312	2
	Kr	83		ug/L			531	566	4
>	In	115		ug/L			1030601	1121168	1
	Ag	107	0.005	ug/L	0.001	11	43	107	5
	Cd	111	0.236	ug/L	0.012	5	92	1339	3
	Cd	114	0.222	ug/L	0.002	0	61	3071	2
	Sb	121	0.148	ug/L	0.002	1	304	2721	1
	Sb	123	0.150	ug/L	0.005	3	246	2113	1
	Ba	135	12.576	ug/L	0.258	2	18	60912	0
	Ba	137	12.237	ug/L	0.123	1	36	104393	1
>	Tb	159		ug/L			1247472	1320973	0
	Tl	205	0.007	ug/L	0.000	7	176	446	4
	Pb	208	0.247	ug/L	0.004	1	302	13261	1
	Bi	209		ug/L			2786089	2858899	1
	Th	232	0.109	ug/L	0.009	8	860	6354	7
	U	238	0.101	ug/L	0.002	1	28	5131	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 D RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 16:32:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1287485	1475051	1
	Be	9	0.008	ug/L	0.001	15	27	66	9
	C	13		ug/L			110265	143367	1
	Cl	37		ug/L			4510739	4736810	1
>	Sc	45		ug/L			1161996	1306935	0
	V	51	1.921	ug/L	0.034	1	7869	56577	1
	V-1	51	1.931	ug/L	0.023	1	69	48093	0
	Cr	52	0.531	ug/L	0.052	9	23331	37151	2
	Cr	53	0.569	ug/L	0.031	5	142	1485	5
	Mn	55	23.416	ug/L	0.187	0	504	664669	0
	Co	59	0.450	ug/L	0.006	1	96	9521	1
>	Ge	72		ug/L			655148	691170	1
	Ni	60	1.510	ug/L	0.035	2	35	6085	1
	Ni	62	0.402	ug/L	0.020	5	554	812	1
	Cu	63	14.355	ug/L	0.190	1	544	127914	0
	Cu	65	14.348	ug/L	0.402	2	67	57999	1
	Zn	66	34.347	ug/L	1.415	4	288	84584	2
	Zn	67	32.474	ug/L	1.292	3	44	13440	2
	Zn	68	35.206	ug/L	0.658	1	283	62891	0
	As	75	3.876	ug/L	0.076	1	246	8692	0
	As-1	75	3.715	ug/L	0.142	3	10971	19731	0
	Se	82	0.225	ug/L	0.015	6	0	54	5
	Se	78	-0.192	ug/L	0 285	148	11110	11599	0
	Mo	98	3.084	ug/L	0.095	3	46	15632	1
	Y	89		ug/L			416262	451231	2
	Kr	83		ug/L			531	584	2
>	In	115		ug/L			1030601	1129091	1
	Ag	107	0.011	ug/L	0.000	3	43	170	3
	Cd	111	0.246	ug/L	0.003	1	92	1401	0
	Cd	114	0.243	ug/L	0.008	3	61	3385	2
	Sb	121	0.289	ug/L	0.005	1	304	5049	2
	Sb	123	0.292	ug/L	0.003	1	246	3884	1
	Ba	135	23.516	ug/L	0.300	1	18	114712	0
	Ba	137	23.389	ug/L	0.258	1	36	200931	1
>	Tb	159		ug/L			1247472	1325932	0
	Tl	205	0.015	ug/L	0.000	2	176	771	2
	Pb	208	0.486	ug/L	0.004	0	302	25842	1
	Bi	209		ug/L			2786089	2809143	0
	Th	232	0.102	ug/L	0.017	16	860	6043	13
	U	238	0.221	ug/L	0.003	1	28	11174	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 E RHN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 16:36:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1425469	0
	Be	9	0.000	ug/L	0.001	122	27	31	7
	C	13		ug/L			110265	134757	2
	Cl	37		ug/L			4510739	4600372	2
>	Sc	45		ug/L			1161996	1235041	1
	V	51	0.964	ug/L	0.026	2	7869	31001	2
	V-1	51	0.953	ug/L	0.027	2	69	22467	2
	Cr	52	0.317	ug/L	0.011	3	23331	30952	1
	Cr	53	0.281	ug/L	0.019	6	142	768	3
	Mn	55	12.549	ug/L	0.209	1	504	336806	0
	Co	59	0.229	ug/L	0.007	3	96	4633	3
>	Ge	72		ug/L			655148	684403 ✓	2
	Ni	60	0.761	ug/L	0.036	4	35	3054	2
	Ni	62	-0.272	ug/L	0.060	21	554	425	5
	Cu	63	6.979	ug/L	0.096	1	544	61863	1
	Cu	65	6.985	ug/L	0.246	3	67	27991	2
	Zn	66	21.298	ug/L	0 406	1	288	52055	1
	Zn	67	19.937	ug/L	0.769	3	44	8186	1
	Zn	68	21.520	ug/L	0.323	1	283	38179	1
	As	75	2.036	ug/L	0.034	1	246	4644	2
	As-1	75	1.818	ug/L	0.103	5	10971	15411	0
	Se	82	0.129	ug/L	0 067	51	0	30	50
	Se	78	-0.587	ug/L	0.316	53	11110	11240	0
	Mo	98	1.463	ug/L	0.062	4	46	7369	2
	Y	89		ug/L			416262	425865	0
	Kr	83		ug/L			531	546	6
>	In	115		ug/L			1030601	1115462	1
	Ag	107	0.005	ug/L	0.001	18	43	105	11
	Cd	111	0.140	ug/L	0.006	4	92	832	4
	Cd	114	0.142	ug/L	0.002	1	61	1981	0
	Sb	121	0.140	ug/L	0.002	1	304	2591	2
	Sb	123	0.141	ug/L	0.002	1	246	1991	0
	Ba	135	11.717	ug/L	0.204	1	18	56470	0
	Ba	137	11.540	ug/L	0.118	1	36	97949	0
>	Tb	159		ug/L			1247472	1294333	0
	Tl	205	0.006	ug/L	0.001	10	176	408	5
	Pb	208	0.234	ug/L	0.001	0	302	12291	0
	Bi	209		ug/L			2786089	2834583	0
	Th	232	0.009	ug/L	0.002	25	860	1355	7
	U	238	0.107	ug/L	0.002	2	28	5312	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 G RHN

Mn Zn

Sample Dil Factor: 2

Comments:

Sample Date/Time: Friday, November 23, 2012 16:42:07

Number of Replicates: 3

Method File: C:\NexION Data\Method\200.8nomin.mth

Tuning File: C:\NexION Data\MassCal\Default.tun

Optimization File: C:\NexION Data\Conditions\Default.dac

Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1287485	1411093	1
	Be	**9**	**0.001**	ug/L	0.001	88	27	34	14
	C	**13**		ug/L			110265	131655	2
	Cl	**37**		ug/L			4510739	4600229	0
>	**Sc**	**45**		ug/L			1161996	1273663 ✔	3
	V	**51**	**0.957**	ug/L	0.036	3	7869	31770	0
	V-1	**51**	**0.937**	ug/L	0.031	3	69	22768	0
	Cr	**52**	**0.322**	ug/L	0.043	13	23331	32014	0
	Cr	**53**	**0.257**	ug/L	0.024	9	142	739	4
	Mn	**55**	**13.420**	ug/L	0.577	4	504	371144	1
	Co	**59**	**0.245**	ug/L	0.007	2	96	5093	3
>	**Ge**	**72**		ug/L			655148	683598 ✔	1
	Ni	**60**	**0.813**	ug/L	0.023	2	35	3258	1
	Ni	**62**	**-0.240**	ug/L	0.028	11	554	444	2
	Cu	**63**	**7.369**	ug/L	0.071	0	544	65223	0
	Cu	**65**	**7.430**	ug/L	0.242	3	67	29740	2
	Zn	**66**	**26.609**	ug/L	0 537	2	288	64893	1
	Zn	**67**	**25.127**	ug/L	0.813	3	44	10297	2
	Zn	**68**	**26.759**	ug/L	0.160	0	283	47354	0
	As	**75**	**2.085**	ug/L	0.084	4	246	4742	2
	As-1	**75**	**1.894**	ug/L	0.156	8	10971	15559	1
	Se	**82**	**0.079**	ug/L	0.048	60	0	19	58
	Se	**78**	**-0.496**	ug/L	0.263	53	11110	11285	0
	Mo	**98**	**1.465**	ug/L	0.021	1	46	7373	1
	Y	**89**		ug/L			416262	437232	1
	Kr	**83**		ug/L			531	577	3
>	**In**	**115**		ug/L			1030601	1119796	1
	Ag	**107**	**0.004**	ug/L	0.000	2	43	88	0
	Cd	**111**	**0.178**	ug/L	0.009	5	92	1034	3
	Cd	**114**	**0.166**	ug/L	0.003	1	61	2316	0
	Sb	**121**	**0.147**	ug/L	0.011	7	304	2704	4
	Sb	**123**	**0.146**	ug/L	0.009	6	246	2066	3
	Ba	**135**	**12.033**	ug/L	0.210	1	18	58218	0
	Ba	**137**	**11.870**	ug/L	0.322	2	36	101128	1
>	**Tb**	**159**		ug/L			1247472	1304084	1
	Tl	**205**	**0.007**	ug/L	0.000	5	176	439	1
	Pb	**208**	**0.245**	ug/L	0.007	2	302	12953	0
	Bi	**209**		ug/L			2786089	2868110	1
	Th	**232**	**0.010**	ug/L	0.002	20	860	1398	5
	U	**238**	**0.112**	ug/L	0.004	3	28	5605	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 F RHN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 16:46:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1362728	1
	Be	9	-0.001	ug/L	0.000	56	27	25	8
	C	13		ug/L			110265	122086	3
	Cl	37		ug/L			4510739	4566948	2
>	Sc	45		ug/L			1161996	1195593 ✓	1
	V	51	0.094	ug/L	0.009	9	7869	10231	0
	V-1	51	0.100	ug/L	0.003	3	69	2344	3
	Cr	52	0.037	ug/L	0.027	73	23331	24697	0
	Cr	53	0.057	ug/L	0.005	8	142	268	5
	Mn	55	31.910	ug/L	0.805	2	504	828409	2
	Co	59	0.577	ug/L	0 013	2	96	11126	1
>	Ge	72		ug/L			655148	663526 ✓	0
	Ni	60	1.393	ug/L	0.037	2	35	5393	3
	Ni	62	0.372	ug/L	0.046	12	554	763	2
	Cu	63	0.951	ug/L	0.016	1	544	8649	1
	Cu	65	0.959	ug/L	0 006	0	67	3785	0
	Zn	66	188.023	ug/L	3.231	1	288	443404	2
	Zn	67	166.204	ug/L	1.243	0	44	65872	0
	Zn	68	177.288	ug/L	0.813	0	283	302930	0
	As	75	0.066	ug/L	0.008	11	246	387	4
	As-1	75	-0.055	ug/L	0.034	60	10971	10995	0
	Se	82	0.061	ug/L	0.017	28	0	14	27
	Se	78	-0.382	ug/L	0.126	32	11110	11023	0
	Mo	98	0.118	ug/L	0.004	3	46	618	2
	Y	89		ug/L			416262	417090	0
	Kr	83		ug/L			531	524	3
>	In	115		ug/L			1030601	1073733	2
	Ag	107	-0.001	ug/L	0.001	76	43	33	22
	Cd	111	0.901	ug/L	0 020	2	92	4624	0
	Cd	114	0.866	ug/L	0.019	2	61	11295	0
	Sb	121	-0.010	ug/L	0.001	12	304	169	9
	Sb	123	-0.012	ug/L	0.002	20	246	113	23
	Ba	135	4.421	ug/L	0.123	2	18	20515	1
	Ba	137	4.333	ug/L	0.102	2	36	35418	0
>	Tb	159		ug/L			1247472	1266148	1
	Tl	205	0.001	ug/L	0.000	58	176	209	8
	Pb	208	0.011	ug/L	0.001	10	302	861	5
	Bi	209		ug/L			2786089	2844731	2
	Th	232	-0.015	ug/L	0.001	3	860	158	14
	U	238	0.023	ug/L	0.000	1	28	1147	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 16:50:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1369140	0
	Be	9	52.025	ug/L	0.215	0	27	209101	1
	C	13		ug/L			110265	124944	4
	Cl	37		ug/L			4510739	4905265	0
>	Sc	45		ug/L			1161996	1230145	0
	V	51	49.059	ug/L	0.943	1	7869	1155641	2
	V-1	51	48.834	ug/L	0.385	0	69	1143000	1
	Cr	52	50.004	ug/L	1.306	2	23331	992460	2
	Cr	53	49.232	ug/L	1.155	2	142	108105	2
	Mn	55	48.712	ug/L	0.725	1	504	1300871	1
	Co	59	48.185	ug/L	1.029	2	96	948013	1
>	Ge	72		ug/L			655148	659455	1
	Ni	60	52.737	ug/L	1.118	2	35	201521	1
	Ni	62	50.116	ug/L	0.549	1	554	27653	0
	Cu	63	52.797	ug/L	1.543	2	544	447338	1
	Cu	65	52.013	ug/L	0.512	0	67	200460	0
	Zn	66	51.383	ug/L	0.914	1	288	120639	2
	Zn	67	53.117	ug/L	0.820	1	44	20950	0
	Zn	68	52.420	ug/L	1.404	2	283	89206	1
	As	75	51.497	ug/L	0.596	1	246	107155	0
	As-1	75	51.549	ug/L	0.741	1	10971	119059	0
	Se	82	51.647	ug/L	0.725	1	0	11700	0
	Se	78	51.848	ug/L	1.283	2	11110	42025	0
	Mo	98	52.372	ug/L	2.001	3	46	252560	2
	Y	89		ug/L			416262	418737	1
	Kr	83		ug/L			531	564	5
>	In	115		ug/L			1030601	1084092	0
	Ag	107	54.330	ug/L	0.702	1	43	603151	0
	Cd	111	50.933	ug/L	0.258	0	92	258691	0
	Cd	114	49.907	ug/L	0.539	1	61	653423	0
	Sb	121	49.565	ug/L	0.244	0	304	776070	0
	Sb	123	49.458	ug/L	0.693	1	246	588604	0
	Ba	135	48.134	ug/L	0.064	0	18	225438	0
	Ba	137	47.652	ug/L	0.772	1	36	392996	1
>	Tb	159		ug/L			1247472	1286038	0
	Tl	205	50.489	ug/L	0 562	1	176	1941958	0
	Pb	208	50.507	ug/L	0.273	0	302	2573743	0
	Bi	209		ug/L			2786089	2811374	0
	Th	232	51.235	ug/L	0.721	1	860	2500718	0
	U	238	52.728	ug/L	0.466	0	28	2583756	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 16:57:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1287485	1378031 ✓	0
	Be	9	-0.004	ug/L	0.001	38	27	13	42
	C	13		ug/L			110265	126248	4
	Cl	37		ug/L			4510739	4893535	0
>	Sc	45		ug/L			1161996	1206341 ✓	0
	V	51	0.041	ug/L	0.043	104	7869	9107	11
	V-1	51	0.002	ug/L	0.000	19	69	107	6
	Cr	52	0.138	ug/L	0.136	98	23331	26851	10
	Cr	53	0.004	ug/L	0.010	238	142	156	12
	Mn	55	-0.002	ug/L	0.000	13	504	480	0
	Co	59	0.000	ug/L	0.001	284	96	105	14
>	Ge	72		ug/L			655148	661054 ✓	0
	Ni	60	0.000	ug/L	0.001	722	35	36	6
	Ni	62	-0.913	ug/L	0.015	1	554	64	11
	Cu	63	-0.049	ug/L	0.001	1	544	131	4
	Cu	65	-0.002	ug/L	0.001	29	67	58	5
	Zn	66	0.002	ug/L	0.011	543	288	295	8
	Zn	67	0.019	ug/L	0.019	97	44	52	13
	Zn	68	-0.004	ug/L	0.010	243	283	278	6
	As	75	0.009	ug/L	0.012	140	246	267	8
	As-1	75	-0.017	ug/L	0.069	400	10971	11033	0
	Se	82	0.031	ug/L	0.006	20	0	7	19
	Se	78	-0.061	ug/L	0.234	383	11110	11173	0
	Mo	98	0.006	ug/L	0.001	21	46	76	8
	Y	89		ug/L			416262	420077	1
	Kr	83		ug/L			531	537	4
>	In	115		ug/L			1030601	1064903 ✓	2
	Ag	107	-0.001	ug/L	0.000	42	43	32	18
	Cd	111	0.001	ug/L	0.004	553	92	98	16
	Cd	114	-0.002	ug/L	0.001	39	61	44	19
	Sb	121	0.043	ug/L	0.005	10	304	968	6
	Sb	123	0.042	ug/L	0.009	20	246	745	12
	Ba	135	0.001	ug/L	0.001	56	18	24	14
	Ba	137	0.001	ug/L	0.001	86	36	46	15
>	Tb	159		ug/L			1247472	1248314 ✓	1
	Tl	205	0.005	ug/L	0.003	64	176	353	31
	Pb	208	0.001	ug/L	0.000	51	302	332	4
	Bi	209		ug/L			2786089	2880248	0
	Th	232	0.123	ug/L	0.015	11	860	6672	9
	U	238	0.002	ug/L	0.000	14	28	140	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 H RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 17:01:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
> Li	6		ug/L			1287485	1451306	0
Be	9	0.011	ug/L	0.003	28	27	76	16
C	13		ug/L			110265	146070	0
Cl	37		ug/L			4510739	4844046	1
> Sc	45		ug/L			1161996	1341853 ✓	1
V	51	2.463	ug/L	0.047	1	7869	71903	1
V-1	51	2.463	ug/L	0.041	1	69	62963	1
Cr	52	0.859	ug/L	0.058	6	23331	45059	1
Cr	53	0.865	ug/L	0.027	3	142	2232	1
Mn	55	32.440	ug/L	0.704	2	504	945027	1
Co	59	0.671	ug/L	0.025	3	96	14510	2
> Ge	72		ug/L			655148	694659 ✓	0
Ni	60	1.669	ug/L	0.069	4	35	6757	4
Ni	62	0.646	ug/L	0 072	11	554	956	4
Cu	63	13.048	ug/L	0.310	2	544	116913	2
Cu	65	12.939	ug/L	0.263	2	67	52584	1
Zn	66	26.129	ug/L	0.508	1	288	64768	2
Zn	67	24.749	ug/L	0.486	1	44	10309	1
Zn	68	26.369	ug/L	0.285	1	283	47427	1
As	75	4.732	ug/L	0.033	0	246	10609	0
As-1	75	4.610	ug/L	0.067	1	10971	21809	0
Se	82	0.168	ug/L	0.053	31	0	40	31
Se	78	-0.068	ug/L	0.134	195	11110	11737	0
Mo	98	2.765	ug/L	0.057	2	46	14100	2
Y	89		ug/L			416262	460586	1
Kr	83		ug/L			531	597	5
> In	115		ug/L			1030601	1136958	0
Ag	107	0.014	ug/L	0.002	16	43	209	12
Cd	111	0.207	ug/L	0.010	4	92	1203	3
Cd	114	0.207	ug/L	0.002	0	61	2903	1
Sb	121	0.307	ug/L	0 007	2	304	5371	1
Sb	123	0.310	ug/L	0.006	1	246	4140	1
Ba	135	23.002	ug/L	0.765	3	18	112974	2
Ba	137	22.727	ug/L	0 031	0	36	196609	0
> Tb	159		ug/L			1247472	1341422	0
Tl	205	0.033	ug/L	0.005	16	176	1501	15
Pb	208	0.862	ug/L	0.004	0	302	46129	0
Bi	209		ug/L			2786089	2810160	0
Th	232	0.249	ug/L	0.081	32	860	13568	29
U	238	0.250	ug/L	0.002	0	28	12787	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 J RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 17:05:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
>	**Li**	**6**		ug/L			1287485	1465761	0
	Be	**9**	**0.012**	ug/L	0.003	24	27	80	15
	C	**13**		ug/L			110265	141123	0
	Cl	**37**		ug/L			4510739	4799107	2
>	**Sc**	**45**		ug/L			1161996	1352436✔	1
	V	**51**	**2.468**	ug/L	0.021	0	7869	72609	2
	V-1	**51**	**2.480**	ug/L	0.030	1	69	63890	2
	Cr	**52**	**0.796**	ug/L	0.055	6	23331	44078	1
	Cr	**53**	**0.841**	ug/L	0.035	4	142	2192	1
	Mn	**55**	**34.932**	ug/L	0.924	2	504	1025482	0
	Co	**59**	**0.715**	ug/L	0.020	2	96	15564	2
>	**Ge**	**72**		ug/L			655148	698216 ✔	1
	Ni	**60**	**1.770**	ug/L	0.047	2	35	7197	1
	Ni	**62**	**0.692**	ug/L	0.074	10	554	987	5
	Cu	**63**	**13.058**	ug/L	0.276	2	544	117591	1
	Cu	**65**	**12.966**	ug/L	0 299	2	67	52961	1
	Zn	**66**	**36.597**	ug/L	0.591	1	288	91043	0
	Zn	**67**	**34.371**	ug/L	0.861	2	44	14369	1
	Zn	**68**	**36.588**	ug/L	0.364	0	283	66021	0
	As	**75**	**4.691**	ug/L	0.075	1	246	10573	0
	As-1	**75**	**4.537**	ug/L	0.116	2	10971	21758	0
	Se	**82**	**0.131**	ug/L	0.055	42	0	32	40
	Se	**78**	**-0.219**	ug/L	0.175	79	11110	11701	0
	Mo	**98**	**2.704**	ug/L	0.045	1	46	13858	0
	Y	**89**		ug/L			416262	450766	0
	Kr	**83**		ug/L			531	598	5
>	**In**	**115**		ug/L			1030601	1141319	0
	Ag	**107**	**0.017**	ug/L	0 001	4	43	249	3
	Cd	**111**	**0.273**	ug/L	0.006	2	92	1561	2
	Cd	**114**	**0.270**	ug/L	0 002	0	61	3784	0
	Sb	**121**	**0.289**	ug/L	0.009	3	304	5105	3
	Sb	**123**	**0.289**	ug/L	0.007	2	246	3888	1
	Ba	**135**	**23.230**	ug/L	0.136	0	18	114553	0
	Ba	**137**	**22.837**	ug/L	0.056	0	36	198318	0
>	**Tb**	**159**		ug/L			1247472	1337415	0
	Tl	**205**	**0.018**	ug/L	0.002	8	176	905	6
	Pb	**208**	**0.881**	ug/L	0.006	0	302	47012	0
	Bi	**209**		ug/L			2786089	2820406	0
	Th	**232**	**0.073**	ug/L	0.004	5	860	4649	3
	U	**238**	**0.256**	ug/L	0.003	1	28	13084	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 N RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 17:09:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1287485	1470137	2
	Be	**9**	**0.019**	ug/L	0.002	8	27	111	5
	C	**13**		ug/L			110265	138893	2
	Cl	**37**		ug/L			4510739	4653911	1
>	**Sc**	**45**		ug/L			1161996	1364900	1
	V	**51**	**0.865**	ug/L	0.039	4	7869	31674	1
	V-1	**51**	**0.879**	ug/L	0.025	2	69	22891	1
	Cr	**52**	**0.334**	ug/L	0.055	16	23331	34556	1
	Cr	**53**	**0.382**	ug/L	0.005	1	142	1096	1
	Mn	**55**	**13.897**	ug/L	0.328	2	504	412199	2
	Co	**59**	**0.228**	ug/L	0.005	2	96	5086	1
>	**Ge**	**72**		ug/L			655148	684939	0
	Ni	**60**	**1.669**	ug/L	0.027	1	35	6660	1
	Ni	**62**	**0.550**	ug/L	0.041	7	554	888	1
	Cu	**63**	**9.959**	ug/L	0 218	2	544	88113	1
	Cu	**65**	**9.815**	ug/L	0.200	2	67	39345	1
	Zn	**66**	**30.816**	ug/L	0.665	2	288	75261	2
	Zn	**67**	**28.089**	ug/L	0.398	1	44	11530	1
	Zn	**68**	**31.080**	ug/L	0.509	1	283	55061	1
	As	**75**	**2.559**	ug/L	0.032	1	246	5776	1
	As-1	**75**	**2.531**	ug/L	0.057	2	10971	16979	0
	Se	**82**	**0.293**	ug/L	0.083	28	0	69	27
	Se	**78**	**0.327**	ug/L	0.150	45	11110	11816	0
	Mo	**98**	**3.177**	ug/L	0.083	2	46	15962	2
	Y	**89**		ug/L			416262	450383	1
	Kr	**83**		ug/L			531	602	4
>	**In**	**115**		ug/L			1030601	1125810	1
	Ag	**107**	**0.015**	ug/L	0.002	11	43	219	8
	Cd	**111**	**0.238**	ug/L	0.003	1	92	1357	2
	Cd	**114**	**0.228**	ug/L	0.002	0	61	3168	0
	Sb	**121**	**0.287**	ug/L	0.004	1	304	4994	0
	Sb	**123**	**0.288**	ug/L	0.015	5	246	3820	3
	Ba	**135**	**21.114**	ug/L	0.022	0	18	102704	1
	Ba	**137**	**20.771**	ug/L	0.192	0	36	177916	0
>	**Tb**	**159**		ug/L			1247472	1340172	0
	Tl	**205**	**0.013**	ug/L	0.001	6	176	702	4
	Pb	**208**	**0.196**	ug/L	0.003	1	302	10726	1
	Bi	**209**		ug/L			2786089	2827604	0
	Th	**232**	**0.090**	ug/L	0.001	1	860	5501	0
	U	**238**	**0.218**	ug/L	0.004	1	28	11138	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 O RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 17:14:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
⌈>	**Li**	**6**		ug/L			1287485	1457597	2
⌊	**Be**	**9**	**0.004**	ug/L	0.001	37	27	45	13
	C	**13**		ug/L			110265	138388	2
	Cl	**37**		ug/L			4510739	4671212	0
⌈>	**Sc**	**45**		ug/L			1161996	1304379	1
⌈	**V**	**51**	**0.537**	ug/L	0.014	2	7869	22143	0
⌊	**V-1**	**51**	**0.533**	ug/L	0.006	1	69	13295	0
⌈	**Cr**	**52**	**0.382**	ug/L	0.033	8	23331	34013	0
⌊	**Cr**	**53**	**0.368**	ug/L	0.012	3	142	1014	1
⌈	**Mn**	**55**	**14.669**	ug/L	0.183	1	504	415732	0
⌊	**Co**	**59**	**0.240**	ug/L	0.005	1	96	5111	3
⌈>	**Ge**	**72**		ug/L			655148	684701	0
⌈	**Ni**	**60**	**1.737**	ug/L	0.046	2	35	6928	2
⌊	**Ni**	**62**	**0.576**	ug/L	0.101	17	554	902	6
⌈	**Cu**	**63**	**10.813**	ug/L	0.104	0	544	95591	0
⌊	**Cu**	**65**	**10.635**	ug/L	0.179	1	67	42610	0
⌈	**Zn**	**66**	**31.778**	ug/L	0.306	0	288	77572	0
⌈	**Zn**	**67**	**30.053**	ug/L	0.141	0	44	12329	1
⌊	**Zn**	**68**	**32.557**	ug/L	0.681	2	283	57641	1
⌈	**As**	**75**	**2.036**	ug/L	0.007	0	246	4646	1
⌊	**As-1**	**75**	**1.938**	ug/L	0.008	0	10971	15682	0
⌈	**Se**	**82**	**0.216**	ug/L	0.049	22	0	51	21
⌊	**Se**	**78**	**-0.066**	ug/L	0.070	106	11110	11570	0
⌊	**Mo**	**98**	**2.885**	ug/L	0.026	0	46	14497	1
	Y	**89**		ug/L			416262	452192	3
	Kr	**83**		ug/L			531	558	2
⌈>	**In**	**115**		ug/L			1030601	1129528	1
⌈	**Ag**	**107**	**0.002**	ug/L	0.001	63	43	67	18
⌈	**Cd**	**111**	**0.235**	ug/L	0.007	2	92	1345	2
⌊	**Cd**	**114**	**0.230**	ug/L	0.004	1	61	3198	0
⌈	**Sb**	**121**	**0.272**	ug/L	0.010	3	304	4763	2
⌊	**Sb**	**123**	**0.281**	ug/L	0.005	1	246	3750	0
⌈	**Ba**	**135**	**21.681**	ug/L	0.557	2	18	105785	1
⌊	**Ba**	**137**	**21.398**	ug/L	0.314	1	36	183882	0
⌈>	**Tb**	**159**		ug/L			1247472	1321355	1
⌈	**Tl**	**205**	**0.009**	ug/L	0.001	8	176	525	5
⌊	**Pb**	**208**	**0.129**	ug/L	0.003	2	302	7071	1
⌈	**Bi**	**209**		ug/L			2786089	2773943	1
⌈	**Th**	**232**	**0.015**	ug/L	0.002	14	860	1672	5
⌊	**U**	**238**	**0.140**	ug/L	0.002	1	28	7094	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 R RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 17:18:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
>	Li	6		ug/L			1287485	1450797	1
	Be	9	0.029	ug/L	0.003	9	27	153	6
	C	13		ug/L			110265	142179	1
	Cl	37		ug/L			4510739	4704951	1
>	Sc	45		ug/L			1161996	1314617	1
	V	51	0.649	ug/L	0.021	3	7869	25110	1
	V-1	51	0.655	ug/L	0.007	1	69	16460	0
	Cr	52	0.285	ug/L	0.042	14	23331	32293	2
	Cr	53	0.308	ug/L	0.004	1	142	882	2
	Mn	55	17.587	ug/L	0.226	1	504	502283	1
	Co	59	0.314	ug/L	0.007	2	96	6720	1
>	Ge	72		ug/L			655148	685612	0
	Ni	60	1.656	ug/L	0.019	1	35	6617	1
	Ni	62	0.578	ug/L	0.050	8	554	904	2
	Cu	63	11.199	ug/L	0.164	1	544	99124	1
	Cu	65	10.857	ug/L	0.151	1	67	43565	1
	Zn	66	24.500	ug/L	0.731	2	288	59954	2
	Zn	67	23.185	ug/L	0.610	2	44	9535	2
	Zn	68	25.454	ug/L	0.197	0	283	45193	0
	As	75	2.695	ug/L	0.053	1	246	6075	1
	As-1	75	2.557	ug/L	0.103	4	10971	17051	0
	Se	82	0.198	ug/L	0.054	27	0	47	26
	Se	78	-0.197	ug/L	0.232	117	11110	11504	0
	Mo	98	2.178	ug/L	0.025	1	46	10972	0
	Y	89		ug/L			416262	452115	0
	Kr	83		ug/L			531	563	1
>	In	115		ug/L			1030601	1151271	0
	Ag	107	0.002	ug/L	0.000	21	43	74	8
	Cd	111	0.192	ug/L	0.010	5	92	1138	4
	Cd	114	0.198	ug/L	0.002	1	61	2817	0
	Sb	121	0.271	ug/L	0.004	1	304	4843	1
	Sb	123	0.270	ug/L	0.004	1	246	3681	1
	Ba	135	19.875	ug/L	0.033	0	18	98867	0
	Ba	137	19.482	ug/L	0.021	0	36	170666	0
>	Tb	159		ug/L			1247472	1335495	0
	Tl	205	0.009	ug/L	0.001	7	176	559	4
	Pb	208	0.183	ug/L	0.004	2	302	10028	1
	Bi	209		ug/L			2786089	2823449	0
	Th	232	0.009	ug/L	0.001	7	860	1368	2
	U	238	0.181	ug/L	0.002	0	28	9245	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 L RHN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, November 23, 2012 17:22:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1287485	1387042	1
	Be	9	-0.004	ug/L	0.001	14	27	11	24
	C	13		ug/L			110265	125567	1
	Cl	37		ug/L			4510739	4556267	3
>	Sc	45		ug/L			1161996	1188629	1
	V	51	0.034	ug/L	0.003	9	7869	8810	2
	V-1	51	0.024	ug/L	0.002	7	69	621	5
	Cr	52	0.050	ug/L	0.015	30	23331	24802	2
	Cr	53	0.018	ug/L	0.003	14	142	184	3
	Mn	55	8.683	ug/L	0.063	0	504	224496	1
	Co	59	0.131	ug/L	0.003	2	96	2594	3
>	Ge	72		ug/L			655148	667308	1
	Ni	60	0.399	ug/L	0.011	2	35	1580	4
	Ni	62	-0.579	ug/L	0.008	1	554	247	2
	Cu	63	0.158	ug/L	0.011	6	544	1907	3
	Cu	65	0.192	ug/L	0.011	5	67	818	6
	Zn	66	51.942	ug/L	1.707	3	288	123353	1
	Zn	67	46.754	ug/L	0.703	1	44	18668	2
	Zn	68	49.852	ug/L	1.099	2	283	85862	1
	As	75	-0.002	ug/L	0.012	743	246	247	9
	As-1	75	-0.185	ug/L	0.078	42	10971	10781	0
	Se	82	-0.050	ug/L	0.035	70	0	-10	74
	Se	78	-0.652	ug/L	0.281	43	11110	10922	0
	Mo	98	0.068	ug/L	0.001	1	46	379	1
	Y	89		ug/L			416262	415480	2
	Kr	83		ug/L			531	572	5
>	In	115		ug/L			1030601	1086956	2
	Ag	107	-0.002	ug/L	0.000	19	43	27	14
	Cd	111	0.218	ug/L	0.007	3	92	1209	1
	Cd	114	0.212	ug/L	0.011	5	61	2848	2
	Sb	121	-0.013	ug/L	0.001	8	304	121	13
	Sb	123	-0.014	ug/L	0.001	6	246	91	10
	Ba	135	1.670	ug/L	0.036	2	18	7860	0
	Ba	137	1.647	ug/L	0.061	3	36	13651	1
>	Tb	159		ug/L			1247472	1281256	0
	Tl	205	-0.001	ug/L	0.000	4	176	131	1
	Pb	208	0.006	ug/L	0.000	7	302	614	4
	Bi	209		ug/L			2786089	2908883	0
	Th	232	-0.017	ug/L	0.000	1	860	61	19
	U	238	0.005	ug/L	0.000	5	28	288	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 P RHN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Friday, November 23, 2012 17:26:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	**Li**	**6**		ug/L			1287485	1382188	0
	Be	**9**	**-0.004**	ug/L	0.001	12	27	12	16
	C	**13**		ug/L			110265	129703	2
	Cl	**37**		ug/L			4510739	4634069	2
>	**Sc**	**45**		ug/L			1161996	1222337	1
	V	**51**	**0.014**	ug/L	0.018	124	7869	8605	3
	V-1	**51**	**0.013**	ug/L	0.001	10	69	365	7
	Cr	**52**	**0.017**	ug/L	0.058	351	23331	24853	3
	Cr	**53**	**0.011**	ug/L	0.002	18	142	173	1
	Mn	**55**	**12.048**	ug/L	0.207	1	504	320076	0
	Co	**59**	**0.226**	ug/L	0.009	3	96	4515	2
>	**Ge**	**72**		ug/L			655148	661642	1
	Ni	**60**	**0.555**	ug/L	0.009	1	35	2161	0
	Ni	**62**	**-0.353**	ug/L	0.013	3	554	368	3
	Cu	**63**	**0.247**	ug/L	0.011	4	544	2648	4
	Cu	**65**	**0.284**	ug/L	0.009	3	67	1164	4
	Zn	**66**	**73.787**	ug/L	1.421	1	288	173656	1
	Zn	**67**	**66.254**	ug/L	0.823	1	44	26209	0
	Zn	**68**	**71.401**	ug/L	1.083	1	283	121815	1
	As	**75**	**-0.007**	ug/L	0.012	175	246	235	10
	As-1	**75**	**-0.143**	ug/L	0.080	56	10971	10779	0
	Se	**82**	**-0.017**	ug/L	0.024	142	0	-3	170
	Se	**78**	**-0.469**	ug/L	0.269	57	11110	10938	0
	Mo	**98**	**0.042**	ug/L	0.004	9	46	250	7
	Y	**89**		ug/L			416262	417897	2
	Kr	**83**		ug/L			531	555	1
>	**In**	**115**		ug/L			1030601	1087783	0
	Ag	**107**	**-0.002**	ug/L	0.001	32	43	23	31
	Cd	**111**	**0.364**	ug/L	0.009	2	92	1950	2
	Cd	**114**	**0.329**	ug/L	0.004	1	61	4387	0
	Sb	**121**	**-0.014**	ug/L	0.001	4	304	101	11
	Sb	**123**	**-0.015**	ug/L	0.001	5	246	82	12
	Ba	**135**	**1.719**	ug/L	0.014	0	18	8096	0
	Ba	**137**	**1.696**	ug/L	0.018	1	36	14068	0
>	**Tb**	**159**		ug/L			1247472	1266849	0
	Tl	**205**	**-0.001**	ug/L	0.001	43	176	133	15
	Pb	**208**	**0.000**	ug/L	0.000	123	302	326	7
	Bi	**209**		ug/L			2786089	2880507	0
	Th	**232**	**-0.017**	ug/L	0.000	1	860	60	23
	U	**238**	**0.007**	ug/L	0.000	2	28	384	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 I RHN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Friday, November 23, 2012 17:30:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1383188	1
	Be	9	-0.001	ug/L	0.001	161	27	26	15
	C	13		ug/L			110265	129019	1
	Cl	37		ug/L			4510739	4702669	1
>	Sc	45		ug/L			1161996	1199737	1
	V	51	0.494	ug/L	0.017	3	7869	19376	0
	V-1	51	0.482	ug/L	0.016	3	69	11072	2
	Cr	52	0.190	ug/L	0.041	21	23331	27661	1
	Cr	53	0.151	ug/L	0.017	11	142	470	5
	Mn	55	12.373	ug/L	0.366	2	504	322538	1
	Co	59	0.245	ug/L	0.007	2	96	4805	2
>	Ge	72		ug/L			655148	678836	1
	Ni	60	0.526	ug/L	0.015	2	35	2106	3
	Ni	62	-0.432	ug/L	0.052	12	554	334	9
	Cu	63	2.642	ug/L	0.063	2	544	23584	2
	Cu	65	2.593	ug/L	0.024	0	67	10354	0
	Zn	66	36.345	ug/L	0.382	1	288	87913	0
	Zn	67	32.562	ug/L	0.502	1	44	13238	0
	Zn	68	35.803	ug/L	0.438	1	283	62819	1
	As	75	1.023	ug/L	0.011	1	246	2442	2
	As-1	75	0.800	ug/L	0.111	13	10971	13091	0
	Se	82	0.006	ug/L	0.024	371	0	2	251
	Se	78	-0.727	ug/L	0.398	54	11110	11064	0
	Mo	98	0.525	ug/L	0.008	1	46	2652	2
	Y	89		ug/L			416262	423005	1
	Kr	83		ug/L			531	564	3
>	In	115		ug/L			1030601	1091908	1
	Ag	107	0.001	ug/L	0.001	80	43	56	14
	Cd	111	0.208	ug/L	0.004	1	92	1159	1
	Cd	114	0.197	ug/L	0.004	2	61	2656	0
	Sb	121	0.047	ug/L	0.002	4	304	1060	3
	Sb	123	0.044	ug/L	0.003	5	246	793	2
	Ba	135	5.156	ug/L	0.044	0	18	24341	0
	Ba	137	5.129	ug/L	0.036	0	36	42641	0
>	Tb	159		ug/L			1247472	1276032	1
	Tl	205	0.003	ug/L	0.000	12	176	284	3
	Pb	208	0.182	ug/L	0.002	1	302	9500	1
	Bi	209		ug/L			2786089	2890253	0
	Th	232	-0.011	ug/L	0.000	4	860	366	6
	U	238	0.054	ug/L	0.001	2	28	2651	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 M RHN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 17:35:43

Mn Zn

Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1287485	1405450	0
	Be	9	0.011	ug/L	0.002	17	27	75	9
	C	13		ug/L			110265	131205	2
	Cl	37		ug/L			4510739	4671513	1
>	Sc	45		ug/L			1161996	1261067	0
	V	51	0.417	ug/L	0.005	1	7869	18546	0
	V-1	51	0.424	ug/L	0.007	1	69	10247	1
	Cr	52	0.165	ug/L	0.018	11	23331	28603	1
	Cr	53	0.189	ug/L	0.008	4	142	578	3
	Mn	55	10.972	ug/L	0.229	2	504	300840	2
	Co	59	0.167	ug/L	0.001	0	96	3470	0
>	Ge	72		ug/L			655148	665741	2
	Ni	60	0.946	ug/L	0.046	4	35	3683	3
	Ni	62	-0.143	ug/L	0.043	30	554	485	6
	Cu	63	6.934	ug/L	0.241	3	544	59776	1
	Cu	65	6.979	ug/L	0.173	2	67	27206	0
	Zn	66	37.707	ug/L	0.653	1	288	89421	0
	Zn	67	34.973	ug/L	0.294	0	44	13944	2
	Zn	68	36.227	ug/L	1.039	2	283	62314	1
	As	75	1.218	ug/L	0.048	3	246	2801	1
	As-1	75	1.119	ug/L	0.174	15	10971	13511	0
	Se	82	0.090	ug/L	0.018	20	0	21	20
	Se	78	-0.168	ug/L	0.500	297	11110	11184	0
	Mo	98	1.556	ug/L	0.071	4	46	7621	3
	Y	89		ug/L			416262	427731	0
	Kr	83		ug/L			531	578	3
>	In	115		ug/L			1030601	1100557	1
	Ag	107	0.002	ug/L	0.001	32	43	68	9
	Cd	111	0.213	ug/L	0.012	5	92	1194	4
	Cd	114	0.207	ug/L	0.003	1	61	2819	2
	Sb	121	0.140	ug/L	0.002	1	304	2547	2
	Sb	123	0.139	ug/L	0.008	5	246	1935	5
	Ba	135	11.098	ug/L	0.147	1	18	52778	0
	Ba	137	10.884	ug/L	0.106	0	36	91154	0
>	Tb	159		ug/L			1247472	1301101	0
	Tl	205	0.004	ug/L	0.000	10	176	345	5
	Pb	208	0.072	ug/L	0.002	3	302	4050	2
	Bi	209		ug/L			2786089	2816443	0
	Th	232	-0.000	ug/L	0.001	287	860	883	4
	U	238	0.069	ug/L	0 002	3	28	3471	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 Q RHN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 17:39:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	**Li**	**6**		ug/L			1287485	1393897	0
	Be	**9**	**0.011**	ug/L	0.003	22	27	75	13
	C	**13**		ug/L			110265	130504	1
	Cl	**37**		ug/L			4510739	4709445	2
>	**Sc**	**45**		ug/L			1161996	1222333	2
	V	**51**	**0.469**	ug/L	0.011	2	7869	19181	2
	V-1	**51**	**0.466**	ug/L	0.002	0	69	10908	1
	Cr	**52**	**0.190**	ug/L	0.038	19	23331	28195	2
	Cr	**53**	**0.180**	ug/L	0.014	7	142	540	3
	Mn	**55**	**8.607**	ug/L	0.096	1	504	228848	2
	Co	**59**	**0.150**	ug/L	0.004	2	96	3038	3
>	**Ge**	**72**		ug/L			655148	664980	1
	Ni	**60**	**0.846**	ug/L	0.013	1	35	3294	2
	Ni	**62**	**-0.171**	ug/L	0.008	4	554	469	1
	Cu	**63**	**5.860**	ug/L	0.044	0	544	50567	1
	Cu	**65**	**5.756**	ug/L	0.091	1	67	22433	2
	Zn	**66**	**27.321**	ug/L	0.796	2	288	64801	1
	Zn	**67**	**25.152**	ug/L	0.153	0	44	10029	1
	Zn	**68**	**27.222**	ug/L	0.800	2	283	46851	2
	As	**75**	**1.359**	ug/L	0.012	0	246	3095	2
	As-1	**75**	**1.274**	ug/L	0.016	1	10971	13828	1
	Se	**82**	**0.047**	ug/L	0.023	48	0	11	45
	Se	**78**	**-0.164**	ug/L	0.073	44	11110	11178	1
	Mo	**98**	**1.482**	ug/L	0.029	1	46	7254	1
	Y	**89**		ug/L			416262	415499	1
	Kr	**83**		ug/L			531	574	0
>	**In**	**115**		ug/L			1030601	1094515	1
	Ag	**107**	**0.000**	ug/L	0.001	189	43	49	13
	Cd	**111**	**0.157**	ug/L	0.011	6	92	901	6
	Cd	**114**	**0.159**	ug/L	0.004	2	61	2166	3
	Sb	**121**	**0.139**	ug/L	0.005	3	304	2520	3
	Sb	**123**	**0.136**	ug/L	0.006	4	246	1894	3
	Ba	**135**	**10.456**	ug/L	0.171	1	18	49452	0
	Ba	**137**	**10.380**	ug/L	0.071	0	36	86460	0
>	**Tb**	**159**		ug/L			1247472	1285059	0
	Tl	**205**	**0.004**	ug/L	0.001	21	176	316	9
	Pb	**208**	**0.072**	ug/L	0.002	2	302	3953	2
	Bi	**209**		ug/L			2786089	2820709	0
	Th	**232**	**-0.008**	ug/L	0.001	14	860	487	12
	U	**238**	**0.071**	ug/L	0.001	1	28	3508	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 17:43:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1287485	1366849 ✔	2
	Be	9	51.978	ug/L	0.598	1	27	208526	1
	C	13		ug/L			110265	124667	2
	Cl	37		ug/L			4510739	4955818	2
>	Sc	45		ug/L			1161996	1176928 ✔	1
	V	51	49.328	ug/L	0 915	1	7869	1111467	0
	V-1	51	49.659	ug/L	1.126	2	69	1111832	1
	Cr	52	50.186	ug/L	1.161	2	23331	952711	1
	Cr	53	51.313	ug/L	1.810	3	142	107773	2
	Mn	55	50.319	ug/L	0.771	1	504	1285554	0
	Co	59	49.525	ug/L	0.771	1	96	932220	1
>	Ge	72		ug/L			655148	644376 ✔	1
	Ni	60	52.418	ug/L	1.030	1	35	195736	1
	Ni	62	50.689	ug/L	0.343	0	554	27325	1
	Cu	63	51.949	ug/L	1.309	2	544	430126	1
	Cu	65	52.081	ug/L	0.743	1	67	196143	1
	Zn	66	52.711	ug/L	1.744	3	288	120886	2
	Zn	67	52.773	ug/L	0.782	1	44	20345	2
	Zn	68	52.424	ug/L	0.534	1	283	87183	1
	As	75	51.647	ug/L	0.458	0	246	105010	0
	As-1	75	51.915	ug/L	0.495	0	10971	117091	0
	Se	82	51.976	ug/L	0.756	1	0	11505	0
	Se	78	52.929	ug/L	0.868	1	11110	41694	0
	Mo	98	53.840	ug/L	0.447	0	46	253769	0
	Y	89		ug/L			416262	402723	0
	Kr	83		ug/L			531	549	0
>	In	115		ug/L			1030601	1071858 ✔	1
	Ag	107	57.766	ug/L	0.825	1	43	634116	2
	Cd	111	51.383	ug/L	0.987	1	92	257989	0
	Cd	114	50.107	ug/L	0.208	0	61	648640	0
	Sb	121	49.956	ug/L	0.978	1	304	773244	0
	Sb	123	49.982	ug/L	0.818	1	246	588082	0
	Ba	135	48.769	ug/L	0.559	1	18	225822	1
	Ba	137	47.971	ug/L	0.731	1	36	391129	0
>	Tb	159		ug/L			1247472	1268110 ✔	0
	Tl	205	51.166	ug/L	0.305	0	176	1940731	0
	Pb	208	51.090	ug/L	0.236	0	302	2567215	0
	Bi	209		ug/L			2786089	2803399	0
	Th	232	51.920	ug/L	0.080	0	860	2498978	0
	U	238	53.076	ug/L	0.437	0	28	2564596	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 17:50:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1287485	1319531	1
	Be	9	-0.003	ug/L	0.002	50	27	14	46
	C	13		ug/L			110265	130989	1
	Cl	37		ug/L			4510739	4589848	4
>	Sc	45		ug/L			1161996	1142451	1
	V	51	0.018	ug/L	0.014	78	7869	8127	3
	V-1	51	0.002	ug/L	0.001	33	69	108	13
	Cr	52	0.066	ug/L	0.045	68	23331	24126	2
	Cr	53	0.011	ug/L	0.005	41	142	162	5
	Mn	55	-0.001	ug/L	0.001	81	504	471	6
	Co	59	0.001	ug/L	0.001	51	96	113	10
>	Ge	72		ug/L			655148	642984	0
	Ni	60	0.002	ug/L	0.003	123	35	43	22
	Ni	62	-0.926	ug/L	0.014	1	554	55	13
	Cu	63	-0.049	ug/L	0.002	3	544	131	12
	Cu	65	-0.003	ug/L	0.002	87	67	56	16
	Zn	66	0.004	ug/L	0.005	124	288	291	3
	Zn	67	0.029	ug/L	0.020	67	44	54	13
	Zn	68	0.000	ug/L	0 018	8130	283	278	10
	As	75	-0.002	ug/L	0.001	49	246	237	0
	As-1	75	0.036	ug/L	0 019	52	10971	10841	0
	Se	82	-0.063	ug/L	0.028	44	0	-13	46
	Se	78	0.128	ug/L	0.094	73	11110	10978	0
	Mo	98	0.007	ug/L	0.001	20	46	77	8
	Y	89		ug/L			416262	399826	2
	Kr	83		ug/L			531	562	4
>	In	115		ug/L			1030601	1058655	1
	Ag	107	-0.000	ug/L	0.001	635	43	42	32
	Cd	111	-0.001	ug/L	0.001	61	92	88	3
	Cd	114	-0.002	ug/L	0.000	20	61	41	9
	Sb	121	0.053	ug/L	0.005	8	304	1118	7
	Sb	123	0.049	ug/L	0.006	13	246	818	10
	Ba	135	0.001	ug/L	0.000	84	18	21	10
	Ba	137	-0.000	ug/L	0.001	393	36	35	24
>	Tb	159		ug/L			1247472	1222172	0
	Tl	205	0.005	ug/L	0.003	64	176	345	32
	Pb	208	0.001	ug/L	0.000	44	302	323	3
	Bi	209		ug/L			2786089	2808281	0
	Th	232	0.147	ug/L	0.012	7	860	7640	7
	U	238	0.003	ug/L	0 000	11	28	168	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 17:56:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				1308714	1
	Be	9		ug/L				13	46
	C	13		ug/L				128029	1
	Cl	37		ug/L				4748971	1
>	Sc	45		ug/L				1148143	0
	V	51		ug/L				8327	5
	V-1	51		ug/L				93	16
	Cr	52		ug/L				24784	5
	Cr	53		ug/L				167	4
	Mn	55		ug/L				467	6
	Co	59		ug/L				108	4
>	Ge	72		ug/L				638278	2
	Ni	60		ug/L				32	19
	Ni	62		ug/L				59	6
	Cu	63		ug/L				112	6
	Cu	65		ug/L				50	7
	Zn	66		ug/L				281	4
	Zn	67		ug/L				48	4
	Zn	68		ug/L				259	8
	As	75		ug/L				250	7
	As-1	75		ug/L				10735	0
	Se	82		ug/L				12	39
	Se	78		ug/L				10877	0
	Mo	98		ug/L				45	45
	Y	89		ug/L				395688	0
	Kr	83		ug/L				503	2
>	In	115		ug/L				1044851	0
	Ag	107		ug/L				46	80
	Cd	111		ug/L				93	15
	Cd	114		ug/L				56	42
	Sb	121		ug/L				342	4
	Sb	123		ug/L				277	12
	Ba	135		ug/L				19	52
	Ba	137		ug/L				35	38
>	Tb	159		ug/L				1220108	1
	Tl	205		ug/L				250	15
	Pb	208		ug/L				297	18
	Bi	209		ug/L				2817769	1
	Th	232		ug/L				2087	3
	U	238		ug/L				63	41

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 18:00:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
[>	Li	6		ug/L			1308714	1320968✓	2
[	Be	9	53.661	ug/L	1.354	2	13	208018	1
	C	13		ug/L			128029	122585	3
	Cl	37		ug/L			4748971	4854110	3
[>	Sc	45		ug/L			1148143	1186626 ✓	0
[	V	51	49.859	ug/L	0.939	1	8327	1133342	2
[	V-1	51	49.847	ug/L	1.134	2	93	1125442	2
[	Cr	52	50.309	ug/L	0.898	1	24784	964743	1
[	Cr	53	50.265	ug/L	1.556	3	167	106489	2
[	Mn	55	49.783	ug/L	1.323	2	467	1282547	3
[	Co	59	49.420	ug/L	0.608	1	108	938025	1
[>	Ge	72		ug/L			638278	633954✓	0
[	Ni	60	53.890	ug/L	0.975	1	32	197994	1
[	Ni	62	52.405	ug/L	0.279	0	59	27298	0
[	Cu	63	53.944	ug/L	1.179	2	112	439055	1
[	Cu	65	51.887	ug/L	0.667	1	50	192247	1
[	Zn	66	53.813	ug/L	0.203	0	281	121437	0
[	Zn	67	53.683	ug/L	0.646	1	48	20363	1
[	Zn	68	53.742	ug/L	0.742	1	259	87909	1
[	As	75	53.043	ug/L	0.826	1	250	106115	1
[	As-1	75	53.227	ug/L	0.675	1	10735	117893	0
[	Se	82	53.561	ug/L	0.785	1	12	11677	1
[	Se	78	54.232	ug/L	0.345	0	10877	41822	0
[	Mo	98	53.777	ug/L	0.794	1	45	249389	1
	Y	89		ug/L			395688	391901	1
	Kr	83		ug/L			503	540	5
[>	In	115		ug/L			1044851	1042464✓	0
[	Ag	107	57.087	ug/L	1.562	2	46	609448	2
[	Cd	111	52.627	ug/L	0.616	1	93	257029	0
[	Cd	114	51.018	ug/L	0.140	0	56	642344	0
[	Sb	121	51.314	ug/L	0.418	0	342	772633	0
[	Sb	123	51.007	ug/L	0.836	1	277	583775	1
[	Ba	135	49.942	ug/L	0.516	1	19	224925	1
[	Ba	137	49.357	ug/L	0.243	0	35	391447	0
[>	Tb	159		ug/L			1220108	1242524✓	0
[	Tl	205	52.305	ug/L	0.140	0	250	1943939	0
[	Pb	208	51.997	ug/L	0.238	0	297	2560085	0
[	Bi	209		ug/L			2817769	2711776	0
[	Th	232	53.476	ug/L	0.248	0	2087	2523187	0
[	U	238	54.590	ug/L	0 604	1	63	2584642	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 18:07:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1308714	1320350	1
	Be	**9**	**0.000**	ug/L	0.001	199	13	14	16
	C	**13**		ug/L			128029	125735	2
	Cl	**37**		ug/L			4748971	4690723	1
>	**Sc**	**45**		ug/L			1148143	1175957	1
	V	**51**	**-0.010**	ug/L	0.009	94	8327	8305	1
	V-1	**51**	**0.000**	ug/L	0.000	60	93	99	3
	Cr	**52**	**-0.043**	ug/L	0.042	97	24784	24578	1
	Cr	**53**	**-0.009**	ug/L	0.013	153	167	153	16
	Mn	**55**	**-0.001**	ug/L	0.001	38	467	441	5
	Co	**59**	**-0.001**	ug/L	0.000	27	108	93	4
>	**Ge**	**72**		ug/L			638278	629924	2
	Ni	**60**	**0.000**	ug/L	0.002	566	32	33	18
	Ni	**62**	**-0.003**	ug/L	0.013	452	59	56	9
	Cu	**63**	**0.001**	ug/L	0.002	130	112	120	8
	Cu	**65**	**0.001**	ug/L	0.001	77	50	54	3
	Zn	**66**	**-0.002**	ug/L	0.008	362	281	272	8
	Zn	**67**	**-0.015**	ug/L	0 024	156	48	42	23
	Zn	**68**	**0.006**	ug/L	0.022	363	259	265	11
	As	**75**	**-0.006**	ug/L	0.005	86	250	236	3
	As-1	**75**	**0.147**	ug/L	0 143	97	10735	10884	0
	Se	**82**	**-0.057**	ug/L	0.067	118	12	0	19658
	Se	**78**	**0.553**	ug/L	0.472	85	10877	11045	0
	Mo	**98**	**0.005**	ug/L	0.001	26	45	67	8
	Y	**89**		ug/L			395688	399167	0
	Kr	**83**		ug/L			503	547	5
>	**In**	**115**		ug/L			1044851	1039267	1
	Ag	**107**	**-0.001**	ug/L	0.001	53	46	32	24
	Cd	**111**	**-0.001**	ug/L	0.002	227	93	88	9
	Cd	**114**	**-0.001**	ug/L	0.001	56	56	40	19
	Sb	**121**	**0.051**	ug/L	0.007	13	342	1105	10
	Sb	**123**	**0.050**	ug/L	0.006	12	277	844	9
	Ba	**135**	**0.001**	ug/L	0 001	59	19	25	14
	Ba	**137**	**-0.001**	ug/L	0.001	71	35	27	19
>	**Tb**	**159**		ug/L			1220108	1209500	1
	Tl	**205**	**0.003**	ug/L	0.003	106	250	349	31
	Pb	**208**	**-0.001**	ug/L	0.000	67	297	262	7
	Bi	**209**		ug/L			2817769	2770074	1
	Th	**232**	**0.131**	ug/L	0.014	11	2087	8069	9
	U	**238**	**0.002**	ug/L	0.000	17	63	148	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 18:12:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1308714	1354569	0
	Be	9	0.000	ug/L	0.002	527	13	15	54
	C	13		ug/L			128029	131293	2
	Cl	37		ug/L			4748971	4709101	1
>	Sc	45		ug/L			1148143	1189642	0
	V	51	-0.021	ug/L	0.003	15	8327	8152	0
	V-1	51	-0.000	ug/L	0.000	149	93	91	10
	Cr	52	-0.071	ug/L	0.017	24	24784	24350	0
	Cr	53	-0.000	ug/L	0.006	147564	167	173	6
	Mn	55	0.011	ug/L	0.003	27	467	775	10
	Co	59	-0.001	ug/L	0.001	55	108	89	14
>	Ge	72		ug/L			638278	647204	0
	Ni	60	0.007	ug/L	0 001	9	32	59	3
	Ni	62	-0.007	ug/L	0 012	182	59	56	10
	Cu	63	0.008	ug/L	0.001	14	112	184	5
	Cu	65	0.007	ug/L	0.001	10	50	77	3
	Zn	66	0.154	ug/L	0 018	11	281	638	6
	Zn	67	0.133	ug/L	0 044	33	48	100	16
	Zn	68	0.153	ug/L	0.011	7	259	518	3
	As	75	0.001	ug/L	0.006	527	250	256	5
	As-1	75	0.008	ug/L	0.063	840	10735	10900	0
	Se	82	-0.069	ug/L	0.047	68	12	-2	390
	Se	78	0.024	ug/L	0.239	986	10877	11043	0
	Mo	98	-0.003	ug/L	0.002	67	45	32	29
	Y	89		ug/L			395688	413499	3
	Kr	83		ug/L			503	560	1
>	In	115		ug/L			1044851	1069026	0
	Ag	107	-0.002	ug/L	0.000	30	46	29	17
	Cd	111	-0.003	ug/L	0.002	61	93	82	9
	Cd	114	-0.001	ug/L	0.000	4	56	39	2
	Sb	121	0.003	ug/L	0.003	102	342	399	12
	Sb	123	0.002	ug/L	0.003	158	277	304	10
	Ba	135	0.008	ug/L	0.002	25	19	54	15
	Ba	137	0.006	ug/L	0.001	12	35	85	7
>	Tb	159		ug/L			1220108	1246495	0
	Tl	205	0.001	ug/L	0.002	355	250	279	30
	Pb	208	0.002	ug/L	0.000	18	297	419	5
	Bi	209		ug/L			2817769	2884737	0
	Th	232	0.045	ug/L	0.002	5	2087	4246	2
	U	238	-0.000	ug/L	0.000	29	63	42	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 18:16:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

tr Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1308714	1350336	2
	Be	**9**	**26.893**	ug/L	0.697	2	13	106570	1
	C	**13**		ug/L			128029	128965	2
	Cl	**37**		ug/L			4748971	4726818	1
>	**Sc**	**45**		ug/L			1148143	1174879	0
	V	**51**	**26.780**	ug/L	0.427	1	8327	606596	0
	V-1	**51**	**26.875**	ug/L	0.285	1	93	600774	0
	Cr	**52**	**26.932**	ug/L	0.411	1	24784	523108	0
	Cr	**53**	**27.253**	ug/L	0.201	0	167	57249	1
	Mn	**55**	**27.071**	ug/L	0.332	1	467	690621	0
	Co	**59**	**26.127**	ug/L	0.621	2	108	490978	1
>	**Ge**	**72**		ug/L			638278	645331	1
	Ni	**60**	**28.322**	ug/L	0.853	3	32	105901	1
	Ni	**62**	**28.080**	ug/L	0 808	2	59	14912	1
	Cu	**63**	**28.645**	ug/L	0.761	2	112	237332	1
	Cu	**65**	**28.375**	ug/L	0.557	1	50	107016	0
	Zn	**66**	**90.675**	ug/L	1.030	1	281	208076	0
	Zn	**67**	**81.929**	ug/L	2.064	2	48	31600	1
	Zn	**68**	**88.478**	ug/L	1.881	2	259	147128	0
	As	**75**	**26.994**	ug/L	0.520	1	250	55087	1
	As-1	**75**	**27.689**	ug/L	0.474	1	10735	67627	0
	Se	**82**	**86.994**	ug/L	1.032	1	12	19297	1
	Se	**78**	**87.472**	ug/L	0 966	1	10877	61920	0
	Mo	**98**	**26.865**	ug/L	0.567	2	45	126820	1
	Y	**89**		ug/L			395688	405496	2
	Kr	**83**		ug/L			503	521	6
>	**In**	**115**		ug/L			1044851	1066124	0
	Ag	**107**	**30.418**	ug/L	0.436	1	46	332124	1
	Cd	**111**	**26.283**	ug/L	0.333	1	93	131330	1
	Cd	**114**	**26.107**	ug/L	0.394	1	56	336195	1
	Sb	**121**	**25.546**	ug/L	0.078	0	342	393545	0
	Sb	**123**	**25.560**	ug/L	0.587	2	277	299306	2
	Ba	**135**	**25.679**	ug/L	0.383	1	19	118282	1
	Ba	**137**	**25.300**	ug/L	0.370	1	35	205223	1
>	**Tb**	**159**		ug/L			1220108	1243660	0
	Tl	**205**	**27.479**	ug/L	0 273	0	250	1022273	0
	Pb	**208**	**27.811**	ug/L	0.313	1	297	1370650	0
	Bi	**209**		ug/L			2817769	2815649	0
	Th	**232**	**26.389**	ug/L	0.411	1	2087	1247271	0
	U	**238**	**26.920**	ug/L	0 162	0	63	1275725	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 S RHN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 18:20:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1365153	0
[	Be	9	0.005	ug/L	0.001	21	13	34	13
	C	13		ug/L			128029	133439	0
	Cl	37		ug/L			4748971	4778375	1
[>	Sc	45		ug/L			1148143	1283518	3
[	V	51	0.325	ug/L	0.033	10	8327	17218	1
[	V-1	51	0.353	ug/L	0.016	4	93	8719	1
[	Cr	52	0.028	ug/L	0.078	274	24784	28246	2
[	Cr	53	0.126	ug/L	0.014	10	167	474	3
[	Mn	55	15.351	ug/L	0.894	5	467	427558	2
[	Co	59	0.280	ug/L	0.010	3	108	5869	0
[>	Ge	72		ug/L			638278	670475	2
[	Ni	60	1.128	ug/L	0.034	3	32	4417	2
[	Ni	62	1.030	ug/L	0.056	5	59	628	3
[	Cu	63	4.106	ug/L	0.140	3	112	35440	1
[	Cu	65	4.145	ug/L	0.055	1	50	16287	1
[	Zn	66	54.165	ug/L	1.639	3	281	129222	1
[	Zn	67	49.137	ug/L	0.325	0	48	19715	1
[	Zn	68	53.254	ug/L	0.421	0	259	92124	1
[	As	75	1.280	ug/L	0.022	1	250	2965	0
[	As-1	75	1.264	ug/L	0.119	9	10735	13967	0
[	Se	82	0.073	ug/L	0.013	17	12	29	12
[	Se	78	0.100	ug/L	0.360	361	10877	11483	0
[	Mo	98	1.372	ug/L	0.073	5	45	6769	3
	Y	89		ug/L			395688	432134	0
	Kr	83		ug/L			503	560	1
[>	In	115		ug/L			1044851	1106703	0
[	Ag	107	0.004	ug/L	0.001	14	46	89	7
[	Cd	111	0.322	ug/L	0.001	0	93	1768	0
[	Cd	114	0.305	ug/L	0.002	0	56	4138	1
[	Sb	121	0.165	ug/L	0.002	1	342	2994	1
[	Sb	123	0.163	ug/L	0.006	3	277	2278	3
[	Ba	135	10.540	ug/L	0.123	1	19	50408	0
[	Ba	137	10.345	ug/L	0.089	0	35	87128	0
[>	Tb	159		ug/L			1220108	1280584	1
[	Tl	205	0.013	ug/L	0.003	25	250	747	16
[	Pb	208	0.075	ug/L	0.002	2	297	4134	1
[	Bi	209		ug/L			2817769	2815966	0
[	Th	232	0.400	ug/L	0.141	35	2087	21573	30
[	U	238	0.074	ug/L	0.002	2	63	3662	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 T RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 18:24:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

Mn Tr

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1308714	1424955	1
	Be	**9**	**0.008**	ug/L	0.002	20	13	47	13
	C	**13**		ug/L			128029	136609	1
	Cl	**37**		ug/L			4748971	4813335	0
>	**Sc**	**45**		ug/L			1148143	1312171	1
	V	**51**	**0.723**	ug/L	0.012	1	8327	27556	0
	V-1	**51**	**0.745**	ug/L	0.013	1	93	18717	2
	Cr	**52**	**0.163**	ug/L	0.031	18	24784	31693	1
	Cr	**53**	**0.240**	ug/L	0.033	13	167	754	11
	Mn	**55**	**22.563**	ug/L	0.621	2	467	643190	4
	Co	**59**	**0.409**	ug/L	0.008	2	108	8696	1
>	**Ge**	**72**		ug/L			638278	672177	2
	Ni	**60**	**1.649**	ug/L	0.074	4	32	6454	2
	Ni	**62**	**1.446**	ug/L	0.112	7	59	858	5
	Cu	**63**	**10.493**	ug/L	0.373	3	112	90613	1
	Cu	**65**	**10.432**	ug/L	0.282	2	50	41011	1
	Zn	**66**	**31.468**	ug/L	0 327	1	281	75407	1
	Zn	**67**	**29.283**	ug/L	1.029	3	48	11799	3
	Zn	**68**	**31.937**	ug/L	0.774	2	259	55486	1
	As	**75**	**2.901**	ug/L	0.059	2	250	6401	0
	As-1	**75**	**2.919**	ug/L	0.195	6	10735	17533	0
	Se	**82**	**0.048**	ug/L	0.030	62	12	24	31
	Se	**78**	**0.270**	ug/L	0.524	194	10877	11614	0
	Mo	**98**	**1.961**	ug/L	0.080	4	45	9682	2
	Y	**89**		ug/L			395688	444636	1
	Kr	**83**		ug/L			503	579	7
>	**In**	**115**		ug/L			1044851	1118450	1
	Ag	**107**	**0.002**	ug/L	0.001	65	46	69	17
	Cd	**111**	**0.229**	ug/L	0.002	0	93	1300	2
	Cd	**114**	**0.231**	ug/L	0.000	0	56	3178	1
	Sb	**121**	**0.279**	ug/L	0.008	2	342	4864	1
	Sb	**123**	**0.280**	ug/L	0.009	3	277	3732	1
	Ba	**135**	**20.730**	ug/L	0.329	1	19	100160	0
	Ba	**137**	**20.643**	ug/L	0.417	2	35	175638	0
>	**Tb**	**159**		ug/L			1220108	1307887	0
	Tl	**205**	**0.013**	ug/L	0.002	13	250	786	9
	Pb	**208**	**0.294**	ug/L	0.003	0	297	15567	0
	Bi	**209**		ug/L			2817769	2781185	0
	Th	**232**	**0.150**	ug/L	0.055	36	2087	9656	27
	U	**238**	**0.172**	ug/L	0.003	1	63	8638	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 KDUP RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 18:29:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
[>	Li	6		ug/L			1308714	1479645	0
[	Be	9	0.010	ug/L	0.001	9	13	57	7
	C	13		ug/L			128029	141070	0
	Cl	37		ug/L			4748971	4881676	2
[>	Sc	45		ug/L			1148143	1351353	1
[	V	51	1.141	ug/L	0.030	2	8327	39117	1
[	V-1	51	1.182	ug/L	0.038	3	93	30482	2
[	Cr	52	0.253	ug/L	0.013	4	24784	34553	2
[	Cr	53	0.393	ug/L	0.031	7	167	1143	5
[	Mn	55	18.478	ug/L	0.230	1	467	542371	0
[	Co	59	0.295	ug/L	0.004	1	108	6506	0
[>	Ge	72		ug/L			638278	686160	1
[	Ni	60	1.633	ug/L	0.034	2	32	6527	0
[	Ni	62	1.315	ug/L	0.026	1	59	803	1
[	Cu	63	15.461	ug/L	0.796	5	112	136204	3
[	Cu	65	15.535	ug/L	0.251	1	50	62322	0
[	Zn	66	40.785	ug/L	1.373	3	281	99652	1
[	Zn	67	37.200	ug/L	0.179	0	48	15289	2
[	Zn	68	41.178	ug/L	0.312	0	259	72963	1
[	As	75	2.749	ug/L	0.046	1	250	6206	0
[	As-1	75	2.679	ug/L	0.134	4	10735	17377	0
[	Se	82	0.156	ug/L	0 045	29	12	49	19
[	Se	78	0.052	ug/L	0.349	674	10877	11723	0
[	Mo	98	2.951	ug/L	0.049	1	45	14856	0
	Y	89		ug/L			395688	466267	1
	Kr	83		ug/L			503	585	3
[>	In	115		ug/L			1044851	1147439	0
[	Ag	107	0.003	ug/L	0.000	10	46	85	4
[	Cd	111	0.268	ug/L	0.012	4	93	1542	4
[	Cd	114	0.266	ug/L	0.006	2	56	3749	2
[	Sb	121	0.277	ug/L	0.008	2	342	4958	2
[	Sb	123	0.274	ug/L	0.006	2	277	3753	1
[	Ba	135	22.308	ug/L	0.170	0	19	110598	0
[	Ba	137	21.946	ug/L	0.015	0	35	191600	0
[>	Tb	159		ug/L			1220108	1352412	0
[	Tl	205	0.010	ug/L	0.001	8	250	667	5
[	Pb	208	0.366	ug/L	0.003	0	297	19924	0
[	Bi	209		ug/L			2817769	2802226	0
[	Th	232	0.061	ug/L	0.013.	21	2087	5455	12
[	U	238	0.179	ug/L	0.000	0	63	9272	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 K RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 18:33:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

Mn Zn

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			1308714	1455716	1
Be	9	0.012	ug/L	0.002	13	13	63	11
C	13		ug/L			128029	139933	2
Cl	37		ug/L			4748971	4796164	1
> Sc	45		ug/L			1148143	1354816	0
V	51	1.091	ug/L	0.032	2	8327	37909	1
V-1	51	1.136	ug/L	0.015	1	93	29391	0
Cr	52	0.245	ug/L	0.051	20	24784	34461	2
Cr	53	0.403	ug/L	0.016	3	167	1170	3
Mn	55	18.289	ug/L	0.447	2	467	538223	2
Co	59	0.287	ug/L	0.006	2	108	6353	2
> Ge	72		ug/L			638278	674492	1
Ni	60	1.645	ug/L	0.055	3	32	6463	3
Ni	62	1.398	ug/L	0.037	2	59	835	3
Cu	63	15.899	ug/L	0.353	2	112	137728	0
Cu	65	15.699	ug/L	0.431	2	50	61908	1
Zn	66	39.767	ug/L	1.024	2	281	95524	0
Zn	67	36.711	ug/L	0.351	0	48	14830	1
Zn	68	39.346	ug/L	1.366	3	259	68526	2
As	75	2.765	ug/L	0.048	1	250	6135	1
As-1	75	2.778	ug/L	0.205	7	10735	17292	0
Se	82	0.066	ug/L	0.065	98	12	28	53
Se	78	0.318	ug/L	0.602	189	10877	11684	1
Mo	98	3.025	ug/L	0.070	2	45	14968	1
Y	89		ug/L			395688	460674	0
Kr	83		ug/L			503	624	5
> In	115		ug/L			1044851	1146688	0
Ag	107	0.002	ug/L	0.001	27	46	76	9
Cd	111	0.276	ug/L	0.009	3	93	1587	2
Cd	114	0.264	ug/L	0.007	2	56	3711	2
Sb	121	0.269	ug/L	0.006	2	342	4823	1
Sb	123	0.266	ug/L	0.008	2	277	3651	2
Ba	135	22.077	ug/L	0.225	1	19	109383	1
Ba	137	21.744	ug/L	0.172	0	35	189707	0
> Tb	159		ug/L			1220108	1356219	0
Tl	205	0.007	ug/L	0.001	10	250	580	4
Pb	208	0.376	ug/L	0.004	1	297	20535	0
Bi	209		ug/L			2817769	2793863	0
Th	232	0.015	ug/L	0.002	16	2087	3086	3
U	238	0.177	ug/L	0 001	0	63	9221	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR64 KSPK RHN
Sample Dil Factor: 1
Comments:
Sample Date/Time: Friday, November 23, 2012 18:37:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1308714	1457441	0
	Be	9	20.018	ug/L	0.147	0	13	85644	0
	C	13		ug/L			128029	141479	1
	Cl	37		ug/L			4748971	4846084	1
>	Sc	45		ug/L			1148143	1343488	3
	V	51	23.598	ug/L	1.022	4	8327	611919	1
	V-1	51	23.665	ug/L	1.020	4	93	604454	1
	Cr	52	23.256	ug/L	0.903	3	24784	520149	1
	Cr	53	23.485	ug/L	0.993	4	167	56389	1
	Mn	55	41.167	ug/L	1.040	2	467	1200200	1
	Co	59	22.623	ug/L	0.588	2	108	485954	1
>	Ge	72		ug/L			638278	679781	0
	Ni	60	27.405	ug/L	0.635	2	32	107974	1
	Ni	62	26.423	ug/L	0.550	2	59	14789	1
	Cu	63	41.738	ug/L	0.710	1	112	364309	1
	Cu	65	41.492	ug/L	0.910	2	50	164852	2
	Zn	66	99.223	ug/L	1.057	1	281	239850	1
	Zn	67	92.380	ug/L	1.088	1	48	37536	0
	Zn	68	98.177	ug/L	1.423	1	259	171972	1
	As	75	22.619	ug/L	0.387	1	250	48678	2
	As-1	75	22.481	ug/L	0.090	0	10735	59998	0
	Se	82	52.311	ug/L	0.970	1	12	12230	2
	Se	78	50.939	ug/L	0.303	0	10877	42826	0
	Mo	98	3.035	ug/L	0.047	1	45	15137	2
	Y	89		ug/L			395688	441943	1
	Kr	83		ug/L			503	610	2
>	In	115		ug/L			1044851	1138575	0
	Ag	107	29.762	ug/L	0.064	0	46	347060	0
	Cd	111	20.590	ug/L	0.043	0	93	109896	0
	Cd	114	19.756	ug/L	0.160	0	56	271695	0
	Sb	121	0.270	ug/L	0.003	1	342	4809	0
	Sb	123	0.275	ug/L	0.006	2	277	3739	1
	Ba	135	45.216	ug/L	0.866	1	19	222399	1
	Ba	137	44.366	ug/L	0.230	0	35	384310	1
>	Tb	159		ug/L			1220108	1339809	0
	Tl	205	24.031	ug/L	0.123	0	250	963199	0
	Pb	208	24.235	ug/L	0.079	0	297	1286810	0
	Bi	209		ug/L			2817769	2771573	1
	Th	232	23.468	ug/L	0.117	0	2087	1195271	0
	U	238	24.643	ug/L	0.248	1	63	1258087	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 18:41:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1308714	1428608 ✓	1
[	**Be**	**9**	**0.532**	ug/L	0.011	2	13	2243	1
	C	**13**		ug/L			128029	202557	1
	Cl	**37**		ug/L			4748971	4730694	2
[>	**Sc**	**45**		ug/L			1148143	1277895 ✓	0
[	**V**	**51**	**18.898**	ug/L	0.196	1	8327	468324	0
[	**V-1**	**51**	**18.912**	ug/L	0.196	1	93	459869	0
[	**Cr**	**52**	**19.384**	ug/L	0.100	0	24784	417280	1
[	**Cr**	**53**	**19.430**	ug/L	0.115	0	167	44448	1
[	**Mn**	**55**	**352.882**	ug/L	7.418	2	467	9785466	1
[	**Co**	**59**	**6.182**	ug/L	0.135	2	108	126458	1
[>	**Ge**	**72**		ug/L			638278	640669 ✓	1
[	**Ni**	**60**	**20.675**	ug/L	0.583	2	32	76769	1
[	**Ni**	**62**	**23.119**	ug/L	0.557	2	59	12200	0
[	**Cu**	**63**	**25.811**	ug/L	0.899	3	112	212329	3
[	**Cu**	**65**	**25.465**	ug/L	0.176	0	50	95371	1
[	**Zn**	**66**	**475.273**	ug/L	9 938	2	281	1081459	0
[	**Zn**	**67**	**434.361**	ug/L	10.765	2	48	166120	0
[	**Zn**	**68**	**464.482**	ug/L	8.064	1	259	765735	0
[	**As**	**75**	**17.872**	ug/L	0.409	2	250	36292	0
[	**As-1**	**75**	**17.563**	ug/L	0.485	2	10735	46524	0
[	**Se**	**82**	**0.971**	ug/L	0.072	7	12	226	6
[	**Se**	**78**	**0.737**	ug/L	0.300	40	10877	11342	0
[	**Mo**	**98**	**1.357**	ug/L	0.032	2	45	6405	3
	Y	**89**		ug/L			395688	584773	0
	Kr	**83**		ug/L			503	722	4
[>	**In**	**115**		ug/L			1044851	1137451 ✓	0
[	**Ag**	**107**	**0.612**	ug/L	0.015	2	46	7181	2
[	**Cd**	**111**	**6.777**	ug/L	0.038	0	93	36202	0
[	**Cd**	**114**	**6.470**	ug/L	0.133	2	56	88924	1
[	**Sb**	**121**	**0.481**	ug/L	0.010	1	342	8270	1
[	**Sb**	**123**	**0.460**	ug/L	0.010	2	277	6044	1
[	**Ba**	**135**	**121.499**	ug/L	2.116	1	19	596999	1
[	**Ba**	**137**	**120.351**	ug/L	1.288	1	35	1041386	0
[>	**Tb**	**159**		ug/L			1220108	1285203 ✓	0
[	**Tl**	**205**	**0.362**	ug/L	0.006	1	250	14192	1
[	**Pb**	**208**	**488.980**	ug/L	5.722	1	297	24898949	0
[	**Bi**	**209**		ug/L			2817769	2801913	1
[	**Th**	**232**	**3.004**	ug/L	0.050	1	.2087	148665	1
[	**U**	**238**	**1.652**	ug/L	0 027	1	63	80975	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 18:46:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag. Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1308714	1371278 ✓	0
	Be	9	0.606	ug/L	0.006	0	13	2453	0
	C	13		ug/L			128029	205641	1
	Cl	37		ug/L			4748971	4791498	2
>	Sc	45		ug/L			1148143	1279261 ✓	0
	V	51	17.031	ug/L	0.328	1	8327	423411	1
	V-1	51	17.086	ug/L	0.286	1	93	415911	1
	Cr	52	17.859	ug/L	0.074	0	24784	387033	0
	Cr	53	18.044	ug/L	0.282	1	167	41336	2
	Mn	55	1760.294	ug/L	36.423	2	467	48869241	2
	Co	59	7.681	ug/L	0.154	2	108	157254	1
>	Ge	72		ug/L			638278	639977 ✓	1
	Ni	60	25.537	ug/L	0.418	1	32	94725	1
	Ni	62	26.469	ug/L	0.519	1	59	13950	3
	Cu	63	30.051	ug/L	1.165	3	112	246933	3
	Cu	65	29.803	ug/L	0.572	1	50	111478	0
	Zn	66	768.728	ug/L	17.199	2	281	1747247	1
	Zn	67	722.721	ug/L	4 580	0	48	276131	0
	Zn	68	770.633	ug/L	9.314	1	259	1269154	1
	As	75	27.730	ug/L	0.272	0	250	56118	0
	As-1	75	27.298	ug/L	0.334	1	10735	66278	0
	Se	82	u 0.483	ug/L	0.049	10	12	118	9
	Se	78	0.134	ug/L	0.323	240	10877	10983	1
	Mo	98	1.059	ug/L	0.016	1	45	5003	1
	Y	89		ug/L			395688	538371	3
	Kr	83		ug/L			503	705	3
>	In	115		ug/L			1044851	1139216 ✓	0
	Ag	107	0.638	ug/L	0.012	1	46	7495	1
	Cd	111	13.227	ug/L	0.100	0	93	70673	0
	Cd	114	12.643	ug/L	0.123	0	56	174007	1
	Sb	121	1.062	ug/L	0.004	0	342	17836	0
	Sb	123	1.037	ug/L	0.008	0	277	13266	0
	Ba	135	458.434	ug/L	1.389	0	19	2256101	0
	Ba	137	456.580	ug/L	1.805	0	35	3956919	0
>	Tb	159		ug/L			1220108	1264787 ✓	1
	Tl	205	0.518	ug/L	0.013	2	250	19841	1
	Pb	208	533.259	ug/L	7.917	1	297	26719944	0
	Bi	209		ug/L			2817769	2756445	0
	Th	232	3.265	ug/L	0.035	1	2087	158818	0
	U	238	0.563	ug/L	0.002	0	63	27200	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 18:50:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag Pb Zn

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			1308714	1394179	2
Be	9	0.577	ug/L	0.022	3	13	2372	2
C	13		ug/L			128029	202838	2
Cl	37		ug/L			4748971	4983513	2
Sc	45		ug/L			1148143	1330960	1
V	51	26.046	ug/L	0.133	0	8327	668675	1
V-1	51	26.053	ug/L	0.194	0	93	659770	0
Cr	52	25.627	ug/L	0 269	1	24784	565374	2
Cr	53	25.652	ug/L	0.849	3	167	61039	2
Mn	55	1203.360	ug/L	20.609	1	467	34754685	1
Co	59	8.836	ug/L	0.230	2	108	188181	1
Ge	72		ug/L			638278	654802	0
Ni	60	28.216	ug/L	0.670	2	32	107083	1
Ni	62	30.241	ug/L	0.956	3	59	16296	3
Cu	63	29.151	ug/L	0.377	1	112	245126	1
Cu	65	29.791	ug/L	0.277	0	50	114028	0
Zn	66	599.555	ug/L	9.485	1	281	1394471	0
Zn	67	573.284	ug/L	8.809	1	48	224121	1
Zn	68	593.570	ug/L	5.103	0	259	1000213	0
As	75	14.583	ug/L	0.067	0	250	30319	0
As-1	75	14.232	ug/L	0.071	0	10735	40628	0
Se	82	0.264	ug/L	0.068	25	12	72	20
Se	78	-0.181	ug/L	0.056	31	10877	11052	0
Mo	98	0.517	ug/L	0.013	2	45	2522	2
Y	89		ug/L			395688	578303	2
Kr	83		ug/L			503	754	5
In	115		ug/L			1044851	1167873	0
Ag	107	0.508	ug/L	0.016	3	46	6125	3
Cd	111	14.992	ug/L	0.209	1	93	82099	1
Cd	114	14.340	ug/L	0.153	1	56	202315	1
Sb	121	0.476	ug/L	0.007	1	342	8407	1
Sb	123	0.476	ug/L	0.001	0	277	6416	0
Ba	135	383.241	ug/L	3.471	0	19	1933441	0
Ba	137	393.289	ug/L	3.370	0	35	3493999	0
Tb	159		ug/L			1220108	1288418	0
Tl	205	0.576	ug/L	0.001	0	250	22467	0
Pb	208	683.317	ug/L	3.467	0	297	34882181	0
Bi	209		ug/L			2817769	2827537	0
Th	232	4.344	ug/L	0.045	1	2087	214534	0
U	238	0.498	ug/L	0.005	0	63	24508	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 18:54:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
[>	Li	6		ug/L			1308714	1365646 ✓	0
[	Be	9	53.456	ug/L	0.686	1	13	214282	1
	C	13		ug/L			128029	127579	3
	Cl	37		ug/L			4748971	4934583	2
[>	Sc	45		ug/L			1148143	1199968 ✓	1
|	V	51	49.413	ug/L	1.409	2	8327	1136027	3
|	V-1	51	49.608	ug/L	1.057	2	93	1132671	2
|	Cr	52	50.441	ug/L	0.775	1	24784	978213	2
|	Cr	53	51.104	ug/L	1.434	2	167	109465	1
|	Mn	55	50.421	ug/L	0.348	0	467	1313400	0
[	Co	59	47.734	ug/L	0.977	2	108	916102	1
[>	Ge	72		ug/L			638278	648181 ✓	1
|	Ni	60	52.404	ug/L	1.423	2	32	196852	2
|	Ni	62	51.885	ug/L	0 628	1	59	27632	0
|	Cu	63	52.119	ug/L	0.195	0	112	433742	1
|	Cu	65	51.510	ug/L	0.436	0	50	195120	0
|	Zn	66	52.904	ug/L	1.115	2	281	122054	1
|	Zn	67	53.075	ug/L	0.935	1	48	20585	2
|	Zn	68	52.331	ug/L	1.511	2	259	87512	1
|	As	75	52.001	ug/L	0.919	1	250	106372	2
|	As-1	75	51.916	ug/L	0.516	0	10735	117841	1
|	Se	82	52.932	ug/L	1.122	2	12	11797	1
|	Se	78	52.617	ug/L	1.452	2	10877	41811	1
[	Mo	98	53.932	ug/L	0.885	1	45	255759	2
	Y	89		ug/L			395688	401435	1
	Kr	83		ug/L			503	529	4
[>	In	115		ug/L			1044851	1071871 ✓	0
|	Ag	107	59.615	ug/L	1 538	2	46	654345	2
|	Cd	111	52.407	ug/L	0.683	1	93	263167	1
|	Cd	114	51.291	ug/L	0.687	1	56	663939	0
|	Sb	121	50.988	ug/L	0.740	1	342	789304	0
|	Sb	123	50.846	ug/L	0.619	1	277	598320	0
|	Ba	135	49.356	ug/L	0.722	1	19	228533	0
[	Ba	137	48.281	ug/L	0.404	0	35	393706	0
[>	Tb	159		ug/L			1220108	1272379 ✓	0
|	Tl	205	51.392	ug/L	0.456	0	250	1956005	1
|	Pb	208	51.277	ug/L	0.191	0	297	2585301	0
|	Bi	209		ug/L			2817769	2798674	0
|	Th	232	52.638	ug/L	0.558	1	2087	2543250	0
[	U	238	54.020	ug/L	0.960	1	63	2618897	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 19:01:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1342676 ✓	0
	Be	9	0.002	ug/L	0.002	84	13	20	28
	C	13		ug/L			128029	127650	0
	Cl	37		ug/L			4748971	4876852	1
>	Sc	45		ug/L			1148143	1173729 ✓	0
	V	51	-0.012	ug/L	0.003	22	8327	8244	1
	V-1	51	0.001	ug/L	0.003	191	93	128	48
	Cr	52	-0.048	ug/L	0.011	23	24784	24449	1
	Cr	53	-0.002	ug/L	0.008	413	167	167	10
	Mn	55	0.046	ug/L	0.050	109	467	1639	77
	Co	59	0.002	ug/L	0.003	145	108	148	36
>	Ge	72		ug/L			638278	630194 ✓	0
	Ni	60	0.002	ug/L	0.004	151	32	41	31
	Ni	62	-0.011	ug/L	0.022	204	59	52	21
	Cu	63	0.004	ug/L	0.004	107	112	142	23
	Cu	65	0.006	ug/L	0.004	62	50	70	18
	Zn	66	0.020	ug/L	0.031	151	281	322	20
	Zn	67	0.015	ug/L	0.021	141	48	53	14
	Zn	68	0.039	ug/L	0.033	85	259	318	16
	As	75	-0.005	ug/L	0.009	187	250	237	8
	As-1	75	0.066	ug/L	0.026	38	10735	10732	0
	Se	82	-0.027	ug/L	0.026	97	12	6	89
	Se	78	0.246	ug/L	0.057	23	10877	10879	0
	Mo	98	0.005	ug/L	0.004	89	45	66	28
	Y	89		ug/L			395688	397141	1
	Kr	83		ug/L			503	512	3
>	In	115		ug/L			1044851	1055150 ✓	0
	Ag	107	0.001	ug/L	0.003	325	46	56	58
	Cd	111	0.004	ug/L	0.004	104	93	113	17
	Cd	114	0.002	ug/L	0.004	269	56	76	71
	Sb	121	0.045	ug/L	0.003	6	342	1035	3
	Sb	123	0.043	ug/L	0.003	7	277	772	3
	Ba	135	0.018	ug/L	0.019	109	19	99	87
	Ba	137	0.017	ug/L	0.021	120	35	176	95
>	Tb	159		ug/L			1220108	1216277 ✓	0
	Tl	205	0.004	ug/L	0.001	36	250	392	12
	Pb	208	0.025	ug/L	0.029	116	297	1507	93
	Bi	209		ug/L			2817769	2784670	0
	Th	232	0.096	ug/L	0.008	8	2087	6514	5
	U	238	0.003	ug/L	0.003	82	63	212	58

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 19:06:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, V, Cr, Co, In

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1385032 ✓	1
	Be	9	~ 0.190	ug/L	0.009	4	13	785	5
	C	13		ug/L			128029	137151	0
	Cl	37		ug/L			4748971	4783113	0
>	Sc	45		ug/L			1148143	1255762 ✓	0
	V	51	13.687	ug/L	0.242	1	8327	335852	2
	V-1	51	13.713	ug/L	0.314	2	93	327725	2
	Cr	52	19.855	ug/L	0.496	2	24784	419328	1
	Cr	53	19.926	ug/L	0.340	1	167	44785	1
	Mn	55	293.450	ug/L	0.858	0	467	7997268	0
	Co	59	3.155	ug/L	0.103	3	108	63463	2
>	Ge	72		ug/L			638278	656716 ✓	1
	Ni	60	7.921	ug/L	0.033	0	32	30174	1
	Ni	62	8.466	ug/L	0.039	0	59	4619	1
	Cu	63	8.456	ug/L	0 148	1	112	71386	1
	Cu	65	8.235	ug/L	0.099	1	50	31646	0
	Zn	66	60.818	ug/L	0 806	1	281	142122	0
	Zn	67	64.588	ug/L	1.982	3	48	25366	2
	Zn	68	64.130	ug/L	1.345	2	259	108602	0
	As	75	2.908	ug/L	0 007	0	250	6269	1
	As-1	75	2.775	ug/L	0 085	3	10735	16836	0
	Se	82	~ 0.062	ug/L	0.039	63	12	-1	749
	Se	78	-0.336	ug/L	0.307	91	10877	10991	0
	Mo	98	0.101	ug/L	0.004	4	45	532	3
	Y	89		ug/L			395688	463937	1
	Kr	83		ug/L			503	587	1
>	In	115		ug/L			1044851	1093604 ✓	0
	Ag	107	0.058	ug/L	0 003	4	46	699	4
	Cd	111	0.971	ug/L	0.021	2	93	5071	2
	Cd	114	0.922	ug/L	0.007	0	56	12229	0
	Sb	121	~ 0.016	ug/L	0.002	12	342	608	5
	Sb	123	0.015	ug/L	0.003	20	277	466	7
	Ba	135	124.035	ug/L	0.610	0	19	585988	0
	Ba	137	123.280	ug/L	0.961	0	35	1025632	0
>	Tb	159		ug/L			1220108	1266156 ✓	0
	Tl	205	~ 0.117	ug/L	0.005	4	250	4673	3
	Pb	208	34.716	ug/L	0 269	0	297	1741823	0
	Bi	209		ug/L			2817769	2833146	0
	Th	232	1.162	ug/L	0.002	0	2087	57988	0
	U	238	0.233	ug/L	0.001	0	63	11289	0

ICP-MS Quantitative Analysis - Summary Report

rr Ag, V, Cr, Co, Zn

Sample ID: VS19 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:10:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1379263	2
	Be	9	0.887	ug/L	0.023	2	13	3603	0
	C	13		ug/L			128029	174412	0
	Cl	37		ug/L			4748971	4869889	1
>	Sc	45		ug/L			1148143	1438286	1
	V	51	60.605	ug/L	1.647	2	8327	1667862	3
	V-1	51	59.710	ug/L	0.783	1	93	1634151	2
	Cr	52	88.502	ug/L	1.991	2	24784	2033994	3
	Cr	53	85.370	ug/L	1.158	1	167	219060	0
	Mn	55	1261.701	ug/L	30.864	2	467	39374427	1
	Co	59	13.259	ug/L	0.158	1	108	305147	2
>	Ge	72		ug/L			638278	636704	2
	Ni	60	39.404	ug/L	1.232	3	32	145366	2
	Ni	62	42.874	ug/L	1 167	2	59	22438	2
	Cu	63	41.318	ug/L	1.275	3	112	337754	3
	Cu	65	40.011	ug/L	0.713	1	50	148873	1
	Zn	66	288.227	ug/L	1.057	0	281	652043	2
	Zn	67	301.790	ug/L	9.854	3	48	114703	1
	Zn	68	305.256	ug/L	12 109	3	259	500044	2
	As	75	14.478	ug/L	0.372	2	250	29264	1
	As-1	75	14.195	ug/L	0.402	2	10735	39419	0
	Se	82	-0.233	ug/L	0.088	37	12	-38	49
	Se	78	-0.035	ug/L	0.331	933	10877	10828	1
	Mo	98	0.556	ug/L	0.029	5	45	2633	3
	Y	89		ug/L			395688	652913	1
	Kr	83		ug/L			503	1018	1
>	In	115		ug/L			1044851	1048609	0
	Ag	107	0.310	ug/L	0.008	2	46	3370	3
	Cd	111	4.793	ug/L	0.079	1	93	23634	2
	Cd	114	4.487	ug/L	0.044	0	56	56877	0
	Sb	121	0.078	ug/L	0.005	6	342	1525	6
	Sb	123	0.080	ug/L	0.001	1	277	1194	0
	Ba	135	663.092	ug/L	12.610	1	19	3003747	2
	Ba	137	649.022	ug/L	3.391	0	35	5177347	1
>	Tb	159		ug/L			1220108	1256189	1
	Tl	205	0.560	ug/L	0.007	1	250	21277	0
	Pb	208	173.544	ug/L	2.535	1	297	8636441	0
	Bi	209		ug/L			2817769	2626413	0
	Th	232	5.637	ug/L	0 091	1	2087	270768	0
	U	238	1.168	ug/L	0.015	1	63	55949	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:14:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, V, Cr, Co, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1308714	1408154	1
	Be	9	0.801	ug/L	0.035	4	13	3322	2
	C	13		ug/L			128029	184290	1
	Cl	37		ug/L			4748971	4850492	3
>	Sc	45		ug/L			1148143	1463594	2
	V	51	54.178	ug/L	0.640	1	8327	1517771	0
	V-1	51	54.005	ug/L	1.223	2	93	1503433	0
	Cr	52	82.569	ug/L	1.212	1	24784	1932760	2
	Cr	53	81.900	ug/L	3.425	4	167	213816	3
	Mn	55	1132.631	ug/L	17.111	1	467	35966647	0
	Co	59	11.957	ug/L	0.346	2	108	279908	1
>	Ge	72		ug/L			638278	633185	2
	Ni	60	35.854	ug/L	0.561	1	32	131551	0
	Ni	62	40.002	ug/L	0.647	1	59	20821	0
	Cu	63	37.442	ug/L	0 399	1	112	304394	1
	Cu	65	37.505	ug/L	0.541	1	50	138800	2
	Zn	66	266.075	ug/L	10.167	3	281	598294	1
	Zn	67	276.910	ug/L	6.054	2	48	104680	0
	Zn	68	278.693	ug/L	7.141	2	259	454097	0
	As	75	13.323	ug/L	0.221	1	250	26801	0
	As-1	75	13.113	ug/L	0 316	2	10735	37027	0
	Se	82	-0.242	ug/L	0.052	21	12	-40	27
	Se	78	0.148	ug/L	0.375	252	10877	10872	0
	Mo	98	0.534	ug/L	0.013	2	45	2515	1
	Y	89		ug/L			395688	640471	1
	Kr	83		ug/L			503	992	3
>	In	115		ug/L			1044851	1073487	1
	Ag	107	0.312	ug/L	0.007	2	46	3478	0
	Cd	111	4.437	ug/L	0.060	1	93	22399	1
	Cd	114	4.190	ug/L	0.067	1	56	54369	0
	Sb	121	0.081	ug/L	0.002	2	342	1605	2
	Sb	123	0.082	ug/L	0.006	6	277	1252	3
	Ba	135	617.885	ug/L	19.842	3	19	2864376	1
	Ba	137	600.045	ug/L	15.130	2	35	4898579	0
>	Tb	159		ug/L			1220108	1266442	0
	Tl	205	0.513	ug/L	0.001	0	250	19697	0
	Pb	208	156.580	ug/L	0.447	0	297	7857061	0
	Bi	209		ug/L			2817769	2650024	0
	Th	232	5.008	ug/L	0.043	0	2087	242810	0
	U	238	1.051	ug/L	0.004	0	63	50759	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:18:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, V, Cr, Co, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1387924	0
	Be	9	27.388	ug/L	0.512	1	13	111593	2
	C	13		ug/L			128029	170151	1
	Cl	37		ug/L			4748971	4919738	1
>	Sc	45		ug/L			1148143	1450501	0
	V	51	86.148	ug/L	1.961	2	8327	2386009	2
	V-1	51	85.142	ug/L	1.910	2	93	2349771	2
	Cr	52	105.458	ug/L	1.286	1	24784	2437786	1
	Cr	53	101.973	ug/L	0.945	0	167	263880	1
	Mn	55	1289.535	ug/L	18.395	1	467	40592017	1
	Co	59	34.130	ug/L	0.182	0	108	791884	0
>	Ge	72		ug/L			638278	627125	1
	Ni	60	66.970	ug/L	1.034	1	32	243407	2
	Ni	62	71.029	ug/L	0.936	1	59	36577	0
	Cu	63	69.693	ug/L	0.705	1	112	561100	1
	Cu	65	68.982	ug/L	0.234	0	50	252814	1
	Zn	66	378.838	ug/L	2.523	0	281	844023	1
	Zn	67	385.616	ug/L	5.024	1	48	144396	1
	Zn	68	391.073	ug/L	3.835	0	259	631229	1
	As	75	40.687	ug/L	0.637	1	250	80568	0
	As-1	75	40.910	ug/L	0.724	1	10735	92067	0
	Se	82	79.631	ug/L	1.244	1	12	17167	1
	Se	78	79.910	ug/L	1.239	1	10877	55897	0
	Mo	98	24.466	ug/L	0.154	0	45	112261	1
	Y	89		ug/L			395688	678153	0
	Kr	83		ug/L			503	1058	3
>	In	115		ug/L			1044851	1049192	0
	Ag	107	28.286	ug/L	0.276	0	46	303953	1
	Cd	111	30.440	ug/L	0.245	0	93	149672	1
	Cd	114	29.514	ug/L	0.220	0	56	374008	0
	Sb	121	0.574	ug/L	0.013	2	342	9038	2
	Sb	123	0.564	ug/L	0.010	1	277	6769	2
	Ba	135	686.784	ug/L	7.734	1	19	3112871	1
	Ba	137	671.103	ug/L	6.080	0	35	5356252	0
>	Tb	159		ug/L			1220108	1257484	0
	Tl	205	26.663	ug/L	0.214	0	250	1003037	1
	Pb	208	203.780	ug/L	1.514	0	297	10153028	1
	Bi	209		ug/L			2817769	2626110	0
	Th	232	29.825	ug/L	0.437	1	2087	1425212	2
	U	238	27.625	ug/L	0.219	0	63	1323740	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 APOST SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:22:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

Sb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1308714	1380075	1
	Be	9	27.044	ug/L	0.774	2	13	109565	3
	C	13		ug/L			128029	179257	0
	Cl	37		ug/L			4748971	4978445	0
>	Sc	45		ug/L			1148143	1414742	1
	V	51	84.989	ug/L	2.128	2	8327	2295395	1
	V-1	51	83.788	ug/L	2.379	2	93	2254987	2
	Cr	52	110.922	ug/L	4.935	4	24784	2498149	2
	Cr	53	106.752	ug/L	4.421	4	167	269368	3
	Mn	55	1282.448	ug/L	47.122	3	467	39358287	2
	Co	59	33.469	ug/L	1.073	3	108	757241	2
>	Ge	72		ug/L			638278	614298	2
	Ni	60	65.599	ug/L	0.229	0	32	233531	2
	Ni	62	68.068	ug/L	1.086	1	59	34333	0
	Cu	63	67.574	ug/L	1.681	2	112	532930	3
	Cu	65	68.083	ug/L	2.748	4	50	244331	3
	Zn	66	381.028	ug/L	8.579	2	281	831283	0
	Zn	67	390.754	ug/L	5.196	1	48	143319	1
	Zn	68	392.368	ug/L	3.479	0	259	620440	2
	As	75	41.194	ug/L	0.838	2	250	79911	2
	As-1	75	41.461	ug/L	0.584	1	10735	91265	1
	Se	82	84.302	ug/L	2.041	2	12	17806	4
	Se	78	84.569	ug/L	0.602	0	10877	57342	2
	Mo	98	27.374	ug/L	0.369	1	45	123039	2
	Y	89		ug/L			395688	649378	1
	Kr	83		ug/L			503	1015	2
>	In	115		ug/L			1044851	1042307	1
	Ag	107	29.051	ug/L	0.681	2	46	310204	3
	Cd	111	30.116	ug/L	0.556	1	93	147134	3
	Cd	114	28.992	ug/L	0.317	1	56	365025	2
	Sb	121	23.569	ug/L	0.553	2	342	355104	3
	Sb	123	23.567	ug/L	0.335	1	277	269881	2
	Ba	135	685.828	ug/L	8.497	1	19	3087670	0
	Ba	137	668.955	ug/L	11.183	1	35	5303297	0
>	Tb	159		ug/L			1220108	1241888	1
	Tl	205	25.952	ug/L	0.468	1	250	964222	2
	Pb	208	201.525	ug/L	1.657	0	297	9915765	0
	Bi	209		ug/L			2817769	2595475	0
	Th	232	30.974	ug/L	0.649	2	2087	1461687	2
	U	238	27.167	ug/L	0 593	2	63	1285709	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:26:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1308714	1403157	1
	Be	**9**	**0.601**	ug/L	0.010	1	13	2489	0
	C	**13**		ug/L			128029	186477	1
	Cl	**37**		ug/L			4748971	4936320	1
>	**Sc**	**45**		ug/L			1148143	1328336	1
	V	**51**	**27.919**	ug/L	0.489	1	8327	714544	0
	V-1	**51**	**27.955**	ug/L	0.621	2	93	706467	1
	Cr	**52**	**23.539**	ug/L	0.146	0	24784	520586	1
	Cr	**53**	**23.674**	ug/L	0.421	1	167	56243	0
	Mn	**55**	**1308.512**	ug/L	14.953	1	467	37716012	0
	Co	**59**	**8.404**	ug/L	0 026	0	108	178673	1
>	**Ge**	**72**		ug/L			638278	635668	2
	Ni	**60**	**25.199**	ug/L	0.692	2	32	92821	1
	Ni	**62**	**27.209**	ug/L	0 866	3	59	14233	1
	Cu	**63**	**30.083**	ug/L	0.566	1	112	245506	0
	Cu	**65**	**30.668**	ug/L	0 977	3	50	113906	1
	Zn	**66**	**583.426**	ug/L	6.065	1	281	1317229	1
	Zn	**67**	**547.221**	ug/L	17.685	3	48	207603	1
	Zn	**68**	**576.453**	ug/L	20 211	3	259	942638	2
	As	**75**	**34.984**	ug/L	0.925	2	250	70237	0
	As-1	**75**	**34.499**	ug/L	1.012	2	10735	80354	0
	Se	**82**	**0.147**	ug/L	0.031	20	12	44	14
	Se	**78**	**-0.019**	ug/L	0.389	2005	10877	10819	0
	Mo	**98**	**0.561**	ug/L	0.012	2	45	2653	2
	Y	**89**		ug/L			395688	537753	0
	Kr	**83**		ug/L			503	789	5
>	**In**	**115**		ug/L			1044851	1102840	1
	Ag	**107**	**0.472**	ug/L	0.011	2	46	5376	0
	Cd	**111**	**13.794**	ug/L	0.254	1	93	71335	1
	Cd	**114**	**13.235**	ug/L	0.286	2	56	176294	1
	Sb	**121**	**0.443**	ug/L	0.012	2	342	7420	2
	Sb	**123**	**0.438**	ug/L	0.005	1	277	5597	0
	Ba	**135**	**364.882**	ug/L	11.761	3	19	1737852	2
	Ba	**137**	**374.825**	ug/L	5.698	1	35	3144116	0
>	**Tb**	**159**		ug/L			1220108	1245678	0
	Tl	**205**	**0.540**	ug/L	0.003	0	250	20357	0
	Pb	**208**	**513.736**	ug/L	6.675	1	297	25355008	1
	Bi	**209**		ug/L			2817769	2767307	0
	Th	**232**	**5.045**	ug/L	0.091	1	2087	240545	1
	U	**238**	**0.646**	ug/L	0.009	1	63	30707	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:30:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1308714	1404418	0
	Be	**9**	**0.666**	ug/L	0.012	1	13	2757	1
	C	**13**		ug/L			128029	177801	0
	Cl	**37**		ug/L			4748971	4794096	1
>	**Sc**	**45**		ug/L			1148143	1331431	0
	V	**51**	**30.066**	ug/L	0.658	2	8327	770547	1
	V-1	**51**	**30.176**	ug/L	0.521	1	93	764399	0
	Cr	**52**	**24.752**	ug/L	0.500	2	24784	547147	1
	Cr	**53**	**25.140**	ug/L	0.017	0	167	59861	0
	Mn	**55**	**742.060**	ug/L	8.089	1	467	21440062	0
	Co	**59**	**8.701**	ug/L	0.137	1	108	185388	0
>	**Ge**	**72**		ug/L			638278	622490	1
	Ni	**60**	**30.549**	ug/L	0.266	0	32	110214	0
	Ni	**62**	**31.369**	ug/L	0.415	1	59	16066	0
	Cu	**63**	**22.018**	ug/L	0.272	1	112	176034	1
	Cu	**65**	**22.408**	ug/L	0.293	1	50	81545	1
	Zn	**66**	**154.146**	ug/L	1.260	0	281	341043	1
	Zn	**67**	**160.029**	ug/L	3.463	2	48	59508	2
	Zn	**68**	**160.242**	ug/L	2.089	1	259	256857	0
	As	**75**	**14.607**	ug/L	0 186	1	250	28868	0
	As-1	**75**	**14.360**	ug/L	0.246	1	10735	38872	0
	Se	**82**	**0.059**	ug/L	0.063	107	12	24	55
	Se	**78**	**0.137**	ug/L	0.177	129	10877	10685	0
	Mo	**98**	**0.566**	ug/L	0.020	3	45	2618	2
	Y	**89**		ug/L			395688	579995	0
	Kr	**83**		ug/L			503	825	4
>	**In**	**115**		ug/L			1044851	1040769	1
	Ag	**107**	**0.233**	ug/L	0.009	3	46	2528	3
	Cd	**111**	**1.242**	ug/L	0.008	0	93	6146	0
	Cd	**114**	**1.066**	ug/L	0.007	0	56	13449	0
	Sb	**121**	**0.065**	ug/L	0.003	3	342	1320	3
	Sb	**123**	**0.061**	ug/L	0.002	2	277	971	2
	Ba	**135**	**273.522**	ug/L	3.810	1	19	1229635	0
	Ba	**137**	**283.742**	ug/L	3.401	1	35	2246293	0
>	**Tb**	**159**		ug/L			1220108	1248204	0
	Tl	**205**	**0.210**	ug/L	0 002	0	250	8100	0
	Pb	**208**	**37.508**	ug/L	0.349	0	297	1855157	0
	Bi	**209**		ug/L			2817769	2691507	0
	Th	**232**	**6.261**	ug/L	0.128	2	2087	298602	1
	U	**238**	**0.861**	ug/L	0.021	2	63	41023	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:34:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	**Li**	**6**		ug/L			1308714	1434211	2
	Be	**9**	**0.629**	ug/L	0.043	6	13	2661	5
	C	**13**		ug/L			128029	173599	1
	Cl	**37**		ug/L			4748971	4793149	2
>	**Sc**	**45**		ug/L			1148143	1346256	2
	V	**51**	**30.095**	ug/L	0.767	2	8327	779709	0
	V-1	**51**	**30.223**	ug/L	0 730	2	93	773964	0
	Cr	**52**	**24.568**	ug/L	1.204	4	24784	549055	2
	Cr	**53**	**25.020**	ug/L	1.084	4	167	60206	2
	Mn	**55**	**502.112**	ug/L	2.403	0	467	14668902	1
	Co	**59**	**8.694**	ug/L	0.148	1	108	187277	1
>	**Ge**	**72**		ug/L			638278	640482	2
	Ni	**60**	**30.321**	ug/L	0.945	3	32	112509	2
	Ni	**62**	**31.813**	ug/L	0.698	2	59	16758	1
	Cu	**63**	**23.671**	ug/L	0.970	4	112	194561	1
	Cu	**65**	**23.346**	ug/L	0.839	3	50	87355	0
	Zn	**66**	**101.427**	ug/L	1.971	1	281	230904	1
	Zn	**67**	**106.028**	ug/L	1.155	1	48	40576	1
	Zn	**68**	**104.830**	ug/L	1.723	1	259	172945	1
	As	**75**	**7.195**	ug/L	0.244	3	250	14749	0
	As-1	**75**	**6.881**	ug/L	0.336	4	10735	24764	0
	Se	**82**	u **-0.113**	ug/L	0.036	31	12	-12	65
	Se	**78**	**-0.452**	ug/L	0.331	73	10877	10650	1
	Mo	**98**	**0.483**	ug/L	0.013	2	45	2309	1
	Y	**89**		ug/L			395688	599166	1
	Kr	**83**		ug/L			503	888	6
>	**In**	**115**		ug/L			1044851	1065646	0
	Ag	**107**	**0.247**	ug/L	0.005	1	46	2737	2
	Cd	**111**	**0.667**	ug/L	0.041	6	93	3421	5
	Cd	**114**	**0.504**	ug/L	0.014	2	56	6542	2
	Sb	**121**	**0.035**	ug/L	0.002	5	342	888	3
	Sb	**123**	**0.030**	ug/L	0.003	8	277	639	4
	Ba	**135**	**173.913**	ug/L	3.321	1	19	800606	1
	Ba	**137**	**172.806**	ug/L	1.083	0	35	1400897	0
>	**Tb**	**159**		ug/L			1220108	1266486	0
	Tl	**205**	**0.176**	ug/L	0.002	1	250	6924	0
	Pb	**208**	**16.261**	ug/L	0.088	0	297	816263	0
	Bi	**209**		ug/L			2817769	2732473	1
	Th	**232**	**5.954**	ug/L	0.035	0	2087	288250	0
	U	**238**	**0.958**	ug/L	0.016	1	63	46280	1

VS20 : 80394

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:40:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1308714	1429106	0
	Be	**9**	**0.641**	ug/L	0.010	1	13	2702	1
	C	**13**		ug/L			128029	172553	0
	Cl	**37**		ug/L			4748971	4768712	3
>	**Sc**	**45**		ug/L			1148143	1336033	2
	V	**51**	**34.444**	ug/L	0.799	2	8327	884117	0
	V-1	**51**	**34.528**	ug/L	0.679	1	93	877441	1
	Cr	**52**	**28.649**	ug/L	0.972	3	24784	630603	0
	Cr	**53**	**28.952**	ug/L	0.562	1	167	69123	1
	Mn	**55**	**434.809**	ug/L	12.276	2	467	12601497	1
	Co	**59**	**8.984**	ug/L	0.261	2	108	191991	0
>	**Ge**	**72**		ug/L			638278	640390	1
	Ni	**60**	**29.706**	ug/L	0.326	1	32	110257	0
	Ni	**62**	**31.407**	ug/L	0.699	2	59	16548	1
	Cu	**63**	**25.064**	ug/L	0.467	1	112	206158	2
	Cu	**65**	**25.066**	ug/L	0.969	3	50	93826	3
	Zn	**66**	**110.296**	ug/L	2.946	2	281	251085	1
	Zn	**67**	**117.945**	ug/L	2.071	1	48	45129	0
	Zn	**68**	**115.291**	ug/L	2.534	2	259	190184	1
	As	**75**	**8.139**	ug/L	0.082	1	250	16659	0
	As-1	**75**	**7.827**	ug/L	0.122	1	10735	26697	0
	Se	**82**	**-0.058**	ug/L	0.100	171	12	0	6158
	Se	**78**	**-0.347**	ug/L	0.222	64	10877	10712	0
	Mo	**98**	**0.444**	ug/L	0.005	1	45	2126	1
	Y	**89**		ug/L			395688	622748	1
	Kr	**83**		ug/L			503	897	5
>	**In**	**115**		ug/L			1044851	1058363	0
	Ag	**107**	**0.264**	ug/L	0.006	2	46	2909	2
	Cd	**111**	**0.956**	ug/L	0.006	0	93	4834	0
	Cd	**114**	**0.758**	ug/L	0.011	1	56	9740	1
	Sb	**121**	**0.036**	ug/L	0.003	7	342	903	4
	Sb	**123**	**0.034**	ug/L	0.004	13	277	670	7
	Ba	**135**	**184.049**	ug/L	1.395	0	19	841489	0
	Ba	**137**	**183.155**	ug/L	0.355	0	35	1474654	0
>	**Tb**	**159**		ug/L			1220108	1255576	0
	Tl	**205**	**0.197**	ug/L	0.002	1	250	7640	1
	Pb	**208**	**34.192**	ug/L	0.849	2	297	1701203	2
	Bi	**209**		ug/L			2817769	2729059	0
	Th	**232**	**6.455**	ug/L	0.056	0	2087	309677	0
	U	**238**	**1.038**	ug/L	0.015	1	63	49723	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:44:18

rr Ag

Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1308714	1384461	0
	Be	**9**	**0.582**	ug/L	0.023	3	13	2378	3
	C	**13**		ug/L			128029	153603	3
	Cl	**37**		ug/L			4748971	4865280	0
>	**Sc**	**45**		ug/L			1148143	1314599	0
	V	**51**	**38.675**	ug/L	0.415	1	8327	975979	0
	V-1	**51**	**38.722**	ug/L	0.408	1	93	968513	0
	Cr	**52**	**31.537**	ug/L	0.454	1	24784	680565	0
	Cr	**53**	**31.717**	ug/L	0.878	2	167	74516	2
	Mn	**55**	**408.982**	ug/L	8.026	1	467	11666835	1
	Co	**59**	**10.152**	ug/L	0.083	0	108	213559	0
>	**Ge**	**72**		ug/L			638278	612935	1
	Ni	**60**	**39.095**	ug/L	0.597	1	32	138869	0
	Ni	**62**	**40.821**	ug/L	1.029	2	59	20571	2
	Cu	**63**	**26.701**	ug/L	0.456	1	112	210195	2
	Cu	**65**	**26.637**	ug/L	0.526	1	50	95448	2
	Zn	**66**	**85.256**	ug/L	1.571	1	281	185853	1
	Zn	**67**	**97.811**	ug/L	1.316	1	48	35832	1
	Zn	**68**	**94.573**	ug/L	1.347	1	259	149372	0
	As	**75**	**7.081**	ug/L	0.100	1	250	13904	1
	As-1	**75**	**6.960**	ug/L	0.119	1	10735	23863	0
	Se	**82**	**-0.029**	ug/L	0.034	117	12	5	124
	Se	**78**	**0.226**	ug/L	0.201	89	10877	10570	0
	Mo	**98**	**0.472**	ug/L	0.015	3	45	2157	2
	Y	**89**		ug/L			395688	587839	2
	Kr	**83**		ug/L			503	796	1
>	**In**	**115**		ug/L			1044851	1030313	1
	Ag	**107**	**0.233**	ug/L	0.008	3	46	2499	3
	Cd	**111**	**0.447**	ug/L	0.004	0	93	2247	1
	Cd	**114**	**0.319**	ug/L	0.011	3	56	4019	2
	Sb	**121**	**0.020**	ug/L	0.004	17	342	641	7
	Sb	**123**	**0.017**	ug/L	0.003	17	277	467	6
	Ba	**135**	**239.281**	ug/L	5.418	2	19	1064853	1
	Ba	**137**	**240.429**	ug/L	2 619	1	35	1884315	0
>	**Tb**	**159**		ug/L			1220108	1244332	0
	Tl	**205**	**0.235**	ug/L	0.002	0	250	9010	0
	Pb	**208**	**17.064**	ug/L	0.235	1	297	841551	1
	Bi	**209**		ug/L			2817769	2662452	0
	Th	**232**	**6.767**	ug/L	0.084	1	2087	321613	0
	U	**238**	**0.971**	ug/L	0.019	1	63	46104	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 19:48:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1369126 ✓	1
[	Be	9	53.262	ug/L	0.623	1	13	214038	0
	C	13		ug/L			128029	131545	1
	Cl	37		ug/L			4748971	4908496	0
[>	Sc	45		ug/L			1148143	1180399 ✓	0
[	V	51	49.634	ug/L	0.283	0	8327	1122347	1
[	V-1	51	49.528	ug/L	0.567	1	93	1112392	1
[	Cr	52	50.555	ug/L	0.676	1	24784	964323	1
[	Cr	53	50.190	ug/L	0.494	0	167	105784	1
[	Mn	55	50.107	ug/L	0.507	1	467	1284015	1
[	Co	59	48.202	ug/L	0.841	1	108	910017	1
[>	Ge	72		ug/L			638278	622910 ✓	1
[	Ni	60	53.007	ug/L	1.060	1	32	191331	1
[	Ni	62	52.028	ug/L	1.957	3	59	26623	2
[	Cu	63	52.989	ug/L	0.853	1	112	423740	0
[	Cu	65	52.342	ug/L	1.549	2	50	190532	2
[	Zn	66	52.915	ug/L	1.268	2	281	117319	1
[	Zn	67	53.560	ug/L	1.981	3	48	19957	2
[	Zn	68	53.410	ug/L	1.211	2	259	85834	1
[	As	75	52.429	ug/L	0.564	1	250	103057	0
[	As-1	75	52.349	ug/L	0.706	1	10735	114093	0
[	Se	82	53.893	ug/L	0.298	0	12	11545	1
[	Se	78	53.637	ug/L	0.816	1	10877	40757	0
[	Mo	98	56.300	ug/L	2.025	3	45	256488	2
	Y	89		ug/L			395688	391734	2
	Kr	83		ug/L			503	552	7
[>	In	115		ug/L			1044851	1054165 ✓	0
[	Ag	107	60.917	ug/L	0.648	1	46	657615	0
[	Cd	111	52.261	ug/L	0.276	0	93	258108	0
[	Cd	114	50.952	ug/L	0.537	1	56	648678	0
[	Sb	121	50.969	ug/L	0.148	0	342	776038	0
[	Sb	123	50.726	ug/L	0.613	1	277	587055	0
[	Ba	135	48.541	ug/L	0.338	0	19	221065	0
[	Ba	137	48.142	ug/L	1.094	2	35	386059	1
[>	Tb	159		ug/L			1220108	1229310 ✓	0
[	Tl	205	51.635	ug/L	0 252	0	250	1898633	0
[	Pb	208	51.762	ug/L	0.271	0	297	2521425	0
[	Bi	209		ug/L			2817769	2731763	0
[	Th	232	54.083	ug/L	0.426	0	2087	2524662	0
[	U	238	55.357	ug/L	0 260	0	63	2593047	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 19:55:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1308714	1334717 ✓	2
	Be	9	0.001	ug/L	0.001	137	13	17	33
	C	13		ug/L			128029	132060	2
	Cl	37		ug/L			4748971	4886385	1
>	Sc	45		ug/L			1148143	1165769 ✓	0
	V	51	-0.021	ug/L	0.022	103	8327	7981	5
	V-1	51	0.003	ug/L	0.005	174	93	157	68
	Cr	52	-0.092	ug/L	0.060	65	24784	23479	3
	Cr	53	-0.009	ug/L	0.002	24	167	151	2
	Mn	55	0.059	ug/L	0.093	158	467	1951	119
	Co	59	0.001	ug/L	0.003	239	108	130	35
>	Ge	72		ug/L			638278	608214 ✓	0
	Ni	60	0.005	ug/L	0.004	79	32	50	30
	Ni	62	0.000	ug/L	0.025	11330	59	56	22
	Cu	63	0.011	ug/L	0.003	24	112	191	11
	Cu	65	0.010	ug/L	0.003	26	50	82	11
	Zn	66	0.060	ug/L	0.027	44	281	398	14
	Zn	67	0.050	ug/L	0.036	70	48	64	20
	Zn	68	0.081	ug/L	0.016	20	259	373	7
	As	75	0.005	ug/L	0.016	318	250	248	12
	As-1	75	0.093	ug/L	0.043	46	10735	10409	0
	Se	82	-0.058	ug/L	0.062	106	12	0	4438
	Se	78	0.325	ug/L	0.177	54	10877	10543	0
	Mo	98	0.002	ug/L	0.002	75	45	53	14
	Y	89		ug/L			395688	394207	1
	Kr	83		ug/L			503	528	5
>	In	115		ug/L			1044851	1030969 ✓	1
	Ag	107	0.000	ug/L	0.001	400	46	48	23
	Cd	111	0.001	ug/L	0.001	167	93	96	6
	Cd	114	0.000	ug/L	0.002	1171	56	56	32
	Sb	121	0.049	ug/L	0.007	13	342	1072	9
	Sb	123	0.047	ug/L	0.002	5	277	803	4
	Ba	135	0.026	ug/L	0.020	77	19	132	64
	Ba	137	0.024	ug/L	0.022	92	35	218	76
>	Tb	159		ug/L			1220108	1201922 ✓	0
	Tl	205	0.000	ug/L	0.000	125	250	258	6
	Pb	208	0.010	ug/L	0.009	92	297	763	56
	Bi	209		ug/L			2817769	2783720	1
	Th	232	0.075	ug/L	0.003	4	2087	5479	3
	U	238	0.002	ug/L	0.001	42	63	131	22

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 19:59:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Be, Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
>	Li	6		ug/L			1308714	1342897	1
	Be	9	0.000	ug/L	0.001	15355	13	13	17
	C	13		ug/L			128029	137923	0
	Cl	37		ug/L			4748971	4791225	1
>	Sc	45		ug/L			1148143	1175694	2
	V	51	-0.035	ug/L	0.002	6	8327	7734	2
	V-1	51	-0.001	ug/L	0.000	15	93	78	3
	Cr	52	-0.128	ug/L	0.015	11	24784	22998	2
	Cr	53	-0.010	ug/L	0.007	72	167	150	7
	Mn	55	0.031	ug/L	0.001	3	467	1261	3
	Co	59	-0.001	ug/L	0.000	54	108	100	8
>	Ge	72		ug/L			638278	619623	1
	Ni	60	0.001	ug/L	0.001	69	32	36	7
	Ni	62	-0.014	ug/L	0.008	56	59	50	9
	Cu	63	0.006	ug/L	0.001	21	112	156	6
	Cu	65	0.005	ug/L	0.000	10	50	66	3
	Zn	66	0.084	ug/L	0 017	20	281	458	6
	Zn	67	0.092	ug/L	0.021	22	48	81	9
	Zn	68	0.113	ug/L	0.026	23	259	431	9
	As	75	0.002	ug/L	0.010	610	250	246	6
	As-1	75	0.019	ug/L	0.100	518	10735	10456	0
	Se	82	-0.062	ug/L	0.049	79	12	-1	814
	Se	78	0.037	ug/L	0.345	923	10877	10578	0
	Mo	98	-0.002	ug/L	0.001	37	45	34	8
	Y	89		ug/L			395688	392811	3
	Kr	83		ug/L			503	513	2
>	In	115		ug/L			1044851	1026312	1
	Ag	107	-0.001	ug/L	0.000	10	46	32	4
	Cd	111	0.003	ug/L	0.002	94	93	103	10
	Cd	114	-0.001	ug/L	0.001	68	56	45	13
	Sb	121	0.000	ug/L	0.001	302	342	343	6
	Sb	123	-0.001	ug/L	0.003	216	277	258	13
	Ba	135	0.009	ug/L	0.002	17	19	59	10
	Ba	137	0.010	ug/L	0.002	19	35	113	13
>	Tb	159		ug/L			1220108	1201585	1
	Tl	205	-0.002	ug/L	0.001	70	250	181	26
	Pb	208	0.006	ug/L	0.001	13	297	559	6
	Bi	209		ug/L			2817769	2778012	1
	Th	232	0.018	ug/L	0 003	14	2087	2873	2
	U	238	-0.001	ug/L	0.000	23	63	35	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 20:03:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Be, Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1351231	0
[	Be	9	27.735	ug/L	0.804	2	13	110002	2
	C	13		ug/L			128029	133841	0
	Cl	37		ug/L			4748971	4742166	0
[>	Sc	45		ug/L			1148143	1186825	0
[	V	51	26.282	ug/L	0.404	1	8327	601558	1
[	V-1	51	26.297	ug/L	0.474	1	93	593848	1
[	Cr	52	26.107	ug/L	0.470	1	24784	513039	1
[	Cr	53	26.157	ug/L	0.665	2	167	55507	2
[	Mn	55	25.902	ug/L	0.351	1	467	667604	1
[	Co	59	25.425	ug/L	0.393	1	108	482678	1
[>	Ge	72		ug/L			638278	617878	2
[	Ni	60	29.383	ug/L	1.059	3	32	105171	1
[	Ni	62	28.847	ug/L	1.643	5	59	14658	3
[	Cu	63	28.862	ug/L	1.075	3	112	228881	1
[	Cu	65	28.920	ug/L	0.840	2	50	104414	1
[	Zn	66	91.293	ug/L	3.031	3	281	200512	1
[	Zn	67	83.816	ug/L	1.726	2	48	30951	0
[	Zn	68	88.055	ug/L	1.712	1	259	140189	0
[	As	75	28.227	ug/L	0.398	1	250	55143	1
[	As-1	75	28.731	ug/L	0.824	2	10735	66784	0
[	Se	82	89.812	ug/L	1.763	1	12	19070	0
[	Se	78	89.641	ug/L	3.332	3	10877	60473	0
[	Mo	98	28.591	ug/L	0.790	2	45	129194	0
	Y	89		ug/L			395688	394044	1
	Kr	83		ug/L			503	552	3
[>	In	115		ug/L			1044851	1035670	0
[	Ag	107	31.933	ug/L	0 464	1	46	338702	1
[	Cd	111	27.477	ug/L	0.231	0	93	133367	0
[	Cd	114	26.539	ug/L	0.056	0	56	331980	0
[	Sb	121	26.439	ug/L	0.351	1	342	395645	0
[	Sb	123	26.417	ug/L	0.327	1	277	300495	0
[	Ba	135	26.023	ug/L	0.419	1	19	116441	1
[	Ba	137	25.644	ug/L	0.401	1	35	202065	1
[>	Tb	159		ug/L			1220108	1205501	1
[	Tl	205	28.171	ug/L	0.332	1	250	1015807	0
[	Pb	208	28.161	ug/L	0.459	1	297	1345141	0
[	Bi	209		ug/L			2817769	2774309	1
[	Th	232	27.252	ug/L	0.671	2	2087	1248260	1
[	U	238	27.806	ug/L	0 548	1	63	1277303	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 20:07:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Be, Se, Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1355271	1
	Be	9	0.586	ug/L	0.006	1	13	2344	0
	C	13		ug/L			128029	207691	1
	Cl	37		ug/L			4748971	4967404	1
>	Sc	45		ug/L			1148143	1267240	2
	V	51	20.226	ug/L	0.563	2	8327	496295	2
	V-1	51	20.283	ug/L	0.511	2	93	488977	1
	Cr	52	32.354	ug/L	1.123	3	24784	672052	1
	Cr	53	32.515	ug/L	0.985	3	167	73601	0
	Mn	55	2148.592	ug/L	75.361	3	467	59058993	1
	Co	59	11.044	ug/L	0.419	3	108	223826	1
>	Ge	72		ug/L			638278	607976	0
	Ni	60	32.364	ug/L	0.177	0	32	114047	1
	Ni	62	33.827	ug/L	0.712	2	59	16918	2
	Cu	63	37.096	ug/L	0.333	0	112	289605	1
	Cu	65	37.373	ug/L	0.679	1	50	132820	2
	Zn	66	892.763	ug/L	16.697	1	281	1927879	1
	Zn	67	825.617	ug/L	21.837	2	48	299711	3
	Zn	68	876.142	ug/L	8.580	0	259	1370664	0
	As	75	25.425	ug/L	0.023	0	250	48904	0
	As-1	75	25.157	ug/L	0.061	0	10735	58830	0
	Se	82	0.409	ug/L	0.051	12	12	97	11
	Se	78	0.703	ug/L	0.180	25	10877	10747	1
	Mo	98	0.514	ug/L	0.010	1	45	2328	2
	Y	89		ug/L			395688	560487	0
	Kr	83		ug/L			503	768	3
>	In	115		ug/L			1044851	1156671	0
	Ag	107	0.519	ug/L	0 006	1	46	6196	0
	Cd	111	16.008	ug/L	0.566	3	93	86826	3
	Cd	114	15.454	ug/L	0.176	1	56	215928	1
	Sb	121	0.710	ug/L	0.022	3	342	12230	2
	Sb	123	0.700	ug/L	0.018	2	277	9194	2
	Ba	135	514.362	ug/L	10.868	2	19	2570169	2
	Ba	137	504.885	ug/L	10.896	2	35	4442679	2
>	Tb	159		ug/L			1220108	1218445	1
	Tl	205	0.828	ug/L	0.024	2	250	30428	1
	Pb	208	664.808	ug/L	18.290	2	297	32086905	1
	Bi	209		ug/L			2817769	2674278	1
	Th	232	6.558	ug/L	0.116	1	2087	305230	0
	U	238	0.385	ug/L	0.012	3	63	17954	1

VS20 80401

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 20:11:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Be, Se, Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1308714	1388312	1
	Be	9	0.690	ug/L	0.018	2	13	2823	0
	C	13		ug/L			128029	168720	0
	Cl	37		ug/L			4748971	4881849	2
>	Sc	45		ug/L			1148143	1308797	1
	V	51	27.175	ug/L	0.366	1	8327	685538	0
	V-1	51	27.325	ug/L	0.542	1	93	680416	1
	Cr	52	30.929	ug/L	0.825	2	24784	664979	1
	Cr	53	31.433	ug/L	1.487	4	167	73504	3
	Mn	55	1423.073	ug/L	42.659	2	467	40410738	2
	Co	59	10.646	ug/L	0.204	1	108	222967	2
>	Ge	72		ug/L			638278	618822	1
	Ni	60	36.942	ug/L	1.329	3	32	132439	1
	Ni	62	37.815	ug/L	0.891	2	59	19238	0
	Cu	63	34.465	ug/L	0.890	2	112	273780	0
	Cu	65	34.574	ug/L	1.012	2	50	125026	2
	Zn	66	384.545	ug/L	13.039	3	281	845061	1
	Zn	67	372.917	ug/L	7.714	2	48	137771	1
	Zn	68	387.018	ug/L	10.473	2	259	616250	1
	As	75	34.718	ug/L	1.184	3	250	67857	1
	As-1	75	34.227	ug/L	1.221	3	10735	77691	1
	Se	82	0.069	ug/L	0.064	91	12	26	50
	Se	78	-0.090	ug/L	0.274	305	10877	10494	0
	Mo	98	0.580	ug/L	0.023	3	45	2666	2
	Y	89		ug/L			395688	590745	2
	Kr	83		ug/L			503	792	3
>	In	115		ug/L			1044851	1060778	1
	Ag	107	0.315	ug/L	0.003	1	46	3471	1
	Cd	111	10.704	ug/L	0.333	3	93	53257	1
	Cd	114	10.256	ug/L	0.171	1	56	131430	0
	Sb	121	0.196	ug/L	0.010	5	342	3353	3
	Sb	123	0.200	ug/L	0.005	2	277	2609	0
	Ba	135	390.080	ug/L	8.942	2	19	1787222	1
	Ba	137	401.415	ug/L	9.630	2	35	3238713	1
>	Tb	159		ug/L			1220108	1229195	0
	Tl	205	0.364	ug/L	0.014	3	250	13632	2
	Pb	208	372.076	ug/L	7.989	2	297	18118873	1
	Bi	209		ug/L			2817769	2699348	0
	Th	232	6.224	ug/L	0.179	2	2087	292346	1
	U	238	0.437	ug/L	0.005	1	63	20539	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 20:15:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Be, Se, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1414528	0
[	Be	9	0.583	ug/L	0.025	4	13	2432	4
	C	13		ug/L			128029	186084	0
	Cl	37		ug/L			4748971	4858216	1
[>	Sc	45		ug/L			1148143	1273473	1
[	V	51	26.003	ug/L	0.777	2	8327	638596	1
[	V-1	51	26.091	ug/L	0.615	2	93	632113	1
[	Cr	52	24.914	ug/L	1.259	5	24784	526459	3
[	Cr	53	25.215	ug/L	0.702	2	167	57416	2
[	Mn	55	628.481	ug/L	5.322	0	467	17367637	0
[	Co	59	7.851	ug/L	0 300	3	108	159958	2
[>	Ge	72		ug/L			638278	615127	1
[	Ni	60	26.181	ug/L	0.387	1	32	93335	0
[	Ni	62	27.508	ug/L	0.579	2	59	13930	2
[	Cu	63	24.000	ug/L	0.400	1	112	189604	2
[	Cu	65	23.595	ug/L	0 569	2	50	84830	0
[	Zn	66	326.373	ug/L	2.609	0	281	713242	1
[	Zn	67	304.457	ug/L	7.533	2	48	111823	2
[	Zn	68	317.566	ug/L	7.910	2	259	502764	2
[	As	75	21.417	ug/L	0.150	0	250	41719	2
[	As-1	75	21.101	ug/L	0 146	0	10735	51594	1
[	Se	82	0.125	ug/L	0.062	50	12	38	35
[	Se	78	0.087	ug/L	0.373	426	10877	10529	0
[	Mo	98	0.362	ug/L	0 008	2	45	1670	1
	Y	89		ug/L			395688	548961	1
	Kr	83		ug/L			503	747	4
[>	In	115		ug/L			1044851	1066807	0
[	Ag	107	0.337	ug/L	0.005	1	46	3731	1
[	Cd	111	6.802	ug/L	0.112	1	93	34082	1
[	Cd	114	6.488	ug/L	0.093	1	56	83643	1
[	Sb	121	0.196	ug/L	0.003	1	342	3369	1
[	Sb	123	0.194	ug/L	0.003	1	277	2550	1
[	Ba	135	167.150	ug/L	3.529	2	19	770364	2
[	Ba	137	165.753	ug/L	4.055	2	35	1345246	2
[>	Tb	159		ug/L			1220108	1218381	0
[	Tl	205	0.283	ug/L	0 005	1	250	10554	1
[	Pb	208	253.381	ug/L	5.394	2	297	12231556	1
[	Bi	209		ug/L			2817769	2699825	0
[	Th	232	4.349	ug/L	0.051	1	2087	203130	0
[	U	238	0.660	ug/L	0.014	2	63	30722	2

VS20 : 20403

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 20:20:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Be, Se, Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1308714	1370084	3
	Be	**9**	**0.572**	ug/L	0 020	3	13	2312	0
	C	**13**		ug/L			128029	192070	1
	Cl	**37**		ug/L			4748971	4878848	1
>	**Sc**	**45**		ug/L			1148143	1278119	3
	V	**51**	**41.818**	ug/L	1.621	3	8327	1024540	0
	V-1	**51**	**41.887**	ug/L	1.612	3	93	1017867	0
	Cr	**52**	**33.527**	ug/L	1.232	3	24784	701235	0
	Cr	**53**	**33.784**	ug/L	1.210	3	167	77105	1
	Mn	**55**	**1095.123**	ug/L	23.650	2	467	30365478	2
	Co	**59**	**8.861**	ug/L	0.255	2	108	181152	0
>	**Ge**	**72**		ug/L			638278	606174	1
	Ni	**60**	**24.529**	ug/L	0.422	1	32	86197	2
	Ni	**62**	**26.363**	ug/L	0.500	1	59	13156	0
	Cu	**63**	**38.651**	ug/L	0.555	1	112	300837	2
	Cu	**65**	**38.037**	ug/L	0.348	0	50	134761	1
	Zn	**66**	**390.015**	ug/L	8.842	2	281	839710	0
	Zn	**67**	**394.879**	ug/L	3.183	0	48	142939	2
	Zn	**68**	**398.823**	ug/L	7.793	1	259	622131	1
	As	**75**	**11.727**	ug/L	0.133	1	250	22615	0
	As-1	**75**	**11.546**	ug/L	0.154	1	10735	32434	0
	Se	**82**	**0.006**	ug/L	0.114	1849	12	12	184
	Se	**78**	**0.211**	ug/L	0.180	85	10877	10444	0
	Mo	**98**	**0.473**	ug/L	0.024	5	45	2141	4
	Y	**89**		ug/L			395688	540888	3
	Kr	**83**		ug/L			503	792	5
>	**In**	**115**		ug/L			1044851	1071025	1
	Ag	**107**	**0.266**	ug/L	0 002	0	46	2959	0
	Cd	**111**	**7.676**	ug/L	0.156	2	93	38590	0
	Cd	**114**	**7.288**	ug/L	0.125	1	56	94304	0
	Sb	**121**	**0.191**	ug/L	0.009	4	342	3306	2
	Sb	**123**	**0.189**	ug/L	0.006	2	277	2506	1
	Ba	**135**	**549.550**	ug/L	9.674	1	19	2542246	0
	Ba	**137**	**537.009**	ug/L	13.359	2	35	4374348	1
>	**Tb**	**159**		ug/L			1220108	1216512	0
	Tl	**205**	**0.420**	ug/L	0.006	1	250	15544	1
	Pb	**208**	**365.632**	ug/L	4.431	1	297	17623570	1
	Bi	**209**		ug/L			2817769	2647342	0
	Th	**232**	**5.328**	ug/L	0.041	0	2087	248002	0
	U	**238**	**0.943**	ug/L	0.001	0	63	43797	0

VS20 : 00404

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 20:24:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rv Ag, Be, Se, ~~As~~, Pb, Zn
11/26.12
mjt

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1308714	1396804	1
	Be	9	1.200	ug/L	0.027	2	13	4933	1
	C	13		ug/L			128029	246089	1
	Cl	37		ug/L			4748971	4989500	1
>	Sc	45		ug/L			1148143	1268679	1
	V	51	24.381	ug/L	0 496	2	8327	597137	0
	V-1	51	24.515	ug/L	0.568	2	93	591716	1
	Cr	52	20.419	ug/L	0.453	2	24784	434912	1
	Cr	53	20.886	ug/L	0.491	2	167	47411	1
	Mn	55	5725.716	ug/L	257 232	4	467	157590799	3
	Co	59	21.266	ug/L	0.526	2	108	431537	1
>	Ge	72		ug/L			638278	599610	1
	Ni	60	52.333	ug/L	1.621	3	32	181810	1
	Ni	62	55.277	ug/L	1.156	2	59	27228	1
	Cu	63	62.295	ug/L	0.264	0	112	479543	0
	Cu	65	63.123	ug/L	1.364	2	50	221160	1
	Zn	66	1543.326	ug/L	36.824	2	281	3286161	1
	Zn	67	1367.315	ug/L	10.193	0	48	489411	0
	Zn	68	1514.044	ug/L	31.773	2	259	2335493	0
	As	75	54.982	ug/L	1.257	2	250	104010	1
	As-1	75	54.360	ug/L	1.303	2	10735	113647	1
	Se	82	1.281	ug/L	0.062	4	12	275	4
	Se	78	1.395	ug/L	0.327	23	10877	10972	0
	Mo	98	1.254	ug/L	0.035	2	45	5539	2
	Y	89		ug/L			395688	667904	0
	Kr	83		ug/L			503	844	3
>	In	115		ug/L			1044851	1165933	0
	Ag	107	0.807	ug/L	0.013	1	46	9680	0
	Cd	111	36.882	ug/L	0.727	1	93	201476	1
	Cd	114	36.415	ug/L	0.812	2	56	512736	1
	Sb	121	1.684	ug/L	0.039	2	342	28730	1
	Sb	123	1.666	ug/L	0.024	1	277	21625	1
	Ba	135	500.064	ug/L	7.303	1	19	2518540	0
	Ba	137	490.136	ug/L	3.940	0	35	4347193	0
>	Tb	159		ug/L			1220108	1217923	1
	Tl	205	1.180	ug/L	0.025	2	250	43220	0
	Pb	208	1188.195	ug/L	33.277	2	297	57322375	1
	Bi	209		ug/L			2817769	2739474	0
	Th	232	4.365	ug/L	0.104	2	2087	203752	1
	U	238	0.797	ug/L	0.020	2	63	37023	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 20:28:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Be, Se, Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1390310	0
	Be	9	0.927	ug/L	0.016	1	13	3798	2
	C	13		ug/L			128029	280032	2
	Cl	37		ug/L			4748971	5079664	1
>	Sc	45		ug/L			1148143	1249189	0
	V	51	19.344	ug/L	0.241	1	8327	468421	1
	V-1	51	19.284	ug/L	0.238	1	93	458418	1
	Cr	52	14.633	ug/L	0.101	0	24784	314537	0
	Cr	53	14.442	ug/L	0.236	1	167	32343	2
	Mn	55	5648.973	ug/L	65.944	1	467	153140256	1
	Co	59	18.582	ug/L	0.211	1	108	371341	0
>	Ge	72		ug/L			638278	608809	3
	Ni	60	41.847	ug/L	2.393	5	32	147458	2
	Ni	62	42.253	ug/L	2.402	5	59	21119	2
	Cu	63	65.216	ug/L	1.540	2	112	509452	1
	Cu	65	66.506	ug/L	4.227	6	50	236267	2
	Zn	66	1268.012	ug/L	49.203	3	281	2739422	0
	Zn	67	1104.376	ug/L	37.987	3	48	401080	0
	Zn	68	1183.038	ug/L	61.746	5	259	1850982	1
	As	75	21.994	ug/L	0.851	3	250	42356	0
	As-1	75	21.594	ug/L	1.021	4	10735	51970	0
	Se	82	1.218	ug/L	0.086	7	12	266	3
	Se	78	0.960	ug/L	0.745	77	10877	10893	0
	Mo	98	1.146	ug/L	0.057	4	45	5141	1
	Y	89		ug/L			395688	637404	2
	Kr	83		ug/L			503	804	3
>	In	115		ug/L			1044851	1195697	0
	Ag	107	1.211	ug/L	0.055	4	46	14873	4
	Cd	111	25.877	ug/L	0.499	1	93	145006	1
	Cd	114	25.121	ug/L	0.543	2	56	362781	1
	Sb	121	2.010	ug/L	0.033	1	342	35089	1
	Sb	123	2.002	ug/L	0.033	1	277	26583	1
	Ba	135	371.420	ug/L	7.227	1	19	1918426	1
	Ba	137	383.747	ug/L	9.889	2	35	3490227	2
>	Tb	159		ug/L			1220108	1221919	1
	Tl	205	0.959	ug/L	0.007	0	250	35283	0
	Pb	208	1627.765	ug/L	13.624	0	297	78804232	1
	Bi	209		ug/L			2817769	2770667	0
	Th	232	3.191	ug/L	0.019	0	2087	150010	1
	U	238	0.629	ug/L	0.005	0	63	29326	1

VS20 : 00406

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 20:33:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

nr Ag, Be, Se, Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1308714	1423835	1
	Be	9	2.481	ug/L	0.034	1	13	10382	1
	C	13		ug/L			128029	242388	3
	Cl	37		ug/L			4748971	5035343	1
>	Sc	45		ug/L			1148143	1301783	2
	V	51	27.806	ug/L	0.844	3	8327	697203	0
	V-1	51	27.752	ug/L	0.833	3	93	687102	0
	Cr	52	23.426	ug/L	1.140	4	24784	507500	2
	Cr	53	23.256	ug/L	1 100	4	167	54117	2
	Mn	55	4434.465	ug/L	133.627	3	467	125211333	0
	Co	59	32.287	ug/L	1.290	3	108	671937	2
>	Ge	72		ug/L			638278	599267	1
	Ni	60	78.138	ug/L	0.689	0	32	271346	0
	Ni	62	81.246	ug/L	2.188	2	59	39966	1
	Cu	63	70.407	ug/L	2.370	3	112	541628	3
	Cu	65	70.119	ug/L	0.386	0	50	245557	0
	Zn	66	762.281	ug/L	14.505	1	281	1622615	2
	Zn	67	710.930	ug/L	5.399	0	48	254355	1
	Zn	68	750.812	ug/L	15.359	2	259	1157852	2
	As	75	28.197	ug/L	0.363	1	250	53430	1
	As-1	75	27.708	ug/L	0.373	1	10735	62841	0
	Se	82	1.496	ug/L	0.063	4	12	319	3
	Se	78	1.508	ug/L	0.159	10	10877	11027	0
	Mo	98	1.736	ug/L	0.003	0	45	7650	1
	Y	89		ug/L			395688	846654	1
	Kr	83		ug/L			503	1059	4
>	In	115		ug/L			1044851	1072132	0
	Ag	107	1.115	ug/L	0.026	2	46	12289	2
	Cd	111	12.073	ug/L	0.079	0	93	60713	0
	Cd	114	11.584	ug/L	0.130	1	56	150035	0
	Sb	121	0.633	ug/L	0.005	0	342	10142	0
	Sb	123	0.621	ug/L	0.015	2	277	7588	2
	Ba	135	345.839	ug/L	4.079	1	19	1601781	1
	Ba	137	359.969	ug/L	3.504	0	35	2936021	1
>	Tb	159		ug/L			1220108	1226458	0
	Tl	205	0.446	ug/L	0.011	2	250	16621	2
	Pb	208	559.640	ug/L	5.501	0	297	27194570	0
	Bi	209		ug/L			2817769	2597626	0
	Th	232	5.539	ug/L	0.086	1	2087	259824	1
	U	238	0.921	ug/L	0.008	0	63	43082	0

ICP-MS Quantitative Analysis - Summary Report

rr Ag, Be, Se, Zn

Sample ID: VS20 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 20:37:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	**Li**	**6**		ug/L			1308714	1431529	1
	Be	**9**	**2.204**	ug/L	0.066	2	13	9272	2
	C	**13**		ug/L			128029	236656	2
	Cl	**37**		ug/L			4748971	4951726	2
>	**Sc**	**45**		ug/L			1148143	1324132	0
	V	**51**	**32.091**	ug/L	0.897	2	8327	817355	2
	V-1	**51**	**32.273**	ug/L	0.683	2	93	813061	1
	Cr	**52**	**26.202**	ug/L	0.297	1	24784	574425	1
	Cr	**53**	**26.839**	ug/L	0.912	3	167	63536	3
	Mn	**55**	**2911.684**	ug/L	84.250	2	467	83659125	2
	Co	**59**	**24.400**	ug/L	0.458	1	108	516872	2
>	**Ge**	**72**		ug/L			638278	604280	1
	Ni	**60**	**75.309**	ug/L	2.800	3	32	263620	2
	Ni	**62**	**75.080**	ug/L	1.161	1	59	37250	1
	Cu	**63**	**63.756**	ug/L	1.507	2	112	494493	0
	Cu	**65**	**62.712**	ug/L	2.562	4	50	221376	2
	Zn	**66**	**438.745**	ug/L	13.749	3	281	941592	2
	Zn	**67**	**406.062**	ug/L	17.330	4	48	146450	2
	Zn	**68**	**429.638**	ug/L	6.471	1	259	668085	0
	As	**75**	**16.044**	ug/L	0.614	3	250	30748	2
	As-1	**75**	**15.569**	ug/L	0.704	4	10735	40045	1
	Se	**82**	**1.705**	ug/L	0.053	3	12	365	1
	Se	**78**	**1.482**	ug/L	0.483	32	10877	11103	0
	Mo	**98**	**2.162**	ug/L	0.087	4	45	9594	2
	Y	**89**		ug/L			395688	1018480	1
	Kr	**83**		ug/L			503	1150	3
>	**In**	**115**		ug/L			1044851	1012992	1
	Ag	**107**	**1.577**	ug/L	0.036	2	46	16403	1
	Cd	**111**	**4.428**	ug/L	0.189	4	93	21094	3
	Cd	**114**	**4.127**	ug/L	0 044	1	56	50538	0
	Sb	**121**	**0.243**	ug/L	0.013	5	342	3885	3
	Sb	**123**	**0.244**	ug/L	0.009	3	277	2979	2
	Ba	**135**	**158.479**	ug/L	4.553	2	19	693392	1
	Ba	**137**	**157.072**	ug/L	3.424	2	35	1210277	1
>	**Tb**	**159**		ug/L			1220108	1226706	0
	Tl	**205**	**0.206**	ug/L	0.003	1	250	7822	0
	Pb	**208**	**246.494**	ug/L	4.737	1	297	11979257	1
	Bi	**209**		ug/L			2817769	2585282	0
	Th	**232**	**6.530**	ug/L	0.154	2	2087	305973	1
	U	**238**	**0.962**	ug/L	0.026	2	63	45011	1

VS20 : 00498

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV10
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 20:41:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1351493 ✓	2
	Be	9	55.142	ug/L	1.190	2	13	218735	2
	C	13		ug/L			128029	131526	2
	Cl	37		ug/L			4748971	4914023	2
>	Sc	45		ug/L			1148143	1171970 ✓	0
	V	51	48.398	ug/L	1.270	2	8327	1086884	3
	V-1	51	48.515	ug/L	0.904	1	93	1081916	2
	Cr	52	49.062	ug/L	0.517	1	24784	929922	1
	Cr	53	49.459	ug/L	0.963	1	167	103492	1
	Mn	55	48.756	ug/L	0.996	2	467	1240556	2
	Co	59	46.573	ug/L	0.552	1	108	873079	1
>	Ge	72		ug/L			638278	600636 ✓	0
	Ni	60	53.380	ug/L	2.219	4	32	185843	4
	Ni	62	52.350	ug/L	0.355	0	59	25836	1
	Cu	63	52.819	ug/L	0.767	1	112	407310	1
	Cu	65	51.363	ug/L	0.434	0	50	180305	1
	Zn	66	53.906	ug/L	1.110	2	281	115240	1
	Zn	67	53.990	ug/L	0.820	1	48	19404	2
	Zn	68	53.836	ug/L	0.590	1	259	83430	0
	As	75	53.260	ug/L	1.588	2	250	100936	2
	As-1	75	52.741	ug/L	1.385	2	10735	110761	1
	Se	82	55.238	ug/L	1.313	2	12	11408	1
	Se	78	53.431	ug/L	0.715	1	10877	39190	1
	Mo	98	57.679	ug/L	1.071	1	45	253444	2
	Y	89		ug/L			395688	389978	2
	Kr	83		ug/L			503	537	0
>	In	115		ug/L			1044851	1037078 ✓	1
	Ag	107	61.729	ug/L	1.350	2	46	655498	1
	Cd	111	52.708	ug/L	0.414	0	93	256095	1
	Cd	114	50.976	ug/L	0.618	1	56	638490	1
	Sb	121	51.094	ug/L	0.571	1	342	765265	0
	Sb	123	51.121	ug/L	0.529	1	277	581994	0
	Ba	135	48.250	ug/L	0.638	1	19	216152	0
	Ba	137	47.459	ug/L	0.890	1	35	374377	0
>	Tb	159		ug/L			1220108	1186769 ✓	1
	Tl	205	52.388	ug/L	0.646	1	250	1859488	0
	Pb	208	51.829	ug/L	0.052	0	297	2437308	1
	Bi	209		ug/L			2817769	2670895	2
	Th	232	53.837	ug/L	0.209	0	2087	2426270	1
	U	238	56.867	ug/L	0 129	0	63	2571607	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB10
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 20:48:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1359474 ✓	0
	Be	9	0.002	ug/L	0.002	97	13	21	36
	C	13		ug/L			128029	136629	0
	Cl	37		ug/L			4748971	4613653	1
>	Sc	45		ug/L			1148143	1171541 ✓	3
	V	51	-0.033	ug/L	0.018	53	8327	7762	4
	V-1	51	0.000	ug/L	0.001	321	93	102	23
	Cr	52	-0.124	ug/L	0.062	50	24784	22986	3
	Cr	53	-0.011	ug/L	0.012	113	167	147	15
	Mn	55	0.040	ug/L	0.024	60	467	1499	44
	Co	59	0.001	ug/L	0.001	123	108	124	15
>	Ge	72		ug/L			638278	608893 ✓	1
	Ni	60	0.004	ug/L	0.003	85	32	45	25
	Ni	62	-0.025	ug/L	0.010	39	59	44	9
	Cu	63	0.010	ug/L	0.003	31	112	187	12
	Cu	65	0.009	ug/L	0.002	25	50	81	10
	Zn	66	0.042	ug/L	0.002	3	281	359	0
	Zn	67	0.028	ug/L	0.025	88	48	56	14
	Zn	68	0.063	ug/L	0.008	12	259	346	4
	As	75	0.006	ug/L	0.006	108	250	250	3
	As-1	75	-0.013	ug/L	0.156	1233	10735	10213	1
	Se	82	-0.075	ug/L	0.050	66	12	-3	278
	Se	78	-0.072	ug/L	0.515	716	10877	10334	1
	Mo	98	0.004	ug/L	0.002	40	45	61	10
	Y	89		ug/L			395688	382216	1
	Kr	83		ug/L			503	524	3
>	In	115		ug/L			1044851	1031574 ✓	0
	Ag	107	0.001	ug/L	0.001	114	46	53	16
	Cd	111	0.001	ug/L	0.001	107	93	97	5
	Cd	114	0.001	ug/L	0.001	140	56	61	14
	Sb	121	0.044	ug/L	0.008	18	342	989	11
	Sb	123	0.040	ug/L	0.007	17	277	731	9
	Ba	135	0.012	ug/L	0.001	6	19	74	5
	Ba	137	0.013	ug/L	0.002	13	35	134	9
>	Tb	159		ug/L			1220108	1180150 ✓	1
	Tl	205	-0.001	ug/L	0.001	55	250	196	11
	Pb	208	0.011	ug/L	0.001	12	297	798	9
	Bi	209		ug/L			2817769	2787500	0
	Th	232	0.159	ug/L	0.016	10	2087	9138	7
	U	238	0.003	ug/L	0.001	25	63	181	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 23, 2012 20:52:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Be, Se, Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1391596	1
	Be	9	0.130	ug/L	0.002	1	13	545	1
	C	13		ug/L			128029	147307	1
	Cl	37		ug/L			4748971	4810019	0
>	Sc	45		ug/L			1148143	1187825	1
	V	51	6.652	ug/L	0.147	2	8327	158784	0
	V-1	51	6.655	ug/L	0.146	2	93	150451	0
	Cr	52	5.996	ug/L	0.155	2	24784	137655	1
	Cr	53	6.007	ug/L	0.119	1	167	12889	1
	Mn	55	163.441	ug/L	1.277	0	467	4213569	1
	Co	59	1.879	ug/L	0.008	0	108	35798	1
>	Ge	72		ug/L			638278	616040	0
	Ni	60	5.630	ug/L	0.075	1	32	20129	1
	Ni	62	5.857	ug/L	0.078	1	59	3015	0
	Cu	63	5.047	ug/L	0.120	2	112	40012	2
	Cu	65	5.021	ug/L	0.095	1	50	18119	1
	Zn	66	105.871	ug/L	2.327	2	281	231880	1
	Zn	67	97.320	ug/L	0.870	0	48	35835	1
	Zn	68	102.354	ug/L	0.906	0	259	162471	0
	As	75	6.413	ug/L	0.059	0	250	12679	0
	As-1	75	6.252	ug/L	0.077	1	10735	22600	0
	Se	82	-0.036	ug/L	0.044	120	12	4	218
	Se	78	-0.292	ug/L	0.256	87	10877	10336	1
	Mo	98	0.082	ug/L	0.002	2	45	411	1
	Y	89		ug/L			395688	425020	1
	Kr	83		ug/L			503	554	7
>	In	115		ug/L			1044851	1058888	0
	Ag	107	0.087	ug/L	0.002	2	46	989	1
	Cd	111	2.398	ug/L	0.028	1	93	11985	1
	Cd	114	2.300	ug/L	0.039	1	56	29461	1
	Sb	121	0.060	ug/L	0.005	8	342	1272	6
	Sb	123	0.058	ug/L	0.006	9	277	950	7
	Ba	135	43.352	ug/L	0.105	0	19	198322	0
	Ba	137	43.064	ug/L	0.362	0	35	346912	0
>	Tb	159		ug/L			1220108	1213176	0
	Tl	205	0.089	ug/L	0.005	5	250	3479	4
	Pb	208	92.234	ug/L	0.618	0	297	4433547	0
	Bi	209		ug/L			2817769	2784193	0
	Th	232	0.980	ug/L	0.010	1	2087	47186	1
	U	238	0.093	ug/L	0.001	1	63	4351	0

VS20 : 00411

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 20:56:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Be, Se, Pb bn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1383629	2
	Be	9	0.602	ug/L	0.014	2	13	2459	2
	C	13		ug/L			128029	187851	2
	Cl	37		ug/L			4748971	4872287	1
>	Sc	45		ug/L			1148143	1287171	0
	V	51	29.645	ug/L	0 376	1	8327	734756	1
	V-1	51	29.772	ug/L	0.479	1	93	729218	2
	Cr	52	26.885	ug/L	0.410	1	24784	572183	1
	Cr	53	27.325	ug/L	0.328	1	167	62885	1
	Mn	55	713.986	ug/L	11.838	1	467	19945128	2
	Co	59	8.339	ug/L	0.087	1	108	171785	0
>	Ge	72		ug/L			638278	602460	1
	Ni	60	27.124	ug/L	0.163	0	32	94715	1
	Ni	62	28.897	ug/L	1.014	3	59	14328	3
	Cu	63	23.860	ug/L	0.172	0	112	184607	1
	Cu	65	24.252	ug/L	0.203	0	50	85411	0
	Zn	66	495.888	ug/L	2.253	0	281	1061259	1
	Zn	67	460.332	ug/L	4.667	1	48	165577	0
	Zn	68	481.433	ug/L	10.640	2	259	746485	2
	As	75	31.150	ug/L	0 492	1	250	59311	0
	As-1	75	30.779	ug/L	0.521	1	10735	69052	0
	Se	82	0.182	ug/L	0.039	21	12	49	16
	Se	78	0.272	ug/L	0.162	59	10877	10414	0
	Mo	98	0.441	ug/L	0.010	2	45	1984	2
	Y	89		ug/L			395688	517549	2
	Kr	83		ug/L			503	735	4
>	In	115		ug/L			1044851	1065306	0
	Ag	107	0.408	ug/L	0.004	0	46	4494	1
	Cd	111	11.141	ug/L	0 053	0	93	55679	0
	Cd	114	10.665	ug/L	0.196	1	56	137253	1
	Sb	121	0.274	ug/L	0.010	3	342	4567	2
	Sb	123	0.267	ug/L	0.009	3	277	3404	2
	Ba	135	206.790	ug/L	2.794	1	19	951623	0
	Ba	137	205.786	ug/L	2.615	1	35	1667665	1
>	Tb	159		ug/L			1220108	1211139	1
	Tl	205	0.389	ug/L	0.009	2	250	14347	0
	Pb	208	444.710	ug/L	7.697	1	297	21335531	0
	Bi	209		ug/L			2817769	2701186	1
	Th	232	4.452	ug/L	0.090	2	2087	206599	0
	U	238	0.459	ug/L	0 006	1	63	21228	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 21:01:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Be, Se, Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1308714	1393174	2
	Be	**9**	**0.644**	ug/L	0.038	5	13	2643	3
	C	**13**		ug/L			128029	199518	1
	Cl	**37**		ug/L			4748971	4845022	1
>	**Sc**	**45**		ug/L			1148143	1265972	1
	V	**51**	**28.945**	ug/L	0.307	1	8327	705736	0
	V-1	**51**	**29.161**	ug/L	0.235	0	93	702408	0
	Cr	**52**	**25.882**	ug/L	0.790	3	24784	542662	1
	Cr	**53**	**26.626**	ug/L	0.976	3	167	60256	2
	Mn	**55**	**772.423**	ug/L	11.462	1	467	21218201	0
	Co	**59**	**8.588**	ug/L	0.197	2	108	173986	1
>	**Ge**	**72**		ug/L			638278	606578	1
	Ni	**60**	**26.611**	ug/L	0.486	1	32	93552	1
	Ni	**62**	**28.675**	ug/L	0.408	1	59	14315	0
	Cu	**63**	**26.721**	ug/L	0.641	2	112	208110	1
	Cu	**65**	**26.288**	ug/L	0.242	0	50	93207	0
	Zn	**66**	**537.170**	ug/L	16.775	3	281	1157088	1
	Zn	**67**	**491.553**	ug/L	18.380	3	48	177968	2
	Zn	**68**	**524.167**	ug/L	6.262	1	259	818179	1
	As	**75**	**33.274**	ug/L	0.433	1	250	63772	0
	As-1	**75**	**32.811**	ug/L	0.519	1	10735	73439	0
	Se	**82**	**0.308**	ug/L	0.047	15	12	75	11
	Se	**78**	**0.064**	ug/L	0.307	479	10877	10370	0
	Mo	**98**	**0.457**	ug/L	0.021	4	45	2070	2
	Y	**89**		ug/L			395688	517605	0
	Kr	**83**		ug/L			503	688	6
>	**In**	**115**		ug/L			1044851	1078913	1
	Ag	**107**	**0.466**	ug/L	0.015	3	46	5198	3
	Cd	**111**	**12.370**	ug/L	0.184	1	93	62589	0
	Cd	**114**	**12.010**	ug/L	0.341	2	56	156489	1
	Sb	**121**	**0.357**	ug/L	0 020	5	342	5914	3
	Sb	**123**	**0.361**	ug/L	0.007	1	277	4562	0
	Ba	**135**	**206.025**	ug/L	6.061	2	19	959946	1
	Ba	**137**	**204.632**	ug/L	5.581	2	35	1679048	1
>	**Tb**	**159**		ug/L			1220108	1194451	1
	Tl	**205**	**0.423**	ug/L	0.015	3	250	15342	1
	Pb	**208**	**517.102**	ug/L	11.735	2	297	24466458	0
	Bi	**209**		ug/L			2817769	2675866	1
	Th	**232**	**4.496**	ug/L	0.071	1	2087	205750	0
	U	**238**	**0.491**	ug/L	0.016	3	63	22411	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 21:05:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

nr Ag, Be, Se, Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1380254	1
	Be	9	28.265	ug/L	0.263	0	13	114516	1
	C	13		ug/L			128029	188776	2
	Cl	37		ug/L			4748971	4807563	2
>	Sc	45		ug/L			1148143	1270550	1
	V	51	56.321	ug/L	0.304	0	8327	1369574	1
	V-1	51	56.262	ug/L	0.399	0	93	1360079	1
	Cr	52	52.220	ug/L	0.431	0	24784	1071192	0
	Cr	53	52.030	ug/L	1.255	2	167	118008	1
	Mn	55	820.042	ug/L	20.719	2	467	22607089	1
	Co	59	31.678	ug/L	0.934	2	108	643877	3
>	Ge	72		ug/L			638278	607897	1
	Ni	60	54.907	ug/L	1.639	2	32	193428	2
	Ni	62	56.146	ug/L	0.859	1	59	28039	1
	Cu	63	53.200	ug/L	0.922	1	112	415176	1
	Cu	65	54.146	ug/L	1.224	2	50	192334	1
	Zn	66	616.051	ug/L	17.549	2	281	1330213	2
	Zn	67	572.082	ug/L	7.323	1	48	207642	1
	Zn	68	601.499	ug/L	17.386	2	259	940863	2
	As	75	60.003	ug/L	0.926	1	250	115065	1
	As-1	75	59.491	ug/L	0.594	0	10735	125144	0
	Se	82	86.006	ug/L	1.384	1	12	17972	1
	Se	78	83.762	ug/L	0.181	0	10877	56299	1
	Mo	98	26.008	ug/L	0.660	2	45	115666	2
	Y	89		ug/L			395688	523776	1
	Kr	83		ug/L			503	772	9
>	In	115		ug/L			1044851	1066739	0
	Ag	107	29.104	ug/L	0.425	1	46	317969	1
	Cd	111	37.871	ug/L	0.788	2	93	189290	1
	Cd	114	36.481	ug/L	0.552	1	56	470012	1
	Sb	121	1.514	ug/L	0.027	1	342	23668	1
	Sb	123	1.503	ug/L	0.018	1	277	17875	0
	Ba	135	239.233	ug/L	4.357	1	19	1102426	1
	Ba	137	235.941	ug/L	2.581	1	35	1914648	0
>	Tb	159		ug/L			1220108	1201404	0
	Tl	205	27.333	ug/L	0.173	0	250	982330	0
	Pb	208	528.371	ug/L	3.876	0	297	25150870	0
	Bi	209		ug/L			2817769	2676897	0
	Th	232	30.708	ug/L	0.411	1	2087	1401801	1
	U	238	28.005	ug/L	0.210	0	63	1282077	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 APOST SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 21:09:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

Sb

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1387370	1
	Be	9	27.975	ug/L	0.324	1	13	113944	2
	C	13		ug/L			128029	190274	1
	Cl	37		ug/L			4748971	4904203	1
>	Sc	45		ug/L			1148143	1286860	2
	V	51	52.491	ug/L	1 911	3	8327	1292721	1
	V-1	51	52.338	ug/L	1.902	3	93	1280714	1
	Cr	52	50.333	ug/L	0.966	1	24784	1046590	2
	Cr	53	49.815	ug/L	0.882	1	167	114424	0
	Mn	55	726.294	ug/L	17.254	2	467	20275173	1
	Co	59	30.934	ug/L	0.230	0	108	636845	3
>	Ge	72		ug/L			638278	615003	0
	Ni	60	52.974	ug/L	1.733	3	32	188785	2
	Ni	62	54.354	ug/L	0.637	1	59	27465	1
	Cu	63	50.853	ug/L	0.678	1	112	401526	1
	Cu	65	50.660	ug/L	0.644	1	50	182078	0
	Zn	66	559.031	ug/L	15.978	2	281	1221109	2
	Zn	67	524.076	ug/L	7 742	1	48	192448	1
	Zn	68	550.544	ug/L	4.423	0	259	871392	1
	As	75	57.107	ug/L	0.806	1	250	110806	0
	As-1	75	56.468	ug/L	0.583	1	10735	120699	0
	Se	82	88.457	ug/L	2.576	2	12	18699	2
	Se	78	85.538	ug/L	1.330	1	10877	57939	0
	Mo	98	28.764	ug/L	0.504	1	45	129420	1
	Y	89		ug/L			395688	516986	1
	Kr	83		ug/L			503	745	5
>	In	115		ug/L			1044851	1082172	1
	Ag	107	30.562	ug/L	0.635	2	46	338688	1
	Cd	111	36.465	ug/L	0.568	1	93	184888	0
	Cd	114	34.913	ug/L	0.569	1	56	456291	1
	Sb	121	24.185	ug/L	0.694	2	342	378137	1
	Sb	123	24.225	ug/L	0.534	2	277	287926	1
	Ba	135	226.409	ug/L	2.632	1	19	1058371	0
	Ba	137	223.846	ug/L	3.341	1	35	1842632	0
>	Tb	159		ug/L			1220108	1218127	0
	Tl	205	26.851	ug/L	0.399	1	250	978446	1
	Pb	208	462.673	ug/L	2 916	0	297	22329553	0
	Bi	209		ug/L			2817769	2708108	0
	Th	232	30.679	ug/L	0.661	2	2087	1419892	1
	U	238	27.508	ug/L	0.762	2	63	1276693	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 21:13:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Be, Se, Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
>	**Li**	**6**		ug/L			1308714	1358787	0
	Be	**9**	**0.677**	ug/L	0.032	4	13	2711	4
	C	**13**		ug/L			128029	178493	1
	Cl	**37**		ug/L			4748971	4765640	2
>	**Sc**	**45**		ug/L			1148143	1246751	1
	V	**51**	**25.729**	ug/L	0.231	0	8327	618819	0
	V-1	**51**	**25.843**	ug/L	0.203	0	93	613063	0
	Cr	**52**	**21.176**	ug/L	0.184	0	24784	442250	1
	Cr	**53**	**21.576**	ug/L	0.320	1	167	48133	1
	Mn	**55**	**2827.541**	ug/L	7.862	0	467	76500633	0
	Co	**59**	**9.040**	ug/L	0.200	2	108	180358	1
>	**Ge**	**72**		ug/L			638278	606619	0
	Ni	**60**	**29.799**	ug/L	0.821	2	32	104768	2
	Ni	**62**	**30.417**	ug/L	0.318	1	59	15185	1
	Cu	**63**	**26.959**	ug/L	0.209	0	112	210015	0
	Cu	**65**	**26.903**	ug/L	0.411	1	50	95393	0
	Zn	**66**	**429.687**	ug/L	1.032	0	281	925983	0
	Zn	**67**	**422.644**	ug/L	3.177	0	48	153088	1
	Zn	**68**	**440.085**	ug/L	9.998	2	259	687059	2
	As	**75**	**21.222**	ug/L	0.252	1	250	40768	1
	As-1	**75**	**20.869**	ug/L	0.294	1	10735	50432	1
	Se	**82**	**0.150**	ug/L	0.025	16	12	42	11
	Se	**78**	**0.023**	ug/L	0.285	1219	10877	10350	0
	Mo	**98**	**0.835**	ug/L	0.026	3	45	3747	2
	Y	**89**		ug/L			395688	524940	0
	Kr	**83**		ug/L			503	771	1
>	**In**	**115**		ug/L			1044851	1056407	0
	Ag	**107**	**0.336**	ug/L	0.004	1	46	3685	0
	Cd	**111**	**7.698**	ug/L	0.085	1	93	38176	0
	Cd	**114**	**7.357**	ug/L	0.051	0	56	93919	1
	Sb	**121**	**0.395**	ug/L	0.015	3	342	6377	3
	Sb	**123**	**0.396**	ug/L	0.015	3	277	4868	2
	Ba	**135**	**394.868**	ug/L	3.169	0	19	1801943	0
	Ba	**137**	**407.409**	ug/L	2.993	0	35	3273982	0
>	**Tb**	**159**		ug/L			1220108	1203342	1
	Tl	**205**	**0.458**	ug/L	0.008	1	250	16722	0
	Pb	**208**	**353.609**	ug/L	6.210	1	297	16857185	0
	Bi	**209**		ug/L			2817769	2687161	0
	Th	**232**	**5.294**	ug/L	0.109	2	2087	243715	0
	U	**238**	**0.707**	ug/L	0 010	1	63	32457	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 H SWN
Sample Dil Factor: 20
Comments: rr Ag, Be, Se
Sample Date/Time: Friday, November 23, 2012 21:17:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1365450	3
	Be	9	0.791	ug/L	0.037	4	13	3179	1
	C	13		ug/L			128029	167146	2
	Cl	37		ug/L			4748971	4848898	0
>	Sc	45		ug/L			1148143	1290338	0
	V	51	41.536	ug/L	0.799	1	8327	1028217	1
	V-1	51	41.696	ug/L	0.698	1	93	1023694	1
	Cr	52	32.128	ug/L	0.457	1	24784	680060	1
	Cr	53	32.699	ug/L	0.344	1	167	75400	1
	Mn	55	910.938	ug/L	22.881	2	467	25508484	2
	Co	59	10.910	ug/L	0.035	0	108	225257	0
>	Ge	72		ug/L			638278	604791	1
	Ni	60	31.298	ug/L	0.653	2	32	109689	0
	Ni	62	32.782	ug/L	0 439	1	59	16311	1
	Cu	63	32.185	ug/L	0.763	2	112	249897	1
	Cu	65	32.222	ug/L	0.761	2	50	113890	1
	Zn	66	169.765	ug/L	1.228	0	281	364880	1
	Zn	67	176.508	ug/L	1.983	1	48	63762	1
	Zn	68	173.953	ug/L	4.139	2	259	270851	1
	As	75	12.370	ug/L	0.262	2	250	23788	1
	As-1	75	12.103	ug/L	0.242	2	10735	33430	1
	Se	82	-0.136	ug/L	0.134	98	12	-16	169
	Se	78	-0.011	ug/L	0.141	1260	10877	10300	1
	Mo	98	0.861	ug/L	0.017	1	45	3849	1
	Y	89		ug/L			395688	603422	0
	Kr	83		ug/L			503	926	6
>	In	115		ug/L			1044851	1025395	0
	Ag	107	0.283	ug/L	0.001	0	46	3013	1
	Cd	111	2.492	ug/L	0.018	0	93	12058	0
	Cd	114	2.260	ug/L	0.031	1	56	28041	0
	Sb	121	0.056	ug/L	0.002	3	342	1160	2
	Sb	123	0.054	ug/L	0.003	4	277	879	2
	Ba	135	252.062	ug/L	3.657	1	19	1116575	1
	Ba	137	250.998	ug/L	3.906	1	35	1957784	0
>	Tb	159		ug/L			1220108	1207105	0
	Tl	205	0.236	ug/L	0.003	1	250	8781	1
	Pb	208	83.609	ug/L	0 513	0	297	3999003	0
	Bi	209		ug/L			2817769	2627779	0
	Th	232	6.142	ug/L	0.051	0	2087	283366	0
	U	238	1.055	ug/L	0.012	1	63	48569	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 I SWN
Sample Dil Factor: 20
Comments:

rr Ag, Be, Se

Sample Date/Time: Friday, November 23, 2012 21:21:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1308714	1339014	0
	Be	9	0.468	ug/L	0.005	1	13	1851	1
	C	13		ug/L			128029	162621	1
	Cl	37		ug/L			4748971	4819451	1
>	Sc	45		ug/L			1148143	1254201	2
	V	51	32.553	ug/L	0.553	1	8327	785066	1
	V-1	51	32.607	ug/L	0.566	1	93	777975	1
	Cr	52	20.234	ug/L	0.352	1	24784	426236	1
	Cr	53	20.452	ug/L	0.384	1	167	45897	1
	Mn	55	1169.755	ug/L	41.503	3	467	31821257	1
	Co	59	8.249	ug/L	0.072	0	108	165565	1
>	Ge	72		ug/L			638278	595524	1
	Ni	60	20.000	ug/L	1.004	5	32	69002	3
	Ni	62	20.840	ug/L	0.212	1	59	10231	2
	Cu	63	19.483	ug/L	0.202	1	112	149015	1
	Cu	65	20.399	ug/L	0.564	2	50	71013	2
	Zn	66	203.272	ug/L	7.322	3	281	430007	2
	Zn	67	219.695	ug/L	6.062	2	48	78120	1
	Zn	68	214.504	ug/L	4.366	2	259	328820	0
	As	75	11.016	ug/L	0.416	3	250	20880	2
	As-1	75	10.867	ug/L	0.445	4	10735	30573	1
	Se	82	-0.044	ug/L	0.068	156	12	2	491
	Se	78	0.172	ug/L	0.186	108	10877	10240	0
	Mo	98	0.332	ug/L	0.022	6	45	1486	4
	Y	89		ug/L			395688	512802	0
	Kr	83		ug/L			503	725	3
>	In	115		ug/L			1044851	1016839	0
	Ag	107	0.222	ug/L	0.012	5	46	2361	4
	Cd	111	2.799	ug/L	0.037	1	93	13419	1
	Cd	114	2.595	ug/L	0.058	2	56	31914	1
	Sb	121	0.113	ug/L	0.003	2	342	1985	1
	Sb	123	0.111	ug/L	0.002	1	277	1503	1
	Ba	135	497.222	ug/L	3.826	0	19	2184058	0
	Ba	137	484.749	ug/L	4.667	0	35	3749549	0
>	Tb	159		ug/L			1220108	1187374	1
	Tl	205	0.221	ug/L	0 004	1	250	8078	2
	Pb	208	98.447	ug/L	1.504	1	297	4631330	1
	Bi	209		ug/L			2817769	2635606	0
	Th	232	3.613	ug/L	0.067	1	2087	164804	1
	U	238	0.413	ug/L	0.004	0	63	18729	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 J SWN
Sample Dil Factor: 20
rr Ag. Be Sc
Comments:
Sample Date/Time: Friday, November 23, 2012 21:26:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1365872	0
	Be	9	0.539	ug/L	0.028	5	13	2175	5
	C	13		ug/L			128029	193685	1
	Cl	37		ug/L			4748971	4906514	0
>	Sc	45		ug/L			1148143	1264299	3
	V	51	30.227	ug/L	0.910	3	8327	735180	1
	V-1	51	30.319	ug/L	0.812	2	93	728937	1
	Cr	52	22.806	ug/L	0.759	3	24784	480564	0
	Cr	53	23.141	ug/L	0.679	2	167	52307	2
	Mn	55	497.506	ug/L	11.167	2	467	13643562	1
	Co	59	5.895	ug/L	0.177	3	108	119246	2
>	Ge	72		ug/L			638278	592835	1
	Ni	60	18.277	ug/L	0.166	0	32	62812	1
	Ni	62	20.281	ug/L	0.136	0	59	9912	0
	Cu	63	22.273	ug/L	0.456	2	112	169581	2
	Cu	65	22.043	ug/L	0.263	1	50	76391	0
	Zn	66	184.437	ug/L	1.060	0	281	388564	0
	Zn	67	189.979	ug/L	2.854	1	48	67266	0
	Zn	68	193.584	ug/L	3.727	1	259	295457	0
	As	75	8.852	ug/L	0.032	0	250	16754	1
	As-1	75	8.759	ug/L	0.118	1	10735	26471	0
	Se	82	0.634	ug/L	0.016	2	12	140	3
	Se	78	0.924	ug/L	0.314	33	10877	10596	0
	Mo	98	0.400	ug/L	0.011	2	45	1774	2
	Y	89		ug/L			395688	565262	1
	Kr	83		ug/L			503	702	0
>	In	115		ug/L			1044851	1020640	1
	Ag	107	0.217	ug/L	0.008	3	46	2315	4
	Cd	111	2.603	ug/L	0.004	0	93	12531	1
	Cd	114	2.378	ug/L	0.005	0	56	29369	1
	Sb	121	0.184	ug/L	0.008	4	342	3045	2
	Sb	123	0.178	ug/L	0.002	1	277	2266	0
	Ba	135	257.133	ug/L	1.627	0	19	1133670	0
	Ba	137	262.662	ug/L	10.068	3	35	2039544	4
>	Tb	159		ug/L			1220108	1186786	0
	Tl	205	0.206	ug/L	0.003	1	250	7568	1
	Pb	208	111.753	ug/L	0.179	0	297	5255050	0
	Bi	209		ug/L			2817769	2649020	1
	Th	232	3.474	ug/L	0.025	0	2087	158476	1
	U	238	1.840	ug/L	0.018	0	63	83289	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 21:30:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rv Ag, Be, Se, Pb, Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1350277	1
	Be	9	0.612	ug/L	0.020	3	13	2439	2
	C	13		ug/L			128029	186468	3
	Cl	37		ug/L			4748971	4871109	1
>	Sc	45		ug/L			1148143	1259929	0
	V	51	25.393	ug/L	0.327	1	8327	617332	1
	V-1	51	25.401	ug/L	0.381	1	93	608976	1
	Cr	52	20.886	ug/L	0.510	2	24784	441185	2
	Cr	53	20.925	ug/L	0.301	1	167	47181	1
	Mn	55	1557.853	ug/L	8.270	0	467	42593889	0
	Co	59	6.532	ug/L	0.043	0	108	131738	1
>	Ge	72		ug/L			638278	615825	0
	Ni	60	17.349	ug/L	0.370	2	32	61931	1
	Ni	62	18.758	ug/L	0.276	1	59	9527	1
	Cu	63	24.096	ug/L	0.305	1	112	190568	0
	Cu	65	24.068	ug/L	0.714	2	50	86638	2
	Zn	66	693.893	ug/L	6.988	1	281	1517797	0
	Zn	67	661.254	ug/L	4.862	0	48	243131	1
	Zn	68	692.636	ug/L	15.750	2	259	1097671	2
	As	75	20.063	ug/L	0.396	1	250	39136	1
	As-1	75	19.666	ug/L	0 425	2	10735	48839	1
	Se	82	0.240	ug/L	0.075	31	12	62	25
	Se	78	-0.212	ug/L	0.149	70	10877	10377	0
	Mo	98	0.412	ug/L	0.006	1	45	1897	1
	Y	89		ug/L			395688	529112	1
	Kr	83		ug/L			503	693	4
>	In	115		ug/L			1044851	1115854	0
	Ag	107	0.306	ug/L	0.005	1	46	3546	1
	Cd	111	13.413	ug/L	0.114	0	93	70195	0
	Cd	114	12.892	ug/L	0.102	0	56	173789	1
	Sb	121	0.550	ug/L	0.004	0	342	9230	0
	Sb	123	0.556	ug/L	0.009	1	277	7102	1
	Ba	135	551.280	ug/L	5.971	1	19	2657343	0
	Ba	137	539.082	ug/L	1.483	0	35	4576046	0
>	Tb	159		ug/L			1220108	1212643	0
	Tl	205	0.610	ug/L	0 012	1	250	22385	1
	Pb	208	500.297	ug/L	5.580	1	297	24035814	0
	Bi	209		ug/L			2817769	2740309	0
	Th	232	3.691	ug/L	0.045	1	2087	171904	1
	U	238	0.589	ug/L	0.004	0	63	27261	0

VS20 : 00420

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV11
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 21:35:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1308714	1338522 ✓	1
	Be	9	54.537	ug/L	1.848	3	13	214260	3
	C	13		ug/L			128029	135040	2
	Cl	37		ug/L			4748971	4957655	3
>	Sc	45		ug/L			1148143	1170645 ✓	0
	V	51	48.411	ug/L	1.442	2	8327	1085796	2
	V-1	51	48.660	ug/L	1.760	3	93	1083789	3
	Cr	52	48.462	ug/L	0.348	0	24784	917785	0
	Cr	53	49.310	ug/L	0.899	1	167	103067	1
	Mn	55	48.672	ug/L	1.553	3	467	1236921	3
	Co	59	46.520	ug/L	0.538	1	108	871068	1
>	Ge	72		ug/L			638278	607670 ✓	1
	Ni	60	52.595	ug/L	0.678	1	32	185215	1
	Ni	62	51.526	ug/L	1.815	3	59	25722	3
	Cu	63	52.008	ug/L	0.332	0	112	405764	2
	Cu	65	51.362	ug/L	0.669	1	50	182383	0
	Zn	66	52.611	ug/L	0.565	1	281	113813	2
	Zn	67	52.641	ug/L	0.586	1	48	19138	0
	Zn	68	51.815	ug/L	0.746	1	259	81244	1
	As	75	52.833	ug/L	0.599	1	250	101321	2
	As-1	75	52.265	ug/L	0.457	0	10735	111149	2
	Se	82	54.276	ug/L	0.569	1	12	11342	2
	Se	78	52.276	ug/L	0.935	1	10877	39010	0
	Mo	98	56.554	ug/L	1.362	2	45	251315	0
	Y	89		ug/L			395688	393392	0
	Kr	83		ug/L			503	516	2
>	In	115		ug/L			1044851	1016062 ✓	0
	Ag	107	62.691	ug/L	1.048	1	46	652351	1
	Cd	111	53.117	ug/L	0.138	0	93	252855	0
	Cd	114	51.250	ug/L	0.548	1	56	628907	0
	Sb	121	51.455	ug/L	0.866	1	342	755122	1
	Sb	123	51.711	ug/L	0.697	1	277	576843	1
	Ba	135	48.794	ug/L	0.493	1	19	214187	0
	Ba	137	48.146	ug/L	0.381	0	35	372168	0
>	Tb	159		ug/L			1220108	1193867 ✓	1
	Tl	205	51.852	ug/L	0.770	1	250	1851344	0
	Pb	208	51.534	ug/L	0.864	1	297	2437589	0
	Bi	209		ug/L			2817769	2687522	0
	Th	232	54.646	ug/L	0.800	1	2087	2477043	0
	U	238	56.886	ug/L	1.239	2	63	2587663	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB11
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 21:42:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1358281	2
	Be	9	-0.000	ug/L	0.001	1225	13	13	17
	C	13		ug/L			128029	136410	0
	Cl	37		ug/L			4748971	4704219	3
>	Sc	45		ug/L			1148143	1152829	2
	V	51	-0.023	ug/L	0.001	5	8327	7852	2
	V-1	51	0.000	ug/L	0.001	918	93	97	32
	Cr	52	-0.097	ug/L	0.007	7	24784	23127	1
	Cr	53	-0.017	ug/L	0.006	36	167	133	7
	Mn	55	0.026	ug/L	0.034	129	467	1129	77
	Co	59	-0.000	ug/L	0.001	171	108	102	13
>	Ge	72		ug/L			638278	590744	1
	Ni	60	0.003	ug/L	0 003	98	32	41	25
	Ni	62	-0.010	ug/L	0 014	136	59	49	13
	Cu	63	0.010	ug/L	0.002	20	112	182	8
	Cu	65	0.009	ug/L	0.003	32	50	78	13
	Zn	66	0.051	ug/L	0.016	30	281	367	8
	Zn	67	0.055	ug/L	0.039	70	48	64	19
	Zn	68	0.067	ug/L	0.025	36	259	341	9
	As	75	0.024	ug/L	0.007	29	250	276	4
	As-1	75	0.078	ug/L	0.019	24	10735	10082	1
	Se	82	-0.055	ug/L	0.031	55	12	0	2974
	Se	78	0.244	ug/L	0.086	35	10877	10197	1
	Mo	98	0.002	ug/L	0.002	119	45	50	19
	Y	89		ug/L			395688	380811	0
	Kr	83		ug/L			503	537	2
>	In	115		ug/L			1044851	1005765	0
	Ag	107	-0.000	ug/L	0.001	472	46	41	30
	Cd	111	0.001	ug/L	0.001	79	93	96	6
	Cd	114	-0.000	ug/L	0.002	592	56	50	45
	Sb	121	0.045	ug/L	0.005	10	342	988	6
	Sb	123	0.045	ug/L	0.004	7	277	759	5
	Ba	135	0.018	ug/L	0.015	85	19	95	69
	Ba	137	0.020	ug/L	0.014	70	35	188	58
>	Tb	159		ug/L			1220108	1154414	1
	Tl	205	-0.002	ug/L	0.001	46	250	175	17
	Pb	208	0.013	ug/L	0.008	66	297	858	45
	Bi	209		ug/L			2817769	2746039	0
	Th	232	0.126	ug/L	0.014	11	2087	7511	9
	U	238	0.002	ug/L	0.000	14	63	141	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS08 MB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 21:46:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1308714	1398980	0
	Be	9	0.001	ug/L	0.000	24	13	19	7
	C	13		ug/L			128029	144590	2
	Cl	37		ug/L			4748971	4719783	0
>	Sc	45		ug/L			1148143	1180358	1
	V	51	-0.010	ug/L	0.011	106	8327	8328	3
	V-1	51	0.005	ug/L	0.001	11	93	219	6
	Cr	52	-0.059	ug/L	0.035	59	24784	24389	2
	Cr	53	-0.005	ug/L	0.001	25	167	162	1
	Mn	55	1.881	ug/L	0.030	1	467	48644	1
	Co	59	0.001	ug/L	0.001	69	108	126	8
>	Ge	72		ug/L			638278	625854	1
	Ni	60	0.014	ug/L	0.003	20	32	84	13
	Ni	62	-0.013	ug/L	0.002	12	59	51	1
	Cu	63	0.101	ug/L	0.004	3	112	921	2
	Cu	65	0.092	ug/L	0.009	9	50	387	9
	Zn	66	0.934	ug/L	0.029	3	281	2351	1
	Zn	67	0.795	ug/L	0.039	4	48	344	5
	Zn	68	0.862	ug/L	0.030	3	259	1641	2
	As	75	0.015	ug/L	0.025	167	250	274	17
	As-1	75	-0.162	ug/L	0.153	94	10735	10202	1
	Se	82	-0.070	ug/L	0.092	131	12	-2	667
	Se	78	-0.591	ug/L	0.539	91	10877	10329	1
	Mo	98	0.011	ug/L	0.004	39	45	95	21
	Y	89		ug/L			395688	388516	1
	Kr	83		ug/L			503	561	5
>	In	115		ug/L			1044851	1037718	1
	Ag	107	-0.002	ug/L	0.001	46	46	28	28
	Cd	111	-0.002	ug/L	0.002	147	93	84	15
	Cd	114	0.000	ug/L	0.001	158	56	59	12
	Sb	121	0.003	ug/L	0.004	120	342	389	14
	Sb	123	0.004	ug/L	0.002	63	277	319	8
	Ba	135	0.019	ug/L	0.001	7	19	103	4
	Ba	137	0.017	ug/L	0.001	8	35	168	6
>	Tb	159		ug/L			1220108	1177012	0
	Tl	205	0.008	ug/L	0.003	37	250	521	20
	Pb	208	0.011	ug/L	0.000	2	297	801	1
	Bi	209		ug/L			2817769	2758708	0
	Th	232	0.077	ug/L	0.009	11	2087	5432	7
	U	238	0.000	ug/L	0.000	23	63	70	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS12 MB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 21:50:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Mo

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
[>	**Li**	**6**		ug/L			1308714	1383008	0
[	**Be**	**9**	**0.036**	ug/L	0.001	3	13	158	3
	C	**13**		ug/L			128029	145806	3
	Cl	**37**		ug/L			4748971	4637271	1
[>	**Sc**	**45**		ug/L			1148143	1197617	0
[	**V**	**51**	**0.018**	ug/L	0.020	114	8327	9089	4
[	**V-1**	**51**	**0.031**	ug/L	0.001	3	93	804	1
[	**Cr**	**52**	**-0.023**	ug/L	0.072	314	24784	25416	4
[	**Cr**	**53**	**0.022**	ug/L	0.008	34	167	222	6
[	**Mn**	**55**	**0.216**	ug/L	0.003	1	467	6100	1
[	**Co**	**59**	**0.030**	ug/L	0.000	0	108	679	1
[>	**Ge**	**72**		ug/L			638278	611583	2
[	**Ni**	**60**	**0.069**	ug/L	0.005	7	32	276	5
[	**Ni**	**62**	**0.042**	ug/L	0.024	57	59	77	14
[	**Cu**	**63**	**0.203**	ug/L	0.007	3	112	1703	1
[	**Cu**	**65**	**0.196**	ug/L	0.014	7	50	747	4
[	**Zn**	**66**	**1.573**	ug/L	0.018	1	281	3685	2
[	**Zn**	**67**	**1.380**	ug/L	0.019	1	48	550	0
[	**Zn**	**68**	**1.499**	ug/L	0.048	3	259	2606	1
[	**As**	**75**	**0.048**	ug/L	0 039	82	250	332	22
[	**As-1**	**75**	**0.022**	ug/L	0.140	641	10735	10324	0
[	**Se**	**82**	**0.049**	ug/L	0.085	172	12	22	80
[	**Se**	**78**	**0.052**	ug/L	0.462	889	10877	10447	0
[	**Mo**	**98**	**0.031**	ug/L	0.001	4	45	180	3
	Y	**89**		ug/L			395688	384100	0
	Kr	**83**		ug/L			503	547	5
[>	**In**	**115**		ug/L			1044851	1039645	0
[	**Ag**	**107**	**0.033**	ug/L	0.002	6	46	398	5
[	**Cd**	**111**	**0.029**	ug/L	0.003	11	93	233	6
[	**Cd**	**114**	**0.028**	ug/L	0.002	6	56	411	5
[	**Sb**	**121**	**0.019**	ug/L	0.003	15	342	631	6
[	**Sb**	**123**	**0.018**	ug/L	0.003	18	277	482	7
[	**Ba**	**135**	**0.068**	ug/L	0.002	2	19	324	3
[	**Ba**	**137**	**0.068**	ug/L	0.002	3	35	576	2
[>	**Tb**	**159**		ug/L			1220108	1188083	0
[	**Tl**	**205**	**0.036**	ug/L	0.003	8	250	1527	7
[	**Pb**	**208**	**0.040**	ug/L	0.001	1	297	2173	1
[	**Bi**	**209**		ug/L			2817769	2798629	0
[	**Th**	**232**	**0.032**	ug/L	0.003	7	2087	3473	3
[	**U**	**238**	**0.029**	ug/L	0.002	5	63	1370	4

VS20 00424

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS12 MBSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 21:54:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Mo

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1359574	3
[	Be	9	26.140	ug/L	0.780	2	13	104248	1
	C	13		ug/L			128029	143529	2
	Cl	37		ug/L			4748971	4980039	0
[>	Sc	45		ug/L			1148143	1184899	2
[	V	51	24.692	ug/L	1.032	4	8327	564435	2
[	V-1	51	24.757	ug/L	1.092	4	93	557788	2
[	Cr	52	25.014	ug/L	0.743	2	24784	491662	1
[	Cr	53	25.234	ug/L	1.117	4	167	53432	1
[	Mn	55	24.801	ug/L	0.722	2	467	637899	0
[	Co	59	23.606	ug/L	0.126	0	108	447405	2
[>	Ge	72		ug/L			638278	599802	1
[	Ni	60	28.322	ug/L	0.612	2	32	98463	2
[	Ni	62	27.932	ug/L	0.506	1	59	13789	0
[	Cu	63	27.423	ug/L	0.459	1	112	211226	2
[	Cu	65	27.021	ug/L	0 556	2	50	94733	1
[	Zn	66	85.738	ug/L	2.839	3	281	182892	3
[	Zn	67	78.714	ug/L	1.271	1	48	28224	0
[	Zn	68	81.000	ug/L	2.436	3	259	125217	2
[	As	75	26.748	ug/L	0.197	0	250	50742	0
[	As-1	75	26.788	ug/L	0.573	2	10735	61146	1
[	Se	82	83.581	ug/L	1.104	1	12	17232	0
[	Se	78	81.952	ug/L	2.185	2	10877	54566	1
[	Mo	98	28.802	ug/L	0.669	2	45	126373	1
	Y	89		ug/L			395688	386232	1
	Kr	83		ug/L			503	545	3
[>	In	115		ug/L			1044851	1023988	0
[	Ag	107	30.251	ug/L	0.085	0	46	317248	0
[	Cd	111	25.788	ug/L	0.180	0	93	123763	0
[	Cd	114	24.669	ug/L	0.232	0	56	305110	0
[	Sb	121	25.346	ug/L	0.076	0	342	375035	0
[	Sb	123	25.174	ug/L	0.153	0	277	283161	1
[	Ba	135	24.887	ug/L	0.115	0	19	110104	0
[	Ba	137	24.702	ug/L	0.101	0	35	192458	0
[>	Tb	159		ug/L			1220108	1190874	1
[	Tl	205	26.664	ug/L	0.205	0	250	949952	1
[	Pb	208	26.393	ug/L	0.177	0	297	1245579	0
[	Bi	209		ug/L			2817769	2680655	1
[	Th	232	26.449	ug/L	0 258	0	2087	1197026	0
[	U	238	26.936	ug/L	0.300	1	63	1222237	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS08 MBSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 21:58:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

Mn Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1361960	0
[	Be	9	27.555	ug/L	0.216	0	13	110164	0
	C	13		ug/L			128029	143671	2
	Cl	37		ug/L			4748971	4790392	1
[>	Sc	45		ug/L			1148143	1187643	2
[	V	51	25.985	ug/L	0.542	2	8327	595094	0
[	V-1	51	25.791	ug/L	0.567	2	93	582653	0
[	Cr	52	26.127	ug/L	0.597	2	24784	513664	1
[	Cr	53	25.464	ug/L	0.747	2	167	54065	2
[	Mn	55	25.973	ug/L	0.432	1	467	669720	1
[	Co	59	25.092	ug/L	1.086	4	108	476547	3
[>	Ge	72		ug/L			638278	617439	0
[	Ni	60	29.116	ug/L	0.266	0	32	104200	0
[	Ni	62	28.094	ug/L	0.396	1	59	14279	1
[	Cu	63	28.740	ug/L	0.538	1	112	227878	1
[	Cu	65	28.451	ug/L	0.156	0	50	102692	1
[	Zn	66	87.089	ug/L	1.143	1	281	191231	0
[	Zn	67	79.906	ug/L	1.892	2	48	29493	1
[	Zn	68	86.463	ug/L	0.286	0	259	137602	1
[	As	75	26.639	ug/L	0.492	1	250	52021	1
[	As-1	75	26.923	ug/L	0.336	1	10735	63209	0
[	Se	82	83.561	ug/L	0.942	1	12	17736	0
[	Se	78	82.781	ug/L	0.262	0	10877	56636	0
[	Mo	98	28.708	ug/L	0 219	0	45	129691	1
	Y	89		ug/L			395688	400013	1
	Kr	83		ug/L			503	559	3
[>	In	115		ug/L			1044851	1040478	1
[	Ag	107	31.802	ug/L	0.467	1	46	338880	1
[	Cd	111	26.949	ug/L	0.178	0	93	131412	0
[	Cd	114	25.896	ug/L	0.503	1	56	325397	0
[	Sb	121	25.615	ug/L	0.533	2	342	385056	1
[	Sb	123	25.706	ug/L	0.538	2	277	293739	1
[	Ba	135	25.626	ug/L	0.345	1	19	115192	0
[	Ba	137	25.269	ug/L	0.616	2	35	200007	1
[>	Tb	159		ug/L			1220108	1186262	0
[	Tl	205	28.110	ug/L	0.250	0	250	997475	0
[	Pb	208	28.065	ug/L	0.243	0	297	1319308	0
[	Bi	209		ug/L			2817769	2771479	0
[	Th	232	27.264	ug/L	0.210	0	2087	1229111	0
[	U	238	27.426	ug/L	0.375	1	63	1239667	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS08 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 22:02:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1308714	1377597	2
	Be	9	0.011	ug/L	0.005	51	13	56	37
	C	13		ug/L			128029	148082	0
	Cl	37		ug/L			4748971	4948079	2
>	Sc	45		ug/L			1148143	1212434	1
	V	51	0.464	ug/L	0.021	4	8327	19483	1
	V-1	51	0.493	ug/L	0.011	2	93	11479	1
	Cr	52	0.262	ug/L	0.024	9	24784	31168	0
	Cr	53	0.363	ug/L	0.009	2	167	962	3
	Mn	55	25.319	ug/L	0.462	1	467	666598	1
	Co	59	0.124	ug/L	0.006	4	108	2523	3
>	Ge	72		ug/L			638278	613728	1
	Ni	60	3.092	ug/L	0.085	2	32	11025	1
	Ni	62	3.024	ug/L	0.070	2	59	1578	2
	Cu	63	12.174	ug/L	0.284	2	112	95994	1
	Cu	65	12.229	ug/L	0.077	0	50	43901	1
	Zn	66	41.092	ug/L	0.422	1	281	89843	2
	Zn	67	37.841	ug/L	1.167	3	48	13906	2
	Zn	68	40.755	ug/L	0.568	1	259	64603	2
	As	75	0.458	ug/L	0.011	2	250	1126	2
	As-1	75	0.413	ug/L	0.030	7	10735	11127	0
	Se	82	-0.024	ug/L	0.070	291	12	6	220
	Se	78	-0.068	ug/L	0.140	205	10877	10421	0
	Mo	98	1.169	ug/L	0.029	2	45	5291	2
	Y	89		ug/L			395688	397733	2
	Kr	83		ug/L			503	553	4
>	In	115		ug/L			1044851	1047249	1
	Ag	107	0.011	ug/L	0.004	42	46	158	28
	Cd	111	0.043	ug/L	0.005	12	93	302	6
	Cd	114	0.046	ug/L	0.004	7	56	639	5
	Sb	121	0.602	ug/L	0.006	0	342	9440	1
	Sb	123	0.595	ug/L	0.009	1	277	7109	0
	Ba	135	23.218	ug/L	0.144	0	19	105048	1
	Ba	137	22.846	ug/L	0.442	1	35	182009	1
>	Tb	159		ug/L			1220108	1211877	1
	Tl	205	0.016	ug/L	0.001	8	250	816	5
	Pb	208	0.513	ug/L	0.009	1	297	24922	0
	Bi	209		ug/L			2817769	2794117	0
	Th	232	0.300	ug/L	0.050	16	2087	15859	13
	U	238	0.018	ug/L	0.004	20	63	873	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS08 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 22:06:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1308714	1369878	1
[	Be	9	0.006	ug/L	0.001	13	13	37	7
	C	13		ug/L			128029	154942	2
	Cl	37		ug/L			4748971	4978258	2
[>	Sc	45		ug/L			1148143	1191932	0
[	V	51	0.961	ug/L	0.014	1	8327	30413	1
[	V-1	51	1.011	ug/L	0.013	1	93	23012	1
[	Cr	52	0.152	ug/L	0.020	13	24784	28575	1
[	Cr	53	0.324	ug/L	0.022	6	167	862	5
[	Mn	55	20.828	ug/L	0.352	1	467	539233	1
[	Co	59	0.076	ug/L	0.004	4	108	1555	4
[>	Ge	72		ug/L			638278	604107	1
[	Ni	60	1.956	ug/L	0.059	3	32	6876	2
[	Ni	62	1.732	ug/L	0.080	4	59	913	2
[	Cu	63	4.349	ug/L	0 037	0	112	33830	1
[	Cu	65	4.128	ug/L	0.115	2	50	14616	1
[	Zn	66	~3.615	ug/L	0.043	1	281	8020	0
[	Zn	67	3.970	ug/L	0.179	4	48	1477	3
[	Zn	68	4.313	ug/L	0.088	2	259	6946	0
[	As	75	0.904	ug/L	0.023	2	250	1955	1
[	As-1	75	0.822	ug/L	0.117	14	10735	11737	0
[	Se	82	0.104	ug/L	0.063	61	12	33	38
[	Se	78	-0.050	ug/L	0.367	738	10877	10266	0
[	Mo	98	0.627	ug/L	0.030	4	45	2812	3
	Y	89		ug/L			395688	398832	1
	Kr	83		ug/L			503	549	4
[>	In	115		ug/L			1044851	1028374	0
[	Ag	107	0.003	ug/L	0.001	33	46	78	13
[	Cd	111	0.016	ug/L	0.004	28	93	168	12
[	Cd	114	0.010	ug/L	0.002	17	56	178	11
[	Sb	121	0.392	ug/L	0.004	1	342	6161	1
[	Sb	123	0.392	ug/L	0.005	1	277	4702	1
[	Ba	135	12.583	ug/L	0.009	0	19	55918	0
[	Ba	137	12.308	ug/L	0.101	0	35	96320	0
[>	Tb	159		ug/L			1220108	1196547	0
[	Tl	205	0.009	ug/L	0.000	1	250	565	1
[	Pb	208	0.064	ug/L	0.001	1	297	3310	0
[	Bi	209		ug/L			2817769	2685313	0
[	Th	232	0.073	ug/L	0.002	2	2087	5374	1
[	U	238	0.117	ug/L	0.002	1	63	5388	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS08 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 22:10:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1360640	2
	Be	9	0.004	ug/L	0.001	22	13	29	13
	C	13		ug/L			128029	158739	1
	Cl	37		ug/L			4748971	4952860	3
>	Sc	45		ug/L			1148143	1162685	0
	V	51	1.712	ug/L	0 040	2	8327	46280	2
	V-1	51	1.757	ug/L	0.017	0	93	38962	1
	Cr	52	0.242	ug/L	0.060	24	24784	29525	4
	Cr	53	0.399	ug/L	0.017	4	167	996	3
	Mn	55	30.900	ug/L	0.311	1	467	780131	1
	Co	59	0.120	ug/L	0.002	1	108	2338	1
>	Ge	72		ug/L			638278	583907	1
	Ni	60	4.336	ug/L	0.089	2	32	14699	2
	Ni	62	4.038	ug/L	0.078	1	59	1987	2
	Cu	63	8.621	ug/L	0.184	2	112	64702	0
	Cu	65	8.473	ug/L	0.191	2	50	28948	0
	Zn	66	3.991	ug/L	0.058	1	281	8532	1
	Zn	67	4.390	ug/L	0.082	1	48	1574	0
	Zn	68	4.784	ug/L	0.141	2	259	7421	1
	As	75	1.189	ug/L	0.032	2	250	2415	1
	As-1	75	1.206	ug/L	0.084	6	10735	12057	0
	Se	82	0.134	ug/L	0.049	36	12	38	24
	Se	78	0.364	ug/L	0.250	68	10877	10142	0
	Mo	98	0.948	ug/L	0.012	1	45	4089	1
	Y	89		ug/L			395688	383954	1
	Kr	83		ug/L			503	551	4
>	In	115		ug/L			1044851	1004584	1
	Ag	107	0.010	ug/L	0.001	7	46	151	5
	Cd	111	0.018	ug/L	0 004	19	93	176	8
	Cd	114	0.013	ug/L	0.001	5	56	208	4
	Sb	121	0.459	ug/L	0.011	2	342	6991	1
	Sb	123	0.461	ug/L	0.006	1	277	5348	2
	Ba	135	13.797	ug/L	0.306	2	19	59882	0
	Ba	137	13.437	ug/L	0.159	1	35	102712	0
>	Tb	159		ug/L			1220108	1170410	0
	Tl	205	0.007	ug/L	0.001	20	250	475	9
	Pb	208	0.080	ug/L	0.003	3	297	3999	2
	Bi	209		ug/L			2817769	2602682	0
	Th	232	0.028	ug/L	0.004	14	2087	3251	4
	U	238	0.652	ug/L	0.002	0	63	29154	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS08 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 22:15:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	**Li**	**6**		ug/L			1308714	1370185	3
	Be	**9**	**0.005**	ug/L	0.000	9	13	34	7
	C	**13**		ug/L			128029	152587	0
	Cl	**37**		ug/L			4748971	5007590	2
>	**Sc**	**45**		ug/L			1148143	1169237	3
	V	**51**	**1.415**	ug/L	0.027	1	8327	39927	2
	V-1	**51**	**1.492**	ug/L	0.017	1	93	33270	2
	Cr	**52**	**0.163**	ug/L	0.048	29	24784	28223	1
	Cr	**53**	**0.427**	ug/L	0.015	3	167	1060	3
	Mn	**55**	**2.757**	ug/L	0.045	1	467	70412	1
	Co	**59**	**0.071**	ug/L	0.002	2	108	1434	3
>	**Ge**	**72**		ug/L			638278	590046	3
	Ni	**60**	**1.910**	ug/L	0.032	1	32	6558	3
	Ni	**62**	**1.747**	ug/L	0.038	2	59	899	2
	Cu	**63**	**5.704**	ug/L	0.114	2	112	43290	1
	Cu	**65**	**5.465**	ug/L	0.159	2	50	18878	2
	Zn	**66**	**7.343**	ug/L	0.080	1	281	15644	2
	Zn	**67**	**6.765**	ug/L	0.168	2	48	2426	1
	Zn	**68**	**7.634**	ug/L	0.249	3	259	11820	1
	As	**75**	**1.873**	ug/L	0.040	2	250	3710	1
	As-1	**75**	**1.883**	ug/L	0.211	11	10735	13446	0
	Se	**82**	**0.013**	ug/L	0.054	434	12	13	78
	Se	**78**	**0.199**	ug/L	0.670	336	10877	10154	1
	Mo	**98**	**0.420**	ug/L	0.014	3	45	1854	3
	Y	**89**		ug/L			395688	390794	0
	Kr	**83**		ug/L			503	526	3
>	**In**	**115**		ug/L			1044851	1017795	1
	Ag	**107**	**0.002**	ug/L	0.000	10	46	67	4
	Cd	**111**	**0.022**	ug/L	0.001	3	93	195	1
	Cd	**114**	**0.018**	ug/L	0.001	7	56	275	6
	Sb	**121**	**0.757**	ug/L	0.010	1	342	11460	0
	Sb	**123**	**0.753**	ug/L	0.007	0	277	8676	0
	Ba	**135**	**4.560**	ug/L	0.043	0	19	20066	1
	Ba	**137**	**4.565**	ug/L	0.034	0	35	35378	0
>	**Tb**	**159**		ug/L			1220108	1182467	0
	Tl	**205**	**0.005**	ug/L	0.000	6	250	419	2
	Pb	**208**	**0.201**	ug/L	0.005	2	297	9722	2
	Bi	**209**		ug/L			2817769	2684055	1
	Th	**232**	**0.002**	ug/L	0.003	122	2087	2126	5
	U	**238**	**0.011**	ug/L	0.000	3	63	536	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS12 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 23, 2012 22:20:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1308714	1348597	2
	Be	**9**	**0.005**	ug/L	0.002	43	13	34	25
	C	**13**		ug/L			128029	154209	2
	Cl	**37**		ug/L			4748971	4926514	1
>	**Sc**	**45**		ug/L			1148143	1184719	2
	V	**51**	**2.544**	ug/L	0.109	4	8327	65853	1
	V-1	**51**	**2.574**	ug/L	0.112	4	93	58092	2
	Cr	**52**	**0.852**	ug/L	0.047	5	24784	41441	1
	Cr	**53**	**0.961**	ug/L	0.042	4	167	2200	3
	Mn	**55**	**17.753**	ug/L	0.208	1	467	456847	1
	Co	**59**	**0.117**	ug/L	0.003	2	108	2321	1
>	**Ge**	**72**		ug/L			638278	595579	0
	Ni	**60**	**2.907**	ug/L	0.048	1	32	10063	1
	Ni	**62**	**2.631**	ug/L	0 008	0	59	1339	0
	Cu	**63**	**12.801**	ug/L	0.017	0	112	97961	0
	Cu	**65**	**12.784**	ug/L	0.128	1	50	44532	1
	Zn	**66**	**8.575**	ug/L	0.218	2	281	18401	2
	Zn	**67**	**8.596**	ug/L	0.248	2	48	3101	3
	Zn	**68**	**9.011**	ug/L	0.148	1	259	14047	1
	As	**75**	**1.948**	ug/L	0.029	1	250	3885	1
	As-1	**75**	**1.905**	ug/L	0.059	3	10735	13622	0
	Se	**82**	**0.168**	ug/L	0.047	27	12	45	20
	Se	**78**	**0.160**	ug/L	0.121	75	10877	10235	0
	Mo	**98**	**2.340**	ug/L	0.019	0	45	10237	0
	Y	**89**		ug/L			395688	392056	1
	Kr	**83**		ug/L			503	526	6
>	**In**	**115**		ug/L			1044851	1022207	1
	Ag	**107**	**0.014**	ug/L	0.001	6	46	194	3
	Cd	**111**	**0.029**	ug/L	0.006	20	93	229	10
	Cd	**114**	**0.023**	ug/L	0.001	3	56	335	1
	Sb	**121**	**1.031**	ug/L	0.019	1	342	15542	1
	Sb	**123**	**1.037**	ug/L	0.014	1	277	11901	0
	Ba	**135**	**11.595**	ug/L	0.217	1	19	51212	0
	Ba	**137**	**11.578**	ug/L	0.227	1	35	90051	0
>	**Tb**	**159**		ug/L			1220108	1193601	0
	Tl	**205**	**0.002**	ug/L	0.001	45	250	320	9
	Pb	**208**	**0.157**	ug/L	0.005	3	297	7725	2
	Bi	**209**		ug/L			2817769	2674416	0
	Th	**232**	**0.002**	ug/L	0 002	73	2087	2153	2
	U	**238**	**0.377**	ug/L	0.004	0	63	17193	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Friday, November 23, 2012 22:24:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

rr Ag, Be, Pb, Tl

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens. RSD
>	Li	6		ug/L			1308714	1355748	1
	Be	9	0.440	ug/L	0.009	2	13	1765	3
	C	13		ug/L			128029	175439	2
	Cl	37		ug/L			4748971	4818489	0
>	Sc	45		ug/L			1148143	1238508	2
	V	51	24.522	ug/L	0.599	2	8327	586123	0
	V-1	51	24.560	ug/L	0.612	2	93	578612	0
	Cr	52	14.727	ug/L	0.217	1	24784	313626	0
	Cr	53	14.886	ug/L	0.246	1	167	33037	0
	Mn	55	1783.163	ug/L	17.630	0	467	47919711	1
	Co	59	6.295	ug/L	0.167	2	108	124769	1
>	Ge	72		ug/L			638278	591086	0
	Ni	60	14.283	ug/L	0.105	0	32	48946	0
	Ni	62	15.671	ug/L	0.142	0	59	7649	0
	Cu	63	23.833	ug/L	0 089	0	112	180926	1
	Cu	65	24.255	ug/L	0.416	1	50	83813	1
	Zn	66	395.551	ug/L	7.912	2	281	830697	2
	Zn	67	388.425	ug/L	7.111	1	48	137104	2
	Zn	68	400.625	ug/L	8.747	2	259	609547	2
	As	75	20.781	ug/L	0.169	0	250	38903	0
	As-1	75	20.606	ug/L	0.200	0	10735	48646	0
	Se	82	0.205	ug/L	0.010	4	12	53	3
	Se	78	0.513	ug/L	0.188	36	10877	10346	0
	Mo	98	0.528	ug/L	0.034	6	45	2323	6
	Y	89		ug/L			395688	485162	0
	Kr	83		ug/L			503	634	2
>	In	115		ug/L			1044851	1058079	1
	Ag	107	0.372	ug/L	0.011	2	46	4078	3
	Cd	111	7.144	ug/L	0.138	1	93	35491	1
	Cd	114	6.827	ug/L	0.127	1	56	87279	0
	Sb	121	0.747	ug/L	0.019	2	342	11755	1
	Sb	123	0.734	ug/L	0.013	1	277	8806	0
	Ba	135	431.126	ug/L	6.520	1	19	1970466	1
	Ba	137	448.731	ug/L	6.940	1	35	3611533	0
>	Tb	159		ug/L			1220108	1200751	0
	Tl	205	0.447	ug/L	0.002	0	250	16284	0
	Pb	208	383.285	ug/L	4.151	1	297	18234206	0
	Bi	209		ug/L			2817769	2691454	1
	Th	232	2.827	ug/L	0.056	1	2087	130831	1
	U	238	0.501	ug/L	0.004	0	63	22983	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV12
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 22:28:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1308714	1317813 ✓	0
	Be	9	55.950	ug/L	0.140	0	13	216427	0
	C	13		ug/L			128029	133745	3
	Cl	37		ug/L			4748971	5062938	2
>	Sc	45		ug/L			1148143	1134883 ✓	1
	V	51	49.497	ug/L	0.705	1	8327	1075950	0
	V-1	51	49.485	ug/L	0 753	1	93	1068383	0
	Cr	52	50.946	ug/L	0.702	1	24784	934043	1
	Cr	53	50.901	ug/L	1.142	2	167	103127	1
	Mn	55	50.501	ug/L	1.058	2	467	1243957	0
	Co	59	48.465	ug/L	0.612	1	108	879741	1
>	Ge	72		ug/L			638278	604050 ✓	1
	Ni	60	52.626	ug/L	0.668	1	32	184224	1
	Ni	62	52.006	ug/L	0.832	1	59	25810	0
	Cu	63	52.046	ug/L	0 843	1	112	403625	1
	Cu	65	52.365	ug/L	0.672	1	50	184846	0
	Zn	66	52.473	ug/L	0 726	1	281	112823	0
	Zn	67	53.616	ug/L	1.382	2	48	19375	2
	Zn	68	52.629	ug/L	1.486	2	259	82018	1
	As	75	52.463	ug/L	1 013	1	250	99994	0
	As-1	75	52.215	ug/L	1.126	2	10735	110377	1
	Se	82	54.363	ug/L	1.036	1	12	11291	0
	Se	78	53.529	ug/L	1.374	2	10877	39462	0
	Mo	98	56.373	ug/L	0.492	0	45	249113	1
	Y	89		ug/L			395688	381680	0
	Kr	83		ug/L			503	552	1
>	In	115		ug/L			1044851	1003403 ✓	0
	Ag	107	62.913	ug/L	0.845	1	46	646436	0
	Cd	111	54.176	ug/L	0.984	1	93	254662	1
	Cd	114	52.180	ug/L	0.630	1	56	632324	1
	Sb	121	52.304	ug/L	0.116	0	342	758017	0
	Sb	123	52.016	ug/L	0.492	0	277	572985	0
	Ba	135	49.970	ug/L	0.702	1	19	216600	0
	Ba	137	49.488	ug/L	0.930	1	35	377757	1
>	Tb	159		ug/L			1220108	1159500 ✓	0
	Tl	205	53.557	ug/L	0.408	0	250	1857428	0
	Pb	208	53.608	ug/L	0.175	0	297	2463011	0
	Bi	209		ug/L			2817769	2659819	0
	Th	232	57.008	ug/L	0.625	1	2087	2509886	0
	U	238	59.073	ug/L	0.591	1	63	2609915	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB12
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 23, 2012 22:35:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1308714	1329699 ✓	0
	Be	9	0.002	ug/L	0.002	100	13	19	33
	C	13		ug/L			128029	132012	1
	Cl	37		ug/L			4748971	4974468	1
>	Sc	45		ug/L			1148143	1153445 ✓	1
	V	51	-0.022	ug/L	0.012	56	8327	7886	2
	V-1	51	0.003	ug/L	0.001	53	93	151	21
	Cr	52	-0.095	ug/L	0.041	43	24784	23176	2
	Cr	53	-0.011	ug/L	0.005	43	167	145	7
	Mn	55	0.065	ug/L	0.034	51	467	2106	41
	Co	59	0.001	ug/L	0.002	232	108	122	26
>	Ge	72		ug/L			638278	599658 ✓	2
	Ni	60	0.005	ug/L	0.002	33	32	47	9
	Ni	62	0.016	ug/L	0.014	89	59	63	13
	Cu	63	0.012	ug/L	0.001	10	112	198	3
	Cu	65	0.013	ug/L	0.003	21	50	92	8
	Zn	66	0.057	ug/L	0.001	1	281	385	1
	Zn	67	0.035	ug/L	0.024	66	48	58	13
	Zn	68	0.076	ug/L	0.014	17	259	361	4
	As	75	0.011	ug/L	0.006	49	250	256	6
	As-1	75	0.049	ug/L	0.152	311	10735	10174	0
	Se	82	-0.022	ug/L	0.021	94	12	7	62
	Se	78	0.161	ug/L	0.544	338	10877	10302	0
	Mo	98	0.006	ug/L	0.005	92	45	67	32
	Y	89		ug/L			395688	390313	1
	Kr	83		ug/L			503	506	1
>	In	115		ug/L			1044851	1017575 ✓	0
	Ag	107	0.002	ug/L	0.002	103	46	60	26
	Cd	111	0.005	ug/L	0.000	2	93	114	0
	Cd	114	0.002	ug/L	0.002	136	56	74	36
	Sb	121	0.048	ug/L	0.003	6	342	1039	4
	Sb	123	0.047	ug/L	0.004	8	277	799	5
	Ba	135	0.028	ug/L	0.009	32	19	140	27
	Ba	137	0.025	ug/L	0.008	33	35	225	28
>	Tb	159		ug/L			1220108	1170237 ✓	0
	Tl	205	0.000	ug/L	0.000	220	250	246	6
	Pb	208	0.018	ug/L	0.007	40	297	1127	30
	Bi	209		ug/L			2817769	2780846	0
	Th	232	0.110	ug/L	0.006	5	2087	6869	3
	U	238	0.004	ug/L	0.001	30	63	232	23

End PKG

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.26.12 **Analyst:** MJJ **Page:** 1 of 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2991-10
		1			2990-12
		2			2994-16
		3			2995-1
		4			2994-3
		5			2995-2
		Rinse sample			
		ICV			2926-7
		ICB			^{62}Ni: low
		CCV1			
		CCB1			^{62}Ni: low
		Low check			↓
		ICSA			
		ICSAB			^{62}Ni: high
		LR200			Ag high
		LR300			Mo, ^{137}Ba high
		B1			
		B2			
		ERA P197		10 ✓	
		B3			
		CCV2			
		CCB2			^{62}Ni: low
		VS19 MB1	SWN	20	Ag
		↓ MB1SPK	↓	↓ ✓	↓

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.26.12 **Analyst:** MJJ **Page:** 2 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS18 J	SWN	20	Ag
		K			
		L			
		VS19 B		100	Pb Zn
		B		20	Ag
		C		100	Pb Zn
		C		20	Ag
		D		20	Ag
		CCV3			
		CCB3			^{62}Ni. low
		VS19 A-L	SWN	100 ✓	Ag
		A		20	
		ADUP		✓	
		ASPK		✓	
		D		100	Pb Zn
		E			
		F		20	Ag
		G			
		H			
		I			
		CCV4			^{62}Ni. low
		CCB4			
		VS19 A-L	SWN	500 ✓	V Cr Co Zn
		A		100	

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Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.26.12 **Analyst:** MJJ **Page:** 3 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS19 ADUP	SWN	100	V Cr Co Zn
		ASPK	↓	↓	↓
		J	↓	↓	Pb Zn
		L	↓	↓	Zn
		E	↓	20	Ag
		K	↓	↓	Ag Be Se
		J	↓	↓	↓
		L	↓	↓	↓
		CCV5			^{62}Ni low
		CCB5			↓
		VS20 MB1	SWN	20	Be, Se ; rr Ag
		↓ MB1SPK	↓	↓	↓ ↓
		VS19 K	↓	100	Pb Zn
		VS20 B	↓	20	Be, Se ; rr Ag
		C	↓	↓	↓
		D	↓	↓	↓
		E	↓	↓	↓
		G	↓	↓	↓
		H	↓	↓	↓
		I	↓	↓	↓
		CCV6			^{62}Ni low, Ag high
		CCB6			↓
		STD O			
		CCV7			U high

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.26.12 **Analyst:** MJT **Page:** 4 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		CCB7			
		VS20 A-L	SWN	100 ✓	Ag Be Se
		A		20	
		ADUP		✓	
		ASPK		✓	
		J			
		K			
		L			Ag Be
		F			Ag Be Se
		F		100	Zn
		B			Pb Zn
		CCV8			U high
		CCB8			
		VS20 A-L	SWN	500 ✓	Pb Zn
		A		100	
		ADUP		✓	
		ASPK			STL
		C			
	✓	D			~~Zn~~, rr Pb 1/200 M 11-2°C
		E			Pb Zn
		G			
		K			
		L			
		CCV9			U high

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-26-12 **Analyst:** MJJ/A 11-27-12 **Page:** 5 of 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		CCB9			
MBISPK		VS21 MBISPK	SWN	20	RRAg
MBI		MBI		↓	
ZZZ		~~A-L~~		100	
ASPL	✓	ASPL		20	mis labeled ? ↑
		ADUP			CRRZn, Pb 1/100
A	↑	~~ASPK~~			
ZZZ		~~APOST~~			0.06mL PMSspL#1 1/10 0.06mL PMSspL#2 1/10
		B			RRZn Pb 1/200
		C			
		D			RR Pb Zn 1/100
		CCV10			Ag, U high
		CCB10			
		STD 0			
		CCV11			Ag, Th, U high
		CCB11			
		VR08 J	REN	5	As Be RR Ag
	✓	↓ MBZspk	↓	2	
		VS21 E	SWN	20	, Zn (1/100)
		F			
		G			also V Cr Co (Se)
		H			↓
		I			also Zn 1/100
		↓ J	↓	↓	also Zn V Cr Co (Se)

11-27-12

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP (ICP-MS) GFA CVA

Analysis Date: 11-26-12

Nexion M2	Analyst	Peer	Comment
Logbook:			
Analyst, Date, Method info	—	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	See log
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	See log
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	.	✓	

Analyst sign-off: MJT/11-27; Peer: MJT 11.28.12

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Monday, November 26, 2012 09:37:26
Sample Description.
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check 1330
MassCal File. C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time (ns): 60
Current Dead Time (ns): 60

Torch Z position (mm): 0 00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	5679.3	5679.268	87.094	1.5	Standard
	Mg	24.0	45038.5	45038.458	482.563	1.1	Standard
	In	114.9	89645.3	89645.261	1167.812	1.3	Standard
	Pb	208.0	39880.0	39880.002	305.997	0.8	Standard
	U	238.1	68170.8	68170.794	758.504	1.1	Standard
[	CeO	155.9	1499.2	0.016	0.001	5.3	Standard
| >	Ce	139.9	91069.3	91069.261	576.796	0.6	Standard
[	Ce++	70.0	1190.2	0.013	0.001	4.2	Standard
	Bkgd	220.0	0.0	0.000	0.000		Standard

Current Conditions File Data

Current Value	Description
1.07	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

timization Summary

artTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

art Time: 11/26/2012 9:37:24 AM
d Time: 11/26/2012 9:40:00 AM

ily Performance Check - [Passed] Optimum value(s): N/A
    Obtained Intensity (Be 9.0122): 5679.27
    Obtained Intensity (Mg 23.985): 45038.46
    Obtained Intensity (In 114.904): 89645.26
    Obtained Intensity (Pb 207.977): 39880.00
    Obtained Intensity (U 238.05): 68170.79
    Obtained Intensity (Bkgd 220): 0.00
    Obtained Formula (CeO 155.9 / Ce 139.905): 0.016 (=1499.20 / 91069.26)
    Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.013 (=1190.22 / 91069.26)

SmartTune Wizard - Summary

timization Summary

artTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

art Time: 11/26/2012 9:30:12 AM
d Time: 11/26/2012 9:32:24 AM

ss Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.703)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.711)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.709)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.716)

SmartTune Wizard - Summary

timization Summary

artTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

art Time: 11/26/2012 9:32:51 AM
d Time: 11/26/2012 9:37:03 AM

toLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.996; Intercept = -12.09

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:03:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	**Li**	**6**		ug/L				1452181	1
	Be	**9**		ug/L				10	33
	C	**13**		ug/L				122688	5
	Cl	**37**		ug/L				4809329	0
>	**Sc**	**45**		ug/L				1221736	1
	V	**51**		ug/L				8932	1
	V-1	**51**		ug/L				79	11
	Cr	**52**		ug/L				26512	1
	Cr	**53**		ug/L				164	5
	Mn	**55**		ug/L				526	7
	Co	**59**		ug/L				57	5
>	**Ge**	**72**		ug/L				666235	2
	Ni	**60**		ug/L				11	9
	Ni	**62**		ug/L				4585	1
	Cu	**63**		ug/L				3389	4
	Cu	**65**		ug/L				47	15
	Zn	**66**		ug/L				115	6
	Zn	**67**		ug/L				14	10
	Zn	**68**		ug/L				160	7
	As	**75**		ug/L				82	23
	As-1	**75**		ug/L				10540	0
	Se	**82**		ug/L				0	337
	Se	**78**		ug/L				10716	0
	Mo	**98**		ug/L				12	25
	Y	**89**		ug/L				407553	0
	Kr	**83**		ug/L				373	3
>	**In**	**115**		ug/L				1034700	0
	Ag	**107**		ug/L				17	34
	Cd	**111**		ug/L				81	7
	Cd	**114**		ug/L				29	14
	Sb	**121**		ug/L				57	6
	Sb	**123**		ug/L				42	42
	Ba	**135**		ug/L				12	12
	Ba	**137**		ug/L				12	24
>	**Tb**	**159**		ug/L				1245990	0
	Tl	**205**		ug/L				75	11
	Pb	**208**		ug/L				181	8
	Bi	**209**		ug/L				2867512	0
	Th	**232**		ug/L				132	20
	U	**238**		ug/L				4	66

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:07:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1489694	1
	Be	9	0.200	ug/L	0.005	2	10	911	3
	C	13		ug/L			122688	124768	4
	Cl	37		ug/L			4809329	4698505	3
>	Sc	45		ug/L			1221736	1237573	2
	V	51	0.200	ug/L	0.007	3	8932	14397	1
	V-1	51	0.200	ug/L	0.002	1	79	5376	1
	Cr	52	0.500	ug/L	0.033	6	26512	38148	1
	Cr	53	0.500	ug/L	0 021	4	164	1425	2
	Mn	55	0.500	ug/L	0.015	2	526	15255	1
	Co	59	0.200	ug/L	0 007	3	57	4345	4
>	Ge	72		ug/L			666235	659179	1
	Ni	60	0.500	ug/L	0.008	1	11	2376	0
	Ni	62	0.500	ug/L	0.253	50	4585	4699	1
	Cu	63	0.500	ug/L	0.012	2	3389	8488	2
	Cu	65	0.500	ug/L	0.024	4	47	2380	4
	Zn	66	4.000	ug/L	0.065	1	115	12134	0
	Zn	67	4.000	ug/L	0.117	2	14	1835	3
	Zn	68	4.000	ug/L	0.018	0	160	8623	1
	As	75	0.200	ug/L	0.015	7	82	568	5
	As-1	75	0.200	ug/L	0.025	12	10540	11205	0
	Se	82	0.500	ug/L	0.119	23	0	129	22
	Se	78	0.500	ug/L	0.096	19	10716	11237	0
	Mo	98	0.200	ug/L	0.002	1	12	1059	1
	Y	89		ug/L			407553	405313	0
	Kr	83		ug/L			373	390	6
>	In	115		ug/L			1034700	1025198	0
	Ag	107	0.200	ug/L	0.008	3	17	2351	3
	Cd	111	0.100	ug/L	0.005	4	81	627	4
	Cd	114	0.100	ug/L	0.005	5	29	1455	6
	Sb	121	0.200	ug/L	0.002	0	57	3145	0
	Sb	123	0.200	ug/L	0.005	2	42	2367	3
	Ba	135	0.500	ug/L	0.012	2	12	2484	1
	Ba	137	0.500	ug/L	0.007	1	12	4281	0
>	Tb	159		ug/L			1245990	1246021	0
	Tl	205	0.200	ug/L	0.001	0	75	8749	0
	Pb	208	0.100	ug/L	0.001	1	181	6331	2
	Bi	209		ug/L			2867512	2863206	1
	Th	232	0.200	ug/L	0.014	7	132	7322	7
	U	238	0.200	ug/L	0 003	1	4	10534	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:11:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1452181	1513224	1
	Be	9	10.000	ug/L	0.250	2	10	44938	3
	C	13		ug/L			122688	119200	2
	Cl	37		ug/L			4809329	4919795	2
>	Sc	45		ug/L			1221736	1272532	2
	V	51	10.000	ug/L	0.159	1	8932	274700	2
	V-1	51	10.000	ug/L	0.189	1	79	265345	1
	Cr	52	9.999	ug/L	0 156	1	26512	249351	1
	Cr	53	9.999	ug/L	0.318	3	164	25185	1
	Mn	55	10.000	ug/L	0.219	2	526	301161	1
	Co	59	10.000	ug/L	0.295	2	57	215789	0
>	Ge	72		ug/L			666235	667779	1
	Ni	60	9.999	ug/L	0.071	0	11	46747	1
	Ni	62	10.011	ug/L	0.302	3	4585	10688	0
	Cu	63	10.000	ug/L	0.155	1	3389	106094	0
	Cu	65	10.000	ug/L	0.130	1	47	46465	2
	Zn	66	9.890	ug/L	0.090	0	115	28296	0
	Zn	67	10.039	ug/L	0.382	3	14	4760	2
	Zn	68	9.923	ug/L	0.299	3	160	20456	2
	As	75	10.000	ug/L	0.255	2	82	23778	1
	As-1	75	9.998	ug/L	0.163	1	10540	34776	0
	Se	82	10.000	ug/L	0.323	3	0	2614	2
	Se	78	9.980	ug/L	0.062	0	10716	17900	1
	Mo	98	10.000	ug/L	0.178	1	12	54764	1
	Y	89		ug/L			407553	418992	0
	Kr	83		ug/L			373	377	3
>	In	115		ug/L			1034700	1042804	0
	Ag	107	10.000	ug/L	0 328	3	17	116207	2
	Cd	111	10.000	ug/L	0.049	0	81	55103	0
	Cd	114	10.000	ug/L	0.032	0	29	140049	0
	Sb	121	10.000	ug/L	0.028	0	57	161884	0
	Sb	123	10.000	ug/L	0.057	0	42	122354	0
	Ba	135	10.000	ug/L	0.075	0	12	50244	0
	Ba	137	10.000	ug/L	0.050	0	12	86483	0
>	Tb	159		ug/L			1245990	1270979	0
	Tl	205	10.000	ug/L	0.133	1	75	430557	1
	Pb	208	10.000	ug/L	0.064	0	181	568098	0
	Bi	209		ug/L			2867512	2905496	1
	Th	232	10.001	ug/L	0.200	1	132	500563	1
	U	238	10.000	ug/L	0 078	0	4	544193	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:15:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1496355	2
	Be	9	19.997	ug/L	0.407	2	10	88769	2
	C	13		ug/L			122688	116941	1
	Cl	37		ug/L			4809329	5139434	2
>	Sc	45		ug/L			1221736	1266286	1
	V	51	19.912	ug/L	0.333	1	8932	525964	0
	V-1	51	19.945	ug/L	0.330	1	79	520833	0
	Cr	52	19.985	ug/L	0.386	1	26512	467146	0
	Cr	53	20.093	ug/L	0.381	1	164	51146	0
	Mn	55	20.039	ug/L	0.473	2	526	604763	1
	Co	59	20.053	ug/L	0.298	1	57	435339	1
>	Ge	72		ug/L			666235	658338	1
	Ni	60	19.977	ug/L	0.314	1	11	91620	0
	Ni	62	20.104	ug/L	0.054	0	4585	16850	1
	Cu	63	20.092	ug/L	0 599	2	3389	210521	1
	Cu	65	19.980	ug/L	0.573	2	47	91081	1
	Zn	66	20.014	ug/L	0.334	1	115	56458	0
	Zn	67	19.975	ug/L	0.636	3	14	9283	3
	Zn	68	20.024	ug/L	0.725	3	160	40697	2
	As	75	20.012	ug/L	0.392	1	82	46940	0
	As-1	75	20.014	ug/L	0.345	1	10540	58326	0
	Se	82	19.983	ug/L	0.601	3	0	5133	1
	Se	78	19.987	ug/L	0.410	2	10716	24683	0
	Mo	98	20.020	ug/L	0.343	1	12	108487	0
	Y	89		ug/L			407553	416112	1
	Kr	83		ug/L			373	376	3
>	In	115		ug/L			1034700	1043906	0
	Ag	107	19.864	ug/L	0 388	1	17	224975	1
	Cd	111	19.946	ug/L	0.167	0	81	108764	0
	Cd	114	19.922	ug/L	0.189	0	29	274993	1
	Sb	121	19.971	ug/L	0.213	1	57	321723	1
	Sb	123	19.956	ug/L	0 150	0	42	242267	0
	Ba	135	19.984	ug/L	0.274	1	12	100187	1
	Ba	137	20.008	ug/L	0.149	0	12	173468	0
>	Tb	159		ug/L			1245990	1280651	1
	Tl	205	19.964	ug/L	0.415	2	75	859613	0
	Pb	208	19.916	ug/L	0 348	1	181	1120915	0
	Bi	209		ug/L			2867512	2874027	0
	Th	232	20.060	ug/L	0.424	2	132	1023731	0
	U	238	19.891	ug/L	0.421	2	4	1067122	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:20:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	**Li**	**6**		ug/L			1452181	1487618	0
	Be	**9**	**49.888**	ug/L	1.235	2	10	217750	2
	C	**13**		ug/L			122688	122390	2
	Cl	**37**		ug/L			4809329	5208593	1
>	**Sc**	**45**		ug/L			1221736	1279552	1
	V	**51**	**49.860**	ug/L	1.612	3	8932	1298383	1
	V-1	**51**	**49.821**	ug/L	1.556	3	79	1291105	1
	Cr	**52**	**49.744**	ug/L	0.980	1	26512	1105961	0
	Cr	**53**	**49.615**	ug/L	1.296	2	164	122646	1
	Mn	**55**	**49.830**	ug/L	0.217	0	526	1493723	2
	Co	**59**	**49.809**	ug/L	1.612	3	57	1071787	2
>	**Ge**	**72**		ug/L			666235	662287	1
	Ni	**60**	**49.585**	ug/L	0.841	1	11	219647	0
	Ni	**62**	**49.983**	ug/L	2.299	4	4585	35306	2
	Cu	**63**	**49.764**	ug/L	0.540	1	3389	507881	2
	Cu	**65**	**49.684**	ug/L	1.826	3	47	220799	2
	Zn	**66**	**49.760**	ug/L	0.827	1	115	137850	0
	Zn	**67**	**49.710**	ug/L	0.938	1	14	22584	0
	Zn	**68**	**49.592**	ug/L	1.491	3	160	97361	3
	As	**75**	**49.851**	ug/L	0.808	1	82	115791	0
	As-1	**75**	**49.815**	ug/L	0.918	1	10540	128273	1
	Se	**82**	**49.818**	ug/L	0.542	1	0	12648	0
	Se	**78**	**49.697**	ug/L	0.763	1	10716	44877	1
	Mo	**98**	**49.931**	ug/L	0.354	0	12	270344	0
	Y	**89**		ug/L			407553	421483	1
	Kr	**83**		ug/L			373	396	3
>	**In**	**115**		ug/L			1034700	1031900	1
	Ag	**107**	**49.923**	ug/L	1.152	2	17	554547	1
	Cd	**111**	**49.761**	ug/L	0.228	0	81	261849	1
	Cd	**114**	**49.811**	ug/L	0.393	0	29	666975	1
	Sb	**121**	**49.966**	ug/L	0.818	1	57	792815	0
	Sb	**123**	**49.919**	ug/L	0.387	0	42	594150	0
	Ba	**135**	**49.906**	ug/L	0.595	1	12	244968	0
	Ba	**137**	**49.979**	ug/L	0.516	1	12	427391	0
>	**Tb**	**159**		ug/L			1245990	1257165	0
	Tl	**205**	**50.261**	ug/L	0.681	1	75	2181837	1
	Pb	**208**	**49.926**	ug/L	0.169	0	181	2738524	0
	Bi	**209**		ug/L			2867512	2814185	1
	Th	**232**	**50.580**	ug/L	0.377	0	132	2690485	0
	U	**238**	**50.417**	ug/L	0.509	1	4	2771272	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:26:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1452181	1452181	1
	Be	9	99.850	ug/L	2.918	2	10	423209	1
	C	13		ug/L			122688	116585	2
	Cl	37		ug/L			4809329	5156950	0
>	Sc	45		ug/L			1221736	1243183	1
	V	51	101.116	ug/L	1.796	1	8932	2647742	0
	V-1	51	100.892	ug/L	1.754	1	79	2618758	0
	Cr	52	100.721	ug/L	2.399	2	26512	2200472	1
	Cr	53	99.939	ug/L	2.594	2	164	239384	1
	Mn	55	100.758	ug/L	3.725	3	526	3010684	4
	Co	59	100.965	ug/L	0.931	0	57	2181766	2
>	Ge	72		ug/L			666235	650981	2
	Ni	60	100.261	ug/L	1.979	1	11	440324	1
	Ni	62	100.764	ug/L	4.255	4	4585	66985	1
	Cu	63	99.330	ug/L	3.636	3	3389	970902	1
	Cu	65	100.161	ug/L	2.595	2	47	439837	1
	Zn	66	98.979	ug/L	4.754	4	115	260424	2
	Zn	67	99.593	ug/L	1.495	1	14	43879	3
	Zn	68	99.724	ug/L	2.732	2	160	190435	0
	As	75	99.841	ug/L	1.244	1	82	226649	1
	As-1	75	99.873	ug/L	1.747	1	10540	241423	0
	Se	82	99.479	ug/L	1 613	1	0	24399	0
	Se	78	99.621	ug/L	3.364	3	10716	77033	0
	Mo	98	100.145	ug/L	2 364	2	12	535398	1
	Y	89		ug/L			407553	412314	0
	Kr	83		ug/L			373	432	3
>	In	115		ug/L			1034700	1013706	1
	Ag	107	99.869	ug/L	0.767	0	17	1085230	1
	Cd	111	99.704	ug/L	1.791	1	81	510212	0
	Cd	114	99.580	ug/L	2.095	2	29	1291527	0
	Sb	121	99.759	ug/L	0.660	0	57	1542611	0
	Sb	123	99.952	ug/L	0.522	0	42	1166796	1
	Ba	135	100.144	ug/L	1 380	1	12	485194	0
	Ba	137	100.237	ug/L	0.905	0	12	848803	1
>	Tb	159		ug/L			1245990	1244150	0
	Tl	205	99.635	ug/L	1.184	1	75	4228514	0
	Pb	208	100.049	ug/L	1.161	1	181	5439424	0
	Bi	209		ug/L			2867512	2708987	0
	Th	232	100.055	ug/L	1.599	1	132	5276267	0
	U	238	99.899	ug/L	0.794	0	4	5416006	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:33:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1452181	1480190	2
	Be	9	0.002	ug/L	0.001	42	10	20	21
	C	13		ug/L			122688	124802	2
	Cl	37		ug/L			4809329	5065695	2
>	Sc	45		ug/L			1221736	1257555	3
	V	51	0.015	ug/L	0.011	75	8932	9574	0
	V-1	51	0.001	ug/L	0.002	171	79	104	36
	Cr	52	0.046	ug/L	0.035	75	26512	28278	0
	Cr	53	-0.001	ug/L	0.002	217	164	167	2
	Mn	55	0.000	ug/L	0.003	1142	526	548	13
	Co	59	0.002	ug/L	0.001	87	57	92	29
>	Ge	72		ug/L			666235	661091	1
	Ni	60	0.002	ug/L	0.001	55	11	19	25
	Ni	62	-0.709	ug/L	0.148	20	4585	4103	2
	Cu	63	-0.027	ug/L	0.006	22	3389	3090	1
	Cu	65	0.005	ug/L	0.001	29	47	68	10
	Zn	66	0.000	ug/L	0.006	2976	115	115	13
	Zn	67	0.012	ug/L	0.010	82	14	20	21
	Zn	68	0.013	ug/L	0 012	88	160	184	13
	As	75	0.015	ug/L	0.010	65	82	115	20
	As-1	75	0.211	ug/L	0.045	21	10540	10953	0
	Se	82	-0.018	ug/L	0.040	225	0	-4	202
	Se	78	0.707	ug/L	0 185	26	10716	11112	0
	Mo	98	0.020	ug/L	0.010	51	12	121	47
	Y	89		ug/L			407553	413329	2
	Kr	83		ug/L			373	410	5
>	In	115		ug/L			1034700	1023564	1
	Ag	107	0.006	ug/L	0.009	139	17	87	112
	Cd	111	0.009	ug/L	0.008	81	81	128	31
	Cd	114	0.005	ug/L	0.006	115	29	94	79
	Sb	121	0.128	ug/L	0.010	7	57	2056	7
	Sb	123	0.126	ug/L	0 007	5	42	1523	4
	Ba	135	0.003	ug/L	0.004	136	12	25	70
	Ba	137	0.003	ug/L	0.003	130	12	34	84
>	Tb	159		ug/L			1245990	1214298	0
	Tl	205	0.010	ug/L	0.001	12	75	493	10
	Pb	208	0.002	ug/L	0.003	144	181	278	52
	Bi	209		ug/L			2867512	2861920	0
	Th	232	0.219	ug/L	0.019	8	132	11380	8
	U	238	0.005	ug/L	0.002	29	4	281	28

Sample Information

Sample Date/Time: Monday, November 26, 2012 10:33:29
Method File: C:\NexION Data\Method\200.8nomin.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**1.0000**	0.003	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**0.9998**	0.021	0.20	10	20	50	100
V-1	51	**0.9999**	0.021	0.20	10	20	50	100
Cr	52	**0.9999**	0.017	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**0.9999**	0.024	0.50	10	20	50	100
Co	59	**0.9998**	0.017	0.20	10	20	50	100
Ge	72							
Ni	60	**0.9999**	0.007	0.50	10	20	50	100
Ni	62	**0.9999**	0.001	0.50	10	20	50	100
Cu	63	**0.9999**	0.015	0.50	10	20	50	100
Cu	65	**1.0000**	0.007	0.50	10	20	50	100
Zn	66	**0.9998**	0.004	4.00	10	20	50	100
Zn	67	**1.0000**	0.001	4.00	10	20	50	100
Zn	68	**0.9999**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.004	0.20	10	20	50	100
Se	82	**0.9999**	0.000	0.50	10	20	50	100
Se	78	**0.9999**	0.001	0.50	10	20	50	100
Mo	98	**1.0000**	0.008	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.011	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.013	0.10	10	20	50	100
Sb	121	**1.0000**	0.015	0.20	10	20	50	100
Sb	123	**1.0000**	0.012	0.20	10	20	50	100
Ba	135	**1.0000**	0.005	0.50	10	20	50	100
Ba	137	**1.0000**	0.008	0.50	10	20	50	100
Tb	159							
Tl	205	**1.0000**	0.034	0.20	10	20	50	100
Pb	208	**1.0000**	0.044	0.10	10	20	50	100
Bi	209							
Th	232	**0.9999**	0.042	0.20	10	20	50	100
U	238	**1.0000**	0.044	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:43:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1529055 ✓	1
	Be	9	49.712	ug/L	0.861	1	10	221888	0
	C	13		ug/L			122688	125975	1
	Cl	37		ug/L			4809329	5213504	1
>	Sc	45		ug/L			1221736	1268936 ✓	1
	V	51	51.073	ug/L	0.953	1	8932	1369561	0
	V-1	51	51.371	ug/L	1.273	2	79	1360952	1
	Cr	52	50.540	ug/L	0.446	0	26512	1140839	0
	Cr	53	51.564	ug/L	1.661	3	164	126161	3
	Mn	55	51.473	ug/L	1.502	2	526	1569232	1
	Co	59	50.233	ug/L	0.723	1	57	1107747	0
>	Ge	72		ug/L			666235	677661 ✓	1
	Ni	60	51.202	ug/L	0.613	1	11	234113	0
	Ni	62	49.663	ug/L	0.907	1	4585	36747	0
	Cu	63	51.172	ug/L	0 363	0	3389	522642	1
	Cu	65	50.711	ug/L	1.108	2	47	231858	0
	Zn	66	49.947	ug/L	0.319	0	115	136974	2
	Zn	67	50.759	ug/L	1.618	3	14	23278	2
	Zn	68	49.579	ug/L	1.661	3	160	98660	2
	As	75	50.107	ug/L	1.074	2	82	118454	1
	As-1	75	50.399	ug/L	0.977	1	10540	132142	0
	Se	82	78.818	ug/L	1.688	2	0	20127	2
	Se	78	77.904	ug/L	1.439	1	10716	65103	0
	Mo	98	48.614	ug/L	0.693	1	12	270634	1
	Y	89		ug/L			407553	423001	0
	Kr	83		ug/L			373	437	2
>	In	115		ug/L			1034700	1037718 ✓	1
	Ag	107	52.627	ug/L	0.410	0	17	585399	0
	Cd	111	50.381	ug/L	0.849	1	81	263978	0
	Cd	114	50.756	ug/L	0.883	1	29	673998	1
	Sb	121	50.602	ug/L	0.495	0	57	801055	0
	Sb	123	50.023	ug/L	0.782	1	42	597767	1
	Ba	135	50.616	ug/L	0.978	1	12	251050	1
	Ba	137	50.150	ug/L	0.814	1	12	434734	1
>	Tb	159		ug/L			1245990	1271091 ✓	1
	Tl	205	51.795	ug/L	0.653	1	75	2245807	0
	Pb	208	50.340	ug/L	0.465	0	181	2796187	0
	Bi	209		ug/L			2867512	2791025	0
	Th	232	52.165	ug/L	1.016	1	132	2810317	0
	U	238	52.052	ug/L	0.549	1	4	2883024	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:50:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1483374	0
	Be	9	0.002	ug/L	0.001	48	10	21	24
	C	13		ug/L			122688	125418	0
	Cl	37		ug/L			4809329	5075946	1
>	Sc	45		ug/L			1221736	1239146	2
	V	51	0.025	ug/L	0.008	33	8932	9711	1
	V-1	51	-0.000	ug/L	0 001	1014	79	79	24
	Cr	52	0.087	ug/L	0.027	31	26512	28754	1
	Cr	53	0.001	ug/L	0.003	397	164	169	6
	Mn	55	0.000	ug/L	0.001	365	526	539	1
	Co	59	0.001	ug/L	0.000	46	57	72	7
>	Ge	72		ug/L			666235	649944	1
	Ni	60	0.001	ug/L	0.001	99	11	16	35
	Ni	62	-1.773	ug/L	0.060	3	4585	3374	0
	Cu	63	-0.075	ug/L	0.009	12	3389	2572	2
	Cu	65	0.003	ug/L	0.001	45	47	60	10
	Zn	66	-0.003	ug/L	0.005	170	115	105	11
	Zn	67	0.014	ug/L	0.004	26	14	20	7
	Zn	68	-0.003	ug/L	0.005	150	160	150	7
	As	75	-0.009	ug/L	0.015	178	82	60	58
	As-1	75	0.288	ug/L	0.069	24	10540	10946	0
	Se	82	-0.038	ug/L	0.028	73	0	-9	67
	Se	78	1.044	ug/L	0.261	24	10716	11149	0
	Mo	98	0.009	ug/L	0.002	25	12	61	19
	Y	89		ug/L			407553	413786	1
	Kr	83		ug/L			373	412	3
>	In	115		ug/L			1034700	1007612	0
	Ag	107	0.003	ug/L	0.002	77	17	48	50
	Cd	111	0.004	ug/L	0.002	38	81	101	9
	Cd	114	0.002	ug/L	0.001	72	29	53	33
	Sb	121	0.037	ug/L	0.007	18	57	623	16
	Sb	123	0.037	ug/L	0.007	18	42	468	17
	Ba	135	-0.000	ug/L	0.000	163	12	11	10
	Ba	137	0.002	ug/L	0.002	141	12	25	75
>	Tb	159		ug/L			1245990	1221031	1
	Tl	205	0.004	ug/L	0.002	41	75	251	30
	Pb	208	0.001	ug/L	0.000	79	181	208	12
	Bi	209		ug/L			2867512	2820290	0
	Th	232	0.123	ug/L	0.008	6	132	6515	7
	U	238	0.002	ug/L	0.000	1	4	132	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:54:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens	RSD
>	Li	6		ug/L			1452181	1492475	✓	1
	Be	9	50.359	ug/L	0.762	1	10	219398		0
	C	13		ug/L			122688	119979		1
	Cl	37		ug/L			4809329	5209240		2
>	Sc	45		ug/L			1221736	1276127	✓	1
	V	51	49.106	ug/L	1.603	3	8932	1324542		2
	V-1	51	49.443	ug/L	1.479	2	79	1317180		1
	Cr	52	49.062	ug/L	1.025	2	26512	1114463		1
	Cr	53	50.230	ug/L	1.426	2	164	123580		1
	Mn	55	49.485	ug/L	1 094	2	526	1517361		1
	Co	59	48.622	ug/L	2.270	4	57	1077944		3
>	Ge	72		ug/L			666235	665476	✓	0
	Ni	60	50.072	ug/L	0.378	0	11	224863		0
	Ni	62	47.934	ug/L	1.236	2	4585	34995		2
	Cu	63	51.338	ug/L	0.650	1	3389	514910		1
	Cu	65	49.144	ug/L	1.174	2	47	220709		2
	Zn	66	51.440	ug/L	0.300	0	115	138521		0
	Zn	67	50.677	ug/L	0.990	1	14	22830		2
	Zn	68	50.595	ug/L	0.557	1	160	98887		0
	As	75	51.023	ug/L	0.453	0	82	118469		0
	As-1	75	50.838	ug/L	0.390	0	10540	130828		0
	Se	82	51.297	ug/L	0 250	0	0	12865		0
	Se	78	50.663	ug/L	0.159	0	10716	45326		0
	Mo	98	49.864	ug/L	1 568	3	12	272604		2
	Y	89		ug/L			407553	424323		2
	Kr	83		ug/L			373	426		8
>	In	115		ug/L			1034700	1028642	✓	0
	Ag	107	51.233	ug/L	0.644	1	17	564961		1
	Cd	111	50.171	ug/L	0.319	0	81	260602		1
	Cd	114	50.711	ug/L	0.266	0	29	667517		0
	Sb	121	50.051	ug/L	0.367	0	57	785405		0
	Sb	123	49.889	ug/L	0 820	1	42	590934		0
	Ba	135	49.980	ug/L	0.636	1	12	245740		0
	Ba	137	49.150	ug/L	0.104	0	12	422355		0
>	Tb	159		ug/L			1245990	1252346	✓	0
	Tl	205	51.173	ug/L	0.241	0	75	2186281		0
	Pb	208	49.797	ug/L	0.304	0	181	2725336		0
	Bi	209		ug/L			2867512	2797875		0
	Th	232	50.536	ug/L	0.378	0	132	2682725		0
	U	238	51.006	ug/L	0.417	0	4	2783553		0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:01:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1466136 ✓	4
	Be	9	0.001	ug/L	0.001	98	10	17	41
	C	13		ug/L			122688	123163	1
	Cl	37		ug/L			4809329	5192111	1
>	Sc	45		ug/L			1221736	1250524 ✓	3
	V	51	0.015	ug/L	0.017	109	8932	9529	1
	V-1	51	0.000	ug/L	0.000	222	79	85	8
	Cr	52	0.049	ug/L	0.048	99	26512	28176	0
	Cr	53	-0.002	ug/L	0 008	407	164	164	15
	Mn	55	-0.002	ug/L	0.001	66	526	483	5
	Co	59	0.001	ug/L	0.000	17	57	75	0
>	Ge	72		ug/L			666235	649030 ✓	2
	Ni	60	0.001	ug/L	0.001	52	11	15	13
	Ni	62	-2.181	ug/L	0.090	4	4585	3116	1
	Cu	63	-0.094	ug/L	0.006	6	3389	2390	0
	Cu	65	0.001	ug/L	0.001	36	47	52	2
	Zn	66	-0.006	ug/L	0.005	78	115	97	14
	Zn	67	0.017	ug/L	0.005	27	14	21	7
	Zn	68	0.002	ug/L	0.009	456	160	160	13
	As	75	0.011	ug/L	0.019	165	82	105	38
	As-1	75	0.338	ug/L	0.084	24	10540	11045	0
	Se	82	-0.012	ug/L	0.051	433	0	-3	343
	Se	78	1.185	ug/L	0.271	22	10716	11225	0
	Mo	98	0.010	ug/L	0.003	30	12	62	23
	Y	89		ug/L			407553	415042	1
	Kr	83		ug/L			373	420	3
>	In	115		ug/L			1034700	1008687 ✓	2
	Ag	107	0.002	ug/L	0.000	18	17	33	8
	Cd	111	0.004	ug/L	0.002	60	81	100	10
	Cd	114	0.001	ug/L	0.000	8	29	40	3
	Sb	121	0.069	ug/L	0.005	7	57	1114	8
	Sb	123	0.069	ug/L	0.003	4	42	839	5
	Ba	135	0.000	ug/L	0.000	15738	12	12	16
	Ba	137	0.001	ug/L	0.001	85	12	20	35
>	Tb	159		ug/L			1245990	1196291 ✓	0
	Tl	205	0.005	ug/L	0.002	41	75	270	30
	Pb	208	0.000	ug/L	0.000	82	181	184	5
	Bi	209		ug/L			2867512	2816760	1
	Th	232	0.171	ug/L	0.022	12	132	8786	12
	U	238	0.003	ug/L	0.000	10	4	144	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:05:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1465604 ✓	0
	Be	9	0.213	ug/L	0.008	3	10	921	3
	C	13		ug/L			122688	129329	1
	Cl	37		ug/L			4809329	5029040	3
>	Sc	45		ug/L			1221736	1241640 ✓	0
	V	51	0.232	ug/L	0.007	2	8932	15130	1
	V-1	51	0.210	ug/L	0 006	2	79	5522	2
	Cr	52	0.579	ug/L	0.031	5	26512	39433	2
	Cr	53	0.509	ug/L	0.012	2	164	1383	2
	Mn	55	0.511	ug/L	0.013	2	526	15773	3
	Co	59	0.202	ug/L	0.006	3	57	4409	2
>	Ge	72		ug/L			666235	659675 ✓	0
	Ni	60	0.514	ug/L	0.017	3	11	2297	3
	Ni	62	-1.845	ug/L	0.115	6	4585	3379	2
	Cu	63	0.417	ug/L	0.029	7	3389	7468	3
	Cu	65	0.533	ug/L	0.005	0	47	2421	0
	Zn	66	4.621	ug/L	0.076	1	115	12437	1
	Zn	67	4.209	ug/L	0.144	3	14	1892	3
	Zn	68	4.399	ug/L	0.020	0	160	8667	0
	As	75	0.203	ug/L	0.017	8	82	548	7
	As-1	75	0.419	ug/L	0 045	10	10540	11419	0
	Se	82	0.516	ug/L	0.044	8	0	127	9
	Se	78	1.277	ug/L	0.162	12	10716	11475	0
	Mo	98	0.193	ug/L	0.013	6	12	1057	6
	Y	89		ug/L			407553	414287	1
	Kr	83		ug/L			373	400	1
>	In	115		ug/L			1034700	1023154 ✓	1
	Ag	107	0.210	ug/L	0.004	1	17	2315	0
	Cd	111	0.111	ug/L	0.005	4	81	653	3
	Cd	114	0.107	ug/L	0.005	4	29	1426	2
	Sb	121	0.211	ug/L	0 002	0	57	3358	2
	Sb	123	0.215	ug/L	0.009	4	42	2574	3
	Ba	135	0.493	ug/L	0.008	1	12	2424	1
	Ba	137	0.487	ug/L	0.005	0	12	4176	0
>	Tb	159		ug/L			1245990	1215210 ✓	0
	Tl	205	0.208	ug/L	0.001	0	75	8696	0
	Pb	208	0.114	ug/L	0.005	4	181	6213	3
	Bi	209		ug/L			2867512	2828720	1
	Th	232	0.213	ug/L	0.006	2	132	11122	2
	U	238	0.198	ug/L	0.003	1	4	10485	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:09:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1506381	2
	Be	9	0.000	ug/L	0.001	1374	10	11	32
	C	13		ug/L			122688	220782	2
	Cl	37		ug/L			4809329	14161703	6
>	Sc	45		ug/L			1221736	1301140	1
	V	51	0.142	ug/L	0.013	9	8932	13383	1
	V-1	51	1.021	ug/L	0.032	3	79	27834	4
	Cr	52	0.603	ug/L	0.037	6	26512	41849	2
	Cr	53	3.660	ug/L	0.138	3	164	9350	5
	Mn	55	0.067	ug/L	0.002	3	526	2646	3
	Co	59	0.023	ug/L	0.001	3	57	582	4
>	Ge	72		ug/L			666235	661270	1
	Ni	60	0.354	ug/L	0.020	5	11	1590	3
	Ni	62	5.873	ug/L	1.228	20	4585	8258	10
	Cu	63	1.335	ug/L	0.088	6	3389	16582	6
	Cu	65	0.376	ug/L	0.009	2	47	1726	3
	Zn	66	0.964	ug/L	0.022	2	115	2692	2
	Zn	67	6.532	ug/L	0.422	6	14	2934	4
	Zn	68	0.410	ug/L	0.002	0	160	953	2
	As	75	0.062	ug/L	0 023	36	82	222	21
	As-1	75	0.535	ug/L	0.153	28	10540	11714	1
	Se	82	-0.217	ug/L	0 028	12	0	-54	13
	Se	78	1.785	ug/L	0.466	26	10716	11844	1
	Mo	98	419.453	ug/L	1.707	0	12	2278509	1
	Y	89		ug/L			407553	420285	0
	Kr	83		ug/L			373	671	4
>	In	115		ug/L			1034700	1004539	1
	Ag	107	0.019	ug/L	0.001	5	17	221	5
	Cd	111	0.172	ug/L	0.018	10	81	952	9
	Cd	114	0.287	ug/L	0.004	1	29	3721	0
	Sb	121	0.076	ug/L	0.004	4	57	1214	6
	Sb	123	0.073	ug/L	0.004	5	42	881	6
	Ba	135	0.051	ug/L	0.002	4	12	258	6
	Ba	137	0.040	ug/L	0.003	6	12	348	5
>	Tb	159		ug/L			1245990	1259173	1
	Tl	205	0.041	ug/L	0.002	3	75	1818	4
	Pb	208	0.034	ug/L	0.000	0	181	2055	0
	Bi	209		ug/L			2867512	2599701	1
	Th	232	0.227	ug/L	0.071	31	132	12198	30
	U	238	0.001	ug/L	0.000	16	4	77	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:16:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	**Li**	**6**		ug/L			1452181	1485081 ✓	2
	Be	**9**	**0.001**	ug/L	0.001	65	10	15	17
	C	**13**		ug/L			122688	233253	2
	Cl	**37**		ug/L			4809329	14447099	2
>	**Sc**	**45**		ug/L			1221736	1287242 ✓	1
	V	**51**	**0.123**	ug/L	0.254	205	8932	12819	55
	V-1	**51**	**1.001**	ug/L	0.036	3	79	26980	2
	Cr	**52**	**20.312**	ug/L	0.319	1	26512	481823	1
	Cr	**53**	**23.733**	ug/L	1.019	4	164	58974	2
	Mn	**55**	**19.847**	ug/L	0.566	2	526	614104	1
	Co	**59**	**19.454**	ug/L	0.394	2	57	435201	0
>	**Ge**	**72**		ug/L			666235	658680 ✓	2
	Ni	**60**	**20.251**	ug/L	0.418	2	11	89993	0
	Ni	**62**	**24.860**	ug/L	0.975	3	4585	20137	1
	Cu	**63**	**21.084**	ug/L	0.586	2	3389	211219	2
	Cu	**65**	**20.261**	ug/L	0.730	3	47	90042	1
	Zn	**66**	**19.909**	ug/L	0.655	3	115	53113	2
	Zn	**67**	**23.551**	ug/L	0.572	2	14	10505	1
	Zn	**68**	**18.576**	ug/L	0 531	2	160	36032	3
	As	**75**	**20.309**	ug/L	0.437	2	82	46706	0
	As-1	**75**	**20.307**	ug/L	0.498	2	10540	57966	0
	Se	**82**	**-0.218**	ug/L	0.008	3	0	-54	3
	Se	**78**	**1.481**	ug/L	0.261	17	10716	11593	0
	Mo	**98**	**421.681**	ug/L	19.419	4	12	2280180	2
	Y	**89**		ug/L			407553	413916	0
	Kr	**83**		ug/L			373	646	3
>	**In**	**115**		ug/L			1034700	1013989 ✓	0
	Ag	**107**	**21.238**	ug/L	0.775	3	17	230829	3
	Cd	**111**	**19.819**	ug/L	0.298	1	81	101521	0
	Cd	**114**	**20.002**	ug/L	0.154	0	29	259563	0
	Sb	**121**	**0.070**	ug/L	0.003	3	57	1133	3
	Sb	**123**	**0.072**	ug/L	0.004	4	42	879	4
	Ba	**135**	**0.048**	ug/L	0.003	5	12	246	5
	Ba	**137**	**0.041**	ug/L	0.004	10	12	356	10
>	**Tb**	**159**		ug/L			1245990	1258930 ✓	0
	Tl	**205**	**0.033**	ug/L	0.001	2	75	1474	2
	Pb	**208**	**0.032**	ug/L	0.001	2	181	1967	1
	Bi	**209**		ug/L			2867512	2609853	1
	Th	**232**	**0.084**	ug/L	0.008	9	132	4638	9
	U	**238**	**0.001**	ug/L	0.000	32	4	33	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:22:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1452181	1457970	0
	Be	9	202.770	ug/L	6.024	2	10	862917	2
	C	13		ug/L			122688	129857	3
	Cl	37		ug/L			4809329	5388262	4
>	Sc	45		ug/L			1221736	1234343	0
	V	51	202.143	ug/L	3.970	1	8932	5246613	1
	V-1	51	202.321	ug/L	3.144	1	79	5214259	0
	Cr	52	201.341	ug/L	3.427	1	26512	4341032	0
	Cr	53	201.944	ug/L	1.293	0	164	480190	0
	Mn	55	199.235	ug/L	7.849	3	526	5907504	3
	Co	59	194.856	ug/L	1.732	0	57	4180182	0
>	Ge	72		ug/L			666235	622046	1
	Ni	60	199.351	ug/L	1.624	0	11	836720	0
	Ni	62	205.045	ug/L	1.942	0	4585	125893	1
	Cu	63	199.679	ug/L	2.220	1	3389	1862698	0
	Cu	65	196.988	ug/L	5.724	2	47	826578	1
	Zn	66	199.632	ug/L	4.200	2	115	502073	0
	Zn	67	198.274	ug/L	2 850	1	14	83442	0
	Zn	68	195.695	ug/L	3 130	1	160	357044	0
	As	75	203.123	ug/L	3.675	1	82	440541	0
	As-1	75	202.048	ug/L	3.320	1	10540	456683	0
	Se	82	200.204	ug/L	5.257	2	0	46922	1
	Se	78	196.897	ug/L	3.688	1	10716	135760	0
	Mo	98	212.453	ug/L	3.354	1	12	1085498	0
	Y	89		ug/L			407553	395313	0
	Kr	83		ug/L			373	637	5
>	In	115		ug/L			1034700	992273	1
	Ag	107	223.233	ug/L	4.339	1	17	2374035	1
	Cd	111	201.215	ug/L	0.785	0	81	1007967	1
	Cd	114	210.637	ug/L	2.546	1	29	2674258	0
	Sb	121	216.035	ug/L	3.428	1	57	3269564	0
	Sb	123	217.706	ug/L	2.279	1	42	2487366	0
	Ba	135	207.774	ug/L	3.225	1	12	985393	1
	Ba	137	205.466	ug/L	1.477	0	12	1703031	1
>	Tb	159		ug/L			1245990	1244938	1
	Tl	205	196.985	ug/L	1.243	0	75	8365546	0
	Pb	208	201.062	ug/L	2.915	1	181	10937183	0
	Bi	209		ug/L			2867512	2568374	0
	Th	232	198.706	ug/L	3.993	2	132	10484154	0
	U	238	198.836	ug/L	4.215	2	4	10785269	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:29:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1452181	1396612	1
	Be	9	308.951	ug/L	9.052	2	10	1259290	1
	C	13		ug/L			122688	130421	2
	Cl	37		ug/L			4809329	5288449	2
>	Sc	45		ug/L			1221736	1202185	0
	V	51	309.302	ug/L	0.995	0	8932	7814991	0
	V-1	51	308.840	ug/L	1.999	0	79	7752828	0
	Cr	52	310.791	ug/L	5 346	1	26512	6512455	1
	Cr	53	309.216	ug/L	1.440	0	164	716027	0
	Mn	55	306.163	ug/L	1.739	0	526	8843080	0
	Co	59	298.248	ug/L	6.200	2	57	6231982	2
>	Ge	72		ug/L			666235	604039	0
	Ni	60	307.652	ug/L	5.548	1	11	1253855	0
	Ni	62	315.324	ug/L	6.298	1	4585	185789	2
	Cu	63	314.792	ug/L	3.587	1	3389	2850002	1
	Cu	65	301.620	ug/L	5.907	1	47	1229215	1
	Zn	66	292.438	ug/L	2.582	0	115	714329	1
	Zn	67	296.854	ug/L	1.234	0	14	121320	0
	Zn	68	292.660	ug/L	4.739	1	160	518461	0
	As	75	308.071	ug/L	4.326	1	82	648854	0
	As-1	75	308.362	ug/L	3.853	1	10540	671844	0
	Se	82	292.057	ug/L	2.012	0	0	66483	0
	Se	78	294.508	ug/L	2.703	0	10716	192396	0
	Mo	98	330.867	ug/L	9.071	2	12	1641600	2
	Y	89		ug/L			407553	386848	0
	Kr	83		ug/L			373	802	6
>	In	115		ug/L			1034700	951508	0
	Ag	107	320.036	ug/L	4.195	1	17	3264277	1
	Cd	111	305.690	ug/L	0.270	0	81	1468412	0
	Cd	114	314.836	ug/L	1.775	0	29	3833421	0
	Sb	121	323.641	ug/L	3.477	1	57	4697574	0
	Sb	123	325.625	ug/L	3.052	0	42	3567935	1
	Ba	135	322.251	ug/L	0.959	0	12	1465671	0
	Ba	137	333.310	ug/L	0.693	0	12	2649354	0
>	Tb	159		ug/L			1245990	1215850	0
	Tl	205	298.988	ug/L	4.839	1	75	12400818	1
	Pb	208	303.583	ug/L	2.906	0	181	16129262	0
	Bi	209		ug/L			2867512	2423228	0
	Th	232	304.804	ug/L	2.524	0	132	15708249	0
	U	238	304.390	ug/L	7.252	2	4	16125834	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:36:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
[>	Li	6		ug/L			1452181	1480935	0
[	Be	9	0.003	ug/L	0.001	45	10	22	24
	C	13		ug/L			122688	130214	1
	Cl	37		ug/L			4809329	5193418	1
[>	Sc	45		ug/L			1221736	1228680	2
[	V	51	0.022	ug/L	0.004	17	8932	9562	1
[	V-1	51	0.011	ug/L	0.001	9	79	372	6
[	Cr	52	0.075	ug/L	0.010	13	26512	28270	1
[	Cr	53	0.038	ug/L	0.004	10	164	255	5
[	Mn	55	0.017	ug/L	0.003	16	526	1034	6
[	Co	59	0.001	ug/L	0.001	65	57	88	20
[>	Ge	72		ug/L			666235	642985	1
[	Ni	60	0.019	ug/L	0.001	3	11	94	1
[	Ni	62	-1.655	ug/L	0.297	17	4585	3410	5
[	Cu	63	-0.064	ug/L	0.020	31	3389	2652	8
[	Cu	65	0.016	ug/L	0.001	8	47	114	6
[	Zn	66	1.155	ug/L	0.021	1	115	3114	1
[	Zn	67	1.084	ug/L	0.033	3	14	485	2
[	Zn	68	1.122	ug/L	0.019	1	160	2269	0
[	As	75	0.020	ug/L	0.013	66	82	123	23
[	As-1	75	0.276	ug/L	0 042	15	10540	10802	0
[	Se	82	0.025	ug/L	0.048	187	0	5	204
[	Se	78	0.949	ug/L	0.141	14	10716	10967	0
[	Mo	98	0.043	ug/L	0.000	0	12	238	0
	Y	89		ug/L			407553	404075	1
	Kr	83		ug/L			373	394	8
[>	In	115		ug/L			1034700	1024752	1
[	Ag	107	0.018	ug/L	0 001	5	17	211	6
[	Cd	111	0.009	ug/L	0.001	15	81	129	6
[	Cd	114	0.004	ug/L	0.001	14	29	85	10
[	Sb	121	0.296	ug/L	0.044	14	57	4681	12
[	Sb	123	0.291	ug/L	0.037	12	42	3471	11
[	Ba	135	0.007	ug/L	0.003	39	12	47	28
[	Ba	137	0.009	ug/L	0.001	10	12	90	10
[>	Tb	159		ug/L			1245990	1214798	0
[	Tl	205	0.024	ug/L	0.009	36	75	1083	33
[	Pb	208	0.009	ug/L	0.001	8	181	650	5
[	Bi	209		ug/L			2867512	2815493	0
[	Th	232	0.272	ug/L	0.020	7	132	14158	6
[	U	238	0.007	ug/L	0.001	9	4	381	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:42:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1442746	0
	Be	9	0.003	ug/L	0 001	47	10	23	26
	C	13		ug/L			122688	132805	1
	Cl	37		ug/L			4809329	5061172	3
>	Sc	45		ug/L			1221736	1249180	2
	V	51	0.029	ug/L	0.015	53	8932	9883	1
	V-1	51	0.008	ug/L	0 001	9	79	293	6
	Cr	52	0.097	ug/L	0.055	56	26512	29179	1
	Cr	53	0.026	ug/L	0.008	31	164	230	8
	Mn	55	0.007	ug/L	0.001	15	526	752	2
	Co	59	0.002	ug/L	0.001	34	57	92	9
>	Ge	72		ug/L			666235	645062	1
	Ni	60	0.014	ug/L	0.002	14	11	71	12
	Ni	62	-2.588	ug/L	0.100	3	4585	2847	1
	Cu	63	-0.112	ug/L	0.004	3	3389	2200	3
	Cu	65	0.007	ug/L	0.001	21	47	74	8
	Zn	66	0.151	ug/L	0.001	0	115	505	2
	Zn	67	0.148	ug/L	0.015	10	14	78	8
	Zn	68	0.155	ug/L	0.003	2	160	448	2
	As	75	0.010	ug/L	0.012	124	82	101	27
	As-1	75	0.265	ug/L	0.092	34	10540	10811	0
	Se	82	-0.016	ug/L	0.033	209	0	-4	183
	Se	78	0.922	ug/L	0.337	36	10716	10984	0
	Mo	98	0.013	ug/L	0.002	15	12	82	14
	Y	89		ug/L			407553	408931	3
	Kr	83		ug/L			373	407	3
>	In	115		ug/L			1034700	1007146	1
	Ag	107	0.007	ug/L	0.001	18	17	97	15
	Cd	111	0.007	ug/L	0.002	32	81	115	8
	Cd	114	0.003	ug/L	0.000	1	29	66	1
	Sb	121	0.087	ug/L	0.010	11	57	1393	10
	Sb	123	0.084	ug/L	0.015	18	42	1015	16
	Ba	135	0.004	ug/L	0.001	17	12	32	11
	Ba	137	0.006	ug/L	0.001	18	12	63	14
>	Tb	159		ug/L			1245990	1210903	1
	Tl	205	0.016	ug/L	0.007	42	75	744	37
	Pb	208	0.009	ug/L	0.000	1	181	662	3
	Bi	209		ug/L			2867512	2813953	0
	Th	232	0.085	ug/L	0.006	7	132	4474	5
	U	238	0.002	ug/L	0.000	10	4	93	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ERA P197
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, November 26, 2012 11:48:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
> Li	6		ug/L			1452181	1502149	0
Be	9	6.392 ✓	ug/L	0.018	0	10	28042	0
C	13		ug/L			122688	134789	1
Cl	37		ug/L			4809329	5141042	4
> Sc	45		ug/L			1221736	1268973	1
V	51	52.242 ✓	ug/L	0.580	1	8932	1400876	0
V-1	51	52.635 ✓	ug/L	1 022	1	79	1394518	0
Cr	52	56.137 ✓	ug/L	0.932	1	26512	1264139	1
Cr	53	57.572 ✓	ug/L	2.189	3	164	140814	2
Mn	55	48.647 ✓	ug/L	0.806	1	526	1483440	0
Co	59	88.862 ✓	ug/L	2.633	2	57	1959455	1
> Ge	72		ug/L			666235	651542	2
Ni	60	74.478 ✓	ug/L	2.448	3	11	327331	1
Ni	62	70.798 ✓	ug/L	0 850	1	4585	48460	1
Cu	63	32.230 ✓	ug/L	0.896	2	3389	317610	0
Cu	65	31.385 ✓	ug/L	0.674	2	47	138003	2
Zn	66	51.435 ✓	ug/L	1.461	2	115	135552	0
Zn	67	50.238 ✓	ug/L	1.024	2	14	22152	0
Zn	68	50.718 ✓	ug/L	2.196	4	160	96998	2
As	75	22.745 ✓	ug/L	0.598	2	82	51730	0
As-1	75	22.989 ✓	ug/L	0.916	3	10540	63541	1
Se	82	33.723 ✓	ug/L	0.552	1	0	8278	1
Se	78	33.840 ✓	ug/L	1.473	4	10716	33108	0
Mo	98	55.206 ✓	ug/L	0.603	1	12	295459	1
Y	89		ug/L			407553	418076	1
Kr	83		ug/L			373	394	8
> In	115		ug/L			1034700	1031399	0
Ag	107	43.491 ✓	ug/L	1.709	3	17	480906	4
Cd	111	15.566 ✓	ug/L	0.099	0	81	81127	0
Cd	114	15.257 ✓	ug/L	0.238	1	29	201383	1
Sb	121	31.716 ✓	ug/L	0.140	0	57	499070	1
Sb	123	31.757 ✓	ug/L	0.219	0	42	377211	0
Ba	135	46.020 ✓	ug/L	0.457	0	12	226878	0
Ba	137	45.697 ✓	ug/L	0.464	1	12	393709	0
> Tb	159		ug/L			1245990	1249280	0
Tl	205	18.333 ✓	ug/L	0.208	1	75	781332	0
Pb	208	224.972 ✓	ug/L	1.572	0	181	12281483	0
Bi	209		ug/L			2867512	2890413	0
Th	232	0.049	ug/L	0 003	6	132	2751	6
U	238	0.001	ug/L	0.000	19	4	54	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:53:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1452181	1447976	3
	Be	**9**	**0.002**	ug/L	0 001	62	10	18	30
	C	**13**		ug/L			122688	127201	0
	Cl	**37**		ug/L			4809329	5064977	4
>	**Sc**	**45**		ug/L			1221736	1234316	3
	V	**51**	**0.018**	ug/L	0.009	48	8932	9478	1
	V-1	**51**	**0.007**	ug/L	0.000	5	79	255	0
	Cr	**52**	**0.059**	ug/L	0.040	66	26512	28037	0
	Cr	**53**	**0.022**	ug/L	0.012	52	164	218	8
	Mn	**55**	**0.008**	ug/L	0.001	14	526	758	3
	Co	**59**	**0.003**	ug/L	0.000	0	57	122	3
>	**Ge**	**72**		ug/L			666235	628935	1
	Ni	**60**	**0.015**	ug/L	0.001	9	11	73	6
	Ni	**62**	**-2.921**	ug/L	0.213	7	4585	2575	3
	Cu	**63**	**-0.127**	ug/L	0.005	3	3389	2006	1
	Cu	**65**	**0.009**	ug/L	0.001	8	47	84	5
	Zn	**66**	**0.158**	ug/L	0.019	12	115	510	10
	Zn	**67**	**0.151**	ug/L	0.011	7	14	78	7
	Zn	**68**	**0.150**	ug/L	0.013	8	160	427	5
	As	**75**	**0.015**	ug/L	0.002	10	82	110	2
	As-1	**75**	**0.354**	ug/L	0.078	22	10540	10740	0
	Se	**82**	**0.028**	ug/L	0.018	63	0	6	69
	Se	**78**	**1.246**	ug/L	0.275	22	10716	10919	0
	Mo	**98**	**0.020**	ug/L	0.003	14	12	113	12
	Y	**89**		ug/L			407553	396234	2
	Kr	**83**		ug/L			373	393	2
>	**In**	**115**		ug/L			1034700	1005271	0
	Ag	**107**	**0.006**	ug/L	0 000	2	17	79	2
	Cd	**111**	**0.005**	ug/L	0 001	26	81	104	5
	Cd	**114**	**0.002**	ug/L	0.000	14	29	58	8
	Sb	**121**	**0.045**	ug/L	0.009	19	57	745	18
	Sb	**123**	**0.046**	ug/L	0.010	22	42	573	21
	Ba	**135**	**0.006**	ug/L	0.001	11	12	40	7
	Ba	**137**	**0.006**	ug/L	0.001	10	12	62	8
>	**Tb**	**159**		ug/L			1245990	1195607	0
	Tl	**205**	**0.008**	ug/L	0.003	41	75	403	34
	Pb	**208**	**0.011**	ug/L	0 000	3	181	738	1
	Bi	**209**		ug/L			2867512	2809883	1
	Th	**232**	**0.032**	ug/L	0.001	3	132	1735	3
	U	**238**	**0.001**	ug/L	0.000	8	4	32	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:57:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1452181	1546085 ✓	1
	Be	9	50.719	ug/L	1.206	2	10	228879	1
	C	13		ug/L			122688	126390	3
	Cl	37		ug/L			4809329	5458713	3
>	Sc	45		ug/L			1221736	1271918 ✓	0
	V	51	47.530	ug/L	1.029	2	8932	1278400	1
	V-1	51	48.013	ug/L	0.832	1	79	1275186	1
	Cr	52	48.881	ug/L	0.882	1	26512	1106989	1
	Cr	53	50.582	ug/L	0.926	1	164	124062	1
	Mn	55	49.212	ug/L	0.800	1	526	1504248	1
	Co	59	47.595	ug/L	1.466	3	57	1052214	3
>	Ge	72		ug/L			666235	650558 ✓	0
	Ni	60	50.756	ug/L	1.553	3	11	222797	2
	Ni	62	46.861	ug/L	0.593	1	4585	33547	1
	Cu	63	50.573	ug/L	0.929	1	3389	495876	1
	Cu	65	50.419	ug/L	0.756	1	47	221365	1
	Zn	66	51.809	ug/L	0.437	0	115	136385	1
	Zn	67	51.168	ug/L	0.701	1	14	22533	0
	Zn	68	52.162	ug/L	0.628	1	160	99658	0
	As	75	51.405	ug/L	0.614	1	82	116675	0
	As-1	75	51.233	ug/L	0.709	1	10540	128803	0
	Se	82	52.169	ug/L	0.340	0	0	12790	0
	Se	78	51.548	ug/L	0.686	1	10716	44900	0
	Mo	98	51.275	ug/L	0.945	1	12	274022	1
	Y	89		ug/L			407553	404905	2
	Kr	83		ug/L			373	418	4
>	In	115		ug/L			1034700	1020299 ✓	1
	Ag	107	53.133	ug/L	1 556	2	17	581030	2
	Cd	111	50.724	ug/L	1.108	2	81	261338	2
	Cd	114	51.210	ug/L	0.498	0	29	668595	0
	Sb	121	51.471	ug/L	0.745	1	57	801087	0
	Sb	123	51.445	ug/L	0.809	1	42	604420	0
	Ba	135	50.867	ug/L	0.810	1	12	248065	0
	Ba	137	49.734	ug/L	0.699	1	12	423899	1
>	Tb	159		ug/L			1245990	1251942 ✓	0
	Tl	205	51.872	ug/L	0.211	0	75	2215447	0
	Pb	208	49.646	ug/L	0.360	0	181	2716195	0
	Bi	209		ug/L			2867512	2784470	0
	Th	232	50.379	ug/L	0.662	1	132	2673469	0
	U	238	51.458	ug/L	0.360	0	4	2807321	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 12:04:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
[>	Li	6		ug/L			1452181	1493377	3
[	Be	9	0.002	ug/L	0.002	69	10	21	33
	C	13		ug/L			122688	130720	1
	Cl	37		ug/L			4809329	5117439	1
[>	Sc	45		ug/L			1221736	1239339	3
[	V	51	0.012	ug/L	0.008	69	8932	9364	2
[	V-1	51	0.004	ug/L	0.001	22	79	185	10
[	Cr	52	0.046	ug/L	0.026	56	26512	27876	2
[	Cr	53	0.020	ug/L	0.004	18	164	214	1
[	Mn	55	-0.000	ug/L	0.001	485	526	527	5
[	Co	59	0.002	ug/L	0.001	41	57	95	15
[>	Ge	72		ug/L			666235	644109	1
[	Ni	60	0.002	ug/L	0.001	57	11	17	21
[	Ni	62	-3.741	ug/L	0.126	3	4585	2134	2
[	Cu	63	-0.179	ug/L	0.006	3	3389	1549	2
[	Cu	65	-0.000	ug/L	0.001	533	47	45	7
[	Zn	66	-0.005	ug/L	0.007	148	115	99	19
[	Zn	67	0.014	ug/L	0.008	58	14	20	18
[	Zn	68	-0.001	ug/L	0.006	850	160	153	6
[	As	75	0.024	ug/L	0 016	67	82	133	26
[	As-1	75	0.261	ug/L	0.031	12	10540	10786	0
[	Se	82	0.054	ug/L	0.030	54	0	12	56
[	Se	78	0.910	ug/L	0.100	11	10716	10961	0
[	Mo	98	0.011	ug/L	0.001	13	12	68	11
	Y	89		ug/L			407553	406195	0
	Kr	83		ug/L			373	396	3
[>	In	115		ug/L			1034700	1000778	0
[	Ag	107	0.002	ug/L	0.001	57	17	38	31
[	Cd	111	0.004	ug/L	0.001	27	81	99	5
[	Cd	114	0.002	ug/L	0.001	37	29	49	15
[	Sb	121	0.078	ug/L	0.012	15	57	1243	14
[	Sb	123	0.078	ug/L	0.008	10	42	939	9
[	Ba	135	0.000	ug/L	0.001	5798	12	12	30
[	Ba	137	0.001	ug/L	0.000	32	12	19	11
[>	Tb	159		ug/L			1245990	1203256	0
[	Tl	205	0.008	ug/L	0.003	41	75	398	33
[	Pb	208	0.001	ug/L	0.000	39	181	222	8
[	Bi	209		ug/L			2867512	2800677	0
[	Th	232	0.158	ug/L	0 017	10	132	8206	10
[	U	238	0.002	ug/L	0.000	11	4	111	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:11:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1532575	1
	Be	9	0.001	ug/L	0.001	97	10	16	33
	C	13		ug/L			122688	136482	1
	Cl	37		ug/L			4809329	5078185	2
>	Sc	45		ug/L			1221736	1256492	2
	V	51	0.020	ug/L	0.007	33	8932	9717	0
	V-1	51	0.005	ug/L	0.000	9	79	204	4
	Cr	52	0.071	ug/L	0.016	22	26512	28803	1
	Cr	53	0.018	ug/L	0.008	44	164	212	11
	Mn	55	0.015	ug/L	0.003	20	526	996	7
	Co	59	0.002	ug/L	0.000	25	57	99	9
>	Ge	72		ug/L			666235	655704	1
	Ni	60	0.010	ug/L	0.001	6	11	53	5
	Ni	62	-4.031	ug/L	0.063	1	4585	1992	0
	Cu	63	-0.173	ug/L	0.007	4	3389	1633	3
	Cu	65	0.013	ug/L	0.003	27	47	102	14
	Zn	66	0.443	ug/L	0.028	6	115	1287	5
	Zn	67	0.414	ug/L	0.006	1	14	198	0
	Zn	68	0.434	ug/L	0.017	3	160	992	3
	As	75	0.005	ug/L	0.002	32	82	92	3
	As-1	75	0.205	ug/L	0.051	24	10540	10850	0
	Se	82	-0.006	ug/L	0 015	241	0	-2	173
	Se	78	0.736	ug/L	0.179	24	10716	11041	0
	Mo	98	0.005	ug/L	0.001	17	12	39	12
	Y	89		ug/L			407553	410366	1
	Kr	83		ug/L			373	412	1
>	In	115		ug/L			1034700	1028459	0
	Ag	107	0.002	ug/L	0.001	34	17	38	19
	Cd	111	0.005	ug/L	0.001	22	81	108	5
	Cd	114	0.002	ug/L	0.000	26	29	51	11
	Sb	121	0.030	ug/L	0.005	16	57	524	15
	Sb	123	0.030	ug/L	0.006	19	42	396	17
	Ba	135	0.009	ug/L	0.002	23	12	55	17
	Ba	137	0.010	ug/L	0.001	11	12	100	10
>	Tb	159		ug/L			1245990	1220693	0
	Tl	205	0.005	ug/L	0 002	36	75	292	27
	Pb	208	0.009	ug/L	0.000	2	181	635	1
	Bi	209		ug/L			2867512	2844918	1
	Th	232	0.086	ug/L	0.005	6	132	4600	5
	U	238	0.001	ug/L	0.000	34	4	36	30

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:15:38

Ag

Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1524537	2
[	Be	9	25.082	ug/L	0.686	2	10	111621	2
	C	13		ug/L			122688	132804	0
	Cl	37		ug/L			4809329	5224674	2
[>	Sc	45		ug/L			1221736	1264690	1
[	V	51	24.888	ug/L	0.992	3	8932	669719	2
[	V-1	51	24.970	ug/L	1.086	4	79	659124	2
[	Cr	52	25.366	ug/L	0.436	1	26512	584273	0
[	Cr	53	25.657	ug/L	0.791	3	164	62634	1
[	Mn	55	25.233	ug/L	0.425	1	526	767061	0
[	Co	59	23.921	ug/L	1.034	4	57	525589	2
[>	Ge	72		ug/L			666235	649619	2
[	Ni	60	26.432	ug/L	0.911	3	11	115827	2
[	Ni	62	22.749	ug/L	0.623	2	4585	18558	2
[	Cu	63	26.375	ug/L	1.181	4	3389	259627	1
[	Cu	65	26.637	ug/L	0.506	1	47	116825	4
[	Zn	66	84.032	ug/L	2.428	2	115	220709	1
[	Zn	67	78.469	ug/L	2.016	2	14	34506	4
[	Zn	68	83.149	ug/L	2.149	2	160	158474	1
[	As	75	25.363	ug/L	0.730	2	82	57504	2
[	As-1	75	25.971	ug/L	0.924	3	10540	70233	1
[	Se	82	83.140	ug/L	2.217	2	0	20345	1
[	Se	78	81.346	ug/L	2.988	3	10716	64679	0
[	Mo	98	24.568	ug/L	0 580	2	12	131067	1
	Y	89		ug/L			407553	422544	2
	Kr	83		ug/L			373	407	5
[>	In	115		ug/L			1034700	1043291	0
[	Ag	107	27.351	ug/L	0.157	0	17	305892	0
[	Cd	111	25.034	ug/L	0.641	2	81	131914	2
[	Cd	114	25.149	ug/L	0.329	1	29	335775	1
[	Sb	121	25.013	ug/L	0.449	1	57	398140	1
[	Sb	123	24.816	ug/L	0 261	1	42	298173	0
[	Ba	135	24.897	ug/L	0.315	1	12	124165	0
[	Ba	137	24.756	ug/L	0.161	0	12	215759	0
[>	Tb	159		ug/L			1245990	1226510	1
[	Tl	205	25.750	ug/L	0.604	2	75	1077200	0
[	Pb	208	26.142	ug/L	0.625	2	181	1401017	0
[	Bi	209		ug/L			2867512	2839300	0
[	Th	232	24.466	ug/L	0.467	1	132	1271869	0
[	U	238	24.717	ug/L	0.571	2	4	1320796	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:19:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
[>	Li	6		ug/L			1452181	1580425	2
[	Be	9	0.717	ug/L	0.029	4	10	3317	1
	C	13		ug/L			122688	171947	0
	Cl	37		ug/L			4809329	5311076	1
[>	Sc	45		ug/L			1221736	1567904	1
[	V	51	67.091	ug/L	1.949	2	8932	2219878	3
[	V-1	51	66.179	ug/L	1.004	1	79	2166854	2
[	Cr	52	136.801	ug/L	2.639	1	26512	3757677	1
[	Cr	53	134.946	ug/L	1.086	0	164	407660	1
[	Mn	55	915.659	ug/L	3.763	0	526	34492309	1
[	Co	59	17.967	ug/L	0.156	0	57	489719	1
[>	Ge	72		ug/L			666235	657846	1
[	Ni	60	85.871	ug/L	2 004	2	11	381147	1
[	Ni	62	89.598	ug/L	4.326	4	4585	60708	3
[	Cu	63	63.462	ug/L	0.320	0	3389	628392	0
[	Cu	65	64.508	ug/L	2.556	3	47	286287	2
[	Zn	66	744.020	ug/L	10.883	1	115	1978794	0
[	Zn	67	708.431	ug/L	15.275	2	14	315272	1
[	Zn	68	744.443	ug/L	27.313	3	160	1435850	2
[	As	75	41.152	ug/L	0 747	1	82	94459	0
[	As-1	75	40.301	ug/L	0.784	1	10540	104667	0
[	Se	82	0.029	ug/L	0.032	109	0	6	118
[	Se	78	0.659	ug/L	0.250	37	10716	11025	0
[	Mo	98	0.538	ug/L	0.020	3	12	2918	2
	Y	89		ug/L			407553	674601	3
	Kr	83		ug/L			373	1056	3
[>	In	115		ug/L			1034700	1112530	0
[	Ag	107	0.907	ug/L	0.016	1	17	10835	1
[	Cd	111	14.238	ug/L	0.228	1	81	80047	1
[	Cd	114	14.158	ug/L	0.058	0	29	201597	0
[	Sb	121	0.411	ug/L	0.008	1	57	7035	1
[	Sb	123	0.401	ug/L	0.011	2	42	5185	3
[	Ba	135	524.941	ug/L	4.668	0	12	2791573	0
[	Ba	137	526.279	ug/L	6.935	1	12	4890931	0
[>	Tb	159		ug/L			1245990	1267047	0
[	Tl	205	1.105	ug/L	0.009	0	75	47825	1
[	Pb	208	902.340	ug/L	4.253	0	181	49961748	0
[	Bi	209		ug/L			2867512	2678187	0
[	Th	232	5.062	ug/L	0.058	1	132	272002	0
[	U	238	0.711	ug/L	0.014	2	4	39267	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:23:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
[>	Li	6		ug/L			1452181	1577714	1
[	Be	9	0.609	ug/L	0.009	1	10	2815	0
	C	13		ug/L			122688	182847	1
	Cl	37		ug/L			4809329	5263022	3
[>	Sc	45		ug/L			1221736	1399462	1
[	V	51	39.308	ug/L	0.506	1	8932	1165220	2
[	V-1	51	39.616	ug/L	0.502	1	79	1157881	2
[	Cr	52	44.875	ug/L	0.640	1	26512	1120509	0
[	Cr	53	46.047	ug/L	0.747	1	164	124270	0
[	Mn	55	1514.409	ug/L	16.582	1	526	50922921	2
[	Co	59	10.208	ug/L	0.029	0	57	248370	1
[>	Ge	72		ug/L			666235	654092	1
[	Ni	60	21.707	ug/L	0.356	1	11	95815	1
[	Ni	62	20.326	ug/L	0.426	2	4585	17178	1
[	Cu	63	33.600	ug/L	0.431	1	3389	332369	1
[	Cu	65	32.950	ug/L	0.201	0	47	145456	0
[	Zn	66	853.558	ug/L	15.924	1	115	2257118	0
[	Zn	67	767.085	ug/L	13.490	1	14	339421	0
[	Zn	68	825.926	ug/L	12.372	1	160	1584440	2
[	As	75	30.655	ug/L	0.270	0	82	69995	1
[	As-1	75	30.085	ug/L	0.233	0	10540	80325	1
[	Se	82	0.007	ug/L	0.076	1047	0	1	1728
[	Se	78	0.691	ug/L	0.132	19	10716	10984	0
[	Mo	98	0.509	ug/L	0.015	2	12	2748	2
	Y	89		ug/L			407553	579406	2
	Kr	83		ug/L			373	868	4
[>	In	115		ug/L			1034700	1137173	1
[	Ag	107	0.467	ug/L	0.007	1	17	5712	2
[	Cd	111	24.379	ug/L	0.474	1	81	140016	0
[	Cd	114	24.040	ug/L	0.079	0	29	349850	1
[	Sb	121	0.583	ug/L	0.007	1	57	10178	1
[	Sb	123	0.579	ug/L	0.011	1	42	7633	2
[	Ba	135	682.265	ug/L	5.879	0	12	3708352	0
[	Ba	137	679.042	ug/L	10.856	1	12	6451332	2
[>	Tb	159		ug/L			1245990	1273943	0
[	Tl	205	0.919	ug/L	0.009	1	75	39997	1
[	Pb	208	1022.065	ug/L	11.991	1	181	56897319	0
[	Bi	209		ug/L			2867512	2784340	0
[	Th	232	3.866	ug/L	0.070	1	132	208883	1
[	U	238	0.590	ug/L	0.011	1	4	32754	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:28:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1570933	1
[	**Be**	**9**	**1.522**	ug/L	0.022	1	10	6991	0
	C	**13**		ug/L			122688	162870	3
	Cl	**37**		ug/L			4809329	5316015	1
[>	**Sc**	**45**		ug/L			1221736	1426103	0
[	**V**	**51**	**75.292**	ug/L	3.358	4	8932	2264789	4
[	**V-1**	**51**	**72.373**	ug/L	1.104	1	79	2155143	1
[	**Cr**	**52**	**411.428**	ug/L	3.114	0	26512	10217649	1
[	**Cr**	**53**	**407.599**	ug/L	6.251	1	164	1119530	1
[	**Mn**	**55**	**821.972**	ug/L	17.749	2	526	28159043	1
[	**Co**	**59**	**24.282**	ug/L	0.777	3	57	601810	2
[>	**Ge**	**72**		ug/L			666235	637068	1
[	**Ni**	**60**	**179.736**	ug/L	2.647	1	11	772584	0
[	**Ni**	**62**	**177.126**	ug/L	3.412	1	4585	111963	0
[	**Cu**	**63**	**50.648**	ug/L	0.506	0	3389	486321	0
[	**Cu**	**65**	**51.618**	ug/L	0.078	0	47	221917	1
[	**Zn**	**66**	**319.013**	ug/L	3 447	1	115	821760	0
[	**Zn**	**67**	**442.157**	ug/L	3.882	0	14	190580	1
[	**Zn**	**68**	**410.794**	ug/L	1.347	0	160	767555	1
[	**As**	**75**	**11.069**	ug/L	0.109	0	82	24664	0
[	**As-1**	**75**	**10.852**	ug/L	0.193	1	10540	34658	0
[	**Se**	**82**	**0.031**	ug/L	0.074	239	0	6	256
[	**Se**	**78**	**0.844**	ug/L	0.301	35	10716	10797	0
[	**Mo**	**98**	**0.589**	ug/L	0.015	2	12	3093	3
	Y	**89**		ug/L			407553	902850	2
	Kr	**83**		ug/L			373	1037	2
[>	**In**	**115**		ug/L			1034700	1010191	0
[	**Ag**	**107**	**0.496**	ug/L	0.020	4	17	5388	3
[	**Cd**	**111**	**5.049**	ug/L	0.099	1	81	25825	1
[	**Cd**	**114**	**4.938**	ug/L	0.045	0	29	63861	0
[	**Sb**	**121**	**0.067**	ug/L	0.004	5	57	1088	5
[	**Sb**	**123**	**0.071**	ug/L	0.004	5	42	867	4
[	**Ba**	**135**	**2765.581**	ug/L	29.584	1	12	13353641	0
[	**Ba**	**137**	**2773.195**	ug/L	11 562	0	12	23402717	0
[>	**Tb**	**159**		ug/L			1245990	1326171	0
[	**Tl**	**205**	**0.854**	ug/L	0.009	1	75	38702	0
[	**Pb**	**208**	**223.230**	ug/L	2.162	0	181	12936737	0
[	**Bi**	**209**		ug/L			2867512	2430354	0
[	**Th**	**232**	**8.746**	ug/L	0.059	0	132	491767	0
[	**U**	**238**	**0.611**	ug/L	0.012	1	4	35309	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 B SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 12:32:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1546885	1
[	Be	9	0.115	ug/L	0.011	9	10	530	8
	C	13		ug/L			122688	149536	2
	Cl	37		ug/L			4809329	5126670	0
[>	Sc	45		ug/L			1221736	1321111	1
[	V	51	3.996	ug/L	0.104	2	8932	120455	1
[	V-1	51	4.021	ug/L	0.064	1	79	110997	1
[	Cr	52	3.984	ug/L	0.168	4	26512	120015	1
[	Cr	53	4.072	ug/L	0.009	0	164	10537	1
[	Mn	55	77.823	ug/L	0.669	0	526	2470405	1
[	Co	59	1.340	ug/L	0.035	2	57	30835	2
[>	Ge	72		ug/L			666235	661239	0
[	Ni	60	4.185	ug/L	0.056	1	11	18684	1
[	Ni	62	-0.386	ug/L	0.081	21	4585	4307	0
[	Cu	63	4.983	ug/L	0.155	3	3389	52692	2
[	Cu	65	5.256	ug/L	0.098	1	47	23496	1
[	Zn	66	96.972	ug/L	0 465	0	115	259360	0
[	Zn	67	93.235	ug/L	0.654	0	14	41724	1
[	Zn	68	95.811	ug/L	2.091	2	160	185929	2
[	As	75	3.691	ug/L	0.033	0	82	8591	0
[	As-1	75	3.705	ug/L	0.061	1	10540	19173	0
[	Se	82	0.200	ug/L	0.002	1	0	49	0
[	Se	78	0.601	ug/L	0.164	27	10716	11043	0
[	Mo	98	0.261	ug/L	0.009	3	12	1431	2
	Y	89		ug/L			407553	460923	1
	Kr	83		ug/L			373	471	6
[>	In	115		ug/L			1034700	1055632	0
[	Ag	107	0.124	ug/L	0 005	4	17	1422	4
[	Cd	111	1.484	ug/L	0.032	2	81	7990	2
[	Cd	114	1.457	ug/L	0.031	2	29	19712	1
[	Sb	121	0.122	ug/L	0.006	4	57	2025	4
[	Sb	123	0.124	ug/L	0.003	2	42	1550	2
[	Ba	135	26.913	ug/L	0.300	1	12	135811	0
[	Ba	137	26.658	ug/L	0.409	1	12	235088	1
[>	Tb	159		ug/L			1245990	1249511	1
[	Tl	205	0.073	ug/L	0.002	3	75	3192	1
[	Pb	208	100.535	ug/L	2.582	2	181	5488222	1
[	Bi	209		ug/L			2867512	2856583	0
[	Th	232	0.628	ug/L	0.017	2	132	33372	1
[	U	238	0.328	ug/L	0.008	2	4	17834	1

VS20 : 00474

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:36:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1452181	1580951	2
	Be	9	0.518	ug/L	0.020	3	10	2402	3
	C	13		ug/L			122688	217793	2
	Cl	37		ug/L			4809329	5194968	2
>	Sc	45		ug/L			1221736	1403919	2
	V	51	18.399	ug/L	0.240	1	8932	552509	2
	V-1	51	18.535	ug/L	0.224	1	79	543436	2
	Cr	52	18.349	ug/L	0.514	2	26512	477502	1
	Cr	53	18.822	ug/L	0.440	2	164	51056	0
	Mn	55	346.647	ug/L	9.844	2	526	11687870	1
	Co	59	5.899	ug/L	0.217	3	57	143937	1
>	Ge	72		ug/L			666235	655466	2
	Ni	60	20.527	ug/L	0.678	3	11	90758	1
	Ni	62	16.328	ug/L	0.902	5	4585	14707	1
	Cu	63	24.614	ug/L	0 815	3	3389	244772	1
	Cu	65	24.659	ug/L	0.537	2	47	109091	2
	Zn	66	455.819	ug/L	22.385	4	115	1207413	3
	Zn	67	415.068	ug/L	12.023	2	14	183996	1
	Zn	68	438.625	ug/L	16 672	3	160	842762	1
	As	75	17.543	ug/L	0.260	1	82	40165	1
	As-1	75	17.259	ug/L	0.370	2	10540	50584	0
	Se	82	1.115	ug/L	0.060	5	0	274	3
	Se	78	1.540	ug/L	0.466	30	10716	11575	0
	Mo	98	1.292	ug/L	0.024	1	12	6966	1
	Y	89		ug/L			407553	615923	0
	Kr	83		ug/L			373	625	2
>	In	115		ug/L			1034700	1099588	1
	Ag	107	0.555	ug/L	0.003	0	17	6559	0
	Cd	111	6.706	ug/L	0.226	3	81	37302	2
	Cd	114	6.425	ug/L	0 128	1	29	90422	0
	Sb	121	0.544	ug/L	0.011	1	57	9177	1
	Sb	123	0.540	ug/L	0.019	3	42	6886	2
	Ba	135	124.899	ug/L	1.844	1	12	656423	0
	Ba	137	124.771	ug/L	2.893	2	12	1145934	1
>	Tb	159		ug/L			1245990	1278536	1
	Tl	205	0.344	ug/L	0.009	2	75	15079	1
	Pb	208	473.353	ug/L	7.432	1	181	26442919	0
	Bi	209		ug/L			2867512	2811758	1
	Th	232	2.855	ug/L	0.065	2	132	154814	0
	U	238	1.534	ug/L	0 046	2	4	85441	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 C SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 12:40:23

Pb Zn

Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1452181	1533883	1
	Be	9	0.124	ug/L	0.006	5	10	566	4
	C	13		ug/L			122688	146301	1
	Cl	37		ug/L			4809329	5039579	3
>	Sc	45		ug/L			1221736	1319838	1
	V	51	3.495	ug/L	0.077	2	8932	106476	1
	V-1	51	3.504	ug/L	0.088	2	79	96621	1
	Cr	52	3.555	ug/L	0.078	2	26512	110081	0
	Cr	53	3.586	ug/L	0.118	3	164	9287	1
	Mn	55	367.584	ug/L	5.651	1	526	11654036	0
	Co	59	1.556	ug/L	0.024	1	57	35759	0
>	Ge	72		ug/L			666235	671173	1
	Ni	60	4.845	ug/L	0.153	3	11	21944	1
	Ni	62	-0.408	ug/L	0 119	29	4585	4357	0
	Cu	63	5.473	ug/L	0.075	1	3389	58402	0
	Cu	65	5.703	ug/L	0.179	3	47	25864	1
	Zn	66	152.228	ug/L	0.551	0	115	413189	1
	Zn	67	141.835	ug/L	1.443	1	14	64424	2
	Zn	68	150.628	ug/L	4.449	2	160	296516	1
	As	75	5.525	ug/L	0.158	2	82	13007	1
	As-1	75	5.447	ug/L	0.254	4	10540	23612	0
	Se	82	0.103	ug/L	0.025	23	0	25	25
	Se	78	0.284	ug/L	0.359	126	10716	10988	0
	Mo	98	0.178	ug/L	0.006	3	12	993	1
	Y	89		ug/L			407553	452748	1
	Kr	83		ug/L			373	449	2
>	In	115		ug/L			1034700	1064720	0
	Ag	107	0.122	ug/L	0.007	6	17	1405	5
	Cd	111	2.807	ug/L	0.035	1	81	15170	1
	Cd	114	2.743	ug/L	0.038	1	29	37406	1
	Sb	121	0.243	ug/L	0.007	2	57	4010	3
	Sb	123	0.245	ug/L	0 005	2	42	3042	2
	Ba	135	93.910	ug/L	1.202	1	12	477934	0
	Ba	137	92.849	ug/L	1 116	1	12	825818	0
>	Tb	159		ug/L			1245990	1257526	0
	Tl	205	0.102	ug/L	0.000	0	75	4442	0
	Pb	208	105.202	ug/L	0.286	0	181	5781321	0
	Bi	209		ug/L			2867512	2885616	0
	Th	232	0.644	ug/L	0.009	1	132	34447	0
	U	238	0.106	ug/L	0.004	3	4	5808	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:45:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

AJ

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1553725	2
[	Be	9	0.596	ug/L	0.023	3	10	2715	2
	C	13		ug/L			122688	218662	3
	Cl	37		ug/L			4809329	5164990	0
[>	Sc	45		ug/L			1221736	1410789	1
[	V	51	16.617	ug/L	0.333	2	8932	502419	1
[	V-1	51	16.687	ug/L	0.373	2	79	491620	1
[	Cr	52	17.233	ug/L	0.177	1	26512	452676	0
[	Cr	53	17.489	ug/L	0.280	1	164	47698	0
[	Mn	55	1723.630	ug/L	30.244	1	526	58414583	0
[	Co	59	7.497	ug/L	0.158	2	57	183872	1
[>	Ge	72		ug/L			666235	652295	1
[	Ni	60	24.880	ug/L	1.052	4	11	109502	3
[	Ni	62	21.196	ug/L	0.465	2	4585	17669	0
[	Cu	63	29.223	ug/L	1 174	4	3389	288673	3
[	Cu	65	28.977	ug/L	0.288	0	47	127580	1
[	Zn	66	753.047	ug/L	10.841	1	115	1985845	0
[	Zn	67	708.258	ug/L	5 851	0	14	312557	1
[	Zn	68	757.062	ug/L	1.170	0	160	1448223	1
[	As	75	28.517	ug/L	0.760	2	82	64923	1
[	As-1	75	28.052	ug/L	0.817	2	10540	75372	1
[	Se	82	0.403	ug/L	0.039	9	0	98	10
[	Se	78	1.059	ug/L	0.284	26	10716	11199	0
[	Mo	98	0.932	ug/L	0.030	3	12	5002	1
	Y	89		ug/L			407553	559460	1
	Kr	83		ug/L			373	678	5
[>	In	115		ug/L			1034700	1140013	0
[	Ag	107	0.566	ug/L	0.016	2	17	6931	3
[	Cd	111	13.050	ug/L	0.151	1	81	75197	1
[	Cd	114	12.725	ug/L	0.125	0	29	185662	0
[	Sb	121	1.116	ug/L	0.025	2	57	19469	1
[	Sb	123	1.118	ug/L	0.010	0	42	14720	0
[	Ba	135	472.942	ug/L	6.110	1	12	2577074	1
[	Ba	137	465.560	ug/L	8.827	1	12	4433190	1
[>	Tb	159		ug/L			1245990	1278149	0
[	Tl	205	0.505	ug/L	0.012	2	75	22098	1
[	Pb	208	527.714	ug/L	6.643	1	181	29473372	0
[	Bi	209		ug/L			2867512	2798941	0
[	Th	232	3.172	ug/L	0.049	1	132	171956	1
[	U	238	0.529	ug/L	0.006	1	4	29452	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:49:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
>	**Li**	**6**		ug/L			1452181	1564799	2
	Be	**9**	**0.565**	ug/L	0.042	7	10	2589	4
	C	**13**		ug/L			122688	223628	3
	Cl	**37**		ug/L			4809329	5240108	2
>	**Sc**	**45**		ug/L			1221736	1388546	1
	V	**51**	**25.882**	ug/L	0.348	1	8932	764593	1
	V-1	**51**	**26.275**	ug/L	0.107	0	79	761936	1
	Cr	**52**	**25.531**	ug/L	0.985	3	26512	645389	2
	Cr	**53**	**26.888**	ug/L	0 821	3	164	72079	2
	Mn	**55**	**1242.770**	ug/L	31.641	2	526	41453992	2
	Co	**59**	**8.958**	ug/L	0.261	2	57	216211	2
>	**Ge**	**72**		ug/L			666235	666177	2
	Ni	**60**	**27.196**	ug/L	1.018	3	11	122207	2
	Ni	**62**	**23.934**	ug/L	0.750	3	4585	19781	0
	Cu	**63**	**28.770**	ug/L	1.449	5	3389	290142	2
	Cu	**65**	**28.716**	ug/L	0.996	3	47	129057	1
	Zn	**66**	**591.240**	ug/L	24.757	4	115	1591607	2
	Zn	**67**	**546.350**	ug/L	16 229	2	14	246154	1
	Zn	**68**	**580.641**	ug/L	20.352	3	160	1133828	1
	As	**75**	**14.758**	ug/L	0 462	3	82	34346	0
	As-1	**75**	**14.426**	ug/L	0.556	3	10540	44693	0
	Se	**82**	**0.361**	ug/L	0.052	14	0	90	15
	Se	**78**	**0.535**	ug/L	0 372	69	10716	11077	0
	Mo	**98**	**0.497**	ug/L	0.020	3	12	2728	2
	Y	**89**		ug/L			407553	609016	0
	Kr	**83**		ug/L			373	679	3
>	**In**	**115**		ug/L			1034700	1129389	0
	Ag	**107**	**0.465**	ug/L	0.013	2	17	5652	2
	Cd	**111**	**14.678**	ug/L	0.335	2	81	83764	1
	Cd	**114**	**14.590**	ug/L	0.304	2	29	210868	1
	Sb	**121**	**0.562**	ug/L	0.006	0	57	9747	0
	Sb	**123**	**0.568**	ug/L	0.011	1	42	7433	1
	Ba	**135**	**419.833**	ug/L	9.499	2	12	2266221	1
	Ba	**137**	**412.047**	ug/L	3.561	0	12	3887337	0
>	**Tb**	**159**		ug/L			1245990	1288087	0
	Tl	**205**	**0.541**	ug/L	0.014	2	75	23857	1
	Pb	**208**	**674.033**	ug/L	12.745	1	181	37937052	1
	Bi	**209**		ug/L			2867512	2801092	0
	Th	**232**	**4.179**	ug/L	0.060	1	132	228309	0
	U	**238**	**0.483**	ug/L	0.010	2	4	27099	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 12:53:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1452181	1527786 ✓	1
	Be	9	52.137	ug/L	0.840	1	10	232529	1
	C	13		ug/L			122688	131753	0
	Cl	37		ug/L			4809329	5424471	2
>	Sc	45		ug/L			1221736	1300770 ✓	1
	V	51	46.960	ug/L	0.694	1	8932	1291778	0
	V-1	51	47.233	ug/L	0.869	1	79	1282829	0
	Cr	52	47.499	ug/L	0.381	0	26512	1100849	0
	Cr	53	48.455	ug/L	1.175	2	164	121534	1
	Mn	55	47.628	ug/L	0.455	0	526	1488940	1
	Co	59	46.334	ug/L	0.438	0	57	1047555	1
>	Ge	72		ug/L			666235	656189 ✓	0
	Ni	60	49.101	ug/L	0.129	0	11	217421	0
	Ni	62	45.050	ug/L	0.404	0	4585	32703	1
	Cu	63	50.312	ug/L	1.585	3	3389	497589	2
	Cu	65	50.809	ug/L	0.361	0	47	225001	0
	Zn	66	50.689	ug/L	0.476	0	115	134588	0
	Zn	67	51.030	ug/L	0.266	0	14	22668	0
	Zn	68	49.866	ug/L	1.250	2	160	96098	2
	As	75	50.715	ug/L	0 727	1	82	116108	1
	As-1	75	50.489	ug/L	0.905	1	10540	128183	1
	Se	82	51.507	ug/L	0.331	0	0	12736	0
	Se	78	50.711	ug/L	1.169	2	10716	44724	1
	Mo	98	50.421	ug/L	0.411	0	12	271808	0
	Y	89		ug/L			407553	413178	1
	Kr	83		ug/L			373	433	1
>	In	115		ug/L			1034700	1034887 ✓	1
	Ag	107	52.280	ug/L	0.530	1	17	579940	0
	Cd	111	50.948	ug/L	0.189	0	81	266246	1
	Cd	114	50.492	ug/L	0.556	1	29	668659	1
	Sb	121	50.871	ug/L	0.521	1	57	803093	0
	Sb	123	50.596	ug/L	0.309	0	42	602997	1
	Ba	135	49.852	ug/L	0.702	1	12	246605	1
	Ba	137	48.692	ug/L	0.703	1	12	420921	0
>	Tb	159		ug/L			1245990	1244239 ✓	0
	Tl	205	51.816	ug/L	0.868	1	75	2199254	1
	Pb	208	49.841	ug/L	0.571	1	181	2709937	0
	Bi	209		ug/L			2867512	2771555	0
	Th	232	51.129	ug/L	0.706	1	132	2696539	1
	U	238	51.755	ug/L	0.475	0	4	2806131	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 13:00:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1491780 ✓	0
	Be	9	0.002	ug/L	0.000	7	10	17	3
	C	13		ug/L			122688	135775	1
	Cl	37		ug/L			4809329	5070389	0
>	Sc	45		ug/L			1221736	1244227 ✓	0
	V	51	0.013	ug/L	0.009	66	8932	9449	2
	V-1	51	0.001	ug/L	0.000	22	79	108	5
	Cr	52	0.045	ug/L	0.027	59	26512	27973	2
	Cr	53	0.003	ug/L	0.005	219	164	173	7
	Mn	55	-0.000	ug/L	0.001	261	526	523	6
	Co	59	0.001	ug/L	0.000	51	57	79	13
>	Ge	72		ug/L			666235	642946 ✓	1
	Ni	60	0.001	ug/L	0.001	41	11	16	12
	Ni	62	-5.476	ug/L	0 037	0	4585	1067	2
	Cu	63	-0.257	ug/L	0.002	0	3389	794	3
	Cu	65	0.000	ug/L	0.002	929	47	46	19
	Zn	66	0.015	ug/L	0 005	32	115	150	9
	Zn	67	0.029	ug/L	0.016	57	14	26	27
	Zn	68	0.021	ug/L	0.004	17	160	194	3
	As	75	0.021	ug/L	0 013	60	82	126	21
	As-1	75	0.230	ug/L	0.058	25	10540	10695	0
	Se	82	-0.015	ug/L	0.066	432	0	-4	362
	Se	78	0.794	ug/L	0.198	24	10716	10864	0
	Mo	98	0.006	ug/L	0.001	17	12	41	13
	Y	89		ug/L			407553	392955	2
	Kr	83		ug/L			373	433	3
>	In	115		ug/L			1034700	1003755 ✓	1
	Ag	107	0.007	ug/L	0.009	135	17	87	109
	Cd	111	0.002	ug/L	0.002	64	81	91	7
	Cd	114	0.001	ug/L	0.000	17	29	46	7
	Sb	121	0.057	ug/L	0.006	10	57	936	9
	Sb	123	0.057	ug/L	0.005	9	42	700	9
	Ba	135	0.001	ug/L	0.001	65	12	16	17
	Ba	137	0.002	ug/L	0.001	34	12	29	19
>	Tb	159		ug/L			1245990	1185842 ✓	0
	Tl	205	0.005	ug/L	0.003	50	75	285	38
	Pb	208	0.003	ug/L	0.001	27	181	318	12
	Bi	209		ug/L			2867512	2814275	1
	Th	232	0.126	ug/L	0.011	8	132	6441	9
	U	238	0.002	ug/L	0.000	12	4	112	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 13:08:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1581625	2
	Be	9	0.175	ug/L	0.004	2	10	819	2
	C	13		ug/L			122688	140871	3
	Cl	37		ug/L			4809329	5096549	0
>	Sc	45		ug/L			1221736	1352271	2
	V	51	12.830	ug/L	0.139	1	8932	374089	2
	V-1	51	13.101	ug/L	0.334	2	79	369838	1
	Cr	52	18.778	ug/L	0 119	0	26512	470143	2
	Cr	53	19.827	ug/L	0.949	4	164	51766	1
	Mn	55	279.138	ug/L	7 832	2	526	9065371	1
	Co	59	3.082	ug/L	0.123	3	57	72445	2
>	Ge	72		ug/L			666235	662150	1
	Ni	60	7.405	ug/L	0.206	2	11	33086	1
	Ni	62	2.505	ug/L	0.176	7	4585	6137	1
	Cu	63	7.794	ug/L	0.241	3	3389	80615	1
	Cu	65	7.958	ug/L	0.109	1	47	35594	0
	Zn	66	56.900	ug/L	1.861	3	115	152386	1
	Zn	67	60.691	ug/L	0.681	1	14	27199	1
	Zn	68	61.998	ug/L	0.803	1	160	120519	0
	As	75	2.878	ug/L	0.059	2	82	6724	0
	As-1	75	2.947	ug/L	0 177	5	10540	17409	0
	Se	82	-0.035	ug/L	0.036	100	0	-9	93
	Se	78	0.579	ug/L	0.413	71	10716	11040	0
	Mo	98	0.109	ug/L	0.003	2	12	605	3
	Y	89		ug/L			407553	478315	0
	Kr	83		ug/L			373	526	3
>	In	115		ug/L			1034700	1058203	1
	Ag	107	0.054	ug/L	0.004	8	17	634	6
	Cd	111	0.953	ug/L	0.032	3	81	5172	1
	Cd	114	0.912	ug/L	0.011	1	29	12373	0
	Sb	121	0.034	ug/L	0 003	9	57	607	7
	Sb	123	0.035	ug/L	0.004	11	42	463	9
	Ba	135	124.755	ug/L	1.762	1	12	630994	1
	Ba	137	123.156	ug/L	3.232	2	12	1088373	1
>	Tb	159		ug/L			1245990	1253819	1
	Tl	205	0.110	ug/L	0.001	1	75	4790	1
	Pb	208	33.123	ug/L	0.283	0	181	1814919	0
	Bi	209		ug/L			2867512	2812730	1
	Th	232	1.117	ug/L	0.015	1	132	59505	0
	U	238	0.215	ug/L	0.004	1	4	11755	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 13:12:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ay

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1452181	1586185	3
	Be	9	0.839	ug/L	0 043	5	10	3890	2
	C	13		ug/L			122688	181008	1
	Cl	37		ug/L			4809329	5172413	1
>	Sc	45		ug/L			1221736	1557680	1
	V	51	58.111	ug/L	0.755	1	8932	1911487	1
	V-1	51	57.866	ug/L	1.251	2	79	1881976	1
	Cr	52	85.289	ug/L	0.897	1	26512	2340041	0
	Cr	53	84.952	ug/L	2.397	2	164	254987	2
	Mn	55	1220.236	ug/L	15.515	1	526	45663442	1
	Co	59	13.080	ug/L	0 477	3	57	354058	2
>	Ge	72		ug/L			666235	649400	1
	Ni	60	37.909	ug/L	0.720	1	11	166106	1
	Ni	62	37.378	ug/L	1.651	4	4585	27603	2
	Cu	63	39.532	ug/L	0.852	2	3389	387604	1
	Cu	65	39.649	ug/L	1.093	2	47	173732	1
	Zn	66	275.854	ug/L	6.360	2	115	724231	0
	Zn	67	299.354	ug/L	5.763	1	14	131508	0
	Zn	68	299.249	ug/L	5.094	1	160	569901	0
	As	75	14.401	ug/L	0.197	1	82	32683	0
	As-1	75	14.192	ug/L	0.273	1	10540	43040	0
	Se	82	-0.418	ug/L	0.067	16	0	-102	15
	Se	78	0.816	ug/L	0.306	37	10716	10987	0
	Mo	98	0.527	ug/L	0.032	6	12	2820	4
	Y	89		ug/L			407553	695104	1
	Kr	83		ug/L			373	1172	1
>	In	115		ug/L			1034700	1043451	0
	Ag	107	0.272	ug/L	0 010	3	17	3058	2
	Cd	111	4.604	ug/L	0.085	1	81	24334	1
	Cd	114	4.497	ug/L	0 129	2	29	60067	2
	Sb	121	0.096	ug/L	0.004	3	57	1590	3
	Sb	123	0.095	ug/L	0.005	4	42	1184	4
	Ba	135	665.799	ug/L	3.757	0	12	3320716	0
	Ba	137	668.442	ug/L	12.934	1	12	5826063	1
>	Tb	159		ug/L			1245990	1272198	0
	Tl	205	0.531	ug/L	0.002	0	75	23104	0
	Pb	208	170.827	ug/L	0.743	0	181	9497038	0
	Bi	209		ug/L			2867512	2661502	0
	Th	232	5.296	ug/L	0.035	0	132	285744	0
	U	238	1.081	ug/L	0.018	1	4	59919	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 13:16:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
[>	Li	6		ug/L			1452181	1609909	1
[	Be	9	0.760	ug/L	0.010	1	10	3582	2
	C	13		ug/L			122688	191593	2
	Cl	37		ug/L			4809329	5293474	0
[>	Sc	45		ug/L			1221736	1549871	1
[	V	51	53.570	ug/L	1.468	2	8932	1753794	1
[	V-1	51	53.117	ug/L	1.505	2	79	1718534	1
[	Cr	52	83.106	ug/L	1.078	1	26512	2269603	1
[	Cr	53	82.091	ug/L	0.986	1	164	245189	0
[	Mn	55	1133.467	ug/L	13.328	1	526	42199581	0
[	Co	59	11.943	ug/L	0.389	3	57	321651	1
[>	Ge	72		ug/L			666235	650214	1
[	Ni	60	34.712	ug/L	0 876	2	11	152286	1
[	Ni	62	33.230	ug/L	0.751	2	4585	25074	1
[	Cu	63	34.426	ug/L	0.476	1	3389	338415	0
[	Cu	65	35.994	ug/L	0.807	2	47	157923	0
[	Zn	66	251.261	ug/L	4.144	1	115	660557	0
[	Zn	67	270.146	ug/L	3.118	1	14	118839	0
[	Zn	68	269.371	ug/L	4 080	1	160	513722	1
[	As	75	13.382	ug/L	0.253	1	82	30413	1
[	As-1	75	13.163	ug/L	0.282	2	10540	40717	0
[	Se	82	-0.334	ug/L	0.040	12	0	-82	11
[	Se	78	0.693	ug/L	0.236	34	10716	10920	0
[	Mo	98	0.507	ug/L	0.008	1	12	2721	1
	Y	89		ug/L			407553	687363	1
	Kr	83		ug/L			373	1088	1
[>	In	115		ug/L			1034700	1038142	2
[	Ag	107	0.278	ug/L	0.002	0	17	3115	2
[	Cd	111	4.336	ug/L	0.049	1	81	22799	1
[	Cd	114	4.187	ug/L	0.055	1	29	55642	1
[	Sb	121	0.115	ug/L	0.008	6	57	1880	4
[	Sb	123	0.116	ug/L	0.008	7	42	1422	4
[	Ba	135	640.159	ug/L	12.245	1	12	3176140	1
[	Ba	137	623.415	ug/L	10.153	1	12	5405395	0
[>	Tb	159		ug/L			1245990	1278716	0
[	Tl	205	0.484	ug/L	0.007	1	75	21198	1
[	Pb	208	152.214	ug/L	1.026	0	181	8505510	0
[	Bi	209		ug/L			2867512	2685809	1
[	Th	232	4.598	ug/L	0.039	0	132	249337	0
[	U	238	0.971	ug/L	0.011	1	4	54120	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 ASPK SWN

Ag

Sample Dil Factor: 20

Comments:

Sample Date/Time: Monday, November 26, 2012 13:20:44

Number of Replicates: 3

Method File: C:\NexION Data\Method\200.8nomin.mth

Tuning File: C:\NexION Data\MassCal\Default.tun

Optimization File: C:\NexION Data\Conditions\Default.dac

Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1452181	1588415	0
	Be	9	27.240	ug/L	0.327	1	10	126326	1
	C	13		ug/L			122688	182160	2
	Cl	37		ug/L			4809329	5319992	1
>	Sc	45		ug/L			1221736	1621579	1
	V	51	83.191	ug/L	1.422	1	8932	2843570	0
	V-1	51	82.917	ug/L	1.676	2	79	2807515	1
	Cr	52	101.558	ug/L	1.954	1	26512	2893973	1
	Cr	53	100.953	ug/L	1.505	1	164	315488	2
	Mn	55	1282.466	ug/L	36.330	2	526	49954066	2
	Co	59	32.854	ug/L	0.739	2	57	926075	2
>	Ge	72		ug/L			666235	649344	1
	Ni	60	65.926	ug/L	2.435	3	11	288743	1
	Ni	62	64.993	ug/L	1.464	2	4585	44698	0
	Cu	63	66.632	ug/L	1.185	1	3389	651003	1
	Cu	65	67.714	ug/L	2 144	3	47	296599	1
	Zn	66	371.561	ug/L	9.953	2	115	975271	0
	Zn	67	381.130	ug/L	14 656	3	14	167370	2
	Zn	68	384.638	ug/L	4.462	1	160	732429	0
	As	75	40.373	ug/L	1.527	3	82	91446	2
	As-1	75	40.863	ug/L	1.583	3	10540	104580	1
	Se	82	79.551	ug/L	2.149	2	0	19460	0
	Se	78	79.545	ug/L	2.726	3	10716	63466	1
	Mo	98	23.409	ug/L	0.453	1	12	124856	0
	Y	89		ug/L			407553	739260	1
	Kr	83		ug/L			373	1203	6
>	In	115		ug/L			1034700	1048061	1
	Ag	107	25.157	ug/L	0.842	3	17	282646	3
	Cd	111	29.972	ug/L	0 581	1	81	158655	2
	Cd	114	29.656	ug/L	0.311	1	29	397730	0
	Sb	121	0.680	ug/L	0.019	2	57	10922	1
	Sb	123	0.680	ug/L	0.018	2	42	8243	1
	Ba	135	710.357	ug/L	2.769	0	12	3558598	0
	Ba	137	695.098	ug/L	10.499	1	12	6085097	0
>	Tb	159		ug/L			1245990	1282645	1
	Tl	205	25.231	ug/L	0.604	2	75	1103886	1
	Pb	208	201.428	ug/L	2.611	1	181	11289299	0
	Bi	209		ug/L			2867512	2650073	0
	Th	232	28.293	ug/L	0.469	1	132	1538186	0
	U	238	26.152	ug/L	0.491	1	4	1461558	0

VS20 20484

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 D SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 13:24:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas. Intens	Intens. RSD
>	**Li**	**6**		ug/L			1452181	1556584	0
	Be	**9**	**0.125**	ug/L	0 006	4	10	579	4
	C	**13**		ug/L			122688	155736	3
	Cl	**37**		ug/L			4809329	5248449	4
>	**Sc**	**45**		ug/L			1221736	1306174	1
	V	**51**	**5.383**	ug/L	0.130	2	8932	157122	1
	V-1	**51**	**5.376**	ug/L	0.178	3	79	146649	1
	Cr	**52**	**5.399**	ug/L	0.100	1	26512	150748	0
	Cr	**53**	**5.374**	ug/L	0.287	5	164	13685	3
	Mn	**55**	**268.449**	ug/L	2.803	1	526	8424397	1
	Co	**59**	**1.874**	ug/L	0.071	3	57	42593	2
>	**Ge**	**72**		ug/L			666235	667924	1
	Ni	**60**	**5.378**	ug/L	0 015	0	11	24252	1
	Ni	**62**	**-0.387**	ug/L	0.275	71	4585	4348	2
	Cu	**63**	**5.475**	ug/L	0.131	2	3389	58141	1
	Cu	**65**	**5.781**	ug/L	0.148	2	47	26096	1
	Zn	**66**	**121.175**	ug/L	3.563	2	115	327338	3
	Zn	**67**	**113.585**	ug/L	2.588	2	14	51332	1
	Zn	**68**	**121.072**	ug/L	2.269	1	160	237254	0
	As	**75**	**2.955**	ug/L	0.034	1	82	6964	1
	As-1	**75**	**2.940**	ug/L	0.074	2	10540	17549	0
	Se	**82**	**0.105**	ug/L	0.080	75	0	26	78
	Se	**78**	**0.337**	ug/L	0.159	47	10716	10973	0
	Mo	**98**	**0.105**	ug/L	0.003	2	12	589	3
	Y	**89**		ug/L			407553	452249	1
	Kr	**83**		ug/L			373	454	7
>	**In**	**115**		ug/L			1034700	1063035	1
	Ag	**107**	**0.102**	ug/L	0.006	6	17	1176	5
	Cd	**111**	**3.179**	ug/L	0.040	1	81	17141	0
	Cd	**114**	**3.106**	ug/L	0.079	2	29	42273	2
	Sb	**121**	**0.122**	ug/L	0.004	3	57	2034	2
	Sb	**123**	**0.117**	ug/L	0.005	4	42	1478	3
	Ba	**135**	**80.913**	ug/L	0 913	1	12	411120	0
	Ba	**137**	**79.871**	ug/L	1.302	1	12	709205	0
>	**Tb**	**159**		ug/L			1245990	1249799	1
	Tl	**205**	**0.110**	ug/L	0.003	2	75	4780	1
	Pb	**208**	**134.286**	ug/L	1 629	1	181	7333670	0
	Bi	**209**		ug/L			2867512	2865227	1
	Th	**232**	**0.913**	ug/L	0.016	1	132	48503	0
	U	**238**	**0.096**	ug/L	0.003	2	4	5230	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 E SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 13:28:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1577627	1
[	**Be**	**9**	**0.124**	ug/L	0.005	3	10	583	2
	C	**13**		ug/L			122688	148910	2
	Cl	**37**		ug/L			4809329	5073017	3
[>	**Sc**	**45**		ug/L			1221736	1340815	3
[	**V**	**51**	**5.943**	ug/L	0.176	2	8932	176993	0
[	**V-1**	**51**	**5.979**	ug/L	0.223	3	79	167365	0
[	**Cr**	**52**	**5.120**	ug/L	0.124	2	26512	148234	1
[	**Cr**	**53**	**5.230**	ug/L	0.284	5	164	13671	2
[	**Mn**	**55**	**283.020**	ug/L	5.657	1	526	9114398	1
[	**Co**	**59**	**1.816**	ug/L	0 050	2	57	42355	1
[>	**Ge**	**72**		ug/L			666235	666103	0
[	**Ni**	**60**	**5.051**	ug/L	0.078	1	11	22712	1
[	**Ni**	**62**	**-0.863**	ug/L	0 077	8	4585	4035	0
[	**Cu**	**63**	**5.858**	ug/L	0.214	3	3389	61809	3
[	**Cu**	**65**	**6.198**	ug/L	0 063	1	47	27901	0
[	**Zn**	**66**	**119.557**	ug/L	2.792	2	115	322085	2
[	**Zn**	**67**	**112.476**	ug/L	0.297	0	14	50701	0
[	**Zn**	**68**	**120.552**	ug/L	3.044	2	160	235603	2
[	**As**	**75**	**7.321**	ug/L	0.026	0	82	17085	1
[	**As-1**	**75**	**7.224**	ug/L	0 020	0	10540	27649	0
[	**Se**	**82**	**0.037**	ug/L	0.036	97	0	8	104
[	**Se**	**78**	**0.315**	ug/L	0.068	21	10716	10929	0
[	**Mo**	**98**	**0.111**	ug/L	0.001	1	12	620	1
	Y	**89**		ug/L			407553	450861	1
	Kr	**83**		ug/L			373	479	6
[>	**In**	**115**		ug/L			1034700	1055997	1
[	**Ag**	**107**	**0.090**	ug/L	0 003	2	17	1033	2
[	**Cd**	**111**	**2.961**	ug/L	0.037	1	81	15864	1
[	**Cd**	**114**	**2.907**	ug/L	0.068	2	29	39299	0
[	**Sb**	**121**	**0.094**	ug/L	0.003	2	57	1575	1
[	**Sb**	**123**	**0.094**	ug/L	0.007	7	42	1183	6
[	**Ba**	**135**	**79.145**	ug/L	1.225	1	12	399444	0
[	**Ba**	**137**	**77.294**	ug/L	1.487	1	12	681717	0
[>	**Tb**	**159**		ug/L			1245990	1241505	1
[	**Tl**	**205**	**0.109**	ug/L	0.001	1	75	4681	0
[	**Pb**	**208**	**104.765**	ug/L	0 498	0	181	5683796	0
[	**Bi**	**209**		ug/L			2867512	2883983	0
[	**Th**	**232**	**1.000**	ug/L	0.013	1	132	52734	0
[	**U**	**238**	**0.125**	ug/L	0.001	0	4	6774	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 13:34:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
[>	Li	6		ug/L			1452181	1586348	1
[	Be	9	0.680	ug/L	0.026	3	10	3157	2
	C	13		ug/L			122688	194997	1
	Cl	37		ug/L			4809329	5160310	0
[>	Sc	45		ug/L			1221736	1429771	1
[	V	51	31.542	ug/L	1.343	4	8932	956876	2
[	V-1	51	31.762	ug/L	1.463	4	79	947979	3
[	Cr	52	26.183	ug/L	0.600	2	26512	680849	1
[	Cr	53	26.847	ug/L	0.974	3	164	74090	2
[	Mn	55	775.095	ug/L	26.434	3	526	26617579	2
[	Co	59	9.263	ug/L	0.428	4	57	230164	3
[>	Ge	72		ug/L			666235	657804	1
[	Ni	60	30.064	ug/L	0.855	2	11	133432	1
[	Ni	62	26.356	ug/L	1.313	4	4585	21052	2
[	Cu	63	22.056	ug/L	0.808	3	3389	220520	2
[	Cu	65	22.369	ug/L	0.556	2	47	99311	1
[	Zn	66	151.023	ug/L	2.394	1	115	401753	1
[	Zn	67	160.857	ug/L	2.888	1	14	71590	0
[	Zn	68	159.379	ug/L	4.371	2	160	307528	1
[	As	75	15.037	ug/L	0.482	3	82	34562	2
[	As-1	75	14.741	ug/L	0.498	3	10540	44879	1
[	Se	82	-0.064	ug/L	0.064	100	0	-16	96
[	Se	78	0.553	ug/L	0.172	31	10716	10953	0
[	Mo	98	0.535	ug/L	0.020	3	12	2904	3
	Y	89		ug/L			407553	625373	1
	Kr	83		ug/L			373	902	1
[>	In	115		ug/L			1034700	1039321	1
[	Ag	107	0.218	ug/L	0.006	2	17	2441	3
[	Cd	111	1.231	ug/L	0.038	3	81	6539	2
[	Cd	114	1.077	ug/L	0.017	1	29	14351	1
[	Sb	121	0.076	ug/L	0.001	1	57	1256	2
[	Sb	123	0.073	ug/L	0.004	6	42	918	4
[	Ba	135	287.715	ug/L	7.932	2	12	1429123	2
[	Ba	137	295.922	ug/L	3.053	1	12	2568990	0
[>	Tb	159		ug/L			1245990	1259269	0
[	Tl	205	0.211	ug/L	0.001	0	75	9158	0
[	Pb	208	37.600	ug/L	0.417	1	181	2069208	0
[	Bi	209		ug/L			2867512	2746655	1
[	Th	232	6.207	ug/L	0.172	2	132	331422	2
[	U	238	0.851	ug/L	0.013	1	4	46703	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 13:38:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1636311	1
[	**Be**	**9**	**0.608**	ug/L	0.013	2	10	2918	3
	C	**13**		ug/L			122688	177161	1
	Cl	**37**		ug/L			4809329	5238040	1
[>	**Sc**	**45**		ug/L			1221736	1470547	0
[	**V**	**51**	**30.125**	ug/L	0.320	1	8932	940735	0
[	**V-1**	**51**	**30.345**	ug/L	0.246	0	79	931865	0
[	**Cr**	**52**	**24.754**	ug/L	0.108	0	26512	663893	0
[	**Cr**	**53**	**25.419**	ug/L	0.211	0	164	72183	1
[	**Mn**	**55**	**500.893**	ug/L	5.413	1	526	17696527	0
[	**Co**	**59**	**8.737**	ug/L	0.198	2	57	223364	2
[>	**Ge**	**72**		ug/L			666235	659215	1
[	**Ni**	**60**	**30.328**	ug/L	0.423	1	11	134898	0
[	**Ni**	**62**	**25.786**	ug/L	1.323	5	4585	20736	2
[	**Cu**	**63**	**22.992**	ug/L	0.329	1	3389	230253	0
[	**Cu**	**65**	**23.306**	ug/L	0.433	1	47	103690	1
[	**Zn**	**66**	**100.124**	ug/L	4.812	4	115	266841	3
[	**Zn**	**67**	**108.867**	ug/L	1.997	1	14	48563	1
[	**Zn**	**68**	**105.516**	ug/L	3.424	3	160	204054	1
[	**As**	**75**	**7.286**	ug/L	0.055	0	82	16827	1
[	**As-1**	**75**	**7.189**	ug/L	0.130	1	10540	27278	0
[	**Se**	**82**	**-0.087**	ug/L	0.081	93	0	-22	90
[	**Se**	**78**	**0.668**	ug/L	0.308	46	10716	11052	0
[	**Mo**	**98**	**0.454**	ug/L	0 004	0	12	2471	2
	Y	**89**		ug/L			407553	645825	0
	Kr	**83**		ug/L			373	877	4
[>	**In**	**115**		ug/L			1034700	1038917	0
[	**Ag**	**107**	**0.235**	ug/L	0.003	1	17	2634	1
[	**Cd**	**111**	**0.679**	ug/L	0.015	2	81	3643	1
[	**Cd**	**114**	**0.524**	ug/L	0.005	1	29	6994	0
[	**Sb**	**121**	**0.050**	ug/L	0.002	4	57	845	3
[	**Sb**	**123**	**0.049**	ug/L	0.003	6	42	626	5
[	**Ba**	**135**	**183.167**	ug/L	3.037	1	12	909569	1
[	**Ba**	**137**	**181.491**	ug/L	1.945	1	12	1575078	0
[>	**Tb**	**159**		ug/L			1245990	1275888	0
[	**Tl**	**205**	**0.174**	ug/L	0.003	1	75	7668	0
[	**Pb**	**208**	**16.210**	ug/L	0.364	2	181	903825	1
[	**Bi**	**209**		ug/L			2867512	2748413	0
[	**Th**	**232**	**5.876**	ug/L	0.130	2	132	317855	1
[	**U**	**238**	**0.925**	ug/L	0.010	1	4	51421	0

VS20 : 00488

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 13:42:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1642537	2
	Be	9	0.606	ug/L	0.003	0	10	2916	1
	C	13		ug/L			122688	184593	0
	Cl	37		ug/L			4809329	5147029	1
>	Sc	45		ug/L			1221736	1450351	1
	V	51	33.353	ug/L	0.996	2	8932	1025949	2
	V-1	51	33.636	ug/L	0.716	2	79	1018576	1
	Cr	52	28.476	ug/L	1.298	4	26512	748362	3
	Cr	53	29.365	ug/L	0.234	0	164	82207	0
	Mn	55	433.334	ug/L	1.616	0	526	15099371	0
	Co	59	8.962	ug/L	0.120	1	57	225971	1
>	Ge	72		ug/L			666235	661398	1
	Ni	60	28.922	ug/L	0.279	0	11	129080	1
	Ni	62	24.865	ug/L	0.700	2	4585	20228	1
	Cu	63	24.272	ug/L	0.979	4	3389	243614	2
	Cu	65	24.457	ug/L	0 493	2	47	109160	0
	Zn	66	106.952	ug/L	3.006	2	115	286024	1
	Zn	67	111.915	ug/L	2.163	1	14	50079	0
	Zn	68	111.793	ug/L	3.652	3	160	216918	2
	As	75	8.179	ug/L	0.161	1	82	18937	0
	As-1	75	7.992	ug/L	0.250	3	10540	29251	0
	Se	82	-0.066	ug/L	0.022	32	0	-17	33
	Se	78	0.489	ug/L	0.343	70	10716	10967	0
	Mo	98	0.407	ug/L	0.011	2	12	2223	1
	Y	89		ug/L			407553	670606	1
	Kr	83		ug/L			373	926	2
>	In	115		ug/L			1034700	1036803	1
	Ag	107	0.251	ug/L	0.008	3	17	2807	2
	Cd	111	0.961	ug/L	0.064	6	81	5107	5
	Cd	114	0.780	ug/L	0.010	1	29	10383	0
	Sb	121	0.051	ug/L	0.003	6	57	870	4
	Sb	123	0.050	ug/L	0.001	2	42	643	2
	Ba	135	188.150	ug/L	3 150	1	12	932359	0
	Ba	137	187.451	ug/L	0.968	0	12	1623498	0
>	Tb	159		ug/L			1245990	1268025	0
	Tl	205	0.189	ug/L	0.003	1	75	8268	1
	Pb	208	32.368	ug/L	0.237	0	181	1793684	0
	Bi	209		ug/L			2867512	2765004	1
	Th	232	6.157	ug/L	0.070	1	132	331053	0
	U	238	0.986	ug/L	0.011	1	4	54505	1

ICP-MS Quantitative Analysis - Summary Report

Ag

Sample ID: VS19 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 13:46:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1452181	1596461	1
	Be	9	0.574	ug/L	0.022	3	10	2684	2
	C	13		ug/L			122688	165355	3
	Cl	37		ug/L			4809329	5171193	0
>	Sc	45		ug/L			1221736	1436931	1
	V	51	38.546	ug/L	0.819	2	8932	1173229	2
	V-1	51	38.687	ug/L	0.724	1	79	1160781	1
	Cr	52	31.573	ug/L	0.202	0	26512	818801	0
	Cr	53	31.931	ug/L	0.601	1	164	88543	1
	Mn	55	414.892	ug/L	8.690	2	526	14321383	1
	Co	59	10.429	ug/L	0.102	0	57	260516	0
>	Ge	72		ug/L			666235	650715	1
	Ni	60	37.898	ug/L	1.190	3	11	166427	3
	Ni	62	34.536	ug/L	0.924	2	4585	25902	1
	Cu	63	25.938	ug/L	0.487	1	3389	256053	2
	Cu	65	26.267	ug/L	0.656	2	47	115366	2
	Zn	66	82.688	ug/L	0.949	1	115	217646	0
	Zn	67	95.950	ug/L	1.878	1	14	42249	1
	Zn	68	92.766	ug/L	2.067	2	160	177136	1
	As	75	6.955	ug/L	0 057	0	82	15859	0
	As-1	75	6.860	ug/L	0.059	0	10540	26168	0
	Se	82	-0.043	ug/L	0.084	196	0	-11	184
	Se	78	0.624	ug/L	0.124	19	10716	10882	0
	Mo	98	0.443	ug/L	0.005	1	12	2378	1
	Y	89		ug/L			407553	631710	1
	Kr	83		ug/L			373	807	4
>	In	115		ug/L			1034700	1026543	0
	Ag	107	0.216	ug/L	0.007	3	17	2391	3
	Cd	111	0.462	ug/L	0.032	6	81	2473	6
	Cd	114	0.314	ug/L	0.004	1	29	4149	1
	Sb	121	0.038	ug/L	0.002	4	57	648	4
	Sb	123	0.036	ug/L	0.001	3	42	469	3
	Ba	135	246.054	ug/L	4.197	1	12	1207373	1
	Ba	137	259.963	ug/L	2.562	0	12	2229280	0
>	Tb	159		ug/L			1245990	1252237	0
	Tl	205	0.230	ug/L	0.001	0	75	9899	0
	Pb	208	16.782	ug/L	0.116	0	181	918466	0
	Bi	209		ug/L			2867512	2729068	0
	Th	232	6.618	ug/L	0.022	0	132	351428	0
	U	238	0.933	ug/L	0.004	0	4	50905	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 13:50:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens		Intens. RSD
>	Li	6		ug/L			1452181	1511289	✓	1
	Be	9	52.506	ug/L	0.365	0	10	231651		1
	C	13		ug/L			122688	137684		0
	Cl	37		ug/L			4809329	5436258		1
>	Sc	45		ug/L			1221736	1258786	✓	0
	V	51	49.088	ug/L	0.777	1	8932	1306410		1
	V-1	51	49.429	ug/L	0.871	1	79	1299325		2
	Cr	52	49.826	ug/L	1.392	2	26512	1116123		2
	Cr	53	51.023	ug/L	0.556	1	164	123856		1
	Mn	55	49.854	ug/L	0.590	1	526	1508241		1
	Co	59	47.417	ug/L	1.271	2	57	1037378		2
>	Ge	72		ug/L			666235	644292	✓	0
	Ni	60	50.469	ug/L	0.509	1	11	219415		0
	Ni	62	44.607	ug/L	0.304	0	4585	31837		0
	Cu	63	50.964	ug/L	0.862	1	3389	494872		1
	Cu	65	49.855	ug/L	0.959	1	47	216759		1
	Zn	66	51.515	ug/L	1.886	3	115	134276		2
	Zn	67	51.138	ug/L	1.969	3	14	22303		3
	Zn	68	51.429	ug/L	0.413	0	160	97313		0
	As	75	52.301	ug/L	0.609	1	82	117562		0
	As-1	75	51.984	ug/L	0.674	1	10540	129282		0
	Se	82	52.854	ug/L	0.463	0	0	12832		0
	Se	78	51.802	ug/L	0.917	1	10716	44635		0
	Mo	98	51.142	ug/L	0.532	1	12	270683		0
	Y	89		ug/L			407553	413365		2
	Kr	83		ug/L			373	460		4
>	In	115		ug/L			1034700	1012136	✓	1
	Ag	107	54.845	ug/L	0.719	1	17	595051		1
	Cd	111	51.863	ug/L	0.879	1	81	265038		0
	Cd	114	51.511	ug/L	0.840	1	29	667096		0
	Sb	121	51.878	ug/L	0.911	1	57	800926		0
	Sb	123	52.142	ug/L	0.866	1	42	607686		0
	Ba	135	50.288	ug/L	0.284	0	12	243292		0
	Ba	137	49.851	ug/L	0.746	1	12	421453		0
>	Tb	159		ug/L			1245990	1216756	✓	1
	Tl	205	52.513	ug/L	0.447	0	75	2179633		0
	Pb	208	50.136	ug/L	0.609	1	181	2665748		0
	Bi	209		ug/L			2867512	2723677		0
	Th	232	52.716	ug/L	0.539	1	132	2718788		0
	U	238	53.179	ug/L	0.759	1	4	2819483		0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 13:57:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1499691 ✓	0
	Be	9	0.001	ug/L	0.001	124	10	14	31
	C	13		ug/L			122688	136514	1
	Cl	37		ug/L			4809329	5178558	2
>	Sc	45		ug/L			1221736	1228742 ✓	2
	V	51	0.013	ug/L	0.008	62	8932	9316	0
	V-1	51	-0.000	ug/L	0.001	770	79	78	16
	Cr	52	0.047	ug/L	0.027	58	26512	27652	0
	Cr	53	0.002	ug/L	0.006	284	164	170	8
	Mn	55	0.000	ug/L	0.001	1715	526	531	6
	Co	59	0.002	ug/L	0.000	9	57	90	2
>	Ge	72		ug/L			666235	627100 ✓	1
	Ni	60	0.002	ug/L	0.001	23	11	20	10
	Ni	62	-6.322	ug/L	0.044	0	4585	535	5
	Cu	63	-0.293	ug/L	0.002	0	3389	434	2
	Cu	65	-0.002	ug/L	0.001	65	47	38	10
	Zn	66	0.014	ug/L	0.005	39	115	143	9
	Zn	67	0.023	ug/L	0.013	56	14	23	21
	Zn	68	0.021	ug/L	0.006	26	160	189	3
	As	75	0.017	ug/L	0.008	45	82	113	15
	As-1	75	0.354	ug/L	0.085	24	10540	10708	1
	Se	82	-0.022	ug/L	0.021	94	0	-5	85
	Se	78	1.240	ug/L	0.291	23	10716	10884	1
	Mo	98	0.007	ug/L	0.001	14	12	49	10
	Y	89		ug/L			407553	387180	0
	Kr	83		ug/L			373	430	4
>	In	115		ug/L			1034700	992518 ✓	1
	Ag	107	0.001	ug/L	0.001	63	17	26	24
	Cd	111	0.003	ug/L	0.002	54	81	95	9
	Cd	114	0.001	ug/L	0.000	51	29	40	15
	Sb	121	0.056	ug/L	0.005	8	57	907	8
	Sb	123	0.058	ug/L	0.004	7	42	699	7
	Ba	135	0.002	ug/L	0.000	26	12	20	10
	Ba	137	0.003	ug/L	0.001	37	12	35	24
>	Tb	159		ug/L			1245990	1152170 ✓	0
	Tl	205	0.006	ug/L	0 002	37	75	289	28
	Pb	208	0.002	ug/L	0.000	13	181	270	5
	Bi	209		ug/L			2867512	2735423	1
	Th	232	0.113	ug/L	0.014	12	132	5651	11
	U	238	0.002	ug/L	0.000	26	4	94	25

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 A-L SWN
Sample Dil Factor: 500
Comments:
Sample Date/Time: Monday, November 26, 2012 14:02:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

V Cr Co Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1539017	1
[	**Be**	**9**	**0.038**	ug/L	0 004	11	10	183	9
	C	**13**		ug/L			122688	139698	1
	Cl	**37**		ug/L			4809329	4970118	1
[>	**Sc**	**45**		ug/L			1221736	1291512 ✓	2
[	**V**	**51**	**2.818**	ug/L	0.075	2	8932	85810	0
[	**V-1**	**51**	**2.831**	ug/L	0.076	2	79	76406	0
[	**Cr**	**52**	**4.172**	ug/L	0.072	1	26512	121541	0
[	**Cr**	**53**	**4.244**	ug/L	0 130	3	164	10726	2
[	**Mn**	**55**	**60.386**	ug/L	1.292	2	526	1873755	1
[	**Co**	**59**	**0.658**	ug/L	0.011	1	57	14829	0
[>	**Ge**	**72**		ug/L			666235	654209 ✓	1
[	**Ni**	**60**	**1.629**	ug/L	0.031	1	11	7204	3
[	**Ni**	**62**	**-4.699**	ug/L	0.031	0	4585	1571	1
[	**Cu**	**63**	**1.416**	ug/L	0.035	2	3389	17196	0
[	**Cu**	**65**	**1.750**	ug/L	0.027	1	47	7771	1
[	**Zn**	**66**	**12.572**	ug/L	0.349	2	115	33357	1
[	**Zn**	**67**	**13.095**	ug/L	0.393	3	14	5808	1
[	**Zn**	**68**	**13.304**	ug/L	0.299	2	160	25674	0
[	**As**	**75**	**0.635**	ug/L	0 024	3	82	1528	2
[	**As-1**	**75**	**0.797**	ug/L	0.145	18	10540	12200	1
[	**Se**	**82**	**-0.007**	ug/L	0.018	240	0	-2	181
[	**Se**	**78**	**0.698**	ug/L	0.399	57	10716	10989	1
[	**Mo**	**98**	**0.024**	ug/L	0.003	13	12	142	13
	Y	**89**		ug/L			407553	419938	2
	Kr	**83**		ug/L			373	455	6
[>	**In**	**115**		ug/L			1034700	1022776	1
[	**Ag**	**107**	**0.012**	ug/L	0.000	0	17	145	2
[	**Cd**	**111**	**0.217**	ug/L	0.011	5	81	1198	3
[	**Cd**	**114**	**0.205**	ug/L	0.007	3	29	2714	2
[	**Sb**	**121**	**0.019**	ug/L	0.002	11	57	350	7
[	**Sb**	**123**	**0.020**	ug/L	0.002	12	42	273	8
[	**Ba**	**135**	**26.705**	ug/L	0.476	1	12	130545	0
[	**Ba**	**137**	**26.513**	ug/L	0.544	2	12	226493	0
[>	**Tb**	**159**		ug/L			1245990	1204763 ✓	0
[	**Tl**	**205**	**0.027**	ug/L	0.000	1	75	1195	1
[	**Pb**	**208**	**7.190**	ug/L	0.064	0	181	378690	0
[	**Bi**	**209**		ug/L			2867512	2826484	0
[	**Th**	**232**	**0.257**	ug/L	0.005	1	132	13276	1
[	**U**	**238**	**0.048**	ug/L	0.001	2	4	2523	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 A SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 14:06:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

V Cr Co Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1573621	2
	Be	9	0.177	ug/L	0 008	4	10	823	2
	C	13		ug/L			122688	139936	3
	Cl	37		ug/L			4809329	5097080	1
>	Sc	45		ug/L			1221736	1361690	1
	V	51	13.035	ug/L	0.250	1	8932	382509	0
	V-1	51	13.173	ug/L	0.299	2	79	374538	0
	Cr	52	18.773	ug/L	0.509	2	26512	473225	1
	Cr	53	19.357	ug/L	0.661	3	164	50925	1
	Mn	55	288.675	ug/L	12.714	4	526	9440974	3
	Co	59	3.028	ug/L	0.090	2	57	71709	1
>	Ge	72		ug/L			666235	656377	2
	Ni	60	7.658	ug/L	0.310	4	11	33908	1
	Ni	62	1.839	ug/L	0.145	7	4585	5667	1
	Cu	63	7.835	ug/L	0.110	1	3389	80330	1
	Cu	65	8.302	ug/L	0.213	2	47	36802	1
	Zn	66	58.581	ug/L	1.974	3	115	155496	1
	Zn	67	63.244	ug/L	0.419	0	14	28096	1
	Zn	68	62.480	ug/L	2.606	4	160	120338	1
	As	75	2.956	ug/L	0.108	3	82	6841	1
	As-1	75	2.994	ug/L	0.225	7	10540	17364	0
	Se	82	0.017	ug/L	0.017	101	0	3	119
	Se	78	0.522	ug/L	0.468	89	10716	10904	0
	Mo	98	0.106	ug/L	0.009	8	12	580	6
	Y	89		ug/L			407553	468966	0
	Kr	83		ug/L			373	517	8
>	In	115		ug/L			1034700	1016791	0
	Ag	107	0.057	ug/L	0.003	5	17	633	5
	Cd	111	0.977	ug/L	0.015	1	81	5092	1
	Cd	114	0.960	ug/L	0 012	1	29	12522	1
	Sb	121	0.026	ug/L	0.003	11	57	461	9
	Sb	123	0.027	ug/L	0.001	1	42	361	1
	Ba	135	131.124	ug/L	0.799	0	12	637297	0
	Ba	137	129.304	ug/L	0.852	0	12	1098298	0
>	Tb	159		ug/L			1245990	1213290	0
	Tl	205	0.113	ug/L	0.002	1	75	4757	1
	Pb	208	34.349	ug/L	0.354	1	181	1821348	1
	Bi	209		ug/L			2867512	2781904	0
	Th	232	1.123	ug/L	0.011	0	132	57898	0
	U	238	0.224	ug/L	0.002	0	4	11826	0

VS20 · 00494

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 ADUP SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 14:10:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

V Cr Co Tn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1452181	1572701	1
	Be	9	0.169	ug/L	0.010	5	10	788	4
	C	13		ug/L			122688	149865	4
	Cl	37		ug/L			4809329	5073318	2
>	Sc	45		ug/L			1221736	1343524	2
	V	51	12.536	ug/L	0.209	1	8932	363318	1
	V-1	51	12.510	ug/L	0.214	1	79	350956	1
	Cr	52	19.006	ug/L	0.312	1	26512	472359	1
	Cr	53	19.038	ug/L	0.323	1	164	49423	0
	Mn	55	269.934	ug/L	6.454	2	526	8709980	0
	Co	59	2.775	ug/L	0.096	3	57	64828	0
>	Ge	72		ug/L			666235	651255	2
	Ni	60	7.081	ug/L	0.176	2	11	31121	1
	Ni	62	1.462	ug/L	0.101	6	4585	5390	2
	Cu	63	7.310	ug/L	0.325	4	3389	74550	2
	Cu	65	7.491	ug/L	0.289	3	47	32957	3
	Zn	66	55.312	ug/L	0.415	0	115	145742	1
	Zn	67	59.717	ug/L	2.538	4	14	26311	2
	Zn	68	60.021	ug/L	1.579	2	160	114739	0
	As	75	2.859	ug/L	0.019	0	82	6571	1
	As-1	75	2.952	ug/L	0.099	3	10540	17136	0
	Se	82	-0.014	ug/L	0.030	216	0	-3	187
	Se	78	0.697	ug/L	0.273	39	10716	10939	0
	Mo	98	0.100	ug/L	0.003	2	12	546	2
	Y	89		ug/L			407553	473905	0
	Kr	83		ug/L			373	531	1
>	In	115		ug/L			1034700	1029126	1
	Ag	107	0.055	ug/L	0.002	3	17	621	3
	Cd	111	0.961	ug/L	0.027	2	81	5072	1
	Cd	114	0.904	ug/L	0.006	0	29	11931	1
	Sb	121	0.028	ug/L	0.001	4	57	502	3
	Sb	123	0.028	ug/L	0.002	6	42	369	6
	Ba	135	124.297	ug/L	2.737	2	12	611348	1
	Ba	137	123.511	ug/L	1.479	1	12	1061763	0
>	Tb	159		ug/L			1245990	1227122	0
	Tl	205	0.106	ug/L	0 002	1	75	4517	1
	Pb	208	31.495	ug/L	0.245	0	181	1689034	0
	Bi	209		ug/L			2867512	2786183	0
	Th	232	0.984	ug/L	0.015	1	132	51304	1
	U	238	0.210	ug/L	0 001	0	4	11226	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 ASPK SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 14:14:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

V Cr Co Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1592034	2
	Be	9	5.603	ug/L	0.121	2	10	26040	0
	C	13		ug/L			122688	141947	1
	Cl	37		ug/L			4809329	5219160	2
>	Sc	45		ug/L			1221736	1364074	1
	V	51	18.807	ug/L	0 519	2	8932	548448	1
	V-1	51	19.060	ug/L	0.363	1	79	542896	0
	Cr	52	22.693	ug/L	0.259	1	26512	566976	0
	Cr	53	23.643	ug/L	0.669	2	164	62292	3
	Mn	55	300.712	ug/L	3.840	1	526	9854300	0
	Co	59	7.748	ug/L	0.208	2	57	183715	1
>	Ge	72		ug/L			666235	659027	0
	Ni	60	13.345	ug/L	0.351	2	11	59350	2
	Ni	62	7.920	ug/L	0.378	4	4585	9512	2
	Cu	63	13.488	ug/L	0 220	1	3389	136430	0
	Cu	65	13.917	ug/L	0.271	1	47	61927	1
	Zn	66	78.339	ug/L	1.595	2	115	208832	1
	Zn	67	80.342	ug/L	0.788	0	14	35833	0
	Zn	68	80.623	ug/L	1.563	1	160	155957	1
	As	75	8.376	ug/L	0 220	2	82	19325	1
	As-1	75	8.519	ug/L	0.245	2	10540	30387	1
	Se	82	17.096	ug/L	0.418	2	0	4245	2
	Se	78	17.203	ug/L	0.435	2	10716	22241	0
	Mo	98	4.570	ug/L	0.095	2	12	24749	1
	Y	89		ug/L			407553	488414	1
	Kr	83		ug/L			373	551	5
>	In	115		ug/L			1034700	1039543	0
	Ag	107	5.294	ug/L	0.066	1	17	59003	0
	Cd	111	6.295	ug/L	0.072	1	81	33114	0
	Cd	114	6.306	ug/L	0.052	0	29	83916	0
	Sb	121	0.141	ug/L	0.005	3	57	2301	3
	Sb	123	0.138	ug/L	0.002	1	42	1696	0
	Ba	135	135.559	ug/L	1.999	1	12	673587	1
	Ba	137	133.899	ug/L	1.448	1	12	1162761	0
>	Tb	159		ug/L			1245990	1219964	0
	Tl	205	5.305	ug/L	0.052	0	75	220840	0
	Pb	208	40.673	ug/L	0.251	0	181	2168523	0
	Bi	209		ug/L			2867512	2802993	0
	Th	232	5.942	ug/L	0.023	0	132	307414	0
	U	238	5.385	ug/L	0.052	0	4	286305	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 J SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 14:18:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc RSD	Blank Intens.	Meas Intens.	Intens RSD
>	**Li**	**6**		ug/L			1452181	1531605	1
	Be	**9**	**0.121**	ug/L	0.007	5	10	550	4
	C	**13**		ug/L			122688	154358	2
	Cl	**37**		ug/L			4809329	5076262	2
>	**Sc**	**45**		ug/L			1221736	1287406	1
	V	**51**	**4.192**	ug/L	0.120	2	8932	122683	1
	V-1	**51**	**4.251**	ug/L	0.094	2	79	114336	1
	Cr	**52**	**6.893**	ug/L	0.136	1	26512	181971	0
	Cr	**53**	**7.148**	ug/L	0.113	1	164	17893	1
	Mn	**55**	**477.813**	ug/L	8.702	1	526	14776983	0
	Co	**59**	**2.445**	ug/L	0.074	3	57	54760	1
>	**Ge**	**72**		ug/L			666235	651412	1
	Ni	**60**	**6.548**	ug/L	0.078	1	11	28790	0
	Ni	**62**	**0.118**	ug/L	0.255	215	4585	4555	2
	Cu	**63**	**7.277**	ug/L	0.216	2	3389	74273	2
	Cu	**65**	**7.620**	ug/L	0.147	1	47	33534	0
	Zn	**66**	**177.590**	ug/L	2.662	1	115	467787	0
	Zn	**67**	**164.357**	ug/L	2.375	1	14	72445	1
	Zn	**68**	**175.928**	ug/L	5.496	3	160	336131	2
	As	**75**	**5.234**	ug/L	0.123	2	82	11965	1
	As-1	**75**	**5.290**	ug/L	0.148	2	10540	22558	0
	Se	**82**	**0.124**	ug/L	0.024	19	0	29	18
	Se	**78**	**0.777**	ug/L	0.133	17	10716	10997	0
	Mo	**98**	**0.098**	ug/L	0.005	5	12	533	4
	Y	**89**		ug/L			407553	451288	1
	Kr	**83**		ug/L			373	461	2
>	**In**	**115**		ug/L			1034700	1056101	0
	Ag	**107**	**0.100**	ug/L	0.003	3	17	1147	3
	Cd	**111**	**3.598**	ug/L	0 020	0	81	19266	0
	Cd	**114**	**3.521**	ug/L	0.037	1	29	47612	1
	Sb	**121**	**0.174**	ug/L	0.004	2	57	2855	2
	Sb	**123**	**0.168**	ug/L	0.001	0	42	2086	0
	Ba	**135**	**110.237**	ug/L	0.771	0	12	556505	0
	Ba	**137**	**108.947**	ug/L	0.697	0	12	961177	0
>	**Tb**	**159**		ug/L			1245990	1217713	0
	Tl	**205**	**0.165**	ug/L	0.001	0	75	6928	0
	Pb	**208**	**133.524**	ug/L	1 845	1	181	7104871	0
	Bi	**209**		ug/L			2867512	2805292	0
	Th	**232**	**1.291**	ug/L	0.021	1	132	66743	1
	U	**238**	**0.073**	ug/L	0.001	1	4	3900	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 14:22:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
[>	**Li**	**6**		ug/L			1452181	1578371	2
[	**Be**	**9**	**0.122**	ug/L	0.002	1	10	572	1
	C	**13**		ug/L			122688	152273	1
	Cl	**37**		ug/L			4809329	5152571	1
[>	**Sc**	**45**		ug/L			1221736	1314600	0
[	**V**	**51**	**5.296**	ug/L	0.089	1	8932	155758	1
[	**V-1**	**51**	**5.327**	ug/L	0.016	0	79	146325	0
[	**Cr**	**52**	**5.155**	ug/L	0.226	4	26512	146150	2
[	**Cr**	**53**	**5.262**	ug/L	0.138	2	164	13498	2
[	**Mn**	**55**	**132.707**	ug/L	2.319	1	526	4191434	0
[	**Co**	**59**	**1.692**	ug/L	0 032	1	57	38726	2
[>	**Ge**	**72**		ug/L			666235	649927	1
[	**Ni**	**60**	**5.061**	ug/L	0.073	1	11	22201	1
[	**Ni**	**62**	**-1.341**	ug/L	0.155	11	4585	3641	1
[	**Cu**	**63**	**4.456**	ug/L	0 018	0	3389	46662	1
[	**Cu**	**65**	**4.647**	ug/L	0.076	1	47	20426	2
[	**Zn**	**66**	**65.745**	ug/L	1.269	1	115	172834	0
[	**Zn**	**67**	**60.493**	ug/L	0.389	0	14	26614	2
[	**Zn**	**68**	**64.918**	ug/L	1.852	2	160	123843	1
[	**As**	**75**	**4.327**	ug/L	0.045	1	82	9883	1
[	**As-1**	**75**	**4.427**	ug/L	0.145	3	10540	20509	0
[	**Se**	**82**	**0.118**	ug/L	0.014	12	0	28	10
[	**Se**	**78**	**0.844**	ug/L	0.380	45	10716	11014	0
[	**Mo**	**98**	**0.067**	ug/L	0.005	7	12	368	5
	Y	**89**		ug/L			407553	455103	1
	Kr	**83**		ug/L			373	446	3
[>	**In**	**115**		ug/L			1034700	1030369	0
[	**Ag**	**107**	**0.064**	ug/L	0.001	1	17	723	1
[	**Cd**	**111**	**1.368**	ug/L	0.031	2	81	7195	2
[	**Cd**	**114**	**1.342**	ug/L	0.016	1	29	17728	1
[	**Sb**	**121**	**0.049**	ug/L	0.003	6	57	826	5
[	**Sb**	**123**	**0.051**	ug/L	0.002	3	42	645	4
[	**Ba**	**135**	**34.443**	ug/L	0.120	0	12	169649	0
[	**Ba**	**137**	**34.099**	ug/L	0.446	1	12	293513	1
[>	**Tb**	**159**		ug/L			1245990	1221974	0
[	**Tl**	**205**	**0.056**	ug/L	0.001	1	75	2405	1
[	**Pb**	**208**	**47.029**	ug/L	0.123	0	181	2511464	0
[	**Bi**	**209**		ug/L			2867512	2848778	1
[	**Th**	**232**	**0.835**	ug/L	0.007	0	132	43378	0
[	**U**	**238**	**0.125**	ug/L	0.001	0	4	6656	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 14:26:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Acj

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens	Meas Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1578983	2
	Be	9	0.587	ug/L	0.036	6	10	2714	3
	C	13		ug/L			122688	188815	1
	Cl	37		ug/L			4809329	5155170	2
>	Sc	45		ug/L			1221736	1407761	0
	V	51	27.145	ug/L	0.412	1	8932	812476	0
	V-1	51	27.169	ug/L	0.488	1	79	798652	1
	Cr	52	23.322	ug/L	0.460	1	26512	600550	1
	Cr	53	23.332	ug/L	0.301	1	164	63441	1
	Mn	55	1264.742	ug/L	38.345	3	526	42772417	2
	Co	59	8.084	ug/L	0.105	1	57	197852	1
>	Ge	72		ug/L			666235	651041	0
	Ni	60	24.218	ug/L	0.449	1	11	106401	1
	Ni	62	18.599	ug/L	0.660	3	4585	16023	1
	Cu	63	28.684	ug/L	0.417	1	3389	282922	2
	Cu	65	29.457	ug/L	0.632	2	47	129446	2
	Zn	66	566.896	ug/L	15.888	2	115	1492254	2
	Zn	67	524.137	ug/L	14.427	2	14	230833	1
	Zn	68	547.484	ug/L	3.613	0	160	1045333	1
	As	75	34.253	ug/L	0.333	0	82	77829	0
	As-1	75	33.691	ug/L	0 413	1	10540	88292	0
	Se	82	0.093	ug/L	0.062	66	0	22	69
	Se	78	0.957	ug/L	0.294	30	10716	11110	1
	Mo	98	0.520	ug/L	0.013	2	12	2795	3
	Y	89		ug/L			407553	554751	2
	Kr	83		ug/L			373	792	2
>	In	115		ug/L			1034700	1056766	1
	Ag	107	0.397	ug/L	0.002	0	17	4519	2
	Cd	111	13.388	ug/L	0 347	2	81	71484	1
	Cd	114	13.256	ug/L	0.261	1	29	179247	0
	Sb	121	0.431	ug/L	0.008	1	57	7007	0
	Sb	123	0.425	ug/L	0.010	2	42	5220	0
	Ba	135	371.656	ug/L	6.769	1	12	1876978	0
	Ba	137	387.030	ug/L	7.691	1	12	3415925	0
>	Tb	159		ug/L			1245990	1244124	0
	Tl	205	0.503	ug/L	0.009	1	75	21423	1
	Pb	208	494.268	ug/L	4.289	0	181	26871449	0
	Bi	209		ug/L			2867512	2774929	0
	Th	232	4.643	ug/L	0.050	1	132	244965	0
	U	238	0.605	ug/L	0.007	1	4	32782	0

VS20 : 00499

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 14:31:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag. Be. Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1452181	1576904 ✓	1
	Be	**9**	**0.653**	ug/L	0.017	2	10	3015	2
	C	**13**		ug/L			122688	171786	1
	Cl	**37**		ug/L			4809329	5171882	1
>	**Sc**	**45**		ug/L			1221736	1422299	1
	V	**51**	**25.661**	ug/L	0.650	2	8932	776675	3
	V-1	**51**	**25.599**	ug/L	0.686	2	79	760333	2
	Cr	**52**	**30.247**	ug/L	0.210	0	26512	777776	1
	Cr	**53**	**30.115**	ug/L	0.783	2	164	82662	1
	Mn	**55**	**1399.059**	ug/L	12.737	0	526	47803803	0
	Co	**59**	**10.422**	ug/L	0.288	2	57	257656	1
>	**Ge**	**72**		ug/L			666235	640272 ✓	0
	Ni	**60**	**34.199**	ug/L	1.297	3	11	147772	4
	Ni	**62**	**29.305**	ug/L	0.645	2	4585	22298	2
	Cu	**63**	**33.174**	ug/L	0.297	0	3389	321264	0
	Cu	**65**	**33.334**	ug/L	0.182	0	47	144044	0
	Zn	**66**	**364.098**	ug/L	0.733	0	115	942636	0
	Zn	**67**	**356.613**	ug/L	6.848	1	14	154480	1
	Zn	**68**	**367.336**	ug/L	9.450	2	160	689720	1
	As	**75**	**33.824**	ug/L	0.419	1	82	75582	0
	As-1	**75**	**33.298**	ug/L	0.479	1	10540	85934	0
	Se	**82**	**0.084**	ug/L	0.072	85	0	19	87
	Se	**78**	**1.074**	ug/L	0.279	25	10716	11003	0
	Mo	**98**	**0.533**	ug/L	0.009	1	12	2814	1
	Y	**89**		ug/L			407553	627819	1
	Kr	**83**		ug/L			373	805	5
>	**In**	**115**		ug/L			1034700	1017983 ✓	1
	Ag	**107**	**0.283**	ug/L	0 003	1	17	3102	0
	Cd	**111**	**10.337**	ug/L	0.046	0	81	53198	0
	Cd	**114**	**10.330**	ug/L	0.112	1	29	134580	0
	Sb	**121**	**0.223**	ug/L	0.003	1	57	3526	0
	Sb	**123**	**0.226**	ug/L	0.005	2	42	2685	1
	Ba	**135**	**398.804**	ug/L	4.187	1	12	1940494	1
	Ba	**137**	**413.556**	ug/L	3.413	0	12	3516852	1
>	**Tb**	**159**		ug/L			1245990	1217344	0
	Tl	**205**	**0.345**	ug/L	0.007	2	75	14418	2
	Pb	**208**	**361.951**	ug/L	3.026	0	181	19254123	0
	Bi	**209**		ug/L			2867512	2715913	0
	Th	**232**	**5.887**	ug/L	0.096	1	132	303897	1
	U	**238**	**0.413**	ug/L	0.003	0	4	21932	0

VS20 · 20500

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 14:36:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens RSD
>	Li	6		ug/L			1452181	1554771	2
	Be	9	0.572	ug/L	0.018	3	10	2604	1
	C	13		ug/L			122688	227940	0
	Cl	37		ug/L			4809329	5423451	3
>	Sc	45		ug/L			1221736	1360861	1
	V	51	19.877	ug/L	0.413	2	8932	577714	0
	V-1	51	19.798	ug/L	0.298	1	79	562594	0
	Cr	52	32.191	ug/L	0.100	0	26512	790078	1
	Cr	53	32.148	ug/L	0.733	2	164	84443	3
	Mn	55	2122.108	ug/L	62.115	2	526	69364372	1
	Co	59	11.103	ug/L	0.191	1	57	262656	1
>	Ge	72		ug/L			666235	630552	1
	Ni	60	31.214	ug/L	0.626	2	11	132828	2
	Ni	62	26.722	ug/L	0.474	1	4585	20403	0
	Cu	63	35.216	ug/L	0 955	2	3389	335618	1
	Cu	65	36.356	ug/L	0.949	2	47	154690	1
	Zn	66	912.219	ug/L	2.630	0	115	2325753	1
	Zn	67	801.940	ug/L	5.747	0	14	342132	1
	Zn	68	850.027	ug/L	17 887	2	160	1571563	0
	As	75	25.499	ug/L	0.207	0	82	56134	0
	As-1	75	25.162	ug/L	0.286	1	10540	66389	0
	Se	82	~ 0.417	ug/L	0 101	24	0	98	24
	Se	78	1.428	ug/L	0.247	17	10716	11066	1
	Mo	98	0.467	ug/L	0.007	1	12	2432	1
	Y	89		ug/L			407553	600589	1
	Kr	83		ug/L			373	753	9
>	In	115		ug/L			1034700	1132879	0
	Ag	107	0.445	ug/L	0.016	3	17	5420	3
	Cd	111	15.565	ug/L	0.329	2	81	89102	1
	Cd	114	15.427	ug/L	0.031	0	29	223671	0
	Sb	121	0.757	ug/L	0.001	0	57	13139	0
	Sb	123	0.767	ug/L	0.012	1	42	10049	1
	Ba	135	528.319	ug/L	2.305	0	12	2860958	0
	Ba	137	512.856	ug/L	4.446	0	12	4853495	0
>	Tb	159		ug/L			1245990	1214048	0
	Tl	205	0.771	ug/L	0.004	0	75	32022	0
	Pb	208	651.737	ug/L	4.888	0	181	34576029	0
	Bi	209		ug/L			2867512	2703275	0
	Th	232	6.029	ug/L	0.042	0	132	310377	0
	U	238	0.361	ug/L	0.007	1	4	19079	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 14:40:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	**Li**	**6**		ug/L			1452181	1569952	0
	Be	**9**	**0.567**	ug/L	0.018	3	10	2609	3
	C	**13**		ug/L			122688	190129	0
	Cl	**37**		ug/L			4809329	5098731	2
>	**Sc**	**45**		ug/L			1221736	1395071	2
	V	**51**	**25.200**	ug/L	0.636	2	8932	748000	2
	V-1	**51**	**25.375**	ug/L	0 734	2	79	738886	1
	Cr	**52**	**24.006**	ug/L	0.296	1	26512	611656	2
	Cr	**53**	**24.587**	ug/L	0.824	3	164	66202	0
	Mn	**55**	**599.575**	ug/L	18.871	3	526	20084028	0
	Co	**59**	**7.703**	ug/L	0.260	3	57	186728	0
>	**Ge**	**72**		ug/L			666235	655471 ✓	1
	Ni	**60**	**24.010**	ug/L	0.519	2	11	106193	1
	Ni	**62**	**19.146**	ug/L	0.361	1	4585	16475	0
	Cu	**63**	**22.542**	ug/L	0.488	2	3389	224535	1
	Cu	**65**	**22.627**	ug/L	0.280	1	47	100111	0
	Zn	**66**	**306.739**	ug/L	7.743	2	115	812877	1
	Zn	**67**	**288.686**	ug/L	1.035	0	14	128028	0
	Zn	**68**	**299.134**	ug/L	4.721	1	160	575055	0
	As	**75**	**20.595**	ug/L	0.250	1	82	47144	0
	As-1	**75**	**20.254**	ug/L	0.287	1	10540	57574	0
	Se	**82**	**0.121**	ug/L	0.033	27	0	29	28
	Se	**78**	**0.753**	ug/L	0.193	25	10716	11049	0
	Mo	**98**	**0.341**	ug/L	0.005	1	12	1846	0
	Y	**89**		ug/L			407553	580324	1
	Kr	**83**		ug/L			373	734	3
>	**In**	**115**		ug/L			1034700	1042715 ✓	0
	Ag	**107**	**0.286**	ug/L	0 007	2	17	3209	2
	Cd	**111**	**6.534**	ug/L	0.092	1	81	34472	0
	Cd	**114**	**6.400**	ug/L	0.027	0	29	85426	0
	Sb	**121**	**0.222**	ug/L	0.001	0	57	3594	0
	Sb	**123**	**0.236**	ug/L	0.005	2	42	2877	1
	Ba	**135**	**168.902**	ug/L	2.582	1	12	841808	1
	Ba	**137**	**167.291**	ug/L	1.823	1	12	1457245	1
>	**Tb**	**159**		ug/L			1245990	1226746	1
	Tl	**205**	**0.267**	ug/L	0.007	2	75	11264	1
	Pb	**208**	**242.557**	ug/L	2.557	1	181	13002271	0
	Bi	**209**		ug/L			2867512	2744414	0
	Th	**232**	**4.002**	ug/L	0.073	1	132	208212	0
	U	**238**	**0.615**	ug/L	0 001	0	4	32880	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 14:44:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1492439 ✓	1
	Be	9	53.209	ug/L	1.279	2	10	231802	1
	C	13		ug/L			122688	140028	0
	Cl	37		ug/L			4809329	5272039	0
>	Sc	45		ug/L			1221736	1261935 ✓	0
	V	51	49.024	ug/L	0.439	0	8932	1308041	1
	V-1	51	49.336	ug/L	0.582	1	79	1300133	1
	Cr	52	49.731	ug/L	0.835	1	26512	1116966	2
	Cr	53	50.826	ug/L	1.801	3	164	123688	3
	Mn	55	49.828	ug/L	0.929	1	526	1511237	2
	Co	59	47.720	ug/L	1.308	2	57	1046682	2
>	Ge	72		ug/L			666235	629137 ✓	2
	Ni	60	51.650	ug/L	1.664	3	11	219186	1
	Ni	62	44.615	ug/L	0.994	2	4585	31096	3
	Cu	63	51.239	ug/L	0.793	1	3389	485775	1
	Cu	65	51.137	ug/L	1.464	2	47	217079	2
	Zn	66	52.251	ug/L	1.420	2	115	132972	1
	Zn	67	51.928	ug/L	0 936	1	14	22110	0
	Zn	68	52.098	ug/L	1.005	1	160	96245	1
	As	75	51.837	ug/L	0.952	1	82	113762	1
	As-1	75	51.659	ug/L	1.137	2	10540	125491	0
	Se	82	53.747	ug/L	1 233	2	0	12739	1
	Se	78	53.106	ug/L	1.924	3	10716	44414	0
	Mo	98	52.551	ug/L	1.796	3	12	271490	1
	Y	89		ug/L			407553	404882	1
	Kr	83		ug/L			373	468	1
>	In	115		ug/L			1034700	991971 ✓	1
	Ag	107	54.729 ✓	ug/L	2.222	4	17	581762	2
	Cd	111	52.313	ug/L	0.580	1	81	262016	0
	Cd	114	52.573	ug/L	1.219	2	29	667233	1
	Sb	121	52.022	ug/L	1.159	2	57	787073	0
	Sb	123	52.067	ug/L	1.333	2	42	594641	1
	Ba	135	50.823	ug/L	0.914	1	12	240951	0
	Ba	137	49.764	ug/L	0.920	1	12	412313	0
>	Tb	159		ug/L			1245990	1181680 ✓	0
	Tl	205	52.437	ug/L	2.966	5	75	2113580	5
	Pb	208	50.657	ug/L	0.503	0	181	2615953	0
	Bi	209		ug/L			2867512	2702186	1
	Th	232	53.589	ug/L	0.214	0	132	2684271	0
	U	238	54.479 ✓	ug/L	0.172	0	4	2805394	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 14:51:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1452181	1485781 ✓	1
	Be	9	0.002	ug/L	0.002	87	10	19	40
	C	13		ug/L			122688	139708	1
	Cl	37		ug/L			4809329	5083139	1
>	Sc	45		ug/L			1221736	1219885 ✓	2
	V	51	0.022	ug/L	0.010	43	8932	9480	0
	V-1	51	-0.000	ug/L	0.001	1728	79	78	16
	Cr	52	0.075	ug/L	0.033	43	26512	28044	0
	Cr	53	-0.001	ug/L	0.004	516	164	162	5
	Mn	55	0.006	ug/L	0.005	92	526	694	23
	Co	59	0.002	ug/L	0.001	37	57	94	12
>	Ge	72		ug/L			666235	625390 ✓	0
	Ni	60	0.002	ug/L	0.000	5	11	20	2
	Ni	62	-6.625	ug/L	0.024	0	4585	353	3
	Cu	63	-0.306	ug/L	0.001	0	3389	311	2
	Cu	65	0.000	ug/L	0.001	459	47	45	12
	Zn	66	0.016	ug/L	0.005	30	115	149	8
	Zn	67	0.028	ug/L	0.008	27	14	25	12
	Zn	68	0.014	ug/L	0.009	65	160	176	9
	As	75	0.030	ug/L	0.009	31	82	141	14
	As-1	75	0.400	ug/L	0.027	6	10540	10783	0
	Se	82	0.026	ug/L	0.045	172	0	5	190
	Se	78	1.388	ug/L	0.072	5	10716	10950	0
	Mo	98	0.006	ug/L	0.002	31	12	43	22
	Y	89		ug/L			407553	394127	1
	Kr	83		ug/L			373	418	3
>	In	115		ug/L			1034700	978366 ✓	0
	Ag	107	0.001	ug/L	0.001	62	17	30	29
	Cd	111	0.000	ug/L	0.003	1052	81	78	18
	Cd	114	0.001	ug/L	0.001	94	29	40	29
	Sb	121	0.056	ug/L	0.006	10	57	895	8
	Sb	123	0.058	ug/L	0.006	9	42	690	8
	Ba	135	0.002	ug/L	0.000	16	12	19	5
	Ba	137	0.002	ug/L	0.001	40	12	30	25
>	Tb	159		ug/L			1245990	1145285 ✓	0
	Tl	205	0.007	ug/L	0.002	28	75	328	22
	Pb	208	0.004	ug/L	0.001	33	181	344	17
	Bi	209		ug/L			2867512	2704747	0
	Th	232	0.129	ug/L	0.011	8	132	6378	7
	U	238	0.002	ug/L	0.000	5	4	110	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:16:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be, Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1452181	1494885	2
	Be	**9**	**0.000**	ug/L	0.000	59	10	12	8
	C	**13**		ug/L			122688	144146	1
	Cl	**37**		ug/L			4809329	4973994	3
>	**Sc**	**45**		ug/L			1221736	1226202	2
	V	**51**	**0.021**	ug/L	0.010	46	8932	9502	1
	V-1	**51**	**0.000**	ug/L	0.000	34	79	91	4
	Cr	**52**	**0.074**	ug/L	0.033	44	26512	28173	1
	Cr	**53**	**0.004**	ug/L	0.005	123	164	174	5
	Mn	**55**	**0.032**	ug/L	0.001	1	526	1482	1
	Co	**59**	**0.002**	ug/L	0.000	19	57	96	5
>	**Ge**	**72**		ug/L			666235	618099	2
	Ni	**60**	**0.006**	ug/L	0.001	20	11	34	13
	Ni	**62**	**-6.623**	ug/L	0.023	0	4585	350	2
	Cu	**63**	**-0.301**	ug/L	0.001	0	3389	357	4
	Cu	**65**	**0.006**	ug/L	0.002	41	47	67	13
	Zn	**66**	**0.146**	ug/L	0.010	6	115	471	4
	Zn	**67**	**0.134**	ug/L	0.018	13	14	69	12
	Zn	**68**	**0.149**	ug/L	0.011	7	160	418	2
	As	**75**	**0.023**	ug/L	0.012	50	82	125	19
	As-1	**75**	**0.499**	ug/L	0 099	19	10540	10873	0
	Se	**82**	**-0.025**	ug/L	0.022	88	0	-6	82
	Se	**78**	**1.754**	ug/L	0.364	20	10716	11051	0
	Mo	**98**	**0.001**	ug/L	0 001	46	12	17	19
	Y	**89**		ug/L			407553	402232	2
	Kr	**83**		ug/L			373	452	4
>	**In**	**115**		ug/L			1034700	980063	2
	Ag	**107**	**0.000**	ug/L	0.000	16	17	21	4
	Cd	**111**	**0.001**	ug/L	0.001	44	81	84	3
	Cd	**114**	**0.001**	ug/L	0.000	12	29	39	3
	Sb	**121**	**0.014**	ug/L	0.003	19	57	269	17
	Sb	**123**	**0.015**	ug/L	0.004	25	42	211	22
	Ba	**135**	**0.011**	ug/L	0.002	18	12	65	14
	Ba	**137**	**0.012**	ug/L	0.001	11	12	106	8
>	**Tb**	**159**		ug/L			1245990	1150843	0
	Tl	**205**	**0.003**	ug/L	0.001	36	75	178	22
	Pb	**208**	**0.008**	ug/L	0.000	4	181	590	3
	Bi	**209**		ug/L			2867512	2736891	0
	Th	**232**	**0.039**	ug/L	0.008	20	132	2041	19
	U	**238**	**0.000**	ug/L	0.000	77	4	13	56

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:20:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be, Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	**Li**	**6**		ug/L			1452181	1489490	2
	Be	**9**	**27.029**	ug/L	1.577	5	10	117437	3
	C	**13**		ug/L			122688	143737	0
	Cl	**37**		ug/L			4809329	5019923	1
>	**Sc**	**45**		ug/L			1221736	1253013	2
	V	**51**	**25.024**	ug/L	0.190	0	8932	667370	1
	V-1	**51**	**25.129**	ug/L	0.335	1	79	657432	1
	Cr	**52**	**25.890**	ug/L	0.337	1	26512	590384	2
	Cr	**53**	**26.268**	ug/L	0.730	2	164	63535	1
	Mn	**55**	**25.532**	ug/L	0.991	3	526	768779	2
	Co	**59**	**24.924**	ug/L	0.229	0	57	542822	1
>	**Ge**	**72**		ug/L			666235	633744	0
	Ni	**60**	**27.233**	ug/L	0.098	0	11	116468	0
	Ni	**62**	**21.416**	ug/L	0.824	3	4585	17299	2
	Cu	**63**	**27.535**	ug/L	0.093	0	3389	264491	0
	Cu	**65**	**27.979**	ug/L	0.327	1	47	119674	0
	Zn	**66**	**86.484**	ug/L	2.508	2	115	221677	2
	Zn	**67**	**80.424**	ug/L	0.235	0	14	34495	0
	Zn	**68**	**85.156**	ug/L	1.903	2	160	158386	1
	As	**75**	**26.091**	ug/L	0.089	0	82	57730	1
	As-1	**75**	**26.875**	ug/L	0.373	1	10540	70592	1
	Se	**82**	**87.375**	ug/L	1.060	1	0	20867	1
	Se	**78**	**85.990**	ug/L	0.181	0	10716	66158	0
	Mo	**98**	**25.489**	ug/L	0.485	1	12	132720	2
	Y	**89**		ug/L			407553	409954	1
	Kr	**83**		ug/L			373	431	4
>	**In**	**115**		ug/L			1034700	996397	1
	Ag	**107**	**28.573**	ug/L	0.382	1	17	305231	2
	Cd	**111**	**26.744**	ug/L	0.257	0	81	134598	1
	Cd	**114**	**26.395**	ug/L	0.552	2	29	336541	1
	Sb	**121**	**26.030**	ug/L	0.599	2	57	395649	1
	Sb	**123**	**26.027**	ug/L	0.274	1	42	298650	0
	Ba	**135**	**26.319**	ug/L	0 488	1	12	125348	1
	Ba	**137**	**25.836**	ug/L	0.257	0	12	215050	0
>	**Tb**	**159**		ug/L			1245990	1167699	0
	Tl	**205**	**26.626**	ug/L	0.127	0	75	1060675	0
	Pb	**208**	**27.373**	ug/L	0.082	0	181	1396924	0
	Bi	**209**		ug/L			2867512	2743968	1
	Th	**232**	**25.601**	ug/L	0.270	1	132	1267270	0
	U	**238**	**25.899**	ug/L	0.064	0	4	1317863	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 K SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 15:24:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
[>	Li	6		ug/L			1452181	1548072	0
[	Be	9	0.144	ug/L	0.005	3	10	662	3
	C	13		ug/L			122688	147168	2
	Cl	37		ug/L			4809329	5141143	0
[>	Sc	45		ug/L			1221736	1310562	0
[	V	51	5.792	ug/L	0.057	0	8932	168943	0
[	V-1	51	5.824	ug/L	0.064	1	79	159457	0
[	Cr	52	6.701	ug/L	0.110	1	26512	180914	1
[	Cr	53	6.829	ug/L	0.094	1	164	17409	0
[	Mn	55	314.770	ug/L	3.543	1	526	9910750	0
[	Co	59	2.346	ug/L	0.040	1	57	53493	1
[>	Ge	72		ug/L			666235	661004	1
[	Ni	60	7.243	ug/L	0.102	1	11	32318	2
[	Ni	62	0.469	ug/L	0.049	10	4585	4845	1
[	Cu	63	6.634	ug/L	0.120	1	3389	69008	0
[	Cu	65	6.996	ug/L	0.145	2	47	31253	3
[	Zn	66	88.732	ug/L	2.966	3	115	237201	2
[	Zn	67	84.929	ug/L	1.006	1	14	37991	0
[	Zn	68	88.436	ug/L	1.531	1	160	171552	0
[	As	75	6.947	ug/L	0.065	0	82	16091	0
[	As-1	75	6.972	ug/L	0 100	1	10540	26844	0
[	Se	82	0.043	ug/L	0.027	62	0	10	66
[	Se	78	0.715	ug/L	0.130	18	10716	11116	0
[	Mo	98	0.118	ug/L	0.004	3	12	654	2
	Y	89		ug/L			407553	454919	1
	Kr	83		ug/L			373	475	3
[>	In	115		ug/L			1034700	1015111	0
[	Ag	107	0.061	ug/L	0.004	7	17	677	6
[	Cd	111	2.217	ug/L	0.040	1	81	11441	1
[	Cd	114	2.187	ug/L	0.033	1	29	28435	1
[	Sb	121	0.070	ug/L	0.007	9	57	1141	9
[	Sb	123	0.072	ug/L	0.001	1	42	883	1
[	Ba	135	81.993	ug/L	0.771	0	12	397864	1
[	Ba	137	82.028	ug/L	0.478	0	12	695607	0
[>	Tb	159		ug/L			1245990	1204658	1
[	Tl	205	0.074	ug/L	0 002	2	75	3132	1
[	Pb	208	75.341	ug/L	0.587	0	181	3966143	0
[	Bi	209		ug/L			2867512	2810584	0
[	Th	232	1.489	ug/L	0.012	0	132	76156	1
[	U	238	0.089	ug/L	0.002	2	4	4653	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:28:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
[>	Li	6		ug/L			1452181	1530706	0
[	Be	9	0.559	ug/L	0.019	3	10	2507	3
	C	13		ug/L			122688	205645	1
	Cl	37		ug/L			4809329	5140367	0
[>	Sc	45		ug/L			1221736	1399525	1
[	V	51	41.018	ug/L	1.127	2	8932	1214969	0
[	V-1	51	41.376	ug/L	1.041	2	79	1208851	0
[	Cr	52	32.735	ug/L	0.365	1	26512	825643	0
[	Cr	53	33.822	ug/L	0.156	0	164	91341	1
[	Mn	55	1060.314	ug/L	10.634	1	526	35647872	1
[	Co	59	8.818	ug/L	0.340	3	57	214507	3
[>	Ge	72		ug/L			666235	639522	0
[	Ni	60	23.358	ug/L	0.422	1	11	100801	1
[	Ni	62	18.725	ug/L	0.718	3	4585	15817	2
[	Cu	63	35.479	ug/L	0.467	1	3389	342956	0
[	Cu	65	35.911	ug/L	0.296	0	47	154995	0
[	Zn	66	368.169	ug/L	3.578	0	115	952037	0
[	Zn	67	366.178	ug/L	8.548	2	14	158430	1
[	Zn	68	382.576	ug/L	5.830	1	160	717540	0
[	As	75	11.552	ug/L	0.192	1	82	25835	1
[	As-1	75	11.533	ug/L	0.196	1	10540	36343	0
[	Se	82	~ 0.027	ug/L	0.023	82	0	6	90
[	Se	78	1.241	ug/L	0.047	3	10716	11101	0
[	Mo	98	0.436	ug/L	0.006	1	12	2301	1
	Y	89		ug/L			407553	569301	1
	Kr	83		ug/L			373	775	3
[>	In	115		ug/L			1034700	1046815	1
[	Ag	107	0.206	ug/L	0.002	1	17	2332	0
[	Cd	111	7.269	ug/L	0.046	0	81	38492	0
[	Cd	114	7.236	ug/L	0.087	1	29	96947	0
[	Sb	121	0.362	ug/L	0.003	0	57	5832	1
[	Sb	123	0.353	ug/L	0.010	2	42	4303	3
[	Ba	135	554.699	ug/L	1 354	0	12	2775540	0
[	Ba	137	544.384	ug/L	10.012	1	12	4759870	0
[>	Tb	159		ug/L			1245990	1230182	0
[	Tl	205	0.400	ug/L	0 007	1	75	16870	1
[	Pb	208	349.084	ug/L	2.081	0	181	18766115	0
[	Bi	209		ug/L			2867512	2709500	0
[	Th	232	4.674	ug/L	0.015	0	132	243832	0
[	U	238	0.868	ug/L	0.007	0	4	46530	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 C SWN
Sample Dil Factor: 20
Comments: Be Se
Sample Date/Time: Monday, November 26, 2012 15:32:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1452181	1565297 ✓	1
	Be	9	1.164	ug/L	0.021	1	10	5332	2
	C	13		ug/L			122688	260191	1
	Cl	37		ug/L			4809329	5314163	0
>	Sc	45		ug/L			1221736	1408899	1
	V	51	24.203	ug/L	0.246	1	8932	726088	0
	V-1	51	24.383	ug/L	0.315	1	79	717277	0
	Cr	52	20.044	ug/L	0.403	2	26512	520758	1
	Cr	53	20.587	ug/L	0.579	2	164	56028	1
	Mn	55	5614.000	ug/L	134.405	2	526	189976000	1
	Co	59	20.752	ug/L	0.334	1	57	508124	0
>	Ge	72		ug/L			666235	642476 ✓	0
	Ni	60	49.375	ug/L	1.945	3	11	214034	3
	Ni	62	45.138	ug/L	1.200	2	4585	32071	1
	Cu	63	57.754	ug/L	0.761	1	3389	558804	0
	Cu	65	58.503	ug/L	2.066	3	47	253614	2
	Zn	66	1475.059	ug/L	31.972	2	115	3831369	1
	Zn	67	1297.582	ug/L	37.158	2	14	563947	2
	Zn	68	1445.298	ug/L	21.754	1	160	2722980	1
	As	75	53.754	ug/L	0.972	1	82	120487	1
	As-1	75	52.840	ug/L	0.980	1	10540	130873	1
	Se	82	1.248	ug/L	0.065	5	0	301	4
	Se	78	2.221	ug/L	0.131	5	10716	11799	0
	Mo	98	1.155	ug/L	0.044	3	12	6105	3
	Y	89		ug/L			407553	723719	1
	Kr	83		ug/L			373	863	4
>	In	115		ug/L			1034700	1140494	1
	Ag	107	0.659	ug/L	0.031	4	17	8076	3
	Cd	111	36.268	ug/L	0.763	2	81	208870	1
	Cd	114	35.929	ug/L	1.043	2	29	524278	1
	Sb	121	2.093	ug/L	0.056	2	57	36463	1
	Sb	123	2.067	ug/L	0.047	2	42	27192	1
	Ba	135	514.409	ug/L	9.174	1	12	2803980	0
	Ba	137	500.329	ug/L	13.077	2	12	4765833	1
>	Tb	159		ug/L			1245990	1228374	0
	Tl	205	1.093	ug/L	0.003	0	75	45884	0
	Pb	208	1153.439	ug/L	13.628	1	181	61915084	1
	Bi	209		ug/L			2867512	2743767	0
	Th	232	4.170	ug/L	0.042	1	132	217238	0
	U	238	0.739	ug/L	0.004	0	4	39549	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:36:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1452181	1563577	1
	Be	9	0.882	ug/L	0.024	2	10	4037	1
	C	13		ug/L			122688	288849	0
	Cl	37		ug/L			4809329	5501311	1
>	Sc	45		ug/L			1221736	1367836	1
	V	51	18.895	ug/L	0.239	1	8932	552483	0
	V-1	51	18.872	ug/L	0.354	1	79	538967	0
	Cr	52	14.578	ug/L	0.400	2	26512	375804	2
	Cr	53	14.419	ug/L	0.651	4	164	38143	2
	Mn	55	5598.396	ug/L	128.329	2	526	183919058	0
	Co	59	18.770	ug/L	0.336	1	57	446201	0
>	Ge	72		ug/L			666235	640703	2
	Ni	60	39.944	ug/L	0.880	2	11	172649	1
	Ni	62	34.765	ug/L	0.728	2	4585	25641	1
	Cu	63	62.829	ug/L	0.611	0	3389	605881	1
	Cu	65	63.847	ug/L	1.441	2	47	275965	1
	Zn	66	1233.928	ug/L	30.575	2	115	3195618	1
	Zn	67	1084.071	ug/L	24.103	2	14	469766	1
	Zn	68	1197.571	ug/L	26 991	2	160	2249352	1
	As	75	21.971	ug/L	0.481	2	82	49144	0
	As-1	75	21.691	ug/L	0.613	2	10540	59534	0
	Se	82	1.256	ug/L	0.081	6	0	302	6
	Se	78	2.175	ug/L	0.489	22	10716	11731	0
	Mo	98	1.083	ug/L	0.023	2	12	5711	1
	Y	89		ug/L			407553	680571	1
	Kr	83		ug/L			373	769	5
>	In	115		ug/L			1034700	1163038	0
	Ag	107	0.946	ug/L	0.009	0	17	11809	1
	Cd	111	24.910	ug/L	0.413	1	81	146329	1
	Cd	114	24.933	ug/L	0.512	2	29	371059	1
	Sb	121	2.858	ug/L	0 090	3	57	50755	2
	Sb	123	2.859	ug/L	0.032	1	42	38332	0
	Ba	135	399.832	ug/L	5.938	1	12	2222603	0
	Ba	137	394.437	ug/L	3.211	0	12	3832028	0
>	Tb	159		ug/L			1245990	1208926	0
	Tl	205	0.912	ug/L	0 013	1	75	37686	1
	Pb	208	1598.799	ug/L	9.275	0	181	84462776	0
	Bi	209		ug/L			2867512	2746637	1
	Th	232	2.992	ug/L	0.032	1	132	153450	1
	U	238	0.600	ug/L	0.008	1	4	31606	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:40:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1617092	1
	Be	9	2.372	ug/L	0.047	1	10	11205	0
	C	13		ug/L			122688	260484	1
	Cl	37		ug/L			4809329	5352770	2
>	Sc	45		ug/L			1221736	1406812	0
	V	51	28.015	ug/L	0.405	1	8932	837611	0
	V-1	51	28.200	ug/L	0.359	1	79	828418	0
	Cr	52	23.127	ug/L	0.507	2	26512	595305	1
	Cr	53	23.677	ug/L	0.349	1	164	64329	0
	Mn	55	4462.162	ug/L	110.765	2	526	150789665	1
	Co	59	32.968	ug/L	0.627	1	57	806077	1
>	Ge	72		ug/L			666235	629057	1
	Ni	60	76.145	ug/L	1.977	2	11	323191	2
	Ni	62	69.664	ug/L	2.920	4	4585	46103	2
	Cu	63	67.282	ug/L	1.672	2	3389	636782	1
	Cu	65	68.107	ug/L	1.382	2	47	289092	1
	Zn	66	744.635	ug/L	10.511	1	115	1893764	0
	Zn	67	699.868	ug/L	15.213	2	14	297812	1
	Zn	68	732.924	ug/L	12.249	1	160	1351995	1
	As	75	28.170	ug/L	0.193	0	82	61859	0
	As-1	75	27.736	ug/L	0.210	0	10540	71991	0
	Se	82	1.402	ug/L	0.110	7	0	331	6
	Se	78	2.635	ug/L	0.155	5	10716	11819	0
	Mo	98	1.559	ug/L	0.015	0	12	8065	0
	Y	89		ug/L			407553	942580	1
	Kr	83		ug/L			373	1113	4
>	In	115		ug/L			1034700	1032629	1
	Ag	107	0.962	ug/L	0.022	2	17	10661	1
	Cd	111	11.756	ug/L	0.347	2	81	61340	1
	Cd	114	11.649	ug/L	0.271	2	29	153915	0
	Sb	121	0.732	ug/L	0.021	2	57	11583	1
	Sb	123	0.720	ug/L	0.030	4	42	8595	2
	Ba	135	352.499	ug/L	10.800	3	12	1739368	1
	Ba	137	375.765	ug/L	9.995	2	12	3240414	0
>	Tb	159		ug/L			1245990	1214246	0
	Tl	205	0.427	ug/L	0.003	0	75	17778	1
	Pb	208	548.527	ug/L	2.783	0	181	29105853	0
	Bi	209		ug/L			2867512	2597639	0
	Th	232	5.301	ug/L	0.061	1	132	272955	0
	U	238	0.864	ug/L	0.005	0	4	45735	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:45:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens RSD
>	Li	6		ug/L			1452181	1576229	0
	Be	9	0.629	ug/L	0.013	2	10	2907	2
	C	13		ug/L			122688	197173	3
	Cl	37		ug/L			4809329	5148666	3
>	Sc	45		ug/L			1221736	1395771	1
	V	51	25.306	ug/L	0.242	0	8932	751628	0
	V-1	51	25.450	ug/L	0.254	0	79	741739	0
	Cr	52	21.524	ug/L	0.522	2	26512	551711	0
	Cr	53	21.954	ug/L	0.568	2	164	59181	1
	Mn	55	2830.101	ug/L	32.332	1	526	94889774	0
	Co	59	9.225	ug/L	0.208	2	57	223797	0
>	Ge	72		ug/L			666235	651699	1
	Ni	60	28.549	ug/L	0.336	1	11	125545	0
	Ni	62	24.310	ug/L	0.557	2	4585	19589	1
	Cu	63	26.155	ug/L	0.382	1	3389	258499	0
	Cu	65	26.776	ug/L	0.375	1	47	117776	1
	Zn	66	425.843	ug/L	11.884	2	115	1121915	1
	Zn	67	411.313	ug/L	1.264	0	14	181359	1
	Zn	68	428.955	ug/L	7.363	1	160	819771	0
	As	75	21.150	ug/L	0.159	0	82	48137	1
	As-1	75	20.869	ug/L	0.199	0	10540	58669	0
	Se	82	0.117	ug/L	0.073	62	0	28	64
	Se	78	1.099	ug/L	0.264	23	10716	11216	0
	Mo	98	0.759	ug/L	0.008	1	12	4077	0
	Y	89		ug/L			407553	580203	1
	Kr	83		ug/L			373	820	5
>	In	115		ug/L			1034700	1055091	0
	Ag	107	0.297	ug/L	0 002	0	17	3381	0
	Cd	111	7.523	ug/L	0.081	1	81	40149	0
	Cd	114	7.484	ug/L	0.066	0	29	101072	1
	Sb	121	0.365	ug/L	0 013	3	57	5925	3
	Sb	123	0.363	ug/L	0.012	3	42	4449	2
	Ba	135	429.455	ug/L	8.273	1	12	2165693	1
	Ba	137	418.642	ug/L	5.951	1	12	3689619	0
>	Tb	159		ug/L			1245990	1222897	0
	Tl	205	0.431	ug/L	0.003	0	75	18058	0
	Pb	208	347.916	ug/L	1.652	0	181	18592922	0
	Bi	209		ug/L			2867512	2703502	0
	Th	232	5.033	ug/L	0.009	0	132	261002	0
	U	238	0.673	ug/L	0.005	0	4	35887	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:50:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1452181	1557415	1
	Be	**9**	**0.719**	ug/L	0.020	2	10	3277	1
	C	**13**		ug/L			122688	178001	1
	Cl	**37**		ug/L			4809329	5164100	1
>	**Sc**	**45**		ug/L			1221736	1440504	1
	V	**51**	**39.530**	ug/L	0.099	0	8932	1205942	0
	V-1	**51**	**39.877**	ug/L	0.129	0	79	1199529	0
	Cr	**52**	**30.627**	ug/L	0.524	1	26512	797159	1
	Cr	**53**	**31.665**	ug/L	0.552	1	164	88028	1
	Mn	**55**	**880.744**	ug/L	15.907	1	526	30478101	1
	Co	**59**	**10.519**	ug/L	0.087	0	57	263424	1
>	**Ge**	**72**		ug/L			666235	654684	0
	Ni	**60**	**29.290**	ug/L	0 726	2	11	129389	1
	Ni	**62**	**24.689**	ug/L	0.321	1	4585	19918	1
	Cu	**63**	**29.793**	ug/L	0.723	2	3389	295334	1
	Cu	**65**	**30.137**	ug/L	0 707	2	47	133160	2
	Zn	**66**	**162.152**	ug/L	3.781	2	115	429263	1
	Zn	**67**	**169.727**	ug/L	1.115	0	14	75187	0
	Zn	**68**	**165.362**	ug/L	2.624	1	160	317579	0
	As	**75**	**11.856**	ug/L	0.206	1	82	27140	0
	As-1	**75**	**11.693**	ug/L	0.259	2	10540	37575	0
	Se	**82**	**-0.234**	ug/L	0.032	13	0	-58	14
	Se	**78**	**0.770**	ug/L	0.240	31	10716	11047	1
	Mo	**98**	**0.784**	ug/L	0.029	3	12	4227	4
	Y	**89**		ug/L			407553	659395	0
	Kr	**83**		ug/L			373	1007	2
>	**In**	**115**		ug/L			1034700	987074	0
	Ag	**107**	**0.251**	ug/L	0.011	4	17	2675	3
	Cd	**111**	**2.442**	ug/L	0.012	0	81	12246	0
	Cd	**114**	**2.287**	ug/L	0.026	1	29	28916	0
	Sb	**121**	**0.063**	ug/L	0.002	3	57	997	3
	Sb	**123**	**0.063**	ug/L	0.001	1	42	755	1
	Ba	**135**	**260.524**	ug/L	2.528	0	12	1229151	0
	Ba	**137**	**275.861**	ug/L	0 478	0	12	2274662	0
>	**Tb**	**159**		ug/L			1245990	1221786	0
	Tl	**205**	**0.222**	ug/L	0 006	2	75	9333	1
	Pb	**208**	**79.428**	ug/L	0.400	0	181	4240759	0
	Bi	**209**		ug/L			2867512	2668218	0
	Th	**232**	**5.753**	ug/L	0.025	0	132	298065	0
	U	**238**	**0.978**	ug/L	0.007	0	4	52080	1

VS20 : 00513

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:54:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1536649	0
	Be	9	0.445	ug/L	0.005	1	10	2005	0
	C	13		ug/L			122688	164510	2
	Cl	37		ug/L			4809329	5026111	2
>	Sc	45		ug/L			1221736	1404264	1
	V	51	32.235	ug/L	0.746	2	8932	960347	1
	V-1	51	32.375	ug/L	0.626	1	79	949234	1
	Cr	52	19.968	ug/L	0.513	2	26512	517154	0
	Cr	53	20.224	ug/L	0.362	1	164	54884	2
	Mn	55	1167.700	ug/L	35.322	3	526	39387351	2
	Co	59	8.056	ug/L	0.234	2	57	196634	1
>	Ge	72		ug/L			666235	649125	1
	Ni	60	19.615	ug/L	0.439	2	11	85911	0
	Ni	62	13.573	ug/L	0.045	0	4585	12868	1
	Cu	63	18.750	ug/L	0.754	4	3389	185472	2
	Cu	65	19.401	ug/L	0.493	2	47	84998	1
	Zn	66	197.209	ug/L	4 389	2	115	517598	1
	Zn	67	211.367	ug/L	2.599	1	14	92827	0
	Zn	68	209.861	ug/L	3 171	1	160	399556	0
	As	75	10.870	ug/L	0.215	1	82	24679	1
	As-1	75	10.776	ug/L	0.280	2	10540	35138	1
	Se	82	-0.105	ug/L	0.032	29	0	-26	28
	Se	78	0.781	ug/L	0.351	44	10716	10959	0
	Mo	98	0.307	ug/L	0 008	2	12	1649	3
	Y	89		ug/L			407553	560761	1
	Kr	83		ug/L			373	762	2
>	In	115		ug/L			1034700	1013435	1
	Ag	107	0.191	ug/L	0.006	2	17	2090	2
	Cd	111	2.737	ug/L	0.032	1	81	14081	2
	Cd	114	2.603	ug/L	0.059	2	29	33776	0
	Sb	121	0.129	ug/L	0.005	3	57	2045	2
	Sb	123	0.130	ug/L	0.009	6	42	1557	5
	Ba	135	511.178	ug/L	6.472	1	12	2475969	0
	Ba	137	498.611	ug/L	6.056	1	12	4220729	0
>	Tb	159		ug/L			1245990	1210442	0
	Tl	205	0.213	ug/L	0.002	0	75	8860	0
	Pb	208	95.833	ug/L	0.992	1	181	5069244	0
	Bi	209		ug/L			2867512	2678138	0
	Th	232	3.447	ug/L	0.050	1	132	176964	1
	U	238	0.385	ug/L	0.003	0	4	20321	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 15:58:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1491441 ✓	1
	Be	9	52.860	ug/L	1.678	3	10	230077	1
	C	13		ug/L			122688	140260	2
	Cl	37		ug/L			4809329	5401944	1
>	Sc	45		ug/L			1221736	1266822 ✓	1
	V	51	49.152	ug/L	2.099	4	8932	1315769	2
	V-1	51	49.358	ug/L	1.734	3	79	1305159	1
	Cr	52	49.836	ug/L	1.254	2	26512	1123205	0
	Cr	53	50.563	ug/L	1.574	3	164	123529	3
	Mn	55	49.463	ug/L	1.022	2	526	1505564	0
	Co	59	48.254	ug/L	0.836	1	57	1062572	2
>	Ge	72		ug/L			666235	641171 ✓	1
	Ni	60	50.404	ug/L	0.974	1	11	218066	1
	Ni	62	44.597	ug/L	0.489	1	4585	31674	0
	Cu	63	51.143	ug/L	0.816	1	3389	494147	0
	Cu	65	50.302	ug/L	0.986	1	47	217612	0
	Zn	66	51.134	ug/L	1.394	2	115	132640	2
	Zn	67	51.736	ug/L	0.440	0	14	22453	0
	Zn	68	52.780	ug/L	2.013	3	160	99347	2
	As	75	52.155	ug/L	1.400	2	82	116641	1
	As-1	75	51.852	ug/L	1.604	3	10540	128325	1
	Se	82	53.399	ug/L	0.826	1	0	12900	0
	Se	78	52.354	ug/L	1.422	2	10716	44774	0
	Mo	98	51.849	ug/L	1.241	2	12	273110	2
	Y	89		ug/L			407553	405374	1
	Kr	83		ug/L			373	463	8
>	In	115		ug/L			1034700	984427 ✓	1
	Ag	107	55.908	ug/L	1.000	1	17	589900	0
	Cd	111	52.283	ug/L	0.766	1	81	259882	1
	Cd	114	52.584	ug/L	0.448	0	29	662391	0
	Sb	121	53.156	ug/L	0.347	0	57	798254	0
	Sb	123	52.492	ug/L	0.988	1	42	594995	0
	Ba	135	50.791	ug/L	0.857	1	12	238973	0
	Ba	137	50.215	ug/L	0.356	0	12	412933	0
>	Tb	159		ug/L			1245990	1174626 ✓	0
	Tl	205	51.032	ug/L	2.451	4	75	2045293	5
	Pb	208	51.199	ug/L	0.160	0	181	2628253	0
	Bi	209		ug/L			2867512	2688477	0
	Th	232	53.862	ug/L	0.252	0	132	2681913	1
	U	238	54.969	ug/L	0.601	1	4	2813610	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 16:05:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1452181	1435095	2
	Be	**9**	**0.003**	ug/L	0.001	35	10	23	19
	C	**13**		ug/L			122688	137586	1
	Cl	**37**		ug/L			4809329	5037037	1
>	**Sc**	**45**		ug/L			1221736	1201906	3
	V	**51**	**0.030**	ug/L	0.013	41	8932	9546	0
	V-1	**51**	**0.005**	ug/L	0.007	122	79	211	74
	Cr	**52**	**0.094**	ug/L	0.029	31	26512	28024	0
	Cr	**53**	**0.009**	ug/L	0.011	127	164	181	11
	Mn	**55**	**0.316**	ug/L	0.390	123	526	9412	114
	Co	**59**	**0.005**	ug/L	0 003	71	57	153	42
>	**Ge**	**72**		ug/L			666235	624589	2
	Ni	**60**	**0.008**	ug/L	0.005	62	11	44	46
	Ni	**62**	**-6.785**	ug/L	0.039	0	4585	257	7
	Cu	**63**	**-0.306**	ug/L	0.006	1	3389	319	16
	Cu	**65**	**0.008**	ug/L	0.007	84	47	78	35
	Zn	**66**	**0.092**	ug/L	0.100	108	115	339	72
	Zn	**67**	**0.099**	ug/L	0.090	90	14	55	66
	Zn	**68**	**0.102**	ug/L	0.109	106	160	336	57
	As	**75**	**0.029**	ug/L	0.001	4	82	140	2
	As-1	**75**	**0.418**	ug/L	0.096	23	10540	10805	0
	Se	**82**	**0.015**	ug/L	0.029	199	0	3	234
	Se	**78**	**1.448**	ug/L	0.334	23	10716	10971	0
	Mo	**98**	**0.009**	ug/L	0.002	16	12	59	12
	Y	**89**		ug/L			407553	382137	2
	Kr	**83**		ug/L			373	424	3
>	**In**	**115**		ug/L			1034700	946368	3
	Ag	**107**	**0.004**	ug/L	0.001	37	17	54	24
	Cd	**111**	**0.004**	ug/L	0.004	93	81	93	17
	Cd	**114**	**0.005**	ug/L	0.005	97	29	90	66
	Sb	**121**	**0.059**	ug/L	0.003	4	57	911	7
	Sb	**123**	**0.055**	ug/L	0.002	4	42	634	5
	Ba	**135**	**0.054**	ug/L	0.066	121	12	254	114
	Ba	**137**	**0.056**	ug/L	0.066	117	12	445	113
>	**Tb**	**159**		ug/L			1245990	1098783	0
	Tl	**205**	**0.008**	ug/L	0.001	16	75	352	14
	Pb	**208**	**0.061**	ug/L	0.075	123	181	3075	116
	Bi	**209**		ug/L			2867512	2639546	1
	Th	**232**	**0.173**	ug/L	0.011	6	132	8190	7
	U	**238**	**0.004**	ug/L	0.002	38	4	193	36

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 16:11:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L				1482660	2
	Be	9		ug/L				14	7
	C	13		ug/L				139850	2
	Cl	37		ug/L				4987849	3
>	Sc	45		ug/L				1243958	1
	V	51		ug/L				9588	4
	V-1	51		ug/L				77	23
	Cr	52		ug/L				28352	4
	Cr	53		ug/L				162	6
	Mn	55		ug/L				1786	83
	Co	59		ug/L				102	16
>	Ge	72		ug/L				622418	1
	Ni	60		ug/L				20	26
	Ni	62		ug/L				290	6
	Cu	63		ug/L				228	3
	Cu	65		ug/L				42	14
	Zn	66		ug/L				140	26
	Zn	67		ug/L				25	34
	Zn	68		ug/L				174	10
	As	75		ug/L				143	12
	As-1	75		ug/L				10862	0
	Se	82		ug/L				2	185
	Se	78		ug/L				11031	0
	Mo	98		ug/L				20	41
	Y	89		ug/L				398382	0
	Kr	83		ug/L				433	3
>	In	115		ug/L				957933	1
	Ag	107		ug/L				20	20
	Cd	111		ug/L				85	6
	Cd	114		ug/L				45	8
	Sb	121		ug/L				252	6
	Sb	123		ug/L				176	12
	Ba	135		ug/L				41	81
	Ba	137		ug/L				76	67
>	Tb	159		ug/L				1116653	0
	Tl	205		ug/L				235	31
	Pb	208		ug/L				687	66
	Bi	209		ug/L				2666772	0
	Th	232		ug/L				2215	12
	U	238		ug/L				34	47

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 16:15:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1505702	2
	Be	9	52.574	ug/L	2.085	3	14	230947	1
	C	13		ug/L			139850	136292	2
	Cl	37		ug/L			4987849	5315943	2
>	Sc	45		ug/L			1243958	1243550	2
	V	51	48.713	ug/L	1.209	2	9588	1280880	0
	V-1	51	49.188	ug/L	1.301	2	77	1276849	0
	Cr	52	49.738	ug/L	1.199	2	28352	1101828	0
	Cr	53	51.405	ug/L	1.600	3	162	123217	1
	Mn	55	49.840	ug/L	0.895	1	1786	1490477	0
	Co	59	48.962	ug/L	0.036	0	102	1058349	2
>	Ge	72		ug/L			622418	634767	1
	Ni	60	51.277	ug/L	1.326	2	20	219616	1
	Ni	62	50.389	ug/L	0.735	1	290	30790	0
	Cu	63	51.660	ug/L	1.484	2	228	491074	1
	Cu	65	50.269	ug/L	1.282	2	42	215290	1
	Zn	66	50.766	ug/L	0.504	0	140	130440	2
	Zn	67	52.308	ug/L	0.942	1	25	22486	1
	Zn	68	51.750	ug/L	1.502	2	174	96487	2
	As	75	51.810	ug/L	0.571	1	143	114800	0
	As-1	75	51.402	ug/L	0.624	1	10862	127087	0
	Se	82	53.187	ug/L	0 871	1	2	12725	0
	Se	78	51.665	ug/L	0.988	1	11031	44923	0
	Mo	98	50.904	ug/L	0.131	0	20	265461	1
	Y	89		ug/L			398382	399799	1
	Kr	83		ug/L			433	456	8
>	In	115		ug/L			957933	972222	0
	Ag	107	54.398	ug/L	0 480	0	20	566937	0
	Cd	111	52.464	ug/L	0.597	1	85	257567	0
	Cd	114	52.486	ug/L	0.447	0	45	653015	0
	Sb	121	52.608	ug/L	0.842	1	252	780474	1
	Sb	123	52.496	ug/L	0.410	0	176	587910	0
	Ba	135	51.062	ug/L	0.780	1	41	237331	1
	Ba	137	50.552	ug/L	0.867	1	76	410627	1
>	Tb	159		ug/L			1116653	1164637	0
	Tl	205	50.028	ug/L	0.347	0	235	1987769	0
	Pb	208	50.895	ug/L	0.378	0	687	2590867	0
	Bi	209		ug/L			2666772	2669994	0
	Th	232	53.903	ug/L	0.206	0	2215	2663312	0
	U	238	55.190	ug/L	0.508	0	34	2800993	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 16:22:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1464222	1
	Be	9	0.000	ug/L	0.001	183	14	15	20
	C	13		ug/L			139850	138820	0
	Cl	37		ug/L			4987849	5235327	0
>	Sc	45		ug/L			1243958	1230616	1
	V	51	-0.006	ug/L	0.007	116	9588	9325	0
	V-1	51	0.000	ug/L	0.001	151	77	86	16
	Cr	52	-0.020	ug/L	0.026	127	28352	27606	0
	Cr	53	0.002	ug/L	0.003	150	162	165	3
	Mn	55	-0.043	ug/L	0.001	1	1786	507	4
	Co	59	0.000	ug/L	0 000	94	102	110	7
>	Ge	72		ug/L			622418	611061	0
	Ni	60	0.000	ug/L	0.001	587	20	20	29
	Ni	62	-0.030	ug/L	0.030	101	290	267	5
	Cu	63	0.002	ug/L	0.002	97	228	240	7
	Cu	65	0.004	ug/L	0.003	61	42	58	18
	Zn	66	-0.005	ug/L	0.005	100	140	125	8
	Zn	67	-0.018	ug/L	0.014	78	25	17	35
	Zn	68	0.001	ug/L	0.010	1464	174	172	10
	As	75	0.009	ug/L	0.005	58	143	159	6
	As-1	75	0.038	ug/L	0.038	99	10862	10747	0
	Se	82	0.023	ug/L	0.039	167	2	8	108
	Se	78	0.141	ug/L	0.116	81	11031	10918	0
	Mo	98	0.007	ug/L	0.001	10	20	57	5
	Y	89		ug/L			398382	393799	2
	Kr	83		ug/L			433	437	3
>	In	115		ug/L			957933	965466	0
	Ag	107	0.002	ug/L	0.001	34	20	39	16
	Cd	111	0.001	ug/L	0.003	366	85	90	17
	Cd	114	0.001	ug/L	0.001	128	45	53	18
	Sb	121	0.046	ug/L	0.004	7	252	924	6
	Sb	123	0.046	ug/L	0.005	11	176	690	9
	Ba	135	-0.007	ug/L	0.001	16	41	11	45
	Ba	137	-0.006	ug/L	0.001	21	76	26	40
>	Tb	159		ug/L			1116653	1125769	0
	Tl	205	0.004	ug/L	0.003	61	235	402	25
	Pb	208	-0.007	ug/L	0.000	3	687	350	3
	Bi	209		ug/L			2666772	2690664	0
	Th	232	0.151	ug/L	0.024	15	2215	9440	12
	U	238	0.003	ug/L	0.000	13	34	168	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 16:27:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Az Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
[>	Li	6		ug/L			1482660	1570240	1
[	Be	9	∿0.114	ug/L	0.006	5	14	536	4
	C	13		ug/L			139850	150982	1
	Cl	37		ug/L			4987849	5012630	0
[>	Sc	45		ug/L			1243958	1298618	0
[	V	51	6.214	ug/L	0.124	1	9588	179423	2
[	V-1	51	6.318	ug/L	0.086	1	77	171395	1
[	Cr	52	5.552	ug/L	0.046	0	28352	154760	0
[	Cr	53	5.899	ug/L	0.114	1	162	14920	1
[	Mn	55	153.274	ug/L	3.030	1	1786	4783683	1
[	Co	59	1.798	ug/L	0.025	1	102	40686	1
[>	Ge	72		ug/L			622418	651418	1
[	Ni	60	5.046	ug/L	0.171	3	20	22194	1
[	Ni	62	5.423	ug/L	0.183	3	290	3671	2
[	Cu	63	4.760	ug/L	0.175	3	228	46654	3
[	Cu	65	4.713	ug/L	0.227	4	42	20747	3
[	Zn	66	97.227	ug/L	2.684	2	140	256142	1
[	Zn	67	91.712	ug/L	1.560	1	25	40436	0
[	Zn	68	94.809	ug/L	3.300	3	174	181215	1
[	As	75	6.111	ug/L	0.065	1	143	14028	1
[	As-1	75	5.738	ug/L	0.136	2	10862	24656	1
[	Se	82	∿ 0.052	ug/L	0.056	107	2	16	85
[	Se	78	-0.801	ug/L	0.264	32	11031	11008	0
[	Mo	98	0.077	ug/L	0.003	3	20	434	5
	Y	89		ug/L			398382	439670	2
	Kr	83		ug/L			433	475	4
[>	In	115		ug/L			957933	1023814	1
[	Ag	107	∿0.071	ug/L	0.002	2	20	800	1
[	Cd	111	2.221	ug/L	0.020	0	85	11571	1
[	Cd	114	2.186	ug/L	0.044	2	45	28686	1
[	Sb	121	0.071	ug/L	0.002	2	252	1378	2
[	Sb	123	0.072	ug/L	0.004	5	176	1035	3
[	Ba	135	42.779	ug/L	0.905	2	41	209356	0
[	Ba	137	41.940	ug/L	0.819	1	76	358713	0
[>	Tb	159		ug/L			1116653	1195813	1
[	Tl	205	0.080	ug/L	0.004	5	235	3525	3
[	Pb	208	86.699	ug/L	0.643	0	687	4531044	0
[	Bi	209		ug/L			2666772	2809687	0
[	Th	232	0.923	ug/L	0.013	1	2215	49160	0
[	U	238	0.088	ug/L	0.002	2	34	4623	1

VS20 00520

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 16:31:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Ag Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1482660	1568336	1
[	**Be**	**9**	**0.560**	ug/L	0.010	1	14	2577	0
	C	**13**		ug/L			139850	188575	1
	Cl	**37**		ug/L			4987849	5059133	2
[>	**Sc**	**45**		ug/L			1243958	1394349	0
[	**V**	**51**	**29.123**	ug/L	0.622	2	9588	863299	2
[	**V-1**	**51**	**29.432**	ug/L	0.316	1	77	857011	1
[	**Cr**	**52**	**26.286**	ug/L	0.355	1	28352	668126	1
[	**Cr**	**53**	**27.303**	ug/L	0.894	3	162	73487	2
[	**Mn**	**55**	**719.471**	ug/L	5.788	0	1786	24103751	1
[	**Co**	**59**	**8.353**	ug/L	0.060	0	102	202544	1
[>	**Ge**	**72**		ug/L			622418	653399	1
[	**Ni**	**60**	**25.243**	ug/L	0.371	1	20	111303	0
[	**Ni**	**62**	**27.394**	ug/L	0.316	1	290	17373	2
[	**Cu**	**63**	**22.944**	ug/L	0.798	3	228	224627	2
[	**Cu**	**65**	**22.872**	ug/L	0.583	2	42	100846	1
[	**Zn**	**66**	**462.879**	ug/L	6.889	1	140	1222763	0
[	**Zn**	**67**	**425.404**	ug/L	1.479	0	25	188066	1
[	**Zn**	**68**	**454.601**	ug/L	5.288	1	174	871057	0
[	**As**	**75**	**29.782**	ug/L	0.893	2	143	67974	1
[	**As-1**	**75**	**28.888**	ug/L	0.931	3	10862	78494	0
[	**Se**	**82**	**u 0.133**	ug/L	0.025	18	2	35	16
[	**Se**	**78**	**-0.619**	ug/L	0.243	39	11031	11163	0
[	**Mo**	**98**	**0.395**	ug/L	0.003	0	20	2139	1
	Y	**89**		ug/L			398382	556197	2
	Kr	**83**		ug/L			433	743	3
[>	**In**	**115**		ug/L			957933	1035874	0
[	**Ag**	**107**	**0.345**	ug/L	0.008	2	20	3851	2
[	**Cd**	**111**	**10.600**	ug/L	0.028	0	85	55523	0
[	**Cd**	**114**	**10.554**	ug/L	0.078	0	45	139947	0
[	**Sb**	**121**	**0.314**	ug/L	0.007	2	252	5226	2
[	**Sb**	**123**	**0.312**	ug/L	0.006	1	176	3914	1
[	**Ba**	**135**	**209.668**	ug/L	1.089	0	41	1038213	0
[	**Ba**	**137**	**208.834**	ug/L	0.198	0	76	1807201	0
[>	**Tb**	**159**		ug/L			1116653	1207572	1
[	**Tl**	**205**	**0.370**	ug/L	0.012	3	235	15491	1
[	**Pb**	**208**	**433.727**	ug/L	6 213	1	687	22884762	0
[	**Bi**	**209**		ug/L			2666772	2726341	0
[	**Th**	**232**	**4.155**	ug/L	0.061	1	2215	215044	0
[	**U**	**238**	**0.429**	ug/L	0.009	2	34	22583	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 ADUP SWN
Sample Dil Factor: 20
Comments:

Ag Be Se

Sample Date/Time: Monday, November 26, 2012 16:35:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1482660	1582033	1
	Be	**9**	**0.613**	ug/L	0.031	5	14	2846	3
	C	**13**		ug/L			139850	203860	2
	Cl	**37**		ug/L			4987849	5204817	1
>	**Sc**	**45**		ug/L			1243958	1396675	1
	V	**51**	**27.560**	ug/L	0.571	2	9588	818712	1
	V-1	**51**	**27.866**	ug/L	0.664	2	77	812604	1
	Cr	**52**	**25.661**	ug/L	0.249	0	28352	654046	1
	Cr	**53**	**26.688**	ug/L	0.334	1	162	71953	0
	Mn	**55**	**770.331**	ug/L	21.067	2	1786	25842965	1
	Co	**59**	**8.564**	ug/L	0.174	2	102	207962	0
>	**Ge**	**72**		ug/L			622418	643171	0
	Ni	**60**	**25.605**	ug/L	0.686	2	20	111143	2
	Ni	**62**	**27.655**	ug/L	0.185	0	290	17260	1
	Cu	**63**	**25.596**	ug/L	0.070	0	228	246718	0
	Cu	**65**	**25.815**	ug/L	0.304	1	42	112068	0
	Zn	**66**	**524.343**	ug/L	2.078	0	140	1363665	0
	Zn	**67**	**486.217**	ug/L	11.233	2	25	211578	1
	Zn	**68**	**509.153**	ug/L	1.704	0	174	960433	0
	As	**75**	**33.050**	ug/L	0.158	0	143	74264	0
	As-1	**75**	**32.178**	ug/L	0.173	0	10862	84818	0
	Se	**82**	**0.159**	ug/L	0 095	59	2	41	54
	Se	**78**	**-0.257**	ug/L	0.169	65	11031	11230	0
	Mo	**98**	**0.441**	ug/L	0.004	0	20	2353	0
	Y	**89**		ug/L			398382	563164	0
	Kr	**83**		ug/L			433	767	3
>	**In**	**115**		ug/L			957933	1051035	0
	Ag	**107**	**0.404**	ug/L	0.013	3	20	4570	3
	Cd	**111**	**12.008**	ug/L	0.180	1	85	63798	0
	Cd	**114**	**12.109**	ug/L	0.192	1	45	162893	1
	Sb	**121**	**0.545**	ug/L	0.005	0	252	9013	0
	Sb	**123**	**0.540**	ug/L	0.009	1	176	6729	0
	Ba	**135**	**214.882**	ug/L	4.138	1	41	1079466	1
	Ba	**137**	**210.078**	ug/L	2.150	1	76	1844496	0
>	**Tb**	**159**		ug/L			1116653	1207942	0
	Tl	**205**	**0.386**	ug/L	0.001	0	235	16169	0
	Pb	**208**	**502.252**	ug/L	5.839	1	687	26511427	0
	Bi	**209**		ug/L			2666772	2716988	0
	Th	**232**	**3.962**	ug/L	0.036	0	2215	205262	0
	U	**238**	**0.458**	ug/L	0.005	1	34	24149	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 16:39:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Ag Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1482660	1548715	1
	Be	**9**	**27.002**	ug/L	0.349	1	14	122087	0
	C	**13**		ug/L			139850	194219	1
	Cl	**37**		ug/L			4987849	5237509	2
>	**Sc**	**45**		ug/L			1243958	1400300	0
	V	**51**	**55.582**	ug/L	0.815	1	9588	1644696	1
	V-1	**51**	**56.057**	ug/L	0.780	1	77	1639121	1
	Cr	**52**	**50.904**	ug/L	1.271	2	28352	1269311	1
	Cr	**53**	**52.464**	ug/L	1.038	1	162	141649	1
	Mn	**55**	**799.603**	ug/L	16.425	2	1786	26900242	1
	Co	**59**	**31.838**	ug/L	0.258	0	102	774980	0
>	**Ge**	**72**		ug/L			622418	631527	0
	Ni	**60**	**54.716**	ug/L	0.343	0	20	233195	1
	Ni	**62**	**56.985**	ug/L	1.282	2	290	34604	1
	Cu	**63**	**52.931**	ug/L	0.850	1	228	500759	2
	Cu	**65**	**53.194**	ug/L	1 593	2	42	226677	2
	Zn	**66**	**613.888**	ug/L	9.587	1	140	1567488	1
	Zn	**67**	**572.803**	ug/L	7.312	1	25	244738	0
	Zn	**68**	**604.584**	ug/L	12.935	2	174	1119657	1
	As	**75**	**59.929**	ug/L	0.194	0	143	132106	1
	As-1	**75**	**59.379**	ug/L	0.277	0	10862	144365	0
	Se	**82**	**86.545**	ug/L	0.191	0	2	20601	1
	Se	**78**	**83.188**	ug/L	0.577	0	11031	65143	0
	Mo	**98**	**25.079**	ug/L	0.095	0	20	130135	1
	Y	**89**		ug/L			398382	572166	0
	Kr	**83**		ug/L			433	763	4
>	**In**	**115**		ug/L			957933	1048901	1
	Ag	**107**	**24.796**	ug/L	0.734	2	20	278756	1
	Cd	**111**	**36.581**	ug/L	1.131	3	85	193765	2
	Cd	**114**	**36.535**	ug/L	0.609	1	45	490358	0
	Sb	**121**	**2.603**	ug/L	0.036	1	252	41916	0
	Sb	**123**	**2.601**	ug/L	0.064	2	176	31604	1
	Ba	**135**	**244.151**	ug/L	5.858	2	41	1223902	1
	Ba	**137**	**259.410**	ug/L	4.399	1	76	2272762	0
>	**Tb**	**159**		ug/L			1116653	1205834	0
	Tl	**205**	**25.562**	ug/L	0 156	0	235	1051727	0
	Pb	**208**	**514.599**	ug/L	9.832	1	687	27114366	1
	Bi	**209**		ug/L			2666772	2695318	0
	Th	**232**	**27.069**	ug/L	0.209	0	2215	1385907	0
	U	**238**	**26.388**	ug/L	0.279	1	34	1386564	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 16:44:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Ag Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1482660	1557784 ✓	0
	Be	**9**	**0.516**	ug/L	0.009	1	14	2362	2
	C	**13**		ug/L			139850	210305	0
	Cl	**37**		ug/L			4987849	5314264	1
>	**Sc**	**45**		ug/L			1243958	1371978	0
	V	**51**	**31.462**	ug/L	0.684	2	9588	916831	2
	V-1	**51**	**31.702**	ug/L	0.392	1	77	908325	1
	Cr	**52**	**23.769**	ug/L	0.538	2	28352	597439	2
	Cr	**53**	**24.458**	ug/L	0.694	2	162	64790	2
	Mn	**55**	**518.817**	ug/L	11.352	2	1786	17102195	2
	Co	**59**	**6.120**	ug/L	0.041	0	102	146052	1
>	**Ge**	**72**		ug/L			622418	634779 ✓	1
	Ni	**60**	**18.416**	ug/L	0.356	1	20	78901	2
	Ni	**62**	**20.114**	ug/L	0.481	2	290	12470	2
	Cu	**63**	**22.082**	ug/L	0.432	1	228	210078	1
	Cu	**65**	**22.134**	ug/L	0.554	2	42	94822	1
	Zn	**66**	**187.739**	ug/L	0.590	0	140	481982	1
	Zn	**67**	**189.740**	ug/L	1.897	0	25	81512	2
	Zn	**68**	**188.835**	ug/L	2.760	1	174	351623	0
	As	**75**	**9.083**	ug/L	0.161	1	143	20247	1
	As-1	**75**	**8.742**	ug/L	0.195	2	10862	30808	0
	Se	**82**	**0.681**	ug/L	0.022	3	2	165	3
	Se	**78**	**0.354**	ug/L	0.144	40	11031	11480	0
	Mo	**98**	**0.381**	ug/L	0.011	2	20	2010	3
	Y	**89**		ug/L			398382	617570	1
	Kr	**83**		ug/L			433	676	1
>	**In**	**115**		ug/L			957933	1004847 ✓	0
	Ag	**107**	**0.198**	ug/L	0.002	1	20	2154	0
	Cd	**111**	**2.587**	ug/L	0.060	2	85	13212	1
	Cd	**114**	**2.468**	ug/L	0.039	1	45	31774	0
	Sb	**121**	**0.221**	ug/L	0.004	1	252	3658	1
	Sb	**123**	**0.229**	ug/L	0.006	2	176	2836	2
	Ba	**135**	**273.705**	ug/L	3.848	1	41	1314662	1
	Ba	**137**	**288.572**	ug/L	4.917	1	76	2422175	0
>	**Tb**	**159**		ug/L			1116653	1196663	0
	Tl	**205**	**0.201**	ug/L	0.000	0	235	8455	0
	Pb	**208**	**111.362**	ug/L	1.205	1	687	5823826	0
	Bi	**209**		ug/L			2666772	2679476	0
	Th	**232**	**3.336**	ug/L	0.035	1	2215	171555	0
	U	**238**	**1.759**	ug/L	0.006	0	34	91752	1

ICP-MS Quantitative Analysis - Summary Report

Ag Be Se

Sample ID: VS20 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 16:48:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1482660	1551265	1
[	**Be**	**9**	**0.594**	ug/L	0.021	3	14	2706	2
	C	**13**		ug/L			139850	195711	0
	Cl	**37**		ug/L			4987849	5128996	1
[>	**Sc**	**45**		ug/L			1243958	1370638	2
[	**V**	**51**	**25.356**	ug/L	0.632	2	9588	739988	2
[	**V-1**	**51**	**25.563**	ug/L	0 748	2	77	731445	1
[	**Cr**	**52**	**21.002**	ug/L	0.100	0	28352	530986	1
[	**Cr**	**53**	**21.640**	ug/L	0.718	3	162	57269	1
[	**Mn**	**55**	**1596.357**	ug/L	28.778	1	1786	52559760	1
[	**Co**	**59**	**6.806**	ug/L	0 245	3	102	162195	2
[>	**Ge**	**72**		ug/L			622418	641474	1
[	**Ni**	**60**	**17.344**	ug/L	0.214	1	20	75089	1
[	**Ni**	**62**	**18.972**	ug/L	0.441	2	290	11900	1
[	**Cu**	**63**	**24.465**	ug/L	0.230	0	228	235235	2
[	**Cu**	**65**	**24.156**	ug/L	0.538	2	42	104602	3
[	**Zn**	**66**	**708.772**	ug/L	3.361	0	140	1838293	1
[	**Zn**	**67**	**662.906**	ug/L	19.310	2	25	287714	3
[	**Zn**	**68**	**706.361**	ug/L	11.209	1	174	1328629	0
[	**As**	**75**	**20.692**	ug/L	0.223	1	143	46423	0
[	**As-1**	**75**	**20.055**	ug/L	0.283	1	10862	56934	0
[	**Se**	**82**	u **0.278**	ug/L	0.063	22	2	70	19
[	**Se**	**78**	**-0.272**	ug/L	0.274	100	11031	11188	0
[	**Mo**	**98**	**0.396**	ug/L	0.015	3	20	2107	4
	Y	**89**		ug/L			398382	573991	2
	Kr	**83**		ug/L			433	677	2
[>	**In**	**115**		ug/L			957933	1064370	1
[	**Ag**	**107**	**0.274**	ug/L	0.017	6	20	3144	6
[	**Cd**	**111**	**13.632**	ug/L	0.114	0	85	73339	1
[	**Cd**	**114**	**13.367**	ug/L	0.244	1	45	182088	0
[	**Sb**	**121**	**0.720**	ug/L	0.015	2	252	11970	1
[	**Sb**	**123**	**0.732**	ug/L	0.017	2	176	9163	1
[	**Ba**	**135**	**595.414**	ug/L	11.959	2	41	3028921	1
[	**Ba**	**137**	**577.966**	ug/L	13.086	2	76	5138458	1
[>	**Tb**	**159**		ug/L			1116653	1176653	0
[	**Tl**	**205**	**0.598**	ug/L	0.017	2	235	24250	2
[	**Pb**	**208**	**510.070**	ug/L	9.505	1	687	26225248	1
[	**Bi**	**209**		ug/L			2666772	2679780	0
[	**Th**	**232**	**3.562**	ug/L	0 091	2	2215	179963	1
[	**U**	**238**	**0.575**	ug/L	0.015	2	34	29509	1

ICP-MS Quantitative Analysis - Summary Report

Ag Be

Sample ID: VS20 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 16:52:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1482660	1521438	3
	Be	9	0.450	ug/L	0.024	5	14	2013	4
	C	13		ug/L			139850	197550	3
	Cl	37		ug/L			4987849	5146168	1
>	Sc	45		ug/L			1243958	1378361	2
	V	51	25.420	ug/L	0.852	3	9588	745824	0
	V-1	51	25.614	ug/L	1.049	4	77	736834	1
	Cr	52	15.782	ug/L	0.206	1	28352	409076	2
	Cr	53	16.275	ug/L	0.708	4	162	43350	2
	Mn	55	1922.319	ug/L	57.344	2	1786	63631917	1
	Co	59	6.890	ug/L	0.326	4	102	165043	2
>	Ge	72		ug/L			622418	643055	2
	Ni	60	14.347	ug/L	0.638	4	20	62227	1
	Ni	62	15.614	ug/L	0.642	4	290	9867	1
	Cu	63	25.103	ug/L	0.466	1	228	241855	0
	Cu	65	24.819	ug/L	0.406	1	42	107700	0
	Zn	66	401.895	ug/L	8.543	2	140	1044683	0
	Zn	67	393.616	ug/L	18.946	4	25	171128	2
	Zn	68	406.959	ug/L	12.207	2	174	767205	1
	As	75	21.805	ug/L	0.682	3	143	49012	0
	As-1	75	21.157	ug/L	0.818	3	10862	59568	0
	Se	82	0.212	ug/L	0.024	11	2	54	12
	Se	78	-0.289	ug/L	0.556	191	11031	11200	0
	Mo	98	0.536	ug/L	0.027	5	20	2852	2
	Y	89		ug/L			398382	532249	1
	Kr	83		ug/L			433	685	4
>	In	115		ug/L			957933	1042913	3
	Ag	107	0.345	ug/L	0.012	3	20	3877	0
	Cd	111	7.474	ug/L	0.327	4	85	39404	1
	Cd	114	7.311	ug/L	0.381	5	45	97511	1
	Sb	121	0.945	ug/L	0.025	2	252	15307	1
	Sb	123	0.941	ug/L	0.029	3	176	11482	1
	Ba	135	498.890	ug/L	15.288	3	41	2485400	1
	Ba	137	487.845	ug/L	21.145	4	76	4246123	0
>	Tb	159		ug/L			1116653	1190599	2
	Tl	205	0.452	ug/L	0.017	3	235	18595	1
	Pb	208	402.059	ug/L	12.713	3	687	20908771	0
	Bi	209		ug/L			2666772	2693779	2
	Th	232	2.802	ug/L	0.098	3	2215	143717	1
	U	238	0.505	ug/L	0.018	3	34	26232	1

VS20 · 00526

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 16:56:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Ag Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1606691	2
	Be	9	2.116	ug/L	0.056	2	14	9935	0
	C	13		ug/L			139850	246992	1
	Cl	37		ug/L			4987849	5222664	0
>	Sc	45		ug/L			1243958	1458319	1
	V	51	31.294	ug/L	0.221	0	9588	969331	2
	V-1	51	31.573	ug/L	0.164	0	77	961456	1
	Cr	52	25.721	ug/L	0.649	2	28352	684364	2
	Cr	53	26.584	ug/L	0.929	3	162	74814	1
	Mn	55	2856.671	ug/L	46.762	1	1786	100074253	1
	Co	59	24.326	ug/L	0.441	1	102	616709	2
>	Ge	72		ug/L			622418	637521	0
	Ni	60	73.191	ug/L	1.201	1	20	314861	1
	Ni	62	74.510	ug/L	2.477	3	290	45584	2
	Cu	63	60.935	ug/L	1.490	2	228	581847	2
	Cu	65	60.834	ug/L	2.633	4	42	261666	3
	Zn	66	415.327	ug/L	13.257	3	140	1070541	2
	Zn	67	390.261	ug/L	7.215	1	25	168332	1
	Zn	68	414.750	ug/L	2.563	0	174	775536	1
	As	75	15.963	ug/L	0.304	1	143	35627	1
	As-1	75	15.209	ug/L	0.335	2	10862	45601	0
	Se	82	1.567	ug/L	0 019	1	2	379	0
	Se	78	u 0.949	ug/L	0.095	10	11031	11920	0
	Mo	98	1.963	ug/L	0.041	2	20	10298	1
	Y	89		ug/L			398382	1122820	1
	Kr	83		ug/L			433	1286	4
>	In	115		ug/L			957933	979573	1
	Ag	107	1.348	ug/L	0.015	1	20	14173	0
	Cd	111	4.346	ug/L	0.100	2	85	21574	0
	Cd	114	4.114	ug/L	0.052	1	45	51606	0
	Sb	121	0.257	ug/L	0.006	2	252	4104	0
	Sb	123	0.251	ug/L	0.007	2	176	3008	1
	Ba	135	160.832	ug/L	5.493	3	41	752855	1
	Ba	137	159.172	ug/L	3.910	2	76	1302271	0
>	Tb	159		ug/L			1116653	1225562	0
	Tl	205	0.189	ug/L	0.002	1	235	8164	1
	Pb	208	239.017	ug/L	1.241	0	687	12801503	0
	Bi	209		ug/L			2666772	2580802	0
	Th	232	6.087	ug/L	0.039	0	2215	318657	0
	U	238	0.866	ug/L	0.006	0	34	46274	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 F SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 17:01:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1482660	1598341	0
[	Be	9	0.435	ug/L	0.011	2	14	2046	2
	C	13		ug/L			139850	167104	4
	Cl	37		ug/L			4987849	5240022	1
[>	Sc	45		ug/L			1243958	1335536	1
[	V	51	6.592	ug/L	0.057	0	9588	195109	0
[	V-1	51	6.643	ug/L	0.060	0	77	185310	0
[	Cr	52	5.359	ug/L	0.077	1	28352	154705	1
[	Cr	53	5.511	ug/L	0.067	1	162	14348	1
[	Mn	55	605.503	ug/L	12.278	2	1786	19426484	0
[	Co	59	5.195	ug/L	0.031	0	102	120689	1
[>	Ge	72		ug/L			622418	646205	0
[	Ni	60	13.791	ug/L	0.032	0	20	60157	0
[	Ni	62	14.228	ug/L	0.332	2	290	9067	2
[	Cu	63	11.952	ug/L	0.134	1	228	115868	0
[	Cu	65	11.862	ug/L	0.415	3	42	51754	2
[	Zn	66	85.759	ug/L	1.191	1	140	224195	1
[	Zn	67	80.729	ug/L	2.176	2	25	35315	2
[	Zn	68	85.066	ug/L	0 572	0	174	161367	0
[	As	75	3.152	ug/L	0.020	0	143	7252	0
[	As-1	75	2.850	ug/L	0.043	1	10862	17827	0
[	Se	82	0.385	ug/L	0.048	12	2	96	12
[	Se	78	-0.331	ug/L	0.112	33	11031	11233	0
[	Mo	98	0.369	ug/L	0.004	1	20	1981	1
	Y	89		ug/L			398382	563120	0
	Kr	83		ug/L			433	567	6
[>	In	115		ug/L			957933	1003059	1
[	Ag	107	0.269	ug/L	0.010	3	20	2913	2
[	Cd	111	0.853	ug/L	0.012	1	85	4406	2
[	Cd	114	0.837	ug/L	0.020	2	45	10794	1
[	Sb	121	0.040	ug/L	0.003	7	252	878	5
[	Sb	123	0.041	ug/L	0.001	2	176	655	2
[	Ba	135	30.778	ug/L	0.124	0	41	147618	1
[	Ba	137	30.435	ug/L	0.246	0	76	255085	0
[>	Tb	159		ug/L			1116653	1191967	0
[	Tl	205	0.034	ug/L	0.000	1	235	1653	0
[	Pb	208	44.416	ug/L	0.543	1	687	2314180	0
[	Bi	209		ug/L			2666772	2750256	0
[	Th	232	1.153	ug/L	0.018	1	2215	60607	1
[	U	238	0.170	ug/L	0.002	1	34	8886	1

VS20 : 00528

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 B SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 17:05:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1555331	2
	Be	9	0.113	ug/L	0.005	4	14	528	2
	C	13		ug/L			139850	157704	2
	Cl	37		ug/L			4987849	5108882	2
>	Sc	45		ug/L			1243958	1341689	0
	V	51	8.054	ug/L	0.186	2	9588	237200	2
	V-1	51	8.140	ug/L	0.142	1	77	228122	2
	Cr	52	6.388	ug/L	0.140	2	28352	179367	1
	Cr	53	6.653	ug/L	0.079	1	162	17365	1
	Mn	55	216.159	ug/L	3.785	1	1786	6969048	1
	Co	59	1.733	ug/L	0.014	0	102	40513	1
>	Ge	72		ug/L			622418	648668	2
	Ni	60	4.454	ug/L	0.028	0	20	19513	2
	Ni	62	4.622	ug/L	0.151	3	290	3160	3
	Cu	63	7.043	ug/L	0.203	2	228	68610	0
	Cu	65	7.039	ug/L	0.167	2	42	30843	1
	Zn	66	73.195	ug/L	3.303	4	140	191976	2
	Zn	67	73.451	ug/L	1.153	1	25	32252	1
	Zn	68	75.009	ug/L	2.585	3	174	142789	1
	As	75	2.197	ug/L	0.060	2	143	5116	0
	As-1	75	1.930	ug/L	0.168	8	10862	15767	0
	Se	82	0.025	ug/L	0 010	38	2	9	23
	Se	78	-0.715	ug/L	0.417	58	11031	11016	0
	Mo	98	0.080	ug/L	0.004	4	20	449	1
	Y	89		ug/L			398382	451537	2
	Kr	83		ug/L			433	479	4
>	In	115		ug/L			957933	1003916	1
	Ag	107	0.040	ug/L	0 003	7	20	455	6
	Cd	111	1.463	ug/L	0.025	1	85	7504	0
	Cd	114	1.464	ug/L	0.016	1	45	18848	0
	Sb	121	0.061	ug/L	0.003	5	252	1190	3
	Sb	123	0.063	ug/L	0 003	4	176	916	4
	Ba	135	100.645	ug/L	0.896	0	41	482976	0
	Ba	137	99.675	ug/L	1.909	1	76	835870	0
>	Tb	159		ug/L			1116653	1164135	0
	Tl	205	0.073	ug/L	0.002	2	235	3158	2
	Pb	208	65.150	ug/L	0.035	0	687	3315013	0
	Bi	209		ug/L			2666772	2771296	0
	Th	232	0.842	ug/L	0.011	1	2215	43837	1
	U	238	0.171	ug/L	0.001	0	34	8689	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 17:09:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1482660	1505351 ✓	2
	Be	9	53.502	ug/L	0.916	1	14	235087	0
	C	13		ug/L			139850	138819	3
	Cl	37		ug/L			4987849	5182693	2
>	Sc	45		ug/L			1243958	1274714 ✓	0
	V	51	48.709	ug/L	0.590	1	9588	1313341	1
	V-1	51	48.728	ug/L	0.927	1	77	1297115	2
	Cr	52	49.094	ug/L	0.905	1	28352	1115430	1
	Cr	53	49.168	ug/L	1.544	3	162	120854	2
	Mn	55	49.041	ug/L	0.178	0	1786	1503705	0
	Co	59	47.462	ug/L	1.455	3	102	1051587	2
>	Ge	72		ug/L			622418	626602 ✓	0
	Ni	60	51.900	ug/L	0.645	1	20	219463	1
	Ni	62	52.229	ug/L	0.336	0	290	31497	0
	Cu	63	52.789	ug/L	0.178	0	228	495479	0
	Cu	65	50.754	ug/L	1.035	2	42	214616	1
	Zn	66	52.309	ug/L	0.737	1	140	132661	1
	Zn	67	52.158	ug/L	0.609	1	25	22135	1
	Zn	68	53.071	ug/L	0.981	1	174	97685	1
	As	75	52.912	ug/L	0.584	1	143	115746	1
	As-1	75	52.286	ug/L	0.510	0	10862	127438	1
	Se	82	54.989	ug/L	0.888	1	2	12988	1
	Se	78	52.694	ug/L	0.675	1	11031	45014	1
	Mo	98	52.255	ug/L	1.132	2	20	268996	1
	Y	89		ug/L			398382	406394	1
	Kr	83		ug/L			433	473	3
>	In	115		ug/L			957933	976424 ✓	0
	Ag	107	53.694	ug/L	1.403	2	20	562006	2
	Cd	111	51.974	ug/L	0.513	0	85	256261	0
	Cd	114	52.047	ug/L	0.465	0	45	650345	0
	Sb	121	52.167	ug/L	0.766	1	252	777237	0
	Sb	123	51.976	ug/L	0.429	0	176	584624	1
	Ba	135	50.577	ug/L	0.193	0	41	236097	0
	Ba	137	50.077	ug/L	0.160	0	76	408547	1
>	Tb	159		ug/L			1116653	1157492 ✓	2
	Tl	205	49.401	ug/L	1.108	2	235	1950248	0
	Pb	208	50.584	ug/L	0.680	1	687	2558846	1
	Bi	209		ug/L			2666772	2674791	0
	Th	232	53.725	ug/L	1.137	2	2215	2637645	1
	U	238	55.279	ug/L	1.663	3	34	2787094	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 17:16:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1493416 ✓	1
	Be	9	0.001	ug/L	0.001	129	14	17	20
	C	13		ug/L			139850	139419	0
	Cl	37		ug/L			4987849	5013419	1
>	Sc	45		ug/L			1243958	1217026 ✓	0
	V	51	0.005	ug/L	0.013	265	9588	9504	3
	V-1	51	0.000	ug/L	0.000	1809	77	76	8
	Cr	52	0.017	ug/L	0.048	275	28352	28105	3
	Cr	53	0.001	ug/L	0.004	476	162	160	5
	Mn	55	-0.040	ug/L	0 001	2	1786	577	5
	Co	59	0.000	ug/L	0.001	264	102	105	11
>	Ge	72		ug/L			622418	613667 ✓	2
	Ni	60	0.002	ug/L	0.001	81	20	27	20
	Ni	62	-0.094	ug/L	0.035	37	290	231	11
	Cu	63	0.005	ug/L	0.003	54	228	267	6
	Cu	65	0.005	ug/L	0 002	35	42	62	13
	Zn	66	0.001	ug/L	0.010	1244	140	140	19
	Zn	67	-0.012	ug/L	0.011	88	25	19	22
	Zn	68	0.001	ug/L	0.005	334	174	175	7
	As	75	-0.004	ug/L	0.015	391	143	133	21
	As-1	75	-0.006	ug/L	0.117	2109	10862	10693	0
	Se	82	-0.020	ug/L	0.013	66	2	-1	181
	Se	78	0.003	ug/L	0.380	12625	11031	10874	0
	Mo	98	0.005	ug/L	0.001	17	20	45	8
	Y	89		ug/L			398382	389074	2
	Kr	83		ug/L			433	449	2
>	In	115		ug/L			957933	936116 ✓	3
	Ag	107	0.002	ug/L	0.001	40	20	35	15
	Cd	111	0.001	ug/L	0.002	407	85	85	9
	Cd	114	0.001	ug/L	0.001	189	45	50	22
	Sb	121	0.041	ug/L	0.003	7	252	833	8
	Sb	123	0.041	ug/L	0.003	7	176	611	7
	Ba	135	-0.005	ug/L	0.000	8	41	17	12
	Ba	137	-0.006	ug/L	0.001	19	76	31	25
>	Tb	159		ug/L			1116653	1093824 ✓	2
	Tl	205	0.002	ug/L	0.002	96	235	315	27
	Pb	208	-0.006	ug/L	0.000	1	687	385	1
	Bi	209		ug/L			2666772	2628631	1
	Th	232	0.139	ug/L	0.018	13	2215	8625	11
	U	238	0.002	ug/L	0.000	8	34	149	6

ICP-MS Quantitative Analysis - Summary Report

Pb Zn

Sample ID: VS20 A-L SWN
Sample Dil Factor: 500
Comments:
Sample Date/Time: Monday, November 26, 2012 17:23:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1558731	1
	Be	9	0.023	ug/L	0.002	7	14	121	6
	C	13		ug/L			139850	145957	2
	Cl	37		ug/L			4987849	5037310	1
>	Sc	45		ug/L			1243958	1287255	1
	V	51	1.262	ug/L	0.027	2	9588	44022	0
	V-1	51	1.299	ug/L	0.034	2	77	34990	1
	Cr	52	1.072	ug/L	0.026	2	28352	53292	2
	Cr	53	1.196	ug/L	0.020	1	162	3133	1
	Mn	55	30.531	ug/L	0.385	1	1786	946024	1
	Co	59	0.364	ug/L	0.005	1	102	8252	2
>	Ge	72		ug/L			622418	647589	1
	Ni	60	1.064	ug/L	0.017	1	20	4670	1
	Ni	62	0.968	ug/L	0.025	2	290	900	2
	Cu	63	0.946	ug/L	0.021	2	228	9404	0
	Cu	65	0.958	ug/L	0.003	0	42	4229	1
	Zn	66	20.248	ug/L	0.800	3	140	53137	2
	Zn	67	18.625	ug/L	0.483	2	25	8184	1
	Zn	68	19.956	ug/L	0.873	4	174	38056	2
	As	75	1.241	ug/L	0.041	3	143	2950	1
	As-1	75	0.967	ug/L	0.137	14	10862	13525	0
	Se	82	-0.003	ug/L	0.025	986	2	2	250
	Se	78	-0.863	ug/L	0.370	42	11031	10901	1
	Mo	98	0.018	ug/L	0.002	12	20	115	10
	Y	89		ug/L			398382	417530	0
	Kr	83		ug/L			433	451	2
>	In	115		ug/L			957933	995278	0
	Ag	107	0.015	ug/L	0.001	4	20	185	4
	Cd	111	0.462	ug/L	0.015	3	85	2410	2
	Cd	114	0.465	ug/L	0.001	0	45	5966	0
	Sb	121	0.014	ug/L	0.001	8	252	471	4
	Sb	123	0.014	ug/L	0.003	23	176	338	11
	Ba	135	8.750	ug/L	0.043	0	41	41668	0
	Ba	137	8.765	ug/L	0.016	0	76	72952	0
>	Tb	159		ug/L			1116653	1157857	0
	Tl	205	0.018	ug/L	0.003	15	235	956	10
	Pb	208	17.091	ug/L	0.165	0	687	865435	0
	Bi	209		ug/L			2666772	2784795	0
	Th	232	0.185	ug/L	0.009	4	2215	11365	3
	U	238	0.018	ug/L	0.001	5	34	967	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 A SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 17:27:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1482660	1555887	1
	Be	**9**	**0.119**	ug/L	0.005	3	14	554	2
	C	**13**		ug/L			139850	152820	1
	Cl	**37**		ug/L			4987849	5010275	4
>	**Sc**	**45**		ug/L			1243958	1307551	1
	V	**51**	**6.270**	ug/L	0.111	1	9588	182179	2
	V-1	**51**	**6.291**	ug/L	0.086	1	77	171833	1
	Cr	**52**	**5.799**	ug/L	0.208	3	28352	161410	2
	Cr	**53**	**5.864**	ug/L	0.192	3	162	14931	1
	Mn	**55**	**158.804**	ug/L	0.982	0	1786	4990345	1
	Co	**59**	**1.837**	ug/L	0 054	2	102	41832	1
>	**Ge**	**72**		ug/L			622418	655447	1
	Ni	**60**	**5.250**	ug/L	0.021	0	20	23238	1
	Ni	**62**	**5.412**	ug/L	0.118	2	290	3687	1
	Cu	**63**	**4.642**	ug/L	0.065	1	228	45791	1
	Cu	**65**	**4.678**	ug/L	0 091	1	42	20730	1
	Zn	**66**	**97.403**	ug/L	1.489	1	140	258221	0
	Zn	**67**	**90.472**	ug/L	3.235	3	25	40127	1
	Zn	**68**	**95.550**	ug/L	1.726	1	174	183791	0
	As	**75**	**6.160**	ug/L	0 164	2	143	14224	0
	As-1	**75**	**5.769**	ug/L	0.241	4	10862	24878	0
	Se	**82**	**0.038**	ug/L	0.013	33	2	12	24
	Se	**78**	**-0.880**	ug/L	0.287	32	11031	11022	0
	Mo	**98**	**0.077**	ug/L	0.006	7	20	434	7
	Y	**89**		ug/L			398382	433621	2
	Kr	**83**		ug/L			433	472	1
>	**In**	**115**		ug/L			957933	1007374	0
	Ag	**107**	**0.073**	ug/L	0.001	1	20	809	1
	Cd	**111**	**2.281**	ug/L	0.022	0	85	11688	0
	Cd	**114**	**2.230**	ug/L	0.026	1	45	28791	0
	Sb	**121**	**0.059**	ug/L	0.002	2	252	1167	2
	Sb	**123**	**0.058**	ug/L	0.003	4	176	857	4
	Ba	**135**	**43.033**	ug/L	0.791	1	41	207247	1
	Ba	**137**	**42.483**	ug/L	0.854	2	76	357559	1
>	**Tb**	**159**		ug/L			1116653	1168462	1
	Tl	**205**	**0.077**	ug/L	0.004	5	235	3317	4
	Pb	**208**	**88.709**	ug/L	0.868	0	687	4529877	0
	Bi	**209**		ug/L			2666772	2766410	0
	Th	**232**	**0.841**	ug/L	0.016	1	2215	43981	1
	U	**238**	**0.087**	ug/L	0.003	3	34	4489	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 ADUP SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 17:31:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1482660	1531155	1
	Be	9	0.133	ug/L	0.008	5	14	609	4
	C	13		ug/L			139850	153464	3
	Cl	37		ug/L			4987849	5070720	1
>	Sc	45		ug/L			1243958	1311779	2
	V	51	5.957	ug/L	0.235	3	9588	174062	1
	V-1	51	6.036	ug/L	0.200	3	77	165332	0
	Cr	52	5.325	ug/L	0.233	4	28352	151089	1
	Cr	53	5.587	ug/L	0.121	2	162	14281	1
	Mn	55	161.400	ug/L	5.595	3	1786	5086395	2
	Co	59	1.832	ug/L	0.054	2	102	41860	3
>	Ge	72		ug/L			622418	651143	0
	Ni	60	5.094	ug/L	0.018	0	20	22402	0
	Ni	62	5.207	ug/L	0 091	1	290	3536	1
	Cu	63	5.240	ug/L	0 079	1	228	51324	2
	Cu	65	5.188	ug/L	0.029	0	42	22837	1
	Zn	66	106.339	ug/L	1.235	1	140	280103	1
	Zn	67	99.749	ug/L	2.979	2	25	43960	2
	Zn	68	105.900	ug/L	0.364	0	174	202385	1
	As	75	6.566	ug/L	0.048	0	143	15058	1
	As-1	75	6.148	ug/L	0.048	0	10862	25598	0
	Se	82	0.077	ug/L	0.027	35	2	22	30
	Se	78	-0.917	ug/L	0.083	9	11031	10927	0
	Mo	98	0.083	ug/L	0.003	3	20	466	3
	Y	89		ug/L			398382	449435	2
	Kr	83		ug/L			433	465	1
>	In	115		ug/L			957933	1006810	0
	Ag	107	0.084	ug/L	0.002	1	20	926	2
	Cd	111	2.588	ug/L	0.015	0	85	13242	1
	Cd	114	2.493	ug/L	0.013	0	45	32168	1
	Sb	121	0.104	ug/L	0.004	3	252	1861	3
	Sb	123	0.105	ug/L	0.005	4	176	1404	3
	Ba	135	42.862	ug/L	1.053	2	41	206292	1
	Ba	137	42.634	ug/L	0.353	0	76	358646	0
>	Tb	159		ug/L			1116653	1170657	0
	Tl	205	0.081	ug/L	0.001	1	235	3492	1
	Pb	208	100.652	ug/L	0.422	0	687	5149699	0
	Bi	209		ug/L			2666772	2794997	0
	Th	232	0.779	ug/L	0.009	1	2215	40994	0
	U	238	0.092	ug/L	0.001	1	34	4722	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 ASPK SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 17:35:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1482660	1526513	1
	Be	9	5.724	ug/L	0 047	0	14	25520	0
	C	13		ug/L			139850	155598	2
	Cl	37		ug/L			4987849	5095185	1
>	Sc	45		ug/L			1243958	1294930	0
	V	51	11.650	ug/L	0.078	0	9588	326682	1
	V-1	51	11.793	ug/L	0.108	0	77	318967	1
	Cr	52	10.872	ug/L	0.136	1	28352	273917	0
	Cr	53	11.355	ug/L	0.145	1	162	28485	1
	Mn	55	178.537	ug/L	0.593	0	1786	5556264	0
	Co	59	6.928	ug/L	0.142	2	102	156042	2
>	Ge	72		ug/L			622418	654388	2
	Ni	60	10.546	ug/L	0.103	0	20	46580	1
	Ni	62	10.992	ug/L	0 458	4	290	7158	2
	Cu	63	10.539	ug/L	0.406	3	228	103426	1
	Cu	65	10.567	ug/L	0.364	3	42	46673	1
	Zn	66	125.706	ug/L	4.105	3	140	332541	1
	Zn	67	114.627	ug/L	5.398	4	25	50729	2
	Zn	68	121.483	ug/L	3.517	2	174	233165	0
	As	75	11.980	ug/L	0.223	1	143	27475	1
	As-1	75	11.633	ug/L	0.443	3	10862	38470	0
	Se	82	17.824	ug/L	0.366	2	2	4397	0
	Se	78	16.283	ug/L	1.171	7	11031	22526	0
	Mo	98	4.708	ug/L	0.210	4	20	25307	1
	Y	89		ug/L			398382	452208	1
	Kr	83		ug/L			433	506	4
>	In	115		ug/L			957933	1008495	0
	Ag	107	5.279	ug/L	0.056	1	20	57086	0
	Cd	111	7.928	ug/L	0.095	1	85	40450	1
	Cd	114	7.784	ug/L	0.039	0	45	100496	0
	Sb	121	0.536	ug/L	0.006	1	252	8506	1
	Sb	123	0.540	ug/L	0.007	1	176	6451	1
	Ba	135	49.909	ug/L	0.557	1	41	240632	0
	Ba	137	49.166	ug/L	0.350	0	76	414286	0
>	Tb	159		ug/L			1116653	1179715	0
	Tl	205	5.259	ug/L	0.093	1	235	211870	0
	Pb	208	104.353	ug/L	1 140	1	687	5380027	0
	Bi	209		ug/L			2666772	2792007	0
	Th	232	5.357	ug/L	0.049	0	2215	270192	0
	U	238	5.256	ug/L	0.037	0	34	270224	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 C SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 17:39:33
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\112612A.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1514758	0
	Be	9	0.235	ug/L	0.007	3	14	1055	3
	C	13		ug/L			139850	166231	0
	Cl	37		ug/L			4987849	5058214	1
>	Sc	45		ug/L			1243958	1278269	2
	V	51	5.100	ug/L	0.133	2	9588	146666	0
	V-1	51	5.142	ug/L	0.097	1	77	137292	0
	Cr	52	4.298	ug/L	0.172	3	28352	124461	0
	Cr	53	4.428	ug/L	0.046	1	162	11066	1
	Mn	55	1229.788	ug/L	35.210	2	1786	37754776	1
	Co	59	4.449	ug/L	0.190	4	102	98883	2
>	Ge	72		ug/L			622418	648608	2
	Ni	60	9.949	ug/L	0.174	1	20	43555	1
	Ni	62	9.810	ug/L	0 334	3	290	6366	1
	Cu	63	11.762	ug/L	0.174	1	228	114442	1
	Cu	65	11.738	ug/L	0.262	2	42	51395	0
	Zn	66	284.690	ug/L	6.402	2	140	746523	1
	Zn	67	264.202	ug/L	5.343	2	25	115922	0
	Zn	68	282.284	ug/L	10.811	3	174	536761	1
	As	75	10.837	ug/L	0 290	2	143	24648	0
	As-1	75	10.360	ug/L	0.383	3	10862	35201	0
	Se	82	0.270	ug/L	0 033	12	2	69	14
	Se	78	-0.578	ug/L	0.359	62	11031	11107	0
	Mo	98	0.224	ug/L	0.013	5	20	1211	3
	Y	89		ug/L			398382	473332	1
	Kr	83		ug/L			433	524	7
>	In	115		ug/L			957933	1015070	0
	Ag	107	0.150	ug/L	0 006	4	20	1657	3
	Cd	111	8.147	ug/L	0.115	1	85	41836	0
	Cd	114	8.135	ug/L	0.128	1	45	105711	1
	Sb	121	0.456	ug/L	0.007	1	252	7335	1
	Sb	123	0.457	ug/L	0.005	1	176	5523	0
	Ba	135	103.513	ug/L	0.364	0	41	502291	0
	Ba	137	102.697	ug/L	1 645	1	76	870884	1
>	Tb	159		ug/L			1116653	1153701	0
	Tl	205	0.221	ug/L	0.003	1	235	8950	0
	Pb	208	246.310	ug/L	2.277	0	687	12418111	0
	Bi	209		ug/L			2666772	2746400	0
	Th	232	0.860	ug/L	0.011	1	2215	44340	1
	U	238	0.153	ug/L	0.002	1	34	7742	2

VS20 : 00536

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 D SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 17:43:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Pb Zn
11.26.12
MJT

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1482660	1562121	1
	Be	**9**	**0.177**	ug/L	0.008	4	14	823	2
	C	**13**		ug/L			139850	170323	2
	Cl	**37**		ug/L			4987849	5462331	2
>	**Sc**	**45**		ug/L			1243958	1336939	1
	V	**51**	**3.696**	ug/L	0.023	0	9588	114037	0
	V-1	**51**	**3.733**	ug/L	0.021	0	77	104292	0
	Cr	**52**	**2.763**	ug/L	0.076	2	28352	94581	0
	Cr	**53**	**2.874**	ug/L	0.072	2	162	7571	1
	Mn	**55**	**1142.942**	ug/L	20.211	1	1786	36707635	0
	Co	**59**	**3.824**	ug/L	0.090	2	102	88955	1
>	**Ge**	**72**		ug/L			622418	661312	0
	Ni	**60**	**7.755**	ug/L	0.188	2	20	34625	1
	Ni	**62**	**7.660**	ug/L	0.124	1	290	5138	2
	Cu	**63**	**12.437**	ug/L	0.192	1	228	123380	1
	Cu	**65**	**12.343**	ug/L	0.113	0	42	55117	0
	Zn	**66**	**236.269**	ug/L	5.083	2	140	631806	1
	Zn	**67**	**216.569**	ug/L	0.621	0	25	96918	0
	Zn	**68**	**231.841**	ug/L	6.662	2	174	449697	2
	As	**75**	**4.277**	ug/L	0.045	1	143	10014	0
	As-1	**75**	**3.885**	ug/L	0.078	2	10862	20675	0
	Se	**82**	**0.264**	ug/L	0.067	25	2	68	24
	Se	**78**	**-0.764**	ug/L	0.081	10	11031	11202	0
	Mo	**98**	**0.205**	ug/L	0.008	3	20	1133	3
	Y	**89**		ug/L			398382	470146	1
	Kr	**83**		ug/L			433	509	1
>	**In**	**115**		ug/L			957933	1030893	1
	Ag	**107**	**0.225**	ug/L	0.005	2	20	2502	0
	Cd	**111**	**5.715**	ug/L	0.069	1	85	29829	1
	Cd	**114**	**5.684**	ug/L	0.177	3	45	75010	1
	Sb	**121**	**0.633**	ug/L	0.007	1	252	10231	0
	Sb	**123**	**0.635**	ug/L	0.023	3	176	7728	2
	Ba	**135**	**82.630**	ug/L	1.708	2	41	407137	0
	Ba	**137**	**81.364**	ug/L	2.525	3	76	700560	1
>	**Tb**	**159**		ug/L			1116653	1173213	1
	Tl	**205**	**0.180**	ug/L	0.003	1	235	7451	0
	Pb	**208**	**331.280**	ug/L	5.677	1	687	16982025	0
	Bi	**209**		ug/L			2666772	2803123	0
	Th	**232**	**0.567**	ug/L	0.016	2	2215	30524	1
	U	**238**	**0.117**	ug/L	0.001	1	34	6031	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 E SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 17:47:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1482660	1559826	1
	Be	9	0.497	ug/L	0.022	4	14	2274	3
	C	13		ug/L			139850	167441	3
	Cl	37		ug/L			4987849	5338930	1
>	Sc	45		ug/L			1243958	1297629	1
	V	51	5.805	ug/L	0.079	1	9588	168128	1
	V-1	51	5.858	ug/L	0.118	2	77	158793	2
	Cr	52	4.802	ug/L	0.112	2	28352	137737	1
	Cr	53	4.967	ug/L	0.073	1	162	12579	1
	Mn	55	952.049	ug/L	2.441	0	1786	29683018	2
	Co	59	7.114	ug/L	0.270	3	102	160487	2
>	Ge	72		ug/L			622418	638098	1
	Ni	60	14.470	ug/L	0.145	1	20	62321	1
	Ni	62	15.140	ug/L	0.699	4	290	9507	4
	Cu	63	13.215	ug/L	0.189	1	228	126504	2
	Cu	65	13.331	ug/L	0.259	1	42	57428	1
	Zn	66	153.357	ug/L	1.750	1	140	395752	1
	Zn	67	143.307	ug/L	3.687	2	25	61879	2
	Zn	68	150.530	ug/L	3.712	2	174	281785	1
	As	75	5.595	ug/L	0.105	1	143	12594	1
	As-1	75	5.310	ug/L	0 144	2	10862	23180	0
	Se	82	0.328	ug/L	0.025	7	2	82	8
	Se	78	-0.174	ug/L	0.196	112	11031	11194	0
	Mo	98	0.291	ug/L	0.005	1	20	1543	1
	Y	89		ug/L			398382	514199	0
	Kr	83		ug/L			433	551	4
>	In	115		ug/L			957933	989739	1
	Ag	107	0.210	ug/L	0.004	1	20	2249	1
	Cd	111	2.454	ug/L	0.049	1	85	12348	0
	Cd	114	2.478	ug/L	0.012	0	45	31429	1
	Sb	121	0.140	ug/L	0.005	3	252	2374	3
	Sb	123	0.141	ug/L	0.002	1	176	1790	0
	Ba	135	72.317	ug/L	0.586	0	41	342149	0
	Ba	137	71.218	ug/L	1.294	1	76	588805	0
>	Tb	159		ug/L			1116653	1172087	1
	Tl	205	0.082	ug/L	0.002	2	235	3508	0
	Pb	208	110.259	ug/L	1.744	1	687	5647255	0
	Bi	209		ug/L			2666772	2742085	1
	Th	232	1.004	ug/L	0.014	1	2215	52193	1
	U	238	0.170	ug/L	0.002	1	34	8714	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 G SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 17:51:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1482660	1523680	1
	Be	**9**	**0.127**	ug/L	0.005	4	14	577	5
	C	**13**		ug/L			139850	150435	3
	Cl	**37**		ug/L			4987849	4945753	0
>	**Sc**	**45**		ug/L			1243958	1293450	2
	V	**51**	**4.898**	ug/L	0.191	3	9588	142913	1
	V-1	**51**	**4.938**	ug/L	0.200	4	77	133386	2
	Cr	**52**	**4.139**	ug/L	0.105	2	28352	122397	0
	Cr	**53**	**4.263**	ug/L	0.125	2	162	10784	0
	Mn	**55**	**568.395**	ug/L	17.570	3	1786	17657872	1
	Co	**59**	**1.806**	ug/L	0.039	2	102	40690	0
>	**Ge**	**72**		ug/L			622418	640297	1
	Ni	**60**	**5.323**	ug/L	0.098	1	20	23017	2
	Ni	**62**	**5.494**	ug/L	0.134	2	290	3652	1
	Cu	**63**	**5.035**	ug/L	0.043	0	228	48501	0
	Cu	**65**	**4.922**	ug/L	0.112	2	42	21305	1
	Zn	**66**	**84.416**	ug/L	2.041	2	140	218648	1
	Zn	**67**	**79.861**	ug/L	2.939	3	25	34611	2
	Zn	**68**	**83.737**	ug/L	1.957	2	174	157391	2
	As	**75**	**4.041**	ug/L	0.045	1	143	9169	0
	As-1	**75**	**3.753**	ug/L	0.126	3	10862	19718	1
	Se	**82**	**0.047**	ug/L	0.039	81	2	14	64
	Se	**78**	**-0.610**	ug/L	0.279	45	11031	10946	1
	Mo	**98**	**0.140**	ug/L	0.006	4	20	754	3
	Y	**89**		ug/L			398382	430775	1
	Kr	**83**		ug/L			433	502	3
>	**In**	**115**		ug/L			957933	1000899	1
	Ag	**107**	**0.057**	ug/L	0.003	5	20	631	3
	Cd	**111**	**1.486**	ug/L	0.035	2	85	7597	1
	Cd	**114**	**1.479**	ug/L	0.019	1	45	18987	0
	Sb	**121**	**0.059**	ug/L	0.001	1	252	1160	1
	Sb	**123**	**0.058**	ug/L	0.001	0	176	856	0
	Ba	**135**	**75.930**	ug/L	0.737	0	41	363288	0
	Ba	**137**	**75.197**	ug/L	0.827	1	76	628773	0
>	**Tb**	**159**		ug/L			1116653	1172104	1
	Tl	**205**	**0.078**	ug/L	0.001	1	235	3361	1
	Pb	**208**	**62.523**	ug/L	0.783	1	687	3202833	0
	Bi	**209**		ug/L			2666772	2760479	0
	Th	**232**	**0.864**	ug/L	0.017	1	2215	45268	0
	U	**238**	**0.124**	ug/L	0.002	1	34	6383	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 K SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 17:57:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1479998	0
	Be	9	0.110	ug/L	0.007	6	14	491	5
	C	13		ug/L			139850	152522	5
	Cl	37		ug/L			4987849	4990519	1
>	Sc	45		ug/L			1243958	1291940	2
	V	51	5.098	ug/L	0.289	5	9588	148087	2
	V-1	51	5.105	ug/L	0.280	5	77	137664	2
	Cr	52	4.325	ug/L	0.266	6	28352	126339	2
	Cr	53	4.335	ug/L	0.266	6	162	10943	3
	Mn	55	320.813	ug/L	16.783	5	1786	9949921	2
	Co	59	1.355	ug/L	0.066	4	102	30499	2
>	Ge	72		ug/L			622418	631888	1
	Ni	60	3.338	ug/L	0.073	2	20	14249	1
	Ni	62	3.500	ug/L	0 103	2	290	2403	1
	Cu	63	4.662	ug/L	0.044	0	228	44330	0
	Cu	65	4.769	ug/L	0.028	0	42	20374	2
	Zn	66	136.696	ug/L	1.530	1	140	349336	1
	Zn	67	135.905	ug/L	3.169	2	25	58114	2
	Zn	68	139.759	ug/L	2.159	1	174	259090	0
	As	75	4.041	ug/L	0.104	2	143	9046	1
	As-1	75	3.821	ug/L	0.168	4	10862	19609	0
	Se	82	0.039	ug/L	0.018	47	2	12	36
	Se	78	-0.408	ug/L	0.219	53	11031	10933	0
	Mo	98	0.078	ug/L	0.003	3	20	427	1
	Y	89		ug/L			398382	442033	2
	Kr	83		ug/L			433	475	4
>	In	115		ug/L			957933	1014772	0
	Ag	107	0.051	ug/L	0.002	3	20	571	3
	Cd	111	2.778	ug/L	0.063	2	85	14321	2
	Cd	114	2.726	ug/L	0.034	1	45	35441	0
	Sb	121	0.131	ug/L	0.002	1	252	2297	1
	Sb	123	0.140	ug/L	0.003	2	176	1818	1
	Ba	135	107.713	ug/L	1.363	1	41	522497	0
	Ba	137	107.027	ug/L	1.417	1	76	907321	0
>	Tb	159		ug/L			1116653	1153748	0
	Tl	205	0.112	ug/L	0.003	2	235	4655	2
	Pb	208	96.961	ug/L	1.556	1	687	4888849	0
	Bi	209		ug/L			2666772	2768985	1
	Th	232	0.644	ug/L	0.016	2	2215	33786	1
	U	238	0.111	ug/L	0.001	0	34	5633	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 18:01:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1482660	1461946	1
	Be	**9**	**0.092**	ug/L	0.005	5	14	405	3
	C	**13**		ug/L			139850	149805	2
	Cl	**37**		ug/L			4987849	4864490	1
>	**Sc**	**45**		ug/L			1243958	1256804	2
	V	**51**	**5.192**	ug/L	0.149	2	9588	146603	0
	V-1	**51**	**5.270**	ug/L	0.148	2	77	138299	1
	Cr	**52**	**3.168**	ug/L	0.116	3	28352	97712	0
	Cr	**53**	**3.399**	ug/L	0.119	3	162	8385	2
	Mn	**55**	**394.727**	ug/L	16.270	4	1786	11911101	1
	Co	**59**	**1.415**	ug/L	0.037	2	102	30989	0
>	**Ge**	**72**		ug/L			622418	630493	2
	Ni	**60**	**2.826**	ug/L	0.031	1	20	12043	1
	Ni	**62**	**2.815**	ug/L	0.116	4	290	1985	1
	Cu	**63**	**4.873**	ug/L	0.101	2	228	46222	1
	Cu	**65**	**4.845**	ug/L	0.063	1	42	20647	1
	Zn	**66**	**80.516**	ug/L	1.824	2	140	205318	0
	Zn	**67**	**80.264**	ug/L	1.558	1	25	34255	1
	Zn	**68**	**80.596**	ug/L	1.924	2	174	149128	0
	As	**75**	**4.265**	ug/L	0.125	2	143	9516	0
	As-1	**75**	**4.039**	ug/L	0.267	6	10862	20050	0
	Se	**82**	**0.051**	ug/L	0.017	33	2	15	26
	Se	**78**	**-0.387**	ug/L	0.507	131	11031	10919	0
	Mo	**98**	**0.099**	ug/L	0.003	2	20	533	2
	Y	**89**		ug/L			398382	428132	0
	Kr	**83**		ug/L			433	484	3
>	**In**	**115**		ug/L			957933	982776	1
	Ag	**107**	**0.068**	ug/L	0.002	3	20	732	4
	Cd	**111**	**1.512**	ug/L	0.067	4	85	7587	3
	Cd	**114**	**1.499**	ug/L	0.024	1	45	18896	0
	Sb	**121**	**0.185**	ug/L	0.005	2	252	3024	1
	Sb	**123**	**0.178**	ug/L	0.009	5	176	2194	5
	Ba	**135**	**93.141**	ug/L	1.450	1	41	437548	1
	Ba	**137**	**91.563**	ug/L	2.121	2	76	751656	1
>	**Tb**	**159**		ug/L			1116653	1152698	2
	Tl	**205**	**0.085**	ug/L	0.004	4	235	3592	2
	Pb	**208**	**73.889**	ug/L	2.039	2	687	3721235	0
	Bi	**209**		ug/L			2666772	2745691	1
	Th	**232**	**0.495**	ug/L	0.021	4	2215	26477	2
	U	**238**	**0.096**	ug/L	0.004	4	34	4850	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 18:05:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
[>	Li	6		ug/L			1482660	1467969 ✔	0
[	Be	9	52.646	ug/L	0.480	0	14	225620	0
	C	13		ug/L			139850	137039	2
	Cl	37		ug/L			4987849	5137266	2
[>	Sc	45		ug/L			1243958	1251650 ✔	1
[	V	51	48.659	ug/L	0.657	1	9588	1288195	1
[	V-1	51	48.760	ug/L	0.856	1	77	1274303	1
[	Cr	52	49.900	ug/L	0.615	1	28352	1112712	0
[	Cr	53	50.273	ug/L	1.775	3	162	121293	1
[	Mn	55	48.893	ug/L	1.325	2	1786	1471601	1
[	Co	59	47.254	ug/L	0.243	0	102	1028022	1
[>	Ge	72		ug/L			622418	636397 ✔	2
[	Ni	60	50.069	ug/L	0.203	0	20	215019	1
[	Ni	62	50.578	ug/L	0 862	1	290	30982	1
[	Cu	63	50.258	ug/L	0.977	1	228	478987	0
[	Cu	65	50.609	ug/L	0.851	1	42	217301	0
[	Zn	66	51.114	ug/L	1.678	3	140	131600	1
[	Zn	67	50.707	ug/L	1.374	2	25	21864	4
[	Zn	68	50.988	ug/L	1.651	3	174	95288	1
[	As	75	51.298	ug/L	1.491	2	143	113927	1
[	As-1	75	50.860	ug/L	1.541	3	10862	126153	0
[	Se	82	51.753	ug/L	0.772	1	2	12413	1
[	Se	78	50.189	ug/L	0.895	1	11031	44072	0
[	Mo	98	50.541	ug/L	0 986	1	20	264182	0
	Y	89		ug/L			398382	389728	2
	Kr	83		ug/L			433	455	2
[>	In	115		ug/L			957933	957282 ✔	0
[	Ag	107	54.081	ug/L	0.296	0	20	554976	0
[	Cd	111	52.095	ug/L	0.730	1	85	251839	1
[	Cd	114	51.973	ug/L	0.669	1	45	636698	1
[	Sb	121	52.238	ug/L	0.143	0	252	763092	0
[	Sb	123	52.276	ug/L	0.818	1	176	576458	1
[	Ba	135	51.358	ug/L	0.543	1	41	235046	1
[	Ba	137	50.957	ug/L	0.733	1	76	407572	1
[>	Tb	159		ug/L			1116653	1136816 ✔	1
[	Tl	205	49.827	ug/L	1.084	2	235	1932197	0
[	Pb	208	51.225	ug/L	0.410	0	687	2545290	0
[	Bi	209		ug/L			2666772	2631456	0
[	Th	232	54.954	ug/L	1.121	2	2215	2649834	0
[	U	238	56.301	ug/L	0.411	0	34	2789003	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 18:12:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens	RSD
>	Li	6		ug/L			1482660	1460846	✓	3
	Be	9	0.002	ug/L	0.003	142	14	21		47
	C	13		ug/L			139850	141738		0
	Cl	37		ug/L			4987849	4967892		1
>	Sc	45		ug/L			1243958	1222785	✓	0
	V	51	0.007	ug/L	0.015	209	9588	9612		3
	V-1	51	0.000	ug/L	0.002	529	77	84		50
	Cr	52	0.034	ug/L	0.051	147	28352	28593		3
	Cr	53	0.010	ug/L	0.003	33	162	184		4
	Mn	55	0.023	ug/L	0.084	367	1786	2417		100
	Co	59	0.001	ug/L	0.002	182	102	126		36
>	Ge	72		ug/L			622418	617893	✓	1
	Ni	60	0.002	ug/L	0.002	120	20	26		30
	Ni	62	-0.152	ug/L	0.031	20	290	198		9
	Cu	63	-0.000	ug/L	0.001	423	228	223		7
	Cu	65	0.003	ug/L	0.005	180	42	53		40
	Zn	66	0.016	ug/L	0.021	127	140	180		30
	Zn	67	0.012	ug/L	0.022	184	25	30		32
	Zn	68	0.014	ug/L	0.017	117	174	199		16
	As	75	0.007	ug/L	0.006	81	143	159		8
	As-1	75	-0.049	ug/L	0.061	124	10862	10675		0
	Se	82	-0.027	ug/L	0.047	172	2	-3		322
	Se	78	-0.196	ug/L	0.220	112	11031	10826		0
	Mo	98	0.006	ug/L	0.002	32	20	51		19
	Y	89		ug/L			398382	391167		0
	Kr	83		ug/L			433	449		4
>	In	115		ug/L			957933	957792	✓	0
	Ag	107	0.003	ug/L	0.001	52	20	47		30
	Cd	111	0.001	ug/L	0.004	437	85	89		20
	Cd	114	0.001	ug/L	0.001	85	45	57		19
	Sb	121	0.044	ug/L	0.005	10	252	902		7
	Sb	123	0.047	ug/L	0.004	8	176	696		6
	Ba	135	0.005	ug/L	0 013	254	41	65		91
	Ba	137	0.003	ug/L	0.013	389	76	103		99
>	Tb	159		ug/L			1116653	1101170	✓	0
	Tl	205	0.004	ug/L	0.003	72	235	370		26
	Pb	208	0.007	ug/L	0.018	250	687	1028		85
	Bi	209		ug/L			2666772	2683814		1
	Th	232	0.131	ug/L	0.013	9	2215	8283		6
	U	238	0.003	ug/L	0.002	58	34	180		46

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-27-12 **Analyst:** ** **Page:** 1 **of** 6

All corrections made by analyst unless otherwise noted. **11-27-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD0			2991-10
		1			2990-12
		2			2994-14
		3			2995-1
		4			2994-3
		5			2995-2
		Rinse Samp			
		STD0			
		ICV			2976-T
		ICB			
		QCV1			
		CCV1			
		~~CRI~~ ZZZZZZ			62Ni low
		ICSA			
		ICSAB			
		LR200			Ag high
		LR300			137Ba high
		B1			
		B2			
		B3			
		CCV2			STD0
		CCB2			CCV3
		Low check			CCB3
		VSTD MB1	RUN	2	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-27-12 **Analyst:** ~~HA~~ **Page:** 2 **of** 12

All corrections made by analyst unless otherwise noted. ~~HA~~ 11-27-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS17 MBlspk	REN	2	
		MB2spk			
		A Dup			Cu high RPD
		A			CAV
		Aspk			
		E Dup			Cu high RPD
		E			CAV
		E spk			
		CCV4			
		CCB4			Th ↑
		VS17 B MB2	REN	2	
		C B			
		D C			
		A D			
		G F			
		H G			
		H			
		VT58 D	SWN	20 100	~~HA~~ 11-28-12
		E			
		F			
		CCV5			
		CCB5			Th ↑
	✓	VS20 MB1	SWN	20	Ag CV out
	↓	MB1spk	↓	↓	↓

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-27-12 **Analyst:** AH **Page:** 3 **of** 6

All corrections made by analyst unless otherwise noted. AH 11-28-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	V	VS20 B	SWW	20	Ag CV out
		C			
		D		500	Pb
	V	E		20	Ag CV out
		G			
		H			
SWW		I			
		CCV6			Ag High
		CCB6			^{62}Ni low
		VS21 A-L	SWW	500 ✓	Pb Zn
		A		100	
		ADup		✓	
		Aspk		✓	
zzz		~~Post~~ zzzzz			
		B		200	
		D		100	Zn, Pb
		E			~~X~~ Zn
		G		50	V Cr Co
		H			
		CCV7			Ag high
		CCB7			^{62}Ni low
		VS21 I	SWW	100	Pb Zn
		J		50	V Cr Co Zn

AS 11-28-12

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA Analysis Date: 11-27-12

Dexion M2	Analyst AH 11-28	Peer MJT 11.28.12	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	See log b
ICB/CCB	✓	✓	
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	VS21
Matrix Duplicates	✓	✓	VS17
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	CAF VS17 VS21

Daily Performance Report

Sample ID: Daily Performance Check

Sample Date/Time: Tuesday, November 27, 2012 10:33:19
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1336
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time (ns): 60
Current Dead Time (ns): 60

Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	6203.4	6203.375	25.244	0.4	Standard
	Mg	24.0	44252.9	44252.930	414.582	0.9	Standard
	In	114.9	81469.2	81469.237	363.087	0.4	Standard
	Pb	208.0	34913.9	34913.921	209.815	0.6	Standard
	U	238.1	62797.3	62797.269	550.689	0.9	Standard
⌈	CeO	155.9	1686.6	0.022	0.002	6.9	Standard
| >	Ce	139.9	76796.6	76796.576	256.936	0.3	Standard
⌊	Ce++	70.0	1531.6	0.020	0.000	2.1	Standard
	Bkgd	220.0	0.0	0.000	0.000		Standard

Current Conditions File Data

Current Value	Description
1.07	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

SmartTune Wizard - Summary

)timization Summary

)artTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

:art Time: 11/27/2012 10:28:15 AM
)d Time: 11/27/2012 10:32:26 AM

)toLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.996; Intercept = -12.09

SmartTune Wizard - Summary

)timization Summary

1artTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

:art Time: 11/27/2012 10:22:45 AM
1d Time: 11/27/2012 10:24:58 AM

1ss Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.693)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.712)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.720)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.713)

SmartTune Wizard - Summary

)timization Summary

1artTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

:art Time: 11/27/2012 10:14:45 AM
1d Time: 11/27/2012 10:22:06 AM

1ily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 4641.23
Obtained Intensity (Mg 23.985): 35091.60
Obtained Intensity (In 114.904): 63970.60
Obtained Intensity (Pb 207.977): 28835.54
Obtained Intensity (U 238.05): 50953.17
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.014 (=917.58 / 64557.70)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.016 (=1005.99 / 64557.70)

)rch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.41 mm	0.86 mm	83649.74

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 11:11:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				1748871	0
	Be	9		ug/L				12	4
	C	13		ug/L				135150	2
	Cl	37		ug/L				4700084	2
>	Sc	45		ug/L				1248950	3
	V	51		ug/L				9366	3
	V-1	51		ug/L				95	5
	Cr	52		ug/L				27600	3
	Cr	53		ug/L				154	5
	Mn	55		ug/L				744	3
	Co	59		ug/L				85	13
>	Ge	72		ug/L				653857	1
	Ni	60		ug/L				88	12
	Ni	62		ug/L				1029	0
	Cu	63		ug/L				1305	4
	Cu	65		ug/L				124	2
	Zn	66		ug/L				746	8
	Zn	67		ug/L				102	13
	Zn	68		ug/L				566	2
	As	75		ug/L				290	4
	As-1	75		ug/L				10162	0
	Se	82		ug/L				3	284
	Se	78		ug/L				10335	0
	Mo	98		ug/L				10	33
	Y	89		ug/L				409313	3
	Kr	83		ug/L				616	3
>	In	115		ug/L				974648	1
	Ag	107		ug/L				16	27
	Cd	111		ug/L				86	14
	Cd	114		ug/L				30	39
	Sb	121		ug/L				27	29
	Sb	123		ug/L				23	6
	Ba	135		ug/L				36	6
	Ba	137		ug/L				59	9
>	Tb	159		ug/L				1103082	1
	Tl	205		ug/L				38	8
	Pb	208		ug/L				557	2
	Bi	209		ug/L				2721879	0
	Th	232		ug/L				38	14
	U	238		ug/L				2	78

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 11:16:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1748871	1754959	0
	Be	9	0.200	ug/L	0.004	1	12	977	1
	C	13		ug/L			135150	136685	3
	Cl	37		ug/L			4700084	4680214	1
>	Sc	45		ug/L			1248950	1249024	0
	V	51	0.200	ug/L	0.007	3	9366	14318	1
	V-1	51	0.200	ug/L	0.002	0	95	5161	0
	Cr	52	0.500	ug/L	0.019	3	27600	37842	1
	Cr	53	0.500	ug/L	0.012	2	154	1348	2
	Mn	55	0.500	ug/L	0.011	2	744	14491	1
	Co	59	0.200	ug/L	0.001	0	85	4279	1
>	Ge	72		ug/L			653857	656244	1
	Ni	60	0.500	ug/L	0.011	2	88	2259	3
	Ni	62	0.500	ug/L	0.119	23	1029	1307	4
	Cu	63	0.500	ug/L	0.004	0	1305	6220	1
	Cu	65	0.500	ug/L	0.013	2	124	2398	1
	Zn	66	4.000	ug/L	0.029	0	746	12356	1
	Zn	67	4.000	ug/L	0.105	2	102	1885	2
	Zn	68	4.000	ug/L	0.047	1	566	8527	0
	As	75	0.200	ug/L	0.006	3	290	771	2
	As-1	75	0.200	ug/L	0.040	19	10162	10702	0
	Se	82	0.500	ug/L	0.044	8	3	139	9
	Se	78	0.500	ug/L	0.133	26	10335	10742	0
	Mo	98	0.200	ug/L	0 010	5	10	1013	4
	Y	89		ug/L			409313	404442	0
	Kr	83		ug/L			616	619	4
>	In	115		ug/L			974648	975026	1
	Ag	107	0.200	ug/L	0.002	0	16	2449	2
	Cd	111	0.100	ug/L	0.001	1	86	574	1
	Cd	114	0.100	ug/L	0.003	2	30	1330	3
	Sb	121	0.200	ug/L	0.006	2	27	2807	2
	Sb	123	0.200	ug/L	0.009	4	23	2077	4
	Ba	135	0.500	ug/L	0.025	5	36	2128	3
	Ba	137	0.500	ug/L	0.016	3	59	3668	2
>	Tb	159		ug/L			1103082	1111470	0
	Tl	205	0.200	ug/L	0.003	1	38	7636	1
	Pb	208	0.100	ug/L	0.001	1	557	5595	0
	Bi	209		ug/L			2721879	2723686	0
	Th	232	0.200	ug/L	0.028	13	38	5452	14
	U	238	0.200	ug/L	0.002	1	2	9463	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 11:20:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1748871	1787527	1
	Be	9	10.000	ug/L	0.137	1	12	48753	1
	C	13		ug/L			135150	137100	5
	Cl	37		ug/L			4700084	4891482	1
>	Sc	45		ug/L			1248950	1289925	1
	V	51	10.000	ug/L	0.190	1	9366	252299	0
	V-1	51	10.000	ug/L	0.193	1	95	242681	0
	Cr	52	10.000	ug/L	0.150	1	27600	240702	0
	Cr	53	9.999	ug/L	0.160	1	154	24123	0
	Mn	55	10.000	ug/L	0.284	2	744	287554	1
	Co	59	10.000	ug/L	0.195	1	85	209425	1
>	Ge	72		ug/L			653857	683707	1
	Ni	60	10.000	ug/L	0 071	0	88	44862	2
	Ni	62	10.002	ug/L	0.178	1	1029	7264	0
	Cu	63	9.999	ug/L	0.211	2	1305	100752	1
	Cu	65	9.999	ug/L	0.166	1	124	45585	0
	Zn	66	9.851	ug/L	0.419	4	746	28019	2
	Zn	67	9.974	ug/L	0.247	2	102	4664	2
	Zn	68	9.918	ug/L	0.379	3	566	20149	2
	As	75	10.000	ug/L	0.169	1	290	23456	0
	As-1	75	9.999	ug/L	0.223	2	10162	33831	1
	Se	82	9.997	ug/L	0.147	1	3	2529	0
	Se	78	9.995	ug/L	0.347	3	10335	17283	1
	Mo	98	10.000	ug/L	0.219	2	10	50914	0
	Y	89		ug/L			409313	423475	0
	Kr	83		ug/L			616	657	5
>	In	115		ug/L			974648	995207	1
	Ag	107	10.000	ug/L	0.055	0	16	118992	1
	Cd	111	10.000	ug/L	0.218	2	86	49726	1
	Cd	114	10.000	ug/L	0.072	0	30	124992	0
	Sb	121	10.000	ug/L	0.117	1	27	143428	0
	Sb	123	10.000	ug/L	0 198	1	23	109688	1
	Ba	135	10.000	ug/L	0 245	2	36	42669	1
	Ba	137	10.000	ug/L	0.172	1	59	73096	0
>	Tb	159		ug/L			1103082	1145258	0
	Tl	205	10.000	ug/L	0.077	0	38	376703	0
	Pb	208	10.000	ug/L	0.074	0	557	496459	0
	Bi	209		ug/L			2721879	2767601	1
	Th	232	10.001	ug/L	0.133	1	38	428108	0
	U	238	10.000	ug/L	0.091	0	2	487248	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 11:24:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1748871	1757767	1
	Be	**9**	**20.020**	ug/L	0.404	2	12	96327	0
	C	**13**		ug/L			135150	133191	2
	Cl	**37**		ug/L			4700084	5104790	3
>	**Sc**	**45**		ug/L			1248950	1269346	1
	V	**51**	**20.028**	ug/L	0.336	1	9366	490475	1
	V-1	**51**	**20.048**	ug/L	0.390	1	95	483355	0
	Cr	**52**	**19.988**	ug/L	0.152	0	27600	444511	1
	Cr	**53**	**20.053**	ug/L	0.416	2	154	47952	1
	Mn	**55**	**20.056**	ug/L	0.338	1	744	573187	0
	Co	**59**	**20.056**	ug/L	0.512	2	85	417887	1
>	**Ge**	**72**		ug/L			653857	670934	0
	Ni	**60**	**19.984**	ug/L	0.203	1	88	87596	0
	Ni	**62**	**20.068**	ug/L	0.126	0	1029	13410	0
	Cu	**63**	**20.005**	ug/L	0.366	1	1305	196677	1
	Cu	**65**	**20.057**	ug/L	0.243	1	124	90643	1
	Zn	**66**	**19.973**	ug/L	0.336	1	746	54736	2
	Zn	**67**	**20.128**	ug/L	0.106	0	102	9335	0
	Zn	**68**	**20.033**	ug/L	0.482	2	566	39580	2
	As	**75**	**20.062**	ug/L	0.115	0	290	46457	0
	As-1	**75**	**20.092**	ug/L	0.100	0	10162	57050	0
	Se	**82**	**20.098**	ug/L	0.109	0	3	5087	0
	Se	**78**	**20.192**	ug/L	0.123	0	10335	23960	0
	Mo	**98**	**20.095**	ug/L	0.254	1	10	102360	0
	Y	**89**		ug/L			409313	418479	2
	Kr	**83**		ug/L			616	611	1
>	**In**	**115**		ug/L			974648	989497	0
	Ag	**107**	**20.014**	ug/L	0.556	2	16	237434	2
	Cd	**111**	**20.011**	ug/L	0.094	0	86	99068	0
	Cd	**114**	**19.966**	ug/L	0.181	0	30	246424	0
	Sb	**121**	**19.978**	ug/L	0.065	0	27	283646	0
	Sb	**123**	**19.964**	ug/L	0.156	0	23	216193	0
	Ba	**135**	**19.993**	ug/L	0.370	1	36	84672	1
	Ba	**137**	**20.004**	ug/L	0.260	1	59	145454	0
>	**Tb**	**159**		ug/L			1103082	1127022	0
	Tl	**205**	**20.033**	ug/L	0.243	1	38	747506	1
	Pb	**208**	**20.023**	ug/L	0.049	0	557	982245	0
	Bi	**209**		ug/L			2721879	2755571	0
	Th	**232**	**20.183**	ug/L	0.139	0	38	882409	0
	U	**238**	**20.054**	ug/L	0.165	0	2	972124	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 11:29:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	Li	6		ug/L			1748871	1731648	3
	Be	9	49.785	ug/L	1.995	4	12	230862	2
	C	13		ug/L			135150	133248	0
	Cl	37		ug/L			4700084	5205492	2
>	Sc	45		ug/L			1248950	1256917	1
	V	51	49.978	ug/L	1.241	2	9366	1195030	1
	V-1	51	50.022	ug/L	1.568	3	95	1196507	1
	Cr	52	49.841	ug/L	0.993	1	27600	1039809	0
	Cr	53	49.989	ug/L	2.317	4	154	117970	3
	Mn	55	50.022	ug/L	0.684	1	744	1417670	0
	Co	59	49.816	ug/L	0.875	1	85	1009169	0
>	Ge	72		ug/L			653857	650758	1
	Ni	60	50.074	ug/L	1.227	2	88	214326	1
	Ni	62	49.915	ug/L	0.794	1	1029	30574	0
	Cu	63	49.932	ug/L	1.465	2	1305	470924	1
	Cu	65	49.715	ug/L	1.112	2	124	211681	1
	Zn	66	49.929	ug/L	0.793	1	746	130696	0
	Zn	67	49.864	ug/L	0.947	1	102	21990	0
	Zn	68	50.005	ug/L	0.724	1	566	95025	0
	As	75	50.041	ug/L	0.532	1	290	112417	0
	As-1	75	50.031	ug/L	0.810	1	10162	123054	0
	Se	82	50.162	ug/L	0.549	1	3	12511	1
	Se	78	50.136	ug/L	1.254	2	10335	42887	1
	Mo	98	50.241	ug/L	0.166	0	10	254341	1
	Y	89		ug/L			409313	411900	1
	Kr	83		ug/L			616	646	2
>	In	115		ug/L			974648	959690	1
	Ag	107	49.930	ug/L	0.491	0	16	570499	0
	Cd	111	49.945	ug/L	0.412	0	86	238375	0
	Cd	114	49.962	ug/L	0.879	1	30	595805	2
	Sb	121	50.145	ug/L	0.237	0	27	700643	0
	Sb	123	50.036	ug/L	0 669	1	23	527339	0
	Ba	135	50.074	ug/L	0.704	1	36	207158	0
	Ba	137	50.155	ug/L	0.244	0	59	359182	0
>	Tb	159		ug/L			1103082	1111649	1
	Tl	205	49.935	ug/L	0.594	1	38	1825901	0
	Pb	208	49.852	ug/L	0.520	1	557	2375934	1
	Bi	209		ug/L			2721879	2633749	0
	Th	232	50.940	ug/L	0.877	1	38	2424247	0
	U	238	50.683	ug/L	0.627	1	2	2600720	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 11:35:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1748871	1774113	0
	Be	9	99.312	ug/L	1.162	1	12	461590	1
	C	13		ug/L			135150	131596	2
	Cl	37		ug/L			4700084	5124632	3
>	Sc	45		ug/L			1248950	1276987	2
	V	51	101.202	ug/L	2.936	2	9366	2550115	2
	V-1	51	100.649	ug/L	3.070	3	95	2499809	2
	Cr	52	100.876	ug/L	2.800	2	27600	2171249	0
	Cr	53	98.969	ug/L	2 662	2	154	229263	0
	Mn	55	100.096	ug/L	3.266	3	744	2889390	1
	Co	59	100.408	ug/L	7.229	7	85	2093797	6
>	Ge	72		ug/L			653857	645580	1
	Ni	60	99.195	ug/L	2.233	2	88	410079	0
	Ni	62	99.568	ug/L	1.990	1	1029	58657	0
	Cu	63	99.545	ug/L	2.582	2	1305	916197	1
	Cu	65	99.520	ug/L	0.863	0	124	413660	0
	Zn	66	99.611	ug/L	1.133	1	746	254659	0
	Zn	67	99.186	ug/L	1.850	1	102	42160	1
	Zn	68	99.456	ug/L	2.998	3	566	183616	2
	As	75	99.834	ug/L	0.976	0	290	220986	0
	As-1	75	99.926	ug/L	0.941	0	10162	233265	0
	Se	82	99.312	ug/L	1.918	1	3	24014	0
	Se	78	99.671	ug/L	2.317	2	10335	73799	0
	Mo	98	99.841	ug/L	1.017	1	10	498711	0
	Y	89		ug/L			409313	404729	1
	Kr	83		ug/L			616	722	2
>	In	115		ug/L			974648	950599	0
	Ag	107	99.942	ug/L	3.145	3	16	1128794	2
	Cd	111	99.263	ug/L	1.652	1	86	457918	0
	Cd	114	99.644	ug/L	1.180	1	30	1163084	0
	Sb	121	99.616	ug/L	0.751	0	27	1361223	0
	Sb	123	99.723	ug/L	1.111	1	23	1031515	0
	Ba	135	99.928	ug/L	2.264	2	36	408449	1
	Ba	137	99.969	ug/L	1.705	1	59	708333	1
>	Tb	159		ug/L			1103082	1109709	0
	Tl	205	101.445	ug/L	0.785	0	38	3890674	0
	Pb	208	100.649	ug/L	0.518	0	557	4894125	0
	Bi	209		ug/L			2721879	2553005	0
	Th	232	100.071	ug/L	0.830	0	38	4766240	1
	U	238	100.118	ug/L	0.381	0	2	5149172	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 11:42:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens. RSD
>	Li	6		ug/L			1748871	1747440	2
	Be	9	0.001	ug/L	0.001	92	12	16	21
	C	13		ug/L			135150	133018	4
	Cl	37		ug/L			4700084	5008380	1
>	Sc	45		ug/L			1248950	1257424	1
	V	51	-0.001	ug/L	0.013	1049	9366	9397	1
	V-1	51	0.001	ug/L	0.001	90	95	116	16
	Cr	52	0.002	ug/L	0.039	1924	27600	27822	1
	Cr	53	0.009	ug/L	0.005	60	154	175	8
	Mn	55	-0.006	ug/L	0.001	13	744	588	3
	Co	59	0.000	ug/L	0.001	143	85	93	13
>	Ge	72		ug/L			653857	661902	1
	Ni	60	-0.014	ug/L	0.001	7	88	31	11
	Ni	62	-0.410	ug/L	0.127	30	1029	799	9
	Cu	63	-0.040	ug/L	0.009	21	1305	944	7
	Cu	65	-0.012	ug/L	0.002	18	124	76	12
	Zn	66	-0.180	ug/L	0.008	4	746	286	8
	Zn	67	-0.123	ug/L	0.002	2	102	49	3
	Zn	68	-0.150	ug/L	0.016	10	566	291	11
	As	75	-0.003	ug/L	0.010	314	290	286	7
	As-1	75	0.039	ug/L	0.047	120	10162	10376	0
	Se	82	-0.019	ug/L	0.031	158	3	0	790
	Se	78	0.128	ug/L	0.153	119	10335	10545	0
	Mo	98	0.022	ug/L	0.004	20	10	121	17
	Y	89		ug/L			409313	411333	1
	Kr	83		ug/L			616	623	2
>	In	115		ug/L			974648	960487	0
	Ag	107	0.006	ug/L	0.006	100	16	79	79
	Cd	111	0.005	ug/L	0.007	150	86	107	30
	Cd	114	0.004	ug/L	0.005	130	30	72	76
	Sb	121	0.125	ug/L	0.006	4	27	1756	5
	Sb	123	0.126	ug/L	0.005	3	23	1341	4
	Ba	135	-0.002	ug/L	0.003	204	36	28	49
	Ba	137	-0.002	ug/L	0.002	64	59	41	26
>	Tb	159		ug/L			1103082	1092855	1
	Tl	205	0.020	ug/L	0.007	34	38	795	32
	Pb	208	-0.000	ug/L	0.002	351	557	531	13
	Bi	209		ug/L			2721879	2728117	0
	Th	232	0.237	ug/L	0.020	8	38	11148	8
	U	238	0.004	ug/L	0.001	17	2	220	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 11:57:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L				1765270	2
	Be	9		ug/L				15	38
	C	13		ug/L				135652	1
	Cl	37		ug/L				4937799	2
>	Sc	45		ug/L				1259345	0
	V	51		ug/L				9617	0
	V-1	51		ug/L				89	11
	Cr	52		ug/L				28547	0
	Cr	53		ug/L				178	2
	Mn	55		ug/L				554	7
	Co	59		ug/L				85	13
>	Ge	72		ug/L				658458	1
	Ni	60		ug/L				39	31
	Ni	62		ug/L				675	3
	Cu	63		ug/L				740	5
	Cu	65		ug/L				68	2
	Zn	66		ug/L				249	3
	Zn	67		ug/L				35	30
	Zn	68		ug/L				261	4
	As	75		ug/L				273	4
	As-1	75		ug/L				10384	0
	Se	82		ug/L				-5	234
	Se	78		ug/L				10570	0
	Mo	98		ug/L				27	9
	Y	89		ug/L				411113	1
	Kr	83		ug/L				642	5
>	In	115		ug/L				961280	1
	Ag	107		ug/L				29	24
	Cd	111		ug/L				85	2
	Cd	114		ug/L				29	31
	Sb	121		ug/L				475	19
	Sb	123		ug/L				362	13
	Ba	135		ug/L				21	4
	Ba	137		ug/L				28	15
>	Tb	159		ug/L				1095087	0
	Tl	205		ug/L				336	45
	Pb	208		ug/L				458	1
	Bi	209		ug/L				2703449	1
	Th	232		ug/L				2412	23
	U	238		ug/L				41	21

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 12:01:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1765270	1785027	1
	Be	9	50.554	ug/L	1.814	3	15	236387	3
	C	13		ug/L			135652	138688	3
	Cl	37		ug/L			4937799	5209957	2
>	Sc	45		ug/L			1259345	1280804	1
	V	51	49.643	ug/L	1.337	2	9617	1259926	1
	V-1	51	50.026	ug/L	1.269	2	89	1246441	1
	Cr	52	49.101	ug/L	0.625	1	28547	1075708	1
	Cr	53	50.395	ug/L	0.767	1	178	117242	1
	Mn	55	49.655	ug/L	0.674	1	554	1438427	0
	Co	59	49.905	ug/L	2.282	4	85	1044223	3
>	Ge	72		ug/L			658458	661454	1
	Ni	60	51.110	ug/L	1 182	2	39	216468	0
	Ni	62	50.588	ug/L	0.812	1	675	30685	1
	Cu	63	50.826	ug/L	0.905	1	740	479472	2
	Cu	65	51.403	ug/L	0.732	1	68	218894	0
	Zn	66	50.142	ug/L	0.945	1	249	131216	2
	Zn	67	50.524	ug/L	0.846	1	35	21985	1
	Zn	68	50.082	ug/L	0.332	0	261	94722	1
	As	75	49.988	ug/L	0.752	1	273	113487	0
	As-1	75	50.390	ug/L	1.032	2	10384	125751	0
	Se	82	78.055	ug/L	0.647	0	-5	19332	1
	Se	78	78.396	ug/L	1.539	1	10570	61867	0
	Mo	98	49.358	ug/L	1.112	2	27	252593	1
	Y	89		ug/L			411113	417054	0
	Kr	83		ug/L			642	690	2
>	In	115		ug/L			961280	977377	0
	Ag	107	50.813	ug/L	1.024	2	29	590209	2
	Cd	111	49.975	ug/L	0.364	0	85	237099	0
	Cd	114	49.236	ug/L	0.499	1	29	590924	0
	Sb	121	48.893	ug/L	0.321	0	475	687395	0
	Sb	123	49.139	ug/L	0.144	0	362	523000	0
	Ba	135	50.293	ug/L	0.435	0	21	211384	0
	Ba	137	49.934	ug/L	0.327	0	28	363786	0
>	Tb	159		ug/L			1095087	1118185	1
	Tl	205	48.366	ug/L	1.223	2	336	1868906	0
	Pb	208	49.316	ug/L	0.622	1	458	2416236	0
	Bi	209		ug/L			2703449	2676799	0
	Th	232	51.930	ug/L	0.835	1	2412	2494195	0
	U	238	52.137	ug/L	0.834	1	41	2701483	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 12:08:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1765270	1748642	0
	Be	9	0.001	ug/L	0.001	50	15	22	15
	C	13		ug/L			135652	139886	3
	Cl	37		ug/L			4937799	5137510	3
>	Sc	45		ug/L			1259345	1255689	2
	V	51	-0.006	ug/L	0 010	160	9617	9432	1
	V-1	51	0.001	ug/L	0.001	70	89	120	17
	Cr	52	-0.032	ug/L	0.034	108	28547	27794	1
	Cr	53	-0.007	ug/L	0.007	107	178	162	8
	Mn	55	0.001	ug/L	0.001	182	554	567	4
	Co	59	0.000	ug/L	0.001	178	85	92	14
>	Ge	72		ug/L			658458	653990	2
	Ni	60	-0.002	ug/L	0 001	67	39	32	15
	Ni	62	-0.198	ug/L	0.061	30	675	554	6
	Cu	63	-0.008	ug/L	0.001	17	740	661	4
	Cu	65	-0.001	ug/L	0.002	152	68	62	12
	Zn	66	0.003	ug/L	0.009	325	249	254	9
	Zn	67	-0.000	ug/L	0.012	4462	35	35	15
	Zn	68	-0.005	ug/L	0.006	126	261	250	5
	As	75	0.008	ug/L	0.003	40	273	290	4
	As-1	75	0.040	ug/L	0.118	293	10384	10401	0
	Se	82	-0.009	ug/L	0.081	900	-5	-6	285
	Se	78	0.119	ug/L	0.409	343	10570	10572	0
	Mo	98	0.006	ug/L	0.001	14	27	58	5
	Y	89		ug/L			411113	404657	1
	Kr	83		ug/L			642	649	5
>	In	115		ug/L			961280	955963	0
	Ag	107	0.001	ug/L	0.001	117	29	37	24
	Cd	111	0.004	ug/L	0.001	15	85	104	2
	Cd	114	0.001	ug/L	0.000	28	29	37	5
	Sb	121	0.002	ug/L	0.007	452	475	495	20
	Sb	123	0.000	ug/L	0.005	1274	362	364	13
	Ba	135	0.000	ug/L	0.001	3614	21	21	24
	Ba	137	0.002	ug/L	0.002	99	28	39	28
>	Tb	159		ug/L			1095087	1079236	0
	Tl	205	-0.003	ug/L	0.002	78	336	223	37
	Pb	208	0.001	ug/L	0.001	110	458	488	7
	Bi	209		ug/L			2703449	2717260	0
	Th	232	0.073	ug/L	0.011	14	2412	5751	7
	U	238	0.002	ug/L	0.000	12	41	118	7

Sample Information

Sample Date/Time: Tuesday, November 27, 2012 12:08:02
Method File: C:\NexION Data\Method\200.8nomin.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**0.9999**	0.003	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**0.9998**	0.020	0.20	10	20	50	100
V-1	51	**0.9999**	0.019	0.20	10	20	50	100
Cr	52	**0.9999**	0.017	0.50	10	20	50	100
Cr	53	**0.9998**	0.002	0.50	10	20	50	100
Mn	55	**1.0000**	0.023	0.50	10	20	50	100
Co	59	**1.0000**	0.016	0.20	10	20	50	100
Ge	72							
Ni	60	**0.9999**	0.006	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**1.0000**	0.014	0.50	10	20	50	100
Cu	65	**0.9999**	0.006	0.50	10	20	50	100
Zn	66	**1.0000**	0.004	4.00	10	20	50	100
Zn	67	**0.9999**	0.001	4.00	10	20	50	100
Zn	68	**0.9999**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9999**	0.000	0.50	10	20	50	100
Se	78	**1.0000**	0.001	0.50	10	20	50	100
Mo	98	**1.0000**	0.008	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.012	0.20	10	20	50	100
Cd	111	**0.9999**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.012	0.10	10	20	50	100
Sb	121	**1.0000**	0.014	0.20	10	20	50	100
Sb	123	**1.0000**	0.011	0.20	10	20	50	100
Ba	135	**1.0000**	0.004	0.50	10	20	50	100
Ba	137	**1.0000**	0.007	0.50	10	20	50	100
Tb	159							
Tl	205	**0.9997**	0.035	0.20	10	20	50	100
Pb	208	**0.9999**	0.044	0.10	10	20	50	100
Bi	209							
Th	232	**0.9998**	0.043	0.20	10	20	50	100
U	238	**0.9999**	0.046	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 12:18:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1765270	1777355	1
	Be	9	51.135	ug/L	1.526	2	15	238057	1
	C	13		ug/L			135652	135627	3
	Cl	37		ug/L			4937799	5147273	2
>	Sc	45		ug/L			1259345	1298192	1
	V	51	47.632	ug/L	0.716	1	9617	1225768	0
	V-1	51	48.104	ug/L	0.451	0	89	1214946	0
	Cr	52	48.035	ug/L	1.242	2	28547	1067081	1
	Cr	53	49.671	ug/L	0.749	1	178	117119	1
	Mn	55	48.177	ug/L	0.950	1	554	1414461	0
	Co	59	48.157	ug/L	0.752	1	85	1021518	1
>	Ge	72		ug/L			658458	662066	1
	Ni	60	50.504	ug/L	1.543	3	39	214095	1
	Ni	62	51.210	ug/L	1.959	3	675	31077	2
	Cu	63	50.824	ug/L	1.341	2	740	479772	1
	Cu	65	50.822	ug/L	2.494	4	68	216556	3
	Zn	66	50.790	ug/L	2.044	4	249	132988	2
	Zn	67	51.442	ug/L	1.486	2	35	22402	1
	Zn	68	50.440	ug/L	0.906	1	261	95476	0
	As	75	49.948	ug/L	0.371	0	273	113512	0
	As-1	75	49.801	ug/L	0.216	0	10384	124542	1
	Se	82	50.511	ug/L	0.661	1	-5	12519	0
	Se	78	49.970	ug/L	0.153	0	10570	43332	1
	Mo	98	49.668	ug/L	0.651	1	27	254454	1
	Y	89		ug/L			411113	412794	1
	Kr	83		ug/L			642	688	2
>	In	115		ug/L			961280	970287	0
	Ag	107	49.815	ug/L	1.376	2	29	574437	3
	Cd	111	50.969	ug/L	0 401	0	85	240061	0
	Cd	114	49.891	ug/L	0.906	1	29	594457	1
	Sb	121	49.924	ug/L	0.396	0	475	696808	0
	Sb	123	49.860	ug/L	0.201	0	362	526815	0
	Ba	135	50.135	ug/L	0.884	1	21	209195	1
	Ba	137	49.726	ug/L	0.901	1	28	359639	1
>	Tb	159		ug/L			1095087	1128899	0
	Tl	205	46.712	ug/L	0.369	0	336	1822757	0
	Pb	208	48.137	ug/L	0.570	1	458	2381274	0
	Bi	209		ug/L			2703449	2675349	1
	Th	232	49.958	ug/L	0.455	0	2412	2422923	0
	U	238	50.310	ug/L	0.525	1	41	2632087	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 12:25:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1765270	1727319	1
[	Be	9	0.001	ug/L	0.001	187	15	18	37
	C	13		ug/L			135652	138730	1
	Cl	37		ug/L			4937799	4918244	1
[>	Sc	45		ug/L			1259345	1248197	0
[	V	51	0.002	ug/L	0.013	611	9617	9583	3
[	V-1	51	0.002	ug/L	0.002	98	89	125	30
[	Cr	52	-0.003	ug/L	0.034	1238	28547	28238	2
[	Cr	53	-0.005	ug/L	0.008	168	178	166	10
[	Mn	55	0.001	ug/L	0.001	122	554	581	7
[	Co	59	0.001	ug/L	0.001	126	85	105	24
[>	Ge	72		ug/L			658458	645470	2
[	Ni	60	-0.002	ug/L	0 000	17	39	28	8
[	Ni	62	-0.314	ug/L	0.030	9	675	480	2
[	Cu	63	-0.019	ug/L	0.002	11	740	553	1
[	Cu	65	-0.001	ug/L	0.002	148	68	61	11
[	Zn	66	0.003	ug/L	0.006	181	249	252	6
[	Zn	67	0.014	ug/L	0.020	145	35	40	18
[	Zn	68	0.009	ug/L	0.010	109	261	272	8
[	As	75	0.014	ug/L	0.006	42	273	299	2
[	As-1	75	0.079	ug/L	0.122	155	10384	10351	0
[	Se	82	0.061	ug/L	0.042	69	-5	9	104
[	Se	78	0.278	ug/L	0.433	156	10570	10535	0
[	Mo	98	0.007	ug/L	0 001	13	27	63	8
	Y	89		ug/L			411113	406945	0
	Kr	83		ug/L			642	623	1
[>	In	115		ug/L			961280	952611	0
[	Ag	107	0.001	ug/L	0.001	71	29	43	23
[	Cd	111	-0.000	ug/L	0 001	616	85	84	8
[	Cd	114	0.001	ug/L	0.000	48	29	40	13
[	Sb	121	0.034	ug/L	0.005	15	475	933	7
[	Sb	123	0.034	ug/L	0.007	20	362	712	10
[	Ba	135	0.000	ug/L	0.001	528	21	21	20
[	Ba	137	0.002	ug/L	0.000	19	28	40	5
[>	Tb	159		ug/L			1095087	1083274	0
[	Tl	205	0.002	ug/L	0.004	228	336	403	39
[	Pb	208	0.001	ug/L	0.001	87	458	486	6
[	Bi	209		ug/L			2703449	2700642	0
[	Th	232	0.138	ug/L	0.019	13	2412	8809	9
[	U	238	0.002	ug/L	0.000	16	41	160	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~LOW CHECK~~ zzzzzz
Sample Dil Factor: #11-27-12
Comments:
Sample Date/Time: Tuesday, November 27, 2012 12:29:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean		Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
>	Li	6			ug/L			1765270	1743373	1
	Be	9	0.215	✓	ug/L	0.002	0	15	995	2
	C	13			ug/L			135652	139713	1
	Cl	37			ug/L			4937799	4986873	2
>	Sc	45			ug/L			1259345	1281834	1
	V	51	0.197	✓	ug/L	0.007	3	9617	14761	0
	V-1	51	0.203		ug/L	0.002	0	89	5154	1
	Cr	52	0.458	✓	ug/L	0.029	6	28547	38822	0
	Cr	53	0.487		ug/L	0.011	2	178	1314	1
	Mn	55	0.494	✓	ug/L	0.003	0	554	14879	0
	Co	59	0.203	✓	ug/L	0.000	0	85	4341	1
>	Ge	72			ug/L			658458	665139	2
	Ni	60	0.516	✓	ug/L	0.004	0	39	2235	1
	Ni	62	0.154		ug/L baseline	0.055	36	675	774	3
	Cu	63	0.507	✓	ug/L	0.026	5	740	5549	2
	Cu	65	0.517		ug/L	0.029	5	68	2281	3
	Zn	66	4.539	✓	ug/L	0.167	3	249	12169	3
	Zn	67	4.181		ug/L	0.175	4	35	1861	1
	Zn	68	4.356		ug/L	0.121	2	261	8524	1
	As	75	0.212	✓	ug/L	0.007	3	273	759	1
	As-1	75	0.148		ug/L	0.065	44	10384	10827	1
	Se	82	0.529	✓	ug/L	0.045	8	-5	126	9
	Se	78	0.323		ug/L	0 220	68	10570	10888	1
	Mo	98	0.196	✓	ug/L	0.004	1	27	1037	1
	Y	89			ug/L			411113	412006	1
	Kr	83			ug/L			642	674	1
>	In	115			ug/L			961280	969137	1
	Ag	107	0.208	✓	ug/L	0.003	1	29	2427	2
	Cd	111	0.109		ug/L	0.011	9	85	599	9
	Cd	114	0.106	✓	ug/L	0.001	0	29	1294	1
	Sb	121	0.184	✓	ug/L	0.003	1	475	3040	0
	Sb	123	0.185		ug/L	0.005	2	362	2318	2
	Ba	135	0.490	✓	ug/L	0.006	1	21	2064	0
	Ba	137	0.494	✓	ug/L	0.010	2	28	3594	1
>	Tb	159			ug/L			1095087	1094432	0
	Tl	205	0.195	✓	ug/L	0.002	1	336	7715	0
	Pb	208	0.103	✓	ug/L	0.002	1	458	5406	1
	Bi	209			ug/L			2703449	2724842	0
	Th	232	0.149		ug/L	0.006	3	2412	9417	2
	U	238	0.189	✓	ug/L	0.003	1	41	9642	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 12:33:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1765270	1794970	2
	Be	9	-0.000	ug/L	0.001	398	15	14	35
	C	13		ug/L			135652	235656	2
	Cl	37		ug/L			4937799	15121651	2
>	Sc	45		ug/L			1259345	1275034	2
	V	51	0.085	ug/L	0.011	13	9617	11853	0
	V-1	51	0.662	ug/L	0.010	1	89	16509	3
	Cr	52	0.482	ug/L	0.055	11	28547	39121	1
	Cr	53	2.477	ug/L	0.004	0	178	5909	2
	Mn	55	0.070	ug/L	0.002	2	554	2572	4
	Co	59	0.026	ug/L	0.002	6	85	632	3
>	Ge	72		ug/L			658458	662302	0
	Ni	60	0.340	ug/L	0.015	4	39	1483	4
	Ni	62	3.314	ug/L	0 469	14	675	2648	10
	Cu	63	0.945	ug/L	0.048	5	740	9654	5
	Cu	65	0.351	ug/L	0.019	5	68	1566	4
	Zn	66	0.932	ug/L	0.038	4	249	2686	3
	Zn	67	5.410	ug/L	0.105	1	35	2389	2
	Zn	68	0.366	ug/L	0.018	4	261	954	3
	As	75	0.074	ug/L	0.017	23	273	442	8
	As-1	75	0.126	ug/L	0.020	15	10384	10733	0
	Se	82	-0.222	ug/L	0.094	42	-5	-60	39
	Se	78	0.312	ug/L	0.120	38	10570	10836	0
	Mo	98	425.554	ug/L	4.102	0	27	2180929	1
	Y	89		ug/L			411113	411986	2
	Kr	83		ug/L			642	927	6
>	In	115		ug/L			961280	936622	1
	Ag	107	0.019	ug/L	0.001	7	29	235	8
	Cd	111	0.124	ug/L	0.022	17	85	647	15
	Cd	114	0.238	ug/L	0.003	1	29	2764	2
	Sb	121	0.042	ug/L	0.001	1	475	1029	2
	Sb	123	0.043	ug/L	0.006	14	362	786	8
	Ba	135	0.048	ug/L	0.003	6	21	212	5
	Ba	137	0.040	ug/L	0.002	5	28	306	4
>	Tb	159		ug/L			1095087	1110691	1
	Tl	205	0.038	ug/L	0.003	8	336	1798	7
	Pb	208	0.030	ug/L	0.001	1	458	1931	1
	Bi	209		ug/L			2703449	2461279	0
	Th	232	0.195	ug/L	0.071	36	2412	11706	27
	U	238	0.000	ug/L	0.000	79	41	57	20

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 12:40:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1765270	1785995	1
	Be	9	0.001	ug/L	0.001	114	15	18	16
	C	13		ug/L			135652	246610	3
	Cl	37		ug/L			4937799	14503251	4
>	Sc	45		ug/L			1259345	1256932	0
	V	51	0.009	ug/L	0.111	1267	9617	9825	28
	V-1	51	0.673	ug/L	0.024	3	89	16552	3
	Cr	52	20.437	ug/L	0.096	0	28547	456052	1
	Cr	53	23.473	ug/L	0.456	1	178	53685	1
	Mn	55	19.955	ug/L	0.334	1	554	567639	1
	Co	59	19.592	ug/L	0.934	4	85	402422	4
>	Ge	72		ug/L			658458	648701	2
	Ni	60	20.647	ug/L	0.804	3	39	85761	2
	Ni	62	23.727	ug/L	0.534	2	675	14465	1
	Cu	63	20.789	ug/L	0.655	3	740	192660	0
	Cu	65	20.610	ug/L	0.489	2	68	86095	1
	Zn	66	20.065	ug/L	0.951	4	249	51601	2
	Zn	67	22.067	ug/L	1.083	4	35	9430	2
	Zn	68	18.665	ug/L	0.834	4	261	34758	1
	As	75	19.900	ug/L	0.406	2	273	44460	0
	As-1	75	19.777	ug/L	0.517	2	10384	54608	0
	Se	82	-0.209	ug/L	0.043	20	-5	-55	16
	Se	78	0.470	ug/L	0.455	96	10570	10710	1
	Mo	98	444.632	ug/L	13.982	3	27	2230603	0
	Y	89		ug/L			411113	409557	0
	Kr	83		ug/L			642	934	4
>	In	115		ug/L			961280	954366	0
	Ag	107	21.121	ug/L	0 745	3	29	239537	3
	Cd	111	20.047	ug/L	0.302	1	85	92923	1
	Cd	114	19.914	ug/L	0.149	0	29	233398	0
	Sb	121	0.037	ug/L	0.004	10	475	984	5
	Sb	123	0.039	ug/L	0.007	16	362	759	8
	Ba	135	0.047	ug/L	0.005	11	21	211	10
	Ba	137	0.041	ug/L	0.004	10	28	317	9
>	Tb	159		ug/L			1095087	1120147	0
	Tl	205	0.026	ug/L	0.001	5	336	1340	3
	Pb	208	0.029	ug/L	0.001	4	458	1888	2
	Bi	209		ug/L			2703449	2467067	0
	Th	232	0.042	ug/L	0.006	13	2412	4482	6
	U	238	-0.000	ug/L	0.000	112	41	31	36

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 12:46:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1765270	1755141	1
	Be	9	200.897	ug/L	2.495	1	15	923731	1
	C	13		ug/L			135652	143205	0
	Cl	37		ug/L			4937799	5396704	2
>	Sc	45		ug/L			1259345	1221392	0
	V	51	204.393	ug/L	4.163	2	9617	4918440	1
	V-1	51	204.604	ug/L	4.149	2	89	4861789	1
	Cr	52	201.630	ug/L	2.765	1	28547	4126378	0
	Cr	53	202.253	ug/L	3.400	1	178	448163	1
	Mn	55	203.897	ug/L	2.855	1	554	5631564	1
	Co	59	203.165	ug/L	4.108	2	85	4054639	1
>	Ge	72		ug/L			658458	616126	1
	Ni	60	199.853	ug/L	3.459	1	39	788455	0
	Ni	62	202.173	ug/L	2.439	1	675	112345	0
	Cu	63	198.962	ug/L	0.479	0	740	1746281	0
	Cu	65	200.974	ug/L	3.189	1	68	797056	0
	Zn	66	194.071	ug/L	1.456	0	249	472397	0
	Zn	67	194.039	ug/L	3.420	1	35	78560	1
	Zn	68	194.724	ug/L	5.288	2	261	342307	1
	As	75	201.261	ug/L	2.274	1	273	424885	0
	As-1	75	198.679	ug/L	3.323	1	10384	433316	1
	Se	82	202.985	ug/L	1.819	0	-5	46838	0
	Se	78	194.064	ug/L	4.528	2	10570	128076	1
	Mo	98	215.162	ug/L	2.006	0	27	1025812	1
	Y	89		ug/L			411113	394238	2
	Kr	83		ug/L			642	907	2
>	In	115		ug/L			961280	933930	0
	Ag	107	225.021	ug/L	2.809	1	29	2497252	1
	Cd	111	200.242	ug/L	3.316	1	85	907474	0
	Cd	114	215.779	ug/L	1.731	0	29	2474580	0
	Sb	121	217.959	ug/L	2.615	1	475	2926429	0
	Sb	123	221.421	ug/L	3.353	1	362	2250447	0
	Ba	135	204.636	ug/L	1.756	0	21	821800	0
	Ba	137	203.903	ug/L	3.525	1	28	1419382	1
>	Tb	159		ug/L			1095087	1107940	0
	Tl	205	197.484	ug/L	2.832	1	336	7561644	0
	Pb	208	201.195	ug/L	1.797	0	458	9766971	0
	Bi	209		ug/L			2703449	2440239	0
	Th	232	200.138	ug/L	1.240	0	2412	9519002	0
	U	238	198.544	ug/L	1.179	0	41	10194879	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 12:53:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1765270	1733708	1
	Be	9	286.467	ug/L	6.959	2	15	1300828	1
	C	13		ug/L			135652	140093	1
	Cl	37		ug/L			4937799	5233317	3
>	Sc	45		ug/L			1259345	1207855	1
	V	51	305.282	ug/L	5.245	1	9617	7259450	0
	V-1	51	304.230	ug/L	5.423	1	89	7147984	0
	Cr	52	302.848	ug/L	7.976	2	28547	6114070	1
	Cr	53	299.147	ug/L	9.595	3	178	655243	1
	Mn	55	296.840	ug/L	4.743	1	554	8106075	0
	Co	59	297.534	ug/L	3.433	1	85	5871956	1
>	Ge	72		ug/L			658458	605530	0
	Ni	60	296.423	ug/L	3.442	1	39	1149375	0
	Ni	62	300.203	ug/L	8.569	2	675	163647	2
	Cu	63	309.846	ug/L	1.147	0	740	2672429	1
	Cu	65	287.075	ug/L	3.142	1	68	1119087	1
	Zn	66	282.529	ug/L	3.154	1	249	675853	1
	Zn	67	281.546	ug/L	1.734	0	35	112028	1
	Zn	68	275.690	ug/L	1.573	0	261	476276	0
	As	75	291.008	ug/L	1.239	0	273	603697	0
	As-1	75	289.854	ug/L	1.967	0	10384	616942	0
	Se	82	284.581	ug/L	2.674	0	-5	64539	0
	Se	78	281.053	ug/L	3.874	1	10570	177944	0
	Mo	98	318.344	ug/L	6.934	2	27	1491451	1
	Y	89		ug/L			411113	388634	2
	Kr	83		ug/L			642	1050	1
>	In	115		ug/L			961280	910600	0
	Ag	107	321.184	ug/L	7.750	2	29	3475661	2
	Cd	111	291.159	ug/L	3.395	1	85	1286629	1
	Cd	114	313.181	ug/L	4.026	1	29	3501935	1
	Sb	121	321.311	ug/L	1.326	0	475	4206454	0
	Sb	123	323.536	ug/L	1.887	0	362	3206244	0
	Ba	135	308.065	ug/L	4.906	1	21	1206268	1
	Ba	137	335.880	ug/L	3.033	0	28	2279701	0
>	Tb	159		ug/L			1095087	1100013	0
	Tl	205	293.081	ug/L	3.785	1	336	11142365	1
	Pb	208	296.734	ug/L	1.817	0	458	14301667	0
	Bi	209		ug/L			2703449	2347468	0
	Th	232	294.214	ug/L	2.783	0	2412	13892641	1
	U	238	293.274	ug/L	2.731	0	41	14951808	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 13:00:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1765270	1780284	1
	Be	9	0.005	ug/L	0.002	45	15	38	28
	C	13		ug/L			135652	145279	2
	Cl	37		ug/L			4937799	5185995	2
>	Sc	45		ug/L			1259345	1244588	0
	V	51	0.003	ug/L	0.009	287	9617	9585	2
	V-1	51	0.011	ug/L	0.003	28	89	360	20
	Cr	52	-0.007	ug/L	0.028	433	28547	28079	2
	Cr	53	0.020	ug/L	0.009	44	178	222	8
	Mn	55	0.036	ug/L	0.008	22	554	1560	15
	Co	59	0.014	ug/L	0.016	115	85	369	90
>	Ge	72		ug/L			658458	655120	1
	Ni	60	0.037	ug/L	0.022	60	39	194	48
	Ni	62	0.292	ug/L	0.064	22	675	844	5
	Cu	63	0.054	ug/L	0.021	39	740	1242	16
	Cu	65	0.041	ug/L	0.026	64	68	240	46
	Zn	66	1.333	ug/L	0.044	3	249	3696	1
	Zn	67	1.190	ug/L	0.015	1	35	547	0
	Zn	68	1.220	ug/L	0.042	3	261	2540	4
	As	75	0.056	ug/L	0.031	55	273	398	18
	As-1	75	-0.026	ug/L	0.079	299	10384	10270	0
	Se	82	0.017	ug/L	0.014	79	-5	0	439
	Se	78	-0.233	ug/L	0.338	145	10570	10364	0
	Mo	98	0.083	ug/L	0.005	6	27	446	6
	Y	89		ug/L			411113	402849	0
	Kr	83		ug/L			642	668	2
>	In	115		ug/L			961280	988637	0
	Ag	107	0.030	ug/L	0.007	22	29	380	20
	Cd	111	0.017	ug/L	0 012	70	85	172	34
	Cd	114	0.010	ug/L	0.005	53	29	150	43
	Sb	121	0.627	ug/L	0.126	20	475	9398	18
	Sb	123	0.634	ug/L	0 129	20	362	7192	19
	Ba	135	0.011	ug/L	0.005	40	21	70	28
	Ba	137	0.013	ug/L	0 002	18	28	121	14
>	Tb	159		ug/L			1095087	1106257	0
	Tl	205	0.069	ug/L	0.028	41	336	2955	36
	Pb	208	0.011	ug/L	0.004	33	458	973	18
	Bi	209		ug/L			2703449	2730340	0
	Th	232	0.657	ug/L	0.166	25	2412	33602	22
	U	238	0.017	ug/L	0.002	10	41	896	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 13:06:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1765270	1802168	2
	Be	9	0.003	ug/L	0.000	10	15	31	3
	C	13		ug/L			135652	145275	1
	Cl	37		ug/L			4937799	5141659	3
>	Sc	45		ug/L			1259345	1261919	3
	V	51	-0.013	ug/L	0.015	112	9617	9294	1
	V-1	51	0.003	ug/L	0.000	8	89	157	0
	Cr	52	-0.040	ug/L	0.048	120	28547	27741	1
	Cr	53	0.015	ug/L	0.005	35	178	213	6
	Mn	55	0.014	ug/L	0.001	6	554	943	2
	Co	59	0.000	ug/L	0.000	99	85	94	6
>	Ge	72		ug/L			658458	658929	2
	Ni	60	0.011	ug/L	0.005	47	39	88	26
	Ni	62	-0.084	ug/L	0.074	87	675	626	8
	Cu	63	0.000	ug/L	0.003	824	740	744	4
	Cu	65	0.009	ug/L	0.002	17	68	107	5
	Zn	66	0.160	ug/L	0.009	5	249	666	5
	Zn	67	0.174	ug/L	0 020	11	35	110	8
	Zn	68	0.153	ug/L	0.019	12	261	548	4
	As	75	0.006	ug/L	0 006	90	273	287	2
	As-1	75	-0.118	ug/L	0.164	138	10384	10116	1
	Se	82	-0.033	ug/L	0.033	98	-5	-13	59
	Se	78	-0.443	ug/L	0.568	128	10570	10284	1
	Mo	98	0.011	ug/L	0.002	17	27	83	9
	Y	89		ug/L			411113	412550	2
	Kr	83		ug/L			642	662	3
>	In	115		ug/L			961280	986749	1
	Ag	107	0.008	ug/L	0.001	16	29	124	12
	Cd	111	0.004	ug/L	0.002	41	85	106	7
	Cd	114	0.003	ug/L	0.000	15	29	61	8
	Sb	121	0.116	ug/L	0.032	27	475	2129	21
	Sb	123	0.115	ug/L	0.025	22	362	1608	16
	Ba	135	0.004	ug/L	0.001	17	21	36	6
	Ba	137	0.005	ug/L	0.001	18	28	63	9
>	Tb	159		ug/L			1095087	1101037	1
	Tl	205	0.052	ug/L	0 031	58	336	2319	49
	Pb	208	0.006	ug/L	0.001	16	458	735	5
	Bi	209		ug/L			2703449	2780859	0
	Th	232	0.114	ug/L	0.038	33	2412	7823	22
	U	238	0.002	ug/L	0.000	23	41	139	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 13:12:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1765270	1799263	0
	Be	9	0.002	ug/L	0.001	58	15	23	19
	C	13		ug/L			135652	153054	1
	Cl	37		ug/L			4937799	5089872	0
>	Sc	45		ug/L			1259345	1243856	2
	V	51	0.001	ug/L	0.015	1614	9617	9516	1
	V-1	51	0.001	ug/L	0.000	25	89	118	6
	Cr	52	0.000	ug/L	0.041	11228	28547	28191	0
	Cr	53	0.002	ug/L	0.011	677	178	180	15
	Mn	55	0.008	ug/L	0.001	13	554	775	3
	Co	59	0.000	ug/L	0.001	236	85	89	12
>	Ge	72		ug/L			658458	653324	2
	Ni	60	0.015	ug/L	0.005	33	39	102	21
	Ni	62	-0.237	ug/L	0.044	18	675	532	6
	Cu	63	0.036	ug/L	0.006	16	740	1065	3
	Cu	65	0.050	ug/L	0.003	5	68	279	4
	Zn	66	0.278	ug/L	0.009	3	249	963	4
	Zn	67	0.223	ug/L	0.014	6	35	130	2
	Zn	68	0.274	ug/L	0.022	8	261	770	5
	As	75	0.010	ug/L	0.011	111	273	293	8
	As-1	75	-0.045	ug/L	0.089	198	10384	10199	0
	Se	82	-0.015	ug/L	0.075	514	-5	-8	208
	Se	78	-0.203	ug/L	0.329	162	10570	10354	0
	Mo	98	0.006	ug/L	0.003	39	27	59	20
	Y	89		ug/L			411113	407889	1
	Kr	83		ug/L			642	639	7
>	In	115		ug/L			961280	991751	0
	Ag	107	0.005	ug/L	0.001	16	29	93	10
	Cd	111	0.000	ug/L	0.001	512	85	90	8
	Cd	114	0.002	ug/L	0.000	21	29	56	10
	Sb	121	0.039	ug/L	0.015	38	475	1039	20
	Sb	123	0.039	ug/L	0.016	40	362	791	21
	Ba	135	0.010	ug/L	0.003	30	21	65	20
	Ba	137	0.010	ug/L	0.001	7	28	101	5
>	Tb	159		ug/L			1095087	1106019	0
	Tl	205	0.033	ug/L	0.024	71	336	1611	56
	Pb	208	0.002	ug/L	0.001	41	458	559	7
	Bi	209		ug/L			2703449	2734128	0
	Th	232	0.022	ug/L	0.015	65	2412	3495	19
	U	238	0.000	ug/L	0.000	52	41	57	14

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 13:16:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1765270	1825222	0
	Be	9	50.885	ug/L	1.261	2	15	243332	2
	C	13		ug/L			135652	139779	1
	Cl	37		ug/L			4937799	5212384	1
>	Sc	45		ug/L			1259345	1282916	2
	V	51	47.225	ug/L	0.350	0	9617	1201158	1
	V-1	51	48.003	ug/L	0.498	1	89	1198135	1
	Cr	52	47.292	ug/L	1.416	2	28547	1038619	2
	Cr	53	49.962	ug/L	1.031	2	178	116397	0
	Mn	55	47.560	ug/L	0.427	0	554	1380062	1
	Co	59	47.934	ug/L	1.094	2	85	1004788	2
>	Ge	72		ug/L			658458	662128	1
	Ni	60	49.448	ug/L	0.212	0	39	209699	1
	Ni	62	48.895	ug/L	0.652	1	675	29717	2
	Cu	63	50.009	ug/L	0.513	1	740	472264	2
	Cu	65	48.586	ug/L	1 138	2	68	207141	2
	Zn	66	49.854	ug/L	1.466	2	249	130561	1
	Zn	67	49.954	ug/L	0.856	1	35	21760	1
	Zn	68	49.796	ug/L	0.344	0	261	94286	1
	As	75	48.899	ug/L	0.094	0	273	111151	1
	As-1	75	48.793	ug/L	0.173	0	10384	122244	1
	Se	82	49.042	ug/L	0.738	1	-5	12157	1
	Se	78	48.640	ug/L	0.487	1	10570	42462	0
	Mo	98	48.190	ug/L	0.516	1	27	246951	2
	Y	89		ug/L			411113	411067	0
	Kr	83		ug/L			642	671	5
>	In	115		ug/L			961280	965881	1
	Ag	107	51.026	ug/L	1.082	2	29	585566	1
	Cd	111	51.151	ug/L	0.493	0	85	239812	1
	Cd	114	50.194	ug/L	0.613	1	29	595295	1
	Sb	121	50.435	ug/L	0.755	1	475	700664	1
	Sb	123	50.352	ug/L	0.598	1	362	529534	0
	Ba	135	49.955	ug/L	0.269	0	21	207495	1
	Ba	137	49.911	ug/L	0.258	0	28	359335	1
>	Tb	159		ug/L			1095087	1134868	1
	Tl	205	46.081	ug/L	0.216	0	336	1807669	0
	Pb	208	47.733	ug/L	0.464	0	458	2373847	1
	Bi	209		ug/L			2703449	2705203	1
	Th	232	49.618	ug/L	0.399	0	2412	2419080	0
	U	238	50.100	ug/L	0.773	1	41	2634878	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 13:23:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1765270	1792279	0
	Be	9	0.003	ug/L	0.000	19	15	27	9
	C	13		ug/L			135652	143559	2
	Cl	37		ug/L			4937799	5090633	2
>	Sc	45		ug/L			1259345	1254679	2
	V	51	-0.012	ug/L	0.010	82	9617	9272	0
	V-1	51	0.003	ug/L	0.000	13	89	152	7
	Cr	52	-0.052	ug/L	0.035	66	28547	27349	0
	Cr	53	-0.002	ug/L	0.000	25	178	174	2
	Mn	55	0.005	ug/L	0.000	10	554	685	3
	Co	59	0.000	ug/L	0.001	144	85	92	12
>	Ge	72		ug/L			658458	644023	0
	Ni	60	-0.000	ug/L	0.003	2753	39	38	32
	Ni	62	-0.309	ug/L	0.038	12	675	482	5
	Cu	63	-0.017	ug/L	0.004	22	740	571	6
	Cu	65	0.001	ug/L	0.001	160	68	70	7
	Zn	66	0.020	ug/L	0.026	134	249	293	23
	Zn	67	0.034	ug/L	0 009	26	35	49	7
	Zn	68	0.025	ug/L	0.020	82	261	301	12
	As	75	0.018	ug/L	0.010	54	273	306	6
	As-1	75	-0.015	ug/L	0 051	336	10384	10122	0
	Se	82	-0.013	ug/L	0.070	546	-5	-8	208
	Se	78	-0.093	ug/L	0.194	208	10570	10279	0
	Mo	98	0.020	ug/L	0.006	27	27	125	21
	Y	89		ug/L			411113	404988	1
	Kr	83		ug/L			642	655	2
>	In	115		ug/L			961280	965950	0
	Ag	107	0.005	ug/L	0.001	12	29	90	7
	Cd	111	0.002	ug/L	0.002	93	85	98	11
	Cd	114	0.001	ug/L	0.001	48	29	44	16
	Sb	121	0.134	ug/L	0.040	29	475	2336	23
	Sb	123	0.138	ug/L	0.040	28	362	1818	22
	Ba	135	-0.001	ug/L	0.002	272	21	17	52
	Ba	137	0.002	ug/L	0.001	40	28	40	11
>	Tb	159		ug/L			1095087	1091849	0
	Tl	205	0.021	ug/L	0.015	71	336	1111	49
	Pb	208	0.002	ug/L	0.001	42	458	544	6
	Bi	209		ug/L			2703449	2721455	1
	Th	232	0.398	ug/L	0.136	34	2412	21028	29
	U	238	0.005	ug/L	0.001	23	41	276	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 13:31:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				1766731	1
	Be	9		ug/L				22	10
	C	13		ug/L				143235	1
	Cl	37		ug/L				4954439	2
>	Sc	45		ug/L				1218098	1
	V	51		ug/L				9170	0
	V-1	51		ug/L				105	12
	Cr	52		ug/L				27160	0
	Cr	53		ug/L				170	0
	Mn	55		ug/L				674	3
	Co	59		ug/L				88	4
>	Ge	72		ug/L				652831	1
	Ni	60		ug/L				35	17
	Ni	62		ug/L				471	3
	Cu	63		ug/L				514	6
	Cu	65		ug/L				55	9
	Zn	66		ug/L				255	7
	Zn	67		ug/L				38	13
	Zn	68		ug/L				241	5
	As	75		ug/L				310	4
	As-1	75		ug/L				9967	1
	Se	82		ug/L				4	244
	Se	78		ug/L				10138	1
	Mo	98		ug/L				31	18
	Y	89		ug/L				399449	1
	Kr	83		ug/L				635	6
>	In	115		ug/L				965468	0
	Ag	107		ug/L				54	8
	Cd	111		ug/L				102	4
	Cd	114		ug/L				36	13
	Sb	121		ug/L				768	18
	Sb	123		ug/L				575	25
	Ba	135		ug/L				23	16
	Ba	137		ug/L				42	10
>	Tb	159		ug/L				1098939	0
	Tl	205		ug/L				811	65
	Pb	208		ug/L				507	5
	Bi	209		ug/L				2742152	1
	Th	232		ug/L				5672	23
	U	238		ug/L				50	27

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 13:36:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1867260	1
	Be	9	49.300	ug/L	0 876	1	22	241140	0
	C	13		ug/L			143235	143176	1
	Cl	37		ug/L			4954439	5233159	1
>	Sc	45		ug/L			1218098	1286556	1
	V	51	46.999	ug/L	1.006	2	9170	1198531	0
	V-1	51	47.329	ug/L	1.010	2	105	1184521	0
	Cr	52	47.864	ug/L	0.982	2	27160	1053398	0
	Cr	53	49.027	ug/L	0.880	1	170	114553	0
	Mn	55	47.585	ug/L	1.387	2	674	1384506	1
	Co	59	47.357	ug/L	0.642	1	88	995582	1
>	Ge	72		ug/L			652831	661702	1
	Ni	60	48.998	ug/L	0.924	1	35	207642	1
	Ni	62	48.800	ug/L	0.838	1	471	29437	1
	Cu	63	48.448	ug/L	0.541	1	514	456992	0
	Cu	65	49.148	ug/L	0.503	1	55	209381	0
	Zn	66	49.253	ug/L	1.547	3	255	128942	2
	Zn	67	49.693	ug/L	0.718	1	38	21637	1
	Zn	68	50.049	ug/L	1.235	2	241	94663	1
	As	75	49.058	ug/L	0.823	1	310	111467	0
	As-1	75	48.644	ug/L	0.744	1	9967	121479	0
	Se	82	50.093	ug/L	1.266	2	4	12418	1
	Se	78	48.591	ug/L	0.812	1	10138	42055	0
	Mo	98	49.215	ug/L	0.298	0	31	252031	1
	Y	89		ug/L			399449	416907	1
	Kr	83		ug/L			635	680	7
>	In	115		ug/L			965468	988704	1
	Ag	107	49.355	ug/L	1.007	2	54	579816	1
	Cd	111	50.013	ug/L	0.634	1	102	240018	0
	Cd	114	49.133	ug/L	0.605	1	36	596475	0
	Sb	121	49.146	ug/L	0.767	1	768	699163	0
	Sb	123	49.326	ug/L	1.063	2	575	531175	1
	Ba	135	48.072	ug/L	0.816	1	23	204368	0
	Ba	137	48.123	ug/L	0 293	0	42	354660	1
>	Tb	159		ug/L			1098939	1135668	0
	Tl	205	46.219	ug/L	0.432	0	811	1814848	0
	Pb	208	47.275	ug/L	0.420	0	507	2352734	0
	Bi	209		ug/L			2742152	2697554	0
	Th	232	49.590	ug/L	0.631	1	5672	2422812	0
	U	238	50.040	ug/L	0 608	1	50	2633696	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 13:42:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1766731	1808504	2
	Be	9	0.001	ug/L	0.001	96	22	28	15
	C	13		ug/L			143235	148106	1
	Cl	37		ug/L			4954439	5091337	1
>	Sc	45		ug/L			1218098	1256431	1
	V	51	-0.017	ug/L	0.009	53	9170	9031	2
	V-1	51	0.002	ug/L	0.001	30	105	151	9
	Cr	52	-0.068	ug/L	0.032	46	27160	26586	2
	Cr	53	-0.005	ug/L	0.001	28	170	164	1
	Mn	55	0.001	ug/L	0.001	104	674	736	7
	Co	59	0.001	ug/L	0.001	111	88	101	9
>	Ge	72		ug/L			652831	647534	1
	Ni	60	0.001	ug/L	0.002	275	35	38	26
	Ni	62	-0.084	ug/L	0.061	72	471	418	7
	Cu	63	-0.005	ug/L	0.003	63	514	465	4
	Cu	65	0.003	ug/L	0.001	21	55	68	4
	Zn	66	-0.002	ug/L	0.009	549	255	248	7
	Zn	67	0.009	ug/L	0.021	230	38	42	22
	Zn	68	0.019	ug/L	0.008	42	241	275	4
	As	75	-0.002	ug/L	0.014	733	310	303	8
	As-1	75	0.104	ug/L	0.048	45	9967	10118	0
	Se	82	-0.042	ug/L	0.013	30	4	-5	53
	Se	78	0.347	ug/L	0.160	46	10138	10277	0
	Mo	98	0.016	ug/L	0.003	21	31	110	17
	Y	89		ug/L			399449	411156	0
	Kr	83		ug/L			635	646	4
>	In	115		ug/L			965468	973529	1
	Ag	107	0.004	ug/L	0.004	87	54	105	41
	Cd	111	-0.001	ug/L	0.003	285	102	98	12
	Cd	114	0.002	ug/L	0.002	101	36	60	38
	Sb	121	0.091	ug/L	0.031	33	768	2045	20
	Sb	123	0.092	ug/L	0.027	29	575	1550	18
	Ba	135	0.001	ug/L	0.001	195	23	26	17
	Ba	137	0.002	ug/L	0.001	32	42	55	6
>	Tb	159		ug/L			1098939	1095219	0
	Tl	205	0.001	ug/L	0.011	1734	811	829	47
	Pb	208	0.002	ug/L	0.000	30	507	581	3
	Bi	209		ug/L			2742152	2725556	0
	Th	232	0.286	ug/L	0.111	38	5672	19071	26
	U	238	0.005	ug/L	0.001	15	50	293	11

Sample Information

Sample Date/Time: Tuesday, November 27, 2012 13:42:55
Method File: C:\NexION Data\Method\200.8nomin.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**0.9999**	0.003	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**0.9998**	0.020	0.20	10	20	50	100
V-1	51	**0.9999**	0.019	0.20	10	20	50	100
Cr	52	**0.9999**	0.017	0.50	10	20	50	100
Cr	53	**0.9998**	0.002	0.50	10	20	50	100
Mn	55	**1.0000**	0.023	0.50	10	20	50	100
Co	59	**1.0000**	0.016	0.20	10	20	50	100
Ge	72							
Ni	60	**0.9999**	0.006	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**1.0000**	0.014	0.50	10	20	50	100
Cu	65	**0.9999**	0.006	0.50	10	20	50	100
Zn	66	**1.0000**	0.004	4.00	10	20	50	100
Zn	67	**0.9999**	0.001	4.00	10	20	50	100
Zn	68	**0.9999**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9999**	0.000	0.50	10	20	50	100
Se	78	**1.0000**	0.001	0.50	10	20	50	100
Mo	98	**1.0000**	0.008	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.012	0.20	10	20	50	100
Cd	111	**0.9999**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.012	0.10	10	20	50	100
Sb	121	**1.0000**	0.014	0.20	10	20	50	100
Sb	123	**1.0000**	0.011	0.20	10	20	50	100
Ba	135	**1.0000**	0.004	0.50	10	20	50	100
Ba	137	**1.0000**	0.007	0.50	10	20	50	100
Tb	159							
Tl	205	**0.9997**	0.035	0.20	10	20	50	100
Pb	208	**0.9999**	0.044	0.10	10	20	50	100
Bi	209							
Th	232	**0.9998**	0.043	0.20	10	20	50	100
U	238	**0.9999**	0.046	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:04:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			1766731	1802276	1
Be	9	0.203	ug/L	0.005	2	22	980	1
C	13		ug/L			143235	147582	1
Cl	37		ug/L			4954439	4959680	3
> Sc	45		ug/L			1218098	1267477	1
V	51	0.200	ug/L	0.016	8	9170	14526	1
V-1	51	0.204	ug/L	0.005	2	105	5145	0
Cr	52	0.480	ug/L	0.041	8	27160	38380	0
Cr	53	0.505	ug/L	0.023	4	170	1336	3
Mn	55	0.483	ug/L	0.008	1	674	14534	0
Co	59	0.199	ug/L	0.007	3	88	4211	1
> Ge	72		ug/L			652831	650782	1
Ni	60	0.521	ug/L	0.013	2	35	2208	3
Ni	62	0.494	ug/L	0.043	8	471	757	3
Cu	63	0.519	ug/L	0.021	4	514	5320	2
Cu	65	0.535	ug/L	0.015	2	55	2297	2
Zn	66	4.579	ug/L	0.087	1	255	12022	3
Zn	67	4.244	ug/L	0.237	5	38	1851	4
Zn	68	4.397	ug/L	0.108	2	241	8398	1
As	75	0.196	ug/L	0.015	7	310	745	2
As-1	75	0.290	ug/L	0.093	31	9967	10587	0
Se	82	0.512	ug/L	0.025	4	4	129	4
Se	78	0.848	ug/L	0.290	34	10138	10649	0
Mo	98	0.183	ug/L	0.008	4	31	952	4
Y	89		ug/L			399449	401839	1
Kr	83		ug/L			635	648	1
> In	115		ug/L			965468	963650	0
Ag	107	0.215	ug/L	0 004	2	54	2520	1
Cd	111	0.107	ug/L	0.008	7	102	605	5
Cd	114	0.107	ug/L	0.004	3	36	1301	4
Sb	121	0.192	ug/L	0.011	5	768	3433	4
Sb	123	0.190	ug/L	0.015	7	575	2563	6
Ba	135	0.501	ug/L	0.009	1	23	2097	1
Ba	137	0.486	ug/L	0.008	1	42	3530	1
> Tb	159		ug/L			1098939	1100287	0
Tl	205	0.188	ug/L	0.011	5	811	7955	4
Pb	208	0.102	ug/L	0.002	2	507	5418	1
Bi	209		ug/L			2742152	2732544	0
Th	232	0.115	ug/L	0.024	21	5672	11124	10
U	238	0.184	ug/L	0.003	1	50	9422	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:09:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1766731	1841735	1
	Be	9	0.002	ug/L	0.001	67	22	31	17
	C	13		ug/L			143235	153503	2
	Cl	37		ug/L			4954439	5121372	2
>	Sc	45		ug/L			1218098	1296345	1
	V	51	0.007	ug/L	0.005	73	9170	9927	1
	V-1	51	0.003	ug/L	0.001	16	105	197	8
	Cr	52	0.013	ug/L	0 012	91	27160	29194	1
	Cr	53	0.002	ug/L	0.008	323	170	187	11
	Mn	55	0.304	ug/L	0.011	3	674	9630	4
	Co	59	0.001	ug/L	0.001	86	88	115	14
>	Ge	72		ug/L			652831	677498	1
	Ni	60	0.007	ug/L	0.002	27	35	68	12
	Ni	62	-0.098	ug/L	0.038	38	471	429	6
	Cu	63	0.094	ug/L	0.002	1	514	1439	1
	Cu	65	0.102	ug/L	0.009	8	55	501	6
	Zn	66	0.947	ug/L	0.030	3	255	2797	1
	Zn	67	0.910	ug/L	0.029	3	38	445	3
	Zn	68	0.958	ug/L	0.057	5	241	2099	4
	As	75	-0.009	ug/L	0.009	103	310	301	7
	As-1	75	-0.007	ug/L	0.060	824	9967	10326	0
	Se	82	-0.045	ug/L	0.031	68	4	-6	116
	Se	78	-0.020	ug/L	0.206	1038	10138	10507	0
	Mo	98	0.008	ug/L	0.004	42	31	76	25
	Y	89		ug/L			399449	422433	1
	Kr	83		ug/L			635	675	2
>	In	115		ug/L			965468	1004476	1
	Ag	107	-0.001	ug/L	0.001	57	54	44	17
	Cd	111	-0.001	ug/L	0.002	165	102	101	10
	Cd	114	0.002	ug/L	0.001	36	36	57	11
	Sb	121	-0.035	ug/L	0.004	11	768	289	19
	Sb	123	-0.034	ug/L	0.005	14	575	227	24
	Ba	135	0.022	ug/L	0.002	10	23	119	9
	Ba	137	0.020	ug/L	0.002	11	42	197	8
>	Tb	159		ug/L			1098939	1134970	1
	Tl	205	-0.000	ug/L	0.014	3450	811	815	63
	Pb	208	0.004	ug/L	0.000	9	507	742	1
	Bi	209		ug/L			2742152	2776107	1
	Th	232	-0.002	ug/L	0.023	1329	5672	5760	17
	U	238	0.000	ug/L	0.001	1312	50	54	60

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:13:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1766731	1860182	1
	Be	9	24.740	ug/L	0.659	2	22	120553	1
	C	13		ug/L			143235	159429	1
	Cl	37		ug/L			4954439	5093921	1
>	Sc	45		ug/L			1218098	1308215	1
	V	51	23.905	ug/L	0.501	2	9170	624795	1
	V-1	51	24.411	ug/L	0.385	1	105	621422	1
	Cr	52	23.944	ug/L	0.385	1	27160	550448	0
	Cr	53	25.681	ug/L	0.345	1	170	61122	2
	Mn	55	24.513	ug/L	0 530	2	674	725698	1
	Co	59	24.422	ug/L	0.591	2	88	522054	1
>	Ge	72		ug/L			652831	655549	1
	Ni	60	26.647	ug/L	0.359	1	35	111879	0
	Ni	62	26.293	ug/L	0.484	1	471	15929	1
	Cu	63	26.743	ug/L	0.711	2	514	250085	1
	Cu	65	27.369	ug/L	0.345	1	55	115535	1
	Zn	66	84.574	ug/L	2.188	2	255	219123	0
	Zn	67	77.338	ug/L	2.106	2	38	33332	1
	Zn	68	81.069	ug/L	1.321	1	241	151761	0
	As	75	24.949	ug/L	0.610	2	310	56304	0
	As-1	75	25.039	ug/L	0.280	1	9967	66804	0
	Se	82	79.711	ug/L	2.173	2	4	19571	0
	Se	78	77.996	ug/L	1.035	1	10138	60717	1
	Mo	98	0.009	ug/L	0.004	37	31	79	24
	Y	89		ug/L			399449	409613	0
	Kr	83		ug/L			635	692	5
>	In	115		ug/L			965468	991619	0
	Ag	107	26.590	ug/L	0.375	1	54	313376	1
	Cd	111	24.854	ug/L	0.206	0	102	119698	0
	Cd	114	24.496	ug/L	0.192	0	36	298312	0
	Sb	121	-0.038	ug/L	0.004	10	768	250	23
	Sb	123	-0.038	ug/L	0.003	7	575	177	18
	Ba	135	24.891	ug/L	0.221	0	23	106157	0
	Ba	137	24.715	ug/L	0.212	0	42	182714	0
>	Tb	159		ug/L			1098939	1117254	0
	Tl	205	24.742	ug/L	0.180	0	811	956136	0
	Pb	208	25.505	ug/L	0.245	0	507	1248994	0
	Bi	209		ug/L			2742152	2757547	0
	Th	232	23.360	ug/L	0.200	0	5672	1125887	0
	U	238	23.281	ug/L	0.208	0	50	1205573	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:17:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1881597	2
[	Be	9	23.759	ug/L	0.842	3	22	117086	2
	C	13		ug/L			143235	155735	2
	Cl	37		ug/L			4954439	5050662	2
[>	Sc	45		ug/L			1218098	1308674	1
|	V	51	23.743	ug/L	0.329	1	9170	620839	0
|	V-1	51	24.033	ug/L	0.514	2	105	611901	0
|	Cr	52	24.159	ug/L	0.263	1	27160	555356	0
|	Cr	53	25.167	ug/L	0.879	3	170	59896	2
|	Mn	55	24.769	ug/L	0.554	2	674	733540	1
[	Co	59	24.081	ug/L	0.567	2	88	514952	0
[>	Ge	72		ug/L			652831	659033	1
|	Ni	60	26.573	ug/L	0.399	1	35	112166	0
|	Ni	62	26.052	ug/L	0.691	2	471	15871	1
|	Cu	63	26.573	ug/L	0.678	2	514	249829	1
|	Cu	65	26.464	ug/L	0.439	1	55	112307	1
|	Zn	66	78.117	ug/L	0.037	0	255	203555	1
|	Zn	67	74.082	ug/L	1.788	2	38	32109	2
|	Zn	68	77.169	ug/L	0 111	0	241	145271	1
|	As	75	23.656	ug/L	0.389	1	310	53694	0
|	As-1	75	23.993	ug/L	0.689	2	9967	64774	1
|	Se	82	74.428	ug/L	1.640	2	4	18374	1
|	Se	78	73.720	ug/L	1.442	1	10138	58252	0
[	Mo	98	0.007	ug/L	0.002	22	31	65	10
	Y	89		ug/L			399449	422648	2
	Kr	83		ug/L			635	686	6
[>	In	115		ug/L			965468	995384	1
|	Ag	107	26.603	ug/L	0.398	1	54	314711	1
|	Cd	111	24.219	ug/L	0.292	1	102	117083	1
|	Cd	114	23.708	ug/L	0.431	1	36	289778	0
|	Sb	121	-0.041	ug/L	0.004	9	768	202	28
|	Sb	123	-0.040	ug/L	0.003	7	575	161	20
|	Ba	135	24.749	ug/L	0.382	1	23	105943	0
[	Ba	137	24.398	ug/L	0.391	1	42	181037	0
[>	Tb	159		ug/L			1098939	1129052	1
|	Tl	205	24.086	ug/L	0.243	1	811	940610	0
|	Pb	208	24.861	ug/L	0.264	1	507	1230260	0
|	Bi	209		ug/L			2742152	2761858	0
|	Th	232	23.158	ug/L	0.263	1	5672	1127925	0
[	U	238	22.909	ug/L	0.431	1	50	1198638	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:21:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1766731	1867158	1
	Be	9	0.005	ug/L	0.001	18	22	48	8
	C	13		ug/L			143235	162577	2
	Cl	37		ug/L			4954439	5399762	1
>	Sc	45		ug/L			1218098	1337854	1
	V	51	1.401	ug/L	0.021	1	9170	46936	0
	V-1	51	1.486	ug/L	0.029	1	105	38779	1
	Cr	52	0.450	ug/L	0.007	1	27160	39850	1
	Cr	53	0.704	ug/L	0.021	2	170	1894	1
	Mn	55	164.424	ug/L	3.726	2	674	4973934	1
	Co	59	0.202	ug/L	0.003	1	88	4508	0
>	Ge	72		ug/L			652831	672065	2
	Ni	60	1.338	ug/L	0.039	2	35	5792	2
	Ni	62	1.246	ug/L	0.064	5	471	1235	1
	Cu	63	2.428	ug/L	0.059	2	514	23755	1
	Cu	65	2.220	ug/L	0.080	3	55	9657	1
	Zn	66	28.064	ug/L	0.423	1	255	74726	0
	Zn	67	24.955	ug/L	0.771	3	38	11052	1
	Zn	68	27.397	ug/L	0.465	1	241	52745	1
	As	75	0.553	ug/L	0.028	5	310	1590	2
	As-1	75	0.516	ug/L	0.090	17	9967	11457	0
	Se	82	-0.014	ug/L	0.082	566	4	0	2528
	Se	78	-0.067	ug/L	0.294	441	10138	10390	0
	Mo	98	1.056	ug/L	0.061	5	31	5519	3
	Y	89		ug/L			399449	423562	0
	Kr	83		ug/L			635	701	2
>	In	115		ug/L			965468	1021741	1
	Ag	107	0.005	ug/L	0.001	23	54	119	13
	Cd	111	0.103	ug/L	0.003	3	102	617	1
	Cd	114	0.100	ug/L	0.004	3	36	1295	3
	Sb	121	0.802	ug/L	0.009	1	768	12596	0
	Sb	123	0.800	ug/L	0.021	2	575	9501	1
	Ba	135	4.755	ug/L	0.035	0	23	20916	1
	Ba	137	4.756	ug/L	0 056	1	42	36265	1
>	Tb	159		ug/L			1098939	1166539	0
	Tl	205	-0.002	ug/L	0.005	251	811	782	25
	Pb	208	0.497	ug/L	0.008	1	507	25915	1
	Bi	209		ug/L			2742152	2738644	1
	Th	232	0.344	ug/L	0.001	0	5672	23228	0
	U	238	0.015	ug/L	0.000	1	50	886	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:25:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1766731	1879662	0
	Be	9	0.024	ug/L	0.002	9	22	144	7
	C	13		ug/L			143235	161289	1
	Cl	37		ug/L			4954439	5535051	1
>	Sc	45		ug/L			1218098	1343849	0
	V	51	1.419	ug/L	0.018	1	9170	47623	0
	V-1	51	1.496	ug/L	0.018	1	105	39241	0
	Cr	52	0.515	ug/L	0.042	8	27160	41476	2
	Cr	53	0.746	ug/L	0.044	5	170	2006	4
	Mn	55	163.307	ug/L	0.822	0	674	4963088	1
	Co	59	0.137	ug/L	0.001	1	88	3103	1
>	Ge	72		ug/L			652831	668790	0
	Ni	60	1.320	ug/L	0.019	1	35	5688	0
	Ni	62	1.214	ug/L	0.057	4	471	1211	3
	Cu	63	3.606	ug/L	0.132	3	514	34868	3
	Cu	65	3.436	ug/L	0.053	1	55	14846	1
	Zn	66	28.941	ug/L	0.701	2	255	76685	1
	Zn	67	26.089	ug/L	0.452	1	38	11502	2
	Zn	68	28.229	ug/L	0.714	2	241	54075	1
	As	75	0.553	ug/L	0.012	2	310	1583	2
	As-1	75	0.557	ug/L	0.061	10	9967	11500	0
	Se	82	0.006	ug/L	0.016	251	4	6	62
	Se	78	0.075	ug/L	0.241	322	10138	10434	0
	Mo	98	1.093	ug/L	0.019	1	31	5686	1
	Y	89		ug/L			399449	428783	2
	Kr	83		ug/L			635	678	2
>	In	115		ug/L			965468	1020105	0
	Ag	107	0.003	ug/L	0.000	9	54	96	4
	Cd	111	0.102	ug/L	0.006	5	102	615	4
	Cd	114	0.103	ug/L	0.005	4	36	1325	4
	Sb	121	0.816	ug/L	0.005	0	768	12783	0
	Sb	123	0.815	ug/L	0.013	1	575	9660	1
	Ba	135	4.881	ug/L	0.026	0	23	21434	0
	Ba	137	4.862	ug/L	0.021	0	42	37016	0
>	Tb	159		ug/L			1098939	1169814	1
	Tl	205	-0.010	ug/L	0.001	10	811	459	9
	Pb	208	0.501	ug/L	0.004	0	507	26235	0
	Bi	209		ug/L			2742152	2779039	0
	Th	232	0.005	ug/L	0.007	145	5672	6288	6
	U	238	0.011	ug/L	0.000	1	50	653	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:29:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1894386	2
	Be	9	23.602	ug/L	0.767	3	22	117109	2
	C	13		ug/L			143235	159264	1
	Cl	37		ug/L			4954439	5541440	1
>	Sc	45		ug/L			1218098	1366599	1
	V	51	24.582	ug/L	0.633	2	9170	670837	1
	V-1	51	25.022	ug/L	0.633	2	105	665307	1
	Cr	52	23.752	ug/L	0.449	1	27160	570710	1
	Cr	53	25.232	ug/L	0.430	1	170	62721	0
	Mn	55	184.293	ug/L	4.290	2	674	5694595	1
	Co	59	23.588	ug/L	0.453	1	88	526796	1
>	Ge	72		ug/L			652831	668853	1
	Ni	60	27.849	ug/L	0.250	0	35	119325	2
	Ni	62	27.027	ug/L	1.255	4	471	16688	2
	Cu	63	27.695	ug/L	0.813	2	514	264298	3
	Cu	65	27.769	ug/L	0.941	3	55	119577	2
	Zn	66	103.574	ug/L	0.424	0	255	273816	1
	Zn	67	97.333	ug/L	2.761	2	38	42794	1
	Zn	68	101.963	ug/L	1.612	1	241	194703	1
	As	75	25.039	ug/L	0.413	1	310	57662	0
	As-1	75	24.816	ug/L	0.588	2	9967	67643	1
	Se	82	75.464	ug/L	2.111	2	4	18907	2
	Se	78	72.795	ug/L	1 563	2	10138	58507	0
	Mo	98	1.100	ug/L	0.026	2	31	5726	0
	Y	89		ug/L			399449	431774	1
	Kr	83		ug/L			635	683	4
>	In	115		ug/L			965468	1015727	1
	Ag	107	25.982	ug/L	0.256	0	54	313672	2
	Cd	111	24.201	ug/L	0.316	1	102	119380	0
	Cd	114	23.695	ug/L	0.359	1	36	295542	0
	Sb	121	0.807	ug/L	0.013	1	768	12597	1
	Sb	123	0.821	ug/L	0.012	1	575	9675	1
	Ba	135	29.679	ug/L	0.202	0	23	129649	0
	Ba	137	29.586	ug/L	0.031	0	42	224035	1
>	Tb	159		ug/L			1098939	1159668	1
	Tl	205	23.850	ug/L	0.052	0	811	956738	0
	Pb	208	24.880	ug/L	0.315	1	507	1264602	0
	Bi	209		ug/L			2742152	2735539	0
	Th	232	22.701	ug/L	0.271	1	5672	1135739	0
	U	238	23.087	ug/L	0.299	1	50	1240770	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 EDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:33:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1942620	0
	Be	9	0.001	ug/L	0.001	89	22	32	20
	C	13		ug/L			143235	166319	2
	Cl	37		ug/L			4954439	5621483	3
>	Sc	45		ug/L			1218098	1337900	1
	V	51	0.317	ug/L	0.026	8	9170	18415	3
	V-1	51	0.398	ug/L	0.015	3	105	10483	2
	Cr	52	0.176	ug/L	0.049	27	27160	33745	2
	Cr	53	0.449	ug/L	0.027	5	170	1276	4
	Mn	55	142.248	ug/L	0.833	0	674	4303876	1
	Co	59	0.092	ug/L	0.003	3	88	2118	3
>	Ge	72		ug/L			652831	671231	0
	Ni	60	1.131	ug/L	0.010	0	35	4896	1
	Ni	62	0.949	ug/L	0.083	8	471	1055	4
	Cu	63	1.509	ug/L	0.030	2	514	14951	1
	Cu	65	1.288	ug/L	0.022	1	55	5622	1
	Zn	66	16.458	ug/L	0.407	2	255	43880	1
	Zn	67	14.778	ug/L	0 149	1	38	6556	1
	Zn	68	15.975	ug/L	0.265	1	241	30823	1
	As	75	0.250	ug/L	0.010	4	310	894	1
	As-1	75	0.173	ug/L	0.058	33	9967	10650	0
	Se	82	0.007	ug/L	0.023	344	4	6	90
	Se	78	-0.229	ug/L	0 189	82	10138	10271	0
	Mo	98	0.980	ug/L	0.037	3	31	5121	3
	Y	89		ug/L			399449	432789	0
	Kr	83		ug/L			635	674	4
>	In	115		ug/L			965468	1023098	0
	Ag	107	0.003	ug/L	0.000	5	54	92	1
	Cd	111	0.034	ug/L	0.002	4	102	278	3
	Cd	114	0.038	ug/L	0.003	7	36	512	6
	Sb	121	0.676	ug/L	0.005	0	768	10756	0
	Sb	123	0.674	ug/L	0 007	1	575	8111	0
	Ba	135	1.848	ug/L	0.008	0	23	8153	0
	Ba	137	1.830	ug/L	0.011	0	42	13996	0
>	Tb	159		ug/L			1098939	1172128	0
	Tl	205	-0.009	ug/L	0.001	11	811	481	9
	Pb	208	0.092	ug/L	0.003	2	507	5257	2
	Bi	209		ug/L			2742152	2777370	0
	Th	232	0.088	ug/L	0.005	5	5672	10495	2
	U	238	0.009	ug/L	0.001	7	50	540	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:39:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1892710	1
	Be	9	0.017	ug/L	0.001	8	22	107	6
	C	13		ug/L			143235	166473	1
	Cl	37		ug/L			4954439	5374191	3
>	Sc	45		ug/L			1218098	1322336	1
	V	51	0.362	ug/L	0.008	2	9170	19364	0
	V-1	51	0.435	ug/L	0.011	2	105	11295	2
	Cr	52	0.277	ug/L	0.009	3	27160	35575	0
	Cr	53	0.523	ug/L	0.016	3	170	1439	3
	Mn	55	146.264	ug/L	3.292	2	674	4373382	1
	Co	59	0.100	ug/L	0.002	1	88	2255	1
>	Ge	72		ug/L			652831	666422	1
	Ni	60	1.194	ug/L	0.019	1	35	5132	0
	Ni	62	0.931	ug/L	0.098	10	471	1036	4
	Cu	63	2.413	ug/L	0.105	4	514	23418	3
	Cu	65	2.123	ug/L	0.024	1	55	9165	2
	Zn	66	17.251	ug/L	0.093	0	255	45659	1
	Zn	67	15.218	ug/L	0.177	1	38	6702	2
	Zn	68	16.730	ug/L	0.194	1	241	32040	2
	As	75	0.273	ug/L	0.025	9	310	939	6
	As-1	75	0.248	ug/L	0.074	29	9967	10744	0
	Se	82	0.035	ug/L	0.016	45	4	13	30
	Se	78	-0.006	ug/L	0.252	4019	10138	10344	0
	Mo	98	1.041	ug/L	0.015	1	31	5398	0
	Y	89		ug/L			399449	418555	1
	Kr	83		ug/L			635	681	4
>	In	115		ug/L			965468	1009137	1
	Ag	107	0.000	ug/L	0.001	296	54	60	20
	Cd	111	0.034	ug/L	0.003	8	102	276	4
	Cd	114	0.038	ug/L	0.002	5	36	508	5
	Sb	121	0.700	ug/L	0.006	0	768	10963	0
	Sb	123	0.687	ug/L	0.017	2	575	8140	0
	Ba	135	1.952	ug/L	0.034	1	23	8491	0
	Ba	137	1.946	ug/L	0.041	2	42	14677	0
>	Tb	159		ug/L			1098939	1145763	1
	Tl	205	-0.010	ug/L	0 001	9	811	436	7
	Pb	208	0.097	ug/L	0.001	1	507	5397	1
	Bi	209		ug/L			2742152	2731647	1
	Th	232	-0.048	ug/L	0.006	12	5672	3555	7
	U	238	0.006	ug/L	0.000	6	50	372	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 ESPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:43:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1766731	1934829	2
	Be	9	23.621	ug/L	0.975	4	22	119676	1
	C	13		ug/L			143235	163399	1
	Cl	37		ug/L			4954439	5549236	0
>	Sc	45		ug/L			1218098	1339465	2
	V	51	24.048	ug/L	0.804	3	9170	643186	0
	V-1	51	24.275	ug/L	0.608	2	105	632466	0
	Cr	52	24.718	ug/L	1.049	4	27160	580559	1
	Cr	53	25.522	ug/L	0.573	2	170	62174	2
	Mn	55	170.746	ug/L	6.733	3	674	5168644	1
	Co	59	24.029	ug/L	0.517	2	88	525860	0
>	Ge	72		ug/L			652831	667084	1
	Ni	60	26.915	ug/L	0.155	0	35	115017	1
	Ni	62	26.565	ug/L	0.594	2	471	16372	0
	Cu	63	28.601	ug/L	0.634	2	514	272162	1
	Cu	65	29.190	ug/L	0.381	1	55	125390	1
	Zn	66	94.168	ug/L	1.332	1	255	248300	0
	Zn	67	87.160	ug/L	0.293	0	38	38233	1
	Zn	68	91.220	ug/L	2.955	3	241	173727	1
	As	75	24.401	ug/L	0.148	0	310	56057	0
	As-1	75	24.007	ug/L	0.525	2	9967	65597	0
	Se	82	74.809	ug/L	0.712	0	4	18696	1
	Se	78	71.520	ug/L	1.277	1	10138	57515	0
	Mo	98	1.057	ug/L	0.041	3	31	5485	2
	Y	89		ug/L			399449	422191	2
	Kr	83		ug/L			635	661	3
>	In	115		ug/L			965468	1013806	0
	Ag	107	25.912	ug/L	0.596	2	54	312219	2
	Cd	111	24.286	ug/L	0.257	1	102	119580	0
	Cd	114	23.682	ug/L	0.216	0	36	294853	0
	Sb	121	0.691	ug/L	0.008	1	768	10883	0
	Sb	123	0.716	ug/L	0.016	2	575	8506	1
	Ba	135	27.255	ug/L	0.239	0	23	118843	0
	Ba	137	26.899	ug/L	0.185	0	42	203307	0
>	Tb	159		ug/L			1098939	1168794	0
	Tl	205	23.959	ug/L	0.086	0	811	968662	0
	Pb	208	24.487	ug/L	0.190	0	507	1254458	0
	Bi	209		ug/L			2742152	2743464	0
	Th	232	23.004	ug/L	0.155	0	5672	1159940	0
	U	238	22.967	ug/L	0.109	0	50	1244126	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:47:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1766731	1823544	3
	Be	9	51.356	ug/L	0.965	1	22	245270	1
	C	13		ug/L			143235	146739	2
	Cl	37		ug/L			4954439	5428232	1
>	Sc	45		ug/L			1218098	1262192	2
	V	51	47.485	ug/L	1.360	2	9170	1187717	0
	V-1	51	48.194	ug/L	1 399	2	105	1183176	1
	Cr	52	47.513	ug/L	1.116	2	27160	1026027	1
	Cr	53	49.949	ug/L	1.044	2	170	114488	0
	Mn	55	48.459	ug/L	1.201	2	674	1383239	0
	Co	59	47.511	ug/L	1.149	2	88	979718	0
>	Ge	72		ug/L			652831	644959	1
	Ni	60	50.256	ug/L	1.134	2	35	207562	1
	Ni	62	49.854	ug/L	0.627	1	471	29301	0
	Cu	63	50.157	ug/L	1.168	2	514	461101	1
	Cu	65	50.126	ug/L	0.378	0	55	208148	0
	Zn	66	50.829	ug/L	0.775	1	255	129708	1
	Zn	67	51.364	ug/L	1.779	3	38	21794	2
	Zn	68	50.358	ug/L	0.823	1	241	92846	0
	As	75	50.022	ug/L	0.759	1	310	110777	0
	As-1	75	49.849	ug/L	0.793	1	9967	121099	0
	Se	82	51.020	ug/L	1.018	1	4	12328	0
	Se	78	50.384	ug/L	1.025	2	10138	42134	0
	Mo	98	49.214	ug/L	0.503	1	31	245654	2
	Y	89		ug/L			399449	401967	0
	Kr	83		ug/L			635	680	3
>	In	115		ug/L			965468	978928	0
	Ag	107	51.728	ug/L	1.021	1	54	601755	1
	Cd	111	50.631	ug/L	0.877	1	102	240604	1
	Cd	114	49.898	ug/L	0.187	0	36	599854	0
	Sb	121	49.661	ug/L	0.086	0	768	699618	0
	Sb	123	50.085	ug/L	0.491	0	575	534103	0
	Ba	135	49.201	ug/L	0.672	1	23	207126	0
	Ba	137	48.996	ug/L	0.479	0	42	357535	0
>	Tb	159		ug/L			1098939	1134044	1
	Tl	205	46.843	ug/L	0.436	0	811	1836714	1
	Pb	208	48.086	ug/L	0.337	0	507	2389656	0
	Bi	209		ug/L			2742152	2719010	0
	Th	232	50.356	ug/L	0.626	1	5672	2456547	0
	U	238	50.987	ug/L	0.368	0	50	2679712	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:54:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1766731	1824789	0
	Be	9	0.000	ug/L	0.002	773	22	25	48
	C	13		ug/L			143235	147268	2
	Cl	37		ug/L			4954439	5036578	1
>	Sc	45		ug/L			1218098	1245210	2
	V	51	-0.005	ug/L	0.024	473	9170	9244	4
	V-1	51	0.006	ug/L	0.002	35	105	248	18
	Cr	52	-0.034	ug/L	0.075	219	27160	27037	3
	Cr	53	0.002	ug/L	0.006	326	170	178	7
	Mn	55	0.003	ug/L	0.007	199	674	782	22
	Co	59	0.001	ug/L	0.001	121	88	109	20
>	Ge	72		ug/L			652831	643288	2
	Ni	60	-0.001	ug/L	0.000	65	35	32	7
	Ni	62	-0.144	ug/L	0.016	11	471	381	5
	Cu	63	-0.004	ug/L	0.003	69	514	471	5
	Cu	65	0.005	ug/L	0.001	22	55	77	6
	Zn	66	-0.002	ug/L	0.005	233	255	246	2
	Zn	67	0.004	ug/L	0.008	222	38	39	10
	Zn	68	0.011	ug/L	0.010	95	241	258	9
	As	75	0.011	ug/L	0.028	244	310	331	20
	As-1	75	0.048	ug/L	0.085	176	9967	9925	0
	Se	82	-0.024	ug/L	0.082	341	4	-1	1806
	Se	78	0.154	ug/L	0.350	227	10138	10083	0
	Mo	98	0.022	ug/L	0.010	47	31	140	36
	Y	89		ug/L			399449	388665	2
	Kr	83		ug/L			635	664	3
>	In	115		ug/L			965468	961937	0
	Ag	107	0.008	ug/L	0.009	120	54	144	76
	Cd	111	0.002	ug/L	0.007	450	102	110	32
	Cd	114	0.004	ug/L	0.006	147	36	87	86
	Sb	121	0.091	ug/L	0.035	38	768	2031	24
	Sb	123	0.097	ug/L	0.036	36	575	1593	23
	Ba	135	0.003	ug/L	0.004	102	23	37	40
	Ba	137	0.003	ug/L	0.003	132	42	60	41
>	Tb	159		ug/L			1098939	1094851	0
	Tl	205	-0.010	ug/L	0.006	59	811	424	53
	Pb	208	0.003	ug/L	0.003	96	507	643	20
	Bi	209		ug/L			2742152	2741572	0
	Th	232	0.339	ug/L	0.150	44	5672	21551	32
	U	238	0.007	ug/L	0.003	51	50	384	43

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:06:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
Li	6		ug/L			1766731	1872020	2
Be	9	0.009	ug/L	0.001	10	22	66	4
C	13		ug/L			143235	158425	1
Cl	37		ug/L			4954439	5157984	1
Sc	45		ug/L			1218098	1294238	3
V	51	0.013	ug/L	0.015	117	9170	10064	1
V-1	51	0.016	ug/L	0.001	6	105	525	1
Cr	52	0.029	ug/L	0.061	208	27160	29468	2
Cr	53	0.042	ug/L	0.015	35	170	279	9
Mn	55	0.573	ug/L	0.032	5	674	17462	2
Co	59	0.011	ug/L	0.000	2	88	335	1
Ge	72		ug/L			652831	653309	1
Ni	60	0.042	ug/L	0.002	3	35	212	1
Ni	62	-0.108	ug/L	0.070	64	471	408	9
Cu	63	0.108	ug/L	0.008	6	514	1518	3
Cu	65	0.127	ug/L	0.006	5	55	588	4
Zn	66	0.878	ug/L	0.033	3	255	2519	2
Zn	67	0.796	ug/L	0.027	3	38	380	4
Zn	68	0.906	ug/L	0.017	1	241	1928	1
As	75	0.008	ug/L	0.012	147	310	328	6
As-1	75	0.086	ug/L	0.074	85	9967	10169	0
Se	82	-0.026	ug/L	0.060	227	4	-2	712
Se	78	0.300	ug/L	0.268	89	10138	10338	0
Mo	98	0.006	ug/L	0.001	18	31	61	9
Y	89		ug/L			399449	409916	1
Kr	83		ug/L			635	678	1
In	115		ug/L			965468	982896	0
Ag	107	0.013	ug/L	0.001	8	54	205	6
Cd	111	0.007	ug/L	0.003	40	102	139	9
Cd	114	0.009	ug/L	0.001	9	36	146	7
Sb	121	-0.017	ug/L	0.005	28	768	543	13
Sb	123	-0.017	ug/L	0.007	41	575	408	18
Ba	135	0.047	ug/L	0.002	4	23	222	4
Ba	137	0.053	ug/L	0.002	4	42	428	3
Tb	159		ug/L			1098939	1125223	1
Tl	205	0.003	ug/L	0.003	89	811	696	18
Pb	208	0.017	ug/L	0.001	2	507	1357	2
Bi	209		ug/L			2742152	2763871	0
Th	232	0.087	ug/L	0.027	31	5672	10027	14
U	238	0.010	ug/L	0.000	3	50	565	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:10:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1877146	2
	Be	9	0.055	ug/L	0.002	4	22	293	4
	C	13		ug/L			143235	170704	1
	Cl	37		ug/L			4954439	5438814	1
>	Sc	45		ug/L			1218098	1370876	1
	V	51	16.836	ug/L	0.284	1	9170	464143	0
	V-1	51	17.087	ug/L	0.262	1	105	455794	0
	Cr	52	4.049	ug/L	0.074	1	27160	122964	2
	Cr	53	4.438	ug/L	0.087	1	170	11225	2
	Mn	55	486.956	ug/L	6.154	1	674	15093849	1
	Co	59	0.640	ug/L	0 007	1	88	14442	2
>	Ge	72		ug/L			652831	662887	0
	Ni	60	2.029	ug/L	0.037	1	35	8646	1
	Ni	62	1.730	ug/L	0.083	4	471	1506	3
	Cu	63	10.751	ug/L	0.164	1	514	102001	1
	Cu	65	10.671	ug/L	0.109	1	55	45590	1
	Zn	66	86.646	ug/L	1.489	1	255	227067	1
	Zn	67	80.962	ug/L	0.823	1	38	35292	0
	Zn	68	84.357	ug/L	1.434	1	241	159698	1
	As	75	3.745	ug/L	0.075	1	310	8815	1
	As-1	75	3.553	ug/L	0.102	2	9967	18271	0
	Se	82	0.143	ug/L	0.069	48	4	40	42
	Se	78	-0.358	ug/L	0.218	60	10138	10059	1
	Mo	98	2.597	ug/L	0.009	0	31	13353	1
	Y	89		ug/L			399449	465618	1
	Kr	83		ug/L			635	675	2
>	In	115		ug/L			965468	991430	0
	Ag	107	0.021	ug/L	0.000	1	54	306	1
	Cd	111	0.572	ug/L	0.011	1	102	2858	1
	Cd	114	0.541	ug/L	0.011	2	36	6630	2
	Sb	121	1.735	ug/L	0.010	0	768	25510	0
	Sb	123	1.733	ug/L	0.013	0	575	19288	0
	Ba	135	37.814	ug/L	0.453	1	23	161229	1
	Ba	137	37.850	ug/L	0.355	0	42	279737	0
>	Tb	159		ug/L			1098939	1171277	0
	Tl	205	0.002	ug/L	0 002	74	811	960	6
	Pb	208	5.316	ug/L	0.052	0	507	273342	0
	Bi	209		ug/L			2742152	2691364	0
	Th	232	0.112	ug/L	0.021	18	5672	11671	8
	U	238	0.051	ug/L	0.001	1	50	2802	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:14:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1766731	1892415	1
	Be	9	0.015	ug/L	0.003	17	22	98	14
	C	13		ug/L			143235	159063	0
	Cl	37		ug/L			4954439	5074194	3
>	Sc	45		ug/L			1218098	1337388	0
	V	51	0.540	ug/L	0.008	1	9170	24268	0
	V-1	51	0.583	ug/L	0.003	0	105	15276	0
	Cr	52	0.521	ug/L	0.044	8	27160	41405	2
	Cr	53	0.666	ug/L	0.018	2	170	1803	2
	Mn	55	62.099	ug/L	0.831	1	674	1878554	1
	Co	59	0.137	ug/L	0.004	2	88	3093	2
>	Ge	72		ug/L			652831	675793	1
	Ni	60	0.614	ug/L	0.001	0	35	2691	1
	Ni	62	0.133	ug/L	0.028	21	471	568	4
	Cu	63	3.874	ug/L	0.069	1	514	37806	0
	Cu	65	3.790	ug/L	0.082	2	55	16541	0
	Zn	66	174.706	ug/L	0.252	0	255	466498	1
	Zn	67	154.103	ug/L	4.632	3	38	68438	2
	Zn	68	164.790	ug/L	3.513	2	241	317882	3
	As	75	0.626	ug/L	0.012	1	310	1769	1
	As-1	75	0.584	ug/L	0.041	7	9967	11682	0
	Se	82	0.005	ug/L	0.065	1353	4	5	278
	Se	78	-0.117	ug/L	0 135	115	10138	10416	0
	Mo	98	0.492	ug/L	0.015	2	31	2603	2
	Y	89		ug/L			399449	426330	0
	Kr	83		ug/L			635	660	4
>	In	115		ug/L			965468	1026981	0
	Ag	107	0.001	ug/L	0.001	65	54	70	12
	Cd	111	0.514	ug/L	0.011	2	102	2671	1
	Cd	114	0.512	ug/L	0.005	1	36	6491	0
	Sb	121	0.968	ug/L	0.011	1	768	15108	0
	Sb	123	0.975	ug/L	0.013	1	575	11505	1
	Ba	135	7.824	ug/L	0.043	0	23	34577	0
	Ba	137	7.790	ug/L	0.097	1	42	59675	1
>	Tb	159		ug/L			1098939	1166375	0
	Tl	205	-0.012	ug/L	0.001	4	811	395	4
	Pb	208	0.390	ug/L	0.001	0	507	20479	0
	Bi	209		ug/L			2742152	2783546	0
	Th	232	-0.076	ug/L	0.005	7	5672	2197	12
	U	238	0.011	ug/L	0.000	0	50	630	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:18:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1894134	1
	Be	9	0.021	ug/L	0.003	15	22	126	12
	C	13		ug/L			143235	160086	2
	Cl	37		ug/L			4954439	6092318	4
>	Sc	45		ug/L			1218098	1313972	3
	V	51	1.031	ug/L	0.044	4	9170	36504	2
	V-1	51	1.299	ug/L	0.040	3	105	33312	2
	Cr	52	0.416	ug/L	0.031	7	27160	38393	2
	Cr	53	1.315	ug/L	0.025	1	170	3317	3
	Mn	55	421.300	ug/L	11.615	2	674	12510720	0
	Co	59	0.174	ug/L	0.010	5	88	3818	3
>	Ge	72		ug/L			652831	642444	1
	Ni	60	0.665	ug/L	0.028	4	35	2768	2
	Ni	62	0.203	ug/L	0.015	7	471	580	2
	Cu	63	3.028	ug/L	0.136	4	514	28192	3
	Cu	65	2.204	ug/L	0.053	2	55	9170	2
	Zn	66	35.641	ug/L	0.645	1	255	90664	1
	Zn	67	32.548	ug/L	1.085	3	38	13770	2
	Zn	68	34.766	ug/L	0.458	1	241	63923	0
	As	75	0.505	ug/L	0.015	2	310	1415	1
	As-1	75	0.584	ug/L	0.072	12	9967	11105	0
	Se	82	0.033	ug/L	0.045	139	4	12	90
	Se	78	0.418	ug/L	0.198	47	10138	10241	0
	Mo	98	0.455	ug/L	0.004	0	31	2293	1
	Y	89		ug/L			399449	409540	2
	Kr	83		ug/L			635	698	3
>	In	115		ug/L			965468	967432	1
	Ag	107	-0.001	ug/L	0.001	76	54	45	16
	Cd	111	0.144	ug/L	0.005	3	102	777	2
	Cd	114	0.144	ug/L	0.002	1	36	1744	2
	Sb	121	0.889	ug/L	0.010	1	768	13138	0
	Sb	123	0.901	ug/L	0.017	1	575	10062	1
	Ba	135	6.699	ug/L	0 141	2	23	27890	2
	Ba	137	6.654	ug/L	0.050	0	42	48024	1
>	Tb	159		ug/L			1098939	1126114	0
	Tl	205	-0.007	ug/L	0.001	16	811	549	7
	Pb	208	0.146	ug/L	0.002	1	507	7739	1
	Bi	209		ug/L			2742152	2557490	0
	Th	232	-0.081	ug/L	0.005	6	5672	1879	12
	U	238	0.012	ug/L	0.001	6	50	656	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:22:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1766731	1891273	0
	Be	9	0.001	ug/L	0.001	73	22	29	12
	C	13		ug/L			143235	173063	1
	Cl	37		ug/L			4954439	5326295	0
>	Sc	45		ug/L			1218098	1313969	1
	V	51	0.545	ug/L	0.014	2	9170	23969	1
	V-1	51	0.646	ug/L	0.009	1	105	16626	0
	Cr	52	0.304	ug/L	0.049	16	27160	35948	2
	Cr	53	0.643	ug/L	0.037	5	170	1713	3
	Mn	55	113.744	ug/L	3.235	2	674	3378947	1
	Co	59	0.065	ug/L	0.001	2	88	1485	2
>	Ge	72		ug/L			652831	653615	1
	Ni	60	0.459	ug/L	0.011	2	35	1955	1
	Ni	62	0.017	ug/L	0.008	50	471	481	0
	Cu	63	1.781	ug/L	0.033	1	514	17089	0
	Cu	65	1.616	ug/L	0.016	0	55	6852	0
	Zn	66	4.720	ug/L	0.091	1	255	12434	0
	Zn	67	4.495	ug/L	0.045	1	38	1968	2
	Zn	68	4.976	ug/L	0 137	2	241	9514	1
	As	75	0.324	ug/L	0 018	5	310	1036	2
	As-1	75	0.305	ug/L	0.051	16	9967	10669	0
	Se	82	0.056	ug/L	0.064	115	4	18	85
	Se	78	0.072	ug/L	0.153	212	10138	10196	0
	Mo	98	2.583	ug/L	0.009	0	31	13093	1
	Y	89		ug/L			399449	412695	0
	Kr	83		ug/L			635	696	3
>	In	115		ug/L			965468	1002612	0
	Ag	107	-0.002	ug/L	0.000	14	54	34	8
	Cd	111	0.016	ug/L	0.002	12	102	185	5
	Cd	114	0.018	ug/L	0.000	1	36	260	1
	Sb	121	0.741	ug/L	0.010	1	768	11477	1
	Sb	123	0.738	ug/L	0.016	2	575	8653	1
	Ba	135	1.541	ug/L	0.028	1	23	6668	1
	Ba	137	1.523	ug/L	0.015	0	42	11425	0
>	Tb	159		ug/L			1098939	1146634	0
	Tl	205	-0.011	ug/L	0.001	10	811	408	10
	Pb	208	0.111	ug/L	0.000	0	507	6096	0
	Bi	209		ug/L			2742152	2699232	0
	Th	232	-0.094	ug/L	0 004	3	5672	1279	13
	U	238	0.005	ug/L	0.000	4	50	292	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:26:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1957359	1
	Be	9	0.000	ug/L	0.001	222	22	26	10
	C	13		ug/L			143235	164552	2
	Cl	37		ug/L			4954439	5222649	0
>	Sc	45		ug/L			1218098	1308102	1
	V	51	0.336	ug/L	0.011	3	9170	18491	0
	V-1	51	0.383	ug/L	0.007	1	105	9865	0
	Cr	52	0.310	ug/L	0.015	4	27160	35915	0
	Cr	53	0.471	ug/L	0.009	1	170	1300	2
	Mn	55	56.727	ug/L	0.706	1	674	1678372	0
	Co	59	0.109	ug/L	0.002	1	88	2429	2
>	Ge	72		ug/L			652831	657067	0
	Ni	60	0.563	ug/L	0.014	2	35	2403	2
	Ni	62	0.180	ug/L	0.016	8	471	580	1
	Cu	63	2.225	ug/L	0.010	0	514	21332	0
	Cu	65	2.268	ug/L	0.055	2	55	9648	2
	Zn	66	167.089	ug/L	1.680	1	255	433805	1
	Zn	67	151.388	ug/L	3.655	2	38	65377	1
	Zn	68	161.469	ug/L	1.588	0	241	302786	0
	As	75	0.497	ug/L	0.017	3	310	1430	2
	As-1	75	0.470	ug/L	0.072	15	9967	11099	0
	Se	82	-0.022	ug/L	0.035	160	4	0	1025
	Se	78	-0.032	ug/L	0.259	813	10138	10183	1
	Mo	98	0.449	ug/L	0.024	5	31	2314	4
	Y	89		ug/L			399449	415090	1
	Kr	83		ug/L			635	694	2
>	In	115		ug/L			965468	1006953	0
	Ag	107	-0.000	ug/L	0.000	468	54	55	8
	Cd	111	0.469	ug/L	0.009	1	102	2398	1
	Cd	114	0.469	ug/L	0.008	1	36	5835	1
	Sb	121	0.939	ug/L	0.008	0	768	14388	0
	Sb	123	0.945	ug/L	0.019	1	575	10959	1
	Ba	135	7.480	ug/L	0.007	0	23	32410	0
	Ba	137	7.403	ug/L	0.046	0	42	55609	0
>	Tb	159		ug/L			1098939	1161020	0
	Tl	205	-0.013	ug/L	0.001	7	811	355	11
	Pb	208	0.161	ug/L	0.003	1	507	8704	0
	Bi	209		ug/L			2742152	2777829	0
	Th	232	-0.099	ug/L	0.003	2	5672	1062	13
	U	238	0.007	ug/L	0.000	5	50	455	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 H REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:32:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens	Intens. RSD
>	Li	6		ug/L			1766731	1916289	1
	Be	9	0.018	ug/L	0.002	11	22	115	9
	C	13		ug/L			143235	167840	2
	Cl	37		ug/L			4954439	6347190	5
>	Sc	45		ug/L			1218098	1344631	0
	V	51	0.353	ug/L	0.026	7	9170	19450	2
	V-1	51	0.703	ug/L	0.015	2	105	18516	2
	Cr	52	0.232	ug/L	0.035	15	27160	35180	1
	Cr	53	1.430	ug/L	0.070	4	170	3676	5
	Mn	55	401.847	ug/L	5.011	1	674	12219094	2
	Co	59	0.156	ug/L	0.002	1	88	3519	2
>	Ge	72		ug/L			652831	649703	0
	Ni	60	0.689	ug/L	0.011	1	35	2901	0
	Ni	62	0.196	ug/L	0.058	29	471	582	5
	Cu	63	2.392	ug/L	0.045	1	514	22644	1
	Cu	65	1.637	ug/L	0.041	2	55	6902	3
	Zn	66	31.601	ug/L	0 197	0	255	81327	0
	Zn	67	28.990	ug/L	0.331	1	38	12410	1
	Zn	68	30.839	ug/L	0.397	1	241	57374	1
	As	75	0.377	ug/L	0.016	4	310	1146	2
	As-1	75	0.287	ug/L	0.039	13	9967	10565	0
	Se	82	0.085	ug/L	0.032	37	4	25	31
	Se	78	-0.135	ug/L	0.130	96	10138	10003	0
	Mo	98	0.433	ug/L	0.008	1	31	2208	1
	Y	89		ug/L			399449	404860	4
	Kr	83		ug/L			635	698	1
>	In	115		ug/L			965468	980566	1
	Ag	107	-0.002	ug/L	0.000	7	54	26	7
	Cd	111	0.114	ug/L	0.005	4	102	648	4
	Cd	114	0.111	ug/L	0.003	2	36	1373	1
	Sb	121	0.850	ug/L	0.028	3	768	12762	1
	Sb	123	0.863	ug/L	0.019	2	575	9795	2
	Ba	135	5.407	ug/L	0.023	0	23	22822	1
	Ba	137	5.356	ug/L	0.049	0	42	39190	1
>	Tb	159		ug/L			1098939	1151222	0
	Tl	205	-0.008	ug/L	0.001	15	811	545	9
	Pb	208	0.103	ug/L	0.002	1	507	5711	1
	Bi	209		ug/L			2742152	2606430	0
	Th	232	-0.096	ug/L	0.002	1	5672	1178	7
	U	238	0.011	ug/L	0.001	5	50	642	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT58 D SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:36:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1766731	1889185	1
	Be	9	0.010	ug/L	0.002	23	22	71	15
	C	13		ug/L			143235	152287	2
	Cl	37		ug/L			4954439	5361830	1
>	Sc	45		ug/L			1218098	1293315	1
	V	51	9.118	ug/L	0.131	1	9170	241610	0
	V-1	51	9.246	ug/L	0.109	1	105	232721	0
	Cr	52	0.873	ug/L	0.106	12	27160	47604	3
	Cr	53	1.005	ug/L	0.032	3	170	2536	1
	Mn	55	21.913	ug/L	0.289	1	674	641455	1
	Co	59	0.434	ug/L	0.022	4	88	9259	3
>	Ge	72		ug/L			652831	666915	1
	Ni	60	0.162	ug/L	0.008	4	35	730	5
	Ni	62	0.118	ug/L	0.041	34	471	552	5
	Cu	63	149.585	ug/L	5.546	3	514	1420420	1
	Cu	65	154.255	ug/L	4.289	2	55	662079	1
	Zn	66	56.780	ug/L	0 799	1	255	149768	0
	Zn	67	53.965	ug/L	0.114	0	38	23680	1
	Zn	68	55.324	ug/L	2.209	3	241	105410	2
	As	75	0.885	ug/L	0.015	1	310	2338	0
	As-1	75	0.769	ug/L	0.152	19	9967	11954	1
	Se	82	2.131	ug/L	0.032	1	4	536	0
	Se	78	1.707	ug/L	0.519	30	10138	11478	1
	Mo	98	4.707	ug/L	0.116	2	31	24314	0
	Y	89		ug/L			399449	422725	1
	Kr	83		ug/L			635	673	3
>	In	115		ug/L			965468	1075958	0
	Ag	107	0.586	ug/L	0 021	3	54	7550	3
	Cd	111	0.119	ug/L	0.006	4	102	735	4
	Cd	114	0.117	ug/L	0.001	0	36	1584	0
	Sb	121	-0.045	ug/L	0.002	4	768	161	18
	Sb	123	-0.044	ug/L	0.001	2	575	127	11
	Ba	135	26.398	ug/L	0.151	0	23	122163	0
	Ba	137	26.299	ug/L	0.406	1	42	210961	1
>	Tb	159		ug/L			1098939	1151681	0
	Tl	205	0.208	ug/L	0.004	1	811	9109	1
	Pb	208	18.737	ug/L	0.139	0	507	945984	0
	Bi	209		ug/L			2742152	2879146	0
	Th	232	-0.067	ug/L	0.003	5	5672	2645	5
	U	238	0.042	ug/L	0.001	3	50	2317	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT58 E SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:40:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1766731	1885103	2
	Be	9	0.008	ug/L	0.002	28	22	65	15
	C	13		ug/L			143235	155772	2
	Cl	37		ug/L			4954439	5306870	1
>	Sc	45		ug/L			1218098	1294195	2
	V	51	9.187	ug/L	0.283	3	9170	243436	0
	V-1	51	9.317	ug/L	0.288	3	105	234568	0
	Cr	52	1.013	ug/L	0.079	7	27160	50669	3
	Cr	53	1.154	ug/L	0.030	2	170	2889	0
	Mn	55	22.141	ug/L	1.041	4	674	648124	2
	Co	59	0.126	ug/L	0.002	1	88	2759	3
>	Ge	72		ug/L			652831	655241	2
	Ni	60	0.144	ug/L	0.010	6	35	638	7
	Ni	62	0.133	ug/L	0.038	28	471	550	1
	Cu	63	109.153	ug/L	1.777	1	514	1018748	0
	Cu	65	111.688	ug/L	4.072	3	55	470891	1
	Zn	66	24.900	ug/L	0.828	3	255	64655	1
	Zn	67	26.274	ug/L	0.631	2	38	11344	1
	Zn	68	26.126	ug/L	0.792	3	241	49038	0
	As	75	0.817	ug/L	0.023	2	310	2144	2
	As-1	75	0.786	ug/L	0.115	14	9967	11783	0
	Se	82	2.017	ug/L	0.045	2	4	499	4
	Se	78	1.937	ug/L	0.353	18	10138	11427	0
	Mo	98	5.528	ug/L	0.243	4	31	28043	2
	Y	89		ug/L			399449	419359	1
	Kr	83		ug/L			635	696	0
>	In	115		ug/L			965468	1058980	0
	Ag	107	0.641	ug/L	0.022	3	54	8130	3
	Cd	111	0.028	ug/L	0.000	1	102	259	1
	Cd	114	0.028	ug/L	0.002	7	36	398	6
	Sb	121	-0.047	ug/L	0.001	2	768	121	15
	Sb	123	-0.046	ug/L	0.002	4	575	106	21
	Ba	135	31.528	ug/L	0.046	0	23	143598	0
	Ba	137	31.095	ug/L	0.086	0	42	245486	0
>	Tb	159		ug/L			1098939	1158193	0
	Tl	205	0.199	ug/L	0.002	1	811	8821	0
	Pb	208	19.645	ug/L	0.091	0	507	997406	0
	Bi	209		ug/L			2742152	2856003	1
	Th	232	-0.053	ug/L	0.003	5	5672	3330	4
	U	238	0.026	ug/L	0.000	1	50	1436	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT58 F SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:44:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1884285	2
	Be	9	0.014	ug/L	0 001	7	22	94	6
	C	13		ug/L			143235	154741	3
	Cl	37		ug/L			4954439	5204530	1
>	Sc	45		ug/L			1218098	1316256	1
	V	51	10.956	ug/L	0.175	1	9170	293484	1
	V-1	51	11.127	ug/L	0.176	1	105	285044	2
	Cr	52	1.436	ug/L	0.062	4	27160	60783	0
	Cr	53	1.670	ug/L	0.023	1	170	4169	0
	Mn	55	24.958	ug/L	0.241	0	674	743586	2
	Co	59	0.440	ug/L	0.010	2	88	9551	0
>	Ge	72		ug/L			652831	654732	1
	Ni	60	0.180	ug/L	0.011	6	35	791	6
	Ni	62	0.054	ug/L	0 057	105	471	503	6
	Cu	63	83.755	ug/L	1.345	1	514	781276	0
	Cu	65	82.761	ug/L	1.135	1	55	348811	0
	Zn	66	41.873	ug/L	1.220	2	255	108497	2
	Zn	67	40.340	ug/L	1.251	3	38	17384	2
	Zn	68	42.799	ug/L	0.724	1	241	80138	0
	As	75	0.745	ug/L	0.041	5	310	1980	3
	As-1	75	0.690	ug/L	0.106	15	9967	11557	0
	Se	82	1.924	ug/L	0 046	2	4	476	2
	Se	78	1.737	ug/L	0.238	13	10138	11290	0
	Mo	98	3.699	ug/L	0.058	1	31	18768	0
	Y	89		ug/L			399449	420389	0
	Kr	83		ug/L			635	679	3
>	In	115		ug/L			965468	1057087	1
	Ag	107	0.567	ug/L	0.004	0	54	7181	1
	Cd	111	0.035	ug/L	0.003	7	102	292	3
	Cd	114	0.034	ug/L	0.002	5	36	483	3
	Sb	121	-0.048	ug/L	0.002	4	768	104	30
	Sb	123	-0.048	ug/L	0.001	1	575	78	11
	Ba	135	35.011	ug/L	0.707	2	23	159142	0
	Ba	137	34.579	ug/L	0.194	0	42	272485	0
>	Tb	159		ug/L			1098939	1145362	1
	Tl	205	0.288	ug/L	0.007	2	811	12240	1
	Pb	208	12.283	ug/L	0.085	0	507	616897	0
	Bi	209		ug/L			2742152	2851001	1
	Th	232	-0.024	ug/L	0.003	13	5672	4724	2
	U	238	0.045	ug/L	0.001	2	50	2428	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:48:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1766731	1862298	0
	Be	**9**	**50.829**	ug/L	0.611	1	22	247991	0
	C	**13**		ug/L			143235	146393	1
	Cl	**37**		ug/L			4954439	5375900	0
>	**Sc**	**45**		ug/L			1218098	1276748	0
	V	**51**	**46.479**	ug/L	1.071	2	9170	1176566	1
	V-1	**51**	**47.224**	ug/L	1.082	2	105	1173117	2
	Cr	**52**	**46.755**	ug/L	0.405	0	27160	1022013	0
	Cr	**53**	**49.320**	ug/L	0.781	1	170	114384	1
	Mn	**55**	**47.049**	ug/L	1.298	2	674	1358815	2
	Co	**59**	**47.021**	ug/L	0.588	1	88	981088	1
>	**Ge**	**72**		ug/L			652831	638465	1
	Ni	**60**	**50.490**	ug/L	1.052	2	35	206491	3
	Ni	**62**	**48.951**	ug/L	0.735	1	471	28489	1
	Cu	**63**	**50.608**	ug/L	0.768	1	514	460592	1
	Cu	**65**	**49.847**	ug/L	0.286	0	55	204920	1
	Zn	**66**	**50.656**	ug/L	0.365	0	255	127966	1
	Zn	**67**	**51.163**	ug/L	1.298	2	38	21500	3
	Zn	**68**	**49.884**	ug/L	0.432	0	241	91063	1
	As	**75**	**50.393**	ug/L	0.119	0	310	110486	1
	As-1	**75**	**49.926**	ug/L	0.315	0	9967	120055	0
	Se	**82**	**52.386**	ug/L	0.863	1	4	12534	2
	Se	**78**	**50.673**	ug/L	0.700	1	10138	41894	0
	Mo	**98**	**51.321**	ug/L	0.887	1	31	253545	0
	Y	**89**		ug/L			399449	410658	2
	Kr	**83**		ug/L			635	663	2
>	**In**	**115**		ug/L			965468	986036	0
	Ag	**107**	**52.357**	ug/L	1.186	2	54	613553	2
	Cd	**111**	**50.710**	ug/L	0.335	0	102	242736	0
	Cd	**114**	**49.645**	ug/L	0.114	0	36	601140	0
	Sb	**121**	**49.518**	ug/L	0.492	0	768	702644	0
	Sb	**123**	**49.770**	ug/L	0.348	0	575	534602	0
	Ba	**135**	**48.512**	ug/L	0.723	1	23	205708	1
	Ba	**137**	**48.640**	ug/L	0.256	0	42	357520	0
>	**Tb**	**159**		ug/L			1098939	1137752	0
	Tl	**205**	**46.361**	ug/L	0.314	0	811	1823752	0
	Pb	**208**	**47.514**	ug/L	0.288	0	507	2369037	0
	Bi	**209**		ug/L			2742152	2705305	0
	Th	**232**	**49.734**	ug/L	0.520	1	5672	2434338	0
	U	**238**	**50.308**	ug/L	0.173	0	50	2652782	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:55:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1829834	0
	Be	9	-0.001	ug/L	0.001	87	22	19	18
	C	13		ug/L			143235	147824	0
	Cl	37		ug/L			4954439	5104057	6
>	Sc	45		ug/L			1218098	1239387	1
	V	51	-0.009	ug/L	0.020	231	9170	9117	5
	V-1	51	0.003	ug/L	0.001	19	105	171	6
	Cr	52	-0.044	ug/L	0.066	150	27160	26736	5
	Cr	53	-0.006	ug/L	0.004	70	170	160	5
	Mn	55	0.001	ug/L	0.000	51	674	711	1
	Co	59	0.000	ug/L	0.000	52	88	93	1
>	Ge	72		ug/L			652831	634942	0
	Ni	60	0.000	ug/L	0.001	1640	35	34	14
	Ni	62	-0.238	ug/L	0.027	11	471	322	5
	Cu	63	-0.006	ug/L	0.001	19	514	443	2
	Cu	65	0.007	ug/L	0.003	43	55	82	14
	Zn	66	0.006	ug/L	0.007	124	255	262	7
	Zn	67	0.008	ug/L	0.014	166	38	41	13
	Zn	68	0.016	ug/L	0.010	62	241	263	7
	As	75	0.014	ug/L	0.006	43	310	333	4
	As-1	75	0.105	ug/L	0.035	33	9967	9924	0
	Se	82	-0.033	ug/L	0.032	97	4	-3	224
	Se	78	0.339	ug/L	0.092	27	10138	10073	0
	Mo	98	0.017	ug/L	0.003	16	31	114	11
	Y	89		ug/L			399449	394972	2
	Kr	83		ug/L			635	662	2
>	In	115		ug/L			965468	976356	0
	Ag	107	0.002	ug/L	0.001	53	54	76	14
	Cd	111	0.000	ug/L	0.000	2717	102	104	2
	Cd	114	0.001	ug/L	0.001	149	36	47	32
	Sb	121	0.090	ug/L	0.038	42	768	2039	26
	Sb	123	0.088	ug/L	0.033	38	575	1514	23
	Ba	135	0.002	ug/L	0.001	69	23	30	15
	Ba	137	0.001	ug/L	0.002	120	42	53	24
>	Tb	159		ug/L			1098939	1091429	1
	Tl	205	-0.010	ug/L	0 004	38	811	435	33
	Pb	208	0.002	ug/L	0.000	6	507	604	2
	Bi	209		ug/L			2742152	2776776	1
	Th	232	0.282	ug/L	0.150	53	5672	18874	37
	U	238	0.005	ug/L	0.002	31	50	297	26

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:02:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1823605	2
	Be	9	-0.001	ug/L	0.001	68	22	17	19
	C	13		ug/L			143235	154438	2
	Cl	37		ug/L			4954439	5023182	2
>	Sc	45		ug/L			1218098	1231692	1
	V	51	-0.001	ug/L	0.007	1290	9170	9258	2
	V-1	51	0.000	ug/L	0.001	207	105	114	14
	Cr	52	-0.001	ug/L	0.025	2759	27160	27443	2
	Cr	53	0.002	ug/L	0.002	110	170	176	4
	Mn	55	0.041	ug/L	0.001	3	674	1816	3
	Co	59	0.000	ug/L	0.001	1155	88	90	13
>	Ge	72		ug/L			652831	621149	1
	Ni	60	-0.001	ug/L	0.001	79	35	29	13
	Ni	62	-0.360	ug/L	0.029	7	471	247	5
	Cu	63	0.007	ug/L	0.004	59	514	554	7
	Cu	65	0.028	ug/L	0.002	8	55	164	4
	Zn	66	0.130	ug/L	0.018	13	255	562	6
	Zn	67	0.133	ug/L	0.019	14	38	91	7
	Zn	68	0.160	ug/L	0.007	4	241	513	2
	As	75	0.010	ug/L	0.017	174	310	315	10
	As-1	75	0.202	ug/L	0 065	32	9967	9918	1
	Se	82	-0.071	ug/L	0.082	114	4	-12	154
	Se	78	0.698	ug/L	0.205	29	10138	10074	0
	Mo	98	0.000	ug/L	0.001	224	31	31	9
	Y	89		ug/L			399449	395114	1
	Kr	83		ug/L			635	678	7
>	In	115		ug/L			965468	963691	0
	Ag	107	-0.002	ug/L	0.000	12	54	30	8
	Cd	111	-0.003	ug/L	0.001	51	102	89	7
	Cd	114	0.001	ug/L	0.000	72	36	43	12
	Sb	121	-0.023	ug/L	0.004	15	768	444	11
	Sb	123	-0.021	ug/L	0.006	26	575	351	17
	Ba	135	0.015	ug/L	0.001	8	23	85	5
	Ba	137	0.015	ug/L	0.004	23	42	152	17
>	Tb	159		ug/L			1098939	1084430	0
	Tl	205	-0.013	ug/L	0.004	35	811	328	50
	Pb	208	0.006	ug/L	0.000	6	507	795	1
	Bi	209		ug/L			2742152	2683528	1
	Th	232	0.003	ug/L	0.026	961	5672	5721	20
	U	238	-0.000	ug/L	0.000	888	50	47	40

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:07:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1820626	1
[	Be	9	25.777	ug/L	0.678	2	22	122927	0
	C	13		ug/L			143235	153421	2
	Cl	37		ug/L			4954439	5043900	2
[>	Sc	45		ug/L			1218098	1235394	1
[	V	51	24.751	ug/L	0.116	0	9170	610648	1
[	V-1	51	24.945	ug/L	0.166	0	105	599659	1
[	Cr	52	24.868	ug/L	0.071	0	27160	538868	1
[	Cr	53	25.537	ug/L	0.608	2	170	57377	1
[	Mn	55	25.660	ug/L	0 157	0	674	717415	0
[	Co	59	25.040	ug/L	0.622	2	88	505507	1
[>	Ge	72		ug/L			652831	636042	1
[	Ni	60	26.516	ug/L	0.858	3	35	108020	2
[	Ni	62	25.865	ug/L	0.163	0	471	15213	1
[	Cu	63	26.680	ug/L	0.696	2	514	242109	1
[	Cu	65	26.493	ug/L	0.329	1	55	108532	2
[	Zn	66	87.014	ug/L	3.615	4	255	218742	3
[	Zn	67	79.625	ug/L	1.655	2	38	33303	1
[	Zn	68	79.921	ug/L	0 356	0	241	145189	0
[	As	75	25.476	ug/L	0.164	0	310	55792	0
[	As-1	75	25.364	ug/L	0.284	1	9967	65538	0
[	Se	82	84.063	ug/L	1.074	1	4	20030	0
[	Se	78	81.499	ug/L	1 647	2	10138	61113	0
[	Mo	98	25.080	ug/L	0.039	0	31	123465	0
	Y	89		ug/L			399449	406536	1
	Kr	83		ug/L			635	669	4
[>	In	115		ug/L			965468	984485	0
[	Ag	107	27.040	ug/L	0.638	2	54	316376	2
[	Cd	111	25.496	ug/L	0.233	0	102	121908	1
[	Cd	114	25.010	ug/L	0.162	0	36	302378	0
[	Sb	121	24.638	ug/L	0.149	0	768	349463	0
[	Sb	123	24.484	ug/L	0.207	0	575	262876	0
[	Ba	135	24.950	ug/L	0.253	1	23	105643	0
[	Ba	137	25.001	ug/L	0.097	0	42	183502	0
[>	Tb	159		ug/L			1098939	1113703	0
[	Tl	205	24.555	ug/L	0.248	1	811	945972	1
[	Pb	208	25.294	ug/L	0 023	0	507	1234776	0
[	Bi	209		ug/L			2742152	2745593	1
[	Th	232	22.931	ug/L	0.060	0	5672	1101798	0
[	U	238	23.397	ug/L	0.315	1	50	1207716	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:15:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1919305	2
[	Be	9	1.082	ug/L	0.019	1	22	5466	2
	C	13		ug/L			143235	259002	1
	Cl	37		ug/L			4954439	5229024	1
[>	Sc	45		ug/L			1218098	1404989	0
[	V	51	22.465	ug/L	0.258	1	9170	631265	0
[	V-1	51	22.745	ug/L	0.336	1	105	621819	1
[	Cr	52	18.780	ug/L	0.377	2	27160	470518	2
[	Cr	53	19.603	ug/L	0.133	0	170	50147	1
[	Mn	55	5417.542	ug/L	11.276	0	674	172106195	0
[	Co	59	19.827	ug/L	0.233	1	88	455276	0
[>	Ge	72		ug/L			652831	650401	2
[	Ni	60	47.653	ug/L	1.474	3	35	198426	1
[	Ni	62	49.108	ug/L	1.093	2	471	29107	0
[	Cu	63	54.706	ug/L	2.130	3	514	506910	1
[	Cu	65	55.233	ug/L	1.083	1	55	231238	0
[	Zn	66	1425.883	ug/L	38.008	2	255	3661423	1
[	Zn	67	1196.298	ug/L	8.951	0	38	511127	1
[	Zn	68	1378.399	ug/L	14.131	1	241	2556595	1
[	As	75	49.551	ug/L	1.177	2	310	110640	0
[	As-1	75	48.928	ug/L	1.208	2	9967	120022	0
[	Se	82	1.127	ug/L	0.135	11	4	278	10
[	Se	78	1.269	ug/L	0.321	25	10138	10914	1
[	Mo	98	1.120	ug/L	0.029	2	31	5670	2
	Y	89		ug/L			399449	691324	2
	Kr	83		ug/L			635	1083	3
[>	In	115		ug/L			965468	1114414	1
[	Ag	107	0.628	ug/L	0.015	2	54	8381	0
[	Cd	111	34.233	ug/L	0.663	1	102	185203	0
[	Cd	114	33.588	ug/L	0.524	1	36	459603	0
[	Sb	121	2.295	ug/L	0.019	0	768	37642	0
[	Sb	123	2.285	ug/L	0.038	1	575	28365	0
[	Ba	135	493.285	ug/L	7.900	1	23	2363582	0
[	Ba	137	488.943	ug/L	10.643	2	42	4060642	1
[>	Tb	159		ug/L			1098939	1158275	0
[	Tl	205	0.975	ug/L	0.011	1	811	39887	0
[	Pb	208	1078.510	ug/L	8.095	0	507	54732599	0
[	Bi	209		ug/L			2742152	2738827	0
[	Th	232	3.563	ug/L	0.013	0	5672	183103	0
[	U	238	0.662	ug/L	0.007	1	50	35569	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:11:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1862994	2
[	Be	9	0.536	ug/L	0.031	5	22	2635	3
	C	13		ug/L			143235	212730	2
	Cl	37		ug/L			4954439	5249210	3
[>	Sc	45		ug/L			1218098	1421266	3
[	V	51	38.121	ug/L	1.305	3	9170	1075509	1
[	V-1	51	38.678	ug/L	1.562	4	105	1068805	1
[	Cr	52	30.119	ug/L	0.480	1	27160	743981	1
[	Cr	53	31.734	ug/L	1.389	4	170	81925	1
[	Mn	55	993.655	ug/L	35.342	3	674	31912120	1
[	Co	59	8.330	ug/L	0.149	1	88	193496	1
[>	Ge	72		ug/L			652831	647944	0
[	Ni	60	21.964	ug/L	0.341	1	35	91167	1
[	Ni	62	23.747	ug/L	0.240	1	471	14267	1
[	Cu	63	34.225	ug/L	0.210	0	514	316284	0
[	Cu	65	34.686	ug/L	0.306	0	55	144726	1
[	Zn	66	355.422	ug/L	4.940	1	255	909676	1
[	Zn	67	348.669	ug/L	4.089	1	38	148447	1
[	Zn	68	357.155	ug/L	4.775	1	241	660159	1
[	As	75	10.627	ug/L	0.084	0	310	23888	0
[	As-1	75	10.428	ug/L	0.092	0	9967	33275	0
[	Se	82	-0.031	ug/L	0.043	140	4	-2	353
[	Se	78	0.137	ug/L	0.160	116	10138	10150	0
[	Mo	98	0.426	ug/L	0.011	2	31	2169	2
	Y	89		ug/L			399449	565854	0
	Kr	83		ug/L			635	1014	3
[>	In	115		ug/L			965468	1027630	0
[	Ag	107	0.194	ug/L	0.007	3	54	2425	3
[	Cd	111	6.897	ug/L	0.041	0	102	34503	1
[	Cd	114	6.751	ug/L	0.034	0	36	85223	0
[	Sb	121	0.347	ug/L	0.007	2	768	5951	2
[	Sb	123	0.343	ug/L	0.007	2	575	4444	2
[	Ba	135	536.902	ug/L	2.326	0	23	2372543	0
[	Ba	137	526.200	ug/L	5.376	1	42	4030472	0
[>	Tb	159		ug/L			1098939	1152022	0
[	Tl	205	0.346	ug/L	0.002	0	811	14634	0
[	Pb	208	330.862	ug/L	0.714	0	507	16700737	0
[	Bi	209		ug/L			2742152	2681266	0
[	Th	232	4.423	ug/L	0.056	1	5672	224634	0
[	U	238	0.778	ug/L	0.009	1	50	41613	0

VS20 · 00606

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:19:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1766731	1973144	3
	Be	9	0.787	ug/L	0.022	2	22	4090	1
	C	13		ug/L			143235	298840	0
	Cl	37		ug/L			4954439	5533960	1
>	Sc	45		ug/L			1218098	1405970	1
	V	51	17.549	ug/L	0.444	2	9170	495685	1
	V-1	51	17.649	ug/L	0.384	2	105	482781	0
	Cr	52	13.057	ug/L	0.392	3	27160	336784	1
	Cr	53	13.234	ug/L	0.427	3	170	33930	1
	Mn	55	5217.377	ug/L	90.325	1	674	165834914	0
	Co	59	17.425	ug/L	0 305	1	88	400348	0
>	Ge	72		ug/L			652831	653410	1
	Ni	60	37.359	ug/L	0.341	0	35	156345	0
	Ni	62	38.033	ug/L	0.819	2	471	22757	1
	Cu	63	59.323	ug/L	0.634	1	514	552458	1
	Cu	65	59.176	ug/L	0.947	1	55	248979	2
	Zn	66	1184.350	ug/L	9.879	0	255	3056086	0
	Zn	67	1016.862	ug/L	32.388	3	38	436404	2
	Zn	68	1091.360	ug/L	57.381	5	241	2034155	5
	As	75	19.841	ug/L	0 137	0	310	44705	0
	As-1	75	19.476	ug/L	0.212	1	9967	54013	0
	Se	82	1.229	ug/L	0.041	3	4	305	3
	Se	78	1.067	ug/L	0.262	24	10138	10835	0
	Mo	98	1.034	ug/L	0.039	3	31	5259	2
	Y	89		ug/L			399449	674738	1
	Kr	83		ug/L			635	991	2
>	In	115		ug/L			965468	1133031	0
	Ag	107	0.928	ug/L	0.028	2	54	12556	2
	Cd	111	23.967	ug/L	0.304	1	102	131884	0
	Cd	114	23.565	ug/L	0.075	0	36	327895	0
	Sb	121	2.761	ug/L	0.030	1	768	45864	0
	Sb	123	2.757	ug/L	0.022	0	575	34668	0
	Ba	135	355.919	ug/L	3.718	1	23	1734018	0
	Ba	137	386.829	ug/L	8 152	2	42	3266505	1
>	Tb	159		ug/L			1098939	1156327	0
	Tl	205	0.802	ug/L	0.007	0	811	32885	0
	Pb	208	1478.029	ug/L	10.350	0	507	74881860	0
	Bi	209		ug/L			2742152	2733856	0
	Th	232	2.524	ug/L	0.010	0	5672	131209	0
	U	238	0.519	ug/L	0.002	0	50	27844	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 D SWN
Sample Dil Factor: 500
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:23:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1766731	1861901	0
	Be	**9**	**0.037**	ug/L	0.003	7	22	206	5
	C	**13**		ug/L			143235	161717	0
	Cl	**37**		ug/L			4954439	5537750	5
>	**Sc**	**45**		ug/L			1218098	1292808	0
	V	**51**	**0.747**	ug/L	0.020	2	9170	28715	0
	V-1	**51**	**0.783**	ug/L	0.007	0	105	19804	0
	Cr	**52**	**0.497**	ug/L	0.050	10	27160	39517	1
	Cr	**53**	**0.612**	ug/L	0.006	1	170	1615	1
	Mn	**55**	**238.431**	ug/L	3.789	1	674	6970700	2
	Co	**59**	**0.806**	ug/L	0.012	1	88	17117	1
>	**Ge**	**72**		ug/L			652831	652865	2
	Ni	**60**	**1.594**	ug/L	0.012	0	35	6700	2
	Ni	**62**	**1.156**	ug/L	0.121	10	471	1146	4
	Cu	**63**	**2.624**	ug/L	0.086	3	514	24898	1
	Cu	**65**	**2.603**	ug/L	0.036	1	55	10990	1
	Zn	**66**	**49.991**	ug/L	1.228	2	255	129083	0
	Zn	**67**	**44.976**	ug/L	1.365	3	38	19317	0
	Zn	**68**	**48.120**	ug/L	1.062	2	241	89793	0
	As	**75**	**0.882**	ug/L	0.024	2	310	2280	0
	As-1	**75**	**0.926**	ug/L	0.150	16	9967	12054	0
	Se	**82**	**0.054**	ug/L	0.063	116	4	17	86
	Se	**78**	**0.305**	ug/L	0.436	142	10138	10330	0
	Mo	**98**	**0.042**	ug/L	0.002	5	31	242	2
	Y	**89**		ug/L			399449	420117	1
	Kr	**83**		ug/L			635	689	4
>	**In**	**115**		ug/L			965468	984973	1
	Ag	**107**	**0.046**	ug/L	0.003	7	54	594	6
	Cd	**111**	**1.207**	ug/L	0.038	3	102	5871	1
	Cd	**114**	**1.191**	ug/L	0.034	2	36	14440	1
	Sb	**121**	**0.097**	ug/L	0.007	7	768	2159	3
	Sb	**123**	**0.102**	ug/L	0.007	6	575	1675	4
	Ba	**135**	**16.766**	ug/L	0.419	2	23	71017	1
	Ba	**137**	**16.637**	ug/L	0.394	2	42	122167	1
>	**Tb**	**159**		ug/L			1098939	1097664	0
	Tl	**205**	**0.017**	ug/L	0.001	3	811	1458	2
	Pb	**208**	**60.663**	ug/L	0.154	0	507	2917963	0
	Bi	**209**		ug/L			2742152	2709554	1
	Th	**232**	**0.004**	ug/L	0.003	76	5672	5860	2
	U	**238**	**0.021**	ug/L	0.001	2	50	1133	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:27:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1953252	1
[	Be	9	2.272	ug/L	0.092	4	22	11646	3
	C	13		ug/L			143235	261210	2
	Cl	37		ug/L			4954439	5345060	1
[>	Sc	45		ug/L			1218098	1410003	0
[	V	51	26.173	ug/L	0.422	1	9170	736440	2
[	V-1	51	26.453	ug/L	0.287	1	105	725857	1
[	Cr	52	21.886	ug/L	0.274	1	27160	545093	1
[	Cr	53	22.688	ug/L	0.360	1	170	58211	1
[	Mn	55	4433.189	ug/L	57.190	1	674	141343596	1
[	Co	59	31.859	ug/L	0.464	1	88	734112	1
[>	Ge	72		ug/L			652831	643438	0
[	Ni	60	70.320	ug/L	0.114	0	35	289775	0
[	Ni	62	72.384	ug/L	1.255	1	471	42236	1
[	Cu	63	62.212	ug/L	0.931	1	514	570509	1
[	Cu	65	63.352	ug/L	0.899	1	55	262445	1
[	Zn	66	709.547	ug/L	11.670	1	255	1803109	1
[	Zn	67	654.116	ug/L	11 251	1	38	276511	1
[	Zn	68	684.535	ug/L	12.437	1	241	1256240	1
[	As	75	25.547	ug/L	0.221	0	310	56598	0
[	As-1	75	25.092	ug/L	0.164	0	9967	65697	0
[	Se	82	1.267	ug/L	0.136	10	4	309	10
[	Se	78	1.537	ug/L	0.167	10	10138	10970	1
[	Mo	98	1.515	ug/L	0.030	1	31	7574	2
	Y	89		ug/L			399449	882723	1
	Kr	83		ug/L			635	1410	4
[>	In	115		ug/L			965468	1002926	0
[	Ag	107	0.930	ug/L	0.016	1	54	11143	1
[	Cd	111	11.360	ug/L	0.198	1	102	55397	2
[	Cd	114	11.115	ug/L	0.094	0	36	136923	0
[	Sb	121	0.844	ug/L	0.003	0	768	12965	0
[	Sb	123	0.847	ug/L	0.011	1	575	9842	1
[	Ba	135	337.536	ug/L	1.558	0	23	1455693	0
[	Ba	137	368.965	ug/L	4.035	1	42	2758080	0
[>	Tb	159		ug/L			1098939	1145784	0
[	Tl	205	0.375	ug/L	0.005	1	811	15693	0
[	Pb	208	519.209	ug/L	4.230	0	507	26064423	0
[	Bi	209		ug/L			2742152	2564742	0
[	Th	232	4.555	ug/L	0.067	1	5672	229867	0
[	U	238	0.764	ug/L	0.008	1	50	40597	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:31:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1896226	1
[	Be	9	0.621	ug/L	0.009	1	22	3110	2
	C	13		ug/L			143235	209058	0
	Cl	37		ug/L			4954439	5116821	0
[>	Sc	45		ug/L			1218098	1401944	1
[	V	51	23.505	ug/L	0.370	1	9170	658515	0
[	V-1	51	23.849	ug/L	0.456	1	105	650543	0
[	Cr	52	19.393	ug/L	0.032	0	27160	483775	1
[	Cr	53	20.423	ug/L	0.361	1	170	52117	1
[	Mn	55	2682.687	ug/L	30.289	1	674	85045189	2
[	Co	59	9.002	ug/L	0.074	0	88	206319	0
[>	Ge	72		ug/L			652831	636549	1
[	Ni	60	27.864	ug/L	0.700	2	35	113593	1
[	Ni	62	28.844	ug/L	1.114	3	471	16922	2
[	Cu	63	25.945	ug/L	0.465	1	514	235644	1
[	Cu	65	25.984	ug/L	0.281	1	55	106515	0
[	Zn	66	416.561	ug/L	3.827	0	255	1047280	0
[	Zn	67	403.881	ug/L	7.930	1	38	168939	2
[	Zn	68	412.314	ug/L	9.762	2	241	748545	1
[	As	75	20.105	ug/L	0.253	1	310	44124	0
[	As-1	75	19.920	ug/L	0.325	1	9967	53595	0
[	Se	82	0.140	ug/L	0.034	24	4	37	22
[	Se	78	0.766	ug/L	0.243	31	10138	10366	0
[	Mo	98	0.785	ug/L	0.013	1	31	3899	2
	Y	89		ug/L			399449	563706	1
	Kr	83		ug/L			635	1052	2
[>	In	115		ug/L			965468	1014799	1
[	Ag	107	0.297	ug/L	0.008	2	54	3642	3
[	Cd	111	7.314	ug/L	0.193	2	102	36116	1
[	Cd	114	7.103	ug/L	0.165	2	36	88540	1
[	Sb	121	0.381	ug/L	0.010	2	768	6362	1
[	Sb	123	0.389	ug/L	0.008	2	575	4902	1
[	Ba	135	383.546	ug/L	6.507	1	23	1673511	0
[	Ba	137	416.242	ug/L	5.484	1	42	3148203	0
[>	Tb	159		ug/L			1098939	1135752	1
[	Tl	205	0.378	ug/L	0.006	1	811	15692	0
[	Pb	208	329.337	ug/L	4.267	1	507	16387213	0
[	Bi	209		ug/L			2742152	2637565	0
[	Th	232	4.163	ug/L	0.092	2	5672	208756	0
[	U	238	0.596	ug/L	0.009	1	50	31406	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:36:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1766731	1764931	1
	Be	9	-0.001	ug/L	0.001	50	22	16	21
	C	13		ug/L			143235	149714	0
	Cl	37		ug/L			4954439	4893392	4
>	Sc	45		ug/L			1218098	1210323	0
	V	51	-0.009	ug/L	0.016	184	9170	8906	4
	V-1	51	0.001	ug/L	0.001	86	105	129	15
	Cr	52	-0.034	ug/L	0.053	156	27160	26305	3
	Cr	53	-0.002	ug/L	0.007	431	170	165	8
	Mn	55	0.232	ug/L	0.028	12	674	7035	11
	Co	59	0.001	ug/L	0.000	74	88	98	7
>	Ge	72		ug/L			652831	616059	2
	Ni	60	0.001	ug/L	0.002	140	35	38	19
	Ni	62	-0.573	ug/L	0.001	0	471	127	2
	Cu	63	0.006	ug/L	0.005	85	514	533	5
	Cu	65	0.039	ug/L	0.006	14	55	208	9
	Zn	66	0.158	ug/L	0.034	21	255	623	11
	Zn	67	0.147	ug/L	0.038	25	38	96	14
	Zn	68	0.146	ug/L	0.025	16	241	483	7
	As	75	0.007	ug/L	0.021	319	310	306	13
	As-1	75	0.283	ug/L	0.136	47	9967	10005	1
	Se	82	-0.091	ug/L	0.111	120	4	-17	149
	Se	78	1.023	ug/L	0.518	50	10138	10185	1
	Mo	98	-0.003	ug/L	0.001	33	31	15	31
	Y	89		ug/L			399449	399676	2
	Kr	83		ug/L			635	711	1
>	In	115		ug/L			965468	947321	0
	Ag	107	-0.003	ug/L	0.001	20	54	23	25
	Cd	111	-0.002	ug/L	0.003	140	102	92	13
	Cd	114	0.001	ug/L	0.001	92	36	50	26
	Sb	121	-0.049	ug/L	0.002	3	768	89	28
	Sb	123	-0.048	ug/L	0.001	1	575	67	13
	Ba	135	0.024	ug/L	0.004	16	23	119	12
	Ba	137	0.026	ug/L	0.002	9	42	225	7
>	Tb	159		ug/L			1098939	1055990	0
	Tl	205	-0.020	ug/L	0.000	1	811	67	16
	Pb	208	0.022	ug/L	0.002	11	507	1508	7
	Bi	209		ug/L			2742152	2678762	0
	Th	232	-0.082	ug/L	0.006	7	5672	1753	15
	U	238	-0.000	ug/L	0.000	23	50	25	21

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 I SW
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:41:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1891802	1
	Be	9	1.045	ug/L	0.029	2	22	5204	1
	C	13		ug/L			143235	206481	2
	Cl	37		ug/L			4954439	5150949	2
>	Sc	45		ug/L			1218098	1526542	0
	V	51	60.712	ug/L	0.116	0	9170	1834104	0
	V-1	51	61.508	ug/L	0.257	0	105	1826925	0
	Cr	52	41.989	ug/L	0.668	1	27160	1100856	1
	Cr	53	44.026	ug/L	0.340	0	170	122101	0
	Mn	55	1730.052	ug/L	26.500	1	674	59713478	1
	Co	59	15.949	ug/L	0.188	1	88	397949	0
>	Ge	72		ug/L			652831	620684	1
	Ni	60	46.048	ug/L	0.734	1	35	183031	0
	Ni	62	48.211	ug/L	0.523	1	471	27286	2
	Cu	63	45.625	ug/L	1.110	2	514	403653	1
	Cu	65	45.986	ug/L	0.624	1	55	183783	1
	Zn	66	320.034	ug/L	5.985	1	255	784600	1
	Zn	67	335.312	ug/L	4.198	1	38	136738	0
	Zn	68	338.771	ug/L	7.557	2	241	599809	2
	As	75	20.270	ug/L	0.345	1	310	43374	0
	As-1	75	20.074	ug/L	0.397	1	9967	52588	0
	Se	82	-0.401	ug/L	0 048	11	4	-88	11
	Se	78	0.974	ug/L	0.188	19	10138	10235	0
	Mo	98	1.067	ug/L	0.012	1	31	5153	0
	Y	89		ug/L			399449	747659	2
	Kr	83		ug/L			635	1616	1
>	In	115		ug/L			965468	952319	0
	Ag	107	0.406	ug/L	0.012	2	54	4651	3
	Cd	111	4.580	ug/L	0.005	0	102	21268	0
	Cd	114	4.312	ug/L	0.080	1	36	50453	1
	Sb	121	0.134	ug/L	0.003	1	768	2594	1
	Sb	123	0.137	ug/L	0.005	3	575	1984	1
	Ba	135	736.878	ug/L	11.102	1	23	3017409	0
	Ba	137	736.843	ug/L	7 216	0	42	5230147	0
>	Tb	159		ug/L			1098939	1126741	0
	Tl	205	0.353	ug/L	0.004	1	811	14588	0
	Pb	208	153.422	ug/L	0.961	0	507	7574445	0
	Bi	209		ug/L			2742152	2488826	0
	Th	232	7.612	ug/L	0.035	0	5672	373920	0
	U	238	1.157	ug/L	0.014	1	50	60449	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:45:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1766731	1808162	1
	Be	9	52.885	ug/L	0.890	1	22	250495	1
	C	13		ug/L			143235	145139	0
	Cl	37		ug/L			4954439	5202951	2
>	Sc	45		ug/L			1218098	1254317	3
	V	51	46.799	ug/L	1.475	3	9170	1163112	0
	V-1	51	47.251	ug/L	1.211	2	105	1152649	1
	Cr	52	47.531	ug/L	1.613	3	27160	1019595	0
	Cr	53	49.109	ug/L	0.585	1	170	111868	2
	Mn	55	47.798	ug/L	1.561	3	674	1355547	1
	Co	59	47.456	ug/L	0.936	1	88	972405	1
>	Ge	72		ug/L			652831	625443	1
	Ni	60	51.327	ug/L	0.696	1	35	205613	2
	Ni	62	50.327	ug/L	1.727	3	471	28674	2
	Cu	63	51.457	ug/L	0.761	1	514	458724	0
	Cu	65	49.793	ug/L	1.561	3	55	200468	1
	Zn	66	51.667	ug/L	1.378	2	255	127836	2
	Zn	67	51.156	ug/L	0.877	1	38	21053	1
	Zn	68	50.920	ug/L	1.355	2	241	91028	1
	As	75	51.914	ug/L	1.087	2	310	111470	0
	As-1	75	50.819	ug/L	1.055	2	9967	119525	0
	Se	82	54.885	ug/L	0.951	1	4	12860	0
	Se	78	51.004	ug/L	0.784	1	10138	41243	0
	Mo	98	53.992	ug/L	1.652	3	31	261265	1
	Y	89		ug/L			399449	400704	1
	Kr	83		ug/L			635	700	4
>	In	115		ug/L			965468	949885	0
	Ag	107	57.148	ug/L	1.259	2	54	645054	1
	Cd	111	51.861	ug/L	0.655	1	102	239161	1
	Cd	114	50.917	ug/L	0.621	1	36	593918	0
	Sb	121	51.006	ug/L	0.393	0	768	697204	0
	Sb	123	51.617	ug/L	0.281	0	575	534096	0
	Ba	135	49.429	ug/L	0.610	1	23	201915	1
	Ba	137	49.460	ug/L	0.542	1	42	350204	0
>	Tb	159		ug/L			1098939	1083269	1
	Tl	205	47.154	ug/L	0.624	1	811	1765994	0
	Pb	208	48.701	ug/L	0.482	0	507	2311851	0
	Bi	209		ug/L			2742152	2608621	0
	Th	232	50.830	ug/L	0.410	0	5672	2368710	0
	U	238	51.967	ug/L	0.384	0	50	2608909	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:52:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1813611	2
	Be	9	-0.000	ug/L	0.000	122	22	22	9
	C	13		ug/L			143235	155909	3
	Cl	37		ug/L			4954439	5013965	1
>	Sc	45		ug/L			1218098	1246312	1
	V	51	-0.019	ug/L	0.018	92	9170	8903	3
	V-1	51	-0.001	ug/L	0.000	34	105	73	17
	Cr	52	-0.070	ug/L	0.060	85	27160	26327	3
	Cr	53	-0.010	ug/L	0.003	26	170	151	4
	Mn	55	0.022	ug/L	0.013	59	674	1319	29
	Co	59	0.001	ug/L	0.001	113	88	109	20
>	Ge	72		ug/L			652831	618137	2
	Ni	60	0.001	ug/L	0.002	149	35	37	19
	Ni	62	-0.549	ug/L	0.024	4	471	142	11
	Cu	63	-0.032	ug/L	0.002	7	514	204	7
	Cu	65	0.000	ug/L	0.002	1275	55	53	15
	Zn	66	-0.031	ug/L	0.007	22	255	165	7
	Zn	67	-0.008	ug/L	0.021	263	38	33	24
	Zn	68	-0.010	ug/L	0.008	79	241	211	7
	As	75	0.019	ug/L	0.006	31	310	333	2
	As-1	75	0.296	ug/L	0.144	48	9967	10064	0
	Se	82	-0.058	ug/L	0.047	80	4	-9	117
	Se	78	1.023	ug/L	0.504	49	10138	10218	0
	Mo	98	0.003	ug/L	0.000	15	31	44	3
	Y	89		ug/L			399449	388345	1
	Kr	83		ug/L			635	689	5
>	In	115		ug/L			965468	940789	1
	Ag	107	-0.002	ug/L	0.001	37	54	31	23
	Cd	111	-0.001	ug/L	0.002	119	102	93	9
	Cd	114	0.001	ug/L	0.001	122	36	47	32
	Sb	121	0.009	ug/L	0.008	87	768	864	10
	Sb	123	0.010	ug/L	0.006	60	575	667	8
	Ba	135	0.002	ug/L	0.002	124	23	30	28
	Ba	137	0.001	ug/L	0.003	298	42	47	37
>	Tb	159		ug/L			1098939	1061653	0
	Tl	205	-0.016	ug/L	0.002	11	811	186	36
	Pb	208	0.002	ug/L	0.003	148	507	576	21
	Bi	209		ug/L			2742152	2659618	1
	Th	232	0.051	ug/L	0.017	33	5672	7791	9
	U	238	0.002	ug/L	0.001	42	50	145	27

Analytical Resources, Incorporated
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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-28-12 **Analyst:** AA **Page:** 1 of 7

All corrections made by analyst unless otherwise noted. A 11-29-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2991-10
		1			2990-12
		2			2994-16
		3			2995-1
		4			~~2994-3~~ 2995-9
		5			2995-2
		Rinse Soln			
		ICV			2926-7
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			
		ICSAB			^{53}Cr 20ppb
		LR200			^{114}Cd ^{121}Sb high abs ^{52}Cr
		LR300			Co Ag ^{114}Cd Sb high
		B1			
		B2			
		B3			
		CCV2			
		CCB2			
		VTBA MB1	RBN	2	A.N. ~~CAF~~ 1.99 ppb Cu
		MB2			
		MB2SPL			

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-28-12 **Analyst:** M **Page:** 2 **of** 7

All corrections made by analyst unless otherwise noted. AA 11-28-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VT84 MB1SPK	RBN	2 ✓	
		A			
		B			
		CCV3			Th low
		CCB3			
		VS20 MB1	SWN	20	Ag
		MB1SPK			✓
		VT88 MB2SPK	RBN	2 ✓	
		J		5	
		VS20 B	SWN	20	
		C			
		D			
		E			
		G			
		H			
		CCV4			Th low
		CCB4			
		VS21 MB1	SWN	20	Ag
		MB1SPK		5 ✓	
		A-L		100 ✓	
		A		20	
		ADup			
		ASPK			✓
ZZ		ZZZZZZ APOST			

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-28-12 **Analyst:** [illegible] **Page:** 3 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	VS21 B	SWN	20	RR 1/50 In high
		VS20 I		5	
		D		100	Zn
		CCV 5			Th low
		CCB 5			
		VS21 C	SWN	20	Ag
		D			
		E			
		F			
		G			
		H			
		I			
		J			
		K			
		L			
		CCV 6			Th low
		CCB 6			
		VS22 MB1	SWN	20	12/4/12
		MB1 Spk		5	
		A-L		100	Pb 13.5% R Rh-Zn 1/50
		A		20	CAV
		A Dup			Sb hi RPD
		A Spk			Sb low % R
		A Post			0.06 mL Spk #2 1/10 0.06 mL Spk #1 1/10 Sb

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP (ICP-MS) GFA CVA Analysis Date: 11-28-12

Nexion M2	Analyst AT 11-29	Peer MJT 11.29.12	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	See log
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	See log
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	VS22 VR35
Matrix Duplicates	✓	✓	↑
Method Blanks	✓	✓	VT04
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	ANVT04 CAF VS22 VR35

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Wednesday, November 28, 2012 08:30:09
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1337
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	5716.8	5716.761	81.963	1.4	Standard
	Mg	24.0	35793.2	35793.177	362.938	1.0	Standard
	In	114.9	69798.6	69798.586	760.159	1.1	Standard
	Pb	208.0	30080.7	30080.663	274.738	0.9	Standard
	U	238.1	53846.8	53846.825	595.601	1.1	Standard
⌈	CeO	155.9	1108.3	0.016	0.001	5.4	Standard
| >	Ce	139.9	68480.8	68480.832	364.436	0.5	Standard
⌊	Ce++	70.0	1118.9	0.016	0.000	2.4	Standard
	Bkgd	220.0	0.0	0.033	0.075	223.6	Standard

Current Conditions File Data

Current Value	Description
1.07	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

SmartTune Wizard - Summary

timization Summary

artTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

art Time: 11/28/2012 8:33:10 AM
d Time: 11/28/2012 8:35:22 AM

ss Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.696)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.709)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.711)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.719)

SmartTune Wizard - Summary

timization Summary

artTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

art Time: 11/28/2012 8:35:51 AM
d Time: 11/28/2012 8:40:03 AM

toLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.994; Intercept = -11.81

SmartTune Wizard - Summary

timization Summary

artTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

art Time: 11/28/2012 8:40:46 AM
d Time: 11/28/2012 8:43:22 AM

ily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5490.67
Obtained Intensity (Mg 23.985): 34241.15
Obtained Intensity (In 114.904): 69447.60
Obtained Intensity (Pb 207.977): 29747.20
Obtained Intensity (U 238.05): 53648.95
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.017 (=1125.88 / 67190.40)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.018 (=1200.15 / 67190.40)

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:16:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				1738475	2
	Be	9		ug/L				12	14
	C	13		ug/L				138826	0
	Cl	37		ug/L				4735446	2
>	Sc	45		ug/L				1275890	0
	V	51		ug/L				9212	1
	V-1	51		ug/L				60	9
	Cr	52		ug/L				27310	1
	Cr	53		ug/L				159	2
	Mn	55		ug/L				592	1
	Co	59		ug/L				80	3
>	Ge	72		ug/L				659198	1
	Ni	60		ug/L				16	35
	Ni	62		ug/L				275	1
	Cu	63		ug/L				372	5
	Cu	65		ug/L				41	8
	Zn	66		ug/L				192	3
	Zn	67		ug/L				31	11
	Zn	68		ug/L				189	3
	As	75		ug/L				267	7
	As-1	75		ug/L				10608	0
	Se	82		ug/L				-2	562
	Se	78		ug/L				10783	0
	Mo	98		ug/L				8	62
	Y	89		ug/L				428598	1
	Kr	83		ug/L				613	6
>	In	115		ug/L				928277	0
	Ag	107		ug/L				14	20
	Cd	111		ug/L				65	9
	Cd	114		ug/L				31	1
	Sb	121		ug/L				40	19
	Sb	123		ug/L				30	12
	Ba	135		ug/L				13	16
	Ba	137		ug/L				15	30
>	Tb	159		ug/L				1061408	1
	Tl	205		ug/L				43	10
	Pb	208		ug/L				368	2
	Bi	209		ug/L				2680757	0
	Th	232		ug/L				49	19
	U	238		ug/L				2	78

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:20:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1738475	1766222	1
	Be	9	0.200	ug/L	0.007	3	12	921	3
	C	13		ug/L			138826	140198	1
	Cl	37		ug/L			4735446	4570164	4
>	Sc	45		ug/L			1275890	1255765	4
	V	51	0.200	ug/L	0.014	6	9212	13967	1
	V-1	51	0.200	ug/L	0.005	2	60	5052	1
	Cr	52	0.500	ug/L	0.059	11	27310	36403	1
	Cr	53	0.500	ug/L	0.027	5	159	1262	0
	Mn	55	0.500	ug/L	0.016	3	592	14073	1
	Co	59	0.200	ug/L	0.006	2	80	3984	2
>	Ge	72		ug/L			659198	664597	1
	Ni	60	0.500	ug/L	0.022	4	16	2170	3
	Ni	62	0.500	ug/L	0.033	6	275	557	4
	Cu	63	0.500	ug/L	0.015	3	372	5066	1
	Cu	65	0.500	ug/L	0.010	1	41	2197	3
	Zn	66	4.000	ug/L	0.105	2	192	11567	1
	Zn	67	4.000	ug/L	0.126	3	31	1749	4
	Zn	68	4.000	ug/L	0.062	1	189	7867	1
	As	75	0.200	ug/L	0.017	8	267	727	6
	As-1	75	0.200	ug/L	0.090	45	10608	10970	1
	Se	82	0.500	ug/L	0.068	13	-2	137	15
	Se	78	0.500	ug/L	0.397	79	10783	11024	1
	Mo	98	0.200	ug/L	0.006	2	8	970	4
	Y	89		ug/L			428598	437893	2
	Kr	83		ug/L			613	591	2
>	In	115		ug/L			928277	948458	0
	Ag	107	0.200	ug/L	0.009	4	14	1930	5
	Cd	111	0.100	ug/L	0.004	3	65	520	2
	Cd	114	0.100	ug/L	0.001	0	31	1186	0
	Sb	121	0.200	ug/L	0.004	2	40	2562	2
	Sb	123	0.200	ug/L	0.003	1	30	1894	1
	Ba	135	0.500	ug/L	0.019	3	13	1877	3
	Ba	137	0.500	ug/L	0.016	3	15	3297	3
>	Tb	159		ug/L			1061408	1085574	0
	Tl	205	0.200	ug/L	0.004	1	43	6934	1
	Pb	208	0.100	ug/L	0.002	2	368	4898	1
	Bi	209		ug/L			2680757	2691512	1
	Th	232	0.200	ug/L	0.026	13	49	5199	12
	U	238	0.200	ug/L	0.003	1	2	8622	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:24:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1782795	0
	Be	9	10.000	ug/L	0.248	2	12	46069	2
	C	13		ug/L			138826	137978	3
	Cl	37		ug/L			4735446	4761103	1
>	Sc	45		ug/L			1275890	1325090	0
	V	51	10.000	ug/L	0.099	0	9212	253290	1
	V-1	51	10.000	ug/L	0.089	0	60	242867	0
	Cr	52	10.001	ug/L	0.148	1	27310	234189	1
	Cr	53	10.000	ug/L	0.164	1	159	23130	0
	Mn	55	9.999	ug/L	0.055	0	592	278365	0
	Co	59	10.000	ug/L	0.247	2	80	198182	1
>	Ge	72		ug/L			659198	701482	0
	Ni	60	9.997	ug/L	0.225	2	16	41351	2
	Ni	62	10.000	ug/L	0.197	1	275	6162	1
	Cu	63	9.999	ug/L	0.293	2	372	94497	2
	Cu	65	9.999	ug/L	0.437	4	41	43142	3
	Zn	66	9.800	ug/L	0.117	1	192	26356	1
	Zn	67	9.938	ug/L	0.419	4	31	4370	4
	Zn	68	9.918	ug/L	0.138	1	189	19315	1
	As	75	10.000	ug/L	0.085	0	267	22639	0
	As-1	75	10.001	ug/L	0.196	1	10608	33247	0
	Se	82	9.997	ug/L	0.094	0	-2	2598	0
	Se	78	10.012	ug/L	0 477	4	10783	17650	0
	Mo	98	10.000	ug/L	0.067	0	8	49794	1
	Y	89		ug/L			428598	450476	0
	Kr	83		ug/L			613	606	1
>	In	115		ug/L			928277	960398	1
	Ag	107	10.000	ug/L	0.052	0	14	100761	1
	Cd	111	10.000	ug/L	0.131	1	65	44845	1
	Cd	114	10.000	ug/L	0.196	1	31	114978	0
	Sb	121	10.000	ug/L	0.296	2	40	129536	1
	Sb	123	10.000	ug/L	0 248	2	30	98916	1
	Ba	135	10.001	ug/L	0 063	0	13	38791	0
	Ba	137	10.001	ug/L	0.129	1	15	67992	0
>	Tb	159		ug/L			1061408	1118736	1
	Tl	205	10.000	ug/L	0.093	0	43	339874	0
	Pb	208	10.000	ug/L	0.144	1	368	447018	0
	Bi	209		ug/L			2680757	2735543	1
	Th	232	10.001	ug/L	0.185	1	49	386647	0
	U	238	10.000	ug/L	0.290	2	2	437792	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:28:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1738475	1812847	0
	Be	9	19.992	ug/L	0.073	0	12	93486	1
	C	13		ug/L			138826	140333	1
	Cl	37		ug/L			4735446	5010735	2
>	Sc	45		ug/L			1275890	1323443	1
	V	51	19.935	ug/L	0.501	2	9212	488515	1
	V-1	51	19.986	ug/L	0.593	2	60	483270	2
	Cr	52	19.916	ug/L	0.362	1	27310	430894	0
	Cr	53	20.084	ug/L	0.619	3	159	47013	2
	Mn	55	19.983	ug/L	0.376	1	592	552923	0
	Co	59	20.041	ug/L	0.431	2	80	399820	0
>	Ge	72		ug/L			659198	688933	0
	Ni	60	20.094	ug/L	0.261	1	16	83168	1
	Ni	62	20.027	ug/L	0.284	1	275	11896	1
	Cu	63	20.074	ug/L	0.487	2	372	188706	2
	Cu	65	19.901	ug/L	0.298	1	41	82677	0
	Zn	66	20.034	ug/L	0.441	2	192	53011	1
	Zn	67	20.066	ug/L	0.229	1	31	8730	0
	Zn	68	19.974	ug/L	0.166	0	189	37833	0
	As	75	20.066	ug/L	0.415	2	267	44918	1
	As-1	75	20.155	ug/L	0.445	2	10608	55931	1
	Se	82	19.977	ug/L	0.351	1	-2	5079	1
	Se	78	20.305	ug/L	0 461	2	10783	24367	0
	Mo	98	20.034	ug/L	0.238	1	8	98636	1
	Y	89		ug/L			428598	450903	0
	Kr	83		ug/L			613	620	2
>	In	115		ug/L			928277	957295	1
	Ag	107	19.942	ug/L	0.182	0	14	197955	1
	Cd	111	20.001	ug/L	0.398	1	65	89374	2
	Cd	114	19.922	ug/L	0.114	0	31	224786	0
	Sb	121	20.059	ug/L	0.116	0	40	262133	0
	Sb	123	20.009	ug/L	0.101	0	30	197667	0
	Ba	135	20.073	ug/L	0.356	1	13	78741	1
	Ba	137	19.925	ug/L	0.125	0	15	133031	0
>	Tb	159		ug/L			1061408	1120725	1
	Tl	205	19.942	ug/L	0.225	1	43	671139	0
	Pb	208	19.966	ug/L	0.208	1	368	887756	0
	Bi	209		ug/L			2680757	2739367	0
	Th	232	20.121	ug/L	0.405	2	49	798531	0
	U	238	20.006	ug/L	0.170	0	2	878629	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:33:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1738475	1784900	0
	Be	9	49.766	ug/L	1.005	2	12	223860	1
	C	13		ug/L			138826	134307	2
	Cl	37		ug/L			4735446	5084890	0
>	Sc	45		ug/L			1275890	1308537	0
	V	51	49.890	ug/L	0.220	0	9212	1181934	0
	V-1	51	49.847	ug/L	0.281	0	60	1174014	0
	Cr	52	49.913	ug/L	0.911	1	27310	1017244	1
	Cr	53	49.771	ug/L	0.423	0	159	112415	1
	Mn	55	49.810	ug/L	0.786	1	592	1336847	1
	Co	59	49.892	ug/L	0.862	1	80	973745	1
>	Ge	72		ug/L			659198	677191	0
	Ni	60	49.881	ug/L	0.529	1	16	200540	2
	Ni	62	49.890	ug/L	1.158	2	275	28395	1
	Cu	63	49.641	ug/L	0.253	0	372	442291	0
	Cu	65	49.801	ug/L	0.702	1	41	199322	0
	Zn	66	49.859	ug/L	0.492	0	192	127651	0
	Zn	67	49.920	ug/L	1.876	3	31	21135	3
	Zn	68	49.953	ug/L	0.700	1	189	92297	1
	As	75	50.004	ug/L	0 626	1	267	109668	1
	As-1	75	50.087	ug/L	0.572	1	10608	121407	0
	Se	82	49.833	ug/L	0.641	1	-2	12255	1
	Se	78	50.141	ug/L	0.450	0	10783	43328	0
	Mo	98	50.232	ug/L	0.784	1	8	248852	0
	Y	89		ug/L			428598	450854	1
	Kr	83		ug/L			613	637	1
>	In	115		ug/L			928277	955455	1
	Ag	107	49.862	ug/L	0.976	1	14	487223	1
	Cd	111	49.863	ug/L	0.170	0	65	219251	1
	Cd	114	49.760	ug/L	1.127	2	31	547120	0
	Sb	121	49.838	ug/L	0.582	1	40	639538	0
	Sb	123	49.804	ug/L	0.808	1	30	481536	1
	Ba	135	49.800	ug/L	1.015	2	13	191106	0
	Ba	137	49.788	ug/L	0.269	0	15	324889	1
>	Tb	159		ug/L			1061408	1108343	1
	Tl	205	49.829	ug/L	0.477	0	43	1630524	0
	Pb	208	49.768	ug/L	0.426	0	368	2138225	0
	Bi	209		ug/L			2680757	2649511	0
	Th	232	50.869	ug/L	4.672	9	49	2185416	8
	U	238	50.927	ug/L	0.329	0	2	2437864	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:39:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1736785	2
	Be	9	100.252	ug/L	4.404	4	12	442279	2
	C	13		ug/L			138826	135013	3
	Cl	37		ug/L			4735446	5085221	1
>	Sc	45		ug/L			1275890	1303230	1
	V	51	101.700	ug/L	1.320	1	9212	2532674	1
	V-1	51	101.651	ug/L	0.893	0	60	2523097	0
	Cr	52	99.837	ug/L	1.192	1	27310	1987608	0
	Cr	53	99.666	ug/L	2.545	2	159	221536	2
	Mn	55	101.299	ug/L	0.976	0	592	2829395	1
	Co	59	99.483	ug/L	3.374	3	80	1900401	2
>	Ge	72		ug/L			659198	660525	0
	Ni	60	100.123	ug/L	1.234	1	16	394190	0
	Ni	62	100.077	ug/L	1 143	1	275	55429	1
	Cu	63	99.938	ug/L	1 297	1	372	866323	0
	Cu	65	99.830	ug/L	0.204	0	41	387534	0
	Zn	66	99.530	ug/L	1.314	1	192	244561	1
	Zn	67	99.614	ug/L	1.639	1	31	40591	1
	Zn	68	99.310	ug/L	0.822	0	189	174798	1
	As	75	100.026	ug/L	0.679	0	267	213899	0
	As-1	75	100.138	ug/L	0.790	0	10608	227133	0
	Se	82	99.808	ug/L	0.683	0	-2	23793	1
	Se	78	100.218	ug/L	0.726	0	10783	74139	0
	Mo	98	100.617	ug/L	0.838	0	8	496442	0
	Y	89		ug/L			428598	434487	1
	Kr	83		ug/L			613	660	2
>	In	115		ug/L			928277	926158	0
	Ag	107	99.863	ug/L	1.083	1	14	941696	1
	Cd	111	99.604	ug/L	1.071	1	65	418964	1
	Cd	114	99.776	ug/L	1.685	1	31	1055733	1
	Sb	121	100.168	ug/L	0.647	0	40	1253117	0
	Sb	123	100.236	ug/L	0.751	0	30	946981	1
	Ba	135	100.172	ug/L	0.558	0	13	374833	0
	Ba	137	100.621	ug/L	0.749	0	15	649900	0
>	Tb	159		ug/L			1061408	1090741	0
	Tl	205	102.589	ug/L	0.743	0	43	3615762	0
	Pb	208	101.319	ug/L	1.079	1	368	4480668	0
	Bi	209		ug/L			2680757	2536182	0
	Th	232	101.268	ug/L	0 578	0	49	4473157	0
	U	238	100.332	ug/L	0.449	0	2	4779684	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:46:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1738475	1734200	1
	Be	**9**	**0.001**	ug/L	0.001	48	12	18	14
	C	**13**		ug/L			138826	135206	1
	Cl	**37**		ug/L			4735446	4931496	4
>	**Sc**	**45**		ug/L			1275890	1256598	1
	V	**51**	**0.007**	ug/L	0.013	186	9212	9240	2
	V-1	**51**	**0.001**	ug/L	0.001	59	60	83	17
	Cr	**52**	**0.021**	ug/L	0.049	235	27310	27283	2
	Cr	**53**	**-0.001**	ug/L	0.006	533	159	154	8
	Mn	**55**	**0.001**	ug/L	0.001	56	592	616	2
	Co	**59**	**0.000**	ug/L	0.000	272	80	82	8
>	**Ge**	**72**		ug/L			659198	662018	2
	Ni	**60**	**0.002**	ug/L	0.001	40	16	22	9
	Ni	**62**	**0.032**	ug/L	0.023	71	275	294	3
	Cu	**63**	**0.002**	ug/L	0.003	143	372	394	6
	Cu	**65**	**0.004**	ug/L	0.004	87	41	58	25
	Zn	**66**	**-0.018**	ug/L	0.004	23	192	149	7
	Zn	**67**	**-0.008**	ug/L	0.020	241	31	27	27
	Zn	**68**	**-0.002**	ug/L	0.006	404	189	187	5
	As	**75**	**0.020**	ug/L	0.005	25	267	310	5
	As-1	**75**	**0.033**	ug/L	0.087	264	10608	10721	0
	Se	**82**	**0.027**	ug/L	0.035	131	-2	3	242
	Se	**78**	**0.080**	ug/L	0.300	375	10783	10877	0
	Mo	**98**	**0.015**	ug/L	0.003	17	8	84	13
	Y	**89**		ug/L			428598	428006	1
	Kr	**83**		ug/L			613	623	2
>	**In**	**115**		ug/L			928277	940957	1
	Ag	**107**	**0.003**	ug/L	0 001	24	14	47	17
	Cd	**111**	**0.006**	ug/L	0.001	14	65	90	4
	Cd	**114**	**0.001**	ug/L	0.000	17	31	42	5
	Sb	**121**	**0.121**	ug/L	0.013	10	40	1575	9
	Sb	**123**	**0.122**	ug/L	0.014	11	30	1199	9
	Ba	**135**	**0.001**	ug/L	0.001	57	13	19	15
	Ba	**137**	**0.002**	ug/L	0.000	20	15	26	9
>	**Tb**	**159**		ug/L			1061408	1059724	1
	Tl	**205**	**0.020**	ug/L	0.010	48	43	722	45
	Pb	**208**	**0.002**	ug/L	0.000	11	368	464	3
	Bi	**209**		ug/L			2680757	2671614	1
	Th	**232**	**0.229**	ug/L	0.024	10	49	9894	10
	U	**238**	**0.003**	ug/L	0.000	3	2	155	4

Sample Information

Sample Date/Time: Wednesday, November 28, 2012 09:39:43
Method File: C:\NexION Data\Method\200.8nomin.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**1.0000**	0.003	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**0.9995**	0.019	0.20	10	20	50	100
V-1	51	**0.9995**	0.019	0.20	10	20	50	100
Cr	52	**1.0000**	0.015	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**0.9997**	0.021	0.50	10	20	50	100
Co	59	**1.0000**	0.015	0.20	10	20	50	100
Ge	72							
Ni	60	**1.0000**	0.006	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**1.0000**	0.013	0.50	10	20	50	100
Cu	65	**1.0000**	0.006	0.50	10	20	50	100
Zn	66	**0.9999**	0.004	4.00	10	20	50	100
Zn	67	**1.0000**	0.001	4.00	10	20	50	100
Zn	68	**0.9999**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9999**	0.000	0.50	10	20	50	100
Se	78	**1.0000**	0.001	0.50	10	20	50	100
Mo	98	**0.9999**	0.007	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.010	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.011	0.10	10	20	50	100
Sb	121	**1.0000**	0.014	0.20	10	20	50	100
Sb	123	**1.0000**	0.010	0.20	10	20	50	100
Ba	135	**1.0000**	0.004	0.50	10	20	50	100
Ba	137	**0.9999**	0.007	0.50	10	20	50	100
Tb	159							
Tl	205	**0.9989**	0.032	0.20	10	20	50	100
Pb	208	**0.9997**	0.041	0.10	10	20	50	100
Bi	209							
Th	232	**0.9996**	0.040	0.20	10	20	50	100
U	238	**0.9998**	0.044	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:01:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1770257	0
	Be	9	51.255	ug/L	0 864	1	12	230611	1
	C	13		ug/L			138826	142084	0
	Cl	37		ug/L			4735446	5069083	4
>	Sc	45		ug/L			1275890	1291213	1
	V	51	50.254	ug/L	0.578	1	9212	1244616	0
	V-1	51	50.389	ug/L	0.848	1	60	1239101	0
	Cr	52	51.516	ug/L	0.539	1	27310	1029700	2
	Cr	53	51.999	ug/L	0.848	1	159	114592	0
	Mn	55	50.199	ug/L	0.107	0	592	1389608	1
	Co	59	52.664	ug/L	2.096	3	80	996721	2
>	Ge	72		ug/L			659198	670187	0
	Ni	60	51.987	ug/L	0.994	1	16	207663	1
	Ni	62	51.348	ug/L	1.490	2	275	28989	2
	Cu	63	52.191	ug/L	1 691	3	372	459220	3
	Cu	65	52.919	ug/L	0.447	0	41	208439	0
	Zn	66	50.528	ug/L	0.891	1	192	126064	1
	Zn	67	51.058	ug/L	0.379	0	31	21126	1
	Zn	68	50.233	ug/L	0.912	1	189	89794	0
	As	75	50.554	ug/L	0 421	0	267	109821	0
	As-1	75	51.046	ug/L	0.465	0	10608	122764	0
	Se	82	81.272	ug/L	1.029	1	-2	19365	0
	Se	78	80.540	ug/L	1 119	1	10783	62596	1
	Mo	98	49.262	ug/L	1.478	3	8	246593	2
	Y	89		ug/L			428598	443511	0
	Kr	83		ug/L			613	651	2
>	In	115		ug/L			928277	932515	0
	Ag	107	53.918	ug/L	2.280	4	14	511799	3
	Cd	111	51.257	ug/L	0.349	0	65	217100	0
	Cd	114	51.009	ug/L	0.839	1	31	543394	0
	Sb	121	50.239	ug/L	0.223	0	40	632822	0
	Sb	123	50.431	ug/L	1.116	2	30	479653	1
	Ba	135	50.941	ug/L	0.666	1	13	191920	1
	Ba	137	50.970	ug/L	0 548	1	15	331457	0
>	Tb	159		ug/L			1061408	1089601	0
	Tl	205	47.447	ug/L	0.288	0	43	1670587	0
	Pb	208	49.548	ug/L	0.178	0	368	2189116	0
	Bi	209		ug/L			2680757	2599335	0
	Th	232	53.814	ug/L	0.305	0	49	2374596	0
	U	238	52.987	ug/L	0.602	1	2	2521517	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:08:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1722047	1
	Be	9	0.002	ug/L	0.002	109	12	21	48
	C	13		ug/L			138826	144833	2
	Cl	37		ug/L			4735446	5016119	1
>	Sc	45		ug/L			1275890	1265173	0
	V	51	0.003	ug/L	0.006	210	9212	9198	0
	V-1	51	0.000	ug/L	0.000	68	60	68	7
	Cr	52	0.005	ug/L	0.019	351	27310	27179	0
	Cr	53	-0.003	ug/L	0.002	66	159	151	3
	Mn	55	-0.000	ug/L	0.001	1311	592	584	4
	Co	59	0.000	ug/L	0.001	160	80	87	12
>	Ge	72		ug/L			659198	661317	1
	Ni	60	0.003	ug/L	0.002	58	16	27	23
	Ni	62	0.013	ug/L	0.046	364	275	283	9
	Cu	63	-0.001	ug/L	0.003	190	372	361	5
	Cu	65	0.002	ug/L	0.002	87	41	48	11
	Zn	66	-0.013	ug/L	0.005	39	192	161	8
	Zn	67	0.001	ug/L	0.006	1036	31	31	8
	Zn	68	0.000	ug/L	0.011	3445	189	190	8
	As	75	0.017	ug/L	0.012	67	267	305	9
	As-1	75	0.077	ug/L	0.084	110	10608	10806	0
	Se	82	0.013	ug/L	0.021	158	-2	0	2983
	Se	78	0.233	ug/L	0.312	134	10783	10963	0
	Mo	98	0.009	ug/L	0.001	14	8	51	13
	Y	89		ug/L			428598	433651	0
	Kr	83		ug/L			613	630	1
>	In	115		ug/L			928277	919060	0
	Ag	107	0.003	ug/L	0.001	31	14	43	20
	Cd	111	0.004	ug/L	0.001	14	65	83	3
	Cd	114	0.001	ug/L	0.000	71	31	38	12
	Sb	121	0.038	ug/L	0.011	29	40	508	27
	Sb	123	0.037	ug/L	0.008	21	30	374	20
	Ba	135	-0.001	ug/L	0.001	47	13	8	30
	Ba	137	0.002	ug/L	0.001	60	15	27	25
>	Tb	159		ug/L			1061408	1042579	0
	Tl	205	0.005	ug/L	0.002	41	43	220	33
	Pb	208	0.002	ug/L	0.000	16	368	456	3
	Bi	209		ug/L			2680757	2612919	0
	Th	232	0.132	ug/L	0.008	6	49	5610	6
	U	238	0.002	ug/L	0.000	20	2	104	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:12:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
> Li	6		ug/L			1738475	1765354	0
Be	9	50.605	ug/L	0.845	1	12	227060	1
C	13		ug/L			138826	134144	2
Cl	37		ug/L			4735446	5130360	1
> Sc	45		ug/L			1275890	1291531	0
V	51	47.995	ug/L	0.349	0	9212	1189556	1
V-1	51	48.033	ug/L	0.642	1	60	1181712	2
Cr	52	50.449	ug/L	1.401	2	27310	1009015	2
Cr	53	50.579	ug/L	0.774	1	159	111510	1
Mn	55	48.553	ug/L	0.176	0	592	1344369	1
Co	59	51.198	ug/L	0.421	0	80	969570	0
> Ge	72		ug/L			659198	665412	0
Ni	60	50.652	ug/L	0.475	0	16	200906	0
Ni	62	51.731	ug/L	0.452	0	275	28998	0
Cu	63	51.599	ug/L	0.313	0	372	450806	0
Cu	65	51.299	ug/L	0.668	1	41	200634	1
Zn	66	51.539	ug/L	0.657	1	192	127673	1
Zn	67	51.802	ug/L	0.811	1	31	21281	1
Zn	68	50.569	ug/L	0.561	1	189	89757	0
As	75	50.509	ug/L	0.193	0	267	108944	0
As-1	75	50.432	ug/L	0.229	0	10608	120553	0
Se	82	52.109	ug/L	0.211	0	-2	12327	0
Se	78	51.061	ug/L	0.264	0	10783	43387	0
Mo	98	49.808	ug/L	0.374	0	8	247571	0
Y	89		ug/L			428598	438767	1
Kr	83		ug/L			613	644	1
> In	115		ug/L			928277	917532	1
Ag	107	52.852	ug/L	1.063	2	14	493652	0
Cd	111	51.967	ug/L	0.321	0	65	216566	0
Cd	114	51.540	ug/L	0.944	1	31	540186	0
Sb	121	50.805	ug/L	0.894	1	40	629574	0
Sb	123	50.847	ug/L	1.048	2	30	475815	0
Ba	135	50.879	ug/L	0.513	1	13	188598	0
Ba	137	50.577	ug/L	0.168	0	15	323640	1
> Tb	159		ug/L			1061408	1073608	0
Tl	205	46.623	ug/L	0.207	0	43	1617425	0
Pb	208	48.784	ug/L	0.266	0	368	2123672	0
Bi	209		ug/L			2680757	2589348	0
Th	232	48.070	ug/L	4.546	9	49	2088738	8
U	238	51.840	ug/L	0.725	1	2	2430610	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:19:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1738475	1693528	1
	Be	9	0.005	ug/L	0.008	155	12	34	103
	C	13		ug/L			138826	137585	2
	Cl	37		ug/L			4735446	4824677	2
>	Sc	45		ug/L			1275890	1236431	1
	V	51	0.007	ug/L	0.007	102	9212	9087	2
	V-1	51	0.006	ug/L	0.009	154	60	190	107
	Cr	52	0.008	ug/L	0.040	472	27310	26620	2
	Cr	53	0.004	ug/L	0.009	221	159	163	12
	Mn	55	0.005	ug/L	0.007	131	592	716	27
	Co	59	0.004	ug/L	0.008	176	80	160	90
>	Ge	72		ug/L			659198	647997	0
	Ni	60	0.006	ug/L	0 005	89	16	38	51
	Ni	62	-0.018	ug/L	0.029	159	275	260	5
	Cu	63	0.000	ug/L	0.004	852	372	369	8
	Cu	65	0.003	ug/L	0.003	79	41	53	19
	Zn	66	-0.013	ug/L	0.005	39	192	158	7
	Zn	67	-0.020	ug/L	0.003	14	31	22	5
	Zn	68	0.006	ug/L	0.003	57	189	196	2
	As	75	0.016	ug/L	0.011	70	267	295	7
	As-1	75	0.151	ug/L	0 025	16	10608	10747	0
	Se	82	0.022	ug/L	0.024	107	-2	2	242
	Se	78	0.489	ug/L	0.078	15	10783	10903	0
	Mo	98	0.012	ug/L	0.001	10	8	65	9
	Y	89		ug/L			428598	424413	1
	Kr	83		ug/L			613	608	2
>	In	115		ug/L			928277	923686	0
	Ag	107	0.003	ug/L	0.001	46	14	44	31
	Cd	111	0.006	ug/L	0.002	25	65	92	7
	Cd	114	0.001	ug/L	0.002	123	31	44	35
	Sb	121	0.070	ug/L	0.007	9	40	917	9
	Sb	123	0.073	ug/L	0.002	2	30	721	2
	Ba	135	0.001	ug/L	0.001	105	13	17	21
	Ba	137	0.001	ug/L	0.001	70	15	22	22
>	Tb	159		ug/L			1061408	1036819	0
	Tl	205	0.009	ug/L	0.005	52	43	358	45
	Pb	208	0.002	ug/L	0.000	13	368	454	2
	Bi	209		ug/L			2680757	2615534	0
	Th	232	0.173	ug/L	0.016	9	49	7290	8
	U	238	0.003	ug/L	0.001	30	2	140	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:23:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1740091	0
	Be	9	0.205	ug/L	0.006	3	12	916	3
	C	13		ug/L			138826	140866	3
	Cl	37		ug/L			4735446	4989500	2
>	Sc	45		ug/L			1275890	1267891	1
	V	51	0.196	ug/L	0.014	6	9212	13878	1
	V-1	51	0.204	ug/L	0.006	2	60	4981	2
	Cr	52	0.504	ug/L	0.023	4	27310	36764	0
	Cr	53	0.533	ug/L	0.019	3	159	1309	2
	Mn	55	0.487	ug/L	0.004	0	592	13813	0
	Co	59	0.212	ug/L	0.001	0	80	4026	1
>	Ge	72		ug/L			659198	664016	1
	Ni	60	0.523	ug/L	0.008	1	16	2085	2
	Ni	62	0.502	ug/L	0.012	2	275	555	2
	Cu	63	0.524	ug/L	0.008	1	372	4939	2
	Cu	65	0.531	ug/L	0.012	2	41	2111	1
	Zn	66	4.542	ug/L	0.096	2	192	11403	2
	Zn	67	4.186	ug/L	0.051	1	31	1744	2
	Zn	68	4.518	ug/L	0.055	1	189	8175	0
	As	75	0.211	ug/L	0.013	6	267	721	4
	As-1	75	0.207	ug/L	0.020	9	10608	11135	0
	Se	82	0.564	ug/L	0.051	9	-2	130	9
	Se	78	0.535	ug/L	0.076	14	10783	11201	0
	Mo	98	0.198	ug/L	0.000	0	8	992	0
	Y	89		ug/L			428598	430820	0
	Kr	83		ug/L			613	623	1
>	In	115		ug/L			928277	924732	2
	Ag	107	0.214	ug/L	0.004	1	14	2024	3
	Cd	111	0.114	ug/L	0.002	1	65	543	1
	Cd	114	0.107	ug/L	0.003	2	31	1166	4
	Sb	121	0.214	ug/L	0.003	1	40	2716	1
	Sb	123	0.215	ug/L	0.003	1	30	2054	1
	Ba	135	0.510	ug/L	0.019	3	13	1919	3
	Ba	137	0.490	ug/L	0.015	3	15	3176	0
>	Tb	159		ug/L			1061408	1041913	0
	Tl	205	0.208	ug/L	0.005	2	43	7036	2
	Pb	208	0.106	ug/L	0.002	2	368	4819	1
	Bi	209		ug/L			2680757	2632933	0
	Th	232	0.193	ug/L	0.003	1	49	8208	1
	U	238	0.188	ug/L	0.006	2	2	8563	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:27:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1817798	0
	Be	9	0.001	ug/L	0.000	31	12	18	9
	C	13		ug/L			138826	234852	1
	Cl	37		ug/L			4735446	13475852	4
>	Sc	45		ug/L			1275890	1319348	0
	V	51	0.105	ug/L	0.011	10	9212	12152	1
	V-1	51	0.826	ug/L	0.031	3	60	20823	3
	Cr	52	0.666	ug/L	0.013	1	27310	41471	1
	Cr	53	3.244	ug/L	0.101	3	159	7459	3
	Mn	55	0.061	ug/L	0.002	2	592	2326	2
	Co	59	0.023	ug/L	0.001	2	80	529	2
>	Ge	72		ug/L			659198	657477	2
	Ni	60	0.382	ug/L	0.014	3	16	1514	3
	Ni	62	2.689	ug/L	0.313	11	275	1752	12
	Cu	63	0.866	ug/L	0.019	2	372	7839	4
	Cu	65	0.357	ug/L	0.013	3	41	1421	2
	Zn	66	0.863	ug/L	0.032	3	192	2300	2
	Zn	67	5.378	ug/L	0.240	4	31	2209	2
	Zn	68	0.359	ug/L	0.018	5	189	817	1
	As	75	0.075	ug/L	0.025	32	267	425	9
	As-1	75	0.223	ug/L	0.142	63	10608	11055	0
	Se	82	-0.214	ug/L	0.047	21	-2	-52	18
	Se	78	0.623	ug/L	0.414	66	10783	11143	0
	Mo	98	434.262	ug/L	19.510	4	8	2133814	6
	Y	89		ug/L			428598	436579	1
	Kr	83		ug/L			613	865	2
>	In	115		ug/L			928277	912434	0
	Ag	107	0.025	ug/L	0.003	12	14	242	11
	Cd	111	0.125	ug/L	0.011	8	65	584	7
	Cd	114	0.225	ug/L	0.002	0	31	2373	0
	Sb	121	0.074	ug/L	0.006	7	40	955	6
	Sb	123	0.070	ug/L	0.001	1	30	680	1
	Ba	135	0.050	ug/L	0.002	3	13	197	3
	Ba	137	0.041	ug/L	0.002	4	15	277	5
>	Tb	159		ug/L			1061408	1084071	1
	Tl	205	0.033	ug/L	0.005	15	43	1202	15
	Pb	208	0.037	ug/L	0.002	4	368	1999	2
	Bi	209		ug/L			2680757	2445843	0
	Th	232	0.235	ug/L	0.068	28	49	10343	27
	U	238	0.001	ug/L	0.000	19	2	66	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:34:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1738475	1838512	0
	Be	9	0.000	ug/L	0.000	234	12	13	11
	C	13		ug/L			138826	245531	1
	Cl	37		ug/L			4735446	14103168	1
>	Sc	45		ug/L			1275890	1301110	0
	V	51	-0.011	ug/L	0 146	1332	9212	9129	39
	V-1	51	0.894	ug/L	0.009	1	60	22222	1
	Cr	52	20.834	ug/L	0.351	1	27310	436160	1
	Cr	53	24.039	ug/L	0.355	1	159	53473	0
	Mn	55	19.519	ug/L	0.353	1	592	544795	1
	Co	59	20.563	ug/L	0.282	1	80	392341	1
>	Ge	72		ug/L			659198	654227	0
	Ni	60	21.109	ug/L	0.436	2	16	82322	1
	Ni	62	23.281	ug/L	0.450	1	275	12983	2
	Cu	63	21.502	ug/L	0.326	1	372	184894	0
	Cu	65	20.755	ug/L	0.531	2	41	79823	1
	Zn	66	20.303	ug/L	0.218	1	192	49563	1
	Zn	67	22.678	ug/L	0.136	0	31	9177	1
	Zn	68	18.770	ug/L	0.203	1	189	32874	1
	As	75	19.996	ug/L	0.027	0	267	42565	0
	As-1	75	19.867	ug/L	0.019	0	10608	53072	0
	Se	82	-0.234	ug/L	0.063	27	-2	-57	25
	Se	78	0.507	ug/L	0.010	1	10783	11019	0
	Mo	98	401.010	ug/L	4.955	1	8	1959638	1
	Y	89		ug/L			428598	431984	1
	Kr	83		ug/L			613	877	2
>	In	115		ug/L			928277	938186	0
	Ag	107	21.103	ug/L	0.613	2	14	201569	2
	Cd	111	19.800	ug/L	0.093	0	65	84417	0
	Cd	114	19.962	ug/L	0.212	1	31	213978	0
	Sb	121	0.068	ug/L	0.004	6	40	903	5
	Sb	123	0.071	ug/L	0.003	4	30	705	4
	Ba	135	0.047	ug/L	0.004	9	13	190	8
	Ba	137	0.041	ug/L	0.001	3	15	285	3
>	Tb	159		ug/L			1061408	1099771	1
	Tl	205	0.032	ug/L	0.001	2	43	1171	2
	Pb	208	0.031	ug/L	0.001	2	368	1771	1
	Bi	209		ug/L			2680757	2473422	0
	Th	232	0.083	ug/L	0.008	10	49	3724	9
	U	238	0.001	ug/L	0.000	16	2	27	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:41:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1735874	1
	Be	9	194.619	ug/L	3.167	1	12	858669	2
	C	13		ug/L			138826	141521	1
	Cl	37		ug/L			4735446	5134610	0
>	Sc	45		ug/L			1275890	1245040	1
	V	51	209.354	ug/L	1.433	0	9212	4971428	0
	V-1	51	205.751	ug/L	1.323	0	60	4879022	0
	Cr	52	213.221	ug/L	0.500	0	27310	4025500	0
	Cr	53	200.342	ug/L	0 441	0	159	425330	1
	Mn	55	211.530	ug/L	3.048	1	592	5643608	0
	Co	59	219.008	ug/L	3.206	1	80	3997557	0
>	Ge	72		ug/L			659198	639681	0
	Ni	60	200.244	ug/L	3.848	1	16	763457	1
	Ni	62	199.168	ug/L	2.543	1	275	106576	2
	Cu	63	196.500	ug/L	5.419	2	372	1649128	2
	Cu	65	195.896	ug/L	1.769	0	41	736433	1
	Zn	66	191.414	ug/L	3.221	1	192	455300	1
	Zn	67	195.068	ug/L	0.891	0	31	76953	0
	Zn	68	191.702	ug/L	3.785	1	189	326562	1
	As	75	197.229	ug/L	2.333	1	267	408184	0
	As-1	75	198.199	ug/L	2.007	1	10608	425278	0
	Se	82	195.106	ug/L	1.767	0	-2	44378	0
	Se	78	195.901	ug/L	1.577	0	10783	130341	1
	Mo	98	203.654	ug/L	4.448	2	8	973009	1
	Y	89		ug/L			428598	416812	0
	Kr	83		ug/L			613	755	1
>	In	115		ug/L			928277	896894	1
	Ag	107	206.769	ug/L	4.673	2	14	1888258	3
	Cd	111	199.730	ug/L	1.888	0	65	813411	0
	Cd	114	225.851	ug/L	3.829	1	31	2313716	0
	Sb	121	226.175	ug/L	2.987	1	40	2739616	0
	Sb	123	203.596	ug/L	3.846	1	30	1862230	0
	Ba	135	201.085	ug/L	2.967	1	13	728543	1
	Ba	137	202.671	ug/L	2.527	1	15	1267476	0
>	Tb	159		ug/L			1061408	1064727	0
	Tl	205	203.644	ug/L	2.773	1	43	7005928	0
	Pb	208	207.078	ug/L	2.732	1	368	8938534	0
	Bi	209		ug/L			2680757	2399510	0
	Th	232	205.309	ug/L	2.427	1	49	8852126	0
	U	238	203.046	ug/L	3.047	1	2	9441469	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:47:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1689072	1
	Be	9	282.290	ug/L	3.035	1	12	1211835	1
	C	13		ug/L			138826	138969	2
	Cl	37		ug/L			4735446	5164129	0
>	Sc	45		ug/L			1275890	1189725	0
	V	51	322.754	ug/L	6.648	2	9212	7319715	2
	V-1	51	317.111	ug/L	7.853	2	60	7186358	2
	Cr	52	331.686	ug/L	1.974	0	27310	5969973	1
	Cr	53	311.510	ug/L	8.021	2	159	631959	3
	Mn	55	320.756	ug/L	2.675	0	592	8178332	1
	Co	59	330.104	ug/L	7.662	2	80	5758881	3
>	Ge	72		ug/L			659198	613285	0
	Ni	60	302.995	ug/L	1.997	0	16	1107598	0
	Ni	62	297.833	ug/L	4.644	1	275	152659	1
	Cu	63	325.114	ug/L	5.221	1	372	2616058	1
	Cu	65	289.878	ug/L	1.937	0	41	1044732	0
	Zn	66	282.829	ug/L	4.296	1	192	644938	1
	Zn	67	283.262	ug/L	5.137	1	31	107123	1
	Zn	68	287.921	ug/L	7.548	2	189	470203	2
	As	75	296.454	ug/L	3.848	1	267	588138	1
	As-1	75	298.030	ug/L	3.408	1	10608	608166	1
	Se	82	288.195	ug/L	2.169	0	-2	62850	0
	Se	78	290.286	ug/L	0.929	0	10783	180337	0
	Mo	98	306.823	ug/L	6.584	2	8	1405603	2
	Y	89		ug/L			428598	401763	0
	Kr	83		ug/L			613	955	3
>	In	115		ug/L			928277	866270	2
	Ag	107	332.727	ug/L	9.474	2	14	2933972	2
	Cd	111	292.649	ug/L	3.951	1	65	1151162	2
	Cd	114	332.009	ug/L	4.956	1	31	3285106	0
	Sb	121	337.487	ug/L	6.213	1	40	3948062	0
	Sb	123	340.856	ug/L	5.955	1	30	3011193	0
	Ba	135	311.480	ug/L	6.495	2	13	1089866	1
	Ba	137	311.687	ug/L	8.163	2	15	1882390	1
>	Tb	159		ug/L			1061408	1046073	1
	Tl	205	302.254	ug/L	3.878	1	43	10215834	0
	Pb	208	315.812	ug/L	6.661	2	368	13391660	0
	Bi	209		ug/L			2680757	2189264	7
	Th	232	307.299	ug/L	7.811	2	49	13015578	1
	U	238	302.176	ug/L	5.867	1	2	13803677	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:54:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1747993	1
	Be	9	0.027	ug/L	0.030	111	12	133	101
	C	13		ug/L			138826	143225	1
	Cl	37		ug/L			4735446	4863931	1
>	Sc	45		ug/L			1275890	1246008	0
	V	51	0.028	ug/L	0.030	103	9212	9676	8
	V-1	51	0.029	ug/L	0.028	94	60	757	87
	Cr	52	0.039	ug/L	0.033	83	27310	27404	3
	Cr	53	0.042	ug/L	0.012	29	159	244	11
	Mn	55	0.044	ug/L	0.015	34	592	1761	23
	Co	59	0.017	ug/L	0.016	96	80	391	77
>	Ge	72		ug/L			659198	666755	1
	Ni	60	0.059	ug/L	0.018	29	16	252	29
	Ni	62	0.270 ✓	ug/L	0.105	38	275	428	13
	Cu	63	0.065	ug/L	0.015	23	372	949	15
	Cu	65	0.050	ug/L	0.014	27	41	239	24
	Zn	66	0.927	ug/L	0.024	2	192	2491	2
	Zn	67	0.829	ug/L	0.069	8	31	371	6
	Zn	68	0.937	ug/L	0.042	4	189	1854	4
	As	75	0.027	ug/L	0.009	32	267	327	7
	As-1	75	0.001	ug/L	0.104	17648	10608	10728	0
	Se	82	0.007	ug/L	0.037	539	-2	-1	625
	Se	78	-0.076	ug/L	0.380	501	10783	10855	0
	Mo	98	0.053	ug/L	0.005	8	8	270	7
	Y	89		ug/L			428598	427425	0
	Kr	83		ug/L			613	625	6
>	In	115		ug/L			928277	917072	1
	Ag	107	0.023	ug/L	0.009	37	14	224	34
	Cd	111	0.020	ug/L	0.012	60	65	149	33
	Cd	114	0.015	ug/L	0.015	99	31	183	81
	Sb	121	0.349	ug/L	0.018	5	40	4360	6
	Sb	123	0.350	ug/L	0.014	4	30	3304	4
	Ba	135	0.124	ug/L	0.032	26	13	471	25
	Ba	137	0.135	ug/L	0.049	36	15	876	35
>	Tb	159		ug/L			1061408	1038932	0
	Tl	205	0.113	ug/L	0.056	49	43	3845	49
	Pb	208	0.061	ug/L	0.052	85	368	2942	75
	Bi	209		ug/L			2680757	2638596	0
	Th	232	0.333	ug/L	0.040	11	49	14084	12
	U	238	0.035	ug/L	0.034	98	2	1602	98

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:00:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1738475	1728894	1
	Be	9	0.003	ug/L	0.001	27	12	26	17
	C	13		ug/L			138826	142559	2
	Cl	37		ug/L			4735446	4837743	1
>	Sc	45		ug/L			1275890	1237240	0
	V	51	0.005	ug/L	0.003	67	9212	9045	0
	V-1	51	0.004	ug/L	0.000	9	60	153	5
	Cr	52	0.020	ug/L	0.014	68	27310	26859	0
	Cr	53	0.017	ug/L	0.003	18	159	191	2
	Mn	55	0.019	ug/L	0.001	5	592	1076	2
	Co	59	0.001	ug/L	0.000	25	80	97	4
>	Ge	72		ug/L			659198	644772	1
	Ni	60	0.029	ug/L	0.005	15	16	126	14
	Ni	62	0.139	ug/L	0.047	33	275	344	8
	Cu	63	0.039	ug/L	0.003	6	372	692	1
	Cu	65	0.029	ug/L	0.003	8	41	150	5
	Zn	66	0.264	ug/L	0.019	7	192	820	4
	Zn	67	0.228	ug/L	0.029	12	31	120	8
	Zn	68	0.270	ug/L	0.011	3	189	647	2
	As	75	0.016	ug/L	0.014	87	267	294	8
	As-1	75	0.087	ug/L	0.061	69	10608	10558	0
	Se	82	0.008	ug/L	0 085	1130	-2	-1	1723
	Se	78	0.264	ug/L	0.201	76	10783	10708	0
	Mo	98	0.017	ug/L	0 003	15	8	91	14
	Y	89		ug/L			428598	422911	0
	Kr	83		ug/L			613	610	7
>	In	115		ug/L			928277	918273	0
	Ag	107	0.004	ug/L	0.000	4	14	51	2
	Cd	111	0.008	ug/L	0.002	25	65	97	7
	Cd	114	0.003	ug/L	0.000	4	31	63	1
	Sb	121	0.094	ug/L	0.015	15	40	1210	14
	Sb	123	0.092	ug/L	0.018	20	30	894	18
	Ba	135	0.013	ug/L	0.001	9	13	62	8
	Ba	137	0.014	ug/L	0.001	10	15	102	7
>	Tb	159		ug/L			1061408	1040522	0
	Tl	205	0.037	ug/L	0.018	49	43	1294	46
	Pb	208	0.009	ug/L	0.000	4	368	744	2
	Bi	209		ug/L			2680757	2627248	1
	Th	232	0.089	ug/L	0.005	5	49	3810	4
	U	238	0.002	ug/L	0.000	17	2	89	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:06:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens RSD
>	Li	6		ug/L			1738475	1731131	1
	Be	9	0.002	ug/L	0.001	66	12	19	26
	C	13		ug/L			138826	142857	4
	Cl	37		ug/L			4735446	4901834	2
>	Sc	45		ug/L			1275890	1246547	1
	V	51	0.002	ug/L	0.005	244	9212	9047	2
	V-1	51	0.003	ug/L	0 001	32	60	124	15
	Cr	52	0.008	ug/L	0.018	226	27310	26831	2
	Cr	53	0.011	ug/L	0.006	57	159	178	5
	Mn	55	0.013	ug/L	0.001	10	592	913	3
	Co	59	0.001	ug/L	0.001	126	80	91	16
>	Ge	72		ug/L			659198	640290	1
	Ni	60	0.026	ug/L	0.002	8	16	113	5
	Ni	62	0.135	ug/L	0.014	10	275	339	2
	Cu	63	0.013	ug/L	0.001	4	372	472	0
	Cu	65	0.013	ug/L	0.002	18	41	90	11
	Zn	66	0.366	ug/L	0.009	2	192	1058	0
	Zn	67	0.339	ug/L	0.056	16	31	163	11
	Zn	68	0.368	ug/L	0.019	5	189	810	3
	As	75	-0.001	ug/L	0.011	880	267	256	9
	As-1	75	0.131	ug/L	0.034	25	10608	10577	1
	Se	82	-0.010	ug/L	0.049	509	-2	-4	225
	Se	78	0.480	ug/L	0.112	23	10783	10767	1
	Mo	98	0.011	ug/L	0.003	27	8	59	22
	Y	89		ug/L			428598	419970	0
	Kr	83		ug/L			613	624	3
>	In	115		ug/L			928277	919281	0
	Ag	107	0.004	ug/L	0 000	4	14	47	3
	Cd	111	0.007	ug/L	0.001	17	65	95	5
	Cd	114	0.003	ug/L	0.001	36	31	58	16
	Sb	121	0.049	ug/L	0.009	18	40	644	17
	Sb	123	0.048	ug/L	0.007	13	30	482	13
	Ba	135	0.008	ug/L	0.001	11	13	44	8
	Ba	137	0.010	ug/L	0.002	25	15	77	20
>	Tb	159		ug/L			1061408	1035156	0
	Tl	205	0.023	ug/L	0.012	53	43	796	50
	Pb	208	0.015	ug/L	0.001	4	368	986	2
	Bi	209		ug/L			2680757	2638502	1
	Th	232	0.044	ug/L	0.001	2	49	1881	2
	U	238	0.001	ug/L	0.000	7	2	40	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:10:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1738475	1813494	1
	Be	**9**	**48.970**	ug/L	1.631	3	12	225655	1
	C	**13**		ug/L			138826	135291	0
	Cl	**37**		ug/L			4735446	5110303	3
>	**Sc**	**45**		ug/L			1275890	1280784	1
	V	**51**	**47.724**	ug/L	1.194	2	9212	1172767	2
	V-1	**51**	**47.650**	ug/L	1.279	2	60	1162156	1
	Cr	**52**	**50.715**	ug/L	0.767	1	27310	1005696	0
	Cr	**53**	**50.444**	ug/L	1.462	2	159	110250	1
	Mn	**55**	**48.944**	ug/L	0.646	1	592	1343682	0
	Co	**59**	**51.774**	ug/L	1.979	3	80	971859	1
>	**Ge**	**72**		ug/L			659198	660104	1
	Ni	**60**	**51.362**	ug/L	0.329	0	16	202088	0
	Ni	**62**	**50.834**	ug/L	1.318	2	275	28269	1
	Cu	**63**	**51.088**	ug/L	0.557	1	372	442768	1
	Cu	**65**	**50.968**	ug/L	0.332	0	41	197738	1
	Zn	**66**	**51.144**	ug/L	0.983	1	192	125668	1
	Zn	**67**	**51.815**	ug/L	1 011	1	31	21113	0
	Zn	**68**	**50.432**	ug/L	0.539	1	189	88794	0
	As	**75**	**50.431**	ug/L	0.450	0	267	107900	0
	As-1	**75**	**50.546**	ug/L	0.475	0	10608	119831	0
	Se	**82**	**51.213**	ug/L	0.577	1	-2	12017	0
	Se	**78**	**50.902**	ug/L	0.679	1	10783	42937	0
	Mo	**98**	**49.219**	ug/L	0.495	1	8	242710	2
	Y	**89**		ug/L			428598	430794	0
	Kr	**83**		ug/L			613	665	5
>	**In**	**115**		ug/L			928277	924263	1
	Ag	**107**	**51.062**	ug/L	1.390	2	14	480395	1
	Cd	**111**	**51.093**	ug/L	0.794	1	65	214468	0
	Cd	**114**	**52.016**	ug/L	1.076	2	31	549213	1
	Sb	**121**	**50.653**	ug/L	0.652	1	40	632348	1
	Sb	**123**	**50.923**	ug/L	0.380	0	30	480083	0
	Ba	**135**	**50.220**	ug/L	0.782	1	13	187509	0
	Ba	**137**	**50.270**	ug/L	0.829	1	15	323984	0
>	**Tb**	**159**		ug/L			1061408	1077300	0
	Tl	**205**	**46.671**	ug/L	0.253	0	43	1624705	0
	Pb	**208**	**48.573**	ug/L	0.376	0	368	2121836	0
	Bi	**209**		ug/L			2680757	2590865	0
	Th	**232**	**45.455**	ug/L	0.383	0	49	1983130	0
	U	**238**	**51.780**	ug/L	0.200	0	2	2436311	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:17:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1715845	1
	Be	9	0.003	ug/L	0.000	9	12	24	4
	C	13		ug/L			138826	142411	2
	Cl	37		ug/L			4735446	4958459	0
>	Sc	45		ug/L			1275890	1191891	0
	V	51	0.020	ug/L	0.007	34	9212	9065	1
	V-1	51	0.002	ug/L	0.000	13	60	103	5
	Cr	52	0.081	ug/L	0.027	32	27310	26971	1
	Cr	53	0.016	ug/L	0.003	20	159	181	4
	Mn	55	0.002	ug/L	0.001	43	592	614	4
	Co	59	0.001	ug/L	0.001	53	80	92	10
>	Ge	72		ug/L			659198	641916	0
	Ni	60	0.001	ug/L	0.002	324	16	18	48
	Ni	62	0.060	ug/L	0.009	14	275	300	1
	Cu	63	0.003	ug/L	0.003	108	372	387	6
	Cu	65	0.003	ug/L	0.003	101	41	50	21
	Zn	66	0.294	ug/L	0.008	2	192	889	1
	Zn	67	0.250	ug/L	0.016	6	31	129	4
	Zn	68	0.295	ug/L	0.020	6	189	688	4
	As	75	0.012	ug/L	0.013	110	267	284	9
	As-1	75	0.132	ug/L	0.047	35	10608	10606	0
	Se	82	0.022	ug/L	0.010	47	-2	2	111
	Se	78	0.446	ug/L	0.154	34	10783	10774	0
	Mo	98	0.015	ug/L	0.003	18	8	78	17
	Y	89		ug/L			428598	405445	0
	Kr	83		ug/L			613	610	6
>	In	115		ug/L			928277	895905	1
	Ag	107	0.004	ug/L	0 001	23	14	51	17
	Cd	111	0.005	ug/L	0.003	57	65	85	15
	Cd	114	0.002	ug/L	0.001	37	31	47	14
	Sb	121	0.091	ug/L	0.011	12	40	1142	11
	Sb	123	0.092	ug/L	0.009	9	30	873	9
	Ba	135	0.000	ug/L	0.001	442	13	14	25
	Ba	137	0.002	ug/L	0.001	56	15	28	26
>	Tb	159		ug/L			1061408	1023174	0
	Tl	205	0.015	ug/L	0.007	48	43	537	45
	Pb	208	0.005	ug/L	0.001	10	368	577	4
	Bi	209		ug/L			2680757	2560824	1
	Th	232	0.182	ug/L	0.019	10	49	7573	10
	U	238	0.003	ug/L	0.000	17	2	119	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT84 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:35:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1738475	1763753	2
	Be	9	0.030	ug/L	0.002	5	12	147	3
	C	13		ug/L			138826	152834	1
	Cl	37		ug/L			4735446	4762955	2
>	Sc	45		ug/L			1275890	1253083	0
	V	51	0.016	ug/L	0.003	19	9212	9432	0
	V-1	51	0.018	ug/L	0.000	1	60	499	1
	Cr	52	0.051	ug/L	0.008	15	27310	27787	0
	Cr	53	0.059	ug/L	0.004	6	159	283	2
	Mn	55	0.035	ug/L	0.002	4	592	1509	2
	Co	59	0.006	ug/L	0.001	19	80	181	10
>	Ge	72		ug/L			659198	654754	2
	Ni	60	0.011	ug/L	0.003	24	16	60	19
	Ni	62	0.026	ug/L	0.067	255	275	287	10
	Cu	63	1.561	ug/L	0.058	3	372	13769	0
	Cu	65	1.610	ug/L	0.083	5	41	6230	2
	Zn	66	0.709	ug/L	0.007	0	192	1916	2
	Zn	67	0.610	ug/L	0.045	7	31	277	6
	Zn	68	0.659	ug/L	0.042	6	189	1337	8
	As	75	0.015	ug/L	0.018	125	267	296	14
	As-1	75	0.027	ug/L	0.121	451	10608	10588	0
	Se	82	0.080	ug/L	0.073	90	-2	16	107
	Se	78	0.085	ug/L	0.442	519	10783	10758	0
	Mo	98	0.035	ug/L	0.007	21	8	177	18
	Y	89		ug/L			428598	425595	0
	Kr	83		ug/L			613	583	6
>	In	115		ug/L			928277	933577	1
	Ag	107	0.002	ug/L	0.001	52	14	30	26
	Cd	111	0.006	ug/L	0.004	69	65	90	18
	Cd	114	0.000	ug/L	0.001	186	31	36	21
	Sb	121	0.042	ug/L	0.009	22	40	564	20
	Sb	123	0.039	ug/L	0.010	26	30	399	23
	Ba	135	0.010	ug/L	0.001	7	13	52	6
	Ba	137	0.014	ug/L	0.000	3	15	105	3
>	Tb	159		ug/L			1061408	1064231	0
	Tl	205	0.021	ug/L	0.011	54	43	751	51
	Pb	208	0.000	ug/L	0.000	147165	368	369	2
	Bi	209		ug/L			2680757	2648038	1
	Th	232	0.093	ug/L	0.010	11	49	4053	11
	U	238	0.001	ug/L	0.000	13	2	41	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT84 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:39:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1738475	1782147	1
	Be	9	0.003	ug/L	0.001	19	12	25	9
	C	13		ug/L			138826	151529	2
	Cl	37		ug/L			4735446	5039378	0
>	Sc	45		ug/L			1275890	1287117	2
	V	51	0.019	ug/L	0.002	11	9212	9766	2
	V-1	51	0.009	ug/L	0.000	2	60	288	4
	Cr	52	0.058	ug/L	0.016	27	27310	28667	2
	Cr	53	0.022	ug/L	0 008	38	159	208	6
	Mn	55	0.019	ug/L	0.002	10	592	1128	2
	Co	59	0.001	ug/L	0.000	25	80	93	5
>	Ge	72		ug/L			659198	667659	0
	Ni	60	0.006	ug/L	0 000	6	16	40	3
	Ni	62	0.012	ug/L	0 049	417	275	285	9
	Cu	63	0.070	ug/L	0.000	0	372	986	0
	Cu	65	0.071	ug/L	0.008	10	41	322	10
	Zn	66	0.596	ug/L	0.032	5	192	1673	4
	Zn	67	0.594	ug/L	0.045	7	31	275	6
	Zn	68	0.595	ug/L	0.013	2	189	1250	2
	As	75	0.016	ug/L	0.013	79	267	305	8
	As-1	75	-0.007	ug/L	0.044	678	10608	10729	0
	Se	82	0.037	ug/L	0.032	86	-2	5	131
	Se	78	-0.052	ug/L	0.158	304	10783	10888	0
	Mo	98	0.006	ug/L	0.001	13	8	39	10
	Y	89		ug/L			428598	433712	0
	Kr	83		ug/L			613	613	4
>	In	115		ug/L			928277	935354	1
	Ag	107	0.001	ug/L	0.000	19	14	25	9
	Cd	111	0.006	ug/L	0.002	34	65	91	8
	Cd	114	0.000	ug/L	0.000	144	31	35	14
	Sb	121	0.017	ug/L	0.004	23	40	254	18
	Sb	123	0.017	ug/L	0.004	20	30	196	16
	Ba	135	0.036	ug/L	0.004	10	13	149	10
	Ba	137	0.035	ug/L	0.002	7	15	242	6
>	Tb	159		ug/L			1061408	1065271	0
	Tl	205	0.008	ug/L	0.003	40	43	308	34
	Pb	208	0.005	ug/L	0.001	10	368	593	3
	Bi	209		ug/L			2680757	2647958	0
	Th	232	0.065	ug/L	0.003	4	49	2832	4
	U	238	0.001	ug/L	0.000	24	2	45	23

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT84 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:43:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1852475	0
	Be	9	23.905	ug/L	0.118	0	12	112565	0
	C	13		ug/L			138826	155163	4
	Cl	37		ug/L			4735446	5059291	1
>	Sc	45		ug/L			1275890	1297897	1
	V	51	24.573	ug/L	0.360	1	9212	616508	1
	V-1	51	24.668	ug/L	0.424	1	60	609741	0
	Cr	52	26.142	ug/L	0.618	2	27310	538800	2
	Cr	53	26.480	ug/L	0.834	3	159	58720	1
	Mn	55	25.573	ug/L	0.682	2	592	711615	1
	Co	59	25.882	ug/L	0.920	3	80	492403	2
>	Ge	72		ug/L			659198	669076	3
	Ni	60	26.601	ug/L	0.729	2	16	106041	0
	Ni	62	26.386	ug/L	0.776	2	275	15001	1
	Cu	63	26.670	ug/L	0.674	2	372	234354	0
	Cu	65	26.062	ug/L	0.471	1	41	102474	1
	Zn	66	80.188	ug/L	4 515	5	192	199394	2
	Zn	67	74.797	ug/L	1.372	1	31	30872	1
	Zn	68	77.288	ug/L	3.524	4	189	137711	1
	As	75	24.283	ug/L	0.853	3	267	52769	0
	As-1	75	25.192	ug/L	0.932	3	10608	65899	0
	Se	82	76.221	ug/L	2.444	3	-2	18120	0
	Se	78	76.080	ug/L	2.650	3	10783	59605	0
	Mo	98	24.396	ug/L	0.387	1	8	121895	1
	Y	89		ug/L			428598	436843	0
	Kr	83		ug/L			613	630	5
>	In	115		ug/L			928277	952017	0
	Ag	107	26.468	ug/L	0.791	2	14	256539	2
	Cd	111	24.504	ug/L	0.044	0	65	105998	0
	Cd	114	24.585	ug/L	0.221	0	31	267409	0
	Sb	121	24.373	ug/L	0.251	1	40	313473	1
	Sb	123	24.286	ug/L	0.039	0	30	235868	0
	Ba	135	25.508	ug/L	0.171	0	13	98121	0
	Ba	137	25.699	ug/L	0.254	0	15	170629	0
>	Tb	159		ug/L			1061408	1093685	0
	Tl	205	24.035	ug/L	0.095	0	43	849445	0
	Pb	208	24.939	ug/L	0.089	0	368	1106156	0
	Bi	209		ug/L			2680757	2624798	0
	Th	232	23.651	ug/L	0.141	0	49	1047562	0
	U	238	22.969	ug/L	0.120	0	2	1097184	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT84 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:47:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1826865	0
	Be	9	24.546	ug/L	0.095	0	12	113982	0
	C	13		ug/L			138826	151562	1
	Cl	37		ug/L			4735446	5085565	0
>	Sc	45		ug/L			1275890	1328287	1
	V	51	23.680	ug/L	0.263	1	9212	608423	1
	V-1	51	23.588	ug/L	0.363	1	60	596736	1
	Cr	52	25.034	ug/L	0.168	0	27310	529294	1
	Cr	53	24.703	ug/L	0.955	3	159	56072	2
	Mn	55	24.767	ug/L	0.196	0	592	705500	1
	Co	59	25.211	ug/L	0.587	2	80	490947	0
>	Ge	72		ug/L			659198	663026	1
	Ni	60	26.205	ug/L	0.991	3	16	103530	1
	Ni	62	26.291	ug/L	0.584	2	275	14817	0
	Cu	63	25.837	ug/L	0.385	1	372	225067	0
	Cu	65	26.606	ug/L	0.257	0	41	103696	1
	Zn	66	80.294	ug/L	1.292	1	192	198075	2
	Zn	67	76.493	ug/L	1.375	1	31	31290	0
	Zn	68	78.947	ug/L	1.123	1	189	139496	0
	As	75	24.461	ug/L	0.291	1	267	52703	0
	As-1	75	25.443	ug/L	0.758	2	10608	65869	1
	Se	82	78.392	ug/L	0.783	0	-2	18477	0
	Se	78	78.390	ug/L	2.324	2	10783	60549	0
	Mo	98	24.233	ug/L	0.322	1	8	120014	1
	Y	89		ug/L			428598	443106	2
	Kr	83		ug/L			613	631	2
>	In	115		ug/L			928277	953024	1
	Ag	107	26.178	ug/L	0.347	1	14	254006	1
	Cd	111	24.535	ug/L	0.425	1	65	106234	1
	Cd	114	24.493	ug/L	0.218	0	31	266692	1
	Sb	121	23.953	ug/L	0.141	0	40	308390	1
	Sb	123	23.979	ug/L	0.104	0	30	233140	1
	Ba	135	24.986	ug/L	0.222	0	13	96218	1
	Ba	137	25.067	ug/L	0.278	1	15	166597	0
>	Tb	159		ug/L			1061408	1093829	0
	Tl	205	23.806	ug/L	0.091	0	43	841490	0
	Pb	208	24.676	ug/L	0.278	1	368	1094649	1
	Bi	209		ug/L			2680757	2638667	0
	Th	232	23.241	ug/L	0.078	0	49	1029568	0
	U	238	22.484	ug/L	0.244	1	2	1074118	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT84 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:51:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1777024	0
	Be	9	0.039	ug/L	0.002	4	12	186	3
	C	13		ug/L			138826	156993	1
	Cl	37		ug/L			4735446	4879192	3
>	Sc	45		ug/L			1275890	1356630	0
	V	51	14.361	ug/L	0.089	0	9212	380735	1
	V-1	51	14.359	ug/L	0.101	0	60	371091	1
	Cr	52	3.611	ug/L	0.014	0	27310	102840	0
	Cr	53	3.619	ug/L	0.119	3	159	8537	2
	Mn	55	45.857	ug/L	0.218	0	592	1333716	0
	Co	59	1.539	ug/L	0.031	2	80	30701	1
>	Ge	72		ug/L			659198	657465	0
	Ni	60	7.873	ug/L	0.214	2	16	30871	3
	Ni	62	8.048	ug/L	0.218	2	275	4688	2
	Cu	63	17.454	ug/L	0.312	1	372	150899	0
	Cu	65	16.912	ug/L	0.045	0	41	65380	0
	Zn	66	22.481	ug/L	0.260	1	192	55130	0
	Zn	67	21.963	ug/L	0.151	0	31	8932	1
	Zn	68	22.763	ug/L	0.251	1	189	40023	0
	As	75	2.071	ug/L	0.016	0	267	4669	1
	As-1	75	2.050	ug/L	0.078	3	10608	14991	0
	Se	82	0.507	ug/L	0.028	5	-2	115	6
	Se	78	0.536	ug/L	0.339	63	10783	11090	1
	Mo	98	3.420	ug/L	0.045	1	8	16805	0
	Y	89		ug/L			428598	464678	1
	Kr	83		ug/L			613	645	3
>	In	115		ug/L			928277	935338	1
	Ag	107	0.025	ug/L	0.004	14	14	253	14
	Cd	111	0.053	ug/L	0.003	6	65	292	4
	Cd	114	0.041	ug/L	0.003	7	31	469	6
	Sb	121	0.827	ug/L	0.004	0	40	10482	0
	Sb	123	0.824	ug/L	0.008	0	30	7888	1
	Ba	135	14.149	ug/L	0.065	0	13	53479	1
	Ba	137	14.257	ug/L	0.209	1	15	93003	0
>	Tb	159		ug/L			1061408	1085470	0
	Tl	205	0.019	ug/L	0.001	5	43	725	6
	Pb	208	1.790	ug/L	0.019	1	368	79127	0
	Bi	209		ug/L			2680757	2572738	1
	Th	232	0.455	ug/L	0.050	10	49	20060	10
	U	238	0.165	ug/L	0.005	3	2	7806	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT84 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:55:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1738475	1795207	0
	Be	9	0.023	ug/L	0.002	9	12	118	8
	C	13		ug/L			138826	153770	0
	Cl	37		ug/L			4735446	4760227	1
>	Sc	45		ug/L			1275890	1317166	1
	V	51	5.406	ug/L	0.114	2	9212	145110	2
	V-1	51	5.417	ug/L	0.109	2	60	135989	3
	Cr	52	0.515	ug/L	0.053	10	27310	38410	2
	Cr	53	0.561	ug/L	0.025	4	159	1423	3
	Mn	55	20.445	ug/L	0.535	2	592	577624	2
	Co	59	0.114	ug/L	0 002	1	80	2288	1
>	Ge	72		ug/L			659198	659239	0
	Ni	60	3.237	ug/L	0.113	3	16	12738	3
	Ni	62	3.168	ug/L	0.061	1	275	2017	2
	Cu	63	8.751	ug/L	0.180	2	372	76061	2
	Cu	65	8.135	ug/L	0.045	0	41	31557	0
	Zn	66	5.038	ug/L	0.025	0	192	12537	0
	Zn	67	4.943	ug/L	0.134	2	31	2039	2
	Zn	68	5.323	ug/L	0.104	1	189	9530	1
	As	75	1.103	ug/L	0.054	4	267	2618	4
	As-1	75	1.069	ug/L	0.061	5	10608	12915	0
	Se	82	0.472	ug/L	0.062	13	-2	107	13
	Se	78	0.379	ug/L	0.101	26	10783	11022	0
	Mo	98	3.549	ug/L	0.056	1	8	17484	1
	Y	89		ug/L			428598	435825	1
	Kr	83		ug/L			613	616	5
>	In	115		ug/L			928277	945590	0
	Ag	107	0.006	ug/L	0.000	5	14	73	3
	Cd	111	0.014	ug/L	0.002	13	65	126	6
	Cd	114	0.013	ug/L	0.001	9	31	176	7
	Sb	121	0.791	ug/L	0.010	1	40	10146	1
	Sb	123	0.815	ug/L	0.014	1	30	7892	1
	Ba	135	3.699	ug/L	0.055	1	13	14144	1
	Ba	137	3.680	ug/L	0.016	0	15	24283	1
>	Tb	159		ug/L			1061408	1099912	0
	Tl	205	0.009	ug/L	0.002	19	43	349	16
	Pb	208	0.089	ug/L	0.003	3	368	4347	2
	Bi	209		ug/L			2680757	2600009	1
	Th	232	0.079	ug/L	0.005	5	49	3553	5
	U	238	0.124	ug/L	0.001	0	2	5953	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:06:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1778176	0
	Be	9	50.332	ug/L	0.432	0	12	227479	0
	C	13		ug/L			138826	141713	2
	Cl	37		ug/L			4735446	5038545	2
>	Sc	45		ug/L			1275890	1301941	1
	V	51	47.363	ug/L	0.655	1	9212	1183265	0
	V-1	51	47.253	ug/L	0.792	1	60	1171624	0
	Cr	52	49.472	ug/L	0.816	1	27310	997964	0
	Cr	53	49.077	ug/L	1.260	2	159	109047	1
	Mn	55	47.480	ug/L	0.168	0	592	1325244	1
	Co	59	49.203	ug/L	0.760	1	80	939175	0
>	Ge	72		ug/L			659198	660592	0
	Ni	60	49.744	ug/L	1.153	2	16	195874	2
	Ni	62	49.545	ug/L	0.945	1	275	27585	2
	Cu	63	50.538	ug/L	0.634	1	372	438336	1
	Cu	65	50.798	ug/L	0.823	1	41	197242	2
	Zn	66	50.247	ug/L	1.116	2	192	123562	1
	Zn	67	50.639	ug/L	1.419	2	31	20650	2
	Zn	68	50.705	ug/L	0.960	1	189	89349	2
	As	75	49.576	ug/L	0.343	0	267	106164	1
	As-1	75	49.545	ug/L	0.190	0	10608	117765	0
	Se	82	50.844	ug/L	0.300	0	-2	11941	1
	Se	78	49.950	ug/L	0.437	0	10783	42372	1
	Mo	98	48.247	ug/L	0.833	1	8	238102	2
	Y	89		ug/L			428598	430291	1
	Kr	83		ug/L			613	611	3
>	In	115		ug/L			928277	933535	0
	Ag	107	51.701	ug/L	0.768	1	14	491422	1
	Cd	111	50.888	ug/L	0.199	0	65	215786	1
	Cd	114	51.593	ug/L	0.628	1	31	550243	0
	Sb	121	50.196	ug/L	0.507	1	40	632961	0
	Sb	123	50.630	ug/L	0.485	0	30	482136	0
	Ba	135	49.350	ug/L	0.916	1	13	186125	1
	Ba	137	49.909	ug/L	0.963	1	15	324919	1
>	Tb	159		ug/L			1061408	1095113	0
	Tl	205	45.837	ug/L	0.191	0	43	1622058	0
	Pb	208	47.994	ug/L	0.344	0	368	2131170	0
	Bi	209		ug/L			2680757	2622085	0
	Th	232	44.230	ug/L	0.483	1	49	1961563	0
	U	238	50.992	ug/L	0.630	1	2	2438865	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:13:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1728826	0
	Be	9	0.001	ug/L	0.000	31	12	16	9
	C	13		ug/L			138826	142320	1
	Cl	37		ug/L			4735446	4865424	0
>	Sc	45		ug/L			1275890	1238833	0
	V	51	-0.001	ug/L	0.009	863	9212	8919	1
	V-1	51	0.001	ug/L	0.001	48	60	90	17
	Cr	52	-0.003	ug/L	0.037	1194	27310	26456	1
	Cr	53	0.005	ug/L	0.008	144	159	166	9
	Mn	55	0.002	ug/L	0.001	49	592	635	4
	Co	59	0.000	ug/L	0.000	89	80	80	3
>	Ge	72		ug/L			659198	641367	2
	Ni	60	0.001	ug/L	0.001	91	16	20	18
	Ni	62	0.051	ug/L	0.034	67	275	295	4
	Cu	63	0.005	ug/L	0.002	44	372	402	2
	Cu	65	0.002	ug/L	0.002	93	41	47	13
	Zn	66	0.289	ug/L	0.009	3	192	876	2
	Zn	67	0.291	ug/L	0.043	14	31	145	10
	Zn	68	0.304	ug/L	0.016	5	189	703	2
	As	75	0.011	ug/L	0.019	162	267	283	15
	As-1	75	0.117	ug/L	0.169	143	10608	10561	0
	Se	82	-0.023	ug/L	0.063	270	-2	-8	175
	Se	78	0.374	ug/L	0.613	163	10783	10714	0
	Mo	98	0.009	ug/L	0.001	12	8	49	8
	Y	89		ug/L			428598	412927	0
	Kr	83		ug/L			613	623	3
>	In	115		ug/L			928277	914544	0
	Ag	107	0.002	ug/L	0.001	44	14	34	26
	Cd	111	0.005	ug/L	0.001	21	65	84	5
	Cd	114	0.001	ug/L	0.001	115	31	39	23
	Sb	121	0.070	ug/L	0.007	10	40	907	10
	Sb	123	0.068	ug/L	0.010	15	30	663	14
	Ba	135	0.002	ug/L	0.001	34	13	20	11
	Ba	137	0.002	ug/L	0.001	35	15	30	17
>	Tb	159		ug/L			1061408	1044453	0
	Tl	205	0.008	ug/L	0.003	40	43	307	34
	Pb	208	0.005	ug/L	0.000	7	368	580	3
	Bi	209		ug/L			2680757	2634932	0
	Th	232	0.167	ug/L	0.021	12	49	7107	11
	U	238	0.002	ug/L	0.000	6	2	93	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:22:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1738475	1764561	0
	Be	9	0.002	ug/L	0.000	23	12	20	10
	C	13		ug/L			138826	143568	3
	Cl	37		ug/L			4735446	4884332	2
>	Sc	45		ug/L			1275890	1249388	2
	V	51	0.010	ug/L	0.010	99	9212	9257	3
	V-1	51	0.001	ug/L	0.001	77	60	83	22
	Cr	52	0.039	ug/L	0.029	73	27310	27479	3
	Cr	53	0.007	ug/L	0.004	59	159	171	5
	Mn	55	0.034	ug/L	0.001	2	592	1486	0
	Co	59	0.001	ug/L	0.000	33	80	104	9
>	Ge	72		ug/L			659198	648705	1
	Ni	60	0.002	ug/L	0.002	90	16	25	34
	Ni	62	-0.017	ug/L	0.050	296	275	262	11
	Cu	63	0.023	ug/L	0.001	2	372	560	2
	Cu	65	0.026	ug/L	0.004	14	41	139	10
	Zn	66	0.112	ug/L	0.008	7	192	458	3
	Zn	67	0.114	ug/L	0.030	26	31	76	15
	Zn	68	0.117	ug/L	0.009	7	189	388	4
	As	75	0.016	ug/L	0.008	51	267	296	5
	As-1	75	0.072	ug/L	0.104	144	10608	10588	0
	Se	82	-0.010	ug/L	0.060	578	-2	-5	268
	Se	78	0.207	ug/L	0.360	173	10783	10737	0
	Mo	98	0.003	ug/L	0.001	34	8	22	21
	Y	89		ug/L			428598	424678	1
	Kr	83		ug/L			613	624	6
>	In	115		ug/L			928277	931880	0
	Ag	107	0.001	ug/L	0.001	61	14	26	27
	Cd	111	0.004	ug/L	0.002	38	65	82	8
	Cd	114	0.000	ug/L	0.000	570	31	32	13
	Sb	121	0.021	ug/L	0.004	19	40	306	17
	Sb	123	0.020	ug/L	0.003	14	30	225	13
	Ba	135	0.019	ug/L	0.002	8	13	85	7
	Ba	137	0.020	ug/L	0.000	2	15	144	1
>	Tb	159		ug/L			1061408	1058560	0
	Tl	205	0.004	ug/L	0.002	46	43	183	35
	Pb	208	0.006	ug/L	0.000	5	368	609	2
	Bi	209		ug/L			2680757	2661702	0
	Th	232	0.074	ug/L	0.007	9	49	3206	9
	U	238	0.001	ug/L	0.000	23	2	29	21

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:26:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1773559	1
	Be	9	24.744	ug/L	0.389	1	12	111539	0
	C	13		ug/L			138826	146671	3
	Cl	37		ug/L			4735446	4812316	2
>	Sc	45		ug/L			1275890	1258360	1
	V	51	24.538	ug/L	0.522	2	9212	596878	1
	V-1	51	24.586	ug/L	0.377	1	60	589286	1
	Cr	52	26.523	ug/L	0.799	3	27310	529562	1
	Cr	53	26.694	ug/L	0.270	1	159	57412	1
	Mn	55	26.058	ug/L	0.038	0	592	703247	1
	Co	59	26.531	ug/L	0.569	2	80	489491	1
>	Ge	72		ug/L			659198	657273	0
	Ni	60	26.800	ug/L	0.178	0	16	105008	0
	Ni	62	26.805	ug/L	0.102	0	275	14974	0
	Cu	63	26.994	ug/L	0.616	2	372	233137	2
	Cu	65	27.020	ug/L	0.185	0	41	104403	0
	Zn	66	84.170	ug/L	0.984	1	192	205828	0
	Zn	67	76.794	ug/L	1.311	1	31	31147	1
	Zn	68	81.866	ug/L	0.367	0	189	143417	0
	As	75	24.975	ug/L	0.243	0	267	53344	0
	As-1	75	25.937	ug/L	0.244	0	10608	66379	0
	Se	82	83.119	ug/L	0.954	1	-2	19424	0
	Se	78	82.785	ug/L	0.398	0	10783	62803	0
	Mo	98	24.223	ug/L	0.336	1	8	118936	1
	Y	89		ug/L			428598	424528	1
	Kr	83		ug/L			613	608	3
>	In	115		ug/L			928277	941101	1
	Ag	107	26.348	ug/L	0.432	1	14	252444	0
	Cd	111	25.232	ug/L	0.459	1	65	107874	0
	Cd	114	25.486	ug/L	0.450	1	31	273992	0
	Sb	121	24.798	ug/L	0.534	2	40	315198	0
	Sb	123	24.935	ug/L	0.550	2	30	239342	0
	Ba	135	25.533	ug/L	0.478	1	13	97078	0
	Ba	137	25.661	ug/L	0.502	1	15	168400	0
>	Tb	159		ug/L			1061408	1078197	0
	Tl	205	24.518	ug/L	0.175	0	43	854210	0
	Pb	208	25.557	ug/L	0.213	0	368	1117494	0
	Bi	209		ug/L			2680757	2677326	1
	Th	232	22.959	ug/L	0.375	1	49	1002436	0
	U	238	22.903	ug/L	0.236	1	2	1078450	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR88 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:31:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1775120	0
	Be	9	24.130	ug/L	0.252	1	12	108877	0
	C	13		ug/L			138826	153485	1
	Cl	37		ug/L			4735446	4861432	2
>	Sc	45		ug/L			1275890	1280305	0
	V	51	24.213	ug/L	0.060	0	9212	599454	0
	V-1	51	24.188	ug/L	0.182	0	60	589881	0
	Cr	52	25.383	ug/L	0.702	2	27310	516962	2
	Cr	53	25.291	ug/L	0.161	0	159	55355	0
	Mn	55	24.717	ug/L	0.498	2	592	678748	2
	Co	59	26.125	ug/L	0.741	2	80	490500	3
>	Ge	72		ug/L			659198	650040	2
	Ni	60	26.653	ug/L	0.630	2	16	103257	1
	Ni	62	26.169	ug/L	0.847	3	275	14461	2
	Cu	63	26.790	ug/L	0.240	0	372	228795	1
	Cu	65	26.905	ug/L	0.422	1	41	102791	1
	Zn	66	81.418	ug/L	1 224	1	192	196881	1
	Zn	67	74.919	ug/L	1.326	1	31	30049	2
	Zn	68	79.335	ug/L	1.613	2	189	137417	0
	As	75	24.246	ug/L	0 378	1	267	51214	0
	As-1	75	25.169	ug/L	0.263	1	10608	64009	1
	Se	82	78.654	ug/L	1.827	2	-2	18172	0
	Se	78	78.449	ug/L	1.136	1	10783	59405	1
	Mo	98	24.311	ug/L	0.611	2	8	118007	0
	Y	89		ug/L			428598	427924	1
	Kr	83		ug/L			613	633	4
>	In	115		ug/L			928277	946027	0
	Ag	107	24.237	ug/L	0.486	2	14	233486	2
	Cd	111	24.924	ug/L	0.158	0	65	107137	1
	Cd	114	24.769	ug/L	0.118	0	31	267737	1
	Sb	121	24.184	ug/L	0.212	0	40	309061	0
	Sb	123	24.184	ug/L	0.409	1	30	233398	1
	Ba	135	24.971	ug/L	0.290	1	13	95457	1
	Ba	137	25.124	ug/L	0.271	1	15	165764	1
>	Tb	159		ug/L			1061408	1073262	1
	Tl	205	24.369	ug/L	0 249	1	43	845135	1
	Pb	208	25.265	ug/L	0.306	1	368	1099590	1
	Bi	209		ug/L			2680757	2666857	0
	Th	232	23.147	ug/L	0.389	1	49	1005943	1
	U	238	22.804	ug/L	0.316	1	2	1068826	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR88 J REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:36:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1760417	1
	Be	9	0.041	ug/L	0.003	6	12	194	7
	C	13		ug/L			138826	148727	0
	Cl	37		ug/L			4735446	5944954	0
>	Sc	45		ug/L			1275890	1306355	1
	V	51	23.736	ug/L	0.158	0	9212	599804	1
	V-1	51	23.839	ug/L	0.175	0	60	593248	1
	Cr	52	4.978	ug/L	0.104	2	27310	125897	0
	Cr	53	5.374	ug/L	0.057	1	159	12129	2
	Mn	55	109.853	ug/L	0.653	0	592	3075655	0
	Co	59	0.174	ug/L	0.004	2	80	3410	1
>	Ge	72		ug/L			659198	641828	2
	Ni	60	0.293	ug/L	0.006	2	16	1134	0
	Ni	62	21.535	ug/L	5 045	23	275	11781	22
	Cu	63	4.754	ug/L	0.457	9	372	40357	8
	Cu	65	0.632	ug/L	0.027	4	41	2422	2
	Zn	66	1.224	ug/L	0.037	2	192	3106	1
	Zn	67	1.849	ug/L	0.050	2	31	761	0
	Zn	68	1.830	ug/L	0.013	0	189	3310	1
	As	75	0.160	ug/L	0.015	9	267	590	4
	As-1	75	0.306	ug/L	0.091	29	10608	10967	0
	Se	82	0.164	ug/L	0.072	43	-2	34	47
	Se	78	0.686	ug/L	0.327	47	10783	10917	0
	Mo	98	0.087	ug/L	0.004	4	8	427	2
	Y	89		ug/L			428598	476466	0
	Kr	83		ug/L			613	617	1
>	In	115		ug/L			928277	887571	1
	Ag	107	0.009	ug/L	0.001	9	14	99	9
	Cd	111	0.032	ug/L	0.003	8	65	191	6
	Cd	114	0.002	ug/L	0.001	34	31	55	16
	Sb	121	0.041	ug/L	0.008	19	40	526	17
	Sb	123	0.042	ug/L	0.003	6	30	408	4
	Ba	135	2.314	ug/L	0.027	1	13	8309	0
	Ba	137	2.323	ug/L	0.030	1	15	14390	0
>	Tb	159		ug/L			1061408	1080553	1
	Tl	205	0.015	ug/L	0.005	32	43	557	29
	Pb	208	0.053	ug/L	0.001	2	368	2690	2
	Bi	209		ug/L			2680757	2418957	0
	Th	232	0.406	ug/L	0.027	6	49	17841	7
	U	238	0.042	ug/L	0.003	6	2	2005	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:40:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			1738475	1807654	1
Be	9	0.521	ug/L	0.006	1	12	2405	1
C	13		ug/L			138826	200278	0
Cl	37		ug/L			4735446	4904519	1
> Sc	45		ug/L			1275890	1396038	1
V	51	40.795	ug/L	0.849	2	9212	1094111	0
V-1	51	40.791	ug/L	1.002	2	60	1084387	0
Cr	52	33.953	ug/L	0.663	1	27310	743757	1
Cr	53	33.949	ug/L	0.963	2	159	80935	1
Mn	55	1103.015	ug/L	20.868	1	592	32990568	0
Co	59	9.365	ug/L	0.032	0	80	191776	1
> Ge	72		ug/L			659198	664016	0
Ni	60	22.665	ug/L	0.665	2	16	89712	2
Ni	62	26.509	ug/L	0.274	1	275	14963	0
Cu	63	35.695	ug/L	0.902	2	372	311288	1
Cu	65	36.437	ug/L	0.505	1	41	142214	1
Zn	66	363.720	ug/L	7.894	2	192	897870	1
Zn	67	365.475	ug/L	8.417	2	31	149631	2
Zn	68	373.500	ug/L	6.370	1	189	660325	1
As	75	11.072	ug/L	0.023	0	267	24040	0
As-1	75	10.835	ug/L	0.091	0	10608	34236	0
Se	82	0.090	ug/L	0 045	49	-2	18	58
Se	78	0.079	ug/L	0.191	242	10783	10911	0
Mo	98	0.419	ug/L	0.001	0	8	2086	0
Y	89		ug/L			428598	585200	1
Kr	83		ug/L			613	891	1
> In	115		ug/L			928277	981385	1
Ag	107	0.197	ug/L	0.003	1	14	1980	1
Cd	111	7.119	ug/L	0.136	1	65	31789	1
Cd	114	7.041	ug/L	0.107	1	31	78968	1
Sb	121	0.401	ug/L	0.006	1	40	5359	1
Sb	123	0.401	ug/L	0.004	1	30	4047	2
Ba	135	572.455	ug/L	5.200	0	13	2269576	0
Ba	137	565.587	ug/L	4.618	0	15	3870651	0
> Tb	159		ug/L			1061408	1121006	0
Tl	205	0.372	ug/L	0.010	2	43	13505	2
Pb	208	350.623	ug/L	0.453	0	368	15935477	0
Bi	209		ug/L			2680757	2615824	0
Th	232	4.183	ug/L	0.044	1	49	189956	0
U	238	0.782	ug/L	0.005	0	2	38304	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:44:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1738475	1850113	1
	Be	9	1.104	ug/L	0.017	1	12	5202	2
	C	13		ug/L			138826	249076	1
	Cl	37		ug/L			4735446	4954281	2
>	Sc	45		ug/L			1275890	1409609	1
	V	51	24.843	ug/L	0.146	0	9212	676932	2
	V-1	51	24.786	ug/L	0.223	0	60	665558	2
	Cr	52	21.486	ug/L	0.098	0	27310	486377	1
	Cr	53	21.289	ug/L	0.460	2	159	51323	1
	Mn	55	5867.274	ug/L	28.537	0	592	177234278	1
	Co	59	22.359	ug/L	0.434	1	80	462150	1
>	Ge	72		ug/L			659198	667639	2
	Ni	60	50.885	ug/L	0.622	1	16	202519	2
	Ni	62	52.663	ug/L	0.241	0	275	29614	2
	Cu	63	60.444	ug/L	1.618	2	372	529609	1
	Cu	65	60.483	ug/L	0.594	0	41	237343	2
	Zn	66	1531.018	ug/L	45.011	2	192	3798707	2
	Zn	67	1278.434	ug/L	33.639	2	31	526219	3
	Zn	68	1492.626	ug/L	16.001	1	189	2652887	2
	As	75	52.568	ug/L	0.743	1	267	113735	1
	As-1	75	51.745	ug/L	0.814	1	10608	123805	0
	Se	82	1.257	ug/L	0 074	5	-2	295	4
	Se	78	1.038	ug/L	0.418	40	10783	11580	0
	Mo	98	1.129	ug/L	0.035	3	8	5638	1
	Y	89		ug/L			428598	737768	1
	Kr	83		ug/L			613	1005	0
>	In	115		ug/L			928277	1075922	1
	Ag	107	0.636	ug/L	0.006	0	14	6979	1
	Cd	111	35.765	ug/L	0.721	2	65	174769	0
	Cd	114	35.965	ug/L	0.653	1	31	442010	0
	Sb	121	2.541	ug/L	0.036	1	40	36961	0
	Sb	123	2.568	ug/L	0.061	2	30	28212	0
	Ba	135	531.944	ug/L	13.438	2	13	2311730	1
	Ba	137	529.034	ug/L	8.673	1	15	3968729	0
>	Tb	159		ug/L			1061408	1130276	1
	Tl	205	1.040	ug/L	0.013	1	43	38011	0
	Pb	208	1176.028	ug/L	11.560	0	368	53887920	0
	Bi	209		ug/L			2680757	2655950	0
	Th	232	3.791	ug/L	0.059	1	49	173549	1
	U	238	0.688	ug/L	0.005	0	2	33956	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:48:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1738475	1877653	0
	Be	**9**	**0.826**	ug/L	0.012	1	12	3956	0
	C	**13**		ug/L			138826	280849	1
	Cl	**37**		ug/L			4735446	5268736	4
>	**Sc**	**45**		ug/L			1275890	1393709	0
	V	**51**	**18.576**	ug/L	0.218	1	9212	502969	1
	V-1	**51**	**18.664**	ug/L	0.128	0	60	495508	0
	Cr	**52**	**14.348**	ug/L	0.163	1	27310	331059	0
	Cr	**53**	**14.669**	ug/L	0.291	1	159	35023	1
	Mn	**55**	**5730.178**	ug/L	85.689	1	592	171135199	1
	Co	**59**	**19.999**	ug/L	0.270	1	80	408750	1
>	**Ge**	**72**		ug/L			659198	673539	1
	Ni	**60**	**38.762**	ug/L	1.116	2	16	155579	1
	Ni	**62**	**40.279**	ug/L	1 318	3	275	22908	1
	Cu	**63**	**61.966**	ug/L	1.759	2	372	547772	1
	Cu	**65**	**62.911**	ug/L	0.936	1	41	248997	0
	Zn	**66**	**1246.894**	ug/L	23.499	1	192	3121503	1
	Zn	**67**	**1048.818**	ug/L	15.745	1	31	435478	1
	Zn	**68**	**1141.311**	ug/L	88.489	7	189	2045013	6
	As	**75**	**20.705**	ug/L	0.524	2	267	45352	0
	As-1	**75**	**20.295**	ug/L	0.619	3	10608	55567	0
	Se	**82**	**1.237**	ug/L	0.063	5	-2	293	4
	Se	**78**	**0.993**	ug/L	0.390	39	10783	11654	0
	Mo	**98**	**1.012**	ug/L	0.024	2	8	5097	0
	Y	**89**		ug/L			428598	700562	1
	Kr	**83**		ug/L			613	922	6
>	**In**	**115**		ug/L			928277	1090035	0
	Ag	**107**	**0.921**	ug/L	0.029	3	14	10238	2
	Cd	**111**	**24.566**	ug/L	0.358	1	65	121666	0
	Cd	**114**	**24.847**	ug/L	0.126	0	31	309452	0
	Sb	**121**	**3.010**	ug/L	0.003	0	40	44364	0
	Sb	**123**	**2.988**	ug/L	0.025	0	30	33264	1
	Ba	**135**	**371.468**	ug/L	2.344	0	13	1635900	0
	Ba	**137**	**415.825**	ug/L	3.928	0	15	3160890	0
>	**Tb**	**159**		ug/L			1061408	1126474	0
	Tl	**205**	**0.848**	ug/L	0.010	1	43	30927	0
	Pb	**208**	**1593.277**	ug/L	12.656	0	368	72762657	0
	Bi	**209**		ug/L			2680757	2714565	0
	Th	**232**	**2.683**	ug/L	0.018	0	49	122446	0
	U	**238**	**0.532**	ug/L	0 001	0	2	26198	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:52:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
[>	Li	6		ug/L			1738475	1906879	1
[	Be	9	2.199	ug/L	0.017	0	12	10668	0
	C	13		ug/L			138826	250963	1
	Cl	37		ug/L			4735446	5345419	1
[>	Sc	45		ug/L			1275890	1441346	1
[	V	51	27.341	ug/L	0.368	1	9212	760636	0
[	V-1	51	27.262	ug/L	0.333	1	60	748472	1
[	Cr	52	23.657	ug/L	0.623	2	27310	544406	1
[	Cr	53	23.381	ug/L	0 326	1	159	57627	2
[	Mn	55	4601.461	ug/L	43.687	0	592	142119209	1
[	Co	59	34.847	ug/L	0.435	1	80	736561	2
[>	Ge	72		ug/L			659198	652082	0
[	Ni	60	74.560	ug/L	1.246	1	16	289775	0
[	Ni	62	76.037	ug/L	1.221	1	275	41638	0
[	Cu	63	69.936	ug/L	1.276	1	372	598572	0
[	Cu	65	69.014	ug/L	0.571	0	41	264485	0
[	Zn	66	788.790	ug/L	14.064	1	192	1911958	1
[	Zn	67	729.410	ug/L	5.857	0	31	293255	1
[	Zn	68	785.193	ug/L	14.490	1	189	1362908	0
[	As	75	26.904	ug/L	0.393	1	267	56989	1
[	As-1	75	26.401	ug/L	0.400	1	10608	66841	0
[	Se	82	1.458	ug/L	0.053	3	-2	335	4
[	Se	78	1.601	ug/L	0.296	18	10783	11664	0
[	Mo	98	1.502	ug/L	0.041	2	8	7322	1
	Y	89		ug/L			428598	933891	1
	Kr	83		ug/L			613	1256	4
[>	In	115		ug/L			928277	969423	1
[	Ag	107	0.920	ug/L	0.018	1	14	9098	2
[	Cd	111	11.582	ug/L	0.295	2	65	51044	1
[	Cd	114	11.646	ug/L	0.163	1	31	128999	0
[	Sb	121	1.030	ug/L	0.016	1	40	13528	0
[	Sb	123	1.025	ug/L	0.012	1	30	10165	0
[	Ba	135	350.464	ug/L	7.547	2	13	1372438	1
[	Ba	137	392.391	ug/L	7 982	2	15	2652429	1
[>	Tb	159		ug/L			1061408	1124700	1
	Tl	205	0.398	ug/L	0.009	2	43	14492	1
[	Pb	208	546.347	ug/L	8.657	1	368	24908916	0
[	Bi	209		ug/L			2680757	2527833	1
	Th	232	4.750	ug/L	0.078	1	49	216366	0
[	U	238	0.763	ug/L	0.002	0	2	37495	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:56:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas. Intens.	Intens RSD
[>	Li	6		ug/L			1738475	1861163	1
[	Be	9	0.613	ug/L	0.014	2	12	2910	1
	C	13		ug/L			138826	202294	3
	Cl	37		ug/L			4735446	4979838	2
[>	Sc	45		ug/L			1275890	1412428	2
[	V	51	24.357	ug/L	0.608	2	9212	664984	0
[	V-1	51	24.331	ug/L	0.608	2	60	654392	0
[	Cr	52	21.357	ug/L	0.483	2	27310	484497	0
[	Cr	53	21.267	ug/L	0.642	3	159	51361	1
[	Mn	55	2842.775	ug/L	121.313	4	592	85995408	2
[	Co	59	9.377	ug/L	0.056	0	80	194274	1
[>	Ge	72		ug/L			659198	676221	1
[	Ni	60	27.857	ug/L	0.535	1	16	112292	2
[	Ni	62	29.532	ug/L	0.775	2	275	16940	1
[	Cu	63	25.382	ug/L	0.398	1	372	225514	0
[	Cu	65	25.707	ug/L	0.857	3	41	102160	1
[	Zn	66	410.951	ug/L	7.594	1	192	1032964	0
[	Zn	67	395.061	ug/L	13.046	3	31	164668	1
[	Zn	68	402.155	ug/L	11.862	2	189	723882	1
[	As	75	19.886	ug/L	0.223	1	267	43752	1
[	As-1	75	19.418	ug/L	0.282	1	10608	53856	0
[	Se	82	0.186	ug/L	0.032	17	-2	41	16
[	Se	78	-0.217	ug/L	0.288	133	10783	10919	0
[	Mo	98	0.704	ug/L	0 021	3	8	3562	2
	Y	89		ug/L			428598	588961	0
	Kr	83		ug/L			613	940	1
[>	In	115		ug/L			928277	990615	0
[	Ag	107	0.278	ug/L	0.006	2	14	2822	2
[	Cd	111	7.249	ug/L	0.096	1	65	32679	1
[	Cd	114	7.205	ug/L	0.012	0	31	81578	0
[	Sb	121	0.550	ug/L	0.013	2	40	7395	2
[	Sb	123	0.555	ug/L	0.011	1	30	5641	1
[	Ba	135	390.108	ug/L	2.255	0	13	1561311	1
[	Ba	137	428.722	ug/L	3.561	0	15	2961686	0
[>	Tb	159		ug/L			1061408	1112966	0
[	Tl	205	0.401	ug/L	0.006	1	43	14460	1
[	Pb	208	342.885	ug/L	4.349	1	368	15471735	1
[	Bi	209		ug/L			2680757	2623990	0
[	Th	232	4.073	ug/L	0 045	1	49	183626	0
[	U	238	0.590	ug/L	0.003	0	2	28694	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:00:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1845971	1
	Be	9	0.690	ug/L	0.019	2	12	3249	0
	C	13		ug/L			138826	181639	3
	Cl	37		ug/L			4735446	5008610	0
>	Sc	45		ug/L			1275890	1433995	2
	V	51	39.846	ug/L	1.230	3	9212	1097724	1
	V-1	51	40.011	ug/L	1.260	3	60	1092354	1
	Cr	52	31.622	ug/L	0.720	2	27310	713515	0
	Cr	53	32.222	ug/L	0.819	2	159	78910	0
	Mn	55	887.853	ug/L	24.421	2	592	27274107	1
	Co	59	11.000	ug/L	0.229	2	80	231293	0
>	Ge	72		ug/L			659198	665218	1
	Ni	60	28.950	ug/L	0.262	0	16	114797	1
	Ni	62	30.973	ug/L	0 457	1	275	17470	2
	Cu	63	29.880	ug/L	0.358	1	372	261095	0
	Cu	65	30.302	ug/L	0.293	0	41	118481	0
	Zn	66	158.303	ug/L	1.404	0	192	391594	1
	Zn	67	167.922	ug/L	3 850	2	31	68879	1
	Zn	68	164.387	ug/L	3.512	2	189	291197	0
	As	75	11.550	ug/L	0.154	1	267	25110	1
	As-1	75	11.222	ug/L	0.165	1	10608	35137	1
	Se	82	-0.174	ug/L	0.059	33	-2	-43	30
	Se	78	-0.178	ug/L	0.073	40	10783	10768	1
	Mo	98	0.765	ug/L	0.022	2	8	3810	3
	Y	89		ug/L			428598	654286	0
	Kr	83		ug/L			613	1121	2
>	In	115		ug/L			928277	950257	1
	Ag	107	0.232	ug/L	0.011	4	14	2258	3
	Cd	111	2.306	ug/L	0.051	2	65	10013	0
	Cd	114	2.180	ug/L	0.068	3	31	23687	1
	Sb	121	0.078	ug/L	0.002	2	40	1040	1
	Sb	123	0.076	ug/L	0.002	2	30	768	1
	Ba	135	247.632	ug/L	7.280	2	13	950477	2
	Ba	137	250.856	ug/L	5.285	2	15	1662098	1
>	Tb	159		ug/L			1061408	1095375	1
	Tl	205	0.209	ug/L	0.003	1	43	7424	0
	Pb	208	72.905	ug/L	0 807	1	368	3237771	1
	Bi	209		ug/L			2680757	2571391	0
	Th	232	5.059	ug/L	0.095	1	49	224440	1
	U	238	0.889	ug/L	0.011	1	2	42540	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:05:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1738475	1820630	0
	Be	9	49.253	ug/L	1.843	3	12	227959	4
	C	13		ug/L			138826	142988	2
	Cl	37		ug/L			4735446	5235758	1
>	Sc	45		ug/L			1275890	1305681	0
	V	51	47.193	ug/L	0.859	1	9212	1182652	2
	V-1	51	47.185	ug/L	1.020	2	60	1173589	2
	Cr	52	50.136	ug/L	0.373	0	27310	1014006	0
	Cr	53	50.104	ug/L	0.724	1	159	111684	2
	Mn	55	48.350	ug/L	0.573	1	592	1353435	1
	Co	59	49.433	ug/L	0.919	1	80	946460	2
>	Ge	72		ug/L			659198	655583	1
	Ni	60	50.950	ug/L	1.163	2	16	199074	1
	Ni	62	50.233	ug/L	1.675	3	275	27745	2
	Cu	63	51.204	ug/L	1.733	3	372	440647	2
	Cu	65	51.145	ug/L	1.382	2	41	197042	1
	Zn	66	50.720	ug/L	1.680	3	192	123770	2
	Zn	67	51.456	ug/L	1.607	3	31	20822	2
	Zn	68	52.167	ug/L	1.360	2	189	91206	1
	As	75	50.338	ug/L	1.645	3	267	106949	2
	As-1	75	50.488	ug/L	1.522	3	10608	118872	1
	Se	82	51.371	ug/L	1.447	2	-2	11971	1
	Se	78	51.142	ug/L	1.246	2	10783	42793	1
	Mo	98	50.490	ug/L	1.431	2	8	247217	1
	Y	89		ug/L			428598	435418	1
	Kr	83		ug/L			613	641	4
>	In	115		ug/L			928277	946165	1
	Ag	107	52.355	ug/L	1.064	2	14	504442	3
	Cd	111	50.663	ug/L	0.339	0	65	217725	1
	Cd	114	50.938	ug/L	0.865	1	31	550517	0
	Sb	121	50.070	ug/L	0.668	1	40	639833	0
	Sb	123	50.275	ug/L	0.577	1	30	485187	1
	Ba	135	48.758	ug/L	0.649	1	13	186364	0
	Ba	137	49.180	ug/L	0.417	0	15	324490	1
>	Tb	159		ug/L			1061408	1081605	0
	Tl	205	46.121	ug/L	0.418	0	43	1611992	0
	Pb	208	47.910	ug/L	0.329	0	368	2101264	1
	Bi	209		ug/L			2680757	2620451	0
	Th	232	44.545	ug/L	0.421	0	49	1951142	0
	U	238	51.844	ug/L	0.585	1	2	2449060	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:12:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1721258	1
	Be	9	0.002	ug/L	0.001	74	12	19	29
	C	13		ug/L			138826	145121	2
	Cl	37		ug/L			4735446	4919192	0
>	Sc	45		ug/L			1275890	1234868	1
	V	51	0.009	ug/L	0.004	47	9212	9127	1
	V-1	51	0.001	ug/L	0.001	106	60	85	34
	Cr	52	0.026	ug/L	0.022	82	27310	26921	1
	Cr	53	-0.002	ug/L	0.003	174	159	150	4
	Mn	55	0.019	ug/L	0.021	106	592	1087	52
	Co	59	0.001	ug/L	0.001	109	80	98	23
>	Ge	72		ug/L			659198	644808	1
	Ni	60	0.002	ug/L	0.003	121	16	25	43
	Ni	62	-0.171	ug/L	0.023	13	275	177	6
	Cu	63	-0.000	ug/L	0.003	1406	372	362	4
	Cu	65	0.012	ug/L	0.004	36	41	85	17
	Zn	66	0.307	ug/L	0.022	7	192	922	5
	Zn	67	0.279	ug/L	0.028	9	31	141	9
	Zn	68	0.336	ug/L	0.017	5	189	761	3
	As	75	0.020	ug/L	0.003	14	267	302	3
	As-1	75	0.114	ug/L	0.074	65	10608	10615	0
	Se	82	0.001	ug/L	0.034	3108	-2	-2	293
	Se	78	0.346	ug/L	0.263	76	10783	10759	0
	Mo	98	0.007	ug/L	0.001	18	8	43	13
	Y	89		ug/L			428598	408937	1
	Kr	83		ug/L			613	617	5
>	In	115		ug/L			928277	898903	1
	Ag	107	0.002	ug/L	0.001	33	14	35	21
	Cd	111	0.003	ug/L	0.001	31	65	77	4
	Cd	114	0.000	ug/L	0.001	163	31	35	20
	Sb	121	0.059	ug/L	0.004	7	40	757	6
	Sb	123	0.058	ug/L	0.002	2	30	560	2
	Ba	135	0.003	ug/L	0.002	74	13	25	36
	Ba	137	0.007	ug/L	0.006	82	15	59	62
>	Tb	159		ug/L			1061408	1013764	1
	Tl	205	0.008	ug/L	0.002	25	43	318	21
	Pb	208	0.013	ug/L	0.008	63	368	899	39
	Bi	209		ug/L			2680757	2565237	0
	Th	232	0.186	ug/L	0.020	10	49	7660	9
	U	238	0.003	ug/L	0.001	35	2	131	35

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:22:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc RSD	Blank Intens.	Meas Intens.	Intens RSD
>	Li	6		ug/L			1738475	1778028	1
	Be	9	0.002	ug/L	0.001	39	12	20	15
	C	13		ug/L			138826	148469	2
	Cl	37		ug/L			4735446	4756595	1
>	Sc	45		ug/L			1275890	1260629	0
	V	51	0.000	ug/L	0.007	1469	9212	9114	2
	V-1	51	0.002	ug/L	0.001	52	60	103	21
	Cr	52	-0.003	ug/L	0.020	587	27310	26921	1
	Cr	53	0.001	ug/L	0.005	389	159	160	6
	Mn	55	0.088	ug/L	0.035	39	592	2962	31
	Co	59	0.002	ug/L	0.001	26	80	118	8
>	Ge	72		ug/L			659198	647189	1
	Ni	60	0.005	ug/L	0.002	35	16	34	18
	Ni	62	-0.193	ug/L	0.023	12	275	166	6
	Cu	63	0.018	ug/L	0.004	24	372	517	6
	Cu	65	0.033	ug/L	0.006	18	41	165	13
	Zn	66	0.188	ug/L	0.033	17	192	641	11
	Zn	67	0.194	ug/L	0.005	2	31	107	1
	Zn	68	0.207	ug/L	0.023	11	189	542	7
	As	75	0.015	ug/L	0 006	41	267	293	3
	As-1	75	0.062	ug/L	0.046	73	10608	10546	1
	Se	82	0.008	ug/L	0.057	682	-2	-1	1282
	Se	78	0.171	ug/L	0.180	105	10783	10691	0
	Mo	98	0.004	ug/L	0.001	25	8	27	16
	Y	89		ug/L			428598	420841	1
	Kr	83		ug/L			613	602	8
>	In	115		ug/L			928277	922882	1
	Ag	107	0.001	ug/L	0.001	63	14	24	26
	Cd	111	0.003	ug/L	0.000	3	65	78	0
	Cd	114	0.001	ug/L	0.001	127	31	41	30
	Sb	121	0.018	ug/L	0.003	17	40	264	14
	Sb	123	0.018	ug/L	0.002	11	30	200	8
	Ba	135	0.023	ug/L	0.009	38	13	100	33
	Ba	137	0.024	ug/L	0.005	22	15	172	20
>	Tb	159		ug/L			1061408	1041627	1
	Tl	205	0.006	ug/L	0.002	33	43	234	27
	Pb	208	0.015	ug/L	0.006	39	368	993	25
	Bi	209		ug/L			2680757	2619358	0
	Th	232	0.080	ug/L	0.008	9	49	3432	9
	U	238	0.001	ug/L	0.000	37	2	40	36

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:26:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1738475	1821021	1
	Be	9	24.609	ug/L	0.282	1	12	113902	1
	C	13		ug/L			138826	146461	2
	Cl	37		ug/L			4735446	4851956	4
>	Sc	45		ug/L			1275890	1283803	1
	V	51	23.972	ug/L	0.460	1	9212	595110	0
	V-1	51	23.901	ug/L	0.546	2	60	584363	1
	Cr	52	25.446	ug/L	0.147	0	27310	519552	1
	Cr	53	25.188	ug/L	0 404	1	159	55272	0
	Mn	55	24.873	ug/L	0.718	2	592	684687	1
	Co	59	25.421	ug/L	0.299	1	80	478563	1
>	Ge	72		ug/L			659198	657935	0
	Ni	60	26.092	ug/L	0.390	1	16	102334	1
	Ni	62	26.112	ug/L	0.545	2	275	14608	1
	Cu	63	26.502	ug/L	0.463	1	372	229112	1
	Cu	65	26.270	ug/L	0.458	1	41	101600	0
	Zn	66	82.091	ug/L	1.665	2	192	200938	1
	Zn	67	76.038	ug/L	0.520	0	31	30873	1
	Zn	68	80.497	ug/L	0 602	0	189	141163	1
	As	75	24.398	ug/L	0.328	1	267	52169	1
	As-1	75	25.157	ug/L	0.270	1	10608	64763	0
	Se	82	81.436	ug/L	0.768	0	-2	19049	0
	Se	78	80.498	ug/L	0.918	1	10783	61424	0
	Mo	98	23.750	ug/L	0.487	2	8	116733	2
	Y	89		ug/L			428598	423508	0
	Kr	83		ug/L			613	623	2
>	In	115		ug/L			928277	939845	0
	Ag	107	27.232	ug/L	0.499	1	14	260602	1
	Cd	111	24.894	ug/L	0.345	1	65	106306	1
	Cd	114	24.936	ug/L	0.376	1	31	267772	1
	Sb	121	24.226	ug/L	0.139	0	40	307586	0
	Sb	123	24.579	ug/L	0.225	0	30	235659	1
	Ba	135	25.172	ug/L	0.236	0	13	95589	0
	Ba	137	25.012	ug/L	0.146	0	15	163947	0
>	Tb	159		ug/L			1061408	1057348	0
	Tl	205	24.241	ug/L	0.202	0	43	828300	1
	Pb	208	25.491	ug/L	0.081	0	368	1093060	0
	Bi	209		ug/L			2680757	2658775	0
	Th	232	22.551	ug/L	0.310	1	49	965623	0
	U	238	22.712	ug/L	0.237	1	2	1048825	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 A-L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:30:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			1738475	1816434	2
Be	9	0.138	ug/L	0.008	5	12	651	3
C	13		ug/L			138826	152815	1
Cl	37		ug/L			4735446	5007073	0
Sc	45		ug/L			1275890	1323428	0
V	51	10.612	ug/L	0.114	1	9212	276928	0
V-1	51	10.680	ug/L	0.110	1	60	269264	0
Cr	52	7.344	ug/L	0.150	2	27310	174729	1
Cr	53	7.593	ug/L	0.129	1	159	17293	1
Mn	55	151.879	ug/L	1.091	0	592	4307736	0
Co	59	2.084	ug/L	0.078	3	80	40524	3
Ge	72		ug/L			659198	658403	1
Ni	60	4.831	ug/L	0.098	2	16	18971	0
Ni	62	5.054	ug/L	0.107	2	275	3050	1
Cu	63	6.998	ug/L	0.135	1	372	60806	0
Cu	65	7.029	ug/L	0.094	1	41	27237	2
Zn	66	60.046	ug/L	0.604	1	192	147160	2
Zn	67	58.858	ug/L	1.730	2	31	23912	1
Zn	68	61.252	ug/L	1.241	2	189	107515	1
As	75	4.758	ug/L	0.111	2	267	10393	0
As-1	75	4.628	ug/L	0.125	2	10608	20565	0
Se	82	0.095	ug/L	0.038	40	-2	19	44
Se	78	-0.111	ug/L	0.099	88	10783	10699	1
Mo	98	0.117	ug/L	0.008	7	8	582	6
Y	89		ug/L			428598	478102	1
Kr	83		ug/L			613	648	0
In	115		ug/L			928277	954064	1
Ag	107	0.062	ug/L	0.006	9	14	618	7
Cd	111	1.428	ug/L	0.016	1	65	6253	0
Cd	114	1.429	ug/L	0.012	0	31	15613	1
Sb	121	0.100	ug/L	0 004	4	40	1324	2
Sb	123	0.098	ug/L	0.010	9	30	984	8
Ba	135	41.464	ug/L	0.807	1	13	159806	0
Ba	137	41.796	ug/L	0.366	0	15	278080	0
Tb	159		ug/L			1061408	1076015	1
Tl	205	0.111	ug/L	0.003	2	43	3915	1
Pb	208	115.649	ug/L	1.252	1	368	5045068	0
Bi	209		ug/L			2680757	2677633	1
Th	232	1.203	ug/L	0.014	1	49	52486	1
U	238	0.164	ug/L	0.005	2	2	7694	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:34:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1738475	1842791	2
	Be	**9**	**0.664**	ug/L	0.024	3	12	3121	3
	C	**13**		ug/L			138826	190594	0
	Cl	**37**		ug/L			4735446	5023039	3
>	**Sc**	**45**		ug/L			1275890	1451841	0
	V	**51**	**51.012**	ug/L	0.987	1	9212	1420488	1
	V-1	**51**	**50.929**	ug/L	0.745	1	60	1408358	1
	Cr	**52**	**34.996**	ug/L	1.031	2	27310	796375	2
	Cr	**53**	**34.722**	ug/L	0.290	0	159	86111	1
	Mn	**55**	**710.694**	ug/L	7.731	1	592	22110716	0
	Co	**59**	**9.711**	ug/L	0.128	1	80	206815	1
>	**Ge**	**72**		ug/L			659198	664412	1
	Ni	**60**	**24.214**	ug/L	0.313	1	16	95898	0
	Ni	**62**	**27.232**	ug/L	0.164	0	275	15373	0
	Cu	**63**	**34.765**	ug/L	0.816	2	372	303354	1
	Cu	**65**	**34.526**	ug/L	0.433	1	41	134838	1
	Zn	**66**	**292.064**	ug/L	7.841	2	192	721360	1
	Zn	**67**	**284.100**	ug/L	7.032	2	31	116379	1
	Zn	**68**	**293.263**	ug/L	4.387	1	189	518799	1
	As	**75**	**23.453**	ug/L	0.271	1	267	50650	0
	As-1	**75**	**22.985**	ug/L	0.293	1	10608	60675	0
	Se	**82**	**0.029**	ug/L	0.043	149	-2	3	261
	Se	**78**	**-0.040**	ug/L	0.174	439	10783	10842	0
	Mo	**98**	**0.525**	ug/L	0.013	2	8	2612	2
	Y	**89**		ug/L			428598	628968	1
	Kr	**83**		ug/L			613	1064	6
>	**In**	**115**		ug/L			928277	998601	1
	Ag	**107**	**0.291**	ug/L	0.011	3	14	2976	2
	Cd	**111**	**6.658**	ug/L	0.116	1	65	30255	0
	Cd	**114**	**6.609**	ug/L	0.072	1	31	75422	0
	Sb	**121**	**0.376**	ug/L	0.009	2	40	5120	2
	Sb	**123**	**0.368**	ug/L	0.007	1	30	3783	0
	Ba	**135**	**202.402**	ug/L	3.388	1	13	816475	0
	Ba	**137**	**202.389**	ug/L	3.253	1	15	1409283	0
>	**Tb**	**159**		ug/L			1061408	1098534	1
	Tl	**205**	**0.526**	ug/L	0.007	1	43	18696	0
	Pb	**208**	**593.063**	ug/L	6.916	1	368	26410565	0
	Bi	**209**		ug/L			2680757	2612968	1
	Th	**232**	**4.619**	ug/L	0.036	0	49	205541	0
	U	**238**	**0.813**	ug/L	0.005	0	2	39003	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:38:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens	Intens. RSD
>	Li	6		ug/L			1738475	1835709	3
	Be	9	0.637	ug/L	0.036	5	12	2980	3
	C	13		ug/L			138826	187756	1
	Cl	37		ug/L			4735446	5093088	1
>	Sc	45		ug/L			1275890	1408250	1
	V	51	53.720	ug/L	1.444	2	9212	1450125	1
	V-1	51	53.826	ug/L	1.483	2	60	1443420	1
	Cr	52	34.396	ug/L	0.247	0	27310	759835	2
	Cr	53	34.803	ug/L	0.104	0	159	83717	1
	Mn	55	720.946	ug/L	12.116	1	592	21759860	3
	Co	59	10.280	ug/L	0.124	1	80	212334	1
>	Ge	72		ug/L			659198	665294	0
	Ni	60	24.848	ug/L	0.399	1	16	98543	1
	Ni	62	26.960	ug/L	0.430	1	275	15241	0
	Cu	63	34.331	ug/L	1.016	2	372	300011	3
	Cu	65	34.702	ug/L	0.187	0	41	135710	1
	Zn	66	295.821	ug/L	9.349	3	192	731621	2
	Zn	67	280.363	ug/L	6.039	2	31	115002	1
	Zn	68	293.437	ug/L	5 939	2	189	519774	1
	As	75	23.783	ug/L	0.266	1	267	51429	0
	As-1	75	23.298	ug/L	0.305	1	10608	61438	0
	Se	82	0.043	ug/L	0.026	60	-2	7	85
	Se	78	-0.065	ug/L	0.339	518	10783	10840	1
	Mo	98	0.537	ug/L	0.021	3	8	2676	2
	Y	89		ug/L			428598	625606	0
	Kr	83		ug/L			613	1071	2
>	In	115		ug/L			928277	993311	1
	Ag	107	0.307	ug/L	0.012	3	14	3114	2
	Cd	111	6.450	ug/L	0.160	2	65	29153	0
	Cd	114	6.392	ug/L	0.126	1	31	72564	1
	Sb	121	0.394	ug/L	0.016	3	40	5332	2
	Sb	123	0.398	ug/L	0.006	1	30	4059	1
	Ba	135	195.590	ug/L	4.224	2	13	784726	0
	Ba	137	196.675	ug/L	5.312	2	15	1361931	0
>	Tb	159		ug/L			1061408	1094306	0
	Tl	205	0.526	ug/L	0.001	0	43	18638	0
	Pb	208	578.225	ug/L	1.190	0	368	25653538	0
	Bi	209		ug/L			2680757	2588906	0
	Th	232	7.147	ug/L	0.061	0	49	316801	0
	U	238	1.463	ug/L	0.018	1	2	69937	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:42:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens RSD
>	Li	6		ug/L			1738475	1865353	0
	Be	9	24.227	ug/L	0.240	0	12	114866	0
	C	13		ug/L			138826	179014	1
	Cl	37		ug/L			4735446	5085192	2
>	Sc	45		ug/L			1275890	1432060	1
	V	51	71.799	ug/L	1.492	2	9212	1967760	1
	V-1	51	72.018	ug/L	1.390	1	60	1964211	1
	Cr	52	53.572	ug/L	1.000	1	27310	1186198	1
	Cr	53	54.379	ug/L	0.919	1	159	132905	0
	Mn	55	725.251	ug/L	11.846	1	592	22254261	0
	Co	59	32.859	ug/L	0.391	1	80	689956	0
>	Ge	72		ug/L			659198	663845	3
	Ni	60	49.649	ug/L	2.358	4	16	196274	1
	Ni	62	52.406	ug/L	2.473	4	275	29278	2
	Cu	63	60.070	ug/L	1.753	2	372	523216	1
	Cu	65	60.381	ug/L	0.712	1	41	235529	1
	Zn	66	376.911	ug/L	12.499	3	192	929612	0
	Zn	67	365.162	ug/L	12.653	3	31	149364	0
	Zn	68	373.386	ug/L	8.475	2	189	659664	0
	As	75	48.377	ug/L	1.823	3	267	104031	0
	As-1	75	48.863	ug/L	1 828	3	10608	116778	0
	Se	82	78.217	ug/L	2.675	3	-2	18448	0
	Se	78	78.085	ug/L	2.772	3	10783	60411	0
	Mo	98	22.082	ug/L	0.767	3	8	109430	1
	Y	89		ug/L			428598	612432	0
	Kr	83		ug/L			613	1078	4
>	In	115		ug/L			928277	993728	1
	Ag	107	21.562	ug/L	0.599	2	14	218151	2
	Cd	111	30.400	ug/L	0.464	1	65	137231	0
	Cd	114	30.367	ug/L	0.365	1	31	344749	0
	Sb	121	2.025	ug/L	0.030	1	40	27217	0
	Sb	123	2.031	ug/L	0.017	0	30	20616	0
	Ba	135	218.363	ug/L	1.792	0	13	876635	0
	Ba	137	218.070	ug/L	4.298	1	15	1511034	0
>	Tb	159		ug/L			1061408	1097039	1
	Tl	205	22.820	ug/L	0.144	0	43	808955	0
	Pb	208	624.005	ug/L	5.064	0	368	27751922	0
	Bi	209		ug/L			2680757	2601147	0
	Th	232	21.484	ug/L	0.250	1	49	954479	0
	U	238	22.914	ug/L	0.293	1	2	1097789	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~VS21 APOST SWN~~ 222222 11-28-12
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:47:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1868666	3
	Be	9	25.350	ug/L	0.270	1	12	120381	2
	C	13		ug/L			138826	189219	2
	Cl	37		ug/L			4735446	5183942	4
>	Sc	45		ug/L			1275890	1439012	3
	V	51	77.679	ug/L	2.687	3	9212	2140095	6
	V-1	51	77.766	ug/L	2.363	3	60	2132805	5
	Cr	52	58.932	ug/L	0.332	0	27310	1308274	3
	Cr	53	59.270	ug/L	1.360	2	159	145503	1
	Mn	55	750.268	ug/L	4.050	0	592	23136294	3
	Co	59	33.123	ug/L	1.316	3	80	698457	2
>	Ge	72		ug/L			659198	665581	0
	Ni	60	50.295	ug/L	0.880	1	16	199558	2
	Ni	62	52.868	ug/L	0.754	1	275	29636	1
	Cu	63	60.011	ug/L	1.151	1	372	524349	1
	Cu	65	60.497	ug/L	1.974	3	41	236656	3
	Zn	66	373.243	ug/L	7.728	2	192	923621	2
	Zn	67	356.944	ug/L	11.746	3	31	146510	3
	Zn	68	372.955	ug/L	9.703	2	189	660964	2
	As	75	48.560	ug/L	0 280	0	267	104781	1
	As-1	75	48.877	ug/L	0.165	0	10608	117198	1
	Se	82	82.634	ug/L	1.087	1	-2	19556	1
	Se	78	81.696	ug/L	0.647	0	10783	62904	1
	Mo	98	0.546	ug/L	0.014	2	8	2723	1
	Y	89		ug/L			428598	632533	1
	Kr	83		ug/L			613	1090	0
>	In	115		ug/L			928277	990454	1
	Ag	107	24.994	ug/L	0.452	1	14	252030	0
	Cd	111	31.070	ug/L	0.249	0	65	139804	1
	Cd	114	31.076	ug/L	0.320	1	31	351648	0
	Sb	121	0.369	ug/L	0.004	1	40	4983	1
	Sb	123	0.377	ug/L	0.009	2	30	3838	1
	Ba	135	225.358	ug/L	3.138	1	13	901851	2
	Ba	137	226.732	ug/L	2.092	0	15	1566153	1
>	Tb	159		ug/L			1061408	1074708	1
	Tl	205	24.183	ug/L	0.366	1	43	839876	2
	Pb	208	627.864	ug/L	4.006	0	368	27355859	1
	Bi	209		ug/L			2680757	2579673	0
	Th	232	28.102	ug/L	0.268	0	49	1223016	0
	U	238	24.193	ug/L	0.142	0	2	1135568	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:51:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

Dol

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1904664	1
	Be	9	0.473	ug/L	0.016	3	12	2302	2
	C	13		ug/L			138826	299951	3
	Cl	37		ug/L			4735446	5347257	2
>	Sc	45		ug/L			1275890	1409210	1
	V	51	9.852	ug/L	0.134	1	9212	274496	1
	V-1	51	9.808	ug/L	0.123	1	60	263296	0
	Cr	52	7.681	ug/L	0.138	1	27310	193200	1
	Cr	53	7.526	ug/L	0.339	4	159	18249	3
	Mn	55	1605.315	ug/L	44.222	2	592	48463734	1
	Co	59	3.700	ug/L	0.120	3	80	76512	2
>	Ge	72		ug/L			659198	686480	0
	Ni	60	6.479	ug/L	0.130	1	16	26528	2
	Ni	62	7.516	ug/L	0.126	1	275	4591	1
	Cu	63	44.433	ug/L	0.300	0	372	400533	0
	Cu	65	43.849	ug/L	0.512	1	41	176934	1
	Zn	66	1094.165	ug/L	20 283	1	192	2791919	1
	Zn	67	958.513	ug/L	2.755	0	31	405668	0
	Zn	68	1001.886	ug/L	26 794	2	189	1830663	1
	As	75	23.681	ug/L	0.383	1	267	52839	0
	As-1	75	23.199	ug/L	0.416	1	10608	63170	0
	Se	82	1.158	ug/L	0.024	2	-2	279	1
	Se	78	0.525	ug/L	0.144	27	10783	11574	0
	Mo	98	0.645	ug/L	0.007	1	8	3315	1
	Y	89		ug/L			428598	524880	1
	Kr	83		ug/L			613	718	4
>	In	115		ug/L			928277	1274022	1
	Ag	107	1.186	ug/L	0.021	1	14	15410	2
	Cd	111	13.886	ug/L	0.374	2	65	80400	1
	Cd	114	13.901	ug/L	0.148	1	31	202346	1
	Sb	121	15.637	ug/L	0.180	1	40	269118	1
	Sb	123	15.707	ug/L	0.200	1	30	204126	0
	Ba	135	802.091	ug/L	11.652	1	13	4127795	0
	Ba	137	804.496	ug/L	8.498	1	15	7146912	0
>	Tb	159		ug/L			1061408	1101553	0
	Tl	205	0.833	ug/L	0.003	0	43	29701	0
	Pb	208	1746.433	ug/L	8.571	0	368	77993118	0
	Bi	209		ug/L			2680757	2745151	0
	Th	232	1.442	ug/L	0.043	2	49	64384	2
	U	238	0.464	ug/L	0.006	1	2	22316	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:55:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1833075	2
	Be	9	0.433	ug/L	0.014	3	12	2029	0
	C	13		ug/L			138826	173511	2
	Cl	37		ug/L			4735446	4987275	1
>	Sc	45		ug/L			1275890	1394496	2
	V	51	32.928	ug/L	0.699	2	9212	884015	0
	V-1	51	32.966	ug/L	0.695	2	60	875349	0
	Cr	52	20.959	ug/L	0.634	3	27310	469912	1
	Cr	53	21.109	ug/L	0.673	3	159	50328	1
	Mn	55	1239.419	ug/L	34.983	2	592	37020286	0
	Co	59	9.071	ug/L	0.234	2	80	185472	0
>	Ge	72		ug/L			659198	662246	0
	Ni	60	19.412	ug/L	0.138	0	16	76638	0
	Ni	62	20.637	ug/L	0.382	1	275	11679	1
	Cu	63	19.299	ug/L	0.215	1	372	168034	0
	Cu	65	19.586	ug/L	0.372	1	41	76259	1
	Zn	66	195.185	ug/L	3.406	1	192	480654	1
	Zn	67	215.603	ug/L	2.916	1	31	88055	1
	Zn	68	211.741	ug/L	1.629	0	189	373436	0
	As	75	10.625	ug/L	0.136	1	267	23019	0
	As-1	75	10.307	ug/L	0.146	1	10608	32999	0
	Se	82	0.017	ug/L	0.058	330	-2	1	1182
	Se	78	-0.296	ug/L	0.095	32	10783	10645	0
	Mo	98	0.293	ug/L	0.003	1	8	1458	1
	Y	89		ug/L			428598	567950	1
	Kr	83		ug/L			613	880	4
>	In	115		ug/L			928277	941893	1
	Ag	107	0.180	ug/L	0.001	0	14	1739	2
	Cd	111	2.740	ug/L	0.034	1	65	11783	0
	Cd	114	2.622	ug/L	0.092	3	31	28232	1
	Sb	121	0.162	ug/L	0.012	7	40	2099	5
	Sb	123	0.162	ug/L	0.011	6	30	1584	4
	Ba	135	473.768	ug/L	10.179	2	13	1802355	0
	Ba	137	524.751	ug/L	9.575	1	15	3446056	0
>	Tb	159		ug/L			1061408	1080864	1
	Tl	205	0.206	ug/L	0.004	1	43	7238	1
	Pb	208	96.076	ug/L	1.491	1	368	4209980	0
	Bi	209		ug/L			2680757	2566388	0
	Th	232	3.127	ug/L	0.072	2	49	136882	1
	U	238	0.356	ug/L	0.006	1	2	16824	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 D SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:59:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1738475	1854048	1
	Be	**9**	**0.177**	ug/L	0.002	1	12	846	0
	C	**13**		ug/L			138826	176188	2
	Cl	**37**		ug/L			4735446	5282118	3
>	**Sc**	**45**		ug/L			1275890	1328554	0
	V	**51**	**3.956**	ug/L	0.115	2	9212	109648	2
	V-1	**51**	**3.940**	ug/L	0.109	2	60	99761	2
	Cr	**52**	**3.116**	ug/L	0.080	2	27310	90789	1
	Cr	**53**	**3.061**	ug/L	0.052	1	159	7097	1
	Mn	**55**	**1238.502**	ug/L	36.581	2	592	35257607	2
	Co	**59**	**4.304**	ug/L	0.036	0	80	83916	0
>	**Ge**	**72**		ug/L			659198	673701	1
	Ni	**60**	**7.998**	ug/L	0.069	0	16	32137	2
	Ni	**62**	**8.133**	ug/L	0.229	2	275	4852	1
	Cu	**63**	**12.940**	ug/L	0.218	1	372	114753	2
	Cu	**65**	**13.113**	ug/L	0.024	0	41	51954	1
	Zn	**66**	**243.555**	ug/L	5.618	2	192	609957	0
	Zn	**67**	**230.363**	ug/L	5.203	2	31	95681	0
	Zn	**68**	**242.581**	ug/L	5.175	2	189	435141	1
	As	**75**	**4.322**	ug/L	0.080	1	267	9686	0
	As-1	**75**	**4.158**	ug/L	0.144	3	10608	20006	0
	Se	**82**	**0.333**	ug/L	0.043	13	-2	76	15
	Se	**78**	**-0.020**	ug/L	0.253	1280	10783	11006	1
	Mo	**98**	**0.205**	ug/L	0.006	2	8	1039	2
	Y	**89**		ug/L			428598	488973	0
	Kr	**83**		ug/L			613	666	0
>	**In**	**115**		ug/L			928277	966541	1
	Ag	**107**	**0.228**	ug/L	0.009	3	14	2257	4
	Cd	**111**	**5.940**	ug/L	0.143	2	65	26135	1
	Cd	**114**	**5.959**	ug/L	0.121	2	31	65824	0
	Sb	**121**	**0.705**	ug/L	0.011	1	40	9247	0
	Sb	**123**	**0.714**	ug/L	0.013	1	30	7068	0
	Ba	**135**	**85.188**	ug/L	1.465	1	13	332613	0
	Ba	**137**	**85.290**	ug/L	2.265	2	15	574765	1
>	**Tb**	**159**		ug/L			1061408	1072360	0
	Tl	**205**	**0.179**	ug/L	0.002	0	43	6249	1
	Pb	**208**	**348.629**	ug/L	3.391	0	368	15156511	0
	Bi	**209**		ug/L			2680757	2683850	0
	Th	**232**	**0.591**	ug/L	0.016	2	49	25724	1
	U	**238**	**0.111**	ug/L	0.002	1	2	5205	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:03:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1738475	1800880	0
	Be	**9**	**50.599**	ug/L	1.508	2	12	231612	3
	C	**13**		ug/L			138826	141001	1
	Cl	**37**		ug/L			4735446	5034496	2
>	**Sc**	**45**		ug/L			1275890	1268015	0
	V	**51**	**47.877**	ug/L	0.997	2	9212	1164890	1
	V-1	**51**	**48.109**	ug/L	1.315	2	60	1161802	1
	Cr	**52**	**49.502**	ug/L	0.295	0	27310	972688	1
	Cr	**53**	**50.327**	ug/L	0.926	1	159	108926	1
	Mn	**55**	**47.842**	ug/L	0.608	1	592	1300551	1
	Co	**59**	**50.285**	ug/L	0.977	1	80	934892	1
>	**Ge**	**72**		ug/L			659198	643794	0
	Ni	**60**	**49.653**	ug/L	0.255	0	16	190546	0
	Ni	**62**	**49.803**	ug/L	0.734	1	275	27019	0
	Cu	**63**	**51.128**	ug/L	0.820	1	372	432145	0
	Cu	**65**	**50.527**	ug/L	1.143	2	41	191171	1
	Zn	**66**	**50.754**	ug/L	1.550	3	192	121625	2
	Zn	**67**	**50.288**	ug/L	0.798	1	31	19990	2
	Zn	**68**	**50.513**	ug/L	0.697	1	189	86745	1
	As	**75**	**49.914**	ug/L	0.580	1	267	104160	0
	As-1	**75**	**49.984**	ug/L	0.829	1	10608	115685	0
	Se	**82**	**51.115**	ug/L	0.157	0	-2	11699	0
	Se	**78**	**50.602**	ug/L	0.909	1	10783	41692	0
	Mo	**98**	**49.347**	ug/L	0.700	1	8	237332	2
	Y	**89**		ug/L			428598	416136	0
	Kr	**83**		ug/L			613	624	1
>	**In**	**115**		ug/L			928277	904014	0
	Ag	**107**	**52.774**	ug/L	1.193	2	14	485706	1
	Cd	**111**	**51.444**	ug/L	0.538	1	65	211247	1
	Cd	**114**	**50.951**	ug/L	0.345	0	31	526253	1
	Sb	**121**	**50.166**	ug/L	0.296	0	40	612583	0
	Sb	**123**	**50.823**	ug/L	0.111	0	30	468676	0
	Ba	**135**	**49.654**	ug/L	0.469	0	13	181358	0
	Ba	**137**	**49.400**	ug/L	0.458	0	15	311463	1
>	**Tb**	**159**		ug/L			1061408	1046615	0
	Tl	**205**	**45.554**	ug/L	0.728	1	43	1540506	0
	Pb	**208**	**48.037**	ug/L	0.760	1	368	2038478	0
	Bi	**209**		ug/L			2680757	2569048	0
	Th	**232**	**44.605**	ug/L	0.913	2	49	1890392	1
	U	**238**	**52.361**	ug/L	1.014	1	2	2393202	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:10:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1738475	1717634	2
	Be	**9**	**0.002**	ug/L	0.001	42	12	20	15
	C	**13**		ug/L			138826	148009	0
	Cl	**37**		ug/L			4735446	4822567	1
>	**Sc**	**45**		ug/L			1275890	1235171	1
	V	**51**	**-0.001**	ug/L	0.007	551	9212	8888	0
	V-1	**51**	**0.001**	ug/L	0.001	82	60	79	22
	Cr	**52**	**-0.009**	ug/L	0.026	297	27310	26271	0
	Cr	**53**	**-0.001**	ug/L	0.012	957	159	151	16
	Mn	**55**	**0.012**	ug/L	0.009	77	592	882	28
	Co	**59**	**0.001**	ug/L	0.000	8	80	105	3
>	**Ge**	**72**		ug/L			659198	614873	1
	Ni	**60**	**0.002**	ug/L	0.001	37	16	23	14
	Ni	**62**	**-0.276**	ug/L	0.019	6	275	115	7
	Cu	**63**	**-0.010**	ug/L	0.003	24	372	263	7
	Cu	**65**	**0.017**	ug/L	0.003	19	41	101	13
	Zn	**66**	**0.326**	ug/L	0.022	6	192	925	6
	Zn	**67**	**0.314**	ug/L	0.037	11	31	148	11
	Zn	**68**	**0.327**	ug/L	0.015	4	189	712	4
	As	**75**	**0.016**	ug/L	0.020	125	267	281	14
	As-1	**75**	**0.226**	ug/L	0.098	43	10608	10346	0
	Se	**82**	**0.026**	ug/L	0.036	136	-2	3	255
	Se	**78**	**0.781**	ug/L	0.346	44	10783	10515	0
	Mo	**98**	**0.008**	ug/L	0.001	17	8	43	14
	Y	**89**		ug/L			428598	395076	3
	Kr	**83**		ug/L			613	603	3
>	**In**	**115**		ug/L			928277	871632	0
	Ag	**107**	**0.002**	ug/L	0.001	49	14	35	30
	Cd	**111**	**0.007**	ug/L	0.003	43	65	90	14
	Cd	**114**	**0.001**	ug/L	0.002	207	31	41	56
	Sb	**121**	**0.064**	ug/L	0.004	5	40	789	5
	Sb	**123**	**0.061**	ug/L	0.006	9	30	573	8
	Ba	**135**	**0.004**	ug/L	0.001	13	13	27	6
	Ba	**137**	**0.006**	ug/L	0.003	42	15	52	30
>	**Tb**	**159**		ug/L			1061408	995669	0
	Tl	**205**	**0.008**	ug/L	0.002	24	43	306	21
	Pb	**208**	**0.013**	ug/L	0.003	22	368	876	13
	Bi	**209**		ug/L			2680757	2562006	0
	Th	**232**	**0.163**	ug/L	0.016	9	49	6610	9
	U	**238**	**0.003**	ug/L	0.001	22	2	128	22

Mercury Analysis Log

Analyst: NB

Instrument: CETAC

Date: 11-23-12

Page: 1 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
STD 0.0	SMM	1x		
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV			8.49	Begin CLP %R=106 ✓
ICB			-0.01	✓
CCV1			4.18	%R=105 ✓
CCB1			0.01	✓
CRA			0.13	✓
VS96 MB1			0.01	✓
" MB1SPK			2.13	%R=107 ✓
" A			0.02	
" ADUP			0.01	No RPD: undetected ✓
" ASPK			1.13	%R=113 ✓
" B				
" C				
" D				
" E				
CCV2			4.24	%R=106 ✓
CCB2			-0.00	✓
VS96 F				
" G				
" H				
" I				
" J				
" K				
" L	↓	↓		

Chemical/Reagent ID:

10% $SnCl_2$: MP2395

14% NH_2OH/NaCl: MP2360

Standard ID:

Standard: 2993-14

ICV/CCV: 56-18

Mercury Analysis Log

Analyst: NB **Date:** 11-23-12
Instrument: CETAC **Page:** 2 of 5

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments	
VS96	M	SMM	1x			
"	*~~N~~ N					*NB 11-23-12
"	O					
CCV3				4.28	%R=107 ✓	
CCB3				0.00	✓	
VS96	P					
"	Q					
"	R					
"	S					
"	T					
CCV4				4.26	%R=107 ✓	
CCB4				0.00	✓	
VT06	MBi			0.00	✓	
"	MBISPK			2.20	%R=110 ✓	
"	D			0.04		
"	DDUP			0.05	No RPD: undetected ✓	
"	DSPK			1.16	%R=116 ✓	
"	E					
"	F					
"	G					
"	H					
CCV5				4.30	%R=108 ✓	
CCB5				-0.00	✓	
VT06	I					
VS20	MBi			0.01	✓	
"	MBISPK			2.18	%R=109 ✓	
"	A			1.59		
"	ADUP			1.59	RPD=0.00 ✓	
"	ASPK			2.59	%R=100 ✓	
"	B	↓	↓			

Chemical/Reagent ID:
10% $SnCl_2$: MP2395 **14% NH_2OH/NaCl:** MP2360

Standard ID:
Standard: 2993-14 **ICV/CCV:** 56-18

Mercury Analysis Log

Analyst: NB
Instrument: CETAC

All line-outs/corrections by NB 11-23-12

Date: 11-23-12
Page: 3 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VS20 C	SMM	1x		
" D				
" E				
CCV6			4.24	%R=106 ✓
CCB6			0.01	✓
VS20 F				
" G				
" H				
" I				
" J				
" K				
" L				
CCV7			4.37	%R=109 ✓
CCB7			0.01	✓
VS82 MBI			0.01	✓
" MBISPK			2.16	%R=108 ✓
" A				
" B ~~ADUP~~				
" C ~~ASPK~~			0.16	-Spreadsheet typo:
" ~~B~~ CDUP			0.20	actual samples ran ✓
" ~~C~~ CSPK			1.39	as indicated. %R=123 ✓
" D				
" E				
" F				
CCV8			4.40	%R=110 ✓
CCB8			-0.01	✓
~~V8~~ VS82 G				
" H				
" I				
" J				

Chemical/Reagent ID:
10% $SnCl_2$: MP2395
Standard ID:
Standard: 2993-14

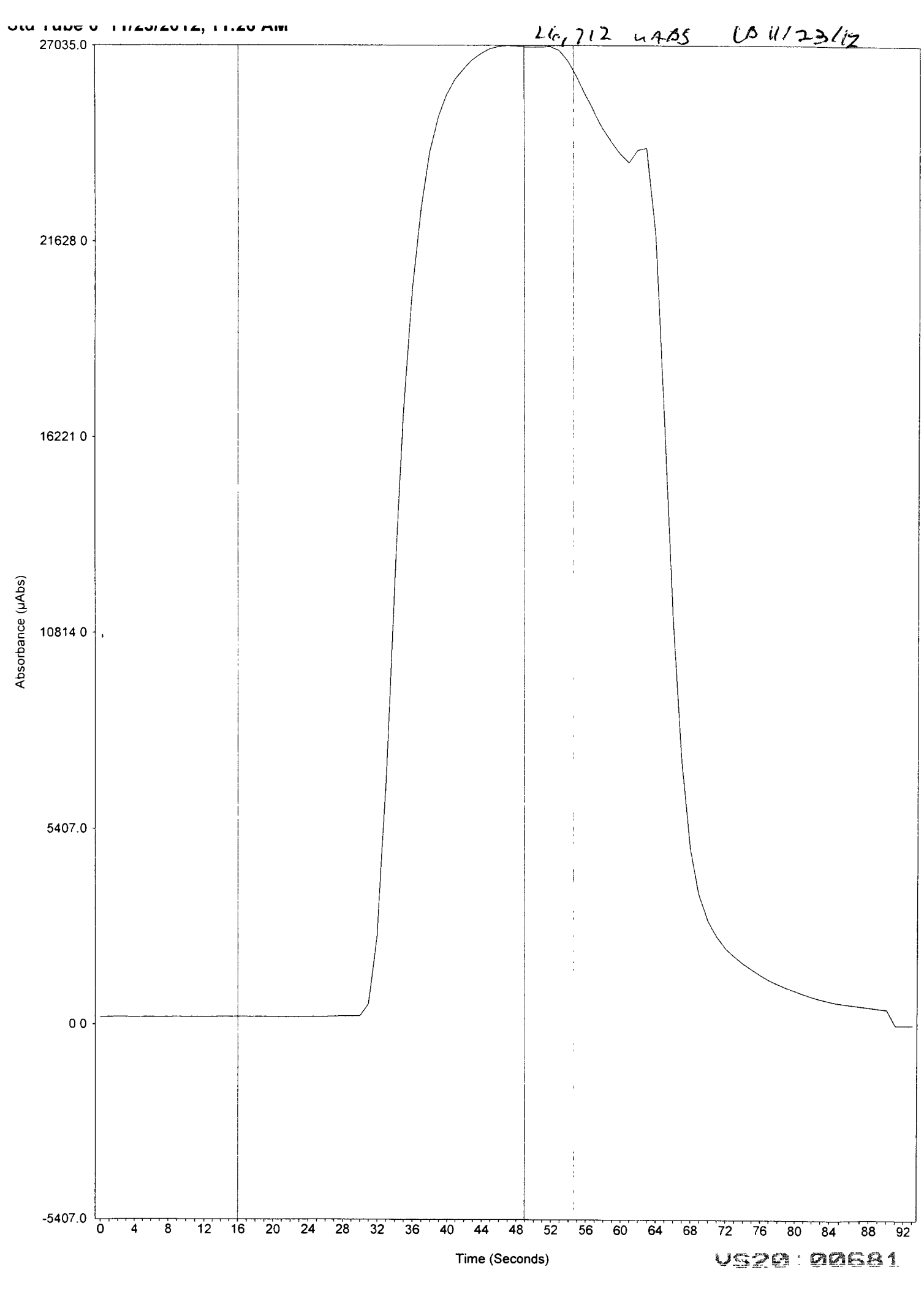
14% NH_2OH/NaCl: MP2360
ICV/CCV: 56-18

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA (CVA)   **Analysis Date:** 11-23-12

	Analyst NB 11-23-12	Peer [illegible] 11-26	Comment
Logbook			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification			
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
Samples			
RSD's & SD's	✓	✓	
Internal Standards	—	—	
Carry-over	—	✓	
Method QC			
CRI/CRA	✓	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Matrix QC			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Dist[illegible]			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analyst [illegible]	—	—	


Std Tube 6 11/23/2012, 11:20 AM
Lot 712 uABS UB 11/23/12
27035.0
21628 0
16221 0
10814 0
5407.0
0 0
-5407.0
Absorbance (µAbs)
0 4 8 12 16 20 24 28 32 36 40 44 48 52 56 60 64 68 72 76 80 84 88 92
Time (Seconds)
US20 : 00681

CETAC Hg Analysis Report - 12112300.DB - Friday, November 23, 2012, 4:24:05 PM

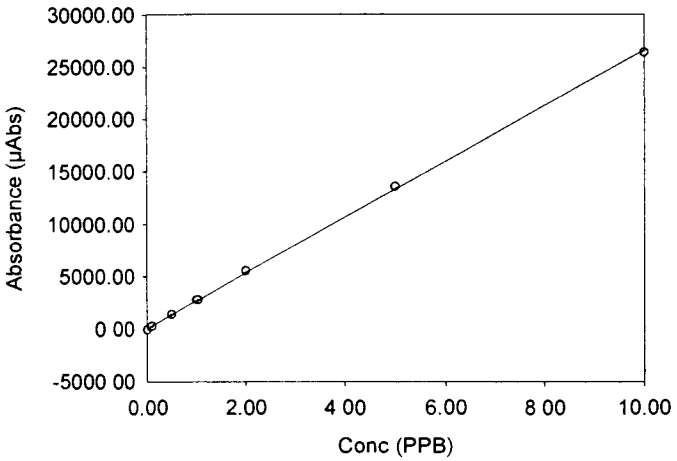
Analyst
Date Started Friday, November 23, 2012, 11:25 47
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Std Tube 6	23-Nov-2012, 11:25	10.00	0 54	26700.00	1.00	

Information about this calibration could not be retrieved from the Master File

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Calibration Zero	23-Nov-2012, 11:28	0.00	10.30	-39 70	1.00	
Standard #1	23-Nov-2012, 11:29	0.10	0.95	289.00	1 00	
Standard #2	23-Nov-2012, 11:31	0.50	0.33	1370.00	1.00	
Standard #3	23-Nov-2012, 11:32	1.00	1.44	2750.00	1.00	
Standard #4	23-Nov-2012, 11:34	2 00	0 59	5550.00	1 00	
Standard #5	23-Nov-2012, 11:36	5.00	0 48	13600.00	1.00	
Standard #6	23-Nov-2012, 11:37	10.00	0.47	26500 00	1 00	

Calibration Data



Int.	0 000
Slope	2665 655
Correlation	0.99984

SMM

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	23-Nov-2012, 11:41	8.49	0 84	22600.00	1 00	Begin CLP.
ICB	23-Nov-2012, 11:43	-0.01	16.20	-30 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 11:44	4.18	0.60	11100 00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 11:46	0.01	32.90	23.90	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	23-Nov-2012, 11:47	0.13	1.49	336.00	1.00	
VS96 MB1 SMM	23-Nov-2012, 11:49	0.01	15.90	29.00	1 00	
VS96 MB1SPK SMM	23-Nov-2012, 11:51	2.13	0.46	5680 00	1 00	
VS96 A SMM	23-Nov-2012, 11:52	0.02	5.50	41 30	1.00	
VS96 ADUP SMM	23-Nov-2012, 11:54	0 01	5.34	33 80	1.00	
VS96 ASPK SMM	23-Nov-2012, 11:55	1.13	0 92	3010.00	1.00	
VS96 B SMM	23-Nov-2012, 11:57	0.04	2.67	118.00	1.00	
VS96 C SMM	23-Nov-2012, 11:59	0.21	1 07	550 00	1.00	
VS96 D SMM	23-Nov-2012, 12:00	0 26	0.29	681.00	1 00	
VS96 E SMM	23-Nov-2012, 12:02	0.09	0.61	227 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 12:04	4.24	0 62	11300.00	1.00	

Analyst
Date Started Friday, November 23, 2012, 12:05:47
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 12:05	-0.00	1560.00	-0.08	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS96 F SMM	23-Nov-2012, 12:07	0 11	0.75	299.00	1 00	
VS96 G SMM	23-Nov-2012, 12:08	0.08	1.70	205.00	1 00	
VS96 H SMM	23-Nov-2012, 12.10	0.07	0.87	194.00	1.00	
VS96 I SMM	23-Nov-2012, 12:12	0.05	2.26	125.00	1.00	
VS96 J SMM	23-Nov-2012, 12.13	0.05	5 86	135.00	1.00	
VS96 K SMM	23-Nov-2012, 12:15	0.20	0 60	546.00	1.00	
VS96 L SMM	23-Nov-2012, 12.16	0.28	0.73	755 00	1.00	
VS96 M SMM	23-Nov-2012, 12.18	0.09	0.76	251.00	1 00	
VS96 N SMM	23-Nov-2012, 12:20	0.27	0.95	729 00	1.00	
VS96 O SMM	23-Nov-2012, 12:21	2.95	0.80	7870 00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 12:23	4.28	0.81	11400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 12:25	0.00	38.60	7 16	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS96 P SMM	23-Nov-2012, 12:26	0.23	0.63	609.00	1 00	
VS96 Q SMM	23-Nov-2012, 12:28	0.31	0.58	830.00	1.00	
VS96 R SMM	23-Nov-2012, 12:30	0.08	1.05	203.00	1.00	
VS96 S SMM	23-Nov-2012, 12:31	0.01	5.24	37.70	1.00	
VS96 T SMM	23-Nov-2012, 12:33	0.01	7.95	28.80	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 12:34	4.26	0.69	11300.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 12:36	0.00	19 10	8 91	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VT06 MB1 SMM	23-Nov-2012, 12:46	0.00	32.10	4.22	1.00	
VT06 MB1SPK SMM	23-Nov-2012, 12:47	2.20	0.44	5870.00	1 00	
VT06 D SMM	23-Nov-2012, 12:49	0.04	5 35	105.00	1.00	
VT06 DDUP SMM	23-Nov-2012, 12:50	0.05	1.28	133 00	1.00	
VT06 DSPK SMM	23-Nov-2012, 12:52	1.16	0.79	3090.00	1.00	
VT06 E SMM	23-Nov-2012, 12:54	0.09	1.42	236.00	1.00	
VT06 F SMM	23-Nov-2012, 12.55	0.13	0.68	347.00	1.00	
VT06 G SMM	23-Nov-2012, 12:57	0.09	0 51	248.00	1.00	
VT06 H SMM	23-Nov-2012, 12:58	0.07	1.25	191.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 13:00	4.30	0.71	11500.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 13:02	-0.00	40.80	-3 38	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VT06 I SMM	23-Nov-2012, 13:03	0 07	1.42	190.00	1.00	
VS20 MB1 SMM	23-Nov-2012, 13.05	0.01	8.32	16.30	1 00	
VS20 MB1SPK SMM	23-Nov-2012, 13:07	2.18	0.59	5810.00	1.00	
VS20 A SMM	23-Nov-2012, 13:08	1.59	0.50	4230.00	1.00	
VS20 ADUP SMM	23-Nov-2012, 13:10	1.59	0.42	4240.00	1.00	
VS20 ASPK SMM	23-Nov-2012, 13.12	2.59	0.39	6910 00	1 00	
VS20 B SMM	23-Nov-2012, 13.13	1 38	0 67	3690 00	1 00	
VS20 C SMM	23-Nov-2012, 13:15	3.11	0.38	8280.00	1.00	

CETAC Hg Analysis Report - 12112300.DB - Friday, November 23, 2012, 4:24:06 PM

Analyst
Date Started Friday, November 23, 2012, 13.16.48
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS20 D SMM	23-Nov-2012, 13:16	3.16	0.46	8420 00	1.00	
VS20 E SMM	23-Nov-2012, 13:18	1.94	0.55	5160.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 13.20	4.24	1.46	11300 00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 13:21	0.01	12.10	37 10	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS20 F SMM	23-Nov-2012, 13:23	0.84	0.48	2230.00	1.00	
VS20 G SMM	23-Nov-2012, 13:25	1.68	0.45	4480 00	1 00	
VS20 H SMM	23-Nov-2012, 13:26	0.49	0 58	1320.00	1 00	
VS20 I SMM	23-Nov-2012, 13:28	0.68	0.69	1800 00	1.00	
VS20 J SMM	23-Nov-2012, 13:29	1.00	0.65	2660.00	1 00	
VS20 K SMM	23-Nov-2012, 13:31	1.72	0.91	4600 00	1 00	
VS20 L SMM	23-Nov-2012, 13:33	2.03	0.25	5410 00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 13:34	4.37	0.44	11700.00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 13:36	0.01	13.00	18.20	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS82 MB1 SMM	23-Nov-2012, 13 39	0.01	4.21	35.30	1.00	
VS82 MB1SPK SMM	23-Nov-2012, 13 41	2.16	0.38	5760.00	1.00	
VS82 A SMM	23-Nov-2012, 13:43	0.02	10.70	57.20	1 00	
VS82 ~~ADUP~~ SMM B	23-Nov-2012, 13 44	0.07	1 75	177.00	1.00	
VS82 ~~ASPK~~ SMM C	23-Nov-2012, 13:46	0.16	0.96	433.00	1.00	
VS82 ~~B~~ SMM CDUP	23-Nov-2012, 13:47	0.20	0.69	527.00	1 00	
VS82 ~~C~~ SMM CSPK	23-Nov-2012, 13:49	1.39	0.47	3700 00	1.00	
VS82 D SMM	23-Nov-2012, 13:51	0.30	0 99	796.00	1.00	
VS82 E SMM	23-Nov-2012, 13:52	0.06	1.97	151.00	1.00	
VS82 F SMM	23-Nov-2012, 13:54	0.13	1.49	337.00	1.00	

NB 11-23-12

Spreadsheet type' Actual samples ran as indicated -NB 11-23-12

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 13:55	4.40	0.50	11700.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 13:57	-0.01	21.80	-28 50	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS82 G SMM	23-Nov-2012, 13:59	0.39	1.32	1040.00	1.00	
VS82 H SMM	23-Nov-2012, 14:00	0.12	0.91	307.00	1.00	
VS82 I SMM	23-Nov-2012, 14:02	0 10	0.29	270.00	1.00	
VS82 J SMM	23-Nov-2012, 14:04	0.41	0.73	1100.00	1.00	
VS82 K SMM	23-Nov-2012, 14:05	0.18	0.60	491.00	1.00	
VS82 L SMM	23-Nov-2012, 14:07	0.16	0.81	433.00	1.00	
VS82 M SMM	23-Nov-2012, 14:08	0.18	1.50	472.00	1.00	
VS19 MB1 SMM	23-Nov-2012, 14:10	0.01	11.10	14.70	1.00	
VS19 MB1SPK SMM	23-Nov-2012, 14:12	2.17	0.91	5780 00	1 00	
VS19 A SMM	23-Nov-2012, 14:13	0.76	1.16	2030.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 14:15	4.43	0.87	11800.00	1 00	

11.26.12

Analyst	
Date Created:	Thursday, July 13, 2000
Worksheet	ARI 10ppb CALIB
Comment	
Sip Duration (Sec.):	30
Rinse Duration (Sec.):	60
Read Delay:	49
Integration Time/Replicate:	1.40
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	10
Baseline Point 1 End Time:	16
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	
Baseline Point 2 End Time:	
Gas Flow (ml/min):	180
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	5
Calibration Standard #1 Conc.:	0.10 PPB
Calibration Standard #2 Conc.:	0.50 PPB
Calibration Standard #3 Conc.:	1.00 PPB
Calibration Standard #4 Conc.:	2.00 PPB
Calibration Standard #5 Conc.:	5.00 PPB
Calibration Standard #6 Conc.:	10.00 PPB
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5.0%, if µAbs > 1500, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 80% 120%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -100 .. 100,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Digested 20.0mL

Prep Code: TWM Instrument: CETAC
Analyst: NB Date: 11-19-12
Bath Temp: 90°C Start Time: 1526 End Time: 1726

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	2993-13	0.01	↓	0.1	1
STD2	↓	0.05	↓	0.5	1
STD3	↓	0.10	↓	1.0	1
STD4	↓	0.20	↓	2.0	1
STD5	↓	0.50	↓	5.0	1
STD6	↓	1.00	↓	10.0	1
CRA	↓	0.01	↓	0.1	1
ICB/CCB	—	0.00	↓	0.0	1
ICV/LCS	56-18	0.16	↓	8.0	1
CCV	↓	0.08	100.0	4.0	1

Chemical/Reagent ID:

HNO_3: I7833 H_2SO_4: I7677 HCl: —
5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376

Prep Code: SMM Instrument: CETAC
Analyst: NB Date: 11-19-12
Bath Temp: 94°C Start Time: 1708 End Time: 1738

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	50.0	0.0	3
STD1	2993-14	0.01	↓	0.1	2
STD2	↓	0.05	↓	0.5	2
STD3	↓	0.10	↓	1.0	2
STD4	↓	0.20	↓	2.0	2
STD5	↓	0.50	↓	5.0	2
STD6	↓	1.00	↓	10.0	2
CRA	↓	0.01	↓	0.1	1
ICB/CCB	—	0.00	↓	0.0	3
ICV/LCS	56-18	~~0.08~~ 0.80 *	↓	8.0	2
CCV	↓	0.04	50.0	4.0	3

*NB 11-19-12

Chemical/Reagent ID:

HNO_3: I7833 H_2SO_4: I7677 HCl: —
5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM Matrix: SOIL
Analyst: NB Date: 11-21-12
Bath Temp: 92°C Start Time: 1428 End Time: 1458

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VS20A	1	—	0.739	50.0	11-22 1	YES	
" ADUP	1	—	0.743		1		
" ASPK	1	—	0.741		1		
" B	1	—	0.702		1		
" C	1	—	0.731		1		
" D	1	—	0.736		1		
" E	1	—	0.735		1		
" F	1	—	0.731		1		
" G	1	—	0.715		1		
" H	1	—	0.712		1		
" I	1	—	0.706		1		
" J	1	—	0.715		1		
" K	1	—	0.719		1		
" L	1	—	0.711		1		
" MBI	—	—	—		1		
" MBISPK	—	—	—	50.0	1		
				NB 11-21-12			

Chemical/Reagent ID:

HNO_3: I7833 H_2SO_4: I7677 HCl: —
5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376 Digest Tube Lot: 1205258

General Chemistry Raw Data
Analyst Notes and Raw Data

ARI Job ID: VS20

W

11-27-12

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 11/19/12 (C)

ANALYST: UW / CDE 16:15

Instrumentation

Drying Ovens: 12

Muffle Furnace: 279018520

Analytical Balance: 1123230597

Batch drying time

record times as mm/dd/yy hh:mm

11/19/2012 16:15 date/time in oven UW

11/20/2012 10:06 date/time out CDE

elapsed hrs = 17.8

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02			CV-02	CV-02						
	Date & Time	1/19/12 15:45 UW	11/19/12 15:27 UW	11/20/12 10:24 CDE				11/20/12 14:52 CDE	11/20/12 16:55 CDE						
Cal Wt (g)	10.0000	9.9999	9.9999	10.0000				100.0000	10.0000						
	record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*				*Cal Err!*	*Cal OK!*						

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
Blank			1.1003	1.1003			0.00		1.1003	1.1002	OK	0.00		
VS21 A1		8.3573	1.1010	8.1849			7.08	97.6%						
VS21 A1 dup		8.2685	1.0945	8.0839			6.99	97.4%						
							RPD =	0.20%				RPD =	NA	
VS21 A1 trp		8.2954	1.1006	8.1178			7.02	97.5%						
							RSD =	0.10%				RSD =	NA	
VS21 B1		4.0162	1.1157	3.7053			2.59	89.3%						
VS20 I 1		8.1602	1.1168	7.9692			6.85	97.3%						
VS20 L 1		6.0740	1.0829	5.8415			4.76	95.3%						
VT06 D1		11.8592	1.1076	10.6060			9.50	88.3%	10.5258	10.5202	OK	9.41	9,033	0.90%
VT06 D1 dup		11.5665	1.1056	10.1738			9.07	86.7%	10.0821	10.0755	OK	8.97	10,840	1.08%
							RPD =	1.89%				RPD =	18.19%	
VT06 D1 trp		10.4284	1.1026	9.2730			8.17	87.6%	9.1855	9.1803	OK	8.08	11,346	1.13%
							RSD =	0.95%				RSD =	11.68%	
VT06 E1		11.8241	1.1136	9.9415			8.83	82.4%	9.8177	9.8112	OK	8.70	14,760	1.48%
VT06 F1		10.3062	1.0978	8.3031			7.21	78.2%	8.1793	8.1716	OK	7.07	18,250	1.83%
VT06 G1		11.4193	1.1149	9.2953			8.18	79.4%	9.1550	9.1460	OK	8.03	18,251	1.83%
VT06 H1		11.9366	1.1366	9.8260			8.69	80.5%	9.7160	9.7073	OK	8.57	13,660	1.37%
VT06 I 1		11.4964	1.0982	9.6358			8.54	82.1%	9.5465	9.5388	OK	8.44	11,362	1.14%
VT14 A1		8.3371	1.0869	7.7947			6.71	92.5%						
VT14 B1		8.2464	1.1149	7.6980			6.58	92.3%						
VT14 C1		10.0434	1.0683	9.4875			8.42	93.8%						

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET DATE: 11/19/12 (C)

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))* ANALYST: UW / CDE 16:15

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace: 279018520

Batch drying time			*TS (%) calculated as:*	*TVS (mg/kg dry wt) calculated as:*
record times as mm/dd/yy hh:mm			*Final dry wt (g) = (Dry Wt - Tare Wt)*	*Final ash wt (g) = (min ash wt - tare wt)*
11/19/2012 16:15	date/time in oven	UW	*TS = (Final Dry Wt)/ (grams Sample-Tare)*	*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
11/20/2012 10:06	date/time out	CDE		*if ash wt > dry wt, "Chk for Err"*
elapsed hrs =	17.8			*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02				
	Date & Time	1/19/12 15:45 UW	11/19/12 15:27 UW	11/20/12 10:24 CDE					11/20/12 14:52 CDE	11/20/12 16:55 CDE				
Cal Wt (g)	10.0000	9.9999	9.9999	10.0000					100.0000	10.0000				
	record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*					*Cal Err!*	*Cal OK!*				

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams)			dry Wt (g)	TS (%)	ASH WT 550C (grams)			Ash Wt (g)	TVS (mg/kg)	(%)
				1					1	2				
VT14 D1		10.9575	1.1007	9.8126			8.71	88.4%						

@ 10.0821 W2

(C)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

M - Furnace # 27908520

Analyst:	CW/CDE	Date:	11-19-12	Oven ID:	1C	Balance ID:	1123230597
Time in Oven:	16:15	Time Out of Oven:	11-20-12 10:06	Elapsed Time (> 12 Hrs):			

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

Cal Weight ID		CV-02	CV-02	CV-02	CV-02	CV-02	[redacted]	CV-02	CV-02	CV-02
Date & Time:		11-19-12 15:41	11-19-12 15:23	11-20-12 10:24				11-20-12 12:19	11-20-12 14:52	11-20-12 16:55
Cal Weight (10.0000):		9.9999 W	9.9999 W	10.0000 W2				10.0000 W2	10.0000 W2	10.0000 W2
Sample ID	Dish #	Sample	Tare	Dry Weight 104°C 1	2	3	Dry Weight grams	Ash Weight 550°C 1	2	3
BLANK	9	—	1.1003	1.1003				1.1002	1.1003	1.1002
VS21 A1	10	8.3573	1.1010	8.1849						
A1 dup	11	8.2685	1.0945	8.0839						
A1 trip	12	8.2954	1.1006	8.1178						
B1	13	4.0162	1.1157	3.7053						
VS10 I1	14	8.1802	1.1168	7.9692						
L1	15	6.0740	1.0829	5.8415						
VTOG D1	16	11.8592	1.1076	10.6060				10.5371	10.5258	10.5202
D1 dup	17	11.5665	1.1056	10.1738				10.0945	~~10.0721~~	10.0755
D1 trip	18	10.4284	1.1026	9.2730				9.1975	9.1855	9.1803
E1	19	11.8241	1.1136	9.9415				9.8338	9.8177	9.8112
F1	20	10.3062	1.0978	8.3031				8.2036	8.1793	8.1716
G1	21	11.4193	1.1149	9.2953				9.1723	9.1550	9.1460
H1	22	11.9366	1.1366	9.8260				9.7337	9.7160	9.7073
I1	23	11.4964	1.0982	9.6358				9.5617	9.5465	9.5388
VT14 A1	24	8.3371	1.0869	7.7947						
B1	25	8.2464	1.1149	7.6980						
C1	26	10.0434	1.0683	9.4875						
D1	27	10.9575	1.1007	9.8126						
					11-19-12					

W
11-27-12

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET
SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 11/20/2012 (B)
ANALYST: CDE 19:29

Instrumentation

Drying Ovens: 12
Muffle Furnace: N / A
Analytical Balance: 1123230597

Batch drying time
record times as mm/dd/yy hh:mm

11/20/2012 19:29	date/time in oven	CDE
11/21/2012 10:11	date/time out	CDE
elapsed hrs =	14.7	

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

Cal Weight ID		CV-02	CV-02	CV-02	CV-02	CV-02	CV-02
Date & Time		1/20/12 18:21 CDE	11/20/12 17:32 CDE	11/21/12 10:29 CDE			
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000			
record weights to 4 places		*Cal OK!*	*Cal OK!*	*Cal OK!*			

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
Blank			1.1260	1.1256			0.00							
VS20 J 1		4.5445	1.1037	4.3632			3.26	94.7%						
VS20 K1		4.6249	1.1498	4.4756			3.33	95.7%						
VS21 C1		5.2886	1.0894	5.1727			4.08	97.2%						
VS21 C1 dup		5.5288	1.1201	5.4011			4.28	97.1%						
							RPD =	0.14%				RPD =	NA	
VS21 C1 trp		5.3388	1.0796	5.2213			4.14	97.2%						
							RSD =	0.08%				RSD =	NA	
VS21 D1		4.7746	1.0874	4.6261			3.54	96.0%						
VS21 E1		4.9768	1.1128	4.8381			3.73	96.4%						
VS21 F1		6.7585	1.1030	6.6223			5.52	97.6%						
VS21 G1		6.9651	1.0898	6.8594			5.77	98.2%						
VS21 H1		7.2515	1.1084	7.1740			6.07	98.7%						
VS21 I 1		4.6359	1.0743	4.4594			3.39	95.0%						
VS21 J 1		5.8641	1.1148	5.7322			4.62	97.2%						
VS21 K1		5.8829	1.0945	5.7476			4.65	97.2%						
VS21 L 1		4.7599	1.0706	4.5692			3.50	94.8%						
VS23 I 1		5.0842	1.0934	4.9647			3.87	97.0%						
VS22 A1		4.6001	1.1226	4.3753			3.25	93.5%						
VS22 B1		5.4722	1.0484	5.3644			4.32	97.6%						
VS22 C1		7.1470	1.0819	6.9999			5.92	97.6%						
VS22 D1		5.8544	1.0874	5.7715			4.68	98.3%						

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET DATE: 11/20/2012 (B)

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))* ANALYST: CDE 19:29

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace: N / A

Batch drying time			*TS (%) calculated as:*	*TVS (mg/kg dry wt) calculated as:*
record times as mm/dd/yy hh:mm			*Final dry wt (g) = (Dry Wt - Tare Wt)*	*Final ash wt (g) = (min ash wt - tare wt)*
11/20/2012 19:29	date/time in oven	CDE	*TS = (Final Dry Wt)/ (grams Sample-Tare)*	*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
11/21/2012 10:11	date/time out	CDE		*if ash wt > dry wt, "Chk for Err"*
elapsed hrs =	14.7			*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02				
	Date & Time	1/20/12 18:21 CDE	11/20/12 17:32 CDE	11/21/12 10:29 CDE										
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000										
	record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*										

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
VS22 E1		5.7288	1.0815	5.5907			4.51	97.0%						
VS22 F1		5.3669	1.1041	5.1423			4.04	94.7%						
VS22 G1		5.7917	1.1127	5.6314			4.52	96.6%						

TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET (B)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Analyst: CM	Date: 11-20-12	Oven ID: 12	Balance ID: 1123230597
Time in Oven: ~~16:29 CM~~ ~~19:29~~ 19:29	Time Out of Oven: 11-21-12 10:11		Elapsed Time (> 12 Hrs):

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

Cal Weight ID	CV-02	CV-02	CV-02	CV-02	CV-02		CV-02	CV-02	CV-02
Date & Time:	11-20-12 18:21	11-20-12 17:32	11-21-12 10:29						
Cal Weight (10.0000):	10.0000 CM	10.0000 CM	10.0000 CM						

Sample ID	Dish #	Sample	Tare	Dry Weight 104°C 1	Dry Weight 104°C 2	Dry Weight 104°C 3	Dry Weight grams	Ash Weight 550°C 1	Ash Weight 550°C 2	Ash Weight 550°C 3
BLANK	24	Ø	1.1260	1.1256						
VS2Ø J'	25	4.5445	1.1037	4.3632						
↓ K'	26	4.6249	1.1498	4.4756						
VS21 C'	27	5.2486	1.0894	5.1727						
C' dp	28	5.5288	1.1201	5.4011						
C' TP	29	5.3388	1.0796	5.2213						
D'	30	4.7746	1.0874	4.6261						
E'	31	4.9768	1.1128	4.8381						
F'	32	6.7585	1.1030	6.6223						
G'	33	6.9651	1.0898	6.8594						
H'	34	7.2515	1.1084	7.1740						
I'	35	4.6359	1.0743	4.4594						
J'	36	5.8641	1.1148	5.7322						
K'	37	5.8829	1.0945	5.7476						
↓ L'	38	4.7599	1.0706	4.5692						
VS23 I' ~~VS22 A~~ CM	39	5.0842	1.0934	~~4.48~~ 4.9647						
VS22 BA'	40	4.6001	1.1226	4.3753						
CB'	41	5.4722	1.0484	5.3644						
DC'	42	7.1470	1.0819	6.9999						
ED'	43	5.8544	1.0874	5.7715						
FE'	44	5.7288	1.0815	5.5907						
GF'	45	5.3669	1.1041	5.1423						
↓ G'	46	5.7917	1.1127	5.6314						

VS20 . 00651

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 11/20/12 (A)

ANALYST: CDE 19:29

Instrumentation

Drying Ovens: 12

Muffle Furnace: N / A

Analytical Balance: 1123230597

Batch drying time

record times as mm/dd/yy hh:mm

11/20/2012 19:29 date/time in oven CDE

11/21/2012 10:11 date/time out CDE

elapsed hrs = 14.7

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02					
	Date & Time	1/20/12 16:21 CDE	11/20/12 17:37 CDE	11/21/12 10:28 CDE											
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000											
	record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*											

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	TVS (%)
Blank			1.0693	1.0693			0.00							
VS19 A1		5.3257	1.0726	5.2167			4.14	97.4%						
VS19 A1 dup		5.6800	1.0763	5.5627			4.49	97.5%						
							RPD =	0.02%				RPD =	NA	
VS19 A1 trp		5.0205	1.0888	4.9265			3.84	97.6%						
							RSD =	0.10%				RSD =	NA	
VS19 B1		5.2890	1.0730	4.9936			3.92	93.0%						
VS19 C1		5.6332	1.0694	5.3511			4.28	93.8%						
VS19 D1		4.6919	1.1035	4.5354			3.43	96.6%						
VS19 E1		5.4253	1.0661	5.2698			4.20	96.4%						
VS19 F1		6.4514	1.1049	6.3305			5.23	97.7%						
VS19 G1		6.8300	1.1135	6.7221			5.61	98.1%						
VS19 H1		6.5695	1.1209	6.4714			5.35	98.2%						
VS19 I 1		6.4708	1.1077	6.4077			5.30	98.8%						
VS19 J 1		5.3500	1.0889	5.0836			3.99	93.7%						
VS19 K1		6.2099	1.0892	6.0754			4.99	97.4%						
VS19 L1		5.4936	1.0854	5.3148			4.23	95.9%						
VS20 A1		5.4115	1.0905	5.2398			4.15	96.0%						
VS20 B1		4.6155	1.0818	4.4149			3.33	94.3%						
VS20 C1		4.9966	1.0959	4.6712			3.58	91.7%						
VS20 D1		3.9498	1.0757	3.6497			2.57	89.6%						
VS20 E1		3.9490	1.0762	3.7183			2.64	92.0%						

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET DATE: 11/20/12 (A)

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))* ANALYST: CDE 19:29

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace: N / A

Batch drying time			*TS (%) calculated as:*	*TVS (mg/kg dry wt) calculated as:*
record times as mm/dd/yy hh:mm			*Final dry wt (g) = (Dry Wt - Tare Wt)*	*Final ash wt (g) = (min ash wt - tare wt)*
11/20/2012 19:29	date/time in oven	CDE	*TS = (Final Dry Wt)/ (grams Sample-Tare)*	*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
11/21/2012 10:11	date/time out	CDE		*if ash wt > dry wt, "Chk for Err"*
elapsed hrs =	14.7			*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02				
	Date & Time	1/20/12 18:21 CDE	11/20/12 17:37 CDE	11/21/12 10:28 CDE										
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000										
record weights to 4 places		*Cal OK!*	*Cal OK!*	*Cal OK!*										

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	TVS (%)
VS20 F1		5.2689	1.0723	5.0121			3.94	93.9%						
VS20 G1		5.2384	1.0676	5.0238			3.96	94.9%						
VS20 H1		5.5322	1.0627	5.4344			4.37	97.8%						

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET (A)

Analyst: CLG	Date: 11-20-12	Oven ID: 12	Balance ID: 1123230597
Time in Oven: ~~19:22~~ 19:29	Time Out of Oven: 11-21-12 10:11	Elapsed Time (> 12 Hrs):	

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

Cal Weight ID	CV-02	CV-02	CV-02	CV-02	CV-02	[redacted]	CV-02	CV-02	CV-02
Date & Time:	11-20-12 18:21	11-20-12 17:37	11-21-12 10:28						
Cal Weight (10.0000):	10.0002 gm	10.0000 gm	10.0000 gm						

Sample ID	Dish #	Sample	Tare	Dry Weight 104°C 1	2	3	Dry Weight grams	Ash Weight 550°C 1	2	3
BLANK	1	Ø	1.0693	1.0693						
VS19 A1	2	5.3257	1.0726	5.2167						
A1 dp	3	5.6800	1.0763	5.5627						
A1 tp	4	5.0205	1.0898	4.9265						
B1	5	5.2890	1.0730	4.9936						
C1	6	5.6332	1.0694	5.3511						
D1	7	4.6919	1.1035	4.5354						
E1	8	5.4253	1.0661	5.2698						
F1	9	6.4514	1.1049	6.3305						
G1	10	6.8300	1.1135	6.7221						
H1	11	6.5695	1.1209	6.4714						
I1	12	6.4708	1.1077	6.4077						
J1	13	5.3500	1.0889	5.0836						
K1	14	6.2099	1.0892	6.0754						
L1	15	5.4936	1.0854	5.3148						
VS20 A1	16	5.4115	1.0905	5.2398						
B1	17	4.6155	1.0818	4.4149						
C1	18	4.9966	1.0959	4.6712						
D1	19	3.9498	1.0757	3.6497						
E1	20	3.9490	1.0762	3.7183						
F1	21	5.2689	1.0723	5.0121						
G1	22	5.2384	1.0676	5.0238						
H1	23	5.5322	1.0627	5.4344						

W
11-27-12

Soil Conductivity - pH

Date: 11/21/2012

meter: Orion Model 115

Analyst: KE 9:56

Conductivity Calibration

Potassium Chloride standard *ARI ID =* **N / A**

pH Calibration *Temperature (°C)* _____

pH Buffers 2, 4, 7, 10, 12

Conductivity =	**1413**	*µS/cm*
Cal Temp	**N / A**	
Input Value		*µS/cm*

Verification Buffer pH

Source **FISHER#** 7.00

Conductivity Verification Standard

Source: **N / A**

Record Certified Values

µS / cm = **1000**

TDS (mg/l) =

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity (mS/cm)	Conductivity (µS/cm)	Notes & Flags
pH 7 Buffer			20.3	6.97			*OK@ 99.6%*
VS21 C1	20.30	20	20.1	5.27			
VS21 C1 dup	20.30	20	20.1	5.29			*pH RPD =0.38%*
VS21 D1	20.20	20	20.0	5.41			
VS21 E1	20.10	20	20.1	5.62			
VS21 F1	20.20	20	20.0	5.68			
VS21 G1	20.03	20	20.0	5.95			
VS21 H1	20.03	20	20.0	5.98			
VS21 I 1	10	20	20.0	5.90			
VS21 J 1	20.01	20	20.1	6.06			
VS21 K1	20.01	20	20.1	5.08			
pH 7 Buffer			20.4	6.99			*OK@ 99.9%*
VS21 L1	10.05	20	20.1	5.89			
VS23 I 1	20.06	20	20.0	5.96			
VS19 A1	20	20	20.0	5.96			
VS19 A1 dup	20	20	20.0	5.98			*pH RPD =0.34%*
VS19 B1	20	20	20.0	6.13			
VS19 C1	20	20	20.1	6.10			
VS19 D1	10	20	20.0	6.44			
VS19 E1	20	20	20.0	5.78			
VS19 F1	20	20	20.0	6.03			
VS19 G1	20	20	20.0	6.10			
pH 7 Buffer			20.4	7.04			*OK@ 100.6%*
VS19 H1	20	20	20.0	6.11			
VS19 I 1	20	20	20.0	5.73			
VS19 J 1	10	20	20.0	5.97			
VS19 K1	20	20	20.0	5.60			
VS19 L1	20	20	20.0	6.03			
VS20 A1	10	20	20.0	6.11			
VS20 B1	10	20	20.0	6.14			
VS20 C1	10	20	20.0	5.96			
VS20 D1	5	20	20.3	6.21			
VS20 E1	10	20	20.2	6.27			
pH 7 Buffer			20.3	7.03			*OK@ 100.4%*

VS20 F1	20	20	20.1	6.22			
VS20 G1	10	20	20.3	6.08			
VS20 H1	20	20	20.2	6.09			
VS20 H1 dup	20	20	20.2	6.06			*pH RPD =0.49%*
VS20 J 1	10	20	20.2	6.52			
VS20 K1	10	20	20.3	6.37			
VS22 A1	10	20	20.2	5.45			
VS22 B1	20	20	20.3	5.73			
VS22 C1	20	20	20.2	6.67			
CS22 D1	20	20	20.3	7.48			
pH 7 Buffer			20.2	7.00			*OK@ 100%*
VS22 E1	10	20	20.5	6.75			
VS22 F1	10	20	20.3	6.42			
VS22 G1	20	20	20.2	6.13			
VS22 H1	20	20	20.3	5.61			
VS22 I 1	20	20	20.3	6.24			
VS22 J 1	20	20	20.3	6.25			
VS22 K1	20	20	20.2	6.18			
VS22 L1	10	20	20.2	6.68			
VS23 A1	20	20	20.4	5.77			
VS23 A1 dup	20	20	20.3	5.79			*pH RPD =0.35%*
pH 7 Buffer			20.3	6.98			*OK@ 99.7%*
VS23 B1	20	20	20.2	5.95			
VS23 C1	10	20	20.4	6.34			
VS23 D1	20	20	20.3	5.73			
VS23 E1	20	20	20.4	5.69			
VS23 F1	20	20	20.3	5.51			
VS23 G1	20	20	20.0	5.47			
VS23 H1	20	20	20.2	5.48			
VS23 J1	10	20	20.3	5.29			
VS23 K1	10	20	20.3	6.19			
VS18 B1	20	20	20.2	6.15			
pH 7 Buffer			20.5	7.05			*OK@ 100.7%*
VS18 A1	20	20	20.3	6.47			
VS18 A1 dup	20	20	20.3	6.45			*pH RPD =0.31%*
VS18 C1	20	20	20.2	6.17			
VS18 D1	20	20	20.1	6.16			
VS18 E1	20	20	20.2	6.15			
VS18 F1	20	20	20.2	6.06			
VS18 G1	20	20	20.3	6.13			
VS18 H1	20	20	20.3	6.10			
VS18 I 1	20	20	20.3	5.46			
VS18 J 1	20	20	20.3	5.97			
pH 7 Buffer			20.5	7.05			*OK@ 100.7%*
VS18 K1	10	20	20.4	6.19			
VS18 L1	20	20	20.4	6.10			
VT58 A1	20	20	20.3	3.81			
VT58 A1 dup	20	20	20.3	3.80			*pH RPD =0.26%*
VT58 B1	20	20	20.3	6.69			
VT58 C1	20	20	20.4	5.32			
VT58 D1	20	20	20.4	2.73			
VT58 E1	20	20	20.3	3.36			
VT58 F1	20	20	20.3	2.49			
pH 7 Buffer			20.6	7.02			*OK@ 100.3%*

① 11-21-12 (W)

Soil Conductivity - pH

Date: 11-20-12

meter: Orion Model 115

Analyst: (W) 9:56

Conductivity Calibration

Potassium Chloride standard ARI ID = _____

Conductivity =	1413	µS/cm
Cal Temp		
Input Value		µS/cm

pH Calibration *Temperature (°C)* _____

pH Buffers 2, 4, 7, 10, 12

Verification Buffer	pH
Source FISHER#	7.00

Conductivity Verification Standard

Source:

Record Certified Values

µS / cm =	1000
TDS (mg/l) =	

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity (mS/cm)	Conductivity (µS/cm)	Notes & Flags
pH 7 Buffer			①20.3	6.97			
VS21 C1	20.13	20	20.1	20.40	6.27		
MC1	20.02	20	20.1	5.29			
D1	20.02	30	20.0	5.41			
E1	20.01	20	20.1	5.62			
F1	20.02	20	20.0	5.68			
G1	20.03	20	20.0	5.95			
H1	20.03	20	20.0	5.98			
I1	10.00	20	20.0	5.90			
J1	20.01	20	20.1	6.06			
K1	20.01	20	20.1	5.08			
pH 7 Buffer			20.4	6.99			
VS21 L1	10.05	20	20.1	5.89			
VS20 I1	20.06	20	20.0	5.96			
VS19 A1	20	20	20.0	5.96			
MA1	20	20	20.0	5.98			
B1	20	20	20.0	6.13			
C1	20	20	20.1	6.10			
D1	10	20	20.0	6.44			
E1	20	20	20.0	3.78			
F1	20	20	20.0	6.03			
G1	20	20	20.0	6.10			
pH 7 Buffer			20.4	7.04			
VS19 H1	20	20	20.0	6.11			
I1	20	20	20.0	5.73			
J1	10	20	20.0	5.97			
K1	20	20	20.0	5.60			
L1	20	20	20.0	6.03			
VS20 A1	10.	20	20.0	6.11			
B1	10	20	20.0	6.14			
C1	10	20	20.0	5.96			
D1	5	20	20.3	6.21 ①	6.21		
E1	10	20	20.2	6.27			
pH 7 Buffer			20.3	7.03			
VS20 F1	20	30	20.1	6.22			
G1	10	20	20.3	6.08			
H1	20	20	20.2	6.09			
MH1	20	20	20.2	6.06			
J1 ②	10	20	20.2	6.52			
K1	10	20	20.3	6.37			
VS22 A1	10	30	20.2	5.45			
B1	20	20	20.3	5.73			
C1	20	20	20.2	6.67			
D1	20	20	20.3	7.48			
pH 7 Buffer			20.2	7.00			

Soil Conductivity - pH

meter: Orion Model 115

Date: 11-21-12

Analyst: W 9:56

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity (mS/cm)	Conductivity (µS/cm)	Notes & Flags
VS21 E1	10	20	20.5	6.75			
F1	20	20	20.3	6.42			
G1	20	20	20.2	6.13			
H1	20	20	20.3	5.61			
I1	20	20	20.3	6.24			
J1	20	20	20.3	6.25			
K1	20	20	20.2	6.18			
L1	10	20	20.2	6.18			
VS23 A1	20	20	20.4	~~6.10~~	5.77		
DA1	20	20	20.3	5.79			
pH 7 Buffer			20.3	~~6.98~~	6.98		
VS23 B1	20	~~20~~ 30	20.2	5.95			
C1	10	20	20.4	6.34			
D1	20	20	20.3	5.73			
E1	20	20	20.4	5.69			
F1	20	20	20.3	5.51			
G1	20	20	20.0	5.47			
H1	20	20	20.2	5.48			
J1	10	20	20.3	5.29			
K1	10	20	20.3	6.19			
VS18 B1	20	~~20~~ 30	20.2	6.15			
pH 7 Buffer		20.3	7.05	7.05			
VS18 A1	20	~~20~~ 30	20.3	6.47			
DA1	20	~~20~~ 30	20.3	6.45			
C1	20	20	20.2	6.17			
D1	20	20	20.1	6.16			
E1	20	20	20.2	6.15			
F1	20	20	20.2	6.06			
G1	20	20	20.3	6.13			
H1	20	20	20.3	6.10			
I1	20	20	20.30	5.46			
J1	20	20 (6)	~~20.34~~	5.97			
pH 7 Buffer			20.5	7.05			
VS18 K1	10	20 (7)	~~20.39~~	6.19			
L1	20	20 ~~20.32~~	~~20.33~~	6.10			
VS18 A1	20	~~20~~ ~~20.4~~ (3)		3.81			
DA1	20	20 (1)	~~20.4~~	3.80			
B1	20	20	20.3	6.69			
C1	20	20 (5)	~~20.3~~	~~6.38~~	5.32		
D1	20	20	20.4	2.73			
E1	20	20	20.3	3.36			
F1	20	20	20.3	2.49			
PH 7 Buffer			20.6	7.02			
~~pH 7 Buffer~~							
pH 7 Buffer							

11-21-12 (4)

(2) 20.4-11-21-12 (W)
(3) 20.3-11-21-12 (W)
(4) 20.4-11-21-12 (W)
(5) 20.4 11-21-12 (W)
(6) 20.3- 11-21-12
(7) 20.3- 11-21-12

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:	11-21-12		Buffer	Source	Lot #	pH	Temp.
Time:	11:44		2.00	Ricca	1205264	2.00	20.5
Analyst:	(W)		4.00	Fisher	116550	4.00	20.4
			7.00	Ricca	1206053	7.02	20.2
			10.00	Fisher	116346	10.05	20.2
			12.00	Ricca	120615?	11.99	20.4
			Verification	Fisher	120143	6.97	20.3

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
(W)	10:28	ICV	6.97	6.97	PH		20.3
		VS21 C1	5.26	5.27		Sol	20.1
		DC1	5.28	5.29			20.1
		D1	5.41	5.41			20.0
		E1	5.60	5.62			20.1
		F1	5.68	5.68			20.0
		G1	5.95	5.95			20.0
		H1	5.97	5.98			20.0
		I1	5.89	5.90			20.0
		J1	6.06	6.06			20.1
		K1	5.08	5.08			20.1
		CCV	7.00	6.99			20.4
		VS21 L1	5.89	5.89			20.1
		VS23 I1	5.96	5.96			20.0
		VS19 A1	5.96	5.96			20.0
		DA1	5.97	5.98			20.0
		B1	6.13	6.13			20.0
		C1	6.09	6.10			20.1
		D1	6.42	6.44			20.0
		E1	5.78	5.78			20.0
		F1	6.01	6.03			20.0
		G1	6.10	6.10			20.0
		CCV	7.05	7.04			20.4

(1) 11-21-12 (W)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:	11-21-12 (continued)		Buffer	Source	Lot #	pH	Temp.
Time:			2.00	Ricca			
Analyst:			4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher			
			12.00	Ricca			
			Verification	Fisher			

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
LW	12:10	ICV	7.03	7.03			20.2
		VTG2A1	9.89	9.90 →	6.95	6.95	19.2
		~~I (W)~~					
		CCV	7.03	7.03			20.2
(W)	10:28 (cont)	VS19 H'	6.11	6.11	PH 5011		20.0
		J'	5.73	5.73			20.0
		J'	5.96	5.97			20.0
		K'	5.60	5.60			~~20.0~~ 20.0
		L'	6.02	6.03			20.1
		VS20 A'	6.10	6.11			20.0
		B'	6.13	6.14			20.0
		CCV C'	5.97	5.96			20.0
		D'	6.21	6.21			20.3
		E'	6.27	6.27			20.2
		CCV	7.03	7.03			20.3
		F'	6.22	6.22			20.1
		G'	6.08	6.08			20.3
		H'	6.09	6.09			20.2
		DPH'	6.07	6.06			20.2
		J'	6.52	6.52			20.2
		K'	6.38	6.37			20.3
		VS22A'	5.47	5.45			20.2
		~~CCV~~ B'	5.73	5.73			20.3

(1) 11-21-12 (2)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:			Buffer	Source	Lot #	pH	Temp.
Time:			2.00	Ricca			
Analyst:			4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher			
			12.00	Ricca			
			Verification	Fisher			

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
W	10.28	~~US22 ICV~~ C1	6.67	6.67	5:1	Ph	20.2
		↓ D1	7.46	7.48			20.3
		CCV	7.01	7.00			20.2
		VS22 E1	6.75	6.75			20.5
		F1	6.44	6.42			20.3
		G1	6.12	6.13			20.2
		H1	5.61	5.61			20.3
		I1	6.24	6.24			20.3
		J1	6.25	6.25			20.3
		K1	6.18	6.18			20.2
		L1	6.67	6.68			20.2
		~~US22 CCV~~ A1	~~6.11~~ 5.77	~~6.10~~ 5.77			20.4
		↓ DP A1	5.79	5.79			20.3
		CCV	6.98	6.98			20.3
		US23 B1	5.95	5.95			20.2
		C1	6.34	6.34			20.4
		D1	5.74	5.73			20.3
		E1	5.69	5.69			20.4
		F1	5.51	5.51			20.3
		G1	5.47	5.47			20.0
		H1	5.48	5.48			20.2
		J1	5.29	5.29			20.3
↓	↓	~~CCV~~ K1	6.17	~~6.18~~ 6.19	↓	↓	20.3

① 11-21-12 (W)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Page 1 of 4

Calibration

Date:			Buffer	Source	Lot #	pH	Temp.
Time:			2.00	Ricca			
Analyst:			4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher			
			12.00	Ricca			
			Verification	Fisher			

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
		~~LCS~~ ~~ICV~~ ~~CCV~~					
W	10:28	US18 B'	6.15	6.15			20.2
		CCV	~~6.795~~ ①	~~6.805~~ 7.05	30.1	pH	20.5
		US18 A'	6.45	6.47			20.3
		MD A'	6.44	6.45			20.3
		C	6.17	6.17			20.2
		D	6.15	6.16			20.1
		E	6.14	6.15			20.2
		F	6.06	6.06			20.2
		G	6.13	6.13			20.3
		H	6.09	6.10			20.3
		~~CCV~~ I	5.47	5.46			20.3
		J	5.97	5.97			20.3
		CCV	7.05	7.05			20.5
		US18 K'	~~6.19~~	~~6.19~~			20.4
		L'	~~6.10~~	~~6.10~~			20.4
		UTS8 A1	3.81	3.81			20.3
		A1	3.80	3.80			20.3
		B1	6.69	6.69			20.3
		C1	~~5.33~~	~~5.32~~			20.4
		D1	2.73	2.73			20.4
		E1	3.36	3.36			20.3
		~~CCV~~ F1	2.49	2.49			20.3
		CCV	7.02	7.02			20.6

UW

11-21-12

Soil Conductivity - pH

Date: 11/20/2012

meter: Orion Model 115

Analyst: KE / UW 9:46

Conductivity Calibration

Potassium Chloride standard *ARI ID =* **N / A**

pH Calibration *Temperature (°C)* 20.5

pH Buffers 2, 4, 7, 10, 12

Conductivity =	**1413**	*µS/cm*
Cal Temp	**N / A**	
Input Value		*µS/cm*

Verification Buffer pH

Source **FISHER#** 7.00

Conductivity Verification Standard

Source: **N / A**

Record Certified Values

µS / cm = **1000**

TDS (mg/l) =

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity (mS/cm)	Conductivity (µS/cm)	Notes & Flags
pH 7 Buffer			20.5	6.97			*OK@ 99.6%*
VS21 A1	20.00	20	20.6	5.54			
VS21 A1 du	20.00	20	20.6	5.44			*pH RPD =1.82%*
VS21 B1	20.00	40	20.6	5.16			
VS20 I 1	20.00	20	20.6	6.19			
VS20 L1	20.00	20	20.6	5.41			
pH 7 Buffer			20.8	7.02			*OK@ 100.3%*

Soil Conductivity - pH

meter: Orion Model 115

Date: 11-20-12

Analyst: (W) / MW 9:46

Conductivity Calibration

Potassium Chloride standard ARI ID = N / A

Conductivity =	1413	µS/cm
Cal Temp	N / A	
Input Value		µS/cm

pH Calibration *Temperature (°C)* 20.5

pH Buffers 2, 4, 7, 10, 12

Verification Buffer pH

Source FISHER# 7.00

Conductivity Verification Standard

Source: N / A

Record Certified Values

µS / cm = 1000

TDS (mg/l) =

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity (mS/cm)	Conductivity (µS/cm)	Notes & Flags
pH 7 Buffer			20.5	6.97			
VS21A1	20.00	20	20.6	5.54			
↓ A1dup	↓	=	20.6	5.44			
↓ B1		40	20.6	5.16			
VS20 I1		20	20.6	6.19			
↓ C1		↓	20.6	5.41			
pH 7 Buffer			20.8	7.02			
pH 7 Buffer			11-20 (W)				
pH 7 Buffer							

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:	11-20-12		Buffer	Source	Lot #	pH	Temp.
Time:	10:30		2.00	Ricca	120 5264	2.00	20.5
Analyst:	W		4.00	Fisher	116550	4.00	20.6
			7.00	Ricca	1206053	7.02	20.6
			10.00	Fisher	116346	10.05	20.5
			12.00	Ricca	1206157	11.99	20.5
			Verification	Fisher	120143		

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
W	11:00	ICV	6.97	6.97			20.5
		VT32A1	5.69	5.68			20.4
		↳ A1 dup	5.73	5.74			20.4
		↓ B1	5.68	5.68			20.2
		VS21A1	5.54	5.54	soil		20.6
		↳ A1 dup	5.44	5.45	↓		20.6
		↓ B1	5.16	5.17			20.6
		VS20I1	6.19	6.20			20.6
		↓ B1	5.41	5.41			20.6
		CCV	7.02	7.02			20.8
CH	15:05	CCV	6.96	6.96			21.2
		VT47A1	6.78	6.79			19.0
		↳ dup	6.86	6.87			19.1
		VT46A1	7.03	7.02			20.1
		↳ dup	7.02	7.02			20.3
		↳ B1	7.81	7.81			20.0
		↳ C1	6.65	6.65			19.9
		CCV	7.05	7.05			21.1
		CCV					

W
11-26-12

TOC Solids Prep Log

DATE: 11/20/2012

ANALYST: CDE 19:52

acid purging to remove IC and drying at 70°C for TOC analysis

General notes regarding prep method and samples (identify the acid used)

HCL 10% ID: _____

Balance ID: Mettler Toledo (XS205 DU) SN 123230597

HCL ID: _____

make no entry to shaded cells, they are calculated

Sample ID		IC Test	Gravimetric Data (grams)			%	*Sample description & notes*
ARI #	Client	+ / -	Tare Wt.	Wet wt.	70°C dry wt	Solids	*(homogeneity and exclusions)*
Blank			13.2086	0.0000	13.2089	0.3 mg	
VS19 A1		-	13.2361	16.4259	16.4795	101.68%	
VS19 A1 dup		-	13.1609	16.4650	16.5178	101.60%	RPD = 0.08%
VS19 A1 trip		-	13.3671	17.3528	17.3890	100.91%	RSD = 0.42%
VS19 B1		-	13.3278	15.4319	15.3949	98.24%	
VS19 C1		-	13.2040	15.6166	15.6001	99.32%	
VS19 D1		-	13.1192	16.2725	16.2617	99.66%	
VS19 E1		-	13.1045	16.3346	16.3498	100.47%	
VS19 F1		-	13.2580	17.0491	17.0909	101.10%	
VS19 G1		-	13.1993	17.5064	17.5479	100.96%	
VS19 H1		-	13.1304	16.5373	16.6010	101.87%	
VS19 I 1		-	13.1196	16.4831	16.5746	102.72%	
VS19 J1		-	13.2814	15.2055	15.2102	100.24%	
VS19 K1		-	13.1909	15.6628	15.7313	102.77%	
VS19 L1		-	13.4056	15.6324	15.6690	101.64%	
VS20 A1		-	13.1599	16.0712	16.0840	100.44%	
VS20 B1		-	13.0851	14.9695	14.9929	101.24%	
VS20 C1		-	13.2164	14.8034	14.8062	100.18%	
VS20 D1		-	13.2331	14.6541	14.6318	98.43%	
VS20 E1		-	13.2009	14.9215	14.9241	100.15%	
VS20 F1		-	13.3388	15.2962	15.3065	100.53%	
VS20 G1		-	13.1189	15.4550	15.4530	99.91%	
VS20 H1		-	13.2723	16.5699	16.6212	101.56%	

(A)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

Analyst CDG Date 11-20-12 19:52

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.2086	Ø	13.2089		
VS19 A1		—	13.2361	16.4259	16.4795		dry sed
A1 dup		—	13.1609	16.4650	16.5178		
A1 TP		—	13.3671	17.3528	17.3890		
B1		—	13.3278	15.4319	15.3949		
C1		—	13.2040	15.6166	15.6001		
D1		—	13.1192	16.2725	16.2617		
E1		—	13.1045	16.3346	16.3498		
F1		—	13.2580	17.0491	17.0909		
G1		—	13.1993	17.5064	17.5479		
H1		—	13.1304	16.5373	16.6010		
I1		—	13.1196	16.4831	16.5746		
J1		—	13.2814	15.2055	15.2402		
K1		—	13.1909	15.6628	15.7313		
L1		—	13.4056	15.6324	15.6690		
VS20 A1		—	13.1599	16.0712	16.0840		
B		—	13.0851	14.9695	14.9929		
C1		—	13.2164	14.8034	14.8062		
D1		—	13.2381	14.6541	14.6318		
E1		—	13.2009	14.9215	14.9241		
F1		—	13.3388	15.2962	15.3065		
G1		—	13.1189	15.4550	15.4530		
H1		—	13.2723	16.5699	16.6212		
			11-20-12	CDG			

VS20 : 00710

W

11-26-12

TOC Solids Prep Log

DATE: 11/20/2012

ANALYST: CDE 19:52

acid purging to remove IC and drying at 70°C for TOC analysis

General notes regarding prep method and samples (identify the acid used)

HCL 10% ID:

Balance ID: Mettler Toledo (XS205 DU) SN 123230597

HCL ID:

make no entry to shaded cells, they are calculated

Sample ID		IC Test	Gravimetric Data (grams)			%	*Sample description & notes*
ARI #	Client	+ / -	Tare Wt.	Wet wt.	70°C dry wt	Solids	*(homogeneity and exclusions)*
Blank			13.3199	0.0000	13.3202	0.3 mg	
VS20 J1		-	13.2305	15.3666	15.3815	100.70%	
VS20 K1		-	13.0446	15.1619	15.1889	101.28%	
VS21 C1		-	13.1152	16.0780	16.1157	101.27%	
VS21 C1 dup		-	13.3594	16.3365	16.3710	101.16%	RPD = 0.11%
VS21 C1 trip		-	13.2355	16.2852	16.3261	101.34%	RSD = 0.09%
VS21 D1		-	13.1493	15.2196	15.2579	101.85%	
VS21 E1		-	13.1555	15.7176	15.7474	101.16%	
VS21 F1		-	13.1366	17.4756	17.4933	100.41%	
VS21 G1		-	13.1927	17.1843	17.2460	101.55%	
VS21 H1		-	13.2319	16.9820	17.0569	102.00%	
VS21 I 1		-	13.3198	15.1216	15.1608	102.18%	
VS21 J1		-	13.3731	15.8253	15.8885	102.58%	
VS21 K1		-	13.3279	15.5409	15.6038	102.84%	
VS21 L1		-	13.2577	15.2013	15.2231	101.12%	
VS23 I 1		-	13.1153	15.5268	15.5552	101.18%	
VS22 A1		-	13.2274	14.6481	14.6666	101.30%	
VS22 B1		-	13.3576	16.2361	16.2948	102.04%	
VS22 C1		-	13.2227	16.0684	16.1354	102.35%	
VS22 D1		++-	13.0709	17.1038	17.3201	105.36%	
VS22 E1		-	13.1143	16.1295	16.1524	100.76%	
VS22 F1		-	13.1892	15.6304	15.6302	99.99%	
VS22 G1		-	13.1985	15.6400	15.6786	101.58%	

(B)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

Analyst CAC Date 11-20-12 19:52

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.3199	Ø	13.3202		
VS20 J'		-	13.2305	15.3666	15.3815		
↓ K'		-	13.0446	15.1619	15.1889		
VS21 C'		-	13.1152	16.0780	16.1157		
C' dp		-	13.3594	16.3365	16.3710		
C' TP		-	13.2355	16.2852	16.3261		
D'		-	13.1493	15.2196	15.2579		
E'		-	13.1555	15.7176	15.7474		
F'		-	13.1366	17.4756	17.4933		
G'		-	13.1927	17.1843	17.2460		
H'		-	13.2319	16.9820	17.0569		
I'		-	13.3198	15.1216	15.1608		
J1		-	13.3731	15.8253	15.8885		
K1		-	13.3279	15.5409	15.6038		
L1		-	13.2577	15.2013	15.2231		
VS23 I'		-	13.1153	15.5268	15.5552		
VS22 A1		-	13.2274	14.6481	14.6666		
B1		-	13.3576	16.2361	16.2948		
C1		-	13.2227	16.0684	16.1354		
D1		+ + -	13.0709	17.1038	17.3201		
E1		-	13.1143	16.1295	16.1524		
F1		-	13.1892	15.6304	15.6302		
G1		-	13.1985	15.6400	15.6786		

11-20-12 CAC

W

11-2614

TOC Solids Prep Log

DATE: 11/19/2012

ANALYST: UW / CDE 16:40

acid purging to remove IC and drying at 70°C for TOC analysis

General notes regarding prep method and samples (identify the acid used)

HCL 10% ID: _____

Balance ID: Mettler Toledo (XS205 DU) SN 123230597

HCL ID: _____

make no entry to shaded cells, they are calculated

Sample ID		IC Test	Gravimetric Data (grams)			%	*Sample description & notes*
ARI #	Client	+ / -	Tare Wt.	Wet wt.	70°C dry wt	Solids	*(homogeneity and exclusions)*
Blank			13.1351	0.0000	13.1353	0.2 mg	
VS21 A1		-	13.3419	17.8719	17.9062	100.76%	
VS21 A1 dup		-	13.3541	17.6515	17.6906	100.91%	RPD = 0.15%
VS21 A1 trip		-	13.3636	17.0666	17.1108	101.19%	RSD = 0.22%
VS21 B1		-	13.2812	14.7690	14.7556	99.10%	
VS20 I 1		-	13.1939	17.8519	18.0312	103.85%	
VS20 L1		-	13.2421	16.4530	16.5822	104.02%	
VT06 D1		++++-	13.1779	20.5233	20.4417	98.89%	
VT06 D1 dup		++++-	13.1974	21.3674	21.1267	97.05%	RPD = 1.87%
VT06 D1 trip		++++-	13.3089	19.9573	19.8280	98.06%	RSD = 0.94%
VT06 E1		++++-	13.1725	20.1037	19.6824	93.92%	
VT06 F1		+++-	13.3379	19.0276	18.5706	91.97%	
VT06 G1		+++-	13.2450	19.1883	18.1290	82.18%	
VT06 H1		-	13.3280	18.2722	17.4682	83.74%	
VT06 I 1		-	13.2382	19.7545	18.7971	85.31%	
VT14 A1		++++-	13.1096	18.6149	19.0137	107.24%	
VT14 B1		++++-	13.0171	18.0517	18.5338	109.58%	
VT14 C1		+++-	13.1974	17.4839	17.8034	107.45%	
VT14 D1		+++-	13.0900	17.1713	17.1171	98.67%	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

Analyst WW/CDC Date 11-19-12 16:40

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.1351	—	13.1353		
VS21A1		—	13.3419	17.8719	17.9062		
A1 dup		—	13.3541	17.6515	17.6906		
A1 trip		—	13.3636	17.0666	17.1108		
B1		—	13.2812	14.7690	14.7556		
VS20I1		—	13.1939	17.8519	18.0312		
C1		—	13.2421	16.4530	16.5822		
VT06D1	+++	+-	13.1779	20.5233	20.4417		
D1 dup	+++	+-	13.1974	21.3674	21.1267		
D1 trip	+++	+-	13.3089	19.9573	19.8280		
E1	++	+-	13.1725	20.1037	19.6824		
F1	+	+-	13.3379	19.0276	18.5706		
G1	++	+-	13.2450	19.1883	18.1290		
H1		—	13.3280	18.2722	17.4682		
I1		—	13.2382	19.7545	18.7971		
VT14A1	+++	+-	13.1096	18.6149	19.0137		
B1	+++	+-	13.0171	18.0517	18.5338		
C1	++	+-	13.1974	17.4859	17.8034		
D1	++	+-	13.0900	17.1713	17.1171		

V
11-29-12

TOC, Solids Data Analysis

DATE: 11/28/2012
ANALYST: KE 7:12

Instrument: Apollo 1
Mode: NPOC *Inlet:* Boat
Spike Std = 2,500 *ppm C*
Balance ID:

Calibration Data

Cal Curve ID: 11/13/2012 *Conc:* 5,000 *ppm*
Calibration Curve Standard: 00130-01 *Curve Date:* 11/13/12
CalFact: 1.339E+05 *intercept:* 163305 *r2 :* 0.99851
Curve Range (ppm) 200 *to* 2,500
Curve Range (µgC): 8 *to* 100 *40 µL injections of designated standard*

Verification Standard Source: *ERA# 0409-12-01* *Conc:* 5,000 *ppm*
dilution : 10 *mL to* 50 1,000 *ppm*

Standard Reference Material Source: *NIST 8704* *Conc:* 33,510 *ppm*
Source: *NIST 1941B* *Conc:* 29,900 *ppm*

Silica Blanks

Replicate determinations						Mean	RSD	condition
67.9	61.7	53.0				60.9	12.3%	OK

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	comments
ICV				1.00		40.0	922	922	92.20%
Blank				1.00		40.0	-27.40	-27	Blank OK
NIST 1941B				1.00		1.7	29608	29,608	99.02%
~~VS19 A1~~				~~1.00~~		~~1.0~~	~~31444~~	~~31,444~~	~~Range OK!~~
~~VS19 A1 dup~~				~~1.00~~		~~1.0~~	~~38980~~	~~38,980~~	~~RPD=21.4%~~
~~VS19 A1 trp~~				~~1.00~~		~~0.9~~	~~50539~~	~~50,539~~	~~RSD=23.9%~~
Silica Blanks 1				1.00		31.1	67.93	68	Low Scale
Silica Blanks 2				1.00		28.9	61.66	62	Low Scale
Silica Blanks 3				1.00		34.4	53.04	53	Low Scale
VS19 B1				1.00		1.3	31429	31,429	Range OK!
VS19 C1				1.00		1.1	50439	50,439	Range OK!
VS19 D1				1.00		0.8	80618	80,618	Range OK!
CCV				1.00		40.0	956	956	95.60%
Blank				1.00		40.0	-28.64	-29	Blank OK
VS19 A1	12.4	119.6	89.63%	9.65		2.6	4802	45,790	Range OK!
VS19 A1 dup	13.2	126.4	89.56%	9.58		2.8	5462	51,781	RPD=12.3%
VS19 A1 trp	12.8	125.7	89.82%	9.82		2.6	4928	47,858	RSD=6.3%
VS19 A1 ms	12.4	119.6	89.63%	9.65	10	2.6	15681	150,719	Range OK!
Spike =	*0.025*	*mg C to*	*0.3*	*mg samp=*	*92,742*	*ppm*		113%	
VS19 E1				1.00		1.0	26761	26,761	Range OK!
VS19 F1				1.00		1.8	10959	10,959	Range OK!

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	comments
VS19 G1				1.00		1.8	6966	6,966	*Range OK!*
VS19 H1				1.00		2.2	6912	6,912	*Range OK!*
VS19 I 1				1.00		2.0	5626	5,626	*Range OK!*
VS19 J 1	12.4	121.4	89.79%	9.79		2.0	11867	115,647	*Range OK!*
CCV				1.00		40.0	1043	1,043	*104.30%*
Blank				1.00		40.0	-21.21	-21	*Blank OK*
VS19 K1				1.00		0.9	31176	31,176	*Range OK!*
VS19 L1				1.00		0.8	86654	86,654	*Range OK!*
VS20 A1	12.4	118.3	89.52%	9.64		1.8	6634	62,771	*Range OK!*
VS20 B1	13.2	129.4	89.80%	9.80		1.8	8420	82,006	*Range OK!*
VS20 C1	18.8	118.4	84.12%	6.30		2.1	18586	116,730	*Range OK!*
VS20 D1	13.3	132.2	89.94%	9.94		1.6	28098	278,746	*Range OK!*
VS20 E1	14.3	138.6	89.68%	9.69		1.6	17912	173,079	*Range OK!*
VS20 F1	15.2	147.5	89.69%	9.70		1.7	15102	146,019	*Range OK!*
VS20 G1				1.00		0.8	47649	47,649	*Range OK!*
VS20 H1				1.00		1.0	19068	19,068	*Range OK!*
CCV				1.00		40.0	1016	1,016	*101.60%*
Blank				1.00		40.0	-23.80	-24	*Blank OK*
VS20 I 1				1.00		0.8	28184	28,184	*Range OK!*
VS20 J 1				1.00		0.9	53397	53,397	*Range OK!*
VS20 K1				1.00		0.8	82256	82,256	*Range OK!*
VS20 L1				1.00		0.9	47048	47,048	*Range OK!*
NIST 1941B				1.00		1.7	29299	29,299	*97.99%*
CCV				1.00		40.0	1019	1,019	*101.90%*
Blank				1.00		40.0	-23.79	-24	*Blank OK*

Analytical Resources,Incorporated
Analytical Chemists and Consultants

① 7-28-11 (W)

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler	
Standards:	Source	Conc (ppm)	Analyst:	(W)
Calibration:	ARI - 00128-03	5000	Date:	11-28-11
Verification:	ERA - 0409-12-01	5000 to 1000 for CVS	Time:	7:12
SRM:	NBS - (1941b) or 8704	Method: PSEP 1986-MOD	Balance ID	B146454145
Sample Sequence:				

Sample ID	Dilution Data (mg) Sample	+ Silica Gel	Burn Wt mg	Matrix Spike Data mg/L	µL added	Comments
ICV			40			
ICB			40			
NBS 1941 B			1.7			
US19 A'			1.0			
A'			1.0			~~Rerun~~ Delete 11-28 (W) 72
A'			0.9			
SB 1' ~~A~~ ①			31.1			
2			28.9			
3			34.4			
US19 B'			1.3			
C'			1.1			
D			0.8			
CCV			40			
CCB			40			
US19 A'	12.4	119.6	2.6			
dA'	13.2	126.4	2.8			
rep A'	12.8	125.7	2.6			
ms A'	12.4	119.6	2.6	2800	10	
E'			① ~~1.8~~ 1.0			
F'			1.8			
G'			① ~~2.7~~ 1.8			
H'			① ~~2.0~~ 2.2			
I'			2.0			
J'	12.4	121.4	2.0			
CCV			40			
CCB			40			
US19 K'			0.9			
L'			0.8			
US20 A'	12.4	118.3	1.8			
B'	13.2	129.4	1.8			
C'	18.8	118.4	2.1			
D'	13.3	132.2	1.6			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

(D) 11-28-12 (W)

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler	
Standards:	Source	Conc (ppm)	Analyst:	(W)
Calibration:	ARI – 0028-03	5000	Date:	(D) 11-28-12
Verification:	ERA – 0409-12-01	5000 to 1000 for CVS	Time:	7.12
SRM:	NBS – (1941b) or 8704	Method: PSEP 1986-MOD	Balance ID	B146454145
Sample Sequence:				

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
VS20 E1	14.3	138.6	(D) 1.6			
F1	15.2	142.5	1.7			
G1			0.8			
H1			1.0			
CCV			40			
CCB			40			
VS20 I1			0.8			
J1			0.9			
K1			0.8			
L1			0.9			
NBS1941B			1.7			
CCV			40			
CCB			40			

11-28-12 (D)

11-28-12 (W)

Detailed Analysis Report Print Date/Time: 2012/11/28 18:09:54

Sample ID:	ICV/CCV BOAT	Mode:	TOC
Method:	Boat Sampler	Filename:	11280716
Cal. Curve:	11132012 BOAT CAL	Timestamp:	2012/11/28 07:23
Operator ID:	TRINA	Sample Type:	Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	921.8248	36.8730	5100494	7.597	8.597	142

Sample ID:	ICB/CCB BOAT	Mode:	TOC
Method:	Boat Sampler	Filename:	11280726
Cal. Curve:	11132012 BOAT CAL	Timestamp:	2012/11/28 07:29
Operator ID:	TRINA	Sample Type:	Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-27.3986	-1.0959	16562	7.534	7.583	120

Last Message: Low Sample Detected

Sample ID:	NBS 1941B	Mode:	TOC
Method:	Boat Sampler	Filename:	11280731
Cal. Curve:	11132012 BOAT CAL	Timestamp:	2012/11/28 07:35
Operator ID:	TRINA	Sample Type:	Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	29608.3086	50.3341	6902901	7.537	8.535	216

Sample ID:	VS19 A1	Mode:	TOC
Method:	Boat Sampler	Filename:	11280743
Cal. Curve:	11132012 BOAT CAL	Timestamp:	2012/11/28 07:46
Operator ID:	TRINA	Sample Type:	Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31443.6133	31.4436	4210210	7.335	8.334	137

11-29-12 (W)

Sample ID:	VS19 A1	Mode:	TOC
Method:	Boat Sampler	Filename:	11280758
Cal. Curve:	11132012 BOAT CAL	Timestamp:	2012/11/28 08:02
Operator ID:	TRINA	Sample Type:	Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	38979.5859	38.9796	5219256	7.275	8.273	148

Sample ID:	VS19 A1 DUP	Mode:	TOC
Method:	Boat Sampler	Filename:	11280810
Cal. Curve:	11132012 BOAT CAL	Timestamp:	2012/11/28 08:14
Operator ID:	TRINA	Sample Type:	Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	50538.6641	45.4848	6090285	7.288	8.288	152

Sample ID:	Silica Blank 1	Mode:	TOC
Method:	Boat Sampler	Filename:	11280833
Cal. Curve:	11132012 BOAT CAL	Timestamp:	2012/11/28 08:35
Operator ID:	TRINA	Sample Type:	Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	67.9288	2.1126	282869	7.328	8.324	60

Sample ID: Silica Blank 2
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11280843
Timestamp: 2012/11/28 08:45
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	61.6581	1.7819	238594	7.337	8.336	58

Sample ID: Silica Blank 3
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11280850
Timestamp: 2012/11/28 08:52
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	53.0360	1.8244	244287	7.416	8.413	58

Sample ID: VS19 B1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11280904
Timestamp: 2012/11/28 09:07
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31428.5801	40.8572	5470657	7.380	8.378	141

Sample ID: VS19 B1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11280914
Timestamp: 2012/11/28 09:18
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	50438.7695	55.4826	7428969	7.374	8.372	156

Sample ID: VS19 D1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281154
Timestamp: 2012/11/28 12:03
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	80617.8125	64.4943	8635597	6.955	7.955	173

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281213
Timestamp: 2012/11/28 12:17
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	955.9159	38.2366	5283082	6.935	7.934	145

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281225
Timestamp: 2012/11/28 12:28
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-28.6394	-1.1456	9916	6.949	6.989	120

Last Message: Low Sample Detected

Sample ID: VS19 A1 | Mode: TOC
Method: Boat Sampler | Filename: 11281235
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 12:43
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4802.1460	12.4856	1671784	7.122	8.120	97

Sample ID: VS19 A1 DP | Mode: TOC
Method: Boat Sampler | Filename: 11281251
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 12:54
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5461.7451	15.2929	2047674	6.928	7.927	111

Sample ID: VS19 A1 TRIP | Mode: TOC
Method: Boat Sampler | Filename: 11281302
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 13:05
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4927.8096	12.8123	1715531	7.003	8.002	102

Sample ID: VS19 A1 MS | Mode: TOC
Method: Boat Sampler | Filename: 11281324
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 13:28
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15681.2871	40.7713	5459167	7.061	8.061	149

Sample ID: VS19 E1 | Mode: TOC
Method: Boat Sampler | Filename: 11281332
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 13:36
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26760.5664	26.7606	3583164	7.029	8.026	134

Sample ID: VS19 F1 | Mode: TOC
Method: Boat Sampler | Filename: 11281339
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 13:42
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10959.0127	19.7262	2641285	7.032	8.029	129

Sample ID: VS19 G1 | Mode: TOC
Method: Boat Sampler | Filename: 11281345
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 13:48
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6965.6592	12.5382	1678828	7.053	8.053	121

Sample ID: VS19 H1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281351
Timestamp: 2012/11/28 13:54
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6911.9854	15.2064	2036089	7.081	8.077	134

Sample ID: VS19 I1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281357
Timestamp: 2012/11/28 14:00
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5625.9648	11.2519	1506601	7.013	8.012	127

Sample ID: VS19 J1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281435
Timestamp: 2012/11/28 14:38
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11867.4443	23.7349	3178034	7.032	8.031	123

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281444
Timestamp: 2012/11/28 14:47
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1043.0968	41.7239	5750013	7.009	8.008	151

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281449
Timestamp: 2012/11/28 14:51
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-21.2126	-0.8485	49693	7.191	8.187	51

Sample ID: VS19 K1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281454
Timestamp: 2012/11/28 15:01
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31175.5664	28.0580	3756888	7.181	8.181	133

Sample ID: VS19 L1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11281515
Timestamp: 2012/11/28 15:19
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	86654.1719	69.3233	9282198	7.027	8.027	176

Sample ID: VS20 A1 | Mode: TOC
Method: Boat Sampler | Filename: 11281521
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 15:24
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6633.6636	11.9406	1598812	7.243	8.239	98

Sample ID: VS20 B1 | Mode: TOC
Method: Boat Sampler | Filename: 11281526
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 15:29
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	8420.0303	15.1561	2029353	7.206	8.206	106

Sample ID: VS20 C1 | Mode: TOC
Method: Boat Sampler | Filename: 11281536
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 15:40
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18585.6621	39.0299	5225991	7.135	8.134	144

Sample ID: VS20 D1 | Mode: TOC
Method: Boat Sampler | Filename: 11281547
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 15:51
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	28097.8262	44.9565	6019551	7.221	8.220	152

Sample ID: VS20 E1 | Mode: TOC
Method: Boat Sampler | Filename: 11281554
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 16:01
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	17912.2734	28.6596	3837444	7.283	8.279	135

Sample ID: VS20 F1 | Mode: TOC
Method: Boat Sampler | Filename: 11281616
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 16:20
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	15102.2461	25.6738	3437651	7.282	8.281	130

Sample ID: VS20 G1 | Mode: TOC
Method: Boat Sampler | Filename: 11281637
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/28 16:44
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	47649.4805	38.1196	5104104	7.220	8.216	146

Sample ID: VS20 H1 Mode: TOC
Method: Boat Sampler Filename: 11281649
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/28 16:53
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19068.2539	19.0683	2553185	7.150	8.148	117

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 11281655
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/28 16:59
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-30.6916	-1.2277	-1075	7.159	7.183	120

Last Message: Out of Calibration

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 11281700
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/28 17:05
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1016.4097	40.6564	5607080	7.128	8.125	144

Sample ID: ICB/CCB BOAT Mode: TOC
Method: Boat Sampler Filename: 11281707
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/28 17:10
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-23.7965	-0.9519	35854	7.381	7.205	120

Last Message: Low Sample Detected

Sample ID: VS20 I 1 Mode: TOC
Method: Boat Sampler Filename: 11281714
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/28 17:17
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	28183.7168	22.5470	3018976	7.103	8.100	140

Sample ID: VS20 J1 Mode: TOC
Method: Boat Sampler Filename: 11281719
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/28 17:23
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	53396.7852	48.0571	6434710	7.086	8.084	156

Sample ID: VS20 K1 Mode: TOC
Method: Boat Sampler Filename: 11281728
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/28 17:31
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning	Ending	Integration

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	82255.8906	65.8047	8811064	7.075	8.073	166

Sample ID: VS20 L1 Mode: TOC
Method: Boat Sampler Filename: 11281736
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/28 17:41
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	47047.6016	42.3428	5669586	7.041	8.041	149

Sample ID: NBS 1941B Mode: TOC
Method: Boat Sampler Filename: 11281747
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/28 17:52
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	29299.1309	49.8085	6832525	7.037	8.035	217

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 11281756
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/28 18:00
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1018.6388	40.7456	5619019	7.110	8.109	148

Sample ID: ICB/CCB BOAT Mode: TOC
Method: Boat Sampler Filename: 11281804
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/28 18:07
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-23.7915	-0.9517	35881	7.196	7.234	120

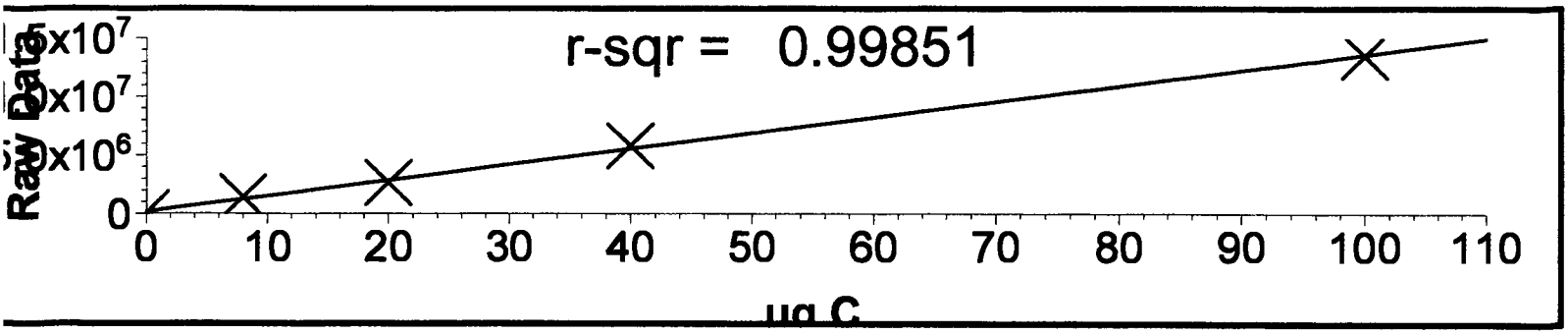
Last Message: Low Sample Detected

11-13-12 (4)

Calibration Report Print Date/Time: 2012/11/13 17:59:45

Cal. Curve ID: 11132012 BOAT CAL
Created: 2012/11/13 17:59
Calibration Factor (m): 1.339e+05
Y Intercept (b): 163305
r-squared: 0.99851

Standard ID	Y Raw Data	X Expected ug C	Measured ug C	Message	Date & Time
DI Water	34152	0.000	-0.965	Low Sample De	2012/11/13 12:29
200 ppm	1402526	8.000	9.255		2012/11/13 15:57
500 ppm	2612048	20.000	18.288		2012/11/13 16:30
1000 ppm	5782382	40.000	41.966		2012/11/13 17:08
2500 ppm	13480140	100.000	99.456		2012/11/13 17:46


r-sqr = 0.99851
Raw Data
5x10^7
2x10^7
1x10^6
0
0
10
20
30
40
50
60
70
80
90
100
110
ug C

Detailed Analysis Report Print Date/Time: 2012/11/13 18:00:30

Sample ID: DI Water
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131156
Timestamp: 2012/11/13 12:29
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			18402	16.796	16.349	120
2			42520	15.376	15.117	120
3			41534	14.988	14.928	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 34152 Std Dev: 13649 RSD: 39.96

Sample ID: 200 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131238
Timestamp: 2012/11/13 13:05
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1222030	14.878	15.874	82
2			2828545	14.808	15.808	104
3			1056788	14.689	15.685	76

<<<Statistics>>> Mean: 1702454 Std Dev: 978717 RSD: 57.49

Sample ID: 500 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131440
Timestamp: 2012/11/13 15:23
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			2592282	15.291	16.289	93
2			2967532	14.712	15.709	110
3			2466931	14.170	15.169	110

<<<Statistics>>> Mean: 2675582 Std Dev: 260489 RSD: 9.74

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131526
Timestamp: 2012/11/13 15:37
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			5290649	14.574	15.571	132
2			5344637	14.534	15.533	131

<<<Statistics>>> Mean: 5317643 Std Dev: 38175 RSD: 0.72

Sample ID: 200 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131539
Timestamp: 2012/11/13 15:57
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1133964	14.834	15.826	75
2			1682541	14.702	15.699	105
3			1391072	14.832	15.828	89

<<<Statistics>>> Mean: 1402526 Std Dev: 274468 RSD: 19.57

Sample ID: 500 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131603
Timestamp: 2012/11/13 16:30
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			2617921	14.909	15.904	100
2			2699842	15.434	16.427	110
3			2518382	15.642	16.642	96

<<<Statistics>>> Mean: 2612048 Std Dev: 90872 RSD: 3.48

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131635
Timestamp: 2012/11/13 16:48
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			6098208	15.069	16.068	161
2			4400089	15.386	16.386	294

<<<Statistics>>> Mean: 5249148 Std Dev: 1200752 RSD: 22.88

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131653
Timestamp: 2012/11/13 17:08
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			5668054	15.386	16.386	134
2			5866553	15.432	16.430	156
3			5812538	15.792	16.787	158

<<<Statistics>>> Mean: 5782382 Std Dev: 102628 RSD: 1.77

Sample ID: 2500 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131715
Timestamp: 2012/11/13 17:46
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			12880510	15.475	16.474	209
2			14040075	15.646	16.644	232
3			13519835	15.412	16.411	232

<<<Statistics>>> Mean: 13480140 Std Dev: 580801 RSD: 4.31

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Report and Summary QC Forms	NA	NA - Prep Only
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AV
Signature

December-07-2012
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

December 10, 2012

Steve Hughes
Hart Crowser, Inc.
1700 Westlake Avenue N. Suite 200
Seattle, WA 98109-3256

RE: Client Project: Upper Columbia 17800-36
ARI Job No. VS21

Dear Steve:

Please find enclosed the chain of custody documentation and data package for samples from the project referenced above

Sample receipt and details of the analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Mel D Sales FOR

Kelly Bottem
Client Services Manager
kellyb@arilabs.com
206/695-6211

Enclosures

cc: eFile VS21

KFB/mdh

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: VS21

Sample Custody Record

Samples Shipped to: ARI

HARTCROWSER

Hart Crowser, Inc.
1700 Westlake Avenue North, Suite 200
Seattle, Washington 98109-6212
Office: 206.324.9530 • Fax 206.328.5581

JOB 17800-36 LAB NUMBER

PROJECT NAME Upper Columbia

HART CROWSER CONTACT Steve Hughes, Roger McGinnis, Anne Conrad

SAMPLED BY: PRC, NWG, KJH, ASK

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: Metals *	TOC	pH (EPA 9045)	Total Solids (SM 2540)	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	SA11-6C		11/6/12	1106	SOIL	X	X	X	X	1	
	SA11-7C		11/6/12	1016						1	
	SA11-8C		11/7/12	0802						1	
	SA11-Field Duplicate			0841						1	
	SA11-BP-1 (0 to 3" depth)			0844						1	
	SA11-BP-2 (3 to 6" depth)			0849						1	
	SA11-BP-3 (6 to 12" depth)			0854						1	
	SA11-BP-4 (12 to 24" depth)		↓	0859						1	
	SA11-9C		11/8/12	1227						1	
	SA12-1C		11/7/12	1007						1	
	SA12-2C		11/10/12	1124						1	
	SA12-3C		11/10/12	1154	↓					1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	11/12/12	SIGNATURE	11/12/12
PRINT NAME Phil Cordell	TIME	PRINT NAME Chris Henell	TIME
COMPANY HC	1200	COMPANY ARI	1221
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	TIME	SIGNATURE	TIME
PRINT NAME		PRINT NAME	
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

* See Page 1

12 TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐ 48 HOURS ☒ STANDARD
☐ 72 HOURS OTHER

White and Yellow Copies to Lab Pink to Project Manager Lab to Return White Copy to Hart Crowser Gold to Sample Custodian

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Hart Crowser Project Name: Upper Columbia

COC No(s): _____ (NA) Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: VS21 Tracking No: _____ (NA)

Preliminary Examination Phase:

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

Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry): 4.8 4.0

If cooler temperature is out of compliance fill out form 00070F Temp Gun ID#: 12241222-4

Cooler Accepted by: CA Date: 11-12-12 Time: 1221

Complete custody forms and attach all shipping documents

Log-In Phase:

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

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

Samples Logged by: JM Date: 11/13/12 Time: 827

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

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

Additional Notes, Discrepancies, & Resolutions:

By: Date:

Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: VS21

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative
Project: 17800-36
ARI Job No.: VS21
December 10, 2012

Sample Receipt:

Please find enclosed the original chain of custody (COC) record and analytical results for the project referenced above. Analytical Resources, Inc. accepted twelve soil samples in good condition on November 12, 2012. The samples were received with cooler temperatures between 4.0 and 4.8°C. Please see the Cooler Receipt Form for further details.

Total Metals by 200.8, 6010C and 7471A

The samples were digested on 11/23/12 and analyzed between 11/26/12 and 11/28/12 within the method recommended holding time.

Initial calibration (s): All analytes were within method acceptance criteria.

Continuing calibration (s): All analytes were within method acceptance criteria.

Samples: No anomalies were encountered for these samples.

Method Blank: The method blank was free of contamination.

LCS: All percent recoveries were in control.

Matrix spike/Sample Duplicate/RPD: The percent recoveries for aluminum, antimony, iron, lead, magnesium and manganese were not within control limits for the matrix spike associated with sample SA11-6C. Since the percent recoveries for all elements were within acceptable QC limits for the corresponding LCS, it was concluded that the sample matrix was the cause of the poor MS recoveries. No corrective actions were taken.

Conventional Chemistry Parameters

The samples were analyzed between 11/19/12 and 11/29/12 within the method recommended holding times.

Initial calibration(s): All analytes were within method acceptance criteria.

Continuing calibration(s): All analytes of interest were within method acceptance criteria.

Samples: There were no anomalies with these samples.

Method Blank(s): The method blanks were free of contamination.

Matrix Spike(s): All percent recoveries were in control.

SRM/ LCS/ Sample Replicates: The RPD for TOC was high following the analysis of the matrix triplicate (MT) analyzed for TOC in conjunction with sample SA11-6C. Since the percent recoveries for the corresponding MS and LCS were within acceptable QC limits, it was concluded that a lack of sample homogeneity was the cause of the high RPD. No corrective actions were taken.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: Hart Crowser, Inc.	**ARI Job No.:** VS21
Client Project: Upper Columbia	**Client Project No.:** 17800-36

Case Narrative

1. Twelve samples were submitted for preparation on November 12, 2012, and were in good condition.
2. The samples were submitted for separation of the less than 2mm material.
3. The samples were each placed in a clean tare and air-dried.
4. The samples were separated into two size fractions using a decontaminated, stainless steel #10 (2mm) sieve and sieve pan.
5. After separation, both size fractions were delivered to sample receiving for distribution.
6. There were no further anomalies in the samples or test method.

Released by: Susanna Curtis
Geotechnical Division Manager

Date: 11/21/12

Reviewed by: Kathryn J Brodhun
Lead Technician

Date: 11/21/2012

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: VS21
Client: Hart Crowser Inc.
Project Event: 17800-36
Project Name: Upper Columbia

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	SA11-6C	VS21A	12-22689	Soil	11/06/12 11:06	11/12/12 12:21
2.	SA11-7C	VS21B	12-22690	Soil	11/06/12 10:16	11/12/12 12:21
3.	SA11-8C	VS21C	12-22691	Soil	11/07/12 08:02	11/12/12 12:21
4.	SA11-Field Duplicate	VS21D	12-22692	Soil	11/07/12 08:41	11/12/12 12:21
5.	SA11-8P-1(0 to 3" depth)	VS21E	12-22693	Soil	11/07/12 08:44	11/12/12 12:21
6.	SA11-8P-2(3 to 6" depth)	VS21F	12-22694	Soil	11/07/12 08:49	11/12/12 12:21
7.	SA11-8P-3(6 to 12" depth	VS21G	12-22695	Soil	11/07/12 08:54	11/12/12 12:21
8.	SA11-8P-4(12 to 24" dept	VS21H	12-22696	Soil	11/07/12 08:59	11/12/12 12:21
9.	SA11-9C	VS21I	12-22697	Soil	11/08/12 12:27	11/12/12 12:21
10.	SA12-1C	VS21J	12-22698	Soil	11/07/12 10:07	11/12/12 12:21
11.	SA12-2C	VS21K	12-22699	Soil	11/10/12 11:24	11/12/12 12:21
12.	SA12-3C	VS21L	12-22700	Soil	11/10/12 11:54	11/12/12 12:21

Quality Control Parameters for Metals Analysis-ICP-OES 200.7/6010C

	Aqueous Samples[2]			Spike Recovery		RPD[5]	Solids[3]	Tissue[4]
Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ mg/kg	LOQ mg/kg
Aluminum	7.57	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Antimony	6.28	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Arsenic	3.33	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Barium	1.33	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Beryllium	0.16	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Boron	7.39	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Cadmium	0.18	0.5	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Calcium	11.27	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Chromium	1.24	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Cobalt	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Copper	0.92	1.0	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Iron	7.50	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Lead	1.55	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Magnesium	9.61	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Manganese	0.28	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Molybdenum	0.79	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Nickel	3.86	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Potassium	65.70	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Selenium	4.99	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Silicon	8.17	30	**60**	75 – 125	80 – 120	≤ 20	**(6)**	**(6)**
Silver	0.43	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Sodium	11.35	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Strontium	0.09	1.0	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Thallium	3.10	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Tin	1.41	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Titanium	2.11	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.01**
Vanadium	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Zinc	1.45	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Tissue is reported on an "as received" (wet weight) basis using 2.5 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(6) ARI does not analyze for Silicon in solids or tissue samples

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Quality Control Parameters for Metals Analysis ICP-MS 200.8/6020A

Analyte	Mass	Aqueous Samples[2]			Spike Recovery		RPD[4]	Solids[3]
		DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ[1] mg/kg
Aluminum	27	1.601	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Antimony	121	0.010	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
	123	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #1	75	0.048	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #2	75	0.092	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Barium	135	0.020	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	137	0.019	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Beryllium	9	0.021	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Cadmium	111	0.010	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
	114	0.005	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Calcium	43	3.983	25	**50.0**	75 – 125	80 – 120	≤ 20	**50.0**
Chromium	52	0.045	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	53	0.118	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Cobalt	59	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Copper	63	0.158	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	65	0.236	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Iron	54	5.753	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
	57	3.876	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Lead	208	0.046	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Magnesium	24	0.297	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Manganese	55	0.022	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Molybdenum	98	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Nickel	60	0.079	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	62	0.089	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Potassium	39	2.944	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Selenium	82	0.127	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	78	0.324	0.25	**2.0**	75 – 125	80 – 120	≤ 20	**2.0**
Silver	107	0.008	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Sodium	23	2.833	50	**100.0**	75 – 125	80 – 120	≤ 20	**100.0**
Thorium[5]	232	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Thallium	205	0.004	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Uranium[5]	238	0.003	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Vanadium	51	0.043	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Zinc	66	0.497	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	67	0.531	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	68	0.524	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(5) ARI has no accreditation for these elements.

Quality Control Parameters for Mercury Analysis using CVAA

	Aqueous Samples[2]			Spike Recovery		RPD[5]
	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS	
Mercury	0.0069	0.05	**0.10**[2]	75 – 125	80 – 120	≤ 20
Mercury (low level)	0.0026	0.01	**0.02**[2]	75 – 125	80 – 120	≤ 20
	Soil / Sediment Samples			**Spike Recovery**		**RPD**[5]
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.025[3]	75 – 125	80 – 120	≤ 20
	Tissue Samples			**Spike Recovery**		**RPD**[5]
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.005[4]	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 20 mL sample with 20 mL final volume
(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.
(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

Analytical Resources,Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits for Conventional Wet Chemistry

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

	ARI's Control Limits	
Sample Matrix:	Water	Soil / Sediment
Matrix Spike Recoveries	% Recovery	% Recovery
Ammonia	75 - 125	75 - 125
Bromide	75 125	75 - 125
Chloride	75 125	75 - 125
Cyanide	75 - 125	75 - 125
Ferrous Iron	75 - 125	75 - 125
Fluoride	75 - 125	75 - 125
Formaldehyde	75 - 125	75 - 125
Hexane Extractable Material	-- - --	78 - 114
Hexavalent Chromium	75 - 125	75 - 125
Nitrate/Nitrite	75 - 125	75 - 125
Oil and Grease	75 - 125	75 - 125
Phenol	75 - 125	75 - 125
Phosphorous	75 - 125	75 - 125
Sulfate	75 - 125	75 - 125
Sulfide	75 - 125	75 - 125
Total Kjeldahl Nitrogen	75 - 125	75 - 125
Total Organic Carbon	75 - 125	75 - 125
Duplicate RPDs		
Acidity	±20%	±20%
Alkalinity	±20%	±20%
BOD	±20%	±20%
Cation Exchange	±20%	±20%
COD	±20%	±20%
Conductivity	±20%	±20%
Salinity	±20%	±20%
Solids	±20%	±20%
Turbidity	±20%	±20%

Metals Analysis
Report and Summary QC Forms

ARI Job ID: VS21

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SA11-6C	VS21A	12-22689	
SA11-6CD	VS21ADUP	12-22689	
SA11-6CS	VS21ASPK	12-22689	
SA11-7C	VS21B	12-22690	
PBS	VS21MB1	12-22690	
LCSS	VS21MB1SPK	12-22690	
SA11-8C	VS21C	12-22691	
SA11-Field Duplica	VS21D	12-22692	
SA11-8P-1(0 to 3	VS21E	12-22693	
SA11-8P-2(3 to 6	VS21F	12-22694	
SA11-8P-3(6 to 12	VS21G	12-22695	
SA11-8P-4(12 to 24	VS21H	12-22696	
SA11-9C	VS21I	12-22697	
SA12-1C	VS21J	12-22698	
SA12-2C	VS21K	12-22699	
SA12-3C	VS21L	12-22700	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 12/6/12 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SA11-6C
SAMPLE

Lab Sample ID: VS21A
LIMS ID: 12-22689
Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

QC Report No: VS21-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/06/12
Date Received: 11/12/12

Percent Total Solids: 97.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/23/12	6010C	11/26/12	**7429-90-5**	**Aluminum**	8.7	10	**21,400**	
3050B	11/23/12	200.8	11/27/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.3**	
3050B	11/23/12	200.8	11/27/12	**7440-38-2**	**Arsenic**	0.084	0.2	**22.4**	
3050B	11/23/12	6010C	11/26/12	**7440-39-3**	**Barium**	0.15	0.7	**192**	
3050B	11/23/12	200.8	11/27/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.7**	
3050B	11/23/12	200.8	11/27/12	**7440-43-9**	**Cadmium**	0.012	0.1	**6.3**	
3050B	11/23/12	6010C	11/26/12	**7440-70-2**	**Calcium**	4.6	10	**3,780**	
3050B	11/23/12	200.8	11/27/12	**7440-47-3**	**Chromium**	0.037	0.5	**31.4**	
3050B	11/23/12	200.8	11/27/12	**7440-48-4**	**Cobalt**	0.031	0.2	**8.7**	
3050B	11/23/12	200.8	11/27/12	**7440-50-8**	**Copper**	0.035	0.5	**32.5**	
3050B	11/23/12	6010C	11/26/12	**7439-89-6**	**Iron**	1.8	10	**24,000**	
3050B	11/23/12	200.8	11/27/12	**7439-92-1**	**Lead**	0.23	0.5	**572**	
3050B	11/23/12	6010C	11/26/12	**7439-95-4**	**Magnesium**	3.4	10	**6,410**	
3050B	11/23/12	6010C	11/26/12	**7439-96-5**	**Manganese**	0.098	0.2	**676**	
CLP	11/23/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.104**	
3050B	11/23/12	200.8	11/27/12	**7440-02-0**	**Nickel**	0.047	0.5	**22.8**	
3050B	11/23/12	6010C	11/26/12	**7440-09-7**	**Potassium**	43	120	**1,300**	
3050B	11/23/12	200.8	11/27/12	7782-49-2	Selenium	0.095	0.5	0.5	U
3050B	11/23/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0077	0.2	**0.3**	
3050B	11/23/12	6010C	11/26/12	7440-23-5	Sodium	2.6	120	120	U
3050B	11/23/12	200.8	11/27/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.5**	
3050B	11/23/12	200.8	11/27/12	**7440-62-2**	**Vanadium**	0.016	0.2	**47.3**	
3050B	11/23/12	200.8	11/27/12	**7440-66-6**	**Zinc**	1.6	20	**310**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: SA11-7C
SAMPLE

Lab Sample ID: VS21B
LIMS ID: 12-22690
Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

QC Report No: VS21-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/06/12
Date Received: 11/12/12

Percent Total Solids: 87.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/23/12	6010C	11/26/12	**7429-90-5**	**Aluminum**	9.6	10	**6,940**	
3050B	11/23/12	200.8	11/26/12	**7440-36-0**	**Antimony**	0.015	0.2	**17.2**	
3050B	11/23/12	200.8	11/26/12	**7440-38-2**	**Arsenic**	0.098	0.6	**28.6**	
3050B	11/23/12	6010C	11/26/12	**7440-39-3**	**Barium**	0.16	0.8	**876**	
3050B	11/23/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.020	0.2	**0.6**	
3050B	11/23/12	200.8	11/26/12	**7440-43-9**	**Cadmium**	0.014	0.1	**15.8**	
3050B	11/23/12	6010C	11/26/12	**7440-70-2**	**Calcium**	5.1	10	**12,100**	
3050B	11/23/12	200.8	11/26/12	**7440-47-3**	**Chromium**	0.043	0.6	**8.6**	
3050B	11/23/12	200.8	11/26/12	**7440-48-4**	**Cobalt**	0.036	0.2	**4.1**	
3050B	11/23/12	200.8	11/26/12	**7440-50-8**	**Copper**	0.041	0.6	**52.0**	
3050B	11/23/12	6010C	11/26/12	**7439-89-6**	**Iron**	2.0	10	**9,140**	
3050B	11/23/12	200.8	11/27/12	**7439-92-1**	**Lead**	0.53	1	**1,920**	
3050B	11/23/12	6010C	11/26/12	**7439-95-4**	**Magnesium**	3.7	10	**1,960**	
3050B	11/23/12	6010C	11/26/12	**7439-96-5**	**Manganese**	0.11	0.3	**1,460**	
CLP	11/23/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.008	**0.527**	
3050B	11/23/12	200.8	11/26/12	**7440-02-0**	**Nickel**	0.055	0.6	**7.8**	
3050B	11/23/12	6010C	11/26/12	**7440-09-7**	**Potassium**	47	140	**1,200**	
3050B	11/23/12	200.8	11/26/12	7782-49-2	Selenium	0.11	2	2	U
3050B	11/23/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.045	1	**2**	
3050B	11/23/12	6010C	11/26/12	7440-23-5	Sodium	2.9	140	140	U
3050B	11/23/12	200.8	11/26/12	**7440-28-0**	**Thallium**	0.0034	0.2	**1.0**	
3050B	11/23/12	200.8	11/26/12	**7440-62-2**	**Vanadium**	0.019	0.2	**11.4**	
3050B	11/23/12	200.8	11/27/12	**7440-66-6**	**Zinc**	3.8	50	**1,150**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: SA11-8C
SAMPLE

Lab Sample ID: VS21C
LIMS ID: 12-22691
Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

QC Report No: VS21-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Percent Total Solids: 96.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/23/12	6010C	11/26/12	**7429-90-5**	**Aluminum**	8.4	10	**18,900**	
3050B	11/23/12	200.8	11/26/12	**7440-36-0**	**Antimony**	0.012	0.2	**0.2**	
3050B	11/23/12	200.8	11/26/12	**7440-38-2**	**Arsenic**	0.083	0.2	**20.2**	
3050B	11/23/12	6010C	11/26/12	**7440-39-3**	**Barium**	0.14	0.7	**276**	
3050B	11/23/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.5**	
3050B	11/23/12	200.8	11/26/12	**7440-43-9**	**Cadmium**	0.011	0.1	**5.0**	
3050B	11/23/12	6010C	11/26/12	**7440-70-2**	**Calcium**	4.5	10	**4,130**	
3050B	11/23/12	200.8	11/26/12	**7440-47-3**	**Chromium**	0.036	0.5	**25.9**	
3050B	11/23/12	200.8	11/26/12	**7440-48-4**	**Cobalt**	0.031	0.2	**8.1**	
3050B	11/23/12	200.8	11/26/12	**7440-50-8**	**Copper**	0.034	0.5	**25.1**	
3050B	11/23/12	6010C	11/26/12	**7439-89-6**	**Iron**	1.8	10	**22,300**	
3050B	11/23/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.045	0.1	**209**	
3050B	11/23/12	6010C	11/26/12	**7439-95-4**	**Magnesium**	3.3	10	**5,420**	
3050B	11/23/12	6010C	11/26/12	**7439-96-5**	**Manganese**	0.095	0.2	**726**	
CLP	11/23/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.071**	
3050B	11/23/12	200.8	11/26/12	**7440-02-0**	**Nickel**	0.047	0.5	**20.4**	
3050B	11/23/12	6010C	11/26/12	**7440-09-7**	**Potassium**	41	120	**2,000**	
3050B	11/23/12	200.8	11/26/12	7782-49-2	Selenium	0.094	0.5	0.5	U
3050B	11/23/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0076	0.2	**0.3**	
3050B	11/23/12	6010C	11/26/12	**7440-23-5**	**Sodium**	2.5	120	**280**	
3050B	11/23/12	200.8	11/26/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.3**	
3050B	11/23/12	200.8	11/26/12	**7440-62-2**	**Vanadium**	0.016	0.2	**33.7**	
3050B	11/23/12	200.8	11/26/12	**7440-66-6**	**Zinc**	0.32	4	**268**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SA11-Field Duplicate
SAMPLE

Lab Sample ID: VS21D
LIMS ID: 12-22692
Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

QC Report No: VS21-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Percent Total Solids: 95.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/23/12	6010C	11/26/12	**7429-90-5**	**Aluminum**	8.7	10	**19,000**	
3050B	11/23/12	200.8	11/26/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.9**	
3050B	11/23/12	200.8	11/26/12	**7440-38-2**	**Arsenic**	0.085	0.2	**37.3**	
3050B	11/23/12	6010C	11/26/12	**7440-39-3**	**Barium**	0.15	0.7	**523**	
3050B	11/23/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.5**	
3050B	11/23/12	200.8	11/26/12	**7440-43-9**	**Cadmium**	0.012	0.1	**14.7**	
3050B	11/23/12	6010C	11/26/12	**7440-70-2**	**Calcium**	4.7	10	**5,680**	
3050B	11/23/12	200.8	11/26/12	**7440-47-3**	**Chromium**	0.037	0.5	**19.8**	
3050B	11/23/12	200.8	11/26/12	**7440-48-4**	**Cobalt**	0.031	0.2	**7.8**	
3050B	11/23/12	200.8	11/26/12	**7440-50-8**	**Copper**	0.035	0.5	**41.9**	
3050B	11/23/12	6010C	11/26/12	**7439-89-6**	**Iron**	1.8	10	**21,500**	
3050B	11/23/12	200.8	11/27/12	**7439-92-1**	**Lead**	0.23	0.5	**810**	
3050B	11/23/12	6010C	11/26/12	**7439-95-4**	**Magnesium**	3.4	10	**4,870**	
3050B	11/23/12	6010C	11/26/12	**7439-96-5**	**Manganese**	0.099	0.2	**1,570**	
CLP	11/23/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.185**	
3050B	11/23/12	200.8	11/26/12	**7440-02-0**	**Nickel**	0.048	0.5	**20.7**	
3050B	11/23/12	6010C	11/26/12	**7440-09-7**	**Potassium**	43	120	**1,870**	
3050B	11/23/12	200.8	11/26/12	7782-49-2	Selenium	0.096	0.5	0.5	U
3050B	11/23/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0078	0.2	**0.6**	
3050B	11/23/12	6010C	11/26/12	**7440-23-5**	**Sodium**	2.6	120	**320**	
3050B	11/23/12	200.8	11/26/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.6**	
3050B	11/23/12	200.8	11/26/12	**7440-62-2**	**Vanadium**	0.017	0.2	**28.8**	
3050B	11/23/12	200.8	11/27/12	**7440-66-6**	**Zinc**	1.7	20	**660**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: SA11-8P-1(0 to 3" depth)
SAMPLE

Lab Sample ID: VS21E
LIMS ID: 12-22693
Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

QC Report No: VS21-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Percent Total Solids: 95.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/23/12	6010C	11/26/12	**7429-90-5**	**Aluminum**	8.8	10	**18,600**	
3050B	11/23/12	200.8	11/26/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.4**	
3050B	11/23/12	200.8	11/26/12	**7440-38-2**	**Arsenic**	0.088	0.2	**26.2**	
3050B	11/23/12	6010C	11/26/12	**7440-39-3**	**Barium**	0.15	0.7	**423**	
3050B	11/23/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.5**	
3050B	11/23/12	200.8	11/26/12	**7440-43-9**	**Cadmium**	0.012	0.1	**6.8**	
3050B	11/23/12	6010C	11/26/12	**7440-70-2**	**Calcium**	4.7	10	**5,450**	
3050B	11/23/12	200.8	11/26/12	**7440-47-3**	**Chromium**	0.038	0.5	**18.6**	
3050B	11/23/12	200.8	11/26/12	**7440-48-4**	**Cobalt**	0.032	0.2	**8.0**	
3050B	11/23/12	200.8	11/26/12	**7440-50-8**	**Copper**	0.036	0.5	**22.1**	
3050B	11/23/12	6010C	11/26/12	**7439-89-6**	**Iron**	1.9	10	**20,700**	
3050B	11/23/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.047	0.1	**236**	
3050B	11/23/12	6010C	11/26/12	**7439-95-4**	**Magnesium**	3.4	10	**4,700**	
3050B	11/23/12	6010C	11/26/12	**7439-96-5**	**Manganese**	0.099	0.2	**1,340**	
CLP	11/23/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.104**	
3050B	11/23/12	200.8	11/26/12	**7440-02-0**	**Nickel**	0.049	0.5	**19.3**	
3050B	11/23/12	6010C	11/26/12	**7440-09-7**	**Potassium**	43	120	**1,610**	
3050B	11/23/12	200.8	11/26/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/23/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0080	0.2	**0.4**	
3050B	11/23/12	6010C	11/26/12	**7440-23-5**	**Sodium**	2.6	120	**250**	
3050B	11/23/12	200.8	11/26/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.3**	
3050B	11/23/12	200.8	11/26/12	**7440-62-2**	**Vanadium**	0.017	0.2	**31.4**	
3050B	11/23/12	200.8	11/27/12	**7440-66-6**	**Zinc**	1.7	20	**460**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: SA11-8P-2(3 to 6" depth)
SAMPLE

Lab Sample ID: VS21F
LIMS ID: 12-22694
Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

QC Report No: VS21-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Percent Total Solids: 97.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/23/12	6010C	11/26/12	**7429-90-5**	**Aluminum**	8.6	10	**21,300**	
3050B	11/23/12	200.8	11/26/12	7440-36-0	Antimony	0.012	0.2	0.2	U
3050B	11/23/12	200.8	11/26/12	**7440-38-2**	**Arsenic**	0.083	0.2	**16.9**	
3050B	11/23/12	6010C	11/26/12	**7440-39-3**	**Barium**	0.15	0.7	**258**	
3050B	11/23/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.6**	
3050B	11/23/12	200.8	11/26/12	**7440-43-9**	**Cadmium**	0.011	0.09	**0.58**	
3050B	11/23/12	6010C	11/26/12	**7440-70-2**	**Calcium**	4.6	10	**3,460**	
3050B	11/23/12	200.8	11/26/12	**7440-47-3**	**Chromium**	0.036	0.5	**20.0**	
3050B	11/23/12	200.8	11/26/12	**7440-48-4**	**Cobalt**	0.030	0.2	**8.2**	
3050B	11/23/12	200.8	11/26/12	**7440-50-8**	**Copper**	0.034	0.5	**23.3**	
3050B	11/23/12	6010C	11/26/12	**7439-89-6**	**Iron**	1.8	10	**21,900**	
3050B	11/23/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.045	0.09	**19.2**	
3050B	11/23/12	6010C	11/26/12	**7439-95-4**	**Magnesium**	3.4	10	**5,060**	
3050B	11/23/12	6010C	11/26/12	**7439-96-5**	**Manganese**	0.097	0.2	**797**	
CLP	11/23/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.029**	
3050B	11/23/12	200.8	11/26/12	**7440-02-0**	**Nickel**	0.046	0.5	**23.3**	
3050B	11/23/12	6010C	11/26/12	**7440-09-7**	**Potassium**	42	120	**1,630**	
3050B	11/23/12	200.8	11/26/12	7782-49-2	Selenium	0.094	0.5	0.5	U
3050B	11/23/12	200.8	11/28/12	7440-22-4	Silver	0.0076	0.2	0.2	U
3050B	11/23/12	6010C	11/26/12	**7440-23-5**	**Sodium**	2.6	120	**310**	
3050B	11/23/12	200.8	11/26/12	**7440-28-0**	**Thallium**	0.0028	0.2	**0.2**	
3050B	11/23/12	200.8	11/26/12	**7440-62-2**	**Vanadium**	0.016	0.2	**35.1**	
3050B	11/23/12	200.8	11/26/12	**7440-66-6**	**Zinc**	0.32	4	**120**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: SA11-8P-3(6 to 12" depth)
SAMPLE

Lab Sample ID: VS21G
LIMS ID: 12-22695
Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

QC Report No: VS21-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Percent Total Solids: 97.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/23/12	6010C	11/26/12	**7429-90-5**	**Aluminum**	8.7	10	**20,700**	
3050B	11/23/12	200.8	11/26/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/23/12	200.8	11/26/12	**7440-38-2**	**Arsenic**	0.085	0.2	**6.4**	
3050B	11/23/12	6010C	11/26/12	**7440-39-3**	**Barium**	0.15	0.7	**159**	
3050B	11/23/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.6**	
3050B	11/23/12	200.8	11/26/12	**7440-43-9**	**Cadmium**	0.012	0.1	**0.2**	
3050B	11/23/12	6010C	11/26/12	**7440-70-2**	**Calcium**	4.6	10	**3,680**	
3050B	11/23/12	200.8	11/27/12	**7440-47-3**	**Chromium**	0.093	1	**21**	
3050B	11/23/12	200.8	11/27/12	**7440-48-4**	**Cobalt**	0.078	0.5	**8.6**	
3050B	11/23/12	200.8	11/26/12	**7440-50-8**	**Copper**	0.035	0.5	**31.6**	
3050B	11/23/12	6010C	11/26/12	**7439-89-6**	**Iron**	1.8	10	**23,100**	
3050B	11/23/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.046	0.1	**8.4**	
3050B	11/23/12	6010C	11/26/12	**7439-95-4**	**Magnesium**	3.4	10	**5,900**	
3050B	11/23/12	6010C	11/26/12	**7439-96-5**	**Manganese**	0.098	0.2	**411**	
CLP	11/23/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.020**	
3050B	11/23/12	200.8	11/26/12	**7440-02-0**	**Nickel**	0.048	0.5	**21.9**	
3050B	11/23/12	6010C	11/26/12	**7440-09-7**	**Potassium**	43	120	**1,890**	
3050B	11/23/12	200.8	11/26/12	7782-49-2	Selenium	0.097	0.5	0.5	U
3050B	11/23/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0078	0.2	**0.2**	
3050B	11/23/12	6010C	11/26/12	**7440-23-5**	**Sodium**	2.6	120	**370**	
3050B	11/23/12	200.8	11/26/12	7440-28-0	Thallium	0.0029	0.2	0.2	U
3050B	11/23/12	200.8	11/27/12	**7440-62-2**	**Vanadium**	0.042	0.5	**41.2**	
3050B	11/23/12	200.8	11/26/12	**7440-66-6**	**Zinc**	0.33	4	**67**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: SA11-8P-4(12 to 24" depth)
SAMPLE

Lab Sample ID: VS21H
LIMS ID: 12-22696
Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

QC Report No: VS21-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Percent Total Solids: 98.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/23/12	6010C	11/26/12	**7429-90-5**	**Aluminum**	8.8	10	**17,100**	
3050B	11/23/12	200.8	11/26/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/23/12	200.8	11/26/12	**7440-38-2**	**Arsenic**	0.085	0.2	**6.8**	
3050B	11/23/12	6010C	11/26/12	**7440-39-3**	**Barium**	0.15	0.7	**117**	
3050B	11/23/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.5**	
3050B	11/23/12	200.8	11/26/12	**7440-43-9**	**Cadmium**	0.012	0.1	**0.2**	
3050B	11/23/12	6010C	11/26/12	**7440-70-2**	**Calcium**	4.7	10	**3,860**	
3050B	11/23/12	200.8	11/27/12	**7440-47-3**	**Chromium**	0.093	1	**24**	
3050B	11/23/12	200.8	11/27/12	**7440-48-4**	**Cobalt**	0.078	0.5	**9.2**	
3050B	11/23/12	200.8	11/26/12	**7440-50-8**	**Copper**	0.035	0.5	**33.1**	
3050B	11/23/12	6010C	11/26/12	**7439-89-6**	**Iron**	1.9	10	**22,800**	
3050B	11/23/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.046	0.1	**7.8**	
3050B	11/23/12	6010C	11/26/12	**7439-95-4**	**Magnesium**	3.4	10	**5,900**	
3050B	11/23/12	6010C	11/26/12	**7439-96-5**	**Manganese**	0.099	0.2	**335**	
CLP	11/23/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.015**	
3050B	11/23/12	200.8	11/26/12	**7440-02-0**	**Nickel**	0.048	0.5	**21.8**	
3050B	11/23/12	6010C	11/26/12	**7440-09-7**	**Potassium**	43	120	**2,190**	
3050B	11/23/12	200.8	11/26/12	7782-49-2	Selenium	0.097	0.5	0.5	U
3050B	11/23/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0078	0.2	**0.2**	
3050B	11/23/12	6010C	11/26/12	**7440-23-5**	**Sodium**	2.6	120	**280**	
3050B	11/23/12	200.8	11/26/12	7440-28-0	Thallium	0.0029	0.2	0.2	U
3050B	11/23/12	200.8	11/27/12	**7440-62-2**	**Vanadium**	0.042	0.5	**45.3**	
3050B	11/23/12	200.8	11/26/12	**7440-66-6**	**Zinc**	0.33	4	**59**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: SA11-9C
SAMPLE

Lab Sample ID: VS21I
LIMS ID: 12-22697
Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

QC Report No: VS21-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Percent Total Solids: 94.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/23/12	6010C	11/26/12	**7429-90-5**	**Aluminum**	9.1	10	**22,500**	
3050B	11/23/12	200.8	11/26/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.9**	
3050B	11/23/12	200.8	11/26/12	**7440-38-2**	**Arsenic**	0.090	0.2	**35.0**	
3050B	11/23/12	6010C	11/26/12	**7440-39-3**	**Barium**	0.15	0.8	**420**	
3050B	11/23/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.019	0.2	**1.0**	
3050B	11/23/12	200.8	11/26/12	**7440-43-9**	**Cadmium**	0.012	0.1	**16.9**	
3050B	11/23/12	6010C	11/26/12	**7440-70-2**	**Calcium**	4.8	10	**8,990**	
3050B	11/23/12	200.8	11/26/12	**7440-47-3**	**Chromium**	0.039	0.5	**31.2**	
3050B	11/23/12	200.8	11/26/12	**7440-48-4**	**Cobalt**	0.033	0.2	**12.2**	
3050B	11/23/12	200.8	11/26/12	**7440-50-8**	**Copper**	0.037	0.5	**43.5**	
3050B	11/23/12	6010C	11/26/12	**7439-89-6**	**Iron**	1.9	10	**31,000**	
3050B	11/23/12	200.8	11/27/12	**7439-92-1**	**Lead**	0.24	0.5	**715**	
3050B	11/23/12	6010C	11/26/12	**7439-95-4**	**Magnesium**	3.5	10	**7,580**	
3050B	11/23/12	6010C	11/26/12	**7439-96-5**	**Manganese**	0.10	0.3	**2,850**	
CLP	11/23/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.150**	
3050B	11/23/12	200.8	11/26/12	**7440-02-0**	**Nickel**	0.051	0.5	**38.8**	
3050B	11/23/12	6010C	11/26/12	**7440-09-7**	**Potassium**	44	130	**2,010**	
3050B	11/23/12	200.8	11/26/12	**7782-49-2**	**Selenium**	0.10	0.5	**0.6**	
3050B	11/23/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0083	0.2	**0.5**	
3050B	11/23/12	6010C	11/26/12	**7440-23-5**	**Sodium**	2.7	130	**130**	
3050B	11/23/12	200.8	11/26/12	**7440-28-0**	**Thallium**	0.0031	0.2	**0.7**	
3050B	11/23/12	200.8	11/26/12	**7440-62-2**	**Vanadium**	0.018	0.2	**31.1**	
3050B	11/23/12	200.8	11/27/12	**7440-66-6**	**Zinc**	1.8	20	**750**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: SA12-1C
SAMPLE

Lab Sample ID: VS21J
LIMS ID: 12-22698
Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

QC Report No: VS21-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Percent Total Solids: 96.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/23/12	6010C	11/26/12	**7429-90-5**	**Aluminum**	9.0	10	**34,600**	
3050B	11/23/12	200.8	11/26/12	**7440-36-0**	**Antimony**	0.012	0.2	**0.2**	
3050B	11/23/12	200.8	11/26/12	**7440-38-2**	**Arsenic**	0.082	0.2	**25.3**	
3050B	11/23/12	6010C	11/26/12	**7440-39-3**	**Barium**	0.15	0.8	**266**	
3050B	11/23/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.017	0.2	**1.3**	
3050B	11/23/12	200.8	11/26/12	**7440-43-9**	**Cadmium**	0.011	0.09	**6.23**	
3050B	11/23/12	6010C	11/26/12	**7440-70-2**	**Calcium**	4.8	10	**6,040**	
3050B	11/23/12	200.8	11/27/12	**7440-47-3**	**Chromium**	0.090	1	**35**	
3050B	11/23/12	200.8	11/27/12	**7440-48-4**	**Cobalt**	0.076	0.5	**18.6**	
3050B	11/23/12	200.8	11/26/12	**7440-50-8**	**Copper**	0.034	0.5	**52.9**	
3050B	11/23/12	6010C	11/26/12	**7439-89-6**	**Iron**	1.9	10	**40,800**	
3050B	11/23/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.045	0.09	**207**	
3050B	11/23/12	6010C	11/26/12	**7439-95-4**	**Magnesium**	3.5	10	**9,370**	
3050B	11/23/12	6010C	11/26/12	**7439-96-5**	**Manganese**	0.10	0.3	**1,610**	
CLP	11/23/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.080**	
3050B	11/23/12	200.8	11/26/12	**7440-02-0**	**Nickel**	0.046	0.5	**76.4**	
3050B	11/23/12	6010C	11/26/12	**7440-09-7**	**Potassium**	44	130	**1,920**	
3050B	11/23/12	200.8	11/26/12	7782-49-2	Selenium	0.094	0.5	0.5	U
3050B	11/23/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0076	0.2	**1.2**	
3050B	11/23/12	6010C	11/26/12	**7440-23-5**	**Sodium**	2.7	130	**170**	
3050B	11/23/12	200.8	11/26/12	**7440-28-0**	**Thallium**	0.0028	0.2	**0.4**	
3050B	11/23/12	200.8	11/27/12	**7440-62-2**	**Vanadium**	0.040	0.5	**44.3**	
3050B	11/23/12	200.8	11/27/12	**7440-66-6**	**Zinc**	0.80	9	**428**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: SA12-2C
SAMPLE

Lab Sample ID: VS21K
LIMS ID: 12-22699
Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

QC Report No: VS21-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 96.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/23/12	6010C	11/26/12	**7429-90-5**	**Aluminum**	9.1	10	**20,800**	
3050B	11/23/12	200.8	11/26/12	7440-36-0	Antimony	0.012	0.2	0.2	U
3050B	11/23/12	200.8	11/26/12	**7440-38-2**	**Arsenic**	0.083	0.2	**16.3**	
3050B	11/23/12	6010C	11/26/12	**7440-39-3**	**Barium**	0.15	0.8	**252**	
3050B	11/23/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.5**	
3050B	11/23/12	200.8	11/26/12	**7440-43-9**	**Cadmium**	0.011	0.1	**2.8**	
3050B	11/23/12	6010C	11/26/12	**7440-70-2**	**Calcium**	4.9	10	**3,250**	
3050B	11/23/12	200.8	11/26/12	**7440-47-3**	**Chromium**	0.036	0.5	**21.4**	
3050B	11/23/12	200.8	11/26/12	**7440-48-4**	**Cobalt**	0.030	0.2	**8.8**	
3050B	11/23/12	200.8	11/26/12	**7440-50-8**	**Copper**	0.034	0.5	**18.4**	
3050B	11/23/12	6010C	11/26/12	**7439-89-6**	**Iron**	1.9	10	**22,700**	
3050B	11/23/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.045	0.1	**224**	
3050B	11/23/12	6010C	11/26/12	**7439-95-4**	**Magnesium**	3.5	10	**4,980**	
3050B	11/23/12	6010C	11/26/12	**7439-96-5**	**Manganese**	0.10	0.3	**1,470**	
CLP	11/23/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.063**	
3050B	11/23/12	200.8	11/26/12	**7440-02-0**	**Nickel**	0.047	0.5	**20.4**	
3050B	11/23/12	6010C	11/26/12	**7440-09-7**	**Potassium**	45	130	**1,400**	
3050B	11/23/12	200.8	11/26/12	7782-49-2	Selenium	0.094	0.5	0.5	U
3050B	11/23/12	200.8	11/28/12	7440-22-4	Silver	0.0076	0.2	0.2	U
3050B	11/23/12	6010C	11/26/12	**7440-23-5**	**Sodium**	2.7	130	**270**	
3050B	11/23/12	200.8	11/26/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.3**	
3050B	11/23/12	200.8	11/26/12	**7440-62-2**	**Vanadium**	0.016	0.2	**33.6**	
3050B	11/23/12	200.8	11/26/12	**7440-66-6**	**Zinc**	0.32	4	**218**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SA12-3C
SAMPLE

Lab Sample ID: VS21L
LIMS ID: 12-22700
Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

QC Report No: VS21-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 94.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/23/12	6010C	11/26/12	**7429-90-5**	**Aluminum**	8.7	10	**17,000**	
3050B	11/23/12	200.8	11/26/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.4**	
3050B	11/23/12	200.8	11/26/12	**7440-38-2**	**Arsenic**	0.086	0.2	**11.0**	
3050B	11/23/12	6010C	11/26/12	**7440-39-3**	**Barium**	0.15	0.7	**154**	
3050B	11/23/12	200.8	11/26/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.4**	
3050B	11/23/12	200.8	11/26/12	**7440-43-9**	**Cadmium**	0.012	0.1	**4.1**	
3050B	11/23/12	6010C	11/26/12	**7440-70-2**	**Calcium**	4.6	10	**10,400**	
3050B	11/23/12	200.8	11/26/12	**7440-47-3**	**Chromium**	0.038	0.5	**16.1**	
3050B	11/23/12	200.8	11/26/12	**7440-48-4**	**Cobalt**	0.032	0.2	**6.5**	
3050B	11/23/12	200.8	11/26/12	**7440-50-8**	**Copper**	0.036	0.5	**21.0**	
3050B	11/23/12	6010C	11/26/12	**7439-89-6**	**Iron**	1.8	10	**17,900**	
3050B	11/23/12	200.8	11/26/12	**7439-92-1**	**Lead**	0.047	0.1	**217**	
3050B	11/23/12	6010C	11/26/12	**7439-95-4**	**Magnesium**	3.4	10	**4,600**	
3050B	11/23/12	6010C	11/26/12	**7439-96-5**	**Manganese**	0.098	0.2	**655**	
CLP	11/23/12	7471A	11/23/12	**7439-97-6**	**Mercury**	0.0004	0.008	**0.135**	
3050B	11/23/12	200.8	11/26/12	**7440-02-0**	**Nickel**	0.049	0.5	**14.3**	
3050B	11/23/12	6010C	11/26/12	**7440-09-7**	**Potassium**	43	120	**1,100**	
3050B	11/23/12	200.8	11/26/12	**7782-49-2**	**Selenium**	0.098	0.5	**0.6**	
3050B	11/23/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0079	0.2	**0.3**	
3050B	11/23/12	6010C	11/26/12	**7440-23-5**	**Sodium**	2.6	120	**310**	
3050B	11/23/12	200.8	11/26/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.2**	
3050B	11/23/12	200.8	11/26/12	**7440-62-2**	**Vanadium**	0.017	0.2	**25.0**	
3050B	11/23/12	200.8	11/26/12	**7440-66-6**	**Zinc**	0.34	4	**196**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: SA11-6C
MATRIX SPIKE

Lab Sample ID: VS21A
LIMS ID: 12-22689
Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

QC Report No: VS21-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/06/12
Date Received: 11/12/12

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Aluminum	6010C	21,400	22,200	197	406%	H
Antimony	200.8	0.3	1.8	24.0	6.2%	N
Arsenic	200.8	22.4	49.3	24.0	112%	
Barium	6010C	192	397	197	104%	
Beryllium	200.8	0.7	26.3	24.0	107%	
Cadmium	200.8	6.3	29.9	24.0	98.3%	
Calcium	6010C	3,780	4,560	983	79.3%	
Chromium	200.8	31.4	50.0	24.0	77.5%	
Cobalt	200.8	8.7	30.2	24.0	89.6%	
Copper	200.8	32.5	58.7	24.0	109%	
Iron	6010C	24,000	24,900	197	457%	H
Lead	200.8	572	574	24.0	8.3%	H
Magnesium	6010C	6,410	7,650	983	126%	H
Manganese	6010C	676	744	49.1	138%	H
Mercury	7471A	0.104	0.171	0.0717	93.4%	
Nickel	200.8	22.8	49.5	24.0	111%	
Potassium	6010C	1,300	2,320	983	104%	
Selenium	200.8	0.5 U	82.2	76.9	107%	
Silver	200.8	0.3	20.7	24.0	85.0%	
Sodium	6010C	120 U	1,110	983	113%	
Thallium	200.8	0.5	23.1	24.0	94.2%	
Vanadium	200.8	47.3	71.5	24.0	101%	
Zinc	200.8	310	380	76.9	91.0%	H

Reported in mg/kg-dry

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: SA11-6C
DUPLICATE

Lab Sample ID: VS21A
LIMS ID: 12-22689
Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

QC Report No: VS21-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/06/12
Date Received: 11/12/12

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Aluminum	6010C	21,400	21,300	0.5%	+/- 20%	
Antimony	200.8	0.3	0.3	0.0%	+/- 0.2	L
Arsenic	200.8	22.4	22.4	0.0%	+/- 20%	
Barium	6010C	192	194	1.0%	+/- 20%	
Beryllium	200.8	0.7	0.6	15.4%	+/- 0.2	L
Cadmium	200.8	6.3	6.0	4.9%	+/- 20%	
Calcium	6010C	3,780	3,550	6.3%	+/- 20%	
Chromium	200.8	31.4	30.2	3.9%	+/- 20%	
Cobalt	200.8	8.7	9.0	3.4%	+/- 20%	
Copper	200.8	32.5	32.0	1.6%	+/- 20%	
Iron	6010C	24,000	23,200	3.4%	+/- 20%	
Lead	200.8	572	523	8.9%	+/- 20%	
Magnesium	6010C	6,410	6,200	3.3%	+/- 20%	
Manganese	6010C	676	676	0.0%	+/- 20%	
Mercury	7471A	0.104	0.091	13.3%	+/- 20%	
Nickel	200.8	22.8	23.5	3.0%	+/- 20%	
Potassium	6010C	1,300	1,320	1.5%	+/- 20%	
Selenium	200.8	0.5 U	0.5 U	0.0%	+/- 0.5	L
Silver	200.8	0.3	0.3	0.0%	+/- 0.2	L
Sodium	6010C	120 U	120 U	0.0%	+/- 120	L
Thallium	200.8	0.5	0.5	0.0%	+/- 0.2	L
Vanadium	200.8	47.3	50.1	5.7%	+/- 20%	
Zinc	200.8	310	280	10.2%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: VS21LCS
LIMS ID: 12-22690
Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

QC Report No: VS21-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Aluminum	6010C	209	200	104%	
Antimony	200.8	26.1	25.0	104%	
Arsenic	200.8	26.2	25.0	105%	
Barium	6010C	208	200	104%	
Beryllium	200.8	27.3	25.0	109%	
Cadmium	200.8	26.4	25.0	106%	
Calcium	6010C	1030	1000	103%	
Chromium	200.8	26.1	25.0	104%	
Cobalt	200.8	25.6	25.0	102%	
Copper	200.8	27.5	25.0	110%	
Iron	6010C	213	200	106%	
Lead	200.8	27.0	25.0	108%	
Magnesium	6010C	1060	1000	106%	
Manganese	6010C	52.3	50.0	105%	
Mercury	7471A	0.161	0.143	113%	
Nickel	200.8	26.8	25.0	107%	
Potassium	6010C	1020	1000	102%	
Selenium	200.8	87.0	80.0	109%	
Silver	200.8	27.2	25.0	109%	
Sodium	6010C	1050	1000	105%	
Thallium	200.8	26.1	25.0	104%	
Vanadium	200.8	25.4	25.0	102%	
Zinc	200.8	86	80	108%	

Reported in mg/kg-dry

N-Control limit not met
NA-Not Applicable, Analyte Not Spiked
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: METHOD BLANK

Lab Sample ID: VS21MB
LIMS ID: 12-22690
Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

QC Report No: VS21-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/23/12	6010C	11/26/12	7429-90-5	Aluminum	3.6	5	5	U
3050B	11/23/12	200.8	11/26/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/23/12	200.8	11/26/12	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	11/23/12	6010C	11/26/12	7440-39-3	Barium	0.060	0.3	0.3	U
3050B	11/23/12	200.8	11/26/12	7440-41-7	Beryllium	0.018	0.2	0.2	U
3050B	11/23/12	200.8	11/26/12	7440-43-9	Cadmium	0.012	0.1	0.1	U
3050B	11/23/12	6010C	11/26/12	7440-70-2	Calcium	1.9	5	5	U
3050B	11/23/12	200.8	11/26/12	7440-47-3	Chromium	0.038	0.5	0.5	U
3050B	11/23/12	200.8	11/26/12	7440-48-4	Cobalt	0.032	0.2	0.2	U
3050B	11/23/12	200.8	11/26/12	7440-50-8	Copper	0.036	0.5	0.5	U
3050B	11/23/12	6010C	11/26/12	7439-89-6	Iron	0.75	5	5	U
3050B	11/23/12	200.8	11/26/12	7439-92-1	Lead	0.047	0.1	0.1	U
3050B	11/23/12	6010C	11/26/12	7439-95-4	Magnesium	1.4	5	5	U
3050B	11/23/12	6010C	11/26/12	7439-96-5	Manganese	0.040	0.1	0.1	U
CLP	11/23/12	7471A	11/23/12	7439-97-6	Mercury	0.0004	0.007	0.007	U
3050B	11/23/12	200.8	11/26/12	7440-02-0	Nickel	0.049	0.5	0.5	U
3050B	11/23/12	6010C	11/26/12	7440-09-7	Potassium	17	50	50	U
3050B	11/23/12	200.8	11/26/12	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	11/23/12	200.8	11/28/12	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	11/23/12	6010C	11/26/12	7440-23-5	Sodium	1.1	50	50	U
3050B	11/23/12	200.8	11/26/12	7440-28-0	Thallium	0.0030	0.2	0.2	U
3050B	11/23/12	200.8	11/26/12	7440-62-2	Vanadium	0.017	0.2	0.2	U
3050B	11/23/12	200.8	11/26/12	7440-66-6	Zinc	0.34	4	4	U

Reported in mg/kg (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

UNITS: ug/L

SDG: VS21

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Aluminum	AL	ICP	IP112671	2000.0	2067.09	**103.4**	2000.0	2007.97	**100.4**	2017.32	**100.9**	2094.06	**104.7**	2071.84	**103.6**		
Antimony	SB	PMS	MS112611	50.0	50.60	**101.2**	50.0	50.05	**100.1**	51.47	**102.9**	50.87	**101.7**	51.88	**103.8**	52.02	**104.0**
Arsenic	AS	PMS	MS112611	50.0	50.11	**100.2**	50.0	51.02	**102.0**	51.41	**102.8**	50.72	**101.4**	52.30	**104.6**	51.84	**103.7**
Barium	BA	ICP	IP112671	1000.0	1035.69	**103.6**	1000.0	1007.68	**100.8**	1010.87	**101.1**	1023.80	**102.4**	1017.20	**101.7**		
Beryllium	BE	PMS	MS112611	50.0	49.71	**99.4**	50.0	50.36	**100.7**	50.72	**101.4**	52.14	**104.3**	52.51	**105.0**	53.21	**106.4**
Cadmium	CD	PMS	MS112611	50.0	50.38	**100.8**	50.0	50.17	**100.3**	50.72	**101.4**	50.95	**101.9**	51.86	**103.7**	52.31	**104.6**
Calcium	CA	ICP	IP112671	2000.0	1994.41	**99.7**	2000.0	1932.94	**96.6**	1949.03	**97.5**	1987.61	**99.4**	1982.88	**99.1**		
Chromium	CR	PMS	MS112611	50.0	50.54	**101.1**	50.0	49.06	**98.1**	48.88	**97.8**	47.50	**95.0**	49.83	**99.7**	49.73	**99.5**
Cobalt	CO	PMS	MS112611	50.0	50.23	**100.5**	50.0	48.62	**97.2**	47.60	**95.2**	46.33	**92.7**	47.42	**94.8**	47.72	**95.4**
Copper	CU	PMS	MS112611	50.0	51.17	**102.3**	50.0	51.34	**102.7**	50.57	**101.1**	50.31	**100.6**	50.96	**101.9**	51.24	**102.5**
Iron	FE	ICP	IP112671	2000.0	2107.78	**105.4**	2000.0	2037.31	**101.9**	2065.29	**103.3**	2143.77	**107.2**	2117.47	**105.9**		
Lead	PB	PMS	MS112611	50.0	50.34	**100.7**	50.0	49.80	**99.6**	49.65	**99.3**	49.84	**99.7**	50.14	**100.3**	50.66	**101.3**
Magnesium	MG	ICP	IP112671	2000.0	2081.03	**104.1**	2000.0	2019.03	**101.0**	2038.73	**101.9**	2077.72	**103.9**	2072.22	**103.6**		
Manganese	MN	ICP	IP112671	1000.0	1005.74	**100.6**	1000.0	975.22	**97.5**	985.59	**98.6**	1000.56	**100.1**	990.76	**99.1**		
Mercury	HG	CVA	HG112301	8.0	8.49	**106.1**	4.0	4.18	**104.5**	4.24	**106.0**	4.28	**107.0**	4.26	**106.5**	4.30	**107.5**
Nickel	NI	PMS	MS112611	50.0	51.20	**102.4**	50.0	50.07	**100.1**	50.76	**101.5**	49.10	**98.2**	50.47	**100.9**	51.65	**103.3**
Potassium	K	ICP	IP112671	20000.0	20464.95	**102.3**	20000.0	19840.51	**99.2**	20087.47	**100.4**	20335.53	**101.7**	20212.87	**101.1**		
Selenium	SE	PMS	MS112611	80.0	78.82	**98.5**	50.0	51.30	**102.6**	52.17	**104.3**	51.51	**103.0**	52.85	**105.7**	53.75	**107.5**
Sodium	NA	ICP	IP112671	50000.0	53299.27	**106.6**	50000.0	52542.91	**105.1**	52703.31	**105.4**	52984.32	**106.0**	52676.01	**105.4**		
Thallium	TL	PMS	MS112611	50.0	51.80	**103.6**	50.0	51.17	**102.3**	51.87	**103.7**	51.82	**103.6**	52.51	**105.0**	52.44	**104.9**
Vanadium	V	PMS	MS112611	50.0	51.07	**102.1**	50.0	49.11	**98.2**	47.53	**95.1**	46.96	**93.9**	49.09	**98.2**	49.02	**98.0**
Zinc	ZN	PMS	MS112611	50.0	49.95	**99.9**	50.0	51.44	**102.9**	51.81	**103.6**	50.69	**101.4**	51.52	**103.0**	52.25	**104.5**

VS21 : 9005

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Aluminum	AL	ICP	IP112671	2000.0												
Antimony	SB	PMS	MS112611	50.0	53.16	**106.3**	52.61	**105.2**	52.17	**104.3**	52.24	**104.5**	52.73	**105.5**	52.48	**105.0**
Arsenic	AS	PMS	MS112611	50.0	52.16	**104.3**	51.81	**103.6**	52.91	**105.8**	51.30	**102.6**	52.44	**104.9**	52.80	**105.6**
Barium	BA	ICP	IP112671	1000.0												
Beryllium	BE	PMS	MS112611	50.0	52.86	**105.7**	52.57	**105.1**	53.50	**107.0**	52.65	**105.3**	54.25	**108.5**	53.20	**106.4**
Cadmium	CD	PMS	MS112611	50.0	52.28	**104.6**	52.46	**104.9**	51.97	**103.9**	52.10	**104.2**	52.41	**104.8**	53.18	**106.4**
Calcium	CA	ICP	IP112671	2000.0												
Chromium	CR	PMS	MS112611	50.0	49.84	**99.7**	49.74	**99.5**	49.09	**98.2**	49.90	**99.8**	50.52	**101.0**	49.14	**98.3**
Cobalt	CO	PMS	MS112611	50.0	48.25	**96.5**	48.96	**97.9**	47.46	**94.9**	47.25	**94.5**	47.46	**94.9**	47.52	**95.0**
Copper	CU	PMS	MS112611	50.0	51.14	**102.3**	51.66	**103.3**	52.79	**105.6**	50.26	**100.5**	51.59	**103.2**	51.60	**103.2**
Iron	FE	ICP	IP112671	2000.0												
Lead	PB	PMS	MS112611	50.0	51.20	**102.4**	50.90	**101.8**	50.58	**101.2**	51.23	**102.5**	51.04	**102.1**	50.80	**101.6**
Magnesium	MG	ICP	IP112671	2000.0												
Manganese	MN	ICP	IP112671	1000.0												
Mercury	HG	CVA	HG112301	4.0	4.24	**106.0**	4.37	**109.3**	4.40	**110.0**	4.43	**110.8**	4.44	**111.0**	4.41	**110.3**
Nickel	NI	PMS	MS112611	50.0	50.40	**100.8**	51.28	**102.6**	51.90	**103.8**	50.07	**100.1**	51.30	**102.6**	51.51	**103.0**
Potassium	K	ICP	IP112671	20000.0												
Selenium	SE	PMS	MS112611	50.0	53.40	**106.8**	53.19	**106.4**	54.99	**110.0**	51.75	**103.5**	53.87	**107.7**	54.53	**109.1**
Sodium	NA	ICP	IP112671	50000.0												
Thallium	TL	PMS	MS112611	50.0	51.03	**102.1**	50.03	**100.1**	49.40	**98.8**	49.83	**99.7**	49.77	**99.5**	49.30	**98.6**
Vanadium	V	PMS	MS112611	50.0	49.15	**98.3**	48.71	**97.4**	48.71	**97.4**	48.66	**97.3**	49.41	**98.8**	48.66	**97.3**
Zinc	ZN	PMS	MS112611	50.0	51.13	**102.3**	50.77	**101.5**	52.31	**104.6**	51.11	**102.2**	51.68	**103.4**	51.25	**102.5**

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

UNITS:ug/L

SDG: VS21

ANALYTE	EL	M	RUN	CCVTV	CCV12	%R	CCV13	%R	CCV14	%R	CCV15	%R	CCV16	%R	CCV17	%R
Aluminum	AL	ICP	IP112671	2000.0												
Antimony	SB	PMS	MS112611	50.0	52.51	**105.0**										
Arsenic	AS	PMS	MS112611	50.0	52.62	**105.2**										
Barium	BA	ICP	IP112671	1000.0												
Beryllium	BE	PMS	MS112611	50.0	53.50	**107.0**										
Cadmium	CD	PMS	MS112611	50.0	52.54	**105.1**										
Calcium	CA	ICP	IP112671	2000.0												
Chromium	CR	PMS	MS112611	50.0	48.04	**96.1**										
Cobalt	CO	PMS	MS112611	50.0	46.36	**92.7**										
Copper	CU	PMS	MS112611	50.0	50.96	**101.9**										
Iron	FE	ICP	IP112671	2000.0												
Lead	PB	PMS	MS112611	50.0	51.16	**102.3**										
Magnesium	MG	ICP	IP112671	2000.0												
Manganese	MN	ICP	IP112671	1000.0												
Mercury	HG	CVA	HG112301	4.0	4.40	**110.0**	4.40	**110.0**								
Nickel	NI	PMS	MS112611	50.0	51.66	**103.3**										
Potassium	K	ICP	IP112671	20000.0												
Selenium	SE	PMS	MS112611	50.0	54.00	**108.0**										
Sodium	NA	ICP	IP112671	50000.0												
Thallium	TL	PMS	MS112611	50.0	49.51	**99.0**										
Vanadium	V	PMS	MS112611	50.0	47.99	**96.0**										
Zinc	ZN	PMS	MS112611	50.0	52.54	**105.1**										

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

UNITS: ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Antimony	SB	PMS	MS112711	50.0	48.89	**97.8**	50.0	49.92	**99.8**	50.44	**100.9**	49.15	**98.3**	49.66	**99.3**	49.52	**99.0**
Arsenic	AS	PMS	MS112711	50.0	49.99	**100.0**	50.0	49.95	**99.9**	48.90	**97.8**	49.06	**98.1**	50.02	**100.0**	50.39	**100.8**
Beryllium	BE	PMS	MS112711	50.0	50.55	**101.1**	50.0	51.14	**102.3**	50.89	**101.8**	49.30	**98.6**	51.36	**102.7**	50.83	**101.7**
Cadmium	CD	PMS	MS112711	50.0	49.98	**100.0**	50.0	50.97	**101.9**	51.15	**102.3**	50.01	**100.0**	50.63	**101.3**	50.71	**101.4**
Chromium	CR	PMS	MS112711	50.0	49.10	**98.2**	50.0	48.04	**96.1**	47.29	**94.6**	47.86	**95.7**	47.51	**95.0**	46.76	**93.5**
Cobalt	CO	PMS	MS112711	50.0	49.91	**99.8**	50.0	48.16	**96.3**	47.93	**95.9**	47.36	**94.7**	47.51	**95.0**	47.02	**94.0**
Copper	CU	PMS	MS112711	50.0	50.83	**101.7**	50.0	50.82	**101.6**	50.01	**100.0**	48.45	**96.9**	50.16	**100.3**	50.61	**101.2**
Lead	PB	PMS	MS112711	50.0	49.32	**98.6**	50.0	48.14	**96.3**	47.73	**95.5**	47.28	**94.6**	48.09	**96.2**	47.51	**95.0**
Nickel	NI	PMS	MS112711	50.0	51.11	**102.2**	50.0	50.50	**101.0**	49.45	**98.9**	49.00	**98.0**	50.26	**100.5**	50.49	**101.0**
Selenium	SE	PMS	MS112711	80.0	78.06	**97.6**	50.0	50.51	**101.0**	49.04	**98.1**	50.09	**100.2**	51.02	**102.0**	52.39	**104.8**
Thallium	TL	PMS	MS112711	50.0	48.37	**96.7**	50.0	46.71	**93.4**	46.08	**92.2**	46.22	**92.4**	46.84	**93.7**	46.36	**92.7**
Vanadium	V	PMS	MS112711	50.0	49.64	**99.3**	50.0	47.63	**95.3**	47.23	**94.5**	47.00	**94.0**	47.49	**95.0**	46.48	**93.0**
Zinc	ZN	PMS	MS112711	50.0	50.14	**100.3**	50.0	50.79	**101.6**	49.85	**99.7**	49.25	**98.5**	50.83	**101.7**	50.66	**101.3**

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

UNITS:ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Antimony	SB	PMS	MS112711	50.0	51.01	**102.0**	50.11	**100.2**	50.47	**100.9**	51.11	**102.2**	50.83	**101.7**		
Arsenic	AS	PMS	MS112711	50.0	51.91	**103.8**	51.29	**102.6**	51.92	**103.8**	51.00	**102.0**	50.41	**100.8**		
Beryllium	BE	PMS	MS112711	50.0	52.89	**105.8**	50.74	**101.5**	51.95	**103.9**	52.25	**104.5**	52.68	**105.4**		
Cadmium	CD	PMS	MS112711	50.0	51.86	**103.7**	51.00	**102.0**	52.01	**104.0**	51.97	**103.9**	51.68	**103.4**		
Chromium	CR	PMS	MS112711	50.0	47.53	**95.1**	48.36	**96.7**	46.97	**93.9**	46.79	**93.6**	47.80	**95.6**		
Cobalt	CO	PMS	MS112711	50.0	47.46	**94.9**	47.91	**95.8**	46.26	**92.5**	46.83	**93.7**	46.74	**93.5**		
Copper	CU	PMS	MS112711	50.0	51.46	**102.9**	49.68	**99.4**	51.02	**102.0**	50.58	**101.2**	49.04	**98.1**		
Lead	PB	PMS	MS112711	50.0	48.70	**97.4**	47.89	**95.8**	48.23	**96.5**	48.05	**96.1**	47.50	**95.0**		
Nickel	NI	PMS	MS112711	50.0	51.33	**102.7**	50.04	**100.1**	52.31	**104.6**	50.29	**100.6**	50.16	**100.3**		
Selenium	SE	PMS	MS112711	50.0	54.89	**109.8**	54.35	**108.7**	54.86	**109.7**	53.95	**107.9**	53.72	**107.4**		
Thallium	TL	PMS	MS112711	50.0	47.15	**94.3**	46.35	**92.7**	47.03	**94.1**	46.79	**93.6**	46.11	**92.2**		
Vanadium	V	PMS	MS112711	50.0	46.80	**93.6**	48.18	**96.4**	46.45	**92.9**	46.26	**92.5**	46.96	**93.9**		
Zinc	ZN	PMS	MS112711	50.0	51.67	**103.3**	50.84	**101.7**	52.23	**104.5**	51.25	**102.5**	50.89	**101.8**		

VS21 : 60625

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

UNITS: ug/L

SDG: VS21

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Silver	AG	PMS	MS112811	50.0	53.92	**107.8**	50.0	52.85	**105.7**	51.06	**102.1**	51.70	**103.4**	52.36	**104.7**	52.77	**105.5**

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Silver	AG	PMS	MS112811	50.0	51.80	103.6	52.55	105.1								

Control Limits: Mercury 80-120; Other Metals 90-110

FORM II (1)

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Aluminum	AL	ICP	IP112671	50.0	52.48	**105.0**	61.91	**123.8**	48.12	**96.2**						
Antimony	SB	PMS	MS112611	0.2	0.21	**105.0**										
Arsenic	AS	PMS	MS112611	0.2	0.20	**100.0**										
Barium	BA	ICP	IP112671	3.0	2.96	**98.7**	4.01	**133.7**	3.87	**129.0**						
Beryllium	BE	PMS	MS112611	0.2	0.21	**105.0**										
Cadmium	CD	PMS	MS112611	0.1	0.11	**110.0**										
Calcium	CA	ICP	IP112671	50.0	49.20	**98.4**	51.46	**102.9**	54.15	**108.3**						
Chromium	CR	PMS	MS112611	0.5	0.58	**116.0**										
Cobalt	CO	PMS	MS112611	0.2	0.20	**100.0**										
Copper	CU	PMS	MS112611	0.5	0.42	**84.0**										
Iron	FE	ICP	IP112671	50.0	51.46	**102.9**	62.04	**124.1**	50.68	**101.4**						
Lead	PB	PMS	MS112611	0.1	0.11	**110.0**										
Magnesium	MG	ICP	IP112671	50.0	51.14	**102.3**	53.60	**107.2**	55.92	**111.8**						
Manganese	MN	ICP	IP112671	1.0	1.17	**117.0**	1.66	**166.0**	1.10	**110.0**						
Mercury	HG	CVA	HG112301	0.1	0.13	**130.0**										
Nickel	NI	PMS	MS112611	0.5	0.51	**102.0**										
Potassium	K	ICP	IP112671	500.0	514.89	**103.0**	498.89	**99.8**	505.58	**101.1**						
Selenium	SE	PMS	MS112611	0.5	0.52	**104.0**										
Sodium	NA	ICP	IP112671	500.0	502.26	**100.5**	503.15	**100.6**	507.46	**101.5**						
Thallium	TL	PMS	MS112611	0.2	0.21	**105.0**										
Vanadium	V	PMS	MS112611	0.2	0.23	**115.0**										
Zinc	ZN	PMS	MS112611	4.0	4.62	**115.5**										
Antimony	SB	PMS	MS112711	0.2	0.19	**95.0**										
Arsenic	AS	PMS	MS112711	0.2	0.20	**100.0**										
Beryllium	BE	PMS	MS112711	0.2	0.20	**100.0**										
Cadmium	CD	PMS	MS112711	0.1	0.11	**110.0**										
Chromium	CR	PMS	MS112711	0.5	0.48	**96.0**										
Cobalt	CO	PMS	MS112711	0.2	0.20	**100.0**										
Copper	CU	PMS	MS112711	0.5	0.52	**104.0**										
Lead	PB	PMS	MS112711	0.1	0.10	**100.0**										
Nickel	NI	PMS	MS112711	0.5	0.52	**104.0**										
Selenium	SE	PMS	MS112711	0.5	0.51	**102.0**										

Control Limits: no control limits have been established by the EPA at this time.

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Thallium	TL	PMS	MS112711	0.2	0.19	**95.0**										
Vanadium	V	PMS	MS112711	0.2	0.20	**100.0**										
Zinc	ZN	PMS	MS112711	4.0	4.58	**114.5**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

UNITS:ug/L

ANALYTE	EL	M	RUN	CRA/I	TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Silver	AG	PMS	MS112811		0.2	0.21	**105.0**										

Control Limits: no control limits have been established by the EPA at this time.

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Aluminum	AL	ICP	IP112671	200.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Antimony	SB	PMS	MS112611	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS112611	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Barium	BA	ICP	IP112671	200.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
Beryllium	BE	PMS	MS112611	5.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS112611	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Calcium	CA	ICP	IP112671	5000.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Chromium	CR	PMS	MS112611	10.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cobalt	CO	PMS	MS112611	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Copper	CU	PMS	MS112611	25.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Iron	FE	ICP	IP112671	100.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Lead	PB	PMS	MS112611	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Magnesium	MG	ICP	IP112671	5000.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Manganese	MN	ICP	IP112671	15.0	1.0	1.0	U	1.0	U	1.0	U	1.2	B	1.0	U	1.0	U
Mercury	HG	CVA	HG112301	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Nickel	NI	PMS	MS112611	40.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Potassium	K	ICP	IP112671	5000.0	500.0	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U
Selenium	SE	PMS	MS112611	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Sodium	NA	ICP	IP112671	5000.0	500.0	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U
Thallium	TL	PMS	MS112611	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Vanadium	V	PMS	MS112611	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Zinc	ZN	PMS	MS112611	20.0	4.0	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Aluminum	AL	ICP	IP112671	200.0	50.0												
Antimony	SB	PMS	MS112611	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS112611	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Barium	BA	ICP	IP112671	200.0	3.0												
Beryllium	BE	PMS	MS112611	5.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS112611	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Calcium	CA	ICP	IP112671	5000.0	50.0												
Chromium	CR	PMS	MS112611	10.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cobalt	CO	PMS	MS112611	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Copper	CU	PMS	MS112611	25.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Iron	FE	ICP	IP112671	100.0	50.0												
Lead	PB	PMS	MS112611	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Magnesium	MG	ICP	IP112671	5000.0	50.0												
Manganese	MN	ICP	IP112671	15.0	1.0												
Mercury	HG	CVA	HG112301	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Nickel	NI	PMS	MS112611	40.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Potassium	K	ICP	IP112671	5000.0	500.0												
Selenium	SE	PMS	MS112611	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Sodium	NA	ICP	IP112671	5000.0	500.0												
Thallium	TL	PMS	MS112611	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Vanadium	V	PMS	MS112611	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Zinc	ZN	PMS	MS112611	20.0	4.0	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

UNITS: ug/L

SDG: VS21

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB12	C	CCB13	C	CCB14	C	CCB15	C	CCB16	C	CCB17	C
Aluminum	AL	ICP	IP112671	200.0	50.0												
Antimony	SB	PMS	MS112611	60.0	0.2	0.2	U										
Arsenic	AS	PMS	MS112611	10.0	0.2	0.2	U										
Barium	BA	ICP	IP112671	200.0	3.0												
Beryllium	BE	PMS	MS112611	5.0	0.2	0.2	U										
Cadmium	CD	PMS	MS112611	5.0	0.1	0.1	U										
Calcium	CA	ICP	IP112671	5000.0	50.0												
Chromium	CR	PMS	MS112611	10.0	0.5	0.5	U										
Cobalt	CO	PMS	MS112611	50.0	0.2	0.2	U										
Copper	CU	PMS	MS112611	25.0	0.5	0.5	U										
Iron	FE	ICP	IP112671	100.0	50.0												
Lead	PB	PMS	MS112611	3.0	0.1	0.1	U										
Magnesium	MG	ICP	IP112671	5000.0	50.0												
Manganese	MN	ICP	IP112671	15.0	1.0												
Mercury	HG	CVA	HG112301	0.2	0.1	0.1	U	0.1	U								
Nickel	NI	PMS	MS112611	40.0	0.5	0.5	U										
Potassium	K	ICP	IP112671	5000.0	500.0												
Selenium	SE	PMS	MS112611	5.0	0.5	0.5	U										
Sodium	NA	ICP	IP112671	5000.0	500.0												
Thallium	TL	PMS	MS112611	10.0	0.2	0.2	U										
Vanadium	V	PMS	MS112611	50.0	0.2	0.2	U										
Zinc	ZN	PMS	MS112611	20.0	4.0	4.0	U										

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Antimony	SB	PMS	MS112711	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS112711	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Beryllium	BE	PMS	MS112711	5.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS112711	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Chromium	CR	PMS	MS112711	10.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cobalt	CO	PMS	MS112711	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Copper	CU	PMS	MS112711	25.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Lead	PB	PMS	MS112711	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Nickel	NI	PMS	MS112711	40.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Selenium	SE	PMS	MS112711	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Thallium	TL	PMS	MS112711	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Vanadium	V	PMS	MS112711	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Zinc	ZN	PMS	MS112711	20.0	4.0	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Antimony	SB	PMS	MS112711	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Arsenic	AS	PMS	MS112711	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Beryllium	BE	PMS	MS112711	5.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Cadmium	CD	PMS	MS112711	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U		
Chromium	CR	PMS	MS112711	10.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Cobalt	CO	PMS	MS112711	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Copper	CU	PMS	MS112711	25.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Lead	PB	PMS	MS112711	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U		
Nickel	NI	PMS	MS112711	40.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Selenium	SE	PMS	MS112711	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U		
Thallium	TL	PMS	MS112711	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Vanadium	V	PMS	MS112711	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U		
Zinc	ZN	PMS	MS112711	20.0	4.0	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U		

VS21..9915

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Silver	AG	PMS	MS112811	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U

VS21 : 0061

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Silver	AG	PMS	MS112811	10.0	0.2	0.2	U	0.2	U								

VS21 : 69819

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

ICS SOURCE: I.V.

RUNID: IP112671

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	196858.1	194133.9	**97.1**	199546.5	197449.7	**98.7**			
Antimony		1000	10.9	1007.7	**100.8**	11.3	1030.9	**103.1**			
Arsenic		1000	16.8	990.2	**99.0**	16.9	1007.7	**100.8**			
Barium		1000	-4.6	981.6	**98.2**	-3.8	991.3	**99.1**			
Beryllium		1000	0.1	1001.1	**100.1**	0.1	1024.1	**102.4**			
Boron			-4.9	-6.1		-6.7	-5.8				
Cadmium		1000	-0.3	1001.0	**100.1**	-0.1	1023.4	**102.3**			
Calcium	100000	100000	98481.7	97438.1	**97.4**	99235.0	99361.5	**99.4**			
Chromium		1000	1.0	994.2	**99.4**	0.5	1011.3	**101.1**			
Cobalt		1000	-0.6	967.7	**96.8**	-0.5	984.2	**98.4**			
Copper		1000	-0.6	1008.3	**100.8**	-0.6	1030.9	**103.1**			
Iron	200000	200000	193545.9	191318.1	**95.7**	196742.4	196456.1	**98.2**			
Lead		1000	1.3	942.2	**94.2**	1.0	959.4	**95.9**			
Magnesium	100000	100000	101709.0	96852.1	**96.9**	103217.7	98770.5	**98.8**			
Manganese		1000	1.0	946.0	**94.6**	1.4	969.7	**97.0**			
Molybdenum			1.7	1.8		2.1	2.0				
Nickel		1000	1.3	975.5	**97.6**	0.8	989.3	**98.9**			
Potassium			6.5	-47.9		10.7	-35.0				
Selenium		1000	11.0	966.6	**96.7**	3.5	983.7	**98.4**			
Silicon			0.2	3.6		1.3	2.1				
Silver		1000	-1.0	983.1	**98.3**	-1.0	1001.8	**100.2**			
Sodium			19.2	26.8		14.1	27.6				
Strontium			4.1	4.1		4.2	4.2				
Thallium		1000	-1.5	911.9	**91.2**	-0.3	924.4	**92.4**			
Tin			-8.1	-7.5		-7.3	-6.8				
Titanium			3.5	2.6		3.2	3.0				
Vanadium		1000	3.4	956.5	**95.7**	3.6	973.6	**97.4**			
Zinc		1000	2.5	966.5	**96.7**	3.3	982.4	**98.2**			

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

ICS SOURCE: I.V.

RUNID: MS112611

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	20.3	**101.5**						
Cadmium		20	0.2	19.8	**99.0**						
Chromium		20	0.6	20.3	**101.5**						
Cobalt		20	0.0	19.5	**97.5**						
Copper		20	1.3	21.1	**105.5**						
Manganese		20	0.1	19.8	**99.0**						
Molybdenum	400	400	419.5	421.7	**105.4**						
Nickel		20	0.4	20.3	**101.5**						
Selenium			-0.2	-0.2							
Silver		20	0.0	21.2	**106.0**						
Thorium			0.2	0.1							
Vanadium			0.1	0.1							
Zinc		20	1.0	19.9	**99.5**						

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

ICS SOURCE: I.V.

RUNID: MS112711

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Arsenic		20	0.1	19.9	**99.5**						
Cadmium		20	0.1	20.0	**100.0**						
Chromium		20	0.5	20.4	**102.0**						
Cobalt		20	0.0	19.6	**98.0**						
Copper		20	0.9	20.8	**104.0**						
Manganese		20	0.1	20.0	**100.0**						
Molybdenum	400	400	425.6	444.6	**111.2**						
Nickel		20	0.3	20.6	**103.0**						
Selenium			-0.2	-0.2							
Silver		20	0.0	21.1	**105.5**						
Zinc		20	0.9	20.1	**100.5**						

VS21 : 12SV

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

ICS SOURCE: I.V.

RUNID: MS112811

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	20.0	**100.0**						
Cadmium		20	0.1	19.8	**99.0**						
Chromium		20	0.7	20.8	**104.0**						
Cobalt		20	0.0	20.6	**103.0**						
Copper		20	0.9	21.5	**107.5**						
Manganese		20	0.1	19.5	**97.5**						
Molybdenum	400	400	434.3	401.0	**100.3**						
Nickel		20	0.4	21.1	**105.5**						
Selenium			-0.2	-0.2							
Silver		20	0.0	21.1	**105.5**						
Thorium			0.2	0.1							
Zinc		20	0.9	20.3	**101.5**						

VS21 09052

Post Digest Spike Sample Recovery

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: PMS

SDG: VS21

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT	C	SAMPLE RESULT	C	SPIKE ADDED	MATRIX	%R
Antimony	SA11-6CA	VS21APOST	MS112711	461.40	B	6.00	B	500	Soil	**91.1**

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: ICP

SDG: VS21

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Aluminum	SA11-6CL	VS21A-L	Soil	IP112671	87309.57		86807.55		0.6	
Barium	SA11-6CL	VS21A-L	Soil	IP112671	783.53		781.55	B	0.3	
Calcium	SA11-6CL	VS21A-L	Soil	IP112671	15391.56		15221.60	B	1.1	
Iron	SA11-6CL	VS21A-L	Soil	IP112671	97796.51		97476.50		0.3	
Magnesium	SA11-6CL	VS21A-L	Soil	IP112671	26102.17		27522.00		5.4	
Manganese	SA11-6CL	VS21A-L	Soil	IP112671	2753.80		2748.90		0.2	
Potassium	SA11-6CL	VS21A-L	Soil	IP112671	5304.77		5200.00	B	2.0	
Sodium	SA11-6CL	VS21A-L	Soil	IP112671	393.49	U	2500.00	U		

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: PMS

SDG: VS21

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Antimony	SA11-6CL	VS21A-L	Soil	MS112711	0.30	B	0.20	B	33.3	
Arsenic	SA11-6CL	VS21A-L	Soil	MS112711	23.26		22.45	B	3.5	
Beryllium	SA11-6CL	VS21A-L	Soil	MS112711	0.68	B	0.65	B	4.4	
Cadmium	SA11-6CL	VS21A-L	Soil	MS112711	6.55		6.95	B	6.1	
Chromium	SA11-6CL	VS21A-L	Soil	MS112711	32.56		33.80	B	3.8	
Cobalt	SA11-6CL	VS21A-L	Soil	MS112711	9.02	B	9.25	B	2.5	
Copper	SA11-6CL	VS21A-L	Soil	MS112711	33.68		32.35	B	3.9	
Lead	SA11-6CL	VS21A-L	Soil	MS112711	118.52		109.95		7.2	
Nickel	SA11-6CL	VS21A-L	Soil	MS112711	23.69	B	22.85	B	3.5	
Selenium	SA11-6CL	VS21A-L	Soil	MS112711	-0.05	U	0.05	B		
Thallium	SA11-6CL	VS21A-L	Soil	MS112711	0.50	B	0.45	B	10.0	
Vanadium	SA11-6CL	VS21A-L	Soil	MS112711	49.01	B	50.10	B	2.2	
Zinc	SA11-6CL	VS21A-L	Soil	MS112711	63.85		63.55	B	0.5	

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: PMS

SDG: VS21

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Silver	SA11-6CL	VS21A-L	Soil	MS112811	0.29	B	0.30	B	3.4	

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21 UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Aluminum	AL	ICP	OPTIMA ICP 2	308.22		200	50.0	4/1/2012	250000.0	7/30/2012
Antimony	SB	PMS	NEXION 300D MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Barium	BA	ICP	OPTIMA ICP 2	455.50		200	3.0	4/1/2012	100000.0	7/30/2012
Beryllium	BE	PMS	NEXION 300D MS	0.00		5	0.2	4/1/2012		
Cadmium	CD	PMS	NEXION 300D MS	0.00		5	0.1	4/1/2012		
Calcium	CA	ICP	OPTIMA ICP 2	317.93		5000	50.0	4/1/2012	500000.0	7/30/2012
Chromium	CR	PMS	NEXION 300D MS	0.00		10	0.5	4/1/2012		
Cobalt	CO	PMS	NEXION 300D MS	0.00		50	0.2	4/1/2012		
Copper	CU	PMS	NEXION 300D MS	0.00		25	0.5	4/1/2012		
Iron	FE	ICP	OPTIMA ICP 2	259.94		100	50.0	4/1/2012	250000.0	7/30/2012
Lead	PB	PMS	NEXION 300D MS	0.00		3	0.1	4/1/2012		
Magnesium	MG	ICP	OPTIMA ICP 2	279.08		5000	50.0	4/1/2012	500000.0	7/30/2012
Manganese	MN	ICP	OPTIMA ICP 2	257.61		15	1.0	4/1/2012	30000.0	7/30/2012
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	4/1/2012		
Nickel	NI	PMS	NEXION 300D MS	0.00		40	0.5	4/1/2012		
Potassium	K	ICP	OPTIMA ICP 2	766.49		5000	500.0	4/1/2012	500000.0	7/30/2012
Selenium	SE	PMS	NEXION 300D MS	0.00		5	0.5	4/1/2012		
Silver	AG	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Sodium	NA	ICP	OPTIMA ICP 2	589.00		5000	500.0	4/1/2012	5000000.0	7/30/2012
Thallium	TL	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Vanadium	V	PMS	NEXION 300D MS	0.00		50	0.2	4/1/2012		
Zinc	ZN	PMS	NEXION 300D MS	0.00		20	4.0	4/1/2012		

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

IEC DATE: 11/12/2012

SDG: VS21

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	9.1050360	0.0000000	0.0000000
Arsenic	188.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0581760	0.0000000	-0.8953680	1.5607750	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1763230	0.0000000	0.0000000	0.1637240
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	6.5458340	0.0000000	0.0000000	0.0000000	0.0000000	0.1152580	0.0000000	0.0000000	0.0095100
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0295099	0.0000000	0.0091790	0.0000000	-0.0348880	0.0000000	0.0000000	-0.0392710
Cobalt	228.62	0.0000000	0.0000000	0.0788170	0.0000000	0.0000000	0.0000000	0.0000000	-0.0346500	0.0000000	0.0130090
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1608400	0.0000000	0.0000000	-0.0442360
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.4437390	0.0000000	0.0000000
Lead	220.35	-0.2393490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1467250	-1.7804540	1.4264890	0.0412430
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.4396410	-1.1694080	0.0000000	0.5321920
Manganese	257.61	0.0046450	0.0000000	0.0000000	0.0000000	0.0019080	0.0000000	0.0000000	0.0000000	0.0000000	-0.0054280
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0108090	0.0000000	0.0000000	0.0540880	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.4883700	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.5902270	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	5.5577350	0.3891400	0.0000000	-0.1069480
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.1236770	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0477260	0.0000000	0.0000000	0.1988470	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-4.2880510	0.0000000	0.0349450
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0645950	0.0000000	0.0000000

VS21-00058

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

IEC DATE: 11/12/2012

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	17.2648390	0.0000000	0.0000000	0.0000000	2.1534780	0.0000000	14.6676620	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	-0.3171320	0.0000000	0.0000000	-1.6488050	0.0000000	-2.7828430	0.0000000
Arsenic	188.98	0.0000000	0.0000000	3.5824010	0.0000000	0.0000000	0.0000000	-28.6279570	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.1006020	0.0000000	0.0000000	0.0000000	0.0000000	0.2160840	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0120420	0.0000000	0.1997240	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.9709640	0.0000000	0.0000000	0.0000000	0.0000000	0.6837900	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0863140	0.0880780	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.3314250	0.0362000
Cobalt	228.62	0.0000000	0.0000000	-0.1203920	0.1624660	0.0000000	0.0000000	1.9337740	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0084630	0.0000000	0.4010840	0.0000000	0.0000000	0.0000000	0.2064430	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	8.4794020	0.0000000
Lead	220.35	0.0000000	0.0000000	-0.4099510	-0.1101090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-5.5537550	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	-0.2086980	0.0000000	0.0000000	0.0000000	-0.0242310	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.5468870	0.0000000	0.4309940	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5703720	0.0000000
Silicon	288.16	-0.1197150	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0400098	0.0000000	-2.8848200	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	-0.8464030	-0.9915990	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	3.4340400	0.0000000
Tin	189.93	0.0000000	0.0000000	0.8648230	0.0000000	-0.0322750	-0.4551870	-0.1436590	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.8648230	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1521530	0.5765370	0.0000000	0.0000000	0.0000000	0.5629710	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2677330	0.0000000	-0.0519400	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 11/23/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA11-6C	VS21A	1.047	0.0	50.0
SA11-6CD	VS21ADUP	1.047	0.0	50.0
SA11-6CS	VS21ASPK	1.046	0.0	50.0
SA11-7C	VS21B	1.049	0.0	50.0
SA11-8C	VS21C	1.092	0.0	50.0
SA11-Field Duplica	VS21D	1.067	0.0	50.0
SA11-8P-1(0 to 3	VS21E	1.057	0.0	50.0
SA11-8P-2(3 to 6	VS21F	1.060	0.0	50.0
SA11-8P-3(6 to 12	VS21G	1.046	0.0	50.0
SA11-8P-4(12 to 24	VS21H	1.024	0.0	50.0
SA11-9C	VS21I	1.039	0.0	50.0
SA12-1C	VS21J	1.023	0.0	50.0
SA12-2C	VS21K	1.011	0.0	50.0
SA12-3C	VS21L	1.087	0.0	50.0
PBS	VS21MB1	1.000	0.0	50.0
LCSS	VS21MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

ANALYSIS METHOD: PMS

ARI PREP CODE: SWN

PREPDATE: 11/23/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA11-6C	VS21A	1.066	0.0	50.0
SA11-6CD	VS21ADUP	1.068	0.0	50.0
SA11-6CS	VS21ASPK	1.069	0.0	50.0
SA11-7C	VS21B	1.009	0.0	50.0
SA11-8C	VS21C	1.087	0.0	50.0
SA11-Field Duplica	VS21D	1.079	0.0	50.0
SA11-8P-1(0 to 3	VS21E	1.040	0.0	50.0
SA11-8P-2(3 to 6	VS21F	1.087	0.0	50.0
SA11-8P-3(6 to 12	VS21G	1.044	0.0	50.0
SA11-8P-4(12 to 24	VS21H	1.039	0.0	50.0
SA11-9C	VS21I	1.027	0.0	50.0
SA12-1C	VS21J	1.090	0.0	50.0
SA12-2C	VS21K	1.093	0.0	50.0
SA12-3C	VS21L	1.074	0.0	50.0
PBS	VS21MB1	1.000	0.0	50.0
LCSS	VS21MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 11/23/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA11-6C	VS21A	0.715	0.0	50.0
SA11-6CD	VS21ADUP	0.712	0.0	50.0
SA11-6CS	VS21ASPK	0.717	0.0	50.0
SA11-7C	VS21B	0.726	0.0	50.0
SA11-8C	VS21C	0.721	0.0	50.0
SA11-Field Duplica	VS21D	0.743	0.0	50.0
SA11-8P-1(0 to 3	VS21E	0.716	0.0	50.0
SA11-8P-2(3 to 6	VS21F	0.703	0.0	50.0
SA11-8P-3(6 to 12	VS21G	0.746	0.0	50.0
SA11-8P-4(12 to 24	VS21H	0.732	0.0	50.0
SA11-9C	VS21I	0.728	0.0	50.0
SA12-1C	VS21J	0.712	0.0	50.0
SA12-2C	VS21K	0.740	0.0	50.0
SA12-3C	VS21L	0.706	0.0	50.0
PBS	VS21MB1	0.700	0.0	50.0
LCSW	VS21MB1SPK	0.700	0.0	50.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia   INSTRUMENT ID: OPTIMA ICP 2   START DATE: 11/26/2012

SDG: VS21   RUNID: IP112671   METHOD: ICP   END DATE: 11/26/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	11143			X			X		X					X		X	X	X		X											
S2	S2	1.00	11184						X											X													
S3	S3	1.00	11203																														
S4	S4	1.00	11225																														
S5	S5	1.00	11250			X					X					X		X	X			X											
S0	S0	1.00	11410			X			X		X					X		X	X	X		X											
S2	S2	1.00	11445						X											X													
S2	S2	1.00	12351						X											X													
ZZZZZZ	ZZZZZZ	1.00	12385																														
S4	S4	1.00	12485																														
S5	S5	1.00	12505			X					X					X		X	X			X											
ICV	ICV	1.00	12530			X			X		X					X		X	X	X		X											
ICB	ICB	1.00	12571			X			X		X					X		X	X	X		X											
CRI	CRII	1.00	13012			X			X		X					X		X	X	X		X											
ICSA	ICSAI	1.00	13054			X			X		X					X		X	X	X		X											
ICSAB	ICSABI	1.00	13095			X			X		X					X		X	X	X		X											
ZZZZZZ	HiPurQC7M	1.00	13150																														
ZZZZZZ	SPEXQC21	1.00	13192																														
ZZZZZZ	DICHECK	1.00	13233																														
CCV	CCV1	1.00	13275			X			X		X					X		X	X	X		X											
CCB	CCB1	1.00	13315			X			X		X					X		X	X	X		X											
PBS	VS21MB1	2.00	13361			X			X		X					X		X	X	X		X											
ZZZZZZ	VS20E	5.00	13402																														
SA11-7C	VS21B	5.00	13442			X			X		X					X		X	X	X		X											
SA11-8C	VS21C	5.00	13482			X			X		X					X		X	X	X		X											
SA11-6CL	VS21A-L	25.00	13522			X			X		X					X		X	X	X		X											
SA11-6C	VS21A	5.00	13562			X			X		X					X		X	X	X		X											
SA11-6CD	VS21ADUP	5.00	14002			X			X		X					X		X	X	X		X											
SA11-6CS	VS21ASPK	5.00	14042			X			X		X					X		X	X	X		X											
ZZZZZZ	ZZZZZZ	5.00	14081																														
LCSS	VS21MB1SPK	2.00	14112			X			X		X					X		X	X	X		X											
CCV	CCV2	1.00	14152			X			X		X					X		X	X	X		X											
CCB	CCB2	1.00	14193			X			X		X					X		X	X	X		X											
SA11-Field Duplica	VS21D	5.00	14234			X			X		X					X		X	X	X		X											
SA11-8P-1(0 to 3	VS21E	5.00	14274			X			X		X					X		X	X	X		X											

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/26/2012

SDG: VS21 | RUNID: IP112671 | METHOD: ICP | END DATE: 11/26/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
SA11-8P-2(3 to 6	VS21F	5.00	14314			X			X		X					X		X	X	X		X											
SA11-8P-3(6 to 12	VS21G	5.00	14354			X			X		X					X		X	X	X		X											
SA11-8P-4(12 to 24	VS21H	5.00	14394			X			X		X					X		X	X	X		X											
SA11-9C	VS21I	5.00	14434			X			X		X					X		X	X	X		X											
SA12-1C	VS21J	5.00	14474			X			X		X					X		X	X	X		X											
SA12-2C	VS21K	5.00	14514			X			X		X					X		X	X	X		X											
SA12-3C	VS21L	5.00	14554			X			X		X					X		X	X	X		X											
CCV	CCV3	1.00	14594			X			X		X					X		X	X	X		X											
CCB	CCB3	1.00	15035			X			X		X					X		X	X	X		X											
CCB	CCB4	1.00	15084			X			X		X					X		X	X	X		X											
CRI	CRIF	1.00	15125			X			X		X					X		X	X	X		X											
ICSA	ICSAF	1.00	15171			X			X		X					X		X	X	X		X											
ICSAB	ICSABF	1.00	15213			X			X		X					X		X	X	X		X											
CCV	CCV4	1.00	15251			X			X		X					X		X	X	X		X											
CCB	CCB5	1.00	15292			X			X		X					X		X	X	X		X											

VS21 : 06656

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/26/2012

SDG: VS21 | RUNID: MS112611 METHOD: PMS | END DATE: 11/26/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	10030				X			X		X	X	X	X								X	X	X	X				X		X	X
S1	S1	1.00	10070				X			X		X	X	X	X								X	X	X	X				X		X	X
S2	S2	1.00	10110				X			X		X	X	X	X								X	X	X	X				X		X	X
S3	S3	1.00	10150				X			X		X	X	X	X								X	X	X	X				X		X	X
S4	S4	1.00	10200				X			X		X	X	X	X								X	X	X	X				X		X	X
S5	S5	1.00	10260																														
ZZZZZZ	Rinse sampl	1.00	10330																														
ICV	MICV	1.00	10430				X			X		X	X	X	X								X	X	X	X				X		X	X
ICB	ICB	1.00	10500				X			X		X	X	X	X								X	X	X	X				X		X	X
CCV	MCCV1	1.00	10540				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB1	1.00	11010				X			X		X	X	X	X								X	X	X	X				X		X	X
CRI	MCRI	1.00	11050				X			X		X	X	X	X								X	X	X	X				X		X	X
ICSA	ICSAI	1.00	11090				X			X		X	X	X	X								X	X	X	X				X		X	X
ICSAB	ICSABI	1.00	11160				X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	LR200	1.00	11220																														
ZZZZZZ	LR300	1.00	11290																														
ZZZZZZ	B1	1.00	11360																														
ZZZZZZ	B2	1.00	11420																														
ZZZZZZ	ERA P197	10.00	11480																														
ZZZZZZ	B3	1.00	11530																														
CCV	MCCV2	1.00	11570				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB2	1.00	12040				X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS19MB1	20.00	12110																														
ZZZZZZ	VS19MB1SPK	20.00	12150																														
ZZZZZZ	VS18J	20.00	12190																														
ZZZZZZ	VS18K	20.00	12230																														
ZZZZZZ	VS18L	20.00	12280																														
ZZZZZZ	VS19B	100.00	12320																														
ZZZZZZ	VS19B	20.00	12360																														
ZZZZZZ	VS19C	100.00	12400																														
ZZZZZZ	VS19C	20.00	12450																														
ZZZZZZ	VS19D	20.00	12490																														
CCV	MCCV3	1.00	12530				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB3	1.00	13000				X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS19A-L	100.00	13080																														

FORM XIV

VS21 : 9955

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/26/2012

SDG: VS21 | RUNID: MS112611 | METHOD: PMS | END DATE: 11/26/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	VS19A	20.00	13120																														
ZZZZZZ	VS19ADUP	20.00	13160																														
ZZZZZZ	VS19ASPK	20.00	13200																														
ZZZZZZ	VS19D	100.00	13240																														
ZZZZZZ	VS19E	100.00	13280																														
ZZZZZZ	VS19F	20.00	13340																														
ZZZZZZ	VS19G	20.00	13380																														
ZZZZZZ	VS19H	20.00	13420																														
ZZZZZZ	VS19I	20.00	13460																														
CCV	MCCV4	1.00	13500				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB4	1.00	13570				X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS19A-L	500.00	14020																														
ZZZZZZ	VS19A	100.00	14060																														
ZZZZZZ	VS19ADUP	100.00	14100																														
ZZZZZZ	VS19ASPK	100.00	14140																														
ZZZZZZ	VS19J	100.00	14180																														
ZZZZZZ	VS19L	100.00	14220																														
ZZZZZZ	VS19E	20.00	14260																														
ZZZZZZ	VS19K	20.00	14310																														
ZZZZZZ	VS19J	20.00	14360																														
ZZZZZZ	VS19L	20.00	14400																														
CCV	MCCV5	1.00	14440				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB5	1.00	14510				X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS20MB1	20.00	15160																														
ZZZZZZ	VS20MB1SPK	20.00	15200																														
ZZZZZZ	VS19K	100.00	15240																														
ZZZZZZ	VS20B	20.00	15280																														
ZZZZZZ	VS20C	20.00	15320																														
ZZZZZZ	VS20D	20.00	15360																														
ZZZZZZ	VS20E	20.00	15400																														
ZZZZZZ	VS20G	20.00	15450																														
ZZZZZZ	VS20H	20.00	15500																														
ZZZZZZ	VS20I	20.00	15540																														
CCV	MCCV6	1.00	15580				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB6	1.00	16050				X			X		X	X	X	X								X	X	X	X				X		X	X

VS21_0005

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/26/2012

SDG: VS21 | RUNID: MS112611 | METHOD: PMS | END DATE: 11/26/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	16110				X			X		X	X	X	X								X	X	X	X				X		X	X
CCV	MCCV7	1.00	16150				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB7	1.00	16220				X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS20A-L	100.00	16270																														
ZZZZZZ	VS20A	20.00	16310																														
ZZZZZZ	VS20ADUP	20.00	16350																														
ZZZZZZ	VS20ASPK	20.00	16390																														
ZZZZZZ	VS20J	20.00	16440																														
ZZZZZZ	VS20K	20.00	16480																														
ZZZZZZ	VS20L	20.00	16520																														
ZZZZZZ	VS20F	20.00	16560																														
ZZZZZZ	VS20F	100.00	17010																														
ZZZZZZ	VS20B	100.00	17050																														
CCV	MCCV8	1.00	17090				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB8	1.00	17160				X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS20A-L	500.00	17230																														
ZZZZZZ	VS20A	100.00	17270																														
ZZZZZZ	VS20ADUP	100.00	17310																														
ZZZZZZ	VS20ASPK	100.00	17350																														
ZZZZZZ	VS20C	100.00	17390																														
ZZZZZZ	VS20D	100.00	17430																														
ZZZZZZ	VS20E	100.00	17470																														
ZZZZZZ	VS20G	100.00	17510																														
ZZZZZZ	VS20K	100.00	17570																														
ZZZZZZ	VS20L	100.00	18010																														
CCV	MCCV9	1.00	18050				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB9	1.00	18120				X			X		X	X	X	X								X	X	X	X				X		X	X
LCSS	VS21MB1SPK	20.00	18190				X			X		X	X	X	X								X	X	X	X				X		X	X
PBS	VS21MB1	20.00	18240				X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	ZZZZZZ	100.00	18280																														
SA11-6CS	VS21ASPK	20.00	18320																														
SA11-6CD	VS21ADUP	20.00	18360																														
SA11-6C	VS21A	20.00	18400																														
ZZZZZZ	ZZZZZZ	20.00	18440																														
SA11-7C	VS21B	20.00	18480				X			X		X	X	X	X								X		X	X				X		X	

FORM XIV

VS21 0957

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/26/2012

SDG: VS21 | RUNID: MS112611 METHOD: PMS | END DATE: 11/26/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
SA11-8C	VS21C	20.00	18540				X			X		X	X	X	X								X	X	X	X				X		X	X
SA11-Field Duplica	VS21D	20.00	18580				X			X		X	X	X	X								X		X	X				X		X	
CCV	MCCV10	1.00	19020				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB10	1.00	19090				X			X		X	X	X	X								X	X	X	X				X		X	X
S0	S0	1.00	19150				X			X		X	X	X	X								X	X	X	X				X		X	X
CCV	MCCV11	1.00	19190				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB11	1.00	19260				X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR88J	5.00	19310																														
ZZZZZZ	VR88MB2SPK	2.00	19350																														
SA11-8P-1(0 to 3	VS21E	20.00	19390				X			X		X	X	X	X								X	X	X	X				X		X	
SA11-8P-2(3 to 6	VS21F	20.00	19430				X			X		X	X	X	X								X	X	X	X				X		X	X
SA11-8P-3(6 to 12	VS21G	20.00	19480				X			X		X			X								X	X	X	X				X			X
SA11-8P-4(12 to 24	VS21H	20.00	19520				X			X		X			X								X	X	X	X				X			X
SA11-9C	VS21I	20.00	19560				X			X		X	X	X	X								X		X	X				X		X	
SA12-1C	VS21J	20.00	20000				X			X		X			X								X	X	X	X				X			
SA12-2C	VS21K	20.00	20050				X			X		X	X	X	X								X	X	X	X				X		X	X
SA12-3C	VS21L	20.00	20090				X			X		X	X	X	X								X	X	X	X				X		X	X
CCV	MCCV12	1.00	20130				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB12	1.00	20200				X			X		X	X	X	X								X	X	X	X				X		X	X

VS21 : 09568

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/27/2012

SDG: VS21 | RUNID: MS112711 METHOD: PMS | END DATE: 11/27/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	11110				X			X		X	X	X	X								X	X	X	X				X		X	X
S1	S1	1.00	11160				X			X		X	X	X	X								X	X	X	X				X		X	X
S2	S2	1.00	11200				X			X		X	X	X	X								X	X	X	X				X		X	X
S3	S3	1.00	11240				X			X		X	X	X	X								X	X	X	X				X		X	X
S4	S4	1.00	11290				X			X		X	X	X	X								X	X	X	X				X		X	X
S5	S5	1.00	11350																														
ZZZZZZ	Rinse sampl	1.00	11420																														
S0	S0	1.00	11570				X			X		X	X	X	X								X	X	X	X				X		X	X
ICV	MICV	1.00	12010				X			X		X	X	X	X								X	X	X	X				X		X	X
ICB	ICB	1.00	12080				X			X		X	X	X	X								X	X	X	X				X		X	X
CCV	MCCV1	1.00	12180				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB1	1.00	12250				X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	ZZZZZZ	1.00	12290																														
ICSA	ICSAI	1.00	12330				X			X		X	X	X	X								X	X	X	X				X		X	X
ICSAB	ICSABI	1.00	12400				X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	LR200	1.00	12460																														
ZZZZZZ	LR300	1.00	12530																														
ZZZZZZ	B1	1.00	13000																														
ZZZZZZ	B2	1.00	13060																														
ZZZZZZ	B3	1.00	13120																														
CCV	MCCV2	1.00	13160				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB2	1.00	13230				X			X		X	X	X	X								X	X	X	X				X		X	X
S0	S0	1.00	13310				X			X		X	X	X	X								X	X	X	X				X		X	X
CCV	MCCV3	1.00	13360				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB3	1.00	13420				X			X		X	X	X	X								X	X	X	X				X		X	X
CRI	MCRI	1.00	14040				X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS17MB1	2.00	14090																														
ZZZZZZ	VS17MB1SPK	2.00	14130																														
ZZZZZZ	VS17MB2SPK	2.00	14170																														
ZZZZZZ	VS17ADUP	2.00	14210																														
ZZZZZZ	VS17A	2.00	14250																														
ZZZZZZ	VS17ASPK	2.00	14290																														
ZZZZZZ	VS17EDUP	2.00	14330																														
ZZZZZZ	VS17E	2.00	14390																														
ZZZZZZ	VS17ESPK	2.00	14430																														

FORM XIV

VS21 0095

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/27/2012

SDG: VS21 | RUNID: MS112711 METHOD: PMS | END DATE: 11/27/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
CCV	MCCV4	1.00	14470				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB4	1.00	14540				X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS17MB2	2.00	15060																														
ZZZZZZ	VS17B	2.00	15100																														
ZZZZZZ	VS17C	2.00	15140																														
ZZZZZZ	VS17D	2.00	15180																														
ZZZZZZ	VS17F	2.00	15220																														
ZZZZZZ	VS17G	2.00	15260																														
ZZZZZZ	VS17H	2.00	15320																														
ZZZZZZ	VT58D	100.00	15360																														
ZZZZZZ	VT58E	100.00	15400																														
ZZZZZZ	VT58F	100.00	15440																														
CCV	MCCV5	1.00	15480				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB5	1.00	15550				X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS20MB1	20.00	16020																														
ZZZZZZ	VS20MB1SPK	20.00	16070																														
ZZZZZZ	VS20B	20.00	16110																														
ZZZZZZ	VS20C	20.00	16150																														
ZZZZZZ	VS20D	20.00	16190																														
ZZZZZZ	VS20D	500.00	16230																														
ZZZZZZ	VS20E	20.00	16270																														
ZZZZZZ	VS20G	20.00	16310																														
ZZZZZZ	VS20H	20.00	16360																														
ZZZZZZ	VS20I	20.00	16410																														
CCV	MCCV6	1.00	16450				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB6	1.00	16520				X			X		X	X	X	X								X	X	X	X				X		X	X
SA11-6CL	VS21A-L	500.00	17090																					X									X
SA11-6C	VS21A	100.00	17130																					X									X
SA11-6CD	VS21ADUP	100.00	17170																					X									X
SA11-6CS	VS21ASPK	100.00	17210																					X									X
ZZZZZZ	ZZZZZZ	100.00	17250																														
SA11-7C	VS21B	200.00	17290																					X									X
SA11-Field Duplica	VS21D	100.00	17330																					X									X
SA11-8P-1(0 to 3	VS21E	100.00	17370																														X
SA11-8P-3(6 to 12	VS21G	50.00	17430										X	X																		X	

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/27/2012

SDG: VS21 | RUNID: MS112711 METHOD: PMS | END DATE: 11/27/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
SA11-8P-4(12 to 24	VS21H	50.00	17470										X	X																		X	
CCV	MCCV7	1.00	17510				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB7	1.00	17580				X			X		X	X	X	X								X	X	X	X				X		X	X
SA11-9C	VS21I	100.00	18020																					X									X
SA12-1C	VS21J	50.00	18060										X	X																		X	X
SA12-1C	VS21J	100.00	18100																														
ZZZZZZ	VR82C	20.00	18140																														
ZZZZZZ	VR82D	20.00	18180																														
ZZZZZZ	VR82E	20.00	18220																														
ZZZZZZ	VR82F	20.00	18270																														
ZZZZZZ	VR82G	20.00	18310																														
ZZZZZZ	VR82H	20.00	18360																														
ZZZZZZ	VR82I	20.00	18400																														
CCV	MCCV8	1.00	18440				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB8	1.00	18510				X			X		X	X	X	X								X	X	X	X				X		X	X
PBS	VS21MB1	20.00	18550																														
LCSS	VS21MB1SPK	20.00	18590																														
SA11-6CL	VS21A-L	100.00	19030				X			X		X	X	X	X								X		X	X				X		X	
SA11-6C	VS21A	20.00	19080				X			X		X	X	X	X								X		X	X				X		X	
SA11-6CD	VS21ADUP	20.00	19120				X			X		X	X	X	X								X		X	X				X		X	
SA11-6CS	VS21ASPK	20.00	19160				X			X		X	X	X	X								X		X	X				X		X	
SA11-6CA	VS21APOST	20.00	19200																						X								
SA11-7C	VS21B	20.00	19240																														
SA11-8C	VS21C	20.00	19290																														
SA11-Field Duplica	VS21D	20.00	19330																														
CCV	MCCV9	1.00	19380				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB9	1.00	19440				X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VR88MB2SPK	2.00	19490																														
ZZZZZZ	VR88J	5.00	19530																														
SA11-8P-1(0 to 3	VS21E	20.00	19570																														
SA11-8P-2(3 to 6	VS21F	20.00	20010																														
SA11-8P-3(6 to 12	VS21G	20.00	20050																														
SA11-8P-4(12 to 24	VS21H	20.00	20090																														
SA11-9C	VS21I	20.00	20130																														
SA12-1C	VS21J	20.00	20170																														

VS21 9027.1

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/27/2012

SDG: VS21 | RUNID: MS112711 METHOD: PMS | END DATE: 11/27/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
SA12-2C	VS21K	20.00	20230																														
SA12-3C	VS21L	20.00	20270																														
CCV	MCCV10	1.00	20310				X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB10	1.00	20380				X			X		X	X	X	X								X	X	X	X				X		X	X

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

INSTRUMENT ID: NEXION 300D MS

RUNID: MS112811 METHOD: PMS

START DATE: 11/28/2012

END DATE: 11/28/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09160		X																												
S1	S1	1.00	09200		X																												
S2	S2	1.00	09240		X																												
S3	S3	1.00	09280		X																												
S4	S4	1.00	09330		X																												
S5	S5	1.00	09390																														
ZZZZZZ	Rinse sampl	1.00	09460																														
ICV	MICV	1.00	10010		X																												
ICB	ICB	1.00	10080		X																												
CCV	MCCV1	1.00	10120		X																												
CCB	CCB1	1.00	10190		X																												
CRI	MCRI	1.00	10230		X																												
ICSA	ICSAI	1.00	10270		X																												
ICSAB	ICSABI	1.00	10340		X																												
ZZZZZZ	LR200	1.00	10410																														
ZZZZZZ	LR300	1.00	10470																														
ZZZZZZ	B1	1.00	10540																														
ZZZZZZ	B2	1.00	11000																														
ZZZZZZ	B3	1.00	11060																														
CCV	MCCV2	1.00	11100		X																												
CCB	CCB2	1.00	11170		X																												
ZZZZZZ	VT84MB1	2.00	11350																														
ZZZZZZ	VT84MB2	2.00	11390																														
ZZZZZZ	VT84MB2SPK	2.00	11430																														
ZZZZZZ	VT84MB1SPK	2.00	11470																														
ZZZZZZ	VT84A	2.00	11510																														
ZZZZZZ	VT84B	2.00	11550																														
CCV	MCCV3	1.00	12060		X																												
CCB	CCB3	1.00	12130		X																												
ZZZZZZ	VS20MB1	20.00	12220																														
ZZZZZZ	VS20MB1SPK	20.00	12260																														
ZZZZZZ	VR88MB2SPK	2.00	12310																														
ZZZZZZ	VR88J	5.00	12360																														
ZZZZZZ	VS20B	20.00	12400																														
ZZZZZZ	VS20C	20.00	12440																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS21

INSTRUMENT ID: NEXION 300D MS

RUNID: MS112811 METHOD: PMS

START DATE: 11/28/2012

END DATE: 11/28/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	VS20D	20.00	12480																														
ZZZZZZ	VS20E	20.00	12520																														
ZZZZZZ	VS20G	20.00	12560																														
ZZZZZZ	VS20H	20.00	13000																														
CCV	MCCV4	1.00	13050		X																												
CCB	CCB4	1.00	13120		X																												
PBS	VS21MB1	20.00	13220		X																												
LCSS	VS21MB1SPK	20.00	13260		X																												
SA11-6CL	VS21A-L	100.00	13300		X																												
SA11-6C	VS21A	20.00	13340		X																												
SA11-6CD	VS21ADUP	20.00	13380		X																												
SA11-6CS	VS21ASPK	20.00	13420		X																												
ZZZZZZ	ZZZZZZ	20.00	13470																														
SA11-7C	VS21B	20.00	13510																														
ZZZZZZ	VS20I	20.00	13550																														
ZZZZZZ	VS20D	100.00	13590																														
CCV	MCCV5	1.00	14030		X																												
CCB	CCB5	1.00	14100		X																												
SA11-8C	VS21C	20.00	14170		X																												
SA11-Field Duplica	VS21D	20.00	14210		X																												
SA11-8P-1(0 to 3	VS21E	20.00	14260		X																												
SA11-8P-2(3 to 6	VS21F	20.00	14300		X																												
SA11-8P-3(6 to 12	VS21G	20.00	14340		X																												
SA11-8P-4(12 to 24	VS21H	20.00	14390		X																												
SA11-9C	VS21I	20.00	14430		X																												
SA12-1C	VS21J	20.00	14470		X																												
SA12-2C	VS21K	20.00	14510		X																												
SA12-3C	VS21L	20.00	14550		X																												
CCV	MCCV6	1.00	14590		X																												
CCB	CCB6	1.00	15060		X																												
ZZZZZZ	VS22MB1	20.00	15130																														
ZZZZZZ	VS22MB1SPK	20.00	15180																														
ZZZZZZ	VS22A-L	100.00	15230																														
ZZZZZZ	VS22A	20.00	15270																														
ZZZZZZ	VS22ADUP	20.00	15310																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia INSTRUMENT ID: NEXION 300D MS START DATE: 11/28/2012

SDG: VS21 RUNID: MS112811 METHOD: PMS END DATE: 11/28/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	VS22ASPK	20.00	15350																														
ZZZZZZ	VS22APOST	20.00	15390																														
ZZZZZZ	VS22B	20.00	15430																														
ZZZZZZ	VS22C	20.00	15470																														
SA11-7C	VS21B	100.00	15520		X																												
CCV	MCCV7	1.00	15560		X																												
CCB	CCB7	1.00	16030		X																												

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/23/2012

SDG: VS21 | RUNID: HG112301 METHOD: CVA | END DATE: 11/23/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	11280														X																
S0.1	S0.1	1.00	11293														X																
S0.5	S0.5	1.00	11311														X																
S1	S1	1.00	11325														X																
S2	S2	1.00	11343														X																
S5	S5	1.00	11360														X																
S10	S10	1.00	11374														X																
ICV	AICV	1.00	11412														X																
ICB	ICB	1.00	11430														X																
CCV	ACCV1	1.00	11443														X																
CCB	CCB1	1.00	11461														X																
CRA	CRA	1.00	11475														X																
ZZZZZZ	VS96MB1	1.00	11493																														
ZZZZZZ	VS96MB1SPK	1.00	11510																														
ZZZZZZ	VS96A	1.00	11524																														
ZZZZZZ	VS96ADUP	1.00	11542																														
ZZZZZZ	VS96ASPK	1.00	11555																														
ZZZZZZ	VS96B	1.00	11573																														
ZZZZZZ	VS96C	1.00	11591																														
ZZZZZZ	VS96D	1.00	12004																														
ZZZZZZ	VS96E	1.00	12022																														
CCV	ACCV2	1.00	12040														X																
CCB	CCB2	1.00	12054														X																
ZZZZZZ	VS96F	1.00	12072																														
ZZZZZZ	VS96G	1.00	12085																														
ZZZZZZ	VS96H	1.00	12103																														
ZZZZZZ	VS96I	1.00	12121																														
ZZZZZZ	VS96J	1.00	12134																														
ZZZZZZ	VS96K	1.00	12152																														
ZZZZZZ	VS96L	1.00	12165																														
ZZZZZZ	VS96M	1.00	12183																														
ZZZZZZ	VS96N	1.00	12201																														
ZZZZZZ	VS96O	1.00	12215																														
CCV	ACCV3	1.00	12233														X																
CCB	CCB3	1.00	12251														X																

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/23/2012

SDG: VS21 | RUNID: HG112301 METHOD: CVA | END DATE: 11/23/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	VS96P	1.00	12265																														
ZZZZZZ	VS96Q	1.00	12282																														
ZZZZZZ	VS96R	1.00	12300																														
ZZZZZZ	VS96S	1.00	12314																														
ZZZZZZ	VS96T	1.00	12331																														
CCV	ACCV4	1.00	12345														X																
CCB	CCB4	1.00	12363														X																
ZZZZZZ	VT06MB1	1.00	12461																														
ZZZZZZ	VT06MB1SPK	1.00	12474																														
ZZZZZZ	VT06D	1.00	12492																														
ZZZZZZ	VT06DDUP	1.00	12505																														
ZZZZZZ	VT06DSPK	1.00	12523																														
ZZZZZZ	VT06E	1.00	12540																														
ZZZZZZ	VT06F	1.00	12554																														
ZZZZZZ	VT06G	1.00	12572																														
ZZZZZZ	VT06H	1.00	12585																														
CCV	ACCV5	1.00	13003														X																
CCB	CCB5	1.00	13021														X																
ZZZZZZ	VT06I	1.00	13035																														
ZZZZZZ	VS20MB1	1.00	13053																														
ZZZZZZ	VS20MB1SPK	1.00	13071																														
ZZZZZZ	VS20A	1.00	13084																														
ZZZZZZ	VS20ADUP	1.00	13102																														
ZZZZZZ	VS20ASPK	1.00	13120																														
ZZZZZZ	VS20B	1.00	13133																														
ZZZZZZ	VS20C	1.00	13151																														
ZZZZZZ	VS20D	1.00	13164																														
ZZZZZZ	VS20E	1.00	13182																														
CCV	ACCV6	1.00	13200														X																
CCB	CCB6	1.00	13214														X																
ZZZZZZ	VS20F	1.00	13232																														
ZZZZZZ	VS20G	1.00	13250																														
ZZZZZZ	VS20H	1.00	13263																														
ZZZZZZ	VS20I	1.00	13281																														
ZZZZZZ	VS20J	1.00	13295																														

FORM XIV

VS21.0017

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/23/2012

SDG: VS21 | RUNID: HG112301 | METHOD: CVA | END DATE: 11/23/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	VS20K	1.00	13313																														
ZZZZZZ	VS20L	1.00	13330																														
CCV	ACCV7	1.00	13344														X																
CCB	CCB7	1.00	13362														X																
ZZZZZZ	VS82MB1	1.00	13395																														
ZZZZZZ	VS82MB1SPK	1.00	13413																														
ZZZZZZ	VS82A	1.00	13430																														
ZZZZZZ	VS82B	1.00	13444																														
ZZZZZZ	VS82C	1.00	13461																														
ZZZZZZ	VS82CDUP	1.00	13475																														
ZZZZZZ	VS82CSPK	1.00	13492																														
ZZZZZZ	VS82D	1.00	13510																														
ZZZZZZ	VS82E	1.00	13524																														
ZZZZZZ	VS82F	1.00	13541																														
CCV	ACCV8	1.00	13555														X																
CCB	CCB8	1.00	13573														X																
ZZZZZZ	VS82G	1.00	13591																														
ZZZZZZ	VS82H	1.00	14005																														
ZZZZZZ	VS82I	1.00	14023																														
ZZZZZZ	VS82J	1.00	14040																														
ZZZZZZ	VS82K	1.00	14054																														
ZZZZZZ	VS82L	1.00	14071																														
ZZZZZZ	VS82M	1.00	14085																														
ZZZZZZ	VS19MB1	1.00	14103																														
ZZZZZZ	VS19MB1SPK	1.00	14120																														
ZZZZZZ	VS19A	1.00	14134																														
CCV	ACCV9	1.00	14152														X																
CCB	CCB9	1.00	14170														X																
ZZZZZZ	VS19ADUP	1.00	14184																														
ZZZZZZ	VS19ASPK	1.00	14202																														
ZZZZZZ	VS19B	1.00	14215																														
ZZZZZZ	VS19C	1.00	14233																														
ZZZZZZ	VS19D	1.00	14251																														
ZZZZZZ	VS19E	1.00	14265																														
ZZZZZZ	VS19F	1.00	14282																														

FORM XIV

VS21.0078

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/23/2012

SDG: VS21 | RUNID: HG112301 METHOD: CVA | END DATE: 11/23/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	VS19G	1.00	14300																														
ZZZZZZ	VS19H	1.00	14313																														
ZZZZZZ	VS19I	1.00	14331																														
CCV	ACCV10	1.00	14345														X																
CCB	CCB10	1.00	14363														X																
ZZZZZZ	VS19J	1.00	14381																														
ZZZZZZ	VS19K	1.00	14395																														
ZZZZZZ	VS19L	1.00	14412																														
CCV	ACCV11	1.00	14430														X																
CCB	CCB11	1.00	14444														X																
PBW	VS21MB1	1.00	14553														X																
LCSW	VS21MB1SPK	1.00	14570														X																
SA11-6C	VS21A	1.00	14584														X																
SA11-6CD	VS21ADUP	1.00	15001														X																
SA11-6CS	VS21ASPK	1.00	15015														X																
SA11-7C	VS21B	1.00	15032														X																
SA11-8C	VS21C	1.00	15050														X																
SA11-Field Duplica	VS21D	1.00	15064														X																
SA11-8P-1(0 to 3	VS21E	1.00	15081														X																
SA11-8P-2(3 to 6	VS21F	1.00	15095														X																
CCV	ACCV12	1.00	15113														X																
CCB	CCB12	1.00	15131														X																
SA11-8P-3(6 to 12	VS21G	1.00	15145														X																
SA11-8P-4(12 to 24	VS21H	1.00	15163														X																
SA11-9C	VS21I	1.00	15180														X																
SA12-1C	VS21J	1.00	15194														X																
SA12-2C	VS21K	1.00	15211														X																
SA12-3C	VS21L	1.00	15225														X																
CCV	ACCV13	1.00	15243														X																
CCB	CCB13	1.00	15261														X																

General Chemistry Analysis
Report and Summary QC Forms

ARI Job ID: VS21

SAMPLE RESULTS-CONVENTIONALS
VS21-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/06/12
Date Received: 11/12/12

Client ID: SA11-6C
ARI ID: 12-22689 VS21A

Analyte	Date	Method	Units	RL	Sample
pH	11/20/12 112012#1	SW9045	std units	0.01	5.54
Total Solids	11/19/12 111912#1	SM2540B	Percent	0.01	97.60
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.020	6.23

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS21-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/06/12
Date Received: 11/12/12

Client ID: SA11-7C
ARI ID: 12-22690 VS21B

Analyte	Date	Method	Units	RL	Sample
pH	11/20/12 112012#1	SW9045	std units	0.01	5.16
Total Solids	11/19/12 111912#1	SM2540B	Percent	0.01	89.30
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.196	23.4

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS21-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Client ID: SA11-8C
ARI ID: 12-22691 VS21C

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.27
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	97.20
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.020	1.99

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS21-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Client ID: SA11-Field Duplicate
ARI ID: 12-22692 VS21D

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.41
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	96.00
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.020	3.20

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS21-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Client ID: SA11-8P-1(0 to 3" depth)
ARI ID: 12-22693 VS21E

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.62
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	96.40
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.020	2.78

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS21-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Client ID: SA11-8P-2(3 to 6" depth)
ARI ID: 12-22694 VS21F

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.68
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	97.60
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.020	1.27

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS21-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Client ID: SA11-8P-3(6 to 12" depth)
ARI ID: 12-22695 VS21G

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.95
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	98.20
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.020	0.599

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS21-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Client ID: SA11-8P-4(12 to 24" depth)
ARI ID: 12-22696 VS21H

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.98
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	95.00
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.020	0.453

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS21-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/08/12
Date Received: 11/12/12

Client ID: SA11-9C
ARI ID: 12-22697 VS21I

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.90
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	97.20
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.198	8.29

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS21-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Client ID: SA12-1C
ARI ID: 12-22698 VS21J

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.06
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	97.20
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.020	3.21

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS21-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA12-2C
ARI ID: 12-22699 VS21K

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.08
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	94.80
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.020	4.47

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS21-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA12-3C
ARI ID: 12-22700 VS21L

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.89
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	97.00
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.186	10.6

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

METHOD BLANK RESULTS-CONVENTIONALS
VS21-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	11/19/12	Percent	< 0.01 U
	11/20/12		< 0.01 U
Total Organic Carbon	11/29/12	Percent	< 0.020 U

MS/MSD RESULTS-CONVENTIONALS
VS21-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/06/12
Date Received: 11/12/12

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: VS21A Client ID: SA11-6C						
Total Organic Carbon	11/29/12	Percent	6.23	9.15	2.58	113.1%
ARI ID: VS21C Client ID: SA11-8C						
Total Organic Carbon	11/29/12	Percent	1.99	5.06	2.89	106.0%

REPLICATE RESULTS-CONVENTIONALS
VS21-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/06/12
Date Received: 11/12/12

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: VS21A Client ID: SA11-6C					
pH	11/20/12	std units	5.54	5.44	0.10
Total Solids	11/19/12	Percent	97.60	97.40 97.50	0.1%
Total Organic Carbon	11/29/12	Percent	6.23	5.18 3.76	24.5%
ARI ID: VS21C Client ID: SA11-8C					
pH	11/21/12	std units	5.27	5.29	0.02
Total Solids	11/20/12	Percent	97.20	97.10 97.20	0.1%
Total Organic Carbon	11/29/12	Percent	1.99	2.11 1.95	4.1%

pH is evaluated as the Absolute Difference between the values rather than Relative Percent Difference

LAB CONTROL RESULTS-CONVENTIONALS
VS21-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
pH	ICVL	11/20/12	std units	6.97	7.00	0.03
SW9045	ICVL	11/21/12		6.97	7.00	0.03
Total Organic Carbon Plumb,1981	ICVL	11/29/12	Percent	0.100	0.100	100.0%

pH is evaluated as the Absolute Difference between the values rather than Percent Recovery.

STANDARD REFERENCE RESULTS-CONVENTIONALS
VS21-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Organic Carbon NIST 1941B	11/29/12	Percent	2.48	2.99	82.9%

Total Solids

ARI Job ID: VS21

Solids Data Entry Report Checked by: CB Date: 11/26/12
Date: 11/24/12 Data Analyst: DM

Solids Determination performed on 11/23/12 by NB

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
VS21	A	SA11-6C	1.098	10.384	10.130	97.26
VS21	B	SA11-6C	1.001	10.204	9.092	87.92
VS21	C	SA11-6C	1.103	10.874	10.528	96.46
VS21	D	SA11-6C	1.100	10.140	9.701	95.14
VS21	E	SA11-6C	1.102	10.737	10.309	95.56
VS21	F	SA11-6C	1.104	10.546	10.261	96.98
VS21	G	SA11-6C	1.125	10.685	10.476	97.81
VS21	H	SA11-6C	1.094	10.364	10.219	98.44
VS21	I	SA11-6C	0.988	10.562	10.015	94.29
VS21	J	SA11-6C	1.091	10.636	10.336	96.86
VS21	K	SA11-6C	1.126	10.109	9.771	96.24
VS21	L	SA11-6C	1.114	10.280	9.729	93.99

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Total Solids Bench Sheet

Laboratory Section METALS

Oven Identification: 014 **Balance ID:** B116132369

Samples in Oven: Date: 11-23-12 Time: 1153 Temp: 106°C Analyst: NB

Removed from Oven: Date: 11-24-12 Time: 0600 Temp: 102°C Analyst: DM

ARI Sample ID	Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs[1]
VS21 A	1.098	10.384	10.130	—	√
NB 11-23-12 * " B	~~1.111~~ 1.001	10.204	9.092	—	√
" C	1.103	10.874	10.528	—	√
" D	1.100	10.140	9.701	—	√
" E	1.102	10.737	10.309	—	√
" F	1.104	10.546	10.261	—	√
" G	1.125	10.685	10.476	—	√
" H	1.094	10.364	10.219	—	√
" I	0.988	10.562	10.015	—	√
" J	1.091	10.636	10.336	—	√
" K	1.126	10.109	9.771	—	√
" L	1.114	10.280	9.729	—	√
		NB 11-23-12			

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2nd bench sheet for additional weightings.

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: VS21

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: NB
Date: 11-23-12
Final Volume 50.0
Final Volume (Hg): 50.0
Sample ID VS21 ASPK, MBISPK

		ICP Routine	ICP No GFA	GFA
Prepcode:		SWC		
Spike Solution:		ICP Routine	ICP No GFA	GFA
Standard No.:		2977-9		
Vol Added (mL):		1.0		
	Ag	50		2.0
S	Al	200 ✓	200 —	
T	As	200		10
O	Ba	200✓	200	
C	Be	50	50	
K	Ca	1000✓	1000	
	Cd	50		2.0
	Co	50	50	
C	Cr	50	50	
O	Cu	50	50	
N	Fe	200✓	200	
C	K	1000✓	1000	
E	Mg	1000✓	1000	
N	Mn	50 ✓	50	
T	Na	1000✓	1000	
R	Ni	50	50	
A	Pb	200		10
T	Se	200		10
I	Sr	50	50	
O	Tl	200		10
N	V	50	50	
	Zn	50	50	

	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
	SWN	SWN	
	2987-2	2956-7	
	1.0	1.0	
Ag	25 ✓		
Al			500
As	25 ✓		
Ba	25		
Be	25 ✓		
Ca			500
Cd	25 ✓		
Co	25 ✓		
Cr	25 ✓		
Cu	25 ✓		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25 ✓		
Pb	25 ✓		
Sb		25 ✓	
Se	80 ✓		
Tl	25 ✓		
U	25		
V	25 ✓		
Zn	80 ✓		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	SMM	CVA	1.0	0.05	2908-7
Hg MBSPK	SMM	CVA	1.0	0.10	2908-7
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

VS21 : 00102

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: NB Date: 11-23-12 Time: 1235

Matrix: SOIL Block ID: #1 Block Temp: 90°C Thermometer: MP40

ARI Sample ID	Btl #	pH<2	Prep Code: SWC Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWC Final Vol (mL)	Prep Code: SWN Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWN Final Vol (mL)	Comments
VS21 A	1	–	1.047	50.0	1.066	50.0	
" ADUP	1	–	1.047		1.068		
" ASPK	1	–	1.046		1.069		
" B	1	–	1.049		1.009		
" C	1	–	1.092		1.087		
" D	1	–	1.067		1.079		
" E	1	–	1.057		1.040		
" F	1	–	1.060		1.087		
" G	1	–	1.046		1.044		
" H	1	–	1.024		1.039		
" I	1	–	1.039		1.027		
" J	1	–	1.023		1.090		
" K	1	–	1.011		1.093		
" L	1	–	1.087		1.074		
" MB1	–	–	–		–		
" MB1SPK	–	–	–	50.0	–	50.0	

NB
11-23-12

Chemical/Reagent ID:

HNO_3: M2392/I7833 HCl: I7676 H_2O_2: I7845 Tube Lot #: 120743

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM Matrix: SOIL
Analyst: NB Date: 11-23-12
Bath Temp: 90°C Start Time: 1235 End Time: 1305

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VS21 A	1	—	0.715	50.0	11-22 1	YES	
" ADUP	1	—	0.712		1		
" ASPK	1	—	0.717		1		
" B	1	—	0.726		1		
" C	1	—	0.721		1		
" D	1	—	0.743		1		
" E	1	—	0.716		1		
" F	1	—	0.703		1		
" G	1	—	0.746		1		
" H	1	—	0.732		1		
" I	1	—	0.728		1		
" J	1	—	0.712		1		
" K	1	—	0.740		1		
" L	1	—	0.706		1		
" MB1	—	—	—		1		
" MB1SPK	—	—	—	50.0	1		

NB 11-23-12

Chemical/Reagent ID:

HNO_3: I7433 H_2SO_4: I7677 HCl: —

5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376 Digest Tube Lot: 1205258

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	VS21
Unacceptable Blank:	☐	Date of Event:	11-27-12
Unacceptable Duplicate:	☐	Client ID:	Hart Crowser
Unacceptable Spike:	☑	Method/Element:	ICPMS
Unacceptable Reference:	☐	Prep Code:	SWN

Details of Problem/Recommended Corrective Action:

Low % recovery for Sb in MS/
Post spike ok

Samples Affected:

Corrective Action Taken:

11/28/12

Analyst Initials: JA **Supervisor:**

Date: 11-28-12 **Date:**

5049F

Revision 007
6/11/10

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: VS21

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: 11-12-12 Analysis Date: 11-26-12 Analyst: BA

LR Date: 7-30-12 Page: 1 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STD 0			2994-8 ScR noisy
		2			-11 ScA noisy
		3			-12 Be sl. noisy
		4			-13
		5			-14
		0			-8
		2			-11 ScR very noisy
		2			
		ZZZZZZ ~~ICV~~ BA 11/27/12			2988-6 Fe Mg Na Sb Si Ti ↑
		STD 4			
		5			
		ICV			Si ↑ (NR)
		ICB			
		CRI			
		ICSA			
		ICSAB			
		HiPur QC7			
		Spex QC21			
		DI Check			
		CCV1			Sb↑ (N.R.)
		CCB1			
		VS21 mB1	SWC	2	
		VS20 E		5	
		VS21 B			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-26-12 Analyst: BA

LR Date: — Page: 2 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		VS21 C	SWC	5	
		A-L		25	ScR sl. noisy-
		A		5	
		ADUP			
		ASPK			Al, Fe, Mg, Mn STL
		~~APOST~~ ZZZZZZ BA 11/28/12			0.08 mL ICP Spike 2977-9
		MBISPK		2	
		CCV2			Sb (NR) ScR sl. noisy - levels OK.
		CCB2			
		VS21 D	SWC	5	
		E			
		F			
		G			
		H			
		I			
		J			
		K			
		L			
		CCV3			Sb, Si ↑ (NR)
		CCB3			Mn > RL (0.00117 mg/L) ScR sl. noisy
		CCB4			
		CRI			Mn > 150%
		ICSA			
		ICSAB			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-26-12 Analyst: BA

LR Date: — Page: 3 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		CCV4			Sb, Si ↑ (NR)
		CCB5			End VS20, VS21
		VS36 MB	TWC		
		B			
		C			
		D			
		E			
		F			
		ADUP		✓	
		A			
		ASPK		✓	
		MBSPK		✓	
		CCV5			Sb↑ (NR)
		CCB6			
		VS36 G	TWC		
		H			
		I			
		CCV6			Scr sl. noisy - levels OK.
		CCB7			Scr noisy - SD's OK.
		VR80 MB1	TWC		
		B			
	✓	C			Scr/analytes noisy.
		D			
		ADUP			

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: (ICP) ICP-MS GFA CVA Analysis Date: 11-26-12

ICP-2	Analyst BA 11/28/12	Peer #11-29	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	See log
Standard deviations	✓	✓	↓
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	↓
Samples:			
RSD's & SD's	✓	✓	See log
Internal Standards	✓	✓	↓
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	See log
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	—	See log (VS45)
Matrix Duplicates	✓	—	
Method Blanks	✓	—	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	CAF-VS45

Analysis Begun

Start Time: 11/26/2012 11:14:32 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/26/2012 8:17:31 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISETMON.sif
Batch ID:
Results Data Set: I2121126
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Method Loaded
Method Name: 7300bcESI2FAST
IEC File: IEC110912.iec
Method Last Saved: 11/26/2012 10:06:01 AM
MSF File:
Method Description: 12Axial Elements

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

Sequence No.: 1
Sample ID: Calib Blank 1
Autosampler Location: 1
Date Collected: 11/26/2012 11:14:34 AM
Data Type: Original

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2347769.8	11086.06	0.47%	100.0	%
ScR 361.383	292119.7	12169.18	4.17%	100.0	%
Ag 328.068†	-153.5	13.56	8.83%	[0.00]	mg/L
Al 308.215†	198.0	5.26	2.66%	[0.00]	mg/L
As 188.979†	-10.6	2.99	28.10%	[0.00]	mg/L
B 249.677†	31.7	4.07	12.85%	[0.00]	mg/L

VS21 : 00111

Ba 233.527†	26.6	2.39	8.98%	[0.00] mg/L
Be 313.042†	850.9	42.46	4.99%	[0.00] mg/L
Ca 317.933†	165.7	14.67	8.86%	[0.00] mg/L
Cd 228.802†	273.1	2.29	0.84%	[0.00] mg/L
Co 228.616†	-92.9	3.76	4.05%	[0.00] mg/L
Cr 267.716†	-124.5	6.21	4.99%	[0.00] mg/L
Cu 324.752†	2487.1	17.15	0.69%	[0.00] mg/L
Fe 273.955†	21.8	0.69	3.18%	[0.00] mg/L
K 766.490†	476.5	48.09	10.09%	[0.00] mg/L
Mg 279.077†	80.8	8.11	10.04%	[0.00] mg/L
Mn 257.610†	173.5	7.18	4.14%	[0.00] mg/L
Mo 202.031†	72.6	3.00	4.14%	[0.00] mg/L
Na 589.592†	-423.0	29.85	7.06%	[0.00] mg/L
Na 330.237†	-201.3	17.15	8.52%	[0.00] mg/L
Ni 231.604†	-12.9	2.34	18.13%	[0.00] mg/L
Pb 220.353†	55.1	1.06	1.92%	[0.00] mg/L
Sb 206.836†	73.8	6.29	8.51%	[0.00] mg/L
Se 196.026†	-44.7	3.27	7.30%	[0.00] mg/L
Si 288.158†	55.5	4.58	8.26%	[0.00] mg/L
Sn 189.927†	-0.1	3.62	>999.9%	[0.00] mg/L
Sr 421.552†	375.2	43.88	11.70%	[0.00] mg/L
Ti 334.903†	-58.2	19.58	33.64%	[0.00] mg/L
Tl 190.801†	-42.6	0.96	2.24%	[0.00] mg/L
V 292.402†	135.4	26.82	19.81%	[0.00] mg/L
Zn 206.200†	16.8	0.89	5.31%	[0.00] mg/L

Sequence No.: 2
Sample ID: STD2

Autosampler Location: 2
Date Collected: 11/26/2012 11:18:48 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2530864.9	103862.34	4.10%	107.8	%
ScR 361.383	309869.8	1489.46	0.48%	106.1	%
Ba 233.527†	39690.8	221.04	0.56%	[10]	mg/L
Cd 228.802†	249156.4	13307.11	5.34%	[10]	mg/L
Co 228.616†	325125.1	17508.76	5.39%	[10]	mg/L
Cr 267.716†	52762.2	191.61	0.36%	[10]	mg/L
Cu 324.752†	2211837.7	119775.77	5.42%	[10]	mg/L
Mn 257.610†	317813.7	625.57	0.20%	[10]	mg/L
V 292.402†	1079039.0	58497.32	5.42%	[10]	mg/L

Sequence No.: 3
Sample ID: STD3

Autosampler Location: 3
Date Collected: 11/26/2012 11:20:33 AM
Data Type: Original

Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2404147.0	22923.17	0.95%	102.4	%
ScR 361.383	298140.8	7589.32	2.55%	102.1	%
Ag 328.068†	161430.0	1518.95	0.94%	[1.0]	mg/L
As 188.979†	16341.9	195.98	1.20%	[10]	mg/L
B 249.677†	67206.4	1611.81	2.40%	[10]	mg/L
Be 313.042†	2641518.7	94044.84	3.56%	[5.0]	mg/L
Na 589.592†	526596.8	18392.70	3.49%	[50]	mg/L
Ni 231.604†	36729.6	939.65	2.56%	[10]	mg/L

Pb 220.353†	74849.7	796.84	1.06%	[10] mg/L
Se 196.026†	13086.4	140.70	1.08%	[10] mg/L
Sr 421.552†	3795608.0	131811.95	3.47%	[5] mg/L
Tl 190.801†	22498.8	239.86	1.07%	[10] mg/L
Zn 206.200†	34035.6	880.52	2.59%	[10] mg/L

Sequence No.: 4
Sample ID: STD4

Autosampler Location: 4
Date Collected: 11/26/2012 11:22:50 AM
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2426619.0	12273.77	0.51%	103.4	%
ScR 361.383	308473.8	458.38	0.15%	105.6	%
Mo 202.031†	180470.2	1271.75	0.70%	[10]	mg/L
Sb 206.836†	29601.4	175.28	0.59%	[10]	mg/L
Si 288.158†	17593.4	79.18	0.45%	[10]	mg/L
Sn 189.927†	33831.9	136.08	0.40%	[10]	mg/L
Ti 334.903†	175209.5	375.38	0.21%	[10]	mg/L

Sequence No.: 5
Sample ID: STD5

Autosampler Location: 5
Date Collected: 11/26/2012 11:25:04 AM
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2265618.3	13946.89	0.62%	96.50	%
ScR 361.383	305404.2	592.74	0.19%	104.5	%
Al 308.215†	42278.4	184.90	0.44%	[30]	mg/L
Ca 317.933†	341146.2	1744.20	0.51%	[30]	mg/L
Fe 273.955†	117027.7	461.54	0.39%	[100]	mg/L
K 766.490†	164480.3	839.49	0.51%	[100]	mg/L
Mg 279.077†	34312.8	122.09	0.36%	[30]	mg/L
Na 330.237†	2502.9	18.14	0.72%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	161400	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1409	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1634	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	6721	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	3969	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	528300	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	11370	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	24920	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	32510	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	5276	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	221200	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1170	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1645	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1144	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	31780	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	18050	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	10530	0.00000	1.000000	

Na 330.237	1	Lin Thru 0	0.0	25.03	0.00000	1.000000
Ni 231.604	1	Lin Thru 0	0.0	3673	0.00000	1.000000
Pb 220.353	1	Lin Thru 0	0.0	7485	0.00000	1.000000
Sb 206.836	1	Lin Thru 0	0.0	2960	0.00000	1.000000
Se 196.026	1	Lin Thru 0	0.0	1309	0.00000	1.000000
Si 288.158	1	Lin Thru 0	0.0	1759	0.00000	1.000000
Sn 189.927	1	Lin Thru 0	0.0	3383	0.00000	1.000000
Sr 421.552	1	Lin Thru 0	0.0	759100	0.00000	1.000000
Ti 334.903	1	Lin Thru 0	0.0	17520	0.00000	1.000000
Tl 190.801	1	Lin Thru 0	0.0	2250	0.00000	1.000000
V 292.402	1	Lin Thru 0	0.0	107900	0.00000	1.000000
Zn 206.200	1	Lin Thru 0	0.0	3404	0.00000	1.000000

Analysis Begun

Start Time: 11/26/2012 11:40:59 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/26/2012 8:17:31 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISETMON.sif
Batch ID:
Results Data Set: I2121126
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: Calib Blank 1
Date Collected: 11/26/2012 11:41:00 AM
Data Type: Original

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2385529.2	8370.78	0.35%	101.6	%
ScR 361.383	293229.1	8773.96	2.99%	100.4	%
Ag 328.068†	-131.5	27.33	20.78%	[0.00]	mg/L
Al 308.215†	192.4	9.48	4.93%	[0.00]	mg/L
As 188.979†	-15.7	1.21	7.69%	[0.00]	mg/L
B 249.677†	36.7	1.13	3.08%	[0.00]	mg/L
Ba 233.527†	25.0	3.53	14.10%	[0.00]	mg/L
Be 313.042†	875.9	34.04	3.89%	[0.00]	mg/L
Ca 317.933†	158.5	18.38	11.59%	[0.00]	mg/L
Cd 228.802†	271.7	3.19	1.17%	[0.00]	mg/L
Co 228.616†	-93.3	2.31	2.47%	[0.00]	mg/L
Cr 267.716†	-127.6	1.45	1.13%	[0.00]	mg/L
Cu 324.752†	2474.1	31.04	1.25%	[0.00]	mg/L
Fe 273.955†	21.9	2.35	10.74%	[0.00]	mg/L
K 766.490†	465.7	51.38	11.03%	[0.00]	mg/L
Mg 279.077†	74.7	3.51	4.69%	[0.00]	mg/L
Mn 257.610†	173.9	4.94	2.84%	[0.00]	mg/L
Mo 202.031†	76.6	1.96	2.56%	[0.00]	mg/L
Na 589.592†	-405.2	43.73	10.79%	[0.00]	mg/L
Na 330.237†	-200.8	16.90	8.41%	[0.00]	mg/L
Ni 231.604†	-22.3	3.80	17.04%	[0.00]	mg/L
Pb 220.353†	52.1	5.41	10.37%	[0.00]	mg/L
Sb 206.836†	70.5	4.64	6.58%	[0.00]	mg/L
Se 196.026†	-44.9	2.17	4.83%	[0.00]	mg/L
Si 288.158†	50.6	2.67	5.27%	[0.00]	mg/L
Sn 189.927†	-6.2	2.93	47.44%	[0.00]	mg/L
Sr 421.552†	327.1	40.91	12.51%	[0.00]	mg/L
Ti 334.903†	-64.8	12.04	18.58%	[0.00]	mg/L
Tl 190.801†	-43.6	3.14	7.19%	[0.00]	mg/L
V 292.402†	113.5	30.16	26.57%	[0.00]	mg/L
Zn 206.200†	14.2	2.41	16.95%	[0.00]	mg/L

Sequence No.: 2
Sample ID: STD2
Date Collected: 11/26/2012 11:44:55 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	214.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected				Calib

Analyte	Intensity	Std.Dev.	RSD	Conc.	Units
ScA 357.253	2476219.6	10662.05	0.43%	105.5	%
ScR 361.383	315044.5	20259.81	6.43%	107.8	%
Ba 233.527†	39774.5	2836.71	7.13%	[10]	mg/L
Cd 228.802†	258695.7	1067.88	0.41%	[10]	mg/L
Co 228.616†	337285.1	1647.51	0.49%	[10]	mg/L
Cr 267.716†	53142.5	3800.09	7.15%	[10]	mg/L
Cu 324.752†	2290740.0	7602.26	0.33%	[10]	mg/L
Mn 257.610†	320842.4	23143.56	7.21%	[10]	mg/L
V 292.402†	1117284.8	4603.96	0.41%	[10]	mg/L

Analysis Begun

Start Time: 11/26/2012 12:35:11 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/26/2012 8:17:31 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISETMON.sif
Batch ID:
Results Data Set: I2121126
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: STD2
Date Collected: 11/26/2012 12:35:12 PM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2488817.5	16288.67	0.65%	106.0	%
ScR 361.383	299465.8	802.73	0.27%	102.5	%
Ba 233.527†	42427.4	71.23	0.17%	[10]	mg/L
Cd 228.802†	260300.9	303.66	0.12%	[10]	mg/L
Co 228.616†	341035.9	771.02	0.23%	[10]	mg/L
Cr 267.716†	56522.7	175.42	0.31%	[10]	mg/L
Cu 324.752†	2303115.8	4808.80	0.21%	[10]	mg/L
Mn 257.610†	341521.2	984.38	0.29%	[10]	mg/L
V 292.402†	1125550.3	1156.27	0.10%	[10]	mg/L

Analysis Begun

Start Time: 11/26/2012 12:38:53 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 11/26/2012 8:17:31 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISETMON.sif
Batch ID:
Results Data Set: I2121126
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: ~~ICV~~ zzzzzz
Analyst: BA
Dilution: 1.000000X

BA 11/27/12

Autosampler Location: 7
Date Collected: 11/26/2012 12:38:54 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2386735.7	101.7	%	0.43				0.42%
ScR 361.383	291856.2	99.91	%	1.609				1.61%
Ag 328.068†	170589.9	1.057	mg/L	0.0051	1.057	mg/L	0.0051	0.48%
Al 308.215†	3134.6	2.189	mg/L	0.0451	2.189	mg/L	0.0451	2.06%
As 188.979†	3331.7	2.066	mg/L	0.0119	2.066	mg/L	0.0119	0.58%
B 249.677†	6951.5	1.033	mg/L	0.0236	1.033	mg/L	0.0236	2.29%
Ba 233.527†	4373.7	1.030	mg/L	0.0202	1.030	mg/L	0.0202	1.96%
Be 313.042†	538039.1	1.018	mg/L	0.0186	1.018	mg/L	0.0186	1.83%
Ca 317.933†	23829.8	2.096	mg/L	0.0379	2.096	mg/L	0.0379	1.81%
Cd 228.802†	27882.6	1.058	mg/L	0.0049	1.058	mg/L	0.0049	0.46%
Co 228.616†	35171.0	1.029	mg/L	0.0049	1.029	mg/L	0.0049	0.47%
Cr 267.716†	5823.3	1.030	mg/L	0.0207	1.030	mg/L	0.0207	2.01%
Cu 324.752†	245303.5	1.065	mg/L	0.0067	1.065	mg/L	0.0067	0.63%
Fe 273.955†	2605.4	2.219	mg/L	0.0369	2.219	mg/L	0.0369	1.66%
K 766.490†	35177.5	21.39	mg/L	0.435	21.39	mg/L	0.435	2.04%
Mg 279.077†	2516.8	2.208	mg/L	0.0394	2.208	mg/L	0.0394	1.79%
Mn 257.610†	33697.7	0.9871	mg/L	0.01829	0.9871	mg/L	0.01829	1.85%
Mo 202.031†	18746.6	1.039	mg/L	0.0070	1.039	mg/L	0.0070	0.68%
Na 589.592†	554347.7	52.63	mg/L	0.995	52.63	mg/L	0.995	1.89%
Na 330.237†	1404.1	56.00	mg/L	0.817	56.00	mg/L	0.817	1.46%
Ni 231.604†	3811.8	1.038	mg/L	0.0189	1.038	mg/L	0.0189	1.82%
Pb 220.353†	14878.0	1.989	mg/L	0.0140	1.989	mg/L	0.0140	0.70%
Sb 206.836†	6546.7	2.211	mg/L	0.0063	2.211	mg/L	0.0063	0.29%
Se 196.026†	2642.7	2.018	mg/L	0.0108	2.018	mg/L	0.0108	0.54%
Si 288.158†	4002.1	2.274	mg/L	0.0531	2.274	mg/L	0.0531	2.34%
Sn 189.927†	3583.3	1.061	mg/L	0.0060	1.061	mg/L	0.0060	0.56%
Sr 421.552†	789459.9	1.040	mg/L	0.0205	1.040	mg/L	0.0205	1.97%
Ti 334.903†	19303.0	1.101	mg/L	0.0198	1.101	mg/L	0.0198	1.80%
Tl 190.801†	4578.3	2.026	mg/L	0.0111	2.026	mg/L	0.0111	0.55%
V 292.402†	118366.9	1.056	mg/L	0.0040	1.056	mg/L	0.0040	0.38%
Zn 206.200†	3639.3	1.069	mg/L	0.0207	1.069	mg/L	0.0207	1.93%

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Analysis Begun

Start Time: 11/26/2012 12:48:55 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/26/2012 8:17:31 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISETMON.sif
Batch ID:
Results Data Set: I2121126
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

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Sequence No.: 1
Sample ID: STD4
Date Collected: 11/26/2012 12:48:56 PM
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2437787.7	5970.81	0.24%	103.8	%
ScR 361.383	304982.2	8726.39	2.86%	104.4	%
Mo 202.031†	181280.3	811.04	0.45%	[10]	mg/L
Sb 206.836†	29682.2	92.93	0.31%	[10]	mg/L
Si 288.158†	18143.7	397.53	2.19%	[10]	mg/L
Sn 189.927†	34110.7	153.42	0.45%	[10]	mg/L
Ti 334.903†	179376.1	5898.01	3.29%	[10]	mg/L

Sequence No.: 2
Sample ID: STD5

Date Collected: 11/26/2012 12:50:56 PM
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2292570.9	9394.42	0.41%	97.65	%
ScR 361.383	294880.8	5114.68	1.73%	100.9	%
Al 308.215†	45143.6	745.52	1.65%	[30]	mg/L
Ca 317.933†	365449.2	6797.64	1.86%	[30]	mg/L
Fe 273.955†	126499.2	2404.96	1.90%	[100]	mg/L
K 766.490†	173748.8	3236.91	1.86%	[100]	mg/L
Mg 279.077†	36834.2	686.71	1.86%	[30]	mg/L
Na 330.237†	2645.5	55.26	2.09%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	161400	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1505	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1634	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	6721	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	4243	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	528300	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	12180	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	26030	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	34100	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	5652	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	230300	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1265	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1737	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1228	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	34150	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	18130	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	10530	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	26.45	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	3673	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	7485	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	2968	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1309	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	1814	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	3411	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	759100	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	17940	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	2250	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	112600	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	3404	0.00000	1.000000	

Analysis Begun

Start Time: 11/26/2012 12:53:07 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 11/26/2012 8:17:31 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISETMON.sif
Batch ID:
Results Data Set: I2121126
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: ICV
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/26/2012 12:53:08 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2400881.2	102.3	%	0.36				0.35%
ScR 361.383	288632.6	98.81	%	1.073				1.09%
Ag 328.068†	168793.7	1.046	mg/L	0.0069	1.046	mg/L	0.0069	0.66%
Al 308.215†	3163.8	2.067	mg/L	0.0319	2.067	mg/L	0.0319	1.54%
As 188.979†	3311.2	2.053	mg/L	0.0121	2.053	mg/L	0.0121	0.59%
B 249.677†	7013.2	1.043	mg/L	0.0156	1.043	mg/L	0.0156	1.50%
Ba 233.527†	4396.2	1.036	mg/L	0.0148	1.036	mg/L	0.0148	1.43%
Be 313.042†	547744.2	1.037	mg/L	0.0076	1.037	mg/L	0.0076	0.74%
Ca 317.933†	24295.1	1.994	mg/L	0.0133	1.994	mg/L	0.0133	0.67%
Cd 228.802†	27575.1	1.047	mg/L	0.0077	1.047	mg/L	0.0077	0.73%
Co 228.616†	34814.8	1.019	mg/L	0.0079	1.019	mg/L	0.0079	0.77%
Cr 267.716†	5872.2	1.038	mg/L	0.0122	1.038	mg/L	0.0122	1.17%
Cu 324.752†	242706.5	1.053	mg/L	0.0081	1.053	mg/L	0.0081	0.76%
Fe 273.955†	2675.6	2.108	mg/L	0.0213	2.108	mg/L	0.0213	1.01%
K 766.490†	35557.6	20.46	mg/L	0.080	20.46	mg/L	0.080	0.39%
Mg 279.077†	2546.2	2.081	mg/L	0.0154	2.081	mg/L	0.0154	0.74%
Mn 257.610†	34334.8	1.006	mg/L	0.0087	1.006	mg/L	0.0087	0.87%
Mo 202.031†	18673.2	1.030	mg/L	0.0082	1.030	mg/L	0.0082	0.80%
Na 589.592†	562204.1	53.38	mg/L	0.419	53.38	mg/L	0.419	0.78%
Na 330.237†	1412.9	53.30	mg/L	0.665	53.30	mg/L	0.665	1.25%
Ni 231.604†	3838.9	1.046	mg/L	0.0142	1.046	mg/L	0.0142	1.36%
Pb 220.353†	14741.9	1.971	mg/L	0.0130	1.971	mg/L	0.0130	0.66%
Sb 206.836†	6484.5	2.184	mg/L	0.0141	2.184	mg/L	0.0141	0.65%
Se 196.026†	2616.7	1.998	mg/L	0.0145	1.998	mg/L	0.0145	0.73%
Si 288.158†	4051.9	2.232	mg/L	0.0366	2.232	mg/L	0.0366	1.64%
Sn 189.927†	3563.5	1.046	mg/L	0.0088	1.046	mg/L	0.0088	0.84%
Sr 421.552†	800206.1	1.054	mg/L	0.0078	1.054	mg/L	0.0078	0.74%
Ti 334.903†	19628.5	1.093	mg/L	0.0088	1.093	mg/L	0.0088	0.81%
Tl 190.801†	4539.5	2.009	mg/L	0.0128	2.009	mg/L	0.0128	0.64%
V 292.402†	116842.1	1.043	mg/L	0.0076	1.043	mg/L	0.0076	0.73%
Zn 206.200†	3681.2	1.081	mg/L	0.0132	1.081	mg/L	0.0132	1.22%

Sequence No.: 2
Sample ID: ICB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/26/2012 12:57:11 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: ICB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2412652.1	102.8	%	0.23				0.22%
ScR 361.383	294635.8	100.9	%	0.64				0.63%
Ag 328.068†	15.2	0.00009	mg/L	0.000340	0.00009	mg/L	0.000340	360.42%
Al 308.215†	6.5	0.00430	mg/L	0.001153	0.00430	mg/L	0.001153	26.83%
As 188.979†	4.6	0.00282	mg/L	0.001299	0.00282	mg/L	0.001299	46.07%
B 249.677†	16.4	0.00244	mg/L	0.000491	0.00244	mg/L	0.000491	20.11%
Ba 233.527†	2.1	0.00050	mg/L	0.000856	0.00050	mg/L	0.000856	170.38%
Be 313.042†	92.1	0.00017	mg/L	0.000050	0.00017	mg/L	0.000050	28.73%
Ca 317.933†	15.4	0.00127	mg/L	0.000280	0.00127	mg/L	0.000280	22.11%
Cd 228.802†	2.0	0.00006	mg/L	0.000168	0.00006	mg/L	0.000168	278.01%
Co 228.616†	11.6	0.00034	mg/L	0.000095	0.00034	mg/L	0.000095	28.02%
Cr 267.716†	3.8	0.00068	mg/L	0.000229	0.00068	mg/L	0.000229	33.94%
Cu 324.752†	-7.0	-0.00003	mg/L	0.000110	-0.00003	mg/L	0.000110	358.64%
Fe 273.955†	4.9	0.00384	mg/L	0.001951	0.00384	mg/L	0.001951	50.83%
K 766.490†	32.2	0.01854	mg/L	0.018993	0.01854	mg/L	0.018993	102.46%
Mg 279.077†	5.7	0.00465	mg/L	0.003037	0.00465	mg/L	0.003037	65.37%
Mn 257.610†	6.3	0.00018	mg/L	0.000118	0.00018	mg/L	0.000118	63.71%
Mo 202.031†	29.8	0.00165	mg/L	0.000239	0.00165	mg/L	0.000239	14.52%
Na 589.592†	170.5	0.01619	mg/L	0.005006	0.01619	mg/L	0.005006	30.92%
Na 330.237†	-8.9	-0.3370	mg/L	0.26033	-0.3370	mg/L	0.26033	77.24%
Ni 231.604†	8.4	0.00228	mg/L	0.000277	0.00228	mg/L	0.000277	12.13%
Pb 220.353†	3.2	0.00044	mg/L	0.000553	0.00044	mg/L	0.000553	127.12%
Sb 206.836†	15.0	0.00504	mg/L	0.001236	0.00504	mg/L	0.001236	24.54%
Se 196.026†	2.4	0.00185	mg/L	0.002671	0.00185	mg/L	0.002671	144.70%
Si 288.158†	10.5	0.00579	mg/L	0.003907	0.00579	mg/L	0.003907	67.49%
Sn 189.927†	2.8	0.00082	mg/L	0.000634	0.00082	mg/L	0.000634	77.28%
Sr 421.552†	158.2	0.00021	mg/L	0.000039	0.00021	mg/L	0.000039	18.60%
Ti 334.903†	-5.2	-0.00029	mg/L	0.001449	-0.00029	mg/L	0.001449	495.81%
Tl 190.801†	3.6	0.00159	mg/L	0.001910	0.00159	mg/L	0.001910	119.98%
V 292.402†	25.0	0.00023	mg/L	0.000326	0.00023	mg/L	0.000326	144.03%
Zn 206.200†	1.3	0.00038	mg/L	0.000706	0.00038	mg/L	0.000706	187.75%

Sequence No.: 3
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 11/26/2012 1:01:26 PM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2459799.1	104.8	%	0.33				0.32%
ScR 361.383	296470.9	101.5	%	1.60				1.57%
Ag 328.068†	466.1	0.00289	mg/L	0.000239	0.00289	mg/L	0.000239	8.26%
Al 308.215†	79.2	0.05248	mg/L	0.004119	0.05248	mg/L	0.004119	7.85%
As 188.979†	81.2	0.04980	mg/L	0.002402	0.04980	mg/L	0.002402	4.82%
B 249.677†	141.1	0.02100	mg/L	0.000882	0.02100	mg/L	0.000882	4.20%
Ba 233.527†	12.6	0.00296	mg/L	0.001316	0.00296	mg/L	0.001316	44.50%
Be 313.042†	545.6	0.00103	mg/L	0.000049	0.00103	mg/L	0.000049	4.78%
Ca 317.933†	599.4	0.04920	mg/L	0.000786	0.04920	mg/L	0.000786	1.60%
Cd 228.802†	57.5	0.00189	mg/L	0.000114	0.00189	mg/L	0.000114	6.05%
Co 228.616†	130.2	0.00380	mg/L	0.000053	0.00380	mg/L	0.000053	1.40%
Cr 267.716†	28.1	0.00496	mg/L	0.000168	0.00496	mg/L	0.000168	3.39%
Cu 324.752†	361.5	0.00157	mg/L	0.000027	0.00157	mg/L	0.000027	1.69%
Fe 273.955†	65.1	0.05146	mg/L	0.000197	0.05146	mg/L	0.000197	0.38%
K 766.490†	894.6	0.5149	mg/L	0.02599	0.5149	mg/L	0.02599	5.05%
Mg 279.077†	62.8	0.05114	mg/L	0.000791	0.05114	mg/L	0.000791	1.55%
Mn 257.610†	40.0	0.00117	mg/L	0.000113	0.00117	mg/L	0.000113	9.62%
Mo 202.031†	95.1	0.00525	mg/L	0.000123	0.00525	mg/L	0.000123	2.35%
Na 589.592†	5289.7	0.5023	mg/L	0.00376	0.5023	mg/L	0.00376	0.75%
Na 330.237†	12.5	0.4701	mg/L	0.23986	0.4701	mg/L	0.23986	51.02%
Ni 231.604†	43.9	0.01196	mg/L	0.000931	0.01196	mg/L	0.000931	7.78%
Pb 220.353†	150.1	0.02007	mg/L	0.001072	0.02007	mg/L	0.001072	5.34%
Sb 206.836†	152.3	0.05136	mg/L	0.000841	0.05136	mg/L	0.000841	1.64%
Se 196.026†	61.3	0.04682	mg/L	0.004628	0.04682	mg/L	0.004628	9.88%
Si 288.158†	131.4	0.07240	mg/L	0.001679	0.07240	mg/L	0.001679	2.32%
Sn 189.927†	36.3	0.01068	mg/L	0.000763	0.01068	mg/L	0.000763	7.14%
Sr 421.552†	841.6	0.00111	mg/L	0.000036	0.00111	mg/L	0.000036	3.23%
Ti 334.903†	93.7	0.00522	mg/L	0.000918	0.00522	mg/L	0.000918	17.59%
Tl 190.801†	110.0	0.04888	mg/L	0.001828	0.04888	mg/L	0.001828	3.74%
V 292.402†	345.7	0.00309	mg/L	0.000085	0.00309	mg/L	0.000085	2.75%
Zn 206.200†	35.9	0.01054	mg/L	0.000157	0.01054	mg/L	0.000157	1.49%

Sequence No.: 4
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 11/26/2012 1:05:42 PM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2440837.3	104.0	%	0.30				0.29%
ScR 361.383	295759.9	101.2	%	0.64				0.63%
Ag 328.068†	-159.2	-0.00098	mg/L	0.000197	-0.00098	mg/L	0.000197	20.01%
Al 308.215†	296229.9	196.9	mg/L	2.06	196.9	mg/L	2.06	1.05%
As 188.979†	36.4	0.01676	mg/L	0.004681	0.01676	mg/L	0.004681	27.92%
B 249.677†	-32.9	-0.00490	mg/L	0.001683	-0.00490	mg/L	0.001683	34.38%
Ba 233.527†	115.1	-0.00456	mg/L	0.000195	-0.00456	mg/L	0.000195	4.27%
Be 313.042†	52.3	0.00010	mg/L	0.000013	0.00010	mg/L	0.000013	13.21%
Ca 317.933†	1199669.3	98.48	mg/L	1.108	98.48	mg/L	1.108	1.13%
Cd 228.802†	45.1	-0.00026	mg/L	0.000250	-0.00026	mg/L	0.000250	97.68%
Co 228.616†	66.4	-0.00059	mg/L	0.000229	-0.00059	mg/L	0.000229	38.82%
Cr 267.716†	17.6	0.00103	mg/L	0.000444	0.00103	mg/L	0.000444	43.26%
Cu 324.752†	-1920.8	-0.00064	mg/L	0.000063	-0.00064	mg/L	0.000063	9.81%
Fe 273.955†	244834.1	193.5	mg/L	2.59	193.5	mg/L	2.59	1.34%
K 766.490†	11.2	0.00647	mg/L	0.010592	0.00647	mg/L	0.010592	163.60%
Mg 279.077†	125005.5	101.7	mg/L	1.31	101.7	mg/L	1.31	1.29%
Mn 257.610†	36.8	0.00104	mg/L	0.000240	0.00104	mg/L	0.000240	23.06%
Mo 202.031†	50.0	0.00170	mg/L	0.000371	0.00170	mg/L	0.000371	21.87%
Na 589.592†	201.7	0.01915	mg/L	0.004072	0.01915	mg/L	0.004072	21.26%
Na 330.237†	-6.5	-0.2453	mg/L	0.21591	-0.2453	mg/L	0.21591	88.00%
Ni 231.604†	4.6	0.00127	mg/L	0.001985	0.00127	mg/L	0.001985	155.95%
Pb 220.353†	-283.5	0.00127	mg/L	0.000877	0.00127	mg/L	0.000877	68.98%
Sb 206.836†	32.9	0.01091	mg/L	0.003469	0.01091	mg/L	0.003469	31.80%
Se 196.026†	14.4	0.01098	mg/L	0.004287	0.01098	mg/L	0.004287	39.03%
Si 288.158†	-22.0	0.00020	mg/L	0.003158	0.00020	mg/L	0.003158	>999.9%
Sn 189.927†	-69.3	-0.00814	mg/L	0.000487	-0.00814	mg/L	0.000487	5.98%
Sr 421.552†	3130.8	0.00412	mg/L	Conf. 0.000042	0.00412	mg/L	0.000042	1.02%
Ti 334.903†	146.4	0.00346	mg/L	0.000428	0.00346	mg/L	0.000428	12.36%
Tl 190.801†	-49.8	-0.00150	mg/L	0.001258	-0.00150	mg/L	0.001258	84.06%
V 292.402†	1138.0	0.00336	mg/L	0.000116	0.00336	mg/L	0.000116	3.44%
Zn 206.200†	8.6	0.00252	mg/L	0.000683	0.00252	mg/L	0.000683	27.13%

Sequence No.: 5
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 11/26/2012 1:09:58 PM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2440929.8	104.0	%	0.74				0.72%
ScR 361.383	296310.5	101.4	%	0.72				0.71%
Ag 328.068†	158664.8	0.9831	mg/L	0.00252	0.9831	mg/L	0.00252	0.26%
Al 308.215†	292151.4	194.1	mg/L	2.48	194.1	mg/L	2.48	1.28%
As 188.979†	1628.2	0.9902	mg/L	0.00498	0.9902	mg/L	0.00498	0.50%
B 249.677†	-27.8	-0.00613	mg/L	0.000512	-0.00613	mg/L	0.000512	8.36%
Ba 233.527†	4298.0	0.9816	mg/L	0.00673	0.9816	mg/L	0.00673	0.69%
Be 313.042†	528994.6	1.001	mg/L	0.0121	1.001	mg/L	0.0121	1.21%
Ca 317.933†	1186955.6	97.44	mg/L	1.229	97.44	mg/L	1.229	1.26%
Cd 228.802†	26256.0	1.001	mg/L	0.0031	1.001	mg/L	0.0031	0.31%
Co 228.616†	33093.7	0.9677	mg/L	0.00656	0.9677	mg/L	0.00656	0.68%
Cr 267.716†	5631.9	0.9942	mg/L	0.00897	0.9942	mg/L	0.00897	0.90%
Cu 324.752†	230436.8	1.008	mg/L	0.0027	1.008	mg/L	0.0027	0.26%
Fe 273.955†	242024.2	191.3	mg/L	2.57	191.3	mg/L	2.57	1.34%
K 766.490†	-83.3	-0.04795	mg/L	0.035068	-0.04795	mg/L	0.035068	73.14%
Mg 279.077†	119037.7	96.85	mg/L	1.323	96.85	mg/L	1.323	1.37%
Mn 257.610†	32301.9	0.9460	mg/L	0.01271	0.9460	mg/L	0.01271	1.34%
Mo 202.031†	52.4	0.00179	mg/L	0.000199	0.00179	mg/L	0.000199	11.15%
Na 589.592†	282.2	0.02679	mg/L	0.003725	0.02679	mg/L	0.003725	13.90%
Na 330.237†	4.2	-0.1591	mg/L	0.28574	-0.1591	mg/L	0.28574	179.61%
Ni 231.604†	3582.2	0.9755	mg/L	0.00985	0.9755	mg/L	0.00985	1.01%
Pb 220.353†	6759.5	0.9422	mg/L	0.00509	0.9422	mg/L	0.00509	0.54%
Sb 206.836†	3022.7	1.008	mg/L	0.0061	1.008	mg/L	0.0061	0.61%
Se 196.026†	1266.3	0.9666	mg/L	0.00743	0.9666	mg/L	0.00743	0.77%
Si 288.158†	-21.4	0.00356	mg/L	0.002638	0.00356	mg/L	0.002638	74.07%
Sn 189.927†	-68.3	-0.00749	mg/L	0.000878	-0.00749	mg/L	0.000878	11.73%
Sr 421.552†	3145.5	0.00414	mg/L	Cont. 0.000085	0.00414	mg/L	0.000085	2.05%
Ti 334.903†	133.9	0.00261	mg/L	0.000089	0.00261	mg/L	0.000089	3.40%
Tl 190.801†	2026.1	0.9119	mg/L	0.00530	0.9119	mg/L	0.00530	0.58%
V 292.402†	107912.5	0.9565	mg/L	0.00211	0.9565	mg/L	0.00211	0.22%
Zn 206.200†	3289.5	0.9665	mg/L	0.00692	0.9665	mg/L	0.00692	0.72%

Sequence No.: 6
Sample ID: HiPurQC7M
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 304
Date Collected: 11/26/2012 1:15:09 PM
Data Type: Original

Nebulizer Parameters: HiPurQC7M

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: HiPurQC7M

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2493874.6	106.2	%	0.72				0.67%
ScR 361.383	303329.4	103.8	%	0.80				0.77%
Ag 328.068†	154679.2	0.9582	mg/L✔	0.00200	0.9582	mg/L	0.00200	0.21%
Al 308.215†	2914.1	1.937	mg/L✔	0.0253	1.937	mg/L	0.0253	1.31%
As 188.979†	2.5	0.00156	mg/L	0.001603	0.00156	mg/L	0.001603	103.03%
B 249.677†	13108.1	1.950	mg/L✔	0.0266	1.950	mg/L	0.0266	1.36%
Ba 233.527†	8223.7	1.938	mg/L✔	0.0232	1.938	mg/L	0.0232	1.20%
Be 313.042†	50.3	0.00010	mg/L	0.000013	0.00010	mg/L	0.000013	13.31%
Ca 317.933†	221.1	0.01815	mg/L	0.001446	0.01815	mg/L	0.001446	7.96%
Cd 228.802†	-1.6	-0.00007	mg/L	0.000138	-0.00007	mg/L	0.000138	195.94%
Co 228.616†	12.7	0.00022	mg/L	0.000023	0.00022	mg/L	0.000023	10.39%
Cr 267.716†	5.8	0.00102	mg/L	0.000757	0.00102	mg/L	0.000757	74.31%
Cu 324.752†	-105.5	-0.00046	mg/L	0.000082	-0.00046	mg/L	0.000082	17.89%
Fe 273.955†	34.2	0.02707	mg/L	0.004264	0.02707	mg/L	0.004264	15.75%
K 766.490†	33334.7	19.19	mg/L✔	0.197	19.19	mg/L	0.197	1.03%
Mg 279.077†	17.2	0.01401	mg/L	0.003185	0.01401	mg/L	0.003185	22.73%
Mn 257.610†	0.5	0.00000	mg/L	0.000115	0.00000	mg/L	0.000115	>999.9%
Mo 202.031†	-9.3	-0.00051	mg/L	0.000163	-0.00051	mg/L	0.000163	31.86%
Na 589.592†	20645.6	1.960	mg/L✔	0.0172	1.960	mg/L	0.0172	0.88%
Na 330.237†	42.8	1.619	mg/L	0.2105	1.619	mg/L	0.2105	13.00%
Ni 231.604†	7.4	0.00201	mg/L	0.000971	0.00201	mg/L	0.000971	48.31%
Pb 220.353†	0.8	0.00057	mg/L	0.000532	0.00057	mg/L	0.000532	93.31%
Sb 206.836†	2.8	0.00093	mg/L	0.002288	0.00093	mg/L	0.002288	247.28%
Se 196.026†	0.2	0.00015	mg/L	0.000902	0.00015	mg/L	0.000902	598.07%
Si 288.158†	3706.7	2.043	mg/L✔	0.0201	2.043	mg/L	0.0201	0.98%
Sn 189.927†	2.8	0.00083	mg/L	0.000614	0.00083	mg/L	0.000614	73.86%
Sr 421.552†	32.4	0.00004	mg/L	0.000016	0.00004	mg/L	0.000016	37.05%
Ti 334.903†	5.3	0.00029	mg/L	0.001275	0.00029	mg/L	0.001275	433.67%
Tl 190.801†	3.3	0.00144	mg/L	0.001033	0.00144	mg/L	0.001033	71.55%
V 292.402†	21.9	0.00020	mg/L	0.000193	0.00020	mg/L	0.000193	97.49%
Zn 206.200†	-1.0	-0.00030	mg/L	0.000445	-0.00030	mg/L	0.000445	150.49%

Sequence No.: 7
Sample ID: SPEXQC21
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 305
Date Collected: 11/26/2012 1:19:23 PM
Data Type: Original

Nebulizer Parameters: SPEXQC21

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: SPEXQC21

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2492046.4	106.1	%	0.34				0.32%
ScR 361.383	293523.4	100.5	%	0.63				0.63%
Ag 328.068†	-24.1	0.00043	mg/L	0.000328	0.00043	mg/L	0.000328	76.21%
Al 308.215†	136.4	0.02253	mg/L	0.004814	0.02253	mg/L	0.004814	21.37%
As 188.979†	3138.2	1.973	mg/L	0.0063	1.973	mg/L	0.0063	0.32%
B 249.677†	77.2	0.00971	mg/L	0.000629	0.00971	mg/L	0.000629	6.48%
Ba 233.527†	6.7	0.00095	mg/L	0.000418	0.00095	mg/L	0.000418	44.03%
Be 313.042†	1068711.9	2.022	mg/L	0.0104	2.022	mg/L	0.0104	0.51%
Ca 317.933†	24384.6	2.002	mg/L	0.0146	2.002	mg/L	0.0146	0.73%
Cd 228.802†	53365.1	2.039	mg/L	0.0118	2.039	mg/L	0.0118	0.58%
Co 228.616†	68737.5	2.011	mg/L	0.0123	2.011	mg/L	0.0123	0.61%
Cr 267.716†	11825.2	2.091	mg/L	0.0177	2.091	mg/L	0.0177	0.85%
Cu 324.752†	452183.1	1.963	mg/L	0.0018	1.963	mg/L	0.0018	0.09%
Fe 273.955†	2642.9	2.075	mg/L	0.0158	2.075	mg/L	0.0158	0.76%
K 766.490†	-23.8	-0.01371	mg/L	0.005377	-0.01371	mg/L	0.005377	39.22%
Mg 279.077†	2540.8	2.085	mg/L	0.0193	2.085	mg/L	0.0193	0.93%
Mn 257.610†	68552.0	2.008	mg/L	0.0116	2.008	mg/L	0.0116	0.58%
Mo 202.031†	35767.0	1.973	mg/L	0.0093	1.973	mg/L	0.0093	0.47%
Na 589.592†	345.4	0.03280	mg/L	0.003268	0.03280	mg/L	0.003268	9.96%
Na 330.237†	-15.7	-0.8000	mg/L	0.28056	-0.8000	mg/L	0.28056	35.07%
Ni 231.604†	7587.0	2.066	mg/L	0.0180	2.066	mg/L	0.0180	0.87%
Pb 220.353†	14398.7	1.925	mg/L	0.0094	1.925	mg/L	0.0094	0.49%
Sb 206.836†	6291.4	2.098	mg/L	0.0064	2.098	mg/L	0.0064	0.31%
Se 196.026†	2554.8	1.950	mg/L	0.0078	1.950	mg/L	0.0078	0.40%
Si 288.158†	65.6	0.04703	mg/L	0.007279	0.04703	mg/L	0.007279	15.48%
Sn 189.927†	-10.6	-0.00151	mg/L	0.000587	-0.00151	mg/L	0.000587	38.74%
Sr 421.552†	1570601.1	2.069	mg/L	0.0164	2.069	mg/L	0.0164	0.79%
Ti 334.903†	38204.3	2.128	mg/L	0.0118	2.128	mg/L	0.0118	0.55%
Tl 190.801†	4485.8	1.977	mg/L	0.0086	1.977	mg/L	0.0086	0.43%
V 292.402†	226220.1	2.019	mg/L	0.0116	2.019	mg/L	0.0116	0.57%
Zn 206.200†	7132.6	2.095	mg/L	0.0151	2.095	mg/L	0.0151	0.72%

Sequence No.: 8
Sample ID: DI CHECK
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 306
Date Collected: 11/26/2012 1:23:39 PM
Data Type: Original

Nebulizer Parameters: DI CHECK

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: DI CHECK

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2527297.5	107.6	%	1.00				0.93%
ScR 361.383	305917.3	104.7	%	1.58				1.51%
Ag 328.068†	28.0	0.00017	mg/L	0.000077	0.00017	mg/L	0.000077	44.18%
Al 308.215†	0.6	0.00038	mg/L	0.012781	0.00038	mg/L	0.012781	>999.9%
As 188.979†	3.9	0.00238	mg/L	0.002483	0.00238	mg/L	0.002483	104.32%
B 249.677†	-4.8	-0.00072	mg/L	0.000969	-0.00072	mg/L	0.000969	134.65%
Ba 233.527†	-1.8	-0.00042	mg/L	0.000941	-0.00042	mg/L	0.000941	226.42%
Be 313.042†	219.5	0.00042	mg/L	0.000152	0.00042	mg/L	0.000152	36.62%
Ca 317.933†	5.9	0.00048	mg/L	0.001485	0.00048	mg/L	0.001485	306.87%
Cd 228.802†	3.5	0.00012	mg/L	0.000125	0.00012	mg/L	0.000125	105.98%
Co 228.616†	22.5	0.00066	mg/L	0.000092	0.00066	mg/L	0.000092	13.93%
Cr 267.716†	8.4	0.00149	mg/L	0.000763	0.00149	mg/L	0.000763	51.26%
Cu 324.752†	-128.6	-0.00056	mg/L	0.000141	-0.00056	mg/L	0.000141	25.24%
Fe 273.955†	4.8	0.00377	mg/L	0.001739	0.00377	mg/L	0.001739	46.13%
K 766.490†	9.3	0.00536	mg/L	0.025631	0.00536	mg/L	0.025631	478.43%
Mg 279.077†	8.2	0.00672	mg/L	0.002335	0.00672	mg/L	0.002335	34.75%
Mn 257.610†	10.4	0.00030	mg/L	0.000099	0.00030	mg/L	0.000099	32.65%
Mo 202.031†	29.9	0.00165	mg/L	0.000131	0.00165	mg/L	0.000131	7.95%
Na 589.592†	1.7	0.00016	mg/L	0.004104	0.00016	mg/L	0.004104	>999.9%
Na 330.237†	-4.4	-0.1669	mg/L	0.43009	-0.1669	mg/L	0.43009	257.71%
Ni 231.604†	5.6	0.00153	mg/L	0.000331	0.00153	mg/L	0.000331	21.68%
Pb 220.353†	6.3	0.00084	mg/L	0.000497	0.00084	mg/L	0.000497	58.86%
Sb 206.836†	-3.6	-0.00124	mg/L	0.001027	-0.00124	mg/L	0.001027	83.03%
Se 196.026†	10.6	0.00811	mg/L	0.003042	0.00811	mg/L	0.003042	37.49%
Si 288.158†	-5.2	-0.00287	mg/L	0.003096	-0.00287	mg/L	0.003096	108.04%
Sn 189.927†	4.2	0.00125	mg/L	0.001043	0.00125	mg/L	0.001043	83.79%
Sr 421.552†	360.6	0.00048	mg/L	0.000137	0.00048	mg/L	0.000137	28.77%
Ti 334.903†	2.9	0.00016	mg/L	0.000701	0.00016	mg/L	0.000701	432.88%
Tl 190.801†	5.3	0.00236	mg/L	0.000438	0.00236	mg/L	0.000438	18.58%
V 292.402†	22.0	0.00020	mg/L	0.000173	0.00020	mg/L	0.000173	85.26%
Zn 206.200†	3.3	0.00097	mg/L	0.000974	0.00097	mg/L	0.000974	100.29%

Sequence No.: 9
Sample ID: CV
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/26/2012 1:27:53 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2393053.8	101.9	%	0.32				0.31%
ScR 361.383	297472.7	101.8	%	1.75				1.72%
Ag 328.068†	169942.3	1.053	mg/L	0.0049	1.053	mg/L	0.0049	0.46%
Al 308.215†	3075.2	2.008	mg/L	0.0493	2.008	mg/L	0.0493	2.45%
As 188.979†	3338.5	2.069	mg/L	0.0081	2.069	mg/L	0.0081	0.39%
B 249.677†	6837.4	1.016	mg/L	0.0233	1.016	mg/L	0.0233	2.30%
Ba 233.527†	4277.4	1.008	mg/L	0.0244	1.008	mg/L	0.0244	2.42%
Be 313.042†	538926.5	1.020	mg/L	0.0267	1.020	mg/L	0.0267	2.62%
Ca 317.933†	23546.4	1.933	mg/L	0.0449	1.933	mg/L	0.0449	2.32%
Cd 228.802†	27921.2	1.060	mg/L	0.0059	1.060	mg/L	0.0059	0.55%
Co 228.616†	35209.4	1.030	mg/L	0.0060	1.030	mg/L	0.0060	0.58%
Cr 267.716†	5734.6	1.014	mg/L	0.0219	1.014	mg/L	0.0219	2.16%
Cu 324.752†	244789.1	1.062	mg/L	0.0050	1.062	mg/L	0.0050	0.47%
Fe 273.955†	2586.6	2.037	mg/L	0.0456	2.037	mg/L	0.0456	2.24%
K 766.490†	34472.6	19.84	mg/L	0.329	19.84	mg/L	0.329	1.66%
Mg 279.077†	2470.0	2.019	mg/L	0.0468	2.019	mg/L	0.0468	2.32%
Mn 257.610†	33292.4	0.9752	mg/L	0.02149	0.9752	mg/L	0.02149	2.20%
Mo 202.031†	18833.7	1.039	mg/L	0.0043	1.039	mg/L	0.0043	0.42%
Na 589.592†	543442.3	51.60	mg/L	1.261	51.60	mg/L	1.261	2.44%
Na 330.237†	1392.8	52.54	mg/L	0.989	52.54	mg/L	0.989	1.88%
Ni 231.604†	3749.0	1.021	mg/L	0.0240	1.021	mg/L	0.0240	2.35%
Pb 220.353†	14974.8	2.002	mg/L	0.0084	2.002	mg/L	0.0084	0.42%
Sb 206.836†	6545.2	2.205	mg/L	0.0076	2.205	mg/L	0.0076	0.35%
Se 196.026†	2645.0	2.020	mg/L	0.0124	2.020	mg/L	0.0124	0.62%
Si 288.158†	3936.8	2.169	mg/L	0.0454	2.169	mg/L	0.0454	2.10%
Sn 189.927†	3591.4	1.054	mg/L	0.0070	1.054	mg/L	0.0070	0.67%
Sr 421.552†	773107.3	1.018	mg/L	0.0234	1.018	mg/L	0.0234	2.29%
Ti 334.903†	19069.3	1.062	mg/L	0.0262	1.062	mg/L	0.0262	2.46%
Tl 190.801†	4568.3	2.022	mg/L	0.0074	2.022	mg/L	0.0074	0.37%
V 292.402†	118228.6	1.055	mg/L	0.0066	1.055	mg/L	0.0066	0.63%
Zn 206.200†	3581.6	1.052	mg/L	0.0242	1.052	mg/L	0.0242	2.30%

Sequence No.: 10
Sample ID: CB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/26/2012 1:31:55 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2410890.1	102.7	%	0.61				0.59%
ScR 361.383	293927.4	100.6	%	1.04				1.03%
Ag 328.068†	-19.2	-0.00012	mg/L	0.000109	-0.00012	mg/L	0.000109	91.37%
Al 308.215†	5.2	0.00340	mg/L	0.009952	0.00340	mg/L	0.009952	292.31%
As 188.979†	3.2	0.00202	mg/L	0.001839	0.00202	mg/L	0.001839	91.02%
B 249.677†	15.2	0.00227	mg/L	0.000457	0.00227	mg/L	0.000457	20.17%
Ba 233.527†	-0.5	-0.00013	mg/L	0.000681	-0.00013	mg/L	0.000681	540.31%
Be 313.042†	92.8	0.00018	mg/L	0.000033	0.00018	mg/L	0.000033	18.87%
Ca 317.933†	10.7	0.00088	mg/L	0.001922	0.00088	mg/L	0.001922	219.31%
Cd 228.802†	1.1	0.00003	mg/L	0.000090	0.00003	mg/L	0.000090	272.99%
Co 228.616†	13.3	0.00039	mg/L	0.000046	0.00039	mg/L	0.000046	11.90%
Cr 267.716†	3.0	0.00054	mg/L	0.000705	0.00054	mg/L	0.000705	131.67%
Cu 324.752†	-43.8	-0.00019	mg/L	0.000147	-0.00019	mg/L	0.000147	77.23%
Fe 273.955†	0.8	0.00064	mg/L	0.000444	0.00064	mg/L	0.000444	69.01%
K 766.490†	31.1	0.01792	mg/L	0.004737	0.01792	mg/L	0.004737	26.44%
Mg 279.077†	10.9	0.00892	mg/L	0.003320	0.00892	mg/L	0.003320	37.22%
Mn 257.610†	7.4	0.00022	mg/L	0.000104	0.00022	mg/L	0.000104	47.92%
Mo 202.031†	15.9	0.00088	mg/L	0.000239	0.00088	mg/L	0.000239	27.22%
Na 589.592†	127.6	0.01211	mg/L	0.003745	0.01211	mg/L	0.003745	30.91%
Na 330.237†	-8.4	-0.3181	mg/L	0.26448	-0.3181	mg/L	0.26448	83.14%
Ni 231.604†	9.4	0.00257	mg/L	0.001863	0.00257	mg/L	0.001863	72.40%
Pb 220.353†	1.1	0.00014	mg/L	0.000681	0.00014	mg/L	0.000681	475.17%
Sb 206.836†	9.0	0.00302	mg/L	0.000694	0.00302	mg/L	0.000694	22.97%
Se 196.026†	-4.5	-0.00347	mg/L	0.003409	-0.00347	mg/L	0.003409	98.09%
Si 288.158†	5.2	0.00288	mg/L	0.000802	0.00288	mg/L	0.000802	27.81%
Sn 189.927†	2.5	0.00072	mg/L	0.000599	0.00072	mg/L	0.000599	82.76%
Sr 421.552†	150.0	0.00020	mg/L	0.000045	0.00020	mg/L	0.000045	22.56%
Ti 334.903†	24.7	0.00138	mg/L	0.000682	0.00138	mg/L	0.000682	49.52%
Tl 190.801†	2.3	0.00102	mg/L	0.002337	0.00102	mg/L	0.002337	228.31%
V 292.402†	31.0	0.00028	mg/L	0.000080	0.00028	mg/L	0.000080	29.00%
Zn 206.200†	1.8	0.00054	mg/L	0.000485	0.00054	mg/L	0.000485	89.65%

Sequence No.: 11
Sample ID: VS21 MB1 SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 307
Date Collected: 11/26/2012 1:36:10 PM
Data Type: Original

Nebulizer Parameters: VS21 MB1 SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VS21 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2503882.8	106.6	%	0.65				0.61%
ScR 361.383	306914.1	105.1	%	0.72				0.69%
Ag 328.068†	-8.9	-0.00005	mg/L	0.000227	-0.00011	mg/L	0.000455	414.20%
Al 308.215†	15.8	0.01048	mg/L	0.002001	0.02097	mg/L	0.004003	19.09%
As 188.979†	4.6	0.00280	mg/L	0.001771	0.00559	mg/L	0.003543	63.35%
B 249.677†	2.6	0.00038	mg/L	0.000897	0.00077	mg/L	0.001794	234.04%
Ba 233.527†	0.6	0.00014	mg/L	0.000338	0.00028	mg/L	0.000677	245.57%
Be 313.042†	-11.6	-0.00002	mg/L	0.000025	-0.00004	mg/L	0.000050	113.94%
Ca 317.933†	130.0	0.01067	mg/L	0.000384	0.02135	mg/L	0.000767	3.59%
Cd 228.802†	-0.2	-0.00003	mg/L	0.000186	-0.00005	mg/L	0.000371	726.54%
Co 228.616†	5.6	0.00016	mg/L	0.000116	0.00033	mg/L	0.000232	71.22%
Cr 267.716†	9.3	0.00165	mg/L	0.000839	0.00331	mg/L	0.001678	50.75%
Cu 324.752†	-88.6	-0.00038	mg/L	0.000105	-0.00077	mg/L	0.000209	27.21%
Fe 273.955†	4.4	0.00348	mg/L	0.000805	0.00695	mg/L	0.001609	23.14%
K 766.490†	25.4	0.01459	mg/L	0.008273	0.02919	mg/L	0.016546	56.69%
Mg 279.077†	2.7	0.00219	mg/L	0.003028	0.00438	mg/L	0.006055	138.10%
Mn 257.610†	5.5	0.00016	mg/L	0.000085	0.00032	mg/L	0.000170	52.77%
Mo 202.031†	-7.1	-0.00039	mg/L	0.000302	-0.00078	mg/L	0.000604	77.44%
Na 589.592†	70.0	0.00664	mg/L	0.003156	0.01329	mg/L	0.006313	47.51%
Na 330.237†	1.1	0.04050	mg/L	0.144835	0.08099	mg/L	0.289670	357.66%
Ni 231.604†	3.5	0.00094	mg/L	0.000777	0.00189	mg/L	0.001554	82.24%
Pb 220.353†	6.7	0.00090	mg/L	0.000743	0.00181	mg/L	0.001487	82.18%
Sb 206.836†	1.6	0.00053	mg/L	0.001506	0.00107	mg/L	0.003012	281.62%
Se 196.026†	-1.4	-0.00105	mg/L	0.002205	-0.00209	mg/L	0.004411	210.55%
Si 288.158†	7.5	0.00411	mg/L	0.002798	0.00823	mg/L	0.005595	68.01%
Sn 189.927†	3.8	0.00111	mg/L	0.000815	0.00222	mg/L	0.001631	73.46%
Sr 421.552†	10.7	0.00001	mg/L	0.000019	0.00003	mg/L	0.000039	136.44%
Ti 334.903†	2.1	0.00012	mg/L	0.000345	0.00023	mg/L	0.000690	298.74%
Tl 190.801†	1.7	0.00077	mg/L	0.001215	0.00155	mg/L	0.002429	157.03%
V 292.402†	19.9	0.00018	mg/L	0.000149	0.00037	mg/L	0.000299	81.19%
Zn 206.200†	10.1	0.00296	mg/L	0.000455	0.00591	mg/L	0.000910	15.38%

Sequence No.: 12
Sample ID: VS20 E SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 308
Date Collected: 11/26/2012 1:40:27 PM
Data Type: Original

Nebulizer Parameters: VS20 E SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS20 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2459457.6	104.8	%	0.40				0.38%
ScR 361.383	305676.4	104.6	%	1.42				1.36%
Ag 328.068†	428.6	0.00269	mg/L	0.000173	0.01343	mg/L	0.000864	6.43%
Al 308.215†	128209.6	85.20	mg/L	2.182	426.0	mg/L	10.91	2.56%
As 188.979†	75.2	0.09903	mg/L	0.001392	0.4951	mg/L	0.00696	1.41%
B 249.677†	59.9	0.00866	mg/L	0.001226	0.04328	mg/L	0.006131	14.17%
Ba 233.527†	4718.8	1.085	mg/L	0.0243	5.427	mg/L	0.1216	2.24%
Be 313.042†	2822.8	0.00530	mg/L	0.000148	0.02649	mg/L	0.000738	2.78%
Ca 317.933†	612347.9	50.27	mg/L	1.327	251.3	mg/L	6.64	2.64%
Cd 228.802†	1081.1	0.03986	mg/L	0.000351	0.1993	mg/L	0.00176	0.88%
Co 228.616†	4370.9	0.1221	mg/L	0.00067	0.6107	mg/L	0.00335	0.55%
Cr 267.716†	428.5	0.07681	mg/L	0.000369	0.3840	mg/L	0.00185	0.48%
Cu 324.752†	47131.8	0.2112	mg/L	0.00089	1.056	mg/L	0.0045	0.42%
Fe 273.955†	207588.8	164.1	mg/L	4.30	820.5	mg/L	21.52	2.62%
K 766.490†	7832.6	4.508	mg/L	0.1259	22.54	mg/L	0.630	2.79%
Mg 279.077†	51632.3	41.97	mg/L	1.173	209.8	mg/L	5.87	2.80%
Mn 257.610†	483526.6	14.16	mg/L	0.363	70.79	mg/L	1.815	2.56%
Mo 202.031†	121.3	0.00615	mg/L	0.000347	0.03073	mg/L	0.001735	5.64%
Na 589.592†	5961.0	0.5660	mg/L	0.01100	2.830	mg/L	0.0550	1.94%
Na 330.237†	14.0	0.2423	mg/L	0.09151	1.212	mg/L	0.4575	37.76%
Ni 231.604†	815.1	0.2219	mg/L	0.00418	1.110	mg/L	0.0209	1.88%
Pb 220.353†	11872.7	1.600	mg/L	0.0050	7.999	mg/L	0.0249	0.31%
Sb 206.836†	47.2	0.01600	mg/L	0.003584	0.08002	mg/L	0.017920	22.40%
Se 196.026†	14.8	0.01121	mg/L	0.002876	0.05606	mg/L	0.014382	25.66%
Si 288.158†	978.6	0.5446	mg/L	0.01221	2.723	mg/L	0.0611	2.24%
Sn 189.927†	-34.2	-0.00346	mg/L	0.001713	-0.01728	mg/L	0.008566	49.57%
Sr 421.552†	302241.1	0.3981	mg/L	0.01026	1.991	mg/L	0.0513	2.58%
Ti 334.903†	35059.7	1.952	mg/L	0.0505	9.761	mg/L	0.2524	2.59%
Tl 190.801†	-33.1	0.00172	mg/L	0.004841	0.00862	mg/L	0.024203	280.78%
V 292.402†	11954.3	0.1019	mg/L	0.00031	0.5093	mg/L	0.00154	0.30%
Zn 206.200†	7548.5	2.218	mg/L	0.0517	11.09	mg/L	0.258	2.33%

Sequence No.: 13
Sample ID: VS21 B SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 309
Date Collected: 11/26/2012 1:44:28 PM
Data Type: Original

Nebulizer Parameters: VS21 B SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS21 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2430555.1	103.5	%	0.13				0.12%
ScR 361.383	305755.5	104.7	%	2.44				2.33%
Ag 328.068†	965.8	0.00600	mg/L	0.000162	0.02999	mg/L	0.000808	2.69%
Al 308.215†	38524.6	25.60	mg/L	0.632	128.0	mg/L	3.16	2.47%
As 188.979†	81.0	0.09358	mg/L	0.001826	0.4679	mg/L	0.00913	1.95%
B 249.677†	147.9	0.02197	mg/L	0.000651	0.1099	mg/L	0.00326	2.96%
Ba 233.527†	13728.0	3.230	mg/L	0.0720	16.15	mg/L	0.360	2.23%
Be 313.042†	844.1	0.00157	mg/L	0.000086	0.00784	mg/L	0.000432	5.51%
Ca 317.933†	544962.5	44.74	mg/L	1.119	223.7	mg/L	5.59	2.50%
Cd 228.802†	1970.4	0.07507	mg/L	0.000458	0.3753	mg/L	0.00229	0.61%
Co 228.616†	648.2	0.01516	mg/L	0.000427	0.07579	mg/L	0.002133	2.81%
Cr 267.716†	173.5	0.03035	mg/L	0.001645	0.1518	mg/L	0.00823	5.42%
Cu 324.752†	39001.5	0.1704	mg/L	0.00162	0.8522	mg/L	0.00810	0.95%
Fe 273.955†	42633.9	33.70	mg/L	0.822	168.5	mg/L	4.11	2.44%
K 766.490†	7691.7	4.427	mg/L	0.0937	22.13	mg/L	0.468	2.12%
Mg 279.077†	8882.7	7.217	mg/L	0.1590	36.08	mg/L	0.795	2.20%
Mn 257.610†	183975.0	5.388	mg/L	0.1364	26.94	mg/L	0.682	2.53%
Mo 202.031†	93.5	0.00467	mg/L	0.000424	0.02335	mg/L	0.002119	9.07%
Na 589.592†	3892.9	0.3696	mg/L	0.00569	1.848	mg/L	0.0284	1.54%
Na 330.237†	23.5	-0.04649	mg/L	0.125481	-0.2325	mg/L	0.62740	269.89%
Ni 231.604†	91.4	0.02497	mg/L	0.000214	0.1249	mg/L	0.00107	0.86%
Pb 220.353†	43601.4	5.830	mg/L	0.0715	29.15	mg/L	0.357	1.23%
Sb 206.836†	434.5	0.1471	mg/L	0.00141	0.7355	mg/L	0.00706	0.96%
Se 196.026†	-0.7	-0.00056	mg/L	0.002193	-0.00281	mg/L	0.010966	390.92%
Si 288.158†	4496.2	2.479	mg/L	0.0605	12.40	mg/L	0.302	2.44%
Sn 189.927†	94.6	0.03376	mg/L	0.000867	0.1688	mg/L	0.00433	2.57%
Sr 421.552†	411859.5	0.5425	mg/L	0.01333	2.713	mg/L	0.0667	2.46%
Ti 334.903†	29250.3	1.629	mg/L	0.0416	8.143	mg/L	0.2079	2.55%
Tl 190.801†	10.2	0.00786	mg/L	0.002302	0.03928	mg/L	0.011512	29.31%
V 292.402†	5643.5	0.04900	mg/L	0.000431	0.2450	mg/L	0.00215	0.88%
Zn 206.200†	13491.6	3.964	mg/L	0.0861	19.82	mg/L	0.431	2.17%

Sequence No.: 14
Sample ID: VS21 C SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 310
Date Collected: 11/26/2012 1:48:28 PM
Data Type: Original

Nebulizer Parameters: VS21 C SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS21 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2459353.5	104.8	%	0.47				0.44%
ScR 361.383	308913.1	105.7	%	1.69				1.60%
Ag 328.068†	-24.3	-0.00010	mg/L	0.000095	-0.00049	mg/L	0.000475	96.87%
Al 308.215†	119818.0	79.61	mg/L	1.559	398.1	mg/L	7.79	1.96%
As 188.979†	-14.1	0.08496	mg/L	0.002004	0.4248	mg/L	0.01002	2.36%
B 249.677†	44.6	0.00654	mg/L	0.000390	0.03271	mg/L	0.001952	5.97%
Ba 233.527†	5004.9	1.164	mg/L	0.0197	5.821	mg/L	0.0984	1.69%
Be 313.042†	1056.7	0.00192	mg/L	0.000059	0.00962	mg/L	0.000297	3.08%
Ca 317.933†	212198.2	17.42	mg/L	0.362	87.10	mg/L	1.808	2.08%
Cd 228.802†	523.0	0.01932	mg/L	0.000296	0.09659	mg/L	0.001481	1.53%
Co 228.616†	1639.2	0.04034	mg/L	0.000688	0.2017	mg/L	0.00344	1.71%
Cr 267.716†	591.4	0.1058	mg/L	0.00299	0.5290	mg/L	0.01493	2.82%
Cu 324.752†	23586.9	0.1057	mg/L	0.00098	0.5285	mg/L	0.00489	0.92%
Fe 273.955†	118827.9	93.93	mg/L	1.722	469.7	mg/L	8.61	1.83%
K 766.490†	14620.8	8.415	mg/L	0.1156	42.07	mg/L	0.578	1.37%
Mg 279.077†	28098.3	22.84	mg/L	0.484	114.2	mg/L	2.42	2.12%
Mn 257.610†	104432.6	3.058	mg/L	0.0587	15.29	mg/L	0.294	1.92%
Mo 202.031†	49.3	0.00253	mg/L	0.000505	0.01264	mg/L	0.002527	19.99%
Na 589.592†	12571.9	1.194	mg/L	0.0240	5.968	mg/L	0.1201	2.01%
Na 330.237†	19.3	1.119	mg/L	0.1145	5.593	mg/L	0.5725	10.24%
Ni 231.604†	309.8	0.08437	mg/L	0.001304	0.4218	mg/L	0.00652	1.55%
Pb 220.353†	5284.1	0.7212	mg/L	0.00481	3.606	mg/L	0.0241	0.67%
Sb 206.836†	25.8	0.00931	mg/L	0.001705	0.04656	mg/L	0.008525	18.31%
Se 196.026†	8.9	0.00670	mg/L	0.003326	0.03350	mg/L	0.016631	49.64%
Si 288.158†	5718.5	3.155	mg/L	0.0529	15.77	mg/L	0.264	1.68%
Sn 189.927†	-15.2	-0.00179	mg/L	0.001435	-0.00895	mg/L	0.007174	80.20%
Sr 421.552†	163073.1	0.2148	mg/L	0.00398	1.074	mg/L	0.0199	1.85%
Ti 334.903†	59362.3	3.309	mg/L	0.0649	16.54	mg/L	0.325	1.96%
Tl 190.801†	-23.7	-0.00140	mg/L	0.002110	-0.00701	mg/L	0.010550	150.51%
V 292.402†	20599.1	0.1788	mg/L	0.00182	0.8939	mg/L	0.00908	1.02%
Zn 206.200†	3768.2	1.107	mg/L	0.0240	5.536	mg/L	0.1201	2.17%

Sequence No.: 15
Sample ID: VS21 A-L SWC
Analyst: BA
Dilution: 25.000000X

Autosampler Location: 311
Date Collected: 11/26/2012 1:52:28 PM
Data Type: Original

Nebulizer Parameters: VS21 A-L SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS21 A-L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2405663.5	102.5	%	0.37				0.36%
ScR 361.383	305081.8	104.4	%	3.63				3.47%
Ag 328.068†	-4.8	-0.00002	mg/L	0.000148	-0.00043	mg/L	0.003690	861.82%
Al 308.215†	26128.9	17.36	mg/L	0.574	434.0	mg/L	14.35	3.31%
As 188.979†	-4.5	0.01905	mg/L	0.001512	0.4763	mg/L	0.03781	7.94%
B 249.677†	0.5	0.00006	mg/L	0.000191	0.00153	mg/L	0.004780	311.41%
Ba 233.527†	676.8	0.1563	mg/L	0.00561	3.908	mg/L	0.1403	3.59%
Be 313.042†	264.7	0.00048	mg/L	0.000069	0.01208	mg/L	0.001728	14.31%
Ca 317.933†	37084.8	3.044	mg/L	0.0967	76.11	mg/L	2.417	3.18%
Cd 228.802†	150.1	0.00561	mg/L	0.000135	0.1403	mg/L	0.00337	2.40%
Co 228.616†	321.7	0.00768	mg/L	0.000320	0.1920	mg/L	0.00801	4.17%
Cr 267.716†	160.0	0.02849	mg/L	0.000775	0.7122	mg/L	0.01936	2.72%
Cu 324.752†	5689.7	0.02536	mg/L	0.000567	0.6341	mg/L	0.01419	2.24%
Fe 273.955†	24661.8	19.50	mg/L	0.622	487.4	mg/L	15.54	3.19%
K 766.490†	1807.0	1.040	mg/L	0.0572	26.00	mg/L	1.429	5.50%
Mg 279.077†	6771.0	5.504	mg/L	0.1626	137.6	mg/L	4.06	2.95%
Mn 257.610†	18772.4	0.5498	mg/L	0.01758	13.74	mg/L	0.439	3.20%
Mo 202.031†	6.8	0.00034	mg/L	0.000256	0.00858	mg/L	0.006409	74.68%
Na 589.592†	825.8	0.07841	mg/L	0.002174	1.960	mg/L	0.0544	2.77%
Na 330.237†	-4.5	-0.07037	mg/L	0.129283	-1.759	mg/L	3.2321	183.73%
Ni 231.604†	67.3	0.01833	mg/L	0.000732	0.4582	mg/L	0.01831	3.99%
Pb 220.353†	3073.9	0.4140	mg/L	0.00972	10.35	mg/L	0.243	2.35%
Sb 206.836†	10.1	0.00351	mg/L	0.004029	0.08763	mg/L	0.100732	114.95%
Se 196.026†	-0.9	-0.00069	mg/L	0.003094	-0.01736	mg/L	0.077349	445.44%
Si 288.158†	1237.6	0.6828	mg/L	0.01579	17.07	mg/L	0.395	2.31%
Sn 189.927†	-0.5	0.00034	mg/L	0.000749	0.00856	mg/L	0.018733	218.76%
Sr 421.552†	25211.5	0.03321	mg/L	0.001127	0.8303	mg/L	0.02818	3.39%
Ti 334.903†	13805.7	0.7695	mg/L	0.02321	19.24	mg/L	0.580	3.02%
Tl 190.801†	-4.5	-0.00015	mg/L	0.000965	-0.00368	mg/L	0.024128	655.22%
V 292.402†	4953.5	0.04310	mg/L	0.001331	1.077	mg/L	0.0333	3.09%
Zn 206.200†	785.1	0.2307	mg/L	0.00729	5.767	mg/L	0.1821	3.16%

Sequence No.: 16
Sample ID: VS21 A SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 312
Date Collected: 11/26/2012 1:56:27 PM
Data Type: Original

Nebulizer Parameters: VS21 A SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS21 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2424637.8	103.3	%	0.79				0.77%
ScR 361.383	305156.8	104.5	%	2.75				2.63%
Ag 328.068†	-35.6	-0.00016	mg/L	0.000251	-0.00078	mg/L	0.001255	160.23%
Al 308.215†	131399.7	87.31	mg/L	3.060	436.5	mg/L	15.30	3.50%
As 188.979†	-23.5	0.09437	mg/L	0.003312	0.4718	mg/L	0.01656	3.51%
B 249.677†	19.8	0.00285	mg/L	0.000468	0.01423	mg/L	0.002342	16.46%
Ba 233.527†	3392.5	0.7835	mg/L	0.01831	3.918	mg/L	0.0916	2.34%
Be 313.042†	1362.2	0.00249	mg/L	0.000092	0.01244	mg/L	0.000459	3.69%
Ca 317.933†	187494.5	15.39	mg/L	0.541	76.96	mg/L	2.705	3.52%
Cd 228.802†	775.5	0.02902	mg/L	0.001052	0.1451	mg/L	0.00526	3.63%
Co 228.616†	1628.5	0.03899	mg/L	0.001334	0.1949	mg/L	0.00667	3.42%
Cr 267.716†	766.6	0.1367	mg/L	0.00377	0.6836	mg/L	0.01883	2.76%
Cu 324.752†	29478.6	0.1313	mg/L	0.00386	0.6566	mg/L	0.01930	2.94%
Fe 273.955†	123713.9	97.80	mg/L	3.605	489.0	mg/L	18.03	3.69%
K 766.490†	9217.0	5.305	mg/L	0.1658	26.52	mg/L	0.829	3.13%
Mg 279.077†	32112.0	26.10	mg/L	0.898	130.5	mg/L	4.49	3.44%
Mn 257.610†	94029.5	2.754	mg/L	0.0972	13.77	mg/L	0.486	3.53%
Mo 202.031†	56.2	0.00292	mg/L	0.000548	0.01462	mg/L	0.002742	18.75%
Na 589.592†	4144.3	0.3935	mg/L	0.01428	1.967	mg/L	0.0714	3.63%
Na 330.237†	-5.4	0.2871	mg/L	0.17888	1.435	mg/L	0.8944	62.31%
Ni 231.604†	326.5	0.08889	mg/L	0.001246	0.4445	mg/L	0.00623	1.40%
Pb 220.353†	15295.7	2.060	mg/L	0.0495	10.30	mg/L	0.248	2.40%
Sb 206.836†	40.7	0.01429	mg/L	0.001857	0.07147	mg/L	0.009286	12.99%
Se 196.026†	6.1	0.00449	mg/L	0.002706	0.02246	mg/L	0.013528	60.24%
Si 288.158†	6171.3	3.405	mg/L	0.0908	17.02	mg/L	0.454	2.67%
Sn 189.927†	-0.7	0.00234	mg/L	0.001083	0.01168	mg/L	0.005414	46.37%
Sr 421.552†	125237.0	0.1650	mg/L	0.00573	0.8249	mg/L	0.02863	3.47%
Ti 334.903†	68804.7	3.835	mg/L	0.1316	19.18	mg/L	0.658	3.43%
Tl 190.801†	-15.9	0.00230	mg/L	0.001837	0.01149	mg/L	0.009183	79.95%
V 292.402†	25059.5	0.2181	mg/L	0.00656	1.090	mg/L	0.0328	3.01%
Zn 206.200†	3944.6	1.159	mg/L	0.0286	5.795	mg/L	0.1429	2.47%

Sequence No.: 17
Sample ID: VS21 ADUP SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 313
Date Collected: 11/26/2012 2:00:27 PM
Data Type: Original

Nebulizer Parameters: VS21 ADUP SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS21 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2427197.7	103.4	%	0.22				0.22%
ScR 361.383	307318.2	105.2	%	3.47				3.30%
Ag 328.068†	-30.2	-0.00012	mg/L	0.000183	-0.00062	mg/L	0.000915	147.99%
Al 308.215†	130586.1	86.77	mg/L	3.265	433.8	mg/L	16.32	3.76%
As 188.979†	-36.5	0.08568	mg/L	0.004387	0.4284	mg/L	0.02194	5.12%
B 249.677†	15.1	0.00216	mg/L	0.000789	0.01078	mg/L	0.003944	36.59%
Ba 233.527†	3417.5	0.7900	mg/L	0.02272	3.950	mg/L	0.1136	2.88%
Be 313.042†	1370.8	0.00251	mg/L	0.000128	0.01253	mg/L	0.000642	5.12%
Ca 317.933†	176300.0	14.47	mg/L	0.543	72.36	mg/L	2.713	3.75%
Cd 228.802†	752.3	0.02821	mg/L	0.000577	0.1411	mg/L	0.00288	2.04%
Co 228.616†	1641.2	0.03946	mg/L	0.000786	0.1973	mg/L	0.00393	1.99%
Cr 267.716†	797.0	0.1420	mg/L	0.00316	0.7102	mg/L	0.01579	2.22%
Cu 324.752†	29422.6	0.1309	mg/L	0.00170	0.6547	mg/L	0.00852	1.30%
Fe 273.955†	119595.3	94.54	mg/L	3.541	472.7	mg/L	17.70	3.75%
K 766.490†	9370.5	5.393	mg/L	0.2306	26.97	mg/L	1.153	4.28%
Mg 279.077†	31089.9	25.27	mg/L	0.907	126.4	mg/L	4.53	3.59%
Mn 257.610†	94010.5	2.753	mg/L	0.1042	13.77	mg/L	0.521	3.79%
Mo 202.031†	57.3	0.00300	mg/L	0.000479	0.01498	mg/L	0.002397	16.00%
Na 589.592†	3903.9	0.3707	mg/L	0.01347	1.853	mg/L	0.0674	3.63%
Na 330.237†	-11.1	0.07585	mg/L	0.330889	0.3793	mg/L	1.65445	436.23%
Ni 231.604†	321.1	0.08743	mg/L	0.001947	0.4371	mg/L	0.00974	2.23%
Pb 220.353†	14936.8	2.013	mg/L	0.0241	10.06	mg/L	0.121	1.20%
Sb 206.836†	43.6	0.01518	mg/L	0.001972	0.07590	mg/L	0.009862	12.99%
Se 196.026†	9.3	0.00699	mg/L	0.005256	0.03495	mg/L	0.026282	75.21%
Si 288.158†	6190.9	3.415	mg/L	0.0975	17.08	mg/L	0.487	2.85%
Sn 189.927†	2.9	0.00326	mg/L	0.000340	0.01631	mg/L	0.001702	10.43%
Sr 421.552†	121094.5	0.1595	mg/L	0.00584	0.7976	mg/L	0.02918	3.66%
Ti 334.903†	68321.8	3.808	mg/L	0.1402	19.04	mg/L	0.701	3.68%
Tl 190.801†	-15.2	0.00227	mg/L	0.002633	0.01136	mg/L	0.013163	115.85%
V 292.402†	24664.9	0.2147	mg/L	0.00250	1.074	mg/L	0.0125	1.17%
Zn 206.200†	3843.0	1.129	mg/L	0.0325	5.646	mg/L	0.1624	2.88%

Sequence No.: 18
Sample ID: VS21 ASPK SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 314
Date Collected: 11/26/2012 2:04:27 PM
Data Type: Original

Nebulizer Parameters: VS21 ASPK SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VS21 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2444658.5	104.1	%	0.47				0.45%
ScR 361.383	306065.2	104.8	%	2.46				2.34%
Ag 328.068†	32047.9	0.1986	mg/L	0.00228	0.9932	mg/L	0.01141	1.15%
Al 308.215†	135742.6	90.19	mg/L	2.763	451.0	mg/L	13.81	3.06%
As 188.979†	1280.6	0.8887	mg/L	0.01346	4.444	mg/L	0.0673	1.51%
B 249.677†	23.1	0.00291	mg/L	0.000855	0.01455	mg/L	0.004275	29.38%
Ba 233.527†	6924.9	1.616	mg/L	0.0287	8.078	mg/L	0.1435	1.78%
Be 313.042†	113392.8	0.2145	mg/L	0.00787	1.073	mg/L	0.0393	3.67%
Ca 317.933†	225927.3	18.55	mg/L	0.635	92.73	mg/L	3.177	3.43%
Cd 228.802†	6528.9	0.2449	mg/L	0.00470	1.224	mg/L	0.0235	1.92%
Co 228.616†	8733.8	0.2474	mg/L	0.00441	1.237	mg/L	0.0221	1.78%
Cr 267.716†	1958.3	0.3471	mg/L	0.00646	1.736	mg/L	0.0323	1.86%
Cu 324.752†	76614.2	0.3361	mg/L	0.00324	1.681	mg/L	0.0162	0.97%
Fe 273.955†	127950.3	101.1	mg/L	3.35	505.7	mg/L	16.76	3.31%
K 766.490†	16378.5	9.427	mg/L	0.2658	47.13	mg/L	1.329	2.82%
Mg 279.077†	38306.9	31.15	mg/L	1.010	155.7	mg/L	5.05	3.24%
Mn 257.610†	103328.8	3.026	mg/L	0.1010	15.13	mg/L	0.505	3.34%
Mo 202.031†	56.9	0.00292	mg/L	0.000174	0.01459	mg/L	0.000868	5.95%
Na 589.592†	47372.8	4.498	mg/L	0.1439	22.49	mg/L	0.720	3.20%
Na 330.237†	102.4	4.274	mg/L	0.1611	21.37	mg/L	0.805	3.77%
Ni 231.604†	1101.1	0.2995	mg/L	0.00746	1.497	mg/L	0.0373	2.49%
Pb 220.353†	21905.6	2.944	mg/L	0.0527	14.72	mg/L	0.263	1.79%
Sb 206.836†	50.3	0.01530	mg/L	0.001422	0.07648	mg/L	0.007112	9.30%
Se 196.026†	1052.7	0.8040	mg/L	0.01754	4.020	mg/L	0.0877	2.18%
Si 288.158†	5653.3	3.120	mg/L	0.0656	15.60	mg/L	0.328	2.10%
Sn 189.927†	-6.3	0.00107	mg/L	0.000377	0.00534	mg/L	0.001883	35.25%
Sr 421.552†	280545.8	0.3696	mg/L	0.01145	1.848	mg/L	0.0573	3.10%
Ti 334.903†	66720.4	3.719	mg/L	0.1184	18.59	mg/L	0.592	3.18%
Tl 190.801†	1729.6	0.7766	mg/L	0.01302	3.883	mg/L	0.0651	1.68%
V 292.402†	48689.9	0.4289	mg/L	0.00596	2.145	mg/L	0.0298	1.39%
Zn 206.200†	4597.9	1.351	mg/L	0.0247	6.755	mg/L	0.1236	1.83%

Sequence No.: 19 ZZZZZZ
Sample ID: ~~VS21 APOST SWC~~ BA
Analyst: BA
Dilution: 5.000000X 11/28/12

Autosampler Location: 315
Date Collected: 11/26/2012 2:08:13 PM
Data Type: Original

Nebulizer Parameters: VS21 APOST SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS21 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2444846.0	104.1	%	3.16				3.03%
ScR 361.383	301909.1	103.4	%	1.28				1.24%
Ag 328.068†	80202.6	0.4970	mg/L	0.01650	2.485	mg/L	0.0825	3.32%
Al 308.215†	139450.0	92.65	mg/L	1.371	463.3	mg/L	6.85	1.48%
As 188.979†	3315.3	2.141	mg/L	0.0840	10.71	mg/L	0.420	3.92%
B 249.677†	20.0	0.00181	mg/L	0.001288	0.00905	mg/L	0.006442	71.21%
Ba 233.527†	11805.7	2.766	mg/L	0.0405	13.83	mg/L	0.202	1.46%
Be 313.042†	272843.6	0.5163	mg/L	0.01149	2.581	mg/L	0.0574	2.23%
Ca 317.933†	314976.5	25.86	mg/L	0.436	129.3	mg/L	2.18	1.69%
Cd 228.802†	15328.5	0.5749	mg/L	0.02347	2.874	mg/L	0.1174	4.08%
Co 228.616†	19399.2	0.5595	mg/L	0.02166	2.797	mg/L	0.1083	3.87%
Cr 267.716†	3556.2	0.6291	mg/L	0.01017	3.145	mg/L	0.0509	1.62%
Cu 324.752†	154860.3	0.6759	mg/L	0.01901	3.380	mg/L	0.0951	2.81%
Fe 273.955†	130712.3	103.3	mg/L	1.70	516.6	mg/L	8.50	1.64%
K 766.490†	26791.7	15.42	mg/L	0.213	77.10	mg/L	1.067	1.38%
Mg 279.077†	47076.7	38.29	mg/L	0.401	191.4	mg/L	2.01	1.05%
Mn 257.610†	114037.9	3.340	mg/L	0.0560	16.70	mg/L	0.280	1.68%
Mo 202.031†	63.8	0.00321	mg/L	0.000118	0.01603	mg/L	0.000592	3.69%
Na 589.592†	110065.4	10.45	mg/L	0.207	52.25	mg/L	1.036	1.98%
Na 330.237†	255.2	10.00	mg/L	0.266	50.02	mg/L	1.331	2.66%
Ni 231.604†	2141.9	0.5823	mg/L	0.00847	2.912	mg/L	0.0424	1.45%
Pb 220.353†	30459.2	4.088	mg/L	0.1019	20.44	mg/L	0.509	2.49%
Sb 206.836†	60.8	0.01604	mg/L	0.000769	0.08021	mg/L	0.003843	4.79%
Se 196.026†	2695.9	2.059	mg/L	0.0765	10.30	mg/L	0.382	3.71%
Si 288.158†	6273.8	3.465	mg/L	0.0293	17.32	mg/L	0.146	0.85%
Sn 189.927†	-11.2	0.00063	mg/L	0.000554	0.00317	mg/L	0.002770	87.49%
Sr 421.552†	518449.0	0.6830	mg/L	0.01360	3.415	mg/L	0.0680	1.99%
Ti 334.903†	71661.5	3.994	mg/L	0.0603	19.97	mg/L	0.301	1.51%
Tl 190.801†	4400.7	1.961	mg/L	0.0799	9.805	mg/L	0.3996	4.08%
V 292.402†	82356.6	0.7290	mg/L	0.01780	3.645	mg/L	0.0890	2.44%
Zn 206.200†	5708.3	1.677	mg/L	0.0194	8.387	mg/L	0.0971	1.16%

Sequence No.: 20
Sample ID: VS21 MB1SPK SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 316
Date Collected: 11/26/2012 2:11:29 PM
Data Type: Original

Nebulizer Parameters: VS21 MB1SPK SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS21 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2450658.7	104.4	%	1.08				1.04%
ScR 361.383	297298.7	101.8	%	2.47				2.43%
Ag 328.068†	87388.5	0.5415	mg/L	0.00608	1.083	mg/L	0.0122	1.12%
Al 308.215†	3152.2	2.087	mg/L	0.0577	4.174	mg/L	0.1154	2.76%
As 188.979†	3403.7	2.082	mg/L	0.0240	4.164	mg/L	0.0481	1.15%
B 249.677†	-0.3	-0.00113	mg/L	0.000377	-0.00227	mg/L	0.000753	33.24%
Ba 233.527†	8833.3	2.082	mg/L	0.0564	4.163	mg/L	0.1128	2.71%
Be 313.042†	285897.0	0.5411	mg/L	0.01739	1.082	mg/L	0.0348	3.21%
Ca 317.933†	124910.2	10.25	mg/L	0.324	20.51	mg/L	0.648	3.16%
Cd 228.802†	14472.1	0.5425	mg/L	0.00582	1.085	mg/L	0.0116	1.07%
Co 228.616†	17972.8	0.5267	mg/L	0.00559	1.053	mg/L	0.0112	1.06%
Cr 267.716†	2980.2	0.5261	mg/L	0.01385	1.052	mg/L	0.0277	2.63%
Cu 324.752†	119178.9	0.5176	mg/L	0.00238	1.035	mg/L	0.0048	0.46%
Fe 273.955†	2697.3	2.129	mg/L	0.0601	4.257	mg/L	0.1202	2.82%
K 766.490†	17768.1	10.23	mg/L	0.276	20.45	mg/L	0.553	2.70%
Mg 279.077†	12969.2	10.56	mg/L	0.308	21.13	mg/L	0.615	2.91%
Mn 257.610†	17865.1	0.5235	mg/L	0.01454	1.047	mg/L	0.0291	2.78%
Mo 202.031†	13.9	0.00063	mg/L	0.000214	0.00125	mg/L	0.000428	34.24%
Na 589.592†	110631.2	10.50	mg/L	0.299	21.01	mg/L	0.597	2.84%
Na 330.237†	279.8	10.40	mg/L	0.224	20.81	mg/L	0.448	2.15%
Ni 231.604†	1943.7	0.5283	mg/L	0.01340	1.057	mg/L	0.0268	2.54%
Pb 220.353†	15150.9	2.025	mg/L	0.0257	4.050	mg/L	0.0515	1.27%
Sb 206.836†	19.0	0.00088	mg/L	0.002035	0.00176	mg/L	0.004071	231.18%
Se 196.026†	2697.1	2.060	mg/L	0.0268	4.121	mg/L	0.0535	1.30%
Si 288.158†	12.8	0.01035	mg/L	0.004346	0.02069	mg/L	0.008692	42.01%
Sn 189.927†	-14.6	-0.00295	mg/L	0.000756	-0.00590	mg/L	0.001512	25.62%
Sr 421.552†	406533.5	0.5355	mg/L	0.01569	1.071	mg/L	0.0314	2.93%
Ti 334.903†	55.8	0.00251	mg/L	0.000493	0.00503	mg/L	0.000985	19.59%
Tl 190.801†	4567.3	2.025	mg/L	0.0226	4.051	mg/L	0.0453	1.12%
V 292.402†	59553.1	0.5314	mg/L	0.00622	1.063	mg/L	0.0124	1.17%
Zn 206.200†	1807.2	0.5311	mg/L	0.01577	1.062	mg/L	0.0315	2.97%

Sequence No.: 21
Sample ID: CV 2
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/26/2012 2:15:29 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2410168.5	102.7	%	0.53				0.52%
ScR 361.383	299050.9	102.4	%	3.20				3.13%
Ag 328.068†	170327.8	1.055	mg/L	0.0021	1.055	mg/L	0.0021	0.20%
Al 308.215†	3089.4	2.017	mg/L	0.0752	2.017	mg/L	0.0752	3.73%
As 188.979†	3351.1	2.077	mg/L	0.0086	2.077	mg/L	0.0086	0.41%
B 249.677†	6871.0	1.021	mg/L	0.0348	1.021	mg/L	0.0348	3.41%
Ba 233.527†	4290.9	1.011	mg/L	0.0345	1.011	mg/L	0.0345	3.41%
Be 313.042†	536884.6	1.016	mg/L	0.0365	1.016	mg/L	0.0365	3.60%
Ca 317.933†	23742.3	1.949	mg/L	0.0682	1.949	mg/L	0.0682	3.50%
Cd 228.802†	28001.5	1.063	mg/L	0.0024	1.063	mg/L	0.0024	0.23%
Co 228.616†	35285.5	1.032	mg/L	0.0034	1.032	mg/L	0.0034	0.33%
Cr 267.716†	5762.9	1.019	mg/L	0.0335	1.019	mg/L	0.0335	3.28%
Cu 324.752†	238021.4	1.033	mg/L	0.0005	1.033	mg/L	0.0005	0.05%
Fe 273.955†	2622.0	2.065	mg/L	0.0682	2.065	mg/L	0.0682	3.30%
K 766.490†	34901.7	20.09	mg/L	0.730	20.09	mg/L	0.730	3.63%
Mg 279.077†	2494.1	2.039	mg/L	0.0685	2.039	mg/L	0.0685	3.36%
Mn 257.610†	33646.4	0.9856	mg/L	0.03682	0.9856	mg/L	0.03682	3.74%
Mo 202.031†	18911.1	1.043	mg/L	0.0021	1.043	mg/L	0.0021	0.20%
Na 589.592†	548436.8	52.07	mg/L	1.769	52.07	mg/L	1.769	3.40%
Na 330.237†	1397.0	52.70	mg/L	1.507	52.70	mg/L	1.507	2.86%
Ni 231.604†	3764.0	1.025	mg/L	0.0316	1.025	mg/L	0.0316	3.09%
Pb 220.353†	14993.6	2.004	mg/L	0.0071	2.004	mg/L	0.0071	0.35%
Sb 206.836†	6569.3	2.213	mg/L	0.0068	2.213	mg/L	0.0068	0.31%
Se 196.026†	2652.8	2.026	mg/L	0.0081	2.026	mg/L	0.0081	0.40%
Si 288.158†	3974.6	2.190	mg/L	0.0782	2.190	mg/L	0.0782	3.57%
Sn 189.927†	3615.6	1.061	mg/L	0.0052	1.061	mg/L	0.0052	0.49%
Sr 421.552†	781725.0	1.030	mg/L	0.0366	1.030	mg/L	0.0366	3.56%
Ti 334.903†	19180.6	1.068	mg/L	0.0397	1.068	mg/L	0.0397	3.72%
Tl 190.801†	4584.2	2.029	mg/L	0.0070	2.029	mg/L	0.0070	0.35%
V 292.402†	118359.2	1.056	mg/L	0.0022	1.056	mg/L	0.0022	0.20%
Zn 206.200†	3606.7	1.059	mg/L	0.0359	1.059	mg/L	0.0359	3.39%

Sequence No.: 22
Sample ID: CB 2
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/26/2012 2:19:33 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2418712.5	103.0	%	0.82				0.80%
ScR 361.383	298639.9	102.2	%	2.11				2.07%
Ag 328.068†	36.4	0.00023	mg/L	0.000303	0.00023	mg/L	0.000303	134.16%
Al 308.215†	8.7	0.00574	mg/L	0.009941	0.00574	mg/L	0.009941	173.16%
As 188.979†	2.2	0.00138	mg/L	0.001868	0.00138	mg/L	0.001868	135.69%
B 249.677†	7.8	0.00116	mg/L	0.000796	0.00116	mg/L	0.000796	68.32%
Ba 233.527†	4.1	0.00097	mg/L	0.000696	0.00097	mg/L	0.000696	71.50%
Be 313.042†	103.7	0.00020	mg/L	0.000031	0.00020	mg/L	0.000031	15.79%
Ca 317.933†	14.2	0.00117	mg/L	0.001648	0.00117	mg/L	0.001648	141.25%
Cd 228.802†	1.2	0.00004	mg/L	0.000113	0.00004	mg/L	0.000113	307.53%
Co 228.616†	9.1	0.00027	mg/L	0.000080	0.00027	mg/L	0.000080	29.94%
Cr 267.716†	1.2	0.00021	mg/L	0.001116	0.00021	mg/L	0.001116	541.74%
Cu 324.752†	-45.1	-0.00020	mg/L	0.000068	-0.00020	mg/L	0.000068	34.66%
Fe 273.955†	-1.5	-0.00117	mg/L	0.002212	-0.00117	mg/L	0.002212	189.18%
K 766.490†	32.1	0.01847	mg/L	0.010522	0.01847	mg/L	0.010522	56.95%
Mg 279.077†	-1.0	-0.00080	mg/L	0.003667	-0.00080	mg/L	0.003667	460.32%
Mn 257.610†	6.9	0.00020	mg/L	0.000253	0.00020	mg/L	0.000253	125.70%
Mo 202.031†	14.6	0.00081	mg/L	0.000217	0.00081	mg/L	0.000217	26.88%
Na 589.592†	96.8	0.00919	mg/L	0.006511	0.00919	mg/L	0.006511	70.83%
Na 330.237†	-9.8	-0.3697	mg/L	0.67373	-0.3697	mg/L	0.67373	182.22%
Ni 231.604†	6.0	0.00164	mg/L	0.001410	0.00164	mg/L	0.001410	86.21%
Pb 220.353†	12.9	0.00172	mg/L	0.000561	0.00172	mg/L	0.000561	32.55%
Sb 206.836†	6.2	0.00209	mg/L	0.001629	0.00209	mg/L	0.001629	78.10%
Se 196.026†	-7.1	-0.00540	mg/L	0.004031	-0.00540	mg/L	0.004031	74.65%
Si 288.158†	3.3	0.00184	mg/L	0.004282	0.00184	mg/L	0.004282	233.18%
Sn 189.927†	1.7	0.00051	mg/L	0.000443	0.00051	mg/L	0.000443	86.44%
Sr 421.552†	162.3	0.00021	mg/L	0.000021	0.00021	mg/L	0.000021	9.92%
Ti 334.903†	4.0	0.00022	mg/L	0.000980	0.00022	mg/L	0.000980	439.42%
Tl 190.801†	3.3	0.00147	mg/L	0.001429	0.00147	mg/L	0.001429	96.86%
V 292.402†	20.7	0.00019	mg/L	0.000208	0.00019	mg/L	0.000208	112.03%
Zn 206.200†	1.3	0.00038	mg/L	0.000842	0.00038	mg/L	0.000842	221.89%

Sequence No.: 23
Sample ID: VS21 D SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 317
Date Collected: 11/26/2012 2:23:48 PM
Data Type: Original

Nebulizer Parameters: VS21 D SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS21 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2495765.1	106.3	%	0.34				0.32%
ScR 361.383	306178.0	104.8	%	2.21				2.11%
Ag 328.068†	323.4	0.00205	mg/L	0.000021	0.01023	mg/L	0.000106	1.04%
Al 308.215†	116135.0	77.17	mg/L	2.450	385.8	mg/L	12.25	3.18%
As 188.979†	91.1	0.1425	mg/L	0.00475	0.7126	mg/L	0.02376	3.33%
B 249.677†	73.8	0.01090	mg/L	0.000882	0.05450	mg/L	0.004408	8.09%
Ba 233.527†	9073.5	2.124	mg/L	0.0521	10.62	mg/L	0.260	2.45%
Be 313.042†	1202.5	0.00221	mg/L	0.000112	0.01104	mg/L	0.000559	5.06%
Ca 317.933†	280973.1	23.07	mg/L	0.736	115.3	mg/L	3.68	3.19%
Cd 228.802†	1671.4	0.06307	mg/L	0.000298	0.3154	mg/L	0.00149	0.47%
Co 228.616†	1448.2	0.03519	mg/L	0.000031	0.1759	mg/L	0.00015	0.09%
Cr 267.716†	523.7	0.09346	mg/L	0.003063	0.4673	mg/L	0.01532	3.28%
Cu 324.752†	35998.8	0.1594	mg/L	0.00103	0.7969	mg/L	0.00513	0.64%
Fe 273.955†	110560.3	87.40	mg/L	2.845	437.0	mg/L	14.23	3.26%
K 766.490†	13186.3	7.589	mg/L	0.2233	37.95	mg/L	1.117	2.94%
Mg 279.077†	24331.1	19.77	mg/L	0.635	98.85	mg/L	3.177	3.21%
Mn 257.610†	217782.5	6.378	mg/L	0.1987	31.89	mg/L	0.993	3.12%
Mo 202.031†	63.9	0.00327	mg/L	0.000461	0.01635	mg/L	0.002307	14.11%
Na 589.592†	13486.6	1.281	mg/L	0.0341	6.403	mg/L	0.1705	2.66%
Na 330.237†	32.6	1.056	mg/L	0.1194	5.280	mg/L	0.5970	11.31%
Ni 231.604†	294.9	0.08029	mg/L	0.001754	0.4015	mg/L	0.00877	2.18%
Pb 220.353†	22018.5	2.957	mg/L	0.0085	14.78	mg/L	0.042	0.29%
Sb 206.836†	63.4	0.02196	mg/L	0.002064	0.1098	mg/L	0.01032	9.40%
Se 196.026†	14.7	0.01116	mg/L	0.011402	0.05581	mg/L	0.057010	102.15%
Si 288.158†	4140.4	2.285	mg/L	0.0527	11.42	mg/L	0.264	2.31%
Sn 189.927†	-3.3	0.00242	mg/L	0.001005	0.01209	mg/L	0.005024	41.54%
Sr 421.552†	240341.8	0.3166	mg/L	0.00978	1.583	mg/L	0.0489	3.09%
Ti 334.903†	55297.3	3.082	mg/L	0.0984	15.41	mg/L	0.492	3.19%
Tl 190.801†	-4.4	0.00659	mg/L	0.000972	0.03294	mg/L	0.004861	14.76%
V 292.402†	16936.5	0.1471	mg/L	0.00051	0.7353	mg/L	0.00255	0.35%
Zn 206.200†	9087.6	2.670	mg/L	0.0646	13.35	mg/L	0.323	2.42%

Sequence No.: 24
Sample ID: VS21 E SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 318
Date Collected: 11/26/2012 2:27:49 PM
Data Type: Original

Nebulizer Parameters: VS21 E SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS21 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2530178.5	107.8	%	0.66				0.61%
ScR 361.383	313314.1	107.3	%	2.25				2.09%
Ag 328.068†	100.9	0.00067	mg/L	0.000236	0.00333	mg/L	0.001179	35.42%
Al 308.215†	113273.5	75.27	mg/L	1.626	376.3	mg/L	8.13	2.16%
As 188.979†	33.6	0.1026	mg/L	0.00260	0.5130	mg/L	0.01298	2.53%
B 249.677†	61.9	0.00913	mg/L	0.000796	0.04567	mg/L	0.003978	8.71%
Ba 233.527†	7304.8	1.708	mg/L	0.0394	8.540	mg/L	0.1971	2.31%
Be 313.042†	1046.0	0.00192	mg/L	0.000079	0.00958	mg/L	0.000395	4.12%
Ca 317.933†	268458.0	22.04	mg/L	0.465	110.2	mg/L	2.33	2.11%
Cd 228.802†	785.1	0.02929	mg/L	0.000241	0.1464	mg/L	0.00121	0.82%
Co 228.616†	1426.2	0.03495	mg/L	0.000180	0.1748	mg/L	0.00090	0.52%
Cr 267.716†	521.1	0.09304	mg/L	0.001397	0.4652	mg/L	0.00698	1.50%
Cu 324.752†	19469.0	0.08747	mg/L	0.000120	0.4374	mg/L	0.00060	0.14%
Fe 273.955†	105678.6	83.54	mg/L	1.744	417.7	mg/L	8.72	2.09%
K 766.490†	11280.8	6.493	mg/L	0.1247	32.46	mg/L	0.623	1.92%
Mg 279.077†	23364.4	18.99	mg/L	0.401	94.93	mg/L	2.005	2.11%
Mn 257.610†	184294.3	5.397	mg/L	0.1132	26.98	mg/L	0.566	2.10%
Mo 202.031†	58.2	0.00297	mg/L	0.000015	0.01484	mg/L	0.000076	0.51%
Na 589.592†	10453.0	0.9925	mg/L	0.02256	4.963	mg/L	0.1128	2.27%
Na 330.237†	16.7	0.6670	mg/L	0.19229	3.335	mg/L	0.9614	28.83%
Ni 231.604†	281.5	0.07665	mg/L	0.002014	0.3833	mg/L	0.01007	2.63%
Pb 220.353†	6471.8	0.8793	mg/L	0.00078	4.396	mg/L	0.0039	0.09%
Sb 206.836†	27.0	0.00956	mg/L	0.000834	0.04781	mg/L	0.004171	8.72%
Se 196.026†	6.5	0.00489	mg/L	0.004275	0.02443	mg/L	0.021373	87.48%
Si 288.158†	4159.0	2.295	mg/L	0.0528	11.47	mg/L	0.264	2.30%
Sn 189.927†	-17.1	-0.00183	mg/L	0.000950	-0.00917	mg/L	0.004752	51.84%
Sr 421.552†	214582.0	0.2827	mg/L	0.00587	1.413	mg/L	0.0294	2.08%
Ti 334.903†	52272.2	2.913	mg/L	0.0644	14.57	mg/L	0.322	2.21%
Tl 190.801†	-6.4	0.00535	mg/L	0.005228	0.02676	mg/L	0.026142	97.69%
V 292.402†	15844.4	0.1374	mg/L	0.00032	0.6871	mg/L	0.00162	0.24%
Zn 206.200†	6481.1	1.904	mg/L	0.0430	9.521	mg/L	0.2148	2.26%

Sequence No.: 25
Sample ID: VS21 F SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 319
Date Collected: 11/26/2012 2:31:49 PM
Data Type: Original

Nebulizer Parameters: VS21 F SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS21 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2593650.1	110.5	%	0.61				0.55%
ScR 361.383	314400.5	107.6	%	0.64				0.59%
Ag 328.068†	-80.0	-0.00045	mg/L	0.000216	-0.00224	mg/L	0.001081	48.20%
Al 308.215†	131686.9	87.50	mg/L	0.947	437.5	mg/L	4.74	1.08%
As 188.979†	-69.2	0.05891	mg/L	0.001942	0.2946	mg/L	0.00971	3.30%
B 249.677†	44.1	0.00648	mg/L	0.001025	0.03238	mg/L	0.005124	15.82%
Ba 233.527†	4556.0	1.059	mg/L	0.0039	5.295	mg/L	0.0194	0.37%
Be 313.042†	1104.0	0.00201	mg/L	0.000016	0.01007	mg/L	0.000082	0.81%
Ca 317.933†	173351.5	14.23	mg/L	0.159	71.15	mg/L	0.797	1.12%
Cd 228.802†	89.9	0.00295	mg/L	0.000045	0.01474	mg/L	0.000223	1.51%
Co 228.616†	1553.9	0.03739	mg/L	0.000350	0.1870	mg/L	0.00175	0.94%
Cr 267.716†	543.2	0.09735	mg/L	0.000261	0.4868	mg/L	0.00130	0.27%
Cu 324.752†	19729.0	0.08875	mg/L	0.000257	0.4437	mg/L	0.00129	0.29%
Fe 273.955†	114137.0	90.23	mg/L	0.912	451.1	mg/L	4.56	1.01%
K 766.490†	11639.8	6.699	mg/L	0.0713	33.50	mg/L	0.356	1.06%
Mg 279.077†	25608.6	20.81	mg/L	0.231	104.0	mg/L	1.16	1.11%
Mn 257.610†	111924.3	3.277	mg/L	0.0342	16.39	mg/L	0.171	1.04%
Mo 202.031†	35.4	0.00179	mg/L	0.000284	0.00897	mg/L	0.001419	15.82%
Na 589.592†	13426.2	1.275	mg/L	0.0152	6.374	mg/L	0.0758	1.19%
Na 330.237†	12.8	1.145	mg/L	0.1817	5.723	mg/L	0.9084	15.87%
Ni 231.604†	327.5	0.08918	mg/L	0.000779	0.4459	mg/L	0.00389	0.87%
Pb 220.353†	431.0	0.07487	mg/L	0.000362	0.3744	mg/L	0.00181	0.48%
Sb 206.836†	8.7	0.00368	mg/L	0.000034	0.01839	mg/L	0.000171	0.93%
Se 196.026†	9.4	0.00704	mg/L	0.002189	0.03520	mg/L	0.010944	31.09%
Si 288.158†	4263.3	2.352	mg/L	0.0011	11.76	mg/L	0.005	0.05%
Sn 189.927†	-23.1	-0.00449	mg/L	0.000718	-0.02245	mg/L	0.003591	15.99%
Sr 421.552†	132241.5	0.1742	mg/L	0.00183	0.8710	mg/L	0.00916	1.05%
Ti 334.903†	64034.0	3.569	mg/L	0.0355	17.85	mg/L	0.178	1.00%
Tl 190.801†	-11.0	0.00392	mg/L	0.003377	0.01961	mg/L	0.016885	86.09%
V 292.402†	18293.8	0.1583	mg/L	0.00112	0.7914	mg/L	0.00559	0.71%
Zn 206.200†	1577.5	0.4635	mg/L	0.00175	2.317	mg/L	0.0088	0.38%

Sequence No.: 26
Sample ID: VS21 G SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 320
Date Collected: 11/26/2012 2:35:49 PM
Data Type: Original

Nebulizer Parameters: VS21 G SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS21 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2580749.0	109.9	%	0.57				0.52%
ScR 361.383	314417.7	107.6	%	2.61				2.43%
Ag 328.068†	-122.2	-0.00070	mg/L	0.000079	-0.00350	mg/L	0.000395	11.29%
Al 308.215†	127783.7	84.91	mg/L	2.788	424.5	mg/L	13.94	3.28%
As 188.979†	-172.5	0.02155	mg/L	0.006892	0.1078	mg/L	0.03446	31.98%
B 249.677†	26.1	0.00379	mg/L	0.000733	0.01895	mg/L	0.003664	19.34%
Ba 233.527†	2818.8	0.6489	mg/L	0.01592	3.244	mg/L	0.0796	2.45%
Be 313.042†	1056.6	0.00191	mg/L	0.000084	0.00953	mg/L	0.000422	4.43%
Ca 317.933†	183524.3	15.07	mg/L	0.505	75.33	mg/L	2.526	3.35%
Cd 228.802†	39.1	0.00137	mg/L	0.000291	0.00684	mg/L	0.001454	21.27%
Co 228.616†	1669.4	0.03900	mg/L	0.001050	0.1950	mg/L	0.00525	2.69%
Cr 267.716†	577.6	0.1034	mg/L	0.00246	0.5172	mg/L	0.01230	2.38%
Cu 324.752†	25711.6	0.1147	mg/L	0.00133	0.5735	mg/L	0.00665	1.16%
Fe 273.955†	119561.8	94.51	mg/L	3.615	472.6	mg/L	18.07	3.82%
K 766.490†	13473.0	7.754	mg/L	0.2287	38.77	mg/L	1.144	2.95%
Mg 279.077†	29728.3	24.16	mg/L	0.797	120.8	mg/L	3.98	3.30%
Mn 257.610†	57478.2	1.683	mg/L	0.0611	8.416	mg/L	0.3053	3.63%
Mo 202.031†	26.4	0.00129	mg/L	0.000150	0.00643	mg/L	0.000750	11.65%
Na 589.592†	15751.8	1.496	mg/L	0.0483	7.478	mg/L	0.2414	3.23%
Na 330.237†	12.9	1.406	mg/L	0.0929	7.028	mg/L	0.4643	6.61%
Ni 231.604†	304.6	0.08295	mg/L	0.003292	0.4147	mg/L	0.01646	3.97%
Pb 220.353†	126.6	0.03338	mg/L	0.001641	0.1669	mg/L	0.00821	4.92%
Sb 206.836†	5.2	0.00292	mg/L	0.001165	0.01460	mg/L	0.005825	39.90%
Se 196.026†	15.9	0.01201	mg/L	0.004350	0.06007	mg/L	0.021752	36.21%
Si 288.158†	4944.4	2.728	mg/L	0.0685	13.64	mg/L	0.343	2.51%
Sn 189.927†	-29.3	-0.00608	mg/L	0.001362	-0.03038	mg/L	0.006810	22.42%
Sr 421.552†	132269.2	0.1742	mg/L	0.00572	0.8712	mg/L	0.02862	3.29%
Ti 334.903†	80271.0	4.474	mg/L	0.1530	22.37	mg/L	0.765	3.42%
Tl 190.801†	-12.7	0.00347	mg/L	0.001566	0.01735	mg/L	0.007828	45.11%
V 292.402†	22334.4	0.1933	mg/L	0.00272	0.9665	mg/L	0.01358	1.40%
Zn 206.200†	1024.0	0.3009	mg/L	0.00751	1.504	mg/L	0.0376	2.50%

Sequence No.: 27
Sample ID: VS21 H SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 321
Date Collected: 11/26/2012 2:39:49 PM
Data Type: Original

Nebulizer Parameters: VS21 H SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS21 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2617970.6	111.5	%	0.62				0.55%
ScR 361.383	315427.4	108.0	%	1.12				1.04%
Ag 328.068†	-40.9	-0.00019	mg/L	0.000211	-0.00097	mg/L	0.001055	109.21%
Al 308.215†	103754.8	68.94	mg/L	1.145	344.7	mg/L	5.73	1.66%
As 188.979†	-151.8	0.02185	mg/L	0.003548	0.1093	mg/L	0.01774	16.23%
B 249.677†	9.2	0.00127	mg/L	0.000205	0.00633	mg/L	0.001026	16.21%
Ba 233.527†	2071.3	0.4731	mg/L	0.00693	2.366	mg/L	0.0346	1.46%
Be 313.042†	920.7	0.00165	mg/L	0.000043	0.00826	mg/L	0.000216	2.61%
Ca 317.933†	189480.4	15.55	mg/L	0.280	77.77	mg/L	1.398	1.80%
Cd 228.802†	30.2	0.00097	mg/L	0.000041	0.00483	mg/L	0.000205	4.25%
Co 228.616†	1641.5	0.03907	mg/L	0.000213	0.1954	mg/L	0.00106	0.54%
Cr 267.716†	618.8	0.1107	mg/L	0.00151	0.5535	mg/L	0.00753	1.36%
Cu 324.752†	28420.0	0.1264	mg/L	0.00058	0.6321	mg/L	0.00291	0.46%
Fe 273.955†	116112.3	91.79	mg/L	1.798	458.9	mg/L	8.99	1.96%
K 766.490†	15309.9	8.812	mg/L	0.1798	44.06	mg/L	0.899	2.04%
Mg 279.077†	29277.9	23.80	mg/L	0.399	119.0	mg/L	2.00	1.68%
Mn 257.610†	46093.6	1.350	mg/L	0.0242	6.749	mg/L	0.1210	1.79%
Mo 202.031†	33.4	0.00167	mg/L	0.000397	0.00835	mg/L	0.001985	23.77%
Na 589.592†	12017.6	1.141	mg/L	0.0156	5.705	mg/L	0.0780	1.37%
Na 330.237†	6.0	1.079	mg/L	0.1548	5.394	mg/L	0.7740	14.35%
Ni 231.604†	303.3	0.08257	mg/L	0.001179	0.4128	mg/L	0.00589	1.43%
Pb 220.353†	124.3	0.02936	mg/L	0.000573	0.1468	mg/L	0.00286	1.95%
Sb 206.836†	5.6	0.00281	mg/L	0.001119	0.01407	mg/L	0.005593	39.74%
Se 196.026†	5.0	0.00370	mg/L	0.005694	0.01850	mg/L	0.028468	153.91%
Si 288.158†	5313.4	2.931	mg/L	0.0476	14.66	mg/L	0.238	1.62%
Sn 189.927†	-23.4	-0.00435	mg/L	0.000466	-0.02176	mg/L	0.002329	10.70%
Sr 421.552†	127461.7	0.1679	mg/L	0.00294	0.8395	mg/L	0.01469	1.75%
Ti 334.903†	72548.5	4.044	mg/L	0.0666	20.22	mg/L	0.333	1.65%
Tl 190.801†	-7.7	0.00538	mg/L	0.000248	0.02689	mg/L	0.001241	4.62%
V 292.402†	23391.2	0.2030	mg/L	0.00120	1.015	mg/L	0.0060	0.59%
Zn 206.200†	720.3	0.2116	mg/L	0.00259	1.058	mg/L	0.0130	1.22%

Sequence No.: 28
Sample ID: VS21 I SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 322
Date Collected: 11/26/2012 2:43:49 PM
Data Type: Original

Nebulizer Parameters: VS21 I SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS21 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2585660.5	110.1	%	0.95				0.86%
ScR 361.383	311897.8	106.8	%	1.83				1.71%
Ag 328.068†	119.1	0.00078	mg/L	0.000110	0.00390	mg/L	0.000551	14.12%
Al 308.215†	132675.0	88.16	mg/L	1.890	440.8	mg/L	9.45	2.14%
As 188.979†	48.5	0.1266	mg/L	0.00585	0.6330	mg/L	0.02925	4.62%
B 249.677†	79.0	0.01163	mg/L	0.000823	0.05816	mg/L	0.004116	7.08%
Ba 233.527†	7064.1	1.645	mg/L	0.0309	8.225	mg/L	0.1544	1.88%
Be 313.042†	2019.7	0.00375	mg/L	0.000105	0.01876	mg/L	0.000526	2.81%
Ca 317.933†	429285.7	35.24	mg/L	0.772	176.2	mg/L	3.86	2.19%
Cd 228.802†	1694.6	0.06388	mg/L	0.000728	0.3194	mg/L	0.00364	1.14%
Co 228.616†	2112.3	0.05351	mg/L	0.000407	0.2676	mg/L	0.00203	0.76%
Cr 267.716†	829.9	0.1476	mg/L	0.00236	0.7378	mg/L	0.01180	1.60%
Cu 324.752†	34097.3	0.1525	mg/L	0.00129	0.7623	mg/L	0.00644	0.84%
Fe 273.955†	153587.3	121.4	mg/L	2.74	607.1	mg/L	13.69	2.26%
K 766.490†	13708.0	7.890	mg/L	0.1710	39.45	mg/L	0.855	2.17%
Mg 279.077†	36540.1	29.70	mg/L	0.674	148.5	mg/L	3.37	2.27%
Mn 257.610†	380958.5	11.16	mg/L	0.243	55.78	mg/L	1.217	2.18%
Mo 202.031†	107.9	0.00556	mg/L	0.000286	0.02781	mg/L	0.001428	5.14%
Na 589.592†	5374.3	0.5103	mg/L	0.00889	2.551	mg/L	0.0444	1.74%
Na 330.237†	11.8	0.3060	mg/L	0.23426	1.530	mg/L	1.1713	76.56%
Ni 231.604†	560.3	0.1526	mg/L	0.00231	0.7628	mg/L	0.01156	1.52%
Pb 220.353†	15864.7	2.136	mg/L	0.0148	10.68	mg/L	0.074	0.69%
Sb 206.836†	43.6	0.01461	mg/L	0.000566	0.07304	mg/L	0.002832	3.88%
Se 196.026†	12.7	0.00960	mg/L	0.001574	0.04798	mg/L	0.007871	16.41%
Si 288.158†	5325.2	2.939	mg/L	0.0601	14.69	mg/L	0.301	2.05%
Sn 189.927†	-14.1	0.00079	mg/L	0.001563	0.00396	mg/L	0.007814	197.10%
Sr 421.552†	206781.8	0.2724	mg/L	0.00583	1.362	mg/L	0.0291	2.14%
Ti 334.903†	62136.0	3.462	mg/L	0.0736	17.31	mg/L	0.368	2.13%
Tl 190.801†	-18.8	0.00376	mg/L	0.001225	0.01878	mg/L	0.006125	32.62%
V 292.402†	16372.0	0.1416	mg/L	0.00096	0.7080	mg/L	0.00481	0.68%
Zn 206.200†	9603.2	2.822	mg/L	0.0536	14.11	mg/L	0.268	1.90%

Sequence No.: 29
Sample ID: VS21 J SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 323
Date Collected: 11/26/2012 2:47:49 PM
Data Type: Original

Nebulizer Parameters: VS21 J SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS21 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2470324.6	105.2	%	0.70				0.66%
ScR 361.383	308643.1	105.7	%	2.06				1.95%
Ag 328.068†	409.5	0.00260	mg/L	0.000386	0.01301	mg/L	0.001928	14.82%
Al 308.215†	206160.0	137.0	mg/L	3.26	684.9	mg/L	16.30	2.38%
As 188.979†	-66.7	0.09585	mg/L	0.003159	0.4792	mg/L	0.01579	3.30%
B 249.677†	55.0	0.00799	mg/L	0.000703	0.03997	mg/L	0.003514	8.79%
Ba 233.527†	4580.9	1.053	mg/L	0.0256	5.266	mg/L	0.1280	2.43%
Be 313.042†	2543.6	0.00471	mg/L	0.000152	0.02355	mg/L	0.000760	3.23%
Ca 317.933†	291416.8	23.92	mg/L	0.626	119.6	mg/L	3.13	2.62%
Cd 228.802†	718.3	0.02656	mg/L	0.000253	0.1328	mg/L	0.00126	0.95%
Co 228.616†	3227.1	0.08306	mg/L	0.000505	0.4153	mg/L	0.00252	0.61%
Cr 267.716†	875.6	0.1571	mg/L	0.00373	0.7857	mg/L	0.01867	2.38%
Cu 324.752†	48297.5	0.2156	mg/L	0.00099	1.078	mg/L	0.0050	0.46%
Fe 273.955†	204604.7	161.7	mg/L	4.17	808.7	mg/L	20.85	2.58%
K 766.490†	13246.4	7.624	mg/L	0.1748	38.12	mg/L	0.874	2.29%
Mg 279.077†	45708.3	37.14	mg/L	0.948	185.7	mg/L	4.74	2.55%
Mn 257.610†	217294.1	6.363	mg/L	0.1621	31.81	mg/L	0.810	2.55%
Mo 202.031†	108.3	0.00571	mg/L	0.000238	0.02854	mg/L	0.001192	4.18%
Na 589.592†	7123.7	0.6764	mg/L	0.01613	3.382	mg/L	0.0807	2.38%
Na 330.237†	-2.7	0.4409	mg/L	0.34032	2.204	mg/L	1.7016	77.19%
Ni 231.604†	979.0	0.2665	mg/L	0.00561	1.333	mg/L	0.0281	2.11%
Pb 220.353†	5396.4	0.7471	mg/L	0.00044	3.736	mg/L	0.0022	0.06%
Sb 206.836†	28.4	0.01026	mg/L	0.003049	0.05128	mg/L	0.015244	29.73%
Se 196.026†	22.8	0.01723	mg/L	0.001570	0.08616	mg/L	0.007850	9.11%
Si 288.158†	6028.5	3.327	mg/L	0.0821	16.64	mg/L	0.410	2.47%
Sn 189.927†	-27.7	-0.00443	mg/L	0.000971	-0.02215	mg/L	0.004854	21.92%
Sr 421.552†	181719.4	0.2394	mg/L	0.00564	1.197	mg/L	0.0282	2.36%
Ti 334.903†	86600.9	4.827	mg/L	0.1192	24.13	mg/L	0.596	2.47%
Tl 190.801†	-37.1	-0.00057	mg/L	0.003472	-0.00287	mg/L	0.017361	605.68%
V 292.402†	25710.0	0.2217	mg/L	0.00082	1.108	mg/L	0.0041	0.37%
Zn 206.200†	5739.2	1.686	mg/L	0.0442	8.431	mg/L	0.2212	2.62%

Sequence No.: 30
Sample ID: VS21 K SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 324
Date Collected: 11/26/2012 2:51:49 PM
Data Type: Original

Nebulizer Parameters: VS21 K SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS21 K SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2454859.4	104.6	%	0.36				0.35%
ScR 361.383	309855.6	106.1	%	1.88				1.78%
Ag 328.068†	-20.7	-0.00008	mg/L	0.000163	-0.00040	mg/L	0.000815	204.96%
Al 308.215†	121778.6	80.92	mg/L	2.105	404.6	mg/L	10.53	2.60%
As 188.979†	-86.4	0.05166	mg/L	0.001505	0.2583	mg/L	0.00753	2.91%
B 249.677†	57.8	0.00851	mg/L	0.000971	0.04255	mg/L	0.004855	11.41%
Ba 233.527†	4226.6	0.9817	mg/L	0.01533	4.908	mg/L	0.0766	1.56%
Be 313.042†	1033.6	0.00188	mg/L	0.000068	0.00939	mg/L	0.000340	3.62%
Ca 317.933†	154256.7	12.66	mg/L	0.288	63.32	mg/L	1.441	2.28%
Cd 228.802†	364.1	0.01355	mg/L	0.000017	0.06776	mg/L	0.000087	0.13%
Co 228.616†	1625.2	0.03930	mg/L	0.000298	0.1965	mg/L	0.00149	0.76%
Cr 267.716†	524.9	0.09395	mg/L	0.001777	0.4698	mg/L	0.00889	1.89%
Cu 324.752†	15851.0	0.07182	mg/L	0.000397	0.3591	mg/L	0.00198	0.55%
Fe 273.955†	111942.3	88.49	mg/L	2.212	442.5	mg/L	11.06	2.50%
K 766.490†	9488.2	5.461	mg/L	0.1587	27.30	mg/L	0.793	2.91%
Mg 279.077†	23857.9	19.38	mg/L	0.520	96.92	mg/L	2.599	2.68%
Mn 257.610†	194724.3	5.702	mg/L	0.1369	28.51	mg/L	0.685	2.40%
Mo 202.031†	36.3	0.00186	mg/L	0.000117	0.00931	mg/L	0.000585	6.28%
Na 589.592†	11001.8	1.045	mg/L	0.0202	5.223	mg/L	0.1010	1.93%
Na 330.237†	7.2	0.8358	mg/L	0.12078	4.179	mg/L	0.6039	14.45%
Ni 231.604†	277.7	0.07561	mg/L	0.002642	0.3781	mg/L	0.01321	3.49%
Pb 220.353†	5949.6	0.8107	mg/L	0.00328	4.053	mg/L	0.0164	0.40%
Sb 206.836†	25.1	0.00936	mg/L	0.002085	0.04678	mg/L	0.010426	22.29%
Se 196.026†	14.1	0.01066	mg/L	0.008427	0.05328	mg/L	0.042137	79.08%
Si 288.158†	4245.3	2.342	mg/L	0.0369	11.71	mg/L	0.185	1.58%
Sn 189.927†	-12.0	-0.00138	mg/L	0.000983	-0.00691	mg/L	0.004915	71.11%
Sr 421.552†	121217.7	0.1597	mg/L	0.00424	0.7984	mg/L	0.02119	2.65%
Ti 334.903†	66042.4	3.681	mg/L	0.0936	18.41	mg/L	0.468	2.54%
Tl 190.801†	-19.7	-0.00018	mg/L	0.003220	-0.00092	mg/L	0.016099	>999.9%
V 292.402†	18903.5	0.1641	mg/L	0.00070	0.8203	mg/L	0.00350	0.43%
Zn 206.200†	2835.1	0.8330	mg/L	0.01466	4.165	mg/L	0.0733	1.76%

Sequence No.: 31
Sample ID: VS21 L SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 325
Date Collected: 11/26/2012 2:55:49 PM
Data Type: Original

Nebulizer Parameters: VS21 L SWC

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: VS21 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2456673.9	104.6	%	0.29				0.28%
ScR 361.383	306149.0	104.8	%	1.36				1.30%
Ag 328.068†	38.4	0.00028	mg/L	0.000120	0.00140	mg/L	0.000600	42.95%
Al 308.215†	104298.3	69.30	mg/L	1.500	346.5	mg/L	7.50	2.16%
As 188.979†	-95.5	0.04534	mg/L	0.003454	0.2267	mg/L	0.01727	7.62%
B 249.677†	73.5	0.01085	mg/L	0.001897	0.05426	mg/L	0.009483	17.48%
Ba 233.527†	2729.5	0.6314	mg/L	0.00983	3.157	mg/L	0.0491	1.56%
Be 313.042†	848.3	0.00153	mg/L	0.000040	0.00766	mg/L	0.000201	2.63%
Ca 317.933†	515427.4	42.31	mg/L	0.966	211.6	mg/L	4.83	2.28%
Cd 228.802†	481.3	0.01823	mg/L	0.000235	0.09116	mg/L	0.001175	1.29%
Co 228.616†	1386.7	0.03247	mg/L	0.000129	0.1623	mg/L	0.00064	0.40%
Cr 267.716†	471.9	0.08402	mg/L	0.001329	0.4201	mg/L	0.00664	1.58%
Cu 324.752†	20341.0	0.09063	mg/L	0.001091	0.4531	mg/L	0.00545	1.20%
Fe 273.955†	92315.2	72.98	mg/L	1.794	364.9	mg/L	8.97	2.46%
K 766.490†	7839.4	4.512	mg/L	0.0797	22.56	mg/L	0.398	1.77%
Mg 279.077†	23151.7	18.82	mg/L	0.412	94.09	mg/L	2.062	2.19%
Mn 257.610†	91436.7	2.677	mg/L	0.0601	13.39	mg/L	0.301	2.25%
Mo 202.031†	79.7	0.00393	mg/L	0.000251	0.01967	mg/L	0.001255	6.38%
Na 589.592†	13157.3	1.249	mg/L	0.0247	6.246	mg/L	0.1234	1.98%
Na 330.237†	9.4	0.9178	mg/L	0.28736	4.589	mg/L	1.4368	31.31%
Ni 231.604†	231.3	0.06297	mg/L	0.001278	0.3149	mg/L	0.00639	2.03%
Pb 220.353†	6047.6	0.8216	mg/L	0.00420	4.108	mg/L	0.0210	0.51%
Sb 206.836†	19.0	0.00728	mg/L	0.002002	0.03638	mg/L	0.010008	27.51%
Se 196.026†	2.4	0.00170	mg/L	0.002147	0.00848	mg/L	0.010734	126.53%
Si 288.158†	4498.9	2.482	mg/L	0.0406	12.41	mg/L	0.203	1.63%
Sn 189.927†	-35.4	-0.00457	mg/L	0.000312	-0.02287	mg/L	0.001559	6.81%
Sr 421.552†	210226.6	0.2769	mg/L	0.00597	1.385	mg/L	0.0299	2.16%
Ti 334.903†	66655.2	3.714	mg/L	0.0814	18.57	mg/L	0.407	2.19%
Tl 190.801†	-3.5	0.00552	mg/L	0.003909	0.02759	mg/L	0.019545	70.84%
V 292.402†	16338.4	0.1413	mg/L	0.00138	0.7064	mg/L	0.00690	0.98%
Zn 206.200†	2919.0	0.8577	mg/L	0.01572	4.288	mg/L	0.0786	1.83%

Sequence No.: 32
Sample ID: CV3
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/26/2012 2:59:49 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2390881.8	101.8	%	0.39				0.38%
ScR 361.383	291699.0	99.86	%	2.688				2.69%
Ag 328.068†	169856.7	1.053	mg/L	0.0056	1.053	mg/L	0.0056	0.53%
Al 308.215†	3204.8	2.094	mg/L	0.0704	2.094	mg/L	0.0704	3.36%
As 188.979†	3362.1	2.084	mg/L	0.0175	2.084	mg/L	0.0175	0.84%
B 249.677†	6939.5	1.032	mg/L	0.0329	1.032	mg/L	0.0329	3.18%
Ba 233.527†	4345.9	1.024	mg/L	0.0311	1.024	mg/L	0.0311	3.04%
Be 313.042†	541688.5	1.025	mg/L	0.0279	1.025	mg/L	0.0279	2.72%
Ca 317.933†	24212.3	1.988	mg/L	0.0538	1.988	mg/L	0.0538	2.71%
Cd 228.802†	27979.7	1.062	mg/L	0.0027	1.062	mg/L	0.0027	0.26%
Co 228.616†	35241.4	1.031	mg/L	0.0035	1.031	mg/L	0.0035	0.34%
Cr 267.716†	5829.8	1.031	mg/L	0.0332	1.031	mg/L	0.0332	3.22%
Cu 324.752†	236988.2	1.029	mg/L	0.0069	1.029	mg/L	0.0069	0.67%
Fe 273.955†	2721.2	2.144	mg/L	0.0658	2.144	mg/L	0.0658	3.07%
K 766.490†	35332.7	20.34	mg/L	0.595	20.34	mg/L	0.595	2.93%
Mg 279.077†	2542.0	2.078	mg/L	0.0669	2.078	mg/L	0.0669	3.22%
Mn 257.610†	34157.7	1.001	mg/L	0.0290	1.001	mg/L	0.0290	2.90%
Mo 202.031†	18879.8	1.041	mg/L	0.0052	1.041	mg/L	0.0052	0.50%
Na 589.592†	554853.0	52.68	mg/L	1.459	52.68	mg/L	1.459	2.77%
Na 330.237†	1404.5	52.98	mg/L	1.347	52.98	mg/L	1.347	2.54%
Ni 231.604†	3820.7	1.041	mg/L	0.0323	1.041	mg/L	0.0323	3.11%
Pb 220.353†	14982.4	2.003	mg/L	0.0070	2.003	mg/L	0.0070	0.35%
Sb 206.836†	6575.5	2.215	mg/L	0.0144	2.215	mg/L	0.0144	0.65%
Se 196.026†	2660.4	2.032	mg/L	0.0093	2.032	mg/L	0.0093	0.46%
Si 288.158†	4024.0	2.217	mg/L	0.0791	2.217	mg/L	0.0791	3.57%
Sn 189.927†	3632.6	1.066	mg/L	0.0075	1.066	mg/L	0.0075	0.71%
Sr 421.552†	790126.1	1.041	mg/L	0.0294	1.041	mg/L	0.0294	2.82%
Ti 334.903†	19443.6	1.083	mg/L	0.0291	1.083	mg/L	0.0291	2.69%
Tl 190.801†	4588.1	2.031	mg/L	0.0115	2.031	mg/L	0.0115	0.57%
V 292.402†	117958.2	1.052	mg/L	0.0067	1.052	mg/L	0.0067	0.64%
Zn 206.200†	3662.9	1.076	mg/L	0.0316	1.076	mg/L	0.0316	2.94%

Sequence No.: 33
Sample ID: CB 3
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/26/2012 3:03:52 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	221.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2399386.7	102.2	%	0.41				0.40%
ScR 361.383	296938.4	101.6	%	3.40				3.35%
Ag 328.068†	53.3	0.00033	mg/L	0.000044	0.00033	mg/L	0.000044	13.38%
Al 308.215†	37.4	0.02485	mg/L	0.001067	0.02485	mg/L	0.001067	4.29%
As 188.979†	0.6	0.00037	mg/L	0.001564	0.00037	mg/L	0.001564	420.81%
B 249.677†	3.6	0.00054	mg/L	0.000668	0.00054	mg/L	0.000668	124.49%
Ba 233.527†	3.0	0.00071	mg/L	0.000155	0.00071	mg/L	0.000155	21.77%
Be 313.042†	82.0	0.00016	mg/L	0.000055	0.00016	mg/L	0.000055	35.77%
Ca 317.933†	80.7	0.00662	mg/L	0.001165	0.00662	mg/L	0.001165	17.59%
Cd 228.802†	4.1	0.00016	mg/L	0.000090	0.00016	mg/L	0.000090	57.51%
Co 228.616†	7.6	0.00022	mg/L	0.000103	0.00022	mg/L	0.000103	46.57%
Cr 267.716†	5.9	0.00104	mg/L	0.001777	0.00104	mg/L	0.001777	171.55%
Cu 324.752†	-20.8	-0.00009	mg/L	0.000064	-0.00009	mg/L	0.000064	71.13%
Fe 273.955†	31.4	0.02484	mg/L	0.001389	0.02484	mg/L	0.001389	5.59%
K 766.490†	23.9	0.01377	mg/L	0.028048	0.01377	mg/L	0.028048	203.74%
Mg 279.077†	13.1	0.01063	mg/L	0.008268	0.01063	mg/L	0.008268	77.76%
Mn 257.610†	39.9	0.00117	mg/L	0.000020	0.00117	mg/L	0.000020	1.67%
Mo 202.031†	11.5	0.00063	mg/L	0.000105	0.00063	mg/L	0.000105	16.64%
Na 589.592†	91.8	0.00872	mg/L	0.002308	0.00872	mg/L	0.002308	26.47%
Na 330.237†	-11.9	-0.4516	mg/L	0.28247	-0.4516	mg/L	0.28247	62.55%
Ni 231.604†	6.5	0.00178	mg/L	0.000849	0.00178	mg/L	0.000849	47.68%
Pb 220.353†	10.5	0.00141	mg/L	0.000221	0.00141	mg/L	0.000221	15.70%
Sb 206.836†	4.3	0.00146	mg/L	0.000804	0.00146	mg/L	0.000804	54.98%
Se 196.026†	-7.9	-0.00604	mg/L	0.003530	-0.00604	mg/L	0.003530	58.44%
Si 288.158†	3.4	0.00186	mg/L	0.002827	0.00186	mg/L	0.002827	152.13%
Sn 189.927†	4.4	0.00128	mg/L	0.000072	0.00128	mg/L	0.000072	5.63%
Sr 421.552†	201.3	0.00027	mg/L	0.000047	0.00027	mg/L	0.000047	17.63%
Ti 334.903†	11.1	0.00062	mg/L	0.000638	0.00062	mg/L	0.000638	103.06%
Tl 190.801†	2.1	0.00094	mg/L	0.002533	0.00094	mg/L	0.002533	270.27%
V 292.402†	34.4	0.00031	mg/L	0.000226	0.00031	mg/L	0.000226	73.12%
Zn 206.200†	0.8	0.00023	mg/L	0.000506	0.00023	mg/L	0.000506	218.05%

User canceled analysis.

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Analysis Begun

Start Time: 11/26/2012 3:08:44 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/26/2012 8:17:31 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1126.sif
Batch ID:
Results Data Set: I2121126
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

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Sequence No.: 33
Sample ID: CB 4
Analyst: BA
Dilution: 1.000000X
Autosampler Location: 1
Date Collected: 11/26/2012 3:08:45 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2428895.3	103.5	%	0.49				0.47%
ScR 361.383	296885.0	101.6	%	1.62				1.60%
Ag 328.068†	5.8	0.00004	mg/L	0.000168	0.00004	mg/L	0.000168	468.19%
Al 308.215†	18.5	0.01227	mg/L	0.002165	0.01227	mg/L	0.002165	17.65%
As 188.979†	2.4	0.00146	mg/L	0.000838	0.00146	mg/L	0.000838	57.26%
B 249.677†	-7.9	-0.00118	mg/L	0.000527	-0.00118	mg/L	0.000527	44.84%
Ba 233.527†	-1.0	-0.00025	mg/L	0.001555	-0.00025	mg/L	0.001555	632.78%
Be 313.042†	29.7	0.00006	mg/L	0.000038	0.00006	mg/L	0.000038	67.60%
Ca 317.933†	62.4	0.00512	mg/L	0.000746	0.00512	mg/L	0.000746	14.56%
Cd 228.802†	0.4	0.00001	mg/L	0.000096	0.00001	mg/L	0.000096	>999.9%
Co 228.616†	3.9	0.00011	mg/L	0.000068	0.00011	mg/L	0.000068	59.52%
Cr 267.716†	-1.6	-0.00028	mg/L	0.000892	-0.00028	mg/L	0.000892	313.72%
Cu 324.752†	-100.2	-0.00043	mg/L	0.000074	-0.00043	mg/L	0.000074	16.99%
Fe 273.955†	23.8	0.01882	mg/L	0.003071	0.01882	mg/L	0.003071	16.32%
K 766.490†	53.6	0.03082	mg/L	0.009822	0.03082	mg/L	0.009822	31.87%
Mg 279.077†	9.2	0.00751	mg/L	0.001784	0.00751	mg/L	0.001784	23.76%
Mn 257.610†	32.2	0.00094	mg/L	0.000083	0.00094	mg/L	0.000083	8.75%
Mo 202.031†	-3.8	-0.00021	mg/L	0.000052	-0.00021	mg/L	0.000052	24.44%
Na 589.592†	24.9	0.00237	mg/L	0.001117	0.00237	mg/L	0.001117	47.17%
Na 330.237†	-12.5	-0.4710	mg/L	0.50365	-0.4710	mg/L	0.50365	106.93%
Ni 231.604†	5.1	0.00138	mg/L	0.002007	0.00138	mg/L	0.002007	145.75%
Pb 220.353†	7.7	0.00104	mg/L	0.000801	0.00104	mg/L	0.000801	77.34%
Sb 206.836†	1.9	0.00066	mg/L	0.001758	0.00066	mg/L	0.001758	266.79%
Se 196.026†	-0.2	-0.00017	mg/L	0.001707	-0.00017	mg/L	0.001707	987.45%
Si 288.158†	5.7	0.00313	mg/L	0.003613	0.00313	mg/L	0.003613	115.40%
Sn 189.927†	1.9	0.00056	mg/L	0.000352	0.00056	mg/L	0.000352	62.70%
Sr 421.552†	109.2	0.00014	mg/L	0.000045	0.00014	mg/L	0.000045	31.37%
Ti 334.903†	0.8	0.00005	mg/L	0.000305	0.00005	mg/L	0.000305	647.25%
Tl 190.801†	3.5	0.00156	mg/L	0.002398	0.00156	mg/L	0.002398	154.13%
V 292.402†	23.9	0.00021	mg/L	0.000183	0.00021	mg/L	0.000183	87.09%
Zn 206.200†	1.9	0.00056	mg/L	0.000163	0.00056	mg/L	0.000163	29.20%

Sequence No.: 34
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 11/26/2012 3:12:59 PM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2438119.2	103.8	%	0.24				0.23%
ScR 361.383	300432.0	102.8	%	1.08				1.05%
Ag 328.068†	499.3	0.00309	mg/L	0.000139	0.00309	mg/L	0.000139	4.49%
Al 308.215†	93.4	0.06191	mg/L	0.005305	0.06191	mg/L	0.005305	8.57%
As 188.979†	80.6	0.04949	mg/L	0.000434	0.04949	mg/L	0.000434	0.88%
B 249.677†	130.7	0.01944	mg/L	0.000872	0.01944	mg/L	0.000872	4.48%
Ba 233.527†	17.1	0.00401	mg/L	0.000642	0.00401	mg/L	0.000642	16.00%
Be 313.042†	554.6	0.00105	mg/L	0.000042	0.00105	mg/L	0.000042	4.03%
Ca 317.933†	626.9	0.05146	mg/L	0.000728	0.05146	mg/L	0.000728	1.41%
Cd 228.802†	63.5	0.00212	mg/L	0.000106	0.00212	mg/L	0.000106	4.98%
Co 228.616†	125.9	0.00368	mg/L	0.000093	0.00368	mg/L	0.000093	2.54%
Cr 267.716†	27.7	0.00489	mg/L	0.000738	0.00489	mg/L	0.000738	15.09%
Cu 324.752†	353.9	0.00154	mg/L	0.000116	0.00154	mg/L	0.000116	7.58%
Fe 273.955†	78.5	0.06204	mg/L	0.002004	0.06204	mg/L	0.002004	3.23%
K 766.490†	866.8	0.4989	mg/L	0.03230	0.4989	mg/L	0.03230	6.48%
Mg 279.077†	65.8	0.05360	mg/L	0.003041	0.05360	mg/L	0.003041	5.67%
Mn 257.610†	56.7	0.00166	mg/L	0.000111	0.00166	mg/L	0.000111	6.68%
Mo 202.031†	87.2	0.00481	mg/L	0.000642	0.00481	mg/L	0.000642	13.34%
Na 589.592†	5299.1	0.5031	mg/L	0.00189	0.5031	mg/L	0.00189	0.38%
Na 330.237†	14.9	0.5616	mg/L	0.16885	0.5616	mg/L	0.16885	30.06%
Ni 231.604†	43.5	0.01186	mg/L	0.000981	0.01186	mg/L	0.000981	8.27%
Pb 220.353†	152.0	0.02033	mg/L	0.000569	0.02033	mg/L	0.000569	2.80%
Sb 206.836†	154.0	0.05192	mg/L	0.000479	0.05192	mg/L	0.000479	0.92%
Se 196.026†	64.1	0.04896	mg/L	0.001897	0.04896	mg/L	0.001897	3.87%
Si 288.158†	127.2	0.07006	mg/L	0.005737	0.07006	mg/L	0.005737	8.19%
Sn 189.927†	37.5	0.01103	mg/L	0.000728	0.01103	mg/L	0.000728	6.60%
Sr 421.552†	844.4	0.00111	mg/L	0.000044	0.00111	mg/L	0.000044	3.96%
Ti 334.903†	116.3	0.00648	mg/L	0.000852	0.00648	mg/L	0.000852	13.16%
Tl 190.801†	114.0	0.05066	mg/L	0.001111	0.05066	mg/L	0.001111	2.19%
V 292.402†	355.3	0.00318	mg/L	0.000224	0.00318	mg/L	0.000224	7.07%
Zn 206.200†	35.8	0.01052	mg/L	0.001059	0.01052	mg/L	0.001059	10.07%

Sequence No.: 35
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 11/26/2012 3:17:15 PM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2401421.3	102.3	%	0.73				0.71%
ScR 361.383	290170.9	99.33	%	0.780				0.78%
Ag 328.068†	-165.5	-0.00102	mg/L	0.000183	-0.00102	mg/L	0.000183	17.90%
Al 308.215†	300275.3	199.5	mg/L	2.49	199.5	mg/L	2.49	1.25%
As 188.979†	36.6	0.01687	mg/L	0.001034	0.01687	mg/L	0.001034	6.13%
B 249.677†	-44.8	-0.00666	mg/L	0.001199	-0.00666	mg/L	0.001199	17.99%
Ba 233.527†	120.4	-0.00384	mg/L	0.000549	-0.00384	mg/L	0.000549	14.29%
Be 313.042†	56.7	0.00011	mg/L	0.000007	0.00011	mg/L	0.000007	6.29%
Ca 317.933†	1208845.4	99.24	mg/L	1.537	99.24	mg/L	1.537	1.55%
Cd 228.802†	50.0	-0.00010	mg/L	0.000197	-0.00010	mg/L	0.000197	195.48%
Co 228.616†	69.1	-0.00055	mg/L	0.000200	-0.00055	mg/L	0.000200	36.40%
Cr 267.716†	15.0	0.00054	mg/L	0.000444	0.00054	mg/L	0.000444	82.32%
Cu 324.752†	-1951.0	-0.00065	mg/L	0.000102	-0.00065	mg/L	0.000102	15.83%
Fe 273.955†	248877.6	196.7	mg/L	2.75	196.7	mg/L	2.75	1.40%
K 766.490†	18.6	0.01069	mg/L	0.010502	0.01069	mg/L	0.010502	98.27%
Mg 279.077†	126860.1	103.2	mg/L	0.95	103.2	mg/L	0.95	0.92%
Mn 257.610†	48.7	0.00140	mg/L	0.000154	0.00140	mg/L	0.000154	11.06%
Mo 202.031†	56.9	0.00207	mg/L	0.000230	0.00207	mg/L	0.000230	11.14%
Na 589.592†	148.5	0.01410	mg/L	0.003034	0.01410	mg/L	0.003034	21.52%
Na 330.237†	-9.1	-0.3443	mg/L	0.17409	-0.3443	mg/L	0.17409	50.57%
Ni 231.604†	2.8	0.00077	mg/L	0.001740	0.00077	mg/L	0.001740	226.91%
Pb 220.353†	-289.2	0.00102	mg/L	0.000616	0.00102	mg/L	0.000616	60.24%
Sb 206.836†	34.2	0.01134	mg/L	0.002289	0.01134	mg/L	0.002289	20.19%
Se 196.026†	4.6	0.00350	mg/L	0.003439	0.00350	mg/L	0.003439	98.36%
Si 288.158†	-20.3	0.00131	mg/L	0.003220	0.00131	mg/L	0.003220	246.01%
Sn 189.927†	-66.7	-0.00728	mg/L	0.000506	-0.00728	mg/L	0.000506	6.95%
Sr 421.552†	3199.6	0.00421	mg/L Conf.	0.000041	0.00421	mg/L	0.000041	0.97%
Ti 334.903†	143.2	0.00325	mg/L	0.000708	0.00325	mg/L	0.000708	21.81%
Tl 190.801†	-47.9	-0.00028	mg/L	0.004975	-0.00028	mg/L	0.004975	>999.9%
V 292.402†	1180.7	0.00362	mg/L	0.000203	0.00362	mg/L	0.000203	5.60%
Zn 206.200†	11.1	0.00327	mg/L	0.001588	0.00327	mg/L	0.001588	48.57%

Sequence No.: 36
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 11/26/2012 3:21:31 PM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2395726.6	102.0	%	0.30				0.29%
ScR 361.383	293147.8	100.4	%	2.38				2.37%
Ag 328.068†	161675.4	1.002	mg/L	0.0025	1.002	mg/L	0.0025	0.25%
Al 308.215†	297141.4	197.4	mg/L	5.35	197.4	mg/L	5.35	2.71%
As 188.979†	1657.1	1.008	mg/L	0.0071	1.008	mg/L	0.0071	0.70%
B 249.677†	-25.1	-0.00576	mg/L	0.000099	-0.00576	mg/L	0.000099	1.73%
Ba 233.527†	4342.9	0.9913	mg/L	0.02281	0.9913	mg/L	0.02281	2.30%
Be 313.042†	541114.7	1.024	mg/L	0.0244	1.024	mg/L	0.0244	2.38%
Ca 317.933†	1210385.8	99.36	mg/L	2.470	99.36	mg/L	2.470	2.49%
Cd 228.802†	26843.4	1.023	mg/L	0.0019	1.023	mg/L	0.0019	0.18%
Co 228.616†	33658.0	0.9842	mg/L	0.00316	0.9842	mg/L	0.00316	0.32%
Cr 267.716†	5728.3	1.011	mg/L	0.0247	1.011	mg/L	0.0247	2.44%
Cu 324.752†	235594.9	1.031	mg/L	0.0025	1.031	mg/L	0.0025	0.24%
Fe 273.955†	248523.9	196.5	mg/L	5.63	196.5	mg/L	5.63	2.87%
K 766.490†	-60.8	-0.03500	mg/L	0.016157	-0.03500	mg/L	0.016157	46.16%
Mg 279.077†	121396.4	98.77	mg/L	2.535	98.77	mg/L	2.535	2.57%
Mn 257.610†	33110.4	0.9697	mg/L	0.02524	0.9697	mg/L	0.02524	2.60%
Mo 202.031†	57.5	0.00204	mg/L	0.000387	0.00204	mg/L	0.000387	18.94%
Na 589.592†	290.5	0.02759	mg/L	0.001110	0.02759	mg/L	0.001110	4.03%
Na 330.237†	0.3	-0.3090	mg/L	0.09197	-0.3090	mg/L	0.09197	29.77%
Ni 231.604†	3633.0	0.9893	mg/L	0.02273	0.9893	mg/L	0.02273	2.30%
Pb 220.353†	6883.3	0.9594	mg/L	0.00272	0.9594	mg/L	0.00272	0.28%
Sb 206.836†	3092.3	1.031	mg/L	0.0058	1.031	mg/L	0.0058	0.56%
Se 196.026†	1288.6	0.9837	mg/L	0.00383	0.9837	mg/L	0.00383	0.39%
Si 288.158†	-24.6	0.00212	mg/L	0.001894	0.00212	mg/L	0.001894	89.39%
Sn 189.927†	-66.7	-0.00675	mg/L	0.000410	-0.00675	mg/L	0.000410	6.08%
Sr 421.552†	3199.1	0.00421	mg/L	Conf, 0.000165	0.00421	mg/L	0.000165	3.92%
Ti 334.903†	141.8	0.00296	mg/L	0.000493	0.00296	mg/L	0.000493	16.67%
Tl 190.801†	2053.3	0.9244	mg/L	0.00314	0.9244	mg/L	0.00314	0.34%
V 292.402†	109856.1	0.9736	mg/L	0.00341	0.9736	mg/L	0.00341	0.35%
Zn 206.200†	3343.7	0.9824	mg/L	0.02312	0.9824	mg/L	0.02312	2.35%

Sequence No.: 37
Sample ID: CV 4
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/26/2012 3:25:19 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2412673.8	102.8	%	0.34				0.33%
ScR 361.383	293700.2	100.5	%	2.12				2.11%
Ag 328.068†	169395.0	1.050	mg/L	0.0069	1.050	mg/L	0.0069	0.66%
Al 308.215†	3171.3	2.072	mg/L	0.0514	2.072	mg/L	0.0514	2.48%
As 188.979†	3352.8	2.078	mg/L	0.0025	2.078	mg/L	0.0025	0.12%
B 249.677†	6877.5	1.022	mg/L	0.0275	1.022	mg/L	0.0275	2.69%
Ba 233.527†	4317.8	1.017	mg/L	0.0272	1.017	mg/L	0.0272	2.67%
Be 313.042†	537392.9	1.017	mg/L	0.0303	1.017	mg/L	0.0303	2.98%
Ca 317.933†	24154.7	1.983	mg/L	0.0573	1.983	mg/L	0.0573	2.89%
Cd 228.802†	27924.9	1.060	mg/L	0.0096	1.060	mg/L	0.0096	0.91%
Co 228.616†	35275.0	1.032	mg/L	0.0084	1.032	mg/L	0.0084	0.81%
Cr 267.716†	5795.2	1.025	mg/L	0.0275	1.025	mg/L	0.0275	2.68%
Cu 324.752†	243347.1	1.056	mg/L	0.0076	1.056	mg/L	0.0076	0.72%
Fe 273.955†	2687.9	2.117	mg/L	0.0490	2.117	mg/L	0.0490	2.31%
K 766.490†	35119.6	20.21	mg/L	0.460	20.21	mg/L	0.460	2.28%
Mg 279.077†	2535.3	2.072	mg/L	0.0505	2.072	mg/L	0.0505	2.44%
Mn 257.610†	33823.0	0.9908	mg/L	0.02883	0.9908	mg/L	0.02883	2.91%
Mo 202.031†	18860.5	1.040	mg/L	0.0088	1.040	mg/L	0.0088	0.84%
Na 589.592†	551087.6	52.33	mg/L	1.404	52.33	mg/L	1.404	2.68%
Na 330.237†	1396.4	52.68	mg/L	1.088	52.68	mg/L	1.088	2.07%
Ni 231.604†	3801.2	1.035	mg/L	0.0279	1.035	mg/L	0.0279	2.69%
Pb 220.353†	15028.0	2.009	mg/L	0.0153	2.009	mg/L	0.0153	0.76%
Sb 206.836†	6560.0	2.210	mg/L	0.0029	2.210	mg/L	0.0029	0.13%
Se 196.026†	2662.6	2.033	mg/L	0.0038	2.033	mg/L	0.0038	0.19%
Si 288.158†	3997.0	2.202	mg/L	0.0570	2.202	mg/L	0.0570	2.59%
Sn 189.927†	3614.7	1.061	mg/L	0.0004	1.061	mg/L	0.0004	0.04%
Sr 421.552†	782846.0	1.031	mg/L	0.0290	1.031	mg/L	0.0290	2.82%
Ti 334.903†	19236.2	1.071	mg/L	0.0319	1.071	mg/L	0.0319	2.98%
Tl 190.801†	4586.3	2.030	mg/L	0.0058	2.030	mg/L	0.0058	0.29%
V 292.402†	117771.1	1.051	mg/L	0.0059	1.051	mg/L	0.0059	0.56%
Zn 206.200†	3651.4	1.073	mg/L	0.0305	1.073	mg/L	0.0305	2.85%

Sequence No.: 38
Sample ID: CB 5
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/26/2012 3:29:23 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2411701.8	102.7	%	0.25				0.24%
ScR 361.383	292897.2	100.3	%	0.79				0.79%
Ag 328.068†	4.8	0.00003	mg/L	0.000131	0.00003	mg/L	0.000131	439.99%
Al 308.215†	36.4	0.02415	mg/L	0.005336	0.02415	mg/L	0.005336	22.10%
As 188.979†	-2.7	-0.00164	mg/L	0.001909	-0.00164	mg/L	0.001909	116.70%
B 249.677†	7.6	0.00112	mg/L	0.000833	0.00112	mg/L	0.000833	74.11%
Ba 233.527†	1.9	0.00044	mg/L	0.000027	0.00044	mg/L	0.000027	6.21%
Be 313.042†	107.8	0.00020	mg/L	0.000022	0.00020	mg/L	0.000022	10.93%
Ca 317.933†	119.9	0.00984	mg/L	0.002771	0.00984	mg/L	0.002771	28.15%
Cd 228.802†	4.7	0.00019	mg/L	0.000118	0.00019	mg/L	0.000118	60.49%
Co 228.616†	13.0	0.00038	mg/L	0.000143	0.00038	mg/L	0.000143	37.89%
Cr 267.716†	3.5	0.00062	mg/L	0.000346	0.00062	mg/L	0.000346	55.63%
Cu 324.752†	-9.4	-0.00004	mg/L	0.000075	-0.00004	mg/L	0.000075	184.30%
Fe 273.955†	24.1	0.01901	mg/L	0.003288	0.01901	mg/L	0.003288	17.29%
K 766.490†	40.7	0.02344	mg/L	0.005668	0.02344	mg/L	0.005668	24.18%
Mg 279.077†	15.0	0.01223	mg/L	0.003176	0.01223	mg/L	0.003176	25.98%
Mn 257.610†	15.6	0.00046	mg/L	0.000074	0.00046	mg/L	0.000074	16.10%
Mo 202.031†	10.2	0.00056	mg/L	0.000186	0.00056	mg/L	0.000186	33.15%
Na 589.592†	87.9	0.00835	mg/L	0.004444	0.00835	mg/L	0.004444	53.23%
Na 330.237†	-2.7	-0.1018	mg/L	0.16789	-0.1018	mg/L	0.16789	164.85%
Ni 231.604†	7.9	0.00216	mg/L	0.000956	0.00216	mg/L	0.000956	44.17%
Pb 220.353†	7.1	0.00096	mg/L	0.000364	0.00096	mg/L	0.000364	38.03%
Sb 206.836†	6.4	0.00217	mg/L	0.002714	0.00217	mg/L	0.002714	124.92%
Se 196.026†	-1.4	-0.00104	mg/L	0.003837	-0.00104	mg/L	0.003837	368.23%
Si 288.158†	5.3	0.00290	mg/L	0.000981	0.00290	mg/L	0.000981	33.84%
Sn 189.927†	2.8	0.00083	mg/L	0.000988	0.00083	mg/L	0.000988	118.36%
Sr 421.552†	174.1	0.00023	mg/L	0.000029	0.00023	mg/L	0.000029	12.66%
Ti 334.903†	29.3	0.00163	mg/L	0.000341	0.00163	mg/L	0.000341	20.83%
Tl 190.801†	5.0	0.00222	mg/L	0.001898	0.00222	mg/L	0.001898	85.66%
V 292.402†	25.4	0.00023	mg/L	0.000175	0.00023	mg/L	0.000175	77.01%
Zn 206.200†	3.0	0.00087	mg/L	0.000323	0.00087	mg/L	0.000323	37.02%

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Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.26.12 **Analyst:** MJJ **Page:** 1 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2991-10
		1			2990-12
		2			2994-16
		3			2995-1
		4			2994-3
		5			2995-2
		Rinse sample			
		ICV			2926-7
		ICB			^{62}Ni low
		CCV1			
		CCB1			^{62}Ni low
		Low check			↓
		ICSA			
		ICSAB			^{62}Ni high
		LR200			Ag high
		LR300			Mo, ^{137}Ba high
		B1			
		B2			
		ERA P197		10 ✓	
		B3			
		CCV2			
		CCB2			^{62}Ni low
		VS19 MB1	SWN	20	Ag
		↓ MB1SPK	↓	↓ ✓	↓

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.26.12 **Analyst:** MJJ **Page:** 2 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS18 J	SWN	20	Ag
		K		↓	↓
		L		↓	↓
		VS19 B		100	Pb Zn
		B		20	Ag
		C		100	Pb Zn
		C		20	Ag
		D		20	Ag
		CCV3			
		CCB3			^{62}Ni low
		VS19 A-L	SWN	100 ✓	Ag
		A		20	↓
		ADUP		↓ ✓	↓
		ASPK		↓ ✓	↓
		D		100	Pb Zn
		E		↓	↓
		F		20	Ag
		G		↓	↓
		H		↓	↓
		I		↓	↓
		CCV4			^{62}Ni low
		CCB4			↓
		VS19 A-L	SWN	500 ✓	V Cr Co Zn
		↓ A	↓	100	↓

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.26.12 **Analyst:** MJJ **Page:** 3 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS19 ADUP	SWN	100	V Cr Co Zn
		ASPK	↓	↓	↓
		J			Pb Zn
		L		↓	Zn
		E		20	Ag
		K		↓	Ag Be Se
		J			↓
		L	↓	↓	↓
		CCV5			^{62}Ni low
		CCB5			↓
		VS20 MBI	SWN	20	Be, Se ; rr Ag
		↓ MBISPK	↓	↓	↓ ↓
		VS19 K		100	Pb Zn
		VS20 B		20	Be, Se ; rr Ag
		C	↓	↓	↓
		D			
		E			
		G			
		H			
		I	↓	↓	↓
		CCV6			^{62}Ni low, Ag high
		CCB6			↓
		STD O			
		CCV7			U high

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11.26.12 **Analyst:** MJT **Page:** 4 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		CCB7			
		VS20 A-L	SWN	100 ✓	Ag Be Se
		A		20	
		ADUP		✓	
		ASPK		✓	
		J			
		K			
		L			Ag Be
		F			Ag Be Se
		F		100	Zn
		B			Pb Zn
		CCV8			U high
		CCB8			
		VS20 A-L	SWN	500 ✓	Pb Zn
		A		100	
		ADUP		✓	
		ASPK			STL
		C			
		D			Zn ; rr Pb 1/200
		E			Pb Zn
		G			
		K			
		L			
		CCV9			U high

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-26-12 **Analyst:** MJJ/M **Page:** 5 of 7

All corrections made by analyst unless otherwise noted. M 11-27-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		CCB9			
MBISPK		VS21 MBISPK	SWN	20	RRAg
MBI		MBI	↓	↓	
ZZZ		~~ZZZZZ~~ ~~A-L~~		100	
ASPL	✓	ASPL		20	MUS labeled ? ↗
	↓	ADUP			CRZn.Pb 1/100
A		~~ASPK~~			↓ ↓
ZZZ		~~ZZZZZZZ~~ ~~APOST~~			0.06mL PMSSpk#1 1/10 0.06mL PMSSpk#2 1/10
		B			RRZn Pb 1/200
		C			
		D	↓	↓	RRPbZn 1/100
		CCV10			Ag, U high
		CCB10			
		STD 0			
		CCV11			Ag, Th, U high
		CCB11			
		VR08 J	REN	5	As Be RRAg
	✓	↓ MB2SPL	↓	2	
		VS21 E	SWN	20	,Zn (1)/100
		F			
		G			also VCrCo(Se)
		H			↓ (Pb)
		I			also Zn 1/100
		↓ J	↓	↓	Also Zn VCrCo(Se)

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-26-12 **Analyst:** [illegible] **Page:** 6 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS21 K	SWN	20	RRAg
		↓ L	↓	↓	↓
		CCV12			Th U high
		CCB12			end pkg
		VT58 MB1	SWN	20	
		MB1spk			✓
		ADup			
		A			
		Aspk			CuSTL
		B			
		C			
	✓	D			RRCu 1/100 Cd(In)
	✓	E			
	✓	↓ F	↓	↓	↓ ↓
		CCV13			Ag Th U high
		CCB13			
		VS12 MB	REN	2	Mo
		↓ MBspk		↓	↓
	✓	VR88 B		10	CV out
	↓	↓ C			
		D		↓	↓
		VS12 E		2	Mo
		F			
		↓ G	↓	↓	↓

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP (ICP-MS) GFA CVA

Analysis Date: 11-26-12

Nexion M2	Analyst MJT 11-27	Peer MJT 11.28.12	Comment
Logbook:			
Analyst, Date, Method info	—	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	—	✓	
Curve fit	—	✓	
Calibration Verification:			
ICV/CCV	—	✓	See Log
ICB/CCB	—	✓	
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	See Log
Carry-over	✓	—	
Method QC:			
CRI/CRA	✓	✓	See Log
ICSA/ICSAB	✓	✓	+
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	—	✓	
Matrix Duplicates	—	✓	
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	.	✓	

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Monday, November 26, 2012 09:37:26
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1330
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time (ns): 60
Current Dead Time (ns): 60

Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	5679.3	5679.268	87.094	1.5	Standard
	Mg	24.0	45038.5	45038.458	482.563	1.1	Standard
	In	114.9	89645.3	89645.261	1167.812	1.3	Standard
	Pb	208.0	39880.0	39880.002	305.997	0.8	Standard
	U	238.1	68170.8	68170.794	758.504	1.1	Standard
⌈	CeO	155.9	1499.2	0.016	0.001	5.3	Standard
| >	Ce	139.9	91069.3	91069.261	576.796	0.6	Standard
⌊	Ce++	70.0	1190.2	0.013	0.001	4.2	Standard
	Bkgd	220.0	0.0	0.000	0.000		Standard

Current Conditions File Data

Current Value	Description
1.07	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

0.00	KED RPa
0.25	KED RPq
475.00	KED Mode Axial Field Voltage

SmartTune Wizard - Summary

ptimization Summary

martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

tart Time: 11/26/2012 9:37:24 AM
nd Time: 11/26/2012 9:40:00 AM

aily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5679.27
Obtained Intensity (Mg 23.985): 45038.46
Obtained Intensity (In 114.904): 89645.26
Obtained Intensity (Pb 207.977): 39880.00
Obtained Intensity (U 238.05): 68170.79
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.016 (=1499.20 / 91069.26)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.013 (=1190.22 / 91069.26)

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 11/26/2012 9:30:12 AM
End Time: 11/26/2012 9:32:24 AM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.703)
Target/Obtained mass (23.985/24.025), Target/Obtained resolution (0.7/0.711)
Target/Obtained mass (114.904/114.875), Target/Obtained resolution (0.7/0.709)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.716)

SmartTune Wizard - Summary

)ptimization Summary

;martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

;tart Time: 11/26/2012 9:32:51 AM
:nd Time: 11/26/2012 9:37:03 AM

.utoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.996; Intercept = -12.09

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:03:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L				1452181	1
[	Be	9		ug/L				10	33
	C	13		ug/L				122688	5
	Cl	37		ug/L				4809329	0
[>	Sc	45		ug/L				1221736	1
[	V	51		ug/L				8932	1
[	V-1	51		ug/L				79	11
[	Cr	52		ug/L				26512	1
[	Cr	53		ug/L				164	5
[	Mn	55		ug/L				526	7
[	Co	59		ug/L				57	5
[>	Ge	72		ug/L				666235	2
[	Ni	60		ug/L				11	9
[	Ni	62		ug/L				4585	1
[	Cu	63		ug/L				3389	4
[	Cu	65		ug/L				47	15
[	Zn	66		ug/L				115	6
[	Zn	67		ug/L				14	10
[	Zn	68		ug/L				160	7
[	As	75		ug/L				82	23
[	As-1	75		ug/L				10540	0
[	Se	82		ug/L				0	337
[	Se	78		ug/L				10716	0
[	Mo	98		ug/L				12	25
	Y	89		ug/L				407553	0
	Kr	83		ug/L				373	3
[>	In	115		ug/L				1034700	0
[	Ag	107		ug/L				17	34
[	Cd	111		ug/L				81	7
[	Cd	114		ug/L				29	14
[	Sb	121		ug/L				57	6
[	Sb	123		ug/L				42	42
[	Ba	135		ug/L				12	12
[	Ba	137		ug/L				12	24
[>	Tb	159		ug/L				1245990	0
[	Tl	205		ug/L				75	11
[	Pb	208		ug/L				181	8
[	Bi	209		ug/L				2867512	0
[	Th	232		ug/L				132	20
[	U	238		ug/L				4	66

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:07:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1489694	1
	Be	9	0.200	ug/L	0.005	2	10	911	3
	C	13		ug/L			122688	124768	4
	Cl	37		ug/L			4809329	4698505	3
>	Sc	45		ug/L			1221736	1237573	2
	V	51	0.200	ug/L	0.007	3	8932	14397	1
	V-1	51	0.200	ug/L	0.002	1	79	5376	1
	Cr	52	0.500	ug/L	0.033	6	26512	38148	1
	Cr	53	0.500	ug/L	0.021	4	164	1425	2
	Mn	55	0.500	ug/L	0.015	2	526	15255	1
	Co	59	0.200	ug/L	0.007	3	57	4345	4
>	Ge	72		ug/L			666235	659179	1
	Ni	60	0.500	ug/L	0.008	1	11	2376	0
	Ni	62	0.500	ug/L	0.253	50	4585	4699	1
	Cu	63	0.500	ug/L	0.012	2	3389	8488	2
	Cu	65	0.500	ug/L	0.024	4	47	2380	4
	Zn	66	4.000	ug/L	0.065	1	115	12134	0
	Zn	67	4.000	ug/L	0.117	2	14	1835	3
	Zn	68	4.000	ug/L	0.018	0	160	8623	1
	As	75	0.200	ug/L	0.015	7	82	568	5
	As-1	75	0.200	ug/L	0.025	12	10540	11205	0
	Se	82	0.500	ug/L	0.119	23	0	129	22
	Se	78	0.500	ug/L	0.096	19	10716	11237	0
	Mo	98	0.200	ug/L	0.002	1	12	1059	1
	Y	89		ug/L			407553	405313	0
	Kr	83		ug/L			373	390	6
>	In	115		ug/L			1034700	1025198	0
	Ag	107	0.200	ug/L	0.008	3	17	2351	3
	Cd	111	0.100	ug/L	0.005	4	81	627	4
	Cd	114	0.100	ug/L	0.005	5	29	1455	6
	Sb	121	0.200	ug/L	0.002	0	57	3145	0
	Sb	123	0.200	ug/L	0.005	2	42	2367	3
	Ba	135	0.500	ug/L	0.012	2	12	2484	1
	Ba	137	0.500	ug/L	0.007	1	12	4281	0
>	Tb	159		ug/L			1245990	1246021	0
	Tl	205	0.200	ug/L	0.001	0	75	8749	0
	Pb	208	0.100	ug/L	0.001	1	181	6331	2
	Bi	209		ug/L			2867512	2863206	1
	Th	232	0.200	ug/L	0.014	7	132	7322	7
	U	238	0.200	ug/L	0.003	1	4	10534	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:11:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1513224	1
[	Be	9	10.000	ug/L	0.250	2	10	44938	3
	C	13		ug/L			122688	119200	2
	Cl	37		ug/L			4809329	4919795	2
[>	Sc	45		ug/L			1221736	1272532	2
|	V	51	10.000	ug/L	0.159	1	8932	274700	2
|	V-1	51	10.000	ug/L	0.189	1	79	265345	1
|	Cr	52	9.999	ug/L	0.156	1	26512	249351	1
|	Cr	53	9.999	ug/L	0.318	3	164	25185	1
|	Mn	55	10.000	ug/L	0.219	2	526	301161	1
[	Co	59	10.000	ug/L	0.295	2	57	215789	0
[>	Ge	72		ug/L			666235	667779	1
|	Ni	60	9.999	ug/L	0.071	0	11	46747	1
|	Ni	62	10.011	ug/L	0.302	3	4585	10688	0
|	Cu	63	10.000	ug/L	0.155	1	3389	106094	0
|	Cu	65	10.000	ug/L	0.130	1	47	46465	2
|	Zn	66	9.890	ug/L	0.090	0	115	28296	0
|	Zn	67	10.039	ug/L	0.382	3	14	4760	2
|	Zn	68	9.923	ug/L	0.299	3	160	20456	2
|	As	75	10.000	ug/L	0.255	2	82	23778	1
|	As-1	75	9.998	ug/L	0.163	1	10540	34776	0
|	Se	82	10.000	ug/L	0.323	3	0	2614	2
|	Se	78	9.980	ug/L	0.062	0	10716	17900	1
[	Mo	98	10.000	ug/L	0.178	1	12	54764	1
	Y	89		ug/L			407553	418992	0
	Kr	83		ug/L			373	377	3
[>	In	115		ug/L			1034700	1042804	0
|	Ag	107	10.000	ug/L	0.328	3	17	116207	2
|	Cd	111	10.000	ug/L	0.049	0	81	55103	0
|	Cd	114	10.000	ug/L	0.032	0	29	140049	0
|	Sb	121	10.000	ug/L	0.028	0	57	161884	0
|	Sb	123	10.000	ug/L	0.057	0	42	122354	0
|	Ba	135	10.000	ug/L	0.075	0	12	50244	0
[	Ba	137	10.000	ug/L	0.050	0	12	86483	0
[>	Tb	159		ug/L			1245990	1270979	0
|	Tl	205	10.000	ug/L	0.133	1	75	430557	1
|	Pb	208	10.000	ug/L	0.064	0	181	568098	0
|	Bi	209		ug/L			2867512	2905496	1
|	Th	232	10.001	ug/L	0.200	1	132	500563	1
[	U	238	10.000	ug/L	0.078	0	4	544193	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:15:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1496355	2
[	Be	9	19.997	ug/L	0.407	2	10	88769	2
	C	13		ug/L			122688	116941	1
	Cl	37		ug/L			4809329	5139434	2
[>	Sc	45		ug/L			1221736	1266286	1
[	V	51	19.912	ug/L	0.333	1	8932	525964	0
[	V-1	51	19.945	ug/L	0.330	1	79	520833	0
[	Cr	52	19.985	ug/L	0.386	1	26512	467146	0
[	Cr	53	20.093	ug/L	0.381	1	164	51146	0
[	Mn	55	20.039	ug/L	0.473	2	526	604763	1
[	Co	59	20.053	ug/L	0.298	1	57	435339	1
[>	Ge	72		ug/L			666235	658338	1
[	Ni	60	19.977	ug/L	0.314	1	11	91620	0
[	Ni	62	20.104	ug/L	0.054	0	4585	16850	1
[	Cu	63	20.092	ug/L	0.599	2	3389	210521	1
[	Cu	65	19.980	ug/L	0.573	2	47	91081	1
[	Zn	66	20.014	ug/L	0.334	1	115	56458	0
[	Zn	67	19.975	ug/L	0.636	3	14	9283	3
[	Zn	68	20.024	ug/L	0.725	3	160	40697	2
[	As	75	20.012	ug/L	0.392	1	82	46940	0
[	As-1	75	20.014	ug/L	0.345	1	10540	58326	0
[	Se	82	19.983	ug/L	0.601	3	0	5133	1
[	Se	78	19.987	ug/L	0.410	2	10716	24683	0
[	Mo	98	20.020	ug/L	0.343	1	12	108487	0
	Y	89		ug/L			407553	416112	1
	Kr	83		ug/L			373	376	3
[>	In	115		ug/L			1034700	1043906	0
[	Ag	107	19.864	ug/L	0.388	1	17	224975	1
[	Cd	111	19.946	ug/L	0.167	0	81	108764	0
[	Cd	114	19.922	ug/L	0.189	0	29	274993	1
[	Sb	121	19.971	ug/L	0.213	1	57	321723	1
[	Sb	123	19.956	ug/L	0.150	0	42	242267	0
[	Ba	135	19.984	ug/L	0.274	1	12	100187	1
[	Ba	137	20.008	ug/L	0.149	0	12	173468	0
[>	Tb	159		ug/L			1245990	1280651	1
[	Tl	205	19.964	ug/L	0.415	2	75	859613	0
[	Pb	208	19.916	ug/L	0.348	1	181	1120915	0
[	Bi	209		ug/L			2867512	2874027	0
[	Th	232	20.060	ug/L	0.424	2	132	1023731	0
[	U	238	19.891	ug/L	0.421	2	4	1067122	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:20:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1487618	0
[	Be	9	49.888	ug/L	1.235	2	10	217750	2
	C	13		ug/L			122688	122390	2
	Cl	37		ug/L			4809329	5208593	1
[>	Sc	45		ug/L			1221736	1279552	1
[	V	51	49.860	ug/L	1.612	3	8932	1298383	1
[	V-1	51	49.821	ug/L	1.556	3	79	1291105	1
[	Cr	52	49.744	ug/L	0.980	1	26512	1105961	0
[	Cr	53	49.615	ug/L	1.296	2	164	122646	1
[	Mn	55	49.830	ug/L	0.217	0	526	1493723	2
[	Co	59	49.809	ug/L	1.612	3	57	1071787	2
[>	Ge	72		ug/L			666235	662287	1
[	Ni	60	49.585	ug/L	0.841	1	11	219647	0
[	Ni	62	49.983	ug/L	2.299	4	4585	35306	2
[	Cu	63	49.764	ug/L	0.540	1	3389	507881	2
[	Cu	65	49.684	ug/L	1.826	3	47	220799	2
[	Zn	66	49.760	ug/L	0.827	1	115	137850	0
[	Zn	67	49.710	ug/L	0.938	1	14	22584	0
[	Zn	68	49.592	ug/L	1.491	3	160	97361	3
[	As	75	49.851	ug/L	0.808	1	82	115791	0
[	As-1	75	49.815	ug/L	0.918	1	10540	128273	1
[	Se	82	49.818	ug/L	0.542	1	0	12648	0
[	Se	78	49.697	ug/L	0.763	1	10716	44877	1
[	Mo	98	49.931	ug/L	0.354	0	12	270344	0
	Y	89		ug/L			407553	421483	1
	Kr	83		ug/L			373	396	3
[>	In	115		ug/L			1034700	1031900	1
[	Ag	107	49.923	ug/L	1.152	2	17	554547	1
[	Cd	111	49.761	ug/L	0.228	0	81	261849	1
[	Cd	114	49.811	ug/L	0.393	0	29	666975	1
[	Sb	121	49.966	ug/L	0.818	1	57	792815	0
[	Sb	123	49.919	ug/L	0.387	0	42	594150	0
[	Ba	135	49.906	ug/L	0.595	1	12	244968	0
[	Ba	137	49.979	ug/L	0.516	1	12	427391	0
[>	Tb	159		ug/L			1245990	1257165	0
[	Tl	205	50.261	ug/L	0.681	1	75	2181837	1
[	Pb	208	49.926	ug/L	0.169	0	181	2738524	0
[	Bi	209		ug/L			2867512	2814185	1
[	Th	232	50.580	ug/L	0.377	0	132	2690485	0
[	U	238	50.417	ug/L	0.509	1	4	2771272	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:26:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1452181	1
[	Be	9	99.850	ug/L	2.918	2	10	423209	1
	C	13		ug/L			122688	116585	2
	Cl	37		ug/L			4809329	5156950	0
[>	Sc	45		ug/L			1221736	1243183	1
[	V	51	101.116	ug/L	1.796	1	8932	2647742	0
[	V-1	51	100.892	ug/L	1.754	1	79	2618758	0
[	Cr	52	100.721	ug/L	2.399	2	26512	2200472	1
[	Cr	53	99.939	ug/L	2.594	2	164	239384	1
[	Mn	55	100.758	ug/L	3.725	3	526	3010684	4
[	Co	59	100.965	ug/L	0.931	0	57	2181766	2
[>	Ge	72		ug/L			666235	650981	2
[	Ni	60	100.261	ug/L	1.979	1	11	440324	1
[	Ni	62	100.764	ug/L	4.255	4	4585	66985	1
[	Cu	63	99.330	ug/L	3.636	3	3389	970902	1
[	Cu	65	100.161	ug/L	2.595	2	47	439837	1
[	Zn	66	98.979	ug/L	4.754	4	115	260424	2
[	Zn	67	99.593	ug/L	1.495	1	14	43879	3
[	Zn	68	99.724	ug/L	2.732	2	160	190435	0
[	As	75	99.841	ug/L	1.244	1	82	226649	1
[	As-1	75	99.873	ug/L	1.747	1	10540	241423	0
[	Se	82	99.479	ug/L	1.613	1	0	24399	0
[	Se	78	99.621	ug/L	3.364	3	10716	77033	0
[	Mo	98	100.145	ug/L	2.364	2	12	535398	1
	Y	89		ug/L			407553	412314	0
	Kr	83		ug/L			373	432	3
[>	In	115		ug/L			1034700	1013706	1
[	Ag	107	99.869	ug/L	0.767	0	17	1085230	1
[	Cd	111	99.704	ug/L	1.791	1	81	510212	0
[	Cd	114	99.580	ug/L	2.095	2	29	1291527	0
[	Sb	121	99.759	ug/L	0.660	0	57	1542611	0
[	Sb	123	99.952	ug/L	0.522	0	42	1166796	1
[	Ba	135	100.144	ug/L	1.380	1	12	485194	0
[	Ba	137	100.237	ug/L	0.905	0	12	848803	1
[>	Tb	159		ug/L			1245990	1244150	0
[	Tl	205	99.635	ug/L	1.184	1	75	4228514	0
[	Pb	208	100.049	ug/L	1.161	1	181	5439424	0
[	Bi	209		ug/L			2867512	2708987	0
[	Th	232	100.055	ug/L	1.599	1	132	5276267	0
[	U	238	99.899	ug/L	0.794	0	4	5416006	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:33:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112312a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1480190	2
[	Be	9	0.002	ug/L	0.001	42	10	20	21
	C	13		ug/L			122688	124802	2
	Cl	37		ug/L			4809329	5065695	2
[>	Sc	45		ug/L			1221736	1257555	3
[	V	51	0.015	ug/L	0.011	75	8932	9574	0
[	V-1	51	0.001	ug/L	0.002	171	79	104	36
[	Cr	52	0.046	ug/L	0.035	75	26512	28278	0
[	Cr	53	-0.001	ug/L	0.002	217	164	167	2
[	Mn	55	0.000	ug/L	0.003	1142	526	548	13
[	Co	59	0.002	ug/L	0.001	87	57	92	29
[>	Ge	72		ug/L			666235	661091	1
[	Ni	60	0.002	ug/L	0.001	55	11	19	25
[	Ni	62	-0.709	ug/L	0.148	20	4585	4103	2
[	Cu	63	-0.027	ug/L	0.006	22	3389	3090	1
[	Cu	65	0.005	ug/L	0.001	29	47	68	10
[	Zn	66	0.000	ug/L	0.006	2976	115	115	13
[	Zn	67	0.012	ug/L	0.010	82	14	20	21
[	Zn	68	0.013	ug/L	0.012	88	160	184	13
[	As	75	0.015	ug/L	0.010	65	82	115	20
[	As-1	75	0.211	ug/L	0.045	21	10540	10953	0
[	Se	82	-0.018	ug/L	0.040	225	0	-4	202
[	Se	78	0.707	ug/L	0.185	26	10716	11112	0
[	Mo	98	0.020	ug/L	0.010	51	12	121	47
	Y	89		ug/L			407553	413329	2
	Kr	83		ug/L			373	410	5
[>	In	115		ug/L			1034700	1023564	1
[	Ag	107	0.006	ug/L	0.009	139	17	87	112
[	Cd	111	0.009	ug/L	0.008	81	81	128	31
[	Cd	114	0.005	ug/L	0.006	115	29	94	79
[	Sb	121	0.128	ug/L	0.010	7	57	2056	7
[	Sb	123	0.126	ug/L	0.007	5	42	1523	4
[	Ba	135	0.003	ug/L	0.004	136	12	25	70
[	Ba	137	0.003	ug/L	0.003	130	12	34	84
[>	Tb	159		ug/L			1245990	1214298	0
[	Tl	205	0.010	ug/L	0.001	12	75	493	10
[	Pb	208	0.002	ug/L	0.003	144	181	278	52
[	Bi	209		ug/L			2867512	2861920	0
[	Th	232	0.219	ug/L	0.019	8	132	11380	8
[	U	238	0.005	ug/L	0.002	29	4	281	28

Sample Information

Sample Date/Time: Monday, November 26, 2012 10:33:29
Method File: C:\NexION Data\Method\200.8nomin.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**1.0000**	0.003	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**0.9998**	0.021	0.20	10	20	50	100
V-1	51	**0.9999**	0.021	0.20	10	20	50	100
Cr	52	**0.9999**	0.017	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**0.9999**	0.024	0.50	10	20	50	100
Co	59	**0.9998**	0.017	0.20	10	20	50	100
Ge	72							
Ni	60	**0.9999**	0.007	0.50	10	20	50	100
Ni	62	**0.9999**	0.001	0.50	10	20	50	100
Cu	63	**0.9999**	0.015	0.50	10	20	50	100
Cu	65	**1.0000**	0.007	0.50	10	20	50	100
Zn	66	**0.9998**	0.004	4.00	10	20	50	100
Zn	67	**1.0000**	0.001	4.00	10	20	50	100
Zn	68	**0.9999**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.004	0.20	10	20	50	100
Se	82	**0.9999**	0.000	0.50	10	20	50	100
Se	78	**0.9999**	0.001	0.50	10	20	50	100
Mo	98	**1.0000**	0.008	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.011	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.013	0.10	10	20	50	100
Sb	121	**1.0000**	0.015	0.20	10	20	50	100
Sb	123	**1.0000**	0.012	0.20	10	20	50	100
Ba	135	**1.0000**	0.005	0.50	10	20	50	100
Ba	137	**1.0000**	0.008	0.50	10	20	50	100
Tb	159							
Tl	205	**1.0000**	0.034	0.20	10	20	50	100
Pb	208	**1.0000**	0.044	0.10	10	20	50	100
Bi	209							
Th	232	**0.9999**	0.042	0.20	10	20	50	100
U	238	**1.0000**	0.044	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:43:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1529055 ✓	1
[	Be	9	49.712	ug/L	0.861	1	10	221888	0
	C	13		ug/L			122688	125975	1
	Cl	37		ug/L			4809329	5213504	1
[>	Sc	45		ug/L			1221736	1268936 ✓	1
[	V	51	51.073	ug/L	0.953	1	8932	1369561	0
[	V-1	51	51.371	ug/L	1.273	2	79	1360952	1
[	Cr	52	50.540	ug/L	0.446	0	26512	1140839	0
[	Cr	53	51.564	ug/L	1.661	3	164	126161	3
[	Mn	55	51.473	ug/L	1.502	2	526	1569232	1
[	Co	59	50.233	ug/L	0.723	1	57	1107747	0
[>	Ge	72		ug/L			666235	677661 ✓	1
[	Ni	60	51.202	ug/L	0.613	1	11	234113	0
[	Ni	62	49.663	ug/L	0.907	1	4585	36747	0
[	Cu	63	51.172	ug/L	0.363	0	3389	522642	1
[	Cu	65	50.711	ug/L	1.108	2	47	231858	0
[	Zn	66	49.947	ug/L	0.319	0	115	136974	2
[	Zn	67	50.759	ug/L	1.618	3	14	23278	2
[	Zn	68	49.579	ug/L	1.661	3	160	98660	2
[	As	75	50.107	ug/L	1.074	2	82	118454	1
[	As-1	75	50.399	ug/L	0.977	1	10540	132142	0
[	Se	82	78.818	ug/L	1.688	2	0	20127	2
[	Se	78	77.904	ug/L	1.439	1	10716	65103	0
[	Mo	98	48.614	ug/L	0.693	1	12	270634	1
	Y	89		ug/L			407553	423001	0
	Kr	83		ug/L			373	437	2
[>	In	115		ug/L			1034700	1037718 ✓	1
[	Ag	107	52.627	ug/L	0.410	0	17	585399	0
[	Cd	111	50.381	ug/L	0.849	1	81	263978	0
[	Cd	114	50.756	ug/L	0.883	1	29	673998	1
[	Sb	121	50.602	ug/L	0.495	0	57	801055	0
[	Sb	123	50.023	ug/L	0.782	1	42	597767	1
[	Ba	135	50.616	ug/L	0.978	1	12	251050	1
[	Ba	137	50.150	ug/L	0.814	1	12	434734	1
[>	Tb	159		ug/L			1245990	1271091 ✓	1
[	Tl	205	51.795	ug/L	0.653	1	75	2245807	0
[	Pb	208	50.340	ug/L	0.465	0	181	2796187	0
[	Bi	209		ug/L			2867512	2791025	0
[	Th	232	52.165	ug/L	1.016	1	132	2810317	0
[	U	238	52.052	ug/L	0.549	1	4	2883024	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:50:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1483374	0
[	Be	9	0.002	ug/L	0.001	48	10	21	24
	C	13		ug/L			122688	125418	0
	Cl	37		ug/L			4809329	5075946	1
[>	Sc	45		ug/L			1221736	1239146	2
[	V	51	0.025	ug/L	0.008	33	8932	9711	1
[	V-1	51	-0.000	ug/L	0.001	1014	79	79	24
[	Cr	52	0.087	ug/L	0.027	31	26512	28754	1
[	Cr	53	0.001	ug/L	0.003	397	164	169	6
[	Mn	55	0.000	ug/L	0.001	365	526	539	1
[	Co	59	0.001	ug/L	0.000	46	57	72	7
[>	Ge	72		ug/L			666235	649944	1
[	Ni	60	0.001	ug/L	0.001	99	11	16	35
[	Ni	62	-1.773	ug/L	0.060	3	4585	3374	0
[	Cu	63	-0.075	ug/L	0.009	12	3389	2572	2
[	Cu	65	0.003	ug/L	0.001	45	47	60	10
[	Zn	66	-0.003	ug/L	0.005	170	115	105	11
[	Zn	67	0.014	ug/L	0.004	26	14	20	7
[	Zn	68	-0.003	ug/L	0.005	150	160	150	7
[	As	75	-0.009	ug/L	0.015	178	82	60	58
[	As-1	75	0.288	ug/L	0.069	24	10540	10946	0
[	Se	82	-0.038	ug/L	0.028	73	0	-9	67
[	Se	78	1.044	ug/L	0.261	24	10716	11149	0
[	Mo	98	0.009	ug/L	0.002	25	12	61	19
	Y	89		ug/L			407553	413786	1
	Kr	83		ug/L			373	412	3
[>	In	115		ug/L			1034700	1007612	0
[	Ag	107	0.003	ug/L	0.002	77	17	48	50
[	Cd	111	0.004	ug/L	0.002	38	81	101	9
[	Cd	114	0.002	ug/L	0.001	72	29	53	33
[	Sb	121	0.037	ug/L	0.007	18	57	623	16
[	Sb	123	0.037	ug/L	0.007	18	42	468	17
[	Ba	135	-0.000	ug/L	0.000	163	12	11	10
[	Ba	137	0.002	ug/L	0.002	141	12	25	75
[>	Tb	159		ug/L			1245990	1221031	1
[	Tl	205	0.004	ug/L	0.002	41	75	251	30
[	Pb	208	0.001	ug/L	0.000	79	181	208	12
[	Bi	209		ug/L			2867512	2820290	0
[	Th	232	0.123	ug/L	0.008	6	132	6515	7
[	U	238	0.002	ug/L	0.000	1	4	132	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 10:54:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1492475 ✓	1
	Be	9	50.359	ug/L	0.762	1	10	219398	0
	C	13		ug/L			122688	119979	1
	Cl	37		ug/L			4809329	5209240	2
>	Sc	45		ug/L			1221736	1276127 ✓	1
	V	51	49.106	ug/L	1.603	3	8932	1324542	2
	V-1	51	49.443	ug/L	1.479	2	79	1317180	1
	Cr	52	49.062	ug/L	1.025	2	26512	1114463	1
	Cr	53	50.230	ug/L	1.426	2	164	123580	1
	Mn	55	49.485	ug/L	1.094	2	526	1517361	1
	Co	59	48.622	ug/L	2.270	4	57	1077944	3
>	Ge	72		ug/L			666235	665476 ✓	0
	Ni	60	50.072	ug/L	0.378	0	11	224863	0
	Ni	62	47.934	ug/L	1.236	2	4585	34995	2
	Cu	63	51.338	ug/L	0.650	1	3389	514910	1
	Cu	65	49.144	ug/L	1.174	2	47	220709	2
	Zn	66	51.440	ug/L	0.300	0	115	138521	0
	Zn	67	50.677	ug/L	0.990	1	14	22830	2
	Zn	68	50.595	ug/L	0.557	1	160	98887	0
	As	75	51.023	ug/L	0.453	0	82	118469	0
	As-1	75	50.838	ug/L	0.390	0	10540	130828	0
	Se	82	51.297	ug/L	0.250	0	0	12865	0
	Se	78	50.663	ug/L	0.159	0	10716	45326	0
	Mo	98	49.864	ug/L	1.568	3	12	272604	2
	Y	89		ug/L			407553	424323	2
	Kr	83		ug/L			373	426	8
>	In	115		ug/L			1034700	1028642 ✓	0
	Ag	107	51.233	ug/L	0.644	1	17	564961	1
	Cd	111	50.171	ug/L	0.319	0	81	260602	1
	Cd	114	50.711	ug/L	0.266	0	29	667517	0
	Sb	121	50.051	ug/L	0.367	0	57	785405	0
	Sb	123	49.889	ug/L	0.820	1	42	590934	0
	Ba	135	49.980	ug/L	0.636	1	12	245740	0
	Ba	137	49.150	ug/L	0.104	0	12	422355	0
>	Tb	159		ug/L			1245990	1252346 ✓	0
	Tl	205	51.173	ug/L	0.241	0	75	2186281	0
	Pb	208	49.797	ug/L	0.304	0	181	2725336	0
	Bi	209		ug/L			2867512	2797875	0
	Th	232	50.536	ug/L	0.378	0	132	2682725	0
	U	238	51.006	ug/L	0.417	0	4	2783553	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:01:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1466136 ✓	4
	Be	9	0.001	ug/L	0.001	98	10	17	41
	C	13		ug/L			122688	123163	1
	Cl	37		ug/L			4809329	5192111	1
>	Sc	45		ug/L			1221736	1250524 ✓	3
	V	51	0.015	ug/L	0.017	109	8932	9529	1
	V-1	51	0.000	ug/L	0.000	222	79	85	8
	Cr	52	0.049	ug/L	0.048	99	26512	28176	0
	Cr	53	-0.002	ug/L	0.008	407	164	164	15
	Mn	55	-0.002	ug/L	0.001	66	526	483	5
	Co	59	0.001	ug/L	0.000	17	57	75	0
>	Ge	72		ug/L			666235	649030 ✓	2
	Ni	60	0.001	ug/L	0.001	52	11	15	13
	Ni	62	-2.181	ug/L	0.090	4	4585	3116	1
	Cu	63	-0.094	ug/L	0.006	6	3389	2390	0
	Cu	65	0.001	ug/L	0.001	36	47	52	2
	Zn	66	-0.006	ug/L	0.005	78	115	97	14
	Zn	67	0.017	ug/L	0.005	27	14	21	7
	Zn	68	0.002	ug/L	0.009	456	160	160	13
	As	75	0.011	ug/L	0.019	165	82	105	38
	As-1	75	0.338	ug/L	0.084	24	10540	11045	0
	Se	82	-0.012	ug/L	0.051	433	0	-3	343
	Se	78	1.185	ug/L	0.271	22	10716	11225	0
	Mo	98	0.010	ug/L	0.003	30	12	62	23
	Y	89		ug/L			407553	415042	1
	Kr	83		ug/L			373	420	3
>	In	115		ug/L			1034700	1008687 ✓	2
	Ag	107	0.002	ug/L	0.000	18	17	33	8
	Cd	111	0.004	ug/L	0.002	60	81	100	10
	Cd	114	0.001	ug/L	0.000	8	29	40	3
	Sb	121	0.069	ug/L	0.005	7	57	1114	8
	Sb	123	0.069	ug/L	0.003	4	42	839	5
	Ba	135	0.000	ug/L	0.000	15738	12	12	16
	Ba	137	0.001	ug/L	0.001	85	12	20	35
>	Tb	159		ug/L			1245990	1196291 ✓	0
	Tl	205	0.005	ug/L	0.002	41	75	270	30
	Pb	208	0.000	ug/L	0.000	82	181	184	5
	Bi	209		ug/L			2867512	2816760	1
	Th	232	0.171	ug/L	0.022	12	132	8786	12
	U	238	0.003	ug/L	0.000	10	4	144	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:05:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1465604 ✓	0
[	Be	9	0.213	ug/L	0.008	3	10	921	3
	C	13		ug/L			122688	129329	1
	Cl	37		ug/L			4809329	5029040	3
[>	Sc	45		ug/L			1221736	1241640 ✓	0
[	V	51	0.232	ug/L	0.007	2	8932	15130	1
[	V-1	51	0.210	ug/L	0.006	2	79	5522	2
[	Cr	52	0.579	ug/L	0.031	5	26512	39433	2
[	Cr	53	0.509	ug/L	0.012	2	164	1383	2
[	Mn	55	0.511	ug/L	0.013	2	526	15773	3
[	Co	59	0.202	ug/L	0.006	3	57	4409	2
[>	Ge	72		ug/L			666235	659675 ✓	0
[	Ni	60	0.514	ug/L	0.017	3	11	2297	3
[	Ni	62	-1.845	ug/L	0.115	6	4585	3379	2
[	Cu	63	0.417	ug/L	0.029	7	3389	7468	3
[	Cu	65	0.533	ug/L	0.005	0	47	2421	0
[	Zn	66	4.621	ug/L	0.076	1	115	12437	1
[	Zn	67	4.209	ug/L	0.144	3	14	1892	3
[	Zn	68	4.399	ug/L	0.020	0	160	8667	0
[	As	75	0.203	ug/L	0.017	8	82	548	7
[	As-1	75	0.419	ug/L	0.045	10	10540	11419	0
[	Se	82	0.516	ug/L	0.044	8	0	127	9
[	Se	78	1.277	ug/L	0.162	12	10716	11475	0
[	Mo	98	0.193	ug/L	0.013	6	12	1057	6
	Y	89		ug/L			407553	414287	1
	Kr	83		ug/L			373	400	1
[>	In	115		ug/L			1034700	1023154 ✓	1
[	Ag	107	0.210	ug/L	0.004	1	17	2315	0
[	Cd	111	0.111	ug/L	0.005	4	81	653	3
[	Cd	114	0.107	ug/L	0.005	4	29	1426	2
[	Sb	121	0.211	ug/L	0.002	0	57	3358	2
[	Sb	123	0.215	ug/L	0.009	4	42	2574	3
[	Ba	135	0.493	ug/L	0.008	1	12	2424	1
[	Ba	137	0.487	ug/L	0.005	0	12	4176	0
[>	Tb	159		ug/L			1245990	1215210 ✓	0
[	Tl	205	0.208	ug/L	0.001	0	75	8696	0
[	Pb	208	0.114	ug/L	0.005	4	181	6213	3
[	Bi	209		ug/L			2867512	2828720	1
[	Th	232	0.213	ug/L	0.006	2	132	11122	2
[	U	238	0.198	ug/L	0.003	1	4	10485	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:09:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1506381	2
	Be	9	0.000	ug/L	0.001	1374	10	11	32
	C	13		ug/L			122688	220782	2
	Cl	37		ug/L			4809329	14161703	6
>	Sc	45		ug/L			1221736	1301140	1
	V	51	0.142	ug/L	0.013	9	8932	13383	1
	V-1	51	1.021	ug/L	0.032	3	79	27834	4
	Cr	52	0.603	ug/L	0.037	6	26512	41849	2
	Cr	53	3.660	ug/L	0.138	3	164	9350	5
	Mn	55	0.067	ug/L	0.002	3	526	2646	3
	Co	59	0.023	ug/L	0.001	3	57	582	4
>	Ge	72		ug/L			666235	661270	1
	Ni	60	0.354	ug/L	0.020	5	11	1590	3
	Ni	62	5.873	ug/L	1.228	20	4585	8258	10
	Cu	63	1.335	ug/L	0.088	6	3389	16582	6
	Cu	65	0.376	ug/L	0.009	2	47	1726	3
	Zn	66	0.964	ug/L	0.022	2	115	2692	2
	Zn	67	6.532	ug/L	0.422	6	14	2934	4
	Zn	68	0.410	ug/L	0.002	0	160	953	2
	As	75	0.062	ug/L	0.023	36	82	222	21
	As-1	75	0.535	ug/L	0.153	28	10540	11714	1
	Se	82	-0.217	ug/L	0.028	12	0	-54	13
	Se	78	1.785	ug/L	0.466	26	10716	11844	1
	Mo	98	419.453	ug/L	1.707	0	12	2278509	1
	Y	89		ug/L			407553	420285	0
	Kr	83		ug/L			373	671	4
>	In	115		ug/L			1034700	1004539	1
	Ag	107	0.019	ug/L	0.001	5	17	221	5
	Cd	111	0.172	ug/L	0.018	10	81	952	9
	Cd	114	0.287	ug/L	0.004	1	29	3721	0
	Sb	121	0.076	ug/L	0.004	4	57	1214	6
	Sb	123	0.073	ug/L	0.004	5	42	881	6
	Ba	135	0.051	ug/L	0.002	4	12	258	6
	Ba	137	0.040	ug/L	0.003	6	12	348	5
>	Tb	159		ug/L			1245990	1259173	1
	Tl	205	0.041	ug/L	0.002	3	75	1818	4
	Pb	208	0.034	ug/L	0.000	0	181	2055	0
	Bi	209		ug/L			2867512	2599701	1
	Th	232	0.227	ug/L	0.071	31	132	12198	30
	U	238	0.001	ug/L	0.000	16	4	77	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:16:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1485081 ✓	2
[	Be	9	0.001	ug/L	0.001	65	10	15	17
	C	13		ug/L			122688	233253	2
	Cl	37		ug/L			4809329	14447099	2
[>	Sc	45		ug/L			1221736	1287242 ✓	1
[	V	51	0.123	ug/L	0.254	205	8932	12819	55
[	V-1	51	1.001	ug/L	0.036	3	79	26980	2
[	Cr	52	20.312	ug/L	0.319	1	26512	481823	1
[	Cr	53	23.733	ug/L	1.019	4	164	58974	2
[	Mn	55	19.847	ug/L	0.566	2	526	614104	1
[	Co	59	19.454	ug/L	0.394	2	57	435201	0
[>	Ge	72		ug/L			666235	658680 ✓	2
[	Ni	60	20.251	ug/L	0.418	2	11	89993	0
[	Ni	62	24.860	ug/L	0.975	3	4585	20137	1
[	Cu	63	21.084	ug/L	0.586	2	3389	211219	2
[	Cu	65	20.261	ug/L	0.730	3	47	90042	1
[	Zn	66	19.909	ug/L	0.655	3	115	53113	2
[	Zn	67	23.551	ug/L	0.572	2	14	10505	1
[	Zn	68	18.576	ug/L	0.531	2	160	36032	3
[	As	75	20.309	ug/L	0.437	2	82	46706	0
[	As-1	75	20.307	ug/L	0.498	2	10540	57966	0
[	Se	82	-0.218	ug/L	0.008	3	0	-54	3
[	Se	78	1.481	ug/L	0.261	17	10716	11593	0
[	Mo	98	421.681	ug/L	19.419	4	12	2280180	2
	Y	89		ug/L			407553	413916	0
	Kr	83		ug/L			373	646	3
[>	In	115		ug/L			1034700	1013989 ✓	0
[	Ag	107	21.238	ug/L	0.775	3	17	230829	3
[	Cd	111	19.819	ug/L	0.298	1	81	101521	0
[	Cd	114	20.002	ug/L	0.154	0	29	259563	0
[	Sb	121	0.070	ug/L	0.003	3	57	1133	3
[	Sb	123	0.072	ug/L	0.004	4	42	879	4
[	Ba	135	0.048	ug/L	0.003	5	12	246	5
[	Ba	137	0.041	ug/L	0.004	10	12	356	10
[>	Tb	159		ug/L			1245990	1258930 ✓	0
[	Tl	205	0.033	ug/L	0.001	2	75	1474	2
[	Pb	208	0.032	ug/L	0.001	2	181	1967	1
[	Bi	209		ug/L			2867512	2609853	1
[	Th	232	0.084	ug/L	0.008	9	132	4638	9
[	U	238	0.001	ug/L	0.000	32	4	33	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:22:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1457970	0
[	Be	9	202.770	ug/L	6.024	2	10	862917	2
	C	13		ug/L			122688	129857	3
	Cl	37		ug/L			4809329	5388262	4
[>	Sc	45		ug/L			1221736	1234343	0
[	V	51	202.143	ug/L	3.970	1	8932	5246613	1
[	V-1	51	202.321	ug/L	3.144	1	79	5214259	0
[	Cr	52	201.341	ug/L	3.427	1	26512	4341032	0
[	Cr	53	201.944	ug/L	1.293	0	164	480190	0
[	Mn	55	199.235	ug/L	7.849	3	526	5907504	3
[	Co	59	194.856	ug/L	1.732	0	57	4180182	0
[>	Ge	72		ug/L			666235	622046	1
[	Ni	60	199.351	ug/L	1.624	0	11	836720	0
[	Ni	62	205.045	ug/L	1.942	0	4585	125893	1
[	Cu	63	199.679	ug/L	2.220	1	3389	1862698	0
[	Cu	65	196.988	ug/L	5.724	2	47	826578	1
[	Zn	66	199.632	ug/L	4.200	2	115	502073	0
[	Zn	67	198.274	ug/L	2.850	1	14	83442	0
[	Zn	68	195.695	ug/L	3.130	1	160	357044	0
[	As	75	203.123	ug/L	3.675	1	82	440541	0
[	As-1	75	202.048	ug/L	3.320	1	10540	456683	0
[	Se	82	200.204	ug/L	5.257	2	0	46922	1
[	Se	78	196.897	ug/L	3.688	1	10716	135760	0
[	Mo	98	212.453	ug/L	3.354	1	12	1085498	0
	Y	89		ug/L			407553	395313	0
	Kr	83		ug/L			373	637	5
[>	In	115		ug/L			1034700	992273	1
[	Ag	107	223.233	ug/L	4.339	1	17	2374035	1
[	Cd	111	201.215	ug/L	0.785	0	81	1007967	1
[	Cd	114	210.637	ug/L	2.546	1	29	2674258	0
[	Sb	121	216.035	ug/L	3.428	1	57	3269564	0
[	Sb	123	217.706	ug/L	2.279	1	42	2487366	0
[	Ba	135	207.774	ug/L	3.225	1	12	985393	1
[	Ba	137	205.466	ug/L	1.477	0	12	1703031	1
[>	Tb	159		ug/L			1245990	1244938	1
[	Tl	205	196.985	ug/L	1.243	0	75	8365546	0
[	Pb	208	201.062	ug/L	2.915	1	181	10937183	0
[	Bi	209		ug/L			2867512	2568374	0
[	Th	232	198.706	ug/L	3.993	2	132	10484154	0
[	U	238	198.836	ug/L	4.215	2	4	10785269	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:29:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1396612	1
	Be	9	308.951	ug/L	9.052	2	10	1259290	1
	C	13		ug/L			122688	130421	2
	Cl	37		ug/L			4809329	5288449	2
>	Sc	45		ug/L			1221736	1202185	0
	V	51	309.302	ug/L	0.995	0	8932	7814991	0
	V-1	51	308.840	ug/L	1.999	0	79	7752828	0
	Cr	52	310.791	ug/L	5.346	1	26512	6512455	1
	Cr	53	309.216	ug/L	1.440	0	164	716027	0
	Mn	55	306.163	ug/L	1.739	0	526	8843080	0
	Co	59	298.248	ug/L	6.200	2	57	6231982	2
>	Ge	72		ug/L			666235	604039	0
	Ni	60	307.652	ug/L	5.548	1	11	1253855	0
	Ni	62	315.324	ug/L	6.298	1	4585	185789	2
	Cu	63	314.792	ug/L	3.587	1	3389	2850002	1
	Cu	65	301.620	ug/L	5.907	1	47	1229215	1
	Zn	66	292.438	ug/L	2.582	0	115	714329	1
	Zn	67	296.854	ug/L	1.234	0	14	121320	0
	Zn	68	292.660	ug/L	4.739	1	160	518461	0
	As	75	308.071	ug/L	4.326	1	82	648854	0
	As-1	75	308.362	ug/L	3.853	1	10540	671844	0
	Se	82	292.057	ug/L	2.012	0	0	66483	0
	Se	78	294.508	ug/L	2.703	0	10716	192396	0
	Mo	98	330.867	ug/L	9.071	2	12	1641600	2
	Y	89		ug/L			407553	386848	0
	Kr	83		ug/L			373	802	6
>	In	115		ug/L			1034700	951508	0
	Ag	107	320.036	ug/L	4.195	1	17	3264277	1
	Cd	111	305.690	ug/L	0.270	0	81	1468412	0
	Cd	114	314.836	ug/L	1.775	0	29	3833421	0
	Sb	121	323.641	ug/L	3.477	1	57	4697574	0
	Sb	123	325.625	ug/L	3.052	0	42	3567935	1
	Ba	135	322.251	ug/L	0.959	0	12	1465671	0
	Ba	137	333.310	ug/L	0.693	0	12	2649354	0
>	Tb	159		ug/L			1245990	1215850	0
	Tl	205	298.988	ug/L	4.839	1	75	12400818	1
	Pb	208	303.583	ug/L	2.906	0	181	16129262	0
	Bi	209		ug/L			2867512	2423228	0
	Th	232	304.804	ug/L	2.524	0	132	15708249	0
	U	238	304.390	ug/L	7.252	2	4	16125834	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:36:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1480935	0
[	Be	9	0.003	ug/L	0.001	45	10	22	24
	C	13		ug/L			122688	130214	1
	Cl	37		ug/L			4809329	5193418	1
[>	Sc	45		ug/L			1221736	1228680	2
|	V	51	0.022	ug/L	0.004	17	8932	9562	1
|	V-1	51	0.011	ug/L	0.001	9	79	372	6
|	Cr	52	0.075	ug/L	0.010	13	26512	28270	1
|	Cr	53	0.038	ug/L	0.004	10	164	255	5
|	Mn	55	0.017	ug/L	0.003	16	526	1034	6
[	Co	59	0.001	ug/L	0.001	65	57	88	20
[>	Ge	72		ug/L			666235	642985	1
|	Ni	60	0.019	ug/L	0.001	3	11	94	1
|	Ni	62	-1.655	ug/L	0.297	17	4585	3410	5
|	Cu	63	-0.064	ug/L	0.020	31	3389	2652	8
|	Cu	65	0.016	ug/L	0.001	8	47	114	6
|	Zn	66	1.155	ug/L	0.021	1	115	3114	1
|	Zn	67	1.084	ug/L	0.033	3	14	485	2
|	Zn	68	1.122	ug/L	0.019	1	160	2269	0
|	As	75	0.020	ug/L	0.013	66	82	123	23
|	As-1	75	0.276	ug/L	0.042	15	10540	10802	0
|	Se	82	0.025	ug/L	0.048	187	0	5	204
|	Se	78	0.949	ug/L	0.141	14	10716	10967	0
[	Mo	98	0.043	ug/L	0.000	0	12	238	0
	Y	89		ug/L			407553	404075	1
	Kr	83		ug/L			373	394	8
[>	In	115		ug/L			1034700	1024752	1
|	Ag	107	0.018	ug/L	0.001	5	17	211	6
|	Cd	111	0.009	ug/L	0.001	15	81	129	6
|	Cd	114	0.004	ug/L	0.001	14	29	85	10
|	Sb	121	0.296	ug/L	0.044	14	57	4681	12
|	Sb	123	0.291	ug/L	0.037	12	42	3471	11
|	Ba	135	0.007	ug/L	0.003	39	12	47	28
[	Ba	137	0.009	ug/L	0.001	10	12	90	10
[>	Tb	159		ug/L			1245990	1214798	0
|	Tl	205	0.024	ug/L	0.009	36	75	1083	33
|	Pb	208	0.009	ug/L	0.001	8	181	650	5
|	Bi	209		ug/L			2867512	2815493	0
|	Th	232	0.272	ug/L	0.020	7	132	14158	6
[	U	238	0.007	ug/L	0.001	9	4	381	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:42:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1442746	0
	Be	9	0.003	ug/L	0.001	47	10	23	26
	C	13		ug/L			122688	132805	1
	Cl	37		ug/L			4809329	5061172	3
>	Sc	45		ug/L			1221736	1249180	2
	V	51	0.029	ug/L	0.015	53	8932	9883	1
	V-1	51	0.008	ug/L	0.001	9	79	293	6
	Cr	52	0.097	ug/L	0.055	56	26512	29179	1
	Cr	53	0.026	ug/L	0.008	31	164	230	8
	Mn	55	0.007	ug/L	0.001	15	526	752	2
	Co	59	0.002	ug/L	0.001	34	57	92	9
>	Ge	72		ug/L			666235	645062	1
	Ni	60	0.014	ug/L	0.002	14	11	71	12
	Ni	62	-2.588	ug/L	0.100	3	4585	2847	1
	Cu	63	-0.112	ug/L	0.004	3	3389	2200	3
	Cu	65	0.007	ug/L	0.001	21	47	74	8
	Zn	66	0.151	ug/L	0.001	0	115	505	2
	Zn	67	0.148	ug/L	0.015	10	14	78	8
	Zn	68	0.155	ug/L	0.003	2	160	448	2
	As	75	0.010	ug/L	0.012	124	82	101	27
	As-1	75	0.265	ug/L	0.092	34	10540	10811	0
	Se	82	-0.016	ug/L	0.033	209	0	-4	183
	Se	78	0.922	ug/L	0.337	36	10716	10984	0
	Mo	98	0.013	ug/L	0.002	15	12	82	14
	Y	89		ug/L			407553	408931	3
	Kr	83		ug/L			373	407	3
>	In	115		ug/L			1034700	1007146	1
	Ag	107	0.007	ug/L	0.001	18	17	97	15
	Cd	111	0.007	ug/L	0.002	32	81	115	8
	Cd	114	0.003	ug/L	0.000	1	29	66	1
	Sb	121	0.087	ug/L	0.010	11	57	1393	10
	Sb	123	0.084	ug/L	0.015	18	42	1015	16
	Ba	135	0.004	ug/L	0.001	17	12	32	11
	Ba	137	0.006	ug/L	0.001	18	12	63	14
>	Tb	159		ug/L			1245990	1210903	1
	Tl	205	0.016	ug/L	0.007	42	75	744	37
	Pb	208	0.009	ug/L	0.000	1	181	662	3
	Bi	209		ug/L			2867512	2813953	0
	Th	232	0.085	ug/L	0.006	7	132	4474	5
	U	238	0.002	ug/L	0.000	10	4	93	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ERA P197
Sample Dil Factor: 10
Comments:
Sample Date/Time: Monday, November 26, 2012 11:48:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1502149	0
[	Be	9	6.392 ✓	ug/L	0.018	0	10	28042	0
	C	13		ug/L			122688	134789	1
	Cl	37		ug/L			4809329	5141042	4
[>	Sc	45		ug/L			1221736	1268973	1
|	V	51	52.242 ✓	ug/L	0.580	1	8932	1400876	0
|	V-1	51	52.635 ✓	ug/L	1.022	1	79	1394518	0
|	Cr	52	56.137 ✓	ug/L	0.932	1	26512	1264139	1
|	Cr	53	57.572 ✓	ug/L	2.189	3	164	140814	2
|	Mn	55	48.647 ✓	ug/L	0.806	1	526	1483440	0
[	Co	59	88.862 ✓	ug/L	2.633	2	57	1959455	1
[>	Ge	72		ug/L			666235	651542	2
|	Ni	60	74.478 ✓	ug/L	2.448	3	11	327331	1
|	Ni	62	70.798 ✓	ug/L	0.850	1	4585	48460	1
|	Cu	63	32.230 ✓	ug/L	0.896	2	3389	317610	0
|	Cu	65	31.385 ✓	ug/L	0.674	2	47	138003	2
|	Zn	66	51.435 ✓	ug/L	1.461	2	115	135552	0
|	Zn	67	50.238 ✓	ug/L	1.024	2	14	22152	0
|	Zn	68	50.718 ✓	ug/L	2.196	4	160	96998	2
|	As	75	22.745 ✓	ug/L	0.598	2	82	51730	0
|	As-1	75	22.989 ✓	ug/L	0.916	3	10540	63541	1
|	Se	82	33.723 ✓	ug/L	0.552	1	0	8278	1
|	Se	78	33.840 ✓	ug/L	1.473	4	10716	33108	0
[	Mo	98	55.206 ✓	ug/L	0.603	1	12	295459	1
	Y	89		ug/L			407553	418076	1
	Kr	83		ug/L			373	394	8
[>	In	115		ug/L			1034700	1031399	0
|	Ag	107	43.491 ✓	ug/L	1.709	3	17	480906	4
|	Cd	111	15.566 ✓	ug/L	0.099	0	81	81127	0
|	Cd	114	15.257 ✓	ug/L	0.238	1	29	201383	1
|	Sb	121	31.716 ✓	ug/L	0.140	0	57	499070	1
|	Sb	123	31.757 ✓	ug/L	0.219	0	42	377211	0
|	Ba	135	46.020 ✓	ug/L	0.457	0	12	226878	0
[	Ba	137	45.697 ✓	ug/L	0.464	1	12	393709	0
[>	Tb	159		ug/L			1245990	1249280	0
|	Tl	205	18.333 ✓	ug/L	0.208	1	75	781332	0
|	Pb	208	224.972 ✓	ug/L	1.572	0	181	12281483	0
|	Bi	209		ug/L			2867512	2890413	0
|	Th	232	0.049	ug/L	0.003	6	132	2751	6
[	U	238	0.001	ug/L	0.000	19	4	54	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:53:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1447976	3
	Be	9	0.002	ug/L	0.001	62	10	18	30
	C	13		ug/L			122688	127201	0
	Cl	37		ug/L			4809329	5064977	4
>	Sc	45		ug/L			1221736	1234316	3
	V	51	0.018	ug/L	0.009	48	8932	9478	1
	V-1	51	0.007	ug/L	0.000	5	79	255	0
	Cr	52	0.059	ug/L	0.040	66	26512	28037	0
	Cr	53	0.022	ug/L	0.012	52	164	218	8
	Mn	55	0.008	ug/L	0.001	14	526	758	3
	Co	59	0.003	ug/L	0.000	0	57	122	3
>	Ge	72		ug/L			666235	628935	1
	Ni	60	0.015	ug/L	0.001	9	11	73	6
	Ni	62	-2.921	ug/L	0.213	7	4585	2575	3
	Cu	63	-0.127	ug/L	0.005	3	3389	2006	1
	Cu	65	0.009	ug/L	0.001	8	47	84	5
	Zn	66	0.158	ug/L	0.019	12	115	510	10
	Zn	67	0.151	ug/L	0.011	7	14	78	7
	Zn	68	0.150	ug/L	0.013	8	160	427	5
	As	75	0.015	ug/L	0.002	10	82	110	2
	As-1	75	0.354	ug/L	0.078	22	10540	10740	0
	Se	82	0.028	ug/L	0.018	63	0	6	69
	Se	78	1.246	ug/L	0.275	22	10716	10919	0
	Mo	98	0.020	ug/L	0.003	14	12	113	12
	Y	89		ug/L			407553	396234	2
	Kr	83		ug/L			373	393	2
>	In	115		ug/L			1034700	1005271	0
	Ag	107	0.006	ug/L	0.000	2	17	79	2
	Cd	111	0.005	ug/L	0.001	26	81	104	5
	Cd	114	0.002	ug/L	0.000	14	29	58	8
	Sb	121	0.045	ug/L	0.009	19	57	745	18
	Sb	123	0.046	ug/L	0.010	22	42	573	21
	Ba	135	0.006	ug/L	0.001	11	12	40	7
	Ba	137	0.006	ug/L	0.001	10	12	62	8
>	Tb	159		ug/L			1245990	1195607	0
	Tl	205	0.008	ug/L	0.003	41	75	403	34
	Pb	208	0.011	ug/L	0.000	3	181	738	1
	Bi	209		ug/L			2867512	2809883	1
	Th	232	0.032	ug/L	0.001	3	132	1735	3
	U	238	0.001	ug/L	0.000	8	4	32	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 11:57:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1546085 ✓	1
	Be	9	50.719	ug/L	1.206	2	10	228879	1
	C	13		ug/L			122688	126390	3
	Cl	37		ug/L			4809329	5458713	3
>	Sc	45		ug/L			1221736	1271918 ✓	0
	V	51	47.530	ug/L	1.029	2	8932	1278400	1
	V-1	51	48.013	ug/L	0.832	1	79	1275186	1
	Cr	52	48.881	ug/L	0.882	1	26512	1106989	1
	Cr	53	50.582	ug/L	0.926	1	164	124062	1
	Mn	55	49.212	ug/L	0.800	1	526	1504248	1
	Co	59	47.595	ug/L	1.466	3	57	1052214	3
>	Ge	72		ug/L			666235	650558 ✓	0
	Ni	60	50.756	ug/L	1.553	3	11	222797	2
	Ni	62	46.861	ug/L	0.593	1	4585	33547	1
	Cu	63	50.573	ug/L	0.929	1	3389	495876	1
	Cu	65	50.419	ug/L	0.756	1	47	221365	1
	Zn	66	51.809	ug/L	0.437	0	115	136385	1
	Zn	67	51.168	ug/L	0.701	1	14	22533	0
	Zn	68	52.162	ug/L	0.628	1	160	99658	0
	As	75	51.405	ug/L	0.614	1	82	116675	0
	As-1	75	51.233	ug/L	0.709	1	10540	128803	0
	Se	82	52.169	ug/L	0.340	0	0	12790	0
	Se	78	51.548	ug/L	0.686	1	10716	44900	0
	Mo	98	51.275	ug/L	0.945	1	12	274022	1
	Y	89		ug/L			407553	404905	2
	Kr	83		ug/L			373	418	4
>	In	115		ug/L			1034700	1020299 ✓	1
	Ag	107	53.133	ug/L	1.556	2	17	581030	2
	Cd	111	50.724	ug/L	1.108	2	81	261338	2
	Cd	114	51.210	ug/L	0.498	0	29	668595	0
	Sb	121	51.471	ug/L	0.745	1	57	801087	0
	Sb	123	51.445	ug/L	0.809	1	42	604420	0
	Ba	135	50.867	ug/L	0.810	1	12	248065	0
	Ba	137	49.734	ug/L	0.699	1	12	423899	1
>	Tb	159		ug/L			1245990	1251942 ✓	0
	Tl	205	51.872	ug/L	0.211	0	75	2215447	0
	Pb	208	49.646	ug/L	0.360	0	181	2716195	0
	Bi	209		ug/L			2867512	2784470	0
	Th	232	50.379	ug/L	0.662	1	132	2673469	0
	U	238	51.458	ug/L	0.360	0	4	2807321	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 12:04:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1493377	3
	Be	9	0.002	ug/L	0.002	69	10	21	33
	C	13		ug/L			122688	130720	1
	Cl	37		ug/L			4809329	5117439	1
>	Sc	45		ug/L			1221736	1239339	3
	V	51	0.012	ug/L	0.008	69	8932	9364	2
	V-1	51	0.004	ug/L	0.001	22	79	185	10
	Cr	52	0.046	ug/L	0.026	56	26512	27876	2
	Cr	53	0.020	ug/L	0.004	18	164	214	1
	Mn	55	-0.000	ug/L	0.001	485	526	527	5
	Co	59	0.002	ug/L	0.001	41	57	95	15
>	Ge	72		ug/L			666235	644109	1
	Ni	60	0.002	ug/L	0.001	57	11	17	21
	Ni	62	-3.741	ug/L	0.126	3	4585	2134	2
	Cu	63	-0.179	ug/L	0.006	3	3389	1549	2
	Cu	65	-0.000	ug/L	0.001	533	47	45	7
	Zn	66	-0.005	ug/L	0.007	148	115	99	19
	Zn	67	0.014	ug/L	0.008	58	14	20	18
	Zn	68	-0.001	ug/L	0.006	850	160	153	6
	As	75	0.024	ug/L	0.016	67	82	133	26
	As-1	75	0.261	ug/L	0.031	12	10540	10786	0
	Se	82	0.054	ug/L	0.030	54	0	12	56
	Se	78	0.910	ug/L	0.100	11	10716	10961	0
	Mo	98	0.011	ug/L	0.001	13	12	68	11
	Y	89		ug/L			407553	406195	0
	Kr	83		ug/L			373	396	3
>	In	115		ug/L			1034700	1000778	0
	Ag	107	0.002	ug/L	0.001	57	17	38	31
	Cd	111	0.004	ug/L	0.001	27	81	99	5
	Cd	114	0.002	ug/L	0.001	37	29	49	15
	Sb	121	0.078	ug/L	0.012	15	57	1243	14
	Sb	123	0.078	ug/L	0.008	10	42	939	9
	Ba	135	0.000	ug/L	0.001	5798	12	12	30
	Ba	137	0.001	ug/L	0.000	32	12	19	11
>	Tb	159		ug/L			1245990	1203256	0
	Tl	205	0.008	ug/L	0.003	41	75	398	33
	Pb	208	0.001	ug/L	0.000	39	181	222	8
	Bi	209		ug/L			2867512	2800677	0
	Th	232	0.158	ug/L	0.017	10	132	8206	10
	U	238	0.002	ug/L	0.000	11	4	111	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:11:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1532575	1
[	Be	9	0.001	ug/L	0.001	97	10	16	33
	C	13		ug/L			122688	136482	1
	Cl	37		ug/L			4809329	5078185	2
[>	Sc	45		ug/L			1221736	1256492	2
[	V	51	0.020	ug/L	0.007	33	8932	9717	0
[	V-1	51	0.005	ug/L	0.000	9	79	204	4
[	Cr	52	0.071	ug/L	0.016	22	26512	28803	1
[	Cr	53	0.018	ug/L	0.008	44	164	212	11
[	Mn	55	0.015	ug/L	0.003	20	526	996	7
[	Co	59	0.002	ug/L	0.000	25	57	99	9
[>	Ge	72		ug/L			666235	655704	1
[	Ni	60	0.010	ug/L	0.001	6	11	53	5
[	Ni	62	-4.031	ug/L	0.063	1	4585	1992	0
[	Cu	63	-0.173	ug/L	0.007	4	3389	1633	3
[	Cu	65	0.013	ug/L	0.003	27	47	102	14
[	Zn	66	0.443	ug/L	0.028	6	115	1287	5
[	Zn	67	0.414	ug/L	0.006	1	14	198	0
[	Zn	68	0.434	ug/L	0.017	3	160	992	3
[	As	75	0.005	ug/L	0.002	32	82	92	3
[	As-1	75	0.205	ug/L	0.051	24	10540	10850	0
[	Se	82	-0.006	ug/L	0.015	241	0	-2	173
[	Se	78	0.736	ug/L	0.179	24	10716	11041	0
[	Mo	98	0.005	ug/L	0.001	17	12	39	12
	Y	89		ug/L			407553	410366	1
	Kr	83		ug/L			373	412	1
[>	In	115		ug/L			1034700	1028459	0
[	Ag	107	0.002	ug/L	0.001	34	17	38	19
[	Cd	111	0.005	ug/L	0.001	22	81	108	5
[	Cd	114	0.002	ug/L	0.000	26	29	51	11
[	Sb	121	0.030	ug/L	0.005	16	57	524	15
[	Sb	123	0.030	ug/L	0.006	19	42	396	17
[	Ba	135	0.009	ug/L	0.002	23	12	55	17
[	Ba	137	0.010	ug/L	0.001	11	12	100	10
[>	Tb	159		ug/L			1245990	1220693	0
[	Tl	205	0.005	ug/L	0.002	36	75	292	27
[	Pb	208	0.009	ug/L	0.000	2	181	635	1
[	Bi	209		ug/L			2867512	2844918	1
[	Th	232	0.086	ug/L	0.005	6	132	4600	5
[	U	238	0.001	ug/L	0.000	34	4	36	30

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:15:38

Ag

Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			1452181	1524537	2
⌊	Be	9	25.082	ug/L	0.686	2	10	111621	2
	C	13		ug/L			122688	132804	0
	Cl	37		ug/L			4809329	5224674	2
⌈>	Sc	45		ug/L			1221736	1264690	1
|	V	51	24.888	ug/L	0.992	3	8932	669719	2
|	V-1	51	24.970	ug/L	1.086	4	79	659124	2
|	Cr	52	25.366	ug/L	0.436	1	26512	584273	0
|	Cr	53	25.657	ug/L	0.791	3	164	62634	1
|	Mn	55	25.233	ug/L	0.425	1	526	767061	0
⌊	Co	59	23.921	ug/L	1.034	4	57	525589	2
⌈>	Ge	72		ug/L			666235	649619	2
|	Ni	60	26.432	ug/L	0.911	3	11	115827	2
|	Ni	62	22.749	ug/L	0.623	2	4585	18558	2
|	Cu	63	26.375	ug/L	1.181	4	3389	259627	1
|	Cu	65	26.637	ug/L	0.506	1	47	116825	4
|	Zn	66	84.032	ug/L	2.428	2	115	220709	1
|	Zn	67	78.469	ug/L	2.016	2	14	34506	4
|	Zn	68	83.149	ug/L	2.149	2	160	158474	1
|	As	75	25.363	ug/L	0.730	2	82	57504	2
|	As-1	75	25.971	ug/L	0.924	3	10540	70233	1
|	Se	82	83.140	ug/L	2.217	2	0	20345	1
|	Se	78	81.346	ug/L	2.988	3	10716	64679	0
⌊	Mo	98	24.568	ug/L	0.580	2	12	131067	1
	Y	89		ug/L			407553	422544	2
	Kr	83		ug/L			373	407	5
⌈>	In	115		ug/L			1034700	1043291	0
|	Ag	107	27.351	ug/L	0.157	0	17	305892	0
|	Cd	111	25.034	ug/L	0.641	2	81	131914	2
|	Cd	114	25.149	ug/L	0.329	1	29	335775	1
|	Sb	121	25.013	ug/L	0.449	1	57	398140	1
|	Sb	123	24.816	ug/L	0.261	1	42	298173	0
|	Ba	135	24.897	ug/L	0.315	1	12	124165	0
⌊	Ba	137	24.756	ug/L	0.161	0	12	215759	0
⌈>	Tb	159		ug/L			1245990	1226510	1
|	Tl	205	25.750	ug/L	0.604	2	75	1077200	0
|	Pb	208	26.142	ug/L	0.625	2	181	1401017	0
|	Bi	209		ug/L			2867512	2839300	0
|	Th	232	24.466	ug/L	0.467	1	132	1271869	0
⌊	U	238	24.717	ug/L	0.571	2	4	1320796	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:19:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1580425	2
[	**Be**	**9**	**0.717**	ug/L	0.029	4	10	3317	1
	C	**13**		ug/L			122688	171947	0
	Cl	**37**		ug/L			4809329	5311076	1
[>	**Sc**	**45**		ug/L			1221736	1567904	1
[	**V**	**51**	**67.091**	ug/L	1.949	2	8932	2219878	3
[	**V-1**	**51**	**66.179**	ug/L	1.004	1	79	2166854	2
[	**Cr**	**52**	**136.801**	ug/L	2.639	1	26512	3757677	1
[	**Cr**	**53**	**134.946**	ug/L	1.086	0	164	407660	1
[	**Mn**	**55**	**915.659**	ug/L	3.763	0	526	34492309	1
[	**Co**	**59**	**17.967**	ug/L	0.156	0	57	489719	1
[>	**Ge**	**72**		ug/L			666235	657846	1
[	**Ni**	**60**	**85.871**	ug/L	2.004	2	11	381147	1
[	**Ni**	**62**	**89.598**	ug/L	4.326	4	4585	60708	3
[	**Cu**	**63**	**63.462**	ug/L	0.320	0	3389	628392	0
[	**Cu**	**65**	**64.508**	ug/L	2.556	3	47	286287	2
[	**Zn**	**66**	**744.020**	ug/L	10.883	1	115	1978794	0
[	**Zn**	**67**	**708.431**	ug/L	15.275	2	14	315272	1
[	**Zn**	**68**	**744.443**	ug/L	27.313	3	160	1435850	2
[	**As**	**75**	**41.152**	ug/L	0.747	1	82	94459	0
[	**As-1**	**75**	**40.301**	ug/L	0.784	1	10540	104667	0
[	**Se**	**82**	**0.029**	ug/L	0.032	109	0	6	118
[	**Se**	**78**	**0.659**	ug/L	0.250	37	10716	11025	0
[	**Mo**	**98**	**0.538**	ug/L	0.020	3	12	2918	2
	Y	**89**		ug/L			407553	674601	3
	Kr	**83**		ug/L			373	1056	3
[>	**In**	**115**		ug/L			1034700	1112530	0
[	**Ag**	**107**	**0.907**	ug/L	0.016	1	17	10835	1
[	**Cd**	**111**	**14.238**	ug/L	0.228	1	81	80047	1
[	**Cd**	**114**	**14.158**	ug/L	0.058	0	29	201597	0
[	**Sb**	**121**	**0.411**	ug/L	0.008	1	57	7035	1
[	**Sb**	**123**	**0.401**	ug/L	0.011	2	42	5185	3
[	**Ba**	**135**	**524.941**	ug/L	4.668	0	12	2791573	0
[	**Ba**	**137**	**526.279**	ug/L	6.935	1	12	4890931	0
[>	**Tb**	**159**		ug/L			1245990	1267047	0
[	**Tl**	**205**	**1.105**	ug/L	0.009	0	75	47825	1
[	**Pb**	**208**	**902.340**	ug/L	4.253	0	181	49961748	0
[	**Bi**	**209**		ug/L			2867512	2678187	0
[	**Th**	**232**	**5.062**	ug/L	0.058	1	132	272002	0
[	**U**	**238**	**0.711**	ug/L	0.014	2	4	39267	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:23:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1577714	1
[	**Be**	**9**	**0.609**	ug/L	0.009	1	10	2815	0
	C	**13**		ug/L			122688	182847	1
	Cl	**37**		ug/L			4809329	5263022	3
[>	**Sc**	**45**		ug/L			1221736	1399462	1
[	**V**	**51**	**39.308**	ug/L	0.506	1	8932	1165220	2
[	**V-1**	**51**	**39.616**	ug/L	0.502	1	79	1157881	2
[	**Cr**	**52**	**44.875**	ug/L	0.640	1	26512	1120509	0
[	**Cr**	**53**	**46.047**	ug/L	0.747	1	164	124270	0
[	**Mn**	**55**	**1514.409**	ug/L	16.582	1	526	50922921	2
[	**Co**	**59**	**10.208**	ug/L	0.029	0	57	248370	1
[>	**Ge**	**72**		ug/L			666235	654092	1
[	**Ni**	**60**	**21.707**	ug/L	0.356	1	11	95815	1
[	**Ni**	**62**	**20.326**	ug/L	0.426	2	4585	17178	1
[	**Cu**	**63**	**33.600**	ug/L	0.431	1	3389	332369	1
[	**Cu**	**65**	**32.950**	ug/L	0.201	0	47	145456	0
[	**Zn**	**66**	**853.558**	ug/L	15.924	1	115	2257118	0
[	**Zn**	**67**	**767.085**	ug/L	13.490	1	14	339421	0
[	**Zn**	**68**	**825.926**	ug/L	12.372	1	160	1584440	2
[	**As**	**75**	**30.655**	ug/L	0.270	0	82	69995	1
[	**As-1**	**75**	**30.085**	ug/L	0.233	0	10540	80325	1
[	**Se**	**82**	**0.007**	ug/L	0.076	1047	0	1	1728
[	**Se**	**78**	**0.691**	ug/L	0.132	19	10716	10984	0
[	**Mo**	**98**	**0.509**	ug/L	0.015	2	12	2748	2
	Y	**89**		ug/L			407553	579406	2
	Kr	**83**		ug/L			373	868	4
[>	**In**	**115**		ug/L			1034700	1137173	1
[	**Ag**	**107**	**0.467**	ug/L	0.007	1	17	5712	2
[	**Cd**	**111**	**24.379**	ug/L	0.474	1	81	140016	0
[	**Cd**	**114**	**24.040**	ug/L	0.079	0	29	349850	1
[	**Sb**	**121**	**0.583**	ug/L	0.007	1	57	10178	1
[	**Sb**	**123**	**0.579**	ug/L	0.011	1	42	7633	2
[	**Ba**	**135**	**682.265**	ug/L	5.879	0	12	3708352	0
[	**Ba**	**137**	**679.042**	ug/L	10.856	1	12	6451332	2
[>	**Tb**	**159**		ug/L			1245990	1273943	0
[	**Tl**	**205**	**0.919**	ug/L	0.009	1	75	39997	1
[	**Pb**	**208**	**1022.065**	ug/L	11.991	1	181	56897319	0
[	**Bi**	**209**		ug/L			2867512	2784340	0
[	**Th**	**232**	**3.866**	ug/L	0.070	1	132	208883	1
[	**U**	**238**	**0.590**	ug/L	0.011	1	4	32754	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS18 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:28:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Arg

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1570933	1
	Be	9	1.522	ug/L	0.022	1	10	6991	0
	C	13		ug/L			122688	162870	3
	Cl	37		ug/L			4809329	5316015	1
>	Sc	45		ug/L			1221736	1426103	0
	V	51	75.292	ug/L	3.358	4	8932	2264789	4
	V-1	51	72.373	ug/L	1.104	1	79	2155143	1
	Cr	52	411.428	ug/L	3.114	0	26512	10217649	1
	Cr	53	407.599	ug/L	6.251	1	164	1119530	1
	Mn	55	821.972	ug/L	17.749	2	526	28159043	1
	Co	59	24.282	ug/L	0.777	3	57	601810	2
>	Ge	72		ug/L			666235	637068	1
	Ni	60	179.736	ug/L	2.647	1	11	772584	0
	Ni	62	177.126	ug/L	3.412	1	4585	111963	0
	Cu	63	50.648	ug/L	0.506	0	3389	486321	0
	Cu	65	51.618	ug/L	0.078	0	47	221917	1
	Zn	66	319.013	ug/L	3.447	1	115	821760	0
	Zn	67	442.157	ug/L	3.882	0	14	190580	1
	Zn	68	410.794	ug/L	1.347	0	160	767555	1
	As	75	11.069	ug/L	0.109	0	82	24664	0
	As-1	75	10.852	ug/L	0.193	1	10540	34658	0
	Se	82	0.031	ug/L	0.074	239	0	6	256
	Se	78	0.844	ug/L	0.301	35	10716	10797	0
	Mo	98	0.589	ug/L	0.015	2	12	3093	3
	Y	89		ug/L			407553	902850	2
	Kr	83		ug/L			373	1037	2
>	In	115		ug/L			1034700	1010191	0
	Ag	107	0.496	ug/L	0.020	4	17	5388	3
	Cd	111	5.049	ug/L	0.099	1	81	25825	1
	Cd	114	4.938	ug/L	0.045	0	29	63861	0
	Sb	121	0.067	ug/L	0.004	5	57	1088	5
	Sb	123	0.071	ug/L	0.004	5	42	867	4
	Ba	135	2765.581	ug/L	29.584	1	12	13353641	0
	Ba	137	2773.195	ug/L	11.562	0	12	23402717	0
>	Tb	159		ug/L			1245990	1326171	0
	Tl	205	0.854	ug/L	0.009	1	75	38702	0
	Pb	208	223.230	ug/L	2.162	0	181	12936737	0
	Bi	209		ug/L			2867512	2430354	0
	Th	232	8.746	ug/L	0.059	0	132	491767	0
	U	238	0.611	ug/L	0.012	1	4	35309	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 B SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 12:32:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1546885	1
	Be	9	0.115	ug/L	0.011	9	10	530	8
	C	13		ug/L			122688	149536	2
	Cl	37		ug/L			4809329	5126670	0
>	Sc	45		ug/L			1221736	1321111	1
	V	51	3.996	ug/L	0.104	2	8932	120455	1
	V-1	51	4.021	ug/L	0.064	1	79	110997	1
	Cr	52	3.984	ug/L	0.168	4	26512	120015	1
	Cr	53	4.072	ug/L	0.009	0	164	10537	1
	Mn	55	77.823	ug/L	0.669	0	526	2470405	1
	Co	59	1.340	ug/L	0.035	2	57	30835	2
>	Ge	72		ug/L			666235	661239	0
	Ni	60	4.185	ug/L	0.056	1	11	18684	1
	Ni	62	-0.386	ug/L	0.081	21	4585	4307	0
	Cu	63	4.983	ug/L	0.155	3	3389	52692	2
	Cu	65	5.256	ug/L	0.098	1	47	23496	1
	Zn	66	96.972	ug/L	0.465	0	115	259360	0
	Zn	67	93.235	ug/L	0.654	0	14	41724	1
	Zn	68	95.811	ug/L	2.091	2	160	185929	2
	As	75	3.691	ug/L	0.033	0	82	8591	0
	As-1	75	3.705	ug/L	0.061	1	10540	19173	0
	Se	82	0.200	ug/L	0.002	1	0	49	0
	Se	78	0.601	ug/L	0.164	27	10716	11043	0
	Mo	98	0.261	ug/L	0.009	3	12	1431	2
	Y	89		ug/L			407553	460923	1
	Kr	83		ug/L			373	471	6
>	In	115		ug/L			1034700	1055632	0
	Ag	107	0.124	ug/L	0.005	4	17	1422	4
	Cd	111	1.484	ug/L	0.032	2	81	7990	2
	Cd	114	1.457	ug/L	0.031	2	29	19712	1
	Sb	121	0.122	ug/L	0.006	4	57	2025	4
	Sb	123	0.124	ug/L	0.003	2	42	1550	2
	Ba	135	26.913	ug/L	0.300	1	12	135811	0
	Ba	137	26.658	ug/L	0.409	1	12	235088	1
>	Tb	159		ug/L			1245990	1249511	1
	Tl	205	0.073	ug/L	0.002	3	75	3192	1
	Pb	208	100.535	ug/L	2.582	2	181	5488222	1
	Bi	209		ug/L			2867512	2856583	0
	Th	232	0.628	ug/L	0.017	2	132	33372	1
	U	238	0.328	ug/L	0.008	2	4	17834	1

VS21 : 00200

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:36:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1580951	2
[	**Be**	**9**	**0.518**	ug/L	0.020	3	10	2402	3
	C	**13**		ug/L			122688	217793	2
	Cl	**37**		ug/L			4809329	5194968	2
[>	**Sc**	**45**		ug/L			1221736	1403919	2
[	**V**	**51**	**18.399**	ug/L	0.240	1	8932	552509	2
[	**V-1**	**51**	**18.535**	ug/L	0.224	1	79	543436	2
[	**Cr**	**52**	**18.349**	ug/L	0.514	2	26512	477502	1
[	**Cr**	**53**	**18.822**	ug/L	0.440	2	164	51056	0
[	**Mn**	**55**	**346.647**	ug/L	9.844	2	526	11687870	1
[	**Co**	**59**	**5.899**	ug/L	0.217	3	57	143937	1
[>	**Ge**	**72**		ug/L			666235	655466	2
[	**Ni**	**60**	**20.527**	ug/L	0.678	3	11	90758	1
[	**Ni**	**62**	**16.328**	ug/L	0.902	5	4585	14707	1
[	**Cu**	**63**	**24.614**	ug/L	0.815	3	3389	244772	1
[	**Cu**	**65**	**24.659**	ug/L	0.537	2	47	109091	2
[	**Zn**	**66**	**455.819**	ug/L	22.385	4	115	1207413	3
[	**Zn**	**67**	**415.068**	ug/L	12.023	2	14	183996	1
[	**Zn**	**68**	**438.625**	ug/L	16.672	3	160	842762	1
[	**As**	**75**	**17.543**	ug/L	0.260	1	82	40165	1
[	**As-1**	**75**	**17.259**	ug/L	0.370	2	10540	50584	0
[	**Se**	**82**	**1.115**	ug/L	0.060	5	0	274	3
[	**Se**	**78**	**1.540**	ug/L	0.466	30	10716	11575	0
[	**Mo**	**98**	**1.292**	ug/L	0.024	1	12	6966	1
	Y	**89**		ug/L			407553	615923	0
	Kr	**83**		ug/L			373	625	2
[>	**In**	**115**		ug/L			1034700	1099588	1
[	**Ag**	**107**	**0.555**	ug/L	0.003	0	17	6559	0
[	**Cd**	**111**	**6.706**	ug/L	0.226	3	81	37302	2
[	**Cd**	**114**	**6.425**	ug/L	0.128	1	29	90422	0
[	**Sb**	**121**	**0.544**	ug/L	0.011	1	57	9177	1
[	**Sb**	**123**	**0.540**	ug/L	0.019	3	42	6886	2
[	**Ba**	**135**	**124.899**	ug/L	1.844	1	12	656423	0
[	**Ba**	**137**	**124.771**	ug/L	2.893	2	12	1145934	1
[>	**Tb**	**159**		ug/L			1245990	1278536	1
[	**Tl**	**205**	**0.344**	ug/L	0.009	2	75	15079	1
[	**Pb**	**208**	**473.353**	ug/L	7.432	1	181	26442919	0
[	**Bi**	**209**		ug/L			2867512	2811758	1
[	**Th**	**232**	**2.855**	ug/L	0.065	2	132	154814	0
[	**U**	**238**	**1.534**	ug/L	0.046	2	4	85441	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 C SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 12:40:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1533883	1
	Be	9	0.124	ug/L	0.006	5	10	566	4
	C	13		ug/L			122688	146301	1
	Cl	37		ug/L			4809329	5039579	3
>	Sc	45		ug/L			1221736	1319838	1
	V	51	3.495	ug/L	0.077	2	8932	106476	1
	V-1	51	3.504	ug/L	0.088	2	79	96621	1
	Cr	52	3.555	ug/L	0.078	2	26512	110081	0
	Cr	53	3.586	ug/L	0.118	3	164	9287	1
	Mn	55	367.584	ug/L	5.651	1	526	11654036	0
	Co	59	1.556	ug/L	0.024	1	57	35759	0
>	Ge	72		ug/L			666235	671173	1
	Ni	60	4.845	ug/L	0.153	3	11	21944	1
	Ni	62	-0.408	ug/L	0.119	29	4585	4357	0
	Cu	63	5.473	ug/L	0.075	1	3389	58402	0
	Cu	65	5.703	ug/L	0.179	3	47	25864	1
	Zn	66	152.228	ug/L	0.551	0	115	413189	1
	Zn	67	141.835	ug/L	1.443	1	14	64424	2
	Zn	68	150.628	ug/L	4.449	2	160	296516	1
	As	75	5.525	ug/L	0.158	2	82	13007	1
	As-1	75	5.447	ug/L	0.254	4	10540	23612	0
	Se	82	0.103	ug/L	0.025	23	0	25	25
	Se	78	0.284	ug/L	0.359	126	10716	10988	0
	Mo	98	0.178	ug/L	0.006	3	12	993	1
	Y	89		ug/L			407553	452748	1
	Kr	83		ug/L			373	449	2
>	In	115		ug/L			1034700	1064720	0
	Ag	107	0.122	ug/L	0.007	6	17	1405	5
	Cd	111	2.807	ug/L	0.035	1	81	15170	1
	Cd	114	2.743	ug/L	0.038	1	29	37406	1
	Sb	121	0.243	ug/L	0.007	2	57	4010	3
	Sb	123	0.245	ug/L	0.005	2	42	3042	2
	Ba	135	93.910	ug/L	1.202	1	12	477934	0
	Ba	137	92.849	ug/L	1.116	1	12	825818	0
>	Tb	159		ug/L			1245990	1257526	0
	Tl	205	0.102	ug/L	0.000	0	75	4442	0
	Pb	208	105.202	ug/L	0.286	0	181	5781321	0
	Bi	209		ug/L			2867512	2885616	0
	Th	232	0.644	ug/L	0.009	1	132	34447	0
	U	238	0.106	ug/L	0.004	3	4	5808	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:45:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1452181	1553725	2
	Be	**9**	**0.596**	ug/L	0.023	3	10	2715	2
	C	**13**		ug/L			122688	218662	3
	Cl	**37**		ug/L			4809329	5164990	0
>	**Sc**	**45**		ug/L			1221736	1410789	1
	V	**51**	**16.617**	ug/L	0.333	2	8932	502419	1
	V-1	**51**	**16.687**	ug/L	0.373	2	79	491620	1
	Cr	**52**	**17.233**	ug/L	0.177	1	26512	452676	0
	Cr	**53**	**17.489**	ug/L	0.280	1	164	47698	0
	Mn	**55**	**1723.630**	ug/L	30.244	1	526	58414583	0
	Co	**59**	**7.497**	ug/L	0.158	2	57	183872	1
>	**Ge**	**72**		ug/L			666235	652295	1
	Ni	**60**	**24.880**	ug/L	1.052	4	11	109502	3
	Ni	**62**	**21.196**	ug/L	0.465	2	4585	17669	0
	Cu	**63**	**29.223**	ug/L	1.174	4	3389	288673	3
	Cu	**65**	**28.977**	ug/L	0.288	0	47	127580	1
	Zn	**66**	**753.047**	ug/L	10.841	1	115	1985845	0
	Zn	**67**	**708.258**	ug/L	5.851	0	14	312557	1
	Zn	**68**	**757.062**	ug/L	1.170	0	160	1448223	1
	As	**75**	**28.517**	ug/L	0.760	2	82	64923	1
	As-1	**75**	**28.052**	ug/L	0.817	2	10540	75372	1
	Se	**82**	**0.403**	ug/L	0.039	9	0	98	10
	Se	**78**	**1.059**	ug/L	0.284	26	10716	11199	0
	Mo	**98**	**0.932**	ug/L	0.030	3	12	5002	1
	Y	**89**		ug/L			407553	559460	1
	Kr	**83**		ug/L			373	678	5
>	**In**	**115**		ug/L			1034700	1140013	0
	Ag	**107**	**0.566**	ug/L	0.016	2	17	6931	3
	Cd	**111**	**13.050**	ug/L	0.151	1	81	75197	1
	Cd	**114**	**12.725**	ug/L	0.125	0	29	185662	0
	Sb	**121**	**1.116**	ug/L	0.025	2	57	19469	1
	Sb	**123**	**1.118**	ug/L	0.010	0	42	14720	0
	Ba	**135**	**472.942**	ug/L	6.110	1	12	2577074	1
	Ba	**137**	**465.560**	ug/L	8.827	1	12	4433190	1
>	**Tb**	**159**		ug/L			1245990	1278149	0
	Tl	**205**	**0.505**	ug/L	0.012	2	75	22098	1
	Pb	**208**	**527.714**	ug/L	6.643	1	181	29473372	0
	Bi	**209**		ug/L			2867512	2798941	0
	Th	**232**	**3.172**	ug/L	0.049	1	132	171956	1
	U	**238**	**0.529**	ug/L	0.006	1	4	29452	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 12:49:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1564799	2
[	Be	9	0.565	ug/L	0.042	7	10	2589	4
	C	13		ug/L			122688	223628	3
	Cl	37		ug/L			4809329	5240108	2
[>	Sc	45		ug/L			1221736	1388546	1
[	V	51	25.882	ug/L	0.348	1	8932	764593	1
[	V-1	51	26.275	ug/L	0.107	0	79	761936	1
[	Cr	52	25.531	ug/L	0.985	3	26512	645389	2
[	Cr	53	26.888	ug/L	0.821	3	164	72079	2
[	Mn	55	1242.770	ug/L	31.641	2	526	41453992	2
[	Co	59	8.958	ug/L	0.261	2	57	216211	2
[>	Ge	72		ug/L			666235	666177	2
[	Ni	60	27.196	ug/L	1.018	3	11	122207	2
[	Ni	62	23.934	ug/L	0.750	3	4585	19781	0
[	Cu	63	28.770	ug/L	1.449	5	3389	290142	2
[	Cu	65	28.716	ug/L	0.996	3	47	129057	1
[	Zn	66	591.240	ug/L	24.757	4	115	1591607	2
[	Zn	67	546.350	ug/L	16.229	2	14	246154	1
[	Zn	68	580.641	ug/L	20.352	3	160	1133828	1
[	As	75	14.758	ug/L	0.462	3	82	34346	0
[	As-1	75	14.426	ug/L	0.556	3	10540	44693	0
[	Se	82	0.361	ug/L	0.052	14	0	90	15
[	Se	78	0.535	ug/L	0.372	69	10716	11077	0
[	Mo	98	0.497	ug/L	0.020	3	12	2728	2
	Y	89		ug/L			407553	609016	0
	Kr	83		ug/L			373	679	3
[>	In	115		ug/L			1034700	1129389	0
[	Ag	107	0.465	ug/L	0.013	2	17	5652	2
[	Cd	111	14.678	ug/L	0.335	2	81	83764	1
[	Cd	114	14.590	ug/L	0.304	2	29	210868	1
[	Sb	121	0.562	ug/L	0.006	0	57	9747	0
[	Sb	123	0.568	ug/L	0.011	1	42	7433	1
[	Ba	135	419.833	ug/L	9.499	2	12	2266221	1
[	Ba	137	412.047	ug/L	3.561	0	12	3887337	0
[>	Tb	159		ug/L			1245990	1288087	0
[	Tl	205	0.541	ug/L	0.014	2	75	23857	1
[	Pb	208	674.033	ug/L	12.745	1	181	37937052	1
[	Bi	209		ug/L			2867512	2801092	0
[	Th	232	4.179	ug/L	0.060	1	132	228309	0
[	U	238	0.483	ug/L	0.010	2	4	27099	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 12:53:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1527786 ✓	1
	Be	9	52.137	ug/L	0.840	1	10	232529	1
	C	13		ug/L			122688	131753	0
	Cl	37		ug/L			4809329	5424471	2
>	Sc	45		ug/L			1221736	1300770 ✓	1
	V	51	46.960	ug/L	0.694	1	8932	1291778	0
	V-1	51	47.233	ug/L	0.869	1	79	1282829	0
	Cr	52	47.499	ug/L	0.381	0	26512	1100849	0
	Cr	53	48.455	ug/L	1.175	2	164	121534	1
	Mn	55	47.628	ug/L	0.455	0	526	1488940	1
	Co	59	46.334	ug/L	0.438	0	57	1047555	1
>	Ge	72		ug/L			666235	656189 ✓	0
	Ni	60	49.101	ug/L	0.129	0	11	217421	0
	Ni	62	45.050	ug/L	0.404	0	4585	32703	1
	Cu	63	50.312	ug/L	1.585	3	3389	497589	2
	Cu	65	50.809	ug/L	0.361	0	47	225001	0
	Zn	66	50.689	ug/L	0.476	0	115	134588	0
	Zn	67	51.030	ug/L	0.266	0	14	22668	0
	Zn	68	49.866	ug/L	1.250	2	160	96098	2
	As	75	50.715	ug/L	0.727	1	82	116108	1
	As-1	75	50.489	ug/L	0.905	1	10540	128183	1
	Se	82	51.507	ug/L	0.331	0	0	12736	0
	Se	78	50.711	ug/L	1.169	2	10716	44724	1
	Mo	98	50.421	ug/L	0.411	0	12	271808	0
	Y	89		ug/L			407553	413178	1
	Kr	83		ug/L			373	433	1
>	In	115		ug/L			1034700	1034887 ✓	1
	Ag	107	52.280	ug/L	0.530	1	17	579940	0
	Cd	111	50.948	ug/L	0.189	0	81	266246	1
	Cd	114	50.492	ug/L	0.556	1	29	668659	1
	Sb	121	50.871	ug/L	0.521	1	57	803093	0
	Sb	123	50.596	ug/L	0.309	0	42	602997	1
	Ba	135	49.852	ug/L	0.702	1	12	246605	1
	Ba	137	48.692	ug/L	0.703	1	12	420921	0
>	Tb	159		ug/L			1245990	1244239 ✓	0
	Tl	205	51.816	ug/L	0.868	1	75	2199254	1
	Pb	208	49.841	ug/L	0.571	1	181	2709937	0
	Bi	209		ug/L			2867512	2771555	0
	Th	232	51.129	ug/L	0.706	1	132	2696539	1
	U	238	51.755	ug/L	0.475	0	4	2806131	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 13:00:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1491780 ✓	0
	Be	9	0.002	ug/L	0.000	7	10	17	3
	C	13		ug/L			122688	135775	1
	Cl	37		ug/L			4809329	5070389	0
>	Sc	45		ug/L			1221736	1244227 ✓	0
	V	51	0.013	ug/L	0.009	66	8932	9449	2
	V-1	51	0.001	ug/L	0.000	22	79	108	5
	Cr	52	0.045	ug/L	0.027	59	26512	27973	2
	Cr	53	0.003	ug/L	0.005	219	164	173	7
	Mn	55	-0.000	ug/L	0.001	261	526	523	6
	Co	59	0.001	ug/L	0.000	51	57	79	13
>	Ge	72		ug/L			666235	642946 ✓	1
	Ni	60	0.001	ug/L	0.001	41	11	16	12
	Ni	62	-5.476	ug/L	0.037	0	4585	1067	2
	Cu	63	-0.257	ug/L	0.002	0	3389	794	3
	Cu	65	0.000	ug/L	0.002	929	47	46	19
	Zn	66	0.015	ug/L	0.005	32	115	150	9
	Zn	67	0.029	ug/L	0.016	57	14	26	27
	Zn	68	0.021	ug/L	0.004	17	160	194	3
	As	75	0.021	ug/L	0.013	60	82	126	21
	As-1	75	0.230	ug/L	0.058	25	10540	10695	0
	Se	82	-0.015	ug/L	0.066	432	0	-4	362
	Se	78	0.794	ug/L	0.198	24	10716	10864	0
	Mo	98	0.006	ug/L	0.001	17	12	41	13
	Y	89		ug/L			407553	392955	2
	Kr	83		ug/L			373	433	3
>	In	115		ug/L			1034700	1003755 ✓	1
	Ag	107	0.007	ug/L	0.009	135	17	87	109
	Cd	111	0.002	ug/L	0.002	64	81	91	7
	Cd	114	0.001	ug/L	0.000	17	29	46	7
	Sb	121	0.057	ug/L	0.006	10	57	936	9
	Sb	123	0.057	ug/L	0.005	9	42	700	9
	Ba	135	0.001	ug/L	0.001	65	12	16	17
	Ba	137	0.002	ug/L	0.001	34	12	29	19
>	Tb	159		ug/L			1245990	1185842 ✓	0
	Tl	205	0.005	ug/L	0.003	50	75	285	38
	Pb	208	0.003	ug/L	0.001	27	181	318	12
	Bi	209		ug/L			2867512	2814275	1
	Th	232	0.126	ug/L	0.011	8	132	6441	9
	U	238	0.002	ug/L	0.000	12	4	112	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 13:08:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1581625	2
	Be	9	0.175	ug/L	0.004	2	10	819	2
	C	13		ug/L			122688	140871	3
	Cl	37		ug/L			4809329	5096549	0
>	Sc	45		ug/L			1221736	1352271	2
	V	51	12.830	ug/L	0.139	1	8932	374089	2
	V-1	51	13.101	ug/L	0.334	2	79	369838	1
	Cr	52	18.778	ug/L	0.119	0	26512	470143	2
	Cr	53	19.827	ug/L	0.949	4	164	51766	1
	Mn	55	279.138	ug/L	7.832	2	526	9065371	1
	Co	59	3.082	ug/L	0.123	3	57	72445	2
>	Ge	72		ug/L			666235	662150	1
	Ni	60	7.405	ug/L	0.206	2	11	33086	1
	Ni	62	2.505	ug/L	0.176	7	4585	6137	1
	Cu	63	7.794	ug/L	0.241	3	3389	80615	1
	Cu	65	7.958	ug/L	0.109	1	47	35594	0
	Zn	66	56.900	ug/L	1.861	3	115	152386	1
	Zn	67	60.691	ug/L	0.681	1	14	27199	1
	Zn	68	61.998	ug/L	0.803	1	160	120519	0
	As	75	2.878	ug/L	0.059	2	82	6724	0
	As-1	75	2.947	ug/L	0.177	5	10540	17409	0
	Se	82	-0.035	ug/L	0.036	100	0	-9	93
	Se	78	0.579	ug/L	0.413	71	10716	11040	0
	Mo	98	0.109	ug/L	0.003	2	12	605	3
	Y	89		ug/L			407553	478315	0
	Kr	83		ug/L			373	526	3
>	In	115		ug/L			1034700	1058203	1
	Ag	107	0.054	ug/L	0.004	8	17	634	6
	Cd	111	0.953	ug/L	0.032	3	81	5172	1
	Cd	114	0.912	ug/L	0.011	1	29	12373	0
	Sb	121	0.034	ug/L	0.003	9	57	607	7
	Sb	123	0.035	ug/L	0.004	11	42	463	9
	Ba	135	124.755	ug/L	1.762	1	12	630994	1
	Ba	137	123.156	ug/L	3.232	2	12	1088373	1
>	Tb	159		ug/L			1245990	1253819	1
	Tl	205	0.110	ug/L	0.001	1	75	4790	1
	Pb	208	33.123	ug/L	0.283	0	181	1814919	0
	Bi	209		ug/L			2867512	2812730	1
	Th	232	1.117	ug/L	0.015	1	132	59505	0
	U	238	0.215	ug/L	0.004	1	4	11755	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 13:12:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ay

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1586185	3
[	Be	9	0.839	ug/L	0.043	5	10	3890	2
	C	13		ug/L			122688	181008	1
	Cl	37		ug/L			4809329	5172413	1
[>	Sc	45		ug/L			1221736	1557680	1
[	V	51	58.111	ug/L	0.755	1	8932	1911487	1
[	V-1	51	57.866	ug/L	1.251	2	79	1881976	1
[	Cr	52	85.289	ug/L	0.897	1	26512	2340041	0
[	Cr	53	84.952	ug/L	2.397	2	164	254987	2
[	Mn	55	1220.236	ug/L	15.515	1	526	45663442	1
[	Co	59	13.080	ug/L	0.477	3	57	354058	2
[>	Ge	72		ug/L			666235	649400	1
[	Ni	60	37.909	ug/L	0.720	1	11	166106	1
[	Ni	62	37.378	ug/L	1.651	4	4585	27603	2
[	Cu	63	39.532	ug/L	0.852	2	3389	387604	1
[	Cu	65	39.649	ug/L	1.093	2	47	173732	1
[	Zn	66	275.854	ug/L	6.360	2	115	724231	0
[	Zn	67	299.354	ug/L	5.763	1	14	131508	0
[	Zn	68	299.249	ug/L	5.094	1	160	569901	0
[	As	75	14.401	ug/L	0.197	1	82	32683	0
[	As-1	75	14.192	ug/L	0.273	1	10540	43040	0
[	Se	82	-0.418	ug/L	0.067	16	0	-102	15
[	Se	78	0.816	ug/L	0.306	37	10716	10987	0
[	Mo	98	0.527	ug/L	0.032	6	12	2820	4
	Y	89		ug/L			407553	695104	1
	Kr	83		ug/L			373	1172	1
[>	In	115		ug/L			1034700	1043451	0
[	Ag	107	0.272	ug/L	0.010	3	17	3058	2
[	Cd	111	4.604	ug/L	0.085	1	81	24334	1
[	Cd	114	4.497	ug/L	0.129	2	29	60067	2
[	Sb	121	0.096	ug/L	0.004	3	57	1590	3
[	Sb	123	0.095	ug/L	0.005	4	42	1184	4
[	Ba	135	665.799	ug/L	3.757	0	12	3320716	0
[	Ba	137	668.442	ug/L	12.934	1	12	5826063	1
[>	Tb	159		ug/L			1245990	1272198	0
[	Tl	205	0.531	ug/L	0.002	0	75	23104	0
[	Pb	208	170.827	ug/L	0.743	0	181	9497038	0
[	Bi	209		ug/L			2867512	2661502	0
[	Th	232	5.296	ug/L	0.035	0	132	285744	0
[	U	238	1.081	ug/L	0.018	1	4	59919	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 13:16:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1609909	1
[	Be	9	0.760	ug/L	0.010	1	10	3582	2
	C	13		ug/L			122688	191593	2
	Cl	37		ug/L			4809329	5293474	0
[>	Sc	45		ug/L			1221736	1549871	1
|	V	51	53.570	ug/L	1.468	2	8932	1753794	1
|	V-1	51	53.117	ug/L	1.505	2	79	1718534	1
|	Cr	52	83.106	ug/L	1.078	1	26512	2269603	1
|	Cr	53	82.091	ug/L	0.986	1	164	245189	0
|	Mn	55	1133.467	ug/L	13.328	1	526	42199581	0
[	Co	59	11.943	ug/L	0.389	3	57	321651	1
[>	Ge	72		ug/L			666235	650214	1
|	Ni	60	34.712	ug/L	0.876	2	11	152286	1
|	Ni	62	33.230	ug/L	0.751	2	4585	25074	1
|	Cu	63	34.426	ug/L	0.476	1	3389	338415	0
|	Cu	65	35.994	ug/L	0.807	2	47	157923	0
|	Zn	66	251.261	ug/L	4.144	1	115	660557	0
|	Zn	67	270.146	ug/L	3.118	1	14	118839	0
|	Zn	68	269.371	ug/L	4.080	1	160	513722	1
|	As	75	13.382	ug/L	0.253	1	82	30413	1
|	As-1	75	13.163	ug/L	0.282	2	10540	40717	0
|	Se	82	-0.334	ug/L	0.040	12	0	-82	11
|	Se	78	0.693	ug/L	0.236	34	10716	10920	0
[	Mo	98	0.507	ug/L	0.008	1	12	2721	1
	Y	89		ug/L			407553	687363	1
	Kr	83		ug/L			373	1088	1
[>	In	115		ug/L			1034700	1038142	2
|	Ag	107	0.278	ug/L	0.002	0	17	3115	2
|	Cd	111	4.336	ug/L	0.049	1	81	22799	1
|	Cd	114	4.187	ug/L	0.055	1	29	55642	1
|	Sb	121	0.115	ug/L	0.008	6	57	1880	4
|	Sb	123	0.116	ug/L	0.008	7	42	1422	4
|	Ba	135	640.159	ug/L	12.245	1	12	3176140	1
[	Ba	137	623.415	ug/L	10.153	1	12	5405395	0
[>	Tb	159		ug/L			1245990	1278716	0
|	Tl	205	0.484	ug/L	0.007	1	75	21198	1
|	Pb	208	152.214	ug/L	1.026	0	181	8505510	0
|	Bi	209		ug/L			2867512	2685809	1
|	Th	232	4.598	ug/L	0.039	0	132	249337	0
[	U	238	0.971	ug/L	0.011	1	4	54120	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 ASPK SWN

Ag

Sample Dil Factor: 20

Comments:

Sample Date/Time: Monday, November 26, 2012 13:20:44

Number of Replicates: 3

Method File: C:\NexION Data\Method\200.8nomin.mth

Tuning File: C:\NexION Data\MassCal\Default.tun

Optimization File: C:\NexION Data\Conditions\Default.dac

Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1588415	0
[	Be	9	27.240	ug/L	0.327	1	10	126326	1
	C	13		ug/L			122688	182160	2
	Cl	37		ug/L			4809329	5319992	1
[>	Sc	45		ug/L			1221736	1621579	1
|	V	51	83.191	ug/L	1.422	1	8932	2843570	0
|	V-1	51	82.917	ug/L	1.676	2	79	2807515	1
|	Cr	52	101.558	ug/L	1.954	1	26512	2893973	1
|	Cr	53	100.953	ug/L	1.505	1	164	315488	2
|	Mn	55	1282.466	ug/L	36.330	2	526	49954066	2
[	Co	59	32.854	ug/L	0.739	2	57	926075	2
[>	Ge	72		ug/L			666235	649344	1
|	Ni	60	65.926	ug/L	2.435	3	11	288743	1
|	Ni	62	64.993	ug/L	1.464	2	4585	44698	0
|	Cu	63	66.632	ug/L	1.185	1	3389	651003	1
|	Cu	65	67.714	ug/L	2.144	3	47	296599	1
|	Zn	66	371.561	ug/L	9.953	2	115	975271	0
|	Zn	67	381.130	ug/L	14.656	3	14	167370	2
|	Zn	68	384.638	ug/L	4.462	1	160	732429	0
|	As	75	40.373	ug/L	1.527	3	82	91446	2
|	As-1	75	40.863	ug/L	1.583	3	10540	104580	1
|	Se	82	79.551	ug/L	2.149	2	0	19460	0
|	Se	78	79.545	ug/L	2.726	3	10716	63466	1
[	Mo	98	23.409	ug/L	0.453	1	12	124856	0
	Y	89		ug/L			407553	739260	1
	Kr	83		ug/L			373	1203	6
[>	In	115		ug/L			1034700	1048061	1
|	Ag	107	25.157	ug/L	0.842	3	17	282646	3
|	Cd	111	29.972	ug/L	0.581	1	81	158655	2
|	Cd	114	29.656	ug/L	0.311	1	29	397730	0
|	Sb	121	0.680	ug/L	0.019	2	57	10922	1
|	Sb	123	0.680	ug/L	0.018	2	42	8243	1
|	Ba	135	710.357	ug/L	2.769	0	12	3558598	0
[	Ba	137	695.098	ug/L	10.499	1	12	6085097	0
[>	Tb	159		ug/L			1245990	1282645	1
|	Tl	205	25.231	ug/L	0.604	2	75	1103886	1
|	Pb	208	201.428	ug/L	2.611	1	181	11289299	0
|	Bi	209		ug/L			2867512	2650073	0
|	Th	232	28.293	ug/L	0.469	1	132	1538186	0
[	U	238	26.152	ug/L	0.491	1	4	1461558	0

VS21 : 00210

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 D SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 13:24:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1556584	0
[	Be	9	0.125	ug/L	0.006	4	10	579	4
	C	13		ug/L			122688	155736	3
	Cl	37		ug/L			4809329	5248449	4
[>	Sc	45		ug/L			1221736	1306174	1
[	V	51	5.383	ug/L	0.130	2	8932	157122	1
[	V-1	51	5.376	ug/L	0.178	3	79	146649	1
[	Cr	52	5.399	ug/L	0.100	1	26512	150748	0
[	Cr	53	5.374	ug/L	0.287	5	164	13685	3
[	Mn	55	268.449	ug/L	2.803	1	526	8424397	1
[	Co	59	1.874	ug/L	0.071	3	57	42593	2
[>	Ge	72		ug/L			666235	667924	1
[	Ni	60	5.378	ug/L	0.015	0	11	24252	1
[	Ni	62	-0.387	ug/L	0.275	71	4585	4348	2
[	Cu	63	5.475	ug/L	0.131	2	3389	58141	1
[	Cu	65	5.781	ug/L	0.148	2	47	26096	1
[	Zn	66	121.175	ug/L	3.563	2	115	327338	3
[	Zn	67	113.585	ug/L	2.588	2	14	51332	1
[	Zn	68	121.072	ug/L	2.269	1	160	237254	0
[	As	75	2.955	ug/L	0.034	1	82	6964	1
[	As-1	75	2.940	ug/L	0.074	2	10540	17549	0
[	Se	82	0.105	ug/L	0.080	75	0	26	78
[	Se	78	0.337	ug/L	0.159	47	10716	10973	0
[	Mo	98	0.105	ug/L	0.003	2	12	589	3
	Y	89		ug/L			407553	452249	1
	Kr	83		ug/L			373	454	7
[>	In	115		ug/L			1034700	1063035	1
[	Ag	107	0.102	ug/L	0.006	6	17	1176	5
[	Cd	111	3.179	ug/L	0.040	1	81	17141	0
[	Cd	114	3.106	ug/L	0.079	2	29	42273	2
[	Sb	121	0.122	ug/L	0.004	3	57	2034	2
[	Sb	123	0.117	ug/L	0.005	4	42	1478	3
[	Ba	135	80.913	ug/L	0.913	1	12	411120	0
[	Ba	137	79.871	ug/L	1.302	1	12	709205	0
[>	Tb	159		ug/L			1245990	1249799	1
[	Tl	205	0.110	ug/L	0.003	2	75	4780	1
[	Pb	208	134.286	ug/L	1.629	1	181	7333670	0
[	Bi	209		ug/L			2867512	2865227	1
[	Th	232	0.913	ug/L	0.016	1	132	48503	0
[	U	238	0.096	ug/L	0.003	2	4	5230	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 E SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 13:28:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1577627	1
[	Be	9	0.124	ug/L	0.005	3	10	583	2
	C	13		ug/L			122688	148910	2
	Cl	37		ug/L			4809329	5073017	3
[>	Sc	45		ug/L			1221736	1340815	3
[	V	51	5.943	ug/L	0.176	2	8932	176993	0
[	V-1	51	5.979	ug/L	0.223	3	79	167365	0
[	Cr	52	5.120	ug/L	0.124	2	26512	148234	1
[	Cr	53	5.230	ug/L	0.284	5	164	13671	2
[	Mn	55	283.020	ug/L	5.657	1	526	9114398	1
[	Co	59	1.816	ug/L	0.050	2	57	42355	1
[>	Ge	72		ug/L			666235	666103	0
[	Ni	60	5.051	ug/L	0.078	1	11	22712	1
[	Ni	62	-0.863	ug/L	0.077	8	4585	4035	0
[	Cu	63	5.858	ug/L	0.214	3	3389	61809	3
[	Cu	65	6.198	ug/L	0.063	1	47	27901	0
[	Zn	66	119.557	ug/L	2.792	2	115	322085	2
[	Zn	67	112.476	ug/L	0.297	0	14	50701	0
[	Zn	68	120.552	ug/L	3.044	2	160	235603	2
[	As	75	7.321	ug/L	0.026	0	82	17085	1
[	As-1	75	7.224	ug/L	0.020	0	10540	27649	0
[	Se	82	0.037	ug/L	0.036	97	0	8	104
[	Se	78	0.315	ug/L	0.068	21	10716	10929	0
[	Mo	98	0.111	ug/L	0.001	1	12	620	1
	Y	89		ug/L			407553	450861	1
	Kr	83		ug/L			373	479	6
[>	In	115		ug/L			1034700	1055997	1
[	Ag	107	0.090	ug/L	0.003	2	17	1033	2
[	Cd	111	2.961	ug/L	0.037	1	81	15864	1
[	Cd	114	2.907	ug/L	0.068	2	29	39299	0
[	Sb	121	0.094	ug/L	0.003	2	57	1575	1
[	Sb	123	0.094	ug/L	0.007	7	42	1183	6
[	Ba	135	79.145	ug/L	1.225	1	12	399444	0
[	Ba	137	77.294	ug/L	1.487	1	12	681717	0
[>	Tb	159		ug/L			1245990	1241505	1
[	Tl	205	0.109	ug/L	0.001	1	75	4681	0
[	Pb	208	104.765	ug/L	0.498	0	181	5683796	0
[	Bi	209		ug/L			2867512	2883983	0
[	Th	232	1.000	ug/L	0.013	1	132	52734	0
[	U	238	0.125	ug/L	0.001	0	4	6774	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 13:34:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1586348	1
[	Be	9	0.680	ug/L	0.026	3	10	3157	2
	C	13		ug/L			122688	194997	1
	Cl	37		ug/L			4809329	5160310	0
[>	Sc	45		ug/L			1221736	1429771	1
[	V	51	31.542	ug/L	1.343	4	8932	956876	2
[	V-1	51	31.762	ug/L	1.463	4	79	947979	3
[	Cr	52	26.183	ug/L	0.600	2	26512	680849	1
[	Cr	53	26.847	ug/L	0.974	3	164	74090	2
[	Mn	55	775.095	ug/L	26.434	3	526	26617579	2
[	Co	59	9.263	ug/L	0.428	4	57	230164	3
[>	Ge	72		ug/L			666235	657804	1
[	Ni	60	30.064	ug/L	0.855	2	11	133432	1
[	Ni	62	26.356	ug/L	1.313	4	4585	21052	2
[	Cu	63	22.056	ug/L	0.808	3	3389	220520	2
[	Cu	65	22.369	ug/L	0.556	2	47	99311	1
[	Zn	66	151.023	ug/L	2.394	1	115	401753	1
[	Zn	67	160.857	ug/L	2.888	1	14	71590	0
[	Zn	68	159.379	ug/L	4.371	2	160	307528	1
[	As	75	15.037	ug/L	0.482	3	82	34562	2
[	As-1	75	14.741	ug/L	0.498	3	10540	44879	1
[	Se	82	-0.064	ug/L	0.064	100	0	-16	96
[	Se	78	0.553	ug/L	0.172	31	10716	10953	0
[	Mo	98	0.535	ug/L	0.020	3	12	2904	3
	Y	89		ug/L			407553	625373	1
	Kr	83		ug/L			373	902	1
[>	In	115		ug/L			1034700	1039321	1
[	Ag	107	0.218	ug/L	0.006	2	17	2441	3
[	Cd	111	1.231	ug/L	0.038	3	81	6539	2
[	Cd	114	1.077	ug/L	0.017	1	29	14351	1
[	Sb	121	0.076	ug/L	0.001	1	57	1256	2
[	Sb	123	0.073	ug/L	0.004	6	42	918	4
[	Ba	135	287.715	ug/L	7.932	2	12	1429123	2
[	Ba	137	295.922	ug/L	3.053	1	12	2568990	0
[>	Tb	159		ug/L			1245990	1259269	0
[	Tl	205	0.211	ug/L	0.001	0	75	9158	0
[	Pb	208	37.600	ug/L	0.417	1	181	2069208	0
[	Bi	209		ug/L			2867512	2746655	1
[	Th	232	6.207	ug/L	0.172	2	132	331422	2
[	U	238	0.851	ug/L	0.013	1	4	46703	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 13:38:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1636311	1
	Be	9	0.608	ug/L	0.013	2	10	2918	3
	C	13		ug/L			122688	177161	1
	Cl	37		ug/L			4809329	5238040	1
>	Sc	45		ug/L			1221736	1470547	0
	V	51	30.125	ug/L	0.320	1	8932	940735	0
	V-1	51	30.345	ug/L	0.246	0	79	931865	0
	Cr	52	24.754	ug/L	0.108	0	26512	663893	0
	Cr	53	25.419	ug/L	0.211	0	164	72183	1
	Mn	55	500.893	ug/L	5.413	1	526	17696527	0
	Co	59	8.737	ug/L	0.198	2	57	223364	2
>	Ge	72		ug/L			666235	659215	1
	Ni	60	30.328	ug/L	0.423	1	11	134898	0
	Ni	62	25.786	ug/L	1.323	5	4585	20736	2
	Cu	63	22.992	ug/L	0.329	1	3389	230253	0
	Cu	65	23.306	ug/L	0.433	1	47	103690	1
	Zn	66	100.124	ug/L	4.812	4	115	266841	3
	Zn	67	108.867	ug/L	1.997	1	14	48563	1
	Zn	68	105.516	ug/L	3.424	3	160	204054	1
	As	75	7.286	ug/L	0.055	0	82	16827	1
	As-1	75	7.189	ug/L	0.130	1	10540	27278	0
	Se	82	-0.087	ug/L	0.081	93	0	-22	90
	Se	78	0.668	ug/L	0.308	46	10716	11052	0
	Mo	98	0.454	ug/L	0.004	0	12	2471	2
	Y	89		ug/L			407553	645825	0
	Kr	83		ug/L			373	877	4
>	In	115		ug/L			1034700	1038917	0
	Ag	107	0.235	ug/L	0.003	1	17	2634	1
	Cd	111	0.679	ug/L	0.015	2	81	3643	1
	Cd	114	0.524	ug/L	0.005	1	29	6994	0
	Sb	121	0.050	ug/L	0.002	4	57	845	3
	Sb	123	0.049	ug/L	0.003	6	42	626	5
	Ba	135	183.167	ug/L	3.037	1	12	909569	1
	Ba	137	181.491	ug/L	1.945	1	12	1575078	0
>	Tb	159		ug/L			1245990	1275888	0
	Tl	205	0.174	ug/L	0.003	1	75	7668	0
	Pb	208	16.210	ug/L	0.364	2	181	903825	1
	Bi	209		ug/L			2867512	2748413	0
	Th	232	5.876	ug/L	0.130	2	132	317855	1
	U	238	0.925	ug/L	0.010	1	4	51421	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 13:42:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Adj

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1642537	2
[	Be	9	0.606	ug/L	0.003	0	10	2916	1
	C	13		ug/L			122688	184593	0
	Cl	37		ug/L			4809329	5147029	1
[>	Sc	45		ug/L			1221736	1450351	1
[	V	51	33.353	ug/L	0.996	2	8932	1025949	2
[	V-1	51	33.636	ug/L	0.716	2	79	1018576	1
[	Cr	52	28.476	ug/L	1.298	4	26512	748362	3
[	Cr	53	29.365	ug/L	0.234	0	164	82207	0
[	Mn	55	433.334	ug/L	1.616	0	526	15099371	0
[	Co	59	8.962	ug/L	0.120	1	57	225971	1
[>	Ge	72		ug/L			666235	661398	1
[	Ni	60	28.922	ug/L	0.279	0	11	129080	1
[	Ni	62	24.865	ug/L	0.700	2	4585	20228	1
[	Cu	63	24.272	ug/L	0.979	4	3389	243614	2
[	Cu	65	24.457	ug/L	0.493	2	47	109160	0
[	Zn	66	106.952	ug/L	3.006	2	115	286024	1
[	Zn	67	111.915	ug/L	2.163	1	14	50079	0
[	Zn	68	111.793	ug/L	3.652	3	160	216918	2
[	As	75	8.179	ug/L	0.161	1	82	18937	0
[	As-1	75	7.992	ug/L	0.250	3	10540	29251	0
[	Se	82	-0.066	ug/L	0.022	32	0	-17	33
[	Se	78	0.489	ug/L	0.343	70	10716	10967	0
[	Mo	98	0.407	ug/L	0.011	2	12	2223	1
	Y	89		ug/L			407553	670606	1
	Kr	83		ug/L			373	926	2
[>	In	115		ug/L			1034700	1036803	1
[	Ag	107	0.251	ug/L	0.008	3	17	2807	2
[	Cd	111	0.961	ug/L	0.064	6	81	5107	5
[	Cd	114	0.780	ug/L	0.010	1	29	10383	0
[	Sb	121	0.051	ug/L	0.003	6	57	870	4
[	Sb	123	0.050	ug/L	0.001	2	42	643	2
[	Ba	135	188.150	ug/L	3.150	1	12	932359	0
[	Ba	137	187.451	ug/L	0.968	0	12	1623498	0
[>	Tb	159		ug/L			1245990	1268025	0
[	Tl	205	0.189	ug/L	0.003	1	75	8268	1
[	Pb	208	32.368	ug/L	0.237	0	181	1793684	0
[	Bi	209		ug/L			2867512	2765004	1
[	Th	232	6.157	ug/L	0.070	1	132	331053	0
[	U	238	0.986	ug/L	0.011	1	4	54505	1

ICP-MS Quantitative Analysis - Summary Report

Ag

Sample ID: VS19 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 13:46:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1596461	1
[	Be	9	0.574	ug/L	0.022	3	10	2684	2
	C	13		ug/L			122688	165355	3
	Cl	37		ug/L			4809329	5171193	0
[>	Sc	45		ug/L			1221736	1436931	1
[	V	51	38.546	ug/L	0.819	2	8932	1173229	2
[	V-1	51	38.687	ug/L	0.724	1	79	1160781	1
[	Cr	52	31.573	ug/L	0.202	0	26512	818801	0
[	Cr	53	31.931	ug/L	0.601	1	164	88543	1
[	Mn	55	414.892	ug/L	8.690	2	526	14321383	1
[	Co	59	10.429	ug/L	0.102	0	57	260516	0
[>	Ge	72		ug/L			666235	650715	1
[	Ni	60	37.898	ug/L	1.190	3	11	166427	3
[	Ni	62	34.536	ug/L	0.924	2	4585	25902	1
[	Cu	63	25.938	ug/L	0.487	1	3389	256053	2
[	Cu	65	26.267	ug/L	0.656	2	47	115366	2
[	Zn	66	82.688	ug/L	0.949	1	115	217646	0
[	Zn	67	95.950	ug/L	1.878	1	14	42249	1
[	Zn	68	92.766	ug/L	2.067	2	160	177136	1
[	As	75	6.955	ug/L	0.057	0	82	15859	0
[	As-1	75	6.860	ug/L	0.059	0	10540	26168	0
[	Se	82	-0.043	ug/L	0.084	196	0	-11	184
[	Se	78	0.624	ug/L	0.124	19	10716	10882	0
[	Mo	98	0.443	ug/L	0.005	1	12	2378	1
	Y	89		ug/L			407553	631710	1
	Kr	83		ug/L			373	807	4
[>	In	115		ug/L			1034700	1026543	0
[	Ag	107	0.216	ug/L	0.007	3	17	2391	3
[	Cd	111	0.462	ug/L	0.032	6	81	2473	6
[	Cd	114	0.314	ug/L	0.004	1	29	4149	1
[	Sb	121	0.038	ug/L	0.002	4	57	648	4
[	Sb	123	0.036	ug/L	0.001	3	42	469	3
[	Ba	135	246.054	ug/L	4.197	1	12	1207373	1
[	Ba	137	259.963	ug/L	2.562	0	12	2229280	0
[>	Tb	159		ug/L			1245990	1252237	0
[	Tl	205	0.230	ug/L	0.001	0	75	9899	0
[	Pb	208	16.782	ug/L	0.116	0	181	918466	0
[	Bi	209		ug/L			2867512	2729068	0
[	Th	232	6.618	ug/L	0.022	0	132	351428	0
[	U	238	0.933	ug/L	0.004	0	4	50905	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 13:50:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1511289 ✓	1
	Be	9	52.506	ug/L	0.365	0	10	231651	1
	C	13		ug/L			122688	137684	0
	Cl	37		ug/L			4809329	5436258	1
>	Sc	45		ug/L			1221736	1258786 ✓	0
	V	51	49.088	ug/L	0.777	1	8932	1306410	1
	V-1	51	49.429	ug/L	0.871	1	79	1299325	2
	Cr	52	49.826	ug/L	1.392	2	26512	1116123	2
	Cr	53	51.023	ug/L	0.556	1	164	123856	1
	Mn	55	49.854	ug/L	0.590	1	526	1508241	1
	Co	59	47.417	ug/L	1.271	2	57	1037378	2
>	Ge	72		ug/L			666235	644292 ✓	0
	Ni	60	50.469	ug/L	0.509	1	11	219415	0
	Ni	62	44.607	ug/L	0.304	0	4585	31837	0
	Cu	63	50.964	ug/L	0.862	1	3389	494872	1
	Cu	65	49.855	ug/L	0.959	1	47	216759	1
	Zn	66	51.515	ug/L	1.886	3	115	134276	2
	Zn	67	51.138	ug/L	1.969	3	14	22303	3
	Zn	68	51.429	ug/L	0.413	0	160	97313	0
	As	75	52.301	ug/L	0.609	1	82	117562	0
	As-1	75	51.984	ug/L	0.674	1	10540	129282	0
	Se	82	52.854	ug/L	0.463	0	0	12832	0
	Se	78	51.802	ug/L	0.917	1	10716	44635	0
	Mo	98	51.142	ug/L	0.532	1	12	270683	0
	Y	89		ug/L			407553	413365	2
	Kr	83		ug/L			373	460	4
>	In	115		ug/L			1034700	1012136 ✓	1
	Ag	107	54.845	ug/L	0.719	1	17	595051	1
	Cd	111	51.863	ug/L	0.879	1	81	265038	0
	Cd	114	51.511	ug/L	0.840	1	29	667096	0
	Sb	121	51.878	ug/L	0.911	1	57	800926	0
	Sb	123	52.142	ug/L	0.866	1	42	607686	0
	Ba	135	50.288	ug/L	0.284	0	12	243292	0
	Ba	137	49.851	ug/L	0.746	1	12	421453	0
>	Tb	159		ug/L			1245990	1216756 ✓	1
	Tl	205	52.513	ug/L	0.447	0	75	2179633	0
	Pb	208	50.136	ug/L	0.609	1	181	2665748	0
	Bi	209		ug/L			2867512	2723677	0
	Th	232	52.716	ug/L	0.539	1	132	2718788	0
	U	238	53.179	ug/L	0.759	1	4	2819483	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 13:57:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1499691 ✓	0
	Be	9	0.001	ug/L	0.001	124	10	14	31
	C	13		ug/L			122688	136514	1
	Cl	37		ug/L			4809329	5178558	2
>	Sc	45		ug/L			1221736	1228742 ✓	2
	V	51	0.013	ug/L	0.008	62	8932	9316	0
	V-1	51	-0.000	ug/L	0.001	770	79	78	16
	Cr	52	0.047	ug/L	0.027	58	26512	27652	0
	Cr	53	0.002	ug/L	0.006	284	164	170	8
	Mn	55	0.000	ug/L	0.001	1715	526	531	6
	Co	59	0.002	ug/L	0.000	9	57	90	2
>	Ge	72		ug/L			666235	627100 ✓	1
	Ni	60	0.002	ug/L	0.001	23	11	20	10
	Ni	62	-6.322	ug/L	0.044	0	4585	535	5
	Cu	63	-0.293	ug/L	0.002	0	3389	434	2
	Cu	65	-0.002	ug/L	0.001	65	47	38	10
	Zn	66	0.014	ug/L	0.005	39	115	143	9
	Zn	67	0.023	ug/L	0.013	56	14	23	21
	Zn	68	0.021	ug/L	0.006	26	160	189	3
	As	75	0.017	ug/L	0.008	45	82	113	15
	As-1	75	0.354	ug/L	0.085	24	10540	10708	1
	Se	82	-0.022	ug/L	0.021	94	0	-5	85
	Se	78	1.240	ug/L	0.291	23	10716	10884	1
	Mo	98	0.007	ug/L	0.001	14	12	49	10
	Y	89		ug/L			407553	387180	0
	Kr	83		ug/L			373	430	4
>	In	115		ug/L			1034700	992518 ✓	1
	Ag	107	0.001	ug/L	0.001	63	17	26	24
	Cd	111	0.003	ug/L	0.002	54	81	95	9
	Cd	114	0.001	ug/L	0.000	51	29	40	15
	Sb	121	0.056	ug/L	0.005	8	57	907	8
	Sb	123	0.058	ug/L	0.004	7	42	699	7
	Ba	135	0.002	ug/L	0.000	26	12	20	10
	Ba	137	0.003	ug/L	0.001	37	12	35	24
>	Tb	159		ug/L			1245990	1152170 ✓	0
	Tl	205	0.006	ug/L	0.002	37	75	289	28
	Pb	208	0.002	ug/L	0.000	13	181	270	5
	Bi	209		ug/L			2867512	2735423	1
	Th	232	0.113	ug/L	0.014	12	132	5651	11
	U	238	0.002	ug/L	0.000	26	4	94	25

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 A-L SWN
Sample Dil Factor: 500
Comments:
Sample Date/Time: Monday, November 26, 2012 14:02:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

V Cr Co Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1539017	1
	Be	9	0.038	ug/L	0.004	11	10	183	9
	C	13		ug/L			122688	139698	1
	Cl	37		ug/L			4809329	4970118	1
>	Sc	45		ug/L			1221736	1291512	2
	V	51	2.818	ug/L	0.075	2	8932	85810	0
	V-1	51	2.831	ug/L	0.076	2	79	76406	0
	Cr	52	4.172	ug/L	0.072	1	26512	121541	0
	Cr	53	4.244	ug/L	0.130	3	164	10726	2
	Mn	55	60.386	ug/L	1.292	2	526	1873755	1
	Co	59	0.658	ug/L	0.011	1	57	14829	0
>	Ge	72		ug/L			666235	654209	1
	Ni	60	1.629	ug/L	0.031	1	11	7204	3
	Ni	62	-4.699	ug/L	0.031	0	4585	1571	1
	Cu	63	1.416	ug/L	0.035	2	3389	17196	0
	Cu	65	1.750	ug/L	0.027	1	47	7771	1
	Zn	66	12.572	ug/L	0.349	2	115	33357	1
	Zn	67	13.095	ug/L	0.393	3	14	5808	1
	Zn	68	13.304	ug/L	0.299	2	160	25674	0
	As	75	0.635	ug/L	0.024	3	82	1528	2
	As-1	75	0.797	ug/L	0.145	18	10540	12200	1
	Se	82	-0.007	ug/L	0.018	240	0	-2	181
	Se	78	0.698	ug/L	0.399	57	10716	10989	1
	Mo	98	0.024	ug/L	0.003	13	12	142	13
	Y	89		ug/L			407553	419938	2
	Kr	83		ug/L			373	455	6
>	In	115		ug/L			1034700	1022776	1
	Ag	107	0.012	ug/L	0.000	0	17	145	2
	Cd	111	0.217	ug/L	0.011	5	81	1198	3
	Cd	114	0.205	ug/L	0.007	3	29	2714	2
	Sb	121	0.019	ug/L	0.002	11	57	350	7
	Sb	123	0.020	ug/L	0.002	12	42	273	8
	Ba	135	26.705	ug/L	0.476	1	12	130545	0
	Ba	137	26.513	ug/L	0.544	2	12	226493	0
>	Tb	159		ug/L			1245990	1204763	0
	Tl	205	0.027	ug/L	0.000	1	75	1195	1
	Pb	208	7.190	ug/L	0.064	0	181	378690	0
	Bi	209		ug/L			2867512	2826484	0
	Th	232	0.257	ug/L	0.005	1	132	13276	1
	U	238	0.048	ug/L	0.001	2	4	2523	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 A SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 14:06:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

V Cr Co Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1573621	2
[	**Be**	**9**	**0.177**	ug/L	0.008	4	10	823	2
	C	**13**		ug/L			122688	139936	3
	Cl	**37**		ug/L			4809329	5097080	1
[>	**Sc**	**45**		ug/L			1221736	1361690	1
|	**V**	**51**	**13.035**	ug/L	0.250	1	8932	382509	0
|	**V-1**	**51**	**13.173**	ug/L	0.299	2	79	374538	0
|	**Cr**	**52**	**18.773**	ug/L	0.509	2	26512	473225	1
|	**Cr**	**53**	**19.357**	ug/L	0.661	3	164	50925	1
|	**Mn**	**55**	**288.675**	ug/L	12.714	4	526	9440974	3
[	**Co**	**59**	**3.028**	ug/L	0.090	2	57	71709	1
[>	**Ge**	**72**		ug/L			666235	656377	2
|	**Ni**	**60**	**7.658**	ug/L	0.310	4	11	33908	1
|	**Ni**	**62**	**1.839**	ug/L	0.145	7	4585	5667	1
|	**Cu**	**63**	**7.835**	ug/L	0.110	1	3389	80330	1
|	**Cu**	**65**	**8.302**	ug/L	0.213	2	47	36802	1
|	**Zn**	**66**	**58.581**	ug/L	1.974	3	115	155496	1
|	**Zn**	**67**	**63.244**	ug/L	0.419	0	14	28096	1
|	**Zn**	**68**	**62.480**	ug/L	2.606	4	160	120338	1
|	**As**	**75**	**2.956**	ug/L	0.108	3	82	6841	1
|	**As-1**	**75**	**2.994**	ug/L	0.225	7	10540	17364	0
|	**Se**	**82**	**0.017**	ug/L	0.017	101	0	3	119
|	**Se**	**78**	**0.522**	ug/L	0.468	89	10716	10904	0
[	**Mo**	**98**	**0.106**	ug/L	0.009	8	12	580	6
	Y	**89**		ug/L			407553	468966	0
	Kr	**83**		ug/L			373	517	8
[>	**In**	**115**		ug/L			1034700	1016791	0
|	**Ag**	**107**	**0.057**	ug/L	0.003	5	17	633	5
|	**Cd**	**111**	**0.977**	ug/L	0.015	1	81	5092	1
|	**Cd**	**114**	**0.960**	ug/L	0.012	1	29	12522	1
|	**Sb**	**121**	**0.026**	ug/L	0.003	11	57	461	9
|	**Sb**	**123**	**0.027**	ug/L	0.001	1	42	361	1
|	**Ba**	**135**	**131.124**	ug/L	0.799	0	12	637297	0
[	**Ba**	**137**	**129.304**	ug/L	0.852	0	12	1098298	0
[>	**Tb**	**159**		ug/L			1245990	1213290	0
|	**Tl**	**205**	**0.113**	ug/L	0.002	1	75	4757	1
|	**Pb**	**208**	**34.349**	ug/L	0.354	1	181	1821348	1
|	**Bi**	**209**		ug/L			2867512	2781904	0
|	**Th**	**232**	**1.123**	ug/L	0.011	0	132	57898	0
[	**U**	**238**	**0.224**	ug/L	0.002	0	4	11826	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 ADUP SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 14:10:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

V Cr Co Tn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1572701	1
	Be	9	0.169	ug/L	0.010	5	10	788	4
	C	13		ug/L			122688	149865	4
	Cl	37		ug/L			4809329	5073318	2
>	Sc	45		ug/L			1221736	1343524	2
	V	51	12.536	ug/L	0.209	1	8932	363318	1
	V-1	51	12.510	ug/L	0.214	1	79	350956	1
	Cr	52	19.006	ug/L	0.312	1	26512	472359	1
	Cr	53	19.038	ug/L	0.323	1	164	49423	0
	Mn	55	269.934	ug/L	6.454	2	526	8709980	0
	Co	59	2.775	ug/L	0.096	3	57	64828	0
>	Ge	72		ug/L			666235	651255	2
	Ni	60	7.081	ug/L	0.176	2	11	31121	1
	Ni	62	1.462	ug/L	0.101	6	4585	5390	2
	Cu	63	7.310	ug/L	0.325	4	3389	74550	2
	Cu	65	7.491	ug/L	0.289	3	47	32957	3
	Zn	66	55.312	ug/L	0.415	0	115	145742	1
	Zn	67	59.717	ug/L	2.538	4	14	26311	2
	Zn	68	60.021	ug/L	1.579	2	160	114739	0
	As	75	2.859	ug/L	0.019	0	82	6571	1
	As-1	75	2.952	ug/L	0.099	3	10540	17136	0
	Se	82	-0.014	ug/L	0.030	216	0	-3	187
	Se	78	0.697	ug/L	0.273	39	10716	10939	0
	Mo	98	0.100	ug/L	0.003	2	12	546	2
	Y	89		ug/L			407553	473905	0
	Kr	83		ug/L			373	531	1
>	In	115		ug/L			1034700	1029126	1
	Ag	107	0.055	ug/L	0.002	3	17	621	3
	Cd	111	0.961	ug/L	0.027	2	81	5072	1
	Cd	114	0.904	ug/L	0.006	0	29	11931	1
	Sb	121	0.028	ug/L	0.001	4	57	502	3
	Sb	123	0.028	ug/L	0.002	6	42	369	6
	Ba	135	124.297	ug/L	2.737	2	12	611348	1
	Ba	137	123.511	ug/L	1.479	1	12	1061763	0
>	Tb	159		ug/L			1245990	1227122	0
	Tl	205	0.106	ug/L	0.002	1	75	4517	1
	Pb	208	31.495	ug/L	0.245	0	181	1689034	0
	Bi	209		ug/L			2867512	2786183	0
	Th	232	0.984	ug/L	0.015	1	132	51304	1
	U	238	0.210	ug/L	0.001	0	4	11226	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 ASPK SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 14:14:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

VCrCoZn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1592034	2
[	Be	9	5.603	ug/L	0.121	2	10	26040	0
	C	13		ug/L			122688	141947	1
	Cl	37		ug/L			4809329	5219160	2
[>	Sc	45		ug/L			1221736	1364074	1
[	V	51	18.807	ug/L	0.519	2	8932	548448	1
[	V-1	51	19.060	ug/L	0.363	1	79	542896	0
[	Cr	52	22.693	ug/L	0.259	1	26512	566976	0
[	Cr	53	23.643	ug/L	0.669	2	164	62292	3
[	Mn	55	300.712	ug/L	3.840	1	526	9854300	0
[	Co	59	7.748	ug/L	0.208	2	57	183715	1
[>	Ge	72		ug/L			666235	659027	0
[	Ni	60	13.345	ug/L	0.351	2	11	59350	2
[	Ni	62	7.920	ug/L	0.378	4	4585	9512	2
[	Cu	63	13.488	ug/L	0.220	1	3389	136430	0
[	Cu	65	13.917	ug/L	0.271	1	47	61927	1
[	Zn	66	78.339	ug/L	1.595	2	115	208832	1
[	Zn	67	80.342	ug/L	0.788	0	14	35833	0
[	Zn	68	80.623	ug/L	1.563	1	160	155957	1
[	As	75	8.376	ug/L	0.220	2	82	19325	1
[	As-1	75	8.519	ug/L	0.245	2	10540	30387	1
[	Se	82	17.096	ug/L	0.418	2	0	4245	2
[	Se	78	17.203	ug/L	0.435	2	10716	22241	0
[	Mo	98	4.570	ug/L	0.095	2	12	24749	1
	Y	89		ug/L			407553	488414	1
	Kr	83		ug/L			373	551	5
[>	In	115		ug/L			1034700	1039543	0
[	Ag	107	5.294	ug/L	0.066	1	17	59003	0
[	Cd	111	6.295	ug/L	0.072	1	81	33114	0
[	Cd	114	6.306	ug/L	0.052	0	29	83916	0
[	Sb	121	0.141	ug/L	0.005	3	57	2301	3
[	Sb	123	0.138	ug/L	0.002	1	42	1696	0
[	Ba	135	135.559	ug/L	1.999	1	12	673587	1
[	Ba	137	133.899	ug/L	1.448	1	12	1162761	0
[>	Tb	159		ug/L			1245990	1219964	0
[	Tl	205	5.305	ug/L	0.052	0	75	220840	0
[	Pb	208	40.673	ug/L	0.251	0	181	2168523	0
[	Bi	209		ug/L			2867512	2802993	0
[	Th	232	5.942	ug/L	0.023	0	132	307414	0
[	U	238	5.385	ug/L	0.052	0	4	286305	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 J SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 14:18:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1531605	1
	Be	9	0.121	ug/L	0.007	5	10	550	4
	C	13		ug/L			122688	154358	2
	Cl	37		ug/L			4809329	5076262	2
>	Sc	45		ug/L			1221736	1287406	1
	V	51	4.192	ug/L	0.120	2	8932	122683	1
	V-1	51	4.251	ug/L	0.094	2	79	114336	1
	Cr	52	6.893	ug/L	0.136	1	26512	181971	0
	Cr	53	7.148	ug/L	0.113	1	164	17893	1
	Mn	55	477.813	ug/L	8.702	1	526	14776983	0
	Co	59	2.445	ug/L	0.074	3	57	54760	1
>	Ge	72		ug/L			666235	651412	1
	Ni	60	6.548	ug/L	0.078	1	11	28790	0
	Ni	62	0.118	ug/L	0.255	215	4585	4555	2
	Cu	63	7.277	ug/L	0.216	2	3389	74273	2
	Cu	65	7.620	ug/L	0.147	1	47	33534	0
	Zn	66	177.590	ug/L	2.662	1	115	467787	0
	Zn	67	164.357	ug/L	2.375	1	14	72445	1
	Zn	68	175.928	ug/L	5.496	3	160	336131	2
	As	75	5.234	ug/L	0.123	2	82	11965	1
	As-1	75	5.290	ug/L	0.148	2	10540	22558	0
	Se	82	0.124	ug/L	0.024	19	0	29	18
	Se	78	0.777	ug/L	0.133	17	10716	10997	0
	Mo	98	0.098	ug/L	0.005	5	12	533	4
	Y	89		ug/L			407553	451288	1
	Kr	83		ug/L			373	461	2
>	In	115		ug/L			1034700	1056101	0
	Ag	107	0.100	ug/L	0.003	3	17	1147	3
	Cd	111	3.598	ug/L	0.020	0	81	19266	0
	Cd	114	3.521	ug/L	0.037	1	29	47612	1
	Sb	121	0.174	ug/L	0.004	2	57	2855	2
	Sb	123	0.168	ug/L	0.001	0	42	2086	0
	Ba	135	110.237	ug/L	0.771	0	12	556505	0
	Ba	137	108.947	ug/L	0.697	0	12	961177	0
>	Tb	159		ug/L			1245990	1217713	0
	Tl	205	0.165	ug/L	0.001	0	75	6928	0
	Pb	208	133.524	ug/L	1.845	1	181	7104871	0
	Bi	209		ug/L			2867512	2805292	0
	Th	232	1.291	ug/L	0.021	1	132	66743	1
	U	238	0.073	ug/L	0.001	1	4	3900	1

VS21 : 00223

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 14:22:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1578371	2
	Be	9	0.122	ug/L	0.002	1	10	572	1
	C	13		ug/L			122688	152273	1
	Cl	37		ug/L			4809329	5152571	1
>	Sc	45		ug/L			1221736	1314600	0
	V	51	5.296	ug/L	0.089	1	8932	155758	1
	V-1	51	5.327	ug/L	0.016	0	79	146325	0
	Cr	52	5.155	ug/L	0.226	4	26512	146150	2
	Cr	53	5.262	ug/L	0.138	2	164	13498	2
	Mn	55	132.707	ug/L	2.319	1	526	4191434	0
	Co	59	1.692	ug/L	0.032	1	57	38726	2
>	Ge	72		ug/L			666235	649927	1
	Ni	60	5.061	ug/L	0.073	1	11	22201	1
	Ni	62	-1.341	ug/L	0.155	11	4585	3641	1
	Cu	63	4.456	ug/L	0.018	0	3389	46662	1
	Cu	65	4.647	ug/L	0.076	1	47	20426	2
	Zn	66	65.745	ug/L	1.269	1	115	172834	0
	Zn	67	60.493	ug/L	0.389	0	14	26614	2
	Zn	68	64.918	ug/L	1.852	2	160	123843	1
	As	75	4.327	ug/L	0.045	1	82	9883	1
	As-1	75	4.427	ug/L	0.145	3	10540	20509	0
	Se	82	0.118	ug/L	0.014	12	0	28	10
	Se	78	0.844	ug/L	0.380	45	10716	11014	0
	Mo	98	0.067	ug/L	0.005	7	12	368	5
	Y	89		ug/L			407553	455103	1
	Kr	83		ug/L			373	446	3
>	In	115		ug/L			1034700	1030369	0
	Ag	107	0.064	ug/L	0.001	1	17	723	1
	Cd	111	1.368	ug/L	0.031	2	81	7195	2
	Cd	114	1.342	ug/L	0.016	1	29	17728	1
	Sb	121	0.049	ug/L	0.003	6	57	826	5
	Sb	123	0.051	ug/L	0.002	3	42	645	4
	Ba	135	34.443	ug/L	0.120	0	12	169649	0
	Ba	137	34.099	ug/L	0.446	1	12	293513	1
>	Tb	159		ug/L			1245990	1221974	0
	Tl	205	0.056	ug/L	0.001	1	75	2405	1
	Pb	208	47.029	ug/L	0.123	0	181	2511464	0
	Bi	209		ug/L			2867512	2848778	1
	Th	232	0.835	ug/L	0.007	0	132	43378	0
	U	238	0.125	ug/L	0.001	0	4	6656	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 14:26:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Acj

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1578983	2
[	**Be**	**9**	**0.587**	ug/L	0.036	6	10	2714	3
	C	**13**		ug/L			122688	188815	1
	Cl	**37**		ug/L			4809329	5155170	2
[>	**Sc**	**45**		ug/L			1221736	1407761	0
[	**V**	**51**	**27.145**	ug/L	0.412	1	8932	812476	0
[	**V-1**	**51**	**27.169**	ug/L	0.488	1	79	798652	1
[	**Cr**	**52**	**23.322**	ug/L	0.460	1	26512	600550	1
[	**Cr**	**53**	**23.332**	ug/L	0.301	1	164	63441	1
[	**Mn**	**55**	**1264.742**	ug/L	38.345	3	526	42772417	2
[	**Co**	**59**	**8.084**	ug/L	0.105	1	57	197852	1
[>	**Ge**	**72**		ug/L			666235	651041	0
[	**Ni**	**60**	**24.218**	ug/L	0.449	1	11	106401	1
[	**Ni**	**62**	**18.599**	ug/L	0.660	3	4585	16023	1
[	**Cu**	**63**	**28.684**	ug/L	0.417	1	3389	282922	2
[	**Cu**	**65**	**29.457**	ug/L	0.632	2	47	129446	2
[	**Zn**	**66**	**566.896**	ug/L	15.888	2	115	1492254	2
[	**Zn**	**67**	**524.137**	ug/L	14.427	2	14	230833	1
[	**Zn**	**68**	**547.484**	ug/L	3.613	0	160	1045333	1
[	**As**	**75**	**34.253**	ug/L	0.333	0	82	77829	0
[	**As-1**	**75**	**33.691**	ug/L	0.413	1	10540	88292	0
[	**Se**	**82**	**0.093**	ug/L	0.062	66	0	22	69
[	**Se**	**78**	**0.957**	ug/L	0.294	30	10716	11110	1
[	**Mo**	**98**	**0.520**	ug/L	0.013	2	12	2795	3
	Y	**89**		ug/L			407553	554751	2
	Kr	**83**		ug/L			373	792	2
[>	**In**	**115**		ug/L			1034700	1056766	1
[	**Ag**	**107**	**0.397**	ug/L	0.002	0	17	4519	2
[	**Cd**	**111**	**13.388**	ug/L	0.347	2	81	71484	1
[	**Cd**	**114**	**13.256**	ug/L	0.261	1	29	179247	0
[	**Sb**	**121**	**0.431**	ug/L	0.008	1	57	7007	0
[	**Sb**	**123**	**0.425**	ug/L	0.010	2	42	5220	0
[	**Ba**	**135**	**371.656**	ug/L	6.769	1	12	1876978	0
[	**Ba**	**137**	**387.030**	ug/L	7.691	1	12	3415925	0
[>	**Tb**	**159**		ug/L			1245990	1244124	0
[	**Tl**	**205**	**0.503**	ug/L	0.009	1	75	21423	1
[	**Pb**	**208**	**494.268**	ug/L	4.289	0	181	26871449	0
[	**Bi**	**209**		ug/L			2867512	2774929	0
[	**Th**	**232**	**4.643**	ug/L	0.050	1	132	244965	0
[	**U**	**238**	**0.605**	ug/L	0.007	1	4	32782	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 14:31:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag. Be. Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1576904 ✓	1
[	**Be**	**9**	**0.653**	ug/L	0.017	2	10	3015	2
	C	**13**		ug/L			122688	171786	1
	Cl	**37**		ug/L			4809329	5171882	1
[>	**Sc**	**45**		ug/L			1221736	1422299	1
[	**V**	**51**	**25.661**	ug/L	0.650	2	8932	776675	3
[	**V-1**	**51**	**25.599**	ug/L	0.686	2	79	760333	2
[	**Cr**	**52**	**30.247**	ug/L	0.210	0	26512	777776	1
[	**Cr**	**53**	**30.115**	ug/L	0.783	2	164	82662	1
[	**Mn**	**55**	**1399.059**	ug/L	12.737	0	526	47803803	0
[	**Co**	**59**	**10.422**	ug/L	0.288	2	57	257656	1
[>	**Ge**	**72**		ug/L			666235	640272 ✓	0
[	**Ni**	**60**	**34.199**	ug/L	1.297	3	11	147772	4
[	**Ni**	**62**	**29.305**	ug/L	0.645	2	4585	22298	2
[	**Cu**	**63**	**33.174**	ug/L	0.297	0	3389	321264	0
[	**Cu**	**65**	**33.334**	ug/L	0.182	0	47	144044	0
[	**Zn**	**66**	**364.098**	ug/L	0.733	0	115	942636	0
[	**Zn**	**67**	**356.613**	ug/L	6.848	1	14	154480	1
[	**Zn**	**68**	**367.336**	ug/L	9.450	2	160	689720	1
[	**As**	**75**	**33.824**	ug/L	0.419	1	82	75582	0
[	**As-1**	**75**	**33.298**	ug/L	0.479	1	10540	85934	0
[	**Se**	**82**	**0.084**	ug/L	0.072	85	0	19	87
[	**Se**	**78**	**1.074**	ug/L	0.279	25	10716	11003	0
[	**Mo**	**98**	**0.533**	ug/L	0.009	1	12	2814	1
	Y	**89**		ug/L			407553	627819	1
	Kr	**83**		ug/L			373	805	5
[>	**In**	**115**		ug/L			1034700	1017983 ✓	1
[	**Ag**	**107**	**0.283**	ug/L	0.003	1	17	3102	0
[	**Cd**	**111**	**10.337**	ug/L	0.046	0	81	53198	0
[	**Cd**	**114**	**10.330**	ug/L	0.112	1	29	134580	0
[	**Sb**	**121**	**0.223**	ug/L	0.003	1	57	3526	0
[	**Sb**	**123**	**0.226**	ug/L	0.005	2	42	2685	1
[	**Ba**	**135**	**398.804**	ug/L	4.187	1	12	1940494	1
[	**Ba**	**137**	**413.556**	ug/L	3.413	0	12	3516852	1
[>	**Tb**	**159**		ug/L			1245990	1217344	0
[	**Tl**	**205**	**0.345**	ug/L	0.007	2	75	14418	2
[	**Pb**	**208**	**361.951**	ug/L	3.026	0	181	19254123	0
[	**Bi**	**209**		ug/L			2867512	2715913	0
[	**Th**	**232**	**5.887**	ug/L	0.096	1	132	303897	1
[	**U**	**238**	**0.413**	ug/L	0.003	0	4	21932	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 14:36:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Ag Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1554771	2
[	Be	9	0.572	ug/L	0.018	3	10	2604	1
	C	13		ug/L			122688	227940	0
	Cl	37		ug/L			4809329	5423451	3
[>	Sc	45		ug/L			1221736	1360861	1
[	V	51	19.877	ug/L	0.413	2	8932	577714	0
[	V-1	51	19.798	ug/L	0.298	1	79	562594	0
[	Cr	52	32.191	ug/L	0.100	0	26512	790078	1
[	Cr	53	32.148	ug/L	0.733	2	164	84443	3
[	Mn	55	2122.108	ug/L	62.115	2	526	69364372	1
[	Co	59	11.103	ug/L	0.191	1	57	262656	1
[>	Ge	72		ug/L			666235	630552	1
[	Ni	60	31.214	ug/L	0.626	2	11	132828	2
[	Ni	62	26.722	ug/L	0.474	1	4585	20403	0
[	Cu	63	35.216	ug/L	0.955	2	3389	335618	1
[	Cu	65	36.356	ug/L	0.949	2	47	154690	1
[	Zn	66	912.219	ug/L	2.630	0	115	2325753	1
[	Zn	67	801.940	ug/L	5.747	0	14	342132	1
[	Zn	68	850.027	ug/L	17.887	2	160	1571563	0
[	As	75	25.499	ug/L	0.207	0	82	56134	0
[	As-1	75	25.162	ug/L	0.286	1	10540	66389	0
[	Se	82	~ 0.417	ug/L	0.101	24	0	98	24
[	Se	78	1.428	ug/L	0.247	17	10716	11066	1
[	Mo	98	0.467	ug/L	0.007	1	12	2432	1
	Y	89		ug/L			407553	600589	1
	Kr	83		ug/L			373	753	9
[>	In	115		ug/L			1034700	1132879	0
[	Ag	107	0.445	ug/L	0.016	3	17	5420	3
[	Cd	111	15.565	ug/L	0.329	2	81	89102	1
[	Cd	114	15.427	ug/L	0.031	0	29	223671	0
[	Sb	121	0.757	ug/L	0.001	0	57	13139	0
[	Sb	123	0.767	ug/L	0.012	1	42	10049	1
[	Ba	135	528.319	ug/L	2.305	0	12	2860958	0
[	Ba	137	512.856	ug/L	4.446	0	12	4853495	0
[>	Tb	159		ug/L			1245990	1214048	0
[	Tl	205	0.771	ug/L	0.004	0	75	32022	0
[	Pb	208	651.737	ug/L	4.888	0	181	34576029	0
[	Bi	209		ug/L			2867512	2703275	0
[	Th	232	6.029	ug/L	0.042	0	132	310377	0
[	U	238	0.361	ug/L	0.007	1	4	19079	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 14:40:21

Ag Be Se

Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1569952	0
	Be	9	0.567	ug/L	0.018	3	10	2609	3
	C	13		ug/L			122688	190129	0
	Cl	37		ug/L			4809329	5098731	2
>	Sc	45		ug/L			1221736	1395071	2
	V	51	25.200	ug/L	0.636	2	8932	748000	2
	V-1	51	25.375	ug/L	0.734	2	79	738886	1
	Cr	52	24.006	ug/L	0.296	1	26512	611656	2
	Cr	53	24.587	ug/L	0.824	3	164	66202	0
	Mn	55	599.575	ug/L	18.871	3	526	20084028	0
	Co	59	7.703	ug/L	0.260	3	57	186728	0
>	Ge	72		ug/L			666235	655471 ✓	1
	Ni	60	24.010	ug/L	0.519	2	11	106193	1
	Ni	62	19.146	ug/L	0.361	1	4585	16475	0
	Cu	63	22.542	ug/L	0.488	2	3389	224535	1
	Cu	65	22.627	ug/L	0.280	1	47	100111	0
	Zn	66	306.739	ug/L	7.743	2	115	812877	1
	Zn	67	288.686	ug/L	1.035	0	14	128028	0
	Zn	68	299.134	ug/L	4.721	1	160	575055	0
	As	75	20.595	ug/L	0.250	1	82	47144	0
	As-1	75	20.254	ug/L	0.287	1	10540	57574	0
	Se	82	~ 0.121	ug/L	0.033	27	0	29	28
	Se	78	0.753	ug/L	0.193	25	10716	11049	0
	Mo	98	0.341	ug/L	0.005	1	12	1846	0
	Y	89		ug/L			407553	580324	1
	Kr	83		ug/L			373	734	3
>	In	115		ug/L			1034700	1042715 ✓	0
	Ag	107	0.286	ug/L	0.007	2	17	3209	2
	Cd	111	6.534	ug/L	0.092	1	81	34472	0
	Cd	114	6.400	ug/L	0.027	0	29	85426	0
	Sb	121	0.222	ug/L	0.001	0	57	3594	0
	Sb	123	0.236	ug/L	0.005	2	42	2877	1
	Ba	135	168.902	ug/L	2.582	1	12	841808	1
	Ba	137	167.291	ug/L	1.823	1	12	1457245	1
>	Tb	159		ug/L			1245990	1226746	1
	Tl	205	0.267	ug/L	0.007	2	75	11264	1
	Pb	208	242.557	ug/L	2.557	1	181	13002271	0
	Bi	209		ug/L			2867512	2744414	0
	Th	232	4.002	ug/L	0.073	1	132	208212	0
	U	238	0.615	ug/L	0.001	0	4	32880	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 14:44:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			1452181	1492439 ✓	1
Be	9	53.209	ug/L	1.279	2	10	231802	1
C	13		ug/L			122688	140028	0
Cl	37		ug/L			4809329	5272039	0
> Sc	45		ug/L			1221736	1261935 ✓	0
V	51	49.024	ug/L	0.439	0	8932	1308041	1
V-1	51	49.336	ug/L	0.582	1	79	1300133	1
Cr	52	49.731	ug/L	0.835	1	26512	1116966	2
Cr	53	50.826	ug/L	1.801	3	164	123688	3
Mn	55	49.828	ug/L	0.929	1	526	1511237	2
Co	59	47.720	ug/L	1.308	2	57	1046682	2
> Ge	72		ug/L			666235	629137 ✓	2
Ni	60	51.650	ug/L	1.664	3	11	219186	1
Ni	62	44.615	ug/L	0.994	2	4585	31096	3
Cu	63	51.239	ug/L	0.793	1	3389	485775	1
Cu	65	51.137	ug/L	1.464	2	47	217079	2
Zn	66	52.251	ug/L	1.420	2	115	132972	1
Zn	67	51.928	ug/L	0.936	1	14	22110	0
Zn	68	52.098	ug/L	1.005	1	160	96245	1
As	75	51.837	ug/L	0.952	1	82	113762	1
As-1	75	51.659	ug/L	1.137	2	10540	125491	0
Se	82	53.747	ug/L	1.233	2	0	12739	1
Se	78	53.106	ug/L	1.924	3	10716	44414	0
Mo	98	52.551	ug/L	1.796	3	12	271490	1
Y	89		ug/L			407553	404882	1
Kr	83		ug/L			373	468	1
> In	115		ug/L			1034700	991971 ✓	1
Ag	107	54.729 ✓	ug/L	2.222	4	17	581762	2
Cd	111	52.313	ug/L	0.580	1	81	262016	0
Cd	114	52.573	ug/L	1.219	2	29	667233	1
Sb	121	52.022	ug/L	1.159	2	57	787073	0
Sb	123	52.067	ug/L	1.333	2	42	594641	1
Ba	135	50.823	ug/L	0.914	1	12	240951	0
Ba	137	49.764	ug/L	0.920	1	12	412313	0
> Tb	159		ug/L			1245990	1181680 ✓	0
Tl	205	52.437	ug/L	2.966	5	75	2113580	5
Pb	208	50.657	ug/L	0.503	0	181	2615953	0
Bi	209		ug/L			2867512	2702186	1
Th	232	53.589	ug/L	0.214	0	132	2684271	0
U	238	54.479 ✓	ug/L	0.172	0	4	2805394	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 14:51:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1485781 ✓	1
	Be	9	0.002	ug/L	0.002	87	10	19	40
	C	13		ug/L			122688	139708	1
	Cl	37		ug/L			4809329	5083139	1
>	Sc	45		ug/L			1221736	1219885 ✓	2
	V	51	0.022	ug/L	0.010	43	8932	9480	0
	V-1	51	-0.000	ug/L	0.001	1728	79	78	16
	Cr	52	0.075	ug/L	0.033	43	26512	28044	0
	Cr	53	-0.001	ug/L	0.004	516	164	162	5
	Mn	55	0.006	ug/L	0.005	92	526	694	23
	Co	59	0.002	ug/L	0.001	37	57	94	12
>	Ge	72		ug/L			666235	625390 ✓	0
	Ni	60	0.002	ug/L	0.000	5	11	20	2
	Ni	62	-6.625	ug/L	0.024	0	4585	353	3
	Cu	63	-0.306	ug/L	0.001	0	3389	311	2
	Cu	65	0.000	ug/L	0.001	459	47	45	12
	Zn	66	0.016	ug/L	0.005	30	115	149	8
	Zn	67	0.028	ug/L	0.008	27	14	25	12
	Zn	68	0.014	ug/L	0.009	65	160	176	9
	As	75	0.030	ug/L	0.009	31	82	141	14
	As-1	75	0.400	ug/L	0.027	6	10540	10783	0
	Se	82	0.026	ug/L	0.045	172	0	5	190
	Se	78	1.388	ug/L	0.072	5	10716	10950	0
	Mo	98	0.006	ug/L	0.002	31	12	43	22
	Y	89		ug/L			407553	394127	1
	Kr	83		ug/L			373	418	3
>	In	115		ug/L			1034700	978366 ✓	0
	Ag	107	0.001	ug/L	0.001	62	17	30	29
	Cd	111	0.000	ug/L	0.003	1052	81	78	18
	Cd	114	0.001	ug/L	0.001	94	29	40	29
	Sb	121	0.056	ug/L	0.006	10	57	895	8
	Sb	123	0.058	ug/L	0.006	9	42	690	8
	Ba	135	0.002	ug/L	0.000	16	12	19	5
	Ba	137	0.002	ug/L	0.001	40	12	30	25
>	Tb	159		ug/L			1245990	1145285 ✓	0
	Tl	205	0.007	ug/L	0.002	28	75	328	22
	Pb	208	0.004	ug/L	0.001	33	181	344	17
	Bi	209		ug/L			2867512	2704747	0
	Th	232	0.129	ug/L	0.011	8	132	6378	7
	U	238	0.002	ug/L	0.000	5	4	110	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:16:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be, Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1494885	2
[	**Be**	**9**	**0.000**	ug/L	0.000	59	10	12	8
	C	**13**		ug/L			122688	144146	1
	Cl	**37**		ug/L			4809329	4973994	3
[>	**Sc**	**45**		ug/L			1221736	1226202	2
[	**V**	**51**	**0.021**	ug/L	0.010	46	8932	9502	1
[	**V-1**	**51**	**0.000**	ug/L	0.000	34	79	91	4
[	**Cr**	**52**	**0.074**	ug/L	0.033	44	26512	28173	1
[	**Cr**	**53**	**0.004**	ug/L	0.005	123	164	174	5
[	**Mn**	**55**	**0.032**	ug/L	0.001	1	526	1482	1
[	**Co**	**59**	**0.002**	ug/L	0.000	19	57	96	5
[>	**Ge**	**72**		ug/L			666235	618099	2
[	**Ni**	**60**	**0.006**	ug/L	0.001	20	11	34	13
[	**Ni**	**62**	**-6.623**	ug/L	0.023	0	4585	350	2
[	**Cu**	**63**	**-0.301**	ug/L	0.001	0	3389	357	4
[	**Cu**	**65**	**0.006**	ug/L	0.002	41	47	67	13
[	**Zn**	**66**	**0.146**	ug/L	0.010	6	115	471	4
[	**Zn**	**67**	**0.134**	ug/L	0.018	13	14	69	12
[	**Zn**	**68**	**0.149**	ug/L	0.011	7	160	418	2
[	**As**	**75**	**0.023**	ug/L	0.012	50	82	125	19
[	**As-1**	**75**	**0.499**	ug/L	0.099	19	10540	10873	0
[	**Se**	**82**	**-0.025**	ug/L	0.022	88	0	-6	82
[	**Se**	**78**	**1.754**	ug/L	0.364	20	10716	11051	0
[	**Mo**	**98**	**0.001**	ug/L	0.001	46	12	17	19
	Y	**89**		ug/L			407553	402232	2
	Kr	**83**		ug/L			373	452	4
[>	**In**	**115**		ug/L			1034700	980063	2
[	**Ag**	**107**	**0.000**	ug/L	0.000	16	17	21	4
[	**Cd**	**111**	**0.001**	ug/L	0.001	44	81	84	3
[	**Cd**	**114**	**0.001**	ug/L	0.000	12	29	39	3
[	**Sb**	**121**	**0.014**	ug/L	0.003	19	57	269	17
[	**Sb**	**123**	**0.015**	ug/L	0.004	25	42	211	22
[	**Ba**	**135**	**0.011**	ug/L	0.002	18	12	65	14
[	**Ba**	**137**	**0.012**	ug/L	0.001	11	12	106	8
[>	**Tb**	**159**		ug/L			1245990	1150843	0
[	**Tl**	**205**	**0.003**	ug/L	0.001	36	75	178	22
[	**Pb**	**208**	**0.008**	ug/L	0.000	4	181	590	3
[	**Bi**	**209**		ug/L			2867512	2736891	0
[	**Th**	**232**	**0.039**	ug/L	0.008	20	132	2041	19
[	**U**	**238**	**0.000**	ug/L	0.000	77	4	13	56

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:20:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be, Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1489490	2
	Be	9	27.029	ug/L	1.577	5	10	117437	3
	C	13		ug/L			122688	143737	0
	Cl	37		ug/L			4809329	5019923	1
>	Sc	45		ug/L			1221736	1253013	2
	V	51	25.024	ug/L	0.190	0	8932	667370	1
	V-1	51	25.129	ug/L	0.335	1	79	657432	1
	Cr	52	25.890	ug/L	0.337	1	26512	590384	2
	Cr	53	26.268	ug/L	0.730	2	164	63535	1
	Mn	55	25.532	ug/L	0.991	3	526	768779	2
	Co	59	24.924	ug/L	0.229	0	57	542822	1
>	Ge	72		ug/L			666235	633744	0
	Ni	60	27.233	ug/L	0.098	0	11	116468	0
	Ni	62	21.416	ug/L	0.824	3	4585	17299	2
	Cu	63	27.535	ug/L	0.093	0	3389	264491	0
	Cu	65	27.979	ug/L	0.327	1	47	119674	0
	Zn	66	86.484	ug/L	2.508	2	115	221677	2
	Zn	67	80.424	ug/L	0.235	0	14	34495	0
	Zn	68	85.156	ug/L	1.903	2	160	158386	1
	As	75	26.091	ug/L	0.089	0	82	57730	1
	As-1	75	26.875	ug/L	0.373	1	10540	70592	1
	Se	82	87.375	ug/L	1.060	1	0	20867	1
	Se	78	85.990	ug/L	0.181	0	10716	66158	0
	Mo	98	25.489	ug/L	0.485	1	12	132720	2
	Y	89		ug/L			407553	409954	1
	Kr	83		ug/L			373	431	4
>	In	115		ug/L			1034700	996397	1
	Ag	107	28.573	ug/L	0.382	1	17	305231	2
	Cd	111	26.744	ug/L	0.257	0	81	134598	1
	Cd	114	26.395	ug/L	0.552	2	29	336541	1
	Sb	121	26.030	ug/L	0.599	2	57	395649	1
	Sb	123	26.027	ug/L	0.274	1	42	298650	0
	Ba	135	26.319	ug/L	0.488	1	12	125348	1
	Ba	137	25.836	ug/L	0.257	0	12	215050	0
>	Tb	159		ug/L			1245990	1167699	0
	Tl	205	26.626	ug/L	0.127	0	75	1060675	0
	Pb	208	27.373	ug/L	0.082	0	181	1396924	0
	Bi	209		ug/L			2867512	2743968	1
	Th	232	25.601	ug/L	0.270	1	132	1267270	0
	U	238	25.899	ug/L	0.064	0	4	1317863	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS19 K SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 15:24:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1452181	1548072	0
	Be	**9**	**0.144**	ug/L	0.005	3	10	662	3
	C	**13**		ug/L			122688	147168	2
	Cl	**37**		ug/L			4809329	5141143	0
>	**Sc**	**45**		ug/L			1221736	1310562	0
	V	**51**	**5.792**	ug/L	0.057	0	8932	168943	0
	V-1	**51**	**5.824**	ug/L	0.064	1	79	159457	0
	Cr	**52**	**6.701**	ug/L	0.110	1	26512	180914	1
	Cr	**53**	**6.829**	ug/L	0.094	1	164	17409	0
	Mn	**55**	**314.770**	ug/L	3.543	1	526	9910750	0
	Co	**59**	**2.346**	ug/L	0.040	1	57	53493	1
>	**Ge**	**72**		ug/L			666235	661004	1
	Ni	**60**	**7.243**	ug/L	0.102	1	11	32318	2
	Ni	**62**	**0.469**	ug/L	0.049	10	4585	4845	1
	Cu	**63**	**6.634**	ug/L	0.120	1	3389	69008	0
	Cu	**65**	**6.996**	ug/L	0.145	2	47	31253	3
	Zn	**66**	**88.732**	ug/L	2.966	3	115	237201	2
	Zn	**67**	**84.929**	ug/L	1.006	1	14	37991	0
	Zn	**68**	**88.436**	ug/L	1.531	1	160	171552	0
	As	**75**	**6.947**	ug/L	0.065	0	82	16091	0
	As-1	**75**	**6.972**	ug/L	0.100	1	10540	26844	0
	Se	**82**	**0.043**	ug/L	0.027	62	0	10	66
	Se	**78**	**0.715**	ug/L	0.130	18	10716	11116	0
	Mo	**98**	**0.118**	ug/L	0.004	3	12	654	2
	Y	**89**		ug/L			407553	454919	1
	Kr	**83**		ug/L			373	475	3
>	**In**	**115**		ug/L			1034700	1015111	0
	Ag	**107**	**0.061**	ug/L	0.004	7	17	677	6
	Cd	**111**	**2.217**	ug/L	0.040	1	81	11441	1
	Cd	**114**	**2.187**	ug/L	0.033	1	29	28435	1
	Sb	**121**	**0.070**	ug/L	0.007	9	57	1141	9
	Sb	**123**	**0.072**	ug/L	0.001	1	42	883	1
	Ba	**135**	**81.993**	ug/L	0.771	0	12	397864	1
	Ba	**137**	**82.028**	ug/L	0.478	0	12	695607	0
>	**Tb**	**159**		ug/L			1245990	1204658	1
	Tl	**205**	**0.074**	ug/L	0.002	2	75	3132	1
	Pb	**208**	**75.341**	ug/L	0.587	0	181	3966143	0
	Bi	**209**		ug/L			2867512	2810584	0
	Th	**232**	**1.489**	ug/L	0.012	0	132	76156	1
	U	**238**	**0.089**	ug/L	0.002	2	4	4653	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:28:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1530706	0
[	Be	9	0.559	ug/L	0.019	3	10	2507	3
	C	13		ug/L			122688	205645	1
	Cl	37		ug/L			4809329	5140367	0
[>	Sc	45		ug/L			1221736	1399525	1
[	V	51	41.018	ug/L	1.127	2	8932	1214969	0
[	V-1	51	41.376	ug/L	1.041	2	79	1208851	0
[	Cr	52	32.735	ug/L	0.365	1	26512	825643	0
[	Cr	53	33.822	ug/L	0.156	0	164	91341	1
[	Mn	55	1060.314	ug/L	10.634	1	526	35647872	1
[	Co	59	8.818	ug/L	0.340	3	57	214507	3
[>	Ge	72		ug/L			666235	639522	0
[	Ni	60	23.358	ug/L	0.422	1	11	100801	1
[	Ni	62	18.725	ug/L	0.718	3	4585	15817	2
[	Cu	63	35.479	ug/L	0.467	1	3389	342956	0
[	Cu	65	35.911	ug/L	0.296	0	47	154995	0
[	Zn	66	368.169	ug/L	3.578	0	115	952037	0
[	Zn	67	366.178	ug/L	8.548	2	14	158430	1
[	Zn	68	382.576	ug/L	5.830	1	160	717540	0
[	As	75	11.552	ug/L	0.192	1	82	25835	1
[	As-1	75	11.533	ug/L	0.196	1	10540	36343	0
[	Se	82	~ 0.027	ug/L	0.023	82	0	6	90
[	Se	78	1.241	ug/L	0.047	3	10716	11101	0
[	Mo	98	0.436	ug/L	0.006	1	12	2301	1
	Y	89		ug/L			407553	569301	1
	Kr	83		ug/L			373	775	3
[>	In	115		ug/L			1034700	1046815	1
[	Ag	107	0.206	ug/L	0.002	1	17	2332	0
[	Cd	111	7.269	ug/L	0.046	0	81	38492	0
[	Cd	114	7.236	ug/L	0.087	1	29	96947	0
[	Sb	121	0.362	ug/L	0.003	0	57	5832	1
[	Sb	123	0.353	ug/L	0.010	2	42	4303	3
[	Ba	135	554.699	ug/L	1.354	0	12	2775540	0
[	Ba	137	544.384	ug/L	10.012	1	12	4759870	0
[>	Tb	159		ug/L			1245990	1230182	0
[	Tl	205	0.400	ug/L	0.007	1	75	16870	1
[	Pb	208	349.084	ug/L	2.081	0	181	18766115	0
[	Bi	209		ug/L			2867512	2709500	0
[	Th	232	4.674	ug/L	0.015	0	132	243832	0
[	U	238	0.868	ug/L	0.007	0	4	46530	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:32:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1565297 ✓	1
	Be	9	1.164	ug/L	0.021	1	10	5332	2
	C	13		ug/L			122688	260191	1
	Cl	37		ug/L			4809329	5314163	0
>	Sc	45		ug/L			1221736	1408899	1
	V	51	24.203	ug/L	0.246	1	8932	726088	0
	V-1	51	24.383	ug/L	0.315	1	79	717277	0
	Cr	52	20.044	ug/L	0.403	2	26512	520758	1
	Cr	53	20.587	ug/L	0.579	2	164	56028	1
	Mn	55	5614.000	ug/L	134.405	2	526	189976000	1
	Co	59	20.752	ug/L	0.334	1	57	508124	0
>	Ge	72		ug/L			666235	642476 ✓	0
	Ni	60	49.375	ug/L	1.945	3	11	214034	3
	Ni	62	45.138	ug/L	1.200	2	4585	32071	1
	Cu	63	57.754	ug/L	0.761	1	3389	558804	0
	Cu	65	58.503	ug/L	2.066	3	47	253614	2
	Zn	66	1475.059	ug/L	31.972	2	115	3831369	1
	Zn	67	1297.582	ug/L	37.158	2	14	563947	2
	Zn	68	1445.298	ug/L	21.754	1	160	2722980	1
	As	75	53.754	ug/L	0.972	1	82	120487	1
	As-1	75	52.840	ug/L	0.980	1	10540	130873	1
	Se	82	1.248	ug/L	0.065	5	0	301	4
	Se	78	2.221	ug/L	0.131	5	10716	11799	0
	Mo	98	1.155	ug/L	0.044	3	12	6105	3
	Y	89		ug/L			407553	723719	1
	Kr	83		ug/L			373	863	4
>	In	115		ug/L			1034700	1140494	1
	Ag	107	0.659	ug/L	0.031	4	17	8076	3
	Cd	111	36.268	ug/L	0.763	2	81	208870	1
	Cd	114	35.929	ug/L	1.043	2	29	524278	1
	Sb	121	2.093	ug/L	0.056	2	57	36463	1
	Sb	123	2.067	ug/L	0.047	2	42	27192	1
	Ba	135	514.409	ug/L	9.174	1	12	2803980	0
	Ba	137	500.329	ug/L	13.077	2	12	4765833	1
>	Tb	159		ug/L			1245990	1228374	0
	Tl	205	1.093	ug/L	0.003	0	75	45884	0
	Pb	208	1153.439	ug/L	13.628	1	181	61915084	1
	Bi	209		ug/L			2867512	2743767	0
	Th	232	4.170	ug/L	0.042	1	132	217238	0
	U	238	0.739	ug/L	0.004	0	4	39549	0

VS21 : 00235

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:36:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1563577	1
	Be	9	0.882	ug/L	0.024	2	10	4037	1
	C	13		ug/L			122688	288849	0
	Cl	37		ug/L			4809329	5501311	1
>	Sc	45		ug/L			1221736	1367836	1
	V	51	18.895	ug/L	0.239	1	8932	552483	0
	V-1	51	18.872	ug/L	0.354	1	79	538967	0
	Cr	52	14.578	ug/L	0.400	2	26512	375804	2
	Cr	53	14.419	ug/L	0.651	4	164	38143	2
	Mn	55	5598.396	ug/L	128.329	2	526	183919058	0
	Co	59	18.770	ug/L	0.336	1	57	446201	0
>	Ge	72		ug/L			666235	640703	2
	Ni	60	39.944	ug/L	0.880	2	11	172649	1
	Ni	62	34.765	ug/L	0.728	2	4585	25641	1
	Cu	63	62.829	ug/L	0.611	0	3389	605881	1
	Cu	65	63.847	ug/L	1.441	2	47	275965	1
	Zn	66	1233.928	ug/L	30.575	2	115	3195618	1
	Zn	67	1084.071	ug/L	24.103	2	14	469766	1
	Zn	68	1197.571	ug/L	26.991	2	160	2249352	1
	As	75	21.971	ug/L	0.481	2	82	49144	0
	As-1	75	21.691	ug/L	0.613	2	10540	59534	0
	Se	82	1.256	ug/L	0.081	6	0	302	6
	Se	78	2.175	ug/L	0.489	22	10716	11731	0
	Mo	98	1.083	ug/L	0.023	2	12	5711	1
	Y	89		ug/L			407553	680571	1
	Kr	83		ug/L			373	769	5
>	In	115		ug/L			1034700	1163038	0
	Ag	107	0.946	ug/L	0.009	0	17	11809	1
	Cd	111	24.910	ug/L	0.413	1	81	146329	1
	Cd	114	24.933	ug/L	0.512	2	29	371059	1
	Sb	121	2.858	ug/L	0.090	3	57	50755	2
	Sb	123	2.859	ug/L	0.032	1	42	38332	0
	Ba	135	399.832	ug/L	5.938	1	12	2222603	0
	Ba	137	394.437	ug/L	3.211	0	12	3832028	0
>	Tb	159		ug/L			1245990	1208926	0
	Tl	205	0.912	ug/L	0.013	1	75	37686	1
	Pb	208	1598.799	ug/L	9.275	0	181	84462776	0
	Bi	209		ug/L			2867512	2746637	1
	Th	232	2.992	ug/L	0.032	1	132	153450	1
	U	238	0.600	ug/L	0.008	1	4	31606	1

VS21 : 00235

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:40:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1617092	1
[	Be	9	2.372	ug/L	0.047	1	10	11205	0
	C	13		ug/L			122688	260484	1
	Cl	37		ug/L			4809329	5352770	2
[>	Sc	45		ug/L			1221736	1406812	0
[	V	51	28.015	ug/L	0.405	1	8932	837611	0
[	V-1	51	28.200	ug/L	0.359	1	79	828418	0
[	Cr	52	23.127	ug/L	0.507	2	26512	595305	1
[	Cr	53	23.677	ug/L	0.349	1	164	64329	0
[	Mn	55	4462.162	ug/L	110.765	2	526	150789665	1
[	Co	59	32.968	ug/L	0.627	1	57	806077	1
[>	Ge	72		ug/L			666235	629057	1
[	Ni	60	76.145	ug/L	1.977	2	11	323191	2
[	Ni	62	69.664	ug/L	2.920	4	4585	46103	2
[	Cu	63	67.282	ug/L	1.672	2	3389	636782	1
[	Cu	65	68.107	ug/L	1.382	2	47	289092	1
[	Zn	66	744.635	ug/L	10.511	1	115	1893764	0
[	Zn	67	699.868	ug/L	15.213	2	14	297812	1
[	Zn	68	732.924	ug/L	12.249	1	160	1351995	1
[	As	75	28.170	ug/L	0.193	0	82	61859	0
[	As-1	75	27.736	ug/L	0.210	0	10540	71991	0
[	Se	82	1.402	ug/L	0.110	7	0	331	6
[	Se	78	2.635	ug/L	0.155	5	10716	11819	0
[	Mo	98	1.559	ug/L	0.015	0	12	8065	0
	Y	89		ug/L			407553	942580	1
	Kr	83		ug/L			373	1113	4
[>	In	115		ug/L			1034700	1032629	1
[	Ag	107	0.962	ug/L	0.022	2	17	10661	1
[	Cd	111	11.756	ug/L	0.347	2	81	61340	1
[	Cd	114	11.649	ug/L	0.271	2	29	153915	0
[	Sb	121	0.732	ug/L	0.021	2	57	11583	1
[	Sb	123	0.720	ug/L	0.030	4	42	8595	2
[	Ba	135	352.499	ug/L	10.800	3	12	1739368	1
[	Ba	137	375.765	ug/L	9.995	2	12	3240414	0
[>	Tb	159		ug/L			1245990	1214246	0
[	Tl	205	0.427	ug/L	0.003	0	75	17778	1
[	Pb	208	548.527	ug/L	2.783	0	181	29105853	0
[	Bi	209		ug/L			2867512	2597639	0
[	Th	232	5.301	ug/L	0.061	1	132	272955	0
[	U	238	0.864	ug/L	0.005	0	4	45735	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:45:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1576229	0
[	**Be**	**9**	**0.629**	ug/L	0.013	2	10	2907	2
	C	**13**		ug/L			122688	197173	3
	Cl	**37**		ug/L			4809329	5148666	3
[>	**Sc**	**45**		ug/L			1221736	1395771	1
[	**V**	**51**	**25.306**	ug/L	0.242	0	8932	751628	0
[	**V-1**	**51**	**25.450**	ug/L	0.254	0	79	741739	0
[	**Cr**	**52**	**21.524**	ug/L	0.522	2	26512	551711	0
[	**Cr**	**53**	**21.954**	ug/L	0.568	2	164	59181	1
[	**Mn**	**55**	**2830.101**	ug/L	32.332	1	526	94889774	0
[	**Co**	**59**	**9.225**	ug/L	0.208	2	57	223797	0
[>	**Ge**	**72**		ug/L			666235	651699	1
[	**Ni**	**60**	**28.549**	ug/L	0.336	1	11	125545	0
[	**Ni**	**62**	**24.310**	ug/L	0.557	2	4585	19589	1
[	**Cu**	**63**	**26.155**	ug/L	0.382	1	3389	258499	0
[	**Cu**	**65**	**26.776**	ug/L	0.375	1	47	117776	1
[	**Zn**	**66**	**425.843**	ug/L	11.884	2	115	1121915	1
[	**Zn**	**67**	**411.313**	ug/L	1.264	0	14	181359	1
[	**Zn**	**68**	**428.955**	ug/L	7.363	1	160	819771	0
[	**As**	**75**	**21.150**	ug/L	0.159	0	82	48137	1
[	**As-1**	**75**	**20.869**	ug/L	0.199	0	10540	58669	0
[	**Se**	**82**	**0.117**	ug/L	0.073	62	0	28	64
[	**Se**	**78**	**1.099**	ug/L	0.264	23	10716	11216	0
[	**Mo**	**98**	**0.759**	ug/L	0.008	1	12	4077	0
	Y	**89**		ug/L			407553	580203	1
	Kr	**83**		ug/L			373	820	5
[>	**In**	**115**		ug/L			1034700	1055091	0
[	**Ag**	**107**	**0.297**	ug/L	0.002	0	17	3381	0
[	**Cd**	**111**	**7.523**	ug/L	0.081	1	81	40149	0
[	**Cd**	**114**	**7.484**	ug/L	0.066	0	29	101072	1
[	**Sb**	**121**	**0.365**	ug/L	0.013	3	57	5925	3
[	**Sb**	**123**	**0.363**	ug/L	0.012	3	42	4449	2
[	**Ba**	**135**	**429.455**	ug/L	8.273	1	12	2165693	1
[	**Ba**	**137**	**418.642**	ug/L	5.951	1	12	3689619	0
[>	**Tb**	**159**		ug/L			1245990	1222897	0
[	**Tl**	**205**	**0.431**	ug/L	0.003	0	75	18058	0
[	**Pb**	**208**	**347.916**	ug/L	1.652	0	181	18592922	0
[	**Bi**	**209**		ug/L			2867512	2703502	0
[	**Th**	**232**	**5.033**	ug/L	0.009	0	132	261002	0
[	**U**	**238**	**0.673**	ug/L	0.005	0	4	35887	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:50:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1452181	1557415	1
[	Be	9	0.719	ug/L	0.020	2	10	3277	1
	C	13		ug/L			122688	178001	1
	Cl	37		ug/L			4809329	5164100	1
[>	Sc	45		ug/L			1221736	1440504	1
[	V	51	39.530	ug/L	0.099	0	8932	1205942	0
[	V-1	51	39.877	ug/L	0.129	0	79	1199529	0
[	Cr	52	30.627	ug/L	0.524	1	26512	797159	1
[	Cr	53	31.665	ug/L	0.552	1	164	88028	1
[	Mn	55	880.744	ug/L	15.907	1	526	30478101	1
[	Co	59	10.519	ug/L	0.087	0	57	263424	1
[>	Ge	72		ug/L			666235	654684	0
[	Ni	60	29.290	ug/L	0.726	2	11	129389	1
[	Ni	62	24.689	ug/L	0.321	1	4585	19918	1
[	Cu	63	29.793	ug/L	0.723	2	3389	295334	1
[	Cu	65	30.137	ug/L	0.707	2	47	133160	2
[	Zn	66	162.152	ug/L	3.781	2	115	429263	1
[	Zn	67	169.727	ug/L	1.115	0	14	75187	0
[	Zn	68	165.362	ug/L	2.624	1	160	317579	0
[	As	75	11.856	ug/L	0.206	1	82	27140	0
[	As-1	75	11.693	ug/L	0.259	2	10540	37575	0
[	Se	82	~-0.234	ug/L	0.032	13	0	-58	14
[	Se	78	0.770	ug/L	0.240	31	10716	11047	1
[	Mo	98	0.784	ug/L	0.029	3	12	4227	4
	Y	89		ug/L			407553	659395	0
	Kr	83		ug/L			373	1007	2
[>	In	115		ug/L			1034700	987074	0
[	Ag	107	0.251	ug/L	0.011	4	17	2675	3
[	Cd	111	2.442	ug/L	0.012	0	81	12246	0
[	Cd	114	2.287	ug/L	0.026	1	29	28916	0
[	Sb	121	0.063	ug/L	0.002	3	57	997	3
[	Sb	123	0.063	ug/L	0.001	1	42	755	1
[	Ba	135	260.524	ug/L	2.528	0	12	1229151	0
[	Ba	137	275.861	ug/L	0.478	0	12	2274662	0
[>	Tb	159		ug/L			1245990	1221786	0
[	Tl	205	0.222	ug/L	0.006	2	75	9333	1
[	Pb	208	79.428	ug/L	0.400	0	181	4240759	0
[	Bi	209		ug/L			2867512	2668218	0
[	Th	232	5.753	ug/L	0.025	0	132	298065	0
[	U	238	0.978	ug/L	0.007	0	4	52080	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 15:54:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1452181	1536649	0
[	**Be**	**9**	**0.445**	ug/L	0.005	1	10	2005	0
	C	**13**		ug/L			122688	164510	2
	Cl	**37**		ug/L			4809329	5026111	2
[>	**Sc**	**45**		ug/L			1221736	1404264	1
[	**V**	**51**	**32.235**	ug/L	0.746	2	8932	960347	1
[	**V-1**	**51**	**32.375**	ug/L	0.626	1	79	949234	1
[	**Cr**	**52**	**19.968**	ug/L	0.513	2	26512	517154	0
[	**Cr**	**53**	**20.224**	ug/L	0.362	1	164	54884	2
[	**Mn**	**55**	**1167.700**	ug/L	35.322	3	526	39387351	2
[	**Co**	**59**	**8.056**	ug/L	0.234	2	57	196634	1
[>	**Ge**	**72**		ug/L			666235	649125	1
[	**Ni**	**60**	**19.615**	ug/L	0.439	2	11	85911	0
[	**Ni**	**62**	**13.573**	ug/L	0.045	0	4585	12868	1
[	**Cu**	**63**	**18.750**	ug/L	0.754	4	3389	185472	2
[	**Cu**	**65**	**19.401**	ug/L	0.493	2	47	84998	1
[	**Zn**	**66**	**197.209**	ug/L	4.389	2	115	517598	1
[	**Zn**	**67**	**211.367**	ug/L	2.599	1	14	92827	0
[	**Zn**	**68**	**209.861**	ug/L	3.171	1	160	399556	0
[	**As**	**75**	**10.870**	ug/L	0.215	1	82	24679	1
[	**As-1**	**75**	**10.776**	ug/L	0.280	2	10540	35138	1
[	**Se**	**82**	**-0.105**	ug/L	0.032	29	0	-26	28
[	**Se**	**78**	**0.781**	ug/L	0.351	44	10716	10959	0
[	**Mo**	**98**	**0.307**	ug/L	0.008	2	12	1649	3
	Y	**89**		ug/L			407553	560761	1
	Kr	**83**		ug/L			373	762	2
[>	**In**	**115**		ug/L			1034700	1013435	1
[	**Ag**	**107**	**0.191**	ug/L	0.006	2	17	2090	2
[	**Cd**	**111**	**2.737**	ug/L	0.032	1	81	14081	2
[	**Cd**	**114**	**2.603**	ug/L	0.059	2	29	33776	0
[	**Sb**	**121**	**0.129**	ug/L	0.005	3	57	2045	2
[	**Sb**	**123**	**0.130**	ug/L	0.009	6	42	1557	5
[	**Ba**	**135**	**511.178**	ug/L	6.472	1	12	2475969	0
[	**Ba**	**137**	**498.611**	ug/L	6.056	1	12	4220729	0
[>	**Tb**	**159**		ug/L			1245990	1210442	0
[	**Tl**	**205**	**0.213**	ug/L	0.002	0	75	8860	0
[	**Pb**	**208**	**95.833**	ug/L	0.992	1	181	5069244	0
[	**Bi**	**209**		ug/L			2867512	2678138	0
[	**Th**	**232**	**3.447**	ug/L	0.050	1	132	176964	1
[	**U**	**238**	**0.385**	ug/L	0.003	0	4	20321	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 15:58:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1491441 ✓	1
	Be	9	52.860	ug/L	1.678	3	10	230077	1
	C	13		ug/L			122688	140260	2
	Cl	37		ug/L			4809329	5401944	1
>	Sc	45		ug/L			1221736	1266822 ✓	1
	V	51	49.152	ug/L	2.099	4	8932	1315769	2
	V-1	51	49.358	ug/L	1.734	3	79	1305159	1
	Cr	52	49.836	ug/L	1.254	2	26512	1123205	0
	Cr	53	50.563	ug/L	1.574	3	164	123529	3
	Mn	55	49.463	ug/L	1.022	2	526	1505564	0
	Co	59	48.254	ug/L	0.836	1	57	1062572	2
>	Ge	72		ug/L			666235	641171 ✓	1
	Ni	60	50.404	ug/L	0.974	1	11	218066	1
	Ni	62	44.597	ug/L	0.489	1	4585	31674	0
	Cu	63	51.143	ug/L	0.816	1	3389	494147	0
	Cu	65	50.302	ug/L	0.986	1	47	217612	0
	Zn	66	51.134	ug/L	1.394	2	115	132640	2
	Zn	67	51.736	ug/L	0.440	0	14	22453	0
	Zn	68	52.780	ug/L	2.013	3	160	99347	2
	As	75	52.155	ug/L	1.400	2	82	116641	1
	As-1	75	51.852	ug/L	1.604	3	10540	128325	1
	Se	82	53.399	ug/L	0.826	1	0	12900	0
	Se	78	52.354	ug/L	1.422	2	10716	44774	0
	Mo	98	51.849	ug/L	1.241	2	12	273110	2
	Y	89		ug/L			407553	405374	1
	Kr	83		ug/L			373	463	8
>	In	115		ug/L			1034700	984427 ✓	1
	Ag	107	55.908	ug/L	1.000	1	17	589900	0
	Cd	111	52.283	ug/L	0.766	1	81	259882	1
	Cd	114	52.584	ug/L	0.448	0	29	662391	0
	Sb	121	53.156	ug/L	0.347	0	57	798254	0
	Sb	123	52.492	ug/L	0.988	1	42	594995	0
	Ba	135	50.791	ug/L	0.857	1	12	238973	0
	Ba	137	50.215	ug/L	0.356	0	12	412933	0
>	Tb	159		ug/L			1245990	1174626 ✓	0
	Tl	205	51.032	ug/L	2.451	4	75	2045293	5
	Pb	208	51.199	ug/L	0.160	0	181	2628253	0
	Bi	209		ug/L			2867512	2688477	0
	Th	232	53.862	ug/L	0.252	0	132	2681913	1
	U	238	54.969	ug/L	0.601	1	4	2813610	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 16:05:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1452181	1435095	2
	Be	9	0.003	ug/L	0.001	35	10	23	19
	C	13		ug/L			122688	137586	1
	Cl	37		ug/L			4809329	5037037	1
>	Sc	45		ug/L			1221736	1201906	3
	V	51	0.030	ug/L	0.013	41	8932	9546	0
	V-1	51	0.005	ug/L	0.007	122	79	211	74
	Cr	52	0.094	ug/L	0.029	31	26512	28024	0
	Cr	53	0.009	ug/L	0.011	127	164	181	11
	Mn	55	0.316	ug/L	0.390	123	526	9412	114
	Co	59	0.005	ug/L	0.003	71	57	153	42
>	Ge	72		ug/L			666235	624589	2
	Ni	60	0.008	ug/L	0.005	62	11	44	46
	Ni	62	-6.785	ug/L	0.039	0	4585	257	7
	Cu	63	-0.306	ug/L	0.006	1	3389	319	16
	Cu	65	0.008	ug/L	0.007	84	47	78	35
	Zn	66	0.092	ug/L	0.100	108	115	339	72
	Zn	67	0.099	ug/L	0.090	90	14	55	66
	Zn	68	0.102	ug/L	0.109	106	160	336	57
	As	75	0.029	ug/L	0.001	4	82	140	2
	As-1	75	0.418	ug/L	0.096	23	10540	10805	0
	Se	82	0.015	ug/L	0.029	199	0	3	234
	Se	78	1.448	ug/L	0.334	23	10716	10971	0
	Mo	98	0.009	ug/L	0.002	16	12	59	12
	Y	89		ug/L			407553	382137	2
	Kr	83		ug/L			373	424	3
>	In	115		ug/L			1034700	946368	3
	Ag	107	0.004	ug/L	0.001	37	17	54	24
	Cd	111	0.004	ug/L	0.004	93	81	93	17
	Cd	114	0.005	ug/L	0.005	97	29	90	66
	Sb	121	0.059	ug/L	0.003	4	57	911	7
	Sb	123	0.055	ug/L	0.002	4	42	634	5
	Ba	135	0.054	ug/L	0.066	121	12	254	114
	Ba	137	0.056	ug/L	0.066	117	12	445	113
>	Tb	159		ug/L			1245990	1098783	0
	Tl	205	0.008	ug/L	0.001	16	75	352	14
	Pb	208	0.061	ug/L	0.075	123	181	3075	116
	Bi	209		ug/L			2867512	2639546	1
	Th	232	0.173	ug/L	0.011	6	132	8190	7
	U	238	0.004	ug/L	0.002	38	4	193	36

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 16:11:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L				1482660	2
[	Be	9		ug/L				14	7
	C	13		ug/L				139850	2
	Cl	37		ug/L				4987849	3
[>	Sc	45		ug/L				1243958	1
|	V	51		ug/L				9588	4
|	V-1	51		ug/L				77	23
|	Cr	52		ug/L				28352	4
|	Cr	53		ug/L				162	6
|	Mn	55		ug/L				1786	83
[	Co	59		ug/L				102	16
[>	Ge	72		ug/L				622418	1
|	Ni	60		ug/L				20	26
|	Ni	62		ug/L				290	6
|	Cu	63		ug/L				228	3
|	Cu	65		ug/L				42	14
|	Zn	66		ug/L				140	26
|	Zn	67		ug/L				25	34
|	Zn	68		ug/L				174	10
|	As	75		ug/L				143	12
|	As-1	75		ug/L				10862	0
|	Se	82		ug/L				2	185
|	Se	78		ug/L				11031	0
[	Mo	98		ug/L				20	41
	Y	89		ug/L				398382	0
	Kr	83		ug/L				433	3
[>	In	115		ug/L				957933	1
|	Ag	107		ug/L				20	20
|	Cd	111		ug/L				85	6
|	Cd	114		ug/L				45	8
|	Sb	121		ug/L				252	6
|	Sb	123		ug/L				176	12
|	Ba	135		ug/L				41	81
[	Ba	137		ug/L				76	67
[>	Tb	159		ug/L				1116653	0
|	Tl	205		ug/L				235	31
|	Pb	208		ug/L				687	66
|	Bi	209		ug/L				2666772	0
|	Th	232		ug/L				2215	12
[	U	238		ug/L				34	47

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 16:15:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1505702	2
	Be	9	52.574	ug/L	2.085	3	14	230947	1
	C	13		ug/L			139850	136292	2
	Cl	37		ug/L			4987849	5315943	2
>	Sc	45		ug/L			1243958	1243550	2
	V	51	48.713	ug/L	1.209	2	9588	1280880	0
	V-1	51	49.188	ug/L	1.301	2	77	1276849	0
	Cr	52	49.738	ug/L	1.199	2	28352	1101828	0
	Cr	53	51.405	ug/L	1.600	3	162	123217	1
	Mn	55	49.840	ug/L	0.895	1	1786	1490477	0
	Co	59	48.962	ug/L	0.036	0	102	1058349	2
>	Ge	72		ug/L			622418	634767	1
	Ni	60	51.277	ug/L	1.326	2	20	219616	1
	Ni	62	50.389	ug/L	0.735	1	290	30790	0
	Cu	63	51.660	ug/L	1.484	2	228	491074	1
	Cu	65	50.269	ug/L	1.282	2	42	215290	1
	Zn	66	50.766	ug/L	0.504	0	140	130440	2
	Zn	67	52.308	ug/L	0.942	1	25	22486	1
	Zn	68	51.750	ug/L	1.502	2	174	96487	2
	As	75	51.810	ug/L	0.571	1	143	114800	0
	As-1	75	51.402	ug/L	0.624	1	10862	127087	0
	Se	82	53.187	ug/L	0.871	1	2	12725	0
	Se	78	51.665	ug/L	0.988	1	11031	44923	0
	Mo	98	50.904	ug/L	0.131	0	20	265461	1
	Y	89		ug/L			398382	399799	1
	Kr	83		ug/L			433	456	8
>	In	115		ug/L			957933	972222	0
	Ag	107	54.398	ug/L	0.480	0	20	566937	0
	Cd	111	52.464	ug/L	0.597	1	85	257567	0
	Cd	114	52.486	ug/L	0.447	0	45	653015	0
	Sb	121	52.608	ug/L	0.842	1	252	780474	1
	Sb	123	52.496	ug/L	0.410	0	176	587910	0
	Ba	135	51.062	ug/L	0.780	1	41	237331	1
	Ba	137	50.552	ug/L	0.867	1	76	410627	1
>	Tb	159		ug/L			1116653	1164637	0
	Tl	205	50.028	ug/L	0.347	0	235	1987769	0
	Pb	208	50.895	ug/L	0.378	0	687	2590867	0
	Bi	209		ug/L			2666772	2669994	0
	Th	232	53.903	ug/L	0.206	0	2215	2663312	0
	U	238	55.190	ug/L	0.508	0	34	2800993	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 16:22:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1482660	1464222	1
[	Be	9	0.000	ug/L	0.001	183	14	15	20
	C	13		ug/L			139850	138820	0
	Cl	37		ug/L			4987849	5235327	0
[>	Sc	45		ug/L			1243958	1230616	1
[	V	51	-0.006	ug/L	0.007	116	9588	9325	0
[	V-1	51	0.000	ug/L	0.001	151	77	86	16
[	Cr	52	-0.020	ug/L	0.026	127	28352	27606	0
[	Cr	53	0.002	ug/L	0.003	150	162	165	3
[	Mn	55	-0.043	ug/L	0.001	1	1786	507	4
[	Co	59	0.000	ug/L	0.000	94	102	110	7
[>	Ge	72		ug/L			622418	611061	0
[	Ni	60	0.000	ug/L	0.001	587	20	20	29
[	Ni	62	-0.030	ug/L	0.030	101	290	267	5
[	Cu	63	0.002	ug/L	0.002	97	228	240	7
[	Cu	65	0.004	ug/L	0.003	61	42	58	18
[	Zn	66	-0.005	ug/L	0.005	100	140	125	8
[	Zn	67	-0.018	ug/L	0.014	78	25	17	35
[	Zn	68	0.001	ug/L	0.010	1464	174	172	10
[	As	75	0.009	ug/L	0.005	58	143	159	6
[	As-1	75	0.038	ug/L	0.038	99	10862	10747	0
[	Se	82	0.023	ug/L	0.039	167	2	8	108
[	Se	78	0.141	ug/L	0.116	81	11031	10918	0
[	Mo	98	0.007	ug/L	0.001	10	20	57	5
	Y	89		ug/L			398382	393799	2
	Kr	83		ug/L			433	437	3
[>	In	115		ug/L			957933	965466	0
[	Ag	107	0.002	ug/L	0.001	34	20	39	16
[	Cd	111	0.001	ug/L	0.003	366	85	90	17
[	Cd	114	0.001	ug/L	0.001	128	45	53	18
[	Sb	121	0.046	ug/L	0.004	7	252	924	6
[	Sb	123	0.046	ug/L	0.005	11	176	690	9
[	Ba	135	-0.007	ug/L	0.001	16	41	11	45
[	Ba	137	-0.006	ug/L	0.001	21	76	26	40
[>	Tb	159		ug/L			1116653	1125769	0
[	Tl	205	0.004	ug/L	0.003	61	235	402	25
[	Pb	208	-0.007	ug/L	0.000	3	687	350	3
[	Bi	209		ug/L			2666772	2690664	0
[	Th	232	0.151	ug/L	0.024	15	2215	9440	12
[	U	238	0.003	ug/L	0.000	13	34	168	10

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 16:27:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Ag Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1482660	1570240	1
[	Be	9	~0.114	ug/L	0.006	5	14	536	4
	C	13		ug/L			139850	150982	1
	Cl	37		ug/L			4987849	5012630	0
[>	Sc	45		ug/L			1243958	1298618	0
[	V	51	6.214	ug/L	0.124	1	9588	179423	2
[	V-1	51	6.318	ug/L	0.086	1	77	171395	1
[	Cr	52	5.552	ug/L	0.046	0	28352	154760	0
[	Cr	53	5.899	ug/L	0.114	1	162	14920	1
[	Mn	55	153.274	ug/L	3.030	1	1786	4783683	1
[	Co	59	1.798	ug/L	0.025	1	102	40686	1
[>	Ge	72		ug/L			622418	651418	1
[	Ni	60	5.046	ug/L	0.171	3	20	22194	1
[	Ni	62	5.423	ug/L	0.183	3	290	3671	2
[	Cu	63	4.760	ug/L	0.175	3	228	46654	3
[	Cu	65	4.713	ug/L	0.227	4	42	20747	3
[	Zn	66	97.227	ug/L	2.684	2	140	256142	1
[	Zn	67	91.712	ug/L	1.560	1	25	40436	0
[	Zn	68	94.809	ug/L	3.300	3	174	181215	1
[	As	75	6.111	ug/L	0.065	1	143	14028	1
[	As-1	75	5.738	ug/L	0.136	2	10862	24656	1
[	Se	82	~0.052	ug/L	0.056	107	2	16	85
[	Se	78	-0.801	ug/L	0.264	32	11031	11008	0
[	Mo	98	0.077	ug/L	0.003	3	20	434	5
	Y	89		ug/L			398382	439670	2
	Kr	83		ug/L			433	475	4
[>	In	115		ug/L			957933	1023814	1
[	Ag	107	~0.071	ug/L	0.002	2	20	800	1
[	Cd	111	2.221	ug/L	0.020	0	85	11571	1
[	Cd	114	2.186	ug/L	0.044	2	45	28686	1
[	Sb	121	0.071	ug/L	0.002	2	252	1378	2
[	Sb	123	0.072	ug/L	0.004	5	176	1035	3
[	Ba	135	42.779	ug/L	0.905	2	41	209356	0
[	Ba	137	41.940	ug/L	0.819	1	76	358713	0
[>	Tb	159		ug/L			1116653	1195813	1
[	Tl	205	0.080	ug/L	0.004	5	235	3525	3
[	Pb	208	86.699	ug/L	0.643	0	687	4531044	0
[	Bi	209		ug/L			2666772	2809687	0
[	Th	232	0.923	ug/L	0.013	1	2215	49160	0
[	U	238	0.088	ug/L	0.002	2	34	4623	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 16:31:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Ag Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1482660	1568336	1
[	Be	9	0.560	ug/L	0.010	1	14	2577	0
	C	13		ug/L			139850	188575	1
	Cl	37		ug/L			4987849	5059133	2
[>	Sc	45		ug/L			1243958	1394349	0
[	V	51	29.123	ug/L	0.622	2	9588	863299	2
[	V-1	51	29.432	ug/L	0.316	1	77	857011	1
[	Cr	52	26.286	ug/L	0.355	1	28352	668126	1
[	Cr	53	27.303	ug/L	0.894	3	162	73487	2
[	Mn	55	719.471	ug/L	5.788	0	1786	24103751	1
[	Co	59	8.353	ug/L	0.060	0	102	202544	1
[>	Ge	72		ug/L			622418	653399	1
[	Ni	60	25.243	ug/L	0.371	1	20	111303	0
[	Ni	62	27.394	ug/L	0.316	1	290	17373	2
[	Cu	63	22.944	ug/L	0.798	3	228	224627	2
[	Cu	65	22.872	ug/L	0.583	2	42	100846	1
[	Zn	66	462.879	ug/L	6.889	1	140	1222763	0
[	Zn	67	425.404	ug/L	1.479	0	25	188066	1
[	Zn	68	454.601	ug/L	5.288	1	174	871057	0
[	As	75	29.782	ug/L	0.893	2	143	67974	1
[	As-1	75	28.888	ug/L	0.931	3	10862	78494	0
[	Se	82	u 0.133	ug/L	0.025	18	2	35	16
[	Se	78	-0.619	ug/L	0.243	39	11031	11163	0
[	Mo	98	0.395	ug/L	0.003	0	20	2139	1
	Y	89		ug/L			398382	556197	2
	Kr	83		ug/L			433	743	3
[>	In	115		ug/L			957933	1035874	0
[	Ag	107	0.345	ug/L	0.008	2	20	3851	2
[	Cd	111	10.600	ug/L	0.028	0	85	55523	0
[	Cd	114	10.554	ug/L	0.078	0	45	139947	0
[	Sb	121	0.314	ug/L	0.007	2	252	5226	2
[	Sb	123	0.312	ug/L	0.006	1	176	3914	1
[	Ba	135	209.668	ug/L	1.089	0	41	1038213	0
[	Ba	137	208.834	ug/L	0.198	0	76	1807201	0
[>	Tb	159		ug/L			1116653	1207572	1
[	Tl	205	0.370	ug/L	0.012	3	235	15491	1
[	Pb	208	433.727	ug/L	6.213	1	687	22884762	0
[	Bi	209		ug/L			2666772	2726341	0
[	Th	232	4.155	ug/L	0.061	1	2215	215044	0
[	U	238	0.429	ug/L	0.009	2	34	22583	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 ADUP SWN
Sample Dil Factor: 20
Comments:

Ag Be Se

Sample Date/Time: Monday, November 26, 2012 16:35:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1582033	1
	Be	9	0.613	ug/L	0.031	5	14	2846	3
	C	13		ug/L			139850	203860	2
	Cl	37		ug/L			4987849	5204817	1
>	Sc	45		ug/L			1243958	1396675	1
	V	51	27.560	ug/L	0.571	2	9588	818712	1
	V-1	51	27.866	ug/L	0.664	2	77	812604	1
	Cr	52	25.661	ug/L	0.249	0	28352	654046	1
	Cr	53	26.688	ug/L	0.334	1	162	71953	0
	Mn	55	770.331	ug/L	21.067	2	1786	25842965	1
	Co	59	8.564	ug/L	0.174	2	102	207962	0
>	Ge	72		ug/L			622418	643171	0
	Ni	60	25.605	ug/L	0.686	2	20	111143	2
	Ni	62	27.655	ug/L	0.185	0	290	17260	1
	Cu	63	25.596	ug/L	0.070	0	228	246718	0
	Cu	65	25.815	ug/L	0.304	1	42	112068	0
	Zn	66	524.343	ug/L	2.078	0	140	1363665	0
	Zn	67	486.217	ug/L	11.233	2	25	211578	1
	Zn	68	509.153	ug/L	1.704	0	174	960433	0
	As	75	33.050	ug/L	0.158	0	143	74264	0
	As-1	75	32.178	ug/L	0.173	0	10862	84818	0
	Se	82	~ 0.159	ug/L	0.095	59	2	41	54
	Se	78	-0.257	ug/L	0.169	65	11031	11230	0
	Mo	98	0.441	ug/L	0.004	0	20	2353	0
	Y	89		ug/L			398382	563164	0
	Kr	83		ug/L			433	767	3
>	In	115		ug/L			957933	1051035	0
	Ag	107	0.404	ug/L	0.013	3	20	4570	3
	Cd	111	12.008	ug/L	0.180	1	85	63798	0
	Cd	114	12.109	ug/L	0.192	1	45	162893	1
	Sb	121	0.545	ug/L	0.005	0	252	9013	0
	Sb	123	0.540	ug/L	0.009	1	176	6729	0
	Ba	135	214.882	ug/L	4.138	1	41	1079466	1
	Ba	137	210.078	ug/L	2.150	1	76	1844496	0
>	Tb	159		ug/L			1116653	1207942	0
	Tl	205	0.386	ug/L	0.001	0	235	16169	0
	Pb	208	502.252	ug/L	5.839	1	687	26511427	0
	Bi	209		ug/L			2666772	2716988	0
	Th	232	3.962	ug/L	0.036	0	2215	205262	0
	U	238	0.458	ug/L	0.005	1	34	24149	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 16:39:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Ag Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1548715	1
	Be	9	27.002	ug/L	0.349	1	14	122087	0
	C	13		ug/L			139850	194219	1
	Cl	37		ug/L			4987849	5237509	2
>	Sc	45		ug/L			1243958	1400300	0
	V	51	55.582	ug/L	0.815	1	9588	1644696	1
	V-1	51	56.057	ug/L	0.780	1	77	1639121	1
	Cr	52	50.904	ug/L	1.271	2	28352	1269311	1
	Cr	53	52.464	ug/L	1.038	1	162	141649	1
	Mn	55	799.603	ug/L	16.425	2	1786	26900242	1
	Co	59	31.838	ug/L	0.258	0	102	774980	0
>	Ge	72		ug/L			622418	631527	0
	Ni	60	54.716	ug/L	0.343	0	20	233195	1
	Ni	62	56.985	ug/L	1.282	2	290	34604	1
	Cu	63	52.931	ug/L	0.850	1	228	500759	2
	Cu	65	53.194	ug/L	1.593	2	42	226677	2
	Zn	66	613.888	ug/L	9.587	1	140	1567488	1
	Zn	67	572.803	ug/L	7.312	1	25	244738	0
	Zn	68	604.584	ug/L	12.935	2	174	1119657	1
	As	75	59.929	ug/L	0.194	0	143	132106	1
	As-1	75	59.379	ug/L	0.277	0	10862	144365	0
	Se	82	86.545	ug/L	0.191	0	2	20601	1
	Se	78	83.188	ug/L	0.577	0	11031	65143	0
	Mo	98	25.079	ug/L	0.095	0	20	130135	1
	Y	89		ug/L			398382	572166	0
	Kr	83		ug/L			433	763	4
>	In	115		ug/L			957933	1048901	1
	Ag	107	24.796	ug/L	0.734	2	20	278756	1
	Cd	111	36.581	ug/L	1.131	3	85	193765	2
	Cd	114	36.535	ug/L	0.609	1	45	490358	0
	Sb	121	2.603	ug/L	0.036	1	252	41916	0
	Sb	123	2.601	ug/L	0.064	2	176	31604	1
	Ba	135	244.151	ug/L	5.858	2	41	1223902	1
	Ba	137	259.410	ug/L	4.399	1	76	2272762	0
>	Tb	159		ug/L			1116653	1205834	0
	Tl	205	25.562	ug/L	0.156	0	235	1051727	0
	Pb	208	514.599	ug/L	9.832	1	687	27114366	1
	Bi	209		ug/L			2666772	2695318	0
	Th	232	27.069	ug/L	0.209	0	2215	1385907	0
	U	238	26.388	ug/L	0.279	1	34	1386564	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 16:44:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Ag Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1482660	1557784 ✓	0
[	Be	9	0.516	ug/L	0.009	1	14	2362	2
	C	13		ug/L			139850	210305	0
	Cl	37		ug/L			4987849	5314264	1
[>	Sc	45		ug/L			1243958	1371978	0
	V	51	31.462	ug/L	0.684	2	9588	916831	2
	V-1	51	31.702	ug/L	0.392	1	77	908325	1
	Cr	52	23.769	ug/L	0.538	2	28352	597439	2
	Cr	53	24.458	ug/L	0.694	2	162	64790	2
	Mn	55	518.817	ug/L	11.352	2	1786	17102195	2
[	Co	59	6.120	ug/L	0.041	0	102	146052	1
[>	Ge	72		ug/L			622418	634779 ✓	1
	Ni	60	18.416	ug/L	0.356	1	20	78901	2
	Ni	62	20.114	ug/L	0.481	2	290	12470	2
	Cu	63	22.082	ug/L	0.432	1	228	210078	1
	Cu	65	22.134	ug/L	0.554	2	42	94822	1
	Zn	66	187.739	ug/L	0.590	0	140	481982	1
	Zn	67	189.740	ug/L	1.897	0	25	81512	2
	Zn	68	188.835	ug/L	2.760	1	174	351623	0
	As	75	9.083	ug/L	0.161	1	143	20247	1
	As-1	75	8.742	ug/L	0.195	2	10862	30808	0
	Se	82	0.681	ug/L	0.022	3	2	165	3
	Se	78	0.354	ug/L	0.144	40	11031	11480	0
[	Mo	98	0.381	ug/L	0.011	2	20	2010	3
	Y	89		ug/L			398382	617570	1
	Kr	83		ug/L			433	676	1
[>	In	115		ug/L			957933	1004847 ✓	0
	Ag	107	W 0.198	ug/L	0.002	1	20	2154	0
	Cd	111	2.587	ug/L	0.060	2	85	13212	1
	Cd	114	2.468	ug/L	0.039	1	45	31774	0
	Sb	121	0.221	ug/L	0.004	1	252	3658	1
	Sb	123	0.229	ug/L	0.006	2	176	2836	2
	Ba	135	273.705	ug/L	3.848	1	41	1314662	1
[	Ba	137	288.572	ug/L	4.917	1	76	2422175	0
[>	Tb	159		ug/L			1116653	1196663	0
	Tl	205	0.201	ug/L	0.000	0	235	8455	0
	Pb	208	111.362	ug/L	1.205	1	687	5823826	0
	Bi	209		ug/L			2666772	2679476	0
	Th	232	3.336	ug/L	0.035	1	2215	171555	0
[	U	238	1.759	ug/L	0.006	0	34	91752	1

ICP-MS Quantitative Analysis - Summary Report

Ag Be Se

Sample ID: VS20 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 16:48:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1551265	1
	Be	9	0.594	ug/L	0.021	3	14	2706	2
	C	13		ug/L			139850	195711	0
	Cl	37		ug/L			4987849	5128996	1
>	Sc	45		ug/L			1243958	1370638	2
	V	51	25.356	ug/L	0.632	2	9588	739988	2
	V-1	51	25.563	ug/L	0.748	2	77	731445	1
	Cr	52	21.002	ug/L	0.100	0	28352	530986	1
	Cr	53	21.640	ug/L	0.718	3	162	57269	1
	Mn	55	1596.357	ug/L	28.778	1	1786	52559760	1
	Co	59	6.806	ug/L	0.245	3	102	162195	2
>	Ge	72		ug/L			622418	641474	1
	Ni	60	17.344	ug/L	0.214	1	20	75089	1
	Ni	62	18.972	ug/L	0.441	2	290	11900	1
	Cu	63	24.465	ug/L	0.230	0	228	235235	2
	Cu	65	24.156	ug/L	0.538	2	42	104602	3
	Zn	66	708.772	ug/L	3.361	0	140	1838293	1
	Zn	67	662.906	ug/L	19.310	2	25	287714	3
	Zn	68	706.361	ug/L	11.209	1	174	1328629	0
	As	75	20.692	ug/L	0.223	1	143	46423	0
	As-1	75	20.055	ug/L	0.283	1	10862	56934	0
	Se	82	u 0.278	ug/L	0.063	22	2	70	19
	Se	78	-0.272	ug/L	0.274	100	11031	11188	0
	Mo	98	0.396	ug/L	0.015	3	20	2107	4
	Y	89		ug/L			398382	573991	2
	Kr	83		ug/L			433	677	2
>	In	115		ug/L			957933	1064370	1
	Ag	107	0.274	ug/L	0.017	6	20	3144	6
	Cd	111	13.632	ug/L	0.114	0	85	73339	1
	Cd	114	13.367	ug/L	0.244	1	45	182088	0
	Sb	121	0.720	ug/L	0.015	2	252	11970	1
	Sb	123	0.732	ug/L	0.017	2	176	9163	1
	Ba	135	595.414	ug/L	11.959	2	41	3028921	1
	Ba	137	577.966	ug/L	13.086	2	76	5138458	1
>	Tb	159		ug/L			1116653	1176653	0
	Tl	205	0.598	ug/L	0.017	2	235	24250	2
	Pb	208	510.070	ug/L	9.505	1	687	26225248	1
	Bi	209		ug/L			2666772	2679780	0
	Th	232	3.562	ug/L	0.091	2	2215	179963	1
	U	238	0.575	ug/L	0.015	2	34	29509	1

ICP-MS Quantitative Analysis - Summary Report

Ag Be

Sample ID: VS20 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 16:52:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1521438	3
	Be	9	0.450	ug/L	0.024	5	14	2013	4
	C	13		ug/L			139850	197550	3
	Cl	37		ug/L			4987849	5146168	1
>	Sc	45		ug/L			1243958	1378361	2
	V	51	25.420	ug/L	0.852	3	9588	745824	0
	V-1	51	25.614	ug/L	1.049	4	77	736834	1
	Cr	52	15.782	ug/L	0.206	1	28352	409076	2
	Cr	53	16.275	ug/L	0.708	4	162	43350	2
	Mn	55	1922.319	ug/L	57.344	2	1786	63631917	1
	Co	59	6.890	ug/L	0.326	4	102	165043	2
>	Ge	72		ug/L			622418	643055	2
	Ni	60	14.347	ug/L	0.638	4	20	62227	1
	Ni	62	15.614	ug/L	0.642	4	290	9867	1
	Cu	63	25.103	ug/L	0.466	1	228	241855	0
	Cu	65	24.819	ug/L	0.406	1	42	107700	0
	Zn	66	401.895	ug/L	8.543	2	140	1044683	0
	Zn	67	393.616	ug/L	18.946	4	25	171128	2
	Zn	68	406.959	ug/L	12.207	2	174	767205	1
	As	75	21.805	ug/L	0.682	3	143	49012	0
	As-1	75	21.157	ug/L	0.818	3	10862	59568	0
	Se	82	0.212	ug/L	0.024	11	2	54	12
	Se	78	-0.289	ug/L	0.556	191	11031	11200	0
	Mo	98	0.536	ug/L	0.027	5	20	2852	2
	Y	89		ug/L			398382	532249	1
	Kr	83		ug/L			433	685	4
>	In	115		ug/L			957933	1042913	3
	Ag	107	0.345	ug/L	0.012	3	20	3877	0
	Cd	111	7.474	ug/L	0.327	4	85	39404	1
	Cd	114	7.311	ug/L	0.381	5	45	97511	1
	Sb	121	0.945	ug/L	0.025	2	252	15307	1
	Sb	123	0.941	ug/L	0.029	3	176	11482	1
	Ba	135	498.890	ug/L	15.288	3	41	2485400	1
	Ba	137	487.845	ug/L	21.145	4	76	4246123	0
>	Tb	159		ug/L			1116653	1190599	2
	Tl	205	0.452	ug/L	0.017	3	235	18595	1
	Pb	208	402.059	ug/L	12.713	3	687	20908771	0
	Bi	209		ug/L			2666772	2693779	2
	Th	232	2.802	ug/L	0.098	3	2215	143717	1
	U	238	0.505	ug/L	0.018	3	34	26232	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 16:56:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Ag Be Se

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1482660	1606691	2
[	Be	9	2.116	ug/L	0.056	2	14	9935	0
	C	13		ug/L			139850	246992	1
	Cl	37		ug/L			4987849	5222664	0
[>	Sc	45		ug/L			1243958	1458319	1
[	V	51	31.294	ug/L	0.221	0	9588	969331	2
[	V-1	51	31.573	ug/L	0.164	0	77	961456	1
[	Cr	52	25.721	ug/L	0.649	2	28352	684364	2
[	Cr	53	26.584	ug/L	0.929	3	162	74814	1
[	Mn	55	2856.671	ug/L	46.762	1	1786	100074253	1
[	Co	59	24.326	ug/L	0.441	1	102	616709	2
[>	Ge	72		ug/L			622418	637521	0
[	Ni	60	73.191	ug/L	1.201	1	20	314861	1
[	Ni	62	74.510	ug/L	2.477	3	290	45584	2
[	Cu	63	60.935	ug/L	1.490	2	228	581847	2
[	Cu	65	60.834	ug/L	2.633	4	42	261666	3
[	Zn	66	415.327	ug/L	13.257	3	140	1070541	2
[	Zn	67	390.261	ug/L	7.215	1	25	168332	1
[	Zn	68	414.750	ug/L	2.563	0	174	775536	1
[	As	75	15.963	ug/L	0.304	1	143	35627	1
[	As-1	75	15.209	ug/L	0.335	2	10862	45601	0
[	Se	82	1.567	ug/L	0.019	1	2	379	0
[	Se	78	~ 0.949	ug/L	0.095	10	11031	11920	0
[	Mo	98	1.963	ug/L	0.041	2	20	10298	1
	Y	89		ug/L			398382	1122820	1
	Kr	83		ug/L			433	1286	4
[>	In	115		ug/L			957933	979573	1
[	Ag	107	1.348	ug/L	0.015	1	20	14173	0
[	Cd	111	4.346	ug/L	0.100	2	85	21574	0
[	Cd	114	4.114	ug/L	0.052	1	45	51606	0
[	Sb	121	0.257	ug/L	0.006	2	252	4104	0
[	Sb	123	0.251	ug/L	0.007	2	176	3008	1
[	Ba	135	160.832	ug/L	5.493	3	41	752855	1
[	Ba	137	159.172	ug/L	3.910	2	76	1302271	0
[>	Tb	159		ug/L			1116653	1225562	0
[	Tl	205	0.189	ug/L	0.002	1	235	8164	1
[	Pb	208	239.017	ug/L	1.241	0	687	12801503	0
[	Bi	209		ug/L			2666772	2580802	0
[	Th	232	6.087	ug/L	0.039	0	2215	318657	0
[	U	238	0.866	ug/L	0.006	0	34	46274	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 F SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 17:01:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1482660	1598341	0
[	**Be**	**9**	**0.435**	ug/L	0.011	2	14	2046	2
	C	**13**		ug/L			139850	167104	4
	Cl	**37**		ug/L			4987849	5240022	1
[>	**Sc**	**45**		ug/L			1243958	1335536	1
|	**V**	**51**	**6.592**	ug/L	0.057	0	9588	195109	0
|	**V-1**	**51**	**6.643**	ug/L	0.060	0	77	185310	0
|	**Cr**	**52**	**5.359**	ug/L	0.077	1	28352	154705	1
|	**Cr**	**53**	**5.511**	ug/L	0.067	1	162	14348	1
|	**Mn**	**55**	**605.503**	ug/L	12.278	2	1786	19426484	0
[	**Co**	**59**	**5.195**	ug/L	0.031	0	102	120689	1
[>	**Ge**	**72**		ug/L			622418	646205	0
|	**Ni**	**60**	**13.791**	ug/L	0.032	0	20	60157	0
|	**Ni**	**62**	**14.228**	ug/L	0.332	2	290	9067	2
|	**Cu**	**63**	**11.952**	ug/L	0.134	1	228	115868	0
|	**Cu**	**65**	**11.862**	ug/L	0.415	3	42	51754	2
|	**Zn**	**66**	**85.759**	ug/L	1.191	1	140	224195	1
|	**Zn**	**67**	**80.729**	ug/L	2.176	2	25	35315	2
|	**Zn**	**68**	**85.066**	ug/L	0.572	0	174	161367	0
|	**As**	**75**	**3.152**	ug/L	0.020	0	143	7252	0
|	**As-1**	**75**	**2.850**	ug/L	0.043	1	10862	17827	0
|	**Se**	**82**	**0.385**	ug/L	0.048	12	2	96	12
|	**Se**	**78**	**-0.331**	ug/L	0.112	33	11031	11233	0
[	**Mo**	**98**	**0.369**	ug/L	0.004	1	20	1981	1
	Y	**89**		ug/L			398382	563120	0
	Kr	**83**		ug/L			433	567	6
[>	**In**	**115**		ug/L			957933	1003059	1
|	**Ag**	**107**	**0.269**	ug/L	0.010	3	20	2913	2
|	**Cd**	**111**	**0.853**	ug/L	0.012	1	85	4406	2
|	**Cd**	**114**	**0.837**	ug/L	0.020	2	45	10794	1
|	**Sb**	**121**	**0.040**	ug/L	0.003	7	252	878	5
|	**Sb**	**123**	**0.041**	ug/L	0.001	2	176	655	2
|	**Ba**	**135**	**30.778**	ug/L	0.124	0	41	147618	1
[	**Ba**	**137**	**30.435**	ug/L	0.246	0	76	255085	0
[>	**Tb**	**159**		ug/L			1116653	1191967	0
|	**Tl**	**205**	**0.034**	ug/L	0.000	1	235	1653	0
|	**Pb**	**208**	**44.416**	ug/L	0.543	1	687	2314180	0
|	**Bi**	**209**		ug/L			2666772	2750256	0
|	**Th**	**232**	**1.153**	ug/L	0.018	1	2215	60607	1
[	**U**	**238**	**0.170**	ug/L	0.002	1	34	8886	1

VS21 : 00254

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 B SWN
Sample Dil Factor: 100
Comments:

Pb Zn

Sample Date/Time: Monday, November 26, 2012 17:05:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1555331	2
	Be	9	0.113	ug/L	0.005	4	14	528	2
	C	13		ug/L			139850	157704	2
	Cl	37		ug/L			4987849	5108882	2
>	Sc	45		ug/L			1243958	1341689	0
	V	51	8.054	ug/L	0.186	2	9588	237200	2
	V-1	51	8.140	ug/L	0.142	1	77	228122	2
	Cr	52	6.388	ug/L	0.140	2	28352	179367	1
	Cr	53	6.653	ug/L	0.079	1	162	17365	1
	Mn	55	216.159	ug/L	3.785	1	1786	6969048	1
	Co	59	1.733	ug/L	0.014	0	102	40513	1
>	Ge	72		ug/L			622418	648668	2
	Ni	60	4.454	ug/L	0.028	0	20	19513	2
	Ni	62	4.622	ug/L	0.151	3	290	3160	3
	Cu	63	7.043	ug/L	0.203	2	228	68610	0
	Cu	65	7.039	ug/L	0.167	2	42	30843	1
	Zn	66	73.195	ug/L	3.303	4	140	191976	2
	Zn	67	73.451	ug/L	1.153	1	25	32252	1
	Zn	68	75.009	ug/L	2.585	3	174	142789	1
	As	75	2.197	ug/L	0.060	2	143	5116	0
	As-1	75	1.930	ug/L	0.168	8	10862	15767	0
	Se	82	0.025	ug/L	0.010	38	2	9	23
	Se	78	-0.715	ug/L	0.417	58	11031	11016	0
	Mo	98	0.080	ug/L	0.004	4	20	449	1
	Y	89		ug/L			398382	451537	2
	Kr	83		ug/L			433	479	4
>	In	115		ug/L			957933	1003916	1
	Ag	107	0.040	ug/L	0.003	7	20	455	6
	Cd	111	1.463	ug/L	0.025	1	85	7504	0
	Cd	114	1.464	ug/L	0.016	1	45	18848	0
	Sb	121	0.061	ug/L	0.003	5	252	1190	3
	Sb	123	0.063	ug/L	0.003	4	176	916	4
	Ba	135	100.645	ug/L	0.896	0	41	482976	0
	Ba	137	99.675	ug/L	1.909	1	76	835870	0
>	Tb	159		ug/L			1116653	1164135	0
	Tl	205	0.073	ug/L	0.002	2	235	3158	2
	Pb	208	65.150	ug/L	0.035	0	687	3315013	0
	Bi	209		ug/L			2666772	2771296	0
	Th	232	0.842	ug/L	0.011	1	2215	43837	1
	U	238	0.171	ug/L	0.001	0	34	8689	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 17:09:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1482660	1505351 ✓	2
[	Be	9	53.502	ug/L	0.916	1	14	235087	0
	C	13		ug/L			139850	138819	3
	Cl	37		ug/L			4987849	5182693	2
[>	Sc	45		ug/L			1243958	1274714 ✓	0
[	V	51	48.709	ug/L	0.590	1	9588	1313341	1
[	V-1	51	48.728	ug/L	0.927	1	77	1297115	2
[	Cr	52	49.094	ug/L	0.905	1	28352	1115430	1
[	Cr	53	49.168	ug/L	1.544	3	162	120854	2
[	Mn	55	49.041	ug/L	0.178	0	1786	1503705	0
[	Co	59	47.462	ug/L	1.455	3	102	1051587	2
[>	Ge	72		ug/L			622418	626602 ✓	0
[	Ni	60	51.900	ug/L	0.645	1	20	219463	1
[	Ni	62	52.229	ug/L	0.336	0	290	31497	0
[	Cu	63	52.789	ug/L	0.178	0	228	495479	0
[	Cu	65	50.754	ug/L	1.035	2	42	214616	1
[	Zn	66	52.309	ug/L	0.737	1	140	132661	1
[	Zn	67	52.158	ug/L	0.609	1	25	22135	1
[	Zn	68	53.071	ug/L	0.981	1	174	97685	1
[	As	75	52.912	ug/L	0.584	1	143	115746	1
[	As-1	75	52.286	ug/L	0.510	0	10862	127438	1
[	Se	82	54.989	ug/L	0.888	1	2	12988	1
[	Se	78	52.694	ug/L	0.675	1	11031	45014	1
[	Mo	98	52.255	ug/L	1.132	2	20	268996	1
	Y	89		ug/L			398382	406394	1
	Kr	83		ug/L			433	473	3
[>	In	115		ug/L			957933	976424 ✓	0
[	Ag	107	53.694	ug/L	1.403	2	20	562006	2
[	Cd	111	51.974	ug/L	0.513	0	85	256261	0
[	Cd	114	52.047	ug/L	0.465	0	45	650345	0
[	Sb	121	52.167	ug/L	0.766	1	252	777237	0
[	Sb	123	51.976	ug/L	0.429	0	176	584624	1
[	Ba	135	50.577	ug/L	0.193	0	41	236097	0
[	Ba	137	50.077	ug/L	0.160	0	76	408547	1
[>	Tb	159		ug/L			1116653	1157492 ✓	2
[	Tl	205	49.401	ug/L	1.108	2	235	1950248	0
[	Pb	208	50.584	ug/L	0.680	1	687	2558846	1
[	Bi	209		ug/L			2666772	2674791	0
[	Th	232	53.725	ug/L	1.137	2	2215	2637645	1
[	U	238	55.279	ug/L	1.663	3	34	2787094	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 17:16:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1493416 ✓	1
	Be	9	0.001	ug/L	0.001	129	14	17	20
	C	13		ug/L			139850	139419	0
	Cl	37		ug/L			4987849	5013419	1
>	Sc	45		ug/L			1243958	1217026 ✓	0
	V	51	0.005	ug/L	0.013	265	9588	9504	3
	V-1	51	0.000	ug/L	0.000	1809	77	76	8
	Cr	52	0.017	ug/L	0.048	275	28352	28105	3
	Cr	53	0.001	ug/L	0.004	476	162	160	5
	Mn	55	-0.040	ug/L	0.001	2	1786	577	5
	Co	59	0.000	ug/L	0.001	264	102	105	11
>	Ge	72		ug/L			622418	613667 ✓	2
	Ni	60	0.002	ug/L	0.001	81	20	27	20
	Ni	62	-0.094	ug/L	0.035	37	290	231	11
	Cu	63	0.005	ug/L	0.003	54	228	267	6
	Cu	65	0.005	ug/L	0.002	35	42	62	13
	Zn	66	0.001	ug/L	0.010	1244	140	140	19
	Zn	67	-0.012	ug/L	0.011	88	25	19	22
	Zn	68	0.001	ug/L	0.005	334	174	175	7
	As	75	-0.004	ug/L	0.015	391	143	133	21
	As-1	75	-0.006	ug/L	0.117	2109	10862	10693	0
	Se	82	-0.020	ug/L	0.013	66	2	-1	181
	Se	78	0.003	ug/L	0.380	12625	11031	10874	0
	Mo	98	0.005	ug/L	0.001	17	20	45	8
	Y	89		ug/L			398382	389074	2
	Kr	83		ug/L			433	449	2
>	In	115		ug/L			957933	936116 ✓	3
	Ag	107	0.002	ug/L	0.001	40	20	35	15
	Cd	111	0.001	ug/L	0.002	407	85	85	9
	Cd	114	0.001	ug/L	0.001	189	45	50	22
	Sb	121	0.041	ug/L	0.003	7	252	833	8
	Sb	123	0.041	ug/L	0.003	7	176	611	7
	Ba	135	-0.005	ug/L	0.000	8	41	17	12
	Ba	137	-0.006	ug/L	0.001	19	76	31	25
>	Tb	159		ug/L			1116653	1093824 ✓	2
	Tl	205	0.002	ug/L	0.002	96	235	315	27
	Pb	208	-0.006	ug/L	0.000	1	687	385	1
	Bi	209		ug/L			2666772	2628631	1
	Th	232	0.139	ug/L	0.018	13	2215	8625	11
	U	238	0.002	ug/L	0.000	8	34	149	6

ICP-MS Quantitative Analysis - Summary Report

Pb Zn

Sample ID: VS20 A-L SWN
Sample Dil Factor: 500
Comments:
Sample Date/Time: Monday, November 26, 2012 17:23:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	*Li*	6		ug/L			1482660	1558731	1
	Be	9	0.023	ug/L	0.002	7	14	121	6
	C	13		ug/L			139850	145957	2
	Cl	37		ug/L			4987849	5037310	1
>	Sc	45		ug/L			1243958	1287255	1
	V	51	1.262	ug/L	0.027	2	9588	44022	0
	V-1	51	1.299	ug/L	0.034	2	77	34990	1
	Cr	52	1.072	ug/L	0.026	2	28352	53292	2
	Cr	53	1.196	ug/L	0.020	1	162	3133	1
	Mn	55	30.531	ug/L	0.385	1	1786	946024	1
	Co	59	0.364	ug/L	0.005	1	102	8252	2
>	Ge	72		ug/L			622418	647589	1
	Ni	60	1.064	ug/L	0.017	1	20	4670	1
	Ni	62	0.968	ug/L	0.025	2	290	900	2
	Cu	63	0.946	ug/L	0.021	2	228	9404	0
	Cu	65	0.958	ug/L	0.003	0	42	4229	1
	Zn	66	20.248	ug/L	0.800	3	140	53137	2
	Zn	67	18.625	ug/L	0.483	2	25	8184	1
	Zn	68	19.956	ug/L	0.873	4	174	38056	2
	As	75	1.241	ug/L	0.041	3	143	2950	1
	As-1	75	0.967	ug/L	0.137	14	10862	13525	0
	Se	82	-0.003	ug/L	0.025	986	2	2	250
	Se	78	-0.863	ug/L	0.370	42	11031	10901	1
	Mo	98	0.018	ug/L	0.002	12	20	115	10
	Y	89		ug/L			398382	417530	0
	Kr	83		ug/L			433	451	2
>	In	115		ug/L			957933	995278	0
	Ag	107	0.015	ug/L	0.001	4	20	185	4
	Cd	111	0.462	ug/L	0.015	3	85	2410	2
	Cd	114	0.465	ug/L	0.001	0	45	5966	0
	Sb	121	0.014	ug/L	0.001	8	252	471	4
	Sb	123	0.014	ug/L	0.003	23	176	338	11
	Ba	135	8.750	ug/L	0.043	0	41	41668	0
	Ba	137	8.765	ug/L	0.016	0	76	72952	0
>	Tb	159		ug/L			1116653	1157857	0
	Tl	205	0.018	ug/L	0.003	15	235	956	10
	Pb	208	17.091	ug/L	0.165	0	687	865435	0
	Bi	209		ug/L			2666772	2784795	0
	Th	232	0.185	ug/L	0.009	4	2215	11365	3
	U	238	0.018	ug/L	0.001	5	34	967	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 A SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 17:27:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1555887	1
	Be	9	0.119	ug/L	0.005	3	14	554	2
	C	13		ug/L			139850	152820	1
	Cl	37		ug/L			4987849	5010275	4
>	Sc	45		ug/L			1243958	1307551	1
	V	51	6.270	ug/L	0.111	1	9588	182179	2
	V-1	51	6.291	ug/L	0.086	1	77	171833	1
	Cr	52	5.799	ug/L	0.208	3	28352	161410	2
	Cr	53	5.864	ug/L	0.192	3	162	14931	1
	Mn	55	158.804	ug/L	0.982	0	1786	4990345	1
	Co	59	1.837	ug/L	0.054	2	102	41832	1
>	Ge	72		ug/L			622418	655447	1
	Ni	60	5.250	ug/L	0.021	0	20	23238	1
	Ni	62	5.412	ug/L	0.118	2	290	3687	1
	Cu	63	4.642	ug/L	0.065	1	228	45791	1
	Cu	65	4.678	ug/L	0.091	1	42	20730	1
	Zn	66	97.403	ug/L	1.489	1	140	258221	0
	Zn	67	90.472	ug/L	3.235	3	25	40127	1
	Zn	68	95.550	ug/L	1.726	1	174	183791	0
	As	75	6.160	ug/L	0.164	2	143	14224	0
	As-1	75	5.769	ug/L	0.241	4	10862	24878	0
	Se	82	0.038	ug/L	0.013	33	2	12	24
	Se	78	-0.880	ug/L	0.287	32	11031	11022	0
	Mo	98	0.077	ug/L	0.006	7	20	434	7
	Y	89		ug/L			398382	433621	2
	Kr	83		ug/L			433	472	1
>	In	115		ug/L			957933	1007374	0
	Ag	107	0.073	ug/L	0.001	1	20	809	1
	Cd	111	2.281	ug/L	0.022	0	85	11688	0
	Cd	114	2.230	ug/L	0.026	1	45	28791	0
	Sb	121	0.059	ug/L	0.002	2	252	1167	2
	Sb	123	0.058	ug/L	0.003	4	176	857	4
	Ba	135	43.033	ug/L	0.791	1	41	207247	1
	Ba	137	42.483	ug/L	0.854	2	76	357559	1
>	Tb	159		ug/L			1116653	1168462	1
	Tl	205	0.077	ug/L	0.004	5	235	3317	4
	Pb	208	88.709	ug/L	0.868	0	687	4529877	0
	Bi	209		ug/L			2666772	2766410	0
	Th	232	0.841	ug/L	0.016	1	2215	43981	1
	U	238	0.087	ug/L	0.003	3	34	4489	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 ADUP SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 17:31:18
Number of Replicates: 3
Method File: C:\NexION\Data\Method\200.8nomin.mth
Tuning File: C:\NexION\Data\MassCal\Default.tun
Optimization File: C:\NexION\Data\Conditions\Default.dac
Calibration File: C:\NexION\Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1531155	1
	Be	9	0.133	ug/L	0.008	5	14	609	4
	C	13		ug/L			139850	153464	3
	Cl	37		ug/L			4987849	5070720	1
>	Sc	45		ug/L			1243958	1311779	2
	V	51	5.957	ug/L	0.235	3	9588	174062	1
	V-1	51	6.036	ug/L	0.200	3	77	165332	0
	Cr	52	5.325	ug/L	0.233	4	28352	151089	1
	Cr	53	5.587	ug/L	0.121	2	162	14281	1
	Mn	55	161.400	ug/L	5.595	3	1786	5086395	2
	Co	59	1.832	ug/L	0.054	2	102	41860	3
>	Ge	72		ug/L			622418	651143	0
	Ni	60	5.094	ug/L	0.018	0	20	22402	0
	Ni	62	5.207	ug/L	0.091	1	290	3536	1
	Cu	63	5.240	ug/L	0.079	1	228	51324	2
	Cu	65	5.188	ug/L	0.029	0	42	22837	1
	Zn	66	106.339	ug/L	1.235	1	140	280103	1
	Zn	67	99.749	ug/L	2.979	2	25	43960	2
	Zn	68	105.900	ug/L	0.364	0	174	202385	1
	As	75	6.566	ug/L	0.048	0	143	15058	1
	As-1	75	6.148	ug/L	0.048	0	10862	25598	0
	Se	82	0.077	ug/L	0.027	35	2	22	30
	Se	78	-0.917	ug/L	0.083	9	11031	10927	0
	Mo	98	0.083	ug/L	0.003	3	20	466	3
	Y	89		ug/L			398382	449435	2
	Kr	83		ug/L			433	465	1
>	In	115		ug/L			957933	1006810	0
	Ag	107	0.084	ug/L	0.002	1	20	926	2
	Cd	111	2.588	ug/L	0.015	0	85	13242	1
	Cd	114	2.493	ug/L	0.013	0	45	32168	1
	Sb	121	0.104	ug/L	0.004	3	252	1861	3
	Sb	123	0.105	ug/L	0.005	4	176	1404	3
	Ba	135	42.862	ug/L	1.053	2	41	206292	1
	Ba	137	42.634	ug/L	0.353	0	76	358646	0
>	Tb	159		ug/L			1116653	1170657	0
	Tl	205	0.081	ug/L	0.001	1	235	3492	1
	Pb	208	100.652	ug/L	0.422	0	687	5149699	0
	Bi	209		ug/L			2666772	2794997	0
	Th	232	0.779	ug/L	0.009	1	2215	40994	0
	U	238	0.092	ug/L	0.001	1	34	4722	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 ASPK SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 17:35:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1526513	1
	Be	9	5.724	ug/L	0.047	0	14	25520	0
	C	13		ug/L			139850	155598	2
	Cl	37		ug/L			4987849	5095185	1
>	Sc	45		ug/L			1243958	1294930	0
	V	51	11.650	ug/L	0.078	0	9588	326682	1
	V-1	51	11.793	ug/L	0.108	0	77	318967	1
	Cr	52	10.872	ug/L	0.136	1	28352	273917	0
	Cr	53	11.355	ug/L	0.145	1	162	28485	1
	Mn	55	178.537	ug/L	0.593	0	1786	5556264	0
	Co	59	6.928	ug/L	0.142	2	102	156042	2
>	Ge	72		ug/L			622418	654388	2
	Ni	60	10.546	ug/L	0.103	0	20	46580	1
	Ni	62	10.992	ug/L	0.458	4	290	7158	2
	Cu	63	10.539	ug/L	0.406	3	228	103426	1
	Cu	65	10.567	ug/L	0.364	3	42	46673	1
	Zn	66	125.706	ug/L	4.105	3	140	332541	1
	Zn	67	114.627	ug/L	5.398	4	25	50729	2
	Zn	68	121.483	ug/L	3.517	2	174	233165	0
	As	75	11.980	ug/L	0.223	1	143	27475	1
	As-1	75	11.633	ug/L	0.443	3	10862	38470	0
	Se	82	17.824	ug/L	0.366	2	2	4397	0
	Se	78	16.283	ug/L	1.171	7	11031	22526	0
	Mo	98	4.708	ug/L	0.210	4	20	25307	1
	Y	89		ug/L			398382	452208	1
	Kr	83		ug/L			433	506	4
>	In	115		ug/L			957933	1008495	0
	Ag	107	5.279	ug/L	0.056	1	20	57086	0
	Cd	111	7.928	ug/L	0.095	1	85	40450	1
	Cd	114	7.784	ug/L	0.039	0	45	100496	0
	Sb	121	0.536	ug/L	0.006	1	252	8506	1
	Sb	123	0.540	ug/L	0.007	1	176	6451	1
	Ba	135	49.909	ug/L	0.557	1	41	240632	0
	Ba	137	49.166	ug/L	0.350	0	76	414286	0
>	Tb	159		ug/L			1116653	1179715	0
	Tl	205	5.259	ug/L	0.093	1	235	211870	0
	Pb	208	104.353	ug/L	1.140	1	687	5380027	0
	Bi	209		ug/L			2666772	2792007	0
	Th	232	5.357	ug/L	0.049	0	2215	270192	0
	U	238	5.256	ug/L	0.037	0	34	270224	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 C SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 17:39:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1482660	1514758	0
[	**Be**	**9**	**0.235**	ug/L	0.007	3	14	1055	3
	C	**13**		ug/L			139850	166231	0
	Cl	**37**		ug/L			4987849	5058214	1
[>	**Sc**	**45**		ug/L			1243958	1278269	2
|	**V**	**51**	**5.100**	ug/L	0.133	2	9588	146666	0
|	**V-1**	**51**	**5.142**	ug/L	0.097	1	77	137292	0
|	**Cr**	**52**	**4.298**	ug/L	0.172	3	28352	124461	0
|	**Cr**	**53**	**4.428**	ug/L	0.046	1	162	11066	1
|	**Mn**	**55**	**1229.788**	ug/L	35.210	2	1786	37754776	1
[	**Co**	**59**	**4.449**	ug/L	0.190	4	102	98883	2
[>	**Ge**	**72**		ug/L			622418	648608	2
|	**Ni**	**60**	**9.949**	ug/L	0.174	1	20	43555	1
|	**Ni**	**62**	**9.810**	ug/L	0.334	3	290	6366	1
|	**Cu**	**63**	**11.762**	ug/L	0.174	1	228	114442	1
|	**Cu**	**65**	**11.738**	ug/L	0.262	2	42	51395	0
|	**Zn**	**66**	**284.690**	ug/L	6.402	2	140	746523	1
|	**Zn**	**67**	**264.202**	ug/L	5.343	2	25	115922	0
|	**Zn**	**68**	**282.284**	ug/L	10.811	3	174	536761	1
|	**As**	**75**	**10.837**	ug/L	0.290	2	143	24648	0
|	**As-1**	**75**	**10.360**	ug/L	0.383	3	10862	35201	0
|	**Se**	**82**	**0.270**	ug/L	0.033	12	2	69	14
|	**Se**	**78**	**-0.578**	ug/L	0.359	62	11031	11107	0
[	**Mo**	**98**	**0.224**	ug/L	0.013	5	20	1211	3
	Y	**89**		ug/L			398382	473332	1
	Kr	**83**		ug/L			433	524	7
[>	**In**	**115**		ug/L			957933	1015070	0
|	**Ag**	**107**	**0.150**	ug/L	0.006	4	20	1657	3
|	**Cd**	**111**	**8.147**	ug/L	0.115	1	85	41836	0
|	**Cd**	**114**	**8.135**	ug/L	0.128	1	45	105711	1
|	**Sb**	**121**	**0.456**	ug/L	0.007	1	252	7335	1
|	**Sb**	**123**	**0.457**	ug/L	0.005	1	176	5523	0
|	**Ba**	**135**	**103.513**	ug/L	0.364	0	41	502291	0
[	**Ba**	**137**	**102.697**	ug/L	1.645	1	76	870884	1
[>	**Tb**	**159**		ug/L			1116653	1153701	0
|	**Tl**	**205**	**0.221**	ug/L	0.003	1	235	8950	0
|	**Pb**	**208**	**246.310**	ug/L	2.277	0	687	12418111	0
|	**Bi**	**209**		ug/L			2666772	2746400	0
|	**Th**	**232**	**0.860**	ug/L	0.011	1	2215	44340	1
[	**U**	**238**	**0.153**	ug/L	0.002	1	34	7742	2

VS21 : 00262

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 D SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 17:43:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Pb 11.26.12 MJT

Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1482660	1562121	1
[	Be	9	0.177	ug/L	0.008	4	14	823	2
	C	13		ug/L			139850	170323	2
	Cl	37		ug/L			4987849	5462331	2
[>	Sc	45		ug/L			1243958	1336939	1
[	V	51	3.696	ug/L	0.023	0	9588	114037	0
[	V-1	51	3.733	ug/L	0.021	0	77	104292	0
[	Cr	52	2.763	ug/L	0.076	2	28352	94581	0
[	Cr	53	2.874	ug/L	0.072	2	162	7571	1
[	Mn	55	1142.942	ug/L	20.211	1	1786	36707635	0
[	Co	59	3.824	ug/L	0.090	2	102	88955	1
[>	Ge	72		ug/L			622418	661312	0
[	Ni	60	7.755	ug/L	0.188	2	20	34625	1
[	Ni	62	7.660	ug/L	0.124	1	290	5138	2
[	Cu	63	12.437	ug/L	0.192	1	228	123380	1
[	Cu	65	12.343	ug/L	0.113	0	42	55117	0
[	Zn	66	236.269	ug/L	5.083	2	140	631806	1
[	Zn	67	216.569	ug/L	0.621	0	25	96918	0
[	Zn	68	231.841	ug/L	6.662	2	174	449697	2
[	As	75	4.277	ug/L	0.045	1	143	10014	0
[	As-1	75	3.885	ug/L	0.078	2	10862	20675	0
[	Se	82	0.264	ug/L	0.067	25	2	68	24
[	Se	78	-0.764	ug/L	0.081	10	11031	11202	0
[	Mo	98	0.205	ug/L	0.008	3	20	1133	3
	Y	89		ug/L			398382	470146	1
	Kr	83		ug/L			433	509	1
[>	In	115		ug/L			957933	1030893	1
[	Ag	107	0.225	ug/L	0.005	2	20	2502	0
[	Cd	111	5.715	ug/L	0.069	1	85	29829	1
[	Cd	114	5.684	ug/L	0.177	3	45	75010	1
[	Sb	121	0.633	ug/L	0.007	1	252	10231	0
[	Sb	123	0.635	ug/L	0.023	3	176	7728	2
[	Ba	135	82.630	ug/L	1.708	2	41	407137	0
[	Ba	137	81.364	ug/L	2.525	3	76	700560	1
[>	Tb	159		ug/L			1116653	1173213	1
[	Tl	205	0.180	ug/L	0.003	1	235	7451	0
[	Pb	208	331.280	ug/L	5.677	1	687	16982025	0
[	Bi	209		ug/L			2666772	2803123	0
[	Th	232	0.567	ug/L	0.016	2	2215	30524	1
[	U	238	0.117	ug/L	0.001	1	34	6031	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 E SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 17:47:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1482660	1559826	1
[	Be	9	0.497	ug/L	0.022	4	14	2274	3
	C	13		ug/L			139850	167441	3
	Cl	37		ug/L			4987849	5338930	1
[>	Sc	45		ug/L			1243958	1297629	1
|	V	51	5.805	ug/L	0.079	1	9588	168128	1
|	V-1	51	5.858	ug/L	0.118	2	77	158793	2
|	Cr	52	4.802	ug/L	0.112	2	28352	137737	1
|	Cr	53	4.967	ug/L	0.073	1	162	12579	1
|	Mn	55	952.049	ug/L	2.441	0	1786	29683018	2
[	Co	59	7.114	ug/L	0.270	3	102	160487	2
[>	Ge	72		ug/L			622418	638098	1
|	Ni	60	14.470	ug/L	0.145	1	20	62321	1
|	Ni	62	15.140	ug/L	0.699	4	290	9507	4
|	Cu	63	13.215	ug/L	0.189	1	228	126504	2
|	Cu	65	13.331	ug/L	0.259	1	42	57428	1
|	Zn	66	153.357	ug/L	1.750	1	140	395752	1
|	Zn	67	143.307	ug/L	3.687	2	25	61879	2
|	Zn	68	150.530	ug/L	3.712	2	174	281785	1
|	As	75	5.595	ug/L	0.105	1	143	12594	1
|	As-1	75	5.310	ug/L	0.144	2	10862	23180	0
|	Se	82	0.328	ug/L	0.025	7	2	82	8
|	Se	78	-0.174	ug/L	0.196	112	11031	11194	0
[	Mo	98	0.291	ug/L	0.005	1	20	1543	1
	Y	89		ug/L			398382	514199	0
	Kr	83		ug/L			433	551	4
[>	In	115		ug/L			957933	989739	1
|	Ag	107	0.210	ug/L	0.004	1	20	2249	1
|	Cd	111	2.454	ug/L	0.049	1	85	12348	0
|	Cd	114	2.478	ug/L	0.012	0	45	31429	1
|	Sb	121	0.140	ug/L	0.005	3	252	2374	3
|	Sb	123	0.141	ug/L	0.002	1	176	1790	0
|	Ba	135	72.317	ug/L	0.586	0	41	342149	0
[	Ba	137	71.218	ug/L	1.294	1	76	588805	0
[>	Tb	159		ug/L			1116653	1172087	1
|	Tl	205	0.082	ug/L	0.002	2	235	3508	0
|	Pb	208	110.259	ug/L	1.744	1	687	5647255	0
|	Bi	209		ug/L			2666772	2742085	1
|	Th	232	1.004	ug/L	0.014	1	2215	52193	1
[	U	238	0.170	ug/L	0.002	1	34	8714	1

VS21 : 00264

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 G SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 17:51:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Pb Zn

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			1482660	1523680	1
Be	9	0.127	ug/L	0.005	4	14	577	5
C	13		ug/L			139850	150435	3
Cl	37		ug/L			4987849	4945753	0
> Sc	45		ug/L			1243958	1293450	2
V	51	4.898	ug/L	0.191	3	9588	142913	1
V-1	51	4.938	ug/L	0.200	4	77	133386	2
Cr	52	4.139	ug/L	0.105	2	28352	122397	0
Cr	53	4.263	ug/L	0.125	2	162	10784	0
Mn	55	568.395	ug/L	17.570	3	1786	17657872	1
Co	59	1.806	ug/L	0.039	2	102	40690	0
> Ge	72		ug/L			622418	640297	1
Ni	60	5.323	ug/L	0.098	1	20	23017	2
Ni	62	5.494	ug/L	0.134	2	290	3652	1
Cu	63	5.035	ug/L	0.043	0	228	48501	0
Cu	65	4.922	ug/L	0.112	2	42	21305	1
Zn	66	84.416	ug/L	2.041	2	140	218648	1
Zn	67	79.861	ug/L	2.939	3	25	34611	2
Zn	68	83.737	ug/L	1.957	2	174	157391	2
As	75	4.041	ug/L	0.045	1	143	9169	0
As-1	75	3.753	ug/L	0.126	3	10862	19718	1
Se	82	0.047	ug/L	0.039	81	2	14	64
Se	78	-0.610	ug/L	0.279	45	11031	10946	1
Mo	98	0.140	ug/L	0.006	4	20	754	3
Y	89		ug/L			398382	430775	1
Kr	83		ug/L			433	502	3
> In	115		ug/L			957933	1000899	1
Ag	107	0.057	ug/L	0.003	5	20	631	3
Cd	111	1.486	ug/L	0.035	2	85	7597	1
Cd	114	1.479	ug/L	0.019	1	45	18987	0
Sb	121	0.059	ug/L	0.001	1	252	1160	1
Sb	123	0.058	ug/L	0.001	0	176	856	0
Ba	135	75.930	ug/L	0.737	0	41	363288	0
Ba	137	75.197	ug/L	0.827	1	76	628773	0
> Tb	159		ug/L			1116653	1172104	1
Tl	205	0.078	ug/L	0.001	1	235	3361	1
Pb	208	62.523	ug/L	0.783	1	687	3202833	0
Bi	209		ug/L			2666772	2760479	0
Th	232	0.864	ug/L	0.017	1	2215	45268	0
U	238	0.124	ug/L	0.002	1	34	6383	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 K SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 17:57:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1482660	1479998	0
[	Be	9	0.110	ug/L	0.007	6	14	491	5
	C	13		ug/L			139850	152522	5
	Cl	37		ug/L			4987849	4990519	1
[>	Sc	45		ug/L			1243958	1291940	2
|	V	51	5.098	ug/L	0.289	5	9588	148087	2
|	V-1	51	5.105	ug/L	0.280	5	77	137664	2
|	Cr	52	4.325	ug/L	0.266	6	28352	126339	2
|	Cr	53	4.335	ug/L	0.266	6	162	10943	3
|	Mn	55	320.813	ug/L	16.783	5	1786	9949921	2
[	Co	59	1.355	ug/L	0.066	4	102	30499	2
[>	Ge	72		ug/L			622418	631888	1
|	Ni	60	3.338	ug/L	0.073	2	20	14249	1
|	Ni	62	3.500	ug/L	0.103	2	290	2403	1
|	Cu	63	4.662	ug/L	0.044	0	228	44330	0
|	Cu	65	4.769	ug/L	0.028	0	42	20374	2
|	Zn	66	136.696	ug/L	1.530	1	140	349336	1
|	Zn	67	135.905	ug/L	3.169	2	25	58114	2
|	Zn	68	139.759	ug/L	2.159	1	174	259090	0
|	As	75	4.041	ug/L	0.104	2	143	9046	1
|	As-1	75	3.821	ug/L	0.168	4	10862	19609	0
|	Se	82	0.039	ug/L	0.018	47	2	12	36
|	Se	78	-0.408	ug/L	0.219	53	11031	10933	0
[	Mo	98	0.078	ug/L	0.003	3	20	427	1
	Y	89		ug/L			398382	442033	2
	Kr	83		ug/L			433	475	4
[>	In	115		ug/L			957933	1014772	0
|	Ag	107	0.051	ug/L	0.002	3	20	571	3
|	Cd	111	2.778	ug/L	0.063	2	85	14321	2
|	Cd	114	2.726	ug/L	0.034	1	45	35441	0
|	Sb	121	0.131	ug/L	0.002	1	252	2297	1
|	Sb	123	0.140	ug/L	0.003	2	176	1818	1
|	Ba	135	107.713	ug/L	1.363	1	41	522497	0
[	Ba	137	107.027	ug/L	1.417	1	76	907321	0
[>	Tb	159		ug/L			1116653	1153748	0
|	Tl	205	0.112	ug/L	0.003	2	235	4655	2
|	Pb	208	96.961	ug/L	1.556	1	687	4888849	0
|	Bi	209		ug/L			2666772	2768985	1
|	Th	232	0.644	ug/L	0.016	2	2215	33786	1
[	U	238	0.111	ug/L	0.001	0	34	5633	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 18:01:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1482660	1461946	1
[	Be	9	0.092	ug/L	0.005	5	14	405	3
	C	13		ug/L			139850	149805	2
	Cl	37		ug/L			4987849	4864490	1
[>	Sc	45		ug/L			1243958	1256804	2
[	V	51	5.192	ug/L	0.149	2	9588	146603	0
[	V-1	51	5.270	ug/L	0.148	2	77	138299	1
[	Cr	52	3.168	ug/L	0.116	3	28352	97712	0
[	Cr	53	3.399	ug/L	0.119	3	162	8385	2
[	Mn	55	394.727	ug/L	16.270	4	1786	11911101	1
[	Co	59	1.415	ug/L	0.037	2	102	30989	0
[>	Ge	72		ug/L			622418	630493	2
[	Ni	60	2.826	ug/L	0.031	1	20	12043	1
[	Ni	62	2.815	ug/L	0.116	4	290	1985	1
[	Cu	63	4.873	ug/L	0.101	2	228	46222	1
[	Cu	65	4.845	ug/L	0.063	1	42	20647	1
[	Zn	66	80.516	ug/L	1.824	2	140	205318	0
[	Zn	67	80.264	ug/L	1.558	1	25	34255	1
[	Zn	68	80.596	ug/L	1.924	2	174	149128	0
[	As	75	4.265	ug/L	0.125	2	143	9516	0
[	As-1	75	4.039	ug/L	0.267	6	10862	20050	0
[	Se	82	0.051	ug/L	0.017	33	2	15	26
[	Se	78	-0.387	ug/L	0.507	131	11031	10919	0
[	Mo	98	0.099	ug/L	0.003	2	20	533	2
	Y	89		ug/L			398382	428132	0
	Kr	83		ug/L			433	484	3
[>	In	115		ug/L			957933	982776	1
[	Ag	107	0.068	ug/L	0.002	3	20	732	4
[	Cd	111	1.512	ug/L	0.067	4	85	7587	3
[	Cd	114	1.499	ug/L	0.024	1	45	18896	0
[	Sb	121	0.185	ug/L	0.005	2	252	3024	1
[	Sb	123	0.178	ug/L	0.009	5	176	2194	5
[	Ba	135	93.141	ug/L	1.450	1	41	437548	1
[	Ba	137	91.563	ug/L	2.121	2	76	751656	1
[>	Tb	159		ug/L			1116653	1152698	2
[	Tl	205	0.085	ug/L	0.004	4	235	3592	2
[	Pb	208	73.889	ug/L	2.039	2	687	3721235	0
[	Bi	209		ug/L			2666772	2745691	1
[	Th	232	0.495	ug/L	0.021	4	2215	26477	2
[	U	238	0.096	ug/L	0.004	4	34	4850	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 18:05:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1467969 ✓	0
	Be	9	52.646	ug/L	0.480	0	14	225620	0
	C	13		ug/L			139850	137039	2
	Cl	37		ug/L			4987849	5137266	2
>	Sc	45		ug/L			1243958	1251650 ✓	1
	V	51	48.659	ug/L	0.657	1	9588	1288195	1
	V-1	51	48.760	ug/L	0.856	1	77	1274303	1
	Cr	52	49.900	ug/L	0.615	1	28352	1112712	0
	Cr	53	50.273	ug/L	1.775	3	162	121293	1
	Mn	55	48.893	ug/L	1.325	2	1786	1471601	1
	Co	59	47.254	ug/L	0.243	0	102	1028022	1
>	Ge	72		ug/L			622418	636397 ✓	2
	Ni	60	50.069	ug/L	0.203	0	20	215019	1
	Ni	62	50.578	ug/L	0.862	1	290	30982	1
	Cu	63	50.258	ug/L	0.977	1	228	478987	0
	Cu	65	50.609	ug/L	0.851	1	42	217301	0
	Zn	66	51.114	ug/L	1.678	3	140	131600	1
	Zn	67	50.707	ug/L	1.374	2	25	21864	4
	Zn	68	50.988	ug/L	1.651	3	174	95288	1
	As	75	51.298	ug/L	1.491	2	143	113927	1
	As-1	75	50.860	ug/L	1.541	3	10862	126153	0
	Se	82	51.753	ug/L	0.772	1	2	12413	1
	Se	78	50.189	ug/L	0.895	1	11031	44072	0
	Mo	98	50.541	ug/L	0.986	1	20	264182	0
	Y	89		ug/L			398382	389728	2
	Kr	83		ug/L			433	455	2
>	In	115		ug/L			957933	957282 ✓	0
	Ag	107	54.081	ug/L	0.296	0	20	554976	0
	Cd	111	52.095	ug/L	0.730	1	85	251839	1
	Cd	114	51.973	ug/L	0.669	1	45	636698	1
	Sb	121	52.238	ug/L	0.143	0	252	763092	0
	Sb	123	52.276	ug/L	0.818	1	176	576458	1
	Ba	135	51.358	ug/L	0.543	1	41	235046	1
	Ba	137	50.957	ug/L	0.733	1	76	407572	1
>	Tb	159		ug/L			1116653	1136816 ✓	1
	Tl	205	49.827	ug/L	1.084	2	235	1932197	0
	Pb	208	51.225	ug/L	0.410	0	687	2545290	0
	Bi	209		ug/L			2666772	2631456	0
	Th	232	54.954	ug/L	1.121	2	2215	2649834	0
	U	238	56.301	ug/L	0.411	0	34	2789003	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 18:12:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1482660	1460846 ✓	3
	Be	**9**	**0.002**	ug/L	0.003	142	14	21	47
	C	**13**		ug/L			139850	141738	0
	Cl	**37**		ug/L			4987849	4967892	1
>	**Sc**	**45**		ug/L			1243958	1222785 ✓	0
	V	**51**	**0.007**	ug/L	0.015	209	9588	9612	3
	V-1	**51**	**0.000**	ug/L	0.002	529	77	84	50
	Cr	**52**	**0.034**	ug/L	0.051	147	28352	28593	3
	Cr	**53**	**0.010**	ug/L	0.003	33	162	184	4
	Mn	**55**	**0.023**	ug/L	0.084	367	1786	2417	100
	Co	**59**	**0.001**	ug/L	0.002	182	102	126	36
>	**Ge**	**72**		ug/L			622418	617893 ✓	1
	Ni	**60**	**0.002**	ug/L	0.002	120	20	26	30
	Ni	**62**	**-0.152**	ug/L	0.031	20	290	198	9
	Cu	**63**	**-0.000**	ug/L	0.001	423	228	223	7
	Cu	**65**	**0.003**	ug/L	0.005	180	42	53	40
	Zn	**66**	**0.016**	ug/L	0.021	127	140	180	30
	Zn	**67**	**0.012**	ug/L	0.022	184	25	30	32
	Zn	**68**	**0.014**	ug/L	0.017	117	174	199	16
	As	**75**	**0.007**	ug/L	0.006	81	143	159	8
	As-1	**75**	**-0.049**	ug/L	0.061	124	10862	10675	0
	Se	**82**	**-0.027**	ug/L	0.047	172	2	-3	322
	Se	**78**	**-0.196**	ug/L	0.220	112	11031	10826	0
	Mo	**98**	**0.006**	ug/L	0.002	32	20	51	19
	Y	**89**		ug/L			398382	391167	0
	Kr	**83**		ug/L			433	449	4
>	**In**	**115**		ug/L			957933	957792 ✓	0
	Ag	**107**	**0.003**	ug/L	0.001	52	20	47	30
	Cd	**111**	**0.001**	ug/L	0.004	437	85	89	20
	Cd	**114**	**0.001**	ug/L	0.001	85	45	57	19
	Sb	**121**	**0.044**	ug/L	0.005	10	252	902	7
	Sb	**123**	**0.047**	ug/L	0.004	8	176	696	6
	Ba	**135**	**0.005**	ug/L	0.013	254	41	65	91
	Ba	**137**	**0.003**	ug/L	0.013	389	76	103	99
>	**Tb**	**159**		ug/L			1116653	1101170 ✓	0
	Tl	**205**	**0.004**	ug/L	0.003	72	235	370	26
	Pb	**208**	**0.007**	ug/L	0.018	250	687	1028	85
	Bi	**209**		ug/L			2666772	2683814	1
	Th	**232**	**0.131**	ug/L	0.013	9	2215	8283	6
	U	**238**	**0.003**	ug/L	0.002	58	34	180	46

ICP-MS Quantitative Analysis - Summary Report

MBISPK

Sample ID: VS21 ~~MB1~~ SWN

Sample Dil Factor: 20 11.26.12 MJJ

Comments:

Sample Date/Time: Monday, November 26, 2012 18:19:56

Number of Replicates: 3

Method File: C:\NexION Data\Method\200.8nomin.mth

Tuning File: C:\NexION Data\MassCal\Default.tun

Optimization File: C:\NexION Data\Conditions\Default.dac

Calibration File: C:\NexION Data\System\112612A.cal

RL Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1459980	1
	Be	9	27.271	ug/L	0.447	1	14	116232	0
	C	13		ug/L			139850	143149	0
	Cl	37		ug/L			4987849	5055027	4
>	Sc	45		ug/L			1243958	1207984	0
	V	51	25.373	ug/L	0.659	2	9588	652680	1
	V-1	51	25.520	ug/L	0.832	3	77	643667	2
	Cr	52	26.072	ug/L	0.202	0	28352	574305	0
	Cr	53	26.594	ug/L	0.635	2	162	62014	1
	Mn	55	26.047	ug/L	0.476	1	1786	757573	1
	Co	59	25.576	ug/L	1.692	6	102	536847	5
>	Ge	72		ug/L			622418	620059	1
	Ni	60	26.821	ug/L	0.051	0	20	112241	1
	Ni	62	27.113	ug/L	0.889	3	290	16314	1
	Cu	63	27.476	ug/L	0.229	0	228	255289	0
	Cu	65	27.309	ug/L	0.818	2	42	114265	1
	Zn	66	86.306	ug/L	1.267	1	140	216483	1
	Zn	67	80.948	ug/L	1.409	1	25	33976	0
	Zn	68	84.165	ug/L	3.083	3	174	153152	2
	As	75	26.163	ug/L	1.238	4	143	56687	3
	As-1	75	26.633	ug/L	0.812	3	10862	69530	1
	Se	82	87.051	ug/L	2.585	2	2	20341	2
	Se	78	84.578	ug/L	1.095	1	11031	64840	0
	Mo	98	25.178	ug/L	0.753	2	20	128253	2
	Y	89		ug/L			398382	402380	1
	Kr	83		ug/L			433	480	1
>	In	115		ug/L			957933	956251	0
	Ag	107	29.132	ug/L	0.778	2	20	298690	3
	Cd	111	26.378	ug/L	0.293	1	85	127413	0
	Cd	114	26.287	ug/L	0.469	1	45	321688	1
	Sb	121	26.101	ug/L	0.103	0	252	380980	0
	Sb	123	26.057	ug/L	0.409	1	176	287081	0
	Ba	135	26.026	ug/L	0.298	1	41	118993	0
	Ba	137	25.824	ug/L	0.363	1	76	206350	1
>	Tb	159		ug/L			1116653	1125652	0
	Tl	205	26.072	ug/L	0.154	0	235	1001349	0
	Pb	208	27.002	ug/L	0.271	1	687	1328873	0
	Bi	209		ug/L			2666772	2699508	0
	Th	232	25.253	ug/L	0.432	1	2215	1207044	0
	U	238	25.621	ug/L	0.198	0	34	1256807	0

ICP-MS Quantitative Analysis - Summary Report

MB1

Sample ID: VS21 ~~MB1SPK~~ SWN

Sample Dil Factor: 20 11.26.12 MJ

Comments:

Sample Date/Time: Monday, November 26, 2012 18:24:03

Number of Replicates: 3

Method File: C:\NexION Data\Method\200.8nomin.mth

Tuning File: C:\NexION Data\MassCal\Default.tun

Optimization File: C:\NexION Data\Conditions\Default.dac

Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1495482	0
	Be	9	0.001	ug/L	0.000	52	14	18	11
	C	13		ug/L			139850	140691	2
	Cl	37		ug/L			4987849	4937167	2
>	Sc	45		ug/L			1243958	1244094	1
	V	51	-0.005	ug/L	0.021	411	9588	9455	4
	V-1	51	0.001	ug/L	0.000	54	77	98	10
	Cr	52	-0.011	ug/L	0.071	666	28352	28114	4
	Cr	53	0.009	ug/L	0.005	49	162	184	5
	Mn	55	-0.004	ug/L	0.002	40	1786	1670	3
	Co	59	0.000	ug/L	0.000	14	102	112	2
>	Ge	72		ug/L			622418	628528	0
	Ni	60	0.004	ug/L	0.001	31	20	38	14
	Ni	62	-0.135	ug/L	0.015	11	290	212	4
	Cu	63	0.037	ug/L	0.001	2	228	577	1
	Cu	65	0.044	ug/L	0.002	4	42	231	4
	Zn	66	0.208	ug/L	0.022	10	140	669	7
	Zn	67	0.172	ug/L	0.021	12	25	98	8
	Zn	68	0.196	ug/L	0.011	5	174	537	3
	As	75	-0.011	ug/L	0.016	149	143	121	29
	As-1	75	-0.094	ug/L	0.024	25	10862	10758	0
	Se	82	-0.058	ug/L	0.043	73	2	-10	94
	Se	78	-0.316	ug/L	0.118	37	11031	10936	0
	Mo	98	0.009	ug/L	0.002	22	20	68	16
	Y	89		ug/L			398382	399570	0
	Kr	83		ug/L			433	459	5
>	In	115		ug/L			957933	951197	0
	Ag	107	0.003	ug/L	0.001	30	20	52	19
	Cd	111	-0.001	ug/L	0.002	155	85	78	12
	Cd	114	0.000	ug/L	0.000	86	45	50	10
	Sb	121	0.012	ug/L	0.004	34	252	428	14
	Sb	123	0.014	ug/L	0.004	30	176	327	14
	Ba	135	0.004	ug/L	0.001	31	41	58	9
	Ba	137	0.002	ug/L	0.002	94	76	94	18
>	Tb	159		ug/L			1116653	1113947	0
	Tl	205	-0.000	ug/L	0.001	575	235	227	17
	Pb	208	0.000	ug/L	0.001	783	687	679	8
	Bi	209		ug/L			2666772	2724396	0
	Th	232	0.256	ug/L	0.012	4	2215	14284	4
	U	238	0.004	ug/L	0.001	16	34	237	14

#1127

222222 **ICP-MS Quantitative Analysis - Summary Report**

Sample ID: ~~VS21 A-L SWN~~
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, November 26, 2012 18:28:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

#11-27-12

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1482660	1521567	1
	Be	**9**	**5.718**	ug/L	0.057	0	14	25409	1
	C	**13**		ug/L			139850	148645	0
	Cl	**37**		ug/L			4987849	5079449	1
>	**Sc**	**45**		ug/L			1243958	1307369	0
	V	**51**	**16.107**	ug/L	0.257	1	9588	452118	0
	V-1	**51**	**16.172**	ug/L	0.290	1	77	441512	1
	Cr	**52**	**11.876**	ug/L	0.254	2	28352	299329	1
	Cr	**53**	**12.021**	ug/L	0.247	2	162	30432	1
	Mn	**55**	**162.997**	ug/L	1.559	0	1786	5121240	0
	Co	**59**	**6.996**	ug/L	0.090	1	102	159075	1
>	**Ge**	**72**		ug/L			622418	635894	0
	Ni	**60**	**10.809**	ug/L	0.063	0	20	46403	0
	Ni	**62**	**10.890**	ug/L	0.209	1	290	6899	2
	Cu	**63**	**13.156**	ug/L	0.201	1	228	125482	1
	Cu	**65**	**12.920**	ug/L	0.223	1	42	55480	2
	Zn	**66**	**85.493**	ug/L	1.216	1	140	219933	0
	Zn	**67**	**79.312**	ug/L	2.134	2	25	34143	2
	Zn	**68**	**84.305**	ug/L	1.482	1	174	157373	1
	As	**75**	**10.612**	ug/L	0.075	0	143	23676	1
	As-1	**75**	**10.400**	ug/L	0.081	0	10862	34615	1
	Se	**82**	**17.836**	ug/L	0.254	1	2	4277	1
	Se	**78**	**16.687**	ug/L	0.167	1	11031	22168	1
	Mo	**98**	**4.780**	ug/L	0.117	2	20	24992	2
	Y	**89**		ug/L			398382	457478	1
	Kr	**83**		ug/L			433	509	6
>	**In**	**115**		ug/L			957933	1004702	0
	Ag	**107**	**4.866**	ug/L	0.071	1	20	52419	0
	Cd	**111**	**6.857**	ug/L	0.125	1	85	34864	1
	Cd	**114**	**6.854**	ug/L	0.109	1	45	88156	1
	Sb	**121**	**0.379**	ug/L	0.002	0	252	6070	0
	Sb	**123**	**0.373**	ug/L	0.008	2	176	4505	1
	Ba	**135**	**48.389**	ug/L	0.645	1	41	232415	0
	Ba	**137**	**48.157**	ug/L	0.324	0	76	404242	0
>	**Tb**	**159**		ug/L			1116653	1159977	1
	Tl	**205**	**5.252**	ug/L	0.060	1	235	208065	0
	Pb	**208**	**131.109**	ug/L	1.842	1	687	6645891	0
	Bi	**209**		ug/L			2666772	2777597	1
	Th	**232**	**5.260**	ug/L	0.069	1	2215	260879	0
	U	**238**	**5.431**	ug/L	0.074	1	34	274544	0

#112712

SB ✓

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 18:32:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

DQ

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1482660	1523355	3
[	Be	9	27.156	ug/L	0.562	2	14	120731	1
	C	13		ug/L			139850	176229	1
	Cl	37		ug/L			4987849	5221730	0
[>	Sc	45		ug/L			1243958	1396904	3
[	V	51	79.498	ug/L	3.288	4	9588	2339717	0
[	V-1	51	79.981	ug/L	3.490	4	77	2330477	0
[	Cr	52	55.110	ug/L	1.963	3	28352	1367428	2
[	Cr	53	56.328	ug/L	2.322	4	162	151564	1
[	Mn	55	728.211	ug/L	11.280	1	1786	24432829	2
[	Co	59	31.825	ug/L	1.329	4	102	771977	0
[>	Ge	72		ug/L			622418	626443	2
[	Ni	60	52.855	ug/L	1.474	2	20	223349	1
[	Ni	62	55.158	ug/L	2.040	3	290	33217	1
[	Cu	63	63.724	ug/L	0.448	0	228	597955	3
[	Cu	65	63.174	ug/L	1.159	1	42	266977	1
[	Zn	66	405.173	ug/L	7.308	1	140	1026067	1
[	Zn	67	381.284	ug/L	9.949	2	25	161547	1
[	Zn	68	396.312	ug/L	9.158	2	174	727923	1
[	As	75	52.645	ug/L	1.161	2	143	115091	1
[	As-1	75	52.402	ug/L	1.027	1	10862	127621	1
[	Se	82	84.559	ug/L	2.164	2	2	19957	0
[	Se	78	82.193	ug/L	2.281	2	11031	63956	1
[	Mo	98	24.190	ug/L	0.380	1	20	124475	1
	Y	89		ug/L			398382	603092	0
	Kr	83		ug/L			433	989	5
[>	In	115		ug/L			957933	1038670	1
[	Ag	107	22.496	ug/L	0.393	1	20	250472	2
[	Cd	111	31.550	ug/L	0.223	0	85	165518	1
[	Cd	114	31.400	ug/L	0.255	0	45	417442	2
[	Sb	121	1.776	ug/L	0.026	1	252	28413	1
[	Sb	123	1.739	ug/L	0.030	1	176	20993	1
[	Ba	135	230.545	ug/L	4.547	1	41	1144375	0
[	Ba	137	228.248	ug/L	2.659	1	76	1980275	1
[>	Tb	159		ug/L			1116653	1171291	2
[	Tl	205	25.552	ug/L	0.418	1	235	1020867	1
[	Pb	208	652.994	ug/L	20.040	3	687	33403750	0
[	Bi	209		ug/L			2666772	2637400	2
[	Th	232	26.191	ug/L	0.647	2	2215	1302002	0
[	U	238	26.990	ug/L	0.518	1	34	1377202	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 18:36:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1482660	1541348	1
[	Be	9	0.696	ug/L	0.021	3	14	3144	1
	C	13		ug/L			139850	187088	1
	Cl	37		ug/L			4987849	5145723	3
[>	Sc	45		ug/L			1243958	1431192	0
|	V	51	53.713	ug/L	1.481	2	9588	1624670	2
|	V-1	51	54.088	ug/L	1.661	3	77	1616247	2
|	Cr	52	33.217	ug/L	0.253	0	28352	857990	1
|	Cr	53	34.134	ug/L	0.616	1	162	94259	1
|	Mn	55	688.342	ug/L	6.568	0	1786	23670104	1
[	Co	59	9.447	ug/L	0.337	3	102	235074	2
[>	Ge	72		ug/L			622418	639799	2
|	Ni	60	25.357	ug/L	0.841	3	20	109430	0
|	Ni	62	27.914	ug/L	0.934	3	290	17318	1
|	Cu	63	34.780	ug/L	1.130	3	228	333219	0
|	Cu	65	35.574	ug/L	1.921	5	42	153470	2
|	Zn	66	308.491	ug/L	8.352	2	140	797769	0
|	Zn	67	299.398	ug/L	10.217	3	25	129548	1
|	Zn	68	297.266	ug/L	13.364	4	174	557490	2
|	As	75	24.927	ug/L	0.630	2	143	55729	0
|	As-1	75	24.188	ug/L	0.707	2	10862	66168	0
|	Se	82	-0.037	ug/L	0.057	152	2	-6	229
|	Se	78	-0.286	ug/L	0.378	132	11031	11148	0
[	Mo	98	0.582	ug/L	0.014	2	20	3080	0
	Y	89		ug/L			398382	617851	1
	Kr	83		ug/L			433	961	3
[>	In	115		ug/L			957933	1050880	0
|	Ag	107	0.320	ug/L	0.009	2	20	3626	2
|	Cd	111	6.589	ug/L	0.033	0	85	35050	1
|	Cd	114	6.378	ug/L	0.206	3	45	85819	3
|	Sb	121	0.339	ug/L	0.004	1	252	5705	0
|	Sb	123	0.346	ug/L	0.013	3	176	4381	3
|	Ba	135	197.626	ug/L	2.048	1	41	992731	0
[	Ba	137	196.730	ug/L	1.085	0	76	1727107	0
[>	Tb	159		ug/L			1116653	1161098	0
|	Tl	205	0.574	ug/L	0.008	1	235	22980	0
|	Pb	208	592.474	ug/L	6.071	1	687	30061268	0
|	Bi	209		ug/L			2666772	2656227	0
|	Th	232	8.226	ug/L	0.128	1	2215	407128	1
[	U	238	1.670	ug/L	0.025	1	34	84527	1

VS21 : 00274

#11-2742

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 ~~ASPK~~ SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 18:40:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1482660	1538845	2
[	Be	9	0.697	ug/L	0.025	3	14	3145	1
	C	13		ug/L			139850	195061	3
	Cl	37		ug/L			4987849	5184243	0
[>	Sc	45		ug/L			1243958	1415257	1
	V	51	52.598	ug/L	1.518	2	9588	1573253	1
	V-1	51	53.010	ug/L	1.095	2	77	1566318	0
	Cr	52	34.195	ug/L	1.607	4	28352	872095	3
	Cr	53	35.277	ug/L	0.211	0	162	96328	1
	Mn	55	712.949	ug/L	8.168	1	1786	24240688	0
[	Co	59	9.104	ug/L	0.077	0	102	224045	0
[>	Ge	72		ug/L			622418	630325	1
	Ni	60	25.531	ug/L	0.816	3	20	108587	2
	Ni	62	27.750	ug/L	1.634	5	290	16962	4
	Cu	63	35.132	ug/L	0.191	0	228	331768	1
	Cu	65	34.750	ug/L	1.141	3	42	147785	1
	Zn	66	303.155	ug/L	5.519	1	140	772576	0
	Zn	67	291.774	ug/L	2.172	0	25	124440	1
	Zn	68	302.216	ug/L	5.617	1	174	558652	0
	As	75	24.900	ug/L	0.600	2	143	54858	1
	As-1	75	24.225	ug/L	0.667	2	10862	65285	1
	Se	82	-0.070	ug/L	0.055	78	2	-13	95
	Se	78	-0.036	ug/L	0.285	800	11031	11147	0
[	Mo	98	0.563	ug/L	0.012	2	20	2934	1
	Y	89		ug/L			398382	626962	0
	Kr	83		ug/L			433	1000	5
[>	In	115		ug/L			957933	1049280	0
	Ag	107	0.310	ug/L	0.004	1	20	3512	0
	Cd	111	6.781	ug/L	0.035	0	85	36010	0
	Cd	114	6.696	ug/L	0.087	1	45	89954	1
	Sb	121	0.320	ug/L	0.004	1	252	5406	0
	Sb	123	0.320	ug/L	0.005	1	176	4054	1
	Ba	135	203.676	ug/L	0.481	0	41	1021588	0
[	Ba	137	203.782	ug/L	2.232	1	76	1786236	0
[>	Tb	159		ug/L			1116653	1163788	0
	Tl	205	0.556	ug/L	0.010	1	235	22318	1
	Pb	208	601.660	ug/L	9.670	1	687	30596122	0
	Bi	209		ug/L			2666772	2634517	0
	Th	232	5.105	ug/L	0.050	0	2215	254136	0
[	U	238	0.921	ug/L	0.004	0	34	46766	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~VS21 APOST SWN~~ 222222

Sample Dil Factor: 20

Comments: #11-27-12

Sample Date/Time: Monday, November 26, 2012 18:44:40

Number of Replicates: 3

Method File: C:\NexION Data\Method\200.8nomin.mth

Tuning File: C:\NexION Data\MassCal\Default.tun

Optimization File: C:\NexION Data\Conditions\Default.dac

Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1482660	1528705	2
[	Be	9	53.252	ug/L	1.343	2	14	237567	0
	C	13		ug/L			139850	180310	2
	Cl	37		ug/L			4987849	5314034	1
[>	Sc	45		ug/L			1243958	1396612	1
|	V	51	100.440	ug/L	2.617	2	9588	2954908	1
|	V-1	51	100.562	ug/L	2.487	2	77	2932054	1
|	Cr	52	77.842	ug/L	2.139	2	28352	1918748	1
|	Cr	53	77.844	ug/L	1.386	1	162	209510	0
|	Mn	55	749.878	ug/L	26.620	3	1786	25153609	1
[	Co	59	52.352	ug/L	1.606	3	102	1270724	2
[>	Ge	72		ug/L			622418	638236	1
|	Ni	60	75.883	ug/L	1.354	1	20	326760	0
|	Ni	62	78.374	ug/L	1.769	2	290	47980	0
|	Cu	63	86.223	ug/L	2.409	2	228	823908	1
|	Cu	65	85.904	ug/L	1.259	1	42	369905	0
|	Zn	66	469.386	ug/L	11.582	2	140	1211136	1
|	Zn	67	445.307	ug/L	0.591	0	25	192306	1
|	Zn	68	467.541	ug/L	8.341	1	174	874994	0
|	As	75	75.577	ug/L	1.623	2	143	168289	0
|	As-1	75	75.816	ug/L	2.574	3	10862	183134	1
|	Se	82	164.505	ug/L	3.463	2	2	39564	1
|	Se	78	159.818	ug/L	6.464	4	11031	116013	1
[	Mo	98	47.485	ug/L	0.846	1	20	248981	2
	Y	89		ug/L			398382	606015	0
	Kr	83		ug/L			433	930	4
[>	In	115		ug/L			957933	1033192	0
|	Ag	107	48.255	ug/L	1.013	2	20	534404	1
|	Cd	111	55.482	ug/L	0.725	1	85	289448	0
|	Cd	114	55.547	ug/L	0.531	0	45	734418	0
|	Sb	121	23.800	ug/L	0.376	1	252	375388	1
|	Sb	123	23.655	ug/L	0.302	1	176	281629	1
|	Ba	135	250.388	ug/L	4.387	1	41	1236504	0
[	Ba	137	270.112	ug/L	1.150	0	76	2331358	0
[>	Tb	159		ug/L			1116653	1136937	0
|	Tl	205	50.529	ug/L	0.339	0	235	1959945	0
|	Pb	208	685.747	ug/L	7.545	1	687	34069017	0
|	Bi	209		ug/L			2666772	2621134	0
|	Th	232	56.793	ug/L	0.217	0	2215	2739182	0
[	U	238	57.888	ug/L	0.315	0	34	2868154	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 18:48:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

RL Ag
RL Ab Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1482660	1556976	1
[	**Be**	**9**	**0.511**	ug/L	0.005	0	14	2337	0
	C	**13**		ug/L			139850	305357	0
	Cl	**37**		ug/L			4987849	5372511	2
[>	**Sc**	**45**		ug/L			1243958	1355695	1
[	**V**	**51**	**10.067**	ug/L	0.331	3	9588	296890	2
[	**V-1**	**51**	**10.088**	ug/L	0.306	3	77	285597	2
[	**Cr**	**52**	**7.628**	ug/L	0.229	2	28352	210389	1
[	**Cr**	**53**	**7.657**	ug/L	0.158	2	162	20162	0
[	**Mn**	**55**	**1601.070**	ug/L	26.069	1	1786	52140640	0
[	**Co**	**59**	**3.614**	ug/L	0.047	1	102	85246	0
[>	**Ge**	**72**		ug/L			622418	629140	0
[	**Ni**	**60**	**6.907**	ug/L	0.105	1	20	29339	1
[	**Ni**	**62**	**7.784**	ug/L	0.111	1	290	4963	2
[	**Cu**	**63**	**47.461**	ug/L	1.358	2	228	447222	1
[	**Cu**	**65**	**46.150**	ug/L	1.568	3	42	195960	3
[	**Zn**	**66**	**1148.648**	ug/L	27.431	2	140	2921722	2
[	**Zn**	**67**	**1013.882**	ug/L	25.370	2	25	431541	2
[	**Zn**	**68**	**1107.238**	ug/L	66.775	6	174	2043371	6
[	**As**	**75**	**26.062**	ug/L	0.377	1	143	57310	0
[	**As-1**	**75**	**25.404**	ug/L	0.423	1	10862	67806	0
[	**Se**	**82**	**1.301**	ug/L	0.059	4	2	311	3
[	**Se**	**78**	**0.827**	ug/L	0.234	28	11031	11684	0
[	**Mo**	**98**	**0.710**	ug/L	0.017	2	20	3689	3
	Y	**89**		ug/L			398382	496831	1
	Kr	**83**		ug/L			433	547	5
[>	**In**	**115**		ug/L			957933	1343757	0
[	**Ag**	**107**	**1.244**	ug/L	0.049	3	20	17943	3
[	**Cd**	**111**	**14.040**	ug/L	0.258	1	85	95351	1
[	**Cd**	**114**	**14.176**	ug/L	0.091	0	45	243831	1
[	**Sb**	**121**	**15.280**	ug/L	0.123	0	252	313583	1
[	**Sb**	**123**	**15.120**	ug/L	0.169	1	176	234198	0
[	**Ba**	**135**	**784.789**	ug/L	10.449	1	41	5040440	0
[	**Ba**	**137**	**767.653**	ug/L	5.176	0	76	8616958	0
[>	**Tb**	**159**		ug/L			1116653	1158771	0
[	**Tl**	**205**	**0.898**	ug/L	0.010	1	235	35737	0
[	**Pb**	**208**	**1788.894**	ug/L	21.432	1	687	90583974	0
[	**Bi**	**209**		ug/L			2666772	2762421	1
[	**Th**	**232**	**1.713**	ug/L	0.035	2	2215	86427	2
[	**U**	**238**	**0.528**	ug/L	0.007	1	34	26675	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 18:54:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1550460	2
	Be	9	0.558	ug/L	0.005	0	14	2538	1
	C	13		ug/L			139850	177543	1
	Cl	37		ug/L			4987849	5135084	1
>	Sc	45		ug/L			1243958	1384217	1
	V	51	35.341	ug/L	0.112	0	9588	1037646	1
	V-1	51	35.690	ug/L	0.240	0	77	1031601	0
	Cr	52	27.189	ug/L	0.191	0	28352	684961	1
	Cr	53	28.247	ug/L	0.383	1	162	75467	0
	Mn	55	751.523	ug/L	15.051	2	1786	24990529	1
	Co	59	8.496	ug/L	0.129	1	102	204485	0
>	Ge	72		ug/L			622418	632429	1
	Ni	60	21.443	ug/L	0.437	2	20	91507	0
	Ni	62	22.998	ug/L	0.400	1	290	14161	1
	Cu	63	27.441	ug/L	0.436	1	228	260022	0
	Cu	65	26.359	ug/L	0.683	2	42	112485	1
	Zn	66	295.538	ug/L	5.546	1	140	755668	0
	Zn	67	281.244	ug/L	4.208	1	25	120339	0
	Zn	68	301.199	ug/L	6.897	2	174	558628	1
	As	75	21.195	ug/L	0.370	1	143	46874	0
	As-1	75	20.534	ug/L	0.458	2	10862	57203	0
	Se	82	0.029	ug/L	0.021	71	2	-3	125
	Se	78	-0.428	ug/L	0.411	95	11031	10928	1
	Mo	98	0.486	ug/L	0.014	2	20	2544	1
	Y	89		ug/L			398382	552020	0
	Kr	83		ug/L			433	816	1
>	In	115		ug/L			957933	981765	1
	Ag	107	0.315	ug/L	0.011	3	20	3337	4
	Cd	111	5.245	ug/L	0.066	1	85	26079	0
	Cd	114	5.188	ug/L	0.084	1	45	65221	0
	Sb	121	0.202	ug/L	0.009	4	252	3277	3
	Sb	123	0.201	ug/L	0.005	2	176	2454	1
	Ba	135	300.460	ug/L	1.488	0	41	1409991	0
	Ba	137	321.595	ug/L	5.380	1	76	2637241	0
>	Tb	159		ug/L			1116653	1146436	0
	Tl	205	0.305	ug/L	0.003	1	235	12181	1
	Pb	208	219.126	ug/L	0.509	0	687	10978455	0
	Bi	209		ug/L			2666772	2635753	0
	Th	232	4.102	ug/L	0.054	1	2215	201623	0
	U	238	0.564	ug/L	0.001	0	34	28192	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 18:58:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

RR Pb Zn

RR Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1482660	1537015	1
[	Be	9	0.541	ug/L	0.012	2	14	2443	2
	C	13		ug/L			139850	196904	1
	Cl	37		ug/L			4987849	5239749	2
[>	Sc	45		ug/L			1243958	1383586	1
[	V	51	29.574	ug/L	0.263	0	9588	869592	0
[	V-1	51	29.790	ug/L	0.316	1	77	860635	0
[	Cr	52	20.374	ug/L	0.340	1	28352	520905	1
[	Cr	53	20.951	ug/L	0.181	0	162	55997	0
[	Mn	55	1798.270	ug/L	18.232	1	1786	59770590	0
[	Co	59	8.045	ug/L	0.137	1	102	193561	2
[>	Ge	72		ug/L			622418	622265	0
[	Ni	60	21.200	ug/L	0.319	1	20	89039	1
[	Ni	62	22.367	ug/L	0.334	1	290	13561	1
[	Cu	63	42.999	ug/L	0.523	1	228	400843	1
[	Cu	65	42.933	ug/L	0.900	2	42	180304	2
[	Zn	66	742.735	ug/L	8.313	1	140	1868770	1
[	Zn	67	698.577	ug/L	9.777	1	25	294117	1
[	Zn	68	736.550	ug/L	12.917	1	174	1344156	1
[	As	75	38.245	ug/L	0.125	0	143	83121	0
[	As-1	75	37.324	ug/L	0.179	0	10862	93447	0
[	Se	82	U 0.283	ug/L	0.113	40	2	69	38
[	Se	78	0.112	ug/L	0.121	108	11031	11100	0
[	Mo	98	0.584	ug/L	0.015	2	20	3007	2
	Y	89		ug/L			398382	536736	1
	Kr	83		ug/L			433	801	0
[>	In	115		ug/L			957933	1038714	1
[	Ag	107	0.694	ug/L	0.013	1	20	7745	2
[	Cd	111	15.046	ug/L	0.130	0	85	78991	2
[	Cd	114	14.875	ug/L	0.290	1	45	197727	0
[	Sb	121	0.957	ug/L	0.014	1	252	15434	1
[	Sb	123	0.952	ug/L	0.009	0	176	11576	2
[	Ba	135	604.070	ug/L	3.401	0	41	2999139	0
[	Ba	137	590.194	ug/L	8.420	1	76	5120624	0
[>	Tb	159		ug/L			1116653	1142026	0
[	Tl	205	0.571	ug/L	0.010	1	235	22501	0
[	Pb	208	913.063	ug/L	10.164	1	687	45565976	0
[	Bi	209		ug/L			2666772	2642032	0
[	Th	232	3.592	ug/L	0.043	1	2215	176131	1
[	U	238	0.441	ug/L	0.007	1	34	21972	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV10
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 19:02:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1481935 ✓	0
	Be	9	54.247	ug/L	0.888	1	14	234709	2
	C	13		ug/L			139850	143310	2
	Cl	37		ug/L			4987849	5412353	1
>	Sc	45		ug/L			1243958	1253406 ✓	2
	V	51	49.411	ug/L	1.460	2	9588	1309115	0
	V-1	51	49.348	ug/L	1.452	2	77	1290934	0
	Cr	52	50.521	ug/L	1.945	3	28352	1127154	1
	Cr	53	50.325	ug/L	1.917	3	162	121554	1
	Mn	55	49.207	ug/L	1.517	3	1786	1482716	0
	Co	59	47.458	ug/L	1.943	4	102	1033174	1
>	Ge	72		ug/L			622418	627032 ✓	2
	Ni	60	51.302	ug/L	1.543	3	20	216997	0
	Ni	62	51.960	ug/L	1.591	3	290	31345	1
	Cu	63	51.589	ug/L	1.405	2	228	484380	0
	Cu	65	50.861	ug/L	0.547	1	42	215205	1
	Zn	66	51.682	ug/L	1.094	2	140	131126	0
	Zn	67	52.047	ug/L	0.577	1	25	22102	1
	Zn	68	52.628	ug/L	0.402	0	174	96936	1
	As	75	52.437	ug/L	0.832	1	143	114760	0
	As-1	75	51.807	ug/L	1.050	2	10862	126423	0
	Se	82	53.871	ug/L	0.759	1	2	12731	0
	Se	78	51.638	ug/L	1.538	2	11031	44351	0
	Mo	98	51.860	ug/L	1.284	2	20	267066	0
	Y	89		ug/L			398382	395895	0
	Kr	83		ug/L			433	499	1
>	In	115		ug/L			957933	960315 ✓	1
	Ag	107	55.937	ug/L	0.519	0	20	575804	0
	Cd	111	52.414	ug/L	0.725	1	85	254156	0
	Cd	114	52.363	ug/L	1.060	2	45	643461	1
	Sb	121	52.728	ug/L	0.196	0	252	772670	1
	Sb	123	52.332	ug/L	0.831	1	176	578815	0
	Ba	135	50.930	ug/L	0.486	0	41	233818	1
	Ba	137	49.863	ug/L	0.297	0	76	400078	0
>	Tb	159		ug/L			1116653	1125783 ✓	0
	Tl	205	49.773	ug/L	0.319	0	235	1911691	0
	Pb	208	51.036	ug/L	0.146	0	687	2511405	0
	Bi	209		ug/L			2666772	2625507	0
	Th	232	54.960	ug/L	0.736	1	2215	2624706	0
	U	238	56.060	ug/L	0.814	1	34	2750070	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB10
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 19:09:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1482660	1449589 ✓	1
	Be	9	0.001	ug/L	0.002	191	14	17	40
	C	13		ug/L			139850	143701	3
	Cl	37		ug/L			4987849	5070820	0
>	Sc	45		ug/L			1243958	1205859 ✓	2
	V	51	-0.001	ug/L	0.014	1983	9588	9271	1
	V-1	51	0.000	ug/L	0.001	312	77	80	18
	Cr	52	0.001	ug/L	0.047	5206	28352	27487	1
	Cr	53	0.004	ug/L	0.003	72	162	166	2
	Mn	55	-0.035	ug/L	0.003	8	1786	719	9
	Co	59	-0.000	ug/L	0.001	154	102	91	10
>	Ge	72		ug/L			622418	595435 ✓	1
	Ni	60	0.002	ug/L	0.001	45	20	26	12
	Ni	62	-0.186	ug/L	0.028	14	290	172	8
	Cu	63	-0.002	ug/L	0.002	86	228	200	8
	Cu	65	0.003	ug/L	0.001	33	42	51	8
	Zn	66	0.009	ug/L	0.000	2	140	156	1
	Zn	67	0.007	ug/L	0.018	262	25	26	27
	Zn	68	0.015	ug/L	0.008	51	174	193	7
	As	75	0.010	ug/L	0.004	41	143	158	6
	As-1	75	0.095	ug/L	0.063	65	10862	10592	0
	Se	82	0.009	ug/L	0.038	449	2	4	179
	Se	78	0.347	ug/L	0.212	61	11031	10765	0
	Mo	98	0.005	ug/L	0.003	50	20	46	28
	Y	89		ug/L			398382	374971	0
	Kr	83		ug/L			433	448	6
>	In	115		ug/L			957933	920203 ✓	0
	Ag	107	0.001	ug/L	0.001	43	20	32	17
	Cd	111	0.000	ug/L	0.002	3783	85	82	9
	Cd	114	0.000	ug/L	0.001	245	45	47	18
	Sb	121	0.049	ug/L	0.003	6	252	926	5
	Sb	123	0.048	ug/L	0.006	11	176	683	9
	Ba	135	-0.004	ug/L	0.001	38	41	23	28
	Ba	137	-0.004	ug/L	0.002	39	76	41	31
>	Tb	159		ug/L			1116653	1059825 ✓	0
	Tl	205	0.005	ug/L	0.003	67	235	396	29
	Pb	208	-0.002	ug/L	0.002	107	687	578	13
	Bi	209		ug/L			2666772	2602191	0
	Th	232	0.126	ug/L	0.018	14	2215	7781	10
	U	238	0.002	ug/L	0.000	4	34	140	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 19:15:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				1434712	1
	Be	9		ug/L				14	44
	C	13		ug/L				148455	0
	Cl	37		ug/L				5069571	2
>	Sc	45		ug/L				1176845	0
	V	51		ug/L				9407	2
	V-1	51		ug/L				58	16
	Cr	52		ug/L				27848	2
	Cr	53		ug/L				157	1
	Mn	55		ug/L				562	8
	Co	59		ug/L				92	14
>	Ge	72		ug/L				609915	1
	Ni	60		ug/L				15	9
	Ni	62		ug/L				173	4
	Cu	63		ug/L				145	17
	Cu	65		ug/L				27	11
	Zn	66		ug/L				122	9
	Zn	67		ug/L				17	3
	Zn	68		ug/L				153	10
	As	75		ug/L				150	5
	As-1	75		ug/L				10628	0
	Se	82		ug/L				12	12
	Se	78		ug/L				10819	0
	Mo	98		ug/L				22	13
	Y	89		ug/L				381309	0
	Kr	83		ug/L				436	1
>	In	115		ug/L				930388	0
	Ag	107		ug/L				21	14
	Cd	111		ug/L				75	20
	Cd	114		ug/L				36	19
	Sb	121		ug/L				275	9
	Sb	123		ug/L				208	9
	Ba	135		ug/L				13	4
	Ba	137		ug/L				26	11
>	Tb	159		ug/L				1069202	0
	Tl	205		ug/L				287	34
	Pb	208		ug/L				423	5
	Bi	209		ug/L				2611281	0
	Th	232		ug/L				2172	10
	U	238		ug/L				34	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV11
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 19:19:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1434712	1474203	0
[	Be	9	53.203	ug/L	0.669	1	14	228989	1
	C	13		ug/L			148455	139125	0
	Cl	37		ug/L			5069571	5252024	2
[>	Sc	45		ug/L			1176845	1225512	1
|	V	51	48.659	ug/L	0.623	1	9407	1261537	0
|	V-1	51	48.970	ug/L	0.594	1	58	1253082	0
|	Cr	52	49.140	ug/L	1.876	3	27848	1074200	2
|	Cr	53	50.228	ug/L	1.177	2	157	118680	1
|	Mn	55	48.872	ug/L	0.674	1	562	1439399	1
[	Co	59	47.524	ug/L	0.987	2	92	1012186	0
[>	Ge	72		ug/L			609915	608899	1
|	Ni	60	51.509	ug/L	1.095	2	15	211639	1
|	Ni	62	51.589	ug/L	1.171	2	173	30120	1
|	Cu	63	51.602	ug/L	0.491	0	145	470553	0
|	Cu	65	51.273	ug/L	0.343	0	27	210663	0
|	Zn	66	51.249	ug/L	0.710	1	122	126278	0
|	Zn	67	52.212	ug/L	0.303	0	17	21525	0
|	Zn	68	52.896	ug/L	1.356	2	153	94579	1
|	As	75	52.796	ug/L	0.392	0	150	112230	0
|	As-1	75	52.280	ug/L	0.517	0	10628	123798	0
|	Se	82	54.530	ug/L	0.358	0	12	12525	0
|	Se	78	52.624	ug/L	1.147	2	10819	43703	1
[	Mo	98	52.258	ug/L	0.464	0	22	261407	0
	Y	89		ug/L			381309	388086	2
	Kr	83		ug/L			436	461	3
[>	In	115		ug/L			930388	935322	0
|	Ag	107	55.236	ug/L	0.399	0	21	553843	1
|	Cd	111	53.184	ug/L	0.536	1	75	251201	1
|	Cd	114	51.889	ug/L	0.270	0	36	621083	1
|	Sb	121	52.483	ug/L	0.593	1	275	749069	0
|	Sb	123	52.321	ug/L	0.599	1	208	563703	0
|	Ba	135	50.946	ug/L	0.692	1	13	227788	1
[	Ba	137	50.185	ug/L	0.285	0	26	392131	0
[>	Tb	159		ug/L			1069202	1110881	1
|	Tl	205	49.299	ug/L	0.570	1	287	1868335	0
|	Pb	208	50.804	ug/L	0.666	1	423	2466389	0
|	Bi	209		ug/L			2611281	2598255	0
|	Th	232	55.436	ug/L	0.702	1	2172	2612248	0
[	U	238	56.179	ug/L	0.918	1	34	2719175	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB11
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 19:26:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612A.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1434712	1451677 ✓	1
	Be	9	0.001	ug/L	0.001	151	14	17	20
	C	13		ug/L			148455	141743	4
	Cl	37		ug/L			5069571	5089628	1
>	Sc	45		ug/L			1176845	1182306 ✓	1
	V	51	-0.001	ug/L	0.009	784	9407	9421	1
	V-1	51	0.001	ug/L	0.001	68	58	85	22
	Cr	52	-0.009	ug/L	0.036	385	27848	27780	2
	Cr	53	-0.002	ug/L	0.007	412	157	153	10
	Mn	55	0.001	ug/L	0.003	531	562	584	18
	Co	59	0.001	ug/L	0.000	70	92	106	9
>	Ge	72		ug/L			609915	600952 ✓	1
	Ni	60	0.002	ug/L	0.001	69	15	22	20
	Ni	62	0.034	ug/L	0.038	108	173	190	9
	Cu	63	0.005	ug/L	0.001	21	145	189	3
	Cu	65	0.006	ug/L	0.002	34	27	52	18
	Zn	66	0.002	ug/L	0.006	368	122	124	11
	Zn	67	0.023	ug/L	0.011	46	17	26	15
	Zn	68	0.016	ug/L	0.002	12	153	178	3
	As	75	0.008	ug/L	0.004	50	150	165	5
	As-1	75	0.058	ug/L	0.065	111	10628	10595	0
	Se	82	-0.059	ug/L	0.030	50	12	-1	479
	Se	78	0.173	ug/L	0.215	124	10819	10765	0
	Mo	98	0.006	ug/L	0.002	33	22	53	19
	Y	89		ug/L			381309	381104	2
	Kr	83		ug/L			436	474	6
>	In	115		ug/L			930388	911995 ✓	0
	Ag	107	0.002	ug/L	0.000	29	21	36	13
	Cd	111	0.002	ug/L	0.001	32	75	84	3
	Cd	114	0.001	ug/L	0.000	25	36	49	6
	Sb	121	0.042	ug/L	0.003	7	275	859	4
	Sb	123	0.043	ug/L	0.004	9	208	651	7
	Ba	135	0.003	ug/L	0.003	112	13	25	54
	Ba	137	0.002	ug/L	0.002	95	26	38	32
>	Tb	159		ug/L			1069202	1063670 ✓	1
	Tl	205	0.006	ug/L	0.005	84	287	509	36
	Pb	208	0.002	ug/L	0.003	140	423	508	23
	Bi	209		ug/L			2611281	2622995	0
	Th	232	0.158	ug/L	0.024	15	2172	9261	10
	U	238	0.002	ug/L	0.000	9	34	146	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR88 J REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Monday, November 26, 2012 19:31:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1434712	1443194	2
[	Be	9	0.048	ug/L	0.001	1	14	216	2
	C	13		ug/L			148455	145791	1
	Cl	37		ug/L			5069571	6353622	4
[>	Sc	45		ug/L			1176845	1316826	1
[	V	51	23.880	ug/L	0.563	2	9407	670577	1
[	V-1	51	24.157	ug/L	0.575	2	58	664167	1
[	Cr	52	4.680	ug/L	0.034	0	27848	138149	1
[	Cr	53	5.279	ug/L	0.070	1	157	13561	1
[	Mn	55	110.745	ug/L	2.712	2	562	3503724	1
[	Co	59	0.165	ug/L	0.003	2	92	3889	2
[>	Ge	72		ug/L			609915	600144	1
[	Ni	60	0.307	ug/L	0.008	2	15	1260	1
[	Ni	62	62.475	ug/L	34.925	55	173	36040	56
[	Cu	63	8.724	ug/L	2.933	33	145	78691	34
[	Cu	65	0.725	ug/L	0.076	10	27	2965	11
[	Zn	66	1.221	ug/L	0.046	3	122	3081	2
[	Zn	67	1.972	ug/L	0.095	4	17	817	3
[	Zn	68	2.003	ug/L	0.052	2	153	3675	1
[	As	75	0.171	ug/L	0.017	9	150	504	7
[	As-1	75	0.306	ug/L	0.069	22	10628	11113	2
[	Se	82	0.067	ug/L	0.040	58	12	27	32
[	Se	78	0.639	ug/L	0.277	43	10819	11040	2
[	Mo	98	0.089	ug/L	0.006	6	22	461	5
	Y	89		ug/L			381309	438223	2
	Kr	83		ug/L			436	505	5
[>	In	115		ug/L			930388	907954	0
[	Ag	107	0.008	ug/L	0.001	17	21	102	13
[	Cd	111	0.020	ug/L	0.003	13	75	164	8
[	Cd	114	0.002	ug/L	0.001	64	36	59	26
[	Sb	121	0.021	ug/L	0.001	4	275	555	2
[	Sb	123	0.020	ug/L	0.003	14	208	413	6
[	Ba	135	2.434	ug/L	0.036	1	13	10575	1
[	Ba	137	2.408	ug/L	0.019	0	26	18286	0
[>	Tb	159		ug/L			1069202	1113324	0
[	Tl	205	0.028	ug/L	0.009	32	287	1345	25
[	Pb	208	0.060	ug/L	0.001	1	423	3360	1
[	Bi	209		ug/L			2611281	2406297	0
[	Th	232	0.240	ug/L	0.014	5	2172	13574	4
[	U	238	0.044	ug/L	0.001	1	34	2167	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR88 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, November 26, 2012 19:35:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1434712	1488004	2
[	Be	9	26.437	ug/L	0.816	3	14	114801	0
	C	13		ug/L			148455	150929	1
	Cl	37		ug/L			5069571	5178902	0
[>	Sc	45		ug/L			1176845	1236159	2
[	V	51	25.456	ug/L	0.690	2	9407	670212	0
[	V-1	51	25.712	ug/L	0.715	2	58	663418	0
[	Cr	52	25.487	ug/L	0.837	3	27848	575937	0
[	Cr	53	26.373	ug/L	1.033	3	157	62908	1
[	Mn	55	25.956	ug/L	0.360	1	562	771288	1
[	Co	59	24.846	ug/L	0.330	1	92	533785	1
[>	Ge	72		ug/L			609915	620226	1
[	Ni	60	27.936	ug/L	1.155	4	15	116900	3
[	Ni	62	37.353	ug/L	6.420	17	173	22297	18
[	Cu	63	28.337	ug/L	0.244	0	145	263310	2
[	Cu	65	27.407	ug/L	0.150	0	27	114716	1
[	Zn	66	84.282	ug/L	2.032	2	122	211432	1
[	Zn	67	76.123	ug/L	1.794	2	17	31954	1
[	Zn	68	82.006	ug/L	1.318	1	153	149282	1
[	As	75	25.820	ug/L	0.790	3	150	55972	1
[	As-1	75	26.024	ug/L	0.368	1	10628	68195	0
[	Se	82	82.759	ug/L	2.799	3	12	19351	2
[	Se	78	79.638	ug/L	1.143	1	10819	61719	0
[	Mo	98	25.595	ug/L	0.541	2	22	130410	1
	Y	89		ug/L			381309	394328	1
	Kr	83		ug/L			436	496	5
[>	In	115		ug/L			930388	954605	1
[	Ag	107	26.177	ug/L	0.199	0	21	267874	1
[	Cd	111	25.486	ug/L	0.458	1	75	122873	0
[	Cd	114	25.547	ug/L	0.321	1	36	312075	0
[	Sb	121	25.159	ug/L	0.375	1	275	366601	0
[	Sb	123	25.133	ug/L	0.476	1	208	276442	0
[	Ba	135	25.770	ug/L	0.205	0	13	117599	1
[	Ba	137	25.600	ug/L	0.217	0	26	204166	1
[>	Tb	159		ug/L			1069202	1106057	1
[	Tl	205	26.173	ug/L	0.257	0	287	987780	1
[	Pb	208	27.043	ug/L	0.213	0	423	1307411	0
[	Bi	209		ug/L			2611281	2670355	0
[	Th	232	25.549	ug/L	0.525	2	2172	1199866	1
[	U	238	26.045	ug/L	0.309	1	34	1255262	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 19:39:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1434712	1520210	2
[	Be	9	0.523	ug/L	0.018	3	14	2337	1
	C	13		ug/L			148455	182364	2
	Cl	37		ug/L			5069571	5113763	2
[>	Sc	45		ug/L			1176845	1384383	1
|	V	51	31.216	ug/L	0.330	1	9407	918220	0
|	V-1	51	31.547	ug/L	0.413	1	58	911890	0
|	Cr	52	18.502	ug/L	0.110	0	27848	477417	0
|	Cr	53	19.410	ug/L	0.342	1	157	51923	0
|	Mn	55	1397.849	ug/L	25.963	1	562	46488172	1
[	Co	59	7.974	ug/L	0.191	2	92	191933	1
[>	Ge	72		ug/L			609915	623226	1
|	Ni	60	19.219	ug/L	0.495	2	15	80828	1
|	Ni	62	21.100	ug/L	0.531	2	173	12714	1
|	Cu	63	21.936	ug/L	0.145	0	145	204836	1
|	Cu	65	22.050	ug/L	0.551	2	27	92735	1
|	Zn	66	456.360	ug/L	11.961	2	122	1149815	1
|	Zn	67	437.572	ug/L	10.747	2	17	184474	1
|	Zn	68	464.759	ug/L	19.950	4	153	849172	2
|	As	75	26.048	ug/L	0.587	2	150	56746	1
|	As-1	75	25.410	ug/L	0.639	2	10628	67162	1
|	Se	82	0.030	ug/L	0.036	120	12	19	44
|	Se	78	0.027	ug/L	0.216	792	10819	11071	0
[	Mo	98	0.479	ug/L	0.018	3	22	2473	2
	Y	89		ug/L			381309	539656	1
	Kr	83		ug/L			436	811	2
[>	In	115		ug/L			930388	982467	0
|	Ag	107	0.375	ug/L	0.002	0	21	3966	0
|	Cd	111	6.721	ug/L	0.086	1	75	33412	0
|	Cd	114	6.696	ug/L	0.036	0	36	84221	0
|	Sb	121	0.384	ug/L	0.010	2	275	6051	2
|	Sb	123	0.381	ug/L	0.008	2	208	4533	1
|	Ba	135	456.624	ug/L	31.652	6	13	2144106	6
[	Ba	137	460.843	ug/L	6.332	1	26	3782188	1
[>	Tb	159		ug/L			1069202	1159019	0
|	Tl	205	0.336	ug/L	0.002	0	287	13592	0
|	Pb	208	234.188	ug/L	0.859	0	423	11861589	0
|	Bi	209		ug/L			2611281	2641269	0
|	Th	232	3.930	ug/L	0.031	0	2172	195442	0
[	U	238	0.418	ug/L	0.008	1	34	21151	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 19:43:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

RA Ag

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1434712	1537076	3
	Be	9	0.631	ug/L	0.009	1	14	2848	2
	C	13		ug/L			148455	175037	3
	Cl	37		ug/L			5069571	5257294	2
>	Sc	45		ug/L			1176845	1416166 ✓ 120-32	1
	V	51	36.954	ug/L	1.208	3	9407	1109745	2
	V-1	51	37.320	ug/L	1.228	3	58	1103465	2
	Cr	52	21.049	ug/L	0.705	3	27848	550846	1
	Cr	53	22.022	ug/L	0.429	1	157	60237	1
	Mn	55	746.664	ug/L	31.039	4	562	25397843	3
	Co	59	8.597	ug/L	0.264	3	92	211658	1
>	Ge	72		ug/L			609915	634505	0
	Ni	60	24.508	ug/L	0.291	1	15	104947	0
	Ni	62	26.584	ug/L	1.033	3	173	16264	4
	Cu	63	24.548	ug/L	0.184	0	145	233360	0
	Cu	65	24.515	ug/L	0.665	2	27	104973	2
	Zn	66	126.837	ug/L	1.097	0	122	325507	0
	Zn	67	137.645	ug/L	3.392	2	17	59104	2
	Zn	68	134.777	ug/L	3.648	2	153	250919	2
	As	75	17.829	ug/L	0.175	0	150	39597	0
	As-1	75	17.310	ug/L	0.182	1	10628	50112	0
	Se	82	U -0.248	ug/L	0.063	25	12	-46	31
	Se	78	U -0.184	ug/L	0.072	39	10819	11135	0
	Mo	98	0.379	ug/L	0.022	5	22	2001	5
	Y	89		ug/L			381309	602769	1
	Kr	83		ug/L			436	979	2
>	In	115		ug/L			930388	973249	1
	Ag	107	0.211	ug/L	0.007	3	21	2226	1
	Cd	111	0.788	ug/L	0.012	1	75	3949	0
	Cd	114	0.613	ug/L	0.008	1	36	7667	0
	Sb	121	0.089	ug/L	0.006	7	275	1609	6
	Sb	123	U 0.089	ug/L	0.001	1	208	1210	1
	Ba	135	295.256	ug/L	6.133	2	13	1373272	0
	Ba	137	316.980	ug/L	6.370	2	26	2576542	0
>	Tb	159		ug/L			1069202	1180205	1
	Tl	205	0.210	ug/L	0.002	0	287	8776	0
	Pb	208	20.235	ug/L	0.273	1	423	1043981	0
	Bi	209		ug/L			2611281	2648154	1
	Th	232	4.589	ug/L	0.101	2	2172	231920	1
	U	238	0.589	ug/L	0.007	1	34	30307	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 19:48:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1434712	1521795	1
	Be	9	0.625	ug/L	0.025	4	14	2791	2
	C	13		ug/L			148455	166713	2
	Cl	37		ug/L			5069571	5369999	1
>	Sc	45		ug/L			1176845	1419276	1
	V	51	43.584	ug/L	1.015	2	9407	1309675	1
	V-1	51	43.905	ug/L	1.126	2	58	1300917	1
	Cr	52	22.727	ug/L	0.528	2	27848	593448	0
	Cr	53	23.448	ug/L	0.610	2	157	64258	1
	Mn	55	425.212	ug/L	6.388	1	562	14496859	0
	Co	59	8.838	ug/L	0.193	2	92	218067	0
>	Ge	72		ug/L			609915	633266	0
	Ni	60	22.350	ug/L	0.149	0	15	95517	0
	Ni	62	24.664	ug/L	0.170	0	173	15072	0
	Cu	63	32.284	ug/L	0.392	1	145	306274	1
	Cu	65	32.257	ug/L	0.395	1	27	137849	0
	Zn	66	67.942	ug/L	1.549	2	122	174099	2
	Zn	67	79.391	ug/L	1.074	1	17	34029	0
	Zn	68	73.908	ug/L	0.745	1	153	137394	0
	As	75	6.572	ug/L	0.087	1	150	14665	0
	As-1	75	6.230	ug/L	0.131	2	10628	25062	0
	Se	82	-0.216	ug/L	0.057	26	12	-38	35
	Se	78	-0.375	ug/L	0.180	48	10819	10988	0
	Mo	98	0.334	ug/L	0.007	2	22	1761	2
	Y	89		ug/L			381309	671771	1
	Kr	83		ug/L			436	918	3
>	In	115		ug/L			930388	962291	1
	Ag	107	0.258	ug/L	0.010	3	21	2679	3
	Cd	111	0.395	ug/L	0.030	7	75	1997	8
	Cd	114	0.236	ug/L	0.008	3	36	2944	2
	Sb	121	0.034	ug/L	0.003	8	275	791	4
	Sb	123	0.032	ug/L	0.006	17	208	568	9
	Ba	135	172.419	ug/L	2.939	1	13	793002	0
	Ba	137	168.918	ug/L	3.885	2	26	1357687	1
>	Tb	159		ug/L			1069202	1163887	1
	Tl	205	0.184	ug/L	0.005	2	287	7601	1
	Pb	208	8.579	ug/L	0.115	1	423	436744	0
	Bi	209		ug/L			2611281	2640202	0
	Th	232	5.009	ug/L	0.075	1	2172	249461	0
	U	238	0.831	ug/L	0.023	2	34	42192	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 19:52:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

Rh Ag V Cr Co

	Analyte	Mass	Conc. Mean		Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6			ug/L			1434712	1558252	0
[	Be	9	0.546		ug/L	0.013	2	14	2501	2
	C	13			ug/L			148455	158433	1
	Cl	37			ug/L			5069571	5200611	0
[>	Sc	45			ug/L			1176845	1440017	0
[	V	51	47.164		ug/L	0.088	0	9407	1437291	0
[	V-1	51	47.564		ug/L	0.134	0	58	1430230	0
[	Cr	52	23.728		ug/L	0.160	0	27848	627283	1
[	Cr	53	24.677		ug/L	0.308	1	157	68625	1
[	Mn	55	346.961		ug/L	0.581	0	562	12004057	0
[	Co	59	8.968		ug/L	0.079	0	92	224557	0
[>	Ge	72			ug/L			609915	628809	1
[	Ni	60	22.303		ug/L	0.378	1	15	94637	1
[	Ni	62	25.530		ug/L	0.264	1	173	15484	0
[	Cu	63	33.858		ug/L	1.043	3	145	318812	1
[	Cu	65	33.404		ug/L	0.880	2	27	141718	1
[	Zn	66	60.642		ug/L	1.478	2	122	154255	0
[	Zn	67	70.928		ug/L	2.078	2	17	30182	1
[	Zn	68	64.060		ug/L	0.881	1	153	118267	1
[	As	75	6.996		ug/L	0.221	3	150	15488	1
[	As-1	75	6.622		ug/L	0.250	3	10628	25759	0
[	Se	82	-0.078	U	ug/L	0.056	72	12	-5	226
[	Se	78	-0.398		ug/L	0.220	55	10819	10895	0
[	Mo	98	0.388		ug/L	0.011	2	22	2025	1
	Y	89			ug/L			381309	649031	1
	Kr	83			ug/L			436	853	3
[>	In	115			ug/L			930388	952430	0
[	Ag	107	0.251		ug/L	0.010	4	21	2588	3
[	Cd	111	0.320		ug/L	0.020	6	75	1614	5
[	Cd	114	0.159		ug/L	0.008	5	36	1972	5
[	Sb	121	0.008	U	ug/L	0.002	18	275	400	4
[	Sb	123	0.008		ug/L	0.002	20	208	298	5
[	Ba	135	142.658		ug/L	0.576	0	13	649467	0
[	Ba	137	141.542		ug/L	2.308	1	26	1126172	1
[>	Tb	159			ug/L			1069202	1160526	1
[	Tl	205	0.184	U	ug/L	0.004	2	287	7595	0
[	Pb	208	8.024		ug/L	0.179	2	423	407262	0
[	Bi	209			ug/L			2611281	2625431	0
[	Th	232	5.749		ug/L	0.130	2	2172	285067	0
[	U	238	0.915		ug/L	0.024	2	34	46299	0

VS21 : 00290

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 19:56:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1434712	1551304	1
[	Be	9	0.998	ug/L	0.034	3	14	4532	2
	C	13		ug/L			148455	217863	2
	Cl	37		ug/L			5069571	5244386	1
[>	Sc	45		ug/L			1176845	1360025	1
|	V	51	30.112	ug/L	0.594	1	9407	870532	2
|	V-1	51	30.296	ug/L	0.334	1	58	860353	1
|	Cr	52	30.258	ug/L	0.568	1	27848	746543	1
|	Cr	53	30.900	ug/L	0.503	1	157	81104	1
|	Mn	55	2787.269	ug/L	50.018	1	562	91053535	0
[	Co	59	11.833	ug/L	0.167	1	92	279759	0
[>	Ge	72		ug/L			609915	621122	0
|	Ni	60	37.543	ug/L	0.499	1	15	157357	0
|	Ni	62	40.402	ug/L	0.614	1	173	24103	1
	Cu	63	42.171	ug/L	0.735	1	145	392289	0
|	Cu	65	41.913	ug/L	0.175	0	27	175683	1
	Zn	66	870.645	ug/L	11.540	1	122	2186387	0
	Zn	67	744.930	ug/L	3.226	0	17	313046	1
	Zn	68	777.645	ug/L	18.511	2	153	1416380	1
	As	75	33.846	ug/L	0.370	1	150	73446	0
	As-1	75	33.009	ug/L	0.422	1	10628	83723	0
|	Se	82	0.598	ug/L	0.063	10	12	152	9
|	Se	78	0.471	ug/L	0.174	36	10819	11317	0
[	Mo	98	1.182	ug/L	0.016	1	22	6052	0
	Y	89		ug/L			381309	650777	0
	Kr	83		ug/L			436	869	3
[>	In	115		ug/L			930388	1038504	1
|	Ag	107	0.494	ug/L	0.007	1	21	5519	2
|	Cd	111	16.410	ug/L	0.478	2	75	86088	1
|	Cd	114	16.336	ug/L	0.281	1	36	217111	1
|	Sb	121	0.904	ug/L	0.024	2	275	14617	1
|	Sb	123	0.894	ug/L	0.019	2	208	10927	0
|	Ba	135	457.123	ug/L	14.420	3	13	2268426	1
[	Ba	137	447.594	ug/L	3.708	0	26	3882744	0
[>	Tb	159		ug/L			1069202	1150260	0
|	Tl	205	0.626	ug/L	0.008	1	287	24853	0
|	Pb	208	752.837	ug/L	4.838	0	423	37841497	0
|	Bi	209		ug/L			2611281	2654201	0
|	Th	232	4.668	ug/L	0.019	0	2172	229930	0
[	U	238	0.666	ug/L	0.010	1	34	33397	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 20:00:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1434712	1562640	0
[	**Be**	**9**	**1.369**	ug/L	0.022	1	14	6262	1
	C	**13**		ug/L			148455	180556	2
	Cl	**37**		ug/L			5069571	5120784	1
[>	**Sc**	**45**		ug/L			1176845	1429030	2
[	**V**	**51**	**45.464**	ug/L	0.725	1	9407	1375069	0
[	**V-1**	**51**	**45.768**	ug/L	0.680	1	58	1365488	0
[	**Cr**	**52**	**35.601**	ug/L	0.740	2	27848	916831	0
[	**Cr**	**53**	**36.470**	ug/L	0.662	1	157	100537	1
[	**Mn**	**55**	**1555.521**	ug/L	45.328	2	562	53384471	1
[	**Co**	**59**	**18.695**	ug/L	0.274	1	92	464358	0
[>	**Ge**	**72**		ug/L			609915	620684	0
[	**Ni**	**60**	**80.658**	ug/L	2.122	2	15	337840	2
[	**Ni**	**62**	**83.396**	ug/L	1.023	1	173	49531	0
[	**Cu**	**63**	**55.826**	ug/L	0.932	1	145	518940	1
[	**Cu**	**65**	**55.761**	ug/L	0.673	1	27	233551	1
[	**Zn**	**66**	**455.934**	ug/L	7.892	1	122	1144241	1
[	**Zn**	**67**	**432.402**	ug/L	3.205	0	17	181586	0
[	**Zn**	**68**	**458.300**	ug/L	3.923	0	153	834259	0
[	**As**	**75**	**26.667**	ug/L	0.106	0	150	57863	0
[	**As-1**	**75**	**25.859**	ug/L	0.103	0	10628	67889	0
[	**Se**	**82**	**0.351**	ug/L	0.028	7	12	94	6
[	**Se**	**78**	**0.427**	ug/L	0.044	10	10819	11282	0
[	**Mo**	**98**	**1.421**	ug/L	0.025	1	22	7266	1
	Y	**89**		ug/L			381309	857588	1
	Kr	**83**		ug/L			436	1327	2
[>	**In**	**115**		ug/L			930388	966264	0
[	**Ag**	**107**	**1.298**	ug/L	0.026	1	21	13470	1
[	**Cd**	**111**	**6.877**	ug/L	0.047	0	75	33621	0
[	**Cd**	**114**	**6.580**	ug/L	0.043	0	36	81401	0
[	**Sb**	**121**	**0.232**	ug/L	0.023	9	275	3710	8
[	**Sb**	**123**	**0.225**	ug/L	0.007	3	208	2715	2
[	**Ba**	**135**	**288.965**	ug/L	1.302	0	13	1334652	0
[	**Ba**	**137**	**308.935**	ug/L	0.910	0	26	2493700	0
[>	**Tb**	**159**		ug/L			1069202	1162095	0
[	**Tl**	**205**	**0.387**	ug/L	0.004	0	287	15670	0
[	**Pb**	**208**	**218.462**	ug/L	1.567	0	423	11094328	0
[	**Bi**	**209**		ug/L			2611281	2539413	0
[	**Th**	**232**	**6.324**	ug/L	0.090	1	2172	313835	0
[	**U**	**238**	**1.502**	ug/L	0.017	1	34	76074	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 20:05:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1434712	1569488	1
[	Be	9	0.551	ug/L	0.010	1	14	2541	2
	C	13		ug/L			148455	178229	2
	Cl	37		ug/L			5069571	5154035	0
[>	Sc	45		ug/L			1176845	1382822	1
[	V	51	35.382	ug/L	0.690	1	9407	1038016	0
[	V-1	51	35.641	ug/L	0.725	2	58	1028991	0
[	Cr	52	22.518	ug/L	0.342	1	27848	573260	0
[	Cr	53	23.176	ug/L	0.553	2	157	61892	1
[	Mn	55	1470.477	ug/L	31.506	2	562	48845637	1
[	Co	59	9.286	ug/L	0.228	2	92	223231	1
[>	Ge	72		ug/L			609915	622174	1
[	Ni	60	21.492	ug/L	0.677	3	15	90215	1
[	Ni	62	23.383	ug/L	0.266	1	173	14047	1
[	Cu	63	19.350	ug/L	0.561	2	145	180345	1
[	Cu	65	19.320	ug/L	0.454	2	27	81130	2
[	Zn	66	232.786	ug/L	9.997	4	122	585409	2
[	Zn	67	229.092	ug/L	2.647	1	17	96437	1
[	Zn	68	232.276	ug/L	6.524	2	153	423802	1
[	As	75	17.126	ug/L	0.167	0	150	37301	1
[	As-1	75	16.641	ug/L	0.236	1	10628	47653	0
[	Se	82	-0.299	ug/L	0.025	8	12	-57	10
[	Se	78	-0.256	ug/L	0.308	120	10819	10871	0
[	Mo	98	0.445	ug/L	0.014	3	22	2294	1
	Y	89		ug/L			381309	481167	2
	Kr	83		ug/L			436	886	1
[>	In	115		ug/L			930388	996393	1
[	Ag	107	0.196	ug/L	0.010	5	21	2119	5
[	Cd	111	2.970	ug/L	0.020	0	75	15018	0
[	Cd	114	2.867	ug/L	0.033	1	36	36592	0
[	Sb	121	0.183	ug/L	0.005	2	275	3079	1
[	Sb	123	0.178	ug/L	0.004	2	208	2269	2
[	Ba	135	256.072	ug/L	4.081	1	13	1219477	0
[	Ba	137	276.074	ug/L	2.323	0	26	2297814	0
[>	Tb	159		ug/L			1069202	1142498	1
[	Tl	205	0.271	ug/L	0.001	0	287	10854	1
[	Pb	208	235.700	ug/L	2.203	0	423	11767368	0
[	Bi	209		ug/L			2611281	2635842	0
[	Th	232	3.366	ug/L	0.046	1	2172	165296	0
[	U	238	0.365	ug/L	0.004	1	34	18201	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, November 26, 2012 20:09:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1434712	1555089	0
	Be	9	0.376	ug/L	0.014	3	14	1720	4
	C	13		ug/L			148455	224735	1
	Cl	37		ug/L			5069571	5346855	0
>	Sc	45		ug/L			1176845	1383605	0
	V	51	25.223	ug/L	0.454	1	9407	743662	1
	V-1	51	25.360	ug/L	0.457	1	58	732692	1
	Cr	52	16.288	ug/L	0.426	2	27848	423944	1
	Cr	53	16.593	ug/L	0.019	0	157	44397	0
	Mn	55	613.919	ug/L	2.849	0	562	20407300	0
	Co	59	6.517	ug/L	0.047	0	92	156816	0
>	Ge	72		ug/L			609915	636768	0
	Ni	60	14.440	ug/L	0.116	0	15	62065	1
	Ni	62	16.251	ug/L	0.108	0	173	10048	0
	Cu	63	21.185	ug/L	0.306	1	145	202126	1
	Cu	65	20.877	ug/L	0.531	2	27	89718	2
	Zn	66	206.227	ug/L	2.797	1	122	531080	1
	Zn	67	197.701	ug/L	2.123	1	17	85188	1
	Zn	68	206.364	ug/L	2.820	1	153	385495	1
	As	75	11.148	ug/L	0.028	0	150	24908	0
	As-1	75	10.732	ug/L	0.043	0	10628	35395	0
	Se	82	0.558	ug/L	0.032	5	12	146	5
	Se	78	0.061	ug/L	0.112	182	10819	11335	0
	Mo	98	0.478	ug/L	0.011	2	22	2526	2
	Y	89		ug/L			381309	513761	1
	Kr	83		ug/L			436	647	0
>	In	115		ug/L			930388	1003017	0
	Ag	107	0.283	ug/L	0.005	1	21	3064	1
	Cd	111	4.093	ug/L	0.031	0	75	20804	0
	Cd	114	3.984	ug/L	0.029	0	36	51174	0
	Sb	121	0.394	ug/L	0.003	0	275	6330	0
	Sb	123	0.394	ug/L	0.004	1	208	4781	0
	Ba	135	145.967	ug/L	0.951	0	13	699849	1
	Ba	137	144.282	ug/L	0.661	0	26	1208935	0
>	Tb	159		ug/L			1069202	1160318	0
	Tl	205	0.218	ug/L	0.005	2	287	8945	1
	Pb	208	219.241	ug/L	2.008	0	423	11116371	0
	Bi	209		ug/L			2611281	2671350	0
	Th	232	2.178	ug/L	0.012	0	2172	109474	0
	U	238	0.567	ug/L	0.003	0	34	28692	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV15
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 22:54:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1434712	1383019	1
	Be	9	51.553	ug/L	1.003	1	14	208140	1
	C	13		ug/L			148455	127305	1
	Cl	37		ug/L			5069571	4914397	2
>	Sc	45		ug/L			1176845	1068134	0
	V	51	50.303	ug/L	1.412	2	9407	1136465	2
	V-1	51	50.512	ug/L	1.431	2	58	1126563	2
	Cr	52	50.542	ug/L	0.519	1	27848	962555	1
	Cr	53	51.270	ug/L	0.820	1	157	105602	1
	Mn	55	50.678	ug/L	0.757	1	562	1300979	1
	Co	59	50.113	ug/L	2.066	4	92	930317	3
>	Ge	72		ug/L			609915	566223	0
	Ni	60	49.939	ug/L	0.775	1	15	190804	0
	Ni	62	84.413	ug/L	0.713	0	173	45733	0
	Cu	63	52.829	ug/L	0.365	0	145	448024	1
	Cu	65	51.059	ug/L	0.461	0	27	195081	0
	Zn	66	50.809	ug/L	0.751	1	122	116434	1
	Zn	67	52.227	ug/L	0.282	0	17	20023	1
	Zn	68	52.063	ug/L	0.282	0	153	86584	1
	As	75	51.363	ug/L	0.315	0	150	101541	1
	As-1	75	51.402	ug/L	0.299	0	10628	113364	1
	Se	82	51.089	ug/L	0.449	0	12	10913	0
	Se	78	51.441	ug/L	0.356	0	10819	39957	1
	Mo	98	50.763	ug/L	0.294	0	22	236142	0
	Y	89		ug/L			381309	346516	0
	Kr	83		ug/L			436	580	4
>	In	115		ug/L			930388	910830	0
	Ag	107	53.673	ug/L	0.748	1	21	524090	1
	Cd	111	52.788	ug/L	0.183	0	75	242794	0
	Cd	114	52.082	ug/L	0.604	1	36	607090	1
	Sb	121	53.380	ug/L	0.440	0	275	741979	1
	Sb	123	52.548	ug/L	0.284	0	208	551356	0
	Ba	135	51.214	ug/L	0.326	0	13	222980	0
	Ba	137	51.021	ug/L	0.340	0	26	388231	0
>	Tb	159		ug/L			1069202	1100874	0
	Tl	205	50.063	ug/L	0.279	0	287	1880361	0
	Pb	208	51.094	ug/L	0.588	1	423	2458376	0
	Bi	209		ug/L			2611281	2661850	1
	Th	232	55.950	ug/L	0.225	0	2172	2613034	0
	U	238	57.008	ug/L	0.387	0	34	2734869	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV12
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 20:13:57
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8nomin.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1434712	1495217	0
	Be	9	53.495	ug/L	0.830	1	14	233501	0
	C	13		ug/L			148455	143181	0
	Cl	37		ug/L			5069571	5325663	1
>	Sc	45		ug/L			1176845	1257699	0
	V	51	47.992	ug/L	0.162	0	9407	1277222	1
	V-1	51	48.234	ug/L	0.309	0	58	1266791	1
	Cr	52	48.040	ug/L	0.465	0	27848	1078763	1
	Cr	53	48.879	ug/L	0.951	1	157	118564	2
	Mn	55	48.031	ug/L	1.672	3	562	1452146	4
	Co	59	46.356	ug/L	0.505	1	92	1013365	0
>	Ge	72		ug/L			609915	617667	1
	Ni	60	51.655	ug/L	0.845	1	15	215285	1
	Ni	62	52.119	ug/L	0.728	1	173	30868	1
	Cu	63	50.961	ug/L	0.970	1	145	471348	0
	Cu	65	51.172	ug/L	0.759	1	27	213288	2
	Zn	66	52.544	ug/L	0.797	1	122	131329	1
	Zn	67	52.097	ug/L	0.483	0	17	21789	2
	Zn	68	52.314	ug/L	1.115	2	153	94883	0
	As	75	52.621	ug/L	1.128	2	150	113452	0
	As-1	75	52.039	ug/L	0.939	1	10628	125040	0
	Se	82	54.002	ug/L	1.950	3	12	12578	2
	Se	78	51.910	ug/L	1.168	2	10819	43875	0
	Mo	98	52.773	ug/L	0.848	1	22	267755	0
	Y	89		ug/L			381309	398147	1
	Kr	83		ug/L			436	483	4
>	In	115		ug/L			930388	941492	0
	Ag	107	54.751	ug/L	1.332	2	21	552644	3
	Cd	111	52.543	ug/L	0.615	1	75	249785	0
	Cd	114	52.317	ug/L	0.149	0	36	630330	0
	Sb	121	52.512	ug/L	0.151	0	275	754456	0
	Sb	123	52.320	ug/L	0.473	0	208	567416	0
	Ba	135	50.675	ug/L	0.418	0	13	228059	0
	Ba	137	49.734	ug/L	0.388	0	26	391169	0
>	Tb	159		ug/L			1069202	1105830	0
	Tl	205	49.507	ug/L	0.576	1	287	1867777	0
	Pb	208	51.155	ug/L	0.846	1	423	2472318	1
	Bi	209		ug/L			2611281	2603355	0
	Th	232	56.253	ug/L	1.236	2	2172	2638851	1
	U	238	56.742	ug/L	0.879	1	34	2734256	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB12
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, November 26, 2012 20:20:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1434712	1414829	2
[	Be	9	0.000	ug/L	0.001	182	14	16	16
	C	13		ug/L			148455	144927	1
	Cl	37		ug/L			5069571	5067030	3
[>	Sc	45		ug/L			1176845	1205847	1
[	V	51	-0.016	ug/L	0.007	41	9407	9224	0
[	V-1	51	0.001	ug/L	0.000	16	58	80	5
[	Cr	52	-0.054	ug/L	0.029	52	27848	27395	1
[	Cr	53	0.005	ug/L	0.007	159	157	171	9
[	Mn	55	0.001	ug/L	0.002	247	562	596	8
[	Co	59	0.001	ug/L	0.000	84	92	106	7
[>	Ge	72		ug/L			609915	586161	1
[	Ni	60	0.002	ug/L	0.001	48	15	23	17
[	Ni	62	0.118	ug/L	0.038	31	173	233	9
[	Cu	63	0.011	ug/L	0.002	22	145	232	9
[	Cu	65	0.004	ug/L	0.001	32	27	42	12
[	Zn	66	0.003	ug/L	0.006	196	122	124	12
[	Zn	67	0.006	ug/L	0.009	153	17	19	18
[	Zn	68	0.016	ug/L	0.013	76	153	175	11
[	As	75	0.016	ug/L	0.008	51	150	175	8
[	As-1	75	0.221	ug/L	0.058	26	10628	10675	0
[	Se	82	0.028	ug/L	0.043	153	12	17	52
[	Se	78	0.749	ug/L	0.211	28	10819	10847	0
[	Mo	98	0.005	ug/L	0.001	13	22	46	6
	Y	89		ug/L			381309	382606	0
	Kr	83		ug/L			436	428	6
[>	In	115		ug/L			930388	920547	1
[	Ag	107	0.001	ug/L	0.000	32	21	32	10
[	Cd	111	0.002	ug/L	0.001	67	75	84	9
[	Cd	114	0.000	ug/L	0.001	259	36	41	31
[	Sb	121	0.038	ug/L	0.003	7	275	805	4
[	Sb	123	0.036	ug/L	0.003	9	208	583	5
[	Ba	135	0.001	ug/L	0.001	105	13	16	21
[	Ba	137	0.001	ug/L	0.001	166	26	30	23
[>	Tb	159		ug/L			1069202	1051255	0
[	Tl	205	-0.002	ug/L	0.001	85	287	227	20
[	Pb	208	0.000	ug/L	0.001	539	423	420	5
[	Bi	209		ug/L			2611281	2612691	0
[	Th	232	0.099	ug/L	0.017	17	2172	6546	11
[	U	238	0.001	ug/L	0.000	23	34	101	15

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Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-27-12 **Analyst:** ~~AA~~ **Page:** 1 **of** 6

All corrections made by analyst unless otherwise noted. ~~AA~~ 11-27-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD0			2991-10
		1			2990-12
		2			2994-14
		3			2995-1
		4			2994-3
		5			2995-2
		Rinse Sampl			
		STD0			
		ICV			2976-T
		ICB			
		QCV1			
		CCV1			
		~~CRI~~			62Ni low
		ICSA			
		ICSAB			
		LR200			Ag high
		LR300			137Ba high
		B1			
		B2			
		B3			
		QCV2			STD0
		CCB2			CCV3
		Low Check			CCB3
		VSTD MB1	REN	2	

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-27-12 **Analyst:** HA **Page:** 2 of 6

All corrections made by analyst unless otherwise noted. HA 11-27-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS17 MBLspk	REN	2	
		MBZspk			
		ADup			Cu high RPD
		A			CAL
		Aspk			
		EDup			Cu High RPD
		E			CAL
		Espk			
		CCV4			
		CCB4			Th low
		VS17 BMB2	REN	2	
		B			
		C			
		D			
		F			
		G			
		H			
		VT58 D	SWN	20 100	HA-20
		E			
		F			
		CCV5			
		CCB5			Th high
		VS20 MBL	SWN	20	Ag CV out
		MBLspk			

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-27-12 **Analyst:** M **Page:** 3 **of** 6

All corrections made by analyst unless otherwise noted. M 11-28-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	V	VS20 B	SWW	20	Ag CV out
		C			
		D			
		D		500	Pb
	V	E		20	Ag CV out
		G			
		H			
SWW		I			
		CCV6			Ag High
		CCB6			^{62}Ni low
		VS21 A-L	SWW	500	Pb Zn
		A		100	
		ADup			
		ASpk			
zzz		~~Post~~ zzzzzz			
		B		200	
		D		100	Zn, Pb
		E			~~Pb~~ Zn
		G		50	V Cr Co
		H			
		CCV7			Ag high
		CCB7			^{62}Ni low
		VS21 I	SWW	100	Pb Zn
		J		50	V Cr Co Zn

VS21 : 00300

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-27-12 **Analyst:** M **Page:** 4 **of** 6

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	VS21 J	SWN	100	use 80%
		VR82 C		20	
		D			
		E			
		F			
		G			
		H			
		I			
		CCV8			Ag high
		CCB8			^{62}Ni low
	✓	VS21 MB1	SWN	20	CV out (Ag
	↓	MB1spk		↓	↓
		A-L		100	RR Ag See 80 for Pb2
		A		20	100 Pb2
		ADup			CAF
		ASpk			Sb low %RD
		APost			0.106 mL spk #2 1/10 0.106 mL spk #1 1/10 Sb
	✓	B			CV out (Ag)
		C			
	↓	D	↓	↓	↓
		CCV9			Ag high
		CCB9			^{62}Ni ↓
	✓	VR88 MB2spk	REN	2	CV out (Ag)
	↓	↓ J	↓	5	↓

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ICP/MS SAMPLE RUN LOG

PE Nexlon ICP-MS Serial No. 81DN1050201

Analysis Date: 11-27-12 **Analyst:** M **Page:** 5 **of** 60

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	VS21 E	SWN	20	Cr out (Ag)
		F			
		G			
		H			
		I			
		J			
		K			
		L			
		CCV10			
		CCB10			6K Ni low
MB1		VR58 MB21	SWN	20	
		MB1spk			
		VR58 PB	RSN	10	Ag
		C			
		D			
		VR58 Dup	SWN	20	
		A			
		Aspk			
		B			
		C			
		CCV4			
		CCB11			
		VR58 D	SWN	20	
		E			

11-28-12

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA   Analysis Date: 11-27-12

Nexion M2	Analyst A 11-28	Peer MJT 11.28.12	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	VS21
Matrix Duplicates	✓	✓	VS17
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	CAF VS17 VS21

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Tuesday, November 27, 2012 10:33:19
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1336
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse

Acq. Dead Time (ns): 60
Current Dead Time (ns): 60

Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	6203.4	6203.375	25.244	0.4	Standard
	Mg	24.0	44252.9	44252.930	414.582	0.9	Standard
	In	114.9	81469.2	81469.237	363.087	0.4	Standard
	Pb	208.0	34913.9	34913.921	209.815	0.6	Standard
	U	238.1	62797.3	62797.269	550.689	0.9	Standard
⌈	CeO	155.9	1686.6	0.022	0.002	6.9	Standard
| >	Ce	139.9	76796.6	76796.576	256.936	0.3	Standard
⌊	Ce++	70.0	1531.6	0.020	0.000	2.1	Standard
	Bkgd	220.0	0.0	0.000	0.000		Standard

Current Conditions File Data

Current Value	Description
1.07	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 11/27/2012 10:28:15 AM
End Time: 11/27/2012 10:32:26 AM

AutoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.996; Intercept = -12.09

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 11/27/2012 10:22:45 AM
End Time: 11/27/2012 10:24:58 AM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/7.025), Target/Obtained resolution (0.7/0.693)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.712)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.720)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.713)

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 11/27/2012 10:14:45 AM
End Time: 11/27/2012 10:22:06 AM

Daily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 4641.23
Obtained Intensity (Mg 23.985): 35091.60
Obtained Intensity (In 114.904): 63970.60
Obtained Intensity (Pb 207.977): 28835.54
Obtained Intensity (U 238.05): 50953.17
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.014 (=917.58 / 64557.70)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.016 (=1005.99 / 64557.70)

Torch Alignment - [Passed]

Vertical	Horizontal	Intensity
0.41 mm	0.86 mm	83649.74

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 11:11:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				1748871	0
	Be	9		ug/L				12	4
	C	13		ug/L				135150	2
	Cl	37		ug/L				4700084	2
>	Sc	45		ug/L				1248950	3
	V	51		ug/L				9366	3
	V-1	51		ug/L				95	5
	Cr	52		ug/L				27600	3
	Cr	53		ug/L				154	5
	Mn	55		ug/L				744	3
	Co	59		ug/L				85	13
>	Ge	72		ug/L				653857	1
	Ni	60		ug/L				88	12
	Ni	62		ug/L				1029	0
	Cu	63		ug/L				1305	4
	Cu	65		ug/L				124	2
	Zn	66		ug/L				746	8
	Zn	67		ug/L				102	13
	Zn	68		ug/L				566	2
	As	75		ug/L				290	4
	As-1	75		ug/L				10162	0
	Se	82		ug/L				3	284
	Se	78		ug/L				10335	0
	Mo	98		ug/L				10	33
	Y	89		ug/L				409313	3
	Kr	83		ug/L				616	3
>	In	115		ug/L				974648	1
	Ag	107		ug/L				16	27
	Cd	111		ug/L				86	14
	Cd	114		ug/L				30	39
	Sb	121		ug/L				27	29
	Sb	123		ug/L				23	6
	Ba	135		ug/L				36	6
	Ba	137		ug/L				59	9
>	Tb	159		ug/L				1103082	1
	Tl	205		ug/L				38	8
	Pb	208		ug/L				557	2
	Bi	209		ug/L				2721879	0
	Th	232		ug/L				38	14
	U	238		ug/L				2	78

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 11:16:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1748871	1754959	0
[	Be	9	0.200	ug/L	0.004	1	12	977	1
	C	13		ug/L			135150	136685	3
	Cl	37		ug/L			4700084	4680214	1
[>	Sc	45		ug/L			1248950	1249024	0
|	V	51	0.200	ug/L	0.007	3	9366	14318	1
|	V-1	51	0.200	ug/L	0.002	0	95	5161	0
|	Cr	52	0.500	ug/L	0.019	3	27600	37842	1
|	Cr	53	0.500	ug/L	0.012	2	154	1348	2
|	Mn	55	0.500	ug/L	0.011	2	744	14491	1
[	Co	59	0.200	ug/L	0.001	0	85	4279	1
[>	Ge	72		ug/L			653857	656244	1
|	Ni	60	0.500	ug/L	0.011	2	88	2259	3
|	Ni	62	0.500	ug/L	0.119	23	1029	1307	4
|	Cu	63	0.500	ug/L	0.004	0	1305	6220	1
|	Cu	65	0.500	ug/L	0.013	2	124	2398	1
|	Zn	66	4.000	ug/L	0.029	0	746	12356	1
|	Zn	67	4.000	ug/L	0.105	2	102	1885	2
|	Zn	68	4.000	ug/L	0.047	1	566	8527	0
|	As	75	0.200	ug/L	0.006	3	290	771	2
|	As-1	75	0.200	ug/L	0.040	19	10162	10702	0
|	Se	82	0.500	ug/L	0.044	8	3	139	9
|	Se	78	0.500	ug/L	0.133	26	10335	10742	0
[	Mo	98	0.200	ug/L	0.010	5	10	1013	4
	Y	89		ug/L			409313	404442	0
	Kr	83		ug/L			616	619	4
[>	In	115		ug/L			974648	975026	1
|	Ag	107	0.200	ug/L	0.002	0	16	2449	2
|	Cd	111	0.100	ug/L	0.001	1	86	574	1
|	Cd	114	0.100	ug/L	0.003	2	30	1330	3
|	Sb	121	0.200	ug/L	0.006	2	27	2807	2
|	Sb	123	0.200	ug/L	0.009	4	23	2077	4
|	Ba	135	0.500	ug/L	0.025	5	36	2128	3
[	Ba	137	0.500	ug/L	0.016	3	59	3668	2
[>	Tb	159		ug/L			1103082	1111470	0
|	Tl	205	0.200	ug/L	0.003	1	38	7636	1
|	Pb	208	0.100	ug/L	0.001	1	557	5595	0
|	Bi	209		ug/L			2721879	2723686	0
|	Th	232	0.200	ug/L	0.028	13	38	5452	14
[	U	238	0.200	ug/L	0.002	1	2	9463	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 11:20:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1748871	1787527	1
[	Be	9	10.000	ug/L	0.137	1	12	48753	1
	C	13		ug/L			135150	137100	5
	Cl	37		ug/L			4700084	4891482	1
[>	Sc	45		ug/L			1248950	1289925	1
[	V	51	10.000	ug/L	0.190	1	9366	252299	0
[	V-1	51	10.000	ug/L	0.193	1	95	242681	0
[	Cr	52	10.000	ug/L	0.150	1	27600	240702	0
[	Cr	53	9.999	ug/L	0.160	1	154	24123	0
[	Mn	55	10.000	ug/L	0.284	2	744	287554	1
[	Co	59	10.000	ug/L	0.195	1	85	209425	1
[>	Ge	72		ug/L			653857	683707	1
[	Ni	60	10.000	ug/L	0.071	0	88	44862	2
[	Ni	62	10.002	ug/L	0.178	1	1029	7264	0
[	Cu	63	9.999	ug/L	0.211	2	1305	100752	1
[	Cu	65	9.999	ug/L	0.166	1	124	45585	0
[	Zn	66	9.851	ug/L	0.419	4	746	28019	2
[	Zn	67	9.974	ug/L	0.247	2	102	4664	2
[	Zn	68	9.918	ug/L	0.379	3	566	20149	2
[	As	75	10.000	ug/L	0.169	1	290	23456	0
[	As-1	75	9.999	ug/L	0.223	2	10162	33831	1
[	Se	82	9.997	ug/L	0.147	1	3	2529	0
[	Se	78	9.995	ug/L	0.347	3	10335	17283	1
[	Mo	98	10.000	ug/L	0.219	2	10	50914	0
	Y	89		ug/L			409313	423475	0
	Kr	83		ug/L			616	657	5
[>	In	115		ug/L			974648	995207	1
[	Ag	107	10.000	ug/L	0.055	0	16	118992	1
[	Cd	111	10.000	ug/L	0.218	2	86	49726	1
[	Cd	114	10.000	ug/L	0.072	0	30	124992	0
[	Sb	121	10.000	ug/L	0.117	1	27	143428	0
[	Sb	123	10.000	ug/L	0.198	1	23	109688	1
[	Ba	135	10.000	ug/L	0.245	2	36	42669	1
[	Ba	137	10.000	ug/L	0.172	1	59	73096	0
[>	Tb	159		ug/L			1103082	1145258	0
[	Tl	205	10.000	ug/L	0.077	0	38	376703	0
[	Pb	208	10.000	ug/L	0.074	0	557	496459	0
[	Bi	209		ug/L			2721879	2767601	1
[	Th	232	10.001	ug/L	0.133	1	38	428108	0
[	U	238	10.000	ug/L	0.091	0	2	487248	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 11:24:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1748871	1757767	1
	Be	9	20.020	ug/L	0.404	2	12	96327	0
	C	13		ug/L			135150	133191	2
	Cl	37		ug/L			4700084	5104790	3
>	Sc	45		ug/L			1248950	1269346	1
	V	51	20.028	ug/L	0.336	1	9366	490475	1
	V-1	51	20.048	ug/L	0.390	1	95	483355	0
	Cr	52	19.988	ug/L	0.152	0	27600	444511	1
	Cr	53	20.053	ug/L	0.416	2	154	47952	1
	Mn	55	20.056	ug/L	0.338	1	744	573187	0
	Co	59	20.056	ug/L	0.512	2	85	417887	1
>	Ge	72		ug/L			653857	670934	0
	Ni	60	19.984	ug/L	0.203	1	88	87596	0
	Ni	62	20.068	ug/L	0.126	0	1029	13410	0
	Cu	63	20.005	ug/L	0.366	1	1305	196677	1
	Cu	65	20.057	ug/L	0.243	1	124	90643	1
	Zn	66	19.973	ug/L	0.336	1	746	54736	2
	Zn	67	20.128	ug/L	0.106	0	102	9335	0
	Zn	68	20.033	ug/L	0.482	2	566	39580	2
	As	75	20.062	ug/L	0.115	0	290	46457	0
	As-1	75	20.092	ug/L	0.100	0	10162	57050	0
	Se	82	20.098	ug/L	0.109	0	3	5087	0
	Se	78	20.192	ug/L	0.123	0	10335	23960	0
	Mo	98	20.095	ug/L	0.254	1	10	102360	0
	Y	89		ug/L			409313	418479	2
	Kr	83		ug/L			616	611	1
>	In	115		ug/L			974648	989497	0
	Ag	107	20.014	ug/L	0.556	2	16	237434	2
	Cd	111	20.011	ug/L	0.094	0	86	99068	0
	Cd	114	19.966	ug/L	0.181	0	30	246424	0
	Sb	121	19.978	ug/L	0.065	0	27	283646	0
	Sb	123	19.964	ug/L	0.156	0	23	216193	0
	Ba	135	19.993	ug/L	0.370	1	36	84672	1
	Ba	137	20.004	ug/L	0.260	1	59	145454	0
>	Tb	159		ug/L			1103082	1127022	0
	Tl	205	20.033	ug/L	0.243	1	38	747506	1
	Pb	208	20.023	ug/L	0.049	0	557	982245	0
	Bi	209		ug/L			2721879	2755571	0
	Th	232	20.183	ug/L	0.139	0	38	882409	0
	U	238	20.054	ug/L	0.165	0	2	972124	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 11:29:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1748871	1731648	3
	Be	9	49.785	ug/L	1.995	4	12	230862	2
	C	13		ug/L			135150	133248	0
	Cl	37		ug/L			4700084	5205492	2
>	Sc	45		ug/L			1248950	1256917	1
	V	51	49.978	ug/L	1.241	2	9366	1195030	1
	V-1	51	50.022	ug/L	1.568	3	95	1196507	1
	Cr	52	49.841	ug/L	0.993	1	27600	1039809	0
	Cr	53	49.989	ug/L	2.317	4	154	117970	3
	Mn	55	50.022	ug/L	0.684	1	744	1417670	0
	Co	59	49.816	ug/L	0.875	1	85	1009169	0
>	Ge	72		ug/L			653857	650758	1
	Ni	60	50.074	ug/L	1.227	2	88	214326	1
	Ni	62	49.915	ug/L	0.794	1	1029	30574	0
	Cu	63	49.932	ug/L	1.465	2	1305	470924	1
	Cu	65	49.715	ug/L	1.112	2	124	211681	1
	Zn	66	49.929	ug/L	0.793	1	746	130696	0
	Zn	67	49.864	ug/L	0.947	1	102	21990	0
	Zn	68	50.005	ug/L	0.724	1	566	95025	0
	As	75	50.041	ug/L	0.532	1	290	112417	0
	As-1	75	50.031	ug/L	0.810	1	10162	123054	0
	Se	82	50.162	ug/L	0.549	1	3	12511	1
	Se	78	50.136	ug/L	1.254	2	10335	42887	1
	Mo	98	50.241	ug/L	0.166	0	10	254341	1
	Y	89		ug/L			409313	411900	1
	Kr	83		ug/L			616	646	2
>	In	115		ug/L			974648	959690	1
	Ag	107	49.930	ug/L	0.491	0	16	570499	0
	Cd	111	49.945	ug/L	0.412	0	86	238375	0
	Cd	114	49.962	ug/L	0.879	1	30	595805	2
	Sb	121	50.145	ug/L	0.237	0	27	700643	0
	Sb	123	50.036	ug/L	0.669	1	23	527339	0
	Ba	135	50.074	ug/L	0.704	1	36	207158	0
	Ba	137	50.155	ug/L	0.244	0	59	359182	0
>	Tb	159		ug/L			1103082	1111649	1
	Tl	205	49.935	ug/L	0.594	1	38	1825901	0
	Pb	208	49.852	ug/L	0.520	1	557	2375934	1
	Bi	209		ug/L			2721879	2633749	0
	Th	232	50.940	ug/L	0.877	1	38	2424247	0
	U	238	50.683	ug/L	0.627	1	2	2600720	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 11:35:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1748871	1774113	0
[	Be	9	99.312	ug/L	1.162	1	12	461590	1
	C	13		ug/L			135150	131596	2
	Cl	37		ug/L			4700084	5124632	3
[>	Sc	45		ug/L			1248950	1276987	2
[	V	51	101.202	ug/L	2.936	2	9366	2550115	2
[	V-1	51	100.649	ug/L	3.070	3	95	2499809	2
[	Cr	52	100.876	ug/L	2.800	2	27600	2171249	0
[	Cr	53	98.969	ug/L	2.662	2	154	229263	0
[	Mn	55	100.096	ug/L	3.266	3	744	2889390	1
[	Co	59	100.408	ug/L	7.229	7	85	2093797	6
[>	Ge	72		ug/L			653857	645580	1
[	Ni	60	99.195	ug/L	2.233	2	88	410079	0
[	Ni	62	99.568	ug/L	1.990	1	1029	58657	0
[	Cu	63	99.545	ug/L	2.582	2	1305	916197	1
[	Cu	65	99.520	ug/L	0.863	0	124	413660	0
[	Zn	66	99.611	ug/L	1.133	1	746	254659	0
[	Zn	67	99.186	ug/L	1.850	1	102	42160	1
[	Zn	68	99.456	ug/L	2.998	3	566	183616	2
[	As	75	99.834	ug/L	0.976	0	290	220986	0
[	As-1	75	99.926	ug/L	0.941	0	10162	233265	0
[	Se	82	99.312	ug/L	1.918	1	3	24014	0
[	Se	78	99.671	ug/L	2.317	2	10335	73799	0
[	Mo	98	99.841	ug/L	1.017	1	10	498711	0
	Y	89		ug/L			409313	404729	1
	Kr	83		ug/L			616	722	2
[>	In	115		ug/L			974648	950599	0
[	Ag	107	99.942	ug/L	3.145	3	16	1128794	2
[	Cd	111	99.263	ug/L	1.652	1	86	457918	0
[	Cd	114	99.644	ug/L	1.180	1	30	1163084	0
[	Sb	121	99.616	ug/L	0.751	0	27	1361223	0
[	Sb	123	99.723	ug/L	1.111	1	23	1031515	0
[	Ba	135	99.928	ug/L	2.264	2	36	408449	1
[	Ba	137	99.969	ug/L	1.705	1	59	708333	1
[>	Tb	159		ug/L			1103082	1109709	0
[	Tl	205	101.445	ug/L	0.785	0	38	3890674	0
[	Pb	208	100.649	ug/L	0.518	0	557	4894125	0
[	Bi	209		ug/L			2721879	2553005	0
[	Th	232	100.071	ug/L	0.830	0	38	4766240	1
[	U	238	100.118	ug/L	0.381	0	2	5149172	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 11:42:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112612b.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1748871	1747440	2
	Be	9	0.001	ug/L	0.001	92	12	16	21
	C	13		ug/L			135150	133018	4
	Cl	37		ug/L			4700084	5008380	1
>	Sc	45		ug/L			1248950	1257424	1
	V	51	-0.001	ug/L	0.013	1049	9366	9397	1
	V-1	51	0.001	ug/L	0.001	90	95	116	16
	Cr	52	0.002	ug/L	0.039	1924	27600	27822	1
	Cr	53	0.009	ug/L	0.005	60	154	175	8
	Mn	55	-0.006	ug/L	0.001	13	744	588	3
	Co	59	0.000	ug/L	0.001	143	85	93	13
>	Ge	72		ug/L			653857	661902	1
	Ni	60	-0.014	ug/L	0.001	7	88	31	11
	Ni	62	-0.410	ug/L	0.127	30	1029	799	9
	Cu	63	-0.040	ug/L	0.009	21	1305	944	7
	Cu	65	-0.012	ug/L	0.002	18	124	76	12
	Zn	66	-0.180	ug/L	0.008	4	746	286	8
	Zn	67	-0.123	ug/L	0.002	2	102	49	3
	Zn	68	-0.150	ug/L	0.016	10	566	291	11
	As	75	-0.003	ug/L	0.010	314	290	286	7
	As-1	75	0.039	ug/L	0.047	120	10162	10376	0
	Se	82	-0.019	ug/L	0.031	158	3	0	790
	Se	78	0.128	ug/L	0.153	119	10335	10545	0
	Mo	98	0.022	ug/L	0.004	20	10	121	17
	Y	89		ug/L			409313	411333	1
	Kr	83		ug/L			616	623	2
>	In	115		ug/L			974648	960487	0
	Ag	107	0.006	ug/L	0.006	100	16	79	79
	Cd	111	0.005	ug/L	0.007	150	86	107	30
	Cd	114	0.004	ug/L	0.005	130	30	72	76
	Sb	121	0.125	ug/L	0.006	4	27	1756	5
	Sb	123	0.126	ug/L	0.005	3	23	1341	4
	Ba	135	-0.002	ug/L	0.003	204	36	28	49
	Ba	137	-0.002	ug/L	0.002	64	59	41	26
>	Tb	159		ug/L			1103082	1092855	1
	Tl	205	0.020	ug/L	0.007	34	38	795	32
	Pb	208	-0.000	ug/L	0.002	351	557	531	13
	Bi	209		ug/L			2721879	2728117	0
	Th	232	0.237	ug/L	0.020	8	38	11148	8
	U	238	0.004	ug/L	0.001	17	2	220	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 11:57:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				1765270	2
	Be	9		ug/L				15	38
	C	13		ug/L				135652	1
	Cl	37		ug/L				4937799	2
>	Sc	45		ug/L				1259345	0
	V	51		ug/L				9617	0
	V-1	51		ug/L				89	11
	Cr	52		ug/L				28547	0
	Cr	53		ug/L				178	2
	Mn	55		ug/L				554	7
	Co	59		ug/L				85	13
>	Ge	72		ug/L				658458	1
	Ni	60		ug/L				39	31
	Ni	62		ug/L				675	3
	Cu	63		ug/L				740	5
	Cu	65		ug/L				68	2
	Zn	66		ug/L				249	3
	Zn	67		ug/L				35	30
	Zn	68		ug/L				261	4
	As	75		ug/L				273	4
	As-1	75		ug/L				10384	0
	Se	82		ug/L				-5	234
	Se	78		ug/L				10570	0
	Mo	98		ug/L				27	9
	Y	89		ug/L				411113	1
	Kr	83		ug/L				642	5
>	In	115		ug/L				961280	1
	Ag	107		ug/L				29	24
	Cd	111		ug/L				85	2
	Cd	114		ug/L				29	31
	Sb	121		ug/L				475	19
	Sb	123		ug/L				362	13
	Ba	135		ug/L				21	4
	Ba	137		ug/L				28	15
>	Tb	159		ug/L				1095087	0
	Tl	205		ug/L				336	45
	Pb	208		ug/L				458	1
	Bi	209		ug/L				2703449	1
	Th	232		ug/L				2412	23
	U	238		ug/L				41	21

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 12:01:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1765270	1785027	1
[	Be	9	50.554	ug/L	1.814	3	15	236387	3
	C	13		ug/L			135652	138688	3
	Cl	37		ug/L			4937799	5209957	2
[>	Sc	45		ug/L			1259345	1280804	1
[	V	51	49.643	ug/L	1.337	2	9617	1259926	1
[	V-1	51	50.026	ug/L	1.269	2	89	1246441	1
[	Cr	52	49.101	ug/L	0.625	1	28547	1075708	1
[	Cr	53	50.395	ug/L	0.767	1	178	117242	1
[	Mn	55	49.655	ug/L	0.674	1	554	1438427	0
[	Co	59	49.905	ug/L	2.282	4	85	1044223	3
[>	Ge	72		ug/L			658458	661454	1
[	Ni	60	51.110	ug/L	1.182	2	39	216468	0
[	Ni	62	50.588	ug/L	0.812	1	675	30685	1
[	Cu	63	50.826	ug/L	0.905	1	740	479472	2
[	Cu	65	51.403	ug/L	0.732	1	68	218894	0
[	Zn	66	50.142	ug/L	0.945	1	249	131216	2
[	Zn	67	50.524	ug/L	0.846	1	35	21985	1
[	Zn	68	50.082	ug/L	0.332	0	261	94722	1
[	As	75	49.988	ug/L	0.752	1	273	113487	0
[	As-1	75	50.390	ug/L	1.032	2	10384	125751	0
[	Se	82	78.055	ug/L	0.647	0	-5	19332	1
[	Se	78	78.396	ug/L	1.539	1	10570	61867	0
[	Mo	98	49.358	ug/L	1.112	2	27	252593	1
	Y	89		ug/L			411113	417054	0
	Kr	83		ug/L			642	690	2
[>	In	115		ug/L			961280	977377	0
[	Ag	107	50.813	ug/L	1.024	2	29	590209	2
[	Cd	111	49.975	ug/L	0.364	0	85	237099	0
[	Cd	114	49.236	ug/L	0.499	1	29	590924	0
[	Sb	121	48.893	ug/L	0.321	0	475	687395	0
[	Sb	123	49.139	ug/L	0.144	0	362	523000	0
[	Ba	135	50.293	ug/L	0.435	0	21	211384	0
[	Ba	137	49.934	ug/L	0.327	0	28	363786	0
[>	Tb	159		ug/L			1095087	1118185	1
[	Tl	205	48.366	ug/L	1.223	2	336	1868906	0
[	Pb	208	49.316	ug/L	0.622	1	458	2416236	0
[	Bi	209		ug/L			2703449	2676799	0
[	Th	232	51.930	ug/L	0.835	1	2412	2494195	0
[	U	238	52.137	ug/L	0.834	1	41	2701483	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 12:08:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1765270	1748642	0
[	Be	9	0.001	ug/L	0.001	50	15	22	15
	C	13		ug/L			135652	139886	3
	Cl	37		ug/L			4937799	5137510	3
[>	Sc	45		ug/L			1259345	1255689	2
|	V	51	-0.006	ug/L	0.010	160	9617	9432	1
|	V-1	51	0.001	ug/L	0.001	70	89	120	17
|	Cr	52	-0.032	ug/L	0.034	108	28547	27794	1
|	Cr	53	-0.007	ug/L	0.007	107	178	162	8
|	Mn	55	0.001	ug/L	0.001	182	554	567	4
[	Co	59	0.000	ug/L	0.001	178	85	92	14
[>	Ge	72		ug/L			658458	653990	2
|	Ni	60	-0.002	ug/L	0.001	67	39	32	15
|	Ni	62	-0.198	ug/L	0.061	30	675	554	6
|	Cu	63	-0.008	ug/L	0.001	17	740	661	4
|	Cu	65	-0.001	ug/L	0.002	152	68	62	12
|	Zn	66	0.003	ug/L	0.009	325	249	254	9
|	Zn	67	-0.000	ug/L	0.012	4462	35	35	15
|	Zn	68	-0.005	ug/L	0.006	126	261	250	5
|	As	75	0.008	ug/L	0.003	40	273	290	4
|	As-1	75	0.040	ug/L	0.118	293	10384	10401	0
|	Se	82	-0.009	ug/L	0.081	900	-5	-6	285
|	Se	78	0.119	ug/L	0.409	343	10570	10572	0
[	Mo	98	0.006	ug/L	0.001	14	27	58	5
	Y	89		ug/L			411113	404657	1
	Kr	83		ug/L			642	649	5
[>	In	115		ug/L			961280	955963	0
|	Ag	107	0.001	ug/L	0.001	117	29	37	24
|	Cd	111	0.004	ug/L	0.001	15	85	104	2
|	Cd	114	0.001	ug/L	0.000	28	29	37	5
|	Sb	121	0.002	ug/L	0.007	452	475	495	20
|	Sb	123	0.000	ug/L	0.005	1274	362	364	13
|	Ba	135	0.000	ug/L	0.001	3614	21	21	24
[	Ba	137	0.002	ug/L	0.002	99	28	39	28
[>	Tb	159		ug/L			1095087	1079236	0
|	Tl	205	-0.003	ug/L	0.002	78	336	223	37
|	Pb	208	0.001	ug/L	0.001	110	458	488	7
|	Bi	209		ug/L			2703449	2717260	0
|	Th	232	0.073	ug/L	0.011	14	2412	5751	7
[	U	238	0.002	ug/L	0.000	12	41	118	7

Sample Information

Sample Date/Time: Tuesday, November 27, 2012 12:08:02
Method File: C:\NexIONData\Method\200.8nomin.mth
Mass Calibration File: C:\NexIONData\MassCal\Default.tun
Conditions File: C:\NexIONData\Conditions\Default.dac
Calibration File: C:\NexIONData\System\112712.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**0.9999**	0.003	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**0.9998**	0.020	0.20	10	20	50	100
V-1	51	**0.9999**	0.019	0.20	10	20	50	100
Cr	52	**0.9999**	0.017	0.50	10	20	50	100
Cr	53	**0.9998**	0.002	0.50	10	20	50	100
Mn	55	**1.0000**	0.023	0.50	10	20	50	100
Co	59	**1.0000**	0.016	0.20	10	20	50	100
Ge	72							
Ni	60	**0.9999**	0.006	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**1.0000**	0.014	0.50	10	20	50	100
Cu	65	**0.9999**	0.006	0.50	10	20	50	100
Zn	66	**1.0000**	0.004	4.00	10	20	50	100
Zn	67	**0.9999**	0.001	4.00	10	20	50	100
Zn	68	**0.9999**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9999**	0.000	0.50	10	20	50	100
Se	78	**1.0000**	0.001	0.50	10	20	50	100
Mo	98	**1.0000**	0.008	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.012	0.20	10	20	50	100
Cd	111	**0.9999**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.012	0.10	10	20	50	100
Sb	121	**1.0000**	0.014	0.20	10	20	50	100
Sb	123	**1.0000**	0.011	0.20	10	20	50	100
Ba	135	**1.0000**	0.004	0.50	10	20	50	100
Ba	137	**1.0000**	0.007	0.50	10	20	50	100
Tb	159							
Tl	205	**0.9997**	0.035	0.20	10	20	50	100
Pb	208	**0.9999**	0.044	0.10	10	20	50	100
Bi	209							
Th	232	**0.9998**	0.043	0.20	10	20	50	100
U	238	**0.9999**	0.046	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 12:18:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1765270	1777355	1
	Be	9	51.135	ug/L	1.526	2	15	238057	1
	C	13		ug/L			135652	135627	3
	Cl	37		ug/L			4937799	5147273	2
>	Sc	45		ug/L			1259345	1298192	1
	V	51	47.632	ug/L	0.716	1	9617	1225768	0
	V-1	51	48.104	ug/L	0.451	0	89	1214946	0
	Cr	52	48.035	ug/L	1.242	2	28547	1067081	1
	Cr	53	49.671	ug/L	0.749	1	178	117119	1
	Mn	55	48.177	ug/L	0.950	1	554	1414461	0
	Co	59	48.157	ug/L	0.752	1	85	1021518	1
>	Ge	72		ug/L			658458	662066	1
	Ni	60	50.504	ug/L	1.543	3	39	214095	1
	Ni	62	51.210	ug/L	1.959	3	675	31077	2
	Cu	63	50.824	ug/L	1.341	2	740	479772	1
	Cu	65	50.822	ug/L	2.494	4	68	216556	3
	Zn	66	50.790	ug/L	2.044	4	249	132988	2
	Zn	67	51.442	ug/L	1.486	2	35	22402	1
	Zn	68	50.440	ug/L	0.906	1	261	95476	0
	As	75	49.948	ug/L	0.371	0	273	113512	0
	As-1	75	49.801	ug/L	0.216	0	10384	124542	1
	Se	82	50.511	ug/L	0.661	1	-5	12519	0
	Se	78	49.970	ug/L	0.153	0	10570	43332	1
	Mo	98	49.668	ug/L	0.651	1	27	254454	1
	Y	89		ug/L			411113	412794	1
	Kr	83		ug/L			642	688	2
>	In	115		ug/L			961280	970287	0
	Ag	107	49.815	ug/L	1.376	2	29	574437	3
	Cd	111	50.969	ug/L	0.401	0	85	240061	0
	Cd	114	49.891	ug/L	0.906	1	29	594457	1
	Sb	121	49.924	ug/L	0.396	0	475	696808	0
	Sb	123	49.860	ug/L	0.201	0	362	526815	0
	Ba	135	50.135	ug/L	0.884	1	21	209195	1
	Ba	137	49.726	ug/L	0.901	1	28	359639	1
>	Tb	159		ug/L			1095087	1128899	0
	Tl	205	46.712	ug/L	0.369	0	336	1822757	0
	Pb	208	48.137	ug/L	0.570	1	458	2381274	0
	Bi	209		ug/L			2703449	2675349	1
	Th	232	49.958	ug/L	0.455	0	2412	2422923	0
	U	238	50.310	ug/L	0.525	1	41	2632087	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 12:25:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1765270	1727319	1
	Be	9	0.001	ug/L	0.001	187	15	18	37
	C	13		ug/L			135652	138730	1
	Cl	37		ug/L			4937799	4918244	1
>	Sc	45		ug/L			1259345	1248197	0
	V	51	0.002	ug/L	0.013	611	9617	9583	3
	V-1	51	0.002	ug/L	0.002	98	89	125	30
	Cr	52	-0.003	ug/L	0.034	1238	28547	28238	2
	Cr	53	-0.005	ug/L	0.008	168	178	166	10
	Mn	55	0.001	ug/L	0.001	122	554	581	7
	Co	59	0.001	ug/L	0.001	126	85	105	24
>	Ge	72		ug/L			658458	645470	2
	Ni	60	-0.002	ug/L	0.000	17	39	28	8
	Ni	62	-0.314	ug/L	0.030	9	675	480	2
	Cu	63	-0.019	ug/L	0.002	11	740	553	1
	Cu	65	-0.001	ug/L	0.002	148	68	61	11
	Zn	66	0.003	ug/L	0.006	181	249	252	6
	Zn	67	0.014	ug/L	0.020	145	35	40	18
	Zn	68	0.009	ug/L	0.010	109	261	272	8
	As	75	0.014	ug/L	0.006	42	273	299	2
	As-1	75	0.079	ug/L	0.122	155	10384	10351	0
	Se	82	0.061	ug/L	0.042	69	-5	9	104
	Se	78	0.278	ug/L	0.433	156	10570	10535	0
	Mo	98	0.007	ug/L	0.001	13	27	63	8
	Y	89		ug/L			411113	406945	0
	Kr	83		ug/L			642	623	1
>	In	115		ug/L			961280	952611	0
	Ag	107	0.001	ug/L	0.001	71	29	43	23
	Cd	111	-0.000	ug/L	0.001	616	85	84	8
	Cd	114	0.001	ug/L	0.000	48	29	40	13
	Sb	121	0.034	ug/L	0.005	15	475	933	7
	Sb	123	0.034	ug/L	0.007	20	362	712	10
	Ba	135	0.000	ug/L	0.001	528	21	21	20
	Ba	137	0.002	ug/L	0.000	19	28	40	5
>	Tb	159		ug/L			1095087	1083274	0
	Tl	205	0.002	ug/L	0.004	228	336	403	39
	Pb	208	0.001	ug/L	0.001	87	458	486	6
	Bi	209		ug/L			2703449	2700642	0
	Th	232	0.138	ug/L	0.019	13	2412	8809	9
	U	238	0.002	ug/L	0.000	16	41	160	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~LOW CHECK~~ 222222
Sample Dil Factor: #11-27-12
Comments:
Sample Date/Time: Tuesday, November 27, 2012 12:29:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1765270	1743373	1
	Be	9	0.215 ✓	ug/L	0.002	0	15	995	2
	C	13		ug/L			135652	139713	1
	Cl	37		ug/L			4937799	4986873	2
>	Sc	45		ug/L			1259345	1281834	1
	V	51	0.197 ✓	ug/L	0.007	3	9617	14761	0
	V-1	51	0.203	ug/L	0.002	0	89	5154	1
	Cr	52	0.458 ✓	ug/L	0.029	6	28547	38822	0
	Cr	53	0.487	ug/L	0.011	2	178	1314	1
	Mn	55	0.494 ✓	ug/L	0.003	0	554	14879	0
	Co	59	0.203 ✓	ug/L	0.000	0	85	4341	1
>	Ge	72		ug/L			658458	665139	2
	Ni	60	0.516 ✓	ug/L	0.004	0	39	2235	1
	Ni	62	0.154	ug/L baseline	0.055	36	675	774	3
	Cu	63	0.507 ✓	ug/L	0.026	5	740	5549	2
	Cu	65	0.517	ug/L	0.029	5	68	2281	3
	Zn	66	4.539 ✓	ug/L	0.167	3	249	12169	3
	Zn	67	4.181	ug/L	0.175	4	35	1861	1
	Zn	68	4.356	ug/L	0.121	2	261	8524	1
	As	75	0.212 ✓	ug/L	0.007	3	273	759	1
	As-1	75	0.148	ug/L	0.065	44	10384	10827	1
	Se	82	0.529 ✓	ug/L	0.045	8	-5	126	9
	Se	78	0.323	ug/L	0.220	68	10570	10888	1
	Mo	98	0.196 ✓	ug/L	0.004	1	27	1037	1
	Y	89		ug/L			411113	412006	1
	Kr	83		ug/L			642	674	1
>	In	115		ug/L			961280	969137	1
	Ag	107	0.208 ✓	ug/L	0.003	1	29	2427	2
	Cd	111	0.109	ug/L	0.011	9	85	599	9
	Cd	114	0.106 ✓	ug/L	0.001	0	29	1294	1
	Sb	121	0.184 ✓	ug/L	0.003	1	475	3040	0
	Sb	123	0.185	ug/L	0.005	2	362	2318	2
	Ba	135	0.490 ✓	ug/L	0.006	1	21	2064	0
	Ba	137	0.494 ✓	ug/L	0.010	2	28	3594	1
>	Tb	159		ug/L			1095087	1094432	0
	Tl	205	0.195 ✓	ug/L	0.002	1	336	7715	0
	Pb	208	0.103 ✓	ug/L	0.002	1	458	5406	1
	Bi	209		ug/L			2703449	2724842	0
	Th	232	0.149	ug/L	0.006	3	2412	9417	2
	U	238	0.189 ✓	ug/L	0.003	1	41	9642	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 12:33:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1765270	1794970	2
	Be	9	-0.000	ug/L	0.001	398	15	14	35
	C	13		ug/L			135652	235656	2
	Cl	37		ug/L			4937799	15121651	2
>	Sc	45		ug/L			1259345	1275034	2
	V	51	0.085	ug/L	0.011	13	9617	11853	0
	V-1	51	0.562	ug/L	0.010	1	89	16509	3
	Cr	52	0.482	ug/L	0.055	11	28547	39121	1
	Cr	53	2.477	ug/L	0.004	0	178	5909	2
	Mn	55	0.070	ug/L	0.002	2	554	2572	4
	Co	59	0.026	ug/L	0.002	6	85	632	3
>	Ge	72		ug/L			658458	662302	0
	Ni	60	0.340	ug/L	0.015	4	39	1483	4
	Ni	62	3.314	ug/L	0.469	14	675	2648	10
	Cu	63	0.945	ug/L	0.048	5	740	9654	5
	Cu	65	0.351	ug/L	0.019	5	68	1566	4
	Zn	66	0.932	ug/L	0.038	4	249	2686	3
	Zn	67	5.410	ug/L	0.105	1	35	2389	2
	Zn	68	0.366	ug/L	0.018	4	261	954	3
	As	75	0.074	ug/L	0.017	23	273	442	8
	As-1	75	0.126	ug/L	0.020	15	10384	10733	0
	Se	82	-0.222	ug/L	0.094	42	-5	-60	39
	Se	78	0.312	ug/L	0.120	38	10570	10836	0
	Mo	98	425.554	ug/L	4.102	0	27	2180929	1
	Y	89		ug/L			411113	411986	2
	Kr	83		ug/L			642	927	6
>	In	115		ug/L			961280	936622	1
	Ag	107	0.019	ug/L	0.001	7	29	235	8
	Cd	111	0.124	ug/L	0.022	17	85	647	15
	Cd	114	0.238	ug/L	0.003	1	29	2764	2
	Sb	121	0.042	ug/L	0.001	1	475	1029	2
	Sb	123	0.043	ug/L	0.006	14	362	786	8
	Ba	135	0.048	ug/L	0.003	6	21	212	5
	Ba	137	0.040	ug/L	0.002	5	28	306	4
>	Tb	159		ug/L			1095087	1110691	1
	Tl	205	0.038	ug/L	0.003	8	336	1798	7
	Pb	208	0.030	ug/L	0.001	1	458	1931	1
	Bi	209		ug/L			2703449	2461279	0
	Th	232	0.195	ug/L	0.071	36	2412	11706	27
	U	238	0.000	ug/L	0.000	79	41	57	20

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 12:40:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1765270	1785995	1
[	Be	9	0.001	ug/L	0.001	114	15	18	16
	C	13		ug/L			135652	246610	3
	Cl	37		ug/L			4937799	14503251	4
[>	Sc	45		ug/L			1259345	1256932	0
|	V	51	0.009	ug/L	0.111	1267	9617	9825	28
|	V-1	51	0.673	ug/L	0.024	3	89	16552	3
|	Cr	52	20.437	ug/L	0.096	0	28547	456052	1
|	Cr	53	23.473	ug/L	0.456	1	178	53685	1
|	Mn	55	19.955	ug/L	0.334	1	554	567639	1
[	Co	59	19.592	ug/L	0.934	4	85	402422	4
[>	Ge	72		ug/L			658458	648701	2
|	Ni	60	20.647	ug/L	0.804	3	39	85761	2
|	Ni	62	23.727	ug/L	0.534	2	675	14465	1
|	Cu	63	20.789	ug/L	0.655	3	740	192660	0
|	Cu	65	20.610	ug/L	0.489	2	68	86095	1
|	Zn	66	20.065	ug/L	0.951	4	249	51601	2
|	Zn	67	22.067	ug/L	1.083	4	35	9430	2
|	Zn	68	18.665	ug/L	0.834	4	261	34758	1
|	As	75	19.900	ug/L	0.406	2	273	44460	0
|	As-1	75	19.777	ug/L	0.517	2	10384	54608	0
|	Se	82	-0.209	ug/L	0.043	20	-5	-55	16
|	Se	78	0.470	ug/L	0.455	96	10570	10710	1
[	Mo	98	444.632	ug/L	13.982	3	27	2230603	0
	Y	89		ug/L			411113	409557	0
	Kr	83		ug/L			642	934	4
[>	In	115		ug/L			961280	954366	0
|	Ag	107	21.121	ug/L	0.745	3	29	239537	3
|	Cd	111	20.047	ug/L	0.302	1	85	92923	1
|	Cd	114	19.914	ug/L	0.149	0	29	233398	0
|	Sb	121	0.037	ug/L	0.004	10	475	984	5
|	Sb	123	0.039	ug/L	0.007	16	362	759	8
|	Ba	135	0.047	ug/L	0.005	11	21	211	10
[	Ba	137	0.041	ug/L	0.004	10	28	317	9
[>	Tb	159		ug/L			1095087	1120147	0
|	Tl	205	0.026	ug/L	0.001	5	336	1340	3
|	Pb	208	0.029	ug/L	0.001	4	458	1888	2
|	Bi	209		ug/L			2703449	2467067	0
|	Th	232	0.042	ug/L	0.006	13	2412	4482	6
[	U	238	-0.000	ug/L	0.000	112	41	31	36

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 12:46:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1765270	1755141	1
[	Be	9	200.897	ug/L	2.495	1	15	923731	1
	C	13		ug/L			135652	143205	0
	Cl	37		ug/L			4937799	5396704	2
[>	Sc	45		ug/L			1259345	1221392	0
|	V	51	204.393	ug/L	4.163	2	9617	4918440	1
|	V-1	51	204.604	ug/L	4.149	2	89	4861789	1
|	Cr	52	201.630	ug/L	2.765	1	28547	4126378	0
|	Cr	53	202.253	ug/L	3.400	1	178	448163	1
|	Mn	55	203.897	ug/L	2.855	1	554	5631564	1
[	Co	59	203.165	ug/L	4.108	2	85	4054639	1
[>	Ge	72		ug/L			658458	616126	1
|	Ni	60	199.853	ug/L	3.459	1	39	788455	0
|	Ni	62	202.173	ug/L	2.439	1	675	112345	0
|	Cu	63	198.962	ug/L	0.479	0	740	1746281	0
|	Cu	65	200.974	ug/L	3.189	1	68	797056	0
|	Zn	66	194.071	ug/L	1.456	0	249	472397	0
|	Zn	67	194.039	ug/L	3.420	1	35	78560	1
|	Zn	68	194.724	ug/L	5.288	2	261	342307	1
|	As	75	201.261	ug/L	2.274	1	273	424885	0
|	As-1	75	198.679	ug/L	3.323	1	10384	433316	1
|	Se	82	202.985	ug/L	1.819	0	-5	46838	0
|	Se	78	194.064	ug/L	4.528	2	10570	128076	1
[	Mo	98	215.162	ug/L	2.006	0	27	1025812	1
	Y	89		ug/L			411113	394238	2
	Kr	83		ug/L			642	907	2
[>	In	115		ug/L			961280	933930	0
|	Ag	107	225.021	ug/L	2.809	1	29	2497252	1
|	Cd	111	200.242	ug/L	3.316	1	85	907474	0
|	Cd	114	215.779	ug/L	1.731	0	29	2474580	0
|	Sb	121	217.959	ug/L	2.615	1	475	2926429	0
|	Sb	123	221.421	ug/L	3.353	1	362	2250447	0
|	Ba	135	204.636	ug/L	1.756	0	21	821800	0
[	Ba	137	203.903	ug/L	3.525	1	28	1419382	1
[>	Tb	159		ug/L			1095087	1107940	0
|	Tl	205	197.484	ug/L	2.832	1	336	7561644	0
|	Pb	208	201.195	ug/L	1.797	0	458	9766971	0
|	Bi	209		ug/L			2703449	2440239	0
|	Th	232	200.138	ug/L	1.240	0	2412	9519002	0
[	U	238	198.544	ug/L	1.179	0	41	10194879	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 12:53:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1765270	1733708	1
	Be	9	286.467	ug/L	6.959	2	15	1300828	1
	C	13		ug/L			135652	140093	1
	Cl	37		ug/L			4937799	5233317	3
>	Sc	45		ug/L			1259345	1207855	1
	V	51	305.282	ug/L	5.245	1	9617	7259450	0
	V-1	51	304.230	ug/L	5.423	1	89	7147984	0
	Cr	52	302.848	ug/L	7.976	2	28547	6114070	1
	Cr	53	299.147	ug/L	9.595	3	178	655243	1
	Mn	55	296.840	ug/L	4.743	1	554	8106075	0
	Co	59	297.534	ug/L	3.433	1	85	5871956	1
>	Ge	72		ug/L			658458	605530	0
	Ni	60	296.423	ug/L	3.442	1	39	1149375	0
	Ni	62	300.203	ug/L	8.569	2	675	163647	2
	Cu	63	309.846	ug/L	1.147	0	740	2672429	1
	Cu	65	287.075	ug/L	3.142	1	68	1119087	1
	Zn	66	282.529	ug/L	3.154	1	249	675853	1
	Zn	67	281.546	ug/L	1.734	0	35	112028	1
	Zn	68	275.690	ug/L	1.573	0	261	476276	0
	As	75	291.008	ug/L	1.239	0	273	603697	0
	As-1	75	289.854	ug/L	1.967	0	10384	616942	0
	Se	82	284.581	ug/L	2.674	0	-5	64539	0
	Se	78	281.053	ug/L	3.874	1	10570	177944	0
	Mo	98	318.344	ug/L	6.934	2	27	1491451	1
	Y	89		ug/L			411113	388634	2
	Kr	83		ug/L			642	1050	1
>	In	115		ug/L			961280	910600	0
	Ag	107	321.184	ug/L	7.750	2	29	3475661	2
	Cd	111	291.159	ug/L	3.395	1	85	1286629	1
	Cd	114	313.181	ug/L	4.026	1	29	3501935	1
	Sb	121	321.311	ug/L	1.326	0	475	4206454	0
	Sb	123	323.536	ug/L	1.887	0	362	3206244	0
	Ba	135	308.065	ug/L	4.906	1	21	1206268	1
	Ba	137	335.880	ug/L	3.033	0	28	2279701	0
>	Tb	159		ug/L			1095087	1100013	0
	Tl	205	293.081	ug/L	3.785	1	336	11142365	1
	Pb	208	296.734	ug/L	1.817	0	458	14301667	0
	Bi	209		ug/L			2703449	2347468	0
	Th	232	294.214	ug/L	2.783	0	2412	13892641	1
	U	238	293.274	ug/L	2.731	0	41	14951808	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 13:00:40
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1765270	1780284	1
	Be	9	0.005	ug/L	0.002	45	15	38	28
	C	13		ug/L			135652	145279	2
	Cl	37		ug/L			4937799	5185995	2
>	Sc	45		ug/L			1259345	1244588	0
	V	51	0.003	ug/L	0.009	287	9617	9585	2
	V-1	51	0.011	ug/L	0.003	28	89	360	20
	Cr	52	-0.007	ug/L	0.028	433	28547	28079	2
	Cr	53	0.020	ug/L	0.009	44	178	222	8
	Mn	55	0.036	ug/L	0.008	22	554	1560	15
	Co	59	0.014	ug/L	0.016	115	85	369	90
>	Ge	72		ug/L			658458	655120	1
	Ni	60	0.037	ug/L	0.022	60	39	194	48
	Ni	62	0.292	ug/L	0.064	22	675	844	5
	Cu	63	0.054	ug/L	0.021	39	740	1242	16
	Cu	65	0.041	ug/L	0.026	64	68	240	46
	Zn	66	1.333	ug/L	0.044	3	249	3696	1
	Zn	67	1.190	ug/L	0.015	1	35	547	0
	Zn	68	1.220	ug/L	0.042	3	261	2540	4
	As	75	0.056	ug/L	0.031	55	273	398	18
	As-1	75	-0.026	ug/L	0.079	299	10384	10270	0
	Se	82	0.017	ug/L	0.014	79	-5	0	439
	Se	78	-0.233	ug/L	0.338	145	10570	10364	0
	Mo	98	0.083	ug/L	0.005	6	27	446	6
	Y	89		ug/L			411113	402849	0
	Kr	83		ug/L			642	668	2
>	In	115		ug/L			961280	988637	0
	Ag	107	0.030	ug/L	0.007	22	29	380	20
	Cd	111	0.017	ug/L	0.012	70	85	172	34
	Cd	114	0.010	ug/L	0.005	53	29	150	43
	Sb	121	0.627	ug/L	0.126	20	475	9398	18
	Sb	123	0.634	ug/L	0.129	20	362	7192	19
	Ba	135	0.011	ug/L	0.005	40	21	70	28
	Ba	137	0.013	ug/L	0.002	18	28	121	14
>	Tb	159		ug/L			1095087	1106257	0
	Tl	205	0.069	ug/L	0.028	41	336	2955	36
	Pb	208	0.011	ug/L	0.004	33	458	973	18
	Bi	209		ug/L			2703449	2730340	0
	Th	232	0.657	ug/L	0.166	25	2412	33602	22
	U	238	0.017	ug/L	0.002	10	41	896	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 13:06:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1765270	1802168	2
[	Be	9	0.003	ug/L	0.000	10	15	31	3
	C	13		ug/L			135652	145275	1
	Cl	37		ug/L			4937799	5141659	3
[>	Sc	45		ug/L			1259345	1261919	3
[	V	51	-0.013	ug/L	0.015	112	9617	9294	1
[	V-1	51	0.003	ug/L	0.000	8	89	157	0
[	Cr	52	-0.040	ug/L	0.048	120	28547	27741	1
[	Cr	53	0.015	ug/L	0.005	35	178	213	6
[	Mn	55	0.014	ug/L	0.001	6	554	943	2
[	Co	59	0.000	ug/L	0.000	99	85	94	6
[>	Ge	72		ug/L			658458	658929	2
[	Ni	60	0.011	ug/L	0.005	47	39	88	26
[	Ni	62	-0.084	ug/L	0.074	87	675	626	8
[	Cu	63	0.000	ug/L	0.003	824	740	744	4
[	Cu	65	0.009	ug/L	0.002	17	68	107	5
[	Zn	66	0.160	ug/L	0.009	5	249	666	5
[	Zn	67	0.174	ug/L	0.020	11	35	110	8
[	Zn	68	0.153	ug/L	0.019	12	261	548	4
[	As	75	0.006	ug/L	0.006	90	273	287	2
[	As-1	75	-0.118	ug/L	0.164	138	10384	10116	1
[	Se	82	-0.033	ug/L	0.033	98	-5	-13	59
[	Se	78	-0.443	ug/L	0.568	128	10570	10284	1
[	Mo	98	0.011	ug/L	0.002	17	27	83	9
	Y	89		ug/L			411113	412550	2
	Kr	83		ug/L			642	662	3
[>	In	115		ug/L			961280	986749	1
[	Ag	107	0.008	ug/L	0.001	16	29	124	12
[	Cd	111	0.004	ug/L	0.002	41	85	106	7
[	Cd	114	0.003	ug/L	0.000	15	29	61	8
[	Sb	121	0.116	ug/L	0.032	27	475	2129	21
[	Sb	123	0.115	ug/L	0.025	22	362	1608	16
[	Ba	135	0.004	ug/L	0.001	17	21	36	6
[	Ba	137	0.005	ug/L	0.001	18	28	63	9
[>	Tb	159		ug/L			1095087	1101037	1
[	Tl	205	0.052	ug/L	0.031	58	336	2319	49
[	Pb	208	0.006	ug/L	0.001	16	458	735	5
[	Bi	209		ug/L			2703449	2780859	0
[	Th	232	0.114	ug/L	0.038	33	2412	7823	22
[	U	238	0.002	ug/L	0.000	23	41	139	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 13:12:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1765270	1799263	0
[	Be	9	0.002	ug/L	0.001	58	15	23	19
	C	13		ug/L			135652	153054	1
	Cl	37		ug/L			4937799	5089872	0
[>	Sc	45		ug/L			1259345	1243856	2
[	V	51	0.001	ug/L	0.015	1614	9617	9516	1
[	V-1	51	0.001	ug/L	0.000	25	89	118	6
[	Cr	52	0.000	ug/L	0.041	11228	28547	28191	0
[	Cr	53	0.002	ug/L	0.011	677	178	180	15
[	Mn	55	0.008	ug/L	0.001	13	554	775	3
[	Co	59	0.000	ug/L	0.001	236	85	89	12
[>	Ge	72		ug/L			658458	653324	2
[	Ni	60	0.015	ug/L	0.005	33	39	102	21
[	Ni	62	-0.237	ug/L	0.044	18	675	532	6
[	Cu	63	0.036	ug/L	0.006	16	740	1065	3
[	Cu	65	0.050	ug/L	0.003	5	68	279	4
[	Zn	66	0.278	ug/L	0.009	3	249	963	4
[	Zn	67	0.223	ug/L	0.014	6	35	130	2
[	Zn	68	0.274	ug/L	0.022	8	261	770	5
[	As	75	0.010	ug/L	0.011	111	273	293	8
[	As-1	75	-0.045	ug/L	0.089	198	10384	10199	0
[	Se	82	-0.015	ug/L	0.075	514	-5	-8	208
[	Se	78	-0.203	ug/L	0.329	162	10570	10354	0
[	Mo	98	0.006	ug/L	0.003	39	27	59	20
	Y	89		ug/L			411113	407889	1
	Kr	83		ug/L			642	639	7
[>	In	115		ug/L			961280	991751	0
[	Ag	107	0.005	ug/L	0.001	16	29	93	10
[	Cd	111	0.000	ug/L	0.001	512	85	90	8
[	Cd	114	0.002	ug/L	0.000	21	29	56	10
[	Sb	121	0.039	ug/L	0.015	38	475	1039	20
[	Sb	123	0.039	ug/L	0.016	40	362	791	21
[	Ba	135	0.010	ug/L	0.003	30	21	65	20
[	Ba	137	0.010	ug/L	0.001	7	28	101	5
[>	Tb	159		ug/L			1095087	1106019	0
[	Tl	205	0.033	ug/L	0.024	71	336	1611	56
[	Pb	208	0.002	ug/L	0.001	41	458	559	7
[	Bi	209		ug/L			2703449	2734128	0
[	Th	232	0.022	ug/L	0.015	65	2412	3495	19
[	U	238	0.000	ug/L	0.000	52	41	57	14

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 13:16:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1765270	1825222	0
[	Be	9	50.885	ug/L	1.261	2	15	243332	2
	C	13		ug/L			135652	139779	1
	Cl	37		ug/L			4937799	5212384	1
[>	Sc	45		ug/L			1259345	1282916	2
|	V	51	47.225	ug/L	0.350	0	9617	1201158	1
|	V-1	51	48.003	ug/L	0.498	1	89	1198135	1
|	Cr	52	47.292	ug/L	1.416	2	28547	1038619	2
|	Cr	53	49.962	ug/L	1.031	2	178	116397	0
|	Mn	55	47.560	ug/L	0.427	0	554	1380062	1
[	Co	59	47.934	ug/L	1.094	2	85	1004788	2
[>	Ge	72		ug/L			658458	662128	1
|	Ni	60	49.448	ug/L	0.212	0	39	209699	1
|	Ni	62	48.895	ug/L	0.652	1	675	29717	2
|	Cu	63	50.009	ug/L	0.513	1	740	472264	2
|	Cu	65	48.586	ug/L	1.138	2	68	207141	2
|	Zn	66	49.854	ug/L	1.466	2	249	130561	1
|	Zn	67	49.954	ug/L	0.856	1	35	21760	1
|	Zn	68	49.796	ug/L	0.344	0	261	94286	1
|	As	75	48.899	ug/L	0.094	0	273	111151	1
|	As-1	75	48.793	ug/L	0.173	0	10384	122244	1
|	Se	82	49.042	ug/L	0.738	1	-5	12157	1
|	Se	78	48.640	ug/L	0.487	1	10570	42462	0
[	Mo	98	48.190	ug/L	0.516	1	27	246951	2
	Y	89		ug/L			411113	411067	0
	Kr	83		ug/L			642	671	5
[>	In	115		ug/L			961280	965881	1
|	Ag	107	51.026	ug/L	1.082	2	29	585566	1
|	Cd	111	51.151	ug/L	0.493	0	85	239812	1
|	Cd	114	50.194	ug/L	0.613	1	29	595295	1
|	Sb	121	50.435	ug/L	0.755	1	475	700664	1
|	Sb	123	50.352	ug/L	0.598	1	362	529534	0
|	Ba	135	49.955	ug/L	0.269	0	21	207495	1
[	Ba	137	49.911	ug/L	0.258	0	28	359335	1
[>	Tb	159		ug/L			1095087	1134868	1
|	Tl	205	46.081	ug/L	0.216	0	336	1807669	0
|	Pb	208	47.733	ug/L	0.464	0	458	2373847	1
|	Bi	209		ug/L			2703449	2705203	1
|	Th	232	49.618	ug/L	0.399	0	2412	2419080	0
[	U	238	50.100	ug/L	0.773	1	41	2634878	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 13:23:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1765270	1792279	0
	Be	9	0.003	ug/L	0.000	19	15	27	9
	C	13		ug/L			135652	143559	2
	Cl	37		ug/L			4937799	5090633	2
>	Sc	45		ug/L			1259345	1254679	2
	V	51	-0.012	ug/L	0.010	82	9617	9272	0
	V-1	51	0.003	ug/L	0.000	13	89	152	7
	Cr	52	-0.052	ug/L	0.035	66	28547	27349	0
	Cr	53	-0.002	ug/L	0.000	25	178	174	2
	Mn	55	0.005	ug/L	0.000	10	554	685	3
	Co	59	0.000	ug/L	0.001	144	85	92	12
>	Ge	72		ug/L			658458	644023	0
	Ni	60	-0.000	ug/L	0.003	2753	39	38	32
	Ni	62	-0.309	ug/L	0.038	12	675	482	5
	Cu	63	-0.017	ug/L	0.004	22	740	571	6
	Cu	65	0.001	ug/L	0.001	160	68	70	7
	Zn	66	0.020	ug/L	0.026	134	249	293	23
	Zn	67	0.034	ug/L	0.009	26	35	49	7
	Zn	68	0.025	ug/L	0.020	82	261	301	12
	As	75	0.018	ug/L	0.010	54	273	306	6
	As-1	75	-0.015	ug/L	0.051	336	10384	10122	0
	Se	82	-0.013	ug/L	0.070	546	-5	-8	208
	Se	78	-0.093	ug/L	0.194	208	10570	10279	0
	Mo	98	0.020	ug/L	0.006	27	27	125	21
	Y	89		ug/L			411113	404988	1
	Kr	83		ug/L			642	655	2
>	In	115		ug/L			961280	965950	0
	Ag	107	0.005	ug/L	0.001	12	29	90	7
	Cd	111	0.002	ug/L	0.002	93	85	98	11
	Cd	114	0.001	ug/L	0.001	48	29	44	16
	Sb	121	0.134	ug/L	0.040	29	475	2336	23
	Sb	123	0.138	ug/L	0.040	28	362	1818	22
	Ba	135	-0.001	ug/L	0.002	272	21	17	52
	Ba	137	0.002	ug/L	0.001	40	28	40	11
>	Tb	159		ug/L			1095087	1091849	0
	Tl	205	0.021	ug/L	0.015	71	336	1111	49
	Pb	208	0.002	ug/L	0.001	42	458	544	6
	Bi	209		ug/L			2703449	2721455	1
	Th	232	0.398	ug/L	0.136	34	2412	21028	29
	U	238	0.005	ug/L	0.001	23	41	276	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 13:31:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				1766731	1
	Be	9		ug/L				22	10
	C	13		ug/L				143235	1
	Cl	37		ug/L				4954439	2
>	Sc	45		ug/L				1218098	1
	V	51		ug/L				9170	0
	V-1	51		ug/L				105	12
	Cr	52		ug/L				27160	0
	Cr	53		ug/L				170	0
	Mn	55		ug/L				674	3
	Co	59		ug/L				88	4
>	Ge	72		ug/L				652831	1
	Ni	60		ug/L				35	17
	Ni	62		ug/L				471	3
	Cu	63		ug/L				514	6
	Cu	65		ug/L				55	9
	Zn	66		ug/L				255	7
	Zn	67		ug/L				38	13
	Zn	68		ug/L				241	5
	As	75		ug/L				310	4
	As-1	75		ug/L				9967	1
	Se	82		ug/L				4	244
	Se	78		ug/L				10138	1
	Mo	98		ug/L				31	18
	Y	89		ug/L				399449	1
	Kr	83		ug/L				635	6
>	In	115		ug/L				965468	0
	Ag	107		ug/L				54	8
	Cd	111		ug/L				102	4
	Cd	114		ug/L				36	13
	Sb	121		ug/L				768	18
	Sb	123		ug/L				575	25
	Ba	135		ug/L				23	16
	Ba	137		ug/L				42	10
>	Tb	159		ug/L				1098939	0
	Tl	205		ug/L				811	65
	Pb	208		ug/L				507	5
	Bi	209		ug/L				2742152	1
	Th	232		ug/L				5672	23
	U	238		ug/L				50	27

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 13:36:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1867260	1
	Be	9	49.300	ug/L	0.876	1	22	241140	0
	C	13		ug/L			143235	143176	1
	Cl	37		ug/L			4954439	5233159	1
>	Sc	45		ug/L			1218098	1286556	1
	V	51	46.999	ug/L	1.006	2	9170	1198531	0
	V-1	51	47.329	ug/L	1.010	2	105	1184521	0
	Cr	52	47.864	ug/L	0.982	2	27160	1053398	0
	Cr	53	49.027	ug/L	0.880	1	170	114553	0
	Mn	55	47.585	ug/L	1.387	2	674	1384506	1
	Co	59	47.357	ug/L	0.642	1	88	995582	1
>	Ge	72		ug/L			652831	661702	1
	Ni	60	48.998	ug/L	0.924	1	35	207642	1
	Ni	62	48.800	ug/L	0.838	1	471	29437	1
	Cu	63	48.448	ug/L	0.541	1	514	456992	0
	Cu	65	49.148	ug/L	0.503	1	55	209381	0
	Zn	66	49.253	ug/L	1.547	3	255	128942	2
	Zn	67	49.693	ug/L	0.718	1	38	21637	1
	Zn	68	50.049	ug/L	1.235	2	241	94663	1
	As	75	49.058	ug/L	0.823	1	310	111467	0
	As-1	75	48.644	ug/L	0.744	1	9967	121479	0
	Se	82	50.093	ug/L	1.266	2	4	12418	1
	Se	78	48.591	ug/L	0.812	1	10138	42055	0
	Mo	98	49.215	ug/L	0.298	0	31	252031	1
	Y	89		ug/L			399449	416907	1
	Kr	83		ug/L			635	680	7
>	In	115		ug/L			965468	988704	1
	Ag	107	49.355	ug/L	1.007	2	54	579816	1
	Cd	111	50.013	ug/L	0.634	1	102	240018	0
	Cd	114	49.133	ug/L	0.605	1	36	596475	0
	Sb	121	49.146	ug/L	0.767	1	768	699163	0
	Sb	123	49.326	ug/L	1.063	2	575	531175	1
	Ba	135	48.072	ug/L	0.816	1	23	204368	0
	Ba	137	48.123	ug/L	0.293	0	42	354660	1
>	Tb	159		ug/L			1098939	1135668	0
	Tl	205	46.219	ug/L	0.432	0	811	1814848	0
	Pb	208	47.275	ug/L	0.420	0	507	2352734	0
	Bi	209		ug/L			2742152	2697554	0
	Th	232	49.590	ug/L	0.631	1	5672	2422812	0
	U	238	50.040	ug/L	0.608	1	50	2633696	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 13:42:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1808504	2
	Be	9	0.001	ug/L	0.001	96	22	28	15
	C	13		ug/L			143235	148106	1
	Cl	37		ug/L			4954439	5091337	1
>	Sc	45		ug/L			1218098	1256431	1
	V	51	-0.017	ug/L	0.009	53	9170	9031	2
	V-1	51	0.002	ug/L	0.001	30	105	151	9
	Cr	52	-0.068	ug/L	0.032	46	27160	26586	2
	Cr	53	-0.005	ug/L	0.001	28	170	164	1
	Mn	55	0.001	ug/L	0.001	104	674	736	7
	Co	59	0.001	ug/L	0.001	111	88	101	9
>	Ge	72		ug/L			652831	647534	1
	Ni	60	0.001	ug/L	0.002	275	35	38	26
	Ni	62	-0.084	ug/L	0.061	72	471	418	7
	Cu	63	-0.005	ug/L	0.003	63	514	465	4
	Cu	65	0.003	ug/L	0.001	21	55	68	4
	Zn	66	-0.002	ug/L	0.009	549	255	248	7
	Zn	67	0.009	ug/L	0.021	230	38	42	22
	Zn	68	0.019	ug/L	0.008	42	241	275	4
	As	75	-0.002	ug/L	0.014	733	310	303	8
	As-1	75	0.104	ug/L	0.048	45	9967	10118	0
	Se	82	-0.042	ug/L	0.013	30	4	-5	53
	Se	78	0.347	ug/L	0.160	46	10138	10277	0
	Mo	98	0.016	ug/L	0.003	21	31	110	17
	Y	89		ug/L			399449	411156	0
	Kr	83		ug/L			635	646	4
>	In	115		ug/L			965468	973529	1
	Ag	107	0.004	ug/L	0.004	87	54	105	41
	Cd	111	-0.001	ug/L	0.003	285	102	98	12
	Cd	114	0.002	ug/L	0.002	101	36	60	38
	Sb	121	0.091	ug/L	0.031	33	768	2045	20
	Sb	123	0.092	ug/L	0.027	29	575	1550	18
	Ba	135	0.001	ug/L	0.001	195	23	26	17
	Ba	137	0.002	ug/L	0.001	32	42	55	6
>	Tb	159		ug/L			1098939	1095219	0
	Tl	205	0.001	ug/L	0.011	1734	811	829	47
	Pb	208	0.002	ug/L	0.000	30	507	581	3
	Bi	209		ug/L			2742152	2725556	0
	Th	232	0.286	ug/L	0.111	38	5672	19071	26
	U	238	0.005	ug/L	0.001	15	50	293	11

Sample Information

Sample Date/Time: Tuesday, November 27, 2012 13:42:55
Method File: C:\NexION Data\Method\200.8nomin.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**0.9999**	0.003	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**0.9998**	0.020	0.20	10	20	50	100
V-1	51	**0.9999**	0.019	0.20	10	20	50	100
Cr	52	**0.9999**	0.017	0.50	10	20	50	100
Cr	53	**0.9998**	0.002	0.50	10	20	50	100
Mn	55	**1.0000**	0.023	0.50	10	20	50	100
Co	59	**1.0000**	0.016	0.20	10	20	50	100
Ge	72							
Ni	60	**0.9999**	0.006	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**1.0000**	0.014	0.50	10	20	50	100
Cu	65	**0.9999**	0.006	0.50	10	20	50	100
Zn	66	**1.0000**	0.004	4.00	10	20	50	100
Zn	67	**0.9999**	0.001	4.00	10	20	50	100
Zn	68	**0.9999**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9999**	0.000	0.50	10	20	50	100
Se	78	**1.0000**	0.001	0.50	10	20	50	100
Mo	98	**1.0000**	0.008	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.012	0.20	10	20	50	100
Cd	111	**0.9999**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.012	0.10	10	20	50	100
Sb	121	**1.0000**	0.014	0.20	10	20	50	100
Sb	123	**1.0000**	0.011	0.20	10	20	50	100
Ba	135	**1.0000**	0.004	0.50	10	20	50	100
Ba	137	**1.0000**	0.007	0.50	10	20	50	100
Tb	159							
Tl	205	**0.9997**	0.035	0.20	10	20	50	100
Pb	208	**0.9999**	0.044	0.10	10	20	50	100
Bi	209							
Th	232	**0.9998**	0.043	0.20	10	20	50	100
U	238	**0.9999**	0.046	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:04:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1802276	1
	Be	9	0.203	ug/L	0.005	2	22	980	1
	C	13		ug/L			143235	147582	1
	Cl	37		ug/L			4954439	4959680	3
>	Sc	45		ug/L			1218098	1267477	1
	V	51	0.200	ug/L	0.016	8	9170	14526	1
	V-1	51	0.204	ug/L	0.005	2	105	5145	0
	Cr	52	0.480	ug/L	0.041	8	27160	38380	0
	Cr	53	0.505	ug/L	0.023	4	170	1336	3
	Mn	55	0.483	ug/L	0.008	1	674	14534	0
	Co	59	0.199	ug/L	0.007	3	88	4211	1
>	Ge	72		ug/L			652831	650782	1
	Ni	60	0.521	ug/L	0.013	2	35	2208	3
	Ni	62	0.494	ug/L	0.043	8	471	757	3
	Cu	63	0.519	ug/L	0.021	4	514	5320	2
	Cu	65	0.535	ug/L	0.015	2	55	2297	2
	Zn	66	4.579	ug/L	0.087	1	255	12022	3
	Zn	67	4.244	ug/L	0.237	5	38	1851	4
	Zn	68	4.397	ug/L	0.108	2	241	8398	1
	As	75	0.196	ug/L	0.015	7	310	745	2
	As-1	75	0.290	ug/L	0.093	31	9967	10587	0
	Se	82	0.512	ug/L	0.025	4	4	129	4
	Se	78	0.848	ug/L	0.290	34	10138	10649	0
	Mo	98	0.183	ug/L	0.008	4	31	952	4
	Y	89		ug/L			399449	401839	1
	Kr	83		ug/L			635	648	1
>	In	115		ug/L			965468	963650	0
	Ag	107	0.215	ug/L	0.004	2	54	2520	1
	Cd	111	0.107	ug/L	0.008	7	102	605	5
	Cd	114	0.107	ug/L	0.004	3	36	1301	4
	Sb	121	0.192	ug/L	0.011	5	768	3433	4
	Sb	123	0.190	ug/L	0.015	7	575	2563	6
	Ba	135	0.501	ug/L	0.009	1	23	2097	1
	Ba	137	0.486	ug/L	0.008	1	42	3530	1
>	Tb	159		ug/L			1098939	1100287	0
	Tl	205	0.188	ug/L	0.011	5	811	7955	4
	Pb	208	0.102	ug/L	0.002	2	507	5418	1
	Bi	209		ug/L			2742152	2732544	0
	Th	232	0.115	ug/L	0.024	21	5672	11124	10
	U	238	0.184	ug/L	0.003	1	50	9422	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:09:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1841735	1
	Be	9	0.002	ug/L	0.001	67	22	31	17
	C	13		ug/L			143235	153503	2
	Cl	37		ug/L			4954439	5121372	2
>	Sc	45		ug/L			1218098	1296345	1
	V	51	0.007	ug/L	0.005	73	9170	9927	1
	V-1	51	0.003	ug/L	0.001	16	105	197	8
	Cr	52	0.013	ug/L	0.012	91	27160	29194	1
	Cr	53	0.002	ug/L	0.008	323	170	187	11
	Mn	55	0.304	ug/L	0.011	3	674	9630	4
	Co	59	0.001	ug/L	0.001	86	88	115	14
>	Ge	72		ug/L			652831	677498	1
	Ni	60	0.007	ug/L	0.002	27	35	68	12
	Ni	62	-0.098	ug/L	0.038	38	471	429	6
	Cu	63	0.094	ug/L	0.002	1	514	1439	1
	Cu	65	0.102	ug/L	0.009	8	55	501	6
	Zn	66	0.947	ug/L	0.030	3	255	2797	1
	Zn	67	0.910	ug/L	0.029	3	38	445	3
	Zn	68	0.958	ug/L	0.057	5	241	2099	4
	As	75	-0.009	ug/L	0.009	103	310	301	7
	As-1	75	-0.007	ug/L	0.060	824	9967	10326	0
	Se	82	-0.045	ug/L	0.031	68	4	-6	116
	Se	78	-0.020	ug/L	0.206	1038	10138	10507	0
	Mo	98	0.008	ug/L	0.004	42	31	76	25
	Y	89		ug/L			399449	422433	1
	Kr	83		ug/L			635	675	2
>	In	115		ug/L			965468	1004476	1
	Ag	107	-0.001	ug/L	0.001	57	54	44	17
	Cd	111	-0.001	ug/L	0.002	165	102	101	10
	Cd	114	0.002	ug/L	0.001	36	36	57	11
	Sb	121	-0.035	ug/L	0.004	11	768	289	19
	Sb	123	-0.034	ug/L	0.005	14	575	227	24
	Ba	135	0.022	ug/L	0.002	10	23	119	9
	Ba	137	0.020	ug/L	0.002	11	42	197	8
>	Tb	159		ug/L			1098939	1134970	1
	Tl	205	-0.000	ug/L	0.014	3450	811	815	63
	Pb	208	0.004	ug/L	0.000	9	507	742	1
	Bi	209		ug/L			2742152	2776107	1
	Th	232	-0.002	ug/L	0.023	1329	5672	5760	17
	U	238	0.000	ug/L	0.001	1312	50	54	60

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:13:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1860182	1
[	Be	9	24.740	ug/L	0.659	2	22	120553	1
	C	13		ug/L			143235	159429	1
	Cl	37		ug/L			4954439	5093921	1
[>	Sc	45		ug/L			1218098	1308215	1
|	V	51	23.905	ug/L	0.501	2	9170	624795	1
|	V-1	51	24.411	ug/L	0.385	1	105	621422	1
|	Cr	52	23.944	ug/L	0.385	1	27160	550448	0
|	Cr	53	25.681	ug/L	0.345	1	170	61122	2
|	Mn	55	24.513	ug/L	0.530	2	674	725698	1
[	Co	59	24.422	ug/L	0.591	2	88	522054	1
[>	Ge	72		ug/L			652831	655549	1
|	Ni	60	26.647	ug/L	0.359	1	35	111879	0
|	Ni	62	26.293	ug/L	0.484	1	471	15929	1
|	Cu	63	26.743	ug/L	0.711	2	514	250085	1
|	Cu	65	27.369	ug/L	0.345	1	55	115535	1
|	Zn	66	84.574	ug/L	2.188	2	255	219123	0
|	Zn	67	77.338	ug/L	2.106	2	38	33332	1
|	Zn	68	81.069	ug/L	1.321	1	241	151761	0
|	As	75	24.949	ug/L	0.610	2	310	56304	0
|	As-1	75	25.039	ug/L	0.280	1	9967	66804	0
|	Se	82	79.711	ug/L	2.173	2	4	19571	0
|	Se	78	77.996	ug/L	1.035	1	10138	60717	1
[	Mo	98	0.009	ug/L	0.004	37	31	79	24
	Y	89		ug/L			399449	409613	0
	Kr	83		ug/L			635	692	5
[>	In	115		ug/L			965468	991619	0
|	Ag	107	26.590	ug/L	0.375	1	54	313376	1
|	Cd	111	24.854	ug/L	0.206	0	102	119698	0
|	Cd	114	24.496	ug/L	0.192	0	36	298312	0
|	Sb	121	-0.038	ug/L	0.004	10	768	250	23
|	Sb	123	-0.038	ug/L	0.003	7	575	177	18
|	Ba	135	24.891	ug/L	0.221	0	23	106157	0
[	Ba	137	24.715	ug/L	0.212	0	42	182714	0
[>	Tb	159		ug/L			1098939	1117254	0
|	Tl	205	24.742	ug/L	0.180	0	811	956136	0
|	Pb	208	25.505	ug/L	0.245	0	507	1248994	0
|	Bi	209		ug/L			2742152	2757547	0
|	Th	232	23.360	ug/L	0.200	0	5672	1125887	0
[	U	238	23.281	ug/L	0.208	0	50	1205573	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:17:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			1766731	1881597	2
⌊	Be	9	23.759	ug/L	0.842	3	22	117086	2
	C	13		ug/L			143235	155735	2
	Cl	37		ug/L			4954439	5050662	2
⌈>	Sc	45		ug/L			1218098	1308674	1
⌈	V	51	23.743	ug/L	0.329	1	9170	620839	0
⌊	V-1	51	24.033	ug/L	0.514	2	105	611901	0
⌈	Cr	52	24.159	ug/L	0.263	1	27160	555356	0
⌊	Cr	53	25.167	ug/L	0.879	3	170	59896	2
⌈	Mn	55	24.769	ug/L	0.554	2	674	733540	1
⌊	Co	59	24.081	ug/L	0.567	2	88	514952	0
⌈>	Ge	72		ug/L			652831	659033	1
⌈	Ni	60	26.573	ug/L	0.399	1	35	112166	0
⌊	Ni	62	26.052	ug/L	0.691	2	471	15871	1
⌈	Cu	63	26.573	ug/L	0.678	2	514	249829	1
⌊	Cu	65	26.464	ug/L	0.439	1	55	112307	1
⌈	Zn	66	78.117	ug/L	0.037	0	255	203555	1
⌊	Zn	67	74.082	ug/L	1.788	2	38	32109	2
⌈	Zn	68	77.169	ug/L	0.111	0	241	145271	1
⌈	As	75	23.656	ug/L	0.389	1	310	53694	0
⌊	As-1	75	23.993	ug/L	0.689	2	9967	64774	1
⌈	Se	82	74.428	ug/L	1.640	2	4	18374	1
⌊	Se	78	73.720	ug/L	1.442	1	10138	58252	0
⌊	Mo	98	0.007	ug/L	0.002	22	31	65	10
	Y	89		ug/L			399449	422648	2
	Kr	83		ug/L			635	686	6
⌈>	In	115		ug/L			965468	995384	1
⌈	Ag	107	26.603	ug/L	0.398	1	54	314711	1
⌈	Cd	111	24.219	ug/L	0.292	1	102	117083	1
⌊	Cd	114	23.708	ug/L	0.431	1	36	289778	0
⌈	Sb	121	-0.041	ug/L	0.004	9	768	202	28
⌊	Sb	123	-0.040	ug/L	0.003	7	575	161	20
⌈	Ba	135	24.749	ug/L	0.382	1	23	105943	0
⌊	Ba	137	24.398	ug/L	0.391	1	42	181037	0
⌈>	Tb	159		ug/L			1098939	1129052	1
⌈	Tl	205	24.086	ug/L	0.243	1	811	940610	0
⌊	Pb	208	24.861	ug/L	0.264	1	507	1230260	0
⌈	Bi	209		ug/L			2742152	2761858	0
⌊	Th	232	23.158	ug/L	0.263	1	5672	1127925	0
⌊	U	238	22.909	ug/L	0.431	1	50	1198638	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:21:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1867158	1
	Be	9	0.005	ug/L	0.001	18	22	48	8
	C	13		ug/L			143235	162577	2
	Cl	37		ug/L			4954439	5399762	1
>	Sc	45		ug/L			1218098	1337854	1
	V	51	1.401	ug/L	0.021	1	9170	46936	0
	V-1	51	1.486	ug/L	0.029	1	105	38779	1
	Cr	52	0.450	ug/L	0.007	1	27160	39850	1
	Cr	53	0.704	ug/L	0.021	2	170	1894	1
	Mn	55	164.424	ug/L	3.726	2	674	4973934	1
	Co	59	0.202	ug/L	0.003	1	88	4508	0
>	Ge	72		ug/L			652831	672065	2
	Ni	60	1.338	ug/L	0.039	2	35	5792	2
	Ni	62	1.246	ug/L	0.064	5	471	1235	1
	Cu	63	2.428	ug/L	0.059	2	514	23755	1
	Cu	65	2.220	ug/L	0.080	3	55	9657	1
	Zn	66	28.064	ug/L	0.423	1	255	74726	0
	Zn	67	24.955	ug/L	0.771	3	38	11052	1
	Zn	68	27.397	ug/L	0.465	1	241	52745	1
	As	75	0.553	ug/L	0.028	5	310	1590	2
	As-1	75	0.516	ug/L	0.090	17	9967	11457	0
	Se	82	-0.014	ug/L	0.082	566	4	0	2528
	Se	78	-0.067	ug/L	0.294	441	10138	10390	0
	Mo	98	1.056	ug/L	0.061	5	31	5519	3
	Y	89		ug/L			399449	423562	0
	Kr	83		ug/L			635	701	2
>	In	115		ug/L			965468	1021741	1
	Ag	107	0.005	ug/L	0.001	23	54	119	13
	Cd	111	0.103	ug/L	0.003	3	102	617	1
	Cd	114	0.100	ug/L	0.004	3	36	1295	3
	Sb	121	0.802	ug/L	0.009	1	768	12596	0
	Sb	123	0.800	ug/L	0.021	2	575	9501	1
	Ba	135	4.755	ug/L	0.035	0	23	20916	1
	Ba	137	4.756	ug/L	0.056	1	42	36265	1
>	Tb	159		ug/L			1098939	1166539	0
	Tl	205	-0.002	ug/L	0.005	251	811	782	25
	Pb	208	0.497	ug/L	0.008	1	507	25915	1
	Bi	209		ug/L			2742152	2738644	1
	Th	232	0.344	ug/L	0.001	0	5672	23228	0
	U	238	0.015	ug/L	0.000	1	50	886	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:25:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1879662	0
	Be	9	0.024	ug/L	0.002	9	22	144	7
	C	13		ug/L			143235	161289	1
	Cl	37		ug/L			4954439	5535051	1
>	Sc	45		ug/L			1218098	1343849	0
	V	51	1.419	ug/L	0.018	1	9170	47623	0
	V-1	51	1.496	ug/L	0.018	1	105	39241	0
	Cr	52	0.515	ug/L	0.042	8	27160	41476	2
	Cr	53	0.746	ug/L	0.044	5	170	2006	4
	Mn	55	163.307	ug/L	0.822	0	674	4963088	1
	Co	59	0.137	ug/L	0.001	1	88	3103	1
>	Ge	72		ug/L			652831	668790	0
	Ni	60	1.320	ug/L	0.019	1	35	5688	0
	Ni	62	1.214	ug/L	0.057	4	471	1211	3
	Cu	63	3.606	ug/L	0.132	3	514	34868	3
	Cu	65	3.436	ug/L	0.053	1	55	14846	1
	Zn	66	28.941	ug/L	0.701	2	255	76685	1
	Zn	67	26.089	ug/L	0.452	1	38	11502	2
	Zn	68	28.229	ug/L	0.714	2	241	54075	1
	As	75	0.553	ug/L	0.012	2	310	1583	2
	As-1	75	0.557	ug/L	0.061	10	9967	11500	0
	Se	82	0.006	ug/L	0.016	251	4	6	62
	Se	78	0.075	ug/L	0.241	322	10138	10434	0
	Mo	98	1.093	ug/L	0.019	1	31	5686	1
	Y	89		ug/L			399449	428783	2
	Kr	83		ug/L			635	678	2
>	In	115		ug/L			965468	1020105	0
	Ag	107	0.003	ug/L	0.000	9	54	96	4
	Cd	111	0.102	ug/L	0.006	5	102	615	4
	Cd	114	0.103	ug/L	0.005	4	36	1325	4
	Sb	121	0.816	ug/L	0.005	0	768	12783	0
	Sb	123	0.815	ug/L	0.013	1	575	9660	1
	Ba	135	4.881	ug/L	0.026	0	23	21434	0
	Ba	137	4.862	ug/L	0.021	0	42	37016	0
>	Tb	159		ug/L			1098939	1169814	1
	Tl	205	-0.010	ug/L	0.001	10	811	459	9
	Pb	208	0.501	ug/L	0.004	0	507	26235	0
	Bi	209		ug/L			2742152	2779039	0
	Th	232	0.005	ug/L	0.007	145	5672	6288	6
	U	238	0.011	ug/L	0.000	1	50	653	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:29:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			1766731	1894386	2
⌊	Be	9	23.602	ug/L	0.767	3	22	117109	2
	C	13		ug/L			143235	159264	1
	Cl	37		ug/L			4954439	5541440	1
⌈>	Sc	45		ug/L			1218098	1366599	1
|	V	51	24.582	ug/L	0.633	2	9170	670837	1
|	V-1	51	25.022	ug/L	0.633	2	105	665307	1
|	Cr	52	23.752	ug/L	0.449	1	27160	570710	1
|	Cr	53	25.232	ug/L	0.430	1	170	62721	0
|	Mn	55	184.293	ug/L	4.290	2	674	5694595	1
⌊	Co	59	23.588	ug/L	0.453	1	88	526796	1
⌈>	Ge	72		ug/L			652831	668853	1
|	Ni	60	27.849	ug/L	0.250	0	35	119325	2
|	Ni	62	27.027	ug/L	1.255	4	471	16688	2
|	Cu	63	27.695	ug/L	0.813	2	514	264298	3
|	Cu	65	27.769	ug/L	0.941	3	55	119577	2
|	Zn	66	103.574	ug/L	0.424	0	255	273816	1
|	Zn	67	97.333	ug/L	2.761	2	38	42794	1
|	Zn	68	101.963	ug/L	1.612	1	241	194703	1
|	As	75	25.039	ug/L	0.413	1	310	57662	0
|	As-1	75	24.816	ug/L	0.588	2	9967	67643	1
|	Se	82	75.464	ug/L	2.111	2	4	18907	2
|	Se	78	72.795	ug/L	1.563	2	10138	58507	0
⌊	Mo	98	1.100	ug/L	0.026	2	31	5726	0
	Y	89		ug/L			399449	431774	1
	Kr	83		ug/L			635	683	4
⌈>	In	115		ug/L			965468	1015727	1
|	Ag	107	25.982	ug/L	0.256	0	54	313672	2
|	Cd	111	24.201	ug/L	0.316	1	102	119380	0
|	Cd	114	23.695	ug/L	0.359	1	36	295542	0
|	Sb	121	0.807	ug/L	0.013	1	768	12597	1
|	Sb	123	0.821	ug/L	0.012	1	575	9675	1
|	Ba	135	29.679	ug/L	0.202	0	23	129649	0
⌊	Ba	137	29.586	ug/L	0.031	0	42	224035	1
⌈>	Tb	159		ug/L			1098939	1159668	1
|	Tl	205	23.850	ug/L	0.052	0	811	956738	0
|	Pb	208	24.880	ug/L	0.315	1	507	1264602	0
|	Bi	209		ug/L			2742152	2735539	0
|	Th	232	22.701	ug/L	0.271	1	5672	1135739	0
⌊	U	238	23.087	ug/L	0.299	1	50	1240770	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 EDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:33:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1942620	0
[	Be	9	0.001	ug/L	0.001	89	22	32	20
	C	13		ug/L			143235	166319	2
	Cl	37		ug/L			4954439	5621483	3
[>	Sc	45		ug/L			1218098	1337900	1
|	V	51	0.317	ug/L	0.026	8	9170	18415	3
|	V-1	51	0.398	ug/L	0.015	3	105	10483	2
|	Cr	52	0.176	ug/L	0.049	27	27160	33745	2
|	Cr	53	0.449	ug/L	0.027	5	170	1276	4
|	Mn	55	142.248	ug/L	0.833	0	674	4303876	1
[	Co	59	0.092	ug/L	0.003	3	88	2118	3
[>	Ge	72		ug/L			652831	671231	0
|	Ni	60	1.131	ug/L	0.010	0	35	4896	1
|	Ni	62	0.949	ug/L	0.083	8	471	1055	4
|	Cu	63	1.509	ug/L	0.030	2	514	14951	1
|	Cu	65	1.288	ug/L	0.022	1	55	5622	1
|	Zn	66	16.458	ug/L	0.407	2	255	43880	1
|	Zn	67	14.778	ug/L	0.149	1	38	6556	1
|	Zn	68	15.975	ug/L	0.265	1	241	30823	1
|	As	75	0.250	ug/L	0.010	4	310	894	1
|	As-1	75	0.173	ug/L	0.058	33	9967	10650	0
|	Se	82	0.007	ug/L	0.023	344	4	6	90
|	Se	78	-0.229	ug/L	0.189	82	10138	10271	0
[	Mo	98	0.980	ug/L	0.037	3	31	5121	3
	Y	89		ug/L			399449	432789	0
	Kr	83		ug/L			635	674	4
[>	In	115		ug/L			965468	1023098	0
|	Ag	107	0.003	ug/L	0.000	5	54	92	1
|	Cd	111	0.034	ug/L	0.002	4	102	278	3
|	Cd	114	0.038	ug/L	0.003	7	36	512	6
|	Sb	121	0.676	ug/L	0.005	0	768	10756	0
|	Sb	123	0.674	ug/L	0.007	1	575	8111	0
|	Ba	135	1.848	ug/L	0.008	0	23	8153	0
[	Ba	137	1.830	ug/L	0.011	0	42	13996	0
[>	Tb	159		ug/L			1098939	1172128	0
|	Tl	205	-0.009	ug/L	0.001	11	811	481	9
|	Pb	208	0.092	ug/L	0.003	2	507	5257	2
|	Bi	209		ug/L			2742152	2777370	0
|	Th	232	0.088	ug/L	0.005	5	5672	10495	2
[	U	238	0.009	ug/L	0.001	7	50	540	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:39:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1892710	1
	Be	9	0.017	ug/L	0.001	8	22	107	6
	C	13		ug/L			143235	166473	1
	Cl	37		ug/L			4954439	5374191	3
>	Sc	45		ug/L			1218098	1322336	1
	V	51	0.362	ug/L	0.008	2	9170	19364	0
	V-1	51	0.435	ug/L	0.011	2	105	11295	2
	Cr	52	0.277	ug/L	0.009	3	27160	35575	0
	Cr	53	0.523	ug/L	0.016	3	170	1439	3
	Mn	55	146.264	ug/L	3.292	2	674	4373382	1
	Co	59	0.100	ug/L	0.002	1	88	2255	1
>	Ge	72		ug/L			652831	666422	1
	Ni	60	1.194	ug/L	0.019	1	35	5132	0
	Ni	62	0.931	ug/L	0.098	10	471	1036	4
	Cu	63	2.413	ug/L	0.105	4	514	23418	3
	Cu	65	2.123	ug/L	0.024	1	55	9165	2
	Zn	66	17.251	ug/L	0.093	0	255	45659	1
	Zn	67	15.218	ug/L	0.177	1	38	6702	2
	Zn	68	16.730	ug/L	0.194	1	241	32040	2
	As	75	0.273	ug/L	0.025	9	310	939	6
	As-1	75	0.248	ug/L	0.074	29	9967	10744	0
	Se	82	0.035	ug/L	0.016	45	4	13	30
	Se	78	-0.006	ug/L	0.252	4019	10138	10344	0
	Mo	98	1.041	ug/L	0.015	1	31	5398	0
	Y	89		ug/L			399449	418555	1
	Kr	83		ug/L			635	681	4
>	In	115		ug/L			965468	1009137	1
	Ag	107	0.000	ug/L	0.001	296	54	60	20
	Cd	111	0.034	ug/L	0.003	8	102	276	4
	Cd	114	0.038	ug/L	0.002	5	36	508	5
	Sb	121	0.700	ug/L	0.006	0	768	10963	0
	Sb	123	0.687	ug/L	0.017	2	575	8140	0
	Ba	135	1.952	ug/L	0.034	1	23	8491	0
	Ba	137	1.946	ug/L	0.041	2	42	14677	0
>	Tb	159		ug/L			1098939	1145763	1
	Tl	205	-0.010	ug/L	0.001	9	811	436	7
	Pb	208	0.097	ug/L	0.001	1	507	5397	1
	Bi	209		ug/L			2742152	2731647	1
	Th	232	-0.048	ug/L	0.006	12	5672	3555	7
	U	238	0.006	ug/L	0.000	6	50	372	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 ESPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:43:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1934829	2
[	Be	9	23.621	ug/L	0.975	4	22	119676	1
	C	13		ug/L			143235	163399	1
	Cl	37		ug/L			4954439	5549236	0
[>	Sc	45		ug/L			1218098	1339465	2
[	V	51	24.048	ug/L	0.804	3	9170	643186	0
[	V-1	51	24.275	ug/L	0.608	2	105	632466	0
[	Cr	52	24.718	ug/L	1.049	4	27160	580559	1
[	Cr	53	25.522	ug/L	0.573	2	170	62174	2
[	Mn	55	170.746	ug/L	6.733	3	674	5168644	1
[	Co	59	24.029	ug/L	0.517	2	88	525860	0
[>	Ge	72		ug/L			652831	667084	1
[	Ni	60	26.915	ug/L	0.155	0	35	115017	1
[	Ni	62	26.565	ug/L	0.594	2	471	16372	0
[	Cu	63	28.601	ug/L	0.634	2	514	272162	1
[	Cu	65	29.190	ug/L	0.381	1	55	125390	1
[	Zn	66	94.168	ug/L	1.332	1	255	248300	0
[	Zn	67	87.160	ug/L	0.293	0	38	38233	1
[	Zn	68	91.220	ug/L	2.955	3	241	173727	1
[	As	75	24.401	ug/L	0.148	0	310	56057	0
[	As-1	75	24.007	ug/L	0.525	2	9967	65597	0
[	Se	82	74.809	ug/L	0.712	0	4	18696	1
[	Se	78	71.520	ug/L	1.277	1	10138	57515	0
[	Mo	98	1.057	ug/L	0.041	3	31	5485	2
	Y	89		ug/L			399449	422191	2
	Kr	83		ug/L			635	661	3
[>	In	115		ug/L			965468	1013806	0
[	Ag	107	25.912	ug/L	0.596	2	54	312219	2
[	Cd	111	24.286	ug/L	0.257	1	102	119580	0
[	Cd	114	23.682	ug/L	0.216	0	36	294853	0
[	Sb	121	0.691	ug/L	0.008	1	768	10883	0
[	Sb	123	0.716	ug/L	0.016	2	575	8506	1
[	Ba	135	27.255	ug/L	0.239	0	23	118843	0
[	Ba	137	26.899	ug/L	0.185	0	42	203307	0
[>	Tb	159		ug/L			1098939	1168794	0
[	Tl	205	23.959	ug/L	0.086	0	811	968662	0
[	Pb	208	24.487	ug/L	0.190	0	507	1254458	0
[	Bi	209		ug/L			2742152	2743464	0
[	Th	232	23.004	ug/L	0.155	0	5672	1159940	0
[	U	238	22.967	ug/L	0.109	0	50	1244126	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:47:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1823544	3
	Be	9	51.356	ug/L	0.965	1	22	245270	1
	C	13		ug/L			143235	146739	2
	Cl	37		ug/L			4954439	5428232	1
>	Sc	45		ug/L			1218098	1262192	2
	V	51	47.485	ug/L	1.360	2	9170	1187717	0
	V-1	51	48.194	ug/L	1.399	2	105	1183176	1
	Cr	52	47.513	ug/L	1.116	2	27160	1026027	1
	Cr	53	49.949	ug/L	1.044	2	170	114488	0
	Mn	55	48.459	ug/L	1.201	2	674	1383239	0
	Co	59	47.511	ug/L	1.149	2	88	979718	0
>	Ge	72		ug/L			652831	644959	1
	Ni	60	50.256	ug/L	1.134	2	35	207562	1
	Ni	62	49.854	ug/L	0.627	1	471	29301	0
	Cu	63	50.157	ug/L	1.168	2	514	461101	1
	Cu	65	50.126	ug/L	0.378	0	55	208148	0
	Zn	66	50.829	ug/L	0.775	1	255	129708	1
	Zn	67	51.364	ug/L	1.779	3	38	21794	2
	Zn	68	50.358	ug/L	0.823	1	241	92846	0
	As	75	50.022	ug/L	0.759	1	310	110777	0
	As-1	75	49.849	ug/L	0.793	1	9967	121099	0
	Se	82	51.020	ug/L	1.018	1	4	12328	0
	Se	78	50.384	ug/L	1.025	2	10138	42134	0
	Mo	98	49.214	ug/L	0.503	1	31	245654	2
	Y	89		ug/L			399449	401967	0
	Kr	83		ug/L			635	680	3
>	In	115		ug/L			965468	978928	0
	Ag	107	51.728	ug/L	1.021	1	54	601755	1
	Cd	111	50.631	ug/L	0.877	1	102	240604	1
	Cd	114	49.898	ug/L	0.187	0	36	599854	0
	Sb	121	49.661	ug/L	0.086	0	768	699618	0
	Sb	123	50.085	ug/L	0.491	0	575	534103	0
	Ba	135	49.201	ug/L	0.672	1	23	207126	0
	Ba	137	48.996	ug/L	0.479	0	42	357535	0
>	Tb	159		ug/L			1098939	1134044	1
	Tl	205	46.843	ug/L	0.436	0	811	1836714	1
	Pb	208	48.086	ug/L	0.337	0	507	2389656	0
	Bi	209		ug/L			2742152	2719010	0
	Th	232	50.356	ug/L	0.626	1	5672	2456547	0
	U	238	50.987	ug/L	0.368	0	50	2679712	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 14:54:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1824789	0
[	Be	9	0.000	ug/L	0.002	773	22	25	48
	C	13		ug/L			143235	147268	2
	Cl	37		ug/L			4954439	5036578	1
[>	Sc	45		ug/L			1218098	1245210	2
[	V	51	-0.005	ug/L	0.024	473	9170	9244	4
[	V-1	51	0.006	ug/L	0.002	35	105	248	18
[	Cr	52	-0.034	ug/L	0.075	219	27160	27037	3
[	Cr	53	0.002	ug/L	0.006	326	170	178	7
[	Mn	55	0.003	ug/L	0.007	199	674	782	22
[	Co	59	0.001	ug/L	0.001	121	88	109	20
[>	Ge	72		ug/L			652831	643288	2
[	Ni	60	-0.001	ug/L	0.000	65	35	32	7
[	Ni	62	-0.144	ug/L	0.016	11	471	381	5
[	Cu	63	-0.004	ug/L	0.003	69	514	471	5
[	Cu	65	0.005	ug/L	0.001	22	55	77	6
[	Zn	66	-0.002	ug/L	0.005	233	255	246	2
[	Zn	67	0.004	ug/L	0.008	222	38	39	10
[	Zn	68	0.011	ug/L	0.010	95	241	258	9
[	As	75	0.011	ug/L	0.028	244	310	331	20
[	As-1	75	0.048	ug/L	0.085	176	9967	9925	0
[	Se	82	-0.024	ug/L	0.082	341	4	-1	1806
[	Se	78	0.154	ug/L	0.350	227	10138	10083	0
[	Mo	98	0.022	ug/L	0.010	47	31	140	36
	Y	89		ug/L			399449	388665	2
	Kr	83		ug/L			635	664	3
[>	In	115		ug/L			965468	961937	0
[	Ag	107	0.008	ug/L	0.009	120	54	144	76
[	Cd	111	0.002	ug/L	0.007	450	102	110	32
[	Cd	114	0.004	ug/L	0.006	147	36	87	86
[	Sb	121	0.091	ug/L	0.035	38	768	2031	24
[	Sb	123	0.097	ug/L	0.036	36	575	1593	23
[	Ba	135	0.003	ug/L	0.004	102	23	37	40
[	Ba	137	0.003	ug/L	0.003	132	42	60	41
[>	Tb	159		ug/L			1098939	1094851	0
[	Tl	205	-0.010	ug/L	0.006	59	811	424	53
[	Pb	208	0.003	ug/L	0.003	96	507	643	20
[	Bi	209		ug/L			2742152	2741572	0
[	Th	232	0.339	ug/L	0.150	44	5672	21551	32
[	U	238	0.007	ug/L	0.003	51	50	384	43

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:06:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1872020	2
	Be	9	0.009	ug/L	0.001	10	22	66	4
	C	13		ug/L			143235	158425	1
	Cl	37		ug/L			4954439	5157984	1
>	Sc	45		ug/L			1218098	1294238	3
	V	51	0.013	ug/L	0.015	117	9170	10064	1
	V-1	51	0.016	ug/L	0.001	6	105	525	1
	Cr	52	0.029	ug/L	0.061	208	27160	29468	2
	Cr	53	0.042	ug/L	0.015	35	170	279	9
	Mn	55	0.573	ug/L	0.032	5	674	17462	2
	Co	59	0.011	ug/L	0.000	2	88	335	1
>	Ge	72		ug/L			652831	653309	1
	Ni	60	0.042	ug/L	0.002	3	35	212	1
	Ni	62	-0.108	ug/L	0.070	64	471	408	9
	Cu	63	0.108	ug/L	0.008	6	514	1518	3
	Cu	65	0.127	ug/L	0.006	5	55	588	4
	Zn	66	0.878	ug/L	0.033	3	255	2519	2
	Zn	67	0.796	ug/L	0.027	3	38	380	4
	Zn	68	0.906	ug/L	0.017	1	241	1928	1
	As	75	0.008	ug/L	0.012	147	310	328	6
	As-1	75	0.086	ug/L	0.074	85	9967	10169	0
	Se	82	-0.026	ug/L	0.060	227	4	-2	712
	Se	78	0.300	ug/L	0.268	89	10138	10338	0
	Mo	98	0.006	ug/L	0.001	18	31	61	9
	Y	89		ug/L			399449	409916	1
	Kr	83		ug/L			635	678	1
>	In	115		ug/L			965468	982896	0
	Ag	107	0.013	ug/L	0.001	8	54	205	6
	Cd	111	0.007	ug/L	0.003	40	102	139	9
	Cd	114	0.009	ug/L	0.001	9	36	146	7
	Sb	121	-0.017	ug/L	0.005	28	768	543	13
	Sb	123	-0.017	ug/L	0.007	41	575	408	18
	Ba	135	0.047	ug/L	0.002	4	23	222	4
	Ba	137	0.053	ug/L	0.002	4	42	428	3
>	Tb	159		ug/L			1098939	1125223	1
	Tl	205	0.003	ug/L	0.003	89	811	696	18
	Pb	208	0.017	ug/L	0.001	2	507	1357	2
	Bi	209		ug/L			2742152	2763871	0
	Th	232	0.087	ug/L	0.027	31	5672	10027	14
	U	238	0.010	ug/L	0.000	3	50	565	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:10:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1877146	2
[	Be	9	0.055	ug/L	0.002	4	22	293	4
	C	13		ug/L			143235	170704	1
	Cl	37		ug/L			4954439	5438814	1
[>	Sc	45		ug/L			1218098	1370876	1
|	V	51	16.836	ug/L	0.284	1	9170	464143	0
|	V-1	51	17.087	ug/L	0.262	1	105	455794	0
|	Cr	52	4.049	ug/L	0.074	1	27160	122964	2
|	Cr	53	4.438	ug/L	0.087	1	170	11225	2
|	Mn	55	486.956	ug/L	6.154	1	674	15093849	1
[	Co	59	0.640	ug/L	0.007	1	88	14442	2
[>	Ge	72		ug/L			652831	662887	0
|	Ni	60	2.029	ug/L	0.037	1	35	8646	1
|	Ni	62	1.730	ug/L	0.083	4	471	1506	3
|	Cu	63	10.751	ug/L	0.164	1	514	102001	1
|	Cu	65	10.671	ug/L	0.109	1	55	45590	1
|	Zn	66	86.646	ug/L	1.489	1	255	227067	1
|	Zn	67	80.962	ug/L	0.823	1	38	35292	0
|	Zn	68	84.357	ug/L	1.434	1	241	159698	1
|	As	75	3.745	ug/L	0.075	1	310	8815	1
|	As-1	75	3.553	ug/L	0.102	2	9967	18271	0
|	Se	82	0.143	ug/L	0.069	48	4	40	42
|	Se	78	-0.358	ug/L	0.218	60	10138	10059	1
[	Mo	98	2.597	ug/L	0.009	0	31	13353	1
	Y	89		ug/L			399449	465618	1
	Kr	83		ug/L			635	675	2
[>	In	115		ug/L			965468	991430	0
|	Ag	107	0.021	ug/L	0.000	1	54	306	1
|	Cd	111	0.572	ug/L	0.011	1	102	2858	1
|	Cd	114	0.541	ug/L	0.011	2	36	6630	2
|	Sb	121	1.735	ug/L	0.010	0	768	25510	0
|	Sb	123	1.733	ug/L	0.013	0	575	19288	0
|	Ba	135	37.814	ug/L	0.453	1	23	161229	1
[	Ba	137	37.850	ug/L	0.355	0	42	279737	0
[>	Tb	159		ug/L			1098939	1171277	0
|	Tl	205	0.002	ug/L	0.002	74	811	960	6
|	Pb	208	5.316	ug/L	0.052	0	507	273342	0
|	Bi	209		ug/L			2742152	2691364	0
|	Th	232	0.112	ug/L	0.021	18	5672	11671	8
[	U	238	0.051	ug/L	0.001	1	50	2802	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:14:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1766731	1892415	1
	Be	**9**	**0.015**	ug/L	0.003	17	22	98	14
	C	**13**		ug/L			143235	159063	0
	Cl	**37**		ug/L			4954439	5074194	3
>	**Sc**	**45**		ug/L			1218098	1337388	0
	V	**51**	**0.540**	ug/L	0.008	1	9170	24268	0
	V-1	**51**	**0.583**	ug/L	0.003	0	105	15276	0
	Cr	**52**	**0.521**	ug/L	0.044	8	27160	41405	2
	Cr	**53**	**0.666**	ug/L	0.018	2	170	1803	2
	Mn	**55**	**62.099**	ug/L	0.831	1	674	1878554	1
	Co	**59**	**0.137**	ug/L	0.004	2	88	3093	2
>	**Ge**	**72**		ug/L			652831	675793	1
	Ni	**60**	**0.614**	ug/L	0.001	0	35	2691	1
	Ni	**62**	**0.133**	ug/L	0.028	21	471	568	4
	Cu	**63**	**3.874**	ug/L	0.069	1	514	37806	0
	Cu	**65**	**3.790**	ug/L	0.082	2	55	16541	0
	Zn	**66**	**174.706**	ug/L	0.252	0	255	466498	1
	Zn	**67**	**154.103**	ug/L	4.632	3	38	68438	2
	Zn	**68**	**164.790**	ug/L	3.513	2	241	317882	3
	As	**75**	**0.626**	ug/L	0.012	1	310	1769	1
	As-1	**75**	**0.584**	ug/L	0.041	7	9967	11682	0
	Se	**82**	**0.005**	ug/L	0.065	1353	4	5	278
	Se	**78**	**-0.117**	ug/L	0.135	115	10138	10416	0
	Mo	**98**	**0.492**	ug/L	0.015	2	31	2603	2
	Y	**89**		ug/L			399449	426330	0
	Kr	**83**		ug/L			635	660	4
>	**In**	**115**		ug/L			965468	1026981	0
	Ag	**107**	**0.001**	ug/L	0.001	65	54	70	12
	Cd	**111**	**0.514**	ug/L	0.011	2	102	2671	1
	Cd	**114**	**0.512**	ug/L	0.005	1	36	6491	0
	Sb	**121**	**0.968**	ug/L	0.011	1	768	15108	0
	Sb	**123**	**0.975**	ug/L	0.013	1	575	11505	1
	Ba	**135**	**7.824**	ug/L	0.043	0	23	34577	0
	Ba	**137**	**7.790**	ug/L	0.097	1	42	59675	1
>	**Tb**	**159**		ug/L			1098939	1166375	0
	Tl	**205**	**-0.012**	ug/L	0.001	4	811	395	4
	Pb	**208**	**0.390**	ug/L	0.001	0	507	20479	0
	Bi	**209**		ug/L			2742152	2783546	0
	Th	**232**	**-0.076**	ug/L	0.005	7	5672	2197	12
	U	**238**	**0.011**	ug/L	0.000	0	50	630	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:18:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1766731	1894134	1
	Be	**9**	**0.021**	ug/L	0.003	15	22	126	12
	C	**13**		ug/L			143235	160086	2
	Cl	**37**		ug/L			4954439	6092318	4
>	**Sc**	**45**		ug/L			1218098	1313972	3
	V	**51**	**1.031**	ug/L	0.044	4	9170	36504	2
	V-1	**51**	**1.299**	ug/L	0.040	3	105	33312	2
	Cr	**52**	**0.416**	ug/L	0.031	7	27160	38393	2
	Cr	**53**	**1.315**	ug/L	0.025	1	170	3317	3
	Mn	**55**	**421.300**	ug/L	11.615	2	674	12510720	0
	Co	**59**	**0.174**	ug/L	0.010	5	88	3818	3
>	**Ge**	**72**		ug/L			652831	642444	1
	Ni	**60**	**0.665**	ug/L	0.028	4	35	2768	2
	Ni	**62**	**0.203**	ug/L	0.015	7	471	580	2
	Cu	**63**	**3.028**	ug/L	0.136	4	514	28192	3
	Cu	**65**	**2.204**	ug/L	0.053	2	55	9170	2
	Zn	**66**	**35.641**	ug/L	0.645	1	255	90664	1
	Zn	**67**	**32.548**	ug/L	1.085	3	38	13770	2
	Zn	**68**	**34.766**	ug/L	0.458	1	241	63923	0
	As	**75**	**0.505**	ug/L	0.015	2	310	1415	1
	As-1	**75**	**0.584**	ug/L	0.072	12	9967	11105	0
	Se	**82**	**0.033**	ug/L	0.045	139	4	12	90
	Se	**78**	**0.418**	ug/L	0.198	47	10138	10241	0
	Mo	**98**	**0.455**	ug/L	0.004	0	31	2293	1
	Y	**89**		ug/L			399449	409540	2
	Kr	**83**		ug/L			635	698	3
>	**In**	**115**		ug/L			965468	967432	1
	Ag	**107**	**-0.001**	ug/L	0.001	76	54	45	16
	Cd	**111**	**0.144**	ug/L	0.005	3	102	777	2
	Cd	**114**	**0.144**	ug/L	0.002	1	36	1744	2
	Sb	**121**	**0.889**	ug/L	0.010	1	768	13138	0
	Sb	**123**	**0.901**	ug/L	0.017	1	575	10062	1
	Ba	**135**	**6.699**	ug/L	0.141	2	23	27890	2
	Ba	**137**	**6.654**	ug/L	0.050	0	42	48024	1
>	**Tb**	**159**		ug/L			1098939	1126114	0
	Tl	**205**	**-0.007**	ug/L	0.001	16	811	549	7
	Pb	**208**	**0.146**	ug/L	0.002	1	507	7739	1
	Bi	**209**		ug/L			2742152	2557490	0
	Th	**232**	**-0.081**	ug/L	0.005	6	5672	1879	12
	U	**238**	**0.012**	ug/L	0.001	6	50	656	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:22:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1891273	0
	Be	9	0.001	ug/L	0.001	73	22	29	12
	C	13		ug/L			143235	173063	1
	Cl	37		ug/L			4954439	5326295	0
>	Sc	45		ug/L			1218098	1313969	1
	V	51	0.545	ug/L	0.014	2	9170	23969	1
	V-1	51	0.646	ug/L	0.009	1	105	16626	0
	Cr	52	0.304	ug/L	0.049	16	27160	35948	2
	Cr	53	0.643	ug/L	0.037	5	170	1713	3
	Mn	55	113.744	ug/L	3.235	2	674	3378947	1
	Co	59	0.065	ug/L	0.001	2	88	1485	2
>	Ge	72		ug/L			652831	653615	1
	Ni	60	0.459	ug/L	0.011	2	35	1955	1
	Ni	62	0.017	ug/L	0.008	50	471	481	0
	Cu	63	1.781	ug/L	0.033	1	514	17089	0
	Cu	65	1.616	ug/L	0.016	0	55	6852	0
	Zn	66	4.720	ug/L	0.091	1	255	12434	0
	Zn	67	4.495	ug/L	0.045	1	38	1968	2
	Zn	68	4.976	ug/L	0.137	2	241	9514	1
	As	75	0.324	ug/L	0.018	5	310	1036	2
	As-1	75	0.305	ug/L	0.051	16	9967	10669	0
	Se	82	0.056	ug/L	0.064	115	4	18	85
	Se	78	0.072	ug/L	0.153	212	10138	10196	0
	Mo	98	2.583	ug/L	0.009	0	31	13093	1
	Y	89		ug/L			399449	412695	0
	Kr	83		ug/L			635	696	3
>	In	115		ug/L			965468	1002612	0
	Ag	107	-0.002	ug/L	0.000	14	54	34	8
	Cd	111	0.016	ug/L	0.002	12	102	185	5
	Cd	114	0.018	ug/L	0.000	1	36	260	1
	Sb	121	0.741	ug/L	0.010	1	768	11477	1
	Sb	123	0.738	ug/L	0.016	2	575	8653	1
	Ba	135	1.541	ug/L	0.028	1	23	6668	1
	Ba	137	1.523	ug/L	0.015	0	42	11425	0
>	Tb	159		ug/L			1098939	1146634	0
	Tl	205	-0.011	ug/L	0.001	10	811	408	10
	Pb	208	0.111	ug/L	0.000	0	507	6096	0
	Bi	209		ug/L			2742152	2699232	0
	Th	232	-0.094	ug/L	0.004	3	5672	1279	13
	U	238	0.005	ug/L	0.000	4	50	292	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 G REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:26:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1957359	1
[	Be	9	0.000	ug/L	0.001	222	22	26	10
	C	13		ug/L			143235	164552	2
	Cl	37		ug/L			4954439	5222649	0
[>	Sc	45		ug/L			1218098	1308102	1
|	V	51	0.336	ug/L	0.011	3	9170	18491	0
|	V-1	51	0.383	ug/L	0.007	1	105	9865	0
|	Cr	52	0.310	ug/L	0.015	4	27160	35915	0
|	Cr	53	0.471	ug/L	0.009	1	170	1300	2
|	Mn	55	56.727	ug/L	0.706	1	674	1678372	0
[	Co	59	0.109	ug/L	0.002	1	88	2429	2
[>	Ge	72		ug/L			652831	657067	0
|	Ni	60	0.563	ug/L	0.014	2	35	2403	2
|	Ni	62	0.180	ug/L	0.016	8	471	580	1
|	Cu	63	2.225	ug/L	0.010	0	514	21332	0
|	Cu	65	2.268	ug/L	0.055	2	55	9648	2
|	Zn	66	167.089	ug/L	1.680	1	255	433805	1
|	Zn	67	151.388	ug/L	3.655	2	38	65377	1
|	Zn	68	161.469	ug/L	1.588	0	241	302786	0
|	As	75	0.497	ug/L	0.017	3	310	1430	2
|	As-1	75	0.470	ug/L	0.072	15	9967	11099	0
|	Se	82	-0.022	ug/L	0.035	160	4	0	1025
|	Se	78	-0.032	ug/L	0.259	813	10138	10183	1
[	Mo	98	0.449	ug/L	0.024	5	31	2314	4
	Y	89		ug/L			399449	415090	1
	Kr	83		ug/L			635	694	2
[>	In	115		ug/L			965468	1006953	0
|	Ag	107	-0.000	ug/L	0.000	468	54	55	8
|	Cd	111	0.469	ug/L	0.009	1	102	2398	1
|	Cd	114	0.469	ug/L	0.008	1	36	5835	1
|	Sb	121	0.939	ug/L	0.008	0	768	14388	0
|	Sb	123	0.945	ug/L	0.019	1	575	10959	1
|	Ba	135	7.480	ug/L	0.007	0	23	32410	0
[	Ba	137	7.403	ug/L	0.046	0	42	55609	0
[>	Tb	159		ug/L			1098939	1161020	0
|	Tl	205	-0.013	ug/L	0.001	7	811	355	11
|	Pb	208	0.161	ug/L	0.003	1	507	8704	0
|	Bi	209		ug/L			2742152	2777829	0
|	Th	232	-0.099	ug/L	0.003	2	5672	1062	13
[	U	238	0.007	ug/L	0.000	5	50	455	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS17 H REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:32:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1916289	1
[	Be	9	0.018	ug/L	0.002	11	22	115	9
	C	13		ug/L			143235	167840	2
	Cl	37		ug/L			4954439	6347190	5
[>	Sc	45		ug/L			1218098	1344631	0
|	V	51	0.353	ug/L	0.026	7	9170	19450	2
|	V-1	51	0.703	ug/L	0.015	2	105	18516	2
|	Cr	52	0.232	ug/L	0.035	15	27160	35180	1
|	Cr	53	1.430	ug/L	0.070	4	170	3676	5
|	Mn	55	401.847	ug/L	5.011	1	674	12219094	2
[	Co	59	0.156	ug/L	0.002	1	88	3519	2
[>	Ge	72		ug/L			652831	649703	0
|	Ni	60	0.689	ug/L	0.011	1	35	2901	0
|	Ni	62	0.196	ug/L	0.058	29	471	582	5
|	Cu	63	2.392	ug/L	0.045	1	514	22644	1
|	Cu	65	1.637	ug/L	0.041	2	55	6902	3
|	Zn	66	31.601	ug/L	0.197	0	255	81327	0
|	Zn	67	28.990	ug/L	0.331	1	38	12410	1
|	Zn	68	30.839	ug/L	0.397	1	241	57374	1
|	As	75	0.377	ug/L	0.016	4	310	1146	2
|	As-1	75	0.287	ug/L	0.039	13	9967	10565	0
|	Se	82	0.085	ug/L	0.032	37	4	25	31
|	Se	78	-0.135	ug/L	0.130	96	10138	10003	0
[	Mo	98	0.433	ug/L	0.008	1	31	2208	1
	Y	89		ug/L			399449	404860	4
	Kr	83		ug/L			635	698	1
[>	In	115		ug/L			965468	980566	1
|	Ag	107	-0.002	ug/L	0.000	7	54	26	7
|	Cd	111	0.114	ug/L	0.005	4	102	648	4
|	Cd	114	0.111	ug/L	0.003	2	36	1373	1
|	Sb	121	0.850	ug/L	0.028	3	768	12762	1
|	Sb	123	0.863	ug/L	0.019	2	575	9795	2
|	Ba	135	5.407	ug/L	0.023	0	23	22822	1
[	Ba	137	5.356	ug/L	0.049	0	42	39190	1
[>	Tb	159		ug/L			1098939	1151222	0
|	Tl	205	-0.008	ug/L	0.001	15	811	545	9
|	Pb	208	0.103	ug/L	0.002	1	507	5711	1
|	Bi	209		ug/L			2742152	2606430	0
|	Th	232	-0.096	ug/L	0.002	1	5672	1178	7
[	U	238	0.011	ug/L	0.001	5	50	642	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT58 D SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:36:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1889185	1
	Be	9	0.010	ug/L	0.002	23	22	71	15
	C	13		ug/L			143235	152287	2
	Cl	37		ug/L			4954439	5361830	1
>	Sc	45		ug/L			1218098	1293315	1
	V	51	9.118	ug/L	0.131	1	9170	241610	0
	V-1	51	9.246	ug/L	0.109	1	105	232721	0
	Cr	52	0.873	ug/L	0.106	12	27160	47604	3
	Cr	53	1.005	ug/L	0.032	3	170	2536	1
	Mn	55	21.913	ug/L	0.289	1	674	641455	1
	Co	59	0.434	ug/L	0.022	4	88	9259	3
>	Ge	72		ug/L			652831	666915	1
	Ni	60	0.162	ug/L	0.008	4	35	730	5
	Ni	62	0.118	ug/L	0.041	34	471	552	5
	Cu	63	149.585	ug/L	5.546	3	514	1420420	1
	Cu	65	154.255	ug/L	4.289	2	55	662079	1
	Zn	66	56.780	ug/L	0.799	1	255	149768	0
	Zn	67	53.965	ug/L	0.114	0	38	23680	1
	Zn	68	55.324	ug/L	2.209	3	241	105410	2
	As	75	0.885	ug/L	0.015	1	310	2338	0
	As-1	75	0.769	ug/L	0.152	19	9967	11954	1
	Se	82	2.131	ug/L	0.032	1	4	536	0
	Se	78	1.707	ug/L	0.519	30	10138	11478	1
	Mo	98	4.707	ug/L	0.116	2	31	24314	0
	Y	89		ug/L			399449	422725	1
	Kr	83		ug/L			635	673	3
>	In	115		ug/L			965468	1075958	0
	Ag	107	0.586	ug/L	0.021	3	54	7550	3
	Cd	111	0.119	ug/L	0.006	4	102	735	4
	Cd	114	0.117	ug/L	0.001	0	36	1584	0
	Sb	121	-0.045	ug/L	0.002	4	768	161	18
	Sb	123	-0.044	ug/L	0.001	2	575	127	11
	Ba	135	26.398	ug/L	0.151	0	23	122163	0
	Ba	137	26.299	ug/L	0.406	1	42	210961	1
>	Tb	159		ug/L			1098939	1151681	0
	Tl	205	0.208	ug/L	0.004	1	811	9109	1
	Pb	208	18.737	ug/L	0.139	0	507	945984	0
	Bi	209		ug/L			2742152	2879146	0
	Th	232	-0.067	ug/L	0.003	5	5672	2645	5
	U	238	0.042	ug/L	0.001	3	50	2317	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT58 E SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:40:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1885103	2
	Be	9	0.008	ug/L	0.002	28	22	65	15
	C	13		ug/L			143235	155772	2
	Cl	37		ug/L			4954439	5306870	1
>	Sc	45		ug/L			1218098	1294195	2
	V	51	9.187	ug/L	0.283	3	9170	243436	0
	V-1	51	9.317	ug/L	0.288	3	105	234568	0
	Cr	52	1.013	ug/L	0.079	7	27160	50669	3
	Cr	53	1.154	ug/L	0.030	2	170	2889	0
	Mn	55	22.141	ug/L	1.041	4	674	648124	2
	Co	59	0.126	ug/L	0.002	1	88	2759	3
>	Ge	72		ug/L			652831	655241	2
	Ni	60	0.144	ug/L	0.010	6	35	638	7
	Ni	62	0.133	ug/L	0.038	28	471	550	1
	Cu	63	109.153	ug/L	1.777	1	514	1018748	0
	Cu	65	111.688	ug/L	4.072	3	55	470891	1
	Zn	66	24.900	ug/L	0.828	3	255	64655	1
	Zn	67	26.274	ug/L	0.631	2	38	11344	1
	Zn	68	26.126	ug/L	0.792	3	241	49038	0
	As	75	0.817	ug/L	0.023	2	310	2144	2
	As-1	75	0.786	ug/L	0.115	14	9967	11783	0
	Se	82	2.017	ug/L	0.045	2	4	499	4
	Se	78	1.937	ug/L	0.353	18	10138	11427	0
	Mo	98	5.528	ug/L	0.243	4	31	28043	2
	Y	89		ug/L			399449	419359	1
	Kr	83		ug/L			635	696	0
>	In	115		ug/L			965468	1058980	0
	Ag	107	0.641	ug/L	0.022	3	54	8130	3
	Cd	111	0.028	ug/L	0.000	1	102	259	1
	Cd	114	0.028	ug/L	0.002	7	36	398	6
	Sb	121	-0.047	ug/L	0.001	2	768	121	15
	Sb	123	-0.046	ug/L	0.002	4	575	106	21
	Ba	135	31.528	ug/L	0.046	0	23	143598	0
	Ba	137	31.095	ug/L	0.086	0	42	245486	0
>	Tb	159		ug/L			1098939	1158193	0
	Tl	205	0.199	ug/L	0.002	1	811	8821	0
	Pb	208	19.645	ug/L	0.091	0	507	997406	0
	Bi	209		ug/L			2742152	2856003	1
	Th	232	-0.053	ug/L	0.003	5	5672	3330	4
	U	238	0.026	ug/L	0.000	1	50	1436	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT58 F SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:44:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1884285	2
	Be	9	0.014	ug/L	0.001	7	22	94	6
	C	13		ug/L			143235	154741	3
	Cl	37		ug/L			4954439	5204530	1
>	Sc	45		ug/L			1218098	1316256	1
	V	51	10.956	ug/L	0.175	1	9170	293484	1
	V-1	51	11.127	ug/L	0.176	1	105	285044	2
	Cr	52	1.436	ug/L	0.062	4	27160	60783	0
	Cr	53	1.670	ug/L	0.023	1	170	4169	0
	Mn	55	24.958	ug/L	0.241	0	674	743586	2
	Co	59	0.440	ug/L	0.010	2	88	9551	0
>	Ge	72		ug/L			652831	654732	1
	Ni	60	0.180	ug/L	0.011	6	35	791	6
	Ni	62	0.054	ug/L	0.057	105	471	503	6
	Cu	63	83.755	ug/L	1.345	1	514	781276	0
	Cu	65	82.761	ug/L	1.135	1	55	348811	0
	Zn	66	41.873	ug/L	1.220	2	255	108497	2
	Zn	67	40.340	ug/L	1.251	3	38	17384	2
	Zn	68	42.799	ug/L	0.724	1	241	80138	0
	As	75	0.745	ug/L	0.041	5	310	1980	3
	As-1	75	0.690	ug/L	0.106	15	9967	11557	0
	Se	82	1.924	ug/L	0.046	2	4	476	2
	Se	78	1.737	ug/L	0.238	13	10138	11290	0
	Mo	98	3.699	ug/L	0.058	1	31	18768	0
	Y	89		ug/L			399449	420389	0
	Kr	83		ug/L			635	679	3
>	In	115		ug/L			965468	1057087	1
	Ag	107	0.567	ug/L	0.004	0	54	7181	1
	Cd	111	0.035	ug/L	0.003	7	102	292	3
	Cd	114	0.034	ug/L	0.002	5	36	483	3
	Sb	121	-0.048	ug/L	0.002	4	768	104	30
	Sb	123	-0.048	ug/L	0.001	1	575	78	11
	Ba	135	35.011	ug/L	0.707	2	23	159142	0
	Ba	137	34.579	ug/L	0.194	0	42	272485	0
>	Tb	159		ug/L			1098939	1145362	1
	Tl	205	0.288	ug/L	0.007	2	811	12240	1
	Pb	208	12.283	ug/L	0.085	0	507	616897	0
	Bi	209		ug/L			2742152	2851001	1
	Th	232	-0.024	ug/L	0.003	13	5672	4724	2
	U	238	0.045	ug/L	0.001	2	50	2428	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:48:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1862298	0
[	Be	9	50.829	ug/L	0.611	1	22	247991	0
	C	13		ug/L			143235	146393	1
	Cl	37		ug/L			4954439	5375900	0
[>	Sc	45		ug/L			1218098	1276748	0
[	V	51	46.479	ug/L	1.071	2	9170	1176566	1
[	V-1	51	47.224	ug/L	1.082	2	105	1173117	2
[	Cr	52	46.755	ug/L	0.405	0	27160	1022013	0
[	Cr	53	49.320	ug/L	0.781	1	170	114384	1
[	Mn	55	47.049	ug/L	1.298	2	674	1358815	2
[	Co	59	47.021	ug/L	0.588	1	88	981088	1
[>	Ge	72		ug/L			652831	638465	1
[	Ni	60	50.490	ug/L	1.052	2	35	206491	3
[	Ni	62	48.951	ug/L	0.735	1	471	28489	1
[	Cu	63	50.608	ug/L	0.768	1	514	460592	1
[	Cu	65	49.847	ug/L	0.286	0	55	204920	1
[	Zn	66	50.656	ug/L	0.365	0	255	127966	1
[	Zn	67	51.163	ug/L	1.298	2	38	21500	3
[	Zn	68	49.884	ug/L	0.432	0	241	91063	1
[	As	75	50.393	ug/L	0.119	0	310	110486	1
[	As-1	75	49.926	ug/L	0.315	0	9967	120055	0
[	Se	82	52.386	ug/L	0.863	1	4	12534	2
[	Se	78	50.673	ug/L	0.700	1	10138	41894	0
[	Mo	98	51.321	ug/L	0.887	1	31	253545	0
	Y	89		ug/L			399449	410658	2
	Kr	83		ug/L			635	663	2
[>	In	115		ug/L			965468	986036	0
[	Ag	107	52.357	ug/L	1.186	2	54	613553	2
[	Cd	111	50.710	ug/L	0.335	0	102	242736	0
[	Cd	114	49.645	ug/L	0.114	0	36	601140	0
[	Sb	121	49.518	ug/L	0.492	0	768	702644	0
[	Sb	123	49.770	ug/L	0.348	0	575	534602	0
[	Ba	135	48.512	ug/L	0.723	1	23	205708	1
[	Ba	137	48.640	ug/L	0.256	0	42	357520	0
[>	Tb	159		ug/L			1098939	1137752	0
[	Tl	205	46.361	ug/L	0.314	0	811	1823752	0
[	Pb	208	47.514	ug/L	0.288	0	507	2369037	0
[	Bi	209		ug/L			2742152	2705305	0
[	Th	232	49.734	ug/L	0.520	1	5672	2434338	0
[	U	238	50.308	ug/L	0.173	0	50	2652782	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 15:55:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1829834	0
[	Be	9	-0.001	ug/L	0.001	87	22	19	18
	C	13		ug/L			143235	147824	0
	Cl	37		ug/L			4954439	5104057	6
[>	Sc	45		ug/L			1218098	1239387	1
|	V	51	-0.009	ug/L	0.020	231	9170	9117	5
|	V-1	51	0.003	ug/L	0.001	19	105	171	6
|	Cr	52	-0.044	ug/L	0.066	150	27160	26736	5
|	Cr	53	-0.006	ug/L	0.004	70	170	160	5
|	Mn	55	0.001	ug/L	0.000	51	674	711	1
[	Co	59	0.000	ug/L	0.000	52	88	93	1
[>	Ge	72		ug/L			652831	634942	0
|	Ni	60	0.000	ug/L	0.001	1640	35	34	14
|	Ni	62	-0.238	ug/L	0.027	11	471	322	5
|	Cu	63	-0.006	ug/L	0.001	19	514	443	2
|	Cu	65	0.007	ug/L	0.003	43	55	82	14
|	Zn	66	0.006	ug/L	0.007	124	255	262	7
|	Zn	67	0.008	ug/L	0.014	166	38	41	13
|	Zn	68	0.016	ug/L	0.010	62	241	263	7
|	As	75	0.014	ug/L	0.006	43	310	333	4
|	As-1	75	0.105	ug/L	0.035	33	9967	9924	0
|	Se	82	-0.033	ug/L	0.032	97	4	-3	224
|	Se	78	0.339	ug/L	0.092	27	10138	10073	0
[	Mo	98	0.017	ug/L	0.003	16	31	114	11
	Y	89		ug/L			399449	394972	2
	Kr	83		ug/L			635	662	2
[>	In	115		ug/L			965468	976356	0
|	Ag	107	0.002	ug/L	0.001	53	54	76	14
|	Cd	111	0.000	ug/L	0.000	2717	102	104	2
|	Cd	114	0.001	ug/L	0.001	149	36	47	32
|	Sb	121	0.090	ug/L	0.038	42	768	2039	26
|	Sb	123	0.088	ug/L	0.033	38	575	1514	23
|	Ba	135	0.002	ug/L	0.001	69	23	30	15
[	Ba	137	0.001	ug/L	0.002	120	42	53	24
[>	Tb	159		ug/L			1098939	1091429	1
|	Tl	205	-0.010	ug/L	0.004	38	811	435	33
|	Pb	208	0.002	ug/L	0.000	6	507	604	2
|	Bi	209		ug/L			2742152	2776776	1
|	Th	232	0.282	ug/L	0.150	53	5672	18874	37
[	U	238	0.005	ug/L	0.002	31	50	297	26

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:02:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1823605	2
[	Be	9	-0.001	ug/L	0.001	68	22	17	19
	C	13		ug/L			143235	154438	2
	Cl	37		ug/L			4954439	5023182	2
[>	Sc	45		ug/L			1218098	1231692	1
[	V	51	-0.001	ug/L	0.007	1290	9170	9258	2
[	V-1	51	0.000	ug/L	0.001	207	105	114	14
[	Cr	52	-0.001	ug/L	0.025	2759	27160	27443	2
[	Cr	53	0.002	ug/L	0.002	110	170	176	4
[	Mn	55	0.041	ug/L	0.001	3	674	1816	3
[	Co	59	0.000	ug/L	0.001	1155	88	90	13
[>	Ge	72		ug/L			652831	621149	1
[	Ni	60	-0.001	ug/L	0.001	79	35	29	13
[	Ni	62	-0.360	ug/L	0.029	7	471	247	5
[	Cu	63	0.007	ug/L	0.004	59	514	554	7
[	Cu	65	0.028	ug/L	0.002	8	55	164	4
[	Zn	66	0.130	ug/L	0.018	13	255	562	6
[	Zn	67	0.133	ug/L	0.019	14	38	91	7
[	Zn	68	0.160	ug/L	0.007	4	241	513	2
[	As	75	0.010	ug/L	0.017	174	310	315	10
[	As-1	75	0.202	ug/L	0.065	32	9967	9918	1
[	Se	82	-0.071	ug/L	0.082	114	4	-12	154
[	Se	78	0.698	ug/L	0.205	29	10138	10074	0
[	Mo	98	0.000	ug/L	0.001	224	31	31	9
	Y	89		ug/L			399449	395114	1
	Kr	83		ug/L			635	678	7
[>	In	115		ug/L			965468	963691	0
[	Ag	107	-0.002	ug/L	0.000	12	54	30	8
[	Cd	111	-0.003	ug/L	0.001	51	102	89	7
[	Cd	114	0.001	ug/L	0.000	72	36	43	12
[	Sb	121	-0.023	ug/L	0.004	15	768	444	11
[	Sb	123	-0.021	ug/L	0.006	26	575	351	17
[	Ba	135	0.015	ug/L	0.001	8	23	85	5
[	Ba	137	0.015	ug/L	0.004	23	42	152	17
[>	Tb	159		ug/L			1098939	1084430	0
[	Tl	205	-0.013	ug/L	0.004	35	811	328	50
[	Pb	208	0.006	ug/L	0.000	6	507	795	1
[	Bi	209		ug/L			2742152	2683528	1
[	Th	232	0.003	ug/L	0.026	961	5672	5721	20
[	U	238	-0.000	ug/L	0.000	888	50	47	40

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:07:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1820626	1
	Be	9	25.777	ug/L	0.678	2	22	122927	0
	C	13		ug/L			143235	153421	2
	Cl	37		ug/L			4954439	5043900	2
>	Sc	45		ug/L			1218098	1235394	1
	V	51	24.751	ug/L	0.116	0	9170	610648	1
	V-1	51	24.945	ug/L	0.166	0	105	599659	1
	Cr	52	24.868	ug/L	0.071	0	27160	538868	1
	Cr	53	25.537	ug/L	0.608	2	170	57377	1
	Mn	55	25.660	ug/L	0.157	0	674	717415	0
	Co	59	25.040	ug/L	0.622	2	88	505507	1
>	Ge	72		ug/L			652831	636042	1
	Ni	60	26.516	ug/L	0.858	3	35	108020	2
	Ni	62	25.865	ug/L	0.163	0	471	15213	1
	Cu	63	26.680	ug/L	0.696	2	514	242109	1
	Cu	65	26.493	ug/L	0.329	1	55	108532	2
	Zn	66	87.014	ug/L	3.615	4	255	218742	3
	Zn	67	79.625	ug/L	1.655	2	38	33303	1
	Zn	68	79.921	ug/L	0.356	0	241	145189	0
	As	75	25.476	ug/L	0.164	0	310	55792	0
	As-1	75	25.364	ug/L	0.284	1	9967	65538	0
	Se	82	84.063	ug/L	1.074	1	4	20030	0
	Se	78	81.499	ug/L	1.647	2	10138	61113	0
	Mo	98	25.080	ug/L	0.039	0	31	123465	0
	Y	89		ug/L			399449	406536	1
	Kr	83		ug/L			635	669	4
>	In	115		ug/L			965468	984485	0
	Ag	107	27.040	ug/L	0.638	2	54	316376	2
	Cd	111	25.496	ug/L	0.233	0	102	121908	1
	Cd	114	25.010	ug/L	0.162	0	36	302378	0
	Sb	121	24.638	ug/L	0.149	0	768	349463	0
	Sb	123	24.484	ug/L	0.207	0	575	262876	0
	Ba	135	24.950	ug/L	0.253	1	23	105643	0
	Ba	137	25.001	ug/L	0.097	0	42	183502	0
>	Tb	159		ug/L			1098939	1113703	0
	Tl	205	24.555	ug/L	0.248	1	811	945972	1
	Pb	208	25.294	ug/L	0.023	0	507	1234776	0
	Bi	209		ug/L			2742152	2745593	1
	Th	232	22.931	ug/L	0.060	0	5672	1101798	0
	U	238	23.397	ug/L	0.315	1	50	1207716	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:15:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1919305	2
[	Be	9	1.082	ug/L	0.019	1	22	5466	2
	C	13		ug/L			143235	259002	1
	Cl	37		ug/L			4954439	5229024	1
[>	Sc	45		ug/L			1218098	1404989	0
[	V	51	22.465	ug/L	0.258	1	9170	631265	0
[	V-1	51	22.745	ug/L	0.336	1	105	621819	1
[	Cr	52	18.780	ug/L	0.377	2	27160	470518	2
[	Cr	53	19.603	ug/L	0.133	0	170	50147	1
[	Mn	55	5417.542	ug/L	11.276	0	674	172106195	0
[	Co	59	19.827	ug/L	0.233	1	88	455276	0
[>	Ge	72		ug/L			652831	650401	2
[	Ni	60	47.653	ug/L	1.474	3	35	198426	1
[	Ni	62	49.108	ug/L	1.093	2	471	29107	0
[	Cu	63	54.706	ug/L	2.130	3	514	506910	1
[	Cu	65	55.233	ug/L	1.083	1	55	231238	0
[	Zn	66	1425.883	ug/L	38.008	2	255	3661423	1
[	Zn	67	1196.298	ug/L	8.951	0	38	511127	1
[	Zn	68	1378.399	ug/L	14.131	1	241	2556595	1
[	As	75	49.551	ug/L	1.177	2	310	110640	0
[	As-1	75	48.928	ug/L	1.208	2	9967	120022	0
[	Se	82	1.127	ug/L	0.135	11	4	278	10
[	Se	78	1.269	ug/L	0.321	25	10138	10914	1
[	Mo	98	1.120	ug/L	0.029	2	31	5670	2
	Y	89		ug/L			399449	691324	2
	Kr	83		ug/L			635	1083	3
[>	In	115		ug/L			965468	1114414	1
[	Ag	107	0.628	ug/L	0.015	2	54	8381	0
[	Cd	111	34.233	ug/L	0.663	1	102	185203	0
[	Cd	114	33.588	ug/L	0.524	1	36	459603	0
[	Sb	121	2.295	ug/L	0.019	0	768	37642	0
[	Sb	123	2.285	ug/L	0.038	1	575	28365	0
[	Ba	135	493.285	ug/L	7.900	1	23	2363582	0
[	Ba	137	488.943	ug/L	10.643	2	42	4060642	1
[>	Tb	159		ug/L			1098939	1158275	0
[	Tl	205	0.975	ug/L	0.011	1	811	39887	0
[	Pb	208	1078.510	ug/L	8.095	0	507	54732599	0
[	Bi	209		ug/L			2742152	2738827	0
[	Th	232	3.563	ug/L	0.013	0	5672	183103	0
[	U	238	0.662	ug/L	0.007	1	50	35569	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:11:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1862994	2
[	Be	9	0.536	ug/L	0.031	5	22	2635	3
	C	13		ug/L			143235	212730	2
	Cl	37		ug/L			4954439	5249210	3
[>	Sc	45		ug/L			1218098	1421266	3
[	V	51	38.121	ug/L	1.305	3	9170	1075509	1
[	V-1	51	38.678	ug/L	1.562	4	105	1068805	1
[	Cr	52	30.119	ug/L	0.480	1	27160	743981	1
[	Cr	53	31.734	ug/L	1.389	4	170	81925	1
[	Mn	55	993.655	ug/L	35.342	3	674	31912120	1
[	Co	59	8.330	ug/L	0.149	1	88	193496	1
[>	Ge	72		ug/L			652831	647944	0
[	Ni	60	21.964	ug/L	0.341	1	35	91167	1
[	Ni	62	23.747	ug/L	0.240	1	471	14267	1
[	Cu	63	34.225	ug/L	0.210	0	514	316284	0
[	Cu	65	34.686	ug/L	0.306	0	55	144726	1
[	Zn	66	355.422	ug/L	4.940	1	255	909676	1
[	Zn	67	348.669	ug/L	4.089	1	38	148447	1
[	Zn	68	357.155	ug/L	4.775	1	241	660159	1
[	As	75	10.627	ug/L	0.084	0	310	23888	0
[	As-1	75	10.428	ug/L	0.092	0	9967	33275	0
[	Se	82	-0.031	ug/L	0.043	140	4	-2	353
[	Se	78	0.137	ug/L	0.160	116	10138	10150	0
[	Mo	98	0.426	ug/L	0.011	2	31	2169	2
	Y	89		ug/L			399449	565854	0
	Kr	83		ug/L			635	1014	3
[>	In	115		ug/L			965468	1027630	0
[	Ag	107	0.194	ug/L	0.007	3	54	2425	3
[	Cd	111	6.897	ug/L	0.041	0	102	34503	1
[	Cd	114	6.751	ug/L	0.034	0	36	85223	0
[	Sb	121	0.347	ug/L	0.007	2	768	5951	2
[	Sb	123	0.343	ug/L	0.007	2	575	4444	2
[	Ba	135	536.902	ug/L	2.326	0	23	2372543	0
[	Ba	137	526.200	ug/L	5.376	1	42	4030472	0
[>	Tb	159		ug/L			1098939	1152022	0
[	Tl	205	0.346	ug/L	0.002	0	811	14634	0
[	Pb	208	330.862	ug/L	0.714	0	507	16700737	0
[	Bi	209		ug/L			2742152	2681266	0
[	Th	232	4.423	ug/L	0.056	1	5672	224634	0
[	U	238	0.778	ug/L	0.009	1	50	41613	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:19:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1973144	3
[	Be	9	0.787	ug/L	0.022	2	22	4090	1
	C	13		ug/L			143235	298840	0
	Cl	37		ug/L			4954439	5533960	1
[>	Sc	45		ug/L			1218098	1405970	1
|	V	51	17.549	ug/L	0.444	2	9170	495685	1
|	V-1	51	17.649	ug/L	0.384	2	105	482781	0
|	Cr	52	13.057	ug/L	0.392	3	27160	336784	1
|	Cr	53	13.234	ug/L	0.427	3	170	33930	1
|	Mn	55	5217.377	ug/L	90.325	1	674	165834914	0
[	Co	59	17.425	ug/L	0.305	1	88	400348	0
[>	Ge	72		ug/L			652831	653410	1
|	Ni	60	37.359	ug/L	0.341	0	35	156345	0
|	Ni	62	38.033	ug/L	0.819	2	471	22757	1
|	Cu	63	59.323	ug/L	0.634	1	514	552458	1
|	Cu	65	59.176	ug/L	0.947	1	55	248979	2
|	Zn	66	1184.350	ug/L	9.879	0	255	3056086	0
|	Zn	67	1016.862	ug/L	32.388	3	38	436404	2
|	Zn	68	1091.360	ug/L	57.381	5	241	2034155	5
|	As	75	19.841	ug/L	0.137	0	310	44705	0
|	As-1	75	19.476	ug/L	0.212	1	9967	54013	0
|	Se	82	1.229	ug/L	0.041	3	4	305	3
|	Se	78	1.067	ug/L	0.262	24	10138	10835	0
[	Mo	98	1.034	ug/L	0.039	3	31	5259	2
	Y	89		ug/L			399449	674738	1
	Kr	83		ug/L			635	991	2
[>	In	115		ug/L			965468	1133031	0
|	Ag	107	0.928	ug/L	0.028	2	54	12556	2
|	Cd	111	23.967	ug/L	0.304	1	102	131884	0
|	Cd	114	23.565	ug/L	0.075	0	36	327895	0
|	Sb	121	2.761	ug/L	0.030	1	768	45864	0
|	Sb	123	2.757	ug/L	0.022	0	575	34668	0
|	Ba	135	355.919	ug/L	3.718	1	23	1734018	0
[	Ba	137	386.829	ug/L	8.152	2	42	3266505	1
[>	Tb	159		ug/L			1098939	1156327	0
|	Tl	205	0.802	ug/L	0.007	0	811	32885	0
|	Pb	208	1478.029	ug/L	10.350	0	507	74881860	0
|	Bi	209		ug/L			2742152	2733856	0
|	Th	232	2.524	ug/L	0.010	0	5672	131209	0
[	U	238	0.519	ug/L	0.002	0	50	27844	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 D SWN
Sample Dil Factor: 500
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:23:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1861901	0
[	Be	9	0.037	ug/L	0.003	7	22	206	5
	C	13		ug/L			143235	161717	0
	Cl	37		ug/L			4954439	5537750	5
[>	Sc	45		ug/L			1218098	1292808	0
[	V	51	0.747	ug/L	0.020	2	9170	28715	0
[	V-1	51	0.783	ug/L	0.007	0	105	19804	0
[	Cr	52	0.497	ug/L	0.050	10	27160	39517	1
[	Cr	53	0.612	ug/L	0.006	1	170	1615	1
[	Mn	55	238.431	ug/L	3.789	1	674	6970700	2
[	Co	59	0.806	ug/L	0.012	1	88	17117	1
[>	Ge	72		ug/L			652831	652865	2
[	Ni	60	1.594	ug/L	0.012	0	35	6700	2
[	Ni	62	1.156	ug/L	0.121	10	471	1146	4
[	Cu	63	2.624	ug/L	0.086	3	514	24898	1
[	Cu	65	2.603	ug/L	0.036	1	55	10990	1
[	Zn	66	49.991	ug/L	1.228	2	255	129083	0
[	Zn	67	44.976	ug/L	1.365	3	38	19317	0
[	Zn	68	48.120	ug/L	1.062	2	241	89793	0
[	As	75	0.882	ug/L	0.024	2	310	2280	0
[	As-1	75	0.926	ug/L	0.150	16	9967	12054	0
[	Se	82	0.054	ug/L	0.063	116	4	17	86
[	Se	78	0.305	ug/L	0.436	142	10138	10330	0
[	Mo	98	0.042	ug/L	0.002	5	31	242	2
	Y	89		ug/L			399449	420117	1
	Kr	83		ug/L			635	689	4
[>	In	115		ug/L			965468	984973	1
[	Ag	107	0.046	ug/L	0.003	7	54	594	6
[	Cd	111	1.207	ug/L	0.038	3	102	5871	1
[	Cd	114	1.191	ug/L	0.034	2	36	14440	1
[	Sb	121	0.097	ug/L	0.007	7	768	2159	3
[	Sb	123	0.102	ug/L	0.007	6	575	1675	4
[	Ba	135	16.766	ug/L	0.419	2	23	71017	1
[	Ba	137	16.637	ug/L	0.394	2	42	122167	1
[>	Tb	159		ug/L			1098939	1097664	0
[	Tl	205	0.017	ug/L	0.001	3	811	1458	2
[	Pb	208	60.663	ug/L	0.154	0	507	2917963	0
[	Bi	209		ug/L			2742152	2709554	1
[	Th	232	0.004	ug/L	0.003	76	5672	5860	2
[	U	238	0.021	ug/L	0.001	2	50	1133	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:27:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1953252	1
[	Be	9	2.272	ug/L	0.092	4	22	11646	3
	C	13		ug/L			143235	261210	2
	Cl	37		ug/L			4954439	5345060	1
[>	Sc	45		ug/L			1218098	1410003	0
|	V	51	26.173	ug/L	0.422	1	9170	736440	2
|	V-1	51	26.453	ug/L	0.287	1	105	725857	1
|	Cr	52	21.886	ug/L	0.274	1	27160	545093	1
|	Cr	53	22.688	ug/L	0.360	1	170	58211	1
|	Mn	55	4433.189	ug/L	57.190	1	674	141343596	1
[	Co	59	31.859	ug/L	0.464	1	88	734112	1
[>	Ge	72		ug/L			652831	643438	0
|	Ni	60	70.320	ug/L	0.114	0	35	289775	0
|	Ni	62	72.384	ug/L	1.255	1	471	42236	1
|	Cu	63	62.212	ug/L	0.931	1	514	570509	1
|	Cu	65	63.352	ug/L	0.899	1	55	262445	1
|	Zn	66	709.547	ug/L	11.670	1	255	1803109	1
|	Zn	67	654.116	ug/L	11.251	1	38	276511	1
|	Zn	68	684.535	ug/L	12.437	1	241	1256240	1
|	As	75	25.547	ug/L	0.221	0	310	56598	0
|	As-1	75	25.092	ug/L	0.164	0	9967	65697	0
|	Se	82	1.267	ug/L	0.136	10	4	309	10
|	Se	78	1.537	ug/L	0.167	10	10138	10970	1
[	Mo	98	1.515	ug/L	0.030	1	31	7574	2
	Y	89		ug/L			399449	882723	1
	Kr	83		ug/L			635	1410	4
[>	In	115		ug/L			965468	1002926	0
|	Ag	107	0.930	ug/L	0.016	1	54	11143	1
|	Cd	111	11.360	ug/L	0.198	1	102	55397	2
|	Cd	114	11.115	ug/L	0.094	0	36	136923	0
|	Sb	121	0.844	ug/L	0.003	0	768	12965	0
|	Sb	123	0.847	ug/L	0.011	1	575	9842	1
|	Ba	135	337.536	ug/L	1.558	0	23	1455693	0
[	Ba	137	368.965	ug/L	4.035	1	42	2758080	0
[>	Tb	159		ug/L			1098939	1145784	0
|	Tl	205	0.375	ug/L	0.005	1	811	15693	0
|	Pb	208	519.209	ug/L	4.230	0	507	26064423	0
|	Bi	209		ug/L			2742152	2564742	0
|	Th	232	4.555	ug/L	0.067	1	5672	229867	0
[	U	238	0.764	ug/L	0.008	1	50	40597	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:31:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1896226	1
[	Be	9	0.621	ug/L	0.009	1	22	3110	2
	C	13		ug/L			143235	209058	0
	Cl	37		ug/L			4954439	5116821	0
[>	Sc	45		ug/L			1218098	1401944	1
[	V	51	23.505	ug/L	0.370	1	9170	658515	0
[	V-1	51	23.849	ug/L	0.456	1	105	650543	0
[	Cr	52	19.393	ug/L	0.032	0	27160	483775	1
[	Cr	53	20.423	ug/L	0.361	1	170	52117	1
[	Mn	55	2682.687	ug/L	30.289	1	674	85045189	2
[	Co	59	9.002	ug/L	0.074	0	88	206319	0
[>	Ge	72		ug/L			652831	636549	1
[	Ni	60	27.864	ug/L	0.700	2	35	113593	1
[	Ni	62	28.844	ug/L	1.114	3	471	16922	2
[	Cu	63	25.945	ug/L	0.465	1	514	235644	1
[	Cu	65	25.984	ug/L	0.281	1	55	106515	0
[	Zn	66	416.561	ug/L	3.827	0	255	1047280	0
[	Zn	67	403.881	ug/L	7.930	1	38	168939	2
[	Zn	68	412.314	ug/L	9.762	2	241	748545	1
[	As	75	20.105	ug/L	0.253	1	310	44124	0
[	As-1	75	19.920	ug/L	0.325	1	9967	53595	0
[	Se	82	0.140	ug/L	0.034	24	4	37	22
[	Se	78	0.766	ug/L	0.243	31	10138	10366	0
[	Mo	98	0.785	ug/L	0.013	1	31	3899	2
	Y	89		ug/L			399449	563706	1
	Kr	83		ug/L			635	1052	2
[>	In	115		ug/L			965468	1014799	1
[	Ag	107	0.297	ug/L	0.008	2	54	3642	3
[	Cd	111	7.314	ug/L	0.193	2	102	36116	1
[	Cd	114	7.103	ug/L	0.165	2	36	88540	1
[	Sb	121	0.381	ug/L	0.010	2	768	6362	1
[	Sb	123	0.389	ug/L	0.008	2	575	4902	1
[	Ba	135	383.546	ug/L	6.507	1	23	1673511	0
[	Ba	137	416.242	ug/L	5.484	1	42	3148203	0
[>	Tb	159		ug/L			1098939	1135752	1
[	Tl	205	0.378	ug/L	0.006	1	811	15692	0
[	Pb	208	329.337	ug/L	4.267	1	507	16387213	0
[	Bi	209		ug/L			2742152	2637565	0
[	Th	232	4.163	ug/L	0.092	2	5672	208756	0
[	U	238	0.596	ug/L	0.009	1	50	31406	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:36:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1764931	1
[	Be	9	-0.001	ug/L	0.001	50	22	16	21
	C	13		ug/L			143235	149714	0
	Cl	37		ug/L			4954439	4893392	4
[>	Sc	45		ug/L			1218098	1210323	0
|	V	51	-0.009	ug/L	0.016	184	9170	8906	4
|	V-1	51	0.001	ug/L	0.001	86	105	129	15
|	Cr	52	-0.034	ug/L	0.053	156	27160	26305	3
|	Cr	53	-0.002	ug/L	0.007	431	170	165	8
|	Mn	55	0.232	ug/L	0.028	12	674	7035	11
[	Co	59	0.001	ug/L	0.000	74	88	98	7
[>	Ge	72		ug/L			652831	616059	2
|	Ni	60	0.001	ug/L	0.002	140	35	38	19
|	Ni	62	-0.573	ug/L	0.001	0	471	127	2
|	Cu	63	0.006	ug/L	0.005	85	514	533	5
|	Cu	65	0.039	ug/L	0.006	14	55	208	9
|	Zn	66	0.158	ug/L	0.034	21	255	623	11
|	Zn	67	0.147	ug/L	0.038	25	38	96	14
|	Zn	68	0.146	ug/L	0.025	16	241	483	7
|	As	75	0.007	ug/L	0.021	319	310	306	13
|	As-1	75	0.283	ug/L	0.136	47	9967	10005	1
|	Se	82	-0.091	ug/L	0.111	120	4	-17	149
|	Se	78	1.023	ug/L	0.518	50	10138	10185	1
[	Mo	98	-0.003	ug/L	0.001	33	31	15	31
	Y	89		ug/L			399449	399676	2
	Kr	83		ug/L			635	711	1
[>	In	115		ug/L			965468	947321	0
|	Ag	107	-0.003	ug/L	0.001	20	54	23	25
|	Cd	111	-0.002	ug/L	0.003	140	102	92	13
|	Cd	114	0.001	ug/L	0.001	92	36	50	26
|	Sb	121	-0.049	ug/L	0.002	3	768	89	28
|	Sb	123	-0.048	ug/L	0.001	1	575	67	13
|	Ba	135	0.024	ug/L	0.004	16	23	119	12
[	Ba	137	0.026	ug/L	0.002	9	42	225	7
[>	Tb	159		ug/L			1098939	1055990	0
|	Tl	205	-0.020	ug/L	0.000	1	811	67	16
|	Pb	208	0.022	ug/L	0.002	11	507	1508	7
|	Bi	209		ug/L			2742152	2678762	0
|	Th	232	-0.082	ug/L	0.006	7	5672	1753	15
[	U	238	-0.000	ug/L	0.000	23	50	25	21

VS21 : 00367

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 I SW
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:41:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1766731	1891802	1
[	**Be**	**9**	**1.045**	ug/L	0.029	2	22	5204	1
	C	**13**		ug/L			143235	206481	2
	Cl	**37**		ug/L			4954439	5150949	2
[>	**Sc**	**45**		ug/L			1218098	1526542	0
[	**V**	**51**	**60.712**	ug/L	0.116	0	9170	1834104	0
[	**V-1**	**51**	**61.508**	ug/L	0.257	0	105	1826925	0
[	**Cr**	**52**	**41.989**	ug/L	0.668	1	27160	1100856	1
[	**Cr**	**53**	**44.026**	ug/L	0.340	0	170	122101	0
[	**Mn**	**55**	**1730.052**	ug/L	26.500	1	674	59713478	1
[	**Co**	**59**	**15.949**	ug/L	0.188	1	88	397949	0
[>	**Ge**	**72**		ug/L			652831	620684	1
[	**Ni**	**60**	**46.048**	ug/L	0.734	1	35	183031	0
[	**Ni**	**62**	**48.211**	ug/L	0.523	1	471	27286	2
[	**Cu**	**63**	**45.625**	ug/L	1.110	2	514	403653	1
[	**Cu**	**65**	**45.986**	ug/L	0.624	1	55	183783	1
[	**Zn**	**66**	**320.034**	ug/L	5.985	1	255	784600	1
[	**Zn**	**67**	**335.312**	ug/L	4.198	1	38	136738	0
[	**Zn**	**68**	**338.771**	ug/L	7.557	2	241	599809	2
[	**As**	**75**	**20.270**	ug/L	0.345	1	310	43374	0
[	**As-1**	**75**	**20.074**	ug/L	0.397	1	9967	52588	0
[	**Se**	**82**	**-0.401**	ug/L	0.048	11	4	-88	11
[	**Se**	**78**	**0.974**	ug/L	0.188	19	10138	10235	0
[	**Mo**	**98**	**1.067**	ug/L	0.012	1	31	5153	0
	Y	**89**		ug/L			399449	747659	2
	Kr	**83**		ug/L			635	1616	1
[>	**In**	**115**		ug/L			965468	952319	0
[	**Ag**	**107**	**0.406**	ug/L	0.012	2	54	4651	3
[	**Cd**	**111**	**4.580**	ug/L	0.005	0	102	21268	0
[	**Cd**	**114**	**4.312**	ug/L	0.080	1	36	50453	1
[	**Sb**	**121**	**0.134**	ug/L	0.003	1	768	2594	1
[	**Sb**	**123**	**0.137**	ug/L	0.005	3	575	1984	1
[	**Ba**	**135**	**736.878**	ug/L	11.102	1	23	3017409	0
[	**Ba**	**137**	**736.843**	ug/L	7.216	0	42	5230147	0
[>	**Tb**	**159**		ug/L			1098939	1126741	0
[	**Tl**	**205**	**0.353**	ug/L	0.004	1	811	14588	0
[	**Pb**	**208**	**153.422**	ug/L	0.961	0	507	7574445	0
[	**Bi**	**209**		ug/L			2742152	2488826	0
[	**Th**	**232**	**7.612**	ug/L	0.035	0	5672	373920	0
[	**U**	**238**	**1.157**	ug/L	0.014	1	50	60449	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:45:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1808162	1
	Be	9	52.885	ug/L	0.890	1	22	250495	1
	C	13		ug/L			143235	145139	0
	Cl	37		ug/L			4954439	5202951	2
>	Sc	45		ug/L			1218098	1254317	3
	V	51	46.799	ug/L	1.475	3	9170	1163112	0
	V-1	51	47.251	ug/L	1.211	2	105	1152649	1
	Cr	52	47.531	ug/L	1.613	3	27160	1019595	0
	Cr	53	49.109	ug/L	0.585	1	170	111868	2
	Mn	55	47.798	ug/L	1.561	3	674	1355547	1
	Co	59	47.456	ug/L	0.936	1	88	972405	1
>	Ge	72		ug/L			652831	625443	1
	Ni	60	51.327	ug/L	0.696	1	35	205613	2
	Ni	62	50.327	ug/L	1.727	3	471	28674	2
	Cu	63	51.457	ug/L	0.761	1	514	458724	0
	Cu	65	49.793	ug/L	1.561	3	55	200468	1
	Zn	66	51.667	ug/L	1.378	2	255	127836	2
	Zn	67	51.156	ug/L	0.877	1	38	21053	1
	Zn	68	50.920	ug/L	1.355	2	241	91028	1
	As	75	51.914	ug/L	1.087	2	310	111470	0
	As-1	75	50.819	ug/L	1.055	2	9967	119525	0
	Se	82	54.885	ug/L	0.951	1	4	12860	0
	Se	78	51.004	ug/L	0.784	1	10138	41243	0
	Mo	98	53.992	ug/L	1.652	3	31	261265	1
	Y	89		ug/L			399449	400704	1
	Kr	83		ug/L			635	700	4
>	In	115		ug/L			965468	949885	0
	Ag	107	57.148	ug/L	1.259	2	54	645054	1
	Cd	111	51.861	ug/L	0.655	1	102	239161	1
	Cd	114	50.917	ug/L	0.621	1	36	593918	0
	Sb	121	51.006	ug/L	0.393	0	768	697204	0
	Sb	123	51.617	ug/L	0.281	0	575	534096	0
	Ba	135	49.429	ug/L	0.610	1	23	201915	1
	Ba	137	49.460	ug/L	0.542	1	42	350204	0
>	Tb	159		ug/L			1098939	1083269	1
	Tl	205	47.154	ug/L	0.624	1	811	1765994	0
	Pb	208	48.701	ug/L	0.482	0	507	2311851	0
	Bi	209		ug/L			2742152	2608621	0
	Th	232	50.830	ug/L	0.410	0	5672	2368710	0
	U	238	51.967	ug/L	0.384	0	50	2608909	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 16:52:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1813611	2
	Be	9	-0.000	ug/L	0.000	122	22	22	9
	C	13		ug/L			143235	155909	3
	Cl	37		ug/L			4954439	5013965	1
>	Sc	45		ug/L			1218098	1246312	1
	V	51	-0.019	ug/L	0.018	92	9170	8903	3
	V-1	51	-0.001	ug/L	0.000	34	105	73	17
	Cr	52	-0.070	ug/L	0.060	85	27160	26327	3
	Cr	53	-0.010	ug/L	0.003	26	170	151	4
	Mn	55	0.022	ug/L	0.013	59	674	1319	29
	Co	59	0.001	ug/L	0.001	113	88	109	20
>	Ge	72		ug/L			652831	618137	2
	Ni	60	0.001	ug/L	0.002	149	35	37	19
	Ni	62	-0.549	ug/L	0.024	4	471	142	11
	Cu	63	-0.032	ug/L	0.002	7	514	204	7
	Cu	65	0.000	ug/L	0.002	1275	55	53	15
	Zn	66	-0.031	ug/L	0.007	22	255	165	7
	Zn	67	-0.008	ug/L	0.021	263	38	33	24
	Zn	68	-0.010	ug/L	0.008	79	241	211	7
	As	75	0.019	ug/L	0.006	31	310	333	2
	As-1	75	0.296	ug/L	0.144	48	9967	10064	0
	Se	82	-0.058	ug/L	0.047	80	4	-9	117
	Se	78	1.023	ug/L	0.504	49	10138	10218	0
	Mo	98	0.003	ug/L	0.000	15	31	44	3
	Y	89		ug/L			399449	388345	1
	Kr	83		ug/L			635	689	5
>	In	115		ug/L			965468	940789	1
	Ag	107	-0.002	ug/L	0.001	37	54	31	23
	Cd	111	-0.001	ug/L	0.002	119	102	93	9
	Cd	114	0.001	ug/L	0.001	122	36	47	32
	Sb	121	0.009	ug/L	0.008	87	768	864	10
	Sb	123	0.010	ug/L	0.006	60	575	667	8
	Ba	135	0.002	ug/L	0.002	124	23	30	28
	Ba	137	0.001	ug/L	0.003	298	42	47	37
>	Tb	159		ug/L			1098939	1061653	0
	Tl	205	-0.016	ug/L	0.002	11	811	186	36
	Pb	208	0.002	ug/L	0.003	148	507	576	21
	Bi	209		ug/L			2742152	2659618	1
	Th	232	0.051	ug/L	0.017	33	5672	7791	9
	U	238	0.002	ug/L	0.001	42	50	145	27

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 A-L SWN
Sample Dil Factor: 500
Comments:
Sample Date/Time: Tuesday, November 27, 2012 17:09:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1854047	2
[	Be	9	0.027	ug/L	0.000	0	22	155	2
	C	13		ug/L			143235	151562	1
	Cl	37		ug/L			4954439	4757428	2
[>	Sc	45		ug/L			1218098	1264293	1
[	V	51	2.231	ug/L	0.056	2	9170	64985	1
[	V-1	51	2.292	ug/L	0.037	1	105	56491	0
[	Cr	52	1.411	ug/L	0.102	7	27160	57862	2
[	Cr	53	1.590	ug/L	0.039	2	170	3822	2
[	Mn	55	29.517	ug/L	0.679	2	674	844337	1
[	Co	59	0.413	ug/L	0.017	3	88	8631	2
[>	Ge	72		ug/L			652831	643843	0
[	Ni	60	0.994	ug/L	0.008	0	35	4132	0
[	Ni	62	0.519	ug/L	0.043	8	471	764	2
[	Cu	63	1.422	ug/L	0.024	1	514	13543	1
[	Cu	65	1.458	ug/L	0.033	2	55	6095	2
[	Zn	66	12.709	ug/L	0.169	1	255	32563	1
[	Zn	67	12.415	ug/L	0.358	2	38	5288	2
[	Zn	68	12.661	ug/L	0.304	2	241	23485	2
[	As	75	0.973	ug/L	0.019	1	310	2450	1
[	As-1	75	1.029	ug/L	0.049	4	9967	12122	0
[	Se	82	-0.052	ug/L	0.064	123	4	-8	191
[	Se	78	0.259	ug/L	0.124	47	10138	10163	0
[	Mo	98	0.021	ug/L	0.002	11	31	134	8
	Y	89		ug/L			399449	413315	0
	Kr	83		ug/L			635	689	4
[>	In	115		ug/L			965468	978296	0
[	Ag	107	0.010	ug/L	0.002	16	54	175	11
[	Cd	111	0.300	ug/L	0.014	4	102	1529	4
[	Cd	114	0.294	ug/L	0.006	2	36	3564	1
[	Sb	121	-0.020	ug/L	0.002	10	768	492	6
[	Sb	123	-0.019	ug/L	0.004	22	575	383	11
[	Ba	135	8.411	ug/L	0.033	0	23	35406	0
[	Ba	137	8.376	ug/L	0.052	0	42	61119	0
[>	Tb	159		ug/L			1098939	1099156	0
[	Tl	205	0.003	ug/L	0.001	24	811	930	3
[	Pb	208	21.987	ug/L	0.083	0	507	1059366	0
[	Bi	209		ug/L			2742152	2730491	0
[	Th	232	0.098	ug/L	0.012	12	5672	10284	5
[	U	238	0.032	ug/L	0.001	1	50	1692	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 A SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 27, 2012 17:13:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1857513	2
[	Be	9	0.144	ug/L	0.002	1	22	722	0
	C	13		ug/L			143235	158282	1
	Cl	37		ug/L			4954439	4893708	2
[>	Sc	45		ug/L			1218098	1305190	0
[	V	51	11.243	ug/L	0.128	1	9170	298430	1
[	V-1	51	11.376	ug/L	0.143	1	105	288999	1
[	Cr	52	7.285	ug/L	0.025	0	27160	187353	0
[	Cr	53	7.592	ug/L	0.108	1	170	18154	1
[	Mn	55	154.348	ug/L	2.095	1	674	4555664	1
[	Co	59	2.037	ug/L	0.021	1	88	43539	1
[>	Ge	72		ug/L			652831	647153	1
[	Ni	60	4.936	ug/L	0.152	3	35	20486	1
[	Ni	62	4.873	ug/L	0.059	1	471	3295	0
[	Cu	63	7.159	ug/L	0.130	1	514	66472	0
[	Cu	65	7.296	ug/L	0.241	3	55	30440	2
[	Zn	66	63.850	ug/L	1.368	2	255	163398	1
[	Zn	67	62.050	ug/L	0.578	0	38	26415	1
[	Zn	68	63.243	ug/L	1.534	2	241	116947	2
[	As	75	4.928	ug/L	0.114	2	310	11226	0
[	As-1	75	4.870	ug/L	0.172	3	9967	20783	0
[	Se	82	0.015	ug/L	0.033	223	4	8	100
[	Se	78	0.174	ug/L	0.244	140	10138	10160	0
[	Mo	98	0.106	ug/L	0.007	6	31	562	5
	Y	89		ug/L			399449	454785	0
	Kr	83		ug/L			635	779	3
[>	In	115		ug/L			965468	988396	1
[	Ag	107	0.065	ug/L	0.002	3	54	820	2
[	Cd	111	1.504	ug/L	0.035	2	102	7321	3
[	Cd	114	1.481	ug/L	0.006	0	36	18011	1
[	Sb	121	0.028	ug/L	0.003	10	768	1190	3
[	Sb	123	0.028	ug/L	0.003	12	575	885	3
[	Ba	135	43.165	ug/L	0.185	0	23	183480	0
[	Ba	137	42.697	ug/L	0.306	0	42	314586	0
[>	Tb	159		ug/L			1098939	1099408	0
[	Tl	205	0.092	ug/L	0.002	2	811	4324	1
[	Pb	208	118.522	ug/L	0.701	0	507	5709512	0
[	Bi	209		ug/L			2742152	2727903	0
[	Th	232	0.854	ug/L	0.006	0	5672	45960	0
[	U	238	0.173	ug/L	0.002	1	50	8884	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 ADUP SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 27, 2012 17:17:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1844888	1
[	Be	9	0.133	ug/L	0.007	5	22	666	5
	C	13		ug/L			143235	162864	0
	Cl	37		ug/L			4954439	5024130	1
[>	Sc	45		ug/L			1218098	1302319	1
[	V	51	11.015	ug/L	0.207	1	9170	291899	1
[	V-1	51	11.160	ug/L	0.219	1	105	282848	1
[	Cr	52	6.730	ug/L	0.074	1	27160	174900	0
[	Cr	53	7.066	ug/L	0.145	2	170	16869	0
[	Mn	55	145.236	ug/L	2.378	1	674	4276901	0
[	Co	59	1.989	ug/L	0.030	1	88	42408	1
[>	Ge	72		ug/L			652831	655229	1
[	Ni	60	4.755	ug/L	0.107	2	35	19990	3
[	Ni	62	4.587	ug/L	0.075	1	471	3168	1
[	Cu	63	6.684	ug/L	0.072	1	514	62877	1
[	Cu	65	6.772	ug/L	0.067	0	55	28614	0
[	Zn	66	58.939	ug/L	0.677	1	255	152751	1
[	Zn	67	56.989	ug/L	0.994	1	38	24567	2
[	Zn	68	57.915	ug/L	0.668	1	241	108444	0
[	As	75	4.591	ug/L	0.132	2	310	10611	1
[	As-1	75	4.534	ug/L	0.182	4	9967	20280	0
[	Se	82	0.026	ug/L	0.045	171	4	11	101
[	Se	78	0.117	ug/L	0.198	168	10138	10250	0
[	Mo	98	0.103	ug/L	0.004	4	31	552	3
	Y	89		ug/L			399449	455765	1
	Kr	83		ug/L			635	741	3
[>	In	115		ug/L			965468	980486	1
[	Ag	107	0.063	ug/L	0.002	3	54	792	2
[	Cd	111	1.367	ug/L	0.033	2	102	6609	1
[	Cd	114	1.340	ug/L	0.023	1	36	16163	0
[	Sb	121	0.025	ug/L	0.002	8	768	1127	1
[	Sb	123	0.022	ug/L	0.003	13	575	820	3
[	Ba	135	38.853	ug/L	0.730	1	23	163809	0
[	Ba	137	38.729	ug/L	0.597	1	42	283040	0
[>	Tb	159		ug/L			1098939	1100623	0
[	Tl	205	0.086	ug/L	0.002	2	811	4072	1
[	Pb	208	108.694	ug/L	1.072	0	507	5241785	0
[	Bi	209		ug/L			2742152	2706818	0
[	Th	232	1.287	ug/L	0.014	1	5672	66475	0
[	U	238	0.290	ug/L	0.004	1	50	14831	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 ASPK SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 27, 2012 17:21:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1893200	2
[	Be	9	5.298	ug/L	0.171	3	22	26300	3
	C	13		ug/L			143235	160142	1
	Cl	37		ug/L			4954439	4969816	3
[>	Sc	45		ug/L			1218098	1317940	2
[	V	51	14.683	ug/L	0.182	1	9170	390398	1
[	V-1	51	14.933	ug/L	0.193	1	105	382931	1
[	Cr	52	10.776	ug/L	0.291	2	27160	265655	0
[	Cr	53	11.489	ug/L	0.341	2	170	27631	0
[	Mn	55	148.781	ug/L	0.315	0	674	4434297	2
[	Co	59	6.527	ug/L	0.321	4	88	140531	1
[>	Ge	72		ug/L			652831	642256	1
[	Ni	60	10.126	ug/L	0.127	1	35	41677	0
[	Ni	62	9.857	ug/L	0.291	2	471	6141	3
[	Cu	63	12.290	ug/L	0.054	0	514	112906	1
[	Cu	65	12.402	ug/L	0.328	2	55	51317	1
[	Zn	66	79.039	ug/L	1.185	1	255	200687	0
[	Zn	67	75.289	ug/L	0.875	1	38	31799	0
[	Zn	68	77.481	ug/L	1.907	2	241	142143	2
[	As	75	10.001	ug/L	0.145	1	310	22300	0
[	As-1	75	9.812	ug/L	0.211	2	9967	31611	0
[	Se	82	17.022	ug/L	0.136	0	4	4099	1
[	Se	78	16.256	ug/L	0.362	2	10138	20294	1
[	Mo	98	4.613	ug/L	0.073	1	31	22953	0
	Y	89		ug/L			399449	449892	1
	Kr	83		ug/L			635	763	5
[>	In	115		ug/L			965468	984834	0
[	Ag	107	4.864	ug/L	0.021	0	54	56980	0
[	Cd	111	6.590	ug/L	0.042	0	102	31598	1
[	Cd	114	6.404	ug/L	0.043	0	36	77490	1
[	Sb	121	0.366	ug/L	0.012	3	768	5960	1
[	Sb	123	0.357	ug/L	0.013	3	575	4416	2
[	Ba	135	44.826	ug/L	0.484	1	23	189847	0
[	Ba	137	44.779	ug/L	0.616	1	42	328739	1
[>	Tb	159		ug/L			1098939	1109924	1
[	Tl	205	4.702	ug/L	0.051	1	811	181178	0
[	Pb	208	119.271	ug/L	1.196	1	507	5800195	0
[	Bi	209		ug/L			2742152	2724222	0
[	Th	232	4.251	ug/L	0.049	1	5672	208232	0
[	U	238	4.707	ug/L	0.046	0	50	242163	0

VS21 : 00374

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~**VS21 APOST SWN**~~ ZZZZZZ
Sample Dil Factor: 100 ** 11-28-12
Comments:
Sample Date/Time: Tuesday, November 27, 2012 17:25:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1899448	0
	Be	9	27.247	ug/L	0.198	0	22	135611	1
	C	13		ug/L			143235	163728	2
	Cl	37		ug/L			4954439	5065508	3
>	Sc	45		ug/L			1218098	1305615	1
	V	51	34.902	ug/L	0.555	1	9170	905842	0
	V-1	51	35.331	ug/L	0.445	1	105	897467	0
	Cr	52	32.024	ug/L	1.121	3	27160	724907	2
	Cr	53	33.387	ug/L	0.348	1	170	79236	1
	Mn	55	174.924	ug/L	4.164	2	674	5163543	0
	Co	59	27.061	ug/L	0.310	1	88	577378	0
>	Ge	72		ug/L			652831	647609	1
	Ni	60	31.978	ug/L	0.647	2	35	132633	1
	Ni	62	31.503	ug/L	0.668	2	471	18763	1
	Cu	63	32.896	ug/L	0.674	2	514	303857	2
	Cu	65	34.006	ug/L	0.397	1	55	141808	0
	Zn	66	148.023	ug/L	2.331	1	255	378814	2
	Zn	67	139.445	ug/L	2.742	1	38	59356	1
	Zn	68	144.631	ug/L	2.465	1	241	267341	2
	As	75	32.056	ug/L	0.351	1	310	71400	1
	As-1	75	31.345	ug/L	0.227	0	9967	80137	1
	Se	82	91.970	ug/L	0.907	0	4	22313	0
	Se	78	87.369	ug/L	1.170	1	10138	65984	0
	Mo	98	0.110	ug/L	0.006	5	31	584	4
	Y	89		ug/L			399449	464579	4
	Kr	83		ug/L			635	769	1
>	In	115		ug/L			965468	986284	0
	Ag	107	28.178	ug/L	0.344	1	54	330304	1
	Cd	111	28.696	ug/L	0.280	0	102	137436	0
	Cd	114	27.974	ug/L	0.453	1	36	338827	1
	Sb	121	0.022	ug/L	0.000	1	768	1093	1
	Sb	123	0.021	ug/L	0.002	10	575	808	2
	Ba	135	66.176	ug/L	0.613	0	23	280669	0
	Ba	137	65.335	ug/L	0.614	0	42	480328	0
>	Tb	159		ug/L			1098939	1110762	0
	Tl	205	24.868	ug/L	0.324	1	811	955412	0
	Pb	208	136.576	ug/L	1.312	0	507	6646995	0
	Bi	209		ug/L			2742152	2732861	0
	Th	232	24.631	ug/L	0.269	1	5672	1179911	0
	U	238	24.433	ug/L	0.199	0	50	1257812	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 B SWN
Sample Dil Factor: 200
Comments:
Sample Date/Time: Tuesday, November 27, 2012 17:29:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1845859	2
[	Be	9	0.053	ug/L	0.007	12	22	280	12
	C	13		ug/L			143235	173385	2
	Cl	37		ug/L			4954439	5139549	0
[>	Sc	45		ug/L			1218098	1304983	1
[	V	51	0.970	ug/L	0.007	0	9170	34711	0
[	V-1	51	1.003	ug/L	0.023	2	105	25587	2
[	Cr	52	0.669	ug/L	0.057	8	27160	43621	2
[	Cr	53	0.773	ug/L	0.042	5	170	2011	3
[	Mn	55	165.544	ug/L	2.361	1	674	4884855	0
[	Co	59	0.381	ug/L	0.010	2	88	8217	1
[>	Ge	72		ug/L			652831	650443	1
[	Ni	60	0.680	ug/L	0.028	4	35	2867	2
[	Ni	62	0.206	ug/L	0.054	26	471	589	3
[	Cu	63	4.449	ug/L	0.112	2	514	41705	0
[	Cu	65	4.603	ug/L	0.065	1	55	19325	1
[	Zn	66	106.087	ug/L	2.638	2	255	272676	1
[	Zn	67	101.867	ug/L	3.454	3	38	43552	2
[	Zn	68	106.460	ug/L	2.919	2	241	197685	2
[	As	75	2.422	ug/L	0.049	2	310	5702	1
[	As-1	75	2.461	ug/L	0.128	5	9967	15469	0
[	Se	82	0.078	ug/L	0.045	58	4	23	47
[	Se	78	0.367	ug/L	0.307	83	10138	10335	0
[	Mo	98	0.067	ug/L	0.005	7	31	366	5
	Y	89		ug/L			399449	424398	1
	Kr	83		ug/L			635	686	2
[>	In	115		ug/L			965468	1008133	1
[	Ag	107	0.160	ug/L	0.009	5	54	1967	4
[	Cd	111	1.917	ug/L	0.013	0	102	9482	0
[	Cd	114	1.875	ug/L	0.031	1	36	23243	1
[	Sb	121	1.965	ug/L	0.037	1	768	29274	1
[	Sb	123	1.999	ug/L	0.030	1	575	22527	1
[	Ba	135	93.014	ug/L	0.995	1	23	403214	0
[	Ba	137	91.456	ug/L	1.721	1	42	687167	0
[>	Tb	159		ug/L			1098939	1096110	1
[	Tl	205	0.070	ug/L	0.001	1	811	3470	0
[	Pb	208	170.112	ug/L	0.697	0	507	8170121	1
[	Bi	209		ug/L			2742152	2762130	0
[	Th	232	0.313	ug/L	0.016	5	5672	20390	4
[	U	238	0.052	ug/L	0.001	2	50	2706	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 D SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 27, 2012 17:33:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1880751	2
[	Be	9	0.104	ug/L	0.004	3	22	536	1
	C	13		ug/L			143235	162832	1
	Cl	37		ug/L			4954439	5104359	1
[>	Sc	45		ug/L			1218098	1297426	0
[	V	51	5.859	ug/L	0.062	1	9170	159247	0
[	V-1	51	5.954	ug/L	0.046	0	105	150392	0
[	Cr	52	4.009	ug/L	0.006	0	27160	115500	0
[	Cr	53	4.266	ug/L	0.069	1	170	10219	2
[	Mn	55	377.440	ug/L	3.339	0	674	11073467	1
[	Co	59	1.674	ug/L	0.078	4	88	35584	5
[>	Ge	72		ug/L			652831	656944	1
[	Ni	60	4.000	ug/L	0.079	1	35	16860	1
[	Ni	62	3.597	ug/L	0.058	1	471	2593	1
[	Cu	63	8.062	ug/L	0.204	2	514	75924	1
[	Cu	65	8.131	ug/L	0.129	1	55	34443	2
[	Zn	66	140.977	ug/L	2.380	1	255	365935	0
[	Zn	67	136.006	ug/L	4.359	3	38	58723	2
[	Zn	68	139.869	ug/L	2.037	1	241	262271	1
[	As	75	6.888	ug/L	0.106	1	310	15805	0
[	As-1	75	6.814	ug/L	0.158	2	9967	25518	0
[	Se	82	-0.015	ug/L	0.046	300	4	0	1258
[	Se	78	0.105	ug/L	0.160	151	10138	10270	0
[	Mo	98	0.100	ug/L	0.006	6	31	540	6
	Y	89		ug/L			399449	439200	1
	Kr	83		ug/L			635	744	4
[>	In	115		ug/L			965468	1002913	1
[	Ag	107	0.139	ug/L	0.004	3	54	1710	4
[	Cd	111	3.097	ug/L	0.001	0	102	15179	1
[	Cd	114	3.035	ug/L	0.032	1	36	37409	0
[	Sb	121	0.144	ug/L	0.003	1	768	2876	2
[	Sb	123	0.145	ug/L	0.001	0	575	2183	2
[	Ba	135	108.977	ug/L	0.982	0	23	469963	0
[	Ba	137	108.404	ug/L	1.181	1	42	810324	0
[>	Tb	159		ug/L			1098939	1099878	0
[	Tl	205	0.086	ug/L	0.003	3	811	4084	2
[	Pb	208	166.237	ug/L	2.883	1	507	8010830	1
[	Bi	209		ug/L			2742152	2734561	0
[	Th	232	0.560	ug/L	0.007	1	5672	32103	0
[	U	238	0.079	ug/L	0.001	0	50	4088	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 E SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 27, 2012 17:37:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1883833	0
[	Be	9	0.107	ug/L	0.003	2	22	554	2
	C	13		ug/L			143235	162463	0
	Cl	37		ug/L			4954439	5051452	2
[>	Sc	45		ug/L			1218098	1318862	1
[	V	51	6.254	ug/L	0.089	1	9170	172103	0
[	V-1	51	6.339	ug/L	0.063	0	105	162754	0
[	Cr	52	3.813	ug/L	0.168	4	27160	113069	2
[	Cr	53	4.015	ug/L	0.101	2	170	9787	2
[	Mn	55	296.562	ug/L	9.417	3	674	8841405	1
[	Co	59	1.700	ug/L	0.036	2	88	36726	0
[>	Ge	72		ug/L			652831	652311	1
[	Ni	60	3.762	ug/L	0.018	0	35	15748	2
[	Ni	62	3.455	ug/L	0.018	0	471	2492	2
[	Cu	63	4.254	ug/L	0.025	0	514	40028	1
[	Cu	65	4.375	ug/L	0.154	3	55	18420	2
[	Zn	66	91.252	ug/L	2.155	2	255	235243	0
[	Zn	67	89.010	ug/L	1.837	2	38	38169	0
[	Zn	68	91.450	ug/L	2.757	3	241	170286	1
[	As	75	4.965	ug/L	0.141	2	310	11396	1
[	As-1	75	4.910	ug/L	0.217	4	9967	21036	0
[	Se	82	-0.011	ug/L	0.054	497	4	1	735
[	Se	78	0.084	ug/L	0.295	351	10138	10182	0
[	Mo	98	0.091	ug/L	0.004	4	31	488	3
	Y	89		ug/L			399449	438387	0
	Kr	83		ug/L			635	721	4
[>	In	115		ug/L			965468	987462	0
[	Ag	107	0.078	ug/L	0.001	0	54	965	0
[	Cd	111	1.386	ug/L	0.010	0	102	6746	1
[	Cd	114	1.357	ug/L	0.026	1	36	16494	1
[	Sb	121	0.025	ug/L	0.001	3	768	1146	1
[	Sb	123	0.024	ug/L	0.004	15	575	847	4
[	Ba	135	82.971	ug/L	0.542	0	23	352332	0
[	Ba	137	82.528	ug/L	0.796	0	42	607440	0
[>	Tb	159		ug/L			1098939	1106712	1
[	Tl	205	0.047	ug/L	0.001	3	811	2601	1
[	Pb	208	41.842	ug/L	0.579	1	507	2029214	0
[	Bi	209		ug/L			2742152	2741866	0
[	Th	232	0.559	ug/L	0.014	2	5672	32250	1
[	U	238	0.075	ug/L	0.000	0	50	3917	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 G SWN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Tuesday, November 27, 2012 17:43:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1883495	0
[	Be	9	0.233	ug/L	0.004	1	22	1176	2
	C	13		ug/L			143235	161137	2
	Cl	37		ug/L			4954439	5067446	1
[>	Sc	45		ug/L			1218098	1344041	1
[	V	51	16.832	ug/L	0.288	1	9170	454944	0
[	V-1	51	17.037	ug/L	0.240	1	105	445563	0
[	Cr	52	8.625	ug/L	0.281	3	27160	222833	1
[	Cr	53	9.024	ug/L	0.226	2	170	22180	1
[	Mn	55	167.880	ug/L	2.884	1	674	5102154	1
[	Co	59	3.530	ug/L	0.094	2	88	77601	1
[>	Ge	72		ug/L			652831	657279	1
[	Ni	60	8.021	ug/L	0.112	1	35	33792	0
[	Ni	62	8.223	ug/L	0.268	3	471	5321	2
[	Cu	63	11.609	ug/L	0.178	1	514	109156	1
[	Cu	65	11.844	ug/L	0.183	1	55	50164	2
[	Zn	66	25.253	ug/L	0.336	1	255	65797	1
[	Zn	67	29.186	ug/L	0.478	1	38	12638	0
[	Zn	68	27.205	ug/L	0.243	0	241	51229	0
[	As	75	2.335	ug/L	0.071	3	310	5566	2
[	As-1	75	2.253	ug/L	0.119	5	9967	15157	1
[	Se	82	-0.084	ug/L	0.028	32	4	-16	40
[	Se	78	-0.027	ug/L	0.178	655	10138	10188	0
[	Mo	98	0.121	ug/L	0.002	1	31	647	0
	Y	89		ug/L			399449	510276	0
	Kr	83		ug/L			635	848	1
[>	In	115		ug/L			965468	982504	2
[	Ag	107	0.092	ug/L	0.002	2	54	1129	1
[	Cd	111	0.152	ug/L	0.012	7	102	827	5
[	Cd	114	0.085	ug/L	0.003	3	36	1059	5
[	Sb	121	-0.035	ug/L	0.001	2	768	288	3
[	Sb	123	-0.035	ug/L	0.002	4	575	215	9
[	Ba	135	60.727	ug/L	1.625	2	23	256492	0
[	Ba	137	60.383	ug/L	1.992	3	42	442046	1
[>	Tb	159		ug/L			1098939	1116924	1
[	Tl	205	0.047	ug/L	0.000	0	811	2645	0
[	Pb	208	3.084	ug/L	0.030	0	507	151405	0
[	Bi	209		ug/L			2742152	2710477	0
[	Th	232	1.598	ug/L	0.027	1	5672	82351	0
[	U	238	0.281	ug/L	0.005	1	50	14599	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 H SWN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Tuesday, November 27, 2012 17:47:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1879321	1
[	Be	9	0.203	ug/L	0.012	5	22	1022	5
	C	13		ug/L			143235	161850	4
	Cl	37		ug/L			4954439	5165679	2
[>	Sc	45		ug/L			1218098	1333185	2
|	V	51	18.534	ug/L	0.591	3	9170	495762	1
|	V-1	51	18.751	ug/L	0.573	3	105	486306	1
|	Cr	52	9.658	ug/L	0.275	2	27160	243961	0
|	Cr	53	10.076	ug/L	0.148	1	170	24543	0
|	Mn	55	144.682	ug/L	2.294	1	674	4361302	0
[	Co	59	3.754	ug/L	0.111	2	88	81850	1
[>	Ge	72		ug/L			652831	640413	1
|	Ni	60	8.605	ug/L	0.176	2	35	35318	0
|	Ni	62	8.773	ug/L	0.116	1	471	5500	0
|	Cu	63	13.028	ug/L	0.279	2	514	119293	1
|	Cu	65	12.944	ug/L	0.197	1	55	53405	0
|	Zn	66	23.661	ug/L	1.111	4	255	60057	3
|	Zn	67	26.534	ug/L	1.006	3	38	11197	2
|	Zn	68	25.320	ug/L	1.020	4	241	46457	2
|	As	75	2.626	ug/L	0.093	3	310	6061	1
|	As-1	75	2.585	ug/L	0.161	6	9967	15503	0
|	Se	82	-0.010	ug/L	0.091	889	4	1	1115
|	Se	78	0.171	ug/L	0.286	167	10138	10052	0
[	Mo	98	0.148	ug/L	0.008	5	31	765	4
	Y	89		ug/L			399449	500143	1
	Kr	83		ug/L			635	805	6
[>	In	115		ug/L			965468	967077	0
|	Ag	107	0.096	ug/L	0.001	1	54	1162	0
|	Cd	111	0.112	ug/L	0.014	12	102	630	10
|	Cd	114	0.058	ug/L	0.001	2	36	721	1
|	Sb	121	-0.044	ug/L	0.001	2	768	164	10
|	Sb	123	-0.043	ug/L	0.001	2	575	122	10
|	Ba	135	52.344	ug/L	0.931	1	23	217681	1
[	Ba	137	52.484	ug/L	0.367	0	42	378367	1
[>	Tb	159		ug/L			1098939	1116768	0
|	Tl	205	0.051	ug/L	0.002	4	811	2773	3
|	Pb	208	2.944	ug/L	0.012	0	507	144569	0
|	Bi	209		ug/L			2742152	2702543	1
|	Th	232	1.917	ug/L	0.017	0	5672	97634	1
[	U	238	0.319	ug/L	0.002	0	50	16582	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 17:51:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1857808	1
[	Be	9	50.736	ug/L	1.585	3	22	246864	1
	C	13		ug/L			143235	149636	1
	Cl	37		ug/L			4954439	5256289	1
[>	Sc	45		ug/L			1218098	1229489	1
[	V	51	48.180	ug/L	1.695	3	9170	1173743	1
[	V-1	51	48.461	ug/L	1.691	3	105	1158872	1
[	Cr	52	48.357	ug/L	1.785	3	27160	1016681	2
[	Cr	53	49.327	ug/L	1.623	3	170	110129	2
[	Mn	55	48.123	ug/L	2.374	4	674	1337949	3
[	Co	59	47.912	ug/L	1.002	2	88	962441	0
[>	Ge	72		ug/L			652831	620177	1
[	Ni	60	50.040	ug/L	1.413	2	35	198782	3
[	Ni	62	49.794	ug/L	0.288	0	471	28143	1
[	Cu	63	49.675	ug/L	0.308	0	514	439189	1
[	Cu	65	50.408	ug/L	0.753	1	55	201262	0
[	Zn	66	50.839	ug/L	1.509	2	255	124715	1
[	Zn	67	51.134	ug/L	0.677	1	38	20866	0
[	Zn	68	50.399	ug/L	1.459	2	241	89339	1
[	As	75	51.292	ug/L	0.639	1	310	109218	0
[	As-1	75	50.292	ug/L	0.857	1	9967	117391	0
[	Se	82	54.349	ug/L	0.567	1	4	12629	1
[	Se	78	50.835	ug/L	1.211	2	10138	40791	1
[	Mo	98	52.624	ug/L	1.811	3	31	252497	2
	Y	89		ug/L			399449	405074	0
	Kr	83		ug/L			635	720	3
[>	In	115		ug/L			965468	949019	1
[	Ag	107	55.377	ug/L	1.533	2	54	624479	2
[	Cd	111	50.998	ug/L	0.621	1	102	234940	0
[	Cd	114	49.810	ug/L	0.123	0	36	580489	1
[	Sb	121	50.106	ug/L	0.634	1	768	684269	0
[	Sb	123	50.675	ug/L	0.761	1	575	523852	1
[	Ba	135	49.249	ug/L	0.400	0	23	200991	0
[	Ba	137	48.391	ug/L	0.881	1	42	342302	0
[>	Tb	159		ug/L			1098939	1085965	0
[	Tl	205	46.346	ug/L	0.427	0	811	1740230	0
[	Pb	208	47.885	ug/L	0.112	0	507	2278891	0
[	Bi	209		ug/L			2742152	2617162	0
[	Th	232	50.985	ug/L	0.471	0	5672	2381985	1
[	U	238	51.861	ug/L	0.204	0	50	2610214	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 17:58:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1814603	1
	Be	9	0.000	ug/L	0.002	985	22	24	31
	C	13		ug/L			143235	153222	1
	Cl	37		ug/L			4954439	5023383	1
>	Sc	45		ug/L			1218098	1250041	0
	V	51	-0.018	ug/L	0.006	29	9170	8956	0
	V-1	51	-0.001	ug/L	0.002	275	105	94	38
	Cr	52	-0.066	ug/L	0.018	27	27160	26500	0
	Cr	53	-0.006	ug/L	0.006	101	170	160	8
	Mn	55	0.003	ug/L	0.006	192	674	779	21
	Co	59	0.001	ug/L	0.002	334	88	101	33
>	Ge	72		ug/L			652831	621549	0
	Ni	60	0.002	ug/L	0.002	82	35	43	19
	Ni	62	0.582	ug/L	0.010	1	471	124	4
	Cu	63	-0.036	ug/L	0.001	1	514	170	3
	Cu	65	-0.001	ug/L	0.001	126	55	49	10
	Zn	66	-0.005	ug/L	0.034	655	255	229	35
	Zn	67	-0.001	ug/L	0.039	4003	38	36	42
	Zn	68	0.014	ug/L	0.030	212	241	254	20
	As	75	0.022	ug/L	0.012	57	310	341	6
	As-1	75	0.213	ug/L	0.061	28	9967	9948	0
	Se	82	-0.060	ug/L	0.058	96	4	-9	138
	Se	78	0.724	ug/L	0.200	27	10138	10097	0
	Mo	98	0.004	ug/L	0.001	20	31	50	8
	Y	89		ug/L			399449	386751	1
	Kr	83		ug/L			635	692	5
>	In	115		ug/L			965468	939524	1
	Ag	107	-0.002	ug/L	0.001	44	54	35	22
	Cd	111	-0.000	ug/L	0.003	1074	102	98	15
	Cd	114	0.001	ug/L	0.002	163	36	49	45
	Sb	121	0.008	ug/L	0.001	8	768	857	1
	Sb	123	0.008	ug/L	0.003	39	575	646	5
	Ba	135	0.002	ug/L	0.004	245	23	29	58
	Ba	137	0.002	ug/L	0.003	169	42	55	42
>	Tb	159		ug/L			1098939	1049530	1
	Tl	205	-0.015	ug/L	0.002	11	811	226	26
	Pb	208	0.001	ug/L	0.003	534	507	509	26
	Bi	209		ug/L			2742152	2653822	0
	Th	232	0.024	ug/L	0.013	56	5672	6489	9
	U	238	0.002	ug/L	0.002	80	50	138	52

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 I SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 27, 2012 18:02:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1883229	0
[	Be	9	0.189	ug/L	0.003	1	22	958	1
	C	13		ug/L			143235	168676	3
	Cl	37		ug/L			4954439	5034180	0
[>	Sc	45		ug/L			1218098	1308741	1
[	V	51	5.752	ug/L	0.177	3	9170	157846	1
[	V-1	51	5.859	ug/L	0.230	3	105	149235	2
[	Cr	52	5.892	ug/L	0.121	2	27160	157509	0
[	Cr	53	6.264	ug/L	0.275	4	170	15044	2
[	Mn	55	580.859	ug/L	5.141	0	674	17188007	0
[	Co	59	2.447	ug/L	0.034	1	88	52429	1
[>	Ge	72		ug/L			652831	656659	2
[	Ni	60	7.029	ug/L	0.192	2	35	29580	0
[	Ni	62	6.686	ug/L	0.275	4	471	4408	1
[	Cu	63	7.747	ug/L	0.320	4	514	72910	1
[	Cu	65	8.089	ug/L	0.141	1	55	34239	0
[	Zn	66	155.481	ug/L	1.380	0	255	403377	1
[	Zn	67	144.820	ug/L	5.993	4	38	62470	2
[	Zn	68	148.714	ug/L	3.459	2	241	278623	1
[	As	75	6.164	ug/L	0.259	4	310	14166	2
[	As-1	75	6.023	ug/L	0.356	5	9967	23700	1
[	Se	82	0.128	ug/L	0.034	26	4	36	23
[	Se	78	-0.012	ug/L	0.511	4360	10138	10184	0
[	Mo	98	0.215	ug/L	0.012	5	31	1122	4
	Y	89		ug/L			399449	450788	0
	Kr	83		ug/L			635	748	3
[>	In	115		ug/L			965468	993639	2
[	Ag	107	0.100	ug/L	0.003	3	54	1237	4
[	Cd	111	3.440	ug/L	0.033	0	102	16690	1
[	Cd	114	3.412	ug/L	0.074	2	36	41661	0
[	Sb	121	0.157	ug/L	0.008	4	768	3025	1
[	Sb	123	0.162	ug/L	0.017	10	575	2340	5
[	Ba	135	83.560	ug/L	2.896	3	23	356886	1
[	Ba	137	83.200	ug/L	2.555	3	42	615961	0
[>	Tb	159		ug/L			1098939	1106911	0
[	Tl	205	0.107	ug/L	0.005	4	811	4922	4
[	Pb	208	138.506	ug/L	1.755	1	507	6717386	0
[	Bi	209		ug/L			2742152	2760631	0
[	Th	232	0.814	ug/L	0.005	0	5672	44386	1
[	U	238	0.116	ug/L	0.002	2	50	5978	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 J SWN
Sample Dil Factor: 50
Comments:
Sample Date/Time: Tuesday, November 27, 2012 18:06:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1871310	0
[	Be	9	0.570	ug/L	0.023	3	22	2819	3
	C	13		ug/L			143235	167122	0
	Cl	37		ug/L			4954439	5117510	1
[>	Sc	45		ug/L			1218098	1340609	1
[	V	51	18.696	ug/L	0.277	1	9170	502943	1
[	V-1	51	18.963	ug/L	0.349	1	105	494635	1
[	Cr	52	14.621	ug/L	0.230	1	27160	356081	0
[	Cr	53	15.385	ug/L	0.503	3	170	37580	1
[	Mn	55	661.679	ug/L	14.467	2	674	20053034	0
[	Co	59	7.854	ug/L	0.195	2	88	172110	1
[>	Ge	72		ug/L			652831	635479	0
[	Ni	60	31.300	ug/L	0.300	0	35	127402	1
[	Ni	62	31.822	ug/L	0.246	0	471	18596	1
[	Cu	63	22.129	ug/L	0.358	1	514	200768	2
[	Cu	65	22.374	ug/L	0.244	1	55	91570	0
[	Zn	66	188.033	ug/L	5.697	3	255	472110	3
[	Zn	67	180.888	ug/L	3.881	2	38	75541	1
[	Zn	68	183.111	ug/L	1.971	1	241	332059	1
[	As	75	10.292	ug/L	0.039	0	310	22700	1
[	As-1	75	10.256	ug/L	0.042	0	9967	32257	1
[	Se	82	0.191	ug/L	0.092	48	4	49	43
[	Se	78	0.843	ug/L	0.139	16	10138	10398	0
[	Mo	98	0.556	ug/L	0.030	5	31	2762	4
	Y	89		ug/L			399449	579367	0
	Kr	83		ug/L			635	944	5
[>	In	115		ug/L			965468	972160	1
[	Ag	107	0.517	ug/L	0.008	1	54	6022	0
[	Cd	111	2.848	ug/L	0.035	1	102	13537	1
[	Cd	114	2.649	ug/L	0.068	2	36	31652	0
[	Sb	121	0.052	ug/L	0.005	9	768	1502	3
[	Sb	123	0.055	ug/L	0.006	11	575	1161	3
[	Ba	135	111.594	ug/L	2.979	2	23	466380	0
[	Ba	137	111.663	ug/L	2.110	1	42	808995	0
[>	Tb	159		ug/L			1098939	1102494	1
[	Tl	205	0.136	ug/L	0.003	2	811	5997	0
[	Pb	208	77.454	ug/L	0.534	0	507	3741699	0
[	Bi	209		ug/L			2742152	2651474	0
[	Th	232	2.277	ug/L	0.043	1	5672	113430	0
[	U	238	0.556	ug/L	0.004	0	50	28453	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 J SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 27, 2012 18:10:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

DBL (use 50x)

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1766731	1911897	0
[	**Be**	**9**	**0.278**	ug/L	0.013	4	22	1417	4
	C	**13**		ug/L			143235	161373	2
	Cl	**37**		ug/L			4954439	5111954	3
[>	**Sc**	**45**		ug/L			1218098	1308574	0
[	**V**	**51**	**9.398**	ug/L	0.305	3	9170	251651	2
[	**V-1**	**51**	**9.611**	ug/L	0.320	3	105	244762	2
[	**Cr**	**52**	**7.376**	ug/L	0.036	0	27160	189820	1
[	**Cr**	**53**	**8.033**	ug/L	0.097	1	170	19246	1
[	**Mn**	**55**	**340.705**	ug/L	5.533	1	674	10081425	1
[	**Co**	**59**	**4.150**	ug/L	0.070	1	88	88832	2
[>	**Ge**	**72**		ug/L			652831	649085	2
[	**Ni**	**60**	**15.737**	ug/L	0.620	3	35	65409	2
[	**Ni**	**62**	**15.609**	ug/L	1.050	6	471	9546	4
[	**Cu**	**63**	**10.984**	ug/L	0.274	2	514	102021	2
[	**Cu**	**65**	**10.959**	ug/L	0.470	4	55	45818	2
[	**Zn**	**66**	**93.358**	ug/L	3.984	4	255	239428	2
[	**Zn**	**67**	**90.377**	ug/L	2.409	2	38	38560	0
[	**Zn**	**68**	**93.012**	ug/L	3.012	3	241	172324	1
[	**As**	**75**	**5.080**	ug/L	0.129	2	310	11597	0
[	**As-1**	**75**	**5.019**	ug/L	0.234	4	9967	21177	0
[	**Se**	**82**	**0.139**	ug/L	0.054	38	4	38	34
[	**Se**	**78**	**0.285**	ug/L	0.368	129	10138	10260	0
[	**Mo**	**98**	**0.273**	ug/L	0.021	7	31	1402	6
	Y	**89**		ug/L			399449	499437	0
	Kr	**83**		ug/L			635	778	1
[>	**In**	**115**		ug/L			965468	978181	0
[	**Ag**	**107**	**0.271**	ug/L	0.011	4	54	3209	3
[	**Cd**	**111**	**1.438**	ug/L	0.022	1	102	6928	0
[	**Cd**	**114**	**1.327**	ug/L	0.008	0	36	15973	0
[	**Sb**	**121**	**-0.000**	ug/L	0.005	3744	768	777	9
[	**Sb**	**123**	**0.002**	ug/L	0.003	113	575	606	3
[	**Ba**	**135**	**55.238**	ug/L	1.044	1	23	232353	1
[	**Ba**	**137**	**55.030**	ug/L	0.763	1	42	401243	0
[>	**Tb**	**159**		ug/L			1098939	1106139	0
[	**Tl**	**205**	**0.057**	ug/L	0.001	1	811	2987	2
[	**Pb**	**208**	**38.887**	ug/L	0.214	0	507	1885092	0
[	**Bi**	**209**		ug/L			2742152	2688290	0
[	**Th**	**232**	**1.071**	ug/L	0.008	0	5672	56547	0
[	**U**	**238**	**0.276**	ug/L	0.001	0	50	14197	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR82 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 18:14:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1902743	1
[	Be	9	0.149	ug/L	0.005	3	22	767	4
	C	13		ug/L			143235	176942	2
	Cl	37		ug/L			4954439	5269971	1
[>	Sc	45		ug/L			1218098	1385447	1
|	V	51	27.805	ug/L	0.555	1	9170	767888	1
|	V-1	51	28.034	ug/L	0.570	2	105	755660	1
|	Cr	52	21.744	ug/L	0.373	1	27160	532275	1
|	Cr	53	22.304	ug/L	0.586	2	170	56236	2
|	Mn	55	206.152	ug/L	2.310	1	674	6459131	2
[	Co	59	5.079	ug/L	0.043	0	88	115085	0
[>	Ge	72		ug/L			652831	648596	0
|	Ni	60	28.062	ug/L	0.531	1	35	116586	1
|	Ni	62	28.607	ug/L	0.739	2	471	17108	2
|	Cu	63	14.960	ug/L	0.260	1	514	138678	1
|	Cu	65	15.253	ug/L	0.426	2	55	63732	2
|	Zn	66	41.710	ug/L	0.066	0	255	107082	0
|	Zn	67	42.659	ug/L	1.039	2	38	18213	2
|	Zn	68	41.902	ug/L	0.581	1	241	77739	1
|	As	75	3.945	ug/L	0.069	1	310	9071	1
|	As-1	75	3.927	ug/L	0.050	1	9967	18716	0
|	Se	82	-0.012	ug/L	0.022	176	4	1	357
|	Se	78	0.316	ug/L	0.061	19	10138	10275	0
[	Mo	98	0.101	ug/L	0.003	3	31	537	3
	Y	89		ug/L			399449	520724	0
	Kr	83		ug/L			635	833	1
[>	In	115		ug/L			965468	973932	0
|	Ag	107	0.041	ug/L	0.002	4	54	525	5
|	Cd	111	0.156	ug/L	0.007	4	102	840	3
|	Cd	114	0.110	ug/L	0.004	3	36	1347	3
|	Sb	121	-0.037	ug/L	0.002	6	768	264	11
|	Sb	123	-0.035	ug/L	0.001	1	575	204	3
|	Ba	135	38.774	ug/L	0.376	0	23	162406	0
[	Ba	137	38.447	ug/L	0.409	1	42	279136	0
[>	Tb	159		ug/L			1098939	1111530	0
|	Tl	205	0.009	ug/L	0.000	4	811	1169	1
|	Pb	208	4.039	ug/L	0.018	0	507	197226	0
|	Bi	209		ug/L			2742152	2631875	0
|	Th	232	0.708	ug/L	0.007	1	5672	39511	0
[	U	238	0.185	ug/L	0.001	0	50	9590	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR82 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 18:18:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			1766731	1890078	1
Be	9	0.089	ug/L	0.003	2	22	465	4
C	13		ug/L			143235	183086	1
Cl	37		ug/L			4954439	5082048	1
> Sc	45		ug/L			1218098	1328647	1
V	51	13.555	ug/L	0.159	1	9170	364137	1
V-1	51	13.729	ug/L	0.067	0	105	355007	1
Cr	52	13.255	ug/L	0.512	3	27160	322594	1
Cr	53	13.842	ug/L	0.246	1	170	33533	1
Mn	55	178.050	ug/L	5.069	2	674	5348328	1
Co	59	2.928	ug/L	0.044	1	88	63664	2
> Ge	72		ug/L			652831	644088	0
Ni	60	13.253	ug/L	0.021	0	35	54695	0
Ni	62	13.156	ug/L	0.259	1	471	8064	1
Cu	63	12.630	ug/L	0.080	0	514	116349	0
Cu	65	12.729	ug/L	0.322	2	55	52829	2
Zn	66	64.345	ug/L	0.150	0	255	163911	0
Zn	67	62.810	ug/L	1.065	1	38	26615	2
Zn	68	64.348	ug/L	1.279	1	241	118421	1
As	75	2.934	ug/L	0.078	2	310	6777	2
As-1	75	2.957	ug/L	0.076	2	9967	16425	0
Se	82	0.149	ug/L	0.022	14	4	40	13
Se	78	0.444	ug/L	0.024	5	10138	10285	0
Mo	98	0.146	ug/L	0.004	3	31	759	2
Y	89		ug/L			399449	487968	2
Kr	83		ug/L			635	717	0
> In	115		ug/L			965468	969550	0
Ag	107	0.031	ug/L	0.001	4	54	416	3
Cd	111	0.215	ug/L	0.004	1	102	1116	1
Cd	114	0.188	ug/L	0.003	1	36	2269	2
Sb	121	-0.024	ug/L	0.003	12	768	443	8
Sb	123	-0.022	ug/L	0.002	8	575	343	5
Ba	135	49.183	ug/L	0.329	0	23	205072	0
Ba	137	48.459	ug/L	0.684	1	42	350235	1
> Tb	159		ug/L			1098939	1099741	0
Tl	205	0.006	ug/L	0.001	18	811	1049	4
Pb	208	9.966	ug/L	0.037	0	507	480726	0
Bi	209		ug/L			2742152	2683274	1
Th	232	0.275	ug/L	0.002	0	5672	18635	0
U	238	0.165	ug/L	0.004	2	50	8435	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR82 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 18:22:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1896820	2
[	Be	9	0.088	ug/L	0.005	5	22	462	2
	C	13		ug/L			143235	179974	0
	Cl	37		ug/L			4954439	5072141	2
[>	Sc	45		ug/L			1218098	1333821	2
[	V	51	13.574	ug/L	0.234	1	9170	366019	1
[	V-1	51	13.746	ug/L	0.204	1	105	356746	1
[	Cr	52	13.038	ug/L	0.373	2	27160	319071	1
[	Cr	53	13.608	ug/L	0.349	2	170	33089	0
[	Mn	55	189.689	ug/L	3.267	1	674	5720037	1
[	Co	59	2.770	ug/L	0.138	4	88	60417	2
[>	Ge	72		ug/L			652831	650870	0
[	Ni	60	13.233	ug/L	0.140	1	35	55190	1
[	Ni	62	12.730	ug/L	0.488	3	471	7900	3
[	Cu	63	12.447	ug/L	0.156	1	514	115867	0
[	Cu	65	12.656	ug/L	0.291	2	55	53076	1
[	Zn	66	48.276	ug/L	0.801	1	255	124329	1
[	Zn	67	46.648	ug/L	0.313	0	38	19982	0
[	Zn	68	47.631	ug/L	0.679	1	241	88641	0
[	As	75	2.801	ug/L	0.002	0	310	6551	0
[	As-1	75	2.775	ug/L	0.054	1	9967	16187	0
[	Se	82	0.144	ug/L	0.021	14	4	39	12
[	Se	78	0.307	ug/L	0.182	59	10138	10305	0
[	Mo	98	0.156	ug/L	0.008	5	31	815	4
	Y	89		ug/L			399449	484312	1
	Kr	83		ug/L			635	760	2
[>	In	115		ug/L			965468	974537	1
[	Ag	107	0.036	ug/L	0.002	4	54	475	3
[	Cd	111	0.225	ug/L	0.004	1	102	1169	1
[	Cd	114	0.192	ug/L	0.003	1	36	2334	1
[	Sb	121	-0.033	ug/L	0.001	2	768	315	3
[	Sb	123	-0.031	ug/L	0.002	5	575	250	8
[	Ba	135	35.420	ug/L	0.315	0	23	148444	0
[	Ba	137	35.165	ug/L	0.588	1	42	255442	0
[>	Tb	159		ug/L			1098939	1106526	0
[	Tl	205	0.009	ug/L	0.000	4	811	1152	1
[	Pb	208	8.411	ug/L	0.108	1	507	408274	0
[	Bi	209		ug/L			2742152	2701941	0
[	Th	232	0.298	ug/L	0.003	1	5672	19876	0
[	U	238	0.188	ug/L	0.002	1	50	9697	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR82F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 18:27:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1766731	1862917	1
[	**Be**	**9**	**0.101**	ug/L	0.003	3	22	517	4
	C	**13**		ug/L			143235	179772	2
	Cl	**37**		ug/L			4954439	4996435	1
[>	**Sc**	**45**		ug/L			1218098	1327383	1
[	**V**	**51**	**15.107**	ug/L	0.536	3	9170	404178	1
[	**V-1**	**51**	**15.276**	ug/L	0.467	3	105	394478	1
[	**Cr**	**52**	**14.607**	ug/L	0.374	2	27160	352198	0
[	**Cr**	**53**	**15.168**	ug/L	0.130	0	170	36696	1
[	**Mn**	**55**	**193.469**	ug/L	3.426	1	674	5806189	0
[	**Co**	**59**	**3.239**	ug/L	0.128	3	88	70322	2
[>	**Ge**	**72**		ug/L			652831	642347	2
[	**Ni**	**60**	**15.283**	ug/L	0.260	1	35	62885	0
[	**Ni**	**62**	**14.891**	ug/L	0.452	3	471	9038	1
[	**Cu**	**63**	**9.756**	ug/L	0.340	3	514	89699	1
[	**Cu**	**65**	**10.072**	ug/L	0.249	2	55	41686	0
[	**Zn**	**66**	**45.167**	ug/L	1.854	4	255	114751	1
[	**Zn**	**67**	**44.398**	ug/L	1.313	2	38	18766	2
[	**Zn**	**68**	**43.878**	ug/L	0.951	2	241	80584	0
[	**As**	**75**	**3.314**	ug/L	0.072	2	310	7593	0
[	**As-1**	75	**3.359**	ug/L	0.161	4	9967	17269	0
[	**Se**	82	**0.118**	ug/L	0.018	15	4	32	15
[	**Se**	**78**	**0.550**	ug/L	0.326	59	10138	10321	0
[	**Mo**	**98**	**0.159**	ug/L	0.015	9	31	821	7
	Y	**89**		ug/L			399449	481611	0
	Kr	**83**		ug/L			635	753	1
[>	**In**	**115**		ug/L			965468	970999	0
[	**Ag**	**107**	**0.034**	ug/L	0.001	1	54	449	2
[	**Cd**	**111**	**0.175**	ug/L	0.007	4	102	929	3
[	**Cd**	**114**	**0.158**	ug/L	0.002	1	36	1921	1
[	**Sb**	**121**	**-0.021**	ug/L	0.002	8	768	474	5
[	**Sb**	**123**	**-0.023**	ug/L	0.000	1	575	335	1
[	**Ba**	**135**	**33.070**	ug/L	0.548	1	23	138100	1
[	**Ba**	**137**	**32.818**	ug/L	0.301	0	42	237555	0
[>	**Tb**	**159**		ug/L			1098939	1103469	0
[	**Tl**	**205**	**0.010**	ug/L	0.001	6	811	1194	2
[	**Pb**	**208**	**7.527**	ug/L	0.039	0	507	364406	0
[	**Bi**	**209**		ug/L			2742152	2704105	0
[	**Th**	**232**	**0.264**	ug/L	0.005	2	5672	18209	1
[	**U**	**238**	**0.190**	ug/L	0.001	0	50	9763	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR82 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 18:31:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1867259	0
[	Be	9	0.095	ug/L	0.005	4	22	490	4
	C	13		ug/L			143235	174918	1
	Cl	37		ug/L			4954439	5032012	1
[>	Sc	45		ug/L			1218098	1327043	0
[	V	51	15.090	ug/L	0.188	1	9170	403801	1
[	V-1	51	15.347	ug/L	0.265	1	105	396377	2
[	Cr	52	14.945	ug/L	0.203	1	27160	359669	0
[	Cr	53	15.824	ug/L	0.332	2	170	38268	1
[	Mn	55	187.955	ug/L	2.663	1	674	5640268	1
[	Co	59	3.369	ug/L	0.066	1	88	73144	1
[>	Ge	72		ug/L			652831	639845	3
[	Ni	60	15.553	ug/L	0.606	3	35	63707	0
[	Ni	62	15.374	ug/L	0.690	4	471	9275	1
[	Cu	63	10.277	ug/L	0.464	4	514	94052	1
[	Cu	65	10.586	ug/L	0.490	4	55	43611	1
[	Zn	66	47.179	ug/L	1.478	3	255	119378	0
[	Zn	67	44.973	ug/L	0.683	1	38	18935	2
[	Zn	68	46.397	ug/L	2.013	4	241	84820	1
[	As	75	3.272	ug/L	0.073	2	310	7470	1
[	As-1	75	3.318	ug/L	0.248	7	9967	17104	0
[	Se	82	0.096	ug/L	0.008	8	4	27	10
[	Se	78	0.579	ug/L	0.646	111	10138	10294	0
[	Mo	98	0.157	ug/L	0.011	7	31	808	5
	Y	89		ug/L			399449	484181	3
	Kr	83		ug/L			635	789	0
[>	In	115		ug/L			965468	971195	2
[	Ag	107	0.034	ug/L	0.001	2	54	449	0
[	Cd	111	0.189	ug/L	0.006	3	102	992	1
[	Cd	114	0.163	ug/L	0.001	0	36	1976	2
[	Sb	121	-0.024	ug/L	0.001	5	768	441	2
[	Sb	123	-0.023	ug/L	0.003	12	575	336	8
[	Ba	135	35.418	ug/L	0.818	2	23	147891	1
[	Ba	137	34.768	ug/L	0.797	2	42	251646	0
[>	Tb	159		ug/L			1098939	1109809	1
[	Tl	205	0.009	ug/L	0.002	18	811	1168	4
[	Pb	208	7.871	ug/L	0.060	0	507	383254	0
[	Bi	209		ug/L			2742152	2712740	0
[	Th	232	0.297	ug/L	0.009	3	5672	19869	1
[	U	238	0.187	ug/L	0.004	2	50	9656	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR82 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 18:36:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1890019	2
[	Be	9	0.101	ug/L	0.005	4	22	524	3
	C	13		ug/L			143235	179492	1
	Cl	37		ug/L			4954439	5088207	3
[>	Sc	45		ug/L			1218098	1343240	1
[	V	51	16.671	ug/L	0.267	1	9170	450424	0
[	V-1	51	16.973	ug/L	0.229	1	105	443635	0
[	Cr	52	15.705	ug/L	0.495	3	27160	380988	2
[	Cr	53	16.706	ug/L	0.296	1	170	40880	0
[	Mn	55	195.016	ug/L	2.723	1	674	5923318	1
[	Co	59	3.694	ug/L	0.073	1	88	81157	1
[>	Ge	72		ug/L			652831	641817	0
[	Ni	60	17.520	ug/L	0.299	1	35	72036	1
[	Ni	62	17.449	ug/L	0.395	2	471	10506	1
[	Cu	63	11.152	ug/L	0.260	2	514	102420	1
[	Cu	65	11.544	ug/L	0.152	1	55	47744	0
[	Zn	66	49.613	ug/L	1.723	3	255	125979	2
[	Zn	67	50.533	ug/L	0.890	1	38	21341	0
[	Zn	68	49.253	ug/L	1.903	3	241	90377	3
[	As	75	3.365	ug/L	0.032	0	310	7699	0
[	As-1	75	3.387	ug/L	0.050	1	9967	17321	0
[	Se	82	0.118	ug/L	0.082	69	4	32	60
[	Se	78	0.507	ug/L	0.104	20	10138	10288	0
[	Mo	98	0.159	ug/L	0.011	6	31	822	5
	Y	89		ug/L			399449	489381	1
	Kr	83		ug/L			635	780	7
[>	In	115		ug/L			965468	960858	0
[	Ag	107	0.037	ug/L	0.001	3	54	480	2
[	Cd	111	0.219	ug/L	0.008	3	102	1123	3
[	Cd	114	0.188	ug/L	0.002	1	36	2249	0
[	Sb	121	-0.030	ug/L	0.002	6	768	355	6
[	Sb	123	-0.030	ug/L	0.002	6	575	255	8
[	Ba	135	36.722	ug/L	0.248	0	23	151745	0
[	Ba	137	36.571	ug/L	0.174	0	42	261961	0
[>	Tb	159		ug/L			1098939	1112991	1
[	Tl	205	0.013	ug/L	0.001	7	811	1308	1
[	Pb	208	8.247	ug/L	0.124	1	507	402626	0
[	Bi	209		ug/L			2742152	2690285	0
[	Th	232	0.360	ug/L	0.009	2	5672	22955	0
[	U	238	0.201	ug/L	0.002	1	50	10444	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR82 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 18:40:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1938536	0
[	Be	9	0.097	ug/L	0.004	4	22	518	4
	C	13		ug/L			143235	180240	2
	Cl	37		ug/L			4954439	5082636	4
[>	Sc	45		ug/L			1218098	1366892	1
[	V	51	15.317	ug/L	0.391	2	9170	421931	1
[	V-1	51	15.485	ug/L	0.246	1	105	411876	0
[	Cr	52	14.576	ug/L	0.659	4	27160	361946	2
[	Cr	53	15.126	ug/L	0.308	2	170	37684	1
[	Mn	55	175.810	ug/L	4.852	2	674	5433252	1
[	Co	59	3.176	ug/L	0.074	2	88	71024	1
[>	Ge	72		ug/L			652831	644620	1
[	Ni	60	15.755	ug/L	0.260	1	35	65064	0
[	Ni	62	15.543	ug/L	0.516	3	471	9451	3
[	Cu	63	26.855	ug/L	0.985	3	514	246961	2
[	Cu	65	27.012	ug/L	0.231	0	55	112132	0
[	Zn	66	49.052	ug/L	1.181	2	255	125098	1
[	Zn	67	47.653	ug/L	0.103	0	38	20217	0
[	Zn	68	48.288	ug/L	0.991	2	241	88992	1
[	As	75	3.394	ug/L	0.015	0	310	7797	0
[	As-1	75	3.437	ug/L	0.121	3	9967	17507	0
[	Se	82	0.125	ug/L	0.050	39	4	34	33
[	Se	78	0.594	ug/L	0.380	64	10138	10388	1
[	Mo	98	0.156	ug/L	0.009	5	31	809	6
	Y	89		ug/L			399449	480715	3
	Kr	83		ug/L			635	788	5
[>	In	115		ug/L			965468	971928	1
[	Ag	107	0.042	ug/L	0.001	2	54	543	3
[	Cd	111	0.204	ug/L	0.016	8	102	1065	6
[	Cd	114	0.175	ug/L	0.004	2	36	2122	1
[	Sb	121	-0.036	ug/L	0.001	4	768	276	6
[	Sb	123	-0.036	ug/L	0.001	2	575	197	3
[	Ba	135	36.103	ug/L	0.986	2	23	150880	1
[	Ba	137	35.953	ug/L	0.351	0	42	260486	0
[>	Tb	159		ug/L			1098939	1105896	1
[	Tl	205	0.011	ug/L	0.001	6	811	1221	1
[	Pb	208	7.997	ug/L	0.063	0	507	387958	0
[	Bi	209		ug/L			2742152	2692413	0
[	Th	232	0.352	ug/L	0.005	1	5672	22410	1
[	U	238	0.202	ug/L	0.002	1	50	10422	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 18:44:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1839859	0
[	Be	9	51.950	ug/L	0.152	0	22	250414	0
	C	13		ug/L			143235	149502	0
	Cl	37		ug/L			4954439	5278112	2
[>	Sc	45		ug/L			1218098	1269225	1
[	V	51	46.447	ug/L	1.804	3	9170	1168469	2
[	V-1	51	46.838	ug/L	2.026	4	105	1156316	3
[	Cr	52	46.973	ug/L	0.819	1	27160	1020557	1
[	Cr	53	48.334	ug/L	1.330	2	170	111436	3
[	Mn	55	48.297	ug/L	1.237	2	674	1386519	1
[	Co	59	46.255	ug/L	1.400	3	88	959549	3
[>	Ge	72		ug/L			652831	618210	2
[	Ni	60	52.310	ug/L	1.817	3	35	207008	1
[	Ni	62	50.831	ug/L	1.354	2	471	28618	0
[	Cu	63	51.023	ug/L	1.129	2	514	449535	1
[	Cu	65	50.265	ug/L	1.837	3	55	199970	1
[	Zn	66	52.234	ug/L	1.424	2	255	127718	1
[	Zn	67	51.485	ug/L	1.988	3	38	20932	1
[	Zn	68	51.664	ug/L	1.537	2	241	91266	0
[	As	75	51.920	ug/L	0.931	1	310	110186	1
[	As-1	75	51.175	ug/L	1.038	2	9967	118891	0
[	Se	82	54.857	ug/L	1.330	2	4	12702	0
[	Se	78	52.190	ug/L	1.806	3	10138	41477	0
[	Mo	98	53.552	ug/L	0.877	1	31	256136	0
	Y	89		ug/L			399449	403586	1
	Kr	83		ug/L			635	684	2
[>	In	115		ug/L			965468	943285	0
[	Ag	107	55.232	ug/L	2.940	5	54	619047	4
[	Cd	111	52.006	ug/L	0.382	0	102	238151	0
[	Cd	114	51.017	ug/L	0.720	1	36	590949	0
[	Sb	121	50.465	ug/L	0.389	0	768	685054	1
[	Sb	123	51.269	ug/L	0.681	1	575	526804	0
[	Ba	135	49.494	ug/L	0.473	0	23	200790	1
[	Ba	137	49.022	ug/L	0.834	1	42	344701	1
[>	Tb	159		ug/L			1098939	1076997	1
[	Tl	205	47.031	ug/L	0.438	0	811	1751214	0
[	Pb	208	48.229	ug/L	0.310	0	507	2276164	0
[	Bi	209		ug/L			2742152	2610553	1
[	Th	232	51.895	ug/L	0.822	1	5672	2403995	0
[	U	238	52.383	ug/L	0.491	0	50	2614518	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 18:51:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1828563	1
	Be	9	-0.002	ug/L	0.001	56	22	14	31
	C	13		ug/L			143235	153282	1
	Cl	37		ug/L			4954439	5045838	3
>	Sc	45		ug/L			1218098	1263057	2
	V	51	-0.016	ug/L	0.015	98	9170	9111	2
	V-1	51	-0.002	ug/L	0.000	7	105	55	10
	Cr	52	-0.058	ug/L	0.055	94	27160	26928	2
	Cr	53	-0.013	ug/L	0.003	22	170	147	1
	Mn	55	-0.003	ug/L	0.000	5	674	601	2
	Co	59	-0.000	ug/L	0.000	137	88	85	8
>	Ge	72		ug/L			652831	628275	2
	Ni	60	0.003	ug/L	0.001	36	35	47	8
	Ni	62	-0.634	ug/L	0.015	2	471	96	9
	Cu	63	-0.041	ug/L	0.002	4	514	132	13
	Cu	65	-0.003	ug/L	0.002	84	55	41	22
	Zn	66	-0.037	ug/L	0.003	9	255	152	3
	Zn	67	-0.026	ug/L	0.014	52	38	26	19
	Zn	68	-0.024	ug/L	0.010	39	241	188	10
	As	75	0.018	ug/L	0.023	130	310	337	15
	As-1	75	0.230	ug/L	0.076	33	9967	10089	0
	Se	82	-0.031	ug/L	0.027	88	4	-2	219
	Se	78	0.795	ug/L	0.294	36	10138	10248	0
	Mo	98	0.004	ug/L	0.001	39	31	48	12
	Y	89		ug/L			399449	395908	0
	Kr	83		ug/L			635	679	5
>	In	115		ug/L			965468	934852	0
	Ag	107	-0.002	ug/L	0.000	16	54	26	15
	Cd	111	-0.003	ug/L	0.001	24	102	84	3
	Cd	114	-0.000	ug/L	0.000	748	36	34	14
	Sb	121	0.010	ug/L	0.006	57	768	876	7
	Sb	123	0.008	ug/L	0.007	88	575	639	10
	Ba	135	-0.001	ug/L	0.001	51	23	17	14
	Ba	137	-0.002	ug/L	0.000	12	42	27	5
>	Tb	159		ug/L			1098939	1042590	0
	Tl	205	-0.018	ug/L	0.001	3	811	121	16
	Pb	208	-0.003	ug/L	0.000	12	507	348	5
	Bi	209		ug/L			2742152	2662470	0
	Th	232	0.013	ug/L	0.014	104	5672	5978	10
	U	238	0.001	ug/L	0.000	11	50	98	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 18:55:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1887239	1
[	Be	9	-0.001	ug/L	0.002	277	22	21	39
	C	13		ug/L			143235	156402	0
	Cl	37		ug/L			4954439	4993190	1
[>	Sc	45		ug/L			1218098	1261440	1
[	V	51	-0.011	ug/L	0.006	51	9170	9226	2
[	V-1	51	0.000	ug/L	0.002	1417	105	113	42
[	Cr	52	-0.035	ug/L	0.023	66	27160	27387	2
[	Cr	53	0.002	ug/L	0.005	278	170	180	6
[	Mn	55	0.057	ug/L	0.012	21	674	2329	15
[	Co	59	0.000	ug/L	0.001	721	88	94	21
[>	Ge	72		ug/L			652831	626062	0
[	Ni	60	0.002	ug/L	0.003	138	35	42	28
[	Ni	62	-0.625	ug/L	0.018	2	471	101	10
[	Cu	63	0.016	ug/L	0.005	28	514	636	6
[	Cu	65	0.056	ug/L	0.005	9	55	280	7
[	Zn	66	0.238	ug/L	0.016	6	255	832	4
[	Zn	67	0.241	ug/L	0.059	24	38	136	17
[	Zn	68	0.233	ug/L	0.009	3	241	646	2
[	As	75	0.004	ug/L	0.007	158	310	306	5
[	As-1	75	0.249	ug/L	0.011	4	9967	10098	0
[	Se	82	-0.094	ug/L	0.019	19	4	-17	24
[	Se	78	0.837	ug/L	0.041	4	10138	10240	0
[	Mo	98	-0.000	ug/L	0.001	330	31	28	19
	Y	89		ug/L			399449	396241	1
	Kr	83		ug/L			635	667	3
[>	In	115		ug/L			965468	948995	0
[	Ag	107	-0.002	ug/L	0.001	32	54	27	31
[	Cd	111	-0.004	ug/L	0.002	48	102	81	11
[	Cd	114	0.001	ug/L	0.001	63	36	45	13
[	Sb	121	-0.033	ug/L	0.002	5	768	307	8
[	Sb	123	-0.031	ug/L	0.003	10	575	249	12
[	Ba	135	0.017	ug/L	0.004	22	23	91	16
[	Ba	137	0.016	ug/L	0.003	19	42	158	14
[>	Tb	159		ug/L			1098939	1049987	0
[	Tl	205	-0.015	ug/L	0.001	3	811	230	8
[	Pb	208	0.009	ug/L	0.002	18	507	887	8
[	Bi	209		ug/L			2742152	2655906	1
[	Th	232	-0.047	ug/L	0.003	7	5672	3294	4
[	U	238	0.000	ug/L	0.001	221	50	62	50

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 18:59:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1841689	1
	Be	9	26.022	ug/L	0.616	2	22	125563	2
	C	13		ug/L			143235	159388	2
	Cl	37		ug/L			4954439	5047805	3
>	Sc	45		ug/L			1218098	1232390	1
	V	51	24.573	ug/L	0.251	1	9170	604845	1
	V-1	51	24.811	ug/L	0.322	1	105	595002	1
	Cr	52	25.193	ug/L	0.073	0	27160	544248	1
	Cr	53	26.031	ug/L	0.193	0	170	58352	1
	Mn	55	25.233	ug/L	0.045	0	674	703809	0
	Co	59	25.261	ug/L	0.524	2	88	508781	2
>	Ge	72		ug/L			652831	629083	1
	Ni	60	26.611	ug/L	0.534	2	35	107208	0
	Ni	62	25.864	ug/L	0.084	0	471	15046	1
	Cu	63	27.021	ug/L	0.028	0	514	242554	1
	Cu	65	27.482	ug/L	0.964	3	55	111301	2
	Zn	66	85.440	ug/L	2.167	2	255	212435	1
	Zn	67	78.423	ug/L	2.157	2	38	32437	1
	Zn	68	83.147	ug/L	0.805	0	241	149384	1
	As	75	26.728	ug/L	0.148	0	310	57880	1
	As-1	75	25.917	ug/L	0.531	2	9967	66013	0
	Se	82	87.958	ug/L	0.107	0	4	20730	1
	Se	78	82.900	ug/L	1.819	2	10138	61309	0
	Mo	98	26.027	ug/L	0.372	1	31	126728	2
	Y	89		ug/L			399449	403619	0
	Kr	83		ug/L			635	699	3
>	In	115		ug/L			965468	953002	1
	Ag	107	28.366	ug/L	0.331	1	54	321294	2
	Cd	111	26.018	ug/L	0.319	1	102	120412	1
	Cd	114	25.532	ug/L	0.150	0	36	298815	0
	Sb	121	25.329	ug/L	0.446	1	768	347730	1
	Sb	123	25.302	ug/L	0.425	1	575	262934	0
	Ba	135	25.078	ug/L	0.602	2	23	102786	2
	Ba	137	25.246	ug/L	0.094	0	42	179371	0
>	Tb	159		ug/L			1098939	1051581	1
	Tl	205	25.257	ug/L	0.192	0	811	918628	0
	Pb	208	25.999	ug/L	0.219	0	507	1198314	1
	Bi	209		ug/L			2742152	2675661	0
	Th	232	23.510	ug/L	0.151	0	5672	1066481	1
	U	238	23.939	ug/L	0.143	0	50	1166719	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Tuesday, November 27, 2012 19:03:58
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

RRAg, Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1766731	1926239	0
[	**Be**	**9**	**0.129**	ug/L	0.005	3	22	675	2
	C	**13**		ug/L			143235	164329	1
	Cl	**37**		ug/L			4954439	5096261	1
[>	**Sc**	**45**		ug/L			1218098	1313009	1
[	**V**	**51**	**10.015**	ug/L	0.204	2	9170	268508	2
[	**V-1**	**51**	**10.143**	ug/L	0.206	2	105	259241	2
[	**Cr**	**52**	**6.764**	ug/L	0.148	2	27160	177093	1
[	**Cr**	**53**	**7.083**	ug/L	0.214	3	170	17048	2
[	**Mn**	**55**	**145.206**	ug/L	2.811	1	674	4311189	1
[	**Co**	**59**	**1.847**	ug/L	0.017	0	88	39732	0
[>	**Ge**	**72**		ug/L			652831	650246	1
[	**Ni**	**60**	**4.570**	ug/L	0.073	1	35	19063	1
[	**Ni**	**62**	**4.293**	ug/L	0.110	2	471	2972	1
[	**Cu**	**63**	**6.467**	ug/L	0.191	2	514	60382	1
[	**Cu**	**65**	**6.490**	ug/L	0.104	1	55	27219	1
[	**Zn**	**66**	**58.988**	ug/L	0.951	1	255	151712	1
[	**Zn**	**67**	**56.155**	ug/L	0.823	1	38	24023	1
[	**Zn**	**68**	**57.641**	ug/L	1.177	2	241	107106	1
[	**As**	**75**	**4.487**	ug/L	0.168	3	310	10298	2
[	**As-1**	**75**	**4.419**	ug/L	0.197	4	9967	19869	1
[	**Se**	**82**	**0.007**	ug/L	0.046	683	4	6	184
[	**Se**	**78**	**0.038**	ug/L	0.155	407	10138	10122	0
[	**Mo**	**98**	**0.102**	ug/L	0.005	4	31	546	3
	Y	**89**		ug/L			399449	457635	2
	Kr	**83**		ug/L			635	718	3
[>	**In**	**115**		ug/L			965468	978243	0
[	**Ag**	**107**	**0.062**	ug/L	0.002	3	54	777	3
[	**Cd**	**111**	**1.388**	ug/L	0.011	0	102	6692	0
[	**Cd**	**114**	**1.349**	ug/L	0.035	2	36	16234	1
[	**Sb**	**121**	**0.042**	ug/L	0.002	4	768	1363	2
[	**Sb**	**123**	**0.044**	ug/L	0.004	7	575	1055	4
[	**Ba**	**135**	**39.542**	ug/L	0.409	1	23	166348	0
[	**Ba**	**137**	**39.290**	ug/L	0.643	1	42	286501	0
[>	**Tb**	**159**		ug/L			1098939	1094731	0
[	**Tl**	**205**	**0.087**	ug/L	0.001	0	811	4111	0
[	**Pb**	**208**	**108.841**	ug/L	0.178	0	507	5221036	0
[	**Bi**	**209**		ug/L			2742152	2724289	0
[	**Th**	**232**	**1.026**	ug/L	0.019	1	5672	53876	1
[	**U**	**238**	**0.161**	ug/L	0.003	1	50	8242	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 19:08:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

RL As Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1926486	2
[	Be	9	0.678	ug/L	0.017	2	22	3445	0
	C	13		ug/L			143235	203136	0
	Cl	37		ug/L			4954439	5248033	2
[>	Sc	45		ug/L			1218098	1431840	0
[	V	51	49.013	ug/L	0.579	1	9170	1390906	1
[	V-1	51	49.715	ug/L	0.677	1	105	1385048	1
[	Cr	52	32.558	ug/L	0.238	0	27160	807837	0
[	Cr	53	34.354	ug/L	0.233	0	170	89412	0
[	Mn	55	691.879	ug/L	9.338	1	674	22400355	1
[	Co	59	9.018	ug/L	0.064	0	88	211108	0
[>	Ge	72		ug/L			652831	643189	0
[	Ni	60	23.689	ug/L	0.576	2	35	97590	1
[	Ni	62	25.953	ug/L	0.269	1	471	15434	0
[	Cu	63	33.683	ug/L	0.279	0	514	309017	1
[	Cu	65	34.239	ug/L	0.788	2	55	141795	1
[	Zn	66	296.768	ug/L	2.118	0	255	753996	0
[	Zn	67	278.003	ug/L	5.175	1	38	117504	2
[	Zn	68	291.008	ug/L	5.975	2	241	533959	1
[	As	75	23.257	ug/L	0.174	0	310	51533	1
[	As-1	75	22.992	ug/L	0.196	0	9967	60997	1
[	Se	82	-0.052	ug/L	0.077	148	4	-7	233
[	Se	78	0.588	ug/L	0.170	28	10138	10362	0
[	Mo	98	0.556	ug/L	0.009	1	31	2797	1
	Y	89		ug/L			399449	607323	0
	Kr	83		ug/L			635	1202	4
[>	In	115		ug/L			965468	1026433	0
[	Ag	107	0.303	ug/L	0.005	1	54	3750	1
[	Cd	111	6.707	ug/L	0.056	0	102	33515	0
[	Cd	114	6.554	ug/L	0.031	0	36	82643	0
[	Sb	121	0.299	ug/L	0.002	0	768	5233	1
[	Sb	123	0.300	ug/L	0.005	1	575	3961	0
[	Ba	135	200.920	ug/L	1.576	0	23	886822	0
[	Ba	137	199.608	ug/L	0.543	0	42	1527183	0
[>	Tb	159		ug/L			1098939	1109878	0
[	Tl	205	0.502	ug/L	0.008	1	811	20078	1
[	Pb	208	578.089	ug/L	4.116	0	507	28112167	0
[	Bi	209		ug/L			2742152	2603936	0
[	Th	232	4.571	ug/L	0.032	0	5672	223483	0
[	U	238	0.830	ug/L	0.007	0	50	42751	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 19:12:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

RPL Ag Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1910482	2
[	Be	9	0.648	ug/L	0.005	0	22	3266	2
	C	13		ug/L			143235	200744	1
	Cl	37		ug/L			4954439	5188981	0
[>	Sc	45		ug/L			1218098	1409485	0
[	V	51	52.035	ug/L	0.787	1	9170	1452895	1
[	V-1	51	52.816	ug/L	0.840	1	105	1448392	1
[	Cr	52	31.418	ug/L	0.268	0	27160	768449	0
[	Cr	53	33.331	ug/L	0.441	1	170	85394	0
[	Mn	55	676.770	ug/L	21.520	3	674	21565246	2
[	Co	59	9.321	ug/L	0.156	1	88	214804	2
[>	Ge	72		ug/L			652831	638997	1
[	Ni	60	24.455	ug/L	0.218	0	35	100096	0
[	Ni	62	25.891	ug/L	0.438	1	471	15298	1
[	Cu	63	33.197	ug/L	0.606	1	514	302524	0
[	Cu	65	34.345	ug/L	0.736	2	55	141294	0
[	Zn	66	294.520	ug/L	5.786	1	255	743288	0
[	Zn	67	281.448	ug/L	3.167	1	38	118180	1
[	Zn	68	289.579	ug/L	4.955	1	241	527840	1
[	As	75	23.299	ug/L	0.505	2	310	51278	1
[	As-1	75	23.059	ug/L	0.557	2	9967	60737	0
[	Se	82	-0.094	ug/L	0.038	39	4	-18	51
[	Se	78	0.619	ug/L	0.341	54	10138	10312	0
[	Mo	98	0.581	ug/L	0.013	2	31	2901	1
	Y	89		ug/L			399449	599800	1
	Kr	83		ug/L			635	1179	3
[>	In	115		ug/L			965468	1019248	0
[	Ag	107	0.315	ug/L	0.021	6	54	3869	5
[	Cd	111	6.389	ug/L	0.031	0	102	31707	0
[	Cd	114	6.256	ug/L	0.110	1	36	78338	1
[	Sb	121	0.309	ug/L	0.004	1	768	5344	0
[	Sb	123	0.313	ug/L	0.005	1	575	4079	1
[	Ba	135	192.034	ug/L	0.522	0	23	841681	0
[	Ba	137	190.872	ug/L	2.569	1	42	1450111	1
[>	Tb	159		ug/L			1098939	1097861	0
[	Tl	205	0.508	ug/L	0.001	0	811	20067	0
[	Pb	208	563.244	ug/L	1.395	0	507	27093544	0
[	Bi	209		ug/L			2742152	2598295	0
[	Th	232	7.140	ug/L	0.045	0	5672	342077	0
[	U	238	1.468	ug/L	0.023	1	50	74758	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 19:16:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

Pb Ag Pb Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1906934	1
	Be	9	27.352	ug/L	0.775	2	22	136628	1
	C	13		ug/L			143235	192634	1
	Cl	37		ug/L			4954439	5230201	3
>	Sc	45		ug/L			1218098	1424954	1
	V	51	74.392	ug/L	3.775	5	9170	2095061	4
	V-1	51	75.198	ug/L	3.576	4	105	2084531	4
	Cr	52	51.987	ug/L	1.087	2	27160	1264594	1
	Cr	53	53.922	ug/L	1.193	2	170	139531	1
	Mn	55	720.219	ug/L	7.644	1	674	23205095	0
	Co	59	31.360	ug/L	0.623	1	88	730220	1
>	Ge	72		ug/L			652831	633359	1
	Ni	60	51.445	ug/L	1.303	2	35	208643	1
	Ni	62	54.083	ug/L	1.590	2	471	31172	2
	Cu	63	61.010	ug/L	0.527	0	514	550737	1
	Cu	65	60.993	ug/L	1.951	3	55	248659	2
	Zn	66	394.792	ug/L	8.761	2	255	987549	1
	Zn	67	374.651	ug/L	3.197	0	38	155912	1
	Zn	68	392.168	ug/L	4.597	1	241	708605	2
	As	75	51.238	ug/L	1.298	2	310	111412	1
	As-1	75	50.030	ug/L	0.857	1	9967	119313	0
	Se	82	85.504	ug/L	1.973	2	4	20285	1
	Se	78	80.656	ug/L	0.633	0	10138	60332	0
	Mo	98	24.399	ug/L	0.514	2	31	119587	1
	Y	89		ug/L			399449	593908	0
	Kr	83		ug/L			635	1186	2
>	In	115		ug/L			965468	1027107	0
	Ag	107	23.043	ug/L	0.272	1	54	281300	1
	Cd	111	30.951	ug/L	0.276	0	102	154372	1
	Cd	114	31.097	ug/L	0.124	0	36	392239	0
	Sb	121	1.911	ug/L	0.010	0	768	29027	0
	Sb	123	1.929	ug/L	0.011	0	575	22174	0
	Ba	135	224.481	ug/L	1.200	0	23	991477	0
	Ba	137	223.659	ug/L	2.113	0	42	1712294	0
>	Tb	159		ug/L			1098939	1099367	0
	Tl	205	23.969	ug/L	0.333	1	811	911469	0
	Pb	208	633.145	ug/L	4.477	0	507	30496814	0
	Bi	209		ug/L			2742152	2610277	0
	Th	232	22.964	ug/L	0.319	1	5672	1089141	0
	U	238	24.476	ug/L	0.353	1	50	1247059	1

VS21 : 00400

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 APOST SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 19:20:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1976047	1
[	Be	9	26.450	ug/L	0.402	1	22	136941	1
	C	13		ug/L			143235	201087	1
	Cl	37		ug/L			4954439	5278858	4
[>	Sc	45		ug/L			1218098	1434206	1
[	V	51	76.540	ug/L	1.445	1	9170	2169251	0
[	V-1	51	77.223	ug/L	1.248	1	105	2154648	0
[	Cr	52	54.916	ug/L	0.485	0	27160	1342832	1
[	Cr	53	56.457	ug/L	0.717	1	170	147070	2
[	Mn	55	724.403	ug/L	0.851	0	674	23492221	1
[	Co	59	30.279	ug/L	0.169	0	88	709719	1
[>	Ge	72		ug/L			652831	650298	1
[	Ni	60	49.326	ug/L	0.807	1	35	205454	2
[	Ni	62	51.425	ug/L	0.918	1	471	30459	1
[	Cu	63	58.586	ug/L	0.788	1	514	542984	1
[	Cu	65	59.500	ug/L	0.946	1	55	249087	0
[	Zn	66	365.885	ug/L	3.300	0	255	939839	1
[	Zn	67	352.607	ug/L	4.232	1	38	150651	0
[	Zn	68	361.707	ug/L	11.151	3	241	670866	2
[	As	75	49.057	ug/L	0.369	0	310	109553	1
[	As-1	75	47.803	ug/L	0.285	0	9967	117506	1
[	Se	82	85.005	ug/L	1.578	1	4	20708	1
[	Se	78	79.959	ug/L	0.831	1	10138	61496	0
[	Mo	98	26.199	ug/L	0.788	3	31	131826	1
	Y	89		ug/L			399449	606649	0
	Kr	83		ug/L			635	1234	3
[>	In	115		ug/L			965468	1017724	0
[	Ag	107	26.394	ug/L	0.605	2	54	319240	1
[	Cd	111	30.956	ug/L	0.055	0	102	152987	0
[	Cd	114	30.521	ug/L	0.408	1	36	381445	0
[	Sb	121	23.070	ug/L	0.169	0	768	338332	0
[	Sb	123	22.933	ug/L	0.472	2	575	254573	1
[	Ba	135	222.207	ug/L	1.067	0	23	972471	0
[	Ba	137	223.103	ug/L	3.736	1	42	1692377	1
[>	Tb	159		ug/L			1098939	1105565	1
[	Tl	205	24.180	ug/L	0.456	1	811	924571	0
[	Pb	208	600.495	ug/L	9.807	1	507	29084017	0
[	Bi	209		ug/L			2742152	2608751	0
[	Th	232	27.920	ug/L	0.700	2	5672	1330200	1
[	U	238	24.607	ug/L	0.547	2	50	1260612	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 19:24:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1969371	1
[	Be	9	0.484	ug/L	0.010	1	22	2523	1
	C	13		ug/L			143235	322196	3
	Cl	37		ug/L			4954439	5655237	1
[>	Sc	45		ug/L			1218098	1380785	0
[	V	51	9.213	ug/L	0.052	0	9170	260565	0
[	V-1	51	9.292	ug/L	0.043	0	105	249734	0
[	Cr	52	6.921	ug/L	0.136	1	27160	189846	1
[	Cr	53	7.106	ug/L	0.209	2	170	17988	2
[	Mn	55	1516.752	ug/L	11.883	0	674	47355586	0
[	Co	59	3.485	ug/L	0.022	0	88	78741	0
[>	Ge	72		ug/L			652831	647693	2
[	Ni	60	6.486	ug/L	0.161	2	35	26927	0
[	Ni	62	7.006	ug/L	0.415	5	471	4535	4
[	Cu	63	42.798	ug/L	0.545	1	514	395195	1
[	Cu	65	43.927	ug/L	1.859	4	55	183108	2
[	Zn	66	1107.092	ug/L	56.777	5	255	2829826	3
[	Zn	67	947.611	ug/L	22.671	2	38	403087	0
[	Zn	68	994.561	ug/L	15.435	1	241	1836789	0
[	As	75	23.554	ug/L	0.293	1	310	52542	1
[	As-1	75	23.302	ug/L	0.433	1	9967	62106	0
[	Se	82	1.189	ug/L	0.019	1	4	292	0
[	Se	78	1.325	ug/L	0.500	37	10138	10902	1
[	Mo	98	0.692	ug/L	0.036	5	31	3497	3
	Y	89		ug/L			399449	501981	0
	Kr	83		ug/L			635	794	4
[>	In	115		ug/L			965468	1292849	1
[	Ag	107	1.200	ug/L	0.025	2	54	18499	1
[	Cd	111	13.840	ug/L	0.283	2	102	86954	1
[	Cd	114	13.535	ug/L	0.167	1	36	214912	0
[	Sb	121	15.160	ug/L	0.124	0	768	282765	0
[	Sb	123	15.296	ug/L	0.181	1	575	215947	0
[	Ba	135	778.258	ug/L	3.139	0	23	4326571	0
[	Ba	137	766.676	ug/L	4.656	0	42	7387830	0
[>	Tb	159		ug/L			1098939	1101524	0
[	Tl	205	0.794	ug/L	0.009	1	811	31042	1
[	Pb	208	1672.609	ug/L	17.973	1	507	80721127	0
[	Bi	209		ug/L			2742152	2727256	1
[	Th	232	1.319	ug/L	0.050	3	5672	68042	3
[	U	238	0.467	ug/L	0.003	0	50	23869	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 19:29:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1947865	0
[	Be	9	0.508	ug/L	0.005	1	22	2615	0
	C	13		ug/L			143235	189437	3
	Cl	37		ug/L			4954439	5008480	1
[>	Sc	45		ug/L			1218098	1389142	1
|	V	51	33.104	ug/L	0.634	1	9170	914638	0
|	V-1	51	33.533	ug/L	0.622	1	105	906257	1
|	Cr	52	25.371	ug/L	0.781	3	27160	617357	1
|	Cr	53	26.556	ug/L	0.642	2	170	67081	1
|	Mn	55	733.409	ug/L	2.724	0	674	23037916	2
[	Co	59	8.208	ug/L	0.099	1	88	186413	2
[>	Ge	72		ug/L			652831	627728	0
|	Ni	60	20.522	ug/L	0.350	1	35	82520	0
|	Ni	62	21.648	ug/L	0.512	2	471	12639	2
|	Cu	63	25.906	ug/L	0.356	1	514	232060	1
|	Cu	65	26.489	ug/L	0.255	0	55	107094	1
|	Zn	66	283.664	ug/L	7.950	2	255	703327	2
|	Zn	67	282.611	ug/L	3.421	1	38	116572	1
|	Zn	68	285.001	ug/L	7.686	2	241	510314	1
|	As	75	19.938	ug/L	0.492	2	310	43153	1
|	As-1	75	19.786	ug/L	0.509	2	9967	52560	1
|	Se	82	-0.055	ug/L	0.076	137	4	-8	208
|	Se	78	0.703	ug/L	0.112	15	10138	10184	0
[	Mo	98	0.458	ug/L	0.013	2	31	2256	1
	Y	89		ug/L			399449	538678	1
	Kr	83		ug/L			635	1051	6
[>	In	115		ug/L			965468	971816	0
|	Ag	107	0.293	ug/L	0.007	2	54	3442	1
|	Cd	111	5.088	ug/L	0.114	2	102	24094	1
|	Cd	114	4.911	ug/L	0.085	1	36	58639	0
|	Sb	121	0.171	ug/L	0.006	3	768	3165	3
|	Sb	123	0.178	ug/L	0.003	1	575	2465	0
|	Ba	135	284.048	ug/L	1.869	0	23	1186995	0
[	Ba	137	313.389	ug/L	4.487	1	42	2269926	0
[>	Tb	159		ug/L			1098939	1086735	0
|	Tl	205	0.258	ug/L	0.008	3	811	10493	2
|	Pb	208	205.778	ug/L	4.100	1	507	9798533	2
|	Bi	209		ug/L			2742152	2591338	0
|	Th	232	3.566	ug/L	0.026	0	5672	171947	0
[	U	238	0.488	ug/L	0.006	1	50	24622	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 19:33:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1941039	1
[	Be	9	0.513	ug/L	0.011	2	22	2630	0
	C	13		ug/L			143235	208334	2
	Cl	37		ug/L			4954439	5213087	1
[>	Sc	45		ug/L			1218098	1406333	2
[	V	51	27.202	ug/L	0.360	1	9170	762849	1
[	V-1	51	27.434	ug/L	0.245	0	105	750705	1
[	Cr	52	18.989	ug/L	0.498	2	27160	475692	1
[	Cr	53	19.480	ug/L	0.369	1	170	49869	0
[	Mn	55	1725.342	ug/L	46.939	2	674	54845510	1
[	Co	59	7.626	ug/L	0.249	3	88	175265	1
[>	Ge	72		ug/L			652831	628220	1
[	Ni	60	20.710	ug/L	0.274	1	35	83340	0
[	Ni	62	21.218	ug/L	0.444	2	471	12406	0
[	Cu	63	40.364	ug/L	0.572	1	514	361557	1
[	Cu	65	39.889	ug/L	1.358	3	55	161326	2
[	Zn	66	695.243	ug/L	12.688	1	255	1724760	0
[	Zn	67	664.069	ug/L	19.586	2	38	274034	2
[	Zn	68	699.239	ug/L	3.681	0	241	1252840	0
[	As	75	35.007	ug/L	0.394	1	310	75604	0
[	As-1	75	34.685	ug/L	0.463	1	9967	84991	0
[	Se	82	0.233	ug/L	0.045	19	4	59	17
[	Se	78	0.870	ug/L	0.286	32	10138	10295	0
[	Mo	98	0.570	ug/L	0.025	4	31	2803	4
	Y	89		ug/L			399449	535722	1
	Kr	83		ug/L			635	998	2
[>	In	115		ug/L			965468	1037021	0
[	Ag	107	0.675	ug/L	0.009	1	54	8381	1
[	Cd	111	14.385	ug/L	0.038	0	102	72497	0
[	Cd	114	13.932	ug/L	0.145	1	36	177447	0
[	Sb	121	0.864	ug/L	0.013	1	768	13707	1
[	Sb	123	0.873	ug/L	0.006	0	575	10471	0
[	Ba	135	578.187	ug/L	5.288	0	23	2578395	1
[	Ba	137	568.260	ug/L	5.831	1	42	4392365	0
[>	Tb	159		ug/L			1098939	1096588	0
[	Tl	205	0.494	ug/L	0.009	1	811	19539	1
[	Pb	208	846.470	ug/L	1.678	0	507	40669910	0
[	Bi	209		ug/L			2742152	2628537	1
[	Th	232	3.077	ug/L	0.011	0	5672	150477	0
[	U	238	0.389	ug/L	0.002	0	50	19815	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV9
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 19:38:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1854149	3
	Be	9	52.250	ug/L	2.390	4	22	253568	1
	C	13		ug/L			143235	152569	0
	Cl	37		ug/L			4954439	5343739	2
>	Sc	45		ug/L			1218098	1273616	3
	V	51	46.259	ug/L	2.536	5	9170	1166901	2
	V-1	51	46.865	ug/L	2.175	4	105	1160243	1
	Cr	52	46.793	ug/L	1.622	3	27160	1019643	0
	Cr	53	48.891	ug/L	0.758	1	170	113090	2
	Mn	55	46.652	ug/L	0.281	0	674	1344019	2
	Co	59	46.834	ug/L	0.780	1	88	974458	1
>	Ge	72		ug/L			652831	622404	2
	Ni	60	50.286	ug/L	0.611	1	35	200424	1
	Ni	62	50.463	ug/L	1.031	2	471	28613	1
	Cu	63	50.579	ug/L	1.740	3	514	448541	1
	Cu	65	50.065	ug/L	0.813	1	55	200588	0
	Zn	66	51.253	ug/L	0.568	1	255	126211	2
	Zn	67	50.764	ug/L	0.642	1	38	20788	1
	Zn	68	51.301	ug/L	0.810	1	241	91263	0
	As	75	50.998	ug/L	1.246	2	310	108959	0
	As-1	75	50.279	ug/L	1.125	2	9967	117764	0
	Se	82	53.946	ug/L	1.635	3	4	12576	1
	Se	78	51.426	ug/L	1.162	2	10138	41296	0
	Mo	98	53.261	ug/L	2.022	3	31	256411	2
	Y	89		ug/L			399449	404604	1
	Kr	83		ug/L			635	733	2
>	In	115		ug/L			965468	934331	2
	Ag	107	56.271	ug/L	0.472	0	54	624739	1
	Cd	111	51.968	ug/L	1.568	3	102	235612	0
	Cd	114	50.973	ug/L	1.505	2	36	584621	1
	Sb	121	51.114	ug/L	1.152	2	768	687046	0
	Sb	123	51.206	ug/L	1.174	2	575	521011	0
	Ba	135	48.967	ug/L	0.694	1	23	196719	0
	Ba	137	49.286	ug/L	1.054	2	42	343186	1
>	Tb	159		ug/L			1098939	1065198	1
	Tl	205	46.792	ug/L	0.695	1	811	1723117	0
	Pb	208	48.046	ug/L	0.553	1	507	2242602	0
	Bi	209		ug/L			2742152	2589401	0
	Th	232	52.020	ug/L	0.792	1	5672	2383292	0
	U	238	52.765	ug/L	1.058	2	50	2604385	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB9
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 19:44:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1766731	1849095	0
[	**Be**	**9**	**-0.001**	ug/L	0.000	37	22	18	11
	C	**13**		ug/L			143235	154509	4
	Cl	**37**		ug/L			4954439	5084244	1
[>	**Sc**	**45**		ug/L			1218098	1242155	1
[	**V**	**51**	**-0.019**	ug/L	0.005	23	9170	8887	0
[	**V-1**	**51**	**-0.002**	ug/L	0.000	10	105	56	9
[	**Cr**	**52**	**-0.067**	ug/L	0.015	22	27160	26307	0
[	**Cr**	**53**	**-0.011**	ug/L	0.004	33	170	148	5
[	**Mn**	**55**	**0.002**	ug/L	0.001	51	674	731	1
[	**Co**	**59**	**-0.000**	ug/L	0.000	191	88	86	8
[>	**Ge**	**72**		ug/L			652831	618477	1
[	**Ni**	**60**	**0.003**	ug/L	0.001	21	35	45	5
[	**Ni**	**62**	**0.629**	ug/L	0.015	2	471	97	10
[	**Cu**	**63**	**-0.041**	ug/L	0.001	2	514	128	7
[	**Cu**	**65**	**-0.001**	ug/L	0.001	87	55	49	7
[	**Zn**	**66**	**-0.028**	ug/L	0.002	7	255	173	3
[	**Zn**	**67**	**-0.026**	ug/L	0.012	45	38	26	20
[	**Zn**	**68**	**-0.022**	ug/L	0.006	28	241	190	4
[	**As**	**75**	**0.032**	ug/L	0.011	35	310	362	7
[	**As-1**	**75**	**0.261**	ug/L	0.078	29	9967	10000	0
[	**Se**	**82**	**-0.031**	ug/L	0.013	42	4	-2	104
[	**Se**	**78**	**0.903**	ug/L	0.293	32	10138	10155	0
[	**Mo**	**98**	**0.004**	ug/L	0.000	3	31	51	2
	Y	**89**		ug/L			399449	393555	0
	Kr	**83**		ug/L			635	706	2
[>	**In**	**115**		ug/L			965468	927806	0
[	**Ag**	**107**	**-0.001**	ug/L	0.000	16	54	35	7
[	**Cd**	**111**	**-0.003**	ug/L	0.001	22	102	85	2
[	**Cd**	**114**	**0.001**	ug/L	0.001	111	36	48	30
[	**Sb**	**121**	**0.011**	ug/L	0.006	54	768	884	9
[	**Sb**	**123**	**0.012**	ug/L	0.007	60	575	672	11
[	**Ba**	**135**	**0.001**	ug/L	0.001	113	23	26	17
[	**Ba**	**137**	**0.001**	ug/L	0.001	60	42	50	11
[>	**Tb**	**159**		ug/L			1098939	1031049	0
[	**Tl**	**205**	**-0.018**	ug/L	0.000	2	811	128	9
[	**Pb**	**208**	**0.002**	ug/L	0.001	64	507	566	10
[	**Bi**	**209**		ug/L			2742152	2621348	0
[	**Th**	**232**	**0.019**	ug/L	0.016	81	5672	6164	10
[	**U**	**238**	**0.001**	ug/L	0.000	16	50	103	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR88 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Tuesday, November 27, 2012 19:49:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1940812	0
[	Be	9	24.345	ug/L	0.411	1	22	123804	1
	C	13		ug/L			143235	172025	0
	Cl	37		ug/L			4954439	5102306	2
[>	Sc	45		ug/L			1218098	1298101	2
|	V	51	23.325	ug/L	0.568	2	9170	605020	0
|	V-1	51	23.599	ug/L	0.534	2	105	595936	0
|	Cr	52	23.604	ug/L	0.621	2	27160	538757	0
|	Cr	53	24.556	ug/L	0.546	2	170	57974	0
|	Mn	55	23.859	ug/L	0.219	0	674	700930	1
[	Co	59	23.608	ug/L	0.226	0	88	500903	2
[>	Ge	72		ug/L			652831	634301	0
|	Ni	60	26.057	ug/L	0.472	1	35	105884	2
|	Ni	62	25.562	ug/L	0.436	1	471	14998	0
|	Cu	63	26.127	ug/L	0.126	0	514	236493	1
|	Cu	65	26.109	ug/L	0.461	1	55	106668	2
|	Zn	66	80.626	ug/L	1.194	1	255	202193	1
|	Zn	67	74.641	ug/L	1.400	1	38	31141	2
|	Zn	68	77.805	ug/L	1.502	1	241	140954	1
|	As	75	25.257	ug/L	0.676	2	310	55174	3
|	As-1	75	24.699	ug/L	0.387	1	9967	63906	2
|	Se	82	80.945	ug/L	0.887	1	4	19237	2
|	Se	78	77.012	ug/L	0.288	0	10138	58138	0
[	Mo	98	25.568	ug/L	0.318	1	31	125528	2
	Y	89		ug/L			399449	408901	0
	Kr	83		ug/L			635	730	2
[>	In	115		ug/L			965468	952372	1
|	Ag	107	25.870	ug/L	0.440	1	54	292795	1
|	Cd	111	24.795	ug/L	0.120	0	102	114690	1
|	Cd	114	24.393	ug/L	0.166	0	36	285287	0
|	Sb	121	24.107	ug/L	0.206	0	768	330771	0
|	Sb	123	24.328	ug/L	0.319	1	575	252677	0
|	Ba	135	24.511	ug/L	0.066	0	23	100401	1
[	Ba	137	24.225	ug/L	0.374	1	42	171980	0
[>	Tb	159		ug/L			1098939	1072215	0
|	Tl	205	24.017	ug/L	0.185	0	811	890757	0
|	Pb	208	24.704	ug/L	0.226	0	507	1161015	0
|	Bi	209		ug/L			2742152	2697960	0
|	Th	232	22.674	ug/L	0.275	1	5672	1048900	0
[	U	238	22.837	ug/L	0.388	1	50	1134811	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR88 J REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Tuesday, November 27, 2012 19:53:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1878477	1
[	Be	9	0.041	ug/L	0.005	11	22	227	9
	C	13		ug/L			143235	159321	3
	Cl	37		ug/L			4954439	6342466	0
[>	Sc	45		ug/L			1218098	1316001	1
[	V	51	22.807	ug/L	0.263	1	9170	600121	0
[	V-1	51	23.170	ug/L	0.316	1	105	593318	0
[	Cr	52	4.478	ug/L	0.135	3	27160	127438	3
[	Cr	53	5.045	ug/L	0.073	1	170	12224	0
[	Mn	55	108.479	ug/L	1.384	1	674	3228400	0
[	Co	59	0.162	ug/L	0.007	4	88	3585	4
[>	Ge	72		ug/L			652831	611174	1
[	Ni	60	0.289	ug/L	0.009	3	35	1163	2
[	Ni	62	68.238	ug/L	32.687	47	471	37978	48
[	Cu	63	8.327	ug/L	2.592	31	514	73117	31
[	Cu	65	0.917	ug/L	0.187	20	55	3663	21
[	Zn	66	1.148	ug/L	0.048	4	255	3007	3
[	Zn	67	1.919	ug/L	0.082	4	38	806	4
[	Zn	68	1.839	ug/L	0.115	6	241	3429	5
[	As	75	0.176	ug/L	0.012	6	310	660	4
[	As-1	75	0.537	ug/L	0.018	3	9967	10467	1
[	Se	82	0.027	ug/L	0.013	48	4	10	28
[	Se	78	1.493	ug/L	0.065	4	10138	10393	1
[	Mo	98	0.084	ug/L	0.005	6	31	427	6
	Y	89		ug/L			399449	435546	0
	Kr	83		ug/L			635	750	2
[>	In	115		ug/L			965468	908019	0
[	Ag	107	0.008	ug/L	0.003	30	54	140	19
[	Cd	111	0.026	ug/L	0.005	19	102	210	10
[	Cd	114	0.004	ug/L	0.001	32	36	75	17
[	Sb	121	-0.008	ug/L	0.005	63	768	615	11
[	Sb	123	-0.007	ug/L	0.007	97	575	469	15
[	Ba	135	2.299	ug/L	0.024	1	23	8997	1
[	Ba	137	2.266	ug/L	0.022	0	42	15379	1
[>	Tb	159		ug/L			1098939	1064605	0
[	Tl	205	-0.005	ug/L	0.002	36	811	584	12
[	Pb	208	0.070	ug/L	0.001	0	507	3766	0
[	Bi	209		ug/L			2742152	2418439	0
[	Th	232	0.259	ug/L	0.035	13	5672	17328	9
[	U	238	0.043	ug/L	0.001	2	50	2175	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 19:57:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1872130	2
[	Be	9	0.509	ug/L	0.014	2	22	2521	1
	C	13		ug/L			143235	191550	2
	Cl	37		ug/L			4954439	5138917	1
[>	Sc	45		ug/L			1218098	1363490	2
[	V	51	30.079	ug/L	0.240	0	9170	816875	2
[	V-1	51	30.471	ug/L	0.227	0	105	808465	2
[	Cr	52	18.079	ug/L	0.198	1	27160	440633	1
[	Cr	53	18.979	ug/L	0.543	2	170	47102	0
[	Mn	55	1381.655	ug/L	36.260	2	674	42586579	2
[	Co	59	7.804	ug/L	0.269	3	88	173898	1
[>	Ge	72		ug/L			652831	631355	1
[	Ni	60	18.048	ug/L	0.263	1	35	72995	0
[	Ni	62	21.723	ug/L	1.145	5	471	12759	5
[	Cu	63	20.916	ug/L	0.465	2	514	188504	1
[	Cu	65	21.241	ug/L	0.525	2	55	86363	1
[	Zn	66	432.495	ug/L	7.831	1	255	1078384	0
[	Zn	67	421.072	ug/L	7.247	1	38	174651	0
[	Zn	68	432.280	ug/L	14.170	3	241	778310	2
[	As	75	23.834	ug/L	0.294	1	310	51828	0
[	As-1	75	23.656	ug/L	0.343	1	9967	61321	0
[	Se	82	0.040	ug/L	0.057	140	4	14	96
[	Se	78	0.726	ug/L	0.176	24	10138	10257	0
[	Mo	98	0.459	ug/L	0.017	3	31	2275	4
	Y	89		ug/L			399449	525344	3
	Kr	83		ug/L			635	962	2
[>	In	115		ug/L			965468	979550	1
[	Ag	107	0.381	ug/L	0.012	3	54	4493	1
[	Cd	111	6.635	ug/L	0.101	1	102	31638	1
[	Cd	114	6.404	ug/L	0.068	1	36	77057	0
[	Sb	121	0.320	ug/L	0.005	1	768	5292	0
[	Sb	123	0.322	ug/L	0.006	1	575	4021	0
[	Ba	135	411.184	ug/L	5.778	1	23	1731866	0
[	Ba	137	450.611	ug/L	9.509	2	42	3289545	0
[>	Tb	159		ug/L			1098939	1104547	0
[	Tl	205	0.293	ug/L	0.003	1	811	12018	0
[	Pb	208	222.983	ug/L	0.680	0	507	10791787	0
[	Bi	209		ug/L			2742152	2635766	0
[	Th	232	3.188	ug/L	0.008	0	5672	156830	0
[	U	238	0.370	ug/L	0.006	1	50	18970	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 20:01:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1907649	1
[	Be	9	0.582	ug/L	0.016	2	22	2933	1
	C	13		ug/L			143235	185630	2
	Cl	37		ug/L			4954439	5175658	1
[>	Sc	45		ug/L			1218098	1395864	1
[	V	51	33.457	ug/L	0.918	2	9170	928638	0
[	V-1	51	33.842	ug/L	0.867	2	105	918923	0
[	Cr	52	19.638	ug/L	0.716	3	27160	487177	1
[	Cr	53	20.447	ug/L	0.528	2	170	51944	0
[	Mn	55	703.572	ug/L	10.018	1	674	22203430	0
[	Co	59	8.206	ug/L	0.126	1	88	187238	0
[>	Ge	72		ug/L			652831	621679	0
[	Ni	60	22.693	ug/L	0.028	0	35	90374	0
[	Ni	62	25.290	ug/L	0.762	3	471	14549	2
[	Cu	63	23.010	ug/L	0.366	1	514	204175	1
[	Cu	65	23.353	ug/L	0.368	1	55	93501	1
[	Zn	66	120.707	ug/L	2.856	2	255	296537	1
[	Zn	67	132.213	ug/L	0.808	0	38	54030	0
[	Zn	68	126.762	ug/L	2.169	1	241	224938	1
[	As	75	16.174	ug/L	0.162	1	310	34730	1
[	As-1	75	16.061	ug/L	0.139	0	9967	44046	1
[	Se	82	-0.246	ug/L	0.050	20	4	-53	22
[	Se	78	0.665	ug/L	0.065	9	10138	10062	0
[	Mo	98	0.353	ug/L	0.004	0	31	1728	0
	Y	89		ug/L			399449	558663	2
	Kr	83		ug/L			635	1155	4
[>	In	115		ug/L			965468	942073	2
[	Ag	107	0.223	ug/L	0.036	16	54	2543	13
[	Cd	111	0.785	ug/L	0.011	1	102	3688	3
[	Cd	114	0.583	ug/L	0.013	2	36	6775	0
[	Sb	121	0.053	ug/L	0.003	6	768	1463	2
[	Sb	123	0.053	ug/L	0.005	10	575	1105	2
[	Ba	135	275.908	ug/L	6.517	2	23	1117393	1
[	Ba	137	274.929	ug/L	9.754	3	42	1929545	1
[>	Tb	159		ug/L			1098939	1097800	1
[	Tl	205	0.178	ug/L	0.005	2	811	7578	1
[	Pb	208	18.377	ug/L	0.272	1	507	884343	0
[	Bi	209		ug/L			2742152	2596787	1
[	Th	232	3.902	ug/L	0.050	1	5672	189486	0
[	U	238	0.513	ug/L	0.013	2	50	26167	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 20:05:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

Del

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1944304	1
[	Be	9	0.538	ug/L	0.008	1	22	2763	2
	C	13		ug/L			143235	174724	1
	Cl	37		ug/L			4954439	5226526	1
[>	Sc	45		ug/L			1218098	1429824	1
	V	51	38.893	ug/L	0.835	2	9170	1104086	0
	V-1	51	39.365	ug/L	0.914	2	105	1094851	0
	Cr	52	20.021	ug/L	0.298	1	27160	508257	0
	Cr	53	20.939	ug/L	0.634	3	170	54479	1
	Mn	55	391.802	ug/L	3.162	0	674	12666464	1
[	Co	59	8.174	ug/L	0.219	2	88	191019	1
[>	Ge	72		ug/L			652831	623579	1
	Ni	60	20.209	ug/L	0.511	2	35	80722	2
	Ni	62	22.691	ug/L	0.712	3	471	13138	2
	Cu	63	29.428	ug/L	0.880	2	514	261745	1
	Cu	65	29.611	ug/L	0.559	1	55	118896	1
	Zn	66	63.255	ug/L	1.371	2	255	156004	2
	Zn	67	72.070	ug/L	0.901	1	38	29558	1
	Zn	68	68.250	ug/L	0.828	1	241	121605	2
	As	75	5.895	ug/L	0.053	0	310	12883	0
	As-1	75	5.871	ug/L	0.163	2	9967	22187	0
	Se	82	-0.129	ug/L	0.145	112	4	-25	131
	Se	78	0.630	ug/L	0.369	58	10138	10071	1
[	Mo	98	0.312	ug/L	0.002	0	31	1533	1
	Y	89		ug/L			399449	641015	2
	Kr	83		ug/L			635	1092	3
[>	In	115		ug/L			965468	950648	0
	Ag	107	0.239	ug/L	0.008	3	54	2750	3
	Cd	111	0.408	ug/L	0.011	2	102	1982	2
	Cd	114	0.214	ug/L	0.000	0	36	2536	0
	Sb	121	-0.009	ug/L	0.002	22	768	635	4
	Sb	123	-0.005	ug/L	0.001	14	575	512	2
	Ba	135	154.894	ug/L	2.900	1	23	633171	1
[	Ba	137	153.997	ug/L	1.727	1	42	1091219	1
[>	Tb	159		ug/L			1098939	1110184	0
	Tl	205	0.140	ug/L	0.002	1	811	6181	0
	Pb	208	7.437	ug/L	0.082	1	507	362217	0
	Bi	209		ug/L			2742152	2606377	0
	Th	232	4.101	ug/L	0.057	1	5672	201113	0
[	U	238	0.696	ug/L	0.011	1	50	35845	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 20:09:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1905311	0
[	Be	9	0.490	ug/L	0.011	2	22	2470	2
	C	13		ug/L			143235	171505	1
	Cl	37		ug/L			4954439	5230158	4
[>	Sc	45		ug/L			1218098	1412359	1
[	V	51	41.932	ug/L	0.253	0	9170	1175276	1
[	V-1	51	42.500	ug/L	0.211	0	105	1167941	1
[	Cr	52	21.652	ug/L	0.531	2	27160	540331	0
[	Cr	53	22.848	ug/L	0.404	1	170	58711	0
[	Mn	55	324.080	ug/L	13.230	4	674	10345470	2
[	Co	59	8.285	ug/L	0.203	2	88	191273	1
[>	Ge	72		ug/L			652831	629321	0
[	Ni	60	19.984	ug/L	0.276	1	35	80567	1
[	Ni	62	22.346	ug/L	0.575	2	471	13066	2
[	Cu	63	30.287	ug/L	0.319	1	514	271908	1
[	Cu	65	30.753	ug/L	0.633	2	55	124634	1
[	Zn	66	54.617	ug/L	0.687	1	255	135979	1
[	Zn	67	60.785	ug/L	0.663	1	38	25165	0
[	Zn	68	57.842	ug/L	1.347	2	241	104034	2
[	As	75	6.060	ug/L	0.092	1	310	13359	1
[	As-1	75	6.007	ug/L	0.118	1	9967	22691	1
[	Se	82	-0.084	ug/L	0.014	16	4	-15	21
[	Se	78	0.457	ug/L	0.148	32	10138	10057	0
[	Mo	98	0.367	ug/L	0.005	1	31	1819	1
	Y	89		ug/L			399449	610510	2
	Kr	83		ug/L			635	1007	4
[>	In	115		ug/L			965468	945749	0
[	Ag	107	0.237	ug/L	0.002	0	54	2718	0
[	Cd	111	0.325	ug/L	0.031	9	102	1592	9
[	Cd	114	0.142	ug/L	0.004	2	36	1689	2
[	Sb	121	-0.026	ug/L	0.001	4	768	396	4
[	Sb	123	-0.027	ug/L	0.001	5	575	290	5
[	Ba	135	126.184	ug/L	0.726	0	23	513181	0
[	Ba	137	125.946	ug/L	0.709	0	42	887880	0
[>	Tb	159		ug/L			1098939	1104317	0
[	Tl	205	0.142	ug/L	0.001	0	811	6218	0
[	Pb	208	6.880	ug/L	0.041	0	507	333389	0
[	Bi	209		ug/L			2742152	2590022	0
[	Th	232	4.715	ug/L	0.047	0	5672	229159	0
[	U	238	0.750	ug/L	0.004	0	50	38439	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 20:13:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1920278	3
[	Be	9	0.955	ug/L	0.022	2	22	4825	1
	C	13		ug/L			143235	227754	1
	Cl	37		ug/L			4954439	5310531	0
[>	Sc	45		ug/L			1218098	1394905	1
|	V	51	28.887	ug/L	0.519	1	9170	802789	0
|	V-1	51	29.300	ug/L	0.799	2	105	795058	1
|	Cr	52	28.472	ug/L	0.387	1	27160	692216	2
|	Cr	53	29.871	ug/L	0.592	1	170	75748	0
|	Mn	55	2721.538	ug/L	44.062	1	674	85826779	0
[	Co	59	11.916	ug/L	0.320	2	88	271642	1
[>	Ge	72		ug/L			652831	629541	1
|	Ni	60	36.463	ug/L	0.602	1	35	147000	0
|	Ni	62	38.072	ug/L	1.193	3	471	21943	1
|	Cu	63	39.860	ug/L	1.629	4	514	357667	2
|	Cu	65	40.666	ug/L	1.283	3	55	164785	1
|	Zn	66	750.979	ug/L	9.682	1	255	1867115	1
|	Zn	67	706.432	ug/L	8.814	1	38	292205	2
|	Zn	68	738.245	ug/L	19.629	2	241	1325188	1
|	As	75	31.274	ug/L	0.778	2	310	67703	1
|	As-1	75	30.934	ug/L	0.822	2	9967	76987	0
|	Se	82	0.555	ug/L	0.041	7	4	135	6
|	Se	78	1.134	ug/L	0.354	31	10138	10480	0
[	Mo	98	1.177	ug/L	0.062	5	31	5760	4
	Y	89		ug/L			399449	635664	1
	Kr	83		ug/L			635	1119	4
[>	In	115		ug/L			965468	1016423	0
|	Ag	107	0.488	ug/L	0.015	3	54	5946	2
|	Cd	111	16.025	ug/L	0.120	0	102	79148	0
|	Cd	114	15.688	ug/L	0.057	0	36	195845	0
|	Sb	121	0.891	ug/L	0.016	1	768	13822	1
|	Sb	123	0.885	ug/L	0.009	1	575	10391	1
|	Ba	135	409.788	ug/L	1.633	0	23	1791105	0
[	Ba	137	449.317	ug/L	1.922	0	42	3404083	0
[>	Tb	159		ug/L			1098939	1096967	1
|	Tl	205	0.562	ug/L	0.009	1	811	22111	0
|	Pb	208	709.779	ug/L	12.951	1	507	34109183	0
|	Bi	209		ug/L			2742152	2606769	0
|	Th	232	4.190	ug/L	0.073	1	5672	202906	0
[	U	238	0.606	ug/L	0.012	1	50	30831	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 20:17:57
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1941367	1
[	Be	9	1.258	ug/L	0.031	2	22	6420	2
	C	13		ug/L			143235	197868	0
	Cl	37		ug/L			4954439	5263898	1
[>	Sc	45		ug/L			1218098	1435933	0
[	V	51	41.354	ug/L	0.788	1	9170	1178598	2
[	V-1	51	41.894	ug/L	1.113	2	105	1170578	2
[	Cr	52	32.196	ug/L	0.923	2	27160	801412	2
[	Cr	53	33.711	ug/L	0.428	1	170	87994	1
[	Mn	55	1464.941	ug/L	50.265	3	674	47556888	2
[	Co	59	17.393	ug/L	0.197	1	88	408238	1
[>	Ge	72		ug/L			652831	620116	0
[	Ni	60	73.295	ug/L	1.556	2	35	291052	1
[	Ni	62	77.451	ug/L	0.871	1	471	43526	2
[	Cu	63	51.088	ug/L	0.513	1	514	451617	1
[	Cu	65	52.009	ug/L	0.786	1	55	207639	0
[	Zn	66	425.116	ug/L	10.292	2	255	1041128	1
[	Zn	67	411.378	ug/L	11.898	2	38	167586	2
[	Zn	68	418.739	ug/L	10.556	2	241	740587	1
[	As	75	23.790	ug/L	0.373	1	310	50809	0
[	As-1	75	23.505	ug/L	0.401	1	9967	59906	0
[	Se	82	0.315	ug/L	0.044	13	4	77	12
[	Se	78	1.375	ug/L	0.152	11	10138	10472	0
[	Mo	98	1.345	ug/L	0.042	3	31	6482	3
	Y	89		ug/L			399449	810851	2
	Kr	83		ug/L			635	1530	1
[>	In	115		ug/L			965468	955719	1
[	Ag	107	1.229	ug/L	0.022	1	54	14015	1
[	Cd	111	6.422	ug/L	0.120	1	102	29879	1
[	Cd	114	5.993	ug/L	0.086	1	36	70360	0
[	Sb	121	0.177	ug/L	0.010	5	768	3196	3
[	Sb	123	0.177	ug/L	0.001	0	575	2415	1
[	Ba	135	264.447	ug/L	1.825	0	23	1086783	1
[	Ba	137	264.834	ug/L	3.939	1	42	1886359	0
[>	Tb	159		ug/L			1098939	1100070	0
[	Tl	205	0.336	ug/L	0.003	1	811	13585	0
[	Pb	208	194.628	ug/L	1.669	0	507	9381086	0
[	Bi	209		ug/L			2742152	2499116	0
[	Th	232	5.313	ug/L	0.041	0	5672	256524	0
[	U	238	1.299	ug/L	0.018	1	50	66267	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 20:23:08
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1962488	1
[	Be	9	0.508	ug/L	0.015	2	22	2635	1
	C	13		ug/L			143235	190670	2
	Cl	37		ug/L			4954439	5068365	3
[>	Sc	45		ug/L			1218098	1387244	0
[	V	51	31.920	ug/L	0.543	1	9170	881292	1
[	V-1	51	32.263	ug/L	0.457	1	105	870915	1
[	Cr	52	20.383	ug/L	0.388	1	27160	501559	1
[	Cr	53	21.131	ug/L	0.266	1	170	53357	0
[	Mn	55	1383.797	ug/L	25.102	1	674	43405479	1
[	Co	59	8.558	ug/L	0.060	0	88	194111	1
[>	Ge	72		ug/L			652831	623770	0
[	Ni	60	20.132	ug/L	0.185	0	35	80449	1
[	Ni	62	21.299	ug/L	0.402	1	471	12364	0
[	Cu	63	17.881	ug/L	0.578	3	514	159301	2
[	Cu	65	18.157	ug/L	0.397	2	55	72949	1
[	Zn	66	216.633	ug/L	3.799	1	255	533894	2
[	Zn	67	213.317	ug/L	6.392	2	38	87428	2
[	Zn	68	216.744	ug/L	2.060	0	241	385746	0
[	As	75	15.482	ug/L	0.238	1	310	33364	1
[	As-1	75	15.394	ug/L	0.286	1	9967	42751	0
[	Se	82	-0.256	ug/L	0.037	14	4	-55	14
[	Se	78	0.604	ug/L	0.176	29	10138	10058	0
[	Mo	98	0.431	ug/L	0.006	1	31	2109	2
	Y	89		ug/L			399449	471386	1
	Kr	83		ug/L			635	1068	2
[>	In	115		ug/L			965468	964349	0
[	Ag	107	0.189	ug/L	0.002	1	54	2216	0
[	Cd	111	2.844	ug/L	0.008	0	102	13413	0
[	Cd	114	2.695	ug/L	0.009	0	36	31951	0
[	Sb	121	0.141	ug/L	0.007	4	768	2720	2
[	Sb	123	0.143	ug/L	0.001	0	575	2070	0
[	Ba	135	241.634	ug/L	1.491	0	23	1002038	1
[	Ba	137	239.157	ug/L	2.656	1	42	1719013	0
[>	Tb	159		ug/L			1098939	1074959	0
[	Tl	205	0.227	ug/L	0.002	0	811	9244	0
[	Pb	208	220.121	ug/L	1.472	0	507	10367691	0
[	Bi	209		ug/L			2742152	2589379	0
[	Th	232	2.857	ug/L	0.006	0	5672	137360	0
[	U	238	0.322	ug/L	0.006	1	50	16067	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Tuesday, November 27, 2012 20:27:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1981657	3
[	Be	9	0.358	ug/L	0.020	5	22	1882	2
	C	13		ug/L			143235	234600	1
	Cl	37		ug/L			4954439	5263295	1
[>	Sc	45		ug/L			1218098	1377388	1
[	V	51	24.075	ug/L	0.529	2	9170	662339	0
[	V-1	51	24.415	ug/L	0.697	2	105	654190	1
[	Cr	52	15.299	ug/L	0.245	1	27160	381392	0
[	Cr	53	16.139	ug/L	0.779	4	170	40491	3
[	Mn	55	602.760	ug/L	15.655	2	674	18771056	2
[	Co	59	6.275	ug/L	0.167	2	88	141290	1
[>	Ge	72		ug/L			652831	636571	0
[	Ni	60	14.012	ug/L	0.248	1	35	57153	2
[	Ni	62	15.287	ug/L	0.229	1	471	9187	1
[	Cu	63	20.339	ug/L	0.193	0	514	184861	0
[	Cu	65	20.414	ug/L	0.183	0	55	83701	0
[	Zn	66	199.476	ug/L	1.602	0	255	501681	0
[	Zn	67	193.603	ug/L	3.319	1	38	80993	1
[	Zn	68	198.394	ug/L	3.065	1	241	360360	1
[	As	75	10.396	ug/L	0.049	0	310	22964	0
[	As-1	75	10.321	ug/L	0.092	0	9967	32454	0
[	Se	82	0.526	ug/L	0.051	9	4	129	9
[	Se	78	0.931	ug/L	0.177	18	10138	10471	0
[	Mo	98	0.463	ug/L	0.029	6	31	2311	5
	Y	89		ug/L			399449	500825	1
	Kr	83		ug/L			635	865	2
[>	In	115		ug/L			965468	987841	0
[	Ag	107	0.269	ug/L	0.009	3	54	3216	2
[	Cd	111	3.978	ug/L	0.101	2	102	19173	1
[	Cd	114	3.850	ug/L	0.016	0	36	46743	0
[	Sb	121	0.356	ug/L	0.002	0	768	5835	0
[	Sb	123	0.357	ug/L	0.006	1	575	4425	1
[	Ba	135	137.858	ug/L	1.782	1	23	585602	1
[	Ba	137	137.327	ug/L	2.405	1	42	1011114	1
[>	Tb	159		ug/L			1098939	1081256	0
[	Tl	205	0.190	ug/L	0.005	2	811	7910	2
[	Pb	208	204.535	ug/L	2.189	1	507	9689921	0
[	Bi	209		ug/L			2742152	2607247	0
[	Th	232	1.880	ug/L	0.017	0	5672	92822	0
[	U	238	0.509	ug/L	0.005	1	50	25539	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV10
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 20:31:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1766731	1887691	2
[	Be	9	52.680	ug/L	0.933	1	22	260466	1
	C	13		ug/L			143235	157221	1
	Cl	37		ug/L			4954439	5357006	3
[>	Sc	45		ug/L			1218098	1257774	0
[	V	51	46.961	ug/L	1.228	2	9170	1171132	2
[	V-1	51	47.480	ug/L	0.818	1	105	1162033	2
[	Cr	52	47.801	ug/L	1.136	2	27160	1028729	2
[	Cr	53	49.611	ug/L	0.919	1	170	113336	1
[	Mn	55	47.628	ug/L	0.662	1	674	1355226	1
[	Co	59	46.737	ug/L	0.746	1	88	960620	1
[>	Ge	72		ug/L			652831	623224	1
[	Ni	60	50.161	ug/L	0.365	0	35	200220	1
[	Ni	62	49.588	ug/L	0.362	0	471	28168	1
[	Cu	63	49.042	ug/L	0.661	1	514	435677	0
[	Cu	65	49.905	ug/L	1.623	3	55	200210	2
[	Zn	66	50.891	ug/L	1.131	2	255	125469	1
[	Zn	67	51.454	ug/L	0.385	0	38	21103	1
[	Zn	68	50.418	ug/L	1.201	2	241	89818	1
[	As	75	50.409	ug/L	1.037	2	310	107866	1
[	As-1	75	49.713	ug/L	1.031	2	9967	116717	0
[	Se	82	53.723	ug/L	0.946	1	4	12544	1
[	Se	78	51.218	ug/L	0.967	1	10138	41228	0
[	Mo	98	52.875	ug/L	0.503	0	31	254993	0
	Y	89		ug/L			399449	398639	1
	Kr	83		ug/L			635	693	0
[>	In	115		ug/L			965468	933758	1
[	Ag	107	55.167	ug/L	0.600	1	54	612158	1
[	Cd	111	51.682	ug/L	0.406	0	102	234265	0
[	Cd	114	50.864	ug/L	0.526	1	36	583251	1
[	Sb	121	50.834	ug/L	0.978	1	768	682986	0
[	Sb	123	50.618	ug/L	0.825	1	575	514836	0
[	Ba	135	49.654	ug/L	0.733	1	23	199393	1
[	Ba	137	49.276	ug/L	0.437	0	42	342980	0
[>	Tb	159		ug/L			1098939	1066460	1
[	Tl	205	46.105	ug/L	0.260	0	811	1700022	0
[	Pb	208	47.497	ug/L	0.279	0	507	2219738	0
[	Bi	209		ug/L			2742152	2591548	1
[	Th	232	51.981	ug/L	0.423	0	5672	2384551	0
[	U	238	52.787	ug/L	0.749	1	50	2608865	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB10
Sample Dil Factor:
Comments:
Sample Date/Time: Tuesday, November 27, 2012 20:38:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1766731	1834925	2
	Be	9	-0.002	ug/L	0.000	14	22	14	7
	C	13		ug/L			143235	163248	0
	Cl	37		ug/L			4954439	5082478	2
>	Sc	45		ug/L			1218098	1235415	1
	V	51	-0.020	ug/L	0.007	37	9170	8817	2
	V-1	51	-0.002	ug/L	0.001	44	105	70	24
	Cr	52	-0.063	ug/L	0.025	39	27160	26240	2
	Cr	53	-0.002	ug/L	0.005	220	170	168	4
	Mn	55	0.001	ug/L	0.002	251	674	701	5
	Co	59	0.000	ug/L	0.000	526	88	91	9
>	Ge	72		ug/L			652831	607691	0
	Ni	60	0.002	ug/L	0.002	127	35	39	21
	Ni	62	-0.585	ug/L	0.039	6	471	119	17
	Cu	63	-0.035	ug/L	0.001	3	514	171	4
	Cu	65	-0.001	ug/L	0.000	16	55	49	1
	Zn	66	-0.034	ug/L	0.005	15	255	155	7
	Zn	67	-0.026	ug/L	0.006	22	38	25	9
	Zn	68	-0.019	ug/L	0.002	11	241	192	2
	As	75	0.022	ug/L	0.012	54	310	335	7
	As-1	75	0.300	ug/L	0.046	15	9967	9909	0
	Se	82	-0.009	ug/L	0.073	800	4	2	791
	Se	78	1.028	ug/L	0.149	14	10138	10054	0
	Mo	98	0.003	ug/L	0.003	81	31	45	28
	Y	89		ug/L			399449	384758	0
	Kr	83		ug/L			635	641	2
>	In	115		ug/L			965468	929828	1
	Ag	107	-0.001	ug/L	0.001	100	54	42	25
	Cd	111	-0.002	ug/L	0.002	90	102	88	10
	Cd	114	0.001	ug/L	0.000	28	36	49	7
	Sb	121	0.007	ug/L	0.006	76	768	838	7
	Sb	123	0.006	ug/L	0.004	76	575	613	6
	Ba	135	0.000	ug/L	0.001	466	23	23	23
	Ba	137	-0.002	ug/L	0.002	84	42	28	38
>	Tb	159		ug/L			1098939	1026810	1
	Tl	205	-0.018	ug/L	0.001	2	811	125	14
	Pb	208	-0.001	ug/L	0.000	17	507	407	1
	Bi	209		ug/L			2742152	2649056	0
	Th	232	0.017	ug/L	0.013	72	5672	6066	8
	U	238	0.001	ug/L	0.000	24	50	97	12

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-28-12 **Analyst:** [illegible] **Page:** 1 of 7

All corrections made by analyst unless otherwise noted. A 11-29-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2991-10
		1			2990-12
		2			2994-16
		3			2995-1
		4			~~2994-3~~ 2995-9
		5			2995-2
		Rinse Soln			
		ICV			2926-7
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			
		ICSAB			^{53}Cr 20ppb
		LR200			^{114}Cd ^{121}Sb high abs ^{52}Cr
		LR300			Co Ag ^{114}Cd Sb high
		B1			
		B2			
		B3			
		CCV2			
		CCB2			
		VTBA MB1	RBN	2	A.W. ~~CAF~~ 1.96 ppb Cu
		MB2			
		MB2SPK			

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-28-12 **Analyst:** M **Page:** 2 **of** 7

All corrections made by analyst unless otherwise noted. AA 11-28-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VT84 MB1SPL	REN	2 ✓	
		A			
		B			
		CCV3			Th low
		CCB3			
		VS20 MB1	SWN	20	Ag
		MB1SPL			✓
		VT88 MB2SPL	REN	2 ✓	
		J			
		VS20 B	SWN	20	
		C			
		D			
		E			
		G			
		H			
		CCV4			Th low
		CCB4			
		VS21 MB1	SWN	20	Ag
		MB1SPL		✓	
		A-L		100 ✓	
		A		20	
		ADup			
		ASPL			✓
TCC		ZZZZZZ ABST			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-28-12 **Analyst:** M **Page:** 3 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	VS21 B	SUN	20	Rh 1/50 In high
		VS20 I		↓	
		↓ D	↓	100	Zn
		CCV 5			Th low
		CCB 5			
		VS21 C	SUN	20	Ag
		D			
		E			
		F			
		G			
		H			
		I			
		J			
		K			
		↑ L	↓	↓	↓
		CCV 6			Th low
		CCB 6			
		VS22 MB1	SUN	20	
		MB1 SPK		↓ ✓	
		A L		100 ✓	Pb 13.5% R Rh Zn 1/50
		A		20	CAV
		A Dup			Sb hi RPD
		A Spk			Sb low % R
		↑ A Post	↓	↓	0.06 mL Spk #2 1/10 0.06 mL Spk #1 1/10 Sb

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-28-12 **Analyst:** MA **Page:** 4 of 7

All corrections made by analyst unless otherwise noted. MA 11-29-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS22 B	SWN	20	
		↓ C		↓	
		VS21 B	↓	100	Ag
		CCV7			
		CCB7			
		VS22 D	SWN	20	
		E			
		F			
		G			Re Zn
		H			
		I			
		J			
		K			
		L	↓	↓	
		VS45 B	REN	2	
		CCV8			Th U
		CCB8			
		VS45MB1	REN	2	
		MBlspk		↓ ✓	
		AL		10 ✓	
		A		2	
		ADup		✓	
		Aspk		✓	
zzz		zzz Post	↓	↓	

AM 11-29

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP (ICP-MS) GFA CVA Analysis Date: 11-28-12

Nexion M2	Analyst AT 11-29	Peer MJT 11.29.12	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	See log
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	See log
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	VS22 VR35
Matrix Duplicates	✓	✓	↑
Method Blanks	✓	✓	VT04
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	ANVT04 CAF VS22 VR35

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Wednesday, November 28, 2012 08:30:09
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1337
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	5716.8	5716.761	81.963	1.4	Standard
	Mg	24.0	35793.2	35793.177	362.938	1.0	Standard
	In	114.9	69798.6	69798.586	760.159	1.1	Standard
	Pb	208.0	30080.7	30080.663	274.738	0.9	Standard
	U	238.1	53846.8	53846.825	595.601	1.1	Standard
⌈	CeO	155.9	1108.3	0.016	0.001	5.4	Standard
| >	Ce	139.9	68480.8	68480.832	364.436	0.5	Standard
⌊	Ce++	70.0	1118.9	0.016	0.000	2.4	Standard
	Bkgd	220.0	0.0	0.033	0.075	223.6	Standard

Current Conditions File Data

Current Value	Description
1.07	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

SmartTune Wizard - Summary

)ptimization Summary

;martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

;tart Time: 11/28/2012 8:33:10 AM
:nd Time: 11/28/2012 8:35:22 AM

1ass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.696)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.709)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.711)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.719)

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 11/28/2012 8:35:51 AM
End Time: 11/28/2012 8:40:03 AM

AutoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.994; Intercept = -11.81

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 11/28/2012 8:40:46 AM
End Time: 11/28/2012 8:43:22 AM

Daily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5490.67
Obtained Intensity (Mg 23.985): 34241.15
Obtained Intensity (In 114.904): 69447.60
Obtained Intensity (Pb 207.977): 29747.20
Obtained Intensity (U 238.05): 53648.95
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.017 (=1125.88 / 67190.40)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.018 (=1200.15 / 67190.40)

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:16:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L				1738475	2
[	Be	9		ug/L				12	14
	C	13		ug/L				138826	0
	Cl	37		ug/L				4735446	2
[>	Sc	45		ug/L				1275890	0
|	V	51		ug/L				9212	1
|	V-1	51		ug/L				60	9
|	Cr	52		ug/L				27310	1
|	Cr	53		ug/L				159	2
|	Mn	55		ug/L				592	1
[	Co	59		ug/L				80	3
[>	Ge	72		ug/L				659198	1
|	Ni	60		ug/L				16	35
|	Ni	62		ug/L				275	1
|	Cu	63		ug/L				372	5
|	Cu	65		ug/L				41	8
|	Zn	66		ug/L				192	3
|	Zn	67		ug/L				31	11
|	Zn	68		ug/L				189	3
|	As	75		ug/L				267	7
|	As-1	75		ug/L				10608	0
|	Se	82		ug/L				-2	562
|	Se	78		ug/L				10783	0
[	Mo	98		ug/L				8	62
	Y	89		ug/L				428598	1
	Kr	83		ug/L				613	6
[>	In	115		ug/L				928277	0
|	Ag	107		ug/L				14	20
|	Cd	111		ug/L				65	9
|	Cd	114		ug/L				31	1
|	Sb	121		ug/L				40	19
|	Sb	123		ug/L				30	12
|	Ba	135		ug/L				13	16
[	Ba	137		ug/L				15	30
[>	Tb	159		ug/L				1061408	1
|	Tl	205		ug/L				43	10
|	Pb	208		ug/L				368	2
|	Bi	209		ug/L				2680757	0
|	Th	232		ug/L				49	19
[	U	238		ug/L				2	78

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:20:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1766222	1
[	Be	9	0.200	ug/L	0.007	3	12	921	3
	C	13		ug/L			138826	140198	1
	Cl	37		ug/L			4735446	4570164	4
[>	Sc	45		ug/L			1275890	1255765	4
[	V	51	0.200	ug/L	0.014	6	9212	13967	1
[	V-1	51	0.200	ug/L	0.005	2	60	5052	1
[	Cr	52	0.500	ug/L	0.059	11	27310	36403	1
[	Cr	53	0.500	ug/L	0.027	5	159	1262	0
[	Mn	55	0.500	ug/L	0.016	3	592	14073	1
[	Co	59	0.200	ug/L	0.006	2	80	3984	2
[>	Ge	72		ug/L			659198	664597	1
[	Ni	60	0.500	ug/L	0.022	4	16	2170	3
[	Ni	62	0.500	ug/L	0.033	6	275	557	4
[	Cu	63	0.500	ug/L	0.015	3	372	5066	1
[	Cu	65	0.500	ug/L	0.010	1	41	2197	3
[	Zn	66	4.000	ug/L	0.105	2	192	11567	1
[	Zn	67	4.000	ug/L	0.126	3	31	1749	4
[	Zn	68	4.000	ug/L	0.062	1	189	7867	1
[	As	75	0.200	ug/L	0.017	8	267	727	6
[	As-1	75	0.200	ug/L	0.090	45	10608	10970	1
[	Se	82	0.500	ug/L	0.068	13	-2	137	15
[	Se	78	0.500	ug/L	0.397	79	10783	11024	1
[	Mo	98	0.200	ug/L	0.006	2	8	970	4
	Y	89		ug/L			428598	437893	2
	Kr	83		ug/L			613	591	2
[>	In	115		ug/L			928277	948458	0
[	Ag	107	0.200	ug/L	0.009	4	14	1930	5
[	Cd	111	0.100	ug/L	0.004	3	65	520	2
[	Cd	114	0.100	ug/L	0.001	0	31	1186	0
[	Sb	121	0.200	ug/L	0.004	2	40	2562	2
[	Sb	123	0.200	ug/L	0.003	1	30	1894	1
[	Ba	135	0.500	ug/L	0.019	3	13	1877	3
[	Ba	137	0.500	ug/L	0.016	3	15	3297	3
[>	Tb	159		ug/L			1061408	1085574	0
[	Tl	205	0.200	ug/L	0.004	1	43	6934	1
[	Pb	208	0.100	ug/L	0.002	2	368	4898	1
[	Bi	209		ug/L			2680757	2691512	1
[	Th	232	0.200	ug/L	0.026	13	49	5199	12
[	U	238	0.200	ug/L	0.003	1	2	8622	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:24:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			1738475	1782795	0
⌊	Be	9	10.000	ug/L	0.248	2	12	46069	2
	C	13		ug/L			138826	137978	3
	Cl	37		ug/L			4735446	4761103	1
⌈>	Sc	45		ug/L			1275890	1325090	0
|	V	51	10.000	ug/L	0.099	0	9212	253290	1
|	V-1	51	10.000	ug/L	0.089	0	60	242867	0
|	Cr	52	10.001	ug/L	0.148	1	27310	234189	1
|	Cr	53	10.000	ug/L	0.164	1	159	23130	0
|	Mn	55	9.999	ug/L	0.055	0	592	278365	0
⌊	Co	59	10.000	ug/L	0.247	2	80	198182	1
⌈>	Ge	72		ug/L			659198	701482	0
|	Ni	60	9.997	ug/L	0.225	2	16	41351	2
|	Ni	62	10.000	ug/L	0.197	1	275	6162	1
|	Cu	63	9.999	ug/L	0.293	2	372	94497	2
|	Cu	65	9.999	ug/L	0.437	4	41	43142	3
|	Zn	66	9.800	ug/L	0.117	1	192	26356	1
|	Zn	67	9.938	ug/L	0.419	4	31	4370	4
|	Zn	68	9.918	ug/L	0.138	1	189	19315	1
|	As	75	10.000	ug/L	0.085	0	267	22639	0
|	As-1	75	10.001	ug/L	0.196	1	10608	33247	0
|	Se	82	9.997	ug/L	0.094	0	-2	2598	0
|	Se	78	10.012	ug/L	0.477	4	10783	17650	0
⌊	Mo	98	10.000	ug/L	0.067	0	8	49794	1
	Y	89		ug/L			428598	450476	0
	Kr	83		ug/L			613	606	1
⌈>	In	115		ug/L			928277	960398	1
|	Ag	107	10.000	ug/L	0.052	0	14	100761	1
|	Cd	111	10.000	ug/L	0.131	1	65	44845	1
|	Cd	114	10.000	ug/L	0.196	1	31	114978	0
|	Sb	121	10.000	ug/L	0.296	2	40	129536	1
|	Sb	123	10.000	ug/L	0.248	2	30	98916	1
|	Ba	135	10.001	ug/L	0.063	0	13	38791	0
⌊	Ba	137	10.001	ug/L	0.129	1	15	67992	0
⌈>	Tb	159		ug/L			1061408	1118736	1
|	Tl	205	10.000	ug/L	0.093	0	43	339874	0
|	Pb	208	10.000	ug/L	0.144	1	368	447018	0
|	Bi	209		ug/L			2680757	2735543	1
|	Th	232	10.001	ug/L	0.185	1	49	386647	0
⌊	U	238	10.000	ug/L	0.290	2	2	437792	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:28:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1812847	0
[	Be	9	19.992	ug/L	0.073	0	12	93486	1
	C	13		ug/L			138826	140333	1
	Cl	37		ug/L			4735446	5010735	2
[>	Sc	45		ug/L			1275890	1323443	1
|	V	51	19.935	ug/L	0.501	2	9212	488515	1
|	V-1	51	19.986	ug/L	0.593	2	60	483270	2
|	Cr	52	19.916	ug/L	0.362	1	27310	430894	0
|	Cr	53	20.084	ug/L	0.619	3	159	47013	2
|	Mn	55	19.983	ug/L	0.376	1	592	552923	0
[	Co	59	20.041	ug/L	0.431	2	80	399820	0
[>	Ge	72		ug/L			659198	688933	0
|	Ni	60	20.094	ug/L	0.261	1	16	83168	1
|	Ni	62	20.027	ug/L	0.284	1	275	11896	1
|	Cu	63	20.074	ug/L	0.487	2	372	188706	2
|	Cu	65	19.901	ug/L	0.298	1	41	82677	0
|	Zn	66	20.034	ug/L	0.441	2	192	53011	1
|	Zn	67	20.066	ug/L	0.229	1	31	8730	0
|	Zn	68	19.974	ug/L	0.166	0	189	37833	0
|	As	75	20.066	ug/L	0.415	2	267	44918	1
|	As-1	75	20.155	ug/L	0.445	2	10608	55931	1
|	Se	82	19.977	ug/L	0.351	1	-2	5079	1
|	Se	78	20.305	ug/L	0.461	2	10783	24367	0
[	Mo	98	20.034	ug/L	0.238	1	8	98636	1
	Y	89		ug/L			428598	450903	0
	Kr	83		ug/L			613	620	2
[>	In	115		ug/L			928277	957295	1
|	Ag	107	19.942	ug/L	0.182	0	14	197955	1
|	Cd	111	20.001	ug/L	0.398	1	65	89374	2
|	Cd	114	19.922	ug/L	0.114	0	31	224786	0
|	Sb	121	20.059	ug/L	0.116	0	40	262133	0
|	Sb	123	20.009	ug/L	0.101	0	30	197667	0
|	Ba	135	20.073	ug/L	0.356	1	13	78741	1
[	Ba	137	19.925	ug/L	0.125	0	15	133031	0
[>	Tb	159		ug/L			1061408	1120725	1
|	Tl	205	19.942	ug/L	0.225	1	43	671139	0
|	Pb	208	19.966	ug/L	0.208	1	368	887756	0
|	Bi	209		ug/L			2680757	2739367	0
|	Th	232	20.121	ug/L	0.405	2	49	798531	0
[	U	238	20.006	ug/L	0.170	0	2	878629	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:33:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1784900	0
[	Be	9	49.766	ug/L	1.005	2	12	223860	1
	C	13		ug/L			138826	134307	2
	Cl	37		ug/L			4735446	5084890	0
[>	Sc	45		ug/L			1275890	1308537	0
[	V	51	49.890	ug/L	0.220	0	9212	1181934	0
[	V-1	51	49.847	ug/L	0.281	0	60	1174014	0
[	Cr	52	49.913	ug/L	0.911	1	27310	1017244	1
[	Cr	53	49.771	ug/L	0.423	0	159	112415	1
[	Mn	55	49.810	ug/L	0.786	1	592	1336847	1
[	Co	59	49.892	ug/L	0.862	1	80	973745	1
[>	Ge	72		ug/L			659198	677191	0
[	Ni	60	49.881	ug/L	0.529	1	16	200540	2
[	Ni	62	49.890	ug/L	1.158	2	275	28395	1
[	Cu	63	49.641	ug/L	0.253	0	372	442291	0
[	Cu	65	49.801	ug/L	0.702	1	41	199322	0
[	Zn	66	49.859	ug/L	0.492	0	192	127651	0
[	Zn	67	49.920	ug/L	1.876	3	31	21135	3
[	Zn	68	49.953	ug/L	0.700	1	189	92297	1
[	As	75	50.004	ug/L	0.626	1	267	109668	1
[	As-1	75	50.087	ug/L	0.572	1	10608	121407	0
[	Se	82	49.833	ug/L	0.641	1	-2	12255	1
[	Se	78	50.141	ug/L	0.450	0	10783	43328	0
[	Mo	98	50.232	ug/L	0.784	1	8	248852	0
	Y	89		ug/L			428598	450854	1
	Kr	83		ug/L			613	637	1
[>	In	115		ug/L			928277	955455	1
[	Ag	107	49.862	ug/L	0.976	1	14	487223	1
[	Cd	111	49.863	ug/L	0.170	0	65	219251	1
[	Cd	114	49.760	ug/L	1.127	2	31	547120	0
[	Sb	121	49.838	ug/L	0.582	1	40	639538	0
[	Sb	123	49.804	ug/L	0.808	1	30	481536	1
[	Ba	135	49.800	ug/L	1.015	2	13	191106	0
[	Ba	137	49.788	ug/L	0.269	0	15	324889	1
[>	Tb	159		ug/L			1061408	1108343	1
[	Tl	205	49.829	ug/L	0.477	0	43	1630524	0
[	Pb	208	49.768	ug/L	0.426	0	368	2138225	0
[	Bi	209		ug/L			2680757	2649511	0
[	Th	232	50.869	ug/L	4.672	9	49	2185416	8
[	U	238	50.927	ug/L	0.329	0	2	2437864	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:39:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1736785	2
	Be	9	100.252	ug/L	4.404	4	12	442279	2
	C	13		ug/L			138826	135013	3
	Cl	37		ug/L			4735446	5085221	1
>	Sc	45		ug/L			1275890	1303230	1
	V	51	101.700	ug/L	1.320	1	9212	2532674	1
	V-1	51	101.651	ug/L	0.893	0	60	2523097	0
	Cr	52	99.837	ug/L	1.192	1	27310	1987608	0
	Cr	53	99.666	ug/L	2.545	2	159	221536	2
	Mn	55	101.299	ug/L	0.976	0	592	2829395	1
	Co	59	99.483	ug/L	3.374	3	80	1900401	2
>	Ge	72		ug/L			659198	660525	0
	Ni	60	100.123	ug/L	1.234	1	16	394190	0
	Ni	62	100.077	ug/L	1.143	1	275	55429	1
	Cu	63	99.938	ug/L	1.297	1	372	866323	0
	Cu	65	99.830	ug/L	0.204	0	41	387534	0
	Zn	66	99.530	ug/L	1.314	1	192	244561	1
	Zn	67	99.614	ug/L	1.639	1	31	40591	1
	Zn	68	99.310	ug/L	0.822	0	189	174798	1
	As	75	100.026	ug/L	0.679	0	267	213899	0
	As-1	75	100.138	ug/L	0.790	0	10608	227133	0
	Se	82	99.808	ug/L	0.683	0	-2	23793	1
	Se	78	100.218	ug/L	0.726	0	10783	74139	0
	Mo	98	100.617	ug/L	0.838	0	8	496442	0
	Y	89		ug/L			428598	434487	1
	Kr	83		ug/L			613	660	2
>	In	115		ug/L			928277	926158	0
	Ag	107	99.863	ug/L	1.083	1	14	941696	1
	Cd	111	99.604	ug/L	1.071	1	65	418964	1
	Cd	114	99.776	ug/L	1.685	1	31	1055733	1
	Sb	121	100.168	ug/L	0.647	0	40	1253117	0
	Sb	123	100.236	ug/L	0.751	0	30	946981	1
	Ba	135	100.172	ug/L	0.558	0	13	374833	0
	Ba	137	100.621	ug/L	0.749	0	15	649900	0
>	Tb	159		ug/L			1061408	1090741	0
	Tl	205	102.589	ug/L	0.743	0	43	3615762	0
	Pb	208	101.319	ug/L	1.079	1	368	4480668	0
	Bi	209		ug/L			2680757	2536182	0
	Th	232	101.268	ug/L	0.578	0	49	4473157	0
	U	238	100.332	ug/L	0.449	0	2	4779684	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:46:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1734200	1
[	Be	9	0.001	ug/L	0.001	48	12	18	14
	C	13		ug/L			138826	135206	1
	Cl	37		ug/L			4735446	4931496	4
[>	Sc	45		ug/L			1275890	1256598	1
[	V	51	0.007	ug/L	0.013	186	9212	9240	2
[	V-1	51	0.001	ug/L	0.001	59	60	83	17
[	Cr	52	0.021	ug/L	0.049	235	27310	27283	2
[	Cr	53	-0.001	ug/L	0.006	533	159	154	8
[	Mn	55	0.001	ug/L	0.001	56	592	616	2
[	Co	59	0.000	ug/L	0.000	272	80	82	8
[>	Ge	72		ug/L			659198	662018	2
[	Ni	60	0.002	ug/L	0.001	40	16	22	9
[	Ni	62	0.032	ug/L	0.023	71	275	294	3
[	Cu	63	0.002	ug/L	0.003	143	372	394	6
[	Cu	65	0.004	ug/L	0.004	87	41	58	25
[	Zn	66	-0.018	ug/L	0.004	23	192	149	7
[	Zn	67	-0.008	ug/L	0.020	241	31	27	27
[	Zn	68	-0.002	ug/L	0.006	404	189	187	5
[	As	75	0.020	ug/L	0.005	25	267	310	5
[	As-1	75	0.033	ug/L	0.087	264	10608	10721	0
[	Se	82	0.027	ug/L	0.035	131	-2	3	242
[	Se	78	0.080	ug/L	0.300	375	10783	10877	0
[	Mo	98	0.015	ug/L	0.003	17	8	84	13
	Y	89		ug/L			428598	428006	1
	Kr	83		ug/L			613	623	2
[>	In	115		ug/L			928277	940957	1
[	Ag	107	0.003	ug/L	0.001	24	14	47	17
[	Cd	111	0.006	ug/L	0.001	14	65	90	4
[	Cd	114	0.001	ug/L	0.000	17	31	42	5
[	Sb	121	0.121	ug/L	0.013	10	40	1575	9
[	Sb	123	0.122	ug/L	0.014	11	30	1199	9
[	Ba	135	0.001	ug/L	0.001	57	13	19	15
[	Ba	137	0.002	ug/L	0.000	20	15	26	9
[>	Tb	159		ug/L			1061408	1059724	1
[	Tl	205	0.020	ug/L	0.010	48	43	722	45
[	Pb	208	0.002	ug/L	0.000	11	368	464	3
[	Bi	209		ug/L			2680757	2671614	1
[	Th	232	0.229	ug/L	0.024	10	49	9894	10
[	U	238	0.003	ug/L	0.000	3	2	155	4

Sample Information

Sample Date/Time: Wednesday, November 28, 2012 09:39:43
Method File: C:\NexION Data\Method\200.8nomin.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**1.0000**	0.003	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**0.9995**	0.019	0.20	10	20	50	100
V-1	51	**0.9995**	0.019	0.20	10	20	50	100
Cr	52	**1.0000**	0.015	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**0.9997**	0.021	0.50	10	20	50	100
Co	59	**1.0000**	0.015	0.20	10	20	50	100
Ge	72							
Ni	60	**1.0000**	0.006	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**1.0000**	0.013	0.50	10	20	50	100
Cu	65	**1.0000**	0.006	0.50	10	20	50	100
Zn	66	**0.9999**	0.004	4.00	10	20	50	100
Zn	67	**1.0000**	0.001	4.00	10	20	50	100
Zn	68	**0.9999**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9999**	0.000	0.50	10	20	50	100
Se	78	**1.0000**	0.001	0.50	10	20	50	100
Mo	98	**0.9999**	0.007	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.010	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.011	0.10	10	20	50	100
Sb	121	**1.0000**	0.014	0.20	10	20	50	100
Sb	123	**1.0000**	0.010	0.20	10	20	50	100
Ba	135	**1.0000**	0.004	0.50	10	20	50	100
Ba	137	**0.9999**	0.007	0.50	10	20	50	100
Tb	159							
Tl	205	**0.9989**	0.032	0.20	10	20	50	100
Pb	208	**0.9997**	0.041	0.10	10	20	50	100
Bi	209							
Th	232	**0.9996**	0.040	0.20	10	20	50	100
U	238	**0.9998**	0.044	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:01:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1770257	0
[	Be	9	51.255	ug/L	0.864	1	12	230611	1
	C	13		ug/L			138826	142084	0
	Cl	37		ug/L			4735446	5069083	4
[>	Sc	45		ug/L			1275890	1291213	1
|	V	51	50.254	ug/L	0.578	1	9212	1244616	0
|	V-1	51	50.389	ug/L	0.848	1	60	1239101	0
|	Cr	52	51.516	ug/L	0.539	1	27310	1029700	2
|	Cr	53	51.999	ug/L	0.848	1	159	114592	0
|	Mn	55	50.199	ug/L	0.107	0	592	1389608	1
[	Co	59	52.664	ug/L	2.096	3	80	996721	2
[>	Ge	72		ug/L			659198	670187	0
|	Ni	60	51.987	ug/L	0.994	1	16	207663	1
|	Ni	62	51.348	ug/L	1.490	2	275	28989	2
|	Cu	63	52.191	ug/L	1.691	3	372	459220	3
|	Cu	65	52.919	ug/L	0.447	0	41	208439	0
|	Zn	66	50.528	ug/L	0.891	1	192	126064	1
|	Zn	67	51.058	ug/L	0.379	0	31	21126	1
|	Zn	68	50.233	ug/L	0.912	1	189	89794	0
|	As	75	50.554	ug/L	0.421	0	267	109821	0
|	As-1	75	51.046	ug/L	0.465	0	10608	122764	0
|	Se	82	81.272	ug/L	1.029	1	-2	19365	0
|	Se	78	80.540	ug/L	1.119	1	10783	62596	1
[	Mo	98	49.262	ug/L	1.478	3	8	246593	2
	Y	89		ug/L			428598	443511	0
	Kr	83		ug/L			613	651	2
[>	In	115		ug/L			928277	932515	0
|	Ag	107	53.918	ug/L	2.280	4	14	511799	3
|	Cd	111	51.257	ug/L	0.349	0	65	217100	0
|	Cd	114	51.009	ug/L	0.839	1	31	543394	0
|	Sb	121	50.239	ug/L	0.223	0	40	632822	0
|	Sb	123	50.431	ug/L	1.116	2	30	479653	1
|	Ba	135	50.941	ug/L	0.666	1	13	191920	1
[	Ba	137	50.970	ug/L	0.548	1	15	331457	0
[>	Tb	159		ug/L			1061408	1089601	0
|	Tl	205	47.447	ug/L	0.288	0	43	1670587	0
|	Pb	208	49.548	ug/L	0.178	0	368	2189116	0
|	Bi	209		ug/L			2680757	2599335	0
|	Th	232	53.814	ug/L	0.305	0	49	2374596	0
[	U	238	52.987	ug/L	0.602	1	2	2521517	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:08:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1722047	1
[	**Be**	**9**	**0.002**	ug/L	0.002	109	12	21	48
	C	**13**		ug/L			138826	144833	2
	Cl	**37**		ug/L			4735446	5016119	1
[>	**Sc**	**45**		ug/L			1275890	1265173	0
[	**V**	**51**	**0.003**	ug/L	0.006	210	9212	9198	0
[	**V-1**	**51**	**0.000**	ug/L	0.000	68	60	68	7
[	**Cr**	**52**	**0.005**	ug/L	0.019	351	27310	27179	0
[	**Cr**	**53**	**-0.003**	ug/L	0.002	66	159	151	3
[	**Mn**	**55**	**-0.000**	ug/L	0.001	1311	592	584	4
[	**Co**	**59**	**0.000**	ug/L	0.001	160	80	87	12
[>	**Ge**	**72**		ug/L			659198	661317	1
[	**Ni**	**60**	**0.003**	ug/L	0.002	58	16	27	23
[	**Ni**	**62**	**0.013**	ug/L	0.046	364	275	283	9
[	**Cu**	**63**	**-0.001**	ug/L	0.003	190	372	361	5
[	**Cu**	**65**	**0.002**	ug/L	0.002	87	41	48	11
[	**Zn**	**66**	**-0.013**	ug/L	0.005	39	192	161	8
[	**Zn**	**67**	**0.001**	ug/L	0.006	1036	31	31	8
[	**Zn**	**68**	**0.000**	ug/L	0.011	3445	189	190	8
[	**As**	**75**	**0.017**	ug/L	0.012	67	267	305	9
[	**As-1**	**75**	**0.077**	ug/L	0.084	110	10608	10806	0
[	**Se**	**82**	**0.013**	ug/L	0.021	158	-2	0	2983
[	**Se**	**78**	**0.233**	ug/L	0.312	134	10783	10963	0
[	**Mo**	**98**	**0.009**	ug/L	0.001	14	8	51	13
	Y	**89**		ug/L			428598	433651	0
	Kr	**83**		ug/L			613	630	1
[>	**In**	**115**		ug/L			928277	919060	0
[	**Ag**	**107**	**0.003**	ug/L	0.001	31	14	43	20
[	**Cd**	**111**	**0.004**	ug/L	0.001	14	65	83	3
[	**Cd**	**114**	**0.001**	ug/L	0.000	71	31	38	12
[	**Sb**	**121**	**0.038**	ug/L	0.011	29	40	508	27
[	**Sb**	**123**	**0.037**	ug/L	0.008	21	30	374	20
[	**Ba**	**135**	**-0.001**	ug/L	0.001	47	13	8	30
[	**Ba**	**137**	**0.002**	ug/L	0.001	60	15	27	25
[>	**Tb**	**159**		ug/L			1061408	1042579	0
[	**Tl**	**205**	**0.005**	ug/L	0.002	41	43	220	33
[	**Pb**	**208**	**0.002**	ug/L	0.000	16	368	456	3
[	**Bi**	**209**		ug/L			2680757	2612919	0
[	**Th**	**232**	**0.132**	ug/L	0.008	6	49	5610	6
[	**U**	**238**	**0.002**	ug/L	0.000	20	2	104	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:12:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1765354	0
[	Be	9	50.605	ug/L	0.845	1	12	227060	1
	C	13		ug/L			138826	134144	2
	Cl	37		ug/L			4735446	5130360	1
[>	Sc	45		ug/L			1275890	1291531	0
	V	51	47.995	ug/L	0.349	0	9212	1189556	1
	V-1	51	48.033	ug/L	0.642	1	60	1181712	2
	Cr	52	50.449	ug/L	1.401	2	27310	1009015	2
	Cr	53	50.579	ug/L	0.774	1	159	111510	1
	Mn	55	48.553	ug/L	0.176	0	592	1344369	1
[	Co	59	51.198	ug/L	0.421	0	80	969570	0
[>	Ge	72		ug/L			659198	665412	0
	Ni	60	50.652	ug/L	0.475	0	16	200906	0
	Ni	62	51.731	ug/L	0.452	0	275	28998	0
	Cu	63	51.599	ug/L	0.313	0	372	450806	0
	Cu	65	51.299	ug/L	0.668	1	41	200634	1
	Zn	66	51.539	ug/L	0.657	1	192	127673	1
	Zn	67	51.802	ug/L	0.811	1	31	21281	1
	Zn	68	50.569	ug/L	0.561	1	189	89757	0
	As	75	50.509	ug/L	0.193	0	267	108944	0
	As-1	75	50.432	ug/L	0.229	0	10608	120553	0
	Se	82	52.109	ug/L	0.211	0	-2	12327	0
	Se	78	51.061	ug/L	0.264	0	10783	43387	0
[	Mo	98	49.808	ug/L	0.374	0	8	247571	0
	Y	89		ug/L			428598	438767	1
	Kr	83		ug/L			613	644	1
[>	In	115		ug/L			928277	917532	1
	Ag	107	52.852	ug/L	1.063	2	14	493652	0
	Cd	111	51.967	ug/L	0.321	0	65	216566	0
	Cd	114	51.540	ug/L	0.944	1	31	540186	0
	Sb	121	50.805	ug/L	0.894	1	40	629574	0
	Sb	123	50.847	ug/L	1.048	2	30	475815	0
	Ba	135	50.879	ug/L	0.513	1	13	188598	0
[	Ba	137	50.577	ug/L	0.168	0	15	323640	1
[>	Tb	159		ug/L			1061408	1073608	0
	Tl	205	46.623	ug/L	0.207	0	43	1617425	0
	Pb	208	48.784	ug/L	0.266	0	368	2123672	0
	Bi	209		ug/L			2680757	2589348	0
	Th	232	48.070	ug/L	4.546	9	49	2088738	8
[	U	238	51.840	ug/L	0.725	1	2	2430610	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:19:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1693528	1
	Be	9	0.005	ug/L	0.008	155	12	34	103
	C	13		ug/L			138826	137585	2
	Cl	37		ug/L			4735446	4824677	2
>	Sc	45		ug/L			1275890	1236431	1
	V	51	0.007	ug/L	0.007	102	9212	9087	2
	V-1	51	0.006	ug/L	0.009	154	60	190	107
	Cr	52	0.008	ug/L	0.040	472	27310	26620	2
	Cr	53	0.004	ug/L	0.009	221	159	163	12
	Mn	55	0.005	ug/L	0.007	131	592	716	27
	Co	59	0.004	ug/L	0.008	176	80	160	90
>	Ge	72		ug/L			659198	647997	0
	Ni	60	0.006	ug/L	0.005	89	16	38	51
	Ni	62	-0.018	ug/L	0.029	159	275	260	5
	Cu	63	0.000	ug/L	0.004	852	372	369	8
	Cu	65	0.003	ug/L	0.003	79	41	53	19
	Zn	66	-0.013	ug/L	0.005	39	192	158	7
	Zn	67	-0.020	ug/L	0.003	14	31	22	5
	Zn	68	0.006	ug/L	0.003	57	189	196	2
	As	75	0.016	ug/L	0.011	70	267	295	7
	As-1	75	0.151	ug/L	0.025	16	10608	10747	0
	Se	82	0.022	ug/L	0.024	107	-2	2	242
	Se	78	0.489	ug/L	0.078	15	10783	10903	0
	Mo	98	0.012	ug/L	0.001	10	8	65	9
	Y	89		ug/L			428598	424413	1
	Kr	83		ug/L			613	608	2
>	In	115		ug/L			928277	923686	0
	Ag	107	0.003	ug/L	0.001	46	14	44	31
	Cd	111	0.006	ug/L	0.002	25	65	92	7
	Cd	114	0.001	ug/L	0.002	123	31	44	35
	Sb	121	0.070	ug/L	0.007	9	40	917	9
	Sb	123	0.073	ug/L	0.002	2	30	721	2
	Ba	135	0.001	ug/L	0.001	105	13	17	21
	Ba	137	0.001	ug/L	0.001	70	15	22	22
>	Tb	159		ug/L			1061408	1036819	0
	Tl	205	0.009	ug/L	0.005	52	43	358	45
	Pb	208	0.002	ug/L	0.000	13	368	454	2
	Bi	209		ug/L			2680757	2615534	0
	Th	232	0.173	ug/L	0.016	9	49	7290	8
	U	238	0.003	ug/L	0.001	30	2	140	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:23:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			1738475	1740091	0
Be	9	0.205	ug/L	0.006	3	12	916	3
C	13		ug/L			138826	140866	3
Cl	37		ug/L			4735446	4989500	2
Sc	45		ug/L			1275890	1267891	1
V	51	0.196	ug/L	0.014	6	9212	13878	1
V-1	51	0.204	ug/L	0.006	2	60	4981	2
Cr	52	0.504	ug/L	0.023	4	27310	36764	0
Cr	53	0.533	ug/L	0.019	3	159	1309	2
Mn	55	0.487	ug/L	0.004	0	592	13813	0
Co	59	0.212	ug/L	0.001	0	80	4026	1
Ge	72		ug/L			659198	664016	1
Ni	60	0.523	ug/L	0.008	1	16	2085	2
Ni	62	0.502	ug/L	0.012	2	275	555	2
Cu	63	0.524	ug/L	0.008	1	372	4939	2
Cu	65	0.531	ug/L	0.012	2	41	2111	1
Zn	66	4.542	ug/L	0.096	2	192	11403	2
Zn	67	4.186	ug/L	0.051	1	31	1744	2
Zn	68	4.518	ug/L	0.055	1	189	8175	0
As	75	0.211	ug/L	0.013	6	267	721	4
As-1	75	0.207	ug/L	0.020	9	10608	11135	0
Se	82	0.564	ug/L	0.051	9	-2	130	9
Se	78	0.535	ug/L	0.076	14	10783	11201	0
Mo	98	0.198	ug/L	0.000	0	8	992	0
Y	89		ug/L			428598	430820	0
Kr	83		ug/L			613	623	1
In	115		ug/L			928277	924732	2
Ag	107	0.214	ug/L	0.004	1	14	2024	3
Cd	111	0.114	ug/L	0.002	1	65	543	1
Cd	114	0.107	ug/L	0.003	2	31	1166	4
Sb	121	0.214	ug/L	0.003	1	40	2716	1
Sb	123	0.215	ug/L	0.003	1	30	2054	1
Ba	135	0.510	ug/L	0.019	3	13	1919	3
Ba	137	0.490	ug/L	0.015	3	15	3176	0
Tb	159		ug/L			1061408	1041913	0
Tl	205	0.208	ug/L	0.005	2	43	7036	2
Pb	208	0.106	ug/L	0.002	2	368	4819	1
Bi	209		ug/L			2680757	2632933	0
Th	232	0.193	ug/L	0.003	1	49	8208	1
U	238	0.188	ug/L	0.006	2	2	8563	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:27:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1817798	0
	Be	9	0.001	ug/L	0.000	31	12	18	9
	C	13		ug/L			138826	234852	1
	Cl	37		ug/L			4735446	13475852	4
>	Sc	45		ug/L			1275890	1319348	0
	V	51	0.105	ug/L	0.011	10	9212	12152	1
	V-1	51	0.826	ug/L	0.031	3	60	20823	3
	Cr	52	0.666	ug/L	0.013	1	27310	41471	1
	Cr	53	3.244	ug/L	0.101	3	159	7459	3
	Mn	55	0.061	ug/L	0.002	2	592	2326	2
	Co	59	0.023	ug/L	0.001	2	80	529	2
>	Ge	72		ug/L			659198	657477	2
	Ni	60	0.382	ug/L	0.014	3	16	1514	3
	Ni	62	2.689	ug/L	0.313	11	275	1752	12
	Cu	63	0.866	ug/L	0.019	2	372	7839	4
	Cu	65	0.357	ug/L	0.013	3	41	1421	2
	Zn	66	0.863	ug/L	0.032	3	192	2300	2
	Zn	67	5.378	ug/L	0.240	4	31	2209	2
	Zn	68	0.359	ug/L	0.018	5	189	817	1
	As	75	0.075	ug/L	0.025	32	267	425	9
	As-1	75	0.223	ug/L	0.142	63	10608	11055	0
	Se	82	-0.214	ug/L	0.047	21	-2	-52	18
	Se	78	0.623	ug/L	0.414	66	10783	11143	0
	Mo	98	434.262	ug/L	19.510	4	8	2133814	6
	Y	89		ug/L			428598	436579	1
	Kr	83		ug/L			613	865	2
>	In	115		ug/L			928277	912434	0
	Ag	107	0.025	ug/L	0.003	12	14	242	11
	Cd	111	0.125	ug/L	0.011	8	65	584	7
	Cd	114	0.225	ug/L	0.002	0	31	2373	0
	Sb	121	0.074	ug/L	0.006	7	40	955	6
	Sb	123	0.070	ug/L	0.001	1	30	680	1
	Ba	135	0.050	ug/L	0.002	3	13	197	3
	Ba	137	0.041	ug/L	0.002	4	15	277	5
>	Tb	159		ug/L			1061408	1084071	1
	Tl	205	0.033	ug/L	0.005	15	43	1202	15
	Pb	208	0.037	ug/L	0.002	4	368	1999	2
	Bi	209		ug/L			2680757	2445843	0
	Th	232	0.235	ug/L	0.068	28	49	10343	27
	U	238	0.001	ug/L	0.000	19	2	66	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:34:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1838512	0
[	Be	9	0.000	ug/L	0.000	234	12	13	11
	C	13		ug/L			138826	245531	1
	Cl	37		ug/L			4735446	14103168	1
[>	Sc	45		ug/L			1275890	1301110	0
|	V	51	-0.011	ug/L	0.146	1332	9212	9129	39
|	V-1	51	0.894	ug/L	0.009	1	60	22222	1
|	Cr	52	20.834	ug/L	0.351	1	27310	436160	1
|	Cr	53	24.039	ug/L	0.355	1	159	53473	0
|	Mn	55	19.519	ug/L	0.353	1	592	544795	1
[	Co	59	20.563	ug/L	0.282	1	80	392341	1
[>	Ge	72		ug/L			659198	654227	0
|	Ni	60	21.109	ug/L	0.436	2	16	82322	1
|	Ni	62	23.281	ug/L	0.450	1	275	12983	2
|	Cu	63	21.502	ug/L	0.326	1	372	184894	0
|	Cu	65	20.755	ug/L	0.531	2	41	79823	1
|	Zn	66	20.303	ug/L	0.218	1	192	49563	1
|	Zn	67	22.678	ug/L	0.136	0	31	9177	1
|	Zn	68	18.770	ug/L	0.203	1	189	32874	1
|	As	75	19.996	ug/L	0.027	0	267	42565	0
|	As-1	75	19.867	ug/L	0.019	0	10608	53072	0
|	Se	82	-0.234	ug/L	0.063	27	-2	-57	25
|	Se	78	0.507	ug/L	0.010	1	10783	11019	0
[	Mo	98	401.010	ug/L	4.955	1	8	1959638	1
	Y	89		ug/L			428598	431984	1
	Kr	83		ug/L			613	877	2
[>	In	115		ug/L			928277	938186	0
|	Ag	107	21.103	ug/L	0.613	2	14	201569	2
|	Cd	111	19.800	ug/L	0.093	0	65	84417	0
|	Cd	114	19.962	ug/L	0.212	1	31	213978	0
|	Sb	121	0.068	ug/L	0.004	6	40	903	5
|	Sb	123	0.071	ug/L	0.003	4	30	705	4
|	Ba	135	0.047	ug/L	0.004	9	13	190	8
[	Ba	137	0.041	ug/L	0.001	3	15	285	3
[>	Tb	159		ug/L			1061408	1099771	1
|	Tl	205	0.032	ug/L	0.001	2	43	1171	2
|	Pb	208	0.031	ug/L	0.001	2	368	1771	1
|	Bi	209		ug/L			2680757	2473422	0
|	Th	232	0.083	ug/L	0.008	10	49	3724	9
[	U	238	0.001	ug/L	0.000	16	2	27	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:41:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1735874	1
	Be	9	194.619	ug/L	3.167	1	12	858669	2
	C	13		ug/L			138826	141521	1
	Cl	37		ug/L			4735446	5134610	0
>	Sc	45		ug/L			1275890	1245040	1
	V	51	209.354	ug/L	1.433	0	9212	4971428	0
	V-1	51	205.751	ug/L	1.323	0	60	4879022	0
	Cr	52	213.221	ug/L	0.500	0	27310	4025500	0
	Cr	53	200.342	ug/L	0.441	0	159	425330	1
	Mn	55	211.530	ug/L	3.048	1	592	5643608	0
	Co	59	219.008	ug/L	3.206	1	80	3997557	0
>	Ge	72		ug/L			659198	639681	0
	Ni	60	200.244	ug/L	3.848	1	16	763457	1
	Ni	62	199.168	ug/L	2.543	1	275	106576	2
	Cu	63	196.500	ug/L	5.419	2	372	1649128	2
	Cu	65	195.896	ug/L	1.769	0	41	736433	1
	Zn	66	191.414	ug/L	3.221	1	192	455300	1
	Zn	67	195.068	ug/L	0.891	0	31	76953	0
	Zn	68	191.702	ug/L	3.785	1	189	326562	1
	As	75	197.229	ug/L	2.333	1	267	408184	0
	As-1	75	198.199	ug/L	2.007	1	10608	425278	0
	Se	82	195.106	ug/L	1.767	0	-2	44378	0
	Se	78	195.901	ug/L	1.577	0	10783	130341	1
	Mo	98	203.654	ug/L	4.448	2	8	973009	1
	Y	89		ug/L			428598	416812	0
	Kr	83		ug/L			613	755	1
>	In	115		ug/L			928277	896894	1
	Ag	107	206.769	ug/L	4.673	2	14	1888258	3
	Cd	111	199.730	ug/L	1.888	0	65	813411	0
	Cd	114	225.851	ug/L	3.829	1	31	2313716	0
	Sb	121	226.175	ug/L	2.987	1	40	2739616	0
	Sb	123	203.596	ug/L	3.846	1	30	1862230	0
	Ba	135	201.085	ug/L	2.967	1	13	728543	1
	Ba	137	202.671	ug/L	2.527	1	15	1267476	0
>	Tb	159		ug/L			1061408	1064727	0
	Tl	205	203.644	ug/L	2.773	1	43	7005928	0
	Pb	208	207.078	ug/L	2.732	1	368	8938534	0
	Bi	209		ug/L			2680757	2399510	0
	Th	232	205.309	ug/L	2.427	1	49	8852126	0
	U	238	203.046	ug/L	3.047	1	2	9441469	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:47:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1689072	1
[	Be	9	282.290	ug/L	3.035	1	12	1211835	1
	C	13		ug/L			138826	138969	2
	Cl	37		ug/L			4735446	5164129	0
[>	Sc	45		ug/L			1275890	1189725	0
[	V	51	322.754	ug/L	6.648	2	9212	7319715	2
[	V-1	51	317.111	ug/L	7.853	2	60	7186358	2
[	Cr	52	331.686	ug/L	1.974	0	27310	5969973	1
[	Cr	53	311.510	ug/L	8.021	2	159	631959	3
[	Mn	55	320.756	ug/L	2.675	0	592	8178332	1
[	Co	59	330.104	ug/L	7.662	2	80	5758881	3
[>	Ge	72		ug/L			659198	613285	0
[	Ni	60	302.995	ug/L	1.997	0	16	1107598	0
[	Ni	62	297.833	ug/L	4.644	1	275	152659	1
[	Cu	63	325.114	ug/L	5.221	1	372	2616058	1
[	Cu	65	289.878	ug/L	1.937	0	41	1044732	0
[	Zn	66	282.829	ug/L	4.296	1	192	644938	1
[	Zn	67	283.262	ug/L	5.137	1	31	107123	1
[	Zn	68	287.921	ug/L	7.548	2	189	470203	2
[	As	75	296.454	ug/L	3.848	1	267	588138	1
[	As-1	75	298.030	ug/L	3.408	1	10608	608166	1
[	Se	82	288.195	ug/L	2.169	0	-2	62850	0
[	Se	78	290.286	ug/L	0.929	0	10783	180337	0
[	Mo	98	306.823	ug/L	6.584	2	8	1405603	2
	Y	89		ug/L			428598	401763	0
	Kr	83		ug/L			613	955	3
[>	In	115		ug/L			928277	866270	2
[	Ag	107	332.727	ug/L	9.474	2	14	2933972	2
[	Cd	111	292.649	ug/L	3.951	1	65	1151162	2
[	Cd	114	332.009	ug/L	4.956	1	31	3285106	0
[	Sb	121	337.487	ug/L	6.213	1	40	3948062	0
[	Sb	123	340.856	ug/L	5.955	1	30	3011193	0
[	Ba	135	311.480	ug/L	6.495	2	13	1089866	1
[	Ba	137	311.687	ug/L	8.163	2	15	1882390	1
[>	Tb	159		ug/L			1061408	1046073	1
[	Tl	205	302.254	ug/L	3.878	1	43	10215834	0
[	Pb	208	315.812	ug/L	6.661	2	368	13391660	0
[	Bi	209		ug/L			2680757	2189264	7
[	Th	232	307.299	ug/L	7.811	2	49	13015578	1
[	U	238	302.176	ug/L	5.867	1	2	13803677	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:54:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1747993	1
[	Be	9	0.027	ug/L	0.030	111	12	133	101
	C	13		ug/L			138826	143225	1
	Cl	37		ug/L			4735446	4863931	1
[>	Sc	45		ug/L			1275890	1246008	0
[	V	51	0.028	ug/L	0.030	103	9212	9676	8
[	V-1	51	0.029	ug/L	0.028	94	60	757	87
[	Cr	52	0.039	ug/L	0.033	83	27310	27404	3
[	Cr	53	0.042	ug/L	0.012	29	159	244	11
[	Mn	55	0.044	ug/L	0.015	34	592	1761	23
[	Co	59	0.017	ug/L	0.016	96	80	391	77
[>	Ge	72		ug/L			659198	666755	1
[	Ni	60	0.059	ug/L	0.018	29	16	252	29
[	Ni	62	0.270 ✓	ug/L	0.105	38	275	428	13
[	Cu	63	0.065	ug/L	0.015	23	372	949	15
[	Cu	65	0.050	ug/L	0.014	27	41	239	24
[	Zn	66	0.927	ug/L	0.024	2	192	2491	2
[	Zn	67	0.829	ug/L	0.069	8	31	371	6
[	Zn	68	0.937	ug/L	0.042	4	189	1854	4
[	As	75	0.027	ug/L	0.009	32	267	327	7
[	As-1	75	0.001	ug/L	0.104	17648	10608	10728	0
[	Se	82	0.007	ug/L	0.037	539	-2	-1	625
[	Se	78	-0.076	ug/L	0.380	501	10783	10855	0
[	Mo	98	0.053	ug/L	0.005	8	8	270	7
	Y	89		ug/L			428598	427425	0
	Kr	83		ug/L			613	625	6
[>	In	115		ug/L			928277	917072	1
[	Ag	107	0.023	ug/L	0.009	37	14	224	34
[	Cd	111	0.020	ug/L	0.012	60	65	149	33
[	Cd	114	0.015	ug/L	0.015	99	31	183	81
[	Sb	121	0.349	ug/L	0.018	5	40	4360	6
[	Sb	123	0.350	ug/L	0.014	4	30	3304	4
[	Ba	135	0.124	ug/L	0.032	26	13	471	25
[	Ba	137	0.135	ug/L	0.049	36	15	876	35
[>	Tb	159		ug/L			1061408	1038932	0
[	Tl	205	0.113	ug/L	0.056	49	43	3845	49
[	Pb	208	0.061	ug/L	0.052	85	368	2942	75
[	Bi	209		ug/L			2680757	2638596	0
[	Th	232	0.333	ug/L	0.040	11	49	14084	12
[	U	238	0.035	ug/L	0.034	98	2	1602	98

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:00:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1728894	1
[	Be	9	0.003	ug/L	0.001	27	12	26	17
	C	13		ug/L			138826	142559	2
	Cl	37		ug/L			4735446	4837743	1
[>	Sc	45		ug/L			1275890	1237240	0
[	V	51	0.005	ug/L	0.003	67	9212	9045	0
[	V-1	51	0.004	ug/L	0.000	9	60	153	5
[	Cr	52	0.020	ug/L	0.014	68	27310	26859	0
[	Cr	53	0.017	ug/L	0.003	18	159	191	2
[	Mn	55	0.019	ug/L	0.001	5	592	1076	2
[	Co	59	0.001	ug/L	0.000	25	80	97	4
[>	Ge	72		ug/L			659198	644772	1
[	Ni	60	0.029	ug/L	0.005	15	16	126	14
[	Ni	62	0.139	ug/L	0.047	33	275	344	8
[	Cu	63	0.039	ug/L	0.003	6	372	692	1
[	Cu	65	0.029	ug/L	0.003	8	41	150	5
[	Zn	66	0.264	ug/L	0.019	7	192	820	4
[	Zn	67	0.228	ug/L	0.029	12	31	120	8
[	Zn	68	0.270	ug/L	0.011	3	189	647	2
[	As	75	0.016	ug/L	0.014	87	267	294	8
[	As-1	75	0.087	ug/L	0.061	69	10608	10558	0
[	Se	82	0.008	ug/L	0.085	1130	-2	-1	1723
[	Se	78	0.264	ug/L	0.201	76	10783	10708	0
[	Mo	98	0.017	ug/L	0.003	15	8	91	14
	Y	89		ug/L			428598	422911	0
	Kr	83		ug/L			613	610	7
[>	In	115		ug/L			928277	918273	0
[	Ag	107	0.004	ug/L	0.000	4	14	51	2
[	Cd	111	0.008	ug/L	0.002	25	65	97	7
[	Cd	114	0.003	ug/L	0.000	4	31	63	1
[	Sb	121	0.094	ug/L	0.015	15	40	1210	14
[	Sb	123	0.092	ug/L	0.018	20	30	894	18
[	Ba	135	0.013	ug/L	0.001	9	13	62	8
[	Ba	137	0.014	ug/L	0.001	10	15	102	7
[>	Tb	159		ug/L			1061408	1040522	0
[	Tl	205	0.037	ug/L	0.018	49	43	1294	46
[	Pb	208	0.009	ug/L	0.000	4	368	744	2
[	Bi	209		ug/L			2680757	2627248	1
[	Th	232	0.089	ug/L	0.005	5	49	3810	4
[	U	238	0.002	ug/L	0.000	17	2	89	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:06:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1731131	1
[	Be	9	0.002	ug/L	0.001	66	12	19	26
	C	13		ug/L			138826	142857	4
	Cl	37		ug/L			4735446	4901834	2
[>	Sc	45		ug/L			1275890	1246547	1
[	V	51	0.002	ug/L	0.005	244	9212	9047	2
[	V-1	51	0.003	ug/L	0.001	32	60	124	15
[	Cr	52	0.008	ug/L	0.018	226	27310	26831	2
[	Cr	53	0.011	ug/L	0.006	57	159	178	5
[	Mn	55	0.013	ug/L	0.001	10	592	913	3
[	Co	59	0.001	ug/L	0.001	126	80	91	16
[>	Ge	72		ug/L			659198	640290	1
[	Ni	60	0.026	ug/L	0.002	8	16	113	5
[	Ni	62	0.135	ug/L	0.014	10	275	339	2
[	Cu	63	0.013	ug/L	0.001	4	372	472	0
[	Cu	65	0.013	ug/L	0.002	18	41	90	11
[	Zn	66	0.366	ug/L	0.009	2	192	1058	0
[	Zn	67	0.339	ug/L	0.056	16	31	163	11
[	Zn	68	0.368	ug/L	0.019	5	189	810	3
[	As	75	-0.001	ug/L	0.011	880	267	256	9
[	As-1	75	0.131	ug/L	0.034	25	10608	10577	1
[	Se	82	-0.010	ug/L	0.049	509	-2	-4	225
[	Se	78	0.480	ug/L	0.112	23	10783	10767	1
[	Mo	98	0.011	ug/L	0.003	27	8	59	22
	Y	89		ug/L			428598	419970	0
	Kr	83		ug/L			613	624	3
[>	In	115		ug/L			928277	919281	0
[	Ag	107	0.004	ug/L	0.000	4	14	47	3
[	Cd	111	0.007	ug/L	0.001	17	65	95	5
[	Cd	114	0.003	ug/L	0.001	36	31	58	16
[	Sb	121	0.049	ug/L	0.009	18	40	644	17
[	Sb	123	0.048	ug/L	0.007	13	30	482	13
[	Ba	135	0.008	ug/L	0.001	11	13	44	8
[	Ba	137	0.010	ug/L	0.002	25	15	77	20
[>	Tb	159		ug/L			1061408	1035156	0
[	Tl	205	0.023	ug/L	0.012	53	43	796	50
[	Pb	208	0.015	ug/L	0.001	4	368	986	2
[	Bi	209		ug/L			2680757	2638502	1
[	Th	232	0.044	ug/L	0.001	2	49	1881	2
[	U	238	0.001	ug/L	0.000	7	2	40	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:10:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1813494	1
[	**Be**	**9**	**48.970**	ug/L	1.631	3	12	225655	1
	C	**13**		ug/L			138826	135291	0
	Cl	**37**		ug/L			4735446	5110303	3
[>	**Sc**	**45**		ug/L			1275890	1280784	1
[	**V**	**51**	**47.724**	ug/L	1.194	2	9212	1172767	2
[	**V-1**	**51**	**47.650**	ug/L	1.279	2	60	1162156	1
[	**Cr**	**52**	**50.715**	ug/L	0.767	1	27310	1005696	0
[	**Cr**	**53**	**50.444**	ug/L	1.462	2	159	110250	1
[	**Mn**	**55**	**48.944**	ug/L	0.646	1	592	1343682	0
[	**Co**	**59**	**51.774**	ug/L	1.979	3	80	971859	1
[>	**Ge**	**72**		ug/L			659198	660104	1
[	**Ni**	**60**	**51.362**	ug/L	0.329	0	16	202088	0
[	**Ni**	**62**	**50.834**	ug/L	1.318	2	275	28269	1
[	**Cu**	**63**	**51.088**	ug/L	0.557	1	372	442768	1
[	**Cu**	**65**	**50.968**	ug/L	0.332	0	41	197738	1
[	**Zn**	**66**	**51.144**	ug/L	0.983	1	192	125668	1
[	**Zn**	**67**	**51.815**	ug/L	1.011	1	31	21113	0
[	**Zn**	**68**	**50.432**	ug/L	0.539	1	189	88794	0
[	**As**	**75**	**50.431**	ug/L	0.450	0	267	107900	0
[	**As-1**	**75**	**50.546**	ug/L	0.475	0	10608	119831	0
[	**Se**	**82**	**51.213**	ug/L	0.577	1	-2	12017	0
[	**Se**	**78**	**50.902**	ug/L	0.679	1	10783	42937	0
[	**Mo**	**98**	**49.219**	ug/L	0.495	1	8	242710	2
	Y	**89**		ug/L			428598	430794	0
	Kr	**83**		ug/L			613	665	5
[>	**In**	**115**		ug/L			928277	924263	1
[	**Ag**	**107**	**51.062**	ug/L	1.390	2	14	480395	1
[	**Cd**	**111**	**51.093**	ug/L	0.794	1	65	214468	0
[	**Cd**	**114**	**52.016**	ug/L	1.076	2	31	549213	1
[	**Sb**	**121**	**50.653**	ug/L	0.652	1	40	632348	1
[	**Sb**	**123**	**50.923**	ug/L	0.380	0	30	480083	0
[	**Ba**	**135**	**50.220**	ug/L	0.782	1	13	187509	0
[	**Ba**	**137**	**50.270**	ug/L	0.829	1	15	323984	0
[>	**Tb**	**159**		ug/L			1061408	1077300	0
[	**Tl**	**205**	**46.671**	ug/L	0.253	0	43	1624705	0
[	**Pb**	**208**	**48.573**	ug/L	0.376	0	368	2121836	0
[	**Bi**	**209**		ug/L			2680757	2590865	0
[	**Th**	**232**	**45.455**	ug/L	0.383	0	49	1983130	0
[	**U**	**238**	**51.780**	ug/L	0.200	0	2	2436311	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:17:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1715845	1
[	Be	9	0.003	ug/L	0.000	9	12	24	4
	C	13		ug/L			138826	142411	2
	Cl	37		ug/L			4735446	4958459	0
[>	Sc	45		ug/L			1275890	1191891	0
[	V	51	0.020	ug/L	0.007	34	9212	9065	1
[	V-1	51	0.002	ug/L	0.000	13	60	103	5
[	Cr	52	0.081	ug/L	0.027	32	27310	26971	1
[	Cr	53	0.016	ug/L	0.003	20	159	181	4
[	Mn	55	0.002	ug/L	0.001	43	592	614	4
[	Co	59	0.001	ug/L	0.001	53	80	92	10
[>	Ge	72		ug/L			659198	641916	0
[	Ni	60	0.001	ug/L	0.002	324	16	18	48
[	Ni	62	0.060	ug/L	0.009	14	275	300	1
[	Cu	63	0.003	ug/L	0.003	108	372	387	6
[	Cu	65	0.003	ug/L	0.003	101	41	50	21
[	Zn	66	0.294	ug/L	0.008	2	192	889	1
[	Zn	67	0.250	ug/L	0.016	6	31	129	4
[	Zn	68	0.295	ug/L	0.020	6	189	688	4
[	As	75	0.012	ug/L	0.013	110	267	284	9
[	As-1	75	0.132	ug/L	0.047	35	10608	10606	0
[	Se	82	0.022	ug/L	0.010	47	-2	2	111
[	Se	78	0.446	ug/L	0.154	34	10783	10774	0
[	Mo	98	0.015	ug/L	0.003	18	8	78	17
	Y	89		ug/L			428598	405445	0
	Kr	83		ug/L			613	610	6
[>	In	115		ug/L			928277	895905	1
[	Ag	107	0.004	ug/L	0.001	23	14	51	17
[	Cd	111	0.005	ug/L	0.003	57	65	85	15
[	Cd	114	0.002	ug/L	0.001	37	31	47	14
[	Sb	121	0.091	ug/L	0.011	12	40	1142	11
[	Sb	123	0.092	ug/L	0.009	9	30	873	9
[	Ba	135	0.000	ug/L	0.001	442	13	14	25
[	Ba	137	0.002	ug/L	0.001	56	15	28	26
[>	Tb	159		ug/L			1061408	1023174	0
[	Tl	205	0.015	ug/L	0.007	48	43	537	45
[	Pb	208	0.005	ug/L	0.001	10	368	577	4
[	Bi	209		ug/L			2680757	2560824	1
[	Th	232	0.182	ug/L	0.019	10	49	7573	10
[	U	238	0.003	ug/L	0.000	17	2	119	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT84 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:35:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1763753	2
[	Be	9	0.030	ug/L	0.002	5	12	147	3
	C	13		ug/L			138826	152834	1
	Cl	37		ug/L			4735446	4762955	2
[>	Sc	45		ug/L			1275890	1253083	0
[	V	51	0.016	ug/L	0.003	19	9212	9432	0
[	V-1	51	0.018	ug/L	0.000	1	60	499	1
[	Cr	52	0.051	ug/L	0.008	15	27310	27787	0
[	Cr	53	0.059	ug/L	0.004	6	159	283	2
[	Mn	55	0.035	ug/L	0.002	4	592	1509	2
[	Co	59	0.006	ug/L	0.001	19	80	181	10
[>	Ge	72		ug/L			659198	654754	2
[	Ni	60	0.011	ug/L	0.003	24	16	60	19
[	Ni	62	0.026	ug/L	0.067	255	275	287	10
[	Cu	63	1.561	ug/L	0.058	3	372	13769	0
[	Cu	65	1.610	ug/L	0.083	5	41	6230	2
[	Zn	66	0.709	ug/L	0.007	0	192	1916	2
[	Zn	67	0.610	ug/L	0.045	7	31	277	6
[	Zn	68	0.659	ug/L	0.042	6	189	1337	8
[	As	75	0.015	ug/L	0.018	125	267	296	14
[	As-1	75	0.027	ug/L	0.121	451	10608	10588	0
[	Se	82	0.080	ug/L	0.073	90	-2	16	107
[	Se	78	0.085	ug/L	0.442	519	10783	10758	0
[	Mo	98	0.035	ug/L	0.007	21	8	177	18
	Y	89		ug/L			428598	425595	0
	Kr	83		ug/L			613	583	6
[>	In	115		ug/L			928277	933577	1
[	Ag	107	0.002	ug/L	0.001	52	14	30	26
[	Cd	111	0.006	ug/L	0.004	69	65	90	18
[	Cd	114	0.000	ug/L	0.001	186	31	36	21
[	Sb	121	0.042	ug/L	0.009	22	40	564	20
[	Sb	123	0.039	ug/L	0.010	26	30	399	23
[	Ba	135	0.010	ug/L	0.001	7	13	52	6
[	Ba	137	0.014	ug/L	0.000	3	15	105	3
[>	Tb	159		ug/L			1061408	1064231	0
[	Tl	205	0.021	ug/L	0.011	54	43	751	51
[	Pb	208	0.000	ug/L	0.000	147165	368	369	2
[	Bi	209		ug/L			2680757	2648038	1
[	Th	232	0.093	ug/L	0.010	11	49	4053	11
[	U	238	0.001	ug/L	0.000	13	2	41	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT84 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:39:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1782147	1
[	Be	9	0.003	ug/L	0.001	19	12	25	9
	C	13		ug/L			138826	151529	2
	Cl	37		ug/L			4735446	5039378	0
[>	Sc	45		ug/L			1275890	1287117	2
[	V	51	0.019	ug/L	0.002	11	9212	9766	2
[	V-1	51	0.009	ug/L	0.000	2	60	288	4
[	Cr	52	0.058	ug/L	0.016	27	27310	28667	2
[	Cr	53	0.022	ug/L	0.008	38	159	208	6
[	Mn	55	0.019	ug/L	0.002	10	592	1128	2
[	Co	59	0.001	ug/L	0.000	25	80	93	5
[>	Ge	72		ug/L			659198	667659	0
[	Ni	60	0.006	ug/L	0.000	6	16	40	3
[	Ni	62	0.012	ug/L	0.049	417	275	285	9
[	Cu	63	0.070	ug/L	0.000	0	372	986	0
[	Cu	65	0.071	ug/L	0.008	10	41	322	10
[	Zn	66	0.596	ug/L	0.032	5	192	1673	4
[	Zn	67	0.594	ug/L	0.045	7	31	275	6
[	Zn	68	0.595	ug/L	0.013	2	189	1250	2
[	As	75	0.016	ug/L	0.013	79	267	305	8
[	As-1	75	-0.007	ug/L	0.044	678	10608	10729	0
[	Se	82	0.037	ug/L	0.032	86	-2	5	131
[	Se	78	-0.052	ug/L	0.158	304	10783	10888	0
[	Mo	98	0.006	ug/L	0.001	13	8	39	10
	Y	89		ug/L			428598	433712	0
	Kr	83		ug/L			613	613	4
[>	In	115		ug/L			928277	935354	1
[	Ag	107	0.001	ug/L	0.000	19	14	25	9
[	Cd	111	0.006	ug/L	0.002	34	65	91	8
[	Cd	114	0.000	ug/L	0.000	144	31	35	14
[	Sb	121	0.017	ug/L	0.004	23	40	254	18
[	Sb	123	0.017	ug/L	0.004	20	30	196	16
[	Ba	135	0.036	ug/L	0.004	10	13	149	10
[	Ba	137	0.035	ug/L	0.002	7	15	242	6
[>	Tb	159		ug/L			1061408	1065271	0
[	Tl	205	0.008	ug/L	0.003	40	43	308	34
[	Pb	208	0.005	ug/L	0.001	10	368	593	3
[	Bi	209		ug/L			2680757	2647958	0
[	Th	232	0.065	ug/L	0.003	4	49	2832	4
[	U	238	0.001	ug/L	0.000	24	2	45	23

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT84 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:43:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1852475	0
	Be	9	23.905	ug/L	0.118	0	12	112565	0
	C	13		ug/L			138826	155163	4
	Cl	37		ug/L			4735446	5059291	1
>	Sc	45		ug/L			1275890	1297897	1
	V	51	24.573	ug/L	0.360	1	9212	616508	1
	V-1	51	24.668	ug/L	0.424	1	60	609741	0
	Cr	52	26.142	ug/L	0.618	2	27310	538800	2
	Cr	53	26.480	ug/L	0.834	3	159	58720	1
	Mn	55	25.573	ug/L	0.682	2	592	711615	1
	Co	59	25.882	ug/L	0.920	3	80	492403	2
>	Ge	72		ug/L			659198	669076	3
	Ni	60	26.601	ug/L	0.729	2	16	106041	0
	Ni	62	26.386	ug/L	0.776	2	275	15001	1
	Cu	63	26.670	ug/L	0.674	2	372	234354	0
	Cu	65	26.062	ug/L	0.471	1	41	102474	1
	Zn	66	80.188	ug/L	4.515	5	192	199394	2
	Zn	67	74.797	ug/L	1.372	1	31	30872	1
	Zn	68	77.288	ug/L	3.524	4	189	137711	1
	As	75	24.283	ug/L	0.853	3	267	52769	0
	As-1	75	25.192	ug/L	0.932	3	10608	65899	0
	Se	82	76.221	ug/L	2.444	3	-2	18120	0
	Se	78	76.080	ug/L	2.650	3	10783	59605	0
	Mo	98	24.396	ug/L	0.387	1	8	121895	1
	Y	89		ug/L			428598	436843	0
	Kr	83		ug/L			613	630	5
>	In	115		ug/L			928277	952017	0
	Ag	107	26.468	ug/L	0.791	2	14	256539	2
	Cd	111	24.504	ug/L	0.044	0	65	105998	0
	Cd	114	24.585	ug/L	0.221	0	31	267409	0
	Sb	121	24.373	ug/L	0.251	1	40	313473	1
	Sb	123	24.286	ug/L	0.039	0	30	235868	0
	Ba	135	25.508	ug/L	0.171	0	13	98121	0
	Ba	137	25.699	ug/L	0.254	0	15	170629	0
>	Tb	159		ug/L			1061408	1093685	0
	Tl	205	24.035	ug/L	0.095	0	43	849445	0
	Pb	208	24.939	ug/L	0.089	0	368	1106156	0
	Bi	209		ug/L			2680757	2624798	0
	Th	232	23.651	ug/L	0.141	0	49	1047562	0
	U	238	22.969	ug/L	0.120	0	2	1097184	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT84 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:47:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1826865	0
[	Be	9	24.546	ug/L	0.095	0	12	113982	0
	C	13		ug/L			138826	151562	1
	Cl	37		ug/L			4735446	5085565	0
[>	Sc	45		ug/L			1275890	1328287	1
|	V	51	23.680	ug/L	0.263	1	9212	608423	1
|	V-1	51	23.588	ug/L	0.363	1	60	596736	1
|	Cr	52	25.034	ug/L	0.168	0	27310	529294	1
|	Cr	53	24.703	ug/L	0.955	3	159	56072	2
|	Mn	55	24.767	ug/L	0.196	0	592	705500	1
[	Co	59	25.211	ug/L	0.587	2	80	490947	0
[>	Ge	72		ug/L			659198	663026	1
|	Ni	60	26.205	ug/L	0.991	3	16	103530	1
|	Ni	62	26.291	ug/L	0.584	2	275	14817	0
|	Cu	63	25.837	ug/L	0.385	1	372	225067	0
|	Cu	65	26.606	ug/L	0.257	0	41	103696	1
|	Zn	66	80.294	ug/L	1.292	1	192	198075	2
|	Zn	67	76.493	ug/L	1.375	1	31	31290	0
|	Zn	68	78.947	ug/L	1.123	1	189	139496	0
|	As	75	24.461	ug/L	0.291	1	267	52703	0
|	As-1	75	25.443	ug/L	0.758	2	10608	65869	1
|	Se	82	78.392	ug/L	0.783	0	-2	18477	0
|	Se	78	78.390	ug/L	2.324	2	10783	60549	0
[	Mo	98	24.233	ug/L	0.322	1	8	120014	1
	Y	89		ug/L			428598	443106	2
	Kr	83		ug/L			613	631	2
[>	In	115		ug/L			928277	953024	1
|	Ag	107	26.178	ug/L	0.347	1	14	254006	1
|	Cd	111	24.535	ug/L	0.425	1	65	106234	1
|	Cd	114	24.493	ug/L	0.218	0	31	266692	1
|	Sb	121	23.953	ug/L	0.141	0	40	308390	1
|	Sb	123	23.979	ug/L	0.104	0	30	233140	1
|	Ba	135	24.986	ug/L	0.222	0	13	96218	1
[	Ba	137	25.067	ug/L	0.278	1	15	166597	0
[>	Tb	159		ug/L			1061408	1093829	0
|	Tl	205	23.806	ug/L	0.091	0	43	841490	0
|	Pb	208	24.676	ug/L	0.278	1	368	1094649	1
|	Bi	209		ug/L			2680757	2638667	0
|	Th	232	23.241	ug/L	0.078	0	49	1029568	0
[	U	238	22.484	ug/L	0.244	1	2	1074118	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT84 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:51:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1777024	0
[	**Be**	**9**	**0.039**	ug/L	0.002	4	12	186	3
	C	**13**		ug/L			138826	156993	1
	Cl	**37**		ug/L			4735446	4879192	3
[>	**Sc**	**45**		ug/L			1275890	1356630	0
[	**V**	**51**	**14.361**	ug/L	0.089	0	9212	380735	1
[	**V-1**	**51**	**14.359**	ug/L	0.101	0	60	371091	1
[	**Cr**	**52**	**3.611**	ug/L	0.014	0	27310	102840	0
[	**Cr**	**53**	**3.619**	ug/L	0.119	3	159	8537	2
[	**Mn**	**55**	**45.857**	ug/L	0.218	0	592	1333716	0
[	**Co**	**59**	**1.539**	ug/L	0.031	2	80	30701	1
[>	**Ge**	**72**		ug/L			659198	657465	0
[	**Ni**	**60**	**7.873**	ug/L	0.214	2	16	30871	3
[	**Ni**	**62**	**8.048**	ug/L	0.218	2	275	4688	2
[	**Cu**	**63**	**17.454**	ug/L	0.312	1	372	150899	0
[	**Cu**	**65**	**16.912**	ug/L	0.045	0	41	65380	0
[	**Zn**	**66**	**22.481**	ug/L	0.260	1	192	55130	0
[	**Zn**	**67**	**21.963**	ug/L	0.151	0	31	8932	1
[	**Zn**	**68**	**22.763**	ug/L	0.251	1	189	40023	0
[	**As**	**75**	**2.071**	ug/L	0.016	0	267	4669	1
[	**As-1**	**75**	**2.050**	ug/L	0.078	3	10608	14991	0
[	**Se**	**82**	**0.507**	ug/L	0.028	5	-2	115	6
[	**Se**	**78**	**0.536**	ug/L	0.339	63	10783	11090	1
[	**Mo**	**98**	**3.420**	ug/L	0.045	1	8	16805	0
	Y	**89**		ug/L			428598	464678	1
	Kr	**83**		ug/L			613	645	3
[>	**In**	**115**		ug/L			928277	935338	1
[	**Ag**	**107**	**0.025**	ug/L	0.004	14	14	253	14
[	**Cd**	**111**	**0.053**	ug/L	0.003	6	65	292	4
[	**Cd**	**114**	**0.041**	ug/L	0.003	7	31	469	6
[	**Sb**	**121**	**0.827**	ug/L	0.004	0	40	10482	0
[	**Sb**	**123**	**0.824**	ug/L	0.008	0	30	7888	1
[	**Ba**	**135**	**14.149**	ug/L	0.065	0	13	53479	1
[	**Ba**	**137**	**14.257**	ug/L	0.209	1	15	93003	0
[>	**Tb**	**159**		ug/L			1061408	1085470	0
[	**Tl**	**205**	**0.019**	ug/L	0.001	5	43	725	6
[	**Pb**	**208**	**1.790**	ug/L	0.019	1	368	79127	0
[	**Bi**	**209**		ug/L			2680757	2572738	1
[	**Th**	**232**	**0.455**	ug/L	0.050	10	49	20060	10
[	**U**	**238**	**0.165**	ug/L	0.005	3	2	7806	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT84 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:55:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1795207	0
[	Be	9	0.023	ug/L	0.002	9	12	118	8
	C	13		ug/L			138826	153770	0
	Cl	37		ug/L			4735446	4760227	1
[>	Sc	45		ug/L			1275890	1317166	1
[	V	51	5.406	ug/L	0.114	2	9212	145110	2
[	V-1	51	5.417	ug/L	0.109	2	60	135989	3
[	Cr	52	0.515	ug/L	0.053	10	27310	38410	2
[	Cr	53	0.561	ug/L	0.025	4	159	1423	3
[	Mn	55	20.445	ug/L	0.535	2	592	577624	2
[	Co	59	0.114	ug/L	0.002	1	80	2288	1
[>	Ge	72		ug/L			659198	659239	0
[	Ni	60	3.237	ug/L	0.113	3	16	12738	3
[	Ni	62	3.168	ug/L	0.061	1	275	2017	2
[	Cu	63	8.751	ug/L	0.180	2	372	76061	2
[	Cu	65	8.135	ug/L	0.045	0	41	31557	0
[	Zn	66	5.038	ug/L	0.025	0	192	12537	0
[	Zn	67	4.943	ug/L	0.134	2	31	2039	2
[	Zn	68	5.323	ug/L	0.104	1	189	9530	1
[	As	75	1.103	ug/L	0.054	4	267	2618	4
[	As-1	75	1.069	ug/L	0.061	5	10608	12915	0
[	Se	82	0.472	ug/L	0.062	13	-2	107	13
[	Se	78	0.379	ug/L	0.101	26	10783	11022	0
[	Mo	98	3.549	ug/L	0.056	1	8	17484	1
	Y	89		ug/L			428598	435825	1
	Kr	83		ug/L			613	616	5
[>	In	115		ug/L			928277	945590	0
[	Ag	107	0.006	ug/L	0.000	5	14	73	3
[	Cd	111	0.014	ug/L	0.002	13	65	126	6
[	Cd	114	0.013	ug/L	0.001	9	31	176	7
[	Sb	121	0.791	ug/L	0.010	1	40	10146	1
[	Sb	123	0.815	ug/L	0.014	1	30	7892	1
[	Ba	135	3.699	ug/L	0.055	1	13	14144	1
[	Ba	137	3.680	ug/L	0.016	0	15	24283	1
[>	Tb	159		ug/L			1061408	1099912	0
[	Tl	205	0.009	ug/L	0.002	19	43	349	16
[	Pb	208	0.089	ug/L	0.003	3	368	4347	2
[	Bi	209		ug/L			2680757	2600009	1
[	Th	232	0.079	ug/L	0.005	5	49	3553	5
[	U	238	0.124	ug/L	0.001	0	2	5953	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:06:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1778176	0
	Be	9	50.332	ug/L	0.432	0	12	227479	0
	C	13		ug/L			138826	141713	2
	Cl	37		ug/L			4735446	5038545	2
>	Sc	45		ug/L			1275890	1301941	1
	V	51	47.363	ug/L	0.655	1	9212	1183265	0
	V-1	51	47.253	ug/L	0.792	1	60	1171624	0
	Cr	52	49.472	ug/L	0.816	1	27310	997964	0
	Cr	53	49.077	ug/L	1.260	2	159	109047	1
	Mn	55	47.480	ug/L	0.168	0	592	1325244	1
	Co	59	49.203	ug/L	0.760	1	80	939175	0
>	Ge	72		ug/L			659198	660592	0
	Ni	60	49.744	ug/L	1.153	2	16	195874	2
	Ni	62	49.545	ug/L	0.945	1	275	27585	2
	Cu	63	50.538	ug/L	0.634	1	372	438336	1
	Cu	65	50.798	ug/L	0.823	1	41	197242	2
	Zn	66	50.247	ug/L	1.116	2	192	123562	1
	Zn	67	50.639	ug/L	1.419	2	31	20650	2
	Zn	68	50.705	ug/L	0.960	1	189	89349	2
	As	75	49.576	ug/L	0.343	0	267	106164	1
	As-1	75	49.545	ug/L	0.190	0	10608	117765	0
	Se	82	50.844	ug/L	0.300	0	-2	11941	1
	Se	78	49.950	ug/L	0.437	0	10783	42372	1
	Mo	98	48.247	ug/L	0.833	1	8	238102	2
	Y	89		ug/L			428598	430291	1
	Kr	83		ug/L			613	611	3
>	In	115		ug/L			928277	933535	0
	Ag	107	51.701	ug/L	0.768	1	14	491422	1
	Cd	111	50.888	ug/L	0.199	0	65	215786	1
	Cd	114	51.593	ug/L	0.628	1	31	550243	0
	Sb	121	50.196	ug/L	0.507	1	40	632961	0
	Sb	123	50.630	ug/L	0.485	0	30	482136	0
	Ba	135	49.350	ug/L	0.916	1	13	186125	1
	Ba	137	49.909	ug/L	0.963	1	15	324919	1
>	Tb	159		ug/L			1061408	1095113	0
	Tl	205	45.837	ug/L	0.191	0	43	1622058	0
	Pb	208	47.994	ug/L	0.344	0	368	2131170	0
	Bi	209		ug/L			2680757	2622085	0
	Th	232	44.230	ug/L	0.483	1	49	1961563	0
	U	238	50.992	ug/L	0.630	1	2	2438865	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:13:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1728826	0
[	Be	9	0.001	ug/L	0.000	31	12	16	9
	C	13		ug/L			138826	142320	1
	Cl	37		ug/L			4735446	4865424	0
[>	Sc	45		ug/L			1275890	1238833	0
|	V	51	-0.001	ug/L	0.009	863	9212	8919	1
|	V-1	51	0.001	ug/L	0.001	48	60	90	17
|	Cr	52	-0.003	ug/L	0.037	1194	27310	26456	1
|	Cr	53	0.005	ug/L	0.008	144	159	166	9
|	Mn	55	0.002	ug/L	0.001	49	592	635	4
[	Co	59	0.000	ug/L	0.000	89	80	80	3
[>	Ge	72		ug/L			659198	641367	2
|	Ni	60	0.001	ug/L	0.001	91	16	20	18
|	Ni	62	0.051	ug/L	0.034	67	275	295	4
|	Cu	63	0.005	ug/L	0.002	44	372	402	2
|	Cu	65	0.002	ug/L	0.002	93	41	47	13
|	Zn	66	0.289	ug/L	0.009	3	192	876	2
|	Zn	67	0.291	ug/L	0.043	14	31	145	10
|	Zn	68	0.304	ug/L	0.016	5	189	703	2
|	As	75	0.011	ug/L	0.019	162	267	283	15
|	As-1	75	0.117	ug/L	0.169	143	10608	10561	0
|	Se	82	-0.023	ug/L	0.063	270	-2	-8	175
|	Se	78	0.374	ug/L	0.613	163	10783	10714	0
[	Mo	98	0.009	ug/L	0.001	12	8	49	8
	Y	89		ug/L			428598	412927	0
	Kr	83		ug/L			613	623	3
[>	In	115		ug/L			928277	914544	0
|	Ag	107	0.002	ug/L	0.001	44	14	34	26
|	Cd	111	0.005	ug/L	0.001	21	65	84	5
|	Cd	114	0.001	ug/L	0.001	115	31	39	23
|	Sb	121	0.070	ug/L	0.007	10	40	907	10
|	Sb	123	0.068	ug/L	0.010	15	30	663	14
|	Ba	135	0.002	ug/L	0.001	34	13	20	11
[	Ba	137	0.002	ug/L	0.001	35	15	30	17
[>	Tb	159		ug/L			1061408	1044453	0
|	Tl	205	0.008	ug/L	0.003	40	43	307	34
|	Pb	208	0.005	ug/L	0.000	7	368	580	3
|	Bi	209		ug/L			2680757	2634932	0
|	Th	232	0.167	ug/L	0.021	12	49	7107	11
[	U	238	0.002	ug/L	0.000	6	2	93	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:22:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean		Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**			ug/L			1738475	1764561	0
	Be	**9**	**0.002**		ug/L	0.000	23	12	20	10
	C	**13**			ug/L			138826	143568	3
	Cl	**37**			ug/L			4735446	4884332	2
>	**Sc**	**45**			ug/L			1275890	1249388	2
	V	**51**	**0.010**		ug/L	0.010	99	9212	9257	3
	V-1	**51**	**0.001**		ug/L	0.001	77	60	83	22
	Cr	**52**	**0.039**		ug/L	0.029	73	27310	27479	3
	Cr	**53**	**0.007**		ug/L	0.004	59	159	171	5
	Mn	**55**	**0.034**		ug/L	0.001	2	592	1486	0
	Co	**59**	**0.001**		ug/L	0.000	33	80	104	9
>	**Ge**	**72**			ug/L			659198	648705	1
	Ni	**60**	**0.002**		ug/L	0.002	90	16	25	34
	Ni	**62**	**-0.017**		ug/L	0.050	296	275	262	11
	Cu	**63**	**0.023**		ug/L	0.001	2	372	560	2
	Cu	**65**	**0.026**		ug/L	0.004	14	41	139	10
	Zn	**66**	**0.112**		ug/L	0.008	7	192	458	3
	Zn	**67**	**0.114**		ug/L	0.030	26	31	76	15
	Zn	**68**	**0.117**		ug/L	0.009	7	189	388	4
	As	**75**	**0.016**		ug/L	0.008	51	267	296	5
	As-1	**75**	**0.072**		ug/L	0.104	144	10608	10588	0
	Se	**82**	**-0.010**		ug/L	0.060	578	-2	-5	268
	Se	**78**	**0.207**		ug/L	0.360	173	10783	10737	0
	Mo	**98**	**0.003**		ug/L	0.001	34	8	22	21
	Y	**89**			ug/L			428598	424678	1
	Kr	**83**			ug/L			613	624	6
>	**In**	**115**			ug/L			928277	931880	0
	Ag	**107**	U	**0.001**	ug/L	0.001	61	14	26	27
	Cd	**111**		**0.004**	ug/L	0.002	38	65	82	8
	Cd	**114**		**0.000**	ug/L	0.000	570	31	32	13
	Sb	**121**		**0.021**	ug/L	0.004	19	40	306	17
	Sb	**123**		**0.020**	ug/L	0.003	14	30	225	13
	Ba	**135**		**0.019**	ug/L	0.002	8	13	85	7
	Ba	**137**		**0.020**	ug/L	0.000	2	15	144	1
>	**Tb**	**159**			ug/L			1061408	1058560	0
	Tl	**205**		**0.004**	ug/L	0.002	46	43	183	35
	Pb	**208**		**0.006**	ug/L	0.000	5	368	609	2
	Bi	**209**			ug/L			2680757	2661702	0
	Th	**232**		**0.074**	ug/L	0.007	9	49	3206	9
	U	**238**		**0.001**	ug/L	0.000	23	2	29	21

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:26:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1773559	1
	Be	9	24.744	ug/L	0.389	1	12	111539	0
	C	13		ug/L			138826	146671	3
	Cl	37		ug/L			4735446	4812316	2
>	Sc	45		ug/L			1275890	1258360	1
	V	51	24.538	ug/L	0.522	2	9212	596878	1
	V-1	51	24.586	ug/L	0.377	1	60	589286	1
	Cr	52	26.523	ug/L	0.799	3	27310	529562	1
	Cr	53	26.694	ug/L	0.270	1	159	57412	1
	Mn	55	26.058	ug/L	0.038	0	592	703247	1
	Co	59	26.531	ug/L	0.569	2	80	489491	1
>	Ge	72		ug/L			659198	657273	0
	Ni	60	26.800	ug/L	0.178	0	16	105008	0
	Ni	62	26.805	ug/L	0.102	0	275	14974	0
	Cu	63	26.994	ug/L	0.616	2	372	233137	2
	Cu	65	27.020	ug/L	0.185	0	41	104403	0
	Zn	66	84.170	ug/L	0.984	1	192	205828	0
	Zn	67	76.794	ug/L	1.311	1	31	31147	1
	Zn	68	81.866	ug/L	0.367	0	189	143417	0
	As	75	24.975	ug/L	0.243	0	267	53344	0
	As-1	75	25.937	ug/L	0.244	0	10608	66379	0
	Se	82	83.119	ug/L	0.954	1	-2	19424	0
	Se	78	82.785	ug/L	0.398	0	10783	62803	0
	Mo	98	24.223	ug/L	0.336	1	8	118936	1
	Y	89		ug/L			428598	424528	1
	Kr	83		ug/L			613	608	3
>	In	115		ug/L			928277	941101	1
	Ag	107	26.348	ug/L	0.432	1	14	252444	0
	Cd	111	25.232	ug/L	0.459	1	65	107874	0
	Cd	114	25.486	ug/L	0.450	1	31	273992	0
	Sb	121	24.798	ug/L	0.534	2	40	315198	0
	Sb	123	24.935	ug/L	0.550	2	30	239342	0
	Ba	135	25.533	ug/L	0.478	1	13	97078	0
	Ba	137	25.661	ug/L	0.502	1	15	168400	0
>	Tb	159		ug/L			1061408	1078197	0
	Tl	205	24.518	ug/L	0.175	0	43	854210	0
	Pb	208	25.557	ug/L	0.213	0	368	1117494	0
	Bi	209		ug/L			2680757	2677326	1
	Th	232	22.959	ug/L	0.375	1	49	1002436	0
	U	238	22.903	ug/L	0.236	1	2	1078450	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR88 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:31:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1775120	0
[	Be	9	24.130	ug/L	0.252	1	12	108877	0
	C	13		ug/L			138826	153485	1
	Cl	37		ug/L			4735446	4861432	2
[>	Sc	45		ug/L			1275890	1280305	0
|	V	51	24.213	ug/L	0.060	0	9212	599454	0
|	V-1	51	24.188	ug/L	0.182	0	60	589881	0
|	Cr	52	25.383	ug/L	0.702	2	27310	516962	2
|	Cr	53	25.291	ug/L	0.161	0	159	55355	0
|	Mn	55	24.717	ug/L	0.498	2	592	678748	2
[	Co	59	26.125	ug/L	0.741	2	80	490500	3
[>	Ge	72		ug/L			659198	650040	2
|	Ni	60	26.653	ug/L	0.630	2	16	103257	1
|	Ni	62	26.169	ug/L	0.847	3	275	14461	2
|	Cu	63	26.790	ug/L	0.240	0	372	228795	1
|	Cu	65	26.905	ug/L	0.422	1	41	102791	1
|	Zn	66	81.418	ug/L	1.224	1	192	196881	1
|	Zn	67	74.919	ug/L	1.326	1	31	30049	2
|	Zn	68	79.335	ug/L	1.613	2	189	137417	0
|	As	75	24.246	ug/L	0.378	1	267	51214	0
|	As-1	75	25.169	ug/L	0.263	1	10608	64009	1
|	Se	82	78.654	ug/L	1.827	2	-2	18172	0
|	Se	78	78.449	ug/L	1.136	1	10783	59405	1
[	Mo	98	24.311	ug/L	0.611	2	8	118007	0
	Y	89		ug/L			428598	427924	1
	Kr	83		ug/L			613	633	4
[>	In	115		ug/L			928277	946027	0
|	Ag	107	24.237	ug/L	0.486	2	14	233486	2
|	Cd	111	24.924	ug/L	0.158	0	65	107137	1
|	Cd	114	24.769	ug/L	0.118	0	31	267737	1
|	Sb	121	24.184	ug/L	0.212	0	40	309061	0
|	Sb	123	24.184	ug/L	0.409	1	30	233398	1
|	Ba	135	24.971	ug/L	0.290	1	13	95457	1
[	Ba	137	25.124	ug/L	0.271	1	15	165764	1
[>	Tb	159		ug/L			1061408	1073262	1
|	Tl	205	24.369	ug/L	0.249	1	43	845135	1
|	Pb	208	25.265	ug/L	0.306	1	368	1099590	1
|	Bi	209		ug/L			2680757	2666857	0
|	Th	232	23.147	ug/L	0.389	1	49	1005943	1
[	U	238	22.804	ug/L	0.316	1	2	1068826	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR88 J REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:36:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1760417	1
[	**Be**	**9**	**0.041**	ug/L	0.003	6	12	194	7
	C	**13**		ug/L			138826	148727	0
	Cl	**37**		ug/L			4735446	5944954	0
[>	**Sc**	**45**		ug/L			1275890	1306355	1
[	**V**	**51**	**23.736**	ug/L	0.158	0	9212	599804	1
[	**V-1**	**51**	**23.839**	ug/L	0.175	0	60	593248	1
[	**Cr**	**52**	**4.978**	ug/L	0.104	2	27310	125897	0
[	**Cr**	**53**	**5.374**	ug/L	0.057	1	159	12129	2
[	**Mn**	**55**	**109.853**	ug/L	0.653	0	592	3075655	0
[	**Co**	**59**	**0.174**	ug/L	0.004	2	80	3410	1
[>	**Ge**	**72**		ug/L			659198	641828	2
[	**Ni**	**60**	**0.293**	ug/L	0.006	2	16	1134	0
[	**Ni**	**62**	**21.535**	ug/L	5.045	23	275	11781	22
[	**Cu**	**63**	**4.754**	ug/L	0.457	9	372	40357	8
[	**Cu**	**65**	**0.632**	ug/L	0.027	4	41	2422	2
[	**Zn**	**66**	**1.224**	ug/L	0.037	2	192	3106	1
[	**Zn**	**67**	**1.849**	ug/L	0.050	2	31	761	0
[	**Zn**	**68**	**1.830**	ug/L	0.013	0	189	3310	1
[	**As**	**75**	**0.160**	ug/L	0.015	9	267	590	4
[	**As-1**	**75**	**0.306**	ug/L	0.091	29	10608	10967	0
[	**Se**	**82**	**0.164**	ug/L	0.072	43	-2	34	47
[	**Se**	**78**	**0.686**	ug/L	0.327	47	10783	10917	0
[	**Mo**	**98**	**0.087**	ug/L	0.004	4	8	427	2
	Y	**89**		ug/L			428598	476466	0
	Kr	**83**		ug/L			613	617	1
[>	**In**	**115**		ug/L			928277	887571	1
[	**Ag**	**107**	**0.009**	ug/L	0.001	9	14	99	9
[	**Cd**	**111**	**0.032**	ug/L	0.003	8	65	191	6
[	**Cd**	**114**	**0.002**	ug/L	0.001	34	31	55	16
[	**Sb**	**121**	**0.041**	ug/L	0.008	19	40	526	17
[	**Sb**	**123**	**0.042**	ug/L	0.003	6	30	408	4
[	**Ba**	**135**	**2.314**	ug/L	0.027	1	13	8309	0
[	**Ba**	**137**	**2.323**	ug/L	0.030	1	15	14390	0
[>	**Tb**	**159**		ug/L			1061408	1080553	1
[	**Tl**	**205**	**0.015**	ug/L	0.005	32	43	557	29
[	**Pb**	**208**	**0.053**	ug/L	0.001	2	368	2690	2
[	**Bi**	**209**		ug/L			2680757	2418957	0
[	**Th**	**232**	**0.406**	ug/L	0.027	6	49	17841	7
[	**U**	**238**	**0.042**	ug/L	0.003	6	2	2005	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:40:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1807654	1
	Be	9	0.521	ug/L	0.006	1	12	2405	1
	C	13		ug/L			138826	200278	0
	Cl	37		ug/L			4735446	4904519	1
>	Sc	45		ug/L			1275890	1396038	1
	V	51	40.795	ug/L	0.849	2	9212	1094111	0
	V-1	51	40.791	ug/L	1.002	2	60	1084387	0
	Cr	52	33.953	ug/L	0.663	1	27310	743757	1
	Cr	53	33.949	ug/L	0.963	2	159	80935	1
	Mn	55	1103.015	ug/L	20.868	1	592	32990568	0
	Co	59	9.365	ug/L	0.032	0	80	191776	1
>	Ge	72		ug/L			659198	664016	0
	Ni	60	22.665	ug/L	0.665	2	16	89712	2
	Ni	62	26.509	ug/L	0.274	1	275	14963	0
	Cu	63	35.695	ug/L	0.902	2	372	311288	1
	Cu	65	36.437	ug/L	0.505	1	41	142214	1
	Zn	66	363.720	ug/L	7.894	2	192	897870	1
	Zn	67	365.475	ug/L	8.417	2	31	149631	2
	Zn	68	373.500	ug/L	6.370	1	189	660325	1
	As	75	11.072	ug/L	0.023	0	267	24040	0
	As-1	75	10.835	ug/L	0.091	0	10608	34236	0
	Se	82	0.090	ug/L	0.045	49	-2	18	58
	Se	78	0.079	ug/L	0.191	242	10783	10911	0
	Mo	98	0.419	ug/L	0.001	0	8	2086	0
	Y	89		ug/L			428598	585200	1
	Kr	83		ug/L			613	891	1
>	In	115		ug/L			928277	981385	1
	Ag	107	0.197	ug/L	0.003	1	14	1980	1
	Cd	111	7.119	ug/L	0.136	1	65	31789	1
	Cd	114	7.041	ug/L	0.107	1	31	78968	1
	Sb	121	0.401	ug/L	0.006	1	40	5359	1
	Sb	123	0.401	ug/L	0.004	1	30	4047	2
	Ba	135	572.455	ug/L	5.200	0	13	2269576	0
	Ba	137	565.587	ug/L	4.618	0	15	3870651	0
>	Tb	159		ug/L			1061408	1121006	0
	Tl	205	0.372	ug/L	0.010	2	43	13505	2
	Pb	208	350.623	ug/L	0.453	0	368	15935477	0
	Bi	209		ug/L			2680757	2615824	0
	Th	232	4.183	ug/L	0.044	1	49	189956	0
	U	238	0.782	ug/L	0.005	0	2	38304	0

VS21 : 00462

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:44:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1850113	1
[	Be	9	1.104	ug/L	0.017	1	12	5202	2
	C	13		ug/L			138826	249076	1
	Cl	37		ug/L			4735446	4954281	2
[>	Sc	45		ug/L			1275890	1409609	1
|	V	51	24.843	ug/L	0.146	0	9212	676932	2
|	V-1	51	24.786	ug/L	0.223	0	60	665558	2
|	Cr	52	21.486	ug/L	0.098	0	27310	486377	1
|	Cr	53	21.289	ug/L	0.460	2	159	51323	1
|	Mn	55	5867.274	ug/L	28.537	0	592	177234278	1
[	Co	59	22.359	ug/L	0.434	1	80	462150	1
[>	Ge	72		ug/L			659198	667639	2
|	Ni	60	50.885	ug/L	0.622	1	16	202519	2
|	Ni	62	52.663	ug/L	0.241	0	275	29614	2
|	Cu	63	60.444	ug/L	1.618	2	372	529609	1
|	Cu	65	60.483	ug/L	0.594	0	41	237343	2
|	Zn	66	1531.018	ug/L	45.011	2	192	3798707	2
|	Zn	67	1278.434	ug/L	33.639	2	31	526219	3
|	Zn	68	1492.626	ug/L	16.001	1	189	2652887	2
|	As	75	52.568	ug/L	0.743	1	267	113735	1
|	As-1	75	51.745	ug/L	0.814	1	10608	123805	0
|	Se	82	1.257	ug/L	0.074	5	-2	295	4
|	Se	78	1.038	ug/L	0.418	40	10783	11580	0
[	Mo	98	1.129	ug/L	0.035	3	8	5638	1
	Y	89		ug/L			428598	737768	1
	Kr	83		ug/L			613	1005	0
[>	In	115		ug/L			928277	1075922	1
|	Ag	107	0.636	ug/L	0.006	0	14	6979	1
|	Cd	111	35.765	ug/L	0.721	2	65	174769	0
|	Cd	114	35.965	ug/L	0.653	1	31	442010	0
|	Sb	121	2.541	ug/L	0.036	1	40	36961	0
|	Sb	123	2.568	ug/L	0.061	2	30	28212	0
|	Ba	135	531.944	ug/L	13.438	2	13	2311730	1
[	Ba	137	529.034	ug/L	8.673	1	15	3968729	0
[>	Tb	159		ug/L			1061408	1130276	1
|	Tl	205	1.040	ug/L	0.013	1	43	38011	0
|	Pb	208	1176.028	ug/L	11.560	0	368	53887920	0
|	Bi	209		ug/L			2680757	2655950	0
|	Th	232	3.791	ug/L	0.059	1	49	173549	1
[	U	238	0.688	ug/L	0.005	0	2	33956	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:48:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1877653	0
[	Be	9	0.826	ug/L	0.012	1	12	3956	0
	C	13		ug/L			138826	280849	1
	Cl	37		ug/L			4735446	5268736	4
[>	Sc	45		ug/L			1275890	1393709	0
[	V	51	18.576	ug/L	0.218	1	9212	502969	1
[	V-1	51	18.664	ug/L	0.128	0	60	495508	0
[	Cr	52	14.348	ug/L	0.163	1	27310	331059	0
[	Cr	53	14.669	ug/L	0.291	1	159	35023	1
[	Mn	55	5730.178	ug/L	85.689	1	592	171135199	1
[	Co	59	19.999	ug/L	0.270	1	80	408750	1
[>	Ge	72		ug/L			659198	673539	1
[	Ni	60	38.762	ug/L	1.116	2	16	155579	1
[	Ni	62	40.279	ug/L	1.318	3	275	22908	1
[	Cu	63	61.966	ug/L	1.759	2	372	547772	1
[	Cu	65	62.911	ug/L	0.936	1	41	248997	0
[	Zn	66	1246.894	ug/L	23.499	1	192	3121503	1
[	Zn	67	1048.818	ug/L	15.745	1	31	435478	1
[	Zn	68	1141.311	ug/L	88.489	7	189	2045013	6
[	As	75	20.705	ug/L	0.524	2	267	45352	0
[	As-1	75	20.295	ug/L	0.619	3	10608	55567	0
[	Se	82	1.237	ug/L	0.063	5	-2	293	4
[	Se	78	0.993	ug/L	0.390	39	10783	11654	0
[	Mo	98	1.012	ug/L	0.024	2	8	5097	0
	Y	89		ug/L			428598	700562	1
	Kr	83		ug/L			613	922	6
[>	In	115		ug/L			928277	1090035	0
[	Ag	107	0.921	ug/L	0.029	3	14	10238	2
[	Cd	111	24.566	ug/L	0.358	1	65	121666	0
[	Cd	114	24.847	ug/L	0.126	0	31	309452	0
[	Sb	121	3.010	ug/L	0.003	0	40	44364	0
[	Sb	123	2.988	ug/L	0.025	0	30	33264	1
[	Ba	135	371.468	ug/L	2.344	0	13	1635900	0
[	Ba	137	415.825	ug/L	3.928	0	15	3160890	0
[>	Tb	159		ug/L			1061408	1126474	0
[	Tl	205	0.848	ug/L	0.010	1	43	30927	0
[	Pb	208	1593.277	ug/L	12.656	0	368	72762657	0
[	Bi	209		ug/L			2680757	2714565	0
[	Th	232	2.683	ug/L	0.018	0	49	122446	0
[	U	238	0.532	ug/L	0.001	0	2	26198	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:52:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1906879	1
[	**Be**	**9**	**2.199**	ug/L	0.017	0	12	10668	0
	C	**13**		ug/L			138826	250963	1
	Cl	**37**		ug/L			4735446	5345419	1
[>	**Sc**	**45**		ug/L			1275890	1441346	1
|	**V**	**51**	**27.341**	ug/L	0.368	1	9212	760636	0
|	**V-1**	**51**	**27.262**	ug/L	0.333	1	60	748472	1
|	**Cr**	**52**	**23.657**	ug/L	0.623	2	27310	544406	1
|	**Cr**	**53**	**23.381**	ug/L	0.326	1	159	57627	2
|	**Mn**	**55**	**4601.461**	ug/L	43.687	0	592	142119209	1
[	**Co**	**59**	**34.847**	ug/L	0.435	1	80	736561	2
[>	**Ge**	**72**		ug/L			659198	652082	0
|	**Ni**	**60**	**74.560**	ug/L	1.246	1	16	289775	0
|	**Ni**	**62**	**76.037**	ug/L	1.221	1	275	41638	0
|	**Cu**	**63**	**69.936**	ug/L	1.276	1	372	598572	0
|	**Cu**	**65**	**69.014**	ug/L	0.571	0	41	264485	0
|	**Zn**	**66**	**788.790**	ug/L	14.064	1	192	1911958	1
|	**Zn**	**67**	**729.410**	ug/L	5.857	0	31	293255	1
|	**Zn**	**68**	**785.193**	ug/L	14.490	1	189	1362908	0
|	**As**	**75**	**26.904**	ug/L	0.393	1	267	56989	1
|	**As-1**	**75**	**26.401**	ug/L	0.400	1	10608	66841	0
|	**Se**	**82**	**1.458**	ug/L	0.053	3	-2	335	4
|	**Se**	**78**	**1.601**	ug/L	0.296	18	10783	11664	0
[	**Mo**	**98**	**1.502**	ug/L	0.041	2	8	7322	1
	Y	**89**		ug/L			428598	933891	1
	Kr	**83**		ug/L			613	1256	4
[>	**In**	**115**		ug/L			928277	969423	1
|	**Ag**	**107**	**0.920**	ug/L	0.018	1	14	9098	2
|	**Cd**	**111**	**11.582**	ug/L	0.295	2	65	51044	1
|	**Cd**	**114**	**11.646**	ug/L	0.163	1	31	128999	0
|	**Sb**	**121**	**1.030**	ug/L	0.016	1	40	13528	0
|	**Sb**	**123**	**1.025**	ug/L	0.012	1	30	10165	0
|	**Ba**	**135**	**350.464**	ug/L	7.547	2	13	1372438	1
[	**Ba**	**137**	**392.391**	ug/L	7.982	2	15	2652429	1
[>	**Tb**	**159**		ug/L			1061408	1124700	1
|	**Tl**	**205**	**0.398**	ug/L	0.009	2	43	14492	1
|	**Pb**	**208**	**546.347**	ug/L	8.657	1	368	24908916	0
|	**Bi**	**209**		ug/L			2680757	2527833	1
|	**Th**	**232**	**4.750**	ug/L	0.078	1	49	216366	0
[	**U**	**238**	**0.763**	ug/L	0.002	0	2	37495	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:56:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1861163	1
[	Be	9	0.613	ug/L	0.014	2	12	2910	1
	C	13		ug/L			138826	202294	3
	Cl	37		ug/L			4735446	4979838	2
[>	Sc	45		ug/L			1275890	1412428	2
[	V	51	24.357	ug/L	0.608	2	9212	664984	0
[	V-1	51	24.331	ug/L	0.608	2	60	654392	0
[	Cr	52	21.357	ug/L	0.483	2	27310	484497	0
[	Cr	53	21.267	ug/L	0.642	3	159	51361	1
[	Mn	55	2842.775	ug/L	121.313	4	592	85995408	2
[	Co	59	9.377	ug/L	0.056	0	80	194274	1
[>	Ge	72		ug/L			659198	676221	1
[	Ni	60	27.857	ug/L	0.535	1	16	112292	2
[	Ni	62	29.532	ug/L	0.775	2	275	16940	1
[	Cu	63	25.382	ug/L	0.398	1	372	225514	0
[	Cu	65	25.707	ug/L	0.857	3	41	102160	1
[	Zn	66	410.951	ug/L	7.594	1	192	1032964	0
[	Zn	67	395.061	ug/L	13.046	3	31	164668	1
[	Zn	68	402.155	ug/L	11.862	2	189	723882	1
[	As	75	19.886	ug/L	0.223	1	267	43752	1
[	As-1	75	19.418	ug/L	0.282	1	10608	53856	0
[	Se	82	0.186	ug/L	0.032	17	-2	41	16
[	Se	78	-0.217	ug/L	0.288	133	10783	10919	0
[	Mo	98	0.704	ug/L	0.021	3	8	3562	2
	Y	89		ug/L			428598	588961	0
	Kr	83		ug/L			613	940	1
[>	In	115		ug/L			928277	990615	0
[	Ag	107	0.278	ug/L	0.006	2	14	2822	2
[	Cd	111	7.249	ug/L	0.096	1	65	32679	1
[	Cd	114	7.205	ug/L	0.012	0	31	81578	0
[	Sb	121	0.550	ug/L	0.013	2	40	7395	2
[	Sb	123	0.555	ug/L	0.011	1	30	5641	1
[	Ba	135	390.108	ug/L	2.255	0	13	1561311	1
[	Ba	137	428.722	ug/L	3.561	0	15	2961686	0
[>	Tb	159		ug/L			1061408	1112966	0
[	Tl	205	0.401	ug/L	0.006	1	43	14460	1
[	Pb	208	342.885	ug/L	4.349	1	368	15471735	1
[	Bi	209		ug/L			2680757	2623990	0
[	Th	232	4.073	ug/L	0.045	1	49	183626	0
[	U	238	0.590	ug/L	0.003	0	2	28694	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:00:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1845971	1
[	Be	9	0.690	ug/L	0.019	2	12	3249	0
	C	13		ug/L			138826	181639	3
	Cl	37		ug/L			4735446	5008610	0
[>	Sc	45		ug/L			1275890	1433995	2
|	V	51	39.846	ug/L	1.230	3	9212	1097724	1
|	V-1	51	40.011	ug/L	1.260	3	60	1092354	1
|	Cr	52	31.622	ug/L	0.720	2	27310	713515	0
|	Cr	53	32.222	ug/L	0.819	2	159	78910	0
|	Mn	55	887.853	ug/L	24.421	2	592	27274107	1
[	Co	59	11.000	ug/L	0.229	2	80	231293	0
[>	Ge	72		ug/L			659198	665218	1
|	Ni	60	28.950	ug/L	0.262	0	16	114797	1
|	Ni	62	30.973	ug/L	0.457	1	275	17470	2
|	Cu	63	29.880	ug/L	0.358	1	372	261095	0
|	Cu	65	30.302	ug/L	0.293	0	41	118481	0
|	Zn	66	158.303	ug/L	1.404	0	192	391594	1
|	Zn	67	167.922	ug/L	3.850	2	31	68879	1
|	Zn	68	164.387	ug/L	3.512	2	189	291197	0
|	As	75	11.550	ug/L	0.154	1	267	25110	1
|	As-1	75	11.222	ug/L	0.165	1	10608	35137	1
|	Se	82	-0.174	ug/L	0.059	33	-2	-43	30
|	Se	78	-0.178	ug/L	0.073	40	10783	10768	1
[	Mo	98	0.765	ug/L	0.022	2	8	3810	3
	Y	89		ug/L			428598	654286	0
	Kr	83		ug/L			613	1121	2
[>	In	115		ug/L			928277	950257	1
|	Ag	107	0.232	ug/L	0.011	4	14	2258	3
|	Cd	111	2.306	ug/L	0.051	2	65	10013	0
|	Cd	114	2.180	ug/L	0.068	3	31	23687	1
|	Sb	121	0.078	ug/L	0.002	2	40	1040	1
|	Sb	123	0.076	ug/L	0.002	2	30	768	1
|	Ba	135	247.632	ug/L	7.280	2	13	950477	2
[	Ba	137	250.856	ug/L	5.285	2	15	1662098	1
[>	Tb	159		ug/L			1061408	1095375	1
|	Tl	205	0.209	ug/L	0.003	1	43	7424	0
|	Pb	208	72.905	ug/L	0.807	1	368	3237771	1
|	Bi	209		ug/L			2680757	2571391	0
|	Th	232	5.059	ug/L	0.095	1	49	224440	1
[	U	238	0.889	ug/L	0.011	1	2	42540	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:05:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1820630	0
[	Be	9	49.253	ug/L	1.843	3	12	227959	4
	C	13		ug/L			138826	142988	2
	Cl	37		ug/L			4735446	5235758	1
[>	Sc	45		ug/L			1275890	1305681	0
[	V	51	47.193	ug/L	0.859	1	9212	1182652	2
[	V-1	51	47.185	ug/L	1.020	2	60	1173589	2
[	Cr	52	50.136	ug/L	0.373	0	27310	1014006	0
[	Cr	53	50.104	ug/L	0.724	1	159	111684	2
[	Mn	55	48.350	ug/L	0.573	1	592	1353435	1
[	Co	59	49.433	ug/L	0.919	1	80	946460	2
[>	Ge	72		ug/L			659198	655583	1
[	Ni	60	50.950	ug/L	1.163	2	16	199074	1
[	Ni	62	50.233	ug/L	1.675	3	275	27745	2
[	Cu	63	51.204	ug/L	1.733	3	372	440647	2
[	Cu	65	51.145	ug/L	1.382	2	41	197042	1
[	Zn	66	50.720	ug/L	1.680	3	192	123770	2
[	Zn	67	51.456	ug/L	1.607	3	31	20822	2
[	Zn	68	52.167	ug/L	1.360	2	189	91206	1
[	As	75	50.338	ug/L	1.645	3	267	106949	2
[	As-1	75	50.488	ug/L	1.522	3	10608	118872	1
[	Se	82	51.371	ug/L	1.447	2	-2	11971	1
[	Se	78	51.142	ug/L	1.246	2	10783	42793	1
[	Mo	98	50.490	ug/L	1.431	2	8	247217	1
	Y	89		ug/L			428598	435418	1
	Kr	83		ug/L			613	641	4
[>	In	115		ug/L			928277	946165	1
[	Ag	107	52.355	ug/L	1.064	2	14	504442	3
[	Cd	111	50.663	ug/L	0.339	0	65	217725	1
[	Cd	114	50.938	ug/L	0.865	1	31	550517	0
[	Sb	121	50.070	ug/L	0.668	1	40	639833	0
[	Sb	123	50.275	ug/L	0.577	1	30	485187	1
[	Ba	135	48.758	ug/L	0.649	1	13	186364	0
[	Ba	137	49.180	ug/L	0.417	0	15	324490	1
[>	Tb	159		ug/L			1061408	1081605	0
[	Tl	205	46.121	ug/L	0.418	0	43	1611992	0
[	Pb	208	47.910	ug/L	0.329	0	368	2101264	1
[	Bi	209		ug/L			2680757	2620451	0
[	Th	232	44.545	ug/L	0.421	0	49	1951142	0
[	U	238	51.844	ug/L	0.585	1	2	2449060	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:12:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1721258	1
	Be	9	0.002	ug/L	0.001	74	12	19	29
	C	13		ug/L			138826	145121	2
	Cl	37		ug/L			4735446	4919192	0
>	Sc	45		ug/L			1275890	1234868	1
	V	51	0.009	ug/L	0.004	47	9212	9127	1
	V-1	51	0.001	ug/L	0.001	106	60	85	34
	Cr	52	0.026	ug/L	0.022	82	27310	26921	1
	Cr	53	-0.002	ug/L	0.003	174	159	150	4
	Mn	55	0.019	ug/L	0.021	106	592	1087	52
	Co	59	0.001	ug/L	0.001	109	80	98	23
>	Ge	72		ug/L			659198	644808	1
	Ni	60	0.002	ug/L	0.003	121	16	25	43
	Ni	62	-0.171	ug/L	0.023	13	275	177	6
	Cu	63	-0.000	ug/L	0.003	1406	372	362	4
	Cu	65	0.012	ug/L	0.004	36	41	85	17
	Zn	66	0.307	ug/L	0.022	7	192	922	5
	Zn	67	0.279	ug/L	0.028	9	31	141	9
	Zn	68	0.336	ug/L	0.017	5	189	761	3
	As	75	0.020	ug/L	0.003	14	267	302	3
	As-1	75	0.114	ug/L	0.074	65	10608	10615	0
	Se	82	0.001	ug/L	0.034	3108	-2	-2	293
	Se	78	0.346	ug/L	0.263	76	10783	10759	0
	Mo	98	0.007	ug/L	0.001	18	8	43	13
	Y	89		ug/L			428598	408937	1
	Kr	83		ug/L			613	617	5
>	In	115		ug/L			928277	898903	1
	Ag	107	0.002	ug/L	0.001	33	14	35	21
	Cd	111	0.003	ug/L	0.001	31	65	77	4
	Cd	114	0.000	ug/L	0.001	163	31	35	20
	Sb	121	0.059	ug/L	0.004	7	40	757	6
	Sb	123	0.058	ug/L	0.002	2	30	560	2
	Ba	135	0.003	ug/L	0.002	74	13	25	36
	Ba	137	0.007	ug/L	0.006	82	15	59	62
>	Tb	159		ug/L			1061408	1013764	1
	Tl	205	0.008	ug/L	0.002	25	43	318	21
	Pb	208	0.013	ug/L	0.008	63	368	899	39
	Bi	209		ug/L			2680757	2565237	0
	Th	232	0.186	ug/L	0.020	10	49	7660	9
	U	238	0.003	ug/L	0.001	35	2	131	35

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:22:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1778028	1
	Be	9	0.002	ug/L	0.001	39	12	20	15
	C	13		ug/L			138826	148469	2
	Cl	37		ug/L			4735446	4756595	1
>	Sc	45		ug/L			1275890	1260629	0
	V	51	0.000	ug/L	0.007	1469	9212	9114	2
	V-1	51	0.002	ug/L	0.001	52	60	103	21
	Cr	52	-0.003	ug/L	0.020	587	27310	26921	1
	Cr	53	0.001	ug/L	0.005	389	159	160	6
	Mn	55	0.088	ug/L	0.035	39	592	2962	31
	Co	59	0.002	ug/L	0.001	26	80	118	8
>	Ge	72		ug/L			659198	647189	1
	Ni	60	0.005	ug/L	0.002	35	16	34	18
	Ni	62	-0.193	ug/L	0.023	12	275	166	6
	Cu	63	0.018	ug/L	0.004	24	372	517	6
	Cu	65	0.033	ug/L	0.006	18	41	165	13
	Zn	66	0.188	ug/L	0.033	17	192	641	11
	Zn	67	0.194	ug/L	0.005	2	31	107	1
	Zn	68	0.207	ug/L	0.023	11	189	542	7
	As	75	0.015	ug/L	0.006	41	267	293	3
	As-1	75	0.062	ug/L	0.046	73	10608	10546	1
	Se	82	0.008	ug/L	0.057	682	-2	-1	1282
	Se	78	0.171	ug/L	0.180	105	10783	10691	0
	Mo	98	0.004	ug/L	0.001	25	8	27	16
	Y	89		ug/L			428598	420841	1
	Kr	83		ug/L			613	602	8
>	In	115		ug/L			928277	922882	1
	Ag	107	0.001	ug/L	0.001	63	14	24	26
	Cd	111	0.003	ug/L	0.000	3	65	78	0
	Cd	114	0.001	ug/L	0.001	127	31	41	30
	Sb	121	0.018	ug/L	0.003	17	40	264	14
	Sb	123	0.018	ug/L	0.002	11	30	200	8
	Ba	135	0.023	ug/L	0.009	38	13	100	33
	Ba	137	0.024	ug/L	0.005	22	15	172	20
>	Tb	159		ug/L			1061408	1041627	1
	Tl	205	0.006	ug/L	0.002	33	43	234	27
	Pb	208	0.015	ug/L	0.006	39	368	993	25
	Bi	209		ug/L			2680757	2619358	0
	Th	232	0.080	ug/L	0.008	9	49	3432	9
	U	238	0.001	ug/L	0.000	37	2	40	36

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:26:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1821021	1
[	Be	9	24.609	ug/L	0.282	1	12	113902	1
	C	13		ug/L			138826	146461	2
	Cl	37		ug/L			4735446	4851956	4
[>	Sc	45		ug/L			1275890	1283803	1
|	V	51	23.972	ug/L	0.460	1	9212	595110	0
|	V-1	51	23.901	ug/L	0.546	2	60	584363	1
|	Cr	52	25.446	ug/L	0.147	0	27310	519552	1
|	Cr	53	25.188	ug/L	0.404	1	159	55272	0
|	Mn	55	24.873	ug/L	0.718	2	592	684687	1
[	Co	59	25.421	ug/L	0.299	1	80	478563	1
[>	Ge	72		ug/L			659198	657935	0
|	Ni	60	26.092	ug/L	0.390	1	16	102334	1
|	Ni	62	26.112	ug/L	0.545	2	275	14608	1
|	Cu	63	26.502	ug/L	0.463	1	372	229112	1
|	Cu	65	26.270	ug/L	0.458	1	41	101600	0
|	Zn	66	82.091	ug/L	1.665	2	192	200938	1
|	Zn	67	76.038	ug/L	0.520	0	31	30873	1
|	Zn	68	80.497	ug/L	0.602	0	189	141163	1
|	As	75	24.398	ug/L	0.328	1	267	52169	1
|	As-1	75	25.157	ug/L	0.270	1	10608	64763	0
|	Se	82	81.436	ug/L	0.768	0	-2	19049	0
|	Se	78	80.498	ug/L	0.918	1	10783	61424	0
[	Mo	98	23.750	ug/L	0.487	2	8	116733	2
	Y	89		ug/L			428598	423508	0
	Kr	83		ug/L			613	623	2
[>	In	115		ug/L			928277	939845	0
|	Ag	107	27.232	ug/L	0.499	1	14	260602	1
|	Cd	111	24.894	ug/L	0.345	1	65	106306	1
|	Cd	114	24.936	ug/L	0.376	1	31	267772	1
|	Sb	121	24.226	ug/L	0.139	0	40	307586	0
|	Sb	123	24.579	ug/L	0.225	0	30	235659	1
|	Ba	135	25.172	ug/L	0.236	0	13	95589	0
[	Ba	137	25.012	ug/L	0.146	0	15	163947	0
[>	Tb	159		ug/L			1061408	1057348	0
|	Tl	205	24.241	ug/L	0.202	0	43	828300	1
|	Pb	208	25.491	ug/L	0.081	0	368	1093060	0
|	Bi	209		ug/L			2680757	2658775	0
|	Th	232	22.551	ug/L	0.310	1	49	965623	0
[	U	238	22.712	ug/L	0.237	1	2	1048825	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 A-L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:30:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1816434	2
[	Be	9	0.138	ug/L	0.008	5	12	651	3
	C	13		ug/L			138826	152815	1
	Cl	37		ug/L			4735446	5007073	0
[>	Sc	45		ug/L			1275890	1323428	0
|	V	51	10.612	ug/L	0.114	1	9212	276928	0
|	V-1	51	10.680	ug/L	0.110	1	60	269264	0
|	Cr	52	7.344	ug/L	0.150	2	27310	174729	1
|	Cr	53	7.593	ug/L	0.129	1	159	17293	1
|	Mn	55	151.879	ug/L	1.091	0	592	4307736	0
[	Co	59	2.084	ug/L	0.078	3	80	40524	3
[>	Ge	72		ug/L			659198	658403	1
|	Ni	60	4.831	ug/L	0.098	2	16	18971	0
|	Ni	62	5.054	ug/L	0.107	2	275	3050	1
|	Cu	63	6.998	ug/L	0.135	1	372	60806	0
|	Cu	65	7.029	ug/L	0.094	1	41	27237	2
|	Zn	66	60.046	ug/L	0.604	1	192	147160	2
|	Zn	67	58.858	ug/L	1.730	2	31	23912	1
|	Zn	68	61.252	ug/L	1.241	2	189	107515	1
|	As	75	4.758	ug/L	0.111	2	267	10393	0
|	As-1	75	4.628	ug/L	0.125	2	10608	20565	0
|	Se	82	0.095	ug/L	0.038	40	-2	19	44
|	Se	78	-0.111	ug/L	0.099	88	10783	10699	1
[	Mo	98	0.117	ug/L	0.008	7	8	582	6
	Y	89		ug/L			428598	478102	1
	Kr	83		ug/L			613	648	0
[>	In	115		ug/L			928277	954064	1
|	Ag	107	0.062	ug/L	0.006	9	14	618	7
|	Cd	111	1.428	ug/L	0.016	1	65	6253	0
|	Cd	114	1.429	ug/L	0.012	0	31	15613	1
|	Sb	121	0.100	ug/L	0.004	4	40	1324	2
|	Sb	123	0.098	ug/L	0.010	9	30	984	8
|	Ba	135	41.464	ug/L	0.807	1	13	159806	0
[	Ba	137	41.796	ug/L	0.366	0	15	278080	0
[>	Tb	159		ug/L			1061408	1076015	1
|	Tl	205	0.111	ug/L	0.003	2	43	3915	1
|	Pb	208	115.649	ug/L	1.252	1	368	5045068	0
|	Bi	209		ug/L			2680757	2677633	1
|	Th	232	1.203	ug/L	0.014	1	49	52486	1
[	U	238	0.164	ug/L	0.005	2	2	7694	2

VS21 : 00472

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:34:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1842791	2
[	Be	9	0.664	ug/L	0.024	3	12	3121	3
	C	13		ug/L			138826	190594	0
	Cl	37		ug/L			4735446	5023039	3
[>	Sc	45		ug/L			1275890	1451841	0
[	V	51	51.012	ug/L	0.987	1	9212	1420488	1
[	V-1	51	50.929	ug/L	0.745	1	60	1408358	1
[	Cr	52	34.996	ug/L	1.031	2	27310	796375	2
[	Cr	53	34.722	ug/L	0.290	0	159	86111	1
[	Mn	55	710.694	ug/L	7.731	1	592	22110716	0
[	Co	59	9.711	ug/L	0.128	1	80	206815	1
[>	Ge	72		ug/L			659198	664412	1
[	Ni	60	24.214	ug/L	0.313	1	16	95898	0
[	Ni	62	27.232	ug/L	0.164	0	275	15373	0
[	Cu	63	34.765	ug/L	0.816	2	372	303354	1
[	Cu	65	34.526	ug/L	0.433	1	41	134838	1
[	Zn	66	292.064	ug/L	7.841	2	192	721360	1
[	Zn	67	284.100	ug/L	7.032	2	31	116379	1
[	Zn	68	293.263	ug/L	4.387	1	189	518799	1
[	As	75	23.453	ug/L	0.271	1	267	50650	0
[	As-1	75	22.985	ug/L	0.293	1	10608	60675	0
[	Se	82	0.029	ug/L	0.043	149	-2	3	261
[	Se	78	-0.040	ug/L	0.174	439	10783	10842	0
[	Mo	98	0.525	ug/L	0.013	2	8	2612	2
	Y	89		ug/L			428598	628968	1
	Kr	83		ug/L			613	1064	6
[>	In	115		ug/L			928277	998601	1
[	Ag	107	0.291	ug/L	0.011	3	14	2976	2
[	Cd	111	6.658	ug/L	0.116	1	65	30255	0
[	Cd	114	6.609	ug/L	0.072	1	31	75422	0
[	Sb	121	0.376	ug/L	0.009	2	40	5120	2
[	Sb	123	0.368	ug/L	0.007	1	30	3783	0
[	Ba	135	202.402	ug/L	3.388	1	13	816475	0
[	Ba	137	202.389	ug/L	3.253	1	15	1409283	0
[>	Tb	159		ug/L			1061408	1098534	1
[	Tl	205	0.526	ug/L	0.007	1	43	18696	0
[	Pb	208	593.063	ug/L	6.916	1	368	26410565	0
[	Bi	209		ug/L			2680757	2612968	1
[	Th	232	4.619	ug/L	0.036	0	49	205541	0
[	U	238	0.813	ug/L	0.005	0	2	39003	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:38:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1835709	3
[	**Be**	**9**	**0.637**	ug/L	0.036	5	12	2980	3
	C	**13**		ug/L			138826	187756	1
	Cl	**37**		ug/L			4735446	5093088	1
[>	**Sc**	**45**		ug/L			1275890	1408250	1
[	**V**	**51**	**53.720**	ug/L	1.444	2	9212	1450125	1
[	**V-1**	**51**	**53.826**	ug/L	1.483	2	60	1443420	1
[	**Cr**	**52**	**34.396**	ug/L	0.247	0	27310	759835	2
[	**Cr**	**53**	**34.803**	ug/L	0.104	0	159	83717	1
[	**Mn**	**55**	**720.946**	ug/L	12.116	1	592	21759860	3
[	**Co**	**59**	**10.280**	ug/L	0.124	1	80	212334	1
[>	**Ge**	**72**		ug/L			659198	665294	0
[	**Ni**	**60**	**24.848**	ug/L	0.399	1	16	98543	1
[	**Ni**	**62**	**26.960**	ug/L	0.430	1	275	15241	0
[	**Cu**	**63**	**34.331**	ug/L	1.016	2	372	300011	3
[	**Cu**	**65**	**34.702**	ug/L	0.187	0	41	135710	1
[	**Zn**	**66**	**295.821**	ug/L	9.349	3	192	731621	2
[	**Zn**	**67**	**280.363**	ug/L	6.039	2	31	115002	1
[	**Zn**	**68**	**293.437**	ug/L	5.939	2	189	519774	1
[	**As**	**75**	**23.783**	ug/L	0.266	1	267	51429	0
[	**As-1**	**75**	**23.298**	ug/L	0.305	1	10608	61438	0
[	**Se**	**82**	**0.043**	ug/L	0.026	60	-2	7	85
[	**Se**	**78**	**-0.065**	ug/L	0.339	518	10783	10840	1
[	**Mo**	**98**	**0.537**	ug/L	0.021	3	8	2676	2
	Y	**89**		ug/L			428598	625606	0
	Kr	**83**		ug/L			613	1071	2
[>	**In**	**115**		ug/L			928277	993311	1
[	**Ag**	**107**	**0.307**	ug/L	0.012	3	14	3114	2
[	**Cd**	**111**	**6.450**	ug/L	0.160	2	65	29153	0
[	**Cd**	**114**	**6.392**	ug/L	0.126	1	31	72564	1
[	**Sb**	**121**	**0.394**	ug/L	0.016	3	40	5332	2
[	**Sb**	**123**	**0.398**	ug/L	0.006	1	30	4059	1
[	**Ba**	**135**	**195.590**	ug/L	4.224	2	13	784726	0
[	**Ba**	**137**	**196.675**	ug/L	5.312	2	15	1361931	0
[>	**Tb**	**159**		ug/L			1061408	1094306	0
[	**Tl**	**205**	**0.526**	ug/L	0.001	0	43	18638	0
[	**Pb**	**208**	**578.225**	ug/L	1.190	0	368	25653538	0
[	**Bi**	**209**		ug/L			2680757	2588906	0
[	**Th**	**232**	**7.147**	ug/L	0.061	0	49	316801	0
[	**U**	**238**	**1.463**	ug/L	0.018	1	2	69937	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:42:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1865353	0
	Be	9	24.227	ug/L	0.240	0	12	114866	0
	C	13		ug/L			138826	179014	1
	Cl	37		ug/L			4735446	5085192	2
>	Sc	45		ug/L			1275890	1432060	1
	V	51	71.799	ug/L	1.492	2	9212	1967760	1
	V-1	51	72.018	ug/L	1.390	1	60	1964211	1
	Cr	52	53.572	ug/L	1.000	1	27310	1186198	1
	Cr	53	54.379	ug/L	0.919	1	159	132905	0
	Mn	55	725.251	ug/L	11.846	1	592	22254261	0
	Co	59	32.859	ug/L	0.391	1	80	689956	0
>	Ge	72		ug/L			659198	663845	3
	Ni	60	49.649	ug/L	2.358	4	16	196274	1
	Ni	62	52.406	ug/L	2.473	4	275	29278	2
	Cu	63	60.070	ug/L	1.753	2	372	523216	1
	Cu	65	60.381	ug/L	0.712	1	41	235529	1
	Zn	66	376.911	ug/L	12.499	3	192	929612	0
	Zn	67	365.162	ug/L	12.653	3	31	149364	0
	Zn	68	373.386	ug/L	8.475	2	189	659664	0
	As	75	48.377	ug/L	1.823	3	267	104031	0
	As-1	75	48.863	ug/L	1.828	3	10608	116778	0
	Se	82	78.217	ug/L	2.675	3	-2	18448	0
	Se	78	78.085	ug/L	2.772	3	10783	60411	0
	Mo	98	22.082	ug/L	0.767	3	8	109430	1
	Y	89		ug/L			428598	612432	0
	Kr	83		ug/L			613	1078	4
>	In	115		ug/L			928277	993728	1
	Ag	107	21.562	ug/L	0.599	2	14	218151	2
	Cd	111	30.400	ug/L	0.464	1	65	137231	0
	Cd	114	30.367	ug/L	0.365	1	31	344749	0
	Sb	121	2.025	ug/L	0.030	1	40	27217	0
	Sb	123	2.031	ug/L	0.017	0	30	20616	0
	Ba	135	218.363	ug/L	1.792	0	13	876635	0
	Ba	137	218.070	ug/L	4.298	1	15	1511034	0
>	Tb	159		ug/L			1061408	1097039	1
	Tl	205	22.820	ug/L	0.144	0	43	808955	0
	Pb	208	624.005	ug/L	5.064	0	368	27751922	0
	Bi	209		ug/L			2680757	2601147	0
	Th	232	21.484	ug/L	0.250	1	49	954479	0
	U	238	22.914	ug/L	0.293	1	2	1097789	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~VS21 APOST SWN~~ zzzzzz 11-28-12
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:47:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1868666	3
[	Be	9	25.350	ug/L	0.270	1	12	120381	2
	C	13		ug/L			138826	189219	2
	Cl	37		ug/L			4735446	5183942	4
[>	Sc	45		ug/L			1275890	1439012	3
|	V	51	77.679	ug/L	2.687	3	9212	2140095	6
|	V-1	51	77.766	ug/L	2.363	3	60	2132805	5
|	Cr	52	58.932	ug/L	0.332	0	27310	1308274	3
|	Cr	53	59.270	ug/L	1.360	2	159	145503	1
|	Mn	55	750.268	ug/L	4.050	0	592	23136294	3
[	Co	59	33.123	ug/L	1.316	3	80	698457	2
[>	Ge	72		ug/L			659198	665581	0
|	Ni	60	50.295	ug/L	0.880	1	16	199558	2
|	Ni	62	52.868	ug/L	0.754	1	275	29636	1
|	Cu	63	60.011	ug/L	1.151	1	372	524349	1
|	Cu	65	60.497	ug/L	1.974	3	41	236656	3
|	Zn	66	373.243	ug/L	7.728	2	192	923621	2
|	Zn	67	356.944	ug/L	11.746	3	31	146510	3
|	Zn	68	372.955	ug/L	9.703	2	189	660964	2
|	As	75	48.560	ug/L	0.280	0	267	104781	1
|	As-1	75	48.877	ug/L	0.165	0	10608	117198	1
|	Se	82	82.634	ug/L	1.087	1	-2	19556	1
|	Se	78	81.696	ug/L	0.647	0	10783	62904	1
[	Mo	98	0.546	ug/L	0.014	2	8	2723	1
	Y	89		ug/L			428598	632533	1
	Kr	83		ug/L			613	1090	0
[>	In	115		ug/L			928277	990454	1
|	Ag	107	24.994	ug/L	0.452	1	14	252030	0
|	Cd	111	31.070	ug/L	0.249	0	65	139804	1
|	Cd	114	31.076	ug/L	0.320	1	31	351648	0
|	Sb	121	0.369	ug/L	0.004	1	40	4983	1
|	Sb	123	0.377	ug/L	0.009	2	30	3838	1
|	Ba	135	225.358	ug/L	3.138	1	13	901851	2
[	Ba	137	226.732	ug/L	2.092	0	15	1566153	1
[>	Tb	159		ug/L			1061408	1074708	1
|	Tl	205	24.183	ug/L	0.366	1	43	839876	2
|	Pb	208	627.864	ug/L	4.006	0	368	27355859	1
|	Bi	209		ug/L			2680757	2579673	0
|	Th	232	28.102	ug/L	0.268	0	49	1223016	0
[	U	238	24.193	ug/L	0.142	0	2	1135568	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:51:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

Dol

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1904664	1
[	Be	9	0.473	ug/L	0.016	3	12	2302	2
	C	13		ug/L			138826	299951	3
	Cl	37		ug/L			4735446	5347257	2
[>	Sc	45		ug/L			1275890	1409210	1
[	V	51	9.852	ug/L	0.134	1	9212	274496	1
[	V-1	51	9.808	ug/L	0.123	1	60	263296	0
[	Cr	52	7.681	ug/L	0.138	1	27310	193200	1
[	Cr	53	7.526	ug/L	0.339	4	159	18249	3
[	Mn	55	1605.315	ug/L	44.222	2	592	48463734	1
[	Co	59	3.700	ug/L	0.120	3	80	76512	2
[>	Ge	72		ug/L			659198	686480	0
[	Ni	60	6.479	ug/L	0.130	1	16	26528	2
[	Ni	62	7.516	ug/L	0.126	1	275	4591	1
[	Cu	63	44.433	ug/L	0.300	0	372	400533	0
[	Cu	65	43.849	ug/L	0.512	1	41	176934	1
[	Zn	66	1094.165	ug/L	20.283	1	192	2791919	1
[	Zn	67	958.513	ug/L	2.755	0	31	405668	0
[	Zn	68	1001.886	ug/L	26.794	2	189	1830663	1
[	As	75	23.681	ug/L	0.383	1	267	52839	0
[	As-1	75	23.199	ug/L	0.416	1	10608	63170	0
[	Se	82	1.158	ug/L	0.024	2	-2	279	1
[	Se	78	0.525	ug/L	0.144	27	10783	11574	0
[	Mo	98	0.645	ug/L	0.007	1	8	3315	1
	Y	89		ug/L			428598	524880	1
	Kr	83		ug/L			613	718	4
[>	In	115		ug/L			928277	1274022	1
[	Ag	107	1.186	ug/L	0.021	1	14	15410	2
[	Cd	111	13.886	ug/L	0.374	2	65	80400	1
[	Cd	114	13.901	ug/L	0.148	1	31	202346	1
[	Sb	121	15.637	ug/L	0.180	1	40	269118	1
[	Sb	123	15.707	ug/L	0.200	1	30	204126	0
[	Ba	135	802.091	ug/L	11.652	1	13	4127795	0
[	Ba	137	804.496	ug/L	8.498	1	15	7146912	0
[>	Tb	159		ug/L			1061408	1101553	0
[	Tl	205	0.833	ug/L	0.003	0	43	29701	0
[	Pb	208	1746.433	ug/L	8.571	0	368	77993118	0
[	Bi	209		ug/L			2680757	2745151	0
[	Th	232	1.442	ug/L	0.043	2	49	64384	2
[	U	238	0.464	ug/L	0.006	1	2	22316	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:55:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1833075	2
[	Be	9	0.433	ug/L	0.014	3	12	2029	0
	C	13		ug/L			138826	173511	2
	Cl	37		ug/L			4735446	4987275	1
[>	Sc	45		ug/L			1275890	1394496	2
|	V	51	32.928	ug/L	0.699	2	9212	884015	0
|	V-1	51	32.966	ug/L	0.695	2	60	875349	0
|	Cr	52	20.959	ug/L	0.634	3	27310	469912	1
|	Cr	53	21.109	ug/L	0.673	3	159	50328	1
|	Mn	55	1239.419	ug/L	34.983	2	592	37020286	0
[	Co	59	9.071	ug/L	0.234	2	80	185472	0
[>	Ge	72		ug/L			659198	662246	0
|	Ni	60	19.412	ug/L	0.138	0	16	76638	0
|	Ni	62	20.637	ug/L	0.382	1	275	11679	1
|	Cu	63	19.299	ug/L	0.215	1	372	168034	0
|	Cu	65	19.586	ug/L	0.372	1	41	76259	1
|	Zn	66	195.185	ug/L	3.406	1	192	480654	1
|	Zn	67	215.603	ug/L	2.916	1	31	88055	1
|	Zn	68	211.741	ug/L	1.629	0	189	373436	0
|	As	75	10.625	ug/L	0.136	1	267	23019	0
|	As-1	75	10.307	ug/L	0.146	1	10608	32999	0
|	Se	82	0.017	ug/L	0.058	330	-2	1	1182
|	Se	78	-0.296	ug/L	0.095	32	10783	10645	0
[	Mo	98	0.293	ug/L	0.003	1	8	1458	1
	Y	89		ug/L			428598	567950	1
	Kr	83		ug/L			613	880	4
[>	In	115		ug/L			928277	941893	1
|	Ag	107	0.180	ug/L	0.001	0	14	1739	2
|	Cd	111	2.740	ug/L	0.034	1	65	11783	0
|	Cd	114	2.622	ug/L	0.092	3	31	28232	1
|	Sb	121	0.162	ug/L	0.012	7	40	2099	5
|	Sb	123	0.162	ug/L	0.011	6	30	1584	4
|	Ba	135	473.768	ug/L	10.179	2	13	1802355	0
[	Ba	137	524.751	ug/L	9.575	1	15	3446056	0
[>	Tb	159		ug/L			1061408	1080864	1
|	Tl	205	0.206	ug/L	0.004	1	43	7238	1
|	Pb	208	96.076	ug/L	1.491	1	368	4209980	0
|	Bi	209		ug/L			2680757	2566388	0
|	Th	232	3.127	ug/L	0.072	2	49	136882	1
[	U	238	0.356	ug/L	0.006	1	2	16824	1

VS21 : 00478

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 D SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:59:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1854048	1
[	Be	9	0.177	ug/L	0.002	1	12	846	0
	C	13		ug/L			138826	176188	2
	Cl	37		ug/L			4735446	5282118	3
[>	Sc	45		ug/L			1275890	1328554	0
[	V	51	3.956	ug/L	0.115	2	9212	109648	2
[	V-1	51	3.940	ug/L	0.109	2	60	99761	2
[	Cr	52	3.116	ug/L	0.080	2	27310	90789	1
[	Cr	53	3.061	ug/L	0.052	1	159	7097	1
[	Mn	55	1238.502	ug/L	36.581	2	592	35257607	2
[	Co	59	4.304	ug/L	0.036	0	80	83916	0
[>	Ge	72		ug/L			659198	673701	1
[	Ni	60	7.998	ug/L	0.069	0	16	32137	2
[	Ni	62	8.133	ug/L	0.229	2	275	4852	1
[	Cu	63	12.940	ug/L	0.218	1	372	114753	2
[	Cu	65	13.113	ug/L	0.024	0	41	51954	1
[	Zn	66	243.555	ug/L	5.618	2	192	609957	0
[	Zn	67	230.363	ug/L	5.203	2	31	95681	0
[	Zn	68	242.581	ug/L	5.175	2	189	435141	1
[	As	75	4.322	ug/L	0.080	1	267	9686	0
[	As-1	75	4.158	ug/L	0.144	3	10608	20006	0
[	Se	82	0.333	ug/L	0.043	13	-2	76	15
[	Se	78	-0.020	ug/L	0.253	1280	10783	11006	1
[	Mo	98	0.205	ug/L	0.006	2	8	1039	2
	Y	89		ug/L			428598	488973	0
	Kr	83		ug/L			613	666	0
[>	In	115		ug/L			928277	966541	1
[	Ag	107	0.228	ug/L	0.009	3	14	2257	4
[	Cd	111	5.940	ug/L	0.143	2	65	26135	1
[	Cd	114	5.959	ug/L	0.121	2	31	65824	0
[	Sb	121	0.705	ug/L	0.011	1	40	9247	0
[	Sb	123	0.714	ug/L	0.013	1	30	7068	0
[	Ba	135	85.188	ug/L	1.465	1	13	332613	0
[	Ba	137	85.290	ug/L	2.265	2	15	574765	1
[>	Tb	159		ug/L			1061408	1072360	0
[	Tl	205	0.179	ug/L	0.002	0	43	6249	1
[	Pb	208	348.629	ug/L	3.391	0	368	15156511	0
[	Bi	209		ug/L			2680757	2683850	0
[	Th	232	0.591	ug/L	0.016	2	49	25724	1
[	U	238	0.111	ug/L	0.002	1	2	5205	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:03:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1800880	0
[	Be	9	50.599	ug/L	1.508	2	12	231612	3
	C	13		ug/L			138826	141001	1
	Cl	37		ug/L			4735446	5034496	2
[>	Sc	45		ug/L			1275890	1268015	0
|	V	51	47.877	ug/L	0.997	2	9212	1164890	1
|	V-1	51	48.109	ug/L	1.315	2	60	1161802	1
|	Cr	52	49.502	ug/L	0.295	0	27310	972688	1
|	Cr	53	50.327	ug/L	0.926	1	159	108926	1
|	Mn	55	47.842	ug/L	0.608	1	592	1300551	1
[	Co	59	50.285	ug/L	0.977	1	80	934892	1
[>	Ge	72		ug/L			659198	643794	0
|	Ni	60	49.653	ug/L	0.255	0	16	190546	0
|	Ni	62	49.803	ug/L	0.734	1	275	27019	0
|	Cu	63	51.128	ug/L	0.820	1	372	432145	0
|	Cu	65	50.527	ug/L	1.143	2	41	191171	1
|	Zn	66	50.754	ug/L	1.550	3	192	121625	2
|	Zn	67	50.288	ug/L	0.798	1	31	19990	2
|	Zn	68	50.513	ug/L	0.697	1	189	86745	1
|	As	75	49.914	ug/L	0.580	1	267	104160	0
|	As-1	75	49.984	ug/L	0.829	1	10608	115685	0
|	Se	82	51.115	ug/L	0.157	0	-2	11699	0
|	Se	78	50.602	ug/L	0.909	1	10783	41692	0
[	Mo	98	49.347	ug/L	0.700	1	8	237332	2
	Y	89		ug/L			428598	416136	0
	Kr	83		ug/L			613	624	1
[>	In	115		ug/L			928277	904014	0
|	Ag	107	52.774	ug/L	1.193	2	14	485706	1
|	Cd	111	51.444	ug/L	0.538	1	65	211247	1
|	Cd	114	50.951	ug/L	0.345	0	31	526253	1
|	Sb	121	50.166	ug/L	0.296	0	40	612583	0
|	Sb	123	50.823	ug/L	0.111	0	30	468676	0
|	Ba	135	49.654	ug/L	0.469	0	13	181358	0
[	Ba	137	49.400	ug/L	0.458	0	15	311463	1
[>	Tb	159		ug/L			1061408	1046615	0
|	Tl	205	45.554	ug/L	0.728	1	43	1540506	0
|	Pb	208	48.037	ug/L	0.760	1	368	2038478	0
|	Bi	209		ug/L			2680757	2569048	0
|	Th	232	44.605	ug/L	0.913	2	49	1890392	1
[	U	238	52.361	ug/L	1.014	1	2	2393202	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:10:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1717634	2
	Be	9	0.002	ug/L	0.001	42	12	20	15
	C	13		ug/L			138826	148009	0
	Cl	37		ug/L			4735446	4822567	1
>	Sc	45		ug/L			1275890	1235171	1
	V	51	-0.001	ug/L	0.007	551	9212	8888	0
	V-1	51	0.001	ug/L	0.001	82	60	79	22
	Cr	52	-0.009	ug/L	0.026	297	27310	26271	0
	Cr	53	-0.001	ug/L	0.012	957	159	151	16
	Mn	55	0.012	ug/L	0.009	77	592	882	28
	Co	59	0.001	ug/L	0.000	8	80	105	3
>	Ge	72		ug/L			659198	614873	1
	Ni	60	0.002	ug/L	0.001	37	16	23	14
	Ni	62	-0.276	ug/L	0.019	6	275	115	7
	Cu	63	-0.010	ug/L	0.003	24	372	263	7
	Cu	65	0.017	ug/L	0.003	19	41	101	13
	Zn	66	0.326	ug/L	0.022	6	192	925	6
	Zn	67	0.314	ug/L	0.037	11	31	148	11
	Zn	68	0.327	ug/L	0.015	4	189	712	4
	As	75	0.016	ug/L	0.020	125	267	281	14
	As-1	75	0.226	ug/L	0.098	43	10608	10346	0
	Se	82	0.026	ug/L	0.036	136	-2	3	255
	Se	78	0.781	ug/L	0.346	44	10783	10515	0
	Mo	98	0.008	ug/L	0.001	17	8	43	14
	Y	89		ug/L			428598	395076	3
	Kr	83		ug/L			613	603	3
>	In	115		ug/L			928277	871632	0
	Ag	107	0.002	ug/L	0.001	49	14	35	30
	Cd	111	0.007	ug/L	0.003	43	65	90	14
	Cd	114	0.001	ug/L	0.002	207	31	41	56
	Sb	121	0.064	ug/L	0.004	5	40	789	5
	Sb	123	0.061	ug/L	0.006	9	30	573	8
	Ba	135	0.004	ug/L	0.001	13	13	27	6
	Ba	137	0.006	ug/L	0.003	42	15	52	30
>	Tb	159		ug/L			1061408	995669	0
	Tl	205	0.008	ug/L	0.002	24	43	306	21
	Pb	208	0.013	ug/L	0.003	22	368	876	13
	Bi	209		ug/L			2680757	2562006	0
	Th	232	0.163	ug/L	0.016	9	49	6610	9
	U	238	0.003	ug/L	0.001	22	2	128	22

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:17:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1816408	0
	Be	9	0.512	ug/L	0.009	1	12	2377	1
	C	13		ug/L			138826	180224	1
	Cl	37		ug/L			4735446	4997928	4
>	Sc	45		ug/L			1275890	1398888	1
	V	51	33.144	ug/L	0.985	2	9212	892697	2
	V-1	51	33.087	ug/L	0.901	2	60	881518	2
	Cr	52	26.813	ug/L	0.864	3	27310	594795	1
	Cr	53	26.619	ug/L	0.533	2	159	63637	1
	Mn	55	755.779	ug/L	4.201	0	592	22654997	1
	Co	59	8.740	ug/L	0.119	1	80	179338	2
>	Ge	72		ug/L			659198	648524	1
	Ni	60	20.726	ug/L	0.229	1	16	80124	0
	Ni	62	22.055	ug/L	0.394	1	275	12204	1
	Cu	63	26.364	ug/L	0.808	3	372	224637	2
	Cu	65	26.629	ug/L	0.444	1	41	101528	2
	Zn	66	287.466	ug/L	6.671	2	192	693044	1
	Zn	67	274.870	ug/L	0.855	0	31	109920	0
	Zn	68	290.742	ug/L	5.868	2	189	502013	1
	As	75	20.064	ug/L	0.327	1	267	42338	2
	As-1	75	19.730	ug/L	0.301	1	10608	52319	1
	Se	82	0.042	ug/L	0.034	81	-2	6	115
	Se	78	0.086	ug/L	0.173	200	10783	10661	0
	Mo	98	0.425	ug/L	0.005	1	8	2068	0
	Y	89		ug/L			428598	555514	0
	Kr	83		ug/L			613	881	4
>	In	115		ug/L			928277	933287	1
	Ag	107	0.281	ug/L	0.013	4	14	2684	3
	Cd	111	5.053	ug/L	0.059	1	65	21479	1
	Cd	114	5.018	ug/L	0.116	2	31	53523	0
	Sb	121	0.250	ug/L	0.008	3	40	3187	2
	Sb	123	0.241	ug/L	0.004	1	30	2327	1
	Ba	135	284.528	ug/L	5.242	1	13	1072632	0
	Ba	137	288.471	ug/L	8.205	2	15	1877111	1
>	Tb	159		ug/L			1061408	1059346	0
	Tl	205	0.284	ug/L	0.006	2	43	9769	2
	Pb	208	207.975	ug/L	3.733	1	368	8932753	2
	Bi	209		ug/L			2680757	2549578	0
	Th	232	3.740	ug/L	0.038	1	49	160508	0
	U	238	0.479	ug/L	0.002	0	2	22151	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:21:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1838149	2
	Be	9	0.518	ug/L	0.025	4	12	2432	2
	C	13		ug/L			138826	195823	2
	Cl	37		ug/L			4735446	4997555	1
>	Sc	45		ug/L			1275890	1406845	1
	V	51	28.571	ug/L	0.568	1	9212	775276	0
	V-1	51	28.604	ug/L	0.522	1	60	766386	0
	Cr	52	20.716	ug/L	0.483	2	27310	469028	0
	Cr	53	20.845	ug/L	0.307	1	159	50157	1
	Mn	55	1810.007	ug/L	41.650	2	592	54554709	1
	Co	59	8.544	ug/L	0.116	1	80	176322	1
>	Ge	72		ug/L			659198	658276	0
	Ni	60	20.392	ug/L	0.568	2	16	80018	2
	Ni	62	21.785	ug/L	0.113	0	275	12239	0
	Cu	63	41.166	ug/L	1.076	2	372	355815	1
	Cu	65	41.896	ug/L	1.314	3	41	162079	2
	Zn	66	700.129	ug/L	15.332	2	192	1713089	1
	Zn	67	667.213	ug/L	17.715	2	31	270828	3
	Zn	68	699.950	ug/L	16.327	2	189	1226456	1
	As	75	35.631	ug/L	1.008	2	267	76095	2
	As-1	75	35.044	ug/L	1.004	2	10608	86090	1
	Se	82	0.321	ug/L	0.050	15	-2	72	15
	Se	78	0.130	ug/L	0.094	72	10783	10850	0
	Mo	98	0.548	ug/L	0.007	1	8	2703	2
	Y	89		ug/L			428598	555428	0
	Kr	83		ug/L			613	892	5
>	In	115		ug/L			928277	997910	1
	Ag	107	0.644	ug/L	0.019	2	14	6557	1
	Cd	111	14.610	ug/L	0.224	1	65	66267	0
	Cd	114	14.622	ug/L	0.200	1	31	166715	0
	Sb	121	0.970	ug/L	0.004	0	40	13117	0
	Sb	123	0.964	ug/L	0.020	2	30	9844	1
	Ba	135	610.718	ug/L	6.643	1	13	2462104	1
	Ba	137	607.114	ug/L	4.637	0	15	4225023	1
>	Tb	159		ug/L			1061408	1079301	0
	Tl	205	0.527	ug/L	0.006	1	43	18424	0
	Pb	208	892.112	ug/L	1.516	0	368	39036250	0
	Bi	209		ug/L			2680757	2608273	0
	Th	232	3.261	ug/L	0.018	0	49	142579	0
	U	238	0.387	ug/L	0.002	0	2	18234	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:26:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1837555	1
[	**Be**	**9**	**0.489**	ug/L	0.008	1	12	2297	0
	C	**13**		ug/L			138826	185396	0
	Cl	**37**		ug/L			4735446	5103900	0
[>	**Sc**	**45**		ug/L			1275890	1414766	2
[	**V**	**51**	**30.606**	ug/L	0.526	1	9212	834375	0
[	**V-1**	**51**	**30.633**	ug/L	0.552	1	60	825268	0
[	**Cr**	**52**	**19.205**	ug/L	0.373	1	27310	439446	0
[	**Cr**	**53**	**19.318**	ug/L	0.484	2	159	46745	1
[	**Mn**	**55**	**1423.415**	ug/L	37.349	2	592	43134459	0
[	**Co**	**59**	**8.532**	ug/L	0.275	3	80	177008	2
[>	**Ge**	**72**		ug/L			659198	659749	1
[	**Ni**	**60**	**18.874**	ug/L	0.534	2	16	74218	1
[	**Ni**	**62**	**19.907**	ug/L	0.186	0	275	11234	2
[	**Cu**	**63**	**21.480**	ug/L	0.454	2	372	186252	1
[	**Cu**	**65**	**21.513**	ug/L	0.330	1	41	83435	0
[	**Zn**	**66**	**441.152**	ug/L	3.307	0	192	1082007	1
[	**Zn**	**67**	**432.571**	ug/L	9.698	2	31	175926	0
[	**Zn**	**68**	**449.316**	ug/L	9.032	2	189	789114	1
[	**As**	**75**	**24.737**	ug/L	0.430	1	267	53029	0
[	**As-1**	**75**	**24.287**	ug/L	0.498	2	10608	63055	0
[	**Se**	**82**	**0.110**	ug/L	0.057	51	-2	23	58
[	**Se**	**78**	**-0.042**	ug/L	0.247	583	10783	10764	0
[	**Mo**	**98**	**0.459**	ug/L	0.023	4	8	2268	4
	Y	**89**		ug/L			428598	556903	1
	Kr	**83**		ug/L			613	902	2
[>	**In**	**115**		ug/L			928277	955764	0
[	**Ag**	**107**	**0.383**	ug/L	0.007	1	14	3738	1
[	**Cd**	**111**	**6.665**	ug/L	0.116	1	65	28993	1
[	**Cd**	**114**	**6.576**	ug/L	0.064	0	31	71832	0
[	**Sb**	**121**	**0.388**	ug/L	0.005	1	40	5049	1
[	**Sb**	**123**	**0.390**	ug/L	0.008	2	30	3835	3
[	**Ba**	**135**	**420.219**	ug/L	1.978	0	13	1622578	0
[	**Ba**	**137**	**470.791**	ug/L	2.374	0	15	3137870	0
[>	**Tb**	**159**		ug/L			1061408	1078263	1
[	**Tl**	**205**	**0.325**	ug/L	0.006	1	43	11380	2
[	**Pb**	**208**	**236.541**	ug/L	2.594	1	368	10339756	0
[	**Bi**	**209**		ug/L			2680757	2579022	0
[	**Th**	**232**	**3.360**	ug/L	0.040	1	49	146752	0
[	**U**	**238**	**0.370**	ug/L	0.006	1	2	17413	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:30:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1738475	1827241	1
	Be	**9**	**0.585**	ug/L	0.005	0	12	2729	1
	C	**13**		ug/L			138826	177582	0
	Cl	**37**		ug/L			4735446	4982451	0
>	**Sc**	**45**		ug/L			1275890	1439214	0
	V	**51**	**35.232**	ug/L	0.514	1	9212	975769	1
	V-1	**51**	**35.037**	ug/L	0.718	2	60	960482	1
	Cr	**52**	**21.747**	ug/L	0.816	3	27310	502266	3
	Cr	**53**	**21.070**	ug/L	0.345	1	159	51867	1
	Mn	**55**	**737.792**	ug/L	20.790	2	592	22754011	2
	Co	**59**	**9.147**	ug/L	0.145	1	80	193114	2
>	**Ge**	**72**		ug/L			659198	650883	1
	Ni	**60**	**24.133**	ug/L	0.264	1	16	93630	0
	Ni	**62**	**25.509**	ug/L	0.693	2	275	14122	1
	Cu	**63**	**24.558**	ug/L	0.686	2	372	210007	1
	Cu	**65**	**24.128**	ug/L	0.328	1	41	92313	0
	Zn	**66**	**124.823**	ug/L	1.072	0	192	302162	0
	Zn	**67**	**135.973**	ug/L	2.676	1	31	54582	1
	Zn	**68**	**132.468**	ug/L	2.960	2	189	229642	0
	As	**75**	**17.003**	ug/L	0.238	1	267	36044	0
	As-1	**75**	**16.720**	ug/L	0.302	1	10608	46091	0
	Se	**82**	**-0.184**	ug/L	0.049	26	-2	-45	24
	Se	**78**	**0.140**	ug/L	0.252	180	10783	10732	0
	Mo	**98**	**0.367**	ug/L	0.008	2	8	1790	1
	Y	**89**		ug/L			428598	610337	0
	Kr	**83**		ug/L			613	1056	3
>	**In**	**115**		ug/L			928277	930433	1
	Ag	**107**	**0.199**	ug/L	0.002	0	14	1901	1
	Cd	**111**	**0.781**	ug/L	0.022	2	65	3364	1
	Cd	**114**	**0.610**	ug/L	0.009	1	31	6521	2
	Sb	**121**	**0.110**	ug/L	0.004	3	40	1424	2
	Sb	**123**	**0.107**	ug/L	0.002	1	30	1049	1
	Ba	**135**	**282.759**	ug/L	2.290	0	13	1062911	1
	Ba	**137**	**282.149**	ug/L	2.083	0	15	1830690	0
>	**Tb**	**159**		ug/L			1061408	1072793	1
	Tl	**205**	**0.202**	ug/L	0.003	1	43	7034	0
	Pb	**208**	**19.419**	ug/L	0.314	1	368	844811	0
	Bi	**209**		ug/L			2680757	2557847	1
	Th	**232**	**4.145**	ug/L	0.064	1	49	180107	0
	U	**238**	**0.535**	ug/L	0.008	1	2	25074	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:34:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1847624	1
[	**Be**	**9**	**0.565**	ug/L	0.003	0	12	2667	0
	C	**13**		ug/L			138826	164834	2
	Cl	**37**		ug/L			4735446	4971180	2
[>	**Sc**	**45**		ug/L			1275890	1434411	0
[	**V**	**51**	**41.084**	ug/L	0.501	1	9212	1132394	1
[	**V-1**	**51**	**41.076**	ug/L	0.505	1	60	1122315	1
[	**Cr**	**52**	**22.574**	ug/L	0.515	2	27310	518498	2
[	**Cr**	**53**	**22.571**	ug/L	0.290	1	159	55367	1
[	**Mn**	**55**	**418.770**	ug/L	2.580	0	592	12872937	0
[	**Co**	**59**	**8.881**	ug/L	0.160	1	80	186875	1
[>	**Ge**	**72**		ug/L			659198	652078	1
[	**Ni**	**60**	**21.192**	ug/L	0.539	2	16	82363	1
[	**Ni**	**62**	**23.050**	ug/L	0.066	0	275	12813	1
[	**Cu**	**63**	**30.907**	ug/L	0.426	1	372	264731	0
[	**Cu**	**65**	**31.295**	ug/L	0.188	0	41	119952	1
[	**Zn**	**66**	**65.034**	ug/L	1.984	3	192	157782	1
[	**Zn**	**67**	**74.338**	ug/L	0.752	1	31	29915	2
[	**Zn**	**68**	**69.401**	ug/L	1.184	1	189	120633	1
[	**As**	**75**	**6.083**	ug/L	0.143	2	267	13088	1
[	**As-1**	**75**	**5.902**	ug/L	0.193	3	10608	23087	0
[	**Se**	**82**	**-0.066**	ug/L	0.094	142	-2	-18	119
[	**Se**	**78**	**0.088**	ug/L	0.274	312	10783	10719	0
[	**Mo**	**98**	**0.306**	ug/L	0.014	4	8	1496	4
	Y	**89**		ug/L			428598	664569	2
	Kr	**83**		ug/L			613	1013	3
[>	**In**	**115**		ug/L			928277	920871	0
[	**Ag**	**107**	**0.254**	ug/L	0.003	1	14	2394	0
[	**Cd**	**111**	**0.391**	ug/L	0.005	1	65	1699	0
[	**Cd**	**114**	**0.222**	ug/L	0.009	4	31	2365	3
[	**Sb**	**121**	**0.046**	ug/L	0.002	3	40	618	3
[	**Sb**	**123**	**0.046**	ug/L	0.001	2	30	466	1
[	**Ba**	**135**	**160.329**	ug/L	2.374	1	13	596446	0
[	**Ba**	**137**	**161.375**	ug/L	3.335	2	15	1036252	1
[>	**Tb**	**159**		ug/L			1061408	1079999	0
[	**Tl**	**205**	**0.167**	ug/L	0.005	2	43	5885	1
[	**Pb**	**208**	**7.840**	ug/L	0.039	0	368	343653	0
[	**Bi**	**209**		ug/L			2680757	2552782	0
[	**Th**	**232**	**4.318**	ug/L	0.040	0	49	188904	0
[	**U**	**238**	**0.715**	ug/L	0.009	1	2	33730	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:39:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1851917	1
[	**Be**	**9**	**0.499**	ug/L	0.011	2	12	2363	1
	C	**13**		ug/L			138826	161437	0
	Cl	**37**		ug/L			4735446	5152772	2
[>	**Sc**	**45**		ug/L			1275890	1433457	0
|	**V**	**51**	**45.757**	ug/L	0.927	2	9212	1259043	1
|	**V-1**	**51**	**45.874**	ug/L	0.845	1	60	1252424	1
|	**Cr**	**52**	**24.342**	ug/L	0.520	2	27310	556287	1
|	**Cr**	**53**	**24.789**	ug/L	0.635	2	159	60743	2
|	**Mn**	**55**	**351.742**	ug/L	2.778	0	592	10804920	0
[	**Co**	**59**	**9.408**	ug/L	0.257	2	80	197801	2
[>	**Ge**	**72**		ug/L			659198	651854	1
|	**Ni**	**60**	**21.725**	ug/L	0.257	1	16	84417	0
|	**Ni**	**62**	**23.715**	ug/L	0.285	1	275	13172	2
|	**Cu**	**63**	**32.751**	ug/L	0.358	1	372	280452	2
|	**Cu**	**65**	**32.558**	ug/L	0.477	1	41	124774	2
|	**Zn**	**66**	**58.650**	ug/L	0.318	0	192	142292	0
|	**Zn**	**67**	**65.940**	ug/L	1.249	1	31	26524	0
|	**Zn**	**68**	**62.412**	ug/L	1.114	1	189	108472	1
|	**As**	**75**	**6.477**	ug/L	0.064	0	267	13916	1
|	**As-1**	**75**	**6.291**	ug/L	0.101	1	10608	23911	0
|	**Se**	**82**	**0.074**	ug/L	0.061	81	-2	14	98
|	**Se**	**78**	**0.105**	ug/L	0.172	163	10783	10727	0
[	**Mo**	**98**	**0.373**	ug/L	0.010	2	8	1822	1
	Y	**89**		ug/L			428598	637904	0
	Kr	**83**		ug/L			613	923	3
[>	**In**	**115**		ug/L			928277	915312	0
|	**Ag**	**107**	**0.243**	ug/L	0.007	3	14	2274	3
|	**Cd**	**111**	**0.297**	ug/L	0.016	5	65	1301	5
|	**Cd**	**114**	**0.155**	ug/L	0.004	2	31	1650	2
|	**Sb**	**121**	**0.023**	ug/L	0.002	10	40	323	9
|	**Sb**	**123**	**0.024**	ug/L	0.001	5	30	258	4
|	**Ba**	**135**	**136.337**	ug/L	1.871	1	13	504174	1
[	**Ba**	**137**	**135.133**	ug/L	0.919	0	15	862590	0
[>	**Tb**	**159**		ug/L			1061408	1083785	0
|	**Tl**	**205**	**0.169**	ug/L	0.002	1	43	5950	1
|	**Pb**	**208**	**7.334**	ug/L	0.031	0	368	322640	0
|	**Bi**	**209**		ug/L			2680757	2533129	0
|	**Th**	**232**	**5.104**	ug/L	0.018	0	49	224086	0
[	**U**	**238**	**0.787**	ug/L	0.008	1	2	37257	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:43:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1854545	2
[	Be	9	0.948	ug/L	0.026	2	12	4482	2
	C	13		ug/L			138826	217025	2
	Cl	37		ug/L			4735446	5069542	2
[>	Sc	45		ug/L			1275890	1435993	2
[	V	51	28.429	ug/L	0.803	2	9212	787296	0
[	V-1	51	28.363	ug/L	0.867	3	60	775480	0
[	Cr	52	30.131	ug/L	0.529	1	27310	682337	0
[	Cr	53	29.894	ug/L	0.751	2	159	73325	0
[	Mn	55	2782.214	ug/L	60.536	2	592	85598956	2
[	Co	59	12.187	ug/L	0.218	1	80	256633	1
[>	Ge	72		ug/L			659198	660475	0
[	Ni	60	36.457	ug/L	0.811	2	16	143537	2
[	Ni	62	37.422	ug/L	0.449	1	275	20899	1
[	Cu	63	40.246	ug/L	0.609	1	372	349067	1
[	Cu	65	40.771	ug/L	1.071	2	41	158266	2
[	Zn	66	764.640	ug/L	7.716	1	192	1877391	0
[	Zn	67	702.608	ug/L	7.126	1	31	286097	0
[	Zn	68	742.619	ug/L	16.760	2	189	1305609	1
[	As	75	31.438	ug/L	0.261	0	267	67404	0
[	As-1	75	30.912	ug/L	0.268	0	10608	77455	0
[	Se	82	0.550	ug/L	0.040	7	-2	126	8
[	Se	78	0.497	ug/L	0.035	7	10783	11118	0
[	Mo	98	1.116	ug/L	0.011	0	8	5511	0
	Y	89		ug/L			428598	662294	1
	Kr	83		ug/L			613	987	3
[>	In	115		ug/L			928277	1005550	0
[	Ag	107	0.475	ug/L	0.013	2	14	4882	3
[	Cd	111	15.955	ug/L	0.136	0	65	72923	0
[	Cd	114	16.007	ug/L	0.221	1	31	183902	0
[	Sb	121	1.029	ug/L	0.011	1	40	14018	1
[	Sb	123	1.015	ug/L	0.013	1	30	10442	1
[	Ba	135	402.535	ug/L	3.560	0	13	1635242	0
[	Ba	137	455.971	ug/L	0.972	0	15	3197521	0
[>	Tb	159		ug/L			1061408	1079035	1
[	Tl	205	0.580	ug/L	0.008	1	43	20248	0
[	Pb	208	740.947	ug/L	9.764	1	368	32410802	0
[	Bi	209		ug/L			2680757	2581507	0
[	Th	232	4.134	ug/L	0.043	1	49	180676	0
[	U	238	0.584	ug/L	0.006	1	2	27541	0

VS21 : 00488

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:47:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1901456	0
[	Be	9	1.296	ug/L	0.009	0	12	6277	0
	C	13		ug/L			138826	187751	1
	Cl	37		ug/L			4735446	4943786	1
[>	Sc	45		ug/L			1275890	1489617	2
[	V	51	44.394	ug/L	0.723	1	9212	1269499	0
[	V-1	51	44.614	ug/L	0.857	1	60	1265516	0
[	Cr	52	35.987	ug/L	0.996	2	27310	839130	1
[	Cr	53	36.788	ug/L	1.373	3	159	93548	1
[	Mn	55	1587.498	ug/L	43.382	2	592	50663882	2
[	Co	59	20.217	ug/L	0.738	3	80	441556	3
[>	Ge	72		ug/L			659198	650626	0
[	Ni	60	80.844	ug/L	1.676	2	16	313529	2
[	Ni	62	84.124	ug/L	0.666	0	275	45938	0
[	Cu	63	55.297	ug/L	0.823	1	372	472370	1
[	Cu	65	56.643	ug/L	0.563	0	41	216611	1
[	Zn	66	445.321	ug/L	9.155	2	192	1077117	1
[	Zn	67	434.181	ug/L	1.191	0	31	174177	0
[	Zn	68	444.240	ug/L	7.177	1	189	769508	1
[	As	75	25.621	ug/L	0.307	1	267	54162	0
[	As-1	75	25.093	ug/L	0.315	1	10608	63908	0
[	Se	82	0.511	ug/L	0.095	18	-2	115	18
[	Se	78	0.745	ug/L	0.129	17	10783	11106	0
[	Mo	98	1.397	ug/L	0.016	1	8	6799	1
	Y	89		ug/L			428598	851882	0
	Kr	83		ug/L			613	1391	0
[>	In	115		ug/L			928277	925807	0
[	Ag	107	1.248	ug/L	0.026	2	14	11778	2
[	Cd	111	6.843	ug/L	0.052	0	65	28832	0
[	Cd	114	6.520	ug/L	0.053	0	31	68989	0
[	Sb	121	0.254	ug/L	0.005	1	40	3212	1
[	Sb	123	0.243	ug/L	0.010	4	30	2325	4
[	Ba	135	281.116	ug/L	2.832	1	13	1051470	1
[	Ba	137	286.579	ug/L	1.824	0	15	1850251	0
[>	Tb	159		ug/L			1061408	1084127	0
[	Tl	205	0.371	ug/L	0.003	0	43	13024	0
[	Pb	208	210.643	ug/L	1.319	0	368	9258507	0
[	Bi	209		ug/L			2680757	2479950	0
[	Th	232	5.746	ug/L	0.025	0	49	252333	0
[	U	238	1.351	ug/L	0.017	1	2	63947	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:51:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1911425	2
	Be	9	0.519	ug/L	0.015	2	12	2536	4
	C	13		ug/L			138826	184811	3
	Cl	37		ug/L			4735446	5114725	3
>	Sc	45		ug/L			1275890	1428181	1
	V	51	35.381	ug/L	1.149	3	9212	972068	1
	V-1	51	35.374	ug/L	1.213	3	60	962018	2
	Cr	52	23.232	ug/L	0.800	3	27310	530225	2
	Cr	53	23.223	ug/L	0.542	2	159	56701	1
	Mn	55	1525.993	ug/L	39.200	2	592	46696413	2
	Co	59	9.754	ug/L	0.122	1	80	204308	0
>	Ge	72		ug/L			659198	659431	2
	Ni	60	21.262	ug/L	0.413	1	16	83569	1
	Ni	62	23.044	ug/L	0.693	3	275	12949	0
	Cu	63	19.206	ug/L	0.581	3	372	166447	0
	Cu	65	19.301	ug/L	0.494	2	41	74804	0
	Zn	66	226.162	ug/L	3.354	1	192	554472	1
	Zn	67	227.213	ug/L	1.499	0	31	92391	1
	Zn	68	230.804	ug/L	2.695	1	189	405249	1
	As	75	16.593	ug/L	0.252	1	267	35641	1
	As-1	75	16.277	ug/L	0.327	2	10608	45736	0
	Se	82	-0.211	ug/L	0.051	24	-2	-52	20
	Se	78	-0.088	ug/L	0.246	278	10783	10729	1
	Mo	98	0.445	ug/L	0.016	3	8	2199	3
	Y	89		ug/L			428598	513124	1
	Kr	83		ug/L			613	1014	1
>	In	115		ug/L			928277	948949	0
	Ag	107	0.191	ug/L	0.006	2	14	1858	2
	Cd	111	3.016	ug/L	0.066	2	65	13062	1
	Cd	114	2.918	ug/L	0.026	0	31	31664	1
	Sb	121	0.222	ug/L	0.000	0	40	2890	0
	Sb	123	0.227	ug/L	0.002	0	30	2229	1
	Ba	135	260.272	ug/L	2.662	1	13	997829	0
	Ba	137	257.584	ug/L	2.198	0	15	1704617	0
>	Tb	159		ug/L			1061408	1066426	1
	Tl	205	0.266	ug/L	0.001	0	43	9226	1
	Pb	208	238.590	ug/L	3.838	1	368	10316745	2
	Bi	209		ug/L			2680757	2578125	1
	Th	232	3.114	ug/L	0.029	0	49	134515	0
	U	238	0.338	ug/L	0.008	2	2	15734	3

VS21 : 00490

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:55:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1893448	0
[	Be	9	0.373	ug/L	0.015	4	12	1807	4
	C	13		ug/L			138826	229860	0
	Cl	37		ug/L			4735446	5023340	2
[>	Sc	45		ug/L			1275890	1396660	1
|	V	51	25.755	ug/L	0.353	1	9212	694872	0
|	V-1	51	25.693	ug/L	0.358	1	60	683476	0
|	Cr	52	17.536	ug/L	0.219	1	27310	398801	0
|	Cr	53	17.326	ug/L	0.171	0	159	41420	0
|	Mn	55	660.242	ug/L	14.197	2	592	19758082	1
[	Co	59	7.099	ug/L	0.149	2	80	145441	1
[>	Ge	72		ug/L			659198	653890	1
|	Ni	60	15.080	ug/L	0.414	2	16	58773	1
|	Ni	62	16.789	ug/L	0.660	3	275	9428	2
|	Cu	63	21.910	ug/L	0.726	3	372	188254	1
|	Cu	65	22.322	ug/L	0.442	1	41	85800	1
|	Zn	66	210.763	ug/L	2.065	0	192	512416	0
|	Zn	67	207.023	ug/L	4.572	2	31	83463	0
|	Zn	68	211.486	ug/L	6.355	3	189	368168	1
|	As	75	11.111	ug/L	0.223	2	267	23752	0
|	As-1	75	10.934	ug/L	0.325	2	10608	33918	0
|	Se	82	0.721	ug/L	0.067	9	-2	164	9
|	Se	78	0.746	ug/L	0.388	52	10783	11160	0
[	Mo	98	0.479	ug/L	0.019	3	8	2349	2
	Y	89		ug/L			428598	526761	0
	Kr	83		ug/L			613	772	2
[>	In	115		ug/L			928277	951909	1
|	Ag	107	0.276	ug/L	0.002	0	14	2694	0
|	Cd	111	4.245	ug/L	0.078	1	65	18413	0
|	Cd	114	4.195	ug/L	0.087	2	31	45639	0
|	Sb	121	0.461	ug/L	0.013	2	40	5964	1
|	Sb	123	0.457	ug/L	0.011	2	30	4464	0
|	Ba	135	147.986	ug/L	2.258	1	13	569033	0
[	Ba	137	149.794	ug/L	3.828	2	15	994111	0
[>	Tb	159		ug/L			1061408	1061412	2
|	Tl	205	0.219	ug/L	0.008	3	43	7562	1
|	Pb	208	222.825	ug/L	6.452	2	368	9584388	0
|	Bi	209		ug/L			2680757	2567392	0
|	Th	232	2.106	ug/L	0.049	2	49	90542	0
[	U	238	0.533	ug/L	0.012	2	2	24723	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:59:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1801645	0
	Be	9	50.179	ug/L	0.824	1	12	229774	1
	C	13		ug/L			138826	149526	1
	Cl	37		ug/L			4735446	5118156	1
>	Sc	45		ug/L			1275890	1263312	1
	V	51	48.253	ug/L	0.614	1	9212	1169775	2
	V-1	51	48.305	ug/L	0.825	1	60	1162458	2
	Cr	52	49.792	ug/L	0.619	1	27310	974555	1
	Cr	53	49.978	ug/L	1.238	2	159	107784	2
	Mn	55	48.656	ug/L	0.421	0	592	1317769	1
	Co	59	49.201	ug/L	0.353	0	80	911445	1
>	Ge	72		ug/L			659198	640504	1
	Ni	60	50.073	ug/L	1.135	2	16	191157	2
	Ni	62	49.622	ug/L	1.125	2	275	26779	0
	Cu	63	50.999	ug/L	1.709	3	372	428735	2
	Cu	65	51.291	ug/L	1.438	2	41	193035	1
	Zn	66	50.655	ug/L	1.135	2	192	120771	2
	Zn	67	50.957	ug/L	0.875	1	31	20155	3
	Zn	68	50.083	ug/L	1.163	2	189	85546	0
	As	75	49.929	ug/L	0.821	1	267	103655	1
	As-1	75	50.127	ug/L	1.037	2	10608	115384	1
	Se	82	51.565	ug/L	0.827	1	-2	11740	1
	Se	78	51.494	ug/L	1.765	3	10783	42016	1
	Mo	98	49.317	ug/L	1.280	2	8	235922	2
	Y	89		ug/L			428598	422263	0
	Kr	83		ug/L			613	646	4
>	In	115		ug/L			928277	914867	0
	Ag	107	51.796	ug/L	1.309	2	14	482458	2
	Cd	111	50.412	ug/L	0.327	0	65	209491	0
	Cd	114	49.956	ug/L	1.002	2	31	522139	1
	Sb	121	49.973	ug/L	0.252	0	40	617564	0
	Sb	123	49.669	ug/L	0.469	0	30	463528	1
	Ba	135	48.469	ug/L	0.829	1	13	179168	2
	Ba	137	48.196	ug/L	0.605	1	15	307502	1
>	Tb	159		ug/L			1061408	1043819	1
	Tl	205	45.142	ug/L	0.065	0	43	1522680	1
	Pb	208	47.410	ug/L	0.445	0	368	2006773	1
	Bi	209		ug/L			2680757	2550506	0
	Th	232	44.334	ug/L	0.458	1	49	1874104	1
	U	238	51.823	ug/L	0.609	1	2	2362364	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:06:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1779925	0
[	Be	9	0.000	ug/L	0.000	1260	12	12	4
	C	13		ug/L			138826	145167	2
	Cl	37		ug/L			4735446	4902164	1
[>	Sc	45		ug/L			1275890	1249134	1
[	V	51	0.001	ug/L	0.003	436	9212	9035	1
[	V-1	51	-0.001	ug/L	0.000	23	60	46	5
[	Cr	52	-0.005	ug/L	0.011	227	27310	26644	1
[	Cr	53	-0.009	ug/L	0.003	28	159	136	5
[	Mn	55	0.004	ug/L	0.002	58	592	690	9
[	Co	59	0.000	ug/L	0.001	198	80	85	14
[>	Ge	72		ug/L			659198	624199	1
[	Ni	60	0.002	ug/L	0.001	64	16	21	18
[	Ni	62	-0.308	ug/L	0.033	10	275	100	17
[	Cu	63	-0.020	ug/L	0.003	12	372	185	9
[	Cu	65	0.005	ug/L	0.001	28	41	58	7
[	Zn	66	0.089	ug/L	0.036	40	192	388	21
[	Zn	67	0.071	ug/L	0.012	17	31	56	7
[	Zn	68	0.098	ug/L	0.012	11	189	342	5
[	As	75	0.026	ug/L	0.028	110	267	304	17
[	As-1	75	0.192	ug/L	0.061	31	10608	10435	0
[	Se	82	0.043	ug/L	0.073	168	-2	6	235
[	Se	78	0.642	ug/L	0.180	28	10783	10592	1
[	Mo	98	0.006	ug/L	0.001	14	8	36	12
	Y	89		ug/L			428598	410581	0
	Kr	83		ug/L			613	605	2
[>	In	115		ug/L			928277	898371	1
[	Ag	107	0.002	ug/L	0.001	42	14	30	24
[	Cd	111	0.003	ug/L	0.003	100	65	73	14
[	Cd	114	0.000	ug/L	0.001	133	31	35	18
[	Sb	121	0.057	ug/L	0.007	13	40	725	13
[	Sb	123	0.056	ug/L	0.007	12	30	546	11
[	Ba	135	0.002	ug/L	0.001	71	13	19	22
[	Ba	137	0.003	ug/L	0.002	53	15	36	32
[>	Tb	159		ug/L			1061408	998753	1
[	Tl	205	0.009	ug/L	0.004	47	43	341	41
[	Pb	208	0.005	ug/L	0.001	21	368	539	8
[	Bi	209		ug/L			2680757	2565215	0
[	Th	232	0.137	ug/L	0.015	10	49	5587	10
[	U	238	0.002	ug/L	0.000	13	2	78	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:13:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1827394	3
	Be	9	U 0.001	ug/L	0.000	34	12	17	12
	C	13		ug/L			138826	158167	1
	Cl	37		ug/L			4735446	4848769	2
>	Sc	45		ug/L			1275890	1309266	2
	V	51	-0.001	ug/L	0.002	176	9212	9427	2
	V-1	51	U 0.000	ug/L	0.000	25	60	72	4
	Cr	52	-0.002	ug/L	0.014	582	27310	27980	3
	Cr	53	U 0.003	ug/L	0.007	253	159	170	10
	Mn	55	0.041	ug/L	0.002	5	592	1762	4
	Co	59	U 0.001	ug/L	0.001	79	80	95	8
>	Ge	72		ug/L			659198	641118	1
	Ni	60	0.011	ug/L	0.000	2	16	59	3
	Ni	62	U -0.314	ug/L	0.015	4	275	100	8
	Cu	63	-0.015	ug/L	0.001	8	372	232	5
	Cu	65	U 0.013	ug/L	0.005	35	41	90	18
	Zn	66	0.415	ug/L	0.022	5	192	1175	4
	Zn	67	U 0.368	ug/L	0.018	4	31	175	4
	Zn	68	0.416	ug/L	0.038	9	189	895	7
	As	75	0.028	ug/L	0.012	42	267	317	8
	As-1	75	U 0.101	ug/L	0.112	110	10608	10526	0
	Se	82	0.020	ug/L	0.091	452	-2	1	1143
	Se	78	U 0.307	ug/L	0.406	132	10783	10672	0
	Mo	98	0.002	ug/L	0.001	37	8	19	21
	Y	89		ug/L			428598	421158	1
	Kr	83		ug/L			613	626	6
>	In	115		ug/L			928277	918882	1
	Ag	107	U 0.001	ug/L	0.000	42	14	22	13
	Cd	111	-0.000	ug/L	0.002	2148	65	64	12
	Cd	114	U 0.000	ug/L	0.001	184	31	36	22
	Sb	121	0.015	ug/L	0.003	20	40	227	16
	Sb	123	U 0.015	ug/L	0.001	9	30	170	9
	Ba	135	0.024	ug/L	0.002	8	13	104	7
	Ba	137	0.024	ug/L	0.002	6	15	172	6
>	Tb	159		ug/L			1061408	1029086	0
	Tl	205	U 0.005	ug/L	0.002	40	43	219	33
	Pb	208	0.010	ug/L	0.001	9	368	759	5
	Bi	209	h	ug/L			2680757	2619898	0
	Th	232	0.078	ug/L	0.003	3	49	3279	4
	U	238	0.000	ug/L	0.000	31	2	19	28

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:18:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1768094	1
[	Be	9	24.452	ug/L	0.100	0	12	109896	2
	C	13		ug/L			138826	152645	3
	Cl	37		ug/L			4735446	4867161	1
[>	Sc	45		ug/L			1275890	1268660	2
[	V	51	23.019	ug/L	0.491	2	9212	564975	0
[	V-1	51	23.112	ug/L	0.426	1	60	558356	0
[	Cr	52	24.182	ug/L	0.928	3	27310	489009	1
[	Cr	53	24.511	ug/L	0.715	2	159	53141	1
[	Mn	55	23.669	ug/L	0.907	3	592	643641	1
[	Co	59	24.127	ug/L	0.991	4	80	448550	1
[>	Ge	72		ug/L			659198	627559	2
[	Ni	60	25.156	ug/L	0.630	2	16	94083	1
[	Ni	62	25.105	ug/L	0.603	2	275	13403	0
[	Cu	63	25.981	ug/L	1.095	4	372	214127	2
[	Cu	65	26.262	ug/L	0.391	1	41	96888	2
[	Zn	66	80.808	ug/L	3.116	3	192	188608	2
[	Zn	67	74.637	ug/L	2.009	2	31	28895	1
[	Zn	68	78.646	ug/L	0.858	1	189	131536	1
[	As	75	24.398	ug/L	0.623	2	267	49745	0
[	As-1	75	24.999	ug/L	1.044	4	10608	61422	1
[	Se	82	79.762	ug/L	1.238	1	-2	17793	0
[	Se	78	78.439	ug/L	2.590	3	10783	57333	0
[	Mo	98	23.155	ug/L	0.849	3	8	108495	1
	Y	89		ug/L			428598	411966	1
	Kr	83		ug/L			613	640	1
[>	In	115		ug/L			928277	889759	0
[	Ag	107	26.018	ug/L	0.274	1	14	235720	1
[	Cd	111	24.584	ug/L	0.104	0	65	99391	0
[	Cd	114	24.427	ug/L	0.277	1	31	248322	0
[	Sb	121	23.972	ug/L	0.200	0	40	288126	0
[	Sb	123	24.016	ug/L	0.254	1	30	218002	1
[	Ba	135	24.518	ug/L	0.114	0	13	88146	0
[	Ba	137	24.200	ug/L	0.076	0	15	150172	0
[>	Tb	159		ug/L			1061408	1007563	0
[	Tl	205	23.231	ug/L	0.301	1	43	756359	1
[	Pb	208	24.527	ug/L	0.089	0	368	1002221	0
[	Bi	209		ug/L			2680757	2576050	0
[	Th	232	21.832	ug/L	0.194	0	49	890856	0
[	U	238	21.840	ug/L	0.438	2	2	961066	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:23:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1841551	0
	Be	9	0.053	ug/L	0.007	12	12	262	11
	C	13		ug/L			138826	161235	2
	Cl	37		ug/L			4735446	4886730	4
>	Sc	45		ug/L			1275890	1297456	1
	V	51	4.179	ug/L	0.079	1	9212	112604	1
	V-1	51	4.194	ug/L	0.095	2	60	103692	2
	Cr	52	2.756	ug/L	0.041	1	27310	81625	0
	Cr	53	2.809	ug/L	0.103	3	159	6373	2
	Mn	55	187.088	ug/L	4.618	2	592	5201446	1
	Co	59	1.281	ug/L	0.036	2	80	24450	3
>	Ge	72		ug/L			659198	650856	1
	Ni	60	2.376	ug/L	0.013	0	16	9235	1
	Ni	62	2.287	ug/L	0.039	1	275	1513	1
	Cu	63	3.472	ug/L	0.108	3	372	30007	2
	Cu	65	3.575	ug/L	0.068	1	41	13712	1
	Zn	66	54.577	ug/L	0.889	1	192	132210	0
	Zn	67	52.005	ug/L	0.741	1	31	20896	1
	Zn	68	53.933	ug/L	0.622	1	189	93621	1
	As	75	1.937	ug/L	0.053	2	267	4340	2
	As-1	75	1.916	ug/L	0.143	7	10608	14552	1
	Se	82	0.093	ug/L	0.036	39	-2	18	44
	Se	78	0.122	ug/L	0.377	307	10783	10721	1
	Mo	98	0.092	ug/L	0.003	3	8	455	2
	Y	89		ug/L			428598	436213	0
	Kr	83		ug/L			613	628	0
>	In	115		ug/L			928277	933152	1
	Ag	107	0.062	ug/L	0.003	5	14	603	5
	Cd	111	1.065	ug/L	0.016	1	65	4577	2
	Cd	114	1.029	ug/L	0.007	0	31	11005	1
	Sb	121	0.218	ug/L	0.001	0	40	2786	1
	Sb	123	0.228	ug/L	0.006	2	30	2203	1
	Ba	135	32.262	ug/L	0.741	2	13	121633	2
	Ba	137	32.075	ug/L	0.601	1	15	208720	1
>	Tb	159		ug/L			1061408	1051810	0
	Tl	205	0.052	ug/L	0.001	2	43	1809	2
	Pb	208	44.515	ug/L	0.590	1	368	1898584	1
	Bi	209		ug/L			2680757	2686304	1
	Th	232	0.559	ug/L	0.019	3	49	23875	3
	U	238	0.054	ug/L	0.001	2	2	2478	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:27:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1891078	0
[	Be	9	0.267	ug/L	0.006	2	12	1297	1
	C	13		ug/L			138826	241893	0
	Cl	37		ug/L			4735446	5240381	2
[>	Sc	45		ug/L			1275890	1385768	1
|	V	51	19.555	ug/L	0.371	1	9212	525841	0
|	V-1	51	19.538	ug/L	0.404	2	60	515675	1
|	Cr	52	13.330	ug/L	0.353	2	27310	307851	0
|	Cr	53	13.281	ug/L	0.489	3	159	31536	2
|	Mn	55	871.286	ug/L	18.026	2	592	25869477	1
[	Co	59	6.022	ug/L	0.164	2	80	122426	2
[>	Ge	72		ug/L			659198	644076	1
|	Ni	60	11.910	ug/L	0.246	2	16	45736	2
|	Ni	62	13.196	ug/L	0.134	1	275	7359	1
|	Cu	63	17.604	ug/L	0.339	1	372	149083	0
|	Cu	65	18.075	ug/L	0.212	1	41	68457	2
|	Zn	66	267.701	ug/L	4.887	1	192	640975	0
|	Zn	67	251.938	ug/L	2.849	1	31	100063	1
|	Zn	68	266.058	ug/L	8.212	3	189	456173	1
|	As	75	9.633	ug/L	0.138	1	267	20319	0
|	As-1	75	9.494	ug/L	0.179	1	10608	30377	0
|	Se	82	0.404	ug/L	0.016	4	-2	89	5
|	Se	78	0.462	ug/L	0.134	29	10783	10819	0
[	Mo	98	0.423	ug/L	0.017	4	8	2040	2
	Y	89		ug/L			428598	488898	0
	Kr	83		ug/L			613	719	1
[>	In	115		ug/L			928277	943226	0
|	Ag	107	0.286	ug/L	0.008	2	14	2762	3
|	Cd	111	5.110	ug/L	0.098	1	65	21954	1
|	Cd	114	5.106	ug/L	0.066	1	31	55048	1
|	Sb	121	1.016	ug/L	0.022	2	40	12988	2
|	Sb	123	1.014	ug/L	0.012	1	30	9789	1
|	Ba	135	162.677	ug/L	1.059	0	13	619916	0
[	Ba	137	161.378	ug/L	0.748	0	15	1061540	0
[>	Tb	159		ug/L			1061408	1056154	0
|	Tl	205	0.243	ug/L	0.012	4	43	8332	4
|	Pb	208	257.293	ug/L	2.925	1	368	11016939	0
|	Bi	209		ug/L			2680757	2589312	0
|	Th	232	1.642	ug/L	0.018	1	49	70267	0
[	U	238	0.266	ug/L	0.003	0	2	12273	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:31:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1847104	2
	Be	9	0.253	ug/L	0.005	1	12	1198	1
	C	13		ug/L			138826	241630	4
	Cl	37		ug/L			4735446	5073290	4
>	Sc	45		ug/L			1275890	1381405	2
	V	51	19.405	ug/L	0.225	1	9212	520292	1
	V-1	51	19.427	ug/L	0.221	1	60	511177	2
	Cr	52	13.388	ug/L	0.344	2	27310	308066	0
	Cr	53	13.476	ug/L	0.226	1	159	31896	0
	Mn	55	860.411	ug/L	17.683	2	592	25464191	1
	Co	59	5.875	ug/L	0.107	1	80	119073	2
>	Ge	72		ug/L			659198	651043	0
	Ni	60	11.310	ug/L	0.223	1	16	43900	1
	Ni	62	12.546	ug/L	0.104	0	275	7087	1
	Cu	63	16.724	ug/L	0.192	1	372	143200	0
	Cu	65	16.702	ug/L	0.150	0	41	63940	1
	Zn	66	254.301	ug/L	6.866	2	192	615569	2
	Zn	67	240.981	ug/L	5.608	2	31	96746	2
	Zn	68	255.778	ug/L	6.891	2	189	443417	2
	As	75	8.803	ug/L	0.038	0	267	18795	0
	As-1	75	8.636	ug/L	0.035	0	10608	28881	0
	Se	82	0.356	ug/L	0.078	21	-2	79	22
	Se	78	0.247	ug/L	0.233	94	10783	10803	0
	Mo	98	0.403	ug/L	0.011	2	8	1969	3
	Y	89		ug/L			428598	477293	1
	Kr	83		ug/L			613	695	8
>	In	115		ug/L			928277	942766	1
	Ag	107	0.250	ug/L	0.004	1	14	2411	1
	Cd	111	5.053	ug/L	0.077	1	65	21694	1
	Cd	114	5.043	ug/L	0.047	0	31	54349	0
	Sb	121	1.332	ug/L	0.016	1	40	16999	0
	Sb	123	1.340	ug/L	0.004	0	30	12917	1
	Ba	135	154.076	ug/L	1.146	0	13	586845	1
	Ba	137	154.727	ug/L	1.338	0	15	1017250	1
>	Tb	159		ug/L			1061408	1053556	0
	Tl	205	0.224	ug/L	0.003	1	43	7673	1
	Pb	208	246.840	ug/L	0.910	0	368	10543669	0
	Bi	209		ug/L			2680757	2609496	1
	Th	232	1.321	ug/L	0.012	0	49	56423	0
	U	238	0.232	ug/L	0.004	1	2	10697	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:35:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1848114	1
[	Be	9	23.553	ug/L	0.733	3	12	110613	1
	C	13		ug/L			138826	247456	3
	Cl	37		ug/L			4735446	5210460	1
[>	Sc	45		ug/L			1275890	1365458	2
[	V	51	41.401	ug/L	1.619	3	9212	1085640	2
[	V-1	51	41.440	ug/L	1.505	3	60	1077273	1
[	Cr	52	36.122	ug/L	1.478	4	27310	771850	2
[	Cr	53	36.268	ug/L	1.232	3	159	84543	1
[	Mn	55	898.267	ug/L	30.934	3	592	26272673	1
[	Co	59	28.557	ug/L	0.550	1	80	571637	0
[>	Ge	72		ug/L			659198	665919	1
[	Ni	60	35.041	ug/L	0.970	2	16	139077	2
[	Ni	62	35.662	ug/L	0.168	0	275	20092	1
[	Cu	63	40.305	ug/L	1.083	2	372	352411	1
[	Cu	65	40.619	ug/L	1.488	3	41	158940	2
[	Zn	66	324.797	ug/L	7.943	2	192	804035	1
[	Zn	67	310.639	ug/L	1.544	0	31	127559	1
[	Zn	68	324.441	ug/L	8.870	2	189	575181	2
[	As	75	31.371	ug/L	0.361	1	267	67815	1
[	As-1	75	31.761	ug/L	0.562	1	10608	79936	0
[	Se	82	75.409	ug/L	0.393	0	-2	17853	0
[	Se	78	73.952	ug/L	1.922	2	10783	57993	1
[	Mo	98	21.648	ug/L	0.786	3	8	107665	2
	Y	89		ug/L			428598	485890	0
	Kr	83		ug/L			613	721	2
[>	In	115		ug/L			928277	948299	1
[	Ag	107	21.319	ug/L	0.197	0	14	205835	1
[	Cd	111	27.974	ug/L	0.163	0	65	120517	1
[	Cd	114	28.098	ug/L	0.451	1	31	304372	0
[	Sb	121	6.573	ug/L	0.107	1	40	84220	1
[	Sb	123	6.623	ug/L	0.118	1	30	64080	1
[	Ba	135	183.138	ug/L	3.473	1	13	701496	0
[	Ba	137	183.263	ug/L	3.174	1	15	1211726	0
[>	Tb	159		ug/L			1061408	1057697	0
[	Tl	205	21.416	ug/L	0.268	1	43	731973	0
[	Pb	208	271.169	ug/L	2.337	0	368	11628226	0
[	Bi	209		ug/L			2680757	2595430	0
[	Th	232	17.038	ug/L	0.061	0	49	729834	0
[	U	238	21.188	ug/L	0.142	0	2	978760	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 APOST SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:39:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1850114	1
[	Be	9	25.749	ug/L	0.723	2	12	121051	1
	C	13		ug/L			138826	237925	0
	Cl	37		ug/L			4735446	5171968	2
[>	Sc	45		ug/L			1275890	1358009	1
[	V	51	42.232	ug/L	0.318	0	9212	1101658	0
[	V-1	51	41.973	ug/L	0.352	0	60	1085652	1
[	Cr	52	37.526	ug/L	0.402	1	27310	796655	0
[	Cr	53	36.606	ug/L	0.538	1	159	84903	1
[	Mn	55	862.710	ug/L	12.629	1	592	25104381	1
[	Co	59	30.093	ug/L	0.243	0	80	599237	1
[>	Ge	72		ug/L			659198	652601	0
[	Ni	60	37.260	ug/L	0.930	2	16	144936	2
[	Ni	62	37.860	ug/L	1.007	2	275	20885	1
[	Cu	63	43.387	ug/L	0.565	1	372	371810	1
[	Cu	65	43.256	ug/L	1.091	2	41	165905	1
[	Zn	66	502.039	ug/L	3.584	0	192	1218024	0
[	Zn	67	479.795	ug/L	6.680	1	31	193046	0
[	Zn	68	499.213	ug/L	3.985	0	189	867396	1
[	As	75	34.426	ug/L	0.242	0	267	72907	0
[	As-1	75	34.913	ug/L	0.283	0	10608	85079	0
[	Se	82	85.768	ug/L	0.554	0	-2	19901	0
[	Se	78	84.202	ug/L	0.735	0	10783	63240	0
[	Mo	98	24.556	ug/L	0.174	0	8	119711	0
	Y	89		ug/L			428598	482666	2
	Kr	83		ug/L			613	717	3
[>	In	115		ug/L			928277	954275	1
[	Ag	107	25.830	ug/L	0.434	1	14	250953	1
[	Cd	111	29.995	ug/L	0.423	1	65	130026	0
[	Cd	114	29.770	ug/L	0.356	1	31	324553	0
[	Sb	121	24.376	ug/L	0.082	0	40	314226	0
[	Sb	123	24.401	ug/L	0.212	0	30	237530	0
[	Ba	135	172.782	ug/L	0.801	0	13	666120	0
[	Ba	137	174.172	ug/L	2.053	1	15	1159013	0
[>	Tb	159		ug/L			1061408	1053252	0
[	Tl	205	24.062	ug/L	0.197	0	43	818955	0
[	Pb	208	269.505	ug/L	1.397	0	368	11508333	0
[	Bi	209		ug/L			2680757	2599531	0
[	Th	232	24.760	ug/L	0.070	0	49	1056144	0
[	U	238	23.413	ug/L	0.358	1	2	1076968	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:43:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1866883	1
[	Be	9	0.362	ug/L	0.008	2	12	1728	1
	C	13		ug/L			138826	184084	3
	Cl	37		ug/L			4735446	4987806	3
[>	Sc	45		ug/L			1275890	1374787	0
[	V	51	28.788	ug/L	0.274	0	9212	763401	0
[	V-1	51	28.674	ug/L	0.179	0	60	750882	0
[	Cr	52	19.347	ug/L	0.409	2	27310	430045	1
[	Cr	53	18.955	ug/L	0.063	0	159	44591	0
[	Mn	55	468.509	ug/L	19.181	4	592	13800276	3
[	Co	59	7.801	ug/L	0.282	3	80	157305	2
[>	Ge	72		ug/L			659198	654478	2
[	Ni	60	15.555	ug/L	0.467	3	16	60668	0
[	Ni	62	16.934	ug/L	0.680	4	275	9516	2
[	Cu	63	14.328	ug/L	0.495	3	372	123327	1
[	Cu	65	14.581	ug/L	0.393	2	41	56095	0
[	Zn	66	169.423	ug/L	1.791	1	192	412302	1
[	Zn	67	170.193	ug/L	3.402	1	31	68679	1
[	Zn	68	171.945	ug/L	4.877	2	189	299601	0
[	As	75	7.380	ug/L	0.166	2	267	15878	0
[	As-1	75	7.148	ug/L	0.333	4	10608	25834	0
[	Se	82	0.133	ug/L	0.064	48	-2	27	54
[	Se	78	-0.094	ug/L	0.648	690	10783	10641	1
[	Mo	98	0.283	ug/L	0.004	1	8	1390	1
	Y	89		ug/L			428598	491754	1
	Kr	83		ug/L			613	819	10
[>	In	115		ug/L			928277	920013	0
[	Ag	107	0.158	ug/L	0.004	2	14	1491	2
[	Cd	111	2.294	ug/L	0.076	3	65	9647	2
[	Cd	114	2.269	ug/L	0.049	2	31	23877	1
[	Sb	121	0.144	ug/L	0.004	2	40	1822	2
[	Sb	123	0.139	ug/L	0.003	2	30	1333	1
[	Ba	135	134.841	ug/L	0.811	0	13	501192	0
[	Ba	137	134.453	ug/L	0.867	0	15	862626	0
[>	Tb	159		ug/L			1061408	1046979	1
[	Tl	205	0.137	ug/L	0.001	1	43	4670	2
[	Pb	208	52.530	ug/L	0.163	0	368	2230045	0
[	Bi	209		ug/L			2680757	2555237	0
[	Th	232	2.371	ug/L	0.015	0	49	100581	0
[	U	238	0.314	ug/L	0.002	0	2	14354	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:47:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1891556	1
[	Be	9	0.634	ug/L	0.013	2	12	3061	1
	C	13		ug/L			138826	178885	2
	Cl	37		ug/L			4735446	4957742	1
[>	Sc	45		ug/L			1275890	1436617	1
[	V	51	31.660	ug/L	0.740	2	9212	876130	0
[	V-1	51	31.705	ug/L	0.743	2	60	867388	0
[	Cr	52	22.365	ug/L	0.240	1	27310	514692	0
[	Cr	53	22.537	ug/L	0.360	1	159	55364	1
[	Mn	55	225.772	ug/L	3.392	1	592	6950916	1
[	Co	59	9.263	ug/L	0.257	2	80	195152	1
[>	Ge	72		ug/L			659198	648565	0
[	Ni	60	18.846	ug/L	0.240	1	16	72863	0
[	Ni	62	20.578	ug/L	0.658	3	275	11404	2
[	Cu	63	18.987	ug/L	0.332	1	372	161906	1
[	Cu	65	19.275	ug/L	0.212	1	41	73505	1
[	Zn	66	61.446	ug/L	1.252	2	192	148325	2
[	Zn	67	71.629	ug/L	1.573	2	31	28666	1
[	Zn	68	65.575	ug/L	0.843	1	189	113383	0
[	As	75	4.550	ug/L	0.021	0	267	9805	0
[	As-1	75	4.381	ug/L	0.042	0	10608	19736	0
[	Se	82	0.281	ug/L	0.066	23	-2	62	25
[	Se	78	0.293	ug/L	0.122	41	10783	10790	0
[	Mo	98	0.284	ug/L	0.005	1	8	1381	2
	Y	89		ug/L			428598	605562	1
	Kr	83		ug/L			613	930	5
[>	In	115		ug/L			928277	903939	0
[	Ag	107	0.228	ug/L	0.012	5	14	2111	5
[	Cd	111	0.552	ug/L	0.027	4	65	2329	5
[	Cd	114	0.376	ug/L	0.010	2	31	3914	2
[	Sb	121	0.031	ug/L	0.001	4	40	412	5
[	Sb	123	0.031	ug/L	0.003	8	30	311	8
[	Ba	135	141.266	ug/L	0.796	0	13	515908	0
[	Ba	137	141.879	ug/L	2.116	1	15	894347	1
[>	Tb	159		ug/L			1061408	1054266	0
[	Tl	205	0.121	ug/L	0.002	1	43	4176	1
[	Pb	208	11.347	ug/L	0.085	0	368	485335	0
[	Bi	209		ug/L			2680757	2527266	0
[	Th	232	4.568	ug/L	0.058	1	49	195060	1
[	U	238	0.596	ug/L	0.007	1	2	27457	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 B SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:52:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1847350	0
[	**Be**	**9**	**0.095**	ug/L	0.004	4	12	460	4
	C	**13**		ug/L			138826	179673	2
	Cl	**37**		ug/L			4735446	5037210	1
[>	**Sc**	**45**		ug/L			1275890	1328200	1
[	**V**	**51**	**1.948**	ug/L	0.027	1	9212	58852	0
[	**V-1**	**51**	**1.954**	ug/L	0.027	1	60	49482	1
[	**Cr**	**52**	**1.502**	ug/L	0.050	3	27310	58479	0
[	**Cr**	**53**	**1.522**	ug/L	0.052	3	159	3611	3
[	**Mn**	**55**	**323.791**	ug/L	9.079	2	592	9213498	1
[	**Co**	**59**	**0.766**	ug/L	0.026	3	80	14993	1
[>	**Ge**	**72**		ug/L			659198	663638	1
[	**Ni**	**60**	**1.290**	ug/L	0.036	2	16	5117	2
[	**Ni**	**62**	**1.160**	ug/L	0.032	2	275	919	0
[	**Cu**	**63**	**8.821**	ug/L	0.170	1	372	77164	1
[	**Cu**	**65**	**8.822**	ug/L	0.062	0	41	34445	1
[	**Zn**	**66**	**202.769**	ug/L	7.053	3	192	500217	2
[	**Zn**	**67**	**195.451**	ug/L	1.673	0	31	79986	0
[	**Zn**	**68**	**207.566**	ug/L	3.469	1	189	366795	0
[	**As**	**75**	**4.768**	ug/L	0.091	1	267	10497	0
[	**As-1**	**75**	**4.611**	ug/L	0.120	2	10608	20693	0
[	**Se**	**82**	**0.303**	ug/L	0.050	16	-2	68	18
[	**Se**	**78**	**-0.054**	ug/L	0.091	169	10783	10821	1
[	**Mo**	**98**	**0.134**	ug/L	0.008	6	8	671	5
	Y	**89**		ug/L			428598	443102	0
	Kr	**83**		ug/L			613	613	3
[>	**In**	**115**		ug/L			928277	992907	0
[	**Ag**	**107**	**0.280**	ug/L	0.006	1	14	2850	2
[	**Cd**	**111**	**3.507**	ug/L	0.018	0	65	15882	0
[	**Cd**	**114**	**3.518**	ug/L	0.040	1	31	39933	0
[	**Sb**	**121**	**3.856**	ug/L	0.051	1	40	51758	1
[	**Sb**	**123**	**3.912**	ug/L	0.016	0	30	39656	0
[	**Ba**	**135**	**176.795**	ug/L	1.591	0	13	709190	0
[	**Ba**	**137**	**175.653**	ug/L	2.410	1	15	1216276	1
[>	**Tb**	**159**		ug/L			1061408	1054721	0
[	**Tl**	**205**	**0.163**	ug/L	0.003	1	43	5591	1
[	**Pb**	**208**	**358.113**	ug/L	0.710	0	368	15313395	0
[	**Bi**	**209**		ug/L			2680757	2699553	0
[	**Th**	**232**	**0.307**	ug/L	0.003	0	49	13170	1
[	**U**	**238**	**0.093**	ug/L	0.002	1	2	4264	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:56:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1786070	1
[	**Be**	**9**	**49.573**	ug/L	1.265	2	12	224987	0
	C	**13**		ug/L			138826	147051	2
	Cl	**37**		ug/L			4735446	5094783	0
[>	**Sc**	**45**		ug/L			1275890	1274049	1
|	**V**	**51**	**46.664**	ug/L	0.765	1	9212	1140996	0
|	**V-1**	**51**	**46.603**	ug/L	0.747	1	60	1130870	1
|	**Cr**	**52**	**49.156**	ug/L	0.839	1	27310	970540	0
|	**Cr**	**53**	**48.935**	ug/L	0.260	0	159	106432	1
|	**Mn**	**55**	**47.044**	ug/L	0.383	0	592	1285040	2
[	**Co**	**59**	**48.580**	ug/L	0.092	0	80	907537	1
[>	**Ge**	**72**		ug/L			659198	634637	1
|	**Ni**	**60**	**50.476**	ug/L	0.575	1	16	190932	0
|	**Ni**	**62**	**49.170**	ug/L	1.114	2	275	26297	1
|	**Cu**	**63**	**50.314**	ug/L	0.829	1	372	419200	0
|	**Cu**	**65**	**49.710**	ug/L	0.821	1	41	185423	2
|	**Zn**	**66**	**50.079**	ug/L	0.624	1	192	118332	2
|	**Zn**	**67**	**51.079**	ug/L	0.751	1	31	20011	0
|	**Zn**	**68**	**50.574**	ug/L	0.834	1	189	85614	1
|	**As**	**75**	**49.801**	ug/L	0.849	1	267	102439	0
|	**As-1**	**75**	**49.854**	ug/L	0.825	1	10608	113764	0
|	**Se**	**82**	**51.252**	ug/L	0.820	1	-2	11562	0
|	**Se**	**78**	**50.685**	ug/L	0.690	1	10783	41149	0
[	**Mo**	**98**	**48.882**	ug/L	0.692	1	8	231708	0
	Y	**89**		ug/L			428598	412966	1
	Kr	**83**		ug/L			613	630	6
[>	**In**	**115**		ug/L			928277	896264	1
|	**Ag**	**107**	**52.548**	ug/L	0.720	1	14	479463	0
|	**Cd**	**111**	**50.875**	ug/L	0.909	1	65	207079	0
|	**Cd**	**114**	**50.507**	ug/L	0.762	1	31	517118	1
|	**Sb**	**121**	**50.347**	ug/L	1.553	3	40	609345	1
|	**Sb**	**123**	**49.974**	ug/L	0.957	1	30	456808	0
|	**Ba**	**135**	**48.712**	ug/L	1.221	2	13	176351	0
[	**Ba**	**137**	**48.758**	ug/L	1.040	2	15	304702	0
[>	**Tb**	**159**		ug/L			1061408	1007414	1
|	**Tl**	**205**	**46.144**	ug/L	0.945	2	43	1501880	0
|	**Pb**	**208**	**48.429**	ug/L	0.703	1	368	1978121	0
|	**Bi**	**209**		ug/L			2680757	2540555	1
|	**Th**	**232**	**45.183**	ug/L	0.424	0	49	1843223	0
[	**U**	**238**	**48.325**	ug/L	5.505	11	2	2125851	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 16:03:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1735685	2
	Be	9	0.001	ug/L	0.001	60	12	16	17
	C	13		ug/L			138826	144992	2
	Cl	37		ug/L			4735446	4820241	3
>	Sc	45		ug/L			1275890	1214560	0
	V	51	-0.005	ug/L	0.002	37	9212	8663	1
	V-1	51	-0.000	ug/L	0.000	103	60	51	11
	Cr	52	-0.014	ug/L	0.003	18	27310	25742	0
	Cr	53	0.001	ug/L	0.005	360	159	154	6
	Mn	55	0.001	ug/L	0.002	124	592	594	6
	Co	59	0.000	ug/L	0.000	126	80	77	0
>	Ge	72		ug/L			659198	616233	2
	Ni	60	0.001	ug/L	0.000	3	16	19	2
	Ni	62	-0.333	ug/L	0.011	3	275	86	4
	Cu	63	-0.023	ug/L	0.000	1	372	161	1
	Cu	65	0.005	ug/L	0.002	37	41	57	10
	Zn	66	0.094	ug/L	0.016	17	192	394	8
	Zn	67	0.042	ug/L	0.009	20	31	45	5
	Zn	68	0.102	ug/L	0.018	17	189	343	6
	As	75	0.028	ug/L	0.020	73	267	304	13
	As-1	75	0.224	ug/L	0.131	58	10608	10364	0
	Se	82	0.046	ug/L	0.074	160	-2	7	216
	Se	78	0.737	ug/L	0.448	60	10783	10511	0
	Mo	98	0.009	ug/L	0.002	21	8	47	18
	Y	89		ug/L			428598	398296	3
	Kr	83		ug/L			613	590	6
>	In	115		ug/L			928277	857346	1
	Ag	107	0.002	ug/L	0.001	33	14	31	20
	Cd	111	0.003	ug/L	0.001	45	65	71	5
	Cd	114	0.001	ug/L	0.001	78	31	37	17
	Sb	121	0.065	ug/L	0.008	11	40	793	10
	Sb	123	0.065	ug/L	0.007	10	30	597	9
	Ba	135	0.001	ug/L	0.001	60	13	17	18
	Ba	137	0.003	ug/L	0.001	37	15	30	19
>	Tb	159		ug/L			1061408	973330	1
	Tl	205	0.011	ug/L	0.005	43	43	377	37
	Pb	208	0.005	ug/L	0.000	5	368	522	2
	Bi	209		ug/L			2680757	2523374	1
	Th	232	0.154	ug/L	0.017	11	49	6120	10
	U	238	0.002	ug/L	0.000	8	2	78	8

Mercury Analysis Log

Analyst: NB

Instrument: CETAC

Date: 11-23-12

Page: 1 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
STD 0.0	SMM	1x		
" 0.1				
" 0.5				
" 1.0				
" 2.0				
" 5.0				
" 10.0				
ICV			8.49	Begin CLP %R=106 ✓
ICB			-0.01	✓
CCV1			4.18	%R=105 ✓
CCB1			0.01	✓
CRA			0.13	✓
VS96 MB1			0.01	✓
" MB1SPK			2.13	%R=107 ✓
" A			0.02	
" ADUP			0.01	No RPD: undetected ✓
" ASPK			1.13	%R=113 ✓
" B				
" C				
" D				
" E				
CCV2			4.24	%R=106 ✓
CCB2			-0.00	✓
VS96 F				
" G				
" H				
" I				
" J				
" K				
" L				

Chemical/Reagent ID:

10% $SnCl_2$: MP2395

14% $NH_2OH/NaCl$: MP2360

Standard ID:

Standard: 2993-14

ICV/CCV: 56-18

Mercury Analysis Log

Analyst: NB Date: 11-23-12

Instrument: CETAC Page: 2 of 5

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments
VS96	M	SMM	1x		
"	*~~N~~N				*NB 11-23-12
"	O				
CCV3				4.28	%R=107 ✓
CCB3				0.00	✓
VS96	P				
"	Q				
"	R				
"	S				
"	T				
CCV4				4.26	%R=107 ✓
CCB4				0.00	✓
VT06	MBI			0.00	✓
"	MBISPK			2.20	%R=110 ✓
"	D			0.04	
"	DDUP			0.05	No RPD: undetected ✓
"	DSPK			1.16	%R=116 ✓
"	E				
"	F				
"	G				
"	H				
CCV5				4.30	%R=108 ✓
CCB5				-0.00	✓
VT06	I				
VS20	MBI			0.01	✓
"	MBISPK			2.18	%R=109 ✓
"	A			1.59	
"	ADUP			1.59	RPD=0.00 ✓
"	ASPK			2.59	%R=100 ✓
"	B	↓	↓		

Chemical/Reagent ID:

10% $SnCl_2$: MP2395

14% NH_2OH/NaCl: MP2360

Standard ID:

Standard: 2993-14

ICV/CCV: 56-18

Mercury Analysis Log

Analyst: NB
Instrument: CETAC

All line-outs/corrections by: NB 11-23-12

Date: 11-23-12
Page: 3 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VS20 C	SMM	1x		
" D				
" E				
CCV6			4.24	%R=106 ✓
CCB6			0.01	✓
VS20 F				
" G				
" H				
" I				
" J				
" K				
" L				
CCV7			4.37	%R=109 ✓
CCB7			0.01	✓
VS82 MBI			0.01	✓
" MBISPK			2.16	%R=108 ✓
" A				
" B ~~ADUP~~				
" C ~~ASPK~~			0.16	-Spreadsheet typo: actual samples ran as indicated.
" ~~B~~ CDUP			0.20	✓
" ~~C~~ CSPK			1.39	%R=123 ✓
" D				
" E				
" F				
CCV8			4.40	%R=110 ✓
CCB8			-0.01	✓
~~V8~~ VS82 G				
" H				
" I				
" J				

Chemical/Reagent ID:
10% $SnCl_2$: MP2395

14% NH_2OH/NaCl: MP2360

Standard ID:
Standard: 2993-14

ICV/CCV: 56-18

Mercury Analysis Log

Analyst: NB
Instrument: CETAC

Date: 11-23-12
Page: 4 of 5

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments	
VS82	K	SMM	1x			
"	L					
"	M					
VS19	MBI			0.01		✓
"	MBISPK			2.17	%R=109	✓
"	A			0.76		
CCV9				4.43	%R=111	✓
CCB9				-0.01		✓
VS19	ADUP			0.65	RPD=15.6	✓
"	ASPK			1.80	%R=104	✓
"	B					
"	C					
"	D					
"	E					
"	F					
"	G					
"	H					
"	I					
CCV10				4.44	%R=111	✓
CCB10				-0.00		✓
VS19	J					
"	K					
"	L					
CCV11				4.41	%R=110	✓
CCB11				-0.00		✓
VS21	MBI			0.01		✓
"	MBISPK			2.26	%R=113	✓
"	A			1.44		
"	ADUP			1.26	RPD=13.3	✓
"	ASPK	↓	↓	2.39	%R=95	✓

Chemical/Reagent ID:
10% $SnCl_2$: MP2395
14% NH_2OH/NaCl: MP2360

Standard ID:
Standard: 2993-14
ICV/CCV: 56-18

Mercury Analysis Log

Analyst: NB
Instrument: CETAC

All line-outs/corrections by: NB 11-23-12

Date: 11-23-12
Page: 5 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments
VS21 B	SMM	1x		
" C				
" D				
" E				
" F				
CCV12			4.40	%R = 110 ✓
CCB12			0.00	✓
VS21 G				
" H				
" I				
" J				
" K				
" L				
CCV13			4.40	%R = 110 ✓
CCB13			0.00	End CLP ✓
VT10 MB			0.01	✓
" MBSPK			2.13	%R = 107 ✓
" A			20.90	- Delete data: Sat'd X
" ADUP			15.61	Software error. High X
" ASPK			20.89	Sat'd X
" B	↓	↓	20.88	Sat'd X
" C				
" D				
" E				
" F				
CCV				
			NB 11-23-12	

Chemical/Reagent ID:
10% $SnCl_2$: MP2395
Standard ID:
Standard: 2993-14

11-24-12

14% $NH_2OH/NaCl$: MP2360
ICV/CCV: 56-18

ANALYTICAL RESOURCES INCORPORATED

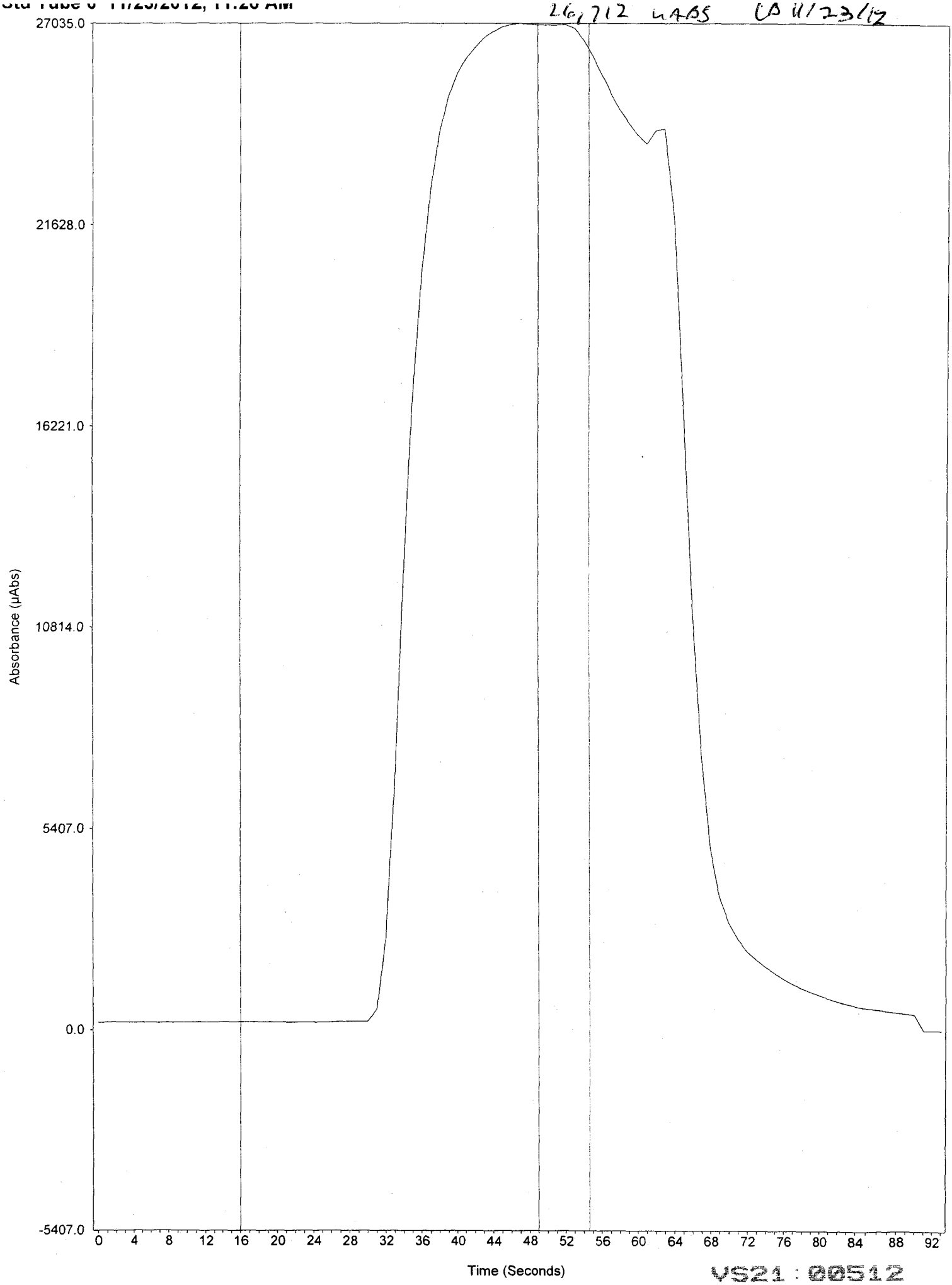
Metals Data Review Checklist

Method: ICP ICP-MS GFA (CVA) **Analysis Date:** 11-23-12

	Analyst NB 11-23-12	Peer AA 11-26	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	—	—	
Carry-over	—	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAFs:	—	—	

Std Tube 6 11/23/2012, 11:20 AM

26,712 uABS CB 11/23/12



VS21 : 00512

CETAC Hg Analysis Report - 12112300.DB - Friday, November 23, 2012, 4:24:05 PM

11-26-12 JD

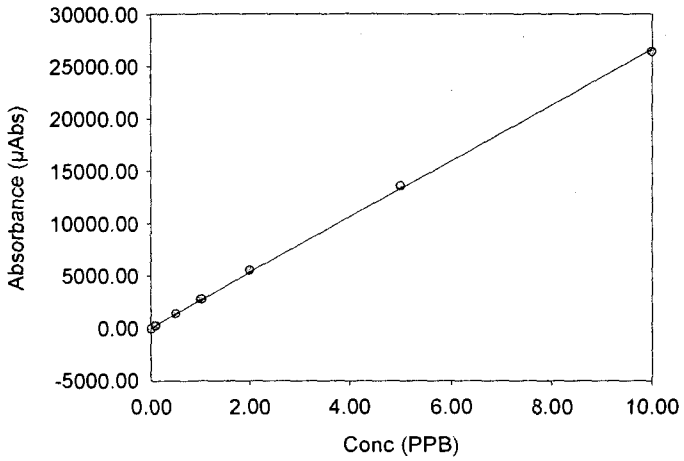
Analyst
Date Started Friday, November 23, 2012, 11:25:47
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Std Tube 6	23-Nov-2012, 11:25	10.00	0.54	26700.00	1.00	

Information about this calibration could not be retrieved from the Master File.

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Calibration Zero	23-Nov-2012, 11:28	0.00	10.30	-39.70	1.00	
Standard #1	23-Nov-2012, 11:29	0.10	0.95	289.00	1.00	
Standard #2	23-Nov-2012, 11:31	0.50	0.33	1370.00	1.00	
Standard #3	23-Nov-2012, 11:32	1.00	1.44	2750.00	1.00	
Standard #4	23-Nov-2012, 11:34	2.00	0.59	5550.00	1.00	
Standard #5	23-Nov-2012, 11:36	5.00	0.48	13600.00	1.00	
Standard #6	23-Nov-2012, 11:37	10.00	0.47	26500.00	1.00	

Calibration Data



Int.	0.000
Slope	2665.655
Correlation	0.99984

SMM

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	23-Nov-2012, 11:41	8.49	0.84	22600.00	1.00	Begin CLP
ICB	23-Nov-2012, 11:43	-0.01	16.20	-30.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 11:44	4.18	0.60	11100.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 11:46	0.01	32.90	23.90	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	23-Nov-2012, 11:47	0.13	1.49	336.00	1.00	
VS96 MB1 SMM	23-Nov-2012, 11:49	0.01	15.90	29.00	1.00	
VS96 MB1SPK SMM	23-Nov-2012, 11:51	2.13	0.46	5680.00	1.00	
VS96 A SMM	23-Nov-2012, 11:52	0.02	5.50	41.30	1.00	
VS96 ADUP SMM	23-Nov-2012, 11:54	0.01	5.34	33.80	1.00	
VS96 ASPK SMM	23-Nov-2012, 11:55	1.13	0.92	3010.00	1.00	
VS96 B SMM	23-Nov-2012, 11:57	0.04	2.67	118.00	1.00	
VS96 C SMM	23-Nov-2012, 11:59	0.21	1.07	550.00	1.00	
VS96 D SMM	23-Nov-2012, 12:00	0.26	0.29	681.00	1.00	
VS96 E SMM	23-Nov-2012, 12:02	0.09	0.61	227.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 12:04	4.24	0.62	11300.00	1.00	

Analyst
Date Started Friday, November 23, 2012, 12:05:47
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 12:05	-0.00	1560.00	-0.08	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS96 F SMM	23-Nov-2012, 12:07	0.11	0.75	299.00	1.00	
VS96 G SMM	23-Nov-2012, 12:08	0.08	1.70	205.00	1.00	
VS96 H SMM	23-Nov-2012, 12:10	0.07	0.87	194.00	1.00	
VS96 I SMM	23-Nov-2012, 12:12	0.05	2.26	125.00	1.00	
VS96 J SMM	23-Nov-2012, 12:13	0.05	5.86	135.00	1.00	
VS96 K SMM	23-Nov-2012, 12:15	0.20	0.60	546.00	1.00	
VS96 L SMM	23-Nov-2012, 12:16	0.28	0.73	755.00	1.00	
VS96 M SMM	23-Nov-2012, 12:18	0.09	0.76	251.00	1.00	
VS96 N SMM	23-Nov-2012, 12:20	0.27	0.95	729.00	1.00	
VS96 O SMM	23-Nov-2012, 12:21	2.95	0.80	7870.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 12:23	4.28	0.81	11400.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 12:25	0.00	38.60	7.16	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS96 P SMM	23-Nov-2012, 12:26	0.23	0.63	609.00	1.00	
VS96 Q SMM	23-Nov-2012, 12:28	0.31	0.58	830.00	1.00	
VS96 R SMM	23-Nov-2012, 12:30	0.08	1.05	203.00	1.00	
VS96 S SMM	23-Nov-2012, 12:31	0.01	5.24	37.70	1.00	
VS96 T SMM	23-Nov-2012, 12:33	0.01	7.95	28.80	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 12:34	4.26	0.69	11300.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 12:36	0.00	19.10	8.91	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VT06 MB1 SMM	23-Nov-2012, 12:46	0.00	32.10	4.22	1.00	
VT06 MB1SPK SMM	23-Nov-2012, 12:47	2.20	0.44	5870.00	1.00	
VT06 D SMM	23-Nov-2012, 12:49	0.04	5.35	105.00	1.00	
VT06 DDUP SMM	23-Nov-2012, 12:50	0.05	1.28	133.00	1.00	
VT06 DSPK SMM	23-Nov-2012, 12:52	1.16	0.79	3090.00	1.00	
VT06 E SMM	23-Nov-2012, 12:54	0.09	1.42	236.00	1.00	
VT06 F SMM	23-Nov-2012, 12:55	0.13	0.68	347.00	1.00	
VT06 G SMM	23-Nov-2012, 12:57	0.09	0.51	248.00	1.00	
VT06 H SMM	23-Nov-2012, 12:58	0.07	1.25	191.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 13:00	4.30	0.71	11500.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 13:02	-0.00	40.80	-3.38	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VT06 I SMM	23-Nov-2012, 13:03	0.07	1.42	190.00	1.00	
VS20 MB1 SMM	23-Nov-2012, 13:05	0.01	8.32	16.30	1.00	
VS20 MB1SPK SMM	23-Nov-2012, 13:07	2.18	0.59	5810.00	1.00	
VS20 A SMM	23-Nov-2012, 13:08	1.59	0.50	4230.00	1.00	
VS20 ADUP SMM	23-Nov-2012, 13:10	1.59	0.42	4240.00	1.00	
VS20 ASPK SMM	23-Nov-2012, 13:12	2.59	0.39	6910.00	1.00	
VS20 B SMM	23-Nov-2012, 13:13	1.38	0.67	3690.00	1.00	
VS20 C SMM	23-Nov-2012, 13:15	3.11	0.38	8280.00	1.00	

CETAC Hg Analysis Report - 12112300.DB - Friday, November 23, 2012, 4:24:06 PM

Analyst
Date Started Friday, November 23, 2012, 13:16:48
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS20 D SMM	23-Nov-2012, 13:16	3.16	0.46	8420.00	1.00	
VS20 E SMM	23-Nov-2012, 13:18	1.94	0.55	5160.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 13:20	4.24	1.46	11300.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 13:21	0.01	12.10	37.10	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS20 F SMM	23-Nov-2012, 13:23	0.84	0.48	2230.00	1.00	
VS20 G SMM	23-Nov-2012, 13:25	1.68	0.45	4480.00	1.00	
VS20 H SMM	23-Nov-2012, 13:26	0.49	0.58	1320.00	1.00	
VS20 I SMM	23-Nov-2012, 13:28	0.68	0.69	1800.00	1.00	
VS20 J SMM	23-Nov-2012, 13:29	1.00	0.65	2660.00	1.00	
VS20 K SMM	23-Nov-2012, 13:31	1.72	0.91	4600.00	1.00	
VS20 L SMM	23-Nov-2012, 13:33	2.03	0.25	5410.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 13:34	4.37	0.44	11700.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 13:36	0.01	13.00	18.20	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS82 MB1 SMM	23-Nov-2012, 13:39	0.01	4.21	35.30	1.00	
VS82 MB1SPK SMM	23-Nov-2012, 13:41	2.16	0.38	5760.00	1.00	
VS82 A SMM	23-Nov-2012, 13:43	0.02	10.70	57.20	1.00	
VS82 ~~ADUP~~ SMM B	23-Nov-2012, 13:44	0.07	1.75	177.00	1.00	
VS82 ~~ASPK~~ SMM C	23-Nov-2012, 13:46	0.16	0.96	433.00	1.00	
VS82 ~~B~~ SMM CDUP	23-Nov-2012, 13:47	0.20	0.69	527.00	1.00	
VS82 ~~C~~ SMM CSPK	23-Nov-2012, 13:49	1.39	0.47	3700.00	1.00	
VS82 D SMM	23-Nov-2012, 13:51	0.30	0.99	796.00	1.00	
VS82 E SMM	23-Nov-2012, 13:52	0.06	1.97	151.00	1.00	
VS82 F SMM	23-Nov-2012, 13:54	0.13	1.49	337.00	1.00	

NB 11-23-12

Spreadsheet typo: Actual samples ran as indicated -NB 11-23-12

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 13:55	4.40	0.50	11700.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 13:57	-0.01	21.80	-28.50	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS82 G SMM	23-Nov-2012, 13:59	0.39	1.32	1040.00	1.00	
VS82 H SMM	23-Nov-2012, 14:00	0.12	0.91	307.00	1.00	
VS82 I SMM	23-Nov-2012, 14:02	0.10	0.29	270.00	1.00	
VS82 J SMM	23-Nov-2012, 14:04	0.41	0.73	1100.00	1.00	
VS82 K SMM	23-Nov-2012, 14:05	0.18	0.60	491.00	1.00	
VS82 L SMM	23-Nov-2012, 14:07	0.16	0.81	433.00	1.00	
VS82 M SMM	23-Nov-2012, 14:08	0.18	1.50	472.00	1.00	
VS19 MB1 SMM	23-Nov-2012, 14:10	0.01	11.10	14.70	1.00	
VS19 MB1SPK SMM	23-Nov-2012, 14:12	2.17	0.91	5780.00	1.00	
VS19 A SMM	23-Nov-2012, 14:13	0.76	1.16	2030.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 14:15	4.43	0.87	11800.00	1.00	

CETAC Hg Analysis Report - 12112300.DB - Friday, November 23, 2012, 4:24:06 PM

Analyst
Date Started Friday, November 23, 2012, 14:17:04
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 14:17	-0.01	7.88	-15.10	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS19 ADUP SMM	23-Nov-2012, 14:18	0.65	0.62	1720.00	1.00	
VS19 ASPK SMM	23-Nov-2012, 14:20	1.80	0.57	4800.00	1.00	
VS19 B SMM	23-Nov-2012, 14:21	2.15	0.62	5730.00	1.00	
VS19 C SMM	23-Nov-2012, 14:23	2.55	0.54	6790.00	1.00	
VS19 D SMM	23-Nov-2012, 14:25	2.56	0.50	6830.00	1.00	
VS19 E SMM	23-Nov-2012, 14:26	1.63	0.48	4340.00	1.00	
VS19 F SMM	23-Nov-2012, 14:28	0.42	0.54	1130.00	1.00	
VS19 G SMM	23-Nov-2012, 14:30	0.32	0.53	864.00	1.00	
VS19 H SMM	23-Nov-2012, 14:31	0.34	0.62	905.00	1.00	
VS19 I SMM	23-Nov-2012, 14:33	0.19	0.52	517.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 14:34	4.44	0.64	11800.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 14:36	-0.00	34.20	-13.30	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS19 J SMM	23-Nov-2012, 14:38	3.49	0.49	9310.00	1.00	
VS19 K SMM	23-Nov-2012, 14:39	0.95	0.79	2520.00	1.00	
VS19 L SMM	23-Nov-2012, 14:41	1.32	0.49	3510.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 14:43	4.41	0.76	11700.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 14:44	-0.00	119.00	-3.44	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS21 MB1 SMM	23-Nov-2012, 14:55	0.01	7.13	33.10	1.00	
VS21 MB1SPK SMM	23-Nov-2012, 14:57	2.26	0.64	6030.00	1.00	
VS21 A SMM	23-Nov-2012, 14:58	1.44	0.47	3830.00	1.00	
VS21 ADUP SMM	23-Nov-2012, 15:00	1.26	0.70	3350.00	1.00	
VS21 ASPK SMM	23-Nov-2012, 15:01	2.39	1.36	6380.00	1.00	
VS21 B SMM	23-Nov-2012, 15:03	6.73	0.22	17900.00	1.00	
VS21 C SMM	23-Nov-2012, 15:05	0.99	0.55	2630.00	1.00	
VS21 D SMM	23-Nov-2012, 15:06	2.62	0.42	6970.00	1.00	
VS21 E SMM	23-Nov-2012, 15:08	1.42	0.71	3790.00	1.00	
VS21 F SMM	23-Nov-2012, 15:09	0.40	0.12	1070.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 15:11	4.40	0.49	11700.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 15:13	0.00	58.90	5.81	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS21 G SMM	23-Nov-2012, 15:14	0.29	0.46	778.00	1.00	
VS21 H SMM	23-Nov-2012, 15:16	0.22	0.46	585.00	1.00	
VS21 I SMM	23-Nov-2012, 15:18	2.06	0.39	5480.00	1.00	
VS21 J SMM	23-Nov-2012, 15:19	1.10	0.28	2940.00	1.00	
VS21 K SMM	23-Nov-2012, 15:21	0.90	0.46	2410.00	1.00	
VS21 L SMM	23-Nov-2012, 15:22	1.79	0.43	4770.00	1.00	

CETAC Hg Analysis Report - 12112300.DB - Friday, November 23, 2012, 4:24:06 PM

Analyst
Date Started Friday, November 23, 2012, 15:24:33
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	23-Nov-2012, 15:24	4.40	0.68	11700.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	23-Nov-2012, 15:26	0.00	41.30	11.00	1.00	

End CLP.

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VT10 MB SMM	23-Nov-2012, 15:29	0.01	10.30	32.70	1.00	
VT10 MBSPK SMM	23-Nov-2012, 15:30	2.13	0.65	5680.00	1.00	
VT10 A SMM	23-Nov-2012, 15:32	Sat'd.	0.15	55700.00	1.00	SO
VT10 ADUP SMM	23-Nov-2012, 15:34	15.60	0.53	41600.00	1.00	O
VT10 ASPK SMM	23-Nov-2012, 15:37	Sat'd.	0.00	55700.00	1.00	SO
VT10 B SMM	23-Nov-2012, 15:40	Sat'd.	0.00	55700.00	1.00	SO

Delete data: software error. NB 11-23-12

11-26-12

Analyst	
Date Created:	Thursday, July 13, 2000
Worksheet	ARI 10ppb CALIB
Comment	
Sip Duration (Sec.):	30
Rinse Duration (Sec.):	60
Read Delay:	49
Integration Time/Replicate:	1.40
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	10
Baseline Point 1 End Time:	16
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	
Baseline Point 2 End Time:	
Gas Flow (ml/min):	180
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	5
Calibration Standard #1 Conc.:	0.10 PPB
Calibration Standard #2 Conc.:	0.50 PPB
Calibration Standard #3 Conc.:	1.00 PPB
Calibration Standard #4 Conc.:	2.00 PPB
Calibration Standard #5 Conc.:	5.00 PPB
Calibration Standard #6 Conc.:	10.00 PPB
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5.0%, if µAbs. > 1500, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 80% .. 120%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -100 .. 100,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Digested 20.0mL

Prep Code: TWM Instrument: CETAC
Analyst: NB Date: 11-19-12
Bath Temp: 90°C Start Time: 1526 End Time: 1726

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	2993-13	0.01		0.1	1
STD2		0.05		0.5	1
STD3		0.10		1.0	1
STD4		0.20		2.0	1
STD5		0.50		5.0	1
STD6		1.00		10.0	1
CRA		0.01		0.1	1
ICB/CCB	—	0.00		0.0	1
ICV/LCS	56-18	0.16		8.0	1
CCV		0.08	100.0	4.0	1

Chemical/Reagent ID:

HNO_3: I7833 H_2SO_4: I7677 HCl: —

5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376

Prep Code: SMM Instrument: CETAC
Analyst: NB Date: 11-19-12
Bath Temp: 94°C Start Time: 1708 End Time: 1738

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	50.0	0.0	3
STD1	2993-14	0.01		0.1	2
STD2		0.05		0.5	2
STD3		0.10		1.0	2
STD4		0.20		2.0	2
STD5		0.50		5.0	2
STD6		1.00		10.0	2
CRA		0.01		0.1	1
ICB/CCB	—	0.00		0.0	3
ICV/LCS	56-18	~~0.08~~ 0.80*		8.0	2
CCV		0.04	50.0	4.0	3

*NB 11-19-12

Chemical/Reagent ID:

HNO_3: I7833 H_2SO_4: I7677 HCl: —

5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM Matrix: SOIL
Analyst: NB Date: 11-23-12
Bath Temp: 90°C Start Time: 1235 End Time: 1305

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VS21 A	1	—	0.715	50.0	11-22 1	YES	
" ADUP	1	—	0.712		1		
" ASPK	1	—	0.717		1		
" B	1	—	0.726		1		
" C	1	—	0.721		1		
" D	1	—	0.743		1		
" E	1	—	0.716		1		
" F	1	—	0.703		1		
" G	1	—	0.746		1		
" H	1	—	0.732		1		
" I	1	—	0.728		1		
" J	1	—	0.712		1		
" K	1	—	0.740		1		
" L	1	—	0.706		1		
" MBI	—	—	—		1		
" MBISPK	—	—	—	50.0	1		
			NB 11-23-12				

Chemical/Reagent ID:

HNO_3: I7833 H_2SO_4: I7677 HCl: —

5% $K_2S_2O_8$: MP3375 5% $KMnO_4$: MP3376 Digest Tube Lot: 1205258

General Chemistry Raw Data
Analyst Notes and Raw Data

ARI Job ID: VS21

W
11-23-12

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 11/19/12 (C)
ANALYST: UW / CDE 16:15

Instrumentation

Drying Ovens: 12
Muffle Furnace: 279018520
Analytical Balance: 1123230597

Batch drying time

record times as mm/dd/yy hh:mm

11/19/2012 16:15	date/time in oven	UW
11/20/2012 10:06	date/time out	CDE
elapsed hrs =	17.8	

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	CV-02	CV-02	CV-02	CV-02		CV-02	CV-02
Cal Weight ID	CV-02	CV-02	CV-02	CV-02		CV-02	CV-02
Date & Time	1/19/12 15:45 UW	11/19/12 15:27 UW	11/20/12 10:24 CDE			11/20/12 14:52 CDE	11/20/12 16:55 CDE
Cal Wt (g) 10.0000	9.9999	9.9999	10.0000			100.0000	10.0000
record weights to 4 places	Cal OK!	Cal OK!	Cal OK!			Cal Err!	Cal OK!

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	TVS (%)
Blank			1.1003	1.1003			0.00		1.1003	1.1002	OK	0.00		
VS21 A1		8.3573	1.1010	8.1849			7.08	97.6%						
VS21 A1 dup		8.2685	1.0945	8.0839			6.99	97.4%						
							RPD =	0.20%				RPD =	NA	
VS21 A1 trp		8.2954	1.1006	8.1178			7.02	97.5%						
							RSD =	0.10%				RSD =	NA	
VS21 B1		4.0162	1.1157	3.7053			2.59	89.3%						
VS20 I 1		8.1602	1.1168	7.9692			6.85	97.3%						
VS20 L 1		6.0740	1.0829	5.8415			4.76	95.3%						
VT06 D1		11.8592	1.1076	10.6060			9.50	88.3%	10.5258	10.5202	OK	9.41	9,033	0.90%
VT06 D1 dup		11.5665	1.1056	10.1738			9.07	86.7%	10.0821	10.0755	OK	8.97	10,840	1.08%
							RPD =	1.89%				RPD =	18.19%	
VT06 D1 trp		10.4284	1.1026	9.2730			8.17	87.6%	9.1855	9.1803	OK	8.08	11,346	1.13%
							RSD =	0.95%				RSD =	11.68%	
VT06 E1		11.8241	1.1136	9.9415			8.83	82.4%	9.8177	9.8112	OK	8.70	14,760	1.48%
VT06 F1		10.3062	1.0978	8.3031			7.21	78.2%	8.1793	8.1716	OK	7.07	18,250	1.83%
VT06 G1		11.4193	1.1149	9.2953			8.18	79.4%	9.1550	9.1460	OK	8.03	18,251	1.83%
VT06 H1		11.9366	1.1366	9.8260			8.69	80.5%	9.7160	9.7073	OK	8.57	13,660	1.37%
VT06 I 1		11.4964	1.0982	9.6358			8.54	82.1%	9.5465	9.5388	OK	8.44	11,362	1.14%
VT14 A1		8.3371	1.0869	7.7947			6.71	92.5%						
VT14 B1		8.2464	1.1149	7.6980			6.58	92.3%						
VT14 C1		10.0434	1.0683	9.4875			8.42	93.8%						

VS21 : 00522

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 11/19/12 (C)
ANALYST: UW / CDE 16:15

Instrumentation

Drying Ovens: 12
Muffle Furnace: 279018520
Analytical Balance: 1123230597

Batch drying time

record times as mm/dd/yy hh:mm

11/19/2012 16:15	date/time in oven	UW
11/20/2012 10:06	date/time out	CDE
elapsed hrs =	17.8	

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

Cal Weight ID	CV-02	CV-02	CV-02	CV-02		CV-02	CV-02	
Date & Time	1/19/12 15:45 UW	11/19/12 15:27 UW	1/20/12 10:24 CDE			11/20/12 14:52 CDE	1/20/12 16:55 CDE	
Cal Wt (g) 10.0000	9.9999	9.9999	10.0000			100.0000	10.0000	
record weights to 4 places	Cal OK!	Cal OK!	Cal OK!			Cal Err!	Cal OK!	

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	TVS (%)
VT14 D1		10.9575	1.1007	9.8126			8.71	88.4%						

① 10.0821 WG

(C)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET

m-Funice # 2790②19520

Analyst:	CW/CDE	Date:	11-19-12	Oven ID:	1C	Balance ID:	1123230597
Time in Oven:	16:15	Time Out of Oven:	11-20-12 10:06	Elapsed Time (> 12 Hrs):			

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

Sample ID	Dish #	Sample	Tare	Dry Weight 104°C 1	Dry Weight 104°C 2	Dry Weight 104°C 3	Dry Weight grams	Ash Weight 550°C 1	Ash Weight 550°C 2	Ash Weight 550°C 3
Cal Weight ID		CV-02	CV-02	CV-02	CV-02	CV-02	[redacted]	CV-02	CV-02	CV-02
Date & Time:		11-19-12 15:41	11-19-12 15:21	11-20-12 10:29				11-20-12 12:29	11-20-12 1452	11-20-12 16:55
Cal Weight (10.0000):		9.9999 W	9.9999 W	10.0000 WG				10.0000 WG	10.0000 WG	10.0000 WG
BLANK	9	—	1.1003	1.1003				1.1002	1.1003	1.1002
VS21 A1	10	8.3573	1.1010	8.1849						
A1 dup	11	8.2685	1.0945	8.0839						
A1 trip	12	8.2954	1.1006	8.1178						
B1	13	4.0162	1.1157	3.7053						
VS20 I1	14	8.1602	1.1168	7.9692						
L1	15	6.0740	1.0829	5.8415						
VT06 D1	16	11.8592	1.1076	10.6060				10.5371	10.5258	10.5202
D1 dup	17	11.5665	1.1056	10.1738				10.0945	~~10.0821~~ ①	10.0755
D1 trip	18	10.4284	1.1026	9.2730				9.1975	9.1855	9.1803
E1	19	11.8241	1.1136	9.9415				9.8338	9.8177	9.8112
F1	20	10.3062	1.0978	8.3031				8.2036	8.1793	8.1716
G1	21	11.4193	1.1149	9.2953				9.1723	9.1550	9.1460
H1	22	11.9366	1.1366	9.8260				9.7337	9.7160	9.7073
I1	23	11.4964	1.0982	9.6358				9.5617	9.5465	9.5388
VT14 A1	24	8.3371	1.0869	7.7947						
B1	25	8.2464	1.1149	7.6980						
C1	26	10.0434	1.0683	9.4875						
D1	27	10.9575	1.1007	9.8126						

11-19-12

VS21 : 00524

w
11-27-12

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 11/20/2012 (B)
ANALYST: CDE 19:29

Instrumentation

Drying Ovens: 12
Muffle Furnace: N / A
Analytical Balance: 1123230597

Batch drying time		
record times as mm/dd/yy hh:mm		
11/20/2012 19:29	date/time in oven	CDE
11/21/2012 10:11	date/time out	CDE
elapsed hrs =	14.7	

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
Cal Weight ID		CV-02	CV-02	CV-02	CV-02				CV-02	CV-02				
Date & Time		1/20/12 18:21 CDE	11/20/12 17:32 CDE	11/21/12 10:29 CDE										
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000										
record weights to 4 places		Cal OK!	Cal OK!	Cal OK!										
Blank			1.1260	1.1256			0.00							
VS20 J 1		4.5445	1.1037	4.3632			3.26	94.7%						
VS20 K1		4.6249	1.1498	4.4756			3.33	95.7%						
VS21 C1		5.2886	1.0894	5.1727			4.08	97.2%						
VS21 C1 dup		5.5288	1.1201	5.4011			4.28	97.1%						
							RPD =	0.14%				RPD =	NA	
VS21 C1 trp		5.3388	1.0796	5.2213			4.14	97.2%						
							RSD =	0.08%				RSD =	NA	
VS21 D1		4.7746	1.0874	4.6261			3.54	96.0%						
VS21 E1		4.9768	1.1128	4.8381			3.73	96.4%						
VS21 F1		6.7585	1.1030	6.6223			5.52	97.6%						
VS21 G1		6.9651	1.0898	6.8594			5.77	98.2%						
VS21 H1		7.2515	1.1084	7.1740			6.07	98.7%						
VS21 I 1		4.6359	1.0743	4.4594			3.39	95.0%						
VS21 J 1		5.8641	1.1148	5.7322			4.62	97.2%						
VS21 K1		5.8829	1.0945	5.7476			4.65	97.2%						
VS21 L 1		4.7599	1.0706	4.5692			3.50	94.8%						
VS23 I 1		5.0842	1.0934	4.9647			3.87	97.0%						
VS22 A1		4.6001	1.1226	4.3753			3.25	93.5%						
VS22 B1		5.4722	1.0484	5.3644			4.32	97.6%						
VS22 C1		7.1470	1.0819	6.9999			5.92	97.6%						
VS22 D1		5.8544	1.0874	5.7715			4.68	98.3%						

VS21 : 00525

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

DATE: 11/20/2012 (B)

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

ANALYST: CDE 19:29

Instrumentation

Drying Ovens: 12

Muffle Furnace: N / A

Analytical Balance: 1123230597

Batch drying time

record times as mm/dd/yy hh:mm

11/20/2012 19:29	date/time in oven	CDE
11/21/2012 10:11	date/time out	CDE
elapsed hrs =	14.7	

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

Cal Weight ID	CV-02	CV-02	CV-02	CV-02			CV-02	CV-02	
Date & Time	1/20/12 18:21 CDE	11/20/12 17:32 CDE	11/21/12 10:29 CDE						
Cal Wt (g) 10.0000	10.0000	10.0000	10.0000						
record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*						

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
VS22 E1		5.7288	1.0815	5.5907			4.51	97.0%						
VS22 F1		5.3669	1.1041	5.1423			4.04	94.7%						
VS22 G1		5.7917	1.1127	5.6314			4.52	96.6%						

VS21 : 00525

TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET (B)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Analyst: CMR	Date: 11-20-12	Oven ID: 12	Balance ID: 1123230597
Time in Oven: ~~16:22 CMR~~ ~~14:29~~ 19:29	Time Out of Oven: 11-21-12 10:11	Elapsed Time (> 12 Hrs):	

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

Cal Weight ID	CV-02	CV-02	CV-02	CV-02	CV-02	[redacted]	CV-02	CV-02	CV-02
Date & Time:	11-20-12 18:21	11-20-12 17:32	11-21-12 10:29						
Cal Weight (10.0000):	10.0000 CM2	10.0000 CM2	10.0000 CM2						

Sample ID	Dish #	Sample	Tare	Dry Weight 104°C 1	2	3	Dry Weight grams	Ash Weight 550°C 1	2	3
BLANK	24	Ø	1.1260	1.1256						
VS20 J1	25	4.5445	1.1037	4.3632						
↓ K1	26	4.6249	1.1498	4.4756						
VS21 C1	27	5.2886	1.0894	5.1727						
C1dp	28	5.5283	1.1201	5.4011						
C1TP	29	5.3388	1.0796	5.2213						
D1	30	4.7746	1.0874	4.6261						
E1	31	4.9768	1.1128	4.8381						
F1	32	6.7585	1.1030	6.6223						
G1	33	6.9651	1.0898	6.8594						
H1	34	7.2515	1.1084	7.1740						
I1	35	4.6359	1.0743	4.4594						
J1	36	5.8641	1.1148	5.7322						
K1	37	5.8829	1.0945	5.7476						
L1	38	4.7599	1.0706	4.5692						
VS23 ~~VS22~~ A	39	5.0842	1.0934	~~4.8847~~ 4.9647						
I1 VS22 BA1	40	4.6001	1.1226	4.3753						
CB1	41	5.4722	1.0484	5.3644						
DC1	42	7.1470	1.0819	6.9999						
ED1	43	5.8544	1.0874	5.7715						
FE1	44	5.7283	1.0815	5.5907						
GF1	45	5.3669	1.1041	5.1423						
G1	46	5.7917	1.1127	5.6314						

VS21 : 00527

W
11-27-12

Soil Conductivity - pH

Date: 11/21/2012

meter: Orion Model 115

Analyst: KE 9:56

Conductivity Calibration

Potassium Chloride standard ARI ID = **N / A**

pH Calibration *Temperature (°C)* ____

pH Buffers 2, 4, 7, 10, 12

Conductivity =	**1413**	*µS/cm*
Cal Temp	**N / A**	
Input Value		*µS/cm*

Verification Buffer pH

Source **FISHER#** 7.00

Conductivity Verification Standard

Source: **N / A**

Record Certified Values

µS / cm = **1000**

TDS (mg/l) =

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity (mS/cm)	Conductivity (µS/cm)	Notes & Flags
pH 7 Buffer			20.3	6.97			OK@ 99.6%
VS21 C1	20.30	20	20.1	5.27			
VS21 C1 dup	20.30	20	20.1	5.29			pH RPD =0.38%
VS21 D1	20.20	20	20.0	5.41			
VS21 E1	20.10	20	20.1	5.62			
VS21 F1	20.20	20	20.0	5.68			
VS21 G1	20.03	20	20.0	5.95			
VS21 H1	20.03	20	20.0	5.98			
VS21 I 1	10	20	20.0	5.90			
VS21 J 1	20.01	20	20.1	6.06			
VS21 K1	20.01	20	20.1	5.08			
pH 7 Buffer			20.4	6.99			OK@ 99.9%
VS21 L1	10.05	20	20.1	5.89			
VS23 I 1	20.06	20	20.0	5.96			
VS19 A1	20	20	20.0	5.96			
VS19 A1 dup	20	20	20.0	5.98			pH RPD =0.34%
VS19 B1	20	20	20.0	6.13			
VS19 C1	20	20	20.1	6.10			
VS19 D1	10	20	20.0	6.44			
VS19 E1	20	20	20.0	5.78			
VS19 F1	20	20	20.0	6.03			
VS19 G1	20	20	20.0	6.10			
pH 7 Buffer			20.4	7.04			OK@ 100.6%
VS19 H1	20	20	20.0	6.11			
VS19 I 1	20	20	20.0	5.73			
VS19 J 1	10	20	20.0	5.97			
VS19 K1	20	20	20.0	5.60			
VS19 L1	20	20	20.0	6.03			
VS20 A1	10	20	20.0	6.11			
VS20 B1	10	20	20.0	6.14			
VS20 C1	10	20	20.0	5.96			
VS20 D1	5	20	20.3	6.21			
VS20 E1	10	20	20.2	6.27			
pH 7 Buffer			20.3	7.03			OK@ 100.4%

VS20 F1	20	20	20.1	6.22			
VS20 G1	10	20	20.3	6.08			
VS20 H1	20	20	20.2	6.09			
VS20 H1 dup	20	20	20.2	6.06			*pH RPD =0.49%*
VS20 J 1	10	20	20.2	6.52			
VS20 K1	10	20	20.3	6.37			
VS22 A1	10	20	20.2	5.45			
VS22 B1	20	20	20.3	5.73			
VS22 C1	20	20	20.2	6.67			
CS22 D1	20	20	20.3	7.48			
pH 7 Buffer			20.2	7.00			*OK@ 100%*
VS22 E1	10	20	20.5	6.75			
VS22 F1	10	20	20.3	6.42			
VS22 G1	20	20	20.2	6.13			
VS22 H1	20	20	20.3	5.61			
VS22 I 1	20	20	20.3	6.24			
VS22 J 1	20	20	20.3	6.25			
VS22 K1	20	20	20.2	6.18			
VS22 L1	10	20	20.2	6.68			
VS23 A1	20	20	20.4	5.77			
VS23 A1 dup	20	20	20.3	5.79			*pH RPD =0.35%*
pH 7 Buffer			20.3	6.98			*OK@ 99.7%*
VS23 B1	20	20	20.2	5.95			
VS23 C1	10	20	20.4	6.34			
VS23 D1	20	20	20.3	5.73			
VS23 E1	20	20	20.4	5.69			
VS23 F1	20	20	20.3	5.51			
VS23 G1	20	20	20.0	5.47			
VS23 H1	20	20	20.2	5.48			
VS23 J1	10	20	20.3	5.29			
VS23 K1	10	20	20.3	6.19			
VS18 B1	20	20	20.2	6.15			
pH 7 Buffer			20.5	7.05			*OK@ 100.7%*
VS18 A1	20	20	20.3	6.47			
VS18 A1 dup	20	20	20.3	6.45			*pH RPD =0.31%*
VS18 C1	20	20	20.2	6.17			
VS18 D1	20	20	20.1	6.16			
VS18 E1	20	20	20.2	6.15			
VS18 F1	20	20	20.2	6.06			
VS18 G1	20	20	20.3	6.13			
VS18 H1	20	20	20.3	6.10			
VS18 I 1	20	20	20.3	5.46			
VS18 J 1	20	20	20.3	5.97			
pH 7 Buffer			20.5	7.05			*OK@ 100.7%*
VS18 K1	10	20	20.4	6.19			
VS18 L1	20	20	20.4	6.10			
VT58 A1	20	20	20.3	3.81			
VT58 A1 dup	20	20	20.3	3.80			*pH RPD =0.26%*
VT58 B1	20	20	20.3	6.69			
VT58 C1	20	20	20.4	5.32			
VT58 D1	20	20	20.4	2.73			
VT58 E1	20	20	20.3	3.36			
VT58 F1	20	20	20.3	2.49			
pH 7 Buffer			20.6	7.02			*OK@ 100.3%*

① 11-21-12 (W)

Soil Conductivity - pH

meter: Orion Model 115

Date: 11-20-12

Analyst: (W) 9:56

Conductivity Calibration

Potassium Chloride standard ARI ID = _____

Conductivity =	1413	µS/cm
Cal Temp		
Input Value		µS/cm

pH Calibration Temperature (°C) _____

pH Buffers 2, 4, 7, 10, 12

Verification Buffer	pH
Source FISHER#	7.00

Conductivity Verification Standard

Source: _____

Record Certified Values

µS / cm =	1000
TDS (mg/l) =	

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity (mS/cm)	Conductivity (µS/cm)	Notes & Flags
pH 7 Buffer			①~~6~~20.3	6.97			
VS21 C1	20.03	20	20.1	~~20.4~~ ① 6.27			
MC1	20.02	20	20.1	5.29			
D1	20.02	30	20.0	5.41			
E1	20.01	20	20.1	5.62			
F1	20.02	20	20.0	5.68			
G1	20.03	20	20.0	5.95			
H1	20.03	20	20.0	5.98			
I1	10.00	20	20.0	5.90			
J1	20.01	20	20.1	6.06			
K1	20.01	20	20.1	5.08			
pH 7 Buffer			20.4	6.97			
VS21 L1	10.05	20	20.1	5.89			
VS23 I1	20.06	20	20.0	5.96			
VS19 A1	20	20	20.0	5.96			
MA1	20	20	20.0	5.98			
B1	20	20	20.0	6.13			
C1	20	20	20.1	6.10			
D1	10	20	20.0	6.44			
E1	20	20	20.0	5.78			
F1	20	20	20.0	6.03			
G1	20	20	20.0	6.10			
pH 7 Buffer			20.4	7.04			
VS19 H1	20	20	20.0	6.11			
I1	20	20	20.0	5.73			
J1	10	20	20.0	5.97			
K1	20	20	20.0	5.60			
L1	20	20	20.0	6.03			
VS20 A1	10.	20	20.0	6.11			
B1	10	20	20.0	6.14			
C1	10	20	20.0	5.96			
D1	5	20	20.3	~~6.2~~ ① 6.21			
E1	10	20	20.2	6.22			
pH 7 Buffer			20.3	7.03			
VS20 F1	20	30	20.1	6.22			
G1	10	20	20.3	6.08			
H1	20	20	20.2	6.09			
MH1	20	20	20.2	6.06			
J1 ~~E1~~ ①	10	20	20.2	6.52			
K1	10	20	20.3	6.37			
VS22 A1	10	30	20.2	5.45			
B1	20	20	20.3	5.73			
C1	20	20	20.2	6.67			
D1	20	20	20.3	7.48			
pH 7 Buffer			20.2	7.00			

Soil Conductivity - pH

meter: *Orion Model 115*

Date: 11-21-12

Analyst: [initials] 9156

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (ºC)	pH	Conductivity (mS/cm)	Conductivity (µS/cm)	*Notes & Flags*
US22 E1	10	20	20.5	6.75			
F1	20	20	20.3	6.42			
G1	20	20	20.2	6.13			
H1	20	20	20.3	5.61			
I1	20	20	20.3	6.24			
J1	20	20	20.3	6.25			
K1	20	20	20.2	6.18			
L1	10	20	20.2	6.68			
US23 A1	20	20	20.4	~~6.10~~ 5.77			
DA1	20	20	20.3	5.79			
pH 7 Buffer			20.3	~~6.98~~ ① 6.98			
US23 B1	20	① ~~20~~ 30	20.2	5.95			
C1	10	20	20.4	6.34			
D1	20	20	20.3	5.73			
E1	20	20	20.4	5.69			
F1	20	20	20.3	5.51			
G1	20	20	20.0	5.47			
H1	20	20	20.2	5.48			
J1	10	20	20.3	5.29			
K1	10	20	20.3	6.19			
US18 B1	20	① ~~20~~ 30	20.3	6.15			
pH 7 Buffer		20.3	7.05	7.05			
US18 A1	20	30	20.3	6.47			
DA1	20	30	20.3	6.45			
C1	20	20	20.2	6.17			
D1	20	20	20.1	6.16			
E1	20	20	20.2	6.15			
F1	20	20	20.2	6.06			
G1	20	20	20.3	6.13			
H1	20	20	20.3	6.10			
I1	20	20	20.3 ①	5.46			
J1	20	20 ⑥	~~20.4~~	5.97			
pH 7 Buffer			20.5	7.05			
US18 K1	10	20 ②	~~20.4~~	6.19			
L1	20	20 ④	~~20.3~~	6.10			
UT58 A1	20	20	~~20.4~~ ③	3.81			
DA1	20	20 ⑦	~~20.4~~	3.87			
B1	20	20	20.3	6.69			
C1	20	20	⑤ ~~20.3~~	① ~~6.38~~ 5.32			
D1	20	20	20.4	2.73			
E1	20	20	20.3	3.36			
F1	20	20	20.3	2.49			
PH 7 Buffer			20.6	7.02			
~~pH 7 Buffer~~							
pH 7 Buffer							

11-21-12 [initials]

② 20.4-11-21-12 [initials] ⑤ 20.4 11-21-12 [initials]
③ 20.3-11-21-12 [initials] ⑥ 20.3-11-21-12
④ 20.4-11-21-12 [initials] ⑦ 20.3-11-21-12

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:	11-21-12		Buffer	Source	Lot #	pH	Temp.
Time:	11:14		2.00	Ricca	1205264	2.00	20.5
Analyst:	(W)		4.00	Fisher	116550	4.00	20.4
			7.00	Ricca	1206053	7.02	20.2
			10.00	Fisher	116346	10.05	20.2
			12.00	Ricca	1206157	11.99	20.4
			Verification	Fisher	120143	6.97	20.3

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
(W)	10:28	ICV	6.97	6.97	PH		20.3
		VS21 C1	5.26	5.27		SD1	20.1
		DPC1	5.28	5.29			20.1
		D1	5.41	5.41			20.0
		E1	5.60	5.62			20.1
		F1	5.68	5.68			20.0
		G1	5.95	5.95			20.0
		H1	5.97	5.98			20.0
		I1	5.89	5.90			20.0
		J1	6.06	6.06			20.1
		K1	5.08	5.08			20.1
		CCV	7.00	6.99			20.4
		VS21 L1	5.89	5.89			20.1
		VS23 I1	5.96	5.96			20.0
		VS19 A1	5.96	5.96			20.0
		DPA1	5.97	5.98			20.0
		B1	6.13	6.13			20.0
		C1	6.09	6.10			20.1
		D1	6.42	6.44			20.0
		E1	5.78	5.78			20.0
		F1	6.01	6.03			20.0
		G1	6.10	6.10			20.0
		CCV	7.05	7.04			20.4

VS21 : 00532

(1) 11-21-12 (W)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration Page 2 of 4

Date:	11-21-12		Buffer	Source	Lot #	pH	Temp.
Time:	Continued		2.00	Ricca			
Analyst:			4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher			
			12.00	Ricca			
			Verification	Fisher			

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
LW	12:10	ICV	7.03	7.03			20.2
		VT62A1	9.89	9.90 →	6.95	6.95	19.2
		~~I A1 dup~~ (1)					
		CCV	7.03	7.03			20.2
(W)	10:28 cont	VS19H'	6.11	6.11	PH soil		20.0
		I'	5.73	5.73			20.0
		J'	5.96	5.97			20.0
		K'	5.60	5.60			~~20.3~~ (1) 20.0
		L'	6.02	6.03			20.0
		VS20A'	6.10	6.11			20.0
		B'	6.13	6.14			20.0
		(1) ~~CCV~~ C'	5.97	5.96			20.0
		D'	6.21	6.21			20.3
		E'	6.27	6.27			20.2
		CCV	7.03	7.03			20.3
		F'	6.22	6.22			20.1
		G'	6.08	6.08			20.3
		H'	6.09	6.09			20.2
		DPH'	6.07	6.06			20.2
		J'	6.52	6.52			20.2
		K'	6.38	6.37			20.3
		VS22A'	5.47	5.45			20.2
		~~CCV~~ B'	5.73	5.73			20.3

(1) 11-21-12 (2)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:			Buffer	Source	Lot #	pH	Temp.
Time:			2.00	Ricca			
Analyst:			4.00	Fisher			
	cont		7.00	Ricca	cont	cont	
			10.00	Fisher			
			12.00	Ricca			
			Verification	Fisher			

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temperature
W	10.28	~~VS22 ICV~~ C1	6.67	6.67	50:1	Ph	20.2
		↓ D1	7.46	7.48			20.3
		CCV	7.01	7.00			20.2
		VS22 E1	6.75	6.75			20.5
		F1	6.44	6.42			20.3
		G1	6.12	6.13			20.2
		A1	5.61	5.61			20.3
		I1	6.24	6.24			20.3
		J1	6.25	6.25			20.3
		K1	6.18	6.18			20.2
		↓ L1	6.67	6.68			20.2
		~~VS23 CCV~~ A1	~~6.11~~ 5.77	~~6.10~~ 5.77			20.4
		↓ DP A1	5.79	5.79			20.3
		CCV	6.98	6.98			20.3
		VS23 B1	5.95	5.95			20.2
		C1	6.34	6.34			20.4
		D1	5.74	5.73			20.3
		E1	5.69	5.69			20.4
		F1	5.51	5.51			20.3
		G1	5.47	5.47			20.0
		H1	5.48	5.48			20.2
		J1	5.29	5.29			20.3
		~~CCV~~ K1	6.17	~~6.18~~ 6.19			20.3

Ⓓ 11-21-12 Ⓦ

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:			Buffer	Source	Lot #	pH	Temp.
Time:			2.00	Ricca			
Analyst:			4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher			
			12.00	Ricca			
			Verification	Fisher			

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
		~~US ICV CCV~~					
Ⓦ	10:28	US18 B'	6.15	6.15			20.2
		CCV	~~6.795~~ Ⓘ	~~6.795~~ 7.05	30.1	pH	20.5
		US18 A'	6.45	6.47			20.3
		MB A'	6.44	6.45			20.3
		C	6.17	6.17			20.2
		D	6.15	6.16			20.1
		E	6.14	6.15			20.2
		F	6.06	6.06			20.2
		G	6.13	6.13			20.3
		H	6.09	6.10			20.3
		Ⓘ ~~CCV~~ I	5.47	5.46			20.3
		↓ J	5.97	5.97			20.3
		CCV	7.05	7.05			20.5
		US18 K'	~~6.19~~ 6.19	~~6.19~~ 6.19			20.4
		↓ L'	~~6.10~~ 6.10	~~6.10~~ 6.10			20.4
		UTS8 A1	3.81	3.81			20.3
		A1	3.80	3.80			20.3
		B1	6.69	6.69			20.3
		C1	~~5.33~~ 6.33	~~5.32~~ 6.34			20.4
		D1	2.73	2.73			20.4
		E1	3.36	3.36			20.3
		~~CCV~~ F1	2.49	2.49			20.3
		CCV	7.02	7.02			20.6

W

11-21-12

Soil Conductivity - pH

Date: 11/20/2012

meter: Orion Model 115

Analyst: KE / UW 9:46

Conductivity Calibration

Potassium Chloride standard *ARI ID =* **N / A**

pH Calibration *Temperature (°C)* 20.5

pH Buffers 2, 4, 7, 10, 12

Conductivity =	**1413**	*µS/cm*
Cal Temp	**N / A**	
Input Value		*µS/cm*

Verification Buffer pH

Source **FISHER#** 7.00

Conductivity Verification Standard

Source: **N / A**

Record Certified Values

µS / cm = **1000**

TDS (mg/l) =

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity (mS/cm)	Conductivity (µS/cm)	Notes & Flags
pH 7 Buffer			20.5	6.97			*OK@ 99.6%*
VS21 A1	20.00	20	20.6	5.54			
VS21 A1 du	20.00	20	20.6	5.44			*pH RPD =1.82%*
VS21 B1	20.00	40	20.6	5.16			
VS20 I 1	20.00	20	20.6	6.19			
VS20 L1	20.00	20	20.6	5.41			
pH 7 Buffer			20.8	7.02			*OK@ 100.3%*

Soil Conductivity - pH

Date: 11-20-12

meter: Orion Model 115

Analyst: (W) / MW 9:46

Conductivity Calibration

Potassium Chloride standard *ARI ID =* N / A

pH Calibration *Temperature (°C)* 20.5

pH Buffers 2, 4, 7, 10, 12

Conductivity =	1413	*µS/cm*
Cal Temp	N / A	
Input Value		*µS/cm*

Verification Buffer pH

Source FISHER# 7.00

Conductivity Verification Standard

Source: N / A

Record Certified Values

µS / cm = 1000

TDS (mg/l) =

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity (mS/cm)	Conductivity (µS/cm)	Notes & Flags
pH 7 Buffer			20.5	6.97			
VS21 A1	20.00	20	20.6	5.54			
↓ A1dup	↓	=	20.6	5.44			
↓ B1		40	20.6	5.16			
VS20 I1		20	20.6	6.19			
↓ L1	↓	↓	20.6	5.41			
pH 7 Buffer			20.8	7.02			
pH 7 Buffer			11-20-12				
~~pH 7 Buffer~~							

VS21 : 00537

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:	11-20-12		Buffer	Source	Lot #	pH	Temp.
Time:	10:30		2.00	Ricca	120 1264	2.00	20.5
Analyst:	W		4.00	Fisher	116350	4.00	20.6
			7.00	Ricca	1206053	7.02	20.6
			10.00	Fisher	116346	10.05	20.5
			12.00	Ricca	1206157	11.99	20.5
			Verification	Fisher	120143		

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
W	11:00	ICV	6.97	6.97			20.5
		VT32A1	5.69	5.68			20.4
		↳ A1 dup	5.73	5.74			20.4
		↳ B1	5.68	5.68			20.2
		VS21A1	5.54	5.54	soil		20.6
		↳ A1 dup	5.44	5.45	↓		20.6
		↳ B1	5.16	5.17			20.6
		VS20I1	6.19	6.20			20.6
		↳ B1	5.41	5.41			20.6
		CCV	7.02	7.02			20.8
CH	15:05	CCV	6.96	6.96			21.2
		VT47A1	6.78	6.79			19.0
		↳ dup	6.86	6.87			19.1
		VT46A1	7.03	7.02			20.1
		↳ dup	7.02	7.02			20.3
		↳ B1	7.81	7.81			20.0
		↳ C1	6.65	6.65			19.9
		CW	7.05	7.05			21.1
		CCV					

W

11-26-12

TOC Solids Prep Log

DATE: 11/20/2012

ANALYST: CDE 19:52

acid purging to remove IC and drying at 70°C for TOC analysis

General notes regarding prep method and samples (identify the acid used)

HCL 10% ID:

Balance ID: Mettler Toledo (XS205 DU) SN 123230597

HCL ID:

make no entry to shaded cells, they are calculated

Sample ID		IC Test	Gravimetric Data (grams)			%	*Sample description & notes*
ARI #	Client	+ / -	Tare Wt.	Wet wt.	70°C dry wt	Solids	*(homogeneity and exclusions)*
Blank			13.3199	0.0000	13.3202	0.3 mg	
VS20 J1		-	13.2305	15.3666	15.3815	100.70%	
VS20 K1		-	13.0446	15.1619	15.1889	101.28%	
VS21 C1		-	13.1152	16.0780	16.1157	101.27%	
VS21 C1 dup		-	13.3594	16.3365	16.3710	101.16%	RPD = 0.11%
VS21 C1 trip		-	13.2355	16.2852	16.3261	101.34%	RSD = 0.09%
VS21 D1		-	13.1493	15.2196	15.2579	101.85%	
VS21 E1		-	13.1555	15.7176	15.7474	101.16%	
VS21 F1		-	13.1366	17.4756	17.4933	100.41%	
VS21 G1		-	13.1927	17.1843	17.2460	101.55%	
VS21 H1		-	13.2319	16.9820	17.0569	102.00%	
VS21 I 1		-	13.3198	15.1216	15.1608	102.18%	
VS21 J1		-	13.3731	15.8253	15.8885	102.58%	
VS21 K1		-	13.3279	15.5409	15.6038	102.84%	
VS21 L1		-	13.2577	15.2013	15.2231	101.12%	
VS23 I 1		-	13.1153	15.5268	15.5552	101.18%	
VS22 A1		-	13.2274	14.6481	14.6666	101.30%	
VS22 B1		-	13.3576	16.2361	16.2948	102.04%	
VS22 C1		-	13.2227	16.0684	16.1354	102.35%	
VS22 D1		++-	13.0709	17.1038	17.3201	105.36%	
VS22 E1		-	13.1143	16.1295	16.1524	100.76%	
VS22 F1		-	13.1892	15.6304	15.6302	99.99%	
VS22 G1		-	13.1985	15.6400	15.6786	101.58%	

(B)

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TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

Analyst CMC Date 11-20-12 19:52

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.3199	Ø	13.3202		
VS20 J1		–	13.2305	15.3666	15.3815		
↓ K1		–	13.0446	15.1619	15.1889		
VS21 C1		–	13.1152	16.0780	16.1157		
C1 dp		–	13.3594	16.3365	16.3710		
C1 TP		–	13.2355	16.2852	16.3261		
D1		–	13.1493	15.2196	15.2579		
E1		–	13.1555	15.7176	15.7474		
F1		–	13.1366	17.4756	17.4933		
G1		–	13.1927	17.1843	17.2460		
H1		–	13.2319	16.9820	17.0569		
I1		–	13.3198	15.1216	15.1608		
J1		–	13.3731	15.8253	15.8885		
K1		–	13.3279	15.5409	15.6038		
L1		–	13.2577	15.2013	15.2231		
VS23 I1		–	13.1153	15.5268	15.5552		
VS22 A1		–	13.2274	14.6481	14.6666		
B1		–	13.3576	16.2361	16.2948		
C1		–	13.2227	16.0684	16.1354		
D1		+ + –	13.0709	17.1038	17.3201		
E1		–	13.1143	16.1295	16.1524		
F1		–	13.1892	15.6304	15.6302		
G1		–	13.1985	15.6400	15.6786		

11-20-12 CMC

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11-26-12

TOC Solids Prep Log

DATE:	11/19/2012
ANALYST:	UW / CDE 16:40

acid purging to remove IC and drying at 70°C for TOC analysis

General notes regarding prep method and samples (identify the acid used)

HCL 10% ID: _____

Balance ID: Mettler Toledo (XS205 DU) SN 123230597

HCL ID: _____

make no entry to shaded cells, they are calculated

Sample ID		IC Test	Gravimetric Data (grams)			%	*Sample description & notes*
ARI #	Client	+ / -	Tare Wt.	Wet wt.	70°C dry wt	Solids	*(homogeneity and exclusions)*
Blank			13.1351	0.0000	13.1353	0.2 mg	
VS21 A1		-	13.3419	17.8719	17.9062	100.76%	
VS21 A1 dup		-	13.3541	17.6515	17.6906	100.91%	RPD = 0.15%
VS21 A1 trip		-	13.3636	17.0666	17.1108	101.19%	RSD = 0.22%
VS21 B1		-	13.2812	14.7690	14.7556	99.10%	
VS20 I 1		-	13.1939	17.8519	18.0312	103.85%	
VS20 L1		-	13.2421	16.4530	16.5822	104.02%	
VT06 D1		++++-	13.1779	20.5233	20.4417	98.89%	
VT06 D1 dup		++++-	13.1974	21.3674	21.1267	97.05%	RPD = 1.87%
VT06 D1 trip		++++-	13.3089	19.9573	19.8280	98.06%	RSD = 0.94%
VT06 E1		++++-	13.1725	20.1037	19.6824	93.92%	
VT06 F1		+++-	13.3379	19.0276	18.5706	91.97%	
VT06 G1		+++-	13.2450	19.1883	18.1290	82.18%	
VT06 H1		-	13.3280	18.2722	17.4682	83.74%	
VT06 I 1		-	13.2382	19.7545	18.7971	85.31%	
VT14 A1		++++-	13.1096	18.6149	19.0137	107.24%	
VT14 B1		++++-	13.0171	18.0517	18.5338	109.58%	
VT14 C1		+++-	13.1974	17.4839	17.8034	107.45%	
VT14 D1		+++-	13.0900	17.1713	17.1171	98.67%	

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TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

Analyst UW/CDC Date 11-19-12 16:40

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.1351	—	13.1353		
VS21A1		—	13.3419	17.8719	17.9062		
A1 dup		—	13.3541	17.6515	17.6906		
A1 trip		—	13.3636	17.0666	17.1108		
B1		—	13.2812	14.7690	14.7556		
VS20I1		—	13.1939	17.8519	18.0312		
C1		—	13.2421	16.4530	16.5822		
VT06D1	+++	+−	13.1779	20.5233	20.4417		
D1 dup	+++	+−	13.1974	21.3674	21.1267		
D1 trip	+++	+−	13.3089	19.9573	19.8280		
E1	+++	+−	13.1725	20.1037	19.6824		
F1	++	+−	13.3379	19.0276	18.5706		
G1	++	+−	13.2450	19.1883	18.1290		
H1		—	13.3280	18.2722	17.4682		
I1		—	13.2382	19.7545	18.7971		
VT14A1	+++	+−	13.1096	18.6149	19.0137		
B1	+++	+−	13.0171	18.0517	18.5338		
C1	++	+−	13.1974	17.4879	17.8034		
D1	++	+−	13.0900	17.1713	17.1171		

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11-30-12

TOC, Solids Data Analysis

DATE: 11/29/2012

Instrument: Apollo 1 — ANALYST: KE 6:56

Mode: NPOC *Inlet:* Boat

Spike Std = 2,500 *ppm C* — Balance ID:

Calibration Data

Cal Curve ID:	11/13/2012			*Conc:*	5,000 *ppm*
Calibration Curve Standard:	00130-01			*Curve Date:*	11/13/12
CalFact:	1.339E+05	*intercept:*	163305	*r2 :*	0.99851
Curve Range (ppm)	200 *to*	2,500			
Curve Range (µgC):	8 *to*	100	*40 µL injections of designated standard*		

Verification Standard	Source:	***ERA# 0409-12-01***		*Conc:*	5,000 *ppm*
dilution :	10 *mL to*	50			1,000 *ppm*
Standard Reference Material	Source:	***NIST 8704***		*Conc:*	33,510 *ppm*
	Source:	***NIST 1941B***		*Conc:*	29,900 *ppm*

Silica Blanks

Replicate determinations						Mean	RSD	condition
108.7	49.8	68.4	70.3			62.8	18.0%	*OK*

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data: Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	Spike (µL Std)	Combustion Data: Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	comments
ICV				1.00		40.0	1003	1,003	*100.30%*
Blank				1.00		40.0	-29.77	-30	*Blank OK*
NIST 1941B				1.00		1.7	24830	24,830	*83.04%*
Silica Blanks 1				1.00		37.9	108.65	109	*Low Scale*
Silica Blanks 2				1.00		21.5	49.08	49	*Low Scale*
Silica Blanks 3				1.00		21.6	68.36	68	*Low Scale*
Silica Blanks 4				1.00		20.1	70.25	70	*Low Scale*
VS21 A1				1.00		1.0	60315	60,315	*Range OK!*
VS21 A1 dup				1.00		0.9	50190	50,190	*RPD=18.3%*
VS21 A1 trp				1.00		1.1	36389	36,389	*RSD=24.5%*
~~VS21 A1 trp~~				~~1.00~~		~~1.2~~	~~32750~~	~~32,750~~	~~RSD=29.2%~~
~~VS21 A1 ms~~			-	~~1.00~~	~~20~~	~~0.8~~	~~105161~~	~~105,161~~	~~Range OK!~~
~~Spike =~~	~~0.05~~	~~mg C to~~	~~0.8~~	~~mg samp=~~	~~62,500~~	~~ppm~~		~~72%~~	
VS21 A1 ms				1.00	10	1.0	88562	88,562	*Range OK!*
Spike =	*0.025*	*mg C to*	*1.0*	*mg samp=*	*25,000*	*ppm*		*113%*	
CCV				1.00		40.0	995	995	*99.50%*
Blank				1.00		40.0	-15.83	-16	*Blank OK*
~~VS21 B1~~			-	~~1.00~~		~~0.8~~	~~131045~~	~~131,045~~	~~Offscale, dilute~~
VS21 B1	11.6	113.1	89.74%	9.75		2.4	21691	210,938	*Range OK!*
VS21 C1				1.00		1.0	19062	19,062	*Range OK!*
VS21 C1 dup				1.00		1.0	20279	20,279	*RPD=6.2%*
VS21 C1 trp				1.00		1.1	18746	18,746	*RSD=4.2%*
~~VS21 C1 ms~~			-	~~1.00~~	~~10~~	~~1.0~~	~~51981~~	~~51,981~~	~~Range OK!~~
~~Spike =~~	~~0.025~~	~~mg C to~~	~~1.0~~	~~mg samp=~~	~~25,000~~	~~ppm~~		~~132%~~	
VS21 C1 ms				1.00	10	0.9	48572	48,572	*Range OK!*
Spike =	*0.025*	*mg C to*	*0.9*	*mg samp=*	*27,778*	*ppm*		*106%*	

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	*comments*
VS21 D1				1.00		1.0	30187	30,187	*Range OK!*
VS21 E1				1.00		1.0	26465	26,465	*Range OK!*
VS21 F1				1.00		1.6	12299	12,299	*Range OK!*
CCV				1.00		40.0	986	986	*98.60%*
Blank				1.00		40.0	-24.84	-25	*Blank OK*
VS21 G1				1.00		2.4	5794	5,794	*Range OK!*
VS21 H1				1.00		2.3	4215	4,215	*Range OK!*
VS21 I 1	14.4	142.9	89.92%	9.92		2.0	7998	78,809	*Range OK!*
VS21 J 1				1.00		0.8	30369	30,369	*Range OK!*
VS21 K1				1.00		0.8	41186	41,186	*Range OK!*
VS21 L1	18.8	174.4	89.22%	9.28		2.3	11037	101,866	*Range OK!*
VS23 A1				1.00		1.1	30593	30,593	*Range OK!*
VS23 B1	19.7	191.4	89.71%	9.72		2.3	5550	53,375	*Range OK!*
VS23 C1	21.9	208.1	89.48%	9.50		2.9	4378	41,067	*Range OK!*
VS23 D1				1.00		1.1	26337	26,337	*Range OK!*
CCV				1.00		40.0	1037	1,037	*103.70%*
Blank				1.00		40.0	-25.36	-25	*Blank OK*
VS23 E1				1.00		1.6	10691	10,691	*Range OK!*
VS23 F1				1.00		2.2	5059	5,059	*Range OK!*
VS23 G1				1.00		3.3	2781	2,781	*Range OK!*
VS23 H1				1.00		2.3	5886	5,886	*Range OK!*
VS23 I 1				1.00		1.3	24661	24,661	*Range OK!*
VS23 J 1				1.00		1.4	35357	35,357	*Range OK!*
VS23 K1	13.5	135.0	90.00%	10.00		2.3	6003	59,465	*Range OK!*
NIST 1941B				1.00		1.9	32001	32,001	*107.03%*
CCV				1.00		40.0	980	980	*98.00%*
Blank				1.00		40.0	-27.60	-28	*Blank OK*

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① 11-29-12 (W)
④ Canceled 11-29-12 (W)

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC		INLET: Boat Sampler	
Standards:	Source	Conc (ppm)	Analyst: (W)
Calibration:	ARI - 00128-03	5000	Date: 11-29-12
Verification:	ERA - 0409-12-01	5000 to 1000 for CVS	Time: 6:56
SRM:	NBS - (1941b) or 8704	Method: PSEP 1986-MOD	Balance ID B146454145
Sample Sequence:			

Sample ID	Dilution Data (mg) Sample	+ Silica Gel	Burn Wt mg	Matrix Spike Data mg/L	µL added	Comments
ICV			40			
ICB			40			
NBS 1941 B			1.7			
SB 1			37.9			
2			21.5			
3			21.6			
4			20.1			
US21 A'			1.0			
dA'			0.9			
4PA'			④ 1.1 / 1.2			2 injects
MS A'	Canceled	② 0.9	③ 1.0 ④	2500	② 20/20/10 ④	⑥ No inject Rerun
CCV			40			
CCB			40			
US21 B'	11.6 ①	113.1 ①	⑤ 0.8 / ⑥ 2.4			⑤ off scale ⑥ Rerun w/dilution
① US21 C'			1.0			
dC'			1.0			
4PC'			1.1			
MS C'			1.0	2500	10	Fresh Run
MSD C'			0.9	2500	10	
D'			1.0			
E'			1.0			
F'			1.6			
CCV			40			
CCB			40			
US21 G'			2.4			
H'			2.3			
I'	14.4	142.9	2.0			
J'			0.8			
K'			0.8			
L'	18.8	174.4	2.3			
US23 A'			② 1.1			
B'	19.7	191.4	2.3			

② 0.8 / 1.0 11-29-12 (W)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

(1) 11-29-12 (10)

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC				INLET: Boat Sampler	
Standards:	Source		Conc (ppm)	Analyst:	(a)
Calibration:	ARI – 00128-03		5000	Date:	9-29-12
Verification:	ERA – 0409-12-01		5000 to 1000 for CVS	Time:	6.56
SRM:	NBS – 1941b or 8704		Method: PSEP 1986-MOD	Balance ID	B146454145
Sample Sequence:					

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
VS23 C1	21.9	208.1	2.9			
↓ D1			1.1			
CCV			40			
CCB			40			
VS23 E1			1.6			
F1			2.2			
G1			3.3			
H1			2.3			
I1			1.3			
J1			1.4			
↓ K1	23.5	135.0	2.3			
~~VS22 A1 CCV~~	NBS1941B		1.9			
~~B CCB~~ CCV			40			
~~↓ C CCB~~			40			

11-29-12 (A)

11-29-12 (W)

Detailed Analysis Report Print Date/Time: 2012/11/29 15:58:40

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 11290653
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 06:56
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1002.9892	40.1196	5535201	7.720	8.718	147

Sample ID: ICB/CCB BOAT Mode: TOC
Method: Boat Sampler Filename: 11290706
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 07:09
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-29.7707	-1.1908	3857	7.502	7.478	120

Last Message: Low Sample Detected

Sample ID: NBS 1941B Mode: TOC
Method: Boat Sampler Filename: 11290714
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 07:20
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	24829.5820	42.2103	5815143	7.276	8.272	226

Sample ID: Silica Blank 1 Mode: TOC
Method: Boat Sampler Filename: 11290734
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 07:36
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	108.6541	4.1180	551387	6.965	7.958	89

Sample ID: Silica Blank 2 Mode: TOC
Method: Boat Sampler Filename: 11290743
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 07:45
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	49.0823	1.0553	141297	6.968	7.961	57

Sample ID: Silica Blank 3 Mode: TOC
Method: Boat Sampler Filename: 11290755
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 07:57
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	68.3565	1.4765	197699	6.845	7.838	59

Sample ID: Silica Blank 4 Mode: TOC
Method: Boat Sampler Filename: 11290803
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 08:10
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

1	70.2455	1.4119	189054	6.736	7.735	59

Sample ID: VS21 A1 | Mode: TOC
Method: Boat Sampler | Filename: 11290830
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/29 08:34
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	60315.4961	60.3155	8076073	6.693	7.692	163

Sample ID: VS21 A1 DUP | Mode: TOC
Method: Boat Sampler | Filename: 11290837
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/29 08:40
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	50189.6406	45.1707	6048225	6.700	7.697	148

Sample ID: VS21 A1 TRIP | Mode: TOC
Method: Boat Sampler | Filename: 11290842
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/29 08:46
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	36389.3125	40.0282	5359668	6.666	7.665	144

11-29-12 (W)

Sample ID: VS21 A1 TRIP | Mode: TOC
Method: Boat Sampler | Filename: 11290915
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/29 09:23
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	32750.2500	39.3003	5262199	6.455	7.455	141

MS 11-29-12 (W)

Sample ID: VS21 A1 ~~TRIP~~ | Mode: TOC
Method: Boat Sampler | Filename: 11290931
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/29 09:35
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	105161.2891	84.1290	11264638	6.440	7.437	177

Sample ID: VS21 A1 MS | Mode: TOC
Method: Boat Sampler | Filename: 11290955
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/29 09:59
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	88562.2266	88.5622	11858230	6.860	7.856	179

Sample ID: ICV/CCV BOAT | Mode: TOC
Method: Boat Sampler | Filename: 11291008
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/29 10:16
Operator ID: TRINA | Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	994.9790	39.7992	5492300	7.271	8.271	152

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11291019
Timestamp: 2012/11/29 10:21
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-15.8345	-0.6334	78497	7.541	8.532	48

Sample ID: VS21 B1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11291028
Timestamp: 2012/11/29 10:33
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	131044.7812	104.8358	14037218	7.703	8.701	201

Sample ID: VS21 B1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11291040
Timestamp: 2012/11/29 10:43
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21690.9629	52.0583	6970460	8.414	9.413	157

Sample ID: VS21 C1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11291047
Timestamp: 2012/11/29 10:50
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19062.0332	19.0620	2552352	8.565	9.564	120

Sample ID: VS21 C1 DP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11291106
Timestamp: 2012/11/29 11:09
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	20278.5879	20.2786	2715245	9.379	10.378	130

Sample ID: VS21 C1 TRIP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11291116
Timestamp: 2012/11/29 11:21
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18745.9062	20.6205	2761026	9.658	10.656	141

Sample ID: VS21 C1 MS
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11291131
Timestamp: 2012/11/29 11:35
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	51980.9297	51.9809	6960099	10.009	11.006	153

Sample ID: VS21 C1 MS
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11291146
Timestamp: 2012/11/29 11:49
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	48571.6055	43.7144	5853240	10.160	11.157	147

Sample ID: VS21 D1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11291153
Timestamp: 2012/11/29 11:58
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30186.8965	30.1869	4041940	10.261	11.257	143

Sample ID: VS21 E1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11291201
Timestamp: 2012/11/29 12:04
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26464.8281	26.4648	3543565	10.360	11.360	129

Sample ID: VS21 F1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11291207
Timestamp: 2012/11/29 12:13
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	12299.2207	19.6788	2634929	10.195	11.194	129

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11291217
Timestamp: 2012/11/29 12:20
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	986.0945	39.4438	5444715	10.319	11.318	152

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11291223
Timestamp: 2012/11/29 12:26
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-24.8371	-0.9935	30281	10.571	10.648	120

Last Message: Low Sample Detected

Sample ID: VS21 G1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11291228
Timestamp: 2012/11/29 12:31
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5793.6709	13.9048	1861815	10.566	11.564	128

Sample ID: VS21 H1 Mode: TOC
Method: Boat Sampler Filename: 11291233
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 12:36
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4214.6338	9.6937	1297953	10.582	11.581	118

Sample ID: VS21 I1 Mode: TOC
Method: Boat Sampler Filename: 11291239
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 12:42
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7998.3740	15.9967	2141919	10.482	11.479	112

Sample ID: VS21 J1 Mode: TOC
Method: Boat Sampler Filename: 11291244
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 12:58
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30369.1777	24.2953	3253077	10.919	11.915	129

Sample ID: VS21 K1 Mode: TOC
Method: Boat Sampler Filename: 11291301
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 13:05
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	41186.1211	32.9489	4411763	10.696	11.696	140

Sample ID: VS21 L1 Mode: TOC
Method: Boat Sampler Filename: 11291311
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 13:15
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11037.1826	25.3855	3399049	11.059	12.058	127

Sample ID: VS23 A1 Mode: TOC
Method: Boat Sampler Filename: 11291321
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 13:25
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30593.3594	33.6527	4506000	11.233	12.232	130

Sample ID: VS23 B1 Mode: TOC
Method: Boat Sampler Filename: 11291340
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 13:44
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5549.6411	13.8741	1857703	11.424	12.421	106

Sample ID: VS23 C1 Mode: TOC
Method: Boat Sampler Filename: 11291348
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 13:51
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4378.1167	12.6965	1700030	11.310	12.308	98

Sample ID: VS23 D1 Mode: TOC
Method: Boat Sampler Filename: 11291352
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 13:56
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26337.0938	28.9708	3879108	11.162	12.159	137

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 11291358
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 14:01
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1037.2345	41.4894	5718615	11.161	12.161	160

Sample ID: ICB/CCB BOAT Mode: TOC
Method: Boat Sampler Filename: 11291437
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 14:40
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-25.3616	-1.0145	27471	10.497	10.263	120

Last Message: Low Sample Detected

Sample ID: VS23 E1 Mode: TOC
Method: Boat Sampler Filename: 11291443
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 14:46
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10690.8623	17.1054	2290362	9.917	10.916	121

Sample ID: VS23 F1 Mode: TOC
Method: Boat Sampler Filename: 11291449
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 14:51
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5058.7769	11.1293	1490183	9.814	10.810	116

Sample ID: VS23 G1 Mode: TOC
Method: Boat Sampler Filename: 11291454
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 14:57
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2780.5388	9.1758	1228611	9.600	10.600	131

Sample ID: VS23 H1 Mode: TOC
Method: Boat Sampler Filename: 11291502
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 15:07
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5886.4180	13.5388	1812802	9.265	10.262	128

Sample ID: VS23 I1 Mode: TOC
Method: Boat Sampler Filename: 11291510
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 15:13
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	24661.2773	32.0597	4292697	9.081	10.078	139

Sample ID: VS23 J1 Mode: TOC
Method: Boat Sampler Filename: 11291518
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 15:24
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	35356.9727	49.4998	6627878	8.967	9.965	140

Sample ID: VS23 K1 Mode: TOC
Method: Boat Sampler Filename: 11291527
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 15:33
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6002.6768	13.8062	1848605	8.668	9.667	103

Sample ID: NBS 1941B Mode: TOC
Method: Boat Sampler Filename: 11291536
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 15:41
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	32001.2188	60.8023	8304563	8.638	9.637	220

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 11291543
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 15:47
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	980.1209	39.2048	5412722	8.366	9.362	146

Sample ID: ICB/CCB BOAT Mode: TOC
Method: Boat Sampler Filename: 11291553
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 15:56
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-27.5985	-1.1039	15491	8.267	8.224	120

VS21 : 00553

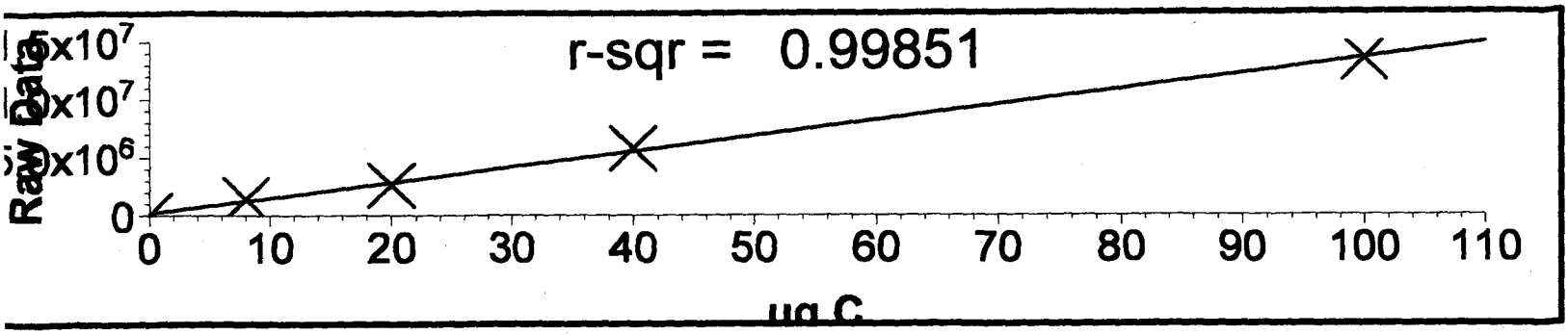
Last Message: Low Sample Detected

11-13-12 (W)

Calibration Report Print Date/Time: 2012/11/13 17:59:45

Cal. Curve ID: 11132012 BOAT CAL
Created: 2012/11/13 17:59
Calibration Factor (m): 1.339e+05
Y Intercept (b): 163305
r-squared: 0.99851

Standard ID	Y Raw Data	X Expected ug C	Measured ug C	Message	Date & Time
DI Water	34152	0.000	-0.965	Low Sample De	2012/11/13 12:29
200 ppm	1402526	8.000	9.255		2012/11/13 15:57
500 ppm	2612048	20.000	18.288		2012/11/13 16:30
1000 ppm	5782382	40.000	41.966		2012/11/13 17:08
2500 ppm	13480140	100.000	99.456		2012/11/13 17:46


r-sqr = 0.99851
Raw Data
x10^7
x10^7
x10^6
0
0
10
20
30
40
50
60
70
80
90
100
110
ug C

Detailed Analysis Report Print Date/Time: 2012/11/13 18:00:30

Sample ID: DI Water
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131156
Timestamp: 2012/11/13 12:29
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			18402	16.796	16.349	120
2			42520	15.376	15.117	120
3			41534	14.988	14.928	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 34152 Std Dev: 13649 RSD: 39.96

Sample ID: 200 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131238
Timestamp: 2012/11/13 13:05
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1222030	14.878	15.874	82
2			2828545	14.808	15.808	104
3			1056788	14.689	15.685	76

<<<Statistics>>> Mean: 1702454 Std Dev: 978717 RSD: 57.49

Sample ID: 500 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131440
Timestamp: 2012/11/13 15:23
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			2592282	15.291	16.289	93
2			2967532	14.712	15.709	110
3			2466931	14.170	15.169	110

<<<Statistics>>> Mean: 2675582 Std Dev: 260489 RSD: 9.74

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131526
Timestamp: 2012/11/13 15:37
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			5290649	14.574	15.571	132
2			5344637	14.534	15.533	131

<<<Statistics>>> Mean: 5317643 Std Dev: 38175 RSD: 0.72

Sample ID: 200 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131539
Timestamp: 2012/11/13 15:57
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1133964	14.834	15.826	75
2			1682541	14.702	15.699	105
3			1391072	14.832	15.828	89

<<<Statistics>>> Mean: 1402526 Std Dev: 274468 RSD: 19.57

Sample ID: 500 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11131603
Timestamp: 2012/11/13 16:30
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			2617921	14.909	15.904	100
2			2699842	15.434	16.427	110
3			2518382	15.642	16.642	96

<<<Statistics>>> Mean: 2612048 Std Dev: 90872 RSD: 3.48

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11131635
Timestamp: 2012/11/13 16:48
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			6098208	15.069	16.068	161
2			4400089	15.386	16.386	294

<<<Statistics>>> Mean: 5249148 Std Dev: 1200752 RSD: 22.88

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11131653
Timestamp: 2012/11/13 17:08
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			5668054	15.386	16.386	134
2			5866553	15.432	16.430	156
3			5812538	15.792	16.787	158

<<<Statistics>>> Mean: 5782382 Std Dev: 102628 RSD: 1.77

Sample ID: 2500 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11131715
Timestamp: 2012/11/13 17:46
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			12880510	15.475	16.474	209
2			14040075	15.646	16.644	232
3			13519835	15.412	16.411	232

<<<Statistics>>> Mean: 13480140 Std Dev: 580801 RSD: 4.31

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	VS21
Unacceptable Blank:	☐	Date of Event:	12-29-12
Unacceptable Duplicate:	☑	Client ID:	
Unacceptable Spike:	☐	Method/Element:	TDS (Sol)
Unacceptable Reference:	☐	Prep Code:	

Details of Problem/Recommended Corrective Action:
High RPD 24.5%

Samples Affected: A1

Corrective Action Taken: Rerun Sample Same Result 29.2%

Analyst Initials: (W) **Supervisor:** W

Date: 11-29-12 **Date:** 11-30-12

5049F

Revision 007
6/11/10

VS21 : 00559

Table of Contents: ARI Job VS22

Client: Hart Crowser Inc. Project: 17800-36 Upper Columbia

AV
Signature

December-07-2012
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

December 10, 2012

Steve Hughes
Hart Crowser, Inc.
1700 Westlake Avenue N. Suite 200
Seattle, WA 98109-3256

RE: Client Project: Upper Columbia 17800-36
ARI Job No. VS22

Dear Steve:

Please find enclosed the chain of custody documentation and data package for samples from the project referenced above

Sample receipt and details of the analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Kelly Bottem
Client Services Manager
kellyb@arilabs.com
206/695-6211

Enclosures

cc: eFile VS22

KFB/mdh

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: VS22

Sample Custody Record

Samples Shipped to: ARI

HARTCROWSER

Hart Crowser, Inc.
1700 Westlake Avenue North, Suite 200
Seattle, Washington 98109-6212
Office: 206.324.9530 • Fax 206.328.5581

JOB 17800-36 LAB NUMBER

PROJECT NAME Upper Columbia

HART CROWSER CONTACT Steve Hughes, Roger McGinnis, Anne Conrad

SAMPLED BY: PRC, NWG, KJH, ASK

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	REQUESTED ANALYSIS: Metals *	TOC	pH (EPA 9045)	Total Solids (sm 2540)	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	SA12-3P-1	(0 to 3" depth)	11/10/12	1200	SOIL	X	X	X	X	1	
	SA12-3P-2	(3 to 6" depth)		1205						1	
	SA12-3P-3	(6 to 12" depth)		1210						1	
	SA12-4P-4	(12 to 24" depth)		1215						1	
	SA12-4C			0929						1	
	SA12-6C			1326						1	
	SA12-7C			1041						1	
	SA12-8C			1048						1	
	SA12-9C			1457						1	
	SA12-Field Duplicate			1111						1	
	SA13-1C			1435						1	
	SA13-2C			1522						1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	11/12/12	SIGNATURE	11/12/12
PRINT NAME Phil Cordell	TIME	PRINT NAME Lewis Harrell	TIME
COMPANY HC	1200	COMPANY ARI	1221
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	TIME	SIGNATURE	TIME
PRINT NAME		PRINT NAME	
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

* See Page 1

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. _____ for Other Contract Requirements

12 TOTAL NUMBER OF CONTAINERS

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE _____
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐48 HOURS ☒STANDARD
☐72 HOURS OTHER _____

White and Yellow Copies to Lab Pink to Project Manager Lab to Return White Copy to Hart Crowser Gold to Sample Custodian

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client: Hart Crowser Project Name: Upper Columbia

COC No(s): _____ (NA) Delivered by: Fed-Ex UPS Courier Hand Delivered Other: _____

Assigned ARI Job No: VS22 Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	NO
Were custody papers included with the cooler?	YES	NO
Were custody papers properly filled out (ink, signed, etc.)	YES	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6.0 °C for chemistry)	4.8 4.0	
If cooler temperature is out of compliance fill out form 00070F	Temp Gun ID#:	12241224

Cooler Accepted by: CA Date: 11-12-12 Time: 1221

Complete custody forms and attach all shipping documents

Log-In Phase:

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

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

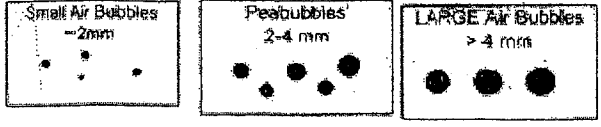
Samples Logged by: JM Date: 11/13/12 Time: 830

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

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

Additional Notes, Discrepancies, & Resolutions:

By: _____ Date: _____



Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: VS22

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative
Project: 17800-36
ARI Job No.: VS22
December 10, 2012

Sample Receipt:

Please find enclosed the original chain of custody (COC) record and analytical results for the project referenced above. Analytical Resources, Inc. accepted twelve soil samples in good condition on November 12, 2012. The samples were received with cooler temperatures between 4.0 and 4.8°C. Please see the Cooler Receipt Form for further details.

Total Metals by 200.8, 6010C and 7471A

The samples were digested on 11/26/12 and analyzed between 11/27/12 and 11/30/12 within the method recommended holding time.

Initial calibration (s): All analytes were within method acceptance criteria.

Continuing calibration (s): All analytes were within method acceptance criteria.

Samples: No anomalies were encountered for these samples.

Method Blank: A small amount of manganese was detected in the method blank associated with these samples. Manganese was detected in all samples associated with this blank. Since the concentrations of manganese measured in the samples were significantly greater than the amount found in the blank, no corrective actions were taken.

LCS: All percent recoveries were in control.

Matrix spike/Sample Duplicate/RPD: The percent recoveries for aluminum, antimony, calcium, iron, lead, magnesium and manganese were not within control limits for the matrix spike associated with sample SA12-3P-1(0 to 3" depth).. Since the percent recoveries for all elements were within acceptable QC limits for the corresponding LCS, it was concluded that the sample matrix was the cause of the poor MS recoveries. No corrective actions were taken.

The RPDs for antimony and thallium were not within control limits for the matrix duplicate associated with sample SA12-3P-1(0 to 3" depth). Since the percent recoveries for all elements were within acceptable QC limits for the corresponding LCS, it was concluded that a lack of sample homogeneity was the cause of the high RPDs. No corrective actions were taken.

Conventional Chemistry Parameters

The samples were analyzed between 11/20/12 and 11/30/12 within the method recommended holding times.

Initial calibration (s): All analytes were within method acceptance criteria.

Continuing calibration (s): All analytes of interest were within method acceptance criteria.

Samples: There were no anomalies with these samples.

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative
Project: 17800-36
ARI Job No.: VS22
December 10, 2012

Method Blank(s): The method blanks were free of contamination.

Matrix Spike(s): The percent recovery for TOC was high following the analysis of the matrix spike (MS) associated with sample SA12-8C. Since the percent recoveries for TOC were within acceptable QC limits for the corresponding LCS and SRM, it was concluded that the sample matrix was the cause of the high percent recovery. No corrective actions were taken.

SRM/ LCS/ Sample Replicates: All percent recoveries and RPDs were in control.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: Hart Crowser, Inc.	**ARI Job No.:** VS22
Client Project: Upper Columbia	**Client Project No.:** 17800-36

Case Narrative

1. Twelve samples were submitted for preparation on November 12, 2012, and were in good condition.
2. The samples were submitted for separation of the less than 2mm material.
3. The samples were each placed in a clean tare and air-dried.
4. The samples were separated into two size fractions using a decontaminated, stainless steel #10 (2mm) sieve and sieve pan.
5. After separation, both size fractions were delivered to sample receiving for distribution.
6. There were no further anomalies in the samples or test method.

Released by: Geneva Curtis — *Geotechnical Division Manager* Date: 11/21/12

Reviewed by: Kathleen J Buchanan — *Lead Technician* Date: 11/21/2012

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: VS22
Client: Hart Crowser Inc.
Project Event: 17800-36
Project Name: Upper Columbia

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	SA12-3P-1(0 to 3" depth)	VS22A	12-22701	Soil	11/10/12 12:00	11/12/12 12:21
2.	SA12-3P-2(3 to 6" depth)	VS22B	12-22702	Soil	11/10/12 12:05	11/12/12 12:21
3.	SA12-3P-3(6 to 12" depth	VS22C	12-22703	Soil	11/10/12 12:10	11/12/12 12:21
4.	SA12-3P-4(12 to 24" dept	VS22D	12-22704	Soil	11/10/12 12:15	11/12/12 12:21
5.	SA12-4C	VS22E	12-22705	Soil	11/10/12 09:29	11/12/12 12:21
6.	SA12-6C	VS22F	12-22706	Soil	11/10/12 13:26	11/12/12 12:21
7.	SA12-7C	VS22G	12-22707	Soil	11/10/12 10:41	11/12/12 12:21
8.	SA12-8C	VS22H	12-22708	Soil	11/10/12 10:48	11/12/12 12:21
9.	SA12-9C	VS22I	12-22709	Soil	11/10/12 14:57	11/12/12 12:21
10.	SA12-Field Duplicate	VS22J	12-22710	Soil	11/10/12 11:11	11/12/12 12:21
11.	SA13-1C	VS22K	12-22711	Soil	11/10/12 14:35	11/12/12 12:21
12.	SA13-2C	VS22L	12-22712	Soil	11/10/12 15:22	11/12/12 12:21

Quality Control Parameters for Metals Analysis-ICP-OES 200.7/6010C

	Aqueous Samples[2]			Spike Recovery		RPD[5]	Solids[3]	Tissue[4]
Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ mg/kg	LOQ mg/kg
Aluminum	7.57	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Antimony	6.28	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Arsenic	3.33	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Barium	1.33	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Beryllium	0.16	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Boron	7.39	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Cadmium	0.18	0.5	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Calcium	11.27	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Chromium	1.24	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Cobalt	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Copper	0.92	1.0	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Iron	7.50	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Lead	1.55	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Magnesium	9.61	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Manganese	0.28	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Molybdenum	0.79	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Nickel	3.86	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Potassium	65.70	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Selenium	4.99	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Silicon	8.17	30	**60**	75 – 125	80 – 120	≤ 20	**(6)**	**(6)**
Silver	0.43	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Sodium	11.35	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Strontium	0.09	1.0	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Thallium	3.10	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Tin	1.41	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Titanium	2.11	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.01**
Vanadium	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Zinc	1.45	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Tissue is reported on an "as received" (wet weight) basis using 2.5 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(6) ARI does not analyze for Silicon in solids or tissue samples

Quality Control Parameters for Metals Analysis ICP-MS 200.8/6020A

Analyte	Mass	Aqueous Samples[2]			Spike Recovery		RPD[4]	Solids[3]
		DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ[1] mg/kg
Aluminum	27	1.601	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Antimony	121	0.010	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
	123	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #1	75	0.048	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #2	75	0.092	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Barium	135	0.020	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	137	0.019	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Beryllium	9	0.021	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Cadmium	111	0.010	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
	114	0.005	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Calcium	43	3.983	25	**50.0**	75 – 125	80 – 120	≤ 20	**50.0**
Chromium	52	0.045	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	53	0.118	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Cobalt	59	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Copper	63	0.158	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	65	0.236	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Iron	54	5.753	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
	57	3.876	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Lead	208	0.046	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Magnesium	24	0.297	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Manganese	55	0.022	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Molybdenum	98	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Nickel	60	0.079	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	62	0.089	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Potassium	39	2.944	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Selenium	82	0.127	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	78	0.324	0.25	**2.0**	75 – 125	80 – 120	≤ 20	**2.0**
Silver	107	0.008	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Sodium	23	2.833	50	**100.0**	75 – 125	80 – 120	≤ 20	**100.0**
Thorium[5]	232	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Thallium	205	0.004	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Uranium[5]	238	0.003	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Vanadium	51	0.043	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Zinc	66	0.497	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	67	0.531	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	68	0.524	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(5) ARI has no accreditation for these elements.

Quality Control Parameters for Mercury Analysis using CVAA

	Aqueous Samples[2]			Spike Recovery		RPD[5]
	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS	
Mercury	0.0069	0.05	**0.10**[2]	75 – 125	80 – 120	≤ 20
Mercury (low level)	0.0026	0.01	**0.02**[2]	75 – 125	80 – 120	≤ 20
	Soil / Sediment Samples			**Spike Recovery**		**RPD**[5]
	DL[1] **mg/kg**	**LOD**[1] **mg/kg**	**LOQ**[1] **mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.025[3]	75 – 125	80 – 120	≤ 20
	Tissue Samples			**Spike Recovery**		**RPD**[5]
	DL[1] **mg/kg**	**LOD**[1] **mg/kg**	**LOQ**[1] **mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.005[4]	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 20 mL sample with 20 mL final volume
(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.
(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Spike Recovery Control Limits for Conventional Wet Chemistry

Effective 5/1/09

Control limits are updated periodically. Assure that you have ARI's current control limits by downloading the files at the time of use. http://www.arilabs.com/portal/downloads/ARI-CLs.zip

	ARI's Control Limits	
Sample Matrix:	Water	Soil / Sediment
Matrix Spike Recoveries	% Recovery	% Recovery
Ammonia	75 - 125	75 - 125
Bromide	75 125	75 - 125
Chloride	75 125	75 - 125
Cyanide	75 - 125	75 - 125
Ferrous Iron	75 - 125	75 - 125
Fluoride	75 - 125	75 - 125
Formaldehyde	75 - 125	75 - 125
Hexane Extractable Material	-- - --	78 - 114
Hexavalent Chromium	75 - 125	75 - 125
Nitrate/Nitrite	75 - 125	75 - 125
Oil and Grease	75 - 125	75 - 125
Phenol	75 - 125	75 - 125
Phosphorous	75 - 125	75 - 125
Sulfate	75 - 125	75 - 125
Sulfide	75 - 125	75 - 125
Total Kjeldahl Nitrogen	75 - 125	75 - 125
Total Organic Carbon	75 - 125	75 - 125
Duplicate RPDs		
Acidity	±20%	±20%
Alkalinity	±20%	±20%
BOD	±20%	±20%
Cation Exchange	±20%	±20%
COD	±20%	±20%
Conductivity	±20%	±20%
Salinity	±20%	±20%
Solids	±20%	±20%
Turbidity	±20%	±20%

Metals Analysis
Report and Summary QC Forms

ARI Job ID: VS22

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS22

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SA12-3P-1(0 to 3	VS22A	12-22701	
SA12-3P-1(0 to 3D	VS22ADUP	12-22701	
SA12-3P-1(0 to 3S	VS22ASPK	12-22701	
SA12-3P-2(3 to 6	VS22B	12-22702	
PBS	VS22MB1	12-22702	
LCSS	VS22MB1SPK	12-22702	
SA12-3P-3(6 to 12	VS22C	12-22703	
SA12-3P-4(12 to 24	VS22D	12-22704	
SA12-4C	VS22E	12-22705	
SA12-6C	VS22F	12-22706	
SA12-7C	VS22G	12-22707	
SA12-8C	VS22H	12-22708	
SA12-9C	VS22I	12-22709	
SA12-Field Duplica	VS22J	12-22710	
SA13-1C	VS22K	12-22711	
SA13-2C	VS22L	12-22712	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 12/4/12 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SA12-3P-1(0 to 3" depth)
SAMPLE

Lab Sample ID: VS22A
LIMS ID: 12-22701
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS22-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 92.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/26/12	6010C	11/27/12	**7429-90-5**	**Aluminum**	9.5	10	**12,300**	
3050B	11/26/12	200.8	11/28/12	**7440-36-0**	**Antimony**	0.014	0.2	**1.1**	
3050B	11/26/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.092	0.2	**10.2**	
3050B	11/26/12	6010C	11/27/12	**7440-39-3**	**Barium**	0.16	0.8	**171**	
3050B	11/26/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.019	0.2	**0.3**	
3050B	11/26/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.013	0.1	**5.4**	
3050B	11/26/12	6010C	11/27/12	**7440-70-2**	**Calcium**	5.1	10	**8,050**	
3050B	11/26/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.040	0.5	**14.1**	
3050B	11/26/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.034	0.2	**6.3**	
3050B	11/26/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.038	0.5	**18.6**	
3050B	11/26/12	6010C	11/27/12	**7439-89-6**	**Iron**	2.0	10	**14,900**	
3050B	11/26/12	200.8	11/28/12	**7439-92-1**	**Lead**	0.050	0.1	**271**	
3050B	11/26/12	6010C	11/27/12	**7439-95-4**	**Magnesium**	3.7	10	**3,690**	
3050B	11/26/12	6010C	11/27/12	**7439-96-5**	**Manganese**	0.11	0.3	**914**	
CLP	11/26/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.008	**0.124**	
3050B	11/26/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.052	0.5	**12.6**	
3050B	11/26/12	6010C	11/27/12	**7440-09-7**	**Potassium**	47	130	**1,190**	
3050B	11/26/12	200.8	11/28/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/26/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0084	0.2	**0.3**	
3050B	11/26/12	6010C	11/27/12	**7440-23-5**	**Sodium**	2.8	130	**170**	
3050B	11/26/12	200.8	11/28/12	**7440-28-0**	**Thallium**	0.0032	0.2	**0.3**	
3050B	11/26/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.018	0.2	**20.6**	
3050B	11/26/12	200.8	11/30/12	**7440-66-6**	**Zinc**	1.8	20	**280**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SA12-3P-2(3 to 6" depth)
SAMPLE

Lab Sample ID: VS22B
LIMS ID: 12-22702
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS22-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 96.6%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/26/12	6010C	11/27/12	**7429-90-5**	**Aluminum**	8.6	10	**18,800**	
3050B	11/26/12	200.8	11/28/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/26/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.084	0.2	**7.1**	
3050B	11/26/12	6010C	11/27/12	**7440-39-3**	**Barium**	0.15	0.7	**138**	
3050B	11/26/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.3**	
3050B	11/26/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**2.2**	
3050B	11/26/12	6010C	11/27/12	**7440-70-2**	**Calcium**	4.6	10	**6,100**	
3050B	11/26/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.037	0.5	**18.7**	
3050B	11/26/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.031	0.2	**7.6**	
3050B	11/26/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.035	0.5	**13.9**	
3050B	11/26/12	6010C	11/27/12	**7439-89-6**	**Iron**	1.8	10	**20,700**	
3050B	11/26/12	200.8	11/28/12	**7439-92-1**	**Lead**	0.046	0.1	**50.9**	
3050B	11/26/12	6010C	11/27/12	**7439-95-4**	**Magnesium**	3.3	10	**5,390**	
3050B	11/26/12	6010C	11/27/12	**7439-96-5**	**Manganese**	0.097	0.2	**479**	
CLP	11/26/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.047**	
3050B	11/26/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.047	0.5	**15.1**	
3050B	11/26/12	6010C	11/27/12	**7440-09-7**	**Potassium**	42	120	**1,160**	
3050B	11/26/12	200.8	11/28/12	7782-49-2	Selenium	0.096	0.5	0.5	U
3050B	11/26/12	200.8	11/28/12	7440-22-4	Silver	0.0077	0.2	0.2	U
3050B	11/26/12	6010C	11/27/12	**7440-23-5**	**Sodium**	2.6	120	**320**	
3050B	11/26/12	200.8	11/28/12	7440-28-0	Thallium	0.0029	0.2	0.2	U
3050B	11/26/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.016	0.2	**27.9**	
3050B	11/26/12	200.8	11/28/12	**7440-66-6**	**Zinc**	0.33	4	**164**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SA12-3P-3(6 to 12" depth)
SAMPLE

Lab Sample ID: VS22C
LIMS ID: 12-22703
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS22-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 96.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/26/12	6010C	11/27/12	**7429-90-5**	**Aluminum**	8.7	10	**23,000**	
3050B	11/26/12	200.8	11/28/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/26/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.085	0.2	**4.4**	
3050B	11/26/12	6010C	11/27/12	**7440-39-3**	**Barium**	0.15	0.7	**133**	
3050B	11/26/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.6**	
3050B	11/26/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**0.4**	
3050B	11/26/12	6010C	11/27/12	**7440-70-2**	**Calcium**	4.6	10	**5,520**	
3050B	11/26/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.037	0.5	**21.8**	
3050B	11/26/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.031	0.2	**9.0**	
3050B	11/26/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.035	0.5	**18.5**	
3050B	11/26/12	6010C	11/27/12	**7439-89-6**	**Iron**	1.8	10	**22,700**	
3050B	11/26/12	200.8	11/28/12	**7439-92-1**	**Lead**	0.046	0.1	**11.0**	
3050B	11/26/12	6010C	11/27/12	**7439-95-4**	**Magnesium**	3.4	10	**5,360**	
3050B	11/26/12	6010C	11/27/12	**7439-96-5**	**Manganese**	0.098	0.2	**229**	
CLP	11/26/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.031**	
3050B	11/26/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.048	0.5	**18.3**	
3050B	11/26/12	6010C	11/27/12	**7440-09-7**	**Potassium**	43	120	**1,290**	
3050B	11/26/12	200.8	11/28/12	7782-49-2	Selenium	0.096	0.5	0.5	U
3050B	11/26/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0078	0.2	**0.2**	
3050B	11/26/12	6010C	11/27/12	**7440-23-5**	**Sodium**	2.6	120	**400**	
3050B	11/26/12	200.8	11/28/12	7440-28-0	Thallium	0.0029	0.2	0.2	U
3050B	11/26/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.017	0.2	**30.8**	
3050B	11/26/12	200.8	11/28/12	**7440-66-6**	**Zinc**	0.33	4	**60**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

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TOTAL METALS
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Sample ID: SA12-3P-4(12 to 24" depth)
SAMPLE

Lab Sample ID: VS22D
LIMS ID: 12-22704
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS22-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 97.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/26/12	6010C	11/27/12	**7429-90-5**	**Aluminum**	9.0	10	**18,800**	
3050B	11/26/12	200.8	11/28/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/26/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.084	0.2	**6.3**	
3050B	11/26/12	6010C	11/27/12	**7440-39-3**	**Barium**	0.15	0.8	**209**	
3050B	11/26/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.4**	
3050B	11/26/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**0.3**	
3050B	11/26/12	6010C	11/27/12	**7440-70-2**	**Calcium**	4.8	10	**57,300**	
3050B	11/26/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.037	0.5	**25.6**	
3050B	11/26/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.031	0.2	**9.3**	
3050B	11/26/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.035	0.5	**28.9**	
3050B	11/26/12	6010C	11/27/12	**7439-89-6**	**Iron**	1.9	10	**27,900**	
3050B	11/26/12	200.8	11/28/12	**7439-92-1**	**Lead**	0.045	0.1	**9.0**	
3050B	11/26/12	6010C	11/27/12	**7439-95-4**	**Magnesium**	3.5	10	**10,400**	
3050B	11/26/12	6010C	11/27/12	**7439-96-5**	**Manganese**	0.10	0.3	**396**	
CLP	11/26/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.035**	
3050B	11/26/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.047	0.5	**24.5**	
3050B	11/26/12	6010C	11/27/12	**7440-09-7**	**Potassium**	44	130	**2,010**	
3050B	11/26/12	200.8	11/28/12	7782-49-2	Selenium	0.096	0.5	0.5	U
3050B	11/26/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0077	0.2	**0.2**	
3050B	11/26/12	6010C	11/27/12	**7440-23-5**	**Sodium**	2.7	130	**430**	
3050B	11/26/12	200.8	11/28/12	7440-28-0	Thallium	0.0029	0.2	0.2	U
3050B	11/26/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.016	0.2	**36.6**	
3050B	11/26/12	200.8	11/28/12	**7440-66-6**	**Zinc**	0.33	4	**56**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

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TOTAL METALS
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Sample ID: SA12-4C
SAMPLE

Lab Sample ID: VS22E
LIMS ID: 12-22705
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS22-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 95.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/26/12	6010C	11/27/12	**7429-90-5**	**Aluminum**	8.9	10	**16,600**	
3050B	11/26/12	200.8	11/28/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/26/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.085	0.2	**10.0**	
3050B	11/26/12	6010C	11/27/12	**7440-39-3**	**Barium**	0.15	0.7	**425**	
3050B	11/26/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.4**	
3050B	11/26/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**4.0**	
3050B	11/26/12	6010C	11/27/12	**7440-70-2**	**Calcium**	4.7	10	**6,910**	
3050B	11/26/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.037	0.5	**16.0**	
3050B	11/26/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.031	0.2	**6.7**	
3050B	11/26/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.035	0.5	**14.7**	
3050B	11/26/12	6010C	11/27/12	**7439-89-6**	**Iron**	1.9	10	**18,200**	
3050B	11/26/12	200.8	11/28/12	**7439-92-1**	**Lead**	0.046	0.1	**183**	
3050B	11/26/12	6010C	11/27/12	**7439-95-4**	**Magnesium**	3.4	10	**3,910**	
3050B	11/26/12	6010C	11/27/12	**7439-96-5**	**Manganese**	0.10	0.2	**966**	
CLP	11/26/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.045**	
3050B	11/26/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.048	0.5	**17.9**	
3050B	11/26/12	6010C	11/27/12	**7440-09-7**	**Potassium**	43	120	**1,580**	
3050B	11/26/12	200.8	11/28/12	7782-49-2	Selenium	0.097	0.5	0.5	U
3050B	11/26/12	200.8	11/28/12	7440-22-4	Silver	0.0079	0.2	0.2	U
3050B	11/26/12	6010C	11/27/12	**7440-23-5**	**Sodium**	2.6	120	**160**	
3050B	11/26/12	200.8	11/28/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.2**	
3050B	11/26/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.017	0.2	**23.4**	
3050B	11/26/12	200.8	11/28/12	**7440-66-6**	**Zinc**	0.33	4	**249**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA12-6C
SAMPLE

Lab Sample ID: VS22F
LIMS ID: 12-22706
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS22-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 93.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/26/12	6010C	11/27/12	**7429-90-5**	**Aluminum**	9.5	10	**25,100**	
3050B	11/26/12	200.8	11/28/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/26/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.089	0.2	**13.4**	
3050B	11/26/12	6010C	11/27/12	**7440-39-3**	**Barium**	0.16	0.8	**370**	
3050B	11/26/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.018	0.2	**1.6**	
3050B	11/26/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**3.3**	
3050B	11/26/12	6010C	11/27/12	**7440-70-2**	**Calcium**	5.1	10	**5,720**	
3050B	11/26/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.039	0.5	**15.1**	
3050B	11/26/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.033	0.2	**6.5**	
3050B	11/26/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.037	0.5	**42.9**	
3050B	11/26/12	6010C	11/27/12	**7439-89-6**	**Iron**	2.0	10	**19,700**	
3050B	11/26/12	200.8	11/28/12	**7439-92-1**	**Lead**	0.048	0.1	**120**	
3050B	11/26/12	6010C	11/27/12	**7439-95-4**	**Magnesium**	3.7	10	**3,280**	
3050B	11/26/12	6010C	11/27/12	**7439-96-5**	**Manganese**	0.11	0.3	**1,250**	
CLP	11/26/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.008	**0.073**	
3050B	11/26/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.050	0.5	**16.5**	
3050B	11/26/12	6010C	11/27/12	**7440-09-7**	**Potassium**	47	130	**1,330**	
3050B	11/26/12	200.8	11/28/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/26/12	200.8	11/28/12	7440-22-4	Silver	0.0082	0.2	0.2	U
3050B	11/26/12	6010C	11/27/12	**7440-23-5**	**Sodium**	2.8	130	**220**	
3050B	11/26/12	200.8	11/28/12	**7440-28-0**	**Thallium**	0.0031	0.2	**0.2**	
3050B	11/26/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.017	0.2	**23.7**	
3050B	11/26/12	200.8	11/28/12	**7440-66-6**	**Zinc**	0.35	4	**251**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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TOTAL METALS
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Sample ID: SA12-7C
SAMPLE

Lab Sample ID: VS22G
LIMS ID: 12-22707
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS22-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 95.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/26/12	6010C	11/27/12	**7429-90-5**	**Aluminum**	9.2	10	**25,600**	
3050B	11/26/12	200.8	11/28/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/26/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.085	0.2	**15.6**	
3050B	11/26/12	6010C	11/27/12	**7440-39-3**	**Barium**	0.16	0.8	**590**	
3050B	11/26/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.6**	
3050B	11/26/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**4.9**	
3050B	11/26/12	6010C	11/27/12	**7440-70-2**	**Calcium**	4.9	10	**6,770**	
3050B	11/26/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.037	0.5	**20.9**	
3050B	11/26/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.031	0.2	**8.6**	
3050B	11/26/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.035	0.5	**25.9**	
3050B	11/26/12	6010C	11/27/12	**7439-89-6**	**Iron**	1.9	10	**25,400**	
3050B	11/26/12	200.8	11/28/12	**7439-92-1**	**Lead**	0.046	0.1	**210**	
3050B	11/26/12	6010C	11/27/12	**7439-95-4**	**Magnesium**	3.6	10	**6,250**	
3050B	11/26/12	6010C	11/27/12	**7439-96-5**	**Manganese**	0.10	0.3	**2,380**	
CLP	11/26/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.065**	
3050B	11/26/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.048	0.5	**24.4**	
3050B	11/26/12	6010C	11/27/12	**7440-09-7**	**Potassium**	45	130	**2,010**	
3050B	11/26/12	200.8	11/28/12	7782-49-2	Selenium	0.096	0.5	0.5	U
3050B	11/26/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0078	0.2	**0.3**	
3050B	11/26/12	6010C	11/27/12	**7440-23-5**	**Sodium**	2.8	130	**270**	
3050B	11/26/12	200.8	11/28/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.3**	
3050B	11/26/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.017	0.2	**31.4**	
3050B	11/26/12	200.8	11/30/12	**7440-66-6**	**Zinc**	1.7	20	**440**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA12-8C
SAMPLE

Lab Sample ID: VS22H
LIMS ID: 12-22708
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS22-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 95.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/26/12	6010C	11/27/12	**7429-90-5**	**Aluminum**	8.4	10	**19,200**	
3050B	11/26/12	200.8	11/28/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/26/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.089	0.2	**15.8**	
3050B	11/26/12	6010C	11/27/12	**7440-39-3**	**Barium**	0.14	0.7	**362**	
3050B	11/26/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.5**	
3050B	11/26/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**2.6**	
3050B	11/26/12	6010C	11/27/12	**7440-70-2**	**Calcium**	4.5	10	**4,530**	
3050B	11/26/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.039	0.5	**17.7**	
3050B	11/26/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.033	0.2	**7.2**	
3050B	11/26/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.037	0.5	**15.2**	
3050B	11/26/12	6010C	11/27/12	**7439-89-6**	**Iron**	1.8	10	**21,200**	
3050B	11/26/12	200.8	11/28/12	**7439-92-1**	**Lead**	0.048	0.1	**249**	
3050B	11/26/12	6010C	11/27/12	**7439-95-4**	**Magnesium**	3.3	10	**4,370**	
3050B	11/26/12	6010C	11/27/12	**7439-96-5**	**Manganese**	0.095	0.2	**1,370**	
CLP	11/26/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.067**	
3050B	11/26/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.050	0.5	**18.0**	
3050B	11/26/12	6010C	11/27/12	**7440-09-7**	**Potassium**	41	120	**1,530**	
3050B	11/26/12	200.8	11/28/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/26/12	200.8	11/28/12	7440-22-4	Silver	0.0082	0.2	0.2	U
3050B	11/26/12	6010C	11/27/12	**7440-23-5**	**Sodium**	2.5	120	**230**	
3050B	11/26/12	200.8	11/28/12	**7440-28-0**	**Thallium**	0.0031	0.2	**0.2**	
3050B	11/26/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.017	0.2	**26.1**	
3050B	11/26/12	200.8	11/28/12	**7440-66-6**	**Zinc**	0.35	4	**239**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

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Sample ID: SA12-9C
SAMPLE

Lab Sample ID: VS22I
LIMS ID: 12-22709
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS22-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 94.8%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/26/12	6010C	11/27/12	**7429-90-5**	**Aluminum**	9.0	10	**26,200**	
3050B	11/26/12	200.8	11/28/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/26/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.087	0.2	**13.8**	
3050B	11/26/12	6010C	11/27/12	**7440-39-3**	**Barium**	0.15	0.8	**406**	
3050B	11/26/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.7**	
3050B	11/26/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**2.0**	
3050B	11/26/12	6010C	11/27/12	**7440-70-2**	**Calcium**	4.8	10	**4,690**	
3050B	11/26/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.038	0.5	**22.6**	
3050B	11/26/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.032	0.2	**10.3**	
3050B	11/26/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.036	0.5	**19.8**	
3050B	11/26/12	6010C	11/27/12	**7439-89-6**	**Iron**	1.9	10	**26,500**	
3050B	11/26/12	200.8	11/28/12	**7439-92-1**	**Lead**	0.047	0.1	**66.4**	
3050B	11/26/12	6010C	11/27/12	**7439-95-4**	**Magnesium**	3.5	10	**4,640**	
3050B	11/26/12	6010C	11/27/12	**7439-96-5**	**Manganese**	0.10	0.3	**2,750**	
CLP	11/26/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.046**	
3050B	11/26/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.049	0.5	**35.5**	
3050B	11/26/12	6010C	11/27/12	**7440-09-7**	**Potassium**	44	130	**1,620**	
3050B	11/26/12	200.8	11/28/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/26/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0080	0.2	**0.2**	
3050B	11/26/12	6010C	11/27/12	**7440-23-5**	**Sodium**	2.7	130	**190**	
3050B	11/26/12	200.8	11/28/12	7440-28-0	Thallium	0.0030	0.2	0.2	U
3050B	11/26/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.017	0.2	**28.5**	
3050B	11/26/12	200.8	11/28/12	**7440-66-6**	**Zinc**	0.34	4	**163**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SA12-Field Duplicate
SAMPLE

Lab Sample ID: VS22J
LIMS ID: 12-22710
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS22-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 95.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/26/12	6010C	11/27/12	**7429-90-5**	**Aluminum**	9.0	10	**23,600**	
3050B	11/26/12	200.8	11/28/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/26/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.088	0.2	**17.4**	
3050B	11/26/12	6010C	11/27/12	**7440-39-3**	**Barium**	0.15	0.8	**414**	
3050B	11/26/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.6**	
3050B	11/26/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**4.2**	
3050B	11/26/12	6010C	11/27/12	**7440-70-2**	**Calcium**	4.8	10	**5,500**	
3050B	11/26/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.039	0.5	**22.6**	
3050B	11/26/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.033	0.2	**8.4**	
3050B	11/26/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.037	0.5	**21.6**	
3050B	11/26/12	6010C	11/27/12	**7439-89-6**	**Iron**	1.9	10	**23,800**	
3050B	11/26/12	200.8	11/28/12	**7439-92-1**	**Lead**	0.048	0.1	**204**	
3050B	11/26/12	6010C	11/27/12	**7439-95-4**	**Magnesium**	3.5	10	**5,540**	
3050B	11/26/12	6010C	11/27/12	**7439-96-5**	**Manganese**	0.10	0.3	**1,860**	
CLP	11/26/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.061**	
3050B	11/26/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.050	0.5	**23.8**	
3050B	11/26/12	6010C	11/27/12	**7440-09-7**	**Potassium**	44	130	**1,470**	
3050B	11/26/12	200.8	11/28/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/26/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0081	0.2	**0.2**	
3050B	11/26/12	6010C	11/27/12	**7440-23-5**	**Sodium**	2.7	130	**190**	
3050B	11/26/12	200.8	11/28/12	**7440-28-0**	**Thallium**	0.0031	0.2	**0.3**	
3050B	11/26/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.017	0.2	**31.4**	
3050B	11/26/12	200.8	11/30/12	**7440-66-6**	**Zinc**	1.7	20	**350**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: SA13-1C
SAMPLE

Lab Sample ID: VS22K
LIMS ID: 12-22711
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS22-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 94.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/26/12	6010C	11/27/12	**7429-90-5**	**Aluminum**	9.0	10	**21,000**	
3050B	11/26/12	200.8	11/28/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/26/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.087	0.2	**7.7**	
3050B	11/26/12	6010C	11/27/12	**7440-39-3**	**Barium**	0.15	0.8	**274**	
3050B	11/26/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.8**	
3050B	11/26/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.012	0.1	**2.4**	
3050B	11/26/12	6010C	11/27/12	**7440-70-2**	**Calcium**	4.8	10	**6,490**	
3050B	11/26/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.038	0.5	**21.5**	
3050B	11/26/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.032	0.2	**8.5**	
3050B	11/26/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.036	0.5	**25.6**	
3050B	11/26/12	6010C	11/27/12	**7439-89-6**	**Iron**	1.9	10	**23,000**	
3050B	11/26/12	200.8	11/28/12	**7439-92-1**	**Lead**	0.047	0.1	**104**	
3050B	11/26/12	6010C	11/27/12	**7439-95-4**	**Magnesium**	3.5	10	**5,530**	
3050B	11/26/12	6010C	11/27/12	**7439-96-5**	**Manganese**	0.10	0.3	**851**	
CLP	11/26/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.044**	
3050B	11/26/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.049	0.5	**17.7**	
3050B	11/26/12	6010C	11/27/12	**7440-09-7**	**Potassium**	44	130	**1,230**	
3050B	11/26/12	200.8	11/28/12	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	11/26/12	200.8	11/28/12	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	11/26/12	6010C	11/27/12	**7440-23-5**	**Sodium**	2.7	130	**200**	
3050B	11/26/12	200.8	11/28/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.2**	
3050B	11/26/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.017	0.2	**37.7**	
3050B	11/26/12	200.8	11/28/12	**7440-66-6**	**Zinc**	0.34	4	**172**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: SA13-2C
SAMPLE

Lab Sample ID: VS22L
LIMS ID: 12-22712
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS22-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 90.9%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/26/12	6010C	11/27/12	**7429-90-5**	**Aluminum**	9.6	10	**13,900**	
3050B	11/26/12	200.8	11/28/12	**7440-36-0**	**Antimony**	0.014	0.2	**0.3**	
3050B	11/26/12	200.8	11/28/12	**7440-38-2**	**Arsenic**	0.092	0.2	**5.9**	
3050B	11/26/12	6010C	11/27/12	**7440-39-3**	**Barium**	0.16	0.8	**311**	
3050B	11/26/12	200.8	11/28/12	**7440-41-7**	**Beryllium**	0.019	0.2	**0.5**	
3050B	11/26/12	200.8	11/28/12	**7440-43-9**	**Cadmium**	0.013	0.1	**4.4**	
3050B	11/26/12	6010C	11/27/12	**7440-70-2**	**Calcium**	5.1	10	**24,500**	
3050B	11/26/12	200.8	11/28/12	**7440-47-3**	**Chromium**	0.040	0.5	**21.2**	
3050B	11/26/12	200.8	11/28/12	**7440-48-4**	**Cobalt**	0.034	0.2	**7.1**	
3050B	11/26/12	200.8	11/28/12	**7440-50-8**	**Copper**	0.038	0.5	**39.0**	
3050B	11/26/12	6010C	11/27/12	**7439-89-6**	**Iron**	2.0	10	**17,200**	
3050B	11/26/12	200.8	11/28/12	**7439-92-1**	**Lead**	0.050	0.1	**202**	
3050B	11/26/12	6010C	11/27/12	**7439-95-4**	**Magnesium**	3.7	10	**4,800**	
3050B	11/26/12	6010C	11/27/12	**7439-96-5**	**Manganese**	0.11	0.3	**1,260**	
CLP	11/26/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.008	**0.100**	
3050B	11/26/12	200.8	11/28/12	**7440-02-0**	**Nickel**	0.052	0.5	**17.3**	
3050B	11/26/12	6010C	11/27/12	**7440-09-7**	**Potassium**	47	140	**1,470**	
3050B	11/26/12	200.8	11/28/12	**7782-49-2**	**Selenium**	0.10	0.5	**1.7**	
3050B	11/26/12	200.8	11/28/12	**7440-22-4**	**Silver**	0.0085	0.2	**0.3**	
3050B	11/26/12	6010C	11/27/12	**7440-23-5**	**Sodium**	2.9	140	**290**	
3050B	11/26/12	200.8	11/28/12	**7440-28-0**	**Thallium**	0.0032	0.2	**0.2**	
3050B	11/26/12	200.8	11/28/12	**7440-62-2**	**Vanadium**	0.018	0.2	**27.2**	
3050B	11/26/12	200.8	11/28/12	**7440-66-6**	**Zinc**	0.36	4	**305**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: SA12-3P-1(0 to 3" depth)
MATRIX SPIKE

Lab Sample ID: VS22A
LIMS ID: 12-22701
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS22-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Aluminum	6010C	12,300	13,600	216	602%	H
Antimony	200.8	1.1	6.9	26.3	22.1%	N
Arsenic	200.8	10.2	33.0	26.3	86.7%	
Barium	6010C	171	394	216	103%	
Beryllium	200.8	0.3	24.8	26.3	93.2%	
Cadmium	200.8	5.4	29.5	26.3	91.6%	
Calcium	6010C	8,050	9,750	1,080	157%	H
Chromium	200.8	14.1	38.1	26.3	91.3%	
Cobalt	200.8	6.3	30.1	26.3	90.5%	
Copper	200.8	18.6	42.5	26.3	90.9%	
Iron	6010C	14,900	15,900	216	463%	H
Lead	200.8	271	286	26.3	57.0%	H
Magnesium	6010C	3,690	5,220	1,080	142%	N
Manganese	6010C	914	1,020	54.0	196%	H
Mercury	7471A	0.124	0.192	0.0754	90.2%	
Nickel	200.8	12.6	36.9	26.3	92.4%	
Potassium	6010C	1,190	2,320	1,080	105%	
Selenium	200.8	0.5 U	79.4	84.3	94.2%	
Silver	200.8	0.3	22.5	26.3	84.4%	
Sodium	6010C	170	1,240	1,080	99.1%	
Thallium	200.8	0.3	22.6	26.3	84.8%	
Vanadium	200.8	20.6	43.6	26.3	87.5%	
Zinc	200.8	280	370	84.3	107%	

Reported in mg/kg-dry

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: SA12-3P-1(0 to 3" depth)
DUPLICATE

Lab Sample ID: VS22A
LIMS ID: 12-22701
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS22-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Aluminum	6010C	12,300	12,700	3.2%	+/- 20%	
Antimony	200.8	1.1	1.4	24.0%	+/- 20%	*
Arsenic	200.8	10.2	9.2	10.3%	+/- 20%	
Barium	6010C	171	175	2.3%	+/- 20%	
Beryllium	200.8	0.3	0.3	0.0%	+/- 0.2	L
Cadmium	200.8	5.4	5.3	1.9%	+/- 20%	
Calcium	6010C	8,050	8,430	4.6%	+/- 20%	
Chromium	200.8	14.1	14.1	0.0%	+/- 20%	
Cobalt	200.8	6.3	6.2	1.6%	+/- 20%	
Copper	200.8	18.6	17.6	5.5%	+/- 20%	
Iron	6010C	14,900	15,300	2.6%	+/- 20%	
Lead	200.8	271	259	4.5%	+/- 20%	
Magnesium	6010C	3,690	3,770	2.1%	+/- 20%	
Manganese	6010C	914	942	3.0%	+/- 20%	
Mercury	7471A	0.124	0.130	4.7%	+/- 20%	
Nickel	200.8	12.6	11.9	5.7%	+/- 20%	
Potassium	6010C	1,190	1,240	4.1%	+/- 20%	
Selenium	200.8	0.5 U	0.5 U	0.0%	+/- 0.5	L
Silver	200.8	0.3	0.3	0.0%	+/- 0.2	L
Sodium	6010C	170	190	11.1%	+/- 130	L
Thallium	200.8	0.3	0.2	40.0%	+/- 0.2	L
Vanadium	200.8	20.6	20.4	1.0%	+/- 20%	
Zinc	200.8	280	280	0.0%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: LAB CONTROL

Lab Sample ID: VS22LCS
LIMS ID: 12-22702
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS22-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Aluminum	6010C	199	200	99.5%	
Antimony	200.8	24.0	25.0	96.0%	
Arsenic	200.8	24.4	25.0	97.6%	
Barium	6010C	200	200	100%	
Beryllium	200.8	24.4	25.0	97.6%	
Cadmium	200.8	24.6	25.0	98.4%	
Calcium	6010C	993	1000	99.3%	
Chromium	200.8	24.2	25.0	96.8%	
Cobalt	200.8	24.1	25.0	96.4%	
Copper	200.8	26.0	25.0	104%	
Iron	6010C	202	200	101%	
Lead	200.8	24.5	25.0	98.0%	
Magnesium	6010C	1010	1000	101%	
Manganese	6010C	50.6	50.0	101%	
Mercury	7471A	0.140	0.143	97.9%	
Nickel	200.8	25.2	25.0	101%	
Potassium	6010C	980	1000	98.0%	
Selenium	200.8	79.8	80.0	99.8%	
Silver	200.8	26.0	25.0	104%	
Sodium	6010C	960	1000	96.0%	
Thallium	200.8	23.2	25.0	92.8%	
Vanadium	200.8	23.0	25.0	92.0%	
Zinc	200.8	81	80	101%	

Reported in mg/kg-dry

N-Control limit not met
NA-Not Applicable, Analyte Not Spiked
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: METHOD BLANK**

Lab Sample ID: VS22MB
LIMS ID: 12-22702
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS22-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/26/12	6010C	11/27/12	7429-90-5	Aluminum	3.6	5	5	U
3050B	11/26/12	200.8	11/28/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/26/12	200.8	11/28/12	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	11/26/12	6010C	11/27/12	7440-39-3	Barium	0.060	0.3	0.3	U
3050B	11/26/12	200.8	11/28/12	7440-41-7	Beryllium	0.018	0.2	0.2	U
3050B	11/26/12	200.8	11/28/12	7440-43-9	Cadmium	0.012	0.1	0.1	U
3050B	11/26/12	6010C	11/27/12	7440-70-2	Calcium	1.9	5	5	U
3050B	11/26/12	200.8	11/28/12	7440-47-3	Chromium	0.038	0.5	0.5	U
3050B	11/26/12	200.8	11/28/12	7440-48-4	Cobalt	0.032	0.2	0.2	U
3050B	11/26/12	200.8	11/28/12	7440-50-8	Copper	0.036	0.5	0.5	U
3050B	11/26/12	6010C	11/27/12	7439-89-6	Iron	0.75	5	5	U
3050B	11/26/12	200.8	11/28/12	7439-92-1	Lead	0.047	0.1	0.1	U
3050B	11/26/12	6010C	11/27/12	7439-95-4	Magnesium	1.4	5	5	U
3050B	11/26/12	6010C	11/27/12	7439-96-5	Manganese	0.040	0.1	0.1	U
CLP	11/26/12	7471A	11/30/12	7439-97-6	Mercury	0.0004	0.007	0.007	U
3050B	11/26/12	200.8	11/28/12	7440-02-0	Nickel	0.049	0.5	0.5	U
3050B	11/26/12	6010C	11/27/12	7440-09-7	Potassium	17	50	50	U
3050B	11/26/12	200.8	11/28/12	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	11/26/12	200.8	11/28/12	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	11/26/12	6010C	11/27/12	7440-23-5	Sodium	1.1	50	50	U
3050B	11/26/12	200.8	11/28/12	7440-28-0	Thallium	0.0030	0.2	0.2	U
3050B	11/26/12	200.8	11/28/12	7440-62-2	Vanadium	0.017	0.2	0.2	U
3050B	11/26/12	200.8	11/28/12	7440-66-6	Zinc	0.34	4	4	U

Reported in mg/kg (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS22

UNITS:ug/L

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Aluminum	AL	ICP	IP112771	2000.0	2039.69	**102.0**	2000.0	2121.86	**106.1**	2038.19	**101.9**	2052.54	**102.6**	2143.18	**107.2**	2111.93	**105.6**
Antimony	SB	PMS	MS112811	50.0	50.24	**100.5**	50.0	50.81	**101.6**	50.65	**101.3**	50.20	**100.4**	50.07	**100.1**	50.17	**100.3**
Arsenic	AS	PMS	MS112811	50.0	50.55	**101.1**	50.0	50.51	**101.0**	50.43	**100.9**	49.58	**99.2**	50.34	**100.7**	49.91	**99.8**
Barium	BA	ICP	IP112771	1000.0	1002.82	**100.3**	1000.0	1038.96	**103.9**	997.10	**99.7**	1004.17	**100.4**	1041.95	**104.2**	1031.81	**103.2**
Beryllium	BE	PMS	MS112811	50.0	51.26	**102.5**	50.0	50.61	**101.2**	48.97	**97.9**	50.33	**100.7**	49.25	**98.5**	50.60	**101.2**
Cadmium	CD	PMS	MS112811	50.0	51.26	**102.5**	50.0	51.97	**103.9**	51.09	**102.2**	50.89	**101.8**	50.66	**101.3**	51.44	**102.9**
Calcium	CA	ICP	IP112771	2000.0	1998.87	**99.9**	2000.0	2082.91	**104.1**	1985.04	**99.3**	2028.17	**101.4**	2104.42	**105.2**	2086.15	**104.3**
Chromium	CR	PMS	MS112811	50.0	51.52	**103.0**	50.0	50.45	**100.9**	50.72	**101.4**	49.47	**98.9**	50.14	**100.3**	49.50	**99.0**
Cobalt	CO	PMS	MS112811	50.0	52.66	**105.3**	50.0	51.20	**102.4**	51.77	**103.5**	49.20	**98.4**	49.43	**98.9**	50.29	**100.6**
Copper	CU	PMS	MS112811	50.0	52.19	**104.4**	50.0	51.60	**103.2**	51.09	**102.2**	50.54	**101.1**	51.20	**102.4**	51.13	**102.3**
Iron	FE	ICP	IP112771	2000.0	2100.28	**105.0**	2000.0	2177.09	**108.9**	2106.60	**105.3**	2168.10	**108.4**	2248.55	**112.4**	2221.65	**111.1**
Lead	PB	PMS	MS112811	50.0	49.55	**99.1**	50.0	48.78	**97.6**	48.57	**97.1**	47.99	**96.0**	47.91	**95.8**	48.04	**96.1**
Magnesium	MG	ICP	IP112771	2000.0	2072.69	**103.6**	2000.0	2159.90	**108.0**	2075.14	**103.8**	2112.35	**105.6**	2187.29	**109.4**	2163.68	**108.2**
Manganese	MN	ICP	IP112771	1000.0	964.44	**96.4**	1000.0	996.90	**99.7**	963.38	**96.3**	983.82	**98.4**	1021.24	**102.1**	1012.65	**101.3**
Mercury	HG	CVA	HG113001	8.0	8.02	**100.3**	4.0	4.19	**104.8**	4.16	**104.0**	4.15	**103.8**				
Nickel	NI	PMS	MS112811	50.0	51.99	**104.0**	50.0	50.65	**101.3**	51.36	**102.7**	49.74	**99.5**	50.95	**101.9**	49.65	**99.3**
Potassium	K	ICP	IP112771	20000.0	20221.02	**101.1**	20000.0	20819.90	**104.1**	20108.11	**100.5**	20149.62	**100.7**	21056.60	**105.3**	20767.02	**103.8**
Selenium	SE	PMS	MS112811	80.0	81.27	**101.6**	50.0	52.11	**104.2**	51.21	**102.4**	50.84	**101.7**	51.37	**102.7**	51.12	**102.2**
Silver	AG	PMS	MS112811	50.0	53.92	**107.8**	50.0	52.85	**105.7**	51.06	**102.1**	51.70	**103.4**	52.36	**104.7**	52.77	**105.5**
Sodium	NA	ICP	IP112771	50000.0	48932.21	**97.9**	50000.0	54228.14	**108.5**	48294.05	**96.6**	48312.53	**96.6**	55142.37	**110.4**	49651.67	**99.3**
Thallium	TL	PMS	MS112811	50.0	47.45	**94.9**	50.0	46.62	**93.2**	46.67	**93.3**	45.84	**91.7**	46.12	**92.2**	45.55	**91.1**
Vanadium	V	PMS	MS112811	50.0	50.25	**100.5**	50.0	48.00	**96.0**	47.72	**95.4**	47.36	**94.7**	47.19	**94.4**	47.88	**95.8**
Zinc	ZN	PMS	MS112811	50.0	50.53	**101.1**	50.0	51.54	**103.1**	51.14	**102.3**	50.25	**100.5**	50.72	**101.4**	50.75	**101.5**

VS22 : 99993

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS22

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Aluminum	AL	ICP	IP112771	2000.0	2052.93	**102.6**	13657.21	**682.9**	10636.97	**531.8**	1987.95	**99.4**	1963.07	**98.2**	1993.10	**99.7**
Antimony	SB	PMS	MS112811	50.0	49.97	**99.9**	50.35	**100.7**	49.56	**99.1**						
Arsenic	AS	PMS	MS112811	50.0	49.93	**99.9**	49.80	**99.6**	49.18	**98.4**						
Barium	BA	ICP	IP112771	1000.0	1027.25	**102.7**	2998.19	**299.8**	5108.93	**510.9**	989.13	**98.9**	986.73	**98.7**	989.30	**98.9**
Beryllium	BE	PMS	MS112811	50.0	50.18	**100.4**	49.57	**99.1**	49.43	**98.9**						
Cadmium	CD	PMS	MS112811	50.0	50.41	**100.8**	50.88	**101.8**	50.02	**100.0**						
Calcium	CA	ICP	IP112771	2000.0	1989.79	**99.5**	4525.73	**226.3**	8846.01	**442.3**	1956.92	**97.8**	2044.16	**102.2**	1935.33	**96.8**
Chromium	CR	PMS	MS112811	50.0	49.79	**99.6**	49.16	**98.3**	48.50	**97.0**						
Cobalt	CO	PMS	MS112811	50.0	49.20	**98.4**	48.58	**97.2**	48.08	**96.2**						
Copper	CU	PMS	MS112811	50.0	51.00	**102.0**	50.31	**100.6**	49.21	**98.4**						
Iron	FE	ICP	IP112771	2000.0	2102.55	**105.1**	7482.21	**374.1**	11473.97	**573.7**	2048.01	**102.4**	2044.43	**102.2**	2066.82	**103.3**
Lead	PB	PMS	MS112811	50.0	47.41	**94.8**	48.43	**96.9**	47.26	**94.5**						
Magnesium	MG	ICP	IP112771	2000.0	2077.57	**103.9**	11389.92	**569.5**	13134.48	**656.7**	2003.39	**100.2**	1986.97	**99.3**	2017.08	**100.9**
Manganese	MN	ICP	IP112771	1000.0	1012.59	**101.3**	928.53	**92.9**	956.74	**95.7**	1000.04	**100.0**	1027.38	**102.7**	981.64	**98.2**
Mercury	HG	CVA	HG113001	4.0												
Nickel	NI	PMS	MS112811	50.0	50.07	**100.1**	50.48	**101.0**	49.22	**98.4**						
Potassium	K	ICP	IP112771	20000.0	20275.34	**101.4**	32447.41	**162.2**	18410.47	**92.1**	20021.50	**100.1**	19843.52	**99.2**	19471.10	**97.4**
Selenium	SE	PMS	MS112811	50.0	51.57	**103.1**	51.25	**102.5**	51.63	**103.3**						
Silver	AG	PMS	MS112811	50.0	51.80	**103.6**	52.55	**105.1**	50.40	**100.8**						
Sodium	NA	ICP	IP112771	50000.0	49653.44	**99.3**	-2447.35	**-4.9**	2389.27	**4.8**	48690.24	**97.4**	48735.22	**97.5**	47963.69	**95.9**
Thallium	TL	PMS	MS112811	50.0	45.14	**90.3**	46.14	**92.3**	45.45	**90.9**						
Vanadium	V	PMS	MS112811	50.0	48.25	**96.5**	46.66	**93.3**	46.03	**92.1**						
Zinc	ZN	PMS	MS112811	50.0	50.66	**101.3**	50.08	**100.2**	48.93	**97.9**						

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

UNITS: ug/L

SDG: VS22

ANALYTE	EL	M	RUN	CCVTV	CCV12	%R	CCV13	%R	CCV14	%R	CCV15	%R	CCV16	%R	CCV17	%R
Aluminum	AL	ICP	IP112771	2000.0	1976.04	**98.8**	2011.93	**100.6**								
Antimony	SB	PMS	MS112811	50.0												
Arsenic	AS	PMS	MS112811	50.0												
Barium	BA	ICP	IP112771	1000.0	988.08	**98.8**	995.63	**99.6**								
Beryllium	BE	PMS	MS112811	50.0												
Cadmium	CD	PMS	MS112811	50.0												
Calcium	CA	ICP	IP112771	2000.0	1897.50	**94.9**	1942.71	**97.1**								
Chromium	CR	PMS	MS112811	50.0												
Cobalt	CO	PMS	MS112811	50.0												
Copper	CU	PMS	MS112811	50.0												
Iron	FE	ICP	IP112771	2000.0	2004.45	**100.2**	2065.48	**103.3**								
Lead	PB	PMS	MS112811	50.0												
Magnesium	MG	ICP	IP112771	2000.0	1976.13	**98.8**	2027.51	**101.4**								
Manganese	MN	ICP	IP112771	1000.0	967.83	**96.8**	986.64	**98.7**								
Mercury	HG	CVA	HG113001	4.0												
Nickel	NI	PMS	MS112811	50.0												
Potassium	K	ICP	IP112771	20000.0	19585.47	**97.9**	19868.76	**99.3**								
Selenium	SE	PMS	MS112811	50.0												
Silver	AG	PMS	MS112811	50.0												
Sodium	NA	ICP	IP112771	50000.0	48452.18	**96.9**	48799.40	**97.6**								
Thallium	TL	PMS	MS112811	50.0												
Vanadium	V	PMS	MS112811	50.0												
Zinc	ZN	PMS	MS112811	50.0												

VS22 0005

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

UNITS: ug/L

SDG: VS22

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Zinc	ZN	PMS	MS113011	50.0	50.09	**100.2**	50.0	51.50	**103.0**	50.14	**100.3**	51.20	**102.4**	51.08	**102.2**	53.17	**106.3**

VS22 0035

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS22

UNITS: ug/L

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Zinc	ZN	PMS	MS113011	50.0	52.81	**105.6**										

Control Limits: Mercury 80-120; Other Metals 90-110

ANALYTICAL RESOURCES INCORPORATED

CRDL Standard

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS22

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Aluminum	AL	ICP	IP112771	50.0	50.49	**101.0**	41.76	**83.5**	44.47	**88.9**						
Antimony	SB	PMS	MS112811	0.2	0.21	**105.0**										
Arsenic	AS	PMS	MS112811	0.2	0.21	**105.0**										
Barium	BA	ICP	IP112771	3.0	3.33	**111.0**	2.84	**94.7**	2.90	**96.7**						
Beryllium	BE	PMS	MS112811	0.2	0.21	**105.0**										
Cadmium	CD	PMS	MS112811	0.1	0.11	**110.0**										
Calcium	CA	ICP	IP112771	50.0	49.66	**99.3**	49.19	**98.4**	47.70	**95.4**						
Chromium	CR	PMS	MS112811	0.5	0.50	**100.0**										
Cobalt	CO	PMS	MS112811	0.2	0.21	**105.0**										
Copper	CU	PMS	MS112811	0.5	0.52	**104.0**										
Iron	FE	ICP	IP112771	50.0	51.90	**103.8**	49.80	**99.6**	48.83	**97.7**						
Lead	PB	PMS	MS112811	0.1	0.11	**110.0**										
Magnesium	MG	ICP	IP112771	50.0	51.27	**102.5**	47.76	**95.5**	47.47	**94.9**						
Manganese	MN	ICP	IP112771	1.0	1.21	**121.0**	1.14	**114.0**	0.97	**97.0**						
Mercury	HG	CVA	HG113001	0.1	0.10	**100.0**										
Nickel	NI	PMS	MS112811	0.5	0.52	**104.0**										
Potassium	K	ICP	IP112771	500.0	500.12	**100.0**	450.48	**90.1**	462.50	**92.5**						
Selenium	SE	PMS	MS112811	0.5	0.56	**112.0**										
Silver	AG	PMS	MS112811	0.2	0.21	**105.0**										
Sodium	NA	ICP	IP112771	500.0	465.64	**93.1**	464.38	**92.9**	464.88	**93.0**						
Thallium	TL	PMS	MS112811	0.2	0.21	**105.0**										
Vanadium	V	PMS	MS112811	0.2	0.20	**100.0**										
Zinc	ZN	PMS	MS112811	4.0	4.54	**113.5**										

Control Limits: no control limits have been established by the EPA at this time.

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS22

UNITS: ug/L

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Zinc	ZN	PMS	MS113011	4.0	4.57	**114.3**										

Control Limits: no control limits have been established by the EPA at this time.

FORM II (2)

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS22

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Aluminum	AL	ICP	IP112771	200.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Antimony	SB	PMS	MS112811	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS112811	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Barium	BA	ICP	IP112771	200.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U
Beryllium	BE	PMS	MS112811	5.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS112811	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Calcium	CA	ICP	IP112771	5000.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Chromium	CR	PMS	MS112811	10.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cobalt	CO	PMS	MS112811	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Copper	CU	PMS	MS112811	25.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Iron	FE	ICP	IP112771	100.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Lead	PB	PMS	MS112811	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Magnesium	MG	ICP	IP112771	5000.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U
Manganese	MN	ICP	IP112771	15.0	1.0	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U
Mercury	HG	CVA	HG113001	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U				
Nickel	NI	PMS	MS112811	40.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Potassium	K	ICP	IP112771	5000.0	500.0	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U
Selenium	SE	PMS	MS112811	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Silver	AG	PMS	MS112811	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Sodium	NA	ICP	IP112771	5000.0	500.0	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U
Thallium	TL	PMS	MS112811	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Vanadium	V	PMS	MS112811	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Zinc	ZN	PMS	MS112811	20.0	4.0	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U

VS22 0015

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS22

UNITS: ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Aluminum	AL	ICP	IP112771	200.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U		
Antimony	SB	PMS	MS112811	60.0	0.2	0.2	U	0.2	U	0.2	U						
Arsenic	AS	PMS	MS112811	10.0	0.2	0.2	U	0.2	U	0.2	U						
Barium	BA	ICP	IP112771	200.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U		
Beryllium	BE	PMS	MS112811	5.0	0.2	0.2	U	0.2	U	0.2	U						
Cadmium	CD	PMS	MS112811	5.0	0.1	0.1	U	0.1	U	0.1	U						
Calcium	CA	ICP	IP112771	5000.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U		
Chromium	CR	PMS	MS112811	10.0	0.5	0.5	U	0.5	U	0.5	U						
Cobalt	CO	PMS	MS112811	50.0	0.2	0.2	U	0.2	U	0.2	U						
Copper	CU	PMS	MS112811	25.0	0.5	0.5	U	0.5	U	0.5	U						
Iron	FE	ICP	IP112771	100.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U		
Lead	PB	PMS	MS112811	3.0	0.1	0.1	U	0.1	U	0.1	U						
Magnesium	MG	ICP	IP112771	5000.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U		
Manganese	MN	ICP	IP112771	15.0	1.0	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U		
Mercury	HG	CVA	HG113001	0.2	0.1												
Nickel	NI	PMS	MS112811	40.0	0.5	0.5	U	0.5	U	0.5	U						
Potassium	K	ICP	IP112771	5000.0	500.0	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U		
Selenium	SE	PMS	MS112811	5.0	0.5	0.5	U	0.5	U	0.5	U						
Silver	AG	PMS	MS112811	10.0	0.2	0.2	U	0.2	U	0.2	U						
Sodium	NA	ICP	IP112771	5000.0	500.0	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U		
Thallium	TL	PMS	MS112811	10.0	0.2	0.2	U	0.2	U	0.2	U						
Vanadium	V	PMS	MS112811	50.0	0.2	0.2	U	0.2	U	0.2	U						
Zinc	ZN	PMS	MS112811	20.0	4.0	4.0	U	4.0	U	4.0	U						

VS22 - 00012

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS22

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Zinc	ZN	PMS	MS113011	20.0	4.0	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U

VS22 0012

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS22

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Zinc	ZN	PMS	MS113011	20.0	4.0	4.0	U										

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

ICS SOURCE: I.V.

PROJECT: Upper Columbia

RUNID: IP112771

SDG: VS22

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	208789.5	201792.0	**100.9**	195582.1	193989.2	**97.0**	196310.4	194599.3	**97.3**
Antimony		1000	13.1	1029.3	**102.9**	10.2	1001.8	**100.2**	7.4	1003.5	**100.4**
Arsenic		1000	15.1	1013.6	**101.4**	13.9	1022.4	**102.2**	20.2	1024.2	**102.4**
Barium		1000	-3.9	1004.1	**100.4**	-3.4	982.1	**98.2**	-3.6	981.9	**98.2**
Beryllium		1000	0.1	971.9	**97.2**	0.0	985.1	**98.5**	0.0	981.4	**98.1**
Boron			-4.7	-2.9		-5.1	-3.3		-2.6	-4.1	
Cadmium		1000	0.2	1000.0	**100.0**	-0.3	1000.9	**100.1**	-0.3	1001.2	**100.1**
Calcium	100000	100000	105151.8	103470.9	**103.5**	98518.0	98407.1	**98.4**	98161.0	98765.2	**98.8**
Chromium		1000	-0.7	1008.7	**100.9**	0.3	1010.5	**101.1**	-0.1	1006.4	**100.6**
Cobalt		1000	-0.9	968.2	**96.8**	-0.5	940.3	**94.0**	-0.8	968.7	**96.9**
Copper		1000	-0.2	1001.7	**100.2**	-3.9	979.7	**98.0**	-3.7	975.2	**97.5**
Iron	200000	200000	206607.2	202956.4	**101.5**	195551.8	195135.7	**97.6**	194485.6	194792.0	**97.4**
Lead		1000	-0.7	966.0	**96.6**	-4.1	963.8	**96.4**	-2.8	971.1	**97.1**
Magnesium	100000	100000	109030.3	102361.5	**102.4**	101820.0	97376.2	**97.4**	101628.7	97715.1	**97.7**
Manganese		1000	1.5	959.6	**96.0**	1.2	972.2	**97.2**	1.2	969.6	**97.0**
Molybdenum			3.2	2.8		1.8	1.6		2.3	2.2	
Nickel		1000	0.3	952.8	**95.3**	1.2	942.0	**94.2**	0.5	940.6	**94.1**
Potassium			19.1	-48.0		-12.9	-66.9		-8.1	-43.7	
Selenium		1000	4.6	990.3	**99.0**	7.7	976.7	**97.7**	2.4	982.3	**98.2**
Silicon			-0.2	-1.8		-1.4	-4.8		-4.3	-2.3	
Silver		1000	-1.2	1009.0	**100.9**	-1.2	996.7	**99.7**	-1.3	996.1	**99.6**
Sodium			12.0	23.1		13.6	26.3		15.5	26.5	
Strontium			4.1	3.9		3.9	3.9		4.0	3.9	
Thallium		1000	3.3	937.3	**93.7**	5.9	917.2	**91.7**	4.3	924.1	**92.4**
Tin			-8.6	-8.0		-7.6	-8.3		-6.6	-6.6	
Titanium			1.1	0.7		0.4	0.7		1.2	1.1	
Vanadium		1000	3.8	961.6	**96.2**	4.9	934.4	**93.4**	4.4	934.9	**93.5**
Zinc		1000	3.0	954.0	**95.4**	2.7	958.0	**95.8**	1.8	955.2	**95.5**

VS22 : 9061

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

ICS SOURCE: I.V.

PROJECT: Upper Columbia

RUNID: MS112811

SDG: VS22

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	20.0	**100.0**						
Cadmium		20	0.1	19.8	**99.0**						
Chromium		20	0.7	20.8	**104.0**						
Cobalt		20	0.0	20.6	**103.0**						
Copper		20	0.9	21.5	**107.5**						
Manganese		20	0.1	19.5	**97.5**						
Molybdenum	400	400	434.3	401.0	**100.3**						
Nickel		20	0.4	21.1	**105.5**						
Selenium			-0.2	-0.2							
Silver		20	0.0	21.1	**105.5**						
Thorium			0.2	0.1							
Zinc		20	0.9	20.3	**101.5**						

VS22 0915

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS22

ICS SOURCE: I.V.

RUNID: MS113011

INSTRUMENT ID: NEXION 300D

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	20000	20000	20584.8	20559.4	**102.8**						
Antimony			0.1	0.1							
Arsenic		20	0.3	18.8	**94.0**						
Cadmium		20	0.2	19.8	**99.0**						
Chromium		20	0.6	20.6	**103.0**						
Cobalt		20	0.0	20.2	**101.0**						
Copper		20	1.4	21.3	**106.5**						
Iron	20000	20000	19749.9	19637.4	**98.2**						
Manganese		20	0.1	19.2	**96.0**						
Molybdenum	400	400	394.4	397.8	**99.5**						
Nickel		20	0.3	20.5	**102.5**						
Selenium			-0.2	-0.2							
Silver		20	0.0	20.0	**100.0**						
Thorium			0.3	0.1							
Vanadium			0.1	0.2							
Zinc		20	0.9	20.3	**101.5**						

VS22:00016

Post Digest Spike Sample Recovery

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: PMS

SDG: VS22

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT	C	SAMPLE RESULT	C	SPIKE ADDED	MATRIX	%R
Antimony	SA12-3P-1(0 to 3A	VS22APOST	MS112811	487.52	B	20.40	B	500	Soil	**93.4**
Magnesium	SA12-3P-1(0 to 3A	VS22APOST	IP112771	124576.13		68610.05		50000	Soil	**111.9**

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: ICP

SDG: VS22

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Aluminum	SA12-3P-1(0 to 3L	VS22A-L	Soil	IP112771	45874.01		44707.75		2.5	
Barium	SA12-3P-1(0 to 3L	VS22A-L	Soil	IP112771	638.14		620.60	B	2.7	
Calcium	SA12-3P-1(0 to 3L	VS22A-L	Soil	IP112771	29976.18		28948.75		3.4	
Iron	SA12-3P-1(0 to 3L	VS22A-L	Soil	IP112771	55415.55		54154.85		2.3	
Magnesium	SA12-3P-1(0 to 3L	VS22A-L	Soil	IP112771	13722.01		14141.30	B	3.1	
Manganese	SA12-3P-1(0 to 3L	VS22A-L	Soil	IP112771	3403.57		3308.50		2.8	
Potassium	SA12-3P-1(0 to 3L	VS22A-L	Soil	IP112771	4413.87	B	4102.15	B	7.1	
Sodium	SA12-3P-1(0 to 3L	VS22A-L	Soil	IP112771	647.25	B	2500.00	U	100.0	

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: PMS

SDG: VS22

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Antimony	SA12-3P-1(0 to 3L	VS22A-L	Soil	MS112811	1.02	B	1.10	B	7.8	
Arsenic	SA12-3P-1(0 to 3L	VS22A-L	Soil	MS112811	9.63	B	9.70	B	0.7	
Beryllium	SA12-3P-1(0 to 3L	VS22A-L	Soil	MS112811	0.27	B	0.25	B	7.4	
Cadmium	SA12-3P-1(0 to 3L	VS22A-L	Soil	MS112811	5.11		5.35	B	4.7	
Chromium	SA12-3P-1(0 to 3L	VS22A-L	Soil	MS112811	13.33		13.80	B	3.5	
Cobalt	SA12-3P-1(0 to 3L	VS22A-L	Soil	MS112811	6.02	B	6.40	B	6.3	
Copper	SA12-3P-1(0 to 3L	VS22A-L	Soil	MS112811	17.60	B	17.35	B	1.4	
Lead	SA12-3P-1(0 to 3L	VS22A-L	Soil	MS112811	257.29		222.60		13.5	
Nickel	SA12-3P-1(0 to 3L	VS22A-L	Soil	MS112811	11.91	B	11.90	B	0.1	
Selenium	SA12-3P-1(0 to 3L	VS22A-L	Soil	MS112811	0.40	U	0.45	B		
Silver	SA12-3P-1(0 to 3L	VS22A-L	Soil	MS112811	0.29	B	0.30	B	3.4	
Thallium	SA12-3P-1(0 to 3L	VS22A-L	Soil	MS112811	0.24	B	0.25	B	4.2	
Vanadium	SA12-3P-1(0 to 3L	VS22A-L	Soil	MS112811	19.56	B	20.90	B	6.9	
Zinc	SA12-3P-1(0 to 3L	VS22A-L	Soil	MS113011	53.83		56.30	B	4.6	

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS22 UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Aluminum	AL	ICP	OPTIMA ICP 2	308.22		200	50.0	4/1/2012	250000.0	7/30/2012
Antimony	SB	PMS	NEXION 300D MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Barium	BA	ICP	OPTIMA ICP 2	455.50		200	3.0	4/1/2012	100000.0	7/30/2012
Beryllium	BE	PMS	NEXION 300D MS	0.00		5	0.2	4/1/2012		
Cadmium	CD	PMS	NEXION 300D MS	0.00		5	0.1	4/1/2012		
Calcium	CA	ICP	OPTIMA ICP 2	317.93		5000	50.0	4/1/2012	500000.0	7/30/2012
Chromium	CR	PMS	NEXION 300D MS	0.00		10	0.5	4/1/2012		
Cobalt	CO	PMS	NEXION 300D MS	0.00		50	0.2	4/1/2012		
Copper	CU	PMS	NEXION 300D MS	0.00		25	0.5	4/1/2012		
Iron	FE	ICP	OPTIMA ICP 2	259.94		100	50.0	4/1/2012	250000.0	7/30/2012
Lead	PB	PMS	NEXION 300D MS	0.00		3	0.1	4/1/2012		
Magnesium	MG	ICP	OPTIMA ICP 2	279.08		5000	50.0	4/1/2012	500000.0	7/30/2012
Manganese	MN	ICP	OPTIMA ICP 2	257.61		15	1.0	4/1/2012	30000.0	7/30/2012
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	4/1/2012		
Nickel	NI	PMS	NEXION 300D MS	0.00		40	0.5	4/1/2012		
Potassium	K	ICP	OPTIMA ICP 2	766.49		5000	500.0	4/1/2012	500000.0	7/30/2012
Selenium	SE	PMS	NEXION 300D MS	0.00		5	0.5	4/1/2012		
Silver	AG	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Sodium	NA	ICP	OPTIMA ICP 2	589.00		5000	500.0	4/1/2012	5000000.0	7/30/2012
Thallium	TL	PMS	NEXION 300D MS	0.00		10	0.2	4/1/2012		
Vanadium	V	PMS	NEXION 300D MS	0.00		50	0.2	4/1/2012		
Zinc	ZN	PMS	NEXION 300D MS	0.00		20	4.0	4/1/2012		

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS22

IEC DATE: 11/12/2012

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	9.1050360	0.0000000	0.0000000
Arsenic	188.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0581760	0.0000000	-0.8953680	1.5607750	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1763230	0.0000000	0.0000000	0.1637240
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	6.5458340	0.0000000	0.0000000	0.0000000	0.0000000	0.1152580	0.0000000	0.0000000	0.0095100
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0295099	0.0000000	0.0091790	0.0000000	-0.0348880	0.0000000	0.0000000	-0.0392710
Cobalt	228.62	0.0000000	0.0000000	0.0788170	0.0000000	0.0000000	0.0000000	0.0000000	-0.0346500	0.0000000	0.0130090
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1608400	0.0000000	0.0000000	-0.0442360
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.4437390	0.0000000	0.0000000
Lead	220.35	-0.2393490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1467250	-1.7804540	1.4264890	0.0412430
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.4396410	-1.1694080	0.0000000	0.5321920
Manganese	257.61	0.0046450	0.0000000	0.0000000	0.0000000	0.0019080	0.0000000	0.0000000	0.0000000	0.0000000	-0.0054280
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0108090	0.0000000	0.0000000	0.0540880	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.4883700	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.5902270	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	5.5577350	0.3891400	0.0000000	-0.1069480
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.1236770	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0477260	0.0000000	0.0000000	0.1988470	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-4.2880510	0.0000000	0.0349450
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0645950	0.0000000	0.0000000

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

IEC DATE: 11/12/2012

SDG: VS22

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	17.2648390	0.0000000	0.0000000	0.0000000	2.1534780	0.0000000	14.6676620	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	-0.3171320	0.0000000	0.0000000	-1.6488050	0.0000000	-2.7828430	0.0000000
Arsenic	188.98	0.0000000	0.0000000	3.5824010	0.0000000	0.0000000	0.0000000	-28.6279570	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.1006020	0.0000000	0.0000000	0.0000000	0.0000000	0.2160840	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0120420	0.0000000	0.1997240	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.9709640	0.0000000	0.0000000	0.0000000	0.0000000	0.6837900	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0863140	0.0880780	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.3314250	0.0362000
Cobalt	228.62	0.0000000	0.0000000	-0.1203920	0.1624660	0.0000000	0.0000000	1.9337740	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0084630	0.0000000	0.4010840	0.0000000	0.0000000	0.0000000	0.2064430	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	8.4794020	0.0000000
Lead	220.35	0.0000000	0.0000000	-0.4099510	-0.1101090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-5.5537550	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	-0.2086980	0.0000000	0.0000000	0.0000000	-0.0242310	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.5468870	0.0000000	0.4309940	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5703720	0.0000000
Silicon	288.16	-0.1197150	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0400098	0.0000000	-2.8848200	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	-0.8464030	-0.9915990	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	3.4340400	0.0000000
Tin	189.93	0.0000000	0.0000000	0.8648230	0.0000000	-0.0322750	-0.4551870	-0.1436590	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.8648230	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1521530	0.5765370	0.0000000	0.0000000	0.0000000	0.5629710	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2677330	0.0000000	-0.0519400	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

VS22 SDG

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS22

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 11/26/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA12-3P-1(0 to 3	VS22A	1.010	0.0	50.0
SA12-3P-1(0 to 3D	VS22ADUP	1.013	0.0	50.0
SA12-3P-1(0 to 3S	VS22ASPK	1.005	0.0	50.0
SA12-3P-2(3 to 6	VS22B	1.068	0.0	50.0
SA12-3P-3(6 to 12	VS22C	1.053	0.0	50.0
SA12-3P-4(12 to 24	VS22D	1.009	0.0	50.0
SA12-4C	VS22E	1.046	0.0	50.0
SA12-6C	VS22F	1.002	0.0	50.0
SA12-7C	VS22G	1.011	0.0	50.0
SA12-8C	VS22H	1.099	0.0	50.0
SA12-9C	VS22I	1.041	0.0	50.0
SA12-Field Duplica	VS22J	1.039	0.0	50.0
SA13-1C	VS22K	1.046	0.0	50.0
SA13-2C	VS22L	1.018	0.0	50.0
PBS	VS22MB1	1.000	0.0	50.0
LCSS	VS22MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS22

ANALYSIS METHOD: PMS

ARI PREP CODE: SWN

PREPDATE: 11/26/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA12-3P-1(0 to 3	VS22A	1.029	0.0	50.0
SA12-3P-1(0 to 3D	VS22ADUP	1.033	0.0	50.0
SA12-3P-1(0 to 3S	VS22ASPK	1.030	0.0	50.0
SA12-3P-2(3 to 6	VS22B	1.069	0.0	50.0
SA12-3P-3(6 to 12	VS22C	1.065	0.0	50.0
SA12-3P-4(12 to 24	VS22D	1.060	0.0	50.0
SA12-4C	VS22E	1.063	0.0	50.0
SA12-6C	VS22F	1.048	0.0	50.0
SA12-7C	VS22G	1.079	0.0	50.0
SA12-8C	VS22H	1.019	0.0	50.0
SA12-9C	VS22I	1.049	0.0	50.0
SA12-Field Duplica	VS22J	1.035	0.0	50.0
SA13-1C	VS22K	1.051	0.0	50.0
SA13-2C	VS22L	1.039	0.0	50.0
PBS	VS22MB1	1.000	0.0	50.0
LCSS	VS22MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS22

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 11/26/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA12-3P-1(0 to 3	VS22A	0.718	0.0	50.0
SA12-3P-1(0 to 3D	VS22ADUP	0.717	0.0	50.0
SA12-3P-1(0 to 3S	VS22ASPK	0.720	0.0	50.0
SA12-3P-2(3 to 6	VS22B	0.734	0.0	50.0
SA12-3P-3(6 to 12	VS22C	0.730	0.0	50.0
SA12-3P-4(12 to 24	VS22D	0.748	0.0	50.0
SA12-4C	VS22E	0.710	0.0	50.0
SA12-6C	VS22F	0.713	0.0	50.0
SA12-7C	VS22G	0.715	0.0	50.0
SA12-8C	VS22H	0.730	0.0	50.0
SA12-9C	VS22I	0.704	0.0	50.0
SA12-Field Duplica	VS22J	0.737	0.0	50.0
SA13-1C	VS22K	0.727	0.0	50.0
SA13-2C	VS22L	0.708	0.0	50.0
PBS	VS22MB1	0.700	0.0	50.0
LCSW	VS22MB1SPK	0.700	0.0	50.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/27/2012

SDG: VS22 | RUNID: IP112771 | METHOD: ICP | END DATE: 11/27/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	10210			X			X		X					X		X	X	X		X											
S2	S2	1.00	10251						X											X													
S3	S3	1.00	10270																														
S4	S4	1.00	10291																														
S5	S5	1.00	10313			X					X					X		X	X			X											
ICV	ICV	1.00	10343			X			X		X					X		X	X	X		X											
ICB	ICB	1.00	10383			X			X		X					X		X	X	X		X											
CRI	CRII	1.00	10425			X			X		X					X		X	X	X		X											
ICSA	ICSAI	1.00	10471			X			X		X					X		X	X	X		X											
ICSAB	ICSABI	1.00	10512			X			X		X					X		X	X	X		X											
CCV	CCV1	1.00	10561			X			X		X					X		X	X	X		X											
CCB	CCB1	1.00	11012			X			X		X					X		X	X	X		X											
ZZZZZZ	VR58MB1	2.00	11081																														
ZZZZZZ	VR58B	2.00	11123																														
ZZZZZZ	VR58C	2.00	11163																														
ZZZZZZ	VR58D	2.00	11202																														
ZZZZZZ	VR58E	2.00	11242																														
ZZZZZZ	VR58ADUP	2.00	11282																														
ZZZZZZ	VR58A	2.00	11322																														
ZZZZZZ	VR58ASPK	2.00	11362																														
ZZZZZZ	VR58APOST	2.00	11392																														
ZZZZZZ	VR58MB1SPK	2.00	11422																														
CCV	CCV2	1.00	11462			X			X		X					X		X	X	X		X											
CCB	CCB2	1.00	11513			X			X		X					X		X	X	X		X											
ZZZZZZ	VR58F	2.00	11554																														
ZZZZZZ	VR58G	2.00	11594																														
ZZZZZZ	VR58H	2.00	12034																														
ZZZZZZ	VR58I	2.00	12074																														
ZZZZZZ	VR58J	2.00	12114																														
ZZZZZZ	VR82A	2.00	12154																														
ZZZZZZ	VR82B	2.00	12194																														
ZZZZZZ	VR82C	2.00	12234																														
ZZZZZZ	VR82D	2.00	12272																														
ZZZZZZ	VR82E	2.00	12312																														
CCV	CCV3	1.00	12352			X			X		X					X		X	X	X		X											

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/27/2012

SDG: VS22 | RUNID: IP112771 | METHOD: ICP | END DATE: 11/27/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
CCB	CCB3	1.00	12402			X			X		X					X		X	X	X		X											
ZZZZZZ	VR82F	2.00	12444																														
ZZZZZZ	VR82G	2.00	12484																														
ZZZZZZ	VR82H	2.00	12524																														
ZZZZZZ	VR82I	2.00	12564																														
CCV	CCV4	1.00	13003			X			X		X					X		X	X	X		X											
CCV	CCV5	1.00	13070			X			X		X					X		X	X	X		X											
CCB	CCB4	1.00	13121			X			X		X					X		X	X	X		X											
S4	S4	1.00	13224																														
S5	S5	1.00	13250			X					X					X		X	X			X											
CCV	CCV6	1.00	13290			X			X		X					X		X	X	X		X											
CCB	CCB5	1.00	13335			X			X		X					X		X	X	X		X											
PBS	VS22MB1	2.00	13382																														
SA12-3P-2(3 to 6	VS22B	5.00	13424																														
SA12-3P-3(6 to 12	VS22C	5.00	13464																														
SA12-3P-4(12 to 24	VS22D	5.00	13503																														
ZZZZZZ	ZZZZZZ	25.00	13544																														
SA12-3P-1(0 to 3	VS22A	5.00	13583																														
SA12-3P-1(0 to 3D	VS22ADUP	5.00	14023																														
SA12-3P-1(0 to 3S	VS22ASPK	5.00	14063																														
ZZZZZZ	ZZZZZZ	5.00	14103																														
LCSS	VS22MB1SPK	2.00	14142																														
CCV	CCV7	1.00	14182			X			X		X					X		X	X	X		X											
CCV	CCV8	1.00	14270			X			X		X					X		X	X	X		X											
CCV	CCV9	1.00	14375			X			X		X					X		X	X	X		X											
CCB	CCB6	1.00	14425			X			X		X					X		X	X	X		X											
SA12-4C	VS22E	5.00	14470			X			X		X					X		X	X	X		X											
SA12-6C	VS22F	5.00	14510			X			X		X					X		X	X	X		X											
SA12-7C	VS22G	5.00	14550			X			X		X					X		X	X	X		X											
SA12-8C	VS22H	5.00	14590			X			X		X					X		X	X	X		X											
SA12-9C	VS22I	5.00	15030			X			X		X					X		X	X	X		X											
SA12-Field Duplica	VS22J	5.00	15070			X			X		X					X		X	X	X		X											
SA13-1C	VS22K	5.00	15110			X			X		X					X		X	X	X		X											
SA13-2C	VS22L	5.00	15150			X			X		X					X		X	X	X		X											
CCV	CCV10	1.00	15191			X			X		X					X		X	X	X		X											

FORM XIV

VS22 12/5/12

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/27/2012

SDG: VS22 | RUNID: IP112771 | METHOD: ICP | END DATE: 11/27/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
CCB	CCB7	1.00	15233			X			X		X					X		X	X	X		X											
CRI	CRIF	1.00	15275			X			X		X					X		X	X	X		X											
ICSA	ICSAF	1.00	15320			X			X		X					X		X	X	X		X											
ICSAB	ICSABF	1.00	15362			X			X		X					X		X	X	X		X											
CCV	CCV11	1.00	15401			X			X		X					X		X	X	X		X											
CCB	CCB8	1.00	15451			X			X		X					X		X	X	X		X											
PBS	VS22MB1	2.00	15493			X			X		X					X		X	X	X		X											
SA12-3P-2(3 to 6	VS22B	5.00	15534			X			X		X					X		X	X	X		X											
SA12-3P-3(6 to 12	VS22C	5.00	15574			X			X		X					X		X	X	X		X											
SA12-3P-4(12 to 24	VS22D	5.00	16014			X			X		X					X		X	X	X		X											
SA12-3P-1(0 to 3L	VS22A-L	25.00	16054			X			X		X					X		X	X	X		X											
SA12-3P-1(0 to 3	VS22A	5.00	16094			X			X		X					X		X	X	X		X											
SA12-3P-1(0 to 3D	VS22ADUP	5.00	16134			X			X		X					X		X	X	X		X											
SA12-3P-1(0 to 3S	VS22ASPK	5.00	16174			X			X		X					X		X	X	X		X											
SA12-3P-1(0 to 3A	VS22APOST	5.00	16214																X														
LCSS	VS22MB1SPK	2.00	16252			X			X		X					X		X	X	X		X											
CCV	CCV12	1.00	16292			X			X		X					X		X	X	X		X											
CCB	CCB9	1.00	16343			X			X		X					X		X	X	X		X											
CRI	CRIF1	1.00	16384			X			X		X					X		X	X	X		X											
ICSA	ICSAF1	1.00	16425			X			X		X					X		X	X	X		X											
ICSAB	ICSABF1	1.00	16471			X			X		X					X		X	X	X		X											
CCV	CCV13	1.00	16510			X			X		X					X		X	X	X		X											
CCB	CCB10	1.00	16560			X			X		X					X		X	X	X		X											

VS22 9555

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/28/2012

SDG: VS22 | RUNID: MS112811 | METHOD: PMS | END DATE: 11/28/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09160		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S1	S1	1.00	09200		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S2	S2	1.00	09240		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S3	S3	1.00	09280		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S4	S4	1.00	09330		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S5	S5	1.00	09390																														
ZZZZZZ	Rinse samp1	1.00	09460																														
ICV	MICV	1.00	10010		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ICB	ICB	1.00	10080		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCV	MCCV1	1.00	10120		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB1	1.00	10190		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CRI	MCRI	1.00	10230		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ICSA	ICSAI	1.00	10270		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ICSAB	ICSABI	1.00	10340		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	LR200	1.00	10410																														
ZZZZZZ	LR300	1.00	10470																														
ZZZZZZ	B1	1.00	10540																														
ZZZZZZ	B2	1.00	11000																														
ZZZZZZ	B3	1.00	11060																														
CCV	MCCV2	1.00	11100		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB2	1.00	11170		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VT84MB1	2.00	11350																														
ZZZZZZ	VT84MB2	2.00	11390																														
ZZZZZZ	VT84MB2SPK	2.00	11430																														
ZZZZZZ	VT84MB1SPK	2.00	11470																														
ZZZZZZ	VT84A	2.00	11510																														
ZZZZZZ	VT84B	2.00	11550																														
CCV	MCCV3	1.00	12060		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB3	1.00	12130		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS20MB1	20.00	12220																														
ZZZZZZ	VS20MB1SPK	20.00	12260																														
ZZZZZZ	VR88MB2SPK	2.00	12310																														
ZZZZZZ	VR88J	5.00	12360																														
ZZZZZZ	VS20B	20.00	12400																														
ZZZZZZ	VS20C	20.00	12440																														

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/28/2012

SDG: VS22 | RUNID: MS112811 | METHOD: PMS | END DATE: 11/28/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	VS20D	20.00	12480																														
ZZZZZZ	VS20E	20.00	12520																														
ZZZZZZ	VS20G	20.00	12560																														
ZZZZZZ	VS20H	20.00	13000																														
CCV	MCCV4	1.00	13050		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB4	1.00	13120		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS21MB1	20.00	13220																														
ZZZZZZ	VS21MB1SPK	20.00	13260																														
ZZZZZZ	VS21A-L	100.00	13300																														
ZZZZZZ	VS21A	20.00	13340																														
ZZZZZZ	VS21ADUP	20.00	13380																														
ZZZZZZ	VS21ASPK	20.00	13420																														
ZZZZZZ	ZZZZZZ	20.00	13470																														
ZZZZZZ	VS21B	20.00	13510																														
ZZZZZZ	VS20I	20.00	13550																														
ZZZZZZ	VS20D	100.00	13590																														
CCV	MCCV5	1.00	14030		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB5	1.00	14100		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS21C	20.00	14170																														
ZZZZZZ	VS21D	20.00	14210																														
ZZZZZZ	VS21E	20.00	14260																														
ZZZZZZ	VS21F	20.00	14300																														
ZZZZZZ	VS21G	20.00	14340																														
ZZZZZZ	VS21H	20.00	14390																														
ZZZZZZ	VS21I	20.00	14430																														
ZZZZZZ	VS21J	20.00	14470																														
ZZZZZZ	VS21K	20.00	14510																														
ZZZZZZ	VS21L	20.00	14550																														
CCV	MCCV6	1.00	14590		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB6	1.00	15060		X		X			X		X	X	X	X								X	X	X	X				X		X	X
PBS	VS22MB1	20.00	15130		X		X			X		X	X	X	X								X	X	X	X				X		X	X
LCSS	VS22MB1SPK	20.00	15180		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA12-3P-1(0 to 3L	VS22A-L	100.00	15230		X		X			X		X	X	X	X								X	X	X	X				X		X	
SA12-3P-1(0 to 3	VS22A	20.00	15270		X		X			X		X	X	X	X								X	X	X	X				X		X	
SA12-3P-1(0 to 3D	VS22ADUP	20.00	15310		X		X			X		X	X	X	X								X	X	X	X				X		X	

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/28/2012

SDG: VS22 | RUNID: MS112811 METHOD: PMS | END DATE: 11/28/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
SA12-3P-1(0 to 3S	VS22ASPK	20.00	15350		X		X			X		X	X	X	X								X	X	X	X				X		X	
SA12-3P-1(0 to 3A	VS22APOST	20.00	15390																						X								
SA12-3P-2(3 to 6	VS22B	20.00	15430		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA12-3P-3(6 to 12	VS22C	20.00	15470		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS21B	100.00	15520																														
CCV	MCCV7	1.00	15560		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB7	1.00	16030		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA12-3P-4(12 to 24	VS22D	20.00	16160		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA12-4C	VS22E	20.00	16200		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA12-6C	VS22F	20.00	16250		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA12-7C	VS22G	20.00	16290		X		X			X		X	X	X	X								X	X	X	X				X		X	
SA12-8C	VS22H	20.00	16330		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA12-9C	VS22I	20.00	16370		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA12-Field Duplica	VS22J	20.00	16420		X		X			X		X	X	X	X								X	X	X	X				X		X	
SA13-1C	VS22K	20.00	16460		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA13-2C	VS22L	20.00	16500		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VS45B	2.00	16540																														
CCV	MCCV8	1.00	16580		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB8	1.00	17050		X		X			X		X	X	X	X								X	X	X	X				X		X	X

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: NEXION 300D MS | START DATE: 11/30/2012

SDG: VS22 | RUNID: MS113011 METHOD: PMS | END DATE: 11/30/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	10100																														X
S1	S1	1.00	10140																														X
S2	S2	1.00	10180																														X
S3	S3	1.00	10230																														X
S4	S4	1.00	10270																														X
S5	S5	1.00	10340																														
ZZZZZZ	Rinse sampl	1.00	10410																														
ICV	MICV	1.00	10500																														X
ICB	ICB	1.00	10570																														X
CCV	MCCV1	1.00	11010																														X
CCB	CCB1	1.00	11080																														X
CRI	MCRI	1.00	11120																														X
ICSA	ICSAI	1.00	11160																														X
ICSAB	ICSABI	1.00	11230																														X
ZZZZZZ	LR200	1.00	11300																														
ZZZZZZ	LR300	1.00	11370																														
ZZZZZZ	B1	1.00	11440																														
ZZZZZZ	B2	1.00	11500																														
ZZZZZZ	VT29A	2.00	11550																														
CCV	MCCV2	1.00	12000																														X
CCB	CCB2	1.00	12070																														X
ZZZZZZ	VT77MB1	2.00	12130																														
ZZZZZZ	VT77MB2	2.00	12170																														
ZZZZZZ	VT77MB2SPK	2.00	12220																														
ZZZZZZ	VT77MB1SPK	2.00	12260																														
ZZZZZZ	VT77ADUP	2.00	12300																														
ZZZZZZ	VT77A	2.00	12340																														
ZZZZZZ	VT77ASPK	2.00	12390																														
ZZZZZZ	VT77DDUP	2.00	12430																														
ZZZZZZ	VT77D	2.00	12480																														
ZZZZZZ	VT77DSPK	2.00	12520																														
CCV	MCCV3	1.00	12570																														X
CCB	CCB3	1.00	13040																														X
ZZZZZZ	VR67RMB	2.00	13090																														
ZZZZZZ	VR67RMBSPK	2.00	13130																														

FORM XIV

VS22 0052

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia INSTRUMENT ID: NEXION 300D MS START DATE: 11/30/2012

SDG: VS22 RUNID: MS113011 METHOD: PMS END DATE: 11/30/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ZZZZZZ	VR67RADUP	2.00	13170																														
ZZZZZZ	VR67RA	2.00	13220																														
ZZZZZZ	VR67RASPK	2.00	13260																														
ZZZZZZ	VR67RB	2.00	13300																														
ZZZZZZ	VT77B	2.00	13350																														
ZZZZZZ	VT77C	2.00	13400																														
ZZZZZZ	VT77E	2.00	13440																														
ZZZZZZ	VT77F	2.00	13480																														
CCV	MCCV4	1.00	13520																														X
CCB	CCB4	1.00	13590																														X
ZZZZZZ	VU12MB1	2.00	14130																														
ZZZZZZ	VU12MB2	2.00	14180																														
ZZZZZZ	VU12MB2SPK	2.00	14220																														
ZZZZZZ	VU12MB1SPK	2.00	14260																														
ZZZZZZ	VU12A	2.00	14300																														
ZZZZZZ	VU12B	2.00	14350																														
ZZZZZZ	VU12C	2.00	14390																														
ZZZZZZ	VU12D	2.00	14430																														
ZZZZZZ	VU12E	2.00	14480																														
ZZZZZZ	VU12F	2.00	14530																														
CCV	MCCV5	1.00	14570																														X
CCB	CCB5	1.00	15040																														X
SA12-3P-1(0 to 3L	VS22A-L	500.00	15220																														X
SA12-3P-1(0 to 3	VS22A	100.00	15270																														X
SA12-3P-1(0 to 3D	VS22ADUP	100.00	15310																														X
SA12-3P-1(0 to 3S	VS22ASPK	100.00	15350																														X
ZZZZZZ	ZZZZZZ	100.00	15390																														
SA12-7C	VS22G	100.00	15430																														X
SA12-Field Duplica	VS22J	100.00	15480																														X
ZZZZZZ	VR35F	100.00	15520																														
ZZZZZZ	VR35G	100.00	15570																														
ZZZZZZ	VR35I	100.00	16010																														
CCV	MCCV6	1.00	16060																														X
CCB	CCB6	1.00	16130																														X

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS22

INSTRUMENT ID: CETAC MERCURY

RUNID: HG113001 METHOD: CVA

START DATE: 11/30/2012

END DATE: 11/30/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	11094														X																
S0.1	S0.1	1.00	11111														X																
S0.5	S0.5	1.00	11125														X																
S1	S1	1.00	11142														X																
S2	S2	1.00	11160														X																
S5	S5	1.00	11174														X																
S10	S10	1.00	11192														X																
ICV	AICV	1.00	11244														X																
ICB	ICB	1.00	11261														X																
CCV	ACCV1	1.00	11275														X																
CCB	CCB1	1.00	11293														X																
CRA	CRA	1.00	11311														X																
PBW	VS22MB1	1.00	11324														X																
LCSW	VS22MB1SPK	1.00	11342														X																
SA12-3P-1(0 to 3	VS22A	1.00	11360														X																
SA12-3P-1(0 to 3D	VS22ADUP	1.00	11373														X																
SA12-3P-1(0 to 3S	VS22ASPK	1.00	11391														X																
SA12-3P-2(3 to 6	VS22B	1.00	11405														X																
SA12-3P-3(6 to 12	VS22C	1.00	11422														X																
SA12-3P-4(12 to 24	VS22D	1.00	11440														X																
SA12-4C	VS22E	1.00	11454														X																
CCV	ACCV2	1.00	11472														X																
CCB	CCB2	1.00	11490														X																
SA12-6C	VS22F	1.00	11504														X																
SA12-7C	VS22G	1.00	11521														X																
SA12-8C	VS22H	1.00	11535														X																
SA12-9C	VS22I	1.00	11552														X																
SA12-Field Duplica	VS22J	1.00	11570														X																
SA13-1C	VS22K	1.00	11584														X																
SA13-2C	VS22L	1.00	12001														X																
ZZZZZZ	VS23MB1	1.00	12015																														
ZZZZZZ	VS23MB1SPK	1.00	12033																														
ZZZZZZ	VS23A	1.00	12050																														
CCV	ACCV3	1.00	12064														X																
CCB	CCB3	1.00	12082														X																

FORM XIV

VS22:00051

General Chemistry Analysis
Report and Summary QC Forms

ARI Job ID: VS22

SAMPLE RESULTS-CONVENTIONALS
VS22-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA12-3P-1(0 to 3" depth)
ARI ID: 12-22701 VS22A

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.45
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	93.50
Total Organic Carbon	11/30/12 113012#1	Plumb,1981	Percent	0.196	13.7

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS22-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA12-3P-2(3 to 6" depth)
ARI ID: 12-22702 VS22B

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.73
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	97.60
Total Organic Carbon	11/30/12 113012#1	Plumb,1981	Percent	0.020	2.03

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS22-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA12-3P-3(6 to 12" depth)
ARI ID: 12-22703 VS22C

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.67
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	97.60
Total Organic Carbon	11/30/12 113012#1	Plumb,1981	Percent	0.020	1.00

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS22-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA12-3P-4(12 to 24" depth)
ARI ID: 12-22704 VS22D

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	7.48
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	98.30
Total Organic Carbon	11/30/12 113012#1	Plumb,1981	Percent	0.020	0.714

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS22-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA12-4C
ARI ID: 12-22705 VS22E

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.75
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	97.00
Total Organic Carbon	11/30/12 113012#1	Plumb,1981	Percent	0.196	5.55

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS22-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA12-6C
ARI ID: 12-22706 VS22F

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.42
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	94.70
Total Organic Carbon	11/30/12 113012#1	Plumb,1981	Percent	0.020	3.90

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS22-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA12-7C
ARI ID: 12-22707 VS22G

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.13
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	96.60
Total Organic Carbon	11/30/12 113012#1	Plumb,1981	Percent	0.020	1.38

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS22-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA12-8C
ARI ID: 12-22708 VS22H

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.61
Total Solids	11/23/12 112312#1	SM2540B	Percent	0.01	97.10
Total Organic Carbon	11/30/12 113012#1	Plumb,1981	Percent	0.020	2.40

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS22-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA12-9C
ARI ID: 12-22709 VS22I

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.24
Total Solids	11/23/12 112312#1	SM2540B	Percent	0.01	95.90
Total Organic Carbon	11/30/12 113012#1	Plumb,1981	Percent	0.020	2.97

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS22-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA12-Field Duplicate
ARI ID: 12-22710 VS22J

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.25
Total Solids	11/23/12 112312#1	SM2540B	Percent	0.01	96.30
Total Organic Carbon	11/30/12 113012#1	Plumb,1981	Percent	0.020	3.29

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS22-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA13-1C
ARI ID: 12-22711 VS22K

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.18
Total Solids	11/23/12 112312#1	SM2540B	Percent	0.01	96.00
Total Organic Carbon	11/30/12 113012#1	Plumb,1981	Percent	0.198	11.5

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS22-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA13-2C
ARI ID: 12-22712 VS22L

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.68
Total Solids	11/23/12 112312#1	SM2540B	Percent	0.01	92.50
Total Organic Carbon	11/30/12 113012#1	Plumb,1981	Percent	0.198	12.6

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

MS/MSD RESULTS-CONVENTIONALS
VS22-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Analyte	Date	Units	Sample	Spike	Spike Added	Recovery
ARI ID: VS22H Client ID: SA12-8C						
Total Organic Carbon	11/30/12	Percent	2.40	6.58	3.28	127.6%

REPLICATE RESULTS-CONVENTIONALS
VS22-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: VS22H Client ID: SA12-8C					
Total Solids	11/23/12	Percent	97.10	97.00 97.00	0.1%
Total Organic Carbon	11/30/12	Percent	2.40	2.39 3.33	19.9%

LAB CONTROL RESULTS-CONVENTIONALS
VS22-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
pH SW9045	ICVL	11/21/12	std units	6.97	7.00	0.03
Total Organic Carbon Plumb,1981	ICVL	11/30/12	Percent	0.100	0.100	100.0%

pH is evaluated as the Absolute Difference between the values rather than Percent Recovery.

METHOD BLANK RESULTS-CONVENTIONALS
VS22-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	11/20/12	Percent	< 0.01 U
	11/23/12		< 0.01 U
Total Organic Carbon	11/30/12	Percent	< 0.020 U

STANDARD REFERENCE RESULTS-CONVENTIONALS
VS22-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Organic Carbon NIST 1941B	11/30/12	Percent	2.84	2.99	95.0%

Total Solids

ARI Job ID: VS22

Solids Data Entry Report Checked by: CB Date: 11/27/12
Date: 11/27/12 Data Analyst: DM

Solids Determination performed on 11/26/12 by NB

JOB	SAMPLE	CLIENTID	TAREWEIGHT	SAMPDISH	DRYWEIGHT	SOLIDS
VS22	A	SA12-3P-1(0 to 3	0.990	10.310	9.579	92.16
VS22	B	SA12-3P-2(3 to 6	0.958	10.486	10.160	96.58
VS22	C	SA12-3P-3(6 to 12	0.970	10.842	10.500	96.54
VS22	D	SA12-3P-4(12 to 24	0.982	10.536	10.293	97.46
VS22	E	SA12-4C	0.994	10.212	9.820	95.75
VS22	F	SA12-6C	0.993	10.691	10.040	93.29
VS22	G	SA12-7C	0.970	10.341	9.890	95.19
VS22	H	SA12-8C	0.983	10.985	10.579	95.94
VS22	I	SA12-9C	1.009	10.378	9.892	94.81
VS22	J	SA12-Field Duplicat	1.022	10.498	10.026	95.02
VS22	K	SA13-1C	0.989	10.493	9.991	94.72
VS22	L	SA13-2C	1.009	10.359	9.505	90.87

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Total Solids Bench Sheet

Laboratory Section METALS

Oven Identification: 014 **Balance ID:** B116132369

Samples in Oven: Date: 11-26-12 Time: 1321 Temp: 107°C Analyst: NB

Removed from Oven: Date: 11-27-12 Time: 0700 Temp: 101°C Analyst: DM

ARI Sample ID	Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs[1]
VS22 A	0.990	10.310	9.579	–	√
" B	0.958	10.486	10.160	–	√
" C	0.970	10.842	10.500	–	√
" D	0.982	10.536	10.293	–	√
" E	0.994	10.212	9.820	–	√
" F	0.993	10.691	10.040	–	√
" G	0.970	10.341	9.890	–	√
" H	0.983	10.985	10.579	–	√
" I	1.009	10.378	9.892	–	√
" J	1.022	10.498	10.026	–	√
" K	0.989	10.493	9.991	–	√
" L	1.009	10.359	9.505	–	√
		NB 11-26-12			

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2nd bench sheet for additional weightings.

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: VS22

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SPIKING LOG

Analyst: NB **Final Volume** 50.0 **Sample ID** VS22 ASPK, MBSPK

Date: 11-26-12 **Final Volume (Hg):** 50.0

		Prepcode:	SWC		
		Spike Solution:	ICP Routine	ICP No GFA	GFA
		Standard No.:	2977-9		
		Vol Added (mL):	1.0		
STOCK CONCENTRATION	Ag		50		2.0
	Al		200 ✓	200	
	As		200		10
	Ba		200 ✓	200	
	Be		50	50	
	Ca		1000 ✓	1000	
	Cd		50		2.0
	Co		50	50	
	Cr		50	50	
	Cu		50	50	
	Fe		200 ✓	200	
	K		1000 ✓	1000	
	Mg		1000 ✓	1000	
	Mn		50 ✓	50	
	Na		1000 ✓	1000	
	Ni		50	50	
	Pb		200		10
	Se		200		10
	Sr		50	50	
	Tl		200		10
	V		50	50	
	Zn		50	50	

	SWN	SWN	
	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
	2987-2	2956-7	
	1.0	1.0	
Ag	25 ✓		
Al			500
As	25 ✓		
Ba	25		
Be	25 ✓		
Ca			500
Cd	25 ✓		
Co	25 ✓		
Cr	25 ✓		
Cu	25 ✓		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25 ✓		
Pb	25 ✓		
Sb		25 ✓	
Se	80 ✓		
Tl	25 ✓		
U	25		
V	25 ✓		
Zn	80 ✓		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	SMM	CVA	1.0	0.05	2908-7
Hg MBSPK	SMM	CVA	1.0	0.10	2908-7
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

VS22 9987

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: NB Date: 11-26-12 Time: 1356

Matrix: SOIL Block ID: #4 Block Temp: 91°C Thermometer: MP44

ARI Sample ID	Btl #	pH<2	Prep Code: SWC Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWC Final Vol (mL)	Prep Code: SWN Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWN Final Vol (mL)	Comments
VS22 A	1	—	1.010	50.0	1.029	50.0	
" ADUP	1	—	1.013		1.033		
" ASPK	1	—	1.005		1.030		
" B	1	—	1.068		1.069		
" C	1	—	1.053		1.065		
" D	1	—	1.009		1.060		
" E	1	—	1.046		1.063		
" F	1	—	1.002		1.048		
" G	1	—	1.011		1.079		
" H	1	—	1.099		1.019		
" I	1	—	1.041		1.049		
" J	1	—	1.039		1.035		
" K	1	—	1.046		1.051		
" L	1	—	1.018		1.039		
" MBI	—	—	—		—		
" MBISPK	—	—	—	50.0	—	50.0	

NB
11-26-12

Chemical/Reagent ID:

HNO_3: MP2392/I7833 HCl: I7676 H_2O_2: I7845 Tube Lot #: 1207143

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM Matrix: SOIL
Analyst: NB Date: 11-26-12
Bath Temp: 93°C Start Time: 1420 End Time: 1450

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VS22 A	1	—	0.718	50.0	11-22 1	YES	
" ADUP	1	—	0.717		1		
" ASPK	1	—	0.720		1		
" B	1	—	0.734		1		
" C	1	—	0.730		1		
" D	1	—	0.748		1		
" E	1	—	0.710		1		
" F	1	—	0.713		1		
" G	1	—	0.715		1		
" H	1	—	0.730		1		
" I	1	—	0.704		1		
" J	1	—	0.737		1		
" K	1	—	0.727		1		
" L	1	—	0.708		1		
" MBI	—	—	—		1		
" MBISPK	—	—	—	50.0	1		

NB
11-26-12

Chemical/Reagent ID:

HNO_3: I7833 H_2SO_4: I7677 HCl: —
5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376 Digest Tube Lot: 1205258

Analytical Resources, Incorporated
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Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	VS22
Unacceptable Blank:	☐	Date of Event:	11-27-12
Unacceptable Duplicate:	☐	Client ID:	Hart Crowser
Unacceptable Spike:	☑	Method/Element:	ICP
Unacceptable Reference:	☐	Prep Code:	SWC

Details of Problem/Recommended Corrective Action:

Mg ↑ recovery (142%) in ASPK. APOST in control at 112%.

Samples Affected:

Corrective Action Taken:

11/28/12

Analyst Initials: BA **Supervisor:**

Date: 11/28/12 **Date:**

5049F

Revision 007
6/11/10

VS22 : 00090

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:	ARI Job No.: VS22
Unacceptable Blank: ☐	Date of Event: 11-28-12
Unacceptable Duplicate: ☑	Client ID: Hart Crowser
Unacceptable Spike: ☑	Method/Element: ICPMS
Unacceptable Reference: ☐	Prep Code: SWN

Details of Problem/Recommended Corrective Action:

Sb high RPD low %R in A ADup A.pl
post spike ok

A	1.016	ppb Sb	
ADup	1.332		26.5% RPD
Aspk	6.573		22 %R

Pb 13.5% diff in A-L

Samples Affected:

Corrective Action Taken:

11/30/12

Analyst Initials: TM **Supervisor:**

Date: 11-29-12 **Date:**

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: VS22

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: 11-12-12 Analysis Date: 11-27-12 Analyst: BA

LR Date: 7-30-12 Page: 1 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STD 0			2994-8
		2			-11
		3			-12
		4			-13
		5			-14
		ICV			S: ↑ (NR) 2988-6
		ICB			
		CRI			
		ICSA			
		ICSAB			
		CCV1			S:, T: ↑ (NR)
		CCB1 BA 11/29/12 VR58 MB1	SWC	2	
		B			
		C			
		D			
		E			Sc/analytes sl. noisy
	✓	ADUP			↓ – Rerun
		A			
		ASPK			Sb ↓ (CAF)
		APOST			0.08 mL ICV Spike 2977-9 0.016 mL Sb 1000 2938-7 Sb OK
		MB1SPK			
		CCV2			S: ↑ (NR)
		CCB2			
		VR58 F	SWC	2	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-27-12 Analyst: BA

LR Date: — Page: 2 of 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		VR58 G	SWC	2	
		H	↓	↓	
		I			
		J			
		VR82 A			
		B			
		C			
		D			
		E	↓	↓	
		CCV3			Si ↑ (NR)
		CCB3			
	✓	VR82 F	SWC	2	Failing CCV
	✓	G	↓	↓	↓
	✓	H			
	✓	I	↓	↓	
		CCV4			(Fe), Na, (Sb), Si, Ti ↑
		CCV5			(Fe, Sb), Si, Ti ↑
		CCB4			
		STD4			
		↓ 5			
		CCV6			(Sb↑)
		CCB5			
	✓	VS22 MB1	SWC	2	Failing CCV
	✓	↓ B	↓	5	↓

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-27-12 Analyst: BA

LR Date: — Page: 3 of 5

All corrections made by analyst unless otherwise noted. BA 11-28-12

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
	✓	VS22 C	SWC	5	Failing CCV
	✓	D		↓	
	✓	~~ZZZZZZ A L~~		25	
	✓	A		5	
	✓	ADUP		↓	
	✓	ASPK			
	✓	~~ZZZZZZ APOST~~			
	✓	MBISPK		2	
		CCV7			Multiple failures - Noisy (Air bubble?)
		CCV8			↓
		CCV9			
		CCB6			Cu > -RL
		VS22 E	SWC	5	
		F		↓	
		G			
		H			
		I			
		J			
		K			
		L			
		CCV10			
		CCB7			Cu > -RL
		CRI			Cu < 50% (NR)
		ICSA			

Analytical Resources, Incorporated
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SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-27-12 Analyst: BA

LR Date: — Page: 4 of 5

All corrections made by analyst unless otherwise noted. BA 11/29/12

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		ICSAB			
		CCV11			
		CCB8			Cu > -RL
		VS22 MB1	SWC	2	
		B		5	
		C		↓	
		D		↓	
		A-L		25 ✓	
		A		5	
		ADUP		↓ ✓	
		ASPK		↓ ✓	Al Ca Fe Mn STL (CAF) Mg↑
		APOST		↓ ✓	0.08 mL ICP Spike 2977-9 Mg ΔK (112%)
		MB1SPK	↓	2	
		CCV12			
		CCB9			Cu > -RL
		CRI			Cu < 50% (NR)
		ICSA			
		ICSAB			
		CCV13			
		CCB10			Cu > -RL End VS22
		VR80 E	TWC		
	✓	VR82 F	SWC	2	
	✓	G	↓	↓	
	✓	H			

12/6/12

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-27-12 Analyst: BA

LR Date: — Page: 5 of 5

All corrections made by analyst unless otherwise noted. BA 11/29/12

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
	✓	VR82 I	SWC	2	
		CCV14			
		CCB11			Cu > -RL End Pkg
		Rinse/DI			
		BA 11/28/12			

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: (ICP) ICP-MS GFA CVA Analysis Date: 11-27-12

ICP-2	Analyst BA 11/28/12	Peer	Comment
Logbook:			
Analyst, Date, Method info	✓		
Sample ID's	✓		
Standard/QC solution ID's recorded	✓		
Prep codes	✓		
Dilution factors	✓		
Crossouts/Corrections/Deletions	✓		
Calibration:			
Blank & Standard intensities	✓		
Standard deviations	✓		
Curve fit	✓		
Calibration Verification:			
ICV/CCV	✓		See log
ICB/CCB	✓		↓
Samples:			
RSD's & SD's	✓		See log
Internal Standards	✓		↓
Carry-over	✓		
Method QC:			
CRI/CRA	✓		See log
ICSA/ICSAB	✓		
Post Spikes/Serial Dilutions	✓		See log
Analytic Spikes	—		
Matrix QC:			
SRM/LCS	✓		
Matrix Spikes	✓		See log
Matrix Duplicates	✓		↓
Method Blanks	✓		
Data Distribution:			
Requested elements/isotope identified	✓		
Correct samples identified for distribution	✓		
Raw data match distributed data	✓		
Data filename correct	✓		
Necessary Analysts Notes and CAF's	✓		CAF - VR58, VS22

Analysis Begun

Start Time: 11/27/2012 10:20:59 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/27/2012 8:08:35 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2121127
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: Calib Blank 1
Autosampler Location: 1
Date Collected: 11/27/2012 10:21:00 AM
Data Type: Original

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2210891.9	17020.28	0.77%	100.0	%
ScR 361.383	274661.2	3538.17	1.29%	100.0	%
Ag 328.068†	-132.5	30.87	23.29%	[0.00]	mg/L
Al 308.215†	191.6	6.20	3.24%	[0.00]	mg/L
As 188.979†	-14.7	0.79	5.36%	[0.00]	mg/L
B 249.677†	27.5	3.60	13.08%	[0.00]	mg/L
Ba 233.527†	27.7	1.73	6.24%	[0.00]	mg/L
Be 313.042†	753.3	15.10	2.00%	[0.00]	mg/L
Ca 317.933†	161.1	11.40	7.08%	[0.00]	mg/L
Cd 228.802†	261.7	1.17	0.45%	[0.00]	mg/L
Co 228.616†	-95.7	6.35	6.64%	[0.00]	mg/L
Cr 267.716†	-131.6	7.01	5.33%	[0.00]	mg/L
Cu 324.752†	2619.1	23.55	0.90%	[0.00]	mg/L
Fe 273.955†	23.7	1.15	4.83%	[0.00]	mg/L
K 766.490†	517.8	21.01	4.06%	[0.00]	mg/L
Mg 279.077†	80.2	5.41	6.75%	[0.00]	mg/L
Mn 257.610†	183.1	5.46	2.98%	[0.00]	mg/L
Mo 202.031†	77.1	2.73	3.54%	[0.00]	mg/L
Na 589.592†	-498.1	32.89	6.60%	[0.00]	mg/L
Na 330.237†	-221.8	2.87	1.30%	[0.00]	mg/L
Ni 231.604†	-19.0	1.35	7.10%	[0.00]	mg/L
Pb 220.353†	57.4	1.77	3.09%	[0.00]	mg/L
Sb 206.836†	82.0	1.13	1.38%	[0.00]	mg/L
Se 196.026†	-45.0	2.79	6.21%	[0.00]	mg/L
Si 288.158†	47.8	7.07	14.81%	[0.00]	mg/L
Sn 189.927†	-6.2	2.03	32.94%	[0.00]	mg/L
Sr 421.552†	351.6	38.50	10.95%	[0.00]	mg/L
Ti 334.903†	-52.7	14.43	27.37%	[0.00]	mg/L
Tl 190.801†	-51.2	4.63	9.04%	[0.00]	mg/L
V 292.402†	132.7	22.87	17.24%	[0.00]	mg/L
Zn 206.200†	14.4	1.60	11.11%	[0.00]	mg/L

Sequence No.: 2
Sample ID: STD2
Autosampler Location: 2
Date Collected: 11/27/2012 10:25:17 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: STD2

Analyte	Mean Corrected				Calib

Analyte	Intensity	Std.Dev.	RSD	Conc.	Units
ScA 357.253	2246476.5	28357.27	1.26%	101.6	%
ScR 361.383	274534.5	664.20	0.24%	99.95	%
Ba 233.527†	39545.6	100.19	0.25%	[10]	mg/L
Cd 228.802†	252089.3	4479.02	1.78%	[10]	mg/L
Co 228.616†	334931.3	6078.03	1.81%	[10]	mg/L
Cr 267.716†	55586.1	150.22	0.27%	[10]	mg/L
Cu 324.752†	2199891.5	38521.83	1.75%	[10]	mg/L
Mn 257.610†	327643.6	1337.81	0.41%	[10]	mg/L
V 292.402†	1059176.9	18674.52	1.76%	[10]	mg/L

User canceled analysis.

Analysis Begun

Start Time: 11/27/2012 10:26:59 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 11/27/2012 8:08:35 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2121127
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

---

Sequence No.: 3
Sample ID: STD3

Autosampler Location: 3
Date Collected: 11/27/2012 10:27:00 AM
Data Type: Original

Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Calib Units
ScA 357.253	2238718.3	40678.39	1.82%	101.3	%
ScR 361.383	267043.5	2768.26	1.04%	97.23	%
Ag 328.068†	148866.2	2938.08	1.97%	[1.0]	mg/L
As 188.979†	15575.8	403.92	2.59%	[10]	mg/L
B 249.677†	65443.9	543.47	0.83%	[10]	mg/L
Be 313.042†	2614069.4	15149.67	0.58%	[5.0]	mg/L
Na 589.592†	509275.5	4525.71	0.89%	[50]	mg/L
Ni 231.604†	37081.2	434.73	1.17%	[10]	mg/L
Pb 220.353†	71073.5	1916.74	2.70%	[10]	mg/L
Se 196.026†	12877.7	316.43	2.46%	[10]	mg/L
Sr 421.552†	3648309.3	29671.97	0.81%	[5]	mg/L
Tl 190.801†	21373.1	519.26	2.43%	[10]	mg/L
Zn 206.200†	34265.0	249.32	0.73%	[10]	mg/L

Sequence No.: 4
Sample ID: STD4

Autosampler Location: 4
Date Collected: 11/27/2012 10:29:17 AM
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Calib Units
ScA 357.253	2272399.2	16582.02	0.73%	102.8	%
ScR 361.383	290782.3	2493.68	0.86%	105.9	%
Mo 202.031†	173143.8	2584.66	1.49%	[10]	mg/L
Sb 206.836†	28344.1	396.62	1.40%	[10]	mg/L
Si 288.158†	16571.2	131.99	0.80%	[10]	mg/L
Sn 189.927†	32870.1	483.51	1.47%	[10]	mg/L

Ti 334.903†	165326.6	1707.31	1.03%	[10] mg/L

Sequence No.: 5
Sample ID: STD5

Autosampler Location: 5
Date Collected: 11/27/2012 10:31:32 AM
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2148512.6	23655.97	1.10%	97.18	%
ScR 361.383	280553.0	1497.02	0.53%	102.1	%
Al 308.215†	40696.6	258.90	0.64%	[30]	mg/L
Ca 317.933†	348837.8	4189.11	1.20%	[30]	mg/L
Fe 273.955†	117603.5	1565.01	1.33%	[100]	mg/L
K 766.490†	169616.5	1349.94	0.80%	[100]	mg/L
Mg 279.077†	34054.7	274.43	0.81%	[30]	mg/L
Na 330.237†	2437.9	21.76	0.89%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	148900	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1357	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1558	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	6544	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	3955	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	522800	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	11630	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	25210	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	33490	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	5559	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	220000	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1176	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1696	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1135	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	32760	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	17310	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	10190	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	24.38	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	3708	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	7107	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	2834	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1288	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	1657	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	3287	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	729700	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	16530	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	2137	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	105900	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	3426	0.00000	1.000000	

Analysis Begun

Start Time: 11/27/2012 10:34:36 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/27/2012 8:08:35 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2121127
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: ICV
Autosampler Location: 7
Date Collected: 11/27/2012 10:34:37 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2251366.5	101.8	%	0.66				0.65%
ScR 361.383	278076.9	101.2	%	0.91				0.90%
Ag 328.068†	156155.1	1.049	mg/L	0.0109	1.049	mg/L	0.0109	1.04%
Al 308.215†	2814.4	2.040	mg/L	0.0200	2.040	mg/L	0.0200	0.98%
As 188.979†	3151.9	2.050	mg/L	0.0127	2.050	mg/L	0.0127	0.62%
B 249.677†	6328.8	0.9662	mg/L	0.00589	0.9662	mg/L	0.00589	0.61%
Ba 233.527†	3967.6	1.003	mg/L	0.0068	1.003	mg/L	0.0068	0.67%
Be 313.042†	503953.3	0.9637	mg/L	0.00344	0.9637	mg/L	0.00344	0.36%
Ca 317.933†	23242.7	1.999	mg/L	0.0109	1.999	mg/L	0.0109	0.54%
Cd 228.802†	26095.2	1.022	mg/L	0.0095	1.022	mg/L	0.0095	0.93%
Co 228.616†	33602.5	1.001	mg/L	0.0104	1.001	mg/L	0.0104	1.04%
Cr 267.716†	5562.7	1.000	mg/L	0.0080	1.000	mg/L	0.0080	0.80%
Cu 324.752†	226700.7	1.030	mg/L	0.0111	1.030	mg/L	0.0111	1.07%
Fe 273.955†	2478.5	2.100	mg/L	0.0131	2.100	mg/L	0.0131	0.63%
K 766.490†	34298.2	20.22	mg/L	0.087	20.22	mg/L	0.087	0.43%
Mg 279.077†	2344.7	2.073	mg/L	0.0050	2.073	mg/L	0.0050	0.24%
Mn 257.610†	31586.7	0.9644	mg/L	0.00725	0.9644	mg/L	0.00725	0.75%
Mo 202.031†	17749.5	1.025	mg/L	0.0117	1.025	mg/L	0.0117	1.14%
Na 589.592†	498399.5	48.93	mg/L	0.096	48.93	mg/L	0.096	0.20%
Na 330.237†	1299.6	53.22	mg/L	0.224	53.22	mg/L	0.224	0.42%
Ni 231.604†	3593.7	0.9695	mg/L	0.00613	0.9695	mg/L	0.00613	0.63%
Pb 220.353†	14049.7	1.978	mg/L	0.0184	1.978	mg/L	0.0184	0.93%
Sb 206.836†	6182.9	2.181	mg/L	0.0127	2.181	mg/L	0.0127	0.58%
Se 196.026†	2576.7	2.000	mg/L	0.0133	2.000	mg/L	0.0133	0.67%
Si 288.158†	3671.0	2.214	mg/L	0.0196	2.214	mg/L	0.0196	0.88%
Sn 189.927†	3408.6	1.038	mg/L	0.0072	1.038	mg/L	0.0072	0.70%
Sr 421.552†	700900.0	0.9606	mg/L	0.00232	0.9606	mg/L	0.00232	0.24%
Ti 334.903†	17890.7	1.081	mg/L	0.0033	1.081	mg/L	0.0033	0.31%
Tl 190.801†	4325.3	2.015	mg/L	0.0139	2.015	mg/L	0.0139	0.69%
V 292.402†	107862.5	1.023	mg/L	0.0104	1.023	mg/L	0.0104	1.01%
Zn 206.200†	3437.2	1.003	mg/L	0.0052	1.003	mg/L	0.0052	0.52%

Sequence No.: 2
Sample ID: ICB

Autosampler Location: 1
Date Collected: 11/27/2012 10:38:39 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2260087.7	102.2	%	0.29				0.29%
ScR 361.383	278429.3	101.4	%	0.97				0.95%
Ag 328.068†	-23.6	-0.00016	mg/L	0.000045	-0.00016	mg/L	0.000045	28.21%
Al 308.215†	-2.8	-0.00210	mg/L	0.004889	-0.00210	mg/L	0.004889	233.25%
As 188.979†	0.1	0.00005	mg/L	0.001034	0.00005	mg/L	0.001034	>999.9%
B 249.677†	18.0	0.00276	mg/L	0.001526	0.00276	mg/L	0.001526	55.34%
Ba 233.527†	-1.0	-0.00025	mg/L	0.000341	-0.00025	mg/L	0.000341	138.72%
Be 313.042†	29.3	0.00006	mg/L	0.000003	0.00006	mg/L	0.000003	6.16%
Ca 317.933†	5.9	0.00050	mg/L	0.001287	0.00050	mg/L	0.001287	255.20%
Cd 228.802†	0.3	0.00001	mg/L	0.000287	0.00001	mg/L	0.000287	>999.9%
Co 228.616†	-1.5	-0.00004	mg/L	0.000078	-0.00004	mg/L	0.000078	175.38%
Cr 267.716†	5.2	0.00093	mg/L	0.001380	0.00093	mg/L	0.001380	148.74%
Cu 324.752†	-23.9	-0.00011	mg/L	0.000030	-0.00011	mg/L	0.000030	27.91%
Fe 273.955†	0.9	0.00077	mg/L	0.003219	0.00077	mg/L	0.003219	419.45%
K 766.490†	-32.9	-0.01938	mg/L	0.007108	-0.01938	mg/L	0.007108	36.67%
Mg 279.077†	-1.2	-0.00109	mg/L	0.002102	-0.00109	mg/L	0.002102	192.69%
Mn 257.610†	7.1	0.00022	mg/L	0.000113	0.00022	mg/L	0.000113	52.14%
Mo 202.031†	28.8	0.00166	mg/L	0.000119	0.00166	mg/L	0.000119	7.13%
Na 589.592†	80.6	0.00791	mg/L	0.003963	0.00791	mg/L	0.003963	50.10%
Na 330.237†	0.3	0.01009	mg/L	0.359633	0.01009	mg/L	0.359633	>999.9%
Ni 231.604†	2.2	0.00059	mg/L	0.000778	0.00059	mg/L	0.000778	132.77%
Pb 220.353†	4.7	0.00067	mg/L	0.000916	0.00067	mg/L	0.000916	136.92%
Sb 206.836†	5.7	0.00201	mg/L	0.000506	0.00201	mg/L	0.000506	25.25%
Se 196.026†	-6.2	-0.00481	mg/L	0.002926	-0.00481	mg/L	0.002926	60.83%
Si 288.158†	0.1	0.00006	mg/L	0.001105	0.00006	mg/L	0.001105	>999.9%
Sn 189.927†	7.4	0.00226	mg/L	0.000268	0.00226	mg/L	0.000268	11.88%
Sr 421.552†	79.8	0.00011	mg/L	0.000028	0.00011	mg/L	0.000028	25.77%
Ti 334.903†	4.2	0.00025	mg/L	0.000642	0.00025	mg/L	0.000642	252.12%
Tl 190.801†	8.2	0.00382	mg/L	0.001099	0.00382	mg/L	0.001099	28.77%
V 292.402†	11.2	0.00011	mg/L	0.000075	0.00011	mg/L	0.000075	68.56%
Zn 206.200†	2.9	0.00085	mg/L	0.000538	0.00085	mg/L	0.000538	63.15%

Sequence No.: 3
Sample ID: CRI

Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 11/27/2012 10:42:54 AM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2289037.1	103.5	%	0.50				0.48%
ScR 361.383	280700.7	102.2	%	0.14				0.14%
Ag 328.068†	438.4	0.00295	mg/L	0.000082	0.00295	mg/L	0.000082	2.78%
Al 308.215†	68.7	0.05049	mg/L	0.004149	0.05049	mg/L	0.004149	8.22%
As 188.979†	76.8	0.04942	mg/L	0.001997	0.04942	mg/L	0.001997	4.04%
B 249.677†	142.7	0.02180	mg/L	0.000396	0.02180	mg/L	0.000396	1.81%
Ba 233.527†	13.2	0.00333	mg/L	0.000749	0.00333	mg/L	0.000749	22.51%
Be 313.042†	479.2	0.00092	mg/L	0.000055	0.00092	mg/L	0.000055	6.06%
Ca 317.933†	577.4	0.04966	mg/L	0.001477	0.04966	mg/L	0.001477	2.97%
Cd 228.802†	56.5	0.00192	mg/L	0.000036	0.00192	mg/L	0.000036	1.89%
Co 228.616†	110.1	0.00328	mg/L	0.000114	0.00328	mg/L	0.000114	3.48%
Cr 267.716†	29.3	0.00526	mg/L	0.001262	0.00526	mg/L	0.001262	23.97%
Cu 324.752†	358.4	0.00163	mg/L	0.000130	0.00163	mg/L	0.000130	8.00%
Fe 273.955†	61.1	0.05190	mg/L	0.003619	0.05190	mg/L	0.003619	6.97%
K 766.490†	848.3	0.5001	mg/L	0.00475	0.5001	mg/L	0.00475	0.95%
Mg 279.077†	58.2	0.05127	mg/L	0.004770	0.05127	mg/L	0.004770	9.30%
Mn 257.610†	39.5	0.00121	mg/L	0.000059	0.00121	mg/L	0.000059	4.89%
Mo 202.031†	90.9	0.00525	mg/L	0.000413	0.00525	mg/L	0.000413	7.86%
Na 589.592†	4742.8	0.4656	mg/L	0.00136	0.4656	mg/L	0.00136	0.29%
Na 330.237†	16.9	0.6928	mg/L	0.28545	0.6928	mg/L	0.28545	41.20%
Ni 231.604†	41.2	0.01113	mg/L	0.001367	0.01113	mg/L	0.001367	12.28%
Pb 220.353†	146.6	0.02065	mg/L	0.000501	0.02065	mg/L	0.000501	2.43%
Sb 206.836†	149.0	0.05260	mg/L	0.003256	0.05260	mg/L	0.003256	6.19%
Se 196.026†	58.4	0.04534	mg/L	0.000766	0.04534	mg/L	0.000766	1.69%
Si 288.158†	117.2	0.07070	mg/L	0.002833	0.07070	mg/L	0.002833	4.01%
Sn 189.927†	31.7	0.00967	mg/L	0.001261	0.00967	mg/L	0.001261	13.04%
Sr 421.552†	732.8	0.00100	mg/L	0.000041	0.00100	mg/L	0.000041	4.10%
Ti 334.903†	64.9	0.00392	mg/L	0.000668	0.00392	mg/L	0.000668	17.05%
Tl 190.801†	106.5	0.04983	mg/L	0.000736	0.04983	mg/L	0.000736	1.48%
V 292.402†	317.3	0.00302	mg/L	0.000053	0.00302	mg/L	0.000053	1.77%
Zn 206.200†	33.6	0.00982	mg/L	0.000977	0.00982	mg/L	0.000977	9.95%

Sequence No.: 4
Sample ID: ICSA

Autosampler Location: 302
Date Collected: 11/27/2012 10:47:10 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2214904.4	100.2	%	0.19				0.18%
ScR 361.383	268393.2	97.72	%	0.520				0.53%
Ag 328.068†	-176.6	-0.00118	mg/L	0.000448	-0.00118	mg/L	0.000448	37.85%
Al 308.215†	283234.5	208.8	mg/L	0.63	208.8	mg/L	0.63	0.30%
As 188.979†	32.8	0.01508	mg/L	0.001863	0.01508	mg/L	0.001863	12.35%
B 249.677†	-30.9	-0.00472	mg/L	0.001002	-0.00472	mg/L	0.001002	21.21%
Ba 233.527†	118.5	-0.00386	mg/L	0.000588	-0.00386	mg/L	0.000588	15.25%
Be 313.042†	77.1	0.00015	mg/L	0.000025	0.00015	mg/L	0.000025	17.05%
Ca 317.933†	1222697.5	105.2	mg/L	0.92	105.2	mg/L	0.92	0.87%
Cd 228.802†	58.2	0.00020	mg/L	0.000084	0.00020	mg/L	0.000084	41.58%
Co 228.616†	61.1	-0.00088	mg/L	0.000025	-0.00088	mg/L	0.000025	2.81%
Cr 267.716†	8.6	-0.00073	mg/L	0.000487	-0.00073	mg/L	0.000487	67.01%
Cu 324.752†	-1843.8	-0.00017	mg/L	0.000124	-0.00017	mg/L	0.000124	73.64%
Fe 273.955†	242977.5	206.6	mg/L	1.82	206.6	mg/L	1.82	0.88%
K 766.490†	32.3	0.01907	mg/L	0.031428	0.01907	mg/L	0.031428	164.79%
Mg 279.077†	123891.1	109.0	mg/L	0.72	109.0	mg/L	0.72	0.66%
Mn 257.610†	48.7	0.00146	mg/L	0.000289	0.00146	mg/L	0.000289	19.82%
Mo 202.031†	74.9	0.00319	mg/L	0.000617	0.00319	mg/L	0.000617	19.35%
Na 589.592†	122.4	0.01202	mg/L	0.003519	0.01202	mg/L	0.003519	29.28%
Na 330.237†	-10.7	-0.4405	mg/L	0.18901	-0.4405	mg/L	0.18901	42.91%
Ni 231.604†	0.9	0.00026	mg/L	0.001575	0.00026	mg/L	0.001575	611.57%
Pb 220.353†	-299.6	-0.00069	mg/L	0.000569	-0.00069	mg/L	0.000569	82.42%
Sb 206.836†	37.8	0.01315	mg/L	0.001968	0.01315	mg/L	0.001968	14.97%
Se 196.026†	5.9	0.00456	mg/L	0.004295	0.00456	mg/L	0.004295	94.17%
Si 288.158†	-22.3	-0.00024	mg/L	0.008616	-0.00024	mg/L	0.008616	>999.9%
Sn 189.927†	-71.0	-0.00859	mg/L	0.000628	-0.00859	mg/L	0.000628	7.31%
Sr 421.552†	2985.3	0.00409	mg/L	Cont. 0.000036	0.00409	mg/L	0.000036	0.89%
Ti 334.903†	100.8	0.00107	mg/L	0.000363	0.00107	mg/L	0.000363	33.84%
Tl 190.801†	-40.1	0.00328	mg/L	0.005340	0.00328	mg/L	0.005340	162.88%
V 292.402†	1165.7	0.00379	mg/L	0.000377	0.00379	mg/L	0.000377	9.94%
Zn 206.200†	10.2	0.00299	mg/L	0.000509	0.00299	mg/L	0.000509	17.03%

Sequence No.: 5
Sample ID: ICSAB

Autosampler Location: 303
Date Collected: 11/27/2012 10:51:26 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2269187.4	102.6	%	0.27				0.26%
ScR 361.383	277546.2	101.1	%	0.36				0.35%
Ag 328.068†	150158.8	1.009	mg/L	0.0034	1.009	mg/L	0.0034	0.34%
Al 308.215†	273761.0	201.8	mg/L	0.47	201.8	mg/L	0.47	0.23%
As 188.979†	1589.0	1.014	mg/L	0.0029	1.014	mg/L	0.0029	0.29%
B 249.677†	-5.7	-0.00286	mg/L	0.000300	-0.00286	mg/L	0.000300	10.48%
Ba 233.527†	4102.8	1.004	mg/L	0.0032	1.004	mg/L	0.0032	0.32%
Be 313.042†	508207.6	0.9719	mg/L	0.00434	0.9719	mg/L	0.00434	0.45%
Ca 317.933†	1203152.6	103.5	mg/L	0.19	103.5	mg/L	0.19	0.19%
Cd 228.802†	25409.9	1.000	mg/L	0.0042	1.000	mg/L	0.0042	0.42%
Co 228.616†	32523.8	0.9682	mg/L	0.00300	0.9682	mg/L	0.00300	0.31%
Cr 267.716†	5619.5	1.009	mg/L	0.0042	1.009	mg/L	0.0042	0.41%
Cu 324.752†	218552.4	1.002	mg/L	0.0021	1.002	mg/L	0.0021	0.21%
Fe 273.955†	238691.7	203.0	mg/L	0.47	203.0	mg/L	0.47	0.23%
K 766.490†	-81.4	-0.04800	mg/L	0.029065	-0.04800	mg/L	0.029065	60.56%
Mg 279.077†	116315.8	102.4	mg/L	0.17	102.4	mg/L	0.17	0.17%
Mn 257.610†	31435.4	0.9596	mg/L	0.00375	0.9596	mg/L	0.00375	0.39%
Mo 202.031†	69.0	0.00281	mg/L	0.000217	0.00281	mg/L	0.000217	7.70%
Na 589.592†	235.6	0.02314	mg/L	0.000818	0.02314	mg/L	0.000818	3.53%
Na 330.237†	8.7	0.04351	mg/L	0.064991	0.04351	mg/L	0.064991	149.36%
Ni 231.604†	3532.5	0.9528	mg/L	0.00296	0.9528	mg/L	0.00296	0.31%
Pb 220.353†	6577.3	0.9660	mg/L	0.00204	0.9660	mg/L	0.00204	0.21%
Sb 206.836†	2948.4	1.029	mg/L	0.0028	1.029	mg/L	0.0028	0.28%
Se 196.026†	1276.5	0.9903	mg/L	0.00398	0.9903	mg/L	0.00398	0.40%
Si 288.158†	-29.5	-0.00180	mg/L	0.000598	-0.00180	mg/L	0.000598	33.24%
Sn 189.927†	-70.0	-0.00800	mg/L	0.000557	-0.00800	mg/L	0.000557	6.96%
Sr 421.552†	2868.5	0.00393	mg/L	Cont. 0.000032	0.00393	mg/L	0.000032	0.81%
Ti 334.903†	96.9	0.00072	mg/L	0.000352	0.00072	mg/L	0.000352	48.87%
Tl 190.801†	1976.5	0.9373	mg/L	0.00340	0.9373	mg/L	0.00340	0.36%
V 292.402†	102131.1	0.9616	mg/L	0.00212	0.9616	mg/L	0.00212	0.22%
Zn 206.200†	3269.1	0.9540	mg/L	0.00501	0.9540	mg/L	0.00501	0.53%

Sequence No.: 6
Sample ID: CV

Autosampler Location: 7
Date Collected: 11/27/2012 10:56:17 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2299680.7	104.0	%	2.52				2.43%
ScR 361.383	274908.6	100.1	%	1.61				1.61%
Ag 328.068†	154294.9	1.037	mg/L	0.0226	1.037	mg/L	0.0226	2.18%
Al 308.215†	2925.6	2.122	mg/L	0.0377	2.122	mg/L	0.0377	1.78%
As 188.979†	3132.4	2.039	mg/L	0.0594	2.039	mg/L	0.0594	2.91%
B 249.677†	6483.3	0.9898	mg/L	0.01467	0.9898	mg/L	0.01467	1.48%
Ba 233.527†	4110.6	1.039	mg/L	0.0176	1.039	mg/L	0.0176	1.70%
Be 313.042†	522277.0	0.9988	mg/L	0.01938	0.9988	mg/L	0.01938	1.94%
Ca 317.933†	24220.0	2.083	mg/L	0.0377	2.083	mg/L	0.0377	1.81%
Cd 228.802†	26005.5	1.019	mg/L	0.0241	1.019	mg/L	0.0241	2.37%
Co 228.616†	33573.2	1.000	mg/L	0.0228	1.000	mg/L	0.0228	2.28%
Cr 267.716†	5749.8	1.034	mg/L	0.0128	1.034	mg/L	0.0128	1.24%
Cu 324.752†	223344.3	1.015	mg/L	0.0229	1.015	mg/L	0.0229	2.26%
Fe 273.955†	2568.7	2.177	mg/L	0.0325	2.177	mg/L	0.0325	1.49%
K 766.490†	35314.0	20.82	mg/L	0.391	20.82	mg/L	0.391	1.88%
Mg 279.077†	2443.7	2.160	mg/L	0.0310	2.160	mg/L	0.0310	1.44%
Mn 257.610†	32650.2	0.9969	mg/L	0.01635	0.9969	mg/L	0.01635	1.64%
Mo 202.031†	17636.2	1.019	mg/L	0.0240	1.019	mg/L	0.0240	2.36%
Na 589.592†	510641.7	50.13	mg/L	0.895	50.13	mg/L	0.895	1.79%
Na 330.237†	1324.3	54.23	mg/L	0.722	54.23	mg/L	0.722	1.33%
Ni 231.604†	3725.2	1.005	mg/L	0.0141	1.005	mg/L	0.0141	1.40%
Pb 220.353†	14089.9	1.984	mg/L	0.0446	1.984	mg/L	0.0446	2.25%
Sb 206.836†	6120.5	2.159	mg/L	0.0594	2.159	mg/L	0.0594	2.75%
Se 196.026†	2556.7	1.984	mg/L	0.0581	1.984	mg/L	0.0581	2.93%
Si 288.158†	3778.6	2.279	mg/L	0.0308	2.279	mg/L	0.0308	1.35%
Sn 189.927†	3391.4	1.033	mg/L	0.0297	1.033	mg/L	0.0297	2.87%
Sr 421.552†	719851.4	0.9866	mg/L	0.01731	0.9866	mg/L	0.01731	1.75%
Ti 334.903†	18421.3	1.113	mg/L	0.0205	1.113	mg/L	0.0205	1.84%
Tl 190.801†	4292.0	2.000	mg/L	0.0530	2.000	mg/L	0.0530	2.65%
V 292.402†	106991.1	1.015	mg/L	0.0230	1.015	mg/L	0.0230	2.26%
Zn 206.200†	3580.3	1.045	mg/L	0.0170	1.045	mg/L	0.0170	1.63%

Sequence No.: 7
Sample ID: CB

Autosampler Location: 1
Date Collected: 11/27/2012 11:01:22 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2270615.9	102.7	%	1.51				1.47%
ScR 361.383	284073.7	103.4	%	1.38				1.33%
Ag 328.068†	-16.4	-0.00011	mg/L	0.000043	-0.00011	mg/L	0.000043	38.82%
Al 308.215†	-10.8	-0.00795	mg/L	0.007651	-0.00795	mg/L	0.007651	96.18%
As 188.979†	1.0	0.00065	mg/L	0.000646	0.00065	mg/L	0.000646	99.68%
B 249.677†	9.1	0.00139	mg/L	0.000498	0.00139	mg/L	0.000498	35.91%
Ba 233.527†	0.1	0.00002	mg/L	0.000425	0.00002	mg/L	0.000425	>999.9%
Be 313.042†	8.3	0.00002	mg/L	0.000038	0.00002	mg/L	0.000038	239.25%
Ca 317.933†	18.6	0.00160	mg/L	0.001037	0.00160	mg/L	0.001037	64.70%
Cd 228.802†	-1.6	-0.00007	mg/L	0.000171	-0.00007	mg/L	0.000171	257.94%
Co 228.616†	-0.3	-0.00001	mg/L	0.000083	-0.00001	mg/L	0.000083	>999.9%
Cr 267.716†	3.2	0.00058	mg/L	0.000250	0.00058	mg/L	0.000250	42.87%
Cu 324.752†	-80.7	-0.00037	mg/L	0.000220	-0.00037	mg/L	0.000220	60.08%
Fe 273.955†	-0.7	-0.00056	mg/L	0.002616	-0.00056	mg/L	0.002616	468.71%
K 766.490†	-40.0	-0.02358	mg/L	0.020779	-0.02358	mg/L	0.020779	88.14%
Mg 279.077†	-0.6	-0.00055	mg/L	0.010402	-0.00055	mg/L	0.010402	>999.9%
Mn 257.610†	-0.1	-0.00000	mg/L	0.000041	-0.00000	mg/L	0.000041	>999.9%
Mo 202.031†	18.2	0.00105	mg/L	0.000217	0.00105	mg/L	0.000217	20.66%
Na 589.592†	69.5	0.00682	mg/L	0.002485	0.00682	mg/L	0.002485	36.42%
Na 330.237†	-0.4	-0.01557	mg/L	0.568685	-0.01557	mg/L	0.568685	>999.9%
Ni 231.604†	0.5	0.00014	mg/L	0.000763	0.00014	mg/L	0.000763	536.13%
Pb 220.353†	4.6	0.00064	mg/L	0.000253	0.00064	mg/L	0.000253	39.37%
Sb 206.836†	5.3	0.00187	mg/L	0.002013	0.00187	mg/L	0.002013	107.60%
Se 196.026†	-5.2	-0.00400	mg/L	0.002013	-0.00400	mg/L	0.002013	50.33%
Si 288.158†	-0.1	-0.00007	mg/L	0.002735	-0.00007	mg/L	0.002735	>999.9%
Sn 189.927†	0.7	0.00020	mg/L	0.000488	0.00020	mg/L	0.000488	244.60%
Sr 421.552†	70.8	0.00010	mg/L	0.000041	0.00010	mg/L	0.000041	42.23%
Ti 334.903†	-8.0	-0.00049	mg/L	0.000596	-0.00049	mg/L	0.000596	122.37%
Tl 190.801†	5.6	0.00261	mg/L	0.000936	0.00261	mg/L	0.000936	35.86%
V 292.402†	10.3	0.00010	mg/L	0.000175	0.00010	mg/L	0.000175	173.67%
Zn 206.200†	-0.9	-0.00026	mg/L	0.000186	-0.00026	mg/L	0.000186	72.22%

Analysis Begun

Start Time: 11/27/2012 11:08:14 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/27/2012 8:08:35 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1127.sif
Batch ID:
Results Data Set: I2121127
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: VR58 MB1 SWC
Autosampler Location: 304
Date Collected: 11/27/2012 11:08:15 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR58 MB1 SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR58 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2364572.2	107.0	%	0.25				0.24%
ScR 361.383	291062.4	106.0	%	0.46				0.44%
Ag 328.068†	-13.1	-0.00009	mg/L	0.000425	-0.00018	mg/L	0.000850	483.10%
Al 308.215†	4.7	0.00346	mg/L	0.002560	0.00691	mg/L	0.005120	74.04%
As 188.979†	1.8	0.00118	mg/L	0.001372	0.00237	mg/L	0.002744	115.82%
B 249.677†	-1.1	-0.00017	mg/L	0.000605	-0.00034	mg/L	0.001210	356.54%
Ba 233.527†	-2.4	-0.00061	mg/L	0.000422	-0.00122	mg/L	0.000843	69.08%
Be 313.042†	-25.7	-0.00005	mg/L	0.000026	-0.00010	mg/L	0.000053	53.82%
Ca 317.933†	148.5	0.01277	mg/L	0.000822	0.02555	mg/L	0.001645	6.44%
Cd 228.802†	-2.5	-0.00011	mg/L	0.000177	-0.00021	mg/L	0.000354	166.52%
Co 228.616†	12.6	0.00038	mg/L	0.000062	0.00075	mg/L	0.000124	16.53%
Cr 267.716†	8.3	0.00149	mg/L	0.000626	0.00298	mg/L	0.001252	42.03%
Cu 324.752†	-152.1	-0.00069	mg/L	0.000050	-0.00138	mg/L	0.000100	7.23%
Fe 273.955†	13.1	0.01116	mg/L	0.000956	0.02231	mg/L	0.001912	8.57%
K 766.490†	-25.7	-0.01513	mg/L	0.004231	-0.03027	mg/L	0.008463	27.96%
Mg 279.077†	2.2	0.00193	mg/L	0.004171	0.00387	mg/L	0.008342	215.63%
Mn 257.610†	-1.0	-0.00003	mg/L	0.000101	-0.00006	mg/L	0.000202	320.30%
Mo 202.031†	-2.2	-0.00013	mg/L	0.000162	-0.00026	mg/L	0.000323	126.37%
Na 589.592†	-0.5	-0.00005	mg/L	0.004882	-0.00009	mg/L	0.009765	>999.9%
Na 330.237†	-3.4	-0.1388	mg/L	0.35783	-0.2777	mg/L	0.71567	257.75%
Ni 231.604†	6.0	0.00161	mg/L	0.001505	0.00321	mg/L	0.003010	93.66%
Pb 220.353†	0.9	0.00013	mg/L	0.000207	0.00026	mg/L	0.000413	158.16%
Sb 206.836†	-3.4	-0.00122	mg/L	0.001137	-0.00244	mg/L	0.002273	93.08%
Se 196.026†	-5.5	-0.00426	mg/L	0.001809	-0.00851	mg/L	0.003619	42.52%
Si 288.158†	4.1	0.00246	mg/L	0.004676	0.00492	mg/L	0.009351	189.99%
Sn 189.927†	-1.1	-0.00034	mg/L	0.001056	-0.00068	mg/L	0.002111	310.32%
Sr 421.552†	43.1	0.00006	mg/L	0.000041	0.00012	mg/L	0.000082	69.17%
Ti 334.903†	0.1	0.00001	mg/L	0.001690	0.00002	mg/L	0.003379	>999.9%
Tl 190.801†	8.6	0.00403	mg/L	0.001718	0.00805	mg/L	0.003436	42.67%
V 292.402†	-9.1	-0.00008	mg/L	0.000061	-0.00016	mg/L	0.000122	76.14%
Zn 206.200†	11.0	0.00321	mg/L	0.000473	0.00642	mg/L	0.000947	14.75%

Sequence No.: 2
Sample ID: VR58 B SWC

Autosampler Location: 305
Date Collected: 11/27/2012 11:12:31 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR58 B SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR58 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2371794.2	107.3	%	1.59				1.48%
ScR 361.383	292162.9	106.4	%	0.17				0.16%
Ag 328.068†	-33.2	-0.00020	mg/L	0.000348	-0.00039	mg/L	0.000697	177.82%
Al 308.215†	38501.1	28.38	mg/L	0.232	56.75	mg/L	0.463	0.82%
As 188.979†	-41.0	0.02805	mg/L	0.001322	0.05610	mg/L	0.002644	4.71%
B 249.677†	69.6	0.01059	mg/L	0.001002	0.02118	mg/L	0.002004	9.46%
Ba 233.527†	1087.0	0.2653	mg/L	0.00189	0.5307	mg/L	0.00377	0.71%
Be 313.042†	261.0	0.00046	mg/L	0.000016	0.00091	mg/L	0.000032	3.52%
Ca 317.933†	163912.2	14.10	mg/L	0.142	28.19	mg/L	0.284	1.01%
Cd 228.802†	44.8	0.00147	mg/L	0.000098	0.00294	mg/L	0.000195	6.65%
Co 228.616†	792.8	0.01914	mg/L	0.000319	0.03829	mg/L	0.000638	1.67%
Cr 267.716†	473.7	0.08632	mg/L	0.000353	0.1726	mg/L	0.00071	0.41%
Cu 324.752†	35045.3	0.1614	mg/L	0.00345	0.3228	mg/L	0.00689	2.14%
Fe 273.955†	68343.6	58.11	mg/L	0.498	116.2	mg/L	1.00	0.86%
K 766.490†	2703.6	1.594	mg/L	0.0141	3.188	mg/L	0.0282	0.89%
Mg 279.077†	10661.1	9.361	mg/L	0.0023	18.72	mg/L	0.005	0.02%
Mn 257.610†	65923.7	2.012	mg/L	0.0151	4.025	mg/L	0.0303	0.75%
Mo 202.031†	37.9	0.00203	mg/L	0.000192	0.00406	mg/L	0.000385	9.47%
Na 589.592†	7262.5	0.7130	mg/L	0.00281	1.426	mg/L	0.0056	0.39%
Na 330.237†	21.2	1.104	mg/L	0.0892	2.209	mg/L	0.1784	8.08%
Ni 231.604†	289.4	0.07804	mg/L	0.001013	0.1561	mg/L	0.00203	1.30%
Pb 220.353†	556.1	0.08258	mg/L	0.002012	0.1652	mg/L	0.00402	2.44%
Sb 206.836†	7.4	0.00256	mg/L	0.000887	0.00513	mg/L	0.001775	34.63%
Se 196.026†	-4.0	-0.00316	mg/L	0.001921	-0.00632	mg/L	0.003841	60.80%
Si 288.158†	6866.3	4.145	mg/L	0.0035	8.289	mg/L	0.0070	0.08%
Sn 189.927†	-8.8	-0.00064	mg/L	0.001249	-0.00128	mg/L	0.002498	195.93%
Sr 421.552†	60774.8	0.08329	mg/L	0.000553	0.1666	mg/L	0.00111	0.66%
Ti 334.903†	31959.5	1.932	mg/L	0.0159	3.865	mg/L	0.0318	0.82%
Tl 190.801†	-1.4	0.00507	mg/L	0.001605	0.01014	mg/L	0.003211	31.65%
V 292.402†	9904.3	0.09106	mg/L	0.002079	0.1821	mg/L	0.00416	2.28%
Zn 206.200†	2140.6	0.6247	mg/L	0.00276	1.249	mg/L	0.0055	0.44%

Sequence No.: 3
Sample ID: VR58 C SWC

Autosampler Location: 306
Date Collected: 11/27/2012 11:16:30 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR58 C SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR58 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2336500.1	105.7	%	1.23				1.17%
ScR 361.383	290898.9	105.9	%	1.38				1.30%
Ag 328.068†	-47.0	-0.00028	mg/L	0.000240	-0.00055	mg/L	0.000480	87.12%
Al 308.215†	56814.9	41.87	mg/L	0.211	83.75	mg/L	0.422	0.50%
As 188.979†	-105.9	0.02234	mg/L	0.002643	0.04467	mg/L	0.005286	11.83%
B 249.677†	74.5	0.01132	mg/L	0.000637	0.02264	mg/L	0.001274	5.63%
Ba 233.527†	1371.3	0.3367	mg/L	0.00344	0.6735	mg/L	0.00687	1.02%
Be 313.042†	345.8	0.00060	mg/L	0.000053	0.00119	mg/L	0.000107	8.99%
Ca 317.933†	210849.0	18.13	mg/L	0.062	36.27	mg/L	0.124	0.34%
Cd 228.802†	50.6	0.00198	mg/L	0.000190	0.00395	mg/L	0.000379	9.60%
Co 228.616†	1128.0	0.02666	mg/L	0.000527	0.05331	mg/L	0.001053	1.98%
Cr 267.716†	668.7	0.1210	mg/L	0.00125	0.2420	mg/L	0.00251	1.04%
Cu 324.752†	28657.3	0.1322	mg/L	0.00231	0.2644	mg/L	0.00462	1.75%
Fe 273.955†	71690.7	60.96	mg/L	0.259	121.9	mg/L	0.52	0.43%
K 766.490†	3803.7	2.243	mg/L	0.0261	4.485	mg/L	0.0522	1.16%
Mg 279.077†	17300.8	15.21	mg/L	0.119	30.42	mg/L	0.238	0.78%
Mn 257.610†	53082.1	1.620	mg/L	0.0058	3.241	mg/L	0.0117	0.36%
Mo 202.031†	46.2	0.00247	mg/L	0.000094	0.00494	mg/L	0.000189	3.82%
Na 589.592†	11372.0	1.116	mg/L	0.0019	2.233	mg/L	0.0037	0.17%
Na 330.237†	25.3	1.595	mg/L	0.1317	3.190	mg/L	0.2634	8.26%
Ni 231.604†	418.4	0.1128	mg/L	0.00263	0.2257	mg/L	0.00526	2.33%
Pb 220.353†	478.2	0.07484	mg/L	0.001191	0.1497	mg/L	0.00238	1.59%
Sb 206.836†	4.2	0.00165	mg/L	0.001646	0.00330	mg/L	0.003292	99.76%
Se 196.026†	-2.3	-0.00187	mg/L	0.004824	-0.00375	mg/L	0.009649	257.46%
Si 288.158†	8807.6	5.317	mg/L	0.0442	10.63	mg/L	0.088	0.83%
Sn 189.927†	-15.7	-0.00208	mg/L	0.001348	-0.00416	mg/L	0.002696	64.86%
Sr 421.552†	81164.1	0.1112	mg/L	0.00053	0.2225	mg/L	0.00107	0.48%
Ti 334.903†	52886.3	3.198	mg/L	0.0107	6.396	mg/L	0.0215	0.34%
Tl 190.801†	0.2	0.00592	mg/L	0.002003	0.01183	mg/L	0.004005	33.85%
V 292.402†	14679.7	0.1354	mg/L	0.00202	0.2709	mg/L	0.00403	1.49%
Zn 206.200†	1766.1	0.5154	mg/L	0.00517	1.031	mg/L	0.0103	1.00%

Sequence No.: 4
Sample ID: VR58 D SWC

Autosampler Location: 307
Date Collected: 11/27/2012 11:20:29 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR58 D SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR58 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2326400.3	105.2	%	0.35				0.33%
ScR 361.383	288893.9	105.2	%	0.37				0.35%
Ag 328.068†	-32.3	-0.00018	mg/L	0.000112	-0.00036	mg/L	0.000223	61.79%
Al 308.215†	56902.7	41.94	mg/L	0.046	83.88	mg/L	0.093	0.11%
As 188.979†	-83.7	0.01768	mg/L	0.002546	0.03537	mg/L	0.005093	14.40%
B 249.677†	65.5	0.00995	mg/L	0.000634	0.01991	mg/L	0.001267	6.36%
Ba 233.527†	1267.1	0.3094	mg/L	0.00347	0.6188	mg/L	0.00693	1.12%
Be 313.042†	350.4	0.00061	mg/L	0.000046	0.00123	mg/L	0.000091	7.41%
Ca 317.933†	165971.2	14.27	mg/L	0.091	28.55	mg/L	0.182	0.64%
Cd 228.802†	53.4	0.00193	mg/L	0.000157	0.00385	mg/L	0.000314	8.15%
Co 228.616†	985.8	0.02363	mg/L	0.000079	0.04727	mg/L	0.000159	0.34%
Cr 267.716†	651.6	0.1183	mg/L	0.00098	0.2365	mg/L	0.00195	0.83%
Cu 324.752†	29430.9	0.1361	mg/L	0.00048	0.2722	mg/L	0.00096	0.35%
Fe 273.955†	78694.5	66.91	mg/L	0.417	133.8	mg/L	0.83	0.62%
K 766.490†	3831.3	2.259	mg/L	0.0194	4.518	mg/L	0.0389	0.86%
Mg 279.077†	16380.7	14.39	mg/L	0.119	28.79	mg/L	0.237	0.82%
Mn 257.610†	60876.8	1.858	mg/L	0.0104	3.716	mg/L	0.0207	0.56%
Mo 202.031†	41.0	0.00221	mg/L	0.000177	0.00441	mg/L	0.000354	8.02%
Na 589.592†	8490.6	0.8336	mg/L	0.00831	1.667	mg/L	0.0166	1.00%
Na 330.237†	13.8	0.9952	mg/L	0.17083	1.990	mg/L	0.3417	17.16%
Ni 231.604†	372.0	0.1003	mg/L	0.00161	0.2007	mg/L	0.00322	1.60%
Pb 220.353†	440.0	0.06922	mg/L	0.000961	0.1384	mg/L	0.00192	1.39%
Sb 206.836†	7.1	0.00237	mg/L	0.001049	0.00474	mg/L	0.002099	44.24%
Se 196.026†	-0.2	-0.00024	mg/L	0.002060	-0.00047	mg/L	0.004120	873.17%
Si 288.158†	11161.2	6.737	mg/L	0.0427	13.47	mg/L	0.085	0.63%
Sn 189.927†	-12.0	-0.00151	mg/L	0.000782	-0.00301	mg/L	0.001564	51.97%
Sr 421.552†	68501.4	0.09388	mg/L	0.000244	0.1878	mg/L	0.00049	0.26%
Ti 334.903†	41812.9	2.528	mg/L	0.0094	5.057	mg/L	0.0189	0.37%
Tl 190.801†	-11.4	0.00119	mg/L	0.003981	0.00239	mg/L	0.007962	333.26%
V 292.402†	13332.1	0.1229	mg/L	0.00024	0.2458	mg/L	0.00048	0.20%
Zn 206.200†	1541.3	0.4498	mg/L	0.00325	0.8996	mg/L	0.00650	0.72%

Sequence No.: 5
Sample ID: VR58 E SWC

Autosampler Location: 308
Date Collected: 11/27/2012 11:24:28 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR58 E SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR58 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2306648.5	104.3	%	0.61				0.59%
ScR 361.383	290390.1	105.7	%	3.66				3.46%
Ag 328.068†	-28.3	-0.00015	mg/L	0.000213	-0.00030	mg/L	0.000425	139.53%
Al 308.215†	59497.2	43.85	mg/L	1.801	87.70	mg/L	3.601	4.11%
As 188.979†	-89.5	0.01882	mg/L	0.002622	0.03764	mg/L	0.005244	13.93%
B 249.677†	81.9	0.01245	mg/L	0.001137	0.02490	mg/L	0.002274	9.13%
Ba 233.527†	1303.9	0.3186	mg/L	0.01137	0.6373	mg/L	0.02273	3.57%
Be 313.042†	362.2	0.00063	mg/L	0.000098	0.00127	mg/L	0.000196	15.48%
Ca 317.933†	173666.6	14.94	mg/L	0.577	29.87	mg/L	1.154	3.86%
Cd 228.802†	54.2	0.00197	mg/L	0.000034	0.00395	mg/L	0.000069	1.74%
Co 228.616†	1012.6	0.02409	mg/L	0.000409	0.04819	mg/L	0.000819	1.70%
Cr 267.716†	670.1	0.1216	mg/L	0.00449	0.2433	mg/L	0.00898	3.69%
Cu 324.752†	29990.5	0.1386	mg/L	0.00046	0.2773	mg/L	0.00092	0.33%
Fe 273.955†	79351.9	67.47	mg/L	2.554	134.9	mg/L	5.11	3.78%
K 766.490†	4121.1	2.430	mg/L	0.1024	4.859	mg/L	0.2047	4.21%
Mg 279.077†	15845.5	13.92	mg/L	0.546	27.85	mg/L	1.091	3.92%
Mn 257.610†	61340.8	1.872	mg/L	0.0713	3.745	mg/L	0.1425	3.81%
Mo 202.031†	45.8	0.00248	mg/L	0.000300	0.00495	mg/L	0.000599	12.10%
Na 589.592†	9327.6	0.9158	mg/L	0.03281	1.832	mg/L	0.0656	3.58%
Na 330.237†	17.9	1.200	mg/L	0.3066	2.399	mg/L	0.6132	25.56%
Ni 231.604†	372.0	0.1003	mg/L	0.00450	0.2006	mg/L	0.00899	4.48%
Pb 220.353†	446.8	0.07062	mg/L	0.001687	0.1412	mg/L	0.00337	2.39%
Sb 206.836†	5.7	0.00192	mg/L	0.001503	0.00385	mg/L	0.003006	78.12%
Se 196.026†	3.3	0.00249	mg/L	0.001388	0.00497	mg/L	0.002775	55.84%
Si 288.158†	9269.6	5.596	mg/L	0.1846	11.19	mg/L	0.369	3.30%
Sn 189.927†	-16.0	-0.00263	mg/L	0.001097	-0.00527	mg/L	0.002193	41.62%
Sr 421.552†	72105.6	0.09882	mg/L	0.003935	0.1976	mg/L	0.00787	3.98%
Ti 334.903†	44663.1	2.701	mg/L	0.1040	5.402	mg/L	0.2080	3.85%
Tl 190.801†	-9.4	0.00216	mg/L	0.000897	0.00432	mg/L	0.001795	41.57%
V 292.402†	13928.9	0.1284	mg/L	0.00055	0.2569	mg/L	0.00110	0.43%
Zn 206.200†	1550.1	0.4524	mg/L	0.01653	0.9048	mg/L	0.03306	3.65%

Sequence No.: 6
Sample ID: VR58 ADUP SWC

Del

Dilution: 2.000000X

Autosampler Location: 309
Date Collected: 11/27/2012 11:28:27 AM
Data Type: Original

Nebulizer Parameters: VR58 ADUP SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR58 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2344993.8	106.1	%	0.34				0.32%
ScR 361.383	290103.9	105.6	%	3.92				3.71%
Ag 328.068†	2.3	0.00007	mg/L	0.000375	0.00015	mg/L	0.000750	515.22%
Al 308.215†	79478.6	58.58	mg/L	2.760	117.2	mg/L	5.52	4.71%
As 188.979†	265.0	0.3010	mg/L	0.00444	0.6019	mg/L	0.00888	1.48%
B 249.677†	94.3	0.01433	mg/L	0.000732	0.02866	mg/L	0.001464	5.11%
Ba 233.527†	1459.5	0.3533	mg/L	0.01326	0.7067	mg/L	0.02652	3.75%
Be 313.042†	531.4	0.00092	mg/L	0.000084	0.00184	mg/L	0.000167	9.08%
Ca 317.933†	317647.7	27.32	mg/L	1.332	54.64	mg/L	2.664	4.88%
Cd 228.802†	97.1	0.00198	mg/L	0.000245	0.00395	mg/L	0.000490	12.41%
Co 228.616†	1828.0	0.04432	mg/L	0.000807	0.08863	mg/L	0.001614	1.82%
Cr 267.716†	1044.4	0.1886	mg/L	0.00609	0.3772	mg/L	0.01219	3.23%
Cu 324.752†	51501.8	0.2371	mg/L	0.00082	0.4743	mg/L	0.00164	0.35%
Fe 273.955†	112565.3	95.71	mg/L	4.890	191.4	mg/L	9.78	5.11%
K 766.490†	5886.3	3.470	mg/L	0.1723	6.941	mg/L	0.3446	4.96%
Mg 279.077†	32998.0	29.02	mg/L	1.055	58.04	mg/L	2.109	3.63%
Mn 257.610†	59876.4	1.828	mg/L	0.0901	3.656	mg/L	0.1802	4.93%
Mo 202.031†	455.7	0.02601	mg/L	0.000172	0.05203	mg/L	0.000344	0.66%
Na 589.592†	19187.8	1.884	mg/L	0.0887	3.768	mg/L	0.1774	4.71%
Na 330.237†	37.3	2.139	mg/L	0.4997	4.279	mg/L	0.9993	23.35%
Ni 231.604†	710.7	0.1917	mg/L	0.00678	0.3835	mg/L	0.01355	3.53%
Pb 220.353†	2479.4	0.3590	mg/L	0.00150	0.7179	mg/L	0.00301	0.42%
Sb 206.836†	320.4	0.1134	mg/L	0.00142	0.2268	mg/L	0.00284	1.25%
Se 196.026†	-1.6	-0.00141	mg/L	0.003584	-0.00281	mg/L	0.007167	254.79%
Si 288.158†	9404.2	5.678	mg/L	0.2019	11.36	mg/L	0.404	3.55%
Sn 189.927†	84.2	0.02972	mg/L	0.000901	0.05945	mg/L	0.001801	3.03%
Sr 421.552†	109514.4	0.1501	mg/L	0.00710	0.3002	mg/L	0.01421	4.73%
Ti 334.903†	76645.6	4.635	mg/L	0.2158	9.269	mg/L	0.4316	4.66%
Tl 190.801†	-11.6	0.00376	mg/L	0.000748	0.00753	mg/L	0.001497	19.88%
V 292.402†	21123.1	0.1946	mg/L	0.00089	0.3891	mg/L	0.00179	0.46%
Zn 206.200†	4626.6	1.350	mg/L	0.0486	2.700	mg/L	0.0972	3.60%

Sequence No.: 7
Sample ID: VR58 A SWC

Autosampler Location: 310
Date Collected: 11/27/2012 11:32:26 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR58 A SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR58 A SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2338771.8	105.8	%	0.58				0.55%
ScR 361.383	289664.8	105.5	%	2.87				2.72%
Ag 328.068†	-37.1	-0.00019	mg/L	0.000050	-0.00038	mg/L	0.000100	26.52%
Al 308.215†	83416.3	61.48	mg/L	2.174	123.0	mg/L	4.35	3.54%
As 188.979†	-213.0	0.00894	mg/L	0.003667	0.01789	mg/L	0.007334	41.01%
B 249.677†	82.3	0.01246	mg/L	0.000617	0.02492	mg/L	0.001234	4.95%
Ba 233.527†	1308.4	0.3155	mg/L	0.00941	0.6310	mg/L	0.01882	2.98%
Be 313.042†	549.1	0.00095	mg/L	0.000076	0.00189	mg/L	0.000152	8.02%
Ca 317.933†	364561.9	31.35	mg/L	1.199	62.70	mg/L	2.399	3.83%
Cd 228.802†	54.0	0.00233	mg/L	0.000120	0.00467	mg/L	0.000240	5.15%
Co 228.616†	1836.7	0.04359	mg/L	0.000580	0.08718	mg/L	0.001160	1.33%
Cr 267.716†	967.1	0.1746	mg/L	0.00382	0.3491	mg/L	0.00763	2.19%
Cu 324.752†	23602.4	0.1101	mg/L	0.00032	0.2202	mg/L	0.00065	0.29%
Fe 273.955†	109677.3	93.26	mg/L	3.435	186.5	mg/L	6.87	3.68%
K 766.490†	5119.5	3.018	mg/L	0.1238	6.037	mg/L	0.2475	4.10%
Mg 279.077†	33295.5	29.28	mg/L	0.802	58.56	mg/L	1.603	2.74%
Mn 257.610†	59547.4	1.818	mg/L	0.0679	3.635	mg/L	0.1358	3.73%
Mo 202.031†	59.8	0.00310	mg/L	0.000167	0.00621	mg/L	0.000333	5.37%
Na 589.592†	13872.0	1.362	mg/L	0.0476	2.724	mg/L	0.0952	3.49%
Na 330.237†	18.1	1.729	mg/L	0.3032	3.458	mg/L	0.6063	17.53%
Ni 231.604†	725.4	0.1956	mg/L	0.00590	0.3912	mg/L	0.01180	3.02%
Pb 220.353†	710.2	0.1110	mg/L	0.00088	0.2220	mg/L	0.00175	0.79%
Sb 206.836†	7.9	0.00326	mg/L	0.001576	0.00653	mg/L	0.003153	48.29%
Se 196.026†	-1.7	-0.00148	mg/L	0.003109	-0.00295	mg/L	0.006217	210.45%
Si 288.158†	11039.3	6.665	mg/L	0.1750	13.33	mg/L	0.350	2.63%
Sn 189.927†	-30.0	-0.00450	mg/L	0.000892	-0.00899	mg/L	0.001785	19.85%
Sr 421.552†	100961.0	0.1384	mg/L	0.00487	0.2767	mg/L	0.00975	3.52%
Ti 334.903†	85328.5	5.160	mg/L	0.1868	10.32	mg/L	0.374	3.62%
Tl 190.801†	-9.3	0.00456	mg/L	0.001525	0.00911	mg/L	0.003049	33.46%
V 292.402†	21982.9	0.2024	mg/L	0.00035	0.4048	mg/L	0.00069	0.17%
Zn 206.200†	1950.8	0.5693	mg/L	0.01568	1.139	mg/L	0.0314	2.76%

Sequence No.: 8
Sample ID: VR58 ASPK SWC

Autosampler Location: 311
Date Collected: 11/27/2012 11:36:25 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR58 ASPK SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR58 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2364661.1	107.0	%	0.76				0.71%
ScR 361.383	293652.3	106.9	%	0.58				0.54%
Ag 328.068†	73160.9	0.4916	mg/L	0.00481	0.9833	mg/L	0.00962	0.98%
Al 308.215†	78539.8	57.88	mg/L	0.074	115.8	mg/L	0.15	0.13%
As 188.979†	2944.3	2.004	mg/L	0.0226	4.008	mg/L	0.0452	1.13%
B 249.677†	92.7	0.01306	mg/L	0.001221	0.02611	mg/L	0.002442	9.35%
Ba 233.527†	8980.7	2.257	mg/L	0.0181	4.514	mg/L	0.0363	0.80%
Be 313.042†	254187.8	0.4860	mg/L	0.00062	0.9720	mg/L	0.00123	0.13%
Ca 317.933†	581459.3	50.01	mg/L	0.046	100.0	mg/L	0.09	0.09%
Cd 228.802†	13425.9	0.5197	mg/L	0.00453	1.039	mg/L	0.0091	0.87%
Co 228.616†	18091.7	0.5309	mg/L	0.00510	1.062	mg/L	0.0102	0.96%
Cr 267.716†	3559.7	0.6396	mg/L	0.00830	1.279	mg/L	0.0166	1.30%
Cu 324.752†	131806.0	0.6018	mg/L	0.00506	1.204	mg/L	0.0101	0.84%
Fe 273.955†	100221.2	85.21	mg/L	0.088	170.4	mg/L	0.18	0.10%
K 766.490†	21207.4	12.50	mg/L	0.021	25.01	mg/L	0.042	0.17%
Mg 279.077†	42717.0	37.59	mg/L	0.274	75.17	mg/L	0.547	0.73%
Mn 257.610†	71393.4	2.180	mg/L	0.0012	4.359	mg/L	0.0025	0.06%
Mo 202.031†	78.1	0.00394	mg/L	0.000338	0.00787	mg/L	0.000676	8.59%
Na 589.592†	112266.0	11.02	mg/L	0.008	22.04	mg/L	0.017	0.08%
Na 330.237†	281.9	12.15	mg/L	0.490	24.29	mg/L	0.979	4.03%
Ni 231.604†	2395.6	0.6456	mg/L	0.00279	1.291	mg/L	0.0056	0.43%
Pb 220.353†	14410.8	2.038	mg/L	0.0200	4.077	mg/L	0.0400	0.98%
Sb 206.836†	2184.6	0.7658	mg/L	0.00899	1.532	mg/L	0.0180	1.17%
Se 196.026†	2578.9	2.002	mg/L	0.0198	4.004	mg/L	0.0396	0.99%
Si 288.158†	9544.1	5.766	mg/L	0.0409	11.53	mg/L	0.082	0.71%
Sn 189.927†	-37.7	-0.00429	mg/L	0.000852	-0.00858	mg/L	0.001705	19.87%
Sr 421.552†	467519.7	0.6407	mg/L	0.00041	1.281	mg/L	0.0008	0.06%
Ti 334.903†	67554.4	4.084	mg/L	0.0005	8.167	mg/L	0.0009	0.01%
Tl 190.801†	4066.7	1.906	mg/L	0.0155	3.813	mg/L	0.0311	0.81%
V 292.402†	69412.5	0.6531	mg/L	0.00706	1.306	mg/L	0.0141	1.08%
Zn 206.200†	3591.4	1.048	mg/L	0.0052	2.096	mg/L	0.0105	0.50%

Sequence No.: 9
Sample ID: VR58 APOST SWC

Autosampler Location: 312
Date Collected: 11/27/2012 11:39:26 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR58 APOST SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VR58 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2353764.4	106.5	%	0.31				0.29%
ScR 361.383	292669.3	106.6	%	0.61				0.57%
Ag 328.068†	69545.6	0.4674	mg/L	0.00134	0.9347	mg/L	0.00268	0.29%
Al 308.215†	85401.1	62.93	mg/L	0.098	125.9	mg/L	0.20	0.16%
As 188.979†	2847.6	1.972	mg/L	0.0019	3.943	mg/L	0.0039	0.10%
B 249.677†	84.8	0.01185	mg/L	0.001767	0.02369	mg/L	0.003533	14.91%
Ba 233.527†	8923.9	2.241	mg/L	0.0123	4.482	mg/L	0.0247	0.55%
Be 313.042†	250172.4	0.4783	mg/L	0.00068	0.9566	mg/L	0.00137	0.14%
Ca 317.933†	479128.8	41.21	mg/L	0.036	82.41	mg/L	0.072	0.09%
Cd 228.802†	13255.1	0.5133	mg/L	0.00100	1.027	mg/L	0.0020	0.20%
Co 228.616†	18220.3	0.5326	mg/L	0.00068	1.065	mg/L	0.0014	0.13%
Cr 267.716†	3621.3	0.6510	mg/L	0.00317	1.302	mg/L	0.0063	0.49%
Cu 324.752†	130974.9	0.5982	mg/L	0.00090	1.196	mg/L	0.0018	0.15%
Fe 273.955†	110706.8	94.13	mg/L	0.185	188.3	mg/L	0.37	0.20%
K 766.490†	21833.2	12.87	mg/L	0.014	25.74	mg/L	0.028	0.11%
Mg 279.077†	44307.1	38.98	mg/L	0.243	77.97	mg/L	0.487	0.62%
Mn 257.610†	74382.4	2.271	mg/L	0.0038	4.542	mg/L	0.0077	0.17%
Mo 202.031†	72.8	0.00373	mg/L	0.000060	0.00745	mg/L	0.000119	1.60%
Na 589.592†	109121.8	10.71	mg/L	0.021	21.43	mg/L	0.042	0.20%
Na 330.237†	261.8	11.56	mg/L	0.429	23.13	mg/L	0.858	3.71%
Ni 231.604†	2401.7	0.6481	mg/L	0.00236	1.296	mg/L	0.0047	0.36%
Pb 220.353†	14359.1	2.032	mg/L	0.0021	4.064	mg/L	0.0041	0.10%
Sb 206.836†	6175.3	2.174	mg/L	0.0038	4.348	mg/L	0.0077	0.18%
Se 196.026†	2555.7	1.984	mg/L	0.0052	3.968	mg/L	0.0105	0.26%
Si 288.158†	10860.9	6.561	mg/L	0.0646	13.12	mg/L	0.129	0.98%
Sn 189.927†	-44.7	-0.00671	mg/L	0.001415	-0.01343	mg/L	0.002829	21.07%
Sr 421.552†	445173.2	0.6101	mg/L	0.00115	1.220	mg/L	0.0023	0.19%
Ti 334.903†	84553.3	5.112	mg/L	0.0135	10.22	mg/L	0.027	0.26%
Tl 190.801†	4037.7	1.894	mg/L	0.0030	3.787	mg/L	0.0060	0.16%
V 292.402†	71094.5	0.6682	mg/L	0.00052	1.336	mg/L	0.0010	0.08%
Zn 206.200†	3501.5	1.022	mg/L	0.0082	2.044	mg/L	0.0163	0.80%

Sequence No.: 10
Sample ID: VR58 MB1SPK SWC

Autosampler Location: 313
Date Collected: 11/27/2012 11:42:27 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR58 MB1SPK SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR58 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2319981.8	104.9	%	0.48				0.46%
ScR 361.383	284472.6	103.6	%	0.62				0.60%
Ag 328.068†	79239.0	0.5324	mg/L	0.00077	1.065	mg/L	0.0015	0.15%
Al 308.215†	2831.7	2.080	mg/L	0.0212	4.160	mg/L	0.0423	1.02%
As 188.979†	3199.9	2.054	mg/L	0.0144	4.107	mg/L	0.0289	0.70%
B 249.677†	12.0	0.00079	mg/L	0.000882	0.00158	mg/L	0.001764	111.35%
Ba 233.527†	8039.6	2.033	mg/L	0.0245	4.065	mg/L	0.0489	1.20%
Be 313.042†	259548.0	0.4963	mg/L	0.00423	0.9927	mg/L	0.00845	0.85%
Ca 317.933†	118954.3	10.23	mg/L	0.107	20.46	mg/L	0.213	1.04%
Cd 228.802†	13450.4	0.5203	mg/L	0.00130	1.041	mg/L	0.0026	0.25%
Co 228.616†	17061.2	0.5091	mg/L	0.00079	1.018	mg/L	0.0016	0.15%
Cr 267.716†	2852.2	0.5119	mg/L	0.00494	1.024	mg/L	0.0099	0.97%
Cu 324.752†	108532.4	0.4934	mg/L	0.00145	0.9869	mg/L	0.00290	0.29%
Fe 273.955†	2529.2	2.147	mg/L	0.0175	4.294	mg/L	0.0350	0.81%
K 766.490†	17260.5	10.18	mg/L	0.090	20.35	mg/L	0.181	0.89%
Mg 279.077†	12120.6	10.68	mg/L	0.126	21.36	mg/L	0.252	1.18%
Mn 257.610†	16583.1	0.5065	mg/L	0.00443	1.013	mg/L	0.0089	0.88%
Mo 202.031†	17.7	0.00089	mg/L	0.000403	0.00177	mg/L	0.000806	45.49%
Na 589.592†	98227.4	9.644	mg/L	0.0536	19.29	mg/L	0.107	0.56%
Na 330.237†	258.5	10.44	mg/L	0.151	20.88	mg/L	0.301	1.44%
Ni 231.604†	1833.4	0.4947	mg/L	0.00635	0.9895	mg/L	0.01270	1.28%
Pb 220.353†	14138.2	1.990	mg/L	0.0019	3.980	mg/L	0.0038	0.10%
Sb 206.836†	6082.7	2.141	mg/L	0.0146	4.281	mg/L	0.0292	0.68%
Se 196.026†	2632.2	2.043	mg/L	0.0081	4.087	mg/L	0.0162	0.40%
Si 288.158†	-0.9	0.00269	mg/L	0.001038	0.00538	mg/L	0.002076	38.59%
Sn 189.927†	-18.1	-0.00319	mg/L	0.000530	-0.00639	mg/L	0.001060	16.60%
Sr 421.552†	358641.6	0.4915	mg/L	0.00360	0.9830	mg/L	0.00721	0.73%
Ti 334.903†	37.3	0.00167	mg/L	0.000102	0.00333	mg/L	0.000204	6.11%
Tl 190.801†	4289.1	2.002	mg/L	0.0098	4.005	mg/L	0.0196	0.49%
V 292.402†	53700.3	0.5092	mg/L	0.00064	1.018	mg/L	0.0013	0.13%
Zn 206.200†	1717.8	0.5014	mg/L	0.00617	1.003	mg/L	0.0123	1.23%

Sequence No.: 11
Sample ID: CV 2

Autosampler Location: 7
Date Collected: 11/27/2012 11:46:26 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2304737.8	104.2	%	0.47				0.45%
ScR 361.383	283599.2	103.3	%	1.75				1.70%
Ag 328.068†	152737.5	1.026	mg/L	0.0044	1.026	mg/L	0.0044	0.43%
Al 308.215†	2811.5	2.038	mg/L	0.0396	2.038	mg/L	0.0396	1.94%
As 188.979†	3115.8	2.027	mg/L	0.0117	2.027	mg/L	0.0117	0.58%
B 249.677†	6293.1	0.9608	mg/L	0.01625	0.9608	mg/L	0.01625	1.69%
Ba 233.527†	3945.0	0.9971	mg/L	0.01725	0.9971	mg/L	0.01725	1.73%
Be 313.042†	502279.7	0.9605	mg/L	0.01887	0.9605	mg/L	0.01887	1.96%
Ca 317.933†	23081.9	1.985	mg/L	0.0357	1.985	mg/L	0.0357	1.80%
Cd 228.802†	25709.1	1.007	mg/L	0.0053	1.007	mg/L	0.0053	0.53%
Co 228.616†	33092.8	0.9859	mg/L	0.00533	0.9859	mg/L	0.00533	0.54%
Cr 267.716†	5571.3	1.002	mg/L	0.0162	1.002	mg/L	0.0162	1.61%
Cu 324.752†	221787.5	1.008	mg/L	0.0055	1.008	mg/L	0.0055	0.55%
Fe 273.955†	2485.7	2.107	mg/L	0.0352	2.107	mg/L	0.0352	1.67%
K 766.490†	34106.7	20.11	mg/L	0.497	20.11	mg/L	0.497	2.47%
Mg 279.077†	2347.6	2.075	mg/L	0.0388	2.075	mg/L	0.0388	1.87%
Mn 257.610†	31551.9	0.9634	mg/L	0.01703	0.9634	mg/L	0.01703	1.77%
Mo 202.031†	17430.8	1.007	mg/L	0.0066	1.007	mg/L	0.0066	0.66%
Na 589.592†	491899.5	48.29	mg/L	0.980	48.29	mg/L	0.980	2.03%
Na 330.237†	1297.9	53.15	mg/L	0.865	53.15	mg/L	0.865	1.63%
Ni 231.604†	3590.5	0.9686	mg/L	0.01514	0.9686	mg/L	0.01514	1.56%
Pb 220.353†	13898.8	1.957	mg/L	0.0136	1.957	mg/L	0.0136	0.70%
Sb 206.836†	6116.3	2.157	mg/L	0.0114	2.157	mg/L	0.0114	0.53%
Se 196.026†	2556.4	1.984	mg/L	0.0084	1.984	mg/L	0.0084	0.42%
Si 288.158†	3666.3	2.212	mg/L	0.0382	2.212	mg/L	0.0382	1.73%
Sn 189.927†	3388.0	1.032	mg/L	0.0026	1.032	mg/L	0.0026	0.26%
Sr 421.552†	694492.9	0.9518	mg/L	0.01870	0.9518	mg/L	0.01870	1.96%
Ti 334.903†	17761.6	1.073	mg/L	0.0220	1.073	mg/L	0.0220	2.05%
Tl 190.801†	4264.9	1.987	mg/L	0.0110	1.987	mg/L	0.0110	0.55%
V 292.402†	105507.4	1.000	mg/L	0.0048	1.000	mg/L	0.0048	0.48%
Zn 206.200†	3441.7	1.004	mg/L	0.0201	1.004	mg/L	0.0201	2.00%

Sequence No.: 12
Sample ID: CB 2

Autosampler Location: 1
Date Collected: 11/27/2012 11:51:30 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2312045.3	104.6	%	0.30				0.29%
ScR 361.383	285840.4	104.1	%	0.40				0.39%
Ag 328.068†	-0.9	-0.00001	mg/L	0.000268	-0.00001	mg/L	0.000268	>999.9%
Al 308.215†	-4.8	-0.00356	mg/L	0.002879	-0.00356	mg/L	0.002879	80.90%
As 188.979†	-0.2	-0.00014	mg/L	0.000550	-0.00014	mg/L	0.000550	390.47%
B 249.677†	15.2	0.00233	mg/L	0.000428	0.00233	mg/L	0.000428	18.41%
Ba 233.527†	-0.6	-0.00016	mg/L	0.001663	-0.00016	mg/L	0.001663	>999.9%
Be 313.042†	20.9	0.00004	mg/L	0.000048	0.00004	mg/L	0.000048	120.80%
Ca 317.933†	-4.3	-0.00037	mg/L	0.000156	-0.00037	mg/L	0.000156	42.42%
Cd 228.802†	-1.5	-0.00006	mg/L	0.000016	-0.00006	mg/L	0.000016	27.64%
Co 228.616†	-1.5	-0.00004	mg/L	0.000066	-0.00004	mg/L	0.000066	154.88%
Cr 267.716†	1.5	0.00027	mg/L	0.001200	0.00027	mg/L	0.001200	450.39%
Cu 324.752†	-135.3	-0.00062	mg/L	0.000199	-0.00062	mg/L	0.000199	32.37%
Fe 273.955†	0.6	0.00052	mg/L	0.001489	0.00052	mg/L	0.001489	286.07%
K 766.490†	-16.1	-0.00951	mg/L	0.010206	-0.00951	mg/L	0.010206	107.32%
Mg 279.077†	2.1	0.00184	mg/L	0.007421	0.00184	mg/L	0.007421	402.35%
Mn 257.610†	6.2	0.00019	mg/L	0.000040	0.00019	mg/L	0.000040	21.02%
Mo 202.031†	14.0	0.00081	mg/L	0.000267	0.00081	mg/L	0.000267	33.02%
Na 589.592†	45.8	0.00450	mg/L	0.003517	0.00450	mg/L	0.003517	78.16%
Na 330.237†	10.5	0.4290	mg/L	0.47023	0.4290	mg/L	0.47023	109.62%
Ni 231.604†	1.9	0.00051	mg/L	0.000245	0.00051	mg/L	0.000245	48.11%
Pb 220.353†	9.0	0.00127	mg/L	0.000748	0.00127	mg/L	0.000748	58.95%
Sb 206.836†	6.8	0.00240	mg/L	0.001394	0.00240	mg/L	0.001394	58.00%
Se 196.026†	-8.4	-0.00650	mg/L	0.003997	-0.00650	mg/L	0.003997	61.54%
Si 288.158†	2.5	0.00150	mg/L	0.004567	0.00150	mg/L	0.004567	303.82%
Sn 189.927†	2.3	0.00070	mg/L	0.000906	0.00070	mg/L	0.000906	130.30%
Sr 421.552†	50.6	0.00007	mg/L	0.000047	0.00007	mg/L	0.000047	68.24%
Ti 334.903†	-22.4	-0.00136	mg/L	0.000860	-0.00136	mg/L	0.000860	63.34%
Tl 190.801†	6.9	0.00325	mg/L	0.002539	0.00325	mg/L	0.002539	78.13%
V 292.402†	14.5	0.00014	mg/L	0.000182	0.00014	mg/L	0.000182	130.93%
Zn 206.200†	1.2	0.00034	mg/L	0.000296	0.00034	mg/L	0.000296	87.00%

Sequence No.: 13
Sample ID: VR58 F SWC

Autosampler Location: 314
Date Collected: 11/27/2012 11:55:45 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR58 F SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR58 F SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2371495.1	107.3	%	0.21				0.19%
ScR 361.383	293651.8	106.9	%	0.96				0.90%
Ag 328.068†	5.3	0.00009	mg/L	0.000187	0.00018	mg/L	0.000375	208.10%
Al 308.215†	90400.3	66.63	mg/L	0.077	133.3	mg/L	0.15	0.12%
As 188.979†	-147.0	0.03089	mg/L	0.003301	0.06177	mg/L	0.006602	10.69%
B 249.677†	90.3	0.01371	mg/L	0.001442	0.02741	mg/L	0.002885	10.52%
Ba 233.527†	1594.5	0.3864	mg/L	0.00238	0.7729	mg/L	0.00476	0.62%
Be 313.042†	519.9	0.00090	mg/L	0.000022	0.00181	mg/L	0.000044	2.46%
Ca 317.933†	336360.1	28.93	mg/L	0.137	57.85	mg/L	0.274	0.47%
Cd 228.802†	80.7	0.00299	mg/L	0.000112	0.00598	mg/L	0.000224	3.75%
Co 228.616†	1666.8	0.03980	mg/L	0.000130	0.07960	mg/L	0.000260	0.33%
Cr 267.716†	884.6	0.1603	mg/L	0.00087	0.3206	mg/L	0.00174	0.54%
Cu 324.752†	107191.2	0.4906	mg/L	0.00216	0.9813	mg/L	0.00431	0.44%
Fe 273.955†	120142.0	102.2	mg/L	0.81	204.3	mg/L	1.62	0.79%
K 766.490†	6560.7	3.868	mg/L	0.0197	7.736	mg/L	0.0394	0.51%
Mg 279.077†	30643.3	26.94	mg/L	0.198	53.88	mg/L	0.396	0.74%
Mn 257.610†	54271.3	1.657	mg/L	0.0114	3.313	mg/L	0.0229	0.69%
Mo 202.031†	55.6	0.00289	mg/L	0.000240	0.00577	mg/L	0.000481	8.32%
Na 589.592†	16659.4	1.636	mg/L	0.0047	3.271	mg/L	0.0094	0.29%
Na 330.237†	29.8	1.970	mg/L	0.0958	3.941	mg/L	0.1915	4.86%
Ni 231.604†	577.0	0.1556	mg/L	0.00082	0.3112	mg/L	0.00163	0.52%
Pb 220.353†	724.0	0.1132	mg/L	0.00069	0.2264	mg/L	0.00138	0.61%
Sb 206.836†	10.4	0.00398	mg/L	0.001286	0.00795	mg/L	0.002572	32.34%
Se 196.026†	4.0	0.00300	mg/L	0.006101	0.00601	mg/L	0.012203	203.14%
Si 288.158†	9107.4	5.499	mg/L	0.0387	11.00	mg/L	0.077	0.70%
Sn 189.927†	-23.7	-0.00300	mg/L	0.000446	-0.00601	mg/L	0.000891	14.84%
Sr 421.552†	130401.0	0.1787	mg/L	0.00015	0.3574	mg/L	0.00029	0.08%
Ti 334.903†	73424.2	4.440	mg/L	0.0159	8.879	mg/L	0.0317	0.36%
Tl 190.801†	-10.7	0.00493	mg/L	0.002625	0.00986	mg/L	0.005250	53.24%
V 292.402†	19888.8	0.1826	mg/L	0.00070	0.3653	mg/L	0.00140	0.38%
Zn 206.200†	2744.0	0.8008	mg/L	0.00531	1.602	mg/L	0.0106	0.66%

Sequence No.: 14
Sample ID: VR58 G SWC

Autosampler Location: 315
Date Collected: 11/27/2012 11:59:45 AM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR58 G SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR58 G SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2375973.6	107.5	%	0.49				0.46%
ScR 361.383	294345.6	107.2	%	0.34				0.31%
Ag 328.068†	-108.2	-0.00067	mg/L	0.000136	-0.00134	mg/L	0.000271	20.24%
Al 308.215†	95113.4	70.10	mg/L	0.201	140.2	mg/L	0.40	0.29%
As 188.979†	-200.9	0.01436	mg/L	0.001737	0.02872	mg/L	0.003475	12.10%
B 249.677†	70.6	0.01067	mg/L	0.000084	0.02134	mg/L	0.000168	0.79%
Ba 233.527†	1447.7	0.3492	mg/L	0.00228	0.6985	mg/L	0.00456	0.65%
Be 313.042†	453.8	0.00077	mg/L	0.000010	0.00154	mg/L	0.000020	1.29%
Ca 317.933†	331490.0	28.51	mg/L	0.084	57.02	mg/L	0.169	0.30%
Cd 228.802†	40.8	0.00163	mg/L	0.000187	0.00326	mg/L	0.000374	11.46%
Co 228.616†	1862.3	0.04441	mg/L	0.000125	0.08882	mg/L	0.000250	0.28%
Cr 267.716†	893.5	0.1615	mg/L	0.00128	0.3230	mg/L	0.00256	0.79%
Cu 324.752†	8708.9	0.04282	mg/L	0.000373	0.08563	mg/L	0.000746	0.87%
Fe 273.955†	120764.9	102.7	mg/L	0.43	205.4	mg/L	0.85	0.41%
K 766.490†	5385.0	3.175	mg/L	0.0186	6.350	mg/L	0.0372	0.59%
Mg 279.077†	36718.3	32.29	mg/L	0.146	64.58	mg/L	0.292	0.45%
Mn 257.610†	45362.0	1.385	mg/L	0.0048	2.770	mg/L	0.0095	0.34%
Mo 202.031†	39.8	0.00198	mg/L	0.000171	0.00397	mg/L	0.000342	8.62%
Na 589.592†	18459.1	1.812	mg/L	0.0067	3.625	mg/L	0.0134	0.37%
Na 330.237†	27.9	2.154	mg/L	0.0522	4.307	mg/L	0.1044	2.42%
Ni 231.604†	579.0	0.1561	mg/L	0.00091	0.3123	mg/L	0.00181	0.58%
Pb 220.353†	302.5	0.05536	mg/L	0.000745	0.1107	mg/L	0.00149	1.35%
Sb 206.836†	3.0	0.00161	mg/L	0.001604	0.00323	mg/L	0.003209	99.40%
Se 196.026†	-3.0	-0.00251	mg/L	0.005713	-0.00501	mg/L	0.011427	227.93%
Si 288.158†	9573.5	5.781	mg/L	0.0303	11.56	mg/L	0.061	0.52%
Sn 189.927†	-36.4	-0.00683	mg/L	0.000541	-0.01365	mg/L	0.001081	7.92%
Sr 421.552†	89921.6	0.1232	mg/L	0.00047	0.2465	mg/L	0.00094	0.38%
Ti 334.903†	83863.3	5.071	mg/L	0.0191	10.14	mg/L	0.038	0.38%
Tl 190.801†	-8.7	0.00585	mg/L	0.001235	0.01170	mg/L	0.002470	21.11%
V 292.402†	20697.0	0.1899	mg/L	0.00115	0.3797	mg/L	0.00231	0.61%
Zn 206.200†	1502.7	0.4385	mg/L	0.00336	0.8771	mg/L	0.00672	0.77%

Sequence No.: 15
Sample ID: VR58 H SWC

Dilution: 2.000000X

Autosampler Location: 316
Date Collected: 11/27/2012 12:03:45 PM
Data Type: Original

Nebulizer Parameters: VR58 H SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR58 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2360270.6	106.8	%	0.62				0.58%
ScR 361.383	288122.4	104.9	%	0.23				0.22%
Ag 328.068†	-144.9	-0.00090	mg/L	0.000411	-0.00181	mg/L	0.000823	45.47%
Al 308.215†	107562.4	79.27	mg/L	0.090	158.5	mg/L	0.18	0.11%
As 188.979†	-242.2	0.01146	mg/L	0.001727	0.02292	mg/L	0.003453	15.07%
B 249.677†	96.4	0.01460	mg/L	0.000552	0.02920	mg/L	0.001104	3.78%
Ba 233.527†	1299.4	0.3105	mg/L	0.00123	0.6211	mg/L	0.00247	0.40%
Be 313.042†	579.0	0.00099	mg/L	0.000007	0.00198	mg/L	0.000014	0.71%
Ca 317.933†	441316.9	37.95	mg/L	0.161	75.91	mg/L	0.323	0.43%
Cd 228.802†	34.3	0.00154	mg/L	0.000062	0.00307	mg/L	0.000124	4.04%
Co 228.616†	2088.0	0.04941	mg/L	0.000231	0.09883	mg/L	0.000463	0.47%
Cr 267.716†	1379.6	0.2483	mg/L	0.00138	0.4965	mg/L	0.00277	0.56%
Cu 324.752†	9206.7	0.04513	mg/L	0.000178	0.09026	mg/L	0.000356	0.39%
Fe 273.955†	129019.4	109.7	mg/L	0.20	219.4	mg/L	0.40	0.18%
K 766.490†	6136.6	3.618	mg/L	0.0073	7.236	mg/L	0.0147	0.20%
Mg 279.077†	48046.7	42.27	mg/L	0.143	84.54	mg/L	0.286	0.34%
Mn 257.610†	54938.8	1.677	mg/L	0.0018	3.354	mg/L	0.0036	0.11%
Mo 202.031†	45.6	0.00221	mg/L	0.000136	0.00442	mg/L	0.000272	6.15%
Na 589.592†	15203.7	1.493	mg/L	0.0017	2.985	mg/L	0.0034	0.11%
Na 330.237†	9.5	1.621	mg/L	0.2274	3.241	mg/L	0.4549	14.03%
Ni 231.604†	790.3	0.2131	mg/L	0.00134	0.4262	mg/L	0.00269	0.63%
Pb 220.353†	140.3	0.03460	mg/L	0.000375	0.06920	mg/L	0.000749	1.08%
Sb 206.836†	15.6	0.00530	mg/L	0.000875	0.01060	mg/L	0.001750	16.51%
Se 196.026†	1.7	0.00114	mg/L	0.004283	0.00228	mg/L	0.008567	375.66%
Si 288.158†	9803.5	5.921	mg/L	0.0085	11.84	mg/L	0.017	0.14%
Sn 189.927†	-45.1	-0.00818	mg/L	0.000978	-0.01637	mg/L	0.001956	11.95%
Sr 421.552†	99359.0	0.1362	mg/L	0.00009	0.2723	mg/L	0.00019	0.07%
Ti 334.903†	97880.9	5.919	mg/L	0.0075	11.84	mg/L	0.015	0.13%
Tl 190.801†	-11.0	0.00531	mg/L	0.002521	0.01063	mg/L	0.005041	47.43%
V 292.402†	25013.2	0.2303	mg/L	0.00066	0.4606	mg/L	0.00132	0.29%
Zn 206.200†	1213.1	0.3540	mg/L	0.00030	0.7080	mg/L	0.00060	0.09%

Sequence No.: 16
Sample ID: VR58 I SWC

Autosampler Location: 317
Date Collected: 11/27/2012 12:07:44 PM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR58 I SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR58 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2411021.5	109.1	%	0.54				0.49%
ScR 361.383	296446.9	107.9	%	0.60				0.55%
Ag 328.068†	-128.8	-0.00080	mg/L	0.000202	-0.00159	mg/L	0.000403	25.32%
Al 308.215†	127620.0	94.06	mg/L	0.406	188.1	mg/L	0.81	0.43%
As 188.979†	-219.6	0.01308	mg/L	0.003119	0.02616	mg/L	0.006238	23.85%
B 249.677†	89.4	0.01358	mg/L	0.000997	0.02716	mg/L	0.001993	7.34%
Ba 233.527†	2503.8	0.6179	mg/L	0.00462	1.236	mg/L	0.0092	0.75%
Be 313.042†	672.9	0.00117	mg/L	0.000025	0.00235	mg/L	0.000051	2.16%
Ca 317.933†	297877.2	25.62	mg/L	0.123	51.23	mg/L	0.246	0.48%
Cd 228.802†	26.5	0.00124	mg/L	0.000120	0.00249	mg/L	0.000239	9.61%
Co 228.616†	1443.4	0.03129	mg/L	0.000210	0.06259	mg/L	0.000421	0.67%
Cr 267.716†	1393.5	0.2514	mg/L	0.00124	0.5028	mg/L	0.00248	0.49%
Cu 324.752†	13250.4	0.06297	mg/L	0.000291	0.1259	mg/L	0.00058	0.46%
Fe 273.955†	108725.5	92.45	mg/L	0.604	184.9	mg/L	1.21	0.65%
K 766.490†	5062.5	2.985	mg/L	0.0131	5.969	mg/L	0.0262	0.44%
Mg 279.077†	31239.4	27.47	mg/L	0.121	54.94	mg/L	0.241	0.44%
Mn 257.610†	76295.3	2.329	mg/L	0.0132	4.657	mg/L	0.0264	0.57%
Mo 202.031†	80.2	0.00434	mg/L	0.000252	0.00868	mg/L	0.000505	5.81%
Na 589.592†	16140.8	1.585	mg/L	0.0109	3.169	mg/L	0.0219	0.69%
Na 330.237†	15.4	1.771	mg/L	0.5537	3.543	mg/L	1.1074	31.26%
Ni 231.604†	590.9	0.1594	mg/L	0.00166	0.3187	mg/L	0.00332	1.04%
Pb 220.353†	83.5	0.03084	mg/L	0.000658	0.06167	mg/L	0.001316	2.13%
Sb 206.836†	2.6	0.00052	mg/L	0.003619	0.00105	mg/L	0.007238	690.89%
Se 196.026†	6.5	0.00487	mg/L	0.002705	0.00973	mg/L	0.005410	55.59%
Si 288.158†	12497.5	7.545	mg/L	0.0523	15.09	mg/L	0.105	0.69%
Sn 189.927†	-33.3	-0.00619	mg/L	0.001177	-0.01238	mg/L	0.002353	19.01%
Sr 421.552†	120277.5	0.1648	mg/L	0.00065	0.3297	mg/L	0.00130	0.40%
Ti 334.903†	90047.0	5.445	mg/L	0.0228	10.89	mg/L	0.046	0.42%
Tl 190.801†	-10.6	0.00379	mg/L	0.005938	0.00757	mg/L	0.011876	156.79%
V 292.402†	25113.2	0.2322	mg/L	0.00150	0.4645	mg/L	0.00300	0.65%
Zn 206.200†	1027.6	0.2999	mg/L	0.00340	0.5998	mg/L	0.00679	1.13%

Sequence No.: 17
Sample ID: VR58 J SWC

Autosampler Location: 318
Date Collected: 11/27/2012 12:11:43 PM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR58 J SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR58 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2366873.1	107.1	%	1.06				0.99%
ScR 361.383	290123.6	105.6	%	0.52				0.49%
Ag 328.068†	-107.2	-0.00066	mg/L	0.000086	-0.00131	mg/L	0.000173	13.16%
Al 308.215†	97766.6	72.06	mg/L	0.255	144.1	mg/L	0.51	0.35%
As 188.979†	-205.2	0.01551	mg/L	0.001629	0.03101	mg/L	0.003258	10.51%
B 249.677†	70.7	0.01069	mg/L	0.001052	0.02138	mg/L	0.002105	9.84%
Ba 233.527†	1264.0	0.3016	mg/L	0.00253	0.6033	mg/L	0.00505	0.84%
Be 313.042†	532.0	0.00091	mg/L	0.000035	0.00182	mg/L	0.000071	3.88%
Ca 317.933†	352093.3	30.28	mg/L	0.173	60.56	mg/L	0.346	0.57%
Cd 228.802†	30.6	0.00121	mg/L	0.000304	0.00242	mg/L	0.000608	25.14%
Co 228.616†	1914.8	0.04561	mg/L	0.000423	0.09122	mg/L	0.000846	0.93%
Cr 267.716†	1314.6	0.2371	mg/L	0.00212	0.4742	mg/L	0.00424	0.89%
Cu 324.752†	9819.3	0.04810	mg/L	0.000489	0.09621	mg/L	0.000979	1.02%
Fe 273.955†	128885.5	109.6	mg/L	0.95	219.2	mg/L	1.90	0.87%
K 766.490†	5848.1	3.448	mg/L	0.0134	6.896	mg/L	0.0269	0.39%
Mg 279.077†	41571.1	36.56	mg/L	0.225	73.13	mg/L	0.450	0.61%
Mn 257.610†	59850.8	1.827	mg/L	0.0108	3.654	mg/L	0.0216	0.59%
Mo 202.031†	44.1	0.00221	mg/L	0.000273	0.00441	mg/L	0.000547	12.40%
Na 589.592†	14397.4	1.414	mg/L	0.0071	2.827	mg/L	0.0141	0.50%
Na 330.237†	11.1	1.526	mg/L	0.1449	3.052	mg/L	0.2898	9.50%
Ni 231.604†	701.4	0.1891	mg/L	0.00141	0.3783	mg/L	0.00281	0.74%
Pb 220.353†	148.9	0.03407	mg/L	0.001183	0.06815	mg/L	0.002367	3.47%
Sb 206.836†	11.6	0.00370	mg/L	0.002569	0.00741	mg/L	0.005138	69.38%
Se 196.026†	3.5	0.00256	mg/L	0.001861	0.00511	mg/L	0.003722	72.81%
Si 288.158†	11293.4	6.820	mg/L	0.0521	13.64	mg/L	0.104	0.76%
Sn 189.927†	-39.3	-0.00746	mg/L	0.001030	-0.01492	mg/L	0.002060	13.81%
Sr 421.552†	95791.6	0.1313	mg/L	0.00025	0.2626	mg/L	0.00050	0.19%
Ti 334.903†	86229.9	5.214	mg/L	0.0203	10.43	mg/L	0.041	0.39%
Tl 190.801†	-13.2	0.00437	mg/L	0.001496	0.00873	mg/L	0.002992	34.26%
V 292.402†	23416.9	0.2156	mg/L	0.00198	0.4312	mg/L	0.00396	0.92%
Zn 206.200†	1194.4	0.3486	mg/L	0.00267	0.6971	mg/L	0.00535	0.77%

Sequence No.: 18
Sample ID: VR82 A SWC

Autosampler Location: 319
Date Collected: 11/27/2012 12:15:42 PM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR82 A SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR82 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2373357.6	107.3	%	0.49				0.45%
ScR 361.383	292156.4	106.4	%	0.74				0.69%
Ag 328.068†	-60.3	-0.00036	mg/L	0.000169	-0.00073	mg/L	0.000338	46.29%
Al 308.215†	68678.8	50.62	mg/L	0.250	101.2	mg/L	0.50	0.49%
As 188.979†	-102.6	0.02722	mg/L	0.002044	0.05443	mg/L	0.004088	7.51%
B 249.677†	62.9	0.00954	mg/L	0.000937	0.01908	mg/L	0.001875	9.83%
Ba 233.527†	1331.1	0.3258	mg/L	0.00115	0.6517	mg/L	0.00230	0.35%
Be 313.042†	380.1	0.00066	mg/L	0.000025	0.00132	mg/L	0.000050	3.78%
Ca 317.933†	220150.6	18.93	mg/L	0.069	37.87	mg/L	0.138	0.36%
Cd 228.802†	86.4	0.00334	mg/L	0.000104	0.00668	mg/L	0.000207	3.10%
Co 228.616†	1180.0	0.02796	mg/L	0.000069	0.05592	mg/L	0.000137	0.25%
Cr 267.716†	766.5	0.1386	mg/L	0.00147	0.2772	mg/L	0.00295	1.06%
Cu 324.752†	50029.4	0.2295	mg/L	0.00176	0.4590	mg/L	0.00352	0.77%
Fe 273.955†	77136.7	65.59	mg/L	0.308	131.2	mg/L	0.62	0.47%
K 766.490†	4471.4	2.636	mg/L	0.0185	5.272	mg/L	0.0370	0.70%
Mg 279.077†	19178.5	16.86	mg/L	0.041	33.72	mg/L	0.081	0.24%
Mn 257.610†	60737.6	1.854	mg/L	0.0058	3.708	mg/L	0.0117	0.32%
Mo 202.031†	50.9	0.00273	mg/L	0.000370	0.00546	mg/L	0.000741	13.57%
Na 589.592†	10544.9	1.035	mg/L	0.0043	2.071	mg/L	0.0086	0.42%
Na 330.237†	16.5	1.238	mg/L	0.3748	2.476	mg/L	0.7497	30.28%
Ni 231.604†	438.4	0.1182	mg/L	0.00061	0.2364	mg/L	0.00122	0.51%
Pb 220.353†	1026.8	0.1538	mg/L	0.00112	0.3076	mg/L	0.00225	0.73%
Sb 206.836†	2.8	0.00097	mg/L	0.000624	0.00194	mg/L	0.001248	64.45%
Se 196.026†	0.3	0.00012	mg/L	0.001198	0.00025	mg/L	0.002396	973.20%
Si 288.158†	9705.3	5.859	mg/L	0.0198	11.72	mg/L	0.040	0.34%
Sn 189.927†	-6.6	0.00080	mg/L	0.001041	0.00161	mg/L	0.002082	129.55%
Sr 421.552†	81532.3	0.1117	mg/L	0.00051	0.2235	mg/L	0.00101	0.45%
Ti 334.903†	54521.5	3.297	mg/L	0.0115	6.594	mg/L	0.0230	0.35%
Tl 190.801†	-7.2	0.00294	mg/L	0.000964	0.00587	mg/L	0.001928	32.85%
V 292.402†	14825.4	0.1367	mg/L	0.00117	0.2734	mg/L	0.00233	0.85%
Zn 206.200†	1968.8	0.5746	mg/L	0.00140	1.149	mg/L	0.0028	0.24%

Sequence No.: 19
Sample ID: VR82 B SWC

Autosampler Location: 320
Date Collected: 11/27/2012 12:19:41 PM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR82 B SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VR82 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2374866.4	107.4	%	0.06				0.06%
ScR 361.383	291380.8	106.1	%	0.87				0.82%
Ag 328.068†	-52.5	-0.00031	mg/L	0.000317	-0.00063	mg/L	0.000634	100.62%
Al 308.215†	59607.8	43.93	mg/L	0.140	87.86	mg/L	0.281	0.32%
As 188.979†	-88.7	0.02356	mg/L	0.001473	0.04711	mg/L	0.002945	6.25%
B 249.677†	70.5	0.01070	mg/L	0.001052	0.02140	mg/L	0.002105	9.83%
Ba 233.527†	1384.3	0.3386	mg/L	0.00263	0.6773	mg/L	0.00527	0.78%
Be 313.042†	359.0	0.00063	mg/L	0.000021	0.00125	mg/L	0.000043	3.41%
Ca 317.933†	202670.9	17.43	mg/L	0.082	34.86	mg/L	0.164	0.47%
Cd 228.802†	73.2	0.00271	mg/L	0.000088	0.00542	mg/L	0.000177	3.26%
Co 228.616†	1084.2	0.02591	mg/L	0.000223	0.05182	mg/L	0.000445	0.86%
Cr 267.716†	704.5	0.1278	mg/L	0.00087	0.2555	mg/L	0.00174	0.68%
Cu 324.752†	44769.1	0.2059	mg/L	0.00126	0.4117	mg/L	0.00252	0.61%
Fe 273.955†	81635.6	69.42	mg/L	0.441	138.8	mg/L	0.88	0.64%
K 766.490†	4146.4	2.445	mg/L	0.0171	4.889	mg/L	0.0343	0.70%
Mg 279.077†	16938.2	14.88	mg/L	0.149	29.77	mg/L	0.298	1.00%
Mn 257.610†	70859.3	2.163	mg/L	0.0096	4.326	mg/L	0.0192	0.44%
Mo 202.031†	46.0	0.00246	mg/L	0.000325	0.00492	mg/L	0.000649	13.19%
Na 589.592†	9917.4	0.9737	mg/L	0.00359	1.947	mg/L	0.0072	0.37%
Na 330.237†	15.2	1.068	mg/L	0.2577	2.137	mg/L	0.5155	24.12%
Ni 231.604†	393.6	0.1062	mg/L	0.00061	0.2123	mg/L	0.00123	0.58%
Pb 220.353†	650.5	0.09913	mg/L	0.000624	0.1983	mg/L	0.00125	0.63%
Sb 206.836†	4.5	0.00149	mg/L	0.002759	0.00298	mg/L	0.005519	185.11%
Se 196.026†	3.1	0.00233	mg/L	0.000240	0.00465	mg/L	0.000479	10.30%
Si 288.158†	9271.2	5.597	mg/L	0.0472	11.19	mg/L	0.094	0.84%
Sn 189.927†	-9.1	-0.00020	mg/L	0.001638	-0.00040	mg/L	0.003277	818.64%
Sr 421.552†	72470.9	0.09932	mg/L	0.000328	0.1986	mg/L	0.00066	0.33%
Ti 334.903†	47164.9	2.852	mg/L	0.0108	5.704	mg/L	0.0217	0.38%
Tl 190.801†	-2.4	0.00564	mg/L	0.001162	0.01128	mg/L	0.002325	20.62%
V 292.402†	13821.2	0.1273	mg/L	0.00046	0.2547	mg/L	0.00091	0.36%
Zn 206.200†	2138.7	0.6242	mg/L	0.00591	1.248	mg/L	0.0118	0.95%

Sequence No.: 20
Sample ID: VR82 C SWC

Dilution: 2.000000X

Autosampler Location: 321
Date Collected: 11/27/2012 12:23:40 PM
Data Type: Original

Nebulizer Parameters: VR82 C SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR82 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2361657.1	106.8	%	0.64				0.60%
ScR 361.383	290221.0	105.7	%	0.83				0.79%
Ag 328.068†	-205.5	-0.00129	mg/L	0.000106	-0.00258	mg/L	0.000213	8.24%
Al 308.215†	158872.8	117.1	mg/L	0.08	234.2	mg/L	0.16	0.07%
As 188.979†	-245.5	0.02731	mg/L	0.001583	0.05461	mg/L	0.003165	5.80%
B 249.677†	75.9	0.01146	mg/L	0.001139	0.02292	mg/L	0.002277	9.93%
Ba 233.527†	1711.9	0.4084	mg/L	0.00365	0.8168	mg/L	0.00730	0.89%
Be 313.042†	804.2	0.00140	mg/L	0.000031	0.00279	mg/L	0.000062	2.23%
Ca 317.933†	671666.4	57.76	mg/L	0.281	115.5	mg/L	0.56	0.49%
Cd 228.802†	58.2	0.00215	mg/L	0.000142	0.00430	mg/L	0.000285	6.62%
Co 228.616†	2208.8	0.05119	mg/L	0.000416	0.1024	mg/L	0.00083	0.81%
Cr 267.716†	1620.3	0.2925	mg/L	0.00094	0.5850	mg/L	0.00188	0.32%
Cu 324.752†	25822.5	0.1222	mg/L	0.00056	0.2445	mg/L	0.00113	0.46%
Fe 273.955†	175411.1	149.2	mg/L	0.84	298.3	mg/L	1.68	0.56%
K 766.490†	10533.1	6.210	mg/L	0.0099	12.42	mg/L	0.020	0.16%
Mg 279.077†	52399.8	46.08	mg/L	0.137	92.16	mg/L	0.275	0.30%
Mn 257.610†	74697.7	2.280	mg/L	0.0079	4.560	mg/L	0.0159	0.35%
Mo 202.031†	65.3	0.00313	mg/L	0.000463	0.00627	mg/L	0.000926	14.77%
Na 589.592†	41848.7	4.109	mg/L	0.0039	8.217	mg/L	0.0078	0.10%
Na 330.237†	71.4	4.295	mg/L	0.1773	8.589	mg/L	0.3547	4.13%
Ni 231.604†	921.9	0.2486	mg/L	0.00214	0.4973	mg/L	0.00427	0.86%
Pb 220.353†	138.3	0.04173	mg/L	0.001019	0.08346	mg/L	0.002037	2.44%
Sb 206.836†	18.4	0.00623	mg/L	0.003698	0.01246	mg/L	0.007396	59.34%
Se 196.026†	6.6	0.00492	mg/L	0.002906	0.00984	mg/L	0.005811	59.04%
Si 288.158†	7159.0	4.326	mg/L	0.0262	8.652	mg/L	0.0524	0.61%
Sn 189.927†	-50.9	-0.00740	mg/L	0.002374	-0.01480	mg/L	0.004747	32.08%
Sr 421.552†	187150.2	0.2565	mg/L	0.00025	0.5130	mg/L	0.00050	0.10%
Ti 334.903†	108984.0	6.589	mg/L	0.0077	13.18	mg/L	0.015	0.12%
Tl 190.801†	-14.3	0.00770	mg/L	0.002826	0.01540	mg/L	0.005651	36.70%
V 292.402†	33111.7	0.3053	mg/L	0.00109	0.6106	mg/L	0.00217	0.36%
Zn 206.200†	1400.7	0.4088	mg/L	0.00322	0.8175	mg/L	0.00645	0.79%

Sequence No.: 21
Sample ID: VR82 D SWC

Autosampler Location: 322
Date Collected: 11/27/2012 12:27:26 PM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR82 D SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VR82 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2375541.9	107.4	%	0.51				0.48%
ScR 361.383	292815.2	106.6	%	0.86				0.81%
Ag 328.068†	-56.4	-0.00033	mg/L	0.000176	-0.00067	mg/L	0.000352	52.80%
Al 308.215†	71961.3	53.04	mg/L	0.259	106.1	mg/L	0.52	0.49%
As 188.979†	-107.9	0.02569	mg/L	0.000820	0.05139	mg/L	0.001640	3.19%
B 249.677†	75.8	0.01151	mg/L	0.000666	0.02302	mg/L	0.001332	5.79%
Ba 233.527†	1432.8	0.3490	mg/L	0.00339	0.6979	mg/L	0.00679	0.97%
Be 313.042†	431.3	0.00075	mg/L	0.000011	0.00151	mg/L	0.000022	1.48%
Ca 317.933†	251103.1	21.59	mg/L	0.047	43.19	mg/L	0.095	0.22%
Cd 228.802†	66.0	0.00242	mg/L	0.000213	0.00484	mg/L	0.000425	8.79%
Co 228.616†	1360.2	0.03300	mg/L	0.000363	0.06599	mg/L	0.000726	1.10%
Cr 267.716†	827.3	0.1498	mg/L	0.00181	0.2996	mg/L	0.00361	1.21%
Cu 324.752†	26382.1	0.1227	mg/L	0.00043	0.2453	mg/L	0.00086	0.35%
Fe 273.955†	95677.7	81.35	mg/L	0.100	162.7	mg/L	0.20	0.12%
K 766.490†	4419.3	2.605	mg/L	0.0127	5.211	mg/L	0.0254	0.49%
Mg 279.077†	23466.7	20.63	mg/L	0.092	41.26	mg/L	0.184	0.45%
Mn 257.610†	59699.5	1.822	mg/L	0.0020	3.645	mg/L	0.0039	0.11%
Mo 202,031†	60.6	0.00326	mg/L	0.000170	0.00652	mg/L	0.000340	5.22%
Na 589.592†	10917.0	1.072	mg/L	0.0064	2.144	mg/L	0.0128	0.60%
Na 330.237†	14.7	1.207	mg/L	0.2480	2.415	mg/L	0.4959	20.54%
Ni 231.604†	494.2	0.1333	mg/L	0.00093	0.2666	mg/L	0.00185	0.70%
Pb 220.353†	630.4	0.09816	mg/L	0.001132	0.1963	mg/L	0.00226	1.15%
Sb 206.836†	6.7	0.00231	mg/L	0.001731	0.00462	mg/L	0.003461	74.98%
Se 196.026†	-0.8	-0.00073	mg/L	0.003852	-0.00147	mg/L	0.007703	525.20%
Si 288.158†	11684.9	7.054	mg/L	0.0425	14.11	mg/L	0.085	0.60%
Sn 189.927†	-4.8	0.00171	mg/L	0.001631	0.00343	mg/L	0.003262	95.21%
Sr 421.552†	95052.7	0.1303	mg/L	0.00048	0.2605	mg/L	0.00095	0.36%
Ti 334.903†	55678.0	3.367	mg/L	0.0105	6.733	mg/L	0.0210	0.31%
Tl 190.801†	-7.8	0.00421	mg/L	0.002041	0.00841	mg/L	0.004083	48.53%
V 292.402†	16714.9	0.1540	mg/L	0.00023	0.3080	mg/L	0.00045	0.15%
Zn 206.200†	1683.4	0.4913	mg/L	0.00390	0.9826	mg/L	0.00780	0.79%

Sequence No.: 22
Sample ID: VR82 E SWC

Autosampler Location: 323
Date Collected: 11/27/2012 12:31:25 PM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VR82 E SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VR82 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2373263.9	107.3	%	0.38				0.36%
ScR 361.383	296102.6	107.8	%	1.19				1.10%
Ag 328.068†	-51.4	-0.00030	mg/L	0.000305	-0.00060	mg/L	0.000610	102.24%
Al 308.215†	74080.4	54.60	mg/L	0.826	109.2	mg/L	1.65	1.51%
As 188.979†	-104.8	0.02164	mg/L	0.000925	0.04329	mg/L	0.001850	4.27%
B 249.677†	72.2	0.01095	mg/L	0.000744	0.02190	mg/L	0.001488	6.79%
Ba 233.527†	1515.4	0.3694	mg/L	0.00355	0.7388	mg/L	0.00710	0.96%
Be 313.042†	443.4	0.00078	mg/L	0.000018	0.00156	mg/L	0.000036	2.32%
Ca 317.933†	215440.1	18.53	mg/L	0.289	37.06	mg/L	0.577	1.56%
Cd 228.802†	67.7	0.00245	mg/L	0.000072	0.00489	mg/L	0.000143	2.93%
Co 228.616†	1357.5	0.03329	mg/L	0.000150	0.06658	mg/L	0.000300	0.45%
Cr 267.716†	944.8	0.1712	mg/L	0.00170	0.3424	mg/L	0.00340	0.99%
Cu 324.752†	28041.8	0.1304	mg/L	0.00081	0.2608	mg/L	0.00163	0.62%
Fe 273.955†	99045.7	84.22	mg/L	1.022	168.4	mg/L	2.04	1.21%
K 766.490†	4365.7	2.574	mg/L	0.0360	5.148	mg/L	0.0721	1.40%
Mg 279.077†	21838.9	19.19	mg/L	0.191	38.39	mg/L	0.383	1.00%
Mn 257.610†	65334.1	1.994	mg/L	0.0256	3.989	mg/L	0.0512	1.28%
Mo 202.031†	57.5	0.00311	mg/L	0.000414	0.00622	mg/L	0.000828	13.32%
Na 589.592†	10240.2	1.005	mg/L	0.0179	2.011	mg/L	0.0359	1.79%
Na 330.237†	18.4	1.313	mg/L	0.1612	2.625	mg/L	0.3223	12.28%
Ni 231.604†	505.3	0.1363	mg/L	0.00197	0.2726	mg/L	0.00394	1.45%
Pb 220.353†	590.8	0.09286	mg/L	0.000792	0.1857	mg/L	0.00158	0.85%
Sb 206.836†	8.4	0.00248	mg/L	0.001486	0.00497	mg/L	0.002972	59.81%
Se 196.026†	-3.5	-0.00281	mg/L	0.004535	-0.00562	mg/L	0.009070	161.40%
Si 288.158†	10688.1	6.452	mg/L	0.0671	12.90	mg/L	0.134	1.04%
Sn 189.927†	-17.0	-0.00243	mg/L	0.000171	-0.00486	mg/L	0.000343	7.05%
Sr 421.552†	87932.6	0.1205	mg/L	0.00188	0.2410	mg/L	0.00376	1.56%
Ti 334.903†	52134.1	3.152	mg/L	0.0446	6.305	mg/L	0.0893	1.42%
Tl 190.801†	-9.8	0.00359	mg/L	0.000533	0.00719	mg/L	0.001066	14.83%
V 292.402†	17184.1	0.1586	mg/L	0.00098	0.3171	mg/L	0.00197	0.62%
Zn 206.200†	1676.8	0.4894	mg/L	0.00415	0.9787	mg/L	0.00831	0.85%

Sequence No.: 23
Sample ID: CV 3

Autosampler Location: 7
Date Collected: 11/27/2012 12:35:24 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2333586.5	105.5	%	0.78				0.74%
ScR 361.383	287417.7	104.6	%	1.47				1.41%
Ag 328.068†	154221.0	1.036	mg/L	0.0053	1.036	mg/L	0.0053	0.52%
Al 308.215†	2831.9	2.053	mg/L	0.0292	2.053	mg/L	0.0292	1.42%
As 188.979†	3182.9	2.070	mg/L	0.0170	2.070	mg/L	0.0170	0.82%
B 249.677†	6330.7	0.9665	mg/L	0.01195	0.9665	mg/L	0.01195	1.24%
Ba 233.527†	3973.0	1.004	mg/L	0.0164	1.004	mg/L	0.0164	1.63%
Be 313.042†	514271.1	0.9834	mg/L	0.02288	0.9834	mg/L	0.02288	2.33%
Ca 317.933†	23583.5	2.028	mg/L	0.0515	2.028	mg/L	0.0515	2.54%
Cd 228.802†	26220.5	1.027	mg/L	0.0045	1.027	mg/L	0.0045	0.43%
Co 228.616†	33848.9	1.008	mg/L	0.0039	1.008	mg/L	0.0039	0.39%
Cr 267.716†	5659.8	1.018	mg/L	0.0124	1.018	mg/L	0.0124	1.22%
Cu 324.752†	224015.3	1.018	mg/L	0.0071	1.018	mg/L	0.0071	0.69%
Fe 273.955†	2558.1	2.168	mg/L	0.0232	2.168	mg/L	0.0232	1.07%
K 766.490†	34177.1	20.15	mg/L	0.521	20.15	mg/L	0.521	2.59%
Mg 279.077†	2389.7	2.112	mg/L	0.0315	2.112	mg/L	0.0315	1.49%
Mn 257.610†	32221.2	0.9838	mg/L	0.02221	0.9838	mg/L	0.02221	2.26%
Mo 202.031†	17855.8	1.031	mg/L	0.0064	1.031	mg/L	0.0064	0.62%
Na 589.592†	492087.7	48.31	mg/L	1.188	48.31	mg/L	1.188	2.46%
Na 330.237†	1303.1	53.36	mg/L	0.717	53.36	mg/L	0.717	1.34%
Ni 231.604†	3651.8	0.9851	mg/L	0.01657	0.9851	mg/L	0.01657	1.68%
Pb 220.353†	14259.1	2.007	mg/L	0.0042	2.007	mg/L	0.0042	0.21%
Sb 206.836†	6192.6	2.184	mg/L	0.0149	2.184	mg/L	0.0149	0.68%
Se 196.026†	2611.8	2.027	mg/L	0.0088	2.027	mg/L	0.0088	0.43%
Si 288.158†	3718.5	2.243	mg/L	0.0336	2.243	mg/L	0.0336	1.50%
Sn 189.927†	3475.8	1.059	mg/L	0.0076	1.059	mg/L	0.0076	0.72%
Sr 421.552†	698206.5	0.9569	mg/L	0.02314	0.9569	mg/L	0.02314	2.42%
Ti 334.903†	18008.4	1.088	mg/L	0.0270	1.088	mg/L	0.0270	2.48%
Tl 190.801†	4316.9	2.012	mg/L	0.0118	2.012	mg/L	0.0118	0.58%
V 292.402†	107333.8	1.018	mg/L	0.0048	1.018	mg/L	0.0048	0.47%
Zn 206.200†	3552.5	1.037	mg/L	0.0144	1.037	mg/L	0.0144	1.39%

Sequence No.: 24
Sample ID: CB 3

Autosampler Location: 1
Date Collected: 11/27/2012 12:40:28 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2326126.8	105.2	%	0.35				0.33%
ScR 361.383	285643.8	104.0	%	0.86				0.82%
Ag 328.068†	-11.7	-0.00008	mg/L	0.000065	-0.00008	mg/L	0.000065	82.54%
Al 308.215†	3.2	0.00231	mg/L	0.001989	0.00231	mg/L	0.001989	86.13%
As 188.979†	2.7	0.00174	mg/L	0.000982	0.00174	mg/L	0.000982	56.43%
B 249.677†	5.8	0.00088	mg/L	0.000784	0.00088	mg/L	0.000784	88.61%
Ba 233.527†	3.6	0.00091	mg/L	0.000266	0.00091	mg/L	0.000266	29.27%
Be 313.042†	23.4	0.00004	mg/L	0.000043	0.00004	mg/L	0.000043	95.64%
Ca 317.933†	7.3	0.00063	mg/L	0.001253	0.00063	mg/L	0.001253	200.20%
Cd 228.802†	-0.3	-0.00002	mg/L	0.000189	-0.00002	mg/L	0.000189	827.74%
Co 228.616†	2.1	0.00006	mg/L	0.000117	0.00006	mg/L	0.000117	186.71%
Cr 267.716†	3.6	0.00065	mg/L	0.000759	0.00065	mg/L	0.000759	117.37%
Cu 324.752†	-138.2	-0.00063	mg/L	0.000136	-0.00063	mg/L	0.000136	21.65%
Fe 273.955†	2.9	0.00242	mg/L	0.001470	0.00242	mg/L	0.001470	60.65%
K 766.490†	-28.7	-0.01693	mg/L	0.013636	-0.01693	mg/L	0.013636	80.56%
Mg 279.077†	-2.9	-0.00258	mg/L	0.006385	-0.00258	mg/L	0.006385	247.92%
Mn 257.610†	5.7	0.00017	mg/L	0.000030	0.00017	mg/L	0.000030	17.49%
Mo 202.031†	12.4	0.00071	mg/L	0.000214	0.00071	mg/L	0.000214	30.00%
Na 589.592†	30.9	0.00303	mg/L	0.005370	0.00303	mg/L	0.005370	177.30%
Na 330.237†	2.7	0.1100	mg/L	0.22306	0.1100	mg/L	0.22306	202.75%
Ni 231.604†	5.2	0.00139	mg/L	0.001312	0.00139	mg/L	0.001312	94.16%
Pb 220.353†	4.3	0.00061	mg/L	0.000634	0.00061	mg/L	0.000634	104.07%
Sb 206.836†	6.4	0.00225	mg/L	0.001474	0.00225	mg/L	0.001474	65.49%
Se 196.026†	-7.8	-0.00603	mg/L	0.003677	-0.00603	mg/L	0.003677	60.94%
Si 288.158†	1.8	0.00110	mg/L	0.003970	0.00110	mg/L	0.003970	360.95%
Sn 189.927†	3.8	0.00116	mg/L	0.000308	0.00116	mg/L	0.000308	26.54%
Sr 421.552†	83.9	0.00012	mg/L	0.000035	0.00012	mg/L	0.000035	30.10%
Ti 334.903†	3.7	0.00022	mg/L	0.001865	0.00022	mg/L	0.001865	830.48%
Tl 190.801†	7.6	0.00357	mg/L	0.000719	0.00357	mg/L	0.000719	20.14%
V 292.402†	14.1	0.00014	mg/L	0.000228	0.00014	mg/L	0.000228	167.95%
Zn 206.200†	1.3	0.00037	mg/L	0.000110	0.00037	mg/L	0.000110	29.51%

Sequence No.: 25
Sample ID: VR82 F SWC

Dilution: 2.000000X

Del

Autosampler Location: 324
Date Collected: 11/27/2012 12:44:42 PM
Data Type: Original

Nebulizer Parameters: VR82 F SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR82 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2391278.6	108.2	%	0.48				0.45%
ScR 361.383	294393.7	107.2	%	3.78				3.53%
Ag 328.068†	-86.3	-0.00053	mg/L	0.000177	-0.00106	mg/L	0.000354	33.29%
Al 308.215†	68483.7	50.47	mg/L	2.217	100.9	mg/L	4.43	4.39%
As 188.979†	-89.8	0.02925	mg/L	0.003557	0.05850	mg/L	0.007114	12.16%
B 249.677†	74.8	0.01135	mg/L	0.001007	0.02270	mg/L	0.002014	8.87%
Ba 233.527†	1360.8	0.3307	mg/L	0.01193	0.6614	mg/L	0.02386	3.61%
Be 313.042†	461.8	0.00081	mg/L	0.000062	0.00163	mg/L	0.000123	7.58%
Ca 317.933†	249940.0	21.49	mg/L	0.950	42.99	mg/L	1.900	4.42%
Cd 228.802†	52.1	0.00179	mg/L	0.000083	0.00358	mg/L	0.000166	4.64%
Co 228.616†	1441.2	0.03595	mg/L	0.000267	0.07191	mg/L	0.000534	0.74%
Cr 267.716†	800.8	0.1450	mg/L	0.00409	0.2900	mg/L	0.00817	2.82%
Cu 324.752†	21642.5	0.1012	mg/L	0.00051	0.2024	mg/L	0.00102	0.50%
Fe 273.955†	96177.2	81.78	mg/L	3.551	163.6	mg/L	7.10	4.34%
K 766.490†	4300.3	2.535	mg/L	0.1332	5.071	mg/L	0.2664	5.25%
Mg 279.077†	24138.1	21.22	mg/L	0.754	42.44	mg/L	1.508	3.55%
Mn 257.610†	63345.6	1.934	mg/L	0.0864	3.867	mg/L	0.1727	4.47%
Mo 202.031†	55.5	0.00296	mg/L	0.000313	0.00593	mg/L	0.000625	10.55%
Na 589.592†	9715.6	0.9539	mg/L	0.03603	1.908	mg/L	0.0721	3.78%
Na 330.237†	12.4	1.067	mg/L	0.1562	2.134	mg/L	0.3123	14.64%
Ni 231.604†	519.0	0.1400	mg/L	0.00368	0.2800	mg/L	0.00737	2.63%
Pb 220.353†	463.3	0.07403	mg/L	0.000054	0.1481	mg/L	0.00011	0.07%
Sb 206.836†	12.0	0.00411	mg/L	0.000563	0.00822	mg/L	0.001125	13.68%
Se 196.026†	0.5	0.00029	mg/L	0.003416	0.00057	mg/L	0.006831	>999.9%
Si 288.158†	12567.8	7.587	mg/L	0.2692	15.17	mg/L	0.538	3.55%
Sn 189.927†	-15.2	-0.00152	mg/L	0.001564	-0.00305	mg/L	0.003127	102.63%
Sr 421.552†	98433.0	0.1349	mg/L	0.00581	0.2698	mg/L	0.01162	4.31%
Ti 334.903†	51011.5	3.084	mg/L	0.1357	6.169	mg/L	0.2713	4.40%
Tl 190.801†	-6.6	0.00482	mg/L	0.000988	0.00964	mg/L	0.001976	20.50%
V 292.402†	17357.8	0.1602	mg/L	0.00087	0.3204	mg/L	0.00175	0.55%
Zn 206.200†	1491.7	0.4353	mg/L	0.01623	0.8707	mg/L	0.03247	3.73%

Sequence No.: 26
Sample ID: VR82 G SWC

Del

Dilution: 2.000000X

Autosampler Location: 325
Date Collected: 11/27/2012 12:48:42 PM
Data Type: Original

Nebulizer Parameters: VR82 G SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VR82 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2335922.2	105.7	%	0.59				0.56%
ScR 361.383	292039.2	106.3	%	1.93				1.81%
Ag 328.068†	-62.2	-0.00037	mg/L	0.000186	-0.00073	mg/L	0.000371	50.56%
Al 308.215†	73400.5	54.10	mg/L	1.217	108.2	mg/L	2.43	2.25%
As 188.979†	-98.3	0.02764	mg/L	0.004839	0.05527	mg/L	0.009677	17.51%
B 249.677†	75.6	0.01146	mg/L	0.000636	0.02293	mg/L	0.001271	5.54%
Ba 233.527†	1473.9	0.3587	mg/L	0.00507	0.7174	mg/L	0.01014	1.41%
Be 313.042†	506.1	0.00089	mg/L	0.000041	0.00179	mg/L	0.000082	4.57%
Ca 317.933†	252841.3	21.74	mg/L	0.522	43.49	mg/L	1.045	2.40%
Cd 228.802†	60.8	0.00215	mg/L	0.000205	0.00429	mg/L	0.000410	9.54%
Co 228.616†	1524.4	0.03813	mg/L	0.000685	0.07626	mg/L	0.001370	1.80%
Cr 267.716†	882.2	0.1596	mg/L	0.00302	0.3193	mg/L	0.00604	1.89%
Cu 324.752†	21703.6	0.1016	mg/L	0.00061	0.2032	mg/L	0.00122	0.60%
Fe 273.955†	100298.5	85.28	mg/L	2.182	170.6	mg/L	4.36	2.56%
K 766.490†	4601.5	2.713	mg/L	0.0709	5.426	mg/L	0.1418	2.61%
Mg 279.077†	25942.0	22.81	mg/L	0.440	45.62	mg/L	0.880	1.93%
Mn 257.610†	64506.2	1.969	mg/L	0.0462	3.938	mg/L	0.0923	2.34%
Mo 202.031†	53.6	0.00285	mg/L	0.000347	0.00570	mg/L	0.000694	12.18%
Na 589.592†	10077.3	0.9894	mg/L	0.01800	1.979	mg/L	0.0360	1.82%
Na 330.237†	9.9	0.9941	mg/L	0.24020	1.988	mg/L	0.4804	24.16%
Ni 231.604†	550.1	0.1484	mg/L	0.00369	0.2967	mg/L	0.00738	2.49%
Pb 220.353†	462.6	0.07468	mg/L	0.000422	0.1494	mg/L	0.00084	0.56%
Sb 206.836†	10.8	0.00357	mg/L	0.002177	0.00714	mg/L	0.004354	60.95%
Se 196.026†	3.9	0.00289	mg/L	0.001297	0.00578	mg/L	0.002593	44.86%
Si 288.158†	12600.8	7.607	mg/L	0.1365	15.21	mg/L	0.273	1.80%
Sn 189.927†	-19.1	-0.00264	mg/L	0.001729	-0.00529	mg/L	0.003458	65.41%
Sr 421.552†	101608.0	0.1393	mg/L	0.00300	0.2785	mg/L	0.00600	2.15%
Ti 334.903†	53250.0	3.220	mg/L	0.0748	6.440	mg/L	0.1497	2.32%
Tl 190.801†	-9.2	0.00388	mg/L	0.002385	0.00776	mg/L	0.004769	61.48%
V 292.402†	18616.6	0.1720	mg/L	0.00115	0.3439	mg/L	0.00231	0.67%
Zn 206.200†	1512.3	0.4413	mg/L	0.00822	0.8827	mg/L	0.01644	1.86%

Sequence No.: 27
Sample ID: VR82 H SWC

Dilution: 2.000000X

Autosampler Location: 326
Date Collected: 11/27/2012 12:52:41 PM
Data Type: Original

Nebulizer Parameters: VR82 H SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VR82 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2337058.6	105.7	%	0.17				0.16%
ScR 361.383	290799.7	105.9	%	0.83				0.78%
Ag 328.068†	-69.5	-0.00041	mg/L	0.000320	-0.00082	mg/L	0.000640	78.24%
Al 308.215†	89294.4	65.81	mg/L	0.968	131.6	mg/L	1.94	1.47%
As 188.979†	-124.5	0.03025	mg/L	0.003133	0.06050	mg/L	0.006266	10.36%
B 249.677†	88.9	0.01348	mg/L	0.000753	0.02697	mg/L	0.001506	5.58%
Ba 233.527†	1612.3	0.3915	mg/L	0.00324	0.7831	mg/L	0.00647	0.83%
Be 313.042†	578.5	0.00102	mg/L	0.000004	0.00204	mg/L	0.000008	0.38%
Ca 317.933†	271388.7	23.34	mg/L	0.351	46.68	mg/L	0.703	1.51%
Cd 228.802†	70.4	0.00253	mg/L	0.000067	0.00507	mg/L	0.000134	2.64%
Co 228.616†	1707.4	0.04209	mg/L	0.000135	0.08418	mg/L	0.000270	0.32%
Cr 267.716†	1054.0	0.1907	mg/L	0.00072	0.3814	mg/L	0.00143	0.38%
Cu 324.752†	25046.8	0.1172	mg/L	0.00041	0.2344	mg/L	0.00082	0.35%
Fe 273.955†	115886.4	98.54	mg/L	1.501	197.1	mg/L	3.00	1.52%
K 766.490†	5339.0	3.148	mg/L	0.0452	6.295	mg/L	0.0904	1.44%
Mg 279.077†	30279.0	26.62	mg/L	0.227	53.24	mg/L	0.455	0.85%
Mn 257.610†	67857.8	2.071	mg/L	0.0322	4.143	mg/L	0.0644	1.55%
Mo 202.031†	63.0	0.00338	mg/L	0.000295	0.00675	mg/L	0.000591	8.75%
Na 589.592†	12176.1	1.195	mg/L	0.0174	2.391	mg/L	0.0348	1.46%
Na 330.237†	8.8	1.089	mg/L	0.1591	2.177	mg/L	0.3182	14.61%
Ni 231.604†	633.6	0.1709	mg/L	0.00072	0.3417	mg/L	0.00145	0.42%
Pb 220.353†	569.7	0.09205	mg/L	0.001612	0.1841	mg/L	0.00322	1.75%
Sb 206.836†	13.4	0.00441	mg/L	0.003088	0.00882	mg/L	0.006176	70.05%
Se 196.026†	-3.2	-0.00260	mg/L	0.004337	-0.00520	mg/L	0.008674	166.89%
Si 288.158†	13838.7	8.354	mg/L	0.0726	16.71	mg/L	0.145	0.87%
Sn 189.927†	-27.2	-0.00481	mg/L	0.001021	-0.00962	mg/L	0.002041	21.23%
Sr 421.552†	107591.6	0.1475	mg/L	0.00198	0.2949	mg/L	0.00397	1.34%
Ti 334.903†	64583.4	3.905	mg/L	0.0600	7.811	mg/L	0.1200	1.54%
Tl 190.801†	-12.3	0.00372	mg/L	0.000308	0.00745	mg/L	0.000615	8.26%
V 292.402†	21304.0	0.1966	mg/L	0.00074	0.3932	mg/L	0.00147	0.37%
Zn 206.200†	1674.8	0.4888	mg/L	0.00410	0.9776	mg/L	0.00821	0.84%

Sequence No.: 28
Sample ID: VR82 I SWC

Del

Dilution: 2.000000X

Autosampler Location: 327
Date Collected: 11/27/2012 12:56:40 PM
Data Type: Original

Nebulizer Parameters: VR82 I SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VR82 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2335660.1	105.6	%	0.52				0.50%
ScR 361.383	287700.9	104.7	%	0.52				0.49%
Ag 328.068†	-62.5	-0.00037	mg/L	0.000291	-0.00074	mg/L	0.000582	78.88%
Al 308.215†	79115.5	58.31	mg/L	0.171	116.6	mg/L	0.34	0.29%
As 188.979†	-111.7	0.02660	mg/L	0.002995	0.05319	mg/L	0.005990	11.26%
B 249.677†	68.6	0.01040	mg/L	0.001272	0.02080	mg/L	0.002545	12.23%
Ba 233.527†	1459.2	0.3547	mg/L	0.00177	0.7094	mg/L	0.00354	0.50%
Be 313.042†	526.3	0.00093	mg/L	0.000030	0.00186	mg/L	0.000060	3.25%
Ca 317.933†	253064.4	21.76	mg/L	0.126	43.53	mg/L	0.253	0.58%
Cd 228.802†	61.7	0.00222	mg/L	0.000094	0.00445	mg/L	0.000188	4.23%
Co 228.616†	1444.5	0.03521	mg/L	0.000281	0.07041	mg/L	0.000561	0.80%
Cr 267.716†	948.2	0.1716	mg/L	0.00140	0.3432	mg/L	0.00279	0.81%
Cu 324.752†	22584.8	0.1056	mg/L	0.00034	0.2112	mg/L	0.00068	0.32%
Fe 273.955†	102386.4	87.06	mg/L	0.474	174.1	mg/L	0.95	0.54%
K 766.490†	4948.2	2.917	mg/L	0.0270	5.835	mg/L	0.0540	0.93%
Mg 279.077†	26309.8	23.13	mg/L	0.243	46.26	mg/L	0.485	1.05%
Mn 257.610†	58600.1	1.789	mg/L	0.0083	3.578	mg/L	0.0166	0.46%
Mo 202.031†	55.7	0.00297	mg/L	0.000403	0.00594	mg/L	0.000807	13.57%
Na 589.592†	10744.2	1.055	mg/L	0.0024	2.110	mg/L	0.0047	0.22%
Na 330.237†	10.2	1.062	mg/L	0.2744	2.124	mg/L	0.5487	25.84%
Ni 231.604†	549.9	0.1483	mg/L	0.00264	0.2966	mg/L	0.00528	1.78%
Pb 220.353†	524.3	0.08431	mg/L	0.000320	0.1686	mg/L	0.00064	0.38%
Sb 206.836†	4.3	0.00120	mg/L	0.000972	0.00240	mg/L	0.001944	80.95%
Se 196.026†	5.4	0.00409	mg/L	0.003098	0.00819	mg/L	0.006197	75.69%
Si 288.158†	14013.2	8.459	mg/L	0.0826	16.92	mg/L	0.165	0.98%
Sn 189.927†	-24.9	-0.00437	mg/L	0.002583	-0.00874	mg/L	0.005166	59.08%
Sr 421.552†	99156.5	0.1359	mg/L	0.00039	0.2718	mg/L	0.00078	0.29%
Ti 334.903†	57646.9	3.486	mg/L	0.0145	6.972	mg/L	0.0290	0.42%
Tl 190.801†	-10.0	0.00372	mg/L	0.002943	0.00743	mg/L	0.005887	79.20%
V 292.402†	18837.9	0.1739	mg/L	0.00012	0.3477	mg/L	0.00023	0.07%
Zn 206.200†	1567.9	0.4576	mg/L	0.00453	0.9151	mg/L	0.00906	0.99%

Sequence No.: 29
Sample ID: CV 4

Autosampler Location: 7
Date Collected: 11/27/2012 1:00:39 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2275044.8	102.9	%	0.79				0.77%
ScR 361.383	278400.2	101.4	%	1.32				1.30%
Ag 328.068†	158241.3	1.063	mg/L	0.0067	1.063	mg/L	0.0067	0.63%
Al 308.215†	2956.0	2.143	mg/L	0.0269	2.143	mg/L	0.0269	1.25%
As 188.979†	3266.2	2.125	mg/L	0.0082	2.125	mg/L	0.0082	0.38%
B 249.677†	6586.4	1.006	mg/L	0.0140	1.006	mg/L	0.0140	1.39%
Ba 233.527†	4122.5	1.042	mg/L	0.0141	1.042	mg/L	0.0141	1.35%
Be 313.042†	527548.6	1.009	mg/L	0.0150	1.009	mg/L	0.0150	1.49%
Ca 317.933†	24470.1	2.104	mg/L	0.0317	2.104	mg/L	0.0317	1.51%
Cd 228.802†	26917.2	1.055	mg/L	0.0091	1.055	mg/L	0.0091	0.86%
Co 228.616†	34648.6	1.032	mg/L	0.0095	1.032	mg/L	0.0095	0.92%
Cr 267.716†	5872.5	1.056	mg/L	0.0142	1.056	mg/L	0.0142	1.35%
Cu 324.752†	230766.8	1.049	mg/L	0.0071	1.049	mg/L	0.0071	0.68%
Fe 273.955†	2652.9	2.249	mg/L	0.0284	2.249	mg/L	0.0284	1.26%
K 766.490†	35715.5	21.06	mg/L	0.234	21.06	mg/L	0.234	1.11%
Mg 279.077†	2474.5	2.187	mg/L	0.0317	2.187	mg/L	0.0317	1.45%
Mn 257.610†	33447.1	1.021	mg/L	0.0129	1.021	mg/L	0.0129	1.26%
Mo 202.031†	18276.3	1.055	mg/L	0.0101	1.055	mg/L	0.0101	0.96%
Na 589.592†	514232.0	50.49	mg/L	0.811	50.49	mg/L	0.811	1.61%
Na 330.237†	1346.6	55.14	mg/L	0.829	55.14	mg/L	0.829	1.50%
Ni 231.604†	3790.5	1.023	mg/L	0.0140	1.023	mg/L	0.0140	1.37%
Pb 220.353†	14600.0	2.055	mg/L	0.0186	2.055	mg/L	0.0186	0.90%
Sb 206.836†	6376.4	2.249	mg/L	0.0127	2.249	mg/L	0.0127	0.57%
Se 196.026†	2669.4	2.072	mg/L	0.0162	2.072	mg/L	0.0162	0.78%
Si 288.158†	3857.8	2.327	mg/L	0.0321	2.327	mg/L	0.0321	1.38%
Sn 189.927†	3557.0	1.084	mg/L	0.0081	1.084	mg/L	0.0081	0.75%
Sr 421.552†	729571.3	0.9999	mg/L	0.01459	0.9999	mg/L	0.01459	1.46%
Ti 334.903†	18699.2	1.130	mg/L	0.0158	1.130	mg/L	0.0158	1.39%
Tl 190.801†	4426.7	2.063	mg/L	0.0100	2.063	mg/L	0.0100	0.49%
V 292.402†	110019.5	1.043	mg/L	0.0066	1.043	mg/L	0.0066	0.63%
Zn 206.200†	3657.3	1.067	mg/L	0.0156	1.067	mg/L	0.0156	1.46%

User canceled analysis.

==========

Analysis Begun

Start Time: 11/27/2012 1:06:04 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 11/27/2012 8:08:35 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1127.sif
Batch ID:
Results Data Set: I2121127
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

==========

Sequence No.: 1
Sample ID: VR58 MB1 SWC

Autosampler Location: 304
Date Collected: 11/27/2012 1:06:05 PM
Data Type: Original

Dilution: 2.000000X
User canceled analysis.

11-29-12

Analysis Begun

Start Time: 11/27/2012 1:07:01 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 11/27/2012 8:08:35 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1127.sif
Batch ID:
Results Data Set: I2121127
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: CV

Autosampler Location: 7
Date Collected: 11/27/2012 1:07:08 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2282680.6	103.2	%	0.07				0.07%
ScR 361.383	281374.2	102.4	%	1.92				1.87%
Ag 328.068†	157748.0	1.060	mg/L	0.0020	1.060	mg/L	0.0020	0.19%
Al 308.215†	2913.6	2.112	mg/L	0.0420	2.112	mg/L	0.0420	1.99%
As 188.979†	3259.1	2.120	mg/L	0.0085	2.120	mg/L	0.0085	0.40%
B 249.677†	6524.1	0.9960	mg/L	0.01742	0.9960	mg/L	0.01742	1.75%
Ba 233.527†	4082.4	1.032	mg/L	0.0157	1.032	mg/L	0.0157	1.52%
Be 313.042†	529818.7	1.013	mg/L	0.0199	1.013	mg/L	0.0199	1.96%
Ca 317.933†	24257.6	2.086	mg/L	0.0384	2.086	mg/L	0.0384	1.84%
Cd 228.802†	26920.0	1.055	mg/L	0.0023	1.055	mg/L	0.0023	0.22%
Co 228.616†	34680.4	1.033	mg/L	0.0051	1.033	mg/L	0.0051	0.49%
Cr 267.716†	5822.8	1.047	mg/L	0.0165	1.047	mg/L	0.0165	1.57%
Cu 324.752†	229827.7	1.044	mg/L	0.0026	1.044	mg/L	0.0026	0.25%
Fe 273.955†	2621.3	2.222	mg/L	0.0385	2.222	mg/L	0.0385	1.73%
K 766.490†	35224.3	20.77	mg/L	0.470	20.77	mg/L	0.470	2.26%
Mg 279.077†	2447.7	2.164	mg/L	0.0403	2.164	mg/L	0.0403	1.86%
Mn 257.610†	33165.5	1.013	mg/L	0.0207	1.013	mg/L	0.0207	2.04%
Mo 202.031†	18312.9	1.058	mg/L	0.0031	1.058	mg/L	0.0031	0.30%
Na 589.592†	505727.6	49.65	mg/L	0.996	49.65	mg/L	0.996	2.01%
Na 330.237†	1339.3	54.84	mg/L	0.866	54.84	mg/L	0.866	1.58%
Ni 231.604†	3745.0	1.010	mg/L	0.0150	1.010	mg/L	0.0150	1.49%
Pb 220.353†	14581.4	2.053	mg/L	0.0062	2.053	mg/L	0.0062	0.30%
Sb 206.836†	6347.9	2.239	mg/L	0.0076	2.239	mg/L	0.0076	0.34%
Se 196.026†	2670.3	2.073	mg/L	0.0082	2.073	mg/L	0.0082	0.40%
Si 288.158†	3813.2	2.300	mg/L	0.0479	2.300	mg/L	0.0479	2.08%
Sn 189.927†	3552.7	1.082	mg/L	0.0043	1.082	mg/L	0.0043	0.39%
Sr 421.552†	718434.7	0.9846	mg/L	0.01874	0.9846	mg/L	0.01874	1.90%
Ti 334.903†	18518.3	1.119	mg/L	0.0214	1.119	mg/L	0.0214	1.91%
Tl 190.801†	4422.9	2.061	mg/L	0.0054	2.061	mg/L	0.0054	0.26%
V 292.402†	109790.9	1.041	mg/L	0.0029	1.041	mg/L	0.0029	0.27%
Zn 206.200†	3640.9	1.062	mg/L	0.0201	1.062	mg/L	0.0201	1.89%

Sequence No.: 2
Sample ID: CB 4

Autosampler Location: 1
Date Collected: 11/27/2012 1:12:17 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2301991.2	104.1	%	0.23				0.22%
ScR 361.383	282876.7	103.0	%	0.71				0.69%
Ag 328.068†	26.5	0.00018	mg/L	0.000171	0.00018	mg/L	0.000171	95.88%
Al 308.215†	-1.0	-0.00078	mg/L	0.002136	-0.00078	mg/L	0.002136	273.60%
As 188.979†	-0.9	-0.00055	mg/L	0.001588	-0.00055	mg/L	0.001588	287.12%
B 249.677†	9.4	0.00143	mg/L	0.000853	0.00143	mg/L	0.000853	59.58%
Ba 233.527†	-1.0	-0.00025	mg/L	0.000592	-0.00025	mg/L	0.000592	235.91%
Be 313.042†	29.3	0.00006	mg/L	0.000059	0.00006	mg/L	0.000059	105.42%
Ca 317.933†	-0.1	-0.00001	mg/L	0.000303	-0.00001	mg/L	0.000303	>999.9%
Cd 228.802†	1.8	0.00008	mg/L	0.000113	0.00008	mg/L	0.000113	148.72%
Co 228.616†	2.0	0.00006	mg/L	0.000204	0.00006	mg/L	0.000204	355.32%
Cr 267.716†	1.1	0.00019	mg/L	0.000539	0.00019	mg/L	0.000539	279.64%
Cu 324.752†	-140.0	-0.00064	mg/L	0.000056	-0.00064	mg/L	0.000056	8.79%
Fe 273.955†	0.5	0.00046	mg/L	0.001731	0.00046	mg/L	0.001731	378.16%
K 766.490†	-28.2	-0.01660	mg/L	0.011198	-0.01660	mg/L	0.011198	67.45%
Mg 279.077†	4.0	0.00351	mg/L	0.010039	0.00351	mg/L	0.010039	285.92%
Mn 257.610†	10.8	0.00033	mg/L	0.000127	0.00033	mg/L	0.000127	38.36%
Mo 202.031†	15.1	0.00087	mg/L	0.000211	0.00087	mg/L	0.000211	24.17%
Na 589.592†	19.7	0.00193	mg/L	0.001653	0.00193	mg/L	0.001653	85.50%
Na 330.237†	-1.2	-0.05058	mg/L	0.701219	-0.05058	mg/L	0.701219	>999.9%
Ni 231.604†	0.3	0.00008	mg/L	0.000523	0.00008	mg/L	0.000523	643.31%
Pb 220.353†	11.8	0.00165	mg/L	0.000783	0.00165	mg/L	0.000783	47.33%
Sb 206.836†	8.8	0.00309	mg/L	0.001170	0.00309	mg/L	0.001170	37.82%
Se 196.026†	-4.1	-0.00320	mg/L	0.003559	-0.00320	mg/L	0.003559	111.18%
Si 288.158†	6.9	0.00419	mg/L	0.002748	0.00419	mg/L	0.002748	65.55%
Sn 189.927†	1.3	0.00039	mg/L	0.000648	0.00039	mg/L	0.000648	166.51%
Sr 421.552†	72.8	0.00010	mg/L	0.000033	0.00010	mg/L	0.000033	32.93%
Ti 334.903†	7.2	0.00044	mg/L	0.000296	0.00044	mg/L	0.000296	67.77%
Tl 190.801†	4.1	0.00194	mg/L	0.001633	0.00194	mg/L	0.001633	84.38%
V 292.402†	1.9	0.00002	mg/L	0.000178	0.00002	mg/L	0.000178	935.27%
Zn 206.200†	2.0	0.00059	mg/L	0.000588	0.00059	mg/L	0.000588	98.95%

Analysis Begun

Start Time: 11/27/2012 1:22:48 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 11/27/2012 8:08:35 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1127.sif
Batch ID:
Results Data Set: I2121127
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: STD4

Date Collected: 11/27/2012 1:22:49 PM
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2349239.7	14580.43	0.62%	106.3	%
ScR 361.383	289414.2	2164.64	0.75%	105.4	%
Mo 202.031†	175855.3	1839.47	1.05%	[10]	mg/L
Sb 206.836†	28628.7	298.50	1.04%	[10]	mg/L
Si 288.158†	17434.8	167.10	0.96%	[10]	mg/L
Sn 189.927†	33909.1	301.80	0.89%	[10]	mg/L
Ti 334.903†	175643.1	203.15	0.12%	[10]	mg/L

Sequence No.: 2
Sample ID: STD5

Date Collected: 11/27/2012 1:25:04 PM
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2158212.8	19942.70	0.92%	97.62	%
ScR 361.383	282290.3	2473.21	0.88%	102.8	%
Al 308.215†	41737.6	538.25	1.29%	[30]	mg/L
Ca 317.933†	365386.7	4892.01	1.34%	[30]	mg/L
Fe 273.955†	124443.3	1759.60	1.41%	[100]	mg/L
K 766.490†	174123.8	983.83	0.57%	[100]	mg/L
Mg 279.077†	35484.4	439.16	1.24%	[30]	mg/L
Na 330.237†	2498.7	30.72	1.23%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	148900	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1391	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	1558	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	6544	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	3955	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	522800	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	12180	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	25210	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	33490	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	5559	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	220000	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1244	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	1741	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1183	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	32760	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	17590	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	10190	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	24.99	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	3708	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	7107	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	2863	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1288	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	1743	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	3391	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	729700	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	17560	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	2137	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	105900	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	3426	0.00000	1.000000	

Analysis Begun

Start Time: 11/27/2012 1:29:03 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/27/2012 8:08:35 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1127.sif
Batch ID:
Results Data Set: I2121127
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: CV 6
Autosampler Location: 7
Date Collected: 11/27/2012 1:29:04 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2266619.2	102.5	%	0.23				0.23%
ScR 361.383	281223.5	102.4	%	1.47				1.44%
Ag 328.068†	151922.0	1.021	mg/L	0.0023	1.021	mg/L	0.0023	0.22%
Al 308.215†	2905.6	2.053	mg/L	0.0324	2.053	mg/L	0.0324	1.58%
As 188.979†	3258.5	2.118	mg/L	0.0109	2.118	mg/L	0.0109	0.52%
B 249.677†	6498.2	0.9921	mg/L	0.01422	0.9921	mg/L	0.01422	1.43%
Ba 233.527†	4064.2	1.027	mg/L	0.0159	1.027	mg/L	0.0159	1.55%
Be 313.042†	529899.8	1.013	mg/L	0.0165	1.013	mg/L	0.0165	1.63%
Ca 317.933†	24234.7	1.990	mg/L	0.0367	1.990	mg/L	0.0367	1.84%
Cd 228.802†	26806.1	1.050	mg/L	0.0008	1.050	mg/L	0.0008	0.08%
Co 228.616†	34492.8	1.028	mg/L	0.0005	1.028	mg/L	0.0005	0.05%
Cr 267.716†	5807.5	1.044	mg/L	0.0108	1.044	mg/L	0.0108	1.03%
Cu 324.752†	223774.1	1.017	mg/L	0.0017	1.017	mg/L	0.0017	0.17%
Fe 273.955†	2625.3	2.103	mg/L	0.0171	2.103	mg/L	0.0171	0.81%
K 766.490†	35304.2	20.28	mg/L	0.329	20.28	mg/L	0.329	1.62%
Mg 279.077†	2448.5	2.078	mg/L	0.0328	2.078	mg/L	0.0328	1.58%
Mn 257.610†	33163.4	1.013	mg/L	0.0171	1.013	mg/L	0.0171	1.69%
Mo 202.031†	18780.0	1.068	mg/L	0.0045	1.068	mg/L	0.0045	0.42%
Na 589.592†	505745.6	49.65	mg/L	0.792	49.65	mg/L	0.792	1.60%
Na 330.237†	1329.3	53.09	mg/L	0.734	53.09	mg/L	0.734	1.38%
Ni 231.604†	3739.9	1.009	mg/L	0.0140	1.009	mg/L	0.0140	1.39%
Pb 220.353†	14974.1	2.108	mg/L	0.0088	2.108	mg/L	0.0088	0.42%
Sb 206.836†	6342.0	2.214	mg/L	0.0143	2.214	mg/L	0.0143	0.65%
Se 196.026†	2669.3	2.072	mg/L	0.0111	2.072	mg/L	0.0111	0.53%
Si 288.158†	3803.3	2.181	mg/L	0.0303	2.181	mg/L	0.0303	1.39%
Sn 189.927†	3563.4	1.052	mg/L	0.0043	1.052	mg/L	0.0043	0.40%
Sr 421.552†	719114.2	0.9855	mg/L	0.01762	0.9855	mg/L	0.01762	1.79%
Ti 334.903†	18521.6	1.053	mg/L	0.0175	1.053	mg/L	0.0175	1.66%
Tl 190.801†	4416.9	2.058	mg/L	0.0089	2.058	mg/L	0.0089	0.43%
V 292.402†	107379.0	1.018	mg/L	0.0017	1.018	mg/L	0.0017	0.17%
Zn 206.200†	3636.5	1.061	mg/L	0.0125	1.061	mg/L	0.0125	1.17%

Sequence No.: 2
Sample ID: CB 5

Autosampler Location: 1
Date Collected: 11/27/2012 1:33:54 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2269541.6	102.7	%	0.67				0.66%
ScR 361.383	279335.7	101.7	%	0.31				0.30%
Ag 328.068†	-24.4	-0.00016	mg/L	0.000295	-0.00016	mg/L	0.000295	179.78%
Al 308.215†	-0.9	-0.00064	mg/L	0.000756	-0.00064	mg/L	0.000756	118.55%
As 188.979†	-0.0	-0.00003	mg/L	0.001799	-0.00003	mg/L	0.001799	>999.9%
B 249.677†	8.8	0.00135	mg/L	0.000612	0.00135	mg/L	0.000612	45.17%
Ba 233.527†	2.6	0.00066	mg/L	0.000813	0.00066	mg/L	0.000813	122.28%
Be 313.042†	51.1	0.00010	mg/L	0.000036	0.00010	mg/L	0.000036	37.35%
Ca 317.933†	12.0	0.00098	mg/L	0.000420	0.00098	mg/L	0.000420	42.64%
Cd 228.802†	1.8	0.00007	mg/L	0.000229	0.00007	mg/L	0.000229	313.35%
Co 228.616†	-4.6	-0.00014	mg/L	0.000128	-0.00014	mg/L	0.000128	92.91%
Cr 267.716†	1.5	0.00027	mg/L	0.000157	0.00027	mg/L	0.000157	58.41%
Cu 324.752†	-103.6	-0.00047	mg/L	0.000068	-0.00047	mg/L	0.000068	14.34%
Fe 273.955†	-0.7	-0.00055	mg/L	0.001363	-0.00055	mg/L	0.001363	249.64%
K 766.490†	-7.2	-0.00411	mg/L	0.000223	-0.00411	mg/L	0.000223	5.43%
Mg 279.077†	5.6	0.00470	mg/L	0.001212	0.00470	mg/L	0.001212	25.78%
Mn 257.610†	8.2	0.00025	mg/L	0.000092	0.00025	mg/L	0.000092	36.90%
Mo 202.031†	24.8	0.00141	mg/L	0.000112	0.00141	mg/L	0.000112	7.92%
Na 589.592†	34.4	0.00338	mg/L	0.000477	0.00338	mg/L	0.000477	14.10%
Na 330.237†	-0.1	-0.00216	mg/L	0.457105	-0.00216	mg/L	0.457105	>999.9%
Ni 231.604†	4.0	0.00109	mg/L	0.001169	0.00109	mg/L	0.001169	107.35%
Pb 220.353†	5.6	0.00079	mg/L	0.001333	0.00079	mg/L	0.001333	167.93%
Sb 206.836†	10.8	0.00376	mg/L	0.002057	0.00376	mg/L	0.002057	54.70%
Se 196.026†	-3.0	-0.00235	mg/L	0.001661	-0.00235	mg/L	0.001661	70.65%
Si 288.158†	-0.5	-0.00030	mg/L	0.005410	-0.00030	mg/L	0.005410	>999.9%
Sn 189.927†	1.5	0.00043	mg/L	0.001156	0.00043	mg/L	0.001156	268.81%
Sr 421.552†	76.2	0.00010	mg/L	0.000025	0.00010	mg/L	0.000025	24.26%
Ti 334.903†	-0.5	-0.00003	mg/L	0.000658	-0.00003	mg/L	0.000658	>999.9%
Tl 190.801†	5.6	0.00263	mg/L	0.001639	0.00263	mg/L	0.001639	62.20%
V 292.402†	5.5	0.00005	mg/L	0.000134	0.00005	mg/L	0.000134	246.43%
Zn 206.200†	-0.7	-0.00019	mg/L	0.001443	-0.00019	mg/L	0.001443	758.12%

Analysis Begun

Start Time: 11/27/2012 1:38:24 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 11/27/2012 8:08:35 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1127.sif
Batch ID:
Results Data Set: I2121127
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: VS22 MB1 SWC

Del

Autosampler Location: 328
Date Collected: 11/27/2012 1:38:26 PM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VS22 MB1 SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS22 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2299077.5	104.0	%	1.04				1.00%
ScR 361.383	285414.2	103.9	%	0.51				0.50%
Ag 328.068†	-14.2	-0.00010	mg/L	0.000315	-0.00019	mg/L	0.000629	330.15%
Al 308.215†	2.8	0.00198	mg/L	0.000425	0.00396	mg/L	0.000851	21.48%
As 188.979†	0.9	0.00055	mg/L	0.001571	0.00110	mg/L	0.003143	284.92%
B 249.677†	11.7	0.00178	mg/L	0.000706	0.00356	mg/L	0.001412	39.62%
Ba 233.527†	0.7	0.00018	mg/L	0.001133	0.00036	mg/L	0.002265	622.38%
Be 313.042†	-10.0	-0.00002	mg/L	0.000014	-0.00004	mg/L	0.000029	75.52%
Ca 317.933†	83.1	0.00682	mg/L	0.001006	0.01364	mg/L	0.002013	14.76%
Cd 228.802†	-1.3	-0.00005	mg/L	0.000113	-0.00011	mg/L	0.000226	215.02%
Co 228.616†	5.1	0.00015	mg/L	0.000132	0.00031	mg/L	0.000264	86.44%
Cr 267.716†	5.3	0.00096	mg/L	0.001220	0.00192	mg/L	0.002440	127.16%
Cu 324.752†	-134.9	-0.00061	mg/L	0.000169	-0.00123	mg/L	0.000338	27.58%
Fe 273.955†	8.8	0.00708	mg/L	0.000987	0.01417	mg/L	0.001974	13.93%
K 766.490†	-12.8	-0.00732	mg/L	0.018989	-0.01465	mg/L	0.037977	259.25%
Mg 279.077†	1.9	0.00157	mg/L	0.008602	0.00314	mg/L	0.017203	547.78%
Mn 257.610†	12.1	0.00037	mg/L	0.000121	0.00074	mg/L	0.000242	32.87%
Mo 202.031†	10.0	0.00057	mg/L	0.000154	0.00113	mg/L	0.000307	27.07%
Na 589.592†	57.0	0.00559	mg/L	0.002744	0.01119	mg/L	0.005488	49.05%
Na 330.237†	5.3	0.2098	mg/L	0.32275	0.4196	mg/L	0.64551	153.83%
Ni 231.604†	5.6	0.00152	mg/L	0.000947	0.00305	mg/L	0.001893	62.16%
Pb 220.353†	5.7	0.00080	mg/L	0.000568	0.00161	mg/L	0.001136	70.69%
Sb 206.836†	4.3	0.00149	mg/L	0.001917	0.00299	mg/L	0.003834	128.24%
Se 196.026†	-10.4	-0.00805	mg/L	0.002742	-0.01609	mg/L	0.005485	34.08%
Si 288.158†	9.5	0.00545	mg/L	0.002567	0.01089	mg/L	0.005133	47.13%
Sn 189.927†	2.2	0.00065	mg/L	0.000454	0.00131	mg/L	0.000908	69.51%
Sr 421.552†	45.6	0.00006	mg/L	0.000011	0.00012	mg/L	0.000022	17.39%
Ti 334.903†	-17.9	-0.00102	mg/L	0.000335	-0.00204	mg/L	0.000669	32.87%
Tl 190.801†	4.7	0.00220	mg/L	0.001670	0.00441	mg/L	0.003341	75.79%
V 292.402†	-1.7	-0.00001	mg/L	0.000187	-0.00002	mg/L	0.000374	>999.9%
Zn 206.200†	6.4	0.00186	mg/L	0.000893	0.00371	mg/L	0.001786	48.07%

Sequence No.: 2
Sample ID: VS22 B SWC

Dilution: 5.000000X

Autosampler Location: 329
Date Collected: 11/27/2012 1:42:41 PM
Data Type: Original

Nebulizer Parameters: VS22 B SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS22 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2328160.0	105.3	%	0.34				0.32%
ScR 361.383	290683.0	105.8	%	0.76				0.72%
Ag 328.068†	-106.7	-0.00066	mg/L	0.000097	-0.00332	mg/L	0.000486	14.64%
Al 308.215†	112993.6	81.20	mg/L	0.309	406.0	mg/L	1.55	0.38%
As 188.979†	-170.8	0.01806	mg/L	0.001208	0.09031	mg/L	0.006039	6.69%
B 249.677†	49.3	0.00744	mg/L	0.001202	0.03722	mg/L	0.006012	16.15%
Ba 233.527†	2417.7	0.5964	mg/L	0.00907	2.982	mg/L	0.0454	1.52%
Be 313.042†	879.2	0.00159	mg/L	0.000041	0.00795	mg/L	0.000204	2.56%
Ca 317.933†	325242.4	26.70	mg/L	0.137	133.5	mg/L	0.69	0.51%
Cd 228.802†	256.7	0.01009	mg/L	0.000069	0.05044	mg/L	0.000344	0.68%
Co 228.616†	1607.6	0.03802	mg/L	0.000155	0.1901	mg/L	0.00078	0.41%
Cr 267.716†	539.6	0.09810	mg/L	0.001231	0.4905	mg/L	0.00615	1.25%
Cu 324.752†	13523.2	0.06439	mg/L	0.000537	0.3219	mg/L	0.00269	0.83%
Fe 273.955†	113646.5	91.32	mg/L	0.385	456.6	mg/L	1.92	0.42%
K 766.490†	8696.0	4.994	mg/L	0.0499	24.97	mg/L	0.249	1.00%
Mg 279.077†	27951.5	23.58	mg/L	0.135	117.9	mg/L	0.68	0.57%
Mn 257.610†	68754.4	2.099	mg/L	0.0084	10.49	mg/L	0.042	0.40%
Mo 202.031†	60.8	0.00316	mg/L	0.000127	0.01582	mg/L	0.000633	4.00%
Na 589.592†	13794.3	1.354	mg/L	0.0051	6.772	mg/L	0.0256	0.38%
Na 330.237†	12.3	1.273	mg/L	0.1378	6.363	mg/L	0.6891	10.83%
Ni 231.604†	245.5	0.06622	mg/L	0.001114	0.3311	mg/L	0.00557	1.68%
Pb 220.353†	1570.7	0.2368	mg/L	0.00070	1.184	mg/L	0.0035	0.29%
Sb 206.836†	17.4	0.00729	mg/L	0.001527	0.03645	mg/L	0.007634	20.94%
Se 196.026†	-0.9	-0.00081	mg/L	0.001225	-0.00405	mg/L	0.006126	151.35%
Si 288.158†	2512.9	1.444	mg/L	0.0260	7.221	mg/L	0.1301	1.80%
Sn 189.927†	-32.6	-0.00566	mg/L	0.001373	-0.02829	mg/L	0.006864	24.26%
Sr 421.552†	142743.5	0.1956	mg/L	0.00074	0.9781	mg/L	0.00369	0.38%
Ti 334.903†	79368.3	4.517	mg/L	0.0111	22.59	mg/L	0.055	0.24%
Tl 190.801†	-14.7	0.00197	mg/L	0.002899	0.00985	mg/L	0.014493	147.07%
V 292.402†	19275.7	0.1770	mg/L	0.00119	0.8849	mg/L	0.00593	0.67%
Zn 206.200†	2591.7	0.7564	mg/L	0.00870	3.782	mg/L	0.0435	1.15%

Sequence No.: 3
Sample ID: VS22 C SWC

Del

Dilution: 5.000000X

Autosampler Location: 330
Date Collected: 11/27/2012 1:46:40 PM
Data Type: Original

Nebulizer Parameters: VS22 C SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS22 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2324745.5	105.1	%	0.23				0.22%
ScR 361.383	287486.3	104.7	%	0.59				0.56%
Ag 328.068†	-190.2	-0.00123	mg/L	0.000248	-0.00615	mg/L	0.001241	20.17%
Al 308.215†	136923.8	98.41	mg/L	0.204	492.0	mg/L	1.02	0.21%
As 188.979†	-180.1	0.00643	mg/L	0.002963	0.03214	mg/L	0.014814	46.08%
B 249.677†	44.5	0.00670	mg/L	0.001263	0.03351	mg/L	0.006314	18.84%
Ba 233.527†	2313.9	0.5690	mg/L	0.00165	2.845	mg/L	0.0083	0.29%
Be 313.042†	1345.4	0.00249	mg/L	0.000021	0.01244	mg/L	0.000105	0.84%
Ca 317.933†	287714.5	23.62	mg/L	0.052	118.1	mg/L	0.26	0.22%
Cd 228.802†	53.2	0.00200	mg/L	0.000105	0.00999	mg/L	0.000524	5.25%
Co 228.616†	1741.9	0.04233	mg/L	0.000431	0.2117	mg/L	0.00216	1.02%
Cr 267.716†	566.3	0.1034	mg/L	0.00133	0.5169	mg/L	0.00666	1.29%
Cu 324.752†	15540.4	0.07391	mg/L	0.000518	0.3695	mg/L	0.00259	0.70%
Fe 273.955†	122146.6	98.15	mg/L	0.283	490.8	mg/L	1.41	0.29%
K 766.490†	9580.7	5.502	mg/L	0.0241	27.51	mg/L	0.121	0.44%
Mg 279.077†	27198.2	22.94	mg/L	0.040	114.7	mg/L	0.20	0.17%
Mn 257.610†	32118.6	0.9804	mg/L	0.00191	4.902	mg/L	0.0096	0.20%
Mo 202.031†	52.0	0.00270	mg/L	0.000475	0.01349	mg/L	0.002374	17.59%
Na 589.592†	17278.8	1.696	mg/L	0.0074	8.482	mg/L	0.0369	0.44%
Na 330.237†	11.9	1.377	mg/L	0.2046	6.887	mg/L	1.0229	14.85%
Ni 231.604†	272.2	0.07341	mg/L	0.001458	0.3670	mg/L	0.00729	1.99%
Pb 220.353†	204.0	0.04831	mg/L	0.000399	0.2415	mg/L	0.00199	0.83%
Sb 206.836†	8.6	0.00398	mg/L	0.001300	0.01989	mg/L	0.006500	32.68%
Se 196.026†	-4.8	-0.00386	mg/L	0.001500	-0.01929	mg/L	0.007499	38.87%
Si 288.158†	3467.9	1.992	mg/L	0.0117	9.960	mg/L	0.0584	0.59%
Sn 189.927†	-26.1	-0.00415	mg/L	0.000840	-0.02074	mg/L	0.004202	20.26%
Sr 421.552†	138567.9	0.1899	mg/L	0.00047	0.9495	mg/L	0.00237	0.25%
Ti 334.903†	75805.7	4.315	mg/L	0.0076	21.57	mg/L	0.038	0.18%
Tl 190.801†	-14.0	0.00307	mg/L	0.004801	0.01535	mg/L	0.024007	156.35%
V 292.402†	17257.9	0.1577	mg/L	0.00091	0.7883	mg/L	0.00453	0.57%
Zn 206.200†	843.6	0.2462	mg/L	0.00245	1.231	mg/L	0.0122	0.99%

Sequence No.: 4
Sample ID: VS22 D SWC

Del

Dilution: 5.000000X

Autosampler Location: 331
Date Collected: 11/27/2012 1:50:39 PM
Data Type: Original

Nebulizer Parameters: VS22 D SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS22 D SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2350629.2	106.3	%	0.47				0.45%
ScR 361.383	289387.8	105.4	%	1.41				1.34%
Ag 328.068†	-385.2	-0.00253	mg/L	0.000197	-0.01264	mg/L	0.000984	7.79%
Al 308.215†	101917.4	73.24	mg/L	0.437	366.2	mg/L	2.19	0.60%
As 188.979†	-131.0	0.03591	mg/L	0.004378	0.1795	mg/L	0.02189	12.19%
B 249.677†	5.3	0.00071	mg/L	0.000581	0.00353	mg/L	0.002907	82.25%
Ba 233.527†	3272.1	0.8095	mg/L	0.01055	4.047	mg/L	0.0528	1.30%
Be 313.042†	1025.3	0.00186	mg/L	0.000036	0.00932	mg/L	0.000179	1.92%
Ca 317.933†	2741050.0	225.1	mg/L	2.67	1125	mg/L	13.34	1.19%
Cd 228.802†	60.6	0.00200	mg/L	0.000164	0.01000	mg/L	0.000822	8.22%
Co 228.616†	1797.4	0.04316	mg/L	0.000279	0.2158	mg/L	0.00140	0.65%
Cr 267.716†	772.3	0.1374	mg/L	0.00108	0.6871	mg/L	0.00541	0.79%
Cu 324.752†	26525.9	0.1241	mg/L	0.00017	0.6206	mg/L	0.00084	0.14%
Fe 273.955†	136217.6	109.5	mg/L	0.41	547.3	mg/L	2.05	0.37%
K 766.490†	13679.9	7.856	mg/L	0.0527	39.28	mg/L	0.263	0.67%
Mg 279.077†	48516.0	40.96	mg/L	0.154	204.8	mg/L	0.77	0.38%
Mn 257.610†	50942.7	1.555	mg/L	0.0054	7.773	mg/L	0.0269	0.35%
Mo 202.031†	111.8	0.00392	mg/L	0.000201	0.01959	mg/L	0.001006	5.13%
Na 589.592†	16960.1	1.665	mg/L	0.0121	8.326	mg/L	0.0605	0.73%
Na 330.237†	27.8	2.095	mg/L	0.0824	10.47	mg/L	0.412	3.94%
Ni 231.604†	383.5	0.1034	mg/L	0.00205	0.5171	mg/L	0.01023	1.98%
Pb 220.353†	173.9	0.03759	mg/L	0.001671	0.1879	mg/L	0.00835	4.44%
Sb 206.836†	3.3	0.00177	mg/L	0.002191	0.00885	mg/L	0.010956	123.85%
Se 196.026†	-21.4	-0.01679	mg/L	0.006088	-0.08394	mg/L	0.030438	36.26%
Si 288.158†	3030.9	1.744	mg/L	0.0299	8.718	mg/L	0.1495	1.71%
Sn 189.927†	-79.9	0.00494	mg/L	0.002283	0.02468	mg/L	0.011415	46.26%
Sr 421.552†	504247.3	0.6911	mg/L	0.00883	3.455	mg/L	0.0442	1.28%
Ti 334.903†	81770.6	4.645	mg/L	0.0222	23.22	mg/L	0.111	0.48%
Tl 190.801†	6.7	0.01379	mg/L	0.003196	0.06895	mg/L	0.015978	23.17%
V 292.402†	21921.5	0.2014	mg/L	0.00035	1.007	mg/L	0.0017	0.17%
Zn 206.200†	821.9	0.2399	mg/L	0.00270	1.199	mg/L	0.0135	1.13%

Sequence No.: 5 ZZZZZZ
Sample ID: ~~VS22 A-L SWC~~ BA 11/25/12
Dilution: 25.000000X Del

Autosampler Location: 332
Date Collected: 11/27/2012 1:54:41 PM
Data Type: Original

Nebulizer Parameters: VS22 A-L SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS22 A-L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2285899.9	103.4	%	0.39				0.38%
ScR 361.383	291233.2	106.0	%	3.25				3.07%
Ag 328.068†	6.8	0.00005	mg/L	0.000053	0.00130	mg/L	0.001334	102.91%
Al 308.215†	13271.4	9.538	mg/L	0.3700	238.4	mg/L	9.25	3.88%
As 188.979†	-9.9	0.00776	mg/L	0.000799	0.1941	mg/L	0.01997	10.29%
B 249.677†	12.8	0.00195	mg/L	0.000514	0.04871	mg/L	0.012843	26.37%
Ba 233.527†	524.5	0.1307	mg/L	0.00628	3.268	mg/L	0.1569	4.80%
Be 313.042†	121.0	0.00022	mg/L	0.000048	0.00552	mg/L	0.001205	21.82%
Ca 317.933†	75112.6	6.167	mg/L	0.2372	154.2	mg/L	5.93	3.85%
Cd 228.802†	119.5	0.00468	mg/L	0.000149	0.1170	mg/L	0.00373	3.19%
Co 228.616†	234.6	0.00586	mg/L	0.000162	0.1466	mg/L	0.00405	2.76%
Cr 267.716†	73.7	0.01332	mg/L	0.000611	0.3329	mg/L	0.01526	4.58%
Cu 324.752†	2909.7	0.01361	mg/L	0.000211	0.3402	mg/L	0.00527	1.55%
Fe 273.955†	14420.5	11.59	mg/L	0.490	289.7	mg/L	12.24	4.23%
K 766.490†	1553.1	0.8919	mg/L	0.03852	22.30	mg/L	0.963	4.32%
Mg 279.077†	3564.0	3.007	mg/L	0.1211	75.18	mg/L	3.028	4.03%
Mn 257.610†	23192.6	0.7079	mg/L	0.02854	17.70	mg/L	0.713	4.03%
Mo 202.031†	21.3	0.00114	mg/L	0.000375	0.02853	mg/L	0.009376	32.86%
Na 589.592†	1400.8	0.1375	mg/L	0.00702	3.438	mg/L	0.1756	5.11%
Na 330.237†	11.5	0.5079	mg/L	0.39787	12.70	mg/L	9.947	78.34%
Ni 231.604†	35.7	0.00964	mg/L	0.000852	0.2411	mg/L	0.02130	8.83%
Pb 220.353†	1353.5	0.1922	mg/L	0.00199	4.806	mg/L	0.0497	1.03%
Sb 206.836†	13.7	0.00488	mg/L	0.003239	0.1219	mg/L	0.08098	66.41%
Se 196.026†	-10.5	-0.00815	mg/L	0.002693	-0.2038	mg/L	0.06731	33.03%
Si 288.158†	297.2	0.1708	mg/L	0.01268	4.271	mg/L	0.3171	7.43%
Sn 189.927†	-3.1	-0.00008	mg/L	0.000353	-0.00199	mg/L	0.008825	444.49%
Sr 421.552†	30523.9	0.04183	mg/L	0.001653	1.046	mg/L	0.0413	3.95%
Ti 334.903†	8887.8	0.5057	mg/L	0.02108	12.64	mg/L	0.527	4.17%
Tl 190.801†	5.0	0.00346	mg/L	0.001259	0.08652	mg/L	0.031483	36.39%
V 292.402†	2375.4	0.02190	mg/L	0.000144	0.5476	mg/L	0.00359	0.66%
Zn 206.200†	699.4	0.2041	mg/L	0.00866	5.103	mg/L	0.2165	4.24%

Sequence No.: 6
Sample ID: VS22 A SWC

Dilution: 5.000000X

Del

Autosampler Location: 333
Date Collected: 11/27/2012 1:58:39 PM
Data Type: Original

Nebulizer Parameters: VS22 A SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS22 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2386266.1	107.9	%	1.53				1.42%
ScR 361.383	305862.1	111.4	%	0.81				0.73%
Ag 328.068†	92.8	0.00065	mg/L	0.000282	0.00326	mg/L	0.001409	43.19%
Al 308.215†	62126.6	44.65	mg/L	0.387	223.2	mg/L	1.93	0.87%
As 188.979†	-53.4	0.03192	mg/L	0.000841	0.1596	mg/L	0.00421	2.63%
B 249.677†	64.2	0.00974	mg/L	0.000257	0.04871	mg/L	0.001286	2.64%
Ba 233.527†	2459.0	0.6129	mg/L	0.00605	3.064	mg/L	0.0302	0.99%
Be 313.042†	545.4	0.00099	mg/L	0.000034	0.00497	mg/L	0.000172	3.47%
Ca 317.933†	356774.3	29.29	mg/L	0.191	146.5	mg/L	0.95	0.65%
Cd 228.802†	547.5	0.02146	mg/L	0.000406	0.1073	mg/L	0.00203	1.89%
Co 228.616†	1059.6	0.02628	mg/L	0.000693	0.1314	mg/L	0.00347	2.64%
Cr 267.716†	330.0	0.05970	mg/L	0.000811	0.2985	mg/L	0.00405	1.36%
Cu 324.752†	14012.1	0.06550	mg/L	0.001261	0.3275	mg/L	0.00630	1.93%
Fe 273.955†	67705.1	54.41	mg/L	0.620	272.0	mg/L	3.10	1.14%
K 766.490†	7408.6	4.255	mg/L	0.0227	21.27	mg/L	0.114	0.53%
Mg 279.077†	15896.6	13.41	mg/L	0.101	67.05	mg/L	0.504	0.75%
Mn 257.610†	109301.3	3.336	mg/L	0.0408	16.68	mg/L	0.204	1.22%
Mo 202.031†	73.1	0.00383	mg/L	0.000491	0.01917	mg/L	0.002456	12.81%
Na 589.592†	6402.8	0.6286	mg/L	0.00631	3.143	mg/L	0.0315	1.00%
Na 330.237†	22.5	1.125	mg/L	0.1534	5.625	mg/L	0.7668	13.63%
Ni 231.604†	161.3	0.04351	mg/L	0.000591	0.2175	mg/L	0.00296	1.36%
Pb 220.353†	6217.2	0.8832	mg/L	0.01511	4.416	mg/L	0.0755	1.71%
Sb 206.836†	26.7	0.00987	mg/L	0.001729	0.04937	mg/L	0.008647	17.51%
Se 196.026†	4.6	0.00351	mg/L	0.003822	0.01754	mg/L	0.019109	108.92%
Si 288.158†	1417.6	0.8148	mg/L	0.01341	4.074	mg/L	0.0670	1.65%
Sn 189.927†	-17.0	-0.00101	mg/L	0.000498	-0.00506	mg/L	0.002489	49.19%
Sr 421.552†	142014.9	0.1946	mg/L	0.00149	0.9732	mg/L	0.00744	0.76%
Ti 334.903†	41705.6	2.373	mg/L	0.0236	11.87	mg/L	0.118	1.00%
Tl 190.801†	5.9	0.00805	mg/L	0.002526	0.04027	mg/L	0.012632	31.37%
V 292.402†	10790.6	0.09940	mg/L	0.001623	0.4970	mg/L	0.00811	1.63%
Zn 206.200†	3302.9	0.9640	mg/L	0.00776	4.820	mg/L	0.0388	0.80%

Sequence No.: 7
Sample ID: VS22 ADUP SWC

Dil

Dilution: 5.000000X

Autosampler Location: 334
Date Collected: 11/27/2012 2:02:39 PM
Data Type: Original

Nebulizer Parameters: VS22 ADUP SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS22 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2410458.8	109.0	%	0.53				0.48%
ScR 361.383	294470.5	107.2	%	1.10				1.03%
Ag 328.068†	72.5	0.00052	mg/L	0.000210	0.00259	mg/L	0.001049	40.47%
Al 308.215†	67203.2	48.30	mg/L	0.539	241.5	mg/L	2.69	1.12%
As 188.979†	-63.5	0.03370	mg/L	0.001709	0.1685	mg/L	0.00854	5.07%
B 249.677†	79.4	0.01207	mg/L	0.001080	0.06035	mg/L	0.005400	8.95%
Ba 233.527†	2638.4	0.6577	mg/L	0.00349	3.288	mg/L	0.0175	0.53%
Be 313.042†	590.4	0.00108	mg/L	0.000017	0.00538	mg/L	0.000087	1.62%
Ca 317.933†	385457.0	31.65	mg/L	0.347	158.2	mg/L	1.73	1.10%
Cd 228.802†	572.0	0.02244	mg/L	0.000248	0.1122	mg/L	0.00124	1.11%
Co 228.616†	1067.5	0.02590	mg/L	0.000285	0.1295	mg/L	0.00143	1.10%
Cr 267.716†	345.1	0.06244	mg/L	0.000579	0.3122	mg/L	0.00290	0.93%
Cu 324.752†	14311.2	0.06695	mg/L	0.000017	0.3347	mg/L	0.00009	0.03%
Fe 273.955†	72131.8	57.96	mg/L	0.522	289.8	mg/L	2.61	0.90%
K 766.490†	8196.2	4.707	mg/L	0.0676	23.54	mg/L	0.338	1.44%
Mg 279.077†	16945.4	14.30	mg/L	0.144	71.48	mg/L	0.722	1.01%
Mn 257.610†	117471.5	3.586	mg/L	0.0396	17.93	mg/L	0.198	1.10%
Mo 202.031†	63.9	0.00329	mg/L	0.000205	0.01645	mg/L	0.001025	6.23%
Na 589.592†	7377.1	0.7243	mg/L	0.00928	3.621	mg/L	0.0464	1.28%
Na 330.237†	17.9	0.9868	mg/L	0.07791	4.934	mg/L	0.3896	7.90%
Ni 231.604†	164.8	0.04445	mg/L	0.001341	0.2223	mg/L	0.00670	3.02%
Pb 220.353†	6290.5	0.8943	mg/L	0.00573	4.471	mg/L	0.0287	0.64%
Sb 206.836†	23.3	0.00877	mg/L	0.001345	0.04387	mg/L	0.006726	15.33%
Se 196.026†	-2.6	-0.00213	mg/L	0.006090	-0.01063	mg/L	0.030452	286.34%
Si 288.158†	1498.4	0.8613	mg/L	0.00831	4.306	mg/L	0.0415	0.96%
Sn 189.927†	-21.4	-0.00197	mg/L	0.001218	-0.00983	mg/L	0.006091	61.93%
Sr 421.552†	155225.8	0.2127	mg/L	0.00242	1.064	mg/L	0.0121	1.14%
Ti 334.903†	46881.9	2.668	mg/L	0.0281	13.34	mg/L	0.140	1.05%
Tl 190.801†	2.2	0.00666	mg/L	0.001465	0.03332	mg/L	0.007324	21.98%
V 292.402†	11433.4	0.1052	mg/L	0.00047	0.5262	mg/L	0.00234	0.45%
Zn 206.200†	3507.2	1.024	mg/L	0.0067	5.118	mg/L	0.0333	0.65%

Sequence No.: 8
Sample ID: VS22 ASPK SWC

Dilution: 5.000000X

Del

Autosampler Location: 335
Date Collected: 11/27/2012 2:06:38 PM
Data Type: Original

Nebulizer Parameters: VS22 ASPK SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS22 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2411209.9	109.1	%	0.48				0.44%
ScR 361.383	302231.3	110.0	%	0.51				0.46%
Ag 328.068†	29865.6	0.2007	mg/L	0.00108	1.004	mg/L	0.0054	0.54%
Al 308.215†	68994.5	49.58	mg/L	0.379	247.9	mg/L	1.89	0.76%
As 188.979†	1171.1	0.8261	mg/L	0.00413	4.130	mg/L	0.0206	0.50%
B 249.677†	80.0	0.01175	mg/L	0.000632	0.05873	mg/L	0.003159	5.38%
Ba 233.527†	5678.6	1.426	mg/L	0.0009	7.132	mg/L	0.0045	0.06%
Be 313.042†	103380.0	0.1976	mg/L	0.00144	0.9882	mg/L	0.00719	0.73%
Ca 317.933†	434202.8	35.65	mg/L	0.259	178.3	mg/L	1.30	0.73%
Cd 228.802†	5934.0	0.2300	mg/L	0.00120	1.150	mg/L	0.0060	0.52%
Co 228.616†	7827.8	0.2276	mg/L	0.00155	1.138	mg/L	0.0077	0.68%
Cr 267.716†	1453.8	0.2614	mg/L	0.00131	1.307	mg/L	0.0065	0.50%
Cu 324.752†	60013.7	0.2747	mg/L	0.00104	1.374	mg/L	0.0052	0.38%
Fe 273.955†	72537.0	58.29	mg/L	0.572	291.4	mg/L	2.86	0.98%
K 766.490†	14753.7	8.473	mg/L	0.0584	42.37	mg/L	0.292	0.69%
Mg 279.077†	22515.8	19.01	mg/L	0.022	95.03	mg/L	0.112	0.12%
Mn 257.610†	122673.8	3.744	mg/L	0.0336	18.72	mg/L	0.168	0.90%
Mo 202.031†	68.8	0.00351	mg/L	0.000196	0.01756	mg/L	0.000979	5.57%
Na 589.592†	45976.1	4.514	mg/L	0.0334	22.57	mg/L	0.167	0.74%
Na 330.237†	125.5	5.237	mg/L	0.1513	26.19	mg/L	0.757	2.89%
Ni 231.604†	868.1	0.2338	mg/L	0.00004	1.169	mg/L	0.0002	0.02%
Pb 220.353†	11927.6	1.688	mg/L	0.0129	8.439	mg/L	0.0646	0.77%
Sb 206.836†	27.0	0.00799	mg/L	0.000638	0.03994	mg/L	0.003188	7.98%
Se 196.026†	1023.7	0.7947	mg/L	0.01104	3.973	mg/L	0.0552	1.39%
Si 288.158†	1335.9	0.7694	mg/L	0.00533	3.847	mg/L	0.0267	0.69%
Sn 189.927†	-26.0	-0.00282	mg/L	0.000527	-0.01412	mg/L	0.002633	18.65%
Sr 421.552†	297342.7	0.4075	mg/L	0.00301	2.038	mg/L	0.0151	0.74%
Ti 334.903†	46913.9	2.669	mg/L	0.0204	13.35	mg/L	0.102	0.76%
Tl 190.801†	1631.7	0.7672	mg/L	0.00631	3.836	mg/L	0.0316	0.82%
V 292.402†	32429.3	0.3043	mg/L	0.00126	1.522	mg/L	0.0063	0.41%
Zn 206.200†	4074.4	1.189	mg/L	0.0024	5.946	mg/L	0.0122	0.21%

Sequence No.: 9 ZZZZZZ
Sample ID: ~~VS22 APOST SWC~~ BA 11/28/12 Del
Dilution: 5.000000X

Autosampler Location: 336
Date Collected: 11/27/2012 2:10:37 PM
Data Type: Original

Nebulizer Parameters: VS22 APOST SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS22 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2433828.2	110.1	%	0.73				0.66%
ScR 361.383	303834.7	110.6	%	0.57				0.52%
Ag 328.068†	67862.5	0.4560	mg/L	0.00231	2.280	mg/L	0.0115	0.51%
Al 308.215†	66584.2	47.85	mg/L	0.236	239.2	mg/L	1.18	0.49%
As 188.979†	3020.6	2.006	mg/L	0.0202	10.03	mg/L	0.101	1.01%
B 249.677†	70.4	0.00969	mg/L	0.000722	0.04845	mg/L	0.003610	7.45%
Ba 233.527†	9961.4	2.510	mg/L	0.0069	12.55	mg/L	0.034	0.27%
Be 313.042†	250983.4	0.4799	mg/L	0.00193	2.400	mg/L	0.0097	0.40%
Ca 317.933†	479078.7	39.33	mg/L	0.114	196.7	mg/L	0.57	0.29%
Cd 228.802†	13590.3	0.5261	mg/L	0.00474	2.630	mg/L	0.0237	0.90%
Co 228.616†	17387.3	0.5134	mg/L	0.00459	2.567	mg/L	0.0229	0.89%
Cr 267.716†	2997.2	0.5384	mg/L	0.00073	2.692	mg/L	0.0036	0.14%
Cu 324.752†	119943.9	0.5471	mg/L	0.00209	2.736	mg/L	0.0105	0.38%
Fe 273.955†	71334.2	57.32	mg/L	0.257	286.6	mg/L	1.28	0.45%
K 766.490†	24101.3	13.84	mg/L	0.023	69.21	mg/L	0.116	0.17%
Mg 279.077†	28562.6	24.12	mg/L	0.024	120.6	mg/L	0.12	0.10%
Mn 257.610†	126825.6	3.871	mg/L	0.0134	19.36	mg/L	0.067	0.35%
Mo 202.031†	75.9	0.00386	mg/L	0.000136	0.01930	mg/L	0.000681	3.53%
Na 589.592†	99563.7	9.775	mg/L	0.0307	48.88	mg/L	0.153	0.31%
Na 330.237†	268.0	10.81	mg/L	0.010	54.03	mg/L	0.048	0.09%
Ni 231.604†	1869.5	0.5034	mg/L	0.00042	2.517	mg/L	0.0021	0.08%
Pb 220.353†	19862.3	2.804	mg/L	0.0285	14.02	mg/L	0.143	1.02%
Sb 206.836†	37.7	0.00863	mg/L	0.004270	0.04314	mg/L	0.021348	49.49%
Se 196.026†	2555.7	1.984	mg/L	0.0234	9.920	mg/L	0.1171	1.18%
Si 288.158†	1435.5	0.8282	mg/L	0.01077	4.141	mg/L	0.0539	1.30%
Sn 189.927†	-27.9	-0.00292	mg/L	0.000810	-0.01461	mg/L	0.004051	27.73%
Sr 421.552†	484991.3	0.6647	mg/L	0.00224	3.323	mg/L	0.0112	0.34%
Ti 334.903†	42851.3	2.438	mg/L	0.0078	12.19	mg/L	0.039	0.32%
Tl 190.801†	4009.0	1.877	mg/L	0.0152	9.384	mg/L	0.0762	0.81%
V 292.402†	59879.9	0.5649	mg/L	0.00155	2.824	mg/L	0.0078	0.27%
Zn 206.200†	4937.4	1.441	mg/L	0.0013	7.205	mg/L	0.0063	0.09%

Sequence No.: 10
Sample ID: VS22 MB1SPK SWC

Dilution: 2.000000X

Del

Autosampler Location: 337
Date Collected: 11/27/2012 2:14:23 PM
Data Type: Original

Nebulizer Parameters: VS22 MB1SPK SWC

Analyte	Back Pressure	Flow
All	220.0 kPa	0.75 L/min

Mean Data: VS22 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2434017.1	110.1	%	0.79				0.72%
ScR 361.383	301782.8	109.9	%	0.68				0.62%
Ag 328.068†	75651.2	0.5083	mg/L	0.00064	1.017	mg/L	0.0013	0.13%
Al 308.215†	2679.1	1.919	mg/L	0.0104	3.837	mg/L	0.0208	0.54%
As 188.979†	3089.8	1.983	mg/L	0.0186	3.966	mg/L	0.0372	0.94%
B 249.677†	15.4	0.00134	mg/L	0.000704	0.00268	mg/L	0.001408	52.52%
Ba 233.527†	7595.8	1.920	mg/L	0.0100	3.841	mg/L	0.0200	0.52%
Be 313.042†	254852.0	0.4874	mg/L	0.00265	0.9747	mg/L	0.00530	0.54%
Ca 317.933†	116476.2	9.563	mg/L	0.0359	19.13	mg/L	0.072	0.38%
Cd 228.802†	12949.4	0.5009	mg/L	0.00086	1.002	mg/L	0.0017	0.17%
Co 228.616†	16391.6	0.4892	mg/L	0.00044	0.9783	mg/L	0.00089	0.09%
Cr 267.716†	2750.0	0.4936	mg/L	0.00221	0.9873	mg/L	0.00443	0.45%
Cu 324.752†	103915.9	0.4725	mg/L	0.00120	0.9449	mg/L	0.00239	0.25%
Fe 273.955†	2463.0	1.976	mg/L	0.0073	3.952	mg/L	0.0145	0.37%
K 766.490†	16539.8	9.499	mg/L	0.0610	19.00	mg/L	0.122	0.64%
Mg 279.077†	11641.5	9.842	mg/L	0.0413	19.68	mg/L	0.083	0.42%
Mn 257.610†	16164.6	0.4937	mg/L	0.00167	0.9874	mg/L	0.00333	0.34%
Mo 202.031†	18.3	0.00091	mg/L	0.000377	0.00182	mg/L	0.000754	41.34%
Na 589.592†	93654.7	9.195	mg/L	0.0660	18.39	mg/L	0.132	0.72%
Na 330.237†	260.6	10.27	mg/L	0.178	20.54	mg/L	0.357	1.74%
Ni 231.604†	1755.0	0.4725	mg/L	0.00244	0.9449	mg/L	0.00489	0.52%
Pb 220.353†	13693.4	1.927	mg/L	0.0025	3.855	mg/L	0.0050	0.13%
Sb 206.836†	15.8	0.00029	mg/L	0.002493	0.00057	mg/L	0.004985	867.54%
Se 196.026†	2529.1	1.963	mg/L	0.0100	3.927	mg/L	0.0199	0.51%
Si 288.158†	4.4	0.00560	mg/L	0.001417	0.01119	mg/L	0.002834	25.32%
Sn 189.927†	-14.7	-0.00308	mg/L	0.000498	-0.00615	mg/L	0.000995	16.18%
Sr 421.552†	342443.0	0.4693	mg/L	0.00252	0.9386	mg/L	0.00504	0.54%
Ti 334.903†	27.2	0.00099	mg/L	0.000131	0.00198	mg/L	0.000263	13.25%
Tl 190.801†	4105.0	1.916	mg/L	0.0189	3.833	mg/L	0.0379	0.99%
V 292.402†	51472.0	0.4881	mg/L	0.00031	0.9762	mg/L	0.00063	0.06%
Zn 206.200†	1655.4	0.4832	mg/L	0.00172	0.9664	mg/L	0.00343	0.36%

Sequence No.: 11
Sample ID: CV 7

Autosampler Location: 7
Date Collected: 11/27/2012 2:18:22 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2386525.2	107.9	%	3.59				3.33%
ScR 361.383	19069.3	6.943	%	5.7178				82.36%
Saturated within auto integration window (code 4)								
Ag 328.068†	149452.5	1.004	mg/L	0.0464	1.004	mg/L	0.0464	4.62%
Al 308.215†	19044.3	13.66	mg/L	11.709	13.66	mg/L	11.709	85.74%
Saturated within auto integration window (code 4)								
As 188.979†	3149.6	2.018	mg/L	0.0846	2.018	mg/L	0.0846	4.19%
B 249.677†	13076.8	1.997	mg/L	2.8125	1.997	mg/L	2.8125	140.81%
Saturated within auto integration window (code 4)								
Ba 233.527†	11862.4	2.998	mg/L	3.8505	2.998	mg/L	3.8505	128.43%
Be 313.042†	70861.4	0.1353	mg/L	0.20763	0.1353	mg/L	0.20763	153.41%
Saturated within auto integration window (code 4)								
Ca 317.933†	55121.4	4.526	mg/L	6.3705	4.526	mg/L	6.3705	140.76%
Cd 228.802†	25557.1	1.002	mg/L	0.0512	1.002	mg/L	0.0512	5.11%
Co 228.616†	32832.8	0.9798	mg/L	0.04795	0.9798	mg/L	0.04795	4.89%
Cr 267.716†	2493.5	0.4473	mg/L	5.57932	0.4473	mg/L	5.57932	>999.9%
Saturated within auto integration window (code 4)								
Cu 324.752†	217736.4	0.9898	mg/L	0.04875	0.9898	mg/L	0.04875	4.93%
Fe 273.955†	9320.7	7.482	mg/L	8.2868	7.482	mg/L	8.2868	110.75%
K 766.490†	56498.7	32.45	mg/L	32.589	32.45	mg/L	32.589	100.44%
Saturated within auto integration window (code 4)								
Mg 279.077†	13468.1	11.39	mg/L	9.251	11.39	mg/L	9.251	81.22%
Mn 257.610†	30411.6	0.9285	mg/L	0.67578	0.9285	mg/L	0.67578	72.78%
Saturated within auto integration window (code 4)								
Mo 202.031†	17350.8	0.9866	mg/L	0.05120	0.9866	mg/L	0.05120	5.19%
Na 589.592†	-24927.5	-2.447	mg/L	8.1132	-2.447	mg/L	8.1132	331.51%
Saturated within auto integration window (code 4)								
Na 330.237†	-15629.4	-626.6	mg/L	1114.86	-626.6	mg/L	1114.86	177.91%
Saturated within auto integration window (code 4)								
Ni 231.604†	7947.1	2.143	mg/L	4.6789	2.143	mg/L	4.6789	218.29%
Saturated within auto integration window (code 4)								
Pb 220.353†	13905.2	1.959	mg/L	0.1043	1.959	mg/L	0.1043	5.32%
Sb 206.836†	6082.2	2.131	mg/L	0.0406	2.131	mg/L	0.0406	1.90%
Se 196.026†	2581.2	2.003	mg/L	0.0773	2.003	mg/L	0.0773	3.86%
Si 288.158†	14234.6	8.165	mg/L	7.3442	8.165	mg/L	7.3442	89.95%
Sn 189.927†	3436.6	1.015	mg/L	0.0408	1.015	mg/L	0.0408	4.02%
Sr 421.552†	75605.6	0.1036	mg/L	0.10266	0.1036	mg/L	0.10266	99.08%
Saturated within auto integration window (code 4)								
Ti 334.903†	-430.2	-0.02565	mg/L	0.424327	-0.02565	mg/L	0.424327	>999.9%
Saturated within auto integration window (code 4)								
Tl 190.801†	4243.4	1.978	mg/L	0.0800	1.978	mg/L	0.0800	4.04%
V 292.402†	104014.2	0.9844	mg/L	0.06970	0.9844	mg/L	0.06970	7.08%
Zn 206.200†	11718.6	3.420	mg/L	4.9921	3.420	mg/L	4.9921	145.98%

Sequence No.: 12
Sample ID: CB

Autosampler Location: 1
Date Collected: 11/27/2012 2:24:10 PM
Data Type: Original

Dilution: 1.000000X
User canceled analysis.

Analysis Begun

Start Time: 11/27/2012 2:27:04 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 11/27/2012 8:08:35 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1127.sif
Batch ID:
Results Data Set: I2121127
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 11
Sample ID: CV 8

Autosampler Location: 7
Date Collected: 11/27/2012 2:27:04 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2368646.4	107.1	%	0.48				0.45%
ScR 361.383	24475.8	8.911	%	2.9221				32.79%
Saturated within auto integration window (code 4)								
Ag 328.068†	149334.8	1.003	mg/L	0.0093	1.003	mg/L	0.0093	0.93%
Al 308.215†	14843.2	10.64	mg/L	7.432	10.64	mg/L	7.432	69.87%
Saturated within auto integration window (code 4)								
As 188.979†	3116.6	1.998	mg/L	0.0099	1.998	mg/L	0.0099	0.50%
B 249.677†	23242.9	3.551	mg/L	3.0097	3.551	mg/L	3.0097	84.76%
Saturated within auto integration window (code 4)								
Ba 233.527†	20213.2	5.109	mg/L	4.3051	5.109	mg/L	4.3051	84.27%
Be 313.042†	5675.8	0.01066	mg/L	0.010193	0.01066	mg/L	0.010193	95.64%
Saturated within auto integration window (code 4)								
Ca 317.933†	107740.4	8.846	mg/L	9.7434	8.846	mg/L	9.7434	110.14%
Cd 228.802†	25649.8	1.009	mg/L	0.0071	1.009	mg/L	0.0071	0.70%
Co 228.616†	32852.4	0.9793	mg/L	0.00501	0.9793	mg/L	0.00501	0.51%
Cr 267.716†	22767.4	4.094	mg/L	3.9032	4.094	mg/L	3.9032	95.33%
Saturated within auto integration window (code 4)								
Cu 324.752†	217975.5	0.9910	mg/L	0.00953	0.9910	mg/L	0.00953	0.96%
Fe 273.955†	14281.6	11.47	mg/L	9.685	11.47	mg/L	9.685	84.41%
K 766.490†	32057.0	18.41	mg/L	13.644	18.41	mg/L	13.644	74.11%
Saturated within auto integration window (code 4)								
Mg 279.077†	15529.0	13.13	mg/L	10.436	13.13	mg/L	10.436	79.45%
Mn 257.610†	31333.4	0.9567	mg/L	0.74809	0.9567	mg/L	0.74809	78.19%
Saturated within auto integration window (code 4)								
Mo 202.031†	17401.4	0.9892	mg/L	0.00800	0.9892	mg/L	0.00800	0.81%
Na 589.592†	24335.9	2.389	mg/L	2.6914	2.389	mg/L	2.6914	112.65%
Saturated within auto integration window (code 4)								
Na 330.237†	-609.8	-26.47	mg/L	68.654	-26.47	mg/L	68.654	259.34%
Saturated within auto integration window (code 4)								
Ni 231.604†	18725.0	5.050	mg/L	4.4287	5.050	mg/L	4.4287	87.70%
Saturated within auto integration window (code 4)								
Pb 220.353†	13911.1	1.966	mg/L	0.0166	1.966	mg/L	0.0166	0.84%
Sb 206.836†	6057.5	2.070	mg/L	0.0489	2.070	mg/L	0.0489	2.36%
Se 196.026†	2561.6	1.988	mg/L	0.0106	1.988	mg/L	0.0106	0.53%
Si 288.158†	19020.7	10.91	mg/L	9.030	10.91	mg/L	9.030	82.77%
Sn 189.927†	3419.3	1.011	mg/L	0.0047	1.011	mg/L	0.0047	0.46%
Sr 421.552†	93501.3	0.1281	mg/L	0.10606	0.1281	mg/L	0.10606	82.77%

Saturated within auto integration window (code 4)						
Ti 334.903†	3850.6	0.2171 mg/L	0.23480	0.2171 mg/L	0.23480	108.13%
Saturated within auto integration window (code 4)						
Tl 190.801†	4208.4	1.961 mg/L	0.0164	1.961 mg/L	0.0164	0.83%
V 292.402†	103958.9	0.9993 mg/L	0.01968	0.9993 mg/L	0.01968	1.97%
Zn 206.200†	22047.2	6.434 mg/L	5.5193	6.434 mg/L	5.5193	85.79%

User canceled analysis.

==========

Analysis Begun

Start Time: 11/27/2012 2:37:49 PM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202

Plasma On Time: 11/27/2012 8:08:35 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\1127.sif
Batch ID:
Results Data Set: I2121127
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

==========

Sequence No.: 11
Sample ID: CV 9

Autosampler Location: 7
Date Collected: 11/27/2012 2:37:50 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2337991.9	105.7	%	0.32				0.31%
ScR 361.383	288110.8	104.9	%	1.08				1.03%
Ag 328.068†	153156.4	1.029	mg/L	0.0045	1.029	mg/L	0.0045	0.44%
Al 308.215†	2813.1	1.988	mg/L	0.0209	1.988	mg/L	0.0209	1.05%
As 188.979†	3194.7	2.076	mg/L	0.0153	2.076	mg/L	0.0153	0.74%
B 249.677†	6323.0	0.9653	mg/L	0.01265	0.9653	mg/L	0.01265	1.31%
Ba 233.527†	3913.5	0.9891	mg/L	0.00842	0.9891	mg/L	0.00842	0.85%
Be 313.042†	525227.9	1.004	mg/L	0.0077	1.004	mg/L	0.0077	0.77%
Ca 317.933†	23834.4	1.957	mg/L	0.0111	1.957	mg/L	0.0111	0.57%
Cd 228.802†	26132.9	1.024	mg/L	0.0048	1.024	mg/L	0.0048	0.47%
Co 228.616†	33599.8	1.001	mg/L	0.0061	1.001	mg/L	0.0061	0.61%
Cr 267.716†	5649.2	1.016	mg/L	0.0100	1.016	mg/L	0.0100	0.98%
Cu 324.752†	221813.4	1.008	mg/L	0.0021	1.008	mg/L	0.0021	0.21%
Fe 273.955†	2557.2	2.048	mg/L	0.0211	2.048	mg/L	0.0211	1.03%
K 766.490†	34862.2	20.02	mg/L	0.161	20.02	mg/L	0.161	0.80%
Mg 279.077†	2361.2	2.003	mg/L	0.0170	2.003	mg/L	0.0170	0.85%
Mn 257.610†	32753.0	1.000	mg/L	0.0055	1.000	mg/L	0.0055	0.55%
Mo 202.031†	17649.7	1.004	mg/L	0.0017	1.004	mg/L	0.0017	0.16%
Na 589.592†	495934.9	48.69	mg/L	0.532	48.69	mg/L	0.532	1.09%
Na 330.237†	1303.1	52.05	mg/L	0.335	52.05	mg/L	0.335	0.64%
Ni 231.604†	3615.4	0.9753	mg/L	0.00946	0.9753	mg/L	0.00946	0.97%
Pb 220.353†	14158.2	1.993	mg/L	0.0074	1.993	mg/L	0.0074	0.37%
Sb 206.836†	6101.6	2.131	mg/L	0.0065	2.131	mg/L	0.0065	0.30%
Se 196.026†	2583.5	2.005	mg/L	0.0050	2.005	mg/L	0.0050	0.25%
Si 288.158†	3690.5	2.116	mg/L	0.0215	2.116	mg/L	0.0215	1.02%
Sn 189.927†	3476.1	1.027	mg/L	0.0087	1.027	mg/L	0.0087	0.85%
Sr 421.552†	706618.4	0.9684	mg/L	0.00745	0.9684	mg/L	0.00745	0.77%
Ti 334.903†	18196.1	1.035	mg/L	0.0046	1.035	mg/L	0.0046	0.44%
Tl 190.801†	4281.0	1.995	mg/L	0.0113	1.995	mg/L	0.0113	0.57%
V 292.402†	104696.9	0.9929	mg/L	0.01309	0.9929	mg/L	0.01309	1.32%
Zn 206.200†	3535.7	1.032	mg/L	0.0106	1.032	mg/L	0.0106	1.03%

Sequence No.: 12
Sample ID: CB 6

Autosampler Location: 1
Date Collected: 11/27/2012 2:42:54 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2349712.4	106.3	%	0.48				0.45%
ScR 361.383	299222.3	108.9	%	0.32				0.29%
Ag 328.068†	28.5	0.00019	mg/L	0.000424	0.00019	mg/L	0.000424	221.51%
Al 308.215†	-9.3	-0.00671	mg/L	0.002988	-0.00671	mg/L	0.002988	44.52%
As 188.979†	3.3	0.00211	mg/L	0.001312	0.00211	mg/L	0.001312	62.07%
B 249.677†	14.3	0.00219	mg/L	0.001159	0.00219	mg/L	0.001159	52.98%
Ba 233.527†	-1.3	-0.00032	mg/L	0.000604	-0.00032	mg/L	0.000604	187.16%
Be 313.042†	-6.2	-0.00001	mg/L	0.000036	-0.00001	mg/L	0.000036	304.01%
Ca 317.933†	-12.9	-0.00106	mg/L	0.000410	-0.00106	mg/L	0.000410	38.65%
Cd 228.802†	-7.0	-0.00029	mg/L	0.000139	-0.00029	mg/L	0.000139	47.94%
Co 228.616†	9.4	0.00028	mg/L	0.000099	0.00028	mg/L	0.000099	35.34%
Cr 267.716†	3.5	0.00063	mg/L	0.001368	0.00063	mg/L	0.001368	215.60%
Cu 324.752†	-767.1	-0.00349	mg/L	0.000054	-0.00349	mg/L	0.000054	1.54%
Fe 273.955†	-2.4	-0.00191	mg/L	0.002227	-0.00191	mg/L	0.002227	116.48%
K 766.490†	-41.8	-0.02400	mg/L	0.007835	-0.02400	mg/L	0.007835	32.64%
Mg 279.077†	-8.1	-0.00681	mg/L	0.002065	-0.00681	mg/L	0.002065	30.31%
Mn 257.610†	0.3	0.00001	mg/L	0.000214	0.00001	mg/L	0.000214	>999.9%
Mo 202.031†	8.3	0.00047	mg/L	0.000361	0.00047	mg/L	0.000361	76.94%
Na 589.592†	23.3	0.00229	mg/L	0.002882	0.00229	mg/L	0.002882	125.73%
Na 330.237†	13.0	0.5186	mg/L	0.44411	0.5186	mg/L	0.44411	85.64%
Ni 231.604†	2.4	0.00064	mg/L	0.002513	0.00064	mg/L	0.002513	391.64%
Pb 220.353†	1.1	0.00016	mg/L	0.000255	0.00016	mg/L	0.000255	155.83%
Sb 206.836†	-2.2	-0.00078	mg/L	0.001074	-0.00078	mg/L	0.001074	137.44%
Se 196.026†	-1.7	-0.00133	mg/L	0.002053	-0.00133	mg/L	0.002053	154.92%
Si 288.158†	5.0	0.00289	mg/L	0.003423	0.00289	mg/L	0.003423	118.42%
Sn 189.927†	2.8	0.00082	mg/L	0.001181	0.00082	mg/L	0.001181	143.65%
Sr 421.552†	40.7	0.00006	mg/L	0.000036	0.00006	mg/L	0.000036	63.91%
Ti 334.903†	5.4	0.00031	mg/L	0.000670	0.00031	mg/L	0.000670	216.91%
Tl 190.801†	9.3	0.00437	mg/L	0.000795	0.00437	mg/L	0.000795	18.21%
V 292.402†	-10.1	-0.00009	mg/L	0.000096	-0.00009	mg/L	0.000096	103.92%
Zn 206.200†	-0.1	-0.00004	mg/L	0.000683	-0.00004	mg/L	0.000683	>999.9%

Sequence No.: 13
Sample ID: VS22 E SWC

Autosampler Location: 338
Date Collected: 11/27/2012 2:47:08 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VS22 E SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VS22 E SWC

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2351552.4	106.4	%	0.52				0.49%
ScR 361.383	307532.9	112.0	%	2.57				2.30%
Ag 328.068†	6.3	0.00008	mg/L	0.000209	0.00040	mg/L	0.001044	263.00%
Al 308.215†	92622.5	66.57	mg/L	1.903	332.8	mg/L	9.52	2.86%
As 188.979†	-43.4	0.03809	mg/L	0.005627	0.1904	mg/L	0.02814	14.78%
B 249.677†	74.0	0.01124	mg/L	0.001496	0.05621	mg/L	0.007478	13.30%
Ba 233.527†	6779.5	1.702	mg/L	0.0341	8.512	mg/L	0.1705	2.00%
Be 313.042†	981.1	0.00182	mg/L	0.000072	0.00911	mg/L	0.000361	3.96%
Ca 317.933†	337390.0	27.70	mg/L	0.844	138.5	mg/L	4.22	3.05%
Cd 228.802†	437.9	0.01692	mg/L	0.000267	0.08459	mg/L	0.001336	1.58%
Co 228.616†	1122.9	0.02786	mg/L	0.000416	0.1393	mg/L	0.00208	1.49%
Cr 267.716†	463.0	0.08412	mg/L	0.001123	0.4206	mg/L	0.00561	1.33%
Cu 324.752†	11834.6	0.05640	mg/L	0.000413	0.2820	mg/L	0.00207	0.73%
Fe 273.955†	90682.7	72.87	mg/L	2.137	364.3	mg/L	10.69	2.93%
K 766.490†	11041.8	6.341	mg/L	0.2114	31.71	mg/L	1.057	3.33%
Mg 279.077†	18568.3	15.66	mg/L	0.451	78.30	mg/L	2.256	2.88%
Mn 257.610†	126766.2	3.869	mg/L	0.1119	19.35	mg/L	0.559	2.89%
Mo 202.031†	58.9	0.00305	mg/L	0.000366	0.01523	mg/L	0.001830	12.02%
Na 589.592†	6585.8	0.6466	mg/L	0.01847	3.233	mg/L	0.0923	2.86%
Na 330.237†	21.2	1.059	mg/L	0.1562	5.297	mg/L	0.7811	14.75%
Ni 231.604†	267.0	0.07199	mg/L	0.001797	0.3600	mg/L	0.00899	2.50%
Pb 220.353†	5190.9	0.7434	mg/L	0.00586	3.717	mg/L	0.0293	0.79%
Sb 206.836†	11.2	0.00415	mg/L	0.001686	0.02077	mg/L	0.008430	40.58%
Se 196.026†	1.9	0.00136	mg/L	0.001287	0.00682	mg/L	0.006436	94.42%
Si 288.158†	1967.0	1.130	mg/L	0.0173	5.651	mg/L	0.0867	1.53%
Sn 189.927†	-33.3	-0.00603	mg/L	0.001347	-0.03017	mg/L	0.006735	22.33%
Sr 421.552†	188057.8	0.2577	mg/L	0.00732	1.289	mg/L	0.0366	2.84%
Ti 334.903†	41518.2	2.362	mg/L	0.0674	11.81	mg/L	0.337	2.85%
Tl 190.801†	3.8	0.00893	mg/L	0.000331	0.04466	mg/L	0.001654	3.70%
V 292.402†	13722.5	0.1266	mg/L	0.00109	0.6331	mg/L	0.00543	0.86%
Zn 206.200†	3418.2	0.9976	mg/L	0.01804	4.988	mg/L	0.0902	1.81%

Sequence No.: 14
Sample ID: VS22 F SWC

Autosampler Location: 339
Date Collected: 11/27/2012 2:51:09 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VS22 F SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VS22 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2364852.3	107.0	%	0.40				0.38%
ScR 361.383	307168.6	111.8	%	1.03				0.92%
Ag 328.068†	-70.8	-0.00044	mg/L	0.000103	-0.00221	mg/L	0.000517	23.40%
Al 308.215†	130341.2	93.68	mg/L	1.164	468.4	mg/L	5.82	1.24%
As 188.979†	-67.1	0.04748	mg/L	0.001030	0.2374	mg/L	0.00515	2.17%
B 249.677†	66.2	0.01006	mg/L	0.001286	0.05028	mg/L	0.006430	12.79%
Ba 233.527†	5516.6	1.383	mg/L	0.0111	6.915	mg/L	0.0553	0.80%
Be 313.042†	3381.1	0.00641	mg/L	0.000091	0.03203	mg/L	0.000453	1.42%
Ca 317.933†	260337.0	21.37	mg/L	0.266	106.9	mg/L	1.33	1.25%
Cd 228.802†	365.7	0.01414	mg/L	0.000101	0.07068	mg/L	0.000507	0.72%
Co 228.616†	1124.5	0.02629	mg/L	0.000123	0.1315	mg/L	0.00062	0.47%
Cr 267.716†	365.4	0.06688	mg/L	0.001059	0.3344	mg/L	0.00529	1.58%
Cu 324.752†	34108.8	0.1575	mg/L	0.00088	0.7877	mg/L	0.00441	0.56%
Fe 273.955†	91651.2	73.65	mg/L	1.054	368.2	mg/L	5.27	1.43%
K 766.490†	8628.1	4.955	mg/L	0.0614	24.78	mg/L	0.307	1.24%
Mg 279.077†	14550.5	12.26	mg/L	0.156	61.31	mg/L	0.782	1.28%
Mn 257.610†	153121.2	4.673	mg/L	0.0666	23.37	mg/L	0.333	1.42%
Mo 202.031†	49.8	0.00260	mg/L	0.000443	0.01298	mg/L	0.002213	17.05%
Na 589.592†	8380.0	0.8227	mg/L	0.00972	4.114	mg/L	0.0486	1.18%
Na 330.237†	17.4	1.103	mg/L	0.3258	5.517	mg/L	1.6288	29.52%
Ni 231.604†	217.0	0.05852	mg/L	0.000707	0.2926	mg/L	0.00354	1.21%
Pb 220.353†	3242.4	0.4755	mg/L	0.00084	2.378	mg/L	0.0042	0.18%
Sb 206.836†	10.7	0.00460	mg/L	0.001143	0.02300	mg/L	0.005715	24.85%
Se 196.026†	2.7	0.00201	mg/L	0.005501	0.01003	mg/L	0.027507	274.23%
Si 288.158†	2173.5	1.248	mg/L	0.0115	6.241	mg/L	0.0575	0.92%
Sn 189.927†	-21.6	-0.00324	mg/L	0.001380	-0.01618	mg/L	0.006901	42.65%
Sr 421.552†	219423.5	0.3007	mg/L	0.00368	1.504	mg/L	0.0184	1.22%
Ti 334.903†	56382.3	3.209	mg/L	0.0424	16.05	mg/L	0.212	1.32%
Tl 190.801†	-2.5	0.00609	mg/L	0.000583	0.03045	mg/L	0.002915	9.57%
V 292.402†	12420.4	0.1139	mg/L	0.00017	0.5694	mg/L	0.00085	0.15%
Zn 206.200†	3352.5	0.9784	mg/L	0.00904	4.892	mg/L	0.0452	0.92%

Sequence No.: 15
Sample ID: VS22 G SWC

Autosampler Location: 340
Date Collected: 11/27/2012 2:55:08 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VS22 G SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VS22 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2387215.6	108.0	%	0.57				0.53%
ScR 361.383	307097.6	111.8	%	0.24				0.22%
Ag 328.068†	11.4	0.00013	mg/L	0.000243	0.00063	mg/L	0.001217	193.90%
Al 308.215†	136860.6	98.36	mg/L	1.072	491.8	mg/L	5.36	1.09%
As 188.979†	-51.0	0.05849	mg/L	0.004403	0.2925	mg/L	0.02202	7.53%
B 249.677†	75.3	0.01141	mg/L	0.000668	0.05704	mg/L	0.003338	5.85%
Ba 233.527†	9037.9	2.269	mg/L	0.0186	11.35	mg/L	0.093	0.82%
Be 313.042†	1219.3	0.00226	mg/L	0.000024	0.01130	mg/L	0.000119	1.05%
Ca 317.933†	317368.6	26.06	mg/L	0.344	130.3	mg/L	1.72	1.32%
Cd 228.802†	521.1	0.02003	mg/L	0.000277	0.1001	mg/L	0.00138	1.38%
Co 228.616†	1580.5	0.03945	mg/L	0.000045	0.1973	mg/L	0.00022	0.11%
Cr 267.716†	582.8	0.1055	mg/L	0.00074	0.5273	mg/L	0.00369	0.70%
Cu 324.752†	21189.2	0.09978	mg/L	0.000570	0.4989	mg/L	0.00285	0.57%
Fe 273.955†	121673.4	97.77	mg/L	1.291	488.9	mg/L	6.46	1.32%
K 766.490†	13440.4	7.719	mg/L	0.0877	38.59	mg/L	0.438	1.14%
Mg 279.077†	28503.3	24.05	mg/L	0.226	120.2	mg/L	1.13	0.94%
Mn 257.610†	299774.9	9.150	mg/L	0.1119	45.75	mg/L	0.560	1.22%
Mo 202.031†	67.8	0.00357	mg/L	0.000559	0.01785	mg/L	0.002793	15.65%
Na 589.592†	10661.2	1.047	mg/L	0.0098	5.234	mg/L	0.0488	0.93%
Na 330.237†	33.0	1.560	mg/L	0.2140	7.800	mg/L	1.0700	13.72%
Ni 231.604†	334.3	0.09015	mg/L	0.000488	0.4508	mg/L	0.00244	0.54%
Pb 220.353†	5412.5	0.7811	mg/L	0.00132	3.906	mg/L	0.0066	0.17%
Sb 206.836†	17.2	0.00651	mg/L	0.003691	0.03253	mg/L	0.018454	56.72%
Se 196.026†	8.9	0.00679	mg/L	0.007810	0.03397	mg/L	0.039050	114.96%
Si 288.158†	2526.5	1.452	mg/L	0.0069	7.261	mg/L	0.0344	0.47%
Sn 189.927†	-27.6	-0.00443	mg/L	0.000428	-0.02216	mg/L	0.002138	9.65%
Sr 421.552†	233889.6	0.3205	mg/L	0.00333	1.603	mg/L	0.0167	1.04%
Ti 334.903†	57000.5	3.244	mg/L	0.0393	16.22	mg/L	0.196	1.21%
Tl 190.801†	-7.6	0.00604	mg/L	0.000491	0.03019	mg/L	0.002455	8.13%
V 292.402†	17892.8	0.1655	mg/L	0.00033	0.8277	mg/L	0.00164	0.20%
Zn 206.200†	5209.1	1.520	mg/L	0.0159	7.601	mg/L	0.0797	1.05%

Sequence No.: 16
Sample ID: VS22 H SWC

Autosampler Location: 341
Date Collected: 11/27/2012 2:59:07 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VS22 H SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: VS22 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2394924.3	108.3	%	0.29				0.27%
ScR 361.383	305821.3	111.3	%	0.43				0.39%
Ag 328.068†	-80.7	-0.00050	mg/L	0.000285	-0.00249	mg/L	0.001424	57.11%
Al 308.215†	112659.5	80.97	mg/L	0.497	404.8	mg/L	2.49	0.61%
As 188.979†	-50.0	0.06267	mg/L	0.003557	0.3133	mg/L	0.01778	5.68%
B 249.677†	62.9	0.00952	mg/L	0.000873	0.04760	mg/L	0.004365	9.17%
Ba 233.527†	6094.7	1.527	mg/L	0.0120	7.633	mg/L	0.0598	0.78%
Be 313.042†	1009.8	0.00186	mg/L	0.000009	0.00931	mg/L	0.000043	0.47%
Ca 317.933†	232853.3	19.12	mg/L	0.138	95.59	mg/L	0.688	0.72%
Cd 228.802†	334.7	0.01270	mg/L	0.000096	0.06350	mg/L	0.000482	0.76%
Co 228.616†	1450.2	0.03552	mg/L	0.000108	0.1776	mg/L	0.00054	0.30%
Cr 267.716†	506.6	0.09227	mg/L	0.000750	0.4613	mg/L	0.00375	0.81%
Cu 324.752†	13290.7	0.06353	mg/L	0.000656	0.3176	mg/L	0.00328	1.03%
Fe 273.955†	111207.8	89.36	mg/L	0.765	446.8	mg/L	3.82	0.86%
K 766.490†	11272.5	6.474	mg/L	0.0375	32.37	mg/L	0.188	0.58%
Mg 279.077†	21879.7	18.45	mg/L	0.147	92.25	mg/L	0.737	0.80%
Mn 257.610†	189679.5	5.790	mg/L	0.0451	28.95	mg/L	0.226	0.78%
Mo 202.031†	51.7	0.00273	mg/L	0.000254	0.01364	mg/L	0.001272	9.33%
Na 589.592†	9772.3	0.9594	mg/L	0.00605	4.797	mg/L	0.0303	0.63%
Na 330.237†	30.8	1.659	mg/L	0.1705	8.295	mg/L	0.8527	10.28%
Ni 231.604†	278.5	0.07510	mg/L	0.000522	0.3755	mg/L	0.00261	0.69%
Pb 220.353†	7291.3	1.042	mg/L	0.0032	5.208	mg/L	0.0159	0.30%
Sb 206.836†	22.5	0.00854	mg/L	0.000600	0.04271	mg/L	0.002999	7.02%
Se 196.026†	8.0	0.00610	mg/L	0.002951	0.03052	mg/L	0.014757	48.34%
Si 288.158†	2130.7	1.224	mg/L	0.0056	6.122	mg/L	0.0282	0.46%
Sn 189.927†	-21.1	-0.00335	mg/L	0.000278	-0.01674	mg/L	0.001391	8.31%
Sr 421.552†	129633.4	0.1777	mg/L	0.00115	0.8883	mg/L	0.00573	0.65%
Ti 334.903†	58911.9	3.353	mg/L	0.0228	16.77	mg/L	0.114	0.68%
Tl 190.801†	0.1	0.00880	mg/L	0.002089	0.04401	mg/L	0.010445	23.73%
V 292.402†	15910.8	0.1465	mg/L	0.00111	0.7324	mg/L	0.00555	0.76%
Zn 206.200†	3507.3	1.024	mg/L	0.0085	5.118	mg/L	0.0425	0.83%

Sequence No.: 17
Sample ID: VS22 I SWC

Autosampler Location: 342
Date Collected: 11/27/2012 3:03:07 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VS22 I SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS22 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2392933.0	108.2	%	0.33				0.30%
ScR 361.383	305293.9	111.2	%	0.65				0.59%
Ag 328.068†	-19.7	-0.00009	mg/L	0.000126	-0.00045	mg/L	0.000631	139.07%
Al 308.215†	143781.5	103.3	mg/L	0.52	516.7	mg/L	2.60	0.50%
As 188.979†	-79.6	0.04498	mg/L	0.002199	0.2249	mg/L	0.01100	4.89%
B 249.677†	64.7	0.00978	mg/L	0.001321	0.04890	mg/L	0.006607	13.51%
Ba 233.527†	6409.1	1.604	mg/L	0.0165	8.018	mg/L	0.0826	1.03%
Be 313.042†	1424.8	0.00266	mg/L	0.000029	0.01328	mg/L	0.000146	1.10%
Ca 317.933†	225284.1	18.50	mg/L	0.122	92.48	mg/L	0.609	0.66%
Cd 228.802†	215.0	0.00799	mg/L	0.000013	0.03994	mg/L	0.000063	0.16%
Co 228.616†	1736.8	0.04378	mg/L	0.000298	0.2189	mg/L	0.00149	0.68%
Cr 267.716†	594.0	0.1082	mg/L	0.00170	0.5409	mg/L	0.00852	1.58%
Cu 324.752†	16343.2	0.07806	mg/L	0.000780	0.3903	mg/L	0.00390	1.00%
Fe 273.955†	130028.8	104.5	mg/L	0.72	522.4	mg/L	3.58	0.69%
K 766.490†	11115.6	6.384	mg/L	0.0500	31.92	mg/L	0.250	0.78%
Mg 279.077†	21719.6	18.31	mg/L	0.207	91.54	mg/L	1.036	1.13%
Mn 257.610†	355989.5	10.87	mg/L	0.066	54.33	mg/L	0.331	0.61%
Mo 202.031†	67.2	0.00361	mg/L	0.000102	0.01807	mg/L	0.000508	2.81%
Na 589.592†	7523.6	0.7387	mg/L	0.00261	3.693	mg/L	0.0131	0.35%
Na 330.237†	13.5	1.103	mg/L	0.1831	5.516	mg/L	0.9153	16.59%
Ni 231.604†	498.0	0.1343	mg/L	0.00226	0.6716	mg/L	0.01129	1.68%
Pb 220.353†	1849.5	0.2808	mg/L	0.00098	1.404	mg/L	0.0049	0.35%
Sb 206.836†	10.2	0.00401	mg/L	0.001290	0.02006	mg/L	0.006451	32.16%
Se 196.026†	14.4	0.01111	mg/L	0.002081	0.05556	mg/L	0.010403	18.72%
Si 288.158†	1681.8	0.9669	mg/L	0.01064	4.834	mg/L	0.0532	1.10%
Sn 189.927†	-23.5	-0.00416	mg/L	0.000486	-0.02079	mg/L	0.002430	11.69%
Sr 421.552†	151647.4	0.2078	mg/L	0.00096	1.039	mg/L	0.0048	0.46%
Ti 334.903†	59712.9	3.399	mg/L	0.0147	16.99	mg/L	0.073	0.43%
Tl 190.801†	-12.6	0.00447	mg/L	0.002263	0.02234	mg/L	0.011313	50.64%
V 292.402†	15140.9	0.1395	mg/L	0.00141	0.6975	mg/L	0.00703	1.01%
Zn 206.200†	2206.9	0.6441	mg/L	0.00682	3.220	mg/L	0.0341	1.06%

Sequence No.: 18
Sample ID: VS22 J SWC

Autosampler Location: 343
Date Collected: 11/27/2012 3:07:06 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VS22 J SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VS22 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2401228.4	108.6	%	0.13				0.12%
ScR 361.383	307527.4	112.0	%	1.12				1.00%
Ag 328.068†	24.7	0.00021	mg/L	0.000220	0.00104	mg/L	0.001101	105.90%
Al 308.215†	129885.2	93.35	mg/L	0.495	466.7	mg/L	2.47	0.53%
As 188.979†	-30.9	0.06717	mg/L	0.001927	0.3359	mg/L	0.00964	2.87%
B 249.677†	39.7	0.00597	mg/L	0.000497	0.02985	mg/L	0.002483	8.32%
Ba 233.527†	6526.9	1.635	mg/L	0.0176	8.175	mg/L	0.0880	1.08%
Be 313.042†	1180.3	0.00219	mg/L	0.000043	0.01096	mg/L	0.000214	1.95%
Ca 317.933†	264356.5	21.70	mg/L	0.102	108.5	mg/L	0.51	0.47%
Cd 228.802†	494.8	0.01894	mg/L	0.000124	0.09468	mg/L	0.000621	0.66%
Co 228.616†	1527.9	0.03828	mg/L	0.000266	0.1914	mg/L	0.00133	0.69%
Cr 267.716†	528.8	0.09598	mg/L	0.001543	0.4799	mg/L	0.00771	1.61%
Cu 324.752†	16914.2	0.08023	mg/L	0.000505	0.4011	mg/L	0.00252	0.63%
Fe 273.955†	116948.6	93.98	mg/L	0.417	469.9	mg/L	2.08	0.44%
K 766.490†	10125.1	5.815	mg/L	0.0717	29.07	mg/L	0.359	1.23%
Mg 279.077†	25947.7	21.89	mg/L	0.261	109.4	mg/L	1.30	1.19%
Mn 257.610†	241159.9	7.361	mg/L	0.0315	36.80	mg/L	0.157	0.43%
Mo 202.031†	77.2	0.00415	mg/L	0.000067	0.02076	mg/L	0.000333	1.60%
Na 589.592†	7582.9	0.7445	mg/L	0.00402	3.722	mg/L	0.0201	0.54%
Na 330.237†	20.3	1.108	mg/L	0.2821	5.539	mg/L	1.4104	25.47%
Ni 231.604†	332.5	0.08967	mg/L	0.000782	0.4484	mg/L	0.00391	0.87%
Pb 220.353†	5745.0	0.8269	mg/L	0.00291	4.134	mg/L	0.0146	0.35%
Sb 206.836†	21.2	0.00790	mg/L	0.000647	0.03949	mg/L	0.003236	8.20%
Se 196.026†	1.6	0.00114	mg/L	0.004830	0.00569	mg/L	0.024150	424.24%
Si 288.158†	3552.8	2.040	mg/L	0.0314	10.20	mg/L	0.157	1.54%
Sn 189.927†	-23.3	-0.00371	mg/L	0.001372	-0.01857	mg/L	0.006859	36.93%
Sr 421.552†	170266.3	0.2333	mg/L	0.00139	1.167	mg/L	0.0069	0.59%
Ti 334.903†	54223.5	3.086	mg/L	0.0157	15.43	mg/L	0.079	0.51%
Tl 190.801†	-2.3	0.00817	mg/L	0.003417	0.04085	mg/L	0.017084	41.82%
V 292.402†	15474.8	0.1426	mg/L	0.00058	0.7131	mg/L	0.00289	0.40%
Zn 206.200†	4227.8	1.234	mg/L	0.0132	6.170	mg/L	0.0662	1.07%

Sequence No.: 19
Sample ID: VS22 K SWC

Dilution: 5.000000X

Autosampler Location: 344
Date Collected: 11/27/2012 3:11:05 PM
Data Type: Original

Nebulizer Parameters: VS22 K SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS22 K SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2419803.8	109.4	%	0.33				0.30%
ScR 361.383	306853.0	111.7	%	0.86				0.77%
Ag 328.068†	-58.5	-0.00034	mg/L	0.000180	-0.00171	mg/L	0.000901	52.62%
Al 308.215†	115636.1	83.11	mg/L	0.539	415.5	mg/L	2.69	0.65%
As 188.979†	-133.3	0.01938	mg/L	0.001422	0.09691	mg/L	0.007111	7.34%
B 249.677†	48.3	0.00729	mg/L	0.000304	0.03645	mg/L	0.001522	4.17%
Ba 233.527†	4348.3	1.085	mg/L	0.0098	5.423	mg/L	0.0489	0.90%
Be 313.042†	1540.2	0.00287	mg/L	0.000041	0.01433	mg/L	0.000206	1.44%
Ca 317.933†	313460.3	25.74	mg/L	0.216	128.7	mg/L	1.08	0.84%
Cd 228.802†	239.7	0.00925	mg/L	0.000192	0.04627	mg/L	0.000958	2.07%
Co 228.616†	1437.3	0.03444	mg/L	0.000322	0.1722	mg/L	0.00161	0.94%
Cr 267.716†	522.8	0.09512	mg/L	0.000289	0.4756	mg/L	0.00144	0.30%
Cu 324.752†	19464.8	0.09157	mg/L	0.000445	0.4578	mg/L	0.00223	0.49%
Fe 273.955†	113576.3	91.27	mg/L	0.926	456.3	mg/L	4.63	1.02%
K 766.490†	8481.4	4.871	mg/L	0.0295	24.35	mg/L	0.148	0.61%
Mg 279.077†	25985.9	21.92	mg/L	0.145	109.6	mg/L	0.72	0.66%
Mn 257.610†	110436.3	3.371	mg/L	0.0318	16.85	mg/L	0.159	0.94%
Mo 202.031†	53.0	0.00273	mg/L	0.000048	0.01364	mg/L	0.000241	1.77%
Na 589.592†	7974.3	0.7829	mg/L	0.00540	3.915	mg/L	0.0270	0.69%
Na 330.237†	10.5	1.051	mg/L	0.1676	5.255	mg/L	0.8379	15.95%
Ni 231.604†	239.3	0.06455	mg/L	0.000210	0.3227	mg/L	0.00105	0.33%
Pb 220.353†	2675.5	0.3926	mg/L	0.00152	1.963	mg/L	0.0076	0.39%
Sb 206.836†	7.4	0.00343	mg/L	0.001753	0.01717	mg/L	0.008766	51.05%
Se 196.026†	10.5	0.00802	mg/L	0.003281	0.04008	mg/L	0.016403	40.92%
Si 288.158†	2375.8	1.365	mg/L	0.0104	6.827	mg/L	0.0520	0.76%
Sn 189.927†	-31.4	-0.00553	mg/L	0.000808	-0.02764	mg/L	0.004038	14.61%
Sr 421.552†	379107.5	0.5196	mg/L	0.00365	2.598	mg/L	0.0182	0.70%
Ti 334.903†	65376.7	3.721	mg/L	0.0247	18.60	mg/L	0.124	0.66%
Tl 190.801†	-7.1	0.00556	mg/L	0.000647	0.02781	mg/L	0.003237	11.64%
V 292.402†	18411.3	0.1695	mg/L	0.00083	0.8473	mg/L	0.00416	0.49%
Zn 206.200†	2233.4	0.6518	mg/L	0.00672	3.259	mg/L	0.0336	1.03%

Sequence No.: 20
Sample ID: VS22 L SWC

Autosampler Location: 345
Date Collected: 11/27/2012 3:15:05 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VS22 L SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VS22 L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2385751.4	107.9	%	0.64				0.59%
ScR 361.383	299584.2	109.1	%	0.25				0.23%
Ag 328.068†	-47.2	-0.00028	mg/L	0.000427	-0.00142	mg/L	0.002137	150.65%
Al 308.215†	71454.7	51.35	mg/L	0.290	256.8	mg/L	1.45	0.57%
As 188.979†	-62.1	0.02877	mg/L	0.000791	0.1439	mg/L	0.00395	2.75%
B 249.677†	164.9	0.02514	mg/L	0.000226	0.1257	mg/L	0.00113	0.90%
Ba 233.527†	4592.7	1.151	mg/L	0.0061	5.755	mg/L	0.0307	0.53%
Be 313.042†	1000.4	0.00186	mg/L	0.000016	0.00930	mg/L	0.000080	0.86%
Ca 317.933†	1105689.6	90.78	mg/L	0.246	453.9	mg/L	1.23	0.27%
Cd 228.802†	407.9	0.01589	mg/L	0.000213	0.07946	mg/L	0.001067	1.34%
Co 228.616†	1102.5	0.02699	mg/L	0.000427	0.1350	mg/L	0.00214	1.58%
Cr 267.716†	485.4	0.08695	mg/L	0.000394	0.4348	mg/L	0.00197	0.45%
Cu 324.752†	27469.1	0.1270	mg/L	0.00179	0.6350	mg/L	0.00896	1.41%
Fe 273.955†	79011.8	63.49	mg/L	0.364	317.5	mg/L	1.82	0.57%
K 766.490†	9472.3	5.440	mg/L	0.0445	27.20	mg/L	0.222	0.82%
Mg 279.077†	21050.5	17.76	mg/L	0.096	88.82	mg/L	0.482	0.54%
Mn 257.610†	153052.2	4.671	mg/L	0.0318	23.36	mg/L	0.159	0.68%
Mo 202.031†	96.1	0.00448	mg/L	0.000304	0.02240	mg/L	0.001520	6.79%
Na 589.592†	10784.6	1.059	mg/L	0.0032	5.294	mg/L	0.0162	0.31%
Na 330.237†	30.2	1.424	mg/L	0.2440	7.121	mg/L	1.2202	17.13%
Ni 231.604†	229.0	0.06176	mg/L	0.000246	0.3088	mg/L	0.00123	0.40%
Pb 220.353†	4582.9	0.6545	mg/L	0.00705	3.272	mg/L	0.0353	1.08%
Sb 206.836†	15.3	0.00553	mg/L	0.003832	0.02764	mg/L	0.019160	69.32%
Se 196.026†	-7.6	-0.00597	mg/L	0.005793	-0.02984	mg/L	0.028967	97.06%
Si 288.158†	2105.2	1.210	mg/L	0.0018	6.049	mg/L	0.0089	0.15%
Sn 189.927†	-52.2	-0.00376	mg/L	0.001115	-0.01882	mg/L	0.005574	29.61%
Sr 421.552†	666046.1	0.9128	mg/L	0.00142	4.564	mg/L	0.0071	0.16%
Ti 334.903†	45433.2	2.582	mg/L	0.0150	12.91	mg/L	0.075	0.58%
Tl 190.801†	12.2	0.01191	mg/L	0.002231	0.05955	mg/L	0.011153	18.73%
V 292.402†	12335.2	0.1139	mg/L	0.00159	0.5694	mg/L	0.00795	1.40%
Zn 206.200†	3862.7	1.127	mg/L	0.0047	5.637	mg/L	0.0237	0.42%

Sequence No.: 21
Sample ID: CV 10

Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/27/2012 3:19:19 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2351694.9	106.4	%	0.99				0.93%
ScR 361.383	297514.0	108.3	%	1.45				1.34%
Ag 328.068†	153080.2	1.029	mg/L	0.0108	1.029	mg/L	0.0108	1.05%
Al 308.215†	2778.4	1.963	mg/L	0.0136	1.963	mg/L	0.0136	0.69%
As 188.979†	3179.3	2.067	mg/L	0.0332	2.067	mg/L	0.0332	1.60%
B 249.677†	6275.0	0.9580	mg/L	0.01414	0.9580	mg/L	0.01414	1.48%
Ba 233.527†	3903.9	0.9867	mg/L	0.01214	0.9867	mg/L	0.01214	1.23%
Be 313.042†	514447.6	0.9838	mg/L	0.01120	0.9838	mg/L	0.01120	1.14%
Ca 317.933†	24896.9	2.044	mg/L	0.0299	2.044	mg/L	0.0299	1.46%
Cd 228.802†	26151.7	1.025	mg/L	0.0130	1.025	mg/L	0.0130	1.27%
Co 228.616†	33674.6	1.003	mg/L	0.0123	1.003	mg/L	0.0123	1.23%
Cr 267.716†	5596.9	1.006	mg/L	0.0121	1.006	mg/L	0.0121	1.20%
Cu 324.752†	221361.8	1.006	mg/L	0.0111	1.006	mg/L	0.0111	1.10%
Fe 273.955†	2552.7	2.044	mg/L	0.0297	2.044	mg/L	0.0297	1.45%
K 766.490†	34552.3	19.84	mg/L	0.328	19.84	mg/L	0.328	1.65%
Mg 279.077†	2341.8	1.987	mg/L	0.0252	1.987	mg/L	0.0252	1.27%
Mn 257.610†	33648.7	1.027	mg/L	0.0151	1.027	mg/L	0.0151	1.47%
Mo 202.031†	17589.4	1.000	mg/L	0.0121	1.000	mg/L	0.0121	1.21%
Na 589.592†	496393.0	48.74	mg/L	0.638	48.74	mg/L	0.638	1.31%
Na 330.237†	1291.9	51.61	mg/L	0.957	51.61	mg/L	0.957	1.85%
Ni 231.604†	3599.0	0.9709	mg/L	0.01182	0.9709	mg/L	0.01182	1.22%
Pb 220.353†	14217.5	2.001	mg/L	0.0250	2.001	mg/L	0.0250	1.25%
Sb 206.836†	6070.8	2.120	mg/L	0.0308	2.120	mg/L	0.0308	1.45%
Se 196.026†	2555.2	1.983	mg/L	0.0308	1.983	mg/L	0.0308	1.55%
Si 288.158†	3658.4	2.098	mg/L	0.0255	2.098	mg/L	0.0255	1.21%
Sn 189.927†	3481.5	1.028	mg/L	0.0149	1.028	mg/L	0.0149	1.45%
Sr 421.552†	704808.0	0.9659	mg/L	0.01382	0.9659	mg/L	0.01382	1.43%
Ti 334.903†	18759.0	1.067	mg/L	0.0155	1.067	mg/L	0.0155	1.45%
Tl 190.801†	4269.6	1.989	mg/L	0.0295	1.989	mg/L	0.0295	1.48%
V 292.402†	103969.6	0.9860	mg/L	0.01217	0.9860	mg/L	0.01217	1.23%
Zn 206.200†	3518.2	1.027	mg/L	0.0168	1.027	mg/L	0.0168	1.64%

Sequence No.: 22
Sample ID: CB 7

Autosampler Location: 1
Date Collected: 11/27/2012 3:23:39 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Conc.	Calib. Units	Std.Dev.	Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2359509.2	106.7	%	0.30				0.28%
ScR 361.383	296045.4	107.8	%	0.82				0.76%
Ag 328.068†	-30.1	-0.00020	mg/L	0.000145	-0.00020	mg/L	0.000145	71.71%
Al 308.215†	-5.4	-0.00385	mg/L	0.002933	-0.00385	mg/L	0.002933	76.16%
As 188.979†	5.1	0.00324	mg/L	0.001315	0.00324	mg/L	0.001315	40.65%
B 249.677†	8.9	0.00136	mg/L	0.001624	0.00136	mg/L	0.001624	119.13%
Ba 233.527†	0.7	0.00017	mg/L	0.000835	0.00017	mg/L	0.000835	483.77%
Be 313.042†	-11.4	-0.00002	mg/L	0.000012	-0.00002	mg/L	0.000012	53.46%
Ca 317.933†	1.6	0.00013	mg/L	0.000945	0.00013	mg/L	0.000945	719.11%
Cd 228.802†	-6.7	-0.00029	mg/L	0.000107	-0.00029	mg/L	0.000107	37.06%
Co 228.616†	8.7	0.00026	mg/L	0.000158	0.00026	mg/L	0.000158	60.78%
Cr 267.716†	5.3	0.00096	mg/L	0.000526	0.00096	mg/L	0.000526	55.00%
Cu 324.752†	-797.7	-0.00363	mg/L	0.000043	-0.00363	mg/L	0.000043	1.18%
Fe 273.955†	-1.2	-0.00098	mg/L	0.000813	-0.00098	mg/L	0.000813	82.88%
K 766.490†	-32.3	-0.01853	mg/L	0.005040	-0.01853	mg/L	0.005040	27.19%
Mg 279.077†	-2.9	-0.00242	mg/L	0.003151	-0.00242	mg/L	0.003151	130.31%
Mn 257.610†	5.6	0.00017	mg/L	0.000037	0.00017	mg/L	0.000037	21.31%
Mo 202.031†	4.1	0.00023	mg/L	0.000332	0.00023	mg/L	0.000332	143.21%
Na 589.592†	58.4	0.00574	mg/L	0.005052	0.00574	mg/L	0.005052	88.09%
Na 330.237†	2.9	0.1164	mg/L	0.23288	0.1164	mg/L	0.23288	200.03%
Ni 231.604†	3.5	0.00094	mg/L	0.001483	0.00094	mg/L	0.001483	157.56%
Pb 220.353†	9.1	0.00128	mg/L	0.000550	0.00128	mg/L	0.000550	42.81%
Sb 206.836†	-1.3	-0.00046	mg/L	0.000837	-0.00046	mg/L	0.000837	182.15%
Se 196.026†	-4.7	-0.00363	mg/L	0.001580	-0.00363	mg/L	0.001580	43.55%
Si 288.158†	-3.7	-0.00210	mg/L	0.002617	-0.00210	mg/L	0.002617	124.49%
Sn 189.927†	2.7	0.00079	mg/L	0.001544	0.00079	mg/L	0.001544	195.28%
Sr 421.552†	80.7	0.00011	mg/L	0.000027	0.00011	mg/L	0.000027	24.67%
Ti 334.903†	-9.4	-0.00053	mg/L	0.000760	-0.00053	mg/L	0.000760	142.41%
Tl 190.801†	9.0	0.00422	mg/L	0.000937	0.00422	mg/L	0.000937	22.22%
V 292.402†	7.5	0.00008	mg/L	0.000084	0.00008	mg/L	0.000084	111.01%
Zn 206.200†	-1.4	-0.00041	mg/L	0.000751	-0.00041	mg/L	0.000751	183.32%

Sequence No.: 23
Sample ID: CRI

Autosampler Location: 301
Date Collected: 11/27/2012 3:27:53 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2347879.1	106.2	%	1.30				1.23%
ScR 361.383	298076.8	108.5	%	1.26				1.16%
Ag 328.068†	442.2	0.00297	mg/L	0.000022	0.00297	mg/L	0.000022	0.75%
Al 308.215†	58.3	0.04176	mg/L	0.003169	0.04176	mg/L	0.003169	7.59%
As 188.979†	78.4	0.05039	mg/L	0.000187	0.05039	mg/L	0.000187	0.37%
B 249.677†	129.2	0.01974	mg/L	0.001423	0.01974	mg/L	0.001423	7.21%
Ba 233.527†	11.3	0.00284	mg/L	0.000821	0.00284	mg/L	0.000821	28.87%
Be 313.042†	472.0	0.00090	mg/L	0.000013	0.00090	mg/L	0.000013	1.44%
Ca 317.933†	599.1	0.04919	mg/L	0.001144	0.04919	mg/L	0.001144	2.33%
Cd 228.802†	54.2	0.00183	mg/L	0.000231	0.00183	mg/L	0.000231	12.67%
Co 228.616†	127.1	0.00379	mg/L	0.000035	0.00379	mg/L	0.000035	0.92%
Cr 267.716†	31.5	0.00565	mg/L	0.000591	0.00565	mg/L	0.000591	10.45%
Cu 324.752†	-358.9	-0.00163	mg/L	0.000137	-0.00163	mg/L	0.000137	8.38%
Fe 273.955†	62.0	0.04980	mg/L	0.000618	0.04980	mg/L	0.000618	1.24%
K 766.490†	784.4	0.4505	mg/L	0.03770	0.4505	mg/L	0.03770	8.37%
Mg 279.077†	56.5	0.04776	mg/L	0.007262	0.04776	mg/L	0.007262	15.21%
Mn 257.610†	37.3	0.00114	mg/L	0.000156	0.00114	mg/L	0.000156	13.67%
Mo 202.031†	87.7	0.00499	mg/L	0.000100	0.00499	mg/L	0.000100	2.00%
Na 589.592†	4730.0	0.4644	mg/L	0.00398	0.4644	mg/L	0.00398	0.86%
Na 330.237†	16.4	0.6549	mg/L	0.59514	0.6549	mg/L	0.59514	90.88%
Ni 231.604†	38.0	0.01026	mg/L	0.002040	0.01026	mg/L	0.002040	19.87%
Pb 220.353†	147.0	0.02071	mg/L	0.000496	0.02071	mg/L	0.000496	2.39%
Sb 206.836†	140.8	0.04921	mg/L	0.000758	0.04921	mg/L	0.000758	1.54%
Se 196.026†	61.2	0.04753	mg/L	0.001930	0.04753	mg/L	0.001930	4.06%
Si 288.158†	110.1	0.06312	mg/L	0.002676	0.06312	mg/L	0.002676	4.24%
Sn 189.927†	34.6	0.01022	mg/L	0.000494	0.01022	mg/L	0.000494	4.84%
Sr 421.552†	699.7	0.00096	mg/L	0.000052	0.00096	mg/L	0.000052	5.44%
Ti 334.903†	55.1	0.00313	mg/L	0.001299	0.00313	mg/L	0.001299	41.48%
Tl 190.801†	111.9	0.05235	mg/L	0.001142	0.05235	mg/L	0.001142	2.18%
V 292.402†	317.1	0.00302	mg/L	0.000165	0.00302	mg/L	0.000165	5.47%
Zn 206.200†	33.3	0.00973	mg/L	0.000681	0.00973	mg/L	0.000681	7.00%

Sequence No.: 24
Sample ID: ICSA

Autosampler Location: 302
Date Collected: 11/27/2012 3:32:08 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2331685.5	105.5	%	0.66				0.63%
ScR 361.383	293622.7	106.9	%	0.20				0.19%
Ag 328.068†	-178.9	-0.00120	mg/L	0.000301	-0.00120	mg/L	0.000301	25.11%
Al 308.215†	272104.4	195.6	mg/L	0.96	195.6	mg/L	0.96	0.49%
As 188.979†	30.3	0.01385	mg/L	0.001543	0.01385	mg/L	0.001543	11.14%
B 249.677†	-33.7	-0.00515	mg/L	0.001699	-0.00515	mg/L	0.001699	33.01%
Ba 233.527†	113.1	-0.00342	mg/L	0.000052	-0.00342	mg/L	0.000052	1.52%
Be 313.042†	25.7	0.00005	mg/L	0.000016	0.00005	mg/L	0.000016	33.41%
Ca 317.933†	1199905.4	98.52	mg/L	0.928	98.52	mg/L	0.928	0.94%
Cd 228.802†	43.8	-0.00025	mg/L	0.000020	-0.00025	mg/L	0.000020	8.11%
Co 228.616†	67.2	-0.00055	mg/L	0.000148	-0.00055	mg/L	0.000148	26.89%
Cr 267.716†	13.0	0.00031	mg/L	0.000618	0.00031	mg/L	0.000618	201.67%
Cu 324.752†	-2566.4	-0.00388	mg/L	0.000039	-0.00388	mg/L	0.000039	1.00%
Fe 273.955†	243351.2	195.6	mg/L	2.58	195.6	mg/L	2.58	1.32%
K 766.490†	-22.4	-0.01288	mg/L	0.016615	-0.01288	mg/L	0.016615	128.98%
Mg 279.077†	120557.0	101.8	mg/L	0.31	101.8	mg/L	0.31	0.31%
Mn 257.610†	38.6	0.00116	mg/L	0.000293	0.00116	mg/L	0.000293	25.18%
Mo 202.031†	50.0	0.00178	mg/L	0.000294	0.00178	mg/L	0.000294	16.55%
Na 589.592†	138.8	0.01363	mg/L	0.003605	0.01363	mg/L	0.003605	26.45%
Na 330.237†	8.7	0.3486	mg/L	0.32708	0.3486	mg/L	0.32708	93.84%
Ni 231.604†	4.5	0.00122	mg/L	0.000795	0.00122	mg/L	0.000795	65.15%
Pb 220.353†	-304.6	-0.00409	mg/L	0.002380	-0.00409	mg/L	0.002380	58.20%
Sb 206.836†	29.7	0.01021	mg/L	0.001660	0.01021	mg/L	0.001660	16.25%
Se 196.026†	10.0	0.00774	mg/L	0.003799	0.00774	mg/L	0.003799	49.11%
Si 288.158†	-23.9	-0.00136	mg/L	0.001626	-0.00136	mg/L	0.001626	119.93%
Sn 189.927†	-67.1	-0.00760	mg/L	0.002590	-0.00760	mg/L	0.002590	34.05%
Sr 421.552†	2856.8	0.00392	mg/L	0.000019	0.00392	mg/L	0.000019	0.49%
Ti 334.903†	90.2	0.00043	mg/L	0.000281	0.00043	mg/L	0.000281	65.66%
Tl 190.801†	-32.1	0.00586	mg/L	0.002216	0.00586	mg/L	0.002216	37.84%
V 292.402†	1241.0	0.00489	mg/L	0.000165	0.00489	mg/L	0.000165	3.36%
Zn 206.200†	9.4	0.00274	mg/L	0.000479	0.00274	mg/L	0.000479	17.47%

Cont.

Sequence No.: 25
Sample ID: ICSAB

Autosampler Location: 303
Date Collected: 11/27/2012 3:36:23 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2362066.1	106.8	%	0.26				0.25%
ScR 361.383	296370.7	107.9	%	0.67				0.62%
Ag 328.068†	148327.3	0.9967	mg/L	0.00218	0.9967	mg/L	0.00218	0.22%
Al 308.215†	269907.1	194.0	mg/L	0.87	194.0	mg/L	0.87	0.45%
As 188.979†	1602.3	1.022	mg/L	0.0070	1.022	mg/L	0.0070	0.68%
B 249.677†	-8.7	-0.00327	mg/L	0.001180	-0.00327	mg/L	0.001180	36.12%
Ba 233.527†	4010.8	0.9821	mg/L	0.00330	0.9821	mg/L	0.00330	0.34%
Be 313.042†	515139.1	0.9851	mg/L	0.00462	0.9851	mg/L	0.00462	0.47%
Ca 317.933†	1198555.1	98.41	mg/L	0.486	98.41	mg/L	0.486	0.49%
Cd 228.802†	25432.3	1.001	mg/L	0.0021	1.001	mg/L	0.0021	0.21%
Co 228.616†	31584.6	0.9403	mg/L	0.00147	0.9403	mg/L	0.00147	0.16%
Cr 267.716†	5628.4	1.010	mg/L	0.0036	1.010	mg/L	0.0036	0.36%
Cu 324.752†	213762.0	0.9797	mg/L	0.00112	0.9797	mg/L	0.00112	0.11%
Fe 273.955†	242841.4	195.1	mg/L	0.93	195.1	mg/L	0.93	0.48%
K 766.490†	-116.6	-0.06695	mg/L	0.009025	-0.06695	mg/L	0.009025	13.48%
Mg 279.077†	115297.6	97.38	mg/L	0.537	97.38	mg/L	0.537	0.55%
Mn 257.610†	31846.7	0.9722	mg/L	0.00395	0.9722	mg/L	0.00395	0.41%
Mo 202.031†	47.3	0.00157	mg/L	0.000422	0.00157	mg/L	0.000422	26.86%
Na 589.592†	267.7	0.02628	mg/L	0.002256	0.02628	mg/L	0.002256	8.59%
Na 330.237†	23.0	0.6073	mg/L	0.18615	0.6073	mg/L	0.18615	30.65%
Ni 231.604†	3492.5	0.9420	mg/L	0.00370	0.9420	mg/L	0.00370	0.39%
Pb 220.353†	6572.8	0.9638	mg/L	0.00556	0.9638	mg/L	0.00556	0.58%
Sb 206.836†	2899.7	1.002	mg/L	0.0084	1.002	mg/L	0.0084	0.84%
Se 196.026†	1259.0	0.9767	mg/L	0.00513	0.9767	mg/L	0.00513	0.53%
Si 288.158†	-35.2	-0.00477	mg/L	0.000240	-0.00477	mg/L	0.000240	5.02%
Sn 189.927†	-71.1	-0.00829	mg/L	0.000713	-0.00829	mg/L	0.000713	8.60%
Sr 421.552†	2826.6	0.00387	mg/L	0.000047	0.00387	mg/L	0.000047	1.22%
Ti 334.903†	98.5	0.00071	mg/L	0.000050	0.00071	mg/L	0.000050	7.16%
Tl 190.801†	1934.7	0.9172	mg/L	0.00278	0.9172	mg/L	0.00278	0.30%
V 292.402†	99216.3	0.9344	mg/L	0.00028	0.9344	mg/L	0.00028	0.03%
Zn 206.200†	3282.6	0.9580	mg/L	0.00201	0.9580	mg/L	0.00201	0.21%

cont.

Sequence No.: 26
Sample ID: CV 11

Autosampler Location: 7
Date Collected: 11/27/2012 3:40:12 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2376416.7	107.5	%	0.73				0.68%
ScR 361.383	299261.6	109.0	%	2.08				1.91%
Ag 328.068†	151962.4	1.021	mg/L	0.0054	1.021	mg/L	0.0054	0.53%
Al 308.215†	2819.6	1.993	mg/L	0.0328	1.993	mg/L	0.0328	1.65%
As 188.979†	3174.9	2.063	mg/L	0.0165	2.063	mg/L	0.0165	0.80%
B 249.677†	6312.5	0.9637	mg/L	0.02024	0.9637	mg/L	0.02024	2.10%
Ba 233.527†	3914.1	0.9893	mg/L	0.01918	0.9893	mg/L	0.01918	1.94%
Be 313.042†	514946.3	0.9847	mg/L	0.03423	0.9847	mg/L	0.03423	3.48%
Ca 317.933†	23571.4	1.935	mg/L	0.0611	1.935	mg/L	0.0611	3.16%
Cd 228.802†	25920.8	1.015	mg/L	0.0050	1.015	mg/L	0.0050	0.49%
Co 228.616†	33399.3	0.9951	mg/L	0.00329	0.9951	mg/L	0.00329	0.33%
Cr 267.716†	5622.8	1.011	mg/L	0.0198	1.011	mg/L	0.0198	1.96%
Cu 324.752†	218378.7	0.9923	mg/L	0.00728	0.9923	mg/L	0.00728	0.73%
Fe 273.955†	2580.5	2.067	mg/L	0.0334	2.067	mg/L	0.0334	1.62%
K 766.490†	33903.8	19.47	mg/L	0.587	19.47	mg/L	0.587	3.02%
Mg 279.077†	2377.5	2.017	mg/L	0.0427	2.017	mg/L	0.0427	2.12%
Mn 257.610†	32150.0	0.9816	mg/L	0.03034	0.9816	mg/L	0.03034	3.09%
Mo 202.031†	17435.3	0.9914	mg/L	0.00562	0.9914	mg/L	0.00562	0.57%
Na 589.592†	488534.6	47.96	mg/L	1.569	47.96	mg/L	1.569	3.27%
Na 330.237†	1297.6	51.82	mg/L	1.073	51.82	mg/L	1.073	2.07%
Ni 231.604†	3619.6	0.9764	mg/L	0.02088	0.9764	mg/L	0.02088	2.14%
Pb 220.353†	14086.1	1.983	mg/L	0.0059	1.983	mg/L	0.0059	0.30%
Sb 206.836†	6065.9	2.118	mg/L	0.0181	2.118	mg/L	0.0181	0.85%
Se 196.026†	2562.2	1.989	mg/L	0.0189	1.989	mg/L	0.0189	0.95%
Si 288.158†	3663.9	2.101	mg/L	0.0442	2.101	mg/L	0.0442	2.10%
Sn 189.927†	3481.7	1.028	mg/L	0.0079	1.028	mg/L	0.0079	0.76%
Sr 421.552†	692725.3	0.9494	mg/L	0.02969	0.9494	mg/L	0.02969	3.13%
Ti 334.903†	17875.6	1.017	mg/L	0.0314	1.017	mg/L	0.0314	3.09%
Tl 190.801†	4277.0	1.993	mg/L	0.0107	1.993	mg/L	0.0107	0.54%
V 292.402†	103119.3	0.9780	mg/L	0.00469	0.9780	mg/L	0.00469	0.48%
Zn 206.200†	3527.0	1.029	mg/L	0.0205	1.029	mg/L	0.0205	1.99%

Sequence No.: 27
Sample ID: CB 8

Autosampler Location: 1
Date Collected: 11/27/2012 3:45:16 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2390919.7	108.1	%	0.54				0.50%
ScR 361.383	297583.6	108.3	%	0.55				0.50%
Ag 328.068†	8.0	0.00005	mg/L	0.000147	0.00005	mg/L	0.000147	271.70%
Al 308.215†	-2.6	-0.00190	mg/L	0.006848	-0.00190	mg/L	0.006848	360.34%
As 188.979†	0.9	0.00059	mg/L	0.002235	0.00059	mg/L	0.002235	381.60%
B 249.677†	6.0	0.00091	mg/L	0.000297	0.00091	mg/L	0.000297	32.52%
Ba 233.527†	0.7	0.00018	mg/L	0.001000	0.00018	mg/L	0.001000	554.75%
Be 313.042†	13.5	0.00003	mg/L	0.000057	0.00003	mg/L	0.000057	221.20%
Ca 317.933†	4.5	0.00037	mg/L	0.000218	0.00037	mg/L	0.000218	59.10%
Cd 228.802†	-4.1	-0.00016	mg/L	0.000104	-0.00016	mg/L	0.000104	63.70%
Co 228.616†	9.7	0.00029	mg/L	0.000213	0.00029	mg/L	0.000213	73.49%
Cr 267.716†	4.2	0.00076	mg/L	0.000580	0.00076	mg/L	0.000580	75.91%
Cu 324.752†	-717.1	-0.00326	mg/L	0.000056	-0.00326	mg/L	0.000056	1.71%
Fe 273.955†	1.6	0.00129	mg/L	0.002461	0.00129	mg/L	0.002461	190.68%
K 766.490†	-48.4	-0.02780	mg/L	0.011926	-0.02780	mg/L	0.011926	42.89%
Mg 279.077†	-5.1	-0.00433	mg/L	0.001782	-0.00433	mg/L	0.001782	41.15%
Mn 257.610†	7.4	0.00023	mg/L	0.000064	0.00023	mg/L	0.000064	28.23%
Mo 202.031†	2.5	0.00014	mg/L	0.000196	0.00014	mg/L	0.000196	140.32%
Na 589.592†	55.7	0.00547	mg/L	0.001632	0.00547	mg/L	0.001632	29.84%
Na 330.237†	16.5	0.6590	mg/L	0.43329	0.6590	mg/L	0.43329	65.75%
Ni 231.604†	5.1	0.00138	mg/L	0.001600	0.00138	mg/L	0.001600	115.93%
Pb 220.353†	4.9	0.00070	mg/L	0.001187	0.00070	mg/L	0.001187	170.27%
Sb 206.836†	1.1	0.00039	mg/L	0.001794	0.00039	mg/L	0.001794	460.32%
Se 196.026†	-3.7	-0.00291	mg/L	0.002524	-0.00291	mg/L	0.002524	86.71%
Si 288.158†	-4.7	-0.00272	mg/L	0.004363	-0.00272	mg/L	0.004363	160.70%
Sn 189.927†	4.3	0.00128	mg/L	0.001279	0.00128	mg/L	0.001279	99.93%
Sr 421.552†	52.5	0.00007	mg/L	0.000065	0.00007	mg/L	0.000065	90.54%
Ti 334.903†	-7.5	-0.00043	mg/L	0.000142	-0.00043	mg/L	0.000142	33.20%
Tl 190.801†	7.2	0.00335	mg/L	0.000645	0.00335	mg/L	0.000645	19.27%
V 292.402†	13.2	0.00013	mg/L	0.000142	0.00013	mg/L	0.000142	110.90%
Zn 206.200†	0.1	0.00002	mg/L	0.000067	0.00002	mg/L	0.000067	283.84%

Sequence No.: 28
Sample ID: VS22 MB1 SWC

Autosampler Location: 346
Date Collected: 11/27/2012 3:49:31 PM
Data Type: Original

Dilution: 2.000000X

Nebulizer Parameters: VS22 MB1 SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VS22 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2388589.0	108.0	%	0.45				0.41%
ScR 361.383	300100.9	109.3	%	0.92				0.84%
Ag 328.068†	15.7	0.00011	mg/L	0.000083	0.00021	mg/L	0.000166	78.65%
Al 308.215†	-3.6	-0.00259	mg/L	0.006239	-0.00519	mg/L	0.012479	240.62%
As 188.979†	0.6	0.00037	mg/L	0.001375	0.00075	mg/L	0.002750	368.66%
B 249.677†	2.6	0.00040	mg/L	0.000876	0.00080	mg/L	0.001752	217.73%
Ba 233.527†	0.2	0.00005	mg/L	0.000587	0.00010	mg/L	0.001174	>999.9%
Be 313.042†	-39.6	-0.00008	mg/L	0.000040	-0.00015	mg/L	0.000080	52.86%
Ca 317.933†	76.9	0.00631	mg/L	0.001127	0.01262	mg/L	0.002254	17.86%
Cd 228.802†	-7.9	-0.00032	mg/L	0.000068	-0.00063	mg/L	0.000136	21.53%
Co 228.616†	6.2	0.00019	mg/L	0.000071	0.00037	mg/L	0.000142	38.38%
Cr 267.716†	5.5	0.00100	mg/L	0.001270	0.00199	mg/L	0.002539	127.55%
Cu 324.752†	-716.8	-0.00326	mg/L	0.000068	-0.00652	mg/L	0.000136	2.09%
Fe 273.955†	7.9	0.00632	mg/L	0.001822	0.01263	mg/L	0.003644	28.84%
K 766.490†	-45.0	-0.02585	mg/L	0.030900	-0.05171	mg/L	0.061801	119.52%
Mg 279.077†	-0.8	-0.00071	mg/L	0.000309	-0.00142	mg/L	0.000617	43.49%
Mn 257.610†	5.9	0.00018	mg/L	0.000076	0.00036	mg/L	0.000152	42.20%
Mo 202.031†	-0.2	-0.00001	mg/L	0.000154	-0.00003	mg/L	0.000308	>999.9%
Na 589.592†	33.4	0.00328	mg/L	0.001325	0.00655	mg/L	0.002649	40.44%
Na 330.237†	17.6	0.7051	mg/L	0.37633	1.410	mg/L	0.7527	53.37%
Ni 231.604†	3.1	0.00083	mg/L	0.001142	0.00165	mg/L	0.002283	138.26%
Pb 220.353†	6.5	0.00093	mg/L	0.000135	0.00185	mg/L	0.000269	14.53%
Sb 206.836†	-2.3	-0.00082	mg/L	0.000862	-0.00163	mg/L	0.001724	105.70%
Se 196.026†	-2.3	-0.00180	mg/L	0.003837	-0.00361	mg/L	0.007673	212.77%
Si 288.158†	7.6	0.00437	mg/L	0.002077	0.00873	mg/L	0.004153	47.56%
Sn 189.927†	4.2	0.00124	mg/L	0.000805	0.00249	mg/L	0.001609	64.71%
Sr 421.552†	14.7	0.00002	mg/L	0.000015	0.00004	mg/L	0.000030	74.50%
Ti 334.903†	-3.0	-0.00017	mg/L	0.000828	-0.00034	mg/L	0.001656	483.19%
Tl 190.801†	12.2	0.00571	mg/L	0.001565	0.01141	mg/L	0.003129	27.42%
V 292.402†	-5.1	-0.00004	mg/L	0.000045	-0.00009	mg/L	0.000091	104.00%
Zn 206.200†	3.1	0.00090	mg/L	0.000600	0.00180	mg/L	0.001200	66.81%

Sequence No.: 29
Sample ID: VS22 B SWC

Autosampler Location: 347
Date Collected: 11/27/2012 3:53:46 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VS22 B SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VS22 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2361553.8	106.8	%	0.42				0.39%
ScR 361.383	302179.6	110.0	%	0.68				0.61%
Ag 328.068†	-103.7	-0.00065	mg/L	0.000258	-0.00324	mg/L	0.001288	39.82%
Al 308.215†	108013.8	77.63	mg/L	0.077	388.1	mg/L	0.39	0.10%
As 188.979†	-163.6	0.01633	mg/L	0.003491	0.08166	mg/L	0.017453	21.37%
B 249.677†	47.4	0.00715	mg/L	0.000959	0.03576	mg/L	0.004795	13.41%
Ba 233.527†	2310.4	0.5702	mg/L	0.00356	2.851	mg/L	0.0178	0.62%
Be 313.042†	794.3	0.00143	mg/L	0.000030	0.00717	mg/L	0.000149	2.08%
Ca 317.933†	306704.7	25.18	mg/L	0.107	125.9	mg/L	0.53	0.42%
Cd 228.802†	248.7	0.00980	mg/L	0.000285	0.04898	mg/L	0.001427	2.91%
Co 228.616†	1544.9	0.03666	mg/L	0.000431	0.1833	mg/L	0.00216	1.18%
Cr 267.716†	517.8	0.09410	mg/L	0.000786	0.4705	mg/L	0.00393	0.84%
Cu 324.752†	12418.6	0.05916	mg/L	0.000430	0.2958	mg/L	0.00215	0.73%
Fe 273.955†	106386.7	85.49	mg/L	0.353	427.4	mg/L	1.77	0.41%
K 766.490†	8366.4	4.805	mg/L	0.0188	24.02	mg/L	0.094	0.39%
Mg 279.077†	26367.0	22.25	mg/L	0.085	111.2	mg/L	0.42	0.38%
Mn 257.610†	64742.1	1.976	mg/L	0.0076	9.881	mg/L	0.0378	0.38%
Mo 202.031†	51.4	0.00265	mg/L	0.000494	0.01323	mg/L	0.002470	18.67%
Na 589.592†	13373.5	1.313	mg/L	0.0037	6.565	mg/L	0.0187	0.29%
Na 330.237†	25.7	1.772	mg/L	0.1257	8.861	mg/L	0.6287	7.10%
Ni 231.604†	235.3	0.06346	mg/L	0.001853	0.3173	mg/L	0.00927	2.92%
Pb 220.353†	1511.4	0.2278	mg/L	0.00127	1.139	mg/L	0.0063	0.56%
Sb 206.836†	4.3	0.00261	mg/L	0.001762	0.01305	mg/L	0.008808	67.51%
Se 196.026†	-0.1	-0.00021	mg/L	0.002517	-0.00103	mg/L	0.012584	>999.9%
Si 288.158†	2341.4	1.346	mg/L	0.0139	6.729	mg/L	0.0696	1.03%
Sn 189.927†	-35.5	-0.00674	mg/L	0.000327	-0.03371	mg/L	0.001634	4.85%
Sr 421.552†	136671.7	0.1873	mg/L	0.00022	0.9365	mg/L	0.00112	0.12%
Ti 334.903†	75418.5	4.293	mg/L	0.0122	21.46	mg/L	0.061	0.28%
Tl 190.801†	-5.9	0.00550	mg/L	0.002181	0.02752	mg/L	0.010907	39.63%
V 292.402†	18134.5	0.1665	mg/L	0.00152	0.8326	mg/L	0.00759	0.91%
Zn 206.200†	2435.4	0.7108	mg/L	0.00351	3.554	mg/L	0.0176	0.49%

Sequence No.: 30
Sample ID: VS22 C SWC

Autosampler Location: 348
Date Collected: 11/27/2012 3:57:45 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VS22 C SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VS22 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2391514.9	108.2	%	0.75				0.69%
ScR 361.383	303944.2	110.7	%	0.50				0.45%
Ag 328.068†	-191.3	-0.00124	mg/L	0.000258	-0.00621	mg/L	0.001291	20.79%
Al 308.215†	130233.9	93.60	mg/L	0.126	468.0	mg/L	0.63	0.13%
As 188.979†	-170.5	0.00647	mg/L	0.002404	0.03233	mg/L	0.012020	37.18%
B 249.677†	35.1	0.00526	mg/L	0.000343	0.02629	mg/L	0.001716	6.53%
Ba 233.527†	2206.2	0.5427	mg/L	0.00367	2.714	mg/L	0.0184	0.68%
Be 313.042†	1228.0	0.00227	mg/L	0.000014	0.01135	mg/L	0.000069	0.61%
Ca 317.933†	273281.3	22.44	mg/L	0.018	112.2	mg/L	0.09	0.08%
Cd 228.802†	46.1	0.00173	mg/L	0.000110	0.00864	mg/L	0.000551	6.37%
Co 228.616†	1656.1	0.04026	mg/L	0.000440	0.2013	mg/L	0.00220	1.09%
Cr 267.716†	546.8	0.09976	mg/L	0.001075	0.4988	mg/L	0.00537	1.08%
Cu 324.752†	14099.8	0.06716	mg/L	0.000861	0.3358	mg/L	0.00430	1.28%
Fe 273.955†	115025.7	92.43	mg/L	0.057	462.2	mg/L	0.29	0.06%
K 766.490†	9149.9	5.255	mg/L	0.0030	26.27	mg/L	0.015	0.06%
Mg 279.077†	25829.1	21.79	mg/L	0.014	108.9	mg/L	0.07	0.07%
Mn 257.610†	30445.5	0.9293	mg/L	0.00178	4.646	mg/L	0.0089	0.19%
Mo 202.031†	37.3	0.00187	mg/L	0.000216	0.00936	mg/L	0.001082	11.56%
Na 589.592†	16503.4	1.620	mg/L	0.0035	8.101	mg/L	0.0173	0.21%
Na 330.237†	33.8	2.208	mg/L	0.1997	11.04	mg/L	0.999	9.04%
Ni 231.604†	257.0	0.06932	mg/L	0.001828	0.3466	mg/L	0.00914	2.64%
Pb 220.353†	191.8	0.04568	mg/L	0.001323	0.2284	mg/L	0.00662	2.90%
Sb 206.836†	-3.3	-0.00026	mg/L	0.001805	-0.00129	mg/L	0.009026	698.46%
Se 196.026†	3.3	0.00244	mg/L	0.003985	0.01218	mg/L	0.019926	163.65%
Si 288.158†	3306.1	1.899	mg/L	0.0145	9.495	mg/L	0.0723	0.76%
Sn 189.927†	-29.6	-0.00538	mg/L	0.002055	-0.02688	mg/L	0.010276	38.23%
Sr 421.552†	132006.1	0.1809	mg/L	0.00015	0.9046	mg/L	0.00075	0.08%
Ti 334.903†	72014.3	4.099	mg/L	0.0011	20.49	mg/L	0.005	0.03%
Tl 190.801†	-10.6	0.00411	mg/L	0.001745	0.02053	mg/L	0.008725	42.51%
V 292.402†	16015.1	0.1462	mg/L	0.00177	0.7311	mg/L	0.00883	1.21%
Zn 206.200†	799.6	0.2334	mg/L	0.00177	1.167	mg/L	0.0088	0.76%

Sequence No.: 31
Sample ID: VS22 D SWC

Autosampler Location: 349
Date Collected: 11/27/2012 4:01:44 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VS22 D SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS22 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2352452.4	106.4	%	0.26				0.24%
ScR 361.383	292159.3	106.4	%	0.25				0.24%
Ag 328.068†	-375.0	-0.00246	mg/L	0.000187	-0.01230	mg/L	0.000937	7.62%
Al 308.215†	103126.2	74.11	mg/L	0.645	370.6	mg/L	3.22	0.87%
As 188.979†	-138.8	0.03185	mg/L	0.003936	0.1593	mg/L	0.01968	12.36%
B 249.677†	-1.8	-0.00038	mg/L	0.001597	-0.00190	mg/L	0.007987	420.92%
Ba 233.527†	3320.6	0.8217	mg/L	0.00930	4.108	mg/L	0.0465	1.13%
Be 313.042†	1031.9	0.00188	mg/L	0.000044	0.00938	mg/L	0.000222	2.36%
Ca 317.933†	2744447.7	225.3	mg/L	1.06	1127	mg/L	5.32	0.47%
Cd 228.802†	56.0	0.00185	mg/L	0.000192	0.00926	mg/L	0.000959	10.36%
Co 228.616†	1812.9	0.04355	mg/L	0.000240	0.2178	mg/L	0.00120	0.55%
Cr 267.716†	781.9	0.1392	mg/L	0.00094	0.6958	mg/L	0.00471	0.68%
Cu 324.752†	25981.9	0.1216	mg/L	0.00025	0.6082	mg/L	0.00124	0.20%
Fe 273.955†	136493.2	109.7	mg/L	1.17	548.4	mg/L	5.83	1.06%
K 766.490†	13790.9	7.920	mg/L	0.1247	39.60	mg/L	0.624	1.57%
Mg 279.077†	48590.0	41.02	mg/L	0.464	205.1	mg/L	2.32	1.13%
Mn 257.610†	51106.8	1.560	mg/L	0.0157	7.798	mg/L	0.0783	1.00%
Mo 202.031†	107.2	0.00365	mg/L	0.000415	0.01826	mg/L	0.002076	11.37%
Na 589.592†	17217.3	1.690	mg/L	0.0101	8.452	mg/L	0.0506	0.60%
Na 330.237†	33.1	2.312	mg/L	0.4490	11.56	mg/L	2.245	19.42%
Ni 231.604†	379.5	0.1024	mg/L	0.00114	0.5118	mg/L	0.00570	1.11%
Pb 220.353†	172.7	0.03762	mg/L	0.000478	0.1881	mg/L	0.00239	1.27%
Sb 206.836†	-0.3	0.00050	mg/L	0.001550	0.00248	mg/L	0.007750	312.49%
Se 196.026†	-20.9	-0.01635	mg/L	0.005354	-0.08175	mg/L	0.026772	32.75%
Si 288.158†	2980.3	1.714	mg/L	0.0241	8.572	mg/L	0.1205	1.41%
Sn 189.927†	-80.7	0.00476	mg/L	0.000673	0.02379	mg/L	0.003367	14.15%
Sr 421.552†	508300.3	0.6966	mg/L	0.00117	3.483	mg/L	0.0059	0.17%
Ti 334.903†	82371.2	4.679	mg/L	0.0447	23.39	mg/L	0.224	0.96%
Tl 190.801†	2.3	0.01178	mg/L	0.004084	0.05888	mg/L	0.020418	34.68%
V 292.402†	21639.9	0.1987	mg/L	0.00096	0.9934	mg/L	0.00481	0.48%
Zn 206.200†	826.7	0.2412	mg/L	0.00195	1.206	mg/L	0.0098	0.81%

Sequence No.: 32
Sample ID: VS22 A-L SWC

Autosampler Location: 350
Date Collected: 11/27/2012 4:05:45 PM
Data Type: Original

Dilution: 25.000000X

Nebulizer Parameters: VS22 A-L SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: VS22 A-L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2376157.7	107.5	%	0.63				0.58%
ScR 361.383	303148.5	110.4	%	0.30				0.27%
Ag 328.068†	3.4	0.00003	mg/L	0.000119	0.00071	mg/L	0.002978	418.47%
Al 308.215†	12441.8	8.942	mg/L	0.0075	223.5	mg/L	0.19	0.08%
As 188.979†	-9.3	0.00731	mg/L	0.001036	0.1827	mg/L	0.02590	14.18%
B 249.677†	11.8	0.00180	mg/L	0.000461	0.04493	mg/L	0.011532	25.66%
Ba 233.527†	497.9	0.1241	mg/L	0.00059	3.103	mg/L	0.0147	0.47%
Be 313.042†	89.9	0.00016	mg/L	0.000012	0.00406	mg/L	0.000294	7.25%
Ca 317.933†	70516.6	5.790	mg/L	0.0042	144.7	mg/L	0.10	0.07%
Cd 228.802†	102.7	0.00402	mg/L	0.000152	0.1005	mg/L	0.00380	3.78%
Co 228.616†	213.5	0.00530	mg/L	0.000139	0.1326	mg/L	0.00347	2.62%
Cr 267.716†	74.3	0.01342	mg/L	0.000462	0.3356	mg/L	0.01155	3.44%
Cu 324.752†	2059.8	0.00972	mg/L	0.000141	0.2430	mg/L	0.00353	1.45%
Fe 273.955†	13478.6	10.83	mg/L	0.039	270.8	mg/L	0.97	0.36%
K 766.490†	1428.6	0.8204	mg/L	0.02027	20.51	mg/L	0.507	2.47%
Mg 279.077†	3352.1	2.828	mg/L	0.0222	70.71	mg/L	0.556	0.79%
Mn 257.610†	21678.8	0.6617	mg/L	0.00149	16.54	mg/L	0.037	0.22%
Mo 202.031†	12.7	0.00066	mg/L	0.000257	0.01645	mg/L	0.006431	39.09%
Na 589.592†	1328.3	0.1304	mg/L	0.00078	3.260	mg/L	0.0196	0.60%
Na 330.237†	16.8	0.7190	mg/L	0.18392	17.97	mg/L	4.598	25.58%
Ni 231.604†	34.9	0.00942	mg/L	0.000762	0.2354	mg/L	0.01904	8.09%
Pb 220.353†	1228.0	0.1745	mg/L	0.00072	4.362	mg/L	0.0180	0.41%
Sb 206.836†	-3.0	-0.00098	mg/L	0.001486	-0.02447	mg/L	0.037144	151.77%
Se 196.026†	-4.4	-0.00340	mg/L	0.003363	-0.08494	mg/L	0.084068	98.97%
Si 288.158†	275.7	0.1585	mg/L	0.00732	3.963	mg/L	0.1829	4.62%
Sn 189.927†	-7.5	-0.00143	mg/L	0.000536	-0.03581	mg/L	0.013404	37.43%
Sr 421.552†	28745.2	0.03940	mg/L	0.000109	0.9849	mg/L	0.00272	0.28%
Ti 334.903†	8365.6	0.4760	mg/L	0.00178	11.90	mg/L	0.044	0.37%
Tl 190.801†	6.1	0.00392	mg/L	0.001040	0.09794	mg/L	0.026002	26.55%
V 292.402†	2083.4	0.01918	mg/L	0.000362	0.4796	mg/L	0.00906	1.89%
Zn 206.200†	656.1	0.1915	mg/L	0.00182	4.787	mg/L	0.0455	0.95%

Sequence No.: 33
Sample ID: VS22 A SWC

Dilution: 5.000000X

Autosampler Location: 351
Date Collected: 11/27/2012 4:09:44 PM
Data Type: Original

Nebulizer Parameters: VS22 A SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS22 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2406168.3	108.8	%	0.77				0.71%
ScR 361.383	306079.9	111.4	%	0.83				0.74%
Ag 328.068†	98.5	0.00069	mg/L	0.000217	0.00345	mg/L	0.001084	31.41%
Al 308.215†	63831.7	45.87	mg/L	0.129	229.4	mg/L	0.64	0.28%
As 188.979†	-53.3	0.03351	mg/L	0.002446	0.1676	mg/L	0.01223	7.30%
B 249.677†	68.4	0.01038	mg/L	0.000495	0.05192	mg/L	0.002473	4.76%
Ba 233.527†	2559.5	0.6381	mg/L	0.00884	3.191	mg/L	0.0442	1.38%
Be 313.042†	555.8	0.00101	mg/L	0.000046	0.00507	mg/L	0.000228	4.50%
Ca 317.933†	365096.6	29.98	mg/L	0.129	149.9	mg/L	0.64	0.43%
Cd 228.802†	544.0	0.02131	mg/L	0.000272	0.1066	mg/L	0.00136	1.28%
Co 228.616†	1066.7	0.02637	mg/L	0.000309	0.1319	mg/L	0.00155	1.17%
Cr 267.716†	335.3	0.06067	mg/L	0.001701	0.3033	mg/L	0.00851	2.80%
Cu 324.752†	13433.4	0.06290	mg/L	0.000197	0.3145	mg/L	0.00099	0.31%
Fe 273.955†	68961.9	55.42	mg/L	0.186	277.1	mg/L	0.93	0.34%
K 766.490†	7685.6	4.414	mg/L	0.0323	22.07	mg/L	0.162	0.73%
Mg 279.077†	16265.3	13.72	mg/L	0.055	68.61	mg/L	0.275	0.40%
Mn 257.610†	111508.7	3.404	mg/L	0.0108	17.02	mg/L	0.054	0.32%
Mo 202.031†	60.8	0.00313	mg/L	0.000502	0.01565	mg/L	0.002511	16.04%
Na 589.592†	6592.6	0.6472	mg/L	0.00388	3.236	mg/L	0.0194	0.60%
Na 330.237†	21.3	1.078	mg/L	0.1896	5.389	mg/L	0.9479	17.59%
Ni 231.604†	169.9	0.04583	mg/L	0.000590	0.2292	mg/L	0.00295	1.29%
Pb 220.353†	6210.3	0.8825	mg/L	0.00799	4.413	mg/L	0.0399	0.90%
Sb 206.836†	24.7	0.00916	mg/L	0.002142	0.04579	mg/L	0.010709	23.39%
Se 196.026†	0.4	0.00024	mg/L	0.005986	0.00122	mg/L	0.029929	>999.9%
Si 288.158†	1426.6	0.8200	mg/L	0.01208	4.100	mg/L	0.0604	1.47%
Sn 189.927†	-20.6	-0.00200	mg/L	0.001251	-0.00999	mg/L	0.006255	62.60%
Sr 421.552†	146029.8	0.2001	mg/L	0.00084	1.001	mg/L	0.0042	0.42%
Ti 334.903†	42691.7	2.429	mg/L	0.0096	12.15	mg/L	0.048	0.39%
Tl 190.801†	9.4	0.00979	mg/L	0.001174	0.04896	mg/L	0.005868	11.99%
V 292.402†	10524.1	0.09683	mg/L	0.000045	0.4842	mg/L	0.00023	0.05%
Zn 206.200†	3415.9	0.9970	mg/L	0.01567	4.985	mg/L	0.0784	1.57%

Sequence No.: 34
Sample ID: VS22 ADUP SWC

Autosampler Location: 352
Date Collected: 11/27/2012 4:13:43 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VS22 ADUP SWC

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: VS22 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2397117.4	108.4	%	0.61				0.57%
ScR 361.383	306990.9	111.8	%	0.07				0.07%
Ag 328.068†	92.0	0.00065	mg/L	0.000108	0.00324	mg/L	0.000538	16.59%
Al 308.215†	66130.1	47.53	mg/L	0.141	237.6	mg/L	0.71	0.30%
As 188.979†	-63.3	0.03275	mg/L	0.002432	0.1638	mg/L	0.01216	7.43%
B 249.677†	77.2	0.01174	mg/L	0.001074	0.05870	mg/L	0.005368	9.14%
Ba 233.527†	2618.1	0.6527	mg/L	0.00095	3.263	mg/L	0.0048	0.15%
Be 313.042†	564.5	0.00103	mg/L	0.000007	0.00513	mg/L	0.000037	0.72%
Ca 317.933†	383320.7	31.47	mg/L	0.105	157.4	mg/L	0.53	0.33%
Cd 228.802†	572.2	0.02246	mg/L	0.000193	0.1123	mg/L	0.00096	0.86%
Co 228.616†	1070.6	0.02608	mg/L	0.000197	0.1304	mg/L	0.00098	0.75%
Cr 267.716†	347.3	0.06284	mg/L	0.000632	0.3142	mg/L	0.00316	1.01%
Cu 324.752†	13849.5	0.06482	mg/L	0.000270	0.3241	mg/L	0.00135	0.42%
Fe 273.955†	70926.2	56.99	mg/L	0.248	285.0	mg/L	1.24	0.44%
K 766.490†	8076.4	4.638	mg/L	0.0083	23.19	mg/L	0.041	0.18%
Mg 279.077†	16682.8	14.07	mg/L	0.031	70.37	mg/L	0.153	0.22%
Mn 257.610†	115286.5	3.519	mg/L	0.0113	17.59	mg/L	0.057	0.32%
Mo 202.031†	63.1	0.00324	mg/L	0.000080	0.01621	mg/L	0.000402	2.48%
Na 589.592†	7321.5	0.7188	mg/L	0.00249	3.594	mg/L	0.0125	0.35%
Na 330.237†	25.8	1.301	mg/L	0.2481	6.504	mg/L	1.2407	19.08%
Ni 231.604†	168.0	0.04531	mg/L	0.000468	0.2266	mg/L	0.00234	1.03%
Pb 220.353†	6252.1	0.8887	mg/L	0.00230	4.444	mg/L	0.0115	0.26%
Sb 206.836†	27.7	0.01026	mg/L	0.000331	0.05131	mg/L	0.001656	3.23%
Se 196.026†	1.2	0.00087	mg/L	0.002873	0.00433	mg/L	0.014365	331.79%
Si 288.158†	1529.6	0.8792	mg/L	0.00591	4.396	mg/L	0.0296	0.67%
Sn 189.927†	-22.2	-0.00225	mg/L	0.000169	-0.01124	mg/L	0.000844	7.51%
Sr 421.552†	153375.3	0.2102	mg/L	0.00058	1.051	mg/L	0.0029	0.28%
Ti 334.903†	46195.8	2.629	mg/L	0.0093	13.14	mg/L	0.047	0.35%
Tl 190.801†	4.3	0.00754	mg/L	0.001299	0.03772	mg/L	0.006497	17.22%
V 292.402†	11223.0	0.1033	mg/L	0.00037	0.5165	mg/L	0.00185	0.36%
Zn 206.200†	3454.4	1.008	mg/L	0.0054	5.041	mg/L	0.0272	0.54%

Sequence No.: 35
Sample ID: VS22 ASPK SWC

Autosampler Location: 353
Date Collected: 11/27/2012 4:17:42 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VS22 ASPK SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS22 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2406368.0	108.8	%	0.77				0.71%
ScR 361.383	302965.1	110.3	%	0.93				0.84%
Ag 328.068†	29922.6	0.2011	mg/L	0.00109	1.005	mg/L	0.0054	0.54%
Al 308.215†	70115.0	50.39	mg/L	0.396	251.9	mg/L	1.98	0.79%
As 188.979†	1173.0	0.8284	mg/L	0.00459	4.142	mg/L	0.0230	0.55%
B 249.677†	83.3	0.01225	mg/L	0.001468	0.06127	mg/L	0.007339	11.98%
Ba 233.527†	5813.7	1.460	mg/L	0.0118	7.302	mg/L	0.0589	0.81%
Be 313.042†	104257.2	0.1993	mg/L	0.00208	0.9966	mg/L	0.01040	1.04%
Ca 317.933†	440108.4	36.14	mg/L	0.322	180.7	mg/L	1.61	0.89%
Cd 228.802†	5928.9	0.2298	mg/L	0.00147	1.149	mg/L	0.0074	0.64%
Co 228.616†	7850.1	0.2282	mg/L	0.00150	1.141	mg/L	0.0075	0.66%
Cr 267.716†	1478.4	0.2658	mg/L	0.00130	1.329	mg/L	0.0065	0.49%
Cu 324.752†	58827.4	0.2693	mg/L	0.00167	1.347	mg/L	0.0083	0.62%
Fe 273.955†	73139.0	58.77	mg/L	0.506	293.9	mg/L	2.53	0.86%
K 766.490†	14958.2	8.591	mg/L	0.0728	42.95	mg/L	0.364	0.85%
Mg 279.077†	22902.5	19.33	mg/L	0.141	96.66	mg/L	0.703	0.73%
Mn 257.610†	123996.9	3.785	mg/L	0.0310	18.92	mg/L	0.155	0.82%
Mo 202.031†	67.1	0.00341	mg/L	0.000322	0.01707	mg/L	0.001610	9.44%
Na 589.592†	46712.4	4.586	mg/L	0.0395	22.93	mg/L	0.197	0.86%
Na 330.237†	125.0	5.220	mg/L	0.0455	26.10	mg/L	0.228	0.87%
Ni 231.604†	891.9	0.2402	mg/L	0.00044	1.201	mg/L	0.0022	0.18%
Pb 220.353†	11946.2	1.691	mg/L	0.0099	8.453	mg/L	0.0496	0.59%
Sb 206.836†	22.2	0.00621	mg/L	0.000516	0.03107	mg/L	0.002581	8.31%
Se 196.026†	1007.7	0.7822	mg/L	0.01149	3.911	mg/L	0.0575	1.47%
Si 288.158†	1389.1	0.7999	mg/L	0.00561	4.000	mg/L	0.0281	0.70%
Sn 189.927†	-31.3	-0.00433	mg/L	0.001216	-0.02163	mg/L	0.006082	28.12%
Sr 421.552†	302175.2	0.4141	mg/L	0.00350	2.071	mg/L	0.0175	0.85%
Ti 334.903†	47621.5	2.709	mg/L	0.0251	13.55	mg/L	0.125	0.92%
Tl 190.801†	1648.2	0.7750	mg/L	0.00323	3.875	mg/L	0.0161	0.42%
V 292.402†	31658.0	0.2970	mg/L	0.00231	1.485	mg/L	0.0116	0.78%
Zn 206.200†	4146.1	1.210	mg/L	0.0074	6.050	mg/L	0.0369	0.61%

Sequence No.: 36
Sample ID: VS22 APOST SWC

Autosampler Location: 354
Date Collected: 11/27/2012 4:21:42 PM
Data Type: Original

Dilution: 5.000000X

Nebulizer Parameters: VS22 APOST SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VS22 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2376929.0	107.5	%	0.20				0.19%
ScR 361.383	303033.1	110.3	%	1.03				0.94%
Ag 328.068†	70599.2	0.4744	mg/L	0.00022	2.372	mg/L	0.0011	0.05%
Al 308.215†	68422.4	49.17	mg/L	0.542	245.8	mg/L	2.71	1.10%
As 188.979†	3109.7	2.065	mg/L	0.0081	10.33	mg/L	0.041	0.39%
B 249.677†	75.2	0.01038	mg/L	0.000618	0.05192	mg/L	0.003088	5.95%
Ba 233.527†	10439.5	2.630	mg/L	0.0242	13.15	mg/L	0.121	0.92%
Be 313.042†	259628.9	0.4965	mg/L	0.00503	2.482	mg/L	0.0252	1.01%
Ca 317.933†	493208.6	40.49	mg/L	0.446	202.5	mg/L	2.23	1.10%
Cd 228.802†	14033.0	0.5433	mg/L	0.00115	2.716	mg/L	0.0058	0.21%
Co 228.616†	18019.9	0.5322	mg/L	0.00077	2.661	mg/L	0.0039	0.15%
Cr 267.716†	3122.0	0.5608	mg/L	0.00311	2.804	mg/L	0.0155	0.55%
Cu 324.752†	122444.4	0.5585	mg/L	0.00077	2.793	mg/L	0.0038	0.14%
Fe 273.955†	72410.5	58.18	mg/L	0.585	290.9	mg/L	2.92	1.00%
K 766.490†	25003.5	14.36	mg/L	0.132	71.80	mg/L	0.662	0.92%
Mg 279.077†	29504.9	24.92	mg/L	0.190	124.6	mg/L	0.95	0.76%
Mn 257.610†	129238.6	3.945	mg/L	0.0364	19.73	mg/L	0.182	0.92%
Mo 202.031†	73.1	0.00369	mg/L	0.000146	0.01843	mg/L	0.000730	3.96%
Na 589.592†	103833.9	10.19	mg/L	0.118	50.97	mg/L	0.592	1.16%
Na 330.237†	277.5	11.18	mg/L	0.347	55.92	mg/L	1.734	3.10%
Ni 231.604†	1952.8	0.5258	mg/L	0.00441	2.629	mg/L	0.0221	0.84%
Pb 220.353†	20419.9	2.883	mg/L	0.0048	14.41	mg/L	0.024	0.17%
Sb 206.836†	39.5	0.00897	mg/L	0.003442	0.04485	mg/L	0.017212	38.38%
Se 196.026†	2574.3	1.998	mg/L	0.0128	9.992	mg/L	0.0640	0.64%
Si 288.158†	1446.9	0.8350	mg/L	0.00581	4.175	mg/L	0.0291	0.70%
Sn 189.927†	-29.4	-0.00320	mg/L	0.001134	-0.01599	mg/L	0.005670	35.45%
Sr 421.552†	502730.9	0.6890	mg/L	0.00701	3.445	mg/L	0.0350	1.02%
Ti 334.903†	43875.5	2.496	mg/L	0.0262	12.48	mg/L	0.131	1.05%
Tl 190.801†	4136.3	1.936	mg/L	0.0011	9.682	mg/L	0.0054	0.06%
V 292.402†	60345.7	0.5693	mg/L	0.00089	2.847	mg/L	0.0045	0.16%
Zn 206.200†	5089.0	1.485	mg/L	0.0107	7.427	mg/L	0.0536	0.72%

Sequence No.: 37
Sample ID: VS22 MB1SPK SWC

Dilution: 2.000000X

Autosampler Location: 355
Date Collected: 11/27/2012 4:25:27 PM
Data Type: Original

Nebulizer Parameters: VS22 MB1SPK SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VS22 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2369704.6	107.2	%	0.66				0.62%
ScR 361.383	302476.4	110.1	%	1.30				1.18%
Ag 328.068†	79404.4	0.5335	mg/L	0.00142	1.067	mg/L	0.0028	0.27%
Al 308.215†	2772.8	1.986	mg/L	0.0241	3.971	mg/L	0.0482	1.21%
As 188.979†	3210.2	2.060	mg/L	0.0177	4.120	mg/L	0.0354	0.86%
B 249.677†	4.8	-0.00033	mg/L	0.000780	-0.00066	mg/L	0.001560	238.12%
Ba 233.527†	7899.8	1.997	mg/L	0.0156	3.994	mg/L	0.0313	0.78%
Be 313.042†	263775.9	0.5044	mg/L	0.00492	1.009	mg/L	0.0098	0.98%
Ca 317.933†	120969.3	9.932	mg/L	0.0940	19.86	mg/L	0.188	0.95%
Cd 228.802†	13550.0	0.5242	mg/L	0.00192	1.048	mg/L	0.0038	0.37%
Co 228.616†	17189.6	0.5130	mg/L	0.00233	1.026	mg/L	0.0047	0.45%
Cr 267.716†	2836.6	0.5092	mg/L	0.00502	1.018	mg/L	0.0100	0.99%
Cu 324.752†	107271.8	0.4877	mg/L	0.00028	0.9754	mg/L	0.00056	0.06%
Fe 273.955†	2522.0	2.023	mg/L	0.0216	4.046	mg/L	0.0431	1.07%
K 766.490†	17150.8	9.850	mg/L	0.0962	19.70	mg/L	0.192	0.98%
Mg 279.077†	11994.2	10.14	mg/L	0.107	20.28	mg/L	0.215	1.06%
Mn 257.610†	16566.6	0.5060	mg/L	0.00532	1.012	mg/L	0.0106	1.05%
Mo 202.031†	15.2	0.00073	mg/L	0.000198	0.00145	mg/L	0.000396	27.24%
Na 589.592†	97449.6	9.567	mg/L	0.0885	19.13	mg/L	0.177	0.92%
Na 330.237†	269.5	10.62	mg/L	0.204	21.24	mg/L	0.408	1.92%
Ni 231.604†	1814.7	0.4885	mg/L	0.00343	0.9770	mg/L	0.00685	0.70%
Pb 220.353†	14286.8	2.011	mg/L	0.0117	4.022	mg/L	0.0235	0.58%
Sb 206.836†	8.0	-0.00260	mg/L	0.000388	-0.00520	mg/L	0.000777	14.94%
Se 196.026†	2575.0	1.999	mg/L	0.0185	3.998	mg/L	0.0369	0.92%
Si 288.158†	-5.0	0.00032	mg/L	0.002753	0.00064	mg/L	0.005505	856.57%
Sn 189.927†	-14.3	-0.00293	mg/L	0.001181	-0.00586	mg/L	0.002361	40.28%
Sr 421.552†	355913.8	0.4878	mg/L	0.00434	0.9756	mg/L	0.00867	0.89%
Ti 334.903†	21.4	0.00064	mg/L	0.000179	0.00129	mg/L	0.000358	27.81%
Tl 190.801†	4291.5	2.003	mg/L	0.0184	4.007	mg/L	0.0367	0.92%
V 292.402†	52628.2	0.4991	mg/L	0.00202	0.9981	mg/L	0.00403	0.40%
Zn 206.200†	1704.9	0.4976	mg/L	0.00436	0.9953	mg/L	0.00872	0.88%

Sequence No.: 38
Sample ID: CV 12

Autosampler Location: 7
Date Collected: 11/27/2012 4:29:27 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2333714.6	105.6	%	0.79				0.75%
ScR 361.383	294363.3	107.2	%	1.22				1.14%
Ag 328.068†	153377.4	1.031	mg/L	0.0099	1.031	mg/L	0.0099	0.96%
Al 308.215†	2795.9	1.976	mg/L	0.0179	1.976	mg/L	0.0179	0.91%
As 188.979†	3123.4	2.030	mg/L	0.0273	2.030	mg/L	0.0273	1.34%
B 249.677†	6293.9	0.9609	mg/L	0.00954	0.9609	mg/L	0.00954	0.99%
Ba 233.527†	3909.3	0.9881	mg/L	0.00880	0.9881	mg/L	0.00880	0.89%
Be 313.042†	506145.5	0.9679	mg/L	0.01044	0.9679	mg/L	0.01044	1.08%
Ca 317.933†	23110.7	1.897	mg/L	0.0242	1.897	mg/L	0.0242	1.28%
Cd 228.802†	25881.3	1.014	mg/L	0.0081	1.014	mg/L	0.0081	0.80%
Co 228.616†	33403.9	0.9953	mg/L	0.00739	0.9953	mg/L	0.00739	0.74%
Cr 267.716†	5567.6	1.001	mg/L	0.0088	1.001	mg/L	0.0088	0.88%
Cu 324.752†	220357.1	1.001	mg/L	0.0096	1.001	mg/L	0.0096	0.95%
Fe 273.955†	2502.9	2.004	mg/L	0.0136	2.004	mg/L	0.0136	0.68%
K 766.490†	34103.0	19.59	mg/L	0.288	19.59	mg/L	0.288	1.47%
Mg 279.077†	2329.1	1.976	mg/L	0.0170	1.976	mg/L	0.0170	0.86%
Mn 257.610†	31697.6	0.9678	mg/L	0.01307	0.9678	mg/L	0.01307	1.35%
Mo 202.031†	17412.3	0.9901	mg/L	0.00798	0.9901	mg/L	0.00798	0.81%
Na 589.592†	493510.2	48.45	mg/L	0.567	48.45	mg/L	0.567	1.17%
Na 330.237†	1300.4	51.94	mg/L	0.628	51.94	mg/L	0.628	1.21%
Ni 231.604†	3574.2	0.9642	mg/L	0.00835	0.9642	mg/L	0.00835	0.87%
Pb 220.353†	14003.9	1.971	mg/L	0.0098	1.971	mg/L	0.0098	0.50%
Sb 206.836†	6005.4	2.097	mg/L	0.0253	2.097	mg/L	0.0253	1.21%
Se 196.026†	2515.4	1.952	mg/L	0.0219	1.952	mg/L	0.0219	1.12%
Si 288.158†	3645.2	2.090	mg/L	0.0262	2.090	mg/L	0.0262	1.26%
Sn 189.927†	3424.5	1.011	mg/L	0.0125	1.011	mg/L	0.0125	1.23%
Sr 421.552†	695837.8	0.9536	mg/L	0.01122	0.9536	mg/L	0.01122	1.18%
Ti 334.903†	17835.3	1.014	mg/L	0.0127	1.014	mg/L	0.0127	1.25%
Tl 190.801†	4249.6	1.980	mg/L	0.0203	1.980	mg/L	0.0203	1.03%
V 292.402†	103437.9	0.9810	mg/L	0.00939	0.9810	mg/L	0.00939	0.96%
Zn 206.200†	3448.3	1.006	mg/L	0.0104	1.006	mg/L	0.0104	1.03%

Sequence No.: 39
Sample ID: CB 9

Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/27/2012 4:34:30 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2363761.7	106.9	%	1.01				0.95%
ScR 361.383	298431.8	108.7	%	0.70				0.65%
Ag 328.068†	4.8	0.00003	mg/L	0.000270	0.00003	mg/L	0.000270	832.25%
Al 308.215†	-1.0	-0.00076	mg/L	0.006025	-0.00076	mg/L	0.006025	793.76%
As 188.979†	2.5	0.00161	mg/L	0.001429	0.00161	mg/L	0.001429	88.82%
B 249.677†	6.2	0.00095	mg/L	0.001146	0.00095	mg/L	0.001146	120.98%
Ba 233.527†	0.1	0.00003	mg/L	0.000552	0.00003	mg/L	0.000552	>999.9%
Be 313.042†	-3.8	-0.00001	mg/L	0.000015	-0.00001	mg/L	0.000015	206.18%
Ca 317.933†	-6.1	-0.00050	mg/L	0.000086	-0.00050	mg/L	0.000086	17.31%
Cd 228.802†	-3.4	-0.00015	mg/L	0.000059	-0.00015	mg/L	0.000059	40.57%
Co 228.616†	11.4	0.00034	mg/L	0.000119	0.00034	mg/L	0.000119	34.70%
Cr 267.716†	7.4	0.00133	mg/L	0.000255	0.00133	mg/L	0.000255	19.25%
Cu 324.752†	-751.4	-0.00342	mg/L	0.000043	-0.00342	mg/L	0.000043	1.26%
Fe 273.955†	0.5	0.00039	mg/L	0.001627	0.00039	mg/L	0.001627	422.09%
K 766.490†	-52.3	-0.03003	mg/L	0.020925	-0.03003	mg/L	0.020925	69.68%
Mg 279.077†	-0.7	-0.00059	mg/L	0.005879	-0.00059	mg/L	0.005879	991.50%
Mn 257.610†	1.0	0.00003	mg/L	0.000057	0.00003	mg/L	0.000057	179.92%
Mo 202.031†	6.2	0.00035	mg/L	0.000440	0.00035	mg/L	0.000440	125.45%
Na 589.592†	54.7	0.00537	mg/L	0.000521	0.00537	mg/L	0.000521	9.69%
Na 330.237†	10.5	0.4183	mg/L	0.13983	0.4183	mg/L	0.13983	33.43%
Ni 231.604†	6.6	0.00177	mg/L	0.000865	0.00177	mg/L	0.000865	48.94%
Pb 220.353†	10.5	0.00149	mg/L	0.000845	0.00149	mg/L	0.000845	56.77%
Sb 206.836†	3.0	0.00103	mg/L	0.001750	0.00103	mg/L	0.001750	170.56%
Se 196.026†	-4.8	-0.00371	mg/L	0.002360	-0.00371	mg/L	0.002360	63.56%
Si 288.158†	-2.5	-0.00147	mg/L	0.001373	-0.00147	mg/L	0.001373	93.62%
Sn 189.927†	2.4	0.00070	mg/L	0.000556	0.00070	mg/L	0.000556	79.23%
Sr 421.552†	35.9	0.00005	mg/L	0.000020	0.00005	mg/L	0.000020	40.98%
Ti 334.903†	-6.5	-0.00037	mg/L	0.000274	-0.00037	mg/L	0.000274	73.77%
Tl 190.801†	5.6	0.00260	mg/L	0.002060	0.00260	mg/L	0.002060	79.25%
V 292.402†	2.0	0.00003	mg/L	0.000142	0.00003	mg/L	0.000142	566.26%
Zn 206.200†	0.5	0.00014	mg/L	0.000981	0.00014	mg/L	0.000981	683.38%

Sequence No.: 40
Sample ID: CRI

Autosampler Location: 356
Date Collected: 11/27/2012 4:38:45 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2375100.0	107.4	%	0.25				0.23%
ScR 361.383	296834.1	108.1	%	0.42				0.39%
Ag 328.068†	442.6	0.00297	mg/L	0.000136	0.00297	mg/L	0.000136	4.56%
Al 308.215†	62.1	0.04447	mg/L	0.002662	0.04447	mg/L	0.002662	5.99%
As 188.979†	75.8	0.04877	mg/L	0.001780	0.04877	mg/L	0.001780	3.65%
B 249.677†	125.4	0.01917	mg/L	0.000559	0.01917	mg/L	0.000559	2.92%
Ba 233.527†	11.5	0.00290	mg/L	0.000721	0.00290	mg/L	0.000721	24.83%
Be 313.042†	476.2	0.00091	mg/L	0.000047	0.00091	mg/L	0.000047	5.13%
Ca 317.933†	581.0	0.04770	mg/L	0.001867	0.04770	mg/L	0.001867	3.91%
Cd 228.802†	54.6	0.00185	mg/L	0.000039	0.00185	mg/L	0.000039	2.13%
Co 228.616†	118.9	0.00354	mg/L	0.000051	0.00354	mg/L	0.000051	1.45%
Cr 267.716†	33.1	0.00594	mg/L	0.000764	0.00594	mg/L	0.000764	12.85%
Cu 324.752†	-334.0	-0.00152	mg/L	0.000061	-0.00152	mg/L	0.000061	4.00%
Fe 273.955†	60.8	0.04883	mg/L	0.003484	0.04883	mg/L	0.003484	7.13%
K 766.490†	805.3	0.4625	mg/L	0.03152	0.4625	mg/L	0.03152	6.81%
Mg 279.077†	56.1	0.04747	mg/L	0.003609	0.04747	mg/L	0.003609	7.60%
Mn 257.610†	31.7	0.00097	mg/L	0.000060	0.00097	mg/L	0.000060	6.20%
Mo 202.031†	85.4	0.00486	mg/L	0.000137	0.00486	mg/L	0.000137	2.82%
Na 589.592†	4735.1	0.4649	mg/L	0.00714	0.4649	mg/L	0.00714	1.54%
Na 330.237†	22.7	0.9075	mg/L	0.20289	0.9075	mg/L	0.20289	22.36%
Ni 231.604†	40.4	0.01090	mg/L	0.001154	0.01090	mg/L	0.001154	10.59%
Pb 220.353†	147.3	0.02074	mg/L	0.000682	0.02074	mg/L	0.000682	3.29%
Sb 206.836†	145.2	0.05074	mg/L	0.002269	0.05074	mg/L	0.002269	4.47%
Se 196.026†	58.8	0.04568	mg/L	0.001935	0.04568	mg/L	0.001935	4.24%
Si 288.158†	114.2	0.06545	mg/L	0.001262	0.06545	mg/L	0.001262	1.93%
Sn 189.927†	35.3	0.01044	mg/L	0.000821	0.01044	mg/L	0.000821	7.86%
Sr 421.552†	735.3	0.00101	mg/L	0.000014	0.00101	mg/L	0.000014	1.34%
Ti 334.903†	73.8	0.00419	mg/L	0.001188	0.00419	mg/L	0.001188	28.33%
Tl 190.801†	112.0	0.05239	mg/L	0.001664	0.05239	mg/L	0.001664	3.18%
V 292.402†	302.6	0.00288	mg/L	0.000141	0.00288	mg/L	0.000141	4.88%
Zn 206.200†	31.4	0.00918	mg/L	0.000543	0.00918	mg/L	0.000543	5.91%

Sequence No.: 41
Sample ID: ICSA

Autosampler Location: 357
Date Collected: 11/27/2012 4:42:59 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2321198.1	105.0	%	0.55				0.52%
ScR 361.383	291056.7	106.0	%	0.86				0.81%
Ag 328.068†	-186.6	-0.00125	mg/L	0.000482	-0.00125	mg/L	0.000482	38.56%
Al 308.215†	273117.7	196.3	mg/L	1.05	196.3	mg/L	1.05	0.53%
As 188.979†	40.1	0.02017	mg/L	0.002251	0.02017	mg/L	0.002251	11.16%
B 249.677†	-17.2	-0.00263	mg/L	0.002549	-0.00263	mg/L	0.002549	96.86%
Ba 233.527†	111.7	-0.00359	mg/L	0.001614	-0.00359	mg/L	0.001614	44.91%
Be 313.042†	27.0	0.00005	mg/L	0.000011	0.00005	mg/L	0.000011	21.94%
Ca 317.933†	1195557.1	98.16	mg/L	0.516	98.16	mg/L	0.516	0.53%
Cd 228.802†	43.7	-0.00029	mg/L	0.000282	-0.00029	mg/L	0.000282	97.73%
Co 228.616†	58.2	-0.00081	mg/L	0.000197	-0.00081	mg/L	0.000197	24.42%
Cr 267.716†	10.6	-0.00015	mg/L	0.001269	-0.00015	mg/L	0.001269	863.29%
Cu 324.752†	-2520.6	-0.00372	mg/L	0.000149	-0.00372	mg/L	0.000149	4.00%
Fe 273.955†	242024.4	194.5	mg/L	0.94	194.5	mg/L	0.94	0.48%
K 766.490†	-14.1	-0.00808	mg/L	0.011805	-0.00808	mg/L	0.011805	146.15%
Mg 279.077†	120330.0	101.6	mg/L	1.34	101.6	mg/L	1.34	1.32%
Mn 257.610†	40.7	0.00122	mg/L	0.000205	0.00122	mg/L	0.000205	16.86%
Mo 202.031†	58.8	0.00228	mg/L	0.000457	0.00228	mg/L	0.000457	20.02%
Na 589.592†	157.8	0.01549	mg/L	0.002066	0.01549	mg/L	0.002066	13.34%
Na 330.237†	8.8	0.3547	mg/L	0.15095	0.3547	mg/L	0.15095	42.56%
Ni 231.604†	1.8	0.00049	mg/L	0.000716	0.00049	mg/L	0.000716	145.23%
Pb 220.353†	-297.2	-0.00283	mg/L	0.001698	-0.00283	mg/L	0.001698	59.91%
Sb 206.836†	21.5	0.00737	mg/L	0.001153	0.00737	mg/L	0.001153	15.63%
Se 196.026†	3.1	0.00242	mg/L	0.004900	0.00242	mg/L	0.004900	202.11%
Si 288.158†	-29.0	-0.00434	mg/L	0.002642	-0.00434	mg/L	0.002642	60.92%
Sn 189.927†	-63.6	-0.00661	mg/L	0.000517	-0.00661	mg/L	0.000517	7.82%
Sr 421.552†	2885.1	0.00395	mg/L	Cont. 0.000081	0.00395	mg/L	0.000081	2.04%
Ti 334.903†	103.3	0.00120	mg/L	0.000494	0.00120	mg/L	0.000494	41.30%
Tl 190.801†	-35.2	0.00427	mg/L	0.000619	0.00427	mg/L	0.000619	14.49%
V 292.402†	1180.1	0.00435	mg/L	0.000176	0.00435	mg/L	0.000176	4.05%
Zn 206.200†	6.0	0.00176	mg/L	0.000467	0.00176	mg/L	0.000467	26.57%

Sequence No.: 42
Sample ID: ICSAB

Autosampler Location: 358
Date Collected: 11/27/2012 4:47:15 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2339882.5	105.8	%	0.26				0.24%
ScR 361.383	290849.8	105.9	%	1.07				1.01%
Ag 328.068†	148248.6	0.9961	mg/L	0.00162	0.9961	mg/L	0.00162	0.16%
Al 308.215†	270755.9	194.6	mg/L	0.37	194.6	mg/L	0.37	0.19%
As 188.979†	1605.0	1.024	mg/L	0.0024	1.024	mg/L	0.0024	0.23%
B 249.677†	-13.5	-0.00406	mg/L	0.000295	-0.00406	mg/L	0.000295	7.25%
Ba 233.527†	4009.6	0.9819	mg/L	0.00767	0.9819	mg/L	0.00767	0.78%
Be 313.042†	513180.4	0.9814	mg/L	0.00268	0.9814	mg/L	0.00268	0.27%
Ca 317.933†	1202916.9	98.77	mg/L	0.201	98.77	mg/L	0.201	0.20%
Cd 228.802†	25440.2	1.001	mg/L	0.0011	1.001	mg/L	0.0011	0.11%
Co 228.616†	32536.2	0.9687	mg/L	0.00146	0.9687	mg/L	0.00146	0.15%
Cr 267.716†	5606.1	1.006	mg/L	0.0104	1.006	mg/L	0.0104	1.03%
Cu 324.752†	212785.8	0.9752	mg/L	0.00115	0.9752	mg/L	0.00115	0.12%
Fe 273.955†	242413.6	194.8	mg/L	0.11	194.8	mg/L	0.11	0.06%
K 766.490†	-76.1	-0.04371	mg/L	0.006144	-0.04371	mg/L	0.006144	14.06%
Mg 279.077†	115698.2	97.72	mg/L	0.183	97.72	mg/L	0.183	0.19%
Mn 257.610†	31763.1	0.9696	mg/L	0.00305	0.9696	mg/L	0.00305	0.31%
Mo 202.031†	59.2	0.00224	mg/L	0.000484	0.00224	mg/L	0.000484	21.57%
Na 589.592†	270.1	0.02652	mg/L	0.003384	0.02652	mg/L	0.003384	12.76%
Na 330.237†	17.5	0.3851	mg/L	0.29705	0.3851	mg/L	0.29705	77.13%
Ni 231.604†	3487.4	0.9406	mg/L	0.00441	0.9406	mg/L	0.00441	0.47%
Pb 220.353†	6623.4	0.9711	mg/L	0.00144	0.9711	mg/L	0.00144	0.15%
Sb 206.836†	2904.3	1.004	mg/L	0.0021	1.004	mg/L	0.0021	0.21%
Se 196.026†	1266.2	0.9823	mg/L	0.00844	0.9823	mg/L	0.00844	0.86%
Si 288.158†	-30.9	-0.00226	mg/L	0.005126	-0.00226	mg/L	0.005126	226.33%
Sn 189.927†	-65.5	-0.00660	mg/L	0.001836	-0.00660	mg/L	0.001836	27.81%
Sr 421.552†	2848.0	0.00390	mg/L Cont.	0.000038	0.00390	mg/L	0.000038	0.98%
Ti 334.903†	105.6	0.00109	mg/L	0.000284	0.00109	mg/L	0.000284	25.92%
Tl 190.801†	1949.8	0.9241	mg/L	0.00411	0.9241	mg/L	0.00411	0.45%
V 292.402†	99265.9	0.9349	mg/L	0.00222	0.9349	mg/L	0.00222	0.24%
Zn 206.200†	3273.0	0.9552	mg/L	0.00861	0.9552	mg/L	0.00861	0.90%

Sequence No.: 43
Sample ID: CV 13
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/27/2012 4:51:03 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2355692.6	106.5	%	0.30				0.28%
ScR 361.383	293543.5	106.9	%	0.98				0.92%
Ag 328.068†	152975.5	1.028	mg/L	0.0051	1.028	mg/L	0.0051	0.49%
Al 308.215†	2846.0	2.012	mg/L	0.0170	2.012	mg/L	0.0170	0.85%
As 188.979†	3121.3	2.029	mg/L	0.0058	2.029	mg/L	0.0058	0.28%
B 249.677†	6354.4	0.9701	mg/L	0.00690	0.9701	mg/L	0.00690	0.71%
Ba 233.527†	3939.2	0.9956	mg/L	0.00981	0.9956	mg/L	0.00981	0.99%
Be 313.042†	508213.0	0.9719	mg/L	0.01388	0.9719	mg/L	0.01388	1.43%
Ca 317.933†	23661.4	1.943	mg/L	0.0250	1.943	mg/L	0.0250	1.29%
Cd 228.802†	25927.4	1.016	mg/L	0.0061	1.016	mg/L	0.0061	0.60%
Co 228.616†	33401.9	0.9952	mg/L	0.00668	0.9952	mg/L	0.00668	0.67%
Cr 267.716†	5639.2	1.014	mg/L	0.0098	1.014	mg/L	0.0098	0.96%
Cu 324.752†	219940.3	0.9994	mg/L	0.00494	0.9994	mg/L	0.00494	0.49%
Fe 273.955†	2578.8	2.065	mg/L	0.0223	2.065	mg/L	0.0223	1.08%
K 766.490†	34596.2	19.87	mg/L	0.249	19.87	mg/L	0.249	1.26%
Mg 279.077†	2389.8	2.028	mg/L	0.0178	2.028	mg/L	0.0178	0.88%
Mn 257.610†	32314.0	0.9866	mg/L	0.01291	0.9866	mg/L	0.01291	1.31%
Mo 202.031†	17463.5	0.9930	mg/L	0.00732	0.9930	mg/L	0.00732	0.74%
Na 589.592†	497046.7	48.80	mg/L	0.567	48.80	mg/L	0.567	1.16%
Na 330.237†	1314.5	52.50	mg/L	0.327	52.50	mg/L	0.327	0.62%
Ni 231.604†	3623.2	0.9774	mg/L	0.00921	0.9774	mg/L	0.00921	0.94%
Pb 220.353†	14054.0	1.978	mg/L	0.0121	1.978	mg/L	0.0121	0.61%
Sb 206.836†	6001.7	2.096	mg/L	0.0035	2.096	mg/L	0.0035	0.17%
Se 196.026†	2518.1	1.954	mg/L	0.0089	1.954	mg/L	0.0089	0.46%
Si 288.158†	3693.0	2.117	mg/L	0.0184	2.117	mg/L	0.0184	0.87%
Sn 189.927†	3424.3	1.011	mg/L	0.0025	1.011	mg/L	0.0025	0.24%
Sr 421.552†	702984.6	0.9634	mg/L	0.01176	0.9634	mg/L	0.01176	1.22%
Ti 334.903†	17997.2	1.023	mg/L	0.0126	1.023	mg/L	0.0126	1.23%
Tl 190.801†	4238.9	1.975	mg/L	0.0054	1.975	mg/L	0.0054	0.27%
V 292.402†	103533.7	0.9819	mg/L	0.00606	0.9819	mg/L	0.00606	0.62%
Zn 206.200†	3526.3	1.029	mg/L	0.0095	1.029	mg/L	0.0095	0.92%

Sequence No.: 44
Sample ID: CB 10

Autosampler Location: 1
Date Collected: 11/27/2012 4:56:08 PM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2360513.3	106.8	%	0.55				0.52%
ScR 361.383	294551.6	107.2	%	0.28				0.26%
Ag 328.068†	-22.7	-0.00015	mg/L	0.000237	-0.00015	mg/L	0.000237	155.72%
Al 308.215†	-0.4	-0.00027	mg/L	0.001294	-0.00027	mg/L	0.001294	483.41%
As 188.979†	2.8	0.00177	mg/L	0.001274	0.00177	mg/L	0.001274	71.94%
B 249.677†	5.9	0.00090	mg/L	0.001461	0.00090	mg/L	0.001461	161.80%
Ba 233.527†	-0.3	-0.00008	mg/L	0.000981	-0.00008	mg/L	0.000981	>999.9%
Be 313.042†	-2.5	-0.00000	mg/L	0.000009	-0.00000	mg/L	0.000009	192.79%
Ca 317.933†	8.6	0.00071	mg/L	0.001129	0.00071	mg/L	0.001129	160.02%
Cd 228.802†	-3.7	-0.00016	mg/L	0.000129	-0.00016	mg/L	0.000129	81.80%
Co 228.616†	10.2	0.00031	mg/L	0.000032	0.00031	mg/L	0.000032	10.53%
Cr 267.716†	4.2	0.00076	mg/L	0.001456	0.00076	mg/L	0.001456	191.69%
Cu 324.752†	-732.6	-0.00333	mg/L	0.000105	-0.00333	mg/L	0.000105	3.15%
Fe 273.955†	3.0	0.00239	mg/L	0.002316	0.00239	mg/L	0.002316	96.96%
K 766.490†	-47.8	-0.02746	mg/L	0.009601	-0.02746	mg/L	0.009601	34.96%
Mg 279.077†	-0.8	-0.00067	mg/L	0.002035	-0.00067	mg/L	0.002035	304.90%
Mn 257.610†	2.8	0.00009	mg/L	0.000087	0.00009	mg/L	0.000087	100.90%
Mo 202.031†	8.3	0.00047	mg/L	0.000329	0.00047	mg/L	0.000329	69.63%
Na 589.592†	6.5	0.00064	mg/L	0.004989	0.00064	mg/L	0.004989	779.63%
Na 330.237†	18.0	0.7205	mg/L	0.49021	0.7205	mg/L	0.49021	68.03%
Ni 231.604†	1.1	0.00030	mg/L	0.001041	0.00030	mg/L	0.001041	342.11%
Pb 220.353†	12.9	0.00182	mg/L	0.000997	0.00182	mg/L	0.000997	54.69%
Sb 206.836†	3.9	0.00135	mg/L	0.001237	0.00135	mg/L	0.001237	91.58%
Se 196.026†	2.6	0.00198	mg/L	0.002872	0.00198	mg/L	0.002872	144.89%
Si 288.158†	3.5	0.00200	mg/L	0.006138	0.00200	mg/L	0.006138	306.24%
Sn 189.927†	2.4	0.00070	mg/L	0.000555	0.00070	mg/L	0.000555	79.40%
Sr 421.552†	34.9	0.00005	mg/L	0.000043	0.00005	mg/L	0.000043	89.74%
Ti 334.903†	1.5	0.00009	mg/L	0.000209	0.00009	mg/L	0.000209	240.57%
Tl 190.801†	11.4	0.00531	mg/L	0.001210	0.00531	mg/L	0.001210	22.78%
V 292.402†	-5.1	-0.00004	mg/L	0.000046	-0.00004	mg/L	0.000046	103.06%
Zn 206.200†	0.6	0.00018	mg/L	0.000283	0.00018	mg/L	0.000283	155.54%

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Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-28-12 **Analyst:** AA **Page:** 1 of 7

All corrections made by analyst unless otherwise noted. A 11-29-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2991-10
		1			2990-12
		2			2994-16
		3			2995-1
		4			~~2994-3~~ 2995-9
		5			2995-2
		Rinse Soln			
		ICV			2926-7
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			
		ICSAB			^{53}Cr 20ppb
		LR200			^{114}Cd ^{121}Sb high ^{52}Cr abso
		LR300			Co Ag ^{114}Cd Sb high
		B1			
		B2			
		B3			
		CCV2			
		CCB2			
		VTBA MB1	RBN	2	A.W. ~~2AF~~ 1.9ppb Cu
		MB2			
		MB2SPK			

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-28-12 **Analyst:** MA **Page:** 2 **of** 7

All corrections made by analyst unless otherwise noted. ~~AA~~ 11-28-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VT84 MB1SPL	REN	2 ✓	
		A			
		B			
		CCV3			Th low
		CCB3			
		VS20 MB1	SWW	20	Ag
		MB1SPL			✓
		VR88 MB2SPL	REN	2 ✓	
		J		5	
		VS20 B	SWW	20	
		C			
		D			
		E			
		G			
		H			
		CCV4			Th low
		CCB4			
		VS21 MB1	SWW	20	Ag
		MB1SPL		5 ✓	
		A-L		100 ✓	
		A		20	
		ADup			✓
		ASPL			✓
ZZZ		ZZZZZZZ APOST			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-28-12 **Analyst:** AA **Page:** 3 **of** 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
	✓	VS21 B	SUN	20	Rh 1/50 In high
		VS20 I		↓	
		↓ D	↓	100	Zn
		CCV 5			Th low
		CCB 5			
		VS21 C	SUN	20	Hg
		D			
		E			
		F			
		G			
		H			
		I			
		J			
		K			
		↓ L	↓	↓	↓
		CCV 6			Th low
		CCB 6			
		VS22 MB1	SUN	20	
		MB1 SPK		↓	
		A-L		100	Pb 13.5% R Rh Zn 1/50
		A		20	CAV
		ADup			Sb high RPD
		ASpk			Sb low % R
		↓ APost	↓	↓	0.06 mL Spk #2 1/10 0.06 mL Spk #1 1/10 Sb

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-28-12 **Analyst:** MA **Page:** 4 **of** 7

All corrections made by analyst unless otherwise noted. MA 11-29-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS22 B	SWN	20	
		C		5	
		VS21 B		100	Ag
		CCV7			
		CCB7			
		VS22 D	SWN	20	
		E			
		F			
		G			Re Zn
		H			
		I			
		J			
		K			
		L			
		VS45 B	REN	2	
		CCV8			THU
		CCB8			
		VS45MB1	REN	2	
		MBlspk		1	✓
		AL		10	✓
		A		2	
		ADup			✓
		Aspk			12/10/12
zzz		zzz APDF			

VS22 : 00195

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP (ICP-MS) GFA CVA Analysis Date: 11-28-12

Nexion M2	Analyst AT 11-29	Peer MJT 11.29.12	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	See log
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	See log
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	VS22 VR35
Matrix Duplicates	✓	✓	"
Method Blanks	✓	✓	VT04
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	ANVT04 CAF VS22 VR35

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Wednesday, November 28, 2012 08:30:09
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1337
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	5716.8	5716.761	81.963	1.4	Standard
	Mg	24.0	35793.2	35793.177	362.938	1.0	Standard
	In	114.9	69798.6	69798.586	760.159	1.1	Standard
	Pb	208.0	30080.7	30080.663	274.738	0.9	Standard
	U	238.1	53846.8	53846.825	595.601	1.1	Standard
⌈	CeO	155.9	1108.3	0.016	0.001	5.4	Standard
| >	Ce	139.9	68480.8	68480.832	364.436	0.5	Standard
⌊	Ce++	70.0	1118.9	0.016	0.000	2.4	Standard
	Bkgd	220.0	0.0	0.033	0.075	223.6	Standard

Current Conditions File Data

Current Value	Description
1.07	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

SmartTune Wizard - Summary

)ptimization Summary

;martTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

;tart Time: 11/28/2012 8:33:10 AM
:nd Time: 11/28/2012 8:35:22 AM

1ass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.696)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.709)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.711)
Target/Obtained mass (238.05/238.075), Target/Obtained resolution (0.7/0.719)

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 11/28/2012 8:35:51 AM
End Time: 11/28/2012 8:40:03 AM

AutoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.994; Intercept = -11.81

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 11/28/2012 8:40:46 AM
End Time: 11/28/2012 8:43:22 AM

Daily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 5490.67
Obtained Intensity (Mg 23.985): 34241.15
Obtained Intensity (In 114.904): 69447.60
Obtained Intensity (Pb 207.977): 29747.20
Obtained Intensity (U 238.05): 53648.95
Obtained Intensity (Bkgd 220): 0.00
Obtained Formula (CeO 155.9 / Ce 139.905): 0.017 (=1125.88 / 67190.40)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.018 (=1200.15 / 67190.40)

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:16:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				1738475	2
	Be	9		ug/L				12	14
	C	13		ug/L				138826	0
	Cl	37		ug/L				4735446	2
>	Sc	45		ug/L				1275890	0
	V	51		ug/L				9212	1
	V-1	51		ug/L				60	9
	Cr	52		ug/L				27310	1
	Cr	53		ug/L				159	2
	Mn	55		ug/L				592	1
	Co	59		ug/L				80	3
>	Ge	72		ug/L				659198	1
	Ni	60		ug/L				16	35
	Ni	62		ug/L				275	1
	Cu	63		ug/L				372	5
	Cu	65		ug/L				41	8
	Zn	66		ug/L				192	3
	Zn	67		ug/L				31	11
	Zn	68		ug/L				189	3
	As	75		ug/L				267	7
	As-1	75		ug/L				10608	0
	Se	82		ug/L				-2	562
	Se	78		ug/L				10783	0
	Mo	98		ug/L				8	62
	Y	89		ug/L				428598	1
	Kr	83		ug/L				613	6
>	In	115		ug/L				928277	0
	Ag	107		ug/L				14	20
	Cd	111		ug/L				65	9
	Cd	114		ug/L				31	1
	Sb	121		ug/L				40	19
	Sb	123		ug/L				30	12
	Ba	135		ug/L				13	16
	Ba	137		ug/L				15	30
>	Tb	159		ug/L				1061408	1
	Tl	205		ug/L				43	10
	Pb	208		ug/L				368	2
	Bi	209		ug/L				2680757	0
	Th	232		ug/L				49	19
	U	238		ug/L				2	78

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:20:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1766222	1
[	Be	9	0.200	ug/L	0.007	3	12	921	3
	C	13		ug/L			138826	140198	1
	Cl	37		ug/L			4735446	4570164	4
[>	Sc	45		ug/L			1275890	1255765	4
[	V	51	0.200	ug/L	0.014	6	9212	13967	1
[	V-1	51	0.200	ug/L	0.005	2	60	5052	1
[	Cr	52	0.500	ug/L	0.059	11	27310	36403	1
[	Cr	53	0.500	ug/L	0.027	5	159	1262	0
[	Mn	55	0.500	ug/L	0.016	3	592	14073	1
[	Co	59	0.200	ug/L	0.006	2	80	3984	2
[>	Ge	72		ug/L			659198	664597	1
[	Ni	60	0.500	ug/L	0.022	4	16	2170	3
[	Ni	62	0.500	ug/L	0.033	6	275	557	4
[	Cu	63	0.500	ug/L	0.015	3	372	5066	1
[	Cu	65	0.500	ug/L	0.010	1	41	2197	3
[	Zn	66	4.000	ug/L	0.105	2	192	11567	1
[	Zn	67	4.000	ug/L	0.126	3	31	1749	4
[	Zn	68	4.000	ug/L	0.062	1	189	7867	1
[	As	75	0.200	ug/L	0.017	8	267	727	6
[	As-1	75	0.200	ug/L	0.090	45	10608	10970	1
[	Se	82	0.500	ug/L	0.068	13	-2	137	15
[	Se	78	0.500	ug/L	0.397	79	10783	11024	1
[	Mo	98	0.200	ug/L	0.006	2	8	970	4
	Y	89		ug/L			428598	437893	2
	Kr	83		ug/L			613	591	2
[>	In	115		ug/L			928277	948458	0
[	Ag	107	0.200	ug/L	0.009	4	14	1930	5
[	Cd	111	0.100	ug/L	0.004	3	65	520	2
[	Cd	114	0.100	ug/L	0.001	0	31	1186	0
[	Sb	121	0.200	ug/L	0.004	2	40	2562	2
[	Sb	123	0.200	ug/L	0.003	1	30	1894	1
[	Ba	135	0.500	ug/L	0.019	3	13	1877	3
[	Ba	137	0.500	ug/L	0.016	3	15	3297	3
[>	Tb	159		ug/L			1061408	1085574	0
[	Tl	205	0.200	ug/L	0.004	1	43	6934	1
[	Pb	208	0.100	ug/L	0.002	2	368	4898	1
[	Bi	209		ug/L			2680757	2691512	1
[	Th	232	0.200	ug/L	0.026	13	49	5199	12
[	U	238	0.200	ug/L	0.003	1	2	8622	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:24:36
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1782795	0
[	Be	9	10.000	ug/L	0.248	2	12	46069	2
	C	13		ug/L			138826	137978	3
	Cl	37		ug/L			4735446	4761103	1
[>	Sc	45		ug/L			1275890	1325090	0
|	V	51	10.000	ug/L	0.099	0	9212	253290	1
|	V-1	51	10.000	ug/L	0.089	0	60	242867	0
|	Cr	52	10.001	ug/L	0.148	1	27310	234189	1
|	Cr	53	10.000	ug/L	0.164	1	159	23130	0
|	Mn	55	9.999	ug/L	0.055	0	592	278365	0
[	Co	59	10.000	ug/L	0.247	2	80	198182	1
[>	Ge	72		ug/L			659198	701482	0
|	Ni	60	9.997	ug/L	0.225	2	16	41351	2
|	Ni	62	10.000	ug/L	0.197	1	275	6162	1
|	Cu	63	9.999	ug/L	0.293	2	372	94497	2
|	Cu	65	9.999	ug/L	0.437	4	41	43142	3
|	Zn	66	9.800	ug/L	0.117	1	192	26356	1
|	Zn	67	9.938	ug/L	0.419	4	31	4370	4
|	Zn	68	9.918	ug/L	0.138	1	189	19315	1
|	As	75	10.000	ug/L	0.085	0	267	22639	0
|	As-1	75	10.001	ug/L	0.196	1	10608	33247	0
|	Se	82	9.997	ug/L	0.094	0	-2	2598	0
|	Se	78	10.012	ug/L	0.477	4	10783	17650	0
[	Mo	98	10.000	ug/L	0.067	0	8	49794	1
	Y	89		ug/L			428598	450476	0
	Kr	83		ug/L			613	606	1
[>	In	115		ug/L			928277	960398	1
|	Ag	107	10.000	ug/L	0.052	0	14	100761	1
|	Cd	111	10.000	ug/L	0.131	1	65	44845	1
|	Cd	114	10.000	ug/L	0.196	1	31	114978	0
|	Sb	121	10.000	ug/L	0.296	2	40	129536	1
|	Sb	123	10.000	ug/L	0.248	2	30	98916	1
|	Ba	135	10.001	ug/L	0.063	0	13	38791	0
[	Ba	137	10.001	ug/L	0.129	1	15	67992	0
[>	Tb	159		ug/L			1061408	1118736	1
|	Tl	205	10.000	ug/L	0.093	0	43	339874	0
|	Pb	208	10.000	ug/L	0.144	1	368	447018	0
|	Bi	209		ug/L			2680757	2735543	1
|	Th	232	10.001	ug/L	0.185	1	49	386647	0
[	U	238	10.000	ug/L	0.290	2	2	437792	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:28:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1812847	0
	Be	9	19.992	ug/L	0.073	0	12	93486	1
	C	13		ug/L			138826	140333	1
	Cl	37		ug/L			4735446	5010735	2
>	Sc	45		ug/L			1275890	1323443	1
	V	51	19.935	ug/L	0.501	2	9212	488515	1
	V-1	51	19.986	ug/L	0.593	2	60	483270	2
	Cr	52	19.916	ug/L	0.362	1	27310	430894	0
	Cr	53	20.084	ug/L	0.619	3	159	47013	2
	Mn	55	19.983	ug/L	0.376	1	592	552923	0
	Co	59	20.041	ug/L	0.431	2	80	399820	0
>	Ge	72		ug/L			659198	688933	0
	Ni	60	20.094	ug/L	0.261	1	16	83168	1
	Ni	62	20.027	ug/L	0.284	1	275	11896	1
	Cu	63	20.074	ug/L	0.487	2	372	188706	2
	Cu	65	19.901	ug/L	0.298	1	41	82677	0
	Zn	66	20.034	ug/L	0.441	2	192	53011	1
	Zn	67	20.066	ug/L	0.229	1	31	8730	0
	Zn	68	19.974	ug/L	0.166	0	189	37833	0
	As	75	20.066	ug/L	0.415	2	267	44918	1
	As-1	75	20.155	ug/L	0.445	2	10608	55931	1
	Se	82	19.977	ug/L	0.351	1	-2	5079	1
	Se	78	20.305	ug/L	0.461	2	10783	24367	0
	Mo	98	20.034	ug/L	0.238	1	8	98636	1
	Y	89		ug/L			428598	450903	0
	Kr	83		ug/L			613	620	2
>	In	115		ug/L			928277	957295	1
	Ag	107	19.942	ug/L	0.182	0	14	197955	1
	Cd	111	20.001	ug/L	0.398	1	65	89374	2
	Cd	114	19.922	ug/L	0.114	0	31	224786	0
	Sb	121	20.059	ug/L	0.116	0	40	262133	0
	Sb	123	20.009	ug/L	0.101	0	30	197667	0
	Ba	135	20.073	ug/L	0.356	1	13	78741	1
	Ba	137	19.925	ug/L	0.125	0	15	133031	0
>	Tb	159		ug/L			1061408	1120725	1
	Tl	205	19.942	ug/L	0.225	1	43	671139	0
	Pb	208	19.966	ug/L	0.208	1	368	887756	0
	Bi	209		ug/L			2680757	2739367	0
	Th	232	20.121	ug/L	0.405	2	49	798531	0
	U	238	20.006	ug/L	0.170	0	2	878629	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:33:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1784900	0
	Be	9	49.766	ug/L	1.005	2	12	223860	1
	C	13		ug/L			138826	134307	2
	Cl	37		ug/L			4735446	5084890	0
>	Sc	45		ug/L			1275890	1308537	0
	V	51	49.890	ug/L	0.220	0	9212	1181934	0
	V-1	51	49.847	ug/L	0.281	0	60	1174014	0
	Cr	52	49.913	ug/L	0.911	1	27310	1017244	1
	Cr	53	49.771	ug/L	0.423	0	159	112415	1
	Mn	55	49.810	ug/L	0.786	1	592	1336847	1
	Co	59	49.892	ug/L	0.862	1	80	973745	1
>	Ge	72		ug/L			659198	677191	0
	Ni	60	49.881	ug/L	0.529	1	16	200540	2
	Ni	62	49.890	ug/L	1.158	2	275	28395	1
	Cu	63	49.641	ug/L	0.253	0	372	442291	0
	Cu	65	49.801	ug/L	0.702	1	41	199322	0
	Zn	66	49.859	ug/L	0.492	0	192	127651	0
	Zn	67	49.920	ug/L	1.876	3	31	21135	3
	Zn	68	49.953	ug/L	0.700	1	189	92297	1
	As	75	50.004	ug/L	0.626	1	267	109668	1
	As-1	75	50.087	ug/L	0.572	1	10608	121407	0
	Se	82	49.833	ug/L	0.641	1	-2	12255	1
	Se	78	50.141	ug/L	0.450	0	10783	43328	0
	Mo	98	50.232	ug/L	0.784	1	8	248852	0
	Y	89		ug/L			428598	450854	1
	Kr	83		ug/L			613	637	1
>	In	115		ug/L			928277	955455	1
	Ag	107	49.862	ug/L	0.976	1	14	487223	1
	Cd	111	49.863	ug/L	0.170	0	65	219251	1
	Cd	114	49.760	ug/L	1.127	2	31	547120	0
	Sb	121	49.838	ug/L	0.582	1	40	639538	0
	Sb	123	49.804	ug/L	0.808	1	30	481536	1
	Ba	135	49.800	ug/L	1.015	2	13	191106	0
	Ba	137	49.788	ug/L	0.269	0	15	324889	1
>	Tb	159		ug/L			1061408	1108343	1
	Tl	205	49.829	ug/L	0.477	0	43	1630524	0
	Pb	208	49.768	ug/L	0.426	0	368	2138225	0
	Bi	209		ug/L			2680757	2649511	0
	Th	232	50.869	ug/L	4.672	9	49	2185416	8
	U	238	50.927	ug/L	0.329	0	2	2437864	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:39:43
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1736785	2
[	Be	9	100.252	ug/L	4.404	4	12	442279	2
	C	13		ug/L			138826	135013	3
	Cl	37		ug/L			4735446	5085221	1
[>	Sc	45		ug/L			1275890	1303230	1
[	V	51	101.700	ug/L	1.320	1	9212	2532674	1
[	V-1	51	101.651	ug/L	0.893	0	60	2523097	0
[	Cr	52	99.837	ug/L	1.192	1	27310	1987608	0
[	Cr	53	99.666	ug/L	2.545	2	159	221536	2
[	Mn	55	101.299	ug/L	0.976	0	592	2829395	1
[	Co	59	99.483	ug/L	3.374	3	80	1900401	2
[>	Ge	72		ug/L			659198	660525	0
[	Ni	60	100.123	ug/L	1.234	1	16	394190	0
[	Ni	62	100.077	ug/L	1.143	1	275	55429	1
[	Cu	63	99.938	ug/L	1.297	1	372	866323	0
[	Cu	65	99.830	ug/L	0.204	0	41	387534	0
[	Zn	66	99.530	ug/L	1.314	1	192	244561	1
[	Zn	67	99.614	ug/L	1.639	1	31	40591	1
[	Zn	68	99.310	ug/L	0.822	0	189	174798	1
[	As	75	100.026	ug/L	0.679	0	267	213899	0
[	As-1	75	100.138	ug/L	0.790	0	10608	227133	0
[	Se	82	99.808	ug/L	0.683	0	-2	23793	1
[	Se	78	100.218	ug/L	0.726	0	10783	74139	0
[	Mo	98	100.617	ug/L	0.838	0	8	496442	0
	Y	89		ug/L			428598	434487	1
	Kr	83		ug/L			613	660	2
[>	In	115		ug/L			928277	926158	0
[	Ag	107	99.863	ug/L	1.083	1	14	941696	1
[	Cd	111	99.604	ug/L	1.071	1	65	418964	1
[	Cd	114	99.776	ug/L	1.685	1	31	1055733	1
[	Sb	121	100.168	ug/L	0.647	0	40	1253117	0
[	Sb	123	100.236	ug/L	0.751	0	30	946981	1
[	Ba	135	100.172	ug/L	0.558	0	13	374833	0
[	Ba	137	100.621	ug/L	0.749	0	15	649900	0
[>	Tb	159		ug/L			1061408	1090741	0
[	Tl	205	102.589	ug/L	0.743	0	43	3615762	0
[	Pb	208	101.319	ug/L	1.079	1	368	4480668	0
[	Bi	209		ug/L			2680757	2536182	0
[	Th	232	101.268	ug/L	0.578	0	49	4473157	0
[	U	238	100.332	ug/L	0.449	0	2	4779684	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 09:46:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112712a.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1734200	1
	Be	9	0.001	ug/L	0.001	48	12	18	14
	C	13		ug/L			138826	135206	1
	Cl	37		ug/L			4735446	4931496	4
>	Sc	45		ug/L			1275890	1256598	1
	V	51	0.007	ug/L	0.013	186	9212	9240	2
	V-1	51	0.001	ug/L	0.001	59	60	83	17
	Cr	52	0.021	ug/L	0.049	235	27310	27283	2
	Cr	53	-0.001	ug/L	0.006	533	159	154	8
	Mn	55	0.001	ug/L	0.001	56	592	616	2
	Co	59	0.000	ug/L	0.000	272	80	82	8
>	Ge	72		ug/L			659198	662018	2
	Ni	60	0.002	ug/L	0.001	40	16	22	9
	Ni	62	0.032	ug/L	0.023	71	275	294	3
	Cu	63	0.002	ug/L	0.003	143	372	394	6
	Cu	65	0.004	ug/L	0.004	87	41	58	25
	Zn	66	-0.018	ug/L	0.004	23	192	149	7
	Zn	67	-0.008	ug/L	0.020	241	31	27	27
	Zn	68	-0.002	ug/L	0.006	404	189	187	5
	As	75	0.020	ug/L	0.005	25	267	310	5
	As-1	75	0.033	ug/L	0.087	264	10608	10721	0
	Se	82	0.027	ug/L	0.035	131	-2	3	242
	Se	78	0.080	ug/L	0.300	375	10783	10877	0
	Mo	98	0.015	ug/L	0.003	17	8	84	13
	Y	89		ug/L			428598	428006	1
	Kr	83		ug/L			613	623	2
>	In	115		ug/L			928277	940957	1
	Ag	107	0.003	ug/L	0.001	24	14	47	17
	Cd	111	0.006	ug/L	0.001	14	65	90	4
	Cd	114	0.001	ug/L	0.000	17	31	42	5
	Sb	121	0.121	ug/L	0.013	10	40	1575	9
	Sb	123	0.122	ug/L	0.014	11	30	1199	9
	Ba	135	0.001	ug/L	0.001	57	13	19	15
	Ba	137	0.002	ug/L	0.000	20	15	26	9
>	Tb	159		ug/L			1061408	1059724	1
	Tl	205	0.020	ug/L	0.010	48	43	722	45
	Pb	208	0.002	ug/L	0.000	11	368	464	3
	Bi	209		ug/L			2680757	2671614	1
	Th	232	0.229	ug/L	0.024	10	49	9894	10
	U	238	0.003	ug/L	0.000	3	2	155	4

Sample Information

Sample Date/Time: Wednesday, November 28, 2012 09:39:43
Method File: C:\NexION Data\Method\200.8nomin.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**1.0000**	0.003	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
V	51	**0.9995**	0.019	0.20	10	20	50	100
V-1	51	**0.9995**	0.019	0.20	10	20	50	100
Cr	52	**1.0000**	0.015	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Mn	55	**0.9997**	0.021	0.50	10	20	50	100
Co	59	**1.0000**	0.015	0.20	10	20	50	100
Ge	72							
Ni	60	**1.0000**	0.006	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**1.0000**	0.013	0.50	10	20	50	100
Cu	65	**1.0000**	0.006	0.50	10	20	50	100
Zn	66	**0.9999**	0.004	4.00	10	20	50	100
Zn	67	**1.0000**	0.001	4.00	10	20	50	100
Zn	68	**0.9999**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9999**	0.000	0.50	10	20	50	100
Se	78	**1.0000**	0.001	0.50	10	20	50	100
Mo	98	**0.9999**	0.007	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.010	0.20	10	20	50	100
Cd	111	**1.0000**	0.005	0.10	10	20	50	100
Cd	114	**1.0000**	0.011	0.10	10	20	50	100
Sb	121	**1.0000**	0.014	0.20	10	20	50	100
Sb	123	**1.0000**	0.010	0.20	10	20	50	100
Ba	135	**1.0000**	0.004	0.50	10	20	50	100
Ba	137	**0.9999**	0.007	0.50	10	20	50	100
Tb	159							
Tl	205	**0.9989**	0.032	0.20	10	20	50	100
Pb	208	**0.9997**	0.041	0.10	10	20	50	100
Bi	209							
Th	232	**0.9996**	0.040	0.20	10	20	50	100
U	238	**0.9998**	0.044	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:01:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1770257	0
	Be	9	51.255	ug/L	0.864	1	12	230611	1
	C	13		ug/L			138826	142084	0
	Cl	37		ug/L			4735446	5069083	4
>	Sc	45		ug/L			1275890	1291213	1
	V	51	50.254	ug/L	0.578	1	9212	1244616	0
	V-1	51	50.389	ug/L	0.848	1	60	1239101	0
	Cr	52	51.516	ug/L	0.539	1	27310	1029700	2
	Cr	53	51.999	ug/L	0.848	1	159	114592	0
	Mn	55	50.199	ug/L	0.107	0	592	1389608	1
	Co	59	52.664	ug/L	2.096	3	80	996721	2
>	Ge	72		ug/L			659198	670187	0
	Ni	60	51.987	ug/L	0.994	1	16	207663	1
	Ni	62	51.348	ug/L	1.490	2	275	28989	2
	Cu	63	52.191	ug/L	1.691	3	372	459220	3
	Cu	65	52.919	ug/L	0.447	0	41	208439	0
	Zn	66	50.528	ug/L	0.891	1	192	126064	1
	Zn	67	51.058	ug/L	0.379	0	31	21126	1
	Zn	68	50.233	ug/L	0.912	1	189	89794	0
	As	75	50.554	ug/L	0.421	0	267	109821	0
	As-1	75	51.046	ug/L	0.465	0	10608	122764	0
	Se	82	81.272	ug/L	1.029	1	-2	19365	0
	Se	78	80.540	ug/L	1.119	1	10783	62596	1
	Mo	98	49.262	ug/L	1.478	3	8	246593	2
	Y	89		ug/L			428598	443511	0
	Kr	83		ug/L			613	651	2
>	In	115		ug/L			928277	932515	0
	Ag	107	53.918	ug/L	2.280	4	14	511799	3
	Cd	111	51.257	ug/L	0.349	0	65	217100	0
	Cd	114	51.009	ug/L	0.839	1	31	543394	0
	Sb	121	50.239	ug/L	0.223	0	40	632822	0
	Sb	123	50.431	ug/L	1.116	2	30	479653	1
	Ba	135	50.941	ug/L	0.666	1	13	191920	1
	Ba	137	50.970	ug/L	0.548	1	15	331457	0
>	Tb	159		ug/L			1061408	1089601	0
	Tl	205	47.447	ug/L	0.288	0	43	1670587	0
	Pb	208	49.548	ug/L	0.178	0	368	2189116	0
	Bi	209		ug/L			2680757	2599335	0
	Th	232	53.814	ug/L	0.305	0	49	2374596	0
	U	238	52.987	ug/L	0.602	1	2	2521517	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:08:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1722047	1
	Be	9	0.002	ug/L	0.002	109	12	21	48
	C	13		ug/L			138826	144833	2
	Cl	37		ug/L			4735446	5016119	1
>	Sc	45		ug/L			1275890	1265173	0
	V	51	0.003	ug/L	0.006	210	9212	9198	0
	V-1	51	0.000	ug/L	0.000	68	60	68	7
	Cr	52	0.005	ug/L	0.019	351	27310	27179	0
	Cr	53	-0.003	ug/L	0.002	66	159	151	3
	Mn	55	-0.000	ug/L	0.001	1311	592	584	4
	Co	59	0.000	ug/L	0.001	160	80	87	12
>	Ge	72		ug/L			659198	661317	1
	Ni	60	0.003	ug/L	0.002	58	16	27	23
	Ni	62	0.013	ug/L	0.046	364	275	283	9
	Cu	63	-0.001	ug/L	0.003	190	372	361	5
	Cu	65	0.002	ug/L	0.002	87	41	48	11
	Zn	66	-0.013	ug/L	0.005	39	192	161	8
	Zn	67	0.001	ug/L	0.006	1036	31	31	8
	Zn	68	0.000	ug/L	0.011	3445	189	190	8
	As	75	0.017	ug/L	0.012	67	267	305	9
	As-1	75	0.077	ug/L	0.084	110	10608	10806	0
	Se	82	0.013	ug/L	0.021	158	-2	0	2983
	Se	78	0.233	ug/L	0.312	134	10783	10963	0
	Mo	98	0.009	ug/L	0.001	14	8	51	13
	Y	89		ug/L			428598	433651	0
	Kr	83		ug/L			613	630	1
>	In	115		ug/L			928277	919060	0
	Ag	107	0.003	ug/L	0.001	31	14	43	20
	Cd	111	0.004	ug/L	0.001	14	65	83	3
	Cd	114	0.001	ug/L	0.000	71	31	38	12
	Sb	121	0.038	ug/L	0.011	29	40	508	27
	Sb	123	0.037	ug/L	0.008	21	30	374	20
	Ba	135	-0.001	ug/L	0.001	47	13	8	30
	Ba	137	0.002	ug/L	0.001	60	15	27	25
>	Tb	159		ug/L			1061408	1042579	0
	Tl	205	0.005	ug/L	0.002	41	43	220	33
	Pb	208	0.002	ug/L	0.000	16	368	456	3
	Bi	209		ug/L			2680757	2612919	0
	Th	232	0.132	ug/L	0.008	6	49	5610	6
	U	238	0.002	ug/L	0.000	20	2	104	19

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:12:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1765354	0
[	Be	9	50.605	ug/L	0.845	1	12	227060	1
	C	13		ug/L			138826	134144	2
	Cl	37		ug/L			4735446	5130360	1
[>	Sc	45		ug/L			1275890	1291531	0
|	V	51	47.995	ug/L	0.349	0	9212	1189556	1
|	V-1	51	48.033	ug/L	0.642	1	60	1181712	2
|	Cr	52	50.449	ug/L	1.401	2	27310	1009015	2
|	Cr	53	50.579	ug/L	0.774	1	159	111510	1
|	Mn	55	48.553	ug/L	0.176	0	592	1344369	1
[	Co	59	51.198	ug/L	0.421	0	80	969570	0
[>	Ge	72		ug/L			659198	665412	0
|	Ni	60	50.652	ug/L	0.475	0	16	200906	0
|	Ni	62	51.731	ug/L	0.452	0	275	28998	0
|	Cu	63	51.599	ug/L	0.313	0	372	450806	0
|	Cu	65	51.299	ug/L	0.668	1	41	200634	1
|	Zn	66	51.539	ug/L	0.657	1	192	127673	1
|	Zn	67	51.802	ug/L	0.811	1	31	21281	1
|	Zn	68	50.569	ug/L	0.561	1	189	89757	0
|	As	75	50.509	ug/L	0.193	0	267	108944	0
|	As-1	75	50.432	ug/L	0.229	0	10608	120553	0
|	Se	82	52.109	ug/L	0.211	0	-2	12327	0
|	Se	78	51.061	ug/L	0.264	0	10783	43387	0
[	Mo	98	49.808	ug/L	0.374	0	8	247571	0
	Y	89		ug/L			428598	438767	1
	Kr	83		ug/L			613	644	1
[>	In	115		ug/L			928277	917532	1
|	Ag	107	52.852	ug/L	1.063	2	14	493652	0
|	Cd	111	51.967	ug/L	0.321	0	65	216566	0
|	Cd	114	51.540	ug/L	0.944	1	31	540186	0
|	Sb	121	50.805	ug/L	0.894	1	40	629574	0
|	Sb	123	50.847	ug/L	1.048	2	30	475815	0
|	Ba	135	50.879	ug/L	0.513	1	13	188598	0
[	Ba	137	50.577	ug/L	0.168	0	15	323640	1
[>	Tb	159		ug/L			1061408	1073608	0
|	Tl	205	46.623	ug/L	0.207	0	43	1617425	0
|	Pb	208	48.784	ug/L	0.266	0	368	2123672	0
|	Bi	209		ug/L			2680757	2589348	0
|	Th	232	48.070	ug/L	4.546	9	49	2088738	8
[	U	238	51.840	ug/L	0.725	1	2	2430610	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:19:26
Number of Replicates: 3
Method File: C:\NexION\Data\Method\200.8nomin.mth
Tuning File: C:\NexION\Data\MassCal\Default.tun
Optimization File: C:\NexION\Data\Conditions\Default.dac
Calibration File: C:\NexION\Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1693528	1
[	**Be**	**9**	**0.005**	ug/L	0.008	155	12	34	103
	C	**13**		ug/L			138826	137585	2
	Cl	**37**		ug/L			4735446	4824677	2
[>	**Sc**	**45**		ug/L			1275890	1236431	1
[	**V**	**51**	**0.007**	ug/L	0.007	102	9212	9087	2
[	**V-1**	**51**	**0.006**	ug/L	0.009	154	60	190	107
[	**Cr**	**52**	**0.008**	ug/L	0.040	472	27310	26620	2
[	**Cr**	**53**	**0.004**	ug/L	0.009	221	159	163	12
[	**Mn**	**55**	**0.005**	ug/L	0.007	131	592	716	27
[	**Co**	**59**	**0.004**	ug/L	0.008	176	80	160	90
[>	**Ge**	**72**		ug/L			659198	647997	0
[	**Ni**	**60**	**0.006**	ug/L	0.005	89	16	38	51
[	**Ni**	**62**	**-0.018**	ug/L	0.029	159	275	260	5
[	**Cu**	**63**	**0.000**	ug/L	0.004	852	372	369	8
[	**Cu**	**65**	**0.003**	ug/L	0.003	79	41	53	19
[	**Zn**	**66**	**-0.013**	ug/L	0.005	39	192	158	7
[	**Zn**	**67**	**-0.020**	ug/L	0.003	14	31	22	5
[	**Zn**	**68**	**0.006**	ug/L	0.003	57	189	196	2
[	**As**	**75**	**0.016**	ug/L	0.011	70	267	295	7
[	**As-1**	**75**	**0.151**	ug/L	0.025	16	10608	10747	0
[	**Se**	**82**	**0.022**	ug/L	0.024	107	-2	2	242
[	**Se**	**78**	**0.489**	ug/L	0.078	15	10783	10903	0
[	**Mo**	**98**	**0.012**	ug/L	0.001	10	8	65	9
	Y	**89**		ug/L			428598	424413	1
	Kr	**83**		ug/L			613	608	2
[>	**In**	**115**		ug/L			928277	923686	0
[	**Ag**	**107**	**0.003**	ug/L	0.001	46	14	44	31
[	**Cd**	**111**	**0.006**	ug/L	0.002	25	65	92	7
[	**Cd**	**114**	**0.001**	ug/L	0.002	123	31	44	35
[	**Sb**	**121**	**0.070**	ug/L	0.007	9	40	917	9
[	**Sb**	**123**	**0.073**	ug/L	0.002	2	30	721	2
[	**Ba**	**135**	**0.001**	ug/L	0.001	105	13	17	21
[	**Ba**	**137**	**0.001**	ug/L	0.001	70	15	22	22
[>	**Tb**	**159**		ug/L			1061408	1036819	0
[	**Tl**	**205**	**0.009**	ug/L	0.005	52	43	358	45
[	**Pb**	**208**	**0.002**	ug/L	0.000	13	368	454	2
[	**Bi**	**209**		ug/L			2680757	2615534	0
[	**Th**	**232**	**0.173**	ug/L	0.016	9	49	7290	8
[	**U**	**238**	**0.003**	ug/L	0.001	30	2	140	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:23:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
Li	6		ug/L			1738475	1740091	0
Be	9	0.205	ug/L	0.006	3	12	916	3
C	13		ug/L			138826	140866	3
Cl	37		ug/L			4735446	4989500	2
Sc	45		ug/L			1275890	1267891	1
V	51	0.196	ug/L	0.014	6	9212	13878	1
V-1	51	0.204	ug/L	0.006	2	60	4981	2
Cr	52	0.504	ug/L	0.023	4	27310	36764	0
Cr	53	0.533	ug/L	0.019	3	159	1309	2
Mn	55	0.487	ug/L	0.004	0	592	13813	0
Co	59	0.212	ug/L	0.001	0	80	4026	1
Ge	72		ug/L			659198	664016	1
Ni	60	0.523	ug/L	0.008	1	16	2085	2
Ni	62	0.502	ug/L	0.012	2	275	555	2
Cu	63	0.524	ug/L	0.008	1	372	4939	2
Cu	65	0.531	ug/L	0.012	2	41	2111	1
Zn	66	4.542	ug/L	0.096	2	192	11403	2
Zn	67	4.186	ug/L	0.051	1	31	1744	2
Zn	68	4.518	ug/L	0.055	1	189	8175	0
As	75	0.211	ug/L	0.013	6	267	721	4
As-1	75	0.207	ug/L	0.020	9	10608	11135	0
Se	82	0.564	ug/L	0.051	9	-2	130	9
Se	78	0.535	ug/L	0.076	14	10783	11201	0
Mo	98	0.198	ug/L	0.000	0	8	992	0
Y	89		ug/L			428598	430820	0
Kr	83		ug/L			613	623	1
In	115		ug/L			928277	924732	2
Ag	107	0.214	ug/L	0.004	1	14	2024	3
Cd	111	0.114	ug/L	0.002	1	65	543	1
Cd	114	0.107	ug/L	0.003	2	31	1166	4
Sb	121	0.214	ug/L	0.003	1	40	2716	1
Sb	123	0.215	ug/L	0.003	1	30	2054	1
Ba	135	0.510	ug/L	0.019	3	13	1919	3
Ba	137	0.490	ug/L	0.015	3	15	3176	0
Tb	159		ug/L			1061408	1041913	0
Tl	205	0.208	ug/L	0.005	2	43	7036	2
Pb	208	0.106	ug/L	0.002	2	368	4819	1
Bi	209		ug/L			2680757	2632933	0
Th	232	0.193	ug/L	0.003	1	49	8208	1
U	238	0.188	ug/L	0.006	2	2	8563	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:27:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1817798	0
	Be	9	0.001	ug/L	0.000	31	12	18	9
	C	13		ug/L			138826	234852	1
	Cl	37		ug/L			4735446	13475852	4
>	Sc	45		ug/L			1275890	1319348	0
	V	51	0.105	ug/L	0.011	10	9212	12152	1
	V-1	51	0.826	ug/L	0.031	3	60	20823	3
	Cr	52	0.666	ug/L	0.013	1	27310	41471	1
	Cr	53	3.244	ug/L	0.101	3	159	7459	3
	Mn	55	0.061	ug/L	0.002	2	592	2326	2
	Co	59	0.023	ug/L	0.001	2	80	529	2
>	Ge	72		ug/L			659198	657477	2
	Ni	60	0.382	ug/L	0.014	3	16	1514	3
	Ni	62	2.689	ug/L	0.313	11	275	1752	12
	Cu	63	0.866	ug/L	0.019	2	372	7839	4
	Cu	65	0.357	ug/L	0.013	3	41	1421	2
	Zn	66	0.863	ug/L	0.032	3	192	2300	2
	Zn	67	5.378	ug/L	0.240	4	31	2209	2
	Zn	68	0.359	ug/L	0.018	5	189	817	1
	As	75	0.075	ug/L	0.025	32	267	425	9
	As-1	75	0.223	ug/L	0.142	63	10608	11055	0
	Se	82	-0.214	ug/L	0.047	21	-2	-52	18
	Se	78	0.623	ug/L	0.414	66	10783	11143	0
	Mo	98	434.262	ug/L	19.510	4	8	2133814	6
	Y	89		ug/L			428598	436579	1
	Kr	83		ug/L			613	865	2
>	In	115		ug/L			928277	912434	0
	Ag	107	0.025	ug/L	0.003	12	14	242	11
	Cd	111	0.125	ug/L	0.011	8	65	584	7
	Cd	114	0.225	ug/L	0.002	0	31	2373	0
	Sb	121	0.074	ug/L	0.006	7	40	955	6
	Sb	123	0.070	ug/L	0.001	1	30	680	1
	Ba	135	0.050	ug/L	0.002	3	13	197	3
	Ba	137	0.041	ug/L	0.002	4	15	277	5
>	Tb	159		ug/L			1061408	1084071	1
	Tl	205	0.033	ug/L	0.005	15	43	1202	15
	Pb	208	0.037	ug/L	0.002	4	368	1999	2
	Bi	209		ug/L			2680757	2445843	0
	Th	232	0.235	ug/L	0.068	28	49	10343	27
	U	238	0.001	ug/L	0.000	19	2	66	18

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:34:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1838512	0
	Be	9	0.000	ug/L	0.000	234	12	13	11
	C	13		ug/L			138826	245531	1
	Cl	37		ug/L			4735446	14103168	1
>	Sc	45		ug/L			1275890	1301110	0
	V	51	-0.011	ug/L	0.146	1332	9212	9129	39
	V-1	51	0.894	ug/L	0.009	1	60	22222	1
	Cr	52	20.834	ug/L	0.351	1	27310	436160	1
	Cr	53	24.039	ug/L	0.355	1	159	53473	0
	Mn	55	19.519	ug/L	0.353	1	592	544795	1
	Co	59	20.563	ug/L	0.282	1	80	392341	1
>	Ge	72		ug/L			659198	654227	0
	Ni	60	21.109	ug/L	0.436	2	16	82322	1
	Ni	62	23.281	ug/L	0.450	1	275	12983	2
	Cu	63	21.502	ug/L	0.326	1	372	184894	0
	Cu	65	20.755	ug/L	0.531	2	41	79823	1
	Zn	66	20.303	ug/L	0.218	1	192	49563	1
	Zn	67	22.678	ug/L	0.136	0	31	9177	1
	Zn	68	18.770	ug/L	0.203	1	189	32874	1
	As	75	19.996	ug/L	0.027	0	267	42565	0
	As-1	75	19.867	ug/L	0.019	0	10608	53072	0
	Se	82	-0.234	ug/L	0.063	27	-2	-57	25
	Se	78	0.507	ug/L	0.010	1	10783	11019	0
	Mo	98	401.010	ug/L	4.955	1	8	1959638	1
	Y	89		ug/L			428598	431984	1
	Kr	83		ug/L			613	877	2
>	In	115		ug/L			928277	938186	0
	Ag	107	21.103	ug/L	0.613	2	14	201569	2
	Cd	111	19.800	ug/L	0.093	0	65	84417	0
	Cd	114	19.962	ug/L	0.212	1	31	213978	0
	Sb	121	0.068	ug/L	0.004	6	40	903	5
	Sb	123	0.071	ug/L	0.003	4	30	705	4
	Ba	135	0.047	ug/L	0.004	9	13	190	8
	Ba	137	0.041	ug/L	0.001	3	15	285	3
>	Tb	159		ug/L			1061408	1099771	1
	Tl	205	0.032	ug/L	0.001	2	43	1171	2
	Pb	208	0.031	ug/L	0.001	2	368	1771	1
	Bi	209		ug/L			2680757	2473422	0
	Th	232	0.083	ug/L	0.008	10	49	3724	9
	U	238	0.001	ug/L	0.000	16	2	27	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:41:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1735874	1
[	Be	9	194.619	ug/L	3.167	1	12	858669	2
	C	13		ug/L			138826	141521	1
	Cl	37		ug/L			4735446	5134610	0
[>	Sc	45		ug/L			1275890	1245040	1
[	V	51	209.354	ug/L	1.433	0	9212	4971428	0
[	V-1	51	205.751	ug/L	1.323	0	60	4879022	0
[	Cr	52	213.221	ug/L	0.500	0	27310	4025500	0
[	Cr	53	200.342	ug/L	0.441	0	159	425330	1
[	Mn	55	211.530	ug/L	3.048	1	592	5643608	0
[	Co	59	219.008	ug/L	3.206	1	80	3997557	0
[>	Ge	72		ug/L			659198	639681	0
[	Ni	60	200.244	ug/L	3.848	1	16	763457	1
[	Ni	62	199.168	ug/L	2.543	1	275	106576	2
[	Cu	63	196.500	ug/L	5.419	2	372	1649128	2
[	Cu	65	195.896	ug/L	1.769	0	41	736433	1
[	Zn	66	191.414	ug/L	3.221	1	192	455300	1
[	Zn	67	195.068	ug/L	0.891	0	31	76953	0
[	Zn	68	191.702	ug/L	3.785	1	189	326562	1
[	As	75	197.229	ug/L	2.333	1	267	408184	0
[	As-1	75	198.199	ug/L	2.007	1	10608	425278	0
[	Se	82	195.106	ug/L	1.767	0	-2	44378	0
[	Se	78	195.901	ug/L	1.577	0	10783	130341	1
[	Mo	98	203.654	ug/L	4.448	2	8	973009	1
	Y	89		ug/L			428598	416812	0
	Kr	83		ug/L			613	755	1
[>	In	115		ug/L			928277	896894	1
[	Ag	107	206.769	ug/L	4.673	2	14	1888258	3
[	Cd	111	199.730	ug/L	1.888	0	65	813411	0
[	Cd	114	225.851	ug/L	3.829	1	31	2313716	0
[	Sb	121	226.175	ug/L	2.987	1	40	2739616	0
[	Sb	123	203.596	ug/L	3.846	1	30	1862230	0
[	Ba	135	201.085	ug/L	2.967	1	13	728543	1
[	Ba	137	202.671	ug/L	2.527	1	15	1267476	0
[>	Tb	159		ug/L			1061408	1064727	0
[	Tl	205	203.644	ug/L	2.773	1	43	7005928	0
[	Pb	208	207.078	ug/L	2.732	1	368	8938534	0
[	Bi	209		ug/L			2680757	2399510	0
[	Th	232	205.309	ug/L	2.427	1	49	8852126	0
[	U	238	203.046	ug/L	3.047	1	2	9441469	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:47:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1689072	1
	Be	9	282.290	ug/L	3.035	1	12	1211835	1
	C	13		ug/L			138826	138969	2
	Cl	37		ug/L			4735446	5164129	0
>	Sc	45		ug/L			1275890	1189725	0
	V	51	322.754	ug/L	6.648	2	9212	7319715	2
	V-1	51	317.111	ug/L	7.853	2	60	7186358	2
	Cr	52	331.686	ug/L	1.974	0	27310	5969973	1
	Cr	53	311.510	ug/L	8.021	2	159	631959	3
	Mn	55	320.756	ug/L	2.675	0	592	8178332	1
	Co	59	330.104	ug/L	7.662	2	80	5758881	3
>	Ge	72		ug/L			659198	613285	0
	Ni	60	302.995	ug/L	1.997	0	16	1107598	0
	Ni	62	297.833	ug/L	4.644	1	275	152659	1
	Cu	63	325.114	ug/L	5.221	1	372	2616058	1
	Cu	65	289.878	ug/L	1.937	0	41	1044732	0
	Zn	66	282.829	ug/L	4.296	1	192	644938	1
	Zn	67	283.262	ug/L	5.137	1	31	107123	1
	Zn	68	287.921	ug/L	7.548	2	189	470203	2
	As	75	296.454	ug/L	3.848	1	267	588138	1
	As-1	75	298.030	ug/L	3.408	1	10608	608166	1
	Se	82	288.195	ug/L	2.169	0	-2	62850	0
	Se	78	290.286	ug/L	0.929	0	10783	180337	0
	Mo	98	306.823	ug/L	6.584	2	8	1405603	2
	Y	89		ug/L			428598	401763	0
	Kr	83		ug/L			613	955	3
>	In	115		ug/L			928277	866270	2
	Ag	107	332.727	ug/L	9.474	2	14	2933972	2
	Cd	111	292.649	ug/L	3.951	1	65	1151162	2
	Cd	114	332.009	ug/L	4.956	1	31	3285106	0
	Sb	121	337.487	ug/L	6.213	1	40	3948062	0
	Sb	123	340.856	ug/L	5.955	1	30	3011193	0
	Ba	135	311.480	ug/L	6.495	2	13	1089866	1
	Ba	137	311.687	ug/L	8.163	2	15	1882390	1
>	Tb	159		ug/L			1061408	1046073	1
	Tl	205	302.254	ug/L	3.878	1	43	10215834	0
	Pb	208	315.812	ug/L	6.661	2	368	13391660	0
	Bi	209		ug/L			2680757	2189264	7
	Th	232	307.299	ug/L	7.811	2	49	13015578	1
	U	238	302.176	ug/L	5.867	1	2	13803677	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 10:54:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1747993	1
[	Be	9	0.027	ug/L	0.030	111	12	133	101
	C	13		ug/L			138826	143225	1
	Cl	37		ug/L			4735446	4863931	1
[>	Sc	45		ug/L			1275890	1246008	0
[	V	51	0.028	ug/L	0.030	103	9212	9676	8
[	V-1	51	0.029	ug/L	0.028	94	60	757	87
[	Cr	52	0.039	ug/L	0.033	83	27310	27404	3
[	Cr	53	0.042	ug/L	0.012	29	159	244	11
[	Mn	55	0.044	ug/L	0.015	34	592	1761	23
[	Co	59	0.017	ug/L	0.016	96	80	391	77
[>	Ge	72		ug/L			659198	666755	1
[	Ni	60	0.059	ug/L	0.018	29	16	252	29
[	Ni	62	0.270 ✓	ug/L	0.105	38	275	428	13
[	Cu	63	0.065	ug/L	0.015	23	372	949	15
[	Cu	65	0.050	ug/L	0.014	27	41	239	24
[	Zn	66	0.927	ug/L	0.024	2	192	2491	2
[	Zn	67	0.829	ug/L	0.069	8	31	371	6
[	Zn	68	0.937	ug/L	0.042	4	189	1854	4
[	As	75	0.027	ug/L	0.009	32	267	327	7
[	As-1	75	0.001	ug/L	0.104	17648	10608	10728	0
[	Se	82	0.007	ug/L	0.037	539	-2	-1	625
[	Se	78	-0.076	ug/L	0.380	501	10783	10855	0
[	Mo	98	0.053	ug/L	0.005	8	8	270	7
	Y	89		ug/L			428598	427425	0
	Kr	83		ug/L			613	625	6
[>	In	115		ug/L			928277	917072	1
[	Ag	107	0.023	ug/L	0.009	37	14	224	34
[	Cd	111	0.020	ug/L	0.012	60	65	149	33
[	Cd	114	0.015	ug/L	0.015	99	31	183	81
[	Sb	121	0.349	ug/L	0.018	5	40	4360	6
[	Sb	123	0.350	ug/L	0.014	4	30	3304	4
[	Ba	135	0.124	ug/L	0.032	26	13	471	25
[	Ba	137	0.135	ug/L	0.049	36	15	876	35
[>	Tb	159		ug/L			1061408	1038932	0
[	Tl	205	0.113	ug/L	0.056	49	43	3845	49
[	Pb	208	0.061	ug/L	0.052	85	368	2942	75
[	Bi	209		ug/L			2680757	2638596	0
[	Th	232	0.333	ug/L	0.040	11	49	14084	12
[	U	238	0.035	ug/L	0.034	98	2	1602	98

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:00:50
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1728894	1
[	Be	9	0.003	ug/L	0.001	27	12	26	17
	C	13		ug/L			138826	142559	2
	Cl	37		ug/L			4735446	4837743	1
[>	Sc	45		ug/L			1275890	1237240	0
[	V	51	0.005	ug/L	0.003	67	9212	9045	0
[	V-1	51	0.004	ug/L	0.000	9	60	153	5
[	Cr	52	0.020	ug/L	0.014	68	27310	26859	0
[	Cr	53	0.017	ug/L	0.003	18	159	191	2
[	Mn	55	0.019	ug/L	0.001	5	592	1076	2
[	Co	59	0.001	ug/L	0.000	25	80	97	4
[>	Ge	72		ug/L			659198	644772	1
[	Ni	60	0.029	ug/L	0.005	15	16	126	14
[	Ni	62	0.139	ug/L	0.047	33	275	344	8
[	Cu	63	0.039	ug/L	0.003	6	372	692	1
[	Cu	65	0.029	ug/L	0.003	8	41	150	5
[	Zn	66	0.264	ug/L	0.019	7	192	820	4
[	Zn	67	0.228	ug/L	0.029	12	31	120	8
[	Zn	68	0.270	ug/L	0.011	3	189	647	2
[	As	75	0.016	ug/L	0.014	87	267	294	8
[	As-1	75	0.087	ug/L	0.061	69	10608	10558	0
[	Se	82	0.008	ug/L	0.085	1130	-2	-1	1723
[	Se	78	0.264	ug/L	0.201	76	10783	10708	0
[	Mo	98	0.017	ug/L	0.003	15	8	91	14
	Y	89		ug/L			428598	422911	0
	Kr	83		ug/L			613	610	7
[>	In	115		ug/L			928277	918273	0
[	Ag	107	0.004	ug/L	0.000	4	14	51	2
[	Cd	111	0.008	ug/L	0.002	25	65	97	7
[	Cd	114	0.003	ug/L	0.000	4	31	63	1
[	Sb	121	0.094	ug/L	0.015	15	40	1210	14
[	Sb	123	0.092	ug/L	0.018	20	30	894	18
[	Ba	135	0.013	ug/L	0.001	9	13	62	8
[	Ba	137	0.014	ug/L	0.001	10	15	102	7
[>	Tb	159		ug/L			1061408	1040522	0
[	Tl	205	0.037	ug/L	0.018	49	43	1294	46
[	Pb	208	0.009	ug/L	0.000	4	368	744	2
[	Bi	209		ug/L			2680757	2627248	1
[	Th	232	0.089	ug/L	0.005	5	49	3810	4
[	U	238	0.002	ug/L	0.000	17	2	89	16

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:06:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1731131	1
[	Be	9	0.002	ug/L	0.001	66	12	19	26
	C	13		ug/L			138826	142857	4
	Cl	37		ug/L			4735446	4901834	2
[>	Sc	45		ug/L			1275890	1246547	1
[	V	51	0.002	ug/L	0.005	244	9212	9047	2
[	V-1	51	0.003	ug/L	0.001	32	60	124	15
[	Cr	52	0.008	ug/L	0.018	226	27310	26831	2
[	Cr	53	0.011	ug/L	0.006	57	159	178	5
[	Mn	55	0.013	ug/L	0.001	10	592	913	3
[	Co	59	0.001	ug/L	0.001	126	80	91	16
[>	Ge	72		ug/L			659198	640290	1
[	Ni	60	0.026	ug/L	0.002	8	16	113	5
[	Ni	62	0.135	ug/L	0.014	10	275	339	2
[	Cu	63	0.013	ug/L	0.001	4	372	472	0
[	Cu	65	0.013	ug/L	0.002	18	41	90	11
[	Zn	66	0.366	ug/L	0.009	2	192	1058	0
[	Zn	67	0.339	ug/L	0.056	16	31	163	11
[	Zn	68	0.368	ug/L	0.019	5	189	810	3
[	As	75	-0.001	ug/L	0.011	880	267	256	9
[	As-1	75	0.131	ug/L	0.034	25	10608	10577	1
[	Se	82	-0.010	ug/L	0.049	509	-2	-4	225
[	Se	78	0.480	ug/L	0.112	23	10783	10767	1
[	Mo	98	0.011	ug/L	0.003	27	8	59	22
	Y	89		ug/L			428598	419970	0
	Kr	83		ug/L			613	624	3
[>	In	115		ug/L			928277	919281	0
[	Ag	107	0.004	ug/L	0.000	4	14	47	3
[	Cd	111	0.007	ug/L	0.001	17	65	95	5
[	Cd	114	0.003	ug/L	0.001	36	31	58	16
[	Sb	121	0.049	ug/L	0.009	18	40	644	17
[	Sb	123	0.048	ug/L	0.007	13	30	482	13
[	Ba	135	0.008	ug/L	0.001	11	13	44	8
[	Ba	137	0.010	ug/L	0.002	25	15	77	20
[>	Tb	159		ug/L			1061408	1035156	0
[	Tl	205	0.023	ug/L	0.012	53	43	796	50
[	Pb	208	0.015	ug/L	0.001	4	368	986	2
[	Bi	209		ug/L			2680757	2638502	1
[	Th	232	0.044	ug/L	0.001	2	49	1881	2
[	U	238	0.001	ug/L	0.000	7	2	40	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:10:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1813494	1
[	Be	9	48.970	ug/L	1.631	3	12	225655	1
	C	13		ug/L			138826	135291	0
	Cl	37		ug/L			4735446	5110303	3
[>	Sc	45		ug/L			1275890	1280784	1
[	V	51	47.724	ug/L	1.194	2	9212	1172767	2
[	V-1	51	47.650	ug/L	1.279	2	60	1162156	1
[	Cr	52	50.715	ug/L	0.767	1	27310	1005696	0
[	Cr	53	50.444	ug/L	1.462	2	159	110250	1
[	Mn	55	48.944	ug/L	0.646	1	592	1343682	0
[	Co	59	51.774	ug/L	1.979	3	80	971859	1
[>	Ge	72		ug/L			659198	660104	1
[	Ni	60	51.362	ug/L	0.329	0	16	202088	0
[	Ni	62	50.834	ug/L	1.318	2	275	28269	1
[	Cu	63	51.088	ug/L	0.557	1	372	442768	1
[	Cu	65	50.968	ug/L	0.332	0	41	197738	1
[	Zn	66	51.144	ug/L	0.983	1	192	125668	1
[	Zn	67	51.815	ug/L	1.011	1	31	21113	0
[	Zn	68	50.432	ug/L	0.539	1	189	88794	0
[	As	75	50.431	ug/L	0.450	0	267	107900	0
[	As-1	75	50.546	ug/L	0.475	0	10608	119831	0
[	Se	82	51.213	ug/L	0.577	1	-2	12017	0
[	Se	78	50.902	ug/L	0.679	1	10783	42937	0
[	Mo	98	49.219	ug/L	0.495	1	8	242710	2
	Y	89		ug/L			428598	430794	0
	Kr	83		ug/L			613	665	5
[>	In	115		ug/L			928277	924263	1
[	Ag	107	51.062	ug/L	1.390	2	14	480395	1
[	Cd	111	51.093	ug/L	0.794	1	65	214468	0
[	Cd	114	52.016	ug/L	1.076	2	31	549213	1
[	Sb	121	50.653	ug/L	0.652	1	40	632348	1
[	Sb	123	50.923	ug/L	0.380	0	30	480083	0
[	Ba	135	50.220	ug/L	0.782	1	13	187509	0
[	Ba	137	50.270	ug/L	0.829	1	15	323984	0
[>	Tb	159		ug/L			1061408	1077300	0
[	Tl	205	46.671	ug/L	0.253	0	43	1624705	0
[	Pb	208	48.573	ug/L	0.376	0	368	2121836	0
[	Bi	209		ug/L			2680757	2590865	0
[	Th	232	45.455	ug/L	0.383	0	49	1983130	0
[	U	238	51.780	ug/L	0.200	0	2	2436311	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:17:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1715845	1
[	Be	9	0.003	ug/L	0.000	9	12	24	4
	C	13		ug/L			138826	142411	2
	Cl	37		ug/L			4735446	4958459	0
[>	Sc	45		ug/L			1275890	1191891	0
[	V	51	0.020	ug/L	0.007	34	9212	9065	1
[	V-1	51	0.002	ug/L	0.000	13	60	103	5
[	Cr	52	0.081	ug/L	0.027	32	27310	26971	1
[	Cr	53	0.016	ug/L	0.003	20	159	181	4
[	Mn	55	0.002	ug/L	0.001	43	592	614	4
[	Co	59	0.001	ug/L	0.001	53	80	92	10
[>	Ge	72		ug/L			659198	641916	0
[	Ni	60	0.001	ug/L	0.002	324	16	18	48
[	Ni	62	0.060	ug/L	0.009	14	275	300	1
[	Cu	63	0.003	ug/L	0.003	108	372	387	6
[	Cu	65	0.003	ug/L	0.003	101	41	50	21
[	Zn	66	0.294	ug/L	0.008	2	192	889	1
[	Zn	67	0.250	ug/L	0.016	6	31	129	4
[	Zn	68	0.295	ug/L	0.020	6	189	688	4
[	As	75	0.012	ug/L	0.013	110	267	284	9
[	As-1	75	0.132	ug/L	0.047	35	10608	10606	0
[	Se	82	0.022	ug/L	0.010	47	-2	2	111
[	Se	78	0.446	ug/L	0.154	34	10783	10774	0
[	Mo	98	0.015	ug/L	0.003	18	8	78	17
	Y	89		ug/L			428598	405445	0
	Kr	83		ug/L			613	610	6
[>	In	115		ug/L			928277	895905	1
[	Ag	107	0.004	ug/L	0.001	23	14	51	17
[	Cd	111	0.005	ug/L	0.003	57	65	85	15
[	Cd	114	0.002	ug/L	0.001	37	31	47	14
[	Sb	121	0.091	ug/L	0.011	12	40	1142	11
[	Sb	123	0.092	ug/L	0.009	9	30	873	9
[	Ba	135	0.000	ug/L	0.001	442	13	14	25
[	Ba	137	0.002	ug/L	0.001	56	15	28	26
[>	Tb	159		ug/L			1061408	1023174	0
[	Tl	205	0.015	ug/L	0.007	48	43	537	45
[	Pb	208	0.005	ug/L	0.001	10	368	577	4
[	Bi	209		ug/L			2680757	2560824	1
[	Th	232	0.182	ug/L	0.019	10	49	7573	10
[	U	238	0.003	ug/L	0.000	17	2	119	17

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT84 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:35:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1763753	2
[	Be	9	0.030	ug/L	0.002	5	12	147	3
	C	13		ug/L			138826	152834	1
	Cl	37		ug/L			4735446	4762955	2
[>	Sc	45		ug/L			1275890	1253083	0
[	V	51	0.016	ug/L	0.003	19	9212	9432	0
[	V-1	51	0.018	ug/L	0.000	1	60	499	1
[	Cr	52	0.051	ug/L	0.008	15	27310	27787	0
[	Cr	53	0.059	ug/L	0.004	6	159	283	2
[	Mn	55	0.035	ug/L	0.002	4	592	1509	2
[	Co	59	0.006	ug/L	0.001	19	80	181	10
[>	Ge	72		ug/L			659198	654754	2
[	Ni	60	0.011	ug/L	0.003	24	16	60	19
[	Ni	62	0.026	ug/L	0.067	255	275	287	10
[	Cu	63	1.561	ug/L	0.058	3	372	13769	0
[	Cu	65	1.610	ug/L	0.083	5	41	6230	2
[	Zn	66	0.709	ug/L	0.007	0	192	1916	2
[	Zn	67	0.610	ug/L	0.045	7	31	277	6
[	Zn	68	0.659	ug/L	0.042	6	189	1337	8
[	As	75	0.015	ug/L	0.018	125	267	296	14
[	As-1	75	0.027	ug/L	0.121	451	10608	10588	0
[	Se	82	0.080	ug/L	0.073	90	-2	16	107
[	Se	78	0.085	ug/L	0.442	519	10783	10758	0
[	Mo	98	0.035	ug/L	0.007	21	8	177	18
	Y	89		ug/L			428598	425595	0
	Kr	83		ug/L			613	583	6
[>	In	115		ug/L			928277	933577	1
[	Ag	107	0.002	ug/L	0.001	52	14	30	26
[	Cd	111	0.006	ug/L	0.004	69	65	90	18
[	Cd	114	0.000	ug/L	0.001	186	31	36	21
[	Sb	121	0.042	ug/L	0.009	22	40	564	20
[	Sb	123	0.039	ug/L	0.010	26	30	399	23
[	Ba	135	0.010	ug/L	0.001	7	13	52	6
[	Ba	137	0.014	ug/L	0.000	3	15	105	3
[>	Tb	159		ug/L			1061408	1064231	0
[	Tl	205	0.021	ug/L	0.011	54	43	751	51
[	Pb	208	0.000	ug/L	0.000	147165	368	369	2
[	Bi	209		ug/L			2680757	2648038	1
[	Th	232	0.093	ug/L	0.010	11	49	4053	11
[	U	238	0.001	ug/L	0.000	13	2	41	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT84 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:39:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1782147	1
	Be	9	0.003	ug/L	0.001	19	12	25	9
	C	13		ug/L			138826	151529	2
	Cl	37		ug/L			4735446	5039378	0
>	Sc	45		ug/L			1275890	1287117	2
	V	51	0.019	ug/L	0.002	11	9212	9766	2
	V-1	51	0.009	ug/L	0.000	2	60	288	4
	Cr	52	0.058	ug/L	0.016	27	27310	28667	2
	Cr	53	0.022	ug/L	0.008	38	159	208	6
	Mn	55	0.019	ug/L	0.002	10	592	1128	2
	Co	59	0.001	ug/L	0.000	25	80	93	5
>	Ge	72		ug/L			659198	667659	0
	Ni	60	0.006	ug/L	0.000	6	16	40	3
	Ni	62	0.012	ug/L	0.049	417	275	285	9
	Cu	63	0.070	ug/L	0.000	0	372	986	0
	Cu	65	0.071	ug/L	0.008	10	41	322	10
	Zn	66	0.596	ug/L	0.032	5	192	1673	4
	Zn	67	0.594	ug/L	0.045	7	31	275	6
	Zn	68	0.595	ug/L	0.013	2	189	1250	2
	As	75	0.016	ug/L	0.013	79	267	305	8
	As-1	75	-0.007	ug/L	0.044	678	10608	10729	0
	Se	82	0.037	ug/L	0.032	86	-2	5	131
	Se	78	-0.052	ug/L	0.158	304	10783	10888	0
	Mo	98	0.006	ug/L	0.001	13	8	39	10
	Y	89		ug/L			428598	433712	0
	Kr	83		ug/L			613	613	4
>	In	115		ug/L			928277	935354	1
	Ag	107	0.001	ug/L	0.000	19	14	25	9
	Cd	111	0.006	ug/L	0.002	34	65	91	8
	Cd	114	0.000	ug/L	0.000	144	31	35	14
	Sb	121	0.017	ug/L	0.004	23	40	254	18
	Sb	123	0.017	ug/L	0.004	20	30	196	16
	Ba	135	0.036	ug/L	0.004	10	13	149	10
	Ba	137	0.035	ug/L	0.002	7	15	242	6
>	Tb	159		ug/L			1061408	1065271	0
	Tl	205	0.008	ug/L	0.003	40	43	308	34
	Pb	208	0.005	ug/L	0.001	10	368	593	3
	Bi	209		ug/L			2680757	2647958	0
	Th	232	0.065	ug/L	0.003	4	49	2832	4
	U	238	0.001	ug/L	0.000	24	2	45	23

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT84 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:43:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1852475	0
	Be	9	23.905	ug/L	0.118	0	12	112565	0
	C	13		ug/L			138826	155163	4
	Cl	37		ug/L			4735446	5059291	1
>	Sc	45		ug/L			1275890	1297897	1
	V	51	24.573	ug/L	0.360	1	9212	616508	1
	V-1	51	24.668	ug/L	0.424	1	60	609741	0
	Cr	52	26.142	ug/L	0.618	2	27310	538800	2
	Cr	53	26.480	ug/L	0.834	3	159	58720	1
	Mn	55	25.573	ug/L	0.682	2	592	711615	1
	Co	59	25.882	ug/L	0.920	3	80	492403	2
>	Ge	72		ug/L			659198	669076	3
	Ni	60	26.601	ug/L	0.729	2	16	106041	0
	Ni	62	26.386	ug/L	0.776	2	275	15001	1
	Cu	63	26.670	ug/L	0.674	2	372	234354	0
	Cu	65	26.062	ug/L	0.471	1	41	102474	1
	Zn	66	80.188	ug/L	4.515	5	192	199394	2
	Zn	67	74.797	ug/L	1.372	1	31	30872	1
	Zn	68	77.288	ug/L	3.524	4	189	137711	1
	As	75	24.283	ug/L	0.853	3	267	52769	0
	As-1	75	25.192	ug/L	0.932	3	10608	65899	0
	Se	82	76.221	ug/L	2.444	3	-2	18120	0
	Se	78	76.080	ug/L	2.650	3	10783	59605	0
	Mo	98	24.396	ug/L	0.387	1	8	121895	1
	Y	89		ug/L			428598	436843	0
	Kr	83		ug/L			613	630	5
>	In	115		ug/L			928277	952017	0
	Ag	107	26.468	ug/L	0.791	2	14	256539	2
	Cd	111	24.504	ug/L	0.044	0	65	105998	0
	Cd	114	24.585	ug/L	0.221	0	31	267409	0
	Sb	121	24.373	ug/L	0.251	1	40	313473	1
	Sb	123	24.286	ug/L	0.039	0	30	235868	0
	Ba	135	25.508	ug/L	0.171	0	13	98121	0
	Ba	137	25.699	ug/L	0.254	0	15	170629	0
>	Tb	159		ug/L			1061408	1093685	0
	Tl	205	24.035	ug/L	0.095	0	43	849445	0
	Pb	208	24.939	ug/L	0.089	0	368	1106156	0
	Bi	209		ug/L			2680757	2624798	0
	Th	232	23.651	ug/L	0.141	0	49	1047562	0
	U	238	22.969	ug/L	0.120	0	2	1097184	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT84 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:47:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1826865	0
[	Be	9	24.546	ug/L	0.095	0	12	113982	0
	C	13		ug/L			138826	151562	1
	Cl	37		ug/L			4735446	5085565	0
[>	Sc	45		ug/L			1275890	1328287	1
[	V	51	23.680	ug/L	0.263	1	9212	608423	1
[	V-1	51	23.588	ug/L	0.363	1	60	596736	1
[	Cr	52	25.034	ug/L	0.168	0	27310	529294	1
[	Cr	53	24.703	ug/L	0.955	3	159	56072	2
[	Mn	55	24.767	ug/L	0.196	0	592	705500	1
[	Co	59	25.211	ug/L	0.587	2	80	490947	0
[>	Ge	72		ug/L			659198	663026	1
[	Ni	60	26.205	ug/L	0.991	3	16	103530	1
[	Ni	62	26.291	ug/L	0.584	2	275	14817	0
[	Cu	63	25.837	ug/L	0.385	1	372	225067	0
[	Cu	65	26.606	ug/L	0.257	0	41	103696	1
[	Zn	66	80.294	ug/L	1.292	1	192	198075	2
[	Zn	67	76.493	ug/L	1.375	1	31	31290	0
[	Zn	68	78.947	ug/L	1.123	1	189	139496	0
[	As	75	24.461	ug/L	0.291	1	267	52703	0
[	As-1	75	25.443	ug/L	0.758	2	10608	65869	1
[	Se	82	78.392	ug/L	0.783	0	-2	18477	0
[	Se	78	78.390	ug/L	2.324	2	10783	60549	0
[	Mo	98	24.233	ug/L	0.322	1	8	120014	1
	Y	89		ug/L			428598	443106	2
	Kr	83		ug/L			613	631	2
[>	In	115		ug/L			928277	953024	1
[	Ag	107	26.178	ug/L	0.347	1	14	254006	1
[	Cd	111	24.535	ug/L	0.425	1	65	106234	1
[	Cd	114	24.493	ug/L	0.218	0	31	266692	1
[	Sb	121	23.953	ug/L	0.141	0	40	308390	1
[	Sb	123	23.979	ug/L	0.104	0	30	233140	1
[	Ba	135	24.986	ug/L	0.222	0	13	96218	1
[	Ba	137	25.067	ug/L	0.278	1	15	166597	0
[>	Tb	159		ug/L			1061408	1093829	0
[	Tl	205	23.806	ug/L	0.091	0	43	841490	0
[	Pb	208	24.676	ug/L	0.278	1	368	1094649	1
[	Bi	209		ug/L			2680757	2638667	0
[	Th	232	23.241	ug/L	0.078	0	49	1029568	0
[	U	238	22.484	ug/L	0.244	1	2	1074118	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT84 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:51:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	**Li**	**6**		ug/L			1738475	1777024	0
	Be	**9**	**0.039**	ug/L	0.002	4	12	186	3
	C	**13**		ug/L			138826	156993	1
	Cl	**37**		ug/L			4735446	4879192	3
>	**Sc**	**45**		ug/L			1275890	1356630	0
	V	**51**	**14.361**	ug/L	0.089	0	9212	380735	1
	V-1	**51**	**14.359**	ug/L	0.101	0	60	371091	1
	Cr	**52**	**3.611**	ug/L	0.014	0	27310	102840	0
	Cr	**53**	**3.619**	ug/L	0.119	3	159	8537	2
	Mn	**55**	**45.857**	ug/L	0.218	0	592	1333716	0
	Co	**59**	**1.539**	ug/L	0.031	2	80	30701	1
>	**Ge**	**72**		ug/L			659198	657465	0
	Ni	**60**	**7.873**	ug/L	0.214	2	16	30871	3
	Ni	**62**	**8.048**	ug/L	0.218	2	275	4688	2
	Cu	**63**	**17.454**	ug/L	0.312	1	372	150899	0
	Cu	**65**	**16.912**	ug/L	0.045	0	41	65380	0
	Zn	**66**	**22.481**	ug/L	0.260	1	192	55130	0
	Zn	**67**	**21.963**	ug/L	0.151	0	31	8932	1
	Zn	**68**	**22.763**	ug/L	0.251	1	189	40023	0
	As	**75**	**2.071**	ug/L	0.016	0	267	4669	1
	As-1	**75**	**2.050**	ug/L	0.078	3	10608	14991	0
	Se	**82**	**0.507**	ug/L	0.028	5	-2	115	6
	Se	**78**	**0.536**	ug/L	0.339	63	10783	11090	1
	Mo	**98**	**3.420**	ug/L	0.045	1	8	16805	0
	Y	**89**		ug/L			428598	464678	1
	Kr	**83**		ug/L			613	645	3
>	**In**	**115**		ug/L			928277	935338	1
	Ag	**107**	**0.025**	ug/L	0.004	14	14	253	14
	Cd	**111**	**0.053**	ug/L	0.003	6	65	292	4
	Cd	**114**	**0.041**	ug/L	0.003	7	31	469	6
	Sb	**121**	**0.827**	ug/L	0.004	0	40	10482	0
	Sb	**123**	**0.824**	ug/L	0.008	0	30	7888	1
	Ba	**135**	**14.149**	ug/L	0.065	0	13	53479	1
	Ba	**137**	**14.257**	ug/L	0.209	1	15	93003	0
>	**Tb**	**159**		ug/L			1061408	1085470	0
	Tl	**205**	**0.019**	ug/L	0.001	5	43	725	6
	Pb	**208**	**1.790**	ug/L	0.019	1	368	79127	0
	Bi	**209**		ug/L			2680757	2572738	1
	Th	**232**	**0.455**	ug/L	0.050	10	49	20060	10
	U	**238**	**0.165**	ug/L	0.005	3	2	7806	2

VS22 : 00227

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT84 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 11:55:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1795207	0
[	Be	9	0.023	ug/L	0.002	9	12	118	8
	C	13		ug/L			138826	153770	0
	Cl	37		ug/L			4735446	4760227	1
[>	Sc	45		ug/L			1275890	1317166	1
[	V	51	5.406	ug/L	0.114	2	9212	145110	2
[	V-1	51	5.417	ug/L	0.109	2	60	135989	3
[	Cr	52	0.515	ug/L	0.053	10	27310	38410	2
[	Cr	53	0.561	ug/L	0.025	4	159	1423	3
[	Mn	55	20.445	ug/L	0.535	2	592	577624	2
[	Co	59	0.114	ug/L	0.002	1	80	2288	1
[>	Ge	72		ug/L			659198	659239	0
[	Ni	60	3.237	ug/L	0.113	3	16	12738	3
[	Ni	62	3.168	ug/L	0.061	1	275	2017	2
[	Cu	63	8.751	ug/L	0.180	2	372	76061	2
[	Cu	65	8.135	ug/L	0.045	0	41	31557	0
[	Zn	66	5.038	ug/L	0.025	0	192	12537	0
[	Zn	67	4.943	ug/L	0.134	2	31	2039	2
[	Zn	68	5.323	ug/L	0.104	1	189	9530	1
[	As	75	1.103	ug/L	0.054	4	267	2618	4
[	As-1	75	1.069	ug/L	0.061	5	10608	12915	0
[	Se	82	0.472	ug/L	0.062	13	-2	107	13
[	Se	78	0.379	ug/L	0.101	26	10783	11022	0
[	Mo	98	3.549	ug/L	0.056	1	8	17484	1
	Y	89		ug/L			428598	435825	1
	Kr	83		ug/L			613	616	5
[>	In	115		ug/L			928277	945590	0
[	Ag	107	0.006	ug/L	0.000	5	14	73	3
[	Cd	111	0.014	ug/L	0.002	13	65	126	6
[	Cd	114	0.013	ug/L	0.001	9	31	176	7
[	Sb	121	0.791	ug/L	0.010	1	40	10146	1
[	Sb	123	0.815	ug/L	0.014	1	30	7892	1
[	Ba	135	3.699	ug/L	0.055	1	13	14144	1
[	Ba	137	3.680	ug/L	0.016	0	15	24283	1
[>	Tb	159		ug/L			1061408	1099912	0
[	Tl	205	0.009	ug/L	0.002	19	43	349	16
[	Pb	208	0.089	ug/L	0.003	3	368	4347	2
[	Bi	209		ug/L			2680757	2600009	1
[	Th	232	0.079	ug/L	0.005	5	49	3553	5
[	U	238	0.124	ug/L	0.001	0	2	5953	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:06:39
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1778176	0
[	Be	9	50.332	ug/L	0.432	0	12	227479	0
	C	13		ug/L			138826	141713	2
	Cl	37		ug/L			4735446	5038545	2
[>	Sc	45		ug/L			1275890	1301941	1
|	V	51	47.363	ug/L	0.655	1	9212	1183265	0
|	V-1	51	47.253	ug/L	0.792	1	60	1171624	0
|	Cr	52	49.472	ug/L	0.816	1	27310	997964	0
|	Cr	53	49.077	ug/L	1.260	2	159	109047	1
|	Mn	55	47.480	ug/L	0.168	0	592	1325244	1
[	Co	59	49.203	ug/L	0.760	1	80	939175	0
[>	Ge	72		ug/L			659198	660592	0
|	Ni	60	49.744	ug/L	1.153	2	16	195874	2
|	Ni	62	49.545	ug/L	0.945	1	275	27585	2
|	Cu	63	50.538	ug/L	0.634	1	372	438336	1
|	Cu	65	50.798	ug/L	0.823	1	41	197242	2
|	Zn	66	50.247	ug/L	1.116	2	192	123562	1
|	Zn	67	50.639	ug/L	1.419	2	31	20650	2
|	Zn	68	50.705	ug/L	0.960	1	189	89349	2
|	As	75	49.576	ug/L	0.343	0	267	106164	1
|	As-1	75	49.545	ug/L	0.190	0	10608	117765	0
|	Se	82	50.844	ug/L	0.300	0	-2	11941	1
|	Se	78	49.950	ug/L	0.437	0	10783	42372	1
[	Mo	98	48.247	ug/L	0.833	1	8	238102	2
	Y	89		ug/L			428598	430291	1
	Kr	83		ug/L			613	611	3
[>	In	115		ug/L			928277	933535	0
|	Ag	107	51.701	ug/L	0.768	1	14	491422	1
|	Cd	111	50.888	ug/L	0.199	0	65	215786	1
|	Cd	114	51.593	ug/L	0.628	1	31	550243	0
|	Sb	121	50.196	ug/L	0.507	1	40	632961	0
|	Sb	123	50.630	ug/L	0.485	0	30	482136	0
|	Ba	135	49.350	ug/L	0.916	1	13	186125	1
[	Ba	137	49.909	ug/L	0.963	1	15	324919	1
[>	Tb	159		ug/L			1061408	1095113	0
|	Tl	205	45.837	ug/L	0.191	0	43	1622058	0
|	Pb	208	47.994	ug/L	0.344	0	368	2131170	0
|	Bi	209		ug/L			2680757	2622085	0
|	Th	232	44.230	ug/L	0.483	1	49	1961563	0
[	U	238	50.992	ug/L	0.630	1	2	2438865	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:13:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1728826	0
[	Be	9	0.001	ug/L	0.000	31	12	16	9
	C	13		ug/L			138826	142320	1
	Cl	37		ug/L			4735446	4865424	0
[>	Sc	45		ug/L			1275890	1238833	0
[	V	51	-0.001	ug/L	0.009	863	9212	8919	1
[	V-1	51	0.001	ug/L	0.001	48	60	90	17
[	Cr	52	-0.003	ug/L	0.037	1194	27310	26456	1
[	Cr	53	0.005	ug/L	0.008	144	159	166	9
[	Mn	55	0.002	ug/L	0.001	49	592	635	4
[	Co	59	0.000	ug/L	0.000	89	80	80	3
[>	Ge	72		ug/L			659198	641367	2
[	Ni	60	0.001	ug/L	0.001	91	16	20	18
[	Ni	62	0.051	ug/L	0.034	67	275	295	4
[	Cu	63	0.005	ug/L	0.002	44	372	402	2
[	Cu	65	0.002	ug/L	0.002	93	41	47	13
[	Zn	66	0.289	ug/L	0.009	3	192	876	2
[	Zn	67	0.291	ug/L	0.043	14	31	145	10
[	Zn	68	0.304	ug/L	0.016	5	189	703	2
[	As	75	0.011	ug/L	0.019	162	267	283	15
[	As-1	75	0.117	ug/L	0.169	143	10608	10561	0
[	Se	82	-0.023	ug/L	0.063	270	-2	-8	175
[	Se	78	0.374	ug/L	0.613	163	10783	10714	0
[	Mo	98	0.009	ug/L	0.001	12	8	49	8
	Y	89		ug/L			428598	412927	0
	Kr	83		ug/L			613	623	3
[>	In	115		ug/L			928277	914544	0
[	Ag	107	0.002	ug/L	0.001	44	14	34	26
[	Cd	111	0.005	ug/L	0.001	21	65	84	5
[	Cd	114	0.001	ug/L	0.001	115	31	39	23
[	Sb	121	0.070	ug/L	0.007	10	40	907	10
[	Sb	123	0.068	ug/L	0.010	15	30	663	14
[	Ba	135	0.002	ug/L	0.001	34	13	20	11
[	Ba	137	0.002	ug/L	0.001	35	15	30	17
[>	Tb	159		ug/L			1061408	1044453	0
[	Tl	205	0.008	ug/L	0.003	40	43	307	34
[	Pb	208	0.005	ug/L	0.000	7	368	580	3
[	Bi	209		ug/L			2680757	2634932	0
[	Th	232	0.167	ug/L	0.021	12	49	7107	11
[	U	238	0.002	ug/L	0.000	6	2	93	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:22:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1764561	0
	Be	9	0.002	ug/L	0.000	23	12	20	10
	C	13		ug/L			138826	143568	3
	Cl	37		ug/L			4735446	4884332	2
>	Sc	45		ug/L			1275890	1249388	2
	V	51	0.010	ug/L	0.010	99	9212	9257	3
	V-1	51	0.001	ug/L	0.001	77	60	83	22
	Cr	52	0.039	ug/L	0.029	73	27310	27479	3
	Cr	53	0.007	ug/L	0.004	59	159	171	5
	Mn	55	0.034	ug/L	0.001	2	592	1486	0
	Co	59	0.001	ug/L	0.000	33	80	104	9
>	Ge	72		ug/L			659198	648705	1
	Ni	60	0.002	ug/L	0.002	90	16	25	34
	Ni	62	-0.017	ug/L	0.050	296	275	262	11
	Cu	63	0.023	ug/L	0.001	2	372	560	2
	Cu	65	0.026	ug/L	0.004	14	41	139	10
	Zn	66	0.112	ug/L	0.008	7	192	458	3
	Zn	67	0.114	ug/L	0.030	26	31	76	15
	Zn	68	0.117	ug/L	0.009	7	189	388	4
	As	75	0.016	ug/L	0.008	51	267	296	5
	As-1	75	0.072	ug/L	0.104	144	10608	10588	0
	Se	82	-0.010	ug/L	0.060	578	-2	-5	268
	Se	78	0.207	ug/L	0.360	173	10783	10737	0
	Mo	98	0.003	ug/L	0.001	34	8	22	21
	Y	89		ug/L			428598	424678	1
	Kr	83		ug/L			613	624	6
>	In	115		ug/L			928277	931880	0
	Ag	107	0.001	ug/L	0.001	61	14	26	27
	Cd	111	0.004	ug/L	0.002	38	65	82	8
	Cd	114	0.000	ug/L	0.000	570	31	32	13
	Sb	121	0.021	ug/L	0.004	19	40	306	17
	Sb	123	0.020	ug/L	0.003	14	30	225	13
	Ba	135	0.019	ug/L	0.002	8	13	85	7
	Ba	137	0.020	ug/L	0.000	2	15	144	1
>	Tb	159		ug/L			1061408	1058560	0
	Tl	205	0.004	ug/L	0.002	46	43	183	35
	Pb	208	0.006	ug/L	0.000	5	368	609	2
	Bi	209		ug/L			2680757	2661702	0
	Th	232	0.074	ug/L	0.007	9	49	3206	9
	U	238	0.001	ug/L	0.000	23	2	29	21

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:26:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1773559	1
	Be	9	24.744	ug/L	0.389	1	12	111539	0
	C	13		ug/L			138826	146671	3
	Cl	37		ug/L			4735446	4812316	2
>	Sc	45		ug/L			1275890	1258360	1
	V	51	24.538	ug/L	0.522	2	9212	596878	1
	V-1	51	24.586	ug/L	0.377	1	60	589286	1
	Cr	52	26.523	ug/L	0.799	3	27310	529562	1
	Cr	53	26.694	ug/L	0.270	1	159	57412	1
	Mn	55	26.058	ug/L	0.038	0	592	703247	1
	Co	59	26.531	ug/L	0.569	2	80	489491	1
>	Ge	72		ug/L			659198	657273	0
	Ni	60	26.800	ug/L	0.178	0	16	105008	0
	Ni	62	26.805	ug/L	0.102	0	275	14974	0
	Cu	63	26.994	ug/L	0.616	2	372	233137	2
	Cu	65	27.020	ug/L	0.185	0	41	104403	0
	Zn	66	84.170	ug/L	0.984	1	192	205828	0
	Zn	67	76.794	ug/L	1.311	1	31	31147	1
	Zn	68	81.866	ug/L	0.367	0	189	143417	0
	As	75	24.975	ug/L	0.243	0	267	53344	0
	As-1	75	25.937	ug/L	0.244	0	10608	66379	0
	Se	82	83.119	ug/L	0.954	1	-2	19424	0
	Se	78	82.785	ug/L	0.398	0	10783	62803	0
	Mo	98	24.223	ug/L	0.336	1	8	118936	1
	Y	89		ug/L			428598	424528	1
	Kr	83		ug/L			613	608	3
>	In	115		ug/L			928277	941101	1
	Ag	107	26.348	ug/L	0.432	1	14	252444	0
	Cd	111	25.232	ug/L	0.459	1	65	107874	0
	Cd	114	25.486	ug/L	0.450	1	31	273992	0
	Sb	121	24.798	ug/L	0.534	2	40	315198	0
	Sb	123	24.935	ug/L	0.550	2	30	239342	0
	Ba	135	25.533	ug/L	0.478	1	13	97078	0
	Ba	137	25.661	ug/L	0.502	1	15	168400	0
>	Tb	159		ug/L			1061408	1078197	0
	Tl	205	24.518	ug/L	0.175	0	43	854210	0
	Pb	208	25.557	ug/L	0.213	0	368	1117494	0
	Bi	209		ug/L			2680757	2677326	1
	Th	232	22.959	ug/L	0.375	1	49	1002436	0
	U	238	22.903	ug/L	0.236	1	2	1078450	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR88 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:31:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			1738475	1775120	0
⌊	Be	9	24.130	ug/L	0.252	1	12	108877	0
	C	13		ug/L			138826	153485	1
	Cl	37		ug/L			4735446	4861432	2
⌈>	Sc	45		ug/L			1275890	1280305	0
|	V	51	24.213	ug/L	0.060	0	9212	599454	0
|	V-1	51	24.188	ug/L	0.182	0	60	589881	0
|	Cr	52	25.383	ug/L	0.702	2	27310	516962	2
|	Cr	53	25.291	ug/L	0.161	0	159	55355	0
|	Mn	55	24.717	ug/L	0.498	2	592	678748	2
⌊	Co	59	26.125	ug/L	0.741	2	80	490500	3
⌈>	Ge	72		ug/L			659198	650040	2
|	Ni	60	26.653	ug/L	0.630	2	16	103257	1
|	Ni	62	26.169	ug/L	0.847	3	275	14461	2
|	Cu	63	26.790	ug/L	0.240	0	372	228795	1
|	Cu	65	26.905	ug/L	0.422	1	41	102791	1
|	Zn	66	81.418	ug/L	1.224	1	192	196881	1
|	Zn	67	74.919	ug/L	1.326	1	31	30049	2
|	Zn	68	79.335	ug/L	1.613	2	189	137417	0
|	As	75	24.246	ug/L	0.378	1	267	51214	0
|	As-1	75	25.169	ug/L	0.263	1	10608	64009	1
|	Se	82	78.654	ug/L	1.827	2	-2	18172	0
|	Se	78	78.449	ug/L	1.136	1	10783	59405	1
⌊	Mo	98	24.311	ug/L	0.611	2	8	118007	0
	Y	89		ug/L			428598	427924	1
	Kr	83		ug/L			613	633	4
⌈>	In	115		ug/L			928277	946027	0
|	Ag	107	24.237	ug/L	0.486	2	14	233486	2
|	Cd	111	24.924	ug/L	0.158	0	65	107137	1
|	Cd	114	24.769	ug/L	0.118	0	31	267737	1
|	Sb	121	24.184	ug/L	0.212	0	40	309061	0
|	Sb	123	24.184	ug/L	0.409	1	30	233398	1
|	Ba	135	24.971	ug/L	0.290	1	13	95457	1
⌊	Ba	137	25.124	ug/L	0.271	1	15	165764	1
⌈>	Tb	159		ug/L			1061408	1073262	1
|	Tl	205	24.369	ug/L	0.249	1	43	845135	1
|	Pb	208	25.265	ug/L	0.306	1	368	1099590	1
|	Bi	209		ug/L			2680757	2666857	0
|	Th	232	23.147	ug/L	0.389	1	49	1005943	1
⌊	U	238	22.804	ug/L	0.316	1	2	1068826	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR88 J REN
Sample Dil Factor: 5
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:36:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1760417	1
	Be	9	0.041	ug/L	0.003	6	12	194	7
	C	13		ug/L			138826	148727	0
	Cl	37		ug/L			4735446	5944954	0
>	Sc	45		ug/L			1275890	1306355	1
	V	51	23.736	ug/L	0.158	0	9212	599804	1
	V-1	51	23.839	ug/L	0.175	0	60	593248	1
	Cr	52	4.978	ug/L	0.104	2	27310	125897	0
	Cr	53	5.374	ug/L	0.057	1	159	12129	2
	Mn	55	109.853	ug/L	0.653	0	592	3075655	0
	Co	59	0.174	ug/L	0.004	2	80	3410	1
>	Ge	72		ug/L			659198	641828	2
	Ni	60	0.293	ug/L	0.006	2	16	1134	0
	Ni	62	21.535	ug/L	5.045	23	275	11781	22
	Cu	63	4.754	ug/L	0.457	9	372	40357	8
	Cu	65	0.632	ug/L	0.027	4	41	2422	2
	Zn	66	1.224	ug/L	0.037	2	192	3106	1
	Zn	67	1.849	ug/L	0.050	2	31	761	0
	Zn	68	1.830	ug/L	0.013	0	189	3310	1
	As	75	0.160	ug/L	0.015	9	267	590	4
	As-1	75	0.306	ug/L	0.091	29	10608	10967	0
	Se	82	0.164	ug/L	0.072	43	-2	34	47
	Se	78	0.686	ug/L	0.327	47	10783	10917	0
	Mo	98	0.087	ug/L	0.004	4	8	427	2
	Y	89		ug/L			428598	476466	0
	Kr	83		ug/L			613	617	1
>	In	115		ug/L			928277	887571	1
	Ag	107	0.009	ug/L	0.001	9	14	99	9
	Cd	111	0.032	ug/L	0.003	8	65	191	6
	Cd	114	0.002	ug/L	0.001	34	31	55	16
	Sb	121	0.041	ug/L	0.008	19	40	526	17
	Sb	123	0.042	ug/L	0.003	6	30	408	4
	Ba	135	2.314	ug/L	0.027	1	13	8309	0
	Ba	137	2.323	ug/L	0.030	1	15	14390	0
>	Tb	159		ug/L			1061408	1080553	1
	Tl	205	0.015	ug/L	0.005	32	43	557	29
	Pb	208	0.053	ug/L	0.001	2	368	2690	2
	Bi	209		ug/L			2680757	2418957	0
	Th	232	0.406	ug/L	0.027	6	49	17841	7
	U	238	0.042	ug/L	0.003	6	2	2005	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:40:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1807654	1
[	Be	9	0.521	ug/L	0.006	1	12	2405	1
	C	13		ug/L			138826	200278	0
	Cl	37		ug/L			4735446	4904519	1
[>	Sc	45		ug/L			1275890	1396038	1
[	V	51	40.795	ug/L	0.849	2	9212	1094111	0
[	V-1	51	40.791	ug/L	1.002	2	60	1084387	0
[	Cr	52	33.953	ug/L	0.663	1	27310	743757	1
[	Cr	53	33.949	ug/L	0.963	2	159	80935	1
[	Mn	55	1103.015	ug/L	20.868	1	592	32990568	0
[	Co	59	9.365	ug/L	0.032	0	80	191776	1
[>	Ge	72		ug/L			659198	664016	0
[	Ni	60	22.665	ug/L	0.665	2	16	89712	2
[	Ni	62	26.509	ug/L	0.274	1	275	14963	0
[	Cu	63	35.695	ug/L	0.902	2	372	311288	1
[	Cu	65	36.437	ug/L	0.505	1	41	142214	1
[	Zn	66	363.720	ug/L	7.894	2	192	897870	1
[	Zn	67	365.475	ug/L	8.417	2	31	149631	2
[	Zn	68	373.500	ug/L	6.370	1	189	660325	1
[	As	75	11.072	ug/L	0.023	0	267	24040	0
[	As-1	75	10.835	ug/L	0.091	0	10608	34236	0
[	Se	82	0.090	ug/L	0.045	49	-2	18	58
[	Se	78	0.079	ug/L	0.191	242	10783	10911	0
[	Mo	98	0.419	ug/L	0.001	0	8	2086	0
	Y	89		ug/L			428598	585200	1
	Kr	83		ug/L			613	891	1
[>	In	115		ug/L			928277	981385	1
[	Ag	107	0.197	ug/L	0.003	1	14	1980	1
[	Cd	111	7.119	ug/L	0.136	1	65	31789	1
[	Cd	114	7.041	ug/L	0.107	1	31	78968	1
[	Sb	121	0.401	ug/L	0.006	1	40	5359	1
[	Sb	123	0.401	ug/L	0.004	1	30	4047	2
[	Ba	135	572.455	ug/L	5.200	0	13	2269576	0
[	Ba	137	565.587	ug/L	4.618	0	15	3870651	0
[>	Tb	159		ug/L			1061408	1121006	0
[	Tl	205	0.372	ug/L	0.010	2	43	13505	2
[	Pb	208	350.623	ug/L	0.453	0	368	15935477	0
[	Bi	209		ug/L			2680757	2615824	0
[	Th	232	4.183	ug/L	0.044	1	49	189956	0
[	U	238	0.782	ug/L	0.005	0	2	38304	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:44:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1850113	1
[	Be	9	1.104	ug/L	0.017	1	12	5202	2
	C	13		ug/L			138826	249076	1
	Cl	37		ug/L			4735446	4954281	2
[>	Sc	45		ug/L			1275890	1409609	1
|	V	51	24.843	ug/L	0.146	0	9212	676932	2
|	V-1	51	24.786	ug/L	0.223	0	60	665558	2
|	Cr	52	21.486	ug/L	0.098	0	27310	486377	1
|	Cr	53	21.289	ug/L	0.460	2	159	51323	1
|	Mn	55	5867.274	ug/L	28.537	0	592	177234278	1
[	Co	59	22.359	ug/L	0.434	1	80	462150	1
[>	Ge	72		ug/L			659198	667639	2
|	Ni	60	50.885	ug/L	0.622	1	16	202519	2
|	Ni	62	52.663	ug/L	0.241	0	275	29614	2
|	Cu	63	60.444	ug/L	1.618	2	372	529609	1
|	Cu	65	60.483	ug/L	0.594	0	41	237343	2
|	Zn	66	1531.018	ug/L	45.011	2	192	3798707	2
|	Zn	67	1278.434	ug/L	33.639	2	31	526219	3
|	Zn	68	1492.626	ug/L	16.001	1	189	2652887	2
|	As	75	52.568	ug/L	0.743	1	267	113735	1
|	As-1	75	51.745	ug/L	0.814	1	10608	123805	0
|	Se	82	1.257	ug/L	0.074	5	-2	295	4
|	Se	78	1.038	ug/L	0.418	40	10783	11580	0
[	Mo	98	1.129	ug/L	0.035	3	8	5638	1
	Y	89		ug/L			428598	737768	1
	Kr	83		ug/L			613	1005	0
[>	In	115		ug/L			928277	1075922	1
|	Ag	107	0.636	ug/L	0.006	0	14	6979	1
|	Cd	111	35.765	ug/L	0.721	2	65	174769	0
|	Cd	114	35.965	ug/L	0.653	1	31	442010	0
|	Sb	121	2.541	ug/L	0.036	1	40	36961	0
|	Sb	123	2.568	ug/L	0.061	2	30	28212	0
|	Ba	135	531.944	ug/L	13.438	2	13	2311730	1
[	Ba	137	529.034	ug/L	8.673	1	15	3968729	0
[>	Tb	159		ug/L			1061408	1130276	1
|	Tl	205	1.040	ug/L	0.013	1	43	38011	0
|	Pb	208	1176.028	ug/L	11.560	0	368	53887920	0
|	Bi	209		ug/L			2680757	2655950	0
|	Th	232	3.791	ug/L	0.059	1	49	173549	1
[	U	238	0.688	ug/L	0.005	0	2	33956	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:48:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1877653	0
[	Be	9	0.826	ug/L	0.012	1	12	3956	0
	C	13		ug/L			138826	280849	1
	Cl	37		ug/L			4735446	5268736	4
[>	Sc	45		ug/L			1275890	1393709	0
|	V	51	18.576	ug/L	0.218	1	9212	502969	1
|	V-1	51	18.664	ug/L	0.128	0	60	495508	0
|	Cr	52	14.348	ug/L	0.163	1	27310	331059	0
|	Cr	53	14.669	ug/L	0.291	1	159	35023	1
|	Mn	55	5730.178	ug/L	85.689	1	592	171135199	1
[	Co	59	19.999	ug/L	0.270	1	80	408750	1
[>	Ge	72		ug/L			659198	673539	1
|	Ni	60	38.762	ug/L	1.116	2	16	155579	1
|	Ni	62	40.279	ug/L	1.318	3	275	22908	1
|	Cu	63	61.966	ug/L	1.759	2	372	547772	1
|	Cu	65	62.911	ug/L	0.936	1	41	248997	0
|	Zn	66	1246.894	ug/L	23.499	1	192	3121503	1
|	Zn	67	1048.818	ug/L	15.745	1	31	435478	1
|	Zn	68	1141.311	ug/L	88.489	7	189	2045013	6
|	As	75	20.705	ug/L	0.524	2	267	45352	0
|	As-1	75	20.295	ug/L	0.619	3	10608	55567	0
|	Se	82	1.237	ug/L	0.063	5	-2	293	4
|	Se	78	0.993	ug/L	0.390	39	10783	11654	0
[	Mo	98	1.012	ug/L	0.024	2	8	5097	0
	Y	89		ug/L			428598	700562	1
	Kr	83		ug/L			613	922	6
[>	In	115		ug/L			928277	1090035	0
|	Ag	107	0.921	ug/L	0.029	3	14	10238	2
|	Cd	111	24.566	ug/L	0.358	1	65	121666	0
|	Cd	114	24.847	ug/L	0.126	0	31	309452	0
|	Sb	121	3.010	ug/L	0.003	0	40	44364	0
|	Sb	123	2.988	ug/L	0.025	0	30	33264	1
|	Ba	135	371.468	ug/L	2.344	0	13	1635900	0
[	Ba	137	415.825	ug/L	3.928	0	15	3160890	0
[>	Tb	159		ug/L			1061408	1126474	0
|	Tl	205	0.848	ug/L	0.010	1	43	30927	0
|	Pb	208	1593.277	ug/L	12.656	0	368	72762657	0
|	Bi	209		ug/L			2680757	2714565	0
|	Th	232	2.683	ug/L	0.018	0	49	122446	0
[	U	238	0.532	ug/L	0.001	0	2	26198	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:52:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1906879	1
	Be	9	2.199	ug/L	0.017	0	12	10668	0
	C	13		ug/L			138826	250963	1
	Cl	37		ug/L			4735446	5345419	1
>	Sc	45		ug/L			1275890	1441346	1
	V	51	27.341	ug/L	0.368	1	9212	760636	0
	V-1	51	27.262	ug/L	0.333	1	60	748472	1
	Cr	52	23.657	ug/L	0.623	2	27310	544406	1
	Cr	53	23.381	ug/L	0.326	1	159	57627	2
	Mn	55	4601.461	ug/L	43.687	0	592	142119209	1
	Co	59	34.847	ug/L	0.435	1	80	736561	2
>	Ge	72		ug/L			659198	652082	0
	Ni	60	74.560	ug/L	1.246	1	16	289775	0
	Ni	62	76.037	ug/L	1.221	1	275	41638	0
	Cu	63	69.936	ug/L	1.276	1	372	598572	0
	Cu	65	69.014	ug/L	0.571	0	41	264485	0
	Zn	66	788.790	ug/L	14.064	1	192	1911958	1
	Zn	67	729.410	ug/L	5.857	0	31	293255	1
	Zn	68	785.193	ug/L	14.490	1	189	1362908	0
	As	75	26.904	ug/L	0.393	1	267	56989	1
	As-1	75	26.401	ug/L	0.400	1	10608	66841	0
	Se	82	1.458	ug/L	0.053	3	-2	335	4
	Se	78	1.601	ug/L	0.296	18	10783	11664	0
	Mo	98	1.502	ug/L	0.041	2	8	7322	1
	Y	89		ug/L			428598	933891	1
	Kr	83		ug/L			613	1256	4
>	In	115		ug/L			928277	969423	1
	Ag	107	0.920	ug/L	0.018	1	14	9098	2
	Cd	111	11.582	ug/L	0.295	2	65	51044	1
	Cd	114	11.646	ug/L	0.163	1	31	128999	0
	Sb	121	1.030	ug/L	0.016	1	40	13528	0
	Sb	123	1.025	ug/L	0.012	1	30	10165	0
	Ba	135	350.464	ug/L	7.547	2	13	1372438	1
	Ba	137	392.391	ug/L	7.982	2	15	2652429	1
>	Tb	159		ug/L			1061408	1124700	1
	Tl	205	0.398	ug/L	0.009	2	43	14492	1
	Pb	208	546.347	ug/L	8.657	1	368	24908916	0
	Bi	209		ug/L			2680757	2527833	1
	Th	232	4.750	ug/L	0.078	1	49	216366	0
	U	238	0.763	ug/L	0.002	0	2	37495	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 12:56:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1861163	1
[	Be	9	0.613	ug/L	0.014	2	12	2910	1
	C	13		ug/L			138826	202294	3
	Cl	37		ug/L			4735446	4979838	2
[>	Sc	45		ug/L			1275890	1412428	2
|	V	51	24.357	ug/L	0.608	2	9212	664984	0
|	V-1	51	24.331	ug/L	0.608	2	60	654392	0
|	Cr	52	21.357	ug/L	0.483	2	27310	484497	0
|	Cr	53	21.267	ug/L	0.642	3	159	51361	1
|	Mn	55	2842.775	ug/L	121.313	4	592	85995408	2
[	Co	59	9.377	ug/L	0.056	0	80	194274	1
[>	Ge	72		ug/L			659198	676221	1
|	Ni	60	27.857	ug/L	0.535	1	16	112292	2
|	Ni	62	29.532	ug/L	0.775	2	275	16940	1
|	Cu	63	25.382	ug/L	0.398	1	372	225514	0
|	Cu	65	25.707	ug/L	0.857	3	41	102160	1
|	Zn	66	410.951	ug/L	7.594	1	192	1032964	0
|	Zn	67	395.061	ug/L	13.046	3	31	164668	1
|	Zn	68	402.155	ug/L	11.862	2	189	723882	1
|	As	75	19.886	ug/L	0.223	1	267	43752	1
|	As-1	75	19.418	ug/L	0.282	1	10608	53856	0
|	Se	82	0.186	ug/L	0.032	17	-2	41	16
|	Se	78	-0.217	ug/L	0.288	133	10783	10919	0
[	Mo	98	0.704	ug/L	0.021	3	8	3562	2
	Y	89		ug/L			428598	588961	0
	Kr	83		ug/L			613	940	1
[>	In	115		ug/L			928277	990615	0
|	Ag	107	0.278	ug/L	0.006	2	14	2822	2
|	Cd	111	7.249	ug/L	0.096	1	65	32679	1
|	Cd	114	7.205	ug/L	0.012	0	31	81578	0
|	Sb	121	0.550	ug/L	0.013	2	40	7395	2
|	Sb	123	0.555	ug/L	0.011	1	30	5641	1
|	Ba	135	390.108	ug/L	2.255	0	13	1561311	1
[	Ba	137	428.722	ug/L	3.561	0	15	2961686	0
[>	Tb	159		ug/L			1061408	1112966	0
|	Tl	205	0.401	ug/L	0.006	1	43	14460	1
|	Pb	208	342.885	ug/L	4.349	1	368	15471735	1
|	Bi	209		ug/L			2680757	2623990	0
|	Th	232	4.073	ug/L	0.045	1	49	183626	0
[	U	238	0.590	ug/L	0.003	0	2	28694	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:00:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1845971	1
[	Be	9	0.690	ug/L	0.019	2	12	3249	0
	C	13		ug/L			138826	181639	3
	Cl	37		ug/L			4735446	5008610	0
[>	Sc	45		ug/L			1275890	1433995	2
[	V	51	39.846	ug/L	1.230	3	9212	1097724	1
[	V-1	51	40.011	ug/L	1.260	3	60	1092354	1
[	Cr	52	31.622	ug/L	0.720	2	27310	713515	0
[	Cr	53	32.222	ug/L	0.819	2	159	78910	0
[	Mn	55	887.853	ug/L	24.421	2	592	27274107	1
[	Co	59	11.000	ug/L	0.229	2	80	231293	0
[>	Ge	72		ug/L			659198	665218	1
[	Ni	60	28.950	ug/L	0.262	0	16	114797	1
[	Ni	62	30.973	ug/L	0.457	1	275	17470	2
[	Cu	63	29.880	ug/L	0.358	1	372	261095	0
[	Cu	65	30.302	ug/L	0.293	0	41	118481	0
[	Zn	66	158.303	ug/L	1.404	0	192	391594	1
[	Zn	67	167.922	ug/L	3.850	2	31	68879	1
[	Zn	68	164.387	ug/L	3.512	2	189	291197	0
[	As	75	11.550	ug/L	0.154	1	267	25110	1
[	As-1	75	11.222	ug/L	0.165	1	10608	35137	1
[	Se	82	-0.174	ug/L	0.059	33	-2	-43	30
[	Se	78	-0.178	ug/L	0.073	40	10783	10768	1
[	Mo	98	0.765	ug/L	0.022	2	8	3810	3
	Y	89		ug/L			428598	654286	0
	Kr	83		ug/L			613	1121	2
[>	In	115		ug/L			928277	950257	1
[	Ag	107	0.232	ug/L	0.011	4	14	2258	3
[	Cd	111	2.306	ug/L	0.051	2	65	10013	0
[	Cd	114	2.180	ug/L	0.068	3	31	23687	1
[	Sb	121	0.078	ug/L	0.002	2	40	1040	1
[	Sb	123	0.076	ug/L	0.002	2	30	768	1
[	Ba	135	247.632	ug/L	7.280	2	13	950477	2
[	Ba	137	250.856	ug/L	5.285	2	15	1662098	1
[>	Tb	159		ug/L			1061408	1095375	1
[	Tl	205	0.209	ug/L	0.003	1	43	7424	0
[	Pb	208	72.905	ug/L	0.807	1	368	3237771	1
[	Bi	209		ug/L			2680757	2571391	0
[	Th	232	5.059	ug/L	0.095	1	49	224440	1
[	U	238	0.889	ug/L	0.011	1	2	42540	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:05:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1820630	0
[	Be	9	49.253	ug/L	1.843	3	12	227959	4
	C	13		ug/L			138826	142988	2
	Cl	37		ug/L			4735446	5235758	1
[>	Sc	45		ug/L			1275890	1305681	0
[	V	51	47.193	ug/L	0.859	1	9212	1182652	2
[	V-1	51	47.185	ug/L	1.020	2	60	1173589	2
[	Cr	52	50.136	ug/L	0.373	0	27310	1014006	0
[	Cr	53	50.104	ug/L	0.724	1	159	111684	2
[	Mn	55	48.350	ug/L	0.573	1	592	1353435	1
[	Co	59	49.433	ug/L	0.919	1	80	946460	2
[>	Ge	72		ug/L			659198	655583	1
[	Ni	60	50.950	ug/L	1.163	2	16	199074	1
[	Ni	62	50.233	ug/L	1.675	3	275	27745	2
[	Cu	63	51.204	ug/L	1.733	3	372	440647	2
[	Cu	65	51.145	ug/L	1.382	2	41	197042	1
[	Zn	66	50.720	ug/L	1.680	3	192	123770	2
[	Zn	67	51.456	ug/L	1.607	3	31	20822	2
[	Zn	68	52.167	ug/L	1.360	2	189	91206	1
[	As	75	50.338	ug/L	1.645	3	267	106949	2
[	As-1	75	50.488	ug/L	1.522	3	10608	118872	1
[	Se	82	51.371	ug/L	1.447	2	-2	11971	1
[	Se	78	51.142	ug/L	1.246	2	10783	42793	1
[	Mo	98	50.490	ug/L	1.431	2	8	247217	1
	Y	89		ug/L			428598	435418	1
	Kr	83		ug/L			613	641	4
[>	In	115		ug/L			928277	946165	1
[	Ag	107	52.355	ug/L	1.064	2	14	504442	3
[	Cd	111	50.663	ug/L	0.339	0	65	217725	1
[	Cd	114	50.938	ug/L	0.865	1	31	550517	0
[	Sb	121	50.070	ug/L	0.668	1	40	639833	0
[	Sb	123	50.275	ug/L	0.577	1	30	485187	1
[	Ba	135	48.758	ug/L	0.649	1	13	186364	0
[	Ba	137	49.180	ug/L	0.417	0	15	324490	1
[>	Tb	159		ug/L			1061408	1081605	0
[	Tl	205	46.121	ug/L	0.418	0	43	1611992	0
[	Pb	208	47.910	ug/L	0.329	0	368	2101264	1
[	Bi	209		ug/L			2680757	2620451	0
[	Th	232	44.545	ug/L	0.421	0	49	1951142	0
[	U	238	51.844	ug/L	0.585	1	2	2449060	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:12:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1721258	1
	Be	9	0.002	ug/L	0.001	74	12	19	29
	C	13		ug/L			138826	145121	2
	Cl	37		ug/L			4735446	4919192	0
>	Sc	45		ug/L			1275890	1234868	1
	V	51	0.009	ug/L	0.004	47	9212	9127	1
	V-1	51	0.001	ug/L	0.001	106	60	85	34
	Cr	52	0.026	ug/L	0.022	82	27310	26921	1
	Cr	53	-0.002	ug/L	0.003	174	159	150	4
	Mn	55	0.019	ug/L	0.021	106	592	1087	52
	Co	59	0.001	ug/L	0.001	109	80	98	23
>	Ge	72		ug/L			659198	644808	1
	Ni	60	0.002	ug/L	0.003	121	16	25	43
	Ni	62	-0.171	ug/L	0.023	13	275	177	6
	Cu	63	-0.000	ug/L	0.003	1406	372	362	4
	Cu	65	0.012	ug/L	0.004	36	41	85	17
	Zn	66	0.307	ug/L	0.022	7	192	922	5
	Zn	67	0.279	ug/L	0.028	9	31	141	9
	Zn	68	0.336	ug/L	0.017	5	189	761	3
	As	75	0.020	ug/L	0.003	14	267	302	3
	As-1	75	0.114	ug/L	0.074	65	10608	10615	0
	Se	82	0.001	ug/L	0.034	3108	-2	-2	293
	Se	78	0.346	ug/L	0.263	76	10783	10759	0
	Mo	98	0.007	ug/L	0.001	18	8	43	13
	Y	89		ug/L			428598	408937	1
	Kr	83		ug/L			613	617	5
>	In	115		ug/L			928277	898903	1
	Ag	107	0.002	ug/L	0.001	33	14	35	21
	Cd	111	0.003	ug/L	0.001	31	65	77	4
	Cd	114	0.000	ug/L	0.001	163	31	35	20
	Sb	121	0.059	ug/L	0.004	7	40	757	6
	Sb	123	0.058	ug/L	0.002	2	30	560	2
	Ba	135	0.003	ug/L	0.002	74	13	25	36
	Ba	137	0.007	ug/L	0.006	82	15	59	62
>	Tb	159		ug/L			1061408	1013764	1
	Tl	205	0.008	ug/L	0.002	25	43	318	21
	Pb	208	0.013	ug/L	0.008	63	368	899	39
	Bi	209		ug/L			2680757	2565237	0
	Th	232	0.186	ug/L	0.020	10	49	7660	9
	U	238	0.003	ug/L	0.001	35	2	131	35

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:22:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
> Li	6		ug/L			1738475	1778028	1
Be	9	0.002	ug/L	0.001	39	12	20	15
C	13		ug/L			138826	148469	2
Cl	37		ug/L			4735446	4756595	1
> Sc	45		ug/L			1275890	1260629	0
V	51	0.000	ug/L	0.007	1469	9212	9114	2
V-1	51	0.002	ug/L	0.001	52	60	103	21
Cr	52	-0.003	ug/L	0.020	587	27310	26921	1
Cr	53	0.001	ug/L	0.005	389	159	160	6
Mn	55	0.088	ug/L	0.035	39	592	2962	31
Co	59	0.002	ug/L	0.001	26	80	118	8
> Ge	72		ug/L			659198	647189	1
Ni	60	0.005	ug/L	0.002	35	16	34	18
Ni	62	-0.193	ug/L	0.023	12	275	166	6
Cu	63	0.018	ug/L	0.004	24	372	517	6
Cu	65	0.033	ug/L	0.006	18	41	165	13
Zn	66	0.188	ug/L	0.033	17	192	641	11
Zn	67	0.194	ug/L	0.005	2	31	107	1
Zn	68	0.207	ug/L	0.023	11	189	542	7
As	75	0.015	ug/L	0.006	41	267	293	3
As-1	75	0.062	ug/L	0.046	73	10608	10546	1
Se	82	0.008	ug/L	0.057	682	-2	-1	1282
Se	78	0.171	ug/L	0.180	105	10783	10691	0
Mo	98	0.004	ug/L	0.001	25	8	27	16
Y	89		ug/L			428598	420841	1
Kr	83		ug/L			613	602	8
> In	115		ug/L			928277	922882	1
Ag	107	0.001	ug/L	0.001	63	14	24	26
Cd	111	0.003	ug/L	0.000	3	65	78	0
Cd	114	0.001	ug/L	0.001	127	31	41	30
Sb	121	0.018	ug/L	0.003	17	40	264	14
Sb	123	0.018	ug/L	0.002	11	30	200	8
Ba	135	0.023	ug/L	0.009	38	13	100	33
Ba	137	0.024	ug/L	0.005	22	15	172	20
> Tb	159		ug/L			1061408	1041627	1
Tl	205	0.006	ug/L	0.002	33	43	234	27
Pb	208	0.015	ug/L	0.006	39	368	993	25
Bi	209		ug/L			2680757	2619358	0
Th	232	0.080	ug/L	0.008	9	49	3432	9
U	238	0.001	ug/L	0.000	37	2	40	36

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:26:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1821021	1
	Be	9	24.609	ug/L	0.282	1	12	113902	1
	C	13		ug/L			138826	146461	2
	Cl	37		ug/L			4735446	4851956	4
>	Sc	45		ug/L			1275890	1283803	1
	V	51	23.972	ug/L	0.460	1	9212	595110	0
	V-1	51	23.901	ug/L	0.546	2	60	584363	1
	Cr	52	25.446	ug/L	0.147	0	27310	519552	1
	Cr	53	25.188	ug/L	0.404	1	159	55272	0
	Mn	55	24.873	ug/L	0.718	2	592	684687	1
	Co	59	25.421	ug/L	0.299	1	80	478563	1
>	Ge	72		ug/L			659198	657935	0
	Ni	60	26.092	ug/L	0.390	1	16	102334	1
	Ni	62	26.112	ug/L	0.545	2	275	14608	1
	Cu	63	26.502	ug/L	0.463	1	372	229112	1
	Cu	65	26.270	ug/L	0.458	1	41	101600	0
	Zn	66	82.091	ug/L	1.665	2	192	200938	1
	Zn	67	76.038	ug/L	0.520	0	31	30873	1
	Zn	68	80.497	ug/L	0.602	0	189	141163	1
	As	75	24.398	ug/L	0.328	1	267	52169	1
	As-1	75	25.157	ug/L	0.270	1	10608	64763	0
	Se	82	81.436	ug/L	0.768	0	-2	19049	0
	Se	78	80.498	ug/L	0.918	1	10783	61424	0
	Mo	98	23.750	ug/L	0.487	2	8	116733	2
	Y	89		ug/L			428598	423508	0
	Kr	83		ug/L			613	623	2
>	In	115		ug/L			928277	939845	0
	Ag	107	27.232	ug/L	0.499	1	14	260602	1
	Cd	111	24.894	ug/L	0.345	1	65	106306	1
	Cd	114	24.936	ug/L	0.376	1	31	267772	1
	Sb	121	24.226	ug/L	0.139	0	40	307586	0
	Sb	123	24.579	ug/L	0.225	0	30	235659	1
	Ba	135	25.172	ug/L	0.236	0	13	95589	0
	Ba	137	25.012	ug/L	0.146	0	15	163947	0
>	Tb	159		ug/L			1061408	1057348	0
	Tl	205	24.241	ug/L	0.202	0	43	828300	1
	Pb	208	25.491	ug/L	0.081	0	368	1093060	0
	Bi	209		ug/L			2680757	2658775	0
	Th	232	22.551	ug/L	0.310	1	49	965623	0
	U	238	22.712	ug/L	0.237	1	2	1048825	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 A-L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:30:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1816434	2
[	Be	9	0.138	ug/L	0.008	5	12	651	3
	C	13		ug/L			138826	152815	1
	Cl	37		ug/L			4735446	5007073	0
[>	Sc	45		ug/L			1275890	1323428	0
[	V	51	10.612	ug/L	0.114	1	9212	276928	0
[	V-1	51	10.680	ug/L	0.110	1	60	269264	0
[	Cr	52	7.344	ug/L	0.150	2	27310	174729	1
[	Cr	53	7.593	ug/L	0.129	1	159	17293	1
[	Mn	55	151.879	ug/L	1.091	0	592	4307736	0
[	Co	59	2.084	ug/L	0.078	3	80	40524	3
[>	Ge	72		ug/L			659198	658403	1
[	Ni	60	4.831	ug/L	0.098	2	16	18971	0
[	Ni	62	5.054	ug/L	0.107	2	275	3050	1
[	Cu	63	6.998	ug/L	0.135	1	372	60806	0
[	Cu	65	7.029	ug/L	0.094	1	41	27237	2
[	Zn	66	60.046	ug/L	0.604	1	192	147160	2
[	Zn	67	58.858	ug/L	1.730	2	31	23912	1
[	Zn	68	61.252	ug/L	1.241	2	189	107515	1
[	As	75	4.758	ug/L	0.111	2	267	10393	0
[	As-1	75	4.628	ug/L	0.125	2	10608	20565	0
[	Se	82	0.095	ug/L	0.038	40	-2	19	44
[	Se	78	-0.111	ug/L	0.099	88	10783	10699	1
[	Mo	98	0.117	ug/L	0.008	7	8	582	6
	Y	89		ug/L			428598	478102	1
	Kr	83		ug/L			613	648	0
[>	In	115		ug/L			928277	954064	1
[	Ag	107	0.062	ug/L	0.006	9	14	618	7
[	Cd	111	1.428	ug/L	0.016	1	65	6253	0
[	Cd	114	1.429	ug/L	0.012	0	31	15613	1
[	Sb	121	0.100	ug/L	0.004	4	40	1324	2
[	Sb	123	0.098	ug/L	0.010	9	30	984	8
[	Ba	135	41.464	ug/L	0.807	1	13	159806	0
[	Ba	137	41.796	ug/L	0.366	0	15	278080	0
[>	Tb	159		ug/L			1061408	1076015	1
[	Tl	205	0.111	ug/L	0.003	2	43	3915	1
[	Pb	208	115.649	ug/L	1.252	1	368	5045068	0
[	Bi	209		ug/L			2680757	2677633	1
[	Th	232	1.203	ug/L	0.014	1	49	52486	1
[	U	238	0.164	ug/L	0.005	2	2	7694	2

VS22 : 00245

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:34:38
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1842791	2
[	Be	9	0.664	ug/L	0.024	3	12	3121	3
	C	13		ug/L			138826	190594	0
	Cl	37		ug/L			4735446	5023039	3
[>	Sc	45		ug/L			1275890	1451841	0
[	V	51	51.012	ug/L	0.987	1	9212	1420488	1
[	V-1	51	50.929	ug/L	0.745	1	60	1408358	1
[	Cr	52	34.996	ug/L	1.031	2	27310	796375	2
[	Cr	53	34.722	ug/L	0.290	0	159	86111	1
[	Mn	55	710.694	ug/L	7.731	1	592	22110716	0
[	Co	59	9.711	ug/L	0.128	1	80	206815	1
[>	Ge	72		ug/L			659198	664412	1
[	Ni	60	24.214	ug/L	0.313	1	16	95898	0
[	Ni	62	27.232	ug/L	0.164	0	275	15373	0
[	Cu	63	34.765	ug/L	0.816	2	372	303354	1
[	Cu	65	34.526	ug/L	0.433	1	41	134838	1
[	Zn	66	292.064	ug/L	7.841	2	192	721360	1
[	Zn	67	284.100	ug/L	7.032	2	31	116379	1
[	Zn	68	293.263	ug/L	4.387	1	189	518799	1
[	As	75	23.453	ug/L	0.271	1	267	50650	0
[	As-1	75	22.985	ug/L	0.293	1	10608	60675	0
[	Se	82	0.029	ug/L	0.043	149	-2	3	261
[	Se	78	-0.040	ug/L	0.174	439	10783	10842	0
[	Mo	98	0.525	ug/L	0.013	2	8	2612	2
	Y	89		ug/L			428598	628968	1
	Kr	83		ug/L			613	1064	6
[>	In	115		ug/L			928277	998601	1
[	Ag	107	0.291	ug/L	0.011	3	14	2976	2
[	Cd	111	6.658	ug/L	0.116	1	65	30255	0
[	Cd	114	6.609	ug/L	0.072	1	31	75422	0
[	Sb	121	0.376	ug/L	0.009	2	40	5120	2
[	Sb	123	0.368	ug/L	0.007	1	30	3783	0
[	Ba	135	202.402	ug/L	3.388	1	13	816475	0
[	Ba	137	202.389	ug/L	3.253	1	15	1409283	0
[>	Tb	159		ug/L			1061408	1098534	1
[	Tl	205	0.526	ug/L	0.007	1	43	18696	0
[	Pb	208	593.063	ug/L	6.916	1	368	26410565	0
[	Bi	209		ug/L			2680757	2612968	1
[	Th	232	4.619	ug/L	0.036	0	49	205541	0
[	U	238	0.813	ug/L	0.005	0	2	39003	0

VS22 : 00245

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:38:45
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1835709	3
[	**Be**	**9**	**0.637**	ug/L	0.036	5	12	2980	3
	C	**13**		ug/L			138826	187756	1
	Cl	**37**		ug/L			4735446	5093088	1
[>	**Sc**	**45**		ug/L			1275890	1408250	1
[	**V**	**51**	**53.720**	ug/L	1.444	2	9212	1450125	1
[	**V-1**	**51**	**53.826**	ug/L	1.483	2	60	1443420	1
[	**Cr**	**52**	**34.396**	ug/L	0.247	0	27310	759835	2
[	**Cr**	**53**	**34.803**	ug/L	0.104	0	159	83717	1
[	**Mn**	**55**	**720.946**	ug/L	12.116	1	592	21759860	3
[	**Co**	**59**	**10.280**	ug/L	0.124	1	80	212334	1
[>	**Ge**	**72**		ug/L			659198	665294	0
[	**Ni**	**60**	**24.848**	ug/L	0.399	1	16	98543	1
[	**Ni**	**62**	**26.960**	ug/L	0.430	1	275	15241	0
[	**Cu**	**63**	**34.331**	ug/L	1.016	2	372	300011	3
[	**Cu**	**65**	**34.702**	ug/L	0.187	0	41	135710	1
[	**Zn**	**66**	**295.821**	ug/L	9.349	3	192	731621	2
[	**Zn**	**67**	**280.363**	ug/L	6.039	2	31	115002	1
[	**Zn**	**68**	**293.437**	ug/L	5.939	2	189	519774	1
[	**As**	**75**	**23.783**	ug/L	0.266	1	267	51429	0
[	**As-1**	**75**	**23.298**	ug/L	0.305	1	10608	61438	0
[	**Se**	**82**	**0.043**	ug/L	0.026	60	-2	7	85
[	**Se**	**78**	**-0.065**	ug/L	0.339	518	10783	10840	1
[	**Mo**	**98**	**0.537**	ug/L	0.021	3	8	2676	2
	Y	**89**		ug/L			428598	625606	0
	Kr	**83**		ug/L			613	1071	2
[>	**In**	**115**		ug/L			928277	993311	1
[	**Ag**	**107**	**0.307**	ug/L	0.012	3	14	3114	2
[	**Cd**	**111**	**6.450**	ug/L	0.160	2	65	29153	0
[	**Cd**	**114**	**6.392**	ug/L	0.126	1	31	72564	1
[	**Sb**	**121**	**0.394**	ug/L	0.016	3	40	5332	2
[	**Sb**	**123**	**0.398**	ug/L	0.006	1	30	4059	1
[	**Ba**	**135**	**195.590**	ug/L	4.224	2	13	784726	0
[	**Ba**	**137**	**196.675**	ug/L	5.312	2	15	1361931	0
[>	**Tb**	**159**		ug/L			1061408	1094306	0
[	**Tl**	**205**	**0.526**	ug/L	0.001	0	43	18638	0
[	**Pb**	**208**	**578.225**	ug/L	1.190	0	368	25653538	0
[	**Bi**	**209**		ug/L			2680757	2588906	0
[	**Th**	**232**	**7.147**	ug/L	0.061	0	49	316801	0
[	**U**	**238**	**1.463**	ug/L	0.018	1	2	69937	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:42:53
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1865353	0
[	Be	9	24.227	ug/L	0.240	0	12	114866	0
	C	13		ug/L			138826	179014	1
	Cl	37		ug/L			4735446	5085192	2
[>	Sc	45		ug/L			1275890	1432060	1
|	V	51	71.799	ug/L	1.492	2	9212	1967760	1
|	V-1	51	72.018	ug/L	1.390	1	60	1964211	1
|	Cr	52	53.572	ug/L	1.000	1	27310	1186198	1
|	Cr	53	54.379	ug/L	0.919	1	159	132905	0
|	Mn	55	725.251	ug/L	11.846	1	592	22254261	0
[	Co	59	32.859	ug/L	0.391	1	80	689956	0
[>	Ge	72		ug/L			659198	663845	3
|	Ni	60	49.649	ug/L	2.358	4	16	196274	1
|	Ni	62	52.406	ug/L	2.473	4	275	29278	2
|	Cu	63	60.070	ug/L	1.753	2	372	523216	1
|	Cu	65	60.381	ug/L	0.712	1	41	235529	1
|	Zn	66	376.911	ug/L	12.499	3	192	929612	0
|	Zn	67	365.162	ug/L	12.653	3	31	149364	0
|	Zn	68	373.386	ug/L	8.475	2	189	659664	0
|	As	75	48.377	ug/L	1.823	3	267	104031	0
|	As-1	75	48.863	ug/L	1.828	3	10608	116778	0
|	Se	82	78.217	ug/L	2.675	3	-2	18448	0
|	Se	78	78.085	ug/L	2.772	3	10783	60411	0
[	Mo	98	22.082	ug/L	0.767	3	8	109430	1
	Y	89		ug/L			428598	612432	0
	Kr	83		ug/L			613	1078	4
[>	In	115		ug/L			928277	993728	1
|	Ag	107	21.562	ug/L	0.599	2	14	218151	2
|	Cd	111	30.400	ug/L	0.464	1	65	137231	0
|	Cd	114	30.367	ug/L	0.365	1	31	344749	0
|	Sb	121	2.025	ug/L	0.030	1	40	27217	0
|	Sb	123	2.031	ug/L	0.017	0	30	20616	0
|	Ba	135	218.363	ug/L	1.792	0	13	876635	0
[	Ba	137	218.070	ug/L	4.298	1	15	1511034	0
[>	Tb	159		ug/L			1061408	1097039	1
|	Tl	205	22.820	ug/L	0.144	0	43	808955	0
|	Pb	208	624.005	ug/L	5.064	0	368	27751922	0
|	Bi	209		ug/L			2680757	2601147	0
|	Th	232	21.484	ug/L	0.250	1	49	954479	0
[	U	238	22.914	ug/L	0.293	1	2	1097789	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~VS21 APOST SWN~~ zzzzzz 11-28-12
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:47:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1868666	3
[	Be	9	25.350	ug/L	0.270	1	12	120381	2
	C	13		ug/L			138826	189219	2
	Cl	37		ug/L			4735446	5183942	4
[>	Sc	45		ug/L			1275890	1439012	3
[	V	51	77.679	ug/L	2.687	3	9212	2140095	6
[	V-1	51	77.766	ug/L	2.363	3	60	2132805	5
[	Cr	52	58.932	ug/L	0.332	0	27310	1308274	3
[	Cr	53	59.270	ug/L	1.360	2	159	145503	1
[	Mn	55	750.268	ug/L	4.050	0	592	23136294	3
[	Co	59	33.123	ug/L	1.316	3	80	698457	2
[>	Ge	72		ug/L			659198	665581	0
[	Ni	60	50.295	ug/L	0.880	1	16	199558	2
[	Ni	62	52.868	ug/L	0.754	1	275	29636	1
[	Cu	63	60.011	ug/L	1.151	1	372	524349	1
[	Cu	65	60.497	ug/L	1.974	3	41	236656	3
[	Zn	66	373.243	ug/L	7.728	2	192	923621	2
[	Zn	67	356.944	ug/L	11.746	3	31	146510	3
[	Zn	68	372.955	ug/L	9.703	2	189	660964	2
[	As	75	48.560	ug/L	0.280	0	267	104781	1
[	As-1	75	48.877	ug/L	0.165	0	10608	117198	1
[	Se	82	82.634	ug/L	1.087	1	-2	19556	1
[	Se	78	81.696	ug/L	0.647	0	10783	62904	1
[	Mo	98	0.546	ug/L	0.014	2	8	2723	1
	Y	89		ug/L			428598	632533	1
	Kr	83		ug/L			613	1090	0
[>	In	115		ug/L			928277	990454	1
[	Ag	107	24.994	ug/L	0.452	1	14	252030	0
[	Cd	111	31.070	ug/L	0.249	0	65	139804	1
[	Cd	114	31.076	ug/L	0.320	1	31	351648	0
[	Sb	121	0.369	ug/L	0.004	1	40	4983	1
[	Sb	123	0.377	ug/L	0.009	2	30	3838	1
[	Ba	135	225.358	ug/L	3.138	1	13	901851	2
[	Ba	137	226.732	ug/L	2.092	0	15	1566153	1
[>	Tb	159		ug/L			1061408	1074708	1
[	Tl	205	24.183	ug/L	0.366	1	43	839876	2
[	Pb	208	627.864	ug/L	4.006	0	368	27355859	1
[	Bi	209		ug/L			2680757	2579673	0
[	Th	232	28.102	ug/L	0.268	0	49	1223016	0
[	U	238	24.193	ug/L	0.142	0	2	1135568	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:51:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

Dgl

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1904664	1
[	Be	9	0.473	ug/L	0.016	3	12	2302	2
	C	13		ug/L			138826	299951	3
	Cl	37		ug/L			4735446	5347257	2
[>	Sc	45		ug/L			1275890	1409210	1
[	V	51	9.852	ug/L	0.134	1	9212	274496	1
[	V-1	51	9.808	ug/L	0.123	1	60	263296	0
[	Cr	52	7.681	ug/L	0.138	1	27310	193200	1
[	Cr	53	7.526	ug/L	0.339	4	159	18249	3
[	Mn	55	1605.315	ug/L	44.222	2	592	48463734	1
[	Co	59	3.700	ug/L	0.120	3	80	76512	2
[>	Ge	72		ug/L			659198	686480	0
[	Ni	60	6.479	ug/L	0.130	1	16	26528	2
[	Ni	62	7.516	ug/L	0.126	1	275	4591	1
[	Cu	63	44.433	ug/L	0.300	0	372	400533	0
[	Cu	65	43.849	ug/L	0.512	1	41	176934	1
[	Zn	66	1094.165	ug/L	20.283	1	192	2791919	1
[	Zn	67	958.513	ug/L	2.755	0	31	405668	0
[	Zn	68	1001.886	ug/L	26.794	2	189	1830663	1
[	As	75	23.681	ug/L	0.383	1	267	52839	0
[	As-1	75	23.199	ug/L	0.416	1	10608	63170	0
[	Se	82	1.158	ug/L	0.024	2	-2	279	1
[	Se	78	0.525	ug/L	0.144	27	10783	11574	0
[	Mo	98	0.645	ug/L	0.007	1	8	3315	1
	Y	89		ug/L			428598	524880	1
	Kr	83		ug/L			613	718	4
[>	In	115		ug/L			928277	1274022	1
[	Ag	107	1.186	ug/L	0.021	1	14	15410	2
[	Cd	111	13.886	ug/L	0.374	2	65	80400	1
[	Cd	114	13.901	ug/L	0.148	1	31	202346	1
[	Sb	121	15.637	ug/L	0.180	1	40	269118	1
[	Sb	123	15.707	ug/L	0.200	1	30	204126	0
[	Ba	135	802.091	ug/L	11.652	1	13	4127795	0
[	Ba	137	804.496	ug/L	8.498	1	15	7146912	0
[>	Tb	159		ug/L			1061408	1101553	0
[	Tl	205	0.833	ug/L	0.003	0	43	29701	0
[	Pb	208	1746.433	ug/L	8.571	0	368	77993118	0
[	Bi	209		ug/L			2680757	2745151	0
[	Th	232	1.442	ug/L	0.043	2	49	64384	2
[	U	238	0.464	ug/L	0.006	1	2	22316	0

VS22 : 00250

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:55:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1833075	2
	Be	9	0.433	ug/L	0.014	3	12	2029	0
	C	13		ug/L			138826	173511	2
	Cl	37		ug/L			4735446	4987275	1
>	Sc	45		ug/L			1275890	1394496	2
	V	51	32.928	ug/L	0.699	2	9212	884015	0
	V-1	51	32.966	ug/L	0.695	2	60	875349	0
	Cr	52	20.959	ug/L	0.634	3	27310	469912	1
	Cr	53	21.109	ug/L	0.673	3	159	50328	1
	Mn	55	1239.419	ug/L	34.983	2	592	37020286	0
	Co	59	9.071	ug/L	0.234	2	80	185472	0
>	Ge	72		ug/L			659198	662246	0
	Ni	60	19.412	ug/L	0.138	0	16	76638	0
	Ni	62	20.637	ug/L	0.382	1	275	11679	1
	Cu	63	19.299	ug/L	0.215	1	372	168034	0
	Cu	65	19.586	ug/L	0.372	1	41	76259	1
	Zn	66	195.185	ug/L	3.406	1	192	480654	1
	Zn	67	215.603	ug/L	2.916	1	31	88055	1
	Zn	68	211.741	ug/L	1.629	0	189	373436	0
	As	75	10.625	ug/L	0.136	1	267	23019	0
	As-1	75	10.307	ug/L	0.146	1	10608	32999	0
	Se	82	0.017	ug/L	0.058	330	-2	1	1182
	Se	78	-0.296	ug/L	0.095	32	10783	10645	0
	Mo	98	0.293	ug/L	0.003	1	8	1458	1
	Y	89		ug/L			428598	567950	1
	Kr	83		ug/L			613	880	4
>	In	115		ug/L			928277	941893	1
	Ag	107	0.180	ug/L	0.001	0	14	1739	2
	Cd	111	2.740	ug/L	0.034	1	65	11783	0
	Cd	114	2.622	ug/L	0.092	3	31	28232	1
	Sb	121	0.162	ug/L	0.012	7	40	2099	5
	Sb	123	0.162	ug/L	0.011	6	30	1584	4
	Ba	135	473.768	ug/L	10.179	2	13	1802355	0
	Ba	137	524.751	ug/L	9.575	1	15	3446056	0
>	Tb	159		ug/L			1061408	1080864	1
	Tl	205	0.206	ug/L	0.004	1	43	7238	1
	Pb	208	96.076	ug/L	1.491	1	368	4209980	0
	Bi	209		ug/L			2680757	2566388	0
	Th	232	3.127	ug/L	0.072	2	49	136882	1
	U	238	0.356	ug/L	0.006	1	2	16824	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS20 D SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Wednesday, November 28, 2012 13:59:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1854048	1
[	Be	9	0.177	ug/L	0.002	1	12	846	0
	C	13		ug/L			138826	176188	2
	Cl	37		ug/L			4735446	5282118	3
[>	Sc	45		ug/L			1275890	1328554	0
[	V	51	3.956	ug/L	0.115	2	9212	109648	2
[	V-1	51	3.940	ug/L	0.109	2	60	99761	2
[	Cr	52	3.116	ug/L	0.080	2	27310	90789	1
[	Cr	53	3.061	ug/L	0.052	1	159	7097	1
[	Mn	55	1238.502	ug/L	36.581	2	592	35257607	2
[	Co	59	4.304	ug/L	0.036	0	80	83916	0
[>	Ge	72		ug/L			659198	673701	1
[	Ni	60	7.998	ug/L	0.069	0	16	32137	2
[	Ni	62	8.133	ug/L	0.229	2	275	4852	1
[	Cu	63	12.940	ug/L	0.218	1	372	114753	2
[	Cu	65	13.113	ug/L	0.024	0	41	51954	1
[	Zn	66	243.555	ug/L	5.618	2	192	609957	0
[	Zn	67	230.363	ug/L	5.203	2	31	95681	0
[	Zn	68	242.581	ug/L	5.175	2	189	435141	1
[	As	75	4.322	ug/L	0.080	1	267	9686	0
[	As-1	75	4.158	ug/L	0.144	3	10608	20006	0
[	Se	82	0.333	ug/L	0.043	13	-2	76	15
[	Se	78	-0.020	ug/L	0.253	1280	10783	11006	1
[	Mo	98	0.205	ug/L	0.006	2	8	1039	2
	Y	89		ug/L			428598	488973	0
	Kr	83		ug/L			613	666	0
[>	In	115		ug/L			928277	966541	1
[	Ag	107	0.228	ug/L	0.009	3	14	2257	4
[	Cd	111	5.940	ug/L	0.143	2	65	26135	1
[	Cd	114	5.959	ug/L	0.121	2	31	65824	0
[	Sb	121	0.705	ug/L	0.011	1	40	9247	0
[	Sb	123	0.714	ug/L	0.013	1	30	7068	0
[	Ba	135	85.188	ug/L	1.465	1	13	332613	0
[	Ba	137	85.290	ug/L	2.265	2	15	574765	1
[>	Tb	159		ug/L			1061408	1072360	0
[	Tl	205	0.179	ug/L	0.002	0	43	6249	1
[	Pb	208	348.629	ug/L	3.391	0	368	15156511	0
[	Bi	209		ug/L			2680757	2683850	0
[	Th	232	0.591	ug/L	0.016	2	49	25724	1
[	U	238	0.111	ug/L	0.002	1	2	5205	1

VS22 : 00252

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:03:31
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1800880	0
[	Be	9	50.599	ug/L	1.508	2	12	231612	3
	C	13		ug/L			138826	141001	1
	Cl	37		ug/L			4735446	5034496	2
[>	Sc	45		ug/L			1275890	1268015	0
[	V	51	47.877	ug/L	0.997	2	9212	1164890	1
[	V-1	51	48.109	ug/L	1.315	2	60	1161802	1
[	Cr	52	49.502	ug/L	0.295	0	27310	972688	1
[	Cr	53	50.327	ug/L	0.926	1	159	108926	1
[	Mn	55	47.842	ug/L	0.608	1	592	1300551	1
[	Co	59	50.285	ug/L	0.977	1	80	934892	1
[>	Ge	72		ug/L			659198	643794	0
[	Ni	60	49.653	ug/L	0.255	0	16	190546	0
[	Ni	62	49.803	ug/L	0.734	1	275	27019	0
[	Cu	63	51.128	ug/L	0.820	1	372	432145	0
[	Cu	65	50.527	ug/L	1.143	2	41	191171	1
[	Zn	66	50.754	ug/L	1.550	3	192	121625	2
[	Zn	67	50.288	ug/L	0.798	1	31	19990	2
[	Zn	68	50.513	ug/L	0.697	1	189	86745	1
[	As	75	49.914	ug/L	0.580	1	267	104160	0
[	As-1	75	49.984	ug/L	0.829	1	10608	115685	0
[	Se	82	51.115	ug/L	0.157	0	-2	11699	0
[	Se	78	50.602	ug/L	0.909	1	10783	41692	0
[	Mo	98	49.347	ug/L	0.700	1	8	237332	2
	Y	89		ug/L			428598	416136	0
	Kr	83		ug/L			613	624	1
[>	In	115		ug/L			928277	904014	0
[	Ag	107	52.774	ug/L	1.193	2	14	485706	1
[	Cd	111	51.444	ug/L	0.538	1	65	211247	1
[	Cd	114	50.951	ug/L	0.345	0	31	526253	1
[	Sb	121	50.166	ug/L	0.296	0	40	612583	0
[	Sb	123	50.823	ug/L	0.111	0	30	468676	0
[	Ba	135	49.654	ug/L	0.469	0	13	181358	0
[	Ba	137	49.400	ug/L	0.458	0	15	311463	1
[>	Tb	159		ug/L			1061408	1046615	0
[	Tl	205	45.554	ug/L	0.728	1	43	1540506	0
[	Pb	208	48.037	ug/L	0.760	1	368	2038478	0
[	Bi	209		ug/L			2680757	2569048	0
[	Th	232	44.605	ug/L	0.913	2	49	1890392	1
[	U	238	52.361	ug/L	1.014	1	2	2393202	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:10:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1717634	2
[	Be	9	0.002	ug/L	0.001	42	12	20	15
	C	13		ug/L			138826	148009	0
	Cl	37		ug/L			4735446	4822567	1
[>	Sc	45		ug/L			1275890	1235171	1
|	V	51	-0.001	ug/L	0.007	551	9212	8888	0
|	V-1	51	0.001	ug/L	0.001	82	60	79	22
|	Cr	52	-0.009	ug/L	0.026	297	27310	26271	0
|	Cr	53	-0.001	ug/L	0.012	957	159	151	16
|	Mn	55	0.012	ug/L	0.009	77	592	882	28
[	Co	59	0.001	ug/L	0.000	8	80	105	3
[>	Ge	72		ug/L			659198	614873	1
|	Ni	60	0.002	ug/L	0.001	37	16	23	14
|	Ni	62	-0.276	ug/L	0.019	6	275	115	7
|	Cu	63	-0.010	ug/L	0.003	24	372	263	7
|	Cu	65	0.017	ug/L	0.003	19	41	101	13
|	Zn	66	0.326	ug/L	0.022	6	192	925	6
|	Zn	67	0.314	ug/L	0.037	11	31	148	11
|	Zn	68	0.327	ug/L	0.015	4	189	712	4
|	As	75	0.016	ug/L	0.020	125	267	281	14
|	As-1	75	0.226	ug/L	0.098	43	10608	10346	0
|	Se	82	0.026	ug/L	0.036	136	-2	3	255
|	Se	78	0.781	ug/L	0.346	44	10783	10515	0
[	Mo	98	0.008	ug/L	0.001	17	8	43	14
	Y	89		ug/L			428598	395076	3
	Kr	83		ug/L			613	603	3
[>	In	115		ug/L			928277	871632	0
|	Ag	107	0.002	ug/L	0.001	49	14	35	30
|	Cd	111	0.007	ug/L	0.003	43	65	90	14
|	Cd	114	0.001	ug/L	0.002	207	31	41	56
|	Sb	121	0.064	ug/L	0.004	5	40	789	5
|	Sb	123	0.061	ug/L	0.006	9	30	573	8
|	Ba	135	0.004	ug/L	0.001	13	13	27	6
[	Ba	137	0.006	ug/L	0.003	42	15	52	30
[>	Tb	159		ug/L			1061408	995669	0
|	Tl	205	0.008	ug/L	0.002	24	43	306	21
|	Pb	208	0.013	ug/L	0.003	22	368	876	13
|	Bi	209		ug/L			2680757	2562006	0
|	Th	232	0.163	ug/L	0.016	9	49	6610	9
[	U	238	0.003	ug/L	0.001	22	2	128	22

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:17:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1816408	0
[	**Be**	**9**	**0.512**	ug/L	0.009	1	12	2377	1
	C	**13**		ug/L			138826	180224	1
	Cl	**37**		ug/L			4735446	4997928	4
[>	**Sc**	**45**		ug/L			1275890	1398888	1
[	**V**	**51**	**33.144**	ug/L	0.985	2	9212	892697	2
[	**V-1**	**51**	**33.087**	ug/L	0.901	2	60	881518	2
[	**Cr**	**52**	**26.813**	ug/L	0.864	3	27310	594795	1
[	**Cr**	**53**	**26.619**	ug/L	0.533	2	159	63637	1
[	**Mn**	**55**	**755.779**	ug/L	4.201	0	592	22654997	1
[	**Co**	**59**	**8.740**	ug/L	0.119	1	80	179338	2
[>	**Ge**	**72**		ug/L			659198	648524	1
[	**Ni**	**60**	**20.726**	ug/L	0.229	1	16	80124	0
[	**Ni**	**62**	**22.055**	ug/L	0.394	1	275	12204	1
[	**Cu**	**63**	**26.364**	ug/L	0.808	3	372	224637	2
[	**Cu**	**65**	**26.629**	ug/L	0.444	1	41	101528	2
[	**Zn**	**66**	**287.466**	ug/L	6.671	2	192	693044	1
[	**Zn**	**67**	**274.870**	ug/L	0.855	0	31	109920	0
[	**Zn**	**68**	**290.742**	ug/L	5.868	2	189	502013	1
[	**As**	**75**	**20.064**	ug/L	0.327	1	267	42338	2
[	**As-1**	**75**	**19.730**	ug/L	0.301	1	10608	52319	1
[	**Se**	**82**	**0.042**	ug/L	0.034	81	-2	6	115
[	**Se**	**78**	**0.086**	ug/L	0.173	200	10783	10661	0
[	**Mo**	**98**	**0.425**	ug/L	0.005	1	8	2068	0
	Y	**89**		ug/L			428598	555514	0
	Kr	**83**		ug/L			613	881	4
[>	**In**	**115**		ug/L			928277	933287	1
[	**Ag**	**107**	**0.281**	ug/L	0.013	4	14	2684	3
[	**Cd**	**111**	**5.053**	ug/L	0.059	1	65	21479	1
[	**Cd**	**114**	**5.018**	ug/L	0.116	2	31	53523	0
[	**Sb**	**121**	**0.250**	ug/L	0.008	3	40	3187	2
[	**Sb**	**123**	**0.241**	ug/L	0.004	1	30	2327	1
[	**Ba**	**135**	**284.528**	ug/L	5.242	1	13	1072632	0
[	**Ba**	**137**	**288.471**	ug/L	8.205	2	15	1877111	1
[>	**Tb**	**159**		ug/L			1061408	1059346	0
[	**Tl**	**205**	**0.284**	ug/L	0.006	2	43	9769	2
[	**Pb**	**208**	**207.975**	ug/L	3.733	1	368	8932753	2
[	**Bi**	**209**		ug/L			2680757	2549578	0
[	**Th**	**232**	**3.740**	ug/L	0.038	1	49	160508	0
[	**U**	**238**	**0.479**	ug/L	0.002	0	2	22151	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:21:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1838149	2
[	Be	9	0.518	ug/L	0.025	4	12	2432	2
	C	13		ug/L			138826	195823	2
	Cl	37		ug/L			4735446	4997555	1
[>	Sc	45		ug/L			1275890	1406845	1
[	V	51	28.571	ug/L	0.568	1	9212	775276	0
[	V-1	51	28.604	ug/L	0.522	1	60	766386	0
[	Cr	52	20.716	ug/L	0.483	2	27310	469028	0
[	Cr	53	20.845	ug/L	0.307	1	159	50157	1
[	Mn	55	1810.007	ug/L	41.650	2	592	54554709	1
[	Co	59	8.544	ug/L	0.116	1	80	176322	1
[>	Ge	72		ug/L			659198	658276	0
[	Ni	60	20.392	ug/L	0.568	2	16	80018	2
[	Ni	62	21.785	ug/L	0.113	0	275	12239	0
[	Cu	63	41.166	ug/L	1.076	2	372	355815	1
[	Cu	65	41.896	ug/L	1.314	3	41	162079	2
[	Zn	66	700.129	ug/L	15.332	2	192	1713089	1
[	Zn	67	667.213	ug/L	17.715	2	31	270828	3
[	Zn	68	699.950	ug/L	16.327	2	189	1226456	1
[	As	75	35.631	ug/L	1.008	2	267	76095	2
[	As-1	75	35.044	ug/L	1.004	2	10608	86090	1
[	Se	82	0.321	ug/L	0.050	15	-2	72	15
[	Se	78	0.130	ug/L	0.094	72	10783	10850	0
[	Mo	98	0.548	ug/L	0.007	1	8	2703	2
	Y	89		ug/L			428598	555428	0
	Kr	83		ug/L			613	892	5
[>	In	115		ug/L			928277	997910	1
[	Ag	107	0.644	ug/L	0.019	2	14	6557	1
[	Cd	111	14.610	ug/L	0.224	1	65	66267	0
[	Cd	114	14.622	ug/L	0.200	1	31	166715	0
[	Sb	121	0.970	ug/L	0.004	0	40	13117	0
[	Sb	123	0.964	ug/L	0.020	2	30	9844	1
[	Ba	135	610.718	ug/L	6.643	1	13	2462104	1
[	Ba	137	607.114	ug/L	4.637	0	15	4225023	1
[>	Tb	159		ug/L			1061408	1079301	0
[	Tl	205	0.527	ug/L	0.006	1	43	18424	0
[	Pb	208	892.112	ug/L	1.516	0	368	39036250	0
[	Bi	209		ug/L			2680757	2608273	0
[	Th	232	3.261	ug/L	0.018	0	49	142579	0
[	U	238	0.387	ug/L	0.002	0	2	18234	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:26:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1837555	1
[	Be	9	0.489	ug/L	0.008	1	12	2297	0
	C	13		ug/L			138826	185396	0
	Cl	37		ug/L			4735446	5103900	0
[>	Sc	45		ug/L			1275890	1414766	2
[	V	51	30.606	ug/L	0.526	1	9212	834375	0
[	V-1	51	30.633	ug/L	0.552	1	60	825268	0
[	Cr	52	19.205	ug/L	0.373	1	27310	439446	0
[	Cr	53	19.318	ug/L	0.484	2	159	46745	1
[	Mn	55	1423.415	ug/L	37.349	2	592	43134459	0
[	Co	59	8.532	ug/L	0.275	3	80	177008	2
[>	Ge	72		ug/L			659198	659749	1
[	Ni	60	18.874	ug/L	0.534	2	16	74218	1
[	Ni	62	19.907	ug/L	0.186	0	275	11234	2
[	Cu	63	21.480	ug/L	0.454	2	372	186252	1
[	Cu	65	21.513	ug/L	0.330	1	41	83435	0
[	Zn	66	441.152	ug/L	3.307	0	192	1082007	1
[	Zn	67	432.571	ug/L	9.698	2	31	175926	0
[	Zn	68	449.316	ug/L	9.032	2	189	789114	1
[	As	75	24.737	ug/L	0.430	1	267	53029	0
[	As-1	75	24.287	ug/L	0.498	2	10608	63055	0
[	Se	82	0.110	ug/L	0.057	51	-2	23	58
[	Se	78	-0.042	ug/L	0.247	583	10783	10764	0
[	Mo	98	0.459	ug/L	0.023	4	8	2268	4
	Y	89		ug/L			428598	556903	1
	Kr	83		ug/L			613	902	2
[>	In	115		ug/L			928277	955764	0
[	Ag	107	0.383	ug/L	0.007	1	14	3738	1
[	Cd	111	6.665	ug/L	0.116	1	65	28993	1
[	Cd	114	6.576	ug/L	0.064	0	31	71832	0
[	Sb	121	0.388	ug/L	0.005	1	40	5049	1
[	Sb	123	0.390	ug/L	0.008	2	30	3835	3
[	Ba	135	420.219	ug/L	1.978	0	13	1622578	0
[	Ba	137	470.791	ug/L	2.374	0	15	3137870	0
[>	Tb	159		ug/L			1061408	1078263	1
[	Tl	205	0.325	ug/L	0.006	1	43	11380	2
[	Pb	208	236.541	ug/L	2.594	1	368	10339756	0
[	Bi	209		ug/L			2680757	2579022	0
[	Th	232	3.360	ug/L	0.040	1	49	146752	0
[	U	238	0.370	ug/L	0.006	1	2	17413	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:30:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1827241	1
[	Be	9	0.585	ug/L	0.005	0	12	2729	1
	C	13		ug/L			138826	177582	0
	Cl	37		ug/L			4735446	4982451	0
[>	Sc	45		ug/L			1275890	1439214	0
[	V	51	35.232	ug/L	0.514	1	9212	975769	1
[	V-1	51	35.037	ug/L	0.718	2	60	960482	1
[	Cr	52	21.747	ug/L	0.816	3	27310	502266	3
[	Cr	53	21.070	ug/L	0.345	1	159	51867	1
[	Mn	55	737.792	ug/L	20.790	2	592	22754011	2
[	Co	59	9.147	ug/L	0.145	1	80	193114	2
[>	Ge	72		ug/L			659198	650883	1
[	Ni	60	24.133	ug/L	0.264	1	16	93630	0
[	Ni	62	25.509	ug/L	0.693	2	275	14122	1
[	Cu	63	24.558	ug/L	0.686	2	372	210007	1
[	Cu	65	24.128	ug/L	0.328	1	41	92313	0
[	Zn	66	124.823	ug/L	1.072	0	192	302162	0
[	Zn	67	135.973	ug/L	2.676	1	31	54582	1
[	Zn	68	132.468	ug/L	2.960	2	189	229642	0
[	As	75	17.003	ug/L	0.238	1	267	36044	0
[	As-1	75	16.720	ug/L	0.302	1	10608	46091	0
[	Se	82	-0.184	ug/L	0.049	26	-2	-45	24
[	Se	78	0.140	ug/L	0.252	180	10783	10732	0
[	Mo	98	0.367	ug/L	0.008	2	8	1790	1
	Y	89		ug/L			428598	610337	0
	Kr	83		ug/L			613	1056	3
[>	In	115		ug/L			928277	930433	1
[	Ag	107	0.199	ug/L	0.002	0	14	1901	1
[	Cd	111	0.781	ug/L	0.022	2	65	3364	1
[	Cd	114	0.610	ug/L	0.009	1	31	6521	2
[	Sb	121	0.110	ug/L	0.004	3	40	1424	2
[	Sb	123	0.107	ug/L	0.002	1	30	1049	1
[	Ba	135	282.759	ug/L	2.290	0	13	1062911	1
[	Ba	137	282.149	ug/L	2.083	0	15	1830690	0
[>	Tb	159		ug/L			1061408	1072793	1
[	Tl	205	0.202	ug/L	0.003	1	43	7034	0
[	Pb	208	19.419	ug/L	0.314	1	368	844811	0
[	Bi	209		ug/L			2680757	2557847	1
[	Th	232	4.145	ug/L	0.064	1	49	180107	0
[	U	238	0.535	ug/L	0.008	1	2	25074	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:34:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1847624	1
[	Be	9	0.565	ug/L	0.003	0	12	2667	0
	C	13		ug/L			138826	164834	2
	Cl	37		ug/L			4735446	4971180	2
[>	Sc	45		ug/L			1275890	1434411	0
|	V	51	41.084	ug/L	0.501	1	9212	1132394	1
|	V-1	51	41.076	ug/L	0.505	1	60	1122315	1
|	Cr	52	22.574	ug/L	0.515	2	27310	518498	2
|	Cr	53	22.571	ug/L	0.290	1	159	55367	1
|	Mn	55	418.770	ug/L	2.580	0	592	12872937	0
[	Co	59	8.881	ug/L	0.160	1	80	186875	1
[>	Ge	72		ug/L			659198	652078	1
|	Ni	60	21.192	ug/L	0.539	2	16	82363	1
|	Ni	62	23.050	ug/L	0.066	0	275	12813	1
|	Cu	63	30.907	ug/L	0.426	1	372	264731	0
|	Cu	65	31.295	ug/L	0.188	0	41	119952	1
|	Zn	66	65.034	ug/L	1.984	3	192	157782	1
|	Zn	67	74.338	ug/L	0.752	1	31	29915	2
|	Zn	68	69.401	ug/L	1.184	1	189	120633	1
|	As	75	6.083	ug/L	0.143	2	267	13088	1
|	As-1	75	5.902	ug/L	0.193	3	10608	23087	0
|	Se	82	-0.066	ug/L	0.094	142	-2	-18	119
|	Se	78	0.088	ug/L	0.274	312	10783	10719	0
[	Mo	98	0.306	ug/L	0.014	4	8	1496	4
	Y	89		ug/L			428598	664569	2
	Kr	83		ug/L			613	1013	3
[>	In	115		ug/L			928277	920871	0
|	Ag	107	0.254	ug/L	0.003	1	14	2394	0
|	Cd	111	0.391	ug/L	0.005	1	65	1699	0
|	Cd	114	0.222	ug/L	0.009	4	31	2365	3
|	Sb	121	0.046	ug/L	0.002	3	40	618	3
|	Sb	123	0.046	ug/L	0.001	2	30	466	1
|	Ba	135	160.329	ug/L	2.374	1	13	596446	0
[	Ba	137	161.375	ug/L	3.335	2	15	1036252	1
[>	Tb	159		ug/L			1061408	1079999	0
|	Tl	205	0.167	ug/L	0.005	2	43	5885	1
|	Pb	208	7.840	ug/L	0.039	0	368	343653	0
|	Bi	209		ug/L			2680757	2552782	0
|	Th	232	4.318	ug/L	0.040	0	49	188904	0
[	U	238	0.715	ug/L	0.009	1	2	33730	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:39:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1851917	1
[	**Be**	**9**	**0.499**	ug/L	0.011	2	12	2363	1
	C	**13**		ug/L			138826	161437	0
	Cl	**37**		ug/L			4735446	5152772	2
[>	**Sc**	**45**		ug/L			1275890	1433457	0
[	**V**	**51**	**45.757**	ug/L	0.927	2	9212	1259043	1
[	**V-1**	**51**	**45.874**	ug/L	0.845	1	60	1252424	1
[	**Cr**	**52**	**24.342**	ug/L	0.520	2	27310	556287	1
[	**Cr**	**53**	**24.789**	ug/L	0.635	2	159	60743	2
[	**Mn**	**55**	**351.742**	ug/L	2.778	0	592	10804920	0
[	**Co**	**59**	**9.408**	ug/L	0.257	2	80	197801	2
[>	**Ge**	**72**		ug/L			659198	651854	1
[	**Ni**	**60**	**21.725**	ug/L	0.257	1	16	84417	0
[	**Ni**	**62**	**23.715**	ug/L	0.285	1	275	13172	2
[	**Cu**	**63**	**32.751**	ug/L	0.358	1	372	280452	2
[	**Cu**	**65**	**32.558**	ug/L	0.477	1	41	124774	2
[	**Zn**	**66**	**58.650**	ug/L	0.318	0	192	142292	0
[	**Zn**	**67**	**65.940**	ug/L	1.249	1	31	26524	0
[	**Zn**	**68**	**62.412**	ug/L	1.114	1	189	108472	1
[	**As**	**75**	**6.477**	ug/L	0.064	0	267	13916	1
[	**As-1**	**75**	**6.291**	ug/L	0.101	1	10608	23911	0
[	**Se**	**82**	**0.074**	ug/L	0.061	81	-2	14	98
[	**Se**	**78**	**0.105**	ug/L	0.172	163	10783	10727	0
[	**Mo**	**98**	**0.373**	ug/L	0.010	2	8	1822	1
	Y	**89**		ug/L			428598	637904	0
	Kr	**83**		ug/L			613	923	3
[>	**In**	**115**		ug/L			928277	915312	0
[	**Ag**	**107**	**0.243**	ug/L	0.007	3	14	2274	3
[	**Cd**	**111**	**0.297**	ug/L	0.016	5	65	1301	5
[	**Cd**	**114**	**0.155**	ug/L	0.004	2	31	1650	2
[	**Sb**	**121**	**0.023**	ug/L	0.002	10	40	323	9
[	**Sb**	**123**	**0.024**	ug/L	0.001	5	30	258	4
[	**Ba**	**135**	**136.337**	ug/L	1.871	1	13	504174	1
[	**Ba**	**137**	**135.133**	ug/L	0.919	0	15	862590	0
[>	**Tb**	**159**		ug/L			1061408	1083785	0
[	**Tl**	**205**	**0.169**	ug/L	0.002	1	43	5950	1
[	**Pb**	**208**	**7.334**	ug/L	0.031	0	368	322640	0
[	**Bi**	**209**		ug/L			2680757	2533129	0
[	**Th**	**232**	**5.104**	ug/L	0.018	0	49	224086	0
[	**U**	**238**	**0.787**	ug/L	0.008	1	2	37257	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:43:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1854545	2
[	Be	9	0.948	ug/L	0.026	2	12	4482	2
	C	13		ug/L			138826	217025	2
	Cl	37		ug/L			4735446	5069542	2
[>	Sc	45		ug/L			1275890	1435993	2
[	V	51	28.429	ug/L	0.803	2	9212	787296	0
[	V-1	51	28.363	ug/L	0.867	3	60	775480	0
[	Cr	52	30.131	ug/L	0.529	1	27310	682337	0
[	Cr	53	29.894	ug/L	0.751	2	159	73325	0
[	Mn	55	2782.214	ug/L	60.536	2	592	85598956	2
[	Co	59	12.187	ug/L	0.218	1	80	256633	1
[>	Ge	72		ug/L			659198	660475	0
[	Ni	60	36.457	ug/L	0.811	2	16	143537	2
[	Ni	62	37.422	ug/L	0.449	1	275	20899	1
[	Cu	63	40.246	ug/L	0.609	1	372	349067	1
[	Cu	65	40.771	ug/L	1.071	2	41	158266	2
[	Zn	66	764.640	ug/L	7.716	1	192	1877391	0
[	Zn	67	702.608	ug/L	7.126	1	31	286097	0
[	Zn	68	742.619	ug/L	16.760	2	189	1305609	1
[	As	75	31.438	ug/L	0.261	0	267	67404	0
[	As-1	75	30.912	ug/L	0.268	0	10608	77455	0
[	Se	82	0.550	ug/L	0.040	7	-2	126	8
[	Se	78	0.497	ug/L	0.035	7	10783	11118	0
[	Mo	98	1.116	ug/L	0.011	0	8	5511	0
	Y	89		ug/L			428598	662294	1
	Kr	83		ug/L			613	987	3
[>	In	115		ug/L			928277	1005550	0
[	Ag	107	0.475	ug/L	0.013	2	14	4882	3
[	Cd	111	15.955	ug/L	0.136	0	65	72923	0
[	Cd	114	16.007	ug/L	0.221	1	31	183902	0
[	Sb	121	1.029	ug/L	0.011	1	40	14018	1
[	Sb	123	1.015	ug/L	0.013	1	30	10442	1
[	Ba	135	402.535	ug/L	3.560	0	13	1635242	0
[	Ba	137	455.971	ug/L	0.972	0	15	3197521	0
[>	Tb	159		ug/L			1061408	1079035	1
[	Tl	205	0.580	ug/L	0.008	1	43	20248	0
[	Pb	208	740.947	ug/L	9.764	1	368	32410802	0
[	Bi	209		ug/L			2680757	2581507	0
[	Th	232	4.134	ug/L	0.043	1	49	180676	0
[	U	238	0.584	ug/L	0.006	1	2	27541	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:47:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1901456	0
[	Be	9	1.296	ug/L	0.009	0	12	6277	0
	C	13		ug/L			138826	187751	1
	Cl	37		ug/L			4735446	4943786	1
[>	Sc	45		ug/L			1275890	1489617	2
[	V	51	44.394	ug/L	0.723	1	9212	1269499	0
[	V-1	51	44.614	ug/L	0.857	1	60	1265516	0
[	Cr	52	35.987	ug/L	0.996	2	27310	839130	1
[	Cr	53	36.788	ug/L	1.373	3	159	93548	1
[	Mn	55	1587.498	ug/L	43.382	2	592	50663882	2
[	Co	59	20.217	ug/L	0.738	3	80	441556	3
[>	Ge	72		ug/L			659198	650626	0
[	Ni	60	80.844	ug/L	1.676	2	16	313529	2
[	Ni	62	84.124	ug/L	0.666	0	275	45938	0
[	Cu	63	55.297	ug/L	0.823	1	372	472370	1
[	Cu	65	56.643	ug/L	0.563	0	41	216611	1
[	Zn	66	445.321	ug/L	9.155	2	192	1077117	1
[	Zn	67	434.181	ug/L	1.191	0	31	174177	0
[	Zn	68	444.240	ug/L	7.177	1	189	769508	1
[	As	75	25.621	ug/L	0.307	1	267	54162	0
[	As-1	75	25.093	ug/L	0.315	1	10608	63908	0
[	Se	82	0.511	ug/L	0.095	18	-2	115	18
[	Se	78	0.745	ug/L	0.129	17	10783	11106	0
[	Mo	98	1.397	ug/L	0.016	1	8	6799	1
	Y	89		ug/L			428598	851882	0
	Kr	83		ug/L			613	1391	0
[>	In	115		ug/L			928277	925807	0
[	Ag	107	1.248	ug/L	0.026	2	14	11778	2
[	Cd	111	6.843	ug/L	0.052	0	65	28832	0
[	Cd	114	6.520	ug/L	0.053	0	31	68989	0
[	Sb	121	0.254	ug/L	0.005	1	40	3212	1
[	Sb	123	0.243	ug/L	0.010	4	30	2325	4
[	Ba	135	281.116	ug/L	2.832	1	13	1051470	1
[	Ba	137	286.579	ug/L	1.824	0	15	1850251	0
[>	Tb	159		ug/L			1061408	1084127	0
[	Tl	205	0.371	ug/L	0.003	0	43	13024	0
[	Pb	208	210.643	ug/L	1.319	0	368	9258507	0
[	Bi	209		ug/L			2680757	2479950	0
[	Th	232	5.746	ug/L	0.025	0	49	252333	0
[	U	238	1.351	ug/L	0.017	1	2	63947	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:51:25
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1911425	2
[	Be	9	0.519	ug/L	0.015	2	12	2536	4
	C	13		ug/L			138826	184811	3
	Cl	37		ug/L			4735446	5114725	3
[>	Sc	45		ug/L			1275890	1428181	1
[	V	51	35.381	ug/L	1.149	3	9212	972068	1
[	V-1	51	35.374	ug/L	1.213	3	60	962018	2
[	Cr	52	23.232	ug/L	0.800	3	27310	530225	2
[	Cr	53	23.223	ug/L	0.542	2	159	56701	1
[	Mn	55	1525.993	ug/L	39.200	2	592	46696413	2
[	Co	59	9.754	ug/L	0.122	1	80	204308	0
[>	Ge	72		ug/L			659198	659431	2
[	Ni	60	21.262	ug/L	0.413	1	16	83569	1
[	Ni	62	23.044	ug/L	0.693	3	275	12949	0
[	Cu	63	19.206	ug/L	0.581	3	372	166447	0
[	Cu	65	19.301	ug/L	0.494	2	41	74804	0
[	Zn	66	226.162	ug/L	3.354	1	192	554472	1
[	Zn	67	227.213	ug/L	1.499	0	31	92391	1
[	Zn	68	230.804	ug/L	2.695	1	189	405249	1
[	As	75	16.593	ug/L	0.252	1	267	35641	1
[	As-1	75	16.277	ug/L	0.327	2	10608	45736	0
[	Se	82	-0.211	ug/L	0.051	24	-2	-52	20
[	Se	78	-0.088	ug/L	0.246	278	10783	10729	1
[	Mo	98	0.445	ug/L	0.016	3	8	2199	3
	Y	89		ug/L			428598	513124	1
	Kr	83		ug/L			613	1014	1
[>	In	115		ug/L			928277	948949	0
[	Ag	107	0.191	ug/L	0.006	2	14	1858	2
[	Cd	111	3.016	ug/L	0.066	2	65	13062	1
[	Cd	114	2.918	ug/L	0.026	0	31	31664	1
[	Sb	121	0.222	ug/L	0.000	0	40	2890	0
[	Sb	123	0.227	ug/L	0.002	0	30	2229	1
[	Ba	135	260.272	ug/L	2.662	1	13	997829	0
[	Ba	137	257.584	ug/L	2.198	0	15	1704617	0
[>	Tb	159		ug/L			1061408	1066426	1
[	Tl	205	0.266	ug/L	0.001	0	43	9226	1
[	Pb	208	238.590	ug/L	3.838	1	368	10316745	2
[	Bi	209		ug/L			2680757	2578125	1
[	Th	232	3.114	ug/L	0.029	0	49	134515	0
[	U	238	0.338	ug/L	0.008	2	2	15734	3

VS22 : 00263

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:55:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1893448	0
[	Be	9	0.373	ug/L	0.015	4	12	1807	4
	C	13		ug/L			138826	229860	0
	Cl	37		ug/L			4735446	5023340	2
[>	Sc	45		ug/L			1275890	1396660	1
|	V	51	25.755	ug/L	0.353	1	9212	694872	0
|	V-1	51	25.693	ug/L	0.358	1	60	683476	0
|	Cr	52	17.536	ug/L	0.219	1	27310	398801	0
|	Cr	53	17.326	ug/L	0.171	0	159	41420	0
|	Mn	55	660.242	ug/L	14.197	2	592	19758082	1
[	Co	59	7.099	ug/L	0.149	2	80	145441	1
[>	Ge	72		ug/L			659198	653890	1
|	Ni	60	15.080	ug/L	0.414	2	16	58773	1
|	Ni	62	16.789	ug/L	0.660	3	275	9428	2
|	Cu	63	21.910	ug/L	0.726	3	372	188254	1
|	Cu	65	22.322	ug/L	0.442	1	41	85800	1
|	Zn	66	210.763	ug/L	2.065	0	192	512416	0
|	Zn	67	207.023	ug/L	4.572	2	31	83463	0
|	Zn	68	211.486	ug/L	6.355	3	189	368168	1
|	As	75	11.111	ug/L	0.223	2	267	23752	0
|	As-1	75	10.934	ug/L	0.325	2	10608	33918	0
|	Se	82	0.721	ug/L	0.067	9	-2	164	9
|	Se	78	0.746	ug/L	0.388	52	10783	11160	0
[	Mo	98	0.479	ug/L	0.019	3	8	2349	2
	Y	89		ug/L			428598	526761	0
	Kr	83		ug/L			613	772	2
[>	In	115		ug/L			928277	951909	1
|	Ag	107	0.276	ug/L	0.002	0	14	2694	0
|	Cd	111	4.245	ug/L	0.078	1	65	18413	0
|	Cd	114	4.195	ug/L	0.087	2	31	45639	0
|	Sb	121	0.461	ug/L	0.013	2	40	5964	1
|	Sb	123	0.457	ug/L	0.011	2	30	4464	0
|	Ba	135	147.986	ug/L	2.258	1	13	569033	0
[	Ba	137	149.794	ug/L	3.828	2	15	994111	0
[>	Tb	159		ug/L			1061408	1061412	2
|	Tl	205	0.219	ug/L	0.008	3	43	7562	1
|	Pb	208	222.825	ug/L	6.452	2	368	9584388	0
|	Bi	209		ug/L			2680757	2567392	0
|	Th	232	2.106	ug/L	0.049	2	49	90542	0
[	U	238	0.533	ug/L	0.012	2	2	24723	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 14:59:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1801645	0
	Be	9	50.179	ug/L	0.824	1	12	229774	1
	C	13		ug/L			138826	149526	1
	Cl	37		ug/L			4735446	5118156	1
>	Sc	45		ug/L			1275890	1263312	1
	V	51	48.253	ug/L	0.614	1	9212	1169775	2
	V-1	51	48.305	ug/L	0.825	1	60	1162458	2
	Cr	52	49.792	ug/L	0.619	1	27310	974555	1
	Cr	53	49.978	ug/L	1.238	2	159	107784	2
	Mn	55	48.656	ug/L	0.421	0	592	1317769	1
	Co	59	49.201	ug/L	0.353	0	80	911445	1
>	Ge	72		ug/L			659198	640504	1
	Ni	60	50.073	ug/L	1.135	2	16	191157	2
	Ni	62	49.622	ug/L	1.125	2	275	26779	0
	Cu	63	50.999	ug/L	1.709	3	372	428735	2
	Cu	65	51.291	ug/L	1.438	2	41	193035	1
	Zn	66	50.655	ug/L	1.135	2	192	120771	2
	Zn	67	50.957	ug/L	0.875	1	31	20155	3
	Zn	68	50.083	ug/L	1.163	2	189	85546	0
	As	75	49.929	ug/L	0.821	1	267	103655	1
	As-1	75	50.127	ug/L	1.037	2	10608	115384	1
	Se	82	51.565	ug/L	0.827	1	-2	11740	1
	Se	78	51.494	ug/L	1.765	3	10783	42016	1
	Mo	98	49.317	ug/L	1.280	2	8	235922	2
	Y	89		ug/L			428598	422263	0
	Kr	83		ug/L			613	646	4
>	In	115		ug/L			928277	914867	0
	Ag	107	51.796	ug/L	1.309	2	14	482458	2
	Cd	111	50.412	ug/L	0.327	0	65	209491	0
	Cd	114	49.956	ug/L	1.002	2	31	522139	1
	Sb	121	49.973	ug/L	0.252	0	40	617564	0
	Sb	123	49.669	ug/L	0.469	0	30	463528	1
	Ba	135	48.469	ug/L	0.829	1	13	179168	2
	Ba	137	48.196	ug/L	0.605	1	15	307502	1
>	Tb	159		ug/L			1061408	1043819	1
	Tl	205	45.142	ug/L	0.065	0	43	1522680	1
	Pb	208	47.410	ug/L	0.445	0	368	2006773	1
	Bi	209		ug/L			2680757	2550506	0
	Th	232	44.334	ug/L	0.458	1	49	1874104	1
	U	238	51.823	ug/L	0.609	1	2	2362364	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:06:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1779925	0
[	Be	9	0.000	ug/L	0.000	1260	12	12	4
	C	13		ug/L			138826	145167	2
	Cl	37		ug/L			4735446	4902164	1
[>	Sc	45		ug/L			1275890	1249134	1
[	V	51	0.001	ug/L	0.003	436	9212	9035	1
[	V-1	51	-0.001	ug/L	0.000	23	60	46	5
[	Cr	52	-0.005	ug/L	0.011	227	27310	26644	1
[	Cr	53	-0.009	ug/L	0.003	28	159	136	5
[	Mn	55	0.004	ug/L	0.002	58	592	690	9
[	Co	59	0.000	ug/L	0.001	198	80	85	14
[>	Ge	72		ug/L			659198	624199	1
[	Ni	60	0.002	ug/L	0.001	64	16	21	18
[	Ni	62	-0.308	ug/L	0.033	10	275	100	17
[	Cu	63	-0.020	ug/L	0.003	12	372	185	9
[	Cu	65	0.005	ug/L	0.001	28	41	58	7
[	Zn	66	0.089	ug/L	0.036	40	192	388	21
[	Zn	67	0.071	ug/L	0.012	17	31	56	7
[	Zn	68	0.098	ug/L	0.012	11	189	342	5
[	As	75	0.026	ug/L	0.028	110	267	304	17
[	As-1	75	0.192	ug/L	0.061	31	10608	10435	0
[	Se	82	0.043	ug/L	0.073	168	-2	6	235
[	Se	78	0.642	ug/L	0.180	28	10783	10592	1
[	Mo	98	0.006	ug/L	0.001	14	8	36	12
	Y	89		ug/L			428598	410581	0
	Kr	83		ug/L			613	605	2
[>	In	115		ug/L			928277	898371	1
[	Ag	107	0.002	ug/L	0.001	42	14	30	24
[	Cd	111	0.003	ug/L	0.003	100	65	73	14
[	Cd	114	0.000	ug/L	0.001	133	31	35	18
[	Sb	121	0.057	ug/L	0.007	13	40	725	13
[	Sb	123	0.056	ug/L	0.007	12	30	546	11
[	Ba	135	0.002	ug/L	0.001	71	13	19	22
[	Ba	137	0.003	ug/L	0.002	53	15	36	32
[>	Tb	159		ug/L			1061408	998753	1
[	Tl	205	0.009	ug/L	0.004	47	43	341	41
[	Pb	208	0.005	ug/L	0.001	21	368	539	8
[	Bi	209		ug/L			2680757	2565215	0
[	Th	232	0.137	ug/L	0.015	10	49	5587	10
[	U	238	0.002	ug/L	0.000	13	2	78	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:13:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1827394	3
	Be	9	U 0.001	ug/L	0.000	34	12	17	12
	C	13		ug/L			138826	158167	1
	Cl	37		ug/L			4735446	4848769	2
>	Sc	45		ug/L			1275890	1309266	2
	V	51	-0.001	ug/L	0.002	176	9212	9427	2
	V-1	51	U 0.000	ug/L	0.000	25	60	72	4
	Cr	52	-0.002	ug/L	0.014	582	27310	27980	3
	Cr	53	U 0.003	ug/L	0.007	253	159	170	10
	Mn	55	0.041	ug/L	0.002	5	592	1762	4
	Co	59	U 0.001	ug/L	0.001	79	80	95	8
>	Ge	72		ug/L			659198	641118	1
	Ni	60	0.011	ug/L	0.000	2	16	59	3
	Ni	62	U -0.314	ug/L	0.015	4	275	100	8
	Cu	63	-0.015	ug/L	0.001	8	372	232	5
	Cu	65	U 0.013	ug/L	0.005	35	41	90	18
	Zn	66	0.415	ug/L	0.022	5	192	1175	4
	Zn	67	U 0.368	ug/L	0.018	4	31	175	4
	Zn	68	0.416	ug/L	0.038	9	189	895	7
	As	75	0.028	ug/L	0.012	42	267	317	8
	As-1	75	U 0.101	ug/L	0.112	110	10608	10526	0
	Se	82	0.020	ug/L	0.091	452	-2	1	1143
	Se	78	U 0.307	ug/L	0.406	132	10783	10672	0
	Mo	98	0.002	ug/L	0.001	37	8	19	21
	Y	89		ug/L			428598	421158	1
	Kr	83		ug/L			613	626	6
>	In	115		ug/L			928277	918882	1
	Ag	107	U 0.001	ug/L	0.000	42	14	22	13
	Cd	111	-0.000	ug/L	0.002	2148	65	64	12
	Cd	114	U 0.000	ug/L	0.001	184	31	36	22
	Sb	121	0.015	ug/L	0.003	20	40	227	16
	Sb	123	U 0.015	ug/L	0.001	9	30	170	9
	Ba	135	0.024	ug/L	0.002	8	13	104	7
	Ba	137	0.024	ug/L	0.002	6	15	172	6
>	Tb	159		ug/L			1061408	1029086	0
	Tl	205	U 0.005	ug/L	0.002	40	43	219	33
	Pb	208	0.010	ug/L	0.001	9	368	759	5
	Bi	209	h	ug/L			2680757	2619898	0
	Th	232	0.078	ug/L	0.003	3	49	3279	4
	U	238	0.000	ug/L	0.000	31	2	19	28

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:18:04
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1768094	1
[	Be	9	24.452	ug/L	0.100	0	12	109896	2
	C	13		ug/L			138826	152645	3
	Cl	37		ug/L			4735446	4867161	1
[>	Sc	45		ug/L			1275890	1268660	2
[	V	51	23.019	ug/L	0.491	2	9212	564975	0
[	V-1	51	23.112	ug/L	0.426	1	60	558356	0
[	Cr	52	24.182	ug/L	0.928	3	27310	489009	1
[	Cr	53	24.511	ug/L	0.715	2	159	53141	1
[	Mn	55	23.669	ug/L	0.907	3	592	643641	1
[	Co	59	24.127	ug/L	0.991	4	80	448550	1
[>	Ge	72		ug/L			659198	627559	2
[	Ni	60	25.156	ug/L	0.630	2	16	94083	1
[	Ni	62	25.105	ug/L	0.603	2	275	13403	0
[	Cu	63	25.981	ug/L	1.095	4	372	214127	2
[	Cu	65	26.262	ug/L	0.391	1	41	96888	2
[	Zn	66	80.808	ug/L	3.116	3	192	188608	2
[	Zn	67	74.637	ug/L	2.009	2	31	28895	1
[	Zn	68	78.646	ug/L	0.858	1	189	131536	1
[	As	75	24.398	ug/L	0.623	2	267	49745	0
[	As-1	75	24.999	ug/L	1.044	4	10608	61422	1
[	Se	82	79.762	ug/L	1.238	1	-2	17793	0
[	Se	78	78.439	ug/L	2.590	3	10783	57333	0
[	Mo	98	23.155	ug/L	0.849	3	8	108495	1
	Y	89		ug/L			428598	411966	1
	Kr	83		ug/L			613	640	1
[>	In	115		ug/L			928277	889759	0
[	Ag	107	26.018	ug/L	0.274	1	14	235720	1
[	Cd	111	24.584	ug/L	0.104	0	65	99391	0
[	Cd	114	24.427	ug/L	0.277	1	31	248322	0
[	Sb	121	23.972	ug/L	0.200	0	40	288126	0
[	Sb	123	24.016	ug/L	0.254	1	30	218002	1
[	Ba	135	24.518	ug/L	0.114	0	13	88146	0
[	Ba	137	24.200	ug/L	0.076	0	15	150172	0
[>	Tb	159		ug/L			1061408	1007563	0
[	Tl	205	23.231	ug/L	0.301	1	43	756359	1
[	Pb	208	24.527	ug/L	0.089	0	368	1002221	0
[	Bi	209		ug/L			2680757	2576050	0
[	Th	232	21.832	ug/L	0.194	0	49	890856	0
[	U	238	21.840	ug/L	0.438	2	2	961066	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:23:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1841551	0
	Be	9	n 0.053	ug/L	0.007	12	12	262	11
	C	13		ug/L			138826	161235	2
	Cl	37		ug/L			4735446	4886730	4
>	Sc	45		ug/L			1275890	1297456	1
	V	51	4.179	ug/L	0.079	1	9212	112604	1
	V-1	51	4.194	ug/L	0.095	2	60	103692	2
	Cr	52	2.756	ug/L	0.041	1	27310	81625	0
	Cr	53	2.809	ug/L	0.103	3	159	6373	2
	Mn	55	187.088	ug/L	4.618	2	592	5201446	1
	Co	59	1.281	ug/L	0.036	2	80	24450	3
>	Ge	72		ug/L			659198	650856	1
	Ni	60	2.376	ug/L	0.013	0	16	9235	1
	Ni	62	2.287	ug/L	0.039	1	275	1513	1
	Cu	63	3.472	ug/L	0.108	3	372	30007	2
	Cu	65	3.575	ug/L	0.068	1	41	13712	1
	Zn	66	54.577	ug/L	0.889	1	192	132210	0
	Zn	67	52.005	ug/L	0.741	1	31	20896	1
	Zn	68	53.933	ug/L	0.622	1	189	93621	1
	As	75	1.937	ug/L	0.053	2	267	4340	2
	As-1	75	1.916	ug/L	0.143	7	10608	14552	1
	Se	82	n 0.093	ug/L	0.036	39	-2	18	44
	Se	78	0.122	ug/L	0.377	307	10783	10721	1
	Mo	98	0.092	ug/L	0.003	3	8	455	2
	Y	89		ug/L			428598	436213	0
	Kr	83		ug/L			613	628	0
>	In	115		ug/L			928277	933152	1
	Ag	107	U 0.062	ug/L	0.003	5	14	603	5
	Cd	111	1.065	ug/L	0.016	1	65	4577	2
	Cd	114	1.029	ug/L	0.007	0	31	11005	1
	Sb	121	0.218	ug/L	0.001	0	40	2786	1
	Sb	123	0.228	ug/L	0.006	2	30	2203	1
	Ba	135	32.262	ug/L	0.741	2	13	121633	2
	Ba	137	32.075	ug/L	0.601	1	15	208720	1
>	Tb	159		ug/L			1061408	1051810	0
	Tl	205	U 0.052	ug/L	0.001	2	43	1809	2
	Pb	208	44.515	ug/L	0.590	1	368	1898584	1
	Bi	209		ug/L			2680757	2686304	1
	Th	232	0.559	ug/L	0.019	3	49	23875	3
	U	238	0.054	ug/L	0.001	2	2	2478	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:27:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1891078	0
[	Be	9	0.267	ug/L	0.006	2	12	1297	1
	C	13		ug/L			138826	241893	0
	Cl	37		ug/L			4735446	5240381	2
[>	Sc	45		ug/L			1275890	1385768	1
	V	51	19.555	ug/L	0.371	1	9212	525841	0
	V-1	51	19.538	ug/L	0.404	2	60	515675	1
	Cr	52	13.330	ug/L	0.353	2	27310	307851	0
	Cr	53	13.281	ug/L	0.489	3	159	31536	2
	Mn	55	871.286	ug/L	18.026	2	592	25869477	1
[	Co	59	6.022	ug/L	0.164	2	80	122426	2
[>	Ge	72		ug/L			659198	644076	1
	Ni	60	11.910	ug/L	0.246	2	16	45736	2
	Ni	62	13.196	ug/L	0.134	1	275	7359	1
	Cu	63	17.604	ug/L	0.339	1	372	149083	0
	Cu	65	18.075	ug/L	0.212	1	41	68457	2
	Zn	66	267.701	ug/L	4.887	1	192	640975	0
	Zn	67	251.938	ug/L	2.849	1	31	100063	1
	Zn	68	266.058	ug/L	8.212	3	189	456173	1
	As	75	9.633	ug/L	0.138	1	267	20319	0
	As-1	75	9.494	ug/L	0.179	1	10608	30377	0
	Se	82	0.404	ug/L	0.016	4	-2	89	5
	Se	78	0.462	ug/L	0.134	29	10783	10819	0
[	Mo	98	0.423	ug/L	0.017	4	8	2040	2
	Y	89		ug/L			428598	488898	0
	Kr	83		ug/L			613	719	1
[>	In	115		ug/L			928277	943226	0
	Ag	107	0.286	ug/L	0.008	2	14	2762	3
	Cd	111	5.110	ug/L	0.098	1	65	21954	1
	Cd	114	5.106	ug/L	0.066	1	31	55048	1
	Sb	121	1.016	ug/L	0.022	2	40	12988	2
	Sb	123	1.014	ug/L	0.012	1	30	9789	1
	Ba	135	162.677	ug/L	1.059	0	13	619916	0
[	Ba	137	161.378	ug/L	0.748	0	15	1061540	0
[>	Tb	159		ug/L			1061408	1056154	0
	Tl	205	0.243	ug/L	0.012	4	43	8332	4
	Pb	208	257.293	ug/L	2.925	1	368	11016939	0
	Bi	209		ug/L			2680757	2589312	0
	Th	232	1.642	ug/L	0.018	1	49	70267	0
[	U	238	0.266	ug/L	0.003	0	2	12273	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:31:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1847104	2
[	Be	9	0.253	ug/L	0.005	1	12	1198	1
	C	13		ug/L			138826	241630	4
	Cl	37		ug/L			4735446	5073290	4
[>	Sc	45		ug/L			1275890	1381405	2
[	V	51	19.405	ug/L	0.225	1	9212	520292	1
[	V-1	51	19.427	ug/L	0.221	1	60	511177	2
[	Cr	52	13.388	ug/L	0.344	2	27310	308066	0
[	Cr	53	13.476	ug/L	0.226	1	159	31896	0
[	Mn	55	860.411	ug/L	17.683	2	592	25464191	1
[	Co	59	5.875	ug/L	0.107	1	80	119073	2
[>	Ge	72		ug/L			659198	651043	0
[	Ni	60	11.310	ug/L	0.223	1	16	43900	1
[	Ni	62	12.546	ug/L	0.104	0	275	7087	1
[	Cu	63	16.724	ug/L	0.192	1	372	143200	0
[	Cu	65	16.702	ug/L	0.150	0	41	63940	1
[	Zn	66	254.301	ug/L	6.866	2	192	615569	2
[	Zn	67	240.981	ug/L	5.608	2	31	96746	2
[	Zn	68	255.778	ug/L	6.891	2	189	443417	2
[	As	75	8.803	ug/L	0.038	0	267	18795	0
[	As-1	75	8.636	ug/L	0.035	0	10608	28881	0
[	Se	82	0.356	ug/L	0.078	21	-2	79	22
[	Se	78	0.247	ug/L	0.233	94	10783	10803	0
[	Mo	98	0.403	ug/L	0.011	2	8	1969	3
	Y	89		ug/L			428598	477293	1
	Kr	83		ug/L			613	695	8
[>	In	115		ug/L			928277	942766	1
[	Ag	107	0.250	ug/L	0.004	1	14	2411	1
[	Cd	111	5.053	ug/L	0.077	1	65	21694	1
[	Cd	114	5.043	ug/L	0.047	0	31	54349	0
[	Sb	121	1.332	ug/L	0.016	1	40	16999	0
[	Sb	123	1.340	ug/L	0.004	0	30	12917	1
[	Ba	135	154.076	ug/L	1.146	0	13	586845	1
[	Ba	137	154.727	ug/L	1.338	0	15	1017250	1
[>	Tb	159		ug/L			1061408	1053556	0
[	Tl	205	0.224	ug/L	0.003	1	43	7673	1
[	Pb	208	246.840	ug/L	0.910	0	368	10543669	0
[	Bi	209		ug/L			2680757	2609496	1
[	Th	232	1.321	ug/L	0.012	0	49	56423	0
[	U	238	0.232	ug/L	0.004	1	2	10697	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:35:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1848114	1
[	Be	9	23.553	ug/L	0.733	3	12	110613	1
	C	13		ug/L			138826	247456	3
	Cl	37		ug/L			4735446	5210460	1
[>	Sc	45		ug/L			1275890	1365458	2
[	V	51	41.401	ug/L	1.619	3	9212	1085640	2
[	V-1	51	41.440	ug/L	1.505	3	60	1077273	1
[	Cr	52	36.122	ug/L	1.478	4	27310	771850	2
[	Cr	53	36.268	ug/L	1.232	3	159	84543	1
[	Mn	55	898.267	ug/L	30.934	3	592	26272673	1
[	Co	59	28.557	ug/L	0.550	1	80	571637	0
[>	Ge	72		ug/L			659198	665919	1
[	Ni	60	35.041	ug/L	0.970	2	16	139077	2
[	Ni	62	35.662	ug/L	0.168	0	275	20092	1
[	Cu	63	40.305	ug/L	1.083	2	372	352411	1
[	Cu	65	40.619	ug/L	1.488	3	41	158940	2
[	Zn	66	324.797	ug/L	7.943	2	192	804035	1
[	Zn	67	310.639	ug/L	1.544	0	31	127559	1
[	Zn	68	324.441	ug/L	8.870	2	189	575181	2
[	As	75	31.371	ug/L	0.361	1	267	67815	1
[	As-1	75	31.761	ug/L	0.562	1	10608	79936	0
[	Se	82	75.409	ug/L	0.393	0	-2	17853	0
[	Se	78	73.952	ug/L	1.922	2	10783	57993	1
[	Mo	98	21.648	ug/L	0.786	3	8	107665	2
	Y	89		ug/L			428598	485890	0
	Kr	83		ug/L			613	721	2
[>	In	115		ug/L			928277	948299	1
[	Ag	107	21.319	ug/L	0.197	0	14	205835	1
[	Cd	111	27.974	ug/L	0.163	0	65	120517	1
[	Cd	114	28.098	ug/L	0.451	1	31	304372	0
[	Sb	121	6.573	ug/L	0.107	1	40	84220	1
[	Sb	123	6.623	ug/L	0.118	1	30	64080	1
[	Ba	135	183.138	ug/L	3.473	1	13	701496	0
[	Ba	137	183.263	ug/L	3.174	1	15	1211726	0
[>	Tb	159		ug/L			1061408	1057697	0
[	Tl	205	21.416	ug/L	0.268	1	43	731973	0
[	Pb	208	271.169	ug/L	2.337	0	368	11628226	0
[	Bi	209		ug/L			2680757	2595430	0
[	Th	232	17.038	ug/L	0.061	0	49	729834	0
[	U	238	21.188	ug/L	0.142	0	2	978760	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 APOST SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:39:44
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1850114	1
[	Be	9	25.749	ug/L	0.723	2	12	121051	1
	C	13		ug/L			138826	237925	0
	Cl	37		ug/L			4735446	5171968	2
[>	Sc	45		ug/L			1275890	1358009	1
|	V	51	42.232	ug/L	0.318	0	9212	1101658	0
|	V-1	51	41.973	ug/L	0.352	0	60	1085652	1
|	Cr	52	37.526	ug/L	0.402	1	27310	796655	0
|	Cr	53	36.606	ug/L	0.538	1	159	84903	1
|	Mn	55	862.710	ug/L	12.629	1	592	25104381	1
[	Co	59	30.093	ug/L	0.243	0	80	599237	1
[>	Ge	72		ug/L			659198	652601	0
|	Ni	60	37.260	ug/L	0.930	2	16	144936	2
|	Ni	62	37.860	ug/L	1.007	2	275	20885	1
|	Cu	63	43.387	ug/L	0.565	1	372	371810	1
|	Cu	65	43.256	ug/L	1.091	2	41	165905	1
|	Zn	66	502.039	ug/L	3.584	0	192	1218024	0
|	Zn	67	479.795	ug/L	6.680	1	31	193046	0
|	Zn	68	499.213	ug/L	3.985	0	189	867396	1
|	As	75	34.426	ug/L	0.242	0	267	72907	0
|	As-1	75	34.913	ug/L	0.283	0	10608	85079	0
|	Se	82	85.768	ug/L	0.554	0	-2	19901	0
|	Se	78	84.202	ug/L	0.735	0	10783	63240	0
[	Mo	98	24.556	ug/L	0.174	0	8	119711	0
	Y	89		ug/L			428598	482666	2
	Kr	83		ug/L			613	717	3
[>	In	115		ug/L			928277	954275	1
|	Ag	107	25.830	ug/L	0.434	1	14	250953	1
|	Cd	111	29.995	ug/L	0.423	1	65	130026	0
|	Cd	114	29.770	ug/L	0.356	1	31	324553	0
|	Sb	121	24.376	ug/L	0.082	0	40	314226	0
|	Sb	123	24.401	ug/L	0.212	0	30	237530	0
|	Ba	135	172.782	ug/L	0.801	0	13	666120	0
[	Ba	137	174.172	ug/L	2.053	1	15	1159013	0
[>	Tb	159		ug/L			1061408	1053252	0
|	Tl	205	24.062	ug/L	0.197	0	43	818955	0
|	Pb	208	269.505	ug/L	1.397	0	368	11508333	0
|	Bi	209		ug/L			2680757	2599531	0
|	Th	232	24.760	ug/L	0.070	0	49	1056144	0
[	U	238	23.413	ug/L	0.358	1	2	1076968	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:43:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1866883	1
[	Be	9	0.362	ug/L	0.008	2	12	1728	1
	C	13		ug/L			138826	184084	3
	Cl	37		ug/L			4735446	4987806	3
[>	Sc	45		ug/L			1275890	1374787	0
[	V	51	28.788	ug/L	0.274	0	9212	763401	0
[	V-1	51	28.674	ug/L	0.179	0	60	750882	0
[	Cr	52	19.347	ug/L	0.409	2	27310	430045	1
[	Cr	53	18.955	ug/L	0.063	0	159	44591	0
[	Mn	55	468.509	ug/L	19.181	4	592	13800276	3
[	Co	59	7.801	ug/L	0.282	3	80	157305	2
[>	Ge	72		ug/L			659198	654478	2
[	Ni	60	15.555	ug/L	0.467	3	16	60668	0
[	Ni	62	16.934	ug/L	0.680	4	275	9516	2
[	Cu	63	14.328	ug/L	0.495	3	372	123327	1
[	Cu	65	14.581	ug/L	0.393	2	41	56095	0
[	Zn	66	169.423	ug/L	1.791	1	192	412302	1
[	Zn	67	170.193	ug/L	3.402	1	31	68679	1
[	Zn	68	171.945	ug/L	4.877	2	189	299601	0
[	As	75	7.380	ug/L	0.166	2	267	15878	0
[	As-1	75	7.148	ug/L	0.333	4	10608	25834	0
[	Se	82	0.133	ug/L	0.064	48	-2	27	54
[	Se	78	-0.094	ug/L	0.648	690	10783	10641	1
[	Mo	98	0.283	ug/L	0.004	1	8	1390	1
	Y	89		ug/L			428598	491754	1
	Kr	83		ug/L			613	819	10
[>	In	115		ug/L			928277	920013	0
[	Ag	107	0.158	ug/L	0.004	2	14	1491	2
[	Cd	111	2.294	ug/L	0.076	3	65	9647	2
[	Cd	114	2.269	ug/L	0.049	2	31	23877	1
[	Sb	121	0.144	ug/L	0.004	2	40	1822	2
[	Sb	123	0.139	ug/L	0.003	2	30	1333	1
[	Ba	135	134.841	ug/L	0.811	0	13	501192	0
[	Ba	137	134.453	ug/L	0.867	0	15	862626	0
[>	Tb	159		ug/L			1061408	1046979	1
[	Tl	205	0.137	ug/L	0.001	1	43	4670	2
[	Pb	208	52.530	ug/L	0.163	0	368	2230045	0
[	Bi	209		ug/L			2680757	2555237	0
[	Th	232	2.371	ug/L	0.015	0	49	100581	0
[	U	238	0.314	ug/L	0.002	0	2	14354	1

VS22 : 00274

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:47:59
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1891556	1
[	Be	9	0.634	ug/L	0.013	2	12	3061	1
	C	13		ug/L			138826	178885	2
	Cl	37		ug/L			4735446	4957742	1
[>	Sc	45		ug/L			1275890	1436617	1
[	V	51	31.660	ug/L	0.740	2	9212	876130	0
[	V-1	51	31.705	ug/L	0.743	2	60	867388	0
[	Cr	52	22.365	ug/L	0.240	1	27310	514692	0
[	Cr	53	22.537	ug/L	0.360	1	159	55364	1
[	Mn	55	225.772	ug/L	3.392	1	592	6950916	1
[	Co	59	9.263	ug/L	0.257	2	80	195152	1
[>	Ge	72		ug/L			659198	648565	0
[	Ni	60	18.846	ug/L	0.240	1	16	72863	0
[	Ni	62	20.578	ug/L	0.658	3	275	11404	2
[	Cu	63	18.987	ug/L	0.332	1	372	161906	1
[	Cu	65	19.275	ug/L	0.212	1	41	73505	1
[	Zn	66	61.446	ug/L	1.252	2	192	148325	2
[	Zn	67	71.629	ug/L	1.573	2	31	28666	1
[	Zn	68	65.575	ug/L	0.843	1	189	113383	0
[	As	75	4.550	ug/L	0.021	0	267	9805	0
[	As-1	75	4.381	ug/L	0.042	0	10608	19736	0
[	Se	82	0.281	ug/L	0.066	23	-2	62	25
[	Se	78	0.293	ug/L	0.122	41	10783	10790	0
[	Mo	98	0.284	ug/L	0.005	1	8	1381	2
	Y	89		ug/L			428598	605562	1
	Kr	83		ug/L			613	930	5
[>	In	115		ug/L			928277	903939	0
[	Ag	107	0.228	ug/L	0.012	5	14	2111	5
[	Cd	111	0.552	ug/L	0.027	4	65	2329	5
[	Cd	114	0.376	ug/L	0.010	2	31	3914	2
[	Sb	121	0.031	ug/L	0.001	4	40	412	5
[	Sb	123	0.031	ug/L	0.003	8	30	311	8
[	Ba	135	141.266	ug/L	0.796	0	13	515908	0
[	Ba	137	141.879	ug/L	2.116	1	15	894347	1
[>	Tb	159		ug/L			1061408	1054266	0
[	Tl	205	0.121	ug/L	0.002	1	43	4176	1
[	Pb	208	11.347	ug/L	0.085	0	368	485335	0
[	Bi	209		ug/L			2680757	2527266	0
[	Th	232	4.568	ug/L	0.058	1	49	195060	1
[	U	238	0.596	ug/L	0.007	1	2	27457	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS21 B SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:52:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1847350	0
[	**Be**	**9**	**0.095**	ug/L	0.004	4	12	460	4
	C	**13**		ug/L			138826	179673	2
	Cl	**37**		ug/L			4735446	5037210	1
[>	**Sc**	**45**		ug/L			1275890	1328200	1
[	**V**	**51**	**1.948**	ug/L	0.027	1	9212	58852	0
[	**V-1**	**51**	**1.954**	ug/L	0.027	1	60	49482	1
[	**Cr**	**52**	**1.502**	ug/L	0.050	3	27310	58479	0
[	**Cr**	**53**	**1.522**	ug/L	0.052	3	159	3611	3
[	**Mn**	**55**	**323.791**	ug/L	9.079	2	592	9213498	1
[	**Co**	**59**	**0.766**	ug/L	0.026	3	80	14993	1
[>	**Ge**	**72**		ug/L			659198	663638	1
[	**Ni**	**60**	**1.290**	ug/L	0.036	2	16	5117	2
[	**Ni**	**62**	**1.160**	ug/L	0.032	2	275	919	0
[	**Cu**	**63**	**8.821**	ug/L	0.170	1	372	77164	1
[	**Cu**	**65**	**8.822**	ug/L	0.062	0	41	34445	1
[	**Zn**	**66**	**202.769**	ug/L	7.053	3	192	500217	2
[	**Zn**	**67**	**195.451**	ug/L	1.673	0	31	79986	0
[	**Zn**	**68**	**207.566**	ug/L	3.469	1	189	366795	0
[	**As**	**75**	**4.768**	ug/L	0.091	1	267	10497	0
[	**As-1**	**75**	**4.611**	ug/L	0.120	2	10608	20693	0
[	**Se**	**82**	**0.303**	ug/L	0.050	16	-2	68	18
[	**Se**	**78**	**-0.054**	ug/L	0.091	169	10783	10821	1
[	**Mo**	**98**	**0.134**	ug/L	0.008	6	8	671	5
	Y	**89**		ug/L			428598	443102	0
	Kr	**83**		ug/L			613	613	3
[>	**In**	**115**		ug/L			928277	992907	0
[	**Ag**	**107**	**0.280**	ug/L	0.006	1	14	2850	2
[	**Cd**	**111**	**3.507**	ug/L	0.018	0	65	15882	0
[	**Cd**	**114**	**3.518**	ug/L	0.040	1	31	39933	0
[	**Sb**	**121**	**3.856**	ug/L	0.051	1	40	51758	1
[	**Sb**	**123**	**3.912**	ug/L	0.016	0	30	39656	0
[	**Ba**	**135**	**176.795**	ug/L	1.591	0	13	709190	0
[	**Ba**	**137**	**175.653**	ug/L	2.410	1	15	1216276	1
[>	**Tb**	**159**		ug/L			1061408	1054721	0
[	**Tl**	**205**	**0.163**	ug/L	0.003	1	43	5591	1
[	**Pb**	**208**	**358.113**	ug/L	0.710	0	368	15313395	0
[	**Bi**	**209**		ug/L			2680757	2699553	0
[	**Th**	**232**	**0.307**	ug/L	0.003	0	49	13170	1
[	**U**	**238**	**0.093**	ug/L	0.002	1	2	4264	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV7
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 15:56:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1786070	1
[	**Be**	**9**	**49.573**	ug/L	1.265	2	12	224987	0
	C	**13**		ug/L			138826	147051	2
	Cl	**37**		ug/L			4735446	5094783	0
[>	**Sc**	**45**		ug/L			1275890	1274049	1
[	**V**	**51**	**46.664**	ug/L	0.765	1	9212	1140996	0
[	**V-1**	**51**	**46.603**	ug/L	0.747	1	60	1130870	1
[	**Cr**	**52**	**49.156**	ug/L	0.839	1	27310	970540	0
[	**Cr**	**53**	**48.935**	ug/L	0.260	0	159	106432	1
[	**Mn**	**55**	**47.044**	ug/L	0.383	0	592	1285040	2
[	**Co**	**59**	**48.580**	ug/L	0.092	0	80	907537	1
[>	**Ge**	**72**		ug/L			659198	634637	1
[	**Ni**	**60**	**50.476**	ug/L	0.575	1	16	190932	0
[	**Ni**	**62**	**49.170**	ug/L	1.114	2	275	26297	1
[	**Cu**	**63**	**50.314**	ug/L	0.829	1	372	419200	0
[	**Cu**	**65**	**49.710**	ug/L	0.821	1	41	185423	2
[	**Zn**	**66**	**50.079**	ug/L	0.624	1	192	118332	2
[	**Zn**	**67**	**51.079**	ug/L	0.751	1	31	20011	0
[	**Zn**	**68**	**50.574**	ug/L	0.834	1	189	85614	1
[	**As**	**75**	**49.801**	ug/L	0.849	1	267	102439	0
[	**As-1**	**75**	**49.854**	ug/L	0.825	1	10608	113764	0
[	**Se**	**82**	**51.252**	ug/L	0.820	1	-2	11562	0
[	**Se**	**78**	**50.685**	ug/L	0.690	1	10783	41149	0
[	**Mo**	**98**	**48.882**	ug/L	0.692	1	8	231708	0
	Y	**89**		ug/L			428598	412966	1
	Kr	**83**		ug/L			613	630	6
[>	**In**	**115**		ug/L			928277	896264	1
[	**Ag**	**107**	**52.548**	ug/L	0.720	1	14	479463	0
[	**Cd**	**111**	**50.875**	ug/L	0.909	1	65	207079	0
[	**Cd**	**114**	**50.507**	ug/L	0.762	1	31	517118	1
[	**Sb**	**121**	**50.347**	ug/L	1.553	3	40	609345	1
[	**Sb**	**123**	**49.974**	ug/L	0.957	1	30	456808	0
[	**Ba**	**135**	**48.712**	ug/L	1.221	2	13	176351	0
[	**Ba**	**137**	**48.758**	ug/L	1.040	2	15	304702	0
[>	**Tb**	**159**		ug/L			1061408	1007414	1
[	**Tl**	**205**	**46.144**	ug/L	0.945	2	43	1501880	0
[	**Pb**	**208**	**48.429**	ug/L	0.703	1	368	1978121	0
[	**Bi**	**209**		ug/L			2680757	2540555	1
[	**Th**	**232**	**45.183**	ug/L	0.424	0	49	1843223	0
[	**U**	**238**	**48.325**	ug/L	5.505	11	2	2125851	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB7
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 16:03:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1735685	2
	Be	9	0.001	ug/L	0.001	60	12	16	17
	C	13		ug/L			138826	144992	2
	Cl	37		ug/L			4735446	4820241	3
>	Sc	45		ug/L			1275890	1214560	0
	V	51	-0.005	ug/L	0.002	37	9212	8663	1
	V-1	51	-0.000	ug/L	0.000	103	60	51	11
	Cr	52	-0.014	ug/L	0.003	18	27310	25742	0
	Cr	53	0.001	ug/L	0.005	360	159	154	6
	Mn	55	0.001	ug/L	0.002	124	592	594	6
	Co	59	0.000	ug/L	0.000	126	80	77	0
>	Ge	72		ug/L			659198	616233	2
	Ni	60	0.001	ug/L	0.000	3	16	19	2
	Ni	62	-0.333	ug/L	0.011	3	275	86	4
	Cu	63	-0.023	ug/L	0.000	1	372	161	1
	Cu	65	0.005	ug/L	0.002	37	41	57	10
	Zn	66	0.094	ug/L	0.016	17	192	394	8
	Zn	67	0.042	ug/L	0.009	20	31	45	5
	Zn	68	0.102	ug/L	0.018	17	189	343	6
	As	75	0.028	ug/L	0.020	73	267	304	13
	As-1	75	0.224	ug/L	0.131	58	10608	10364	0
	Se	82	0.046	ug/L	0.074	160	-2	7	216
	Se	78	0.737	ug/L	0.448	60	10783	10511	0
	Mo	98	0.009	ug/L	0.002	21	8	47	18
	Y	89		ug/L			428598	398296	3
	Kr	83		ug/L			613	590	6
>	In	115		ug/L			928277	857346	1
	Ag	107	0.002	ug/L	0.001	33	14	31	20
	Cd	111	0.003	ug/L	0.001	45	65	71	5
	Cd	114	0.001	ug/L	0.001	78	31	37	17
	Sb	121	0.065	ug/L	0.008	11	40	793	10
	Sb	123	0.065	ug/L	0.007	10	30	597	9
	Ba	135	0.001	ug/L	0.001	60	13	17	18
	Ba	137	0.003	ug/L	0.001	37	15	30	19
>	Tb	159		ug/L			1061408	973330	1
	Tl	205	0.011	ug/L	0.005	43	43	377	37
	Pb	208	0.005	ug/L	0.000	5	368	522	2
	Bi	209		ug/L			2680757	2523374	1
	Th	232	0.154	ug/L	0.017	11	49	6120	10
	U	238	0.002	ug/L	0.000	8	2	78	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 16:16:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1811074	2
	Be	9	0.428	ug/L	0.012	2	12	1982	1
	C	13		ug/L			138826	181018	3
	Cl	37		ug/L			4735446	5138616	0
>	Sc	45		ug/L			1275890	1445691	1
	V	51	37.756	ug/L	0.354	0	9212	1049600	0
	V-1	51	37.934	ug/L	0.462	1	60	1044502	0
	Cr	52	26.437	ug/L	0.550	2	27310	606648	2
	Cr	53	27.087	ug/L	0.526	1	159	66920	0
	Mn	55	349.680	ug/L	8.724	2	592	10831693	1
	Co	59	9.602	ug/L	0.332	3	80	203561	2
>	Ge	72		ug/L			659198	626313	0
	Ni	60	25.258	ug/L	0.281	1	16	94302	1
	Ni	62	28.128	ug/L	0.707	2	275	14959	1
	Cu	63	29.860	ug/L	0.478	1	372	245694	1
	Cu	65	30.389	ug/L	0.084	0	41	111884	0
	Zn	66	58.234	ug/L	1.264	2	192	135746	1
	Zn	67	69.556	ug/L	1.900	2	31	26882	2
	Zn	68	64.961	ug/L	1.326	2	189	108472	1
	As	75	6.504	ug/L	0.071	1	267	13425	0
	As-1	75	6.366	ug/L	0.095	1	10608	23129	0
	Se	82	0.253	ug/L	0.042	16	-2	53	17
	Se	78	0.530	ug/L	0.089	16	10783	10562	0
	Mo	98	0.284	ug/L	0.005	1	8	1334	1
	Y	89		ug/L			428598	684011	0
	Kr	83		ug/L			613	956	2
>	In	115		ug/L			928277	887678	1
	Ag	107	0.212	ug/L	0.006	2	14	1931	2
	Cd	111	0.434	ug/L	0.011	2	65	1812	2
	Cd	114	0.305	ug/L	0.006	2	31	3118	2
	Sb	121	0.032	ug/L	0.005	15	40	416	13
	Sb	123	0.032	ug/L	0.003	9	30	317	7
	Ba	135	203.148	ug/L	2.808	1	13	728478	1
	Ba	137	203.991	ug/L	2.840	1	15	1262676	1
>	Tb	159		ug/L			1061408	1049740	1
	Tl	205	0.145	ug/L	0.001	0	43	4960	0
	Pb	208	9.321	ug/L	0.215	2	368	396945	0
	Bi	209		ug/L			2680757	2450748	0
	Th	232	4.487	ug/L	0.112	2	49	190737	0
	U	238	0.540	ug/L	0.015	2	2	24767	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 16:20:22
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1841034	1
[	Be	9	0.448	ug/L	0.016	3	12	2109	2
	C	13		ug/L			138826	189209	1
	Cl	37		ug/L			4735446	4904045	0
[>	Sc	45		ug/L			1275890	1383025	0
|	V	51	23.783	ug/L	0.152	0	9212	636248	0
|	V-1	51	23.850	ug/L	0.231	0	60	628349	1
|	Cr	52	16.249	ug/L	0.198	1	27310	368110	0
|	Cr	53	16.499	ug/L	0.237	1	159	39070	1
|	Mn	55	1002.784	ug/L	9.088	0	592	29719110	0
[	Co	59	6.768	ug/L	0.035	0	80	137336	0
[>	Ge	72		ug/L			659198	637413	1
|	Ni	60	18.238	ug/L	0.251	1	16	69294	0
|	Ni	62	19.445	ug/L	0.428	2	275	10604	0
|	Cu	63	14.968	ug/L	0.160	1	372	125510	1
|	Cu	65	15.220	ug/L	0.374	2	41	57032	0
|	Zn	66	253.276	ug/L	2.700	1	192	600205	1
|	Zn	67	258.427	ug/L	6.642	2	31	101549	1
|	Zn	68	264.962	ug/L	6.314	2	189	449596	0
|	As	75	10.184	ug/L	0.320	3	267	21239	1
|	As-1	75	10.037	ug/L	0.444	4	10608	31187	1
|	Se	82	0.064	ug/L	0.046	72	-2	11	90
|	Se	78	0.206	ug/L	0.481	233	10783	10548	0
[	Mo	98	0.355	ug/L	0.025	7	8	1697	4
	Y	89		ug/L			428598	521755	1
	Kr	83		ug/L			613	765	4
[>	In	115		ug/L			928277	924576	0
|	Ag	107	0.196	ug/L	0.002	1	14	1859	1
|	Cd	111	4.031	ug/L	0.046	1	65	16989	1
|	Cd	114	3.945	ug/L	0.032	0	31	41695	1
|	Sb	121	0.191	ug/L	0.003	1	40	2425	0
|	Sb	123	0.188	ug/L	0.007	3	30	1801	3
|	Ba	135	433.609	ug/L	5.716	1	13	1619563	0
[	Ba	137	493.817	ug/L	0.659	0	15	3184018	0
[>	Tb	159		ug/L			1061408	1049225	0
|	Tl	205	0.209	ug/L	0.004	1	43	7111	1
|	Pb	208	186.111	ug/L	0.427	0	368	7917056	0
|	Bi	209		ug/L			2680757	2574175	0
|	Th	232	3.479	ug/L	0.035	1	49	147882	0
[	U	238	0.385	ug/L	0.010	2	2	17661	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 16:25:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1836038	0
[	Be	9	1.598	ug/L	0.023	1	12	7468	1
	C	13		ug/L			138826	209447	3
	Cl	37		ug/L			4735446	4927290	0
[>	Sc	45		ug/L			1275890	1364008	2
[	V	51	23.187	ug/L	0.351	1	9212	611879	0
[	V-1	51	23.334	ug/L	0.471	2	60	606129	0
[	Cr	52	14.793	ug/L	0.276	1	27310	333075	1
[	Cr	53	15.332	ug/L	0.597	3	159	35798	1
[	Mn	55	1108.750	ug/L	18.125	1	592	32401253	0
[	Co	59	6.347	ug/L	0.189	2	80	126983	1
[>	Ge	72		ug/L			659198	647413	1
[	Ni	60	16.090	ug/L	0.503	3	16	62090	2
[	Ni	62	17.521	ug/L	0.157	0	275	9734	0
[	Cu	63	41.899	ug/L	1.438	3	372	356143	2
[	Cu	65	41.714	ug/L	0.274	0	41	158739	1
[	Zn	66	245.278	ug/L	5.882	2	192	590351	1
[	Zn	67	246.534	ug/L	1.537	0	31	98420	0
[	Zn	68	251.644	ug/L	5.646	2	189	433755	0
[	As	75	13.123	ug/L	0.414	3	267	27726	1
[	As-1	75	12.822	ug/L	0.492	3	10608	37581	1
[	Se	82	0.189	ug/L	0.045	23	-2	40	26
[	Se	78	0.156	ug/L	0.347	222	10783	10685	0
[	Mo	98	0.373	ug/L	0.023	6	8	1811	5
	Y	89		ug/L			428598	731872	0
	Kr	83		ug/L			613	961	3
[>	In	115		ug/L			928277	922962	1
[	Ag	107	0.198	ug/L	0.006	3	14	1874	1
[	Cd	111	3.180	ug/L	0.056	1	65	13390	0
[	Cd	114	3.060	ug/L	0.058	1	31	32285	0
[	Sb	121	0.142	ug/L	0.004	3	40	1808	1
[	Sb	123	0.142	ug/L	0.006	4	30	1371	4
[	Ba	135	340.657	ug/L	5.079	1	13	1270056	0
[	Ba	137	390.162	ug/L	7.510	1	15	2510892	1
[>	Tb	159		ug/L			1061408	1066462	1
[	Tl	205	0.210	ug/L	0.007	3	43	7280	2
[	Pb	208	117.459	ug/L	1.625	1	368	5078332	0
[	Bi	209		ug/L			2680757	2539515	0
[	Th	232	5.267	ug/L	0.128	2	49	227481	1
[	U	238	2.273	ug/L	0.033	1	2	105875	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 16:29:41
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1829580	1
	Be	9	0.651	ug/L	0.012	1	12	3041	0
	C	13		ug/L			138826	192660	1
	Cl	37		ug/L			4735446	4956995	1
>	Sc	45		ug/L			1275890	1439365	0
	V	51	32.250	ug/L	0.546	1	9212	894196	1
	V-1	51	32.348	ug/L	0.290	0	60	886911	1
	Cr	52	21.507	ug/L	0.152	0	27310	497121	0
	Cr	53	21.874	ug/L	0.902	4	159	53844	4
	Mn	55	2416.977	ug/L	16.773	0	592	74549994	0
	Co	59	8.799	ug/L	0.079	0	80	185785	1
>	Ge	72		ug/L			659198	645894	0
	Ni	60	25.069	ug/L	0.488	1	16	96528	2
	Ni	62	25.926	ug/L	0.466	1	275	14240	1
	Cu	63	26.598	ug/L	0.389	1	372	225757	2
	Cu	65	27.051	ug/L	0.621	2	41	102704	2
	Zn	66	397.340	ug/L	7.942	1	192	954037	1
	Zn	67	405.344	ug/L	1.427	0	31	161427	0
	Zn	68	419.765	ug/L	4.940	1	189	721882	1
	As	75	16.054	ug/L	0.295	1	267	33786	0
	As-1	75	15.790	ug/L	0.354	2	10608	43772	0
	Se	82	-0.102	ug/L	0.083	81	-2	-26	73
	Se	78	0.167	ug/L	0.324	193	10783	10667	1
	Mo	98	0.592	ug/L	0.012	1	8	2863	1
	Y	89		ug/L			428598	569713	2
	Kr	83		ug/L			613	989	3
>	In	115		ug/L			928277	925941	0
	Ag	107	0.332	ug/L	0.011	3	14	3140	3
	Cd	111	5.042	ug/L	0.120	2	65	21264	2
	Cd	114	4.944	ug/L	0.019	0	31	52329	0
	Sb	121	0.147	ug/L	0.006	4	40	1881	4
	Sb	123	0.144	ug/L	0.001	0	30	1393	0
	Ba	135	703.937	ug/L	7.410	1	13	2633311	0
	Ba	137	699.767	ug/L	5.412	0	15	4518685	1
>	Tb	159		ug/L			1061408	1060595	0
	Tl	205	0.281	ug/L	0.001	0	43	9666	0
	Pb	208	215.845	ug/L	1.484	0	368	9281181	0
	Bi	209		ug/L			2680757	2536369	0
	Th	232	3.288	ug/L	0.046	1	49	141265	1
	U	238	0.436	ug/L	0.002	0	2	20206	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 16:33:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1851264	0
[	Be	9	0.452	ug/L	0.004	0	12	2138	0
	C	13		ug/L			138826	197542	0
	Cl	37		ug/L			4735446	4855991	2
[>	Sc	45		ug/L			1275890	1404682	1
[	V	51	25.501	ug/L	0.433	1	9212	691997	0
[	V-1	51	25.420	ug/L	0.394	1	60	680030	0
[	Cr	52	17.286	ug/L	0.448	2	27310	395713	0
[	Cr	53	17.007	ug/L	0.389	2	159	40888	1
[	Mn	55	1168.061	ug/L	10.355	0	592	35157444	1
[	Co	59	7.007	ug/L	0.103	1	80	144365	0
[>	Ge	72		ug/L			659198	649952	2
[	Ni	60	17.614	ug/L	0.350	1	16	68228	0
[	Ni	62	18.888	ug/L	0.720	3	275	10508	1
[	Cu	63	14.900	ug/L	0.275	1	372	127380	1
[	Cu	65	15.198	ug/L	0.449	2	41	58078	3
[	Zn	66	234.087	ug/L	7.371	3	192	565448	1
[	Zn	67	240.237	ug/L	11.585	4	31	96211	2
[	Zn	68	241.001	ug/L	10.761	4	189	416847	2
[	As	75	15.476	ug/L	0.406	2	267	32775	1
[	As-1	75	15.174	ug/L	0.461	3	10608	42726	0
[	Se	82	0.031	ug/L	0.083	269	-2	3	479
[	Se	78	-0.083	ug/L	0.398	480	10783	10576	1
[	Mo	98	0.391	ug/L	0.011	2	8	1904	2
	Y	89		ug/L			428598	528455	1
	Kr	83		ug/L			613	822	6
[>	In	115		ug/L			928277	935308	1
[	Ag	107	0.180	ug/L	0.002	1	14	1731	2
[	Cd	111	2.644	ug/L	0.030	1	65	11294	1
[	Cd	114	2.574	ug/L	0.054	2	31	27525	1
[	Sb	121	0.179	ug/L	0.001	0	40	2306	1
[	Sb	123	0.180	ug/L	0.005	3	30	1745	3
[	Ba	135	340.807	ug/L	6.052	1	13	1287579	0
[	Ba	137	386.294	ug/L	6.069	1	15	2519233	0
[>	Tb	159		ug/L			1061408	1056025	0
[	Tl	205	0.234	ug/L	0.000	0	43	8016	0
[	Pb	208	243.389	ug/L	3.403	1	368	10421171	1
[	Bi	209		ug/L			2680757	2591816	0
[	Th	232	2.812	ug/L	0.019	0	49	120290	0
[	U	238	0.361	ug/L	0.002	0	2	16675	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 16:37:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1738475	1810269	0
[	**Be**	**9**	**0.734**	ug/L	0.037	5	12	3387	4
	C	**13**		ug/L			138826	183919	1
	Cl	**37**		ug/L			4735446	4891597	1
[>	**Sc**	**45**		ug/L			1275890	1384470	0
[	**V**	**51**	**28.317**	ug/L	0.555	1	9212	756353	1
[	**V-1**	**51**	**28.446**	ug/L	0.466	1	60	750122	0
[	**Cr**	**52**	**22.437**	ug/L	0.545	2	27310	497503	1
[	**Cr**	**53**	**22.905**	ug/L	0.438	1	159	54225	1
[	**Mn**	**55**	**2892.026**	ug/L	43.262	1	592	85798404	1
[	**Co**	**59**	**10.200**	ug/L	0.325	3	80	207123	2
[>	**Ge**	**72**		ug/L			659198	638200	0
[	**Ni**	**60**	**35.302**	ug/L	0.884	2	16	134286	1
[	**Ni**	**62**	**37.340**	ug/L	0.862	2	275	20148	1
[	**Cu**	**63**	**19.645**	ug/L	0.384	1	372	164844	2
[	**Cu**	**65**	**20.406**	ug/L	0.073	0	41	76569	0
[	**Zn**	**66**	**162.349**	ug/L	1.920	1	192	385300	0
[	**Zn**	**67**	**180.971**	ug/L	1.623	0	31	71231	1
[	**Zn**	**68**	**179.700**	ug/L	2.533	1	189	305429	0
[	**As**	**75**	**13.699**	ug/L	0.122	0	267	28527	0
[	**As-1**	**75**	**13.469**	ug/L	0.165	1	10608	38406	0
[	**Se**	**82**	**-0.135**	ug/L	0.091	66	-2	-33	61
[	**Se**	**78**	**0.155**	ug/L	0.233	150	10783	10533	0
[	**Mo**	**98**	**0.628**	ug/L	0.024	3	8	3000	3
	Y	**89**		ug/L			428598	541440	1
	Kr	**83**		ug/L			613	979	2
[>	**In**	**115**		ug/L			928277	893234	0
[	**Ag**	**107**	**0.215**	ug/L	0.006	2	14	1971	2
[	**Cd**	**111**	**2.201**	ug/L	0.032	1	65	8990	1
[	**Cd**	**114**	**2.005**	ug/L	0.014	0	31	20492	1
[	**Sb**	**121**	**0.085**	ug/L	0.004	4	40	1064	4
[	**Sb**	**123**	**0.087**	ug/L	0.005	5	30	822	5
[	**Ba**	**135**	**420.276**	ug/L	3.499	0	13	1516622	0
[	**Ba**	**137**	**480.123**	ug/L	7.828	1	15	2990617	1
[>	**Tb**	**159**		ug/L			1061408	1032325	1
[	**Tl**	**205**	**0.197**	ug/L	0.002	1	43	6625	1
[	**Pb**	**208**	**66.033**	ug/L	0.720	1	368	2763754	0
[	**Bi**	**209**		ug/L			2680757	2494114	1
[	**Th**	**232**	**3.987**	ug/L	0.037	0	49	166717	0
[	**U**	**238**	**0.523**	ug/L	0.012	2	2	23570	1

VS22 : 00284

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 16:42:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1738475	1821128	2
[	Be	9	0.613	ug/L	0.029	4	12	2849	3
	C	13		ug/L			138826	196281	1
	Cl	37		ug/L			4735446	4993664	0
[>	Sc	45		ug/L			1275890	1395604	0
|	V	51	30.922	ug/L	0.147	0	9212	831729	1
|	V-1	51	30.912	ug/L	0.141	0	60	821785	1
|	Cr	52	22.200	ug/L	0.529	2	27310	496534	1
|	Cr	53	22.176	ug/L	0.355	1	159	52928	1
|	Mn	55	1580.733	ug/L	47.624	3	592	47270292	2
[	Co	59	8.297	ug/L	0.060	0	80	169852	0
[>	Ge	72		ug/L			659198	634231	0
|	Ni	60	23.378	ug/L	0.232	0	16	88391	0
|	Ni	62	24.817	ug/L	0.965	3	275	13396	3
|	Cu	63	21.205	ug/L	0.124	0	372	176785	0
|	Cu	65	21.705	ug/L	0.697	3	41	80934	3
|	Zn	66	303.592	ug/L	1.696	0	192	715897	0
|	Zn	67	301.715	ug/L	3.179	1	31	117997	1
|	Zn	68	317.470	ug/L	3.787	1	189	536121	0
|	As	75	17.148	ug/L	0.004	0	267	35423	0
|	As-1	75	16.905	ug/L	0.017	0	10608	45302	0
|	Se	82	-0.101	ug/L	0.047	46	-2	-25	41
|	Se	78	0.283	ug/L	0.051	18	10783	10546	0
[	Mo	98	0.638	ug/L	0.012	1	8	3031	1
	Y	89		ug/L			428598	548769	1
	Kr	83		ug/L			613	969	3
[>	In	115		ug/L			928277	909349	1
|	Ag	107	0.240	ug/L	0.016	6	14	2238	7
|	Cd	111	4.322	ug/L	0.026	0	65	17911	1
|	Cd	114	4.166	ug/L	0.026	0	31	43310	0
|	Sb	121	0.134	ug/L	0.001	0	40	1688	1
|	Sb	123	0.137	ug/L	0.007	5	30	1301	6
|	Ba	135	387.682	ug/L	2.396	0	13	1424225	0
[	Ba	137	442.888	ug/L	4.997	1	15	2808394	0
[>	Tb	159		ug/L			1061408	1034281	2
|	Tl	205	0.261	ug/L	0.005	2	43	8752	0
|	Pb	208	200.311	ug/L	4.032	2	368	8397275	0
|	Bi	209		ug/L			2680757	2515512	0
|	Th	232	3.330	ug/L	0.066	1	49	139466	0
[	U	238	0.467	ug/L	0.010	2	2	21102	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 16:46:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1847758	1
	Be	9	0.755	ug/L	0.032	4	12	3558	2
	C	13		ug/L			138826	215499	1
	Cl	37		ug/L			4735446	5149786	2
>	Sc	45		ug/L			1275890	1395520	1
	V	51	37.563	ug/L	1.163	3	9212	1008015	2
	V-1	51	37.492	ug/L	1.238	3	60	996479	2
	Cr	52	21.395	ug/L	0.349	1	27310	479600	1
	Cr	53	21.162	ug/L	0.686	3	159	50505	2
	Mn	55	965.377	ug/L	21.877	2	592	28866836	1
	Co	59	8.495	ug/L	0.061	0	80	173897	0
>	Ge	72		ug/L			659198	630016	3
	Ni	60	17.600	ug/L	0.580	3	16	66070	2
	Ni	62	19.837	ug/L	0.766	3	275	10683	1
	Cu	63	25.454	ug/L	0.749	2	372	210617	1
	Cu	65	26.228	ug/L	0.928	3	41	97074	1
	Zn	66	171.359	ug/L	3.008	1	192	401335	1
	Zn	67	179.427	ug/L	3.106	1	31	69692	1
	Zn	68	178.451	ug/L	2.575	1	189	299354	1
	As	75	7.711	ug/L	0.225	2	267	15955	0
	As-1	75	7.632	ug/L	0.346	4	10608	25861	0
	Se	82	0.215	ug/L	0.035	16	-2	45	14
	Se	78	0.631	ug/L	0.461	73	10783	10680	0
	Mo	98	0.348	ug/L	0.014	3	8	1643	1
	Y	89		ug/L			428598	606118	0
	Kr	83		ug/L			613	876	2
>	In	115		ug/L			928277	900690	0
	Ag	107	0.170	ug/L	0.005	2	14	1572	3
	Cd	111	2.471	ug/L	0.011	0	65	10170	0
	Cd	114	2.359	ug/L	0.015	0	31	24309	0
	Sb	121	0.095	ug/L	0.002	2	40	1194	1
	Sb	123	0.094	ug/L	0.001	0	30	895	1
	Ba	135	293.523	ug/L	2.818	0	13	1068075	0
	Ba	137	295.072	ug/L	4.504	1	15	1853370	1
>	Tb	159		ug/L			1061408	1048290	0
	Tl	205	0.231	ug/L	0.002	0	43	7881	1
	Pb	208	103.285	ug/L	0.264	0	368	4389986	0
	Bi	209		ug/L			2680757	2484859	1
	Th	232	4.326	ug/L	0.017	0	49	183685	0
	U	238	4.712	ug/L	0.014	0	2	215756	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 L SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Wednesday, November 28, 2012 16:50:18
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1822858	0
	Be	9	0.503	ug/L	0.006	1	12	2342	0
	C	13		ug/L			138826	242444	2
	Cl	37		ug/L			4735446	5431204	2
>	Sc	45		ug/L			1275890	1335366	0
	V	51	25.667	ug/L	0.747	2	9212	662162	2
	V-1	51	25.706	ug/L	0.678	2	60	653821	2
	Cr	52	20.033	ug/L	0.147	0	27310	431563	1
	Cr	53	20.179	ug/L	0.308	1	159	46099	1
	Mn	55	1230.983	ug/L	10.771	0	592	35224434	0
	Co	59	6.709	ug/L	0.181	2	80	131414	1
>	Ge	72		ug/L			659198	632804	1
	Ni	60	16.360	ug/L	0.407	2	16	61714	2
	Ni	62	18.377	ug/L	0.404	2	275	9966	1
	Cu	63	36.835	ug/L	1.147	3	372	306077	2
	Cu	65	36.466	ug/L	1.063	2	41	135617	2
	Zn	66	295.244	ug/L	9.745	3	192	694496	2
	Zn	67	288.403	ug/L	7.263	2	31	112514	1
	Zn	68	301.378	ug/L	7.007	2	189	507725	1
	As	75	5.590	ug/L	0.014	0	267	11694	1
	As-1	75	5.450	ug/L	0.106	1	10608	21469	0
	Se	82	1.564	ug/L	0.041	2	-2	349	2
	Se	78	1.550	ug/L	0.434	27	10783	11287	1
	Mo	98	0.471	ug/L	0.003	0	8	2235	0
	Y	89		ug/L			428598	598800	1
	Kr	83		ug/L			613	834	1
>	In	115		ug/L			928277	901279	1
	Ag	107	0.240	ug/L	0.004	1	14	2219	2
	Cd	111	4.189	ug/L	0.082	1	65	17206	0
	Cd	114	4.148	ug/L	0.089	2	31	42731	0
	Sb	121	0.270	ug/L	0.006	2	40	3322	2
	Sb	123	0.272	ug/L	0.006	2	30	2533	2
	Ba	135	307.876	ug/L	4.709	1	13	1120930	0
	Ba	137	309.996	ug/L	6.333	2	15	1948116	0
>	Tb	159		ug/L			1061408	1021125	1
	Tl	205	0.228	ug/L	0.005	2	43	7559	1
	Pb	208	190.520	ug/L	1.391	0	368	7887050	0
	Bi	209		ug/L			2680757	2476590	0
	Th	232	2.422	ug/L	0.035	1	49	100206	0
	U	238	2.376	ug/L	0.031	1	2	105945	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS45 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Wednesday, November 28, 2012 16:54:26
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1749980	1
	Be	9	0.024	ug/L	0.002	9	12	116	7
	C	13		ug/L			138826	156820	2
	Cl	37		ug/L			4735446	5108968	0
>	Sc	45		ug/L			1275890	1273163	3
	V	51	0.019	ug/L	0.011	55	9212	9653	0
	V-1	51	0.020	ug/L	0.002	9	60	534	5
	Cr	52	0.089	ug/L	0.044	49	27310	28946	0
	Cr	53	0.090	ug/L	0.011	11	159	354	3
	Mn	55	0.152	ug/L	0.036	23	592	4727	18
	Co	59	0.004	ug/L	0.001	14	80	159	6
>	Ge	72		ug/L			659198	642021	1
	Ni	60	0.023	ug/L	0.001	5	16	103	5
	Ni	62	-0.316	ug/L	0.026	8	275	98	13
	Cu	63	1.227	ug/L	0.018	1	372	10694	0
	Cu	65	1.268	ug/L	0.028	2	41	4821	0
	Zn	66	3.195	ug/L	0.043	1	192	7810	0
	Zn	67	2.892	ug/L	0.152	5	31	1175	5
	Zn	68	3.104	ug/L	0.138	4	189	5487	3
	As	75	0.026	ug/L	0.018	68	267	313	10
	As-1	75	0.080	ug/L	0.083	102	10608	10499	0
	Se	82	-0.014	ug/L	0.058	408	-2	-6	218
	Se	78	0.244	ug/L	0.261	106	10783	10650	0
	Mo	98	0.020	ug/L	0.001	3	8	104	4
	Y	89		ug/L			428598	414035	1
	Kr	83		ug/L			613	652	4
>	In	115		ug/L			928277	908675	1
	Ag	107	0.000	ug/L	0.000	108	14	16	14
	Cd	111	0.015	ug/L	0.002	11	65	127	6
	Cd	114	0.010	ug/L	0.001	5	31	130	5
	Sb	121	0.001	ug/L	0.001	49	40	56	13
	Sb	123	0.001	ug/L	0.001	55	30	42	15
	Ba	135	0.051	ug/L	0.021	40	13	201	37
	Ba	137	0.052	ug/L	0.019	36	15	344	34
>	Tb	159		ug/L			1061408	1000877	1
	Tl	205	0.001	ug/L	0.000	44	43	76	19
	Pb	208	0.027	ug/L	0.008	28	368	1431	21
	Bi	209		ug/L			2680757	2586130	0
	Th	232	0.020	ug/L	0.005	22	49	848	21
	U	238	0.001	ug/L	0.000	8	2	40	9

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV8
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 16:58:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1789279	1
	Be	9	49.428	ug/L	0.492	0	12	224805	1
	C	13		ug/L			138826	148193	1
	Cl	37		ug/L			4735446	5185851	0
>	Sc	45		ug/L			1275890	1269274	1
	V	51	46.033	ug/L	0.762	1	9212	1121444	0
	V-1	51	45.977	ug/L	0.699	1	60	1111440	0
	Cr	52	48.496	ug/L	1.240	2	27310	954199	1
	Cr	53	48.292	ug/L	1.022	2	159	104625	1
	Mn	55	46.920	ug/L	0.992	2	592	1276543	0
	Co	59	48.083	ug/L	0.319	0	80	894853	0
>	Ge	72		ug/L			659198	633279	0
	Ni	60	49.223	ug/L	0.417	0	16	185804	0
	Ni	62	49.313	ug/L	1.159	2	275	26318	2
	Cu	63	49.209	ug/L	1.187	2	372	409231	3
	Cu	65	49.778	ug/L	0.675	1	41	185283	1
	Zn	66	48.928	ug/L	0.986	2	192	115346	1
	Zn	67	50.255	ug/L	1.020	2	31	19651	2
	Zn	68	50.155	ug/L	0.950	1	189	84717	1
	As	75	49.182	ug/L	0.464	0	267	100961	0
	As-1	75	48.902	ug/L	0.386	0	10608	111556	0
	Se	82	51.630	ug/L	0.571	1	-2	11623	0
	Se	78	49.875	ug/L	0.531	1	10783	40573	0
	Mo	98	48.444	ug/L	0.657	1	8	229152	0
	Y	89		ug/L			428598	412993	1
	Kr	83		ug/L			613	623	0
>	In	115		ug/L			928277	898039	1
	Ag	107	50.398	ug/L	1.329	2	14	460748	1
	Cd	111	50.017	ug/L	0.521	1	65	204018	1
	Cd	114	50.188	ug/L	0.817	1	31	514865	0
	Sb	121	49.560	ug/L	1.146	2	40	601100	1
	Sb	123	49.681	ug/L	0.875	1	30	455058	0
	Ba	135	48.687	ug/L	0.414	0	13	176655	1
	Ba	137	48.374	ug/L	0.244	0	15	302962	1
>	Tb	159		ug/L			1061408	1020804	0
	Tl	205	45.445	ug/L	0.569	1	43	1498966	0
	Pb	208	47.263	ug/L	0.405	0	368	1956268	0
	Bi	209		ug/L			2680757	2544942	0
	Th	232	43.903	ug/L	0.738	1	49	1814795	0
	U	238	44.448	ug/L	0.384	0	2	1981583	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB8
Sample Dil Factor:
Comments:
Sample Date/Time: Wednesday, November 28, 2012 17:05:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8nomin.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\112812.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1738475	1747348	1
	Be	9	0.002	ug/L	0.003	192	12	18	67
	C	13		ug/L			138826	147507	1
	Cl	37		ug/L			4735446	4769861	3
>	Sc	45		ug/L			1275890	1242859	1
	V	51	-0.011	ug/L	0.007	68	9212	8722	0
	V-1	51	0.002	ug/L	0.002	99	60	95	38
	Cr	52	-0.045	ug/L	0.026	57	27310	25756	0
	Cr	53	-0.002	ug/L	0.003	183	159	151	5
	Mn	55	0.024	ug/L	0.032	132	592	1219	70
	Co	59	0.003	ug/L	0.001	54	80	128	22
>	Ge	72		ug/L			659198	606678	1
	Ni	60	0.005	ug/L	0.004	73	16	33	39
	Ni	62	-0.343	ug/L	0.008	2	275	79	4
	Cu	63	-0.018	ug/L	0.002	12	372	202	7
	Cu	65	0.012	ug/L	0.003	26	41	79	13
	Zn	66	0.088	ug/L	0.036	41	192	375	21
	Zn	67	0.067	ug/L	0.013	19	31	53	8
	Zn	68	0.107	ug/L	0.051	47	189	347	23
	As	75	0.021	ug/L	0.006	30	267	286	4
	As-1	75	0.251	ug/L	0.020	8	10608	10260	0
	Se	82	0.005	ug/L	0.033	721	-2	-1	433
	Se	78	0.843	ug/L	0.063	7	10783	10413	0
	Mo	98	0.011	ug/L	0.003	27	8	57	23
	Y	89		ug/L			428598	402746	2
	Kr	83		ug/L			613	603	3
>	In	115		ug/L			928277	868691	1
	Ag	107	0.003	ug/L	0.002	48	14	41	32
	Cd	111	0.005	ug/L	0.002	45	65	82	10
	Cd	114	0.001	ug/L	0.001	66	31	44	21
	Sb	121	0.061	ug/L	0.006	10	40	752	10
	Sb	123	0.063	ug/L	0.007	11	30	584	10
	Ba	135	0.009	ug/L	0.007	75	13	43	53
	Ba	137	0.010	ug/L	0.008	77	15	78	62
>	Tb	159		ug/L			1061408	971331	0
	Tl	205	0.011	ug/L	0.006	50	43	394	45
	Pb	208	0.010	ug/L	0.004	38	368	724	20
	Bi	209		ug/L			2680757	2546829	0
	Th	232	0.176	ug/L	0.019	10	49	6983	10
	U	238	0.003	ug/L	0.001	30	2	131	29

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-30-12 **Analyst:** MA **Page:** 1 of 7

All corrections made by analyst unless otherwise noted. MA 12-3-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2995-10
		1			~~2994-16~~ 2990-12
		2			2994-16
		3			2995-1
		4			2995-9
		5			2995-2
		Rinse Sample			
		ICV			2926-7
		ICB			
		CCV1			
		CCB1			Th Light
		Low Check			
		ICSA			Cd high
		ICSAB			^{53}Cr ^{62}Ni high
		LR200			^{121}Sb high ^{114}Cd noisy
		LR300			
		B1			
		B2			
Label		VT29 A	REN	2	Zn
		CCV2			
		CCB2			
		VT77 MB1	REN	2	
		MB2	↓	↓	
		MB2 dil	↓	↓	✓

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ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-30-12 **Analyst:** AT **Page:** 2 of 7

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VT77 MBISPK	REN	2	
		ADup			
		A			
		ASPK			
		DDup			
		D			
Label		DSPK			
		CCV 3			
		CCB3			
		VR67R MB	REN	2	
		MBSPK			
		ADup			
		A			
		ASPK			
		B			
		VT77 B			
		C			
		E			
		F			
		CCV 4			
		CCB4			
		VU12 MB1	REN	2	Cu 1.2 (CAF)
		MB2			
		MB2SPK			

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Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Nexion ICP-MS Serial No. 81DN1050201

Analysis Date: 11-30-12 **Analyst:** AM **Page:** 5 of 7

All corrections made by analyst unless otherwise noted. M 12/2/12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VW12 MBSpk	RBN	2	^{66}Zn 13%
		A			
		B			
		C			
		D			
		E			
		F			
		CCV5			
		CCB5			^{62}Ni ↑
		VS22 A-L	SUN	500	Zn
		A		100	
		ADup			
		~~ASpk~~			
zzz		~~APost~~			
		G			
		J			Pb Zn
		VR35 F			Pb Zn
		G			
		I			
		CCV6			
		CCB6			
		~~VS22 MBI~~	SUN	20	
		MBISpk			
		C-L		100	

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA CVA

Analysis Date: 11-30-12

Naxion M2	Analyst #123-12 11-30	Peer BA 12/3/12	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	See log
ICB/CCB	✓	✓	See log
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	VS82
Matrix Duplicates	✓	✓	VS82
Method Blanks	✓	✓	VU12 VT02
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	VT02 VU12 VS82 CAF

Daily Performance Report

Sample ID: Daily Performance Check
Sample Date/Time: Friday, November 30, 2012 09:15:22
Sample Description:
Method File: C:\NexION Data\Method\Daily Performancenew.mth
Dataset File: C:\NexION Data\Dataset\Default\Daily Performance Check.1341
MassCal File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Dual Detector Mode: Pulse
Acq. Dead Time (ns): 60
Current Dead Time (ns): 60
Torch Z position (mm): 0.00

Summary

	Analyte	Mass	Meas. Intens. Mean	Net Intens. Mean	Net Intens. SD	Net Intens. RSD	Mode
	Be	9.0	6435.2	6435.217	66.904	1.0	Standard
	Mg	24.0	40664.3	40664.254	534.308	1.3	Standard
	In	114.9	74237.7	74237.685	471.199	0.6	Standard
	Pb	208.0	31000.1	31000.089	227.650	0.7	Standard
	U	238.1	54708.3	54708.262	276.105	0.5	Standard
⌈	CeO	155.9	1531.5	0.022	0.001	5.1	Standard
| >	Ce	139.9	69791.8	69791.777	442.600	0.6	Standard
⌊	Ce++	70.0	1218.9	0.017	0.000	1.2	Standard
	Bkgd	220.0	0.0	0.033	0.075	223.6	Standard

Current Conditions File Data

Current Value	Description
1.07	Nebulizer Gas Flow STD/KED [NEB]
1.20	Auxiliary Gas Flow
18.00	Plasma Gas Flow
-12.00	Deflector Voltage
1600.00	ICP RF Power
-1675.00	Analog Stage Voltage
1300.00	Pulse Stage Voltage
0.00	Quadrupole Rod Offset STD [QRO]
-15.00	Cell Rod Offset STD [CRO]
7.00	Discriminator Threshold
-4.00	Cell Entrance/Exit Voltage STD
0.00	RPa
0.25	RPq
1.06	DRC Mode NEB
-8.00	DRC Mode QRO
-2.50	DRC Mode CRO
-4.00	DRC Mode Cell Entrance/Exit Voltage
0.60	Cell Gas A
0.00	Cell Gas B
250.00	Axial Field Voltage
-15.00	KED Mode CRO
-12.00	KED Mode QRO
-2.00	KED Mode Cell Entrance Voltage
-24.00	KED Mode Cell Exit Voltage
0.00	KED Cell Gas A
4.00	KED Cell Gas B

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 11/30/2012 9:22:11 AM
End Time: 11/30/2012 9:24:23 AM

Mass Calibration and Resolution - [Passed] Optimum value(s): N/A
Target/Obtained mass (7.016/6.975), Target/Obtained resolution (0.7/0.695)
Target/Obtained mass (23.985/23.975), Target/Obtained resolution (0.7/0.709)
Target/Obtained mass (114.904/114.925), Target/Obtained resolution (0.7/0.711)
Target/Obtained mass (238.05/238.025), Target/Obtained resolution (0.7/0.698)

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 11/30/2012 9:26:43 AM
End Time: 11/30/2012 9:30:55 AM

AutoLens STD/DRC - [Passed] Optimum value(s): Correlation Coefficient = 0.993; Intercept = -11.86

SmartTune Wizard - Summary

Optimization Summary

SmartTune file: C:\NexIONData\Wizard\SmartTune\ariSTDaily+torch.swz

Start Time: 11/30/2012 9:31:02 AM
End Time: 11/30/2012 9:33:37 AM

Daily Performance Check - [Passed] Optimum value(s): N/A
Obtained Intensity (Be 9.0122): 6530.02
Obtained Intensity (Mg 23.985): 40529.79
Obtained Intensity (In 114.904): 71781.37
Obtained Intensity (Pb 207.977): 30928.69
Obtained Intensity (U 238.05): 53739.06
Obtained Intensity (Bkgd 220): 0.03
Obtained Formula (CeO 155.9 / Ce 139.905): 0.021 (=1489.93 / 72650.99)
Obtained Formula (Ce++ 69.9527 / Ce 139.905): 0.017 (=1243.16 / 72650.99)

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 10:10:17
Number of Replicates: 3
Method File: C:\NexIONData\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexIONData\MassCal\Default.tun
Optimization File: C:\NexIONData\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L				1972784	1
	Be	9		ug/L				11	17
	C	13		ug/L				133450	0
	Cl	37		ug/L				4493597	1
>	Sc	45		ug/L				1326563	1
	Al	27		ug/L				3293	7
	V	51		ug/L				8426	0
	V-1	51		ug/L				62	17
	Cr	52		ug/L				24946	0
	Cr	53		ug/L				144	4
	Fe	54		ug/L				76518	1
	Fe	57		ug/L				10109	2
	Mn	55		ug/L				648	6
	Co	59		ug/L				86	6
>	Ge	72		ug/L				633989	1
	Ni	60		ug/L				122	0
	Ni	62		ug/L				91	7
	Cu	63		ug/L				166	6
	Cu	65		ug/L				58	18
	Zn	66		ug/L				329	2
	Zn	67		ug/L				43	14
	Zn	68		ug/L				290	5
	As	75		ug/L				308	2
	As-1	75		ug/L				10077	1
	Se	82		ug/L				8	126
	Se	78		ug/L				10190	1
	Mo	98		ug/L				8	17
	Y	89		ug/L				462466	1
	Kr	83		ug/L				550	4
>	In	115		ug/L				919574	0
	Ag	107		ug/L				18	29
	Cd	111		ug/L				62	6
	Cd	114		ug/L				31	8
	Sb	121		ug/L				46	16
	Sb	123		ug/L				36	16
	Ba	135		ug/L				28	17
	Ba	137		ug/L				43	4
>	Tb	159		ug/L				1095800	0
	Tl	205		ug/L				30	10
	Pb	208		ug/L				691	6
	Bi	209		ug/L				2712548	0
	Th	232		ug/L				69	28
	U	238		ug/L				3	69

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 10:14:32
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1987626	2
	Be	9	0.200	ug/L	0.009	4	11	973	4
	C	13		ug/L			133450	139948	1
	Cl	37		ug/L			4493597	4444940	2
>	Sc	45		ug/L			1326563	1363991	0
	Al	27	20.000	ug/L	0.220	1	3293	774533	1
	V	51	0.200	ug/L	0.004	1	8426	13488	1
	V-1	51	0.200	ug/L	0.004	2	62	4821	2
	Cr	52	0.500	ug/L	0.026	5	24946	35568	1
	Cr	53	0.500	ug/L	0.017	3	144	1247	2
	Fe	54	20.000	ug/L	3.370	16	76518	101935	4
	Fe	57	20.000	ug/L	1.358	6	10109	19763	2
	Mn	55	0.500	ug/L	0.007	1	648	13540	1
	Co	59	0.200	ug/L	0.002	1	86	3774	0
>	Ge	72		ug/L			633989	632787	1
	Ni	60	0.500	ug/L	0.005	0	122	1966	2
	Ni	62	0.500	ug/L	0.030	6	91	389	3
	Cu	63	0.500	ug/L	0.012	2	166	4481	0
	Cu	65	0.500	ug/L	0.006	1	58	1962	1
	Zn	66	4.000	ug/L	0.018	0	329	10356	2
	Zn	67	4.000	ug/L	0.092	2	43	1570	0
	Zn	68	4.000	ug/L	0.183	4	290	7527	2
	As	75	0.200	ug/L	0.015	7	308	776	4
	As-1	75	0.200	ug/L	0.068	34	10077	10523	1
	Se	82	0.500	ug/L	0.043	8	8	131	6
	Se	78	0.500	ug/L	0.222	44	10190	10485	0
	Mo	98	0.200	ug/L	0.005	2	8	1000	1
	Y	89		ug/L			462466	454115	0
	Kr	83		ug/L			550	552	4
>	In	115		ug/L			919574	930391	0
	Ag	107	0.200	ug/L	0.004	2	18	1774	2
	Cd	111	0.100	ug/L	0.008	7	62	523	6
	Cd	114	0.100	ug/L	0.003	2	31	1130	2
	Sb	121	0.200	ug/L	0.006	3	46	2450	2
	Sb	123	0.200	ug/L	0.004	1	36	1787	1
	Ba	135	0.500	ug/L	0.018	3	28	1874	3
	Ba	137	0.500	ug/L	0.004	0	43	3318	0
>	Tb	159		ug/L			1095800	1098246	0
	Tl	205	0.200	ug/L	0.002	0	30	6382	0
	Pb	208	0.100	ug/L	0.001	0	691	4755	0
	Bi	209		ug/L			2712548	2727631	0
	Th	232	0.200	ug/L	0.027	13	69	4742	13
	U	238	0.200	ug/L	0.001	0	3	8081	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 10:18:49
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1993174	1
	Be	9	10.000	ug/L	0.006	0	11	48581	1
	C	13		ug/L			133450	138642	1
	Cl	37		ug/L			4493597	4673451	1
>	Sc	45		ug/L			1326563	1349167	1
	Al	27	1000.015	ug/L	27.018	2	3293	39651216	2
	V	51	10.000	ug/L	0.112	1	8426	234843	0
	V-1	51	10.000	ug/L	0.107	1	62	225749	0
	Cr	52	10.000	ug/L	0.255	2	24946	217917	0
	Cr	53	10.000	ug/L	0.239	2	144	21716	0
	Fe	54	1000.064	ug/L	16.723	1	76518	1446145	1
	Fe	57	1000.013	ug/L	21.910	2	10109	488689	0
	Mn	55	10.001	ug/L	0.492	4	648	265862	3
	Co	59	10.000	ug/L	0.318	3	86	185773	1
>	Ge	72		ug/L			633989	636654	2
	Ni	60	10.001	ug/L	0.381	3	122	38765	1
	Ni	62	9.997	ug/L	0.206	2	91	5485	0
	Cu	63	10.000	ug/L	0.210	2	166	88114	0
	Cu	65	10.000	ug/L	0.215	2	58	38898	0
	Zn	66	9.928	ug/L	0.186	1	329	24287	0
	Zn	67	10.002	ug/L	0.116	1	43	3892	2
	Zn	68	9.909	ug/L	0.204	2	290	17368	0
	As	75	10.000	ug/L	0.279	2	308	22153	0
	As-1	75	10.000	ug/L	0.339	3	10077	31668	0
	Se	82	10.001	ug/L	0.306	3	8	2559	1
	Se	78	9.999	ug/L	0.505	5	10190	16427	0
	Mo	98	10.000	ug/L	0.313	3	8	48838	1
	Y	89		ug/L			462466	466037	1
	Kr	83		ug/L			550	562	4
>	In	115		ug/L			919574	947021	0
	Ag	107	10.000	ug/L	0.083	0	18	87893	1
	Cd	111	10.000	ug/L	0.273	2	62	41918	3
	Cd	114	10.000	ug/L	0.054	0	31	107387	1
	Sb	121	10.000	ug/L	0.099	0	46	122875	1
	Sb	123	10.000	ug/L	0.072	0	36	93841	1
	Ba	135	10.001	ug/L	0.013	0	28	38497	0
	Ba	137	10.000	ug/L	0.112	1	43	67095	1
>	Tb	159		ug/L			1095800	1121386	0
	Tl	205	10.000	ug/L	0.080	0	30	319280	0
	Pb	208	10.000	ug/L	0.126	1	691	422926	0
	Bi	209		ug/L			2712548	2704337	0
	Th	232	10.001	ug/L	0.159	1	69	362398	0
	U	238	10.000	ug/L	0.106	1	3	407419	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 10:23:17
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1991682	0
	Be	9	20.030	ug/L	0.287	1	11	97804	1
	C	13		ug/L			133450	140863	0
	Cl	37		ug/L			4493597	4744405	2
>	Sc	45		ug/L			1326563	1347720	2
	Al	27	2008.592	ug/L	70.918	3	3293	80915832	1
	V	51	19.998	ug/L	0.535	2	8426	460348	0
	V-1	51	20.041	ug/L	0.530	2	62	455514	1
	Cr	52	19.950	ug/L	1.004	5	24946	405189	2
	Cr	53	20.092	ug/L	1.199	5	144	44240	4
	Fe	54	2009.491	ug/L	68.083	3	76518	2876562	1
	Fe	57	2009.691	ug/L	78.884	3	10109	989541	2
	Mn	55	20.035	ug/L	0.776	3	648	535121	1
	Co	59	19.883	ug/L	0.509	2	86	360447	0
>	Ge	72		ug/L			633989	635161	2
	Ni	60	20.002	ug/L	0.708	3	122	77265	1
	Ni	62	20.070	ug/L	0.718	3	91	11047	2
	Cu	63	19.965	ug/L	0.293	1	166	174117	0
	Cu	65	19.973	ug/L	0.688	3	58	77029	1
	Zn	66	20.035	ug/L	0.986	4	329	48837	2
	Zn	67	20.197	ug/L	0.611	3	43	8065	1
	Zn	68	20.009	ug/L	0.609	3	290	34743	1
	As	75	20.017	ug/L	0.420	2	308	44089	0
	As-1	75	20.050	ug/L	0.567	2	10077	53638	0
	Se	82	19.978	ug/L	0.535	2	8	5070	1
	Se	78	20.089	ug/L	0.928	4	10190	22848	0
	Mo	98	20.047	ug/L	0.658	3	8	98586	1
	Y	89		ug/L			462466	464946	0
	Kr	83		ug/L			550	574	4
>	In	115		ug/L			919574	933834	0
	Ag	107	19.957	ug/L	0.576	2	18	171454	3
	Cd	111	20.053	ug/L	0.143	0	62	83700	0
	Cd	114	19.971	ug/L	0.298	1	31	210222	1
	Sb	121	20.060	ug/L	0.202	1	46	245967	1
	Sb	123	20.059	ug/L	0.322	1	36	187793	1
	Ba	135	20.103	ug/L	0.279	1	28	77868	0
	Ba	137	20.025	ug/L	0.194	0	43	133114	1
>	Tb	159		ug/L			1095800	1130804	0
	Tl	205	19.968	ug/L	0.296	1	30	638850	0
	Pb	208	19.954	ug/L	0.142	0	691	842495	0
	Bi	209		ug/L			2712548	2690097	1
	Th	232	20.129	ug/L	0.223	1	69	754956	0
	U	238	19.981	ug/L	0.217	1	3	817745	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 10:27:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1923052	1
	Be	9	49.962	ug/L	1.612	3	11	234557	1
	C	13		ug/L			133450	136883	2
	Cl	37		ug/L			4493597	4934798	1
>	Sc	45		ug/L			1326563	1339176	2
	Al	27	4986.711	ug/L	153.691	3	3293	197035427	2
	V	51	49.800	ug/L	0.565	1	8426	1104706	1
	V-1	51	49.802	ug/L	0.745	1	62	1102919	0
	Cr	52	49.780	ug/L	0.917	1	24946	947142	1
	Cr	53	49.786	ug/L	1.647	3	144	106455	1
	Fe	54	4979.525	ug/L	116.091	2	76518	6831332	0
	Fe	57	5039.465	ug/L	152.389	3	10109	2550362	0
	Mn	55	49.752	ug/L	1.048	2	648	1287899	0
	Co	59	49.720	ug/L	0.827	1	86	871227	0
>	Ge	72		ug/L			633989	618155	0
	Ni	60	49.820	ug/L	0.649	1	122	183876	0
	Ni	62	50.035	ug/L	1.337	2	91	26774	2
	Cu	63	49.833	ug/L	0.648	1	166	415858	0
	Cu	65	49.791	ug/L	0.575	1	58	183060	1
	Zn	66	49.524	ug/L	0.686	1	329	111936	0
	Zn	67	49.862	ug/L	1.286	2	43	19069	1
	Zn	68	49.747	ug/L	0.440	0	290	81686	1
	As	75	49.958	ug/L	0.101	0	308	106228	0
	As-1	75	49.973	ug/L	0.152	0	10077	115207	0
	Se	82	49.883	ug/L	0.382	0	8	12171	0
	Se	78	49.928	ug/L	0.881	1	10190	40308	1
	Mo	98	50.035	ug/L	0.508	1	8	240410	0
	Y	89		ug/L			462466	458365	1
	Kr	83		ug/L			550	564	2
>	In	115		ug/L			919574	915430	2
	Ag	107	49.971	ug/L	0.345	0	18	419579	1
	Cd	111	49.927	ug/L	1.292	2	62	202648	1
	Cd	114	49.930	ug/L	1.130	2	31	511456	0
	Sb	121	50.080	ug/L	0.768	1	46	606625	0
	Sb	123	49.921	ug/L	1.052	2	36	454369	0
	Ba	135	49.902	ug/L	0.850	1	28	187575	0
	Ba	137	50.067	ug/L	0.809	1	43	328328	0
>	Tb	159		ug/L			1095800	1108470	0
	Tl	205	49.828	ug/L	0.371	0	30	1536334	0
	Pb	208	49.840	ug/L	0.169	0	691	2029331	0
	Bi	209		ug/L			2712548	2614141	0
	Th	232	50.198	ug/L	0.427	0	69	1882813	0
	U	238	50.675	ug/L	3.716	7	3	2180342	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 10:34:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1918454	2
	Be	9	99.648	ug/L	1.801	1	11	461372	1
	C	13		ug/L			133450	139791	0
	Cl	37		ug/L			4493597	5121301	2
>	Sc	45		ug/L			1326563	1321308	1
	Al	27	9996.650	ug/L	231.398	2	3293	389271048	0
	V	51	101.948	ug/L	1.623	1	8426	2376122	0
	V-1	51	101.694	ug/L	1.285	1	62	2355175	0
	Cr	52	100.517	ug/L	1.684	1	24946	1893839	0
	Cr	53	99.600	ug/L	1.610	1	144	207304	2
	Fe	54	10020.318	ug/L	320.619	3	76518	13577233	1
	Fe	57	10048.902	ug/L	282.811	2	10109	5090898	1
	Mn	55	101.468	ug/L	2.220	2	648	2724492	2
	Co	59	100.245	ug/L	2.828	2	86	1747188	1
>	Ge	72		ug/L			633989	625190	0
	Ni	60	99.411	ug/L	1.032	1	122	363825	0
	Ni	62	99.828	ug/L	2.099	2	91	53626	1
	Cu	63	99.081	ug/L	1.198	1	166	811264	1
	Cu	65	99.192	ug/L	1.765	1	58	359108	1
	Zn	66	99.341	ug/L	1.709	1	329	221933	1
	Zn	67	99.493	ug/L	0.908	0	43	37810	1
	Zn	68	99.139	ug/L	2.079	2	290	159800	2
	As	75	99.562	ug/L	0.579	0	308	210730	0
	As-1	75	99.607	ug/L	0.597	0	10077	219628	0
	Se	82	99.135	ug/L	0.527	0	8	23772	0
	Se	78	99.286	ug/L	1.157	1	10190	69711	0
	Mo	98	99.841	ug/L	0.522	0	8	482632	0
	Y	89		ug/L			462466	455883	0
	Kr	83		ug/L			550	593	9
>	In	115		ug/L			919574	897401	0
	Ag	107	99.716	ug/L	0.665	0	18	813133	0
	Cd	111	99.615	ug/L	1.205	1	62	391411	1
	Cd	114	99.856	ug/L	0.840	0	31	998207	0
	Sb	121	100.239	ug/L	0.919	0	46	1200015	0
	Sb	123	100.106	ug/L	1.286	1	36	896580	1
	Ba	135	100.451	ug/L	1.527	1	28	375834	1
	Ba	137	100.363	ug/L	1.085	1	43	653184	1
>	Tb	159		ug/L			1095800	1100243	0
	Tl	205	102.488	ug/L	0.578	0	30	3420074	0
	Pb	208	101.174	ug/L	0.281	0	691	4254667	0
	Bi	209		ug/L			2712548	2495953	0
	Th	232	102.951	ug/L	1.314	1	69	4250556	0
	U	238	100.808	ug/L	0.904	0	3	4424072	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse sample
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 10:41:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File:

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1940385	2
	Be	9	0.003	ug/L	0.002	81	11	25	41
	C	13		ug/L			133450	132214	1
	Cl	37		ug/L			4493597	4903858	2
>	Sc	45		ug/L			1326563	1328518	2
	Al	27	0.135	ug/L	0.183	135	3293	8542	82
	V	51	0.006	ug/L	0.010	171	8426	8576	1
	V-1	51	0.002	ug/L	0.001	59	62	112	25
	Cr	52	0.017	ug/L	0.037	210	24946	25301	1
	Cr	53	0.004	ug/L	0.006	149	144	152	6
	Fe	54	-1.195	ug/L	2.554	213	76518	74970	3
	Fe	57	-1.630	ug/L	0.144	8	10109	9296	3
	Mn	55	-0.000	ug/L	0.002	2689	648	647	6
	Co	59	0.002	ug/L	0.002	102	86	113	23
>	Ge	72		ug/L			633989	626980	1
	Ni	60	-0.002	ug/L	0.004	175	122	113	11
	Ni	62	0.275	ug/L	0.224	81	91	237	49
	Cu	63	0.022	ug/L	0.019	83	166	348	43
	Cu	65	0.007	ug/L	0.002	26	58	83	7
	Zn	66	0.009	ug/L	0.002	20	329	346	1
	Zn	67	0.043	ug/L	0.014	34	43	58	8
	Zn	68	0.019	ug/L	0.009	47	290	317	3
	As	75	-0.004	ug/L	0.009	257	308	297	5
	As-1	75	0.031	ug/L	0.087	283	10077	10029	0
	Se	82	-0.045	ug/L	0.015	33	8	-2	135
	Se	78	0.114	ug/L	0.300	263	10190	10145	0
	Mo	98	0.016	ug/L	0.002	13	8	84	13
	Y	89		ug/L			462466	453771	1
	Kr	83		ug/L			550	574	4
>	In	115		ug/L			919574	915192	2
	Ag	107	0.002	ug/L	0.001	47	18	38	26
	Cd	111	0.009	ug/L	0.007	77	62	100	31
	Cd	114	0.005	ug/L	0.007	146	31	79	90
	Sb	121	0.126	ug/L	0.007	5	46	1587	3
	Sb	123	0.127	ug/L	0.008	6	36	1192	4
	Ba	135	0.010	ug/L	0.007	70	28	65	42
	Ba	137	0.008	ug/L	0.004	45	43	96	27
>	Tb	159		ug/L			1095800	1090084	1
	Tl	205	0.024	ug/L	0.008	34	30	822	33
	Pb	208	0.005	ug/L	0.004	77	691	890	17
	Bi	209		ug/L			2712548	2670547	1
	Th	232	0.256	ug/L	0.015	5	69	10536	5
	U	238	0.005	ug/L	0.002	40	3	224	40

Sample Information

Sample Date/Time: Friday, November 30, 2012 10:34:14
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Mass Calibration File: C:\NexION Data\MassCal\Default.tun
Conditions File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

Calibration

Analyte	Mass	r Corr Coef	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	**1.0000**	0.002	0.20	10	20	50	100
C	13							
Cl	37							
Sc	45							
Al	27	**1.0000**	0.029	20.00	1000	2000	5000	10000
V	51	**0.9994**	0.018	0.20	10	20	50	100
V-1	51	**0.9995**	0.018	0.20	10	20	50	100
Cr	52	**0.9999**	0.014	0.50	10	20	50	100
Cr	53	**1.0000**	0.002	0.50	10	20	50	100
Fe	54	**1.0000**	0.001	20.00	1000	2000	5000	10000
Fe	57	**0.9999**	0.000	20.00	1000	2000	5000	10000
Mn	55	**0.9996**	0.020	0.50	10	20	50	100
Co	59	**1.0000**	0.013	0.20	10	20	50	100
Ge	72							
Ni	60	**0.9999**	0.006	0.50	10	20	50	100
Ni	62	**1.0000**	0.001	0.50	10	20	50	100
Cu	63	**0.9999**	0.013	0.50	10	20	50	100
Cu	65	**0.9999**	0.006	0.50	10	20	50	100
Zn	66	**0.9999**	0.004	4.00	10	20	50	100
Zn	67	**0.9999**	0.001	4.00	10	20	50	100
Zn	68	**0.9999**	0.003	4.00	10	20	50	100
As	75	**1.0000**	0.003	0.20	10	20	50	100
As-1	75	**1.0000**	0.003	0.20	10	20	50	100
Se	82	**0.9997**	0.000	0.50	10	20	50	100
Se	78	**0.9999**	0.001	0.50	10	20	50	100
Mo	98	**1.0000**	0.008	0.20	10	20	50	100
Y	89							
Kr	83							
In	115							
Ag	107	**1.0000**	0.009	0.20	10	20	50	100
Cd	111	**1.0000**	0.004	0.10	10	20	50	100
Cd	114	**1.0000**	0.011	0.10	10	20	50	100
Sb	121	**1.0000**	0.013	0.20	10	20	50	100
Sb	123	**1.0000**	0.010	0.20	10	20	50	100
Ba	135	**1.0000**	0.004	0.50	10	20	50	100
Ba	137	**1.0000**	0.007	0.50	10	20	50	100
Tb	159							
Tl	205	**0.9990**	0.030	0.20	10	20	50	100
Pb	208	**0.9998**	0.038	0.10	10	20	50	100
Bi	209							
Th	232	**0.9985**	0.038	0.20	10	20	50	100
U	238	**0.9998**	0.040	0.20	10	20	50	100

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 10:50:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1926147	1
[	Be	9	50.915	ug/L	0.928	1	11	236710	1
	C	13		ug/L			133450	141838	0
	Cl	37		ug/L			4493597	5088279	3
[>	Sc	45		ug/L			1326563	1333949	0
[	Al	27	5002.538	ug/L	164.649	3	3293	196694302	2
[	V	51	50.221	ug/L	0.815	1	8426	1186200	1
[	V-1	51	50.324	ug/L	0.413	0	62	1176798	0
[	Cr	52	51.203	ug/L	0.362	0	24946	986423	0
[	Cr	53	51.580	ug/L	1.390	2	144	108459	2
[	Fe	54	5138.771	ug/L	76.561	1	76518	7069662	1
[	Fe	57	5163.331	ug/L	212.709	4	10109	2646653	4
[	Mn	55	48.426	ug/L	1.067	2	648	1313126	1
[	Co	59	51.389	ug/L	1.522	2	86	904438	2
[>	Ge	72		ug/L			633989	634666	1
[	Ni	60	51.326	ug/L	0.968	1	122	190726	1
[	Ni	62	50.522	ug/L	1.655	3	91	27589	1
[	Cu	63	50.896	ug/L	1.373	2	166	423063	2
[	Cu	65	52.313	ug/L	1.281	2	58	192239	1
[	Zn	66	50.091	ug/L	1.965	3	329	113723	2
[	Zn	67	50.081	ug/L	0.266	0	43	19341	1
[	Zn	68	49.482	ug/L	0.399	0	290	81109	0
[	As	75	51.784	ug/L	0.489	0	308	111409	0
[	As-1	75	51.379	ug/L	0.563	1	10077	119882	1
[	Se	82	79.375	ug/L	1.445	1	8	19065	0
[	Se	78	77.299	ug/L	1.567	2	10190	57341	0
[	Mo	98	49.284	ug/L	1.216	2	8	241795	1
	Y	89		ug/L			462466	460244	0
	Kr	83		ug/L			550	600	6
[>	In	115		ug/L			919574	918344	1
[	Ag	107	51.688	ug/L	0.264	0	18	431327	1
[	Cd	111	49.472	ug/L	0.308	0	62	198960	1
[	Cd	114	50.075	ug/L	0.684	1	31	512229	0
[	Sb	121	49.620	ug/L	0.466	0	46	607890	0
[	Sb	123	49.965	ug/L	0.907	1	36	457923	1
[	Ba	135	51.196	ug/L	0.488	0	28	196029	0
[	Ba	137	50.286	ug/L	0.921	1	43	334875	0
[>	Tb	159		ug/L			1095800	1113359	0
[	Tl	205	47.067	ug/L	0.189	0	30	1589431	0
[	Pb	208	48.981	ug/L	0.110	0	691	2084754	0
[	Bi	209		ug/L			2712548	2581449	1
[	Th	232	47.315	ug/L	0.174	0	69	1976952	0
[	U	238	52.990	ug/L	0.298	0	3	2353333	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 10:57:12
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1928318	1
	Be	9	0.002	ug/L	0.001	80	11	19	32
	C	13		ug/L			133450	133936	2
	Cl	37		ug/L			4493597	4903873	3
>	Sc	45		ug/L			1326563	1330181	2
	Al	27	0.026	ug/L	0.032	122	3293	4319	27
	V	51	0.003	ug/L	0.008	231	8426	8525	1
	V-1	51	0.001	ug/L	0.001	113	62	79	21
	Cr	52	0.001	ug/L	0.025	2260	24946	25031	1
	Cr	53	-0.008	ug/L	0.002	25	144	127	2
	Fe	54	0.360	ug/L	2.654	736	76518	77168	2
	Fe	57	-1.177	ug/L	0.562	47	10109	9538	3
	Mn	55	-0.002	ug/L	0.001	46	648	605	1
	Co	59	0.000	ug/L	0.000	328	86	88	8
>	Ge	72		ug/L			633989	626865	1
	Ni	60	-0.000	ug/L	0.003	641	122	119	8
	Ni	62	0.041	ug/L	0.033	80	91	112	14
	Cu	63	0.004	ug/L	0.003	56	166	201	10
	Cu	65	0.005	ug/L	0.004	76	58	76	18
	Zn	66	0.007	ug/L	0.012	173	329	341	8
	Zn	67	0.011	ug/L	0.019	172	43	46	14
	Zn	68	0.012	ug/L	0.012	101	290	305	5
	As	75	-0.008	ug/L	0.009	105	308	287	5
	As-1	75	0.042	ug/L	0.028	66	10077	10053	0
	Se	82	-0.049	ug/L	0.030	60	8	-3	211
	Se	78	0.163	ug/L	0.117	71	10190	10173	0
	Mo	98	0.009	ug/L	0.001	10	8	53	8
	Y	89		ug/L			462466	450088	1
	Kr	83		ug/L			550	569	7
>	In	115		ug/L			919574	917691	1
	Ag	107	0.001	ug/L	0.001	49	18	29	17
	Cd	111	0.008	ug/L	0.003	41	62	93	14
	Cd	114	0.001	ug/L	0.001	82	31	43	23
	Sb	121	0.040	ug/L	0.009	22	46	535	19
	Sb	123	0.039	ug/L	0.006	14	36	393	11
	Ba	135	0.006	ug/L	0.002	37	28	53	16
	Ba	137	0.007	ug/L	0.001	10	43	90	5
>	Tb	159		ug/L			1095800	1090016	1
	Tl	205	0.008	ug/L	0.004	52	30	291	46
	Pb	208	0.004	ug/L	0.002	42	691	841	7
	Bi	209		ug/L			2712548	2688843	1
	Th	232	0.143	ug/L	0.013	9	69	5921	7
	U	238	0.003	ug/L	0.001	25	3	115	24

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 11:01:27
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1921890	1
	Be	9	51.501	ug/L	1.348	2	11	238881	1
	C	13		ug/L			133450	138730	4
	Cl	37		ug/L			4493597	5176878	2
>	Sc	45		ug/L			1326563	1344457	0
	Al	27	5060.296	ug/L	98.158	1	3293	200560422	1
	V	51	48.336	ug/L	0.363	0	8426	1151037	0
	V-1	51	48.502	ug/L	0.287	0	62	1143169	0
	Cr	52	49.975	ug/L	0.367	0	24946	970978	0
	Cr	53	50.583	ug/L	0.156	0	144	107204	0
	Fe	54	5019.234	ug/L	96.740	1	76518	6961246	1
	Fe	57	5007.372	ug/L	89.645	1	10109	2587285	1
	Mn	55	46.835	ug/L	0.343	0	648	1280141	0
	Co	59	50.464	ug/L	0.724	1	86	895269	1
>	Ge	72		ug/L			633989	631710	0
	Ni	60	50.335	ug/L	0.359	0	122	186209	1
	Ni	62	49.776	ug/L	0.855	1	91	27063	1
	Cu	63	50.734	ug/L	0.523	1	166	419807	0
	Cu	65	51.123	ug/L	2.099	4	58	187002	3
	Zn	66	51.495	ug/L	1.298	2	329	116385	1
	Zn	67	51.075	ug/L	1.008	1	43	19633	2
	Zn	68	50.858	ug/L	0.357	0	290	82973	1
	As	75	50.479	ug/L	0.170	0	308	108110	0
	As-1	75	50.484	ug/L	0.250	0	10077	117426	0
	Se	82	51.431	ug/L	0.538	1	8	12301	1
	Se	78	50.823	ug/L	0.989	1	10190	41006	0
	Mo	98	49.719	ug/L	0.470	0	8	242843	0
	Y	89		ug/L			462466	450551	0
	Kr	83		ug/L			550	607	5
>	In	115		ug/L			919574	921361	0
	Ag	107	50.203	ug/L	0.169	0	18	420309	0
	Cd	111	49.604	ug/L	0.495	0	62	200130	0
	Cd	114	49.765	ug/L	0.522	1	31	510815	1
	Sb	121	49.142	ug/L	1.092	2	46	603976	1
	Sb	123	49.833	ug/L	0.689	1	36	458227	0
	Ba	135	49.884	ug/L	0.139	0	28	191642	0
	Ba	137	49.344	ug/L	0.551	1	43	329707	0
>	Tb	159		ug/L			1095800	1112990	0
	Tl	205	45.753	ug/L	0.554	1	30	1544430	0
	Pb	208	47.794	ug/L	0.545	1	691	2033455	0
	Bi	209		ug/L			2712548	2597304	0
	Th	232	45.518	ug/L	0.444	0	69	1901136	0
	U	238	49.126	ug/L	3.688	7	3	2181110	7

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 11:08:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1942567	1
	Be	9	0.001	ug/L	0.001	197	11	14	39
	C	13		ug/L			133450	139384	1
	Cl	37		ug/L			4493597	4783472	2
>	Sc	45		ug/L			1326563	1329258	0
	Al	27	0.031	ug/L	0.019	61	3293	4511	17
	V	51	0.008	ug/L	0.005	69	8426	8624	1
	V-1	51	0.001	ug/L	0.001	71	62	86	19
	Cr	52	0.031	ug/L	0.009	30	24946	25574	1
	Cr	53	0.007	ug/L	0.007	101	144	159	9
	Fe	54	0.901	ug/L	2.502	277	76518	77882	3
	Fe	57	-1.654	ug/L	1.610	97	10109	9285	8
	Mn	55	-0.002	ug/L	0.000	27	648	604	1
	Co	59	0.000	ug/L	0.001	196	86	91	10
>	Ge	72		ug/L			633989	634456	0
	Ni	60	-0.003	ug/L	0.001	35	122	113	3
	Ni	62	0.065	ug/L	0.028	43	91	127	12
	Cu	63	0.006	ug/L	0.002	32	166	218	8
	Cu	65	0.006	ug/L	0.003	50	58	78	13
	Zn	66	0.000	ug/L	0.011	48846	329	329	7
	Zn	67	0.047	ug/L	0.012	24	43	61	7
	Zn	68	0.022	ug/L	0.013	59	290	326	6
	As	75	0.007	ug/L	0.019	256	308	324	11
	As-1	75	-0.010	ug/L	0.055	570	10077	10063	0
	Se	82	0.032	ug/L	0.024	75	8	16	36
	Se	78	-0.037	ug/L	0.169	462	10190	10175	0
	Mo	98	0.014	ug/L	0.003	23	8	75	21
	Y	89		ug/L			462466	452093	1
	Kr	83		ug/L			550	542	4
>	In	115		ug/L			919574	910567	1
	Ag	107	0.002	ug/L	0.000	19	18	34	10
	Cd	111	0.005	ug/L	0.003	47	62	83	10
	Cd	114	0.000	ug/L	0.001	230	31	34	23
	Sb	121	0.067	ug/L	0.007	10	46	857	11
	Sb	123	0.067	ug/L	0.004	6	36	641	7
	Ba	135	0.006	ug/L	0.001	17	28	50	5
	Ba	137	0.006	ug/L	0.000	7	43	83	2
>	Tb	159		ug/L			1095800	1087102	1
	Tl	205	0.015	ug/L	0.007	47	30	540	45
	Pb	208	0.003	ug/L	0.001	35	691	801	4
	Bi	209		ug/L			2712548	2667468	1
	Th	232	0.205	ug/L	0.013	6	69	8448	6
	U	238	0.002	ug/L	0.000	7	3	104	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 11:12:20
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1937056	1
	Be	9	0.217	ug/L	0.014	6	11	1025	6
	C	13		ug/L			133450	140134	4
	Cl	37		ug/L			4493597	4855933	3
>	Sc	45		ug/L			1326563	1315104	0
	Al	27	20.215	ug/L	1.116	5	3293	787006	5
	V	51	0.223	ug/L	0.008	3	8426	13516	1
	V-1	51	0.207	ug/L	0.006	2	62	4837	2
	Cr	52	0.562	ug/L	0.019	3	24946	35127	0
	Cr	53	0.508	ug/L	0.016	3	144	1193	2
	Fe	54	21.495	ug/L	2.638	12	76518	104693	3
	Fe	57	17.235	ug/L	0.697	4	10109	18698	1
	Mn	55	0.481	ug/L	0.020	4	648	13494	3
	Co	59	0.215	ug/L	0.005	2	86	3819	2
>	Ge	72		ug/L			633989	622552	0
	Ni	60	0.491	ug/L	0.003	0	122	1909	0
	Ni	62	0.497	ug/L	0.041	8	91	355	5
	Cu	63	0.539	ug/L	0.014	2	166	4555	2
	Cu	65	0.534	ug/L	0.011	1	58	1982	1
	Zn	66	4.573	ug/L	0.087	1	329	10481	1
	Zn	67	4.155	ug/L	0.174	4	43	1612	3
	Zn	68	4.391	ug/L	0.061	1	290	7319	1
	As	75	0.252	ug/L	0.018	7	308	833	4
	As-1	75	0.368	ug/L	0.065	17	10077	10666	0
	Se	82	0.585	ug/L	0.037	6	8	145	6
	Se	78	1.020	ug/L	0.230	22	10190	10616	0
	Mo	98	0.201	ug/L	0.009	4	8	977	4
	Y	89		ug/L			462466	455480	0
	Kr	83		ug/L			550	565	1
>	In	115		ug/L			919574	908616	0
	Ag	107	0.208	ug/L	0.002	0	18	1733	1
	Cd	111	0.113	ug/L	0.007	6	62	510	5
	Cd	114	0.104	ug/L	0.001	1	31	1085	1
	Sb	121	0.216	ug/L	0.003	1	46	2665	1
	Sb	123	0.215	ug/L	0.001	0	36	1984	0
	Ba	135	0.493	ug/L	0.011	2	28	1894	2
	Ba	137	0.491	ug/L	0.011	2	43	3278	1
>	Tb	159		ug/L			1095800	1074116	1
	Tl	205	0.206	ug/L	0.008	3	30	6751	2
	Pb	208	0.098	ug/L	0.002	2	691	4714	0
	Bi	209		ug/L			2712548	2690075	0
	Th	232	0.198	ug/L	0.004	2	69	8048	0
	U	238	0.192	ug/L	0.006	3	3	8250	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 11:16:35
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	2042814	0
[	Be	9	0.002	ug/L	0.000	27	11	20	11
	C	13		ug/L			133450	250887	0
	Cl	37		ug/L			4493597	13080967	2
[>	Sc	45		ug/L			1326563	1361705	1
[	Al	27	20584.793	ug/L	895.557	4	3293	826017622	3
[	V	51	0.128	ug/L	0.007	5	8426	11701	1
[	V-1	51	1.176	ug/L	0.012	1	62	28124	1
[	Cr	52	0.571	ug/L	0.059	10	24946	36535	2
[	Cr	53	4.307	ug/L	0.115	2	144	9380	2
[	Fe	54	19749.905	ug/L	407.333	2	76518	27507613	0
[	Fe	57	19675.165	ug/L	877.869	4	10109	10262772	3
[	Mn	55	0.077	ug/L	0.002	2	648	2788	1
[	Co	59	0.026	ug/L	0.002	9	86	563	6
[>	Ge	72		ug/L			633989	627495	2
[	Ni	60	0.330	ug/L	0.022	6	122	1332	6
[	Ni	62	9.223	ug/L	2.033	22	91	5069	23
[	Cu	63	1.386	ug/L	0.150	10	166	11565	12
[	Cu	65	0.389	ug/L	0.011	2	58	1470	3
[	Zn	66	0.881	ug/L	0.021	2	329	2296	1
[	Zn	67	5.407	ug/L	0.148	2	43	2101	2
[	Zn	68	0.340	ug/L	0.021	6	290	836	4
[	As	75	0.272	ug/L	0.029	10	308	883	9
[	As-1	75	0.770	ug/L	0.071	9	10077	11597	1
[	Se	82	-0.210	ug/L	0.072	34	8	-41	42
[	Se	78	1.882	ug/L	0.375	19	10190	11217	0
[	Mo	98	394.387	ug/L	15.318	3	8	1912123	1
	Y	89		ug/L			462466	450982	0
	Kr	83		ug/L			550	817	3
[>	In	115		ug/L			919574	925836	2
[	Ag	107	0.020	ug/L	0.002	11	18	183	12
[	Cd	111	0.208	ug/L	0.008	3	62	903	1
[	Cd	114	0.295	ug/L	0.010	3	31	3074	1
[	Sb	121	0.070	ug/L	0.002	3	46	916	4
[	Sb	123	0.072	ug/L	0.002	3	36	699	4
[	Ba	135	0.042	ug/L	0.003	8	28	193	8
[	Ba	137	0.039	ug/L	0.002	5	43	306	3
[>	Tb	159		ug/L			1095800	1122764	1
[	Tl	205	0.049	ug/L	0.004	7	30	1692	8
[	Pb	208	0.027	ug/L	0.001	3	691	1845	0
[	Bi	209		ug/L			2712548	2434776	0
[	Th	232	0.260	ug/L	0.080	30	69	10984	29
[	U	238	0.001	ug/L	0.000	5	3	64	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 11:23:13
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1973011	0
[	Be	9	0.002	ug/L	0.001	42	11	21	19
	C	13		ug/L			133450	259605	0
	Cl	37		ug/L			4493597	13479628	5
[>	Sc	45		ug/L			1326563	1375874	2
[	Al	27	20559.407	ug/L	479.731	2	3293	833644480	1
[	V	51	0.160	ug/L	0.194	121	8426	12583	36
[	V-1	51	1.195	ug/L	0.034	2	62	28871	1
[	Cr	52	20.603	ug/L	1.019	4	24946	424598	2
[	Cr	53	24.499	ug/L	0.794	3	144	53188	1
[	Fe	54	19637.374	ug/L	332.682	1	76518	27634098	0
[	Fe	57	19486.615	ug/L	551.480	2	10109	10269415	0
[	Mn	55	19.172	ug/L	0.576	3	648	536424	1
[	Co	59	20.214	ug/L	0.397	1	86	366929	0
[>	Ge	72		ug/L			633989	620669	1
[	Ni	60	20.462	ug/L	0.189	0	122	74439	0
[	Ni	62	28.415	ug/L	1.394	4	91	15214	4
[	Cu	63	21.330	ug/L	0.411	1	166	173490	1
[	Cu	65	20.616	ug/L	0.459	2	58	74128	1
[	Zn	66	20.342	ug/L	0.308	1	329	45366	0
[	Zn	67	22.262	ug/L	0.179	0	43	8432	1
[	Zn	68	18.862	ug/L	0.446	2	290	30408	1
[	As	75	18.751	ug/L	0.354	1	308	39641	0
[	As-1	75	19.316	ug/L	0.459	2	10077	50227	0
[	Se	82	-0.183	ug/L	0.031	16	8	-34	21
[	Se	78	1.867	ug/L	0.465	24	10190	11088	1
[	Mo	98	397.784	ug/L	1.033	0	8	1908980	1
	Y	89		ug/L			462466	444313	2
	Kr	83		ug/L			550	793	1
[>	In	115		ug/L			919574	948056	0
[	Ag	107	20.031	ug/L	0.284	1	18	172575	1
[	Cd	111	19.823	ug/L	0.380	1	62	82338	2
[	Cd	114	19.736	ug/L	0.171	0	31	208462	1
[	Sb	121	0.071	ug/L	0.006	8	46	944	8
[	Sb	123	0.071	ug/L	0.002	2	36	707	2
[	Ba	135	0.042	ug/L	0.006	14	28	195	12
[	Ba	137	0.036	ug/L	0.002	5	43	294	5
[>	Tb	159		ug/L			1095800	1126868	0
[	Tl	205	0.034	ug/L	0.001	2	30	1200	2
[	Pb	208	0.024	ug/L	0.001	5	691	1728	3
[	Bi	209		ug/L			2712548	2446156	0
[	Th	232	0.090	ug/L	0.009	9	69	3896	9
[	U	238	0.001	ug/L	0.000	35	3	30	31

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 11:30:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1896819	1
	Be	9	204.802	ug/L	4.251	2	11	937561	1
	C	13		ug/L			133450	149365	1
	Cl	37		ug/L			4493597	5288119	1
>	Sc	45		ug/L			1326563	1312967	1
	Al	27	20618.906	ug/L	392.363	1	3293	797940474	0
	V	51	208.533	ug/L	3.647	1	8426	4821297	0
	V-1	51	205.917	ug/L	3.729	1	62	4738921	1
	Cr	52	212.386	ug/L	1.884	0	24946	3949311	0
	Cr	53	203.109	ug/L	1.650	0	144	419928	0
	Fe	54	19546.658	ug/L	211.727	1	76518	26255589	1
	Fe	57	19837.305	ug/L	552.973	2	10109	9982100	3
	Mn	55	201.895	ug/L	2.408	1	648	5386675	1
	Co	59	215.534	ug/L	3.163	1	86	3733651	1
>	Ge	72		ug/L			633989	612691	1
	Ni	60	200.515	ug/L	2.491	1	122	719147	2
	Ni	62	203.022	ug/L	8.279	4	91	106765	3
	Cu	63	198.132	ug/L	5.949	3	166	1589585	2
	Cu	65	198.322	ug/L	5.974	3	58	703410	1
	Zn	66	194.573	ug/L	4.187	2	329	425658	1
	Zn	67	195.837	ug/L	1.063	0	43	72894	1
	Zn	68	191.351	ug/L	3.443	1	290	301985	1
	As	75	196.718	ug/L	2.941	1	308	407720	0
	As-1	75	198.375	ug/L	3.314	1	10077	418965	0
	Se	82	192.517	ug/L	2.387	1	8	44633	0
	Se	78	195.856	ug/L	3.290	1	10190	125158	0
	Mo	98	201.308	ug/L	2.318	1	8	953600	0
	Y	89		ug/L			462466	425695	0
	Kr	83		ug/L			550	752	5
>	In	115		ug/L			919574	906581	1
	Ag	107	198.265	ug/L	5.383	2	18	1632823	1
	Cd	111	198.344	ug/L	2.909	1	62	787127	0
	Cd	114	214.375	ug/L	17.446	8	31	2163147	6
	Sb	121	222.983	ug/L	2.576	1	46	2696422	0
	Sb	123	202.671	ug/L	2.877	1	36	1833484	0
	Ba	135	200.751	ug/L	4.648	2	28	758599	0
	Ba	137	199.335	ug/L	2.919	1	43	1310324	0
>	Tb	159		ug/L			1095800	1096446	1
	Tl	205	200.360	ug/L	1.473	0	30	6662960	0
	Pb	208	196.823	ug/L	2.003	1	691	8247279	0
	Bi	209		ug/L			2712548	2376041	1
	Th	232	203.090	ug/L	3.114	1	69	8355710	0
	U	238	201.489	ug/L	3.699	1	3	8811425	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 11:37:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1834822	0
[	Be	9	302.438	ug/L	0.988	0	11	1339508	0
	C	13		ug/L			133450	143339	1
	Cl	37		ug/L			4493597	5246612	2
[>	Sc	45		ug/L			1326563	1239333	1
|	Al	27	S	ug/L	S	S	3293	S	S
|	V	51	327.905	ug/L	7.802	2	8426	7151124	1
|	V-1	51	324.461	ug/L	9.143	2	62	7047635	1
|	Cr	52	323.593	ug/L	2.626	0	24946	5667648	0
|	Cr	53	311.284	ug/L	7.187	2	144	607349	1
|	Fe	54	30642.490	ug/L	742.257	2	76518	38804121	1
|	Fe	57	30602.005	ug/L	446.049	1	10109	14525885	0
|	Mn	55	309.617	ug/L	10.755	3	648	7795592	2
[	Co	59	325.072	ug/L	10.780	3	86	5314354	2
[>	Ge	72		ug/L			633989	581682	1
|	Ni	60	300.543	ug/L	4.373	1	122	1023053	1
|	Ni	62	301.637	ug/L	4.403	1	91	150573	0
|	Cu	63	323.086	ug/L	8.331	2	166	2460271	1
|	Cu	65	295.752	ug/L	6.732	2	58	995821	0
|	Zn	66	285.179	ug/L	9.098	3	329	591990	1
|	Zn	67	284.877	ug/L	0.787	0	43	100654	1
|	Zn	68	283.616	ug/L	7.827	2	290	424714	1
|	As	75	295.812	ug/L	9.289	3	308	581766	1
|	As-1	75	299.266	ug/L	8.322	2	10077	595220	0
|	Se	82	282.059	ug/L	7.021	2	8	62067	0
|	Se	78	290.545	ug/L	3.466	1	10190	171748	0
[	Mo	98	306.668	ug/L	5.285	1	8	1379007	1
	Y	89		ug/L			462466	415032	0
	Kr	83		ug/L			550	892	4
[>	In	115		ug/L			919574	884967	0
|	Ag	107	321.306	ug/L	5.412	1	18	2583739	1
|	Cd	111	284.666	ug/L	2.239	0	62	1102896	0
|	Cd	114	315.762	ug/L	1.682	0	31	3112715	0
|	Sb	121	326.662	ug/L	1.277	0	46	3856415	0
|	Sb	123	329.694	ug/L	1.026	0	36	2911853	0
|	Ba	135	297.813	ug/L	2.820	0	28	1098780	0
[	Ba	137	296.265	ug/L	3.420	1	43	1901294	0
[>	Tb	159		ug/L			1095800	1063919	1
|	Tl	205	297.451	ug/L	6.012	2	30	9596742	0
|	Pb	208	306.669	ug/L	4.451	1	691	12467726	0
|	Bi	209		ug/L			2712548	1980338	0
|	Th	232	307.082	ug/L	6.376	2	69	12258392	0
[	U	238	301.303	ug/L	3.791	1	3	12785598	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B1
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 11:44:07
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1951737	1
	Be	9	0.013	ug/L	0.016	126	11	72	106
	C	13		ug/L			133450	148178	3
	Cl	37		ug/L			4493597	4994583	3
>	Sc	45		ug/L			1326563	1319607	0
	Al	27	1.452	ug/L	1.451	99	3293	59644	94
	V	51	0.024	ug/L	0.015	65	8426	8929	3
	V-1	51	0.018	ug/L	0.011	60	62	475	51
	Cr	52	0.066	ug/L	0.037	55	24946	26043	1
	Cr	53	0.046	ug/L	0.019	40	144	239	15
	Fe	54	1.007	ug/L	1.442	143	76518	77483	3
	Fe	57	-2.191	ug/L	0.590	26	10109	8950	4
	Mn	55	0.025	ug/L	0.007	28	648	1314	14
	Co	59	0.007	ug/L	0.008	124	86	203	71
>	Ge	72		ug/L			633989	628402	2
	Ni	60	0.006	ug/L	0.006	96	122	143	13
	Ni	62	1.517	ug/L	0.847	55	91	902	48
	Cu	63	0.121	ug/L	0.053	43	166	1155	35
	Cu	65	0.036	ug/L	0.008	20	58	189	12
	Zn	66	0.502	ug/L	0.022	4	329	1452	3
	Zn	67	0.522	ug/L	0.028	5	43	241	3
	Zn	68	0.502	ug/L	0.013	2	290	1099	2
	As	75	0.008	ug/L	0.009	121	308	322	4
	As-1	75	-0.002	ug/L	0.153	6422	10077	9978	1
	Se	82	0.009	ug/L	0.033	375	8	10	74
	Se	78	-0.023	ug/L	0.525	2320	10190	10082	1
	Mo	98	0.047	ug/L	0.013	26	8	238	24
	Y	89		ug/L			462466	433058	1
	Kr	83		ug/L			550	547	1
>	In	115		ug/L			919574	938074	0
	Ag	107	0.011	ug/L	0.008	66	18	116	55
	Cd	111	0.017	ug/L	0.008	48	62	131	24
	Cd	114	0.010	ug/L	0.009	91	31	132	68
	Sb	121	0.334	ug/L	0.014	4	46	4228	4
	Sb	123	0.343	ug/L	0.012	3	36	3247	3
	Ba	135	0.139	ug/L	0.007	4	28	572	3
	Ba	137	0.134	ug/L	0.008	5	43	959	4
>	Tb	159		ug/L			1095800	1082209	0
	Tl	205	0.105	ug/L	0.034	32	30	3474	31
	Pb	208	0.018	ug/L	0.015	84	691	1416	44
	Bi	209		ug/L			2712548	2644531	1
	Th	232	0.350	ug/L	0.009	2	69	14264	2
	U	238	0.018	ug/L	0.016	87	3	774	87

ICP-MS Quantitative Analysis - Summary Report

Sample ID: B2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 11:50:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	2885952	27
	Be	9	-0.000	ug/L	0.001	389	11	12	36
	C	13		ug/L			133450	123347	19
	Cl	37		ug/L			4493597	3243214	37
>	Sc	45		ug/L			1326563	1891954	28
	Al	27	0.546	ug/L	0.793	145	3293	27011	105
	V	51	-0.156	ug/L	0.146	93	8426	5930	39
	V-1	51	0.005	ug/L	0.005	106	62	216	36
	Cr	52	-0.576	ug/L	0.541	94	24946	17573	39
	Cr	53	-0.008	ug/L	0.042	523	144	158	36
	Fe	54	16.542	ug/L	15.693	94	76518	146801	46
	Fe	57	-11.639	ug/L	7.619	65	10109	4972	62
	Mn	55	0.016	ug/L	0.026	165	648	1339	32
	Co	59	-0.001	ug/L	0.002	388	86	99	23
>	Ge	72		ug/L			633989	836314	20
	Ni	60	-0.011	ug/L	0.028	251	122	88	115
	Ni	62	0.015	ug/L	0.059	403	91	125	8
	Cu	63	0.010	ug/L	0.027	264	166	291	67
	Cu	65	0.012	ug/L	0.033	262	58	115	97
	Zn	66	0.215	ug/L	0.495	230	329	875	125
	Zn	67	0.198	ug/L	0.385	194	43	130	110
	Zn	68	0.230	ug/L	0.473	205	290	739	98
	As	75	0.083	ug/L	0.092	110	308	675	53
	As-1	75	-1.176	ug/L	0.962	81	10077	9612	3
	Se	82	-0.062	ug/L	0.014	22	8	-9	60
	Se	78	-4.234	ug/L	3.477	82	10190	9661	4
	Mo	98	0.013	ug/L	0.007	51	8	91	41
	Y	89		ug/L			462466	597645	22
	Kr	83		ug/L			550	983	39
>	In	115		ug/L			919574	1405341	30
	Ag	107	0.001	ug/L	0.002	186	18	36	24
	Cd	111	0.001	ug/L	0.006	558	62	94	6
	Cd	114	0.002	ug/L	0.001	72	31	68	10
	Sb	121	0.077	ug/L	0.076	99	46	1217	64
	Sb	123	0.079	ug/L	0.077	98	36	939	63
	Ba	135	0.005	ug/L	0.014	255	28	59	78
	Ba	137	0.008	ug/L	0.019	223	43	113	100
>	Tb	159		ug/L			1095800	1766078	36
	Tl	205	0.045	ug/L	0.048	108	30	1820	74
	Pb	208	0.001	ug/L	0.021	1887	691	847	90
	Bi	209		ug/L			2712548	3998978	29
	Th	232	0.080	ug/L	0.054	68	69	4527	22
	U	238	0.002	ug/L	0.001	60	3	128	24

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~B5~~ VT29 & REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 11:55:54
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

Zn

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1972784	2030543	0
[	**Be**	**9**	**0.013**	ug/L	0.001	11	11	74	9
	C	**13**		ug/L			133450	156077	3
	Cl	**37**		ug/L			4493597	4786042	2
[>	**Sc**	**45**		ug/L			1326563	1371272	2
[	**Al**	**27**	**347.113**	ug/L	10.164	2	3293	14028147	0
[	**V**	**51**	**1.505**	ug/L	0.067	4	8426	44968	1
[	**V-1**	**51**	**1.512**	ug/L	0.059	3	62	36397	1
[	**Cr**	**52**	**0.891**	ug/L	0.039	4	24946	42981	1
[	**Cr**	**53**	**0.911**	ug/L	0.009	0	144	2115	1
[	**Fe**	**54**	**738.833**	ug/L	30.590	4	76518	1112060	2
[	**Fe**	**57**	**686.446**	ug/L	28.539	4	10109	370516	1
[	**Mn**	**55**	**17.099**	ug/L	0.209	1	648	477028	1
[	**Co**	**59**	**0.269**	ug/L	0.014	5	86	4955	2
[>	**Ge**	**72**		ug/L			633989	636600	1
[	**Ni**	**60**	**0.921**	ug/L	0.016	1	122	3555	3
[	**Ni**	**62**	**0.903**	ug/L	0.011	1	91	585	1
[	**Cu**	**63**	**4.310**	ug/L	0.123	2	166	36087	1
[	**Cu**	**65**	**4.425**	ug/L	0.155	3	58	16361	1
[	**Zn**	**66**	**32.543**	ug/L	0.366	1	329	74241	0
[	**Zn**	**67**	**29.290**	ug/L	0.326	1	43	11364	1
[	**Zn**	**68**	**31.439**	ug/L	0.920	2	290	51786	1
[	**As**	**75**	**0.691**	ug/L	0.023	3	308	1797	1
[	**As-1**	**75**	**0.692**	ug/L	0.129	18	10077	11598	0
[	**Se**	**82**	**0.013**	ug/L	0.035	271	8	11	73
[	**Se**	**78**	**0.021**	ug/L	0.386	1850	10190	10242	0
[	**Mo**	**98**	**0.320**	ug/L	0.018	5	8	1583	4
	Y	**89**		ug/L			462466	454958	1
	Kr	**83**		ug/L			550	564	3
[>	**In**	**115**		ug/L			919574	956030	0
[	**Ag**	**107**	**0.012**	ug/L	0.005	43	18	123	35
[	**Cd**	**111**	**0.218**	ug/L	0.007	3	62	976	2
[	**Cd**	**114**	**0.202**	ug/L	0.010	4	31	2183	3
[	**Sb**	**121**	**2.079**	ug/L	0.008	0	46	26567	0
[	**Sb**	**123**	**2.135**	ug/L	0.016	0	36	20409	0
[	**Ba**	**135**	**7.556**	ug/L	0.105	1	28	30145	0
[	**Ba**	**137**	**7.466**	ug/L	0.053	0	43	51803	0
[>	**Tb**	**159**		ug/L			1095800	1121113	0
[	**Tl**	**205**	**0.087**	ug/L	0.027	31	30	2993	31
[	**Pb**	**208**	**3.237**	ug/L	0.053	1	691	139375	1
[	**Bi**	**209**		ug/L			2712548	2664228	0
[	**Th**	**232**	**0.253**	ug/L	0.061	24	69	10687	23
[	**U**	**238**	**0.020**	ug/L	0.001	4	3	876	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 12:00:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1958397	1
[	Be	9	52.193	ug/L	0.699	1	11	246715	0
	C	13		ug/L			133450	144424	1
	Cl	37		ug/L			4493597	5063168	1
[>	Sc	45		ug/L			1326563	1317112	2
|	Al	27	5125.862	ug/L	104.116	2	3293	198974896	0
|	V	51	48.182	ug/L	0.752	1	8426	1123861	1
|	V-1	51	48.497	ug/L	0.694	1	62	1119611	0
|	Cr	52	49.766	ug/L	0.949	1	24946	947126	0
|	Cr	53	50.905	ug/L	0.992	1	144	105666	0
|	Fe	54	5071.930	ug/L	63.418	1	76518	6889810	1
|	Fe	57	4980.583	ug/L	90.381	1	10109	2521500	3
|	Mn	55	47.838	ug/L	0.911	1	648	1280618	0
[	Co	59	50.421	ug/L	0.603	1	86	876220	1
[>	Ge	72		ug/L			633989	626165	0
|	Ni	60	49.807	ug/L	1.094	2	122	182617	1
|	Ni	62	48.886	ug/L	0.639	1	91	26349	1
|	Cu	63	49.700	ug/L	0.132	0	166	407657	0
|	Cu	65	50.209	ug/L	0.071	0	58	182081	0
|	Zn	66	50.143	ug/L	0.284	0	329	112354	0
|	Zn	67	50.725	ug/L	1.236	2	43	19328	2
|	Zn	68	50.946	ug/L	0.375	0	290	82390	1
|	As	75	49.599	ug/L	0.633	1	308	105292	0
|	As-1	75	49.774	ug/L	0.889	1	10077	114892	0
|	Se	82	50.084	ug/L	0.455	0	8	11873	0
|	Se	78	50.046	ug/L	1.348	2	10190	40177	1
[	Mo	98	49.195	ug/L	0.540	1	8	238172	0
	Y	89		ug/L			462466	442132	0
	Kr	83		ug/L			550	574	1
[>	In	115		ug/L			919574	923132	1
|	Ag	107	50.432	ug/L	0.903	1	18	422999	1
|	Cd	111	51.558	ug/L	0.844	1	62	208415	1
|	Cd	114	51.331	ug/L	0.537	1	31	527863	1
|	Sb	121	50.367	ug/L	0.806	1	46	620261	1
|	Sb	123	51.003	ug/L	0.887	1	36	469873	1
|	Ba	135	49.576	ug/L	0.628	1	28	190804	0
[	Ba	137	48.594	ug/L	0.453	0	43	325323	1
[>	Tb	159		ug/L			1095800	1104584	1
|	Tl	205	45.674	ug/L	0.196	0	30	1530175	1
|	Pb	208	47.743	ug/L	0.079	0	691	2016017	1
|	Bi	209		ug/L			2712548	2576081	1
|	Th	232	45.671	ug/L	0.572	1	69	1893018	0
[	U	238	47.140	ug/L	3.401	7	3	2078289	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 12:07:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1956929	2
	Be	9	0.005	ug/L	0.003	64	11	35	44
	C	13		ug/L			133450	142058	0
	Cl	37		ug/L			4493597	4899135	2
>	Sc	45		ug/L			1326563	1319566	0
	Al	27	0.220	ug/L	0.327	148	3293	11826	107
	V	51	0.009	ug/L	0.003	32	8426	8598	0
	V-1	51	0.005	ug/L	0.003	62	62	181	40
	Cr	52	0.027	ug/L	0.019	69	24946	25324	1
	Cr	53	0.013	ug/L	0.001	10	144	170	2
	Fe	54	-0.429	ug/L	1.427	332	76518	75543	2
	Fe	57	-2.794	ug/L	0.568	20	10109	8643	2
	Mn	55	0.002	ug/L	0.003	128	648	704	11
	Co	59	0.000	ug/L	0.002	573	86	90	32
>	Ge	72		ug/L			633989	613426	1
	Ni	60	0.000	ug/L	0.002	398	122	120	4
	Ni	62	0.045	ug/L	0.012	27	91	112	7
	Cu	63	0.005	ug/L	0.002	40	166	204	9
	Cu	65	0.007	ug/L	0.001	13	58	79	4
	Zn	66	0.135	ug/L	0.014	10	329	614	6
	Zn	67	0.158	ug/L	0.030	18	43	100	12
	Zn	68	0.134	ug/L	0.030	22	290	493	11
	As	75	0.003	ug/L	0.007	195	308	305	4
	As-1	75	0.087	ug/L	0.073	84	10077	9927	0
	Se	82	-0.008	ug/L	0.056	664	8	6	212
	Se	78	0.309	ug/L	0.268	86	10190	10040	0
	Mo	98	0.012	ug/L	0.001	8	8	65	6
	Y	89		ug/L			462466	438132	0
	Kr	83		ug/L			550	551	7
>	In	115		ug/L			919574	931353	0
	Ag	107	0.002	ug/L	0.001	53	18	31	22
	Cd	111	0.007	ug/L	0.002	21	62	92	7
	Cd	114	0.001	ug/L	0.001	43	31	45	13
	Sb	121	0.081	ug/L	0.014	16	46	1054	15
	Sb	123	0.083	ug/L	0.011	12	36	810	11
	Ba	135	0.005	ug/L	0.002	43	28	49	17
	Ba	137	0.006	ug/L	0.001	23	43	87	11
>	Tb	159		ug/L			1095800	1078086	1
	Tl	205	0.017	ug/L	0.008	44	30	589	40
	Pb	208	0.005	ug/L	0.002	29	691	894	8
	Bi	209		ug/L			2712548	2647190	1
	Th	232	0.180	ug/L	0.018	10	69	7364	9
	U	238	0.004	ug/L	0.003	75	3	191	74

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT77 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 12:13:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	2036996	2
	Be	9	0.004	ug/L	0.001	21	11	29	11
	C	13		ug/L			133450	155995	3
	Cl	37		ug/L			4493597	4809516	4
>	Sc	45		ug/L			1326563	1345656	0
	Al	27	1.138	ug/L	0.020	1	3293	48480	1
	V	51	0.028	ug/L	0.013	46	8426	9201	3
	V-1	51	0.008	ug/L	0.001	17	62	251	12
	Cr	52	0.096	ug/L	0.049	50	24946	27120	3
	Cr	53	0.027	ug/L	0.011	42	144	202	11
	Fe	54	13.002	ug/L	2.122	16	76518	95469	3
	Fe	57	-2.150	ug/L	0.545	25	10109	9147	3
	Mn	55	0.229	ug/L	0.006	2	648	6906	2
	Co	59	0.002	ug/L	0.000	4	86	119	1
>	Ge	72		ug/L			633989	623796	1
	Ni	60	-0.017	ug/L	0.001	6	122	58	6
	Ni	62	0.031	ug/L	0.007	22	91	106	2
	Cu	63	0.078	ug/L	0.005	6	166	799	4
	Cu	65	0.081	ug/L	0.006	6	58	348	4
	Zn	66	0.737	ug/L	0.031	4	329	1963	3
	Zn	67	0.679	ug/L	0.029	4	43	299	4
	Zn	68	0.740	ug/L	0.021	2	290	1472	1
	As	75	0.008	ug/L	0.004	57	308	320	3
	As-1	75	0.052	ug/L	0.050	95	10077	10025	1
	Se	82	-0.003	ug/L	0.030	1004	8	7	95
	Se	78	0.175	ug/L	0.176	100	10190	10131	1
	Mo	98	0.012	ug/L	0.002	17	8	64	13
	Y	89		ug/L			462466	446923	2
	Kr	83		ug/L			550	558	4
>	In	115		ug/L			919574	943845	0
	Ag	107	0.001	ug/L	0.001	115	18	23	23
	Cd	111	0.006	ug/L	0.002	26	62	88	7
	Cd	114	0.001	ug/L	0.000	45	31	40	10
	Sb	121	0.033	ug/L	0.005	16	46	460	13
	Sb	123	0.035	ug/L	0.006	16	36	370	14
	Ba	135	0.011	ug/L	0.002	19	28	73	12
	Ba	137	0.011	ug/L	0.002	16	43	118	9
>	Tb	159		ug/L			1095800	1085557	0
	Tl	205	0.028	ug/L	0.014	48	30	966	46
	Pb	208	-0.004	ug/L	0.001	20	691	536	5
	Bi	209		ug/L			2712548	2682221	0
	Th	232	0.123	ug/L	0.005	4	69	5074	4
	U	238	0.001	ug/L	0.000	15	3	63	14

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT77 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 12:17:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1978230	1
	Be	9	0.005	ug/L	0.001	13	11	33	7
	C	13		ug/L			133450	160626	0
	Cl	37		ug/L			4493597	4951353	5
>	Sc	45		ug/L			1326563	1312844	1
	Al	27	3.976	ug/L	0.118	2	3293	157080	1
	V	51	0.030	ug/L	0.010	33	8426	9024	1
	V-1	51	0.011	ug/L	0.000	1	62	324	1
	Cr	52	0.111	ug/L	0.033	30	24946	26728	0
	Cr	53	0.046	ug/L	0.008	18	144	238	7
	Fe	54	18.128	ug/L	1.498	8	76518	100024	3
	Fe	57	-1.508	ug/L	0.360	23	10109	9245	1
	Mn	55	0.063	ug/L	0.002	3	648	2312	2
	Co	59	0.003	ug/L	0.001	19	86	129	5
>	Ge	72		ug/L			633989	620867	0
	Ni	60	-0.007	ug/L	0.002	36	122	95	9
	Ni	62	0.017	ug/L	0.011	64	91	99	6
	Cu	63	0.102	ug/L	0.003	2	166	995	2
	Cu	65	0.114	ug/L	0.000	0	58	465	0
	Zn	66	0.729	ug/L	0.034	4	329	1937	3
	Zn	67	0.632	ug/L	0.025	3	43	280	2
	Zn	68	0.695	ug/L	0.036	5	290	1394	4
	As	75	0.000	ug/L	0.013	2735	308	303	8
	As-1	75	0.084	ug/L	0.038	45	10077	10044	0
	Se	82	-0.027	ug/L	0.052	193	8	1	687
	Se	78	0.311	ug/L	0.135	43	10190	10165	0
	Mo	98	0.011	ug/L	0.001	13	8	60	11
	Y	89		ug/L			462466	446360	0
	Kr	83		ug/L			550	572	1
>	In	115		ug/L			919574	936578	1
	Ag	107	0.001	ug/L	0.000	8	18	24	2
	Cd	111	0.006	ug/L	0.004	70	62	86	18
	Cd	114	0.001	ug/L	0.001	70	31	41	15
	Sb	121	0.020	ug/L	0.004	21	46	293	17
	Sb	123	0.021	ug/L	0.004	21	36	229	16
	Ba	135	0.023	ug/L	0.001	4	28	120	2
	Ba	137	0.025	ug/L	0.001	2	43	214	1
>	Tb	159		ug/L			1095800	1092320	1
	Tl	205	0.012	ug/L	0.005	43	30	419	38
	Pb	208	-0.002	ug/L	0.001	45	691	605	6
	Bi	209		ug/L			2712548	2639069	1
	Th	232	0.082	ug/L	0.004	5	69	3416	5
	U	238	0.001	ug/L	0.000	26	3	31	24

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT77 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 12:22:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1967117	0
[	Be	9	24.662	ug/L	0.462	1	11	117119	2
	C	13		ug/L			133450	160192	2
	Cl	37		ug/L			4493597	5210848	1
[>	Sc	45		ug/L			1326563	1332570	1
|	Al	27	5034.124	ug/L	215.527	4	3293	197651425	2
|	V	51	23.998	ug/L	0.740	3	8426	570507	1
|	V-1	51	24.032	ug/L	0.785	3	62	561248	1
|	Cr	52	25.093	ug/L	0.364	1	24946	495625	1
|	Cr	53	25.224	ug/L	0.537	2	144	53044	0
|	Fe	54	4883.175	ug/L	104.376	2	76518	6713193	1
|	Fe	57	4844.323	ug/L	125.423	2	10109	2480574	1
|	Mn	55	24.006	ug/L	0.584	2	648	650769	3
[	Co	59	25.200	ug/L	0.683	2	86	443012	1
[>	Ge	72		ug/L			633989	627584	1
|	Ni	60	25.297	ug/L	0.135	0	122	93028	0
|	Ni	62	24.951	ug/L	0.585	2	91	13521	1
|	Cu	63	26.488	ug/L	0.581	2	166	217808	1
|	Cu	65	26.513	ug/L	0.870	3	58	96370	2
|	Zn	66	79.530	ug/L	3.579	4	329	178368	3
|	Zn	67	73.698	ug/L	2.018	2	43	28121	2
|	Zn	68	76.468	ug/L	1.168	1	290	123783	0
|	As	75	27.069	ug/L	0.490	1	308	57728	0
|	As-1	75	26.992	ug/L	0.222	0	10077	67012	0
|	Se	82	74.950	ug/L	1.667	2	8	17802	1
|	Se	78	74.367	ug/L	0.736	0	10190	54938	0
[	Mo	98	0.024	ug/L	0.002	7	8	126	6
	Y	89		ug/L			462466	454031	0
	Kr	83		ug/L			550	595	3
[>	In	115		ug/L			919574	935175	0
|	Ag	107	24.535	ug/L	0.352	1	18	208503	1
|	Cd	111	23.793	ug/L	0.158	0	62	97471	1
|	Cd	114	23.882	ug/L	0.308	1	31	248807	0
|	Sb	121	0.021	ug/L	0.004	19	46	314	15
|	Sb	123	0.025	ug/L	0.002	7	36	269	5
|	Ba	135	24.656	ug/L	0.364	1	28	96160	1
[	Ba	137	24.192	ug/L	0.156	0	43	164102	0
[>	Tb	159		ug/L			1095800	1109272	0
|	Tl	205	22.839	ug/L	0.161	0	30	768451	0
|	Pb	208	23.830	ug/L	0.144	0	691	1010885	0
|	Bi	209		ug/L			2712548	2565625	0
|	Th	232	22.771	ug/L	0.143	0	69	947959	0
[	U	238	22.392	ug/L	0.186	0	3	990800	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT77 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 12:26:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	2037893	2
[	Be	9	24.108	ug/L	0.825	3	11	118524	0
	C	13		ug/L			133450	162061	2
	Cl	37		ug/L			4493597	5125436	2
[>	Sc	45		ug/L			1326563	1361795	2
[	Al	27	4945.116	ug/L	179.341	3	3293	198466657	3
[	V	51	24.332	ug/L	0.417	1	8426	591088	1
[	V-1	51	24.381	ug/L	0.446	1	62	582000	1
[	Cr	52	25.108	ug/L	0.298	1	24946	506773	1
[	Cr	53	25.290	ug/L	0.251	0	144	54359	1
[	Fe	54	4836.678	ug/L	94.841	1	76518	6796970	2
[	Fe	57	4798.355	ug/L	104.768	2	10109	2511035	1
[	Mn	55	24.025	ug/L	0.372	1	648	665363	1
[	Co	59	25.195	ug/L	0.538	2	86	452689	1
[>	Ge	72		ug/L			633989	629406	1
[	Ni	60	25.789	ug/L	0.428	1	122	95100	1
[	Ni	62	26.038	ug/L	0.554	2	91	14149	2
[	Cu	63	26.027	ug/L	0.210	0	166	214650	0
[	Cu	65	26.139	ug/L	0.153	0	58	95305	0
[	Zn	66	78.562	ug/L	2.184	2	329	176744	2
[	Zn	67	73.950	ug/L	0.883	1	43	28300	0
[	Zn	68	76.850	ug/L	1.303	1	290	124755	0
[	As	75	27.186	ug/L	0.668	2	308	58142	1
[	As-1	75	26.953	ug/L	0.641	2	10077	67115	0
[	Se	82	74.493	ug/L	1.196	1	8	17745	0
[	Se	78	73.356	ug/L	1.365	1	10190	54481	0
[	Mo	98	0.016	ug/L	0.004	23	8	86	19
	Y	89		ug/L			462466	447112	0
	Kr	83		ug/L			550	594	5
[>	In	115		ug/L			919574	927646	0
[	Ag	107	25.582	ug/L	0.124	0	18	215653	0
[	Cd	111	24.670	ug/L	0.166	0	62	100244	0
[	Cd	114	24.651	ug/L	0.181	0	31	254751	0
[	Sb	121	0.020	ug/L	0.001	4	46	296	3
[	Sb	123	0.022	ug/L	0.005	21	36	240	17
[	Ba	135	25.438	ug/L	0.318	1	28	98406	1
[	Ba	137	24.949	ug/L	0.288	1	43	167871	1
[>	Tb	159		ug/L			1095800	1102632	0
[	Tl	205	23.757	ug/L	0.225	0	30	794516	0
[	Pb	208	24.789	ug/L	0.156	0	691	1045204	0
[	Bi	209		ug/L			2712548	2556745	0
[	Th	232	23.882	ug/L	0.185	0	69	988247	0
[	U	238	23.366	ug/L	0.227	0	3	1027706	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT77 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 12:30:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	2043934	1
	Be	9	0.008	ug/L	0.001	10	11	50	7
	C	13		ug/L			133450	162851	1
	Cl	37		ug/L			4493597	5149312	1
>	Sc	45		ug/L			1326563	1329203	0
	Al	27	67.710	ug/L	0.625	0	3293	2656475	1
	V	51	0.253	ug/L	0.005	1	8426	14361	0
	V-1	51	0.237	ug/L	0.005	2	62	5588	2
	Cr	52	0.526	ug/L	0.014	2	24946	34840	0
	Cr	53	0.472	ug/L	0.023	4	144	1131	4
	Fe	54	110.232	ug/L	2.857	2	76518	226127	1
	Fe	57	75.860	ug/L	1.416	1	10109	48729	1
	Mn	55	2.199	ug/L	0.024	1	648	60029	1
	Co	59	0.097	ug/L	0.003	2	86	1790	3
>	Ge	72		ug/L			633989	621726	2
	Ni	60	0.335	ug/L	0.023	6	122	1337	5
	Ni	62	0.669	ug/L	0.259	38	91	448	32
	Cu	63	1.917	ug/L	0.048	2	166	15760	0
	Cu	65	1.872	ug/L	0.040	2	58	6793	1
	Zn	66	27.489	ug/L	0.627	2	329	61294	2
	Zn	67	24.499	ug/L	0.494	2	43	9287	0
	Zn	68	26.238	ug/L	1.093	4	290	42243	2
	As	75	0.065	ug/L	0.020	30	308	439	7
	As-1	75	0.168	ug/L	0.104	62	10077	10230	0
	Se	82	-0.022	ug/L	0.032	144	8	2	266
	Se	78	0.391	ug/L	0.350	89	10190	10224	0
	Mo	98	0.102	ug/L	0.005	4	8	500	3
	Y	89		ug/L			462466	447524	2
	Kr	83		ug/L			550	581	0
>	In	115		ug/L			919574	944593	1
	Ag	107	0.008	ug/L	0.002	29	18	84	21
	Cd	111	0.225	ug/L	0.004	1	62	995	2
	Cd	114	0.218	ug/L	0.008	3	31	2325	3
	Sb	121	0.179	ug/L	0.009	5	46	2297	3
	Sb	123	0.183	ug/L	0.004	2	36	1760	2
	Ba	135	2.966	ug/L	0.055	1	28	11709	0
	Ba	137	2.925	ug/L	0.038	1	43	20076	0
>	Tb	159		ug/L			1095800	1095984	0
	Tl	205	0.014	ug/L	0.006	44	30	486	42
	Pb	208	0.278	ug/L	0.002	0	691	12336	0
	Bi	209		ug/L			2712548	2628622	0
	Th	232	0.257	ug/L	0.031	12	69	10637	11
	U	238	0.009	ug/L	0.002	25	3	381	25

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT77 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 12:34:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1974378	0
[	Be	9	0.005	ug/L	0.000	9	11	36	5
	C	13		ug/L			133450	169248	1
	Cl	37		ug/L			4493597	4979622	1
[>	Sc	45		ug/L			1326563	1339250	1
[	Al	27	67.601	ug/L	1.321	1	3293	2671945	1
[	V	51	0.264	ug/L	0.023	8	8426	14720	2
[	V-1	51	0.250	ug/L	0.006	2	62	5921	1
[	Cr	52	0.548	ug/L	0.064	11	24946	35507	2
[	Cr	53	0.499	ug/L	0.004	0	144	1198	0
[	Fe	54	103.708	ug/L	6.273	6	76518	218865	2
[	Fe	57	74.274	ug/L	2.806	3	10109	48287	3
[	Mn	55	2.235	ug/L	0.054	2	648	61491	3
[	Co	59	0.102	ug/L	0.002	1	86	1880	1
[>	Ge	72		ug/L			633989	617820	1
[	Ni	60	0.317	ug/L	0.013	4	122	1263	3
[	Ni	62	0.363	ug/L	0.028	7	91	281	5
[	Cu	63	1.861	ug/L	0.032	1	166	15216	0
[	Cu	65	1.841	ug/L	0.063	3	58	6640	2
[	Zn	66	27.121	ug/L	1.043	3	329	60089	2
[	Zn	67	23.598	ug/L	0.420	1	43	8893	0
[	Zn	68	25.971	ug/L	0.364	1	290	41572	0
[	As	75	0.061	ug/L	0.009	14	308	427	4
[	As-1	75	0.176	ug/L	0.058	33	10077	10184	0
[	Se	82	-0.058	ug/L	0.045	77	8	-5	196
[	Se	78	0.410	ug/L	0.229	55	10190	10172	0
[	Mo	98	0.115	ug/L	0.009	7	8	558	6
	Y	89		ug/L			462466	450559	1
	Kr	83		ug/L			550	585	3
[>	In	115		ug/L			919574	943393	1
[	Ag	107	0.006	ug/L	0.001	17	18	66	12
[	Cd	111	0.229	ug/L	0.003	1	62	1009	1
[	Cd	114	0.212	ug/L	0.005	2	31	2261	1
[	Sb	121	0.187	ug/L	0.007	3	46	2398	2
[	Sb	123	0.183	ug/L	0.007	4	36	1756	3
[	Ba	135	3.034	ug/L	0.037	1	28	11962	0
[	Ba	137	2.963	ug/L	0.076	2	43	20311	1
[>	Tb	159		ug/L			1095800	1108991	0
[	Tl	205	0.008	ug/L	0.002	26	30	287	22
[	Pb	208	0.280	ug/L	0.002	0	691	12576	0
[	Bi	209		ug/L			2712548	2651077	0
[	Th	232	0.087	ug/L	0.004	4	69	3683	3
[	U	238	0.004	ug/L	0.000	7	3	199	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT77 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 12:39:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1964192	1
[	Be	9	25.050	ug/L	0.409	1	11	118780	2
	C	13		ug/L			133450	163196	2
	Cl	37		ug/L			4493597	5179893	1
[>	Sc	45		ug/L			1326563	1352847	4
	Al	27	4933.199	ug/L	195.641	3	3293	196512641	0
	V	51	25.097	ug/L	1.082	4	8426	604744	0
	V-1	51	25.061	ug/L	1.029	4	62	593691	0
	Cr	52	26.275	ug/L	1.023	3	24946	525269	2
	Cr	53	26.162	ug/L	0.810	3	144	55820	2
	Fe	54	4832.521	ug/L	121.732	2	76518	6742087	1
	Fe	57	4871.485	ug/L	200.477	4	10109	2530834	3
	Mn	55	26.407	ug/L	0.891	3	648	725855	1
[	Co	59	25.735	ug/L	1.111	4	86	458945	2
[>	Ge	72		ug/L			633989	625879	1
	Ni	60	26.161	ug/L	0.287	1	122	95930	0
	Ni	62	25.791	ug/L	0.974	3	91	13932	2
	Cu	63	27.612	ug/L	0.480	1	166	226427	1
	Cu	65	28.021	ug/L	0.493	1	58	101578	0
	Zn	66	104.483	ug/L	1.289	1	329	233659	2
	Zn	67	94.875	ug/L	0.310	0	43	36098	1
	Zn	68	99.036	ug/L	0.477	0	290	159817	1
	As	75	27.251	ug/L	0.201	0	308	57962	1
	As-1	75	27.148	ug/L	0.279	1	10077	67163	1
	Se	82	72.664	ug/L	0.602	0	8	17214	1
	Se	78	71.956	ug/L	0.798	1	10190	53340	1
[	Mo	98	0.104	ug/L	0.002	2	8	513	2
	Y	89		ug/L			462466	448814	1
	Kr	83		ug/L			550	569	3
[>	In	115		ug/L			919574	935154	1
	Ag	107	26.064	ug/L	0.199	0	18	221473	1
	Cd	111	24.440	ug/L	0.280	1	62	100103	0
	Cd	114	24.254	ug/L	0.445	1	31	252632	0
	Sb	121	0.185	ug/L	0.009	4	46	2352	3
	Sb	123	0.186	ug/L	0.009	4	36	1769	3
	Ba	135	28.298	ug/L	0.389	1	28	110338	0
[	Ba	137	28.265	ug/L	0.242	0	43	191701	0
[>	Tb	159		ug/L			1095800	1110947	0
	Tl	205	23.874	ug/L	0.110	0	30	804449	0
	Pb	208	24.971	ug/L	0.185	0	691	1060803	0
	Bi	209		ug/L			2712548	2551560	1
	Th	232	23.630	ug/L	0.172	0	69	985199	0
[	U	238	23.344	ug/L	0.208	0	3	1034454	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT77 DDUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 12:43:16
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1996153	1
[	Be	9	0.032	ug/L	0.003	8	11	167	8
	C	13		ug/L			133450	161012	2
	Cl	37		ug/L			4493597	4886342	1
[>	Sc	45		ug/L			1326563	1344966	1
[	Al	27	82.177	ug/L	0.564	0	3293	3261344	0
[	V	51	0.161	ug/L	0.008	5	8426	12344	2
[	V-1	51	0.156	ug/L	0.003	1	62	3744	2
[	Cr	52	0.444	ug/L	0.034	7	24946	33689	2
[	Cr	53	0.430	ug/L	0.025	5	144	1056	4
[	Fe	54	38.869	ug/L	1.766	4	76518	130912	2
[	Fe	57	17.919	ug/L	0.873	4	10109	19477	3
[	Mn	55	1.458	ug/L	0.022	1	648	40487	0
[	Co	59	0.056	ug/L	0.001	2	86	1075	1
[>	Ge	72		ug/L			633989	624661	1
[	Ni	60	0.286	ug/L	0.007	2	122	1166	2
[	Ni	62	0.420	ug/L	0.136	32	91	315	22
[	Cu	63	2.829	ug/L	0.076	2	166	23297	2
[	Cu	65	2.831	ug/L	0.089	3	58	10292	1
[	Zn	66	23.910	ug/L	0.704	2	329	53606	2
[	Zn	67	21.941	ug/L	0.773	3	43	8361	2
[	Zn	68	22.831	ug/L	0.691	3	290	36977	1
[	As	75	0.060	ug/L	0.005	8	308	429	1
[	As-1	75	0.084	ug/L	0.074	88	10077	10104	1
[	Se	82	0.050	ug/L	0.050	101	8	19	59
[	Se	78	0.135	ug/L	0.263	195	10190	10120	0
[	Mo	98	0.111	ug/L	0.005	4	8	546	2
	Y	89		ug/L			462466	441771	1
	Kr	83		ug/L			550	541	5
[>	In	115		ug/L			919574	939847	2
[	Ag	107	0.002	ug/L	0.001	49	18	35	23
[	Cd	111	0.199	ug/L	0.001	0	62	883	3
[	Cd	114	0.190	ug/L	0.008	4	31	2021	1
[	Sb	121	0.156	ug/L	0.006	3	46	1998	1
[	Sb	123	0.155	ug/L	0.006	4	36	1493	4
[	Ba	135	2.455	ug/L	0.019	0	28	9646	2
[	Ba	137	2.409	ug/L	0.069	2	43	16451	0
[>	Tb	159		ug/L			1095800	1085606	1
[	Tl	205	0.005	ug/L	0.001	25	30	184	22
[	Pb	208	0.116	ug/L	0.002	1	691	5494	1
[	Bi	209		ug/L			2712548	2642947	0
[	Th	232	0.157	ug/L	0.018	11	69	6449	10
[	U	238	0.009	ug/L	0.001	9	3	381	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT77 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 12:48:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	2000965	1
[	Be	9	0.031	ug/L	0.003	9	11	162	7
	C	13		ug/L			133450	161036	2
	Cl	37		ug/L			4493597	4806831	2
[>	Sc	45		ug/L			1326563	1337220	2
[	Al	27	79.768	ug/L	2.285	2	3293	3146101	0
[	V	51	0.159	ug/L	0.004	2	8426	12229	3
[	V-1	51	0.157	ug/L	0.005	3	62	3738	3
[	Cr	52	0.431	ug/L	0.014	3	24946	33259	2
[	Cr	53	0.427	ug/L	0.038	9	144	1042	6
[	Fe	54	39.680	ug/L	1.417	3	76518	131241	2
[	Fe	57	18.238	ug/L	0.724	3	10109	19522	2
[	Mn	55	1.480	ug/L	0.016	1	648	40865	2
[	Co	59	0.055	ug/L	0.002	3	86	1058	4
[>	Ge	72		ug/L			633989	617793	1
[	Ni	60	0.279	ug/L	0.012	4	122	1128	2
[	Ni	62	0.306	ug/L	0.031	10	91	251	5
[	Cu	63	2.794	ug/L	0.036	1	166	22759	0
[	Cu	65	2.761	ug/L	0.031	1	58	9930	0
[	Zn	66	23.848	ug/L	0.521	2	329	52883	2
[	Zn	67	21.238	ug/L	0.327	1	43	8006	0
[	Zn	68	22.703	ug/L	0.610	2	290	36367	1
[	As	75	0.047	ug/L	0.017	36	308	399	9
[	As-1	75	0.138	ug/L	0.105	76	10077	10103	0
[	Se	82	-0.010	ug/L	0.034	340	8	5	140
[	Se	78	0.350	ug/L	0.403	115	10190	10135	0
[	Mo	98	0.104	ug/L	0.007	6	8	506	5
	Y	89		ug/L			462466	440124	1
	Kr	83		ug/L			550	569	4
[>	In	115		ug/L			919574	944142	1
[	Ag	107	0.001	ug/L	0.000	32	18	31	14
[	Cd	111	0.190	ug/L	0.011	5	62	848	5
[	Cd	114	0.186	ug/L	0.012	6	31	1992	6
[	Sb	121	0.149	ug/L	0.007	4	46	1929	4
[	Sb	123	0.151	ug/L	0.003	2	36	1462	3
[	Ba	135	2.423	ug/L	0.047	1	28	9564	1
[	Ba	137	2.416	ug/L	0.030	1	43	16582	1
[>	Tb	159		ug/L			1095800	1105564	0
[	Tl	205	0.004	ug/L	0.001	23	30	173	19
[	Pb	208	0.112	ug/L	0.002	1	691	5438	2
[	Bi	209		ug/L			2712548	2658454	0
[	Th	232	0.062	ug/L	0.002	3	69	2623	4
[	U	238	0.003	ug/L	0.000	6	3	121	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT77 DSPK REN ✓ & 1130
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 12:52:48
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1986680	0
[	Be	9	24.635	ug/L	0.305	1	11	118148	1
	C	13		ug/L			133450	159408	0
	Cl	37		ug/L			4493597	5220740	3
[>	Sc	45		ug/L			1326563	1325266	1
|	Al	27	5087.636	ug/L	52.248	1	3293	198777659	2
|	V	51	25.269	ug/L	0.138	0	8426	597160	1
|	V-1	51	25.147	ug/L	0.077	0	62	584245	1
|	Cr	52	26.654	ug/L	0.622	2	24946	522041	1
|	Cr	53	26.233	ug/L	0.670	2	144	54860	1
|	Fe	54	4935.551	ug/L	24.003	0	76518	6748628	1
|	Fe	57	4975.310	ug/L	163.369	3	10109	2534170	3
|	Mn	55	26.224	ug/L	0.140	0	648	706850	1
[	Co	59	25.790	ug/L	0.055	0	86	451055	1
[>	Ge	72		ug/L			633989	622450	1
|	Ni	60	26.120	ug/L	0.545	2	122	95255	1
|	Ni	62	25.827	ug/L	1.109	4	91	13875	3
|	Cu	63	27.203	ug/L	0.524	1	166	221877	2
|	Cu	65	27.493	ug/L	0.286	1	58	99129	0
|	Zn	66	103.469	ug/L	1.286	1	329	230112	1
|	Zn	67	93.149	ug/L	2.049	2	43	35240	0
|	Zn	68	98.997	ug/L	0.326	0	290	158870	1
|	As	75	27.662	ug/L	0.421	1	308	58504	0
|	As-1	75	27.823	ug/L	0.689	2	10077	68197	0
|	Se	82	74.608	ug/L	0.976	1	8	17577	0
|	Se	78	74.884	ug/L	1.724	2	10190	54792	0
[	Mo	98	0.094	ug/L	0.009	9	8	460	8
	Y	89		ug/L			462466	449649	2
	Kr	83		ug/L			550	618	6
[>	In	115		ug/L			919574	931366	0
|	Ag	107	25.964	ug/L	0.692	2	18	219721	2
|	Cd	111	24.554	ug/L	0.367	1	62	100169	0
|	Cd	114	24.678	ug/L	0.156	0	31	256062	1
|	Sb	121	0.150	ug/L	0.006	4	46	1916	3
|	Sb	123	0.158	ug/L	0.006	3	36	1507	2
|	Ba	135	27.636	ug/L	0.404	1	28	107330	0
[	Ba	137	27.270	ug/L	0.267	0	43	184217	0
[>	Tb	159		ug/L			1095800	1111490	1
|	Tl	205	23.372	ug/L	0.197	0	30	787900	1
|	Pb	208	24.565	ug/L	0.197	0	691	1044029	0
|	Bi	209		ug/L			2712548	2551939	0
|	Th	232	23.456	ug/L	0.255	1	69	978322	0
[	U	238	22.946	ug/L	0.149	0	3	1017281	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 12:57:03
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1944945	1
	Be	9	51.864	ug/L	1.380	2	11	243428	1
	C	13		ug/L			133450	145493	3
	Cl	37		ug/L			4493597	5157625	2
>	Sc	45		ug/L			1326563	1332725	2
	Al	27	4917.257	ug/L	83.614	1	3293	193147228	0
	V	51	46.492	ug/L	1.891	4	8426	1097182	2
	V-1	51	46.617	ug/L	1.940	4	62	1088544	2
	Cr	52	49.307	ug/L	1.090	2	24946	949711	0
	Cr	53	49.783	ug/L	1.277	2	144	104555	0
	Fe	54	5004.048	ug/L	93.829	1	76518	6878859	1
	Fe	57	4978.777	ug/L	71.668	1	10109	2549632	0
	Mn	55	48.050	ug/L	1.819	3	648	1301276	2
	Co	59	49.588	ug/L	1.843	3	86	871648	2
>	Ge	72		ug/L			633989	615944	2
	Ni	60	50.305	ug/L	1.913	3	122	181353	2
	Ni	62	50.893	ug/L	2.052	4	91	26963	1
	Cu	63	51.224	ug/L	0.876	1	166	413202	1
	Cu	65	50.670	ug/L	1.266	2	58	180676	0
	Zn	66	51.197	ug/L	0.715	1	329	112825	2
	Zn	67	50.977	ug/L	0.706	1	43	19102	1
	Zn	68	51.737	ug/L	0.506	0	290	82293	2
	As	75	50.708	ug/L	1.353	2	308	105841	0
	As-1	75	50.767	ug/L	1.784	3	10077	115020	0
	Se	82	51.683	ug/L	0.811	1	8	12049	1
	Se	78	51.243	ug/L	2.282	4	10190	40210	0
	Mo	98	49.255	ug/L	1.045	2	8	234513	1
	Y	89		ug/L			462466	438807	1
	Kr	83		ug/L			550	581	0
>	In	115		ug/L			919574	920830	1
	Ag	107	51.293	ug/L	0.893	1	18	429125	0
	Cd	111	51.634	ug/L	0.968	1	62	208186	1
	Cd	114	51.220	ug/L	0.943	1	31	525337	1
	Sb	121	50.284	ug/L	1.196	2	46	617612	1
	Sb	123	51.035	ug/L	0.759	1	36	468974	0
	Ba	135	49.406	ug/L	0.652	1	28	189674	0
	Ba	137	48.661	ug/L	0.393	0	43	324959	0
>	Tb	159		ug/L			1095800	1086870	1
	Tl	205	46.151	ug/L	0.375	0	30	1521324	0
	Pb	208	48.637	ug/L	0.368	0	691	2020727	0
	Bi	209		ug/L			2712548	2577022	0
	Th	232	46.167	ug/L	0.234	0	69	1883054	0
	U	238	50.671	ug/L	3.821	7	3	2197773	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 13:04:02
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1925425	0
[	Be	9	0.003	ug/L	0.001	37	11	23	19
	C	13		ug/L			133450	147337	0
	Cl	37		ug/L			4493597	4908481	2
[>	Sc	45		ug/L			1326563	1278840	0
[	Al	27	0.035	ug/L	0.021	60	3293	4486	17
[	V	51	0.017	ug/L	0.014	82	8426	8503	3
[	V-1	51	0.002	ug/L	0.000	22	62	99	8
[	Cr	52	0.066	ug/L	0.034	51	24946	25233	2
[	Cr	53	0.012	ug/L	0.015	117	144	163	17
[	Fe	54	0.074	ug/L	2.239	3008	76518	73867	4
[	Fe	57	-3.429	ug/L	0.855	24	10109	8067	5
[	Mn	55	-0.002	ug/L	0.001	64	648	581	5
[	Co	59	0.000	ug/L	0.001	281	86	88	17
[>	Ge	72		ug/L			633989	603472	3
[	Ni	60	-0.000	ug/L	0.003	1854	122	116	5
[	Ni	62	0.074	ug/L	0.070	94	91	125	27
[	Cu	63	0.008	ug/L	0.005	61	166	220	17
[	Cu	65	0.005	ug/L	0.002	48	58	72	10
[	Zn	66	0.143	ug/L	0.006	4	329	621	4
[	Zn	67	0.146	ug/L	0.015	10	43	94	4
[	Zn	68	0.149	ug/L	0.020	13	290	506	3
[	As	75	0.016	ug/L	0.012	75	308	326	4
[	As-1	75	0.129	ug/L	0.148	114	10077	9847	0
[	Se	82	0.021	ug/L	0.041	194	8	12	72
[	Se	78	0.462	ug/L	0.508	109	10190	9961	0
[	Mo	98	0.011	ug/L	0.002	18	8	57	14
	Y	89		ug/L			462466	428552	0
	Kr	83		ug/L			550	557	1
[>	In	115		ug/L			919574	908183	1
[	Ag	107	0.000	ug/L	0.000	8	18	21	2
[	Cd	111	0.008	ug/L	0.000	4	62	93	2
[	Cd	114	0.001	ug/L	0.000	33	31	43	10
[	Sb	121	0.059	ug/L	0.008	13	46	766	14
[	Sb	123	0.060	ug/L	0.009	14	36	582	14
[	Ba	135	0.004	ug/L	0.000	11	28	42	2
[	Ba	137	0.007	ug/L	0.001	23	43	86	12
[>	Tb	159		ug/L			1095800	1051077	1
[	Tl	205	0.013	ug/L	0.006	46	30	430	42
[	Pb	208	0.003	ug/L	0.000	10	691	786	0
[	Bi	209		ug/L			2712548	2603605	0
[	Th	232	0.176	ug/L	0.019	11	69	7020	9
[	U	238	0.003	ug/L	0.000	13	3	113	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR67R MB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 13:09:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1945832	2
	Be	9	0.002	ug/L	0.001	64	11	20	30
	C	13		ug/L			133450	159087	1
	Cl	37		ug/L			4493597	4843242	3
>	Sc	45		ug/L			1326563	1291560	2
	Al	27	0.799	ug/L	0.020	2	3293	33633	1
	V	51	0.035	ug/L	0.005	14	8426	9007	1
	V-1	51	0.006	ug/L	0.001	13	62	199	7
	Cr	52	0.126	ug/L	0.018	14	24946	26582	2
	Cr	53	0.023	ug/L	0.001	6	144	187	3
	Fe	54	13.525	ug/L	2.611	19	76518	92268	1
	Fe	57	-1.817	ug/L	0.563	30	10109	8942	2
	Mn	55	0.022	ug/L	0.001	4	648	1218	0
	Co	59	0.002	ug/L	0.001	65	86	117	20
>	Ge	72		ug/L			633989	602505	1
	Ni	60	-0.018	ug/L	0.002	11	122	54	13
	Ni	62	0.005	ug/L	0.017	320	91	90	11
	Cu	63	0.073	ug/L	0.002	2	166	737	1
	Cu	65	0.073	ug/L	0.003	3	58	310	3
	Zn	66	0.829	ug/L	0.024	2	329	2094	1
	Zn	67	0.775	ug/L	0.061	7	43	324	5
	Zn	68	0.793	ug/L	0.055	6	290	1505	4
	As	75	0.020	ug/L	0.014	68	308	334	9
	As-1	75	0.148	ug/L	0.100	67	10077	9873	0
	Se	82	-0.017	ug/L	0.023	135	8	4	127
	Se	78	0.504	ug/L	0.354	70	10190	9973	0
	Mo	98	0.007	ug/L	0.002	21	8	41	18
	Y	89		ug/L			462466	437624	1
	Kr	83		ug/L			550	578	4
>	In	115		ug/L			919574	911415	0
	Ag	107	0.000	ug/L	0.000	140	18	20	17
	Cd	111	0.008	ug/L	0.003	38	62	94	13
	Cd	114	0.000	ug/L	0.000	137	31	34	13
	Sb	121	0.020	ug/L	0.003	12	46	286	10
	Sb	123	0.018	ug/L	0.003	17	36	200	14
	Ba	135	0.007	ug/L	0.002	22	28	56	10
	Ba	137	0.006	ug/L	0.001	26	43	81	12
>	Tb	159		ug/L			1095800	1069891	0
	Tl	205	0.019	ug/L	0.008	44	30	640	42
	Pb	208	-0.006	ug/L	0.000	4	691	429	1
	Bi	209		ug/L			2712548	2607996	0
	Th	232	0.134	ug/L	0.013	9	69	5438	9
	U	238	0.001	ug/L	0.000	16	3	40	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR67R MBSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 13:13:33
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	2001663	2
[	Be	9	0.005	ug/L	0.001	23	11	36	17
	C	13		ug/L			133450	166019	1
	Cl	37		ug/L			4493597	5139606	0
[>	Sc	45		ug/L			1326563	1336757	1
[	Al	27	4958.695	ug/L	147.024	2	3293	195336167	1
[	V	51	0.013	ug/L	0.014	101	8426	8812	5
[	V-1	51	0.006	ug/L	0.001	8	62	208	5
[	Cr	52	0.245	ug/L	0.040	16	24946	29753	4
[	Cr	53	0.221	ug/L	0.008	3	144	610	0
[	Fe	54	4871.490	ug/L	60.050	1	76518	6719286	1
[	Fe	57	4910.285	ug/L	93.997	1	10109	2522619	2
[	Mn	55	0.075	ug/L	0.002	3	648	2684	1
[	Co	59	0.010	ug/L	0.002	19	86	261	11
[>	Ge	72		ug/L			633989	614378	0
[	Ni	60	0.168	ug/L	0.001	0	122	723	1
[	Ni	62	0.405	ug/L	0.122	30	91	302	21
[	Cu	63	0.368	ug/L	0.003	0	166	3122	0
[	Cu	65	0.229	ug/L	0.013	5	58	872	5
[	Zn	66	6.017	ug/L	0.140	2	329	13508	1
[	Zn	67	6.357	ug/L	0.173	2	43	2412	2
[	Zn	68	5.609	ug/L	0.058	1	290	9150	1
[	As	75	0.020	ug/L	0.016	77	308	341	9
[	As-1	75	0.105	ug/L	0.015	14	10077	9982	0
[	Se	82	-0.020	ug/L	0.048	240	8	3	331
[	Se	78	0.349	ug/L	0.061	17	10190	10081	0
[	Mo	98	0.095	ug/L	0.006	6	8	460	6
	Y	89		ug/L			462466	444701	0
	Kr	83		ug/L			550	587	3
[>	In	115		ug/L			919574	920320	1
[	Ag	107	0.005	ug/L	0.001	27	18	62	17
[	Cd	111	0.014	ug/L	0.001	9	62	116	3
[	Cd	114	0.003	ug/L	0.001	49	31	58	22
[	Sb	121	0.016	ug/L	0.003	16	46	239	13
[	Sb	123	0.018	ug/L	0.003	14	36	201	10
[	Ba	135	0.037	ug/L	0.003	8	28	171	6
[	Ba	137	0.039	ug/L	0.002	5	43	302	3
[>	Tb	159		ug/L			1095800	1093563	0
[	Tl	205	0.007	ug/L	0.001	18	30	250	15
[	Pb	208	0.018	ug/L	0.001	4	691	1437	1
[	Bi	209		ug/L			2712548	2556058	1
[	Th	232	0.113	ug/L	0.007	6	69	4694	6
[	U	238	0.005	ug/L	0.000	2	3	228	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR67R ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 13:17:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1961927	0
[	Be	9	0.031	ug/L	0.000	1	11	156	1
	C	13		ug/L			133450	160815	2
	Cl	37		ug/L			4493597	5008394	3
[>	Sc	45		ug/L			1326563	1415634	0
[	Al	27	2.038	ug/L	0.543	26	3293	88537	25
[	V	51	0.076	ug/L	0.004	5	8426	10891	1
[	V-1	51	0.265	ug/L	0.011	4	62	6640	3
[	Cr	52	0.104	ug/L	0.018	16	24946	28689	1
[	Cr	53	0.776	ug/L	0.043	5	144	1882	4
[	Fe	54	927.769	ug/L	20.665	2	76518	1421385	2
[	Fe	57	886.342	ug/L	38.970	4	10109	491054	4
[	Mn	55	720.365	ug/L	11.726	1	648	20723367	2
[	Co	59	0.085	ug/L	0.004	4	86	1679	4
[>	Ge	72		ug/L			633989	614890	2
[	Ni	60	0.456	ug/L	0.030	6	122	1758	5
[	Ni	62	0.147	ug/L	0.004	2	91	166	2
[	Cu	63	2.086	ug/L	0.089	4	166	16947	1
[	Cu	65	1.921	ug/L	0.019	0	58	6893	1
[	Zn	66	4.044	ug/L	0.133	3	329	9187	0
[	Zn	67	3.854	ug/L	0.103	2	43	1480	3
[	Zn	68	5.463	ug/L	0.123	2	290	8923	0
[	As	75	2.259	ug/L	0.067	2	308	4992	1
[	As-1	75	2.248	ug/L	0.153	6	10077	14422	0
[	Se	82	0.085	ug/L	0.056	65	8	27	46
[	Se	78	0.063	ug/L	0.356	566	10190	9917	0
[	Mo	98	0.369	ug/L	0.007	1	8	1760	1
	Y	89		ug/L			462466	443688	1
	Kr	83		ug/L			550	567	1
[>	In	115		ug/L			919574	926982	0
[	Ag	107	0.001	ug/L	0.000	31	18	26	9
[	Cd	111	0.006	ug/L	0.001	11	62	86	3
[	Cd	114	0.002	ug/L	0.001	53	31	49	19
[	Sb	121	0.011	ug/L	0.003	28	46	185	20
[	Sb	123	0.012	ug/L	0.003	23	36	152	17
[	Ba	135	9.956	ug/L	0.065	0	28	38508	1
[	Ba	137	9.751	ug/L	0.060	0	43	65591	0
[>	Tb	159		ug/L			1095800	1105537	1
[	Tl	205	0.018	ug/L	0.003	19	30	619	16
[	Pb	208	0.122	ug/L	0.002	1	691	5844	1
[	Bi	209		ug/L			2712548	2493770	0
[	Th	232	0.062	ug/L	0.002	2	69	2645	3
[	U	238	0.085	ug/L	0.001	1	3	3740	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR67R A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 13:22:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1990736	1
	Be	9	0.004	ug/L	0.003	73	11	29	44
	C	13		ug/L			133450	161828	3
	Cl	37		ug/L			4493597	4884074	2
>	Sc	45		ug/L			1326563	1401910	1
	Al	27	2.216	ug/L	0.091	4	3293	95052	3
	V	51	0.071	ug/L	0.014	19	8426	10663	3
	V-1	51	0.281	ug/L	0.011	3	62	6978	4
	Cr	52	0.046	ug/L	0.027	58	24946	27277	2
	Cr	53	0.794	ug/L	0.017	2	144	1903	2
	Fe	54	940.313	ug/L	24.246	2	76518	1425753	3
	Fe	57	910.983	ug/L	20.921	2	10109	499536	2
	Mn	55	723.761	ug/L	20.331	2	648	20615448	2
	Co	59	0.080	ug/L	0.003	3	86	1572	2
>	Ge	72		ug/L			633989	590730	0
	Ni	60	0.477	ug/L	0.006	1	122	1763	1
	Ni	62	0.130	ug/L	0.006	4	91	151	1
	Cu	63	0.593	ug/L	0.004	0	166	4740	0
	Cu	65	0.431	ug/L	0.012	2	58	1527	3
	Zn	66	3.600	ug/L	0.075	2	329	7894	2
	Zn	67	3.676	ug/L	0.044	1	43	1358	1
	Zn	68	5.269	ug/L	0.073	1	290	8280	1
	As	75	2.309	ug/L	0.041	1	308	4898	1
	As-1	75	2.485	ug/L	0.044	1	10077	14331	0
	Se	82	0.075	ug/L	0.022	29	8	24	19
	Se	78	0.751	ug/L	0.178	23	10190	9921	0
	Mo	98	0.348	ug/L	0.011	3	8	1599	2
	Y	89		ug/L			462466	433957	1
	Kr	83		ug/L			550	579	3
>	In	115		ug/L			919574	916502	1
	Ag	107	0.000	ug/L	0.001	176	18	21	26
	Cd	111	0.004	ug/L	0.002	55	62	78	11
	Cd	114	0.002	ug/L	0.001	34	31	46	12
	Sb	121	0.012	ug/L	0.002	13	46	190	11
	Sb	123	0.010	ug/L	0.001	12	36	131	9
	Ba	135	10.130	ug/L	0.144	1	28	38734	1
	Ba	137	10.140	ug/L	0.054	0	43	67430	0
>	Tb	159		ug/L			1095800	1096094	2
	Tl	205	0.012	ug/L	0.002	13	30	436	13
	Pb	208	0.130	ug/L	0.004	3	691	6121	1
	Bi	209		ug/L			2712548	2485256	1
	Th	232	0.043	ug/L	0.001	2	69	1822	0
	U	238	0.087	ug/L	0.003	3	3	3787	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR67R ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 13:26:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1964253	0
[	Be	9	0.006	ug/L	0.001	10	11	38	6
	C	13		ug/L			133450	165521	2
	Cl	37		ug/L			4493597	5107460	2
[>	Sc	45		ug/L			1326563	1403879	0
[	Al	27	4739.192	ug/L	108.447	2	3293	196119562	1
[	V	51	0.086	ug/L	0.006	6	8426	11028	0
[	V-1	51	0.287	ug/L	0.009	3	62	7136	2
[	Cr	52	0.109	ug/L	0.007	6	24946	28546	0
[	Cr	53	0.828	ug/L	0.018	2	144	1981	1
[	Fe	54	5429.437	ug/L	112.344	2	76518	7855980	1
[	Fe	57	5502.172	ug/L	151.890	2	10109	2967437	2
[	Mn	55	716.516	ug/L	12.725	1	648	20439111	1
[	Co	59	0.086	ug/L	0.004	4	86	1693	4
[>	Ge	72		ug/L			633989	594609	2
[	Ni	60	0.544	ug/L	0.006	1	122	2006	2
[	Ni	62	0.323	ug/L	0.066	20	91	250	12
[	Cu	63	0.739	ug/L	0.033	4	166	5910	2
[	Cu	65	0.436	ug/L	0.013	3	58	1554	2
[	Zn	66	4.340	ug/L	0.098	2	329	9515	1
[	Zn	67	5.606	ug/L	0.192	3	43	2063	1
[	Zn	68	5.844	ug/L	0.342	5	290	9207	3
[	As	75	2.246	ug/L	0.040	1	308	4803	0
[	As-1	75	2.374	ug/L	0.152	6	10077	14199	0
[	Se	82	0.001	ug/L	0.047	4101	8	8	130
[	Se	78	0.520	ug/L	0.387	74	10190	9851	0
[	Mo	98	0.349	ug/L	0.010	2	8	1611	1
	Y	89		ug/L			462466	423453	1
	Kr	83		ug/L			550	591	3
[>	In	115		ug/L			919574	922772	1
[	Ag	107	0.005	ug/L	0.001	28	18	58	19
[	Cd	111	0.010	ug/L	0.005	48	62	104	20
[	Cd	114	0.002	ug/L	0.002	68	31	55	29
[	Sb	121	0.014	ug/L	0.002	15	46	213	12
[	Sb	123	0.014	ug/L	0.001	5	36	169	5
[	Ba	135	9.958	ug/L	0.384	3	28	38324	2
[	Ba	137	9.841	ug/L	0.067	0	43	65896	1
[>	Tb	159		ug/L			1095800	1092649	0
[	Tl	205	0.010	ug/L	0.000	1	30	356	1
[	Pb	208	0.136	ug/L	0.003	2	691	6355	2
[	Bi	209		ug/L			2712548	2429850	0
[	Th	232	0.033	ug/L	0.002	6	69	1411	5
[	U	238	0.084	ug/L	0.001	0	3	3682	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR67R B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 13:30:29
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			1972784	2032595	3
[	**Be**	**9**	**0.003**	ug/L	0.000	14	11	24	10
	C	**13**		ug/L			133450	166420	1
	Cl	**37**		ug/L			4493597	4774699	3
[>	**Sc**	**45**		ug/L			1326563	1393101	2
[	**Al**	**27**	**11.350**	ug/L	0.485	4	3293	469802	6
[	**V**	**51**	**0.194**	ug/L	0.015	7	8426	13592	1
[	**V-1**	**51**	**0.297**	ug/L	0.015	4	62	7308	2
[	**Cr**	**52**	**0.056**	ug/L	0.052	94	24946	27286	4
[	**Cr**	**53**	**0.421**	ug/L	0.014	3	144	1073	1
[	**Fe**	**54**	**219.744**	ug/L	13.059	5	76518	392465	4
[	**Fe**	**57**	**207.799**	ug/L	4.617	2	10109	121394	1
[	**Mn**	**55**	**188.970**	ug/L	3.930	2	648	5348093	0
[	**Co**	**59**	**0.035**	ug/L	0.002	5	86	740	6
[>	**Ge**	**72**		ug/L			633989	598737	2
[	**Ni**	**60**	**0.296**	ug/L	0.021	6	122	1153	7
[	**Ni**	**62**	**0.093**	ug/L	0.013	13	91	134	3
[	**Cu**	**63**	**0.551**	ug/L	0.018	3	166	4478	1
[	**Cu**	**65**	**0.398**	ug/L	0.003	0	58	1434	2
[	**Zn**	**66**	**5.197**	ug/L	0.105	2	329	11411	1
[	**Zn**	**67**	**4.797**	ug/L	0.048	1	43	1784	2
[	**Zn**	**68**	**6.398**	ug/L	0.244	3	290	10126	1
[	**As**	**75**	**3.180**	ug/L	0.099	3	308	6725	0
[	**As-1**	**75**	**3.273**	ug/L	0.197	6	10077	16109	0
[	**Se**	**82**	**0.063**	ug/L	0.076	120	8	21	76
[	**Se**	**78**	**0.389**	ug/L	0.397	102	10190	9843	0
[	**Mo**	**98**	**0.411**	ug/L	0.004	1	8	1910	3
	Y	**89**		ug/L			462466	428807	0
	Kr	**83**		ug/L			550	552	5
[>	**In**	**115**		ug/L			919574	938612	0
[	**Ag**	**107**	**0.000**	ug/L	0.001	281	18	20	22
[	**Cd**	**111**	**0.004**	ug/L	0.000	9	62	81	1
[	**Cd**	**114**	**0.002**	ug/L	0.001	36	31	52	14
[	**Sb**	**121**	**0.014**	ug/L	0.001	7	46	228	5
[	**Sb**	**123**	**0.015**	ug/L	0.003	23	36	176	18
[	**Ba**	**135**	**5.330**	ug/L	0.125	2	28	20884	2
[	**Ba**	**137**	**5.211**	ug/L	0.105	2	43	35514	2
[>	**Tb**	**159**		ug/L			1095800	1100053	1
[	**Tl**	**205**	**0.009**	ug/L	0.000	3	30	325	4
[	**Pb**	**208**	**0.021**	ug/L	0.002	11	691	1595	4
[	**Bi**	**209**		ug/L			2712548	2530680	0
[	**Th**	**232**	**0.019**	ug/L	0.002	8	69	837	7
[	**U**	**238**	**0.041**	ug/L	0.001	2	3	1818	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT77 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 13:35:47
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	2088288	1
[	Be	9	0.004	ug/L	0.001	20	11	34	11
	C	13		ug/L			133450	167774	1
	Cl	37		ug/L			4493597	4759768	0
[>	Sc	45		ug/L			1326563	1307460	1
|	Al	27	9.016	ug/L	0.323	3	3293	350667	2
|	V	51	0.114	ug/L	0.016	13	8426	10925	3
|	V-1	51	0.090	ug/L	0.002	2	62	2122	1
|	Cr	52	0.656	ug/L	0.031	4	24946	36658	1
|	Cr	53	0.576	ug/L	0.029	5	144	1327	4
|	Fe	54	47.947	ug/L	1.018	2	76518	139364	1
|	Fe	57	19.690	ug/L	0.998	5	10109	19815	1
|	Mn	55	2.931	ug/L	0.067	2	648	78496	1
[	Co	59	0.046	ug/L	0.000	0	86	879	1
[>	Ge	72		ug/L			633989	598714	0
|	Ni	60	0.044	ug/L	0.004	9	122	269	4
|	Ni	62	0.071	ug/L	0.036	50	91	123	15
|	Cu	63	21.181	ug/L	0.550	2	166	166186	1
|	Cu	65	21.233	ug/L	0.711	3	58	73646	2
|	Zn	66	71.727	ug/L	0.328	0	329	153537	0
|	Zn	67	63.774	ug/L	0.457	0	43	23224	1
|	Zn	68	69.101	ug/L	0.222	0	290	106750	1
|	As	75	2.379	ug/L	0.027	1	308	5106	0
|	As-1	75	2.518	ug/L	0.098	3	10077	14591	0
|	Se	82	0.032	ug/L	0.025	77	8	14	36
|	Se	78	0.516	ug/L	0.321	62	10190	9919	1
[	Mo	98	0.055	ug/L	0.004	8	8	260	7
	Y	89		ug/L			462466	430778	1
	Kr	83		ug/L			550	541	0
[>	In	115		ug/L			919574	934138	1
|	Ag	107	0.002	ug/L	0.001	55	18	31	24
|	Cd	111	0.084	ug/L	0.002	2	62	408	3
|	Cd	114	0.088	ug/L	0.004	4	31	942	4
|	Sb	121	0.361	ug/L	0.006	1	46	4545	0
|	Sb	123	0.365	ug/L	0.012	3	36	3444	3
|	Ba	135	2.991	ug/L	0.053	1	28	11678	2
[	Ba	137	2.926	ug/L	0.007	0	43	19862	1
[>	Tb	159		ug/L			1095800	1067996	1
|	Tl	205	0.003	ug/L	0.000	12	30	143	9
|	Pb	208	2.859	ug/L	0.053	1	691	117326	0
|	Bi	209		ug/L			2712548	2581811	0
|	Th	232	0.020	ug/L	0.002	9	69	872	7
[	U	238	0.001	ug/L	0.000	6	3	62	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT77 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 13:40:01
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	2006658	3
[	Be	9	0.004	ug/L	0.001	36	11	29	18
	C	13		ug/L			133450	161854	2
	Cl	37		ug/L			4493597	4746229	1
[>	Sc	45		ug/L			1326563	1316613	0
[	Al	27	70.366	ug/L	1.696	2	3293	2734091	1
[	V	51	0.361	ug/L	0.013	3	8426	16708	1
[	V-1	51	0.393	ug/L	0.010	2	62	9130	2
[	Cr	52	0.847	ug/L	0.070	8	24946	40447	2
[	Cr	53	0.967	ug/L	0.035	3	144	2146	2
[	Fe	54	973.399	ug/L	21.617	2	76518	1383166	1
[	Fe	57	898.718	ug/L	2.212	0	10109	462976	0
[	Mn	55	104.991	ug/L	2.125	2	648	2809316	1
[	Co	59	0.122	ug/L	0.002	1	86	2199	0
[>	Ge	72		ug/L			633989	600029	1
[	Ni	60	0.514	ug/L	0.018	3	122	1920	1
[	Ni	62	0.463	ug/L	0.046	10	91	325	7
[	Cu	63	2.833	ug/L	0.063	2	166	22407	0
[	Cu	65	2.758	ug/L	0.067	2	58	9635	1
[	Zn	66	42.325	ug/L	0.996	2	329	90909	1
[	Zn	67	36.919	ug/L	0.396	1	43	13490	1
[	Zn	68	40.663	ug/L	1.537	3	290	63042	2
[	As	75	1.510	ug/L	0.033	2	308	3354	1
[	As-1	75	1.641	ug/L	0.107	6	10077	12850	0
[	Se	82	-0.024	ug/L	0.079	335	8	2	722
[	Se	78	0.495	ug/L	0.332	67	10190	9928	0
[	Mo	98	0.429	ug/L	0.007	1	8	1999	2
	Y	89		ug/L			462466	428296	0
	Kr	83		ug/L			550	579	5
[>	In	115		ug/L			919574	941023	1
[	Ag	107	0.002	ug/L	0.001	55	18	39	28
[	Cd	111	0.126	ug/L	0.010	8	62	581	8
[	Cd	114	0.119	ug/L	0.004	3	31	1275	3
[	Sb	121	0.668	ug/L	0.005	0	46	8438	1
[	Sb	123	0.671	ug/L	0.025	3	36	6334	2
[	Ba	135	5.732	ug/L	0.016	0	28	22518	1
[	Ba	137	5.643	ug/L	0.041	0	43	38552	1
[>	Tb	159		ug/L			1095800	1085710	1
[	Tl	205	0.004	ug/L	0.001	18	30	163	15
[	Pb	208	0.903	ug/L	0.006	0	691	38132	0
[	Bi	209		ug/L			2712548	2580329	1
[	Th	232	0.021	ug/L	0.003	11	69	933	11
[	U	238	0.008	ug/L	0.001	7	3	351	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT77 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 13:44:15
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1977361	3
[	Be	9	0.023	ug/L	0.000	1	11	119	2
	C	13		ug/L			133450	164139	4
	Cl	37		ug/L			4493597	4781692	3
[>	Sc	45		ug/L			1326563	1301724	1
[	Al	27	20.908	ug/L	0.635	3	3293	805641	3
[	V	51	0.117	ug/L	0.016	13	8426	10943	2
[	V-1	51	0.104	ug/L	0.005	5	62	2440	3
[	Cr	52	0.628	ug/L	0.047	7	24946	35972	1
[	Cr	53	0.588	ug/L	0.034	5	144	1345	4
[	Fe	54	37.441	ug/L	3.725	9	76518	124760	2
[	Fe	57	13.091	ug/L	1.229	9	10109	16439	2
[	Mn	55	2.713	ug/L	0.025	0	648	72390	1
[	Co	59	0.046	ug/L	0.003	5	86	868	6
[>	Ge	72		ug/L			633989	592656	1
[	Ni	60	0.182	ug/L	0.005	2	122	746	3
[	Ni	62	0.185	ug/L	0.025	13	91	179	5
[	Cu	63	18.090	ug/L	0.558	3	166	140501	2
[	Cu	65	18.085	ug/L	0.420	2	58	62094	0
[	Zn	66	66.290	ug/L	1.142	1	329	140461	0
[	Zn	67	57.201	ug/L	1.341	2	43	20618	0
[	Zn	68	64.197	ug/L	1.719	2	290	98160	1
[	As	75	2.315	ug/L	0.045	1	308	4926	0
[	As-1	75	2.511	ug/L	0.096	3	10077	14429	0
[	Se	82	-0.016	ug/L	0.025	160	8	4	134
[	Se	78	0.712	ug/L	0.195	27	10190	9930	0
[	Mo	98	0.064	ug/L	0.003	5	8	298	3
	Y	89		ug/L			462466	422113	2
	Kr	83		ug/L			550	569	1
[>	In	115		ug/L			919574	928299	1
[	Ag	107	0.002	ug/L	0.001	53	18	35	24
[	Cd	111	0.085	ug/L	0.011	13	62	409	10
[	Cd	114	0.079	ug/L	0.003	3	31	848	4
[	Sb	121	0.330	ug/L	0.006	1	46	4130	1
[	Sb	123	0.339	ug/L	0.011	3	36	3178	2
[	Ba	135	2.581	ug/L	0.033	1	28	10018	1
[	Ba	137	2.551	ug/L	0.042	1	43	17215	1
[>	Tb	159		ug/L			1095800	1069063	0
[	Tl	205	0.003	ug/L	0.001	16	30	135	12
[	Pb	208	1.144	ug/L	0.008	0	691	47421	0
[	Bi	209		ug/L			2712548	2596033	1
[	Th	232	0.010	ug/L	0.002	18	69	472	15
[	U	238	0.001	ug/L	0.000	12	3	59	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT77 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 13:48:30
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1942108	0
[	Be	9	0.004	ug/L	0.001	35	11	29	22
	C	13		ug/L			133450	161779	2
	Cl	37		ug/L			4493597	4861274	0
[>	Sc	45		ug/L			1326563	1328784	2
[	Al	27	14.853	ug/L	0.199	1	3293	584989	1
[	V	51	0.110	ug/L	0.012	10	8426	11005	1
[	V-1	51	0.138	ug/L	0.001	0	62	3283	2
[	Cr	52	0.421	ug/L	0.030	7	24946	32859	1
[	Cr	53	0.525	ug/L	0.014	2	144	1243	4
[	Fe	54	239.652	ug/L	9.740	4	76518	401278	1
[	Fe	57	219.552	ug/L	4.823	2	10109	121778	2
[	Mn	55	99.838	ug/L	4.927	4	648	2694100	2
[	Co	59	0.085	ug/L	0.003	3	86	1567	1
[>	Ge	72		ug/L			633989	602182	2
[	Ni	60	0.483	ug/L	0.020	4	122	1818	3
[	Ni	62	0.408	ug/L	0.009	2	91	298	2
[	Cu	63	2.222	ug/L	0.060	2	166	17682	4
[	Cu	65	2.135	ug/L	0.044	2	58	7499	4
[	Zn	66	34.539	ug/L	0.925	2	329	74495	0
[	Zn	67	30.891	ug/L	0.639	2	43	11332	0
[	Zn	68	33.131	ug/L	0.431	1	290	51612	1
[	As	75	0.866	ug/L	0.020	2	308	2056	1
[	As-1	75	0.998	ug/L	0.152	15	10077	11590	0
[	Se	82	-0.032	ug/L	0.007	21	8	0	282
[	Se	78	0.478	ug/L	0.482	100	10190	9951	0
[	Mo	98	0.384	ug/L	0.002	0	8	1793	2
	Y	89		ug/L			462466	425380	0
	Kr	83		ug/L			550	568	4
[>	In	115		ug/L			919574	929045	1
[	Ag	107	0.001	ug/L	0.000	29	18	24	8
[	Cd	111	0.087	ug/L	0.003	3	62	417	2
[	Cd	114	0.086	ug/L	0.006	6	31	920	5
[	Sb	121	0.574	ug/L	0.020	3	46	7163	2
[	Sb	123	0.584	ug/L	0.014	2	36	5456	2
[	Ba	135	5.242	ug/L	0.046	0	28	20330	0
[	Ba	137	5.227	ug/L	0.060	1	43	35255	0
[>	Tb	159		ug/L			1095800	1103357	0
[	Tl	205	0.004	ug/L	0.001	13	30	169	10
[	Pb	208	0.289	ug/L	0.005	1	691	12873	1
[	Bi	209		ug/L			2712548	2600134	0
[	Th	232	0.009	ug/L	0.002	16	69	460	14
[	U	238	0.004	ug/L	0.000	11	3	176	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 13:52:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1925896	1
[	Be	9	52.247	ug/L	1.530	2	11	242834	1
	C	13		ug/L			133450	149553	0
	Cl	37		ug/L			4493597	5062938	0
[>	Sc	45		ug/L			1326563	1280741	2
	Al	27	5189.966	ug/L	95.240	1	3293	195888081	1
	V	51	48.823	ug/L	0.876	1	8426	1107128	1
	V-1	51	48.736	ug/L	0.864	1	62	1093898	0
	Cr	52	50.696	ug/L	1.976	3	24946	937543	2
	Cr	53	50.404	ug/L	1.448	2	144	101711	0
	Fe	54	5106.089	ug/L	250.929	4	76518	6740297	3
	Fe	57	5274.417	ug/L	311.982	5	10109	2592837	3
	Mn	55	47.729	ug/L	0.959	2	648	1242273	0
[	Co	59	50.990	ug/L	0.580	1	86	861551	1
[>	Ge	72		ug/L			633989	598290	0
	Ni	60	51.406	ug/L	0.395	0	122	180105	1
	Ni	62	48.398	ug/L	1.321	2	91	24926	2
	Cu	63	50.938	ug/L	0.922	1	166	399246	2
	Cu	65	51.163	ug/L	1.186	2	58	177257	1
	Zn	66	51.077	ug/L	0.218	0	329	109347	0
	Zn	67	51.137	ug/L	1.205	2	43	18618	2
	Zn	68	51.724	ug/L	1.160	2	290	79910	1
	As	75	50.739	ug/L	0.481	0	308	102911	0
	As-1	75	50.643	ug/L	0.494	0	10077	111532	0
	Se	82	51.607	ug/L	0.406	0	8	11690	1
	Se	78	50.618	ug/L	0.267	0	10190	38721	0
[	Mo	98	49.949	ug/L	0.054	0	8	231066	0
	Y	89		ug/L			462466	423317	0
	Kr	83		ug/L			550	557	3
[>	In	115		ug/L			919574	918853	0
	Ag	107	50.546	ug/L	0.470	0	18	422013	0
	Cd	111	52.042	ug/L	0.354	0	62	209394	0
	Cd	114	51.114	ug/L	0.471	0	31	523178	0
	Sb	121	50.693	ug/L	0.265	0	46	621409	0
	Sb	123	51.660	ug/L	0.295	0	36	473749	0
	Ba	135	49.069	ug/L	0.815	1	28	187989	1
[	Ba	137	48.707	ug/L	0.660	1	43	324572	0
[>	Tb	159		ug/L			1095800	1078583	0
	Tl	205	46.895	ug/L	0.286	0	30	1534090	0
	Pb	208	48.709	ug/L	0.089	0	691	2008396	0
	Bi	209		ug/L			2712548	2537012	0
	Th	232	46.271	ug/L	0.653	1	69	1872827	0
[	U	238	53.595	ug/L	0.388	0	3	2305809	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 13:59:45
Number of Replicates: 3
Method File: C:\NexION\Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION\Data\MassCal\Default.tun
Optimization File: C:\NexION\Data\Conditions\Default.dac
Calibration File: C:\NexION\Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1870098	1
	Be	9	0.003	ug/L	0.001	39	11	25	23
	C	13		ug/L			133450	148650	0
	Cl	37		ug/L			4493597	4883098	1
>	Sc	45		ug/L			1326563	1252217	0
	Al	27	0.088	ug/L	0.059	67	3293	6353	35
	V	51	0.017	ug/L	0.006	33	8426	8337	1
	V-1	51	0.005	ug/L	0.000	7	62	175	5
	Cr	52	0.062	ug/L	0.016	26	24946	24642	1
	Cr	53	0.019	ug/L	0.004	18	144	174	4
	Fe	54	-1.233	ug/L	0.479	38	76518	70658	1
	Fe	57	-1.223	ug/L	1.130	92	10109	8954	5
	Mn	55	0.005	ug/L	0.005	117	648	729	19
	Co	59	0.001	ug/L	0.001	99	86	102	20
>	Ge	72		ug/L			633989	592837	0
	Ni	60	0.001	ug/L	0.005	517	122	118	14
	Ni	62	0.042	ug/L	0.017	41	91	107	8
	Cu	63	0.002	ug/L	0.003	181	166	169	14
	Cu	65	0.008	ug/L	0.001	18	58	81	6
	Zn	66	0.138	ug/L	0.007	4	329	599	2
	Zn	67	0.123	ug/L	0.043	35	43	84	18
	Zn	68	0.119	ug/L	0.010	8	290	453	3
	As	75	0.033	ug/L	0.008	24	308	354	4
	As-1	75	0.122	ug/L	0.014	11	10077	9666	0
	Se	82	-0.013	ug/L	0.025	185	8	4	118
	Se	78	0.394	ug/L	0.044	11	10190	9753	0
	Mo	98	0.013	ug/L	0.002	16	8	68	14
	Y	89		ug/L			462466	408129	1
	Kr	83		ug/L			550	583	0
>	In	115		ug/L			919574	894378	0
	Ag	107	0.003	ug/L	0.001	44	18	38	23
	Cd	111	0.010	ug/L	0.006	55	62	100	21
	Cd	114	0.004	ug/L	0.002	66	31	66	36
	Sb	121	0.061	ug/L	0.004	5	46	775	5
	Sb	123	0.064	ug/L	0.005	7	36	607	7
	Ba	135	0.007	ug/L	0.003	40	28	52	19
	Ba	137	0.009	ug/L	0.002	24	43	102	14
>	Tb	159		ug/L			1095800	1024804	0
	Tl	205	0.012	ug/L	0.005	38	30	415	35
	Pb	208	0.005	ug/L	0.001	22	691	851	5
	Bi	209		ug/L			2712548	2537596	1
	Th	232	0.176	ug/L	0.011	6	69	6830	5
	U	238	0.004	ug/L	0.001	16	3	146	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VU12 MB1 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 14:13:55
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1905246	1
[	Be	9	0.021	ug/L	0.001	5	11	107	4
	C	13		ug/L			133450	160647	3
	Cl	37		ug/L			4493597	4834541	5
[>	Sc	45		ug/L			1326563	1270826	1
[	Al	27	1.056	ug/L	0.025	2	3293	42700	1
[	V	51	0.041	ug/L	0.014	34	8426	8983	2
[	V-1	51	0.017	ug/L	0.001	5	62	431	4
[	Cr	52	0.162	ug/L	0.057	35	24946	26790	2
[	Cr	53	0.077	ug/L	0.009	11	144	292	4
[	Fe	54	15.428	ug/L	2.207	14	76518	93285	2
[	Fe	57	0.594	ug/L	0.391	65	10109	9974	2
[	Mn	55	0.028	ug/L	0.002	7	648	1357	3
[	Co	59	0.004	ug/L	0.000	12	86	144	4
[>	Ge	72		ug/L			633989	579575	2
[	Ni	60	0.001	ug/L	0.007	713	122	115	20
[	Ni	62	0.017	ug/L	0.023	129	91	92	10
[	Cu	63	1.226	ug/L	0.033	2	166	9451	1
[	Cu	65	1.198	ug/L	0.012	1	58	4073	1
[	Zn	66	3.362	ug/L	0.115	3	329	7252	3
[	Zn	67	3.046	ug/L	0.136	4	43	1110	2
[	Zn	68	3.271	ug/L	0.091	2	290	5145	4
[	As	75	0.027	ug/L	0.001	2	308	335	2
[	As-1	75	0.273	ug/L	0.148	54	10077	9741	0
[	Se	82	0.015	ug/L	0.021	136	8	10	40
[	Se	78	0.958	ug/L	0.555	57	10190	9845	1
[	Mo	98	0.017	ug/L	0.002	9	8	84	7
	Y	89		ug/L			462466	420142	1
	Kr	83		ug/L			550	561	1
[>	In	115		ug/L			919574	898461	1
[	Ag	107	0.001	ug/L	0.000	42	18	21	7
[	Cd	111	0.004	ug/L	0.001	20	62	77	4
[	Cd	114	-0.000	ug/L	0.000	247	31	29	8
[	Sb	121	0.017	ug/L	0.004	23	46	247	18
[	Sb	123	0.019	ug/L	0.002	12	36	208	10
[	Ba	135	0.009	ug/L	0.002	20	28	61	12
[	Ba	137	0.008	ug/L	0.001	13	43	97	6
[>	Tb	159		ug/L			1095800	1047083	1
[	Tl	205	0.007	ug/L	0.003	42	30	264	38
[	Pb	208	-0.008	ug/L	0.000	3	691	360	4
[	Bi	209		ug/L			2712548	2534749	0
[	Th	232	0.089	ug/L	0.006	6	69	3581	7
[	U	238	0.001	ug/L	0.000	6	3	27	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VU12 MB2 REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 14:18:09
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1888808	0
	Be	9	0.003	ug/L	0.002	66	11	23	34
	C	13		ug/L			133450	160425	2
	Cl	37		ug/L			4493597	4627953	1
>	Sc	45		ug/L			1326563	1268181	0
	Al	27	6.063	ug/L	0.173	2	3293	229772	2
	V	51	0.043	ug/L	0.013	30	8426	9019	2
	V-1	51	0.015	ug/L	0.002	11	62	383	9
	Cr	52	0.190	ug/L	0.044	23	24946	27229	1
	Cr	53	0.089	ug/L	0.003	3	144	315	2
	Fe	54	26.522	ug/L	1.547	5	76518	107473	2
	Fe	57	1.602	ug/L	1.023	63	10109	10442	4
	Mn	55	0.045	ug/L	0.002	5	648	1787	2
	Co	59	0.001	ug/L	0.000	26	86	103	5
>	Ge	72		ug/L			633989	588019	1
	Ni	60	0.002	ug/L	0.001	39	122	121	2
	Ni	62	0.024	ug/L	0.021	90	91	97	11
	Cu	63	0.161	ug/L	0.004	2	166	1393	2
	Cu	65	0.168	ug/L	0.007	3	58	624	4
	Zn	66	2.512	ug/L	0.039	1	329	5574	1
	Zn	67	2.344	ug/L	0.092	3	43	876	3
	Zn	68	2.397	ug/L	0.054	2	290	3897	3
	As	75	0.017	ug/L	0.021	125	308	319	12
	As-1	75	0.231	ug/L	0.069	29	10077	9802	0
	Se	82	-0.014	ug/L	0.053	376	8	4	263
	Se	78	0.823	ug/L	0.246	29	10190	9915	0
	Mo	98	0.008	ug/L	0.001	14	8	44	13
	Y	89		ug/L			462466	422531	1
	Kr	83		ug/L			550	574	0
>	In	115		ug/L			919574	900687	1
	Ag	107	0.001	ug/L	0.000	18	18	25	4
	Cd	111	0.003	ug/L	0.001	31	62	73	6
	Cd	114	0.000	ug/L	0.000	79	31	34	10
	Sb	121	0.006	ug/L	0.002	26	46	123	16
	Sb	123	0.006	ug/L	0.002	40	36	90	24
	Ba	135	0.025	ug/L	0.002	8	28	120	5
	Ba	137	0.027	ug/L	0.004	15	43	218	11
>	Tb	159		ug/L			1095800	1038016	1
	Tl	205	0.003	ug/L	0.001	40	30	138	31
	Pb	208	-0.001	ug/L	0.001	109	691	631	4
	Bi	209		ug/L			2712548	2561212	1
	Th	232	0.072	ug/L	0.005	6	69	2875	5
	U	238	0.001	ug/L	0.000	16	3	35	14

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VU12 MB2SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 14:22:23
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1918333	1
[	Be	9	24.817	ug/L	0.619	2	11	114946	3
	C	13		ug/L			133450	162126	0
	Cl	37		ug/L			4493597	4905151	1
[>	Sc	45		ug/L			1326563	1271428	1
[	Al	27	3.048	ug/L	0.061	1	3293	117373	0
[	V	51	24.856	ug/L	0.510	2	8426	563567	0
[	V-1	51	24.948	ug/L	0.649	2	62	555963	1
[	Cr	52	25.708	ug/L	0.134	0	24946	483947	0
[	Cr	53	26.044	ug/L	0.627	2	144	52254	1
[	Fe	54	26.398	ug/L	1.946	7	76518	107553	1
[	Fe	57	-0.168	ug/L	0.679	404	10109	9610	4
[	Mn	55	24.605	ug/L	0.464	1	648	636171	0
[	Co	59	25.552	ug/L	0.200	0	86	428693	0
[>	Ge	72		ug/L			633989	596570	3
[	Ni	60	26.126	ug/L	1.267	4	122	91229	1
[	Ni	62	25.746	ug/L	1.162	4	91	13248	1
[	Cu	63	26.196	ug/L	0.718	2	166	204697	2
[	Cu	65	26.875	ug/L	0.422	1	58	92848	1
[	Zn	66	78.929	ug/L	2.313	2	329	168222	1
[	Zn	67	72.557	ug/L	1.994	2	43	26306	0
[	Zn	68	76.673	ug/L	2.482	3	290	117908	0
[	As	75	27.494	ug/L	0.913	3	308	55699	0
[	As-1	75	27.199	ug/L	1.155	4	10077	64069	0
[	Se	82	73.518	ug/L	1.928	2	8	16592	0
[	Se	78	72.188	ug/L	2.750	3	10190	50942	0
[	Mo	98	0.008	ug/L	0.001	16	8	46	13
	Y	89		ug/L			462466	416167	0
	Kr	83		ug/L			550	582	4
[>	In	115		ug/L			919574	912802	0
[	Ag	107	26.458	ug/L	0.463	1	18	219469	2
[	Cd	111	24.758	ug/L	0.175	0	62	98995	1
[	Cd	114	24.686	ug/L	0.234	0	31	251045	1
[	Sb	121	0.006	ug/L	0.001	17	46	125	10
[	Sb	123	0.007	ug/L	0.002	20	36	104	12
[	Ba	135	25.215	ug/L	0.244	0	28	95977	0
[	Ba	137	24.746	ug/L	0.339	1	43	163830	0
[>	Tb	159		ug/L			1095800	1051965	1
[	Tl	205	24.410	ug/L	0.242	0	30	778820	1
[	Pb	208	25.827	ug/L	0.178	0	691	1038910	1
[	Bi	209		ug/L			2712548	2564184	0
[	Th	232	23.973	ug/L	0.278	1	69	946350	0
[	U	238	23.822	ug/L	0.269	1	3	999537	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VU12 MB1SPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 14:26:37
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1873004	2
[	Be	9	25.402	ug/L	0.270	1	11	114839	1
	C	13		ug/L			133450	161605	1
	Cl	37		ug/L			4493597	4899120	1
[>	Sc	45		ug/L			1326563	1263086	0
|	Al	27	5.646	ug/L	0.163	2	3293	213408	3
|	V	51	24.072	ug/L	0.254	1	8426	542580	1
|	V-1	51	24.128	ug/L	0.261	1	62	534313	1
|	Cr	52	25.232	ug/L	0.379	1	24946	472363	2
|	Cr	53	25.444	ug/L	0.333	1	144	50733	2
|	Fe	54	15.567	ug/L	0.876	5	76518	92909	0
|	Fe	57	0.377	ug/L	0.355	94	10109	9807	1
|	Mn	55	24.190	ug/L	0.438	1	648	621516	2
[	Co	59	25.198	ug/L	0.088	0	86	420011	0
[>	Ge	72		ug/L			633989	582936	0
|	Ni	60	26.270	ug/L	0.389	1	122	89728	1
|	Ni	62	25.621	ug/L	0.231	0	91	12896	1
|	Cu	63	26.715	ug/L	0.366	1	166	204074	1
|	Cu	65	26.972	ug/L	0.822	3	58	91078	2
|	Zn	66	105.079	ug/L	2.224	2	329	218870	2
|	Zn	67	92.775	ug/L	1.668	1	43	32877	1
|	Zn	68	101.008	ug/L	1.360	1	290	151812	1
|	As	75	28.494	ug/L	0.672	2	308	56439	2
|	As-1	75	28.134	ug/L	0.683	2	10077	64493	2
|	Se	82	78.694	ug/L	0.945	1	8	17364	1
|	Se	78	77.135	ug/L	0.519	0	10190	52584	0
[	Mo	98	0.013	ug/L	0.001	9	8	66	8
	Y	89		ug/L			462466	415216	1
	Kr	83		ug/L			550	578	1
[>	In	115		ug/L			919574	901074	0
|	Ag	107	26.871	ug/L	0.554	2	18	220030	2
|	Cd	111	24.952	ug/L	0.358	1	62	98487	1
|	Cd	114	24.861	ug/L	0.265	1	31	249569	1
|	Sb	121	0.006	ug/L	0.001	17	46	117	10
|	Sb	123	0.006	ug/L	0.002	39	36	91	24
|	Ba	135	25.159	ug/L	0.218	0	28	94541	0
[	Ba	137	24.764	ug/L	0.172	0	43	161858	0
[>	Tb	159		ug/L			1095800	1050399	1
|	Tl	205	24.087	ug/L	0.471	1	30	767341	1
|	Pb	208	25.154	ug/L	0.438	1	691	1010256	0
|	Bi	209		ug/L			2712548	2545035	1
|	Th	232	23.438	ug/L	0.190	0	69	923952	1
[	U	238	23.323	ug/L	0.463	1	3	977226	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VU12 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 14:30:51
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1991561	3
[	Be	9	0.045	ug/L	0.003	7	11	226	6
	C	13		ug/L			133450	169496	1
	Cl	37		ug/L			4493597	4736078	1
[>	Sc	45		ug/L			1326563	1389334	1
[	Al	27	2336.970	ug/L	87.818	3	3293	95681244	2
[	V	51	14.790	ug/L	0.242	1	8426	370017	0
[	V-1	51	14.814	ug/L	0.276	1	62	360799	0
[	Cr	52	3.849	ug/L	0.082	2	24946	101391	1
[	Cr	53	3.822	ug/L	0.098	2	144	8509	1
[	Fe	54	3151.227	ug/L	109.707	3	76518	4544744	2
[	Fe	57	2928.704	ug/L	126.566	4	10109	1567613	3
[	Mn	55	42.561	ug/L	0.485	1	648	1202075	0
[	Co	59	1.512	ug/L	0.013	0	86	27812	2
[>	Ge	72		ug/L			633989	591538	1
[	Ni	60	4.674	ug/L	0.142	3	122	16294	3
[	Ni	62	4.846	ug/L	0.056	1	91	2544	1
[	Cu	63	16.855	ug/L	0.565	3	166	130682	2
[	Cu	65	16.617	ug/L	0.222	1	58	56958	0
[	Zn	66	17.826	ug/L	0.225	1	329	37928	0
[	Zn	67	17.797	ug/L	0.369	2	43	6432	2
[	Zn	68	18.022	ug/L	0.252	1	290	27704	0
[	As	75	1.846	ug/L	0.037	1	308	3979	1
[	As-1	75	2.044	ug/L	0.132	6	10077	13472	0
[	Se	82	0.416	ug/L	0.022	5	8	100	4
[	Se	78	1.191	ug/L	0.352	29	10190	10183	0
[	Mo	98	3.544	ug/L	0.055	1	8	16217	0
	Y	89		ug/L			462466	457327	1
	Kr	83		ug/L			550	591	4
[>	In	115		ug/L			919574	921608	0
[	Ag	107	0.029	ug/L	0.001	4	18	261	3
[	Cd	111	0.060	ug/L	0.005	9	62	303	6
[	Cd	114	0.033	ug/L	0.004	11	31	369	9
[	Sb	121	0.793	ug/L	0.008	0	46	9796	1
[	Sb	123	0.813	ug/L	0.007	0	36	7512	0
[	Ba	135	14.206	ug/L	0.048	0	28	54612	0
[	Ba	137	13.910	ug/L	0.046	0	43	93005	0
[>	Tb	159		ug/L			1095800	1092161	0
[	Tl	205	0.016	ug/L	0.001	8	30	567	7
[	Pb	208	1.614	ug/L	0.006	0	691	68070	0
[	Bi	209		ug/L			2712548	2446941	0
[	Th	232	0.672	ug/L	0.139	20	69	27621	20
[	U	238	0.170	ug/L	0.004	2	3	7410	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VU12 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 14:35:05
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1956996	1
	Be	9	0.018	ug/L	0.001	7	11	96	8
	C	13		ug/L			133450	170598	1
	Cl	37		ug/L			4493597	10434761	2
>	Sc	45		ug/L			1326563	1310777	0
	Al	27	3656.475	ug/L	80.925	2	3293	141308224	3
	V	51	0.616	ug/L	0.008	1	8426	22529	0
	V-1	51	2.101	ug/L	0.139	6	62	48356	7
	Cr	52	1.748	ug/L	0.019	1	24946	56895	1
	Cr	53	7.047	ug/L	0.520	7	144	14688	8
	Fe	54	379.966	ug/L	7.246	1	76518	583620	1
	Fe	57	332.510	ug/L	5.102	1	10109	176842	2
	Mn	55	7.358	ug/L	0.134	1	648	196590	1
	Co	59	0.229	ug/L	0.004	1	86	4042	1
>	Ge	72		ug/L			633989	577892	1
	Ni	60	2.266	ug/L	0.018	0	122	7773	1
	Ni	62	32.356	ug/L	11.093	34	91	16127	34
	Cu	63	11.023	ug/L	0.828	7	166	83561	7
	Cu	65	5.117	ug/L	0.106	2	58	17172	1
	Zn	66	3.260	ug/L	0.072	2	329	7021	1
	Zn	67	4.253	ug/L	0.066	1	43	1531	0
	Zn	68	3.348	ug/L	0.096	2	290	5242	1
	As	75	0.368	ug/L	0.016	4	308	1001	4
	As-1	75	0.713	ug/L	0.084	11	10077	10571	1
	Se	82	0.293	ug/L	0.023	7	8	71	7
	Se	78	1.723	ug/L	0.333	19	10190	10244	1
	Mo	98	4.577	ug/L	0.160	3	8	20451	2
	Y	89		ug/L			462466	426317	1
	Kr	83		ug/L			550	664	2
>	In	115		ug/L			919574	870899	0
	Ag	107	0.005	ug/L	0.001	26	18	55	18
	Cd	111	0.007	ug/L	0.007	93	62	87	29
	Cd	114	0.010	ug/L	0.002	19	31	126	15
	Sb	121	0.682	ug/L	0.006	0	46	7967	0
	Sb	123	0.695	ug/L	0.007	1	36	6078	1
	Ba	135	4.067	ug/L	0.030	0	28	14791	0
	Ba	137	3.950	ug/L	0.035	0	43	24986	1
>	Tb	159		ug/L			1095800	1079518	0
	Tl	205	0.022	ug/L	0.001	4	30	764	3
	Pb	208	0.174	ug/L	0.000	0	691	7873	0
	Bi	209		ug/L			2712548	1961427	0
	Th	232	0.083	ug/L	0.004	4	69	3443	3
	U	238	0.017	ug/L	0.001	3	3	724	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VU12 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 14:39:19
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1955310	1
[	Be	9	0.003	ug/L	0.001	44	11	25	24
	C	13		ug/L			133450	158870	0
	Cl	37		ug/L			4493597	9532041	0
[>	Sc	45		ug/L			1326563	1279518	1
[	Al	27	700.415	ug/L	4.910	0	3293	26420923	1
[	V	51	0.407	ug/L	0.035	8	8426	17278	3
[	V-1	51	2.056	ug/L	0.073	3	62	46186	5
[	Cr	52	0.500	ug/L	0.041	8	24946	33070	1
[	Cr	53	6.372	ug/L	0.317	4	144	12981	6
[	Fe	54	40.032	ug/L	3.062	7	76518	126072	4
[	Fe	57	6.537	ug/L	0.546	8	10109	12952	2
[	Mn	55	0.361	ug/L	0.009	2	648	10014	2
[	Co	59	0.022	ug/L	0.002	11	86	451	8
[>	Ge	72		ug/L			633989	563920	1
[	Ni	60	0.087	ug/L	0.007	8	122	396	4
[	Ni	62	1.326	ug/L	0.296	22	91	721	18
[	Cu	63	3.803	ug/L	0.107	2	166	28222	2
[	Cu	65	0.189	ug/L	0.002	1	58	669	1
[	Zn	66	1.260	ug/L	0.029	2	329	2828	2
[	Zn	67	2.225	ug/L	0.023	1	43	800	0
[	Zn	68	1.780	ug/L	0.041	2	290	2841	3
[	As	75	0.562	ug/L	0.033	5	308	1346	5
[	As-1	75	0.934	ug/L	0.028	2	10077	10736	0
[	Se	82	0.391	ug/L	0.040	10	8	90	8
[	Se	78	1.787	ug/L	0.126	7	10190	10032	0
[	Mo	98	2.781	ug/L	0.032	1	8	12132	0
	Y	89		ug/L			462466	420984	1
	Kr	83		ug/L			550	561	5
[>	In	115		ug/L			919574	865316	0
[	Ag	107	0.002	ug/L	0.001	54	18	31	25
[	Cd	111	0.006	ug/L	0.002	27	62	80	7
[	Cd	114	0.003	ug/L	0.000	8	31	59	4
[	Sb	121	0.620	ug/L	0.005	0	46	7200	1
[	Sb	123	0.620	ug/L	0.011	1	36	5392	1
[	Ba	135	10.432	ug/L	0.086	0	28	37658	0
[	Ba	137	10.277	ug/L	0.077	0	43	64528	0
[>	Tb	159		ug/L			1095800	1062965	0
[	Tl	205	0.010	ug/L	0.000	3	30	355	2
[	Pb	208	-0.001	ug/L	0.001	87	691	627	5
[	Bi	209		ug/L			2712548	1956688	0
[	Th	232	0.040	ug/L	0.003	6	69	1661	6
[	U	238	0.249	ug/L	0.003	1	3	10547	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VU12 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 14:43:34
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1943094	0
	Be	9	0.007	ug/L	0.003	50	11	42	36
	C	13		ug/L			133450	161695	1
	Cl	37		ug/L			4493597	4780155	1
>	Sc	45		ug/L			1326563	1287510	1
	Al	27	209.174	ug/L	5.515	2	3293	7939601	0
	V	51	5.576	ug/L	0.036	0	8426	134391	1
	V-1	51	5.683	ug/L	0.041	0	62	128329	2
	Cr	52	0.646	ug/L	0.060	9	24946	35906	1
	Cr	53	0.975	ug/L	0.132	13	144	2118	13
	Fe	54	114.248	ug/L	2.691	2	76518	224281	1
	Fe	57	76.229	ug/L	2.156	2	10109	47367	0
	Mn	55	17.868	ug/L	0.156	0	648	468131	2
	Co	59	0.105	ug/L	0.003	3	86	1860	2
>	Ge	72		ug/L			633989	591939	3
	Ni	60	0.853	ug/L	0.005	0	122	3067	3
	Ni	62	1.001	ug/L	0.042	4	91	593	2
	Cu	63	7.322	ug/L	0.084	1	166	56894	2
	Cu	65	6.838	ug/L	0.171	2	58	23479	2
	Zn	66	26.628	ug/L	0.682	2	329	56517	1
	Zn	67	24.195	ug/L	0.618	2	43	8731	1
	Zn	68	26.344	ug/L	0.755	2	290	40385	2
	As	75	1.021	ug/L	0.036	3	308	2329	0
	As-1	75	1.225	ug/L	0.120	9	10077	11844	1
	Se	82	0.384	ug/L	0.017	4	8	93	0
	Se	78	1.170	ug/L	0.355	30	10190	10176	1
	Mo	98	3.426	ug/L	0.083	2	8	15680	1
	Y	89		ug/L			462466	428292	1
	Kr	83		ug/L			550	576	1
>	In	115		ug/L			919574	907124	0
	Ag	107	0.005	ug/L	0.001	15	18	56	11
	Cd	111	0.014	ug/L	0.005	33	62	116	15
	Cd	114	0.011	ug/L	0.001	10	31	140	7
	Sb	121	0.751	ug/L	0.014	1	46	9134	1
	Sb	123	0.764	ug/L	0.002	0	36	6955	0
	Ba	135	3.818	ug/L	0.043	1	28	14467	1
	Ba	137	3.768	ug/L	0.070	1	43	24827	1
>	Tb	159		ug/L			1095800	1083635	1
	Tl	205	0.015	ug/L	0.002	14	30	509	15
	Pb	208	0.134	ug/L	0.000	0	691	6217	1
	Bi	209		ug/L			2712548	2471306	0
	Th	232	0.051	ug/L	0.003	6	69	2150	5
	U	238	0.124	ug/L	0.004	2	3	5351	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VU12 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 14:48:52
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1975607	0
	Be	9	0.002	ug/L	0.000	20	11	21	9
	C	13		ug/L			133450	170028	3
	Cl	37		ug/L			4493597	10361553	2
>	Sc	45		ug/L			1326563	1313906	0
	Al	27	2006.617	ug/L	20.045	0	3293	77719680	0
	V	51	0.296	ug/L	0.007	2	8426	15195	1
	V-1	51	1.683	ug/L	0.026	1	62	38829	1
	Cr	52	0.234	ug/L	0.013	5	24946	29029	1
	Cr	53	5.171	ug/L	0.086	1	144	10838	1
	Fe	54	39.316	ug/L	1.994	5	76518	128469	1
	Fe	57	7.920	ug/L	0.798	10	10109	13995	2
	Mn	55	5.175	ug/L	0.108	2	648	138775	1
	Co	59	0.067	ug/L	0.003	4	86	1255	4
>	Ge	72		ug/L			633989	585011	0
	Ni	60	1.150	ug/L	0.008	0	122	4050	1
	Ni	62	1.667	ug/L	0.031	1	91	921	2
	Cu	63	5.495	ug/L	0.093	1	166	42245	1
	Cu	65	2.066	ug/L	0.057	2	58	7050	1
	Zn	66	2.372	ug/L	0.016	0	329	5255	1
	Zn	67	3.236	ug/L	0.162	5	43	1189	4
	Zn	68	2.454	ug/L	0.013	0	290	3962	1
	As	75	0.316	ug/L	0.010	3	308	910	3
	As-1	75	0.549	ug/L	0.010	1	10077	10380	0
	Se	82	0.365	ug/L	0.054	14	8	88	14
	Se	78	1.307	ug/L	0.082	6	10190	10137	0
	Mo	98	4.350	ug/L	0.098	2	8	19680	1
	Y	89		ug/L			462466	421053	1
	Kr	83		ug/L			550	601	3
>	In	115		ug/L			919574	884236	0
	Ag	107	0.005	ug/L	0.001	20	18	59	13
	Cd	111	0.007	ug/L	0.002	23	62	85	6
	Cd	114	0.003	ug/L	0.001	27	31	55	13
	Sb	121	0.645	ug/L	0.007	1	46	7655	1
	Sb	123	0.648	ug/L	0.002	0	36	5755	0
	Ba	135	3.431	ug/L	0.040	1	28	12675	0
	Ba	137	3.338	ug/L	0.033	0	43	21445	1
>	Tb	159		ug/L			1095800	1072618	0
	Tl	205	0.017	ug/L	0.001	3	30	598	3
	Pb	208	0.009	ug/L	0.000	3	691	1060	1
	Bi	209		ug/L			2712548	1961166	0
	Th	232	0.031	ug/L	0.002	5	69	1311	5
	U	238	0.007	ug/L	0.000	5	3	323	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VU12 F REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Friday, November 30, 2012 14:53:06
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1916138	2
	Be	9	0.003	ug/L	0.001	46	11	26	26
	C	13		ug/L			133450	158421	0
	Cl	37		ug/L			4493597	9280543	2
>	Sc	45		ug/L			1326563	1269683	2
	Al	27	655.888	ug/L	37.745	5	3293	24530552	3
	V	51	0.386	ug/L	0.038	9	8426	16673	2
	V-1	51	1.957	ug/L	0.108	5	62	43593	4
	Cr	52	0.465	ug/L	0.064	13	24946	32173	1
	Cr	53	6.059	ug/L	0.335	5	144	12244	5
	Fe	54	42.994	ug/L	2.716	6	76518	128868	0
	Fe	57	3.736	ug/L	0.210	5	10109	11491	2
	Mn	55	0.261	ug/L	0.008	3	648	7361	1
	Co	59	0.019	ug/L	0.001	7	86	400	4
>	Ge	72		ug/L			633989	566944	1
	Ni	60	0.077	ug/L	0.004	4	122	364	2
	Ni	62	0.871	ug/L	0.064	7	91	505	7
	Cu	63	3.430	ug/L	0.013	0	166	25609	1
	Cu	65	0.190	ug/L	0.009	4	58	676	3
	Zn	66	1.745	ug/L	0.026	1	329	3823	1
	Zn	67	2.689	ug/L	0.023	0	43	964	1
	Zn	68	2.205	ug/L	0.048	2	290	3475	0
	As	75	0.527	ug/L	0.037	7	308	1285	6
	As-1	75	0.874	ug/L	0.026	2	10077	10679	0
	Se	82	0.276	ug/L	0.079	28	8	66	26
	Se	78	1.570	ug/L	0.196	12	10190	9967	0
	Mo	98	2.653	ug/L	0.079	2	8	11634	1
	Y	89		ug/L			462466	418346	2
	Kr	83		ug/L			550	552	3
>	In	115		ug/L			919574	862919	0
	Ag	107	-0.000	ug/L	0.000	91	18	15	7
	Cd	111	0.003	ug/L	0.007	222	62	70	38
	Cd	114	0.003	ug/L	0.001	37	31	55	18
	Sb	121	0.599	ug/L	0.006	1	46	6943	1
	Sb	123	0.607	ug/L	0.004	0	36	5264	1
	Ba	135	9.787	ug/L	0.144	1	28	35235	1
	Ba	137	9.739	ug/L	0.059	0	43	60981	0
>	Tb	159		ug/L			1095800	1059745	1
	Tl	205	0.009	ug/L	0.001	6	30	314	7
	Pb	208	0.005	ug/L	0.000	4	691	882	2
	Bi	209		ug/L			2712548	1941069	0
	Th	232	0.021	ug/L	0.002	11	69	906	10
	U	238	0.238	ug/L	0.004	1	3	10065	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 14:57:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1859932	0
[	Be	9	50.594	ug/L	1.020	2	11	227152	2
	C	13		ug/L			133450	140982	2
	Cl	37		ug/L			4493597	4926586	2
[>	Sc	45		ug/L			1326563	1198452	1
[	Al	27	5356.291	ug/L	116.237	2	3293	189191840	0
[	V	51	50.362	ug/L	0.731	1	8426	1068541	0
[	V-1	51	50.415	ug/L	0.547	1	62	1059079	0
[	Cr	52	53.407	ug/L	0.978	1	24946	923293	1
[	Cr	53	53.627	ug/L	0.958	1	144	101306	2
[	Fe	54	5393.703	ug/L	143.154	2	76518	6661182	1
[	Fe	57	5350.818	ug/L	133.603	2	10109	2463268	1
[	Mn	55	50.239	ug/L	0.884	1	648	1224025	2
[	Co	59	53.242	ug/L	0.571	1	86	841872	0
[>	Ge	72		ug/L			633989	583381	3
[	Ni	60	51.549	ug/L	2.361	4	122	175945	2
[	Ni	62	50.709	ug/L	2.388	4	91	25436	1
[	Cu	63	51.471	ug/L	0.365	0	166	393318	3
[	Cu	65	51.869	ug/L	1.482	2	58	175142	0
[	Zn	66	53.166	ug/L	0.990	1	329	110960	3
[	Zn	67	51.742	ug/L	1.736	3	43	18354	0
[	Zn	68	52.260	ug/L	1.111	2	290	78696	1
[	As	75	51.252	ug/L	1.122	2	308	101317	0
[	As-1	75	51.781	ug/L	1.465	2	10077	110930	0
[	Se	82	50.859	ug/L	1.202	2	8	11228	0
[	Se	78	52.057	ug/L	2.370	4	10190	38535	0
[	Mo	98	48.225	ug/L	1.984	4	8	217352	1
	Y	89		ug/L			462466	410357	1
	Kr	83		ug/L			550	554	6
[>	In	115		ug/L			919574	879999	1
[	Ag	107	51.812	ug/L	1.851	3	18	414269	3
[	Cd	111	52.574	ug/L	0.303	0	62	202600	1
[	Cd	114	52.405	ug/L	0.906	1	31	513660	0
[	Sb	121	52.048	ug/L	0.668	1	46	610984	0
[	Sb	123	52.745	ug/L	0.601	1	36	463217	0
[	Ba	135	50.386	ug/L	0.746	1	28	184862	0
[	Ba	137	49.626	ug/L	0.931	1	43	316685	0
[>	Tb	159		ug/L			1095800	1040163	0
[	Tl	205	47.831	ug/L	0.322	0	30	1508968	0
[	Pb	208	50.260	ug/L	0.309	0	691	1998436	0
[	Bi	209		ug/L			2712548	2484546	0
[	Th	232	47.666	ug/L	0.651	1	69	1860585	1
[	U	238	47.880	ug/L	0.297	0	3	1986557	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 15:04:21
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1788164	1
[	Be	9	0.004	ug/L	0.003	95	11	26	58
	C	13		ug/L			133450	142598	0
	Cl	37		ug/L			4493597	4642956	3
[>	Sc	45		ug/L			1326563	1136059	1
[	Al	27	0.203	ug/L	0.266	130	3293	9521	90
[	V	51	0.043	ug/L	0.005	10	8426	8071	1
[	V-1	51	0.036	ug/L	0.005	13	62	762	11
[	Cr	52	0.157	ug/L	0.018	11	24946	23873	0
[	Cr	53	0.133	ug/L	0.029	21	144	360	13
[	Fe	54	3.951	ug/L	1.980	50	76518	70080	1
[	Fe	57	-1.188	ug/L	1.055	88	10109	8138	5
[	Mn	55	0.003	ug/L	0.001	45	648	622	3
[	Co	59	0.001	ug/L	0.002	126	86	93	24
[>	Ge	72		ug/L			633989	554272	1
[	Ni	60	-0.000	ug/L	0.002	494	122	106	4
[	Ni	62	0.537	ug/L	0.042	7	91	335	6
[	Cu	63	0.023	ug/L	0.002	9	166	315	5
[	Cu	65	0.008	ug/L	0.002	29	58	76	10
[	Zn	66	0.152	ug/L	0.023	15	329	588	7
[	Zn	67	0.153	ug/L	0.012	7	43	89	4
[	Zn	68	0.163	ug/L	0.017	10	290	485	6
[	As	75	0.031	ug/L	0.008	26	308	327	4
[	As-1	75	0.378	ug/L	0.078	20	10077	9513	0
[	Se	82	0.010	ug/L	0.051	496	8	9	113
[	Se	78	1.315	ug/L	0.281	21	10190	9608	0
[	Mo	98	0.013	ug/L	0.003	21	8	61	18
	Y	89		ug/L			462466	398244	0
	Kr	83		ug/L			550	544	4
[>	In	115		ug/L			919574	854543	1
[	Ag	107	0.001	ug/L	0.001	68	18	25	22
[	Cd	111	0.009	ug/L	0.002	19	62	92	7
[	Cd	114	0.001	ug/L	0.002	132	31	42	42
[	Sb	121	0.066	ug/L	0.008	11	46	797	9
[	Sb	123	0.069	ug/L	0.009	12	36	624	10
[	Ba	135	0.006	ug/L	0.001	9	28	46	4
[	Ba	137	0.007	ug/L	0.002	31	43	83	15
[>	Tb	159		ug/L			1095800	992994	0
[	Tl	205	0.013	ug/L	0.003	23	30	420	21
[	Pb	208	0.005	ug/L	0.001	27	691	806	5
[	Bi	209		ug/L			2712548	2494319	0
[	Th	232	0.191	ug/L	0.011	5	69	7192	5
[	U	238	0.004	ug/L	0.001	31	3	156	31

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 A-L SWN
Sample Dil Factor: 500
Comments:
Sample Date/Time: Friday, November 30, 2012 15:22:46
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1809293	1
[	Be	9	0.013	ug/L	0.002	13	11	69	13
	C	13		ug/L			133450	146986	0
	Cl	37		ug/L			4493597	4706445	1
[>	Sc	45		ug/L			1326563	1179050	0
	Al	27	489.616	ug/L	4.242	0	3293	17020485	0
	V	51	0.926	ug/L	0.013	1	8426	26690	1
	V-1	51	0.907	ug/L	0.009	1	62	18801	1
	Cr	52	0.709	ug/L	0.041	5	24946	33941	2
	Cr	53	0.638	ug/L	0.035	5	144	1312	5
	Fe	54	538.608	ug/L	17.263	3	76518	715836	3
	Fe	57	492.728	ug/L	10.072	2	10109	231376	2
	Mn	55	35.452	ug/L	0.489	1	648	849936	1
[	Co	59	0.268	ug/L	0.002	0	86	4250	1
[>	Ge	72		ug/L			633989	574732	0
	Ni	60	0.456	ug/L	0.006	1	122	1643	0
	Ni	62	0.906	ug/L	0.048	5	91	529	3
	Cu	63	0.736	ug/L	0.010	1	166	5692	1
	Cu	65	0.726	ug/L	0.030	4	58	2470	4
	Zn	66	11.257	ug/L	0.131	1	329	23384	1
	Zn	67	10.647	ug/L	0.236	2	43	3753	1
	Zn	68	11.074	ug/L	0.362	3	290	16640	2
	As	75	0.380	ug/L	0.015	3	308	1017	2
	As-1	75	0.561	ug/L	0.091	16	10077	10220	0
	Se	82	-0.028	ug/L	0.036	126	8	1	592
	Se	78	0.675	ug/L	0.268	39	10190	9610	0
[	Mo	98	0.020	ug/L	0.001	7	8	94	7
	Y	89		ug/L			462466	405201	1
	Kr	83		ug/L			550	551	6
[>	In	115		ug/L			919574	871487	1
	Ag	107	0.012	ug/L	0.001	9	18	112	6
	Cd	111	0.225	ug/L	0.007	3	62	916	1
	Cd	114	0.212	ug/L	0.006	2	31	2091	3
	Sb	121	0.061	ug/L	0.006	9	46	750	8
	Sb	123	0.064	ug/L	0.006	9	36	596	9
	Ba	135	6.672	ug/L	0.037	0	28	24268	2
[	Ba	137	6.614	ug/L	0.148	2	43	41829	1
[>	Tb	159		ug/L			1095800	1033677	2
	Tl	205	0.012	ug/L	0.001	10	30	421	12
	Pb	208	9.176	ug/L	0.081	0	691	363090	1
	Bi	209		ug/L			2712548	2514592	1
	Th	232	0.134	ug/L	0.013	9	69	5284	11
[	U	238	0.013	ug/L	0.001	6	3	521	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 A SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 30, 2012 15:27:00
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1821291	2
[	Be	9	0.060	ug/L	0.003	4	11	274	2
	C	13		ug/L			133450	159492	2
	Cl	37		ug/L			4493597	4731685	3
[>	Sc	45		ug/L			1326563	1207183	1
[	Al	27	2501.265	ug/L	52.230	2	3293	89005979	2
[	V	51	4.562	ug/L	0.066	1	8426	104488	2
[	V-1	51	4.575	ug/L	0.093	2	62	96890	3
[	Cr	52	3.086	ug/L	0.146	4	24946	75106	1
[	Cr	53	3.118	ug/L	0.065	2	144	6057	2
[	Fe	54	2795.524	ug/L	52.904	1	76518	3511375	0
[	Fe	57	2630.670	ug/L	74.003	2	10109	1224558	2
[	Mn	55	193.044	ug/L	5.393	2	648	4735288	2
[	Co	59	1.415	ug/L	0.034	2	86	22620	3
[>	Ge	72		ug/L			633989	582066	0
[	Ni	60	2.470	ug/L	0.107	4	122	8523	3
[	Ni	62	3.023	ug/L	0.060	1	91	1593	2
[	Cu	63	3.638	ug/L	0.122	3	166	27877	2
[	Cu	65	3.756	ug/L	0.066	1	58	12712	1
[	Zn	66	56.795	ug/L	2.259	3	329	118234	3
[	Zn	67	53.830	ug/L	1.505	2	43	19061	2
[	Zn	68	56.135	ug/L	1.392	2	290	84347	1
[	As	75	1.882	ug/L	0.043	2	308	3986	1
[	As-1	75	2.024	ug/L	0.105	5	10077	13217	0
[	Se	82	0.086	ug/L	0.019	21	8	26	14
[	Se	78	0.619	ug/L	0.245	39	10190	9701	0
[	Mo	98	0.094	ug/L	0.004	3	8	431	3
	Y	89		ug/L			462466	417216	1
	Kr	83		ug/L			550	550	0
[>	In	115		ug/L			919574	888287	0
[	Ag	107	0.059	ug/L	0.002	2	18	496	2
[	Cd	111	1.117	ug/L	0.032	2	62	4405	3
[	Cd	114	1.109	ug/L	0.021	1	31	11005	2
[	Sb	121	0.247	ug/L	0.006	2	46	2973	2
[	Sb	123	0.250	ug/L	0.004	1	36	2255	2
[	Ba	135	34.036	ug/L	0.175	0	28	126072	0
[	Ba	137	33.542	ug/L	0.269	0	43	216098	0
[>	Tb	159		ug/L			1095800	1033256	1
[	Tl	205	0.051	ug/L	0.003	5	30	1637	4
[	Pb	208	47.794	ug/L	0.434	0	691	1887749	0
[	Bi	209		ug/L			2712548	2518305	0
[	Th	232	0.380	ug/L	0.008	2	69	14796	1
[	U	238	0.057	ug/L	0.001	2	3	2335	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 ADUP SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 30, 2012 15:31:14
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1812574	0
	Be	9	0.058	ug/L	0.005	8	11	265	9
	C	13		ug/L			133450	166487	2
	Cl	37		ug/L			4493597	4804620	0
>	Sc	45		ug/L			1326563	1228166	0
	Al	27	2371.386	ug/L	37.400	1	3293	85856841	1
	V	51	4.475	ug/L	0.058	1	8426	104434	0
	V-1	51	4.474	ug/L	0.071	1	62	96370	1
	Cr	52	3.220	ug/L	0.068	2	24946	78755	1
	Cr	53	3.200	ug/L	0.074	2	144	6320	1
	Fe	54	2785.338	ug/L	41.604	1	76518	3560311	1
	Fe	57	2609.315	ug/L	51.781	1	10109	1236050	1
	Mn	55	196.913	ug/L	2.397	1	648	4914634	1
	Co	59	1.387	ug/L	0.031	2	86	22555	1
>	Ge	72		ug/L			633989	588766	1
	Ni	60	2.433	ug/L	0.078	3	122	8496	1
	Ni	62	2.924	ug/L	0.150	5	91	1561	4
	Cu	63	3.580	ug/L	0.033	0	166	27754	0
	Cu	65	3.676	ug/L	0.078	2	58	12584	1
	Zn	66	56.892	ug/L	1.028	1	329	119818	1
	Zn	67	53.560	ug/L	0.088	0	43	19187	1
	Zn	68	55.083	ug/L	0.741	1	290	83729	1
	As	75	1.807	ug/L	0.012	0	308	3883	0
	As-1	75	1.886	ug/L	0.077	4	10077	13095	0
	Se	82	0.070	ug/L	0.036	50	8	23	33
	Se	78	0.419	ug/L	0.256	60	10190	9699	0
	Mo	98	0.087	ug/L	0.004	4	8	401	3
	Y	89		ug/L			462466	420132	0
	Kr	83		ug/L			550	582	1
>	In	115		ug/L			919574	878374	1
	Ag	107	0.051	ug/L	0.003	6	18	423	5
	Cd	111	1.133	ug/L	0.025	2	62	4416	1
	Cd	114	1.168	ug/L	0.078	6	31	11458	6
	Sb	121	0.330	ug/L	0.001	0	46	3910	0
	Sb	123	0.334	ug/L	0.002	0	36	2961	1
	Ba	135	34.248	ug/L	0.353	1	28	125430	0
	Ba	137	33.838	ug/L	0.508	1	43	215557	0
>	Tb	159		ug/L			1095800	1038253	0
	Tl	205	0.049	ug/L	0.001	2	30	1580	2
	Pb	208	47.204	ug/L	0.779	1	691	1873382	0
	Bi	209		ug/L			2712548	2529595	0
	Th	232	0.306	ug/L	0.006	2	69	11992	1
	U	238	0.053	ug/L	0.001	2	3	2210	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 ASPK SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 30, 2012 15:35:28
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1827217	1
[	Be	9	5.544	ug/L	0.073	1	11	24459	0
	C	13		ug/L			133450	168990	1
	Cl	37		ug/L			4493597	4803228	4
[>	Sc	45		ug/L			1326563	1235405	1
[	Al	27	2432.976	ug/L	34.706	1	3293	88607242	1
[	V	51	9.394	ug/L	0.262	2	8426	211835	1
[	V-1	51	9.447	ug/L	0.227	2	62	204603	1
[	Cr	52	8.244	ug/L	0.186	2	24946	166562	0
[	Cr	53	8.420	ug/L	0.057	0	144	16509	0
[	Fe	54	2814.885	ug/L	45.012	1	76518	3618512	1
[	Fe	57	2625.159	ug/L	80.218	3	10109	1250879	3
[	Mn	55	201.265	ug/L	3.759	1	648	5052217	0
[	Co	59	6.631	ug/L	0.214	3	86	108157	3
[>	Ge	72		ug/L			633989	582418	1
[	Ni	60	7.601	ug/L	0.172	2	122	26014	1
[	Ni	62	8.018	ug/L	0.216	2	91	4090	2
[	Cu	63	8.893	ug/L	0.260	2	166	67960	2
[	Cu	65	9.128	ug/L	0.076	0	58	30831	0
[	Zn	66	75.428	ug/L	1.467	1	329	157030	0
[	Zn	67	69.920	ug/L	0.443	0	43	24765	0
[	Zn	68	72.895	ug/L	1.850	2	290	109513	1
[	As	75	7.683	ug/L	0.101	1	308	15409	1
[	As-1	75	7.811	ug/L	0.060	0	10077	24574	0
[	Se	82	16.773	ug/L	0.273	1	8	3703	0
[	Se	78	17.203	ug/L	0.353	2	10190	18989	0
[	Mo	98	4.669	ug/L	0.077	1	8	21030	0
	Y	89		ug/L			462466	414767	1
	Kr	83		ug/L			550	569	4
[>	In	115		ug/L			919574	871934	1
[	Ag	107	4.603	ug/L	0.089	1	18	36475	0
[	Cd	111	6.427	ug/L	0.145	2	62	24585	0
[	Cd	114	6.385	ug/L	0.092	1	31	62028	0
[	Sb	121	1.674	ug/L	0.035	2	46	19507	0
[	Sb	123	1.715	ug/L	0.015	0	36	14953	1
[	Ba	135	41.693	ug/L	0.886	2	28	151553	1
[	Ba	137	40.549	ug/L	0.882	2	43	256364	0
[>	Tb	159		ug/L			1095800	1032984	0
[	Tl	205	4.777	ug/L	0.030	0	30	149699	0
[	Pb	208	52.534	ug/L	0.627	1	691	2074359	0
[	Bi	209		ug/L			2712548	2528181	1
[	Th	232	3.272	ug/L	0.074	2	69	126900	1
[	U	238	4.756	ug/L	0.063	1	3	195963	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~VS22 APOST SWN~~ ZZZZZZ 12-3-12
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 30, 2012 15:39:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1857221	1
[	Be	9	28.441	ug/L	0.485	1	11	127490	0
	C	13		ug/L			133450	165836	2
	Cl	37		ug/L			4493597	4824778	1
[>	Sc	45		ug/L			1326563	1221763	2
|	Al	27	2330.096	ug/L	41.668	1	3293	83905134	0
|	V	51	30.077	ug/L	1.153	3	8426	653541	2
|	V-1	51	30.127	ug/L	0.991	3	62	645046	1
|	Cr	52	30.569	ug/L	0.814	2	24946	548546	2
|	Cr	53	30.750	ug/L	0.213	0	144	59269	1
|	Fe	54	2550.247	ug/L	66.947	2	76518	3247923	1
|	Fe	57	2328.861	ug/L	43.478	1	10109	1098386	2
|	Mn	55	200.633	ug/L	5.146	2	648	4979767	0
[	Co	59	29.094	ug/L	0.349	1	86	469022	1
[>	Ge	72		ug/L			633989	589313	0
|	Ni	60	29.665	ug/L	0.512	1	122	102429	2
|	Ni	62	29.448	ug/L	0.531	1	91	14971	1
|	Cu	63	31.172	ug/L	0.204	0	166	240690	0
|	Cu	65	31.040	ug/L	0.965	3	58	105950	2
|	Zn	66	142.260	ug/L	0.569	0	329	299439	0
|	Zn	67	131.114	ug/L	1.003	0	43	46955	0
|	Zn	68	138.222	ug/L	5.033	3	290	209888	3
|	As	75	33.083	ug/L	0.219	0	308	66195	0
|	As-1	75	33.439	ug/L	0.408	1	10077	75721	0
|	Se	82	89.949	ug/L	0.603	0	8	20063	0
|	Se	78	90.824	ug/L	1.587	1	10190	60908	1
[	Mo	98	0.093	ug/L	0.004	4	8	433	4
	Y	89		ug/L			462466	425897	1
	Kr	83		ug/L			550	581	0
[>	In	115		ug/L			919574	894186	0
|	Ag	107	26.506	ug/L	0.508	1	18	215393	2
|	Cd	111	28.632	ug/L	0.144	0	62	112140	0
|	Cd	114	28.344	ug/L	0.235	0	31	282346	0
|	Sb	121	0.231	ug/L	0.003	1	46	2795	1
|	Sb	123	0.232	ug/L	0.005	2	36	2103	2
|	Ba	135	57.828	ug/L	0.887	1	28	215589	0
[	Ba	137	56.132	ug/L	0.750	1	43	363996	0
[>	Tb	159		ug/L			1095800	1035780	1
|	Tl	205	25.593	ug/L	0.459	1	30	803933	0
|	Pb	208	69.650	ug/L	0.648	0	691	2757456	0
|	Bi	209		ug/L			2712548	2541648	0
|	Th	232	25.602	ug/L	0.397	1	69	995110	0
[	U	238	25.418	ug/L	0.590	2	3	1050055	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 G SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 30, 2012 15:43:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1840613	2
[	Be	9	0.138	ug/L	0.008	5	11	621	4
	C	13		ug/L			133450	153035	1
	Cl	37		ug/L			4493597	4832115	0
[>	Sc	45		ug/L			1326563	1232613	1
[	Al	27	5451.244	ug/L	16.981	0	3293	198083014	1
[	V	51	7.538	ug/L	0.102	1	8426	171160	0
[	V-1	51	7.560	ug/L	0.073	0	62	163403	0
[	Cr	52	5.119	ug/L	0.081	1	24946	111974	0
[	Cr	53	5.173	ug/L	0.168	3	144	10172	3
[	Fe	54	4899.222	ug/L	225.096	4	76518	6228963	3
[	Fe	57	4984.501	ug/L	235.407	4	10109	2360435	3
[	Mn	55	549.222	ug/L	8.242	1	648	13757702	2
[	Co	59	2.102	ug/L	0.035	1	86	34258	0
[>	Ge	72		ug/L			633989	581657	1
[	Ni	60	5.119	ug/L	0.152	2	122	17532	1
[	Ni	62	5.702	ug/L	0.313	5	91	2927	4
[	Cu	63	5.605	ug/L	0.157	2	166	42846	3
[	Cu	65	5.960	ug/L	0.203	3	58	20117	1
[	Zn	66	90.424	ug/L	1.370	1	329	187939	0
[	Zn	67	90.074	ug/L	1.865	2	43	31850	2
[	Zn	68	91.676	ug/L	1.480	1	290	137483	0
[	As	75	3.282	ug/L	0.030	0	308	6736	0
[	As-1	75	3.415	ug/L	0.109	3	10077	15931	0
[	Se	82	-0.001	ug/L	0.027	2299	8	7	81
[	Se	78	0.561	ug/L	0.305	54	10190	9661	0
[	Mo	98	0.126	ug/L	0.002	1	8	574	1
	Y	89		ug/L			462466	431287	2
	Kr	83		ug/L			550	605	1
[>	In	115		ug/L			919574	865115	1
[	Ag	107	0.074	ug/L	0.005	6	18	595	7
[	Cd	111	1.116	ug/L	0.013	1	62	4283	2
[	Cd	114	1.095	ug/L	0.024	2	31	10578	1
[	Sb	121	0.034	ug/L	0.002	7	46	437	6
[	Sb	123	0.034	ug/L	0.001	2	36	331	2
[	Ba	135	131.235	ug/L	1.054	0	28	473338	0
[	Ba	137	128.847	ug/L	1.516	1	43	808325	0
[>	Tb	159		ug/L			1095800	1016967	1
[	Tl	205	0.063	ug/L	0.001	1	30	1980	1
[	Pb	208	42.442	ug/L	0.553	1	691	1649938	0
[	Bi	209		ug/L			2712548	2479955	1
[	Th	232	0.892	ug/L	0.026	2	69	34119	2
[	U	238	0.102	ug/L	0.001	0	3	4122	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS22 J SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 30, 2012 15:48:10
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1858036	1
[	Be	9	0.153	ug/L	0.001	0	11	698	1
	C	13		ug/L			133450	155956	3
	Cl	37		ug/L			4493597	4662942	1
[>	Sc	45		ug/L			1326563	1263181	0
|	Al	27	5352.410	ug/L	19.300	0	3293	199312663	0
|	V	51	7.512	ug/L	0.114	1	8426	174842	1
|	V-1	51	7.564	ug/L	0.115	1	62	167559	1
|	Cr	52	5.248	ug/L	0.121	2	24946	117059	1
|	Cr	53	5.412	ug/L	0.063	1	144	10898	0
|	Fe	54	4673.741	ug/L	47.318	1	76518	6095108	0
|	Fe	57	4696.343	ug/L	41.317	0	10109	2280448	0
|	Mn	55	365.550	ug/L	6.147	1	648	9382959	1
[	Co	59	2.044	ug/L	0.059	2	86	34150	2
[>	Ge	72		ug/L			633989	587148	0
|	Ni	60	5.199	ug/L	0.096	1	122	17975	1
|	Ni	62	5.716	ug/L	0.148	2	91	2963	2
|	Cu	63	4.686	ug/L	0.057	1	166	36180	0
|	Cu	65	4.916	ug/L	0.085	1	58	16764	1
|	Zn	66	71.479	ug/L	1.012	1	329	150048	0
|	Zn	67	69.454	ug/L	0.911	1	43	24801	1
|	Zn	68	73.021	ug/L	1.189	1	290	110606	1
|	As	75	3.625	ug/L	0.066	1	308	7481	1
|	As-1	75	3.680	ug/L	0.086	2	10077	16607	0
|	Se	82	0.072	ug/L	0.039	53	8	23	36
|	Se	78	0.321	ug/L	0.170	53	10190	9618	0
[	Mo	98	0.144	ug/L	0.002	1	8	660	1
	Y	89		ug/L			462466	435902	1
	Kr	83		ug/L			550	586	3
[>	In	115		ug/L			919574	881688	0
|	Ag	107	0.049	ug/L	0.000	0	18	411	0
|	Cd	111	1.010	ug/L	0.011	1	62	3958	0
|	Cd	114	0.964	ug/L	0.021	2	31	9496	1
|	Sb	121	0.039	ug/L	0.003	7	46	508	6
|	Sb	123	0.045	ug/L	0.002	3	36	427	3
|	Ba	135	86.309	ug/L	0.795	0	28	317268	0
[	Ba	137	84.569	ug/L	0.792	0	43	540737	0
[>	Tb	159		ug/L			1095800	1033750	1
|	Tl	205	0.059	ug/L	0.001	1	30	1866	2
|	Pb	208	41.869	ug/L	0.240	0	691	1654694	0
|	Bi	209		ug/L			2712548	2500071	0
|	Th	232	0.779	ug/L	0.009	1	69	30270	1
[	U	238	0.111	ug/L	0.000	0	3	4570	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 F SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 30, 2012 15:52:24
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1808101	3
[	Be	9	0.049	ug/L	0.003	6	11	225	3
	C	13		ug/L			133450	154466	0
	Cl	37		ug/L			4493597	4660759	0
[>	Sc	45		ug/L			1326563	1212959	1
[	Al	27	1169.343	ug/L	32.339	2	3293	41824559	4
[	V	51	2.539	ug/L	0.073	2	8426	61828	1
[	V-1	51	2.531	ug/L	0.062	2	62	53856	1
[	Cr	52	1.876	ug/L	0.100	5	24946	54827	1
[	Cr	53	1.841	ug/L	0.063	3	144	3646	2
[	Fe	54	1653.151	ug/L	26.334	1	76518	2115169	0
[	Fe	57	1512.084	ug/L	52.040	3	10109	711118	2
[	Mn	55	152.522	ug/L	5.806	3	648	3758634	2
[	Co	59	0.620	ug/L	0.019	3	86	10002	1
[>	Ge	72		ug/L			633989	576713	1
[	Ni	60	1.408	ug/L	0.025	1	122	4863	3
[	Ni	62	1.730	ug/L	0.067	3	91	939	2
[	Cu	63	4.443	ug/L	0.059	1	166	33697	0
[	Cu	65	4.479	ug/L	0.086	1	58	15004	0
[	Zn	66	84.045	ug/L	0.195	0	329	173242	1
[	Zn	67	76.279	ug/L	0.782	1	43	26748	1
[	Zn	68	81.611	ug/L	0.910	1	290	121382	0
[	As	75	1.992	ug/L	0.042	2	308	4164	0
[	As-1	75	2.176	ug/L	0.094	4	10077	13389	0
[	Se	82	0.066	ug/L	0.043	65	8	22	43
[	Se	78	0.772	ug/L	0.203	26	10190	9696	0
[	Mo	98	0.072	ug/L	0.003	3	8	330	4
	Y	89		ug/L			462466	419955	1
	Kr	83		ug/L			550	565	4
[>	In	115		ug/L			919574	883455	0
[	Ag	107	0.066	ug/L	0.002	2	18	550	3
[	Cd	111	1.911	ug/L	0.021	1	62	7450	1
[	Cd	114	1.915	ug/L	0.023	1	31	18870	0
[	Sb	121	0.366	ug/L	0.001	0	46	4358	1
[	Sb	123	0.366	ug/L	0.003	0	36	3260	1
[	Ba	135	27.583	ug/L	0.318	1	28	101623	1
[	Ba	137	27.330	ug/L	0.304	1	43	175120	0
[>	Tb	159		ug/L			1095800	1022167	1
[	Tl	205	0.093	ug/L	0.004	4	30	2896	3
[	Pb	208	126.170	ug/L	1.368	1	691	4928531	0
[	Bi	209		ug/L			2712548	2514802	0
[	Th	232	0.556	ug/L	0.006	1	69	21400	1
[	U	238	0.080	ug/L	0.002	1	3	3264	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 G SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 30, 2012 15:57:42
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1862192	1
	Be	9	0.142	ug/L	0.006	4	11	651	4
	C	13		ug/L			133450	158768	2
	Cl	37		ug/L			4493597	4719582	0
>	Sc	45		ug/L			1326563	1228330	1
	Al	27	3818.124	ug/L	97.589	2	3293	138234926	1
	V	51	5.528	ug/L	0.196	3	8426	127146	2
	V-1	51	5.614	ug/L	0.225	4	62	120921	3
	Cr	52	6.777	ug/L	0.138	2	24946	140262	1
	Cr	53	7.099	ug/L	0.192	2	144	13858	2
	Fe	54	5261.074	ug/L	67.042	1	76518	6663019	1
	Fe	57	5277.312	ug/L	59.174	1	10109	2490745	1
	Mn	55	313.863	ug/L	6.137	1	648	7833522	1
	Co	59	2.380	ug/L	0.026	1	86	38648	0
>	Ge	72		ug/L			633989	584653	0
	Ni	60	6.458	ug/L	0.149	2	122	22207	1
	Ni	62	6.874	ug/L	0.129	1	91	3531	1
	Cu	63	7.216	ug/L	0.125	1	166	55395	2
	Cu	65	7.383	ug/L	0.067	0	58	25044	0
	Zn	66	115.413	ug/L	2.243	1	329	241053	1
	Zn	67	105.613	ug/L	2.581	2	43	37533	2
	Zn	68	112.449	ug/L	2.077	1	290	169457	1
	As	75	7.415	ug/L	0.056	0	308	14941	0
	As-1	75	7.509	ug/L	0.035	0	10077	24076	0
	Se	82	0.036	ug/L	0.043	118	8	15	60
	Se	78	0.378	ug/L	0.065	17	10190	9610	0
	Mo	98	0.156	ug/L	0.010	6	8	711	7
	Y	89		ug/L			462466	444196	0
	Kr	83		ug/L			550	590	2
>	In	115		ug/L			919574	882168	2
	Ag	107	0.062	ug/L	0.002	3	18	517	1
	Cd	111	2.297	ug/L	0.020	0	62	8931	2
	Cd	114	2.224	ug/L	0.079	3	31	21874	1
	Sb	121	0.142	ug/L	0.002	1	46	1714	3
	Sb	123	0.145	ug/L	0.009	6	36	1314	5
	Ba	135	61.999	ug/L	1.913	3	28	227941	0
	Ba	137	61.474	ug/L	0.567	0	43	393250	1
>	Tb	159		ug/L			1095800	1021411	1
	Tl	205	0.080	ug/L	0.001	1	30	2518	1
	Pb	208	121.468	ug/L	1.239	1	691	4741647	0
	Bi	209		ug/L			2712548	2493070	1
	Th	232	1.273	ug/L	0.019	1	69	48845	1
	U	238	0.119	ug/L	0.004	3	3	4830	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VR35 I SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Friday, November 30, 2012 16:01:56
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1840518	1
[	Be	9	0.118	ug/L	0.005	4	11	534	3
	C	13		ug/L			133450	158445	2
	Cl	37		ug/L			4493597	4764003	0
[>	Sc	45		ug/L			1326563	1248702	1
[	Al	27	3779.685	ug/L	88.461	2	3293	139131113	2
[	V	51	5.130	ug/L	0.019	0	8426	120553	1
[	V-1	51	5.162	ug/L	0.075	1	62	113033	0
[	Cr	52	4.364	ug/L	0.122	2	24946	100186	2
[	Cr	53	4.468	ug/L	0.163	3	144	8916	2
[	Fe	54	4352.273	ug/L	41.785	0	76518	5616205	1
[	Fe	57	4009.943	ug/L	60.416	1	10109	1926043	0
[	Mn	55	262.492	ug/L	1.722	0	648	6660824	1
[	Co	59	2.042	ug/L	0.018	0	86	33724	1
[>	Ge	72		ug/L			633989	588919	1
[	Ni	60	4.463	ug/L	0.177	3	122	15495	3
[	Ni	62	4.945	ug/L	0.163	3	91	2582	2
[	Cu	63	5.857	ug/L	0.149	2	166	45306	1
[	Cu	65	5.918	ug/L	0.181	3	58	20227	1
[	Zn	66	101.438	ug/L	1.426	1	329	213466	2
[	Zn	67	93.436	ug/L	2.523	2	43	33443	1
[	Zn	68	99.130	ug/L	1.925	1	290	150529	2
[	As	75	3.284	ug/L	0.066	2	308	6824	0
[	As-1	75	3.390	ug/L	0.117	3	10077	16081	0
[	Se	82	0.049	ug/L	0.058	117	8	18	68
[	Se	78	0.482	ug/L	0.216	44	10190	9738	0
[	Mo	98	0.168	ug/L	0.009	5	8	772	5
	Y	89		ug/L			462466	438755	1
	Kr	83		ug/L			550	589	6
[>	In	115		ug/L			919574	890140	0
[	Ag	107	0.075	ug/L	0.004	5	18	625	5
[	Cd	111	1.681	ug/L	0.053	3	62	6609	2
[	Cd	114	1.621	ug/L	0.023	1	31	16099	0
[	Sb	121	0.106	ug/L	0.005	4	46	1299	3
[	Sb	123	0.106	ug/L	0.006	5	36	980	4
[	Ba	135	68.203	ug/L	0.606	0	28	253141	1
[	Ba	137	67.698	ug/L	0.717	1	43	437057	1
[>	Tb	159		ug/L			1095800	1030749	1
[	Tl	205	0.075	ug/L	0.002	2	30	2361	3
[	Pb	208	76.397	ug/L	0.687	0	691	3009846	0
[	Bi	209		ug/L			2712548	2491124	1
[	Th	232	0.967	ug/L	0.011	1	69	37465	0
[	U	238	0.132	ug/L	0.002	1	3	5421	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 16:06:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			1972784	1810825	1
	Be	9	52.359	ug/L	1.165	2	11	228814	0
	C	13		ug/L			133450	146445	1
	Cl	37		ug/L			4493597	4900815	0
>	Sc	45		ug/L			1326563	1213817	1
	Al	27	5126.635	ug/L	151.083	2	3293	183380642	1
	V	51	48.883	ug/L	1.004	2	8426	1050601	0
	V-1	51	48.862	ug/L	1.225	2	62	1039446	1
	Cr	52	51.023	ug/L	1.282	2	24946	894542	3
	Cr	53	50.970	ug/L	0.612	1	144	97515	1
	Fe	54	5094.545	ug/L	103.770	2	76518	6376476	0
	Fe	57	5274.889	ug/L	156.690	2	10109	2459316	1
	Mn	55	49.268	ug/L	1.505	3	648	1215384	1
	Co	59	50.654	ug/L	1.115	2	86	811207	2
>	Ge	72		ug/L			633989	572858	0
	Ni	60	50.318	ug/L	0.639	1	122	168805	1
	Ni	62	49.720	ug/L	0.833	1	91	24517	1
	Cu	63	51.333	ug/L	1.185	2	166	385180	1
	Cu	65	51.179	ug/L	1.291	2	58	169803	2
	Zn	66	52.806	ug/L	0.269	0	329	108234	0
	Zn	67	52.572	ug/L	0.780	1	43	18324	1
	Zn	68	52.793	ug/L	0.889	1	290	78094	1
	As	75	51.253	ug/L	0.340	0	308	99540	1
	As-1	75	51.633	ug/L	0.097	0	10077	108705	0
	Se	82	51.694	ug/L	0.930	1	8	11212	2
	Se	78	52.438	ug/L	0.160	0	10190	38077	0
	Mo	98	51.127	ug/L	0.489	0	8	226461	0
	Y	89		ug/L			462466	402149	1
	Kr	83		ug/L			550	589	2
>	In	115		ug/L			919574	871919	2
	Ag	107	51.372	ug/L	1.434	2	18	406876	1
	Cd	111	52.152	ug/L	1.336	2	62	199058	0
	Cd	114	52.122	ug/L	1.936	3	31	506020	1
	Sb	121	51.100	ug/L	1.174	2	46	594220	0
	Sb	123	52.033	ug/L	1.310	2	36	452664	0
	Ba	135	49.966	ug/L	1.236	2	28	181598	0
	Ba	137	48.840	ug/L	1.295	2	43	308741	0
>	Tb	159		ug/L			1095800	1022157	1
	Tl	205	47.068	ug/L	0.488	1	30	1459137	0
	Pb	208	49.117	ug/L	0.821	1	691	1919055	0
	Bi	209		ug/L			2712548	2421697	0
	Th	232	47.113	ug/L	0.485	1	69	1807134	0
	U	238	46.733	ug/L	0.579	1	3	1905297	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Friday, November 30, 2012 16:13:11
Number of Replicates: 3
Method File: C:\NexION Data\Method\200.8+AlFe3mlLoop.mth
Tuning File: C:\NexION Data\MassCal\Default.tun
Optimization File: C:\NexION Data\Conditions\Default.dac
Calibration File: C:\NexION Data\System\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			1972784	1763754	2
[	Be	9	0.005	ug/L	0.004	82	11	31	53
	C	13		ug/L			133450	143067	1
	Cl	37		ug/L			4493597	4681664	3
[>	Sc	45		ug/L			1326563	1153693	2
[	Al	27	0.252	ug/L	0.393	155	3293	11655	118
[	V	51	0.028	ug/L	0.006	20	8426	7898	3
[	V-1	51	0.004	ug/L	0.003	57	62	146	38
[	Cr	52	0.098	ug/L	0.017	17	24946	23284	2
[	Cr	53	0.015	ug/L	0.005	31	144	152	3
[	Fe	54	3.399	ug/L	1.830	53	76518	70511	0
[	Fe	57	0.977	ug/L	1.095	112	10109	9216	3
[	Mn	55	0.001	ug/L	0.002	338	648	576	8
[	Co	59	0.002	ug/L	0.002	118	86	100	32
[>	Ge	72		ug/L			633989	556151	1
[	Ni	60	-0.018	ug/L	0.002	9	122	49	12
[	Ni	62	0.208	ug/L	0.054	25	91	180	15
[	Cu	63	0.005	ug/L	0.000	6	166	179	2
[	Cu	65	-0.003	ug/L	0.004	146	58	42	32
[	Zn	66	-0.002	ug/L	0.008	460	329	285	5
[	Zn	67	0.025	ug/L	0.025	102	43	46	17
[	Zn	68	0.007	ug/L	0.013	198	290	263	6
[	As	75	0.041	ug/L	0.010	24	308	348	6
[	As-1	75	0.390	ug/L	0.072	18	10077	9569	1
[	Se	82	0.042	ug/L	0.034	80	8	16	43
[	Se	78	1.378	ug/L	0.236	17	10190	9675	1
[	Mo	98	0.011	ug/L	0.003	27	8	55	23
	Y	89		ug/L			462466	388078	2
	Kr	83		ug/L			550	563	5
[>	In	115		ug/L			919574	824625	0
[	Ag	107	0.001	ug/L	0.001	69	18	21	17
[	Cd	111	0.007	ug/L	0.001	14	62	79	3
[	Cd	114	0.001	ug/L	0.001	82	31	36	19
[	Sb	121	0.059	ug/L	0.006	10	46	692	10
[	Sb	123	0.060	ug/L	0.005	8	36	531	9
[	Ba	135	0.003	ug/L	0.002	78	28	35	21
[	Ba	137	0.003	ug/L	0.001	48	43	56	14
[>	Tb	159		ug/L			1095800	960905	0
[	Tl	205	0.017	ug/L	0.007	42	30	525	40
[	Pb	208	-0.002	ug/L	0.006	253	691	523	39
[	Bi	209		ug/L			2712548	2417658	0
[	Th	232	0.165	ug/L	0.017	10	69	6010	9
[	U	238	0.005	ug/L	0.005	92	3	195	90

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-30-12

Page: 1 of 5

ARI Sample ID		Prep Code	Dilution	QC Data (ppb)	Comments	
STD	0.0	SMM	1X			
"	0.1					
"	0.5					
"	1.0					
"	2.0					
"	5.0					
"	10.0					
ICV				8.02	BkgInCLP %R=100	✓
ICB				-0.03		✓
CCV1				4.19	%R=105	✓
CCB1				-0.01		✓
CRA				0.10		✓
VS22	MB1			0.01		✓
"	MB1SPK			1.96	%R=98	✓
"	A			1.64		
"	ADUP			1.72	RPD=4.76	✓
"	ASPK			2.55	%R=91	✓
"	B					
"	C					
"	D					
"	E					
CCV2				4.16	%R=104	✓
CCB2				-0.02		✓
VS22	F					
"	G					
"	H					
"	I					
"	J					
"	K					
"	L					

Chemical/Reagent ID:

10% $SnCl_2$: MP2403

14% NH_2OH/NaCl: MP23098

Standard ID:

Standard: 2995-3

ICV/CCV: SL-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-30-12

Page: 2 of 5

DM 11-30-12

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments	
VSBB VS23 MBI	SMM	1X	-0.02		✓
VS23 MBISPK			1.89	%R=95	✓
" A			1.16		
CCV3			4.15	%R=104	✓
CCB3			-0.00		✓
VS23 ADUP			1.10	RPD=5.30	✓
" ASPK			2.28	%R=112	✓
" B					
" C					
" D					
" E					
" F					
" G					
" H					
" I					
CCV4			4.12	%R=103	✓
CCB4			0.02		✓
VS23 J					
" K					
VTC0 MBI			-0.01		✓
" MBISPK			1.95	%R=98	✓
" A			6.57		
" ADUP			5.92	RPD=10.4	✓
" ASPK			6.99	%R=42 LOW	x
" B					
" C					
VT8L MBI			-0.03		✓
CCV5			4.13	%R=103	✓
CCB5			-0.01		✓
VT8L MBISPK			1.97	%R=99	✓

Chemical/Reagent ID:

10% $SnCl_2$: MP2403

14% NH_2OH/NaCl: MP23098

Standard ID:

Standard: 2995-3

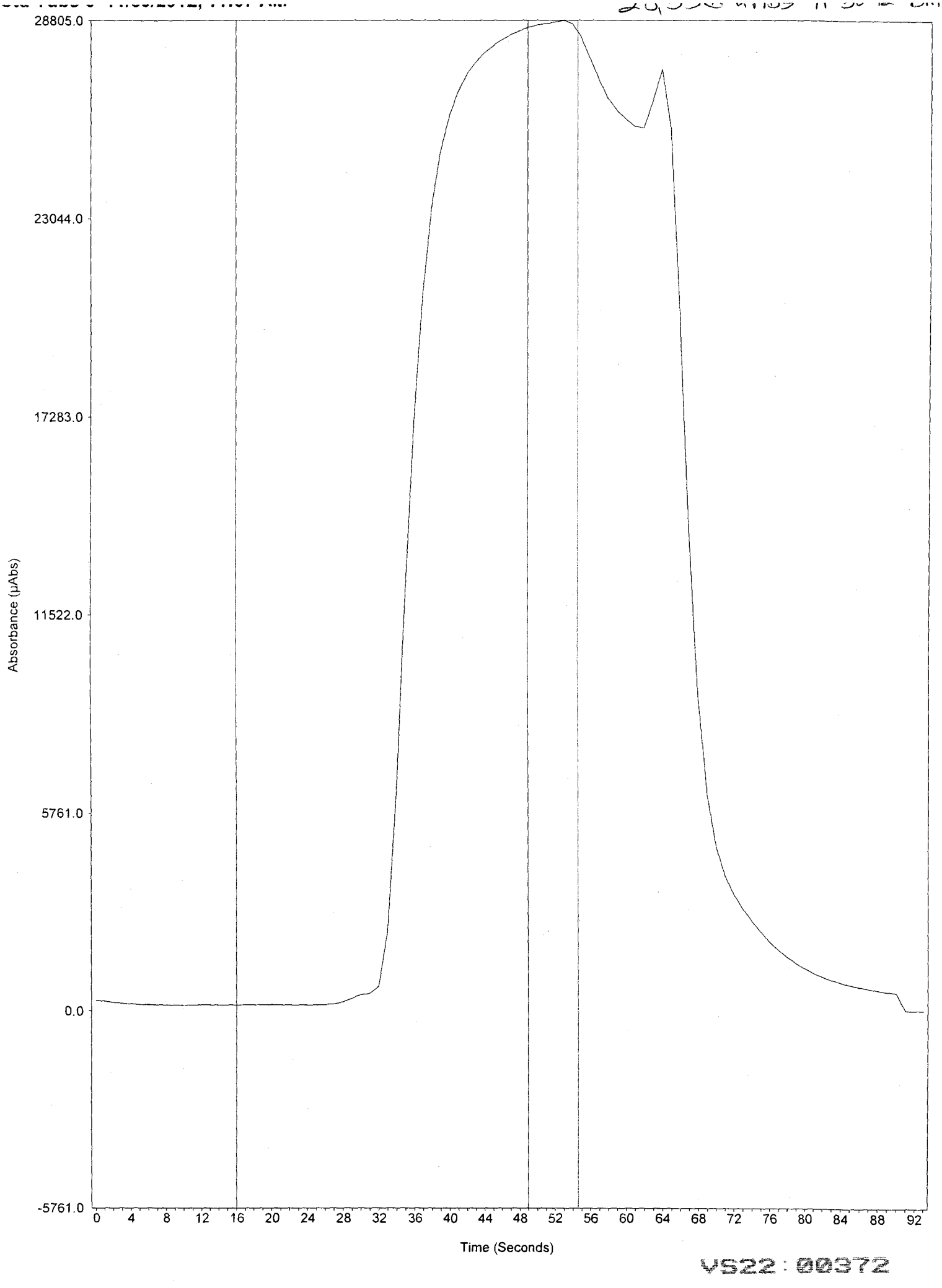
ICV/CCV: 5C-18

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA (CVA) Analysis Date: 11-30-12

	Analyst 11-30 DM	Peer 12-3-12	Comment
Logbook:			
Analyst, Date, Method info	√	✓	
Sample ID's	√	✓	
Standard/QC solution ID's recorded	√	✓	
Prep codes	√	✓	
Dilution factors	√	✓	
Crossouts/Corrections/Deletions	√	✓	
Calibration:			
Blank & Standard intensities	√	✓	
Standard deviations	√	✓	
Curve fit	√	✓	
Calibration Verification:			
ICV/CCV	√	✓	
ICB/CCB	√	✓	
Samples:			
RSD's & SD's	√	✓	
Internal Standards	—	—	
Carry-over	—	✓	
Method QC:			
CRI/CRA	√	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	√	✓	
Matrix Spikes	√	✓	VTLO ASPK low
Matrix Duplicates	√	✓	VT63 ADUP High
Method Blanks	√	✓	
Data Distribution:			
Requested elements/isotope identified	√	✓	
Correct samples identified for distribution	√	✓	
Raw data match distributed data	√	✓	
Data filename correct	√	✓	
Necessary Analysts Notes and CAF's	√	✓	9x CAF


28805.0
23044.0
17283.0
11522.0
5761.0
0.0
-5761.0
Absorbance (µAbs)
0
4
8
12
16
20
24
28
32
36
40
44
48
52
56
60
64
68
72
76
80
84
88
92
Time (Seconds)

VS22 : 00372

CETAC Hg Analysis Report - 12113000.DB - Friday, November 30, 2012, 2:50:52 PM

Analyst
Date Started Friday, November 30, 2012, 11:07:03
Worksheet ARI 10ppb CALIB
Comment

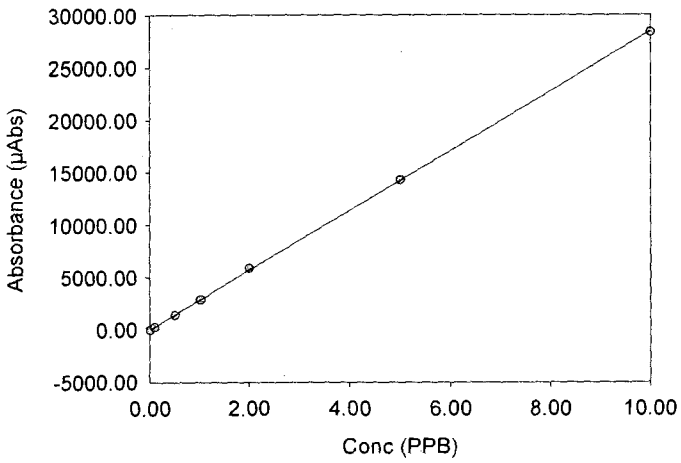
Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Std Tube 6	30-Nov-2012, 11:07	10.00	0.19	28600.00	1.00	

Information about this calibration could not be retrieved from the Master File.

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Calibration Zero	30-Nov-2012, 11:09	0.00	8.25	-38.00	1.00	
Standard #1	30-Nov-2012, 11:11	0.10	2.65	293.00	1.00	
Standard #2	30-Nov-2012, 11:12	0.50	0.87	1420.00	1.00	
Standard #3	30-Nov-2012, 11:14	1.00	0.33	2850.00	1.00	
Standard #4	30-Nov-2012, 11:16	2.00	0.05	5890.00	1.00	
Standard #5	30-Nov-2012, 11:17	5.00	0.42	14300.00	1.00	
Standard #6	30-Nov-2012, 11:19	10.00	0.16	28400.00	1.00	

SMM

Calibration Data



Int.	0.000
Slope	2849.318
Correlation	0.99996

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	30-Nov-2012, 11:24	8.02	0.46	22900.00	1.00	
ICB	30-Nov-2012, 11:26	-0.03	7.40	-74.90	1.00	

Bkgn CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	30-Nov-2012, 11:27	4.19	0.58	11900.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	30-Nov-2012, 11:29	-0.01	10.00	-36.20	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	30-Nov-2012, 11:31	0.10	3.53	295.00	1.00	
VS22 MB1 SMM	30-Nov-2012, 11:32	0.01	15.90	34.40	1.00	
VS22 MB1SPK SMM	30-Nov-2012, 11:34	1.96	0.21	5580.00	1.00	
VS22 A SMM	30-Nov-2012, 11:36	1.64	0.20	4670.00	1.00	
VS22 ADUP SMM	30-Nov-2012, 11:37	1.72	0.92	4890.00	1.00	
VS22 ASPK SMM	30-Nov-2012, 11:39	2.55	0.62	7270.00	1.00	
VS22 B SMM	30-Nov-2012, 11:40	0.67	1.20	1910.00	1.00	
VS22 C SMM	30-Nov-2012, 11:42	0.43	3.05	1230.00	1.00	
VS22 D SMM	30-Nov-2012, 11:44	0.51	2.05	1450.00	1.00	
VS22 E SMM	30-Nov-2012, 11:45	0.61	0.65	1740.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	30-Nov-2012, 11:47	4.16	0.18	11800.00	1.00	

CETAC Hg Analysis Report - 12113000.DB - Friday, November 30, 2012, 2:50:53 PM

Analyst
Date Started Friday, November 30, 2012, 11:49:04
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	30-Nov-2012, 11:49	-0.02	4.51	-54.90	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS22 F SMM	30-Nov-2012, 11:50	0.97	0.41	2750.00	1.00	
VS22 G SMM	30-Nov-2012, 11:52	0.89	0.61	2540.00	1.00	
VS22 H SMM	30-Nov-2012, 11:53	0.94	0.48	2670.00	1.00	
VS22 I SMM	30-Nov-2012, 11:55	0.61	0.86	1730.00	1.00	
VS22 J SMM	30-Nov-2012, 11:57	0.86	0.89	2450.00	1.00	
VS22 K SMM	30-Nov-2012, 11:58	0.61	0.59	1740.00	1.00	
VS22 L SMM	30-Nov-2012, 12:00	1.29	0.39	3680.00	1.00	
VS23 MB1 SMM	30-Nov-2012, 12:01	-0.02	5.47	-50.70	1.00	
VS23 MB1SPK SMM	30-Nov-2012, 12:03	1.89	0.36	5370.00	1.00	
VS23 A SMM	30-Nov-2012, 12:05	1.16	0.32	3320.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	30-Nov-2012, 12:06	4.15	0.61	11800.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	30-Nov-2012, 12:08	-0.00	22400.00	-0.04	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS23 ADUP SMM	30-Nov-2012, 12:10	1.10	1.06	3140.00	1.00	
VS23 ASPK SMM	30-Nov-2012, 12:11	2.28	0.56	6500.00	1.00	
VS23 B SMM	30-Nov-2012, 12:13	0.81	0.49	2310.00	1.00	
VS23 C SMM	30-Nov-2012, 12:14	1.51	0.37	4300.00	1.00	
VS23 D SMM	30-Nov-2012, 12:16	1.42	0.49	4040.00	1.00	
VS23 E SMM	30-Nov-2012, 12:18	0.65	1.07	1850.00	1.00	
VS23 F SMM	30-Nov-2012, 12:19	0.37	0.45	1060.00	1.00	
VS23 G SMM	30-Nov-2012, 12:21	0.24	1.05	677.00	1.00	
VS23 H SMM	30-Nov-2012, 12:23	0.43	0.56	1230.00	1.00	
VS23 I SMM	30-Nov-2012, 12:24	0.94	0.07	2670.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	30-Nov-2012, 12:26	4.12	0.43	11700.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	30-Nov-2012, 12:27	0.02	26.90	47.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS23 J SMM	30-Nov-2012, 12:29	0.98	0.31	2800.00	1.00	
VS23 K SMM	30-Nov-2012, 12:31	1.39	0.63	3950.00	1.00	
VT60 MB1 SMM	30-Nov-2012, 12:32	-0.01	85.50	-16.40	1.00	
VT60 MB1SPK SMM	30-Nov-2012, 12:34	1.95	0.28	5550.00	1.00	
VT60 A SMM	30-Nov-2012, 12:36	6.57	0.49	18700.00	1.00	
VT60 ADUP SMM	30-Nov-2012, 12:37	5.92	0.44	16900.00	1.00	
VT60 ASPK SMM	30-Nov-2012, 12:39	6.99	0.30	19900.00	1.00	- LOW %R STL
VT60 B SMM	30-Nov-2012, 12:40	8.08	0.38	23000.00	1.00	
VT60 C SMM	30-Nov-2012, 12:42	7.58	0.35	21600.00	1.00	
VT86 MB1 SMM	30-Nov-2012, 12:44	-0.03	9.17	-99.40	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	30-Nov-2012, 12:45	4.13	0.23	11800.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	30-Nov-2012, 12:47	-0.01	22.10	-16.00	1.00	

CETAC Hg Analysis Report - 12113000.DB - Friday, November 30, 2012, 2:50:55 PM

Analyst	
Date Created:	Thursday, July 13, 2000
Worksheet	ARI 10ppb CALIB
Comment	
Sip Duration (Sec.):	30
Rinse Duration (Sec.):	60
Read Delay:	49
Integration Time/Replicate:	1.40
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	10
Baseline Point 1 End Time:	16
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	
Baseline Point 2 End Time:	
Gas Flow (ml/min):	180
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	5
Calibration Standard #1 Conc.:	0.10 PPB
Calibration Standard #2 Conc.:	0.50 PPB
Calibration Standard #3 Conc.:	1.00 PPB
Calibration Standard #4 Conc.:	2.00 PPB
Calibration Standard #5 Conc.:	5.00 PPB
Calibration Standard #6 Conc.:	10.00 PPB
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5.0%, if µAbs. > 1500, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 80% .. 120%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -100 .. 100,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Digested at 20.0 mL

Prep Code: TLM Instrument: CETAC

Analyst: CB Date: 11-23-12

Bath Temp: 90°C Start Time: 1407 End Time: 1607

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	2994-5	0.02		0.02	1
STD2		0.05		0.05	1
STD3		0.10		0.1	1
STD4		0.20		0.2	1
STD5		CB 11/23/12 ~~0.50~~ 0.4		0.4	1
STD6		1.00		1.00	1
CRA		0.02		0.02	1
ICB/CCB	—	0.00		0.0	1
ICV/LCS	CB 11/26/12 ~~2995-6~~ 2994-6	1.0		0.5	1
CCV		1.0	100.0	0.5	1

Chemical/Reagent ID:

HNO_3: I7833 H_2SO_4: I7622 HCl: —

5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376

Prep Code: SMM Instrument: CETAC

Analyst: NB Date: 11-26-12

Bath Temp: 90°C Start Time: 1217 End Time: 1247

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	50.0	0.0	3
STD1	2995-3	0.01		0.1	2
STD2		0.05		0.5	2
STD3		0.10		1.0	2
STD4		0.20		2.0	2
STD5		0.50		5.0	2
STD6		1.00		10.0	2
CRA		0.01		0.1	1
ICB/CCB	—	0.00		0.0	3
ICV/LCS	56-18	0.08		8.0	2
CCV		0.04	50.0	4.0	3

Chemical/Reagent ID:

HNO_3: I7833 H_2SO_4: I7677 HCl: —

5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM
Analyst: NB
Bath Temp: 93°C
Start Time: 1420
Matrix: SOIL
Date: 11-26-12
End Time: 1450

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
VS22 A	1	—	0.718	50.0	11-22 1	YES	
" ADUP	1	—	0.717		1		
" ASPK	1	—	0.720		1		
" B	1	—	0.734		1		
" C	1	—	0.730		1		
" D	1	—	0.748		1		
" E	1	—	0.710		1		
" F	1	—	0.713		1		
" G	1	—	0.715		1		
" H	1	—	0.730		1		
" I	1	—	0.704		1		
" J	1	—	0.737		1		
" K	1	—	0.727		1		
" L	1	—	0.708		1		
" MBI	—	—	—		1		
" MBISPK	—	—	—	50.0	1		

NB 11-26-12

Chemical/Reagent ID:

HNO_3: I7833
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2375
5% $KMnO_4$: MP2376
Digest Tube Lot: 1205258

General Chemistry Raw Data
Analyst Notes and Raw Data

ARI Job ID: VS22

W
11-27-12

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 11/20/2012 (B)
ANALYST: CDE 19:29

Instrumentation **Drying Ovens:** 12 **Analytical Balance:** 1123230597
Muffle Furnace: N / A

Batch drying time
record times as mm/dd/yy hh:mm
11/20/2012 19:29 date/time in oven CDE
11/21/2012 10:11 date/time out CDE
elapsed hrs = 14.7

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02				
	Date & Time	1/20/12 18:21 CDE	11/20/12 17:32 CDE	11/21/12 10:29 CDE										
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000										
	record weights to 4 places	Cal OK!	Cal OK!	Cal OK!										

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
Blank			1.1260	1.1256			0.00							
VS20 J 1		4.5445	1.1037	4.3632			3.26	94.7%						
VS20 K1		4.6249	1.1498	4.4756			3.33	95.7%						
VS21 C1		5.2886	1.0894	5.1727			4.08	97.2%						
VS21 C1 dup		5.5288	1.1201	5.4011			4.28	97.1%						
							RPD =	0.14%				RPD =	NA	
VS21 C1 trp		5.3388	1.0796	5.2213			4.14	97.2%						
							RSD =	0.08%				RSD =	NA	
VS21 D1		4.7746	1.0874	4.6261			3.54	96.0%						
VS21 E1		4.9768	1.1128	4.8381			3.73	96.4%						
VS21 F1		6.7585	1.1030	6.6223			5.52	97.6%						
VS21 G1		6.9651	1.0898	6.8594			5.77	98.2%						
VS21 H1		7.2515	1.1084	7.1740			6.07	98.7%						
VS21 I 1		4.6359	1.0743	4.4594			3.39	95.0%						
VS21 J 1		5.8641	1.1148	5.7322			4.62	97.2%						
VS21 K1		5.8829	1.0945	5.7476			4.65	97.2%						
VS21 L 1		4.7599	1.0706	4.5692			3.50	94.8%						
VS23 I 1		5.0842	1.0934	4.9647			3.87	97.0%						
VS22 A1		4.6001	1.1226	4.3753			3.25	93.5%						
VS22 B1		5.4722	1.0484	5.3644			4.32	97.6%						
VS22 C1		7.1470	1.0819	6.9999			5.92	97.6%						
VS22 D1		5.8544	1.0874	5.7715			4.68	98.3%						

VS22 : 6373

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET DATE: 11/20/2012 (B)

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))* ANALYST: CDE 19:29

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace: N / A

Batch drying time			*TS (%) calculated as:*	*TVS (mg/kg dry wt) calculated as:*
record times as mm/dd/yy hh:mm			*Final dry wt (g) = (Dry Wt - Tare Wt)*	*Final ash wt (g) = (min ash wt - tare wt)*
11/20/2012 19:29	date/time in oven	CDE	*TS = (Final Dry Wt)/ (grams Sample-Tare)*	*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
11/21/2012 10:11	date/time out	CDE		*if ash wt > dry wt, "Chk for Err"*
elapsed hrs =	14.7			*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02				
	Date & Time	1/20/12 18:21 CDE	11/20/12 17:32 CDE	11/21/12 10:29 CDE										
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000										
	record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*										

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
VS22 E1		5.7288	1.0815	5.5907			4.51	97.0%						
VS22 F1		5.3669	1.1041	5.1423			4.04	94.7%						
VS22 G1		5.7917	1.1127	5.6314			4.52	96.6%						

VS22 - 6053

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET (B)

Analyst:	CM	Date:	11-20-12		Oven ID:	12		Balance ID:	1123230597
Time in Oven:	~~16:29~~ ~~19:29~~ 19:29		Time Out of Oven:		11-21-12 10:11		Elapsed Time (> 12 Hrs):		

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

Cal Weight ID		CV-02	CV-02	CV-02	CV-02	CV-02		CV-02	CV-02	CV-02
Date & Time:		11-20-12 18:21	11-20-12 17:32	11-21-12 10:29						
Cal Weight (10.0000):		10.0000 CM	10.0000 CM	10.0000 CM						
Sample ID	Dish #	Sample	Tare	Dry Weight 104°C 1	2	3	Dry Weight grams	Ash Weight 550°C 1	2	3
BLANK	24	Ø	1.1260	1.1256						
VS20 J'	25	4.5445	1.1037	4.3632						
↓ K'	26	4.6249	1.1498	4.4756						
VS21 C'	27	5.2886	1.0894	5.1727						
C' dp	28	5.5288	1.1201	5.4011						
C' tp	29	5.3388	1.0796	5.2213						
D'	30	4.7746	1.0874	4.6261						
E'	31	4.9768	1.1128	4.8381						
F'	32	6.7595	1.1030	6.6223						
G'	33	6.9651	1.0998	6.8594						
H'	34	7.2515	1.1084	7.1740						
I'	35	4.6359	1.0743	4.4594						
J'	36	5.8641	1.1148	5.7322						
K'	37	5.8829	1.0945	5.7476						
↓ L'	38	4.7599	1.0706	4.5692						
VS23 I' ~~VS22 A~~	39	5.0842	1.0934	~~4.4~~ 4.9647						
VS22 BA'	40	4.6001	1.1226	4.3753						
CB'	41	5.4722	1.0484	5.3644						
DC'	42	7.1470	1.0819	6.9999						
ED'	43	5.8544	1.0874	5.7715						
FE'	44	5.7288	1.0815	5.5907						
GF'	45	5.3669	1.1041	5.1423						
↓ G'	46	5.7917	1.1127	5.6314						

W
11-27-12

Soil Conductivity - pH

meter: Orion Model 115

Date: 11/21/2012
Analyst: KE 9:56

Conductivity Calibration
Potassium Chloride standard ARI ID = N / A

Conductivity =	1413	µS/cm
Cal Temp	N / A	
Input Value		µS/cm

pH Calibration Temperature (°C)
pH Buffers 2, 4, 7, 10, 12

Verification Buffer pH
Source FISHER# 7.00

Conductivity Verification Standard
Source: N / A

Record Certified Values
µS / cm = 1000
TDS (mg/l) =

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity (mS/cm)	Conductivity (µS/cm)	Notes & Flags
pH 7 Buffer			20.3	6.97			OK@ 99.6%
VS21 C1	20.30	20	20.1	5.27			
VS21 C1 dup	20.30	20	20.1	5.29			pH RPD =0.38%
VS21 D1	20.20	20	20.0	5.41			
VS21 E1	20.10	20	20.1	5.62			
VS21 F1	20.20	20	20.0	5.68			
VS21 G1	20.03	20	20.0	5.95			
VS21 H1	20.03	20	20.0	5.98			
VS21 I 1	10	20	20.0	5.90			
VS21 J 1	20.01	20	20.1	6.06			
VS21 K1	20.01	20	20.1	5.08			
pH 7 Buffer			20.4	6.99			OK@ 99.9%
VS21 L1	10.05	20	20.1	5.89			
VS23 I 1	20.06	20	20.0	5.96			
VS19 A1	20	20	20.0	5.96			
VS19 A1 dup	20	20	20.0	5.98			pH RPD =0.34%
VS19 B1	20	20	20.0	6.13			
VS19 C1	20	20	20.1	6.10			
VS19 D1	10	20	20.0	6.44			
VS19 E1	20	20	20.0	5.78			
VS19 F1	20	20	20.0	6.03			
VS19 G1	20	20	20.0	6.10			
pH 7 Buffer			20.4	7.04			OK@ 100.6%
VS19 H1	20	20	20.0	6.11			
VS19 I 1	20	20	20.0	5.73			
VS19 J 1	10	20	20.0	5.97			
VS19 K1	20	20	20.0	5.60			
VS19 L1	20	20	20.0	6.03			
VS20 A1	10	20	20.0	6.11			
VS20 B1	10	20	20.0	6.14			
VS20 C1	10	20	20.0	5.96			
VS20 D1	5	20	20.3	6.21			
VS20 E1	10	20	20.2	6.27			
pH 7 Buffer			20.3	7.03			OK@ 100.4%

VS22 : 063852

VS20 F1	20	20	20.1	6.22			
VS20 G1	10	20	20.3	6.08			
VS20 H1	20	20	20.2	6.09			
VS20 H1 dup	20	20	20.2	6.06			*pH RPD =0.49%*
VS20 J 1	10	20	20.2	6.52			
VS20 K1	10	20	20.3	6.37			
VS22 A1	10	20	20.2	5.45			
VS22 B1	20	20	20.3	5.73			
VS22 C1	20	20	20.2	6.67			
CS22 D1	20	20	20.3	7.48			
pH 7 Buffer			20.2	7.00			*OK@ 100%*
VS22 E1	10	20	20.5	6.75			
VS22 F1	10	20	20.3	6.42			
VS22 G1	20	20	20.2	6.13			
VS22 H1	20	20	20.3	5.61			
VS22 I 1	20	20	20.3	6.24			
VS22 J 1	20	20	20.3	6.25			
VS22 K1	20	20	20.2	6.18			
VS22 L1	10	20	20.2	6.68			
VS23 A1	20	20	20.4	5.77			
VS23 A1 dup	20	20	20.3	5.79			*pH RPD =0.35%*
pH 7 Buffer			20.3	6.98			*OK@ 99.7%*
VS23 B1	20	20	20.2	5.95			
VS23 C1	10	20	20.4	6.34			
VS23 D1	20	20	20.3	5.73			
VS23 E1	20	20	20.4	5.69			
VS23 F1	20	20	20.3	5.51			
VS23 G1	20	20	20.0	5.47			
VS23 H1	20	20	20.2	5.48			
VS23 J1	10	20	20.3	5.29			
VS23 K1	10	20	20.3	6.19			
VS18 B1	20	20	20.2	6.15			
pH 7 Buffer			20.5	7.05			*OK@ 100.7%*
VS18 A1	20	20	20.3	6.47			
VS18 A1 dup	20	20	20.3	6.45			*pH RPD =0.31%*
VS18 C1	20	20	20.2	6.17			
VS18 D1	20	20	20.1	6.16			
VS18 E1	20	20	20.2	6.15			
VS18 F1	20	20	20.2	6.06			
VS18 G1	20	20	20.3	6.13			
VS18 H1	20	20	20.3	6.10			
VS18 I 1	20	20	20.3	5.46			
VS18 J 1	20	20	20.3	5.97			
pH 7 Buffer			20.5	7.05			*OK@ 100.7%*
VS18 K1	10	20	20.4	6.19			
VS18 L1	20	20	20.4	6.10			
VT58 A1	20	20	20.3	3.81			
VT58 A1 dup	20	20	20.3	3.80			*pH RPD =0.26%*
VT58 B1	20	20	20.3	6.69			
VT58 C1	20	20	20.4	5.32			
VT58 D1	20	20	20.4	2.73			
VT58 E1	20	20	20.3	3.36			
VT58 F1	20	20	20.3	2.49			
pH 7 Buffer			20.6	7.02			*OK@ 100.3%*

① 11-21-12 (W)

Soil Conductivity - pH

Date: 11-20-12

meter: Orion Model 115

Analyst: (W) 9:56

Conductivity Calibration

Potassium Chloride standard ARI ID = _____

Conductivity =	1413	µS/cm
Cal Temp		
Input Value		µS/cm

pH Calibration *Temperature (°C)* _____

pH Buffers 2, 4, 7, 10, 12

Verification Buffer	pH
Source **FISHER#**	7.00

Conductivity Verification Standard

Source:

Record Certified Values

µS / cm =	1000
TDS (mg/l) =	

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity (mS/cm)	Conductivity (µS/cm)	Notes & Flags
pH 7 Buffer			①6.20.3	6.97			
VS21 C1	2003	20	20.1	~~20.87~~	5.27		
MC1	20.02	20	20.1	5.29			
B1	20.02	30	20.0	5.41			
E1	2001	20	20.1	5.62			
F1	2002	20	20.0	5.68			
G1	20.03	20	20.0	5.95			
H1	20.03	20	20.0	5.98			
I1	10.00	20	20.0	5.90			
J1	20.01	20	20.1	6.06			
K1	20.01	20	20.1	5.08			
pH 7 Buffer			20.4	6.99			
VS21 L1	10.05	20	20.1	5.89			
VS20 I1	20.06	20	20.0	5.96			
VS19 A1	20	20	20.0	5.96			
MA1	20	20	20.0	5.98			
B1	20	20	20.0	6.13			
C1	20	20	20.1	6.10			
D1	10	20	20.0	6.44			
E1	20	20	20.0	3.78			
F1	20	20	20.0	6.03			
G1	20	20	20.0	6.10			
pH 7 Buffer			20.4	7.04			
VS19 H1	20	20	20.0	6.11			
I1	20	20	20.0	5.73			
J1	10	20	20.0	5.97			
K1	20	20	20.0	5.60			
L1	20	20	20.0	6.03			
VS20 A1	10.	20	20.0	6.11			
B1	10	20	20.0	6.14			
C1	10	20	20.0	5.96			
D1	5	20	20.3	~~6.21~~ ①	6.21		
E1	10	20	20.2	6.27			
pH 7 Buffer			20.3	7.03			
VS20 F1	20	30	20.1	6.22			
G1	10	20	20.3	6.08			
H1	20	20	20.2	6.09			
MH1	20	20	20.2	6.06			
J1 ~~E1~~	10	20	20.2	6.52			
K1	10	20	20.3	6.37			
VS22 A1	10	30	20.2	5.45			
B1	20	20	20.3	5.73			
C1	20	20	20.2	6.67			
D1	20	20	20.3	7.48			
pH 7 Buffer			20.2	7.00			

Soil Conductivity - pH

meter: Orion Model 115

Date: 11-21-12
Analyst: W 9:56

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity (mS/cm)	Conductivity (µS/cm)	Notes & Flags
VS22 E1	10	20	20.5	6.75			
F1	20	20	20.3	6.42			
G1	20	20	20.2	6.13			
H1	20	20	20.3	3.61			
I1	20	20	20.3	6.24			
J1	20	20	20.3	6.25			
K1	20	20	20.2	6.18			
L1	10	20	20.2	6.68			
VS23 A1	20	20	20.4	~~6.10~~	5.77		
↓ DA1	20	20	20.3	5.79			
pH 7 Buffer			20.3	~~6.99~~	6.99		
VS23 B1	20	⑥ ~~20~~ 30	20.2	6.95			
C1	10	20	20.4	6.34			
D1	20	20	20.3	5.73			
E1	20	20	20.4	5.69			
F1	20	20	20.3	5.51			
G1	20	20	20.0	5.47			
H1	20	20	20.2	5.48			
I1	10	20	20.3	5.29			
↓ K1	10	20	20.3	6.19			
VS18 B1	20	⑥ ~~20~~ 30	20.3	6.15			
pH 7 Buffer		20.3	20.5	7.05			
VS18 A1	20	~~30~~	20.3	6.47			
DA1	20	~~30~~	20.3	6.45			
C1	20	20	20.2	6.17			
D1	20	20	20.1	6.16			
E1	20	20	20.2	6.15			
F1	20	20	20.2	6.06			
G1	20	20	20.3	6.13			
H1	20	20	20.3	6.10			
I1	20	20	20.3 ⑤	5.46			
↓ J1	20	20 ⑥	~~20.34~~	5.97			
pH 7 Buffer			20.5	7.05			
VS18 K1	10	20 ⑦	~~20.34~~	6.19			
↓ L1	20	20	~~20.33~~	6.10			
VTS8 A1	20	20	~~20.4~~ ③	3.81			
DA1	20	20 ①	~~20.4~~	3.80			
B1	20	20	20.3	6.69			
C1	20	20 ④	~~20.3~~	~~6.38~~	5.32		
D1	20	20	20.4	2.73			
E1	20	20	20.3	3.36			
↓ F1	20	20	20.3	2.49			
PH 7 Buffer			20.6	7.02			
~~pH 7 Buffer~~							
			11-21-12 W				
pH 7 Buffer							

② 20.4 - 11 - 21 - 12 W
③ 20.3 - 11 - 21 - 12 W
④ 20.4 - 11 - 21 - 12 W
⑤ 20.4 11-21-12 W
⑥ 20.3 - 11 - 21 - 12
⑦ 20.3 - 11 - 21 - 12

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:	11-21-12		Buffer	Source	Lot #	pH	Temp.
Time:	11:44		2.00	Ricca	1205264	2.00	20.5
Analyst:	W		4.00	Fisher	116550	4.00	20.4
			7.00	Ricca	1206053	7.02	20.2
			10.00	Fisher	116346	10.05	20.2
			12.00	Ricca	1206157	11.99	20.4
			Verification	Fisher	120143	6.97	20.3

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
W	10:29	ICV	6.97	6.97	PH		20.3
		VS21 C1	5.26	5.27		SOL	20.1
		DPC1	5.28	5.29			20.1
		D1	5.41	5.41			20.0
		E1	5.60	5.62			20.1
		F1	5.68	5.68			20.0
		G1	5.95	5.95			20.0
		H1	5.97	5.98			20.0
		I1	5.89	5.90			20.0
		J1	6.06	6.06			20.1
		K1	5.08	5.08			20.1
		CCV	7.00	6.99			20.4
		VS21 L1	5.89	5.89			20.1
		VS23 I1	5.96	5.96			20.0
		VS19 A1	5.96	5.96			20.0
		DPA1	5.97	5.98			20.0
		B1	6.13	6.13			20.0
		C1	6.09	6.10			20.1
		D1	6.42	6.44			20.0
		E1	5.78	5.78			20.0
		F1	6.01	6.03			20.0
		G1	6.10	6.10			20.0
		CCV	7.05	7.04			20.4

(1) 11-21-12 (W)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Page 2 of 4

Calibration

Date:	11-21-12 continued		Buffer	Source	Lot #	pH	Temp.
Time:			2.00	Ricca			
Analyst:			4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher			
			12.00	Ricca			
			Verification	Fisher			

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
LW	12:10	ICV	7.03	7.03			20.2
		VTG2A1	9.89	9.90 →	6.95	6.95	19.2
		~~I A1 6A1~~ (1)					
		CCV	7.03	7.03			20.2
(W)	10:28 cont.	VS19 H1	6.11	6.11	PH Soil		20.0
		I1	5.73	5.73			20.0
		J1	5.96	5.97			20.0
		K1	5.60	5.60			~~20.03~~ (1) 20.0
		L1	6.02	6.03			20.1
		VS20 A1	6.10	6.11			20.0
		B1	6.13	6.14			20.0
		~~CCV~~ C1	5.97	5.96			20.0
		D1	6.21	6.21			20.3
		E1	6.27	6.27			20.2
		CCV	7.03	7.03			20.3
		F1	6.22	6.22			20.1
		G1	6.08	6.08			20.3
		H1	6.09	6.09			20.2
		DPH1	6.07	6.06			20.2
		J1	6.52	6.52			20.2
		K1	6.38	6.37			20.3
		VS22 A1	5.47	5.45			20.2
		~~L CCV~~ B1	5.73	5.73			20.3

(1) 11-21-12 (2)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:			Buffer	Source	Lot #	pH	Temp.
Time:			2.00	Ricca			
Analyst:			4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher			
			12.00	Ricca			
			Verification	Fisher			

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temperature
(W)	10.28	~~VS22~~ ~~+CV~~ C1	6.67	6.67	Soil	Ph	20.2
		↓ D1	7.46	7.48			20.3
		CCV	7.01	7.00			20.2
		VS22 E1	6.75	6.75			20.5
		F1	6.44	6.42			20.3
		G1	6.12	6.13			20.2
		A1	5.61	5.61			20.3
		I1	6.24	6.24			20.3
		J1	6.25	6.25			20.3
		K1	6.18	6.18			20.2
		↓ L1	6.67	6.68			20.2
		~~VS22 CCV~~ A1	~~6.77~~ 5.77	~~6.70~~ 5.77			20.4
		↓ DP A1	5.79	5.79			20.3
		CCV	6.98	6.98			20.3
		VS23 B1	5.95	5.95			20.2
		C1	6.34	6.34			20.4
		D1	5.74	5.73			20.3
		E1	5.69	5.69			20.4
		F1	5.51	5.51			20.3
		G1	5.47	5.47			20.0
		H1	5.48	5.48			20.2
		J1	5.29	5.29			20.3
		(1) ~~CCV~~ K1	6.17	~~6.18~~ 6.19			20.3

VS22 : 00388

① 11-21-12 (W)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:			Buffer	Source	Lot #	pH	Temp.
Time:			2.00	Ricca			
Analyst:			4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher			
			12.00	Ricca			
			Verification	Fisher			

cont.

cont.

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temperature
		~~LCS~~ ~~ICV~~ ~~CCV~~					
(W)	10:28	VS18 B'	6.15	6.15			20.2
		CCV	~~6.795~~ 7.05	~~6.795~~ 7.05	50.1	pH	20.5
		VS18 A'	6.45	6.47			20.3
		MA'	6.44	6.45			20.3
		C	6.17	6.17			20.2
		D	6.15	6.16			20.1
		E	6.14	6.15			20.2
		F	6.06	6.06			20.2
		G	6.13	6.13			20.3
		H	6.09	6.10			20.3
		~~CCV~~ I	5.41	5.46			20.3
		J	5.97	5.97			20.3
		CCV	7.05	7.05			20.5
		VS18 K'	~~6.19~~ 6.19	~~6.19~~ 6.19			20.4
		L'	~~6.10~~ 6.10	~~6.10~~ 6.10			20.4
		VTS8 A'	3.81	3.81			20.3
		A'	3.80	3.80			20.3
		B'	6.69	6.69			20.3
		C'	~~6.33~~ 5.33	~~6.34~~ 5.32			20.4
		P'	2.73	2.73			20.4
		E'	3.36	3.36			20.3
		~~CCV~~ F'	2.49	2.49			20.3
		CCV	7.02	7.02			20.6

W

11-26-12

TOC Solids Prep Log

DATE:	11/20/2012
ANALYST:	CDE 19:52

acid purging to remove IC and drying at 70°C for TOC analysis

General notes regarding prep method and samples (identify the acid used)

HCL 10% ID: _____

Balance ID: Mettler Toledo (XS205 DU) SN 123230597

HCL ID: _____

make no entry to shaded cells, they are calculated

Sample ID		IC Test	Gravimetric Data (grams)			%	Sample description & notes
ARI #	Client	+ / -	Tare Wt.	Wet wt.	70°C dry wt	Solids	(homogeneity and exclusions)
Blank			13.3199	0.0000	13.3202	0.3 mg	
VS20 J1		-	13.2305	15.3666	15.3815	100.70%	
VS20 K1		-	13.0446	15.1619	15.1889	101.28%	
VS21 C1		-	13.1152	16.0780	16.1157	101.27%	
VS21 C1 dup		-	13.3594	16.3365	16.3710	101.16%	RPD = 0.11%
VS21 C1 trip		-	13.2355	16.2852	16.3261	101.34%	RSD = 0.09%
VS21 D1		-	13.1493	15.2196	15.2579	101.85%	
VS21 E1		-	13.1555	15.7176	15.7474	101.16%	
VS21 F1		-	13.1366	17.4756	17.4933	100.41%	
VS21 G1		-	13.1927	17.1843	17.2460	101.55%	
VS21 H1		-	13.2319	16.9820	17.0569	102.00%	
VS21 I 1		-	13.3198	15.1216	15.1608	102.18%	
VS21 J1		-	13.3731	15.8253	15.8885	102.58%	
VS21 K1		-	13.3279	15.5409	15.6038	102.84%	
VS21 L1		-	13.2577	15.2013	15.2231	101.12%	
VS23 I 1		-	13.1153	15.5268	15.5552	101.18%	
VS22 A1		-	13.2274	14.6481	14.6666	101.30%	
VS22 B1		-	13.3576	16.2361	16.2948	102.04%	
VS22 C1		-	13.2227	16.0684	16.1354	102.35%	
VS22 D1		++-	13.0709	17.1038	17.3201	105.36%	
VS22 E1		-	13.1143	16.1295	16.1524	100.76%	
VS22 F1		-	13.1892	15.6304	15.6302	99.99%	
VS22 G1		-	13.1985	15.6400	15.6786	101.58%	

(B)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

Analyst CMC Date 11-20-12 19:52

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.3199	Ø	13.3202		
VS20 J'		–	13.2305	15.3666	15.3815		
↓ K'		–	13.0446	15.1619	15.1889		
VS21 C'		–	13.1152	16.0780	16.1157		
C' dup		–	13.3594	16.3365	16.3710		
C' TP		–	13.2355	16.2852	16.3261		
D'		–	13.1493	15.2196	15.2579		
E'		–	13.1555	15.7176	15.7474		
F'		–	13.1366	17.4756	17.4933		
G'		–	13.1927	17.1843	17.2460		
H'		–	13.2319	16.9820	17.0569		
I'		–	13.3198	15.1216	15.1608		
J'		–	13.3731	15.8253	15.8885		
K'		–	13.3279	15.5409	15.6038		
L'		–	13.2577	15.2013	15.2231		
VS23 I'		–	13.1153	15.5268	15.5552		
VS22 A'		–	13.2274	14.6481	14.6666		
B'		–	13.3576	16.2361	16.2948		
C'		–	13.2227	16.0684	16.1354		
D'		+ + –	13.0709	17.1038	17.3201		
E'		–	13.1143	16.1295	16.1524		
F'		–	13.1892	15.6304	15.6302		
G'		–	13.1985	15.6400	15.6786		

11-20-12 CMC

J

11-26-12

TOC Solids Prep Log

DATE:	11/23/2012
ANALYST:	CDE 18:07

acid purging to remove IC and drying at 70°C for TOC analysis

General notes regarding prep method and samples (identify the acid used)

HCL 10% ID:

Balance ID: Mettler Toledo (XS205 DU) SN 123230597

HCL ID:

make no entry to shaded cells, they are calculated

Sample ID		IC Test	Gravimetric Data (grams)			%	*Sample description & notes*
ARI #	Client	+ / -	Tare Wt.	Wet wt.	70°C dry wt	Solids	*(homogeneity and exclusions)*
Blank			13.2596	0.0000	13.2599	0.3 mg	
VS22 H1		-	13.2341	15.7507	15.7952	101.77%	
VS22 H1 dup		-	13.1798	15.5816	15.6220	101.68%	RPD = 0.08%
VS22 H1 trip		-	13.2274	15.5935	15.6337	101.70%	RSD = 0.04%
VS22 I 1		-	13.3066	16.2360	16.2438	100.27%	
VS22 J1		-	13.2255	15.8622	15.8828	100.78%	
VS22 K1		-	13.2160	15.2373	15.2918	102.70%	
VS22 L1		+-	13.2700	15.2706	15.2985	101.39%	
VS23 A1		-	13.1376	15.7843	15.7891	100.18%	
VS23 B1		-	13.0993	15.3824	15.4068	101.07%	
VS23 C1		-	13.1045	15.7805	15.7839	100.13%	
VS23 D1		-	13.1567	15.7768	15.7837	100.26%	
VS23 E1		-	13.2538	15.9541	15.9964	101.57%	
VS23 F1		-	13.1078	16.7848	16.8203	100.97%	
VS23 G1		-	13.0750	16.3117	16.3693	101.78%	
VS23 H1		-	13.2072	16.3475	16.3895	101.34%	
VS23 J1		-	13.1803	15.7202	15.7437	100.93%	
VS23 K2		-	13.2994	15.4671	15.5013	101.58%	

@ 15.5935
CMC

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

Analyst CMC Date 1-23-12 18:07

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.2596	Ø	13.2599		
VS22 H'		-	13.2341	15.7507	15.7952		
H' dp		-	13.1798	15.5816	15.6220		
H' TP		-	13.2274	~~15.5810~~	15.6337		
I'		-	13.3066	16.2360	16.2438		
J'		-	13.2255	15.8622	15.8828		
K'		~	13.2160	15.2373	15.2918		
L'		+-	13.2700	15.2706	15.2985		
VS23 A'		-	13.1376	15.7843	15.7911		
B'		-	13.0993	15.3824	15.4068		
C'		-	13.1045	15.7805	15.7839		
D'		-	13.1567	15.7768	15.7837		
E'		-	13.2538	15.9541	15.9964		
F'		-	13.1078	16.7848	16.8203		
G'		-	13.0750	16.3117	16.3693		
H'		-	13.2072	16.3475	16.3895		
J'		-	13.1803	15.7202	15.7437		
K'		~	13.2994	15.4671	15.5013		

1-23-12 CMC

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 11/23/2012

ANALYST: CDE/RR

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace:

Batch drying time

record times as mm/dd/yy hh:mm

11/23/2012 18:01 date/time in oven

11/24/2012 12:00 date/time out

elapsed hrs = 18.0

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02				
	Date & Time	11/23/12 17:10	11/23/12 17:00	11/24/12 12:17										
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000										
	record weights to 4 places	Cal OK!	Cal OK!	Cal OK!										

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
Blank		0.0000	1.0663	1.0660			0.00							
VS22 H1		5.9223	1.0930	5.7817			4.69	97.1%						
VS22 H1 dup		6.2667	1.0774	6.1119			5.03	97.0%						
							RPD =	0.07%				RPD =	NA	
VS22 H1 trp		5.9136	1.1037	5.7686			4.66	97.0%						
							RSD =	0.05%				RSD =	NA	
VS22 I1		5.4650	1.0914	5.2875			4.20	95.9%						
VS22 J1		5.2045	1.0947	5.0524			3.96	96.3%						
VS22 K1		5.8333	1.1253	5.6439			4.52	96.0%						
VS22 L1		5.4911	1.0964	5.1608			4.06	92.5%						
VS23 A1		5.6956	1.0838	5.5013			4.42	95.8%						
VS23 B1		5.9540	1.1109	5.7475			4.64	95.7%						
VS23 C1		5.1214	1.0929	4.9362			3.84	95.4%						
VS23 D1		5.8564	1.0856	5.6317			4.55	95.3%						
VS23 E1		6.1382	1.0946	5.9488			4.85	96.2%						
VS23 F1		6.9770	1.1030	6.7954			5.69	96.9%						
VS23 G1		7.3826	1.0671	7.2736			6.21	98.3%						
VS23 H1		7.0441	1.0809	6.8818			5.80	97.3%						
VS23 J1		6.4661	1.1003	6.2889			5.19	96.7%						
VS23 K1		6.0548	1.1274	5.8323			4.70	95.5%						

W
12-3-12

TOC, Solids Data Analysis

DATE: 11/30/2012
ANALYST: KE 9:24

Instrument: Apollo 1
Mode: NPOC *Inlet:* Boat
Spike Std = **2,500** *ppm C*
Balance ID:

Calibration Data

Cal Curve ID: **11/13/2012** *Conc:* 5,000 *ppm*
Calibration Curve Standard: **00130-01** *Curve Date:* **11/13/12**
CalFact: ***1.339E+05*** *intercept:* **163305** *r2 :* **0.99851**
Curve Range (ppm) 200 *to* 2,500
Curve Range (µgC): **8** *to* **100** *40 µL injections of designated standard*

Verification Standard Source: ***ERA# 0409-12-01*** *Conc:* **5,000** *ppm*
dilution : 10 *mL to* 50 **1,000** *ppm*

Standard Reference Material Source: ***NIST 8704*** *Conc:* **33,510** *ppm*
Source: ***NIST 1941B*** *Conc:* **29,900** *ppm*

Silica Blanks

Replicate determinations						Mean	RSD	condition
56.9	19.3	22.4	29.2			23.6	21.4%	*OK*

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	*comments*
ICV				1.00		40.0	997	997	*99.70%*
Blank				1.00		40.0	-25.46	-25	*Blank OK*
NIST 1941B				1.00		1.7	28401	28,401	*94.99%*
Silica Blanks 1				1.00		27.0	56.93	57	*Low Scale*
Silica Blanks 2				1.00		28.0	19.30	19	*Low Scale*
Silica Blanks 3				1.00		27.5	22.43	22	*Low Scale*
Silica Blanks 4				1.00		26.2	29.19	29	*Low Scale*
VS22 A1	14.2	139.2	89.80%	9.80		3.2	12899	126,238	*Range OK!*
VS22 B1				1.00		1.4	19436	19,436	*Range OK!*
VS22 C1				1.00		2.2	9531	9,531	*Range OK!*
VS22 D1				1.00		2.5	6660	6,660	*Range OK!*
VS22 E1	15.2	149.1	89.81%	9.81		3.1	5468	53,429	*Range OK!*
CCV				1.00		40.0	1022	1,022	*102.20%*
Blank				1.00		40.0	-31.97	-32	*Blank OK*
VS22 F1				1.00		1.0	36900	36,900	*Range OK!*
VS22 G1				1.00		1.1	13131	13,131	*Range OK!*
~~VS22 H1~~				~~1.00~~		~~1.1~~	~~37546~~	~~37,546~~	*Range OK!*

VS22 B0959

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			comments
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	
VS22 H1				1.00		1.2	22931	22,931	*Range OK!*
VS22 H1 dup				1.00		1.1	22757	22,757	*RPD=0.8%*
VS22 H1 trp				1.00		1.2	31752	31,752	*RSD=19.9%*
VS22 H1 ms				1.00	10	0.8	62768	62,768	*Range OK!*
Spike =	*0.025*	*mg C to*	*0.8*	*mg samp=*	*31,250*	*ppm*		*127%*	
~~VS22 H1 ms~~				~~1.00~~	~~10~~	~~0.8~~	~~71927~~	~~71,927~~	~~*Range OK!*~~
~~*Spike =*~~	~~*0.025*~~	~~*mg C to*~~	~~*0.8*~~	~~*mg samp=*~~	~~*31,250*~~	~~*ppm*~~		~~*157%*~~	
VS22 I 1				1.00		0.8	28433	28,433	*Range OK!*
VS22 J 1				1.00		0.8	31435	31,435	*Range OK!*
CCV				1.00		40.0	1054	1,054	*105.40%*
Blank				1.00		40.0	-26.46	-26	*Blank OK*
VS22 K1	14.7	146.0	89.93%	9.93		3.0	10828	107,332	*Range OK!*
VS22 L1	15.1	149.9	89.93%	9.93		1.3	11574	114,686	*Range OK!*
VT06 D1				1.00		3.1	2560	2,560	*Low Scale*
VT06 D1 dup				1.00		3.0	2145	2,145	*RPD=17.6%*
VT06 D1 trp				1.00		2.9	2075	2,075	*RSD=11.6%*
VT06 D1 ms				1.00	10	3.2	12416	12,416	*Range OK!*
Spike =	*0.025*	*mg C to*	*3.2*	*mg samp=*	*7,813*	*ppm*		*126%*	
~~VT06 D1 ms~~				~~1.00~~	~~10~~	~~2.6~~	~~14665~~	~~14,665~~	~~*Range OK!*~~
~~*Spike =*~~	~~*0.025*~~	~~*mg C to*~~	~~*2.6*~~	~~*mg samp=*~~	~~*9,615*~~	~~*ppm*~~		~~*126%*~~	
VT06 E1				1.00		3.7	2297	2,297	*Range OK!*
VT06 F1				1.00		2.4	2464	2,464	*Low Scale*
VT06 G1				1.00		4.3	2030	2,030	*Range OK!*
VT06 H1				1.00		4.8	1205	1,205	*Low Scale*
CCV				1.00		40.0	1037	1,037	*103.70%*
Blank				1.00		40.0	-25.04	-25	*Blank OK*
VT06 I 1				1.00		3.8	1400	1,400	*Low Scale*
NIST 1941B				1.00		1.9	26559	26,559	*88.83%*
CCV				1.00		40.0	975	975	*97.50%*
Blank				1.00		40.0	-27.07	-27	*Blank OK*

VS22 : 66396

Analytical Resources,Incorporated
Analytical Chemists and Consultants

(c) 11-30-12 (W)

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler	
Standards:	Source	Conc (ppm)	Analyst:	(W)
Calibration:	ARI - 00128-03	5000	Date:	11-30-12
Verification:	ERA - 0409-12-01	5000 to 1000 for CVS	Time:	9:24
SRM:	NBS (1941b) or 8704	Method: PSEP 1986-MOD	Balance ID	B146454148
Sample Sequence:				

Sample ID	Dilution Data (mg) Sample	+ Silica Gel	Burn Wt mg	Matrix Spike Data mg/L	µL added	Comments
ICV			40			
ICB			40			
NBS1941 B			1.7			
SB 1			27.0			
2			28.0			
3			27.5			
4			26.2			
VS22 A'	14.2	139.2	3.2			
B'			1.4			
C'			2.2			
D'			2.5			
E'	15.2	149.1	3.1			
CCV			40			
CCB			40			
VS22 F'			1.0			
G'			1.1			
~~H'~~ (TAP)	~~—~~	~~—~~	1.1	~~—~~	~~—~~	(TAP) No H(14) Rerun
H'			1.2			
dH'			1.1			
tH'			1.2			
MS H'			0.8	2500	10	
MS H'			0.8	2500	10	
I'			0.8			
J'			0.8			
CCV			40			
CCB			40			
VS22 K'	14.7	146.0	3.0			
L'	15.1	149.9	1.3			
UTO6 A'			3.1			
A'			3.0			
A'			2.9			
A'			3.2	2500	10	

Analytical Resources, Incorporated
Analytical Chemists and Consultants

(C) 11-30-12 (W)

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler	
Standards:	Source	Conc (ppm)	Analyst:	(W)
Calibration:	ARI – 00128-03	5000	Date:	11-30-12
Verification:	ERA – 0409-12-01	5000 to 1000 for CVS	Time:	9:24
SRM:	NBS ~~1941B~~ or 8704	Method: PSEP 1986-MOD	Balance ID	B1464541145
Sample Sequence:				

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
VT06 ms D'			(1) ~~3.7~~ 2.6	2500	10	
E'			3.7			
F'			2.4			
G'			4.3			
H'			4.8			
CCV			40			
CCB			40			
VT06 I'			3.8			
NBS1941B			1.9			
CCV			40			
CCB			40			

11-30-12 (W)

11-30-12④

Detailed Analysis Report Print Date/Time: 2012/11/30 17:27:32

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 11300916
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/30 09:19
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	996.6380	39.8655	5501185	6.738	7.737	145

Sample ID: ICB/CCB BOAT Mode: TOC
Method: Boat Sampler Filename: 11300929
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/30 09:36
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-25.4605	-1.0184	26942	6.648	6.578	120

Last Message: Low Sample Detected

Sample ID: NBS 1941B Mode: TOC
Method: Boat Sampler Filename: 11300947
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/30 09:52
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	28400.9180	48.2816	6628069	6.553	7.549	202

Sample ID: Silica blank 1 Mode: TOC
Method: Boat Sampler Filename: 11301011
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/30 10:13
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	56.9272	1.5370	205805	6.608	7.602	56

Sample ID: Silica Blank 2 Mode: TOC
Method: Boat Sampler Filename: 11301016
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/30 10:18
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19.2964	0.5403	72345	6.598	7.587	51

Sample ID: Silica Blank 3 Mode: TOC
Method: Boat Sampler Filename: 11301023
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/30 10:24
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	22.4264	0.6167	82578	6.694	7.691	50

Sample ID: Silica Blank 4 Mode: TOC
Method: Boat Sampler Filename: 11301027
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/30 10:29
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	29.1864	0.7647	102389	6.622	7.620	52

Sample ID: VS22 A1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11301050
Timestamp: 2012/11/30 10:53
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	12899.3379	41.2779	5526991	6.616	7.615	134

Sample ID: VS22 B1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11301057
Timestamp: 2012/11/30 11:00
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19436.3223	27.2109	3643456	6.586	7.586	129

Sample ID: VS22 B1 C1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11301139
Timestamp: 2012/11/30 11:43
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	9531.2168	20.9687	2807646	6.371	7.368	129

Sample ID: VS22 D1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11301145
Timestamp: 2012/11/30 11:48
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6660.3726	16.6509	2229512	6.404	7.400	142

Sample ID: VS22 E1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11301150
Timestamp: 2012/11/30 11:53
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5468.4297	16.9521	2269842	6.450	7.449	109

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11301203
Timestamp: 2012/11/30 12:07
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1021.5113	40.8605	5634403	6.365	7.363	148

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11301211
Timestamp: 2012/11/30 12:17
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-31.9708	-1.2788	-7927	6.475	6.425	120

Last Message: Low Sample Detected

Sample ID: VS22 F1 | Mode: TOC
Method: Boat Sampler | Filename: 11301224
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/30 12:27
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	36900.0859	36.9001	4940816	6.331	7.326	139

Sample ID: VS22 G1 | Mode: TOC
Method: Boat Sampler | Filename: 11301234
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/30 12:37
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	13130.9316	14.4440	1934014	6.367	7.364	117

Sample ID: VS22 H1 | Mode: TOC
Method: Boat Sampler | Filename: 11301240
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/30 12:43
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	37546.4531	41.3011	5530100	6.486	7.484	137

Sample ID: VS22 H1 | Mode: TOC
Method: Boat Sampler | Filename: 11301252
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/30 12:55
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	22931.1934	27.5174	3684506	6.372	7.372	124

Sample ID: VS22 H1 DP | Mode: TOC
Method: Boat Sampler | Filename: 11301300
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/30 13:03
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	22756.9023	25.0326	3351793	6.480	7.480	122

Sample ID: VS22 H1 TRIP | Mode: TOC
Method: Boat Sampler | Filename: 11301305
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/30 13:09
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31751.8594	38.1022	5101780	6.524	7.523	135

Sample ID: VS22 H1 ~~TRIP~~ | Mode: TOC
Method: Boat Sampler | Filename: 11301311
Cal. Curve: 11132012 BOAT CAL | Timestamp: 2012/11/30 13:14
Operator ID: TRINA | Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

1	62768.0508	50.2144	6723571	6.588	7.582	147

Sample ID: VS22 H1 TRIP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11301322
Timestamp: 2012/11/30 13:26
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	71926.5078	57.5412	7704604	6.560	7.560	158

Sample ID: VS22 ~~K1~~ I1 ~~L1~~
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11301454
Timestamp: 2012/11/30 14:57
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	28433.3340	22.7467	3045714	5.944	6.942	124

Sample ID: VS22 J1 TRIP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11301506
Timestamp: 2012/11/30 15:09
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	31435.4434	25.1484	3367293	5.890	6.886	130

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11301515
Timestamp: 2012/11/30 15:18
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1054.2902	42.1716	5809964	5.810	6.809	147

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11301519
Timestamp: 2012/11/30 15:24
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-26.4656	-1.0586	21559	5.969	5.843	120

Last Message: Low Sample Detected

Sample ID: VS22 K1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11301527
Timestamp: 2012/11/30 15:30
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10827.9756	32.4839	4349506	5.773	6.771	142

Sample ID: VS22 L1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11301534
Timestamp: 2012/11/30 15:37
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning	Ending	Integration

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11573.9482	15.0461	2014634	5.813	6.809	106

Sample ID: VT06 D1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11301542
Timestamp: 2012/11/30 15:46
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2560.2781	7.9369	1062723	5.756	6.754	112

Sample ID: VT06 D1 DP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11301549
Timestamp: 2012/11/30 15:52
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2144.7632	6.4343	861533	5.735	6.731	108

Sample ID: VT06 D1 DP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11301557
Timestamp: 2012/11/30 16:00
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2074.9041	6.0172	805689	5.786	6.784	108

Sample ID: VT06 D1 MS
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11301617
Timestamp: 2012/11/30 16:21
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	12416.3242	39.7322	5320034	6.007	7.005	196

Sample ID: VT06 D1 MS
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL 11-30-12
Operator ID: TRINA
Mode: TOC
Filename: 11301627
Timestamp: 2012/11/30 16:31
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	14665.1074	38.1293	5105402	6.013	7.011	185

Sample ID: VT06 E1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11301636
Timestamp: 2012/11/30 16:40
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2296.8347	8.4983	1137897	5.975	6.969	115

Sample ID: VT06 E1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11301643
Timestamp: 2012/11/30 16:45
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2464.4490	5.9147	791958	6.052	7.051	109

Sample ID: VT06 G1 Mode: TOC
Method: Boat Sampler Filename: 11301648
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/30 16:51
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2030.4968	8.7311	1169074	6.213	7.211	109

Sample ID: VT06 H1 Mode: TOC
Method: Boat Sampler Filename: 11301654
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/30 16:56
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1205.1440	5.7847	774554	6.196	7.188	102

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 11301657
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/30 17:01
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1036.9430	41.4777	5717054	6.017	7.016	155

Sample ID: ICB/CCB BOAT Mode: TOC
Method: Boat Sampler Filename: 11301702
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/30 17:05
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-25.0368	-1.0015	29211	6.096	6.141	120

Last Message: Low Sample Detected

Sample ID: VT06 I 1 Mode: TOC
Method: Boat Sampler Filename: 11301707
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/30 17:10
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1400.3970	5.3215	712535	6.001	6.999	101

Sample ID: NBS 1941B Mode: TOC
Method: Boat Sampler Filename: 11301712
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/30 17:17
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26559.2871	50.4626	6920110	6.079	7.079	235

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 11301718
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/30 17:22
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning	Ending	Integration

				Baseline	Baseline	Time
1	974.6019	38.9841	5383162	6.009	7.005	155

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11301723
Timestamp: 2012/11/30 17:26
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-27.0650	-1.0826	18348	6.074	6.047	120

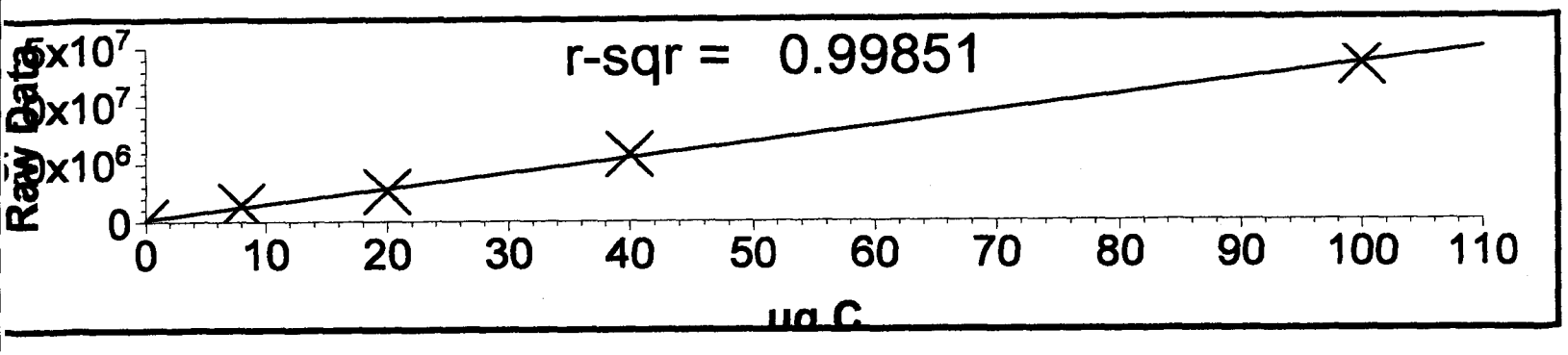
Last Message: Low Sample Detected

11-13-12 (W)

Calibration Report Print Date/Time: 2012/11/13 17:59:45

Cal. Curve ID: 11132012 BOAT CAL
Created: 2012/11/13 17:59
Calibration Factor (m): 1.339e+05
Y Intercept (b): 163305
r-squared: 0.99851

Standard ID	Y Raw Data	X Expected ug C	Measured ug C	Message	Date & Time
DI Water	34152	0.000	-0.965	Low Sample De	2012/11/13 12:29
200 ppm	1402526	8.000	9.255		2012/11/13 15:57
500 ppm	2612048	20.000	18.288		2012/11/13 16:30
1000 ppm	5782382	40.000	41.966		2012/11/13 17:08
2500 ppm	13480140	100.000	99.456		2012/11/13 17:46


r-sqr = 0.99851
Raw Data
5x10^7
4x10^7
3x10^6
0
0
10
20
30
40
50
60
70
80
90
100
110
ug C

Detailed Analysis Report Print Date/Time: 2012/11/13 18:00:30

Sample ID: DI Water
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131156
Timestamp: 2012/11/13 12:29
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			18402	16.796	16.349	120
2			42520	15.376	15.117	120
3			41534	14.988	14.928	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 34152 Std Dev: 13649 RSD: 39.96

Sample ID: 200 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131238
Timestamp: 2012/11/13 13:05
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1222030	14.878	15.874	82
2			2828545	14.808	15.808	104
3			1056788	14.689	15.685	76

<<<Statistics>>> Mean: 1702454 Std Dev: 978717 RSD: 57.49

Sample ID: 500 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131440
Timestamp: 2012/11/13 15:23
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			2592282	15.291	16.289	93
2			2967532	14.712	15.709	110
3			2466931	14.170	15.169	110

<<<Statistics>>> Mean: 2675582 Std Dev: 260489 RSD: 9.74

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131526
Timestamp: 2012/11/13 15:37
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			5290649	14.574	15.571	132
2			5344637	14.534	15.533	131

<<<Statistics>>> Mean: 5317643 Std Dev: 38175 RSD: 0.72

Sample ID: 200 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131539
Timestamp: 2012/11/13 15:57
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1133964	14.834	15.826	75
2			1682541	14.702	15.699	105
3			1391072	14.832	15.828	89

<<<Statistics>>> Mean: 1402526 Std Dev: 274468 RSD: 19.57

Sample ID: 500 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11131603
Timestamp: 2012/11/13 16:30
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			2617921	14.909	15.904	100
2			2699842	15.434	16.427	110
3			2518382	15.642	16.642	96

<<<Statistics>>> Mean: 2612048 Std Dev: 90872 RSD: 3.48

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11131635
Timestamp: 2012/11/13 16:48
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			6098208	15.069	16.068	161
2			4400089	15.386	16.386	294

<<<Statistics>>> Mean: 5249148 Std Dev: 1200752 RSD: 22.88

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11131653
Timestamp: 2012/11/13 17:08
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			5668054	15.386	16.386	134
2			5866553	15.432	16.430	156
3			5812538	15.792	16.787	158

<<<Statistics>>> Mean: 5782382 Std Dev: 102628 RSD: 1.77

Sample ID: 2500 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11131715
Timestamp: 2012/11/13 17:46
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			12880510	15.475	16.474	209
2			14040075	15.646	16.644	232
3			13519835	15.412	16.411	232

<<<Statistics>>> Mean: 13480140 Std Dev: 580801 RSD: 4.31

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	VS22
Unacceptable Blank:	☐	Date of Event:	11-30-12
Unacceptable Duplicate:	☐	Client ID:	
Unacceptable Spike:	☑	Method/Element:	TOX (Soil)
Unacceptable Reference:	☐	Prep Code:	

Details of Problem/Recommended Corrective Action:

High spike 127%

Samples Affected: Hi

Corrective Action Taken: Reran Same Result 157% high

Possible Matrix Interference

Analyst Initials: (W)

Date: 11-30-12

Supervisor:

Date:

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General Chemistry Analysis		
Report and Summary QC Forms	57	72
Geotechnical Analysis		
Report and Summary QC Forms	NA	NA - PREP ONLY
Total Solids		
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Geotechnical Raw Data		
Analyst Notes and Raw Data	NA	NA

BC
Signature

December-06-2012
Date

Analytical Resources, Incorporated
Analytical Chemists and Consultants

December 6, 2012

Steve Hughes
Hart Crowser, Inc.
1700 Westlake Avenue N. Suite 200
Seattle, WA 98109-3256

RE: Client Project: Upper Columbia 17800-36
ARI Job No. VS23

Dear Steve:

Please find enclosed the chain of custody documentation and data package for samples from the project referenced above

Sample receipt and details of the analyses are discussed in the Case Narrative.

An electronic copy of this package will remain on file with ARI. Should you have any questions or problems, please feel free to contact me at your convenience.

Sincerely,

ANALYTICAL RESOURCES, INC.

Kelly Bottem
Client Services Manager
kellyb@arilabs.com
206/695-6211

Enclosures

cc: eFile VS23

KFB/mdh

4611 South 134th Place, Suite 100 • Tukwila WA 98168 • **206-695-6200** • **206-695-6201** fax

Chain of Custody Documentation

ARI Job ID: VS23

Sample Custody Record

Samples Shipped to: ARI

HARTCROWSER

Hart Crowser, Inc.
1700 Westlake Avenue North, Suite 200
Seattle, Washington 98109-6212
Office: 206.324.9530 • Fax 206.328.5581

JOB 17800-36 LAB NUMBER

PROJECT NAME Upper Columbia

HART CROWSER CONTACT Steve Hughes, Roger McGinnis, Anne Conrad

SAMPLED BY: PRC, NWG, KJH, ASK

LAB NO.	SAMPLE ID	DESCRIPTION	DATE	TIME	MATRIX	Metals,*	TOC	pH (EPA 9045)	Total Solids (SM2540)	NO. OF CONTAINERS	OBSERVATIONS/COMMENTS/ COMPOSITING INSTRUCTIONS
	SA13-3C		11/10/12	1523	SOIL	X	X	X	X	1	
	SA13-4C			1446						1	
	SA13-5C			0853						1	
	SA13-6C			1238						1	
	SA13-6P-1 (0 to 3" depth)			1300						1	
	SA13-6P-2 (3 to 6" depth)			1305						1	
	SA13-6P-3 (6 to 12" depth)			1310						1	
	SA13-6P-4 (12 to 24" depth)			1315						1	
	SA13-7C		11/7/12	1204						1	
	SA13-8C		11/10/12	1355						1	
	SA13-Field Duplicate		11/10/12	0927						1	
										1	

RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	11/12/12	SIGNATURE	11/12/12
PRINT NAME	TIME	PRINT NAME	TIME
COMPANY	1200	COMPANY	1721
RELINQUISHED BY	DATE	RECEIVED BY	DATE
SIGNATURE	TIME	SIGNATURE	TIME
PRINT NAME		PRINT NAME	
COMPANY		COMPANY	

SPECIAL SHIPMENT HANDLING OR STORAGE REQUIREMENTS:

* See Page 1

TOTAL NUMBER OF CONTAINERS: 11

SAMPLE RECEIPT INFORMATION
CUSTODY SEALS: ☐YES ☐NO ☐N/A
GOOD CONDITION ☐YES ☐NO
TEMPERATURE _____
SHIPMENT METHOD: ☐HAND ☐COURIER ☐OVERNIGHT

COOLER NO.: STORAGE LOCATION:

See Lab Work Order No. _____ for Other Contract Requirements

TURNAROUND TIME:
☐ 24 HOURS ☐ 1 WEEK
☐48 HOURS ☒STANDARD
☐72 HOURS OTHER _____

White and Yellow Copies to Lab Pink to Project Manager Lab to Return White Copy to Hart Crowser Gold to Sample Custodian

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Cooler Receipt Form

ARI Client Hart + Crowser Project Name Upper Columbia

COC No(s) _____ (NA) Delivered by Fed-Ex UPS Courier Hand Delivered Other _____

Assigned ARI Job No VS23 Tracking No: _____ (NA)

Preliminary Examination Phase:

Were intact, properly signed and dated custody seals attached to the outside of to cooler?	YES	(NO)
Were custody papers included with the cooler?	(YES)	NO
Were custody papers properly filled out (ink, signed, etc.)	(YES)	NO
Temperature of Cooler(s) (°C) (recommended 2.0-6 0 °C for chemistry)	4.8 4.0	
If cooler temperature is out of compliance fill out form 00070F	Temp Gun ID#	122412224

Cooler Accepted by: CA Date: 11-12-12 Time: 1221

Complete custody forms and attach all shipping documents

Log-In Phase:

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

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

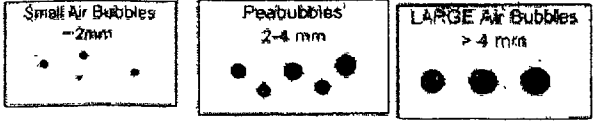
Samples Logged by: JM Date 11/13/12 Time 833

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

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

Additional Notes, Discrepancies, & Resolutions:

By Date:



Small → "sm"
Peabubbles → "pb"
Large → "lg"
Headspace → "hs"

Case Narrative, Data Qualifiers, Control Limits

ARI Job ID: VS23

ANALYTICAL
RESOURCES
INCORPORATED

Case Narrative
Project: 17800-36
ARI Job No.: VS23
December 6, 2012

Sample Receipt:

Please find enclosed the original chain of custody (COC) record and analytical results for the project referenced above. Analytical Resources, Inc. accepted eleven soil samples in good condition on November 12, 2012. The samples were received with cooler temperatures between 4.0 and 4.8°C. Please see the Cooler Receipt Form for further details.

Total Metals by 200.8, 6010C and 7471A

The samples were digested on 11/28/12 and analyzed between 11/30/12 and 12/03/12 within the method recommended holding time.

Initial calibration (s): All analytes were within method acceptance criteria.

Continuing calibration (s): All analytes were within method acceptance criteria.

Samples: No anomalies were encountered for these samples.

Method Blank: The method blank was free of contamination.

LCS: The percent recoveries for all elements were within control limits.

Matrix spike/Sample Duplicate/RPD: The percent recoveries for aluminum, antimony, iron, lead and manganese were not within control limits for the matrix spike associated with sample SA13-3C. Since the percent recoveries for all elements were within acceptable QC limits for the corresponding LCS, it was concluded that the sample matrix was the cause of the poor MS recoveries. No corrective actions were taken.

The RPDs for antimony and thallium were not within control limits for the matrix duplicate associated with sample SA13-3C. Since the percent recoveries for all elements were within acceptable QC limits for the corresponding LCS, it was concluded that a lack of sample homogeneity was the cause of the high RPDs. No corrective actions were taken.

Conventional Chemistry Parameters

The samples were analyzed between 11/20/12 and 11/29/12 within the method recommended holding times.

Initial calibration (s): All analytes were within method acceptance criteria.

Continuing calibration (s): All analytes of interest were within method acceptance criteria.

Samples: There were no anomalies with these samples.

Method Blank(s): The method blanks were free of contamination.

SRM/ LCS/ Sample Replicates: All percent recoveries and RPDs were in control.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Client: Hart Crowser, Inc.	**ARI Job No.:** VS23
Client Project: Upper Columbia	**Client Project No.:** 17800-36

Case Narrative

1. Eleven samples were submitted for preparation on November 12, 2012, and were in good condition.
2. The samples were submitted for separation of the less than 2mm material.
3. The samples were each placed in a clean tare and air-dried.
4. The samples were separated into two size fractions using a decontaminated, stainless steel #10 (2mm) sieve and sieve pan.
5. After separation, both size fractions were delivered to sample receiving for distribution.
6. There were no further anomalies in the samples or test method.

Released by: Geneva Curtis
Geotechnical Division Manager

Date: 11/21/12

Reviewed by: Kathleen J Graham
Lead Technician

Date: 11/21/2012

Sample ID Cross Reference Report

ANALYTICAL RESOURCES INCORPORATED

ARI Job No: VS23
Client: Hart Crowser Inc.
Project Event: 17800-36
Project Name: Upper Columbia

	Sample ID	ARI Lab ID	ARI LIMS ID	Matrix	Sample Date/Time	VTSR
1.	SA13-3C	VS23A	12-22713	Soil	11/10/12 15:23	11/12/12 12:21
2.	SA13-4C	VS23B	12-22714	Soil	11/10/12 14:46	11/12/12 12:21
3.	SA13-5C	VS23C	12-22715	Soil	11/10/12 08:53	11/12/12 12:21
4.	SA13-6C	VS23D	12-22716	Soil	11/10/12 12:38	11/12/12 12:21
5.	SA13-6P-1(0 to 3" depth)	VS23E	12-22717	Soil	11/10/12 13:00	11/12/12 12:21
6.	SA13-6P-2(3 to 6" depth)	VS23F	12-22718	Soil	11/10/12 13:05	11/12/12 12:21
7.	SA13-6P-3(6 to 12" depth	VS23G	12-22719	Soil	11/10/12 13:10	11/12/12 12:21
8.	SA13-6P-4(12 to 24" dept	VS23H	12-22720	Soil	11/10/12 13:15	11/12/12 12:21
9.	SA13-7C	VS23I	12-22721	Soil	11/07/12 12:04	11/12/12 12:21
10.	SA13-8C	VS23J	12-22722	Soil	11/10/12 13:55	11/12/12 12:21
11.	SA13-Field Duplicate	VS23K	12-22723	Soil	11/10/12 09:27	11/12/12 12:21

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Data Reporting Qualifiers

Effective 2/14/2011

Inorganic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Duplicate RPD is not within established control limits

B — Reported value is less than the CRDL but ≥ the Reporting Limit

N — Matrix Spike recovery not within established control limits

NA — Not Applicable, analyte not spiked

H — The natural concentration of the spiked element is so much greater than the concentration spiked that an accurate determination of spike recovery is not possible

L — Analyte concentration is ≤5 times the Reporting Limit and the replicate control limit defaults to ±1 RL instead of the normal 20% RPD

Organic Data

U — Indicates that the target analyte was not detected at the reported concentration

* — Flagged value is not within established control limits

B — Analyte detected in an associated Method Blank at a concentration greater than one-half of ARI's Reporting Limit or 5% of the regulatory limit or 5% of the analyte concentration in the sample.

J — Estimated concentration when the value is less than ARI's established reporting limits

D — The spiked compound was not detected due to sample extract dilution

E — Estimated concentration calculated for an analyte response above the valid instrument calibration range. A dilution is required to obtain an accurate quantification of the analyte.

Q — Indicates a detected analyte with an initial or continuing calibration that does not meet established acceptance criteria (<20%RSD, <20%Drift or minimum RRF).

S Indicates an analyte response that has saturated the detector. The calculated concentration is not valid; a dilution is required to obtain valid quantification of the analyte

NA The flagged analyte was not analyzed for

NR Spiked compound recovery is not reported due to chromatographic interference

NS The flagged analyte was not spiked into the sample

M Estimated value for an analyte detected and confirmed by an analyst but with low spectral match parameters. This flag is used only for GC-MS analyses

M2 The sample contains PCB congeners that do not match any standard Aroclor pattern. The PCBs are identified and quantified as the Aroclor whose pattern most closely matches that of the sample. The reported value is an estimate.

N The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification"

Y The analyte is not detected at or above the reported concentration. The reporting limit is raised due to chromatographic interference. The Y flag is equivalent to the U flag with a raised reporting limit.

EMPC Estimated Maximum Possible Concentration (EMPC) defined in EPA Statement of Work DLM02.2 as a value "calculated for 2,3,7,8-substituted isomers for which the quantitation and /or confirmation ion(s) has signal to noise in excess of 2.5, but does not meet identification criteria" **(Dioxin/Furan analysis only)**

C The analyte was positively identified on only one of two chromatographic columns. Chromatographic interference prevented a positive identification on the second column

P The analyte was detected on both chromatographic columns but the quantified values differ by ≥40% RPD with no obvious chromatographic interference

X Analyte signal includes interference from polychlorinated diphenyl ethers. **(Dioxin/Furan analysis only)**

Z Analyte signal includes interference from the sample matrix or perfluorokerosene ions. **(Dioxin/Furan analysis only)**

Geotechnical Data

A	The total of all fines fractions. This flag is used to report total fines when only sieve analysis is requested and balances total grain size with sample weight.
F	Samples were frozen prior to particle size determination
SM	Sample matrix was not appropriate for the requested analysis. This normally refers to samples contaminated with an organic product that interferes with the sieving process and/or moisture content, porosity and saturation calculations
SS	Sample did not contain the proportion of "fines" required to perform the pipette portion of the grain size analysis
W	Weight of sample in some pipette aliquots was below the level required for accurate weighting

Quality Control Parameters for Mercury Analysis using CVAA

	Aqueous Samples[2]			Spike Recovery		RPD[5]
	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS	
Mercury	0.0069	0.05	**0.10**[2]	75 – 125	80 – 120	≤ 20
Mercury (low level)	0.0026	0.01	**0.02**[2]	75 – 125	80 – 120	≤ 20
	Soil / Sediment Samples			**Spike Recovery**		**RPD**[5]
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.025[3]	75 – 125	80 – 120	≤ 20
	Tissue Samples			**Spike Recovery**		**RPD**[5]
	DL[1] mg/kg	**LOD[1] mg/kg**	**LOQ[1] mg/kg**	**Matrix Spike**	**LCS**	
Mercury	0.0021	0.0125	0.005[4]	75 – 125	80 – 120	≤ 20

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 20 mL sample with 20 mL final volume
(3) 0.2 g sample with 50 mL final volume assuming 100% dry weight. Soil and sediment are reported on a dry weight basis.
(4) Tissue LOQ is 0.005 mg/kg as received (wet weight) based on 1 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then $RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$

Quality Control Parameters for Metals Analysis ICP-MS 200.8/6020A

Analyte	Mass	Aqueous Samples[2]			Spike Recovery		RPD[4]	Solids[3]
		DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ[1] mg/kg
Aluminum	27	1.601	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Antimony	121	0.010	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
	123	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #1	75	0.048	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Arsenic #2	75	0.092	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Barium	135	0.020	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	137	0.019	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Beryllium	9	0.021	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Cadmium	111	0.010	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
	114	0.005	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Calcium	43	3.983	25	**50.0**	75 – 125	80 – 120	≤ 20	**50.0**
Chromium	52	0.045	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	53	0.118	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Cobalt	59	0.011	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Copper	63	0.158	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	65	0.236	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Iron	54	5.753	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
	57	3.876	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Lead	208	0.046	0.05	**0.1**	75 – 125	80 – 120	≤ 20	**0.1**
Magnesium	24	0.297	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Manganese	55	0.022	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Molybdenum	98	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Nickel	60	0.079	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	62	0.089	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
Potassium	39	2.944	10	**20.0**	75 – 125	80 – 120	≤ 20	**20.0**
Selenium	82	0.127	0.25	**0.5**	75 – 125	80 – 120	≤ 20	**0.5**
	78	0.324	0.25	**2.0**	75 – 125	80 – 120	≤ 20	**2.0**
Silver	107	0.008	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Sodium	23	2.833	50	**100.0**	75 – 125	80 – 120	≤ 20	**100.0**
Thorium[5]	232	0.013	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Thallium	205	0.004	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Uranium[5]	238	0.003	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Vanadium	51	0.043	0.1	**0.2**	75 – 125	80 – 120	≤ 20	**0.2**
Zinc	66	0.497	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	67	0.531	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**
	68	0.524	2	**4.0**	75 – 125	80 – 120	≤ 20	**4.0**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(5) ARI has no accreditation for these elements.

Quality Control Parameters for Metals Analysis-ICP-OES 200.7/6010C

	Aqueous Samples[2]			Spike Recovery		RPD[5]	Solids[3]	Tissue[4]
Analyte	DL[1] µg/L	LOD[1] µg/L	LOQ[1] µg/L	Matrix Spike	LCS		LOQ mg/kg	LOQ mg/kg
Aluminum	7.57	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Antimony	6.28	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Arsenic	3.33	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Barium	1.33	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Beryllium	0.16	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Boron	7.39	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Cadmium	0.18	0.5	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Calcium	11.27	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Chromium	1.24	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Cobalt	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Copper	0.92	1.0	**2.0**	75 – 125	80 – 120	≤ 20	**0.2**	**0.04**
Iron	7.50	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Lead	1.55	10	**20**	75 – 125	80 – 120	≤ 20	**2.0**	**0.4**
Magnesium	9.61	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Manganese	0.28	0.5	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Molybdenum	0.79	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.1**
Nickel	3.86	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Potassium	65.70	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Selenium	4.99	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Silicon	8.17	30	**60**	75 – 125	80 – 120	≤ 20	**(6)**	**(6)**
Silver	0.43	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Sodium	11.35	250	**500**	75 – 125	80 – 120	≤ 20	**50**	**10**
Strontium	0.09	1.0	**1.0**	75 – 125	80 – 120	≤ 20	**0.1**	**0.02**
Thallium	3.10	25	**50**	75 – 125	80 – 120	≤ 20	**5.0**	**1.0**
Tin	1.41	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**
Titanium	2.11	2.5	**5.0**	75 – 125	80 – 120	≤ 20	**0.5**	**0.01**
Vanadium	0.27	1.5	**3.0**	75 – 125	80 – 120	≤ 20	**0.3**	**0.06**
Zinc	1.45	5.0	**10**	75 – 125	80 – 120	≤ 20	**1.0**	**0.2**

(1) Detection Limit (DL), Limit of Detection Limit (LOD) and Limit of Quantitation (LOQ) as defined in ARI SOP 1018S
(2) 50 mL sample and 50 mL final volume
(3) Solids LOQ based on 100% solids using 1.0 g sample with 100 mL final volume.
(4) Tissue is reported on an "as received" (wet weight) basis using 2.5 g sample with 50 mL final volume.
(5) Relative Percent Difference between analytes in replicate analyzes. If C_O and C_D are the concentrations of the original and duplicate respectively then

$$RPD = \frac{|C_O - C_D|}{\frac{C_O + C_D}{2}} x100$$

(6) ARI does not analyze for Silicon in solids or tissue samples

Analytical Resources,Incorporated
Analytical Chemists and Consultants

MDL/RL Summary for Conventional Analyses

MDL's and reporting limits are updated periodically. Assure you are using ARI's current detection limits by downloading the files at the time of use: http://www.arilabs.com/portal/downloads/ARI-MDLs.zip

					RL (ppm unless noted)	
Analyte	**ARI SOP**	**MDL Date**	**Spike Level (ppm)**	**MDL (ppm)**	**Water**	**Soil [4]**
Alkalinity	604S	8/11/11	10	0.37	2.0	NA
Ammonia (Auto. Phenate)	615S	8/10/11	0.01	0.021	0.04	0.1
Ammonia (ISE)	616S	1/8/09	0.5	0.122	0.1	5.0
BOD	605S			NA	1.0	NA
Cation Exchange Capacity	607S			NA	NA	1 meq/100g
Chloride	612S	8/10/11	0.50	0.049	1.0	10.0
Chlorophyll a	608S			NA	1.0	NA
Chromium, Hexavalent	614S	8/10/11	0.050	0.050	0.04	0.1
COD	609S	8/10/11	25	9.81	20	NA
Coliform (total, fecal)	628S			NA	1 CFU/100 mL	NA
Color	610S			NA	5 Pt-Co Units	NA
Conductivity - Orion Meter	611S	1/9/09	3 µS	0.28 µS	1.0 µS	1.0 µS
Cyanide	601S	8/10/11	0.02	0.0025	0.005	0.25
Cyanide WAD	601S	1/9/09	0.005	0.001	0.005	0.25
Dissolved Oxygen	632S			NA	0.1	NA
Fluoride (ISE)	623S	1/9/09	0.5	0.20	0.1	1.0
Hardness	626S			NA	0.33 [1]	NA
Iron (II), Ferrous	600S	1/9/09	0.050	0.003	0.04	NA
Nitrate	617S			NA	0.01	0.1
Nitrite	617S	8/10/11	0.015	0.009	0.019	0.1
Nitrate+Nitrite	617S	8/10/11	0.015	0.014	0.028	0.1
HEM Method 1664	648S	8/10/11	12.1	2.29	5.0	500 [2]
SGT-HEM Method 1664	648S	8/10/11	4.0	2.16	5.0	500 [2]
pH	618S			NA	0.01 Units	0.05 Units
Phenols	633S	12/30/08	0.06	0.035	0.04	0.4
Phosphorous (Total)	631S	8/10/11	0.05	0.018	0.036	0.4
Phosphorous (Ortho)	631S	8/10/11	0.01	0.0035	0.0069	0.04
Salinity	635S			NA	0.1 (g/Kg)	NA

Analytical Resources,Incorporated
Analytical Chemists and Consultants

MDL/RL Summary for Conventional Analyses

MDL's and reporting limits are updated periodically. Assure you are using ARI's current detection limits by downloading the files at the time of use: http://www.arilabs.com/portal/downloads/ARI-MDLs.zip

					RL (ppm unless noted)	
Analyte	**ARI SOP**	**MDL Date**	**Spike Level (ppm)**	**MDL (ppm)**	**Water**	**Soil [4]**
Sulfide - Method 376.2	640S	4/12/07	0.15	0.026	0.05	1.0
Sulfide (Acid Volatile)	640S	1/29/07	0.014	0.045	0.135	1.0
Sulfide (PSEP)	640S	1/29/09	0.25	0.348	0.45	1.0
Sulfide (EPA Method 9030)	640S	1/6/09	0.5	0.10	0.30	1.0
Sulfate	637S	8/10/11	3.0	3.34	6.7	20.0
Sulfite	641S	4/3/08	5.0	1.4	2.0 [5]	NA
TIC – Inorganic Carbon		1/11/08	5.0	0.434	1.5	NA
TKN (EPA Method 351.4 – ISE)	642S	8/10/11	0.6	0.54	0.8	0.8
TKN (EPA Method 351.2 – FIA)	654S				0.3	0.3
TOC - Aqueous	602S	8/10/11	1.00	0.79	1.5	NA
TOC – Solid[3]	602S	8/10/11	0.005%	0.0047%	NA	0.01%
Total Solids	639S			NA	5.0	0.01%
Total Suspended Solids	639S	8/10/11		0.4	1.0	NA
Total Dissolved Solids	639S	8/10/11		23.2	46	NA
Total Volatile Solids	639S			NA	5.0	0.01%
Total Settleable Solids	639S			NA	0.1	NA
Turbidity	643S			NA	0.05 NTU	NA

Method Detection Limit (MDL) studies are performed in accordance with 40 CFR Part 136, Appendix B.
Reporting Limit (RL) is defined as the lowest value at which qualitative detection of a given analyte is reported. The RL is based on the MDL, method efficiency, and analyte response.

(1) Calculated using Ca and Mg RL from ICP analyses of water.
(2) HEM Reporting Limit based on a 10 g sample size
(3) TOC MDL study performed using muffled (500℃ fo r 1 hr) Ottawa sand.
(4) RL assumes 100% solids
(5) An RL for sulfite is calculated for each analytical batch using blank data and is typically between 1 and 2 ppm.

Metals Analysis
Report and Summary QC Forms

ARI Job ID: VS23

Cover Page

INORGANIC ANALYSIS DATA PACKAGE

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS23

CLIENT ID	ARI ID	ARI LIMS ID	REPREP
SA13-3C	VS23A	12-22713	
SA13-3CD	VS23ADUP	12-22713	
SA13-3CS	VS23ASPK	12-22713	
SA13-4C	VS23B	12-22714	
PBS	VS23MB1	12-22714	
LCSS	VS23MB1SPK	12-22714	
SA13-5C	VS23C	12-22715	
SA13-6C	VS23D	12-22716	
SA13-6P-1(0 to 3	VS23E	12-22717	
SA13-6P-2(3 to 6	VS23F	12-22718	
SA13-6P-3(6 to 12	VS23G	12-22719	
SA13-6P-4(12 to 24	VS23H	12-22720	
SA13-7C	VS23I	12-22721	
SA13-8C	VS23J	12-22722	
SA13-Field Duplica	VS23K	12-22723	

Were ICP interelement corrections applied ?	Yes/No	YES
Were ICP background corrections applied ?	Yes/No	YES
If yes - were raw data generated before application of background corrections ?	Yes/No	NO

Comments: _____

THIS DATA PACKAGE HAS BEEN REVIEWED AND AUTHORIZED FOR RELEASE BY:

Signature: _____ Name: Jay Kuhn

Date: 12/5/12 Title: Inorganics Director

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SA13-3C
SAMPLE

Lab Sample ID: VS23A
LIMS ID: 12-22713
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS23-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 95.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/28/12	6010C	11/30/12	**7429-90-5**	**Aluminum**	8.6	10	**17,500**	
3050B	11/28/12	200.8	12/03/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.3**	
3050B	11/28/12	200.8	12/03/12	**7440-38-2**	**Arsenic**	0.089	0.2	**12.8**	
3050B	11/28/12	6010C	11/30/12	**7440-39-3**	**Barium**	0.14	0.7	**385**	
3050B	11/28/12	200.8	12/03/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.5**	
3050B	11/28/12	200.8	12/03/12	**7440-43-9**	**Cadmium**	0.012	0.1	**3.9**	
3050B	11/28/12	6010C	11/30/12	**7440-70-2**	**Calcium**	4.6	10	**4,510**	
3050B	11/28/12	200.8	12/03/12	**7440-47-3**	**Chromium**	0.039	0.5	**18.7**	
3050B	11/28/12	200.8	12/03/12	**7440-48-4**	**Cobalt**	0.033	0.2	**6.9**	
3050B	11/28/12	200.8	12/03/12	**7440-50-8**	**Copper**	0.037	0.5	**17.9**	
3050B	11/28/12	6010C	11/30/12	**7439-89-6**	**Iron**	1.8	10	**19,000**	
3050B	11/28/12	200.8	12/03/12	**7439-92-1**	**Lead**	0.048	0.1	**163**	
3050B	11/28/12	6010C	11/30/12	**7439-95-4**	**Magnesium**	3.3	10	**3,510**	
3050B	11/28/12	6010C	11/30/12	**7439-96-5**	**Manganese**	0.097	0.2	**1,480**	
CLP	11/28/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.085**	
3050B	11/28/12	200.8	12/03/12	**7440-02-0**	**Nickel**	0.050	0.5	**18.5**	
3050B	11/28/12	6010C	11/30/12	**7440-09-7**	**Potassium**	42	120	**1,300**	
3050B	11/28/12	200.8	12/03/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/28/12	200.8	12/03/12	**7440-22-4**	**Silver**	0.0082	0.2	**0.3**	
3050B	11/28/12	6010C	11/30/12	**7440-23-5**	**Sodium**	2.6	120	**170**	
3050B	11/28/12	200.8	12/03/12	**7440-28-0**	**Thallium**	0.0031	0.2	**0.3**	
3050B	11/28/12	200.8	12/03/12	**7440-62-2**	**Vanadium**	0.017	0.2	**23.3**	
3050B	11/28/12	200.8	12/03/12	**7440-66-6**	**Zinc**	1.7	20	**280**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SA13-3C
MATRIX SPIKE

Lab Sample ID: VS23A
LIMS ID: 12-22713
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS23-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

MATRIX SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Spike	Spike Added	% Recovery	Q
Aluminum	6010C	17,500	17,300	193	-104%	H
Antimony	200.8	0.3	2.3	25.6	7.8%	N
Arsenic	200.8	12.8	39.4	25.6	104%	
Barium	6010C	385	562	193	91.7%	
Beryllium	200.8	0.5	25.9	25.6	99.2%	
Cadmium	200.8	3.9	27.4	25.6	91.8%	
Calcium	6010C	4,510	5,480	965	101%	H
Chromium	200.8	18.7	40.5	25.6	85.2%	
Cobalt	200.8	6.9	30.5	25.6	92.2%	
Copper	200.8	17.9	42.9	25.6	97.7%	
Iron	6010C	19,000	18,200	193	-415%	H
Lead	200.8	163	174	25.6	43.0%	H
Magnesium	6010C	3,510	4,460	965	98.4%	
Manganese	6010C	1,480	1,310	48.2	-353%	H
Mercury	7471A	0.085	0.166	0.0728	111%	
Nickel	200.8	18.5	44.0	25.6	99.6%	
Potassium	6010C	1,300	2,250	965	98.4%	
Selenium	200.8	0.5 U	79.3	81.8	96.9%	
Silver	200.8	0.3	22.2	25.6	85.5%	
Sodium	6010C	170	1,130	965	99.5%	
Thallium	200.8	0.3	25.0	25.6	96.5%	
Vanadium	200.8	23.3	47.1	25.6	93.0%	
Zinc	200.8	280	350	81.8	85.6%	

Reported in mg/kg-dry

N-Control Limit Not Met
H-% Recovery Not Applicable, Sample Concentration Too High
NA-Not Applicable, Analyte Not Spiked

Percent Recovery Limits: 75-125%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
Page 1 of 1

Sample ID: SA13-3C
DUPLICATE

Lab Sample ID: VS23A
LIMS ID: 12-22713
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS23-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

MATRIX DUPLICATE QUALITY CONTROL REPORT

Analyte	Analysis Method	Sample	Duplicate	RPD	Control Limit	Q
Aluminum	6010C	17,500	17,700	1.1%	+/- 20%	
Antimony	200.8	0.3	0.4	28.6%	+/- 0.2	L
Arsenic	200.8	12.8	12.1	5.6%	+/- 20%	
Barium	6010C	385	386	0.3%	+/- 20%	
Beryllium	200.8	0.5	0.5	0.0%	+/- 0.2	L
Cadmium	200.8	3.9	3.3	16.7%	+/- 20%	
Calcium	6010C	4,510	4,560	1.1%	+/- 20%	
Chromium	200.8	18.7	17.9	4.4%	+/- 20%	
Cobalt	200.8	6.9	6.5	6.0%	+/- 20%	
Copper	200.8	17.9	16.8	6.3%	+/- 20%	
Iron	6010C	19,000	21,000	10.0%	+/- 20%	
Lead	200.8	163	158	3.1%	+/- 20%	
Magnesium	6010C	3,510	3,520	0.3%	+/- 20%	
Manganese	6010C	1,480	1,530	3.3%	+/- 20%	
Mercury	7471A	0.085	0.080	6.1%	+/- 20%	
Nickel	200.8	18.5	17.5	5.6%	+/- 20%	
Potassium	6010C	1,300	1,340	3.0%	+/- 20%	
Selenium	200.8	0.5 U	0.5 U	0.0%	+/- 0.5	L
Silver	200.8	0.3	0.3	0.0%	+/- 0.2	L
Sodium	6010C	170	190	11.1%	+/- 120	L
Thallium	200.8	0.3	0.2	40.0%	+/- 0.2	L
Vanadium	200.8	23.3	24.4	4.6%	+/- 20%	
Zinc	200.8	280	250	11.3%	+/- 20%	

Reported in mg/kg-dry

*-Control Limit Not Met
L-RPD Invalid, Limit = Detection Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: SA13-4C**
Page 1 of 1 **SAMPLE**

Lab Sample ID: VS23B
LIMS ID: 12-22714
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS23-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 95.2%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/28/12	6010C	11/30/12	**7429-90-5**	**Aluminum**	9.2	10	**12,700**	
3050B	11/28/12	200.8	12/03/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/28/12	200.8	12/03/12	**7440-38-2**	**Arsenic**	0.090	0.5	**5.3**	
3050B	11/28/12	6010C	11/30/12	**7440-39-3**	**Barium**	0.15	0.8	**157**	
3050B	11/28/12	200.8	12/03/12	**7440-41-7**	**Beryllium**	0.019	0.2	**0.4**	
3050B	11/28/12	200.8	12/03/12	**7440-43-9**	**Cadmium**	0.012	0.1	**1.3**	
3050B	11/28/12	6010C	11/30/12	**7440-70-2**	**Calcium**	4.9	10	**10,200**	
3050B	11/28/12	200.8	12/03/12	**7440-47-3**	**Chromium**	0.20	3	**22**	
3050B	11/28/12	200.8	12/03/12	**7440-48-4**	**Cobalt**	0.17	1	**9**	
3050B	11/28/12	200.8	12/03/12	**7440-50-8**	**Copper**	0.037	0.5	**21.5**	
3050B	11/28/12	6010C	11/30/12	**7439-89-6**	**Iron**	1.9	10	**20,900**	
3050B	11/28/12	200.8	12/03/12	**7439-92-1**	**Lead**	0.049	0.1	**31.9**	
3050B	11/28/12	6010C	11/30/12	**7439-95-4**	**Magnesium**	3.6	10	**4,770**	
3050B	11/28/12	6010C	11/30/12	**7439-96-5**	**Manganese**	0.10	0.3	**317**	
CLP	11/28/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.058**	
3050B	11/28/12	200.8	12/03/12	**7440-02-0**	**Nickel**	0.051	0.5	**26.5**	
3050B	11/28/12	6010C	11/30/12	**7440-09-7**	**Potassium**	45	130	**1,200**	
3050B	11/28/12	200.8	12/03/12	7782-49-2	Selenium	0.10	2	2	U
3050B	11/28/12	200.8	12/03/12	**7440-22-4**	**Silver**	0.0083	0.2	**0.3**	
3050B	11/28/12	6010C	11/30/12	7440-23-5	Sodium	2.7	130	130	U
3050B	11/28/12	200.8	12/03/12	7440-28-0	Thallium	0.0031	0.2	0.2	U
3050B	11/28/12	200.8	12/03/12	**7440-62-2**	**Vanadium**	0.088	1	**30**	
3050B	11/28/12	200.8	12/03/12	**7440-66-6**	**Zinc**	0.35	4	**160**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

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TOTAL METALS
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Sample ID: SA13-5C
SAMPLE

Lab Sample ID: VS23C
LIMS ID: 12-22715
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS23-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 95.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/28/12	6010C	11/30/12	**7429-90-5**	**Aluminum**	9.1	10	**22,400**	
3050B	11/28/12	200.8	12/03/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.5**	
3050B	11/28/12	200.8	12/03/12	**7440-38-2**	**Arsenic**	0.090	0.2	**17.3**	
3050B	11/28/12	6010C	11/30/12	**7440-39-3**	**Barium**	0.15	0.8	**452**	
3050B	11/28/12	200.8	12/03/12	**7440-41-7**	**Beryllium**	0.019	0.2	**0.5**	
3050B	11/28/12	200.8	12/03/12	**7440-43-9**	**Cadmium**	0.012	0.1	**12.9**	
3050B	11/28/12	6010C	11/30/12	**7440-70-2**	**Calcium**	4.9	10	**9,820**	
3050B	11/28/12	200.8	12/03/12	**7440-47-3**	**Chromium**	0.20	3	**28**	
3050B	11/28/12	200.8	12/03/12	**7440-48-4**	**Cobalt**	0.17	1	**11**	
3050B	11/28/12	200.8	12/03/12	**7440-50-8**	**Copper**	0.037	0.5	**43.7**	
3050B	11/28/12	6010C	11/30/12	**7439-89-6**	**Iron**	1.9	10	**24,600**	
3050B	11/28/12	200.8	12/03/12	**7439-92-1**	**Lead**	0.24	0.5	**649**	
3050B	11/28/12	6010C	11/30/12	**7439-95-4**	**Magnesium**	3.6	10	**6,070**	
3050B	11/28/12	6010C	11/30/12	**7439-96-5**	**Manganese**	0.10	0.3	**1,480**	
CLP	11/28/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.113**	
3050B	11/28/12	200.8	12/03/12	**7440-02-0**	**Nickel**	0.051	0.5	**22.1**	
3050B	11/28/12	6010C	11/30/12	**7440-09-7**	**Potassium**	45	130	**2,380**	
3050B	11/28/12	200.8	12/03/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/28/12	200.8	12/03/12	**7440-22-4**	**Silver**	0.0083	0.2	**0.4**	
3050B	11/28/12	6010C	11/30/12	**7440-23-5**	**Sodium**	2.7	130	**290**	
3050B	11/28/12	200.8	12/03/12	**7440-28-0**	**Thallium**	0.0031	0.2	**0.5**	
3050B	11/28/12	200.8	12/03/12	**7440-62-2**	**Vanadium**	0.088	1	**39**	
3050B	11/28/12	200.8	12/03/12	**7440-66-6**	**Zinc**	1.8	20	**660**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

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Sample ID: SA13-6C
SAMPLE

Lab Sample ID: VS23D
LIMS ID: 12-22716
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS23-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 95.3%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/28/12	6010C	11/30/12	**7429-90-5**	**Aluminum**	9.0	10	**28,200**	
3050B	11/28/12	200.8	12/03/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.4**	
3050B	11/28/12	200.8	12/03/12	**7440-38-2**	**Arsenic**	0.084	0.2	**22.4**	
3050B	11/28/12	6010C	11/30/12	**7440-39-3**	**Barium**	0.15	0.8	**294**	
3050B	11/28/12	200.8	12/03/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.6**	
3050B	11/28/12	200.8	12/03/12	**7440-43-9**	**Cadmium**	0.012	0.1	**3.6**	
3050B	11/28/12	6010C	11/30/12	**7440-70-2**	**Calcium**	4.8	10	**3,050**	
3050B	11/28/12	200.8	12/03/12	**7440-47-3**	**Chromium**	0.18	2	**18**	
3050B	11/28/12	200.8	12/03/12	**7440-48-4**	**Cobalt**	0.15	1	**7**	
3050B	11/28/12	200.8	12/03/12	**7440-50-8**	**Copper**	0.035	0.5	**16.9**	
3050B	11/28/12	6010C	11/30/12	**7439-89-6**	**Iron**	1.9	10	**22,400**	
3050B	11/28/12	200.8	12/03/12	**7439-92-1**	**Lead**	0.045	0.1	**289**	
3050B	11/28/12	6010C	11/30/12	**7439-95-4**	**Magnesium**	3.5	10	**3,940**	
3050B	11/28/12	6010C	11/30/12	**7439-96-5**	**Manganese**	0.10	0.3	**2,270**	
CLP	11/28/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.100**	
3050B	11/28/12	200.8	12/03/12	**7440-02-0**	**Nickel**	0.047	0.5	**15.5**	
3050B	11/28/12	6010C	11/30/12	**7440-09-7**	**Potassium**	44	130	**1,250**	
3050B	11/28/12	200.8	12/03/12	7782-49-2	Selenium	0.096	0.5	0.5	U
3050B	11/28/12	200.8	12/03/12	**7440-22-4**	**Silver**	0.0077	0.2	**0.3**	
3050B	11/28/12	6010C	11/30/12	**7440-23-5**	**Sodium**	2.7	130	**220**	
3050B	11/28/12	200.8	12/03/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.4**	
3050B	11/28/12	200.8	12/03/12	**7440-62-2**	**Vanadium**	0.082	1	**32**	
3050B	11/28/12	200.8	12/03/12	**7440-66-6**	**Zinc**	0.33	4	**271**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS

Sample ID: SA13-6P-1(0 to 3" depth)
SAMPLE

Lab Sample ID: VS23E
LIMS ID: 12-22717
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS23-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 96.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/28/12	6010C	11/30/12	**7429-90-5**	**Aluminum**	8.5	10	**28,000**	
3050B	11/28/12	200.8	12/03/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/28/12	200.8	12/03/12	**7440-38-2**	**Arsenic**	0.087	0.2	**9.5**	
3050B	11/28/12	6010C	11/30/12	**7440-39-3**	**Barium**	0.14	0.7	**233**	
3050B	11/28/12	200.8	12/03/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.7**	
3050B	11/28/12	200.8	12/03/12	**7440-43-9**	**Cadmium**	0.012	0.1	**0.9**	
3050B	11/28/12	6010C	11/30/12	**7440-70-2**	**Calcium**	4.5	10	**1,830**	
3050B	11/28/12	200.8	12/03/12	**7440-47-3**	**Chromium**	0.19	2	**20**	
3050B	11/28/12	200.8	12/03/12	**7440-48-4**	**Cobalt**	0.16	1	**8**	
3050B	11/28/12	200.8	12/03/12	**7440-50-8**	**Copper**	0.036	0.5	**13.3**	
3050B	11/28/12	6010C	11/30/12	**7439-89-6**	**Iron**	1.8	10	**22,200**	
3050B	11/28/12	200.8	12/03/12	**7439-92-1**	**Lead**	0.047	0.1	**38.6**	
3050B	11/28/12	6010C	11/30/12	**7439-95-4**	**Magnesium**	3.3	10	**3,930**	
3050B	11/28/12	6010C	11/30/12	**7439-96-5**	**Manganese**	0.096	0.2	**1,100**	
CLP	11/28/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.045**	
3050B	11/28/12	200.8	12/03/12	**7440-02-0**	**Nickel**	0.049	0.5	**18.1**	
3050B	11/28/12	6010C	11/30/12	**7440-09-7**	**Potassium**	42	120	**1,010**	
3050B	11/28/12	200.8	12/03/12	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	11/28/12	200.8	12/03/12	**7440-22-4**	**Silver**	0.0080	0.2	**0.2**	
3050B	11/28/12	6010C	11/30/12	**7440-23-5**	**Sodium**	2.5	120	**170**	
3050B	11/28/12	200.8	12/03/12	7440-28-0	Thallium	0.0030	0.2	0.2	U
3050B	11/28/12	200.8	12/03/12	**7440-62-2**	**Vanadium**	0.085	1	**34**	
3050B	11/28/12	200.8	12/03/12	**7440-66-6**	**Zinc**	0.34	4	**152**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

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Sample ID: SA13-6P-2(3 to 6" depth)
SAMPLE

Lab Sample ID: VS23F
LIMS ID: 12-22718
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS23-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 96.7%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/28/12	6010C	11/30/12	**7429-90-5**	**Aluminum**	8.9	10	**28,600**	
3050B	11/28/12	200.8	12/03/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/28/12	200.8	12/03/12	**7440-38-2**	**Arsenic**	0.086	0.2	**4.9**	
3050B	11/28/12	6010C	11/30/12	**7440-39-3**	**Barium**	0.15	0.8	**244**	
3050B	11/28/12	200.8	12/03/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.8**	
3050B	11/28/12	200.8	12/03/12	**7440-43-9**	**Cadmium**	0.012	0.1	**0.3**	
3050B	11/28/12	6010C	11/30/12	**7440-70-2**	**Calcium**	4.7	10	**2,180**	
3050B	11/28/12	200.8	12/03/12	**7440-47-3**	**Chromium**	0.19	2	**21**	
3050B	11/28/12	200.8	12/03/12	**7440-48-4**	**Cobalt**	0.16	1	**8**	
3050B	11/28/12	200.8	12/03/12	**7440-50-8**	**Copper**	0.036	0.5	**22.3**	
3050B	11/28/12	6010C	11/30/12	**7439-89-6**	**Iron**	1.9	10	**22,800**	
3050B	11/28/12	200.8	12/03/12	**7439-92-1**	**Lead**	0.046	0.1	**12.5**	
3050B	11/28/12	6010C	11/30/12	**7439-95-4**	**Magnesium**	3.5	10	**4,800**	
3050B	11/28/12	6010C	11/30/12	**7439-96-5**	**Manganese**	0.10	0.3	**291**	
CLP	11/28/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.027**	
3050B	11/28/12	200.8	12/03/12	**7440-02-0**	**Nickel**	0.048	0.5	**19.0**	
3050B	11/28/12	6010C	11/30/12	**7440-09-7**	**Potassium**	44	130	**1,180**	
3050B	11/28/12	200.8	12/03/12	7782-49-2	Selenium	0.098	0.5	0.5	U
3050B	11/28/12	200.8	12/03/12	**7440-22-4**	**Silver**	0.0079	0.2	**0.3**	
3050B	11/28/12	6010C	11/30/12	**7440-23-5**	**Sodium**	2.7	130	**240**	
3050B	11/28/12	200.8	12/03/12	7440-28-0	Thallium	0.0030	0.2	0.2	U
3050B	11/28/12	200.8	12/03/12	**7440-62-2**	**Vanadium**	0.084	1	**37**	
3050B	11/28/12	200.8	12/03/12	**7440-66-6**	**Zinc**	0.34	4	**78**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

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Sample ID: SA13-6P-3(6 to 12" depth)
SAMPLE

Lab Sample ID: VS23G
LIMS ID: 12-22719
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS23-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 98.0%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/28/12	6010C	11/30/12	**7429-90-5**	**Aluminum**	8.6	10	**23,300**	
3050B	11/28/12	200.8	12/03/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/28/12	200.8	12/03/12	**7440-38-2**	**Arsenic**	0.084	0.2	**4.0**	
3050B	11/28/12	6010C	11/30/12	**7440-39-3**	**Barium**	0.15	0.7	**259**	
3050B	11/28/12	200.8	12/03/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.6**	
3050B	11/28/12	200.8	12/03/12	**7440-43-9**	**Cadmium**	0.012	0.1	**0.2**	
3050B	11/28/12	6010C	11/30/12	**7440-70-2**	**Calcium**	4.6	10	**2,890**	
3050B	11/28/12	200.8	12/03/12	**7440-47-3**	**Chromium**	0.18	2	**25**	
3050B	11/28/12	200.8	12/03/12	**7440-48-4**	**Cobalt**	0.15	1	**9**	
3050B	11/28/12	200.8	12/03/12	**7440-50-8**	**Copper**	0.035	0.5	**20.2**	
3050B	11/28/12	6010C	11/30/12	**7439-89-6**	**Iron**	1.8	10	**24,500**	
3050B	11/28/12	200.8	12/03/12	**7439-92-1**	**Lead**	0.045	0.1	**10.8**	
3050B	11/28/12	6010C	11/30/12	**7439-95-4**	**Magnesium**	3.4	10	**5,840**	
3050B	11/28/12	6010C	11/30/12	**7439-96-5**	**Manganese**	0.097	0.2	**330**	
CLP	11/28/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.017**	
3050B	11/28/12	200.8	12/03/12	**7440-02-0**	**Nickel**	0.047	0.5	**20.5**	
3050B	11/28/12	6010C	11/30/12	**7440-09-7**	**Potassium**	42	120	**1,540**	
3050B	11/28/12	200.8	12/03/12	7782-49-2	Selenium	0.096	0.5	0.5	U
3050B	11/28/12	200.8	12/03/12	**7440-22-4**	**Silver**	0.0077	0.2	**0.2**	
3050B	11/28/12	6010C	11/30/12	**7440-23-5**	**Sodium**	2.6	120	**200**	
3050B	11/28/12	200.8	12/03/12	7440-28-0	Thallium	0.0029	0.2	0.2	U
3050B	11/28/12	200.8	12/03/12	**7440-62-2**	**Vanadium**	0.082	1	**45**	
3050B	11/28/12	200.8	12/03/12	**7440-66-6**	**Zinc**	0.33	4	**67**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
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Sample ID: SA13-6P-4(12 to 24" depth)
SAMPLE

Lab Sample ID: VS23H
LIMS ID: 12-22720
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS23-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 97.1%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/28/12	6010C	11/30/12	**7429-90-5**	**Aluminum**	8.4	10	**24,800**	
3050B	11/28/12	200.8	12/03/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/28/12	200.8	12/03/12	**7440-38-2**	**Arsenic**	0.086	0.2	**6.2**	
3050B	11/28/12	6010C	11/30/12	**7440-39-3**	**Barium**	0.14	0.7	**205**	
3050B	11/28/12	200.8	12/03/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.7**	
3050B	11/28/12	200.8	12/03/12	**7440-43-9**	**Cadmium**	0.012	0.1	**0.6**	
3050B	11/28/12	6010C	11/30/12	**7440-70-2**	**Calcium**	4.5	10	**2,390**	
3050B	11/28/12	200.8	12/03/12	**7440-47-3**	**Chromium**	0.19	2	**23**	
3050B	11/28/12	200.8	12/03/12	**7440-48-4**	**Cobalt**	0.16	1	**8**	
3050B	11/28/12	200.8	12/03/12	**7440-50-8**	**Copper**	0.036	0.5	**21.7**	
3050B	11/28/12	6010C	11/30/12	**7439-89-6**	**Iron**	1.8	10	**23,100**	
3050B	11/28/12	200.8	12/03/12	**7439-92-1**	**Lead**	0.047	0.1	**21.2**	
3050B	11/28/12	6010C	11/30/12	**7439-95-4**	**Magnesium**	3.3	10	**4,920**	
3050B	11/28/12	6010C	11/30/12	**7439-96-5**	**Manganese**	0.094	0.2	**361**	
CLP	11/28/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.032**	
3050B	11/28/12	200.8	12/03/12	**7440-02-0**	**Nickel**	0.049	0.5	**19.8**	
3050B	11/28/12	6010C	11/30/12	**7440-09-7**	**Potassium**	41	120	**1,210**	
3050B	11/28/12	200.8	12/03/12	7782-49-2	Selenium	0.098	0.5	0.5	U
3050B	11/28/12	200.8	12/03/12	**7440-22-4**	**Silver**	0.0080	0.2	**0.2**	
3050B	11/28/12	6010C	11/30/12	**7440-23-5**	**Sodium**	2.5	120	**200**	
3050B	11/28/12	200.8	12/03/12	7440-28-0	Thallium	0.0030	0.2	0.2	U
3050B	11/28/12	200.8	12/03/12	**7440-62-2**	**Vanadium**	0.084	1	**39**	
3050B	11/28/12	200.8	12/03/12	**7440-66-6**	**Zinc**	0.34	4	**88**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: SA13-7C
SAMPLE

Lab Sample ID: VS23I
LIMS ID: 12-22721
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS23-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Percent Total Solids: 96.5%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/28/12	6010C	11/30/12	**7429-90-5**	**Aluminum**	8.8	10	**19,400**	
3050B	11/28/12	200.8	12/03/12	**7440-36-0**	**Antimony**	0.012	0.2	**0.5**	
3050B	11/28/12	200.8	12/03/12	**7440-38-2**	**Arsenic**	0.083	0.2	**21.7**	
3050B	11/28/12	6010C	11/30/12	**7440-39-3**	**Barium**	0.15	0.7	**295**	
3050B	11/28/12	200.8	12/03/12	**7440-41-7**	**Beryllium**	0.017	0.2	**0.5**	
3050B	11/28/12	200.8	12/03/12	**7440-43-9**	**Cadmium**	0.012	0.1	**2.6**	
3050B	11/28/12	6010C	11/30/12	**7440-70-2**	**Calcium**	4.7	10	**2,700**	
3050B	11/28/12	200.8	12/03/12	**7440-47-3**	**Chromium**	0.18	2	**22**	
3050B	11/28/12	200.8	12/03/12	**7440-48-4**	**Cobalt**	0.15	1	**9**	
3050B	11/28/12	200.8	12/03/12	**7440-50-8**	**Copper**	0.035	0.5	**18.6**	
3050B	11/28/12	6010C	11/30/12	**7439-89-6**	**Iron**	1.8	10	**22,000**	
3050B	11/28/12	200.8	12/03/12	**7439-92-1**	**Lead**	0.045	0.1	**281**	
3050B	11/28/12	6010C	11/30/12	**7439-95-4**	**Magnesium**	3.4	10	**4,330**	
3050B	11/28/12	6010C	11/30/12	**7439-96-5**	**Manganese**	0.099	0.2	**833**	
CLP	11/28/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.068**	
3050B	11/28/12	200.8	12/03/12	**7440-02-0**	**Nickel**	0.047	0.5	**18.9**	
3050B	11/28/12	6010C	11/30/12	**7440-09-7**	**Potassium**	43	120	**1,340**	
3050B	11/28/12	200.8	12/03/12	7782-49-2	Selenium	0.095	0.5	0.5	U
3050B	11/28/12	200.8	12/03/12	**7440-22-4**	**Silver**	0.0077	0.2	**0.3**	
3050B	11/28/12	6010C	11/30/12	**7440-23-5**	**Sodium**	2.6	120	**210**	
3050B	11/28/12	200.8	12/03/12	**7440-28-0**	**Thallium**	0.0029	0.2	**0.3**	
3050B	11/28/12	200.8	12/03/12	**7440-62-2**	**Vanadium**	0.082	1	**35**	
3050B	11/28/12	200.8	12/03/12	**7440-66-6**	**Zinc**	0.33	4	**217**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: SA13-8C
SAMPLE

Lab Sample ID: VS23J
LIMS ID: 12-22722
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS23-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 96.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/28/12	6010C	11/30/12	**7429-90-5**	**Aluminum**	8.8	10	**17,300**	
3050B	11/28/12	200.8	12/03/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.3**	
3050B	11/28/12	200.8	12/03/12	**7440-38-2**	**Arsenic**	0.090	0.2	**16.4**	
3050B	11/28/12	6010C	11/30/12	**7440-39-3**	**Barium**	0.15	0.7	**272**	
3050B	11/28/12	200.8	12/03/12	**7440-41-7**	**Beryllium**	0.019	0.2	**0.5**	
3050B	11/28/12	200.8	12/03/12	**7440-43-9**	**Cadmium**	0.012	0.1	**2.8**	
3050B	11/28/12	6010C	11/30/12	**7440-70-2**	**Calcium**	4.7	10	**4,280**	
3050B	11/28/12	200.8	12/03/12	**7440-47-3**	**Chromium**	0.039	0.5	**21.4**	
3050B	11/28/12	200.8	12/03/12	**7440-48-4**	**Cobalt**	0.033	0.2	**7.8**	
3050B	11/28/12	200.8	12/03/12	**7440-50-8**	**Copper**	0.037	0.5	**16.4**	
3050B	11/28/12	6010C	11/30/12	**7439-89-6**	**Iron**	1.9	10	**23,100**	
3050B	11/28/12	200.8	12/03/12	**7439-92-1**	**Lead**	0.049	0.1	**168**	
3050B	11/28/12	6010C	11/30/12	**7439-95-4**	**Magnesium**	3.4	10	**4,200**	
3050B	11/28/12	6010C	11/30/12	**7439-96-5**	**Manganese**	0.099	0.2	**1,180**	
CLP	11/28/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.069**	
3050B	11/28/12	200.8	12/03/12	**7440-02-0**	**Nickel**	0.051	0.5	**19.7**	
3050B	11/28/12	6010C	11/30/12	**7440-09-7**	**Potassium**	43	120	**1,350**	
3050B	11/28/12	200.8	12/03/12	7782-49-2	Selenium	0.10	0.5	0.5	U
3050B	11/28/12	200.8	12/03/12	7440-22-4	Silver	0.0083	0.2	0.2	U
3050B	11/28/12	6010C	11/30/12	**7440-23-5**	**Sodium**	2.6	120	**170**	
3050B	11/28/12	200.8	12/03/12	**7440-28-0**	**Thallium**	0.0031	0.2	**0.2**	
3050B	11/28/12	200.8	12/03/12	**7440-62-2**	**Vanadium**	0.018	0.2	**34.6**	
3050B	11/28/12	200.8	12/03/12	**7440-66-6**	**Zinc**	0.35	4	**186**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS
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Sample ID: SA13-Field Duplicate
SAMPLE

Lab Sample ID: VS23K
LIMS ID: 12-22723
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS23-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Percent Total Solids: 95.4%

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/28/12	6010C	11/30/12	**7429-90-5**	**Aluminum**	9.0	10	**22,200**	
3050B	11/28/12	200.8	12/03/12	**7440-36-0**	**Antimony**	0.013	0.2	**0.5**	
3050B	11/28/12	200.8	12/03/12	**7440-38-2**	**Arsenic**	0.087	0.2	**18.4**	
3050B	11/28/12	6010C	11/30/12	**7440-39-3**	**Barium**	0.15	0.8	**454**	
3050B	11/28/12	200.8	12/03/12	**7440-41-7**	**Beryllium**	0.018	0.2	**0.5**	
3050B	11/28/12	200.8	12/03/12	**7440-43-9**	**Cadmium**	0.012	0.1	**11.7**	
3050B	11/28/12	6010C	11/30/12	**7440-70-2**	**Calcium**	4.8	10	**9,680**	
3050B	11/28/12	200.8	12/03/12	**7440-47-3**	**Chromium**	0.19	3	**28**	
3050B	11/28/12	200.8	12/03/12	**7440-48-4**	**Cobalt**	0.16	1	**11**	
3050B	11/28/12	200.8	12/03/12	**7440-50-8**	**Copper**	0.036	0.5	**34.6**	
3050B	11/28/12	6010C	11/30/12	**7439-89-6**	**Iron**	1.9	10	**25,800**	
3050B	11/28/12	200.8	12/03/12	**7439-92-1**	**Lead**	0.24	0.5	**551**	
3050B	11/28/12	6010C	11/30/12	**7439-95-4**	**Magnesium**	3.5	10	**6,610**	
3050B	11/28/12	6010C	11/30/12	**7439-96-5**	**Manganese**	0.10	0.3	**1,370**	
CLP	11/28/12	7471A	11/30/12	**7439-97-6**	**Mercury**	0.0004	0.007	**0.101**	
3050B	11/28/12	200.8	12/03/12	**7440-02-0**	**Nickel**	0.049	0.5	**21.9**	
3050B	11/28/12	6010C	11/30/12	**7440-09-7**	**Potassium**	44	130	**2,280**	
3050B	11/28/12	200.8	12/03/12	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	11/28/12	200.8	12/03/12	**7440-22-4**	**Silver**	0.0080	0.2	**0.3**	
3050B	11/28/12	6010C	11/30/12	**7440-23-5**	**Sodium**	2.7	130	**230**	
3050B	11/28/12	200.8	12/03/12	**7440-28-0**	**Thallium**	0.0030	0.2	**0.5**	
3050B	11/28/12	200.8	12/03/12	**7440-62-2**	**Vanadium**	0.085	1	**38**	
3050B	11/28/12	200.8	12/03/12	**7440-66-6**	**Zinc**	1.7	20	**600**	

Reported in mg/kg-dry (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: LAB CONTROL**

Lab Sample ID: VS23LCS
LIMS ID: 12-22714
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS23-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: NA
Date Received: NA

BLANK SPIKE QUALITY CONTROL REPORT

Analyte	Analysis Method	Spike Found	Spike Added	% Recovery	Q
Aluminum	6010C	202	200	101%	
Antimony	200.8	24.2	25.0	96.8%	
Arsenic	200.8	26.7	25.0	107%	
Barium	6010C	205	200	102%	
Beryllium	200.8	25.1	25.0	100%	
Cadmium	200.8	24.5	25.0	98.0%	
Calcium	6010C	990	1000	99.0%	
Chromium	200.8	25.4	25.0	102%	
Cobalt	200.8	26.1	25.0	104%	
Copper	200.8	26.9	25.0	108%	
Iron	6010C	208	200	104%	
Lead	200.8	25.5	25.0	102%	
Magnesium	6010C	1030	1000	103%	
Manganese	6010C	51.5	50.0	103%	
Mercury	7471A	0.135	0.143	94.4%	
Nickel	200.8	26.1	25.0	104%	
Potassium	6010C	1000	1000	100%	
Selenium	200.8	81.2	80.0	102%	
Silver	200.8	25.6	25.0	102%	
Sodium	6010C	1010	1000	101%	
Thallium	200.8	25.6	25.0	102%	
Vanadium	200.8	24.9	25.0	99.6%	
Zinc	200.8	86	80	108%	

Reported in mg/kg-dry

N-Control limit not met
NA-Not Applicable, Analyte Not Spiked
Control Limits: 80-120%

ANALYTICAL RESOURCES INCORPORATED

INORGANICS ANALYSIS DATA SHEET
TOTAL METALS **Sample ID: METHOD BLANK**

Lab Sample ID: VS23MB
LIMS ID: 12-22714
Matrix: Soil
Data Release Authorized:
Reported: 12/05/12

QC Report No: VS23-Hart Crowser Inc.
Project: Upper Columbia
17800-36
Date Sampled: NA
Date Received: NA

Percent Total Solids: NA

Prep Meth	Prep Date	Analysis Method	Analysis Date	CAS Number	Analyte	MDL	RL	Result	Q
3050B	11/28/12	6010C	11/30/12	7429-90-5	Aluminum	3.6	5	5	U
3050B	11/28/12	200.8	12/03/12	7440-36-0	Antimony	0.013	0.2	0.2	U
3050B	11/28/12	200.8	12/03/12	7440-38-2	Arsenic	0.087	0.2	0.2	U
3050B	11/28/12	6010C	11/30/12	7440-39-3	Barium	0.060	0.3	0.3	U
3050B	11/28/12	200.8	12/03/12	7440-41-7	Beryllium	0.018	0.2	0.2	U
3050B	11/28/12	200.8	12/03/12	7440-43-9	Cadmium	0.012	0.1	0.1	U
3050B	11/28/12	6010C	11/30/12	7440-70-2	Calcium	1.9	5	5	U
3050B	11/28/12	200.8	12/03/12	7440-47-3	Chromium	0.038	0.5	0.5	U
3050B	11/28/12	200.8	12/03/12	7440-48-4	Cobalt	0.032	0.2	0.2	U
3050B	11/28/12	200.8	12/03/12	7440-50-8	Copper	0.036	0.5	0.5	U
3050B	11/28/12	6010C	11/30/12	7439-89-6	Iron	0.75	5	5	U
3050B	11/28/12	200.8	12/03/12	7439-92-1	Lead	0.047	0.1	0.1	U
3050B	11/28/12	6010C	11/30/12	7439-95-4	Magnesium	1.4	5	5	U
3050B	11/28/12	6010C	11/30/12	7439-96-5	Manganese	0.040	0.1	0.1	U
CLP	11/28/12	7471A	11/30/12	7439-97-6	Mercury	0.0004	0.007	0.007	U
3050B	11/28/12	200.8	12/03/12	7440-02-0	Nickel	0.049	0.5	0.5	U
3050B	11/28/12	6010C	11/30/12	7440-09-7	Potassium	17	50	50	U
3050B	11/28/12	200.8	12/03/12	7782-49-2	Selenium	0.099	0.5	0.5	U
3050B	11/28/12	200.8	12/03/12	7440-22-4	Silver	0.0080	0.2	0.2	U
3050B	11/28/12	6010C	11/30/12	7440-23-5	Sodium	1.1	50	50	U
3050B	11/28/12	200.8	12/03/12	7440-28-0	Thallium	0.0030	0.2	0.2	U
3050B	11/28/12	200.8	12/03/12	7440-62-2	Vanadium	0.017	0.2	0.2	U
3050B	11/28/12	200.8	12/03/12	7440-66-6	Zinc	0.34	4	4	U

Reported in mg/kg (ppm).
U-Analyte undetected at given RL
RL-Reporting Limit

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

UNITS:ug/L

SDG: VS23

ANALYTE	EL	M	RUN	ICVTV	ICV	%R	CCVTV	CCV1	%R	CCV2	%R	CCV3	%R	CCV4	%R	CCV5	%R
Aluminum	AL	ICP	IP113071	2000.0	2007.58	**100.4**	2000.0	2080.17	**104.0**	1964.11	**98.2**	2004.69	**100.2**	2034.46	**101.7**		
Antimony	SB	PMS	MS120381	50.0	48.09	**96.2**	50.0	49.82	**99.6**	49.79	**99.6**	49.46	**98.9**	49.40	**98.8**	49.95	**99.9**
Arsenic	AS	PMS	MS120381	50.0	51.20	**102.4**	50.0	49.99	**100.0**	50.35	**100.7**	50.05	**100.1**	50.65	**101.3**	50.03	**100.1**
Barium	BA	ICP	IP113071	1000.0	1021.63	**102.2**	1000.0	1041.09	**104.1**	1004.72	**100.5**	1029.47	**102.9**	1032.48	**103.2**		
Beryllium	BE	PMS	MS120381	50.0	49.53	**99.1**	50.0	49.88	**99.8**	50.28	**100.6**	51.75	**103.5**	50.40	**100.8**	50.24	**100.5**
Cadmium	CD	PMS	MS120381	50.0	48.47	**96.9**	50.0	50.06	**100.1**	50.66	**101.3**	49.90	**99.8**	49.82	**99.6**	50.13	**100.3**
Calcium	CA	ICP	IP113071	2000.0	2048.03	**102.4**	2000.0	2111.56	**105.6**	2029.14	**101.5**	2073.62	**103.7**	2074.92	**103.7**		
Chromium	CR	PMS	MS120381	50.0	48.97	**97.9**	50.0	50.11	**100.2**	50.64	**101.3**	49.66	**99.3**	50.68	**101.4**	49.81	**99.6**
Cobalt	CO	PMS	MS120381	50.0	49.52	**99.0**	50.0	49.73	**99.5**	50.72	**101.4**	50.65	**101.3**	51.11	**102.2**	50.41	**100.8**
Copper	CU	PMS	MS120381	50.0	50.13	**100.3**	50.0	50.28	**100.6**	50.52	**101.0**	49.45	**98.9**	50.81	**101.6**	49.74	**99.5**
Iron	FE	ICP	IP113071	2000.0	2050.10	**102.5**	2000.0	2135.75	**106.8**	2035.30	**101.8**	2073.30	**103.7**	2088.45	**104.4**		
Lead	PB	PMS	MS120381	50.0	49.62	**99.2**	50.0	49.76	**99.5**	49.94	**99.9**	49.55	**99.1**	50.04	**100.1**	49.85	**99.7**
Magnesium	MG	ICP	IP113071	2000.0	2006.63	**100.3**	2000.0	2068.75	**103.4**	1979.89	**99.0**	2023.64	**101.2**	2025.61	**101.3**		
Manganese	MN	ICP	IP113071	1000.0	1025.64	**102.6**	1000.0	1047.95	**104.8**	1016.12	**101.6**	1032.03	**103.2**	1029.20	**102.9**		
Mercury	HG	CVA	HG113001	8.0	8.02	**100.3**	4.0	4.19	**104.8**	4.16	**104.0**	4.15	**103.8**	4.12	**103.0**	4.13	**103.3**
Nickel	NI	PMS	MS120381	50.0	49.28	**98.6**	50.0	50.14	**100.3**	49.68	**99.4**	49.89	**99.8**	50.05	**100.1**	48.99	**98.0**
Potassium	K	ICP	IP113071	20000.0	20169.19	**100.8**	20000.0	20532.30	**102.7**	20118.50	**100.6**	20314.93	**101.6**	20260.90	**101.3**		
Selenium	SE	PMS	MS120381	80.0	79.14	**98.9**	50.0	50.17	**100.3**	50.39	**100.8**	50.82	**101.6**	51.85	**103.7**	50.29	**100.6**
Silver	AG	PMS	MS120381	50.0	50.26	**100.5**	50.0	50.09	**100.2**	50.81	**101.6**	50.86	**101.7**	50.80	**101.6**	50.54	**101.1**
Sodium	NA	ICP	IP113071	50000.0	52838.00	**105.7**	50000.0	53198.48	**106.4**	51664.22	**103.3**	52742.89	**105.5**	52930.73	**105.9**		
Thallium	TL	PMS	MS120381	50.0	49.91	**99.8**	50.0	50.07	**100.1**	50.04	**100.1**	49.41	**98.8**	50.49	**101.0**	50.08	**100.2**
Vanadium	V	PMS	MS120381	50.0	49.55	**99.1**	50.0	49.33	**98.7**	50.57	**101.1**	48.96	**97.9**	50.57	**101.1**	49.56	**99.1**
Zinc	ZN	PMS	MS120381	50.0	49.43	**98.9**	50.0	50.42	**100.8**	50.25	**100.5**	50.01	**100.0**	50.48	**101.0**	50.23	**100.5**

Control Limits: Mercury 80-120; Other Metals 90-110

Calibration Verification

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

UNITS:ug/L

SDG: VS23

ANALYTE	EL	M	RUN	CCVTV	CCV6	%R	CCV7	%R	CCV8	%R	CCV9	%R	CCV10	%R	CCV11	%R
Aluminum	AL	ICP	IP113071	2000.0												
Antimony	SB	PMS	MS120381	50.0	49.92	**99.8**										
Arsenic	AS	PMS	MS120381	50.0	50.15	**100.3**										
Barium	BA	ICP	IP113071	1000.0												
Beryllium	BE	PMS	MS120381	50.0	48.54	**97.1**										
Cadmium	CD	PMS	MS120381	50.0	50.06	**100.1**										
Calcium	CA	ICP	IP113071	2000.0												
Chromium	CR	PMS	MS120381	50.0	50.13	**100.3**										
Cobalt	CO	PMS	MS120381	50.0	50.82	**101.6**										
Copper	CU	PMS	MS120381	50.0	49.49	**99.0**										
Iron	FE	ICP	IP113071	2000.0												
Lead	PB	PMS	MS120381	50.0	50.84	**101.7**										
Magnesium	MG	ICP	IP113071	2000.0												
Manganese	MN	ICP	IP113071	1000.0												
Mercury	HG	CVA	HG113001	4.0												
Nickel	NI	PMS	MS120381	50.0	49.15	**98.3**										
Potassium	K	ICP	IP113071	20000.0												
Selenium	SE	PMS	MS120381	50.0	51.50	**103.0**										
Silver	AG	PMS	MS120381	50.0	50.01	**100.0**										
Sodium	NA	ICP	IP113071	50000.0												
Thallium	TL	PMS	MS120381	50.0	50.83	**101.7**										
Vanadium	V	PMS	MS120381	50.0	49.52	**99.0**										
Zinc	ZN	PMS	MS120381	50.0	49.87	**99.7**										

Control Limits: Mercury 80-120; Other Metals 90-110

CRDL Standard

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

UNITS: ug/L

SDG: VS23

ANALYTE	EL	M	RUN	CRA/I TV	CR-1	%R	CR-2	%R	CR-3	%R	CR-4	%R	CR-5	%R	CR-6	%R
Aluminum	AL	ICP	IP113071	50.0	51.16	**102.3**	42.21	**84.4**								
Antimony	SB	PMS	MS120381	0.2	0.21	**105.0**										
Arsenic	AS	PMS	MS120381	0.2	0.23	**115.0**										
Barium	BA	ICP	IP113071	3.0	3.73	**124.3**	3.14	**104.7**								
Beryllium	BE	PMS	MS120381	0.2	0.25	**125.0**										
Cadmium	CD	PMS	MS120381	0.1	0.11	**110.0**										
Calcium	CA	ICP	IP113071	50.0	49.17	**98.3**	48.23	**96.5**								
Chromium	CR	PMS	MS120381	0.5	0.54	**108.0**										
Cobalt	CO	PMS	MS120381	0.2	0.22	**110.0**										
Copper	CU	PMS	MS120381	0.5	0.55	**110.0**										
Iron	FE	ICP	IP113071	50.0	51.11	**102.2**	50.60	**101.2**								
Lead	PB	PMS	MS120381	0.1	0.11	**110.0**										
Magnesium	MG	ICP	IP113071	50.0	47.54	**95.1**	45.89	**91.8**								
Manganese	MN	ICP	IP113071	1.0	1.02	**102.0**	0.99	**99.0**								
Mercury	HG	CVA	HG113001	0.1	0.10	**100.0**										
Nickel	NI	PMS	MS120381	0.5	0.50	**100.0**										
Potassium	K	ICP	IP113071	500.0	485.97	**97.2**	487.15	**97.4**								
Selenium	SE	PMS	MS120381	0.5	0.52	**104.0**										
Silver	AG	PMS	MS120381	0.2	0.21	**105.0**										
Sodium	NA	ICP	IP113071	500.0	486.17	**97.2**	487.26	**97.5**								
Thallium	TL	PMS	MS120381	0.2	0.22	**110.0**										
Vanadium	V	PMS	MS120381	0.2	0.21	**105.0**										
Zinc	ZN	PMS	MS120381	4.0	4.24	**106.0**										

Control Limits: no control limits have been established by the EPA at this time.

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS23

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	ICB	C	CCB1	C	CCB2	C	CCB3	C	CCB4	C	CCB5	C
Aluminum	AL	ICP	IP113071	200.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U		
Antimony	SB	PMS	MS120381	60.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Arsenic	AS	PMS	MS120381	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Barium	BA	ICP	IP113071	200.0	3.0	3.0	U	3.0	U	3.0	U	3.0	U	3.0	U		
Beryllium	BE	PMS	MS120381	5.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Cadmium	CD	PMS	MS120381	5.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Calcium	CA	ICP	IP113071	5000.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U		
Chromium	CR	PMS	MS120381	10.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Cobalt	CO	PMS	MS120381	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Copper	CU	PMS	MS120381	25.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Iron	FE	ICP	IP113071	100.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U		
Lead	PB	PMS	MS120381	3.0	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Magnesium	MG	ICP	IP113071	5000.0	50.0	50.0	U	50.0	U	50.0	U	50.0	U	50.0	U		
Manganese	MN	ICP	IP113071	15.0	1.0	1.0	U	1.0	U	1.0	U	1.0	U	1.0	U		
Mercury	HG	CVA	HG113001	0.2	0.1	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U	0.1	U
Nickel	NI	PMS	MS120381	40.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Potassium	K	ICP	IP113071	5000.0	500.0	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U		
Selenium	SE	PMS	MS120381	5.0	0.5	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U	0.5	U
Silver	AG	PMS	MS120381	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Sodium	NA	ICP	IP113071	5000.0	500.0	500.0	U	500.0	U	500.0	U	500.0	U	500.0	U		
Thallium	TL	PMS	MS120381	10.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Vanadium	V	PMS	MS120381	50.0	0.2	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U	0.2	U
Zinc	ZN	PMS	MS120381	20.0	4.0	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U	4.0	U

Calibration Blanks

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS23

UNITS:ug/L

ANALYTE	EL	METH	RUN	CRDL	IDL	CCB6	C	CCB7	C	CCB8	C	CCB9	C	CCB10	C	CCB11	C
Aluminum	AL	ICP	IP113071	200.0	50.0												
Antimony	SB	PMS	MS120381	60.0	0.2	0.2	U										
Arsenic	AS	PMS	MS120381	10.0	0.2	0.2	U										
Barium	BA	ICP	IP113071	200.0	3.0												
Beryllium	BE	PMS	MS120381	5.0	0.2	0.2	U										
Cadmium	CD	PMS	MS120381	5.0	0.1	0.1	U										
Calcium	CA	ICP	IP113071	5000.0	50.0												
Chromium	CR	PMS	MS120381	10.0	0.5	0.5	U										
Cobalt	CO	PMS	MS120381	50.0	0.2	0.2	U										
Copper	CU	PMS	MS120381	25.0	0.5	0.5	U										
Iron	FE	ICP	IP113071	100.0	50.0												
Lead	PB	PMS	MS120381	3.0	0.1	0.1	U										
Magnesium	MG	ICP	IP113071	5000.0	50.0												
Manganese	MN	ICP	IP113071	15.0	1.0												
Mercury	HG	CVA	HG113001	0.2	0.1												
Nickel	NI	PMS	MS120381	40.0	0.5	0.5	U										
Potassium	K	ICP	IP113071	5000.0	500.0												
Selenium	SE	PMS	MS120381	5.0	0.5	0.5	U										
Silver	AG	PMS	MS120381	10.0	0.2	0.2	U										
Sodium	NA	ICP	IP113071	5000.0	500.0												
Thallium	TL	PMS	MS120381	10.0	0.2	0.2	U										
Vanadium	V	PMS	MS120381	50.0	0.2	0.2	U										
Zinc	ZN	PMS	MS120381	20.0	4.0	4.0	U										

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS23

ICS SOURCE: I.V.

RUNID: IP113071

INSTRUMENT ID: OPTIMA ICP 2

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Aluminum	200000	200000	199227.3	198741.6	**99.4**	196966.7	196926.3	**98.5**			
Antimony		1000	13.1	1035.4	**103.5**	12.3	1026.9	**102.7**			
Arsenic		1000	10.8	1019.5	**102.0**	9.6	1008.3	**100.8**			
Barium		1000	-2.9	1017.2	**101.7**	-2.1	1011.6	**101.2**			
Beryllium		1000	0.1	1017.5	**101.8**	0.1	1005.4	**100.5**			
Boron			-5.3	-4.0		-5.4	-4.5				
Cadmium		1000	-0.1	1029.2	**102.9**	-0.2	1018.0	**101.8**			
Calcium	100000	100000	99973.9	100423.3	**100.4**	98789.0	98943.5	**98.9**			
Chromium		1000	-1.1	1025.4	**102.5**	-0.2	1014.8	**101.5**			
Cobalt		1000	-0.8	958.4	**95.8**	-0.7	953.2	**95.3**			
Copper		1000	-0.2	1047.0	**104.7**	-0.2	1047.3	**104.7**			
Iron	200000	200000	197737.3	198260.9	**99.1**	194789.7	194378.5	**97.2**			
Lead		1000	-5.0	989.1	**98.9**	-4.3	980.5	**98.1**			
Magnesium	100000	100000	98889.0	99418.4	**99.4**	97709.7	97919.2	**97.9**			
Manganese		1000	1.4	975.0	**97.5**	1.2	959.0	**95.9**			
Molybdenum			2.4	2.2		1.8	1.8				
Nickel		1000	-0.9	987.3	**98.7**	-0.6	978.1	**97.8**			
Potassium			8.3	-31.5		-7.7	-27.1				
Selenium		1000	6.5	1007.3	**100.7**	9.7	998.4	**99.8**			
Silicon			2.2	1.1		-3.4	-4.4				
Silver		1000	-1.5	1053.3	**105.3**	-1.5	1053.4	**105.3**			
Sodium			14.6	27.1		19.6	34.1				
Strontium			4.1	4.1		4.1	4.0				
Thallium		1000	-4.0	932.1	**93.2**	-0.8	926.8	**92.7**			
Tin			-6.5	-5.8		-7.8	-6.3				
Titanium			1.6	2.2		2.1	1.8				
Vanadium		1000	5.0	1013.0	**101.3**	4.6	1008.1	**100.8**			
Zinc		1000	2.1	984.6	**98.5**	2.1	968.5	**96.9**			

ICP Interference Check Sample

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS23

ICS SOURCE: I.V.

RUNID: MS120381

INSTRUMENT ID: PE ELAN 6000

UNITS: ug/L

ANALYTE	ICSA TV	ICSAB TV	ICSA1	ICSAB1	%R	ICSA2	ICSAB2	%R	ICSA3	ICSAB3	%R
Antimony			0.1	0.1							
Arsenic		20	0.1	19.5	**97.5**						
Cadmium		20	0.1	19.7	**98.5**						
Chromium		20	0.5	20.1	**100.5**						
Cobalt		20	0.0	19.9	**99.5**						
Copper		20	0.5	20.2	**101.0**						
Manganese		20	0.1	19.9	**99.5**						
Molybdenum	400	400	387.4	387.9	**97.0**						
Nickel		20	0.5	19.9	**99.5**						
Selenium			0.0	-0.1							
Silver		20	0.0	19.6	**98.0**						
Vanadium			0.0	-0.4							
Zinc		20	1.0	20.0	**100.0**						

VS23 : 00041

Post Digest Spike Sample Recovery

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: PMS

SDG: VS23

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	RUNID	SPIKED SAMPLE RESULT	C	SAMPLE RESULT	C	SPIKE ADDED	MATRIX	%R
Antimony	SA13-3CA	VS23APOST	MS120381	475.72	B	5.80	B	500	Soil	**94.0**

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: ICP

SDG: VS23

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Aluminum	SA13-3CL	VS23A-L	Soil	IP113071	72363.67		70588.25		2.5	
Barium	SA13-3CL	VS23A-L	Soil	IP113071	1595.32		1580.20		0.9	
Calcium	SA13-3CL	VS23A-L	Soil	IP113071	18669.30		18228.45	B	2.4	
Iron	SA13-3CL	VS23A-L	Soil	IP113071	78765.28		77598.60		1.5	
Magnesium	SA13-3CL	VS23A-L	Soil	IP113071	14537.24		14467.90	B	0.5	
Manganese	SA13-3CL	VS23A-L	Soil	IP113071	6131.49		6033.80		1.6	
Potassium	SA13-3CL	VS23A-L	Soil	IP113071	5396.45		5146.05	B	4.6	
Sodium	SA13-3CL	VS23A-L	Soil	IP113071	713.57	B	2500.00	U	100.0	

ICP Serial Dilutions

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

ANALYSIS METHOD: PMS

SDG: VS23

UNITS: ug/L

ANALYTE	CLIENT ID	ARI ID	MATRIX	RUNID	INITIAL SAMPLE RESULT (I)	C	SERIAL DILUTION RESULT (S)	C	% DIFFERENCE	Q
Antimony	SA13-3CL	VS23A-L	Soil	MS120381	0.29	B	0.35	B	20.7	
Arsenic	SA13-3CL	VS23A-L	Soil	MS120381	12.50		12.30	B	1.6	
Beryllium	SA13-3CL	VS23A-L	Soil	MS120381	0.47	B	0.60	B	27.7	
Cadmium	SA13-3CL	VS23A-L	Soil	MS120381	3.82	B	4.15	B	8.6	
Chromium	SA13-3CL	VS23A-L	Soil	MS120381	18.27		19.10	B	4.5	
Cobalt	SA13-3CL	VS23A-L	Soil	MS120381	6.76	B	7.05	B	4.3	
Copper	SA13-3CL	VS23A-L	Soil	MS120381	17.50	B	17.45	B	0.3	
Lead	SA13-3CL	VS23A-L	Soil	MS120381	159.62		154.90		3.0	
Nickel	SA13-3CL	VS23A-L	Soil	MS120381	18.07	B	17.70	B	2.0	
Selenium	SA13-3CL	VS23A-L	Soil	MS120381	0.12	U	0.35	B		
Silver	SA13-3CL	VS23A-L	Soil	MS120381	0.26	B	0.25	B	3.8	
Thallium	SA13-3CL	VS23A-L	Soil	MS120381	0.25	B	0.25	B	0.0	
Vanadium	SA13-3CL	VS23A-L	Soil	MS120381	22.74	B	23.90	B	5.1	
Zinc	SA13-3CL	VS23A-L	Soil	MS120381	53.97		62.55	B	15.9	

IDLs and ICP Linear Ranges

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS23 UNITS: ug/L

ANALYTE	EL	METH	INSTRUMENT	WAVELENTH (nm)	GFA BACK-GROUND	CLP CRDL	RL	RL DATE	ICP LINEAR RANGE (ug/L)	ICP LR DATE
Aluminum	AL	ICP	OPTIMA ICP 2	308.22		200	50.0	4/1/2012	250000.0	7/30/2012
Antimony	SB	PMS	PE ELAN 6000 MS	0.00		60	0.2	4/1/2012		
Arsenic	AS	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2012		
Barium	BA	ICP	OPTIMA ICP 2	455.50		200	3.0	4/1/2012	100000.0	7/30/2012
Beryllium	BE	PMS	PE ELAN 6000 MS	0.00		5	0.2	4/1/2012		
Cadmium	CD	PMS	PE ELAN 6000 MS	0.00		5	0.1	4/1/2012		
Calcium	CA	ICP	OPTIMA ICP 2	317.93		5000	50.0	4/1/2012	500000.0	7/30/2012
Chromium	CR	PMS	PE ELAN 6000 MS	0.00		10	0.5	4/1/2012		
Cobalt	CO	PMS	PE ELAN 6000 MS	0.00		50	0.2	4/1/2012		
Copper	CU	PMS	PE ELAN 6000 MS	0.00		25	0.5	4/1/2012		
Iron	FE	ICP	OPTIMA ICP 2	259.94		100	50.0	4/1/2012	250000.0	7/30/2012
Lead	PB	PMS	PE ELAN 6000 MS	0.00		3	0.1	4/1/2012		
Magnesium	MG	ICP	OPTIMA ICP 2	279.08		5000	50.0	4/1/2012	500000.0	7/30/2012
Manganese	MN	ICP	OPTIMA ICP 2	257.61		15	1.0	4/1/2012	30000.0	7/30/2012
Mercury	HG	CVA	CETAC MERCURY	253.70		0.2	0.1	4/1/2012		
Nickel	NI	PMS	PE ELAN 6000 MS	0.00		40	0.5	4/1/2012		
Potassium	K	ICP	OPTIMA ICP 2	766.49		5000	500.0	4/1/2012	500000.0	7/30/2012
Selenium	SE	PMS	PE ELAN 6000 MS	0.00		5	0.5	4/1/2012		
Silver	AG	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2012		
Sodium	NA	ICP	OPTIMA ICP 2	589.00		5000	500.0	4/1/2012	5000000.0	7/30/2012
Thallium	TL	PMS	PE ELAN 6000 MS	0.00		10	0.2	4/1/2012		
Vanadium	V	PMS	PE ELAN 6000 MS	0.00		50	0.2	4/1/2012		
Zinc	ZN	PMS	PE ELAN 6000 MS	0.00		20	4.0	4/1/2012		

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS23

IEC DATE: 11/12/2012

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	AL	AS	BA	BE	CA	CD	CO	CR	CU	FE
Aluminum	308.22	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	9.1050360	0.0000000	0.0000000
Arsenic	188.98	0.0000000	0.0000000	0.0000000	0.0000000	0.0581760	0.0000000	-0.8953680	1.5607750	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1763230	0.0000000	0.0000000	0.1637240
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Cadmium	228.80	0.0000000	6.5458340	0.0000000	0.0000000	0.0000000	0.0000000	0.1152580	0.0000000	0.0000000	0.0095100
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0000000	0.0000000	0.0295099	0.0000000	0.0091790	0.0000000	-0.0348880	0.0000000	0.0000000	-0.0392710
Cobalt	228.62	0.0000000	0.0000000	0.0788170	0.0000000	0.0000000	0.0000000	0.0000000	-0.0346500	0.0000000	0.0130090
Copper	324.75	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1608400	0.0000000	0.0000000	-0.0442360
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.4437390	0.0000000	0.0000000
Lead	220.35	-0.2393490	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.1467250	-1.7804540	1.4264890	0.0412430
Magnesium	279.08	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-1.4396410	-1.1694080	0.0000000	0.5321920
Manganese	257.61	0.0046450	0.0000000	0.0000000	0.0000000	0.0019080	0.0000000	0.0000000	0.0000000	0.0000000	-0.0054280
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0108090	0.0000000	0.0000000	0.0540880	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.4883700	0.0000000	0.0000000	0.0000000
Silicon	288.16	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-3.5902270	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	5.5577350	0.3891400	0.0000000	-0.1069480
Tin	189.93	0.0000000	0.0000000	0.0000000	0.0000000	-0.1236770	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.0000000	0.0000000	0.0477260	0.0000000	0.0000000	0.1988470	0.0000000	0.0000000
Vanadium	292.40	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-4.2880510	0.0000000	0.0349450
Zinc	206.20	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0645950	0.0000000	0.0000000

ICP Interelement Correction Factors

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS23

IEC DATE: 11/12/2012

INSTRUMENT ID: OPTIMA ICP 2

ANALYTE	WAVELENGTH	MG	MN	MO	NI	PB	SB	TI	TL	V	ZN
Aluminum	308.22	0.0000000	0.0000000	17.2648390	0.0000000	0.0000000	0.0000000	2.1534780	0.0000000	14.6676620	0.0000000
Antimony	206.84	0.0000000	0.0000000	0.0000000	-0.3171320	0.0000000	0.0000000	-1.6488050	0.0000000	-2.7828430	0.0000000
Arsenic	188.98	0.0000000	0.0000000	3.5824010	0.0000000	0.0000000	0.0000000	-28.6279570	0.0000000	0.0000000	0.0000000
Barium	233.53	0.0000000	0.0000000	0.0000000	0.1006020	0.0000000	0.0000000	0.0000000	0.0000000	0.2160840	0.0000000
Beryllium	313.04	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0120420	0.0000000	0.1997240	0.0000000
Cadmium	228.80	0.0000000	0.0000000	0.0000000	-0.9709640	0.0000000	0.0000000	0.0000000	0.0000000	0.6837900	0.0000000
Calcium	317.93	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Chromium	267.72	0.0863140	0.0880780	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.3314250	0.0362000
Cobalt	228.62	0.0000000	0.0000000	-0.1203920	0.1624660	0.0000000	0.0000000	1.9337740	0.0000000	0.0000000	0.0000000
Copper	324.75	0.0084630	0.0000000	0.4010840	0.0000000	0.0000000	0.0000000	0.2064430	0.0000000	0.0000000	0.0000000
Iron	273.96	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	8.4794020	0.0000000
Lead	220.35	0.0000000	0.0000000	-0.4099510	-0.1101090	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Magnesium	279.08	0.0000000	0.0000000	-5.5537550	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Manganese	257.61	0.0000000	0.0000000	0.0000000	0.0000000	-0.2086980	0.0000000	0.0000000	0.0000000	-0.0242310	0.0000000
Molybdenum	202.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Nickel	231.60	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.5468870	0.0000000	0.4309940	0.0000000	0.0000000
Potassium	766.49	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Selenium	196.03	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.5703720	0.0000000
Silicon	288.16	-0.1197150	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Silver	328.07	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	-0.0400098	0.0000000	-2.8848200	0.0000000
Sodium	589.59	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Thallium	190.80	0.0000000	-0.8464030	-0.9915990	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	3.4340400	0.0000000
Tin	189.93	0.0000000	0.0000000	0.8648230	0.0000000	-0.0322750	-0.4551870	-0.1436590	0.0000000	0.0000000	0.0000000
Titanium	334.90	0.0000000	0.0000000	0.8648230	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000
Vanadium	292.40	0.0000000	-0.1521530	0.5765370	0.0000000	0.0000000	0.0000000	0.5629710	0.0000000	0.0000000	0.0000000
Zinc	206.20	0.0000000	0.0000000	0.2677330	0.0000000	-0.0519400	0.0000000	0.0000000	0.0000000	0.0000000	0.0000000

VS23 : 00047

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS23

ANALYSIS METHOD: ICP

ARI PREP CODE: SWC

PREPDATE: 11/28/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA13-3C	VS23A	1.081	0.0	50.0
SA13-3CD	VS23ADUP	1.084	0.0	50.0
SA13-3CS	VS23ASPK	1.083	0.0	50.0
SA13-4C	VS23B	1.017	0.0	50.0
SA13-5C	VS23C	1.021	0.0	50.0
SA13-6C	VS23D	1.030	0.0	50.0
SA13-6P-1(0 to 3	VS23E	1.082	0.0	50.0
SA13-6P-2(3 to 6	VS23F	1.033	0.0	50.0
SA13-6P-3(6 to 12	VS23G	1.048	0.0	50.0
SA13-6P-4(12 to 24	VS23H	1.093	0.0	50.0
SA13-7C	VS23I	1.051	0.0	50.0
SA13-8C	VS23J	1.050	0.0	50.0
SA13-Field Duplica	VS23K	1.034	0.0	50.0
PBS	VS23MB1	1.000	0.0	50.0
LCSS	VS23MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS23

ANALYSIS METHOD: PMS

ARI PREP CODE: SWN

PREPDATE: 11/28/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA13-3C	VS23A	1.020	0.0	50.0
SA13-3CD	VS23ADUP	1.015	0.0	50.0
SA13-3CS	VS23ASPK	1.021	0.0	50.0
SA13-4C	VS23B	1.014	0.0	50.0
SA13-5C	VS23C	1.015	0.0	50.0
SA13-6C	VS23D	1.086	0.0	50.0
SA13-6P-1(0 to 3	VS23E	1.041	0.0	50.0
SA13-6P-2(3 to 6	VS23F	1.046	0.0	50.0
SA13-6P-3(6 to 12	VS23G	1.056	0.0	50.0
SA13-6P-4(12 to 24	VS23H	1.036	0.0	50.0
SA13-7C	VS23I	1.080	0.0	50.0
SA13-8C	VS23J	1.000	0.0	50.0
SA13-Field Duplica	VS23K	1.045	0.0	50.0
PBS	VS23MB1	1.000	0.0	50.0
LCSS	VS23MB1SPK	1.000	0.0	50.0

Preparation Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia

SDG: VS23

ANALYSIS METHOD: CVA

ARI PREP CODE: SMM

PREPDATE: 11/28/2012

CLIENT ID	ARI ID	MASS (g)	INITIAL VOLUME (mL)	FINAL VOLUME (mL)
SA13-3C	VS23A	0.715	0.0	50.0
SA13-3CD	VS23ADUP	0.719	0.0	50.0
SA13-3CS	VS23ASPK	0.717	0.0	50.0
SA13-4C	VS23B	0.738	0.0	50.0
SA13-5C	VS23C	0.704	0.0	50.0
SA13-6C	VS23D	0.744	0.0	50.0
SA13-6P-1(0 to 3	VS23E	0.750	0.0	50.0
SA13-6P-2(3 to 6	VS23F	0.706	0.0	50.0
SA13-6P-3(6 to 12	VS23G	0.709	0.0	50.0
SA13-6P-4(12 to 24	VS23H	0.700	0.0	50.0
SA13-7C	VS23I	0.715	0.0	50.0
SA13-8C	VS23J	0.739	0.0	50.0
SA13-Field Duplica	VS23K	0.724	0.0	50.0
PBS	VS23MB1	0.700	0.0	50.0
LCSW	VS23MB1SPK	0.700	0.0	50.0

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/30/2012

SDG: VS23 | RUNID: IP113071 | METHOD: ICP | END DATE: 11/30/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	11245			X			X		X					X		X	X	X		X											
S2	S2	1.00	11290						X											X													
S3	S3	1.00	11305																														
S4	S4	1.00	11333																														
S5	S5	1.00	11354			X					X					X		X	X			X											
ICV	ICV	1.00	11571			X			X		X					X		X	X	X		X											
ICB	ICB	1.00	12003			X			X		X					X		X	X	X		X											
CRI	CRII	1.00	12044			X			X		X					X		X	X	X		X											
ICSA	ICSAI	1.00	12090			X			X		X					X		X	X	X		X											
ICSAB	ICSABI	1.00	12130			X			X		X					X		X	X	X		X											
CCV	CCV1	1.00	12181			X			X		X					X		X	X	X		X											
CCB	CCB1	1.00	12222			X			X		X					X		X	X	X		X											
PBS	VS23MB1	2.00	12263			X			X		X					X		X	X	X		X											
SA13-4C	VS23B	5.00	12305			X			X		X					X		X	X	X		X											
SA13-5C	VS23C	5.00	12345			X			X		X					X		X	X	X		X											
SA13-6C	VS23D	5.00	12385			X			X		X					X		X	X	X		X											
SA13-3CL	VS23A-L	25.00	12425			X			X		X					X		X	X	X		X											
SA13-3C	VS23A	5.00	12465			X			X		X					X		X	X	X		X											
SA13-3CD	VS23ADUP	5.00	12505			X			X		X					X		X	X	X		X											
SA13-3CS	VS23ASPK	5.00	12545			X			X		X					X		X	X	X		X											
ZZZZZZ	ZZZZZZ	5.00	12585																														
LCSS	VS23MB1SPK	2.00	13021			X			X		X					X		X	X	X		X											
CCV	CCV2	1.00	13061			X			X		X					X		X	X	X		X											
CCB	CCB2	1.00	13103			X			X		X					X		X	X	X		X											
SA13-6P-1(0 to 3	VS23E	5.00	13144			X			X		X					X		X	X	X		X											
SA13-6P-2(3 to 6	VS23F	5.00	13185			X			X		X					X		X	X	X		X											
SA13-6P-3(6 to 12	VS23G	5.00	13225			X			X		X					X		X	X	X		X											
SA13-6P-4(12 to 24	VS23H	5.00	13265			X			X		X					X		X	X	X		X											
SA13-7C	VS23I	5.00	13305			X			X		X					X		X	X	X		X											
SA13-8C	VS23J	5.00	13345			X			X		X					X		X	X	X		X											
SA13-Field Duplica	VS23K	5.00	13385			X			X		X					X		X	X	X		X											
ZZZZZZ	VT46A	5.00	13425																														
CCV	CCV3	1.00	13473			X			X		X					X		X	X	X		X											
CCB	CCB3	1.00	13515			X			X		X					X		X	X	X		X											
CRI	CRIF	1.00	13560			X			X		X					X		X	X	X		X											

FORM XIV

VS23 SDG

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: OPTIMA ICP 2 | START DATE: 11/30/2012

SDG: VS23 | RUNID: IP113071 | METHOD: ICP | END DATE: 11/30/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
ICSA	ICSAF	1.00	14002			X			X		X					X		X	X	X		X											
ICSAB	ICSABF	1.00	14042			X			X		X					X		X	X	X		X											
CCV	CCV4	1.00	14083			X			X		X					X		X	X	X		X											
CCB	CCB4	1.00	14125			X			X		X					X		X	X	X		X											

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: PE ELAN 6000 MS | START DATE: 12/3/2012

SDG: VS23 | RUNID: MS120381 METHOD: PMS | END DATE: 12/3/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	09240		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S1	S1	1.00	09300		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S2	S2	1.00	09360		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S3	S3	1.00	09430		X		X			X		X	X	X	X								X	X	X	X				X		X	X
S4	S4	1.00	09490		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	Rinse Samp1	1.00	09550																														
ICV	MICV	1.00	10070		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ICB	ICB	1.00	10140		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCV	MCCV1	1.00	10200		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB1	1.00	10260		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CRI	MCRI	1.00	10320		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ICSA	ICSAI	1.00	10380		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ICSAB	ICSABI	1.00	10440		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	LR200	1.00	10500																														
ZZZZZZ	LR300	1.00	10570																														
CCV	MCCV2	1.00	11040		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB2	1.00	11110		X		X			X		X	X	X	X								X	X	X	X				X		X	X
PBS	VS23MB1	20.00	11170		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA13-4C	VS23B	20.00	11230		X		X			X		X			X								X	X	X	X				X			X
SA13-5C	VS23C	20.00	11290		X		X			X		X			X								X		X	X				X			
SA13-6C	VS23D	20.00	11360		X		X			X		X			X								X	X	X	X				X			X
ZZZZZZ	ZZZZZZ	100.00	11420																														
SA13-3C	VS23A	20.00	11480		X		X			X		X	X	X	X								X	X	X	X				X		X	
SA13-3CD	VS23ADUP	20.00	11550		X		X			X		X	X	X	X								X	X	X	X				X		X	
SA13-3CS	VS23ASPK	20.00	12010		X		X			X		X	X	X	X								X	X	X	X				X		X	
SA13-3CA	VS23APOST	20.00	12070																						X								
LCSS	VS23MB1SPK	20.00	12140		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCV	MCCV3	1.00	12200		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB3	1.00	12270		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA13-6P-1(0 to 3	VS23E	20.00	12420		X		X			X		X			X								X	X	X	X				X			X
SA13-6P-2(3 to 6	VS23F	20.00	12490		X		X			X		X			X								X	X	X	X				X			X
SA13-6P-3(6 to 12	VS23G	20.00	12550		X		X			X		X			X								X	X	X	X				X			X
SA13-6P-4(12 to 24	VS23H	20.00	13010		X		X			X		X			X								X	X	X	X				X			X
SA13-7C	VS23I	20.00	13070		X		X			X		X			X								X	X	X	X				X			X
SA13-8C	VS23J	20.00	13140		X		X			X		X	X	X	X								X	X	X	X				X		X	X

FORM XIV

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia INSTRUMENT ID: PE ELAN 6000 MS START DATE: 12/3/2012

SDG: VS23 RUNID: MS120381 METHOD: PMS END DATE: 12/3/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
SA13-Field Duplica	VS23K	20.00	13200		X		X			X		X			X								X		X	X				X			
SA13-5C	VS23C	100.00	13260										X	X										X								X	X
SA13-6C	VS23D	100.00	13330										X	X																		X	
SA13-Field Duplica	VS23K	100.00	13390										X	X										X								X	X
CCV	MCCV4	1.00	13450		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB4	1.00	13520		X		X			X		X	X	X	X								X	X	X	X				X		X	X
SA13-3CL	VS23A-L	100.00	14020		X		X			X		X	X	X	X								X	X	X	X				X		X	
SA13-3CL	VS23A-L	500.00	14080																														X
SA13-3C	VS23A	100.00	14140																														X
SA13-3CD	VS23ADUP	100.00	14210																														X
SA13-3CS	VS23ASPK	100.00	14270																														X
SA13-7C	VS23I	100.00	14330										X	X																		X	
SA13-4C	VS23B	100.00	14390										X	X																		X	
SA13-6P-1(0 to 3	VS23E	100.00	14460										X	X																		X	
SA13-6P-2(3 to 6	VS23F	100.00	14520										X	X																		X	
SA13-6P-3(6 to 12	VS23G	100.00	14580										X	X																		X	
CCV	MCCV5	1.00	15050		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB5	1.00	15110		X		X			X		X	X	X	X								X	X	X	X				X		X	X
ZZZZZZ	VT28MB	2.00	15430																														
ZZZZZZ	VT28B	2.00	15500																														
ZZZZZZ	VT28C	2.00	15560																														
ZZZZZZ	VT28D	2.00	16020																														
ZZZZZZ	VT28E	2.00	16080																														
ZZZZZZ	VT28ADUP	2.00	16150																														
ZZZZZZ	VT28A	2.00	16210																														
ZZZZZZ	VT28ASPK	2.00	16270																														
SA13-6P-4(12 to 24	VS23H	100.00	16340										X	X																		X	
ZZZZZZ	VT28MBSPK	2.00	16400																														
CCV	MCCV6	1.00	16460		X		X			X		X	X	X	X								X	X	X	X				X		X	X
CCB	CCB6	1.00	16530		X		X			X		X	X	X	X								X	X	X	X				X		X	X

VS23 : 00054

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/30/2012

SDG: VS23 | RUNID: HG113001 | METHOD: CVA | END DATE: 11/30/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
S0	S0	1.00	11094														X																
S0.1	S0.1	1.00	11111														X																
S0.5	S0.5	1.00	11125														X																
S1	S1	1.00	11142														X																
S2	S2	1.00	11160														X																
S5	S5	1.00	11174														X																
S10	S10	1.00	11192														X																
ICV	AICV	1.00	11244														X																
ICB	ICB	1.00	11261														X																
CCV	ACCV1	1.00	11275														X																
CCB	CCB1	1.00	11293														X																
CRA	CRA	1.00	11311														X																
ZZZZZZ	VS22MB1	1.00	11324																														
ZZZZZZ	VS22MB1SPK	1.00	11342																														
ZZZZZZ	VS22A	1.00	11360																														
ZZZZZZ	VS22ADUP	1.00	11373																														
ZZZZZZ	VS22ASPK	1.00	11391																														
ZZZZZZ	VS22B	1.00	11405																														
ZZZZZZ	VS22C	1.00	11422																														
ZZZZZZ	VS22D	1.00	11440																														
ZZZZZZ	VS22E	1.00	11454																														
CCV	ACCV2	1.00	11472														X																
CCB	CCB2	1.00	11490														X																
ZZZZZZ	VS22F	1.00	11504																														
ZZZZZZ	VS22G	1.00	11521																														
ZZZZZZ	VS22H	1.00	11535																														
ZZZZZZ	VS22I	1.00	11552																														
ZZZZZZ	VS22J	1.00	11570																														
ZZZZZZ	VS22K	1.00	11584																														
ZZZZZZ	VS22L	1.00	12001																														
PBW	VS23MB1	1.00	12015														X																
LCSW	VS23MB1SPK	1.00	12033														X																
SA13-3C	VS23A	1.00	12050														X																
CCV	ACCV3	1.00	12064														X																
CCB	CCB3	1.00	12082														X																

Analysis Run Log

ANALYTICAL RESOURCES INCORPORATED

CLIENT: Hart Crowser Inc.

PROJECT: Upper Columbia | INSTRUMENT ID: CETAC MERCURY | START DATE: 11/30/2012

SDG: VS23 | RUNID: HG113001 METHOD: CVA | END DATE: 11/30/2012

CLIENT ID	ARI ID	DIL.	TIME	%R	AG	AL	AS	B	BA	BE	CA	CD	CO	CR	CU	FE	HG	K	MG	MN	MO	NA	NI	PB	SB	SE	SI	SN	TI	TL	U	V	ZN
SA13-3CD	VS23ADUP	1.00	12100														X																
SA13-3CS	VS23ASPK	1.00	12114														X																
SA13-4C	VS23B	1.00	12132														X																
SA13-5C	VS23C	1.00	12145														X																
SA13-6C	VS23D	1.00	12163														X																
SA13-6P-1(0 to 3	VS23E	1.00	12181														X																
SA13-6P-2(3 to 6	VS23F	1.00	12194														X																
SA13-6P-3(6 to 12	VS23G	1.00	12212														X																
SA13-6P-4(12 to 24	VS23H	1.00	12230														X																
SA13-7C	VS23I	1.00	12243														X																
CCV	ACCV4	1.00	12261														X																
CCB	CCB4	1.00	12275														X																
SA13-8C	VS23J	1.00	12293														X																
SA13-Field Duplica	VS23K	1.00	12311														X																
ZZZZZZ	VT60MB1	1.00	12325																														
ZZZZZZ	VT60MB1SPK	1.00	12343																														
ZZZZZZ	VT60A	1.00	12361																														
ZZZZZZ	VT60ADUP	1.00	12374																														
ZZZZZZ	VT60ASPK	1.00	12392																														
ZZZZZZ	VT60B	1.00	12405																														
ZZZZZZ	VT60C	1.00	12423																														
ZZZZZZ	VT86MB1	1.00	12441																														
CCV	ACCV5	1.00	12455														X																
CCB	CCB5	1.00	12473														X																

General Chemistry Analysis
Report and Summary QC Forms

ARI Job ID: VS23

SAMPLE RESULTS-CONVENTIONALS
VS23-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA13-3C
ARI ID: 12-22713 VS23A

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.77
Total Solids	11/23/12 112312#1	SM2540B	Percent	0.01	95.80
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.020	3.20

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS23-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA13-4C
ARI ID: 12-22714 VS23B

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.95
Total Solids	11/23/12 112312#1	SM2540B	Percent	0.01	95.70
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.194	5.64

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS23-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA13-5C
ARI ID: 12-22715 VS23C

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.34
Total Solids	11/23/12 112312#1	SM2540B	Percent	0.01	95.40
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.190	4.31

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS23-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA13-6C
ARI ID: 12-22716 VS23D

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.73
Total Solids	11/23/12 112312#1	SM2540B	Percent	0.01	95.30
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.190	2.77

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS23-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA13-6P-1(0 to 3" depth)
ARI ID: 12-22717 VS23E

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.69
Total Solids	11/23/12 112312#1	SM2540B	Percent	0.01	96.20
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.020	1.13

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS23-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA13-6P-2(3 to 6" depth)
ARI ID: 12-22718 VS23F

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.51
Total Solids	11/23/12 112312#1	SM2540B	Percent	0.01	96.90
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.020	0.527

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS23-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA13-6P-3(6 to 12" depth)
ARI ID: 12-22719 VS23G

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.47
Total Solids	11/23/12 112312#1	SM2540B	Percent	0.01	98.30
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.020	0.288

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS23-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA13-6P-4(12 to 24" depth)
ARI ID: 12-22720 VS23H

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.48
Total Solids	11/23/12 112312#1	SM2540B	Percent	0.01	97.30
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.020	0.613

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS23-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/07/12
Date Received: 11/12/12

Client ID: SA13-7C
ARI ID: 12-22721 VS23I

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.96
Total Solids	11/20/12 112012#1	SM2540B	Percent	0.01	97.00
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.020	2.57

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS23-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA13-8C
ARI ID: 12-22722 VS23J

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	5.29
Total Solids	11/23/12 112312#1	SM2540B	Percent	0.01	96.70
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.020	3.69

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

SAMPLE RESULTS-CONVENTIONALS
VS23-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Client ID: SA13-Field Duplicate
ARI ID: 12-22723 VS23K

Analyte	Date	Method	Units	RL	Sample
pH	11/21/12 112112#1	SW9045	std units	0.01	6.19
Total Solids	11/23/12 112312#1	SM2540B	Percent	0.01	95.50
Total Organic Carbon	11/29/12 112912#1	Plumb,1981	Percent	0.200	6.33

RL Analytical reporting limit
U Undetected at reported detection limit

pH determined on 1:1 soil:D.I. water extracts.

METHOD BLANK RESULTS-CONVENTIONALS
VS23-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: NA
Date Received: NA

Analyte	Date	Units	Blank
Total Solids	11/20/12	Percent	< 0.01 U
	11/23/12		< 0.01 U
Total Organic Carbon	11/29/12	Percent	< 0.020 U

LAB CONTROL RESULTS-CONVENTIONALS
VS23-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: NA
Date Received: NA

Analyte/Method	QC ID	Date	Units	LCS	Spike Added	Recovery
pH SW9045	ICVL	11/21/12	std units	6.97	7.00	0.03
Total Organic Carbon Plumb,1981	ICVL	11/29/12	Percent	0.100	0.100	100.0%

pH is evaluated as the Absolute Difference between the values rather than Percent Recovery.

STANDARD REFERENCE RESULTS-CONVENTIONALS
VS23-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: NA
Date Received: NA

Analyte/SRM ID	Date	Units	SRM	True Value	Recovery
Total Organic Carbon NIST 1941B	11/29/12	Percent	2.48	2.99	82.9%

REPLICATE RESULTS-CONVENTIONALS
VS23-Hart Crowser Inc.

ANALYTICAL RESOURCES INCORPORATED

Matrix: Soil
Data Release Authorized:
Reported: 11/30/12

Project: Upper Columbia
Event: 17800-36
Date Sampled: 11/10/12
Date Received: 11/12/12

Analyte	Date	Units	Sample	Replicate(s)	RPD/RSD
ARI ID: VS23A Client ID: SA13-3C					
pH	11/21/12	std units	5.77	5.79	0.02

pH is evaluated as the Absolute Difference between the values rather than Relative Percent Difference

Total Solids

ARI Job ID: VS23

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Total Solids Bench Sheet

Laboratory Section Metals

Oven Identification: 07 **Balance ID:** 068155

Samples in Oven: Date: 11-26-12 Time: 1230 Temp: 103°C Analyst: DM

Removed from Oven: Date: 11-29-12 Time: 0710 Temp: 100°C Analyst: DM

ARI Sample ID		Tare Weight (g)	Tare + Sample Wet (g)	Tare + Sample Dry (g)	Date & Time Last Weight	Final Weighting >12 hrs[1]
√523	A	0.975	10.487	10.081	–	√
"	B	1.029	10.609	10.146	–	√
"	C	1.022	10.880	10.389	–	√
"	D	0.954	10.649	10.196	–	√
"	E	0.959	10.457	10.088	–	√
"	F	0.973	10.446	10.132	–	√
"	G	1.005	10.232	10.051	–	√
"	H	0.994	10.260	9.993	–	√
"	I	0.968	10.198	9.875	–	√
"	J	0.989	10.370	10.031	–	√
"	K	0.970	10.328	9.897	–	√
			11-28-12 DM			

1) Place a check mark in this column if samples have dried > 12 but < 24 hours. When samples have been at 104°C < 12 hours, constant weight must be verified as described in SOP 10023S. Use a 2nd bench sheet for additional weightings.

Metals Raw Data
Preparation Bench Sheets and Notes

ARI Job ID: VS23

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SPIKING LOG

Analyst: DM

Date: 11-28-12

Final Volume 50

Final Volume (Hg): 50

Sample ID V523 AESPK, MBSPK

	Prepcode:	SWL		
	Spike Solution:	ICP Routine	ICP No GFA	GFA
	Standard No.:	2977-9		
	Vol Added (mL):	1.0		
STOCK CONCENTRATION	Ag	50		2.0
	Al	200 ✓	200	
	As	200		10
	Ba	200 ✓	200	
	Be	50	50	
	Ca	1000 ✓	1000	
	Cd	50		2.0
	Co	50	50	
	Cr	50	50	
	Cu	50	50	
	Fe	200 ✓	200	
	K	1000 ✓	1000	
	Mg	1000 ✓	1000	
	Mn	50 ✓	50	
	Na	1000 ✓	1000	
	Ni	50	50	
	Pb	200		10
	Se	200		10
	Sr	50	50	
	Tl	200		10
	V	50	50	
	Zn	50	50	

	SWN	SWN	
	ICP-MS #1	ICP-MS #2	ICP-MS Minerals
	2967-2	2967	
	1.0	1.0	
Ag	25 ✓		
Al			500
As	25 ✓		
Ba	25		
Be	25 ✓		
Ca			500
Cd	25 ✓		
Co	25 ✓		
Cr	25 ✓		
Cu	25 ✓		
Fe			500
K			500
Mg			500
Mn	25		
Mo		25	
Na			500
Ni	25 ✓		
Pb	25 ✓		
Sb		25 ✓	
Se	80 ✓		
Tl	25 ✓		
U	25		
V	25 ✓		
Zn	80 ✓		

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std No.
Hg	SMM	CVA	1.0	0.05	29087
Hg MBSPK	↓	CVA	1.0	0.1	↓
Sb		ICP	2000		
Sb		GFA	100		
B		ICP	500		
Mo		ICP	500		
Si		ICP	10000		
Sn		ICP	500		
Ti		ICP	2000		

Additional Elements:

Element	Prepcode	Analysis	Stock Conc.	Stock Added	Std. No.

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: 5mm
Analyst: DM
Bath Temp: 95c
Matrix: Soil DM 11.28.12
Date: ~~11-28-12~~ 11.28.12
Start Time: 1258
End Time: 1328

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
V523 A	1	—	0.715	50.0	11pm 1	Y	
" ADUP	1	—	0.719		1		
" ASPK	1	—	0.717		1		
" B	1	—	0.738		1		
" C	1	—	0.704		1		
" D	1	—	0.744		1		
" E	1	—	0.750		1		
" F	1	—	0.706		1		
" G	1	—	0.709		1		
" H	1	—	0.700		1		
" I	1	—	0.715		1		
" J	1	—	0.739		1		
" K	1	—	0.724		1		
" MB1	—	—	—	↓	1	↓	
" MBSPK	—	—	—	50.0	1	Y	

11.28.12 DM

Chemical/Reagent ID:

HNO_3: I7853
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2575
5% $KMnO_4$: ~~MP25~~ MP2576 11-26-12 DM
Digest Tube Lot: 1205258

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Digestion Log

Analyst: DM Date: 11-28-12 Time: 1245

Matrix: Soil Block ID: #1 Block Temp: 90°c Thermometer: MP30

ARI Sample ID	Btl #	pH<2	Prep Code: SWC Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWC Final Vol (mL)	Prep Code: SWN Initial Wt (g) ~~Vol (mL)~~	Prep Code: SWN Final Vol (mL)	Comments
VS03 A	1	—	1.081	50.0	1.020	50.0	
" ADUP	1	—	1.084		1.015		
" ASPK	1	—	1.083		1.021		
" B	1	—	1.017		1.014		
" C	1	—	1.021		1.015		
" D	1	—	1.030		1.086		
" E	1	—	1.082		1.041		
" F	1	—	1.033		1.046		
" G	1	—	1.048		1.056		
" H	1	—	1.093		1.036		
" I	1	—	1.051		1.080		
" J	1	—	1.050		1.000		
" K	1	—	1.034		1.045		
" MB1	—	—	—		—		
" MBSPK	—	—	—	50.0	—	50.0	

11-28-12 DM

Chemical/Reagent ID:

HNO_3: 082392 | 1970 HCl: I7676 H_2O_2: I7845 Tube Lot #: 1207148

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Corrective Actions
Inorganic Analyses

Criteria Flagged:		ARI Job No.:	VS23
Unacceptable Blank:	☐	Date of Event:	12-3-12
Unacceptable Duplicate:	☐	Client ID:	
Unacceptable Spike:	☑	Method/Element:	ICPMS
Unacceptable Reference:	☐	Prep Code:	SWN

Details of Problem/Recommended Corrective Action:

Sb Low %R in Aspk
Post spike ok
Pb 512

Samples Affected:

Corrective Action Taken:

Sent

12/5/12

Analyst Initials: JH **Supervisor:**

Date: 12-4-12 **Date:**

5049F

Revision 007
6/11/10

Metals Raw Data
Run Logs, Calibrations, and Raw Data

ARI Job ID: VS23

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: 11-12-12 Analysis Date: 11-30-12 Analyst: BA

LR Date: 7-30-12 Page: 1 of 5

All corrections made by analyst unless otherwise noted. BA 12-3-12

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		STD 0			2995-12
		2			2994-11
		3			-12
		4			-13
		5			-14
		ICV			2988-6
		ICB			
		CRI			
		ICSA			
		ICSAB			
		CCV1			
		CCB1			
		VS23 MB1	SWC	2	
		B		5	
		C			
		D			
		A-L		25	
		A		5	
		ADUP			
		ASPK			Al, Ca, Fe, Mn STL
		~~APSK~~			0.08 mL ICP Spike 2977-9
		MB1SPK		2	
		CCV2			
		CCB2			

Analytical Resources, Incorporated
Analytical Chemists and Consultants

SAMPLE RUN LOG-ICP-OES-02
Perkin Elmer OPTIMA 7500
Serial No. – 077C8121202

IEC Date: — Analysis Date: 11-30-12 Analyst: BA

LR Date: _____ Page: 2 of 5

All corrections made by analyst unless otherwise noted. BA 12-3-12

Edit Label	Delete Data	ARI Sample ID	Prep. Code	Dilution	Comments
		VS23 E	SWC	5	
		F			
		G			
		H			
		I			
		J			
		K			
		VT46 A	TWC		
		CCV3			
		CCB3			
		CRI			
		ICSA			
		ICSAB			
		CCV4			
		CCB4			End VS23
		VT60 MB1	SWC	2	
		B			
		C			
		ADUP			✓
		A			
		ASPK			✓
		~~APOST~~			✓ 0.05mL ICP Spike 2977-9
		MB1SPK			
		CCV5			

JB 12-3-12

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: (ICP) ICP-MS GFA CVA Analysis Date: 11-30-12

ICP-2	Analyst BA 12/3/12	Peer AH 12-3	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	Sea log - VS23
Matrix Duplicates	✓	✓	
Method Blanks	✓	✓	Sea log
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's:	✓	✓	AN - VT99

Nebulizer Parameters: Hg_ReAlign

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

==========

11/30/2012 10:53:31 AM Hg ReAlign... Actual peak offset (nm): 0.004
Drift (nm): -0.001 Slit adjustment: -3

==========

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Analysis Begun

Start Time: 11/30/2012 10:57:08 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/30/2012 9:28:35 AM
Technique: ICP Continuous
Autosampler: ESI

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

==========

Method Loaded
Method Name: 7300bcESI2FAST
IEC File: IEC110912.iec
Method Description: 12Axial Elements
Method Last Saved: 8/13/2012 7:13:22 AM
MSF File:

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

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Sequence No.: 1
Sample ID: B1
Autosampler Location: 1
Date Collected: 11/30/2012 10:57:15 AM
Data Type: Original

Dilution: 1.000000X

Nebulizer Parameters: B1

Analyte	Back Pressure	Flow
All	215.0 kPa	0.75 L/min

Analysis Begun

Start Time: 11/30/2012 11:24:49 AM
Logged In Analyst: Metals
Spectrometer: Optima 7300 DV, S/N 077C8121202
Plasma On Time: 11/30/2012 9:28:35 AM
Technique: ICP Continuous
Autosampler: ESI

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2121130
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

Sequence No.: 1
Sample ID: Calib Blank 1
Autosampler Location: 1
Date Collected: 11/30/2012 11:24:51 AM
Data Type: Original

Nebulizer Parameters: Calib Blank 1

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: Calib Blank 1

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Calib Units
ScA 357.253	2675906.8	10263.24	0.38%	100.0	%
ScR 361.383	365153.8	643.20	0.18%	100.0	%
Ag 328.068†	-83.5	15.41	18.46%	[0.00]	mg/L
Al 308.215†	230.5	5.51	2.39%	[0.00]	mg/L
As 188.979†	-14.7	3.22	21.84%	[0.00]	mg/L
B 249.677†	22.1	7.14	32.31%	[0.00]	mg/L
Ba 233.527†	29.9	4.04	13.53%	[0.00]	mg/L
Be 313.042†	897.4	29.34	3.27%	[0.00]	mg/L
Ca 317.933†	168.2	1.73	1.03%	[0.00]	mg/L
Cd 228.802†	296.0	4.05	1.37%	[0.00]	mg/L
Co 228.616†	-105.1	2.04	1.94%	[0.00]	mg/L
Cr 267.716†	-152.3	6.87	4.51%	[0.00]	mg/L
Cu 324.752†	2416.6	12.21	0.51%	[0.00]	mg/L
Fe 273.955†	25.7	0.67	2.61%	[0.00]	mg/L
K 766.490†	532.7	6.71	1.26%	[0.00]	mg/L
Mg 279.077†	85.0	4.28	5.03%	[0.00]	mg/L
Mn 257.610†	209.2	1.06	0.51%	[0.00]	mg/L
Mo 202.031†	81.6	6.28	7.69%	[0.00]	mg/L
Na 589.592†	-263.2	5.41	2.06%	[0.00]	mg/L
Na 330.237†	-227.4	20.09	8.84%	[0.00]	mg/L
Ni 231.604†	-13.7	4.46	32.59%	[0.00]	mg/L
Pb 220.353†	56.2	9.16	16.31%	[0.00]	mg/L
Sb 206.836†	81.3	5.38	6.61%	[0.00]	mg/L
Se 196.026†	-52.2	2.36	4.53%	[0.00]	mg/L
Si 288.158†	65.7	8.00	12.18%	[0.00]	mg/L
Sn 189.927†	-2.8	0.51	17.94%	[0.00]	mg/L
Sr 421.552†	538.3	4.13	0.77%	[0.00]	mg/L
Ti 334.903†	-87.1	12.48	14.32%	[0.00]	mg/L
Tl 190.801†	-42.4	8.92	21.05%	[0.00]	mg/L
V 292.402†	122.6	14.15	11.54%	[0.00]	mg/L
Zn 206.200†	13.1	3.61	27.53%	[0.00]	mg/L

Sequence No.: 2
Sample ID: STD2
Autosampler Location: 2
Date Collected: 11/30/2012 11:29:07 AM
Data Type: Original

Nebulizer Parameters: STD2

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: STD2

Mean Corrected	Calib

Analyte	Intensity	Std.Dev.	RSD	Conc.	Units
ScA 357.253	2712971.2	7107.93	0.26%	101.4	%
ScR 361.383	368050.4	1313.26	0.36%	100.8	%
Ba 233.527†	54779.5	75.97	0.14%	[10]	mg/L
Cd 228.802†	307703.5	1165.97	0.38%	[10]	mg/L
Co 228.616†	439351.3	1026.16	0.23%	[10]	mg/L
Cr 267.716†	78751.7	157.00	0.20%	[10]	mg/L
Cu 324.752†	2771945.2	6075.97	0.22%	[10]	mg/L
Mn 257.610†	466507.3	999.49	0.21%	[10]	mg/L
V 292.402†	1294032.9	4034.23	0.31%	[10]	mg/L

Sequence No.: 3
Sample ID: STD3
Autosampler Location: 3
Date Collected: 11/30/2012 11:30:55 AM
Data Type: Original

Nebulizer Parameters: STD3

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: STD3

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
ScA 357.253	2673908.6	6436.75	0.24%	99.93	%
ScR 361.383	365434.8	753.13	0.21%	100.1	%
Ag 328.068†	191775.6	98.87	0.05%	[1.0]	mg/L
As 188.979†	21171.7	56.16	0.27%	[10]	mg/L
B 249.677†	88773.2	35.59	0.04%	[10]	mg/L
Be 313.042†	3683181.7	5546.99	0.15%	[5.0]	mg/L
Na 589.592†	671879.8	4971.47	0.74%	[50]	mg/L
Ni 231.604†	51401.9	43.27	0.08%	[10]	mg/L
Pb 220.353†	92842.9	180.34	0.19%	[10]	mg/L
Se 196.026†	17488.4	94.80	0.54%	[10]	mg/L
Sr 421.552†	4883749.0	7700.59	0.16%	[5]	mg/L
Tl 190.801†	27545.0	118.99	0.43%	[10]	mg/L
Zn 206.200†	48197.7	89.64	0.19%	[10]	mg/L

Sequence No.: 4
Sample ID: STD4
Autosampler Location: 4
Date Collected: 11/30/2012 11:33:30 AM
Data Type: Original

Nebulizer Parameters: STD4

Analyte	Back Pressure	Flow
All	216.0 kPa	0.75 L/min

Mean Data: STD4

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Calib Conc.	Units
ScA 357.253	2713443.4	2349.36	0.09%	101.4	%
ScR 361.383	363692.2	769.06	0.21%	99.60	%
Mo 202.031†	225002.8	446.87	0.20%	[10]	mg/L
Sb 206.836†	37194.0	49.03	0.13%	[10]	mg/L
Si 288.158†	23819.6	125.17	0.53%	[10]	mg/L
Sn 189.927†	44645.2	38.70	0.09%	[10]	mg/L
Ti 334.903†	247297.1	370.93	0.15%	[10]	mg/L

Sequence No.: 5
Sample ID: STD5
Autosampler Location: 5
Date Collected: 11/30/2012 11:35:45 AM
Data Type: Original

Nebulizer Parameters: STD5

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: STD5

Analyte	Mean Corrected Intensity	Std.Dev.	RSD	Conc.	Calib Units
ScA 357.253	2580401.9	16688.95	0.65%	96.43	%
ScR 361.383	364737.3	3017.50	0.83%	99.89	%
Al 308.215†	55503.2	730.06	1.32%	[30]	mg/L
Ca 317.933†	513327.6	4106.55	0.80%	[30]	mg/L
Fe 273.955†	176599.2	1433.14	0.81%	[100]	mg/L
K 766.490†	240001.1	1203.50	0.50%	[100]	mg/L
Mg 279.077†	48426.1	672.71	1.39%	[30]	mg/L
Na 330.237†	3399.4	38.68	1.14%	[100]	mg/L

Calibration Summary

Analyte	Stds.	Equation	Intercept	Slope	Curvature	Corr. Coef.	Reslope
Ag 328.068	1	Lin Thru 0	0.0	191800	0.00000	1.000000	
Al 308.215	1	Lin Thru 0	0.0	1850	0.00000	1.000000	
As 188.979	1	Lin Thru 0	0.0	2117	0.00000	1.000000	
B 249.677	1	Lin Thru 0	0.0	8877	0.00000	1.000000	
Ba 233.527	1	Lin Thru 0	0.0	5478	0.00000	1.000000	
Be 313.042	1	Lin Thru 0	0.0	736600	0.00000	1.000000	
Ca 317.933	1	Lin Thru 0	0.0	17110	0.00000	1.000000	
Cd 228.802	1	Lin Thru 0	0.0	30770	0.00000	1.000000	
Co 228.616	1	Lin Thru 0	0.0	43940	0.00000	1.000000	
Cr 267.716	1	Lin Thru 0	0.0	7875	0.00000	1.000000	
Cu 324.752	1	Lin Thru 0	0.0	277200	0.00000	1.000000	
Fe 273.955	1	Lin Thru 0	0.0	1766	0.00000	1.000000	
K 766.490	1	Lin Thru 0	0.0	2400	0.00000	1.000000	
Mg 279.077	1	Lin Thru 0	0.0	1614	0.00000	1.000000	
Mn 257.610	1	Lin Thru 0	0.0	46650	0.00000	1.000000	
Mo 202.031	1	Lin Thru 0	0.0	22500	0.00000	1.000000	
Na 589.592	1	Lin Thru 0	0.0	13440	0.00000	1.000000	
Na 330.237	1	Lin Thru 0	0.0	33.99	0.00000	1.000000	
Ni 231.604	1	Lin Thru 0	0.0	5140	0.00000	1.000000	
Pb 220.353	1	Lin Thru 0	0.0	9284	0.00000	1.000000	
Sb 206.836	1	Lin Thru 0	0.0	3719	0.00000	1.000000	
Se 196.026	1	Lin Thru 0	0.0	1749	0.00000	1.000000	
Si 288.158	1	Lin Thru 0	0.0	2382	0.00000	1.000000	
Sn 189.927	1	Lin Thru 0	0.0	4465	0.00000	1.000000	
Sr 421.552	1	Lin Thru 0	0.0	976700	0.00000	1.000000	
Ti 334.903	1	Lin Thru 0	0.0	24730	0.00000	1.000000	
Tl 190.801	1	Lin Thru 0	0.0	2754	0.00000	1.000000	
V 292.402	1	Lin Thru 0	0.0	129400	0.00000	1.000000	
Zn 206.200	1	Lin Thru 0	0.0	4820	0.00000	1.000000	

==========

Analysis Begun

Start Time: 11/30/2012 11:57:15 AM **Plasma On Time: 11/30/2012 9:28:35 AM**
Logged In Analyst: Metals **Technique: ICP Continuous**
Spectrometer: Optima 7300 DV, S/N 077C8121202 **Autosampler: ESI**

Sample Information File: C:\pe\metals\Sample Information\CRISET1.sif
Batch ID:
Results Data Set: I2121130
Results Library: C:\Documents and Settings\All Users\PerkinElmer\ICP\Data\Results\Results.mdb

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Sequence No.: 1 **Autosampler Location: 7**
Sample ID: ICV **Date Collected: 11/30/2012 11:57:16 AM**
Analyst: BA **Data Type: Original**
Dilution: 1.000000X

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2705291.3	101.1	%	0.15				0.14%
ScR 361.383	362872.6	99.38	%	0.421				0.42%
Ag 328.068†	197554.0	1.030	mg/L	0.0084	1.030	mg/L	0.0084	0.81%
Al 308.215†	3779.4	2.008	mg/L	0.0192	2.008	mg/L	0.0192	0.95%
As 188.979†	4250.0	2.033	mg/L	0.0137	2.033	mg/L	0.0137	0.67%
B 249.677†	9019.8	1.015	mg/L	0.0095	1.015	mg/L	0.0095	0.93%
Ba 233.527†	5599.1	1.022	mg/L	0.0129	1.022	mg/L	0.0129	1.26%
Be 313.042†	741011.9	1.006	mg/L	0.0004	1.006	mg/L	0.0004	0.04%
Ca 317.933†	35043.7	2.048	mg/L	0.0168	2.048	mg/L	0.0168	0.82%
Cd 228.802†	32098.0	1.031	mg/L	0.0059	1.031	mg/L	0.0059	0.57%
Co 228.616†	44175.8	1.003	mg/L	0.0058	1.003	mg/L	0.0058	0.58%
Cr 267.716†	8014.0	1.017	mg/L	0.0079	1.017	mg/L	0.0079	0.78%
Cu 324.752†	285403.6	1.029	mg/L	0.0069	1.029	mg/L	0.0069	0.67%
Fe 273.955†	3633.2	2.050	mg/L	0.0155	2.050	mg/L	0.0155	0.76%
K 766.490†	48406.3	20.17	mg/L	0.045	20.17	mg/L	0.045	0.22%
Mg 279.077†	3227.3	2.007	mg/L	0.0153	2.007	mg/L	0.0153	0.76%
Mn 257.610†	47828.0	1.026	mg/L	0.0077	1.026	mg/L	0.0077	0.75%
Mo 202.031†	23385.7	1.039	mg/L	0.0063	1.039	mg/L	0.0063	0.60%
Na 589.592†	693006.2	51.57	mg/L	0.077	51.57	mg/L	0.077	0.15%
Na 330.237†	1799.8	52.84	mg/L	0.124	52.84	mg/L	0.124	0.23%
Ni 231.604†	5192.8	1.011	mg/L	0.0067	1.011	mg/L	0.0067	0.66%
Pb 220.353†	19207.3	2.070	mg/L	0.0141	2.070	mg/L	0.0141	0.68%
Sb 206.836†	7942.8	2.135	mg/L	0.0138	2.135	mg/L	0.0138	0.65%
Se 196.026†	3483.4	1.991	mg/L	0.0125	1.991	mg/L	0.0125	0.63%
Si 288.158†	4984.5	2.092	mg/L	0.0141	2.092	mg/L	0.0141	0.67%
Sn 189.927†	4593.6	1.030	mg/L	0.0043	1.030	mg/L	0.0043	0.42%
Sr 421.552†	989806.2	1.013	mg/L	0.0006	1.013	mg/L	0.0006	0.06%
Ti 334.903†	25767.8	1.041	mg/L	0.0013	1.041	mg/L	0.0013	0.13%
Tl 190.801†	5521.7	1.996	mg/L	0.0069	1.996	mg/L	0.0069	0.35%
V 292.402†	132523.9	1.029	mg/L	0.0077	1.029	mg/L	0.0077	0.75%
Zn 206.200†	5047.6	1.047	mg/L	0.0124	1.047	mg/L	0.0124	1.19%

Sequence No.: 2
Sample ID: ICB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/30/2012 12:00:34 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2701282.4	100.9	%	0.29				0.29%
ScR 361.383	365452.3	100.1	%	0.49				0.49%
Ag 328.068†	-2.1	-0.00001	mg/L	0.000125	-0.00001	mg/L	0.000125	>999.9%
Al 308.215†	6.5	0.00347	mg/L	0.003475	0.00347	mg/L	0.003475	100.01%
As 188.979†	-2.5	-0.00119	mg/L	0.000904	-0.00119	mg/L	0.000904	76.24%
B 249.677†	22.2	0.00250	mg/L	0.000271	0.00250	mg/L	0.000271	10.84%
Ba 233.527†	5.6	0.00102	mg/L	0.000745	0.00102	mg/L	0.000745	72.82%
Be 313.042†	81.7	0.00011	mg/L	0.000023	0.00011	mg/L	0.000023	21.09%
Ca 317.933†	2.7	0.00016	mg/L	0.000736	0.00016	mg/L	0.000736	468.99%
Cd 228.802†	-2.7	-0.00008	mg/L	0.000039	-0.00008	mg/L	0.000039	49.20%
Co 228.616†	5.5	0.00012	mg/L	0.000029	0.00012	mg/L	0.000029	22.81%
Cr 267.716†	-5.7	-0.00072	mg/L	0.000820	-0.00072	mg/L	0.000820	113.29%
Cu 324.752†	-7.4	-0.00003	mg/L	0.000052	-0.00003	mg/L	0.000052	191.55%
Fe 273.955†	0.4	0.00023	mg/L	0.000141	0.00023	mg/L	0.000141	60.76%
K 766.490†	-29.7	-0.01237	mg/L	0.009312	-0.01237	mg/L	0.009312	75.26%
Mg 279.077†	-10.3	-0.00640	mg/L	0.003453	-0.00640	mg/L	0.003453	53.92%
Mn 257.610†	4.3	0.00009	mg/L	0.000045	0.00009	mg/L	0.000045	48.22%
Mo 202.031†	23.3	0.00104	mg/L	0.000135	0.00104	mg/L	0.000135	13.05%
Na 589.592†	54.7	0.00407	mg/L	0.004147	0.00407	mg/L	0.004147	101.86%
Na 330.237†	1.9	0.05503	mg/L	0.276239	0.05503	mg/L	0.276239	501.97%
Ni 231.604†	-2.5	-0.00049	mg/L	0.000823	-0.00049	mg/L	0.000823	168.60%
Pb 220.353†	7.4	0.00080	mg/L	0.001463	0.00080	mg/L	0.001463	182.52%
Sb 206.836†	9.8	0.00265	mg/L	0.001916	0.00265	mg/L	0.001916	72.18%
Se 196.026†	3.1	0.00179	mg/L	0.003346	0.00179	mg/L	0.003346	186.70%
Si 288.158†	1.5	0.00063	mg/L	0.001461	0.00063	mg/L	0.001461	232.87%
Sn 189.927†	-0.6	-0.00013	mg/L	0.000331	-0.00013	mg/L	0.000331	248.77%
Sr 421.552†	77.2	0.00008	mg/L	0.000010	0.00008	mg/L	0.000010	12.79%
Ti 334.903†	-0.9	-0.00004	mg/L	0.000528	-0.00004	mg/L	0.000528	>999.9%
Tl 190.801†	0.7	0.00027	mg/L	0.002462	0.00027	mg/L	0.002462	903.68%
V 292.402†	7.3	0.00005	mg/L	0.000106	0.00005	mg/L	0.000106	196.75%
Zn 206.200†	1.8	0.00037	mg/L	0.000257	0.00037	mg/L	0.000257	70.06%

Sequence No.: 3
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 11/30/2012 12:04:49 PM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2697798.7	100.8	%	0.57				0.56%
ScR 361.383	366054.8	100.2	%	0.64				0.64%
Ag 328.068†	549.1	0.00286	mg/L	0.000163	0.00286	mg/L	0.000163	5.70%
Al 308.215†	94.9	0.05116	mg/L	0.003168	0.05116	mg/L	0.003168	6.19%
As 188.979†	103.0	0.04877	mg/L	0.002068	0.04877	mg/L	0.002068	4.24%
B 249.677†	193.8	0.02183	mg/L	0.000315	0.02183	mg/L	0.000315	1.44%
Ba 233.527†	20.5	0.00373	mg/L	0.000499	0.00373	mg/L	0.000499	13.37%
Be 313.042†	751.6	0.00102	mg/L	0.000003	0.00102	mg/L	0.000003	0.29%
Ca 317.933†	841.3	0.04917	mg/L	0.001286	0.04917	mg/L	0.001286	2.62%
Cd 228.802†	70.2	0.00197	mg/L	0.000056	0.00197	mg/L	0.000056	2.85%
Co 228.616†	161.6	0.00367	mg/L	0.000163	0.00367	mg/L	0.000163	4.45%
Cr 267.716†	46.8	0.00594	mg/L	0.000479	0.00594	mg/L	0.000479	8.06%
Cu 324.752†	543.6	0.00196	mg/L	0.000030	0.00196	mg/L	0.000030	1.55%
Fe 273.955†	90.3	0.05111	mg/L	0.001900	0.05111	mg/L	0.001900	3.72%
K 766.490†	1166.3	0.4860	mg/L	0.01669	0.4860	mg/L	0.01669	3.44%
Mg 279.077†	76.7	0.04754	mg/L	0.003856	0.04754	mg/L	0.003856	8.11%
Mn 257.610†	47.6	0.00102	mg/L	0.000057	0.00102	mg/L	0.000057	5.59%
Mo 202.031†	119.9	0.00533	mg/L	0.000146	0.00533	mg/L	0.000146	2.75%
Na 589.592†	6533.0	0.4862	mg/L	0.00513	0.4862	mg/L	0.00513	1.05%
Na 330.237†	23.8	0.6967	mg/L	0.52826	0.6967	mg/L	0.52826	75.82%
Ni 231.604†	52.3	0.01017	mg/L	0.002297	0.01017	mg/L	0.002297	22.58%
Pb 220.353†	193.5	0.02086	mg/L	0.000815	0.02086	mg/L	0.000815	3.91%
Sb 206.836†	203.6	0.05475	mg/L	0.002028	0.05475	mg/L	0.002028	3.70%
Se 196.026†	85.9	0.04909	mg/L	0.001832	0.04909	mg/L	0.001832	3.73%
Si 288.158†	151.7	0.06363	mg/L	0.001707	0.06363	mg/L	0.001707	2.68%
Sn 189.927†	45.1	0.01013	mg/L	0.000935	0.01013	mg/L	0.000935	9.23%
Sr 421.552†	1024.2	0.00105	mg/L	0.000055	0.00105	mg/L	0.000055	5.20%
Ti 334.903†	124.5	0.00503	mg/L	0.000798	0.00503	mg/L	0.000798	15.87%
Tl 190.801†	134.6	0.04883	mg/L	0.001842	0.04883	mg/L	0.001842	3.77%
V 292.402†	417.0	0.00325	mg/L	0.000154	0.00325	mg/L	0.000154	4.73%
Zn 206.200†	47.3	0.00982	mg/L	0.000597	0.00982	mg/L	0.000597	6.08%

Sequence No.: 4
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 11/30/2012 12:09:05 PM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2658870.1	99.36	%	0.326				0.33%
ScR 361.383	358637.6	98.22	%	0.855				0.87%
Ag 328.068†	-286.6	-0.00149	mg/L	0.000047	-0.00149	mg/L	0.000047	3.16%
Al 308.215†	368592.4	199.2	mg/L	0.68	199.2	mg/L	0.68	0.34%
As 188.979†	34.8	0.01078	mg/L	0.001786	0.01078	mg/L	0.001786	16.57%
B 249.677†	-47.2	-0.00531	mg/L	0.001610	-0.00531	mg/L	0.001610	30.32%
Ba 233.527†	161.2	-0.00294	mg/L	0.000825	-0.00294	mg/L	0.000825	28.01%
Be 313.042†	100.9	0.00013	mg/L	0.000013	0.00013	mg/L	0.000013	9.48%
Ca 317.933†	1710644.9	99.97	mg/L	0.421	99.97	mg/L	0.421	0.42%
Cd 228.802†	58.3	-0.00010	mg/L	0.000113	-0.00010	mg/L	0.000113	118.98%
Co 228.616†	77.7	-0.00082	mg/L	0.000167	-0.00082	mg/L	0.000167	20.37%
Cr 267.716†	4.9	-0.00108	mg/L	0.001052	-0.00108	mg/L	0.001052	97.04%
Cu 324.752†	-2241.3	-0.00018	mg/L	0.000014	-0.00018	mg/L	0.000014	7.84%
Fe 273.955†	349202.7	197.7	mg/L	0.30	197.7	mg/L	0.30	0.15%
K 766.490†	19.9	0.00828	mg/L	0.010557	0.00828	mg/L	0.010557	127.52%
Mg 279.077†	159796.8	98.89	mg/L	0.358	98.89	mg/L	0.358	0.36%
Mn 257.610†	66.4	0.00140	mg/L	0.000195	0.00140	mg/L	0.000195	13.97%
Mo 202.031†	78.3	0.00240	mg/L	0.000257	0.00240	mg/L	0.000257	10.71%
Na 589.592†	196.6	0.01463	mg/L	0.001404	0.01463	mg/L	0.001404	9.60%
Na 330.237†	4.0	0.1172	mg/L	0.12011	0.1172	mg/L	0.12011	102.48%
Ni 231.604†	-4.7	-0.00089	mg/L	0.001087	-0.00089	mg/L	0.001087	122.32%
Pb 220.353†	-413.6	-0.00500	mg/L	0.000719	-0.00500	mg/L	0.000719	14.36%
Sb 206.836†	49.0	0.01305	mg/L	0.002330	0.01305	mg/L	0.002330	17.85%
Se 196.026†	11.3	0.00645	mg/L	0.001653	0.00645	mg/L	0.001653	25.63%
Si 288.158†	-23.3	0.00222	mg/L	0.001851	0.00222	mg/L	0.001851	83.47%
Sn 189.927†	-84.1	-0.00646	mg/L	0.000630	-0.00646	mg/L	0.000630	9.75%
Sr 421.552†	3959.4	0.00405	mg/L	0.000045	0.00405	mg/L	0.000045	1.11%
Ti 334.903†	157.2	0.00158	mg/L	0.000516	0.00158	mg/L	0.000516	32.63%
Tl 190.801†	-69.1	-0.00399	mg/L	0.001276	-0.00399	mg/L	0.001276	31.99%
V 292.402†	1536.0	0.00496	mg/L	0.000177	0.00496	mg/L	0.000177	3.57%
Zn 206.200†	10.3	0.00212	mg/L	0.001079	0.00212	mg/L	0.001079	50.77%

Cont.

Sequence No.: 5
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 11/30/2012 12:13:07 PM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
A11	218.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2652121.4	99.11	%	0.105				0.11%
ScR 361.383	359355.8	98.41	%	0.562				0.57%
Ag 328.068†	201937.9	1.053	mg/L	0.0043	1.053	mg/L	0.0043	0.41%
Al 308.215†	367721.1	198.7	mg/L	0.27	198.7	mg/L	0.27	0.14%
As 188.979†	2172.0	1.020	mg/L	0.0042	1.020	mg/L	0.0042	0.41%
B 249.677†	-17.7	-0.00397	mg/L	0.001219	-0.00397	mg/L	0.001219	30.73%
Ba 233.527†	5750.7	1.017	mg/L	0.0039	1.017	mg/L	0.0039	0.38%
Be 313.042†	749681.1	1.018	mg/L	0.0044	1.018	mg/L	0.0044	0.43%
Ca 317.933†	1718335.9	100.4	mg/L	0.17	100.4	mg/L	0.17	0.17%
Cd 228.802†	31914.1	1.029	mg/L	0.0035	1.029	mg/L	0.0035	0.34%
Co 228.616†	42232.6	0.9584	mg/L	0.00198	0.9584	mg/L	0.00198	0.21%
Cr 267.716†	8092.6	1.025	mg/L	0.0026	1.025	mg/L	0.0026	0.25%
Cu 324.752†	287978.8	1.047	mg/L	0.0033	1.047	mg/L	0.0033	0.31%
Fe 273.955†	350139.9	198.3	mg/L	0.18	198.3	mg/L	0.18	0.09%
K 766.490†	-75.7	-0.03154	mg/L	0.009202	-0.03154	mg/L	0.009202	29.18%
Mg 279.077†	160647.8	99.42	mg/L	0.012	99.42	mg/L	0.012	0.01%
Mn 257.610†	45477.5	0.9750	mg/L	0.00234	0.9750	mg/L	0.00234	0.24%
Mo 202.031†	76.1	0.00224	mg/L	0.000462	0.00224	mg/L	0.000462	20.65%
Na 589.592†	364.3	0.02711	mg/L	0.003179	0.02711	mg/L	0.003179	11.73%
Na 330.237†	11.1	0.00513	mg/L	0.118636	0.00513	mg/L	0.118636	>999.9%
Ni 231.604†	5073.9	0.9873	mg/L	0.00317	0.9873	mg/L	0.00317	0.32%
Pb 220.353†	8811.8	0.9891	mg/L	0.00326	0.9891	mg/L	0.00326	0.33%
Sb 206.836†	3891.7	1.035	mg/L	0.0017	1.035	mg/L	0.0017	0.16%
Se 196.026†	1763.5	1.007	mg/L	0.0071	1.007	mg/L	0.0071	0.71%
Si 288.158†	-35.0	0.00106	mg/L	0.004364	0.00106	mg/L	0.004364	411.20%
Sn 189.927†	-83.5	-0.00578	mg/L	0.001408	-0.00578	mg/L	0.001408	24.37%
Sr 421.552†	4018.5	0.00411	mg/L	Conf. 0.000019	0.00411	mg/L	0.000019	0.47%
Ti 334.903†	176.9	0.00215	mg/L	0.000386	0.00215	mg/L	0.000386	17.92%
Tl 190.801†	2534.4	0.9321	mg/L	0.00284	0.9321	mg/L	0.00284	0.30%
V 292.402†	131395.6	1.013	mg/L	0.0042	1.013	mg/L	0.0042	0.41%
Zn 206.200†	4745.7	0.9846	mg/L	0.00282	0.9846	mg/L	0.00282	0.29%

Sequence No.: 6
Sample ID: CV
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/30/2012 12:18:13 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2727638.0	101.9	%	0.58				0.57%
ScR 361.383	362603.4	99.30	%	0.744				0.75%
Ag 328.068†	192381.5	1.003	mg/L	0.0030	1.003	mg/L	0.0030	0.30%
Al 308.215†	3913.6	2.080	mg/L	0.0420	2.080	mg/L	0.0420	2.02%
As 188.979†	4273.2	2.044	mg/L	0.0127	2.044	mg/L	0.0127	0.62%
B 249.677†	9166.3	1.032	mg/L	0.0059	1.032	mg/L	0.0059	0.57%
Ba 233.527†	5705.8	1.041	mg/L	0.0087	1.041	mg/L	0.0087	0.84%
Be 313.042†	756238.5	1.026	mg/L	0.0070	1.026	mg/L	0.0070	0.68%
Ca 317.933†	36130.8	2.112	mg/L	0.0319	2.112	mg/L	0.0319	1.51%
Cd 228.802†	32082.7	1.030	mg/L	0.0027	1.030	mg/L	0.0027	0.26%
Co 228.616†	44360.3	1.008	mg/L	0.0034	1.008	mg/L	0.0034	0.34%
Cr 267.716†	8163.2	1.036	mg/L	0.0088	1.036	mg/L	0.0088	0.85%
Cu 324.752†	279447.7	1.008	mg/L	0.0033	1.008	mg/L	0.0033	0.32%
Fe 273.955†	3784.2	2.136	mg/L	0.0549	2.136	mg/L	0.0549	2.57%
K 766.490†	49277.7	20.53	mg/L	0.124	20.53	mg/L	0.124	0.60%
Mg 279.077†	3327.6	2.069	mg/L	0.0282	2.069	mg/L	0.0282	1.36%
Mn 257.610†	48868.5	1.048	mg/L	0.0061	1.048	mg/L	0.0061	0.58%
Mo 202.031†	23490.1	1.044	mg/L	0.0081	1.044	mg/L	0.0081	0.78%
Na 589.592†	702591.7	52.29	mg/L	0.343	52.29	mg/L	0.343	0.66%
Na 330.237†	1812.3	53.20	mg/L	0.758	53.20	mg/L	0.758	1.43%
Ni 231.604†	5326.8	1.037	mg/L	0.0093	1.037	mg/L	0.0093	0.90%
Pb 220.353†	19329.6	2.083	mg/L	0.0169	2.083	mg/L	0.0169	0.81%
Sb 206.836†	7998.6	2.150	mg/L	0.0195	2.150	mg/L	0.0195	0.91%
Se 196.026†	3501.9	2.001	mg/L	0.0187	2.001	mg/L	0.0187	0.93%
Si 288.158†	5046.1	2.118	mg/L	0.0189	2.118	mg/L	0.0189	0.89%
Sn 189.927†	4617.9	1.036	mg/L	0.0083	1.036	mg/L	0.0083	0.80%
Sr 421.552†	1004396.2	1.028	mg/L	0.0053	1.028	mg/L	0.0053	0.52%
Ti 334.903†	26227.3	1.059	mg/L	0.0044	1.059	mg/L	0.0044	0.41%
Tl 190.801†	5551.3	2.007	mg/L	0.0185	2.007	mg/L	0.0185	0.92%
V 292.402†	130919.1	1.016	mg/L	0.0040	1.016	mg/L	0.0040	0.40%
Zn 206.200†	5181.6	1.075	mg/L	0.0081	1.075	mg/L	0.0081	0.75%

Sequence No.: 7
Sample ID: CB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/30/2012 12:22:20 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2710942.0	101.3	%	0.45				0.45%
ScR 361.383	368958.8	101.0	%	0.53				0.52%
Ag 328.068†	-66.0	-0.00034	mg/L	0.000063	-0.00034	mg/L	0.000063	18.23%
Al 308.215†	19.2	0.01038	mg/L	0.007444	0.01038	mg/L	0.007444	71.73%
As 188.979†	0.9	0.00044	mg/L	0.001058	0.00044	mg/L	0.001058	242.48%
B 249.677†	12.9	0.00146	mg/L	0.000355	0.00146	mg/L	0.000355	24.35%
Ba 233.527†	4.6	0.00084	mg/L	0.001518	0.00084	mg/L	0.001518	181.18%
Be 313.042†	62.5	0.00008	mg/L	0.000028	0.00008	mg/L	0.000028	33.39%
Ca 317.933†	19.3	0.00113	mg/L	0.000713	0.00113	mg/L	0.000713	63.28%
Cd 228.802†	-0.9	-0.00003	mg/L	0.000165	-0.00003	mg/L	0.000165	505.23%
Co 228.616†	9.9	0.00023	mg/L	0.000053	0.00023	mg/L	0.000053	23.54%
Cr 267.716†	0.8	0.00010	mg/L	0.000449	0.00010	mg/L	0.000449	436.57%
Cu 324.752†	6.4	0.00002	mg/L	0.000020	0.00002	mg/L	0.000020	84.30%
Fe 273.955†	3.3	0.00190	mg/L	0.000271	0.00190	mg/L	0.000271	14.30%
K 766.490†	-2.4	-0.00098	mg/L	0.011763	-0.00098	mg/L	0.011763	>999.9%
Mg 279.077†	-3.5	-0.00220	mg/L	0.002611	-0.00220	mg/L	0.002611	118.92%
Mn 257.610†	8.0	0.00017	mg/L	0.000131	0.00017	mg/L	0.000131	76.22%
Mo 202.031†	11.7	0.00052	mg/L	0.000154	0.00052	mg/L	0.000154	29.64%
Na 589.592†	45.9	0.00341	mg/L	0.001518	0.00341	mg/L	0.001518	44.50%
Na 330.237†	22.9	0.6737	mg/L	0.20811	0.6737	mg/L	0.20811	30.89%
Ni 231.604†	4.6	0.00090	mg/L	0.000884	0.00090	mg/L	0.000884	98.45%
Pb 220.353†	1.6	0.00017	mg/L	0.000440	0.00017	mg/L	0.000440	254.04%
Sb 206.836†	14.4	0.00385	mg/L	0.000865	0.00385	mg/L	0.000865	22.47%
Se 196.026†	-4.7	-0.00266	mg/L	0.002040	-0.00266	mg/L	0.002040	76.57%
Si 288.158†	3.5	0.00146	mg/L	0.001233	0.00146	mg/L	0.001233	84.59%
Sn 189.927†	-2.9	-0.00064	mg/L	0.000556	-0.00064	mg/L	0.000556	87.20%
Sr 421.552†	38.9	0.00004	mg/L	0.000028	0.00004	mg/L	0.000028	70.90%
Ti 334.903†	-1.9	-0.00008	mg/L	0.000730	-0.00008	mg/L	0.000730	948.50%
Tl 190.801†	-3.2	-0.00115	mg/L	0.000765	-0.00115	mg/L	0.000765	66.47%
V 292.402†	10.9	0.00008	mg/L	0.000032	0.00008	mg/L	0.000032	37.46%
Zn 206.200†	-0.2	-0.00004	mg/L	0.000253	-0.00004	mg/L	0.000253	612.33%

Sequence No.: 8
Sample ID: VS23 MB1 SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 304
Date Collected: 11/30/2012 12:26:35 PM
Data Type: Original

Nebulizer Parameters: VS23 MB1 SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS23 MB1 SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Calib. Std.Dev.	Sample Conc.	Sample Units	Sample Std.Dev.	RSD
ScA 357.253	2768726.1	103.5	%	0.13				0.13%
ScR 361.383	376397.7	103.1	%	0.27				0.26%
Ag 328.068†	-58.0	-0.00030	mg/L	0.000084	-0.00060	mg/L	0.000168	27.78%
Al 308.215†	16.9	0.00913	mg/L	0.010012	0.01826	mg/L	0.020025	109.64%
As 188.979†	1.1	0.00052	mg/L	0.000447	0.00103	mg/L	0.000894	86.70%
B 249.677†	9.6	0.00108	mg/L	0.000165	0.00216	mg/L	0.000330	15.23%
Ba 233.527†	8.8	0.00160	mg/L	0.000221	0.00319	mg/L	0.000442	13.84%
Be 313.042†	3.7	0.00001	mg/L	0.000033	0.00001	mg/L	0.000065	643.50%
Ca 317.933†	126.8	0.00741	mg/L	0.000217	0.01483	mg/L	0.000434	2.93%
Cd 228.802†	-4.3	-0.00014	mg/L	0.000172	-0.00029	mg/L	0.000344	119.97%
Co 228.616†	8.3	0.00019	mg/L	0.000032	0.00038	mg/L	0.000064	17.09%
Cr 267.716†	4.2	0.00053	mg/L	0.000685	0.00107	mg/L	0.001369	128.16%
Cu 324.752†	76.2	0.00028	mg/L	0.000062	0.00055	mg/L	0.000124	22.55%
Fe 273.955†	15.4	0.00869	mg/L	0.001976	0.01739	mg/L	0.003952	22.73%
K 766.490†	-38.9	-0.01622	mg/L	0.004372	-0.03244	mg/L	0.008744	26.95%
Mg 279.077†	1.9	0.00119	mg/L	0.001414	0.00238	mg/L	0.002828	119.00%
Mn 257.610†	10.3	0.00022	mg/L	0.000154	0.00044	mg/L	0.000309	69.67%
Mo 202.031†	4.1	0.00018	mg/L	0.000164	0.00036	mg/L	0.000329	90.59%
Na 589.592†	94.5	0.00704	mg/L	0.002029	0.01407	mg/L	0.004058	28.84%
Na 330.237†	11.1	0.3264	mg/L	0.32187	0.6529	mg/L	0.64375	98.61%
Ni 231.604†	1.2	0.00023	mg/L	0.000689	0.00046	mg/L	0.001377	297.70%
Pb 220.353†	6.4	0.00070	mg/L	0.000582	0.00139	mg/L	0.001164	83.72%
Sb 206.836†	1.4	0.00036	mg/L	0.002294	0.00072	mg/L	0.004587	635.91%
Se 196.026†	4.3	0.00247	mg/L	0.002683	0.00493	mg/L	0.005366	108.75%
Si 288.158†	3.6	0.00150	mg/L	0.004107	0.00300	mg/L	0.008214	273.59%
Sn 189.927†	-0.1	-0.00001	mg/L	0.000187	-0.00003	mg/L	0.000375	>999.9%
Sr 421.552†	12.8	0.00001	mg/L	0.000012	0.00003	mg/L	0.000025	94.39%
Ti 334.903†	14.5	0.00059	mg/L	0.000592	0.00117	mg/L	0.001184	101.06%
Tl 190.801†	-3.1	-0.00111	mg/L	0.001160	-0.00222	mg/L	0.002320	104.63%
V 292.402†	11.7	0.00009	mg/L	0.000134	0.00018	mg/L	0.000268	145.24%
Zn 206.200†	12.7	0.00264	mg/L	0.000740	0.00528	mg/L	0.001480	28.04%

Sequence No.: 9
Sample ID: VS23 B SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 305
Date Collected: 11/30/2012 12:30:52 PM
Data Type: Original

Nebulizer Parameters: VS23 B SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VS23 B SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2767366.6	103.4	%	0.43				0.42%
ScR 361.383	377195.6	103.3	%	0.35				0.34%
Ag 328.068†	-108.2	-0.00053	mg/L	0.000178	-0.00264	mg/L	0.000890	33.66%
Al 308.215†	90851.3	49.10	mg/L	0.098	245.5	mg/L	0.49	0.20%
As 188.979†	-21.4	0.02527	mg/L	0.002545	0.1264	mg/L	0.01272	10.07%
B 249.677†	88.9	0.00994	mg/L	0.000765	0.04970	mg/L	0.003825	7.70%
Ba 233.527†	3404.9	0.6083	mg/L	0.00179	3.042	mg/L	0.0089	0.29%
Be 313.042†	1200.3	0.00159	mg/L	0.000009	0.00794	mg/L	0.000046	0.58%
Ca 317.933†	672955.7	39.33	mg/L	0.191	196.6	mg/L	0.96	0.49%
Cd 228.802†	203.5	0.00600	mg/L	0.000160	0.02999	mg/L	0.000798	2.66%
Co 228.616†	1688.7	0.03477	mg/L	0.000232	0.1739	mg/L	0.00116	0.67%
Cr 267.716†	696.3	0.08946	mg/L	0.000529	0.4473	mg/L	0.00265	0.59%
Cu 324.752†	22921.1	0.08584	mg/L	0.000347	0.4292	mg/L	0.00173	0.40%
Fe 273.955†	142669.2	80.79	mg/L	0.272	403.9	mg/L	1.36	0.34%
K 766.490†	11176.8	4.657	mg/L	0.0066	23.28	mg/L	0.033	0.14%
Mg 279.077†	29874.9	18.46	mg/L	0.024	92.32	mg/L	0.119	0.13%
Mn 257.610†	57296.5	1.228	mg/L	0.0037	6.142	mg/L	0.0185	0.30%
Mo 202.031†	128.0	0.00526	mg/L	0.000065	0.02629	mg/L	0.000323	1.23%
Na 589.592†	6628.9	0.4933	mg/L	0.00098	2.467	mg/L	0.0049	0.20%
Na 330.237†	22.7	0.7397	mg/L	0.07328	3.698	mg/L	0.3664	9.91%
Ni 231.604†	524.4	0.1020	mg/L	0.00129	0.5102	mg/L	0.00644	1.26%
Pb 220.353†	1163.3	0.1338	mg/L	0.00028	0.6689	mg/L	0.00138	0.21%
Sb 206.836†	18.5	0.00466	mg/L	0.001268	0.02332	mg/L	0.006339	27.18%
Se 196.026†	-1.9	-0.00120	mg/L	0.002684	-0.00600	mg/L	0.013419	223.76%
Si 288.158†	4322.3	1.817	mg/L	0.0066	9.085	mg/L	0.0328	0.36%
Sn 189.927†	-52.9	-0.00678	mg/L	0.000063	-0.03391	mg/L	0.000314	0.93%
Sr 421.552†	202914.8	0.2077	mg/L	0.00023	1.039	mg/L	0.0011	0.11%
Ti 334.903†	32626.8	1.317	mg/L	0.0023	6.587	mg/L	0.0116	0.18%
Tl 190.801†	-16.2	0.00210	mg/L	0.000851	0.01048	mg/L	0.004255	40.59%
V 292.402†	15976.9	0.1205	mg/L	0.00059	0.6023	mg/L	0.00296	0.49%
Zn 206.200†	3326.2	0.6901	mg/L	0.00139	3.451	mg/L	0.0070	0.20%

Sequence No.: 10
Sample ID: VS23 C SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 306
Date Collected: 11/30/2012 12:34:53 PM
Data Type: Original

Nebulizer Parameters: VS23 C SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS23 C SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2782371.9	104.0	%	0.52				0.50%
ScR 361.383	381784.5	104.6	%	0.50				0.48%
Ag 328.068†	139.8	0.00078	mg/L	0.000130	0.00392	mg/L	0.000650	16.59%
Al 308.215†	161136.1	87.08	mg/L	0.208	435.4	mg/L	1.04	0.24%
As 188.979†	-74.0	0.06701	mg/L	0.002298	0.3350	mg/L	0.01149	3.43%
B 249.677†	121.2	0.01356	mg/L	0.000964	0.06778	mg/L	0.004822	7.11%
Ba 233.527†	9691.0	1.753	mg/L	0.0137	8.767	mg/L	0.0683	0.78%
Be 313.042†	1526.9	0.00199	mg/L	0.000025	0.00996	mg/L	0.000125	1.26%
Ca 317.933†	652102.7	38.11	mg/L	0.065	190.6	mg/L	0.32	0.17%
Cd 228.802†	1938.4	0.06238	mg/L	0.000302	0.3119	mg/L	0.00151	0.48%
Co 228.616†	2184.4	0.04128	mg/L	0.000146	0.2064	mg/L	0.00073	0.35%
Cr 267.716†	909.9	0.1162	mg/L	0.00062	0.5812	mg/L	0.00308	0.53%
Cu 324.752†	48394.4	0.1779	mg/L	0.00114	0.8893	mg/L	0.00568	0.64%
Fe 273.955†	168835.1	95.60	mg/L	0.206	478.0	mg/L	1.03	0.22%
K 766.490†	22184.9	9.244	mg/L	0.0286	46.22	mg/L	0.143	0.31%
Mg 279.077†	38083.9	23.54	mg/L	0.049	117.7	mg/L	0.25	0.21%
Mn 257.610†	267812.2	5.741	mg/L	0.0186	28.71	mg/L	0.093	0.32%
Mo 202.031†	90.8	0.00362	mg/L	0.000497	0.01808	mg/L	0.002487	13.75%
Na 589.592†	14996.3	1.116	mg/L	0.0062	5.580	mg/L	0.0311	0.56%
Na 330.237†	37.0	1.002	mg/L	0.2234	5.009	mg/L	1.1170	22.30%
Ni 231.604†	440.5	0.08571	mg/L	0.001034	0.4286	mg/L	0.00517	1.21%
Pb 220.353†	23196.1	2.515	mg/L	0.0101	12.58	mg/L	0.050	0.40%
Sb 206.836†	45.2	0.01275	mg/L	0.001670	0.06376	mg/L	0.008350	13.10%
Se 196.026†	5.9	0.00325	mg/L	0.000638	0.01624	mg/L	0.003190	19.65%
Si 288.158†	4517.7	1.900	mg/L	0.0134	9.499	mg/L	0.0669	0.70%
Sn 189.927†	-29.8	-0.00135	mg/L	0.001550	-0.00677	mg/L	0.007751	114.50%
Sr 421.552†	326829.2	0.3346	mg/L	0.00057	1.673	mg/L	0.0028	0.17%
Ti 334.903†	90121.9	3.642	mg/L	0.0071	18.21	mg/L	0.035	0.19%
Tl 190.801†	-20.3	0.00189	mg/L	0.000790	0.00944	mg/L	0.003949	41.85%
V 292.402†	24290.6	0.1837	mg/L	0.00072	0.9185	mg/L	0.00360	0.39%
Zn 206.200†	13414.1	2.783	mg/L	0.0199	13.92	mg/L	0.100	0.72%

Sequence No.: 11
Sample ID: VS23 D SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 307
Date Collected: 11/30/2012 12:38:54 PM
Data Type: Original

Nebulizer Parameters: VS23 D SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VS23 D SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2797205.5	104.5	%	0.33				0.31%
ScR 361.383	383488.3	105.0	%	0.85				0.81%
Ag 328.068†	-38.1	-0.00015	mg/L	0.000267	-0.00076	mg/L	0.001337	175.19%
Al 308.215†	204973.6	110.8	mg/L	0.48	553.9	mg/L	2.40	0.43%
As 188.979†	-45.7	0.09462	mg/L	0.002419	0.4731	mg/L	0.01210	2.56%
B 249.677†	64.8	0.00722	mg/L	0.000018	0.03612	mg/L	0.000091	0.25%
Ba 233.527†	6413.3	1.156	mg/L	0.0122	5.782	mg/L	0.0611	1.06%
Be 313.042†	1895.7	0.00249	mg/L	0.000034	0.01246	mg/L	0.000172	1.38%
Ca 317.933†	204960.9	11.98	mg/L	0.065	59.89	mg/L	0.325	0.54%
Cd 228.802†	582.2	0.01828	mg/L	0.000233	0.09140	mg/L	0.001163	1.27%
Co 228.616†	1746.0	0.03059	mg/L	0.000218	0.1530	mg/L	0.00109	0.71%
Cr 267.716†	622.8	0.08020	mg/L	0.000478	0.4010	mg/L	0.00239	0.60%
Cu 324.752†	19961.4	0.07493	mg/L	0.000188	0.3747	mg/L	0.00094	0.25%
Fe 273.955†	155303.9	87.94	mg/L	0.504	439.7	mg/L	2.52	0.57%
K 766.490†	11786.8	4.911	mg/L	0.0603	24.56	mg/L	0.301	1.23%
Mg 279.077†	25063.4	15.48	mg/L	0.189	77.40	mg/L	0.946	1.22%
Mn 257.610†	415561.2	8.908	mg/L	0.0380	44.54	mg/L	0.190	0.43%
Mo 202.031†	79.0	0.00338	mg/L	0.000184	0.01689	mg/L	0.000919	5.44%
Na 589.592†	11349.5	0.8446	mg/L	0.00330	4.223	mg/L	0.0165	0.39%
Na 330.237†	14.4	0.9176	mg/L	0.04826	4.588	mg/L	0.2413	5.26%
Ni 231.604†	361.3	0.07031	mg/L	0.000947	0.3515	mg/L	0.00474	1.35%
Pb 220.353†	10420.6	1.145	mg/L	0.0015	5.727	mg/L	0.0074	0.13%
Sb 206.836†	41.1	0.01229	mg/L	0.000884	0.06144	mg/L	0.004420	7.19%
Se 196.026†	23.5	0.01335	mg/L	0.002683	0.06676	mg/L	0.013414	20.09%
Si 288.158†	1436.0	0.6048	mg/L	0.00487	3.024	mg/L	0.0244	0.81%
Sn 189.927†	-18.6	-0.00205	mg/L	0.000754	-0.01027	mg/L	0.003769	36.71%
Sr 421.552†	154039.4	0.1577	mg/L	0.00054	0.7885	mg/L	0.00269	0.34%
Ti 334.903†	101075.1	4.087	mg/L	0.0158	20.43	mg/L	0.079	0.39%
Tl 190.801†	-32.7	-0.00325	mg/L	0.000487	-0.01625	mg/L	0.002437	14.99%
V 292.402†	20558.5	0.1552	mg/L	0.00059	0.7760	mg/L	0.00295	0.38%
Zn 206.200†	6396.0	1.327	mg/L	0.0185	6.635	mg/L	0.0927	1.40%

Sequence No.: 12
Sample ID: VS23 A-L SWC
Analyst: BA
Dilution: 25.000000X

Autosampler Location: 308
Date Collected: 11/30/2012 12:42:55 PM
Data Type: Original

Nebulizer Parameters: VS23 A-L SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS23 A-L SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2775935.5	103.7	%	0.67				0.64%
ScR 361.383	382607.7	104.8	%	0.47				0.45%
Ag 328.068†	-33.4	-0.00017	mg/L	0.000206	-0.00417	mg/L	0.005143	123.34%
Al 308.215†	26121.8	14.12	mg/L	0.086	352.9	mg/L	2.14	0.61%
As 188.979†	-9.6	0.00882	mg/L	0.000538	0.2204	mg/L	0.01345	6.10%
B 249.677†	16.9	0.00189	mg/L	0.000945	0.04719	mg/L	0.023624	50.06%
Ba 233.527†	1745.2	0.3160	mg/L	0.00196	7.901	mg/L	0.0490	0.62%
Be 313.042†	328.5	0.00044	mg/L	0.000011	0.01088	mg/L	0.000285	2.62%
Ca 317.933†	62381.1	3.646	mg/L	0.0186	91.14	mg/L	0.464	0.51%
Cd 228.802†	107.4	0.00338	mg/L	0.000102	0.08460	mg/L	0.002551	3.02%
Co 228.616†	343.3	0.00667	mg/L	0.000235	0.1667	mg/L	0.00588	3.53%
Cr 267.716†	142.4	0.01829	mg/L	0.000695	0.4572	mg/L	0.01739	3.80%
Cu 324.752†	3798.1	0.01427	mg/L	0.000009	0.3567	mg/L	0.00024	0.07%
Fe 273.955†	27408.1	15.52	mg/L	0.080	388.0	mg/L	1.99	0.51%
K 766.490†	2470.1	1.029	mg/L	0.0071	25.73	mg/L	0.178	0.69%
Mg 279.077†	4684.1	2.894	mg/L	0.0111	72.34	mg/L	0.278	0.38%
Mn 257.610†	56293.9	1.207	mg/L	0.0065	30.17	mg/L	0.164	0.54%
Mo 202.031†	20.7	0.00088	mg/L	0.000200	0.02195	mg/L	0.005001	22.78%
Na 589.592†	1956.4	0.1456	mg/L	0.00261	3.640	mg/L	0.0652	1.79%
Na 330.237†	10.5	0.3338	mg/L	0.03027	8.346	mg/L	0.7569	9.07%
Ni 231.604†	76.4	0.01486	mg/L	0.000213	0.3716	mg/L	0.00533	1.43%
Pb 220.353†	1268.2	0.1394	mg/L	0.00074	3.484	mg/L	0.0184	0.53%
Sb 206.836†	2.2	0.00062	mg/L	0.001379	0.01545	mg/L	0.034479	223.12%
Se 196.026†	0.3	0.00018	mg/L	0.001669	0.00452	mg/L	0.041736	922.38%
Si 288.158†	1063.9	0.4470	mg/L	0.00435	11.18	mg/L	0.109	0.97%
Sn 189.927†	-7.1	-0.00107	mg/L	0.000510	-0.02667	mg/L	0.012747	47.79%
Sr 421.552†	42989.6	0.04401	mg/L	0.000274	1.100	mg/L	0.0069	0.62%
Ti 334.903†	11732.0	0.4742	mg/L	0.00312	11.86	mg/L	0.078	0.66%
Tl 190.801†	-1.5	0.00099	mg/L	0.001778	0.02484	mg/L	0.044446	178.90%
V 292.402†	3311.9	0.02505	mg/L	0.000141	0.6262	mg/L	0.00351	0.56%
Zn 206.200†	1195.1	0.2480	mg/L	0.00118	6.199	mg/L	0.0295	0.48%

Sequence No.: 13
Sample ID: VS23 A SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 309
Date Collected: 11/30/2012 12:46:55 PM
Data Type: Original

Nebulizer Parameters: VS23 A SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS23 A SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2783024.0	104.0	%	0.18				0.17%
ScR 361.383	380559.5	104.2	%	1.29				1.24%
Ag 328.068†	12.7	0.00010	mg/L	0.000073	0.00051	mg/L	0.000363	70.52%
Al 308.215†	133893.7	72.36	mg/L	0.718	361.8	mg/L	3.59	0.99%
As 188.979†	-26.5	0.05484	mg/L	0.003568	0.2742	mg/L	0.01784	6.51%
B 249.677†	55.2	0.00615	mg/L	0.001033	0.03073	mg/L	0.005165	16.81%
Ba 233.527†	8809.9	1.595	mg/L	0.0257	7.977	mg/L	0.1284	1.61%
Be 313.042†	1604.3	0.00212	mg/L	0.000049	0.01062	mg/L	0.000246	2.31%
Ca 317.933†	319448.9	18.67	mg/L	0.228	93.35	mg/L	1.139	1.22%
Cd 228.802†	556.6	0.01748	mg/L	0.000196	0.08740	mg/L	0.000979	1.12%
Co 228.616†	1645.9	0.03167	mg/L	0.000021	0.1584	mg/L	0.00011	0.07%
Cr 267.716†	660.1	0.08485	mg/L	0.001268	0.4243	mg/L	0.00634	1.49%
Cu 324.752†	19486.7	0.07317	mg/L	0.000616	0.3659	mg/L	0.00308	0.84%
Fe 273.955†	139100.6	78.77	mg/L	0.964	393.8	mg/L	4.82	1.22%
K 766.490†	12951.5	5.396	mg/L	0.0394	26.98	mg/L	0.197	0.73%
Mg 279.077†	23533.5	14.54	mg/L	0.213	72.69	mg/L	1.063	1.46%
Mn 257.610†	286027.9	6.131	mg/L	0.0675	30.66	mg/L	0.337	1.10%
Mo 202.031†	78.5	0.00328	mg/L	0.000031	0.01640	mg/L	0.000157	0.96%
Na 589.592†	9588.6	0.7136	mg/L	0.00849	3.568	mg/L	0.0425	1.19%
Na 330.237†	22.7	0.8024	mg/L	0.08093	4.012	mg/L	0.4046	10.09%
Ni 231.604†	381.2	0.07417	mg/L	0.001735	0.3709	mg/L	0.00867	2.34%
Pb 220.353†	6256.6	0.6880	mg/L	0.00172	3.440	mg/L	0.0086	0.25%
Sb 206.836†	31.5	0.00876	mg/L	0.002802	0.04380	mg/L	0.014008	31.98%
Se 196.026†	7.3	0.00406	mg/L	0.001145	0.02032	mg/L	0.005724	28.17%
Si 288.158†	5109.4	2.147	mg/L	0.0290	10.73	mg/L	0.145	1.35%
Sn 189.927†	-27.5	-0.00349	mg/L	0.000397	-0.01744	mg/L	0.001985	11.38%
Sr 421.552†	217613.2	0.2228	mg/L	0.00205	1.114	mg/L	0.0102	0.92%
Ti 334.903†	59225.5	2.394	mg/L	0.0233	11.97	mg/L	0.116	0.97%
Tl 190.801†	-20.3	0.00037	mg/L	0.002088	0.00187	mg/L	0.010442	558.62%
V 292.402†	16522.0	0.1249	mg/L	0.00089	0.6244	mg/L	0.00443	0.71%
Zn 206.200†	6014.1	1.248	mg/L	0.0202	6.239	mg/L	0.1010	1.62%

Sequence No.: 14
Sample ID: VS23 ADUP SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 310
Date Collected: 11/30/2012 12:50:55 PM
Data Type: Original

Nebulizer Parameters: VS23 ADUP SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VS23 ADUP SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2770673.5	103.5	%	0.34				0.33%
ScR 361.383	384264.8	105.2	%	1.43				1.36%
Ag 328.068†	45.7	0.00028	mg/L	0.000251	0.00138	mg/L	0.001255	90.90%
Al 308.215†	136182.3	73.60	mg/L	1.619	368.0	mg/L	8.09	2.20%
As 188.979†	-33.6	0.05324	mg/L	0.003443	0.2662	mg/L	0.01722	6.47%
B 249.677†	62.4	0.00695	mg/L	0.000772	0.03474	mg/L	0.003862	11.12%
Ba 233.527†	8859.5	1.603	mg/L	0.0223	8.015	mg/L	0.1117	1.39%
Be 313.042†	1689.6	0.00224	mg/L	0.000055	0.01119	mg/L	0.000275	2.46%
Ca 317.933†	323532.4	18.91	mg/L	0.429	94.54	mg/L	2.143	2.27%
Cd 228.802†	538.9	0.01685	mg/L	0.000196	0.08427	mg/L	0.000980	1.16%
Co 228.616†	1745.9	0.03372	mg/L	0.000239	0.1686	mg/L	0.00119	0.71%
Cr 267.716†	668.7	0.08625	mg/L	0.001532	0.4313	mg/L	0.00766	1.78%
Cu 324.752†	19275.0	0.07276	mg/L	0.000290	0.3638	mg/L	0.00145	0.40%
Fe 273.955†	153676.1	87.02	mg/L	2.034	435.1	mg/L	10.17	2.34%
K 766.490†	13355.1	5.565	mg/L	0.1251	27.82	mg/L	0.626	2.25%
Mg 279.077†	23659.5	14.61	mg/L	0.192	73.05	mg/L	0.961	1.32%
Mn 257.610†	295603.0	6.337	mg/L	0.1458	31.68	mg/L	0.729	2.30%
Mo 202.031†	77.6	0.00324	mg/L	0.000137	0.01621	mg/L	0.000683	4.21%
Na 589.592†	10455.9	0.7781	mg/L	0.01789	3.891	mg/L	0.0895	2.30%
Na 330.237†	27.7	0.9716	mg/L	0.13697	4.858	mg/L	0.6849	14.10%
Ni 231.604†	409.3	0.07963	mg/L	0.001501	0.3981	mg/L	0.00751	1.89%
Pb 220.353†	5910.0	0.6507	mg/L	0.00274	3.253	mg/L	0.0137	0.42%
Sb 206.836†	40.6	0.01121	mg/L	0.001281	0.05605	mg/L	0.006407	11.43%
Se 196.026†	12.3	0.00691	mg/L	0.001479	0.03457	mg/L	0.007393	21.38%
Si 288.158†	5545.1	2.330	mg/L	0.0237	11.65	mg/L	0.119	1.02%
Sn 189.927†	-29.2	-0.00382	mg/L	0.000883	-0.01910	mg/L	0.004415	23.12%
Sr 421.552†	220188.8	0.2254	mg/L	0.00534	1.127	mg/L	0.0267	2.37%
Ti 334.903†	60751.4	2.456	mg/L	0.0566	12.28	mg/L	0.283	2.30%
Tl 190.801†	-15.3	0.00307	mg/L	0.001515	0.01535	mg/L	0.007574	49.35%
V 292.402†	16911.1	0.1276	mg/L	0.00078	0.6380	mg/L	0.00389	0.61%
Zn 206.200†	5882.4	1.220	mg/L	0.0141	6.102	mg/L	0.0706	1.16%

Sequence No.: 15
Sample ID: VS23 ASPK SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 311
Date Collected: 11/30/2012 12:54:55 PM
Data Type: Original

Nebulizer Parameters: VS23 ASPK SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS23 ASPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2779495.1	103.9	%	0.15				0.15%
ScR 361.383	382161.6	104.7	%	1.66				1.59%
Ag 328.068†	38448.1	0.2006	mg/L	0.00134	1.003	mg/L	0.0067	0.67%
Al 308.215†	132384.6	71.55	mg/L	1.301	357.7	mg/L	6.51	1.82%
As 188.979†	1610.7	0.8277	mg/L	0.00099	4.138	mg/L	0.0049	0.12%
B 249.677†	70.8	0.00749	mg/L	0.000057	0.03743	mg/L	0.000287	0.77%
Ba 233.527†	12832.8	2.330	mg/L	0.0401	11.65	mg/L	0.200	1.72%
Be 313.042†	150210.7	0.2038	mg/L	0.00397	1.019	mg/L	0.0199	1.95%
Ca 317.933†	388778.9	22.72	mg/L	0.468	113.6	mg/L	2.34	2.06%
Cd 228.802†	7218.8	0.2290	mg/L	0.00119	1.145	mg/L	0.0059	0.52%
Co 228.616†	10536.4	0.2340	mg/L	0.00116	1.170	mg/L	0.0058	0.50%
Cr 267.716†	2273.9	0.2893	mg/L	0.00462	1.446	mg/L	0.0231	1.60%
Cu 324.752†	77108.2	0.2809	mg/L	0.00089	1.405	mg/L	0.0045	0.32%
Fe 273.955†	133398.4	75.54	mg/L	1.355	377.7	mg/L	6.77	1.79%
K 766.490†	22405.7	9.336	mg/L	0.1588	46.68	mg/L	0.794	1.70%
Mg 279.077†	29945.5	18.51	mg/L	0.300	92.56	mg/L	1.498	1.62%
Mn 257.610†	252932.8	5.422	mg/L	0.1004	27.11	mg/L	0.502	1.85%
Mo 202.031†	83.4	0.00344	mg/L	0.000299	0.01722	mg/L	0.001496	8.69%
Na 589.592†	63235.9	4.706	mg/L	0.0796	23.53	mg/L	0.398	1.69%
Na 330.237†	172.7	5.160	mg/L	0.0639	25.80	mg/L	0.319	1.24%
Ni 231.604†	1409.3	0.2739	mg/L	0.00448	1.369	mg/L	0.0224	1.64%
Pb 220.353†	13894.4	1.511	mg/L	0.0064	7.554	mg/L	0.0320	0.42%
Sb 206.836†	38.2	0.00836	mg/L	0.000881	0.04182	mg/L	0.004406	10.54%
Se 196.026†	1387.9	0.7933	mg/L	0.00707	3.967	mg/L	0.0353	0.89%
Si 288.158†	5323.1	2.238	mg/L	0.0442	11.19	mg/L	0.221	1.98%
Sn 189.927†	-30.2	-0.00356	mg/L	0.000776	-0.01780	mg/L	0.003880	21.80%
Sr 421.552†	409691.2	0.4194	mg/L	0.00671	2.097	mg/L	0.0336	1.60%
Ti 334.903†	59158.3	2.391	mg/L	0.0444	11.96	mg/L	0.222	1.86%
Tl 190.801†	2104.5	0.7696	mg/L	0.00544	3.848	mg/L	0.0272	0.71%
V 292.402†	41624.5	0.3197	mg/L	0.00215	1.599	mg/L	0.0108	0.67%
Zn 206.200†	6818.8	1.415	mg/L	0.0246	7.074	mg/L	0.1228	1.74%

Sequence No.: 16 ZZZZZZ
Sample ID: ~~VS23 APOST SWC~~ BA
Analyst: BA
Dilution: 5.000000X 12/3/12

Autosampler Location: 312
Date Collected: 11/30/2012 12:58:56 PM
Data Type: Original

Nebulizer Parameters: VS23 APOST SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS23 APOST SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2741136.9	102.4	%	1.19				1.16%
ScR 361.383	382042.3	104.6	%	0.24				0.23%
Ag 328.068†	93193.1	0.4861	mg/L	0.00643	2.431	mg/L	0.0322	1.32%
Al 308.215†	138650.0	74.93	mg/L	0.281	374.6	mg/L	1.40	0.38%
As 188.979†	4223.7	2.062	mg/L	0.0276	10.31	mg/L	0.138	1.34%
B 249.677†	65.6	0.00627	mg/L	0.000126	0.03133	mg/L	0.000630	2.01%
Ba 233.527†	19734.2	3.589	mg/L	0.0233	17.95	mg/L	0.116	0.65%
Be 313.042†	378000.3	0.5130	mg/L	0.00222	2.565	mg/L	0.0111	0.43%
Ca 317.933†	493654.7	28.85	mg/L	0.076	144.3	mg/L	0.38	0.26%
Cd 228.802†	17322.2	0.5494	mg/L	0.00815	2.747	mg/L	0.0408	1.48%
Co 228.616†	23985.0	0.5398	mg/L	0.00782	2.699	mg/L	0.0391	1.45%
Cr 267.716†	4551.0	0.5778	mg/L	0.00120	2.889	mg/L	0.0060	0.21%
Cu 324.752†	166419.1	0.6033	mg/L	0.00783	3.017	mg/L	0.0392	1.30%
Fe 273.955†	143519.6	81.26	mg/L	0.336	406.3	mg/L	1.68	0.41%
K 766.490†	36649.1	15.27	mg/L	0.060	76.35	mg/L	0.300	0.39%
Mg 279.077†	39727.6	24.57	mg/L	0.057	122.8	mg/L	0.29	0.23%
Mn 257.610†	311848.7	6.685	mg/L	0.0221	33.43	mg/L	0.110	0.33%
Mo 202.031†	87.1	0.00353	mg/L	0.000091	0.01763	mg/L	0.000453	2.57%
Na 589.592†	142597.5	10.61	mg/L	0.047	53.06	mg/L	0.237	0.45%
Na 330.237†	381.9	11.22	mg/L	0.351	56.08	mg/L	1.754	3.13%
Ni 231.604†	2890.1	0.5614	mg/L	0.00241	2.807	mg/L	0.0120	0.43%
Pb 220.353†	25053.5	2.713	mg/L	0.0419	13.57	mg/L	0.209	1.54%
Sb 206.836†	55.3	0.01005	mg/L	0.003743	0.05025	mg/L	0.018717	37.25%
Se 196.026†	3544.2	2.026	mg/L	0.0344	10.13	mg/L	0.172	1.70%
Si 288.158†	5069.8	2.133	mg/L	0.0149	10.67	mg/L	0.075	0.70%
Sn 189.927†	-40.6	-0.00507	mg/L	0.000764	-0.02537	mg/L	0.003818	15.05%
Sr 421.552†	707491.2	0.7243	mg/L	0.00241	3.622	mg/L	0.0120	0.33%
Ti 334.903†	60012.3	2.425	mg/L	0.0086	12.13	mg/L	0.043	0.36%
Tl 190.801†	5294.1	1.925	mg/L	0.0281	9.626	mg/L	0.1407	1.46%
V 292.402†	82091.4	0.6337	mg/L	0.00880	3.168	mg/L	0.0440	1.39%
Zn 206.200†	8363.6	1.735	mg/L	0.0053	8.677	mg/L	0.0263	0.30%

Sequence No.: 17
Sample ID: VS23 MB1SPK SWC
Analyst: BA
Dilution: 2.000000X

Autosampler Location: 313
Date Collected: 11/30/2012 1:02:12 PM
Data Type: Original

Nebulizer Parameters: VS23 MB1SPK SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS23 MB1SPK SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2753759.2	102.9	%	0.21				0.20%
ScR 361.383	376516.8	103.1	%	1.09				1.06%
Ag 328.068†	102602.3	0.5352	mg/L	0.00085	1.070	mg/L	0.0017	0.16%
Al 308.215†	3760.3	2.025	mg/L	0.0153	4.050	mg/L	0.0306	0.76%
As 188.979†	4368.9	2.063	mg/L	0.0023	4.125	mg/L	0.0046	0.11%
B 249.677†	15.1	0.00064	mg/L	0.000408	0.00127	mg/L	0.000816	64.24%
Ba 233.527†	11241.6	2.052	mg/L	0.0229	4.103	mg/L	0.0457	1.11%
Be 313.042†	381738.5	0.5181	mg/L	0.00411	1.036	mg/L	0.0082	0.79%
Ca 317.933†	169469.4	9.904	mg/L	0.0817	19.81	mg/L	0.163	0.83%
Cd 228.802†	16778.2	0.5319	mg/L	0.00310	1.064	mg/L	0.0062	0.58%
Co 228.616†	22768.4	0.5180	mg/L	0.00249	1.036	mg/L	0.0050	0.48%
Cr 267.716†	4075.1	0.5163	mg/L	0.00524	1.033	mg/L	0.0105	1.02%
Cu 324.752†	145883.8	0.5264	mg/L	0.00040	1.053	mg/L	0.0008	0.08%
Fe 273.955†	3677.1	2.078	mg/L	0.0174	4.157	mg/L	0.0347	0.84%
K 766.490†	23897.9	9.957	mg/L	0.0507	19.91	mg/L	0.101	0.51%
Mg 279.077†	16591.3	10.28	mg/L	0.094	20.56	mg/L	0.187	0.91%
Mn 257.610†	23991.9	0.5147	mg/L	0.00387	1.029	mg/L	0.0077	0.75%
Mo 202.031†	27.0	0.00106	mg/L	0.000260	0.00213	mg/L	0.000520	24.43%
Na 589.592†	135052.6	10.05	mg/L	0.078	20.10	mg/L	0.155	0.77%
Na 330.237†	368.1	10.66	mg/L	0.152	21.32	mg/L	0.305	1.43%
Ni 231.604†	2631.1	0.5110	mg/L	0.00471	1.022	mg/L	0.0094	0.92%
Pb 220.353†	19016.5	2.049	mg/L	0.0143	4.098	mg/L	0.0286	0.70%
Sb 206.836†	22.8	0.00070	mg/L	0.001212	0.00140	mg/L	0.002424	172.89%
Se 196.026†	3586.2	2.050	mg/L	0.0028	4.100	mg/L	0.0057	0.14%
Si 288.158†	1.6	0.00388	mg/L	0.003630	0.00776	mg/L	0.007260	93.54%
Sn 189.927†	-27.2	-0.00480	mg/L	0.000306	-0.00960	mg/L	0.000611	6.37%
Sr 421.552†	500410.1	0.5123	mg/L	0.00290	1.025	mg/L	0.0058	0.57%
Ti 334.903†	42.9	0.00116	mg/L	0.000479	0.00232	mg/L	0.000958	41.29%
Tl 190.801†	5593.2	2.026	mg/L	0.0043	4.052	mg/L	0.0086	0.21%
V 292.402†	67197.3	0.5215	mg/L	0.00247	1.043	mg/L	0.0049	0.47%
Zn 206.200†	2467.4	0.5120	mg/L	0.00432	1.024	mg/L	0.0086	0.84%

Sequence No.: 18
Sample ID: CV 2
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/30/2012 1:06:13 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2708119.3	101.2	%	1.67				1.65%
ScR 361.383	372532.8	102.0	%	0.65				0.64%
Ag 328.068†	199034.2	1.038	mg/L	0.0216	1.038	mg/L	0.0216	2.08%
Al 308.215†	3699.4	1.964	mg/L	0.0311	1.964	mg/L	0.0311	1.58%
As 188.979†	4285.7	2.050	mg/L	0.0314	2.050	mg/L	0.0314	1.53%
B 249.677†	8830.8	0.9939	mg/L	0.01588	0.9939	mg/L	0.01588	1.60%
Ba 233.527†	5506.4	1.005	mg/L	0.0164	1.005	mg/L	0.0164	1.63%
Be 313.042†	746081.4	1.013	mg/L	0.0044	1.013	mg/L	0.0044	0.43%
Ca 317.933†	34720.4	2.029	mg/L	0.0260	2.029	mg/L	0.0260	1.28%
Cd 228.802†	32345.1	1.038	mg/L	0.0201	1.038	mg/L	0.0201	1.93%
Co 228.616†	44547.3	1.012	mg/L	0.0215	1.012	mg/L	0.0215	2.12%
Cr 267.716†	7897.5	1.002	mg/L	0.0149	1.002	mg/L	0.0149	1.48%
Cu 324.752†	287353.1	1.036	mg/L	0.0224	1.036	mg/L	0.0224	2.16%
Fe 273.955†	3607.2	2.035	mg/L	0.0251	2.035	mg/L	0.0251	1.23%
K 766.490†	48284.6	20.12	mg/L	0.042	20.12	mg/L	0.042	0.21%
Mg 279.077†	3184.1	1.980	mg/L	0.0229	1.980	mg/L	0.0229	1.16%
Mn 257.610†	47383.6	1.016	mg/L	0.0154	1.016	mg/L	0.0154	1.51%
Mo 202.031†	23575.8	1.048	mg/L	0.0154	1.048	mg/L	0.0154	1.47%
Na 589.592†	688371.8	51.23	mg/L	0.193	51.23	mg/L	0.193	0.38%
Na 330.237†	1759.8	51.66	mg/L	0.766	51.66	mg/L	0.766	1.48%
Ni 231.604†	5150.9	1.002	mg/L	0.0179	1.002	mg/L	0.0179	1.79%
Pb 220.353†	19409.6	2.092	mg/L	0.0347	2.092	mg/L	0.0347	1.66%
Sb 206.836†	8017.4	2.155	mg/L	0.0321	2.155	mg/L	0.0321	1.49%
Se 196.026†	3527.3	2.016	mg/L	0.0308	2.016	mg/L	0.0308	1.53%
Si 288.158†	4891.8	2.053	mg/L	0.0348	2.053	mg/L	0.0348	1.69%
Sn 189.927†	4638.3	1.040	mg/L	0.0167	1.040	mg/L	0.0167	1.61%
Sr 421.552†	985812.9	1.009	mg/L	0.0016	1.009	mg/L	0.0016	0.15%
Ti 334.903†	25752.0	1.040	mg/L	0.0027	1.040	mg/L	0.0027	0.26%
Tl 190.801†	5560.7	2.010	mg/L	0.0310	2.010	mg/L	0.0310	1.54%
V 292.402†	133532.0	1.036	mg/L	0.0210	1.036	mg/L	0.0210	2.03%
Zn 206.200†	4997.9	1.037	mg/L	0.0148	1.037	mg/L	0.0148	1.43%

Sequence No.: 19
Sample ID: CB 2
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/30/2012 1:10:34 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2733891.2	102.2	%	0.96				0.94%
ScR 361.383	375233.8	102.8	%	0.59				0.57%
Ag 328.068†	-71.0	-0.00037	mg/L	0.000181	-0.00037	mg/L	0.000181	48.83%
Al 308.215†	4.8	0.00260	mg/L	0.008313	0.00260	mg/L	0.008313	319.46%
As 188.979†	0.7	0.00033	mg/L	0.001177	0.00033	mg/L	0.001177	355.44%
B 249.677†	11.7	0.00132	mg/L	0.000711	0.00132	mg/L	0.000711	53.77%
Ba 233.527†	1.2	0.00022	mg/L	0.000571	0.00022	mg/L	0.000571	260.73%
Be 313.042†	37.7	0.00005	mg/L	0.000011	0.00005	mg/L	0.000011	22.28%
Ca 317.933†	22.6	0.00132	mg/L	0.000868	0.00132	mg/L	0.000868	65.82%
Cd 228.802†	-4.9	-0.00016	mg/L	0.000056	-0.00016	mg/L	0.000056	34.97%
Co 228.616†	7.4	0.00017	mg/L	0.000057	0.00017	mg/L	0.000057	33.80%
Cr 267.716†	2.0	0.00025	mg/L	0.000465	0.00025	mg/L	0.000465	187.49%
Cu 324.752†	-8.9	-0.00003	mg/L	0.000113	-0.00003	mg/L	0.000113	350.19%
Fe 273.955†	0.9	0.00054	mg/L	0.000438	0.00054	mg/L	0.000438	81.51%
K 766.490†	0.7	0.00029	mg/L	0.007758	0.00029	mg/L	0.007758	>999.9%
Mg 279.077†	-2.9	-0.00178	mg/L	0.001003	-0.00178	mg/L	0.001003	56.34%
Mn 257.610†	4.3	0.00009	mg/L	0.000013	0.00009	mg/L	0.000013	13.70%
Mo 202.031†	12.5	0.00055	mg/L	0.000349	0.00055	mg/L	0.000349	63.08%
Na 589.592†	-4.2	-0.00031	mg/L	0.002482	-0.00031	mg/L	0.002482	789.20%
Na 330.237†	15.2	0.4457	mg/L	0.00895	0.4457	mg/L	0.00895	2.01%
Ni 231.604†	0.4	0.00008	mg/L	0.001070	0.00008	mg/L	0.001070	>999.9%
Pb 220.353†	7.3	0.00078	mg/L	0.000490	0.00078	mg/L	0.000490	62.57%
Sb 206.836†	11.9	0.00319	mg/L	0.000664	0.00319	mg/L	0.000664	20.82%
Se 196.026†	1.2	0.00070	mg/L	0.002977	0.00070	mg/L	0.002977	427.83%
Si 288.158†	-3.6	-0.00151	mg/L	0.001707	-0.00151	mg/L	0.001707	112.80%
Sn 189.927†	-2.7	-0.00060	mg/L	0.000216	-0.00060	mg/L	0.000216	36.14%
Sr 421.552†	9.5	0.00001	mg/L	0.000016	0.00001	mg/L	0.000016	165.48%
Ti 334.903†	-3.4	-0.00014	mg/L	0.000449	-0.00014	mg/L	0.000449	326.24%
Tl 190.801†	-0.1	-0.00003	mg/L	0.000813	-0.00003	mg/L	0.000813	>999.9%
V 292.402†	6.7	0.00005	mg/L	0.000137	0.00005	mg/L	0.000137	257.04%
Zn 206.200†	1.8	0.00038	mg/L	0.000386	0.00038	mg/L	0.000386	102.00%

Sequence No.: 20 **Autosampler Location: 314**
Sample ID: VS23 E SWC **Date Collected: 11/30/2012 1:14:49 PM**
Analyst: BA **Data Type: Original**
Dilution: 5.000000X

Nebulizer Parameters: VS23 E SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS23 E SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2817748.7	105.3	%	0.32				0.30%
ScR 361.383	385813.1	105.7	%	0.83				0.79%
Ag 328.068†	-162.3	-0.00080	mg/L	0.000016	-0.00400	mg/L	0.000078	1.94%
Al 308.215†	215319.8	116.4	mg/L	0.20	581.9	mg/L	1.00	0.17%
As 188.979†	-194.2	0.02642	mg/L	0.000823	0.1321	mg/L	0.00411	3.11%
B 249.677†	61.4	0.00684	mg/L	0.000461	0.03420	mg/L	0.002305	6.74%
Ba 233.527†	5402.7	0.9711	mg/L	0.00630	4.855	mg/L	0.0315	0.65%
Be 313.042†	2002.2	0.00264	mg/L	0.000038	0.01318	mg/L	0.000188	1.43%
Ca 317.933†	130107.6	7.604	mg/L	0.0267	38.02	mg/L	0.133	0.35%
Cd 228.802†	159.3	0.00497	mg/L	0.000130	0.02483	mg/L	0.000651	2.62%
Co 228.616†	1750.9	0.03055	mg/L	0.000112	0.1527	mg/L	0.00056	0.37%
Cr 267.716†	659.2	0.08537	mg/L	0.000920	0.4268	mg/L	0.00460	1.08%
Cu 324.752†	15329.2	0.05840	mg/L	0.000255	0.2920	mg/L	0.00128	0.44%
Fe 273.955†	163266.5	92.45	mg/L	0.172	462.2	mg/L	0.86	0.19%
K 766.490†	10045.4	4.186	mg/L	0.0027	20.93	mg/L	0.014	0.06%
Mg 279.077†	26473.7	16.35	mg/L	0.065	81.76	mg/L	0.327	0.40%
Mn 257.610†	213761.8	4.582	mg/L	0.0085	22.91	mg/L	0.043	0.19%
Mo 202.031†	64.1	0.00276	mg/L	0.000308	0.01382	mg/L	0.001538	11.13%
Na 589.592†	9357.5	0.6964	mg/L	0.00269	3.482	mg/L	0.0134	0.39%
Na 330.237†	2.7	0.7951	mg/L	0.06091	3.975	mg/L	0.3046	7.66%
Ni 231.604†	391.4	0.07615	mg/L	0.001855	0.3808	mg/L	0.00927	2.44%
Pb 220.353†	865.2	0.1173	mg/L	0.00097	0.5866	mg/L	0.00486	0.83%
Sb 206.836†	19.3	0.00638	mg/L	0.001737	0.03190	mg/L	0.008685	27.23%
Se 196.026†	19.1	0.01082	mg/L	0.003728	0.05411	mg/L	0.018639	34.45%
Si 288.158†	4788.0	2.012	mg/L	0.0121	10.06	mg/L	0.061	0.60%
Sn 189.927†	-20.9	-0.00314	mg/L	0.000822	-0.01571	mg/L	0.004110	26.16%
Sr 421.552†	93055.1	0.09527	mg/L	0.000166	0.4764	mg/L	0.00083	0.17%
Ti 334.903†	102528.3	4.146	mg/L	0.0027	20.73	mg/L	0.014	0.07%
Tl 190.801†	-28.2	-0.00115	mg/L	0.001406	-0.00573	mg/L	0.007030	122.71%
V 292.402†	20846.8	0.1566	mg/L	0.00041	0.7830	mg/L	0.00203	0.26%
Zn 206.200†	3327.3	0.6903	mg/L	0.00175	3.452	mg/L	0.0088	0.25%

Sequence No.: 21
Sample ID: VS23 F SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 315
Date Collected: 11/30/2012 1:18:51 PM
Data Type: Original

Nebulizer Parameters: VS23 F SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS23 F SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2797896.0	104.6	%	0.62				0.59%
ScR 361.383	383172.8	104.9	%	0.40				0.38%
Ag 328.068†	-269.0	-0.00135	mg/L	0.000049	-0.00677	mg/L	0.000243	3.59%
Al 308.215†	211227.1	114.2	mg/L	0.75	570.8	mg/L	3.74	0.66%
As 188.979†	-275.0	0.00620	mg/L	0.002504	0.03101	mg/L	0.012522	40.38%
B 249.677†	44.2	0.00489	mg/L	0.000476	0.02445	mg/L	0.002381	9.74%
Ba 233.527†	5425.6	0.9755	mg/L	0.00677	4.877	mg/L	0.0339	0.69%
Be 313.042†	1874.6	0.00245	mg/L	0.000005	0.01227	mg/L	0.000026	0.21%
Ca 317.933†	148806.8	8.697	mg/L	0.0541	43.48	mg/L	0.271	0.62%
Cd 228.802†	54.0	0.00181	mg/L	0.000155	0.00905	mg/L	0.000774	8.56%
Co 228.616†	1913.5	0.03304	mg/L	0.000373	0.1652	mg/L	0.00186	1.13%
Cr 267.716†	707.7	0.09152	mg/L	0.000774	0.4576	mg/L	0.00387	0.85%
Cu 324.752†	24776.5	0.09227	mg/L	0.000259	0.4614	mg/L	0.00130	0.28%
Fe 273.955†	161004.1	91.17	mg/L	0.428	455.8	mg/L	2.14	0.47%
K 766.490†	11283.5	4.701	mg/L	0.0128	23.51	mg/L	0.064	0.27%
Mg 279.077†	31013.5	19.16	mg/L	0.103	95.82	mg/L	0.514	0.54%
Mn 257.610†	54231.6	1.162	mg/L	0.0060	5.812	mg/L	0.0301	0.52%
Mo 202.031†	54.0	0.00230	mg/L	0.000193	0.01150	mg/L	0.000965	8.39%
Na 589.592†	12869.3	0.9577	mg/L	0.00709	4.789	mg/L	0.0354	0.74%
Na 330.237†	-1.4	0.8677	mg/L	0.09329	4.338	mg/L	0.4665	10.75%
Ni 231.604†	402.9	0.07838	mg/L	0.000407	0.3919	mg/L	0.00203	0.52%
Pb 220.353†	300.1	0.05594	mg/L	0.000991	0.2797	mg/L	0.00496	1.77%
Sb 206.836†	10.9	0.00433	mg/L	0.000357	0.02165	mg/L	0.001787	8.25%
Se 196.026†	11.6	0.00654	mg/L	0.002782	0.03270	mg/L	0.013910	42.53%
Si 288.158†	4991.1	2.098	mg/L	0.0074	10.49	mg/L	0.037	0.35%
Sn 189.927†	-24.5	-0.00373	mg/L	0.001316	-0.01867	mg/L	0.006580	35.24%
Sr 421.552†	102516.3	0.1050	mg/L	0.00061	0.5248	mg/L	0.00303	0.58%
Ti 334.903†	118088.2	4.775	mg/L	0.0306	23.87	mg/L	0.153	0.64%
Tl 190.801†	-34.4	-0.00359	mg/L	0.000657	-0.01796	mg/L	0.003283	18.29%
V 292.402†	22090.4	0.1654	mg/L	0.00062	0.8270	mg/L	0.00310	0.37%
Zn 206.200†	2620.6	0.5437	mg/L	0.00256	2.719	mg/L	0.0128	0.47%

Sequence No.: 22
Sample ID: VS23 G SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 316
Date Collected: 11/30/2012 1:22:51 PM
Data Type: Original

Nebulizer Parameters: VS23 G SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS23 G SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2806580.6	104.9	%	0.34				0.33%
ScR 361.383	385487.1	105.6	%	0.32				0.31%
Ag 328.068†	-339.3	-0.00171	mg/L	0.000105	-0.00856	mg/L	0.000523	6.12%
Al 308.215†	176872.0	95.59	mg/L	0.226	477.9	mg/L	1.13	0.24%
As 188.979†	-270.8	0.00356	mg/L	0.002479	0.01781	mg/L	0.012395	69.62%
B 249.677†	20.5	0.00221	mg/L	0.000221	0.01107	mg/L	0.001105	9.98%
Ba 233.527†	5917.5	1.064	mg/L	0.0023	5.319	mg/L	0.0117	0.22%
Be 313.042†	1736.2	0.00226	mg/L	0.000009	0.01131	mg/L	0.000043	0.38%
Ca 317.933†	203385.2	11.89	mg/L	0.074	59.43	mg/L	0.370	0.62%
Cd 228.802†	49.8	0.00158	mg/L	0.000047	0.00788	mg/L	0.000236	2.99%
Co 228.616†	2096.4	0.03737	mg/L	0.000288	0.1869	mg/L	0.00144	0.77%
Cr 267.716†	898.3	0.1156	mg/L	0.00105	0.5782	mg/L	0.00526	0.91%
Cu 324.752†	22640.7	0.08498	mg/L	0.000320	0.4249	mg/L	0.00160	0.38%
Fe 273.955†	177872.1	100.7	mg/L	0.43	503.6	mg/L	2.13	0.42%
K 766.490†	15150.5	6.313	mg/L	0.0517	31.56	mg/L	0.259	0.82%
Mg 279.077†	38813.8	23.99	mg/L	0.126	120.0	mg/L	0.63	0.52%
Mn 257.610†	63222.9	1.355	mg/L	0.0046	6.777	mg/L	0.0230	0.34%
Mo 202.031†	66.2	0.00281	mg/L	0.000385	0.01403	mg/L	0.001924	13.71%
Na 589.592†	10895.7	0.8108	mg/L	0.00386	4.054	mg/L	0.0193	0.48%
Na 330.237†	-4.9	0.8119	mg/L	0.10282	4.060	mg/L	0.5141	12.66%
Ni 231.604†	452.8	0.08809	mg/L	0.000420	0.4405	mg/L	0.00210	0.48%
Pb 220.353†	238.1	0.04447	mg/L	0.000334	0.2224	mg/L	0.00167	0.75%
Sb 206.836†	6.7	0.00289	mg/L	0.001611	0.01446	mg/L	0.008054	55.69%
Se 196.026†	12.5	0.00702	mg/L	0.003685	0.03510	mg/L	0.018425	52.49%
Si 288.158†	5509.5	2.316	mg/L	0.0031	11.58	mg/L	0.016	0.14%
Sn 189.927†	-26.5	-0.00381	mg/L	0.000669	-0.01903	mg/L	0.003345	17.58%
Sr 421.552†	136630.4	0.1399	mg/L	0.00021	0.6994	mg/L	0.00107	0.15%
Ti 334.903†	114299.0	4.621	mg/L	0.0136	23.11	mg/L	0.068	0.30%
Tl 190.801†	-27.2	-0.00010	mg/L	0.001597	-0.00049	mg/L	0.007985	>999.9%
V 292.402†	25904.0	0.1948	mg/L	0.00056	0.9738	mg/L	0.00280	0.29%
Zn 206.200†	1389.1	0.2882	mg/L	0.00111	1.441	mg/L	0.0055	0.38%

Sequence No.: 23
Sample ID: VS23 H SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 317
Date Collected: 11/30/2012 1:26:52 PM
Data Type: Original

Nebulizer Parameters: VS23 H SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS23 H SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2783672.2	104.0	%	0.62				0.59%
ScR 361.383	385357.5	105.5	%	0.94				0.89%
Ag 328.068†	-239.3	-0.00119	mg/L	0.000176	-0.00597	mg/L	0.000878	14.71%
Al 308.215†	194478.9	105.1	mg/L	0.40	525.5	mg/L	2.01	0.38%
As 188.979†	-226.4	0.01369	mg/L	0.000937	0.06847	mg/L	0.004686	6.84%
B 249.677†	25.0	0.00272	mg/L	0.000671	0.01362	mg/L	0.003356	24.64%
Ba 233.527†	4851.4	0.8695	mg/L	0.00792	4.348	mg/L	0.0396	0.91%
Be 313.042†	1879.8	0.00246	mg/L	0.000032	0.01232	mg/L	0.000161	1.31%
Ca 317.933†	173999.4	10.17	mg/L	0.047	50.84	mg/L	0.234	0.46%
Cd 228.802†	81.8	0.00250	mg/L	0.000072	0.01252	mg/L	0.000359	2.87%
Co 228.616†	1979.9	0.03551	mg/L	0.000365	0.1776	mg/L	0.00182	1.03%
Cr 267.716†	832.9	0.1075	mg/L	0.00125	0.5375	mg/L	0.00626	1.16%
Cu 324.752†	23628.1	0.08853	mg/L	0.000436	0.4426	mg/L	0.00218	0.49%
Fe 273.955†	173036.2	97.98	mg/L	0.556	489.9	mg/L	2.78	0.57%
K 766.490†	12363.4	5.151	mg/L	0.0314	25.76	mg/L	0.157	0.61%
Mg 279.077†	33810.3	20.89	mg/L	0.100	104.5	mg/L	0.50	0.48%
Mn 257.610†	71416.6	1.531	mg/L	0.0085	7.655	mg/L	0.0426	0.56%
Mo 202.031†	72.2	0.00309	mg/L	0.000188	0.01546	mg/L	0.000942	6.09%
Na 589.592†	11539.5	0.8587	mg/L	0.00486	4.294	mg/L	0.0243	0.57%
Na 330.237†	0.4	0.8554	mg/L	0.13516	4.277	mg/L	0.6758	15.80%
Ni 231.604†	443.5	0.08629	mg/L	0.001130	0.4314	mg/L	0.00565	1.31%
Pb 220.353†	533.4	0.07866	mg/L	0.001368	0.3933	mg/L	0.00684	1.74%
Sb 206.836†	16.5	0.00544	mg/L	0.001214	0.02718	mg/L	0.006071	22.34%
Se 196.026†	18.1	0.01023	mg/L	0.002100	0.05114	mg/L	0.010502	20.54%
Si 288.158†	4889.5	2.055	mg/L	0.0217	10.28	mg/L	0.109	1.06%
Sn 189.927†	-29.1	-0.00464	mg/L	0.001292	-0.02319	mg/L	0.006459	27.85%
Sr 421.552†	114909.3	0.1176	mg/L	0.00052	0.5882	mg/L	0.00261	0.44%
Ti 334.903†	104816.0	4.238	mg/L	0.0187	21.19	mg/L	0.094	0.44%
Tl 190.801†	-23.8	0.00090	mg/L	0.001895	0.00450	mg/L	0.009473	210.43%
V 292.402†	24402.3	0.1835	mg/L	0.00110	0.9173	mg/L	0.00550	0.60%
Zn 206.200†	1747.8	0.3626	mg/L	0.00372	1.813	mg/L	0.0186	1.03%

Sequence No.: 24
Sample ID: VS23 I SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 318
Date Collected: 11/30/2012 1:30:53 PM
Data Type: Original

Nebulizer Parameters: VS23 I SWC

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: VS23 I SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2790291.7	104.3	%	0.29				0.28%
ScR 361.383	384839.6	105.4	%	0.21				0.20%
Ag 328.068†	33.2	0.00022	mg/L	0.000323	0.00110	mg/L	0.001616	147.01%
Al 308.215†	145524.6	78.65	mg/L	0.144	393.2	mg/L	0.72	0.18%
As 188.979†	-11.2	0.07901	mg/L	0.002206	0.3950	mg/L	0.01103	2.79%
B 249.677†	62.4	0.00695	mg/L	0.000462	0.03474	mg/L	0.002310	6.65%
Ba 233.527†	6640.0	1.197	mg/L	0.0009	5.987	mg/L	0.0047	0.08%
Be 313.042†	1353.8	0.00177	mg/L	0.000024	0.00885	mg/L	0.000122	1.38%
Ca 317.933†	187209.7	10.94	mg/L	0.050	54.70	mg/L	0.250	0.46%
Cd 228.802†	369.2	0.01124	mg/L	0.000162	0.05622	mg/L	0.000808	1.44%
Co 228.616†	1850.3	0.03510	mg/L	0.000136	0.1755	mg/L	0.00068	0.39%
Cr 267.716†	758.7	0.09785	mg/L	0.000605	0.4893	mg/L	0.00303	0.62%
Cu 324.752†	19877.6	0.07491	mg/L	0.000498	0.3745	mg/L	0.00249	0.66%
Fe 273.955†	157935.5	89.43	mg/L	0.379	447.2	mg/L	1.90	0.42%
K 766.490†	13083.4	5.451	mg/L	0.0272	27.26	mg/L	0.136	0.50%
Mg 279.077†	28428.1	17.56	mg/L	0.016	87.82	mg/L	0.078	0.09%
Mn 257.610†	157702.9	3.381	mg/L	0.0120	16.90	mg/L	0.060	0.35%
Mo 202.031†	121.8	0.00529	mg/L	0.000083	0.02646	mg/L	0.000415	1.57%
Na 589.592†	11323.2	0.8427	mg/L	0.00109	4.213	mg/L	0.0055	0.13%
Na 330.237†	17.6	0.8899	mg/L	0.03931	4.450	mg/L	0.1966	4.42%
Ni 231.604†	403.8	0.07857	mg/L	0.001516	0.3928	mg/L	0.00758	1.93%
Pb 220.353†	9932.2	1.085	mg/L	0.0033	5.425	mg/L	0.0166	0.31%
Sb 206.836†	35.7	0.01012	mg/L	0.001328	0.05059	mg/L	0.006640	13.13%
Se 196.026†	15.2	0.00859	mg/L	0.005586	0.04293	mg/L	0.027928	65.06%
Si 288.158†	5183.7	2.178	mg/L	0.0039	10.89	mg/L	0.020	0.18%
Sn 189.927†	-14.7	-0.00147	mg/L	0.000444	-0.00736	mg/L	0.002222	30.18%
Sr 421.552†	145443.6	0.1489	mg/L	0.00033	0.7445	mg/L	0.00163	0.22%
Ti 334.903†	73484.8	2.971	mg/L	0.0080	14.85	mg/L	0.040	0.27%
Tl 190.801†	-24.5	-0.00017	mg/L	0.003503	-0.00083	mg/L	0.017515	>999.9%
V 292.402†	20869.2	0.1574	mg/L	0.00065	0.7870	mg/L	0.00326	0.41%
Zn 206.200†	4465.1	0.9265	mg/L	0.00209	4.632	mg/L	0.0104	0.23%

Sequence No.: 25
Sample ID: VS23 J SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 319
Date Collected: 11/30/2012 1:34:53 PM
Data Type: Original

Nebulizer Parameters: VS23 J SWC

Analyte	Back Pressure	Flow
All	217.0 kPa	0.75 L/min

Mean Data: VS23 J SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2797684.7	104.6	%	0.24				0.23%
ScR 361.383	383430.8	105.0	%	0.72				0.69%
Ag 328.068†	-135.3	-0.00066	mg/L	0.000121	-0.00329	mg/L	0.000603	18.33%
Al 308.215†	129281.4	69.87	mg/L	0.319	349.3	mg/L	1.60	0.46%
As 188.979†	-19.0	0.06355	mg/L	0.001570	0.3178	mg/L	0.00785	2.47%
B 249.677†	65.6	0.00730	mg/L	0.001153	0.03652	mg/L	0.005763	15.78%
Ba 233.527†	6116.6	1.101	mg/L	0.0052	5.506	mg/L	0.0262	0.48%
Be 313.042†	1449.7	0.00190	mg/L	0.000024	0.00952	mg/L	0.000118	1.24%
Ca 317.933†	296588.2	17.33	mg/L	0.094	86.67	mg/L	0.470	0.54%
Cd 228.802†	421.4	0.01293	mg/L	0.000209	0.06465	mg/L	0.001046	1.62%
Co 228.616†	1904.3	0.03705	mg/L	0.000281	0.1853	mg/L	0.00141	0.76%
Cr 267.716†	805.2	0.1038	mg/L	0.00065	0.5189	mg/L	0.00327	0.63%
Cu 324.752†	17804.5	0.06770	mg/L	0.000546	0.3385	mg/L	0.00273	0.81%
Fe 273.955†	165236.3	93.56	mg/L	0.670	467.8	mg/L	3.35	0.72%
K 766.490†	13138.5	5.474	mg/L	0.0315	27.37	mg/L	0.157	0.57%
Mg 279.077†	27500.4	16.99	mg/L	0.084	84.93	mg/L	0.420	0.50%
Mn 257.610†	222537.6	4.771	mg/L	0.0298	23.85	mg/L	0.149	0.63%
Mo 202.031†	105.8	0.00451	mg/L	0.000255	0.02255	mg/L	0.001275	5.65%
Na 589.592†	9460.9	0.7041	mg/L	0.00150	3.520	mg/L	0.0075	0.21%
Na 330.237†	17.8	0.8350	mg/L	0.18551	4.175	mg/L	0.9276	22.22%
Ni 231.604†	432.5	0.08415	mg/L	0.001358	0.4207	mg/L	0.00679	1.61%
Pb 220.353†	6473.2	0.7102	mg/L	0.00223	3.551	mg/L	0.0112	0.31%
Sb 206.836†	34.7	0.00957	mg/L	0.000818	0.04787	mg/L	0.004092	8.55%
Se 196.026†	5.9	0.00324	mg/L	0.002712	0.01618	mg/L	0.013559	83.82%
Si 288.158†	4922.8	2.069	mg/L	0.0064	10.34	mg/L	0.032	0.31%
Sn 189.927†	-27.1	-0.00353	mg/L	0.000382	-0.01767	mg/L	0.001909	10.80%
Sr 421.552†	153540.4	0.1572	mg/L	0.00084	0.7860	mg/L	0.00420	0.53%
Ti 334.903†	63634.8	2.572	mg/L	0.0121	12.86	mg/L	0.060	0.47%
Tl 190.801†	-19.5	0.00210	mg/L	0.002387	0.01048	mg/L	0.011933	113.91%
V 292.402†	21170.6	0.1601	mg/L	0.00054	0.8003	mg/L	0.00268	0.33%
Zn 206.200†	4001.5	0.8302	mg/L	0.00450	4.151	mg/L	0.0225	0.54%

Sequence No.: 26
Sample ID: VS23 K SWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 320
Date Collected: 11/30/2012 1:38:53 PM
Data Type: Original

Nebulizer Parameters: VS23 K SWC

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: VS23 K SWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Units	Std.Dev.	Sample Conc.	Units	Std.Dev.	RSD
ScA 357.253	2790907.0	104.3	%	0.39				0.37%
ScR 361.383	386251.4	105.8	%	0.46				0.43%
Ag 328.068†	42.4	0.00028	mg/L	0.000051	0.00140	mg/L	0.000254	18.15%
Al 308.215†	162036.0	87.57	mg/L	0.134	437.9	mg/L	0.67	0.15%
As 188.979†	-57.2	0.07141	mg/L	0.001441	0.3570	mg/L	0.00720	2.02%
B 249.677†	111.7	0.01249	mg/L	0.000379	0.06243	mg/L	0.001896	3.04%
Ba 233.527†	9896.6	1.790	mg/L	0.0167	8.950	mg/L	0.0835	0.93%
Be 313.042†	1525.6	0.00199	mg/L	0.000016	0.00994	mg/L	0.000082	0.82%
Ca 317.933†	653680.0	38.20	mg/L	0.061	191.0	mg/L	0.30	0.16%
Cd 228.802†	1688.0	0.05413	mg/L	0.000260	0.2707	mg/L	0.00130	0.48%
Co 228.616†	2239.1	0.04268	mg/L	0.000126	0.2134	mg/L	0.00063	0.29%
Cr 267.716†	935.5	0.1196	mg/L	0.00176	0.5978	mg/L	0.00882	1.48%
Cu 324.752†	37671.7	0.1395	mg/L	0.00094	0.6974	mg/L	0.00472	0.68%
Fe 273.955†	180000.5	101.9	mg/L	0.14	509.6	mg/L	0.68	0.13%
K 766.490†	21611.1	9.005	mg/L	0.0505	45.02	mg/L	0.252	0.56%
Mg 279.077†	42214.1	26.10	mg/L	0.040	130.5	mg/L	0.20	0.15%
Mn 257.610†	251244.1	5.386	mg/L	0.0060	26.93	mg/L	0.030	0.11%
Mo 202.031†	93.0	0.00371	mg/L	0.000082	0.01857	mg/L	0.000408	2.20%
Na 589.592†	12073.8	0.8985	mg/L	0.00414	4.493	mg/L	0.0207	0.46%
Na 330.237†	29.0	0.8495	mg/L	0.20188	4.247	mg/L	1.0094	23.77%
Ni 231.604†	442.6	0.08611	mg/L	0.000209	0.4305	mg/L	0.00104	0.24%
Pb 220.353†	19227.8	2.088	mg/L	0.0072	10.44	mg/L	0.036	0.35%
Sb 206.836†	40.5	0.01145	mg/L	0.000484	0.05723	mg/L	0.002420	4.23%
Se 196.026†	9.8	0.00544	mg/L	0.000655	0.02720	mg/L	0.003276	12.04%
Si 288.158†	4986.4	2.097	mg/L	0.0188	10.48	mg/L	0.094	0.90%
Sn 189.927†	-30.9	-0.00161	mg/L	0.000588	-0.00804	mg/L	0.002938	36.53%
Sr 421.552†	314552.3	0.3220	mg/L	0.00060	1.610	mg/L	0.0030	0.19%
Ti 334.903†	87093.3	3.520	mg/L	0.0038	17.60	mg/L	0.019	0.11%
Tl 190.801†	-22.3	0.00178	mg/L	0.002128	0.00889	mg/L	0.010640	119.67%
V 292.402†	26462.9	0.2003	mg/L	0.00095	1.001	mg/L	0.0047	0.47%
Zn 206.200†	11774.1	2.443	mg/L	0.0200	12.21	mg/L	0.100	0.82%

Sequence No.: 27
Sample ID: VT46 A TWC
Analyst: BA
Dilution: 5.000000X

Autosampler Location: 321
Date Collected: 11/30/2012 1:42:54 PM
Data Type: Original

Nebulizer Parameters: VT46 A TWC

Analyte	Back Pressure	Flow
A11	218.0 kPa	0.75 L/min

Mean Data: VT46 A TWC

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2652509.9	99.13	%	0.327				0.33%
ScR 361.383	370783.4	101.5	%	0.98				0.97%
Ag 328.068†	-108.1	-0.00056	mg/L	0.000182	-0.00278	mg/L	0.000912	32.76%
Al 308.215†	94460.4	51.06	mg/L	0.671	255.3	mg/L	3.35	1.31%
As 188.979†	1.5	0.00052	mg/L	0.000985	0.00259	mg/L	0.004926	190.32%
B 249.677†	7296.7	0.8220	mg/L	0.00808	4.110	mg/L	0.0404	0.98%
Ba 233.527†	880.1	0.1604	mg/L	0.00207	0.8021	mg/L	0.01037	1.29%
Be 313.042†	-225.7	-0.00031	mg/L	0.000019	-0.00156	mg/L	0.000097	6.24%
Ca 317.933†	64469.0	3.768	mg/L	0.0509	18.84	mg/L	0.255	1.35%
Cd 228.802†	39.7	0.00139	mg/L	0.000123	0.00694	mg/L	0.000617	8.89%
Co 228.616†	82.2	0.00180	mg/L	0.000071	0.00899	mg/L	0.000356	3.96%
Cr 267.716†	1829.8	0.2320	mg/L	0.00194	1.160	mg/L	0.0097	0.83%
Cu 324.752†	11171.0	0.04034	mg/L	0.000240	0.2017	mg/L	0.00120	0.59%
Fe 273.955†	2525.2	1.430	mg/L	0.0130	7.150	mg/L	0.0652	0.91%
K 766.490†	946803.6	394.5	mg/L	4.21	1972	mg/L	21.05	1.07%
Mg 279.077†	2971.5	1.840	mg/L	0.0170	9.202	mg/L	0.0850	0.92%
Mn 257.610†	46917.9	1.005	mg/L	0.0112	5.027	mg/L	0.0559	1.11%
Mo 202.031†	280.2	0.01240	mg/L	0.000236	0.06200	mg/L	0.001179	1.90%
Na 589.592†	10617787.4	790.2	mg/L	6.01	3951	mg/L	30.07	0.76%
Na 330.237†	27360.0	803.9	mg/L	9.93	4020	mg/L	49.63	1.23%
Ni 231.604†	633.3	0.1232	mg/L	0.00088	0.6161	mg/L	0.00439	0.71%
Pb 220.353†	12.5	0.01388	mg/L	0.000283	0.06938	mg/L	0.001415	2.04%
Sb 206.836†	28.5	0.00442	mg/L	0.001426	0.02209	mg/L	0.007131	32.28%
Se 196.026†	12.0	0.00683	mg/L	0.003258	0.03416	mg/L	0.016291	47.69%
Si 288.158†	5227.5	2.195	mg/L	0.0354	10.97	mg/L	0.177	1.61%
Sn 189.927†	6.5	0.00193	mg/L	0.000325	0.00964	mg/L	0.001623	16.84%
Sr 421.552†	15752.3	0.01613	mg/L	0.000186	0.08064	mg/L	0.000929	1.15%
Ti 334.903†	391.0	0.01557	mg/L	0.000501	0.07787	mg/L	0.002507	3.22%
Tl 190.801†	0.8	0.00028	mg/L	0.000292	0.00141	mg/L	0.001461	103.87%
V 292.402†	3040.5	0.02459	mg/L	0.000231	0.1230	mg/L	0.00115	0.94%
Zn 206.200†	13261.2	2.751	mg/L	0.0351	13.76	mg/L	0.175	1.27%

Sequence No.: 28
Sample ID: CV 3
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/30/2012 1:47:32 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2765707.8	103.4	%	0.31				0.30%
ScR 361.383	375319.8	102.8	%	0.23				0.22%
Ag 328.068†	198631.1	1.036	mg/L	0.0034	1.036	mg/L	0.0034	0.33%
Al 308.215†	3774.2	2.005	mg/L	0.0133	2.005	mg/L	0.0133	0.66%
As 188.979†	4262.0	2.038	mg/L	0.0106	2.038	mg/L	0.0106	0.52%
B 249.677†	9015.4	1.015	mg/L	0.0029	1.015	mg/L	0.0029	0.29%
Ba 233.527†	5642.0	1.029	mg/L	0.0020	1.029	mg/L	0.0020	0.20%
Be 313.042†	749154.3	1.017	mg/L	0.0039	1.017	mg/L	0.0039	0.38%
Ca 317.933†	35481.5	2.074	mg/L	0.0119	2.074	mg/L	0.0119	0.57%
Cd 228.802†	32197.9	1.034	mg/L	0.0063	1.034	mg/L	0.0063	0.61%
Co 228.616†	44622.7	1.014	mg/L	0.0061	1.014	mg/L	0.0061	0.60%
Cr 267.716†	8074.3	1.025	mg/L	0.0032	1.025	mg/L	0.0032	0.31%
Cu 324.752†	286266.0	1.032	mg/L	0.0053	1.032	mg/L	0.0053	0.52%
Fe 273.955†	3674.3	2.073	mg/L	0.0067	2.073	mg/L	0.0067	0.32%
K 766.490†	48756.0	20.31	mg/L	0.151	20.31	mg/L	0.151	0.74%
Mg 279.077†	3254.7	2.024	mg/L	0.0049	2.024	mg/L	0.0049	0.24%
Mn 257.610†	48126.3	1.032	mg/L	0.0037	1.032	mg/L	0.0037	0.36%
Mo 202.031†	23374.9	1.039	mg/L	0.0055	1.039	mg/L	0.0055	0.53%
Na 589.592†	691914.8	51.49	mg/L	0.297	51.49	mg/L	0.297	0.58%
Na 330.237†	1796.8	52.74	mg/L	0.463	52.74	mg/L	0.463	0.88%
Ni 231.604†	5269.1	1.025	mg/L	0.0037	1.025	mg/L	0.0037	0.36%
Pb 220.353†	19244.9	2.074	mg/L	0.0107	2.074	mg/L	0.0107	0.51%
Sb 206.836†	7954.1	2.138	mg/L	0.0127	2.138	mg/L	0.0127	0.59%
Se 196.026†	3496.7	1.998	mg/L	0.0122	1.998	mg/L	0.0122	0.61%
Si 288.158†	4944.0	2.075	mg/L	0.0051	2.075	mg/L	0.0051	0.25%
Sn 189.927†	4604.5	1.033	mg/L	0.0046	1.033	mg/L	0.0046	0.45%
Sr 421.552†	988682.1	1.012	mg/L	0.0051	1.012	mg/L	0.0051	0.50%
Ti 334.903†	25866.0	1.045	mg/L	0.0046	1.045	mg/L	0.0046	0.44%
Tl 190.801†	5529.3	1.999	mg/L	0.0083	1.999	mg/L	0.0083	0.42%
V 292.402†	133537.5	1.036	mg/L	0.0041	1.036	mg/L	0.0041	0.40%
Zn 206.200†	5139.2	1.066	mg/L	0.0046	1.066	mg/L	0.0046	0.43%

Sequence No.: 29
Sample ID: CB 3
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/30/2012 1:51:54 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2735969.9	102.2	%	0.30				0.29%
ScR 361.383	373759.0	102.4	%	0.61				0.59%
Ag 328.068†	-59.1	-0.00031	mg/L	0.000023	-0.00031	mg/L	0.000023	7.62%
Al 308.215†	-6.8	-0.00371	mg/L	0.003571	-0.00371	mg/L	0.003571	96.19%
As 188.979†	-2.6	-0.00119	mg/L	0.001272	-0.00119	mg/L	0.001272	106.74%
B 249.677†	22.6	0.00255	mg/L	0.000383	0.00255	mg/L	0.000383	15.03%
Ba 233.527†	4.5	0.00081	mg/L	0.000329	0.00081	mg/L	0.000329	40.53%
Be 313.042†	33.8	0.00005	mg/L	0.000032	0.00005	mg/L	0.000032	68.68%
Ca 317.933†	20.7	0.00121	mg/L	0.001327	0.00121	mg/L	0.001327	109.75%
Cd 228.802†	-0.7	-0.00001	mg/L	0.000125	-0.00001	mg/L	0.000125	848.10%
Co 228.616†	3.3	0.00007	mg/L	0.000181	0.00007	mg/L	0.000181	245.52%
Cr 267.716†	5.6	0.00071	mg/L	0.000721	0.00071	mg/L	0.000721	101.54%
Cu 324.752†	32.8	0.00012	mg/L	0.000041	0.00012	mg/L	0.000041	35.07%
Fe 273.955†	1.9	0.00110	mg/L	0.000059	0.00110	mg/L	0.000059	5.32%
K 766.490†	6.0	0.00250	mg/L	0.007723	0.00250	mg/L	0.007723	308.50%
Mg 279.077†	-5.6	-0.00346	mg/L	0.003094	-0.00346	mg/L	0.003094	89.45%
Mn 257.610†	4.5	0.00010	mg/L	0.000044	0.00010	mg/L	0.000044	46.08%
Mo 202.031†	17.1	0.00076	mg/L	0.000368	0.00076	mg/L	0.000368	48.52%
Na 589.592†	267.2	0.01989	mg/L	0.002404	0.01989	mg/L	0.002404	12.09%
Na 330.237†	6.9	0.2020	mg/L	0.19758	0.2020	mg/L	0.19758	97.83%
Ni 231.604†	-0.0	-0.00000	mg/L	0.001074	-0.00000	mg/L	0.001074	>999.9%
Pb 220.353†	1.0	0.00010	mg/L	0.000905	0.00010	mg/L	0.000905	863.26%
Sb 206.836†	7.1	0.00190	mg/L	0.000103	0.00190	mg/L	0.000103	5.43%
Se 196.026†	1.5	0.00086	mg/L	0.002776	0.00086	mg/L	0.002776	322.61%
Si 288.158†	2.6	0.00110	mg/L	0.002985	0.00110	mg/L	0.002985	270.40%
Sn 189.927†	0.4	0.00010	mg/L	0.000598	0.00010	mg/L	0.000598	596.84%
Sr 421.552†	4.1	0.00000	mg/L	0.000032	0.00000	mg/L	0.000032	755.27%
Ti 334.903†	16.9	0.00068	mg/L	0.000564	0.00068	mg/L	0.000564	82.84%
Tl 190.801†	-0.2	-0.00006	mg/L	0.000298	-0.00006	mg/L	0.000298	538.47%
V 292.402†	14.8	0.00012	mg/L	0.000089	0.00012	mg/L	0.000089	75.66%
Zn 206.200†	3.5	0.00073	mg/L	0.000348	0.00073	mg/L	0.000348	47.99%

Sequence No.: 30
Sample ID: CRI
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 301
Date Collected: 11/30/2012 1:56:09 PM
Data Type: Original

Nebulizer Parameters: CRI

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CRI

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2758238.9	103.1	%	0.50				0.48%
ScR 361.383	376690.3	103.2	%	0.49				0.47%
Ag 328.068†	563.3	0.00294	mg/L	0.000151	0.00294	mg/L	0.000151	5.12%
Al 308.215†	78.4	0.04221	mg/L	0.005439	0.04221	mg/L	0.005439	12.89%
As 188.979†	98.8	0.04678	mg/L	0.001666	0.04678	mg/L	0.001666	3.56%
B 249.677†	192.3	0.02166	mg/L	0.000504	0.02166	mg/L	0.000504	2.33%
Ba 233.527†	17.3	0.00314	mg/L	0.001008	0.00314	mg/L	0.001008	32.10%
Be 313.042†	717.6	0.00097	mg/L	0.000030	0.00097	mg/L	0.000030	3.05%
Ca 317.933†	825.3	0.04823	mg/L	0.000484	0.04823	mg/L	0.000484	1.00%
Cd 228.802†	69.9	0.00197	mg/L	0.000116	0.00197	mg/L	0.000116	5.88%
Co 228.616†	158.9	0.00360	mg/L	0.000061	0.00360	mg/L	0.000061	1.71%
Cr 267.716†	45.2	0.00574	mg/L	0.000930	0.00574	mg/L	0.000930	16.20%
Cu 324.752†	548.5	0.00198	mg/L	0.000110	0.00198	mg/L	0.000110	5.57%
Fe 273.955†	89.4	0.05060	mg/L	0.001434	0.05060	mg/L	0.001434	2.83%
K 766.490†	1169.2	0.4871	mg/L	0.01710	0.4871	mg/L	0.01710	3.51%
Mg 279.077†	74.0	0.04589	mg/L	0.001338	0.04589	mg/L	0.001338	2.92%
Mn 257.610†	46.0	0.00099	mg/L	0.000050	0.00099	mg/L	0.000050	5.07%
Mo 202.031†	117.9	0.00524	mg/L	0.000075	0.00524	mg/L	0.000075	1.43%
Na 589.592†	6547.5	0.4873	mg/L	0.00265	0.4873	mg/L	0.00265	0.54%
Na 330.237†	43.2	1.269	mg/L	0.4316	1.269	mg/L	0.4316	34.00%
Ni 231.604†	53.8	0.01048	mg/L	0.000267	0.01048	mg/L	0.000267	2.54%
Pb 220.353†	185.7	0.02002	mg/L	0.000387	0.02002	mg/L	0.000387	1.94%
Sb 206.836†	197.9	0.05323	mg/L	0.001925	0.05323	mg/L	0.001925	3.62%
Se 196.026†	91.4	0.05226	mg/L	0.001256	0.05226	mg/L	0.001256	2.40%
Si 288.158†	146.4	0.06142	mg/L	0.000735	0.06142	mg/L	0.000735	1.20%
Sn 189.927†	43.3	0.00972	mg/L	0.000785	0.00972	mg/L	0.000785	8.07%
Sr 421.552†	984.3	0.00101	mg/L	0.000034	0.00101	mg/L	0.000034	3.35%
Ti 334.903†	132.6	0.00535	mg/L	0.000778	0.00535	mg/L	0.000778	14.53%
Tl 190.801†	132.9	0.04821	mg/L	0.000919	0.04821	mg/L	0.000919	1.91%
V 292.402†	403.6	0.00314	mg/L	0.000198	0.00314	mg/L	0.000198	6.31%
Zn 206.200†	49.1	0.01019	mg/L	0.000151	0.01019	mg/L	0.000151	1.48%

Sequence No.: 31
Sample ID: ICSA
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 302
Date Collected: 11/30/2012 2:00:25 PM
Data Type: Original

Nebulizer Parameters: ICSA

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: ICSA

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2689738.9	100.5	%	0.35				0.35%
ScR 361.383	371684.7	101.8	%	0.62				0.60%
Ag 328.068†	-283.4	-0.00147	mg/L	0.000060	-0.00147	mg/L	0.000060	4.10%
Al 308.215†	364410.1	197.0	mg/L	0.46	197.0	mg/L	0.46	0.23%
As 188.979†	32.1	0.00958	mg/L	0.001508	0.00958	mg/L	0.001508	15.75%
B 249.677†	-47.6	-0.00536	mg/L	0.000479	-0.00536	mg/L	0.000479	8.94%
Ba 233.527†	163.1	-0.00212	mg/L	0.000630	-0.00212	mg/L	0.000630	29.78%
Be 313.042†	63.8	0.00008	mg/L	0.000010	0.00008	mg/L	0.000010	11.31%
Ca 317.933†	1690370.1	98.79	mg/L	0.496	98.79	mg/L	0.496	0.50%
Cd 228.802†	53.4	-0.00022	mg/L	0.000110	-0.00022	mg/L	0.000110	50.22%
Co 228.616†	81.3	-0.00070	mg/L	0.000182	-0.00070	mg/L	0.000182	26.02%
Cr 267.716†	12.2	-0.00016	mg/L	0.001417	-0.00016	mg/L	0.001417	897.65%
Cu 324.752†	-2208.2	-0.00018	mg/L	0.000058	-0.00018	mg/L	0.000058	32.51%
Fe 273.955†	343997.3	194.8	mg/L	0.85	194.8	mg/L	0.85	0.43%
K 766.490†	-18.5	-0.00770	mg/L	0.009981	-0.00770	mg/L	0.009981	129.65%
Mg 279.077†	157890.6	97.71	mg/L	0.626	97.71	mg/L	0.626	0.64%
Mn 257.610†	59.3	0.00124	mg/L	0.000350	0.00124	mg/L	0.000350	28.17%
Mo 202.031†	65.3	0.00183	mg/L	0.000157	0.00183	mg/L	0.000157	8.56%
Na 589.592†	263.4	0.01960	mg/L	0.003116	0.01960	mg/L	0.003116	15.89%
Na 330.237†	10.9	0.3219	mg/L	0.10613	0.3219	mg/L	0.10613	32.97%
Ni 231.604†	-2.9	-0.00056	mg/L	0.001204	-0.00056	mg/L	0.001204	216.82%
Pb 220.353†	-402.7	-0.00426	mg/L	0.001623	-0.00426	mg/L	0.001623	38.15%
Sb 206.836†	46.3	0.01229	mg/L	0.001561	0.01229	mg/L	0.001561	12.70%
Se 196.026†	17.0	0.00973	mg/L	0.008176	0.00973	mg/L	0.008176	84.05%
Si 288.158†	-36.3	-0.00338	mg/L	0.001822	-0.00338	mg/L	0.001822	53.88%
Sn 189.927†	-89.6	-0.00784	mg/L	0.000779	-0.00784	mg/L	0.000779	9.93%
Sr 421.552†	3978.2	0.00407	mg/L Conf.	0.000078	0.00407	mg/L	0.000078	1.92%
Ti 334.903†	168.1	0.00208	mg/L	0.000385	0.00208	mg/L	0.000385	18.51%
Tl 190.801†	-59.5	-0.00080	mg/L	0.000795	-0.00080	mg/L	0.000795	99.53%
V 292.402†	1475.1	0.00460	mg/L	0.000119	0.00460	mg/L	0.000119	2.60%
Zn 206.200†	9.9	0.00206	mg/L	0.000324	0.00206	mg/L	0.000324	15.76%

Sequence No.: 32
Sample ID: ICSAB
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 303
Date Collected: 11/30/2012 2:04:27 PM
Data Type: Original

Nebulizer Parameters: ICSAB

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: ICSAB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2695770.7	100.7	%	0.40				0.40%
ScR 361.383	369012.9	101.1	%	0.49				0.49%
Ag 328.068†	201960.2	1.053	mg/L	0.0110	1.053	mg/L	0.0110	1.04%
Al 308.215†	364362.4	196.9	mg/L	0.29	196.9	mg/L	0.29	0.15%
As 188.979†	2148.0	1.008	mg/L	0.0102	1.008	mg/L	0.0102	1.02%
B 249.677†	-22.2	-0.00446	mg/L	0.001031	-0.00446	mg/L	0.001031	23.08%
Ba 233.527†	5716.9	1.012	mg/L	0.0029	1.012	mg/L	0.0029	0.29%
Be 313.042†	740773.7	1.005	mg/L	0.0033	1.005	mg/L	0.0033	0.33%
Ca 317.933†	1693014.6	98.94	mg/L	0.310	98.94	mg/L	0.310	0.31%
Cd 228.802†	31564.5	1.018	mg/L	0.0088	1.018	mg/L	0.0088	0.86%
Co 228.616†	42001.4	0.9532	mg/L	0.00960	0.9532	mg/L	0.00960	1.01%
Cr 267.716†	8008.7	1.015	mg/L	0.0024	1.015	mg/L	0.0024	0.23%
Cu 324.752†	288105.3	1.047	mg/L	0.0091	1.047	mg/L	0.0091	0.87%
Fe 273.955†	343283.4	194.4	mg/L	0.55	194.4	mg/L	0.55	0.28%
K 766.490†	-65.1	-0.02713	mg/L	0.017395	-0.02713	mg/L	0.017395	64.11%
Mg 279.077†	158224.4	97.92	mg/L	0.286	97.92	mg/L	0.286	0.29%
Mn 257.610†	44728.9	0.9590	mg/L	0.00193	0.9590	mg/L	0.00193	0.20%
Mo 202.031†	66.2	0.00182	mg/L	0.000489	0.00182	mg/L	0.000489	26.96%
Na 589.592†	458.2	0.03410	mg/L	0.003101	0.03410	mg/L	0.003101	9.10%
Na 330.237†	23.7	0.3795	mg/L	0.02509	0.3795	mg/L	0.02509	6.61%
Ni 231.604†	5026.8	0.9781	mg/L	0.00230	0.9781	mg/L	0.00230	0.24%
Pb 220.353†	8734.7	0.9805	mg/L	0.00459	0.9805	mg/L	0.00459	0.47%
Sb 206.836†	3859.6	1.027	mg/L	0.0047	1.027	mg/L	0.0047	0.46%
Se 196.026†	1747.8	0.9984	mg/L	0.00221	0.9984	mg/L	0.00221	0.22%
Si 288.158†	-47.6	-0.00444	mg/L	0.001428	-0.00444	mg/L	0.001428	32.15%
Sn 189.927†	-85.1	-0.00632	mg/L	0.001509	-0.00632	mg/L	0.001509	23.89%
Sr 421.552†	3931.6	0.00403	mg/L Conf.	0.000021	0.00403	mg/L	0.000021	0.52%
Ti 334.903†	166.9	0.00182	mg/L	0.000767	0.00182	mg/L	0.000767	42.10%
Tl 190.801†	2520.8	0.9268	mg/L	0.00346	0.9268	mg/L	0.00346	0.37%
V 292.402†	130750.7	1.008	mg/L	0.0098	1.008	mg/L	0.0098	0.97%
Zn 206.200†	4667.9	0.9685	mg/L	0.00228	0.9685	mg/L	0.00228	0.24%

Sequence No.: 33
Sample ID: CV 4
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 7
Date Collected: 11/30/2012 2:08:30 PM
Data Type: Original

Nebulizer Parameters: CV

Analyte	Back Pressure	Flow
All	218.0 kPa	0.75 L/min

Mean Data: CV

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2753764.8	102.9	%	0.27				0.27%
ScR 361.383	373328.2	102.2	%	0.81				0.79%
Ag 328.068†	198828.6	1.037	mg/L	0.0019	1.037	mg/L	0.0019	0.18%
Al 308.215†	3829.1	2.034	mg/L	0.0276	2.034	mg/L	0.0276	1.36%
As 188.979†	4225.4	2.021	mg/L	0.0065	2.021	mg/L	0.0065	0.32%
B 249.677†	9045.0	1.018	mg/L	0.0160	1.018	mg/L	0.0160	1.57%
Ba 233.527†	5658.6	1.032	mg/L	0.0169	1.032	mg/L	0.0169	1.63%
Be 313.042†	743170.9	1.009	mg/L	0.0039	1.009	mg/L	0.0039	0.38%
Ca 317.933†	35503.8	2.075	mg/L	0.0353	2.075	mg/L	0.0353	1.70%
Cd 228.802†	31933.6	1.025	mg/L	0.0025	1.025	mg/L	0.0025	0.24%
Co 228.616†	44313.7	1.006	mg/L	0.0048	1.006	mg/L	0.0048	0.48%
Cr 267.716†	8101.5	1.028	mg/L	0.0135	1.028	mg/L	0.0135	1.31%
Cu 324.752†	286262.7	1.032	mg/L	0.0028	1.032	mg/L	0.0028	0.27%
Fe 273.955†	3701.0	2.088	mg/L	0.0383	2.088	mg/L	0.0383	1.83%
K 766.490†	48626.4	20.26	mg/L	0.058	20.26	mg/L	0.058	0.28%
Mg 279.077†	3258.0	2.026	mg/L	0.0286	2.026	mg/L	0.0286	1.41%
Mn 257.610†	47994.2	1.029	mg/L	0.0162	1.029	mg/L	0.0162	1.57%
Mo 202.031†	23281.4	1.035	mg/L	0.0006	1.035	mg/L	0.0006	0.06%
Na 589.592†	695551.0	51.76	mg/L	0.030	51.76	mg/L	0.030	0.06%
Na 330.237†	1803.1	52.93	mg/L	0.759	52.93	mg/L	0.759	1.43%
Ni 231.604†	5271.6	1.026	mg/L	0.0135	1.026	mg/L	0.0135	1.31%
Pb 220.353†	19121.1	2.061	mg/L	0.0013	2.061	mg/L	0.0013	0.06%
Sb 206.836†	7933.1	2.132	mg/L	0.0020	2.132	mg/L	0.0020	0.09%
Se 196.026†	3466.5	1.981	mg/L	0.0040	1.981	mg/L	0.0040	0.20%
Si 288.158†	4986.3	2.093	mg/L	0.0349	2.093	mg/L	0.0349	1.67%
Sn 189.927†	4548.6	1.020	mg/L	0.0028	1.020	mg/L	0.0028	0.27%
Sr 421.552†	990236.5	1.014	mg/L	0.0021	1.014	mg/L	0.0021	0.21%
Ti 334.903†	25778.9	1.041	mg/L	0.0024	1.041	mg/L	0.0024	0.23%
Tl 190.801†	5518.1	1.995	mg/L	0.0059	1.995	mg/L	0.0059	0.30%
V 292.402†	133092.0	1.033	mg/L	0.0023	1.033	mg/L	0.0023	0.22%
Zn 206.200†	5077.5	1.053	mg/L	0.0138	1.053	mg/L	0.0138	1.31%

Sequence No.: 34
Sample ID: CB 4
Analyst: BA
Dilution: 1.000000X

Autosampler Location: 1
Date Collected: 11/30/2012 2:12:51 PM
Data Type: Original

Nebulizer Parameters: CB

Analyte	Back Pressure	Flow
All	219.0 kPa	0.75 L/min

Mean Data: CB

Analyte	Mean Corrected Intensity	Calib. Conc.	Calib. Units	Std.Dev.	Sample Conc.	Sample Units	Std.Dev.	RSD
ScA 357.253	2782506.1	104.0	%	0.27				0.26%
ScR 361.383	379864.1	104.0	%	0.51				0.49%
Ag 328.068†	-72.2	-0.00038	mg/L	0.000137	-0.00038	mg/L	0.000137	36.25%
Al 308.215†	-4.3	-0.00233	mg/L	0.005494	-0.00233	mg/L	0.005494	236.23%
As 188.979†	-0.2	-0.00007	mg/L	0.001189	-0.00007	mg/L	0.001189	>999.9%
B 249.677†	14.8	0.00167	mg/L	0.000520	0.00167	mg/L	0.000520	31.12%
Ba 233.527†	1.5	0.00027	mg/L	0.000309	0.00027	mg/L	0.000309	114.60%
Be 313.042†	52.7	0.00007	mg/L	0.000054	0.00007	mg/L	0.000054	75.93%
Ca 317.933†	37.0	0.00216	mg/L	0.000450	0.00216	mg/L	0.000450	20.78%
Cd 228.802†	-1.8	-0.00006	mg/L	0.000263	-0.00006	mg/L	0.000263	449.38%
Co 228.616†	4.3	0.00010	mg/L	0.000046	0.00010	mg/L	0.000046	46.93%
Cr 267.716†	5.9	0.00075	mg/L	0.000759	0.00075	mg/L	0.000759	100.78%
Cu 324.752†	58.5	0.00021	mg/L	0.000039	0.00021	mg/L	0.000039	18.70%
Fe 273.955†	5.9	0.00332	mg/L	0.001752	0.00332	mg/L	0.001752	52.79%
K 766.490†	5.8	0.00244	mg/L	0.023491	0.00244	mg/L	0.023491	964.34%
Mg 279.077†	-2.0	-0.00124	mg/L	0.002993	-0.00124	mg/L	0.002993	240.62%
Mn 257.610†	-4.9	-0.00011	mg/L	0.000117	-0.00011	mg/L	0.000117	110.88%
Mo 202.031†	10.4	0.00046	mg/L	0.000151	0.00046	mg/L	0.000151	32.66%
Na 589.592†	82.7	0.00616	mg/L	0.002127	0.00616	mg/L	0.002127	34.55%
Na 330.237†	16.5	0.4850	mg/L	0.17428	0.4850	mg/L	0.17428	35.93%
Ni 231.604†	0.3	0.00005	mg/L	0.000371	0.00005	mg/L	0.000371	716.17%
Pb 220.353†	1.3	0.00014	mg/L	0.000578	0.00014	mg/L	0.000578	408.16%
Sb 206.836†	12.9	0.00346	mg/L	0.000645	0.00346	mg/L	0.000645	18.64%
Se 196.026†	-1.2	-0.00068	mg/L	0.001980	-0.00068	mg/L	0.001980	291.07%
Si 288.158†	-5.3	-0.00222	mg/L	0.002756	-0.00222	mg/L	0.002756	123.95%
Sn 189.927†	0.2	0.00004	mg/L	0.000253	0.00004	mg/L	0.000253	583.67%
Sr 421.552†	24.3	0.00002	mg/L	0.000022	0.00002	mg/L	0.000022	86.57%
Ti 334.903†	4.0	0.00016	mg/L	0.000351	0.00016	mg/L	0.000351	216.50%
Tl 190.801†	0.6	0.00022	mg/L	0.002154	0.00022	mg/L	0.002154	966.98%
V 292.402†	23.1	0.00018	mg/L	0.000300	0.00018	mg/L	0.000300	164.81%
Zn 206.200†	-1.2	-0.00025	mg/L	0.000397	-0.00025	mg/L	0.000397	160.65%

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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 12-3-12 **Analyst:** AA/BA **Page:** 1 **of** 5

All corrections made by analyst unless otherwise noted. BA 12-4-12/AA 12-4-12

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		STD 0			2994-2
		1			2996-1
		2			↓ -2
		3			2995-11
		4			2996-3
		Rinse sample			
		ICV			2955-7
		ICB			
		CCV1			
		CCB1			
		Low check			
		ICSA			
		ICSAB			
		LR200			
		LR300			
		CCV2			
		CCB2			
		VS23 mB1	SWN	20	
		B @		↓	BR V Co Cr (Sc)
		D D		↓	↓ Cd Sb Pb Zn
		~~ZZZZZZ~~ AL		100	No sample added?
		A		20	BR Zn CAF
		ADUP		↓	↓
		ASPK		↓	↓ Sb Pb Sn

VS23 · 90122

Analytical Resources, Incorporated
Analytical Chemists and Consultants

ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 12-3-12 **Analyst:** AA/BA **Page:** 2 **of** 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS23 APOST	SWN	20	0.06 mL spk#2 1/10 0.06 mL spk#1 1/10 Sb
		↓ MBISPK	↓	↓	
		CCV3			
		CCB3			
		VS23 E	SWN	20	RR CoCrV (Sc)
		F			↓
		G			
		H			
		I			
		J			
		K		↓	RR CoCrV Zn Pb
		C		100	VCrCoPbZn
		D		↓	VCrCo
		↓ K	↓	↓	VCrCoPbZn
		CCV4			
		CCB4			
		VS23 A-L	SWN	100	No Zn
		A-L		500	Zn only
		A		100	↑
		ADUP			↑
		ASPK			↑
		I			VCrCo
		B			↑
		↓ E	↓	↓	↑

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ICP/MS SAMPLE RUN LOG

PE Sciex ELAN 6000 Serial No. Z13960660

Analysis Date: 12-3-12 **Analyst:** AA/BA **Page:** 3 **of** 5

All corrections made by analyst unless otherwise noted.

Edit Label	Delete Data	ARI Sample ID	Prep Code	Dilution	Comments
		VS23 F	SWN	100	V CrCo
		↓ G	↓	↓	↓
		CCV5			
		CCB5			
		VT28 MB	REN	2	
		B			
		C			
		D			
		E			
		ADUP			✓
		A			
		ASPK			✓
		VS23 H	SWN	100	V CrCo
		VT28 MBSPK	REN	2	✓
		CCV6			
		CCB6			
		~~VT41 MB1~~	~~REN~~	~~2~~	End Pkg ~~Cu (0.98 ug/L)~~ CAF
		VT28 F			
		↓ G	BA		
		VT41 D		12/4/12	
		E			
		F			
		ADUP			✓ Cu high RPD
		A	↓	↓	

VS23 : 00124

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

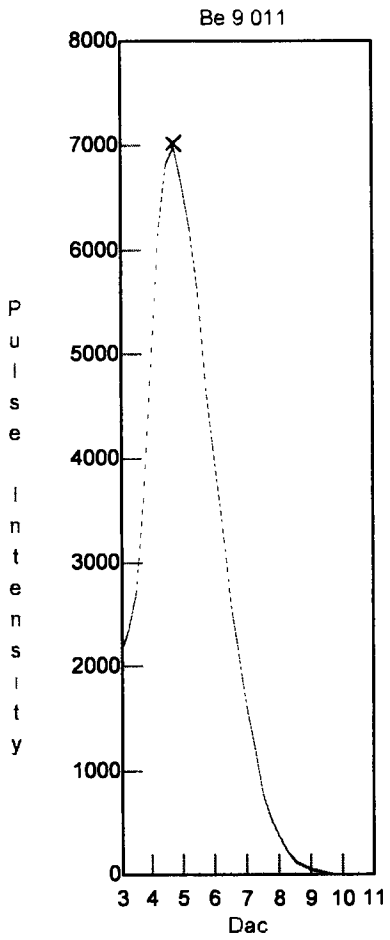
Method: ICP (ICP-MS) GFA CVA Analysis Date: 12-3-12

Nexion 350-T M1 ELAN	Analyst BA 12/4/12	Peer 12-4-12	Comment
Logbooks:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verifications:			
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	See log
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	✓	✓	See log
Carry-over	✓	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	✓	✓	
Post Spikes/Serial Dilutions	✓	✓	
Analytic Spikes	—		
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	VS23
Matrix Duplicates	✓	✓	VT41
Method Blanks	✓	✓	↓
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analysts Notes and CAF's	✓	✓	CAF - VS23, VT41

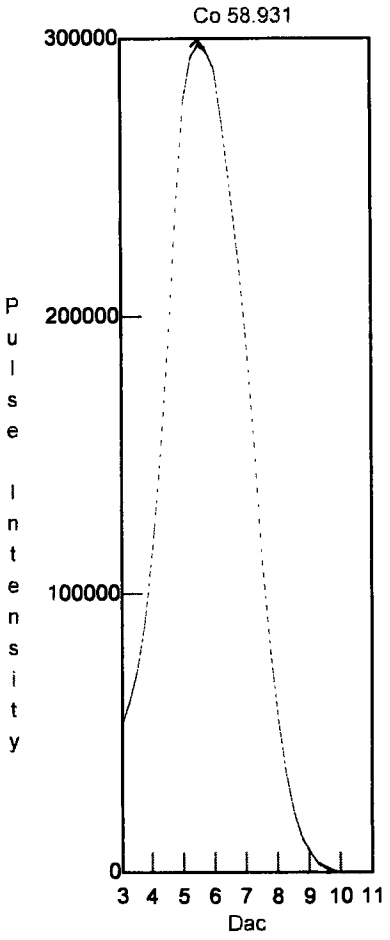
Instrument Tuning Report

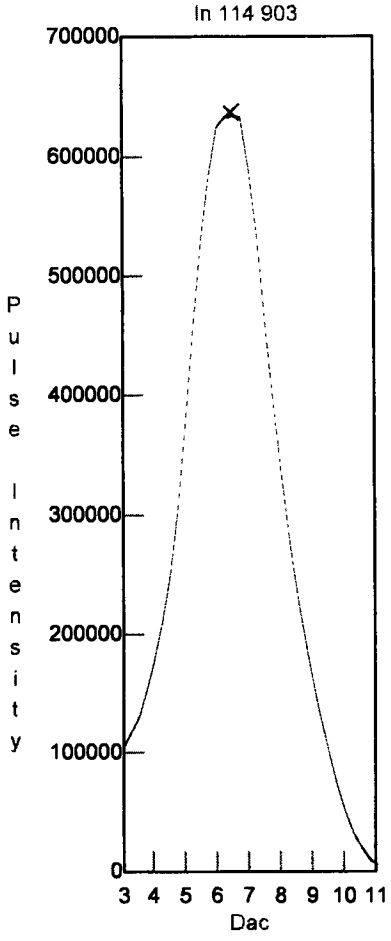
File Name: Default.tun
File Path: C:\Elandata\Tuning\Default.tun

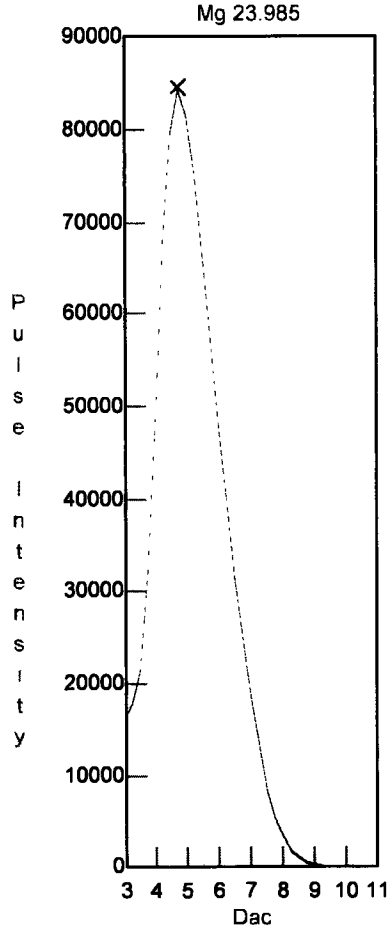
Analyte	Exact Mass	Meas. Mass	Mass DAC	Res. DAC	Meas. Pk. Width	Custom Res.
Be	9.012	8.975	2029	2158	0.702	
Mg	23.985	23.979	5666	2265	0.686	
Co	58.933	58.929	14160	2532	0.690	
In	114.904	114.879	27795	2979	0.697	
Pb	207.977	207.974	50443	3725	0.686	

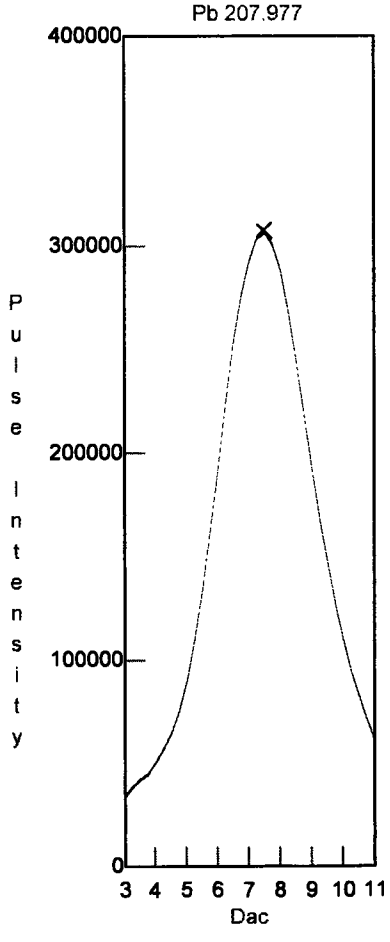


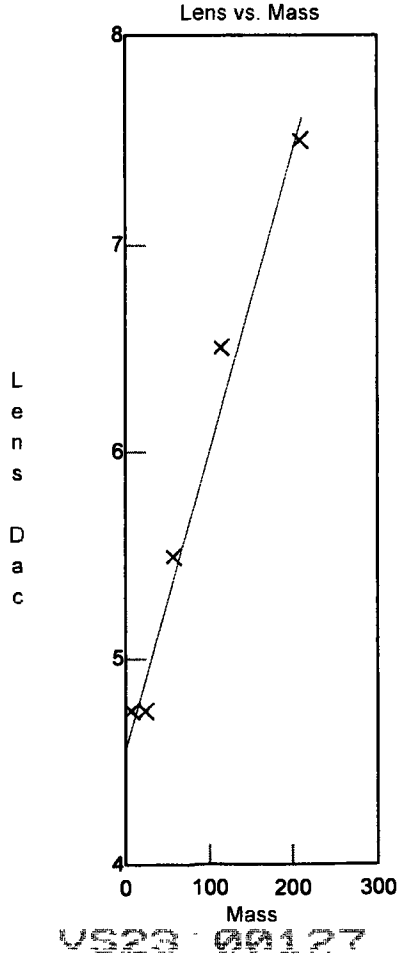
12-2-12











Daily Performance Report

Sample ID: Sample
Sample Date/Time: Monday, December 03, 2012 08:37:47
Sample Description:
Sample File: C:\Elandata\Sample\1119.sam
Method File: C:\Elandata\Method\aridailyperf.mth
Dataset File: C:\Elandata\Dataset\daily performance\Sample.1213
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\Default.dac
Number of Replicates: 5
Dual Detector Mode: Dual

0.92

Summary

	Analyte	Mass	Net Intens. Mean	Net Intens. SD	Net Intens. RSD
	Mg	24	39942.552	507.755	1.271
	In	115	397828.952	4965.829	1.248
	Pb	208	207222.638	2405.345	1.161
⌈>	Ba	138	283767.834	1962.645	0.692
⌊	Ba++	69	0.014	0.000	3.027
⌈>	Ce	140	344368.353	1700.279	0.494
⌊	CeO	156	0.029	0.001	2.903
	Bkgd	220	11.751	2.739	23.307

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Blank
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 09:24:38
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L				249415	1
[	Be	9		ug/L				3	115
	C	13		mg/L				4541	2
	Cl	37		mg/L				2180819	0
[>	Sc	45		ug/L				249523	0
[	V	51		ug/L				2642	5
[	V-1	51		ug/L				2962	0
[	Cr	52		ug/L				8246	1
[	Cr	53		ug/L				1033	3
[	Mn	55		ug/L				350	4
[	Co	59		ug/L				44	18
[>	Ge	72		ug/L				354677	1
[	Ni	60		ug/L				85	11
[	Ni	62		ug/L				65	6
[	Cu	63		ug/L				198	5
[	Cu	65		ug/L				112	8
[	Zn	66		ug/L				452	3
[	Zn	67		ug/L				145	5
[	Zn	68		ug/L				10815	0
[	As	75		ug/L				87	20
[	As-1	75		ug/L				13906	0
[	Se	82		ug/L				0	579
[	Se	78		ug/L				14142	0
[	Mo	98		ug/L				495	3
	Y	89		ug/L				349686	0
	Kr	83		ug/L				147	4
[>	In	115		ug/L				379295	1
[	Ag	107		ug/L				25	10
[	Cd	111		ug/L				186	6
[	Cd	114		ug/L				20	55
[	Sb	121		ug/L				13	23
[	Sb	123		ug/L				12	29
[	Ba	135		ug/L				35	8
[	Ba	137		ug/L				58	20
[>	Tb	159		ug/L				422259	0
[	Tl	205		ug/L				50	17
[	Pb	208		ug/L				522	12
[	Bi	209		ug/L				333939	0
[	Th	232		ug/L				97	12
[	U	238		ug/L				35	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 09:30:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	247257	1
[	Be	9	10.000	ug/L	0.153	1	3	3383	0
	C	13		mg/L			4541	2997	1
	Cl	37		mg/L			2180819	2167981	0
[>	Sc	45		ug/L			249523	246434	0
[	V	51	10.000	ug/L	0.118	1	2642	115074	0
[	V-1	51	10.000	ug/L	0.106	1	2962	118106	0
[	Cr	52	10.000	ug/L	0.100	1	8246	109209	0
[	Cr	53	10.000	ug/L	0.150	1	1033	13310	1
[	Mn	55	10.000	ug/L	0.169	1	350	169797	1
[	Co	59	10.000	ug/L	0.030	0	44	138834	0
[>	Ge	72		ug/L			354677	350495	0
[	Ni	60	10.000	ug/L	0.088	0	85	29666	0
[	Ni	62	10.000	ug/L	0.187	1	65	4562	2
[	Cu	63	10.000	ug/L	0.060	0	198	67694	0
[	Cu	65	10.000	ug/L	0.154	1	112	32367	0
[	Zn	66	10.000	ug/L	0.080	0	452	20228	1
[	Zn	67	10.000	ug/L	0.078	0	145	3471	1
[	Zn	68	10.000	ug/L	0.005	0	10815	24978	0
[	As	75	10.000	ug/L	0.096	0	87	20811	0
[	As-1	75	10.000	ug/L	0.102	1	13906	34243	0
[	Se	82	10.000	ug/L	0.122	1	0	2341	0
[	Se	78	10.000	ug/L	0.079	0	14142	19737	0
[	Mo	98	10.000	ug/L	0.071	0	495	79241	1
	Y	89		ug/L			349686	342451	0
	Kr	83		ug/L			147	159	1
[>	In	115		ug/L			379295	374289	0
[	Ag	107	10.000	ug/L	0.272	2	25	129928	2
[	Cd	111	10.000	ug/L	0.112	1	186	31874	1
[	Cd	114	10.000	ug/L	0.155	1	20	73593	0
[	Sb	121	10.000	ug/L	0.208	2	13	100965	1
[	Sb	123	10.000	ug/L	0.050	0	12	75829	0
[	Ba	135	10.000	ug/L	0.073	0	35	24614	0
[	Ba	137	10.000	ug/L	0.139	1	58	42585	1
[>	Tb	159		ug/L			422259	421283	0
[	Tl	205	10.000	ug/L	0.142	1	50	285385	0
[	Pb	208	10.000	ug/L	0.130	1	522	389648	0
[	Bi	209		ug/L			333939	331925	1
[	Th	232	10.000	ug/L	0.135	1	97	442584	0
[	U	238	10.000	ug/L	0.040	0	35	491295	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 09:36:55
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	253480	1
[	Be	9	19.955	ug/L	0.235	1	3	6857	0
	C	13		mg/L			4541	2808	1
	Cl	37		mg/L			2180819	2176476	0
[>	Sc	45		ug/L			249523	247448	0
|	V	51	20.067	ug/L	0.173	0	2642	232323	1
|	V-1	51	20.041	ug/L	0.142	0	2962	236671	1
|	Cr	52	20.060	ug/L	0.351	1	8246	214248	2
|	Cr	53	19.983	ug/L	0.232	1	1033	25600	1
|	Mn	55	20.023	ug/L	0.222	1	350	342609	1
[	Co	59	20.057	ug/L	0.182	0	44	282788	0
[>	Ge	72		ug/L			354677	357152	0
|	Ni	60	19.940	ug/L	0.410	2	85	59483	2
|	Ni	62	19.984	ug/L	0.484	2	65	9194	2
|	Cu	63	19.947	ug/L	0.015	0	198	135969	0
|	Cu	65	19.951	ug/L	0.186	0	112	65050	0
|	Zn	66	19.921	ug/L	0.195	0	452	39986	1
|	Zn	67	19.971	ug/L	0.171	0	145	6879	0
|	Zn	68	19.885	ug/L	0.345	1	10815	39194	0
|	As	75	19.979	ug/L	0.185	0	87	42101	0
|	As-1	75	19.939	ug/L	0.239	1	13906	55154	0
|	Se	82	19.992	ug/L	0.202	1	0	4764	0
|	Se	78	19.837	ug/L	0.265	1	14142	25519	0
[	Mo	98	19.955	ug/L	0.133	0	495	159207	0
	Y	89		ug/L			349686	352049	1
	Kr	83		ug/L			147	162	1
[>	In	115		ug/L			379295	376899	0
|	Ag	107	19.960	ug/L	0.181	0	25	259083	0
|	Cd	111	19.982	ug/L	0.224	1	186	63712	0
|	Cd	114	19.956	ug/L	0.185	0	20	146583	0
|	Sb	121	19.992	ug/L	0.139	0	13	202961	1
|	Sb	123	19.999	ug/L	0.047	0	12	152660	0
|	Ba	135	19.996	ug/L	0.163	0	35	49491	0
[	Ba	137	20.005	ug/L	0.153	0	58	85822	0
[>	Tb	159		ug/L			422259	421368	0
|	Tl	205	20.000	ug/L	0.218	1	50	570885	0
|	Pb	208	20.005	ug/L	0.357	1	522	779850	0
|	Bi	209		ug/L			333939	326668	0
|	Th	232	20.051	ug/L	0.261	1	97	896615	0
[	U	238	20.010	ug/L	0.363	1	35	985195	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 09:43:03
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			249415	257399	2
⌊	Be	9	50.018	ug/L	0.511	1	3	17478	1
	C	13		mg/L			4541	3315	1
	Cl	37		mg/L			2180819	2194158	0
⌈>	Sc	45		ug/L			249523	248901	1
|	V	51	49.966	ug/L	0.654	1	2642	575936	0
|	V-1	51	50.003	ug/L	0.828	1	2962	589617	0
|	Cr	52	49.876	ug/L	0.712	1	8246	517185	0
|	Cr	53	49.994	ug/L	1.313	2	1033	62817	0
|	Mn	55	49.918	ug/L	1.352	2	350	851368	1
⌊	Co	59	49.837	ug/L	0.639	1	44	695297	1
⌈>	Ge	72		ug/L			354677	357589	0
|	Ni	60	49.949	ug/L	0.435	0	85	148297	1
|	Ni	62	49.694	ug/L	0.633	1	65	22117	0
|	Cu	63	49.831	ug/L	0.400	0	198	334141	0
|	Cu	65	49.756	ug/L	0.031	0	112	158396	0
|	Zn	66	49.920	ug/L	0.859	1	452	98853	2
|	Zn	67	49.970	ug/L	0.499	0	145	16965	1
|	Zn	68	49.770	ug/L	0.608	1	10815	80234	0
|	As	75	49.930	ug/L	0.342	0	87	104488	0
|	As-1	75	49.912	ug/L	0.458	0	13906	116255	0
|	Se	82	49.944	ug/L	0.300	0	0	11851	0
|	Se	78	49.862	ug/L	0.334	0	14142	42256	0
⌊	Mo	98	50.010	ug/L	0.150	0	495	399121	0
	Y	89		ug/L			349686	352919	0
	Kr	83		ug/L			147	169	1
⌈>	In	115		ug/L			379295	379308	0
|	Ag	107	49.981	ug/L	0.015	0	25	651617	0
|	Cd	111	49.945	ug/L	0.319	0	186	159120	0
|	Cd	114	49.947	ug/L	0.210	0	20	367281	0
|	Sb	121	50.048	ug/L	0.202	0	13	513744	0
|	Sb	123	50.054	ug/L	0.476	0	12	386608	1
|	Ba	135	49.981	ug/L	0.312	0	35	124205	0
⌊	Ba	137	49.930	ug/L	0.216	0	58	213992	0
⌈>	Tb	159		ug/L			422259	421188	0
|	Tl	205	50.034	ug/L	0.214	0	50	1432388	0
|	Pb	208	50.051	ug/L	0.415	0	522	1959606	0
|	Bi	209		ug/L			333939	330580	1
|	Th	232	50.192	ug/L	0.303	0	97	2287455	0
⌊	U	238	50.198	ug/L	0.432	0	35	2520445	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Standard 4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 09:49:12
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	253748	0
[	Be	9	100.033	ug/L	0.562	0	3	34497	1
	C	13		mg/L			4541	2891	2
	Cl	37		mg/L			2180819	2223909	0
[>	Sc	45		ug/L			249523	249735	2
[	V	51	100.364	ug/L	0.317	0	2642	1172350	1
[	V-1	51	100.221	ug/L	0.870	0	2962	1191654	1
[	Cr	52	100.198	ug/L	1.490	1	8246	1040935	1
[	Cr	53	99.766	ug/L	1.781	1	1033	123799	1
[	Mn	55	99.990	ug/L	1.484	1	350	1710333	0
[	Co	59	99.592	ug/L	1.540	1	44	1375222	0
[>	Ge	72		ug/L			354677	353495	0
[	Ni	60	99.803	ug/L	1.290	1	85	290929	1
[	Ni	62	100.147	ug/L	0.668	0	65	44215	0
[	Cu	63	99.667	ug/L	0.586	0	198	653236	0
[	Cu	65	99.938	ug/L	0.693	0	112	313746	0
[	Zn	66	99.655	ug/L	1.622	1	452	192413	1
[	Zn	67	99.648	ug/L	0.877	0	145	32914	0
[	Zn	68	99.966	ug/L	1.279	1	10815	148288	1
[	As	75	99.925	ug/L	0.966	0	87	206122	0
[	As-1	75	99.932	ug/L	0.990	0	13906	215758	0
[	Se	82	99.819	ug/L	0.399	0	0	23276	0
[	Se	78	99.818	ug/L	0.396	0	14142	69169	0
[	Mo	98	100.201	ug/L	1.213	1	495	795356	1
	Y	89		ug/L			349686	348134	1
	Kr	83		ug/L			147	178	4
[>	In	115		ug/L			379295	372968	1
[	Ag	107	100.058	ug/L	1.130	1	25	1285120	1
[	Cd	111	100.215	ug/L	1.267	1	186	315989	0
[	Cd	114	100.060	ug/L	0.808	0	20	724896	1
[	Sb	121	100.327	ug/L	1.752	1	13	1023650	0
[	Sb	123	100.179	ug/L	1.269	1	12	765292	0
[	Ba	135	100.474	ug/L	0.363	0	35	249407	1
[	Ba	137	100.345	ug/L	0.509	0	58	427732	1
[>	Tb	159		ug/L			422259	421260	0
[	Tl	205	99.837	ug/L	0.903	0	50	2843184	1
[	Pb	208	99.855	ug/L	1.160	1	522	3890796	0
[	Bi	209		ug/L			333939	324607	0
[	Th	232	99.922	ug/L	2.486	2	97	4542168	1
[	U	238	100.099	ug/L	0.639	0	35	5043287	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: Rinse Sample
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 09:55:50
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\113012.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	253691	0
[	Be	9	0.014	ug/L	0.013	90	3	8	51
	C	13		mg/L			4541	4420	1
	Cl	37		mg/L			2180819	2259764	0
[>	Sc	45		ug/L			249523	253094	0
[	V	51	-0.008	ug/L	0.004	49	2642	2583	2
[	V-1	51	-0.017	ug/L	0.002	14	2962	2802	0
[	Cr	52	-0.007	ug/L	0.011	165	8246	8295	1
[	Cr	53	-0.033	ug/L	0.007	22	1033	1007	0
[	Mn	55	0.003	ug/L	0.004	135	350	404	15
[	Co	59	0.001	ug/L	0.001	95	44	56	18
[>	Ge	72		ug/L			354677	360258	1
[	Ni	60	0.007	ug/L	0.005	64	85	108	11
[	Ni	62	-0.020	ug/L	0.034	167	65	57	27
[	Cu	63	0.003	ug/L	0.004	149	198	220	13
[	Cu	65	-0.003	ug/L	0.005	170	112	105	17
[	Zn	66	-0.008	ug/L	0.006	75	452	444	1
[	Zn	67	-0.043	ug/L	0.064	146	145	132	14
[	Zn	68	-0.022	ug/L	0.119	548	10815	10955	1
[	As	75	-0.002	ug/L	0.008	374	87	84	20
[	As-1	75	0.081	ug/L	0.136	167	13906	14289	0
[	Se	82	-0.000	ug/L	0.033	114741	0	0	802
[	Se	78	0.342	ug/L	0.503	146	14142	14554	0
[	Mo	98	-0.027	ug/L	0.008	30	495	285	24
	Y	89		ug/L			349686	353954	1
	Kr	83		ug/L			147	158	6
[>	In	115		ug/L			379295	381356	1
[	Ag	107	0.016	ug/L	0.004	22	25	237	21
[	Cd	111	0.008	ug/L	0.004	56	186	212	6
[	Cd	114	0.001	ug/L	0.000	51	20	25	9
[	Sb	121	0.076	ug/L	0.016	20	13	805	21
[	Sb	123	0.072	ug/L	0.021	29	12	578	29
[	Ba	135	0.008	ug/L	0.003	40	35	57	14
[	Ba	137	0.007	ug/L	0.004	58	58	90	21
[>	Tb	159		ug/L			422259	427377	0
[	Tl	205	0.008	ug/L	0.003	32	50	282	26
[	Pb	208	0.009	ug/L	0.003	33	522	885	13
[	Bi	209		ug/L			333939	338245	1
[	Th	232	0.049	ug/L	0.010	20	97	2355	20
[	U	238	0.003	ug/L	0.001	39	35	207	32

Quantitative Analysis - Calibration Report

Sample Date/Time: Monday, December 03, 2012 09:49:12
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

Analyte	Mass	r Corr Coeff	Slope	Std 1 Conc	Std 2 Conc	Std 3 Conc	Std 4 Conc	Std 5 Conc
Li	6							
Be	9	1.0000	0.0014	10	20	50	100	
C	13							
Cl	37							
Sc	45							
V	51	1.0000	0.0467	10	20	50	100	
V-1	51	1.0000	0.0475	10	20	50	100	
Cr	52	1.0000	0.0413	10	20	50	100	
Cr	53	1.0000	0.0049	10	20	50	100	
Mn	55	1.0000	0.0685	10	20	50	100	
Co	59	1.0000	0.0553	10	20	50	100	
Ge	72							
Ni	60	1.0000	0.0082	10	20	50	100	
Ni	62	1.0000	0.0012	10	20	50	100	
Cu	63	1.0000	0.0185	10	20	50	100	
Cu	65	1.0000	0.0089	10	20	50	100	
Zn	66	1.0000	0.0054	10	20	50	100	
Zn	67	1.0000	0.0009	10	20	50	100	
Zn	68	1.0000	0.0039	10	20	50	100	
As	75	1.0000	0.0058	10	20	50	100	
As-1	75	1.0000	0.0057	10	20	50	100	
Se	82	1.0000	0.0007	10	20	50	100	
Se	78	1.0000	0.0016	10	20	50	100	
Mo	98	1.0000	0.0224	10	20	50	100	
Y	89							
Kr	83							
In	115							
Ag	107	1.0000	0.0344	10	20	50	100	
Cd	111	1.0000	0.0085	10	20	50	100	
Cd	114	1.0000	0.0194	10	20	50	100	
Sb	121	1.0000	0.0274	10	20	50	100	
Sb	123	1.0000	0.0205	10	20	50	100	
Ba	135	1.0000	0.0067	10	20	50	100	
Ba	137	1.0000	0.0114	10	20	50	100	
Tb	159							
Tl	205	1.0000	0.0676	10	20	50	100	
Pb	208	1.0000	0.0925	10	20	50	100	
Bi	209							
Th	232	1.0000	0.1079	10	20	50	100	
U	238	1.0000	0.1196	10	20	50	100	

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICV
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 10:07:41
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	263690	0
[	Be	9	49.527	ug/L	0.735	1	3	17749	0
	C	13		mg/L			4541	7784	1
	Cl	37		mg/L			2180819	2247549	0
[>	Sc	45		ug/L			249523	258284	0
[	V	51	49.550	ug/L	0.386	0	2642	600007	0
[	V-1	51	49.729	ug/L	0.196	0	2962	613112	0
[	Cr	52	48.973	ug/L	1.291	2	8246	530579	2
[	Cr	53	49.555	ug/L	0.571	1	1033	64146	0
[	Mn	55	49.828	ug/L	0.632	1	350	881885	1
[	Co	59	49.517	ug/L	0.501	1	44	707374	1
[>	Ge	72		ug/L			354677	369433	0
[	Ni	60	49.281	ug/L	0.891	1	85	150179	2
[	Ni	62	49.282	ug/L	0.079	0	65	22773	0
[	Cu	63	50.134	ug/L	0.335	0	198	343515	1
[	Cu	65	50.107	ug/L	0.418	0	112	164455	0
[	Zn	66	49.430	ug/L	0.135	0	452	99980	0
[	Zn	67	49.046	ug/L	0.329	0	145	17007	0
[	Zn	68	48.954	ug/L	0.285	0	10815	81641	0
[	As	75	51.196	ug/L	0.232	0	87	110413	0
[	As-1	75	50.549	ug/L	0.317	0	13906	121217	0
[	Se	82	79.137	ug/L	0.180	0	0	19285	0
[	Se	78	78.783	ug/L	0.511	0	14142	60158	0
[	Mo	98	48.467	ug/L	0.547	1	495	402313	0
	Y	89		ug/L			349686	361688	0
	Kr	83		ug/L			147	162	1
[>	In	115		ug/L			379295	393453	0
[	Ag	107	50.263	ug/L	0.933	1	25	680996	1
[	Cd	111	48.465	ug/L	0.284	0	186	161324	1
[	Cd	114	48.587	ug/L	0.397	0	20	371335	0
[	Sb	121	48.093	ug/L	0.565	1	13	517702	0
[	Sb	123	48.662	ug/L	0.474	0	12	392206	1
[	Ba	135	48.712	ug/L	0.408	0	35	127578	0
[	Ba	137	49.347	ug/L	0.296	0	58	221925	0
[>	Tb	159		ug/L			422259	437685	1
[	Tl	205	49.908	ug/L	0.543	1	50	1476720	1
[	Pb	208	49.618	ug/L	0.441	0	522	2008943	0
[	Bi	209		ug/L			333939	340318	0
[	Th	232	50.296	ug/L	0.959	1	97	2375475	0
[	U	238	50.659	ug/L	0.604	1	35	2651706	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 10:14:20
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	257103	1
[	Be	9	0.008	ug/L	0.005	66	3	6	28
	C	13		mg/L			4541	4476	1
	Cl	37		mg/L			2180819	2272956	0
[>	Sc	45		ug/L			249523	255189	0
[	V	51	0.012	ug/L	0.016	135	2642	2841	7
[	V-1	51	-0.023	ug/L	0.004	18	2962	2750	1
[	Cr	52	0.007	ug/L	0.009	125	8246	8512	1
[	Cr	53	-0.099	ug/L	0.055	55	1033	932	6
[	Mn	55	0.004	ug/L	0.002	39	350	433	6
[	Co	59	0.001	ug/L	0.001	71	44	59	15
[>	Ge	72		ug/L			354677	364548	1
[	Ni	60	0.002	ug/L	0.002	97	85	92	4
[	Ni	62	0.004	ug/L	0.014	328	65	68	10
[	Cu	63	0.002	ug/L	0.003	128	198	217	7
[	Cu	65	-0.005	ug/L	0.003	52	112	100	7
[	Zn	66	-0.000	ug/L	0.009	3058	452	465	4
[	Zn	67	-0.024	ug/L	0.044	186	145	141	9
[	Zn	68	-0.110	ug/L	0.184	167	10815	10958	1
[	As	75	-0.001	ug/L	0.019	1811	87	88	45
[	As-1	75	-0.003	ug/L	0.068	2016	13906	14285	0
[	Se	82	-0.032	ug/L	0.030	95	0	-8	84
[	Se	78	0.027	ug/L	0.298	1119	14142	14549	0
[	Mo	98	-0.043	ug/L	0.003	7	495	156	16
	Y	89		ug/L			349686	354727	1
	Kr	83		ug/L			147	167	2
[>	In	115		ug/L			379295	381980	0
[	Ag	107	0.010	ug/L	0.002	21	25	159	18
[	Cd	111	0.006	ug/L	0.005	87	186	206	8
[	Cd	114	0.002	ug/L	0.001	43	20	36	19
[	Sb	121	0.016	ug/L	0.002	11	13	183	11
[	Sb	123	0.016	ug/L	0.003	16	12	141	16
[	Ba	135	0.008	ug/L	0.003	39	35	55	14
[	Ba	137	0.005	ug/L	0.002	50	58	80	14
[>	Tb	159		ug/L			422259	424681	0
[	Tl	205	0.004	ug/L	0.002	54	50	170	38
[	Pb	208	0.006	ug/L	0.002	30	522	774	10
[	Bi	209		ug/L			333939	339992	1
[	Th	232	0.037	ug/L	0.006	15	97	1807	14
[	U	238	0.003	ug/L	0.001	37	35	187	29

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 10:20:08
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	256231	1
[	Be	9	49.882	ug/L	0.365	0	3	17371	0
	C	13		mg/L			4541	3326	2
	Cl	37		mg/L			2180819	2242464	0
[>	Sc	45		ug/L			249523	250637	0
|	V	51	49.334	ug/L	0.605	1	2642	579714	1
|	V-1	51	49.503	ug/L	0.497	1	2962	592266	0
|	Cr	52	50.106	ug/L	0.654	1	8246	526637	1
|	Cr	53	50.586	ug/L	0.354	0	1033	63524	0
|	Mn	55	50.136	ug/L	0.337	0	350	861035	0
[	Co	59	49.728	ug/L	0.461	0	44	689336	1
[>	Ge	72		ug/L			354677	360232	0
|	Ni	60	50.139	ug/L	0.951	1	85	148972	1
|	Ni	62	49.699	ug/L	0.698	1	65	22391	0
|	Cu	63	50.282	ug/L	0.742	1	198	335910	0
|	Cu	65	50.634	ug/L	0.626	1	112	162034	0
|	Zn	66	50.416	ug/L	0.830	1	452	99418	1
|	Zn	67	50.259	ug/L	0.263	0	145	16990	0
|	Zn	68	50.781	ug/L	0.344	0	10815	82166	0
|	As	75	49.994	ug/L	0.232	0	87	105133	0
|	As-1	75	49.966	ug/L	0.350	0	13906	116992	0
|	Se	82	50.168	ug/L	0.518	1	0	11920	0
|	Se	78	50.115	ug/L	1.052	2	14142	42537	0
[	Mo	98	49.324	ug/L	0.025	0	495	399233	0
	Y	89		ug/L			349686	352820	0
	Kr	83		ug/L			147	176	4
[>	In	115		ug/L			379295	379792	0
|	Ag	107	50.090	ug/L	0.511	1	25	655126	0
|	Cd	111	50.058	ug/L	0.682	1	186	160827	0
|	Cd	114	49.850	ug/L	0.910	1	20	367750	1
|	Sb	121	49.822	ug/L	0.270	0	13	517713	0
|	Sb	123	50.153	ug/L	0.500	0	12	390201	1
|	Ba	135	49.446	ug/L	0.186	0	35	125007	0
[	Ba	137	49.769	ug/L	0.412	0	58	216054	0
[>	Tb	159		ug/L			422259	427367	0
|	Tl	205	50.070	ug/L	0.550	1	50	1446552	0
|	Pb	208	49.764	ug/L	0.452	0	522	1967439	0
|	Bi	209		ug/L			333939	334699	0
|	Th	232	49.961	ug/L	0.112	0	97	2304356	0
[	U	238	49.783	ug/L	0.443	0	35	2544673	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB1
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 10:26:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			249415	256284	1
[	**Be**	**9**	**0.003**	ug/L	0.006	188	3	5	43
	C	**13**		mg/L			4541	4351	1
	Cl	**37**		mg/L			2180819	2272983	0
[>	**Sc**	**45**		ug/L			249523	255567	1
[	**V**	**51**	**0.004**	ug/L	0.003	84	2642	2754	0
[	**V-1**	**51**	**-0.033**	ug/L	0.003	9	2962	2630	2
[	**Cr**	**52**	**-0.022**	ug/L	0.027	120	8246	8209	1
[	**Cr**	**53**	**-0.136**	ug/L	0.011	8	1033	888	0
[	**Mn**	**55**	**0.002**	ug/L	0.001	37	350	400	3
[	**Co**	**59**	**0.001**	ug/L	0.001	103	44	53	16
[>	**Ge**	**72**		ug/L			354677	367579	0
[	**Ni**	**60**	**0.004**	ug/L	0.002	50	85	101	6
[	**Ni**	**62**	**0.013**	ug/L	0.015	112	65	73	9
[	**Cu**	**63**	**0.002**	ug/L	0.001	65	198	218	3
[	**Cu**	**65**	**-0.007**	ug/L	0.003	47	112	95	11
[	**Zn**	**66**	**-0.006**	ug/L	0.013	209	452	456	5
[	**Zn**	**67**	**-0.022**	ug/L	0.035	164	145	143	8
[	**Zn**	**68**	**-0.208**	ug/L	0.196	94	10815	10911	2
[	**As**	**75**	**0.002**	ug/L	0.008	367	87	96	19
[	**As-1**	**75**	**-0.086**	ug/L	0.040	46	13906	14232	0
[	**Se**	**82**	**0.012**	ug/L	0.044	351	0	2	493
[	**Se**	**78**	**-0.275**	ug/L	0.120	43	14142	14499	0
[	**Mo**	**98**	**-0.044**	ug/L	0.005	12	495	154	29
	Y	**89**		ug/L			349686	362302	0
	Kr	**83**		ug/L			147	160	2
[>	**In**	**115**		ug/L			379295	388145	0
[	**Ag**	**107**	**0.011**	ug/L	0.003	27	25	176	22
[	**Cd**	**111**	**0.005**	ug/L	0.004	84	186	207	6
[	**Cd**	**114**	**0.001**	ug/L	0.001	78	20	27	18
[	**Sb**	**121**	**0.027**	ug/L	0.007	26	13	303	24
[	**Sb**	**123**	**0.026**	ug/L	0.006	21	12	222	19
[	**Ba**	**135**	**0.008**	ug/L	0.004	47	35	55	16
[	**Ba**	**137**	**0.006**	ug/L	0.002	43	58	85	12
[>	**Tb**	**159**		ug/L			422259	430988	0
[	**Tl**	**205**	**0.006**	ug/L	0.002	25	50	236	19
[	**Pb**	**208**	**0.006**	ug/L	0.002	35	522	773	10
[	**Bi**	**209**		ug/L			333939	338467	1
[	**Th**	**232**	**0.044**	ug/L	0.008	17	97	2164	16
[	**U**	**238**	**0.003**	ug/L	0.001	41	35	165	31

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LOW CHECK
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 10:32:35
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	246060	1
[	Be	9	0.246	ug/L	0.020	8	3	85	8
	C	13		mg/L			4541	4054	1
	Cl	37		mg/L			2180819	2275657	0
[>	Sc	45		ug/L			249523	244976	1
[	V	51	0.213	ug/L	0.022	10	2642	5026	5
[	V-1	51	0.185	ug/L	0.003	1	2962	5063	1
[	Cr	52	0.539	ug/L	0.017	3	8246	13543	0
[	Cr	53	0.437	ug/L	0.082	18	1033	1542	5
[	Mn	55	0.525	ug/L	0.019	3	350	9159	2
[	Co	59	0.218	ug/L	0.006	2	44	2998	1
[>	Ge	72		ug/L			354677	355378	0
[	Ni	60	0.504	ug/L	0.017	3	85	1560	3
[	Ni	62	0.471	ug/L	0.046	9	65	273	7
[	Cu	63	0.552	ug/L	0.007	1	198	3834	1
[	Cu	65	0.531	ug/L	0.010	1	112	1787	1
[	Zn	66	4.239	ug/L	0.035	0	452	8662	1
[	Zn	67	3.660	ug/L	0.128	3	145	1355	2
[	Zn	68	4.204	ug/L	0.093	2	10815	16650	0
[	As	75	0.227	ug/L	0.019	8	87	559	6
[	As-1	75	0.447	ug/L	0.019	4	13906	14841	0
[	Se	82	0.524	ug/L	0.057	10	0	121	10
[	Se	78	1.461	ug/L	0.077	5	14142	14981	0
[	Mo	98	0.151	ug/L	0.005	3	495	1701	1
	Y	89		ug/L			349686	349499	0
	Kr	83		ug/L			147	173	1
[>	In	115		ug/L			379295	376263	0
[	Ag	107	0.213	ug/L	0.006	2	25	2782	2
[	Cd	111	0.110	ug/L	0.009	8	186	533	5
[	Cd	114	0.104	ug/L	0.009	8	20	782	9
[	Sb	121	0.212	ug/L	0.009	4	13	2190	3
[	Sb	123	0.216	ug/L	0.011	5	12	1674	4
[	Ba	135	0.496	ug/L	0.011	2	35	1277	2
[	Ba	137	0.515	ug/L	0.007	1	58	2270	0
[>	Tb	159		ug/L			422259	417073	0
[	Tl	205	0.219	ug/L	0.003	1	50	6233	1
[	Pb	208	0.107	ug/L	0.000	0	522	4647	0
[	Bi	209		ug/L			333939	327201	0
[	Th	232	0.226	ug/L	0.001	0	97	10266	0
[	U	238	0.202	ug/L	0.003	1	35	10105	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSA
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 10:38:23
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	250534	0
[	Be	9	0.010	ug/L	0.009	87	3	7	40
	C	13		mg/L			4541	14125	1
	Cl	37		mg/L			2180819	3613839	0
[>	Sc	45		ug/L			249523	250733	1
[	V	51	0.047	ug/L	0.008	17	2642	3206	4
[	V-1	51	0.607	ug/L	0.009	1	2962	10203	1
[	Cr	52	0.524	ug/L	0.030	5	8246	13710	1
[	Cr	53	2.224	ug/L	0.072	3	1033	3787	1
[	Mn	55	0.071	ug/L	0.004	5	350	1576	4
[	Co	59	0.025	ug/L	0.001	2	44	385	0
[>	Ge	72		ug/L			354677	364833	1
[	Ni	60	0.521	ug/L	0.037	7	85	1653	6
[	Ni	62	3.756	ug/L	0.133	3	65	1775	2
[	Cu	63	0.513	ug/L	0.014	2	198	3673	1
[	Cu	65	0.554	ug/L	0.007	1	112	1909	2
[	Zn	66	1.003	ug/L	0.021	2	452	2460	0
[	Zn	67	1.826	ug/L	0.080	4	145	769	2
[	Zn	68	-0.086	ug/L	0.139	161	10815	11003	2
[	As	75	0.094	ug/L	0.010	10	87	289	6
[	As-1	75	-0.010	ug/L	0.124	1235	13906	14282	1
[	Se	82	-0.027	ug/L	0.038	138	0	-7	122
[	Se	78	-0.210	ug/L	0.473	224	14142	14426	1
[	Mo	98	387.353	ug/L	10.422	2	495	3171383	2
	Y	89		ug/L			349686	353152	0
	Kr	83		ug/L			147	197	6
[>	In	115		ug/L			379295	375694	1
[	Ag	107	0.027	ug/L	0.002	6	25	375	7
[	Cd	111	0.120	ug/L	0.016	13	186	564	8
[	Cd	114	0.733	ug/L	0.015	2	20	5369	0
[	Sb	121	0.067	ug/L	0.001	1	13	700	2
[	Sb	123	0.072	ug/L	0.003	3	12	568	1
[	Ba	135	0.035	ug/L	0.002	5	35	122	5
[	Ba	137	0.033	ug/L	0.003	10	58	200	5
[>	Tb	159		ug/L			422259	426637	0
[	Tl	205	0.032	ug/L	0.001	2	50	983	2
[	Pb	208	0.027	ug/L	0.001	2	522	1583	1
[	Bi	209		ug/L			333939	329741	0
[	Th	232	0.087	ug/L	0.013	14	97	4106	14
[	U	238	0.004	ug/L	0.001	18	35	221	15

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ICSAB
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 10:44:40
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	248632	0
[	Be	9	0.016	ug/L	0.013	80	3	9	47
	C	13		mg/L			4541	13824	1
	Cl	37		mg/L			2180819	3536312	0
[>	Sc	45		ug/L			249523	248209	0
[	V	51	-0.354	ug/L	0.049	13	2642	-1477	39
[	V-1	51	0.657	ug/L	0.027	4	2962	10686	2
[	Cr	52	20.137	ug/L	0.141	0	8246	214514	0
[	Cr	53	22.155	ug/L	0.200	0	1033	28130	1
[	Mn	55	19.861	ug/L	0.106	0	350	338001	0
[	Co	59	19.914	ug/L	0.135	0	44	273390	0
[>	Ge	72		ug/L			354677	361285	0
[	Ni	60	19.877	ug/L	0.163	0	85	59286	0
[	Ni	62	22.868	ug/L	0.352	1	65	10370	1
[	Cu	63	20.172	ug/L	0.316	1	198	135283	1
[	Cu	65	19.933	ug/L	0.038	0	112	64049	0
[	Zn	66	20.011	ug/L	0.015	0	452	39857	0
[	Zn	67	18.914	ug/L	0.083	0	145	6505	0
[	Zn	68	18.769	ug/L	0.219	1	10815	37404	0
[	As	75	19.452	ug/L	0.246	1	87	41079	0
[	As-1	75	19.761	ug/L	0.278	1	13906	54966	0
[	Se	82	-0.057	ug/L	0.022	38	0	-14	35
[	Se	78	-0.169	ug/L	0.132	77	14142	14310	0
[	Mo	98	387.893	ug/L	3.622	0	495	3145332	0
	Y	89		ug/L			349686	352144	0
	Kr	83		ug/L			147	200	1
[>	In	115		ug/L			379295	377951	0
[	Ag	107	19.611	ug/L	0.182	0	25	255271	0
[	Cd	111	19.654	ug/L	0.180	0	186	62952	0
[	Cd	114	20.211	ug/L	0.145	0	20	148401	0
[	Sb	121	0.063	ug/L	0.003	4	13	660	4
[	Sb	123	0.069	ug/L	0.005	6	12	548	6
[	Ba	135	0.035	ug/L	0.002	7	35	122	4
[	Ba	137	0.032	ug/L	0.002	5	58	197	3
[>	Tb	159		ug/L			422259	424748	1
[	Tl	205	0.033	ug/L	0.001	3	50	986	2
[	Pb	208	0.025	ug/L	0.002	7	522	1514	3
[	Bi	209		ug/L			333939	328138	1
[	Th	232	0.046	ug/L	0.001	2	97	2185	2
[	U	238	0.004	ug/L	0.001	15	35	235	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR200
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 10:50:58
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	247473	1
[	Be	9	197.375	ug/L	4.036	2	3	66373	1
	C	13		mg/L			4541	4756	2
	Cl	37		mg/L			2180819	2182183	1
[>	Sc	45		ug/L			249523	248177	1
[	V	51	196.609	ug/L	2.175	1	2642	2279546	0
[	V-1	51	196.867	ug/L	2.616	1	2962	2323188	0
[	Cr	52	199.431	ug/L	2.658	1	8246	2050808	0
[	Cr	53	200.076	ug/L	3.752	1	1033	245697	1
[	Mn	55	198.403	ug/L	3.326	1	350	3372299	0
[	Co	59	195.351	ug/L	0.276	0	44	2681185	1
[>	Ge	72		ug/L			354677	362851	0
[	Ni	60	194.243	ug/L	4.247	2	85	581062	1
[	Ni	62	193.039	ug/L	2.446	1	65	87415	0
[	Cu	63	192.233	ug/L	3.123	1	198	1292992	0
[	Cu	65	190.055	ug/L	4.544	2	112	612271	1
[	Zn	66	190.336	ug/L	3.135	1	452	376785	1
[	Zn	67	190.449	ug/L	1.615	0	145	64439	1
[	Zn	68	191.440	ug/L	1.220	0	10815	281366	0
[	As	75	196.855	ug/L	2.486	1	87	416701	0
[	As-1	75	196.960	ug/L	2.707	1	13906	422660	0
[	Se	82	193.999	ug/L	2.631	1	0	46432	0
[	Se	78	194.082	ug/L	3.469	1	14142	124374	0
[	Mo	98	198.520	ug/L	0.831	0	495	1617025	1
	Y	89		ug/L			349686	351589	0
	Kr	83		ug/L			147	201	10
[>	In	115		ug/L			379295	377364	0
[	Ag	107	197.523	ug/L	2.455	1	25	2566889	1
[	Cd	111	196.511	ug/L	0.803	0	186	626808	0
[	Cd	114	196.722	ug/L	1.811	0	20	1441981	0
[	Sb	121	200.935	ug/L	1.598	0	13	2074610	0
[	Sb	123	199.795	ug/L	1.103	0	12	1544420	0
[	Ba	135	197.443	ug/L	0.466	0	35	495872	0
[	Ba	137	199.780	ug/L	0.238	0	58	861573	0
[>	Tb	159		ug/L			422259	429819	0
[	Tl	205	196.833	ug/L	1.871	0	50	5719058	0
[	Pb	208	196.508	ug/L	2.113	1	522	7811783	0
[	Bi	209		ug/L			333939	315102	0
[	Th	232	199.311	ug/L	3.375	1	97	9244686	1
[	U	238	198.542	ug/L	2.393	1	35	10205948	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: LR300
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 10:57:34
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	245391	0
[	Be	9	297.090	ug/L	4.749	1	3	99063	0
	C	13		mg/L			4541	4895	0
	Cl	37		mg/L			2180819	2252502	0
[>	Sc	45		ug/L			249523	249546	0
|	V	51	302.560	ug/L	3.546	1	2642	3526203	0
|	V-1	51	300.675	ug/L	1.541	0	2962	3566625	0
|	Cr	52	301.223	ug/L	2.782	0	8246	3110844	0
|	Cr	53	295.487	ug/L	3.763	1	1033	364452	1
|	Mn	55	298.850	ug/L	1.064	0	350	5108281	0
[	Co	59	299.558	ug/L	2.869	0	44	4134068	0
[>	Ge	72		ug/L			354677	362168	1
|	Ni	60	287.310	ug/L	7.323	2	85	857748	1
|	Ni	62	286.782	ug/L	1.320	0	65	129597	1
|	Cu	63	285.290	ug/L	2.109	0	198	1915331	1
|	Cu	65	284.061	ug/L	3.756	1	112	913351	0
|	Zn	66	283.732	ug/L	3.797	1	452	560363	0
|	Zn	67	284.364	ug/L	3.500	1	145	95953	1
|	Zn	68	280.141	ug/L	2.093	0	10815	405833	0
|	As	75	292.147	ug/L	3.427	1	87	617183	0
|	As-1	75	293.309	ug/L	3.715	1	13906	621261	0
|	Se	82	283.358	ug/L	4.008	1	0	67689	0
|	Se	78	286.857	ug/L	4.918	1	14142	176570	0
[	Mo	98	301.180	ug/L	1.911	0	495	2448235	1
	Y	89		ug/L			349686	352266	1
	Kr	83		ug/L			147	234	4
[>	In	115		ug/L			379295	380106	1
|	Ag	107	292.420	ug/L	0.963	0	25	3827650	0
|	Cd	111	292.269	ug/L	1.859	0	186	938935	1
|	Cd	114	292.975	ug/L	4.861	1	20	2163127	2
|	Sb	121	303.297	ug/L	0.452	0	13	3154274	1
|	Sb	123	301.772	ug/L	4.818	1	12	2349369	0
|	Ba	135	293.575	ug/L	2.702	0	35	742609	0
[	Ba	137	295.681	ug/L	2.165	0	58	1284328	0
[>	Tb	159		ug/L			422259	424493	0
|	Tl	205	293.415	ug/L	4.289	1	50	8419895	1
|	Pb	208	295.564	ug/L	2.066	0	522	11604120	0
|	Bi	209		ug/L			333939	286947	2
|	Th	232	300.506	ug/L	3.531	1	97	13766001	0
[	U	238	297.513	ug/L	1.358	0	35	15105071	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 11:04:27
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	254928	0
[	Be	9	50.278	ug/L	0.556	1	3	17420	0
	C	13		mg/L			4541	3433	0
	Cl	37		mg/L			2180819	2292728	0
[>	Sc	45		ug/L			249523	254837	0
|	V	51	50.571	ug/L	0.417	0	2642	604133	0
|	V-1	51	50.593	ug/L	0.433	0	2962	615371	0
|	Cr	52	50.640	ug/L	0.731	1	8246	541056	0
|	Cr	53	50.704	ug/L	0.828	1	1033	64733	1
|	Mn	55	50.276	ug/L	0.386	0	350	877879	0
[	Co	59	50.724	ug/L	0.606	1	44	714898	1
[>	Ge	72		ug/L			354677	370606	1
|	Ni	60	49.684	ug/L	1.072	2	85	151869	1
|	Ni	62	49.717	ug/L	0.348	0	65	23047	1
|	Cu	63	50.516	ug/L	0.098	0	198	347213	0
|	Cu	65	50.571	ug/L	0.370	0	112	166496	0
|	Zn	66	50.254	ug/L	0.490	0	452	101955	0
|	Zn	67	50.238	ug/L	0.238	0	145	17473	1
|	Zn	68	50.251	ug/L	0.260	0	10815	83767	0
|	As	75	50.354	ug/L	0.404	0	87	108937	0
|	As-1	75	50.401	ug/L	0.457	0	13906	121282	0
|	Se	82	50.394	ug/L	0.629	1	0	12318	0
|	Se	78	50.633	ug/L	0.966	1	14142	44062	0
[	Mo	98	49.676	ug/L	0.669	1	495	413662	1
	Y	89		ug/L			349686	363539	0
	Kr	83		ug/L			147	187	3
[>	In	115		ug/L			379295	388799	1
|	Ag	107	50.814	ug/L	0.843	1	25	680318	1
|	Cd	111	50.664	ug/L	0.378	0	186	166641	1
|	Cd	114	50.584	ug/L	0.994	1	20	381999	1
|	Sb	121	49.794	ug/L	0.497	0	13	529666	0
|	Sb	123	50.418	ug/L	0.101	0	12	401552	0
|	Ba	135	49.584	ug/L	0.497	1	35	128321	0
[	Ba	137	50.183	ug/L	1.173	2	58	222986	1
[>	Tb	159		ug/L			422259	439872	1
|	Tl	205	50.037	ug/L	0.597	1	50	1487798	0
|	Pb	208	49.942	ug/L	0.504	1	522	2032108	0
|	Bi	209		ug/L			333939	341710	1
|	Th	232	50.250	ug/L	0.887	1	97	2385136	0
[	U	238	50.910	ug/L	0.921	1	35	2677985	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB2
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 11:11:05
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	253465	0
[	Be	9	0.003	ug/L	0.016	458	3	5	108
	C	13		mg/L			4541	4220	0
	Cl	37		mg/L			2180819	2326472	0
[>	Sc	45		ug/L			249523	259152	2
[	V	51	-0.005	ug/L	0.009	182	2642	2685	3
[	V-1	51	0.021	ug/L	0.009	41	2962	3334	2
[	Cr	52	-0.001	ug/L	0.025	3662	8246	8552	0
[	Cr	53	0.079	ug/L	0.032	41	1033	1173	0
[	Mn	55	0.007	ug/L	0.001	20	350	484	2
[	Co	59	0.002	ug/L	0.000	20	44	81	9
[>	Ge	72		ug/L			354677	371927	1
[	Ni	60	0.005	ug/L	0.004	91	85	103	11
[	Ni	62	0.012	ug/L	0.033	269	65	73	19
[	Cu	63	0.005	ug/L	0.002	44	198	243	7
[	Cu	65	-0.001	ug/L	0.005	588	112	115	14
[	Zn	66	0.024	ug/L	0.027	112	452	524	11
[	Zn	67	0.046	ug/L	0.022	48	145	168	5
[	Zn	68	-0.130	ug/L	0.049	37	10815	11153	0
[	As	75	0.025	ug/L	0.019	75	87	146	26
[	As-1	75	0.180	ug/L	0.087	48	13906	14962	0
[	Se	82	0.004	ug/L	0.023	570	0	0	22472
[	Se	78	0.663	ug/L	0.279	42	14142	15213	0
[	Mo	98	-0.029	ug/L	0.005	16	495	272	13
	Y	89		ug/L			349686	371876	0
	Kr	83		ug/L			147	176	3
[>	In	115		ug/L			379295	397800	1
[	Ag	107	0.020	ug/L	0.003	14	25	304	11
[	Cd	111	0.010	ug/L	0.003	25	186	229	4
[	Cd	114	0.003	ug/L	0.000	9	20	44	3
[	Sb	121	0.040	ug/L	0.006	13	13	453	12
[	Sb	123	0.036	ug/L	0.003	8	12	305	7
[	Ba	135	0.013	ug/L	0.005	37	35	71	16
[	Ba	137	0.007	ug/L	0.004	60	58	94	20
[>	Tb	159		ug/L			422259	434481	0
[	Tl	205	0.012	ug/L	0.003	21	50	395	18
[	Pb	208	0.011	ug/L	0.002	21	522	965	9
[	Bi	209		ug/L			333939	342681	0
[	Th	232	0.072	ug/L	0.011	14	97	3464	14
[	U	238	0.006	ug/L	0.000	6	35	365	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 MB1 SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, December 03, 2012 11:17:24
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	259343	1
[	Be	9	0.011	ug/L	0.017	147	3	7	74
	C	13		mg/L			4541	4395	1
	Cl	37		mg/L			2180819	2322686	0
[>	Sc	45		ug/L			249523	267692	0
[	V	51	0.005	ug/L	0.003	69	2642	2893	2
[	V-1	51	0.015	ug/L	0.004	26	2962	3363	1
[	Cr	52	0.013	ug/L	0.016	129	8246	8987	2
[	Cr	53	0.043	ug/L	0.015	34	1033	1166	0
[	Mn	55	0.030	ug/L	0.004	12	350	929	6
[	Co	59	0.006	ug/L	0.001	13	44	134	8
[>	Ge	72		ug/L			354677	390496	0
[	Ni	60	0.149	ug/L	0.008	5	85	572	4
[	Ni	62	0.130	ug/L	0.027	20	65	135	9
[	Cu	63	0.045	ug/L	0.001	2	198	547	1
[	Cu	65	0.043	ug/L	0.010	24	112	273	13
[	Zn	66	0.427	ug/L	0.011	2	452	1406	2
[	Zn	67	0.359	ug/L	0.034	9	145	290	4
[	Zn	68	-0.027	ug/L	0.103	388	10815	11867	0
[	As	75	0.014	ug/L	0.022	157	87	127	38
[	As-1	75	-0.048	ug/L	0.106	219	13906	15203	1
[	Se	82	0.008	ug/L	0.069	870	0	1	1660
[	Se	78	-0.162	ug/L	0.406	250	14142	15472	1
[	Mo	98	-0.037	ug/L	0.001	3	495	222	5
	Y	89		ug/L			349686	386023	1
	Kr	83		ug/L			147	176	2
[>	In	115		ug/L			379295	417111	1
[	Ag	107	0.013	ug/L	0.001	6	25	210	4
[	Cd	111	0.011	ug/L	0.007	64	186	243	10
[	Cd	114	0.005	ug/L	0.001	26	20	62	17
[	Sb	121	0.024	ug/L	0.001	5	13	284	5
[	Sb	123	0.024	ug/L	0.004	16	12	215	15
[	Ba	135	0.029	ug/L	0.007	22	35	120	14
[	Ba	137	0.029	ug/L	0.007	24	58	200	15
[>	Tb	159		ug/L			422259	452954	0
[	Tl	205	0.010	ug/L	0.000	4	50	355	4
[	Pb	208	0.021	ug/L	0.001	5	522	1449	2
[	Bi	209		ug/L			333939	353630	1
[	Th	232	0.059	ug/L	0.005	9	97	2999	9
[	U	238	0.010	ug/L	0.000	0	35	577	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 B SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, December 03, 2012 11:23:41
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	265046	0
[	Be	9	0.382	ug/L	0.054	14	3	141	13
	C	13		mg/L			4541	10406	1
	Cl	37		mg/L			2180819	2333794	1
[>	Sc	45		ug/L			249523	302682	0
	V	51	26.256	ug/L	0.275	1	2642	374091	0
	V-1	51	26.205	ug/L	0.320	1	2962	380303	0
	Cr	52	19.635	ug/L	0.144	0	8246	255318	0
	Cr	53	19.831	ug/L	0.161	0	1033	30837	1
	Mn	55	269.163	ug/L	3.078	1	350	5580425	0
[	Co	59	7.498	ug/L	0.040	0	44	125562	0
[>	Ge	72		ug/L			354677	393289	0
	Ni	60	25.582	ug/L	0.093	0	85	83036	0
	Ni	62	28.132	ug/L	0.243	0	65	13870	0
	Cu	63	20.750	ug/L	0.081	0	198	151484	0
	Cu	65	20.756	ug/L	0.216	1	112	72596	0
	Zn	66	168.351	ug/L	3.024	1	452	361297	1
	Zn	67	154.744	ug/L	0.351	0	145	56778	0
	Zn	68	168.304	ug/L	0.844	0	10815	269571	0
	As	75	5.288	ug/L	0.022	0	87	12227	0
	As-1	75	5.129	ug/L	0.060	1	13906	26950	0
	Se	82	1.558	ug/L	0.095	6	0	403	5
	Se	78	0.986	ug/L	0.134	13	14142	16287	0
[	Mo	98	0.841	ug/L	0.018	2	495	7974	1
	Y	89		ug/L			349686	705864	1
	Kr	83		ug/L			147	233	3
[>	In	115		ug/L			379295	417718	0
	Ag	107	0.268	ug/L	0.004	1	25	3888	1
	Cd	111	1.622	ug/L	0.024	1	186	5929	1
	Cd	114	1.292	ug/L	0.008	0	20	10507	0
	Sb	121	0.149	ug/L	0.003	2	13	1715	1
	Sb	123	0.142	ug/L	0.006	4	12	1228	3
	Ba	135	152.704	ug/L	0.971	0	35	424532	0
[	Ba	137	152.391	ug/L	1.675	1	58	727483	0
[>	Tb	159		ug/L			422259	463310	0
	Tl	205	0.139	ug/L	0.002	1	50	4418	1
	Pb	208	30.787	ug/L	0.253	0	522	1319756	0
	Bi	209		ug/L			333939	361308	0
	Th	232	4.410	ug/L	0.051	1	97	220625	0
[	U	238	2.309	ug/L	0.038	1	35	127978	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 C SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, December 03, 2012 11:29:58
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	267864	1
[	Be	9	0.506	ug/L	0.058	11	3	188	12
	C	13		mg/L			4541	9959	1
	Cl	37		mg/L			2180819	2306755	0
[>	Sc	45		ug/L			249523	317691	1
[	V	51	32.215	ug/L	0.243	0	2642	480966	0
[	V-1	51	32.085	ug/L	0.262	0	2962	487857	0
[	Cr	52	22.950	ug/L	0.194	0	8246	311419	0
[	Cr	53	23.045	ug/L	0.325	1	1033	37394	0
[	Mn	55	1246.664	ug/L	24.451	1	350	27122091	0
[	Co	59	8.632	ug/L	0.094	1	44	151698	0
[>	Ge	72		ug/L			354677	397233	0
[	Ni	60	21.332	ug/L	0.538	2	85	69952	2
[	Ni	62	27.554	ug/L	0.372	1	65	13723	2
[	Cu	63	42.156	ug/L	0.139	0	198	310621	1
[	Cu	65	43.463	ug/L	0.491	1	112	153392	0
[	Zn	66	656.835	ug/L	9.561	1	452	1422197	0
[	Zn	67	597.246	ug/L	2.533	0	145	220866	0
[	Zn	68	656.699	ug/L	6.207	0	10815	1027154	0
[	As	75	16.720	ug/L	0.047	0	87	38837	0
[	As-1	75	16.665	ug/L	0.102	0	13906	53410	0
[	Se	82	-0.175	ug/L	0.009	5	0	44	4
[	Se	78	-0.875	ug/L	0.194	22	14142	15296	0
[	Mo	98	0.404	ug/L	0.006	1	495	4159	0
	Y	89		ug/L			349686	570940	0
	Kr	83		ug/L			147	260	2
[>	In	115		ug/L			379295	454319	1
[	Ag	107	0.359	ug/L	0.004	1	25	5653	0
[	Cd	111	12.853	ug/L	0.223	1	186	49559	0
[	Cd	114	12.423	ug/L	0.218	1	20	109642	0
[	Sb	121	0.455	ug/L	0.014	3	13	5665	1
[	Sb	123	0.445	ug/L	0.015	3	12	4157	2
[	Ba	135	393.083	ug/L	4.800	1	35	1188410	0
[	Ba	137	398.570	ug/L	1.989	0	58	2069264	0
[>	Tb	159		ug/L			422259	459267	1
[	Tl	205	0.481	ug/L	0.005	1	50	14985	1
[	Pb	208	592.012	ug/L	2.783	0	522	25146809	1
[	Bi	209		ug/L			333939	394383	1
[	Th	232	2.904	ug/L	0.005	0	97	144060	0
[	U	238	0.734	ug/L	0.011	1	35	40347	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 D SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, December 03, 2012 11:36:15
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

pr 1 Co Cr

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	266863	0
[	Be	9	0.670	ug/L	0.098	14	3	247	14
	C	13		mg/L			4541	8194	0
	Cl	37		mg/L			2180819	2304469	0
[>	Sc	45		ug/L			249523	303029	1
[	V	51	29.374	ug/L	0.380	1	2642	418592	0
[	V-1	51	29.117	ug/L	0.401	1	2962	422630	0
[	Cr	52	15.854	ug/L	0.203	1	8246	208292	0
[	Cr	53	15.786	ug/L	0.215	1	1033	24828	0
[	Mn	55	1757.034	ug/L	22.147	1	350	36464556	0
[	Co	59	6.490	ug/L	0.105	1	44	108814	1
[>	Ge	72		ug/L			354677	401253	0
[	Ni	60	16.017	ug/L	0.078	0	85	53078	0
[	Ni	62	22.049	ug/L	0.162	0	65	11107	0
[	Cu	63	17.494	ug/L	0.273	1	198	130334	1
[	Cu	65	17.927	ug/L	0.234	1	112	63986	1
[	Zn	66	306.244	ug/L	3.973	1	452	670102	0
[	Zn	67	280.806	ug/L	1.805	0	145	104983	0
[	Zn	68	305.832	ug/L	2.909	0	10815	489752	0
[	As	75	23.231	ug/L	0.059	0	87	54469	0
[	As-1	75	23.410	ug/L	0.110	0	13906	69419	0
[	Se	82	-0.066	ug/L	0.049	74	0	16	79
[	Se	78	-0.659	ug/L	0.179	27	14142	15586	0
[	Mo	98	0.484	ug/L	0.006	1	495	4920	0
	Y	89		ug/L			349686	536424	2
	Kr	83		ug/L			147	255	2
[>	In	115		ug/L			379295	441137	1
[	Ag	107	0.309	ug/L	0.011	3	25	4728	2
[	Cd	111	4.511	ug/L	0.096	2	186	17030	1
[	Cd	114	3.721	ug/L	0.117	3	20	31905	2
[	Sb	121	0.376	ug/L	0.005	1	13	4551	0
[	Sb	123	0.374	ug/L	0.001	0	12	3394	1
[	Ba	135	246.197	ug/L	1.288	0	35	722776	0
[	Ba	137	249.265	ug/L	1.829	0	58	1256588	0
[>	Tb	159		ug/L			422259	454210	1
[	Tl	205	0.373	ug/L	0.009	2	50	11501	1
[	Pb	208	298.922	ug/L	5.874	1	522	12555434	0
[	Bi	209		ug/L			333939	376600	0
[	Th	232	4.068	ug/L	0.093	2	97	199455	1
[	U	238	0.547	ug/L	0.008	1	35	29754	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: ~~VS23 A-L SWN~~ zzzzzz
Sample Dil Factor: 100 #12-312
Comments:
Sample Date/Time: Monday, December 03, 2012 11:42:34
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

No Sample added?

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	264998	1
[	Be	9	0.009	ug/L	0.002	26	3	7	10
	C	13		mg/L			4541	3987	0
	Cl	37		mg/L			2180819	2355841	0
[>	Sc	45		ug/L			249523	273554	0
[	V	51	-0.004	ug/L	0.005	108	2642	2840	2
[	V-1	51	-0.023	ug/L	0.004	18	2962	2948	1
[	Cr	52	-0.017	ug/L	0.013	76	8246	8845	1
[	Cr	53	-0.074	ug/L	0.009	12	1033	1033	1
[	Mn	55	0.040	ug/L	0.013	33	350	1130	22
[	Co	59	0.003	ug/L	0.001	25	44	89	11
[>	Ge	72		ug/L			354677	404274	0
[	Ni	60	0.022	ug/L	0.004	18	85	168	7
[	Ni	62	-0.013	ug/L	0.009	71	65	67	6
[	Cu	63	0.036	ug/L	0.005	15	198	492	8
[	Cu	65	0.025	ug/L	0.007	27	112	218	11
[	Zn	66	0.108	ug/L	0.025	22	452	754	7
[	Zn	67	0.046	ug/L	0.035	75	145	182	6
[	Zn	68	-0.280	ug/L	0.176	62	10815	11887	2
[	As	75	0.024	ug/L	0.013	54	87	155	19
[	As-1	75	-0.009	ug/L	0.028	314	13906	15830	0
[	Se	82	0.010	ug/L	0.033	330	0	1	520
[	Se	78	-0.031	ug/L	0.108	346	14142	16100	0
[	Mo	98	-0.052	ug/L	0.000	0	495	96	4
	Y	89		ug/L			349686	394367	0
	Kr	83		ug/L			147	187	2
[>	In	115		ug/L			379295	418690	1
[	Ag	107	0.004	ug/L	0.001	13	25	86	10
[	Cd	111	-0.003	ug/L	0.006	221	186	195	10
[	Cd	114	0.001	ug/L	0.001	135	20	27	21
[	Sb	121	0.007	ug/L	0.001	12	13	95	11
[	Sb	123	0.007	ug/L	0.002	33	12	72	27
[	Ba	135	0.029	ug/L	0.004	14	35	121	9
[	Ba	137	0.026	ug/L	0.004	16	58	189	11
[>	Tb	159		ug/L			422259	457043	1
[	Tl	205	0.004	ug/L	0.001	15	50	180	12
[	Pb	208	0.036	ug/L	0.008	20	522	2109	16
[	Bi	209		ug/L			333939	355157	1
[	Th	232	0.013	ug/L	0.001	5	97	764	5
[	U	238	0.006	ug/L	0.000	8	35	345	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 A SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, December 03, 2012 11:48:53
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	263160	1
[	Be	9	0.465	ug/L	0.054	11	3	170	11
	C	13		mg/L			4541	8476	1
	Cl	37		mg/L			2180819	2306919	0
[>	Sc	45		ug/L			249523	294771	1
[	V	51	22.739	ug/L	0.307	1	2642	315909	1
[	V-1	51	22.671	ug/L	0.223	0	2962	320879	1
[	Cr	52	18.269	ug/L	0.263	1	8246	231991	0
[	Cr	53	18.298	ug/L	0.091	0	1033	27804	1
[	Mn	55	1261.545	ug/L	18.418	1	350	25469361	1
[	Co	59	6.755	ug/L	0.035	0	44	110168	1
[>	Ge	72		ug/L			354677	393620	2
[	Ni	60	18.069	ug/L	0.444	2	85	58704	1
[	Ni	62	20.924	ug/L	0.541	2	65	10338	0
[	Cu	63	17.500	ug/L	0.493	2	198	127835	0
[	Cu	65	17.525	ug/L	0.292	1	112	61349	1
[	Zn	66	296.182	ug/L	7.208	2	452	635512	0
[	Zn	67	273.147	ug/L	7.362	2	145	100141	1
[	Zn	68	296.932	ug/L	7.801	2	10815	466615	1
[	As	75	12.500	ug/L	0.240	1	87	28787	0
[	As-1	75	12.534	ug/L	0.383	3	13906	43615	0
[	Se	82	0.119	ug/L	0.072	60	0	30	62
[	Se	78	-0.436	ug/L	0.542	124	14142	15422	1
[	Mo	98	0.373	ug/L	0.007	1	495	3840	1
	Y	89		ug/L			349686	499889	1
	Kr	83		ug/L			147	224	4
[>	In	115		ug/L			379295	427190	2
[	Ag	107	0.260	ug/L	0.004	1	25	3851	1
[	Cd	111	4.195	ug/L	0.167	3	186	15344	1
[	Cd	114	3.824	ug/L	0.103	2	20	31742	0
[	Sb	121	0.293	ug/L	0.010	3	13	3433	2
[	Sb	123	0.291	ug/L	0.017	5	12	2560	3
[	Ba	135	345.460	ug/L	4.907	1	35	981975	1
[	Ba	137	347.755	ug/L	7.540	2	58	1697226	0
[>	Tb	159		ug/L			422259	452516	0
[	Tl	205	0.252	ug/L	0.004	1	50	7761	1
[	Pb	208	159.623	ug/L	1.247	0	522	6681102	0
[	Bi	209		ug/L			333939	371443	1
[	Th	232	3.079	ug/L	0.010	0	97	150447	0
[	U	238	0.465	ug/L	0.003	0	35	25180	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 ADUP SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, December 03, 2012 11:55:12
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	267235	1
[	Be	9	0.510	ug/L	0.047	9	3	189	8
	C	13		mg/L			4541	9037	1
	Cl	37		mg/L			2180819	2292117	0
[>	Sc	45		ug/L			249523	298053	1
[	V	51	23.751	ug/L	0.269	1	2642	333556	1
[	V-1	51	23.561	ug/L	0.199	0	2962	337092	1
[	Cr	52	17.377	ug/L	0.312	1	8246	223616	1
[	Cr	53	17.134	ug/L	0.308	1	1033	26399	0
[	Mn	55	1098.553	ug/L	20.280	1	350	22424653	1
[	Co	59	6.278	ug/L	0.120	1	44	103531	1
[>	Ge	72		ug/L			354677	395747	1
[	Ni	60	16.969	ug/L	0.165	0	85	55456	1
[	Ni	62	20.219	ug/L	0.164	0	65	10051	0
[	Cu	63	16.306	ug/L	0.147	0	198	119837	1
[	Cu	65	16.754	ug/L	0.241	1	112	58989	2
[	Zn	66	270.369	ug/L	1.688	0	452	583536	0
[	Zn	67	248.043	ug/L	1.115	0	145	91480	1
[	Zn	68	270.473	ug/L	4.815	1	10815	428582	1
[	As	75	11.715	ug/L	0.162	1	87	27138	0
[	As-1	75	11.743	ug/L	0.248	2	13906	42072	0
[	Se	82	0.037	ug/L	0.084	225	0	8	247
[	Se	78	-0.437	ug/L	0.272	62	14142	15509	0
[	Mo	98	0.360	ug/L	0.004	1	495	3747	2
	Y	89		ug/L			349686	505852	0
	Kr	83		ug/L			147	238	3
[>	In	115		ug/L			379295	433268	1
[	Ag	107	0.249	ug/L	0.004	1	25	3749	0
[	Cd	111	3.602	ug/L	0.036	1	186	13401	1
[	Cd	114	3.196	ug/L	0.068	2	20	26915	1
[	Sb	121	0.357	ug/L	0.009	2	13	4243	1
[	Sb	123	0.361	ug/L	0.006	1	12	3220	2
[	Ba	135	316.107	ug/L	7.668	2	35	911305	1
[	Ba	137	316.016	ug/L	6.094	1	58	1564478	0
[>	Tb	159		ug/L			422259	456966	0
[	Tl	205	0.230	ug/L	0.004	1	50	7158	1
[	Pb	208	153.921	ug/L	1.451	0	522	6505554	0
[	Bi	209		ug/L			333939	367964	0
[	Th	232	3.131	ug/L	0.043	1	97	154508	1
[	U	238	0.471	ug/L	0.004	0	35	25760	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 ASPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, December 03, 2012 12:01:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	258810	0
[	Be	9	25.362	ug/L	0.250	0	3	8923	0
	C	13		mg/L			4541	7984	2
	Cl	37		mg/L			2180819	2278210	0
[>	Sc	45		ug/L			249523	294594	1
[	V	51	46.004	ug/L	0.551	1	2642	635551	0
[	V-1	51	46.118	ug/L	0.467	1	2962	648730	0
[	Cr	52	39.634	ug/L	0.685	1	8246	491603	0
[	Cr	53	40.328	ug/L	0.424	1	1033	59765	0
[	Mn	55	1276.152	ug/L	32.020	2	350	25743924	1
[	Co	59	29.853	ug/L	0.889	2	44	486286	1
[>	Ge	72		ug/L			354677	390826	0
[	Ni	60	43.025	ug/L	1.038	2	85	138699	1
[	Ni	62	47.286	ug/L	0.600	1	65	23117	0
[	Cu	63	41.906	ug/L	0.640	1	198	303783	1
[	Cu	65	42.188	ug/L	0.814	1	112	146488	1
[	Zn	66	354.444	ug/L	1.971	0	452	755373	1
[	Zn	67	329.389	ug/L	2.159	0	145	119916	0
[	Zn	68	358.276	ug/L	1.414	0	10815	556784	0
[	As	75	38.476	ug/L	0.513	1	87	87802	0
[	As-1	75	37.454	ug/L	0.537	1	13906	98977	0
[	Se	82	77.551	ug/L	1.080	1	0	19991	0
[	Se	78	76.912	ug/L	1.220	1	14142	62496	0
[	Mo	98	21.675	ug/L	0.132	0	495	190642	0
	Y	89		ug/L			349686	505588	0
	Kr	83		ug/L			147	231	3
[>	In	115		ug/L			379295	425280	0
[	Ag	107	21.659	ug/L	0.252	1	25	317226	0
[	Cd	111	26.669	ug/L	0.374	1	186	96041	0
[	Cd	114	26.740	ug/L	0.322	1	20	220902	0
[	Sb	121	2.280	ug/L	0.060	2	13	26546	2
[	Sb	123	2.299	ug/L	0.006	0	12	20043	0
[	Ba	135	361.150	ug/L	5.959	1	35	1022084	1
[	Ba	137	364.221	ug/L	3.669	1	58	1770109	1
[>	Tb	159		ug/L			422259	453514	0
[	Tl	205	24.430	ug/L	0.058	0	50	749049	0
[	Pb	208	170.368	ug/L STL	0.318	0	522	7146482	0
[	Bi	209		ug/L			333939	364350	1
[	Th	232	23.908	ug/L	0.104	0	97	1170235	0
[	U	238	24.295	ug/L	0.204	0	35	1317827	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 APOST SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, December 03, 2012 12:07:47
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	256891	0
[	Be	9	26.774	ug/L	0.296	1	3	9349	0
	C	13		mg/L			4541	8687	0
	Cl	37		mg/L			2180819	2275466	0
[>	Sc	45		ug/L			249523	287953	0
[	V	51	45.518	ug/L	0.710	1	2642	614741	1
[	V-1	51	45.615	ug/L	0.648	1	2962	627265	1
[	Cr	52	41.702	ug/L	0.490	1	8246	505163	1
[	Cr	53	42.206	ug/L	0.366	0	1033	61088	0
[	Mn	55	1267.282	ug/L	22.365	1	350	24994556	1
[	Co	59	31.097	ug/L	0.628	2	44	495256	1
[>	Ge	72		ug/L			354677	385563	0
[	Ni	60	43.686	ug/L	0.385	0	85	138950	0
[	Ni	62	47.022	ug/L	0.499	1	65	22680	1
[	Cu	63	43.514	ug/L	0.150	0	198	311197	0
[	Cu	65	44.017	ug/L	0.209	0	112	150793	0
[	Zn	66	374.402	ug/L	3.956	1	452	787130	1
[	Zn	67	343.742	ug/L	1.441	0	145	123454	0
[	Zn	68	374.047	ug/L	6.303	1	10815	572950	1
[	As	75	40.114	ug/L	0.156	0	87	90309	0
[	As-1	75	39.477	ug/L	0.019	0	13906	102111	0
[	Se	82	85.040	ug/L	1.011	1	0	21628	1
[	Se	78	86.287	ug/L	0.667	0	14142	67300	0
[	Mo	98	24.709	ug/L	0.172	0	495	214328	0
	Y	89		ug/L			349686	483957	1
	Kr	83		ug/L			147	240	1
[>	In	115		ug/L			379295	418340	0
[	Ag	107	25.163	ug/L	0.054	0	25	362533	0
[	Cd	111	29.392	ug/L	0.176	0	186	104104	0
[	Cd	114	29.065	ug/L	0.505	1	20	236203	1
[	Sb	121	23.786	ug/L	0.141	0	13	272265	0
[	Sb	123	24.029	ug/L	0.223	0	12	205925	0
[	Ba	135	361.554	ug/L	4.587	1	35	1006601	1
[	Ba	137	362.490	ug/L	2.813	0	58	1732974	0
[>	Tb	159		ug/L			422259	442043	1
[	Tl	205	26.806	ug/L	0.217	0	50	801085	1
[	Pb	208	183.416	ug/L	2.027	1	522	7498541	0
[	Bi	209		ug/L			333939	364307	0
[	Th	232	28.868	ug/L	0.317	1	97	1377132	0
[	U	238	26.424	ug/L	0.181	0	35	1397085	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 MB1SPK SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, December 03, 2012 12:14:05
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	253314	1
[	Be	9	25.092	ug/L	0.304	1	3	8641	1
	C	13		mg/L			4541	4188	1
	Cl	37		mg/L			2180819	2343085	0
[>	Sc	45		ug/L			249523	265438	1
|	V	51	24.937	ug/L	0.464	1	2642	311684	1
|	V-1	51	25.158	ug/L	0.389	1	2962	320275	0
|	Cr	52	25.396	ug/L	0.028	0	8246	287024	1
|	Cr	53	26.051	ug/L	0.277	1	1033	35181	2
|	Mn	55	25.831	ug/L	0.530	2	350	469949	1
[	Co	59	26.067	ug/L	0.255	0	44	382672	0
[>	Ge	72		ug/L			354677	391643	1
|	Ni	60	26.056	ug/L	0.327	1	85	84216	1
|	Ni	62	26.054	ug/L	0.492	1	65	12796	1
|	Cu	63	26.937	ug/L	0.485	1	198	195736	0
|	Cu	65	26.908	ug/L	0.303	1	112	93678	0
|	Zn	66	85.664	ug/L	0.451	0	452	183315	0
|	Zn	67	77.267	ug/L	0.540	0	145	28311	0
|	Zn	68	84.032	ug/L	1.287	1	10815	139995	0
|	As	75	26.728	ug/L	0.188	0	87	61151	0
|	As-1	75	25.780	ug/L	0.124	0	13906	73060	1
|	Se	82	81.249	ug/L	0.845	1	0	20989	0
|	Se	78	81.910	ug/L	0.239	0	14142	65685	0
[	Mo	98	24.183	ug/L	0.478	1	495	213061	1
	Y	89		ug/L			349686	386028	0
	Kr	83		ug/L			147	201	4
[>	In	115		ug/L			379295	410875	0
|	Ag	107	25.642	ug/L	0.098	0	25	362841	0
|	Cd	111	24.505	ug/L	0.267	1	186	85278	0
|	Cd	114	24.724	ug/L	0.445	1	20	197322	0
|	Sb	121	24.226	ug/L	0.404	1	13	272327	0
|	Sb	123	24.263	ug/L	0.184	0	12	204217	0
|	Ba	135	25.194	ug/L	0.237	0	35	68922	0
[	Ba	137	25.018	ug/L	0.397	1	58	117519	0
[>	Tb	159		ug/L			422259	445973	0
|	Tl	205	25.643	ug/L	0.263	1	50	773099	0
|	Pb	208	25.507	ug/L	0.295	1	522	1052579	0
|	Bi	209		ug/L			333939	349956	0
|	Th	232	24.444	ug/L	0.427	1	97	1176479	0
[	U	238	24.009	ug/L	0.177	0	35	1280643	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 12:20:23
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			249415	248811	0
⌊	Be	9	51.751	ug/L	0.904	1	3	17500	1
	C	13		mg/L			4541	3417	1
	Cl	37		mg/L			2180819	2320307	0
⌈>	Sc	45		ug/L			249523	259459	0
|	V	51	48.960	ug/L	0.165	0	2642	595604	0
|	V-1	51	49.022	ug/L	0.088	0	2962	607187	0
|	Cr	52	49.655	ug/L	0.445	0	8246	540359	1
|	Cr	53	49.809	ug/L	0.421	0	1033	64765	0
|	Mn	55	50.145	ug/L	0.480	0	350	891476	0
⌊	Co	59	50.652	ug/L	0.259	0	44	726855	0
⌈>	Ge	72		ug/L			354677	378015	0
|	Ni	60	49.888	ug/L	1.147	2	85	155554	2
|	Ni	62	49.468	ug/L	0.429	0	65	23389	0
|	Cu	63	49.452	ug/L	0.693	1	198	346705	1
|	Cu	65	50.166	ug/L	0.416	0	112	168474	0
|	Zn	66	50.009	ug/L	0.270	0	452	103495	0
|	Zn	67	49.699	ug/L	0.505	1	145	17632	0
|	Zn	68	49.801	ug/L	0.627	1	10815	84783	0
|	As	75	50.048	ug/L	0.576	1	87	110444	1
|	As-1	75	49.986	ug/L	0.471	0	13906	122816	0
|	Se	82	50.822	ug/L	0.881	1	0	12672	1
|	Se	78	50.727	ug/L	0.719	1	14142	45002	0
⌊	Mo	98	49.786	ug/L	0.636	1	495	422858	1
	Y	89		ug/L			349686	369881	0
	Kr	83		ug/L			147	193	7
⌈>	In	115		ug/L			379295	397694	0
|	Ag	107	50.862	ug/L	0.429	0	25	696603	0
|	Cd	111	49.897	ug/L	0.211	0	186	167876	0
|	Cd	114	50.313	ug/L	0.149	0	20	388681	0
|	Sb	121	49.459	ug/L	0.376	0	13	538169	0
|	Sb	123	49.993	ug/L	0.466	0	12	407272	0
|	Ba	135	49.693	ug/L	0.575	1	35	131550	0
⌊	Ba	137	49.981	ug/L	0.187	0	58	227208	0
⌈>	Tb	159		ug/L			422259	441005	0
|	Tl	205	49.406	ug/L	0.439	0	50	1472947	0
|	Pb	208	49.546	ug/L	0.145	0	522	2021398	0
|	Bi	209		ug/L			333939	339059	1
|	Th	232	50.355	ug/L	0.347	0	97	2396614	0
⌊	U	238	49.685	ug/L	0.616	1	35	2620635	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB3
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 12:27:02
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	251280	1
[	Be	9	0.010	ug/L	0.004	42	3	7	20
	C	13		mg/L			4541	4283	0
	Cl	37		mg/L			2180819	2356866	0
[>	Sc	45		ug/L			249523	261439	0
[	V	51	0.004	ug/L	0.006	132	2642	2821	2
[	V-1	51	-0.039	ug/L	0.003	8	2962	2619	1
[	Cr	52	0.014	ug/L	0.008	55	8246	8795	1
[	Cr	53	-0.120	ug/L	0.021	17	1033	929	2
[	Mn	55	0.046	ug/L	0.002	5	350	1200	3
[	Co	59	0.001	ug/L	0.001	56	44	66	16
[>	Ge	72		ug/L			354677	387900	0
[	Ni	60	0.007	ug/L	0.006	94	85	114	17
[	Ni	62	-0.009	ug/L	0.031	339	65	66	21
[	Cu	63	0.003	ug/L	0.002	81	198	236	6
[	Cu	65	-0.002	ug/L	0.008	327	112	115	24
[	Zn	66	0.021	ug/L	0.015	72	452	540	5
[	Zn	67	-0.071	ug/L	0.040	56	145	133	10
[	Zn	68	-0.195	ug/L	0.115	59	10815	11534	1
[	As	75	0.023	ug/L	0.009	39	87	148	13
[	As-1	75	0.158	ug/L	0.028	17	13906	15559	0
[	Se	82	0.025	ug/L	0.042	169	0	5	200
[	Se	78	0.635	ug/L	0.111	17	14142	15851	0
[	Mo	98	-0.048	ug/L	0.002	3	495	122	12
	Y	89		ug/L			349686	378379	0
	Kr	83		ug/L			147	189	1
[>	In	115		ug/L			379295	403401	0
[	Ag	107	0.012	ug/L	0.003	23	25	194	20
[	Cd	111	-0.000	ug/L	0.004	14553	186	197	6
[	Cd	114	0.001	ug/L	0.000	55	20	27	11
[	Sb	121	0.025	ug/L	0.007	28	13	293	27
[	Sb	123	0.025	ug/L	0.003	11	12	223	10
[	Ba	135	0.017	ug/L	0.003	17	35	83	9
[	Ba	137	0.017	ug/L	0.002	13	58	139	6
[>	Tb	159		ug/L			422259	435757	0
[	Tl	205	0.011	ug/L	0.002	17	50	390	14
[	Pb	208	0.018	ug/L	0.004	19	522	1264	10
[	Bi	209		ug/L			333939	341710	1
[	Th	232	0.064	ug/L	0.012	19	97	3097	17
[	U	238	0.011	ug/L	0.000	1	35	594	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 E SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, December 03, 2012 12:42:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

Pt Co Cr V

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	270813	1
[	Be	9	0.707	ug/L	0.040	5	3	264	4
	C	13		mg/L			4541	7408	0
	Cl	37		mg/L			2180819	2269546	0
[>	Sc	45		ug/L			249523	303608	1
[	V	51	28.474	ug/L	0.191	0	2642	406665	1
[	V-1	51	28.218	ug/L	0.039	0	2962	410502	0
[	Cr	52	16.418	ug/L	0.318	1	8246	215765	1
[	Cr	53	16.275	ug/L	0.302	1	1033	25608	1
[	Mn	55	880.253	ug/L	19.770	2	350	18303515	1
[	Co	59	6.585	ug/L	0.126	1	44	110620	2
[>	Ge	72		ug/L			354677	399908	0
[	Ni	60	18.075	ug/L	0.088	0	85	59683	0
[	Ni	62	24.409	ug/L	0.331	1	65	12247	1
[	Cu	63	13.304	ug/L	0.176	1	198	98834	1
[	Cu	65	13.747	ug/L	0.181	1	112	48932	0
[	Zn	66	160.827	ug/L	0.958	0	452	350984	0
[	Zn	67	151.951	ug/L	0.799	0	145	56693	0
[	Zn	68	161.497	ug/L	1.470	0	10815	263514	1
[	As	75	9.467	ug/L	0.128	1	87	22182	1
[	As-1	75	9.362	ug/L	0.107	1	13906	37077	0
[	Se	82	-0.036	ug/L	0.032	88	0	-10	81
[	Se	78	-0.700	ug/L	0.235	33	14142	15508	0
[	Mo	98	0.412	ug/L	0.009	2	495	4259	1
	Y	89		ug/L			349686	553197	0
	Kr	83		ug/L			147	273	3
[>	In	115		ug/L			379295	418816	0
[	Ag	107	0.235	ug/L	0.005	1	25	3411	1
[	Cd	111	1.803	ug/L	0.079	4	186	6584	4
[	Cd	114	0.869	ug/L	0.012	1	20	7093	1
[	Sb	121	0.160	ug/L	0.002	0	13	1853	0
[	Sb	123	0.161	ug/L	0.007	4	12	1397	4
[	Ba	135	215.711	ug/L	2.585	1	35	601244	0
[	Ba	137	215.979	ug/L	1.450	0	58	1033726	0
[>	Tb	159		ug/L			422259	459188	0
[	Tl	205	0.180	ug/L	0.002	1	50	5650	0
[	Pb	208	38.658	ug/L	0.289	0	522	1642280	0
[	Bi	209		ug/L			333939	364182	0
[	Th	232	4.240	ug/L	0.040	0	97	210200	0
[	U	238	0.604	ug/L	0.011	1	35	33226	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 F SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, December 03, 2012 12:49:03
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	269659	0
[	Be	9	0.788	ug/L	0.057	7	3	292	6
	C	13		mg/L			4541	6532	1
	Cl	37		mg/L			2180819	2270627	1
[>	Sc	45		ug/L			249523	315298	0
[	V	51	33.166	ug/L	0.309	0	2642	491383	1
[	V-1	51	32.856	ug/L	0.246	0	2962	495784	1
[	Cr	52	18.121	ug/L	0.307	1	8246	246238	1
[	Cr	53	17.972	ug/L	0.077	0	1033	29232	0
[	Mn	55	247.274	ug/L	2.551	1	350	5340261	0
[	Co	59	6.943	ug/L	0.068	0	44	121121	0
[>	Ge	72		ug/L			354677	392332	1
[	Ni	60	19.185	ug/L	0.389	2	85	62137	1
[	Ni	62	26.798	ug/L	0.326	1	65	13182	0
[	Cu	63	22.523	ug/L	0.123	0	198	163998	0
[	Cu	65	23.106	ug/L	0.178	0	112	80598	0
[	Zn	66	79.144	ug/L	1.159	1	452	169688	0
[	Zn	67	80.771	ug/L	1.313	1	145	29637	0
[	Zn	68	82.292	ug/L	1.986	2	10815	137576	1
[	As	75	4.949	ug/L	0.064	1	87	11421	0
[	As-1	75	4.774	ug/L	0.138	2	13906	26085	0
[	Se	82	-0.076	ug/L	0.046	60	0	-20	57
[	Se	78	-0.486	ug/L	0.301	61	14142	15345	0
[	Mo	98	0.411	ug/L	0.010	2	495	4169	1
	Y	89		ug/L			349686	748918	0
	Kr	83		ug/L			147	310	1
[>	In	115		ug/L			379295	408530	0
[	Ag	107	0.288	ug/L	0.006	2	25	4077	2
[	Cd	111	1.615	ug/L	0.042	2	186	5774	2
[	Cd	114	0.296	ug/L	0.019	6	20	2370	5
[	Sb	121	0.029	ug/L	0.001	3	13	342	3
[	Sb	123	0.030	ug/L	0.002	5	12	265	4
[	Ba	135	239.907	ug/L	3.369	1	35	652234	0
[	Ba	137	240.245	ug/L	3.190	1	58	1121573	0
[>	Tb	159		ug/L			422259	465338	0
[	Tl	205	0.171	ug/L	0.001	0	50	5434	0
[	Pb	208	12.598	ug/L	0.036	0	522	542765	0
[	Bi	209		ug/L			333939	356630	0
[	Th	232	5.827	ug/L	0.089	1	97	292742	1
[	U	238	1.126	ug/L	0.012	1	35	62686	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 G SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, December 03, 2012 12:55:21
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

RR CoCr V

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	266352	0
[	Be	9	0.643	ug/L	0.022	3	3	236	3
	C	13		mg/L			4541	5950	1
	Cl	37		mg/L			2180819	2264358	0
[>	Sc	45		ug/L			249523	315497	0
[	V	51	38.687	ug/L	0.357	0	2642	572987	1
[	V-1	51	38.426	ug/L	0.334	0	2962	579556	1
[	Cr	52	21.620	ug/L	0.187	0	8246	291986	1
[	Cr	53	21.730	ug/L	0.099	0	1033	35095	1
[	Mn	55	296.759	ug/L	1.458	0	350	6413349	1
[	Co	59	7.840	ug/L	0.046	0	44	136848	0
[>	Ge	72		ug/L			354677	391011	0
[	Ni	60	21.213	ug/L	0.296	1	85	68471	1
[	Ni	62	28.664	ug/L	0.301	1	65	14049	1
[	Cu	63	20.949	ug/L	0.146	0	198	152050	0
[	Cu	65	21.652	ug/L	0.143	0	112	75284	0
[	Zn	66	69.455	ug/L	0.562	0	452	148488	0
[	Zn	67	73.491	ug/L	0.896	1	145	26892	1
[	Zn	68	72.779	ug/L	0.865	1	10815	122659	0
[	As	75	4.088	ug/L	0.025	0	87	9420	0
[	As-1	75	3.879	ug/L	0.047	1	13906	23999	0
[	Se	82	-0.021	ug/L	0.089	429	0	-6	365
[	Se	78	-0.568	ug/L	0.070	12	14142	15245	0
[	Mo	98	0.538	ug/L	0.003	0	495	5268	0
	Y	89		ug/L			349686	711838	1
	Kr	83		ug/L			147	289	3
[>	In	115		ug/L			379295	402913	0
[	Ag	107	0.227	ug/L	0.001	0	25	3179	0
[	Cd	111	1.171	ug/L	0.048	4	186	4183	3
[	Cd	114	0.243	ug/L	0.002	0	20	1924	0
[	Sb	121	0.021	ug/L	0.001	6	13	245	6
[	Sb	123	0.020	ug/L	0.000	2	12	180	2
[	Ba	135	263.201	ug/L	1.710	0	35	705755	0
[	Ba	137	266.145	ug/L	3.974	1	58	1225454	1
[>	Tb	159		ug/L			422259	458409	1
[	Tl	205	0.178	ug/L	0.004	2	50	5578	1
[	Pb	208	11.208	ug/L	0.115	1	522	475723	0
[	Bi	209		ug/L			333939	357887	0
[	Th	232	6.598	ug/L	0.114	1	97	326458	0
[	U	238	1.084	ug/L	0.015	1	35	59482	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 H SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, December 03, 2012 13:01:37
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	270460	1
[	Be	9	0.708	ug/L	0.033	4	3	264	5
	C	13		mg/L			4541	6982	0
	Cl	37		mg/L			2180819	2261248	0
[>	Sc	45		ug/L			249523	314256	1
[	V	51	35.619	ug/L	0.192	0	2642	525736	1
[	V-1	51	35.383	ug/L	0.243	0	2962	531866	1
[	Cr	52	20.845	ug/L	0.121	0	8246	280763	0
[	Cr	53	20.909	ug/L	0.184	0	1033	33686	1
[	Mn	55	346.292	ug/L	3.310	0	350	7453977	1
[	Co	59	7.426	ug/L	0.129	1	44	129112	1
[>	Ge	72		ug/L			354677	394568	0
[	Ni	60	19.888	ug/L	0.416	2	85	64783	1
[	Ni	62	27.216	ug/L	0.610	2	65	13465	2
[	Cu	63	21.818	ug/L	0.396	1	198	159782	1
[	Cu	65	22.311	ug/L	0.259	1	112	78273	0
[	Zn	66	88.768	ug/L	1.290	1	452	191348	0
[	Zn	67	88.450	ug/L	0.308	0	145	32627	0
[	Zn	68	89.412	ug/L	0.436	0	10815	149310	0
[	As	75	6.194	ug/L	0.063	1	87	14352	0
[	As-1	75	5.926	ug/L	0.132	2	13906	28832	0
[	Se	82	-0.033	ug/L	0.057	174	0	-9	156
[	Se	78	-0.960	ug/L	0.230	23	14142	15141	0
[	Mo	98	0.514	ug/L	0.003	0	495	5099	0
	Y	89		ug/L			349686	687210	0
	Kr	83		ug/L			147	290	3
[>	In	115		ug/L			379295	409566	0
[	Ag	107	0.247	ug/L	0.006	2	25	3516	2
[	Cd	111	1.608	ug/L	0.051	3	186	5766	3
[	Cd	114	0.574	ug/L	0.005	0	20	4584	0
[	Sb	121	0.044	ug/L	0.001	3	13	504	3
[	Sb	123	0.041	ug/L	0.001	1	12	361	1
[	Ba	135	211.360	ug/L	2.314	1	35	576100	0
[	Ba	137	212.118	ug/L	0.657	0	58	992825	0
[>	Tb	159		ug/L			422259	459971	0
[	Tl	205	0.192	ug/L	0.002	0	50	6035	1
[	Pb	208	21.318	ug/L	0.081	0	522	907467	0
[	Bi	209		ug/L			333939	361898	0
[	Th	232	5.595	ug/L	0.004	0	97	277860	0
[	U	238	1.529	ug/L	0.022	1	35	84169	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 I SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, December 03, 2012 13:07:54
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

RRCrV

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	269188	0
[	Be	9	0.570	ug/L	0.016	2	3	212	3
	C	13		mg/L			4541	9183	1
	Cl	37		mg/L			2180819	2243446	0
[>	Sc	45		ug/L			249523	303333	0
[	V	51	32.677	ug/L	0.553	1	2642	465801	1
[	V-1	51	32.337	ug/L	0.492	1	2962	469464	1
[	Cr	52	19.996	ug/L	0.294	1	8246	260395	1
[	Cr	53	19.626	ug/L	0.090	0	1033	30596	1
[	Mn	55	1024.304	ug/L	21.953	2	350	21279043	1
[	Co	59	8.231	ug/L	0.099	1	44	138130	0
[>	Ge	72		ug/L			354677	388288	0
[	Ni	60	19.698	ug/L	0.181	0	85	63144	0
[	Ni	62	24.754	ug/L	0.340	1	65	12058	1
[	Cu	63	19.405	ug/L	0.145	0	198	139876	1
[	Cu	65	20.023	ug/L	0.178	0	112	69147	1
[	Zn	66	243.584	ug/L	3.948	1	452	515868	1
[	Zn	67	226.609	ug/L	2.031	0	145	82013	0
[	Zn	68	241.580	ug/L	0.149	0	10815	376857	0
[	As	75	22.597	ug/L	0.124	0	87	51273	0
[	As-1	75	22.803	ug/L	0.130	0	13906	65828	0
[	Se	82	0.161	ug/L	0.103	63	0	40	64
[	Se	78	0.365	ug/L	0.118	32	14142	15261	0
[	Mo	98	1.005	ug/L	0.011	1	495	9303	1
	Y	89		ug/L			349686	498505	0
	Kr	83		ug/L			147	258	2
[>	In	115		ug/L			379295	425877	0
[	Ag	107	0.347	ug/L	0.007	1	25	5121	1
[	Cd	111	3.249	ug/L	0.011	0	186	11902	1
[	Cd	114	2.715	ug/L	0.049	1	20	22483	0
[	Sb	121	0.465	ug/L	0.013	2	13	5438	1
[	Sb	123	0.465	ug/L	0.014	3	12	4072	2
[	Ba	135	294.111	ug/L	6.126	2	35	833481	1
[	Ba	137	294.362	ug/L	3.594	1	58	1432563	0
[>	Tb	159		ug/L			422259	454123	0
[	Tl	205	0.296	ug/L	0.004	1	50	9138	1
[	Pb	208	293.145	ug/L	3.330	1	522	12312637	1
[	Bi	209		ug/L			333939	378128	1
[	Th	232	3.704	ug/L	0.020	0	97	181636	0
[	U	238	0.518	ug/L	0.009	1	35	28196	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 J SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, December 03, 2012 13:14:11
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	266636	0
[	Be	9	0.457	ug/L	0.070	15	3	169	15
	C	13		mg/L			4541	9878	0
	Cl	37		mg/L			2180819	2261772	0
[>	Sc	45		ug/L			249523	299065	0
[	V	51	33.313	ug/L	0.502	1	2642	468079	0
[	V-1	51	33.046	ug/L	0.494	1	2962	472900	0
[	Cr	52	20.657	ug/L	0.265	1	8246	264866	0
[	Cr	53	20.513	ug/L	0.324	1	1033	31471	1
[	Mn	55	971.886	ug/L	11.527	1	350	19907044	0
[	Co	59	7.560	ug/L	0.017	0	44	125093	1
[>	Ge	72		ug/L			354677	394531	1
[	Ni	60	18.986	ug/L	0.198	1	85	61847	2
[	Ni	62	23.226	ug/L	0.453	1	65	11498	1
[	Cu	63	15.834	ug/L	0.467	2	198	115970	1
[	Cu	65	15.725	ug/L	0.129	0	112	55203	1
[	Zn	66	190.956	ug/L	4.022	2	452	410932	0
[	Zn	67	179.200	ug/L	3.943	2	145	65915	0
[	Zn	68	194.069	ug/L	3.471	1	10815	309910	0
[	As	75	15.766	ug/L	0.266	1	87	36371	0
[	As-1	75	15.849	ug/L	0.376	2	13906	51196	0
[	Se	82	0.164	ug/L	0.011	6	0	41	6
[	Se	78	-0.377	ug/L	0.441	116	14142	15496	0
[	Mo	98	0.739	ug/L	0.015	2	495	7095	0
	Y	89		ug/L			349686	507462	0
	Kr	83		ug/L			147	243	3
[>	In	115		ug/L			379295	423664	0
[	Ag	107	0.197	ug/L	0.008	4	25	2902	4
[	Cd	111	2.976	ug/L	0.039	1	186	10860	0
[	Cd	114	2.656	ug/L	0.011	0	20	21877	1
[	Sb	121	0.252	ug/L	0.001	0	13	2931	0
[	Sb	123	0.257	ug/L	0.010	3	12	2242	3
[	Ba	135	242.799	ug/L	2.973	1	35	684551	0
[	Ba	137	243.788	ug/L	1.948	0	58	1180286	0
[>	Tb	159		ug/L			422259	456043	0
[	Tl	205	0.238	ug/L	0.003	1	50	7385	1
[	Pb	208	162.220	ug/L	0.655	0	522	6842526	0
[	Bi	209		ug/L			333939	373520	1
[	Th	232	4.006	ug/L	0.054	1	97	197256	0
[	U	238	0.530	ug/L	0.010	1	35	28932	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 K SWN
Sample Dil Factor: 20
Comments:
Sample Date/Time: Monday, December 03, 2012 13:20:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	265586	0
[	Be	9	0.503	ug/L	0.005	1	3	185	0
	C	13		mg/L			4541	10881	1
	Cl	37		mg/L			2180819	2243997	0
[>	Sc	45		ug/L			249523	310860	0
[	V	51	32.940	ug/L	0.175	0	2642	481172	0
[	V-1	51	32.697	ug/L	0.087	0	2962	486440	0
[	Cr	52	24.389	ug/L	0.178	0	8246	323207	0
[	Cr	53	24.098	ug/L	0.178	0	1033	38206	0
[	Mn	55	1189.978	ug/L	17.032	1	350	25336786	1
[	Co	59	8.978	ug/L	0.177	1	44	154405	2
[>	Ge	72		ug/L			354677	395515	1
[	Ni	60	21.837	ug/L	0.597	2	85	71283	1
[	Ni	62	27.114	ug/L	0.151	0	65	13447	1
[	Cu	63	34.470	ug/L	0.389	1	198	252920	1
[	Cu	65	34.750	ug/L	0.449	1	112	122149	1
[	Zn	66	601.590	ug/L	10.800	1	452	1296920	0
[	Zn	67	548.393	ug/L	5.721	1	145	201925	0
[	Zn	68	605.335	ug/L	16.500	2	10815	943530	1
[	As	75	18.391	ug/L	0.150	0	87	42523	0
[	As-1	75	18.484	ug/L	0.218	1	13906	57288	0
[	Se	82	0.259	ug/L	0.016	6	0	66	5
[	Se	78	-0.401	ug/L	0.324	80	14142	15521	0
[	Mo	98	0.428	ug/L	0.006	1	495	4353	0
	Y	89		ug/L			349686	561614	0
	Kr	83		ug/L			147	252	1
[>	In	115		ug/L			379295	450063	0
[	Ag	107	0.324	ug/L	0.005	1	25	5057	2
[	Cd	111	12.046	ug/L	0.043	0	186	46033	0
[	Cd	114	11.665	ug/L	0.156	1	20	101990	0
[	Sb	121	0.448	ug/L	0.005	1	13	5527	0
[	Sb	123	0.467	ug/L	0.041	8	12	4322	8
[	Ba	135	394.853	ug/L	3.300	0	35	1182618	0
[	Ba	137	404.965	ug/L	2.632	0	58	2082813	0
[>	Tb	159		ug/L			422259	457433	0
[	Tl	205	0.488	ug/L	0.006	1	50	15152	1
[	Pb	208	527.933	ug/L	3.229	0	522	22334931	0
[	Bi	209		ug/L			333939	390159	0
[	Th	232	3.127	ug/L	0.027	0	97	154485	0
[	U	238	0.628	ug/L	0.005	0	35	34408	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 C SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, December 03, 2012 13:26:49
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	265014	1
[	Be	9	0.112	ug/L	0.010	9	3	44	7
	C	13		mg/L			4541	5434	1
	Cl	37		mg/L			2180819	2311932	1
[>	Sc	45		ug/L			249523	276371	2
[	V	51	7.451	ug/L	0.147	1	2642	99006	0
[	V-1	51	7.350	ug/L	0.128	1	2962	99739	0
[	Cr	52	5.305	ug/L	0.187	3	8246	69618	1
[	Cr	53	5.109	ug/L	0.166	3	1033	8101	1
[	Mn	55	293.730	ug/L	7.470	2	350	5558714	0
[	Co	59	2.071	ug/L	0.042	2	44	31700	0
[>	Ge	72		ug/L			354677	393022	0
[	Ni	60	4.458	ug/L	0.162	3	85	14537	3
[	Ni	62	5.563	ug/L	0.249	4	65	2798	3
[	Cu	63	8.919	ug/L	0.052	0	198	65189	0
[	Cu	65	9.093	ug/L	0.076	0	112	31852	0
[	Zn	66	140.722	ug/L	1.831	1	452	301870	0
[	Zn	67	126.794	ug/L	2.658	2	145	46515	1
[	Zn	68	139.036	ug/L	1.238	0	10815	224614	0
[	As	75	3.467	ug/L	0.032	0	87	8045	1
[	As-1	75	3.446	ug/L	0.029	0	13906	23149	0
[	Se	82	0.030	ug/L	0.027	89	0	6	102
[	Se	78	-0.103	ug/L	0.096	92	14142	15608	0
[	Mo	98	0.035	ug/L	0.004	10	495	853	3
	Y	89		ug/L			349686	429556	0
	Kr	83		ug/L			147	212	2
[>	In	115		ug/L			379295	424007	0
[	Ag	107	0.080	ug/L	0.003	4	25	1190	3
[	Cd	111	2.861	ug/L	0.045	1	186	10458	1
[	Cd	114	2.742	ug/L	0.043	1	20	22607	1
[	Sb	121	0.100	ug/L	0.000	0	13	1174	0
[	Sb	123	0.101	ug/L	0.005	5	12	894	4
[	Ba	135	85.219	ug/L	0.665	0	35	240498	0
[	Ba	137	85.342	ug/L	0.990	1	58	413563	0
[>	Tb	159		ug/L			422259	449425	0
[	Tl	205	0.103	ug/L	0.002	1	50	3179	1
[	Pb	208	125.273	ug/L	0.780	0	522	5207593	0
[	Bi	209		ug/L			333939	366189	1
[	Th	232	0.613	ug/L	0.006	0	97	29848	0
[	U	238	0.156	ug/L	0.005	2	35	8448	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 D SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, December 03, 2012 13:33:08
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	269157	0
[	Be	9	0.125	ug/L	0.032	25	3	49	22
	C	13		mg/L			4541	5046	2
	Cl	37		mg/L			2180819	2322588	0
[>	Sc	45		ug/L			249523	275480	0
[	V	51	6.697	ug/L	0.127	1	2642	89014	1
[	V-1	51	6.567	ug/L	0.137	2	2962	89191	1
[	Cr	52	3.638	ug/L	0.033	0	8246	50470	0
[	Cr	53	3.402	ug/L	0.070	2	1033	5759	1
[	Mn	55	407.380	ug/L	1.406	0	350	7686989	0
[	Co	59	1.514	ug/L	0.009	0	44	23122	0
[>	Ge	72		ug/L			354677	399423	0
[	Ni	60	3.406	ug/L	0.129	3	85	11309	3
[	Ni	62	4.731	ug/L	0.144	3	65	2429	3
[	Cu	63	3.757	ug/L	0.068	1	198	28037	2
[	Cu	65	3.829	ug/L	0.026	0	112	13702	0
[	Zn	66	66.275	ug/L	0.842	1	452	144753	0
[	Zn	67	61.203	ug/L	0.030	0	145	22905	0
[	Zn	68	65.907	ug/L	0.602	0	10815	114614	0
[	As	75	4.993	ug/L	0.051	1	87	11729	0
[	As-1	75	5.005	ug/L	0.095	1	13906	27086	0
[	Se	82	0.001	ug/L	0.027	2136	0	0	1027
[	Se	78	-0.099	ug/L	0.145	145	14142	15864	0
[	Mo	98	0.056	ug/L	0.005	8	495	1061	3
	Y	89		ug/L			349686	423492	0
	Kr	83		ug/L			147	222	5
[>	In	115		ug/L			379295	421162	1
[	Ag	107	0.068	ug/L	0.001	1	25	1013	0
[	Cd	111	0.990	ug/L	0.021	2	186	3729	0
[	Cd	114	0.821	ug/L	0.001	0	20	6739	1
[	Sb	121	0.082	ug/L	0.002	2	13	961	3
[	Sb	123	0.086	ug/L	0.003	3	12	752	4
[	Ba	135	54.437	ug/L	0.585	1	35	152603	0
[	Ba	137	53.800	ug/L	0.892	1	58	258969	0
[>	Tb	159		ug/L			422259	451054	1
[	Tl	205	0.079	ug/L	0.002	2	50	2464	1
[	Pb	208	61.586	ug/L	1.053	1	522	2569299	0
[	Bi	209		ug/L			333939	361219	0
[	Th	232	0.850	ug/L	0.010	1	97	41491	0
[	U	238	0.115	ug/L	0.002	1	35	6221	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 K SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, December 03, 2012 13:39:27
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	265153	0
[	Be	9	0.116	ug/L	0.030	25	3	45	23
	C	13		mg/L			4541	5380	1
	Cl	37		mg/L			2180819	2303356	0
[>	Sc	45		ug/L			249523	275466	0
[	V	51	7.655	ug/L	0.022	0	2642	101330	0
[	V-1	51	7.582	ug/L	0.029	0	2962	102471	0
[	Cr	52	5.683	ug/L	0.073	1	8246	73719	1
[	Cr	53	5.565	ug/L	0.075	1	1033	8695	0
[	Mn	55	282.771	ug/L	5.628	1	350	5335673	2
[	Co	59	2.171	ug/L	0.025	1	44	33117	0
[>	Ge	72		ug/L			354677	395513	0
[	Ni	60	4.686	ug/L	0.014	0	85	15372	0
[	Ni	62	5.658	ug/L	0.053	0	65	2863	1
[	Cu	63	7.431	ug/L	0.088	1	198	54697	1
[	Cu	65	7.506	ug/L	0.091	1	112	26478	0
[	Zn	66	132.134	ug/L	2.037	1	452	285288	1
[	Zn	67	118.957	ug/L	1.641	1	145	43928	0
[	Zn	68	131.459	ug/L	0.826	0	10815	214378	0
[	As	75	3.921	ug/L	0.048	1	87	9143	0
[	As-1	75	3.872	ug/L	0.101	2	13906	24259	0
[	Se	82	0.025	ug/L	0.031	125	0	5	147
[	Se	78	-0.238	ug/L	0.230	96	14142	15623	0
[	Mo	98	0.047	ug/L	0.001	2	495	966	0
	Y	89		ug/L			349686	425587	1
	Kr	83		ug/L			147	215	0
[>	In	115		ug/L			379295	419467	0
[	Ag	107	0.078	ug/L	0.001	1	25	1149	1
[	Cd	111	2.736	ug/L	0.034	1	186	9904	1
[	Cd	114	2.620	ug/L	0.028	1	20	21368	0
[	Sb	121	0.151	ug/L	0.076	50	13	1746	50
[	Sb	123	0.107	ug/L	0.001	1	12	929	0
[	Ba	135	88.468	ug/L	0.769	0	35	246989	0
[	Ba	137	88.842	ug/L	0.300	0	58	425918	0
[>	Tb	159		ug/L			422259	452863	1
[	Tl	205	0.105	ug/L	0.003	2	50	3267	2
[	Pb	208	109.777	ug/L	1.130	1	522	4598046	0
[	Bi	209		ug/L			333939	363525	1
[	Th	232	0.659	ug/L	0.006	0	97	32292	0
[	U	238	0.133	ug/L	0.002	1	35	7232	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 13:45:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	255262	1
[	Be	9	50.395	ug/L	0.850	1	3	17483	1
	C	13		mg/L			4541	3397	1
	Cl	37		mg/L			2180819	2335038	0
[>	Sc	45		ug/L			249523	255563	1
[	V	51	50.570	ug/L	0.608	1	2642	605784	0
[	V-1	51	50.565	ug/L	0.793	1	2962	616708	0
[	Cr	52	50.675	ug/L	0.565	1	8246	542947	0
[	Cr	53	50.656	ug/L	1.075	2	1033	64846	0
[	Mn	55	51.293	ug/L	0.605	1	350	898130	1
[	Co	59	51.107	ug/L	1.105	2	44	722238	1
[>	Ge	72		ug/L			354677	376791	1
[	Ni	60	50.045	ug/L	0.849	1	85	155517	0
[	Ni	62	49.885	ug/L	1.713	3	65	23503	2
[	Cu	63	50.808	ug/L	0.786	1	198	355009	0
[	Cu	65	51.175	ug/L	0.178	0	112	171304	1
[	Zn	66	50.475	ug/L	0.752	1	452	104105	0
[	Zn	67	50.604	ug/L	1.506	2	145	17889	2
[	Zn	68	50.317	ug/L	1.167	2	10815	85250	0
[	As	75	50.650	ug/L	0.583	1	87	111404	1
[	As-1	75	50.641	ug/L	0.687	1	13906	123818	0
[	Se	82	51.850	ug/L	0.495	0	0	12886	0
[	Se	78	52.044	ug/L	1.068	2	14142	45626	0
[	Mo	98	50.001	ug/L	0.600	1	495	423287	1
	Y	89		ug/L			349686	375910	0
	Kr	83		ug/L			147	208	4
[>	In	115		ug/L			379295	398172	0
[	Ag	107	50.804	ug/L	0.306	0	25	696635	0
[	Cd	111	49.816	ug/L	0.119	0	186	167802	0
[	Cd	114	49.839	ug/L	0.235	0	20	385491	1
[	Sb	121	49.395	ug/L	0.682	1	13	538103	0
[	Sb	123	49.274	ug/L	0.757	1	12	401887	1
[	Ba	135	49.509	ug/L	0.465	0	35	131219	0
[	Ba	137	49.120	ug/L	0.065	0	58	223561	0
[>	Tb	159		ug/L			422259	439995	0
[	Tl	205	50.494	ug/L	0.314	0	50	1501925	0
[	Pb	208	50.039	ug/L	0.302	0	522	2036767	0
[	Bi	209		ug/L			333939	345046	1
[	Th	232	50.986	ug/L	0.802	1	97	2420948	1
[	U	238	50.294	ug/L	0.138	0	35	2646729	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB4
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 13:52:25
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	254638	0
[	Be	9	0.006	ug/L	0.006	95	3	5	32
	C	13		mg/L			4541	4061	1
	Cl	37		mg/L			2180819	2373545	0
[>	Sc	45		ug/L			249523	260644	0
[	V	51	0.006	ug/L	0.010	155	2642	2838	3
[	V-1	51	-0.071	ug/L	0.007	9	2962	2209	3
[	Cr	52	0.031	ug/L	0.015	48	8246	8951	1
[	Cr	53	-0.210	ug/L	0.028	13	1033	810	4
[	Mn	55	0.026	ug/L	0.003	11	350	823	5
[	Co	59	0.001	ug/L	0.001	65	44	59	13
[>	Ge	72		ug/L			354677	387569	0
[	Ni	60	0.014	ug/L	0.001	8	85	136	3
[	Ni	62	-0.019	ug/L	0.020	101	65	61	16
[	Cu	63	-0.001	ug/L	0.001	71	198	206	3
[	Cu	65	-0.003	ug/L	0.003	114	112	113	8
[	Zn	66	0.018	ug/L	0.007	37	452	532	1
[	Zn	67	-0.044	ug/L	0.042	94	145	142	9
[	Zn	68	-0.238	ug/L	0.057	24	10815	11459	0
[	As	75	0.029	ug/L	0.006	19	87	160	7
[	As-1	75	0.233	ug/L	0.079	34	13906	15710	0
[	Se	82	-0.047	ug/L	0.032	67	0	-13	62
[	Se	78	0.914	ug/L	0.278	30	14142	16006	0
[	Mo	98	-0.050	ug/L	0.003	5	495	105	21
	Y	89		ug/L			349686	383003	1
	Kr	83		ug/L			147	214	3
[>	In	115		ug/L			379295	403771	0
[	Ag	107	0.009	ug/L	0.003	34	25	157	28
[	Cd	111	0.001	ug/L	0.002	153	186	203	3
[	Cd	114	0.000	ug/L	0.001	204	20	24	21
[	Sb	121	0.023	ug/L	0.005	21	13	263	20
[	Sb	123	0.020	ug/L	0.007	33	12	179	30
[	Ba	135	0.015	ug/L	0.003	21	35	78	10
[	Ba	137	0.017	ug/L	0.002	10	58	140	5
[>	Tb	159		ug/L			422259	441110	0
[	Tl	205	0.011	ug/L	0.002	13	50	390	11
[	Pb	208	0.021	ug/L	0.002	9	522	1402	5
[	Bi	209		ug/L			333939	344357	0
[	Th	232	0.052	ug/L	0.013	25	97	2571	24
[	U	238	0.009	ug/L	0.001	9	35	528	8

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 A-L SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, December 03, 2012 14:02:07
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	262327	0
[	Be	9	0.116	ug/L	0.031	27	3	45	24
	C	13		mg/L			4541	4383	2
	Cl	37		mg/L			2180819	2325441	0
[>	Sc	45		ug/L			249523	268822	1
[	V	51	4.776	ug/L	0.108	2	2642	62757	1
[	V-1	51	4.685	ug/L	0.114	2	2962	62996	1
[	Cr	52	3.822	ug/L	0.036	0	8246	51293	0
[	Cr	53	3.592	ug/L	0.061	1	1033	5872	0
[	Mn	55	270.451	ug/L	1.778	0	350	4979759	0
[	Co	59	1.410	ug/L	0.032	2	44	21006	2
[>	Ge	72		ug/L			354677	392412	0
[	Ni	60	3.536	ug/L	0.068	1	85	11531	1
[	Ni	62	4.151	ug/L	0.045	1	65	2103	1
[	Cu	63	3.491	ug/L	0.036	1	198	25611	0
[	Cu	65	3.512	ug/L	0.054	1	112	12360	1
[	Zn	66	58.920	ug/L	1.004	1	452	126490	1
[	Zn	67	54.951	ug/L	0.436	0	145	20220	0
[	Zn	68	58.726	ug/L	0.143	0	10815	101640	0
[	As	75	2.457	ug/L	0.046	1	87	5720	0
[	As-1	75	2.423	ug/L	0.066	2	13906	20818	0
[	Se	82	0.065	ug/L	0.032	49	0	15	52
[	Se	78	-0.070	ug/L	0.086	122	14142	15604	0
[	Mo	98	0.023	ug/L	0.004	18	495	752	4
	Y	89		ug/L			349686	407386	0
	Kr	83		ug/L			147	204	4
[>	In	115		ug/L			379295	412462	0
[	Ag	107	0.053	ug/L	0.003	5	25	783	5
[	Cd	111	0.825	ug/L	0.016	1	186	3079	1
[	Cd	114	0.768	ug/L	0.016	2	20	6175	2
[	Sb	121	0.067	ug/L	0.002	3	13	770	3
[	Sb	123	0.067	ug/L	0.006	8	12	580	8
[	Ba	135	68.570	ug/L	0.697	1	35	188252	0
[	Ba	137	68.867	ug/L	0.448	0	58	324661	0
[>	Tb	159		ug/L			422259	444299	0
[	Tl	205	0.053	ug/L	0.002	4	50	1649	4
[	Pb	208	30.975	ug/L	0.171	0	522	1273370	0
[	Bi	209		ug/L			333939	355980	0
[	Th	232	0.605	ug/L	0.004	0	97	29106	0
[	U	238	0.096	ug/L	0.002	2	35	5144	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 A-L SWN
Sample Dil Factor: 500
Comments:
Sample Date/Time: Monday, December 03, 2012 14:08:25
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

Zn only

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	256750	0
[	Be	9	0.026	ug/L	0.017	65	3	12	45
	C	13		mg/L			4541	4003	1
	Cl	37		mg/L			2180819	2327869	0
[>	Sc	45		ug/L			249523	264697	0
|	V	51	0.988	ug/L	0.016	1	2642	15010	0
|	V-1	51	0.907	ug/L	0.017	1	2962	14539	1
|	Cr	52	0.803	ug/L	0.017	2	8246	17519	1
|	Cr	53	0.561	ug/L	0.011	1	1033	1829	1
|	Mn	55	55.359	ug/L	0.274	0	350	1004026	0
[	Co	59	0.297	ug/L	0.011	3	44	4395	3
[>	Ge	72		ug/L			354677	389165	0
|	Ni	60	0.763	ug/L	0.024	3	85	2541	3
|	Ni	62	0.869	ug/L	0.043	5	65	492	4
|	Cu	63	0.768	ug/L	0.014	1	198	5754	1
|	Cu	65	0.758	ug/L	0.023	3	112	2741	2
|	Zn	66	12.508	ug/L	0.168	1	452	27021	0
|	Zn	67	11.390	ug/L	0.170	1	145	4283	1
|	Zn	68	12.094	ug/L	0.186	1	10815	30181	0
|	As	75	0.543	ug/L	0.024	4	87	1328	4
|	As-1	75	0.669	ug/L	0.024	3	13906	16747	0
|	Se	82	-0.016	ug/L	0.031	193	0	-5	157
|	Se	78	0.628	ug/L	0.161	25	14142	15898	0
[	Mo	98	-0.041	ug/L	0.001	2	495	186	5
	Y	89		ug/L			349686	393132	1
	Kr	83		ug/L			147	215	3
[>	In	115		ug/L			379295	406456	0
|	Ag	107	0.013	ug/L	0.001	10	25	208	9
|	Cd	111	0.163	ug/L	0.016	9	186	759	6
|	Cd	114	0.164	ug/L	0.009	5	20	1315	5
|	Sb	121	0.017	ug/L	0.001	4	13	201	4
|	Sb	123	0.016	ug/L	0.001	6	12	144	6
|	Ba	135	14.256	ug/L	0.148	1	35	38595	0
[	Ba	137	14.201	ug/L	0.324	2	58	66012	1
[>	Tb	159		ug/L			422259	447403	1
|	Tl	205	0.014	ug/L	0.000	0	50	485	1
|	Pb	208	6.258	ug/L	0.087	1	522	259498	0
|	Bi	209		ug/L			333939	346720	0
|	Th	232	0.132	ug/L	0.001	0	97	6491	1
[	U	238	0.024	ug/L	0.001	6	35	1307	6

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 A SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, December 03, 2012 14:14:43
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	262511	0
[	Be	9	0.100	ug/L	0.007	7	3	39	6
	C	13		mg/L			4541	4806	0
	Cl	37		mg/L			2180819	2302450	0
[>	Sc	45		ug/L			249523	269135	0
[	V	51	4.679	ug/L	0.086	1	2642	61626	1
[	V-1	51	4.592	ug/L	0.088	1	2962	61893	1
[	Cr	52	3.767	ug/L	0.018	0	8246	50742	0
[	Cr	53	3.547	ug/L	0.117	3	1033	5819	2
[	Mn	55	266.457	ug/L	3.075	1	350	4912269	1
[	Co	59	1.404	ug/L	0.011	0	44	20942	0
[>	Ge	72		ug/L			354677	390379	0
[	Ni	60	3.464	ug/L	0.029	0	85	11242	1
[	Ni	62	4.054	ug/L	0.113	2	65	2045	3
[	Cu	63	3.426	ug/L	0.037	1	198	25011	1
[	Cu	65	3.447	ug/L	0.045	1	112	12068	0
[	Zn	66	58.246	ug/L	0.442	0	452	124399	0
[	Zn	67	53.973	ug/L	0.120	0	145	19761	0
[	Zn	68	57.500	ug/L	0.356	0	10815	99250	0
[	As	75	2.416	ug/L	0.025	1	87	5597	0
[	As-1	75	2.477	ug/L	0.081	3	13906	20832	1
[	Se	82	0.022	ug/L	0.013	56	0	4	67
[	Se	78	0.272	ug/L	0.251	92	14142	15732	1
[	Mo	98	0.023	ug/L	0.001	4	495	743	0
	Y	89		ug/L			349686	411628	1
	Kr	83		ug/L			147	212	1
[>	In	115		ug/L			379295	407960	0
[	Ag	107	0.054	ug/L	0.002	4	25	780	4
[	Cd	111	0.831	ug/L	0.014	1	186	3064	2
[	Cd	114	0.749	ug/L	0.011	1	20	5959	1
[	Sb	121	0.059	ug/L	0.002	4	13	675	4
[	Sb	123	0.061	ug/L	0.002	2	12	522	2
[	Ba	135	68.400	ug/L	0.758	1	35	185731	0
[	Ba	137	68.696	ug/L	0.813	1	58	320306	0
[>	Tb	159		ug/L			422259	446560	0
[	Tl	205	0.050	ug/L	0.001	2	50	1576	2
[	Pb	208	30.121	ug/L	0.254	0	522	1244589	0
[	Bi	209		ug/L			333939	357354	1
[	Th	232	0.585	ug/L	0.004	0	97	28282	0
[	U	238	0.091	ug/L	0.002	1	35	4886	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 ADUP SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, December 03, 2012 14:21:00
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	262424	1
[	Be	9	0.094	ug/L	0.013	13	3	37	12
	C	13		mg/L			4541	5134	0
	Cl	37		mg/L			2180819	2289384	0
[>	Sc	45		ug/L			249523	271229	1
[	V	51	4.890	ug/L	0.011	0	2642	64773	1
[	V-1	51	4.767	ug/L	0.009	0	2962	64627	0
[	Cr	52	3.579	ug/L	0.038	1	8246	49026	1
[	Cr	53	3.269	ug/L	0.076	2	1033	5493	1
[	Mn	55	228.195	ug/L	3.258	1	350	4239190	0
[	Co	59	1.334	ug/L	0.044	3	44	20049	2
[>	Ge	72		ug/L			354677	392813	0
[	Ni	60	3.311	ug/L	0.010	0	85	10815	0
[	Ni	62	3.897	ug/L	0.044	1	65	1981	1
[	Cu	63	3.271	ug/L	0.010	0	198	24034	0
[	Cu	65	3.229	ug/L	0.048	1	112	11384	1
[	Zn	66	52.618	ug/L	0.106	0	452	113132	0
[	Zn	67	48.940	ug/L	0.420	0	145	18045	1
[	Zn	68	52.680	ug/L	0.447	0	10815	92503	0
[	As	75	2.281	ug/L	0.020	0	87	5323	0
[	As-1	75	2.285	ug/L	0.013	0	13906	20533	0
[	Se	82	0.023	ug/L	0.037	162	0	4	193
[	Se	78	0.055	ug/L	0.044	79	14142	15697	0
[	Mo	98	0.023	ug/L	0.004	19	495	747	5
	Y	89		ug/L			349686	410501	1
	Kr	83		ug/L			147	208	3
[>	In	115		ug/L			379295	409497	0
[	Ag	107	0.051	ug/L	0.003	5	25	750	4
[	Cd	111	0.710	ug/L	0.027	3	186	2657	3
[	Cd	114	0.639	ug/L	0.016	2	20	5106	2
[	Sb	121	0.076	ug/L	0.002	2	13	864	2
[	Sb	123	0.074	ug/L	0.002	2	12	630	2
[	Ba	135	63.199	ug/L	0.848	1	35	172253	0
[	Ba	137	62.899	ug/L	0.317	0	58	294392	0
[>	Tb	159		ug/L			422259	450485	0
[	Tl	205	0.048	ug/L	0.001	2	50	1514	1
[	Pb	208	29.262	ug/L	0.279	0	522	1219663	0
[	Bi	209		ug/L			333939	354464	0
[	Th	232	0.599	ug/L	0.002	0	97	29206	1
[	U	238	0.094	ug/L	0.002	2	35	5075	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 ASPK SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, December 03, 2012 14:27:16
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	260655	1
[	Be	9	5.113	ug/L	0.091	1	3	1814	1
	C	13		mg/L			4541	4835	1
	Cl	37		mg/L			2180819	2282378	0
[>	Sc	45		ug/L			249523	263843	0
[	V	51	10.240	ug/L	0.071	0	2642	128880	0
[	V-1	51	10.172	ug/L	0.141	1	2962	130592	0
[	Cr	52	8.783	ug/L	0.022	0	8246	104366	0
[	Cr	53	8.651	ug/L	0.231	2	1033	12340	1
[	Mn	55	281.872	ug/L	2.517	0	350	5093959	0
[	Co	59	6.548	ug/L	0.147	2	44	95586	1
[>	Ge	72		ug/L			354677	386096	0
[	Ni	60	8.918	ug/L	0.082	0	85	28477	0
[	Ni	62	9.473	ug/L	0.268	2	65	4632	3
[	Cu	63	8.591	ug/L	0.038	0	198	61699	1
[	Cu	65	8.711	ug/L	0.055	0	112	29980	0
[	Zn	66	73.821	ug/L	0.809	1	452	155798	0
[	Zn	67	68.330	ug/L	1.591	2	145	24698	1
[	Zn	68	74.684	ug/L	1.299	1	10815	123973	1
[	As	75	7.775	ug/L	0.065	0	87	17604	0
[	As-1	75	7.570	ug/L	0.076	1	13906	31842	0
[	Se	82	16.053	ug/L	0.163	1	0	4087	0
[	Se	78	16.164	ug/L	0.277	1	14142	25135	0
[	Mo	98	4.272	ug/L	0.068	1	495	37555	1
	Y	89		ug/L			349686	405720	0
	Kr	83		ug/L			147	223	3
[>	In	115		ug/L			379295	404792	0
[	Ag	107	4.502	ug/L	0.012	0	25	62784	0
[	Cd	111	5.555	ug/L	0.084	1	186	19198	1
[	Cd	114	5.528	ug/L	0.081	1	20	43482	1
[	Sb	121	0.482	ug/L	0.006	1	13	5353	1
[	Sb	123	0.476	ug/L	0.002	0	12	3961	0
[	Ba	135	74.178	ug/L	0.688	0	35	199861	1
[	Ba	137	75.144	ug/L	0.697	0	58	347666	1
[>	Tb	159		ug/L			422259	443231	0
[	Tl	205	4.908	ug/L	0.092	1	50	147095	1
[	Pb	208	33.885	ug/L	0.184	0	522	1389547	0
[	Bi	209		ug/L			333939	350475	0
[	Th	232	4.766	ug/L	0.031	0	97	228084	0
[	U	238	4.835	ug/L	0.068	1	35	256330	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 I SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, December 03, 2012 14:33:33
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	**Li**	**6**		ug/L			249415	261701	1
[	**Be**	**9**	**0.097**	ug/L	0.003	2	3	38	1
	C	**13**		mg/L			4541	4740	1
	Cl	**37**		mg/L			2180819	2311381	0
[>	**Sc**	**45**		ug/L			249523	271113	0
|	**V**	**51**	**7.373**	ug/L	0.037	0	2642	96155	0
|	**V-1**	**51**	**7.249**	ug/L	0.041	0	2962	96566	0
|	**Cr**	**52**	**4.621**	ug/L	0.021	0	8246	60670	0
|	**Cr**	**53**	**4.389**	ug/L	0.028	0	1033	6987	0
|	**Mn**	**55**	**233.548**	ug/L	4.067	1	350	4337063	1
[	**Co**	**59**	**1.926**	ug/L	0.024	1	44	28931	1
[>	**Ge**	**72**		ug/L			354677	391598	0
|	**Ni**	**60**	**4.133**	ug/L	0.067	1	85	13435	1
|	**Ni**	**62**	**5.134**	ug/L	0.157	3	65	2578	2
|	**Cu**	**63**	**4.049**	ug/L	0.041	1	198	29608	0
|	**Cu**	**65**	**4.239**	ug/L	0.053	1	112	14860	0
|	**Zn**	**66**	**50.985**	ug/L	0.453	0	452	109296	0
|	**Zn**	**67**	**47.881**	ug/L	0.878	1	145	17602	1
|	**Zn**	**68**	**51.314**	ug/L	0.156	0	10815	90135	0
|	**As**	**75**	**4.724**	ug/L	0.037	0	87	10887	0
|	**As-1**	**75**	**4.752**	ug/L	0.097	2	13906	25990	0
|	**Se**	**82**	**0.058**	ug/L	0.090	156	0	13	167
|	**Se**	**78**	**0.022**	ug/L	0.232	1044	14142	15628	0
[	**Mo**	**98**	**0.161**	ug/L	0.002	1	495	1958	0
	Y	**89**		ug/L			349686	409769	0
	Kr	**83**		ug/L			147	214	6
[>	**In**	**115**		ug/L			379295	411789	0
|	**Ag**	**107**	**0.076**	ug/L	0.002	3	25	1104	2
|	**Cd**	**111**	**0.707**	ug/L	0.014	2	186	2662	1
|	**Cd**	**114**	**0.594**	ug/L	0.013	2	20	4771	1
|	**Sb**	**121**	**0.101**	ug/L	0.003	2	13	1148	2
|	**Sb**	**123**	**0.101**	ug/L	0.002	1	12	863	1
|	**Ba**	**135**	**61.999**	ug/L	1.184	1	35	169929	1
[	**Ba**	**137**	**62.382**	ug/L	0.404	0	58	293609	0
[>	**Tb**	**159**		ug/L			422259	446046	1
|	**Tl**	**205**	**0.063**	ug/L	0.001	1	50	1954	2
|	**Pb**	**208**	**57.988**	ug/L	0.570	0	522	2392610	0
|	**Bi**	**209**		ug/L			333939	352740	0
|	**Th**	**232**	**0.748**	ug/L	0.011	1	97	36120	1
[	**U**	**238**	**0.106**	ug/L	0.002	2	35	5679	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 B SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, December 03, 2012 14:39:49
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	257416	0
[	Be	9	0.083	ug/L	0.002	1	3	32	2
	C	13		mg/L			4541	5035	1
	Cl	37		mg/L			2180819	2329080	0
[>	Sc	45		ug/L			249523	268562	1
[	V	51	5.707	ug/L	0.119	2	2642	74352	0
[	V-1	51	5.594	ug/L	0.140	2	2962	74522	1
[	Cr	52	4.302	ug/L	0.078	1	8246	56559	0
[	Cr	53	4.031	ug/L	0.161	3	1033	6445	2
[	Mn	55	58.743	ug/L	0.957	1	350	1080882	2
[	Co	59	1.652	ug/L	0.037	2	44	24579	0
[>	Ge	72		ug/L			354677	389481	0
[	Ni	60	5.085	ug/L	0.008	0	85	16421	0
[	Ni	62	5.558	ug/L	0.073	1	65	2771	1
[	Cu	63	4.214	ug/L	0.079	1	198	30634	1
[	Cu	65	4.168	ug/L	0.082	1	112	14536	2
[	Zn	66	34.274	ug/L	0.347	1	452	73242	1
[	Zn	67	32.167	ug/L	0.655	2	145	11815	2
[	Zn	68	33.888	ug/L	0.639	1	10815	63232	0
[	As	75	1.088	ug/L	0.021	1	87	2568	1
[	As-1	75	1.089	ug/L	0.084	7	13906	17695	0
[	Se	82	0.340	ug/L	0.047	13	0	86	14
[	Se	78	0.495	ug/L	0.234	47	14142	15831	0
[	Mo	98	0.119	ug/L	0.004	3	495	1579	1
	Y	89		ug/L			349686	441983	0
	Kr	83		ug/L			147	211	2
[>	In	115		ug/L			379295	405518	0
[	Ag	107	0.057	ug/L	0.001	2	25	828	2
[	Cd	111	0.325	ug/L	0.015	4	186	1313	3
[	Cd	114	0.258	ug/L	0.005	1	20	2051	2
[	Sb	121	0.032	ug/L	0.002	6	13	374	5
[	Sb	123	0.034	ug/L	0.004	11	12	294	10
[	Ba	135	30.436	ug/L	0.588	1	35	82168	1
[	Ba	137	30.668	ug/L	0.283	0	58	142176	0
[>	Tb	159		ug/L			422259	446660	1
[	Tl	205	0.030	ug/L	0.000	1	50	946	0
[	Pb	208	6.302	ug/L	0.029	0	522	260881	0
[	Bi	209		ug/L			333939	350173	0
[	Th	232	0.857	ug/L	0.013	1	97	41403	0
[	U	238	0.467	ug/L	0.005	1	35	24962	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 E SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, December 03, 2012 14:46:05
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	265785	0
[	Be	9	0.177	ug/L	0.005	2	3	67	2
	C	13		mg/L			4541	4381	1
	Cl	37		mg/L			2180819	2306738	1
[>	Sc	45		ug/L			249523	271838	1
[	V	51	6.817	ug/L	0.063	0	2642	89362	1
[	V-1	51	6.685	ug/L	0.052	0	2962	89532	1
[	Cr	52	3.973	ug/L	0.073	1	8246	53561	1
[	Cr	53	3.719	ug/L	0.130	3	1033	6106	1
[	Mn	55	211.082	ug/L	1.804	0	350	3930187	0
[	Co	59	1.597	ug/L	0.041	2	44	24052	1
[>	Ge	72		ug/L			354677	394512	1
[	Ni	60	4.066	ug/L	0.022	0	85	13317	0
[	Ni	62	5.379	ug/L	0.168	3	65	2718	2
[	Cu	63	3.008	ug/L	0.017	0	198	22215	1
[	Cu	65	3.085	ug/L	0.035	1	112	10930	0
[	Zn	66	36.686	ug/L	0.712	1	452	79363	1
[	Zn	67	34.465	ug/L	0.990	2	145	12810	2
[	Zn	68	35.833	ug/L	0.820	2	10815	67032	0
[	As	75	2.135	ug/L	0.014	0	87	5011	0
[	As-1	75	2.017	ug/L	0.049	2	13906	20016	1
[	Se	82	0.013	ug/L	0.016	124	0	2	174
[	Se	78	-0.378	ug/L	0.180	47	14142	15498	1
[	Mo	98	0.047	ug/L	0.001	2	495	964	1
	Y	89		ug/L			349686	419986	0
	Kr	83		ug/L			147	212	2
[>	In	115		ug/L			379295	407309	0
[	Ag	107	0.053	ug/L	0.003	5	25	769	6
[	Cd	111	0.393	ug/L	0.021	5	186	1552	3
[	Cd	114	0.197	ug/L	0.001	0	20	1579	1
[	Sb	121	0.039	ug/L	0.003	8	13	447	7
[	Sb	123	0.040	ug/L	0.002	6	12	345	6
[	Ba	135	47.478	ug/L	0.770	1	35	128723	1
[	Ba	137	48.139	ug/L	0.726	1	58	224107	0
[>	Tb	159		ug/L			422259	446082	1
[	Tl	205	0.040	ug/L	0.002	5	50	1261	4
[	Pb	208	8.593	ug/L	0.094	1	522	355048	0
[	Bi	209		ug/L			333939	349641	0
[	Th	232	0.929	ug/L	0.009	1	97	44839	1
[	U	238	0.133	ug/L	0.001	0	35	7147	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 F SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, December 03, 2012 14:52:25
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	266472	2
[	Be	9	0.173	ug/L	0.012	7	3	66	6
	C	13		mg/L			4541	4161	2
	Cl	37		mg/L			2180819	2285335	0
[>	Sc	45		ug/L			249523	275163	0
|	V	51	7.582	ug/L	0.106	1	2642	100277	1
|	V-1	51	7.459	ug/L	0.096	1	2962	100752	1
|	Cr	52	4.151	ug/L	0.057	1	8246	56242	1
|	Cr	53	3.958	ug/L	0.057	1	1033	6507	1
|	Mn	55	56.693	ug/L	0.745	1	350	1068838	1
[	Co	59	1.621	ug/L	0.014	0	44	24718	0
[>	Ge	72		ug/L			354677	389626	1
|	Ni	60	3.965	ug/L	0.002	0	85	12829	1
|	Ni	62	5.365	ug/L	0.182	3	65	2677	2
|	Cu	63	4.753	ug/L	0.080	1	198	34541	0
|	Cu	65	4.875	ug/L	0.051	1	112	16984	0
|	Zn	66	17.092	ug/L	0.287	1	452	36784	1
|	Zn	67	17.107	ug/L	0.130	0	145	6360	1
|	Zn	68	17.006	ug/L	0.839	4	10815	37654	2
|	As	75	1.062	ug/L	0.037	3	87	2508	2
|	As-1	75	0.893	ug/L	0.090	10	13906	17264	0
|	Se	82	0.020	ug/L	0.012	59	0	4	73
|	Se	78	-0.426	ug/L	0.225	52	14142	15276	0
[	Mo	98	0.034	ug/L	0.005	13	495	838	4
	Y	89		ug/L			349686	463545	1
	Kr	83		ug/L			147	221	2
[>	In	115		ug/L			379295	405046	0
|	Ag	107	0.060	ug/L	0.002	2	25	866	2
|	Cd	111	0.315	ug/L	0.017	5	186	1278	4
|	Cd	114	0.062	ug/L	0.002	3	20	510	3
|	Sb	121	0.008	ug/L	0.001	14	13	105	11
|	Sb	123	0.008	ug/L	0.001	17	12	77	14
|	Ba	135	48.756	ug/L	0.371	0	35	131457	0
[	Ba	137	48.864	ug/L	0.496	1	58	226238	1
[>	Tb	159		ug/L			422259	446235	0
|	Tl	205	0.037	ug/L	0.001	2	50	1181	1
|	Pb	208	2.646	ug/L	0.007	0	522	109734	0
|	Bi	209		ug/L			333939	350570	1
|	Th	232	1.212	ug/L	0.017	1	97	58470	1
[	U	238	0.235	ug/L	0.002	0	35	12568	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 G SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, December 03, 2012 14:58:45
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	264432	0
[	Be	9	0.135	ug/L	0.009	7	3	52	6
	C	13		mg/L			4541	3904	1
	Cl	37		mg/L			2180819	2271570	1
[>	Sc	45		ug/L			249523	269026	0
|	V	51	9.326	ug/L	0.105	1	2642	119932	0
|	V-1	51	9.216	ug/L	0.123	1	2962	120950	1
|	Cr	52	5.268	ug/L	0.059	1	8246	67388	0
|	Cr	53	5.148	ug/L	0.089	1	1033	7940	1
|	Mn	55	72.187	ug/L	0.674	0	350	1330562	1
[	Co	59	1.947	ug/L	0.029	1	44	29018	1
[>	Ge	72		ug/L			354677	389846	1
|	Ni	60	4.563	ug/L	0.044	0	85	14759	2
|	Ni	62	6.180	ug/L	0.034	0	65	3076	1
|	Cu	63	4.522	ug/L	0.055	1	198	32888	0
|	Cu	65	4.616	ug/L	0.105	2	112	16097	1
|	Zn	66	15.346	ug/L	0.235	1	452	33094	0
|	Zn	67	16.095	ug/L	0.730	4	145	5994	3
|	Zn	68	15.513	ug/L	0.258	1	10815	35422	1
|	As	75	0.919	ug/L	0.019	2	87	2186	2
|	As-1	75	0.705	ug/L	0.109	15	13906	16853	0
|	Se	82	0.028	ug/L	0.005	18	0	6	21
|	Se	78	-0.590	ug/L	0.419	71	14142	15183	0
[	Mo	98	0.065	ug/L	0.006	8	495	1113	4
	Y	89		ug/L			349686	447598	0
	Kr	83		ug/L			147	218	4
[>	In	115		ug/L			379295	404368	0
|	Ag	107	0.048	ug/L	0.003	6	25	690	5
|	Cd	111	0.253	ug/L	0.006	2	186	1064	2
|	Cd	114	0.047	ug/L	0.005	11	20	390	10
|	Sb	121	0.006	ug/L	0.001	13	13	75	10
|	Sb	123	0.006	ug/L	0.001	9	12	62	6
|	Ba	135	54.224	ug/L	0.234	0	35	145950	0
[	Ba	137	54.533	ug/L	0.223	0	58	252058	1
[>	Tb	159		ug/L			422259	446723	0
|	Tl	205	0.040	ug/L	0.001	1	50	1265	0
|	Pb	208	2.380	ug/L	0.009	0	522	98885	0
|	Bi	209		ug/L			333939	349399	1
|	Th	232	1.387	ug/L	0.008	0	97	66980	0
[	U	238	0.224	ug/L	0.004	1	35	12025	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 15:05:04
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	255777	1
[	Be	9	50.237	ug/L	1.861	3	3	17462	3
	C	13		mg/L			4541	3341	1
	Cl	37		mg/L			2180819	2292799	0
[>	Sc	45		ug/L			249523	249218	0
[	V	51	49.561	ug/L	0.249	0	2642	579091	1
[	V-1	51	49.612	ug/L	0.266	0	2962	590213	1
[	Cr	52	49.806	ug/L	0.294	0	8246	520559	0
[	Cr	53	49.948	ug/L	0.194	0	1033	62379	0
[	Mn	55	50.268	ug/L	0.667	1	350	858394	1
[	Co	59	50.414	ug/L	0.605	1	44	694883	1
[>	Ge	72		ug/L			354677	369797	0
[	Ni	60	48.991	ug/L	0.581	1	85	149431	0
[	Ni	62	49.329	ug/L	0.687	1	65	22815	0
[	Cu	63	49.738	ug/L	1.260	2	198	341074	1
[	Cu	65	50.036	ug/L	0.379	0	112	164394	1
[	Zn	66	50.228	ug/L	0.478	0	452	101684	0
[	Zn	67	49.659	ug/L	0.783	1	145	17233	0
[	Zn	68	49.268	ug/L	0.781	1	10815	82179	2
[	As	75	50.026	ug/L	0.410	0	87	107989	0
[	As-1	75	50.055	ug/L	0.359	0	13906	120286	0
[	Se	82	50.294	ug/L	1.034	2	0	12266	1
[	Se	78	50.620	ug/L	0.841	1	14142	43959	0
[	Mo	98	49.206	ug/L	0.544	1	495	408822	0
	Y	89		ug/L			349686	364705	0
	Kr	83		ug/L			147	217	1
[>	In	115		ug/L			379295	383569	0
[	Ag	107	50.541	ug/L	0.371	0	25	667634	0
[	Cd	111	50.130	ug/L	0.495	0	186	162670	1
[	Cd	114	50.015	ug/L	0.486	0	20	372658	0
[	Sb	121	49.954	ug/L	0.506	1	13	524261	1
[	Sb	123	50.525	ug/L	0.135	0	12	396994	0
[	Ba	135	49.629	ug/L	0.155	0	35	126717	0
[	Ba	137	50.019	ug/L	0.237	0	58	219304	0
[>	Tb	159		ug/L			422259	428510	1
[	Tl	205	50.081	ug/L	0.596	1	50	1450619	0
[	Pb	208	49.852	ug/L	0.595	1	522	1975991	0
[	Bi	209		ug/L			333939	336300	0
[	Th	232	50.608	ug/L	1.122	2	97	2339957	1
[	U	238	50.317	ug/L	0.729	1	35	2578426	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB5
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 15:11:43
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
⌈>	Li	6		ug/L			249415	251445	1
⌊	Be	9	0.005	ug/L	0.005	113	3	5	35
	C	13		mg/L			4541	3759	2
	Cl	37		mg/L			2180819	2308763	0
⌈>	Sc	45		ug/L			249523	254667	1
|	V	51	0.004	ug/L	0.015	330	2642	2749	5
|	V-1	51	-0.081	ug/L	0.003	3	2962	2041	1
|	Cr	52	0.006	ug/L	0.019	286	8246	8482	1
|	Cr	53	-0.257	ug/L	0.024	9	1033	732	4
|	Mn	55	0.011	ug/L	0.001	10	350	541	2
⌊	Co	59	0.000	ug/L	0.000	197	44	47	5
⌈>	Ge	72		ug/L			354677	377834	0
|	Ni	60	0.017	ug/L	0.002	13	85	144	4
|	Ni	62	0.004	ug/L	0.024	560	65	71	15
|	Cu	63	-0.003	ug/L	0.002	73	198	192	7
|	Cu	65	-0.004	ug/L	0.005	132	112	107	15
|	Zn	66	0.013	ug/L	0.011	84	452	508	4
|	Zn	67	-0.078	ug/L	0.026	33	145	127	7
|	Zn	68	-0.442	ug/L	0.062	14	10815	10872	1
|	As	75	0.040	ug/L	0.010	24	87	180	11
|	As-1	75	0.107	ug/L	0.050	46	13906	15046	0
|	Se	82	0.011	ug/L	0.015	136	0	1	205
|	Se	78	0.475	ug/L	0.165	34	14142	15346	0
⌊	Mo	98	-0.051	ug/L	0.003	6	495	97	29
	Y	89		ug/L			349686	367151	1
	Kr	83		ug/L			147	208	3
⌈>	In	115		ug/L			379295	389144	0
|	Ag	107	0.009	ug/L	0.003	31	25	150	25
|	Cd	111	-0.001	ug/L	0.004	260	186	186	6
|	Cd	114	0.000	ug/L	0.001	562	20	22	41
|	Sb	121	0.021	ug/L	0.006	29	13	235	27
|	Sb	123	0.020	ug/L	0.004	18	12	173	16
|	Ba	135	0.012	ug/L	0.003	26	35	68	12
⌊	Ba	137	0.027	ug/L	0.031	115	58	179	76
⌈>	Tb	159		ug/L			422259	430231	0
|	Tl	205	0.009	ug/L	0.001	14	50	327	11
|	Pb	208	0.012	ug/L	0.001	11	522	1010	5
|	Bi	209		ug/L			333939	334050	0
|	Th	232	0.047	ug/L	0.011	24	97	2260	22
⌊	U	238	0.007	ug/L	0.000	4	35	399	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT28 MB REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 03, 2012 15:43:43
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	262157	3
[	Be	9	0.011	ug/L	0.008	69	3	7	32
	C	13		mg/L			4541	4754	0
	Cl	37		mg/L			2180819	2257249	0
[>	Sc	45		ug/L			249523	252908	5
[	V	51	0.005	ug/L	0.010	209	2642	2740	9
[	V-1	51	-0.050	ug/L	0.005	10	2962	2397	3
[	Cr	52	0.067	ug/L	0.006	8	8246	9058	6
[	Cr	53	-0.106	ug/L	0.042	39	1033	913	2
[	Mn	55	0.031	ug/L	0.001	1	350	885	4
[	Co	59	0.001	ug/L	0.001	51	44	62	14
[>	Ge	72		ug/L			354677	373727	3
[	Ni	60	0.010	ug/L	0.002	23	85	120	4
[	Ni	62	-0.020	ug/L	0.029	148	65	59	26
[	Cu	63	0.094	ug/L	0.002	1	198	860	4
[	Cu	65	0.090	ug/L	0.022	24	112	417	18
[	Zn	66	0.867	ug/L	0.071	8	452	2243	7
[	Zn	67	0.688	ug/L	0.041	6	145	392	5
[	Zn	68	0.586	ug/L	0.179	30	10815	12245	2
[	As	75	0.037	ug/L	0.032	87	87	171	39
[	As-1	75	0.250	ug/L	0.195	77	13906	15183	3
[	Se	82	-0.051	ug/L	0.099	196	0	-13	183
[	Se	78	0.997	ug/L	0.750	75	14142	15480	3
[	Mo	98	-0.049	ug/L	0.002	3	495	108	17
	Y	89		ug/L			349686	373785	4
	Kr	83		ug/L			147	218	8
[>	In	115		ug/L			379295	386956	3
[	Ag	107	0.004	ug/L	0.001	15	25	81	14
[	Cd	111	-0.008	ug/L	0.007	85	186	165	12
[	Cd	114	-0.000	ug/L	0.001	203	20	17	46
[	Sb	121	0.004	ug/L	0.001	20	13	57	17
[	Sb	123	0.004	ug/L	0.001	17	12	46	13
[	Ba	135	0.015	ug/L	0.002	16	35	74	12
[	Ba	137	0.014	ug/L	0.003	22	58	120	10
[>	Tb	159		ug/L			422259	429290	4
[	Tl	205	0.003	ug/L	0.000	15	50	128	5
[	Pb	208	0.010	ug/L	0.001	11	522	942	7
[	Bi	209		ug/L			333939	335748	4
[	Th	232	0.041	ug/L	0.013	31	97	1992	33
[	U	238	0.005	ug/L	0.001	15	35	302	11

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT28 B REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 03, 2012 15:50:02
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	243167	1
[	Be	9	0.024	ug/L	0.009	37	3	11	24
	C	13		mg/L			4541	6050	1
	Cl	37		mg/L			2180819	2275062	1
[>	Sc	45		ug/L			249523	256980	0
[	V	51	1.088	ug/L	0.015	1	2642	15769	0
[	V-1	51	1.064	ug/L	0.013	1	2962	16039	0
[	Cr	52	0.231	ug/L	0.018	7	8246	10942	0
[	Cr	53	0.204	ug/L	0.013	6	1033	1322	0
[	Mn	55	6.307	ug/L	0.133	2	350	111355	1
[	Co	59	0.056	ug/L	0.002	4	44	838	3
[>	Ge	72		ug/L			354677	363178	0
[	Ni	60	0.533	ug/L	0.020	3	85	1682	3
[	Ni	62	0.294	ug/L	0.015	5	65	199	2
[	Cu	63	0.944	ug/L	0.016	1	198	6555	1
[	Cu	65	0.851	ug/L	0.021	2	112	2858	2
[	Zn	66	2.241	ug/L	0.053	2	452	4898	1
[	Zn	67	2.115	ug/L	0.048	2	145	863	2
[	Zn	68	2.523	ug/L	0.208	8	10815	14639	1
[	As	75	0.755	ug/L	0.004	0	87	1689	1
[	As-1	75	1.045	ug/L	0.061	5	13906	16409	0
[	Se	82	0.073	ug/L	0.029	39	0	16	41
[	Se	78	1.441	ug/L	0.230	15	14142	15298	0
[	Mo	98	0.052	ug/L	0.007	12	495	930	5
	Y	89		ug/L			349686	358195	0
	Kr	83		ug/L			147	231	1
[>	In	115		ug/L			379295	369952	1
[	Ag	107	0.004	ug/L	0.000	3	25	81	2
[	Cd	111	0.005	ug/L	0.008	159	186	196	10
[	Cd	114	0.012	ug/L	0.001	9	20	104	7
[	Sb	121	0.074	ug/L	0.002	2	13	761	2
[	Sb	123	0.074	ug/L	0.003	4	12	575	5
[	Ba	135	3.953	ug/L	0.049	1	35	9767	0
[	Ba	137	3.930	ug/L	0.085	2	58	16669	1
[>	Tb	159		ug/L			422259	413111	1
[	Tl	205	0.005	ug/L	0.001	27	50	175	18
[	Pb	208	0.195	ug/L	0.004	2	522	7946	0
[	Bi	209		ug/L			333939	316188	0
[	Th	232	0.030	ug/L	0.004	14	97	1422	12
[	U	238	0.008	ug/L	0.001	14	35	430	12

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT28 C REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 03, 2012 15:56:21
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	226863	1
[	Be	9	0.031	ug/L	0.009	29	3	12	20
	C	13		mg/L			4541	5302	0
	Cl	37		mg/L			2180819	2183034	0
[>	Sc	45		ug/L			249523	231019	1
[	V	51	1.568	ug/L	0.022	1	2642	19347	0
[	V-1	51	1.467	ug/L	0.014	0	2962	18835	0
[	Cr	52	1.705	ug/L	0.092	5	8246	23881	2
[	Cr	53	1.386	ug/L	0.082	5	1033	2534	2
[	Mn	55	34.057	ug/L	0.729	2	350	539170	2
[	Co	59	0.578	ug/L	0.009	1	44	7422	0
[>	Ge	72		ug/L			354677	338665	2
[	Ni	60	1.482	ug/L	0.079	5	85	4216	3
[	Ni	62	1.634	ug/L	0.051	3	65	751	0
[	Cu	63	4.727	ug/L	0.107	2	198	29852	1
[	Cu	65	4.747	ug/L	0.173	3	112	14374	2
[	Zn	66	136.194	ug/L	4.351	3	452	251668	1
[	Zn	67	118.539	ug/L	2.876	2	145	37474	0
[	Zn	68	135.328	ug/L	1.951	1	10815	188637	0
[	As	75	1.089	ug/L	0.042	3	87	2233	1
[	As-1	75	1.767	ug/L	0.208	11	13906	16693	0
[	Se	82	-0.025	ug/L	0.024	96	0	-6	86
[	Se	78	2.820	ug/L	0.693	24	14142	14990	0
[	Mo	98	0.263	ug/L	0.013	4	495	2474	3
	Y	89		ug/L			349686	343599	1
	Kr	83		ug/L			147	235	2
[>	In	115		ug/L			379295	349207	1
[	Ag	107	0.019	ug/L	0.002	12	25	245	9
[	Cd	111	0.433	ug/L	0.014	3	186	1447	1
[	Cd	114	0.428	ug/L	0.010	2	20	2920	0
[	Sb	121	0.608	ug/L	0.016	2	13	5823	0
[	Sb	123	0.601	ug/L	0.028	4	12	4311	3
[	Ba	135	14.181	ug/L	0.539	3	35	32972	1
[	Ba	137	14.263	ug/L	0.265	1	58	56961	1
[>	Tb	159		ug/L			422259	389099	2
[	Tl	205	0.007	ug/L	0.000	3	50	218	3
[	Pb	208	8.226	ug/L	0.238	2	522	296380	0
[	Bi	209		ug/L			333939	305793	1
[	Th	232	0.057	ug/L	0.002	3	97	2470	1
[	U	238	0.029	ug/L	0.002	5	35	1378	3

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT28 D REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 03, 2012 16:02:39
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	233154	1
[	Be	9	0.047	ug/L	0.012	25	3	18	21
	C	13		mg/L			4541	5472	1
	Cl	37		mg/L			2180819	2203526	0
[>	Sc	45		ug/L			249523	244222	0
[	V	51	1.409	ug/L	0.065	4	2642	18648	4
[	V-1	51	1.297	ug/L	0.046	3	2962	17942	3
[	Cr	52	1.735	ug/L	0.039	2	8246	25562	0
[	Cr	53	1.372	ug/L	0.090	6	1033	2662	3
[	Mn	55	29.267	ug/L	0.473	1	350	489899	1
[	Co	59	0.504	ug/L	0.016	3	44	6845	2
[>	Ge	72		ug/L			354677	350432	1
[	Ni	60	1.241	ug/L	0.051	4	85	3667	2
[	Ni	62	1.322	ug/L	0.065	4	65	642	5
[	Cu	63	6.147	ug/L	0.078	1	198	40121	0
[	Cu	65	6.194	ug/L	0.031	0	112	19381	0
[	Zn	66	114.334	ug/L	1.763	1	452	218747	0
[	Zn	67	100.906	ug/L	1.366	1	145	33040	2
[	Zn	68	113.084	ug/L	2.703	2	10815	164862	1
[	As	75	1.002	ug/L	0.019	1	87	2134	0
[	As-1	75	1.477	ug/L	0.136	9	13906	16695	0
[	Se	82	0.017	ug/L	0.037	215	0	3	277
[	Se	78	2.099	ug/L	0.434	20	14142	15119	0
[	Mo	98	0.297	ug/L	0.011	3	495	2822	2
	Y	89		ug/L			349686	355350	0
	Kr	83		ug/L			147	237	4
[>	In	115		ug/L			379295	364031	0
[	Ag	107	0.017	ug/L	0.001	8	25	241	6
[	Cd	111	0.392	ug/L	0.021	5	186	1385	4
[	Cd	114	0.380	ug/L	0.005	1	20	2709	0
[	Sb	121	0.510	ug/L	0.012	2	13	5091	2
[	Sb	123	0.522	ug/L	0.012	2	12	3903	2
[	Ba	135	12.358	ug/L	0.136	1	35	29970	0
[	Ba	137	12.590	ug/L	0.046	0	58	52430	0
[>	Tb	159		ug/L			422259	407621	1
[	Tl	205	0.006	ug/L	0.000	6	50	209	4
[	Pb	208	7.433	ug/L	0.152	2	522	280690	0
[	Bi	209		ug/L			333939	317741	0
[	Th	232	0.046	ug/L	0.002	5	97	2116	3
[	U	238	0.025	ug/L	0.001	5	35	1228	4

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT28 E REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 03, 2012 16:08:56
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
>	Li	6		ug/L			249415	240736	0
	Be	9	0.016	ug/L	0.004	23	3	8	14
	C	13		mg/L			4541	5647	2
	Cl	37		mg/L			2180819	2177452	0
>	Sc	45		ug/L			249523	245077	1
	V	51	0.774	ug/L	0.031	3	2642	11444	1
	V-1	51	0.704	ug/L	0.025	3	2962	11100	1
	Cr	52	0.773	ug/L	0.009	1	8246	15916	1
	Cr	53	0.557	ug/L	0.009	1	1033	1688	2
	Mn	55	6.796	ug/L	0.150	2	350	114386	0
	Co	59	0.099	ug/L	0.002	1	44	1384	1
>	Ge	72		ug/L			354677	360182	0
	Ni	60	0.575	ug/L	0.028	4	85	1792	4
	Ni	62	0.460	ug/L	0.046	10	65	272	7
	Cu	63	2.051	ug/L	0.018	0	198	13890	0
	Cu	65	2.052	ug/L	0.078	3	112	6675	3
	Zn	66	11.308	ug/L	0.075	0	452	22655	0
	Zn	67	10.117	ug/L	0.181	1	145	3537	1
	Zn	68	11.150	ug/L	0.175	1	10815	26610	0
	As	75	0.468	ug/L	0.015	3	87	1073	3
	As-1	75	0.672	ug/L	0.096	14	13906	15504	0
	Se	82	0.013	ug/L	0.039	305	0	2	427
	Se	78	1.078	ug/L	0.356	33	14142	14968	0
	Mo	98	0.114	ug/L	0.007	6	495	1423	3
	Y	89		ug/L			349686	357395	0
	Kr	83		ug/L			147	229	2
>	In	115		ug/L			379295	369022	0
	Ag	107	0.016	ug/L	0.001	8	25	234	7
	Cd	111	0.049	ug/L	0.009	17	186	333	8
	Cd	114	0.068	ug/L	0.004	6	20	506	5
	Sb	121	0.168	ug/L	0.002	1	13	1711	1
	Sb	123	0.168	ug/L	0.000	0	12	1280	0
	Ba	135	4.738	ug/L	0.009	0	35	11670	0
	Ba	137	4.809	ug/L	0.074	1	58	20336	1
>	Tb	159		ug/L			422259	411989	0
	Tl	205	0.004	ug/L	0.001	21	50	150	14
	Pb	208	1.875	ug/L	0.003	0	522	71935	0
	Bi	209		ug/L			333939	318656	0
	Th	232	0.020	ug/L	0.001	3	97	1000	3
	U	238	0.012	ug/L	0.001	5	35	620	5

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT28 ADUP REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 03, 2012 16:15:13
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	234444	2
[	Be	9	0.049	ug/L	0.023	46	3	19	35
	C	13		mg/L			4541	9153	2
	Cl	37		mg/L			2180819	2157828	1
[>	Sc	45		ug/L			249523	243110	0
[	V	51	4.396	ug/L	0.081	1	2642	52447	0
[	V-1	51	4.335	ug/L	0.062	1	2962	52932	0
[	Cr	52	3.168	ug/L	0.045	1	8246	39825	0
[	Cr	53	3.045	ug/L	0.069	2	1033	4655	2
[	Mn	55	813.955	ug/L	14.135	1	350	13552884	1
[	Co	59	0.693	ug/L	0.017	2	44	9364	3
[>	Ge	72		ug/L			354677	337772	0
[	Ni	60	2.568	ug/L	0.154	6	85	7233	6
[	Ni	62	2.570	ug/L	0.141	5	65	1144	5
[	Cu	63	10.743	ug/L	0.050	0	198	67446	0
[	Cu	65	10.812	ug/L	0.124	1	112	32530	1
[	Zn	66	27.765	ug/L	0.308	1	452	51537	1
[	Zn	67	25.598	ug/L	0.384	1	145	8181	1
[	Zn	68	28.224	ug/L	0.952	3	10815	47400	2
[	As	75	3.270	ug/L	0.060	1	87	6525	2
[	As-1	75	3.805	ug/L	0.154	4	13906	20589	1
[	Se	82	0.177	ug/L	0.051	28	0	38	29
[	Se	78	2.326	ug/L	0.348	14	14142	14695	1
[	Mo	98	0.133	ug/L	0.005	4	495	1479	2
	Y	89		ug/L			349686	357966	2
	Kr	83		ug/L			147	229	4
[>	In	115		ug/L			379295	344948	0
[	Ag	107	0.037	ug/L	0.005	12	25	457	11
[	Cd	111	0.130	ug/L	0.005	4	186	548	2
[	Cd	114	0.133	ug/L	0.005	4	20	909	3
[	Sb	121	0.136	ug/L	0.001	0	13	1292	0
[	Sb	123	0.135	ug/L	0.008	5	12	967	6
[	Ba	135	21.211	ug/L	0.378	1	35	48721	1
[	Ba	137	21.458	ug/L	0.309	1	58	84634	1
[>	Tb	159		ug/L			422259	390451	0
[	Tl	205	0.015	ug/L	0.002	10	50	445	9
[	Pb	208	7.890	ug/L	0.036	0	522	285400	0
[	Bi	209		ug/L			333939	301571	0
[	Th	232	0.050	ug/L	0.000	0	97	2214	0
[	U	238	0.091	ug/L	0.001	1	35	4291	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT28 A REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 03, 2012 16:21:30
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	245360	1
[	Be	9	0.049	ug/L	0.011	22	3	20	16
	C	13		mg/L			4541	7875	0
	Cl	37		mg/L			2180819	1966417	0
[>	Sc	45		ug/L			249523	244992	0
[	V	51	4.132	ug/L	0.059	1	2642	49832	0
[	V-1	51	4.069	ug/L	0.053	1	2962	50253	0
[	Cr	52	2.795	ug/L	0.007	0	8246	36365	0
[	Cr	53	2.674	ug/L	0.036	1	1033	4243	1
[	Mn	55	782.745	ug/L	4.581	0	350	13135155	1
[	Co	59	0.637	ug/L	0.019	2	44	8677	2
[>	Ge	72		ug/L			354677	343725	0
[	Ni	60	2.319	ug/L	0.045	1	85	6653	2
[	Ni	62	2.273	ug/L	0.112	4	65	1037	4
[	Cu	63	9.417	ug/L	0.080	0	198	60190	0
[	Cu	65	9.330	ug/L	0.105	1	112	28579	1
[	Zn	66	25.834	ug/L	0.435	1	452	48824	1
[	Zn	67	23.799	ug/L	0.294	1	145	7751	1
[	Zn	68	25.874	ug/L	0.239	0	10815	45088	0
[	As	75	2.929	ug/L	0.042	1	87	5956	1
[	As-1	75	3.113	ug/L	0.081	2	13906	19592	0
[	Se	82	0.179	ug/L	0.075	41	0	39	43
[	Se	78	1.024	ug/L	0.181	17	14142	14255	0
[	Mo	98	0.104	ug/L	0.010	9	495	1282	5
	Y	89		ug/L			349686	367812	0
	Kr	83		ug/L			147	223	3
[>	In	115		ug/L			379295	354390	0
[	Ag	107	0.027	ug/L	0.002	6	25	355	5
[	Cd	111	0.119	ug/L	0.013	10	186	531	7
[	Cd	114	0.120	ug/L	0.004	3	20	845	3
[	Sb	121	0.114	ug/L	0.005	4	13	1118	4
[	Sb	123	0.115	ug/L	0.001	0	12	843	0
[	Ba	135	19.540	ug/L	0.068	0	35	46117	0
[	Ba	137	19.851	ug/L	0.359	1	58	80450	2
[>	Tb	159		ug/L			422259	404618	1
[	Tl	205	0.014	ug/L	0.001	4	50	420	4
[	Pb	208	7.413	ug/L	0.025	0	522	277886	1
[	Bi	209		ug/L			333939	317636	0
[	Th	232	0.049	ug/L	0.002	3	97	2242	2
[	U	238	0.083	ug/L	0.001	0	35	4052	2

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT28 ASPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 03, 2012 16:27:46
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	247690	1
[	Be	9	25.021	ug/L	0.849	3	3	8425	3
	C	13		mg/L			4541	8008	1
	Cl	37		mg/L			2180819	1968757	0
[>	Sc	45		ug/L			249523	247390	1
|	V	51	28.646	ug/L	0.283	0	2642	333355	1
|	V-1	51	28.764	ug/L	0.385	1	2962	340896	1
|	Cr	52	27.270	ug/L	0.278	1	8246	286659	2
|	Cr	53	27.708	ug/L	0.487	1	1033	34804	1
|	Mn	55	788.786	ug/L	16.822	2	350	13363082	0
[	Co	59	25.868	ug/L	0.311	1	44	353940	1
[>	Ge	72		ug/L			354677	340630	1
|	Ni	60	28.705	ug/L	0.126	0	85	80684	0
|	Ni	62	28.582	ug/L	0.772	2	65	12201	1
|	Cu	63	37.238	ug/L	0.676	1	198	235267	0
|	Cu	65	36.786	ug/L	0.108	0	112	111354	1
|	Zn	66	106.132	ug/L	1.876	1	452	197406	0
|	Zn	67	97.040	ug/L	0.069	0	145	30890	1
|	Zn	68	104.923	ug/L	0.951	0	10815	149457	1
|	As	75	30.615	ug/L	0.277	0	87	60906	0
|	As-1	75	29.776	ug/L	0.234	0	13906	71320	0
|	Se	82	81.501	ug/L	1.169	1	0	18310	0
|	Se	78	82.534	ug/L	1.075	1	14142	57457	0
[	Mo	98	0.132	ug/L	0.004	3	495	1484	2
	Y	89		ug/L			349686	372000	0
	Kr	83		ug/L			147	227	1
[>	In	115		ug/L			379295	354921	0
|	Ag	107	24.135	ug/L	0.107	0	25	295005	0
|	Cd	111	25.143	ug/L	0.334	1	186	75579	1
|	Cd	114	25.315	ug/L	0.374	1	20	174539	1
|	Sb	121	0.116	ug/L	0.003	2	13	1136	2
|	Sb	123	0.114	ug/L	0.000	0	12	842	0
|	Ba	135	45.976	ug/L	0.120	0	35	108625	0
[	Ba	137	46.253	ug/L	0.889	1	58	187641	1
[>	Tb	159		ug/L			422259	405472	0
|	Tl	205	26.445	ug/L	0.120	0	50	724909	0
|	Pb	208	33.906	ug/L	0.120	0	522	1271987	0
|	Bi	209		ug/L			333939	320562	0
|	Th	232	15.928	ug/L	0.234	1	97	697019	1
[	U	238	25.786	ug/L	0.390	1	35	1250502	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VS23 H SWN
Sample Dil Factor: 100
Comments:
Sample Date/Time: Monday, December 03, 2012 16:34:01
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	266699	0
[	Be	9	0.137	ug/L	0.013	9	3	53	8
	C	13		mg/L			4541	4421	0
	Cl	37		mg/L			2180819	1909716	0
[>	Sc	45		ug/L			249523	248232	1
|	V	51	7.941	ug/L	0.077	0	2642	94614	1
|	V-1	51	7.781	ug/L	0.074	0	2962	94680	1
|	Cr	52	4.680	ug/L	0.101	2	8246	56142	1
|	Cr	53	4.363	ug/L	0.115	2	1033	6365	1
|	Mn	55	76.965	ug/L	1.467	1	350	1308771	1
[	Co	59	1.650	ug/L	0.020	1	44	22690	2
[>	Ge	72		ug/L			354677	354674	1
|	Ni	60	4.034	ug/L	0.050	1	85	11878	0
|	Ni	62	5.320	ug/L	0.096	1	65	2418	0
|	Cu	63	4.348	ug/L	0.090	2	198	28779	1
|	Cu	65	4.492	ug/L	0.072	1	112	14255	0
|	Zn	66	18.346	ug/L	0.190	1	452	35909	1
|	Zn	67	18.112	ug/L	0.405	2	145	6120	1
|	Zn	68	18.110	ug/L	0.397	2	10815	35806	0
|	As	75	1.313	ug/L	0.008	0	87	2804	0
|	As-1	75	1.114	ug/L	0.030	2	13906	16164	0
|	Se	82	0.008	ug/L	0.024	284	0	1	511
|	Se	78	-0.482	ug/L	0.093	19	14142	13875	0
[	Mo	98	0.055	ug/L	0.006	10	495	930	3
	Y	89		ug/L			349686	410239	0
	Kr	83		ug/L			147	220	2
[>	In	115		ug/L			379295	369375	0
|	Ag	107	0.054	ug/L	0.001	2	25	708	2
|	Cd	111	0.302	ug/L	0.025	8	186	1123	6
|	Cd	114	0.111	ug/L	0.003	2	20	819	3
|	Sb	121	0.010	ug/L	0.000	3	13	113	2
|	Sb	123	0.010	ug/L	0.002	16	12	88	13
|	Ba	135	41.953	ug/L	0.346	0	35	103163	1
[	Ba	137	42.432	ug/L	0.579	1	58	179171	1
[>	Tb	159		ug/L			422259	424893	0
|	Tl	205	0.041	ug/L	0.001	3	50	1216	3
|	Pb	208	4.218	ug/L	0.033	0	522	166271	0
|	Bi	209		ug/L			333939	334203	1
|	Th	232	1.122	ug/L	0.025	2	97	51523	1
[	U	238	0.303	ug/L	0.002	0	35	15451	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: VT28 MBSPK REN
Sample Dil Factor: 2
Comments:
Sample Date/Time: Monday, December 03, 2012 16:40:18
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	256709	0
[	Be	9	24.104	ug/L	0.102	0	3	8412	0
	C	13		mg/L			4541	4888	1
	Cl	37		mg/L			2180819	1933794	0
[>	Sc	45		ug/L			249523	234294	0
|	V	51	26.200	ug/L	0.243	0	2642	288947	0
|	V-1	51	26.255	ug/L	0.256	0	2962	294927	0
|	Cr	52	26.342	ug/L	0.284	1	8246	262477	0
|	Cr	53	26.504	ug/L	0.367	1	1033	31572	0
|	Mn	55	26.805	ug/L	0.250	0	350	430480	1
[	Co	59	26.995	ug/L	0.257	0	44	349814	0
[>	Ge	72		ug/L			354677	345127	0
|	Ni	60	26.795	ug/L	0.598	2	85	76312	1
|	Ni	62	26.550	ug/L	0.271	1	65	11491	1
|	Cu	63	27.494	ug/L	0.288	1	198	176085	1
|	Cu	65	27.384	ug/L	0.290	1	112	84009	0
|	Zn	66	83.504	ug/L	1.089	1	452	157476	0
|	Zn	67	75.379	ug/L	1.485	1	145	24344	2
|	Zn	68	82.108	ug/L	1.007	1	10815	120790	0
|	As	75	27.209	ug/L	0.129	0	87	54858	0
|	As-1	75	26.259	ug/L	0.402	1	13906	65325	0
|	Se	82	83.162	ug/L	0.859	1	0	18933	1
|	Se	78	84.059	ug/L	1.012	1	14142	59042	1
[	Mo	98	-0.052	ug/L	0.002	4	495	82	19
	Y	89		ug/L			349686	345510	0
	Kr	83		ug/L			147	207	6
[>	In	115		ug/L			379295	357390	0
|	Ag	107	26.018	ug/L	0.034	0	25	320242	0
|	Cd	111	25.170	ug/L	0.311	1	186	76189	1
|	Cd	114	24.979	ug/L	0.121	0	20	173421	0
|	Sb	121	0.005	ug/L	0.000	2	13	56	2
|	Sb	123	0.004	ug/L	0.001	21	12	41	15
|	Ba	135	26.555	ug/L	0.328	1	35	63188	0
[	Ba	137	26.558	ug/L	0.539	2	58	108510	1
[>	Tb	159		ug/L			422259	408429	0
|	Tl	205	26.594	ug/L	0.186	0	50	734325	1
|	Pb	208	26.685	ug/L	0.058	0	522	1008501	0
|	Bi	209		ug/L			333939	323958	0
|	Th	232	25.713	ug/L	0.228	0	97	1133431	0
[	U	238	25.364	ug/L	0.052	0	35	1239034	0

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCV6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 16:46:38
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	261404	1
[	Be	9	48.536	ug/L	1.529	3	3	17238	1
	C	13		mg/L			4541	3509	0
	Cl	37		mg/L			2180819	1947936	0
[>	Sc	45		ug/L			249523	231907	0
[	V	51	49.515	ug/L	0.541	1	2642	538324	0
[	V-1	51	49.819	ug/L	0.678	1	2962	551436	0
[	Cr	52	50.131	ug/L	0.489	0	8246	487508	0
[	Cr	53	51.033	ug/L	1.207	2	1033	59281	1
[	Mn	55	51.781	ug/L	0.226	0	350	822791	0
[	Co	59	50.815	ug/L	1.208	2	44	651662	1
[>	Ge	72		ug/L			354677	347261	1
[	Ni	60	49.146	ug/L	1.030	2	85	140744	0
[	Ni	62	48.985	ug/L	0.774	1	65	21274	0
[	Cu	63	49.490	ug/L	0.934	1	198	318702	1
[	Cu	65	48.851	ug/L	0.888	1	112	150692	1
[	Zn	66	49.870	ug/L	0.694	1	452	94797	0
[	Zn	67	49.552	ug/L	0.524	1	145	16150	1
[	Zn	68	49.009	ug/L	1.170	2	10815	76798	0
[	As	75	50.149	ug/L	0.880	1	87	101642	0
[	As-1	75	49.832	ug/L	1.075	2	13906	112493	0
[	Se	82	51.502	ug/L	0.838	1	0	11795	0
[	Se	78	50.678	ug/L	1.455	2	14142	41305	0
[	Mo	98	49.304	ug/L	1.300	2	495	384582	0
	Y	89		ug/L			349686	343128	0
	Kr	83		ug/L			147	211	2
[>	In	115		ug/L			379295	360706	1
[	Ag	107	50.005	ug/L	0.809	1	25	621155	1
[	Cd	111	50.055	ug/L	1.076	2	186	152718	1
[	Cd	114	50.221	ug/L	0.715	1	20	351849	0
[	Sb	121	49.923	ug/L	0.641	1	13	492654	0
[	Sb	123	50.040	ug/L	0.639	1	12	369708	0
[	Ba	135	50.359	ug/L	0.553	1	35	120905	0
[	Ba	137	50.387	ug/L	0.764	1	58	207725	0
[>	Tb	159		ug/L			422259	414628	1
[	Tl	205	50.830	ug/L	0.356	0	50	1424741	0
[	Pb	208	50.838	ug/L	0.199	0	522	1949973	0
[	Bi	209		ug/L			333939	327617	1
[	Th	232	51.493	ug/L	0.746	1	97	2303994	0
[	U	238	51.402	ug/L	0.649	1	35	2548944	1

ICP-MS Quantitative Analysis - Summary Report

Sample ID: CCB6
Sample Dil Factor:
Comments:
Sample Date/Time: Monday, December 03, 2012 16:53:17
Number of Replicates: 3
Method File: C:\Elandata\Method\2008LoNoMinNoRh.mth
Tuning File: C:\Elandata\Tuning\default.tun
Optimization File: C:\Elandata\Optimize\default.dac
Calibration File: C:\Elandata\Calibration\120312.cal

	Analyte	Mass	Conc. Mean	Units	Conc. SD	Conc. RSD	Blank Intens.	Meas. Intens.	Intens. RSD
[>	Li	6		ug/L			249415	258028	0
[	Be	9	-0.004	ug/L	0.004	91	3	2	50
	C	13		mg/L			4541	4101	1
	Cl	37		mg/L			2180819	1942104	0
[>	Sc	45		ug/L			249523	233187	0
[	V	51	-0.006	ug/L	0.007	119	2642	2401	3
[	V-1	51	-0.100	ug/L	0.005	5	2962	1663	4
[	Cr	52	-0.002	ug/L	0.020	1044	8246	7687	1
[	Cr	53	-0.290	ug/L	0.007	2	1033	632	0
[	Mn	55	0.014	ug/L	0.003	18	350	550	7
[	Co	59	0.000	ug/L	0.001	309	44	45	25
[>	Ge	72		ug/L			354677	345621	0
[	Ni	60	0.002	ug/L	0.009	491	85	87	28
[	Ni	62	-0.031	ug/L	0.028	90	65	50	24
[	Cu	63	-0.000	ug/L	0.003	734	198	190	9
[	Cu	65	-0.003	ug/L	0.004	135	112	100	13
[	Zn	66	-0.006	ug/L	0.013	222	452	430	5
[	Zn	67	-0.101	ug/L	0.063	62	145	109	18
[	Zn	68	-0.549	ug/L	0.017	3	10815	9801	0
[	As	75	0.047	ug/L	0.002	4	87	180	2
[	As-1	75	-0.076	ug/L	0.022	28	13906	13400	0
[	Se	82	0.005	ug/L	0.063	1230	0	0	4227
[	Se	78	-0.184	ug/L	0.090	48	14142	13682	0
[	Mo	98	-0.051	ug/L	0.004	8	495	88	38
	Y	89		ug/L			349686	342639	1
	Kr	83		ug/L			147	200	4
[>	In	115		ug/L			379295	360626	1
[	Ag	107	0.011	ug/L	0.003	23	25	158	18
[	Cd	111	-0.005	ug/L	0.007	125	186	160	11
[	Cd	114	0.001	ug/L	0.000	42	20	25	12
[	Sb	121	0.019	ug/L	0.005	24	13	197	21
[	Sb	123	0.020	ug/L	0.006	31	12	163	28
[	Ba	135	0.007	ug/L	0.004	54	35	51	17
[	Ba	137	0.006	ug/L	0.002	28	58	81	8
[>	Tb	159		ug/L			422259	413650	1
[	Tl	205	0.007	ug/L	0.002	21	50	257	18
[	Pb	208	0.005	ug/L	0.001	21	522	702	6
[	Bi	209		ug/L			333939	327777	0
[	Th	232	0.068	ug/L	0.014	20	97	3131	21
[	U	238	0.005	ug/L	0.001	13	35	264	12

Mercury Analysis Log

Analyst: DM
Instrument: CETAC

Date: 11·30·12
Page: 1 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments	
STD 0.0	SMM	1X			
" 0.1					
" 0.5					
" 1.0					
" 2.0					
" 5.0					
" 10.0					
ICV			8.02	BeginCLP %R=100	√
ICB			-0.03		√
CCV1			4.19	%R=105	√
CCB1			-0.01		√
CRA			0.10		√
VS22 MB1			0.01		√
" MB1SPK			1.96	%R=98	√
" A			1.64		
" ADUP			1.72	RPD=4.76	√
" ABPK			2.55	%R=91	√
" B					
" C					
" D					
" E					
CCV2			4.16	%R=104	√
CCB2			-0.02		√
VS22 F					
" G					
" H					
" I					
" J					
" K					
" L	↓	↓			

Chemical/Reagent ID:
10% $SnCl_2$: MP2403

14% NH_2OH/NaCl: MP2398

Standard ID:
Standard: 2095-3

ICV/CCV: SC-18

Mercury Analysis Log

Analyst: DM

Instrument: CETAC

Date: 11-30-12

Page: 2 of 5

ARI Sample ID	Prep Code	Dilution	QC Data (ppb)	Comments	
DM 11.30.12 VS23 VS23 MB1	SMM	1X	-0.02		✓
VS23 MB1SPK			1.89	%R=95	✓
" A			1.16		
CCV3			4.15	%R=104	✓
CCB3			-0.00		✓
VS23 ADUP			1.10	RPD=5.30	✓
" ASPK			2.28	%R=112	✓
" B					
" C					
" D					
" E					
" F					
" G					
" H					
" I					
CCV4			4.12	%R=103	✓
CCB4			0.02		✓
VS23 J					
" K					
VTL0 MB1			-0.01		✓
" MB1SPK			1.95	%R=98	✓
" A			6.57		
" ADUP			5.92	RPD=10.4	✓
" ASPK			6.99	%R=42 LOW	x
" B					
" C					
VT82 MB1			-0.03		✓
CCV5			4.13	%R=103	✓
CCB5			-0.01		✓
VT86 MB1SPK	↓	↓	1.97	%R=99	✓

Chemical/Reagent ID:

10% $SnCl_2$: MP2403

14% NH_2OH/NaCl: MP2398

Standard ID:

Standard: 2995-3

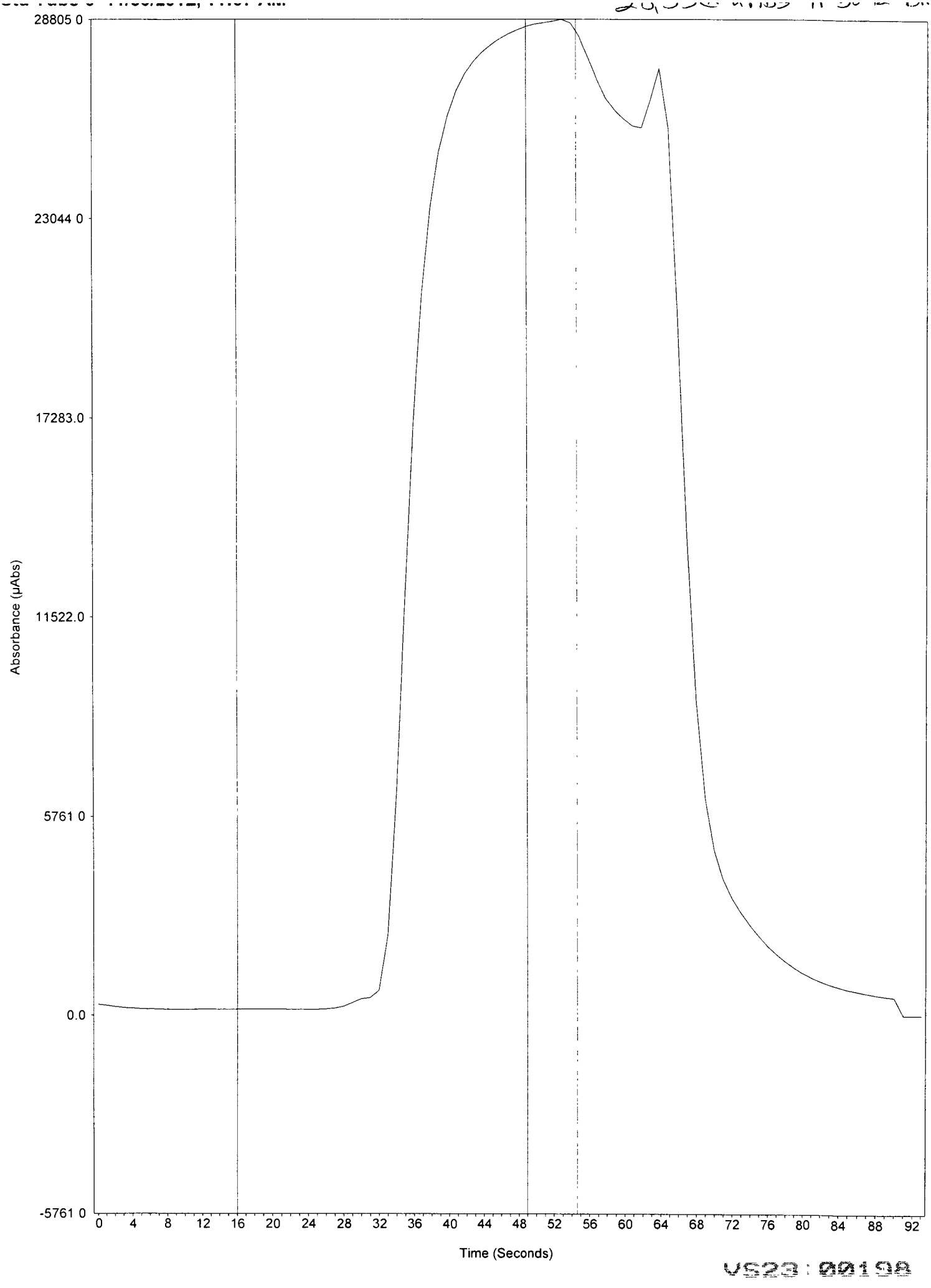
ICV/CCV: SL-18

ANALYTICAL RESOURCES INCORPORATED

Metals Data Review Checklist

Method: ICP ICP-MS GFA (CVA) **Analysis Date:** 11·30·12

	Analyst 11·30 DM	Peer # 12-3-12	Comment
Logbook:			
Analyst, Date, Method info	✓	✓	
Sample ID's	✓	✓	
Standard/QC solution ID's recorded	✓	✓	
Prep codes	✓	✓	
Dilution factors	✓	✓	
Crossouts/Corrections/Deletions	✓	✓	
Calibration:			
Blank & Standard intensities	✓	✓	
Standard deviations	✓	✓	
Curve fit	✓	✓	
Calibration Verification:			
ICV/CCV	✓	✓	
ICB/CCB	✓	✓	
Samples:			
RSD's & SD's	✓	✓	
Internal Standards	—	—	
Carry-over	—	✓	
Method QC:			
CRI/CRA	✓	✓	
ICSA/ICSAB	—	—	
Post Spikes/Serial Dilutions	—	—	
Analytic Spikes	—	—	
Matrix QC:			
SRM/LCS	✓	✓	
Matrix Spikes	✓	✓	VT60 ASPK Low
Matrix Duplicates	✓	✓	VT63 ADUP High
Method Blanks	✓	✓	
Data Distribution:			
Requested elements/isotope identified	✓	✓	
Correct samples identified for distribution	✓	✓	
Raw data match distributed data	✓	✓	
Data filename correct	✓	✓	
Necessary Analyst's Notes and CAF's:	✓	✓	See CAF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Absorbance (µAbs)
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16
20
24
28
32
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44
48
52
56
60
64
68
72
76
80
84
88
92
Time (Seconds)

CETAC Hg Analysis Report - 12113000.DB - Friday, November 30, 2012, 2:50:52 PM

Analyst
Date Started Friday, November 30, 2012, 11:07.03
Worksheet ARI 10ppb CALIB
Comment

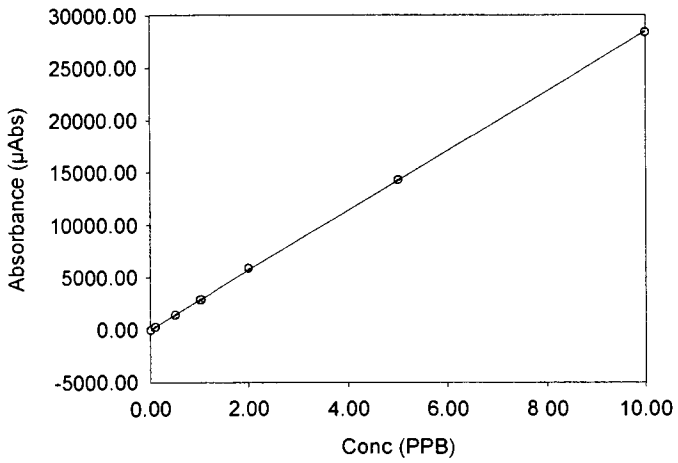
Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Std Tube 6	30-Nov-2012, 11:07	10 00	0.19	28600.00	1.00	

Information about this calibration could not be retrieved from the Master File.

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
Calibration Zero	30-Nov-2012, 11:09	0.00	8.25	-38 00	1.00	
Standard #1	30-Nov-2012, 11:11	0.10	2.65	293 00	1.00	
Standard #2	30-Nov-2012, 11:12	0.50	0.87	1420.00	1 00	
Standard #3	30-Nov-2012, 11:14	1.00	0.33	2850.00	1.00	
Standard #4	30-Nov-2012, 11:16	2.00	0.05	5890.00	1.00	
Standard #5	30-Nov-2012, 11:17	5.00	0.42	14300.00	1 00	
Standard #6	30-Nov-2012, 11:19	10.00	0.16	28400.00	1.00	

SMM

Calibration Data



Int.	0 000
Slope	2849.318
Correlation	0 99996

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
ICV	30-Nov-2012, 11 24	8.02	0.46	22900.00	1.00	
ICB	30-Nov-2012, 11.26	-0.03	7 40	-74.90	1 00	

Bxg on CLP

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	30-Nov-2012, 11:27	4.19	0 58	11900.00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	30-Nov-2012, 11:29	-0.01	10.00	-36.20	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
CRA	30-Nov-2012, 11:31	0.10	3.53	295 00	1 00	
VS22 MB1 SMM	30-Nov-2012, 11.32	0 01	15 90	34.40	1.00	
VS22 MB1SPK SMM	30-Nov-2012, 11:34	1.96	0.21	5580.00	1.00	
VS22 A SMM	30-Nov-2012, 11:36	1.64	0 20	4670 00	1.00	
VS22 ADUP SMM	30-Nov-2012, 11:37	1.72	0.92	4890.00	1.00	
VS22 ASPK SMM	30-Nov-2012, 11:39	2.55	0.62	7270.00	1.00	
VS22 B SMM	30-Nov-2012, 11:40	0 67	1.20	1910 00	1 00	
VS22 C SMM	30-Nov-2012, 11:42	0.43	3.05	1230.00	1 00	
VS22 D SMM	30-Nov-2012, 11:44	0 51	2.05	1450 00	1.00	
VS22 E SMM	30-Nov-2012, 11.45	0.61	0.65	1740.00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	30-Nov-2012, 11:47	4.16	0 18	11800.00	1.00	

Analyst
Date Started Friday, November 30, 2012, 11:49.04
Worksheet ARI 10ppb CALIB
Comment

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	30-Nov-2012, 11:49	-0.02	4.51	-54.90	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS22 F SMM	30-Nov-2012, 11:50	0.97	0.41	2750.00	1.00	
VS22 G SMM	30-Nov-2012, 11.52	0.89	0.61	2540.00	1 00	
VS22 H SMM	30-Nov-2012, 11:53	0.94	0.48	2670.00	1.00	
VS22 I SMM	30-Nov-2012, 11:55	0.61	0.86	1730 00	1.00	
VS22 J SMM	30-Nov-2012, 11:57	0.86	0.89	2450.00	1 00	
VS22 K SMM	30-Nov-2012, 11:58	0 61	0.59	1740.00	1 00	
VS22 L SMM	30-Nov-2012, 12:00	1.29	0.39	3680.00	1.00	
VS23 MB1 SMM	30-Nov-2012, 12:01	-0.02	5.47	-50.70	1.00	
VS23 MB1SPK SMM	30-Nov-2012, 12:03	1.89	0.36	5370 00	1.00	
VS23 A SMM	30-Nov-2012, 12:05	1.16	0.32	3320.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	30-Nov-2012, 12:06	4.15	0.61	11800 00	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	30-Nov-2012, 12.08	-0.00	22400.00	-0.04	1 00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS23 ADUP SMM	30-Nov-2012, 12:10	1.10	1.06	3140.00	1.00	
VS23 ASPK SMM	30-Nov-2012, 12:11	2.28	0.56	6500.00	1 00	
VS23 B SMM	30-Nov-2012, 12:13	0 81	0.49	2310.00	1.00	
VS23 C SMM	30-Nov-2012, 12:14	1.51	0.37	4300 00	1 00	
VS23 D SMM	30-Nov-2012, 12:16	1.42	0.49	4040.00	1.00	
VS23 E SMM	30-Nov-2012, 12:18	0.65	1.07	1850.00	1.00	
VS23 F SMM	30-Nov-2012, 12.19	0.37	0 45	1060.00	1 00	
VS23 G SMM	30-Nov-2012, 12 21	0.24	1.05	677.00	1.00	
VS23 H SMM	30-Nov-2012, 12:23	0.43	0.56	1230.00	1 00	
VS23 I SMM	30-Nov-2012, 12.24	0.94	0.07	2670.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	30-Nov-2012, 12:26	4.12	0.43	11700.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	30-Nov-2012, 12:27	0.02	26.90	47.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
VS23 J SMM	30-Nov-2012, 12:29	0.98	0 31	2800.00	1.00	
VS23 K SMM	30-Nov-2012, 12:31	1.39	0.63	3950.00	1.00	
VT60 MB1 SMM	30-Nov-2012, 12:32	-0.01	85.50	-16 40	1 00	
VT60 MB1SPK SMM	30-Nov-2012, 12:34	1.95	0.28	5550.00	1.00	
VT60 A SMM	30-Nov-2012, 12:36	6.57	0.49	18700 00	1.00	
VT60 ADUP SMM	30-Nov-2012, 12:37	5.92	0.44	16900.00	1.00	
VT60 ASPK SMM	30-Nov-2012, 12.39	6.99	0.30	19900.00	1 00	- LOW %R DTL
VT60 B SMM	30-Nov-2012, 12:40	8.08	0.38	23000.00	1.00	
VT60 C SMM	30-Nov-2012, 12:42	7.58	0.35	21600.00	1.00	
VT86 MB1 SMM	30-Nov-2012, 12.44	-0.03	9 17	-99.40	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Standard	30-Nov-2012, 12:45	4.13	0.23	11800.00	1.00	

Sample ID	Analysis Time	Conc (PPB)	%RSD	Avg. µAbs	Dilution	Flags
QC Blank	30-Nov-2012, 12:47	-0 01	22.10	-16.00	1.00	

Analyst	
Date Created:	Thursday, July 13, 2000
Worksheet	ARI 10ppb CALIB
Comment	
Sip Duration (Sec.):	30
Rinse Duration (Sec.):	60
Read Delay:	49
Integration Time/Replicate:	1.40
# of Replicates:	4
# of Repeats:	1
Baseline Correction Enabled:	True
Baseline Point 1 Start Time:	10
Baseline Point 1 End Time:	16
2-Point Baseline Corr. Enabled:	False
Baseline Point 2 Start Time:	
Baseline Point 2 End Time:	
Gas Flow (ml/min):	180
Calibration Algorithm:	Linear, Zero Intercept
Recalibration Frequency:	0
Reslope Frequency:	0
Reslope Standard:	5
Calibration Standard #1 Conc.:	0.10 PPB
Calibration Standard #2 Conc.:	0.50 PPB
Calibration Standard #3 Conc.:	1.00 PPB
Calibration Standard #4 Conc.:	2.00 PPB
Calibration Standard #5 Conc.:	5.00 PPB
Calibration Standard #6 Conc.:	10 00 PPB
QC Enabled:	True
QC-RSD Enabled:	True
Limit Condition & Error Action:	If %RSD > 5.0%, if µAbs. > 1500, Flag and Continue
QC-Std Enabled:	True
Limit Condition & Error Action:	If outside 80% .. 120%,Stop
QC-Blank Enabled:	True
Limit Condition & Error Action:	If outside -100 . 100,Stop

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Standard Prep Log

Prep Code: TLM Digested at 20.0 mL Instrument: CETAC
Analyst: CB Date: 11-23-12
Bath Temp: 90°C Start Time: 1407 End Time: 1607

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	100.0	0.0	1
STD1	2994-5	~~0.02~~		0.02	1
STD2		0.05		0.05	1
STD3		0.10		0.1	1
STD4		0.20		0.2	1
STD5		~~0.50~~ 0.4		0.4	1
STD6		1.00		1.00	1
CRA		0.02		0.02	1
ICB/CCB	—	0.00		0.0	1
ICV/LCS	~~2995-6~~ 2994-6	1.0		0.5	1
CCV		1.0	100.0	0.5	1

Chemical/Reagent ID:
HNO_3: I7833 H_2SO_4: I7677 HCl: —
5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376

Prep Code: SMM Instrument: CETAC
Analyst: NB Date: 11-26-12
Bath Temp: 90°C Start Time: 1217 End Time: 1247

Standard ID	Stock ID	Volume Added (mL)	Final Volume (mL)	Standard Conc. (µg/L)	Number Made
STD0	—	0.00	50.0	0.0	3
STD1	2995-3	0.01		0.1	2
STD2		0.05		0.5	2
STD3		0.10		1.0	2
STD4		0.20		2.0	2
STD5		0.50		5.0	2
STD6		1.00		10.0	2
CRA		0.01		0.1	1
ICB/CCB	—	0.00		0.0	3
ICV/LCS	56-18	0.08		8.0	2
CCV		0.04	50.0	4.0	3

Chemical/Reagent ID:
HNO_3: I7833 H_2SO_4: I7677 HCl: —
5% $K_2S_2O_8$: MP2375 5% $KMnO_4$: MP2376

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Mercury Digestion Log

Prep Code: SMM
Analyst: OM
Bath Temp: 95C
Matrix: Soil OM 11-28-12
Date: ~~11-28-12~~ 11-26-12
Start Time: 1258
End Time: 1308

ARI Sample ID	Sample Bottle #	pH<2	Initial Weight (g) ~~Volume (mL)~~	Final Volume (mL)	# $KMnO_4$ Aliquots	CLP	Comments
V523 A	1	—	0.715	50.0	11/22 1	(Y)	
" ADUP	1	—	0.719		1		
" ASPK	1	—	0.717		1		
" B	1	—	0.738		1		
" C	1	—	0.704		1		
" D	1	—	0.744		1		
" E	1	—	0.750		1		
" F	1	—	0.706		1		
" G	1	—	0.709		1		
" H	1	—	0.700		1		
" I	1	—	0.715		1		
" J	1	—	0.739		1		
" K	1	—	0.724		1		
" MBI	—	—	—	↓	1	↓	
" MBISPK	—	—	—	50.0	1	(Y)	

11-28-12 OM

Chemical/Reagent ID:

HNO_3: I7853
H_2SO_4: I7677
HCl: —
5% $K_2S_2O_8$: MP2575
5% $KMnO_4$: ~~MP25~~ MP2576 11-26-12 OM
Digest Tube Lot: 1205258

General Chemistry Raw Data
Analyst Notes and Raw Data

ARI Job ID: VS23

W
11-27-12

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

DATE: 11/20/2012 (B)

ANALYST: CDE 19:29

Instrumentation

Drying Ovens: 12

Muffle Furnace: N / A

Analytical Balance: 1123230597

Batch drying time

record times as mm/dd/yy hh:mm

11/20/2012 19:29 date/time in oven CDE

11/21/2012 10:11 date/time out CDE

elapsed hrs = 14.7

TS (%) calculated as:
Final dry wt (g) = (Dry Wt - Tare Wt)
TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:
Final ash wt (g) = (min ash wt - tare wt)
*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
if ash wt > dry wt, "Chk for Err"
*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02				
	Date & Time	1/20/12 18:21 CDE	11/20/12 17:32 CDE	11/21/12 10:29 CDE										
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000										
	record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*										

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
Blank			1.1260	1.1256			0.00							
VS20 J 1		4.5445	1.1037	4.3632			3.26	94.7%						
VS20 K1		4.6249	1.1498	4.4756			3.33	95.7%						
VS21 C1		5.2886	1.0894	5.1727			4.08	97.2%						
VS21 C1 dup		5.5288	1.1201	5.4011			4.28	97.1%						
							RPD =	0.14%				RPD =	NA	
VS21 C1 trp		5.3388	1.0796	5.2213			4.14	97.2%						
							RSD =	0.08%				RSD =	NA	
VS21 D1		4.7746	1.0874	4.6261			3.54	96.0%						
VS21 E1		4.9768	1.1128	4.8381			3.73	96.4%						
VS21 F1		6.7585	1.1030	6.6223			5.52	97.6%						
VS21 G1		6.9651	1.0898	6.8594			5.77	98.2%						
VS21 H1		7.2515	1.1084	7.1740			6.07	98.7%						
VS21 I 1		4.6359	1.0743	4.4594			3.39	95.0%						
VS21 J 1		5.8641	1.1148	5.7322			4.62	97.2%						
VS21 K1		5.8829	1.0945	5.7476			4.65	97.2%						
VS21 L 1		4.7599	1.0706	4.5692			3.50	94.8%						
VS23 I 1		5.0842	1.0934	4.9647			3.87	97.0%						
VS22 A1		4.6001	1.1226	4.3753			3.25	93.5%						
VS22 B1		5.4722	1.0484	5.3644			4.32	97.6%						
VS22 C1		7.1470	1.0819	6.9999			5.92	97.6%						
VS22 D1		5.8544	1.0874	5.7715			4.68	98.3%						

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET DATE: 11/20/2012 (B)

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))* ANALYST: CDE 19:29

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace: N / A

Batch drying time			*TS (%) calculated as:*	*TVS (mg/kg dry wt) calculated as:*
record times as mm/dd/yy hh:mm			*Final dry wt (g) = (Dry Wt - Tare Wt)*	*Final ash wt (g) = (min ash wt - tare wt)*
11/20/2012 19:29	date/time in oven	CDE	*TS = (Final Dry Wt)/ (grams Sample-Tare)*	*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*
11/21/2012 10:11	date/time out	CDE		*if ash wt > dry wt, "Chk for Err"*
elapsed hrs =	14.7			*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02				
	Date & Time	1/20/12 18:21 CDE	11/20/12 17:32 CDE	11/21/12 10:29 CDE										
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000										
	record weights to 4 places	*Cal OK!*	*Cal OK!*	*Cal OK!*										

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	(%)
VS22 E1		5.7288	1.0815	5.5907			4.51	97.0%						
VS22 F1		5.3669	1.1041	5.1423			4.04	94.7%						
VS22 G1		5.7917	1.1127	5.6314			4.52	96.6%						

TOTAL / VOLATILE SOLIDS (TS/TVS) BENCHSHEET (B)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

Analyst: CMR	Date: 11-20-12	Oven ID: 12	Balance ID: 1123230597
Time in Oven: ~~16:29 CMR~~ ~~19:29~~ 19:29	Time Out of Oven: 11-21-12 10:11	Elapsed Time (> 12 Hrs):	

Dry at 104 °C (12-24 hrs) then combust at 550 °C for 30 min. Record Weights to 4 places

TS (%) calculated as:
Final Dry Weight (g) = (Dry Weight – Tare Weight)
TS = (Final Dry Weight) / (Grams Sample – Tare Weight)

TVS (mg/kg dry weight) calculated as:
Final Ash Weight (g) = (Minimum Ash Weight – Tare Weight)
TVS (mg/kg) = [(Dry Weight – Ash Weight) / (Dry Weight) * 1,000,000
If Ash Weight > Dry Weight then "Check for Error"
If Dry Weight – Ash Weight < 0.001 < (1/Dry Weight) * 1,000,000

Cal Weight ID	CV-02	CV-02	CV-02	CV-02	CV-02	[redacted]	CV-02	CV-02	CV-02
Date & Time:	11-20-12 18:21	11-20-12 17:32	11-21-12 10:29						
Cal Weight (10.0000):	10.0000 CM2	10.0000 CM2	10.0000 CM2						

Sample ID	Dish #	Sample	Tare	Dry Weight 104°C 1	2	3	Dry Weight grams	Ash Weight 550°C 1	2	3
BLANK	24	Ø	1.1260	1.1256						
VS20 J1	25	4.5445	1.1037	4.3632						
↓ K1	26	4.6249	1.1498	4.4756						
VS21 C1	27	5.2886	1.0894	5.1727						
C1 dp	28	5.5283	1.1201	5.4011						
C1 TP	29	5.3388	1.0796	5.2213						
D1	30	4.7746	1.0874	4.6261						
E1	31	4.9768	1.1128	4.8381						
F1	32	6.7585	1.1030	6.6223						
G1	33	6.9651	1.0898	6.8594						
H1	34	7.2515	1.1084	7.1740						
I1	35	4.6359	1.0743	4.4594						
J1	36	5.8641	1.1148	5.7322						
K1	37	5.8829	1.0945	5.7476						
L1	38	4.7599	1.0706	4.5692						
VS23 VS21 A	39	5.0842	1.0934	~~4.4~~ 4.9647						
VS22 BA1	40	4.6001	1.1226	4.3753						
CB1	41	5.4722	1.0484	5.3644						
DC1	42	7.1470	1.0819	6.9999						
ED1	43	5.8544	1.0874	5.7715						
FE1	44	5.7288	1.0815	5.5907						
GF1	45	5.3669	1.1041	5.1423						
G1	46	5.7917	1.1127	5.6314						

W
11-27-12

Soil Conductivity - pH

Date: 11/21/2012

meter: Orion Model 115

Analyst: KE 9:56

Conductivity Calibration

Potassium Chloride standard *ARI ID =* **N / A**

pH Calibration *Temperature (°C)*

pH Buffers 2, 4, 7, 10, 12

Conductivity =	**1413**	*µS/cm*
Cal Temp	**N / A**	
Input Value		*µS/cm*

Verification Buffer pH

Source **FISHER#** 7.00

Conductivity Verification Standard

Source: **N / A**

Record Certified Values

µS / cm = **1000**

TDS (mg/l) =

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity (mS/cm)	Conductivity (µS/cm)	Notes & Flags
pH 7 Buffer			20.3	6.97			*OK@ 99.6%*
VS21 C1	20.30	20	20.1	5.27			
VS21 C1 dup	20.30	20	20.1	5.29			*pH RPD =0.38%*
VS21 D1	20.20	20	20.0	5.41			
VS21 E1	20.10	20	20.1	5.62			
VS21 F1	20.20	20	20.0	5.68			
VS21 G1	20.03	20	20.0	5.95			
VS21 H1	20.03	20	20.0	5.98			
VS21 I 1	10	20	20.0	5.90			
VS21 J 1	20.01	20	20.1	6.06			
VS21 K1	20.01	20	20.1	5.08			
pH 7 Buffer			20.4	6.99			*OK@ 99.9%*
VS21 L1	10.05	20	20.1	5.89			
VS23 I 1	20.06	20	20.0	5.96			
VS19 A1	20	20	20.0	5.96			
VS19 A1 dup	20	20	20.0	5.98			*pH RPD =0.34%*
VS19 B1	20	20	20.0	6.13			
VS19 C1	20	20	20.1	6.10			
VS19 D1	10	20	20.0	6.44			
VS19 E1	20	20	20.0	5.78			
VS19 F1	20	20	20.0	6.03			
VS19 G1	20	20	20.0	6.10			
pH 7 Buffer			20.4	7.04			*OK@ 100.6%*
VS19 H1	20	20	20.0	6.11			
VS19 I 1	20	20	20.0	5.73			
VS19 J 1	10	20	20.0	5.97			
VS19 K1	20	20	20.0	5.60			
VS19 L1	20	20	20.0	6.03			
VS20 A1	10	20	20.0	6.11			
VS20 B1	10	20	20.0	6.14			
VS20 C1	10	20	20.0	5.96			
VS20 D1	5	20	20.3	6.21			
VS20 E1	10	20	20.2	6.27			
pH 7 Buffer			20.3	7.03			*OK@ 100.4%*

VS20 F1	20	20	20.1	6.22			
VS20 G1	10	20	20.3	6.08			
VS20 H1	20	20	20.2	6.09			
VS20 H1 dup	20	20	20.2	6.06			*pH RPD =0.49%*
VS20 J 1	10	20	20.2	6.52			
VS20 K1	10	20	20.3	6.37			
VS22 A1	10	20	20.2	5.45			
VS22 B1	20	20	20.3	5.73			
VS22 C1	20	20	20.2	6.67			
CS22 D1	20	20	20.3	7.48			
pH 7 Buffer			20.2	7.00			*OK@ 100%*
VS22 E1	10	20	20.5	6.75			
VS22 F1	10	20	20.3	6.42			
VS22 G1	20	20	20.2	6.13			
VS22 H1	20	20	20.3	5.61			
VS22 I 1	20	20	20.3	6.24			
VS22 J 1	20	20	20.3	6.25			
VS22 K1	20	20	20.2	6.18			
VS22 L1	10	20	20.2	6.68			
VS23 A1	20	20	20.4	5.77			
VS23 A1 dup	20	20	20.3	5.79			*pH RPD =0.35%*
pH 7 Buffer			20.3	6.98			*OK@ 99.7%*
VS23 B1	20	20	20.2	5.95			
VS23 C1	10	20	20.4	6.34			
VS23 D1	20	20	20.3	5.73			
VS23 E1	20	20	20.4	5.69			
VS23 F1	20	20	20.3	5.51			
VS23 G1	20	20	20.0	5.47			
VS23 H1	20	20	20.2	5.48			
VS23 J1	10	20	20.3	5.29			
VS23 K1	10	20	20.3	6.19			
VS18 B1	20	20	20.2	6.15			
pH 7 Buffer			20.5	7.05			*OK@ 100.7%*
VS18 A1	20	20	20.3	6.47			
VS18 A1 dup	20	20	20.3	6.45			*pH RPD =0.31%*
VS18 C1	20	20	20.2	6.17			
VS18 D1	20	20	20.1	6.16			
VS18 E1	20	20	20.2	6.15			
VS18 F1	20	20	20.2	6.06			
VS18 G1	20	20	20.3	6.13			
VS18 H1	20	20	20.3	6.10			
VS18 I 1	20	20	20.3	5.46			
VS18 J 1	20	20	20.3	5.97			
pH 7 Buffer			20.5	7.05			*OK@ 100.7%*
VS18 K1	10	20	20.4	6.19			
VS18 L1	20	20	20.4	6.10			
VT58 A1	20	20	20.3	3.81			
VT58 A1 dup	20	20	20.3	3.80			*pH RPD =0.26%*
VT58 B1	20	20	20.3	6.69			
VT58 C1	20	20	20.4	5.32			
VT58 D1	20	20	20.4	2.73			
VT58 E1	20	20	20.3	3.36			
VT58 F1	20	20	20.3	2.49			
pH 7 Buffer			20.6	7.02			*OK@ 100.3%*

(1) 11-21-12 (W)

Soil Conductivity - pH

meter: Orion Model 115

Date: 11-20-12
Analyst: (W) 9:56

Conductivity Calibration
Potassium Chloride standard ARI ID = _____

Conductivity =	1413	µS/cm
Cal Temp		
Input Value		µS/cm

pH Calibration *Temperature (°C)* _____
pH Buffers 2, 4, 7, 10, 12

Verification Buffer pH
Source FISHER# 7.00

Conductivity Verification Standard
Source:

Record Certified Values
µS / cm = 1000
TDS (mg/l) =

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity (mS/cm)	Conductivity (µS/cm)	Notes & Flags
pH 7 Buffer			(1) 20.3	6.97			
VS21 C1	20.03	20	20.1	20.47 (1)	6.27		
NC1	20.02	20	20.1	5.29			
B1	20.02	30	20.0	5.41			
E1	20.01	20	20.1	5.62			
F1	20.02	20	20.0	5.68			
G1	20.03	20	20.0	5.95			
H1	20.03	20	20.0	5.98			
I1	10.00	20	20.0	5.90			
J1	20.01	20	20.1	6.06			
K1	20.01	20	20.1	5.08			
pH 7 Buffer			20.4	6.97			
VS21 L1	10.05	20	20.1	5.89			
VS20 I1	20.06	20	20.0	5.96			
VS19 A1	20	20	20.0	5.96			
NA1	20	20	20.0	5.98			
B1	20	20	20.0	6.13			
C1	20	20	20.1	6.10			
D1	10	20	20.0	6.44			
E1	20	20	20.0	5.78			
F1	20	20	20.0	6.03			
G1	20	20	20.0	6.10			
pH 7 Buffer			20.4	7.04			
VS19 H1	20	20	20.0	6.11			
I1	20	20	20.0	5.73			
J1	10	20	20.0	5.97			
K1	20	20	20.0	5.60			
L1	20	20	20.0	6.03			
VS20 A1	10	20	20.0	6.11			
B1	10	20	20.0	6.14			
C1	10	20	20.0	5.96			
D1	5	20	20.3	6.21 (1)	6.21		
E1	10	20	20.2	6.27			
pH 7 Buffer			20.3	7.03			
VS20 F1	20	30	20.1	6.22			
G1	10	20	20.3	6.08			
H1	20	20	20.2	6.09			
NH1	20	20	20.2	6.06			
J1 (1)	10	20	20.2	6.52			
K1	10	20	20.3	6.37			
VS22 A1	10	30	20.2	5.45			
B1	20	20	20.3	5.73			
C1	20	20	20.2	6.67			
D1	20	20	20.3	7.48			
pH 7 Buffer			20.2	7.00			

Soil Conductivity - pH

meter: Orion Model 115

Date: 11-21-12

Analyst: W 9:56

ARI Number	Soil Wt. (grams)	Extract vol (mL)	Temp (°C)	pH	Conductivity (mS/cm)	Conductivity (µS/cm)	Notes & Flags
US22 E1	10	20	20.5	6.75			
F1	20	20	20.3	6.42			
G1	20	20	20.2	6.13			
H1	20	20	20.3	5.61			
I1	20	20	20.3	6.24			
J1	20	20	20.3	6.25			
K1	10	20	20.2	6.18			
L1	10	20	20.2	6.68			
US23 A1	20	20	20.4	5.80	5.77		
DA1	20	20	20.3	5.79			
pH 7 Buffer			20.3	6.98 ②	6.98		
US23 B1	20	⑥ 20 30	20.2	5.95			
C1	10	20	20.4	6.34			
D1	20	20	20.3	5.73			
E1	20	20	20.4	5.69			
F1	20	20	20.3	5.51			
G1	20	20	20.0	5.47			
H1	20	20	20.2	5.48			
J1	10	20	20.3	5.29			
K1	10	20	20.3	6.19			
US18 B1	20	⑥ 20 30	20.2	6.15			
pH 7 Buffer		20.3	7.05	7.05			
US18 A1	20	30	20.3	6.47			
DA1	20	30	20.3	6.45			
C1	20	20	20.2	6.17			
D1	20	20	20.1	6.16			
E1	20	20	20.2	6.15			
F1	20	20	20.2	6.06			
G1	20	20	20.3	6.13			
H1	20	20	20.3	6.10			
I1	20	20	20.30	5.46			
J1	20	20 ⑥	20.34	5.97			
pH 7 Buffer			20.5	7.05			
US18 K1	10	20 ⑦	20.34	6.19			
L1	20	20	20.3	6.10			
UT58 A1	20	20	20.4 ③	3.81			
DA1	20	20 ⑦	20.4	3.80			
B1	20	20	20.3	6.69			
C1	20	20 ⑤	20.3 ①	5.30	5.32		
D1	20	20	20.4	2.73			
E1	20	20	20.3	5.36			
F1	20	20	20.3	2.49			
PH 7 Buffer			20.6	7.02			
pH 7 Buffer							
				11-21-12 ⑥			
pH 7 Buffer							

② 20.4-11-21-12 W ⑤ 20.4 11-21-12 W

③ 20.3-11-21-12 W ⑥ 20.3-11-21-12

④ 20.4-11-21-12 W ⑦ 20.3-11-21-12

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:	11-21-12		Buffer	Source	Lot #	pH	Temp.
Time:	11:14		2.00	Ricca	1205264	2.00	20.5
Analyst:	(W)		4.00	Fisher	116550	4.00	20.4
			7.00	Ricca	1206053	7.02	20.2
			10.00	Fisher	116346	10.05	20.2
			12.00	Ricca	1206157	11.99	20.4
			Verification	Fisher	120143	6.97	20.3

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
(W)	10:29	ICV	6.97	6.97	PH		20.3
		VS21 C'	5.26	5.27		SD1	20.1
		DC'	5.28	5.29			20.1
		D'	5.41	5.41			20.0
		E'	5.60	5.62			20.1
		F'	5.68	5.68			20.0
		G'	5.95	5.95			20.0
		H'	5.97	5.98			20.0
		I'	5.89	5.90			20.0
		J'	6.06	6.06			20.1
		K'	5.08	5.08			20.1
		CCV	7.00	6.99			20.4
		VS21 L'	5.89	5.89			20.1
		VS23 I'	5.96	5.96			20.0
		VS19 A'	5.96	5.96			20.0
		DA'	5.97	5.98			20.0
		B'	6.13	6.13			20.0
		C'	6.09	6.10			20.1
		D'	6.42	6.44			20.0
		E'	5.78	5.78			20.0
		F'	6.01	6.03			20.0
		G'	6.10	6.10			20.0
		CCV	7.05	7.04			20.4

(1) 11-21-12 (W)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Page 2 of 4

Calibration

Date:	11-21-12 Continued		Buffer	Source	Lot #	pH	Temp.
Time:			2.00	Ricca			
Analyst:			4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher			
			12.00	Ricca			
			Verification	Fisher			

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
LW	12:10	ICV	7.03	7.03			20.2
		VIG2A1	9.89	9.90	→ 6.95	6.95	19.2
		~~I at 6pm~~					
		CCV	7.03	7.03			20.2
(W)	10:28 (cont)	VS19 H'	6.11	6.11	PH 5011		20.0
		J'	5.73	5.73			20.0
		J	5.96	5.97			20.0
		K'	5.60	5.60			~~20.0~~ 20.0
		L'	6.02	6.03			20.1
		VS20A	6.10	6.11			20.0
		B'	6.13	6.14			20.0
		CCV C	5.97	5.96			20.0
		D'	6.21	6.21			20.3
		E'	6.27	6.27			20.2
		CCV	7.03	7.03			20.3
		F'	6.22	6.22			20.1
		G'	6.08	6.08			20.3
		H'	6.09	6.09			20.2
		DPH'	6.07	6.06			20.2
		J'	6.52	6.52			20.2
		K'	6.38	6.37			20.3
		VS22A'	5.47	5.45			20.2
		~~CCV~~ B'	5.73	5.73			20.3

(1) 11-21-12 (2)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Page 3 of 4

Calibration

Date:			Buffer	Source	Lot #	pH	Temp.
Time:			2.00	Ricca			
Analyst:			4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher			
			12.00	Ricca			
			Verification	Fisher			

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temperature
(W)	10.28	~~US22 ICV~~ C1	6.67	6.67	10.1 pH		20.2
		D1	7.46	7.48			20.3
		CCV	7.01	7.00			20.2
		US22 E1	6.75	6.75			20.5
		F1	6.44	6.42			20.3
		G1	6.12	6.13			20.2
		H1	5.61	5.61			20.3
		I1	6.24	6.24			20.3
		J1	6.25	6.25			20.3
		K1	6.18	6.18			20.2
		L1	6.67	6.68			20.2
		~~US22 CCV~~ A1	~~6.11~~ 5.77	~~6.10~~ 5.77			20.4
		DPA1	5.79	5.79			20.3
		CCV	6.98	6.98			20.3
		US23 B1	5.95	5.95			20.2
		C1	6.34	6.34			20.4
		D1	5.74	5.73			20.3
		E1	5.69	5.69			20.4
		F1	5.51	5.51			20.3
		G1	5.47	5.47			20.0
		H1	5.48	5.48			20.2
		J1	5.29	5.29			20.3
		(1) CCV K1	6.17	~~6.18~~ (2)	6.19		20.3

@ 11-21-12 (W)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

pH Logbook

Meter ID: Accumet AR60

Calibration

Date:			Buffer	Source	Lot #	pH	Temp.
Time:			2.00	Ricca			
Analyst:			4.00	Fisher			
			7.00	Ricca			
			10.00	Fisher			
			12.00	Ricca			
			Verification	Fisher			

Sample pH

Analyst Initials	Time	Sample ID	1	2	3	4	Temp-erature
		~~US~~ ~~ICV~~ ~~CCV~~					
W	10:28	US18 B'	6.15	6.15			20.2
		CCV	~~6.795~~ (1)	~~6.815~~ 7.05	30.1	pH	20.5
		US18 A'	6.45	6.47			20.3
		MA'	6.44	6.45			20.3
		C	6.17	6.17			20.2
		D	6.15	6.16			20.1
		E	6.14	6.15			20.2
		F	6.06	6.06			20.2
		G	6.13	6.13			20.3
		H	6.09	6.10			20.3
		~~CCV~~ I	5.47	5.46			20.3
		J	5.97	5.97			20.3
		CCV	7.05	7.05			20.5
		US18 K'	~~6.19~~ 6.19	~~6.19~~ 6.19			20.4
		L'	~~6.10~~ 6.10	~~6.10~~ 6.10			20.4
		UTS8 A1	3.81	3.81			20.3
		A1	3.80	3.80			20.3
		B1	6.69	6.69			20.3
		C1	~~5.33~~	~~5.32~~			20.4
		D1	2.73	2.73			20.4
		E1	3.36	3.36			20.3
		~~CCV~~ F1	2.49	2.49			20.3
		CCV	7.02	7.02			20.6

W

11-26-12

TOC Solids Prep Log

acid purging to remove IC and drying at 70°C for TOC analysis

General notes regarding prep method and samples (identify the acid used)

DATE:	11/20/2012
ANALYST:	CDE 19:52

HCL 10% ID: _____

Balance ID: Mettler Toledo (XS205 DU) SN 123230597 HCL ID: _____

make no entry to shaded cells, they are calculated

Sample ID		IC Test	Gravimetric Data (grams)			%	*Sample description & notes*
ARI #	Client	+ / -	Tare Wt.	Wet wt.	70°C dry wt	Solids	*(homogeneity and exclusions)*
Blank			13.3199	0.0000	13.3202	0.3 mg	
VS20 J1		-	13.2305	15.3666	15.3815	100.70%	
VS20 K1		-	13.0446	15.1619	15.1889	101.28%	
VS21 C1		-	13.1152	16.0780	16.1157	101.27%	
VS21 C1 dup		-	13.3594	16.3365	16.3710	101.16%	RPD = 0.11%
VS21 C1 trip		-	13.2355	16.2852	16.3261	101.34%	RSD = 0.09%
VS21 D1		-	13.1493	15.2196	15.2579	101.85%	
VS21 E1		-	13.1555	15.7176	15.7474	101.16%	
VS21 F1		-	13.1366	17.4756	17.4933	100.41%	
VS21 G1		-	13.1927	17.1843	17.2460	101.55%	
VS21 H1		-	13.2319	16.9820	17.0569	102.00%	
VS21 I 1		-	13.3198	15.1216	15.1608	102.18%	
VS21 J1		-	13.3731	15.8253	15.8885	102.58%	
VS21 K1		-	13.3279	15.5409	15.6038	102.84%	
VS21 L1		-	13.2577	15.2013	15.2231	101.12%	
VS23 I 1		-	13.1153	15.5268	15.5552	101.18%	
VS22 A1		-	13.2274	14.6481	14.6666	101.30%	
VS22 B1		-	13.3576	16.2361	16.2948	102.04%	
VS22 C1		-	13.2227	16.0684	16.1354	102.35%	
VS22 D1		++-	13.0709	17.1038	17.3201	105.36%	
VS22 E1		-	13.1143	16.1295	16.1524	100.76%	
VS22 F1		-	13.1892	15.6304	15.6302	99.99%	
VS22 G1		-	13.1985	15.6400	15.6786	101.58%	

(B)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

Analyst CMC Date 11-20-12 19:52

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.3199	Ø	13.3202		
VS20 J'		~	13.2305	15.3666	15.3815		
↓ K'		~	13.0446	15.1619	15.1889		
VS21 C'		~	13.1152	16.0780	16.1157		
C' dp		~	13.3594	16.3365	16.3710		
C' TP		~	13.2355	16.2852	16.3261		
D'		~	13.1493	15.2196	15.2579		
E'		~	13.1555	15.7176	15.7474		
F'		~	13.1366	17.4756	17.4933		
G'		~	13.1927	17.1843	17.2460		
H'		~	13.2319	16.9820	17.0569		
I'		~	13.3198	15.1216	15.1608		
J1		~	13.3731	15.8253	15.8885		
K1		~	13.3279	15.5409	15.6038		
L1		~	13.2577	15.2013	15.2231		
VS23 I'		~	13.1153	15.5268	15.5552		
VS22 A1		~	13.2274	14.6481	14.6666		
B1		~	13.3576	16.2361	16.2948		
C1		~	13.2227	16.0684	16.1354		
D1		+ + ~	13.0709	17.1038	17.3201		
E1		~	13.1143	16.1295	16.1524		
F1		~	13.1892	15.6304	15.6302		
G1		~	13.1985	15.6400	15.6786		

11-20-12 CMC

J

11-26-12

TOC Solids Prep Log

acid purging to remove IC and drying at 70°C for TOC analysis

General notes regarding prep method and samples (identify the acid used)

DATE: 11/23/2012

ANALYST: CDE 18:07

HCL 10% ID:

HCL ID:

Balance ID: Mettler Toledo (XS205 DU) SN 123230597

make no entry to shaded cells, they are calculated

Sample ID		IC Test	Gravimetric Data (grams)			%	*Sample description & notes*
ARI #	Client	+ / -	Tare Wt.	Wet wt.	70°C dry wt	Solids	*(homogeneity and exclusions)*
Blank			13.2596	0.0000	13.2599	0.3 mg	
VS22 H1		-	13.2341	15.7507	15.7952	101.77%	
VS22 H1 dup		-	13.1798	15.5816	15.6220	101.68%	RPD = 0.08%
VS22 H1 trip		-	13.2274	15.5935	15.6337	101.70%	RSD = 0.04%
VS22 I 1		-	13.3066	16.2360	16.2438	100.27%	
VS22 J1		-	13.2255	15.8622	15.8828	100.78%	
VS22 K1		-	13.2160	15.2373	15.2918	102.70%	
VS22 L1		+-	13.2700	15.2706	15.2985	101.39%	
VS23 A1		-	13.1376	15.7843	15.7891	100.18%	
VS23 B1		-	13.0993	15.3824	15.4068	101.07%	
VS23 C1		-	13.1045	15.7805	15.7839	100.13%	
VS23 D1		-	13.1567	15.7768	15.7837	100.26%	
VS23 E1		-	13.2538	15.9541	15.9964	101.57%	
VS23 F1		-	13.1078	16.7848	16.8203	100.97%	
VS23 G1		-	13.0750	16.3117	16.3693	101.78%	
VS23 H1		-	13.2072	16.3475	16.3895	101.34%	
VS23 J1		-	13.1803	15.7202	15.7437	100.93%	
VS23 K2		-	13.2994	15.4671	15.5013	101.58%	

@15.5935
ark

Analytical Resources, Incorporated
Analytical Chemists and Consultants

TOC Solids Preparation Log

Acid purge to remove IC and drying 70 °C for TOC analysis
Add general notes regarding samples and preparation and identify the acid used

Analyst CAM Date 1(-23-12 18:07

Sample Idenification		IC	Gravimetric Data			% Solids	Sample description & notes
ARI #	Client ID	Test	Tare	Wet	70 °C		
Blank			13.2596	Ø	13.2599		
VS22 H'		-	13.2341	15.7507	15.7952		
H'dp		-	13.1798	15.5816	15.6220		
H'TP		-	13.2274	~~15.5820~~	15.6337		
I'		-	13.3066	16.2360	16.2438		
J'		-	13.2255	15.8622	15.8828		
K'		~	13.2160	15.2373	15.2918		
L'		+-	13.2700	15.2706	15.2985		
VS23 A'		-	13.1376	15.7843	15.7911		
B'		-	13.0993	15.3824	15.4068		
C'		-	13.1045	15.7805	15.7839		
D'		-	13.1567	15.7768	15.7837		
E'		-	13.2538	15.9541	15.9964		
F'		-	13.1078	16.7848	16.8203		
G'		-	13.0750	16.3117	16.3693		
H'		-	13.2072	16.3475	16.3895		
J'		-	13.1803	15.7202	15.7437		
K'		~	13.2994	15.4671	15.5013		

11-23-12 CAM

TOTAL SOLIDS/VOLATILE SOLIDS (TS / TVS) BENCHSHEET

DATE: 11/23/2012

SOLIDS *(dry at 104 (12-24 hr) then combust at 550 (30 min))*

ANALYST: CDE/RR

Instrumentation ***Drying Ovens:*** 12 ***Analytical Balance:*** 1123230597

Muffle Furnace:

Batch drying time

record times as mm/dd/yy hh:mm

11/23/2012 18:01 date/time in oven

11/24/2012 12:00 date/time out

elapsed hrs = 18.0

TS (%) calculated as:

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

TS = (Final Dry Wt)/ (grams Sample-Tare)

TVS (mg/kg dry wt) calculated as:

Final ash wt (g) = (min ash wt - tare wt)

*TVS (mg/kg) = [(Dry wt-Ash wt)/ (dry weight)] *1,000,000*

if ash wt > dry wt, "Chk for Err"

*if dry wt-ash wt < 0.001 g, "< (1/dry wt)*1,000,000*

	Cal Weight ID	CV-02	CV-02	CV-02	CV-02				CV-02	CV-02					
	Date & Time	11/23/12 17:10	11/23/12 17:00	11/24/12 12:17											
Cal Wt (g)	10.0000	10.0000	10.0000	10.0000											
	record weights to 4 places	Cal OK!	Cal OK!	Cal OK!											

SAMPLE ID	DISH #	SAMPLE (grams)	TARE WT (grams)	DRY WT 104C (grams) 1			dry Wt (g)	TS (%)	ASH WT 550C (grams) 1	2		Ash Wt (g)	TVS (mg/kg)	TVS (%)
Blank		0.0000	1.0663	1.0660			0.00							
VS22 H1		5.9223	1.0930	5.7817			4.69	97.1%						
VS22 H1 dup		6.2667	1.0774	6.1119			5.03	97.0%						
							RPD =	0.07%				RPD =	NA	
VS22 H1 trp		5.9136	1.1037	5.7686			4.66	97.0%						
							RSD =	0.05%				RSD =	NA	
VS22 I1		5.4650	1.0914	5.2875			4.20	95.9%						
VS22 J1		5.2045	1.0947	5.0524			3.96	96.3%						
VS22 K1		5.8333	1.1253	5.6439			4.52	96.0%						
VS22 L1		5.4911	1.0964	5.1608			4.06	92.5%						
VS23 A1		5.6956	1.0838	5.5013			4.42	95.8%						
VS23 B1		5.9540	1.1109	5.7475			4.64	95.7%						
VS23 C1		5.1214	1.0929	4.9362			3.84	95.4%						
VS23 D1		5.8564	1.0856	5.6317			4.55	95.3%						
VS23 E1		6.1382	1.0946	5.9488			4.85	96.2%						
VS23 F1		6.9770	1.1030	6.7954			5.69	96.9%						
VS23 G1		7.3826	1.0671	7.2736			6.21	98.3%						
VS23 H1		7.0441	1.0809	6.8818			5.80	97.3%						
VS23 J1		6.4661	1.1003	6.2889			5.19	96.7%						
VS23 K1		6.0548	1.1274	5.8323			4.70	95.5%						

5
5
5
5

W

11-30-12

TOC, Solids Data Analysis

DATE: 11/29/2012

Instrument: Apollo 1 — ANALYST: KE 6:56

Mode: NPOC *Inlet:* Boat

Spike Std = 2,500 *ppm C* — Balance ID:

Calibration Data

Cal Curve ID: **11/13/2012** *Conc:* 5,000 *ppm*

Calibration Curve Standard: **00130-01** *Curve Date:* **11/13/12**

CalFact: ***1.339E+05*** *intercept:* **163305** *r2 :* **0.99851**

Curve Range (ppm) 200 *to* 2,500

Curve Range (µgC): **8** *to* **100** *40 µL injections of designated standard*

Verification Standard

Source: ***ERA# 0409-12-01*** *Conc:* **5,000** *ppm*

dilution : 10 *mL to* 50 **1,000** *ppm*

Standard Reference Material

Source: ***NIST 8704*** *Conc:* **33,510** *ppm*

Source: ***NIST 1941B*** *Conc:* **29,900** *ppm*

Silica Blanks

	Replicate determinations						Mean	RSD	condition
	108.7	49.8	68.4	70.3			62.8	18.0%	OK

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	comments
ICV				1.00		40.0	1003	1,003	*100.30%*
Blank				1.00		40.0	-29.77	-30	*Blank OK*
NIST 1941B				1.00		1.7	24830	24,830	*83.04%*
Silica Blanks 1				1.00		37.9	108.65	109	*Low Scale*
Silica Blanks 2				1.00		21.5	49.08	49	*Low Scale*
Silica Blanks 3				1.00		21.6	68.36	68	*Low Scale*
Silica Blanks 4				1.00		20.1	70.25	70	*Low Scale*
VS21 A1				1.00		1.0	60315	60,315	*Range OK!*
VS21 A1 dup				1.00		0.9	50190	50,190	*RPD=18.3%*
VS21 A1 trp				1.00		1.1	36389	36,389	*RSD=24.5%*
~~VS21 A1 trp~~				~~1.00~~		~~1.2~~	~~32750~~	~~32,750~~	~~RSD=29.2%~~
~~VS21 A1 ms~~			-	~~1.00~~	~~20~~	~~0.8~~	~~105161~~	~~105,161~~	~~Range OK!~~
~~Spike =~~	~~0.05~~	~~mg C to~~	~~0.8~~	~~mg samp=~~	~~62,500~~	~~ppm~~		~~72%~~	
VS21 A1 ms				1.00	10	1.0	88562	88,562	*Range OK!*
Spike =	*0.025*	*mg C to*	*1.0*	*mg samp=*	*25,000*	*ppm*		*113%*	
CCV				1.00		40.0	995	995	*99.50%*
Blank				1.00		40.0	-15.83	-16	*Blank OK*
~~VS21 B1~~			-	~~1.00~~		~~0.8~~	~~131045~~	~~131,045~~	~~Offscale, dilute~~
VS21 B1	11.6	113.1	89.74%	9.75		2.4	21691	210,938	*Range OK!*
VS21 C1				1.00		1.0	19062	19,062	*Range OK!*
VS21 C1 dup				1.00		1.0	20279	20,279	*RPD=6.2%*
VS21 C1 trp				1.00		1.1	18746	18,746	*RSD=4.2%*
~~VS21 C1 ms~~			-	~~1.00~~	~~10~~	~~1.0~~	~~51981~~	~~51,981~~	~~Range OK!~~
~~Spike =~~	~~0.025~~	~~mg C to~~	~~1.0~~	~~mg samp=~~	~~25,000~~	~~ppm~~		~~132%~~	
VS21 C1 ms				1.00	10	0.9	48572	48,572	*Range OK!*
Spike =	*0.025*	*mg C to*	*0.9*	*mg samp=*	*27,778*	*ppm*		*106%*	

Sample Data

*"C corr" (with dilution) = ("C obs" - (Mean silica Blank * %Silica)) * Dilution Factor*

Sample ID	Dilution Data				Spike	Combustion Data			
	Sample wt. (mg)	Final wt. (mg)	Silica (%)	Dilution Factor	(µL Std)	Burn wt. (mg)	C obs (ppm C)	C corr (ppm C)	comments
VS21 D1				1.00		1.0	30187	30,187	*Range OK!*
VS21 E1				1.00		1.0	26465	26,465	*Range OK!*
VS21 F1				1.00		1.6	12299	12,299	*Range OK!*
CCV				1.00		40.0	986	986	*98.60%*
Blank				1.00		40.0	-24.84	-25	*Blank OK*
VS21 G1				1.00		2.4	5794	5,794	*Range OK!*
VS21 H1				1.00		2.3	4215	4,215	*Range OK!*
VS21 I 1	14.4	142.9	89.92%	9.92		2.0	7998	78,809	*Range OK!*
VS21 J 1				1.00		0.8	30369	30,369	*Range OK!*
VS21 K1				1.00		0.8	41186	41,186	*Range OK!*
VS21 L1	18.8	174.4	89.22%	9.28		2.3	11037	101,866	*Range OK!*
VS23 A1				1.00		1.1	30593	30,593	*Range OK!*
VS23 B1	19.7	191.4	89.71%	9.72		2.3	5550	53,375	*Range OK!*
VS23 C1	21.9	208.1	89.48%	9.50		2.9	4378	41,067	*Range OK!*
VS23 D1				1.00		1.1	26337	26,337	*Range OK!*
CCV				1.00		40.0	1037	1,037	*103.70%*
Blank				1.00		40.0	-25.36	-25	*Blank OK*
VS23 E1				1.00		1.6	10691	10,691	*Range OK!*
VS23 F1				1.00		2.2	5059	5,059	*Range OK!*
VS23 G1				1.00		3.3	2781	2,781	*Range OK!*
VS23 H1				1.00		2.3	5886	5,886	*Range OK!*
VS23 I 1				1.00		1.3	24661	24,661	*Range OK!*
VS23 J 1				1.00		1.4	35357	36,357	*Range OK!*
VS23 K1	13.5	135.0	90.00%	10.00		2.3	6003	59,465	*Range OK!*
NIST 1941B				1.00		1.9	32001	32,001	*107.03%*
CCV				1.00		40.0	980	980	*98.00%*
Blank				1.00		40.0	-27.60	-28	*Blank OK*

VS23 : 00222

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① 11-29-12 (W)
④ Canceled 11-29-12 (W)

TOC Solids Sample Run Log
Apollo 9000

Page 1 of 3

Set-Up Parameters MODE: NPOC			INLET: Boat Sampler	
Standards:	Source	Conc (ppm)	Analyst:	(W)
Calibration:	ARI – 00128-03	5000	Date:	11-29-12
Verification:	ERA – 0409-12-01	5000 to 1000 for CVS	Time:	6:56
SRM:	NBS – (1941B) or 8704	Method: PSEP 1986-MOD	Balance ID	B146454145
Sample Sequence:				

Sample ID	Dilution Data (mg) Sample	+ Silica Gel	Burn Wt mg	Matrix Spike Data mg/L	µL added	Comments
ICV			40			
ICB			40			
NBS 1941 B			1.7			
SB 1			37.9			
2			21.5			
3			21.6			
4			20.1			
US21 A'			1.0			
DA'			0.9			
TPA'			③ 1.1 / 1.2			③ 2 inlets
MSA'	Canceled ④	② 0.9	~~1.0~~ 0.8 ②	2500	② 20/20/10 ④	④ No inject Rerun
CCV			40			
CCB			40			
US21 B'	11.6 ①	113.1 ①	① 0.8 / ① 2.4			① offscale ① Rerun w/dilution
① US21 C'			1.0			
DC'			1.0			
TPC'			1.1			
MSC'			1.0	2500	10	Mech Run
MSDC'			0.9	2500	10	
D'			1.0			
E'			1.0			
F'			1.6			
CCV			40			
CCB			40			
US21 G'			2.4			
H'			2.3			
I'	14.4	142.9	2.0			
J'			0.8			
K'			0.8			
L'	18.8	174.4	2.3			
US23 A'			② 2.1.1			
B'	19.7	191.4	2.3			

② 0.8 / 1.0 11-29-12 (W)

Analytical Resources, Incorporated
Analytical Chemists and Consultants

(1) 11-29-12 (W)

TOC Solids Sample Run Log
Apollo 9000

Set-Up Parameters MODE: NPOC				INLET: Boat Sampler	
Standards:	Source		Conc (ppm)	Analyst:	(a)
Calibration:	ARI – 00128-03		5000	Date:	9-29-12
Verification:	ERA – 0409-12-01		5000 to 1000 for CVS	Time:	6.56
SRM:	NBS – 1941b or 8704		Method: PSEP 1986-MOD	Balance ID	B146464146
Sample Sequence:					

Sample ID	Dilution Data (mg)		Burn Wt	Matrix Spike Data		Comments
	Sample	+ Silica Gel	mg	mg/L	µL added	
VS23 C1	21.9	208.1	2.9			
↓ D1			1.1			
CCV			40			
CCB			40			
VS23 E1			1.6			
F1			2.2			
G1			3.3			
H1			2.3			
I1			1.3			
J1			1.4			
↓ K1	23.5	135.0	2.3			
~~VS22 A1 CCV~~	NBS1941B		1.9			
~~B CCB CCV~~			40			
~~↓ C CCB~~			40			

11-29-12 (N)

11-29-12 (W)

Detailed Analysis Report Print Date/Time: 2012/11/29 15:58:40

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 11290653
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 06:56
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1002.9892	40.1196	5535201	7.720	8.718	147

Sample ID: ICB/CCB BOAT Mode: TOC
Method: Boat Sampler Filename: 11290706
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 07:09
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-29.7707	-1.1908	3857	7.502	7.478	120

Last Message: Low Sample Detected

Sample ID: NBS 1941B Mode: TOC
Method: Boat Sampler Filename: 11290714
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 07:20
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	24829.5820	42.2103	5815143	7.276	8.272	226

Sample ID: Silica Blank 1 Mode: TOC
Method: Boat Sampler Filename: 11290734
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 07:36
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	108.6541	4.1180	551387	6.965	7.958	89

Sample ID: Silica Blank 2 Mode: TOC
Method: Boat Sampler Filename: 11290743
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 07:45
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	49.0823	1.0553	141297	6.968	7.961	57

Sample ID: Silica Blank 3 Mode: TOC
Method: Boat Sampler Filename: 11290755
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 07:57
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	68.3565	1.4765	197699	6.845	7.838	59

Sample ID: Silica Blank 4 Mode: TOC
Method: Boat Sampler Filename: 11290803
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 08:10
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time

1	70.2455	1.4119	189054	6.736	7.735	59

Sample ID: VS21 A1 Mode: TOC
Method: Boat Sampler Filename: 11290830
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 08:34
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	60315.4961	60.3155	8076073	6.693	7.692	163

Sample ID: VS21 A1 DUP Mode: TOC
Method: Boat Sampler Filename: 11290837
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 08:40
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	50189.6406	45.1707	6048225	6.700	7.697	148

Sample ID: VS21 A1 TRIP Mode: TOC
Method: Boat Sampler Filename: 11290842
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 08:46
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	36389.3125	40.0282	5359668	6.666	7.665	144

Sample ID: VS21 A1 TRIP Mode: TOC
Method: Boat Sampler Filename: 11290915
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 09:23
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	32750.2500	39.3003	5262199	6.455	7.455	141

11-29-12 (2)

Sample ID: VS21 A1 MS Mode: TOC
Method: Boat Sampler Filename: 11290931
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 09:35
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	105161.2891	84.1290	11264638	6.440	7.437	177

11-29-12 (3)

Sample ID: VS21 A1 MS Mode: TOC
Method: Boat Sampler Filename: 11290955
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 09:59
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	88562.2266	88.5622	11858230	6.860	7.856	179

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 11291008
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 10:16
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	994.9790	39.7992	5492300	7.271	8.271	152

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11291019
Timestamp: 2012/11/29 10:21
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-15.8345	-0.6334	78497	7.541	8.532	48

Sample ID: VS21 B1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11291028
Timestamp: 2012/11/29 10:33
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	131044.7812	104.8358	14037218	7.703	8.701	201

Sample ID: VS21 B1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11291040
Timestamp: 2012/11/29 10:43
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	21690.9629	52.0583	6970460	8.414	9.413	157

Sample ID: VS21 C1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11291047
Timestamp: 2012/11/29 10:50
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	19062.0332	19.0620	2552352	8.565	9.564	120

Sample ID: VS21 C1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11291106
Timestamp: 2012/11/29 11:09
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	20278.5879	20.2786	2715245	9.379	10.378	130

Sample ID: VS21 C1 TRIP
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11291116
Timestamp: 2012/11/29 11:21
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	18745.9062	20.6205	2761026	9.658	10.656	141

Sample ID: VS21 C1 MS
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11291131
Timestamp: 2012/11/29 11:35
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	51980.9297	51.9809	6960099	10.009	11.006	153

Sample ID: VS21 C1 MS
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11291146
Timestamp: 2012/11/29 11:49
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	48571.6055	43.7144	5853240	10.160	11.157	147

Sample ID: VS21 D1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11291153
Timestamp: 2012/11/29 11:58
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30186.8965	30.1869	4041940	10.261	11.257	143

Sample ID: VS21 E1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11291201
Timestamp: 2012/11/29 12:04
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26464.8281	26.4648	3543565	10.360	11.360	129

Sample ID: VS21 F1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11291207
Timestamp: 2012/11/29 12:13
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	12299.2207	19.6788	2634929	10.195	11.194	129

Sample ID: ICV/CCV BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11291217
Timestamp: 2012/11/29 12:20
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	986.0945	39.4438	5444715	10.319	11.318	152

Sample ID: ICB/CCB BOAT
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11291223
Timestamp: 2012/11/29 12:26
Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-24.8371	-0.9935	30281	10.571	10.648	120

Last Message: Low Sample Detected

Sample ID: VS21 G1
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11291228
Timestamp: 2012/11/29 12:31
Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5793.6709	13.9048	1861815	10.566	11.564	128

Sample ID: VS21 H1 Mode: TOC
Method: Boat Sampler Filename: 11291233
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 12:36
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4214.6338	9.6937	1297953	10.582	11.581	118

Sample ID: VS21 I1 Mode: TOC
Method: Boat Sampler Filename: 11291239
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 12:42
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	7998.3740	15.9967	2141919	10.482	11.479	112

Sample ID: VS21 J1 Mode: TOC
Method: Boat Sampler Filename: 11291244
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 12:58
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30369.1777	24.2953	3253077	10.919	11.915	129

Sample ID: VS21 K1 Mode: TOC
Method: Boat Sampler Filename: 11291301
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 13:05
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	41186.1211	32.9489	4411763	10.696	11.696	140

Sample ID: VS21 L1 Mode: TOC
Method: Boat Sampler Filename: 11291311
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 13:15
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	11037.1826	25.3855	3399049	11.059	12.058	127

Sample ID: VS23 A1 Mode: TOC
Method: Boat Sampler Filename: 11291321
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 13:25
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	30593.3594	33.6527	4506000	11.233	12.232	130

Sample ID: VS23 B1 Mode: TOC
Method: Boat Sampler Filename: 11291340
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 13:44
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5549.6411	13.8741	1857703	11.424	12.421	106

Sample ID: VS23 C1 Mode: TOC
Method: Boat Sampler Filename: 11291348
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 13:51
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	4378.1167	12.6965	1700030	11.310	12.308	98

Sample ID: VS23 D1 Mode: TOC
Method: Boat Sampler Filename: 11291352
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 13:56
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	26337.0938	28.9708	3879108	11.162	12.159	137

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 11291358
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 14:01
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	1037.2345	41.4894	5718615	11.161	12.161	160

Sample ID: ICB/CCB BOAT Mode: TOC
Method: Boat Sampler Filename: 11291437
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 14:40
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-25.3616	-1.0145	27471	10.497	10.263	120

Last Message: Low Sample Detected

Sample ID: VS23 E1 Mode: TOC
Method: Boat Sampler Filename: 11291443
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 14:46
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	10690.8623	17.1054	2290362	9.917	10.916	121

Sample ID: VS23 F1 Mode: TOC
Method: Boat Sampler Filename: 11291449
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 14:51
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5058.7769	11.1293	1490183	9.814	10.810	116

Sample ID: VS23 G1 Mode: TOC
Method: Boat Sampler Filename: 11291454
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 14:57
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	2780.5388	9.1758	1228611	9.600	10.600	131

Sample ID: VS23 H1 Mode: TOC
Method: Boat Sampler Filename: 11291502
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 15:07
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	5886.4180	13.5388	1812802	9.265	10.262	128

Sample ID: VS23 I1 Mode: TOC
Method: Boat Sampler Filename: 11291510
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 15:13
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	24661.2773	32.0597	4292697	9.081	10.078	139

Sample ID: VS23 J1 Mode: TOC
Method: Boat Sampler Filename: 11291518
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 15:24
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	35356.9727	49.4998	6627878	8.967	9.965	140

Sample ID: VS23 K1 Mode: TOC
Method: Boat Sampler Filename: 11291527
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 15:33
Operator ID: TRINA Sample Type: Sample

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	6002.6768	13.8062	1848605	8.668	9.667	103

Sample ID: NBS 1941B Mode: TOC
Method: Boat Sampler Filename: 11291536
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 15:41
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	32001.2188	60.8023	8304563	8.638	9.637	220

Sample ID: ICV/CCV BOAT Mode: TOC
Method: Boat Sampler Filename: 11291543
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 15:47
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	980.1209	39.2048	5412722	8.366	9.362	146

Sample ID: ICB/CCB BOAT Mode: TOC
Method: Boat Sampler Filename: 11291553
Cal. Curve: 11132012 BOAT CAL Timestamp: 2012/11/29 15:56
Operator ID: TRINA Sample Type: Cal. Verification

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1	-27.5985	-1.1039	15491	8.267	8.224	120

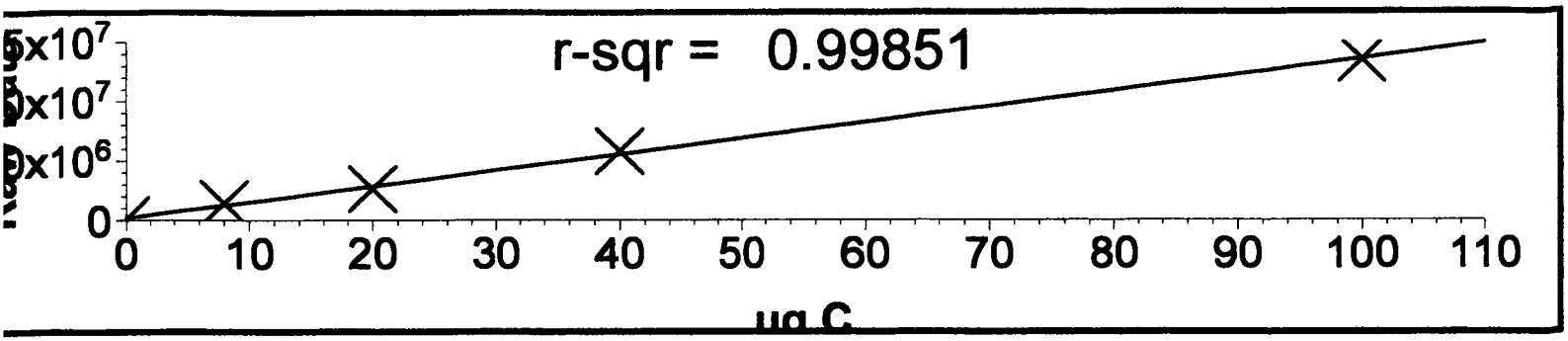
Last Message: Low Sample Detected

11-13-12 (W)

Calibration Report Print Date/Time: 2012/11/13 17:59:45

Cal. Curve ID: 11132012 BOAT CAL
Created: 2012/11/13 17:59
Calibration Factor (m): 1.339e+05
Y Intercept (b): 163305
r-squared: 0.99851

Standard ID	Y Raw Data	X Expected ug C	Measured ug C	Message	Date & Time
DI Water	34152	0.000	-0.965	Low Sample De	2012/11/13 12:29
200 ppm	1402526	8.000	9.255		2012/11/13 15:57
500 ppm	2612048	20.000	18.288		2012/11/13 16:30
1000 ppm	5782382	40.000	41.966		2012/11/13 17:08
2500 ppm	13480140	100.000	99.456		2012/11/13 17:46


r-sqr = 0.99851
5x10^7
0x10^7
0x10^6
0
0 10 20 30 40 50 60 70 80 90 100 110
ug C

Detailed Analysis Report Print Date/Time: 2012/11/13 18:00:30

Sample ID: DI Water
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131156
Timestamp: 2012/11/13 12:29
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			18402	16.796	16.349	120
2			42520	15.376	15.117	120
3			41534	14.988	14.928	120

Last Message: Low Sample Detected
<<<Statistics>>> Mean: 34152 Std Dev: 13649 RSD: 39.96

Sample ID: 200 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131238
Timestamp: 2012/11/13 13:05
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1222030	14.878	15.874	82
2			2828545	14.808	15.808	104
3			1056788	14.689	15.685	76

<<<Statistics>>> Mean: 1702454 Std Dev: 978717 RSD: 57.49

Sample ID: 500 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131440
Timestamp: 2012/11/13 15:23
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			2592282	15.291	16.289	93
2			2967532	14.712	15.709	110
3			2466931	14.170	15.169	110

<<<Statistics>>> Mean: 2675582 Std Dev: 260489 RSD: 9.74

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131526
Timestamp: 2012/11/13 15:37
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			5290649	14.574	15.571	132
2			5344637	14.534	15.533	131

<<<Statistics>>> Mean: 5317643 Std Dev: 38175 RSD: 0.72

Sample ID: 200 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA
Mode: TOC
Filename: 11131539
Timestamp: 2012/11/13 15:57
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			1133964	14.834	15.826	75
2			1682541	14.702	15.699	105
3			1391072	14.832	15.828	89

<<<Statistics>>> Mean: 1402526 Std Dev: 274468 RSD: 19.57

Sample ID: 500 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11131603
Timestamp: 2012/11/13 16:30
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			2617921	14.909	15.904	100
2			2699842	15.434	16.427	110
3			2518382	15.642	16.642	96

<<<Statistics>>> Mean: 2612048 Std Dev: 90872 RSD: 3.48

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11131635
Timestamp: 2012/11/13 16:48
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			6098208	15.069	16.068	161
2			4400089	15.386	16.386	294

<<<Statistics>>> Mean: 5249148 Std Dev: 1200752 RSD: 22.88

Sample ID: 1000 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11131653
Timestamp: 2012/11/13 17:08
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			5668054	15.386	16.386	134
2			5866553	15.432	16.430	156
3			5812538	15.792	16.787	158

<<<Statistics>>> Mean: 5782382 Std Dev: 102628 RSD: 1.77

Sample ID: 2500 ppm
Method: Boat Sampler
Cal. Curve: 11132012 BOAT CAL
Operator ID: TRINA

Mode: TOC
Filename: 11131715
Timestamp: 2012/11/13 17:46
Sample Type: TOC Standard

Rep #	ppm C	ug C	Raw Data	Beginning Baseline	Ending Baseline	Integration Time
1			12880510	15.475	16.474	209
2			14040075	15.646	16.644	232
3			13519835	15.412	16.411	232

<<<Statistics>>> Mean: 13480140 Std Dev: 580801 RSD: 4.31